

PACIFIC ARCHITECTS

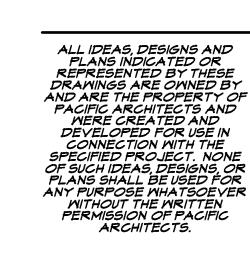
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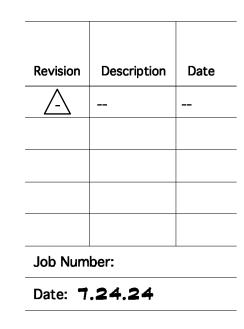
MONTECITO, CA 93108

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PROJECT SUBJECT TO HIGH FIRE HAZARD AREA PROVISIONS OF CRC SECTION RSST

C1- 1/2" GYPSUM BOARD. SPRAYED TEXTURE FINISH COATING (LIGHT KNOCK DOWN TEXTURED FINISH). PRIMED AND PAINTED. WATERPROOF GYPSUM BOARD AND PLASTER AT ALL WET LOCATIONS. PROVIDE 2'-0" SQ.

C2-5/8" TYPE 'X' GYPSUM BOARD. SPRAYED TEXTURE FINISH COATING (LIGHT KNOCK DOWN TEXTURED FINISH). PRIMED AND PAINTED. WATERPROOF GYPSUM BOARD AND PLASTER AT ALL WET LOCATIONS. PROVIDE 2'-0" SQ. SAMPLE FOR OWNERS APPROVAL OF COLOR AND TEXTURE.

C3- TILE: TILE O/POLYMER MODIFIED THINSET MORTAR BOND COAT O/CEMENTITIOUS BACKER UNIT "CBU" O/ WATERPROOF MEMBRANE (6 MIL. POLYETHYLENE FILM) USE STAIN RESISTANT MORTARS AND CAULKS. FINAL

CF: CABINET / COUNTER FINISHES

CF1- COUNTERTOP AND SPLASH AS SELECTED BY OWNER.

CF2- QUARTZ SLAB COUNTER TOP AND BACK SPLASH (3/4" THICK) O/ ADHESIVE O/ 3/4" EXTERIOR GRADE PLYMOOD BASE. GRANITE SLABS & EDGE PROFILE TO BE SELECTED AND APPROVED BY OWNER.

CF3- TILE COUNTER TOP AND SPLASH O/ POLYMER MODIFIED THINSET MORTAR BOND COAT O/ WATERPROOF MEMBRANE (15 lb. ROOFING FELT OR 4 MIL POLYETHYLENE FILM) 0/3/4" EXTERIOR GRADE PLYWOOD BASE. USE STAIN RESISTANT MORTAR, GROUT AND CAULKS. FINAL TILE AND GROUT COLOR & JOINT DIMENSION TO BE SELECTED AND APPROVED BY OWNER.

CF4- CABINETS: ARCHITECTURAL GRADE FACE FRAME EUROPEAN CONSTRUCTION (APPROVED BY OWNER). FULLY CONCEALED HINGES AND FULL EXTENSION DRAWER GUIDES. FLUSH OVERLAY DOORS AND DRAWER FRONTS. HARDWOOD VENEER FACED PLYWOOD FRONTS W/ SOLID HARDWOOD EDGE BANDING. WHITE MELAMINE OR KORTRON INTERIORS ALL OTHER INTERIORS AND SHELVING. NOTE: CASEMORK PULL HARDWARE AS SELECTED BY OWNER

DW: DOORS AND WINDOWS

DW1- WOOD FRAME DOORS: TO BE PRIMED AND PAINTED OR STAINED, COLOR TO BE SELECTED & APPROVED

DW2- ALUMINUM HINGED DOORS SHALL BE SERIES 900 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300, Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW3- ALUMINUM HINGED DOOR W/ FIXED SIDELITE SHALL BE SERIES 900 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 , Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE

DW4- ALUMINUM SLIDING GLASS DOORS SHALL BE SERIES 600 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 Meb url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW5- ALUMINUM SLIDING GLASS DOOR W/ FIXED TRANSOM SHALL BE SERIES 600 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628. Phone#602-268-1300 , Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW6- ALUMINUM AMNING MINDOM-TOP HINGE SHALL BE SERIES 670 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 , Meb url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE

DW7- ALUMINUM FIXED MINDOM OVER CASEMENT MINDOM-RIGHT HINGE SHALL BE SERIES 610 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 , Meb url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW8- ALUMINUM FIXED WINDOW OVER CASEMENT WINDOW-LEFT HINGE SHALL BE SERIES 670 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona

DW9- ALUMINUM AMNING MINDOM-TOP HINGE OVER CASEMENT MINDOM-LEFT HINGE SHALL BE SERIES 670 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300, Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW10- ALUMINUM AMNING MINDOM-TOP HINGE OVER CASEMENT MINDOM-RIGHT HINGE SHALL BE SERIES 670 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628. Phone# 602-268-1300. Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW11- ALUMINUM AWNING WINDOW -TOP HINGE SIDE BY SIDE OVER CASEMENT WINDOW-LEFT & RIGHT HINGE SHALL BE SERIES 670 AS MANUFACTURED BY MESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300, Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW12- ALUMINUM AWNING WINDOW -TOP HINGE SIDE BY SIDE OVER FIXED WINDOW DOUBLE HORIZONTAL STACKED SHALL BE SERIES 670 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LC. 5621 South 25th. Street. Phoenix. Arizona 85040-3628. Phone# 602-268-1300 . Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW13- ALUMINUM FIXED WINDOW DOUBLE HORIZONTAL STACKED OVER CASEMENT WINDOW-LEFT & RIGHT HINGE SHALL BE SERIES 670 AS MANUFACTURED BY WESTERN WINDOW SYSTEMS, LLC, 5621 South 25th, Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 , Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE

DW14- ALUMINUM FIXED WINDOW DOUBLE VERTICALLY STACKED SHALL BE SERIES 600 AS MANUFACTURED BY MESTERN MINDOM SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300, Web url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

DW15- ALUMINUM DIRECT SET FIXED WINDOW BESIDE-SLIDING GLASS WINDOW SHALL BE SERIES 620 AS MANUFACTURED BY MESTERN WINDOW SYSTEMS, LLC, 5621 South 25th. Street, Phoenix, Arizona 85040-3628, Phone# 602-268-1300 , Meb url address: http://www.westernwindowsystems.com OR APPROVED EQUAL. (SEE SCHED.)

EX: EXTERIOR FINISHES

EX1- FLAT ROOF: 'IB' PVC ROOFING SYSTEM - CLASS A ROOFING TYP FLAT ROOF SYSTEM: (2% SLOPE MINIMUM) 'IB' PVC SINGLE PLY 60 POLYESTER-REINFORCED, SMOOTH BACKED 60 MIL. THERMOPLASTIC PVC SINGLE PLY MEMBRANE (COLOR: GRAY) FULLY ADHERED W/ 'IB' WATERBORNE OR 'IB' VERTIBOND ADHESIVE TO 1/2" SECUROCK GYPSUM-FIBER ROOF RIDGID OVERLAYMENT BOARDS ATTACHED TO TAPERED RIDGID INSULATION PANELS (TAPERED BY MANUF, REFER TO ROOF PLAN FOR DRAINAGE & REQUIRED SLOPE) W/ 'IB' APPROVED INSULATION ADHESIVE. ATTACH TAPERED INSULATION PANELS W/ 'IB' APPROVED INSULATION ADHESIVE O/ APA RATED CDX T&G PLYMD. STRUCTURAL ROOF SHEATHING AS PER CDC SECT 2304.8.2 0/ ROOF FRAMING REFER TO STRUCTURAL ROOF FRAMING PLANS.

EX2- TYP. EXTERIOR PLASTER 1/8" THICK. 3 COAT EXTERIOR CEMENT PLASTER O/ PAPER BACKED WOVEN WIRE MESS O/ AN ADDITIONAL LAYER OF 15# BUILDING PAPER O/ PLYWOOD SHEATHING. ALL OUTSIDE CORNERS TO BE WIRE REINFORCED OUTSIDE CORNER BEAD. USE FIBERGLASS OR OTHER EQUAL REINFORCING ADMIXTURE TO MINIMIZE CRACKING. PROVIDE A MINIMUM OF TWO LAYERS OF GRADE D PAPER BETWEEN PLYWOOD PANEL AND LATH AS PER CBC SEC. 2510.6 SMOOTH STEEL TROWEL FINISH, VERIFY W/OWNER, PROVIDE SAMPLE FOR OWNERS APPROVAL.

FX3- EXTERIOR SOFFIT: NUSKU-FIREBLOCKER FINGERJOINT REDWOOD 1x6 T&G 0/ 1/16" PLYWOOD. (USE CORROSION RESISTANT FASTENERS PER MFR. RECOMMENDATIONS)

EX4- ADHERED STONE VENEER: STONE VENEER UNITS SHALL NOT EXCEED 1-1/4 in. SPECIFIED THICKNESS, AND SHALL NOT WEIGH MORE THAN 15 psf, PER CRC SECT. R703.12 AND THE REQUIREMENTS OF TMS 402.-13 12.3.2.1 REFER TO DETAILS.

EX5- TILE DECK: TUFFLEX FLEX-MESH UNDER TILE WATERPROOFING SYSTEM. AS MANUFACTURED BY TUFFLEX POLYMERS, 10880 POPLAR AVENUE, FONTANA, CALIFORNIA 92337, PH.# (909)-349-2016, URL ADDRESS: ittp://www.tufflexpolumers.com. NOTE: TILE TO BE SELECTED BY OMNER. OUTDOOR TILE TO MEET INTERNATIONAL ORGANIZATION. STANDARDIZATION FOR FROST AND SLIP-RESISTANCE PROPERTIES. CONTRACTOR TO REVIEW OPTIONS WITH OWNER. ALSO REFER TO DETAILS.

EX6- REINFORCED CAST IN PLACE CONCRETE FOUNDATION/ RETAINING WALL BOARD-FORMED FINISH (REFER TO STRUCTURAL DRAWINGS). SEE DETAILS.

F: FLOORING

F1- CARPET AND PAD (TO BE SELECTED AND APPROVED BY OWNER.)

F2- TILE: TILE O/ BOND COAT O/ MORTAR SETTING BED O/ SHOWER PAN / WATERPROOF MEMBRANE O/ SLOPED FILL TO DRAIN. USE STAIN RESISTANT MORTARS AND GROUTS BY CUSTOM BUILDING PRODUCTS. FINAL TILE AND GROUT DIMENSION, COLOR AND TYPE TO BE APPROVED BY OWNER. SEE TILE SPECIFICATIONS.

F3- TILE: TILE O/BOND COAT O/REINF. MORTAR BED O/ 15# ROOFING FELT OR 6 MIL. POLYETHYLENE FILM O/ SUBFLOOR SEE STRUCT. USE STAIN RESISTANT MORTARS AND GROUTS BY CUSTOM BUILDING PRODUCTS. FINAL TILE AND GROUT DIMENSION. COLOR AND TYPE TO BE APPROVED BY OWNER SEE TILE SPECIFICATIONS.

F4- NO-MAX CUSHION VINYL RESILIENT FLOOR INSTALL PER MFR. RECOMMENDATIONS (TO BE SELECTED AND

F5- WOOD FLOORING: TO BE SELECTED AND APPROVED BY OWNER

F6- LAMINATE FLOORING (TO BE SELECTED BY OWNER)

G1- TEMPERED FRAMLESS GLASS SHOWER ENCLOSURE PER CBC SECT 2406.4.5

WF: WALL FINISH

M: MISCELLANEOUS

· ROOF / CEILING AREAS

M1-INSULATION:

WF1- 1/2" GYPSUM WALLBOARD, METAL CORNER BEAD AT ALL OUTSIDE CORNERS SPRAYED TEXTURE FINISH COATING (LIGHT KNOCK DOWN TEXTURED FINISH), PRIMED AND PAINTED. (WATERPROOF GYPSUM BOARD AND PLASTER AT ALL MET LOCATIONS.) PROVIDE 2'-0" SQ. SAMPLE FOR OWNERS APPROVAL OF FINISH TEXTURE &

WF2- 1/2" TYPE 'X' GYPSUM BOARD WALL, METAL CORNER BEAD ALL OUTSIDE CORNERS. SPRAYED TEXTURE FINISH COATING (LIGHT KNOCK DOWN TEXTURED FINISH). PRIMED AND PAINTED. WATERPROOF GYP BOARD AND PLASTER AT ALL MET LOCATIONS. PROVIDE 2-0" SQ. SAMPLE FOR OWNERS APPROVAL OF COLOR AND

WF3- TILE: TILE O/POLYMER MODIFIED THINSET MORTAR BOND GOAT O/CEMENTITIOUS BACKER UNIT "CBU" O/ WATERPROOF MEMBRANE (6 MIL. POLYETHYLENE FILM) USE STAIN RESISTANT MORTARS AND CAULKS. FINAL TILE AND GROUT DIMENSIONS COLOR AND TYPE TO BE SELECTED AND APPROVED BY OWNER.

KEYNOTES

M: MISCELLANEOUS

M2- ALL PLUMBING FIXTURES BY KOHLER OR APPROVED EQUAL. SUBMIT LIST FOR OWNERS APPROVAL AS DIRECTED BY OWNER.

M3- GUTTERS: 20 OZ. COPPER GUTTER AND DOWNSPOUT TO SPLASH BLOCK OR HARD PIPED TO UNDERGROUND DRAINAGE SYSTEM REFER TO ROOF PLAN, ELEVATIONS, DETAILS AND CIVIL DRAWINGS.

M4- INDIVIDUAL SHOWER AND TUB-SHOWER COMBINATION CONTROL VALVES: SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE. THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/**THERMOSTATI**C MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION FOR THE RATED FLOW RATE OF THE INSTALLED SHOWERHEAD. PER CPC SECT. 408.3

M5- SHOWER COMPARTMENTS: SHOWER COMPARTMENTS, REGARDLESS OF SHAPE, SHALL HAVE A MINIMUM FINISHED INTERIOR OF 1024 SQUARE INCHES AND SHALL ALSO BE CAPABLE OF ENCOMPASSING A 30 INCH CIRCLE. THE MINIMUM REQUIRED AREA AND DIMENSIONS SHALL BE MEASURED AT A HEIGHT EQUAL TO THE TOP OF THE THRESHOLD AND AT A POINT TANGENT TO ITS CENTERLINE. THE AREA AND DIMENSIONS SHALL BE MAINTAINED TO A POINT OF NOT LESS THAN 10 INCHES ABOVE THE SHOWER DRAIN OUTLET WITH NO PROTRUSIONS OTHER THAN THE FIXTURE VALVE OR VALVES, SHOWER HEAD, SOAP DISHES, SHELVES, AND SAFETY GRAB BARS, OR RAILS. FOLD-DOWN SEATS IN ACCESSIBLE SHOWER STALLS SHALL BE PERMITTED TO PROTRUDE INTO THE 30 INCH CIRCLE. PER CPC SECT. 408.6

M6- APPLIANCES TO BE SELECTED AND APPROVED BY OWNER. CONTRACTOR TO REVIEW MANUFACTURE'S OPTIONS FOR APPLIANCES. SEE FLOOR PLAN FOR MODEL OPTIONS.

M7- NEWLY INSTALLED PLUMBING FIXTURES SHALL BE WATER- CONSERVING IN COMPLIANCE WITH THE CALIFORNIA PLUMBING CODE AND GREEN BUILDING STANDARDS. WATERCLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH, SHOWERHEADS SHALL NOT EXCEED 1.8 GPM AT 80 PSI AND NEW LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GPM AT 60 PSI. [CPC 407.2.2, 408.2 & 411.2] AND {GRN 4.303.1.1, 4.303.1.3.1 & 4.303.1.4.1.

M8- NEWLY INSTALLED KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE [CPC 420.2.2], [GRN

M9- TOWEL BAR AS SELECTED BY OWNER. FRAMING CONTRACTOR TO PROVIDE SOLID IN-WALL BLOCKING. (NOTE: VERIFY CONNECTION TO GLASS AT SHOWER)

M10- HANDRAIL

CONCENTRATED LOAD: HANDRAILS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 APPLIED IN ANY DIRECTION AT ANY POINT ON THE HANDRAIL OR TOP RAIL AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE TO PRODUCE THE MAXIMUM LOAD EFFECT ON THE ELEMENT BEING CONSIDERED. PER CBC SECT. 1607.8.1.1 AND SECT. 4.5.1 OF ASCE 7

HANDRAIL HEIGHT, MEASURED ABOVE STAIR TREAD NOSINGS, SHALL BE , NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES. PER CBC SECT. 1014.2 NOTE: WHEN HANDRAIL FITTINGS OR BENDINGS ARE USED TO PROVIDE CONTINUOUS

TRANSITION BETWEEN FLIGHTS, TRANSITION AT WINDER TREADS, TRANSITION FROM TO GUARD, OR WHEN USED AT THE START OF A FLIGHT, THE HANDRAIL OR BENDINGS SHALL BE PERMITTED TO EXCEED THE MAXIMUM HEIGHT PER CBC SECT. 1014.2 EXCEP. (2)

HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF NOT LESS THAN 1 1/4 INCHES AND NOT GREATER THAN 2 INCHES. WHERE THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF NOT LESS THAN 4 INCHES AND NOT GREATER THAN 6 1/4 INCHES WITH A MAX. CROSS-SECTION DIMENSION OF 2 1/4 INCHES AND MINIMUM CROSS-SECTIONAL DIMENSION OF 1 INCH. EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01 INCH PER CBC SECT. 1014.3.1 TYPE I. HANDRAILS WITH A PERIMETER GREATER THAN 6 1/4 INCHES SHALL PROVIDE A GRASPABLE FINGER RECESS AREA ON 30TH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN MITHIN A DISTANCE OF 3/4 INCH MEASURED VERTICALLY FROM THE TALLEST PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF NOT LESS THAN 5/16 INCH MITHIN 1/8 INCH BELOW THE WIDEST PORTION OF THE PROFILE. THIS REQUIRED DEPTH SHALL CONTINUE FOR NOT LESS THAN 3/8 INCH TO A LEVEL THAT IS NOT LESS THAN 1 3/4 INCHES BELOW THE TALLEST PORTION OF THE PROFILE. THE WIDTH OF THE HANDRAIL ABOVE THE RECESS SHALL BE NOT LESS THAN 1 1/4 INCHES TO NOT GREATER THAN 2 3/4 INCHES. EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01 INCH PER CBC SECT. 1014.3.2 TYPE II

HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS. PER CBC SECT 1014.4

EXCEPTIONS: HANDRAILS MITHIN DWELLING UNITS ARE PERMITTED TO BE INTERRUPTED BY A NEMEL POST AT A TURN OR LANDING. PER CBC SECT. 1014.4 EXCEP. (1) MITHIN A DMELLING UNIT, THE USE OF A VOLUTE, TURNOUT, STARTING EASING OR STARTING NEWEL IS ALLOWED OVER THE LOWEST TREAD. PER CBC SECT. 1014.4 EXCEPT. (2) HANDRAIL BRACKETS OR BALUSTERS ATTACHED TO THE BOTTOM SURFACE OF THE HANDRAIL THAT DO NOT PROJECT HORIZONTALLY BEYOND THE SIDES OF THE HANDRAIL WITHIN 1 /2 INCHES OF THE BOTTOM OF THE HANDRAIL SHALL NOT BE CONSIDERED OBSTRUCTIONS. FOR EACH 1/2 ICH OF ADDITIONAL HANDRAIL PERIMETER DIMENSION ABOVE 4 INCHES, THE VERTICAL CLEARANCE DIMENSION OF 1 1/2 INCHS SHALL BE PERMITTED TO BE REDUCED BY 1/8 INCH. PER CBC SECT. 1014.4 EXCEP.(3)

HANDRAILS SHALL NOT ROTATE WITHIN THEIR FITTINGS. PER CBC SECT. 1014.5

HANDRAILS MITHIN A DWELLING UNIT THAT IS NOT REQUIRED TO BE ACCESSIBLE NEED EXTEND ONLY FROM THE TOP RISER TO THE BOTTOM RISER PER CBC SECT. 1014.6 EXCEP.(1)

CLEAR SPACE BETWEEN A HANDRAIL AND A WALL OR OTHER SURFACE SHALL BE NOT LESS THAN 1 1/2 NCHES. A HANDRAIL AND A WALL OR OTHER SURFACE ADJACENT TO THE HANDRAIL SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. PER CBC SECT. 1014.7

M11- GUARDS: GUARD CONCENTRATED LOAD:

GUARDS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS, APPLIED IN ANY DIRECTION AT ANY POINT ON THE TOP RAIL AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE TO PRODUCE THE MAXIMUM LOAD EFFECT ON THE ELEMENT BEING CONSIDERED. PER CBC SECT. 1607.8.1.1 AND SECT. 4.5.1 OF ASCE 7

REQUIRED GUARDS SHALL BE NOT LESS THAN 42 INCHES HIGH, MEASURED VERTICALLY AS FOLLOWS: 1.) FROM THE ADJACENT WALKING SURFACES: 2.) ON STAIRWAYS AND STEPPED AISLES, FROM THE LINE CONNECTING THE LEADING EDGES OF THE TREAD NOSING. PER CBC SECT. 1015.3 EXCEPTIONS: FOR OCCUPANCIES IN GROUP R-3, AND WITHIN INDIVIDUAL DWELLING OCCUPANCIES IN GROUP R-2. GUARDS ON THE OPEN SIDES OF STAIRS SHALL HAVE A HEIGHT NOT LESS THAN 34 INCHES MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS. PER CBC SECT. 1015.3 EXCEPT. (1) FOR OCCUPANCIES IN GROUP R-3, AND MITHIN INDIVIDUAL DWELLING UNITS IN OCCUPANCIES IN GROUP R-2, WHERE THE TOP OF THE HANDRAIL ON THE OPEN SIDES OF STAIRS, THE TOP OF THE GUARD SHALL BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS. PER CBC SECT. 1015.3 EXCEPT(2)

OPENING LIMITATIONS:

REQUIRED GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER FROM THE WALKING SURFACES TO THE REQUIRED GUARD HEIGHT. PER CBC SECT. 1015.4 EXCEPTIONS: FROM A HEIGHT OF 36 INCHES TO 42 INCHES GUARDS SHALL NOT HAVE OPENINGS NHICH ALLOM PASSAGE OF A SPHERE 4 3/8 INCHES IN DIAMETER PER CBC SECT. 1015.4 EXCEP. (1) THE TRIANGULAR OPENINGS AT THE OPEN SIDES OF A STAIR, FORMED BY THE RISER, TREAD AND BOTTOM SPHERE 6 INCHES IN DIAMETER. PER CBC SECT. 1015.4 EXCEP. RAIL SHALL NOT ALLOW PASSAGE OF

WITHIN INDIVIDUAL DWELLING UNITS AND SLEEPING UNITS IN GROUP R-2 AND R-3 OCCUPANCIES, GUARDS ON THE OPEN SIDES OF STAIRS SHALL NOT HAVE OPENINGS ALLOM PASSAGE OF A SPHERE 4 3/8 INCHS IN DIAMETER. PER CBC SECT. 1015.4 EXCEPT. (6)

M12- ISOKERN® STANDARD® 42" - MODEL:80542 PREFABRICATE, REFACTORY, MODULAR GAS FIREPLACE (FIREBOX AND SMOKE DOME COMPONENTS) REFER TO ISOKERN FIREPLACE SPECIFICATIONS AND DETAILS METAL FLUE REFER TO CLASS "A" METAL FLUE SPECIFICATIONS DETAIL '2' SHEET 'D2.0'

FACTORY-BUILT FIREPLACES AND CHIMNEYS SHALL BE LISTED AND INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTINGS AND THE MANUFACTURER'S INSTRUCTIONS. SUPPLY GAS AND COMBUSTION AIR VENT, INSTALL PER CURRENT 2019 CRC CODE., FIRE CODES, LOCAL BUILDING ORDINANCES & MF'R. INSTALLATION INSTRUCTIONS

PROVIDE APPROVED NON-COMBUSTIBLE HEARTH ISOKERN FIREPLACE SPECIF. AND DETAILS. FIREPLACE DOORS AND SCREENS: THIS FIREPLACE HAS NOT BEEN TESTED FOR USE WITH DOORS, TO REDUCE THE RISK OF FIRE OR INJURY, NOTE OPERATE FIREPLACE WITH DOORS FULLY OPEN.

CONFORM TO MANUFACTURER'S CLEARANCE REQUIREMENTS TO COMBUSTIBLE MATERIALS. AND PROVIDE SCREEN AND DIRECT VENTING, AS PER CURRENT 2019 CRC CODE., FIRE CODES, LOCAL BUILDING ORDINANCES & MF'R. INSTALLATION INSTRUCTIONS SOKERN MODULAR MASONRY FIREPLACES ARE TESTED AND LISTED FOR USE WITH METAL, FACTORY-BUILT,

CLASS "A" (SOLID FUEL) CHIMNEYS, AS AN OPTION TO THE ISOKERN MASONRY CHIMNEY SYSTEM. THE CLASS "A" METAL FLUE SELECTED FOR USE WITH THE ISOKERN FIREPLACE MUST COME WITH A MASONRY ATTACHMENT PLATE/STARTER COLLAR COMPONENT, PROVIDED BY THE METAL FLUE MANUFACT. M13- SUPERIOR MODEL WRT3042 PRO SERIES WOOD BURNING FIREPLACE. BY INNOVATIVE HEARTH

PRODUCTS 1508 ELM HILL PIKE, SUITE 108 NASHVILLE, TN, 37210, GAS SUPPLY LINE AND COMBUSTION AIR VENT, INSTALL PER MANUFACTURES INSTALLATION INSTRUCTIONS, CBC., CALIF. GREEN BUILDING STANDARDS CODE SECTION 4.503.1 AND CBC FIRE CODES & LOCAL BUILDING ORDINANCES. THIS FIREPLACE HAS BEEN TESTED AND LISTED BY PFS (REPORT No. 10-018) TO U.L. STANDARD 121.

THIS FIREPLACE SYSTEM IS DESIGNED FOR INSTALLATION IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION STANDARD FOR CHIMNEYS, FIREPLACES AND SOLID FUEL BURNING APPLIANCES; NFPA 211 AND IN ACCORDANCE WITH CODES SUCH AS THE BOCA BASIC/NATIONAL CODES, THE STANDARD MECHANICAL CODE AND THE BUILDING CODES.

· TITLE 24 REQUIREMENTS: PROVIDE CLOSABLE METAL OR GLASS DOORS USE ONLY THE DOORS THAT ARE LISTED FOR USE MITH THIS FIREPLACE AS PER MANDATORY MEASURES TITLE 24 REQUIREMENTS.

M14- HEARTH EXTENSION THICKNESS: THE MINIMUM THICKNESS OF HEARTH SHALL BE 2 INCHES. PER CBC SECT. 2111.9.2

EXCEPTION: WHEN THE BOTTOM OF THE FIREBOX OPENING IS RAISED AT LEAST 8 INCHES ABOVE THE TOP OF THE HEARTH EXTENSION, A HEARTH EXTENSION OF NOT LESS THAN 3/8-INCH-THICK BRICK, CONCRETE,STONE,TILE OR OTHER APPROVED NONCOMBUSTIBLE MATERIAL IS PERMITTED. PER CBC SECT.

HEARTH EXTENSION DIMENSIONS: HEARTH EXTENSIONS SHALL EXTEND AT LEAST 16 INCHES IN FRONT OF,

AND AT LEAST 8" BEYOND, EACH SIDE OF THE FIREPLACE OPENING. WHERE THE FIREPLACE OPENING IS 6 SQUARE FEET OR LARGER. THE HEARTH EXTENSION SHALL EXTEND AT LEAST 20 INCHES IN FRONT OF, AND AT LEAST 12 INCHES BEYOND, EACH SIDE OF THE FIREPLACE OPENING, PER CBC SECT. 2111.10

M15- CHIMNEY CAP: FACTORY-BUILT U.L. APPROVED METAL CHIMNEY CAP AND SPARK ARRESTER PER CBC SECT. 2113.9.2 (FIREPLACE MANUFACTURE APPROVED) SEE DETAIL.

GENERAL NOTES

1. THESE DRAWINGS ARE DEEMED INSTRUMENTS OF SERVICE COVERED BY ALL APPLICABLE LAWS INCLUDING U.S. COPYRIGHT LAWS. ALL IDEAS, DESIGNS AND PLANS INDICATED OR REPRESENTED BY THESE DOCUMENTS ARE OWNED BY AND ARE THE PROPERTY OF PACIFIC ARCHITECTS AND WERE CREATED AND DEVELOPED FOR USE IN CONNECTION WITH A SPECIFIED PROJECT. USE OR DUPLICATION IS ALLOWED BY WRITTEN PERMISSION ONLY. ANY MODIFICATIONS TO THESE PLANS, REGARDLESS OF SCOPE, WITHOUT WRITTEN PERMISSION OF PACIFIC ARCHITECTS IS PROHIBITED AND AS SUCH THEREBY ABSOLVES PACIFIC ARCHITECTS FROM ANY LIABILITY CLAIMS, SUITS OR LITIGATION BY ANY PARTIES.

2. THE GENERAL CONDITIONS AS PUBLISHED BY THE AMERICAN INSTITUTE OF ARCHITECTS, DOCUMENT #A-201 (GENERAL CONTRACTOR CONDITIONS OF THE CONTRACT FOR CONSTRUCTION), LATEST EDITION, SHALL GOVERN AND BE DEEMED A PART OF THESE DOCUMENTS.

3. THE CONSTRUCTION DOCUMENTS ARE PROVIDED TO ILLUSTRATE THE DESIGN INTENT, AND IMPLY THE FINEST QUALITY WORKMANSHIP THROUGHOUT. ANY DESIGN OR DETAIL WHICH APPEARS TO BE INCONSISTENT WITH THE ABOVE SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT BY THE CONTRACTOR.

APPARENT UPON FIELD INSPECTION SHALL BE CONSIDERED AS PART OF THIS CONTRACT.

4. DRAWINGS ARE BASIC EXISTING REQUIREMENTS, CONTRACTOR SHALL INSPECT AND VERIFY THE SCOPE OF WORK. ANY ADDITIONAL WORK NOT SPECIFICALLY NOTED ON THE DRAWINGS BUT YET ARE

5. NO INSTRUCTIONS, REVISIONS, ADDITIONS, DELETIONS, SPECIFICATIONS, OR DETAILS OTHER THAN THE INFORMATION CONTAINED HEREIN SHALL GOVERN THE PROJECT UNLESS THEY ARE IN WRITING AND APPROVED BY THE ARCHITECT, OWNER AND CONTRACTOR

6. DRAWINGS REPRESENT PRIMARY REQUIREMENTS FOR DESIGN AND CONSTRUCTION DETAILING AS DESCRIBED. CONTRACTOR IS REQUIRED TO HAVE SUBCONTRACTORS CAREFULLY REVIEW DRAWINGS FOR PROPER EXECUTION OF THE WORK. ANY ADDITIONAL WORK NOT INCLUDED ON THE DRAWINGS YET REQUIRED TO SATISFY CODE REQUIREMENTS FOR ISSUANCE OF CERTIFICATE OF OCCUPANCY SHALL BE CONSIDERED AS PART OF THE CONTRACTORS SCOPE OF WORK.

7. IT SHALL BE UNDERSTOOD THAT ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SAFETY DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SERVE AS SHOP DRAWINGS. THE CONTRACTOR SHALL FULLY ACQUAINT HIMSELF WITH THE SCOPE OF WORK CONCERNING OTHER TRADES AND SUBCONTRACTORS AND SHALL BE RESPONSIBLE TO COORDINATE AND SEQUENCING WITH THIS

8. ALL CONSTRUCTION MEANS METHODS, MATERIALS AND TECHNIQUES SHALL COMPLY WITH THE LATEST EDITION OF ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES AND ORDINANCES. THE FOLLOWING ARE HEREBY REFERENCED ALL WORK TO COMPLY WITH THE 2019 CBC, 2019 CMC, 2019 CPC, 2019 CEC. AND 2019 CALIFORNIA ENERGY CODE (BASED ON 2016 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS).

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL REQUIRED OPENINGS IN ROOF, FLOORS, WALLS, AND PLENUMS NECESSARY TO PROVIDE ADEQUATE SPACE FOR ALL ELECTRICAL. MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK, ETC.

10. THE CONTRACTOR SHALL VERIFY ALL CONSTRUCTION DOCUMENTS, SITE DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ARCHITECT AND OWNER OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO STARTING WORK.

11. CONTRACTORS SHALL PROCURE AND INCLUDE IN HIS BASE BID PRICE ALL NECESSARY PERMITS. CERTIFICATES AND NOTICES FOR THE PROJECT.

12. CONTRACTOR MUST SHOW PROOF OF INSURANCE BEFORE CONTRACT IS AWARDED. 13. FROM INFORMATION PROVIDED BY THE OWNER, ALL PROPERTY LINES, EASEMENTS, AND EXISTING

14. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND GENERAL DETAILS IF ANY DISCREPANCIES OR INCONSISTENCIES ARE FOUND - CALL ARCHITECT FOR CLARIFICATION. 15. DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED

16. ALL DIMENSIONS ARE TO FACE OF STUD OR FACE BLOCK UNLESS OTHER WISE NOTED. AT WALLS AND ROOFS WITH PLYWOOD SHEATHING DIMENSIONS ARE TO THE EXTERIOR SIDE OF PLYWOOD.

17. SURFACE MATER WILL DRAIN AWAY FROM THE BUILDING NOT LESS THAN - 5% SLOPE FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2% AWAY FROM BUILDING PER CBC SECT. 1804.4

18. WATER-CONSERVING PLUMBING FIXTURES AND FITTINGS:

BUILDINGS ARE COPIED TO THIS SITE PLAN

WATER CLOSET

MATER CONSUMPTION: THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH WHEN TESTED IN ACCORDANCE WITH ASME A112.19.2/CSA B45.1 [CPC 411.2] LOUAL FLUSH WATER CLOSETS: DUAL FLUSH WATER CLOSETS SHALL COMPLY WITH ASME A112.19.14. THE EFFECTIVE FLUSH YOLUME FOR DUAL FLUSH WATER CLOSETS SHALL BE DEFINED AS THE COMPOSITE. AYERAGE FLUSH YOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. [CPC 411.2.1] PERFORMANCE: WATER CLOSETS INSTALLED SHALL MEET OR EXCEED THE MINIMUM PERFORMANCE CRITERIA DEVELOPED FOR CERTIFICATION OF HIGH-EFFICIENCY TOILETS UNDER THE WATERSENSE PROGRAM SPONSORED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY. [CPC 411.2.3] WATER CLOSETS: THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK TYPE TOILETS. [CPC 411.2.4] [CALGREEN

KITCHEN FAUCETS. [HCD 1] THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE. BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI NOTE: WHERE FAUCETS MEETING THE MAXIMUM FLOW RATE OF 1.8 GPM ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION [CPC 420.2.2] [CALGREEN 4.303.1.4.4]

RESIDENTIAL LAVATORY FAUCETS: THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI [CPC 401.2.2][CALGREEN

MATER CONSUMPTION: SHOMERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE MEASURED AT 80 PSI AND MUST COMPLY WITH DIVISION 4.3 OF CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN). [CPC 408.2] USINGLE SHOWERHEAD: SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOMERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS [CPC 408.2.1] [CALGREEN 4.303.1.3.1] IMULTIPLE SHOMERHEADS SERVING ONE SHOMER: WHEN A SHOMER IS SERVED BY MORE THAN ONE SHOMERHEAD. THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI OR THE

4.3*0*3.1.3.2] 19. WATER PRESSURE REGULATOR OF 60 PSI SHALL BE PROVIDED

20. HOSE BIBS AND LAWN SPRINKLER SYSTEMS SHALL HAVE APPROVED BACK-FLOW PREVENTION DEVICES PER CPC 603.5.7.

NOTE: A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD. [CPC 408.2.2][CALGREEN

21. PROVIDE SHUT OFF VALVE ON GAS AND ALL COLD WATER LINES TO BUILDING 22. PROVIDE PRESSURE RELIEF VALVE WITH DRAIN TO OUTSIDE FOR WATER HEATER. PER CPC 608.5 PROVIDE SEISMIC STRAPPING OR ANCHORAGE RESISTING OVERTURNING OF WATER HEATER PER CPC

SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME

23. ALL BATHROOM , KITCHEN, GARAGE, UTILITY ROOM, EXTERIOR AND ALL WET LOCATION RECEPTACLES TO BE GFCI.

14. FIREBLOCKING AND DRAFTSTOPPING SHALL BE PROVIDED PER CBC 118 & CRC R302.11 THROUGH

25. ESCAPE WINDOWS IN EACH BEDROOM TO BE MAXIMUM 44" FROM FLOOR TO TOP OF WINDOW SILL,

MINIMUM CLEAR OPENING WIDTH OF 20". MINIMUM CLEAR OPENING HEIGHT OF 24" AND A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. PER CRC SECT. R3 10.1-R3 10.2.2 & CBC 1030.1-1030.3 26. EXPOSED COMBUSTIBLE MANTELS OR TRIM MAY BE PLACED DIRECTLY ON THE MASONRY FIREPLACE FRONT SURROUNDING THE FIREPLACE OPENING PROVIDING SUCH COMBUSTIBLE MATERIALS ARE NOT PLACED WITHIN 6 INCHES OF THE FIREPLACE OPENING. COMBUSTIBLE MATERIAL WITHIN 12 INCHES OF THE FIREPLACE OPENING SHALL NOT PROJECT MORE THAN 1/8 INCH FOR EACH ONE INCH DISTANCE FROM SUCH OPENING. COMBUSTIBLE MATERIALS LOCATED ALONG THE SIDES OF THE FIREPLACE

OPENING THAT PROJRCT MORE THAN 1 1/2 INCHES FROM THE FACE OF THE FIREPLACE SHALL HAVE AN

ADDITIONAL CLEARANCE EQUAL TO THE PROJECTION PER CRC SECT. R1001.11(4) & CBC 2111.12(4) 27. ATTIC VENTILATION TO BE NOT LESS THAN 1/150 th. OF ATTIC AREA. OPENINGS SHALL BE COVERED W/ CORROSION-RESISTANT METAL MESH W/ OPENINGS OF 1/16" MIN.-1/4" MAX. ROOF VENTS PER CRC SECT. R806.1, R806.2, R806.3. & CBC SECT. 1202.2.1, 1202.2.2

28. CONTRACTOR SHALL PROVIDE ALL NECESSARY BACKING AND FRAMING FOR WALL AND CEILING

29. ALL EXTERIOR OPENINGS, FLASHING, COUNTER FLASHING AND EXPANSION JOINTS SHALL BE CONSTRUCTED IN SUCH A MATTER TO BE WEATHERPROOFED. 30. ALL COVER PLATES, GRILLES, AND FIXTURES TO BE WHITE U.N.O.

31. EXHAUST FAN SHALL PROVIDE MINIMUM EXHAUST RATE PER CMC TABLE 403.7, THE EXHAUST OUTLET SHALL BE LOCATED A MINIMUM OF 10 FEET ABOVE ADJOINING GRADE AND 10 FEET FROM DOORS, OCCUPIED AREAS AND OPERABLE MINDOMS PER CMC SECT. 407.2.2 (REFER TO MECHANICAL PLANS) 32. GENERAL LIGHTING FOR KITCHEN AND BATHROOMS MUST BE 25 LUMENS / WATT OR GREATER.

FLUORESCENT LIGHTING SEE ELEC. PLAN. 33. ALL HANDRAILS SHALL BE 34" MIN.-38" MAX. ABOVE THE STAIR TREAD NOSINGS AND BE CONTINUOUS. PER CRC SECT. R311.7.8.1, R311.7.8.4 & CBC SECT. 1014.2, 1014.4

34. ALL OPEN GUARDRAILS AND STAIR RAILINGS SHALL HAVE INTERMEDIATE RAILS SUCH THAT A SPHERE 4 INCHES IN DIAMETER CANNOT PASS THROUGH. PER CRC SECT. R312.1.3 & PER CBC SECT. 1015.4 HANDRAILS AND GUARDRAILS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS, APPLIED IN ANY DIRECTION AT ANY POINT ON THE TOP RAIL AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE TO PRODUCE THE MAXIMUM LOAD EFFECT ON THE ELEMENT BEING CONSIDERED. PER CBC SECT. 1607.8.1.1 AND SECT. 4.5.1.1 OF ASCE 7.

35. FIREPLACE GAS VALVES MUST BE LOCATED NOT MORE THAN 6 FT. UNLESS LISTED FOR INSTALLATION N THE FIREPLACE PER CPC 1212.6.

36. ALL UTILITY SERVICES LOCATED WITHIN THE PROPERTY LINES SHALL BE INSTALLED UNDERGROUND. 37. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" INCHES FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED MOOD. PER CBC SECT. 2304.12.1.2 SILLS ON CONCRETE OR MASONRY SLAB THAT IS IN DIRECT CONTACT WITH EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. PER CBC SECT 2304.12.1.4

38. ELECTRICAL SYSTEM GROUND TO BE PROVIDED PER NEC 210-8

ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY, ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. EACH CHARACTER SHALL FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN ADDITIONAL APPROVED

39. ADDRESS IDENTIFICATION. NEW AND EXISTING BUILDINGS SHALL BE PROVIDED WITH APPROVED

PACIFIC ARCHITECTS

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BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1/2 INCH. WHERE REQUIRED BY THE

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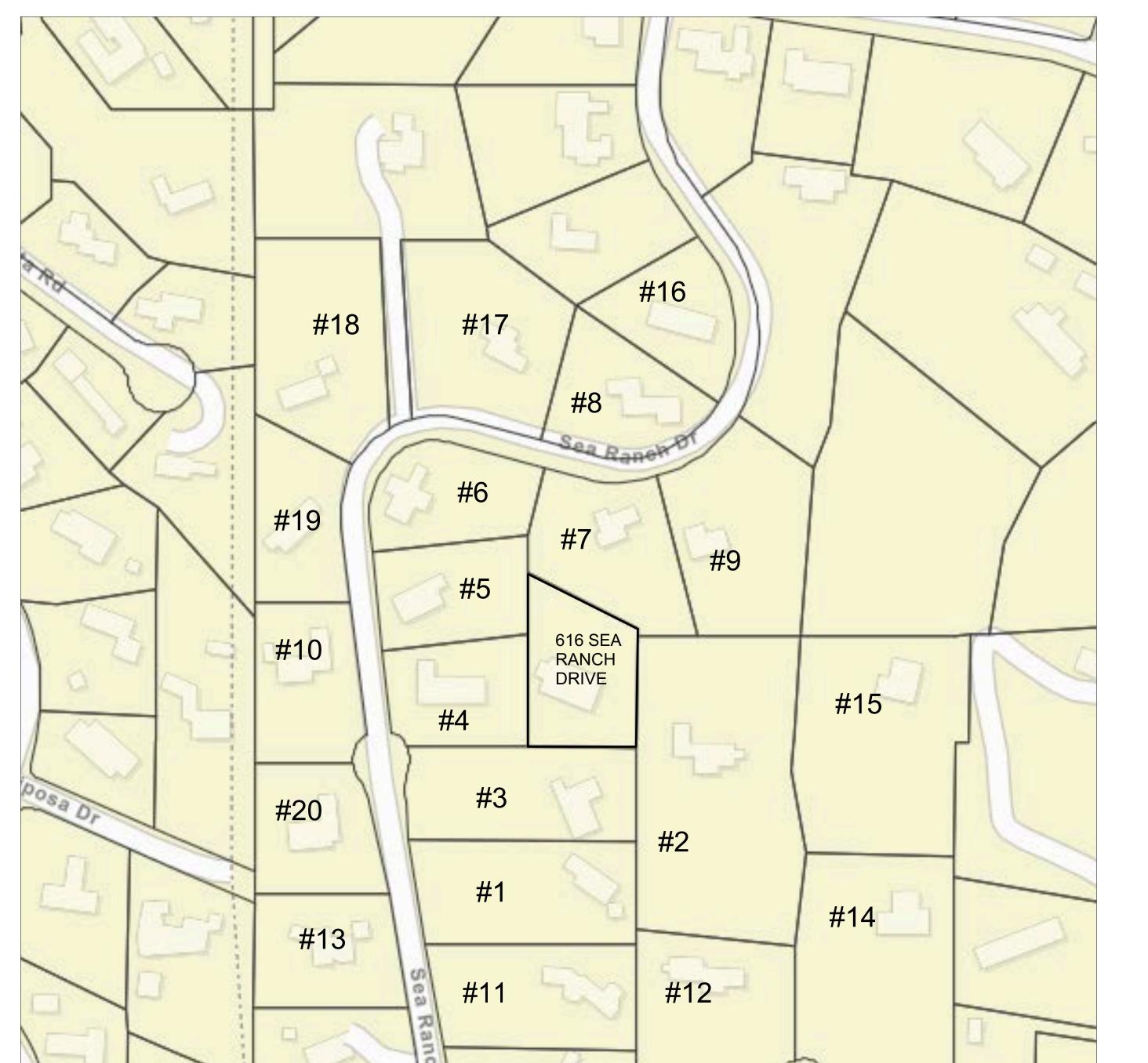
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#	ADDRESS	PARCEL NUMBER	ZONE [DESIGNATION]	LOT SIZE [ACREAGE]	BUILDING [5Q. FT.]	GARAGE [5Q. FT.]	FAR	% OF MAX FAR	NUMBER OF STORIES
1.	516 SEA RANCH DRIVE	047-021-016	A-1/5-D-3	1.5	2,420	400	.43	54%	1
2.	525 CALLE LAS CALERAS	047-021-031	A-1/5-D-3	3.36	4,513	1,022	.38	88%	2
3.	526 SEA RANCH DRIVE	047-021-017	A-1/5-D-3	1.05	3,836	550	.96	88%	2
4.	606 SEA RANCH DRIVE	047-104-001	A-1/5-D-3	1	3,413	630	.93	81%	1
5.	626 SEA RANCH DRIVE	047-104-003	A-1/5-D-3	1.06	2,399	483	.66	58%	1
6.	646 SEA RANCH DRIVE	047-104-004	A-1/5-D-3	1.04	2,336	420	.61	55%	1
7.	134 SEA RANCH DRIVE	047-104-005	A-1/5-D-3	1.36	2,612	528	.53	61%	2
8.	131 SEA RANCH DRIVE	047-103-007	A-1/5-D-3	1.07	3,293	743	.87	81%	1
9.	744 SEA RANCH DRIVE	047-104-006	A-1/5-D-3	1.17	2,652	660	.65	66%	1
10.	601 SEA RANCH DRIVE	047-103-012	A-1/5-D-3	1.18	3,627	704	.84	85%	2
11.	506 SEA RANCH DRIVE	047-021-015	A-1/5-D-3	1.36	3,442	399	.65	74%	1
12.	501 CALLE LAS CALERAS	047-021-030	A-1/5-D-3	1.49	3,127	726	.59	74%	1
13.	515 SEA RANCH DRIVE	047-023-004	A-1/5-D-3	1.11	3,145	550	.76	74%	1
14.	606 SEA RANCH DRIVE	047-104-001	A-1/5-D-3	1.0	3,413	630	.93	81%	1
15.	575 BREAMAR RANCH LN.	047-021-035	A-1/5-D-3	2.5	5,196	750	.55	102%	2
16.	801 SEA RANCH DRIVE	047-103-006	A-1/5-D-3	1.0	2,669	800	.8	70%	1
17.	717 SEA RANCH DRIVE	047-103-008	A-1/5-D-3	1.83	2,480	440	.37	54%	1
18.	645 SEA RANCH DRIVE	047-103-010	A-1/5-D-3	1.81	2,030	525	.32	47%	1
19.	637 SEA RANCH DRIVE	047-103-011	A-1/5-D-3	1.06	2,523	462	.65	60%	1
20.	525 SEA RANCH DRIVE	047-023-005	A-1/5-D-3	1.14	2,852	576	.69	68%	1

SUBJECT PROPERTY (EXISTING CONDITIONS) SUBJECT PROPERTY (WITHOUT BASEMENT, GARAGE, GARAGE STORAGE)OR PORTE COCHER

SUBJECT PROPERTY/STANDARD FAR DETERMINATION

-	616 SEA RANCH DRIVE	047-104-002	A-1/5-D-3	1.11	3,296	611	.81	78%	1
-	616 SEA RANCH DRIVE	047-104-002	A-1/5-D-3	1.11	4,920		.102	98%	1
-	616 SEA RANCH DRIVE	047-104-002	A-1/S-D-3	1.11	5,238	712	.123	105 %	1

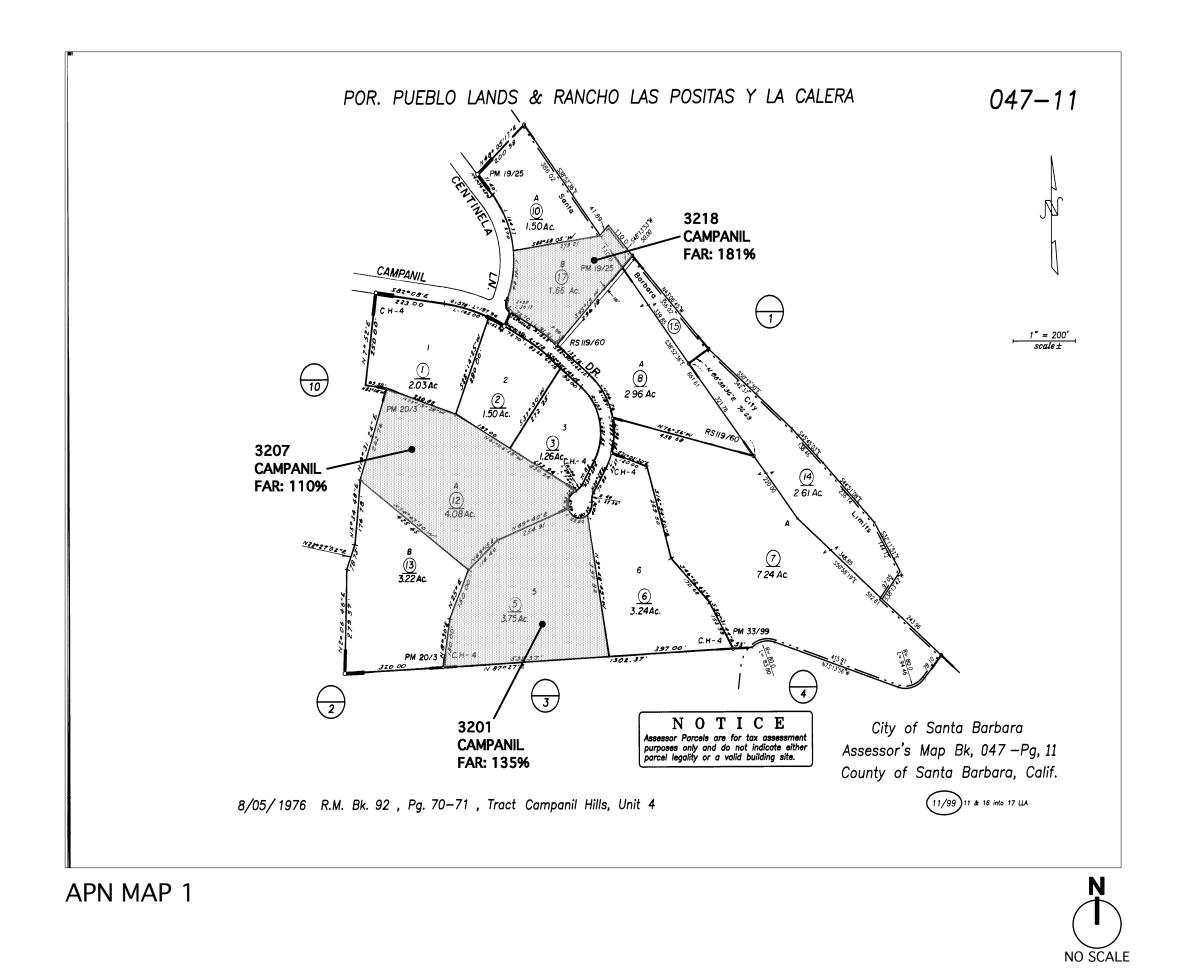


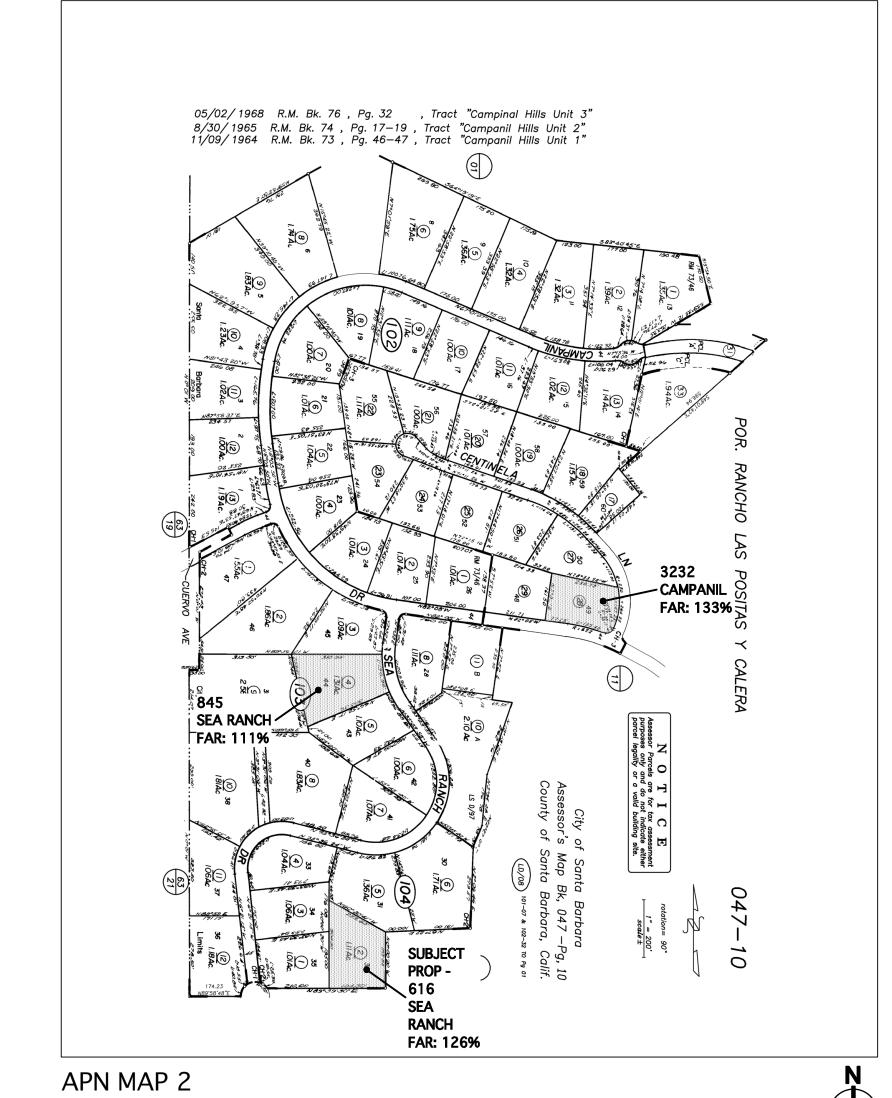
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NEIGHBORHOOD F.A.R. COMPARISON STUDY

KEY	ADDRESS	APN#	SITE AREA	BUILDING AREA	FAR
1	616 SEA RANCH DR (SUBJECT PROPERTY - PROPOSED)	047-104-002	1.1 AC/ 48,351 SF	5,645 SF	112%
2	845 SEA RANCH DR	047-103-004	1.31 AC/ 57,063 SF	5,696 SF	111%
3	3232 CAMPANIL DR	047-102-028	.88 AC/ 38,332 SF	6,544 SF	133%
4	3218 CAMPANIL DR	047-110-011	1.61 AC/ 70,340	9,666 SF	181%
5	3207 CAMPANIL DR	047-110-012	4.08 AC/ 17,772 SF	7,378 SF	110%
6	3201 CAMPANIL DR	047-110-005	3.75 AC/ 163,350	8,788 SF	134%









P A C I F I C ARCHITECTS

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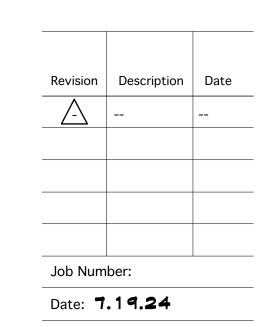
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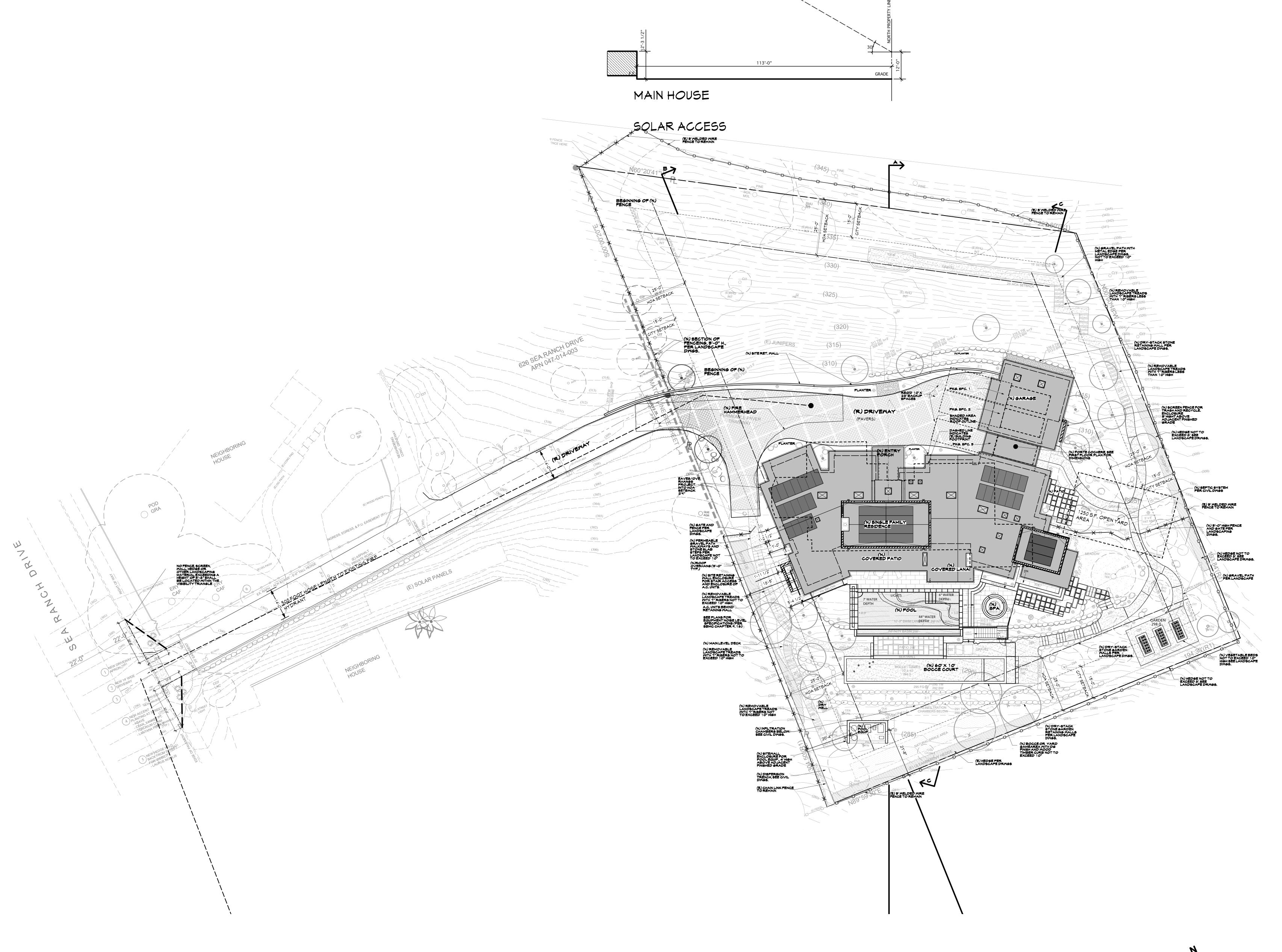
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SITE PLAN W/ NEIGHBORHOOD CONTEXT

NEIGHBORING STRUCTURE

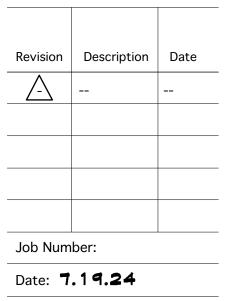
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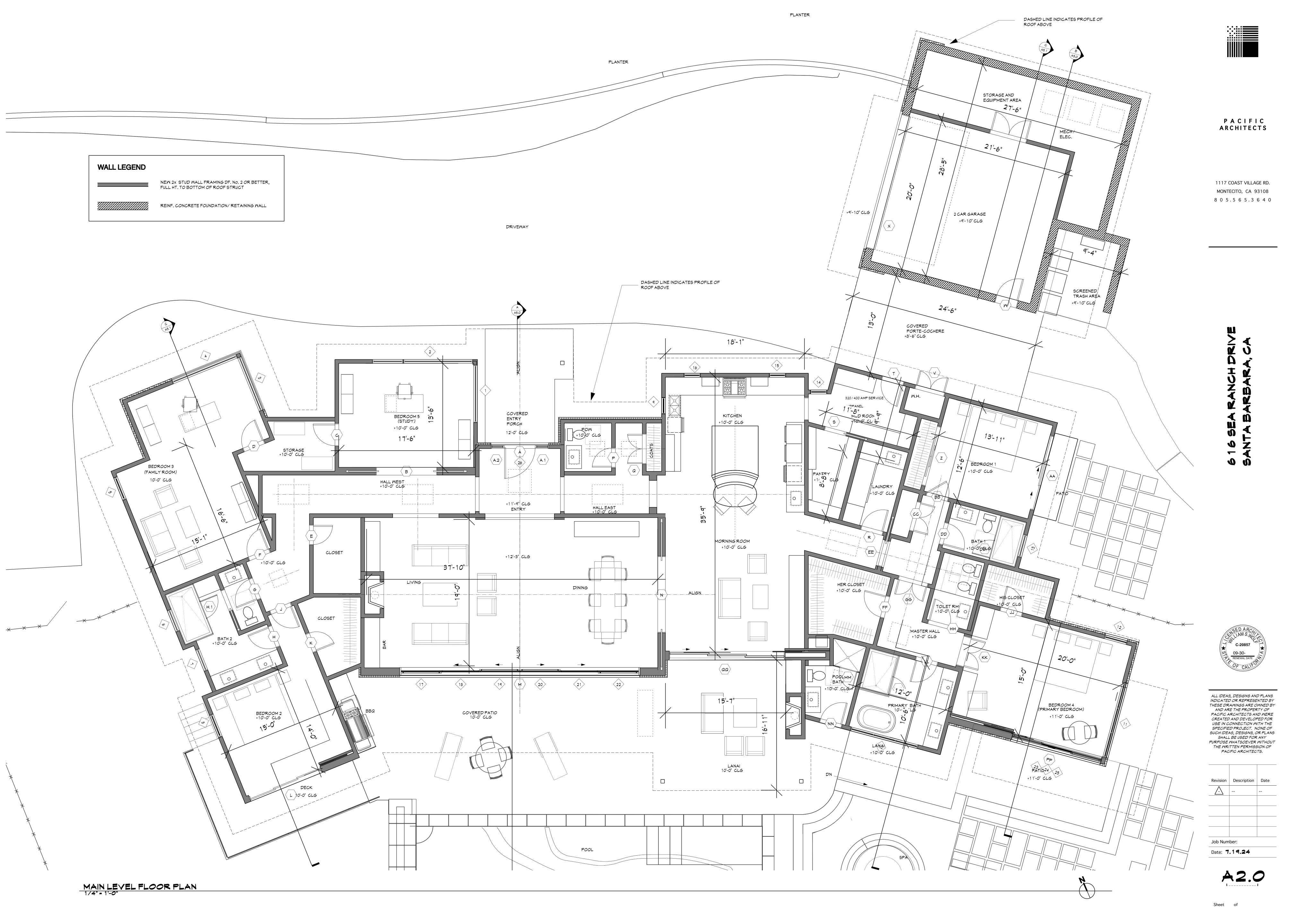


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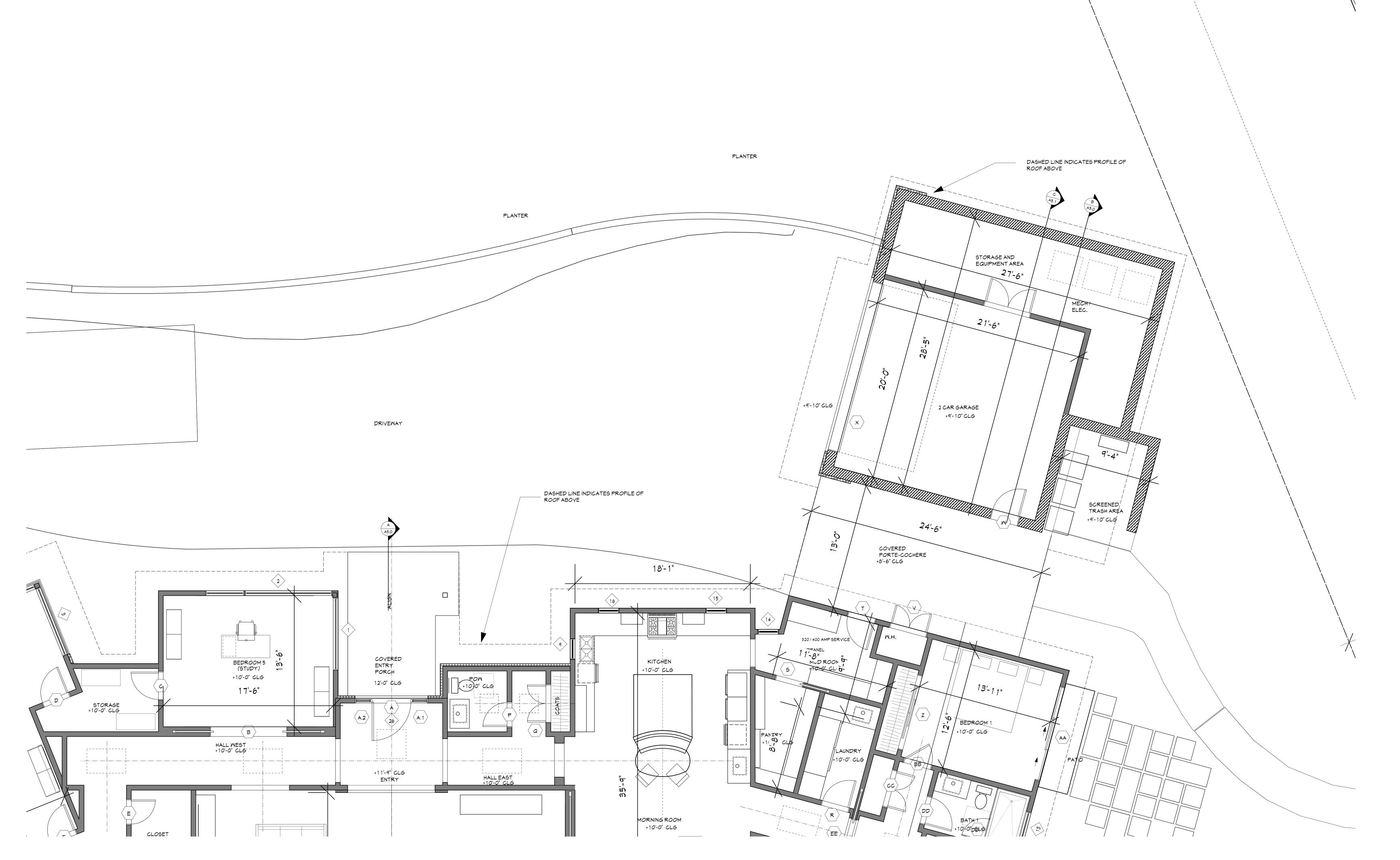


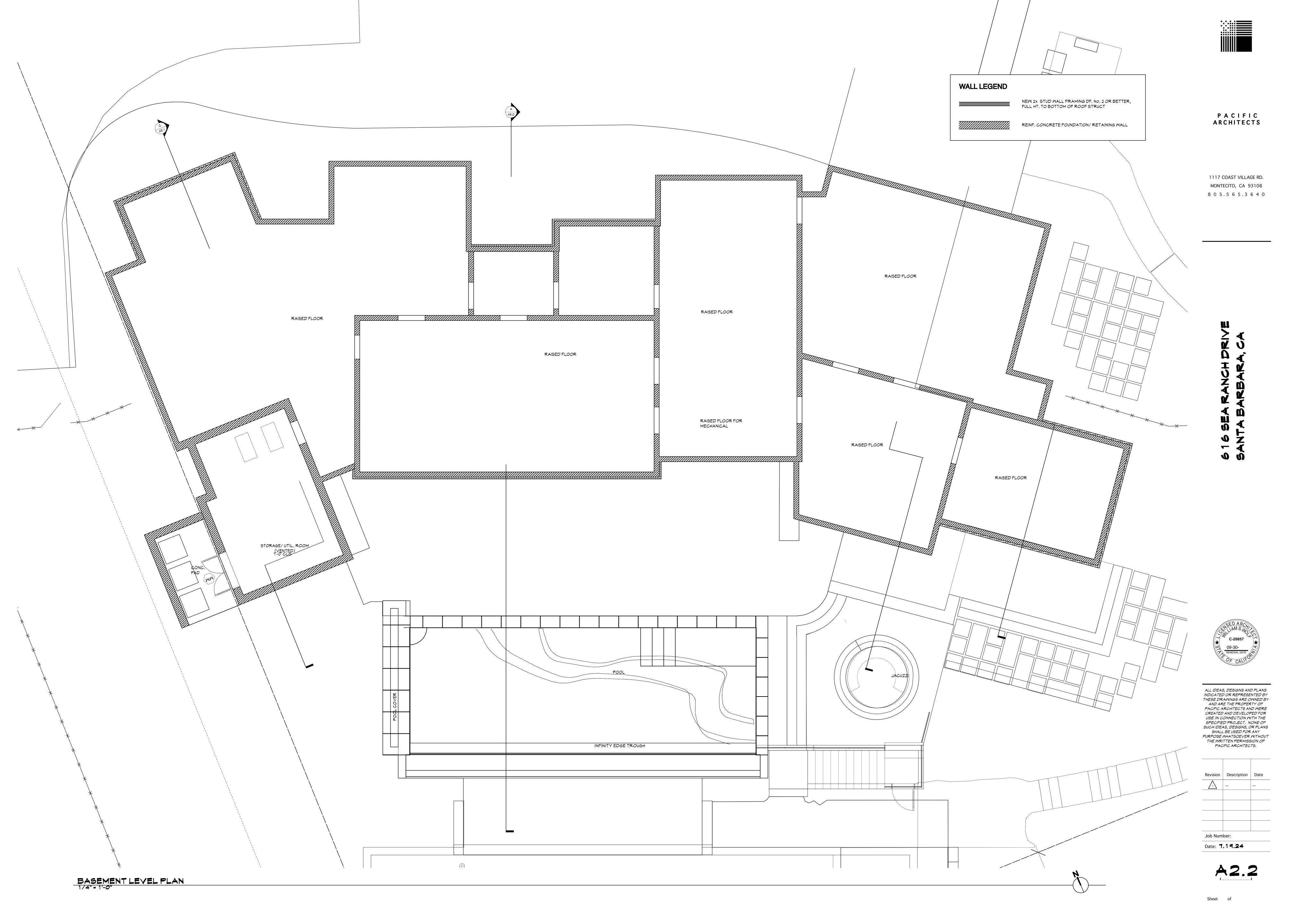
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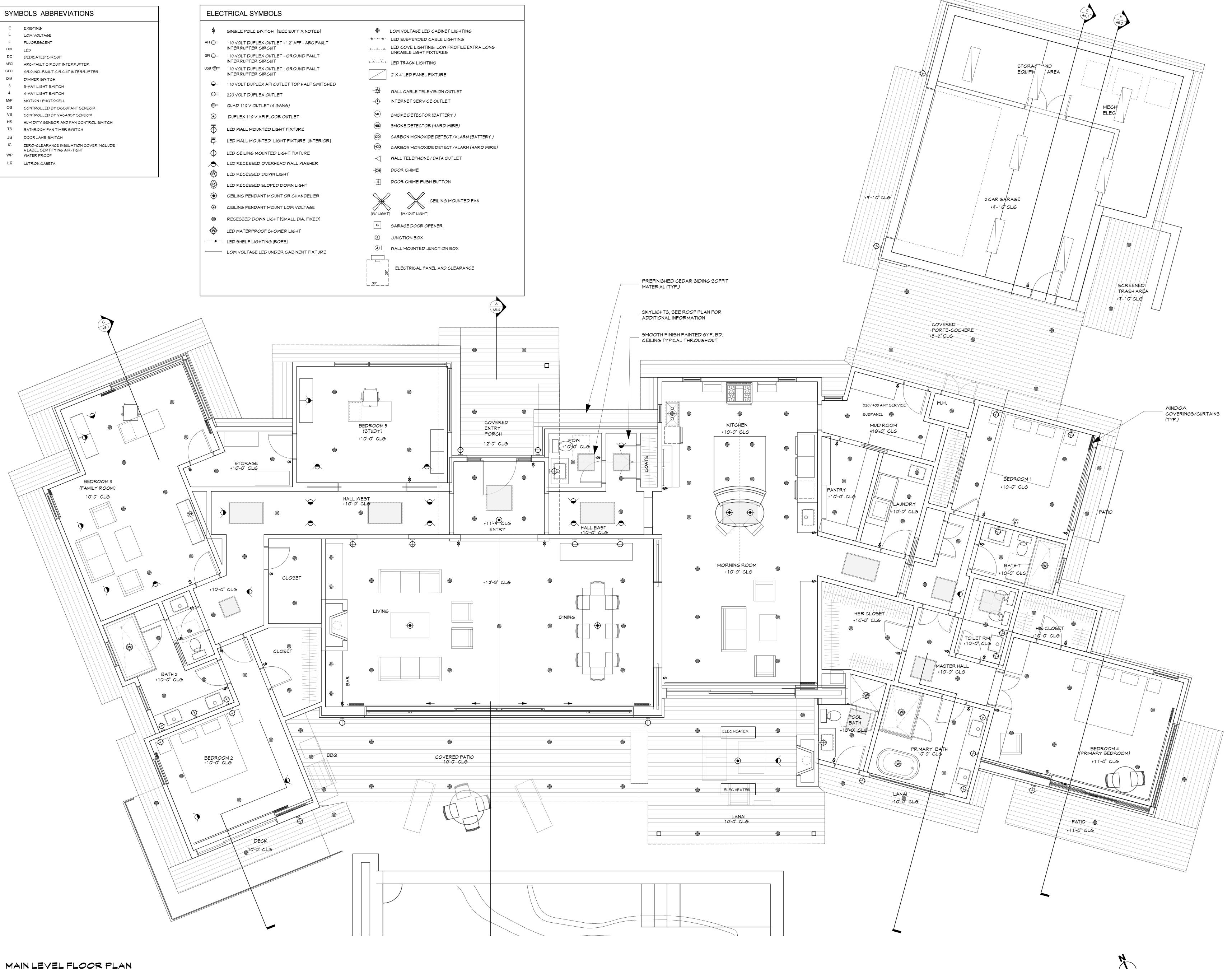
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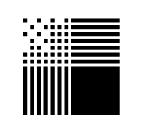
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GARAGE FLOOR PLAN







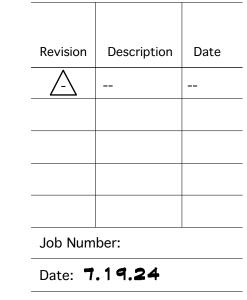


PACIFIC ARCHITECTS

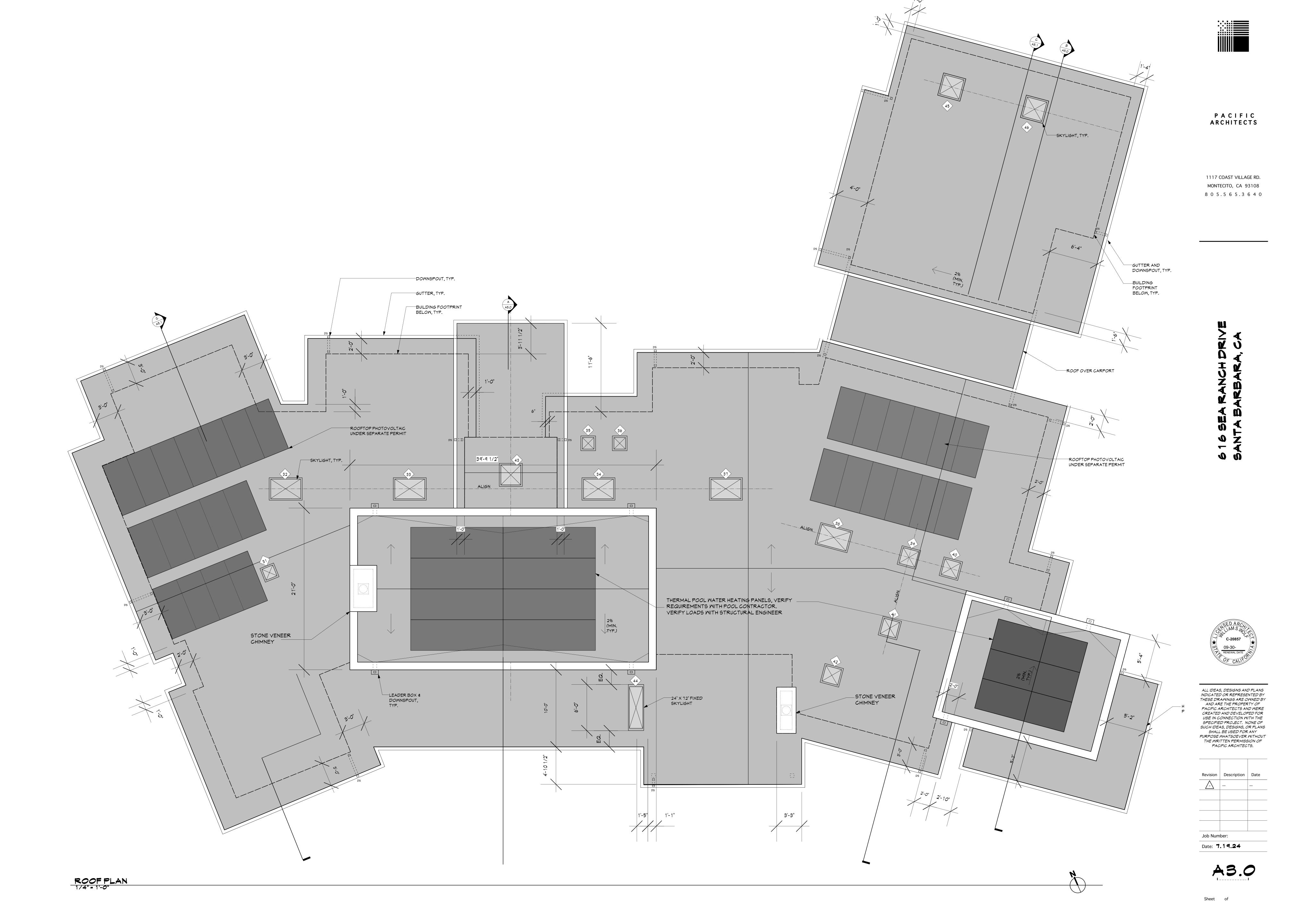
1117 COAST VILLAGE RD. MONTECITO, CA 93108 8 0 5 . 5 6 5 . 3 6 4 0

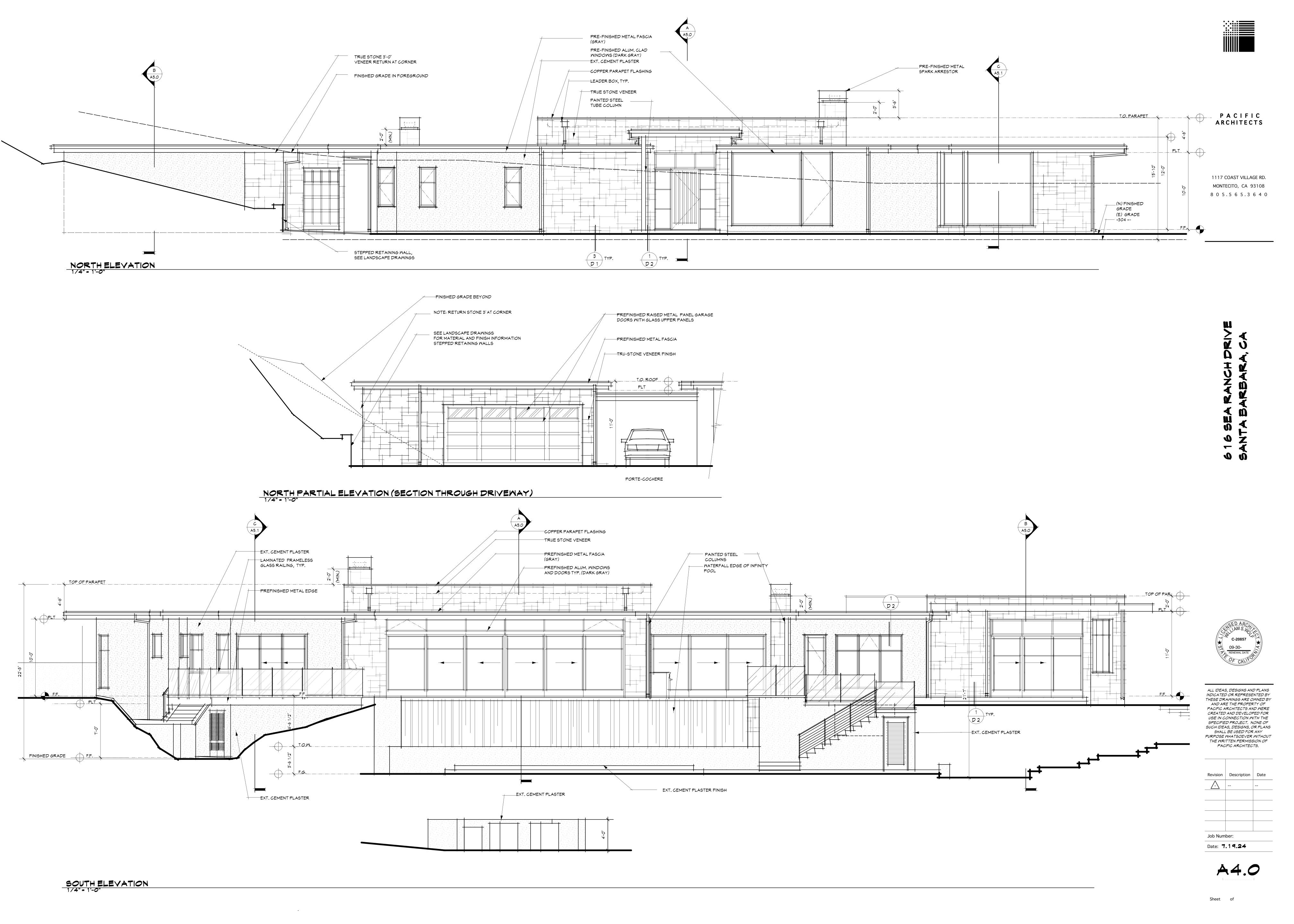


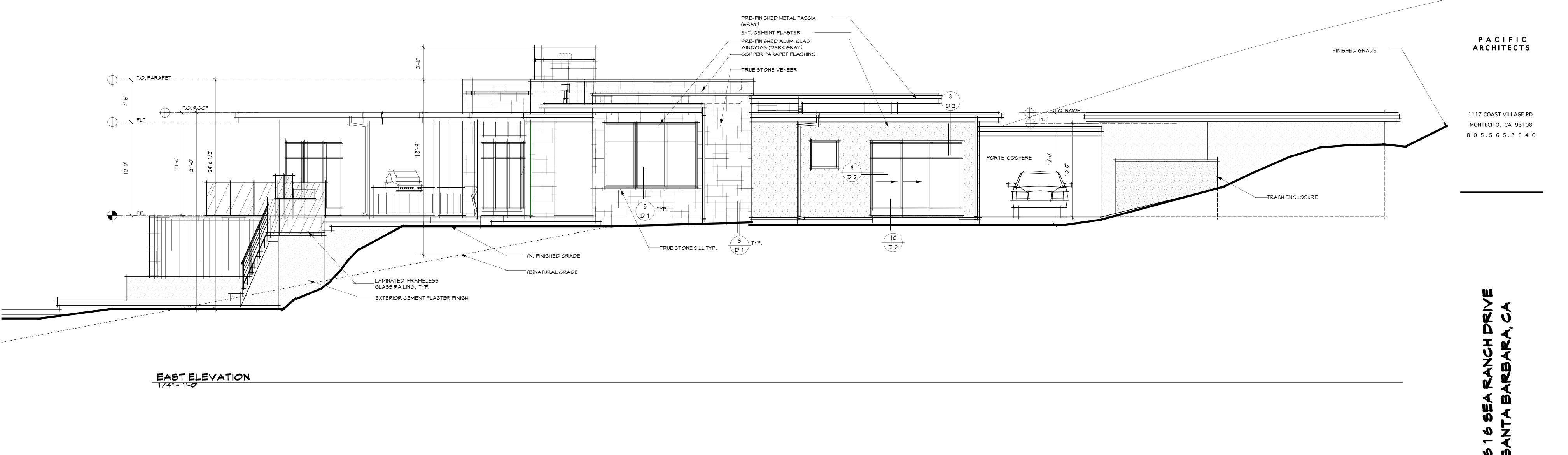
ALL IDEAS, DESIGNS AND PLANS INDICATED OR REPRESENTED BY THESE DRAWINGS ARE OWNED BY AND ARE THE PROPERTY OF PACIFIC ARCHITECTS AND WERE CREATED AND DEVELOPED FOR USE IN CONNECTION WITH THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGNS, OR PLANS SHALL BE USED FOR ANY
PURPOSE WHATSOEVER WITHOUT
THE WRITTEN PERMISSION OF
PACIFIC ARCHITECTS.

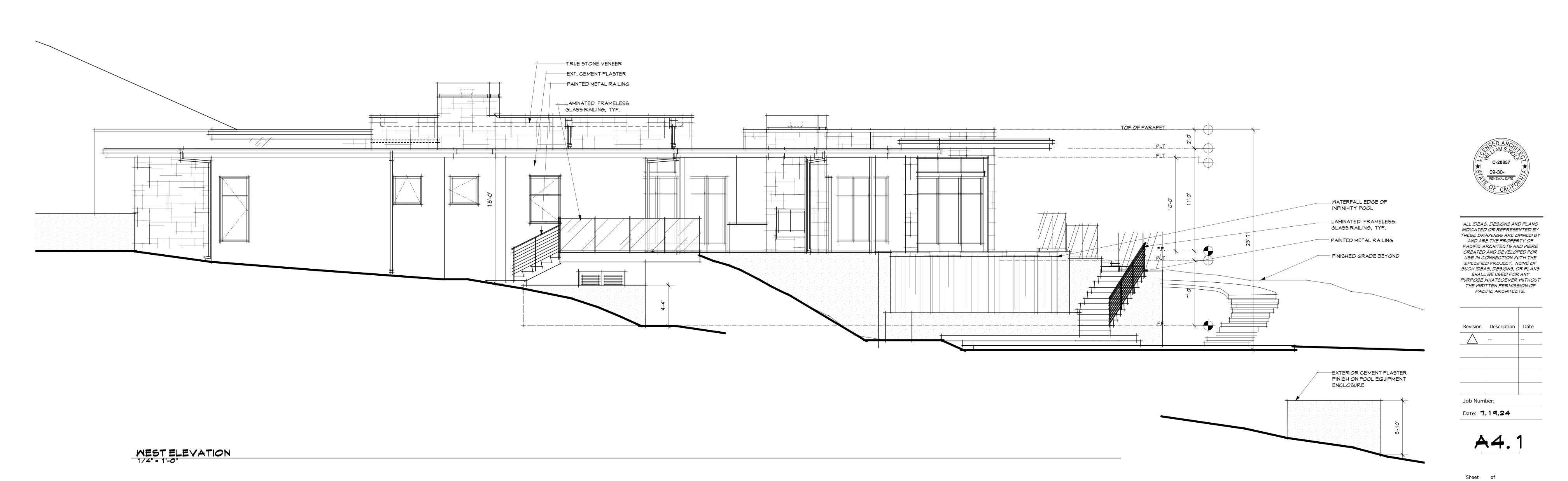


A2.0



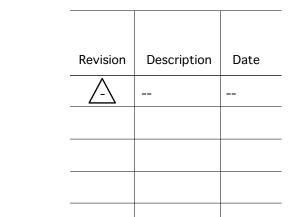








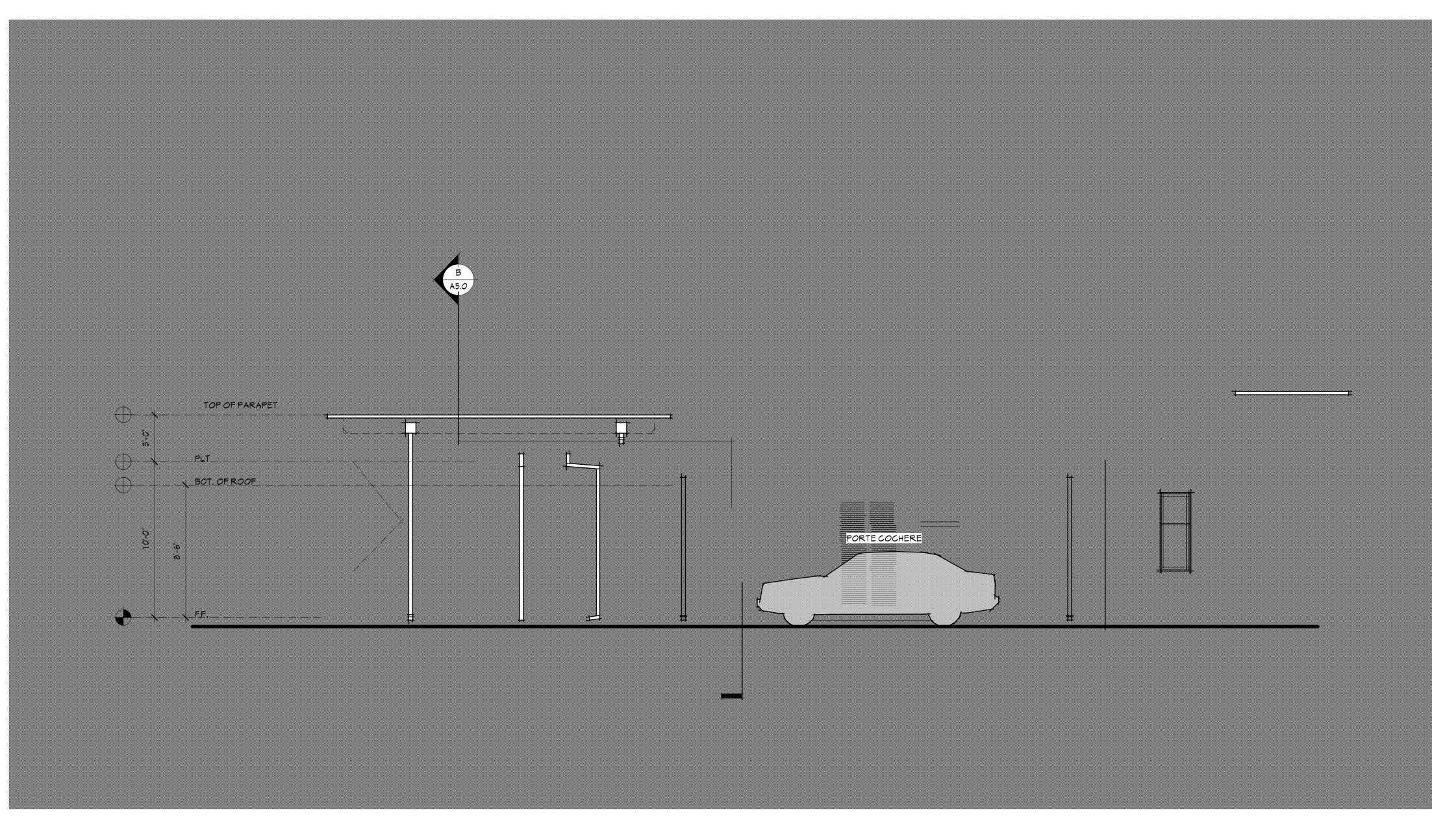
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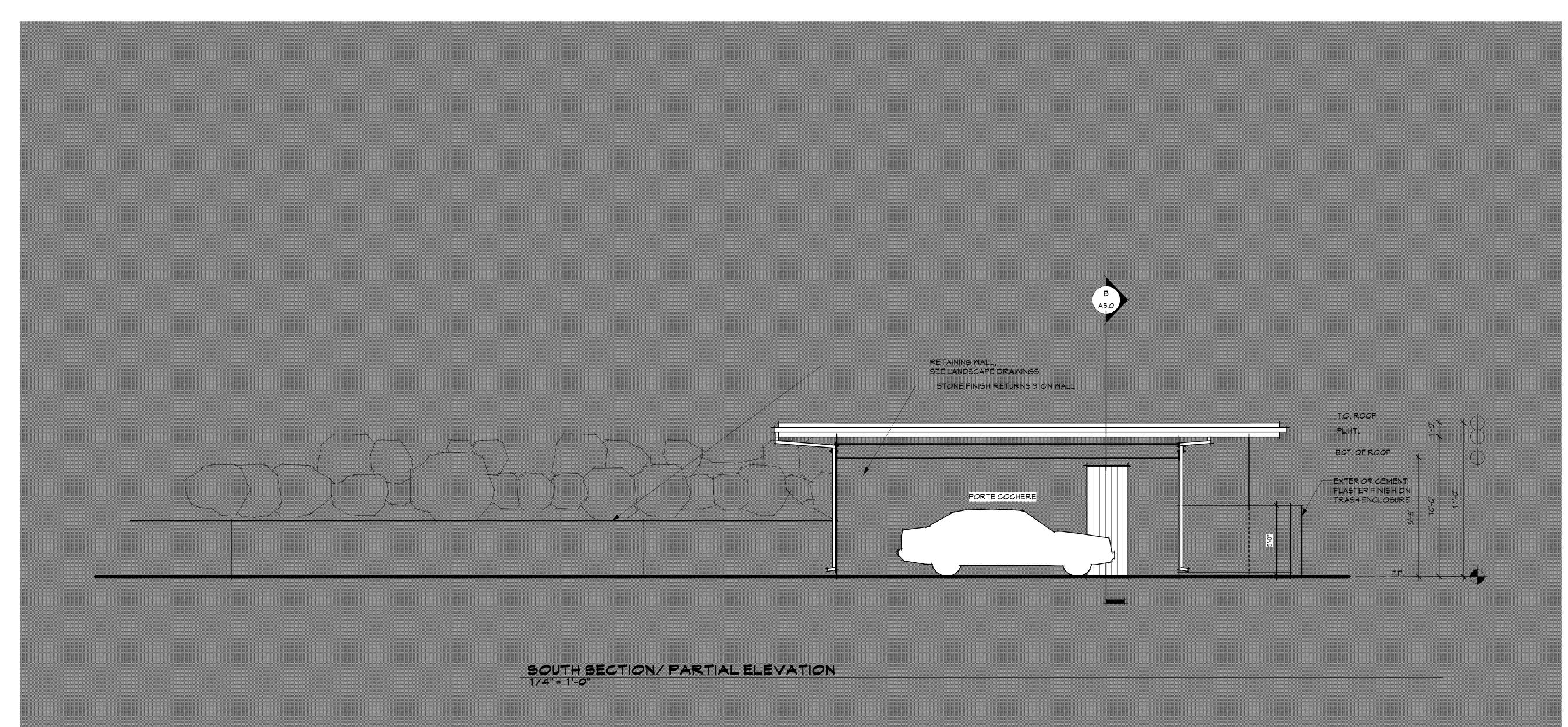


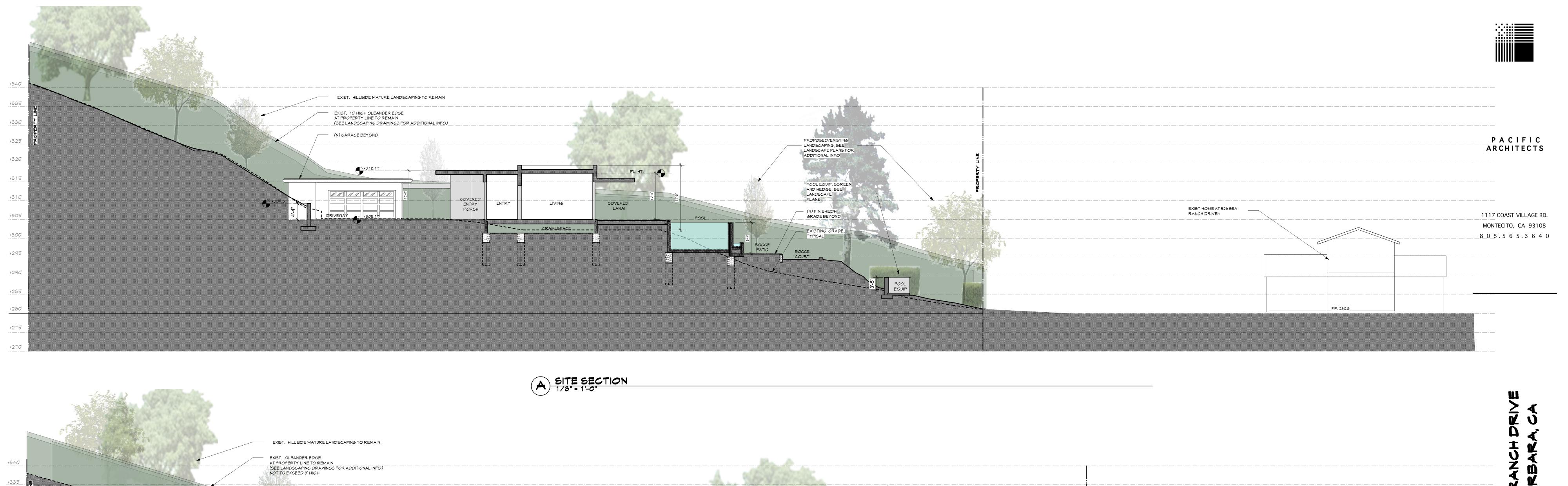
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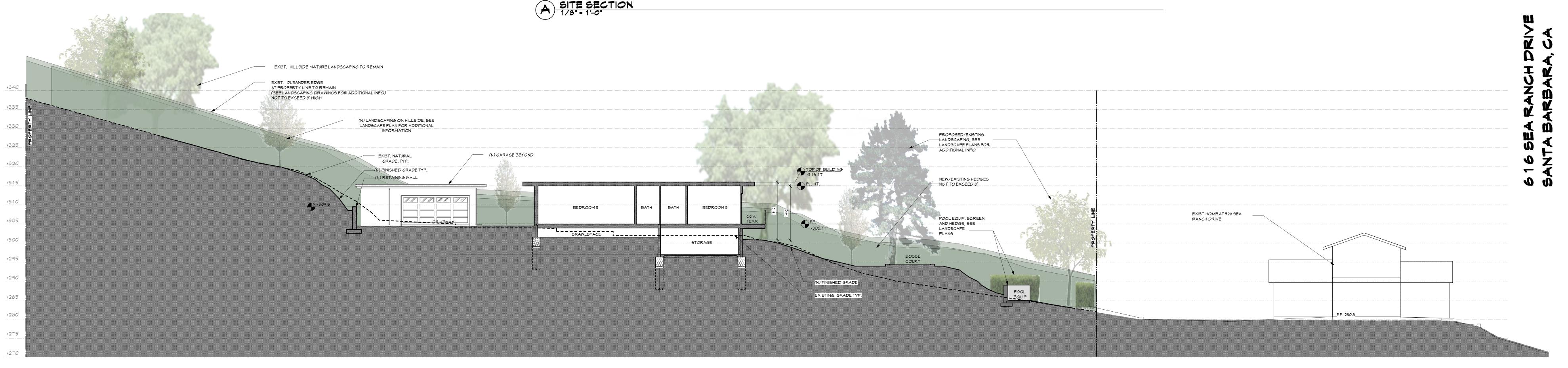
Date: **7.19.24**

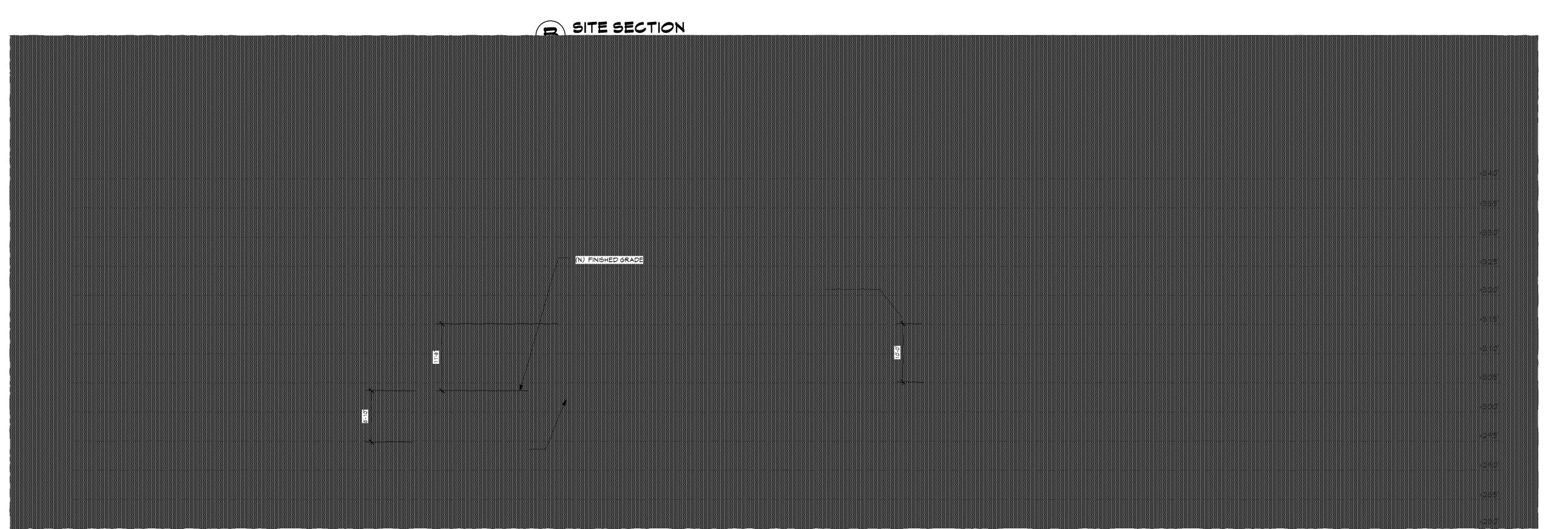






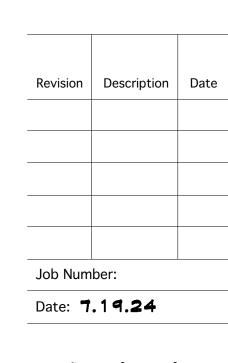








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USE IN CONNECTION WITH THE
SPECIFIED PROJECT. NONE OF
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PACIFIC ARCHITECTS.



A4.1

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

ROOF OVERHANG VARIES

3/4" EXT. GRADE PLYMD. SECURED TO

FLAT ROOF OVERHANG EDGE DETAIL (ROOF JOIST PERPENDICULAR TO WALL)

DBL. 2x TOP PLATE



USE IN CONNECTION WITH THE THE WRITTEN PERMISSION OF

SCALE:3"=1'-0"

1117 COAST VILLAGE RD.

MONTECITO, CA 93108
8 0 5 . 5 6 5 . 3 6 4 0

—PAINTED STEEL COLUMN

—PESTAL PAVING SYSTEM

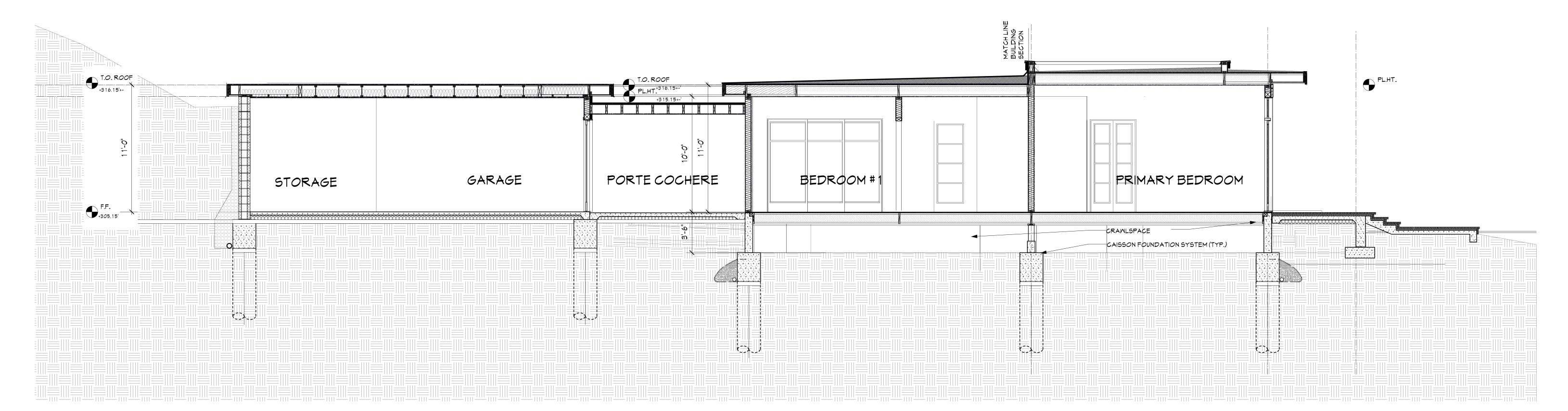
BUILDING SECTION

1/4" = 1'-0"

F.F. +305. 15'

GARAGE BEYOND

F.F. +309.5



—LOW SLOPE ROOF

ENTRY

—SKYLIGHTS (SEE PLANS FOR LOCATION) —STONE CLAD PARAPET

LIVING ROOM

---CAISSON FOUNDATION SYSTEM (TYP.)

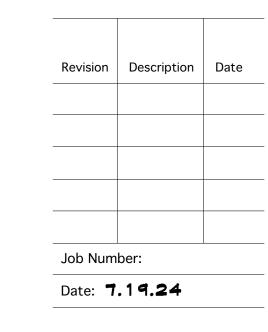
---CRAWLSPACE -

COV.

TERR



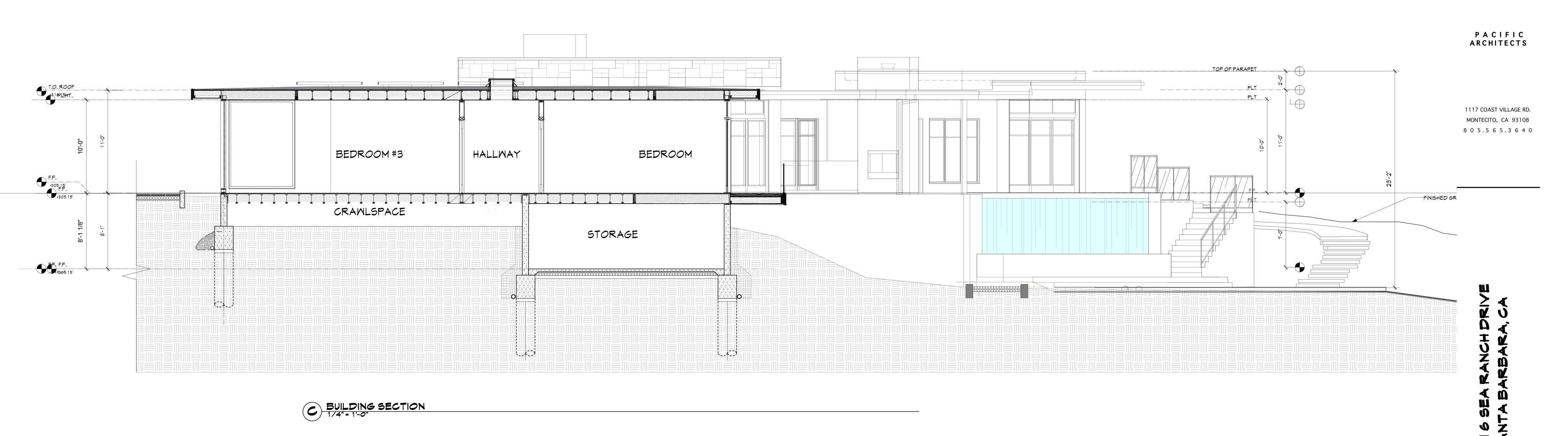
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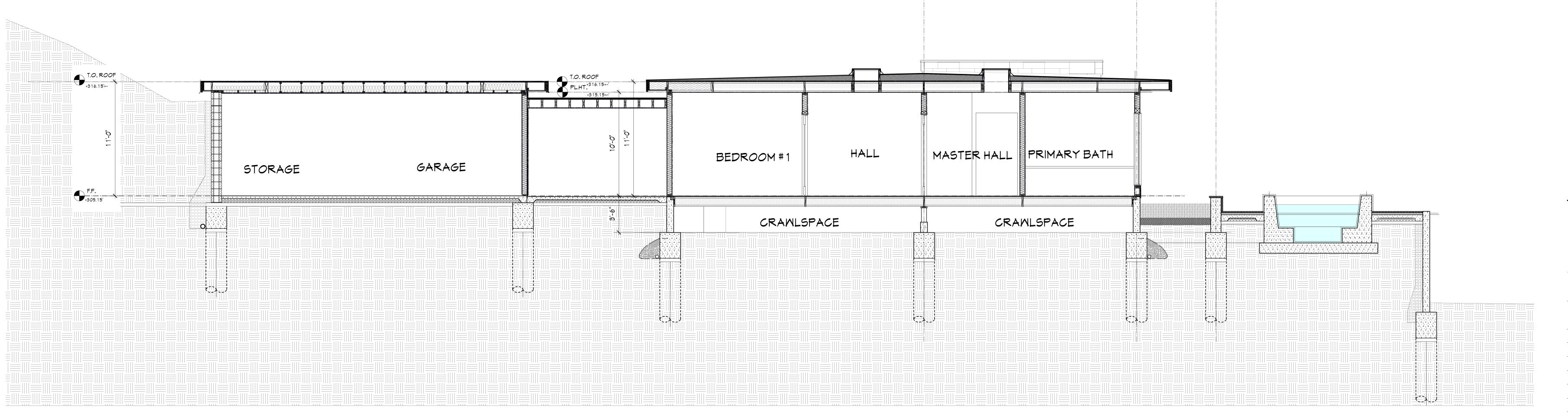


A5.0







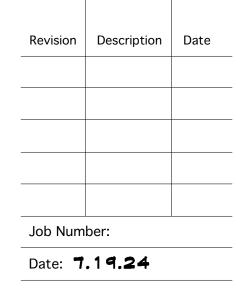


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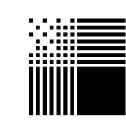
© 09-30RENEWAL DATE

OF CALLED

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ADHERED STONE VENEER DETAIL AT RAISED FLR. PERIMETER FOOTING (PERPENDICULAR TO JOIST)



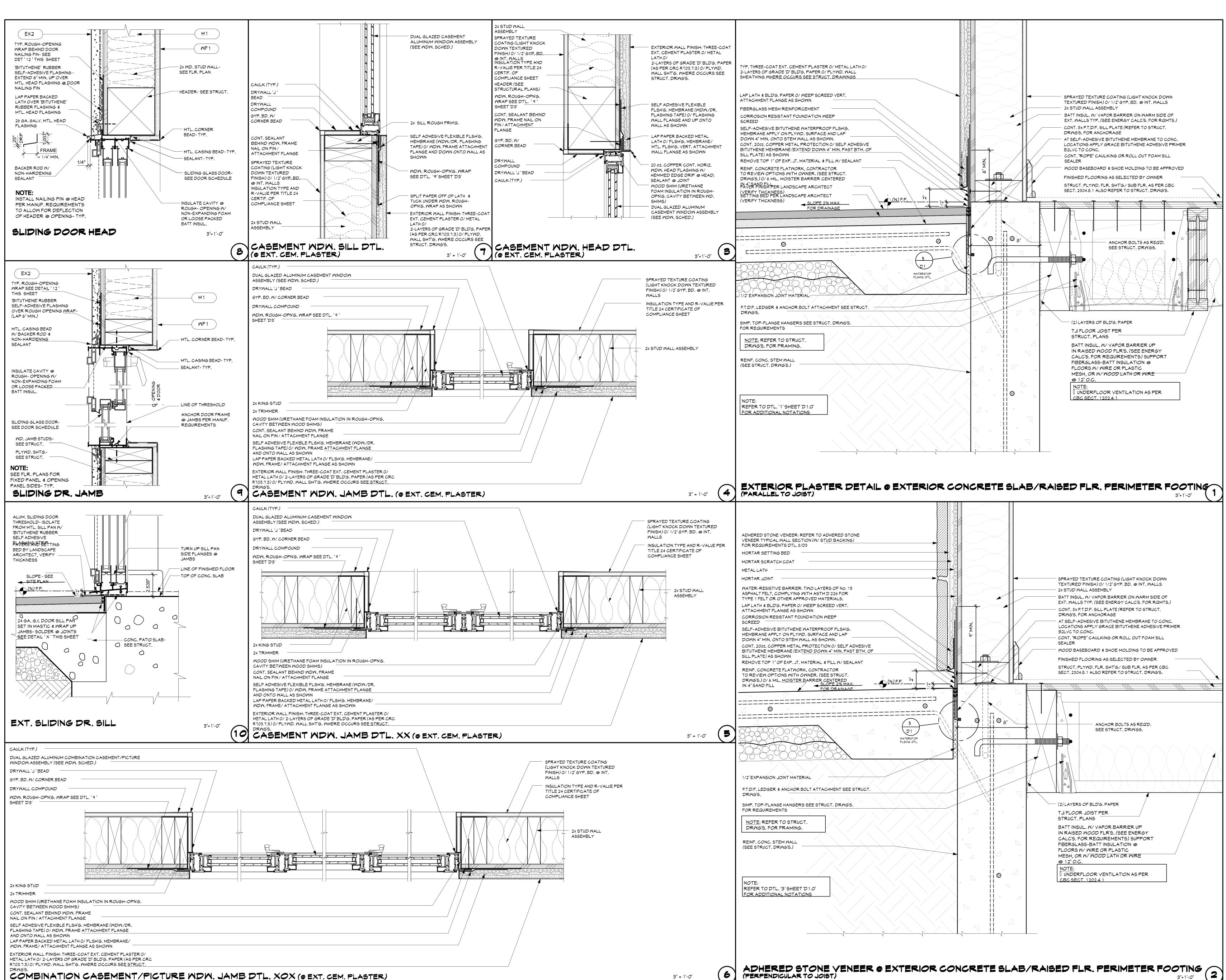
MONTECITO, CA 93108



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Revision Description Date

4) EXTERIOR PLASTER DETAIL AT RAISED FLR. PERIMETER FOOTING (PERPENDICULAR TO JOIST)



Job Number:

Date: **7.19.24**

D2

CASEMENT WDW. JAMB DTL. (AT ADHERED STONE VENEER)



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3" = 1'-0"

FIXED MDM. SILL DTL. (AT STONE VENEER)

ROOF OVERHANG VARIES

3/4" EXT. GRADE PLYMD. SECURED TO

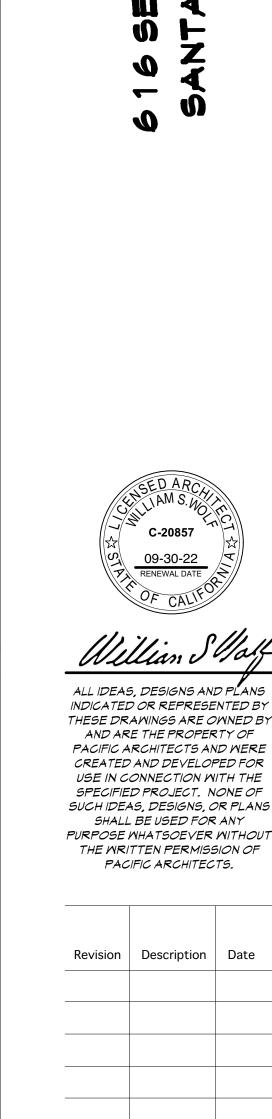
FLAT ROOF OVERHANG EDGE DETAIL (ROOF JOIST PERPENDICULAR TO WALL)

DBL. 2x TOP PLATE



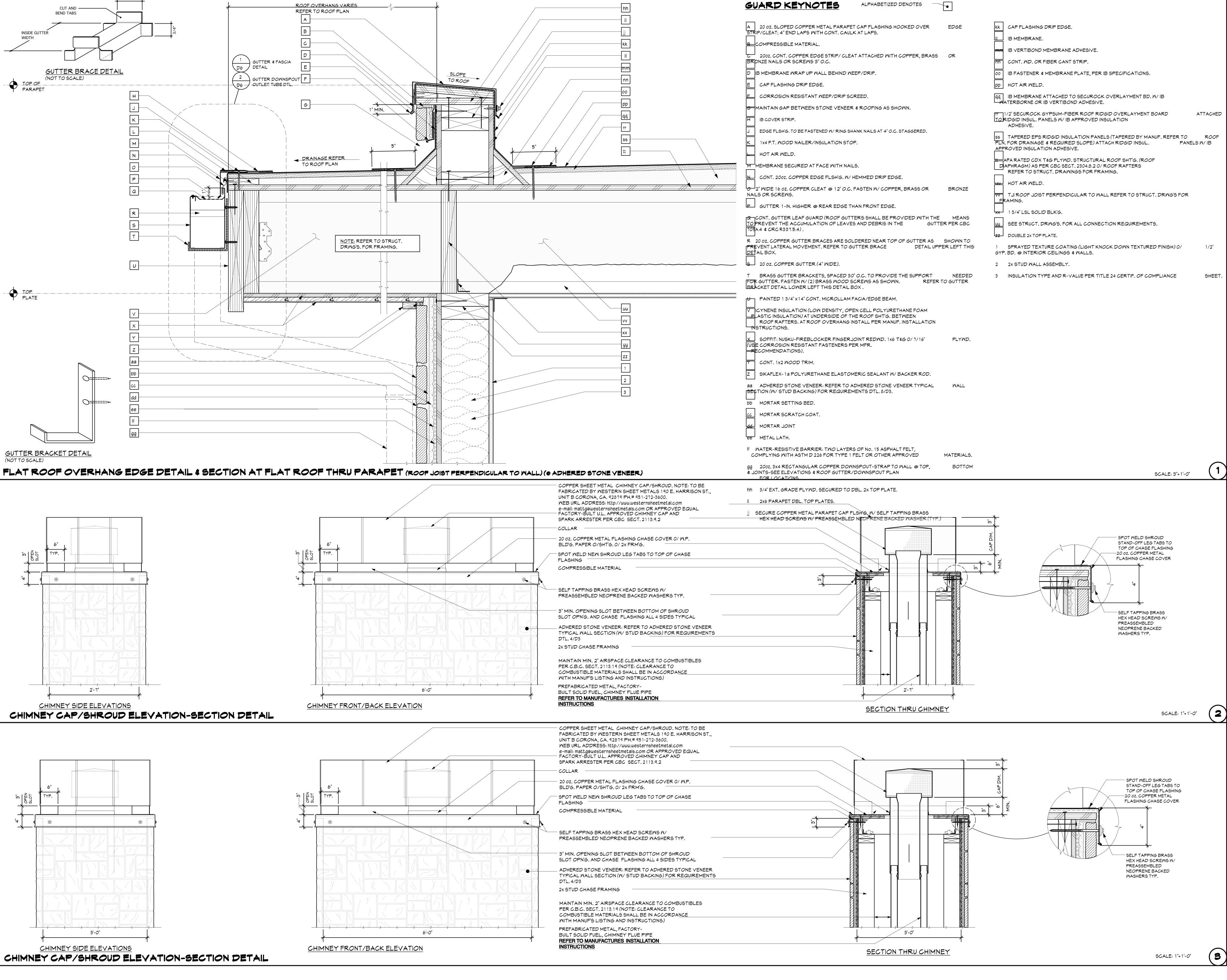
USE IN CONNECTION WITH THE THE WRITTEN PERMISSION OF

SCALE:3"=1'-0"



Job Number:

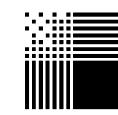
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ROOF OVERHANG VARIES

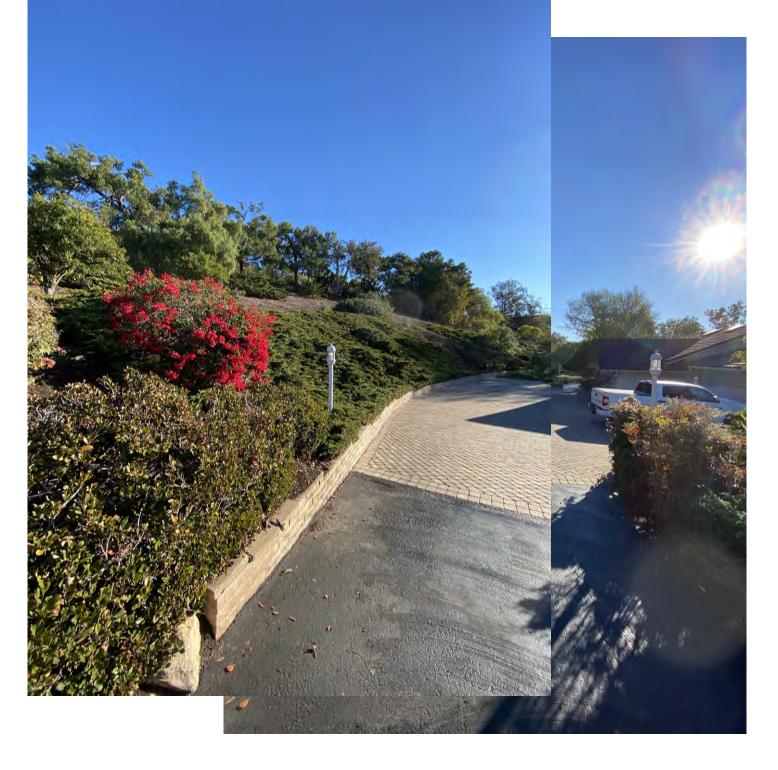
PACIFIC ARCHITECTS

1117 COAST VILLAGE RD. MONTECITO, CA 93108 8 0 5 . 5 6 5 . 3 6 4 0





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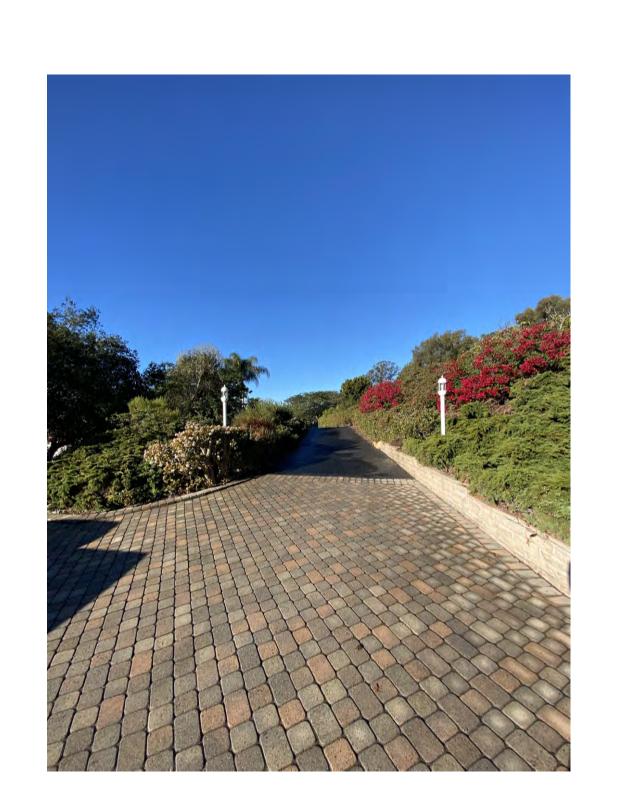


6 FRONT OF RESIDENCE/ NORTH ELEVATION



7 DRIVEWAY LOOKING WEST

8 DRIVEWAY ENTRY GATE



10 DRIVEWAY LOOKING WEST



9 SOUTH ELEVATION



1 1 SOUTHEAST ELEVATION



12 EAST ELEVATION



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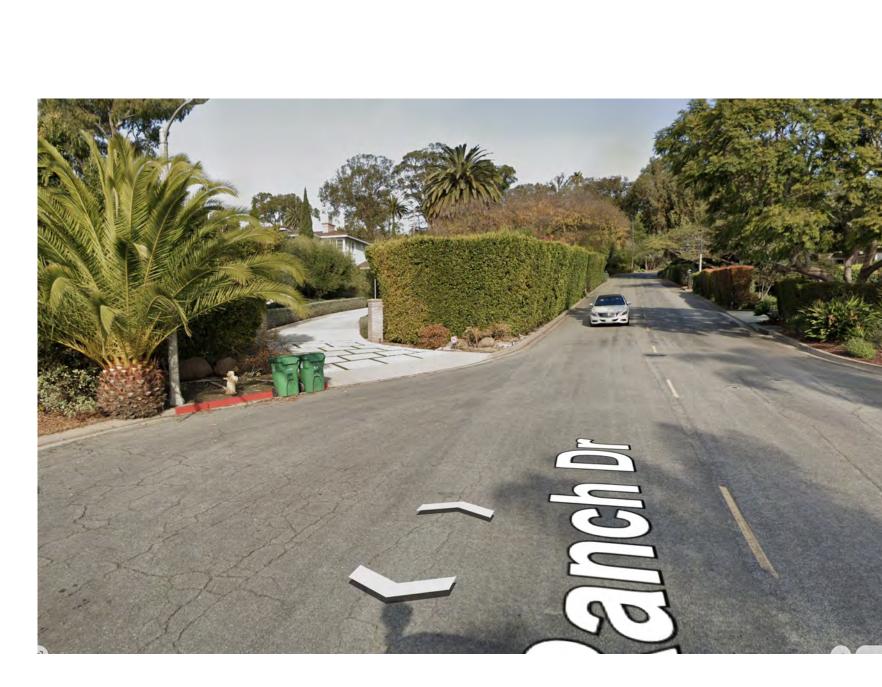
Revision	Description	Date			
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Job Number:					
Date: 01/25/24					



1117 COAST VILLAGE RD. MONTECITO, CA 93108

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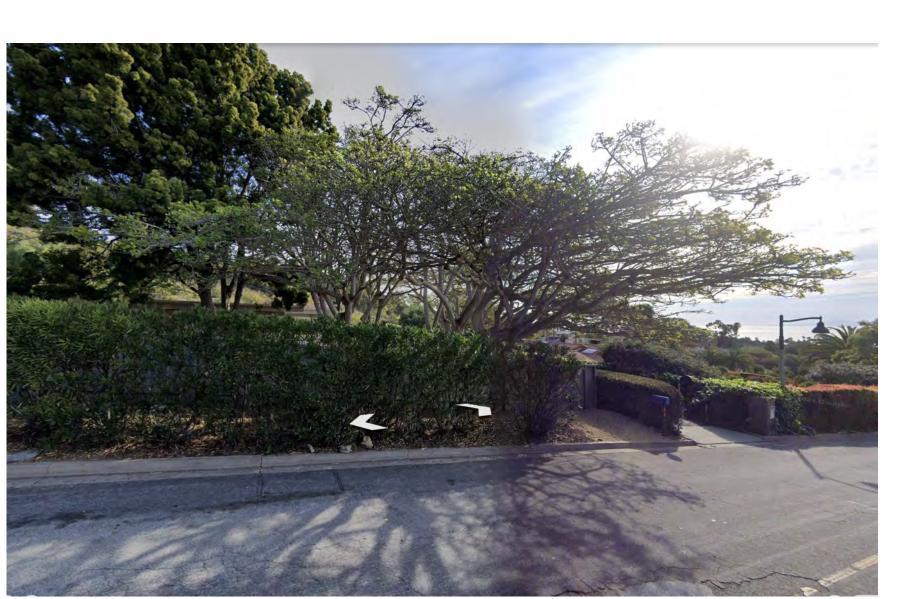


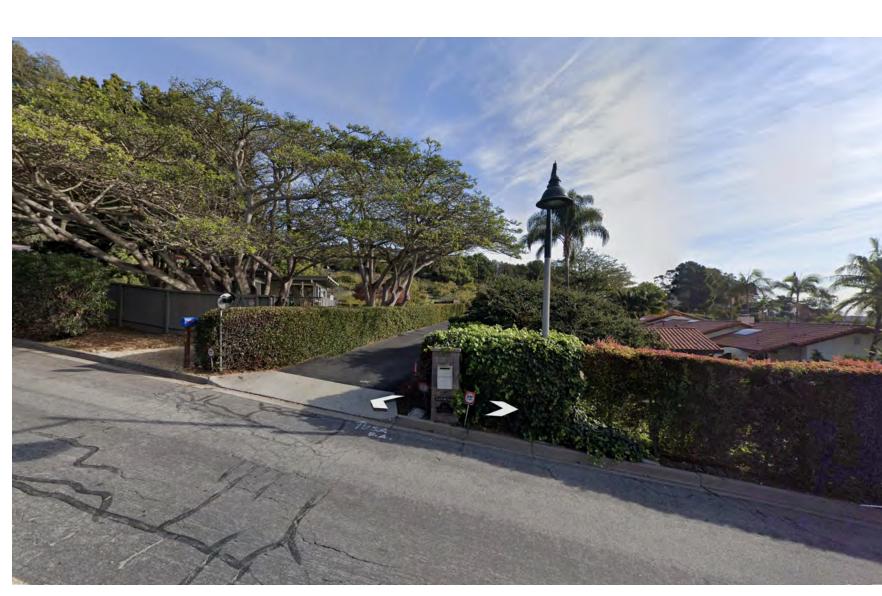


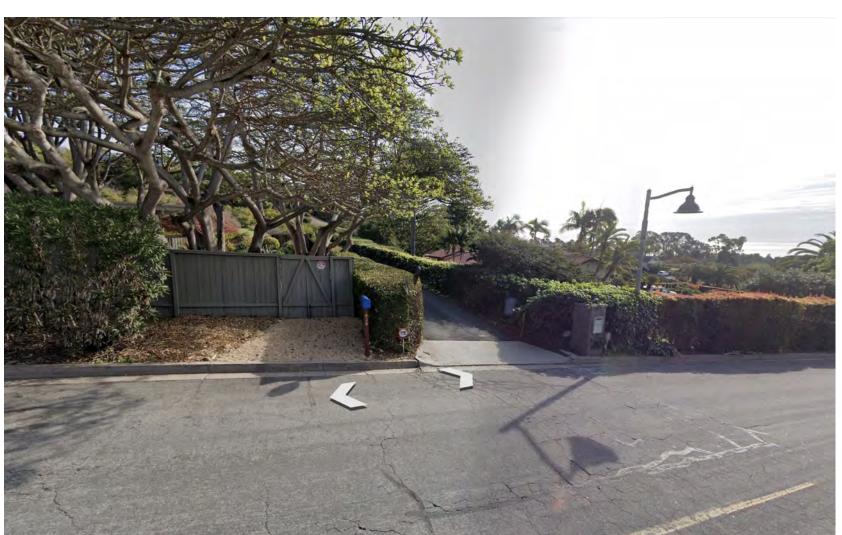


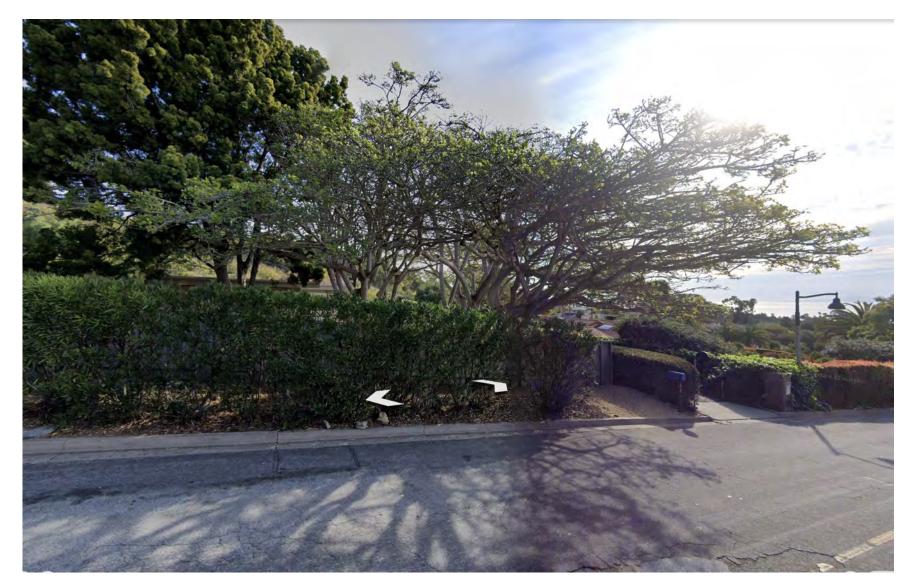














19 SOUTH OF DRIVEWAY ENTRY

14 SOUTH OF DRIVEWAY ENTRY

16 DRIVEWAY ENTRY SOUTH

10	NORTH OF DRIVEWAY ENTRY	
		_

RIVEWAY ENTRY NORTH	1 - DRIVEWAY ENTRY NORTH

VEIALA V ENTOV NAOTU

22 ACROSS FROM DRIVEWAY

15 SOUTH OF DRIVEWAY ENTRY

21 NEIGHBOR TO SOUTH WEST



20 NEIGHBOR TO NORTH WEST

	Revision	Description	Dat
-			
	Job Num	ber:	
	Date: 0)1/25/24	
		· ·	

Sheet	of	

GRADING & DRAINAGE PLANARKLEY / FIELDS RESIDENCE at

616 SEA RANCH DRIVE, SANTA BARBARA CA





92 Second Street, Suite F Buellton, CA 93427 Phone: (805) 688-5429 Fax: (805) 688-7239

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ABBREVIATIONS	PROJECT CONSULTANTS	SHEET INDEX	CITY OF SANTA BARBARA GRADING NOTES	projects without the writt of Braun & Associate
BR BOTTOM RISE CL CENTER LIN CMU CONCRETE MASONRY UN CN CLEANOL CO DOWN SPOL DI DROP INLE EG EXISTING GROUN EX EXISTING FCN FINISHED CONCRET FD FRENCH DRAI FF FINISH FLOO FG FINISH GRAD FL FLOWLIN FS FINISH SURFAC GB GRADE BREA GM GAS METE HPT HINGE POIN HP HIGH POIN LINV INVERT ELEVATIO LP LOW POIN MAX MAXIMUM N NEW OC ON CENTE PL PROPERTY LIN PP POWER POL PROP PROP PROP PROP PROP PROP PROPOSE RR REMOVE & RECOMPACE ROW RIGHT OF WAR	ARCHITECT PAGIFIC ARCHITECTS HAT COAST VILLAGE ROAD MONTECTTO, CA 8019 BB CIVIL ENGINEER BRAUN & ASSOCIATES P.O. 80 X 2004 BUELLTON, CA 8019 BB GEOTECHNICAL ENGINEER BRAUN & ASSOCIATES P.O. 80 X 2004 BUELLTON, CA 9827 SURVEYOR FROBER LAND SURVEYING AGE FLORA WITH DRIVE SANTA BARBARA, CA 93100 Step 1: Project Data Form Complete all fields. Project Name / Case File Number GEA RANCH RESIDENCE Application Submittal Date To be writted by manicipal smill Project Address if available, or intersection and/or APPN Name of Owner or Developar AND Project Type and Description Project Type and Description Plasmyles—Single Fundly Residence," "Parking Lot Addition," "Residence," "Parking Lot Addition, "Residence," "Parking Lot Addition, "Residence," "Parking Lot Addition, "Residenc	SHEET NO. SHEET TITLE REMARKS 1 C-0.0 COVER SHEET 2 C-0.1 GENERAL NOTES 3 C-1 GRADING PLAN 4 C-2 SITE SECTIONS AND DETAILS 5 C-3 DISANAGE PLAN 6 C-4 HYDROLOGY TOTALS 7 C-5 INFLITRATOR DETAILS 8 C-6 EROSION CONTROL BMPS 10 C-8 SITE SURVEY 10 TOTAL SHEETS Santa Berbara Garden Mission Caryon Mission	1. ALL GRADING AND EROSION CONTROL SHALL CONFORM THE PROJECT CONDITIONS OF APPROVAL AND SHALL BE PERFORMED IN ACCORDANCE WITH THESE APPROVED PLANS AND THE APPLICABLE PROVISIONS OF CHAPTER 2204 OF THE CITY OF SANTA BARBARA MUNICIPAL CODE. ANY DEVATION FROM THESE PLANS WILL REQUIRE THE PRIDR APPROVAL FROM THE OWNER. THE CITY BUILDING OFFICIAL. THE CITY IS ENGINEER AND OTHER APPROPRIATE PUBLIC AGENCIES. 2. ALL GRADING SHALL ALSO BE IN COMPORMANCE WITH THE SPECIFIC RECOMMENDATIONS AND STANDARD GRADING SPECIFICATIONS CONTAINED IN THE SOILS ENGINEER OR FOR TREFERENCED BELOW. 10. 3380 PREPARED BY. BRAIN. OR 2331 MAILING ADDRESS. P.D. 80X 2004, BUELLTON, CA 9247. PHONE NUMBER (805) 688-5429 3. GRADING SHALL ALSO BE IN CONFORMANCE WITH RECOMMENDATIONS MADE BY THE SOILS ENGINEER DURING OBSERVATION AND TESTING OF SITE PREPARATION, GRADING SHALL ALSO BE IN CONFORMANCE WITH RECOMMENDATIONS MADE BY THE SOILS ENGINEER DURING OBSERVATION AND TESTING OF SITE PREPARATION, GRADING SHALL NOT COMMENCE PRIOR TO THE ISSUANCE OF A GRADING PERMIT BY THE CITY BUILDING OFFICIAL. 5. ALL GRADING SHALL BE OSSERVED AND TESTED FOR COMPLIANCE WITH APPLICABLE PLANS AND CITY REQUIREMENTS BY THE SOILS ENGINEER WITH INTERIM AND FINAL COMPLIANCE REPORTS PURISHED TO THE CITY BUILDING OFFICIAL. 7. CONTINUOUS DUST CONTROL SHALL BE CONDUCTED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY ALL LABOR EQUIPMENT, AND METHODS REQUIRED TO PREVENT GRADING OFFICATION, AND DAMAGE CAUSED BY DUST FROM GRADING OFFICATIONS GO CONSTRUCTION WORK) IS PROHIBITED MONDAY THROUGH FRIDAY BEFORE 800 AM AND AFTER SOOPM, AND DAMAGE CAUSED BY DUST FROM GRADING OFFICATION FROM PROPIERTY CULTURATED VISCETATION, AND DAMAGE CAUSED BY DUST FROM GRADING OFFICATION FROM PROPIERTY BY SURCH FACILITIES SHALL BE RESPONSIBILITY TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION AT 1800-4224133. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION AT 1800-4224133. IT IS THE C	JENCE
SB SET BAC SD STORM DRAI TB TRUST BLOC TBR TO BE REMOVE TC TOP OF CUR TG TOP OF GRAT TR TOP RISE TW TOP OF WAL TYP TYPICA UD UNDERGROUND DRAI VAL WM WATER METE	Total New Impervious Surface Area (square feet) [Sum of currently pervious areas that will be covered with new impervious surfaces] Total Replaced Impervious Surface Area [Sum of currently impervious areas that will be covered with new impervious surfaces.] Total Pre-Project Impervious Surface Area 8,965 SF Total Post-Project Impervious Surface Area 10,153 SF	Leadbetter B WEST-MESA VICINITY MAP NTS Elings Park Atta MESA Leadbetter B Shoreline Pa	EARTHWORK QUANTITIES	ARKLEY/FIELDS RESIDI 616 SEA RANCH DRIVE SANTA BARBARA, CA 93105
	3. Cisterns or Rain Barrels 4. Bioretention Facility or Planter Box Tier 1 SCP Template February 2014 Page 2 of 9 Stormwater Technical Guide GENERAL NOTES	SOIL TESTING REQUIREMENTS NOTES: 1. ON SITE TECHNICIAN WILL BE PROVIDED FOR MONITORING FOR 75% TIME OF THE GRADING ACTIVITY. 2. CONFIRM COMPACTION OF 90% - 95% MAXIMUM DENSITY ASTM D-1557 CURRENT EDITION. 3. PROVIDE 1 TEST FOR EACH 500 CY OF FILL TO BE PLACED. 4. PERIODIC AND CONTINUOUS INSPECTIONS WILL BE REQUIRED FOR KEYWAY, BENCHES AND FILL BY SOILS ENGINEER, GEOTECHNICAL ENGINEER OR GEOLOGIST OF RECORD.	CUT:	PROJECT OWNER: PROJECT ADDRESS:
811 Under ground Service Alert of Southern California Call: TOLL FREE 1-800-422-4133	1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE COUNTY OF SANTA BARBARA STANDARD REQUIREMENTS FOR THE DESIGN AND CONSTRUCTION OF SUBDIVISIONS AND SPECIAL DEVELOPMENTS, AS APPLICABLE. 2. APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. 3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A GRADING PERMIT AND AN ENCROACHMENT PERMIT FROM THE COUNTY ENGINEERING DIVISION PRIOR TO ANY CONSTRUCTION ACTIVITY. 4. TRAFFIC CONTROL SHALL BE MAINTAINED IN CONFORMANCE WITH THE CURRENT WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH) PUBLISHED BY BUILDING NEWS, INC. 3055 OVERLAND AVENUE, LOS ANGELES, CA 90034, (213) 202-7775.	CTODES WATER REALS CERSENT	BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES: 1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND. 2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. 3. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.	Draftsman: SH Engineer: M.D.I Description
TWO WORKING DAYS BEFORE YOU DIG ALL UTILITY LOCATIONS ARE APPROXIMAT CONTRACTOR SHALL NOTIFY UNDERGROUS SERVICE ALERT, 2 WORKING DAYS PRIOR STARTING ANY EXCAVATION OR RESURFA	TE ENGINEER, AND OTHER APPROPRIATE PUBLIC AGENCIES. UND TO 6. ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREIN HAVE BEEN ESTABLISHED BY FIELD SURVEY, OR OBTAINED FROM	STORM WATER RUNOFF IS TO BE CAPTURED INTO STORM DRAIN SYSTEM, DIRECTED AWAY FROM STRUCTURES AND DISCHARGED INTO INFILTRATION CHAMBERS. OVERFLOW IS TO STREET WHERE POSSIBLE AND BIO-SWALE DISPERSION TRENCH TO HISTORIC WATERSHED WHERE NOT POSSIBLE. WATER QUALITY ENHANCEMENT IS VIA INFILTRATION CHAMBERS AND MULCH AND SAND MEDIA FILTRATION IN PROPOSED BIO-SWALE. INFILTRATION IS TO BE ACHIEVED BY UTILIZING INFILTRATION CHAMBERS. IMPERMEABLE SURFACES ARE TO BE MINIMIZED WHEREVER POSSIBLE. FINISH GRADES AROUND ALL STRUCTURES ARE TO BE A MINIMUM OF 8° BELOW WOOD-FRAMING AND SLOPE AWAY FROM STRUCTURES AT 5% FOR A MINIMUM OF 10ft. (6° DROP) AT SOIL CONDITIONS AND 2° BELOW AND 2% SLOPE	4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS, SUCH AS CONCRETE WASHOUT BASINS, MUST BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE., CONTRACTOR TO DESIGNATE THE LOCATION OF THE BASIN. 5. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND. 6. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM TO THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITION MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS. 7. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO MINIMIZE EROSION BY WIND AND WATER."	6-10-2 3380 Date

OVERFLOW RUNOFF IS TO BE DIRECTED TO PUBLIC STREET WHERE FEASIBLE AND TO HISTORICAL PATH WHERE NOT

FROM STRUCTURES AT 5% FOR A MINIMUM OF 10ft. (6" DROP) AT SOIL CONDITIONS AND 2" BELOW AND 2% SLOPE

AWAY FROM STRUCTURE AT PAVED CONDITIONS.

U.U

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE COUNTY OF SANTA BARBARA AND THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE.
- 2. IN THE EVENT OF A CONFLICT BETWEEN ANY REFERENCED STANDARD, THE MORE STRINGENT
- 3. STORMWATER POLLUTION PREVENTION REQUIREMENTS PER COUNTY OF SANTA BARBARA AND 4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN
- 5. BEFORE BEGINNING WORK. CONTRACTOR SHALL CONFIRM WITH AGENCIES HAVING JURISDICTION THAT ALL REQUIRED PERMITS AND LICENSES HAVE BEEN OBTAINED AND ALL REQUIRED NOTICES
- 6. UNDERGROUND AND OVERHEAD CONSTRUCTION IN ADDITION TO WHAT IS SHOWN ON THESE PLANS
- MAY BE PART OF THIS PROJECT, INCLUDING ARCHITECTURAL AND LANDSCAPE ARCHITECTURAL IMPROVEMENTS. ADDITIONAL PERMITS MAY BE REQUIRED. A. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK AND INTERFACING
- IMPROVEMENTS WITH WORK BY OTHER CONTRACTORS AT THIS JOB SITE AND WITH IMPROVEMENTS REQUIRED BY PLANS BY OTHERS.
- C. CONTRACTOR SHALL REFER TO ARCHITECTURAL AND LANDSCAPE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR SITE DEVELOPMENT CONSTRUCTION DETAILS AND DIMENSIONING, INCLUDING 6. ALL FILL MATERIAL, WHETHER EXCAVATED ON-SITE OR IMPORTED FROM OFF-SITE, SHALL BE TESTED

B. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR BUILDING AND SITE LAYOUT

- THOSE FOR BUILDINGS, PATIOS, WALKWAYS, DRIVEWAYS, WALLS/FENCES, PLUMBING, ELECTRICAL, UTILITIES, LANDSCAPING, AND IRRIGATION.
- 7. ALL SITE WORK AND TESTING SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS CONTAINED IN THE FOLLOWING GEOTECHNICAL ENGINEERING REPORT FOR THIS PROJECT:
- A. PREPARED BY: BRAUN & ASSOCIATES, INC., W.O. #3380, DATE: OCTOBER 5, 2022 B. THIS REPORT AND ANY ADDENDA SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT IN THEIR ENTIRETY HEREON IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE APPLICABLE GEOTECHNICAL REPORTS. CONTRACTOR SHALL CONTACT THE
- GEOTECHNICAL ENGINEER TO OBTAIN OR REVIEW COPIES OF THESE REPORTS AND ADDENDA. C. PRIOR TO BIDDING, CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO DETERMINE THE LOCATION AND DEPTH OF ALL TEST BORINGS AND EXPLORATORY PITS AND EXCAVATIONS. CONTRACTOR SHALL DETERMINE FROM THE GEOTECHNICAL ENGINEER WHAT REMEDIAL WORK IS RECOMMENDED TO MAKE THESE DISTURBED LOCATIONS SUITABLE FOR THE PROPOSED IMPROVEMENTS, CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS FOR THE RECOMMENDED REMEDIAL WORK AND SHALL ADJUST HIS OPERATIONS TO PROPERLY SEQUENCE THE WORK TO
- 8. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE HEALTH AND OF CAL-OSHA AND OSHA.

ACCOMMODATE REMEDIAL WORK WITH CONSTRUCTION OF PROPOSED IMPROVEMENTS.

- 9. ALL UNSUITABLE CONSTRUCTION MATERIALS AND RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE; TRANSPORTED TO A SUITABLE LOCATION, AND DISPOSED OF IN A PROPER AND LEGAL
- 10. ALL WORK INVOLVING EXCAVATION, INCLUDING THAT FOR WATER, SEWER, STORM DRAIN AND UTILITY CONDUITS AND ALL SERVICE CONNECTIONS AND METER BOXES (NOT PERMITTED IN DRIVEWAYS) SHALL BE COMPLETED AND OBSERVED AND APPROVED BY THE AGENCY HAVING JURISDICTION AND THE STRUCTURAL BACKFILL OBSERVED AND TESTED FOR COMPACTION AND APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE AGGREGATE BASE, PAVING AND OTHER PERMANENT SURFACE CONSTRUCTION MAY COMMENCE.
- 11. BEFORE COMMENCING EXCAVATION, CONTRACTOR SHALL CONTACT PUBLIC WORKS AND UTILITY COMPANIES OR OTHER OWNERS OF SUBSURFACE FACILITIES WITHIN THE WORK SITE AND SHALL VERIFY WHETHER OR NOT A REPRESENTATIVE WILL BE PRESENT BEFORE AND/OR DURING EXCAVATION, AND SHALL DETERMINE SITE SPECIFIC REQUIREMENTS FOR EXCAVATION.
- 12. CONTRACTOR SHALL NOTIFY PUBLIC WORKS, BUILDING AND SAFETY, UTILITY COMPANIES, GEOTECHNICAL ENGINEER, AND ENGINEER OF RECORD, AT LEAST 48 HOURS BEFORE START OF ANY CONSTRUCTION AND OF THE TIME AND LOCATION OF PRE-CONSTRUCTION CONFERENCE, AND SHALL DETERMINE FROM EACH PARTY THEIR SCOPE OF WORK TO BE OBSERVED AND BY WHOM AND SCOPE OF TESTING. DURING THE COURSE OF WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR OBSERVATION AND TESTING AS STIPULATED PURSUANT TO ABOVE DETERMINATIONS. WORK NOT OBSERVED AND TESTED WILL BE SUBJECT TO REJECTION.
- 13. CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SUCH SHEETING, SHORING, BRACING, AND/OR OTHER PROTECTION AS IS NECESSARY TO PREVENT FAILURE OF TEMPORARY EXCAVATIONS AND EMBANKMENTS AND TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TEMPORARY IMPROVEMENTS, AND PARTIALLY COMPLETED PORTIONS OF THE WORK, CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SUFFICIENCY OF SUCH SUPPORTS AND/OR OTHER PROTECTION PER ALL REQUIREMENTS OF CAL-OSHA AND OSHA.
- 14. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION BY TELEPHONE AND IN WRITING UPON DISCOVERY OF, AND BEFORE DISTURBING ANY PHYSICAL CONDITIONS DIFFERING FROM THOSE REPRESENTED BY APPROVED PLANS AND
- 15. CONTRACTOR SHALL MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES OF CONSTRUCTION FROM THAT SHOWN ON THESE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR CONSTRUCTION OF RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION, UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL DELIVER THIS RECORD OF ALL CONSTRUCTION CHANGES TO ENGINEER ALONG WITH A LETTER WHICH DECLARES THAT, OTHER THAN THESE NOTED CHANGES. "THE PROJECT WAS CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS." WARNING: ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY PREPARER.
- 16. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR FURTHER AGREES O DEFEND. INDEMNIFY AND HOLD DESIGN PROFESSIONALS HARMLESS FROM ALL LIABILITY AND CLAIMS REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT AND ACCEPTS LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.
- 17. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL AND SAFETY AND SHALL FURNISH. INSTALL, AND MAINTAIN SUCH FENCING, SIGNS, LIGHTS, TRENCH PLATES, BARRICADES, AND/OR OTHER PROTECTION AS IS NECESSARY FOR SAID CONTROL AND
- 18. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY AT OR IN THE VICINITY OF THE JOB SITE AND FURTHER AGREES TO. AT CONTRACTOR'S EXPENSE, REPAIR OR REPLACE TO ORIGINAL CONDITION, ALL EXISTING IMPROVEMENTS WITHIN OR IN THE VICINITY OF THE JOB SITE WHICH ARE NOT DESIGNATED FOR REMOVAL AND WHICH ARE DAMAGED OR REMOVED AS A RESULT OF CONTRACTOR'S OPERATIONS.

GENERAL GRADING NOTES:

- 1. GRADING SHALL BE IN CONFORMANCE WITH RECOMMENDATIONS MADE BY THE GEOTECHNICAL ENGINEER DURING OBSERVATION AND TESTING OF SITE DEMOLITION, PREPARATION, GRADING, AND DEVELOPMENT WORK FOR ANY CONFLICT BETWEEN THESE PLANS AND THE RECOMMENDATIONS AND/OR SPECIFICATIONS OF THE GEOTECHNICAL ENGINEER, THE MORE STRINGENT PROVISION
- 2. AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION (EXCEPT TREES INDICATED TO REMAIN). INCLUDING ROOTS AND ROOT STRUCTURES. OTHER ORGANIC MATERIAL. DEBRIS NON-COMPLYING FILL, AND OTHER MATERIAL UNSUITABLE FOR SUPPORT OF FILL AND/OR PROPOSED IMPROVEMENTS, AS RECOMMENDED BY AND UNDER THE OBSERVATION AND TESTING OF THE GEOTECHNICAL ENGINEER. CALL THE INSPECTOR FOR INITIAL INSPECTION.
- 3. ALL UNSUITABLE SOIL MATERIALS AND RUBBISH AND DEBRIS RESULTING FROM DEMOLITION AND GRADING OPERATIONS SHALL BE REMOVED FROM THE JOB SITE; TRANSPORTED TO A SUITABLE LOCATION AND DISPOSED OF IN A PROPER AND LEGAL MANNER
- 4. AREAS TO RECEIVE FILL MATERIAL AND AREAS TO RECEIVE BUILDINGS, EXTERIOR SLABS, WALKWAYS, WALLS, PAVEMENT AND OTHER STRUCTURAL IMPROVEMENTS SHALL BE PREPARED AS RECOMMENDED BY AND UNDER THE OBSERVATION AND TESTING OF THE GEOTECHNICAL ENGINEER. RECOMMENDATIONS FOR OVER EXCAVATION, ADDITIONAL SCARIFICATION, BACKFILL AND RECOMPACTION ARE CONTAINED IN THE PROJECT GEOTECHNICAL REPORT REFERENCED IN THE GENERAL NOTES ON THESE PLANS.
- 5. PRIOR TO PLACEMENT OF FILL AND BACKFILL MATERIAL, THE PREPARED AREA SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR. THE GEOTECHNICAL ENGINEER SHALL ALSO OBSERVE THE AREAS TO BE FILLED. ALLOW A MINIMUM 48-HOUR NOTICE. FILL AND BACKFILL PLACED ON THE PREPARED AREA WITHOUT THE REQUIRED OBSERVATION SHALL BE REMOVED.
- AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. IMPORTED FILL MATERIAL SHALL BE EQUAL TO OR BETTER IN QUALITY THAN THE ON-SITE SOILS AND SHALL CONFORM TO THE RECOMMENDATION OF THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL TEST AND APPROVE THE SOIL PROPOSED FOR IMPORT FOR STRUCTURAL FILL PRIOR TO IMPORTATION TO THE SITE. THE LANDSCAPE ARCHITECT AND THE GEOTECHNICAL ENGINEER SHALL TEST AND APPROVE THE SOIL PROPOSED FOR IMPORT FOR LANDSCAPE AREA SURFACE MATERIAL PRIOR TO
- 7. CONTRACTOR SHALL REFER TO THE FOLLOWING AS APPLICABLE: - ARCHITECT'S PLANS FOR ADDITIONAL GRADING REQUIREMENTS IN BUILDING AREAS. · LANDSCAPE ARCHITECT'S PLANS FOR TREE PRESERVATION REQUIREMENTS AND FOR SUBGRADE ALLOWANCES IN LANDSCAPE AREAS. - PUBLIC IMPROVEMENT PLANS FOR INTERFACING WITH PUBLIC GRADING, PAVING, STORM DRAINAGE AND UTILITY IMPROVEMENTS.
- 8. WHERE PLANTER AREAS ARE SHOWN ON THE PLANS ADJACENT TO BUILDINGS AND ARE CONTAINED BY WALKS / FLATWORK LESS THAN 8" BELOW BOTTOM OF SILL PLATE OR WHERE ADJACENT FINISH GRADE OUTSIDE A BUILDING IS SHOWN TO BE LESS THAN 8" BELOW BOTTOM OF SILL PLATE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT BUILDING PLANS CALL FOR APPROPRIATE DAMPPROOF OR WATERPROOF CONSTRUCTION AND IS CONSTRUCTED IN ACCORDANCE WITH ALL

 4. WHERE GUTTER GRADIENT IS LESS THAN 1.0%, FORM ELEVATIONS SHALL BE CONFIRMED BY BUILDING APPLICABLE CODE REQUIREMENTS.
- SAFETY LAWS, ORDINANCES, REGULATIONS, RULES, AND STANDARDS INCLUDING ALL REQUIREMENTS 9. PLAN ELEVATIONS SHOWN ON SOIL AND LANDSCAPED AREAS ARE FINISH GRADE (FINISH SURFACE) ELEVATIONS INTENDED TO ESTABLISH SURFACE DRAINAGE CONTROL FOR THESE AREAS. DURING GRADING OPERATIONS, THICKNESSES (SUBGRADE ALLOWANCES) SPECIFIED BY LANDSCAPE ARCHITECT FOR TURF, WOOD CHIPS, MULCH, ETC. SHALL BE SUBTRACTED FROM THESE ELEVATIONS 6 TO ESTABLISH FINISH SUBGRADE.
 - 10. BEFORE PLACEMENT OF AGGREGATE BASE OR SUBBASE MATERIAL IN PAVEMENT AREAS, THE SUBGRADE SOIL SHALL BE REVIEWED AND TESTED BY THE GEOTECHNICAL ENGINEER. DURING PAVING OPERATIONS, STRUCTURAL SECTION COMPACTION SHALL BE OBSERVED AND TESTED BY THE GEOTECHNICAL ENGINEER.
 - 11. QUALITY REVIEW AND REPORTING REQUIREMENTS.
 - A. GRADING AND IMPROVEMENTS FOUND NOT IN CONFORMANCE WITH APPROVED PLANS AND DESIGN INTENT SHALL BE CORRECTED BY CONTRACTOR AT CONTRACTOR'S EXPENSE. ADDITIONAL SURVEYING TO CONFIRM ELEVATIONS AFTER CORRECTIVE MEASURES SHALL ALSO BE AT CONTRACTOR'S EXPENSE.
 - DIRT: NOT LESS THAN 2% (1/4" PER FOOT) SLOPE IN DIRECTION OF SURFACE DRAINAGE AND 0.10 FOOT MAXIMUM DEVIATION FROM DESIGN ELEVATION AT ANY LOCATION

REQUIREMENTS FOR VARIOUS SURFACING CONDITIONS ARE AS FOLLOWS:

- A.C. PAVEMENT: NOT LESS THAN 1% (1/8 INCH PER FOOT) SLOPE IN DIRECTION OF SURFACE DRAINAGE AND 0.04 FOOT MAXIMUM DEVIATION FROM DESIGN ELEVATION AT ANY LOCATION
- · CONCRETE: NOT LESS THAN 0.5% (1/16 INCH PER FOOT) SLOPE IN DIRECTION OF SURFACE DRAINAGE AND 0.02 FOOT MAXIMUM DEVIATION FROM DESIGN ELEVATION AT ANY LOCATION UNLESS NOTED OTHERWISE ON PLANS

- 1. ALL TRENCHING, BEDDING AND BACKFILL MATERIAL AND CONSTRUCTION, SHALL BE IN ACCORDANCE WITH THESE PLANS INCLUDING THE PIPE TRENCH DETAIL.
- 2. TRENCH OR STRUCTURE EXCAVATION SUBGRADE SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BEDDING MATERIAL OR FORMS. WET OR UNSTABLE SOIL ENCOUNTERED IN THE BOTTOM OF THE EXCAVATION AND DEEMED BY THE GEOTECHNICAL ENGINEER 13. JOINTS IN CURBS, GUTTERS AND WALKS TO BE INCAPABLE OF PROPERLY SUPPORTING THE PIPE OR STRUCTURE BEING CONSTRUCTED. SHALL BE REMOVED TO THE DEPTH RECOMMENDED BY THE GEOTECHNICAL ENGINEER AND THE EXCAVATION BACKFILLED TO THE BOTTOM OF THE PIPE OR STRUCTURE GRADE WITH SUITABLE MATERIAL RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- 3. WATER ENCOUNTERED IN TRENCH OR STRUCTURE EXCAVATION SHALL BE REMOVED BY THE CONTRACTOR TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER TO PROVIDE DRY CONDITIONS DURING CONSTRUCTION OF PIPE OR STRUCTURE.
- 4. BEDDING AND BACKFILL MATERIAL AND COMPACTED DENSITY, SHALL BE TESTED FOR COMPLIANCE WITH APPLICABLE REQUIREMENTS BY THE GEOTECHNICAL ENGINEER.
- 5. BEDDING AND PIPE ZONE BACKFILL MATERIAL, SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DENSITY. TRENCH BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 90% OF MAXIMUM DENSITY THE UPPER 12" BELOW THE BASE OR SUB-BASE COURSE IN PAVED AND OTHER TRAFFIC AREAS AND BELOW THE CONCRETE OR SAND COURSE IN WALKWAY AREAS SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DENSITY. BACKFILL COMPACTION SHALL BE TESTED FOR COMPLIANCE WITH THESE REQUIREMENTS IN ACCORDANCE WITH ASTM D-1557, LATEST REVISION, AND REPORTED BY THE GEOTECHNICAL ENGINEER.
- 6. CLASS I OR CLASS II (TRENCH) BACKFILL SHALL NOT BE PLACED UNTIL BEDDING AND INITIAL (PIPE ZONE) BACKFILL HAVE BEEN OBSERVED, TESTED AND APPROVED.
- 7. COMPACTION BY FLOODING OR JETTING IS NOT PERMITTED. 8. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT(S), THE PROJECT WORK AREA AND
- VICINITY AND SHALL FAMILIARIZE HIMSELF WITH THE WORK AREA CONDITIONS. CONTRACTOR SHALL MAKE HIS OWN DEDUCTIONS AND CONCLUSIONS AS TO HOW EXISTING SURFACE AND SUB-SURFACE CONDITIONS WILL AFFECT OR BE AFFECTED BY HIS CONSTRUCTION OPERATIONS, INCLUDING THE NATURE OF MATERIALS TO BE EXCAVATED. THE DEGREE OF DIFFICULTY ASSOCIATED WITH MAKING

 14. ALL EXISTING AND PROPOSED VALVE AND UTILITY BOXES AND MANHOLE FRAMES AND COVERS AND MAINTAINING THE REQUIRED EXCAVATIONS, AND THE DEGREE OF DIFFICULTY WHICH MAY ARISE SHALL BE ADJUSTED TO FINISH GRADE. FROM SUBSURFACE CONDITIONS INCLUDING GROUNDWATER, AND SHALL ACCEPT FULL RESPONSIBILITY THEREOF.
- 9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT THE INTEGRITY OF EXISTING PAVEMENT ALONG AND BEHIND THE TRENCH SAWCUT LINES DURING CONSTRUCTION IF THIS PAVEMENT IS BROKEN-OFF OR OTHERWISE DAMAGED BEFORE NEW PAVEMENT IS PLACED. CONTRACTOR SHALL SAWCUT A NEW CONFORM LINE PARALLEL WITH, FULL LENGTH OF, AND SUFFICIENT DISTANCE (1-FOOT MINIMUM) BEHIND ORIGINAL SAWCUT SO AS TO REMOVE DAMAGED PAVEMENT AND / OR IRREGULARITY ALONG THE CONFORM LINE.

DEMOLITION NOTES:

- 1. THE EXISTENCE AND APPROXIMATE LOCATIONS OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY THE AVAILABLE RECORDS PROVIDED. THE CIVIL ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR LITHITY OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO WORK OR POTHOLE TO DETERMINE THE EXACT LOCATIONS OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OR PROTECTION OF ALL EXISTING UTILITY LINES.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF THE SITE AND SHALL REMOVE AND DISPOSE OF ALL STRUCTURES ABOVE AND OR BELOW GROUND UNLESS NOTED OTHERWISE. ANY HAZARDOUS MATERIALS ENCOUNTERED SHALL BE HANDLED AND REMOVED AS REQUIRED BY LOCAL AND/OR STATE LAWS AT NO COST TO THE OWNER.
- 3. THE CONTRACTOR SHALL EXERCISE DUE CARE TO AVOID DAMAGE TO EXISTING HARDSCAPE IMPROVEMENTS, UTILITY FACILITIES, AND LANDSCAPING FEATURES THAT ARE NOT AFFECTED BY
- 4. ALL JOIN LINES SHALL BE SAWCUT ON A NEAT, STRAIGHT LINE PARALLEL WITH THE JOIN. THE CUT EDGE SHALL BE PROTECTED FROM CRUSHING, AND ALL BROKEN EDGES SHALL BE RE-CUT PRIOR TO

5. ALL EXISTING OBJECTIONABLE MATERIALS THAT CONFLICT WITH PROPOSED IMPROVEMENTS

INCLUDING, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, UTILITIES, APPURTENANCES, TREES,

- SIGNS. STRUCTURES. ETC. SHALL BE REMOVED AND DISPOSED BY THE CONTRACTOR AT NO COST TO THE OWNER, UNLESS NOTED OTHERWISE HEREIN, OR AS DIRECTED BY THE CONSTRUCTION 6. THE CONTRACTOR SHALL PROTECT ALL EXISTING STREETS FROM DAMAGES CAUSED BY HIS OPERATIONS. ANY CURBS DAMAGED DURING HIS OPERATIONS SHALL BE SAWCUT AND REPLACED A
- NO COST TO THE OWNER. ANY EXISTING PAVING IDENTIFIED AS POTENTIALLY NEEDING TO BE REPLACED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- 7. THE CONTRACTOR SHALL PERFORM AND BE RESPONSIBLE FOR ALL CLEARING AND GRUBBING OPERATIONS AS NECESSARY TO COMPLETE THE WORK, INCLUDING TRANSPORTATION AND DISPOSAL OF ALL REMOVED MATERIALS, AND ALL ASSOCIATED COSTS.

CONCRETE PAVEMENT AND APPURTENANT CONCRETE NOTES:

JOINTS IN CONCRETE PAVEMENT

- 1. UNLESS MODIFIED OR OTHERWISE SPECIFIED BY THE CONSTRUCTION NOTES THAT FOLLOW HEREON INCLUDING THOSE UNDER SEPARATE HEADINGS, PRIVATE ROADWAY MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS NSTRUCTION (SSPWC), CURRENT EDITION PER LOCATION COMPACTION OF FILL, SUBGRADE AND BASE COURSES AS WELL AS ALL TRENCH BEDDING AND
- THE GEOTECHNICAL ENGINEER 3. CONCRETE FOR DRIVEWAYS, DRAINAGE STRUCTURES, AND PAVEMENT SHALL BE CLASS 560-A-3250. LICENSED LAND SURVEYOR PRIOR TO POURING CONCRETE.
- REINFORCING STEEL SHALL BE GRADE 60 BILLET STEEL CONFORMING TO ASTM A 615. STEEL BENDING PROCESS SHALL CONFORM TO THE REQUIREMENTS OF MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING STEEL INSTITUTE. BENDING OR STRAIGHTENING SHALL BE ACCOMPLISHED SO THAT THE STEEL WILL NOT BE DAMAGED. KINKED BARS SHALL NOT BE USED.

BACKFILL SHALL BE OBSERVED AND TESTED FOR COMPLIANCE WITH APPLICABLE REQUIREMENTS BY

- A. WEAKENED PLANE CRACK CONTROL (CONTRACTION) JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10-FEET EACH WAY (LONGITUDINAL AND TRANSVERSE) AND AT ADDITIONAL LOCATIONS AS MAY BE CALLED FOR IN THE FIELD. JOINTS SHALL BE CONSTRUCTED PER SUBSECTION 303-5.4.2 OF THE SSPWC AS MODIFIED BY THE PLAN DETAILS AND THESE NOTES. REINFORCEMENT SHALL BE CONTINUOUS THROUGH JOINTS. DEPTH OF JOINTS SHALL BE 1/4 SLAB THICKNESS + 1/2-INCH (I.E., 2-INCHES FOR 6-INCH SLAB). JOINTS SHALL BE CONSTRUCTED BY SAWCUTTING GROOVES AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT RAVELING (USUALLY 4 TO 24 HOURS AFTER PLACEMENT). JOINTS SHALL BE FILLED WITH JOINT SEALANT (SIKAFLEX-2CNS OR EQUIVALENT, COLOR LIMESTONE GRAY) AS SOON AFTER COMPLETION OF THE CURING PERIOD AS IS FEASIBLE AND BEFORE PAVEMENT IS OPENED TO TRAFFIC. JOINTS SHALL BE CLEANED OF ALL FOREIGN MATERIAL
- INCLUDING MEMBRANE CURING COMPOUNDS. AND SHALL BE SURFACE-DRY WHEN SEALANT IS INSTALLED. JOINT LOCATIONS SHALL BE ADJUSTED AS NECESSARY TO ALIGN WITH THOSE ALREADY CONSTRUCTED IN EXISTING ADJACENT (CONTIGUOUS) FEATURES SUCH AS CURBS AND GUTTERS, ALONG CURVES, TRANSVERSE JOINTS SHALL BE RADIAL EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS CALLED FOR ON THE PLANS. JOINTS SHALL BE CONSTRUCTED PER SUBSECTION 303-5.4.2 AS MODIFIED BY THE PLAN DETAILS AND THESE NOTES. JOINTS SHALL BE CONSTRUCTED 1/2-INCH WIDE USING ONE PIECE OF PREFORMED. JOINT FILLER INSTALLED FROM BOTTOM OF SLAB TO WITHIN 1" OF CONCRETE SURFACE. THE RESULTING RESERVOIR SHALL BE FILLED WITH JOINT SEALANT TO WITHIN 1/4" OF CONCRETE
- SURFACE AS SOON AFTER COMPLETION OF THE CURING PERIOD AS IS FEASIBLE AND BEFORE PAVEMENT IS OPENED TO TRAFFIC. JOINTS SHALL BE CLEANED OF ALL FOREIGN MATERIAL, INCLUDING MEMBRANE CURING COMPOUND, AND SHALL BE SURFACE-DRY WHEN SEALANT IS INSTALLED. REINFORCING BARS SHALL BE INTERRUPTED 3 INCHES CLEAR OF EXPANSION JOINTS AND MINIMI IM 14-INCH LONG SMOOTH DOWELS INSTALLED ACROSS, AND CENTERED ON, THE JOINT DOWEL DIAMETER SHALL BE 1/8 SLAB THICKNESS (I.E., 1" FOR 8" SLAB, 3/4" FOR 6" SLAB). ONE-HALF (ONE END) OF THE DOWEL SHALL BE INSTALLED WITHIN A "SPEED DOWEL" TUBE WITH A 1-INCH GA BETWEEN THE END OF THE DOWEL AND THE SEALED END OF THE TUBE. DOWELS SHALL BE INSTALLED AT 12 INCHES ON CENTER HORIZONTALLY, CENTERED IN THE SLAB VERTICALLY, AND A MINIMUM OF 3 INCHES CLEAR OF ANY REBAR. JOINT LOCATIONS SHALL BE ADJUSTED AS

NECESSARY TO ALIGN WITH THOSE ALREADY CONSTRUCTED IN EXISTING ADJACENT (CONTIGUOUS)

FEATURES SUCH AS CURBS AND GUTTERS. ALONG CURVES, TRANSVERSE JOINTS SHALL BE

- A. TRANSVERSE WEAKENED PLANE CRACK CONTROL JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS NOT EXCEEDING 10-FEET. DIRECTLY ABOVE DRAIN PIPES THAT OUTLET THROUGH CURB AND AT ADDITIONAL LOCATIONS AS MAY BE CALLED FOR ON THE PLANS, JOINTS SHALL BE
- CONSTRUCTED PER SUBSECTION 303-5 4 3 PARAGRAPH B OF THE SSPWC AS MODIFIED BY THE PLAN DETAILS AND THESE NOTES. REINFORCEMENT SHALL BE CONTINUOUS THROUGH JOINTS. JOINT LOCATIONS SHALL BE ADJUSTED AS NECESSARY TO ALIGN WITH THOSE ALREADY CONSTRUCTED IN EXISTING ADJACENT (CONTIGUOUS) FEATURES. ALONG CURVES AND WALK RETURNS, JOINTS SHALL BE RADIAL.
- B. TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT BCR, ECR, AND AT REGULAR INTERVALS NOT EXCEEDING 30-FEET; ALONG EDGES OF DRIVEWAYS, WHEELCHAIR RAMPS, AND FIXED OBJECTS AND STRUCTURES (FIRE HYDRANT, LIGHT STANDARD, UTILITY POLE, DRAIN INLET, MANHOLE OR VALVE COVER, SCREEN/RETAINING WALL, BUILDING WALL, ETC.); AT ADDITIONAL LOCATIONS AS MAY BE CALLED FOR ON THE PLANS. EXPANSION JOINTS SHALL NOT BE CONSTRUCTED IN CROSS OR VALLEY GUTTER WHICH IS SEPARATE FROM CURB. JOINTS SHALL BE
- CONSTRUCTED PER SUBSECTION 303-5.4.2 OF THE SSPWC AS MODIFIED BY THE PLAN DETAILS AND THESE NOTES JOINTS SHALL BE CONSTRUCTED 3/8-INCH WIDE USING ONE PIECE OF PREFORMED. JOINT FILLER INSTALLED FORM BOTTOM OF SLAB TO WITHIN 1-INCH OF CONCRETE SURFACE. THE RESULTING RESERVOIR SHALL BE FILLED WITH JOINT SEALANT TO WITHIN 1/4-INCH OF CONCRETE SURFACE AS SOON AFTER COMPLETION OF THE CURING PERIOD AS IS POSSIBLE. JOINTS SHALL BE CLEANED OF ALL FOREIGN MATERIAL, INCLUDING MEMBRANE CURING COMPOUNDS, AND SHALL BE SURFACE-DRY WHEN SEALANT IS INSTALLED. LONGITUDINAL REINFORCING BARS SHALL BE INTERRUPTED 3 INCHES CLEAR OF EXPANSION JOINTS AND MINIMUM 14-INCH LONG #5 SMOOTH DOWELS INSTALLED ACROSS, AND CENTERED ON, THE JOINT, ONE-HALF (ONE END) OF THE DOWEL SHALL BE INSTALLED WITHIN A "SPEED DOWEL" TUBE WITH A 1-INCH GAP BETWEEN THE END OF THE DOWEL AND THE SEALED END OF THE TUBE. DOWELS SHALL BE CENTERED VERTICALLY IN THE CONCRETE AND A MINIMUM OF 3 INCHES CLEAR HORIZONTALLY OF ANY REBAR. JOINT LOCATIONS SHALL BE ADJUSTED AS NECESSARY TO ALIGN WITH THOSE ALREADY CONSTRUCTED IN EXISTING
- 15. AFTER CONSTRUCTION OF CONCRETE PAVEMENT AND APPURTENANT CONCRETE FEATURES, A FLOOD TEST SHALL BE CONDUCTED TO REVIEW SURFACE DRAINAGE, AS FOLLOWS: A. WATER SHALL BE SUPPLIED AND DISCHARGED IN SUFFICIENT QUANTITY TO COMPLETELY WET
- AND COVER ALL PAVEMENT AND CONCRETE GUTTER AREAS; THE OUTLINE LIMITS OF RESIDUAL STANDING/PONDED WATER SHALL THEN BE MARKED CONCRETE IMPROVEMENTS SHALL BE REMOVED AND REPLACED, AT NO ADDITIONAL COST TO THE OWNER. AS NECESSARY TO PROVIDE POSITIVE SURFACE DRAINAGE AND TO PREVENT PONDING OF WATER ON PAVEMENT SURFACES AND IN GUTTERS

SAWCUT SO AS TO REMOVE DAMAGED PAVEMENT AND/OR IRREGULARITY ALONG THE CONFORM

ADJACENT (CONTIGUOUS) FEATURES. ALONG CURVES AND THROUGH WALK RETURNS, JOINTS

 ADDITIONAL FLOOD TESTING SHALL BE CONDUCTED TO CONFIRM SUCCESS OF CORRECTIVE MEASURES. D. WHERE SAWCUT LINE IS CONSTRUCTED ALONG CONFORM LINE WITH EXISTING A.C. PAVEMENT, IT IS CONTRACTOR'S RESPONSIBILITY TO PROTECT THE INTEGRITY OF THE PAVEMENT ALONG AND BEHIND THE SAWCUT LINE DURING CONSTRUCTION; IF THIS PAVEMENT IS BROKEN-OFF OR OTHERWISE DAMAGED BEFORE NEW PAVEMENT IS PLACED, CONTRACTOR SHALL SAWCUT A NEW CONFORM LINE PARALLEL WITH, FULL LENGTH OF, AND SUFFICIENT DISTANCE BEHIND ORIGINAL

THIS DRAWING IS PROVIDED IN AN ELECTRONIC FORMAT AS A COURTESY, IF REQUESTED BY THE USER. THE DELIVERY OF THE ELECTRONIC FILE DOES NOT CONSTITUTE THE DELIVERY OF OUR PROFESSIONAL WORK PRODUCT. THE SIGNED HARD COPY PREPARED FOR THE PROJECT CONSTITUTES OUR PROFESSIONAL WORK PRODUCT AND THE HARD COPY MUST BE REFERRED TO FOR THE CORRECT DESIGN INFORMATION. THESE PLANS HAVE BEEN PREPARED SOLELY FOR USE FOR THE PROJECT SCOPE AND SITE SPECIFICALLY IDENTIFIED HEREON AT THE TIME THESE PLANS ARE SIGNED. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, USE OF ANY PART OF THESE PLANS, INCLUDING ANY NOTE OR DETAIL, FOR ANY UNAPPROVED OR REVISED PROJECT SCOPE, OR FOR ANY OTHER PROJECT AT THIS OR ANY OTHER SITE. USER AGREES TO INDEMNIFY AND

HOLD HARMLESS ASHLEY & VANCE FOR ALL COSTS AND DAMAGES IF USED.

USE OF ELECTRONIC INFORMATION:

ELECTRONIC INFORMATION MAY BE PROVIDED BY THE ENGINEER FOR CONVENIENCE; UNDER NO CIRCUMSTANCES SHALL DELIVERY OF ELECTRONIC FILES FOR USE BY OTHERS BE DEEMED A SALE BY THE ENGINEER AND THE ENGINEER MAKES NO WARRANTIES. EITHER EXPRESS OR IMPLIED. OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL THE ENGINEER BE LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES AS A RESULT OF THE USE OR REUSE OF THE ELECTRONIC FILES BY OTHERS.

ELECTRONIC INFORMATION IS INTENDED TO PROVIDE INFORMATION SUPPLEMENTAL AND SUBORDINATE TO THE CONSTRUCTION CONTRACT DOCUMENTS. LAYOUT AND CONSTRUCTION OF PROJECT ELEMENTS. SHALL BE BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS WHICH SHALL CONTROL OVER ELECTRONIC INFORMATION. USER IS RESPONSIBLE FOR CONFIRMING LOCATION OF PROPOSED IMPROVEMENTS BASED ON DIMENSIONS AND INFORMATION INCLUDED ON THE CONSTRUCTION CONTRACT DOCUMENTS: NCONSISTENCIES BETWEEN THE ELECTRONIC INFORMATION AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION.

PROJECT ELEMENTS SUCH AS MANHOLES, CATCH BASINS, UTILITY VAULTS, VALVE ASSEMBLIES, STAIRS, RAMPS, WALLS, ETC. ARE SHOWN SCHEMATICALLY IN THE ELECTRONIC INFORMATION AND CONSTRUCTION OF THESE ELEMENTS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION NOTES AND DETAILS PRESENTED OR REFERENCED IN THE SIGNED AND SEALED CONSTRUCTION CONTACT DOCUMENTS, IMPROVEMENTS CONSTRUCTED BASED ON ELECTRONIC INFORMATION AND IN CONFLICT WITH THE DRAWING DIMENSIONS DETAILS, AND THE CONSTRUCTION CONTRACT DOCUMENTS SHALL BE REMOVED AND CONSTRUCTED IN THE PROPER LOCATION AND DIMENSIONS AT CONTRACTOR'S SOLE

DIGITAL DRAWINGS ARE TYPICALLY A COMPILATION OF DRAWINGS FROM A NUMBER OF SOURCES AND. AS SUCH, THERE IS INFORMATION IN THE ELECTRONIC FILE ISSUED BY THE ENGINEER THAT WAS NOT DEVELOPED BY THE ENGINEER AND IS NOT AUTHORIZED BY THE ENGINEER FOR USE BY OTHERS. ELECTRONIC INFORMATION PROVIDED BY THE ENGINEER SHALL ONLY BE APPLICABLE FOR IMPROVEMENTS DESIGNED BY THE ENGINEER AND WHICH ARE SPECIFICALLY DESIGNATED BY CONSTRUCTION NOTES AND/OR DETAILS ON THE SIGNED AND SEALED CONTRACT DOCUMENTS.

IF DIGITAL FILES ARE OBTAINED WITH THE INTENT TO USE THEM FOR PROJECT STAKING, THEY SHALL ONLY BE USED BY A QUALIFIED ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA. DIGITAL INFORMATION SHALL ONLY BE USED FOR STAKING HORIZONTAL LOCATION OF PROPOSED IMPROVEMENTS AFTER IT HAS BEEN CONFIRMED WITH THE SIGNED AND SEALED CONSTRUCTION CONTRACT DOCUMENTS.

GRADING OPERATIONS WITHOUT STAKING BY ENGINEER OR LAND SURVEYOR. THE INTERSECTION OF PROPOSED CUT AND FILL SLOPES WITH EXISTING GRADE IS APPROXIMATE WHERE SHOWN ON THE DRAWINGS AND SHALL BE CONFIRMED BY FIELD STAKING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT SLOPES IN CONFORMANCE WITH THE SPECIFIED AND DETAILED REQUIREMENTS CONTAINED IN THE CONTRACT DOCUMENTS.

THE DIGITAL DRAWINGS ARE NOT INTENDED TO BE USED DIRECTLY FOR CONTROL OF CONTRACTOR'S



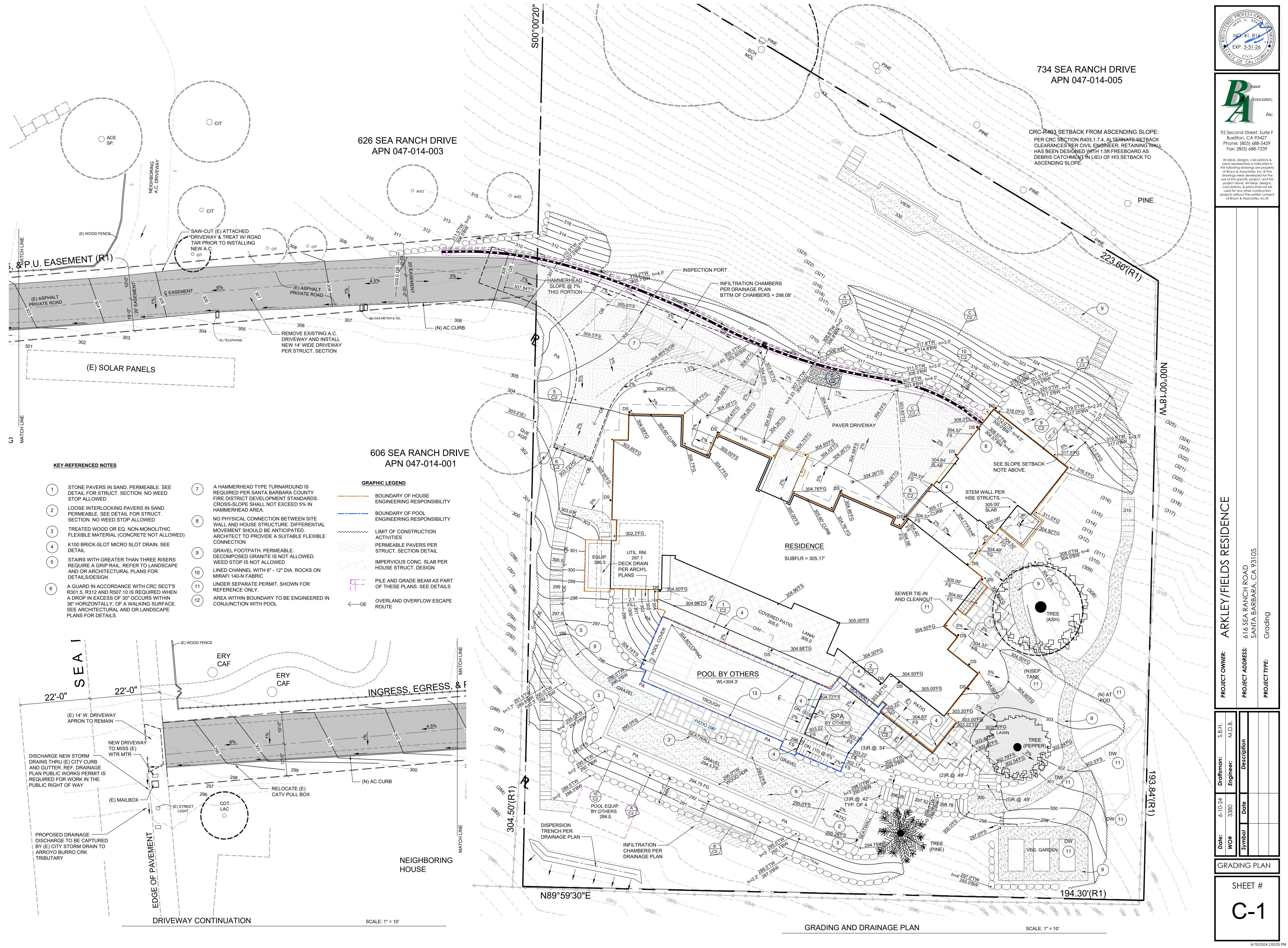


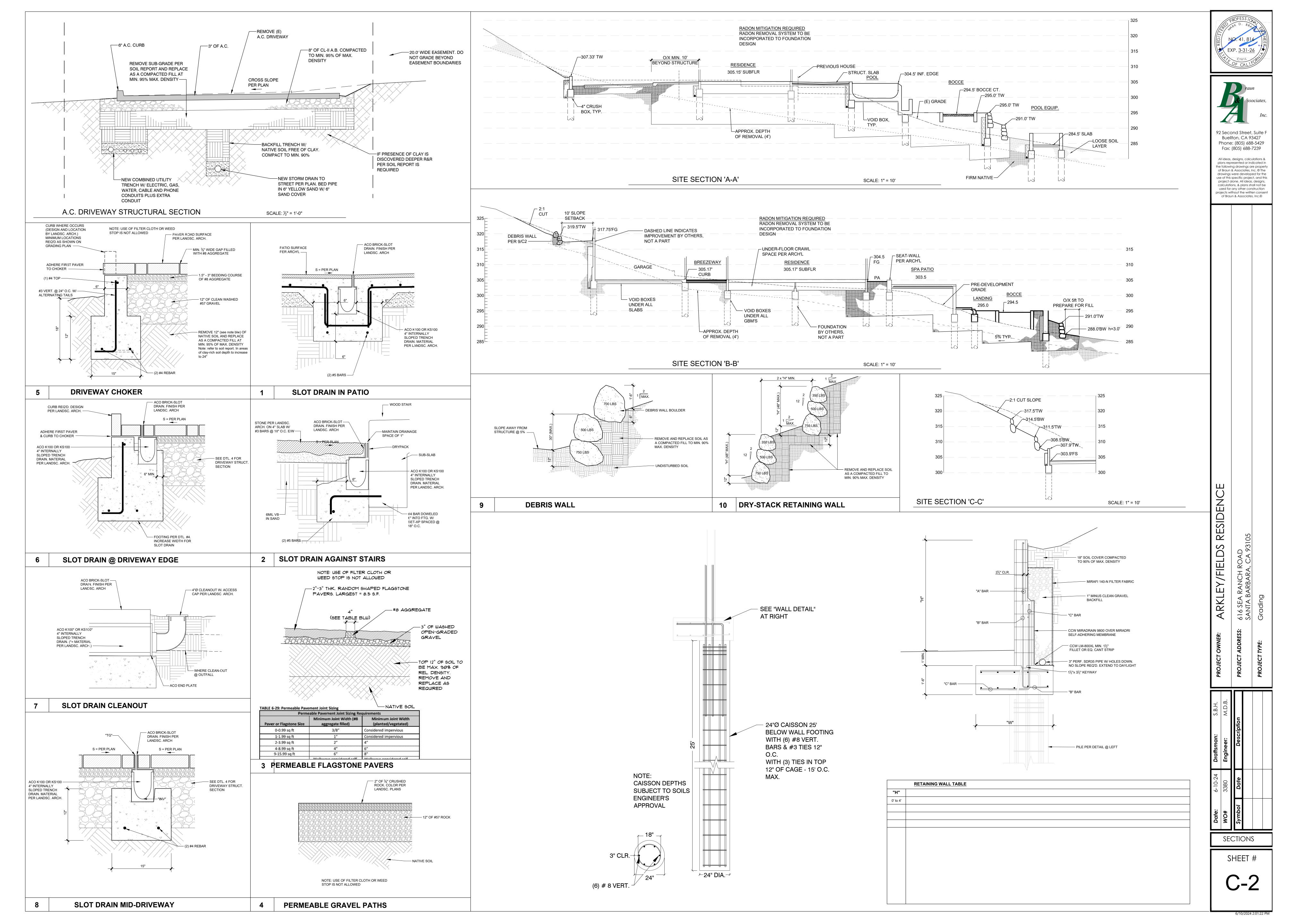
2 Second Street, Suite F Buellton, CA 93427 Phone: (805) 688-5429 Fax: (805) 688-7239

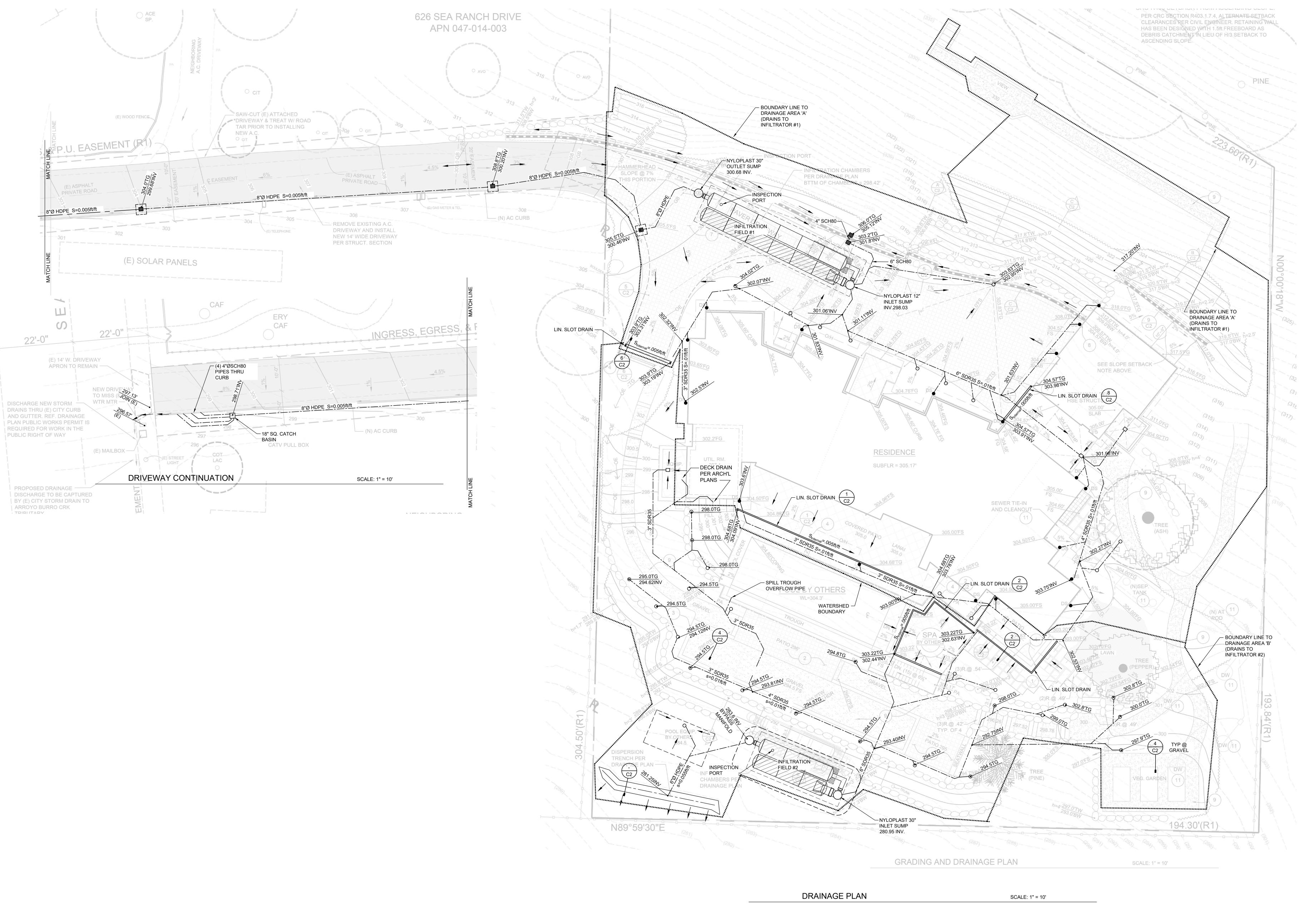
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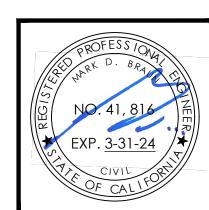
PROJECT ADDRESS:	616 SEA RANCH DRIVE SANTA BARBARA, CA 93105
PROJECT TYPE:	Civil

SHEET #











92 Second Street, Suite F Buellton, CA 93427

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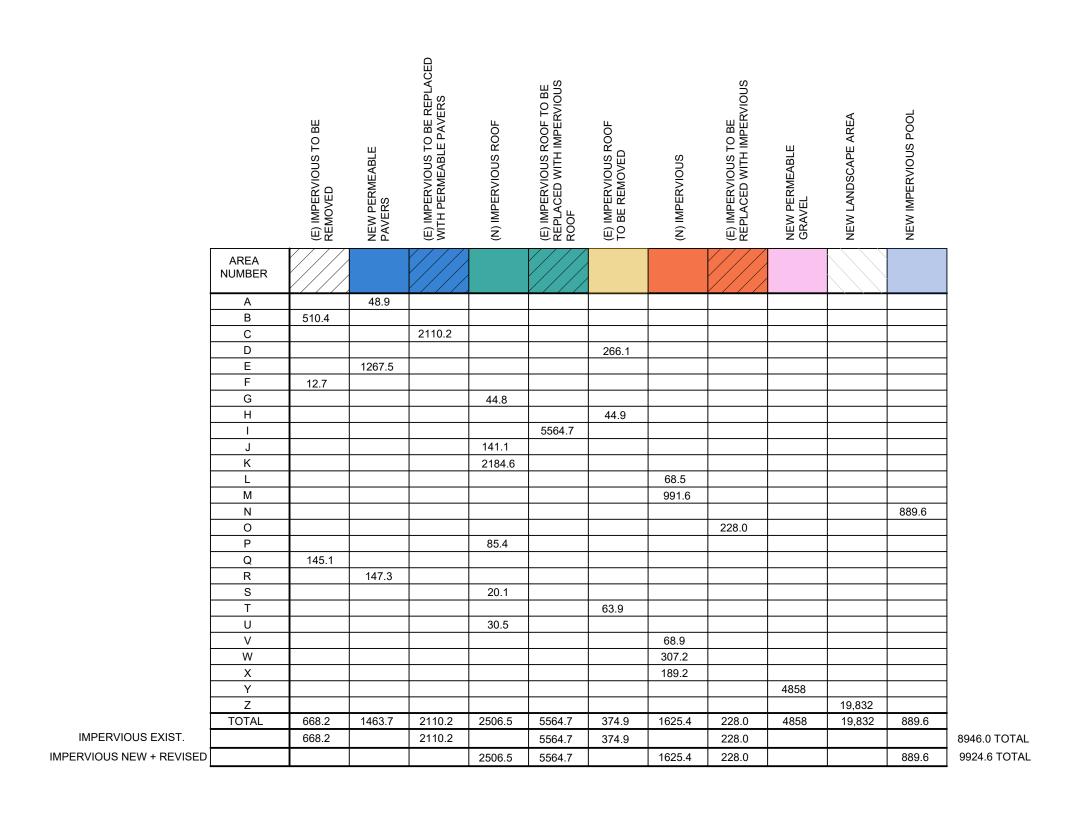
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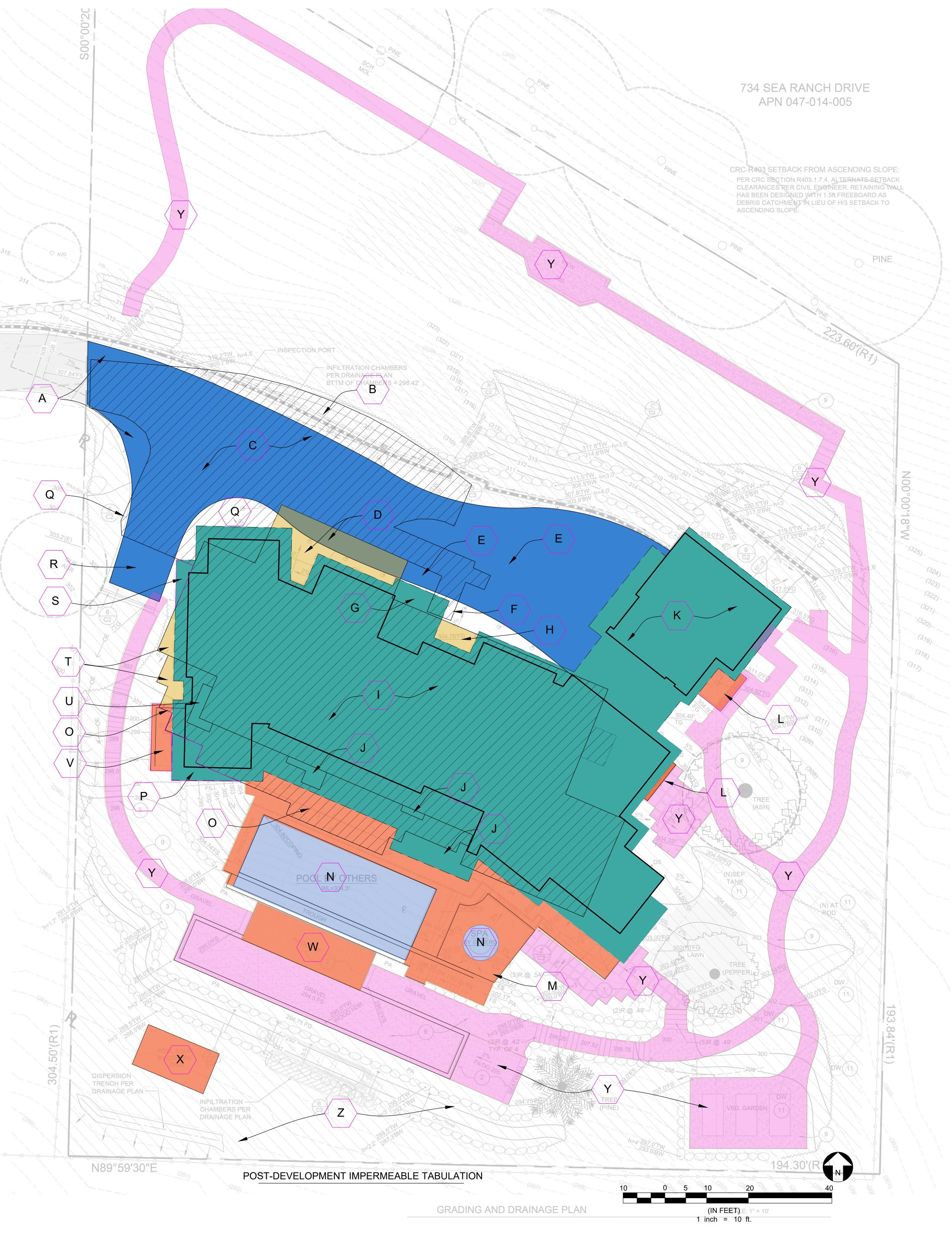
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	Description			
	Date			
:	Symbol			

ARKLEY/FIELDS RESIDENC

DRAINAGE PLAN

SHEET #









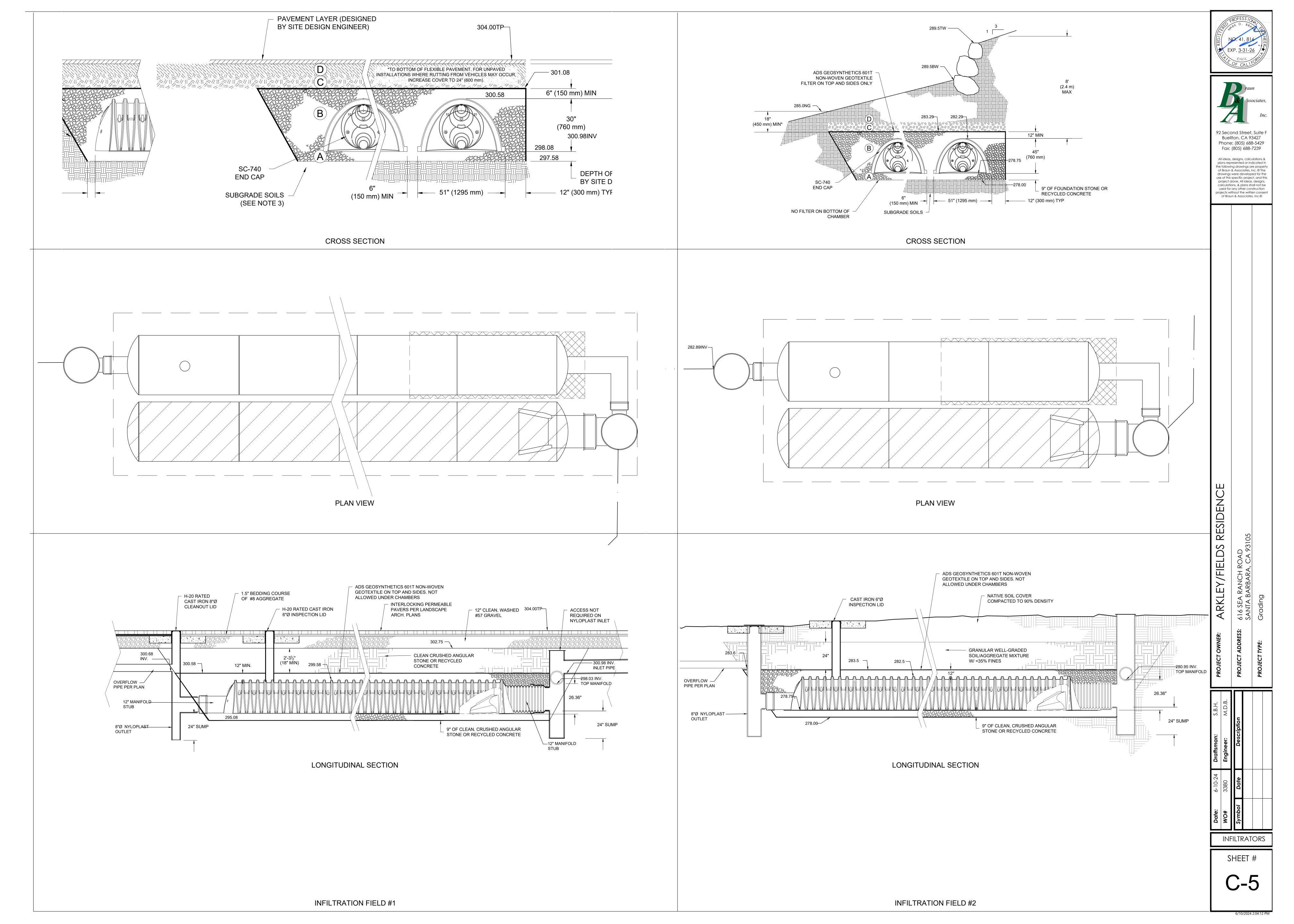
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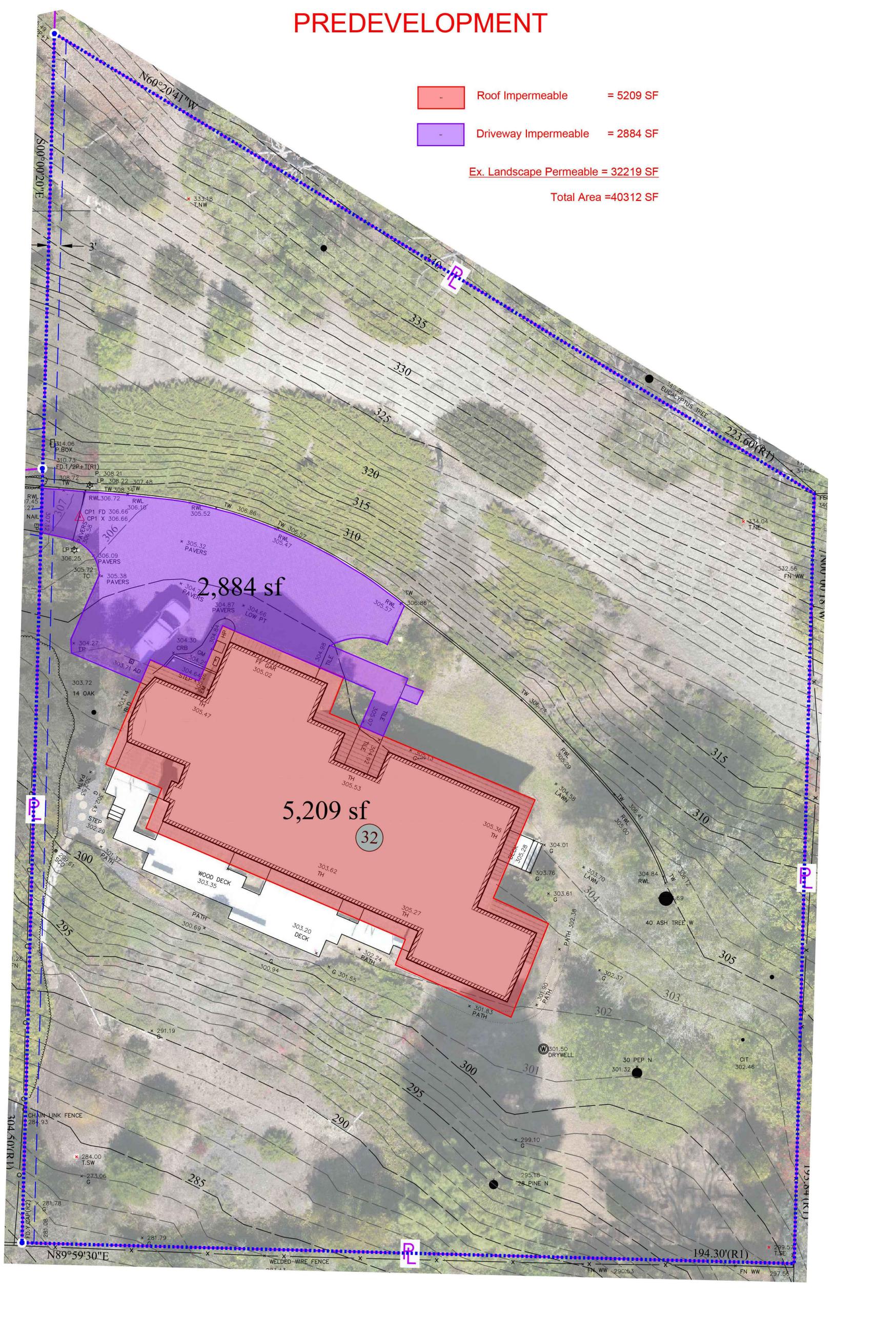
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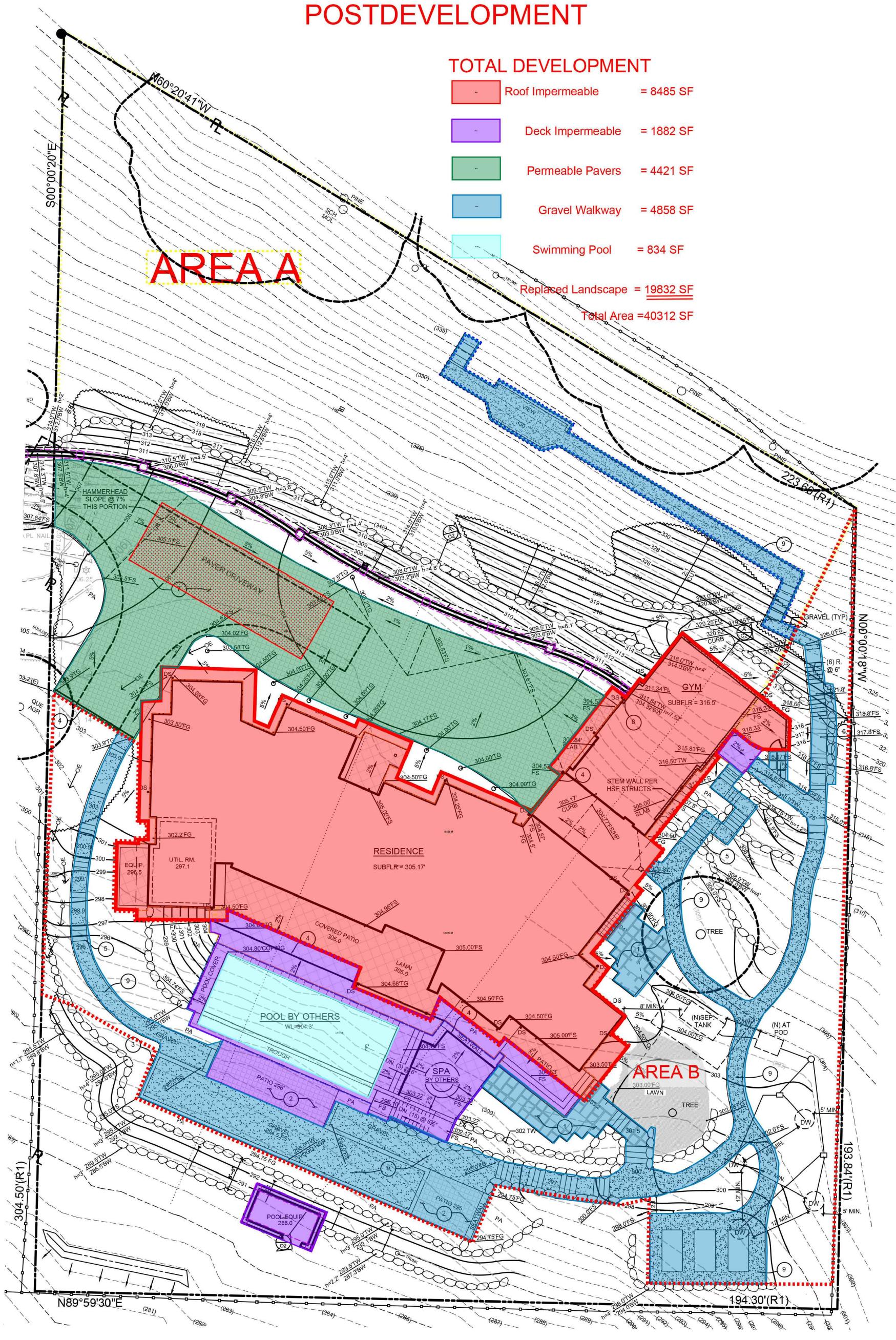
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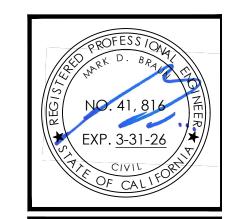
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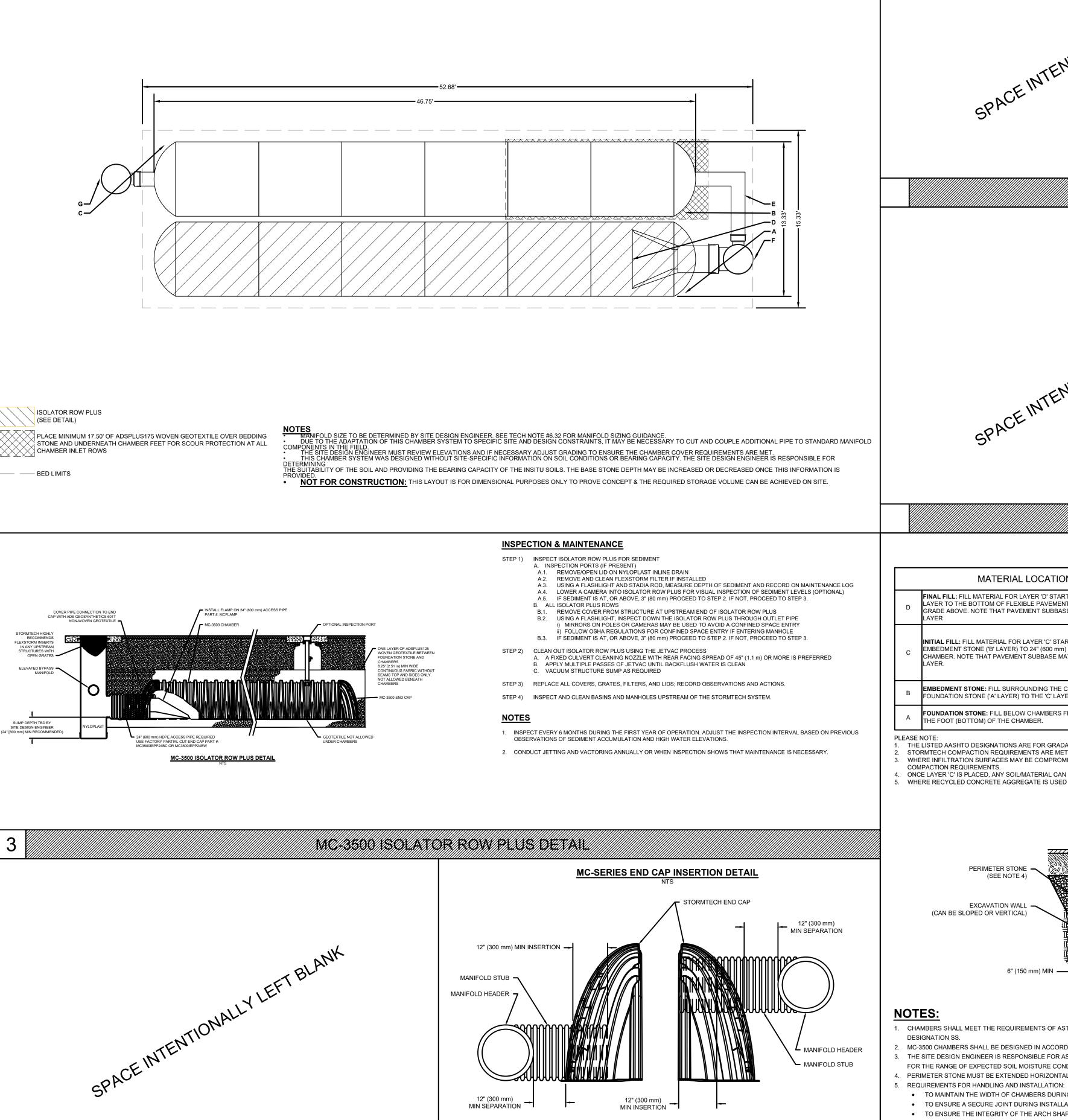
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Description	PROJECT ADDRESS:	616 SFA RAN
		SANTA BARB
	PROJECT TYPE:	Gradina
) : : : : :

HYDRO STUDY

SHEET #



PROPOSED LAYOUT: AREA A

(PERIMETER STONE INCLUDED)

(COVER STONE INCLUDED)

CONCEPTUAL ELEVATIONS

*INVERT ABOVE BASE OF CHAMBE

DESCRIPTION

NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL

MC-SERIES END CAPINSERTION DETAIL

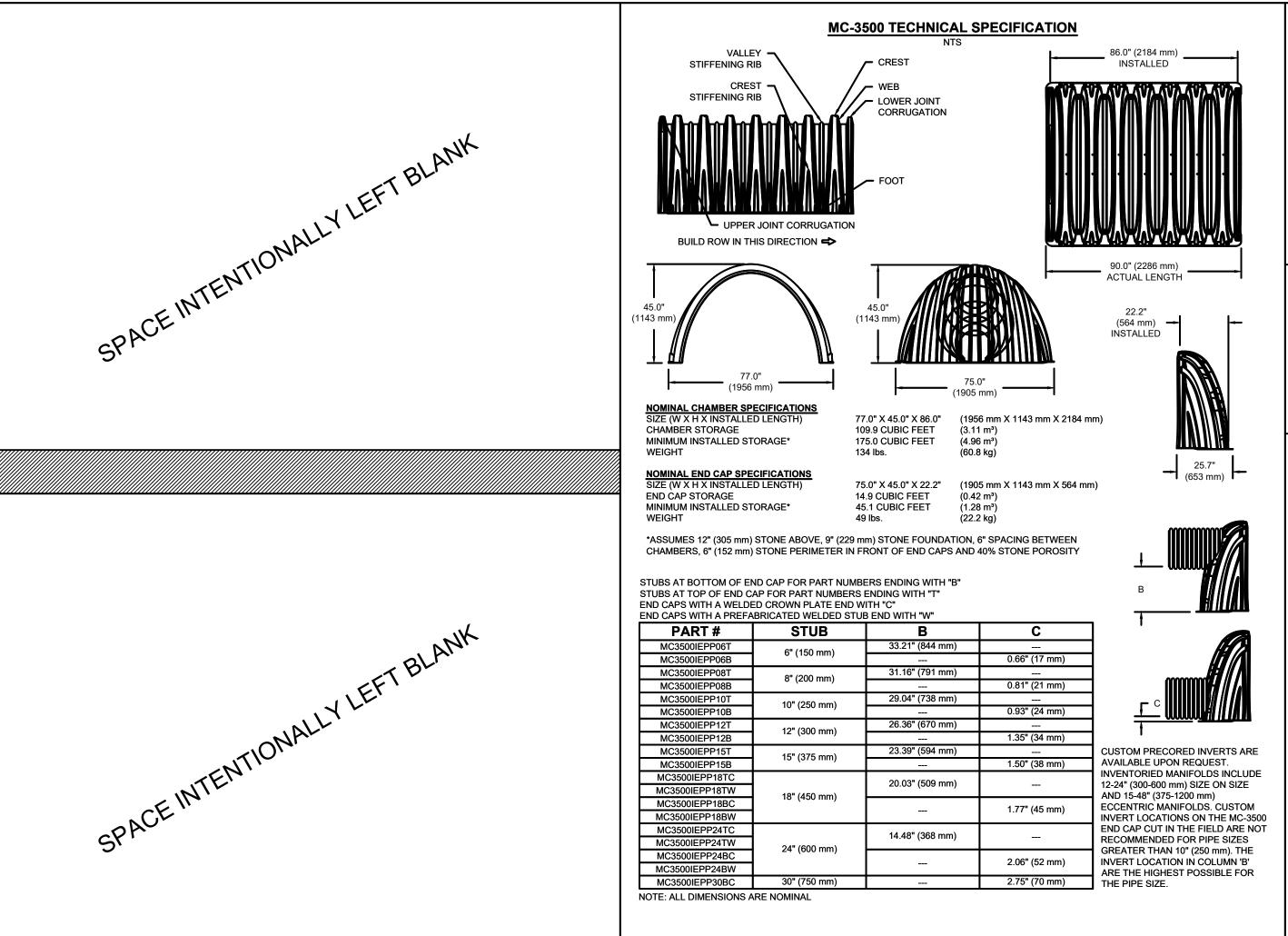
FOR A PROPER FIT IN END CAP OPENING.

ONNECTIONS AND ISOLATOR PLUS ROWS

30" DIAMETER (24.00" SUMP MIN)

INVERT* MAX FLOW

2.5 CFS IN



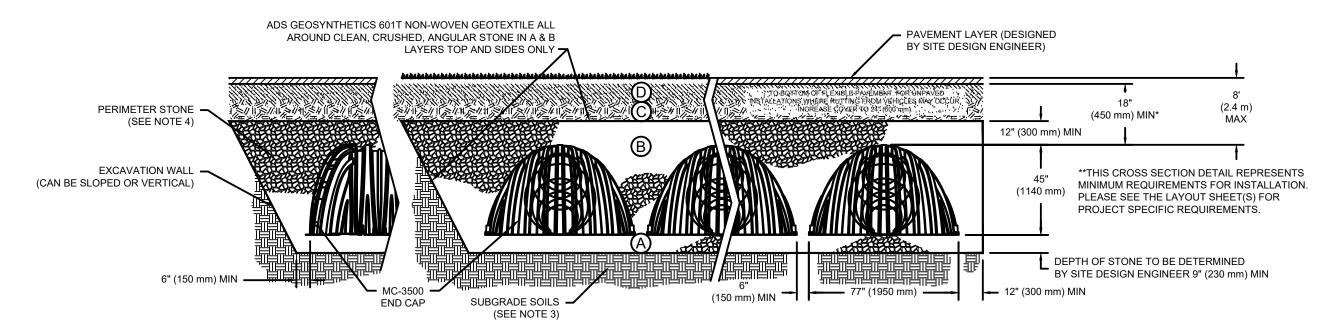
ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE ⁵	AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
А	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE⁵	AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.

WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
 WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



MC-3500 CROSS SECTION DETAIL

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SHEET 2 OF 2

9

MC-3500 TECHNICAL SPECIFICATION

6/6/2024 3:31:01 PM

ARKLEY RESIDENCE

LANDSCAPE CONSTRUCTION DOCUMENTS

606 SEA RANCH DRIVE SANTA BARBARA, CA. 93109

CONSULTANTS:

NOTE: THE STRUCTURAL PLANS AND DETAILS FOR ALL LANDSCAPE CONSTRUCTION AND HARDSCAPE ELEMENTS ARE BY OTHERS. STRUCTURAL SPECIFICATIONS & DETAILING, GEOTECHINCAL ENGINEERING, AND GRADING AND DRAINAGE CALCULATIONS ARE NOT A PART OF S.A. FAUSSET - LANDSCAPE ARCHITECT'S SCOPE OF WORK.

ARCHITECT:

PACIFIC ARCHITECTS

1117 COAST VILLAGE ROAD MONTECITO, CA 93108

805-565-3640

GENERAL CONTRACTOR:

YOUNG CONSTRUCTION

9 ASHLEY AVENUE

SANTA BARBARA, CA. 93103

805-963-6787

ENGINEER:

BRAUN & ASSOCIATES INC.

92 2ND ST. SUITE F BUELLTON, CA 93427,

805-688-5429

SHEET INDEX:

L-1 TITLE SHEET

L-2-3 EXISTING CONDITIONS PLAN

L-4 SITE PHOTOS

L-5-6 CONCEPTUAL LANDSCAPE PLAN

L-7 LANDSCAPE DESIGN IMAGERY

L8-9 EXISTING CONDITIONS & DEM0

L-10-12 SPECIFICATIONS

L-13-14 CONSTRUCTION PLAN

L-15-18 CONSTRUCTION DETAILS

L-19 POOL & SPA PLAN

L-20-21 LANDSCAPE IRRIGATION ZONE PLAN

L-22-25 LANDSCAPE IRRIGATION DETAILS

L-26-27 PLANTING PLAN

L-28-29 PLANTING DETAILS

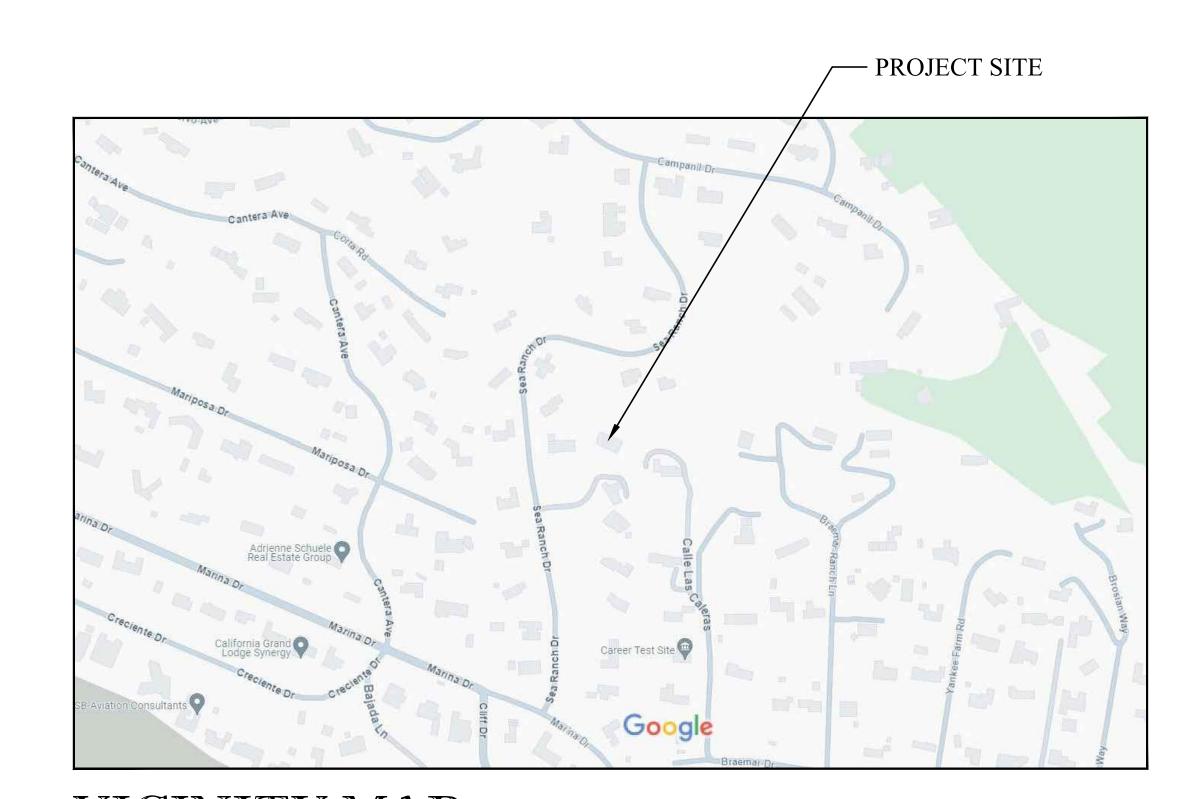
L-30 LIGHTING PLAN

L-31-32 LIGHTING DETAILS

SITE INFORMATION:

APN: 047-104-002

SITE ACREAGE: 1.11 ACRES

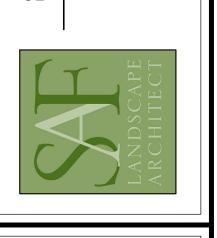


VICINITY MAP



ornia 93003 ax: 805-642-2877

163 Nob Hill Lane, Ventura, Califor Direct: 805-340-7595 Office/Fax



TITLE SHEET

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SSIDENCE VE A. 93109

ANKINILE X IKIE 616 SEA RANCH DRIV SANTA BARBARA, CA

ISSUED FOR: CITY OF SANTA BARBARA

REVISIONS

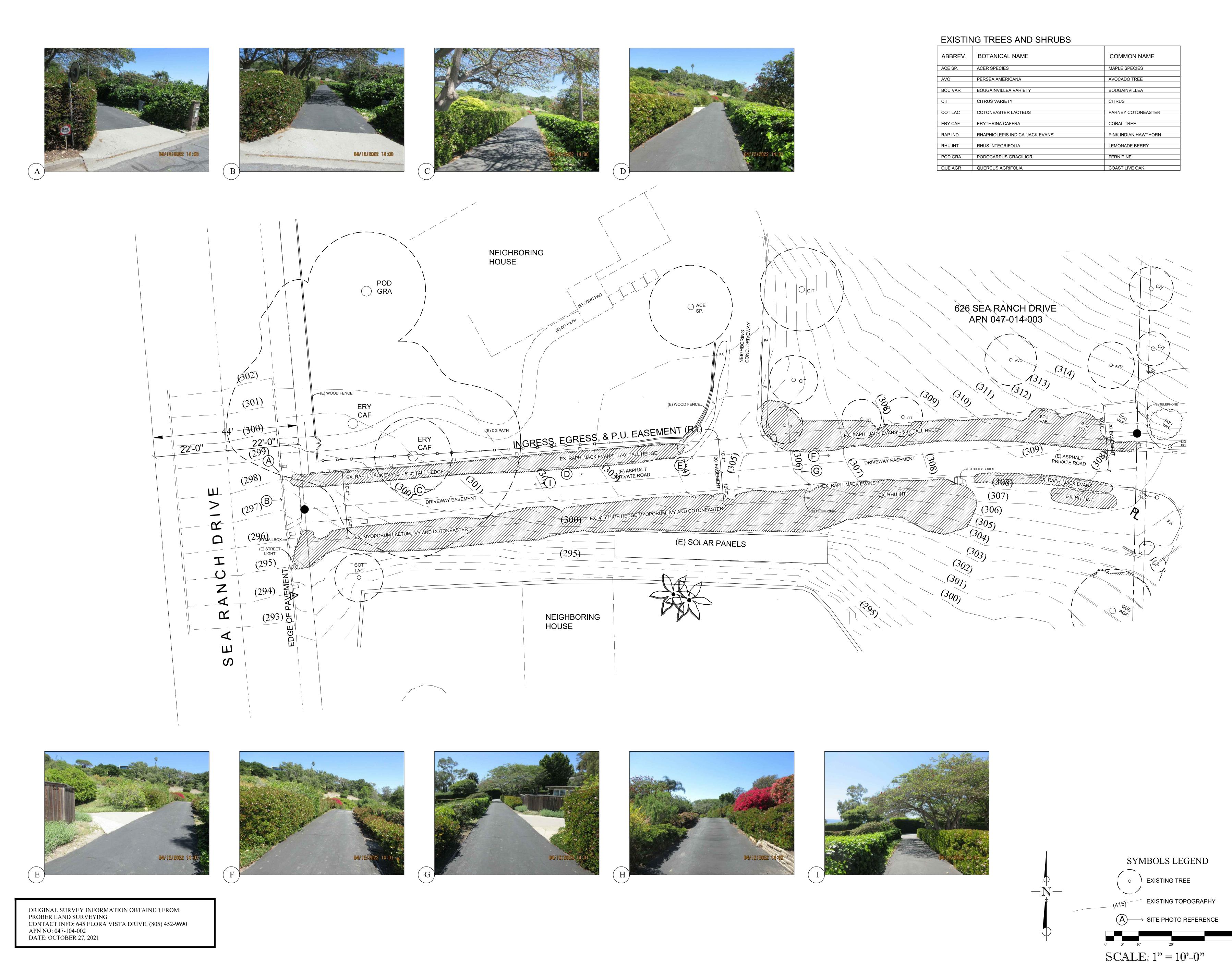
DATE
JULY 19, 2024

DESIGNED BY/DRAFTED BY
SAF / KLD
SCALE
N.T.S.

PROJECT NO.
22-310

DRAWING NO.
SAF-02066

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EXISTING

CONDITIONS PLAN

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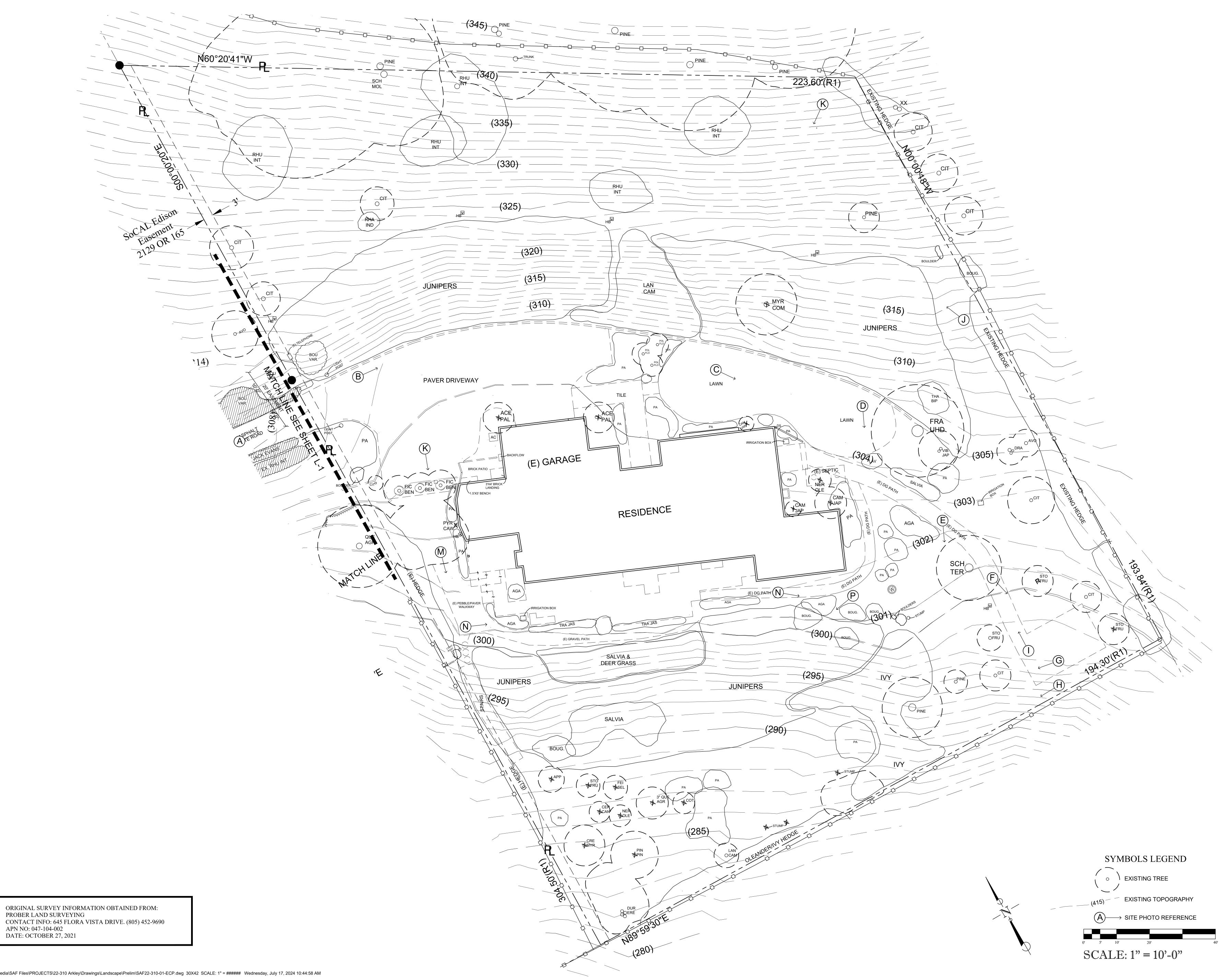
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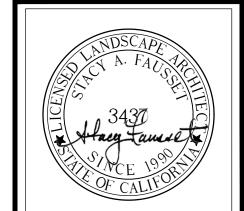
616 SEA SANTA I

REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / TCB

SCALE 1" = 10' - 0" PROJECT NO. 22-310 DRAWING NO. SAF-01844





616 SEA SANTA I

EXISTING

CONDITIONS

PLAN

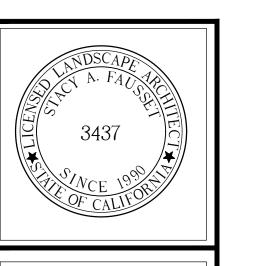
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DRAWING NO. SAF-01844



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RBARA, CA. 93109

RBARA, CA. 93109

PHOTOS

KEYNOTES LEGEND

NEIGHBORING

O ACE SP.

(E) WOOD FENCE —

NGRESS, EGRESS, & P.U. EASEMENT (R1,

(E) ASPHALT
PRIVATE ROAD

NEIGHBORING

HOUSE

HOUSE

(E) DG PATH

POD GRA

(E) WOOD FENCE

CAF

SYMBOLS LEGEND **EXISTING TREE**

CONCEPTUAL LANDSCAPE PLAN

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616 SEA SANTA

REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA

DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE

1" = 10' - 0" PROJECT NO. 22-310 DRAWING NO.

SCALE: 1" = 10'-0"

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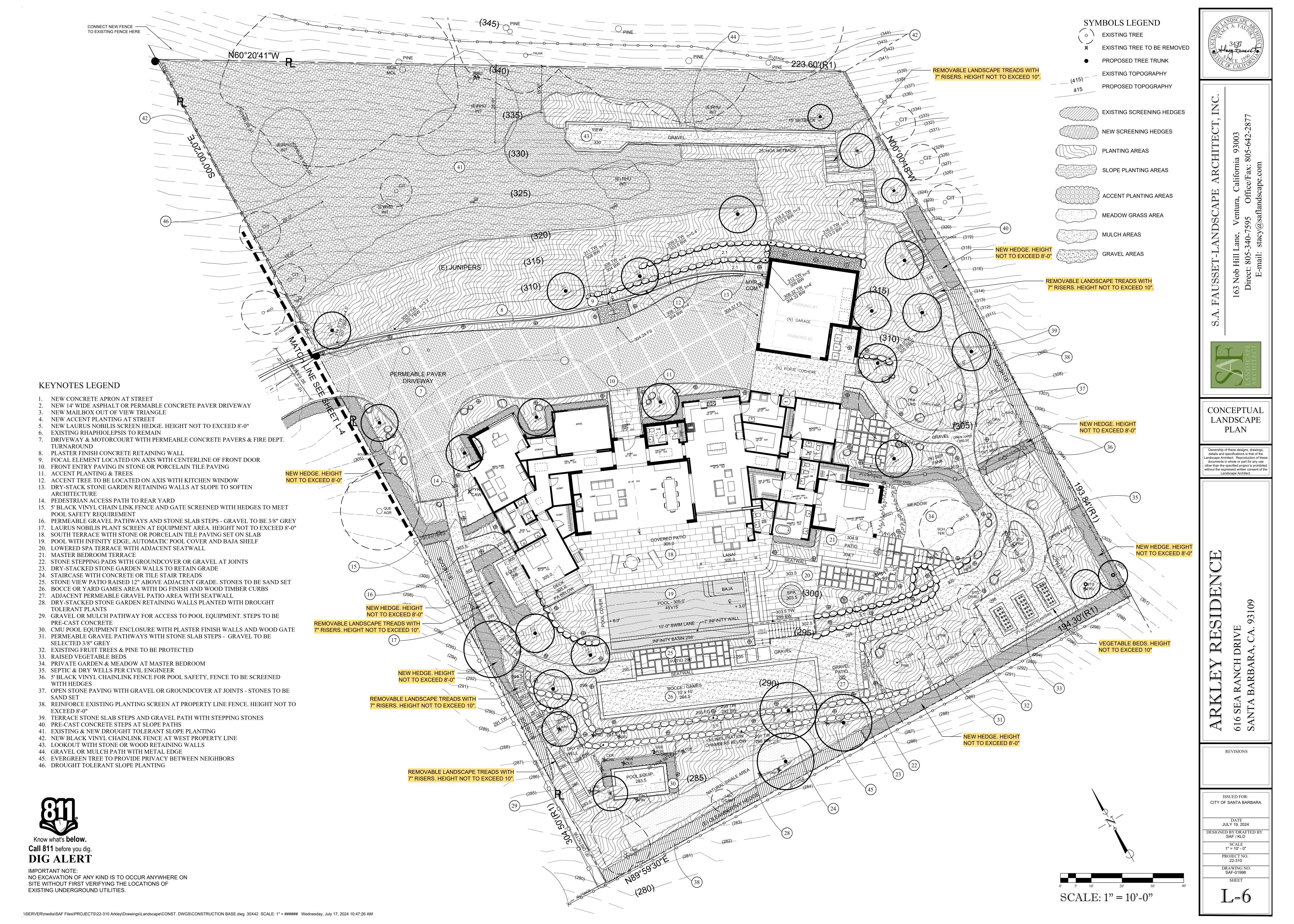
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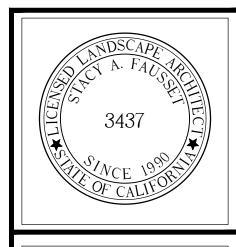
NEW 14' WIDE -DRIVEWAY

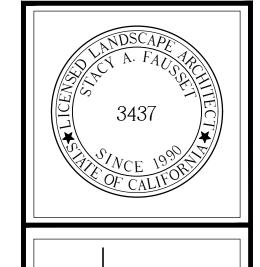
NEW ACCENT
PLANTING AT STREET
- AGAVE (295)
- CEAN_YANKEE PT.

NEW HEDGE HELD
BACK FROM STREET
FOR VISIBILITY
- LAURUS NOBILIS

- TEACRIUM CHAM. - LANTANA PURPLIRIANGLE







LANDSCAPE DESIGN **IMAGERY**

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REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA

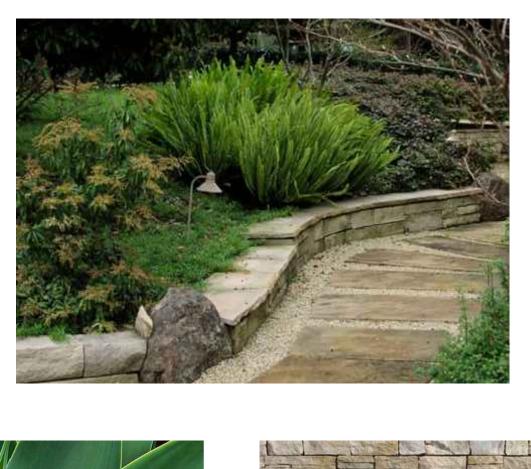
DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD

> N.T.S. PROJECT NO. 22-310 DRAWING NO. SAF-01999

















































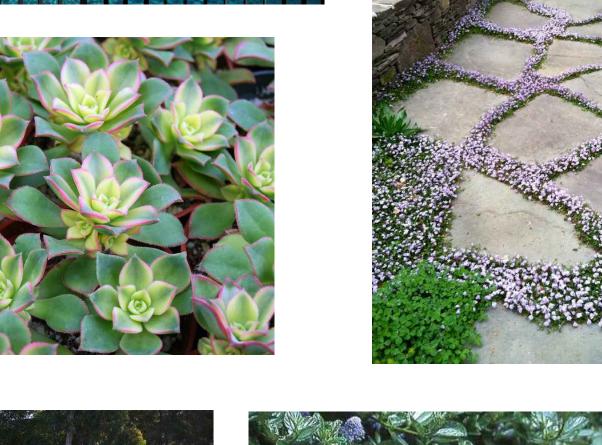
























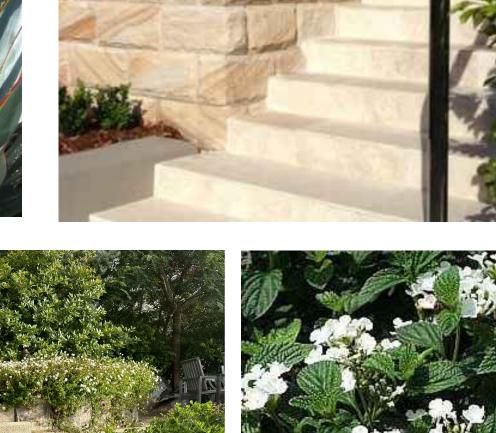








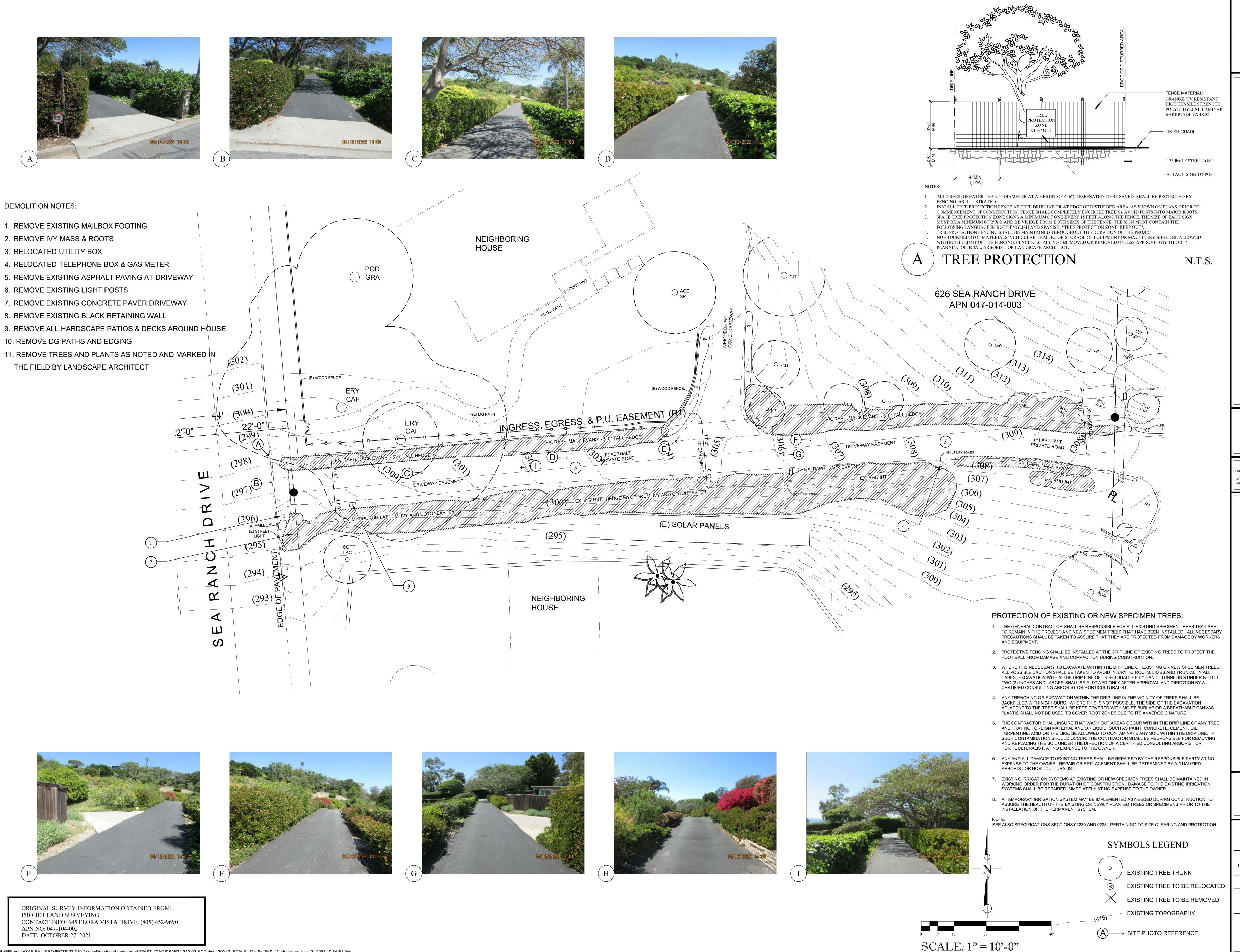












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EXISTING CONDITIONS **PLAN**

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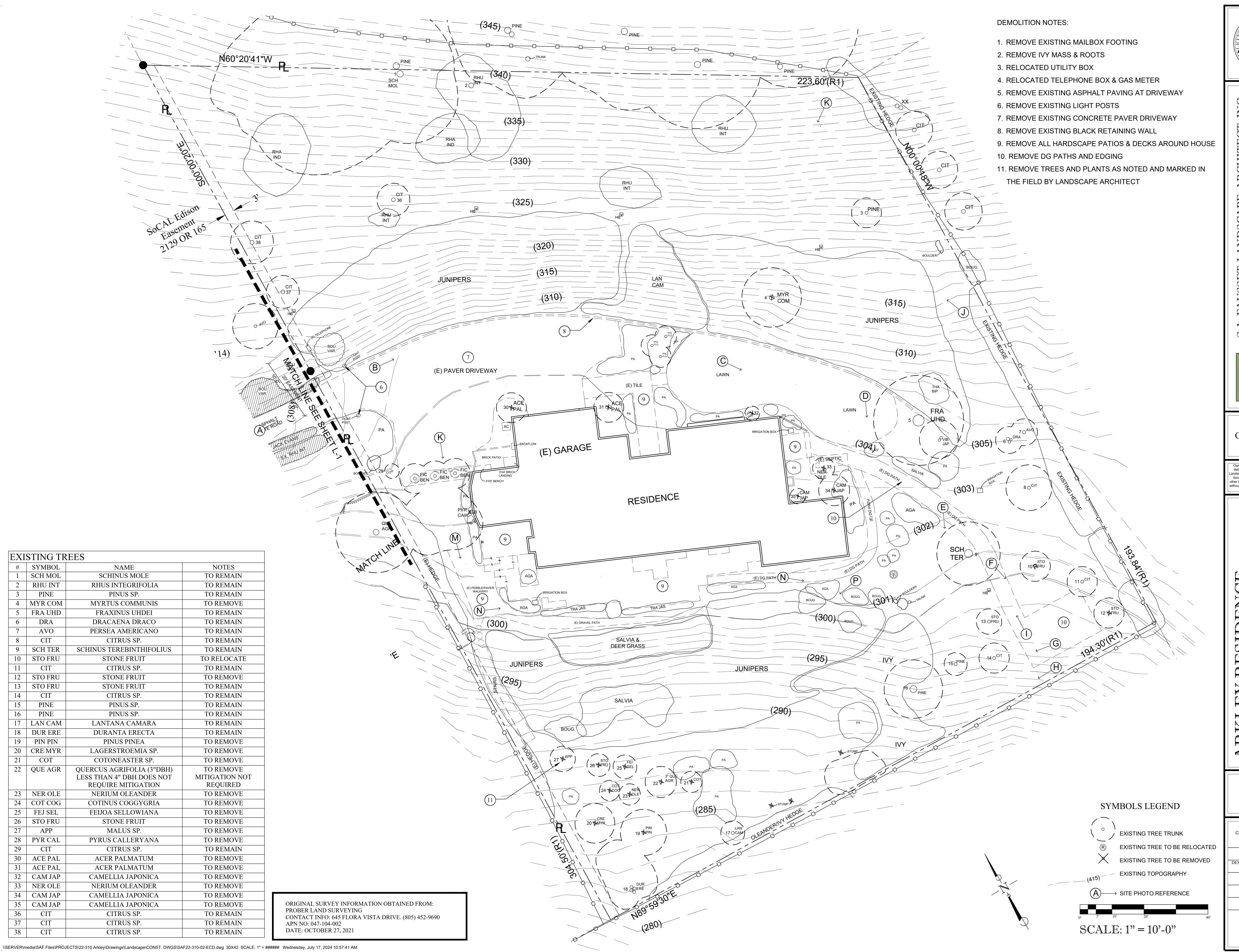
REVISIONS

ISSUED FOR:

CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE

1" = 10' - 0" PROJECT NO. 22-310 DRAWING NO. SAF-02067

SHEET



38

EXISTING CONDITIONS **PLAN**

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616 SAN REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024

DESIGNED BY/DRAFTED BY SAF / KLD SCALE 1" = 10' - 0" PROJECT NO. 22-310 DRAWING NO. SAF-02068 SHEET

PART 1 GENERAL

1.01 GENERAL DESCRIPTION OF WORK

A. The work defined in the Contract Documents and summarized herein, consists of landscape construction, conceptual landscape grading and drainage, landscape irrigation, planting and landscape lighting.

B. Work as described in these specifications includes furnishing and installing all related work to complete the above.

C. Work that is existing and is shown to remain, or is indicated on the drawings as Not In Contract (N.I.C.) shall not be included in the Contract Price.

1.02 CONSTRUCTION DOCUMENTS

A. Construction Documents shall consist of these specifications and the drawings. These documents are to be considered as one, and whatever is called for by any part shall be as binding as if called for by all parts.

B. Any discrepancies found between the specifications and the drawings, or between drawings, shall be brought to the immediate attention of the Owner's Representative before installation, purchasing and/or delivery. The Owner's Representative shall be the sole judge as to the resolution of the contradiction or discrepancy.

C. Drawings: See Title Sheet for list of drawings D. Specifications: See Sheet SPC 1 - 3

1.03 RELATED REQUIREMENTS

A. Requirements of General Conditions, Supplementary Conditions and Division One sections apply to all Work of this section as fully as if repeated herein.

B. Architectural Drawings - Not Applicable. C. Structural Engineering Plans, Details and Specifications from Structural Engineer - only as needed.

D. Grading and Drainage Plans from Civil Engineer - only as needed.

E. Mechanical Plans from Mechanical Engineer - Not Applicable. F. Geological Reports from Geological Engineer - only as needed. Notify the Geotechnical Engineer 48

hours in advance for any required inspections. G. Boundary and Topographic Survey for existing conditions dated 1998.01.06 by Penfield Smith.

provided by Warner Group Architects H. All civil, geological and structural construction, including grading and/or excavation shall be performed in conformance with the specifications set out by the applicable engineer(s). Adherence to such specifications is the responsibility of the Owner and his/her Agent and the General Contractor

after appropriate consultation with and supervision by the applicable engineer with inspections as

workmanship and materials has been defined either by manufacturer's name and catalog number or

necessary. 1.04 MATERIALS AND WORKMANSHIP A. Whenever possible throughout the Contract Documents, the minimum acceptable quality of

by reference to recognized industry standards. B. Materials and equipment not particularly detailed, marked, or specified shall have the same performance capability, and be of the kind and quality as similar materials or equipment that are detailed, marked, or specified

procedures have been established for advanced submittal of design data and for its review and acceptance or rejection by the Owner's Representative. D. Make all submittals of shop drawings, samples, requests for substitutions, and other items in strict

C. To ensure that the specified products are furnished and installed in accordance with design intent,

accordance with the provisions of these Specifications.

1.05 CONTRACT ADMINISTRATION BY CONTRACTOR A. Unless otherwise directed in writing by the Owner's Representative, Contractor shall perform general administration, supervision, coordination, and other duties as required; and establish and control procedures for processing submittals, change orders, etc., including job conferences and other routines; all as necessary to expedite the Work to achieve the quality required within the established time Schedules

1.06 FIELD MEASUREMENTS

A. Contractor shall secure all field measurements required for proper and accurate fabrication and installation of the Work included in this Contract. Exact measurements are Contractor's responsibility. All dimensions shall be verified by the Contractor in the field.

1.07 WORK BY OTHERS

A. Contractor is advised that work done by others may be in progress adjacent to, or within the site during Contract time. Cooperation in mobilization, storage, access, interface with other trades, and other construction activities between the parties is required.

1.08 CONTRACTOR RESPONSIBILITIES A. Designate submittals and delivery date for each product.

B. Provide shop drawings, product data, samples, and other submittals. Notify the Owner of any observed discrepancies or problems anticipated.

C. Receive and unload products at site. D. Handle products at site, including storage.

E. Protect products from damage, and from exposure to elements

F. Assemble, install, connect, test, and adjust products. G. Provide installation inspections required by public authorities.

H. Arrange and pay for delivery to site.

I. Inspect deliveries, record shortages, and damaged or defective items.

J. Submit claims for transportation damage.

K. Arrange for replacement of damaged, defective, or missing items. Arrange for manufacturer's field services; arrange for and deliver manufacturer's warranties.

1.09 CONDITIONS OF WORK IN PLACE

A. No work prepared by and/or installed by one trade shall be covered by another trade by applying subsequent materials or finishes until the Owner's Representative has had the opportunity to inspect

B. Inspection of the above work by the Owner's Representative shall not be construed to relieve Contractor from any provisions of the Contract Documents

1.10 CONTRACTOR'S USE OF PREMISES A. Contractor shall limit his use of the premises for work and for storage, to allow for work by other

B. Coordinate use of premises under direction of the Owner's Representative.

C. Assume full responsibility for the protection and safekeeping of products under this Contract, stored

D. Move any stored products under Contractor's control which interfere with operations of Owner or separate contractors.

E. Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

1.11 MISCELLANEOUS PROVISIONS A. Tests and Inspections: Notify inspecting authority not less than 48 hours in advance of any required

B. Lines and Layouts: Provide lines, levels, and detail layouts as required. Check as the Work

C. Waste, Rubbish and Salvage: Provide general clean-up and periodic disposal service for the legal

removal of waste and rubbish from site D. Utility Tie-Ins to existing utility systems shall be made without interrupting service during normal working hours. Any tie in that requires interruptions to existing services shall be scheduled to reduce

least ten (10) working days in advance of such work

1.12 TEMPORARY FACILITIES A. Temporary Utilities 1. All temporary utilities, water, electrical power, etc. are available on Owner's property at no cost to the Contractor. All other costs (connection, maintenance, removal, etc.) shall be borne by

out-of-service time to a minimum. A written schedule shall be prepared with dates and length of

shut-down for the Owner's Representative approval. The Owner's Representative shall be notified at

2. The Owner's Representative will direct Contractor as to points of connection to all utilities, and Contractor shall provide all labor and material required to complete hook-up. the Contractor shall

remove all temporary connections at the completion of the job. B. The Contractor shall furnish, maintain and remove, when no longer needed, the following:

1. Temporary construction fence, when required.

2. Temporary first aid as prescribed by law. 3. Construction aids.

1.13 PERMITS, FEES AND LICENSES

A. Contractor shall pay for all permits, governmental fees, licenses, and inspections necessary for the proper execution and completion of the work which are customarily secured after execution of the Contract and which are legally required to complete the project at the time the bids are received.

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION

1.01 DESCRIPTION

A. The Contractor shall be responsible for all project coordination. He shall provide a superintendent exclusively for this project.

3. Observe work to monitor compliance with schedule, including work, equipment and deliveries

1.02 DUTIES OF CONTRACTOR

A. Coordinate the work of all subcontractors. B. Establish lines of authority and communication.

recommendations as needed.

1. Prepare detailed schedule of operations of all subcontractors on the project. 2. Monitor schedules and document changes as work progresses. Make adjustments and

SECTION 01310 - PROJECT MANAGEMENT AND COORDINATION (continued)

D. Temporary facilities:

1. Allocate space for temporary storage of materials.

2. Verify that adequate services are provided to comply w/ req'ments for work & climatic conditions. E. Cost control: 1. Maintain cost accounting records for authorized work performed under unit costs, actual costs for

labor and materials, and other work requiring accounting records.

2. Develop and implement procedure for reviewing and processing applications for progress and

F. Administer processing of submittals (shop drawings, product data, samples, etc.). G. Maintain the following records:

 Contracts 2. Invoices for purchase of materials and equipment

3. Applicable handbooks, codes and standards 4. Shop drawing log

5. Set of Construction Drawings with marked, up-to-date, as-built conditions.

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 DESCRIPTION

A. To insure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advanced submittal of design data and for its review and acceptance or rejection by the Owner's Representative.

B. Make all submittals of shop drawings, samples, requests for substitutions, and other items in strict accordance with the provisions of this section of these specifications.

C. Definitions: 1. Shop Drawings are drawings, diagrams, schedules and other data specifically prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate

2. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system of some portion of the work. 3. Samples are physical examples which illustrate materials, equipment or workmanship and

1.02 RELATED REQUIREMENTS

A. Section 01635 - Product Substitution Procedures B. Section 01770 Project Closeout

1.03 SHOP DRAWINGS

A. Make all shop drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection to the Work.

establish standards by which the Work will be judged.

B. Submit a minimum of three (3) copies for each shop drawing. C. Contractor agrees that Shop Drawing submittals do not become Contract Documents and are not Change Orders. If deviations, discrepancies, or conflicts between Shop Drawing submittals and the Contract Documents are discovered, Contractor agrees that the Contract Drawings shall govern.

1.04 SAMPLES A. All samples shall be of the precise article proposed to be furnished.

B. Submit all samples in the quantity large enough to be evaluated or analyzed. Where samples have natural variations in texture, color, or dimensions. Submit samples showing the full range of variation.

1.05 MANUFACTURER'S CERTIFICATES AND INSTRUCTIONS A. When required by individual specifications section, submit in duplicate any certificates and

manufacturer's printed instructions, for product data for delivery, storage, assembly, installation, startup, adjusting, finishing and maintenance.

1.06 IDENTIFICATION OF SUBMITTALS A. Completely identify each submittal and re-submittal by showing at least the following information:

1. Name and address of submitter, plus name and telephone number of the individual who may

be contacted for further information. 2. Name and Project as it appears on the Contract Documents.

1.07 COORDINATION OF SUBMITTALS

A. Prior to submittal for review by the Owner's Representative, use all means necessary to fully coordinate all material, including the following procedures:

3. Drawing number or specifications section number to which the submittal applies.

1. Determine & verify all field dimensions & conditions, materials, catalog numbers, & similar data. 2. Coordinate as required with all trades and all public agencies involved. 3. Secure all necessary approvals from public agencies and other and signify by stamp or other

means that they have all been secured.

1.08 TIMING OF SUBMITTALS A. Make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for placing orders and securing delivery.

B. In scheduling, allow at least five (5) working days for review by the Owner's Representative. 1.09 RESUBMITTALS

A. Make re-submittals under procedures specified for initial submittals; identify changes made since previous submittal.

SECTION 01635 - PRODUCT SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.01 CONTRACTOR'S OPTIONS

A. Throughout the Specifications, types of materials may be specified by manufacturer's name and catalog number in order to establish standards of quality and performance.

B. When a material, process, patent or proprietary material name is followed by "or approved equal", the Bidder may submit alternate or substitute products except that the burden is upon the Bidder to prove such equality. If the Bidder elects to prove such equality, he must request approval, in writing, from the Owner's Representative to substitute such an item for the specified item.

C. Before ordering any equipment or materials, the Contractor shall provide supporting data and samples, if required, to permit a fair evaluation of the proposed substitute with respect to quality, serviceability, warranty and cost. D. When only one material, process, patent or material name is listed, no subs will be allowed.

E. Where more than one specific name is used, or the word "alternate" is shown, the name mentioned first represents the material to be bid, and the secondary names are to be considered substitutions requiring approval, in writing, from the Owner's Representative.

1.02 PRODUCTS LIST

A. Within fifteen (15) working days after Order/Agreement, provide a list of the products identified in the Specifications, including name of manufacturer. B. Tabulate products by Specifications section number, title, and article number.

C. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards. D. The Owner's Representative shall reply promptly in writing, stating whether there is a reasonable objection to listed items. Failure to object to a listed item shall not constitute a waiver of req'ments of Contract Documents, & all products furnished on the list must conform to such requirements.

1.03 LIMITATIONS ON SUBSTITUTIONS

A. During bidding, Instructions to Bidders govern time for submitting requests for substitutions under requirements specified in this section. B. After Order/Agreement, requests for substitutions of products will be considered only within fifteen (15) days after date of Order/Agreement. Subsequent requests will be considered only in the case of

product unavailability or other conditions beyond Contractor's control. C. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request, when requested directly by subcontractor or supplier, or when

acceptance will require substantial revision of Contract Documents. D. Substitute products shall not be ordered or installed without written acceptance by the Owner's Rep. E. Only one request for substitution for each product will be considered. When substitution is not

accepted, provide specified product. F. The Owner's Representative will determine acceptability of substitutions.

1.04 REQUEST FOR SUBSTITUTION

apparent

A. Submit a separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents. B. Identify product specifications section & article numbers. Provide manufacturer's name & address, trade name of product, & model or catalog number. List fabricators & suppliers as appropriate.

C. Attach product data as specified in Section 01330. D. Include sufficient factual and comparative data, performance, and test data or information necessary to establish that the requested substitution is equal in quality, utility, structural strength, mechanical and technical performance, finish, arrangement of plan, repair and maintenance, compatibility with

other existing or specified items and other relevant data. E. Give cost data comparing proposed substitution with specified product, and amount of net change to F. State effect of substitution on construction schedule, and changes required in other work or products

1.05 CONTRACTOR REPRESENTATION A. A request for substitution constitutes a representation that Contractor has investigated proposed

product and has determined that it is equal to or superior in all respects to specified product.

C. Contractor shall coordinate installation of accepted substitute, making such changes as may be

B. Contractor shall provide same or better warranty for substitution as for originally specified product.

required for work to be complete in all respects. D. Contractor certifies that cost data presented is complete and includes all related costs under this E. Contractor waives claims for additional costs related to substitution which may later become

SECTION 01635 - PRODUCT SUBSTITUTION PROCEDURES (continued)

1.06 SUBMITTALS PROCEDURES A. Submit copies of request for substitution to the Owner's Representative for review and approval.

B. During bidding, acceptable substitutions will be recorded in Addenda which will be issued to the C. After Order/Agreement the Owner's Representative will notify Contractor, in writing, of decision to

accept or reject requested substitutions within fifteen (15) days after their submittal. D. For accepted products, submit shop drawings, product data, and samples in accordance with Section

A. Prior to bidding and to the greatest extent possible, verify that all specified items will be available in time for installation during orderly and timely progress of the Work B. In the event specified item or items will not be available, notify the Owner's Representative prior to

receipt of bids. C. Costs of delays because of non-availability of specified items, when such delays could have been avoided by Contractor, will be deducted from the Contract Sum as necessary and shall not be borne

SECTION 01750 - PROGRESS CLEANING

1.07 AVAILABILITY OF SPECIFIED ITEMS

PART 1 GENERAL

1.01 DESCRIPTION A. Work included: 1. Keep premises and adjacent areas free from accumulations of waste, debris, and rubbish

caused by operation of this Contract. 2. At completion of Work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave project clean and ready for occupancy.

1.02 SAFETY REQUIREMENTS

A. Maintain Project in accord with state and local safety and insurance standards. B. Store volatile wastes in covered metal containers and remove from premises daily.

C. Prevent accumulation of wastes which create hazardous conditions. D. Provide adequate ventilation or personnel protection during use of volatile or noxious substance. E. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish and waste materials on Owner's property.

F. Do not dispose of volatile wastes such as mineral spirits, oil, herbicides or pesticides in storm or

sanitary drains. Store in containers with tight fitting lids and remove to legal dump site. PART 2 PRODUCTS

A. As specified in construction documents and specifications.

PART 3 EXECUTION

3.01 DURING CONSTRUCTION

A. Keep premises and adjacent areas free from accumulations of waste materials and rubbish. B. Wet down materials and rubbish to prevent dust from blowing. C. At least once a week, or sooner if required, clean site and adjacent areas and dispose of waste

materials, debris and rubbish off the site in a legal manner. Remove combustible materials such as paper and cardboard daily. D. Provide on site containers for collection of waste materials, debris and rubbish. Provide a collection can at each location used as an eating area. Pick up all garbage daily

dumping areas. Do not bury or burn waste at the site. F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw

E. Remove waste materials, debris and rubbish from site and legally dispose of at legal public or private

G. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces. H. Contractor is responsible for daily clean up and dust control to a level acceptable to the Owner's

3.02 FINAL CLEANING

Representative.

A. Remove grease, dust, dirt, stains, labels, and other foreign materials from sight exposed finished B. Repair, patch and touch up marred surfaces to specified finish.

D. Keep project clean until it is accepted by the Owner's Representative.

SECTION 01770 - PROJECT CLOSEOUT PROCEDURES

C. Broom clean paved surfaces; rake clean other surfaces of grounds.

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED A. Closeout procedures

C. Systems demonstration D. Warranties and Bonds E. Spare parts and maintenance materials

B. Operation and maintenance data

1.02 RELATED REQUIREMENTS A. Requirements of General Conditions and Division One Section apply to all Work in this Section.

B. Conditions of the Contract: Fiscal provisions, legal submittals, and other administrative requirements.

1.03 CLOSEOUT PROCEDURES A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of

B. When Contractor considers Work has reached final completion, he shall submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for the Owner's Representative's inspection. C. In addition to submittals required by the Contract Documents, provide submittals required by

governing authorities, and submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due. D. The Owner's Representative will issue a Final Change Order reflecting approved adjustments to

Contract Sum not previously made by Change Order.

1.04 FINAL CLEANING - See Sections 01710 & 02810

1.06 OPERATION AND MAINTENANCE DATA

1.05 PROJECT RECORD DOCUMENTS - See Sections 01720 & 02640

A. Provide data as required within various technical sections of these specifications. B. Submit two (2) sets prior to Final inspection, bound in 8-1/2 x 11 inch, three ring side binders with durable plastic covers.

Part 1: Directory, listing names, addresses, and telephone numbers of Contractor.

Part 2: Operation and maintenance instructions, arranged by system. For each

system, give names, addresses, and telephone numbers of subcontractors and Appropriate design criteria

2. List of equipment Parts list 4. Operating instructions 5. Maintenance instructions: equipment

6. Maintenance instructions: finishes 7. Warranties

1.07 SYSTEMS DEMONSTRATION A. Prior to Final Inspection, demonstrate operation of each system to the Owner's Representative. B. Instruct the Owner's Representative's personnel in operation, adjustment, and maintenance of

equipment and systems, using the operation and maintenance data as the basis of instruction.

1.08 WARRANTIES AND BONDS A. Provide duplicate, notarized copies. Execute Contractor's submittals and assemble documents

executed by subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in binder with a durable plastic cover. B. Submit material prior to final application for payment. For equipment approved to be put into use during construction, submit within ten (10) days after first operation. For items of Work delayed materially beyond date of Substantial Completion, provide updated submittal with ten (10) days after

addition to that required for completion of Work. Coordinate delivery to project site with the Owner's

1.09 SPARE PARTS AND MAINTENANCE MATERIALS A. Provide products, spare parts, and maintenance materials in quantities specified in each section, in

Representative and obtain receipt prior to final payment.

acceptance, listing date of acceptance as start of warranty period

SECTION 01781 - PROJECT RECORD DOCUMENTS

1.02 RECORDING

1.01 MAINTENANCE OF DOCUMENTS

A. Clearly label each document "PROJECT RECORD"

A. Maintain at site, one (1) copy of :Contract drawings, Specifications, Addenda, Reviewed shop drawings, Bulletins and change orders, Field change authorization and notice of clarification, Other modifications to Contract, Field test records, Shop drawing log B. Maintain documents in clean, dry, legible condition. C. Do not use record documents for construction purposes. D. Make documents available at all times for inspection by the Owner's Representative.

B. Keep record documents current. Record deviations within 24 hours after work in affected area is completed using a fine felt or nylon tip pen with waterproof colored ink for marking. C. Do not permanently conceal any work until required information has been recorded.

SECTION 01781 - PROJECT RECORD DOCUMENTS (continued)

1.02 RECORDING (continued) D. Legibly mark up construction drawings to record the following:

1. Depths of various foundation elements in relation to first floor level.

2. Horizontal and vertical locations of underground utilities referenced to permanent surface

3. Field changes of dimension and detail.

4. Changes made by Change Order, Field Change Authorization and Notice of Clarification. 5. Details not on original contract drawings. E. Legibly mark up each specification section and addenda to record:

1. Manufacturer, trade name, catalog number, and supplier of each product item of equipment 2. Changes made by Change Order, Field Change Authorization and Notice of Clarification.

Other matters not originally specified. F. Maintain shop drawings as record documents. Legibly annotate shop drawings to record changes

1.03 RECORD DOCUMENTS & ELECTRONIC FILES

made after approval.

A. At completion of project, obtain from the Owner's Representative, at cost, a copy set of all affected contract drawings and an electronic copy (PDF) of documents on CD. B. Incorporate on copies all changes noted on record set in black ink. work shall be performed by an experienced, competent draftsperson. Identify documents as "RECORD DRAWINGS".

C. Once complete, record drawings shall b scanned and saved to a CD in PDF or other non-editable

B. Accompany submittal with transmittal letter, in duplicate, containing date, project title and number, Contractor's name and address, title and number of each record document, certification that each document as submitted is complete and accurate, and signature of Contractor or his authorized

A. Deliver record documents and electronic copies to the Owner at completion of project.

PART 1 GENERAL

1.04 SUBMITTALS

1.01 GENERAL CONDITIONS - See General Conditions Section 02811

SECTION 02230 - SITE CLEARING AND PROTECTION OF EXISTING WORK

1.02 PROTECTION OF EXISTING WORK

A. The Contractor shall protect the soil by insuring that no foreign material and/or liquid such as paint, concrete materials, oil, turpentine, acid, or the like be allowed to be deposited on any soil within the project area. Should any such contamination of the soil occur, the Contractor shall remove said soil as directed by the Owner's Rep. & replace it with acceptable fresh soil at no cost to the Owner.

B. The Contractor shall protect all surfaces and finishes which are exposed to view and all items of

equipment from damage during construction. The Contractor shall take the necessary precautions to insure that the project is turned over to the Owner entirely free from scratches, abrasions, dents, drips, gouges, stains, watermarks, paint or oil runs, or similar types of damage. Wherever such damage does occur, and before the final inspection of the project, the Contractor shall remove the damaged work and replace it in conformance with the Contract Documents at no cost to the Owner. C. All methods of protection shall be selected by the Contractor. Protection shall be maintained by the

Contractor, and in good condition, until each element so protected is ready for the next phase of work, or until it is being prepared for final cleaning. All protection shall be carefully removed so as to cause no damage to the protected element or area. D. The Contractor shall adequately protect the landscape work and the work of others, adjacent property, and the public, and shall be responsible for any damage or injury resulting from his acts, as

required by conditions of permit. Barricade holes and trenches that could be dangerous to pedestrians or workers in the area. E. The Contractor shall keep the premises free from accumulation of waste materials and debris on a daily basis. After all landscape operations have been completed, the Contractor shall remove all trash, excess soil, empty plant containers, tools and equipment used in this work, and/or any other debris resulting from his work on the site. Any scars, ruts, or mars in the area caused by the

PART 2 MATERIALS - As necessary for proper completion of this work.

SECTION 02231 - PROTECTION OF EXISTING TREES & SHRUBS, AND TRIMMING

landscape work shall be repaired at the Contractor's expense.

PART 1 GENERAL - See General Conditions Section 02811

PART 2 MATERIALS - As necessary for proper completion of this work.

PART 3 EXECUTION A. The Contractor shall be responsible for all trees and shrubs that are to remain in the project, and shall take all necessary precautions required to assure that they are protected from damage by

shall be exercised to avoid injury to roots, limbs and trunk. Excavation close to trees shall be by hand. Tunneling under roots two (2) inches and larger shall be allowed only after discussion with and approval by the Arborist. C. Excavations in the vicinity of trees shall be closed within 24 hours. Where this is not possible, the side of the excavation adjacent to the tree shall be kept shaded with moist burlap or canvas.

D. The Contractor shall insure that no foreign material and/or liquid, such as paint, concrete, cement, oil,

B. Where it is necessary to excavate in close proximity to existing trees and shrubs, all possible caution

turpentine, acid or the like, be allowed to contaminate any soil within the drip line (i.e., the outside edge of foliage overhang) of any tree or shrub. If such contamination should occur, the Contractor shall remove soil as directed by the Arborist & replace it with acceptable soil at no cost to the Owner. E. All damage to existing trees by Contractor shall be repaired at his expense by a licensed tree surgeon or other approved personnel as approved by the Arborist.

F. Damage to a tree which results in death or permanent disfigurement shall result in the Contractor's

complete removal of said tree, including roots, from the site. The Contractor shall, at his own

expense, replace the tree with one of equal value as established by the Arborist. The Arborist shall be the sole judge of the condition of any tree.

is not limited to, the following:

workers and equipment.

SECTION 02300 - EARTHWORK

PART 1 GENERAL 1.01 WORK INCLUDED

A. Requirements of the General Conditions (Section 02811), Supplementary Conditions, and Division One Sections apply to all Work in this Section as fully as if repeated herein. B. The work of this Section includes all labor, materials and equipment required to complete the work indicated on the drawings. The work shall be performed in accordance with the best standards of practice relating to the various trades and under the continuous supervision of a competent foreman, capable of interpreting the drawings and these specifications. The work of this Section includes, but

 Soil testing. 2. Excavation and off site disposal of any existing unsuitable soil in accordance with the recommendations of the required soils report. 3. Replacement of existing unsuitable soil with approved import soil in accordance with the

4. Furnish and install all import soil necessary to establish finish grades in excavated landscape

areas, & to complete the required planting of on-grade planting areas, & for backfilling planters.

5. Provide, erect, maintain & later remove, temporary safeguards such as barricades, bridges, guard rails, signs, lights & flares for the protection of personnel, the public, equip. & materials as the Owner's Representative directs, & as required by state and local codes and ordinances.

bearing the manufacturer's guaranteed analysis.

before commencement of any planting.

these tests are required.

recommendations of the required soils report.

1.02 RELATED WORK SPECIFIED ELSEWHERE Civil Engineer's Grading and Drainage Plans, Details and Specifications

Section 02230 - Site Clearing and Protection of Existing Work

Section 02231 - Protection of Existing Trees and Shrubs, and Trimming Section 02301 - Landscape Soil Preparation and Finish Grading

1.03 QUALITY ASSURANCE

A. Conform to all federal, state and local ordinances relating to the protection of the public, Contractor's personnel and the flow of traffic. B. Bench marks, monuments, and other reference points will be furnished by the Owner. The Contractor shall maintain reference points. Replacement of reference points will be at the

well as with the Owner's Representative's operation. 1.04 SUBMITTALS A. Contractor shall supply the Owner's Representative with a sample of all supplied materials

accompanied by analytical data from an approved laboratory source illustrating compliance, or

C. Cause minimum interference with workers, materials or equipment of other trades on the project as

B. Delivery to the site may begin upon approval of samples by the Owner's Representative. C. The Contractor shall furnish a certificate of delivery with each delivery of materials in containers or bulk. Certificate shall state source, quantity or weight, type and analysis, and date of delivery. All certificates shall be submitted to the Owner's Representative. D. Soil Tests

recommendations. Soils testing shall be completed and test results and amendment

recommendations submitted to the Owner's Representative a minimum of fifteen (15) days

1. The Contractor shall be responsible for obtaining soils testing and soil amendment

2. The testing laboratory shall be approved by the Owner's Representative. (Refer to Section 3. The testing service for soils analysis shall use the following criteria for soil testing: USDA Agricultural Suitability Test per Handbook 60, to include Boron presence and content; and University of California Soil Fertility Test.

4. Interpretations, fertilization and soil amendment recommendations, and comments regarding

5. Soils test sites shall occur not more than 250 feet on center in the planting areas, unless otherwise noted on plans 6. Samples of all import soil from each source shall also be submitted to the soils testing lab for analysis, interpretation and recommendations prior to placement, blending or backfilling.

SECTION 02300 - EARTHWORK (continued)

1.05 GUARANTEES

A. All soil material installed under this Contract shall be guaranteed against any and all poor, inadequate or inferior materials and/or workmanship. Poor quality or faulty materials or workmanship, as determined by the Owner's Representative, shall be replaced by the Contractor, with materials as originally specified, at the Contractor's expense.

PART 2 MATERIALS

2.01 IMPORT SOIL

A. Any import soil must meet the requirements as specified in soils report with regard to chemical analysis, compatibility with site sub soil, and suitability for compaction B. Import soil shall be approved by the Soils Testing Laboratory before hauling on site. Materials used for fill shall be suitable for required compaction, and free of debris, large rocks, herbicides, noxious

PART 3 EXECUTION

3.01 SOIL REMOVAL AND DISPOSAL A. Contractor shall assume responsibility for the alleviation or prevention of dust nuisance on or about the site, and at off site disposal areas.

B. Contractor shall be responsible for hauling and dumping at nearest lawful disposal area. Provide all equipment necessary for the complete removal of waste materials. C. Adequately protect adjacent property, existing utilities, trees and other items to remain during the course of this work. In the event of damage, immediately make repairs or replacements necessary to

the satisfaction of the Owner's Representative, at no expense to the Owner. D. Stripping, grubbing and soil removal shall conform to the recommendations of agricultural soils report

and Geotechnical Engineer's report, plans and specifications. E. If materials are removed below the required elevations, through error or careless excavating, the Owner's Representative will determine necessary corrective measures at the Contractors expense. Such corrective measures shall be performed promptly by the Contractor at no expense to the

3.02 IMPORT SOIL PLACEMENT AND GRADING

weed seeds or any other elements harmful to plant growth.

A. Protect the Owner's and adjacent property from injury or loss. All damage to existing property (i.e., buildings, paving, fences, utilities, trees. shrubs, lawn or ground cover, etc.), caused by the Contractor during his operation or as the result of a malfunction of installed work during the guarantee period, shall be repaired at no expense to the Owner.

B. At no time shall the soil be worked when the moisture content is so great that damage to the soil

structure will occur, nor when it is so dry that clods will not break readily and excessive dust will form.

1. All areas which are to receive fill material shall be approved by the Geotechnical Engineer

Water shall be applied whenever necessary during soil placement and grading to insure proper moisture content and to alleviate or prevent dust nuisance on or about the site. C. Subgrade Preparation:

before the placement of any fill materials. 2. All ruts, hummocks or other uneven surface features shall be removed by surface grading before placement of any fill materials. D. Placement of Import Soil

1. Approved import soil shall be spread and brought up to finish grade in layers not exceeding six 2. Furnish satisfactory power-operated or power-driven hand operated equipment wherever possible to compact backfill to requirements specified by Geotechincal Engineer. 3. If the backfill's degree of compaction is unsatisfactory, make necessary adjustments until

drawings. Surfaces shall be well compacted, reasonably smooth and free from irregularities, with uniform transitions made to adjacent areas. Provide a minimum one quarter (1/4) inch per foot slope away from building walls, paving or other structures. F. Uniformly grade areas within the limits of site grading under this section, including adjacent transition

areas. Smooth finished surfaces within specified tolerances, with uniform levels or slopes between

points where elevations are shown, or between such points and existing grades

A. Protect newly graded areas from traffic and erosion, and keep free from trash and debris.

weather, scarify the surface, reshape, and compact to the required density prior to further

E. Perform necessary grading to achieve final elevations closely approximating those required by the

specifications are met. material placed over layers not satisfactorily compacted soil shall be

removed and the unsatisfactory areas re-compacted as directed by the Geotechnical Engineer.

B. Repair and re_establish grades settled, eroded, and rutted areas to the specified tolerances. C. Where completed compacted areas are disturbed by subsequent construction operations or adverse

3.03 PROTECTION OF GRADED AREAS

construction. 3.04 FIELD QUALITY CONTROL A. The surface of all excavations, fills, grading and subgrades shall be finished to a reasonably smooth and compact surface substantially in accordance with the lines, grades, and cross_sections or elevations shown. The degree of finish for all grades shall be within one tenth (1/10) foot of the grades and elevations indicated, except that the degree of finish for subgrades shall be as specified.

B. Field Density Test shall be conducted to check the degree of compaction of native soils and backfill.

Samples will be taken by the Soils Engineer or Geotechnical Engineer employed by the Owner.

C. Provide written certification by a licensed surveyor or Civil Engineer upon completion of grading operations, that grades are within the tolerances specified.

SECTION 02301 - LANDSCAPE SOIL PREPARATION AND FINISH GRADING

PART 1 GENERAL 1.01 WORK INCLUDED

A. See General Conditions Section 02811 B. The work of this Section includes all labor, materials and equipment required to complete the work indicated on the drawings. The work shall be performed in accordance with the best standards of practice relating to the various trades and under the continuous supervision of a competent foreman, capable of interpreting the drawings and these specifications. The work of this Section includes, but is not limited to, the following:

2. Soil preparation and fine grading of all planting areas, including the addition of soil

amendments and fertilizers, and placement and finish grading of import soil for mounding. Furnishing and installation of all planting backfill materials and import soil for mounding. 4. Guarantee and replacement

1.02 RELATED WORK SPECIFIED ELSEWHERE - See Section 02300 Earthwork

1.04 SUBMITTALS

Soil testing.

1.03 QUALITY ASSURANCE A. All materials shall be of standard, approved and first grade quality and shall be in prime condition

when installed and accepted. Any commercially processed or packaged material shall be delivered

A. Contractor shall supply the Owner's Representative with a sample of all supplied materials accompanied by analytical data from an approved laboratory source illustrating compliance, or bearing the manufacturer's guaranteed analysis. B. Material samples shall include fertilizers and soil conditioners, and other soil amendment materials

indicated in soils test recommendations, or noted on plans and in these Specifications.

C. Delivery to the site may begin upon approval of samples by the Owner's Representative.

to the site in the original unopened container bearing the manufacturer's guaranteed analysis.

D. The Contractor shall furnish a certificate of delivery with each delivery of materials in containers or bulk. Certificate shall state source, quantity or weight, type and analysis, and date of delivery. All certificates shall be submitted to the Owner's Representative. E. Soil Tests:

1. The Contractor shall be responsible for obtaining soils testing and soil amendment

recommendations submitted to the Owner's Representative a minimum of fifteen (15) days before commencement of any planting 2. The testing laboratory shall be approved by the Owner's Representative. (Refer to Section

USDA Agricultural Suitability Test per Handbook 60, to include Boron presence and content;

laboratory for analysis, interpretation and recommendations prior to placement, blending or

recommendations. Soils testing shall be completed and test results and amendment

4. Interpretations, fertilization and soil amendment recommendations, and comments regarding these tests are required. 5. Soils test sites shall occur not more than 250 feet on_center in the planting areas, unless

6. Samples of all import soil from each source shall also be submitted to the soils testing

1. In order to determine if the specified quantities of soil amendments have been used, a

sample of each soil amendment shall be delivered by the Contractor to a plant/soils

3. The testing laboratory for soils analysis shall use the following criteria for soil testing:

F. Soil Preparation Conformance Test:

and University of California Soil Fertility Test.

laboratory acceptable to the Arborist within fifteen (15) days after recording of the Contract. From the sample, the testing laboratory will prepare a control mix in accordance with the specifications resulting from the required soil tests. 2. After the soil amendments have been thoroughly mixed into the planting areas, soil samples will be taken and compared with the laboratory control mix. Deviation from the control mix shall not exceed twenty percent (20%).

A. All soil material installed under this Contract shall be guaranteed against any and all poor,

1.05 GUARANTEES

inadequate or inferior materials and/or workmanship. Poor quality or faulty materials or workmanship, as determined by the Arborist, shall be replaced by the Contractor, with materials as originally specified, at his expense.

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SPECIFICATIONS Ownership of these designs, drawings

details and specifications is that of the

andscape Architect. Reproduction of the

other than the specified project is prohibit

documents in whole or part for any use

without the expressed written consent of the

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Landscape Architect.

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ISSUED FOR: CITY OF SANTA BARBARA

DATE

JULY 19, 2024

SAF / SAF

DESIGNED BY/DRAFTED BY

SCALE N.T.S. PROJECT NO. 22-310 DRAWING NO. SAF-02069

SHEET

PART 1 GENERAL

C. Construction schedules:

\\SERVER\media\SAF Files\PROJECTS\22-310 Arkley\Drawings\Landscape\CONST. DWGS\SAF22-310-05-SPC.dwg 30X42 Wednesday, June 5, 2024 10:56:08 AM

2.01 ORGANIC AMENDMENTS (MODEL SPECIFICATION) A. Organic Amendment shall be derived from bark of white fir, red fir or pine; nitrogen stabilized; ground, and screen sized.

 Particle size: minimum 95% passing 4_mesh_screen

minimum 80% passing 8_mesh screen Nitrogen Content - 0.5% based on dry weight for redwood sawdust. 1.0% based on dry weight for fir or pine bark. NOTE: Pine Sawdust NOT acceptable.

Salinity - maximum conductivity 4.5 millimohs/cm at 25 degrees C, as measured by saturation extract method. 4. Organic content - minimum 90% based on dry weight.

Acceptable products meeting these specifications are `Forest Humus' by Sequoia Forest Products; `Forest Bark Humus' by Sequoia Horticultural Products; or other approved equal as approved by the Owner's Representative.

Phosphoric Acid, which has been processed in such a manner as to retain the normal bacteria

2.02 ORGANIC FERTILIZER (MODEL SPECIFICATION) A. Organic Fertilizer shall be processed sewer sludge with minimum content of 1% Nitrogen and 2%

B. Final specifications for Organic Fertilizer shall be as recommended by the Arborist.

2.03 SOIL CONDITIONER/FERTILIZER (MODEL SPECIFICATION)

A. Soil Conditioner/Fertilizer shall be 'Gro-Power' 5-3-1 by Gro-Power, Inc., 15065 Telephone Avenue, Chino, California 91710, Telephone: (909) 393-3744, 16-6-8 commercial fertilizer, 12-12-12 commercial fertilizer, or as otherwise noted on plans.

2.04 MINERALS AND ELEMENTAL SOIL AMENDMENTS (MODEL SPECIFICATION)

B. Soil Sulfur shall be Agricultural grade product containing minimum approximately 99% sulfur (expressed as elemental).

C. Phosphate fertilizers shall be supplied as single or triple superphosphate. Single superphosphate shall have an analysis range from 0-18-0 to 0-22-0. Triple superphosphate shall have an analysis range from 0-39-0 to 0-46-0. In all cases, phosphate fertilizers shall be granular and free flowing. D. Ammonium Phosphate shall be rated 11-48-0. E. Ammonium Sulfate shall be rated 20-0-0.

F. Gypsum shall be agricultural grade product containing minimum 98% calcium sulfate.

H. Potassium nitrate shall be first quality commercial grade.

contamination, suitable for incorporating into planting soil. Grading not to exceed that of "nursery sand" as supplied by Consolidated Rock Company.

J. Sphagnum peat moss shall be a standard horticultural product. Its composition shall furnish ample water-holding capacity and retention of plant food, be free of sticks, stones, weedy roots, mineral or other foreign matter, and shall be delivered air dry in standard bales.

K. Final specifications for Minerals and Soil Amendments shall be as recommended by the Arborist.

2.05 MULCH (MODEL SPECIFICATION)

A. Mulch shall be a uniform blend of organic materials containing: Nitrohumus (digested, centrifuged, composted sludge)

Bark, selected wood fibers, and rice hulls, all to pass through three fourths (3/4) inch screen 3. Mineral acidifiers

B. The final specifications for mulch shall be as recommended by the Arborist.

soil. Actual mix to be as defined in required soils report recommendations.

2.06 BACKFILL MATERIALS (MODEL SPECIFICATION)

A. Backfill material shall consist of site or import soil (as determined by soil testing results), amended per soil report recommendations, and shall be free of weeds and debris. B. Model Backfill Mix shall be one (1) part by volume of Soil Amendment to two (2) parts by volume of

PART 3 EXECUTION

A. At no time shall the soil be worked when the moisture content is so great that damage to the soil structure will occur; nor when it is so dry that clods will not break readily and excessive dust will form. Water shall be applied whenever necessary during tilling, fine grading and planting to insure proper moisture content.

3.02 FINISH GRADING A. Finish grading shall consist of finishing surfaces by raking smoothly and evenly, and removing and off site disposal of all extraneous matter to facilitate natural run off of water. B. Finish grades shall allow for the later addition of soil amendments and take into account the

Lawn areas: One (1) inch below the grade of adjacent pavement, walks, curbs, or headers. Before and during finish grading, all weeds and grasses shall be dug out by the root and disposed of off site. Completely scarify site of all vegetation to a depth of six (6) inches. Remove all roots, stones and other foreign matter of two (2) inches diameter or greater. Cut

up and remove from site all shrubs and grasses not indicated to remain. C. When preliminary grading and weeding have been completed, and the soil has dried sufficiently to be readily worked, all planting areas shall be graded to the elevations indicated on the drawings. Grades not otherwise indicated shall be uniform levels or slopes between points where elevations

are given. Finish grade shall be a smooth, even, uniform plane with no abrupt change of surface. D. Soil areas adjacent to buildings or paving shall slope away from the structure to allow a natural run-off of water, and surface drainage shall be directed as indicated on the drawings by remodeling surfaces to facilitate the natural run_off water. Low spots and pockets shall be graded to drain

E. Contractor is to finish grade with proper slope to drains. All flow lines, designated or not, shall be graded and maintained to allow free flow of surface water, and shall conform to the intent of all plans and sections after thorough settlement and compaction of the soil.

3.03 PLACEMENT OF SOIL FOR MOUNDING

A. Prior to placement of soil, Contractor shall scarify all exposed soil surfaces to a depth of six (6) in. B. Approved soil shall be spread and brought up to finish grade in layers not exceeding six (6) inches. C. Upon placement, soil density shall be eighty (80) percent maximum relative compaction.

D. All mounds shall be well compacted, smooth landforms, free from irregularities, with uniform

A. Cultivate all areas to be planted to a depth of at least six (6) inches, so that the soil shall be loose and friable. The top two (2) inches of all areas to be planted shall be free of stones, stumps, roots, or other deleterious matter one (1) inch in diameter or larger; and shall be free from all wire, concrete or other debris that would be a hindrance to planting or maintenance.

B. After approximate finished grades have been established soil shall be conditioned and fertilized by uniformly spreading & cultivating the recommended materials thoroughly into the top six (6) in. of soil. C. Model Soil Amendment shall consist of the following quantities of materials per 1,000 square feet of planting area: four (4) Cubic Yards Nitrolized Redwood Shavings, 150 pounds 'Gro-Power' 5-3-1,

based upon results of the required soil tests. D. All soil areas shall be compacted and settled by application of irrigation to a minimum depth of twelve

(12) inches prior to planting.

where working it will not destroy the soil structure. F. All planting areas shall be fine graded to a smooth, even, and uniform plane with no abrupt change of surface. All weeds shall be removed and disposed of by the Landscape Contractor.

3.05 FIELD QUALITY CONTROL

shall request inspection at least twenty four (24) hours in advance of the time inspection is required. Inspections are required as follows:

When finish grading is completed

After placement of soil for mounding 3. When soil amendments have been applied, but before rototilling

4. When rototilling has been completed

SECTION 02810 - LANDSCAPE IRRIGATION SYSTEMS

PART 1 GENERAL

1.01 WORK INCLUDED

B. The work shall include, but not necessarily be limited to the following: 1. Procurement of all applicable licenses and permits, including payment of associated fees.

Ascertainment of utility locations prior to construction.

compaction. 4. Furnishing and installation of all materials required for a fully automatic irrigation system as

7. Replacement of unsatisfactory materials or equipment.

8. Cleanup. 9. Submission of Record Drawings.

10.Maintenance of irrigation system. 11.Guarantee of irrigation system.

C. Any discrepancies found between the Specifications and Drawings, or between Drawings, shall be brought to the immediate attention of the Owner's Representative before installation, purchasing, and/or delivery. The Owner's Representative shall be the sole judge as to the resolution of the contradiction or discrepancy.

1.02 RELATED WORK SPECIFIED ELSEWHERE

B. Section 02230-Site Clearance and Protection of Existing Work

D. The Contractor shall be responsible for coordinating the work with all other trades.

1.03 VERIFICATION OF EXISTING CONDITIONS - See Section 02811

1.04 RULES AND REGULATIONS

A. The Contractor is obligated to follow all regulations, ordinances, and codes governing the type of work on the job site. Any permits that are needed for installation or construction of any work included under this Contract which are required by the authorities of jurisdiction, shall be obtained and paid for by the Contractor following whatever ordinances, regulations and codes requiring permits. If the authorities of the jurisdiction require inspection at said points of the installation, the Contractor shall

jurisdiction shall be furnished at no cost to the Owner. C. When the Construction Documents call for materials or construction of a better quality or larger size

than required by the above mentioned rules and regulations, the provision of the Construction Documents shall take precedence over the requirements of said rules and regulations. D. Provide, erect, maintain and later remove, temporary safeguards such as barricades, bridges, guard rails, signs, lights and flares for the protection of personnel, the public, equipment and materials as Owner's Representative directs, and as required by state and local codes and ordinances.

1.05 QUALITY ASSURANCE

B. The selection of materials and execution of operations required under these drawings and specifications are subject to approval of the Landscape Architect or Owner's Representative. The Landscape Architect or Owner's Representative will have the right to reject material and work which does not conform to the Contract Documents at any stage of the operation. All rejected material shall be promptly removed and corrected by the Contractor as directed at no expense to the Owner.

C. The sprinkler system has been designed according to the operation characteristics of the specified equipment; therefore, no substitution will be allowed from the equipment specified. If any specified material is not available, the Contractor shall notify the Landscape Architect or the Owner's Representative and request an approved substitute before proceeding. D. The Contractor shall furnish the articles, equipment, materials or processes specified by name in the

Drawings and Specifications. Due to the scale of the Drawings, it is not possible to indicate all offsets, fittings, sleeves, etc. which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan accordingly, furnishing such fittings, etc., as may be required to meet such conditions

may be rejected, and the Contractor required to remove such materials from the site at his own F. The Contractor shall exercise care in handling, unloading and storing of PVC pipe and fittings. All

PVC pipe shall be transported in a vehicle which allows the length of pipe to lie flat, so as not to subject it to undue bending or concentrated load at any point. Any section of pipe that has been dented or damaged will be discarded, and if installed shall be replaced with new undamaged piping. G. Special care shall be exercised with the storage of PVC pipe and fittings so that they are not subject to prolonged exposure to sunlight.

1.06 SUBMITTALS A. Material List

1. A complete material list shall be submitted prior to performing any work. The material list shall include the manufacturer, model number, description and quantities of all materials and

1. The Contractor shall provide and keep up to date on a daily basis a complete as-built record, red-lined on blueprint or blackline, showing all deviations from plans to actual installation. The drawings shall also show approved substitutions of size, material and manufacturer's name, model number and catalog number. These drawings shall be available for inspection at all

2. The Contractor shall dimension on record drawings the location of the following items from two permanent points of reference, such as building corners, sidewalks, road intersections, etc:

Connection to existing electrical power.

Gate valves.

Remote control valves.

Remote control valve wire splices. 3. Before the date of the final inspection, the Contractor shall deliver as-built Record Drawings as required by Section 01720 to the Owner's Representative. Delivery of the as-built drawings will not relieve the Contractor of the responsibility of furnishing required information that may be omitted from the drawings.

C. Controller Charts 1. As-built drawings shall be approved by the Owner's Representative before controller charts are prepared.

2. Provide one controller chart for each controller supplied

3. The chart shall show the area controlled by each remote control valve. A different color shall be used to indicate the area of coverage for each station. Valve station numbers shall correspond to the Record Drawings. A reproduction of the Record Drawings shall be used for this purpose.

between two layers of ten (10) mil thick plastic sheeting. Controller charts must be completed and approved prior to final review of irrigation system. D. Operation and Maintenance Manual

1. Provide two individually bound manuals detailing operation and maintenance requirements for irrigation systems. Manuals shall be delivered to the Owner no later than ten (10) days prior to completion of work.

2. Provide the following in each manual: a. Index sheet, stating irrigation contractor's name, address, telephone number, and

name of each person to contact. Guarantee statement.

Equipment list providing the following for each item: manufacturer's name, make and model number; name and address of local manufacturer's representative; spare parts list in detail; and detailed operating and maintenance instructions for major equipment.

d. Manufacturer's warranties and guarantees for all equipment installed. E. Tools and Equipment

1. Furnish the following tools and equipment as a part of this contract: a. Two (2) sets of special tools required for removing, disassembling and adjusting each type of sprinkler and valve supplied on this project.

Two (2) keys for each automatic controller. Six (6) quick coupler keys and matching hose swivels for each type of quick coupling valve installed. e. Five (5) compression repair couplings for main line pipe of each size and type.

Five (5) elbows, tees, and couplings for each size and type of PVC pipe. Five (5) sprinkler assemblies for each type of rotor installed, and type. Eight (8) sprinkler assemblies for each type of spray installed.

conclusion of the project. Before final inspection can occur, evidence must be shown that the Owner's Representative has received this material. 3. Provide the Owner's Representative with instructions for major equipment, and show

evidence in writing at the conclusion of the project that this service has been rendered. F. Checklist: 1. Provide a signed and dated checklist and deliver to the Owner's Representative prior to final

2. Use the following format: a. Plumbing permits: if not required, so note.

Operation and maintenance manuals: received by and date.

Material approvals: approved by and date. Pressure line tests: by whom and date. Record drawings: received by and date. Controller charts: received by and date.

Manufacturer's warranties: received by and date. Written guarantee: received by and date. Tools and equipment: received by and date.

SECTION 02810 - LANDSCAPE IRRIGATION SYSTEMS (continued)

1.07 GUARANTEE AND REPLACEMENT

included in the Operations and Maintenance Manual.

A. The Contractor shall guarantee the entire system against all defects in materials, equipment and workmanship for one year from the date of final acceptance by the Owner, without cost to the Owner.

B. Guarantee Form: The contractor shall provide a written, dated, and signed guarantee for the replacement of defects of material, equipment or workmanship which may develop during the period of one year from the date of final acceptance, and also to repair or replace any damage resulting from the repairing or replacing of such defects at no additional cost to the Owner. A copy shall be

C. Manufacturer's warranties shall not relieve the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee. D. All guarantee periods shall commence from the time of final acceptance by the Owner's Rep.

E. Determination of defective materials or workmanship shall be made by the Owner's Representative. Defective materials or workmanship shall be replaced promptly by the Contractor with materials as originally specified at no expense to the Owner.

PART 2 PRODUCTS

2.01 GENERAL A. All materials shall be new, without flaws or defects and as specified on Irrigation Plans. All materials shall have a minimum guarantee of one (1) year against material defects or defective workmanship. B. All equipment required but not specified shall be provided by Contractor.

C. No substitutions will be accepted without written approval from the Owner's Representative. 2.02 PVC IRRIGATION PIPE AND FITTINGS

A. Pipe up to and including two and one half inches (2-1/2") diameter shall be solvent-welded Schedule 40 PVC for all below grade mainline and laterals, and brown solvent-welded Schedule 40 UVR (ultraviolet resistant) PVC for all above ground mainline and laterals. B. Fittings for pipe up to and including two and one half inches (2-1/2") diameter shall be solvent-welded

Schedule 40 PVC for all below grade mainline and laterals and brown solvent-welded Schedule 40 UVR PVC for all above grade mainline and laterals. C. All PVC pipe must bear the following markings: manufacturer's name, nominal pipe size, Schedule or Class, pressure rating in PSI, NSF (National Sanitation Foundation) approval, date of extrusion.

IPS Schedule and NSF seal of approval. E. Solvent cement and primer for PVC pipe and fittings shall be of type and installation methods

D. All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable

prescribed by the pipe manufacturer. F. Below grade sprinkler and swing joint risers and nipples shall be Schedule 80 PVC with molded threads, length as required. Cutoff type risers are not permitted. Polyethylene 'funny pipe' minimum one-half inch I.D. may be used in place of PVC to make the transition from lateral lines to sprinkler heads. 'Funny pipe' must have one (1) Marlex Street Ell and one (1) spiral barb fitting at each end. G. Riser for above grade installation shall b Schedule 80 "brownline" UVR PVC.

H. Riser units shall be fabricated in accordance with the details shown on the plans. I. Risers nipples for all sprinkler heads shall be the same size as the riser opening in the sprinkler body. 2.03 FLEXIBLE IRRIGATION PIPE AND FITTINGS

C. Fittings hall be "Hi-Max" insert type in accordance with ASTM D2609 Standard.

2.04 BRASS PIPE AND FITTINGS

A. Brass pipe shall be 85% red brass screwed pipe conforming to Federal Specification #WW-P-351. B. Fittings shall be red brass conforming to Federal Specifications #WW-P-460.

A. Flexible polyethylene pipe, SDR 15, shall be rated at 100 psi working pressure for laterals per plan.

B. Flexible PVC pipe, ASTM D2287, shall be algae resistant rated at 100 psi working pressure for

A. Piping less than two (2) inch diameter shall be installed in three (3) inch diameter sleeves; piping two (2) or two and one half (2- 1/2) inches in diameter shall be installed in four (4) inch diameter sleeves; piping three (3) inch or four (4) inch diameter shall be installed in six (6) inch diameter sleeves. B. Sleeves four (4) inches and smaller shall be Schedule 40 PVC pipe. C. Sleeves larger than four (4) inches shall be Schedule 80 PVC pipe.

D. Extend all sleeves a minimum of twelve (12) inches beyond edges of paving, walls or other

2.06 BACKFLOW PREVENTION DEVICES

installation methods as required by local codes.

structures, and cap both ends to keep out dirt and debris.

installed as required by local or state codes. B. Backflow prevention devices shall be equipped with gate valves and field test cocks. C. Backflow prevention devices shall be equipped with 'Y' strainers with 40 mesh monel screen.

D. All piping from point of connection through backflow prevention unit shall be of materials and

A. Backflow prevention devices shall be of the size and type specified on plans and details, and shall be

2.07 AUTOMATIC CONTROLLERS

A. Automatic controllers shall be of size and type shown on the plans. B. If not provided by manufacturer, install U.L. approved on/off switch inside controller cabinet.

C. Unless noted otherwise on plans, 120 Volt power supply at the automatic controller location shall be provided by Owner. The Contractor will make the final hook-up from the power supply to controller.

2.08 CONTROL WIRING

A. Valve wiring from the automatic controllers to the electric control valves shall be a minimum of 14 gauge copper single conductor wire with 4/64 inch vinyl insulation as approved for direct underground burial in 30 Volt AC or less service. Install in accordance with valve manufacturer's B. Valve control wires shall be a different color wire for each automatic controller. Common wire shall

be white with a different color stripe for each automatic controller. 2.09 ELECTRIC CONTROL VALVES

A. All electric control valves shall have a manual flow adjustment. B. Electric control valves shall be of the size and type shown on the plans. C. A permanent tag indicating Controller number and Station number shall be attached to each valve.

Acceptable tags are available from T. Christy Enterprises, Anaheim, CA 92805, and (714) 507-3300. 2.10 VALVE BOXES

A. Use round valve box with extension and cover for all gate valves: Carson Industries 910-12B or Ametek 10" X 13-1/4" round with 9" diameter twist-lock cover or other approved equal. Extension sleeve shall be PVC six (6) inch diameter minimum size.

B. Use rectangular box for all electrical control valves. cArson Industries 1419-12B with green bolt

C. Use 12" X 5-1/4" round access box for all drip emitters: Salco Products, Inc. DAS-8 or other equal.

down cover or Ametek 16" L X 10-3/4" W X 12" H rectangular box with snap-lock covers, or other

2.11 QUICK COUPLING VALVES A. Quick coupling valves shall be installed per the plan and details. Each shall have a brass, one or two piece body designed for working pressure of 150 psi, operable with quick coupler. Key size and type shall be shown on plans.

2.12 ISOLATION VALVES A. Gate valves shall be 125 WSP, 200 WOG-rated bronze gate valve with screw-in bonnet, non-rising stem and solid wedge disc

B. Ball valves shall be 400 WOG-rated bronze ball valve with two piece body, conventional port and blowout proof stem. C. All isolation valves shall be installed as shown on plans and details.

A. All sprinkler heads shall be of the same size and type, and deliver the same rate of precipitation with the diameter (or radius) of throw, pressure and discharge, as shown on the plans and/or specified.

2.14 DRIP IRRIGATION TUBING AND/OR EMITTERS A. Self-flushing, pressure-compensating drip tubing shall be of the manufacturer's size and type specified on the Irrigation Plans and Details.

B. Single and multi-outlet drip emitters shall be of the manufacturer's size and type specified on the

Irrigation Plans and Details. C. Fittings, connectors, caps, and other parts needed to install drip irrigation tubing and/or emitters shall be as specified by the manufacturer. THRUST BLOCKS

A. Concrete thrust and anchor blocks shall be placed at each fitting 3" or greater and shall consist of

Class C @ 2000 PSI with 4" slump Portland cement concrete. B. Construct thrust blocks according to the schedule shown in details LID 1-4

PART 3 EXECUTION 3.01 GENERAL A. Drawings are diagrammatic, and work shall be laid out in accordance with site conditions. The work

shall be installed in such a manner as to avoid conflicts between irrigation systems, planting, and

architectural features. B. When it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that may not have been considered in the irrigation design, such obstructions or differences should be brought to the attention of the Owner's Representative. In the event that this notification is not performed, the Contractor shall assume full responsibility for any necessary repairs

C. Any changes from the plan shall be noted on the "As-Built" drawings. Locate all mainlines by

D. Manufacturer's directions and detailed drawings shall be followed in all cases where the

dimension from two permanent, above grade points of reference.

drawings or described in the Specifications.

A. Coordinate installation of sprinkler irrigation materials, including pipe, so there is no interference with utilities or other construction, or difficulty in planting trees, shrubs, vines and ground cover. B. Cause minimum interference with workers, materials or equipment of other trades on the project; as

C. Sprinkler irrigation systems shall be connected to water supply point(s) of connection using methods as required by local code. Connections shall be made at approximate locations as shown on the drawings, or as directed by the Owner's Representative. Verify exact location in field. The Contractor is responsible for any changes caused by actual site conditions.

SECTION 02810 - LANDSCAPE IRRIGATION SYSTEMS (continued)

3.03 PIPING BELOW GRADE A. Provide for a min. cover of twenty-four (24) inches for all pressure mainline piping where machine trenching is possible; minimum eighteen (18) inches cover in areas where hand trenching is required.

B. Provide for a minimum cover of twelve (12) inches for all non-pressure lines. C. Self-flushing, pressure-compensating drip tubing shall be installed at a uniform depth not to exceed four (4) inches below finish grade in Tree, Shrub or Groundcover planting areas, and where turf is planted between paving joints. In turf areas where aerification is performed, the tubing shall be

installed six (6) inches below finish grade. D. Where lines occur under paved areas, consider the dimensions given in Section 3.03 Paragraphs A,

B and C to be below the subgrade. E. All lines shall have a minimum clearance of 6 inches from each other and from lines of other trades.

Do not install parallel lines directly over one another. F. Vertical clearance between irrigation lines & lines of other trades shall be as required by local code.

G. The Contractor shall be responsible for installing concrete thrust blocks where necessary on the mainline and lateral lines as required to protect the line from water surging.

3.04 TRENCHING

A. Excavate trenches to required depths. Follow approved layout for each system. B. Trench bottom shall be flat to insure piping is supported continuously on an even grade.

3.05 PIPING ABOVE GRADE

A. Mainline piping above grade shall be stabilized with #4 Rebar anchor oins (with a minimum 12" below grade leg and 2" below grade hook) curved at top to fit over pipe. Stabilizer bars shall be installed five (5) feet on center maximum and double stake at all changes of direction. Treat anchor pins with a cold galvanized primer such as ZRC or equal. Follow all manufacturer recommendations.

B. Lateral line piping above grade shall be stabilized with #4 Rebar anchor pins (with a minimum 12" below grade leg and 2" below grade hook) curved at top to fit over pipe. Stabilizer bars shall be installed ten (10) feet on center maximum and double stake at all changes of direction. Treat anchor pins with a cold galvanized primer such at ZRC or equal. Follow all manufacture recommendations.

3.06 PIPE ASSEMBLY FOR SOLVENT-WELD PVC PIPE A. The plastic pipe sections shall be placed accurately to line and grade in the prepared trench. The inside of all pipes shall be clean and free of foreign matter, including burrs from cutting of the pipe.

B. Pipe assembly shall have a firm, uniform bearing for the entire length of the pipeline to prevent uneven settlement. All adjustments to grade shall be made by scraping away or filling in with clean earth backfill material, well compacted under the body of the pipe. Wedging or blocking of pipe will not be permitted. Pipe shall be snaked in trenches. The alignment of pipe shall be correct before joint connections are made.

C. The surfaces of the pipes and fittings to be joined shall be free from any dirt, moisture or dust, and only the solvent recommended by the manufacturers shall be used. When cutting of pipe is necessary, the contractor shall remove any rough edges from the cut end of the pipe before coupling the sections together.

E. Adequate provisions shall be made to allow for expansion and contraction.

Guide for Installation of Ring-Tite Pipe), or pipe manufacturer's recommendations. B. Pipe shall be snaked from side-to-side of trench bottom to allow for expansion and contractions. C. All Changes of directions over 15 degrees shall be made with fittings.

D. Construct thrust blocks behind each gasket-end fitting according to the chart shown in details LID1-4. E. When pipe laying isn't in progress & at the end of each working, close pipe ends with plug or cap.

least 24 hours has elapsed for solvent weld setting and curing. 3.08 INSTALLATION OF THRUST BLOCKS - See Chart in Landscape Irrigation Details Shts. LID 1-4

3.07 BACKFILLING A. Trenches shall not be backfilled until all required tests have been performed.

C. If settlement occurs and adjustments to pipes, valves, or sprinkler heads are necessary to bring the system to proper working order, the contractor shall make all the necessary adjustments without extra cost to the Owner. D. Trenches located under areas where paving, asphaltic concrete or concrete will be installed shall be

backfilled with sand -- a layer six (6) inches below the pipe and three (3) inches above the pipe -- and compacted in layers to 95% compaction, using manual or mechanical tampering devices. E. Trenches for piping shall be compacted to equal the compaction of the existing adjacent undisturbed soil & shall be left in a firm, stable condition. All trenches shall be left flush with the adjoining grade.

A. Electrical connections for automatic controller(s) shall be made using methods as required by local code. Connections shall be made to electrical points of connection as shown on the drawings or as directed by the Owner's Representative. Verify exact location in field. The Contractor is responsible for any changes caused by actual site conditions.

C. Low voltage control wire shall run in the same trench with pressure supply lines whenever possible and shall be taped to the pipe at ten (10) foot intervals. Control wires shall be laid loosely in trench without stress or stretching of control wire conductors. D. For systems with above grade mainline, control wire shall be placed under the mainline and taped to

E. Flow sensor wire between controller and flow sensor for below grade mainline shall be run in PVC conduit in the same trench with the pressure supply line. Flow sensor wire shall be laid loosely without stress or stretching of wire. Snake conduit in trench

the pipe at ten (10) feet on center, maximum. (refer to details)

G. Flow sensor wire shall be 2 wire shielded braid direct burial #20 gauge wire. H. An expansion curl shall be provided within three (3) feet of each wire connection, and at each change of direction. Expansion curl shall be of sufficient length at each splice connection at each electric control, so that in case of repair, the valve bonnet may be brought to the surface without

I. Field splices between the automatic controller and electrical control valves shall be avoided. Splices shall be made only at valve locations and shall be placed in the valve box. J. All splices shall be made with Scotch-Loc #3576 connector sealing packs, Rainbird Snap-Tite wire connector or approved equal. Use one (1) splice per connector sealing pack.

control valves shall be connected to the controller in numerical sequence as shown on the drawings. 3.09 REMOTE CONTROL VALVES A. Install remote control valves as located on the drawings, and as shown on the details. When valves

disconnection of the control wires.

3.10 SPRINKLER HEADS A. After all sprinkler pipe lines and risers are in place and connected, and prior to installation of sprinkler heads, thoroughly flush all lines with a full head of water. Sprinkler heads shall be installed only after flushing of the system has been accomplished to the complete satisfaction of the Owner's Rep.

B. Pop-up shrub heads shall be located with minimum six (6) inch clearance from adjacent paving or headers. Pop-up turf heads shall be located with minimum two- (2) inch clearance from adjacent paving or headers. All pop-up heads shall be installed flush with finish grade. C. Shrub heads on risers shall be located with min. ten (10) inch clear from adjacent paving or headers.

E. Anti-drain check valves shall be installed on all sprinkler heads as required to prevent residual flow and erosion of soil. F. All heads shall be set 90 degrees to finished grade unless otherwise designated on the plans.

G. Spacing of heads shall not exceed the maximum indicated on the drawings. In no case shall the

spacing exceed the maximum recommended by the manufacturer. 3.11 BACKFLOW ASSEMBLIES

3.14 PRESSURE TESTING

.12 QUICK COUPLERS A. Quick couplers shall be installed twelve (12) in. to eighteen (18) in. from the nearest adjacent paving. B. Quick couplers shall be installed as shown on details.

A. Install backflow assemblies at a minimum height permitted by local code, and verify exact location

3.13 FIELD QUALITY CONTROL A. The Owner's Representative shall make inspections to assure field quality control. It is the Contractor's responsibility to notify the Owner's Representative for the following reviews, with 48 hours minimum notice: 1. Pressure supply line installation and testing.

B. Provide "walkie-talkie" remote control equipment and/or personnel to maintain communication from review area to automatic controllers. C. Provide up to date as-built drawings at each review.

B. Before testing, mains shall be filled with water for at least 24 hours, and provision shall be made for thoroughly bleeding the lines of air. Pressure gauge shall be installed at the lowest elevation of the pipe. Couplings shall be exposed with pipe sections center loaded. Do not backfill couplings until

A. Perform all hydrostatic tests in presence of the Owner's Representative. The contractor shall notify

SECTION 02810 - LANDSCAPE IRRIGATION SYSTEMS (continued)

per square inch, and proved watertight, prior to paving.

maintained for the duration of the test.

3.14 PRESSURE TESTING C. Do not install remote control valves, quick couplers or any other valve assembly until testing is

D. Provide all equipment necessary to test systems, including force pump, connectors and accurate

pressure gauge. E. Test all pressure lines under hydrostatic pressure of 150 pounds per square inch, and prove watertight. All piping under paved areas shall be tested under hydrostatic pressure of 150 pounds

F. Start pump, charge system to 150 pounds per square inch and record the reading on the pressure gauge. Maintain a hydrostatic pressure of 150 pounds per square inch without pumping for a period not less than two (2) hours with an allowable pressure drop of five (5) pounds per square inch. At the end of that time, record the reading on the pressure gauge. Submit records of test readings to the

Owner's Representative. G. Test is acceptable if no leakage or loss of pressure greater than five (5) pounds per square inch is evident during the test period.

H. Detectable leaks shall be stopped and defects corrected. The Contractor shall make the necessary corrections to stop the leakage, and the system shall be retested until test pressure can be

3.15 COVERAGE TESTS A. Perform coverage tests after sprinkler system is completed, but prior to any planting, in the presence

of the Owner's Representative. B. Test system to assure that all planting areas are watered completely and uniformly. C. Make all necessary adjustments, including realignment of heads, to provide required coverage. D. The entire sprinkler irrigation system shall be under full automatic operation for a period of seven days prior to any planting, and for thirty days after inspection to begin maintenance period. The

Owner's Representative retains the right to waive or shorten the operation period.

3.16 ADJUSTMENT OF THE SPRINKLER SYSTEM

A. The Contractor shall flush and adjust all sprinkler heads for optimum performance, and to prevent overspray onto walks, roadways and buildings. B. Adjustment shall include selecting the best degree of arc and/or nozzle sizes to fit the existing site conditions, and to throttle the flow control at each valve to obtain optimum operating pressure for

3.17 FINAL INSPECTION PRIOR TO ACCEPTANCE

each system per the manufacturer's recommendations.

A. Before final inspection can occur, the Contractor shall show evidence that the Owner's Representative has received all accessories, charts, record drawings and equipment as required. B. The Contractor shall operate each system in its entirety at time of final inspection. Any items deemed not acceptable by the inspector shall be reworked to the complete satisfaction of the

Owner's Representative. C. Requests for re-inspections shall be submitted to the Owner's Representative at least 48 hours before the anticipated date of inspection.

SECTION 02811 - LANDSCAPE PLANTING AND IRRIGATION GENERAL CONDITIONS

PART 1 DESCRIPTION OF WORK

1.01 WORK INCLUDED A. The requirements of this Section apply to all portions of the Landscape work. The Work of all Sections includes all labor, materials, supplies, equipment, tools, services and transportation required to complete the work indicated on the drawings and in these Specifications. The work shall be performed in accordance with the best standards of practice relating to the various trades and under the continuous supervision of a competent foreman, capable of interpreting the drawings and these

1.02 RELATED WORK SPECIFIED ELSEWHERE

1.03 VERIFICATION OF EXISTING CONDITIONS A. Verify drawing dimensions with actual field conditions. Inspect related work and adjacent surfaces. Report all conditions which prevent proper execution of this work to the Owner's Representative. B. Note the location of all existing underground and above ground teatures (utility lines, conduits cables, plant material, etc.) subject to damage in the course of this work. Problems arising from such

features during or before work begins shall be called to the attention of the Owner's Representative

B. The Contractor shall obtain and pay for all permits and inspections as required by governing C. It is the intent of these Specifications that all materials herein specified and shown on the drawings

shall be of the highest quality available and shall meet the requirements specified.

1.05 SUBMITTALS A. All submittals are subject to the approval of the Owner's Representative and shall be in conformance with Section 01300 of these specifications.

A. All material installed under this Contract shall be guaranteed against any and all poor, inadequate or

C. Determination of defective materials or workmanship shall be made by the Owner's Representative.

1.06 GUARANTEE AND REPLACEMENT

A. Wherever possible, several sources of supplied materials or services are named on the drawings or in these Specifications. Where only one manufacturer or supplier is indicated, the Owner's Representative will consider alternate sources for approved equals. B. Submit proposals for Alternates to the Owner's Representative in writing, indicating originally

C. All materials shall be of standard, approved and first grade quality and shall be in prime condition when installed and accepted. Any commercially processed or packaged material shall be delivered

prior to planting.

to the site in the original unopened container bearing the manufacturer's guaranteed analysis.

PART 3 EXECUTION A. After soil placement, apply pre-planting herbicide as recommended by a licensed pest control advisor

B. Operate irrigation system to sprout residual weed seeds and continue to control weeds with herbicide

C. Immediately after planting, apply pre_emergent herbicide as recommended by a licensed pest control advisor to all planted areas which will not be seeded. D. Protect all existing plants from damage.

A. The Landscape Contractor shall keep the premises free from accumulation of waste materials and debris on a daily basis during all phases of landscape installation

B. After all planting and irrigation operations have been completed, the Landscape Contractor shall

any other debris resulting from his work on the site. (Refer to Section 01750 for clean up

remove all trash, excess soil, empty plant containers, tools and equipment used in this work, and/or

A. The Owner's Representative shall make inspections to assure field quality control. The Contractor shall request inspection at least 24 hours in advance of the time inspection is required.

3.06 MAINTENANCE PERIODS AND INSPECTIONS

A. At the completion of all landscape planting operations, and prior to the beginning of the Maintenance Period, the Pre-Maintenance Inspection shall be held. B. The Landscape Contractor shall notify the Owner's Representative, in writing, 48 hours in advance

less than, but not limited to, ninety (90) calendar days. The Owner's Representative shall be notified in writing when Maintenance Period is to begin, and again when Maintenance Period is to terminate. D. At the completion of the Maintenance Period, the Final Inspection shall be held. 3.07 MAINTENANCE



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LANDSCAPE **SPECIFICATIONS**

Ownership of these designs, drawings

details and specifications is that of the

andscape Architect. Reproduction of the documents in whole or part for any use other than the specified project is prohibit without the expressed written consent of the Landscape Architect.

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DATE SAF / SAF SCALE N.T.S. PROJECT NO. 22-310

SAF-02070 SHEET

DRAWING NO.

A. See General Conditions Section 02811

3. Trenching and excavation, stockpiling or removal of excavated materials, and backfilling with

shown on the drawings and described in these Specifications. 5. Supply and installation of irrigation sleeves.

6. Testing of the system.

A. Section 02300-Earthwork

C. Section 02231-Protection of Existing Trees & Shrubs

arrange for and be present at any such inspections. B. Any additional work or furnishing of materials required due to inspection by the authorities of

A. The Contractor, whether personally or through an authorized and competent representative, shall supervise the work constantly. The workmanship for the entire job shall be held to the highest standards of the industry.

E. Equipment or materials installed or furnished without prior approval of the Owner's Representative

equipment to be used. B. Record and As-Built Drawings

a. Point of connection to existing water lines.

Routing of sprinkler pressure lines (dimension maximum 100 feet along routing) Routing of control wiring Ends of all pipeline stubs.

4. Following approval of charts by the Owner's Representative, they shall be hermetically sealed

Two (2), five-foot long valve keys for operation of gate valves.

2. The above mentioned equipment shall be turned over to the Owner's Representative at the

manufacturers of equipment used in this contract furnish directions covering points not shown on the 3.02 PREPARATION

well as with the Owner's operation.

D. No PVC pipe shall be threaded, and all transitions from PVC to metal piping shall be by PVC male-thread adapter fittings. Assemble using teflon tape applied to male threads only.

3.07 PIPE ASSEMBLY FOR C900 GASKET-END PVC PIPE A. Lay pipe and make pipe to fitting or pipe joints following OR70 recommendations (Johns-Mansville

F. Install pressure supply line locating tape along the entire length of pressure supply line. G. Center load pipe with small amount of backfill to prevent arching and slipping under pressure. Leave joints exposed for inspection during testing. H. No water shall be permitted in the pipe until specifications have been completed and a period of at

B. Backfilling shall be done in 6 inch lifts until finish grade is reached. The first layer shall be free from sharp rocks or clods of dirt over 1/2 inch in size.

F. The Contractor shall set in place, cap & pressure test all piping under paving prior to the paving work. 3.08 ELECTRICAL WIRING AND SERVICE

controller location shall be provided by Electrical Contractor. It shall be the responsibility of the Irrigation Contractor to make the final connection from the electrical outlet to the automatic controller.

B. Unless otherwise indicated on the drawings 120-volt electrical power outlet at the automatic

F. For above grade mainline flow sensor wire shall be run in UV-Resistant Sch 40 PVC piping and taped at 10' intervals to the mainline pipe.

K. Automatic controller shall be installed in accordance with the manufacturer's instructions. Remote

are grouped together, allow at least twelve (12) inches between valves. Install each remote control valve in a separate valve box. B. Wherever possible, remote control valves are to be located in ground cover areas.

D. Where a potential hazard would be created, such as at corner of paving, heads shall be installed with double swing-joints as shown on the details.

with the Owner's Representative.

C. Quick couplers shall be installed in ground cover areas wherever possible.

2. Coverage tests (prior to landscape planting). Final review.

the Owner's Representative 48 hours before testing takes place. observation, testing, and approval in writing has been completed A. Applies to all Landscape Construction Documents and Specifications

before commencement of further work. The Contractor shall be responsible for the replacement or repair of features damaged through failure to comply with the above procedure at no expense to the 1.04 QUALITY ASSURANCE A. All work and materials shall be in accordance with local and/or applicable codes.

D. Substitutions will not be permitted unless proof is submitted that any material specified is not available. All requests for substitutions are subject to the approval of the Owner's Representative. (Refer to Section 01635)

inferior materials and/or workmanship for a period of one (1) year.

B. All guarantee periods shall commence from the time of final acceptance by the Owner's Representative at the successful completion of the ninety (90) day Maintenance Period.

Defective materials or workmanship shall be replaced promptly by the Contractor, with materials as originally specified, at no expense to the Owner. PART 2 PRODUCTS 2.01 SOURCES OF MATERIALS OR SERVICES

specified manufacturer, material, supplier or service, and proposed equal. All decisions regarding approved equals shall be made by the Owner's Representative. (Refer to Section 01635)

3.01 WEED CONTROL

A. All planting areas, except lawns and slopes greater than 3:1 shall receive mulch spread evenly over the surface to a minimum depth of one (1) inch.

C. Any scars, ruts, or mars in the area caused by the landscape work shall be repaired at no expense to the Owner 3.04 FIELD QUALITY CONTROL

3.05 MAINTENANCE DURING LANDSCAPE INSTALLATION A. Continuously maintain all areas included in the Contract during the progress of the work. B. Maintenance shall begin immediately after each plant is planted, and shall continue throughout the landscaping process. After all work indicated on the drawings or herein specified has been completed, request Pre-Maintenance Inspection by the Owner's Representative.

for Pre-Maintenance Inspection and approval C. After all areas are approved and accepted by the Owner's Representative, the Maintenance Period shall begin. The Contractor shall maintain the irrigation system and landscaping for a period of not

A. Continuously maintain all areas included under this Contract during the progress of the work, during the 90-day Maintenance Period, and until Final Acceptance of the work by the Owner's Representative.

3 6

ISSUED FOR:

CITY OF SANTA BARBARA

JULY 19, 2024 DESIGNED BY/DRAFTED BY

B. Soil Conditioner/Fertilizer shall have a chemical analysis shown on the packaging and shall comply with the requirements of the agricultural code of the State of California.

C. Final specifications for Soil Conditioner/Fertilizer shall be as recommended by the Arborist or soils analytical report.

A. Iron Sulfate shall consist of a minimum of 20% metallic iron derived from ferric and ferrous sulphate; and 10% sulfur (expressed as elemental).

G. Calcium carbonate lime shall be first quality commercial grade. I. Fine sand shall be a standard horticultural product, clean and free from foreign matter or chemical

4. Micronutrients

3.01 PREPARATION

displacement of existing soil by container planting. If necessary, existing soil shall be removed in order to achieve the following Final Grades. 1. Shrub and ground cover areas: Two (2) inches below the grade of adjacent pavement, walks, curbs, or headers.

transitions between contours and between adjacent areas.

and twenty (20) pounds Soil Sulfur. Final specifications for recommended soil materials shall be

review of the work A. The Owner's Representative shall make inspections to assure field quality control. The Contractor

When fine grading has been completed

3.04 SOIL AMENDMENT AND FINE GRADING

E. After the foregoing deep watering, minor modifications to grade may be required to establish the final grade. These areas shall not be worked until the moisture content has been reduced to a point

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operations necessary to insure the healthy rooting and growth of all plant materials. Adjusting, cleaning, and repair of irrigation systems shall also be included in Maintenance.

C. All planted areas shall be kept free of debris and shall be cultivated and weeded at no more than ten D. Turf shall be mowed as frequently as required to maintain recommended mowing heights without

removing more than one third (1/3) of top growth at any one time. E. Recommended Mowing Heights

Cool_season grasses: Minimum 1-1/2" / Maximum 2-1/2"

F. Inspect tree stakes and guys, and vine and espalier supports. Adjust stakes and guys to prevent girdling of trunks or branches, and to prevent rubbing that causes bark wounds. Remove stakes and guys as soon as they are no longer needed.

G. All planting areas shall receive an application of 16-6-8 commercial fertilizer at the rate of five (5) pounds per 1,000 square feet thirty days after planting. Fertilizer application shall be repeated at thirty (30) day intervals until the end of the maintenance period.

followed by a thorough irrigation (minimum one-half inch $(\frac{1}{2})$) of precipitation) to avoid burn.

I. Weed and Pest Control

1. Keep watering basins and areas between plants free of weeds. Apply pre-emergent herbicides recommended by a licensed pest control adviser. Remove all weeds from planting beds and

2. Inspect plants for insects and diseases. Maintain control with approved materials recommended by a licensed pest control adviser.

3. During the Maintenance Period, the Contractor shall be responsible for maintaining adequate protection of all areas. Any damaged planting shall be repaired at no expense to the Owner.

inspection at least seven (7) days before the anticipated date. Appointments will be set by the Owner's Representative. Either the Contractor or his authorized representative shall be on the site at the time established for all inspections.

All sprinkler heads shall be properly adjusted for the specific planting area. Any plant materials which are damaged, or die, or fail to maintain a healthy, vigorous and thriving condition shall be replaced immediately by the Contractor, with material as originally specified, at no cost to the Owner.

the Landscape Contractor shall continue maintenance until project is accepted by the Owner's Rep. D. Written notice requesting re-inspections shall be submitted by the Contractor at least seven (7) calendar days before the anticipated date of inspection.

SECTION 02920 - LAWNS AND GRASSES

PART 1 - GENERAL

B. The work of this Section includes, but is not limited to, the following: 1. Furnishing and installation of all sod required to establish lawns as shown on the drawings.

2. Finish grading and preparation of soil for turf planting. 3. Providing maintenance for ninety (90) continuous calendar days after acceptance. 4. Guarantee and replacement.

1.02 RELATED WORK - Landscape Construction Documents and Specifications

1.03 QUALITY ASSURANCE - See Quality Assurance in Section 02850

1.05 GUARANTEES - See Planting Guarantees Section 02850

PART 2 PRODUCTS

2.01 SOD

A. Sod shall be #1 Grade, machine cut at a uniform thickness of five eighths (5/8) inch plus top growth; free of weeds, disease and insect infestations; and shall be no less than eight (8) months old, nor more than sixteen (16) months old.

2.02 SOIL MATERIALS

A. Soil amendments and fertilizers shall be as specified in Planting Plans & Details, or in Section 02301. PART 3 EXECUTION

3.01 SOIL PREPARATION AND FINE GRADING

area to be planted just prior to planting.

inches in length will be allowed.

A. Completely scarify site of all vegetation to a depth of six (6) inches. Remove all roots, stones, and other foreign matter of two (2) inches diameter or greater. Cut up and remove from site all shrubs and grasses not indicated to remain.

strips. (Refer to Section 02301) C. Sod planting area shall be rolled lightly and watered to a depth of six (6) inches the day before planting. If any air pockets are found, the area shall be re-graded as necessary. Lightly water the

3.02 SOD LAWN PLANTING

A. Installation of sod shall take place within 24 hours of harvesting.

C. Trim sod to conform to lawn shapes designated on the Landscape Planting Plans. Lay all border areas with not less than full width sod, nor less than one half length sod. No sod of less than 18

D. Handle and lay sod in a high standard workmanship manner. Fit and join all ends, joints and cuts so that there are no voids. The final appearance should be one of a continuous lawn. E. On all slopes, sod shall be installed from the bottom up, and the newly laid sod should be protected

by walking on boards as the installer moves upward. Sod installed on slopes shall be pinned down with wooden pegs. No metal staples will be permitted. F. Upon installation of a sizable portion of sod, it should be immediately watered. On hot days this is

approximately thirty (30) minutes after installing. G. After installation, sod must be kept thoroughly watered to a depth of six (6) inches. No foot traffic

shall be allowed for two (2) to three (3) weeks from the date of installation. 3.03 ESTABLISHMENT AND MAINTENANCE PERIOD

A. Continuously maintain all areas included under this Contract during the progress of the work, during

necessary to insure the healthy rooting and growth of all plant materials. Adjusting, cleaning, and repair of irrigation systems shall also be included in Maintenance.

C. Planted areas shall be kept free of debris & be cultivated & weeded at a max. ten (10) day intervals. D. Turf shall be mowed as frequently as required to maintain recommended mowing heights without removing more than one third of top growth at any one time.

2. Cool-season grasses: Minimum 1-1/2" - Maximum 2-1/2"

F. Refer to Section 02811 for maintenance periods, procedures, and inspections.

PART 1 GENERAL

1.01 WORK INCLUDED - See General Conditions (Section 02811),

A. The work of this Section includes, but is not limited to, the following 1. Furnishing and installation of all plant material, including trees, shrubs and ground covers. 2. Preparation of all planting holes.

3. Furnishing and installation of all required planting backfill materials and soil amendments. 4. Furnishing and installation of tree stakes and ties, jute mesh, bark mulch, and misc. materials. 5. Providing maintenance for ninety (90) continuous calendar days after final acceptance

1.02 RELATED WORK - Landscape Construction Documents and Specifications

1.03 QUALITY ASSURANCE

6. Guarantee and replacement.

the written consent of the Owner's Representative.

A. Trees, Specimens, Plant material and Sod shall be protected during shipment to prevent damage to rootball, stems or branches, and to prevent desiccation of leaves, or scorching of grasses. B. Material which is not planted immediately upon delivery shall be stored in protected locations and shall be maintained by the Landscape Contractor. Make arrangements with Owner's Representative

C. At all times, Trees, Specimens, Plants, and Sod shall be handled and stored so that they are

adequately protected from drying out, from wind burn, sunburn or from any other injury. D. Trees, Specimens, Plants and Sod shall be subject to inspection and approval for quality, condition, size, and variety. Inspection may be done at the place of growth or upon delivery to the project site. Approval shall not impair the right of inspection and rejection at a later time or during the progress of the job for size and condition of the rootball, latent defects, or injuries. Rejected Trees, Specimens,

Plants or Lawn shall be immediately removed from the site at the Contractor's expense. E. All Trees, Specimens, Plants or Sod not conforming to the requirements specified herein, whether in place or not, shall be rejected and shall be removed from the site and replaced with new plants as originally specified at the Contractor's expense.

F. Under no conditions will there be any substitution of species or sizes as listed on the Plans, without

1.04 SUBMITTALS

A. The Contractor shall notify the Owner's Representative 48 hours in advance of delivery of all plant

SECTION 02930 - PLANTING CONTAINER GROWN AND B&B TREES, SHRUBS & GROUNDCOVERS

materials and shall submit an itemized list of the plants in each delivery. B. All plant material shall meet the specifications of federal, state, and county laws requiring inspection for plant diseases and insect infestations. Any inspection certificate required by law shall accompany each shipment invoice or order for stock. When such plants arrive at the project site, the certificate of inspection shall be filed with the Owner's Representative.

C. All plant materials shall have been grown in nurseries inspected by the State or County Horticultural Inspector, and have complied with all regulations thereof. This requirement does not prohibit the use of plant materials grown outside the state, provided such materials and shipments meet all the requirements of law and the State of California Department of Agriculture.

D. Each shipment of plant materials delivered to the site shall be clearly labeled as to species, variety and nursery source.

E. Boxed or B & B specimen trees which have been pre-tagged at the nursery by the Owner's Representative shall be delivered with the indentifying tag attached.

1.05 GUARANTEE AND REPLACEMENT

A. All Trees, Specimens, Plant material, and Sod installed under this Contract shall be guaranteed against any and all poor, inadequate or inferior materials and/or workmanship for a period of one (1) year. Any trees, plants, sod, or hydroseeding found to be dead or in poor condition due to faulty materials or workmanship, as determined by the Owner's Representative, shall be replaced immediately by the Contractor, with material as originally specified, at no cost to the Owner.

PART 2 PRODUCTS

2.01 PLANT MATERIALS

A. Plants are to be delivered in the container sizes specified on the plans (i.e., 1-gallon, 5-gallon, 15-gallon, etc.). These sizes are derived from nursery trade designations meeting standards set forth in "American Standard for Nursery Stock" published by the American Association of Nurserymen, latest edition. All plants must be properly rooted for the size of the container without being root-bound. All root-bound plants will be rejected. Plants that were recently moved up into a larger container will not be acceptable.

B. The rootbals and branching structure (height and spread) of balled and burlapped plants shall meet the standards set forth in "American Standard for Nursery Stock" published by the American Association of Nurserymen, latest edition.

C. All ground covers specified in flats shall be well-rooted plants, not cuttings. Flats shall contain the number of plants designated for the variety in accordance with stds of Perry's Ground Cover Catalog. D. All trees, unless otherwise designated, shall be straight and symmetrical with well spaced side branches, and shall have a crown and trunk(s) typical of the species and variety. Trees specified as

`natural multis' shall have a minimum of three (3) trunks of nearly equal caliper growing from a single,

unmutilated crown of roots. E. Pruning wounds over three fourths (3/4) inch in diameter must be completely calloused over.

2.02 STAKES AND TIES

A. Tree stakes shall be pressure treated lodgepole pine, two (2) inches in diameter, twelve (12) ft. long. B. Tree ties for single staked trees:

1. 'Wonder Tree Tie' #A-12, by Wonder Tree Tie, Inc., 780 S. Van Buren St., Suite G, Placentia, CA 92870-6631, Telephone (800) 910-2810. 2. 'Cinch Tie' #151, by V.I.T. Products, Inc., 2063 Wineridge Place, Escondido, CA 92029-1931,

Telephone: (800) 729-1314. 3. One half (1/2) in. dia. garden hose with #12 galvanized wire, minimum eighteen (18) in. long. C. Tree ties for double staked trees:

1. 'Wonder Tree Tie' #B-18, by Wonder Tree Tie, Inc. 780 S. Van Buren Street, Suite G, Placentia, CA 92870-6631, Telephone (800) 910-2810. 2. `V.I.T. Tree Brace', by V.I.T. Products, Inc., 2063 Wineridge Place, Escondido, CA 92029-1931,

FERTILIZER TABLETS (MODEL SPECIFICATION)

Telephone: (800) 729-1314.

A. Fertilizer used at time of planting shall be 'Gro-Power' 12-8-8, 7 gram planting tablets by Gro-Power, Inc., 15065 Telephone Avenue, Chino, California 91710, Telephone:(909) 393-3744.

3. Requests for other approved equal planting tablets or any other form of fertilizer shall be submitted to

the Owner's Representative in writing, and shall indicate manufacturer's name, guaranteed analysis and planting recommendations.

C. Final specifications for fertilizer shall be as recommended by the Arborist.

2.04 MULCH (MODEL SPECIFICATION) A. Mulch shall be a uniform blend of organic materials containing:

1. Nitrohumus (digested, centrifuged, composted sludge) 2. Bark, selected wood fibers, and rice hulls, all to pass through three quarter (3/4) inch screen 3. Mineral acidifiers

4. Micronutrients B. The final specifications for mulch shall be as recommended by the Arborist.

PART 3 EXECUTION

A. The work shall be laid out in accordance with the Landscape Planting Plans, utilizing the plans as a schematic guide. Outlines delineating ground cover areas shall be marked on the ground by the Landscape Contractor before any plant pits are dug. Spot container or B&B plants per plan and secure approval before digging plant pits. All such locations shall be approved by the Owner's Representative before planting may begin. Request approval by the Owner's Representative 48 hours in advance of inspection.

B. Conflicts of location due to underground utilities, rocks, or other below ground obstructions shall be resolved by the Owner's Representative.

3.02 PLANT PIT EXCAVATION

A. After making necessary adjustments in location, excavate pits for one, five, or fifteen gallon or balled and burlapped shrubs and trees with circular outline and vertical sides. Plant pits for twenty four (24) inch box trees shall be of square outline. B. The size of plant pits for container or B&B plants and boxed trees up to 24 inches shall be twice the

width and twice the depth of the rootball. C. Bottoms of plant pits shall be even and smooth, and shall be loosened an additional six (6) inches below the depths noted. D. Planting pits for ground covers shall be 4" x 4", or adequate to accept material from flats without

crushing or deforming the rootball.

3.03 PLANTING TREES AND SHRUBS A. No plant material shall be planted until the installation of the necessary sprinkler systems has been completed, and the soil has been prepared as specified in Section 02301.

B. Set plants in center of pit, in a vertical position, with the crown of the rootball level or slightly higher, (max. 1 inch) than the surrounding finish grade after allowing for watering and settling. (See to Detail) C. Cans and boxes shall e removed carefully to avoid breaking or damaging the rootball. remove containers after placement, including the bottoms of 24" boxed trees. On balled and burlapped plants, cut binding at top of rootball and remove or roll back burlap from top one-third of rootball.

Completely remove any inorganic binding or wrapping material. D. After the plant has been set to the required grade, prepared soil as specified in Section 02301 shall be used for backfill. The rest of the pit shall be filled and thoroughly settled by tamping and watering. E. All plants shall receive fertilizer at time of planting. If tablets are used, follow manufacturer's

recommendations regarding number of tablets based on container size. Place recommended tablets no higher than one third (1/3) of the way up along the side of the rootball. Space tablets equally around the perimeter of the rootball, approximately two (2) inches from the root tips. Do not place tablets in bottom of planting hole.

3.03 PLANTING TREES AND SHRUBS (continued)

F. Final fertilizer specifications shall be as recommended by the Arborist. G. After backfilling and settling, an earthen basin shall be constructed around each plant. (Refer to Detail) A berm shall be prepared which is no larger than the size of the original rootball, in order that

applied water in the basin will enter through the rootball. H. When plants have established good root growth, the berms shall be graded out, so that minimum two (2) percent drainage is maintained in planting areas. All berms shall be removed before planting of lawns or ground covers, or as directed.

I. Excess soil generated from the plant pit excavations and not used as backfill or in establishing the final grades shall be removed from the site by the Landscape Contractor at no expense to the Owner.

3.04 PLANTING GROUND COVER

A. Plant ground covers in the areas indicated on the drawings, and at the spacing specified. Soil shall be firmly pressed around each plant, and the excess soil shall be removed from the crown. Ground cover plants are to be installed under canopy of shrubs as shown on the Ground Cover Planting

3.05 PLANTING VINES AND ESPALIERS A. Vines and/or espaliers shall be removed from trellises or stakes and attached to masonry walls or

B. Each section of ground cover shall be watered immediately upon completion of planting.

fences with approved devices. B. Submit samples of proposed wall fastener to the Owner's Representative for approval. C. Do not use galvanized wire for branch supports. Submit proposed wire material to the Owner's

D. Intertwine all vine tendrils and/or branches to supports. (Refer to Espalier Detail) If ties are required, submit proposed ties to the Owner's Representative for approval.

A. The pruning and trimming of installed trees and shrubs shall be performed by personnel experienced and qualified in this type of work. B. Pruning shall be limited to the minimum necessary to remove injured twigs and branches and maintain a natural appearance. Pruning removal should never exceed one-third of the plant's

A. Apply pre-planting herbicide to all visible weeds after soil placement. B. Immediately after planting, apply pre-emergent weed control materials to all planted areas which will

C. Protect all existing and newly installed plants from damage.

SECTION 02930 - PLANTING CONTAINER GROWN AND B&B TREES, SHRUBS & GROUNDCOVERS

3.08 MULCHING A. After applying pre-emergent, all planting areas, except lawns, shall receive a prepared mulch spread

evenly over the surface to a minimum depth of one (1) inch. B. Final depth of mulch shall be per the recommendations of the Arborist.

3.09 TREE STAKING

A. Stake trees at time of planting. All 15 gallon and 24 inch box trees shall be staked with single stakes placed to the windward side except when double stakes are req'd by code or special site condition. B. Landscape Contractor shall install staking at one (1) tree and shall secure approval from the Owner's Representative before making further installations.

C. Stakes may be driven mechanically, and shall be set in a true vertical position. Stakes shall not penetrate the rootball. All staked trees shall have fastening devices installed per Staking Detail. D. Single staked trees shall be staked to the windward side. Position stakes for double staked trees so

E. If trees are double staked, stakes are to be set in a line parallel to any adjacent walk, street or pedestrian path. (Refer to Details)

3.10 FIELD QUALITY CONTROL

A. The Owner's Representative shall make inspections to assure field quality control. The Contractor shall request inspections at least 24 hours in advance of the time inspection is required. Inspections are required as follows:

1. When plant material has been delivered to the site. 2. When plant material and tree pit locations have been spotted for planting, but before planting pits are dug.

3. When soil amendments have bee applied, but before rototilling 4. After rototilling has been completed

5. After planting pits have been excavated, but before backfilling. 6. When typical staking has been installed at one tree, but before further staking installations.

landscaping process. All areas shall be maintained continuously until the project has been completed and approved by the Owner's Representative. (Refer to Section 02811 for maintenance

B. Maintenance shall consist of watering, weeding, pest control, plant replacement, fertilizations,

A. Refer to Section 02811 for Inspection Requirements and Schedules.

1.01 WORK INCLUDED - See General Conditions Section 02811

A. The work of this Section includes, but is not limited to the following: 1. Furnishing (unless otherwise noted on the plans) and installation of all specimen trees shwon on the plans. (Specimen trees are those trees over twenty-four (24) inch box size, or over

2. Preparation of all specimen tree planting holes. Furnishing (unless otherwise noted on the plans 3. Furnishing and installation of all required tree guying materials, jute mesh and miscellaneous

6. Guarantee and replacement.

1.02 RELATED WORK - Landscape Construction Documents and Specifications

1.04 SUBMITTALS - See Section 02930

1.05 GUARANTEE AND REPLACEMENT - See Section 02930

PART 2 PRODUCTS

construction.

2.01 PLANT MATERIALS A. Unless otherwise designated on plans, all trees shall be straight and symmetrical with well spaced

growing from a single, unmutilated crown of roots.

C. Pruning wounds over three fourths (3/4) inch in diameter must be completely calloused over.

2.02 GUYING MATERIALS

A. Guy wires shall be #12 gauge, double-stranded galvanized wire. B. Guy wires shall be attached to trees with five eighths (5/8) inch diameter garden hose collars, with #12 gauge, double-stranded galvanized wire, minimum eighteen (18) inches long.

C. Guying anchors shall be 2" x 2" x 36" long Redwood stakes.

PART 3 EXECUTION

3.01 LAYOUT A. The work shall be laid out in accordance with the Landscape Planting Plans, utilizing the plans as a schematic guide. Locations for specimen trees, shall be marked on the ground by the Landscape

B. Conflicts of location due to underground utilities, rocks, or other below ground obstructions shall be resolved by the Owner's Representative.

3.02 TREE PIT EXCAVATION

at a minimum of two (2) percent.

tips. Do not place tablets in bottom of plant pit.

A. After making necessary adjustments in location, excavate pits with square outline and vertical sides for all boxed or B&B specimen trees. B. The sizes of plant pits for boxed or B&B trees larger than twenty four (24) inches shall be twice the

width of the rootball and at the same depth as the rootball. C. Scarify the sides of pits and provide subsurface drainage as detailed if recommended by the Arborist.

3.03 SPECIMEN TREE PLANTING

Section 02301. shall be placed a minimum of one (1) inch [maximum of two (2) inches] above surrounding finish grade after allowing for watering and settling. For balled and burlapped specimen trees, the crown of the rootball shall be placed a minimum of three (3) inches [maximum of four (4) inches] above surrounding finish grade after allowing for watering and settling. Grade shall slope away from crown

C. After the tree has been set to the required grade, boxes and bracing shall be removed carefully to avoid breaking or damaging the rootball, trunk(s) or branches. On balled and burlapped specimens, cut binding at top of rootball and remove or roll back burlap from top one-third of rootball. Cut and bend back top third of wire baskets. Completely remove any inorganic binding or wrapping material.

02301. Tamp and/or water-settle the backfill mix and add recommended fertilizer. Continue backfilling until the balance of the pit is filled and thoroughly settled by tamping and watering. E. All specimen trees shall receive fertilizer at time of planting. If tablets are used, follow manufacturer's recommendations regarding number of tablets based on box size or trunk caliper. Place recommended tablets no higher than one third (1/3) of the way up along the side of the rootball. Space tablets equally around the perimeter of the rootball, approximately two (2) inches from the root

F. Final fertilizer specifications shall be as recommended by the Arborist. G. After backfilling and settling, an earthen basin shall be constructed around each plant. (Refer to Detail) A berm shall be prepared which is no larger than the size of the original rootball, in order that applied water in the basin will enter through the rootball.

determine time of removal. I. Excess soil generated from the plant pit excavations and not used as backfill or in establishing the final grades shall be removed from the site by the Landscape Contractor at no expense to the Owner.

A. The pruning and trimming of installed specimen trees shall be performed by personnel experienced and qualified in this type of work. The removal of any limbs, branches or roots shall be done only after conferring with the Owner's Representative, and an approved Arborist. B. Pruning shall be limited to the minimum necessary to remove injured twigs and branches; reduce possibility of wind damage; and maintain a natural appearance. Pruning removal should never

exceed one third of the branching structure. C. All pruning cuts shall be made near the point of attachment to the trunk or another branch, leaving the branch bark ridges and branch collar intact. Do not cover pruning wounds with any type of

A. Guying of boxed or B&B specimen trees is left to the discretion of the Arborist; and is based on

branching structure of the tree and wind exposure. The Owner's Representative reserves the right to ultimate discretion regarding guying requirements. B. If guying is required, Landscape Contractor shall install guying at one (1) tree and shall secure approval from the Arborist before making further installations.

SECTION 02940 - SPECIMEN TREE PLANTING (continued)

3.05 TREE GUYING (continued) C. Guying for boxed or B&B specimen trees shall be installed as follows:

1. Minimum of three (3) guys per tree, set in equal angles around tree, and attached to tree by a five-eights $\binom{5}{8}$ inch diameter hose collar and secured by redwood anchors. (Refer to Detail) 2. Anchors shall be 2" x 2" x 36" long redwood stakes, driven below finish grade. Securely attach No. 12 double stranded galvanized wires to anchors and to hose collar loops. Anchors shall be placed at a distance roughly equal to height to attachment. (Refer to Detail) Anchors shall not

be place within the area of the tree pit. 3. All anchors shall be a minimum of two () feet from pedestrian walks or access areas. if trees adjacent to walk or street, or pedestrian path are guyed, place two (2) guy wires in a line

parallel to the adjacent paving. (Refer to Detail). 4. Guy wires shall be covered with one half (1/2) inch diameter white PVC tubing, three (3) feet long, over each guy.

3.06 FIELD QUALITY CONTROL - See Section 02930

3.07 ESTABLISHMENT AND MAINTENANCE PERIOD - See Section 02930

3.08 FINAL INSPECTIONS - See Section 02811 **SECTION 16521 - LANDSCAPE LIGHTING**

PART 1 GENERAL

1.01 WORK INCLUDED - See General Conditions Section 02811

A. The work shall include, but not necessarily be limited to the following: 1. Procurement of all applicable licenses and permits, including payment of associated fees. 2. Ascertainment of utility locations prior to construction.

3. Trenching and excavation, stockpiling or removal of excavated materials, and backfilling with

4. Furnishing and installation of all materials required for a fully automatic landscape lighting as shown on the drawings and described in these Specifications. 5. Supply and installation of landscape lighting wire sleeves.

6. Testing of the system. 7. Replacement of unsatisfactory materials or equipment Cleanup.

9. Submission of Record Drawings. 10.Guarantee of lighting system.

1.02 VERIFICATION OF EXISTING CONDITIONS A. Verify drawing dimensions with actual field conditions. Inspect related work and adjacent surfaces. Report all conditions which prevent proper execution of this work to the Owner's Representative prior

B. Note the location of all existing underground and above ground features, (utility lines, conduits, cables, plant material, etc.), subject to damage in the course of this work. Problems arising from such features during or before work begins shall be called to the attention of the Owner's Representative before commencement of further work. The Contractor shall be responsible for the replacement or repair of features damaged through failure to comply with the above procedure at no expense to the Owner.

details, lighting equipment schedule, and specifications. The Electrical Contractor shall be responsible for obtaining all pertinent information from the cumulative lighting package to correctly coordinate, acquire and install equipment on this project. D. Refer to drawings, details, and manufacturer's directions for dimensions and mounting instructions. Verify dimensions before proceeding with the work. Report any discrepancy at once to the Owner's Representative. If information provided is unclear, or in any way incomplete, apply to the Owner's Representative for further explanation, as necessary. Conform to these explanations in the work. In

no case submit a bid, or proceed on any work with uncertainty. The intention of this specification and

the accompanying drawings is to provide a job complete in every respect. The Electrical Contractor

C. The lighting package is presented through the combined means of current landscape lighting layouts,

1.03 DEFINITIONS

A. Material List

the construction schedule

shall be responsible for this result.

A. When abbreviations or reference standards appear in the specifications, they shall represent technical societies, institutions, associations, governmental agencies, and publications, in accordance with the following list:

1. ANSI- American National Stds. Institute, Inc, 655 15th St. NW, Washington, DC 20515

2. ARL - Applied Research Laboratories, 5371 NW 161st Street, Miami, FL 33014 3. CBM- Certified Ballast Manufacturers, 1422 Euclid Avenue, Suite 402, Cleveland, Ohio 44115 4. ETL - ETL Testing Laboratories, Inc., West Coast Division, 660 Forbes Blvd. South, San Francisco, CA 94080

Washington DC 25015 6. IES - Illuminating Engineering Society, 345 East 47th Street, New York, NY 10017 7. ITL - Independent Testing Laboratories, 3386 Longhorn Road, Boulder, CO 80302 8. NEC -National Electrical Code

9. NFPA-National Fire Protection Association, One Batterymarch Park, PO Box 9143,

5. ICC - Interstate Commerce Commission, 12th St. & Constitution Ave. NW,

Quincy, MA 02269 10.UL - Underwriters Laboratories, Inc., 1655 Scott Blvd., Santa Clara, CA 95050 1.04 RULES AND REGULATIONS A. The Contractor is obligated to follow all regulations, ordinances, and codes governing the type of work on the job site. Any permits that are needed for installation or construction of any work included under this Contract which are required by the authorities of jurisdiction, shall be obtained and paid for by the Contractor following whatever ordinances, regulations and codes requiring permits. If the

authorities of the jurisdiction require inspection at said points of the installation, the Contractor shall arrange for and be present at any such inspections. B. Any additional work or furnishing of materials required due to inspection by the authorities of jurisdiction shall be furnished at no cost to the Owner.

C. All equipment shall comply with all applicable standards of the National Electric Code and all laws,

work. In all cases, the latest version of the code from the cited authority shall be applicable.

codes, and regulations of Federal, State, Country and City authorities having jurisdiction over this

D. All equipment shall be UL Listed unless Owner makes a written exception accepting responsibility for

a non-UL compliant fixture. E. All work shall be inspected and approved by the appropriate authority. SUBMITTALS

1. A complete material list shall be submitted prior to performing any work. The material list shall include the manufacturer, model number, description and quantities of all materials and equipment to be used. B. Fixtures supplied on job shall be the exact fixture as specified in the Landscape Architect's Construction Drawings - Landscape Lighting Plan Fixture Schedule. For compelling reason, the

contractor may submit substitute equipment for review and approval by the Landscape Architect, following the guidelines established in Section 01635. C. Substitutions: Acceptability of substitutions will be judged by the Landscape Architect or Owners Representative according to the following criteria and conditions.

1. The burden of proof that a proposed substitute piece of equipment is equal to the equipment specified in the Landscape Architect's Construction Drawings - Landscape Lighting Plan Fixture Schedule is the Contractor's. 2. Proposed substitutions must be supported with complete photometric data, technical literature,

drawings and samples as appropriate, including: a. Comparison of the qualities of the proposed substitution with that specified. (Submit data for both products) b. Changes required in other elements of the work because of the substitution and its effect on

c. Cost data comparing the proposed substitution with the Product specified. d. Any required license fees or royalties. e. Availability of maintenance service, and source of replacement materials. 3. A request for substitution constitutes a representation by the Contractor that he:

a. Has investigated the proposed Product and determined that it is equal to or superior in all respects to that specified. b. Will provide the same warranties or bonds for the substitution as for the Product specified. c. Will coordinate the installation of an accepted substitution into the Work, and make such other

changes as may be required to make the Work complete in all respects

4. Cost of any testing required for analysis of proposed substitution shall be paid for by the Contractor. Testing will be conducted by ETL, ITL, UL or other testing facility approved by the 5. The Contractor warrants that the substituted material or system will perform the same as the

original specified material or system would have performed. Where calculations or other

d. Waives all claims for additional costs, under his responsibility, which may subsequently

provide such certified proof, stamped by a licensed engineer. This verification will be provided as requested by, and at no cost to the Owner. 6. Should an accepted substitution fail to perform as required, the Contractor shall replace the material or system with that specified and bear the costs incurred thereby.

7. Should a substitution be accepted, the Contractor shall be responsible to make all necessary

D. Shop Drawings: Except where specified fixtures are standard, unmodified "off the shelf" units, fully

adjustments in the Work which may be affected as a result of the substitution at no added cost.

professional engineering services are required to verify this performance, the Contractor will

described by these specifications, submit reproductions of full size shop drawings for each type of fixture specified: 1. Drawings shall indicate: name of project, fixture type; complete details and/or data of fixtures including manufacturer's name, catalog numbers for lamp holders and ballasts; light shields; switches; metal gauges; type of wiring; specified lamp wattage; color and texture of finishes; types of materials, as applicable.

2. If scallop shields and wall wash reflectors are required, shop drawings shall indicate their

E. Show certification that all pertinent drawings have been checked and that fixtures submitted have

trim, bolt patterns and other mounting accessories compatible with ceilings, walls, floors, stone,

earth, or other conditions where they are being installed. Product data: Provide complete manufacturers' data for all lighting equipment.

relative position to the wall or adjacent vertical surface.

SECTION 16521 - LANDSCAPE LIGHTING (continued)

F. Samples: Submit samples of any fixtures which are substitutes for specified fixtures, submit samples

Unless otherwise indicated, samples shall be as follows: 1. For standard catalog types - complete, production line sample, with all installation hardware,

proper lamp(s), in specified finishes and materials, and equipped with a cord and plug. 2. An operational sample of an especially designed or developed fixture shall be submitted for the purpose of ascertaining its photometric performance, quality of visible parts and details, maintenance features (including re-lamping process), method of installation, and safety

3. Fixture samples shall be submitted for final review within 30 days after review of shop drawings. If, after a period of 30 days from rejection of samples, the fixture cannot be made acceptable, then a fixture (shop drawing and sample) by an alternative manufacturer shall be submitted at no cost to the Owner.

red-lined on blueprint, showing all deviations from plans to actual installation. The drawings shall also show approved substitutions of size, material and manufacturer's name, model number and catalog number. These drawings shall be available for inspection at all times. 2. Show every change from contract drawings and specifications and exact as-built locations, sizes and kinds of equipment. The Contractor shall dimension the location of the items

intersections, etc. 3. Before the date of the final inspection, the Contractor shall deliver as-built Record Drawings to the Owner's Representative. Delivery of the as-built drawings will not relieve the Contractor of

1.06 DELIVERY STORAGE AND HANDLING A. The Contractor shall order fixtures, and retain proof of the order, in a timely manner, allowing a

B. Lighting fixtures shall be delivered, stored, and handled such that they are protected from physical damage. Store all luminaries, lamps and hardware flat in a clean dry area off the ground under watertight cover at room temperature. Do not install damaged fixtures or components; remove damaged fixture units from site and replace with new, at no additional expense to the Owner.

Delivered materials shall be identical to the approved samples. Materials which become damaged shall be repaired and/or replaced as directed by the Owner's Representative. D. Delivered fixtures shall include wiring, sockets, ballasts, shielding, channels, lenses and other parts

and soiling of equipment during the remainder of the construction period. B. The electrical contractor shall be responsible for all coordination concerning the proper and complete handling and installation of all custom fixtures, including coordination with other trades.

A. Sequence the installation of lighting fixtures with other work, so as to reduce possibility of damage

or replace any and all defects in workmanship and/or materials for a period of at least one (1) year, or as otherwise specified, from the date of final acceptance of the installation, without cost to the B. Submit to the Owner's Representative the Contractor's written guarantee for a period of one (1) year after the date of final acceptance, all apparatus installed by him to be free of mechanical and

PART 2 PRODUCTS

2.01 MANUFACTURERS A. Manufacturers shall be as shown in the 'Lighting Fixture Schedule' within the latest equipment submittal specification.

A. Provide lighting fixtures that conform to the cumulative requirements shown on drawings, lighting equipment schedule, approved shop drawings, details and specifications. each type of mounting. Fixture catalog numbers do not necessarily denote specific mounting

accessories. Electrical Contractor shall be responsible for acquiring all necessary accessories to

D. ITL reports, UL IFAY certification, and complete submittal drawings (including dimming ballasts, secondary feeds, lamp holders and lamps) must be provided with submittals for cold cathode Il circuits (fused on the secondary side) and shall be sized according to the maximum wattage lamp

be so selected & arranged as to operate & fit properly into the spaces for which they were designed. H. All component parts of each item of equipment or device shall bear the Manufacturer's Nameplate, giving at least the name of the manufacturer, description, size, type, serial number and electrical

G. All materials and apparatus required for the work shall be new, of first class quality, and in perfect

condition, and shall be furnished, delivered, erected, connected and finished in every detail, and shall

2.03 EQUIPMENT DESCRIPTIONS

A. Fixture specifications are outlined in Landscape Architect's Construction Drawings - Landscape Lighting Plan.

successfully complete installation.

B. Provide new, operational lamps as specified for each fixture, at the completion of the work. 2.05 EXTRA STOCK

B. Stock one replacement gasket for each gasketed fixture on the Project.

3.02 PREPARATION

will support fixtures. Notify Owner's Representative in writing of conditions detrimental to proper completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been

A. Materials and finishes will be prepared to maximize equipment longevity and to best resist corrosion,

B. Report all defects that will affect the installation to the Owner's Representative. Contractor shall be held responsible for any existing defects which adversely affect the luminaire or its functioning.

written instructions, applicable requirements and standards, and with recognized industry practices. Fasten lighting fixtures securely to structural supports to ensure that installed fixtures are plumb and/or level, and that vibration and ballast noise is minimized B. Conflicts between this work and other work shall be brought to the attention of the Owner's

D. Install rows of fixtures or light track accurately on straight lines and tightly end to end, unless otherwise indicated on drawings. Coordinate with mechanical work. E. Mask the trims and bottoms of all lighting fixtures and/or accessories as necessary to protect the

and suspend lighting equipment rigidly.

direction of the Owner's Representative. 3.05 CLEANING

of custom designed fixtures and/or mounting hardware. No payment shall be required for samples.

features as well as overall adherence to visual, dimensional, and mechanical requirements as

minimum of 12 weeks for stock fixtures and 16 weeks for custom fixtures to arrive at the construction site after order is placed.

C. Reflector cones, baffles, louvers, aperture plates, and decorative elements of fixtures shall be packed by the manufacturer separate from the housing (body, stem, etc.) of the fixture. All components shall be packed in a manner consistent with ICC regulations to minimize damage during shipping.

and accessories necessary for fixture installation of each fixture type. 1.07 COORDINATION

A. Submit to the Owner's Representative a copy of Manufacturer's written guarantee agreeing to repair

electrical defects in workmanship, and to replace same if, in the opinion of the Owner's Representative or the Owner, the responsibility lies with the Contractor. C. Operation and maintenance manual data: Submit maintenance data, parts list, product data, list of

manufacturers/suppliers for acquiring replacement equipment, group relamping schedule, shop

LIGHTING EQUIPMENT B. Provide lighting fixtures complete with all necessary components and accessories, as required for

C. Verify fixtures are labeled as suitable for intended application by an approved testing lab. E. Transformers used in low voltage incandescent fixtures shall conform to NEC requirements for Class

allowable for the fixture. Transformers shall deliver either 12 or 24 volts on the secondary side depending on the fixture. F. Remote transformers and ballasts, where required, shall be installed: at locations indicated on plans and in an aesthetically acceptable manner, as determined by the Owner's Representative or Landscape Architect; for ease of maintenance; with maximum sound isolation; with adequate ventilation; and in accordance with all codes. Remote transformers shall be installed with adequate gauge wire such that voltage drop to all fixtures is less than five (5) percent.

characteristics in order to facilitate maintenance or replacement. This nameplate shall not be visible

during normal operation of the equipment. I. All materials used in fabrication & mounting of fixtures shall be of a non-corrosive nature, & resistant to thermal & mechanical stresses encountered in normal application & function of the fixtures.

2.04 LAMPS A. Provide specific lamp types as described.

corrected. Provide equipment grounding connections for lighting fixtures.

A. Stock replacement lamps amounting to 20% (but not less than one lamp in each case) of each type and wattage lamp used in each type fixture

PART 3 EXECUTION 3.01 EXAMINATION A. Examine areas and conditions under which lighting fixtures are to be installed, and substrate which

A. Install lighting fixtures at locations and heights shown, in accordance with fixture Manufacturer's

Representative. The Owner's Representative will direct the Contractor in how to proceed. C. Support lighting equipment securely. Do not support fixtures to the work of other trades unless otherwise specified or noted. Furnish and install all steel members and supports required to fasten

fixtures during construction. Any fixture damaged during construction shall be replaced without cost

fixtures after construction is complete, so as to render them free of any fingerprints, material, substance, or film foreign to the fixture. Any fixtures damaged prior to or during cleaning shall be the responsibility of the Contractor to replace.

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LANDSCAPE **SPECIFICATIONS**

other than the specified project is prohibite without the expressed written consent of the Landscape Architect.

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REVISIONS

DESIGNED BY/DRAFTED BY SAF / SAF SCALE N.T.S. PROJECT NO. 22-310

pruning, edging, cultivation, fertilizing, insect and pest control, re-seeding, replacement and any other

Warm_season grasses: Minimum 1/2" / Maximum 1"

H. Contractor shall recognize the responsibility for a uniform application of fertilizer to dry foliage,

Improper use of fertilizer resulting in damage to plants is the Contractor's responsibility, and any damage to plants must be corrected at his expense.

dispose of off-site.

A. The Landscape Contractor shall submit written notice to the Owner's Representative requesting final

B. Upon completion of the ninety (90) day Maintenance Period, all plants shall be live, healthy, and free from infections and infestations. All ground cover areas shall be clean, and free of weeds and debris.

C. If the project is found to be in an unacceptable condition at the time of final acceptance inspection,

1.01 WORK INCLUDED A. See General Conditions Section 02811

1.04 SUBMITTALS - See Planting Submittals Section 02850

B. Sod shall be the species and variety as specified on the plans.

B. Prior to sod installation, soil amendments shall be added as recommended by required soil test report, and finish grade shall be established one (1) inch below adjacent paving, headers or mow

B. Unroll sod carefully and place in a staggered pattern with tight joints and in the same direction each time. Use a piece of 2"x4" board to tamp each roll against adjacent strips to eliminate joints & edges.

the ninety (90) day Maintenance Period, and until Final Acceptance of the work by the Owner's Rep. B. Maintenance shall include continuous operations of watering, weeding, mowing, rolling, trimming, edging, fertilizing, insect and pest control, re-sodding, replacement and any other operations

E. Recommended Mowing Heights 1. Warm-season grasses: Minimum 1/2" - Maximum 1"

for approved storage locations. Sod must be installed within 24 hours after harvesting.

3.07 WEED CONTROL

not be seeded.

that prevailing winds move tree between stakes. Stakes are to be placed as close to the rootball as possible without penetrating the rootball. (Refer to Details)

3.11 ESTABLISHMENT AND MAINTENANCE PERIOD A. Maintenance shall begin immediately after each plant is planted, and shall continue throughout the

periods, procedures and inspections) cultivation, pruning and other operations necessary to insure the healthy rooting and growth of all plant materials. Adjusting and cleaning of irrigation systems shall be done as required.

SECTION 02940 - SPECIMEN TREE PLANTING PART 1 - GENERAL

5. Providing maintenance for ninety (90) continuous calendar days after acceptance of

twenty-four (24) inch balled and burlapped rootball size.)

1.03 QUALITY ASSURANCE - See Section 02930

4. Furnishing and installation of all required backfill materials.

side branches, and shall have a crown and trunk(s) typical of the species and variety. B. Trees specified as `natural multi's' shall have a minimum of three (3) trunks of nearly equal caliper

2.03 FERTILIZER TABLETS (MODEL SPECIFICATION) - See Section 02930 2.04 MULCH (MODEL SPECIFICATION) - See Section 02930

Contractor before any plant pits are dug. All such locations shall be approved by the Owner's Representative before planting may begin. Request approval by the Owner's Representative 48

A. No trees shall be planted until the site soil and backfill mix have been prepared as specified in B. Set tree in center of pit, in a vertical position. For boxed specimen trees, the crown of the rootball

D. Begin backfilling the bottom one-third of the planting pit, using prepared soil as specified in Section

H. When plants have established good root growth, the berms shall be graded out. The Arborist is to 3.04 PRUNING SPECIMEN TREES

D. If pruning is required before tree shipment from nursery, request prior approval from the Arborist. 3.05 TREE GUYING

set out in the project drawings and specifications.

G. Record and As-Built Drawings 1. The Contractor shall provide and keep up to date on a daily basis a complete as-built record,

from two permanent points of reference, such as building corners, sidewalks, road the responsibility of furnishing required information that may be omitted from the drawings.

F. Fixtures shall be installed free of light leaks. All installed lighting fixtures shall be set true and free of warps, dents, or other irregularities. 3.04 AIMING AND FOCUSING FIXTURES A. The Contractor shall provide all necessary equipment and manpower to aim adjustable lighting fixtures in night tests of the system, and subsequently, to set the dimming levels of the system at the

A. Clean the bottoms, trim, reflecting surfaces, lenses, baffles, louvers and reflecting cones of all lighting

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ISSUED FOR: CITY OF SANTA BARBARA

DATE

JULY 19, 2024

DRAWING NO. SAF-02071 SHEET

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LANDSCAPE CONSTRUCTION GENERAL NOTES: 1. ALL WORK SHALL CONFORM TO ALL CITY, COUNTY AND OTHER GOVERNING AGENCIES' REGULATIONS FOR GRADING AND DRAINAGE. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS REQUIRED FOR 2. REFER TO STRUCTURAL ENGINEER'S PLANS, DETAILS AND SPECIFICATIONS BY STRUCTURAL ENGINEER. 3. FOR LOCATIONS OF EXISTING CONDITIONS, PROPERTY LINES, EASEMENTS, UTILITIES, ETC., REFER TO THE BOUNDARY AND TOPOGRAPHIC SURVEY PROVIDED BY PROBER LAND SURVEYING. PHONE NUMBER 805-452-9690. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING IN THE FIELD ALL PROPERTY LINES, EASEMENTS AND RESTRICTIONS IDENTIFIED ON THE PLANS. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE LAYOUT OF THE PROJECT, FOR ESTABLISHING ALL REFERENCE POINTS, ELEVATIONS AND LINES SET FOR CONSTRUCTION, FOR CERTIFICATION OF FINISH GRADES AS SHOWN ON THE LANDSCAPE ARCHITECT'S AND CIVIL ENGINEER'S DRAWINGS, AND TO MATCH EXISTING SURFACES WHERE APPLICABLE. IF NEEDED, THE CONTRACTOR SHALL EMPLOY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR IN ORDER TO ACCURATELY DETERMINE ALL HORIZONTAL AND VERTICAL DIMENSIONS. 5. CONTRACTOR SHALL VISIT THE SITE, VERIFY EXISTING CONDITIONS, BECOME FAMILIAR WITH EXISTING GRADES, SITE AND SOIL CONDITIONS, AND COORDINATE ALL WORK WITH OTHER TRADES SO AS NOT TO DISRUPTION THE FLOW OF WORK 6. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE ACTUAL SITE CONDITIONS AND THE PLANS PRIOR TO BEGINNING CONSTRUCTION. 7. WRITTEN DIMENSIONS SHALL PREVAIL OVER SCALED MEASUREMENTS ON THE PLANS AND DETAILS. 8. THE LANDSCAPE ARCHITECT IS TO REVIEW AND APPROVE ALL LAYOUTS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

ATRIUM DRAIN DECK DRAIN PA PLANTING AREA 9. VERIFY AND CLEARLY MARK THE LOCATION OF ALL UNDERGROUND UTILITIES AND SERVICES PRIOR TO ANY EXCAVATION. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ALL DAMAGE CAUSED BY FAILURE TO DO SO. 10. DUST CONTROL AND EROSION & SILTATION PREVENTION SHALL BE IMPLEMENTED THROUGHOUT CONSTRUCTION AS REQUIRED BY THE GOVERNING AGENCIES, LOCAL CODES AND ORDINANCES. 11. CONTRACTOR SHALL KEEP THE SITE WATERED SUFFICIENTLY TO ELIMINATE DUST NUISANCE. SPECIMEN AND EXISTING TREES TO REMAIN SHALL BE WASHED DOWN WEEKLY TO HELP MAINTAIN THEIR HEALTH DURING CONSTRUCTION. - BIDNOTE 12. REPORT ANY CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK TO THE GENERAL CONTRACTOR AND THE LANDSCAPE ARCHITECT. 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING FROM DAMAGE ALL STRUCTURES, UNDERGROUND UTILITIES AND ANY EXISTING PLANT MATERIAL IDENTIFIED TO REMAIN ON THE SITE. SEE SPECIFICATIONS SECTION 02231 DESCRIBING PROTECTION MEASURES REQUIRED FOR TREES AND PLANT MATERIAL. 14. NO BRANCHES, LIMBS OR ROOTS OF ANY PLANT MATERIAL ARE TO BE CUT OR PRUNED WITHOUT AUTHORIZATION AND DIRECTION FROM THE LANDSCAPE ARCHITECT, ARBORIST OR HORTICULTURALIST. 15. THE CONTRACTOR SHALL REVIEW THE LAYOUT OF THE ENGINEER'S PLANS AND NOTIFY THE LANDSCAPE ARCHITECT OF CONFLICTS BETWEEN THE ENGINEER'S LAYOUT AND THE LOCATIONS OF TREES OR OTHER LANDSCAPE ELEMENTS. WHEREVER POSSIBLE, AVOID PLACING DRAIN LINES IN THE ROOT ZONES OF EXISTING OR PROPOSED TREES. - SEE ALSO SPECIFICATIONS SECTIONS 02231 DESCRIBING PROTECTION MEASURES REQUIRED FOR TREES AND PLANT MATERIAL. LCD-X NEIGHBORING HOUSE GRA 626 SEA RANCH DRIVE APN 047-014-003 O AVO (E) WOOD FENCE -S NGRESS, EGRESS, & P.U. EASEMENT (R1 (E) DG PATH (E) ASPHALT PRIVATE ROAD CONCRETE APRON -MAILBOX — \LCD-1 (E) SOLAR PANELS NEW MAILBOX VIEW TRIANGLE // (TYP.) NEIGHBORING HOUSE

BOULDER RETAINING WALL

\LCD-2

VISIBILITY TRIANGLE NOTES:

HEIGHT OF 3'-6" SHALL BE LOCATED IN VISIBILITY TRIANGLE.

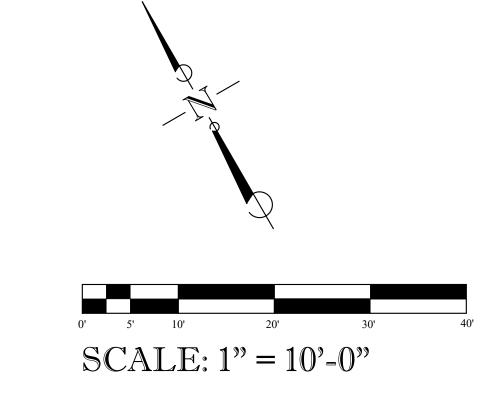
1. NO FENCE, SCREEN, WALL, HEDGE OR OTHER LANDSCAPING MATERIAL EXCEEDING A

2. IF ANY LANDSCAPE MATERIAL EXCEEDS 42" IN HEIGHT UPDATE PLANS TO NOTE ALL

ITEMS TO BE REDUCED AND MAINTAINED TO NOT EXCEED A MAXIMUM HEIGHT OF 42".



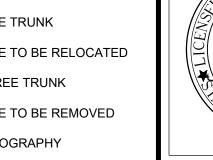
IMPORTANT NOTE: NO EXCAVATION OF ANY KIND IS TO OCCUR ANYWHERE ON SITE WITHOUT FIRST VERIFYING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES.



PERMEABLE PAVING -



O EXISTING TREE TRUNK EXISTING TREE TO BE RELOCATED PROPOSED TREE TRUNK



EXISTING TREE TO BE REMOVED EXISTING TOPOGRAPHY PROPOSED TOPOGRAPHY

DIRECTION OF SURFACE FLOW

– DETAIL NO. DETAIL SHEET

AUSSET-]



LANDSCAPE CONSTRUCTION **PLAN**

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REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024

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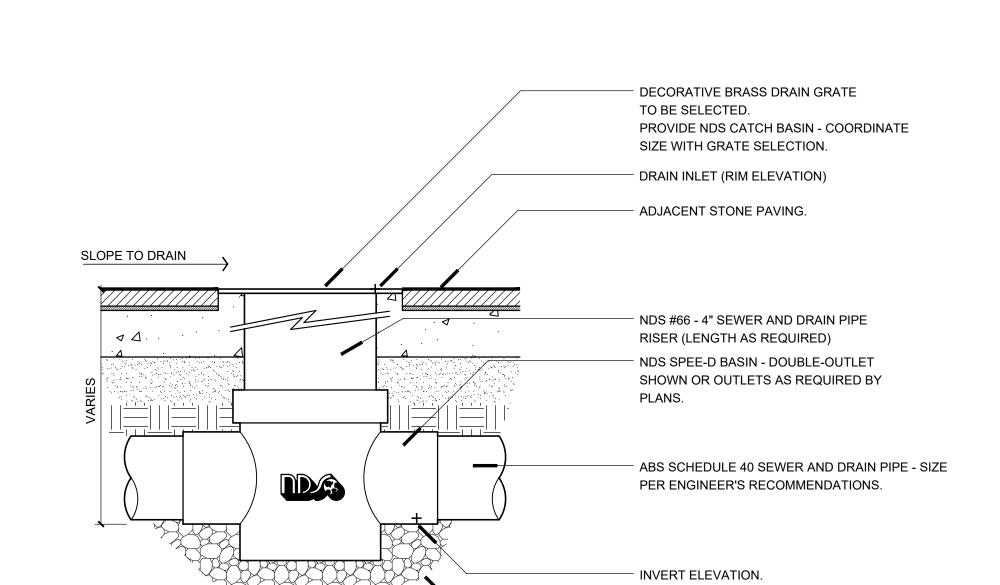
DRIV A, CA

SLOPED CAP FOR DRAINAGE

616 SE SANTA REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE N.T.S. PROJECT NO.

23-310 DRAWING NO. SAF-02076



DRAIN IN PAVING AREA B

NDS #90 BLACK 6" ATRIUM GRATE

DRAIN INLET (RIM ELEVATION)

IN SHRUB AND GROUNDCOVER AREAS

FINISH GRADE - SLOPE MIN. 2% TO DRAIN

NDS #66 - 6" SEWER AND DRAIN PIPE RISER (LENGTH AS REQUIRED)

NDS SPEE-D BASIN - DOUBLE-OUTLET SHOWN OR OUTLETS AS REQUIRED BY

ABS SEWER AND DRAIN PIPE - SIZE

INVERT ELEVATION

CRUSHED STONE

N.T.S.

N.T.S.

PER ENGINEER'S RECOMMENDATIONS

NOTE: SEE SHEET LC-1 FOR DRAIN LOCATIONS - TO BE APPROVED BY LANDSCAPE ARCHITECT, TIE INTO EXISTING DRAINAGE SYSTEM. SEE ALSO ANY CIVIL ENGINEER'S GRADING AND DRAINAGE PLAN FOR PIPE SIZES AND LOCATIONS.

CRUSHED STONE.

CONCRETE PAVING AT POOL EQUIPMENT & TRASH AREA

SECTION

N.T.S.

- 1/8" TOOLED RADIUS (TYPICAL)

COLOR TO BE SELECTED

AND PATTERNS

- HEAVY, PITTED FINISH CONCRETE PAVING -

- TOOLED CONTROL / PATTERN JOINT -LANDSCAPE PLANS FOR LOCATIONS

1/4" WIDE X 3/4" DEEP - GROUTED. SEE

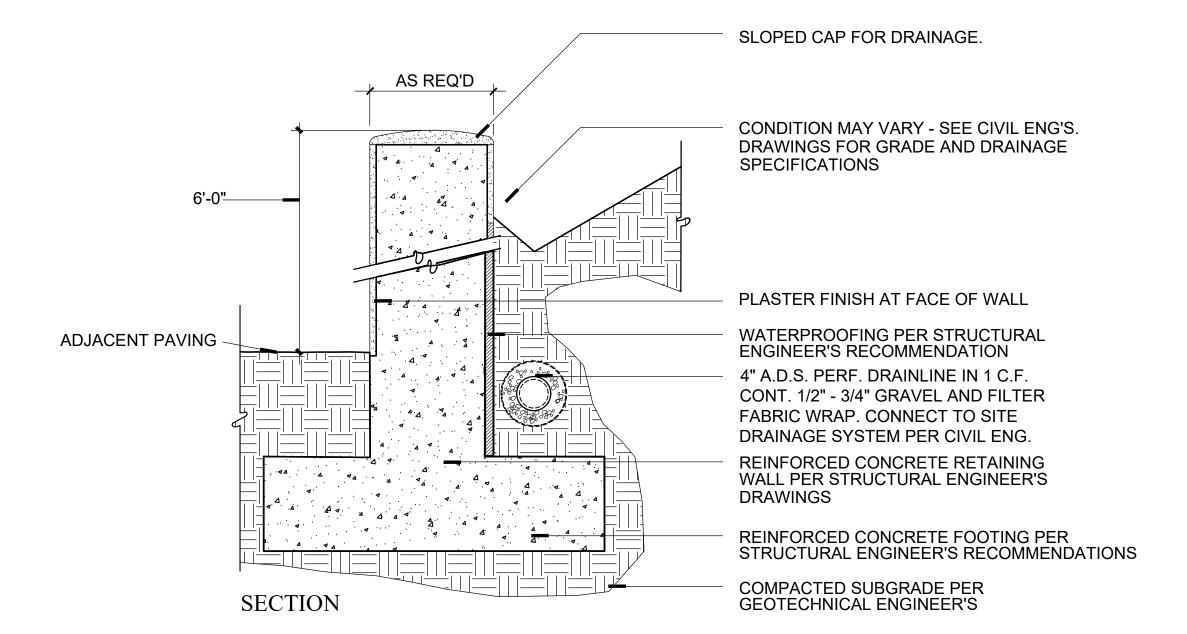
REINFORCED CONCRETE PAVING AND SUBBASE PER STRUCTURAL

ENGINEER'S RECOMMENDATIONS

- COMPACTION OF SUBGRADE PER GEOTECHNICAL ENGINEER'S

EXPANSION JOINT WITH MASTIC AT COLOR TO MATCH CONCRETE, TOP WITH SILICA SAND

RECOMMENDATION



DA

6" CATCH BASIN WITH NDS #90 BLACK 6" ATRIUM GRATE

MIN. 2% SLOPE TO DRAIN

SECTION

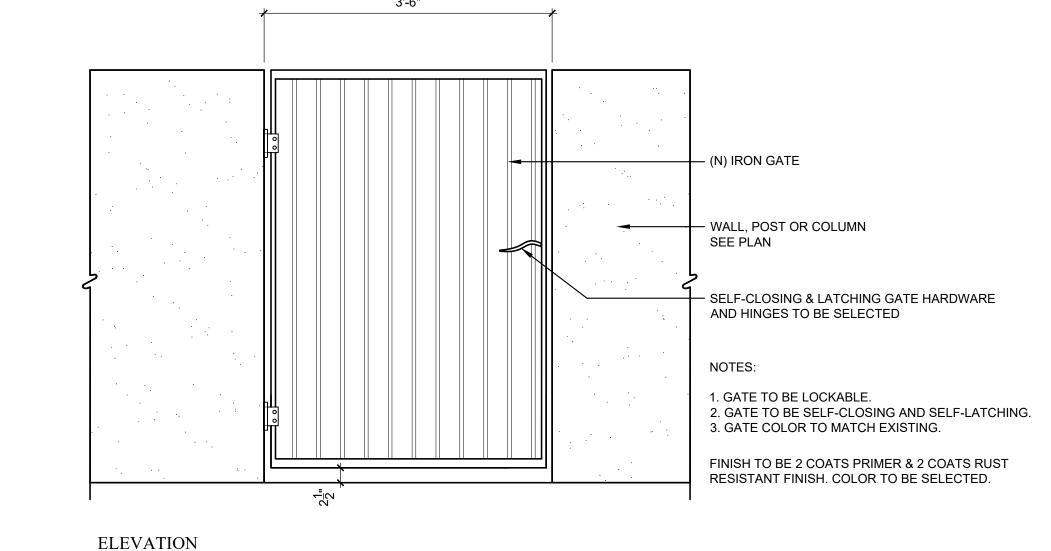
MASONRY WALL AT POOL EQUPIMENT

TO BE DETERMINED

SCULPTURE AT MOTORCOURT

N.T.S.

N.T.S.



PEDESTRIAN GATES
AT POOL EQUIPMENT & TRASH AREA

AS REQ'D

. 4 4

N.T.S.

SMOOTH PLASTER FINISH BOTH SIDES. PLASTER

-ADJACENT PAVING. SEE CONSTRUCTION PLAN

WALL STRUCTURE, REINFORCEMENT AND FOOTING

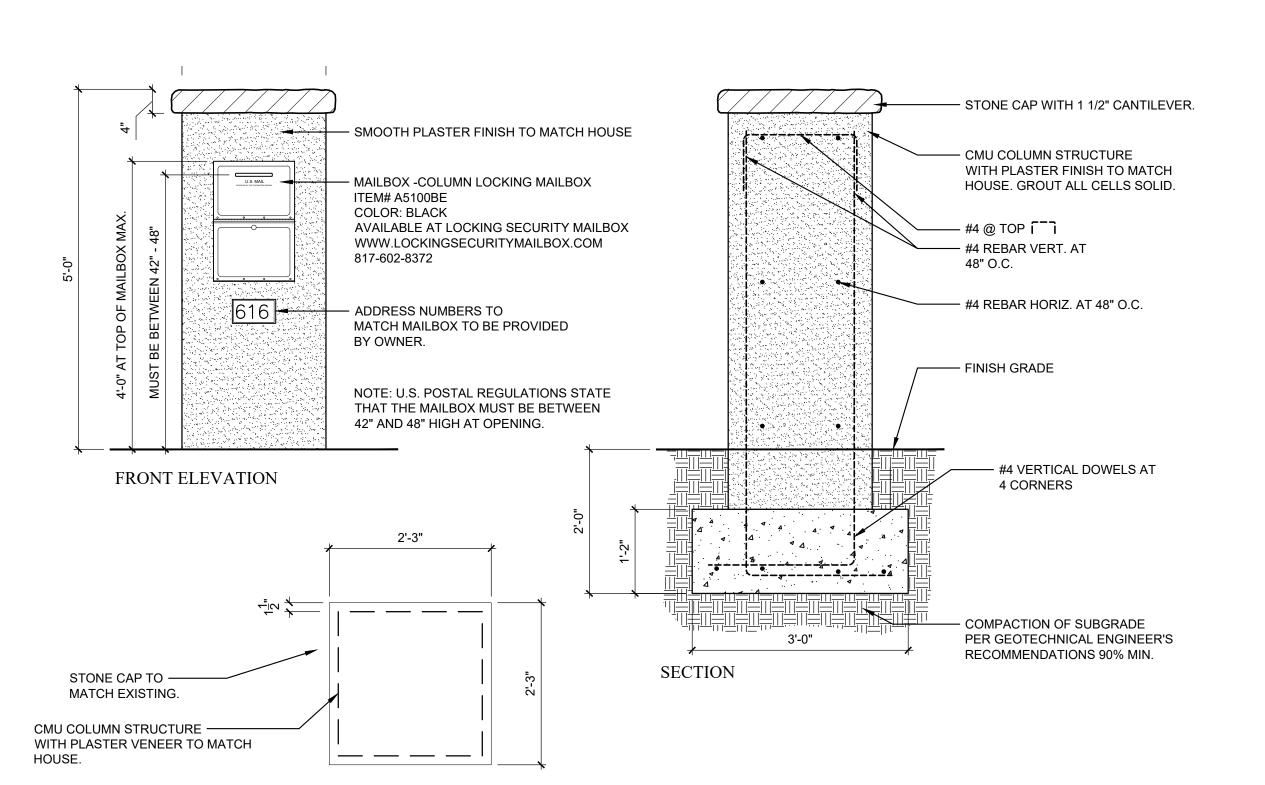
PER STRUCTURAL ENGINEER'S RECOMMENDATION

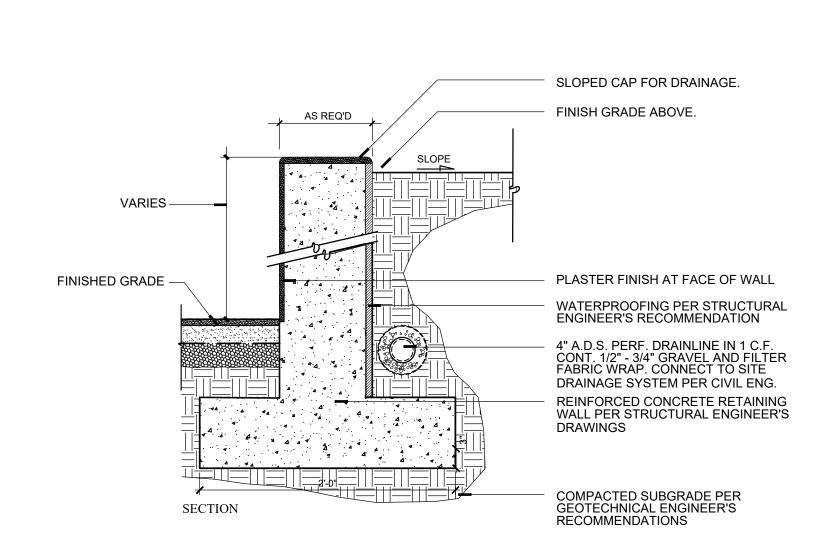
N.T.S.

SOIL COMPACTION PER GEOTECHNICAL

ENGINEER'S RECOMMENDATION

TO EXTEND 4" BELOW GRADE





RETAINING WALL AT DRIVEWAY

MASONRY WALL AT TRASH AREA

FINISH GRADE

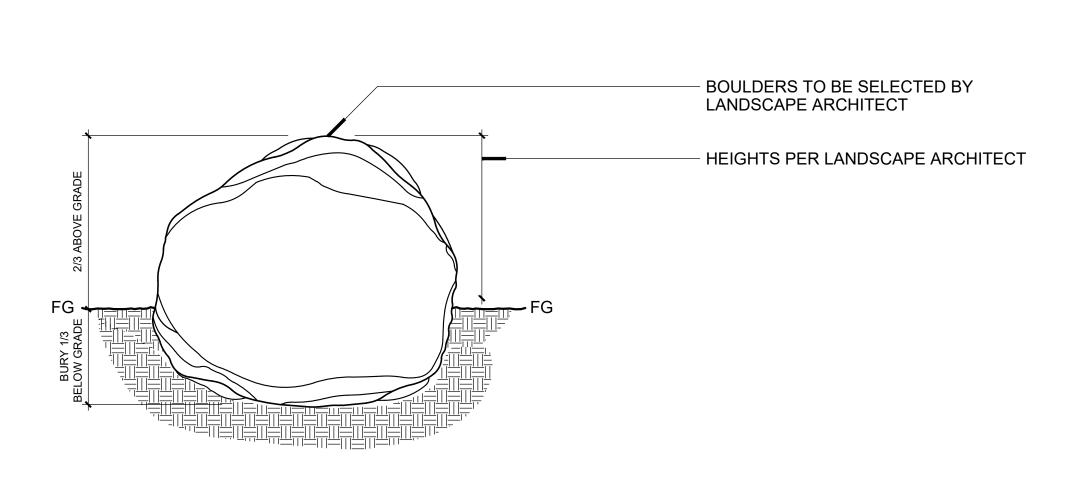
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SECTION

SEATWALL AT SPA DECK

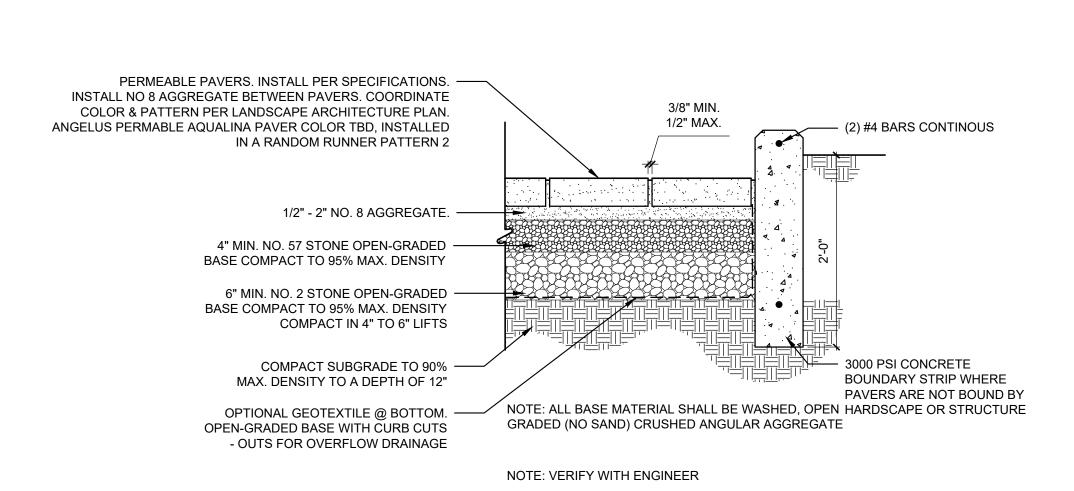
N.T.S.



SECTION

BOULDER IN LANDSCAPE

N.T.S.



PERMEABLE PAVING AT DRIVEWAY

N.T.S.

STONE CAP WITH 1/2" CANTILEVER. CAP SIZE AS REQUIRED TO PROVIDE 1/2" CANTILEVER OR AS NEEDED 1" MORTAR LEVELING BED ADJACENT PAVING OR PLANTING. SEE CONSTRUCTION PLAN SMOOTH PLASTER FINISH. PLASTER TO EXTEND 4" BELOW GRADE WATERPROOFING & DRAIN AT BACK OF WALL 4" A.D.S. PERF. DRAINLINE IN 1 C.F. CONT. FABRIC WRAP. CONNECT TO SITE 1/2" - 3/4" FS —↓ GRAVEL GRAVEL AND FILTER DRAINAGE SYSTEM. SLOPE 2% TO DAYLIGHT. PAVING COMPACTED SUB-GRADE PER GEOTECHNICAL ENGINEER'S RECOMMENDATION WALL STRUCTURE, REINFORCEMENT AND FOOTING PER STRUCTURAL ENGINEER'S RECOMMENDATION

SECTION

SEATWALL AT BOCCE AREA

N.T.S.

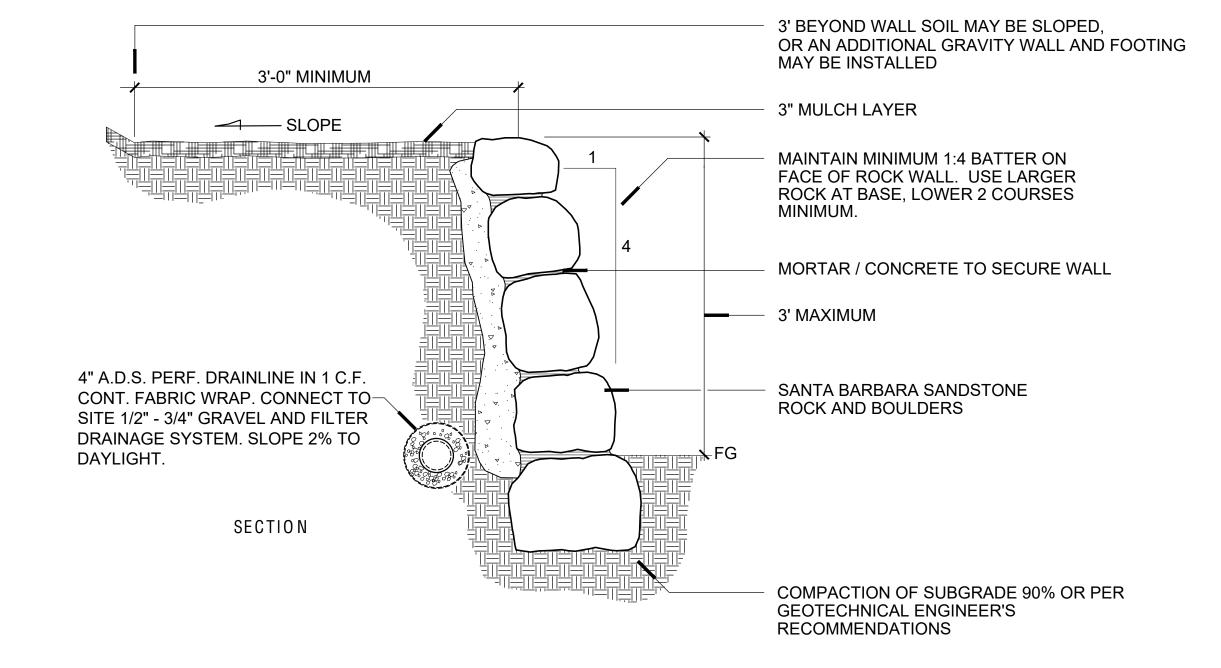
ADJACENT SLOPE 6" X 6" LANDSCAPE TIMBERS SAND ALL TOP EDGES 1" DIA. X 36" LONG GALVANIZED PIPE COUNTERSUNK TO RECEIVE GALVANIZED END CAP ON THREADED PIPE END. (TYPICAL AT 2 PLACES PER EACH TIE) - ADJACENT GRADE OR PAVING

SECTION

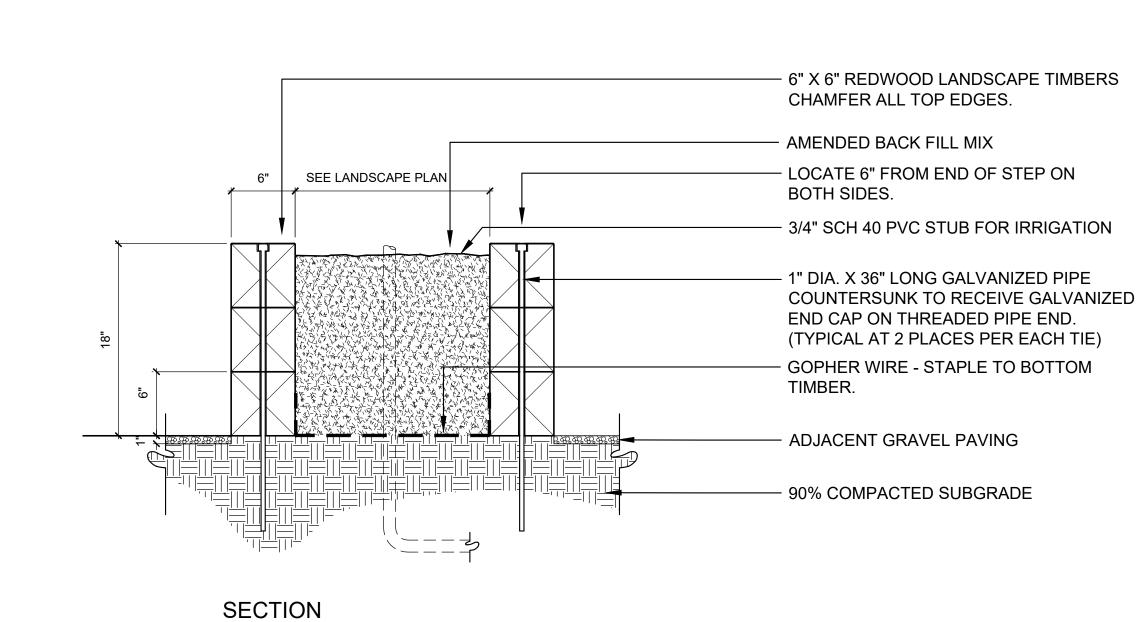
LANDSCAPE TIE RETAINING WALL

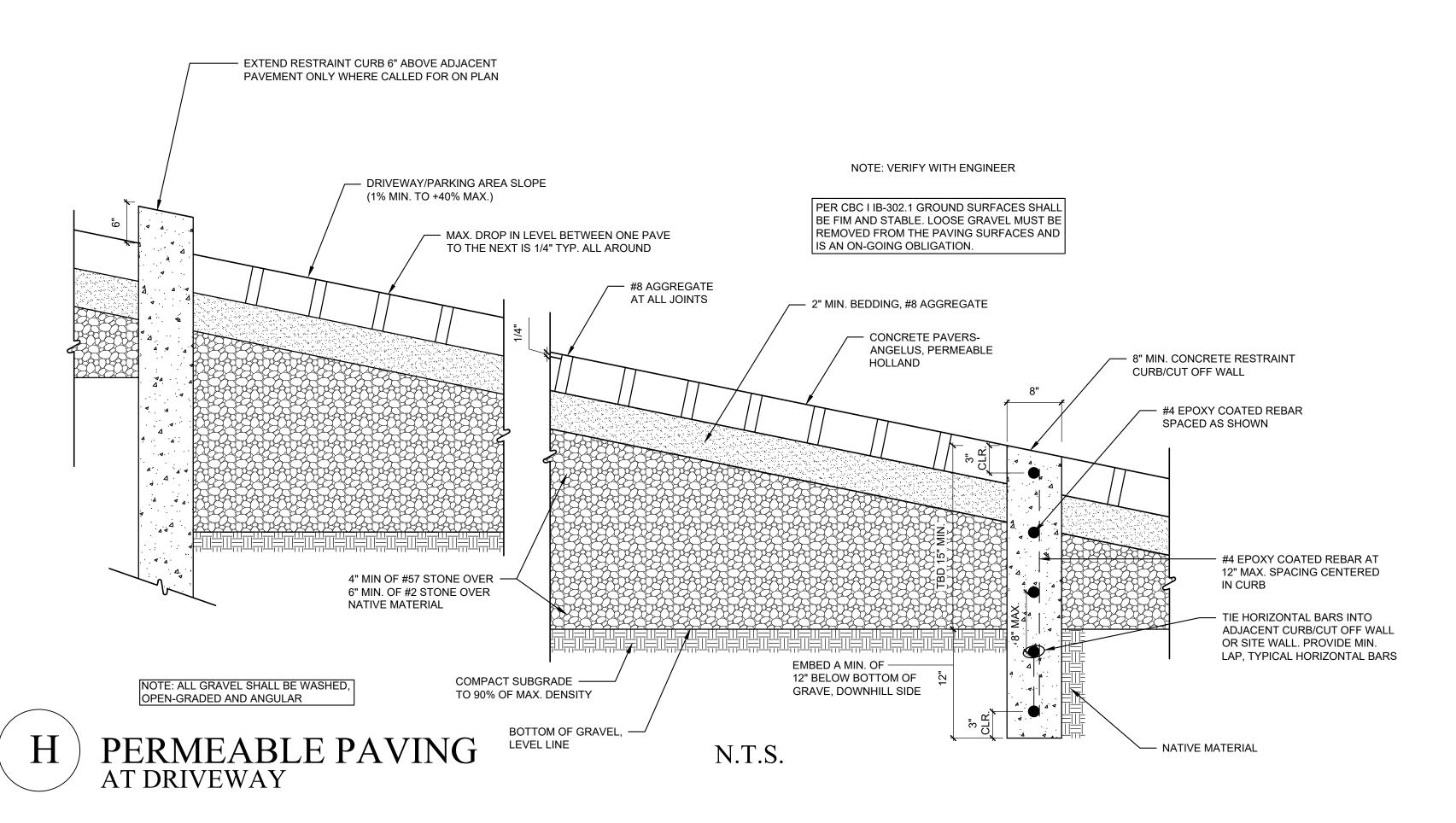
RAISED VEGETABLE BEDS DETAILNAME2 N.T.S.

N.T.S.



DRYSTACKED BOULDER RETAINING WALL N.T.S.







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616 SE SANTA REVISIONS

ISSUED FOR:

CITY OF SANTA BARBARA

DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE N.T.S. PROJECT NO. 23-310 DRAWING NO. SAF-02077

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ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED B SAF / KLD SCALE N.T.S.

PROJECT NO. 23-310 DRAWING NO. SAF-02078

GROUT JOINTS - TO BE DETERMINED COLOR TO BE SELECTED EXPANSION JOINT WHERE OCCURS. PROVIDE MASTIC AT TOP, COLOR TO — EXPANSION JOINT WHERE IT OCCURS MATCH STONE. TOP WITH SILICA PORCELAIN TILE PAVING, ARTERRA 'LIVINGSTYLE BEIGE' 24"x48" REBAR & SPACING PER STRUCTURAL ENGINE LEVELING BED. REINFORCED CONCRETE SLAB SUB-BASE PER GEOTECH ENGINEER'S RECOMMENDATION

SECTION COMPACTION OF SUBGRADE PER GEOTECH ENGINEER'S RECOMMENDATION

CONCRETE APRON AT DRIVEWAY

SECTION

NOTE: CONCRETE APRON TO MEET CITY REQUIREMENTS & SPECIFICATIONS

N.T.S.

1/8" TOOLED RADIUS (TYPICAL)

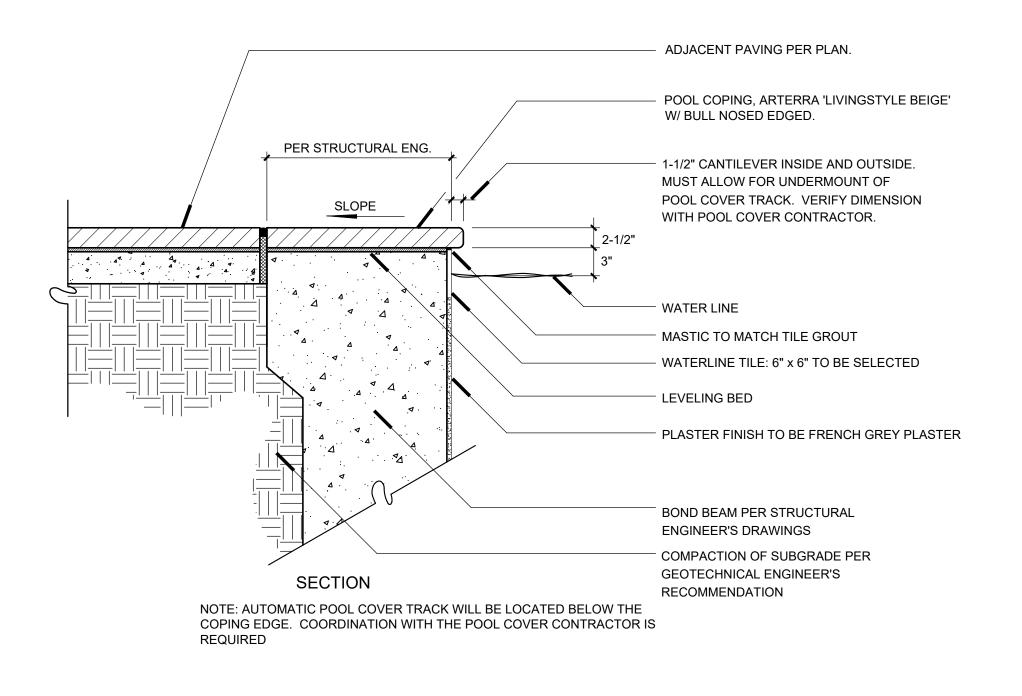
- SANDED, FINISH CONCRETE PAVING -COLOR TO BE SELECTED

- TOOLED CONTROL / PATTERN JOINT -1/2-3/4" WIDE X 3/4" DEEP - GROUTED. SEE LANDSCAPE PLANS FOR LOCATIONS

REINFORCED CONCRETE PAVING AND SUBBASE PER STRUCTURAL ENGINEER'S RECOMMENDATIONS

COMPACTION OF SUBGRADE PER GEOTECHNICAL ENGINEER'S RECOMMENDATION

- EXPANSION JOINT - GROUTED COLOR TO BE SELECTED



SECTION

WOOD CURB AT BOCCE

POOL COPING

- ADJACENT BOCCE COURT PAVING. SEE DETAIL ?/LCD-?

FINISH GRADE - 1" AT LAWN AREAS;

— 1/2" WIDE TOOLED CONTROL JOINT

GROUTED - SPACED 24"-30" O.C.

COLORED CONCRETE CURB WITH

ENGINEER'S RECOMMENDATIONS.

REINFORCEMENT PER STRUCTURAL

PROVIDE EXPANSION JOINTS AT 20' MAX SPACE EVENLY FROM JUNCTIONS. · REBAR PER STRUCTURAL ENGINEER.

REBAR & SPACING PER STRUCTURAL ENGII

- COMPACTED GRAVEL OR ROAD BASE.

- 90% COMPACTED SUBGRADE.

N.T.S.

N.T.S.

2"x10" SIDE BOARDS

— 2"x10" SIDE BOARDS

PLAN

1.5" AT PLANTING AREAS.

PORCELAIN PAVER STEPS

10' MAX. POST SPACING

REBAR PER STRUCTURAL ENGINEER.

SECTION

PORCELAIN TILE PAVING ON SLAB

VARIES, SEE CONSTRUCTION PLAN

15" TREAD

· → — • |₄

1'-0"

N.T.S.

- 1-5/8" TOP RAIL

BALL CAP - BLACK

CORNER AND END POLE - BLACK

ENDS AND CORNERS - BLACK

ONLY WHERE REQUIRED

- 1-5/8" BOTTOM RAIL - BLACK

- FINISH GRADE

TRUSS ROD WITH TURNBUCKLE

TIES ALONG TOP AND BOTTOM RAIL

- NO CLIMB BLACK MESH CHAIN LINK

TENSION BANDS WITH TENSION BAR AT

N.T.S.

ADJACENT STONE PAVING.

SEE CONSTRUCTION PLAN

FOR TYPE AND LOCATION.

PORCELAIN PAVER STEPS WITH EASED EDGES

EQUAL HEIGHT. NUMBER OF RISERS MAY VARY. REFER TO CONSTRUCTION PLAN FOR QUANTITY.

AND 1" CANTILEVER TYPICAL. SLOPE

MINIMUM 1/8" PER FOOT. SEE LANDSCAPE

CONSTRUCTION PLAN FOR LOCATIONS.

PORCELAIN TILE RISERS - ALL RISERS

GROUT JOINTS TO BE DETERMNED.

ADJACENT PORCELAIN PAVING.

REINFORCED CONCRETE SLAB PER STRUCTURAL ENGINEER.

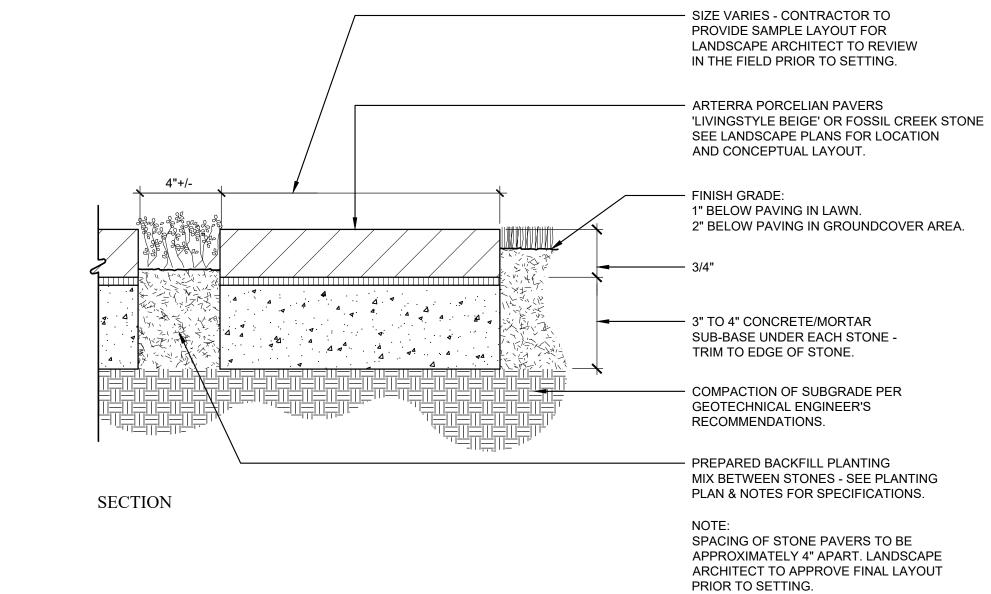
COMPACTION OF SUBGRADE PER

GEOTECHNICAL ENG. RECOMMENDATION.

SEE CONSTRUCTION PLAN

FOR TYPE AND LOCATION.

—— 1" LEVELING BED.



STEPPING PADS W/ OPEN JOINTS

N.T.S.

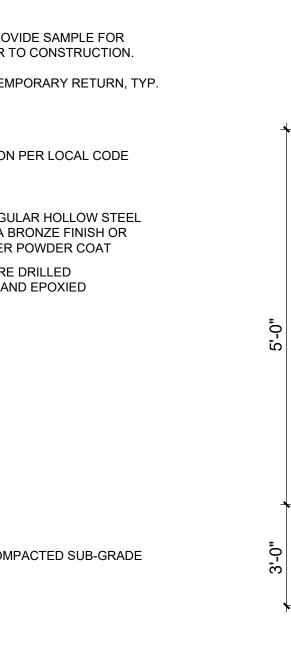
- MOLDED CAP. PROVIDE SAMPLE FOR APPROVAL PRIOR TO CONSTRUCTION. STRAIGHT CONTEMPORARY RETURN, TYP. - RETURN DIMENSION PER LOCAL CODE — 1" X 1/2" RECTANGULAR HOLLOW STEEL HANDRAIL WITH A BRONZE FINISH OR CLEAR COAT OVER POWDER COAT STEPS AND LANDINGS -— RAILING SET: CORE DRILLED INTO CONCRETE AND EPOXIED FINISHED SURFACE -- COMPACTED SUB-GRADE

CHAINLINK FENCE

CONCRETE FOOTING (TYPICAL) - COMPACTED SUBGRADE NOTE: FENCE TO MEET LOCAL POOL CODE REQUIREMENTS SECTION / ELEVATION N.T.S.

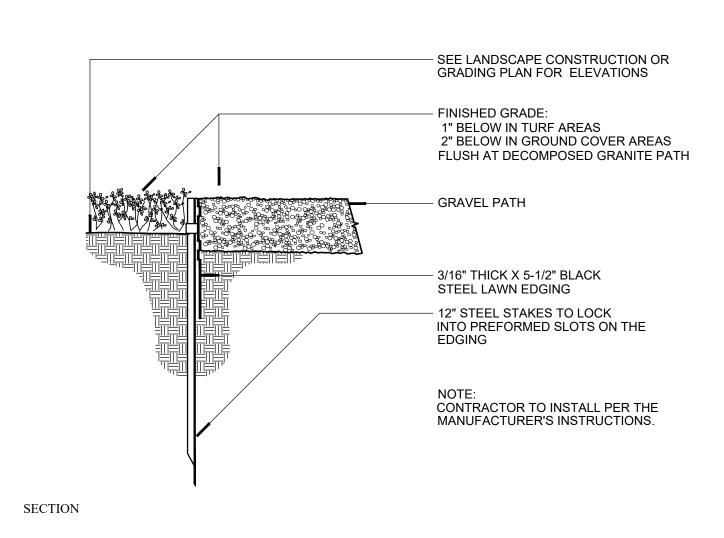
- 2" THICK LAYER MINIMUM 3/8" 'NAVAJO' — 3/16" THICK X 5-1/2" BLACK STEEL LAWN EDGING. SEE LANDSCAPE PLAN ----- F.G. FLUSH IN LAWN AREAS. F.G. 1" BELOW IN GROUNDCOVER AREAS. - INSTALL GOPHER MESH · INSTALL 2" LAYER OF PERMEABLE BASE BELOW GOPHER MESH 12" STEEL STAKES TO LOCK INTO PRE-FORMED SLOTS ON THE EDGING **SECTION**

GRAVEL PATHWAYS / PAVING



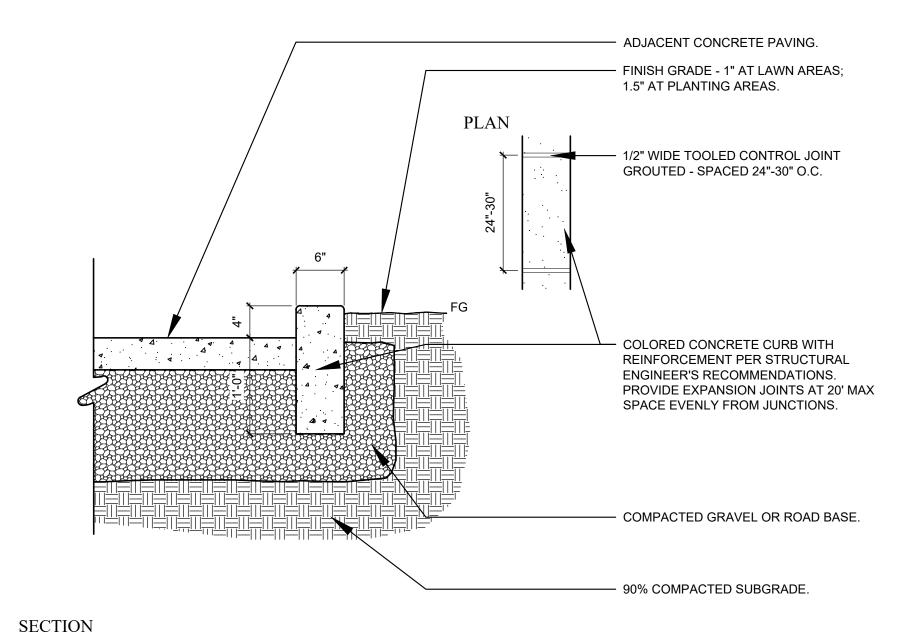
STAIR HANDRAILS N.T.S.

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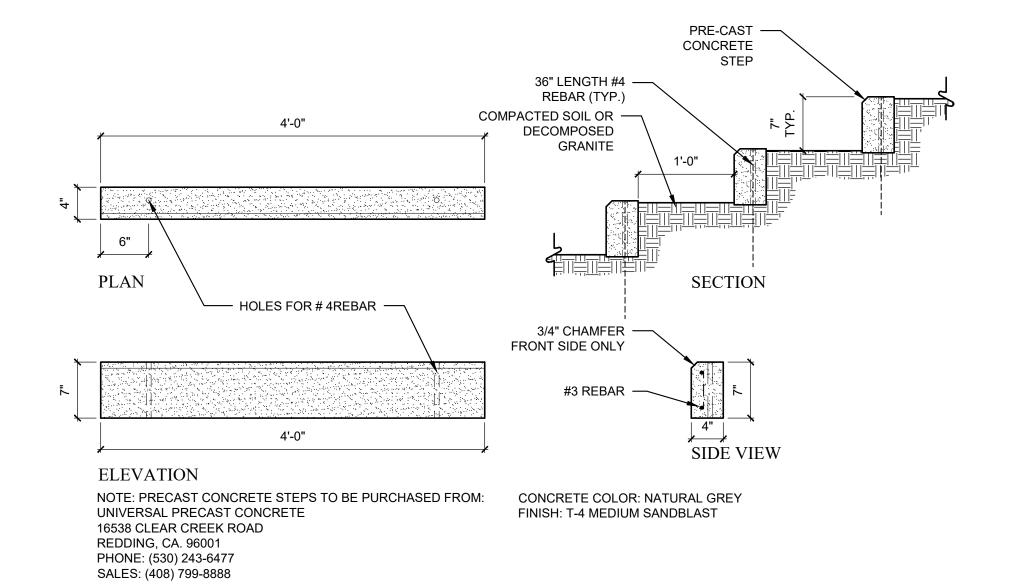
A GRAVEL PATH EDGING

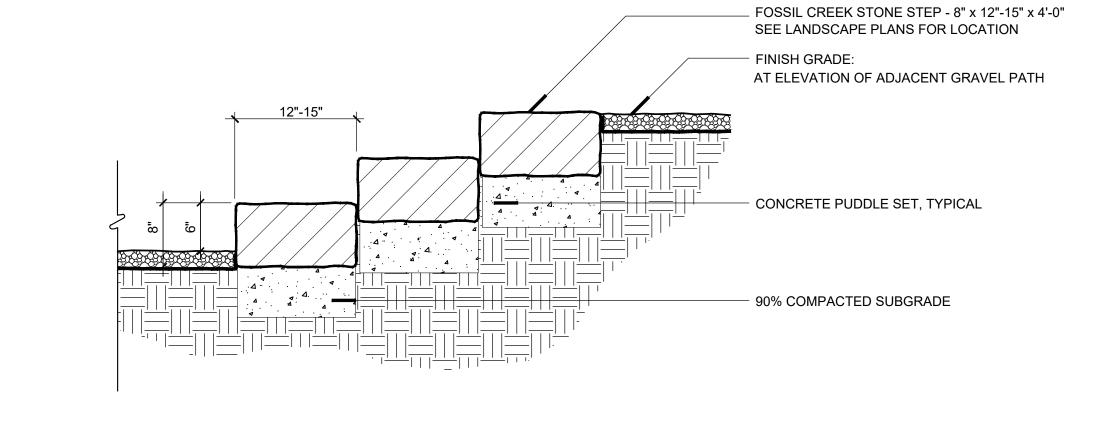
N.T.S.



D CONCRETE CURB AT DRIVEWAY

N.T.S.





B PRE-FAB CONCRETE GARDEN STEPS

N.T.S. (C) FOSSIL CREEK STONE SLAB STEPS

N.T.S.



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LANDSCAPE CONSTRUCTION DETAILS

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ARKLEY RESIDENC 616 SEA RANCH DRIVE SANTA BARBARA, CA. 93109

REVISIONS

DATE
JULY 19, 2024

DESIGNED BY/DRAFTED BY
SAF / KLD
SCALE
N.T.S.

PROJECT NO.
23-310

DRAWING NO.

L-18

SAF-02079

POOL EQUIPMENT SPECIFICATIONS

WORKING.

COMPONENTS:

SYSTEM:

POOL HEATER: PENTAIR 'MASTERTEMP' #SR400NA 400,000 BTU NATURAL GAS POOL HEATER.

(1) PENTAIR CLEAN & CLEAR PLUS 520 CARTRIDGE FILTER #CCP520 **POOL FILTER:**

(1) PRIMARY FILTRATION PUMP: PENTAIR 'INTELLIFLO VSF VARIABLE SPEED PUMP (1) PENTAIR 'WHISPERFLO' 1.5-2.0 HP SHARED SYSTEM PUMP THE QUIETEST POOL PUMP ON THE MARKET: OPERATING AT ONLY 45 dB (DECIBELS), THE INTELLIFLO VSF IS THE QUIETEST PUMP AVAILABLE. BECAUSE IT HAS A COMPLETELY CLOSED DESIGN AND AN EXCLUSIVE COOLING SYSTEM WITH FAN. IT OPERATES ALMOST SILENTLY. THE INTELLIFLO VSF IS SO QUIET THAT YOU MIGHT NOT EVEN NOTICE IT IS

POOL/WATER CLEARWATER TECH, INC. CONTACT REPRESENTATIVE: R.J. MAROSEY 805-340-6150 **PURIFICATION**

1. OZONE GENERATOR MODEL #P-2000 CORONA DISCHARGE 240 VOLT

2. OXYGEN CONCENTRATOR/FEED GAS PREPARATION - 'AEROUS' SERIES 3. SAFETY INTERLOCKS AND CONTROLS MODEL #1TB CLEARWATER TECH 'ELECTRICAL

INTERLOCK CONTROL BOX'. 4. AIR PREPARATION MODEL #AD-40 AUTOMATIC HEAT REGENERATIVE AIR DRYER.

5. CONTACT VESSEL/TANK

6. OZONE INJECTION MANIFOLD - 'MAZZEI'

7. PENTAIR - AUTOMATIC ORP & PH CONTROLLER 'INTELLICHEM' ORP (OXIDATION REDUCTION POTENTIAL) CONTROLLER.

RESIDENCE TO BE DETERMINED BY THE ARCHITECT AND INTERIOR DESIGNER.

CHEMICAL PUMPS: ROLA-CHEM #RC 25 / 53 - MAX FEED 12GPD PUMP (1) FOR ACID AND (1) FOR CHLORINE. USE POLYETHYLENE TUBING RESIDENCE - PENTAIR 'INTELLITOUCH' COMPUTERIZED CONTROL SYSTEM. LOCATION IN

> CONTRACTOR TO PROVIDED ELECTRICAL CONDUIT TO INSTALL CONTROLLER. POOL HOUSE - PENTAIR 'INTELLITOUCH' INDOOR CONTROL PANEL. LOCATION IN POOL HOUSE TO BE DETERMINED BY ARCHITECT AND INTERIOR DESIGNER CONTRACTOR TO PROVIDE ELECTRICAL CONDUIT TO INSTALL CONTROLLER.

PENTAIR AUTOMATIC VALVE ACTUATORS

POOL LIGHTS: (3) NEXXUS 'SAVI-MELODY' BLANCO - 12VAC LED LIGHT, WITH DIMMABLE TRANSFORMER; FACE RING TO MATCH PLASTER COLOR.

> NOTE WELL: ORDER WITH CORD OF SUFFICIENT LENGTH BASED ON JUNCTION BOX LOCATED IN THE FIELD.

AMERICAN PRODUCTS (BRASS).

POOL-(2) AMERICAN PRODUCTS - 'ADMIRAL' OR APPROVED EQUAL-FABRICATE SKIMMER **SKIMMERS:** COVER TO MATCH PAVING. PROVIDE 1 SKIMMER PER EVERY 600 SQ.FT. POOL AREA

JANDY 'NEVER LUBE': 2 PORT SHUT-OFF AND 3 PORT CHECK VALVE VALVES:

STUB OUT FROM HOUSE WATER LINE. USE 'SUPERIOR' MECHANICAL AUTOFILL DEVICE. FILL LINE: LOCATION DETERMINED IN THE FIELD WITH APPROVAL OF LANDSCAPE ARCHITECT.

AMERICAN PRODUCTS - 86200 SERIES OR EQUAL WITH ORIFICE SIZES ADJUSTED BY THE RETURN LINE POOL CONTRACTOR TO PROVIDE OPTIMUM POOL CIRCULATION AFTER THE START-UP OF FITTINGS: THE POOL EQUIPMENT. FITTINGS TO MATCH POOL PLASTER OR TILE COLOR.

'COVERSTAR' AUTOMATIC POOL COVER BY COVER-PRO PHONE: (805)646-4232 POOL COVER: 416 BRYANT CIRCLE SUITE J, OJAI, CA 93023. COLOR TO BE SELECTED AND APPROVED BY OWNER AND/OR OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.

POOL NOTES:

- 1. REFER TO STRUCTURAL ENGINEERING PLANS BY POOL CONTRACTOR'S ENGINEER.
- 2. REMOVE UNWANTED SOIL TO A LEGAL DUMPSITE.

REPRESENTATIVE AND LANDSCAPE ARCHITECT.

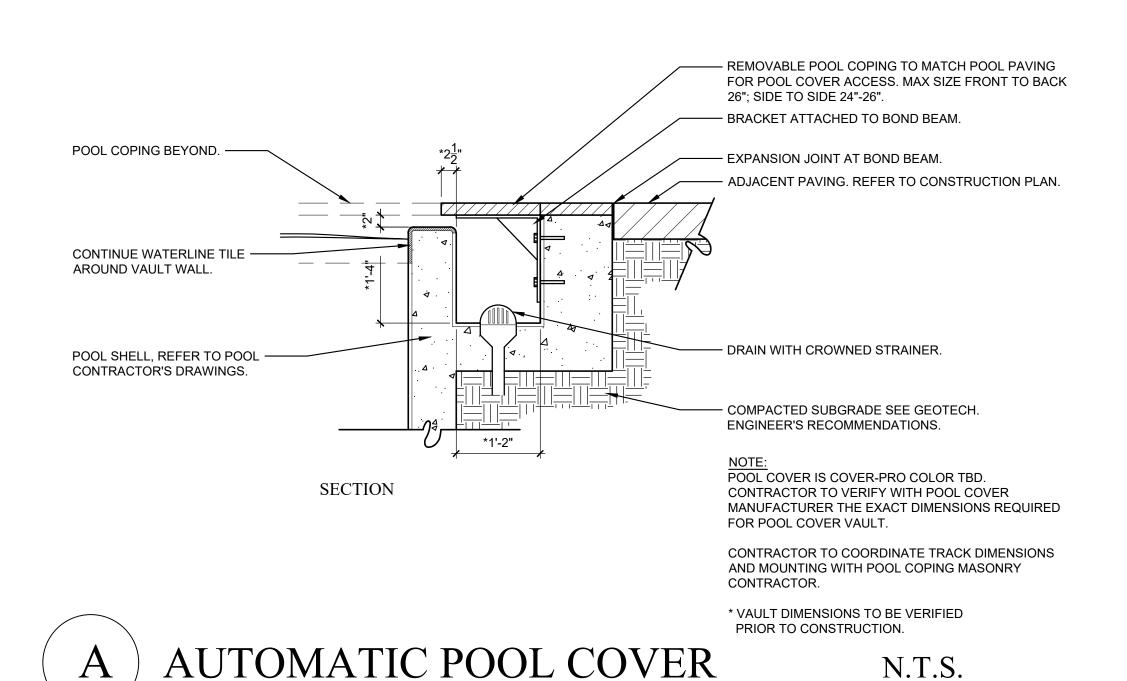
- 3. SOIL COMPACTION BELOW AND AROUND THE POOL TO BE CERTIFIED BY THE ENGINEERING GEOLOGIST.
- 4. STRUCTURAL ENGINEER TO INSPECT STEEL 48 HOURS PRIOR TO APPLICATION OF GUNITE.
- 5. PROVIDE CHECK VALVES BETWEEN THE HEATER AND THE CHEMICAL INJECTOR.
- 6. THE STRUCTURAL ENGINEER, SOILS ENGINEER AND THE ENGINEERING GEOLOGIST ARE TO NOTIFY EACH OTHER, IMMEDIATELY UPON OBSERVATION OR DISCOVERY, OF ANY DEVIATION FROM THE ORIGINAL DRAWINGS, REPORTS OR SITE CONDITIONS.
- 7. THE RELATIONSHIPS OF ALL CONSTRUCTION POINTS ARE TO BE PRECISELY ESTABLISHED IN THE FIELD. LAYOUT TO BE REVIEWED AND APPROVED BY LANDSCAPE ARCHITECT, OWNER AND/OR OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION. 8. ALL GUNITE TO BE PLACED UNDER THE CONTINUOUS SUPERVISION OF A DEPUTY GUNITE INSPECTOR.
- THE STRUCTURAL ENGINEER, SOILS ENGINEERING AND THE ENGINEERING GEOLOGIST ARE TO MEET AT THE START OF GUNITING TO VERIFY AND CERTIFY ALL CONDITIONS. 9. ALL POOL PLUMBING AND ELECTRICAL SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES BELOW THE

CONTRACTOR AND ARE TO BE REVIEWED AND APPROVED BY THE OWNER AND/OR THE OWNER'S

- PROPOSED FINISHED GRADE AS NOTED ON THE GRADING PLANS AS AUTHORIZED BY THE CIVIL ENGINEER. 10. THE POOL ELECTRICAL, MECHANICAL CONTROLS AND SWITCHING ARE DESIGNED BY THE POOL
- 11. THE POOL CONTRACTOR SHALL PROVIDE SPECIFICATIONS AND MANUFACTURER'S SPECIFICATIONS FOR THE POOL EQUIPMENT TO BE REVIEWED AND APPROVED BY THE OWNER AND/OR THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
- 12. POOL FINISH IS TO BE POOL PLASTER LIGHT GREY; COLOR TO BE APPROVED BY THE OWNER AND/OR THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.

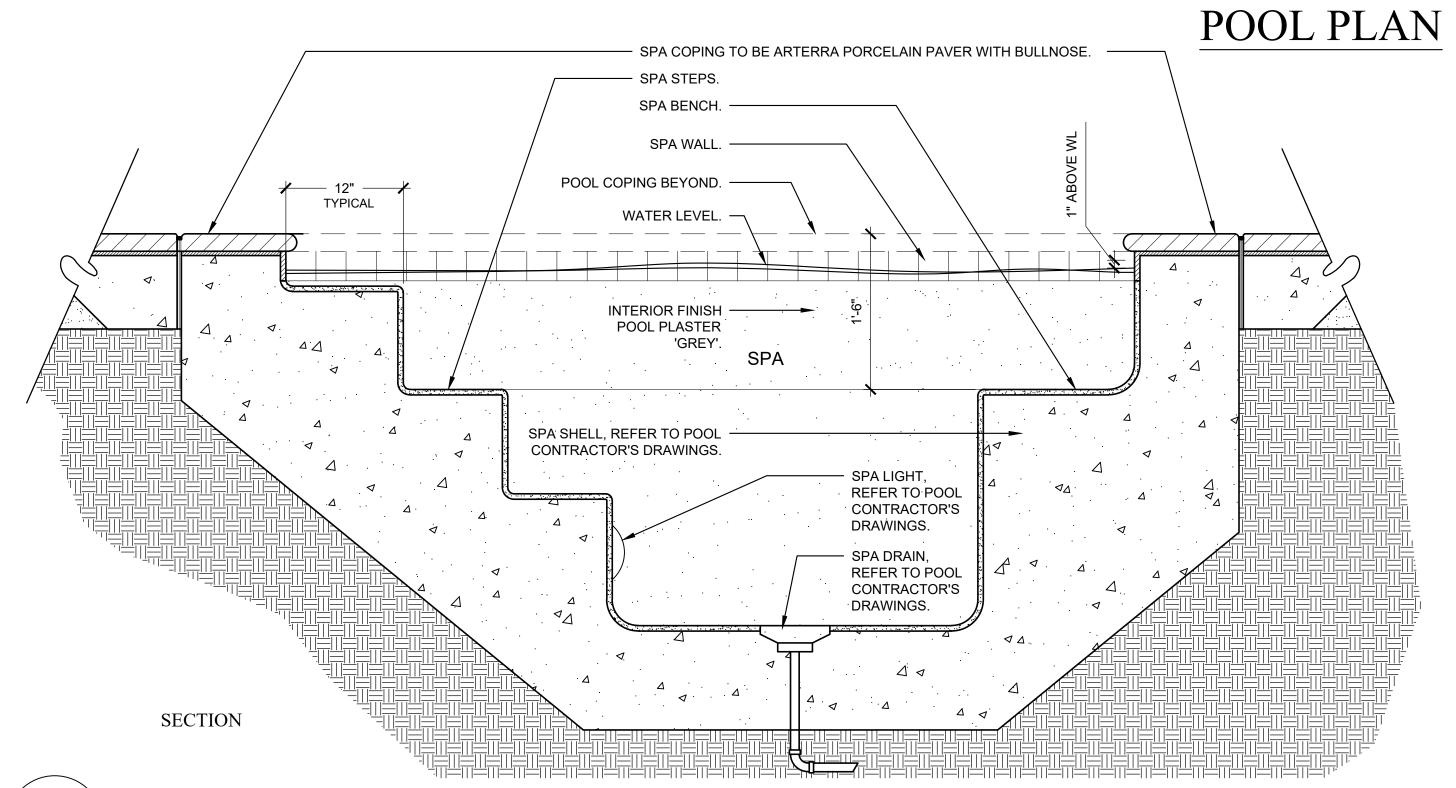


IMPORTANT NOTE: NO EXCAVATION OF ANY KIND IS TO OCCUR ANYWHERE ON SITE WITHOUT FIRST VERIFYING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES.



AUTO FILL - VERIFY 1X1 TILE ACCENT 6" O.C. AT STEPS FINAL LOCATION. & BENCH. LAY OUT TILE FROM THIS CORNER. TILE TO BE SELECTED +12" DEEP POOL 45' X 15' EL 305.0 +8'-0" DEEP⊗ +3'-0" DEEP PSP-1 **INFINITY BASIN** EL. 298.0 AUTOMATIC POOL COVER SWIM LANE TILE TBD, TYP. - MAIN DRAIN - ELECTRICAL JUNCTION BOX TO BE LOCATED IN PLANTER AREA. VERIFY LOCATION WITH

LANDSCAPE ARCHITECT.

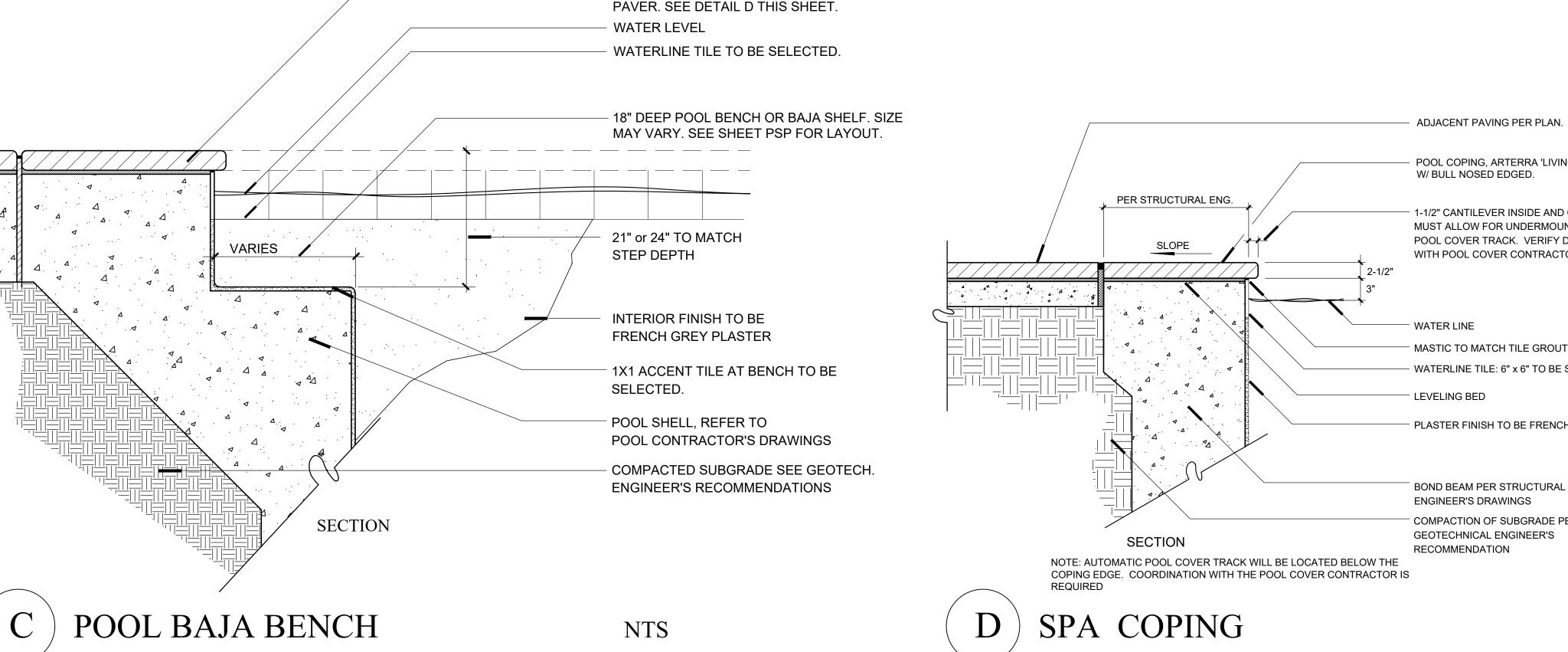


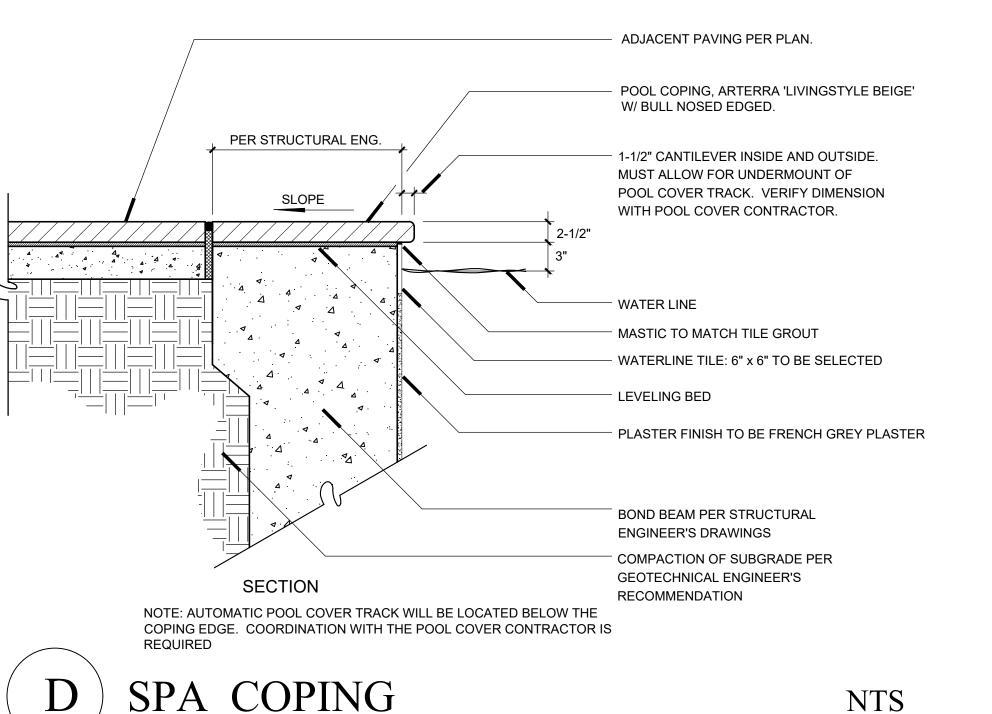
SPA ELEVATION 303.5 LED SPA LIGHT -SPA CONTROLS **SPA SECTION** PSP-1, SPA COPING SP-1/ SPA MAIN DRAIN (6) SPA JETS (4) CALF JETS LOUNGE SEAT AND SPA JETS - 1X1 TILE ACCENT 6" O.C. AT SPA **OVERFLOW** (10) FINAL LOCATIONS TO BE STEPS, TILE TO BE SELECTED. SKIMMER DETERMINED BY CLIENT. USE SAME 1X1 TILE AS 6" WATERLINE TILE AT SPA

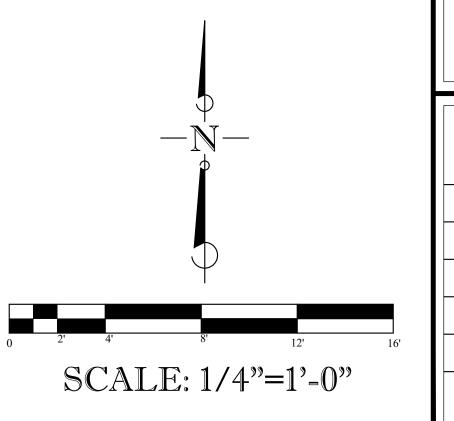
SCALE = 1/4" = 1'-0"

SPA PLAN

SPA SECTION N.T.S. POOL COPING TO BE ARTERRA PORCELAIN









AUSSET



POOL & SPA **PLAN**

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DR S 61 SA

REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED B SAF / KLD SCALE N.T.S. PROJECT NO. 23-310 DRAWING NO. SAF-02080

IRRIGATION POINT-OF-CONNECTION NOTES:

- 1. THE SPRINKLER SYSTEM DESIGN IS BASED ON A MINIMUM AVAILABLE FLOW OF 16 GPM AND A MINIMUM STATIC WATER PRESSURE OF 140 PSI AT THE POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL PROVIDE A PRESSURE REGULATOR AT THE POINT OF CONNECTION SPECIFIED ON PLAN IF NEEDED. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE ON SITE PRIOR TO CONSTRUCTION, REPORT TO THE LANDSCAPE ARCHITECT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS, AND THE ACTUAL PRESSURE READING IN THE FIELD.
- 2. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWING EXISTING CONDITIONS:
- (EXISTING CONDITION INFORMATION PER CITY OF SANTA BARBARA WATER.
- 1" WATER METER 1" COPPER SERVICE LINE FROM STREET MAIN TO METER
- 140 PSI @ 108' ELEVATION MAXIMUM GPM: 12
- (12 GPM THROUGH 1" COPPER SERVICE @ 7 FPS, ASSUMING 75% OF TOTAL FLOW AVAILABLE FOR IRRIGATION SYSTEM, OR 100% WHEN METER IS DEDICATED **EXCLUSIVELY FOR IRRIGATION PURPOSES)**
- IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONNECTION TO THE P.O.C., WITH MINIMAL DISRUPTION TO THE EXISTING SITE WATER SUPPLY. NOTIFY THE GENERAL CONTRACTOR AND/OR OWNER'S AGENT WITHIN 48 HOURS IN ADVANCE OF INSTALLATION.
- 4. ALL PIPING BETWEEN POINT OF CONNECTION AND THE BACK FLOW PREVENTION DEVICE SHALL BE OF MATERIALS AND INSTALLATION METHODS REQUIRED BY LOCAL CODE AND GOVERNING AGENCIES.

IRRIGATION GENERAL NOTES:

- 1. THE IRRIGATION DESIGN AND LAYOUT IN THESE PLANS IS DIAGRAMMATIC, ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM AND EXISTING STRUCTURES, UTILITIES AND PLANTING. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ARISING IN THE FIELD.
- IRRIGATION SLEEVING UNDER PAVING TO BE PROVIDED BY IRRIGATION CONTRACTOR. VERIFY SLEEVING REQUIREMENTS IN FIELD AND REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT. SLEEVES SHALL BE PROVIDED BY IRRIGATION CONTRACTOR AND SHALL BE SCH 40 PVC AND SIZED PER THE SPECIFICATIONS AND THE LEGEND. EXTEND ALL ACCESS SLEEVES MINIMUM TWELVE (12) INCHES BEYOND PAVING EDGES.
- 3. EXERCISE EXTREME CARE WHEN EXCAVATING FOR IRRIGATION SYSTEM DUE TO EXISTING UTILITIES. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. UTILIZE UNDERGROUND UTILITY LOCATIONS SERVICES WHENEVER POSSIBLE AND BE FAMILIAR WITH EXISTING AND PROPOSED GRADE CHANGES AND RELATIONS TO STRUCTURES, WALLS AND UNDERGROUND UTILITIES.
- 4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO ASSURE THAT EXISTING PLANT MATERIAL TO REMAIN ON SITE IS PROTECTED FROM
- 5. IN THE INSTANCE THAT THE EXISTING IRRIGATION SYSTEM IS TURNED OFF OR ABANDONED, THE CONTRACTOR SHALL ARRANGE FOR TEMPORARY IRRIGATION TO WATER EXISTING PLANTS AND TREES TO REMAIN. ALL POSSIBLE CAUTION SHALL BE EXERCISED TO AVOID INJURY TO ROOTS AND TRUNKS OR EXISTING PLANT MATERIALS. TUNNELING UNDER ROOTS TWO (2) INCHES OR LARGER SHALL BE ALLOWED ONLY AFTER REVIEW BY THE LANDSCAPE ARCHITECT. THE PRUNING AND TRIMMING OF BRANCHES AND ROOTS OF PLANT MATERIALS WILL BE DONE BY EXPERIENCED WORKERS WITH THE CONSENT OF THE ARBORIST.
- WHERE OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES IN THE DIMENSIONS OF IRRIGATED AREAS DIMENSIONS EXIST, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR THE OWNER'S ON SITE REPRESENTATIVE FOR RESOLUTION. IF SUCH NOTIFICATION IS NOT GIVEN, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REPAIRS AND/OR REVISIONS.
- IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING VALVE WIRING TO ACCOMMODATE ALL STATIONS ON THE CONTROLLER PLUS A MINIMUM OF 2 ADDITIONAL STATIONS, OR AS INDICATED ON PLANS.
- 8. INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN IN THE PLANS AND DETAILS. USE TEFLON PIPE TAPE ON ALL OUTSIDE (MALE) PIPE THREADS, ON ALL SPRINKLER SWING JOINT ASSEMBLIES, AND VALVE ASSEMBLIES.
- 9. ALL POP-UP HEADS SHALL BE INSTALLED WITH TRIPLE SWING JOINTS.
- 10. THE IRRIGATION PLANS ARE DIAGRAMMATIC AND ALL VALVES AND QUICK COUPLERS SHALL BE LOCATED IN SHRUB PLANTING AREAS WHEREVER POSSIBLE. VALVE BOXES SHALL BE A MINIMUM OF 36" FROM TURF EDGES, HARDSCAPE, PATHS, CURBS, AND WALLS. REMOTE CONTROL VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES PER THE IRRIGATION DETAILS.
- 11. 110 VOLT ELECTRICAL POWER OUTLET SHALL BE PROVIDED BY THE OWNER WITHIN REACH OF THE IRRIGATION CONTROLLER. THE IRRIGATION CONTRACTOR WILL BE RESPONSIBLE FOR THE FINAL HOOKUP FROM THE ELECTRICAL OUTLET TO THE AUTOMATIC CONTROLLER.

- 12. THE IRRIGATION LINES AND HEADS SHALL BE FLUSHED PRIOR TO INSTALLATION OF THE HEADS AND EMITTERS. ADJUSTMENTS TO HEADS SHALL BE MADE TO PREVENT OVER SPRAY ONTO PAVING OR STRUCTURES AND TO PROVIDE 100% HEAD TO HEAD COVERAGE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS, AND TO THROTTLE THE FLOW CONTROL SYSTEM AT EACH VALVE TO OBTAIN OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. IT SHALL ALSO INCLUDE MINOR ADJUSTMENTS SUCH AS NOZZLE CHANGES AND/OR ADDITION AND DELETION OF INDIVIDUAL HEADS
- 13. INSTALL ANTI-DRAIN CHECK VALVES ON ALL SPRINKLER HEADS AS NEEDED AT LOW HEAD LOCATIONS TO PREVENT RESIDUAL FLOW WHILE TURNED OFF.
- 14. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONCRETE THRUST BLOCKS WHERE NEEDED TO PROTECT THE IRRIGATION LINES FROM WATER HAMMER.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR THE INITIAL SCHEDULING THE IRRIGATION SYSTEM TO MEET HORTICULTURAL REQUIREMENTS AND TO INSURE THAT EXCESSIVE SOIL SATURATION AND/OR SOIL EROSION DOES NOT OCCUR. THE OWNER SHALL ASSUME THIS RESPONSIBILITY AFTER COMPLETION OF THE LANDSCAPE MAINTENANCE PERIOD AND PROJECT CLOSE OUT.
- 16. PRECIPITATION RATES (PRT) AND GPM SHOWING IN THE IRRIGATION HEAD LEGEND ARE GIVEN ONLY AS A GENERAL INDICATION OF NOZZLE PERFORMANCE. ACTUAL TOTAL FLOW IS DEPENDENT UPON THE APPLICATION TIME OF EACH SYSTEM. THE APPLICATION TIME FOR EACH SYSTEM SHALL BE ADJUSTED TO PROVIDE A UNIFORM WATER COVERAGE. IN NO EVENT SHALL THE DURATION OF WATERING BE PERMITTED SUCH AS TO CREATE A SATURATED CONDITION OR CAUSE AN EROSION PROBLEM
- 17. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION OF ALL IRRIGATION PARTS AND FOUIPMENT, INCLUDING HEADS, POROUS
- 18. INSTALL ALL IRRIGATION COMPONENTS TO CONFORM WITH ALL STATE AND LOCAL CODES AND PER THE MANUFACTURER'S RECOMMENDATION.

PIPE, DRIP LINES, EMITTERS, WEATHER STATIONS, MASTER VALVES, CONTROLLERS AND STATION VALVES TO INSURE A COMPLETE AND OPERATING SYSTEM.

- 19. PROVIDE ADEQUATE LIGHTNING PROTECTION FOR ALL ELECTRICAL COMPONENTS.
- 20. IT IS THE CONTRACTORS RESPONSIBILITY TO SET THE FLOW RATES FOR ALL STATIONS. THE MAINLINE MAXIMUM FLOW RATE IS TO BE INITIALLY SET AT 20% GREATER THAN THE FLOW RATE FOR THE HIGHEST FLOW VALVE. THIS SETTING IS PROVIDED AS A GUIDE ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO ADJUST SETTINGS AS NEEDED FOR VARYING SITE CONDITIONS.
- 21. WHEREVER POSSIBLE, TRENCHING WITHIN THE DRIP LINES OF TREES SHOULD BE INSTALLED RADIAL TO THE TRUNK.
- 22. FOR IRRIGATION SPECIFICATIONS, SEE SHEET FORM SPECIFICATIONS SPC-1 THROUGH SPC-3, WITHIN THIS SET
- 23. PRESSURE COMPENSATING SCREEN: THE CONTRACTOR SHALL INSTALL ONE (1) RAIN BIRD PRESSURE COMPENSATING SCREEN PER HEAD IN ALL IRRIGATION INSTALLATIONS WHERE RADIUS REDUCTION IS REQUIRED. USE OF THE SCREENS WILL ALSO AID IN MINIMIZING OVERSPRAY CONDITIONS AND FOGGING CAUSED BY EXCESS PRESSURE. FOR SCREEN SELECTION REFER TO PRESSURE COMPENSATING SCREEN CHART.
- 24. PLACE LOCATOR TAPE ON ALL MAINLINE PIPE, EXCEPT WHERE VALVE WIRES ARE BUNDLED WITH THE MAINLINE.
- 25. RAIN AND WIND SENSORS PLACEMENT: THE SENSORS SHALL BE INSTALLED ON THE SOUTH OR SOUTHWESTERN FACING AREA OF THE ROOF (WHENEVER POSSIBLE). THE AREA SELECTED SHALL BE IN A CLEAR OPEN AREA OF THE ROOF NOT AFFECTED BY SHADE FROM ANOTHER BUILDING OR TREE. THE CONTRACTOR SHALL INSTALL THE SENSOR ON AN EAVE OR FASCIA BOARD PER THE DIRECTION OF THE LANDSCAPE ARCHITECT. ALL WIRING SHALL BE CONCEALED PER THE DIRECTION OF THE LANDSCAPE ARCHITECT EITHER WITHIN PVC CONDUIT OR OTHER MEANS AS DIRECTED BY THE LANDSCAPE ARCHITECT.

- PROTECTION OF EXISTING OR NEW SPECIMEN TREES:
- 1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING SPECIMEN TREES THAT ARE TO REMAIN IN THE PROJECT AND NEW SPECIMEN TREES THAT HAVE BEEN INSTALLED. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO ASSURE THAT THEY ARE PROTECTED FROM DAMAGE BY WORKERS AND EQUIPMENT.
- 2. PROTECTIVE FENCING SHALL BE INSTALLED AT THE DIRECTION OF A CERTIFIED CONSULTING ARBORIST OR HORTICULTURALIST.
- WHERE IT IS NECESSARY TO EXCAVATE IN CLOSE PROXIMITY TO EXISTING OR NEW SPECIMEN TREES, ALL POSSIBLE CAUTION SHALL BE EXERCISED TO AVOID INJURY TO ROOTS, LIMBS AND TRUNKS. EXCAVATION CLOSE TO TREES SHALL BE BY HAND. TUNNELING UNDER ROOTS TWO (2) INCHES AND LARGER SHALL BE ALLOWED ONLY AFTER DISCUSSION WITH AND APPROVAL BY A CERTIFIED CONSULTING ARBORIST OR HORTICULTURALIST.
- 4. EXCAVATIONS IN THE VICINITY OF TREES SHALL BE CLOSED WITHIN 24 HOURS. WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE EXCAVATION ADJACENT TO THE TREE SHALL BE KEPT COVERED WITH MOIST BURLAP OR CANVAS.
- 5. THE CONTRACTOR SHALL INSURE THAT NO FOREIGN MATERIAL AND/OR LIQUID, SUCH AS PAINT, CONCRETE, CEMENT, OIL, TURPENTINE, ACID OR THE LIKE, BE ALLOWED TO CONTAMINATE ANY SOIL WITHIN THE DRIPLINE (I.E., THE OUTSIDE EDGE OF FOLIAGE OVERHANG) OF ANY TREE. IF SUCH CONTAMINATION SHOULD OCCUR, THE CONTRACTOR SHALL REMOVE SOIL AS DIRECTED BY A CERTIFIED CONSULTING ARBORIST OR HORTICULTURALIST AND REPLACE IT WITH ACCEPTABLE SOIL AT NO EXPENSE TO THE OWNER.
- 6. ALL DAMAGE TO EXISTING SPECIMEN TREES SHALL BE REPAIRED AT THE GENERAL CONTRACTOR'S EXPENSE BY A LICENSED TREE SURGEON OR OTHER APPROVED PERSONNEL AS APPROVED BY A CERTIFIED CONSULTING ARBORIST OR HORTICULTURALIST.
- 7. ANY EXISTING IRRIGATION SYSTEM AT ALL EXISTING OR NEW SPECIMEN TREES SHALL BE MAINTAINED IN WORKING ORDER FOR THE DURATION OF CONSTRUCTION. ANY DAMAGE TO THE EXISTING IRRIGATION SYSTEM SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
- NOTE: SEE ALSO SPECIFICATIONS SECTIONS 02230 AND 02231 PERTAINING TO SITE CLEARING AND PROTECTION.

1. FOR ALL NETAFIM SYSTEMS USE A NETAFIM TECHFILTER (TFXXX612-CV). FOR TECHLINE RUNS TOTALING 100' OR LESS USE 3/4" (TF075612-100CV). FOR RUNS TOTALING 100' TO 200' USE 1" (TF10612-300CV). FOR RUNS TOTALING 200' TO 500' USE (2)1" (TF10L612-1000CV). FOR RUNS TOTALING 500' TO 1000' USE 1"(TF10612-1000CV).

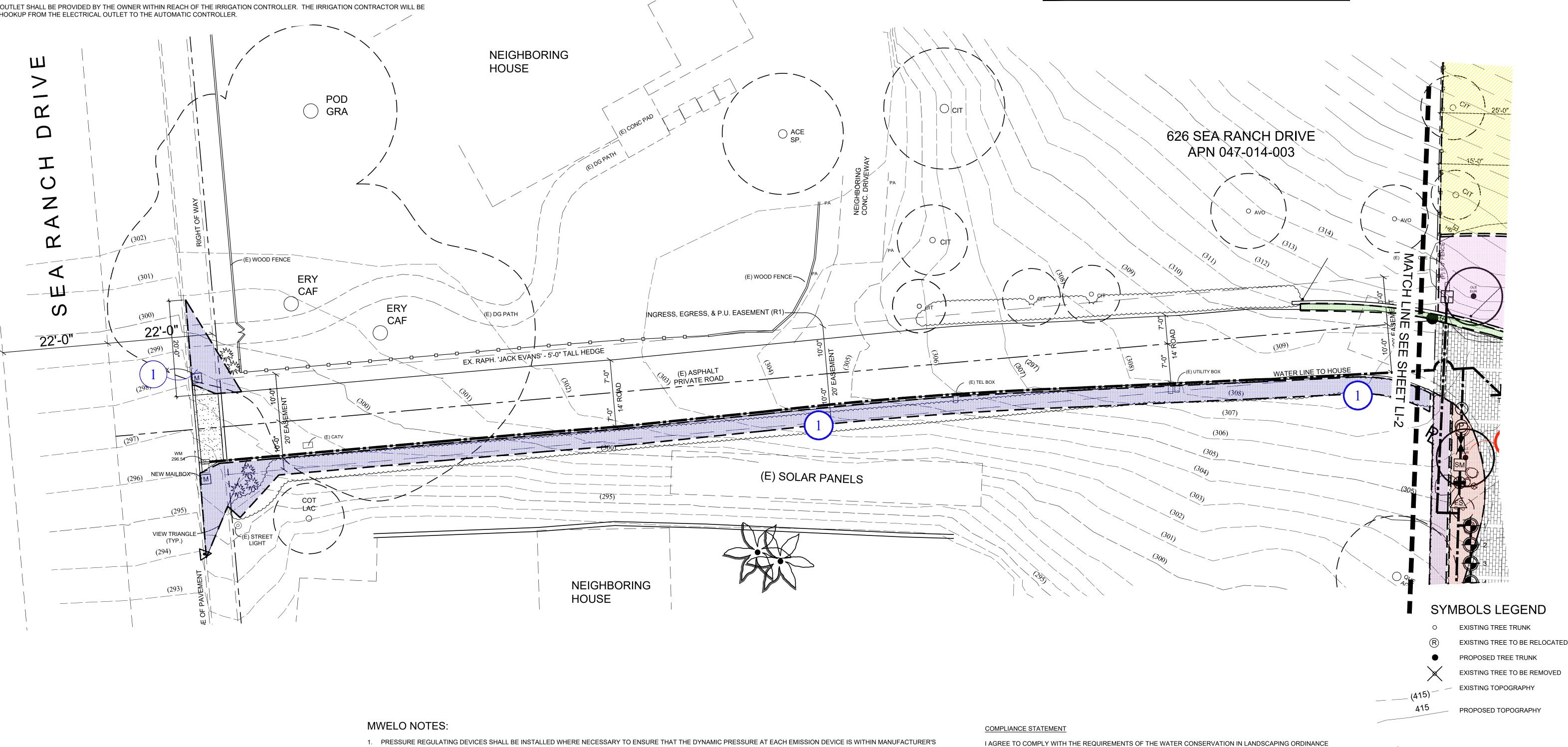
- 2. INSTALL ALL IRRIGATION COMPONENTS TO CONFORM WITH ALL STATE AND LOCAL CODES AND PER THE MANUFACTURER'S RECOMMENDATION. 3. PROVIDE ADEQUATE LIGHTNING PROTECTION FOR ALL ELECTRICAL COMPONENTS.
- 4. IT IS THE CONTRACTORS RESPONSIBILITY TO SET THE FLOW RATES FOR ALL STATIONS. THE MAINLINE MAXIMUM FLOW RATE IS TO BE INITIALLY SET AT 20% GREATER THAN THE FLOW RATE FOR THE HIGHEST FLOW VALVE. THIS SETTING IS PROVIDED AS A GUIDE ONLY. IT IS THE

CONTRACTOR'S RESPONSIBILITY TO ADJUST SETTINGS AS NEEDED FOR VARYING SITE CONDITIONS.

- 1. SPRAY HEADS AGAINST WALLS, FENCES, OR MORE THAN 3' FROM WALKING SURFACES SUCH AS TURF, PATIOS, WALKS AND DRIVEWAYS, EXCEPT IN PROMINENTLY VISUAL AREAS MAY BE PA-8S SHRUB ADAPTERS ON FIXED RISERS WITH TRIPLE SWING JOINTS.
- 2. ALL HEADS AT LOW POINTS OF SYSTEMS SHALL BE INSTALLED WITH CHECK VALVES TO PREVENT LOW HEAD DRAINAGE. 3. WHERE BUBBLERS ARE SPECIFIED ON PLAN AS PART OF A SPRAY SYSTEM VALVE, IT IS THE CONTRACTORS RESPONSIBILITY TO ADJUST THE
- FLOW RATE AND/OR BUBBLER HEAD LAYOUT TO PROVIDE A BALANCED PRECIPITATION RATE FOR THE SITE CONDITIONS. 4. FOR RAINBIRD 1800 SERIES HEADS, HEADS TO BE "SAM" SEAL-A-MATIC HEADS WITH BUILT-IN CHECK VALVE, FOR SLOPED SITES OR AS NEEDED
- 5. FOR HUNTER I-10 & I-20 SERIES ROTORS: .50SR, 1.0SR, 2.0SR, .75SR, 1.5SR AND 3.0SR DENOTE SHORT RADIUS NOZZLE SET #466100 & 6.0 LA, 8.0 LA. 10 AND 13 DENOTE HIGH FLOW NOZZLE SET #444800

HEADS AGAINST WALLS, FENCES, OR MORE THAN 3' FROM WALKING SURFACES SUCH AS TURF. PATIOS. WALKS AND DRIVEWAYS -EXCEPT IN PROMINENTLY VISUAL AREAS - MAY BE PA-8S SHRUB ADAPTERS ON FIXED RISERS WITH TRIPLE SWING JOINTS.

TO PREVENT LOW HEAD DRAINAGE. (IE: 1804-SAM-12Q)





IMPORTANT NOTE: NO EXCAVATION OF ANY KIND IS TO OCCUR ANYWHERE ON SITE WITHOUT FIRST VERIFYING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES. DETAILS.

PLANS ARE DIAGRAMMATIC: THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. ALL VALVES, HOSE BIBS, AND QUICK COUPLERS SHALL BE LOCATED IN SHRUB PLANTING AREAS. LOCATE 36" FROM TURF, HARDSCAPE, PATHS, CURBS, AND WALLS. REMOTE CONTROL VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES AS SHOWN ON

- RECOMMENDED PRESSURE RANGE FOR OPTIMAL PERFORMANCE.
- 2. ALL IRRIGATION EMISSION DEVICES WILL MEET THE CRITERIA AS SET FORTH IN MWELO SECTION 492.7 (a) (1) (M) AND SHALL BE INSTALLED AND OPERATED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS/INSTRUCTIONS.
- IRRIGATION HAS BEEN DESIGNED TO PREVENT RUNOFF, LOW HEAD DRAINAGE, OVERSPRAY, OR OTHER SIMILAR CONDITIONS WHERE IRRIGATED WATER FLOWS ONTO NON-TARGETED AREAS (E.G., ADJACENT PROPERTY, NON-IRRIGATED AREAS, HARDSCAPES, ROADWAYS OR STRUCTURES) IN ACCORDANCE WITH MWELO SECTIONS 492.7 (a) (1) (I) AND 492.7 (a) (1) (U).

CERTIFICATION OF COMPLETION REQUIREMENTS:

A CERTIFICATION OF COMPLETION IN ACCORDANCE WITH MWELO SECTION 492.9 WILL BE SUBMITTED FOR REVIEW/APPROVAL BY THE BUILDING AND SAFETY DIVISION PRIOR TO FINAL OCCUPANCY OF THE PROJECT (SEE MWELO APPENDIX C FOR SAMPLE). THE CERTIFICATION OF COMPLETION SHALL CONTAIN, AT THE MINIMUM, THE FOLLOWING:

- PROJECT INFORMATION CERTIFICATION BY EITHER THE SIGNER OF THE LANDSCAPE DESIGN PLAN, THE SIGNER OF THE IRRIGATION DESIGN PLAN, OR THE LICENSED LANDSCAPE CONTRACTOR THAT THE LANDSCAPE PROJECT HAS BEEN INSTALLED PER THE APPROVED LANDSCAPE DOCUMENTATION PACKAGE (NOTES: WHERE SIGNIFICANT CHANGES HAVE BEEN MADE IN THE FIELD DURING INSTALLATION, AN "AS-BUILT" PLAN SHALL BE INCLUDED WITH THE CERTIFICATE. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION
- CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES). IRRIGATION SCHEDULING PARAMETERS USED TO SET THE CONTROLLER (SEE MWELO SECTION 492.10) 4. LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE (SEE MWELO SECTION 492.11)
- IRRIGATION AUDIT REPORT (SEE MWELO SECTION 492.12) 6. SOIL ANALYSIS REPORT (IF NOT PREVIOUSLY SUBMITTED WITH LANDSCAPE DOCUMENTATION PACKAGE)

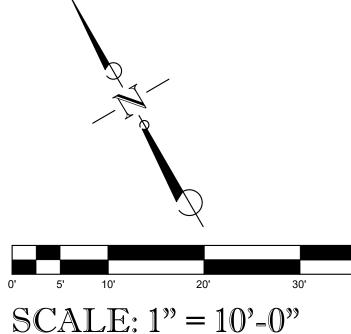
AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE.

I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN AB 1881. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS. I CERTIFY THAT THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER.



COMPLIANCE STATEMENT "I HAVE COMPLIED WITH THE CRITERIA IN MWELO AN APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN"





IRRIGATION PLAN

details and specifications is that of th documents in whole or part for any use other than the specified project is prohib without the expressed written consent of the Landscape Architect.

61 SA REVISIONS

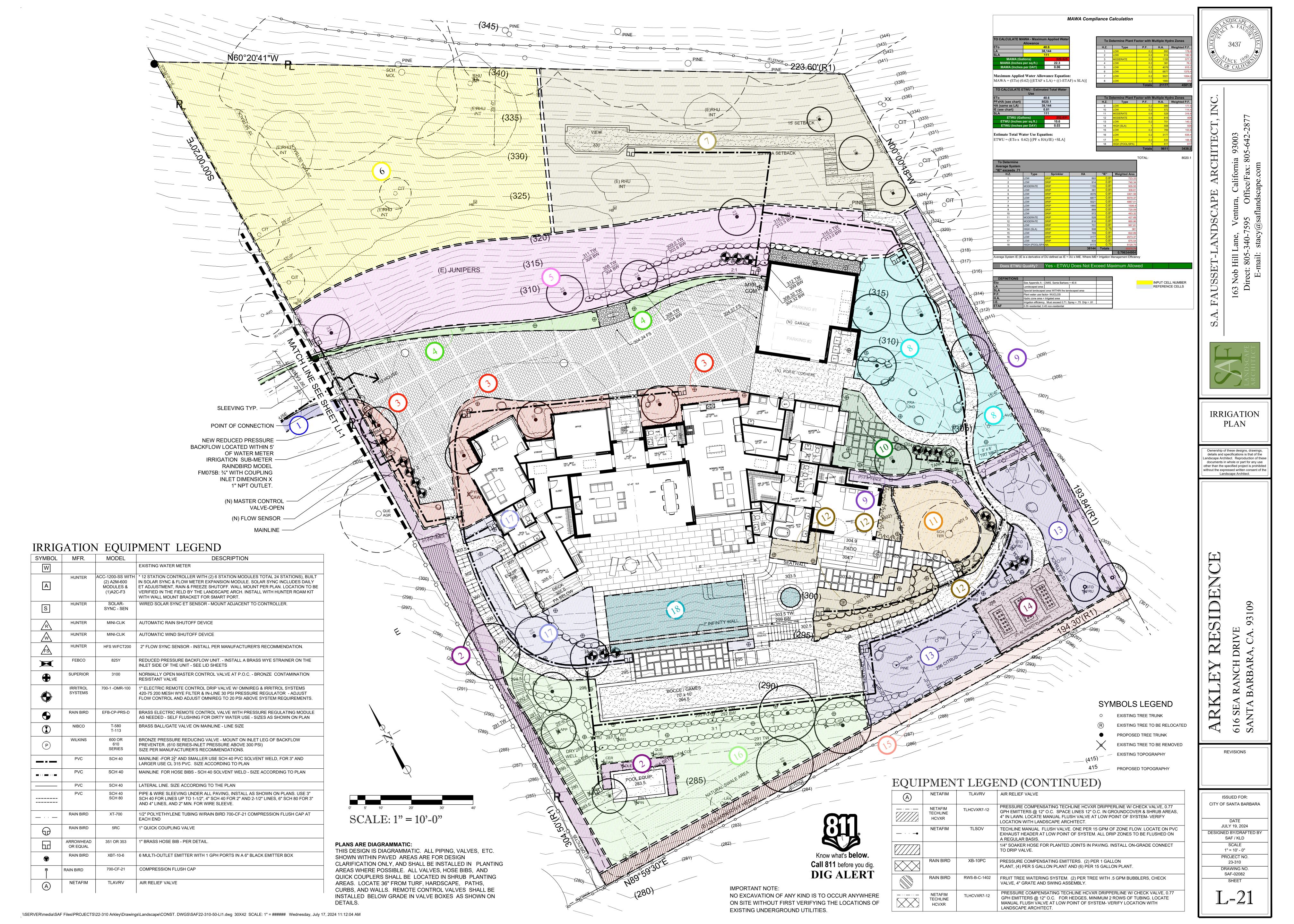
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ISSUED FOR: CITY OF SANTA BARBARA

DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE 1" = 10' - 0"

PROJECT NO. 23-310 DRAWING NO SAF-02081



2. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWING EXISTING CONDITIONS: (EXISTING CONDITION INFORMATION PER CITY OF SANTA BARBARA WATER.

1" WATER METER 1" COPPER SERVICE LINE FROM STREET MAIN TO METER

140 PSI @ 108' ELEVATION

MAXIMUM GPM: 12 (12 GPM THROUGH 1" COPPER SERVICE @ 7 FPS, ASSUMING 75% OF TOTAL FLOW AVAILABLE FOR IRRIGATION SYSTEM, OR 100% WHEN METER IS DEDICATED **EXCLUSIVELY FOR IRRIGATION PURPOSES)**

3. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONNECTION TO THE P.O.C., WITH MINIMAL DISRUPTION TO THE EXISTING SITE WATER SUPPLY. NOTIFY THE GENERAL CONTRACTOR AND/OR OWNER'S AGENT WITHIN 48 HOURS IN ADVANCE OF INSTALLATION.

4. ALL PIPING BETWEEN POINT OF CONNECTION AND THE BACK FLOW PREVENTION DEVICE SHALL BE OF MATERIALS AND INSTALLATION METHODS REQUIRED BY LOCAL CODE AND GOVERNING AGENCIES.

IRRIGATION GENERAL NOTES:

- 1. THE IRRIGATION DESIGN AND LAYOUT IN THESE PLANS IS DIAGRAMMATIC, ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM AND EXISTING STRUCTURES, UTILITIES AND PLANTING. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ARISING IN THE FIELD.
- 2. IRRIGATION SLEEVING UNDER PAVING TO BE PROVIDED BY IRRIGATION CONTRACTOR. VERIFY SLEEVING REQUIREMENTS IN FIELD AND REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT. SLEEVES SHALL BE PROVIDED BY IRRIGATION CONTRACTOR AND SHALL BE SCH 40 PVC AND SIZED PER THE SPECIFICATIONS AND THE LEGEND. EXTEND ALL ACCESS SLEEVES MINIMUM TWELVE (12) INCHES BEYOND PAVING EDGES.
- 3. EXERCISE EXTREME CARE WHEN EXCAVATING FOR IRRIGATION SYSTEM DUE TO EXISTING UTILITIES. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES AND UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. UTILIZE UNDERGROUND UTILITY LOCATIONS SERVICES WHENEVER POSSIBLE AND BE FAMILIAR WITH EXISTING AND PROPOSED GRADE CHANGES AND RELATIONS TO STRUCTURES, WALLS AND UNDERGROUND UTILITIES.
- 4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO ASSURE THAT EXISTING PLANT MATERIAL TO REMAIN ON SITE IS PROTECTED FROM
- 5. IN THE INSTANCE THAT THE EXISTING IRRIGATION SYSTEM IS TURNED OFF OR ABANDONED, THE CONTRACTOR SHALL ARRANGE FOR TEMPORARY IRRIGATION TO WATER EXISTING PLANTS AND TREES TO REMAIN. ALL POSSIBLE CAUTION SHALL BE EXERCISED TO AVOID INJURY TO ROOTS AND TRUNKS OR EXISTING PLANT MATERIALS. TUNNELING UNDER ROOTS TWO (2) INCHES OR LARGER SHALL BE ALLOWED ONLY AFTER REVIEW BY THE LANDSCAPE ARCHITECT. THE PRUNING AND TRIMMING OF BRANCHES AND ROOTS OF PLANT MATERIALS WILL BE DONE BY EXPERIENCED WORKERS WITH THE CONSENT OF THE ARBORIST.
- 6. WHERE OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES IN THE DIMENSIONS OF IRRIGATED AREAS DIMENSIONS EXIST, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR THE OWNER'S ON SITE REPRESENTATIVE FOR RESOLUTION. IF SUCH NOTIFICATION IS NOT GIVEN, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REPAIRS AND/OR REVISIONS.
- 7. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING VALVE WIRING TO ACCOMMODATE ALL STATIONS ON THE CONTROLLER PLUS A MINIMUM OF 2 ADDITIONAL STATIONS, OR AS INDICATED ON PLANS.
- 8. INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN IN THE PLANS AND DETAILS. USE TEFLON PIPE TAPE ON ALL OUTSIDE (MALE) PIPE THREADS, ON ALL SPRINKLER SWING JOINT ASSEMBLIES, AND VALVE ASSEMBLIES.
- 9. ALL POP-UP HEADS SHALL BE INSTALLED WITH TRIPLE SWING JOINTS.
- BOXES SHALL BE A MINIMUM OF 36" FROM TURF EDGES, HARDSCAPE, PATHS, CURBS, AND WALLS. REMOTE CONTROL VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES PER THE IRRIGATION DETAILS.

10. THE IRRIGATION PLANS ARE DIAGRAMMATIC AND ALL VALVES AND QUICK COUPLERS SHALL BE LOCATED IN SHRUB PLANTING AREAS WHEREVER POSSIBLE. VALVE

- 11. 110 VOLT ELECTRICAL POWER OUTLET SHALL BE PROVIDED BY THE OWNER WITHIN REACH OF THE IRRIGATION CONTROLLER. THE IRRIGATION CONTRACTOR WILL BE RESPONSIBLE FOR THE FINAL HOOKUP FROM THE ELECTRICAL OUTLET TO THE AUTOMATIC CONTROLLER.
- 12. THE IRRIGATION LINES AND HEADS SHALL BE FLUSHED PRIOR TO INSTALLATION OF THE HEADS AND EMITTERS. ADJUSTMENTS TO HEADS SHALL BE MADE TO PREVENT OVER SPRAY ONTO PAVING OR STRUCTURES AND TO PROVIDE 100% HEAD TO HEAD COVERAGE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS, AND TO THROTTLE THE FLOW CONTROL SYSTEM AT EACH VALVE TO OBTAIN OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. IT SHALL ALSO INCLUDE MINOR ADJUSTMENTS SUCH AS NOZZLE CHANGES AND/OR ADDITION AND DELETION OF INDIVIDUAL HEADS.
- 13. INSTALL ANTI-DRAIN CHECK VALVES ON ALL SPRINKLER HEADS AS NEEDED AT LOW HEAD LOCATIONS TO PREVENT RESIDUAL FLOW WHILE TURNED OFF.
- 14. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONCRETE THRUST BLOCKS WHERE NEEDED TO PROTECT THE LINE IRRIGATIONS LINES FROM WATER HAMMER.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR THE INITIAL SCHEDULING THE IRRIGATION SYSTEM TO MEET HORTICULTURAL REQUIREMENTS AND TO INSURE THAT EXCESSIVE SOIL SATURATION AND/OR SOIL EROSION DOES NOT OCCUR. THE OWNER SHALL ASSUME THIS RESPONSIBILITY AFTER COMPLETION OF THE LANDSAPE MAINTENANCE PERIOD AND PROJECT CLOSE OUT.
- 16. PRECIPITATION RATES (PRT) AND GPM SHOWING IN THE IRRIGATION HEAD LEGEND ARE GIVEN ONLY AS A GENERAL INDICATION OF NOZZLE PERFORMANCE. ACTUAL AMOUNT OF WATER APPLIED IS DEPENDENT UPON THE APPLICATION TIME OF EACH SYSTEM. THE APPLICATION TIME FOR EACH SYSTEM SHALL BE ADJUSTED TO PROVIDE A UNIFORM WATER COVERAGE. IN NO EVENT SHALL THE DURATION OF WATERING BE PERMITTED SUCH AS TO CREATE A SATURATED CONDITION OR CAUSE AN
- 17. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION OF ALL IRRIGATION PARTS AND EQUIPMENT, INCLUDING HEADS, POROUS PIPE, DRIP LINES, EMITTERS, WEATHER STATIONS, MASTER VALVES, CONTROLLERS AND STATION VALVES TO INSURE A COMPLETE AND OPERATING SYSTEM.
- 18. INSTALL ALL IRRIGATION COMPONENTS TO CONFORM WITH ALL STATE AND LOCAL CODES AND PER THE MANUFACTURER'S RECOMMENDATION
- 19. PROVIDE ADEQUATE LIGHTNING PROTECTION FOR ALL ELECTRICAL COMPONENTS.
- 20. IT IS THE CONTRACTORS RESPONSIBILITY TO SET THE FLOW RATES FOR ALL STATIONS. THE MAINLINE MAXIMUM FLOW RATE IS TO BE INITIALLY SET AT 20% GREATER THAN THE FLOW RATE FOR THE HIGHEST FLOW VALVE. THIS SETTING IS PROVIDED AS A GUIDE ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO ADJUST SETTINGS AS NEEDED FOR VARYING SITE CONDITIONS.
- 21. WHEREVER POSSIBLE, TRENCHING WITHIN THE DRIP LINES OF TREES SHOULD BE INSTALLED RADIAL TO THE TRUNK.
- 22. FOR IRRIGATION SPECIFICATIONS, SEE SHEET FORM SPECIFICATIONS SPC-1 THROUGH SPC-3, WITHIN THIS SET
- THE CONTRACTOR SHALL INSTALL ONE (1) RAIN BIRD PRESSURE COMPENSATING SCREEN PER HEAD IN ALL IRRIGATION INSTALLATIONS WHERE RADIUS REDUCTION IS REQUIRED. USE OF THE SCREENS WILL ALSO AID IN MINIMIZING OVERSPRAY CONDITIONS AND FOGGING CAUSED BY EXCESS PRESSURE. FOR SCREEN SELECTION REFER TO PRESSURE COMPENSATING SCREEN CHART.
- 24. PLACE LOCATOR TAPE ON ALL MAINLINE PIPE, EXCEPT WHERE VALVE WIRES ARE BUNDLED WITH THE MAINLINE.
- 25. RAIN AND WIND SENSORS PLACEMENT THE SENSORS SHALL BE INSTALLED ON THE SOUTH OR SOUTHWESTERN FACING AREA OF THE ROOF (WHENEVER POSSIBLE). THE AREA SELECTED SHALL BE IN A CLEAR OPEN AREA OF THE ROOF NOT AFFECTED BY SHADE FROM ANOTHER BUILDING OR TREE. THE CONTRACTOR SHALL INSTALL THE SENSOR ON AN EAVE OR FASCIA BOARD PER THE DIRECTION OF THE LANDSCAPE ARCHITECT. ALL WIRING SHALL BE CONCEALED PER THE DIRECTION OF THE LANDSCAPE ARCHITECT EITHER WITHIN PVC CONDUIT OR OTHER MEANS AS DIRECTED BY THE LANDSCAPE ARCHITECT.

HEADS AGAINST WALLS, FENCES, OR MORE THAN 3' FROM WALKING SURFACES SUCH AS TURF, PATIOS, WALKS AND DRIVEWAYS -EXCEPT IN PROMINENTLY VISUAL AREAS - MAY BE PA-8S SHRUB ADAPTERS ON FIXED RISERS WITH TRIPLE SWING JOINTS.

IRRIGATION GENERAL NOTES

N.T.S.

RAIN SENSOR

SECTION/ELEVATION

AS REQUIRED

6" MIN.

1800 PCS SCREEN PERFORMANCE - MPR NOZZLES

PURPLE | BROWN | SILVER

16H-SLA

16F-SLA

22Q-SS

22F-SS

9SST

15CST

1.25

7' X 12' 9' X 18' 4' X 30' 4' X 30'

4' X 26'

4' X 24'

3' X 20'

RAINBIRD IRRIGATION PCS CHART

GREEN

| | .9

ORANGE BLACK WHITE

1.75

11' X 11' 15' X 15' 16' X 16'

9' X 18'

SURFACE

MOUNTING BRACKET

- RAIN SENSOR WIRED NORMALLY

MOUNTING SCREW (1 OF 2)

WIRE TO IRRIGATION CONTROLLER

WIRE TO REMOTE CONTROL VALVE

MOUNT IN AN AREA THAT WILL BE

RAINFALL, BUT NOT IN THE PATH OF

EXPOSED TO UNOBSTRUCTED

SPRINKLER SPRAY.

SCHEDULE 40 PVC NON-PRESSURE

TYPE 'UF' DIRECT BURIAL CONTROL &

COMMON WIRES, BUNDLED & TAPED

ADJACENT FINISHED GRADE

TOGETHER EVERY 10 FEET

EXCAVATE TRENCHES TO REQUIRED DEPTHS.

BOTTOM OF TRENCH SHALL BE FLAT TO ENSURE

BY SCRAPING AWAY OR FILLING IN WITH CLEAN

ALL LINES SHALL HAVE A CLEARANCE OF 6" FROM

UTILITY LINES OF OTHER TRADES. DO NOT INSTALL

PARALLEL LINES DIRECTLY OVER ONE ANOTHER.

WHERE PIPE SLEEVING OCCURS UNDER PAVING,

EXTEND THE SLEEVING 12" BEYOND THE PAVING

PROVIDE 24" EXPANSION LOOP IN WIRING AT ALL

CHANGES OF DIRECTION GREATER THAN 30

DEGREES, UNTIE LOOPS AFTER CONNECTIONS

4. BACKFILLING SHALL BE DONE IN 6" LIFTS UNTIL

BE FREE FROM ROCKS AND DIRT CLODS.

FINISH GRADE IS REACHED. THE TOP LAYER SHALL

BACKFILL MATERIAL. COMPACT WELL UNDER THE

BODY OF THE PIPE. PIPE SHALL BE SNAKED IN THE

PIPING IS SUPPORTED CONTINUOUSLY ON AN EVEN GRADE. ADJSUTMENTS TO GRADE SHALL BE MADE

SCHEDULE 40 PVC PRESSURE

COMPACTED OR UNDISTURBED

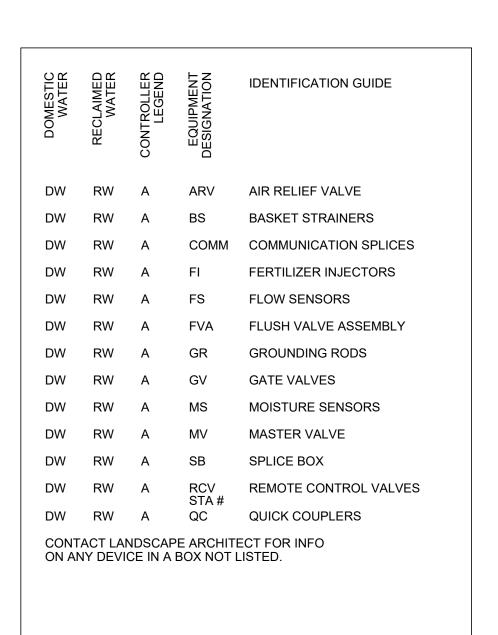
LATERAL LINE

MAINLINE

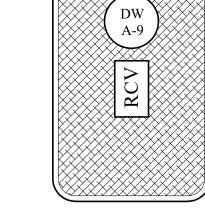
SUBGRADE

TRENCH.

HAVE BEEN MADE.



POTABLE WATER SYSTEM OF **CONTROLLER "A" REMOTE** CONTROL VALVE ON STA. #9



N.T.S.

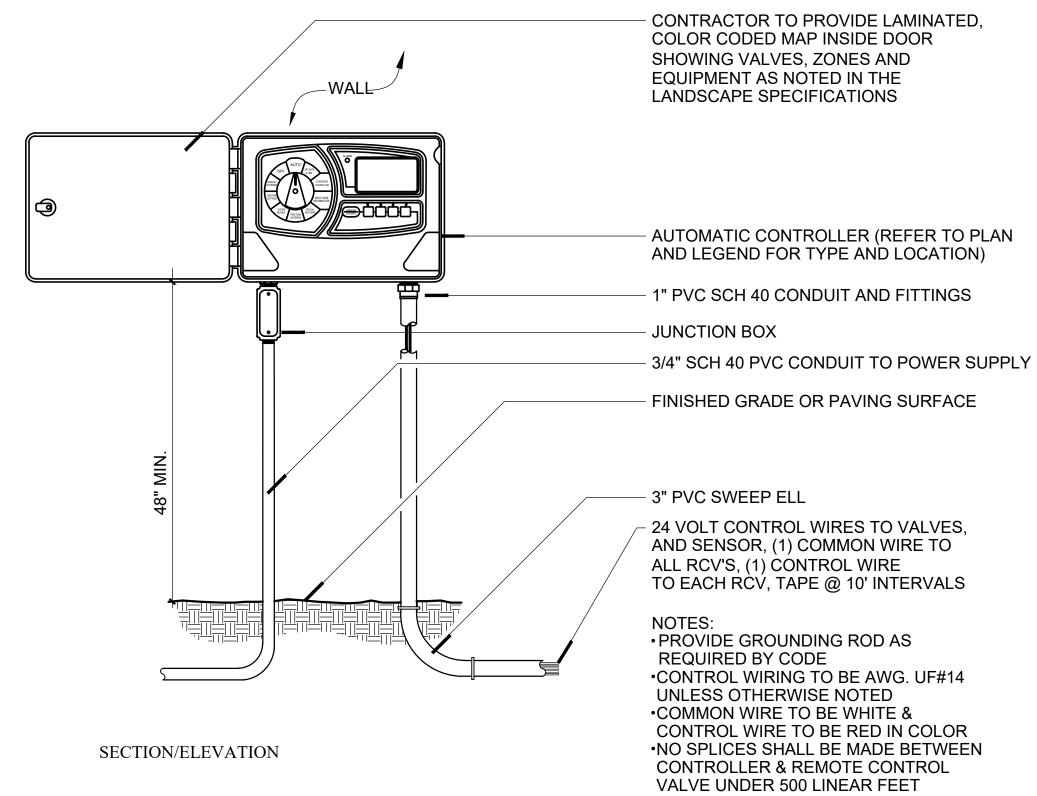
- A- VALVE BOXES SHALL BE LABELED BY HOT IRON BRANDING OR ALUMINUM ASPHALTIC BASE WATERPROOF PAINT.
- B- CONTROL VALVES SHALL BE INSTALLED TO ALLOW ORDERLY ARRANGEMENT OF VALVE BOXES.
- C- LOCATE VALVE ASSEMBLIES IN SHRUB OR GROUNDCOVER AREAS ONLY. D- LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR
- APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. E- CENTER VALVE BOXES OVER VALVE ASSEMBLE
- TO FACILITATE ACCESS AND MAINTENANCE. F- SET VALVE BOXES AT EQUAL ELEVATIONS W/ TOPS AT 2" ABOVE FINISH GRADE IN SHRUB/ GROUNDCOVER AREAS
- G- VALVE BOXES SHALL BE SET PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF AREA. H- DO NOT DEFORM OR COLLAPSE VALVE BOX BY EXCESSIVE SOIL COMPATION AROUND BOX.

I- SEE ALSO INDIVIDUAL VALVE INSTALLATION DETAILS.

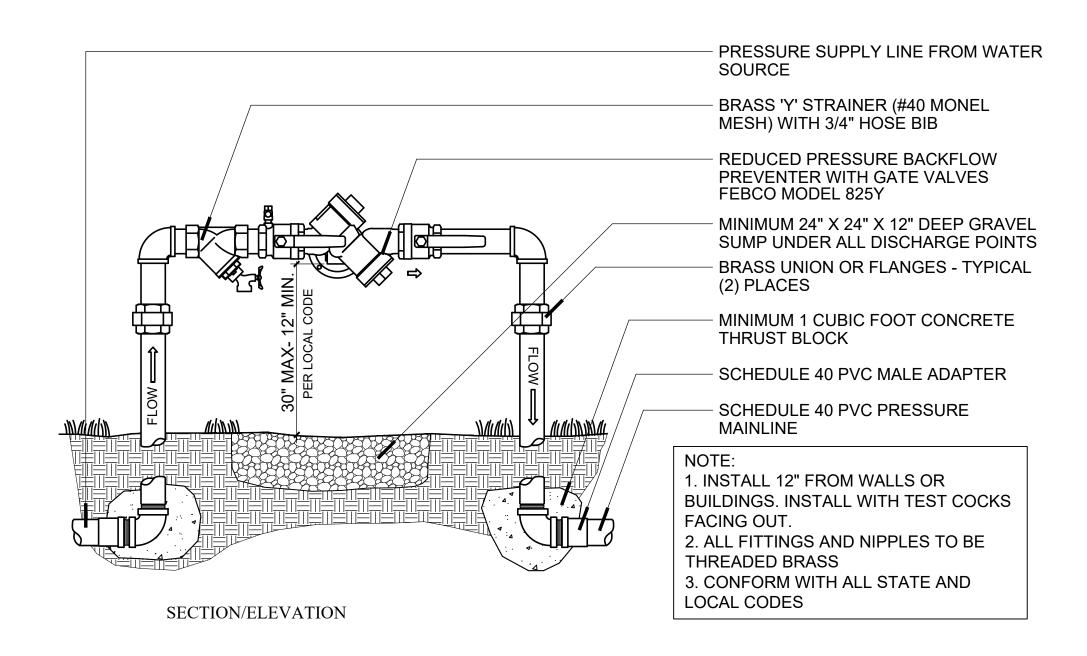
SECTION

LINE TRENCHING

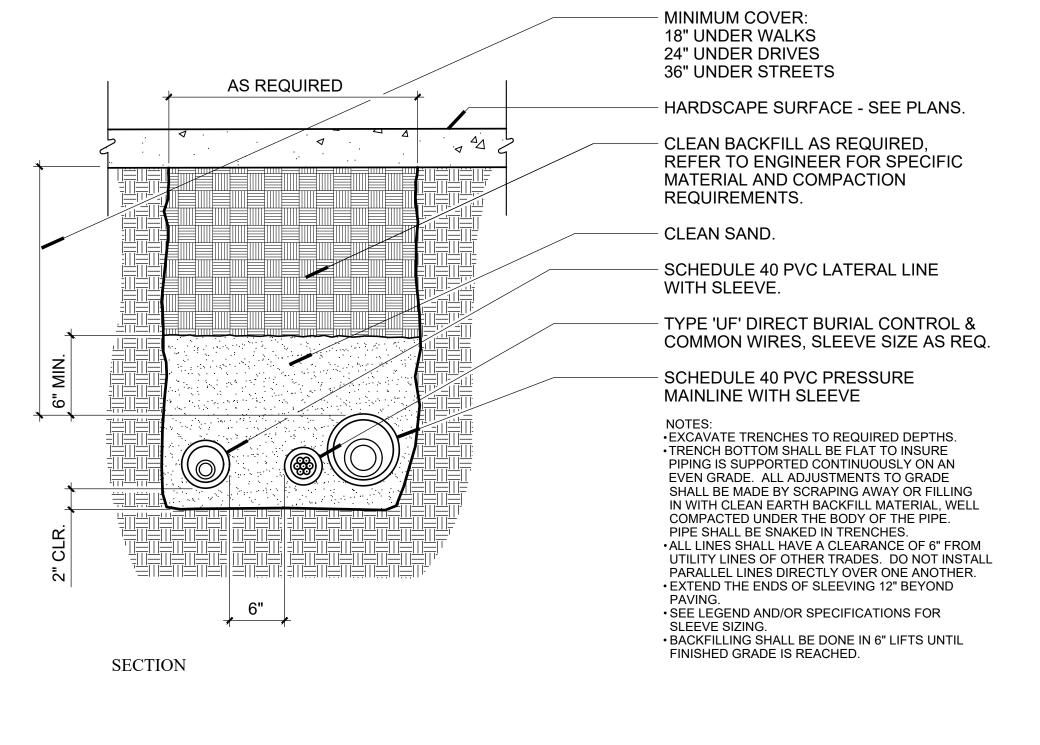
N.T.S.



AUTOMATIC CONTROLLER WALL MOUNTED - OUTDOOR







N.T.S.





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61 SA

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE N.T.S.

REVISIONS

PROJECT NO. 23-310 DRAWING NO. SAF-02083 SHEET

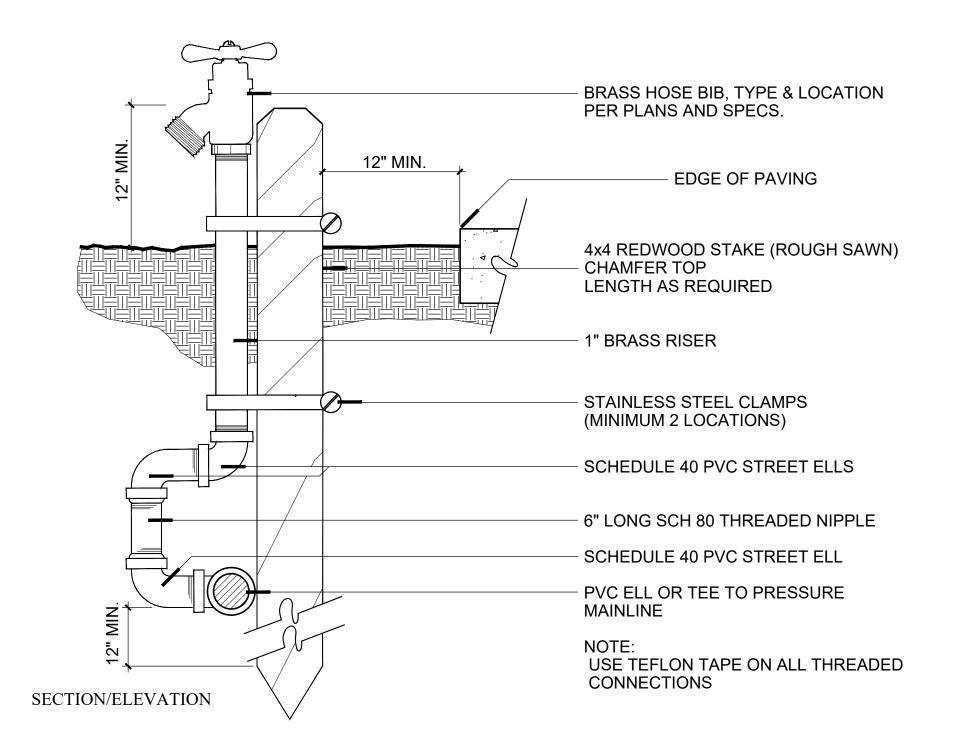
IDENTIFICATION \\SERVER\media\SAF Files\PROJECTS\22-310 Arkley\Drawings\Landscape\CONST. DWGS\SAF22-310-55-LID.dwg 30X42 Wednesday, June 5, 2024 12:41:52 PM

TYPICAL VALVE BOX

MASTER VALVE TO BE INSTALLED IN GROUNDCOVER AREAS ONLY. SECTION/ELEVATION

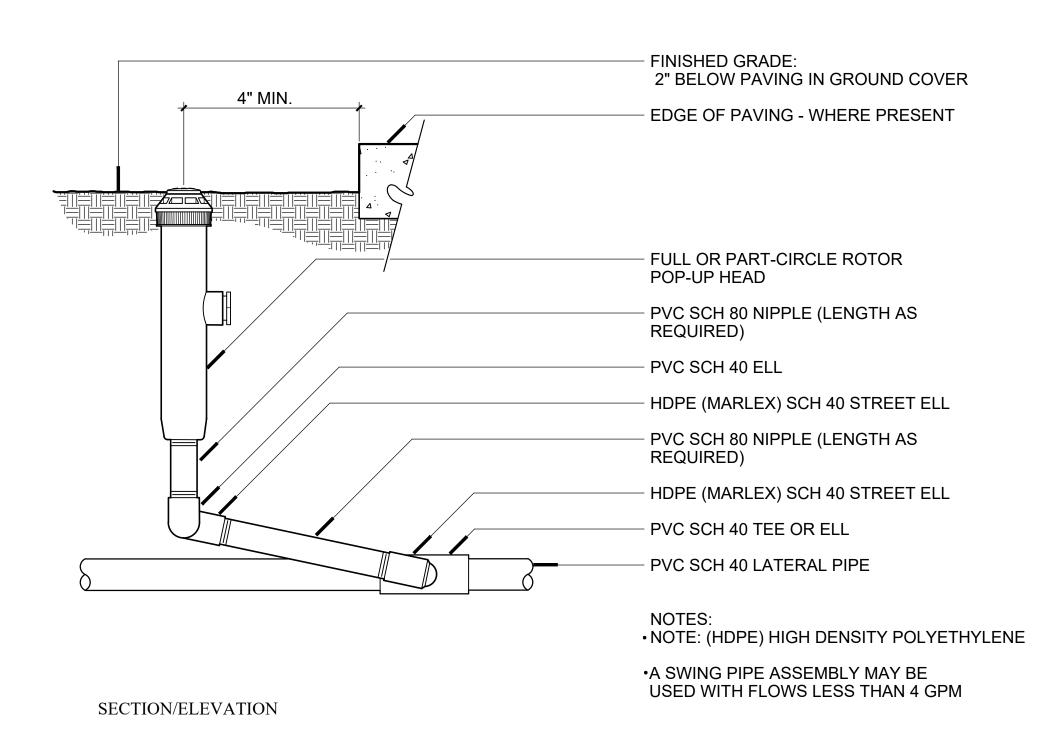
MASTER CONTROL VALVE

N.T.S.



HOSE BIB

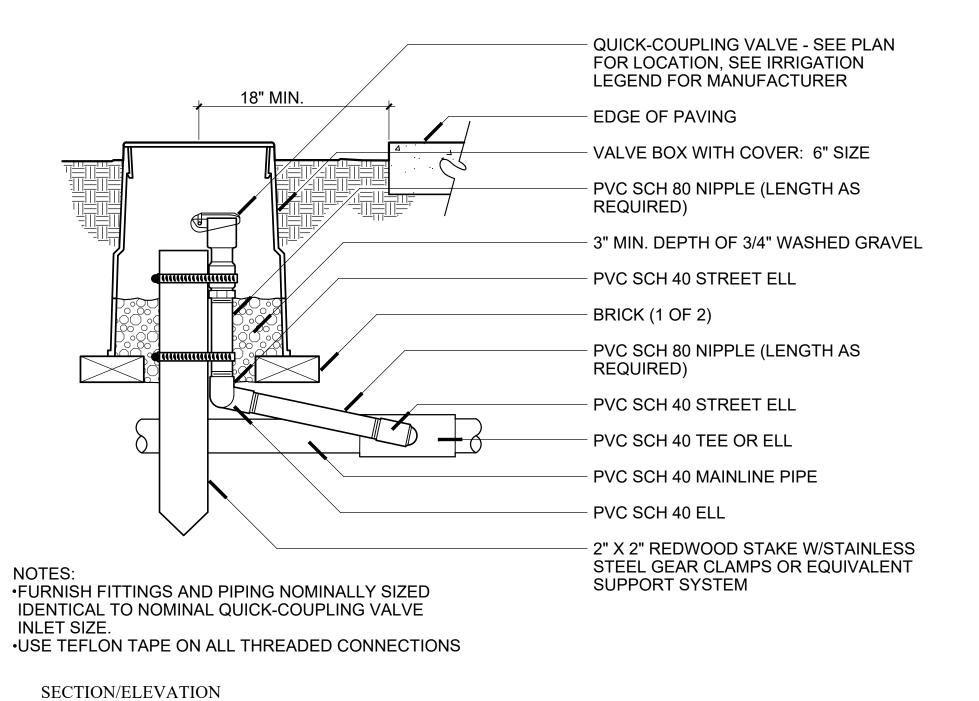
N.T.S.



ALL VALVE BOXES TO BE INSTALLED 10' ROUND PLASTIC VALVE BOX WITH COVER IN GROUND COVER AREAS. REFER MARKED "FLOW SENSOR" REFER TO PLANS AND TO PLAN FOR LOCATIONS. SPECIFICATIONS FOR APPROVED MANUFACTURERS - WATERPROOF CONNECTION (1 OF 2) -'SNAPTITE' OR APPROVED EQUAL - 2" IN SHRUB/GROUNDCOVER AREAS - ID TAG - 'T. CHRISTY' (800) 258-4583 FLOW SENSOR CABLE BY ARIZONA ELECTRICAL FABRICATORS #9516-2SP OR APPROVED EQUAL 1" PVC CONDUIT - FLOW SENSOR - SCHEDULE 40 PVC MALE ADAPTER (2 REQUIRED) SCHEDULE 40 PVC PRESSURE MAINLINE - MIN. 1 CU FT. GRAVEL COMMON BRICK (MIN. 2 REQUIRED) ALLOW MIN. DISTANCE OF 10 PIPE DIAMETERS FROM NEAREST UPSTREAM VALVE, FITTING, METER, OR REDUCING COUPLER 30" MIN. ALLOW MIN. DISTANCE OF 5 PIPE DIAMETERS FROM NEAREST DOWNSTREAM VALVE, FITTING, METER, OR REDUCING COUPLER SECTION/ELEVATION

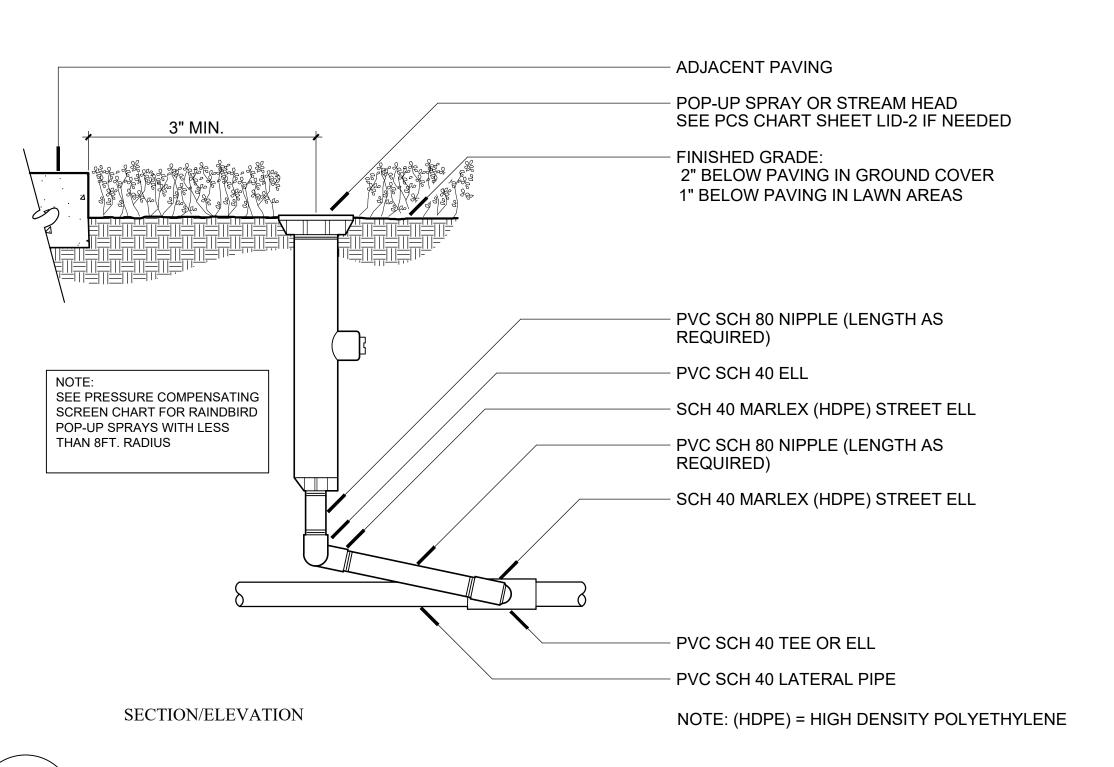
FLOW SENSOR

N.T.S.



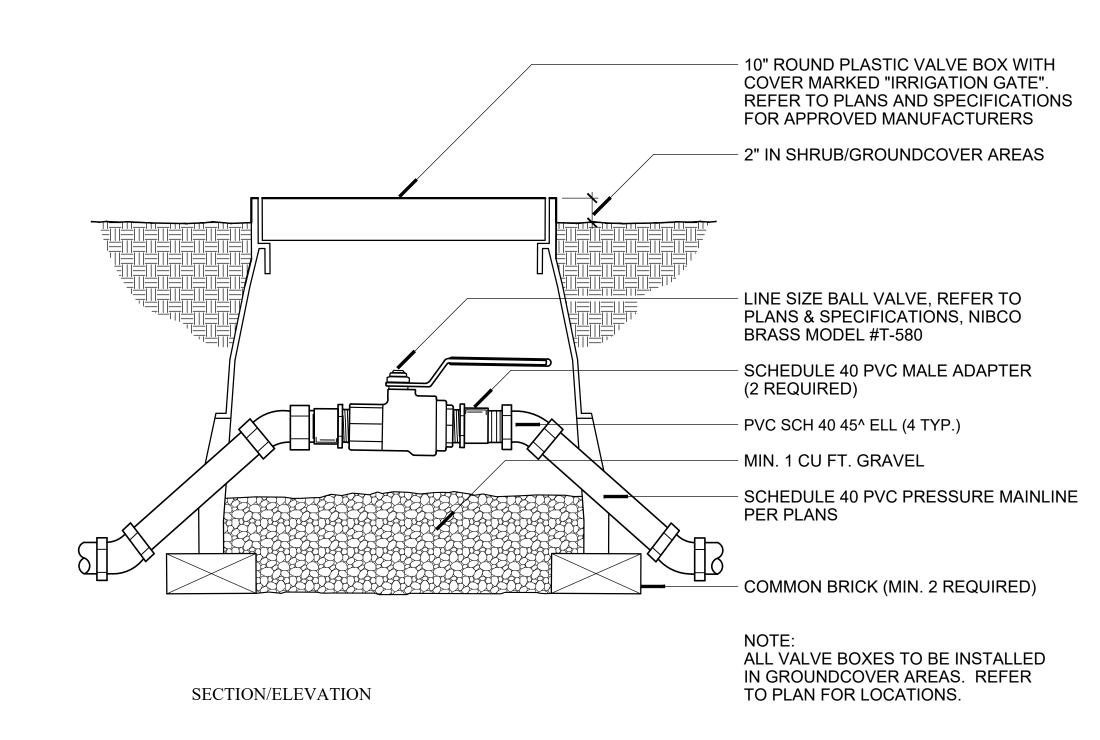
QUICK COUPLER

N.T.S.



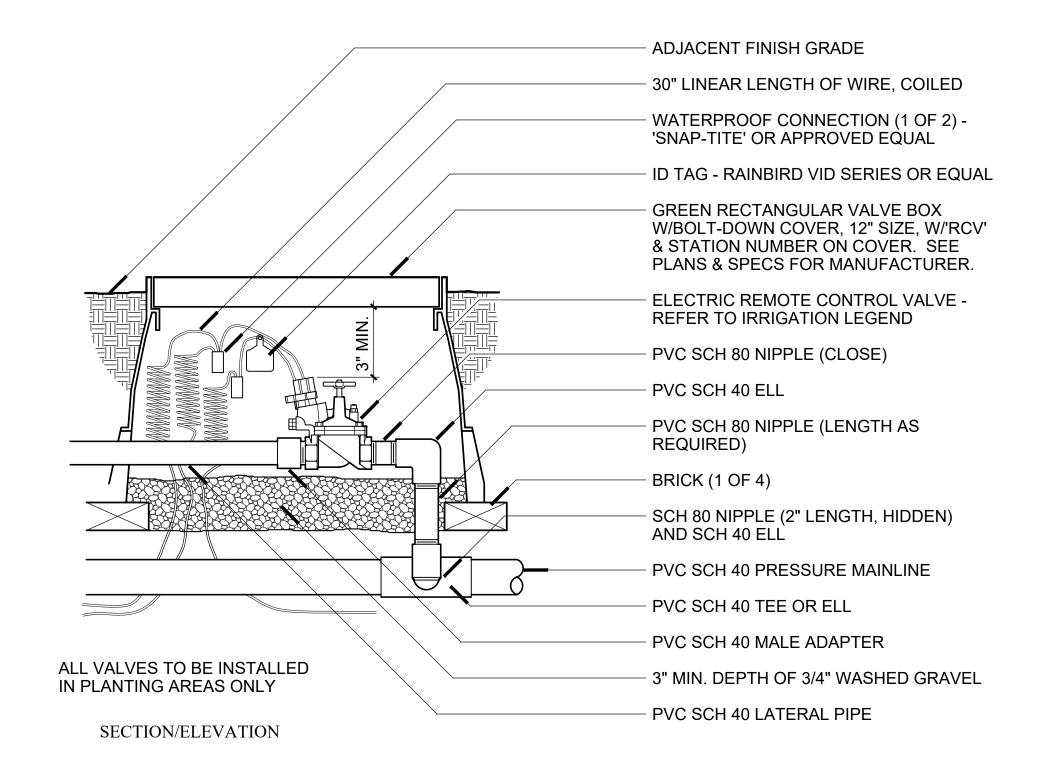
POP-UP SPRAY HEAD
W/TRIPLE SWING JOINT AT BOTTOM INLET

N.T.S.



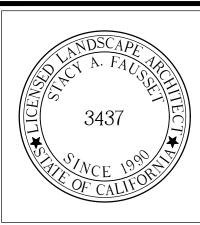
BALL VALVE (ISOLATION VALVE)

N.T.S.



REMOTE CONTROL VALVE

N.T.S.



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> > REVISIONS

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VALVE BOX WITH COVER: 6" ROUND

PVC FEMALE ADAPTER WITH BUSHING

6" TO 8" DIAMETER OF 3/4" WASHED

N.T.S.

LINE FLUSHING VALVE PLUMBED TO PVC PIPE

BACK-FILL OR MULCH COVER

OUSE CAUTION WHEN SECURING DRIP-LINE W/

STAPLES. DRIP-LINE SHALL NOT BE

OBSTRUCTED OR KINKED.

FINISH GRADE

AS REQUIRED

GRAVEL

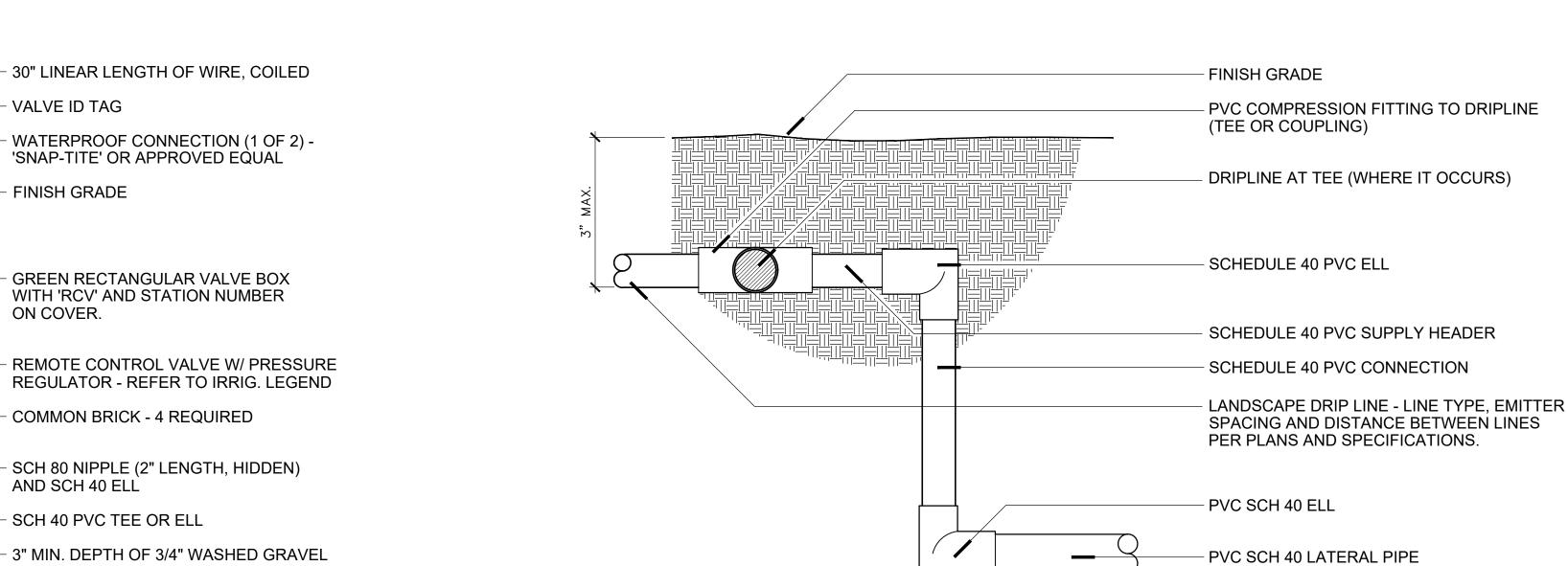
LINE FLUSHING VALVE

SCH 40 PVC LATERAL LINE

BRICK -3 REQUIRED

PVC ELL - SIZE AS REQUIRED

SCALE N.T.S. PROJECT NO. 23-310 DRAWING NO. SAF-02085



SECTION/ELEVATION

- VALVE ID TAG

FINISH GRADE

ON COVER.

AND SCH 40 ELL

SCH 40 PVC TEE OR ELL

PVC SCH 40 PRESSURE MAINLINE

MULCH LAYER PER SPECIFICATIONS

LANDSCAPE DRIPLINE TUBING

STAKE DRIP TUBING ON GRADE

N.T.S.

- LINE FLUSHING VALVE PLUMBED TO

PVC PIPE (TYP.)

- TECHLINE TEE

AREA PERIMETER

TECHLINE LATERAL TUBING

(PVC TO ELL) - SEE DETAIL

TECHLINE START CONNECTION

COVER OVER PIPE - SEE DETAIL

- LATERAL BLANK TECHLINE TUBING

PVC SCH 40 SUPPLY HEADER W/ 12"

- ELECTRIC REMOTE CONTROL VALVE

W/ DISC FILTER AND PRV - REFER TO

IRRIGATION EQUIPMENT LEGEND

COVER OVER PIPE - SEE DETAIL

PVC SCH 40 EXHAUST HEADER W/ 12"

AT 6'-0" O.C. USING METAL "u"

- FINISH GRADE

STAKES

- IN-LINE PRESSURE REGULATOR- WHERE REQUIRED SEE IRRIGATION LEGEND FOR SPECIFICS

IN-LINE WYE FILTER

ALL VALVES TO BE INSTALLED IN GROUND COVER AREAS ONLY.

SECTION/ELEVATION

SECTION/ELEVATION

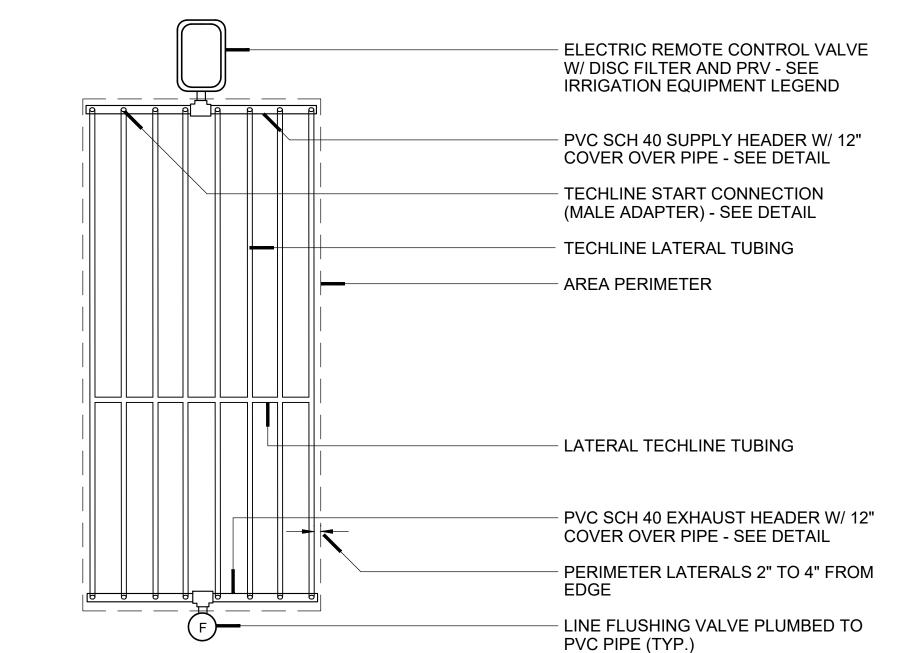
TECHLINE DRIP TUBING ON-GRADE INSTALLATION

PRESSURE REG. DRIP VALVE W/Y-FILTER AND PRESSURE REGULATOR

DRIPLINE SUPPLY HEADER

BELOW-GRADE INSTALLATION

N.T.S.

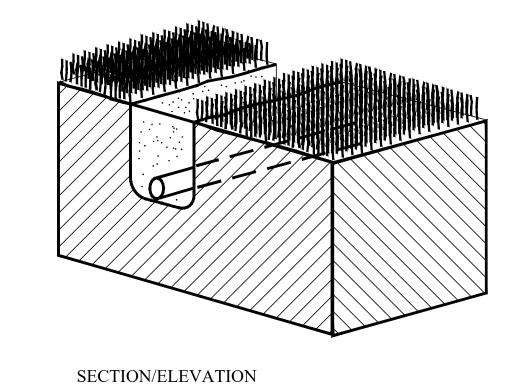


SECTION/ELEVATION

PLUMBED TO PVC

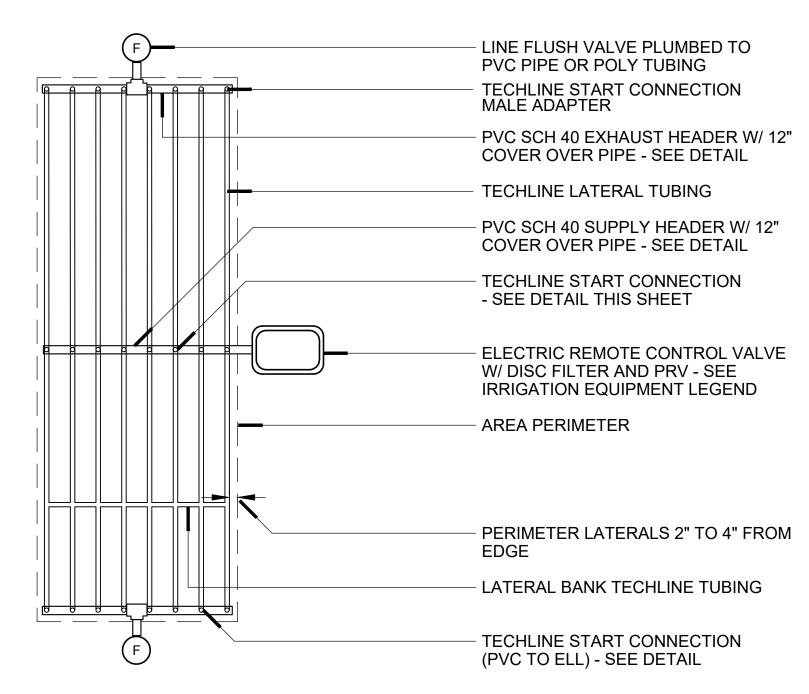
TECHLINE FLUSH VALVE

WANDARL WANDARL - FINISH GRADE BACKFILLED TRENCH (FREE OF DEBRIS) LANDSCAPE DRIPLINE TUBING



TECHLINE DRIP TUBING **BELOW-GRADE INSTALLATION**

N.T.S.



TECHLINE CV - CENTER FEED LAYOUT

N.T.S.

PLAN

PLAN

AREA PERIMETER - PVC SCH 40 EXHAUST HEADER W/ 12" COVER OVER PIPE - SEE DETAIL TECHLINE TEE LATERAL BLANK TECHLINE TUBING TUBING (CENTERED ON MOUND OR BERM) TECHLINE START CONNECTION (PVC TO ELL) PVC SCH 40 SUPPLY HEADER W/ 12" COVER OVER PIPE - SEE DETAIL ELECTRIC REMOTE CONTROL VALVE W/ DISC FILTER AND PRV - REFER TO IRRIGATION **EQUIPMENT LEGEND** •DRIP-LINES TO BE EQUALLY & UNIFORMILY SPACED FOR ENTIRE LENGTH OF RUN. SPACE LINES AS SHOWN AND/OR NOTED ON DRAWINGS •SEE NETAFIM. 'TECHLINE DESIGN GUIDE' FOR ADDITIONAL INFORMATION. •DRIP-LINES TO BE LAYED FLAT AND SECURED TO SUBGRADE W/ STAPLES AT 5' CENTERS PRIOR TO

TECHLINE CV - END FEED LAYOUT N.T.S.

TECHLINE CV - IRREGULAR AREA WITH CURVES LAYOUT

TECHLINE CV - IRREGULAR AREA

PLAN

N.T.S.

PLAN



SCH 40 PIPE BELOW GRADE - DISTRIBUTION TUBE FITTING - SHRUB CANOPY - EDGE OF ROOT BALL PRESSURE-COMPENSATING DRIP EMITTER (TYP.) TWO PER SHRUB - 1/2" DISTRIBUTION TUBE AFFIXED TO GRADE WITH TIE-DOWN STAKES AT 5' O.C. TRUNK OF PLANT

SCH 40 PVC 3/4" THD. X COMPRESSION FITTING ON GRADE PRESSURE-COMPENSATING EMISSION DEVICE (SEE IRRIG. LEGEND & NOTES) 1/4" DISTRIBUTION TUBING 4' MAX. - 6" TUBING STAKE W/ DIFFUSER BUG CAP 1/2" POLYETHYLENE TUBING COMPRESSION FLUSH CAP TIE-DOWN STAKE 5' O.C. - SCH 80 PVC NIPPLE (LENGTH AS REQUIRED) SCH 40 LATERAL & FITTING

TECHLINE CV LAYOUT AT HEDGES

PLAN

N.T.S.

(1) SHRUBBLER FOR POTS LESS THAN 24" DIAMETER. (2) SHRUBBLERS FOR POTS 24"-36" (3) SHRUBBLERS FOR POTS LARGER THAN 36" DIAMETER. TYPICAL PLANT IN POT. ANTELCO PRESSURE COMPENSATING 360° SHRUBBLER SPIKE WITH ADJUSTABLE FLOW AND 1/4" SPAGHETTI TUBING HIDDEN BELOW MOSS. GREEN SPHAGNUM MOSS. ORNAMENTAL POT. ROOTBALL. PLASTIC INTERIOR POT WITH SAUCER INSIDE OF ORNAMENTAL POT. POTTING SOIL. PERMEABLE LANDSCAPE FABRIC. 1/2"-3/4" GRAVEL OR CRUSHED ROCK - MIN. 2" DEEP. USE 90° ELBOWS AT BENDS. DRAIN HOLE IN ORNAMENTAL POT. CONNECT TO IRRIGATION SYSTEM.

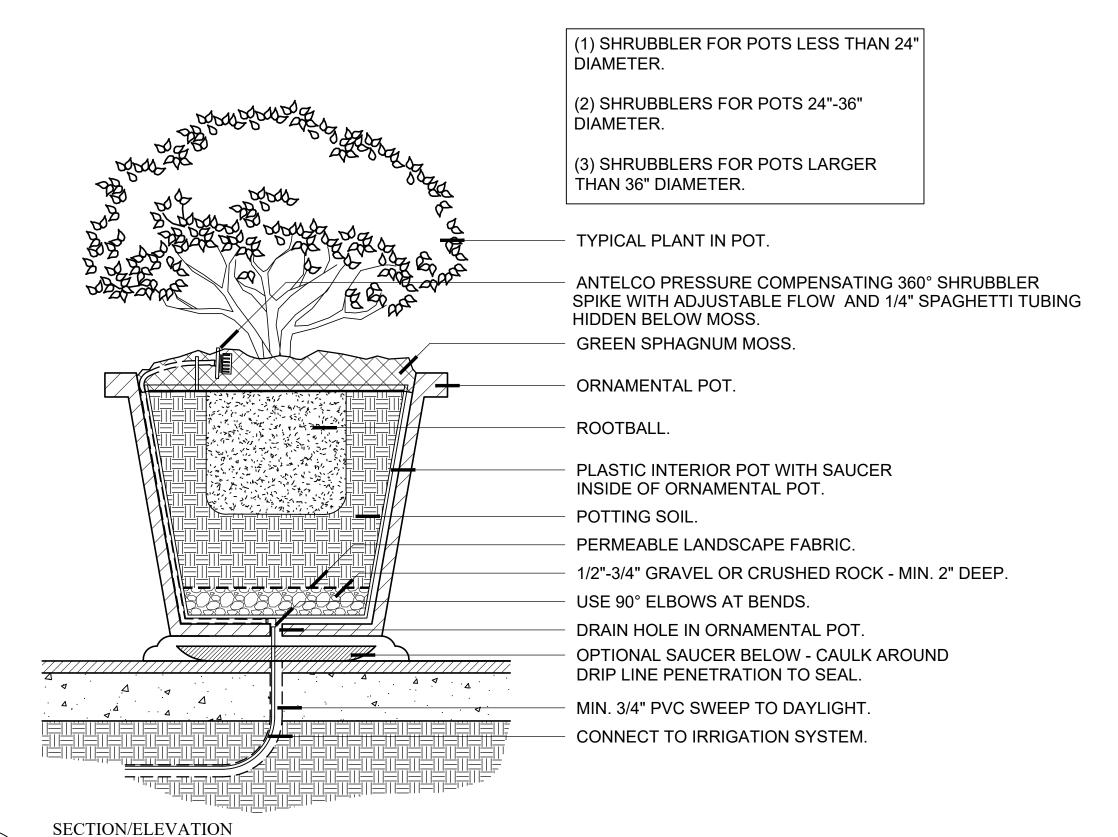
SECTION/ELEVATION

POT IRRIGATION AND DRAINAGE

DRIP IRRIGATION AT SHRUBS

PLAN

N.T.S.



POT IRRIGATION AND DRAINAGE WITH BASE

PIPE CONNECTION PVC TO POLYETHYLENE

SECTION/ELEVATION

N.T.S.

NOTE: SEE IRRIGATION LEGEND AND NOTES FOR MANUFACTURER AND MODEL

ARCHITEC AUSSET-LANDSCAPE



LANDSCAPE **IRRIGATION DETAILS**

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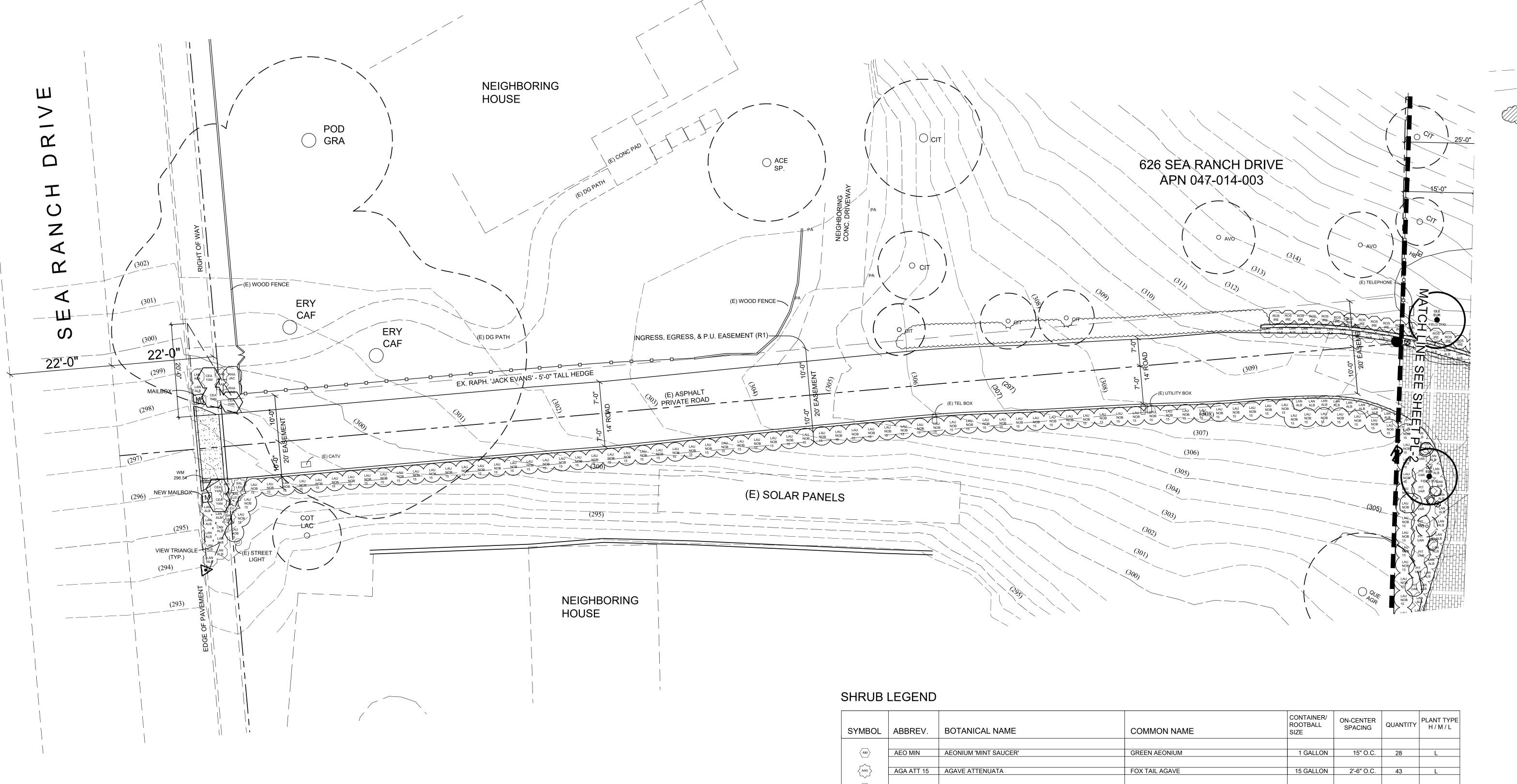
Landscape Architect.

A RANCH DRIVE BARBARA, CA. 9 616 SEA SANTA

REVISIONS

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> 23-310 DRAWING NO. SAF-02086



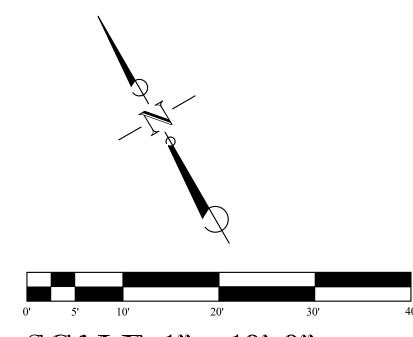
TREE LEGEND

SYMBOL	ABBREV.	BOTANICAL NAME	COMMON NAME	CONTAINER/ ROOTBALL SIZE	QUANTITY
	ACA BAI	ACACIA BAILEYANA 'PURPUREA'	BAILEY ACACIA	24" BOX	4
ACE PAL 24/36" BOX	ACE PAL ACE PAL	ACER PALMATUM 'ATROPURPUREA' ACER PALMATUM 'ATROPURPUREA'	BLOOD LEAF JAPANESE MAPLE BLOOD LEAF JAPANESE MAPLE	36" BOX 24" BOX	3
CIT © 24° BOX	CIT TBD	CITRUS - TO BE DETERMINED	VARIETIES TO BE DETERMINED	24" BOX	3
COT COG	COT COG	COTINUS COGGYGRIA	SMOKE TREE	24" BOX	8
OLE EUR FIELD DUG	OLE EUR	OLEA EUROPAEA	OLIVE - FIELD DUG	FIELD DUG	5
AVO 15 GAL	AVO	PERSEA AMERICANA	HAAS AVOCADO	15 GALLON	2

SYMBOL	ABBREV.	BOTANICAL NAME	COMMON NAME	CONTAINER/ ROOTBALL SIZE	ON-CENTER SPACING	QUANTITY	PLANT TYPE H/M/L
⟨AM⟩	AEO MIN	AEONIUM 'MINT SAUCER'	GREEN AEONIUM	1 GALLON	15" O.C.	28	L
AA5	AGA ATT 15	AGAVE ATTENUATA	FOX TAIL AGAVE	15 GALLON	2'-6" O.C.	43	L
AT	ALS THE	ALSTROEMERIA "THE THIRD HARMONICA"	ORANGE PERUVIAN LILY	1 GALLON	18" O.C.	30	M
AE	ASP ELA	ASPIDISTRA ELATIOR	CAST IRON PLANT	1 GALLON	18" O.C.	12	M
BR	BEG RIC	BEGONIA 'RICHMONDENSIS'	RICHMOND BEGONIA	5 GALLON	24" O.C.	18	M
BOU	BOU ROS	BOUGAINVILLEA 'ROSENKA'	BOUGAINVILLEA ROSENKA	5 GALLON	3'-0" O.C.	8	L
CAM JAP	CAM JAP	CAMELLIA JAPONICA	CAMELLIA	15 GALLON	4'-0" O.C.	4	M
	CAM POS	CAMPANULA POSCHARSKYANA	SERBIAN BELLFLOWER	FLATS	8" O.C.	114	M
CEA YAN	CEA YAN	CEANOTHUS G. HORIZONTALIS 'YANKEE POINT'	CALIFORNIA LILAC	5 GALLON	4'-0" O.C.	371	VL
FEI SEL	FEI SEL	FEIJOA SELLOWIANA	PINEAPPLE GUAVA	24" BOX	6'-0" O.C.	8	L
⟨GB⟩	GER BIO	GERANIUM X CANTABRIGIENSE 'BIOKOVO'	GERANIUM-WHITE FLOWERS W/ PINK	1 GALLON	12" O.C.	14	L
	HERBS	ASSORTED CULINARY HERBS	ASSORTED CULINARY HERBS	1 GALLON	12" O.C.	TBD	NA
HYD MAC	HYD MAC	HYDRANGEA MACROPHYLLA-VARIETY T.B.D.	BIG LEAF HYDRANGEA	5 GALLON	3'-0" O.C.	7	M
(IG)	IRI GRA	IRIS 'GRANDMA'S PURPLE FLAG'	PURPLE TALL BEARDED IRIS	1 GALLON	18" O.C.	15	L
LAN ALB	LAN ALB	LANTANA MONTEVIDENSIS 'ALBA'	WHITE TRAILING LANTANA	1 GALLON	4' O.C.	161	L
LAU NOB 15	LAU NOB 15	LAURUS NOBILIS - BUSH FORM	SWEET BAY	15 GALLON	3'-0" O.C.	219	L
LAV	LAV HET	LAVANDULA ANGUSTIFOLIA X HETEROPHYLLA	LAVENDER	5 GALLON	3'-6" O.C.	57	L
PIT	PIT CRA	PITTOSPORUM CRASSIFOLIA 'COMPACTUM'	DWARF KARO	5 GALLON	3'-0" O.C.	13	M
PIT VAR	PIT VAR	PITTOSPORUM TOBIRA 'VARIEGATA'	VARIGATED TOBIRA	15 GALLON	3'-0" O.C.	35	M
RHA JAC	RHA JAC	RHAPHIOLEPIS INDICA 'JACK EVANS'	JACK EVANS INDIAN HAWTHORN	5 GALLON	3'-0" O.C.	2	L
RHA MAJ	RHA MAJ	RHAPHIOLEPIS 'MAJESTIC BEAUTY'	MAJESTIC BEAUTY RHAPHIOLEPIS	5 GALLON	4'-0" O.C.	8	L
RHA UMB	RHA UMB	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDO HAWTHORN	5 GALLON	24" O.C.	42	L
ROS	ROS WHI	ROSA 'ICEBERG' WHITE	WHITE ICEBERG ROSE	5 GALLON	3'-0" O.C.	7	M
ROS	ROS IRE	ROSMARINUS OFFICINALIS 'IRENE'	TRAILING ROSEMARY	1 GALLON	3'-0" O.C.	344	L
SAL	SAL WAV	SALVIA 'WAVERLY'	WAVERLY SAGE	5 GALLON	3'-0" O.C.	12	M
SAL	SAL LEU	SALVIA LEUCANTHA	MEXICAN SAGE	5 GALLON	24" O.C.	51	L
тс	TEU CHA	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GALLON	24" O.C.	71	L
WES BLU	WES BLU	WESTRINGIA BLUE GEM	BLUE GEM COAST ROSEMARY	5 GALLON	3'-0" O.C.	14	L

VISIBILITY TRIANGLE NOTES:

- 1. NO FENCE, SCREEN, WALL, HEDGE OR OTHER LANDSCAPING MATERIAL EXCEEDING A HEIGHT OF 3'-6" SHALL BE LOCATED IN VISIBILITY TRIANGLE. 2. IF ANY LANDSCAPE MATERIAL EXCEEDS 42" IN HEIGHT UPDATE
- PLANS TO NOTE ALL ITEMS TO BE REDUCED AND MAINTAINED TO NOT EXCEED A MAXIMUM HEIGHT OF 42".



SYMBOLS LEGEND

PROPOSED TREE TRUNK

EXISTING TOPOGRAPHY

EXISTING TREE TO BE REMOVED

EXISTING SCREENING HEDGES

O EXISTING TREE



PLANTING PLAN

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616 SEA SANTA REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD SCALE 1" = 10'-0" PROJECT NO. 23-310 DRAWING NO.

SAF-02125

SCALE: $1^{"} = 10^{"} - 0^{"}$

Know what's **below.**

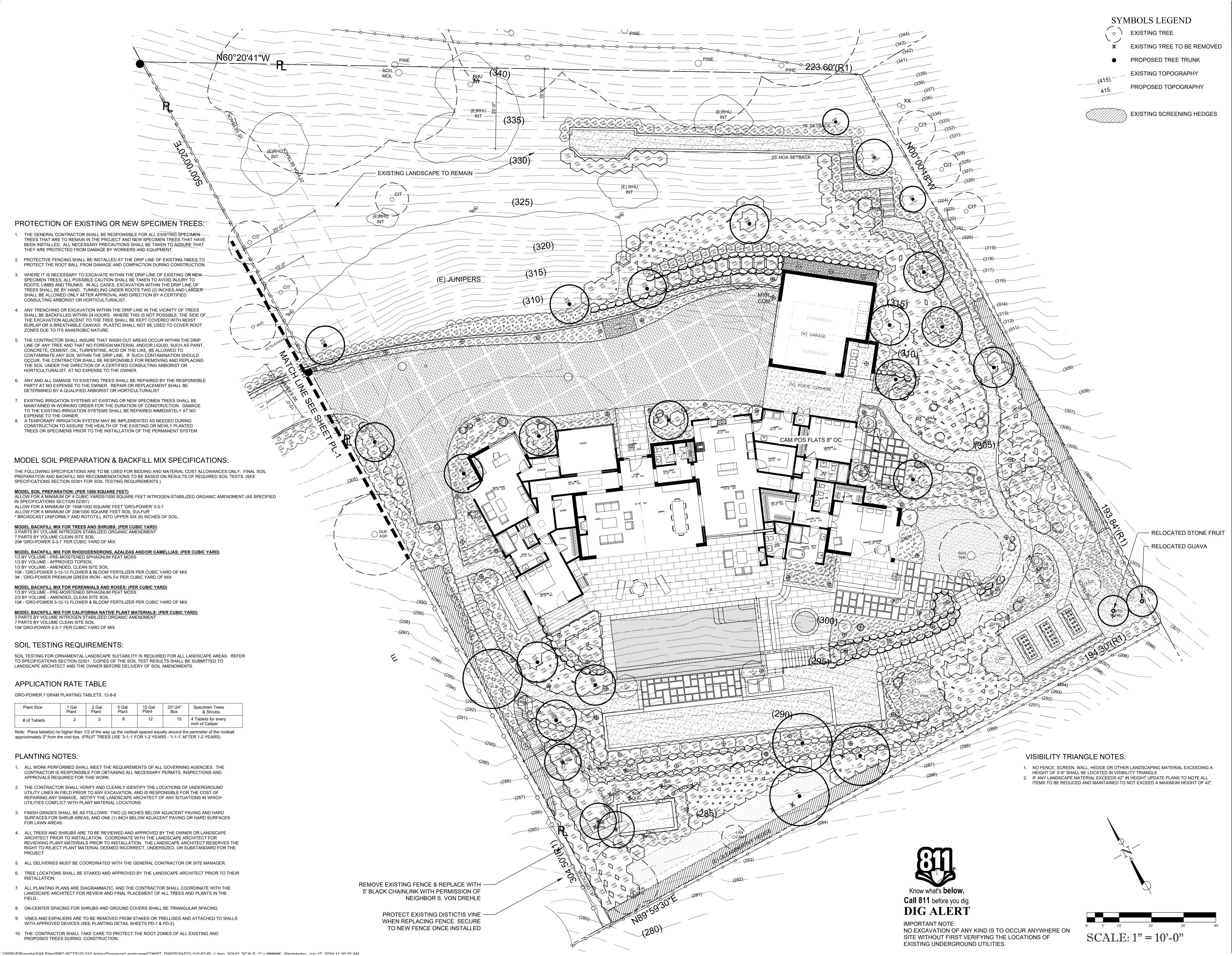
Call 811 before you dig.
DIG ALERT

NO EXCAVATION OF ANY KIND IS TO OCCUR ANYWHERE ON

SITE WITHOUT FIRST VERIFYING THE LOCATIONS OF

EXISTING UNDERGROUND UTILITIES.

IMPORTANT NOTE:





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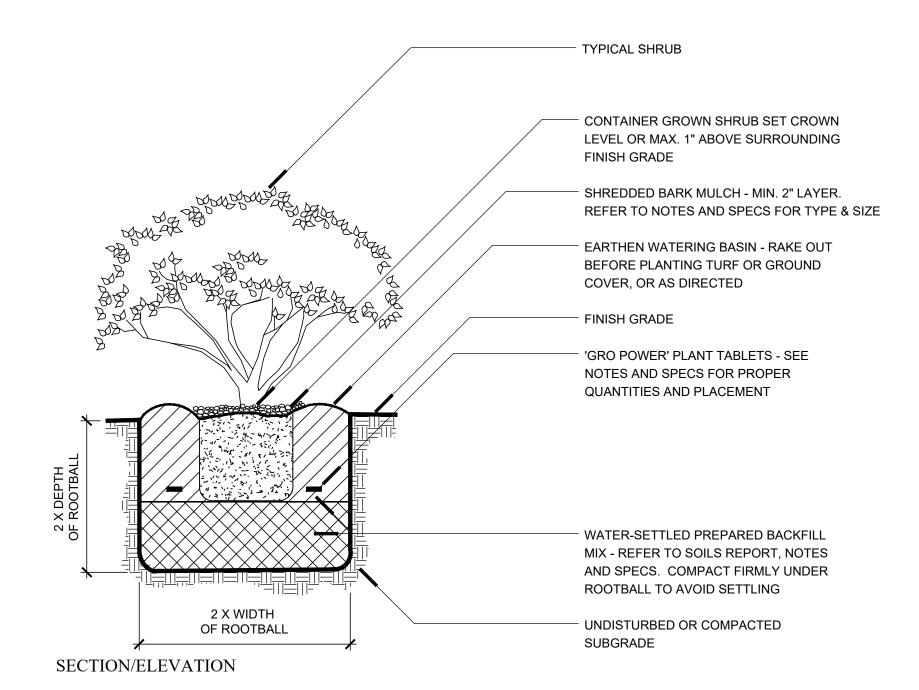
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REVISIONS

ISSUED FOR: CITY OF SANTA BARBARA JULY 19, 2024

DESIGNED BY/DRAFTED BY SAF / KLD **SCALE** 1" = 10'-0" PROJECT NO. 23-310 DRAWING NO. SAF-02126

SHEET



PLACE CROWN OF ROOTBALL MIN. 2" -MAX. 3" ABOVE SURROUNDING FINISH SHREDDED BARK MULCH - MIN.2" LAYER REFER TO NOTES AND SPECS FOR TYPE & SIZE - EARTHEN WATERING BASIN - PROVIDE POSITIVE DRAINAGE AWAY FROM CROWN OF ROOTBALL FINISH GRADE 'GRO POWER' PLANT TABLETS - REFER TO NOTES AND SPECS FOR PROPER QUANTITIES AND PLACEMENT WATER-SETTLED PREPARED BACKFILL MIX - REFER TO SOIL REPORT, NOTES AND SPECS. COMPACT FIRMLY UNDER ROOTBALL TO AVOID SETTLING UNDISTURBED OR COMPACTED SUBGRADE NOTE: WHERE SHRUBS ARE TO BE USED IN GROUPINGS, THIS DETAIL IS TO BE EXTENDED IN WIDTH SO THAT THE SOIL MIX IS CONTINUOUS FROM PLANT TO PLANT. 3 X WIDTH MODEL BACKFILL MIX: OF ROOTBALL 1/3 BY VOLUME - PRE-MOISTENED SPHAGNUM PEAT MOSS SECTION/ELEVATION 1/3 BY VOLUME - APPROVED TOPSOIL 1/3 BY VOLUME - AMENDED SITE SOIL 3# 'GRO-POWER PREMIUM GREEN IRON-

SHRUB PLANTING AZALEA OR CAMELLIA

N.T.S.

40%', 10# 3/12/12 'GRO-POWER FLOWER & BLOOM' PER CUBIC YARD OF MIX

TYPICAL SUCCULENT

FINISH GRADE

FINISH GRADE

LEVEL OR MAX. 1" ABOVE SURROUNDING

SHREDDED BARK MULCH - MIN. 2" LAYER

EARTHEN WATERING BASIN - RAKE OUT

BEFORE PLANTING TURF OR GROUND

'GRO POWER' PLANT TABLETS - SEE

WATER-SETTLED PREPARED BACKFILL

AND SPECS. COMPACT FIRMLY UNDER

N.T.S.

REFER TO SOILS REPORT, NOTES

ROOTBALL TO AVOID SETTLING

UNDISTURBED OR COMPACTED

SEE LANDSCAPE CONSTRUCTION OR GRADING PLAN FOR ELEVATIONS

2" BELOW IN GROUND COVER AREAS

FINISHED GRADE:

1" BELOW IN TURF AREAS

3/16" THICK X 5-1/2" BLACK

12" STEEL STAKES TO LOCK

INTO PREFORMED SLOTS ON THE

CONTRACTOR TO INSTALL PER THE

MANUFACTURER'S INSTRUCTIONS.

STEEL LAWN EDGING

EDGING

NOTE:

MIX (1/3 COMPOSTED HUMUS, 1/3 COARSE

NOTES AND SPECS FOR PROPER

QUANTITIES AND PLACEMENT

SAND AND 1/3 SITE SOIL).

SUBGRADE

COVER, OR AS DIRECTED

REFER TO NOTES AND SPECS FOR TYPE & SIZE

AZALEA, CAMELLIA OR ACID LOVING PLANT

CONTAINER GROWN SUCCULENT SET CROWN

ARCHITEC

AUSSET-I

PLANTING DETAILS

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REVISIONS

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ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY

SAF / KLD SCALE N.T.S. PROJECT NO. 22-310 DRAWING NO. SAF-02128 SHEET

N.T.S.

SPECIMEN TREE PLANTING

120° TYP.

EQUAL TO A

SPECIMEN TREE GUYING

PLAN VIEW

SECTION/ELEVATION

MIN. 3 GUYS EQUALLY SPACED 120 DEG. AROUND TREE

POSITION TIES FOR MULTI-TRUNK TREES AS SHOWN

TYPICAL TREE TIES - ATTACH TO MAJOR BRANCHES

ONLY, TIES SHALL BE 5/8" DIA. GARDEN HOSE WITH

PROVIDE WHITE PLASTIC TUBING OVER GUY WIRE

TURNBUCKLE AT FINISH GRADE, ADJUST TO TAKE UP

- DEADMAN ANCHORS - INSTALL MIN. 1" BELOW FINISH

GRADE AND PER MANUFACTURER'S INSTRUCTIONS

NOTE: GUYING OF BOXED SPECIMEN TREES IS LEFT

TO THE CONTRACTOR'S DISCRETION DEPENDING

ON BRANCHING STRUCTURE AND WIND EXPOSURE

THE LANDSCAPE ARCHITECT RESERVES THE RIGHT

TO MAKE THE FINAL DECISION REGARDING GUYING

'GRO POWER' PLANT TABLETS - REFER TO NOTES AND SPECS FOR PROPER QUANTITIES AND PLACEMENT

N.T.S.

ANTELCO PRESSURE COMPENSATING 360° SHRUBBLER

1/2"-3/4" GRAVEL OR CRUSHED ROCK - MIN. 2" DEEP.

SPIKE WITH ADJUSTABLE FLOW AND 1/4" SPAGHETTI TUBING

(1) SHRUBBLER FOR POTS LESS THAN 24"

(2) SHRUBBLERS FOR POTS 24"-36"

(3) SHRUBBLERS FOR POTS LARGER

THAN 36" DIAMETER.

TYPICAL PLANT IN POT.

HIDDEN BELOW MOSS.

ORNAMENTAL POT.

ROOTBALL.

POTTING SOIL.

GREEN SPHAGNUM MOSS.

PLASTIC INTERIOR POT WITH SAUCER

INSIDE OF ORNAMENTAL POT.

USE 90° ELBOWS AT BENDS.

PERMEABLE LANDSCAPE FABRIC.

DRAIN HOLE IN ORNAMENTAL POT.

CONNECT TO IRRIGATION SYSTEM.

#12 GAUGE GALVANIZED WIRE, DOUBLE STRAND

REFER TO NOTES AND SPECS FOR TYPE & SIZE

SHREDDED BARK MULCH - MIN. 2" LAYER.

- THIS DIMENSION SHOULD BE APPROXIMATELY EQUAL TO THE HEIGHT OF ATTACHMENT

GUYING DETAILS AS REQUIRED

- ROOTBALL EDGE

- PLANT PIT EDGE

- DEADMAN ANCHORS

SLACK ONLY

- EDGE OF PAVING

REQUIREMENTS.

- EDGE OF PAVING OR WALL

BOXED SPECIMEN TREE (TYPICAL)

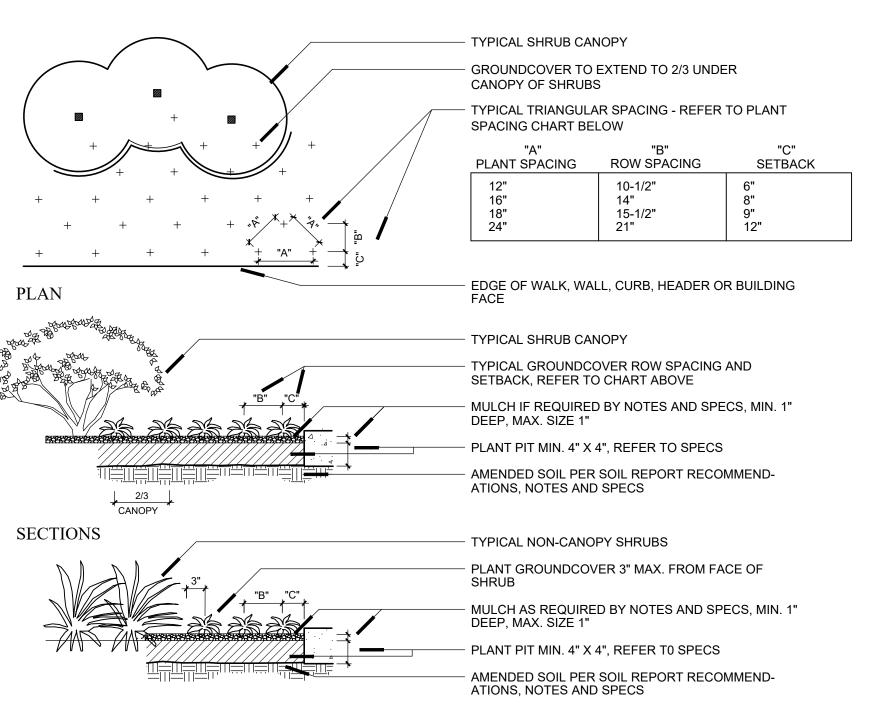
SHRUB PLANTING

N.T.S.

'WONDER TIE' MODEL #1446 INSTALLATION - WRAP WIRE AROUND STAKE AND SECURE PARALLEL TO BACK OF STAKE WITH 3/4" STAPLES FOR 'WONDER TIE', TREE TIE (MIN. 2 REQUIRED) - ATTACH PER DETAILS ABOVE, ADJUST ONLY **ENOUGH TO TAKE UP SLACK** 2 LODGEPOLE PINE STAKES - 2" DIA. X 12' LONG. PLACE STAKES MIN. 8" FROM TRUNK. DO NOT ALLOW STAKES TO PENETRATE ROOTBALL. 'GRO POWER' PLANT TABLETS - REFER TO NOTES AND SPECS FOR PROPER QUANTITIES AND PLACEMENT •POSITION STAKES SO THAT PREVAILING WINDS MOVE TREE **BETWEEN STAKES** •STAKING ADJACENT TO WALKS, STREETS OR PEDESTRIAN PATHS SHALL BE SET PARALLEL TO EDGE OF **PAVEMENT** •TIES SHALL BE: 'WONDER TIE' MODEL #1446 BY VILLA ROOT BARRIER CO. 800-654-4067 SECTION/ELEVATION

TREE STAKING DOUBLE STAKE

N.T.S.





SECTION

2 X WIDTH

OF ROOTBALL

SUCCULENT PLANTING

SECTION/ELEVATION

STEEL LANDSCAPE BORDER AT LAWN EDGE

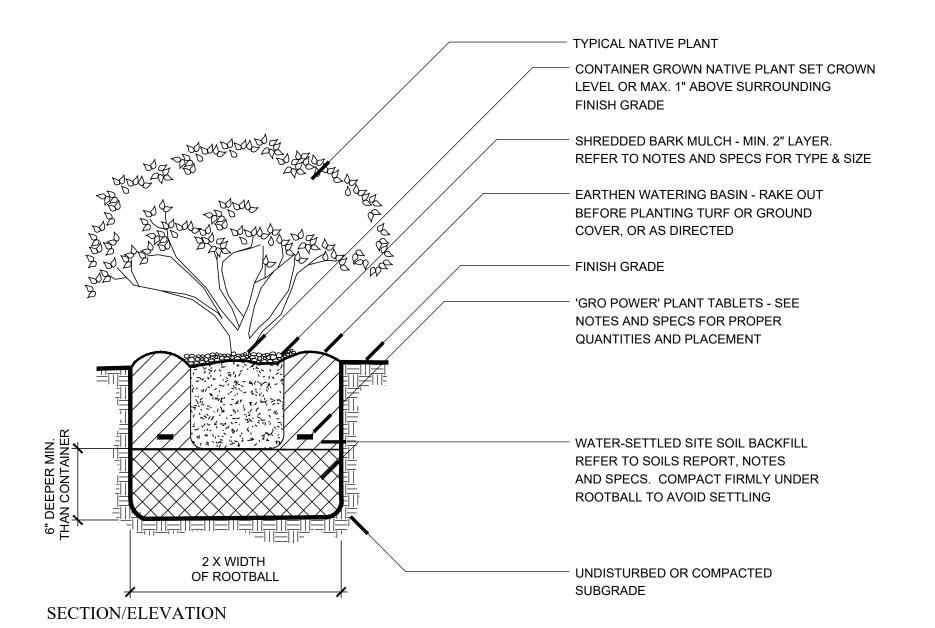
POT PLANTING IRRIGATION AND DRAINAGE

SECTION/ELEVATION

N.T.S. \\SERVER\media\SAF Files\PROJECTS\22-310 Arkley\Drawings\Landscape\CONST. DWGS\SAF22-310-65-PD1-2.dwg 30X42 Wednesday, June 5, 2024 1:06:37 PM

N.T.S.

INSTALL JUTE MESH ON ALL SLOPES GREATER THAN 3:1, SECURE TO SLOPE PER



WALL ATTACHMENT FOR VINES AND ESPALIERS

N.T.S.

NATIVE PLANTING

SLOPE TO DRAIN

SECTION

SECTION/ELEVATION

N.T.S.

NDS #90 BLACK 6" ATRIUM GRATE

DRAIN INLET (RIM ELEVATION)

FINISH GRADE - SLOPE MIN. 2% TO

NDS #66 - 6" SEWER AND DRAIN PIPE

NDS SPEE-D BASIN - DOUBLE-OUTLET

ABS SEWER AND DRAIN PIPE - SIZE

INVERT ELEVATION

ON SLOPES GREATER THAN 3:1, INSTALL JUTE MESH ON UPHILL SIDE OF PLANT

TYPICAL 36" OR 48" BOX TREE, CENTERED

SET CROWN OF ROOTBALL LEVEL OR

SLIGHTLY ABOVE FINISH GRADE WITH

GREATER THAN 3:1, SECURE TO SLOPE

' 'GRO POWER' PLANT TABLETS - REFER TO NOTES AND SPECS FOR PROPER

WATER-SETTLED PREPARED BACKFILL

MIX - REFER TO SOIL REPORT, NOTES AND SPECS. COMPACT FIRMLY UNDER

NOTE: REFER TO SPECS FOR STAKING

ROOTBALL TO AVOID SETTLING

UNDISTURBED OR COMPACTED

SUBGRADE

REQUIREMENTS

PER MANUFACTURER'S RECOMMENDATIONS

CORNER OF ROOTBALL AT LINE OF

3" MIN. COMPACTED SOIL BERM -INSTALL JUTE MESH ON ALL SLOPES

PIT, SECURE AT ALL EDGES

MAXIMUM 1:1 SLOPE

IN PIT AND VERTICAL

ORIGINAL GRADE

- LINE OF ORIGINAL GRADE

CRUSHED STONE

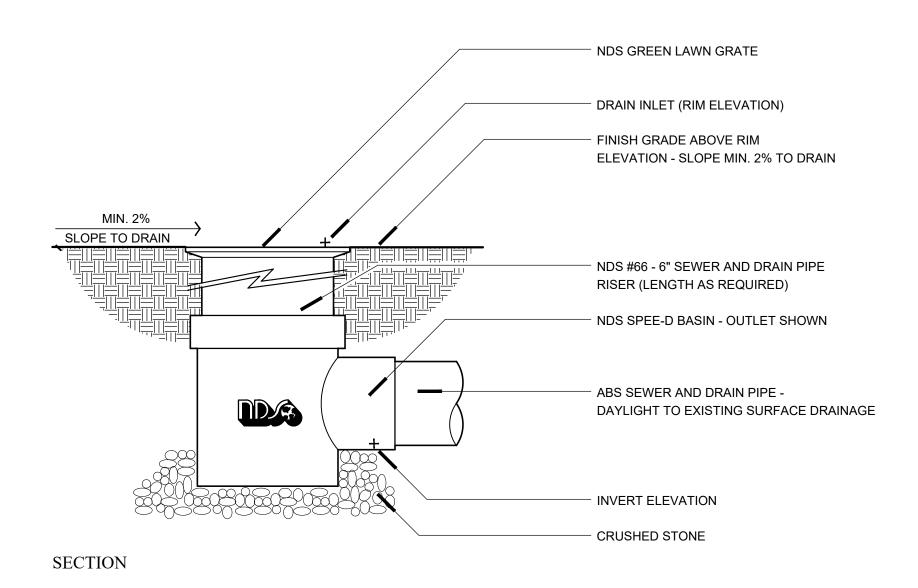
PER ENGINEER'S RECOMMENDATIONS

N.T.S.

SHOWN OR OUTLETS AS REQUIRED BY

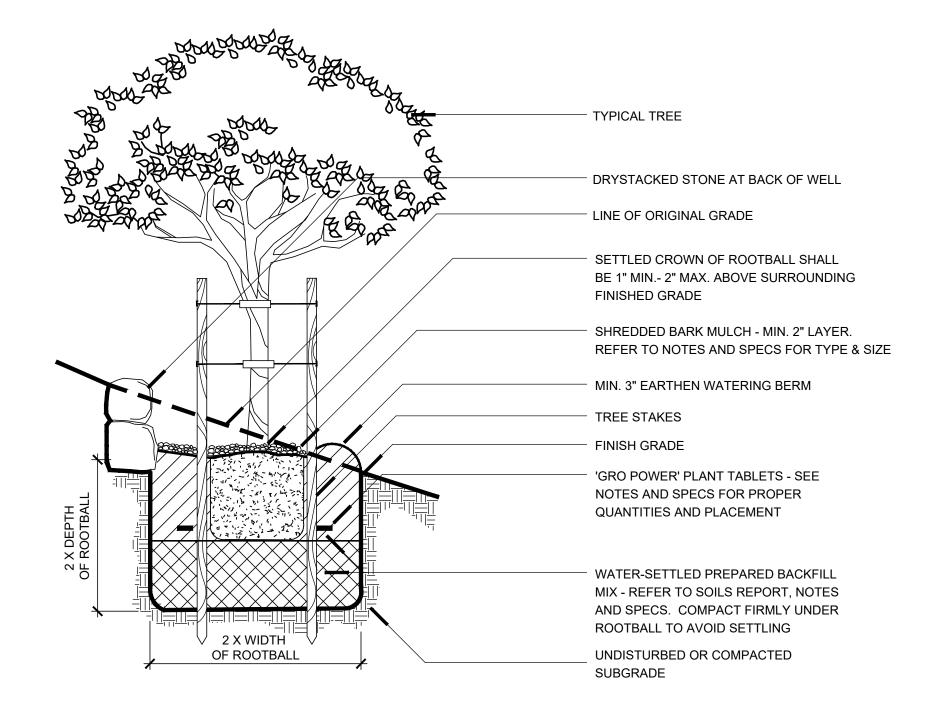
RISER (LENGTH AS REQUIRED)

IN SHRUB AND GROUNDCOVER AREAS



CATCH BASIN AT LAWN

6" CATCH BASIN WITH NDS #90 BLACK 6" ATRIUM GRATE N.T.S.



SECTION/ELEVATION

TREE PLANTING AT SLOPES

N.T.S.

TREE PLANTING AT SLOPES 36" & 48" BOX

N.T.S.

SOIL TESTING FOR AGRICULTURAL SUITABILITY IS REQUIRED FOR ALL LANDSCAPE AREAS. REFER TO SPECIFICATIONS SECTION 02821, PARAGRAPH 1.04, E-1 THRU E-6. TEST RESULTS SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT BEFORE DELIVERY OF SOIL

MODEL SOIL PREPARATION & BACKFILL MIX SPECIFICATIONS THE FOLLOWING SPECIFICATIONS ARE TO BE USED FOR COST ALLOWANCES ONLY. FINAL SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS TO BE BASED ON RESULTS OF REQUIRED SOIL TESTS. (REFER TO SPECIFICATIONS SECTION 02821, PAR. 1.04, E-1 THRU E-6 FOR SOIL TESTING REQUIREMENTS.)

MODEL SOIL PREPARATION: (PER 1000 SQUARE FEET) ALLOW FOR A MINIMUM OF 4 CUBIC YARDS/1000 SQUARE FEET NITROGEN-STABILIZED ORGANIC AMENDMENT

ALLOW FOR A MINIMUM OF 150 LBS /1000 SQUARE FEET 'GRO-POWER' 5-3-1

ALLOW FOR A MINIMUM OF 20 LBS /1000 SQUARE FEET SOIL SULFUR

BROADCAST UNIFORMLY AND ROTOTILL INTO UPPER FOUR (4) TO SIX (6) INCHES OF SOIL.

ALLOW FOR A MINIMUM OF 5 LBS /1000 SQUARE FEET 'MYKOS PRO 100' MYCORRHIZAL INOCULATE BY GREEN DIAMOND BIOLOGICALS RAKE INTO TOP 1 INCH OF SOIL

MODEL BACKFILL MIX FOR TREES AND SHRUBS: (PER CUBIC YARD) 3 PARTS BY VOLUME NITROGEN STABILIZED ORGANIC AMENDMENT

7 PARTS BY VOLUME SITE SOIL 20 LBS 'GRO-POWER 5-3-1' PER CUBIC YARD OF MIX

MODEL BACKFILL MIX FOR RHODODENDRONS, AZALEAS AND/OR CAMELLIAS: (PER CUBIC YARD)

1/3 BY VOLUME - PRE-MOISTENED SPHAGNUM PEAT MOSS 1/3 BY VOLUME - CAMELLIA/AZALEA SOIL MIX 1/3 BY VOLUME - SITE SOIL

10 LBS - 'GRO-POWER 3-12-12 FLOWER & BLOOM' FERTILIZER PER CUBIC YARD OF MIX 3 LBS - 'GRO-POWER PREMIUM GREEN IRON - 40% Fe' PER CUBIC YARD OF MIX

MODEL BACKFILL MIX FOR PERENNIALS AND ROSES: (PER CUBIC YARD)

2/3 BY VOLUME - SITE SOIL 10 LBS - 'GRO-POWER 3-12-12 FLOWER & BLOOM' FERTILIZER PER CUBIC YARD OF MIX

MODEL BACKFILL MIX FOR SUCCULENTS: (PER CUBIC YARD) 1/3 BY VOLUME - COMPOSTED HUMUS

1/3 BY VOLUME - PRE-MOISTENED SPHAGNUM PEAT MOSS

1/3 BY VOLUME - COARSE SAND 1/3 BY VOLUME - SITE SOIL

MODEL BACKFILL MIX FOR NATIVE PLANTING: 100% SITE SOIL

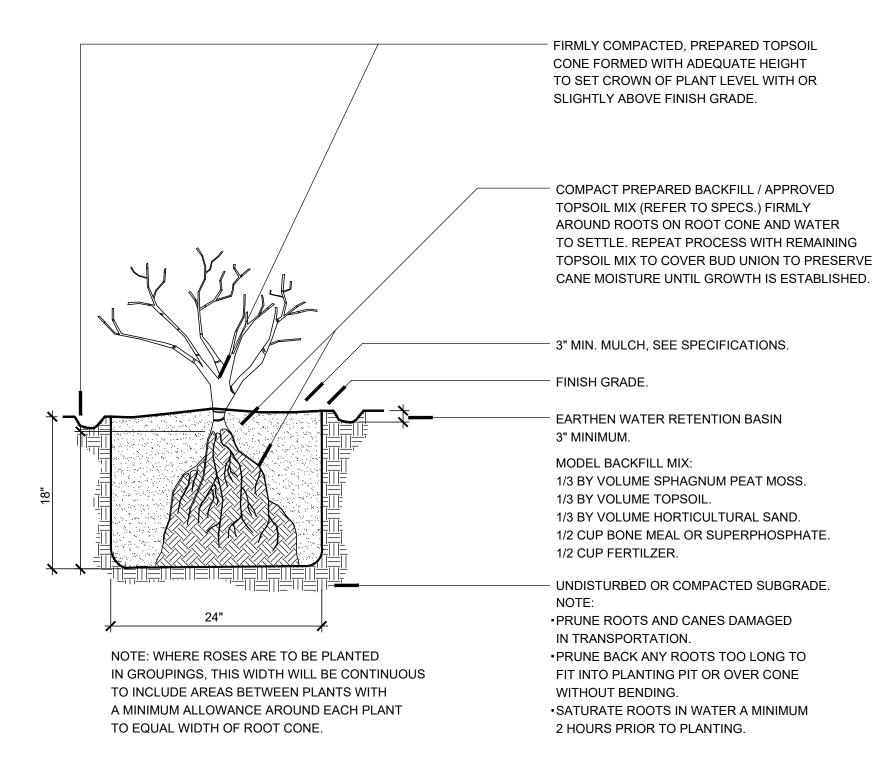
APPLICATION RATE TABLE

GRO-POWER 7 GRAM PLANTING TABLETS, 12-8-8 with 20% Humus and 4% Humic Acid

Plant Size	1 Gal	2 Gal	5 Gal	15 Gal	20"-24"	Specimen Trees
	Plant	Plant	Plant	Plant	Box	& Shrubs
# of Tablets	2	3	6	12	15	4 Tablets for every inch of Caliper

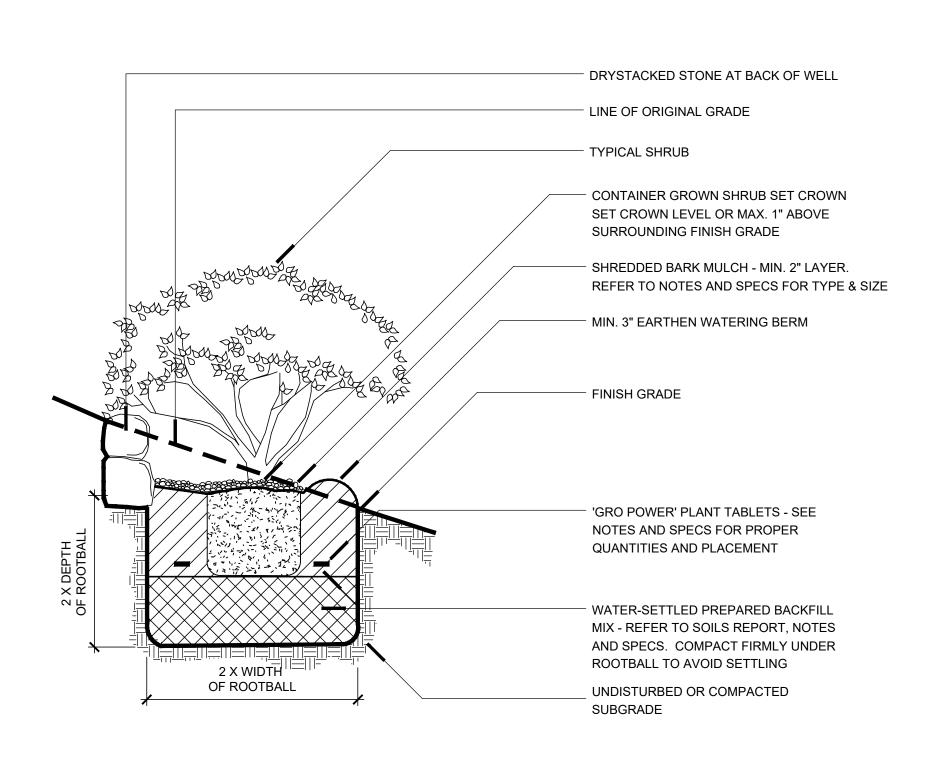
Note: Place tablet(s) no higher than 1/3 of the way up the rootball spaced equally around the perimeter of the rootball approximately 2" from the root tips. (FRUIT TREES USE '3-1-1' FOR 1-2 YEARS - '1-1-1' AFTER 1-2 YEARS)

SOIL TESTING & SOIL PREPARATION



SECTION/ELEVATION

BARE ROOT ROSE PLANTING



SECTION/ELEVATION

SHRUB SLOPE PLANTING

N.T.S.



USSE

PLANTING DETAILS

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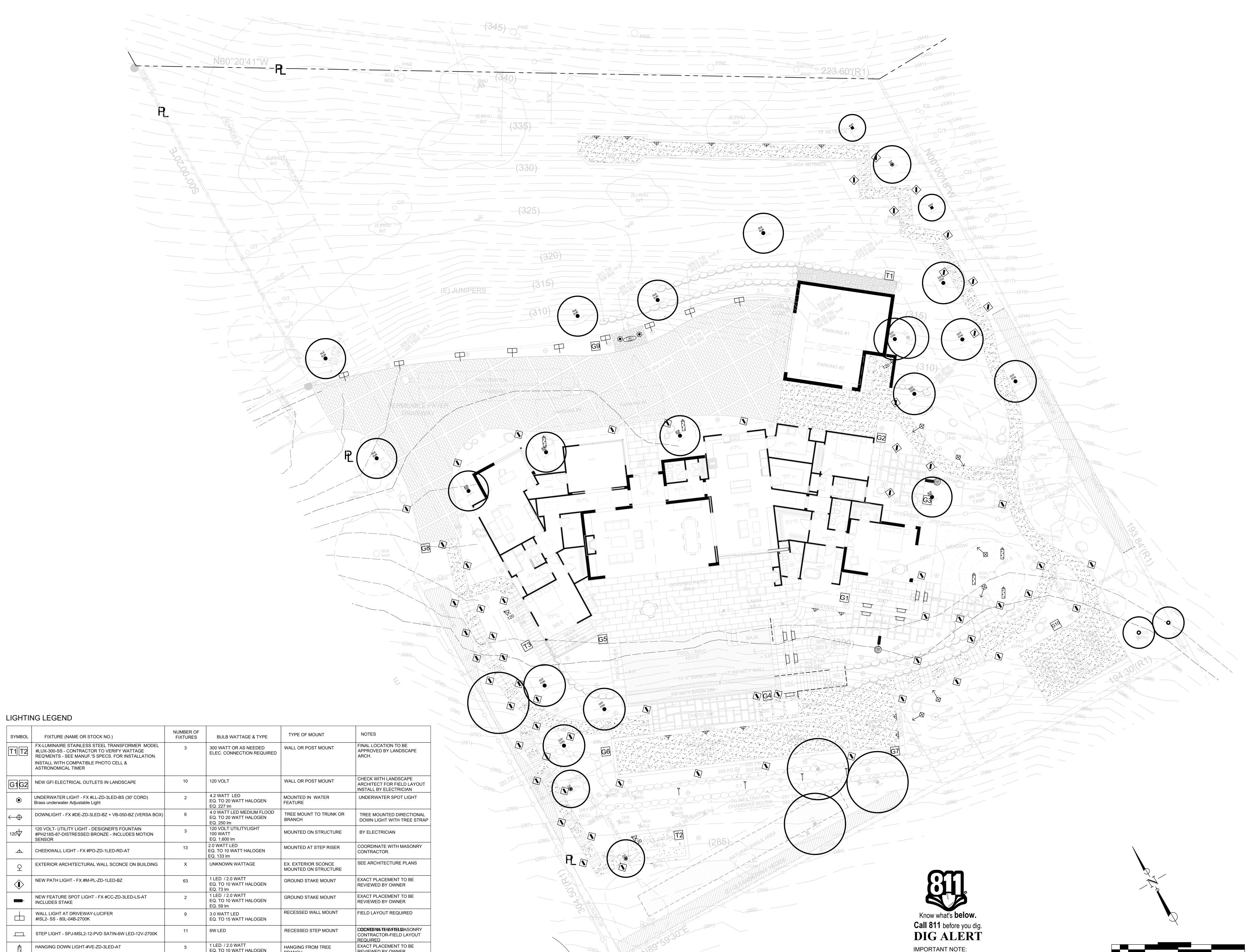
REVISIONS

616 SAN

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED BY SAF / KLD

SCALE N.T.S. PROJECT NO. 22-310 DRAWING NO. SAF-02129

SHEET



AUSSET-LANDSCAPE



LIGHTING PLAN

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SCALE 1" = 10' - 0" PROJECT NO. 23-310 DRAWING NO. SAF-02088

L-30

SCALE: $1^{"} = 10^{"} - 0^{"}$

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SITE WITHOUT FIRST VERIFYING THE LOCATIONS OF

EXISTING UNDERGROUND UTILITIES.

NOTE: ALL FIXTURES DARK SKY COMPLIANT. ALL FIXTURES TO HAVE SHROUDS OR HOODS WHERE POSSIBLE.

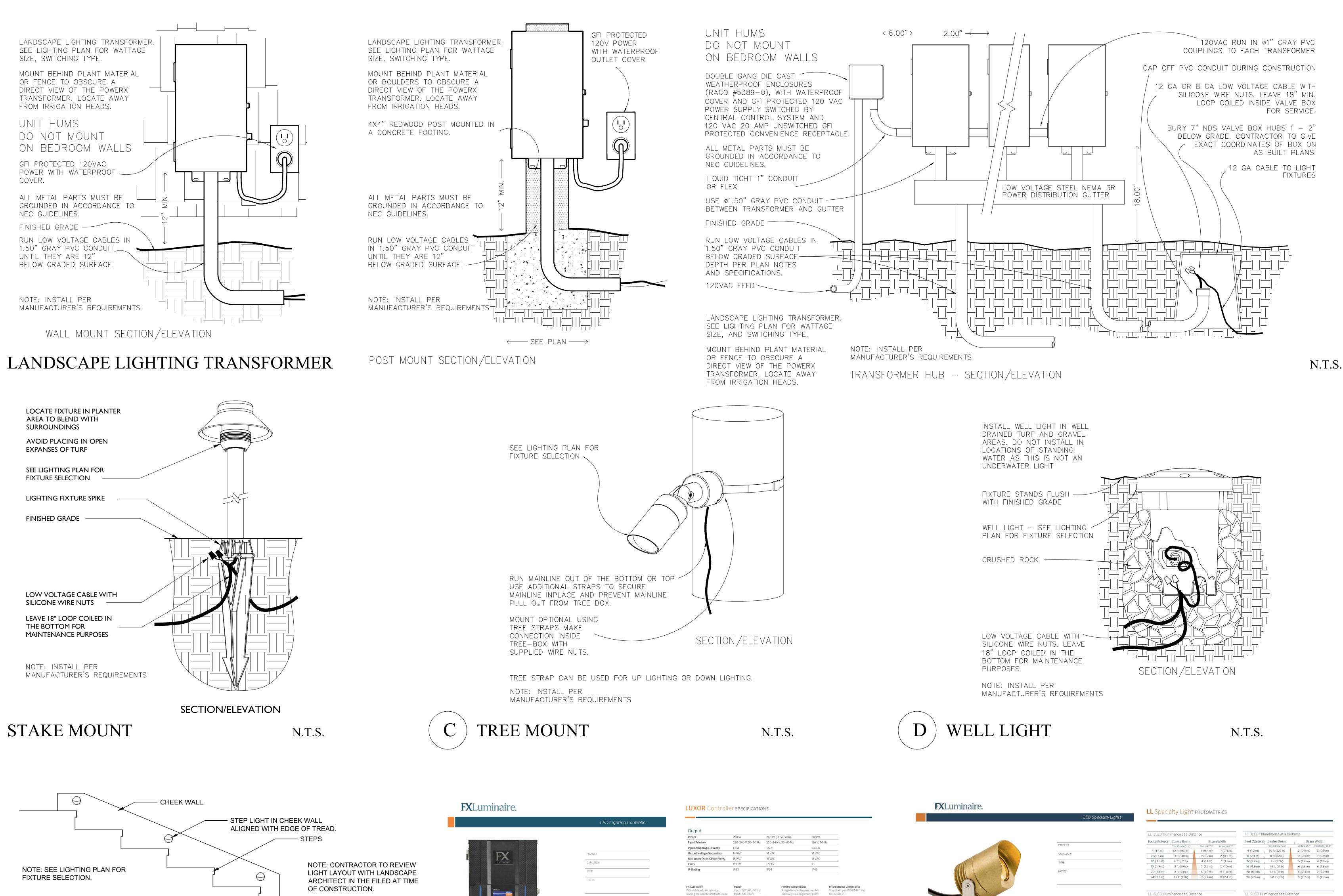
EQ. TO 10 WATT HALOGEN

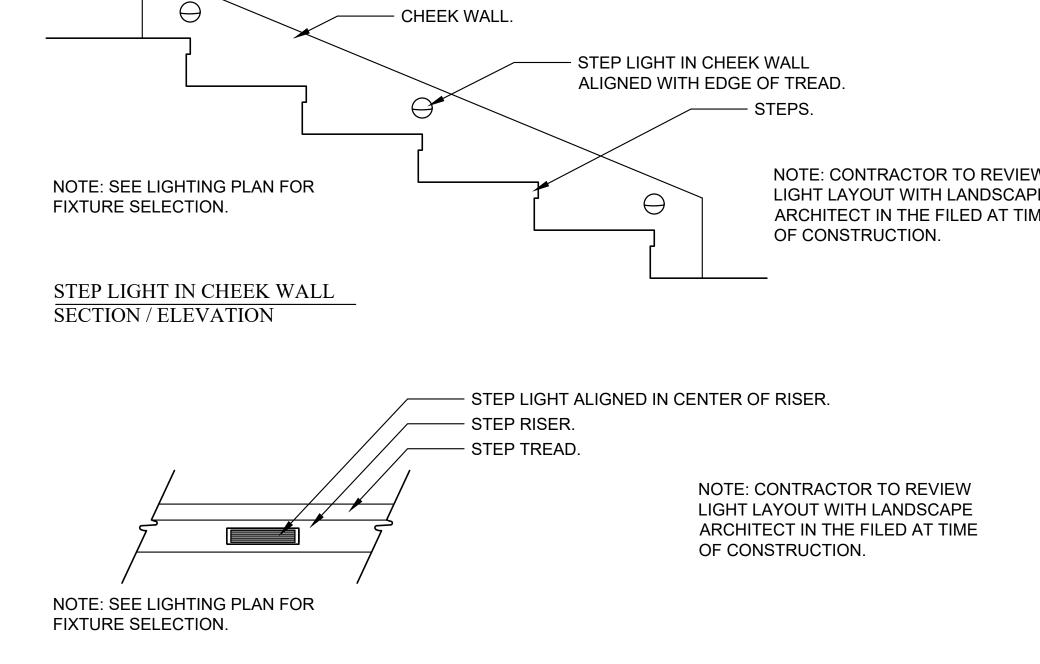
EQ. 57 lm

REVIEWED BY OWNER

LIGHTING LEGEND

SYMBOL

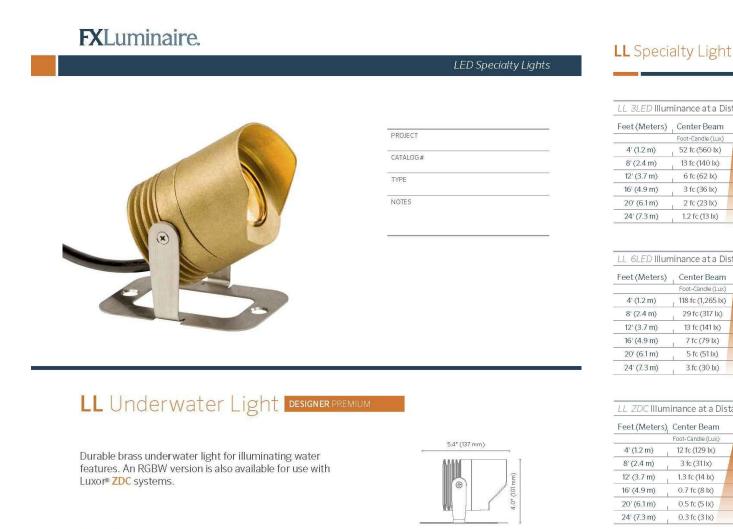












3.2" (81 mm)



LANDSCAPE LIGHTING TRANSFORMER FX LUMINAIRE

UNDERWATER LIGHT

Compatible with Luxor

Quick Facts

Corrosion-resistant die-cast

Natural brass with tumbled

Stainless steel mounting stand
 Input voltage: 10-15V

Cree® integrated LEDs

LANDSCAPE LIGHTING

Learn more. Visit: fxl.com | 760.744.5240

DATE JULY 19, 2024 DESIGNED BY/DRAFTED B SAF / KLD SCALE 1" = 10' - 0" PROJECT NO. 23-310 FXLIT-015-SS-LL-EN E 7/18 DRAWING NO. SAF-02089

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163 Nob Hill I Direct: 805-E-mail:

LIGHTING

DETAILS

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REVISIONS

ISSUED FOR:

CITY OF SANTA BARBARA

N.T.S.

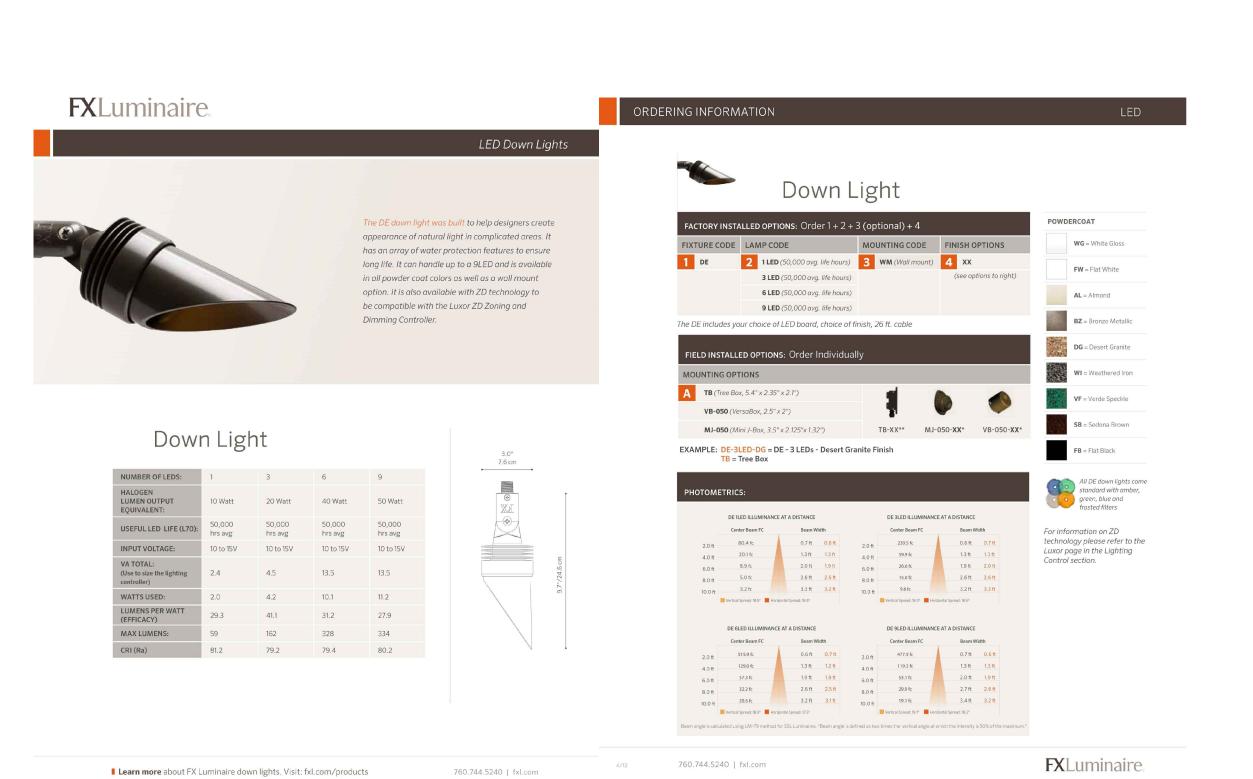
SECTION / ELEVATION STEP LIGHTS - LAYOUT CHEEK WALL AND RISER MOUNT

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STEP LIGHT IN RISER

N.T.S.

FX LUMINAIRE





FXLuminaire.

M-PL Path Light DESIGNER PLUS

The ultra-modern M-PL path light combines the versatility of

die-cast aluminum with minimalist aesthetics to complement a

coat finish

range of contemporary installations.

■ Die-cast aluminum ■ Two-layer marine-grade

■ Cree® integrated LEDs ■ Color temperature filters

■ Input voltage: 10-15V ■ 10-year limited warranty

■ Compatible with Luxor® ■ Phase and PWM

technology dimmable

LANDSCAPE AND ARCHITECTURAL LIGHTING

Quick Facts

N.T.S.

2.4W

4.3W

Zoning/Dimming

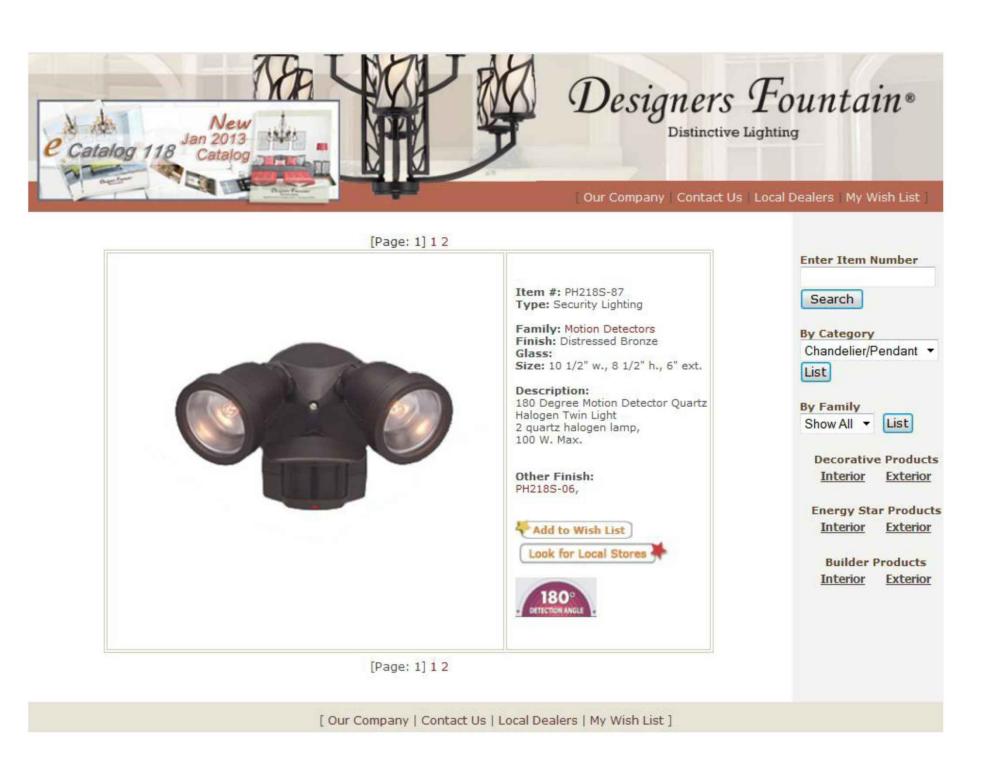
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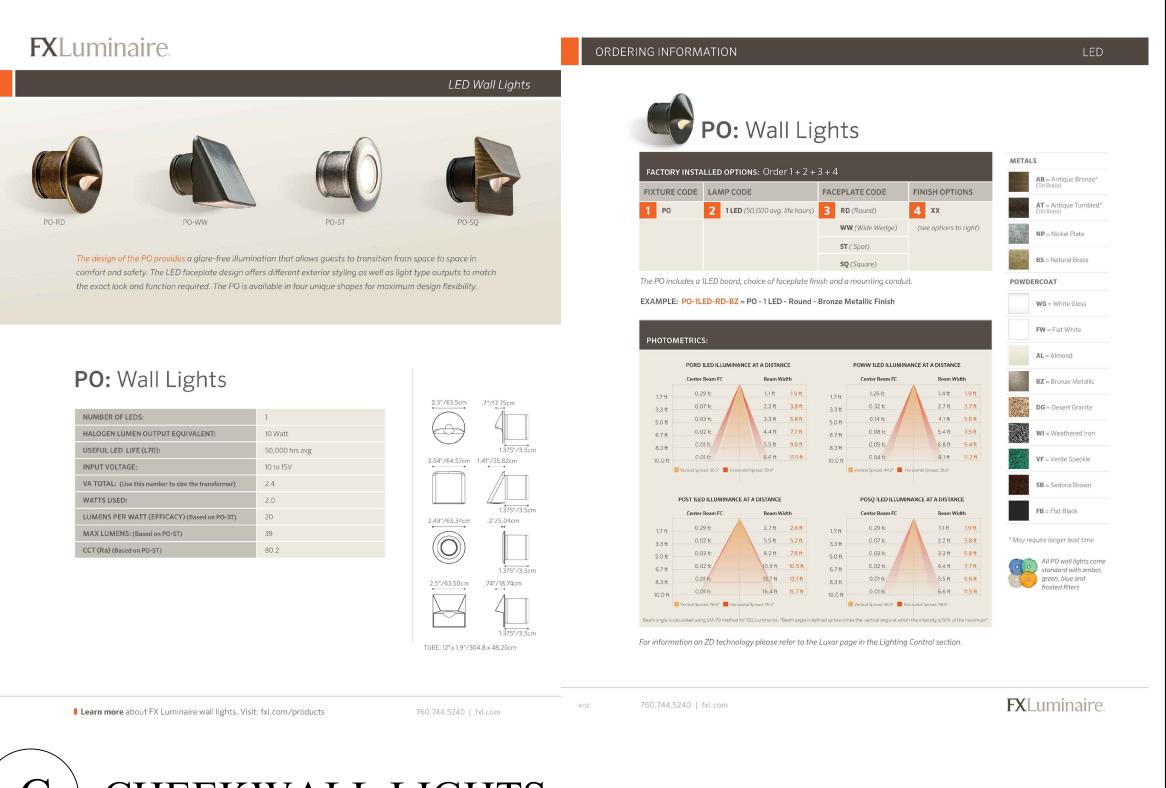
M-PL Path Light SPECIFICATIONS

LANDSCAPE AND ARCHITECTURAL LIGHTING





N.T.S.





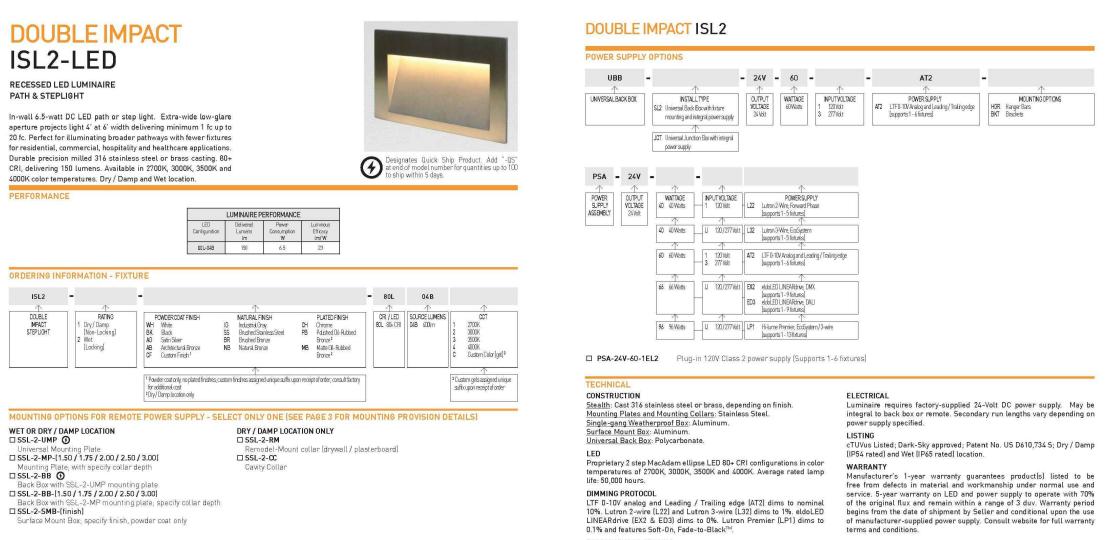
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As part of its policy of continuous research and product development, the company reserves the right to change or withdraw specifications without prior notice.

[PH] +1-210-227-7329 pg. 2

[FAX] +1-210-227-4967 luciferLighting.com ©2017 Lucifer Lighting Company

RECOMMENDED SPACING

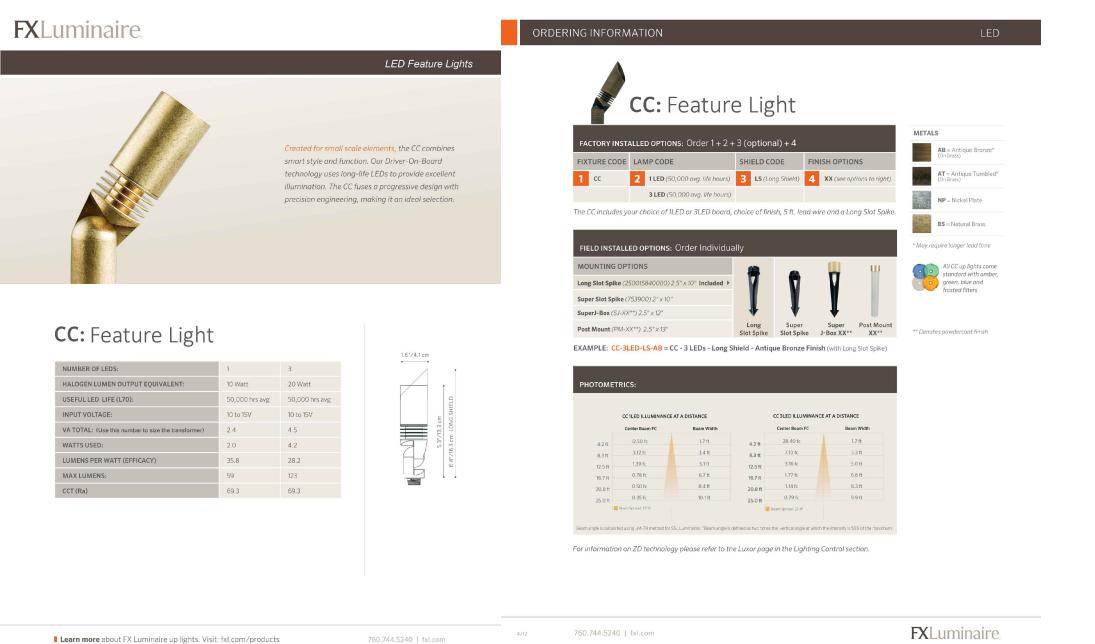
Optimum 18" (457mm) above walking surface; 60" (1524mm) on-center



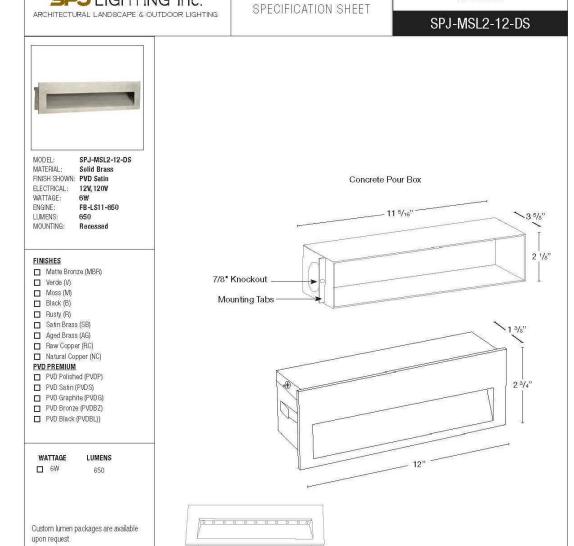
N.T.S.

WALL LIGHT AT DRIVEWAY LUCIFER

N.T.S.







SPJ LIGHTING Inc. Recessed COLOR TEMPERATURE □ 2200K □ 2700K □ 3000K ALTERNATE VIEW Custom options are available □ 12V □ 120V

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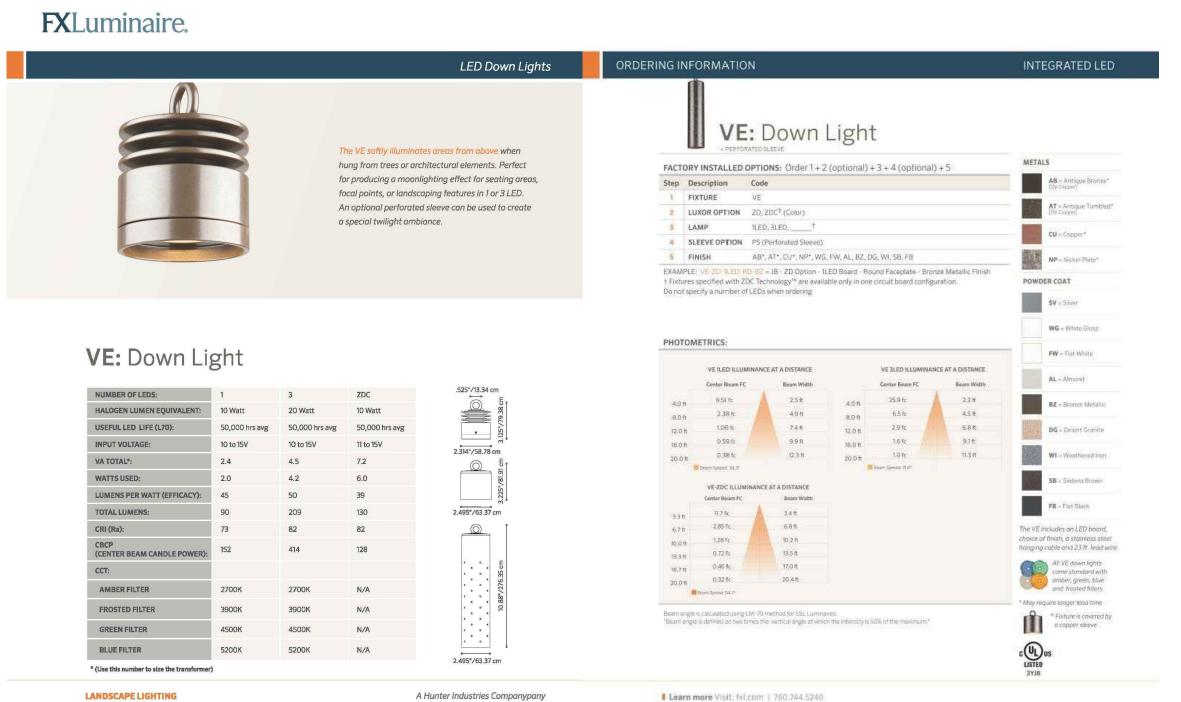
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SPJ-MSL2-12-DS-PVDS-6W-27K-12V







93 DRIV 6 SE

ISSUED FOR: CITY OF SANTA BARBARA DATE JULY 19, 2024 DESIGNED BY/DRAFTED B SAF / KLD SCALE 1" = 10' - 0" PROJECT NO. 23-310 DRAWING NO. SAF-02090

REVISIONS

N.T.S.

LIGHTING

DETAILS

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61 SA

PROJECT TEAM

MR. & MRS ARKLEY

PROJECT ADDRESS: 616 SEA RANCH DR. SANTA BARBARA, CA.

ASSESSOR PARCEL #: 047-104-002

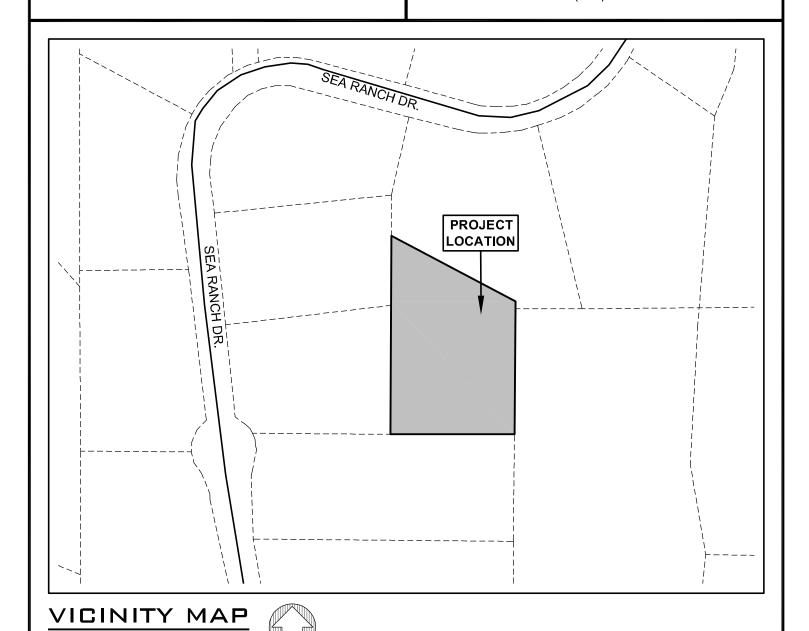
COUNTY ZONING: LOT SIZE: 1.11 ACRES

PROJECT TEAM

MR. & MRS ARKLEY 616 SEA RANCH RD. SANTA BARBARA, CA

> BRAUN & ASSOCIATES, INC. 92 2ND ST. UNIT F.

PH: (805) 688-6059



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IT SHOULD BE NOTED THAT IT IS THE RESPONSIBILITY OF THE OWNER OR HIS/HER REPRESENTATIVE TO NOTIFY BRAUN & ASSOCIATES, IN WRITING, A MINIMUM OF FORTY-EIGHT (48) HOURS BEFORE ANY EXCAVATIONS CAN COMMENCE AT THIS SITE.

THE RECOMMENDATIONS IN THESE PLANS ARE BASED UPON THE ASSUMPTION THAT THE SOIL CONDITIONS DO NOT DEVIATE FROM THOSE DISCLOSED IN THE GEOTECHNICAL INVESTIGATION. SHOULD ANY VARIATIONS OR UNDESIRABLE CONDITIONS BE ENCOUNTERED BRAUN & ASSOCIATES, INC., WILL PROVIDE SUPPLEMENTAL RECOMMENDATIONS AS DICTATED BY THE FIELD CONDITIONS.

IN THE EVENT THAT ANY SIGNIFICANT CHANGES IN DESIGN FLOW, MATERIALS, PARTS, OR EQUIPMENT USED IN THE CONSTRUCTION OR MAINTENANCE OF THE SEPTIC SYSTEM ARE PLANNED, THE CONCLUSIONS AND RECOMMENDATIONS CONTAINED IN THESE PLANS MAY NOT BE CONSIDERED VALID UNLESS THE CHANGES ARE REVIEWED AND CONCLUSIONS OF THESE PLANS ARE MODIFIED OR APPROVED BY BRAUN & ASSOCIATES, INC.

IT SHOULD BE NOTED THAT FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO

VARIATION IN RAINFALL, TEMPERATURE AND OTHER FACTORS NOT EVIDENT AT THE TIME MEASUREMENTS

WERE MADE AND REPORTED IN THE REFERENCED GEOTECHNICAL INVESTIGATION BY BRAUN & ASSOCIATES, INC. IF THE OWNER OR REVIEWING AGENCY IS AWARE OF GROUNDWATER CONDITIONS DIFFERENT THAN THOSE NOTED IN THE REFERENCED REPORT THEY SHOULD BE BROUGHT TO OUR ATTENTION SO MITIGATION CAN BE MADE. ALSO, IF SITE DRAINAGE IS DIRECTED TOWARDS THE SEPTIC SYSTEM, REDUCTION IN SYSTEM EFFICIENCY OR DAMAGE TO THE LEACH FIELD CAN OCCUR. BRAUN & ASSOCIATES, INC . ASSUMES NO RESPONSIBILITY FOR VARIATIONS WHICH MAY OCCUR ACROSS THE SITE. THIS REPORT IS ISSUED WITH THE UNDERSTANDING THAT IT IS THE RESPONSIBILITY OF THE OWNER OR HIS/HER REPRESENTATIVE TO ENSURE THAT THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR THE PROJECT, AND INCORPORATED

INTO THE PROJECT PLANS AND SPECIFICATIONS. THE OWNER OR HIS/HER REPRESENTATIVE IS RESPONSIBLE TO ENSURE THAT THE NECESSARY STEPS ARE TAKEN TO SEE THAT THE CONTRACTOR AND SUBCONTRACTORS CARRY OUT SUCH RECOMMENDATIONS IN THE FIELD. AS OF THE PRESENT DATE, THE FINDINGS OF THIS REPORT ARE VALID FOR THE PROPERTY STUDIED. WITH THE PASSAGE OF TIME, CHANGES IN THE CONDITIONS OF A PROPERTY CAN OCCUR WHETHER THEY ARE DUE TO NATURAL PROCESSES OR TO THE WORKS OF MAN ON THIS OR ADJACENT PROPERTIES.

LEGISLATION MAY RESULT IN CHANGES IN APPLICABLE STANDARDS. CHANGES OUTSIDE OF OUR

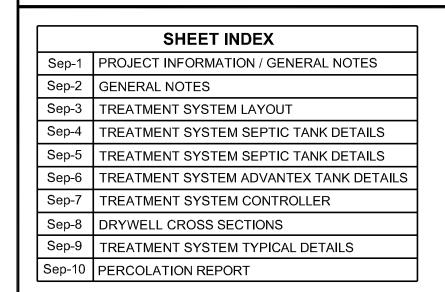
CONTROL MAY FIND THIS REPORT TO BE INVALID, WHOLLY OR PARTIALLY. THEREFORE, THIS REPORT

SHOULD NOT BE RELIED UPON AFTER A PERIOD OF ONE (1) YEARS WITHOUT OUR REVIEW NOR SHOULD IT

BE USED OR IS IT APPLICABLE FOR ANY PROPERTIES OTHER THAN THOSE STUDIED.

ENGINEER: BUELLTON, CA 93427 PH: (805) 688-5429 DRAFTSMAN: GAULD DRAFTING & DESIGN PO BOX 770 BUELLTON, CA 93427

ONSITE WASTEWATER TREATMENT SYSTEM **ARKLEY PROPERTY** 616 SEA RANCH DRIVE, SANTA BARBARA, CA.





SERVICE ALERT, 2 WORKING DAYS PRIOR TO

STARTING ANY EXCAVATION OR RESURFACING

GENERAL NOTES

- 1. THE CONTRACTOR ACKNOWLEDGES THAT HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING UPON ACCESS TO THE SITE; HANDLING, STORAGE, AND DISPOSAL OF MATERIALS; AVAILABILITY OF WATER, ELECTRICITY AND ROADS; UNCERTAINTIES OF WEATHER, RIVER STAGES, OR SIMILAR PHYSICAL CONDITIONS AT THE SITE; THE CONFORMATION AND CONDITIONS OF THE GROUND; THE EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE EXECUTION OF THE WORK; AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT.
- 2. THE CONTRACTOR FURTHER ACKNOWLEDGES THAT HE HAS SATISFIED HIMSELF AS TO THE CHARACTER, QUALITY AND QUANTITY OF SURFACE AND SUBSURFACE MATERIALS TO BE ENCOUNTERED FROM HIS INSPECTION OF THE SITE AND FROM REVIEWING ANY AVAILABLE RECORDS OF EXPLORATORY WORK FURNISHED BY THE OWNER OR INCLUDED IN THESE DOCUMENTS. FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE PHYSICAL CONDITIONS OF THE SITE AND ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.
- 3. THE CONTRACTOR WARRANTS THAT AS A RESULT OF HIS EXAMINATION AND INVESTIGATION OF ALL THE AFORESAID DATA THAT HE CAN PERFORM THE WORK IN A GOOD AND WORKMANLIKE MANNER AND TO THE SATISFACTION OF THE OWNER. THE OWNER ASSUMES NO RESPONSIBILITY FOR ANY REPRESENTATIONS MADE BY ANY OF ITS OFFICERS OR AGENTS DURING OR PRIOR TO THE EXECUTION OF THIS ONSITE WASTE WATER SYSTEM INSTALLATION, UNLESS (1) SUCH REPRESENTATIONS ARE EXPRESSLY STATED IN THE CONTRACT, AND (2) THE CONTRACT EXPRESSLY PROVIDES THAT THE RESPONSIBILITY THEREFORE IS ASSUMED BY THE OWNER.
- 4. ANY INFORMATION OBTAINED BY THE ENGINEER REGARDING SITE CONDITIONS, SUBSURFACE INFORMATION, GROUNDWATER ELEVATIONS, EXISTING CONSTRUCTION OF SITE FACILITIES, AND SIMILAR DATA IS OFFERED AS SUPPLEMENTARY INFORMATION ONLY. NEITHER THE ENGINEER NOR THE OWNER ASSUMES ANY RESPONSIBILITY FOR THE COMPLETENESS OR INTERPRETATION OF SUCH SUPPLEMENTARY INFORMATION.
- 5. THESE PLANS ARE A PART OF A SET OF CONTRACT DOCUMENTS AND SHALL NOT BE CONSIDERED THE SOLE SOURCE OF CONSTRUCTION INFORMATION. ALL CONSTRUCTION WORK AND INSTALLATIONS SHALL CONFORM TO THE PROVIDED STANDARDS AND SPECIFICATIONS NOTED ON THESE PLANS AND THE CONTRACT DOCUMENTS. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY OF
- 6. THE CONTRACTOR SHALL NOT START CONSTRUCTION WITHOUT PLANS APPROVED BY THE COUNTY OF SANTA BARBARA. THE COUNTY OF SANTA BARBARA, AND THE ENGINEER OF RECORD SHALL BE NOTIFIED A MINIMUM OF TWENTY-FOUR (24) HOURS PRIOR TO THE START OF CONSTRUCTION. ANY CONSTRUCTION COMPLETED WITHOUT THE APPROVED PLANS OR PRIOR NOTIFICATION TO THE COUNTY OR ENGINEER MAY BE REJECTED AND WILL BE AT THE CONTRACTORS AND/OR OWNERS OWN
- 7. SEWAGE DISPOSAL SYSTEM SETBACKS SHEET BE PER CPC TABLE 'H101.8'

TANK NOTES:

- CONCRETE TANK MANUFACTURER AND WASTEWATER TREATMENT SYSTEM MANUFACTURER SHALL COORDINATE TO DETERMINE TANK PENETRATIONS, BRACKETS, AND OTHER APPURTENANCES PRIOR TO FINAL TANK CONSTRUCTION AND IN ACCORDANCE WITH SPECIFICATIONS.
- 2. TANKS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND CERTIFIED BY MANUFACTURER AND/OR CONTRACTOR IN ACCORDANCE WITH SPECIFICATIONS.
- TANKS SUBJECTED TO TRAFFIC LOADS (H-20 LOADS) MUST HAVE A COVER DEPTH OF AT LEAST 18 INCHES OF BACKFILL (36 INCHES FOR 12-FOOT TANKS) PLUS 6 INCHES OF REINFORCED CONCRETE OR
- 4. TANKS SUBJECTED TO TRAFFIC LOADS MUST HAVE A COVER DEPTH OF AT LEAST 24 INCHES OF BACKFILL (48 INCHES FOR 12-FOOT TANKS) OR 12 INCHES OF BACKFILL (36 INCHES FOR 12-FOOT TANKS) PLUS 4 INCHES OF REINFORCED CONCRETE OR 6 INCHES OF ASPHALT
- THE MAXIMUM BURIAL DEPTH IS 7 FEET OF COVER OVER THE TOP OF THE TANK. DEVIATION FROM THIS MAY BE PERMISSIBLE WITH PRIOR WRITTEN AUTHORIZATION FROM MID-STATE CONCRETE.
- ASPHALT AND CONCRETE PADS MUST EXTEND A MINIMUM OF 12 INCHES BEYOND THE TANK IN ALL
- . IF THERE IS AN UNATTACHED RISER OVER AN ACCESS OPENING, IT MUST NOT TRANSMIT LOAD FROM THE ASPHALT OR CONCRETE SLAB TO THE TANK. A MINIMUM SPACE OF 6 INCHES MUST EXIST BETWEEN THE BOTTOM OF THE RISER AND THE TOP OF THE TANK.
- 8. IF THERE IS AN ATTACHED RISER ON AN ACCESS OPENING, IT MUST NOT TRANSMIT LOAD FROM THE ASPHALT OR CONCRETE SLAB TO THE TANK. A MINIMUM SPACE OF 3 INCHES MUST EXIST BETWEEN THE RISER OR SUMP AND THE SLAB.
- 9. IF THE SOIL HAS LESS THAN 750 LBS/SQFT COHESION AS CALCULATED FROM AN UNCONFINED COMPRESSION TEST, OR IN SOILS HAVING AN ULTIMATE BEARING CAPACITY OF LESS THAN 3,500 LBS/SQ FT, OR WHERE SOIL WILL NOT MAINTAIN A VERTICAL WALL, THE EXCAVATION MUST ALLOW A MINIMUM SPACE EQUAL TO HALF THE DIAMETER OF THE TANK BETWEEN THE SIDE AND THE END CAP OF THE TANK AND THE EXCAVATION WALL, TO ENHANCE LATERAL RESISTANCE.
- 10. A REINFORCED CONCRETE SLAB MAY BE REQUIRED UNDER THE TANK AS A FOUNDATION IN THE EXCAVATION WHERE THE BOTTOM IS UNSTABLE.
- 11. TANKS SHALL BE ANCHORED IN INSTALLATIONS IN WHICH THE TANK COULD BE EXPOSED TO WATER. SITES SHALL BE THOROUGHLY EVALUATED FOR THE POTENTIAL OF A RISE IN THE LOCAL WATER TABLE OR OF TRAPPED WATER. CONTRACTOR SHALL PROVIDE EVALUATION TO ENGINEER FOR
- 12. AN AUTHORIZED ADVANTEX INSTALLER SHALL BE USED FOR INSTALLATION & MAINTENANCE OF THIS SYSTEM PER LOCAL AND STATE REQUIREMENTS.

UNDERGROUND UTILITIES

- . GENERAL THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND/OR UTILITY DISTRICTS AS TO LOCATION AND/OR RELOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT [USA]. TELEPHONE 1-800-642-2444 OR 811, A MINIMUM OF THREE (3) DAYS PRIOR TO ANY EXCAVATION.
- 2. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. THE CONTRACTOR IS CAUTIONED THAT ONLY EXCAVATION WILL REVEAL THE TYPES. EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. HOWEVER, THE OWNER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES, OR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH ARE NOT SHOWN ON THESE DRAWINGS.
- 3. THE CONTRACTOR IS HEREBY NOTIFIED THAT, PRIOR TO COMMENCING CONSTRUCTION, HE IS RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES INVOLVED, AND REQUESTING A VISUAL VERIFICATION OF THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. WHERE SUCH FACILITIES MAY POSSIBLY CONFLICT WITH THE PLACEMENT OF IMPROVEMENTS AS SHOWN ON THESE IMPROVEMENT PLANS, THE CONTRACTOR SHALL BE NOTIFIED BY THE ENGINEER OF THE SCHEDULED TIME AND PLACE OF SUCH VISUAL VERIFICATION TO ENABLE THE ENGINEER TO HAVE A REPRESENTATIVE PRESENT. SHOULD A CONFLICT BECOME APPARENT, THE ENGINEER WILL CONTACT THE PARTIES RESPONSIBLE FOR THE RELOCATION OF THE CONFLICTING FACILITY.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND OR ABOVE GROUND UTILITIES WHICH MAY BE INCURRED AS A RESULT OF ANY WORK PERFORMED BY HIM UNDER THIS CONTRACT, REGARDLESS OF THE FACT THAT THE UTILITIES EXISTENCE WAS KNOWN AND UNKNOWN.
- 5. SHOULD DRAWN, OR INCORRECTLY DRAWN PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL ADVISE THE ENGINEER WITHIN THIRTY (30) MINUTES OF ENCOUNTERING THE UTILITY. THE CONTRACTOR SHALL COOPERATE THE WITH ENGINEER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION TO THE SATISFACTION OF THE RESPECTIVE OWNERS. THE OWNERS RESERVE THE RIGHT TO PERFORM ANY AND ALL WORK REQUIRED SHOULD THE CONTRACTOR FAIL TO COOPERATE WITH THE RESPECTIVE COMPANIES. AND BACK CHARGE THE CONTRACTOR FOR ANY AND ALL EXPENSES.

APWA - UT	ILITY COLORS
RED = ELECTRIC	BLUE = WATER
YELLOW = GAS	GREEN = SEWER
ORANGE = CABLE TV	PURPLE = RECLAIMED WATER

	COMMON MARK	ING IDENTIFIERS
	E = ELECTRIC	G = GAS
	SD = STORM DRAIN	S = SEWER
!	SL = STREET LIGHT	TEL = TELEPHONE
	TS = TRAFFIC SIGNAL	TV = TELEVISION
	W = WATER	USA = UNDERGROUND SERVICE ALERT

EFFLUENT FILTER REQUIREMENTS

- 1. AS PER THE COUNTY OF SANTA BARBARA ALL EFFLUENT DISCHARGE FROM THE SEPTIC TANK SHALL BE DIRECTED THROUGH AN EFFLUENT FILTER. THE EFFLUENT FILTER SHALL HAVE A PRIMARY FILTRATION OF ONE SIXTEENTH ($\frac{1}{8}$) OF AN INCH.
- 2. THE EFFLUENT FILTER SHALL BE PLACED IN THE OUTLET TEE OF THE SEPTIC TANK FOR ADDITIONAL FILTRATION OF THE WASTE WATER
- 3. A REPRESENTATIVE OF BRAUN & ASSOCIATES, INC. MUST VERIFY THAT THE EFFLUENT FILTER HAS BEEN INSTALLED PER THE MANUFACTORY SPECIFICATIONS.

SEPTIC TANK INSTALLATION

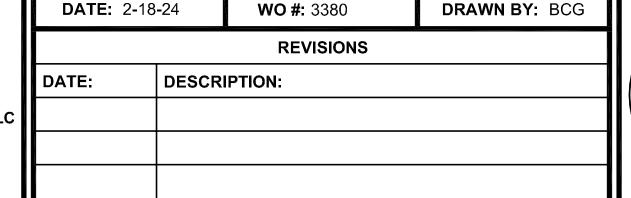
- ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA EXCAVATION REQUIREMENTS AND SAFE CONSTRUCTION PRACTICES.
- THE SEPTIC TANK EXCAVATION SHALL BE KEPT AS SHALLOW AS POSSIBLE TO MINIMIZE SOIL PRESSURE AND POTENTIAL GROUNDWATER INFILTRATION, AND (WHERE SITE CONDITIONS OR REGULATIONS DICTATE) TO KEEP THE SOIL TREATMENT SYSTEM (DISPOSAL FIELD) AS SHALLOW AS POSSIBLE. THE SEPTIC TANK DEPTH SHALL BE DICTATED BY INLET LINE FROM THE RESIDENCE TO THE SEPTIC TANK (MINIMUM SLOPE SET AT ONE (1) TO TWO (2) PERCENT FLOWING TO THE TANK).
- PRIOR TO PLACING THE PRECAST CONCRETE STRUCTURE INTO THE EXCAVATION, THE CONTRACTOR SHALL PROVIDE COMPACTION OF THE UNDERLYING SOILS TO NOT LESS THAN NINETY (90) PERCENT OF THE MAXIMUM DENSITY RELATIONSHIP DETERMINED IN ACCORDANCE WITH ASTM D-1557. THE UNDERLYING SOILS SHALL BE WITHIN TWO (2) PERCENT OF THE OPTIMUM MOISTURE CONTENT AS
- AFTER BRAUN & ASSOCIATES, INC APPROVAL OF THE SEPTIC TANK EXCAVATION THE CONTRACTOR CRUSHED STONE ABOVE THE FABRIC LAYER AT THE BOTTOM OF THE EXCAVATION TO MINIMIZE LATER SETTLING OF THE SEPTIC TANK. THE AGGREGATE SIZE SHOULD NOT EXCEED A THREE QUARTERS (%) OF AN INCH DIAMETER. THE BASE MATERIAL SHALL BE LEVEL AND COMPACTED TO THE PROPER ELEVATION IN CONJUNCTION WITH THE INLET AND OUTLET FLOW LINES SHOWN ON THE PROJECT
- ELEVATION AND LEVELNESS OF THE BOTTOM OF THE MANHOLE AND ORIENTATION OF THE OUTLETS SHALL BE VERIFIED. BACKFILL OPERATIONS MAY BE UNDERTAKEN AFTER THE WATER-TIGHTNESS TESTING HAS BEEN COMPLETED. BACKFILL MATERIAL SHOULD CONSIST OF GRANULAR MATERIAL FREE OF LARGE STONES, ROCKS, PAVEMENT, ETC. EXPANSIVE SOILS SHALL NOT BE USED AS BACKFILL AROUND THE STRUCTURE
- THE SEPTIC TANK SHALL BE BACKFILLED WITH SUCCESSIVE TAMPED "LIFTS" OR DEPTH INCREMENTS OF UNIFORM GRADATION WITH NO DELETERIOUS MATERIAL OR STONES LARGER THAN TWO (2) INCHES IN DIAMETER. CRUSHED ROCK OR PEA GRAVEL OF AN HALF (%) OF AN INCH DIAMETER IS PREFERRED IF THE NATIVE MATERIALS ARE NOT APPROPRIATE. EACH LAYER (LIFT) SHOULD BE UNIFORMED AND
- THE CONTRACTOR SHALL PROVIDE COMPACTION OF THE BACKFILLED SOILS TO NOT LESS THAN NINETY (90) PERCENT OF THE MAXIMUM DENSITY RELATIONSHIP DETERMINED IN ACCORDANCE WITH ASTM D-1557.
- WHEN A PRECAST CONCRETE SEPTIC TANK IS PLACED IN AN UNPAVED AREA. THE AREA AROUND THE ENTRANCE FRAME AND COVER SHOULD BE SLOPED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE AREA. BACKFILLING SHALL BE ACHIEVED BY USING LIFTS. RESTORATION OF THE AREA WHERE THE PRECAST CONCRETE SEPTIC TANK WAS INSTALLED SHALL MEET THE REQUIREMENTS OF THE LOCAL GRANTING AUTHORITY OR THE PROPERTY OWNER. PRIOR TO BACKFILLING A SEVENTY-TWO (72) HOUR TIME PERIOD MUST BE ALLOWED FOR THE PROPER CURING OF THE EPOXY SEAL AND TO PREVENT DAMAGE TO THE SEAL.
- 9. THE SEPTIC TANK SHALL HAVE AT LEAST TWO (2) TWENTY-FOUR (24) INCH DIAMETER ACCESS RISER WITH A REMOVABLE LID SET TO GRADE FOR ACCESS AND INSPECTION. THE DIAMETER OF THE RISER SHALL BE INCREASED DEPENDING ON THE DEPTH OF THE TANK TO FACILITATE ACCESS TO THE TANK. SEPTIC TANKS WITH PUMP CHAMBERS SHALL HAVE THE ACCESS RISER INSTALLED WHERE THE PUMP ASSEMBLY IS LOCATED. RISERS AND LIDS SHALL BE CONSTRUCTED OF EITHER CONCRETE FIBERGLASS, OR PVC. THE LIDS SHALL HAVE A GAS PROOF AND WATERTIGHT SEAL. RISERS SHALL BE PERMANENTLY ATTACHED TO THE TANK BY EPOXY OR A BITUMINOUS MASTIC COMPOUND. RISERS SHALL NOT BE ATTACHED TO THE TANK LID WITH CEMENT OR MORTAR PRODUCTS. A NO-SHRINK CEMENT GROUT SHALL BE APPLIED AS AN ADDITIONAL COATING OF SEALANT AT THE JOINTS AFTER THE RISER IS INSTALLED WITH EPOXY OR BITUMINOUS MASTIC OR OTHER APPROPRIATE SEALANTS.
- 0. THE ACCESS RISERS SHALL BE EXTENDED AN MINIMUM OF TWO (2) INCHES ABOVE THE GROUND SURFACE TO ALLOW FOR SETTLEMENT. ACCESS RISERS SHALL BE EQUIPPED WITH TAMPER PROOF COVERS THAT REQUIRE THE USE OF ENTRY TOOLS. ACCESS RISERS AT OR ABOVE THE GROUND SURFACE IN AREAS ACCESSIBLE TO THE PUBLIC SHALL BE LOCKED TO PREVENT UNAUTHORIZED ACCESS AND ENTRY.
- 11. A WATER-TIGHTNESS TEST IS REQUIRED FOR THE SEPTIC TANK BEFORE THE START OF BACKFILLING OPERATIONS. THE SEPTIC TANK SHALL BE FILLED WITH WATER AT A RATE AS APPROVED BY THE ENGINEER TO AT LEAST SIX (6) INCHES BELOW THE TOP OF THE TANK. THE WATER-TIGHTNESS TEST SHALL COMMENCE FIVE (5) DAYS AFTER THE TANK IS FILLED; THE WATER-TIGHTNESS TEST SHALL THEN BE PERFORMED FOR A PERIOD OF FORTY-EIGHT (48) HOURS. THE MAXIMUM ACCEPTABLE LOSS OF WATER DURING THE FORTY-EIGHT (48) HOUR TIME PERIOD SHALL BE FOUR HUNDREDTHS (.04) OF ONE (1) PERCENT. THIS LOSS OF WATER SHALL BE DETERMINED BY MEASURING THE DROP IN THE WATER SURFACE OVER THE TEST PERIOD.

MAINTENANCE REQUIREMENTS

- THE OWNER'S RESPONSIBILITY FOR THE ONSITE WASTE WATER TREATMENT AND DISPOSAL SYSTEM DOES NOT END WHEN THE BACKFILL HAS BEEN PLACED OVER THE SYSTEM. MAINTENANCE OF THE SYSTEM IS A CRITICAL FACTOR TO ENSURE LONGEVITY AND CONTINUED EFFECTIVENESS OF THE SYSTEM. THE OWNERS SHALL BE RESPONSIBLE FOR THE FOLLOWING:
- . MAINTAIN THE SYSTEM TO PREVENT SURFACING OF EFFLUENT. IN THE EVENT OF SURFACING EFFLUENT, THE OWNER SHALL MINIMIZE USE OR CEASE OPERATION OF THE SYSTEM UNTIL IT IS REPAIRED. UNTIL THE SYSTEM IS REPAIRED, THE OWNER SHALL PREVENT EFFLUENT FROM SURFACING BY HAVING THE SYSTEM CONTINUOUSLY PUMPED AND THE WASTE DISPOSED OF AT AN APPROVED SEEPAGE HANDLING FACILITY UNTIL THE SYSTEM IS REPAIRED.
- 2. OWNERS SHALL PRESERVE AND PROTECT THEIR ONSITE WASTEWATER TREATMENT SYSTEM. OWNERS SHALL NOT PLACE BUILDINGS, LIVESTOCK, IMPERVIOUS MATERIALS, EQUIPMENT PARKING AREAS, OR DRIVEWAYS OVER THE TREATMENT OR DISPOSAL AREAS. SURFACE AND SUBSURFACE SOILS IN THE TREATMENT AREAS SHALL NOT BE REMOVED, RIPPED, CONTOURED OR COMPACTED. THE TREATMENT AREAS MAY BE TILLED WITH A LIGHT DUTY, HAND OPERATED GARDEN TILLER, HAND GRADED AND COVERED WITH LAWN OR NON INVASIVE PLANTS. THE TREATMENT AREAS MAY BE IRRIGATED WITH PORTABLE SPRINKLERS OR LANDSCAPE IRRIGATION. FLOOD IRRIGATION AND SURFACE DRAINAGE SHALL NOT ENCROACH ON OR IMPACT THE SEPTIC TANK, TREATMENT AREAS OR OTHER COMPONENTS OF THE SYSTEM. BUILDING FOUNDATION AND ROOF DRAINS SHALL BE LOCATED A SAFE DISTANCE AND DIRECTED AWAY FROM THE TREATMENT AREAS.
- . THE OWNER SHALL CONTROL THE WASTEWATER DISCHARGE TO THE SYSTEM WITHIN THE DESIGN QUANTITY AND STRENGTH PARAMETERS. THE OWNER SHALL NOT INTRODUCE STRONG BASES, ACIDS, CHLORINE, FORMALDEHYDE, THINNERS, SOLVENTS OR OTHER ATYPICAL WASTEWATER COMPONENTS CONTAINED IN MILD CLEANSERS AND CHEMICALS USED IN NORMAL CLEANING. THE OWNER SHOULD REFRAIN FROM USING SEPTIC TANK ADDITIVES AND SOIL AMENDERS WITHOUT FIRST CONSULTING WITH THE SYSTEM DESIGNER.
- 4. THE OWNER SHALL OPERATE AND MAINTAIN THEIR SYSTEM IN CONFORMANCE WITH THE CONDITIONS PRESCRIBED IN THE DESIGNERS AND INSTALLER'S RECOMMENDATIONS.
- 5. WATER CONSERVATION AND SOLIDS REDUCTION PRACTICES ARE RECOMMENDED. GARBAGE GRINDERS SHOULD NOT BE USED IN BUILDINGS WITH SEPTIC TANKS.
- $6.\ \mathsf{GREASE}\ \mathsf{AND}\ \mathsf{OIL}\ \mathsf{SHOULD}\ \mathsf{NOT}\ \mathsf{BE}\ \mathsf{INTRODUCED}\ \mathsf{INTO}\ \mathsf{THE}\ \mathsf{SYSTEM}.\ \ \mathsf{BLEACH},\ \mathsf{SOLVENTS},\ \mathsf{FUNGICIDES},$ AND ANY OTHER TOXIC MATERIAL SHOULD NOT BE POURED INTO THE SYSTEM.
- REVERSE OSMOSIS UNIT BLOW-DOWN SHOULD NOT BE DISCHARGED TO THE SYSTEMS.
- 8. AN AUTHORIZED ADVANTEX SERVICE PROVIDER SHALL BE HIRED TO MAINTAIN THE SYSTEM. THE SERVICE PROVIDER SHALL BE APPROVED BY THE MANUFACTURE PER LOCAL AND STATE REQUIREMENTS.



Gauld Drafting & Design, LLC PO Box 770 Buellton, Ca. 93427 Ph: 805-688-6059 Email: Brett@GauldDesigns.com





92 Second Street, Suite F Buellton, CA 93427 Phone: (805) 688-5429 Fax: (805) 688-7239

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Onsite Wastewater Treatment System 616 Sea Ranch Dr. Santa Barbara, Ca. **Project Information / General Notes**

SHEET#

CIVIL DESIGN

LOCATION C 2022 CALIFORNIA PLUMBING CODE, APF	OF SEWAGE DISPO PENDIX H (TABLE H		WTS POLICY	7.5 AND 7.6
MINIMUM HORIZONTAL DISTANCE	BUILDING SEWER	SEPTIC TANK	DISPOSAL FIELD	SEEPAGE PIT (DRYWELL)
BUILDING OR STRUCTURES ¹	2 FEET	5 FEET	8 FEET	8 FEET
PROPERTY LINE ADJOINING PRIVATE PROPERTY	CLEAR ²	5 FEET	5 FEET	8 FEET
PRIVATE WATER SUPPLY WELLS	50 FEET ³	100 FEET	100 FEET	150 FEET
PUBLIC WATER SUPPLY WELLS	50 FEET ³	100 FEET	150 FEET	SEE CA OWTS 9.4.10
STREAMS & OTHER BODIES OF WATER	-	100 FEET ⁷	100 FEET ⁷	150 FEET ⁷
UPSTREAM OF SURFACE WATER INTAKE	-	WIT	A OWTS POLION TO THE POLION THE POLION TO TH	T - 7.5.7, 7.6
TREES ⁹	-	10 FEET - 10 FEET		
SEEPAGE PITS ⁸	-	5 FEET	5 FEET	12 FEET
DISPOSAL FIELD ⁸	-	5 FEET	4 FEET ⁴	5 FEET
ON-SITE DOMESTIC WATER SERVICE LINE	1 FOOT⁵	5 FEET	5 FEET	5 FEET
DISTRIBUTION BOX	-	-	5 FEET	5 FEET
PRESSURE PUBLIC WATER MAIN ⁶	10 FEET ⁶ HORIZ. & 1 FOOT VERT.	10 FEET	10 FEET	10 FEET

- 1. INCLUDING PORCHES AND STEPS, WHETHER COVERED OR UNCOVERED, BREEZEWAYS. ROOFED PORTE COCHERES, ROOFED PATIOS.
- CARPORTS, COVERED WALKS, COVERED DRIVEWAYS, AND SIMILAR STRUCTURES OR APPURTENANCES.
- 3. DRAINAGE PIPING SHALL CLEAR DOMESTIC WATER SUPPLY WELLS BY NOT LESS THAN 50 FEET. THIS DISTANCE SHALL BE PERMITTED TO BE REDUCED TO NOT LESS THAN 25 FEET WHERE THE DRAINAGE PIPING IS CONSTRUCTED OF MATERIALS APPROVED FOR USE
- 4. PLUS 2 FEET FOR EACH ADDITIONAL 1 FOOT OF DEPTH IN EXCESS OF 1 FOOT BELOW THE BOTTOM OF THE DRAIN LINE.
- (SEE SECTION H 601.0) 5. SEE SECTION 720.0.
- 6. FOR PARALLEL CONSTRUCTION FOR CROSSINGS, APPROVAL BY THE HEALTH DEPARTMENT SHALL BE REQUIRED.
- 22 CCR 64572(F) 7. THESE MINIMUM CLEAR HORIZONTAL DISTANCES SHALL ALSO APPLY BETWEEN DISPOSAL FIELDS, SEEPAGE PITS, AND THE MEAN
- HIGH-TIDE LINE. 8. WHERE DISPOSAL FIELDS, SEEPAGE PITS, OR BOTH ARE INSTALLED IN SLOPING GROUND, THE MINIMUM HORIZONTAL DISTANCE
- BETWEEN ANY PART OF THE LEACHING SYSTEM AND GROUND SURFACE SHALL BE 15 FEET. 9. CONSULT ARTICLE IX OF CHAPTER 35 SANTA BARBARA COUNTY CODE, IF DECIDUOUS OAK TREES ARE PRESENT.

- CA OWTS POLICY
 - 7.5 MINIMUM HORIZONTAL SETBACKS FROM ANY OWTS TREATMENT COMPONENT AND DISPERSAL SYSTEMS SHALL BE AS FOLLOWS:
 - 7.5.1 5 FEET FROM PARCEL PROPERTY LINES AND STRUCTURES;
 - 7.5.2 100 FEET FROM WATER WELLS AND MONITORING WELLS, UNLESS REGULATORY OR LEGITIMATE DATA REQUIREMENTS NECESSITATE THAT MONITORING WELLS BE LOCATED CLOSER;
 - 7.5.3 100 FEET FROM ANY UNSTABLE LAND MASS OR ANY AREAS SUBJECT TO EARTH SLIDES IDENTIFIED BY A REGISTERED ENGINEER OR REGISTERED GEOLOGIST; OTHER SETBACK DISTANCE ARE ALLOWED, IF RECOMMENDED BY A GEOTECHNICAL REPORT PREPARED BY A QUALIFIED PROFESSIONAL.
 - 7.5.4 100 FEET FROM SPRINGS AND FLOWING SURFACE WATER BODIES WHERE THE EDGE OF THAT WATER BODY IS THE NATURAL OR LEVIED BANK FOR CREEKS AND RIVERS. OR MAY BE LESS WHERE SITE CONDITIONS PREVENT MIGRATION OF WASTEWATER TO THE WATER BODY;
 - 7.5.5 200 FEET FROM VERNAL POOLS, WETLANDS, LAKES, PONDS, OR OTHER SURFACE WATER BODIES WHERE THE EDGE OF THAT WATER BODY IS THE HIGH WATER MARK FOR LAKES AND RESERVOIRS, AND THE MEAN HIGH TIDE LINE FOR TIDALLY INFLUENCED WATER BODIES;
 - 7.5.6 150 FEET FROM A PUBLIC WATER WELL WHERE THE DEPTH OF THE EFFLUENT DISPERSAL SYSTEM DOES NOT EXCEED 10 FEET;
 - 7.5.7 WHERE THE EFFLUENT DISPERSAL SYSTEM IS WITHIN 1,200 FEET FROM A PUBLIC WATER SYSTEMS' SURFACE WATER INTAKE POINT, WITHIN THE CATCHMENT OF THE DRAINAGE, AND LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT THE INTAKE POINT SUCH AS UPSTREAM OF THE INTAKE POINT FOR FLOWING WATER BODIES, THE DISPERSAL SYSTEM SHALL BE NO LESS THAN 400 FEET FROM THE HIGH WATER MARK OF THE RESERVOIR, LAKE OR FLOWING WATER BODY.
 - 7.5.8 WHERE THE EFFLUENT DISPERSAL SYSTEM IS LOCATED MORE THAN 1,200 FEET BUT LESS THAN 2,500 FEET FROM A PUBLIC WATER SYSTEMS' SURFACE WATER INTAKE POINT, WITHIN THE CATCHMENT OF THE DRAINAGE, AND LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT THE INTAKE POINT SUCH AS UPSTREAM OF THE INTAKE POINT FOR FLOWING WATER BODIES, THE DISPERSAL SYSTEM SHALL BE NO LESS THAN 200 FEET FROM THE HIGH WATER MARK OF THE RESERVOIR, LAKE OR FLOWING WATER BODY.
 - 7.6 PRIOR TO ISSUING A PERMIT TO INSTALL AN OWTS THE PERMITTING AGENCY SHALL DETERMINE IF THE OWTS IS WITHIN 1,200 FEET OF AN INTAKE POINT FOR A SURFACE WATER TREATMENT PLANT FOR DRINKING WATER, IS IN THE DRAINAGE CATCHMENT IN WHICH THE INTAKE POINT IS LOCATED, AND LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT THE INTAKE POINT SUCH AS BEING UPSTREAM OF THE INTAKE POINT FOR A FLOWING WATER BODY. IF THE OWTS IS WITHIN 1,200 FEET OF AN INTAKE POINT FOR A SURFACE WATER TREATMENT PLANT FOR DRINKING WATER, IS IN THE DRAINAGE CATCHMENT IN WHICH THE INTAKE POINT IS LOCATED, AND IS LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT THE INTAKE POINT:
 - 7.6.1 THE PERMITTING AGENCY SHALL PROVIDE A COPY OF THE PERMIT APPLICATION TO THE OWNER OF THE WATER SYSTEM OF THEIR PROPOSAL TO INSTALL AN OWTS WITHIN 1,200 FEET OF AN INTAKE POINT FOR A SURFACE WATER TREATMENT. IF THE OWNER OF THE WATER SYSTEM CANNOT BE IDENTIFIED, THEN THE PERMITTING AGENCY WILL NOTIFY CALIFORNIA DEPARTMENT OF PUBLIC HEALTH DRINKING WATER PROGRAM.
 - 7.6.2 THE PERMIT APPLICATION SHALL INCLUDE A TOPOGRAPHICAL PLOT PLAN FOR THE PARCEL SHOWING THE OWTS COMPONENTS, THE PROPERTY BOUNDARIES, PROPOSED STRUCTURES, PHYSICAL ADDRESS, AND NAME OF PROPERTY OWNER.
 - 7.6.3 THE PERMIT APPLICATION SHALL PROVIDE THE ESTIMATED WASTEWATER FLOWS, INTENDED USE OF PROPOSED STRUCTURE GENERATING THE WASTEWATER, SOIL DATA, AND ESTIMATED DEPTH TO SEASONALLY SATURATED SOILS.
 - 7.6.4 THE PUBLIC WATER SYSTEM OWNER SHALL HAVE 15 DAYS FROM RECEIPT OF THE PERMIT APPLICATION TO PROVIDE RECOMMENDATIONS AND COMMENTS TO THE PERMITTING AGENCY.
 - **9.4** THE FOLLOWING ARE NOT ALLOWED TO BE AUTHORIZED IN A LOCAL AGENCY MANAGEMENT PROGRAM: 9.4.10 EXCEPT AS PROVIDED FOR IN SECTIONS 9.4.11 AND 9.4.12, NEW OR REPLACEMENT OWTS WITH
 - MINIMUM HORIZONTAL SETBACKS LESS THAN ANY OF THE FOLLOWING:
 - 9.4.10.1 150 FEET FROM A PUBLIC WATER WELL WHERE THE DEPTH OF THE EFFLUENT DISPERSAL SYSTEM DOES NOT EXCEED 10 FEET IN DEPTH.
 - 9.4.10.2 200 FEET FROM A PUBLIC WATER WELL WHERE THE DEPTH OF THE EFFLUENT DISPERSAL SYSTEM EXCEEDS 10 FEET IN DEPTH. 9.4.10.3 WHERE THE EFFLUENT DISPERSAL SYSTEM IS WITHIN 600 FEET OF A PUBLIC WATER WELL AND
 - EXCEEDS 20 FEET IN DEPTH THE HORIZONTAL SETBACK REQUIRED TO ACHIEVE A TWO-YEAR TRAVEL TIME FOR MICROBIOLOGICAL CONTAMINANTS SHALL BE EVALUATED. A QUALIFIED PROFESSIONAL SHALL CONDUCT THIS EVALUATION. HOWEVER IN NO CASE SHALL THE SETBACK BE LESS THAN 200 9.4.10.4 WHERE THE EFFLUENT DISPERSAL SYSTEM IS WITHIN 1,200 FEET FROM A PUBLIC WATER
 - POINT FOR FLOWING WATER BODIES, THE DISPERSAL SYSTEM SHALL BE NO LESS THAN 400 FEET FROM THE HIGH WATER MARK OF THE RESERVOIR, LAKE OR FLOWING WATER BODY. 9.4.10.5 WHERE THE EFFLUENT DISPERSAL SYSTEM IS LOCATED MORE THAN 1,200 FEET BUT LESS THAN 2,500 FEET FROM A PUBLIC WATER SYSTEMS' SURFACE WATER INTAKE POINT, WITHIN THE CATCHMENT AREA OF THE DRAINAGE, AND LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT

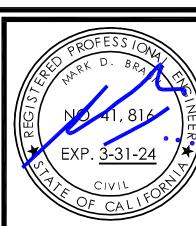
THE INTAKE POINT SUCH AS UPSTREAM OF THE INTAKE POINT FOR FLOWING WATER BODIES, THE DISPERSAL SYSTEM SHALL BE NO LESS THAN 200 FEET FROM THE HIGH WATER MARK OF THE

SYSTEMS' SURFACE WATER INTAKE POINT, WITHIN THE CATCHMENT OF THE DRAINAGE, AND LOCATED SUCH THAT IT MAY IMPACT WATER QUALITY AT THE INTAKE POINT SUCH AS UPSTREAM OF THE INTAKE

- RESERVOIR. LAKE OR FLOWING WATER BODY. 9.4.11 FOR REPLACEMENT OWTS THAT DO NOT MEET THE ABOVE HORIZONTAL SEPARATION REQUIREMENTS, THE REPLACEMENT OWTS SHALL MEET THE HORIZONTAL SEPARATION TO THE GREATEST EXTENT PRACTICABLE. IN SUCH CASE, THE REPLACEMENT OWTS SHALL UTILIZE SUPPLEMENTAL TREATMENT AND OTHER MITIGATION MEASURES, UNLESS THE PERMITTING AUTHORITY FINDS THAT THERE IS NO INDICATION THAT THE PREVIOUS SYSTEM IS ADVERSELY AFFECTING THE PUBLIC WATER SOURCE, AND THERE IS LIMITED POTENTIAL THAT THE REPLACEMENT SYSTEM COULD IMPACT THE
- WATER SOURCE BASED ON TOPOGRAPHY, SOIL DEPTH, SOIL TEXTURE, AND GROUNDWATER SEPARATION. 9.4.12 FOR NEW OWTS, INSTALLED ON PARCELS OF RECORD EXISTING AT THE TIME OF THE EFFECTIVE DATE OF THIS POLICY, THAT CANNOT MEET THE ABOVE HORIZONTAL SEPARATION REQUIREMENTS, THE OWTS SHALL MEET THE HORIZONTAL SEPARATION TO THE GREATEST EXTENT PRACTICABLE AND SHALL UTILIZE SUPPLEMENTAL TREATMENT FOR PATHOGENS AS SPECIFIED IN SECTION 10.8 AND ANY OTHER MITIGATION MEASURES PRESCRIBED BY THE PERMITTING AUTHORITY.

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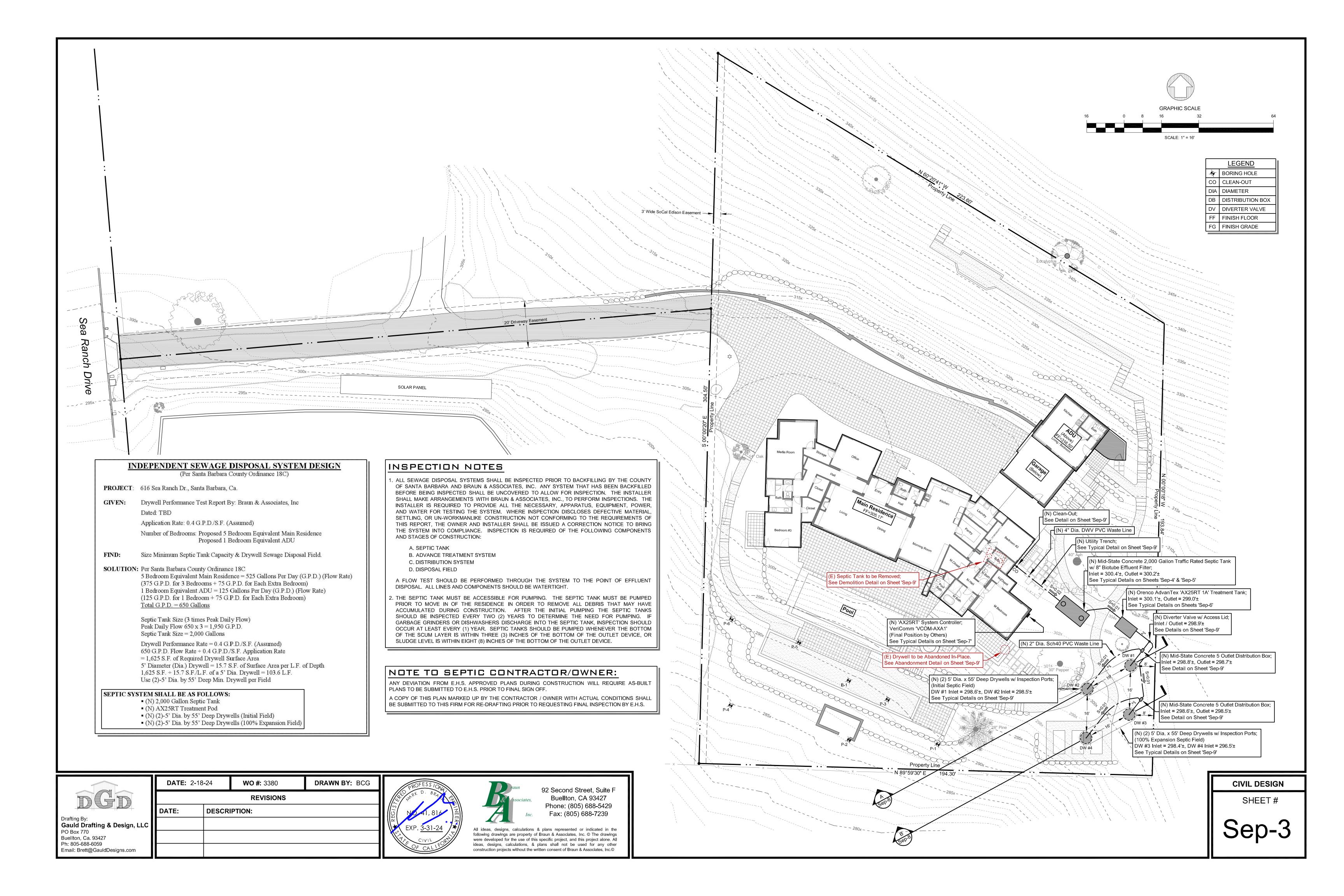


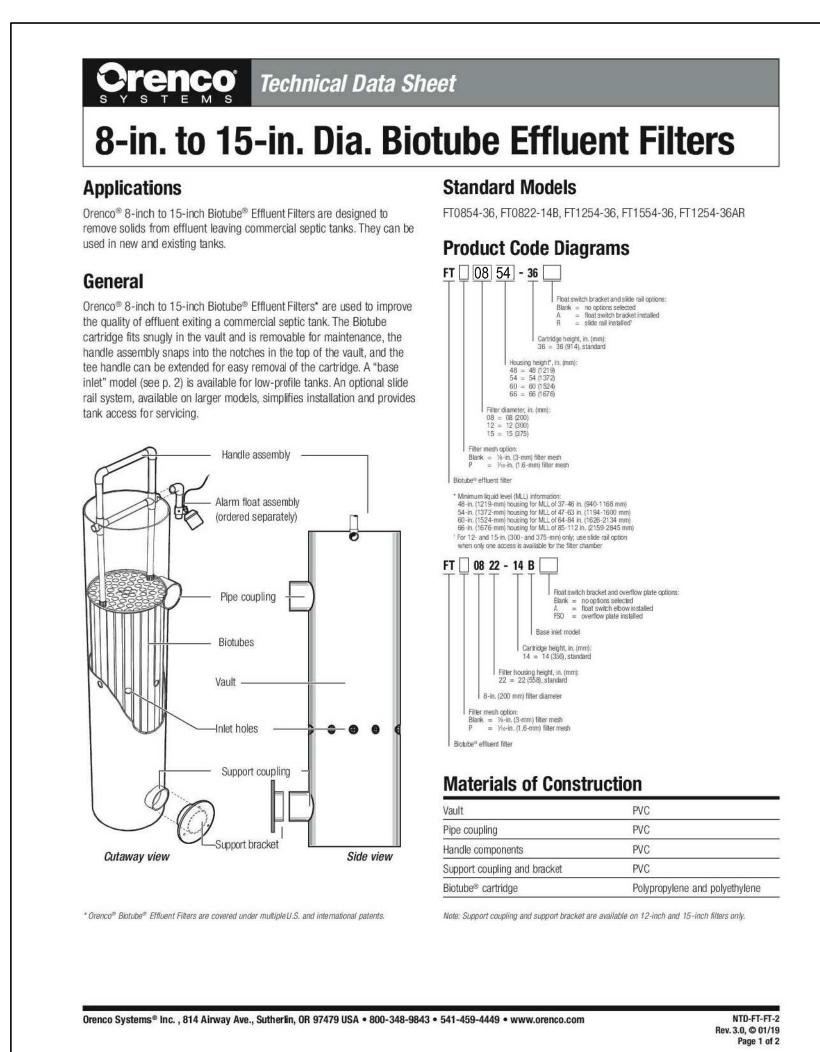


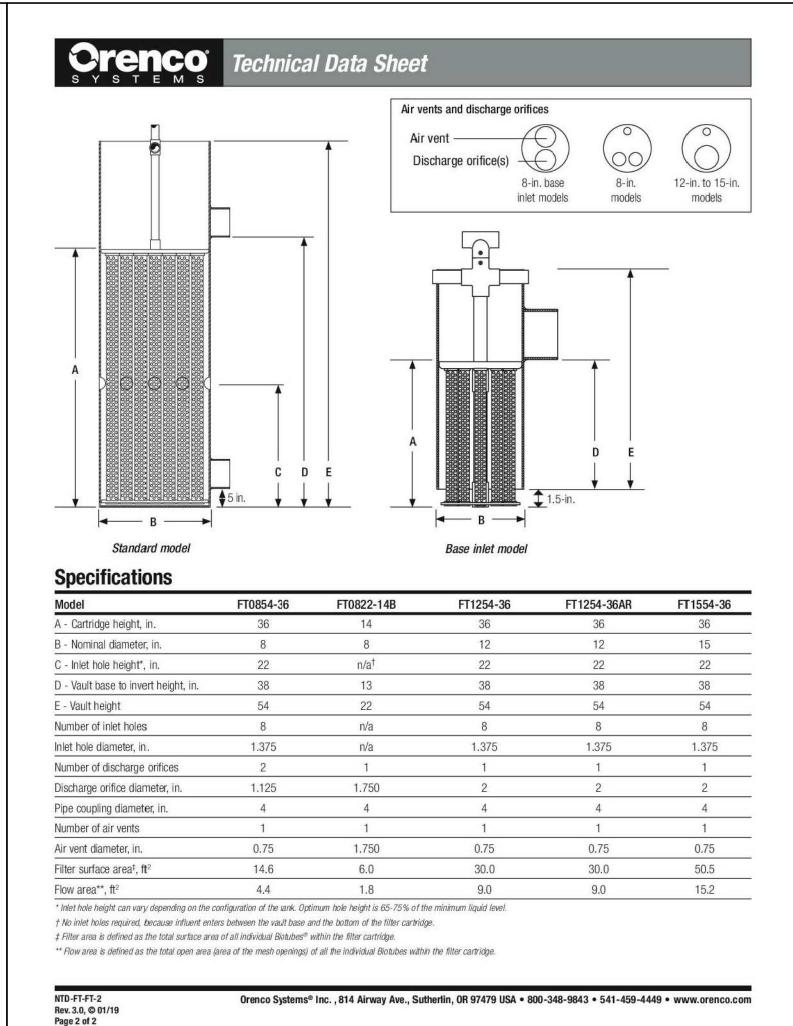
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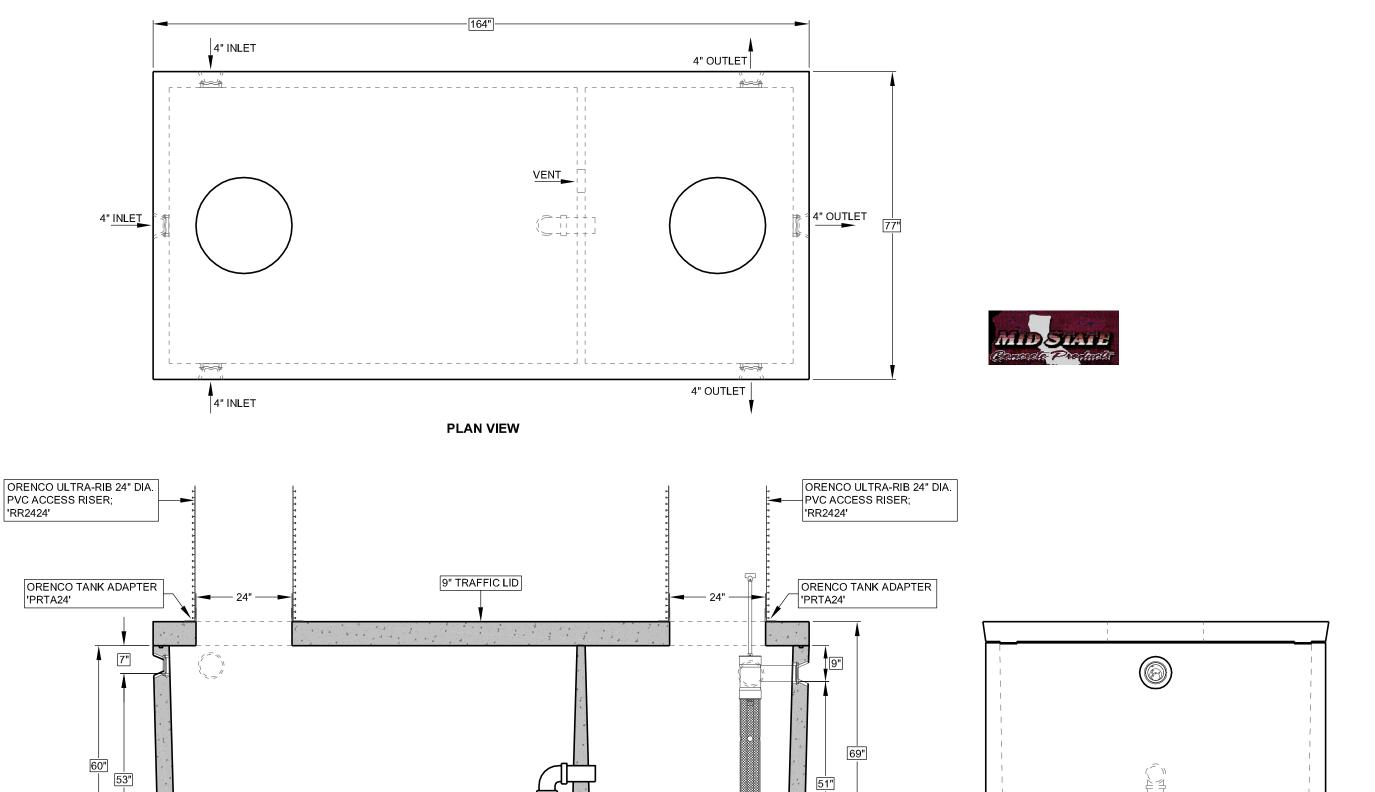
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Onsite Wastewater Treatment System 616 Sea Ranch Dr. Santa Barbara, Ca. **General Notes**









ORENCO BIOTUBE FILTER DETAILS

NOT TO SCALE

TYPICAL MID-STATE CONCRETE 2,000 GALLON SEPTIC TANK

LONGITUDINAL SECTION

WT: 13,100 LBS.

NOT TO SCALE

END ELEVATION

EXCAVATION:

- EXCAVATION SHALL BE PREPARED IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. - ALL EXCAVATION SHALL BE IN ACCORDANCE WITH SAFE CONSTRUCTION PRACTICES.

INSTALLATION RECOMMENDATIONS:

- PRIOR TO PLACING THE PRECAST CONCRETE STRUCTURE INTO THE EXCAVATION, THE CONTRACTOR SHALL PROVIDE A LEVELED HOLE. NATIVE SOIL IS OKAY.

- THE HOLE SHALL BE LEVELED AND COMPACTED.

- PLACE THE PRECAST CONCRETE STRUCTURE IN THE EXCAVATED HOLE AND CHECK THE ELEVATION AND LEVELNESS | OF THE TANK AND ORIENTATION OF THE OUTLETS.

- THE EXCAVATED HOLE NEEDS TO BE 12" WIDER AND 12" LONGER THAN THE DIMENSIONS OF THE TANK TO ALLOW THE \parallel WORKERS ACCESS TO DISCONNECT THE TANK.

BACKFILLING:

EFFLUENT FILTER

- BACKFILL AS SOON AS PRACTICABLE AFTER STRUCTURE HAS BEEN PLACED.

- BACKFILL USING NATIVE SOIL FREE OF LARGE STONES, ROCKS, PAVEMENT, ETC. EXPANSIVE SOIL MATERIALS SHALL NOT BE USED AS BACKFILL AROUND THE STRUCTURE.

- WHEN A PRECAST CONCRETE STRUCTURE IS PLACED IN AN UNPAVED AREA, CHECK IF YOU NEED RISERS TO BRING THE \parallel TANK TO FINISH GRADE.

- BACKFILLING SHALL BE ACHIEVED BY USING LIFTS (LAYERS) OR FLOODING (JETTING) THE EXCAVATION TO THE

- RESTORATION OF THE AREA WHERE THE PRECAST CONCRETE STRUCTURE WAS INSTALLED SHALL MEET THE

REQUIREMENTS OF THE LOCAL GRANTING AUTHORITY.

· FOLLOW-UP INSPECTIONS FOR SETTLEMENT ARE REQUIRED. SHOULD SETTLEMENT OCCUR, THE CONTRACTOR SHOULD lacksquareBE RESPONSIBLE FOR THE NECESSARY REPAIR TO RESTORE THE AREA TO ITS ORIGINAL CONDITION IN ACCORDANCE WITH THE TERMS OF THE AGREEMENT.

LOAD RATING:

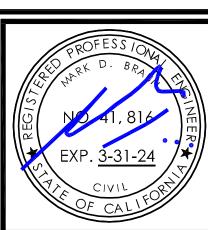
- RECOMMENDED COVER OVER THE TANK IS 18".

- COVER LESS THAN 12", USE TRAFFIC RATED TANK.

· COVER MORE THAN 12" BUT LESS THAN 36", USE STANDARD NON-TRAFFIC RATED TANK U.N.O.. - COVER MORE THAN 36", USE TRAFFIC RATED TANK.

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Onsite Wastewater Treatment System 616 Sea Ranch Dr. Santa Barbara, Ca. **Treatment System Septic Tank Details**

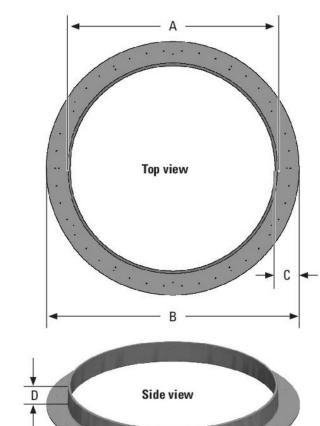




Applications

Technical Data Sheet

PRTA tank adapters are used to provide a structural, watertight method of installing a 24-in. (610 mm) or a 30-in. (762 mm) access riser over a tank opening.



Orenco's PRTA tank adapters are molded plastic products and therefore have excellent part-quality and consistency. PRTA tank adapters can be cast into a tank or fastened to the top of the tank with a bolt-down kit. The bolt-down kit consists of either six or twelve (depending on model) stainless steel concrete anchors and a roll of butyl tape. The O.D. of the vertical flange matches the I.D. of Orenco's

ribbed risers, which provides a suitable joint to seal with MA320, ADH100, SS115, or SS140 adhesive.

Standard Models

PRTA24 PRTA30

PRTA24BDKIT (6 anchors) PRTA30BDKIT (12 anchors)

Nomenclature

PRTA 24 INSTALL (2) 'PRTA' TANK ADAPTERS

24 = 24" riser (Perma-Loc, Ultra-Rib, KOR FLO) 30 = 30" riser (Perma-Loc, Ultra-Rib)

Materials of Construction

Tank adapter	ABS
Concrete anchors	Stainless steel anchor bolts
Sealant	Rutyl tane

Specifications

Dimensions*	PRTA24	PRTA30
A - Outside diameter	23.38 in. (594 mm)	29.25 in. (743 mm)
B - Flange diameter	26.75 in. (679 mm)	34.25 in. (870 mm)
C - Horizontal flange width	2.00 in. (51 mm)	2.50 in. (64 mm)
D - Vertical flange height	3.50 in. (89 mm)	3.25 in. (83 mm)

*The tank adapter has a nominal 0.25 inch (6 mm) thickness.

Rev. 1.0, © 9/09

Orenco° Technical Data Sheet

Access Risers – Ultra-Rib™

Applications

Orenco's Access Risers provide access to septic tank openings and down using a riser tank adaptor. They can also be used as valve enclosures.



Orenco Ultra-Rib™ Access Risers are constructed of ribbed PVC pipe can be cast into the tops of concrete tanks, bonded in place, or bolted and are available in 12-, 18-, 21-, and 24-in. diameters. They can be ordered in 3-in. (76.2-mm) increments in lengths up to 13 ft (3.96 m) for 12- and 18-in. diameter risers, and up to 14 ft (4.27 m) for 21- and 24-in. diameter risers. Orenco Ultra-Rib riser pipe is also available in truckload quantities. A complete line of Orenco pipe-cutting tools makes it easy to fabricate risers in your shop or in the field

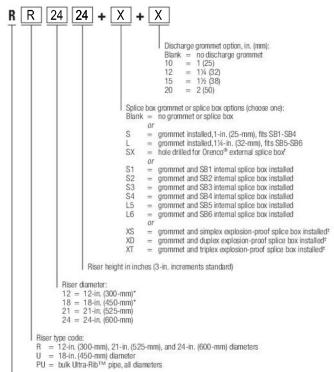
Standard Models

RR12XX, RU18XX, RR21XX, RR24XX

* Not intended for use over pump vaults † Requires minimum 18-in. (457-mm) riser height

15 (22.3)

Product Code Diagram



Materials of Construction

Weight, lbs per ft (kg per m)

Specifications			JSE THIS RISER	
Model	RR12XX	RU18XX	RR21XX	RR24XX
D., in. (mm)	11.74 (298)	17.65 (448)	20.50 (521)	23.50 (597)
Vall Thickness - excluding ribs, in. (mm)	0.10 (3)	0.19 (5)	0.25 (6)	0.25 (6)
D - including ribs in (mm)	13 13 (334)	19 44 (494)	22 63 (575)	25.63 (651)

11 (16.4)

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5 (7.4)

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19 (28.3)

Orenco° Technical Data Sheet

DuraFiber™ Access Lids

Applications

Orenco® DuraFiber™ Access Lids provide a secure, damage-resistant covering for ribbed PVC and HDPE risers, pump basins, and access ports. They are not recommended for vehicular traffic.

General

DuraFiber Access Lids are constructed of resin-infused fiberglass fabrics for extreme durability and damage resistance, with breaking strengths in excess of 20,000 pounds (9,000 kg).

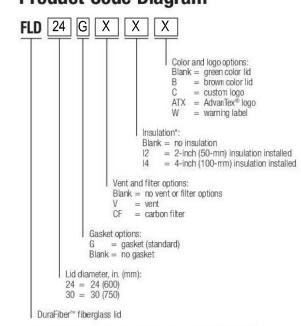
They feature flat-style flanges for easier access, allowing clean, flush-tograde installations. They have cored centering rings for aligning lids with risers. And they also have urethane gaskets to help provide watertight seals. DuraFiber Lids feature a non-skid surface for better grip and aesthetics, a molded-in caution statement, and room for a customer logo. They come with four 5/16-inch stainless steel flathead socket cap screws and a hex

Durafiber Lids are available with optional insulation, installed at the factory or in kits that can be installed in the field.

Standard Models

FLD24G, FLD24GATX, FLD24GW FLD30G, FLD30GATX, FLD30GW

Product Code Diagram



* Insulation has an R-value of 10 per 2-inch (25-mm) increment.

Materials of Construction:

Lid	Fiberglass reinforced polyester	
Gasket	Urethane	
Centering ring core	Structural foam	
Mounting hardware	Stainless steel	
Insulation (optional)	Closed-cell foam	
Insulation mounting hardware	Stainless steel	

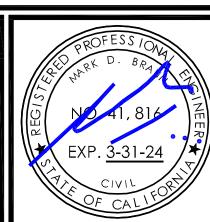
Specifications	USE THIS ACCESS LID		
Model	FLD24XX	FLD30XX	
A in. (mm)	26 (660)	33 (838)	
B, in. (mm)	1½ (38)	1½ (38)	
C, in. (mm)	231/4 (590)	291/4 (743)	
Gasket width, in. (mm)	3/4 (19)	3/4 (19)	
Bolt hole diameter, in. (mm)	⁵ / ₁₆ (8)	⁵ / ₁₆ (8)	
Weight, lbs (kg)	11 (5)	20 (9)	
Bolt holes, per lid	4	4	

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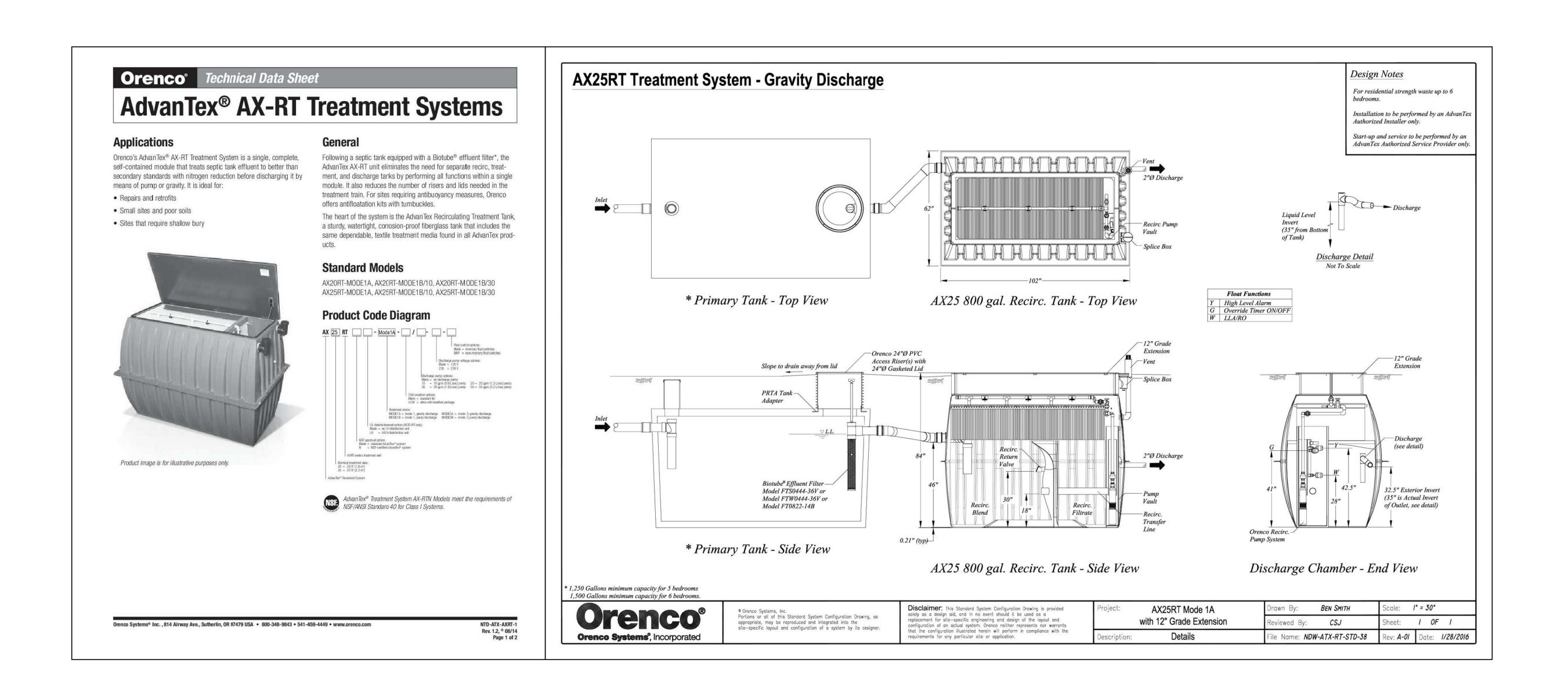




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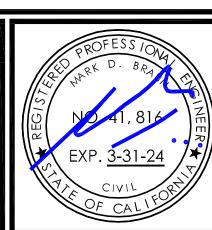
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Onsite Wastewater Treatment System 616 Sea Ranch Dr. Santa Barbara, Ca. **Treatment System Septic Tank Details**



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Onsite Wastewater Treatment System
616 Sea Ranch Dr.
Santa Barbara, Ca.

Treatment System AdvanTex Tank Details

SHEET#

CIVIL DESIGN



FOR MORE INFORMATION CALL (818) 991-9997

http://www.biosolutions.org

VeriComm® AXA_ Control Panels

Technical Data Sheet

For AdvanTex® Treatment Systems

Applications

VeriComm® AXA1 and AXA2 remote telemetry control panels are used with simplex pumping operations — timed recirculation, with gravity discharge — for AdvanTex® Treatment Systems. Coupled with the VeriComm Web-based Monitoring System, these affordable control panels give water/wastewater system operators and maintenance organizations the ability to monitor and control each individual system's operation remotely, with real-time efficiency, while remaining invisible to the homeowner. VeriComm AXA panels allow remote operators to change system parameters, including timer settings, from the Web interface.



Typical AXA_ VeriComm® Control Panel Standard Models: VCOM AXA1, VCOM AXA2

To Specify...

To specify this panel for your installation, require the following:

Basic Control Logic: Two Operating Modes

· A "Test Mode" that suspends data collection and alarm reporting during installation and service.

Data Collection and Utilization

 Data logs of system conditions and events, such as pump run times, pump cycles, and alarm conditions.

components, which then trigger Alarms. Advanced Control Logic

A "Normal Mode" that manages day-to-day functions.

Troubleshooting and Diagnostic Logic Troubleshooting capabilities that can report suspected failed

 Advanced control logic that activates during float malfunctions to diagnose the situation and keep the system operating normally until servicing.

Communication and Alarm Management

Remote telemetry capabilities coupled with a Web-based monitoring application (see VeriComm Monitoring System, ATD-WEB-VCOM-1) for communication and alarm managereceipt of queued changes during each communication session with host. Communication sessions that occur monthly, at

a minimum, and more frequently during alarm conditions.

- Automatic notification to host of "Alarms," which signal
- Automatic notification to host of "Alerts," which signal less critical fault conditions and which trigger the panel's troubleshooting logic and alternative operating mode
- Automatic notification to host of "Updates," which include alarm updates or all-clear notifications following Alarms/ Alerts, as well as normally scheduled monthly panel reports.
- Manual, forced communication from panel to host to effect an updating of point values and receipt of queued changes.

Real-Time Direct Connection to Panel

and the ability to change point values.

- to allow a local operator real-time access to detailed logged data and the ability to change point values from a laptop. Manual, forced communication by local operator/hom-
- architecture (and password security) is used; no proprietary software is required. VT100 protocol allows access and control from any computer modem (Mac or PC) with a simple communication program (e.g., Windows® HyperTerminal); multilevel password protection in panel ensures that only qualified per-

Additional Features

- · Status light indicators on the board,
- 200 - Flashing green LED for normal operation Yellow LEDs for status of digital inputs Red LEDs for status of digital outputs and Orenco Systems'
- UL-recognized and FCC-approved For more information, try our online demo at www.vericomm.net (no password required).

- ment. Updating of point values (including timer settings) and
- · Multiple methods of communication, as follows:

Call-In to VeriComm® Host

- fault conditions that need to be addressed immediately (e.g., pump failure).
- (e.g., stuck float switch).

- Manual, direct connection at the site via RS-232 serial port, eowner at the site to initiate an auto-answer mode, allowing a remote operator real-time access to detailed logged data
- During real-time, manual connections, software with open sonnel can access the panel's data.

Optional Components

Changing the Way the World Does Wastewaterth

ATD-CP-VCOM-6 Rev. 2.3 © 12/05 Page 1 of 2

Feature	Specifications	Product Code Adder
Pump Run Light	7/8 in. (22 mm) diameter green lens. NEMA 4, 1 W bulb, 120 VAC.	PRL
Anticondensation Heater	Self-adjusting; radiates additional wattage as temperature drops.	HT
UV Disinfection Compatibility	UV grounded power circuit and alarm contacts. Pump disable upon UV failu	ıre. UV

120 VAC: 14 FLA, 3/4 hp, 60 Hz; 2.5 million cycles at FLA (10 million at 50% of FLA).

240 VAC: 14 FLA, 2 hp, 60 Hz; 2.5 million cycles at FLA (10 million at 50% of FLA).

outputs, 0 analog outputs, on-board modem (2400 baud), LED input and output indicators,

Single-pole switch, automatic On, with spring-loaded, momentary, manual On. 20 A, 1 hp.

10 A, OFF/ON switch. Single-pole 120 VAC, double-pole 240 VAC. DIN rail mounting with

20 A, OFF/ON switch. Single-pole 120 VAC, double-pole 240 VAC. DIN rail mounting with

7/8 in. (22 mm) diameter red lens, "Push-to-silence." NEMA 4, 1 W bulb, 120 VAC.

Measures 13.51 in. high x 11.29 in. wide x 5.58 in. deep (343 mm x 287 mm x 142 mm).

NEMA 4X rated. Constructed of UV-resistant fiberglass; hinges and latch are stainless steel.

2. VeriComm® Remote Telemetry Unit* ATRTU-100: 36/18 VAC (center tap transformer), 8 digital inputs, 4 analog inputs, 4 digital

thermal magnetic tripping characteristics.

thermal magnetic tripping characteristics.

120 VAC Primary, 36 VCT @ 0.85 A Secondary.

80 dB at 24 in. (610 mm), warble-tone sound.

120 VAC, 3/4 hp, 14 A, single-phase, 60 Hz.

240 VAC, 2 hp, 14 A, single-phase, 60 Hz.

Conduit couplings provided.

1-year battery backup of data and program settings.

VeriComm® AXA_ Control Panels

Specifications

250 VAC, 1 A.

1. Motor-Start Contactor

4. Control Circuit Breaker

5. Pump Circuit Breaker

3. Toggle Switch

6. Fuse

7. Transformer

8. Audio Alarm

9. Visual Alarm

10. Panel Enclosure

2. VeriComm® Remote Telemetry Board

Standard Components

1. Motor-Start Contactor

3. Toggle Switch

6. Fuse

7. Transformer

8. Audio Alarm

VCOM-AXA1

VCOM-AXA2

Visual Alarm

10. Panel Enclosure

4. Control Circuit Breaker

5. Pump Circuit Breaker

* See VeriComm® Remote Telemetry Unit (ATD-CP-VCOM-1) and VeriComm® Monitoring System (ATD-WEB-VCOM-1) for details.

Page 2 of 2

Technical

Data Sheet

DGD
Drafting By: Gauld Drafting & Design, LLC PO Box 770 Buellton, Ca. 93427 Ph: 805-688-6059 Email: Brett@GauldDesigns.com

DRAWN BY: BCG **DATE**: 2-18-24 **WO #:** 3380 **REVISIONS** DESCRIPTION:

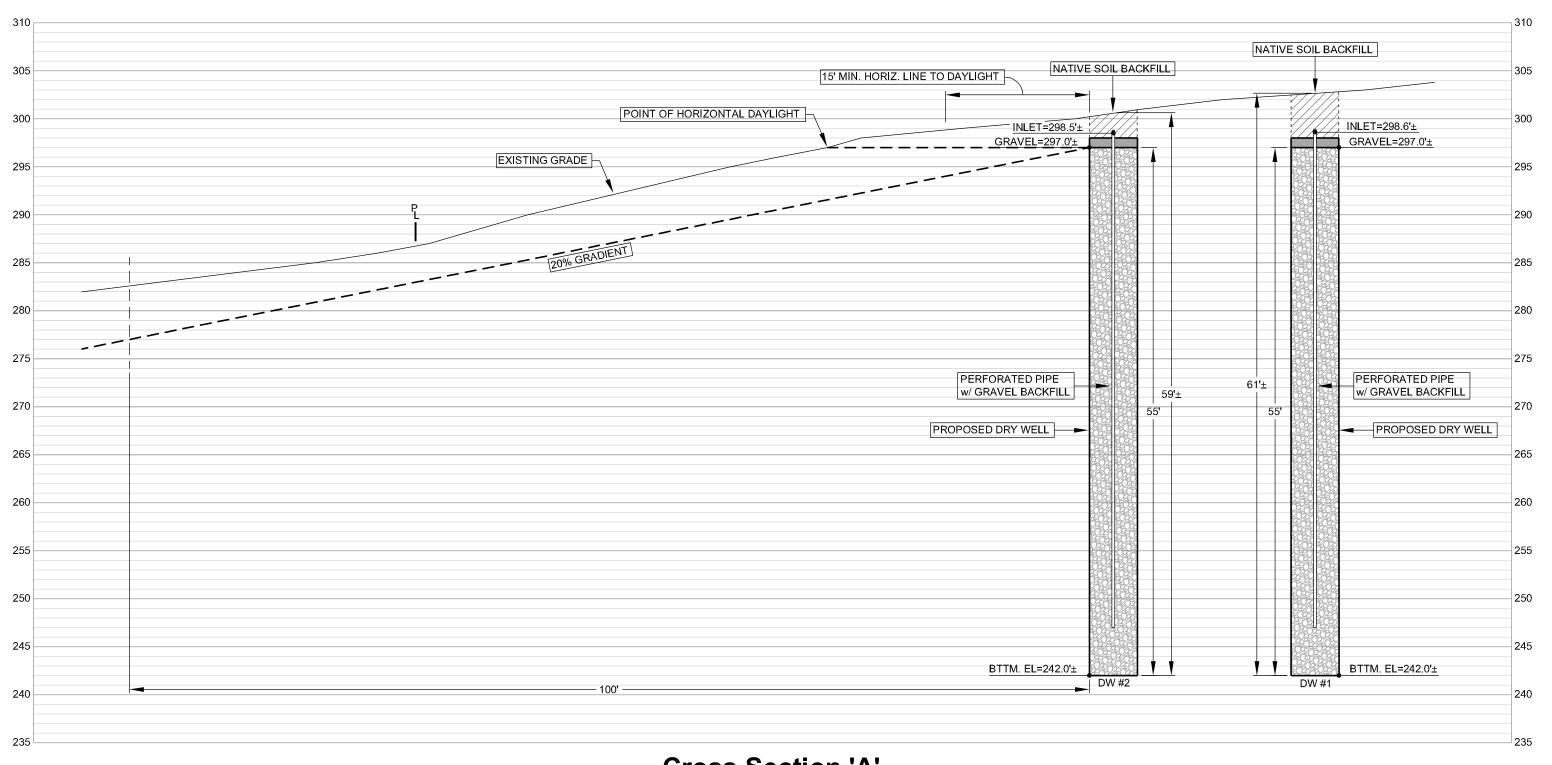




92 Second Street, Suite F Buellton, CA 93427 Phone: (805) 688-5429 Fax: (805) 688-7239

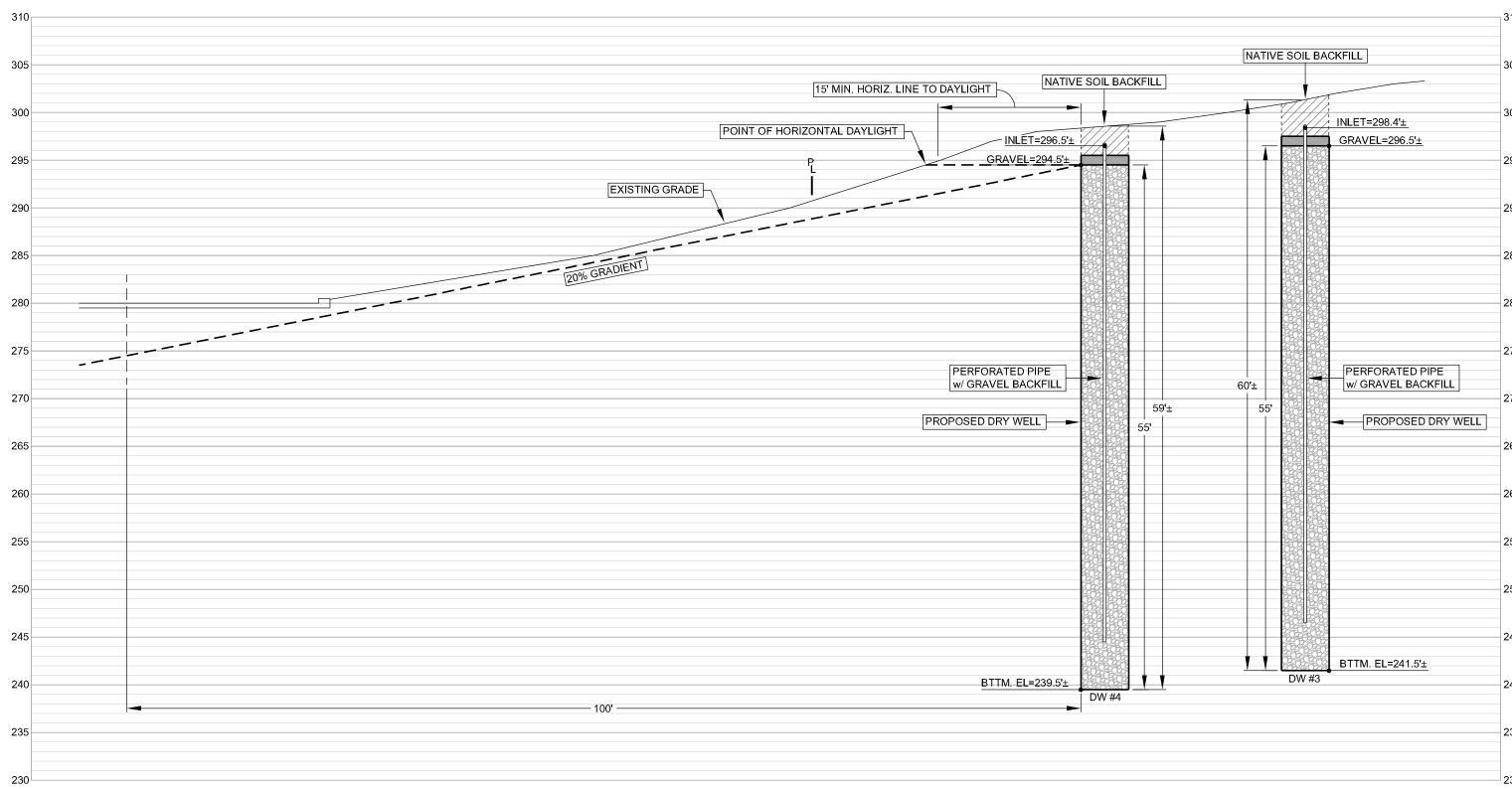
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Onsite Wastewater Treatment System 616 Sea Ranch Dr. Santa Barbara, Ca. **Treatment System Controller**

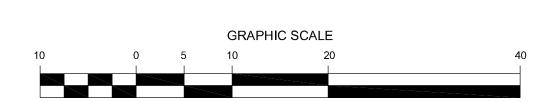


Cross Section 'A'
(Initial Septic Field)

Scale: 1" = 10'



Cross Section 'B'
(100% Expansion Septic Field)
Scale: 1" = 10'



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Ph: 805-688-6059
Email: Brett@GauldDesigns.com

DATE: 2-18-24		WO #: 3380	DRAWN BY: BCG				
REVISIONS							
DATE:	DESCRI	PTION:					



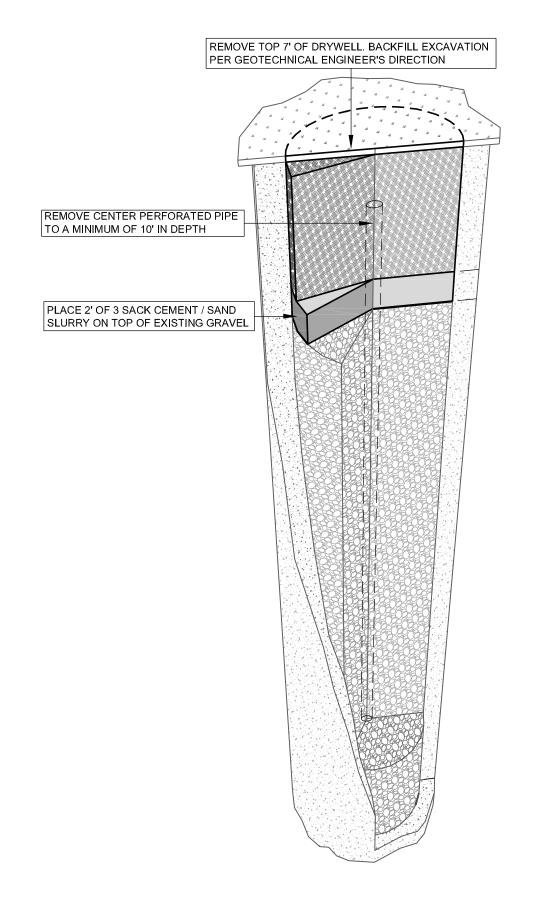
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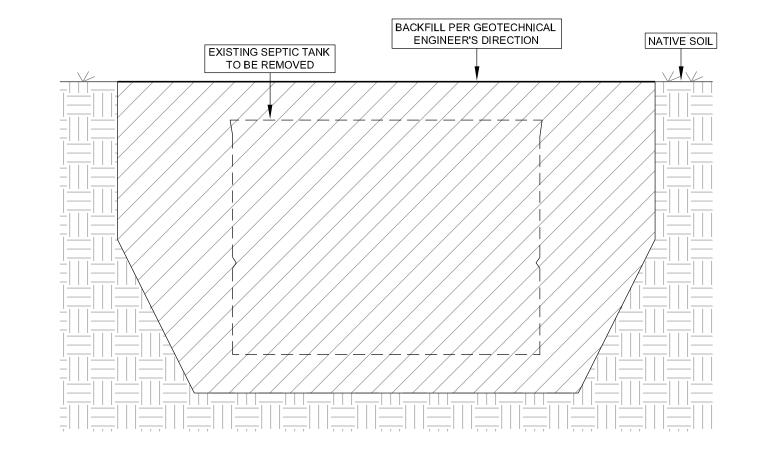
Onsite Wastewater Treatment System
616 Sea Ranch Dr.
Santa Barbara, Ca.
Drywell Cross Sections

	SHEET	⁻ #
S	ep	-8

CIVIL DESIGN



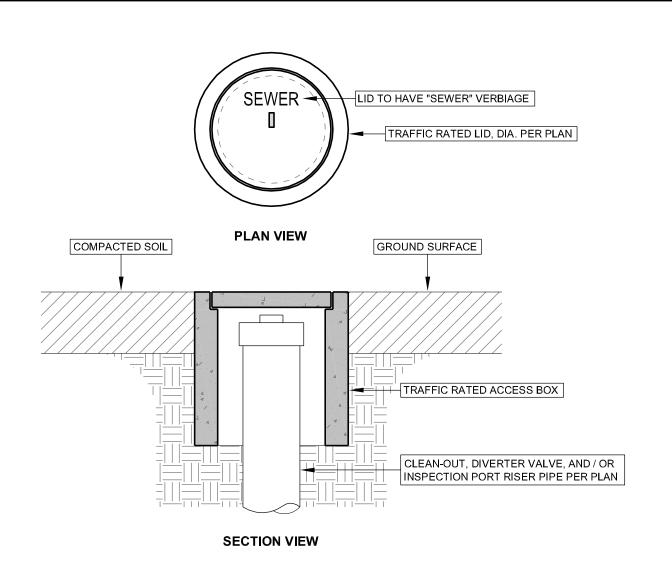
TYPICAL DRYWELL ABANDONMENT



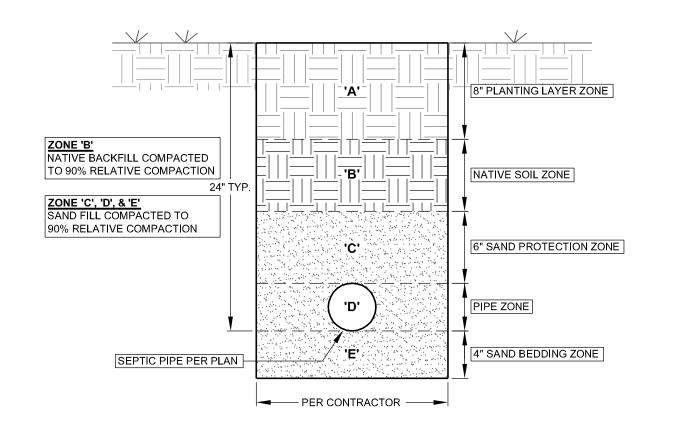
TYPICAL SEPTIC TANK DEMOLITION



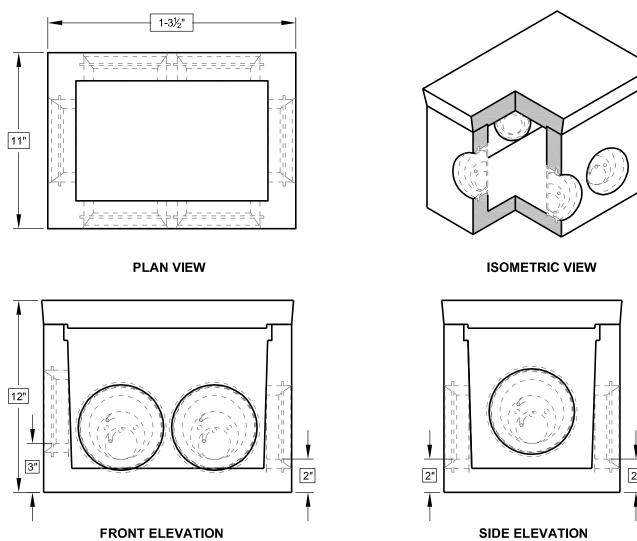
NOT TO SCALE



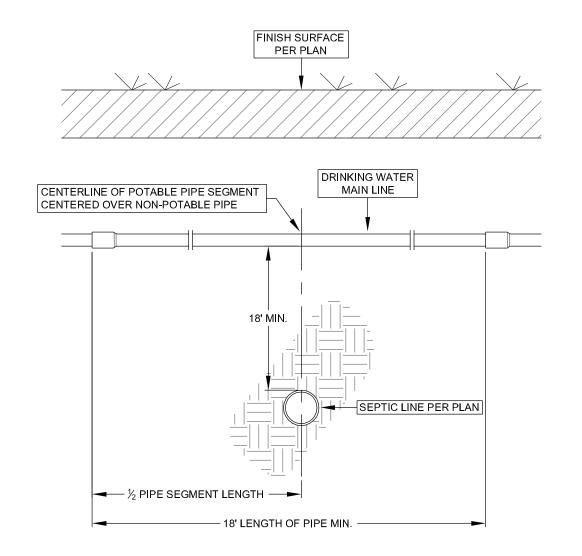
TYPICAL TRAFFIC RATED ACCESS BOX 5



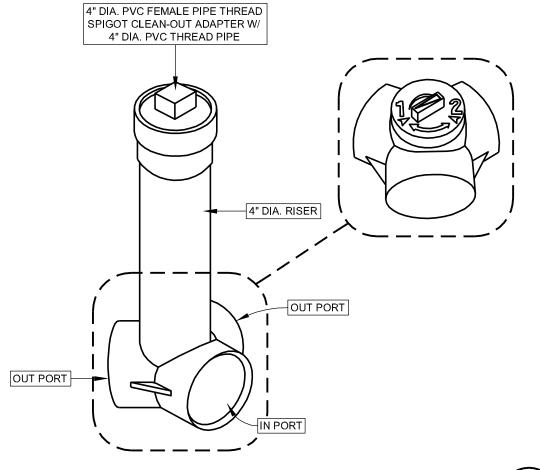
TYPICAL SEPTIC PIPE UTILITY TRENCH NOT TO SCALE 6



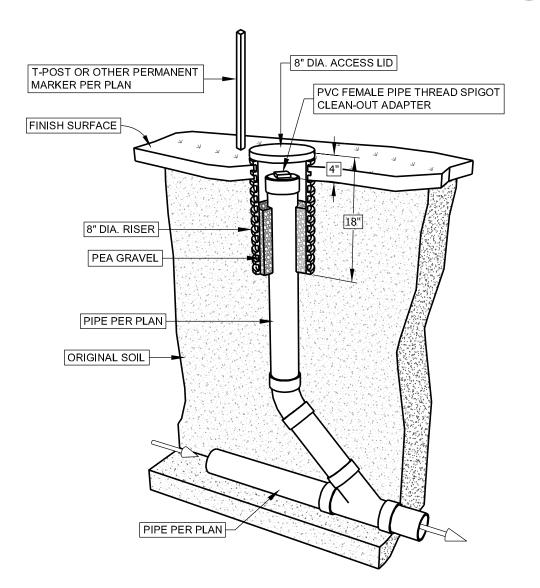
MID-STATE CONCRETE 5 OUTLET
DISTRIBUTION BOX



TYPICAL UTILITY PIPE CROSSING

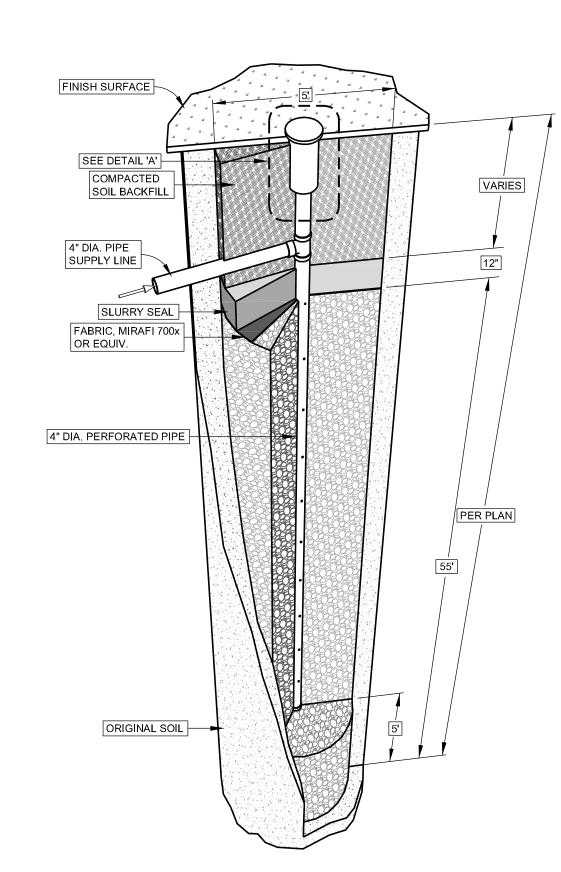


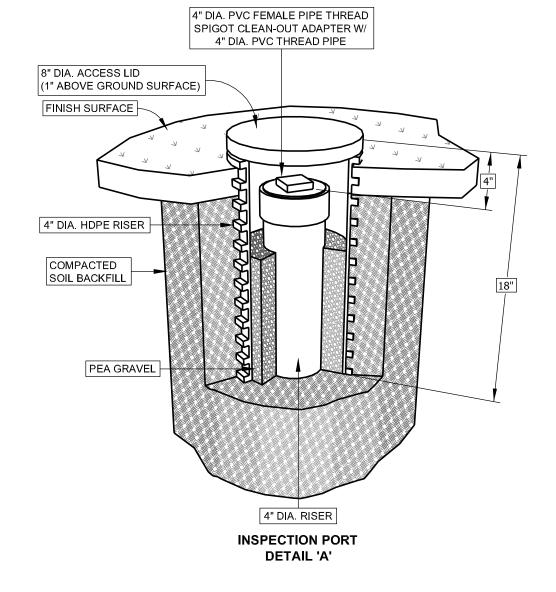
TYPICAL DIVERTER VALVE



NOT TO SCALE

TYPICAL CLEAN-OUT





TYPICAL DRYWELL INSTALLATION

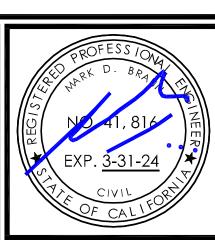
NOT TO SCALE 11

DATE: 2-18-24 WO #: 3380 DRAWN BY: BCG

REVISIONS

DATE: DESCRIPTION:

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Onsite Wastewater Treatment System
616 Sea Ranch Dr.
Santa Barbara, Ca.
Treatment System Typical Details

SHEET#
Sep-9

CIVIL DESIGN



July 28, 2022

Arkley Residence C/o Bill Wolf 1117 Coast Village Rd Santa Barbara, CA 93108

Re: Failing Percolation Tests, 616 Sea Ranch Rd, Santa Barbara, CA

Dear Mr. & Mrs. Arkley:

In accordance with your request, please be advised this firm conducted three percolation tests for the proposed septic system repair. Testing was conducted by the leach line testing method. The percolation tests were conducted at depths ranging from 2.5 to 6 feet below present ground surface in order to determine the suitability of the subsurface soil to accept sewage effluent disposal by the normal leach line method, based upon the present Santa Barbara County Percolation Testing Procedures.

The percolation tests were conducted in a 12 inch diameter boring using a six inch depth of clear water. The results of the percolation tests are tabulated below:

TEST NO.	DEPTH OF TEST (ft.)	MINUTES PER INCH
1	1.0	120
2	4.5	480
3	5.0	360
4	3.0	60
5	2.0	240
6	5.0	240

Based upon the results of the Percolation Testing described herein it is my opinion of the undersigned the areas tested do not meet the minimum Santa Barbara County Environmental Health Requirements for sewage effluent disposal by the normal leach line method.

We, therefore, suggest you consider an alternate method of sewage effluent disposal such as dry wells. If dry wells are also found to be inappropriate for the project, a special system could be designed for the parcel

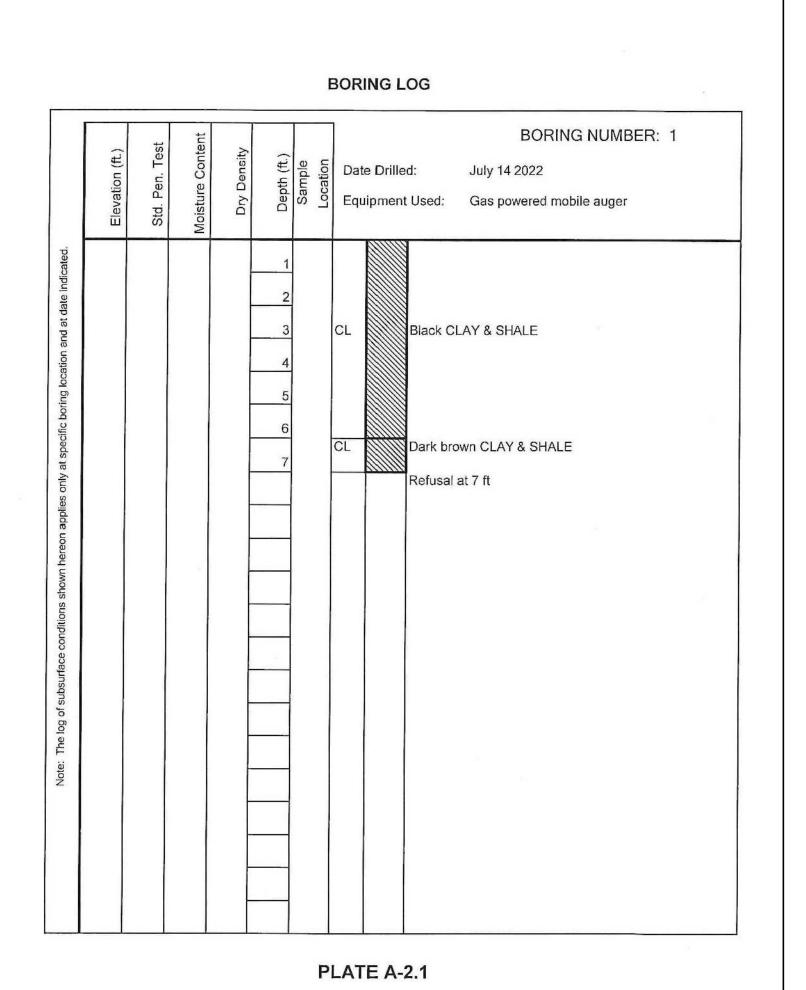
Advanced treatment will be required by Environmental Health Department.

It would be necessary for this firm to obtain a topographic map of the lot as well as the elevation of the ground floor of the residence in order to properly design the system.



Soils Engineering ▼ Materials Testing

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Onsite Wastewater Treatment System
616 Sea Ranch Dr.
Santa Barbara, Ca.
Percolation Report

SHEET#

Sep-10