

	San Mateo County
ST. WELLS I TURNS	Planning and Building Department
Planning Permit	455 Cpwinty Center: Zind Floor • filedwood City CA 94063 Mai: Direty PLN 122 • TEL (650) 363-4161 • FAX (650) 363-4847
	wyw.cu.sanmaleo.caus/planning
Application Form	PLN:
	BLD:
=pstherm//D=n-=Information	
Applicant: Maurits de Gans	
Mailing Address: 4131 W. El Camino Real Suit	te 200.
Palo Alto, CA	Zip: 94306
Phone, W: 6505659036	H:
-mail Address: maurits@mdesignsarchitects.co	om FAX:
Name of Owner (1): Anusha Thalapaneni	Name of Owner (2): David Jackson
Mailing Address 634 Palomar Drive	Mailing Address: 634 Palomar Drive
Redwood City, CA	Redwood City, CA
Zip: 94062	Zip. 94062
Phone,W 6507960800	Phone, W: 6502239468
H	H:
-mail Address: athalapa@gmail.com	E-mail Address, djackson52@gmail.com
Product Information	
Project Location (address)	Assessor's Parcel Numbers: 51 - 22 - 380
roject Eochtion (Bootess)	
534 Palomar Drive, Redwood City, CA	
	Parcel/lot size: 18,295 SF (Square Feet)
	Parcel/lot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic (ank)
Zoning: R-1/S-91/DR Just all elements of proposed project (e.g. access, size) Shared access driveway on existing easement. Prim	Parcel/lot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic (ank) hary 4269 sf residence with 4 bedrooms, 4 bathrooms, and pool
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Conling: R-1/S-91/DR Ist all elements of proposed project: (e.g. access, size) Shared access driveway on existing easement: Primincorporated into footprint. Septic field and tank behind proposed by the Existing Site Conditions/Features (e.g. topoges) Existing site is moderately sloped vacant lot with nate of the Existing Structures and/or Development:	Parcel/lot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic, tank) hary 4269 of residence with 4 bedrooms, 4 bathrooms, and pool ind house. Traphy, water bodies, vegetation):
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Zoning: R-1/S-91/DR Jest all elements of proposed project: [e.g. access, size of state of proposed project: [e.g. access, size of state of size of si	Parcel/lot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic, tank) hary 4269 of residence with 4 bedrooms, 4 bathrooms, and pool ind house. traphy, water bodies, vegetation):
Shared access driveway on existing easement. Priming incorporated into footprint. Septic field and tank behind existing site Conditions/Features (e.g., topogetishing site is moderately sloped vacant lot with national existing Structures and/or Development: Vacant lot We hereby certify that the information stated above a lift the application is true and correct to the best of our	Parcel/fot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic, tank) hary 4269 sf residence with 4 bedrooms, 4 bathrooms, and pool ind house. Traphy, water bodies, vegetation): Traphy, water bodies, vegetation): Traphy are produced including healthy trees and native grasses.
Shared access driveway on existing easement. Primincorporated into footprint. Septic field and tank behind site of processes and septic field and tank behind service. Septic field and	Parcel/fot size: 18,295 SF (Square Feet) and location, primary and accessory structures, well, septic, tank) hary 4269 sf residence with 4 bedrooms, 4 bathrooms, and pool ind house. Traphy, water bodies, vegetation): Traphy, water bodies, vegetation): Traphy are produced including healthy trees and native grasses.
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455 County	an Mateo Building Department Center, 2 nd Floor ity, CA 94063
To Whom It	May Concern,
aware and ap encroach on retaining wa adjacent to the the heath of	or of 636 Palomar Drive Redwood City (unincorporated San Mateo County) We are opprove of the proposed development at 634 Palomar Drive and the work proposed to to our property. This work as we understand it will include the construction of a new ll and grading of the roadway along our western property line. The retaining wall he driveway has been revised from its original proposed location to help maintain the existing 14" Oak tree. Below is an image of the proposed work we approve of to d on our property at 636 Palomar Drive. (N) CRAVEL DRIVEWAY 6 (N) CRAVEL DRIVEWAY 6
**************************************	32.72 APRON (E) PS (BX (E) PS (I)
ID LEVEL FF: 11- LEVEL FF: 102.0 IENT LEVEL FF: 91.50	00 TW/FG 98.92 FB 90*1

Env	iron	mental Information	Pienthing and Bulliante Department
		ure Form	PLN
- 100		0.16.3100	BLD
Project	Address	634 Palomar Drive	Name of Owner. Anusha Thalapaneni & David Ja
	od City.		Address: 634 Palomar Drive
	,		Redwood City, CA Prone:
	رية بال	13) 51 22 280	Name of Applicant: Maurits de Gans
4536350	ors Hard	el No.: 51 — 22 — 380	Address: 4131 W. El Camino Real Suite 200
		0.120.22	
Zoning	District:	R-1/S-91/DR	Palo Alto, CA Phone: 6505659036
			on of SMC. 12' easement provides access from the south st native grasses.
east. S	Scattere	d trees noted in Arborist report amongs sental Review Checklist	st native grasses.
east. S	Scattere ironn lifornia	d trees noted in Arborist report amongs central Review Checklist Environmental Quality Act (CEQA	st native grasses.
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east. S Envi	Scattere Control lifornia No	d trees noted in Arborist report amongs tential Review Checklist Environmental Quality Act (CEQA Will this project involve: a Addition to an existing structure > 50°	N native grasses. N Review N of the existing area OR > 2.500 sq. ft? Idential structure having 5 or more units?
1. Ca	lifornia No	d trees noted in Arborist report amongs tented Review Chreckfist Environmental Quality Act (CEQA Will this project involve: a. Addition to an existing structure > 50° b. Construction of a new multi-family res c. Construction of a commercial structure d. Removal of mature tree(s) (≥ 6° d.to.)	N native grasses. N Review N of the existing area OR > 2.500 sq. 1t? Idential structure having 5 or more units?
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1. Ca Yes Please Home this pl	lifornia No explain is place	d trees noted in Arborist report amongs ten Fil Review Chreckfist Environmental Quality Act (CEQA Will this project involve: a. Addition to an existing structure > 50° b. Construction of a new multi-family resist. c. Construction of a commercial structure. d. Removal of mature free(s) (≥ 6° d.b.m. residential zoning district)? If yes, frow many trees to be removed. e. Land clearing or grading? If yes, please state amount in cubic yes, please state amount in cubic yes, excavation. c. Construction within a State or County. h. Construction within a sensitive hazilate. J. Construction within a sensitive hazilate. J. Construction within a hazardous waste site all "Yes" answers: d on site to minimize disturbing natural in preserves majority of trees on site.	A) Review ** of the existing area OB > 2.500 sq. ft? idential structure having 5 or more units? ** > 2,500 sq.ft? ** in Emerald Lake Hills area or ≥ 12 d.b.h. in any ** in Emerald Lake Hills area or ≥ 12 d.b.h. in any ** or sets (c.y.) ** or sets (c.y.) ** sets mic fault, lands lide (lood)?

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v - W. Ander	(10,+0€5	KINS ARTHUCUS	
June 29, 2020			
	7.000		
San Mateo County Planning I 455 County Center	Department		
Redwood City, California 940			
Attn. Camille Leung -clueng@	ysmcgov.org		
Subject:	Letter of Concu	rrence	
Regarding Property:	634 Palomar Driv Redwood City, C	The state of the s	
County's Permit #:	Unknown	allorisa o todo	
To Whom it May Concern:			
	Dould Incheson he	mobil audhorina M. Danious As	whitehe to lake somethis
authority of information and	relevant documen	reby authorize M Designs Ar ts regarding our property at 6	34 Palomar Drive,
collecting official documents	, receiving them, a	of San Mateo County. They wand signing papers related to	
Department Applications. The	is right is effective	from June 29, 2020.	
Very truly yours,			
Decubiques by,		Donate great by	
Runcha Halapaneni	100 miles (1772)	David Jackson	100000000
Anusha Thalapaneni	July 9, 2020	David Jackson	July 9, 2020
	www.M-Des	signs Architects.com	

	IOHai n	flarine Fisheries Rule 4(d) Review
Yes	No	Will the project involve:
		a. Construction butside of the footprint of an existing, legal structure?
	•	b. Extendr construction within 100-feet of a stream?
		c. Construction, maintenance or use of a road, bridge, or trail on a stream bank or unstable till slo
		d. Land-use within a riparian area?
		e, Timber harvesting, mining, grazing or grading?
	•	f. Any work inside of a stream, riparian comidor, or shoreline?
	•	g. Release or capture of lish or commerce dealing with fish?
		any "Yes" answers:
3. Nat	ional P	ollutant Discharge Elimination System (NPDES) Review Will the project involve:
		a. A subdivision or Commercial / Industrial Development that will result in the addition or replacem
	▣	10,000 sq. ft. of more of impervious surface? If yes, Property Owner may be required to implement appropriate source control and site design measures and to design and implement stormwater frealment measures, to reduce the discharg stormwater pollutants. Please consult the Current Planning Section for necessary forms and bot construction and post-construction requirements.
		b Land disturbance of 1 acre or more of area?
	•	If yes, Property Owner must He a Notice of Intent (NOI) to be covered under the statewide Gerx Construction Activities Storm Water Permit (General Permit) <u>prior</u> to the commencement of construction activity. Proof of coverage under State permit must be demonstrated oner to the issuance of a building permit.
hereb nforma nforma acts re	tion re tion pr eprese	y that the statements furnished above and in the attached exhibits present the data quired for this initial evaluation to the best of my ability, and the facts, statements a esented are true and correct to the best of my knowledge and belief. If any of the ented here change, it is my responsibility to inform the County.
Signed	-	Date: July 12, 2020
signea	-	Applicant may sign.
(n)mimme (Name (2010-7_pd 2010-7_dH

D	escription	Date
M-De	ESIGNS	RCHITEC.
4131 W	DESIGNS ARC EST EL CAMINO 00, PALO ALTO	O REAL, SUIT
	vw.mdesignsarch info@mdesignsa Phone: 650-56 Fax: 949-625-	architects.com 5-9036
	NEW RESIDENCE AT 634 PALOMAR DRIVE	REDWOOD CITY, CA 94062
RIOR DESIGN PACKAGE		

	EXHIBITS
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09/22/2022

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GENERAL NOTES

ALL HARDWOOD FLOORING TO BE INSTALLED IN ACCORDANCE WITH THE LATEST NOFMA SPECIFICATIONS AND

DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS. FOR ALL DEBRIS BOXES, CONTACT RECOLOGY. USING

- ALL CERAMIC OR STONE TILE WORK TO BE INSTALLED IN ACCORDANCE WITH THE LATEST TILE COUNCIL OF AMERICA SPECIFICATIONS AND RECOMMENDATIONS.
- WALL FRAMING ALL WALLS HOUSING PLUMBING PIPES SHALL BE 2X6 STUDS MIN. @ 16" O.C. ALL EXTERIOR
- WALLS OVER 10-FEET IN HEIGHT TO BE 2X6 STUDS @ 16" O.C. **INSULATION PER TITLE 24.**
- ANOTHER HAULER MAY VIOLATE CITY CODE AND RESULT IN CODE ENFORCEMENT ACTION. THIS PROJECT MUST COMPLY WITH THE CITY'S CONSTRUCTION AND DEMOLITION ORDINANCE.

GENERAL DEMOLITION NOTES

- CONTRACTOR SHALL DEMOLISH PER CBC CHAPTER 33 AND/OR LOCAL CODE REQUIREMENTS. DEMOLISH ONLY THOSE AREAS AFFECTED BY WORK.
- CONTRACTOR SHALL INFORM ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK. CONTRACTOR SHALL PROVIDE PROPER SHORING OF EXISTING STRUCTURE(S) AS REQUIRED FOR CBC AND/OR
- LOCAL CODE PRIOR TO ROOF AND WALL REMOVAL CONTRACTOR SHALL VERIFY WITH PLAN(S) AND FIELD INSPECTS ALL WINDOWS, FLOORS AND WALLS TO BE
- REMOVED. CONTRACTOR SHALL FIELD VERIFY EXISTING ELECTRICAL, MECHANICAL AND PLUMBING AND REMOVE AS
- ALL HAZARDOUS MATERIALS MUST BE DISPOSED OF PER LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR SHALL COVER AND PROTECT EXISTING FLOORING, WALLS, ETC. THAT ARE TO REMAIN
- CONTRACTOR SHALL REUSE EXISTING WATER LINES AND SANITARY SEWER LINES UNDER EXISTING FLOOR IF AT
- CONTRACTOR SHALL PROVIDE THE ARCHITECT IN WRITING A DETAILED OUTLINE OF DEMOLITION PROCEDURES PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
- CONTRACTOR SHALL LEGALLY DISPOSE OF DEMOLISHED MATERIAL AND EQUIPMENT OFF-SITE.
- BIDDERS MUST VISIT THE SITE AND VERIFY CONDITIONS BEFORE SUBMITTING BIDS.
- ALL STATIONARY NOISE-GENERATING EQUIPMENT SHALL BE LOCATED AS FAR AWAY AS POSSIBLE FROM **NEIGHBORING PROPERTY LINES**
- NO WORK SHALL COMMENCE ON THE JOB SITE PRIOR TO CONTRACTOR VERIFYING ALLOWABLE CONSTRUCTION HOURS WITH LOCAL AGENCY
- DUST PROOF CHUTES SHALL BE USED FOR LOADING CONSTRUCTION DEBRIS ONTO TRUCKS
- STOCKPILES OF DEBRIS, SOIL, SAND, OR MATERIAL THAT COULD BE BLOWN BY THE WIND SHALL BE WATERED OR
- SWEEP DAILY ALL PAVED ACCESS ROAD'S, PARKING AREAS AND STAGING AREA AT THE CONSTRUCTION SITE CONTRACTOR TO COMPLY WITH THE CITY'S CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING AND DIVERSION
- PROGRAM IF APPLICABLE.
- 18. CONTRACTOR SHALL VERIFY W/ OWNER, PRIOR TO DEMOLITION, IF ANY ITEMS ARE TO BE SALVAGED.

CALGREEN NOTES

CGBC 4.106 - SITE DEVELOPMENT

- CGBC 4.106.2.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER APPLICABLE LOCAL ORDINANCES SHALL BE FILTERED BY USE OF A BARRIER SYSTEM, WATTLE OR OTHER METHOD APPROVED BY THE ENFORCING **AGENCY**
- CGBC 4.106.2.3 DISPLACED TOPSOIL SHALL BE STOCKPILED FOR REUSE IN A DESIGNATED AREA AND COVERED OR PROTECTED FROM EROSION.
- CGBC 4.106.3 GRADING AND PAVING CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. EXAMPLES OF METHODS TO MANAGE SURFACE WATER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: 1.SWALES, 2.WATER COLLECTION AND DISPOSAL SYSTEMS, 3.FRENCH DRAINS, 4.WATER RETENTION GARDENS, 5.OTHER WATER MEASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE
- CGBC 4.106.4.1 NEW ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES WITH ATTACHED PRIVATE GARAGES FOR EACH DWELLING UNIT, INSTALL A LISTED RACEWAY TO ACCOMMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1 (NOMINAL 1-INCH INSIDE DIAMETER). THE RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND SHALL TERMINATE INTO A LISTED CABINET BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF AN EV CHARGER. RACEWAYS ARE REQUIRED TO BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES. THE SERVICE PANEL AND/OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE.

CGBC SECTION 4.303 - INDOOR WATER USE

- CGBC 4.303.1.1 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.
- CGBC 4.303.1.2 URINALS THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH. THE EFFECTIVE FLUSH VOLUME OF ALL OTHER URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.
- CGBC 4.303.1.3.1 SINGLE SHOWERHEAD SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEAD.
- CGBC 4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, 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 SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME.
- CGBC 4.303.1.4.1 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.
- CGBC 4.303.1.4.4 KITCHEN FAUCETS 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.

CGBC SECTION 4.304 - OUTDOOR WATER USE

CGBC 4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS - AFTER DECEMBER 1, 2015, NEW RESIDENTIAL DEVELOPMENTS WITH AN AGGREGATE LANDSCAPE AREA EQUAL TO OR GREATER THAN 500 SQUARE FEET SHALL COMPLY WITH ONE OF THE FOLLOWING OPTIONS: 1. A LOCAL WATER EFFICIENT LANDSCAPE ORDINANCE OR THE CURRENT CALIFORNIA DEPARTMENT OF WATER RESOURCES' MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO), WHICHEVER IS MORE STRINGENT; OR 2. PROJECTS WITH AGGREGATE LANDSCAPE AREAS LESS THAN 2,500 SQUARE FEET MAY COMPLY WITH THE MWELO'S APPENDIX D PRESCRIPTIVE COMPLIANCE OPTION.

CGBC 4.406 - ENHANCED DURABILITY AND REDUCED MAINTENANCE

CGBC 4.406.1 RODENT PROOFING - ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.

- CGBC 4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
- CGBC 4.408.1 CONSTRUCTION WASTE MANAGEMENT RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH EITHER SECTION 4.408.2, 4.408.3 OR 4.408.4, OR MEET A MORE STRINGENT LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE.

- CGBC 4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN SUBMIT A CONSTRUCTION WASTE MANAGEMENT PLAN | K. IN CONFORMANCE WITH ITEMS 1 THROUGH 5. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE ENFORCING AGENCY. 1. IDENTIFY THE CONSTRUCTION AND DEMOLITION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE. 2. SPECIFY IF CONSTRUCTION AND DEMOLITION WASTE MATERIALS WILL BE SORTED ON-SITE (SOURCE-SEPARATED) OR BULK MIXED (SINGLE STREAM), 3. IDENTIFY DIVERSION FACILITIES WHERE THE CONSTRUCTION AND DEMOLITION WASTE | 2. MATERIAL WILL BE TAKEN. 4. IDENTIFY CONSTRUCTION METHODS EMPLOYED TO REDUCE THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE GENERATED. 5. SPECIFY THAT THE AMOUNT OF CONSTRUCTION AND DEMOLITION WASTE MATERIALS DIVERTED SHALL BE CALCULATED BY WEIGHT OR VOLUME, BUT NOT BY BOTH. CGBC 4.408.3 WASTE MANAGEMENT COMPANY - UTILIZE A WASTE MANAGEMENT COMPANY, APPROVED BY THE
- ENFORCING AGENCY, WHICH CAN PROVIDE VERIFIABLE DOCUMENTATION THAT THE PERCENTAGE OF CONSTRUCTION AND DEMOLITION WASTE MATERIAL DIVERTED FROM THE LANDFILL COMPLIES WITH SECTION
- CGBC 4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR] PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS, WHICH DO NOT EXCEED 3.4 POUNDS PER SQUARE FOOT OF THE BUILDING AREA SHALL MEET THE MINIMUM 65 PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT IN SECTION 4.408.1.

CGBC 4.410 - BUILDING MAINTENANCE AND OPERATION

CGBC 4.410.1 OPERATION AND MAINTENANCE MANUAL - AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE BUILDING: 1. DIRECTIONS TO THE OWNER OR OCCUPANT THAT THE MANUAL SHALL REMAIN WITH THE BUILDING THROUGHOUT THE LIFE CYCLE OF THE STRUCTURE. 2. OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING: A. EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, PHOTOVOLTAIC SYSTEMS, ELECTRIC VEHICLE CHARGERS, WATER-HEATING SYSTEMS AND OTHER MAJOR APPLIANCES AND EQUIPMENT B. ROOF AND YARD DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS. C. SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS. D. LANDSCAPE IRRIGATION SYSTEMS. E. WATER REUSE SYSTEMS. 3. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION. INCLUDING RECYCLE PROGRAMS AND LOCATIONS. 4. PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA. 5 EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AN INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE. 6. INFORMATION ABOUT WATER-CONSERVING LANDSCAPE AND IRRIGATION DESIGN AND CONTROLLERS WHICH CONSERVE WATER. 7. INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND THE IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION. 8. INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING, BUT NOT LIMITED TO, CAULKING, PAINTING, GRADING AROUND THE BUILDING, ETC. 9. INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVE PROGRAMS AVAILABLE. 10. A COPY OF ALL SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.

CBGC 4.503 - FIREPLACES

CGBC 4.503.1 GENERAL - ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. ANY INSTALLED WOOD STOVE OR PELLET STOVE SHALL COMPLY WITH U.S. EPA NEW SOURCE PERFORMANCE STANDARDS (NSPS) EMISSION LIMITS AS

LABEL INDICATING THEY ARE CERTIFIED TO MEET THE EMISSION LIMITS. WOODSTOVES, PELLET STOVES AND FIREPLACES SHALL ALSO COMPLY WITH

CBGC 4.504 - POLLUTANT CONTROL

APPLICABLE, AND SHALL HAVE A PERMANENT

- CGBC 4.504.1 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION - AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.
- CGBC 4.504.2.1 ADHESIVES, SEALANTS AND CAULKS ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS UNLESS MORE STRINGENT LOCAL OR REGIONAL AIR POLLUTION OR AIR QUALITY MANAGEMENT DISTRICT RULES APPLY: 1. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS, AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLE 4.504.1 OR 4.504.2, AS APPLICABLE. SUCH PRODUCTS ALSO SHALL COMPLY WITH THE RULE 1168 PROHIBITION ON THE USE OF CERTAIN TOXIC COMPOUNDS (CHLOROFORM, ETHYLENE DICHLORIDE, METHYLENE CHLORIDE, PERCHLOROETHYLENE AND TRICHLOROETHYLENE), EXCEPT FOR AEROSOL PRODUCTS, AS SPECIFIED IN SUBSECTION 2 BELOW. 2. AEROSOL ADHESIVES, AND SMALLER UNIT SIZES OF ADHESIVES, AND SEALANT OR CAULKING COMPOUNDS (IN UNITS OF PRODUCT, LESS PACKAGING, WHICH DO NOT WEIGH MORE THAN 1 POUND AND DO NOT CONSIST OF MORE THAN 16 FLUID OUNCES) SHALL COMPLY WITH STATEWIDE VOC STANDARDS AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS, OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94507.
- CGBC 4.504.2.2 PAINTS AND COATINGS ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS IN TABLE 1 OF THE ARB ARCHITECTURAL SUGGESTED CONTROL MEASURE, AS SHOWN IN TABLE 4.504.3, UNLESS MORE STRINGENT LOCAL LIMITS APPLY. THE VOC CONTENT LIMIT FOR COATINGS THAT DO NOT MEET THE DEFINITIONS FOR THE SPECIALTY COATINGS CATEGORIES LISTED IN TABLE 4.504.3 SHALL BE DETERMINED BY CLASSIFYING THE COATING AS A FLAT, NONFLAT OR NONFLAT-HIGH GLOSS COATING, BASED ON ITS GLOSS, AS DEFINED IN SUBSECTIONS 4.21, 4.36, AND 4.37 OF THE 2007 CALIFORNIA AIR RESOURCES BOARD, SUGGESTED CONTROL MEASURE, AND THE CORRESPONDING FLAT, NONFLAT OR NONFLAT-HIGH GLOSS VOC LIMIT IN TABLE 4.504.3 SHALL APPLY
- CGBC 4.504.2.3 AEROSOL PAINTS AND COATINGS AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC IN SECTION 94522(A)(2) AND OTHER REQUIREMENTS, INCLUDING PROHIBITIONS ON USE OF CERTAIN TOXIC COMPOUNDS AND OZONE DEPLETING SUBSTANCES, IN SECTIONS 94522(E)(1) AND (F)(1) OF CALIFORNIA CODE OF REGULATIONS, TITLE 17, COMMENCING WITH SECTION 94520; AND IN AREAS UNDER THE JURISDICTION OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT ADDITIONALLY COMPLY WITH THE PERCENT VOC BY WEIGHT OF PRODUCT LIMITS OF REGULATION 8, RULE 49.
- CGBC 4.504.2.4 VERIFICATION VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL BE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY. DOCUMENTATION MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING: 1. MANUFACTURER'S PRODUCT SPECIFICATION. 2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS.
- CGBC 4.504.3 CARPET SYSTEMS ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING: 1. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS | 3. PROGRAM. 2. CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350.) 3. NSF/ANSI 140 AT THE GOLD LEVEL. 4. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE™ GOLD.
- CGBC 4.504.4 RESILIENT FLOORING SYSTEMS WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING: 1. PRODUCTS COMPLIANT WITH THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350), CERTIFIED AS A CHPS LOW-EMITTING MATERIAL IN THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS) HIGH PERFORMANCE PRODUCTS DATABASE. 2. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN & SCHOOLS PROGRAM). 3. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM. 4. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH. "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).
- CGBC 4.504.5 COMPOSITE WOOD PRODUCTS HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN ARB'S AIR TOXIC CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ.), BY OR BEFORE THE DATES SPECIFIED IN THOSE SECTIONS, AS SHOWN IN TABLE 4.504.5.

- CGBC 4.505 INTERIOR MOISTURE CONTROL
- CGBC 4.505.2 CONCRETE SLAB FOUNDATIONS CONCRETE SLAB FOUNDATIONS REQUIRED TO HAVE A VAPOR RETARDER BY THE CALIFORNIA BUILDING CODE CHAPTER 19 OR CONCRETE SLAB-ON-GROUND FLOORS REQUIRED TO HAVE A VAPOR RETARDER BY THE CALIFORNIA RESIDENTIAL CODE, CHAPTER 5, SHALL ALSO COMPLY WITH
- CGBC 4.505.2.1 CAPILLARY BREAK A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANCE WITH AT LEAST ONE OF THE FOLLOWING: 1. A 4-INCH-THICK (101.6 MM) BASE OF 1/2 INCH (12.7 MM) OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED. FOR ADDITIONAL INFORMATION, SEE AMERICAN CONCRETE INSTITUTE, ACI 302.2R-06. 2. OTHER EQUIVALENT METHODS APPROVED BY THE ENFORCING AGENCY. 3. A SLAB DESIGN SPECIFIED BY A LICENSED DESIGN PROFESSIONAL
- CGBC 4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19-PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING: 1. MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE-TYPE OR CONTACT TYPE MOISTURE METER. EQUIVALENT MOISTURE VERIFICATION METHODS MAY BE APPROVED BY THE ENFORCING AGENCY AND SHALL SATISFY REQUIREMENTS FOUND IN SECTION 101.8 OF THIS CODE. 2. MOISTURE READINGS SHALL BE TAKEN AT A POINT 2 FEET (610 MM) TO 4 FEET (1219 MM) FROM THE GRADE STAMPED END OF EACH PIECE TO BE VERIFIED. 3. AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE ENFORCING AGENCY PROVIDED AT THE TIME OF APPROVAL TO ENCLOSE THE WALL AND FLOOR FRAMING.

CGBC 4.506 INDOOR AIR QUALITY AND EXHAUST

CGBC 4.506.1 BATHROOM EXHAUST FANS - EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING: 1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. 2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL. A. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤ 50 PERCENT TO A MAXIMUM OF 80 PERCENT. B. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT. 3. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).

M. CGBC 4.507 ENVIRONMENTAL COMFORT

CGBC 4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN - HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS: 1. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL J—2011 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. 2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D—2014 (RESIDENTIAL DUCT SYSTEMS), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS. 3. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S—2014 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

FIRE-RESISTANT CONSTRUCTION

- R302.6 DWELLING/GARAGE AND/OR CARPORT FIRE SEPARATION THE GARAGE AND/OR CARPORT SHALL BE SEPARATED AS REQUIRED BY TABLE R302.6. OPENINGS IN GARAGE WALLS SHALL COMPLY WITH SECTION R302.5. ATTACHMENT OF GYPSUM BOARD SHALL COMPLY WITH TABLE R702.3.5.
- R302.11 FIREBLOCKING IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE PROVIDED TO CUT OFF BOTH VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.

FENESTRATIONS AND GLAZING

- CRC 308.1 IDENTIFICATION EXCEPT AS INDICATED IN SECTION R308.1.1 EACH PANE OF GLAZING INSTALLED IN HAZARDOUS LOCATIONS AS DEFINED IN SECTION R308.4 SHALL BE PROVIDED WITH A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED THE DESIGNATION, DESIGNATING THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD WITH WHICH IT COMPLIES, WHICH IS VISIBLE IN THE FINAL INSTALLATION. THE DESIGNATION SHALL BE ACID ETCHED, SANDBLASTED, CERAMIC-FIRED, LASER ETCHED, EMBOSSED, OR BE OF A TYPE THAT ONCE APPLIED CANNOT BE REMOVED WITHOUT BEING DESTROYED. A LABEL SHALL BE PERMITTED IN LIEU OF THE MANUFACTURER'S DESIGNATION.
- CRC 310.2.1 MINIMUM OPENING AREA EMERGENCY AND ESCAPE RESCUE OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET (0.530 M2). THE NET CLEAR OPENING DIMENSIONS REQUIRED BY THIS SECTION SHALL BE OBTAINED BY THE NORMAL OPERATION OF THE EMERGENCY ESCAPE AND RESCUE OPENING FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL BE NOT LESS THAN 24 INCHES (610 MM) AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20 INCHES (508 MM).
- CRC 310.2.2 WINDOW SILL HEIGHT WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44 INCHES (1118 MM) MEASURED FROM THE FLOOR; WHERE THE SILL HEIGHT IS BELOW GRADE, IT SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH SECTION R310,2.3.
- ALL EXTERIOR WINDOWS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440.
- ALL EXTERIOR SLIDING DOORS SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE CHARACTERISTICS AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440. EXTERIOR SIDE-HINGED DOORS SHALL BE TESTED AND LABELED AS CONFORMING TO AAMA/WDMA/CSA 101/I.S.2/A440 OR COMPLY WITH CRC R609.5

VENTILATION

- CRC 408.1 VENTILATION THE UNDER-FLOOR SPACE BETWEEN THE BOTTOM OF THE FLOOR JOISTS AND THE EARTH UNDER ANY BUILDING (EXCEPT SPACE OCCUPIED BY A BASEMENT) SHALL HAVE VENTILATION OPENINGS THROUGH FOUNDATION WALLS OR EXTERIOR WALLS. THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 150 SQUARE FEET (14 M2) OF UNDER-FLOOR SPACE AREA, UNLESS THE GROUND SURFACE IS COVERED BY A CLASS 1 VAPOR RETARDER MATERIAL. WHERE A CLASS 1 VAPOR RETARDER MATERIAL IS USED, THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL BE NOT LESS THAN 1 SQUARE FOOT (0.0929 M2) FOR EACH 1,500 SQUARE FEET (140 M2) OF UNDER-FLOOR SPACE AREA. ONE SUCH VENTILATING OPENING SHALL BE WITHIN 3 FEET (914 MM) OF EACH CORNER OF THE BUILDING.
- CRC 806.2 MINIMUM VENT AREA THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE.
 - BATHROOM EXHAUST FANS: ENERGY STAR COMPLIANT. PROVIDE 50CFM MIN INTERMITTENT AIRFLOW OR 20CFM MIN CONTINUOUS AIRFLOW. TIME SWITCH TO PROVIDE 90CFM MIN OR 5 CHANGES OF AIR PER HOUR. TERMINATE VENT THRU ROOF 3'-0"MIN FROM ANY OPERABLE FENESTRATION.
- BATHROOM EXHAUST FAN AND WHOLE HOUSE INDOOR AIR QUALITY VENTILATION FAN. FAN SHALL BE EQUIPPED W/ 60CFM ALWAYS ON OR TIME CLOCK TO PROVIDE 1,440CF DAILY. TERMINATE VENT THRU ROOF 3'-0"MIN FROM ANY OPERABLE FENESTRATION.
- RANGE HOOD EXHAUST: IN-WALL APPROVED DUAL WALL 26GA METAL: PROVIDE 100CFM MIN INTERMITTENT AIRFLOW OR 5 AIR CHANGES PER HOUR. TERMINATE THRU ROOF 3'-0" MIN FROM ANY OPERABLE FENESTRATION.
- HVAC SYSTEM: DIRECT VENT, HIGH EFFICIENCY, VERTICAL DRAW. PROVIDE GAS SHUT OFF VALVE IN ACCESSIBLE LOCATION. PROVIDE FIBERGLASS DRAIN PAN, CONNECT TO SANITARY SEWER. TERMINATE VENT MIN 3'-0" FROM PROPERTY LINE OR OPERABLE FENESTRATION. FILTRATION: MERV 6 OR BETTER. PROVIDE MAKE-UP OUTSIDE AIR PER CEC 150(O) AND WHOLE HOUSE VENTILATION FAN. HVAC SHALL COMPLY W/ CGBS 4.507.2 HVAC SYSTEM INSTALLERS WILL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS AND EQUIPMENT BY A RECOGNIZED TRAINING/CERTIFICATION PROGRAM.
- CMC 502.2.1 ENVIRONMENTAL AIR DUCTS ENVIRONMENTAL AIR DUCT EXHAUST SHALL TERMINATE NOT LESS THAN 3 FEET (914 MM) FROM A PROPERTY LINE, 10 FEET (3048 MM) FROM A FORCED AIR INLET, AND 3 FEET (914 MM) FROM OPENINGS INTO THE BUILDING. ENVIRONMENTAL EXHAUST DUCTS SHALL NOT DISCHARGE ONTO A PUBLIC WALKWAY.

ARCHITECT: M DESIGNS ARCHITECTS

Description

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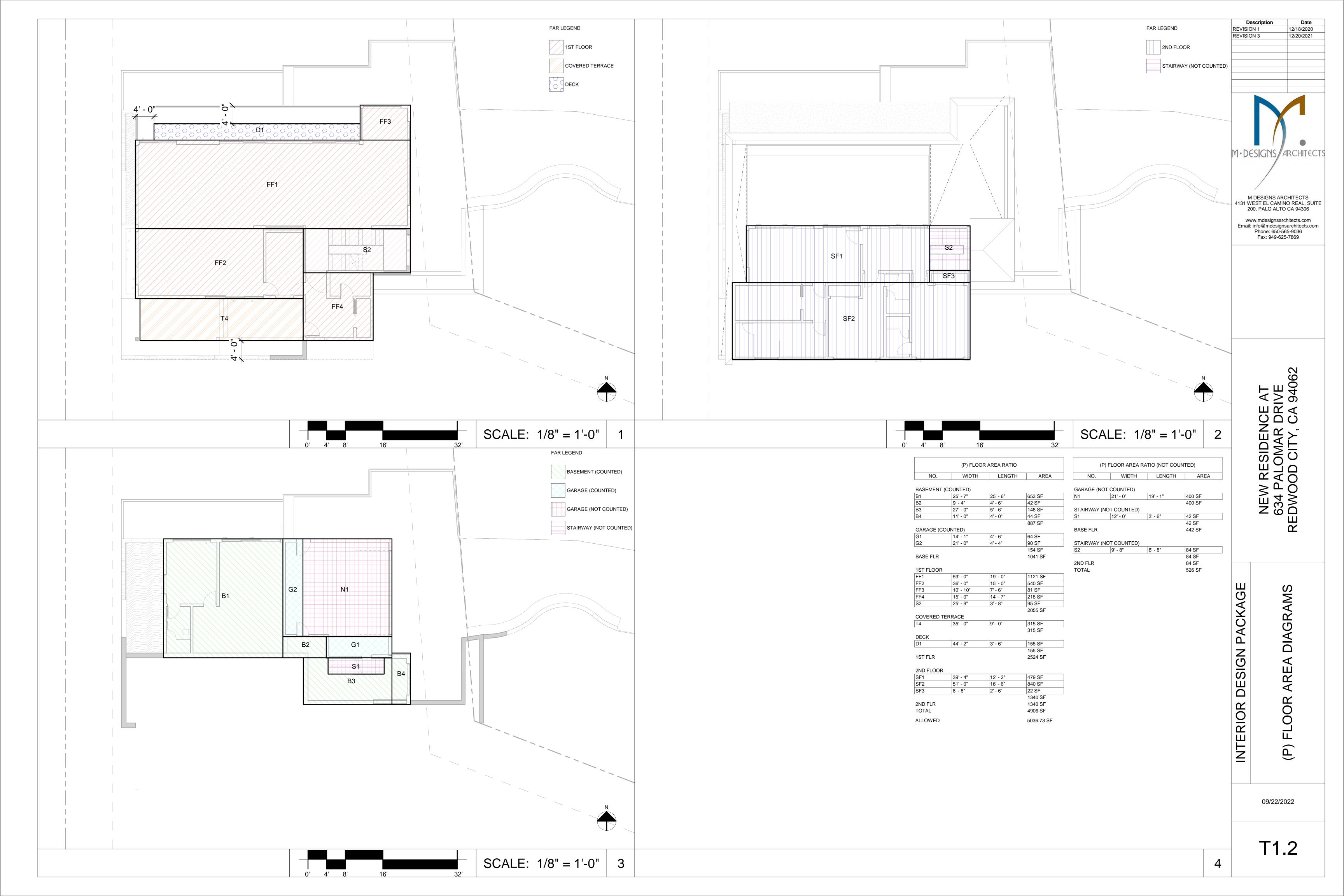
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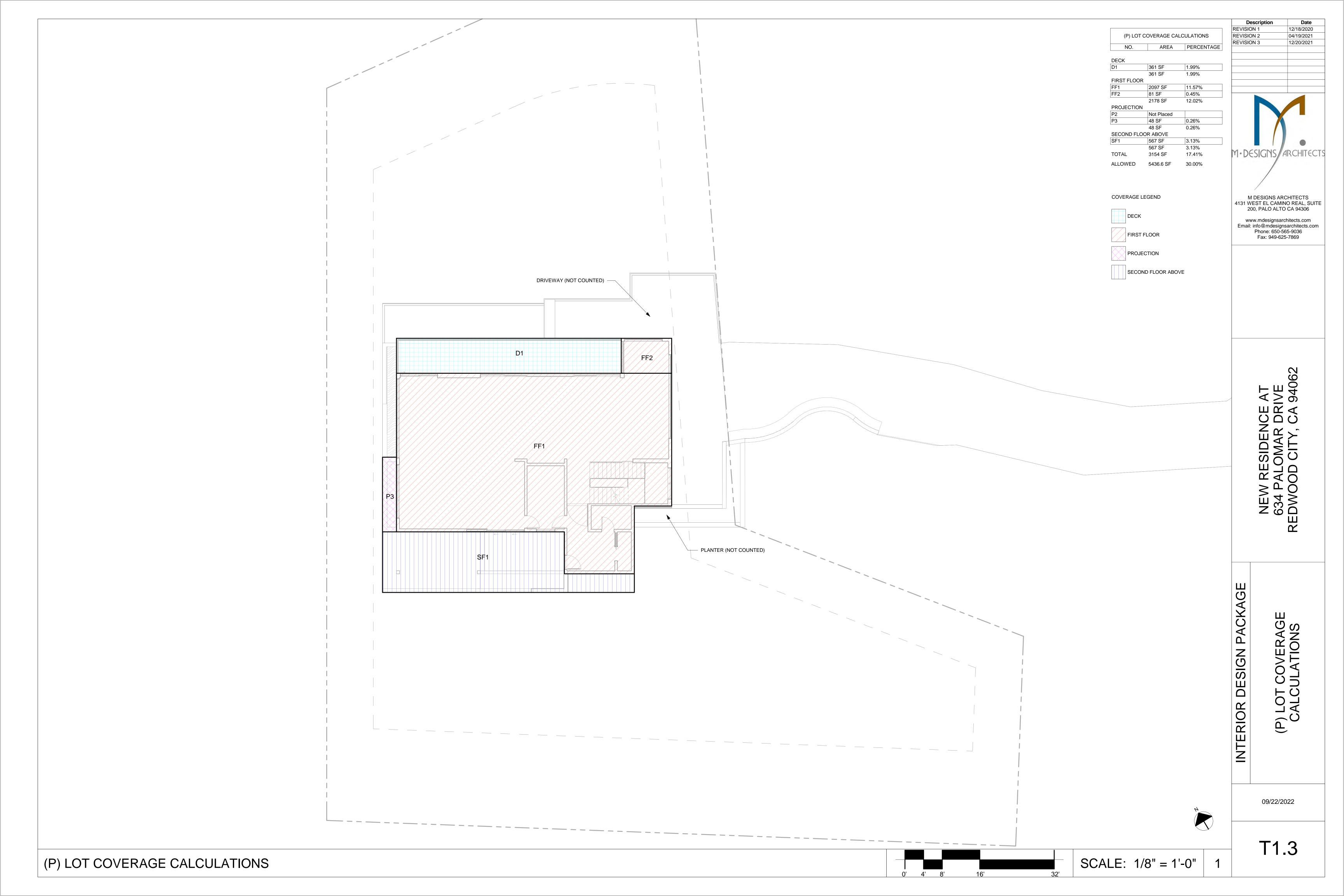
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09/22/2022

Description <u>ACCESS</u> **FIREPROOF PANEL** (#) WALL TAG (E) WALLS TO REMAIN FRM. PR. PAIR **ANGLE** FRAMING CRC 408.4 ACCESS - ACCESS SHALL BE PROVIDED TO ALL UNDER-FLOOR SPACES. ACCESS OPENINGS THROUGH POINT FOOR OF FEET [#] WINDOW TAC THE FLOOR SHALL BE A MINIMUM OF 18 INCHES BY 24 INCHES (457 MM BY 610 MM). OPENINGS THROUGH A **FOOTING** PAINTED CENTERLINE PERIMETER WALL SHALL BE NOT LESS THAN 16 INCHES BY 24 INCHES (407 MM BY 610 MM). WHERE ANY PORTION FURR. **FURRING** PTN. **PARTITION** PHASABLE @ (E) BLDG $(\hspace{.1cm} \# \hspace{.1cm})$ door tag OF THE THROUGH-WALL ACCESS IS BELOW GRADE, AN AREAWAY NOT LESS THAN 16 INCHES BY 24 INCHES (407 FUT. FUTURE POUND OF NUMBER MM BY 610 MM) SHALL BE PROVIDED. GENERAL CONTRACTOR Q.T. **QUARRY TILE** (T) TEMPERED TAG PROPERTY LINE CRC 807.1 ATTIC ACCESS - BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN G.F.R.C. GLASS FIBER REIN. CONC ANCHOR BOLT ATTIC ACCESS OPENING TO ATTIC AREAS THAT HAVE A VERTICAL HEIGHT OF 30 INCHES (762 MM) OR GREATER DOOR G.F.R.G. GLASS FIBER REIN. GYP. (OBS) OBSCURE TAG A.F.F ABOVE FINISHED FLOOR OVER AN AREA OF NOT LESS THAN 30 SQUARE FEET (2.8 M2). THE VERTICAL HEIGHT SHALL BE MEASURED FROM **ROOF DRAIN** GALVANIZED IRON A.P.L. ASSUMED PROPERTY LINE **ROBE HOOK** THE TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS. THE ROUGH-GLUE-LAMINATED BEAM R.H. (#) PLAN NOTE AIR CONDITIONING FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES (559 MM BY 762 MM) AND SHALL BE R.O. ROUGH OPENING GAUGE **ACOUSTICAL** LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION. WHERE LOCATED IN A WALL, THE OPENING G.B. **GRADE BEAM RESILENT TILE** | BASE CABINET **ADDITIONAL** SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH (559 MM WIDE BY 762 MM HIGH). WHERE THE R.W.L GALVANIZED RAIN WATER LEADER ADDN. ADDITION ACCESS IS LOCATED IN A CEILING, MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 **GENERAL** RAD. RADIUS ELEVATION TAG _ _ _ _ ADJ. **ADJUSTABL** INCHES (762 MM) AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING ROUND **AGGREGATE** FRAMING MEMBERS. SEE THE CALIFORNIA MECHANICAL CODE FOR ACCESS REQUIREMENTS WHERE MECHANICAL CORNER BASE CABINET GROUND REF. REFERENCE **ALUMINUM** EQUIPMENT IS LOCATED IN ATTICS. REFG GRADE REFRIGERATOR M.DESIGNS/ARCHITECT **ALTERNATE GYPSUM** REG. **REGISTER** GYP. DETAIL TAG APPROX. **APPROXIMATE** REINF. KITCHEN AND BATHROOM GYP. BD. **GYPSUM BOARD** REINFORCEMENT ARCH. ARCHITECTURAL TALL CABINET HANDICAP ACCESSIBLE REQ'D REQUIRED BENCH MARK **RESIL** DISHWASHER: PROVIDE DIRECT CONNECTION TO WASTE WATER LINE OR GARBAGE DISPOSAL OR AN APPROVED **HOSE BIBB** RESILIENT B.O.B. BOTTOM OF BEAM AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHER MACHINE PER CPC 807.3. H.C. HOLLOW CORE REV. REVISION SECTION TAG BOARD GAS FIRED COOKTOP: PROVIDE GAS SHUT OFF VALVE IN APPROVED ACCESSIBLE LOCATION. **HOLD DOWN** RFG. ROOFING **BITUM BITUMINOUS** M DESIGNS ARCHITECTS WATER CLOSETS: 30"W X 24"D CLEAR SPACE FRONT OF TOILET. H.S.B. HIGH-STRENGTH BOLT RGH. ROUGH 4131 WEST EL CAMINO REAL, SUITE BLDG. BUILDING R307.2 - BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN **HOLLOW METAL** ROOM 200, PALO ALTO CA 94306 **GRID MARKER** BLKG. BLOCKING SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL **REDWOOD** H.W. HOT WATER CORNER WALL CABINET BM. BEAM EXTEND TO A HEIGHT OF NOT LESS THAN 6' ABOVE THE FLOOR HD. Email: info@mdesignsarchitects.com BOTTOM Name LEVEL MARKER R308.4.5 - GLAZING IN WALLS, ENCLOSURES OF FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, HDR. **HEADER** SEE ARCH. DRAWINGS Phone: 650-565-9036 BTWN. **BETWEEN** SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE HARDWARE **SOLID CORE** Fax: 949-625-7869 CATCH BASIN ♣ SPOT ELEVATION BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR S.C.D. **HDWD** HARDWOOD SEAT COVER DISPENSER COUNTERTOP C.C.T. CUBICLE CURTAIN TRACK WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE S.D. SOAP DISPENSER **HOOK** C.D.U COMB. DISPENSING UNIT /1\ REVISION DELTA **HORIZ** GLAZING AND EACH PANE IN MULTIPLE GLAZING HORIZONTAL **SAWCUT JOIST** C.I. CAST IRON S.M.D. SEE MECH. DRAWINGS C.J. CONTROL JOINT SHEET METAL SCREW STAIR NOTES HT. **HEIGHT** S.M.S. C.L.P CENTERLINE OF PIER COUNTERTOP L **HEATER** S.O.G. SLAB ON GRADE C.M.U. CONCRETE MASONRY UNIT R311.7.1 WIDTH - STAIRWAYS SHALL BE NOT LESS THAN 36 INCHES (914 MM) IN CLEAR WIDTH AT ALL POINTS INSIDE DIAMETER STAINLESS STEEI C.O. **CLEAN OUT** ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALI SERVICE SINK INSIDE FACE Length X Width C.T. **CERAMIC TILE** NOT PROJECT MORE THAN 4 1/2 INCHES (114 MM) ON EITHER SIDE OF THE STAIRWAY AND THE CLEAR WIDTH OF **ISOLATION JOINT** S.W. SHEAR WALL SHELVE & ROD CABINET SCHED. SCHEDULE THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL BE NOT LESS CEM CEMENT THAN 31 1/2 INCHES (787 MM) WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES (698 MM) WHERE INSULATION SCR. SCREW CER. CERAMIC HANDRAILS ARE PROVIDED ON BOTH SIDES. SDG. SIDING INT. INTERIOR NORTH ARROW |SHOWER | SHOWER CLG. CEILING R311.7.2 HEADROOM - THE HEADROOM IN STAIRWAYS SHALL BE NOT LESS THAN 6 FEET 8 INCHES (2032 MM) SECT. **SECTION** CLR. CLEAR MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE INT. SEL. SELECT INTRAVENOUS TRACK COL COLUMN SELECT STRUCTURAL OF THE LANDING OR PLATFORM ON THAT PORTION OF THE STAIRWAY **JANITOR** GRAPHIC SCALE **COMB** COMBINATION R311.7.5.1 RISERS - THE RISER HEIGHT SHALL BE NOT MORE THAN 7 3/4 INCHES (196 MM). THE RISER SHALL BE JST JOIST SHELF CONC CONCRETE WATER CLOSET MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT JOINT SHT. SHEET CONN. CONNECTION WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM). RISERS KIT. **KITCHEN** SHWR. SHOWER CONST. CONSTRUCTION SHALL BE VERTICAL OR SLOPED FROM THE UNDERSIDE OF THE NOSING OF THE TREAD ABOVE AT AN ANGLE NOT LAMINATED PLASTIC SIM. SIMILAR CONT. CONTINUOUS **SLIDING** MORE THAN 30 DEGREES (0.51 RAD) FROM THE VERTICAL. OPEN RISERS ARE PERMITTED PROVIDED THAT THE LAM. SLDG LAMINATE CONTR. CONTRACTOR BIDET OPENINGS LOCATED MORE THAN 30 INCHES (762 MM), AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE SM. **SMOOTH** LAVATORY CORR. CORRIDOR BELOW DO NOT PERMIT THE PASSAGE OF A 4-INCH-DIAMETER (102 MM) SPHERE **SPEC SPECIFICATION** POUND CENTER R311.7.5.2 TREADS - THE TREAD DEPTH SHALL BE NOT LESS THAN 10 INCHES (254 MM). THE TREAD DEPTH SHALL **LEDGER** SPLASH CTSK. COUNTERSUNK 国区区 BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT LGTH. SQ. SQUARE LENGTH (😭) BIDET DEFORMED BAR ANCHOR D.B.A. TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY $O \cap O$ STD. **STANDARD** LIGHT D.D. DECK DRAIN FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH (9.5 MM) **STAGGER** DOUGLAS FIR R311.7.8.1 HEIGHT - HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD STIFF. STIRRUP MACHINE BOLT D.O. DO OVER WH WATER HEATER NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES (864 MM) AND NOT MORE MOP AND BROOM HOLDER STL. STEEL D.P. DAMP PROOFING STORAGE THAN 38 INCHES (965 MM). MEDICINE CABINET DRK. FTN. DRINKING FOUNTAIN QUEEN R312.1.2 HEIGHT - REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES. INCLUDING STAIRS. PORCHES MATCH EXISTING STRUCT. STRUCTURA DOWNSPOUT AC AIR CONDITIONING UNIT BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 42 INCHES (1067 MM) IN HEIGHT AS MEASURED VERTICALLY MEDICAL GAS PANEL M.G.P. SUSPENDED **DECIBEL** ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LEADING EDGES OF THE TREADS. MANHOLE SW. BD. SWITCH BOARD DBL. **DOUBLE** MARKER BOARD SYMMETRICAL M.K. SYM. O QUEEN BED DEPT DEPARTMENT **ADDRESS** M.O. MASONRY OPENING ≥ ₽ DET. DETAIL FURN FURNACE MAT MATERIAL TREAD DIAMETER R319.1 ADDRESS IDENTIFICATION - BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE MAX. MAXIMUM TOP AND BOTTOM DIAG. DIAGONAL T&G ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD MECH. **MECHANICAL** TONGUE AND GROOVE SINK VANITY SINK DIMENSION FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. MEMB. **MEMBRANE** T.B. TOWEL BAR DISPENSER ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL NOT BE SPELLED OUT. T.D. TRENCH DRAIN MEZZ. **MEZZANINE** DOWN SINK EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES (102 MM) IN HEIGHT WITH A STROKE WIDTH OF NOT LESS THAN MFR. MANUFACTURER T.O. TOP OF DOUBLE SINGLE SINK DOOR 0.5 INCH (12.7 MM), WHERE REQUIRED BY THE FIRE CODE OFFICIAL, ADDRESS IDENTIFICATION SHALL BE PROVIDED IN MINIMUM T.O.C. TOP OF CURB/CONC DRAWING ADDITIONAL APPROVED LOCATIONS TO FACILITATE EMERGENCY RESPONSE. WHERE ACCESS IS BY MEANS OF A MISC **MISCELLANEOUS** T.O.F. TOP OF FOOTING **EXISTING** PRIVATE ROAD AND THE BUILDING ADDRESS CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR MLDG. MOULDING T.O.P. TOP OF PLATE **DBL SINK** ∘ SINK ∘ **EACH FACE DOUBLE BED** OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE. ADDRESS IDENTIFICATION SHALL BE MOUNTED T.O.S. TOP OF STEEL E.I.F.S. EXT. INSUL. & FIN. SYSTEM MAINTAINED. T.O.W. TOP OF WALL METAL E.J. **EXPANSION JOINT** MUL. **MULLION** T.P. TOP OF PAVEMENT E.N. **EDGE NAIL** TUB T.P.D. **TOILET PEPER DISPENSER** CITY PRACTICES BATH TUB E.O.R. ENGINEER OF RECORD **NEAR FACE** TEL. **TELEPHONE** E.W. **EACH WAY** ALL ENGINEERING INSPECTIONS REQUIRE 24-HOUR NOTICE NATURAL GRADE TER. **TERRAZZO** N.G. E.W.C. ELECTRIC WATER COOLER WORK HOURS: NO WORK SHALL COMMENCE ON THE JOB SITE PRIOR TO 7:00 A.M. NOR CONTINUE LATER THAN NOT IN CONTRACT THK. THICK TWIN EA. EACH TACKBOARD 6:00 P.M., MONDAY THROUGH FRIDAY. EXCEPTION WITH WRITTEN PERMISSION FROM THE CITY N.T.S. NOT TO SCALE TK. BD. W WASHER **ELEVATION** ROADWAYS SHALL BE MAINTAINED CLEAR OF CONSTRICTION MATERIALS AND DEBRIS AT ALL TIMES. DAILY ROAD NUMBER **TELEVISION** NO. **ELECTRICAI** NOM. CLEAN UP WILL BE ENFORCED. NOMINAL TYP. TYPICAL ELEV. **ELEVATOR** TWIN BED TRENCHES OR HOLES WITHIN THE PUBLIC RIGHT OF WAY MUST BE BACK FILLED BEFORE LEAVING EACH NIGHT O.A. OVERALL EMERG. **EMERGENCY** UNLESS WRITTEN PERMISSION IS PROVIDED BY THE CITY ENGINEER, WITCH MUST BE REQUESTED 24 HOURS IN O.C. ON CENTER VINYL COMPOSITION TILE D DRYER ENCL. **ENCLOSURE ADVANCE** O.D. **OUTSIDE DIAMETER** V.C.P. VITREOUS CLAY PIPE EQ. **EQUAL** ALL RECORDED SURVEY POINTS, WHETHER WITHIN PRIVATE PROPERTY OR PUBLIC RIGHT OF WAY SHALL BE O.F. OUTSIDE FACE V.D.U. VISUAL DISPLAY UNIT **EQPT EQUIPMENT** A U PROTECTED AND PRESERVED. IF SURVEY POINTS ARE ALTERED REMOVED OR DESTROYED, THE APPLICANT O.F.C.I. OWNER FURNISHED V.G. VERTICAL GRAIN SIG EXH. **EXHAUST** W/D | WASHER/DRYER COMBO SHALL BE RESPONSIBLE FOR OBTAINING THE SERVICES OF A LICENSED SURVEYOR OR CIVIL ENGINEER TO CONTR. INSTALLED V.T. VINYL TILE SM EXP. **EXPANSION** RESTORE OR REPLACE THE THE SURVEY POINTS PRIOR AND RECORD THE REQUIRED MAP PRIOR TO COMPLETION OVERFLOW DRAIN V.T.R. VENT THROUGH ROOF **EXTERIOR** Z Z O ≻ **OVERFLOW SCUPPER** O.F.S. VERT. **VERTICAL** OF THE BUILDING PERMIT. **RECLINER** F.A. FIRE ALARM ELEC. COOKTOP AN ENCROACHMENT PERMIT WILL BE REQUIRED FOR ANY WORK WITHIN THE CITY RIGHT OF WAY O.H. OPPOSITE HAND VEST. VESTIBULE F.B. FLAT BAR AN ENCROACHMENT BOND (OR CASH OR CERTIFICATE OF DEPOSIT) WILL BE REQUIRED FOR ANY WORK WITHIN **VERIFY IN FIELD** O.L. OVERALL LENGTH V.I.F. $\stackrel{\sim}{=}$ F.C.O. FLOOR CLEAN OUT THE CITY OF RIGHT OF WAY O.S.B. ORIENTED STRAND BOARD COOKTOP FLOOR DRAIN ALL IMPROVEMENTS IN THE CITY RIGHT OF WAY OR PUBLIC EASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE OVER WITH FIRE EXTINGUISHER WITH THE CITY OF SPECIFICATIONS AND WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE THE CITY. OBS. OBSCURE W/O **WITHOUT** F.E.C. FIRE EXTINGUISHER CAB. LOVE SEAT GAS COOKTOP OPP. EXISTING SIDEWALK, CURB, GUTTER OR STREET ADJACENT TO PROPERTY FRONTAGE THAT IS DAMAGED OR WATER CLOSET **OPPOSITE** F.F. FAR FACE DISPLACED SHALL BE REPAIRED OR REPLACED EVEN IF THE DAMAGE OR DISPLACEMENT OCCURRED PRIOR TO W.F. OPENING WIDE FLANGE F.G. FINSHED GRADE COOKTOP POWER ACTUATED DEVICE W.H. ANY WORK PERFORMED FOR THIS PROJECT. P.A.D. WATER HEATER F.H.C. FIRE HOUSE BABINET ANY DAMAGE TO IMPROVEMENTS WITHIN CITY RIGHT OF WAY OR TO ANY PRIVATE PROPERTY. WHETHER PRECAST CONCRETE W.H.S. WELDED HEAD STUDS F.H.S. FLAT HEAD SCREW ADJACENT TO SUBJECT PROPERTY OR NOT, THAT IS DETERMINED BY THE CITY ENGINEER TO HAVE RESULTED P.I.P. POURED-IN-PLACE W.P. WATERPROOF **GAS RANGE** FLOW LINE SOFA FROM CONSTRUCTION ACTIVITIES RELATED TO THIS PROJECT, SHALL BE REPAIRED OR REPLACED AS DIRECTED P.J. TILT-UP PANEL JOIST W.S.P. WOOD STRUCT. PANEL FIELD NAIL WASTE RECEPTACLE BY THE CITY ENGINEER. P.L. PROPERTY LINE W.R. F.O.C. FACE OF CONCRETE RANGE THERE SHALL SHALL BE NO STRUCTURAL ENCROACHMENT IN THE PUBLIC RIGHT OF WAY P.O.C. POINT OF CONNECTION W.W.F. WELDED WIRE MESH F.O.F. FACE OF FINISH TRENCHES OR HOLES IN THE STREET OR SIDEWALK AREAS MUST HAVE A 6" SHOULDER ON ALL SIDES (2 6" TEE-P.S.F. POUNDS PER SQ. FOOT WD. WOOD F.O.M. FACE OF MASONRY BUILT-IN OVEN OVEN CUT) AT LEAST 16" BELOW THE FINISHED SURFACE. FROM THAT LEVEL UP TO THE UNDERSIDE P.S.I. POUNDS PER SQ. INCH WK. PT. **WORK POINT** F.O.S. FACE OF STUD P.T. PRESSURE TREATED WT. WEIGHT 09/22/2022 F.R. FIRE RETARDANT P.T.D. PAPER TOWEL DISPENSER FLR. SINK/FOOD SERVICE PLATE WASHER REF REFRIGERATOR **CORNER SOFA** F.S.E.C. FOOD SERVICE PEN. PENETRATION(S) EQUIPMENT CONTR. PERP. **PERPENDICULAR** F.S.S. FOLDING SHOWER SEAT PG. PAGE FOUNDATION **GAS METER** PLAM. PLASTIC LAMINATE T0.4 FIN. FINISH PL. PLATE FIXT. **FIXTURE PLASTER** PLAST. **FLOOR** ELECTRIC METER PLBG. **PLUMBING** FLUOR. **FLUORESCENT** PLYWOOD PLYWD.





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Cell 415,606,3010 email royid tree management experts com M-Design Architecture

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Redwood City, CA 94062

Date: 12/12/20

ARBORIST REPORT

Assignment

Arborist Report and Tree Protection Plan

- Review pre-existing relevant work product, as provided, site survey, schematic drawings.
- grading plans, landscape plans, utilities plans, etc.
- Visit the project site to evaluate trees and develop the scope for the report. Provide an evaluation of soil physical, chemical and drainage properties to typify the site at large. An existing Geotechnical report, site observations, testing and/or research of soil survey data may be utilized.
- Inspect adjacent properties for both overhanging tree canopies and sensitivity of adjacent
- tree root structure to construction impacts. Provide recommendations, as necessary From a site plan (to be provided by others), label each tree to match the Arborist Report and
- Provide a tree survey of all regulated trees on and adjacent to the project site. Provide data
- interpretation criteria. Identify potential construction impacts to trees and provide recommendations for
- modifications and/or mitigation to lessen these impacts
- Develop tree recommendations for site utilization planning for staging and equipment
- Develop tree maintenance recommendations.

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Tree Management Experts

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Background

The property at 634 Palomar Drive, Redwood City currently has 12 trees on the property. and 7 trees near the driveway approach that crosses the neighbor's property, for a total of 19 trees affected. The new construction will impact various trees due to paving the driveway, the footprint for a new house, geotechnical stabilization of a relatively recent landslide and the installation of a septic system.

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Lea & Braze Engineering has produced designs that show the landslide and septic system construction needs in detail, and the placement of the new home site and various retaining walls. Their utility plan sheet C-3.0 was used as the basis for the Site Plan with Additions that was created by us and is part of this report.

Tree Assessment

A total of 19 trees were found on this property and along the driveway approach. Tree numbers assigned to each tree below correspond to those used on the Site Plan with Additions. The data for free identification, size and condition are listed below:

Tree No.	Genus species	Common Name	Diameter	Height	Spread	Condition
1	Quercus agrifolia	Coast live cak	5,5"	20'	10,	Fair
2	Quercus agrifolia	Coast live oak	13.0	20	30	Good
3	Quercus agrifolia	Coast live cak	9.0	20'	30'	Fair
4	Quercus agnifolia	Coast live oak	22.5	30	40'	Good
5	Quercus agrifolia	Coast live oak	15.0"	30'	40"	Good
6	Quercus agnifolia	Coast live oak	13.0	201	30	Fair
7	Quercus agrifolia	Coast live cak	14.5",16.7",15.5	25'	401	Good
8	Aesculus californica	California buckeye	6,0"	12'	16'	Good
9	Quercus agnifolia	Coast live oak	11.5	25'	25'	Good
10	Quercus agrifolia	Coast live oak	11:7"	30'	25'	Good
11	Quercus agrifolia	Coast live oak	7.3*	25	15	Good
12:	Quercus agrifolia	Coast live cak	15.6	50	40'	Good
13	Umbellularia californica	California bay	4.B*	12	12	Good
14	Quercus agrifolia	Coast live cak	21.1",17.5"	40'	60,	Good
15.	Aesculus californica	California buckeye	10.07,6,47	20	30	Good
16	Aesculus californica	California buckeye	10' equivalent	12'	20'	Poer
17	Quercus agrifolia	Coast live oak	11.11.7.8	12	20	Poor
18	Eucalyptus globulus	Tasmanian blue guni	25.7',17.0'	50'	50)	Fair
19	Eucalyptus globulus	Tasmanian blue gum	12,0′.13,5′.19,5′.	50	50	Fair

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Project Arborists

Table 1.0 - All Trees

The Project Arborist reterred to in this report is identified here as a Consulting Arborist from Tree Management Experts, and will be either Roy Leggitt or Aaron Wang. Roy Leggitt has more than 30 years of experience after obtaining a BS in Plant Science - Ornamental Horticulture from CSU-Fresno, is a Certified Arborist and is Tree Risk Assessment Qualified (TRAQ). Aaron Wang has more than 8 years of experience after obtaining a BS in Forestry and Natural Resources from UC-Berkeley, is a Certified Arborist and is Tree Risk Assessment Qualified.

Trees to be Removed

A total of 8 trees must be removed due to poor health or structure, for purposes of construction, or both poor condition and construction. California bay carries sudden oak death, and this small tree should be removed to protect the health of the nearby coast live oaks. See page 10.

Tree No.	Genus species	Common Name	Diameter	Removal Reason
8	Aesculus californica	California buckeye	6.0	Within landslide repair
13	Umbellularia californica	California bay	4.8"	Sudden oak death carrier
14	Quercus agrifolia	Coast live oak	21.11.17.51	Within footprint of house
15	Aesculus californica	California buckeye	10.0",6.4"	Within leach field footprint
16	Aesculus californica	California buckeye	10' equivalent	Poor structure
17	Quercus agrifolia	Coast live cak	11.15,7.8	Poor structure, decayed trunk
18	Eucalyptus globulus	Taamanian biua gum	25,7', 17,0'	Too close to leach field, poor structure
18	Eucalyptus globulus	Tasmanian blue gum	12.0" 13.5" 19.5",	Too close to leach field, poor structure

Table 2.0 - Tree Removals

Tree Impacts and Recommendations

Tree Protection Zones

Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12

A Tree Protection Zone (TPZ) has been established for each remaining tree. Because of the landslide repairs, potential for grading, building footprint, leach field and retaining walls, all trees will be affected by construction, both along the driveway and on this property. The TPZ areas are graphically illustrated on the Tree Protection Plan (page 11), and the measured radius distances are shown in Table 3.0 below. If there is any difference, the measured radius distances in Table 3.0 will take precedence. Whenever

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> work is performed within the TPZ of a tree, the tree must have tree protection measures in place, per this Arborist Report. When any excavation, trenching, grading or vehicular access occurs within a TPZ, the Project Arborist must be on site.

Pre-construction Pruning

Trees 1, 2, 3, 4, 5, 6, 7 and 12

Table 3.0 also indicates pruning requirements for certain trees. Pruning as specified will remove branches proactively to prevent broken branches from trucks that would cause injury to the protected trees. The pruning must be completed before construction of any type begins since this is part of the tree protection.

In some cases, branches will be cut back part way, and in other cases lower branches will need to be removed entirely. The driveway will need truck access past trees 1, 2, 3, 4, 5 and 7. The area where the landslide occurred will need equipment access beneath tree 6. Clearances for construction of the house will need some pruning of tree 12. All pruning must be completed under the direction of the Project Arborist.

Tree No.	Genus species	Common Name	Diameter	Pre-construction Pruning Requirements	Tree Protection Zone Diamete
1	Quercus agrifolia	Coast live oak	5.5'	Driveway dearances	14.
2	Quercus agrifolia	Coast live oak	13.0	Onveway dearances	26"
3	Quercus agrifolia	Coast live oak	9.0	Driveway dearances	18'
4	Quercus agrifolia	Coast live oak	22/5	Driveway clearances	45'
5	Quercus agrifolia	Coast live oak	16,0"	Driveway clearances	32'
6	Quercus agrifolia	Coast live oak	13.0	Cut back northwest side	26
7	Quercus egrifolia	Coast live oak	14.5',16.7',15.5"	Driveway clearances	54'
9	Quercus agniolia	Coast live oak	11.5	None	23
10	Quercus agrifolia	Coast live call	11.7	None	24:
11	Quercus agrifolia	Coast Ive oak	7.3'	None	15'
12	Quercus agrifolia	Coast five oak	18.6"	South side clearances	37'

Table 3.0 – Tree Protection

Root Collar Protection and Root Collar Excavations

Trees 1, 2, 3, 4, 5, 6, 9 and 12

The root collars of trees 1, 2, 3, 4, 5 and 6 are currently partially buried under fill soil. The fill soil is either from grading or accumulation over time. The excess soil should be removed to a distance of 2 feet on all sides of each tree. The embankment created by

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> excavation should be supported by a dry stacked wall, similar to the wall currently in place, although materials may vary. This work must be completed under the direction of the Project Arborist

Soil cannot be placed within any TPZ area at any time. The TPZ areas cannot be regraded or raised to accommodate excess soil, tailings or fill soil

Similarly, soil cannot be graded down, cut away, or otherwise moved or removed within any TPZ except as shown on the Lea & Braze utility plan sheet C-3.0 and as specified in

Site and Soil Conditions

The site has soil conditions that are deep, sandy loam that has formed in place from native Franciscan sandstone. The soil has drainage, nutritional and chemical properties as necessary to support normal and healthy growth of all tree species found on the sile. Of particular note, native tree species are normal and healthy, and appeared to be generally free of serious diseases that would indicate either a disease court, poor drainage or soil compaction, all of which are damaging to trees and to the horticultural properties of soil. Based on these observations, it appears that native species of coastal trees and shrubs are well-suited to the site and could be used in future landscaping.

To maintain favorable conditions for trees and landscaping, only native soil should be used in filled areas such as behind retaining walls near the leach field. To preserve horticultural properties of the soil, soil placed atop the leach field should be laid down without tamping, vibration, rolling, saturating or otherwise causing compaction that exceeds 85 percent.

Construction Footprints

Trees 7 and 12

Various construction footprints requiring excavation may affect remaining trees.

- 1. A retaining wall along the east edge of the new entry
- Foundations for the house
- Utility connections for the sanitary sewer system 4. Utility connections for water, gas and electrical
- Driveway re-grading as part of new pavement

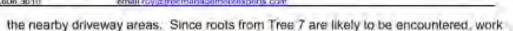
A new wall is needed to provide access to the front of the house at the driveway and security gate. This new wall has been pulled away from Tree 7 by 9 feet, and the grade of the driveway has been kept higher and close to the pre-construction grade to minimize root impacts. The TPZ of Tree 7 extends past the property lines and through

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the supervision of the Project Arborist.



must be done under the supervision of the Project Arborist. Foundations for the new house will encroach on the southwest part of the TPZ for Tree The tree protective fence must be placed and secured before excavation work begins. The root system extending up hill and toward the foundation excavation is likely fairly minimal, but could include some larger roots, and therefore must be done under

Utility connections for the new sanitary sewer system will be placed outside the foundations and will further encroach on part of the TPZ for Tree 12. This trenching will require that excavation tailings be placed on a temporary root buffer, that all work be done by hand, that common trenches be used whenever possible, and that the work be done under the supervision of the Project Arborist.

Utility connections that are placed underground are to travel down the landslide area. Use of this area will avoid trenching damage to the roots of the neighbor's oak trees

Driveway re-grading and new gravel as designed will likely have little impact on tree roots, except at retaining wall footings.

- I recommend that the retaining wall near Tree 7 be supported on drilled piers with above grade beams lying them together to support the wall.
- I recommend that base rock and new pavement be placed atop the existing grades without disturbance of the sub-grade. To avoid the need for compaction. I recommend the use of a geo-gnd membrane to distribute loads and stabilize the base rock without any compaction of the sub-grade.

The Project Arborist must provide oversight of all work on the retaining wall footings. sub-grade compaction or grading, and the installation of a geo-grid membrane.

Construction Procedures

EXCAVATION

All tree protective fencing, root buffers, mulch and irrigation must be in place prior to

At no time is any wheeled equipment, a Bobcat® or an excavator allowed to enter or cross over TPZ areas, except where existing road surfaces remain as a temporary root buffer during construction.

NEW DRIVEWAY CONSTRUCTION

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cannot be compacted or graded in any way. The new driveway gravel will be laid atop a Tensar® geogrid (or equivalent) weightdisbursing membrane that is laid directly on uncompacted native soil and/or the existing gravel surface.

Because of the Tree Protection Zones associated with the new driveway, the subgrade

EXISTING DRIVEWAY AS A ROOT BUFFER

further prevention of soil compaction and root damage.

Retain the existing driveway as a temporary root buffer to protect Trees 1, 2, 3, 4, 5, 6 and 7

from soil compaction root damage. If work occurs when rain is likely (November through April), additional protection is required in the TPZ of Tree 7. Place 1 1/8-inch thick sub-floor plywood over all soil areas, including the driveway, and secure the sheets together with clips or mending plates. This will offer

The existing driveway will serve as the access point for all equipment and deliveries, and for staging of materials and debris.

STAGING AREAS

Staging areas are available in the areas of the existing driveway, and on the new leach field. Consult with Lea & Braze regarding protection needs for the leach field if it is used in this

Any other or additional staging areas that are within TPZ areas will need to be placed on root buffers, subject to review and approval of the Project Arborist. The duration of root buffers within TPZ areas may be limited by the Project Arborist.

Tree Protection Implementation

Tree Protective Fencing

To implement tree protection measures effectively, precise measurement for fence locations is critical. Proper skills and equipment are required to place fences where they belong. It is essential that the fence installer refer to a copy of this Arborist Report and Table 3.0 at all times. Measurement of distances must be to within 6 inches, and cannot be completed properly by using either estimated or 'paced off' distances. Required equipment will include an appropriate Engineer's scale and either a laser range finder or a 100-foot tape measure with a helper

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Cell 415,606,3610 email coylid treatmanagement experis com It is recommended that fence posts be installed first. Measure each Tree Protection Zone

appropriate distance away from each footing, as shown on the Site Plan. Fence boundaries must meet, match and enclose areas defined by existing fences. The

(TPZ) and marking the TPZ locations with marking paint. Measure fence locations at the

exact location of existing fences is not known and must be determined in the field. Following surface installations, chain link fencing must be strung tightly and closed off at all

locations, including where abutting existing wooden fences

TREE PROTECTIVE FENCING AND WARNING SIGNS

Placement: all fence installation lines are indicated on the Site Plan. Trees affected will include Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11 and 12.

Type and Size: 5 or 6-foot high chain link fencing shall be placed on 2 inch tubular galvanized iron posts driven a minimum of 2 feet into undisturbed soil and spaced not more than 10 feet on center.

detached garage. Warning Signs: 'Warning' signs shall posted on Tree Protective Fencing not more than every 20 feet stating "WARNING - Tree Protective Zone - This fence shall not be

Duration: Tree fencing shall be erected prior to any demolition activity, and shall remain

in place for the duration of the project, except where a gap is needed for access to the

Maintenance and Ongoing Care

Tree maintenance and ongoing care is necessary in preparation for construction, and throughout the entire limeline for construction. Anticipated needs include pruning, irrigation and tree protection during landscaping:

PRUNING

removed"

All pruning must be completed under the direction of the Project Arborist.

Pre-construction Pruning

Pre-construction pruning as specified above will remove limbs proactively to prevent broken branches and injury to the protected trees. This pruning will have some branches cut back part way, and trees will not necessarily be fully pruned or maintained as will ultimately be needed. Although the purpose of this pruning is to establish clearances for construction, it is also possible that some branch breakage will have occurred during the construction

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process. In the event that small branches are damaged, re-pruning to repair or correct any Issue will likely best be left until the close of construction. Any branches larger than 1-inch. diameter that are damaged should be reported immediately to the Project Arborist for their

email royid/ret management expetts com

Post-construction Pruning

Pruning for overall structural improvement of the protected trees should occur at the close of construction, and before landscape installation. The exact pruning needs will need to be determined at that time, but will include improving the balance of canopies, shortening branches that are end-heavy and prone to breakage, and re-cutting or removing any branches that were broken during construction.

IRRIGATION

Cell 415,606,3010

No supplemental irrigation is needed for the protected trees. These are all native species that are adapted to summer drought conditions. Summer irrigation of oak trees would put the trees at risk of developing root rot diseases. Construction impacts to the root systems are not expected to be severe enough to warrant the risks posed by summer irrigation.

New landscaping will require irrigation, and the plans are subject to review and approval by the Project Arborist. As a guideline, the new irrigation system should be low water use. should only operate during the dry season, and should be set up for drought tolerant and low water use plant material. It is our recommendation that plants native to the area be used for landscape purposes, and that the new irrigation system be designed for use on a minimal level and such that it is not necessary during drought conditions.

LANDSCAPING

New landscape designs are subject to reviewed and approval by the Project Arborist.

The new irrigation system must be designed to avoid the use of trenches across existing TPZ areas. If sub-surface trenches must be installed, common trenches should be used and they should stay as far away from the trees as possible. A trench running along a radius line directly toward a tree is preferable to a cross trench. If extensive trenching is done, Air-spade® excavation will be required.

Care must be taken to keep mulch away from the base of all trees and other woody plants. Similarly, soil grades must be carefully monitored to keep excess soil from accumulating around the base of trees and shrubs,

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Tree Removal Plan

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Assumptions and Limiting Conditions

- 1. Any legal description provided to the consultant is assumed to be correct. Title and ownership of all property considered are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear. under responsible ownership and competent management.
- It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations
- 3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. The consultant can neither guarantee nor be responsible for the accuracy of information
- 4 Various diagrams, sketches and photographs in this report are intended as visual aids and are not to scale, unless specifically stated as such on the drawing. These communication tools in no way substitute for nor should be construed as surveys, architectural or engineering drawings.
- 5. Loss or alteration of any part of this report invalidates the entire report.
- 6 Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of
- 7. This report is confidential and to be distributed only to the individual or entity to whom it is addressed. Any or all of the contents of this report may be conveyed to another party only with the express prior written or verbal consent of the consultant. Such limitations apply to the original report, a copy, facsimile, scanned image or digital version thereof.
- B. This report represents the opinion of the consultant. In no way is the consultant's fee contingent upon a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- 9. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee forsuch services as described in the fee schedule, an agreement or a contract.
- 10. Information contained in this report reflects observations made only to those items described and only reflects the condition of those items at the time of the site visit. Furthermore, the inspection is limited to visual examination of items and elements at the site, unless expressly stated otherwise. There is no expressed or implied warranty or guarantee that problems or deficiencies of the plants or property inspected may not arise in the future.

Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

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I. Roy C. Leggitt, III. Gertify:

- That we have no current or prospective interest in the vegetation or any real estate that is the subject. of this report, and have no personal interest or blas with respect to the parties involved:
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the

I am a member in good standing of the American Society of Consulting Arborists and a member and

Certified Arborist with the International Society of Arboriculture I have attained professional training in all areas of knowledge asserted through this report by completion. of a Bachelor of Science degree in Plant Science, by routinely attending pertinent professional

conferences and by reading current research from professional journals, books and other media.

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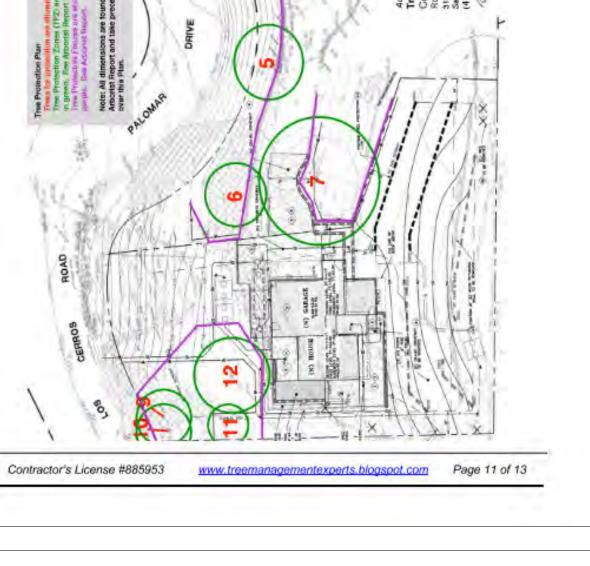
Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. An arborist cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

Certification of Performance

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately insofar as the limitations of the Assignment and within the extent and context identified by
- another professional report within this report:
- cause of the client or any other party.

I have rendered professional services in a full-time capacity in the field of horticulture and arboriculture for more than 30 years.



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12/18/2020

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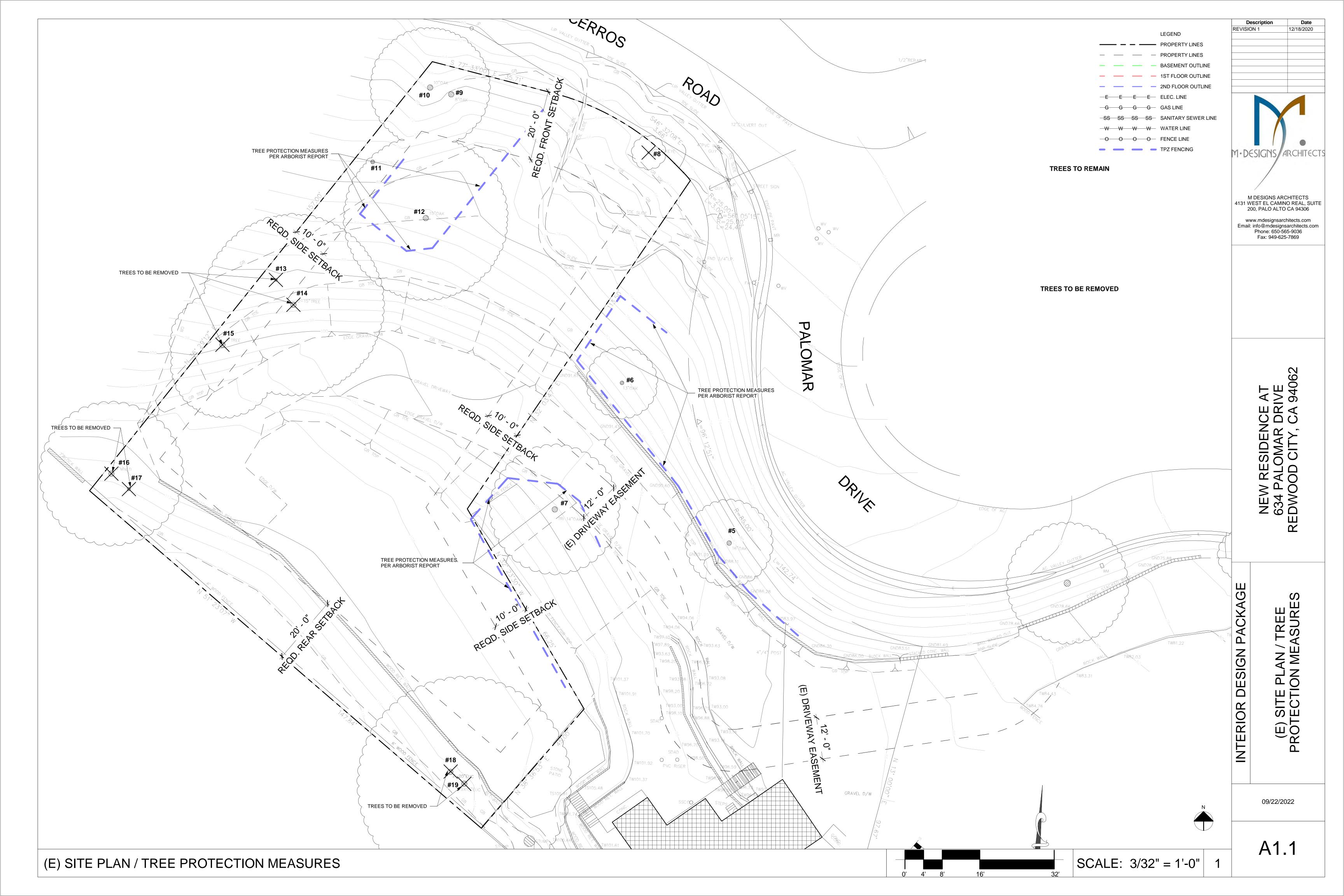
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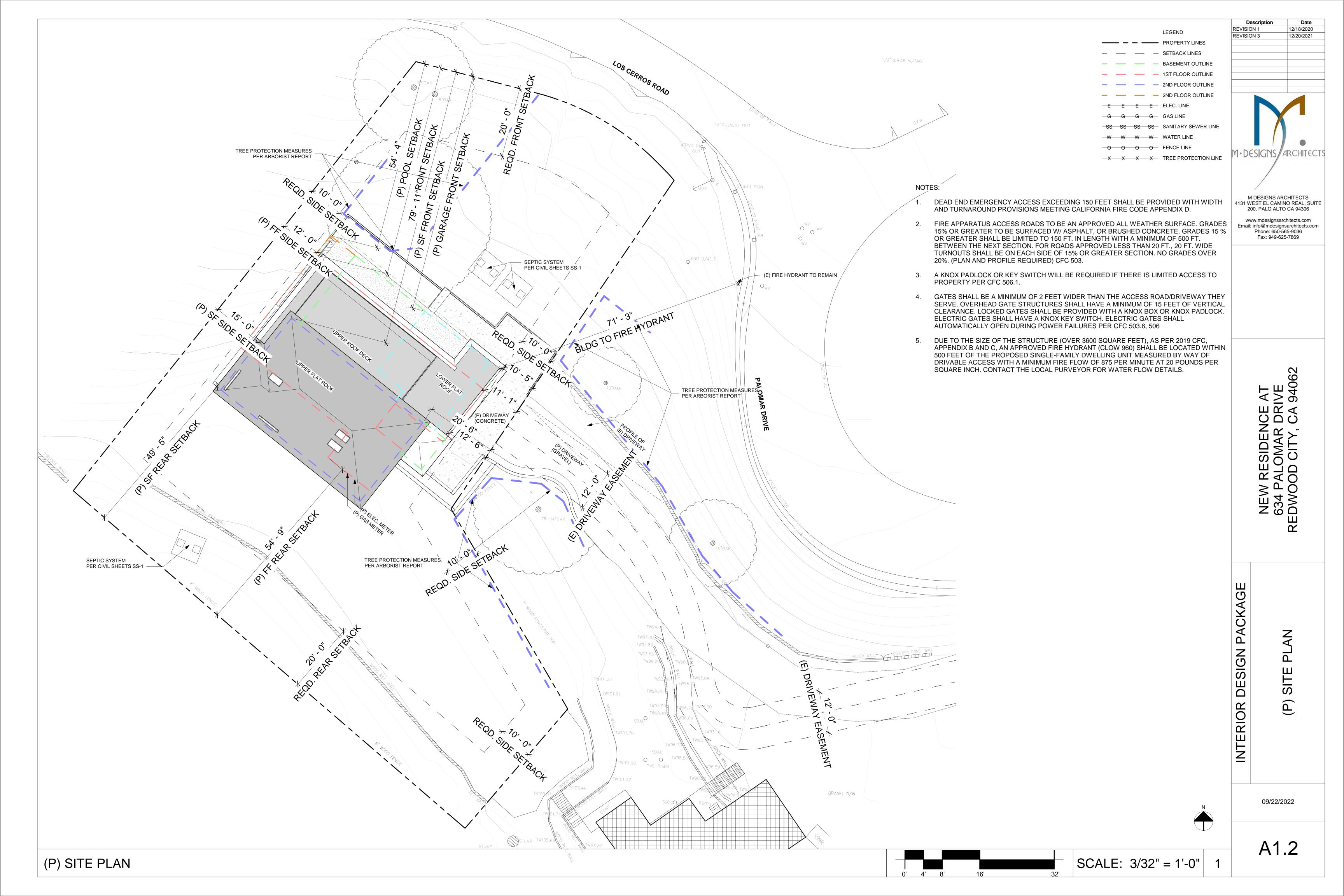
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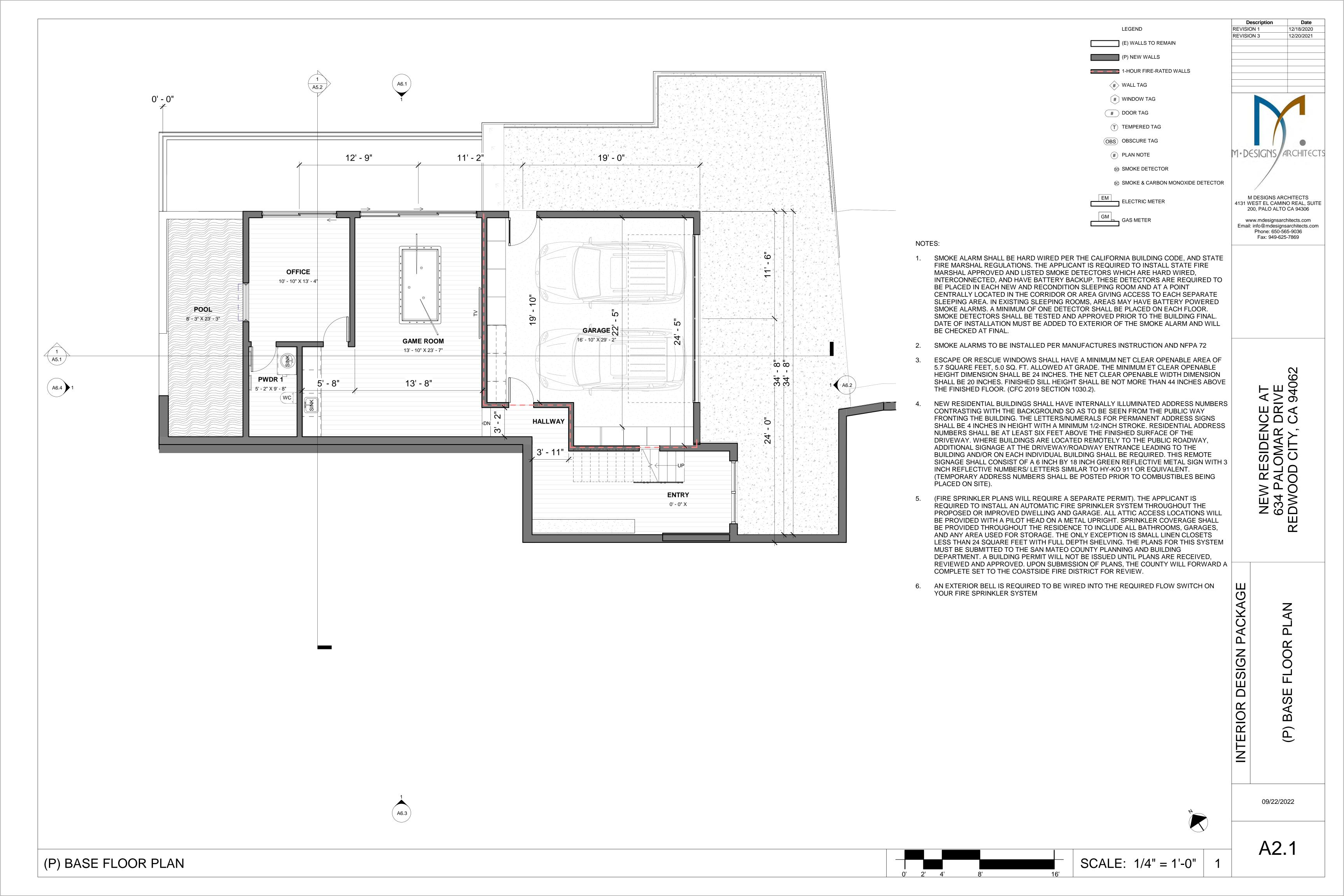
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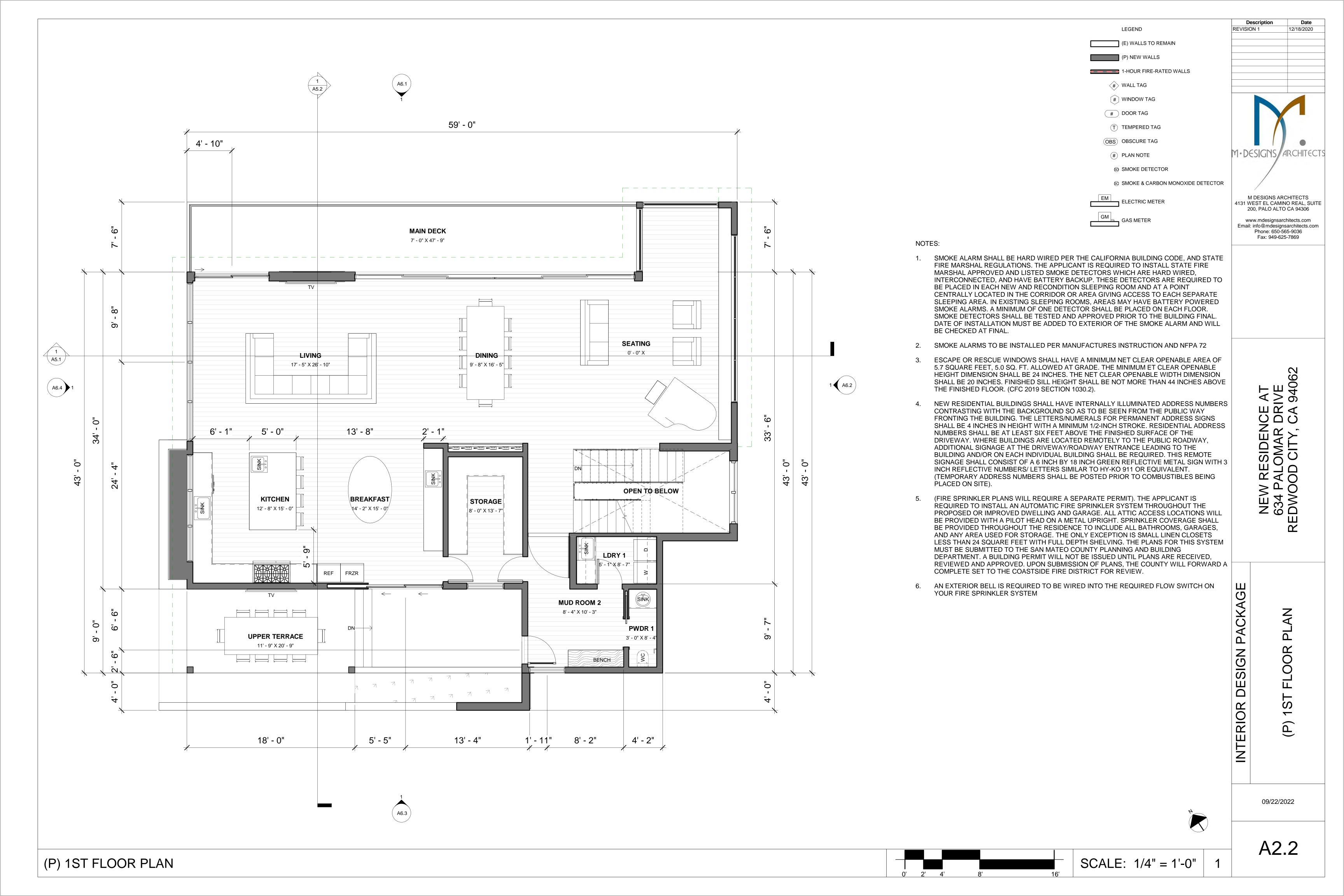
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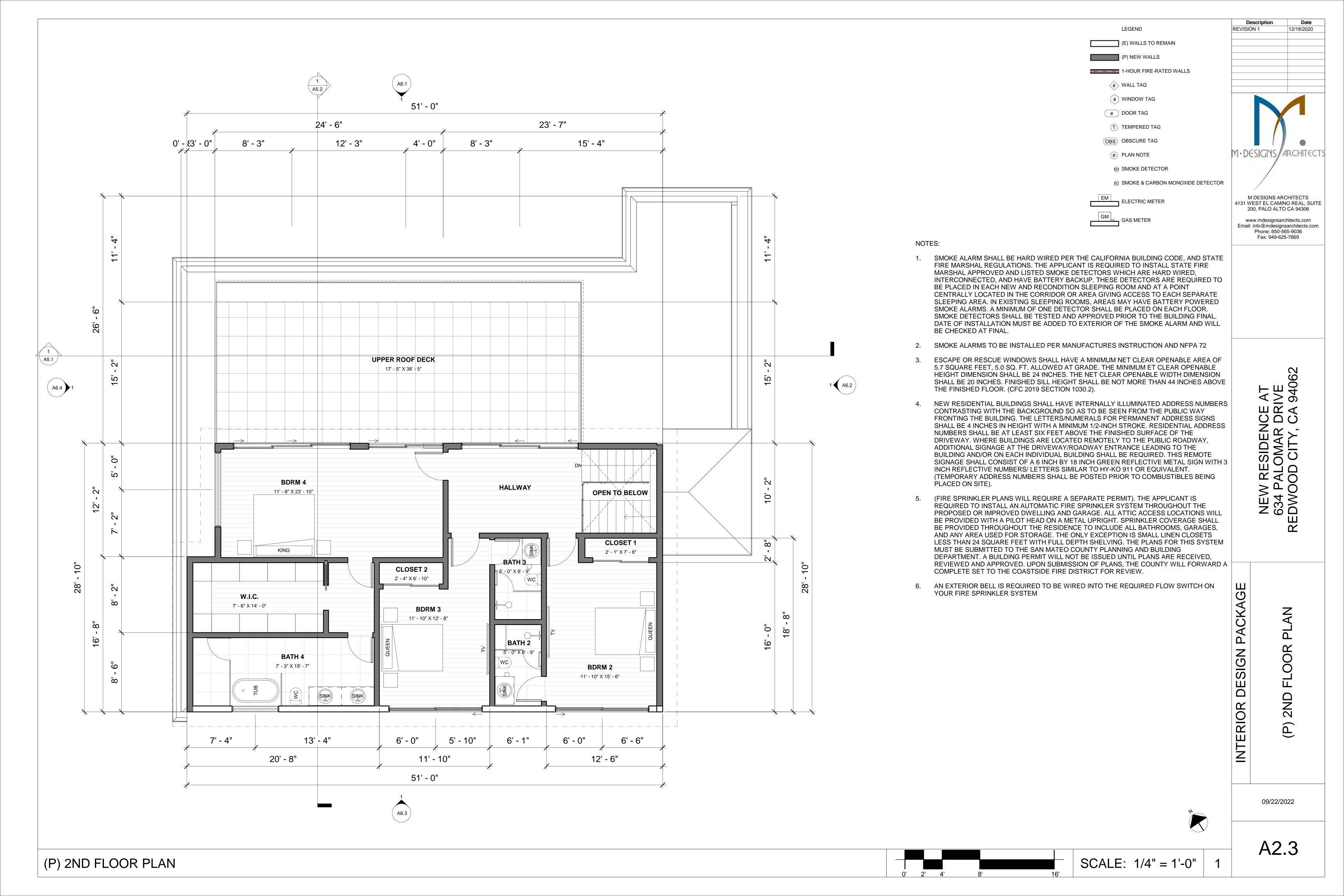
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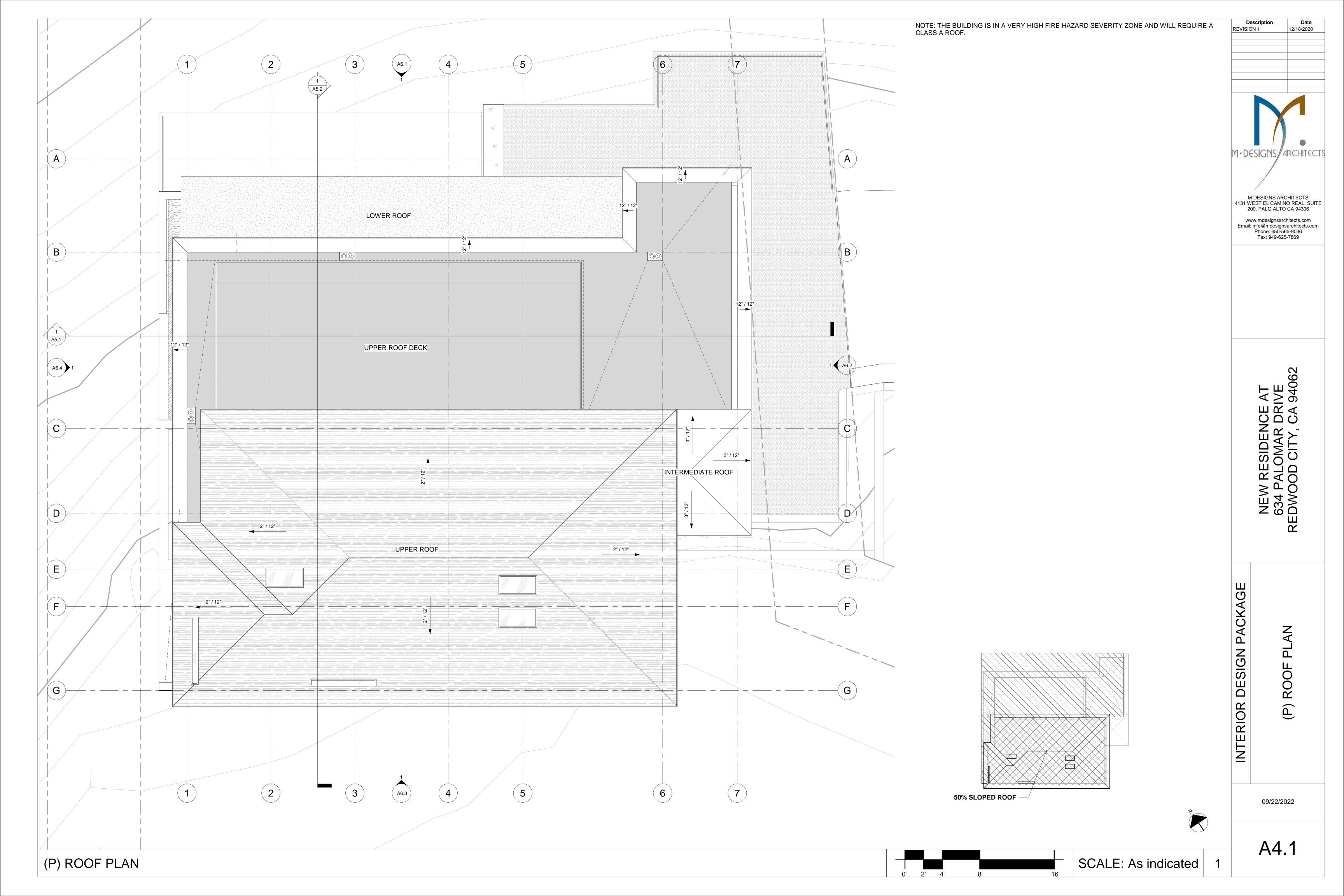


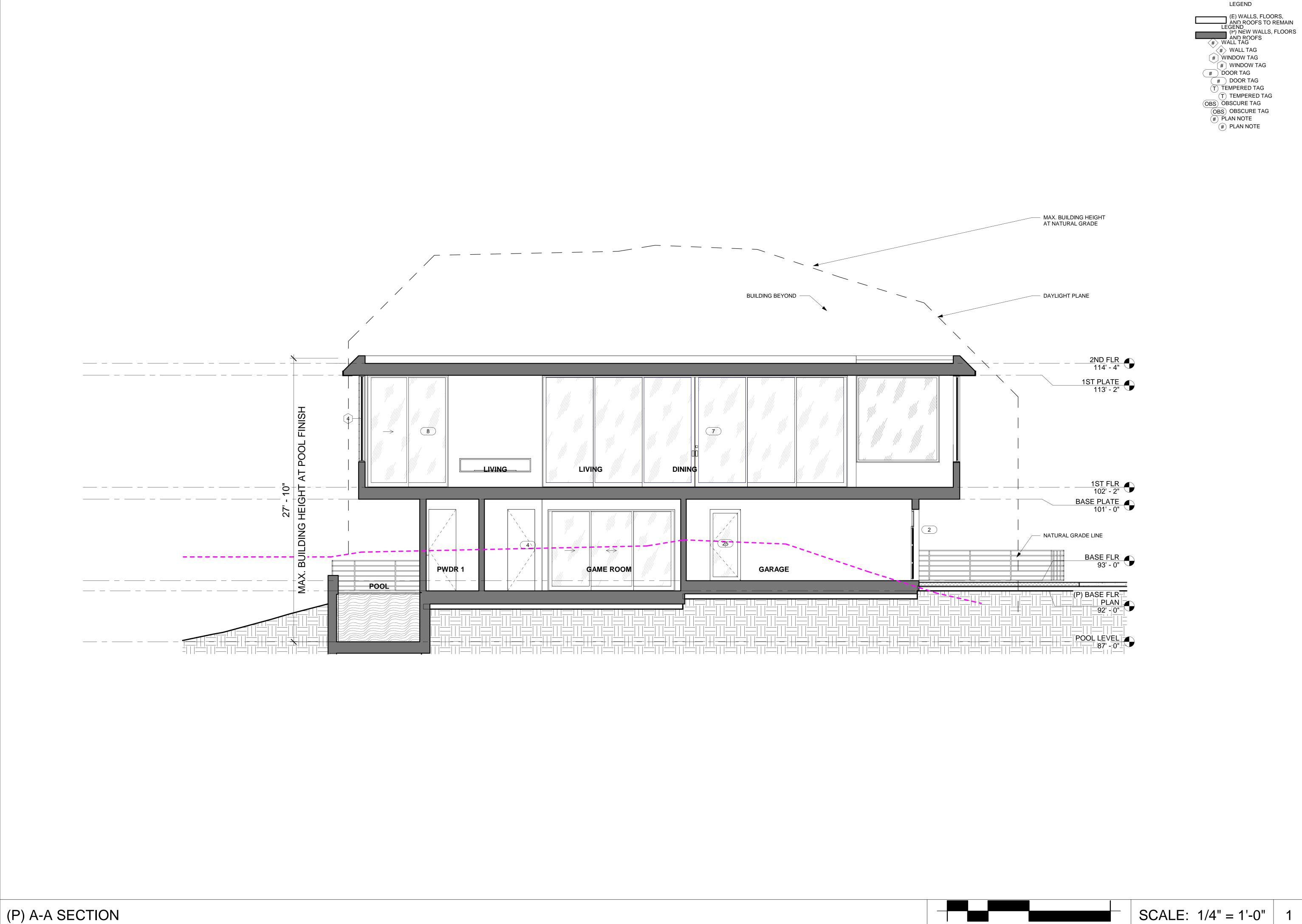












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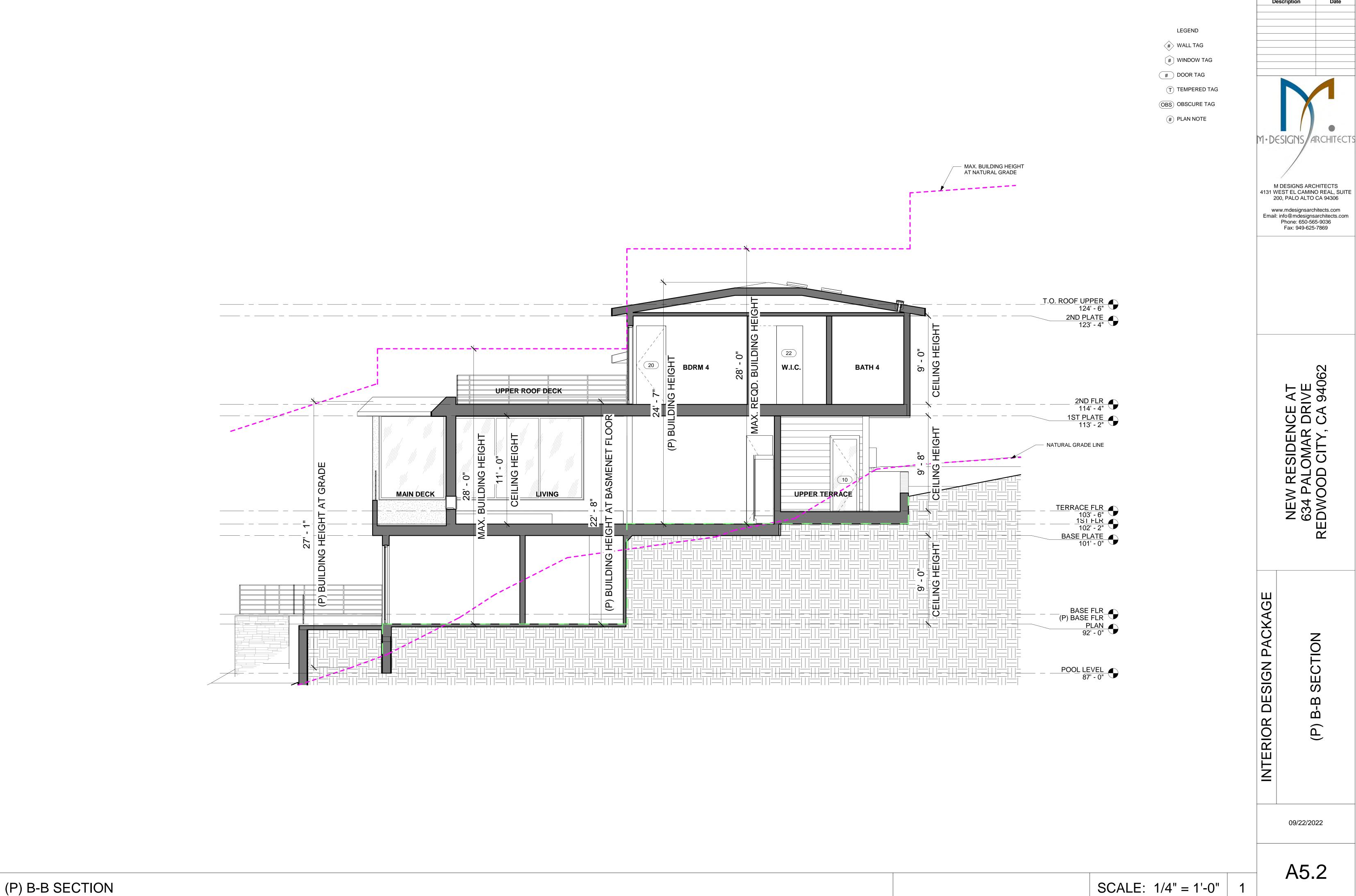
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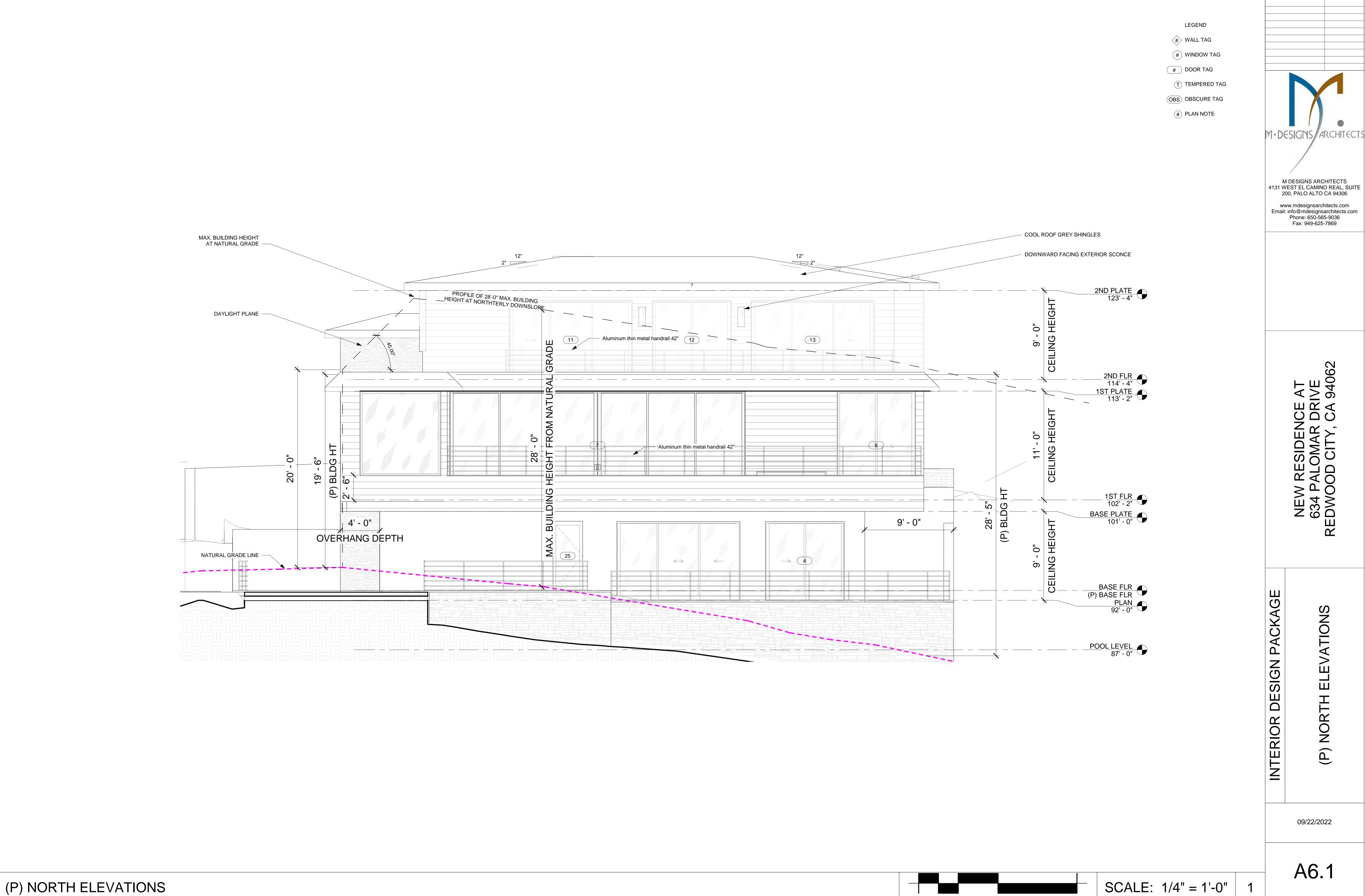
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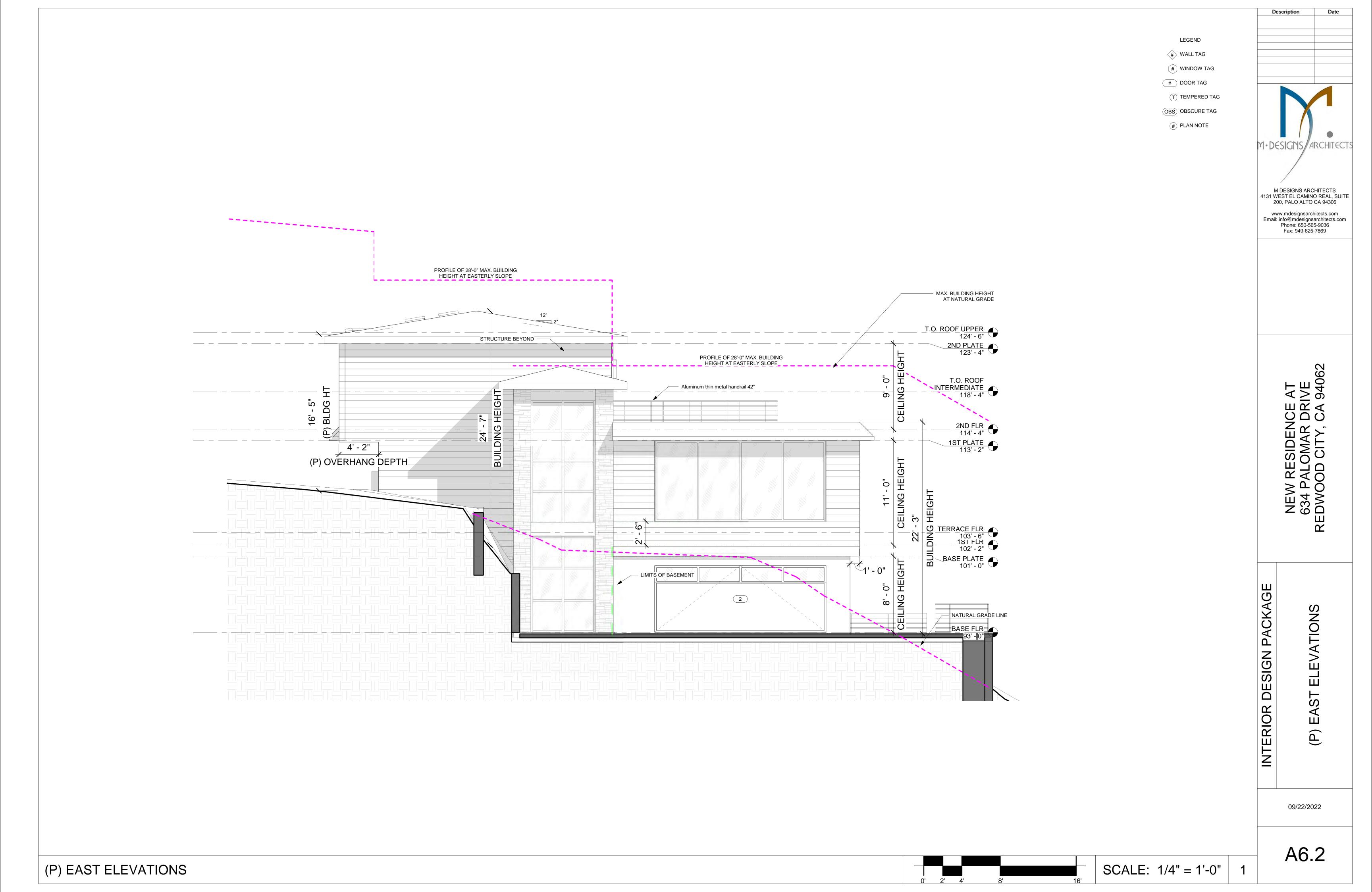
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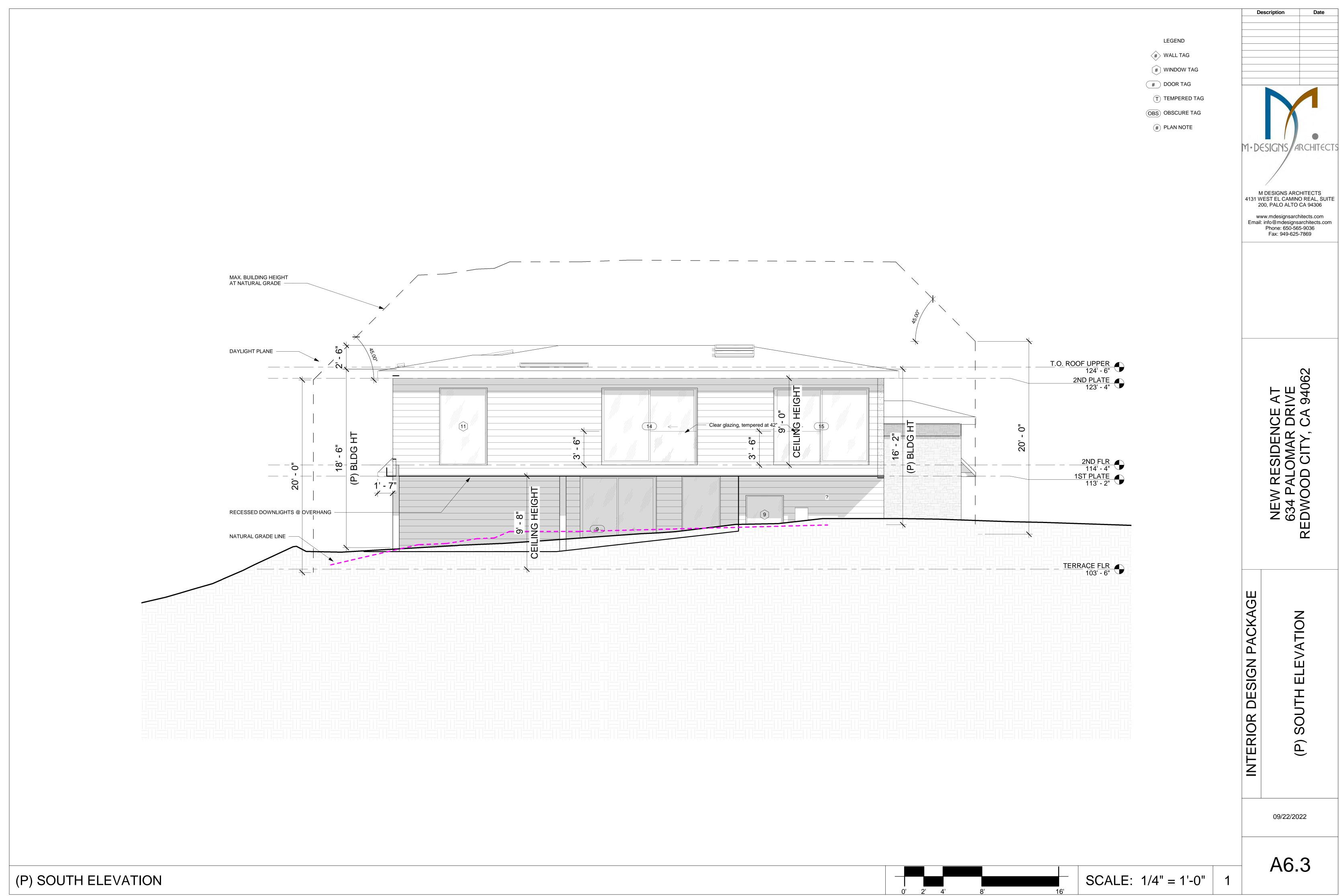


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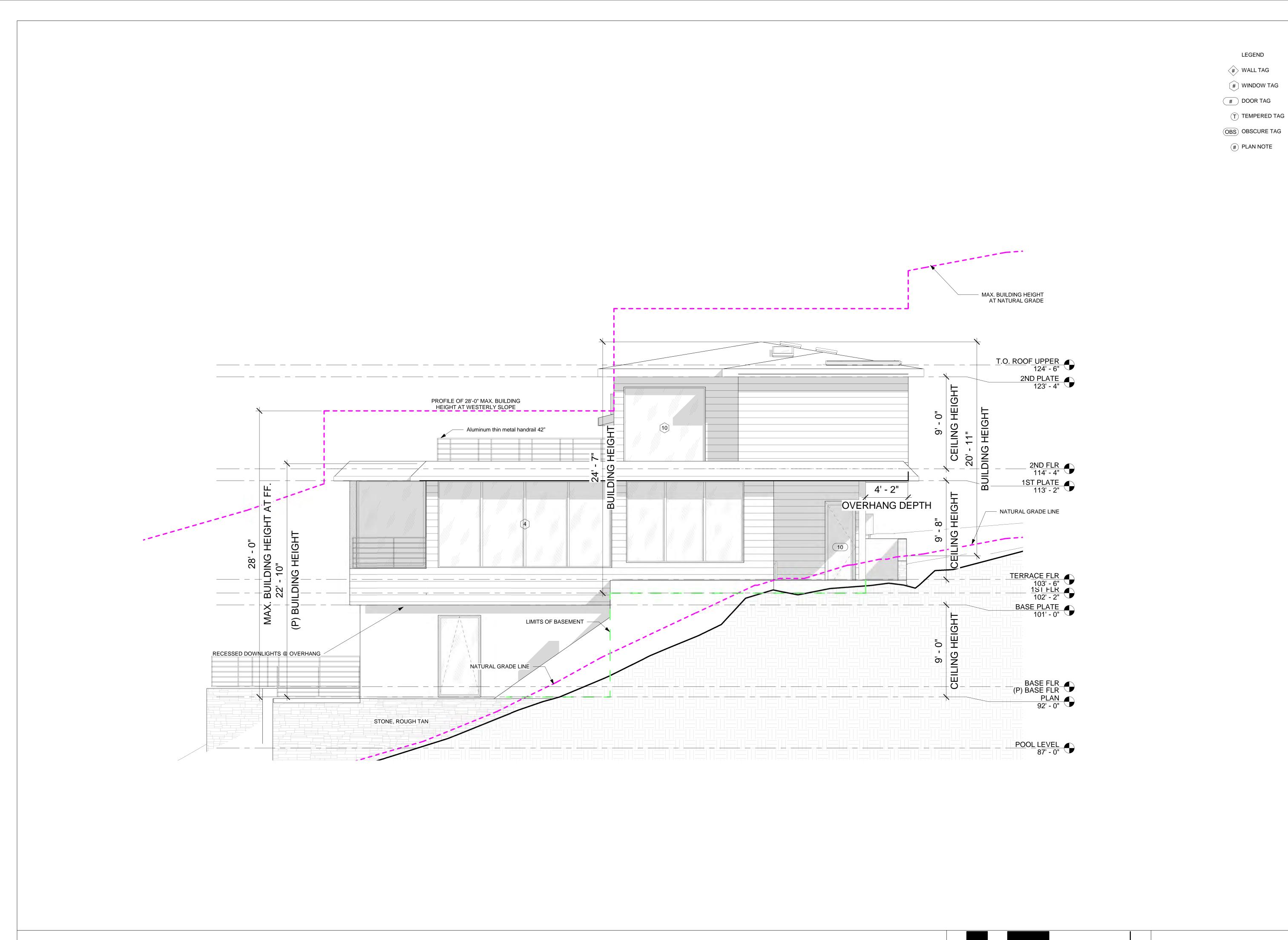


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(P) WEST ELEVATION

INTERIOR DESIGN PACKAGE

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A6.4



FRONT VIEW



REAR VIEW



STREET VIEW



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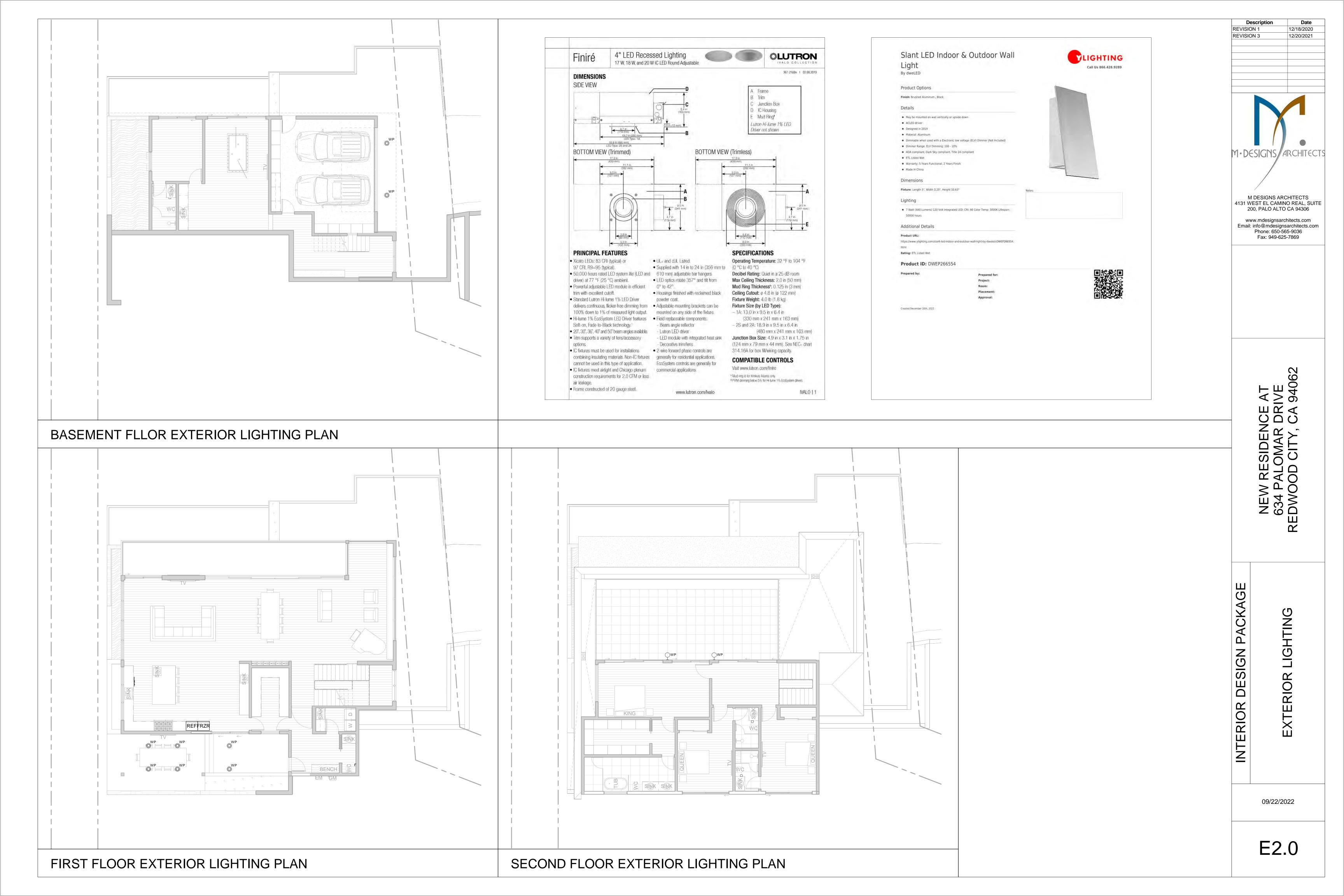
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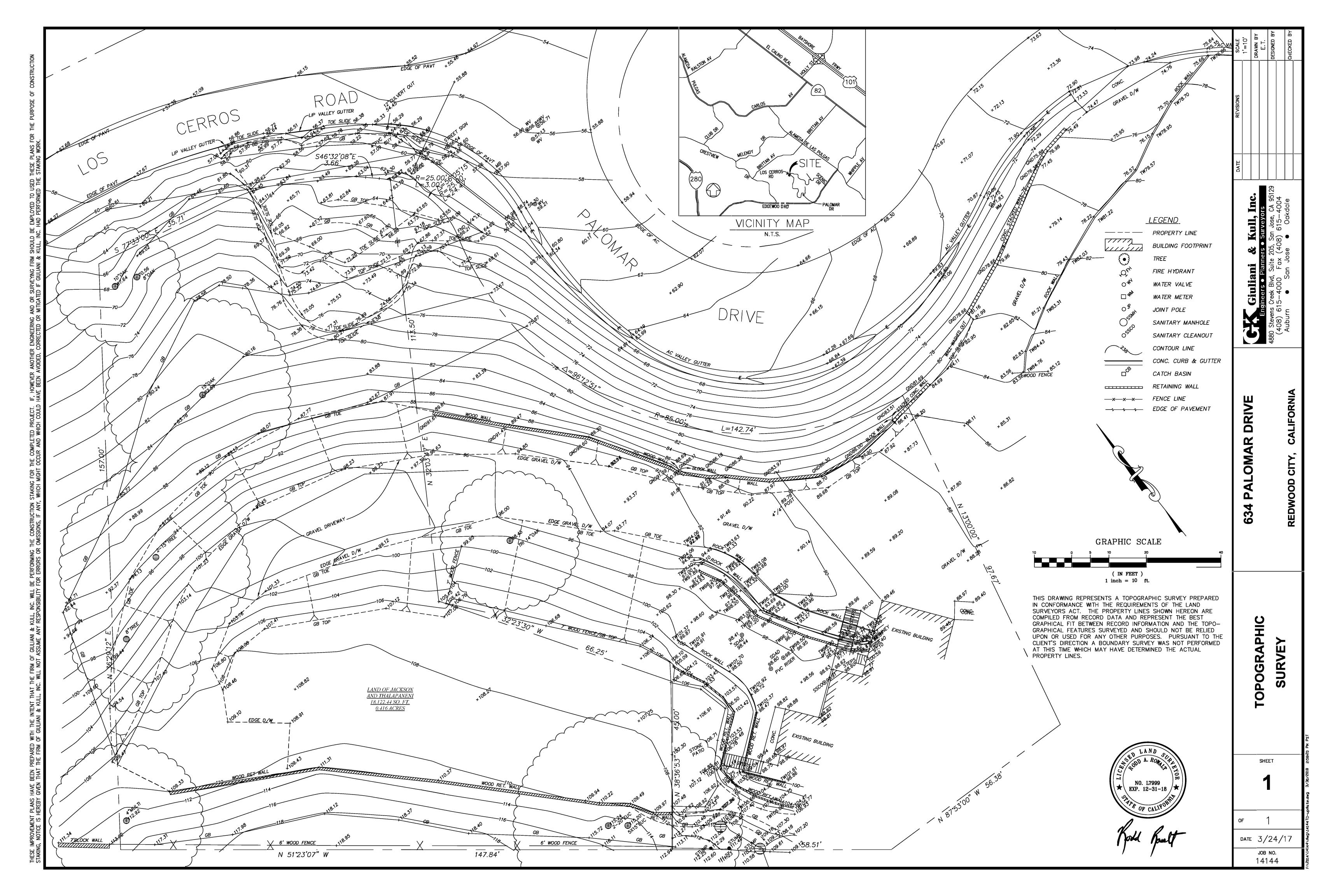
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PROPOSED

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X

EXISTING

DESCRIPTION

PROPERTY LINE

RETAINING WALL

SUBDRAIN LINE

STORM DRAIN LINE

SANITARY SEWER LINE

TIGHTLINE

WATER LINE

PRESSURE LINE

JOINT TRENCH

SET BACK LINE

EARTHEN SWALE

CATCH BASIN

JUNCTION BOX

AREA DRAIN

CURB INLET

FIRE HYDRANT

STREET SIGN

SPOT ELEVATION

FLOW DIRECTION

BENCHMARK

CONTOURS

DEMOLISH/REMOVE

TREE TO BE REMOVED

LINEAR FEET

CONCRETE VALLEY GUTTER

STORM DRAIN MANHOLE

SANITARY SEWER MANHOLE

GAS LINE

LANDSCAPE RETAINING WALL

RAINWATER TIGHTLINE

BOUNDARY

DRIVE

VICINITY MAP

OWNER'S INFORMATION

DAVID JACKSON AND ANUSHA THALAPANENI 485 BRYANT STREET, APT. B SAN FRANCISCO, CALIFORNIA

- THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO: 1. TOPOGRAPHIC SURVEY BY GIULIANI & KULL, INC., "TOPOGRAPHIC SURVEY" 634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA DATED: 3-24-17
- 2. ARCHITECTURAL AND SITE DESIGN PLANS BY M. DESIGN ENTITLED: "NEW RESIDENCE AT 634 PALOMAR DRIVE" 634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA DATED: 04-22-20
- "PROPOSED RESIDENTIAL DEVELOPMENT" 634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA DATE: 07-29-2020

SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

TOTAL SITE AREA: TOTAL DISTURBED AREA:

JOB# 91-55905-A

18,129 SQFT / 0.42 ACRE 14,359 SQFT / 0.33 ACRE

APN: 051-022-380

REFERENCES

- JOB#14144
- 3. SOIL REPORT BY ATLAS GEOSPHERE CONSULTANTS. INC.

SITE DEVELOPMENT INFORMATION

ABBREVIATIONS

AGGREGATE BASE **ASPHALT CONCRETE ACCESSIBLE** AREA DRAIN BEGINNING OF CURVE BEARING & DISTANCE BENCHMARK NTS O.C. BOTTOM OF WALL/FINISH CATCH BASIN CURB AND GUTTER CENTER LINE CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR) ČLEANOUT CLEANOUT TO GRADE CONC CONCRETE CONST CONSTRUCT or -TION CONC COR CONCRETE CORNER CUBIC YARD DIAMETER DROP INLET DUCTILE IRON PIPE END OF CURVE **EXISTING GRADE ELEVATIONS EDGE OF PAVEMENT SDMH EQUIPMENT** EACH WAY **EXISTING** FACE OF CURB FINISHED FLOOR SSCO SSMH FINISHED GRADE FIRE HYDRANT FLOW LINE FINISHED SURFACE GAGE OR GAUGE GRADE BREAK HIGH DENSITY CORRUGATED TEMP TP POLYETHYLENE PIPE HORIZONTAL HI PT HIGH POINT HUB & TACK INSIDE DIAMETER INVERT ELEVATION JUNCTION BOX

JOINT TRENCH

LANDING

LNDG

JOINT UTILITY POLE

MAXIMUM MANHOLE MINIMUM MONUMENT **NUMBER** NOT TO SCALE ON CENTER OVER PLANTING AREA **PEDESTRIAN** POST INDICATOR VALVE PUBLIC SERVICES EASEMENT PROPERTY LINE POWER POLE PUBLIC UTILITY EASEMENT POLYVINYL CHLORIDE REINFORCED CONCRETE PIPE RIM ELEVATION RAINWATER RIGHT OF WAY SEE ARCHITECTURAL DRAWINGS SANITARY STORM DRAIN STORM DRAIN MANHOLE SEE LANDSCAPE DRAWINGS SPECIFICATION SANITARY SEWER SANITARY SEWER CLEANOUT SANITARY SEWER MANHOLE **STATION STANDARD STRUCTURAL** TELEPHONE TOP OF CURE **TEMPORARY** TOP OF PAVEMENT

TOP OF WALL/FINISH GRADE

VERTICAL CURVE

VERTICAL

WATER LINE

WATER METER

VITRIFIED CLAY PIPE

WELDED WIRE FABRIC

1. TW/FG REPRESENTS FINISHED EARTHEN GRADE OR PAVEMENT ELEVATION AT TOP OF WALL, NOT ACTUAL TOP OF WALL MATERIAL. BW/FG REPRESENTS FINISH EARTHEN GRADE OR PAVEMENT ELEVATION AT BOTTOM OF WALL NOT INCLUDING FILL FOUNDATION. GRADES INDICATED ON THESE PLANS REFER TO THE FINISHED GRADES ADJACENT TO THE RETAINING WALL, NOT INCLUDING FOOTING, FREEBOARD, ETC.

2. DIMENSIONS SHOWN IN BRACKETS SHOWN AS [X.X'] DENOTE THE EFFECTIVE WALL HEIGHT ONLY. THE ACTUAL WALL HEIGHT AND DEPTH MAY DIFFER DUE TO CONSTRUCTION REQUIREMENTS.

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3. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR STRUCTURAL ELEMENTS, FREEBOARD, AND EMBEDMENT.

4. REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURE, AND/OR STRUCTURAL PLANS FOR DETAILS, WALL ELEVATIONS, SUBDRAINAGE, WATERPROOFING, FINISHES, COLORS, STEEL REINFORCING, MATERIALS, ETC. PROVIDE CLIPS OR OTHER MEANS OF SECURING FINISH MATERIALS AS NECESSARY (WET SET INTO

5. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT HYDROSTATIC

6. SEE DETAIL SHEET FOR SPECIFIC INFORMATION.

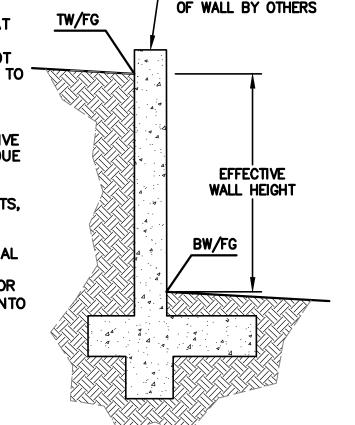
730 LOMA COURT

RETAINING WALL NOTES

CERROS

7. PROVIDE GUARDRAIL (WHERE APPLICABLE AND DESIGNED BY OTHERS) AS REQUIRED FOR GRADE SEPARATION OF 30 INCHES OR MORE MEASURED 5' HORIZONTALLY FROM FACE OF WALL, PER CBC.

* BUILDING PAD NOTE: ADJUST PAD LEVEL AS FOR CONSTRUCTION STAKING **SCHEDULING OR QUOTATIONS** REQUIRED. REFER TO **PLEASE CONTACT ALEX ABAYA** STRUCTURAL PLANS AT LEA & BRAZE ENGINEERING FOR SLAB SECTION OR CRAWL SPACE DEPTH (510)887-4086 EXT 116. TO ESTABLISH PAD aabaya@leabraze.com



—FLAT OR SLOPING TOP

722 PALOMAR DRIVE

1" = 20'

KEY MAP

<u>SCHEMATIC RETAINING WALL</u> PLEASE NOTE THE DETAIL ABOVE IS SCHEMATIC ONLY AND DOES NOT PERTAIN TO ANY SPECIFIC RETAINING WALL LOCATED ON-SITE.



ESTIMATED EARTHWORK QUANTITIES OFFSITE/ TOTAL CUBIC WITHIN BUILDING BUILDING POOL(S) AND **CUBIC YARDS** FOOTPRINT ROADWAY YARDS SPA(S) FOOTPRINT 290 35 30 90 90 0 **EXPORT** 790

GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

INSPECTIONS REQUIRED

THE COUNTY OF SAN MATEO REQUIRES LEA & BRAZE ENGINEERING, INC. TO INSPECT ALL STORM DRAINAGE AS I' IS INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING, INC. PRIOR TO START OF CONSTRUCTION TO SET UP A PRE-CONSTRUCTION MEETING, AND TO CALL AT LEAST 48 HOURS IN ADVANCE OF ANY INSPECTIONS. PIPES ARE TO REMAIN UNCOVERED UNTIL AN INSPECTION PERFORMED BY LEA & BRAZE **ENGINEERING, INC. OCCURS.** POINT OF CONTACT:

JIM TOBY LEA & BRAZE ENGINEERING, INC. (510)887-4086 jtoby@leabraze.com

SHEET INDEX

TITLE SHEET GRADING & DRAINAGE PLAN C - 3.0UTILITY PLAN **DETAILS** C - 4.0C - 4.1DETAILS

GRADING SPECIFICATIONS C - 5.0C - 6.0DRIVEWAY PROFILES EROSION CONTROL EROSION CONTROL DETAILS

BEST MANAGEMENT PRACTICES

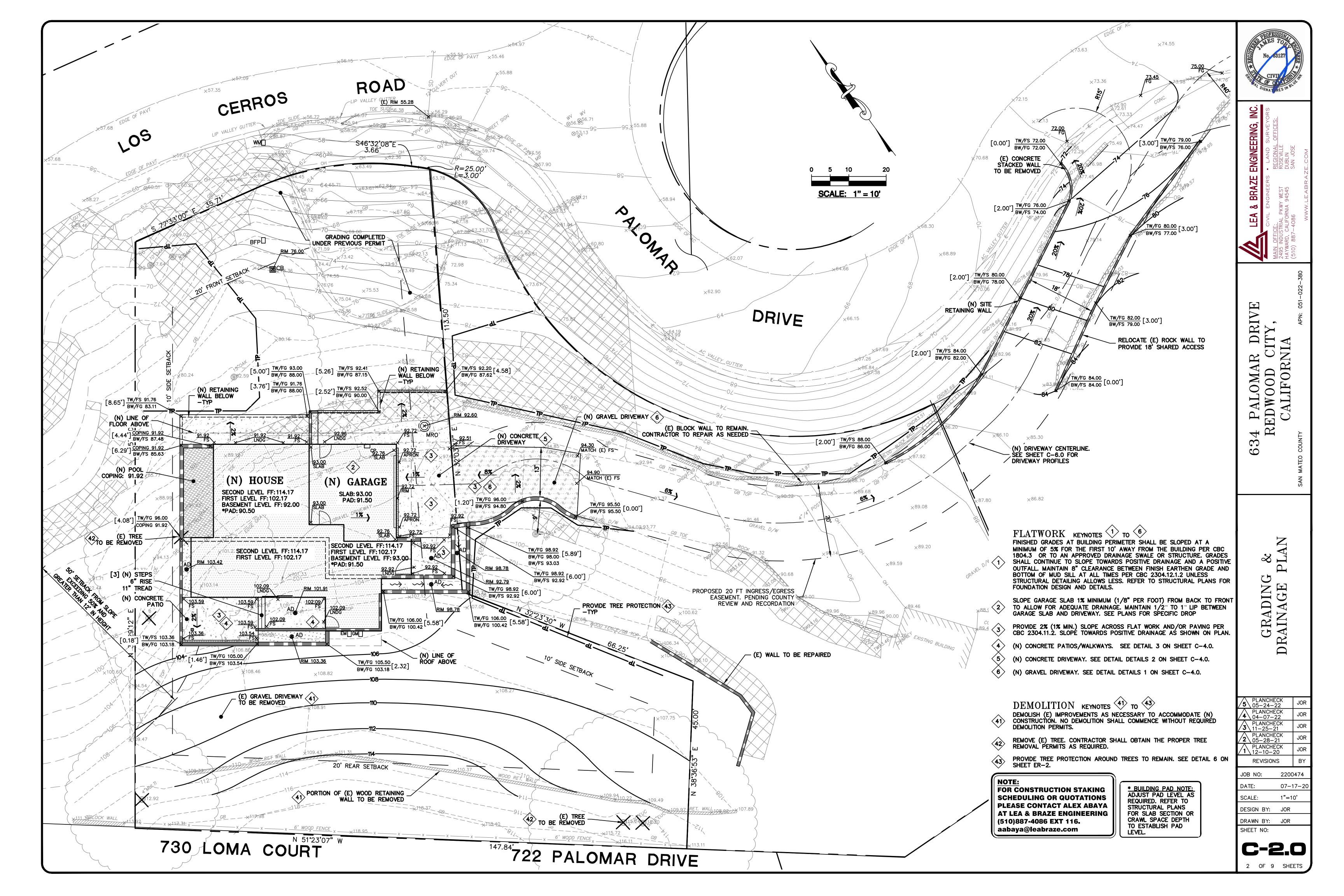
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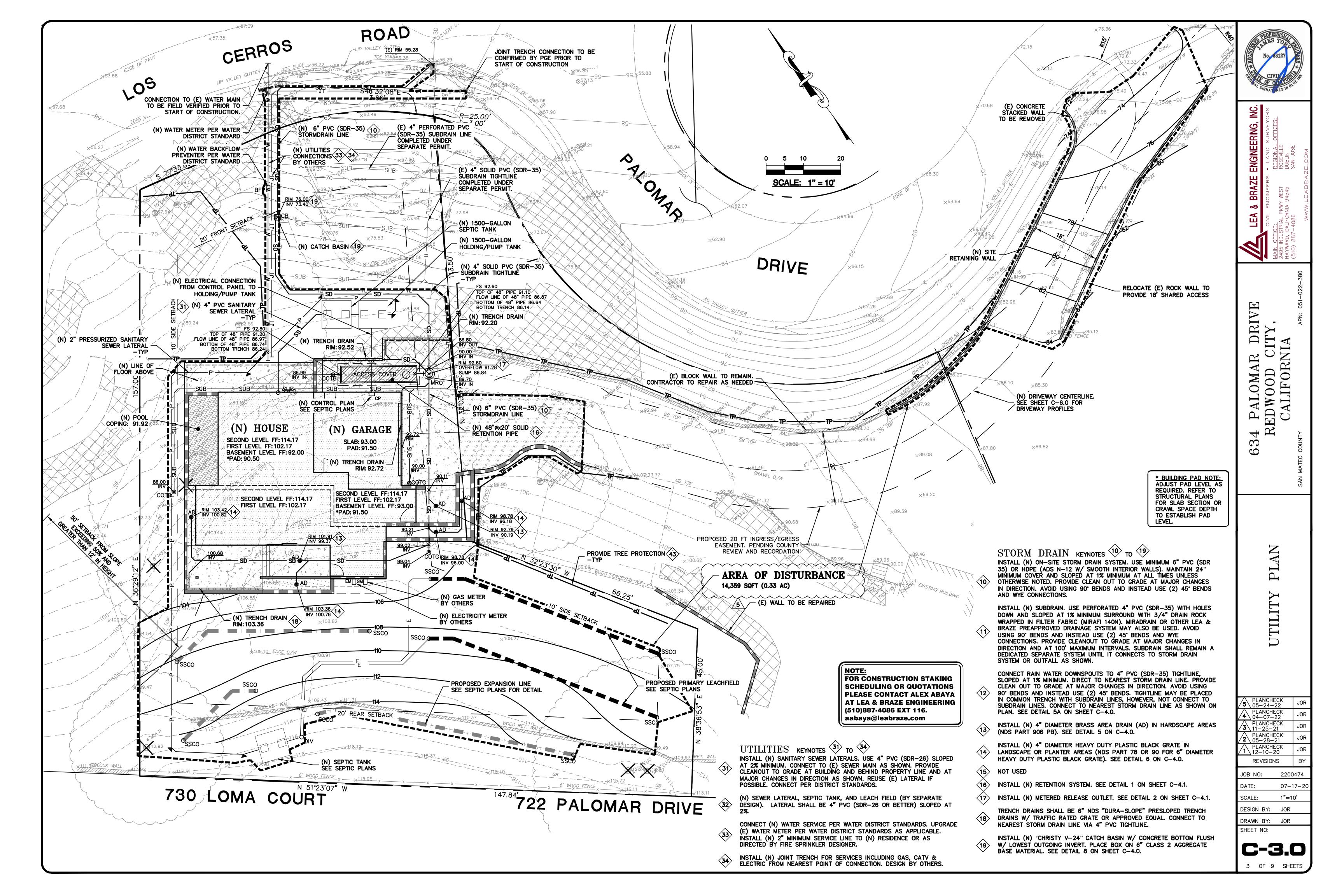
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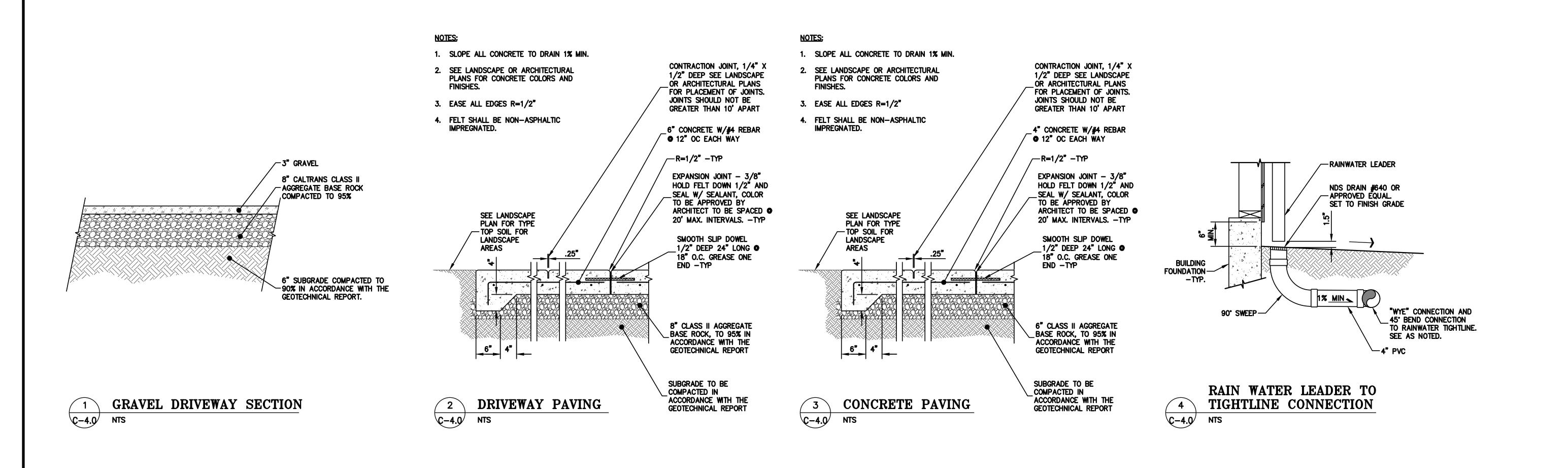
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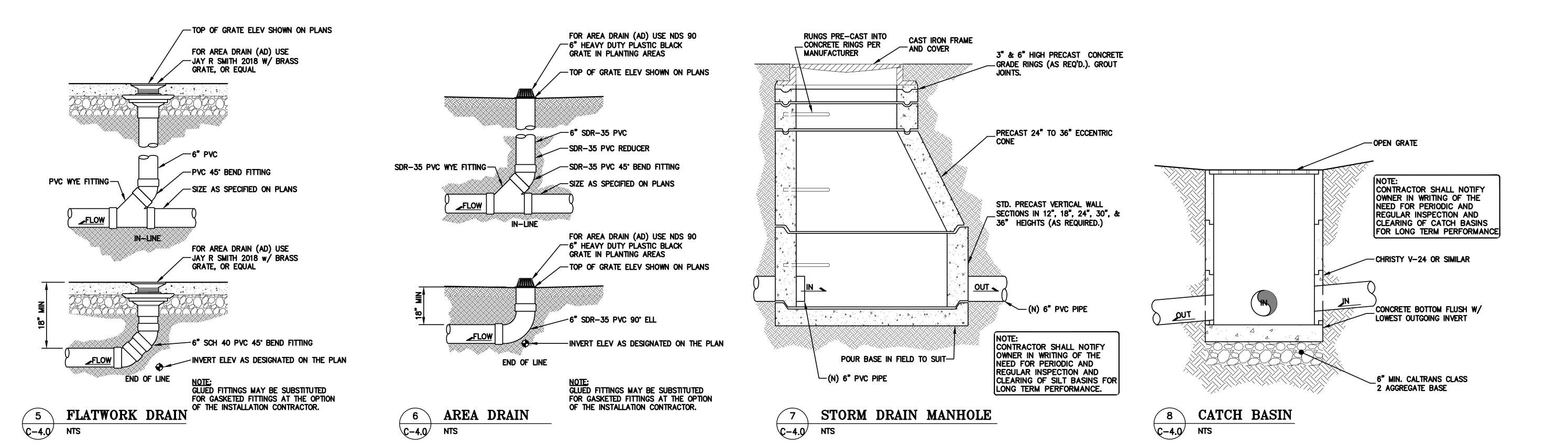
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LEA

REDWOOD CITY, CALIFORNIA

PLANCHECK 05-24-22
PLANCHECK 04-07-22
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PLANCHECK 05-28-21 PLANCHECK 12-10-20 REVISIONS JOB NO: 2200474 DATE: 07-17-20

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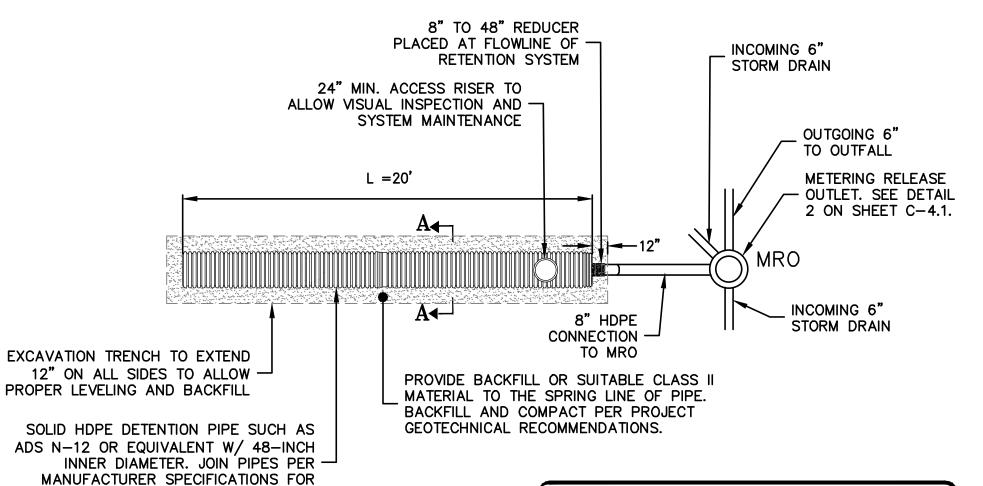
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C-4.15 OF 9 SHEETS



PLAN VIEW

NOTE:
REFER TO THE PLANS FOR SPECIFIC INLET AND
OUTLET LOCATIONS.
REFER TO THE PLANS FOR SPECIFIC ACCESS COVER

STORAGE PIPE	NOMINAL	MIN. SIDE
NOMINAL I.D.	O.D.	COVER
48"	54"	12"
(1200 MM)	(1372 MM)	(292 MM)

WATERTIGHT CONNECTIONS

NOTE

LOCATIONS.

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.

ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.

4. <u>FILTER FABRIC:</u> A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.

5. <u>FOUNDATION:</u> WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

6. <u>BEDDING:</u> SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 8" (150mm) FOR 30"-60" (750mm-900mm) COMPACTED TO 90% SPD.

SECTION A-A

GRADE —

PROVIDE BACKFILL OR SUITABLE CLASS II

MATERIAL TO THE SPRING LINE OF PIPE.

BACKFILL AND COMPACT PER PROJECT

GEOTECHNICAL RECOMMENDATIONS.

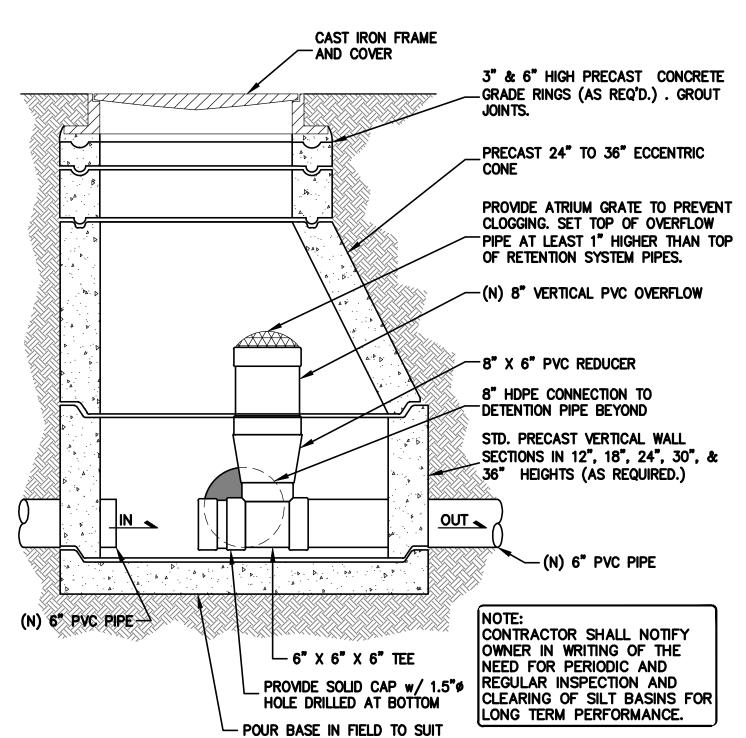
7. <u>INITIAL BACKFILL:</u> SUITABLE MATERIAL SHALL BE SAND OR CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

8. <u>MINIMUM COVER:</u> MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC

APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 18" FROM TOP OF PIPE TO GROUND SURFACE, COMPACT AS RECOMMENDED BY THE SOILS ENGINEER. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 18" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" — 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

9. <u>CONECTIONS:</u> ALL CONNECTIONS FOR EACH SEGMENT SHALL BE WATER TIGHT.* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

DETENTION SYSTEM DETAIL C-4.7 NTS



2 METERED RELEASE OUTLET

THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY ANY PERSONS ON OTHER PROJECTS OR EXTENSIONS OF THE PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ENGINEER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, CALTRANS STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES AND/OR LEGISLATION.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSIONS, LINES AND LEVELS INDICATED. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. SHOULD THERE BE ANY DISCREPANCIES, IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTION OR ADJUSTMENT THE EVENT OF FAILURE TO DO SO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERROR.

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK. ANY ERRORS, OMISSION, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/CONTRACTOR BEFORE CONSTRUCTION BEGINS.

COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

WORK SEQUENCE

IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING HIS/HER WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTIONS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR EXPENSES DUE TO HIS/HER NEGLECT TO EXAMINE, OR FAILURE TO DISCOVER, CONDITIONS WHICH AFFECT HIS/HER WORK.

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF LEA AND BRAZE ENGINEERING, INC. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD HARMLESS LEA AND BRAZE ENGINEERING, INC.

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY ALL COMPONENTS OR ASSEMBLIES EXACTLY. IT IS THE INTENTION OF THESE ENGINEERING DOCUMENTS THAT THEY REPRESENT A REASONABLE STANDARD OF CARE IN THEIR CONTENT. IT IS ALSO PRESUMED BY THESE DOCUMENTS THAT CONSTRUCTION REVIEW SERVICES WILL BE PROVIDED BY THE ENGINEER. SHOULD THE OWNER NOT RETAIN THE ENGINEER TO PROVIDE SUCH SERVICES, OR SHOULD HE/SHE RETAIN THE ENGINEER TO PROVIDE ONLY PARTIAL OR LIMITED SERVICES, THEN IT SHALL BE THE OWNER'S AND CONTRACTOR'S RESPONSIBILITY TO FULLY RECOGNIZE AND PROVIDE THAT STANDARD OF CARE.

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONCONFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL NOT HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN. ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION. GRADING, OR CONSTRUCTION WORK SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING SITE UTILITIES AND SHALL COORDINATE THEIR REMOVAL OR MODIFICATIONS (IF ANY) TO AVOID ANY INTERRUPTION OF SERVICE TO ADJACENT AREAS. THE GENERAL CONTRACTOR SHALL INFORM HIM/HERSELF OF MUNICIPAL REGULATIONS AND CARRY OUT HIS/HER WORK IN COMPLIANCE WITH ALL FEDERAL AND STATE REQUIREMENTS TO REDUCE FIRE HAZARDS AND INJURIES TO THE PUBLIC.

STORMWATER POLLUTION PREVENTION NOTES

- 1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
- 2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS. CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.
- 3) USE SEDIMENT CONTROL OR FILTRATION TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.
- 4) AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA IN WHICH RUNOFF IS CONTAINED AND TREATED.
- 5) DELINEATE CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DISCHARGE COURSE WITH FIELD MARKERS.
- 6) PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OF FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
- 7) PERFORM CLEARING AND EARTH MOVING ACTIVITIES DURING DRY WEATHER TO THE MAXIMUM EXTENT
- PRACTICAL.
- 8) LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

9) LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.

10) AVOID TRACKING DIRT OR MATERIALS OFF—SITE; CLEAN OFF—SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS TO THE MAXIMUM EXTENT PRACTICAL.

SUPPLEMENTAL MEASURES

- A. THE PHRASE "NO DUMPING DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLAQUES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.
- B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.
- C. STABILIZING ALL DENUDED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY FROM OCTOBER 15 AND APRIL 15.
- D. REMOVING SPOILS PROMPTLY, AND AVOID STOCKPILING OF FILL MATERIALS, WHEN RAIN IS FORECAST. IF RAIN THREATENS, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WATERPROOF MATERIAL.
- E. STORING. HANDLING. AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEMS OR WATER BODY.
- F. AVOIDING CLEANING, FUELING, OR MAINTAINING VEHICLES ON—SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.

GRADING & DRAINAGE NOTES:

1. SCOPE OF WORK

these specifications and applicable plans pertain to and include all site grading and EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. GENERAL

- A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT BY EARTH INVESTIGATIONS CONSULTANTS; AND THE COUNTY OF SAN
- B. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOIL ENGINEER. THE RESULTS OF THESE TEST AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOIL ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

CLEARING AND GRUBBING

- A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION. ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED, ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.
- B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.
- C. ALL ABANDONED SEPTIC TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPURTENANT DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.
- D. ALL ABANDONED UNDERGROUND IRRIGATION OR UTILITY LINES SHALL BE REMOVED OR DEMOLISHED. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:
 - (1) EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.
 - (2) EXCAVATE AND CRUSH THE UTILITY LINE IN THE TRENCH.
 - (3) CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE UTILITY DISTRICT ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETED MIX EMPLOYED SHALL HAVE MINIMUM SHRINKAGE.

SITE PREPARATION AND STRIPPING

- A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.
- B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS. STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE PLOWED OR SCARIFIED UNTIL THE SURFACE IS FREE RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION. THE GROUND SURFACE SHALL THEN BE DISCED OR BLADED TO A DEPTH OF AT LEAST 6 INCHES. UPON ENGINEER'S SATISFACTION, THE NEW SURFACE SHALL BE WATER CONDITIONED AND RECOMPACTED PER REQUIREMENTS FOR COMPACTING FILL MATERIAL.

EXCAVATION

- A. UPON COMPLETION OF THE CLEARING AND GRUBBING. SITE PREPARATION AND STRIPPING. THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLAN. WHERE REQUIRED BY THE SOILS ENGINEER. UNACCEPTABLE NATIVE SOILS OR UNENGINEERED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED. MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE.
- B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. PLACING. SPREADING AND COMPACTING FILL MATERIAL

the materials proposed for use as compacted fill shall be approved by the soils engineer BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ANY IMPORTED MATERIAL SHALL BE APPROVED FOR use by the soils engineer, in writing, before being imported to the site and shall possess sufficient fines to provide a competent soil matrix and shall be free of vegetative and ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS. ALL FILL VOIDS SHALL BE FILLED AND PROPERLY COMPACTED. NO ROCKS LARGER THAN THREE INCHES IN DIAMETER SHALL BE PERMITTED.

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LINE SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE. GROUND PREPARATION SHALL BE FOLLOWED CLOSELY BY FILL PLACEMENT TO PREVENT DRYING OUT OF THE SUBSOIL BEFORE PLACEMENT of the fill.

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. THE SCARIFIED SUBGRADE AND FILL MATERIAL SHALL BE MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE. when the moisture content of the fill is below that specified, water shall be added until THE MOISTURE DURING THE COMPACTION PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL IS above that specified, the fill material shall be aerated by blading or other satisfactory METHODS UNTIL THE MOISTURE CONTENT IS AS SPECIFIED.

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED SLOPES AND GRADES AS SHOWN ON THE PLANS. NO LAYER SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

CUT OR FILL SLOPES

all constructed slopes, both cut and fill, shall be no steeper than 2 to 1 (horizontal TO VERTICAL). DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERFILLED BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS, THE EXCESS FILL EXISTING ON THE SLOPES SHALL BE BLADED OFF TO CREATE THE FINISHED SLOPE EMBANKMENT. all cut and fill slopes shall be track walked after being brought to finish grade and THEN BE PLANTED WITH EROSION CONTROL SLOPE PLANTING. THE SOILS ENGINEER SHALL REVIEW ALL CUT SLOPES TO DETERMINE IF ANY ADVERSE GEOLOGIC CONDITIONS ARE EXPOSED. IF SUCH CONDITIONS DO OCCUR, THE SOILS ENGINEER SHALL RECOMMEND THE APPROPRIATE MITIGATION MEASURES AT THE TIME OF THEIR DETECTION.

8. SEASONAL LIMITS AND DRAINAGE CONTROL

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS interrupted for any reason the fill operations shall not be resumed until field test PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY.

DUST CONTROL

the contractor shall take all steps necessary for the alleviation or prevention of any DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE, THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS ITEM OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. INDEMNITY

the contractor will hold harmless, indemnify and defend the engineer. The owner and his CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. SAFETY

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

12. GUARANTEE

ieither the final payment, nor the provisions in the contract, nor partial, nor entire use OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

the contractor shall remedy any defects in work and pay for any damage to other work RESULTING THERE FROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

TRENCH BACKFILL

either the on—site inorganic soil or approved imported soil may be used as trench BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND SHALL BE PLACED IN LIFTS OF NOT MORE THAN SIX INCHES IN HORIZONTAL UNCOMPACTED LAYERS and be compacted by Mechanical Means to a minimum of 90% relative compaction. Imported SAND MAY BE USED FOR TRENCH BACKFILL MATERIAL PROVIDED IT IS COMPACTED TO AT LEAST 90% relative compaction. Water jetting associated with compaction using vibratory equipment WILL BE PERMITTED ONLY WITH IMPORTED SAND BACKFILL WITH THE APPROVAL OF THE SOILS ENGINEER. ALL PIPES SHALL BE BEDDED WITH SAND EXTENDING FROM THE TRENCH BOTTOM TO TWELVE INCHES ABOVE THE PIPE. SAND BEDDING IS TO BE COMPACTED AS SPECIFIED ABOVE FOR SAND

EROSION CONTROL

- A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE COUNTY GRADING ORDINANCE AND MADE A PART HEREOF BY REFERENCE.
- B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE.
- C. THE EROSION CONTROL MEASURES ARE TO BE OPERABLE DURING THE RAINY SEASON, GENERALLY FROM OCTOBER FIRST TO APRIL FIFTEENTH, EROSION CONTROL PLANTING IS TO BE COMPLETED BY OCTOBER FIRST. NO GRADING OR UTILITY TRENCHING SHALL OCCUR BETWEEN OCTOBER FIRST AND APRIL FIFTEENTH UNLESS AUTHORIZED BY THE LOCAL JURISDICTION.
- D. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED AND CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE SOILS ENGINEER.
- E. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT—LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.
- F. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON.
- G. WHEN NO LONGER NECESSARY AND PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT. SEDIMENT BASINS SHALL BE REMOVED OR OTHERWISE DEACTIVATED AS REQUIRED BY THE LOCAL JURISDICTION.
- H. A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ANY POINT OF EGRESS FROM THE SITE TO ROADWAY. A CONSTRUCTION ENTRANCE SHOULD BE COMPOSED OF COARSE DRAIN ROCK (2" TO 3") MINIMUM DIAMETER) AT LEAST EIGHT INCHES THICK BY FIFTY (50) FEET LONG BY TWENTY (20) FEET WIDE UNLESS SHOWN OTHERWISE ON PLAN AND SHALL BE MAINTAINED UNTIL THE SITE IS PAVED.
- I. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE NOZZLE PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FIBER, SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING

SEED, 200 LBS/ACRE (SEE NOTE J, BELOW) FERTILIZER (11-8-4), 500 LBS/ACRE WATER, AS REQUIRED FOR APPLICATION

- J. SEED MIX SHALL BE PER CALTRANS STANDARDS.
- K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GERMINATION AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND
- L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20. EROSION CONTROL AND HIGHWAY PLANTING". OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED.
- M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL. PROVIDED THAT THE CONTRACTOR FURNISHES SUITABLE EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.
- N. STABILIZATION MATERIALS SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER COMPLETION OF GRADING OPERATIONS AND PRIOR TO THE ONSET OF WINTER RAINS, OR AT SUCH OTHER TIME AS DIRECTED BY THE COUNTY ENGINEER. THE MATERIAL SHALL BE APPLIED BEFORE INSTALLATION OF OTHER LANDSCAPING MATERIALS SUCH AS TREES, SHRUBS AND GROUND COVERS.
- O. THE STABILIZATION MATERIAL SHALL BE APPLIED WITHIN 4-HOURS AFTER MIXING. MIXED MATERIAL NOT USED WITHIN 4-HOURS SHALL BE REMOVED FROM THE SITE.
- P. THE CONTRACTOR SHALL MAINTAIN THE SOIL STABILIZATION MATERIAL AFTER PLACEMENT. THE COUNTY ENGINEER MAY REQUIRE SPRAY APPLICATION OF WATER OR OTHER MAINTENANCE ACTIVITIES TO ASSURE THE EFFECTIVENESS OF THE STABILIZATION PROCESS. APPLICATION OF WATER SHALL BE ACCOMPLISHED USING NOZZLES THAT PRODUCE A SPRAY THAT DOES NOT CONCENTRATE OR WASH AWAY THE STABILIZATION MATERIALS.

15. CLEANUP

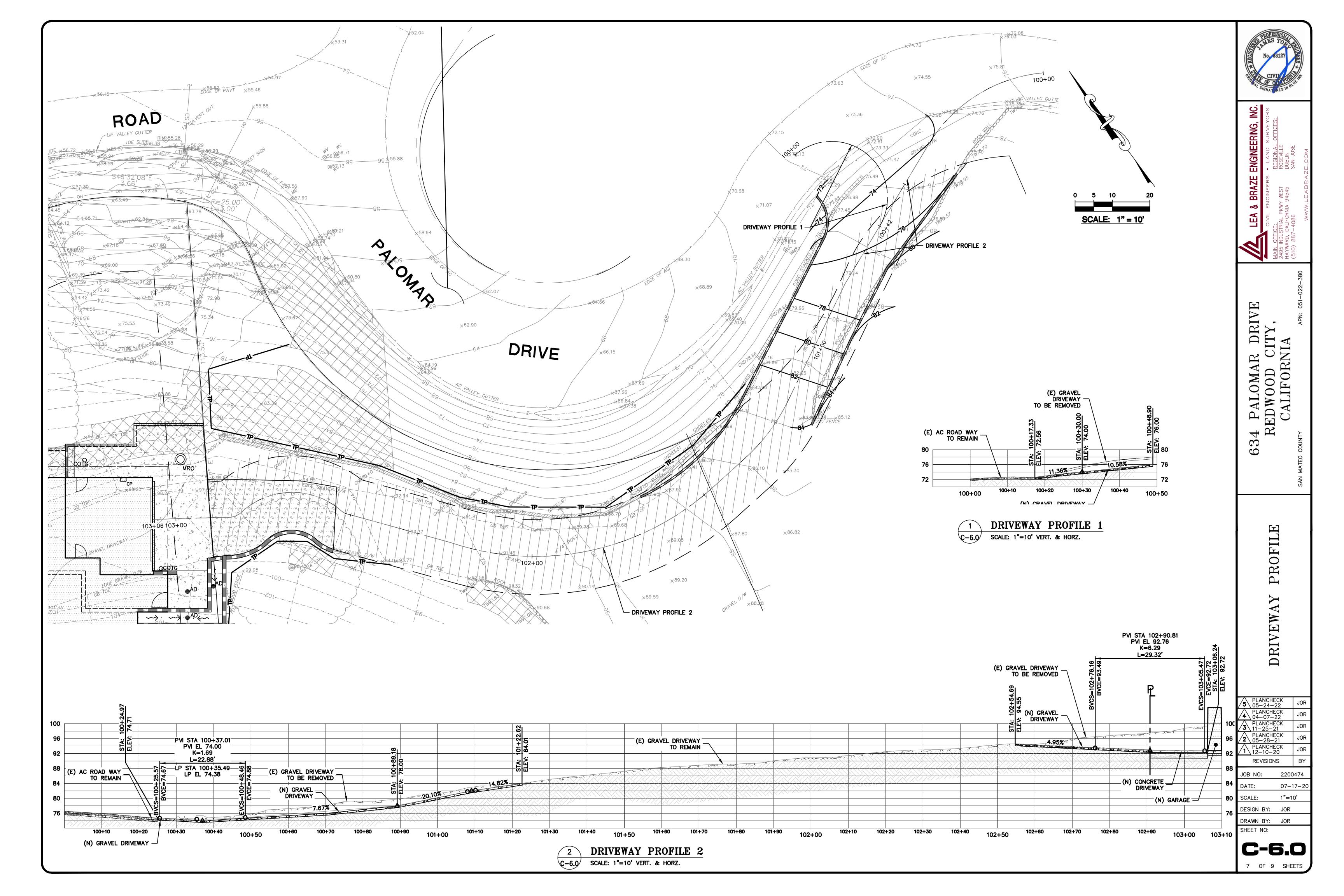
THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL. ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL

> NOTE:
> THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.



JOB NO: 2200474 DATE: 07-17-20 NO SCALE SCALE: DESIGN BY: JOR DRAWN BY: JOR

SHEET NO:



PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

- . IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
- 2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS
- 3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
- 4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 5. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM. INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
- 5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
- 7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- 8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 1ST.
- 9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 1ST THROUGH APRIL 30TH, WHICHEVER IS LONGER.
- 10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
- 12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
- 13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET. ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
- 14. EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 30TH.
- 15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 1ST THRU APRIL 30TH, WHICHEVER IS GREATER.
- 16. PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT("MRP") NPDES PERMIT CAS 612008.
- 17. THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN
- 18. THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
- 19. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
- 20. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INSPECTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
- 21. THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
- 22. STOCKPILED MATERIALS SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
- 23. EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAYOR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- 24. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND

EROSION CONTROL NOTES CONTINUED:

- 24. 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. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- 25. DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE
- 26. SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS. TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

- 1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 1ST TO APRIL 30TH. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 1ST OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
- 2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
- 4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 1ST, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION. AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
- 5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
- 6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
- THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
- 8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

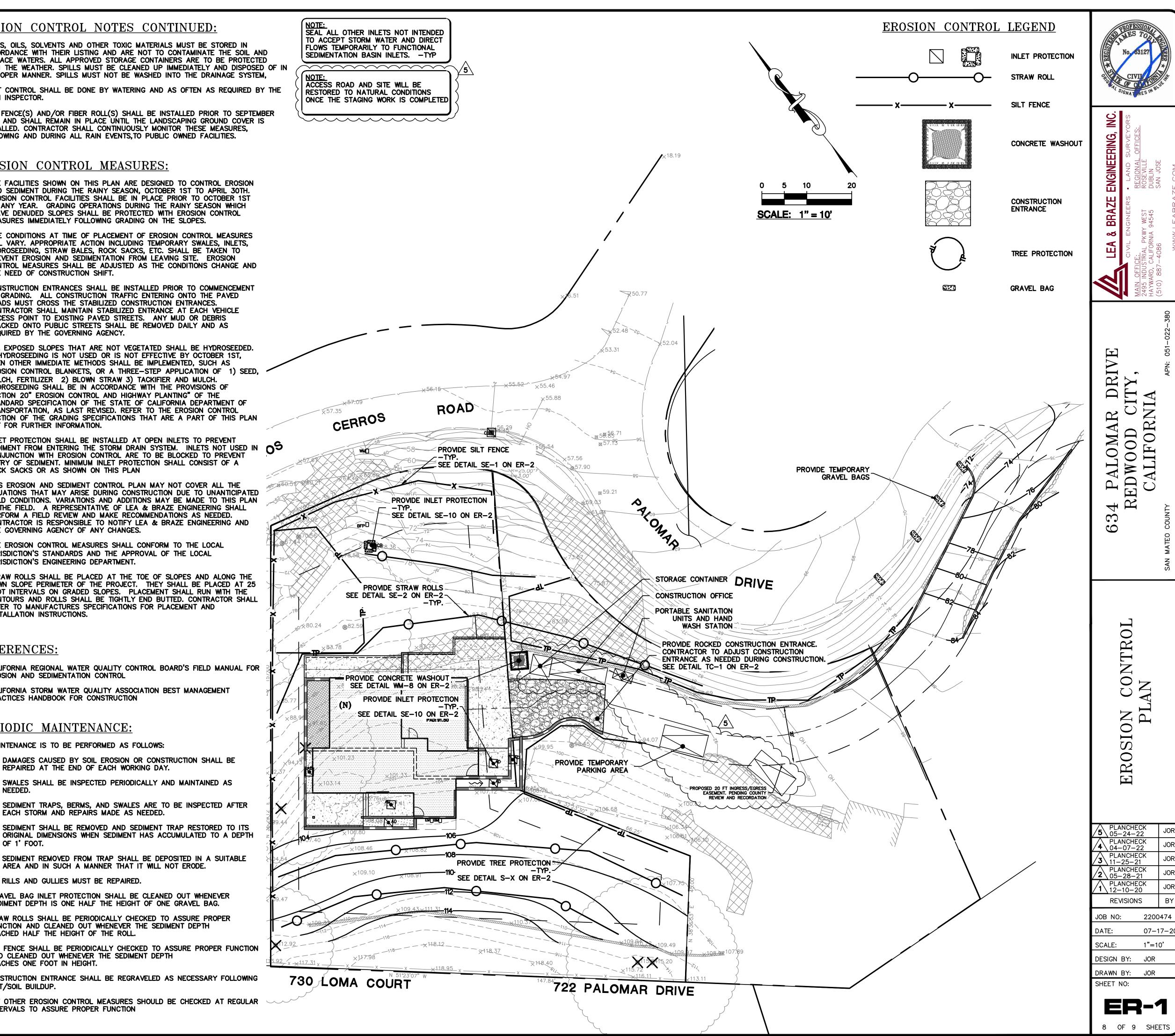
- 1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
- 2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

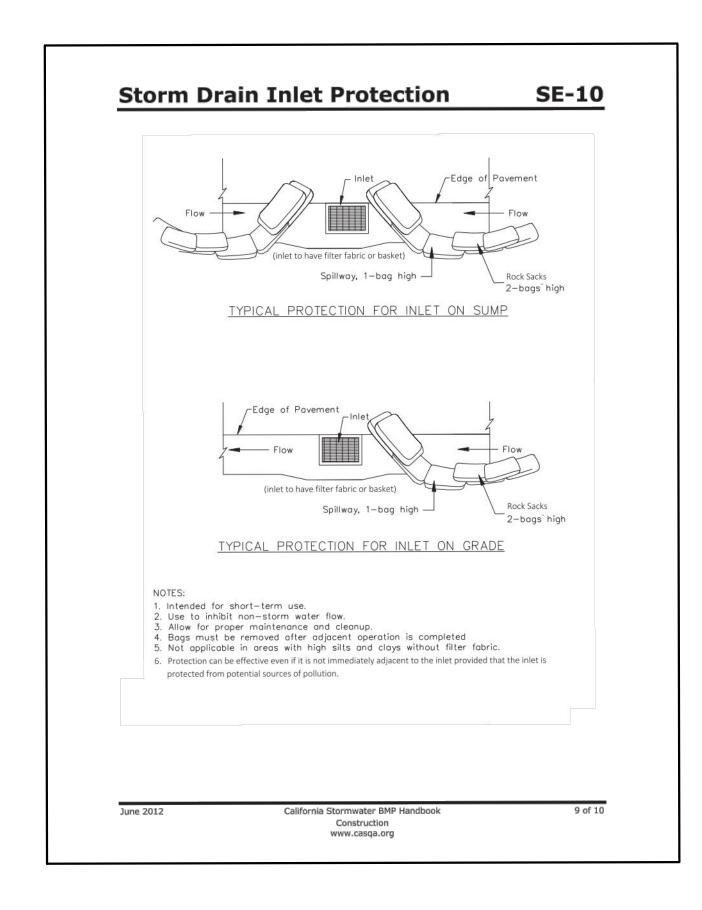
PERIODIC MAINTENANCE:

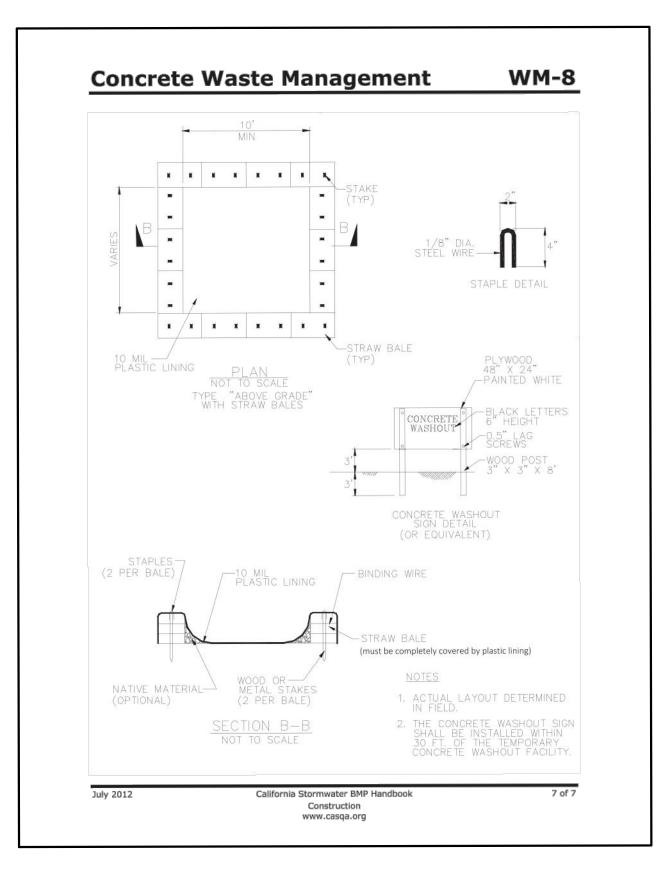
- 1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
 - A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
- B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS
- C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED. D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS
- OF 1' FOOT. E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE
- F. RILLS AND GULLIES MUST BE REPAIRED.
- 2. GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.

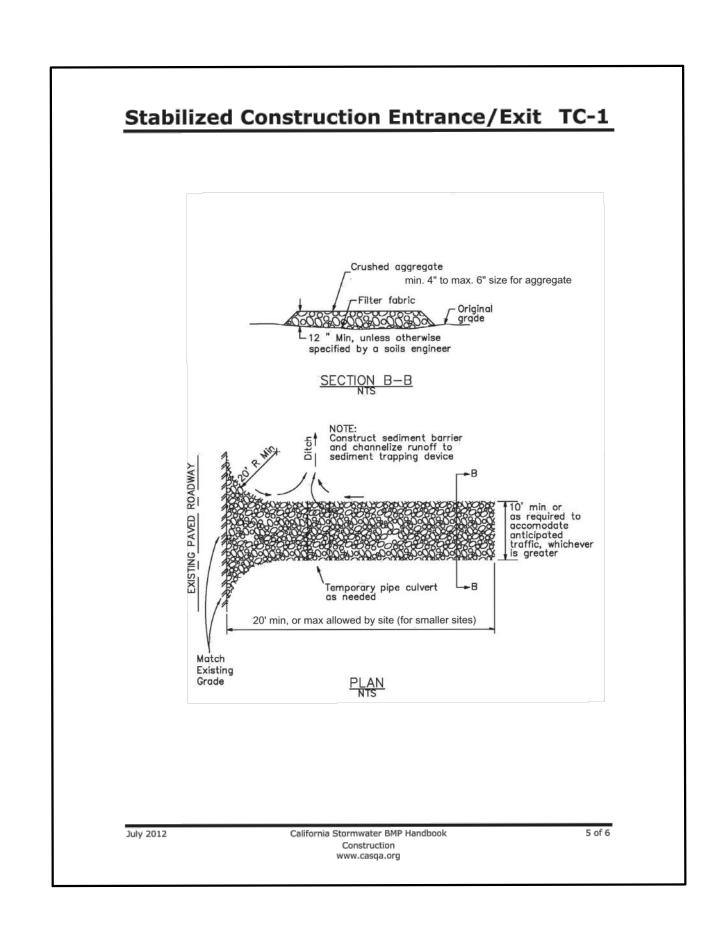
AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.

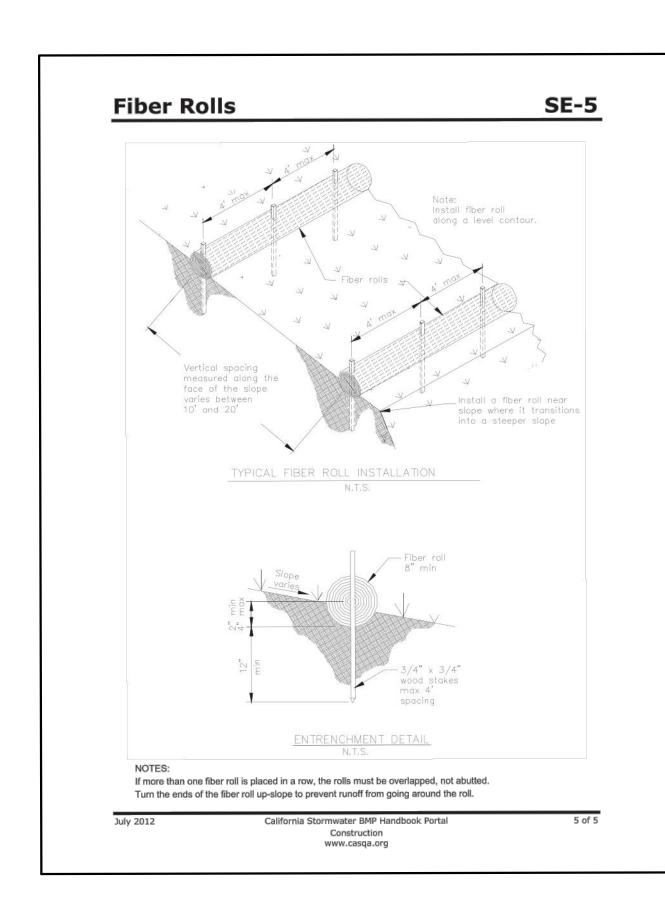
- 3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
- 4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
- 5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
- 6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION

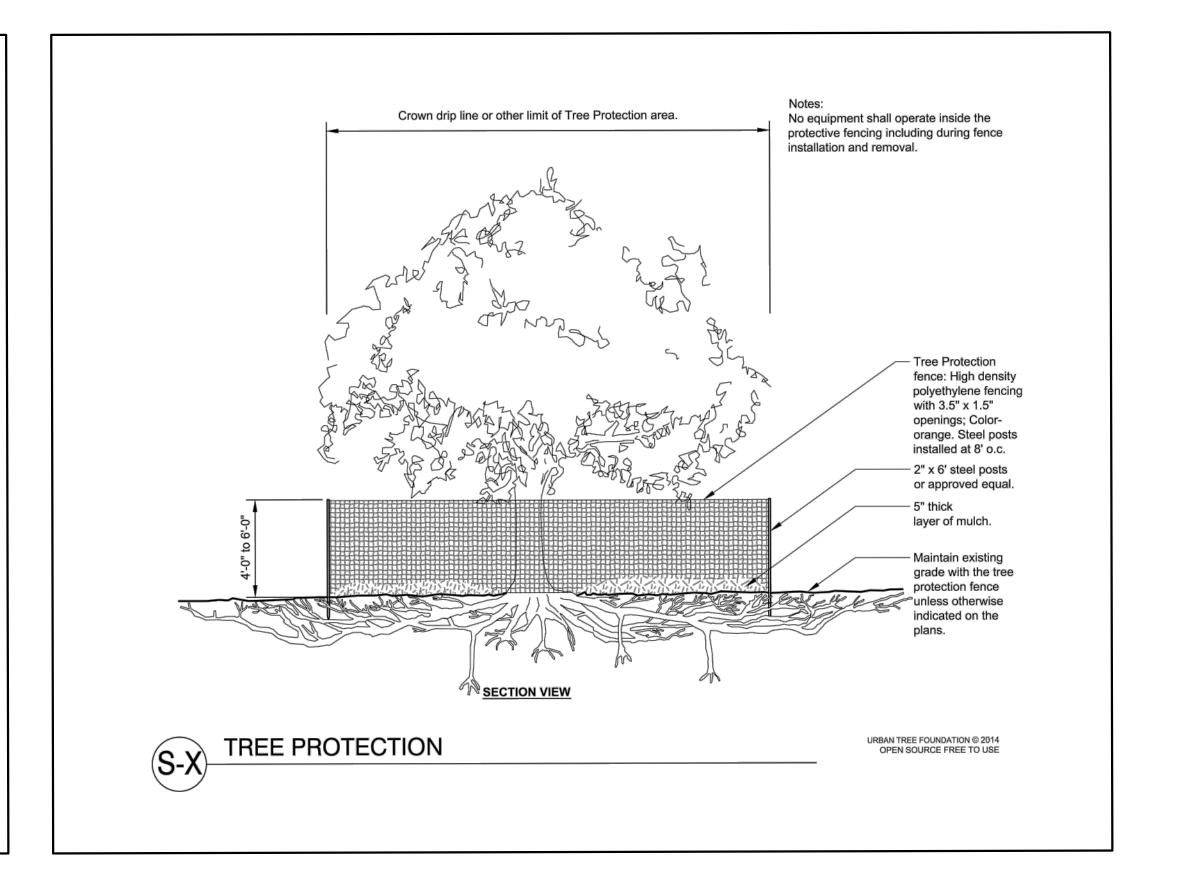


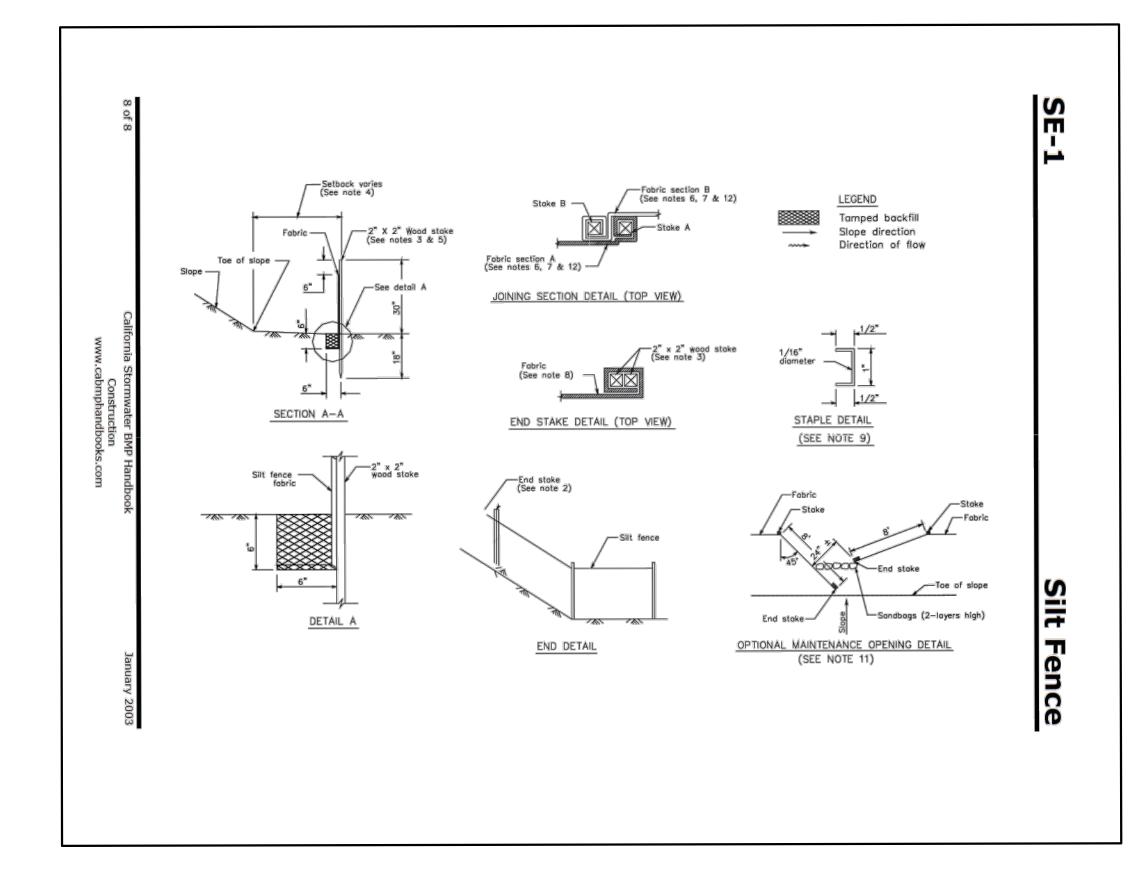














REGIONAL OFFICES:
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TY,

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634 PALOMAR DRIVE REDWOOD CITY, CALIFORNIA

> EROSION CONTROL DETAILS

PLANCHECK 5 05-24-22	JOR	
PLANCHECK 04-07-22	JOR	
PLANCHECK 3 11-25-21	JOR	
PLANCHECK 05-28-21	JOR	
PLANCHECK 12-10-20	JOR	
REVISIONS	BY	

JOB NO: 2200474

DATE: 07-17-20

SCALE: AS NOTED

DESIGN BY: JOR

ER-2

DRAWN BY: JOR

SHEET NO:

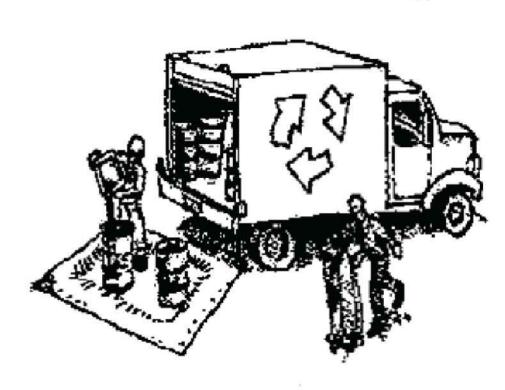


Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Clean Water. Healthy Community.

Materials & Waste Management



Non-Hazardous Materials

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ☐ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ☐ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ☐ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ☐ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ☐ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ☐ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ☐ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ☐ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ☐ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ☐ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control



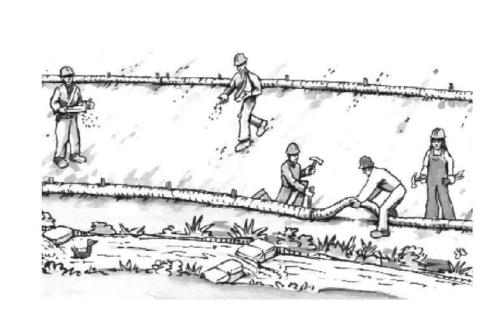
Maintenance and Parking

- ☐ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ☐ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ☐ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ☐ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ☐ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ☐ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- □ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- ☐ Schedule grading and excavation work during dry weather.
- ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for crosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
- Unusual soil conditions, discoloration or odor.
- Abandoned underground tanks.
- Abandoned wells
- Buried barrels, debris, or trash.

Paving/Asphalt Work

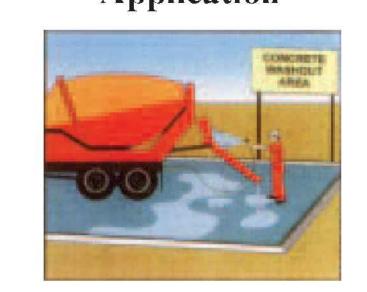


- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ☐ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ☐ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ☐ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ☐ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ☐ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application



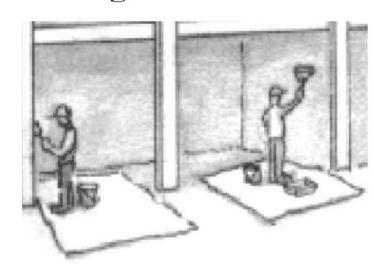
- ☐ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- □ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ☐ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping



- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

Painting & Paint Removal



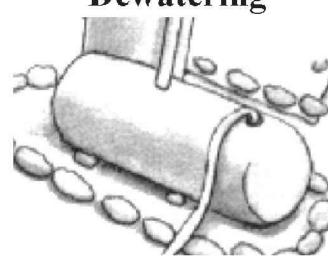
Painting Cleanup and Removal

- ☐ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer.

 Never pour paint down a storm drain.
- ☐ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ☐ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste.

 Lead based paint removal requires a statecertified contractor.

Dewatering



- □ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ☐ Divert run-on water from offsite away from all disturbed areas.
- ☐ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ☐ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

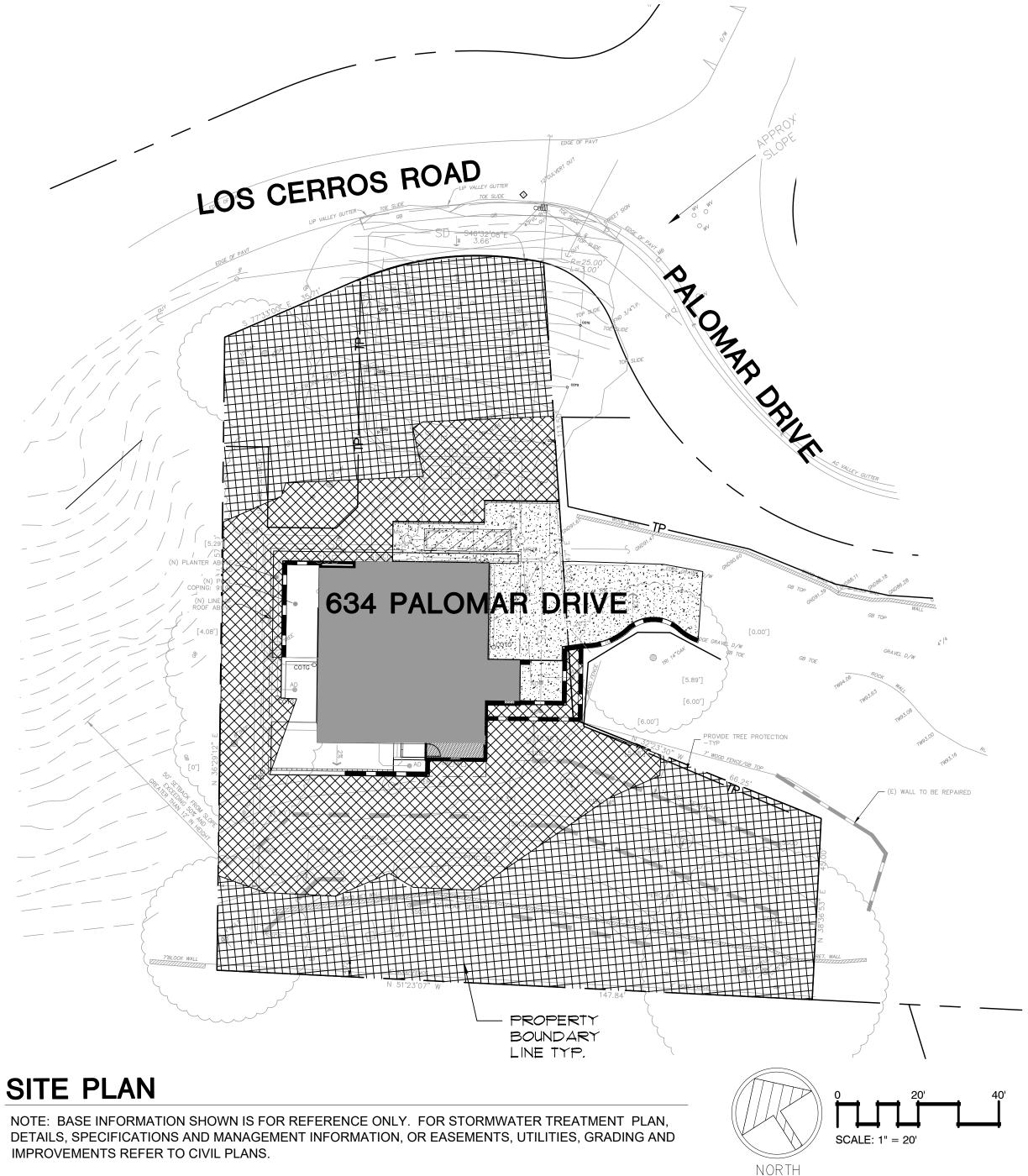
Storm drain polluters may be liable for fines of up to \$10,000 per day!

GENERAL NOTES

manner prior to construction.

- 1. All construction and installation of landscape items are subject to the County of San Mateo Guidelines and Specifications for Landscape Development.
- 2. The Landscape Contractor is responsible for obtaining all permits necessary for installation prior to beginning work. This includes all building and plumbing permits prior to commencing wall construction and irrigation installation, respectively.
- 3. The Contractor is responsible for knowing all site conditions and all underground utilities, pipes, and structures, and shall take sole responsibility for replacement costs incurred due to damage during construction. Contractor shall call for all underground utilities to be marked-out in field prior to excavation. Before excavation, verify the location of underground utilities. Call Dig Alert (underground services alert) 811 or
- 4. The Contractor is to verify existing PSI at the job site prior to installing the landscape irrigation system. Verification shall be made with the Bayshore District San Carlos Water (650-558-7800). Discrepancies between the design pressures shown on the plan and existing static pressures shall be reported to the project
- 5. The Contractor shall not willfully proceed with construction when it is obvious that discrepancies exist between this plan and actual site conditions, and assumes responsibility that any discrepancies are brought to the attention of the Owner's representative. The Contractor shall bear the cost of necessary revisions due to failure to give such notification, and no change in contract price will be allowed for actual or claimed discrepancy between existing conditions and those shown on the
- 6. The Contractor must notify the Landscape Architect and County Public Works Inspector minimum of 48 hours (two working days) prior to starting construction. Within the 48 hours (two working days) notice, prior to beginning landscape construction, the Job Superintendent, Landscape Contractor, Landscape Architect of work, and the City Public Works Inspector shall meet for a pre-construction site meeting. Any work not meeting the approval of the Owner, Owner's representative or the approved landscape plan shall be corrected at the Contractor's expense. 7. All property, lot lines and buffer lines shall be verified and marked in an obvious
- 8. A soils report shall be prepared by County approved equal. Soils testing for agricultural suitability shall be accomplished at the conclusion of rough grading and submitted to the Landscape Architect for conformance review prior to soil preparation All soils reports shall meet all of the specifications of the MWELO ordinance for soil fertility, infiltration and percolation tests and soil texture information. Contact the project Landscape Architect for a copy of the preliminary soils analysis, dated August 7, 2020, prior to beginning work. Any subsequent report shall be EQUALLY comprehensive in the information provided in the preliminary report and the recommendations for soil preparation and backfill amendments. If a subsequent report is incomplete, then the original soils report recommendations shall take precedence.
- 9. All reduced pressure backflow preventors and pressure vacuum breaker assemblies shall be tested by a County approved certified tester after installation, relocation, or repairs. Notify the Bayshore District San Carlos Water Department for a current list.(If applicable)
- 10. Approved landscape plans and specifications shall be at the job site location at all
- 11. Note: ALL trees and palms shall have a one (1) year warranty, both in the right of way and in common area landscapes. The Contractor or Owner is required to maintain all common areas shrubs and groundcovers for 90 days and the public right of way landscaping for one (1) year prior to City acceptance of all improvements. Thereafter, permanent maintenance responsibility will be that of the owner
- 12. The 'As-Built' plans must be completed and approved by the City Engineer prior to the commencement of the required one (1) year maintenance period. The Landscape Contractor shall provide As-Builts to Landscape Architect prior to end of the 90 Day maintenance period per the City's policy and Landscape Manual
- 13. Any turfed areas, if applicable, shall have a maximum design slope of 4:1. Ground cover areas shall have a maximum design slope of 2:1.
- 14. All graffiti shall be removed within 24 hours of occurrence.
- 15. Contractor shall obtain for reference purposes, all approved grading plans and all relative technical reports, drawings and documents and keep on site with landscape
- 16. For details not referenced or shown on these plans, please refer to the County of San Mateo Manual or Manufacturer's details and specifications for installation.
- 17. The project Landscape Architect is aware of the County of San Mateo policy which prohibits trees and permanent structures in utility easements and has designed the project landscape plans in accordance with this requirement, based on the easement information received from the project Engineer of Work. The project Landscape Architect has verified that these plans meet the requirements of said policy.
- 18. The project Contractor is aware of the County policy which prohibits trees and structures in utility easements and shall install the project in accordance with this requirement. The Contractor shall verify the location of all easements, property mark or stake all property lines and easements, and verify the scope of work within the easement prior to installing improvements within any easement.
- 19. Guarantee of Irrigation Work. Per the County's policy, the Landscape Contractor shall provide "Guarantee of Irrigation Work" letter. See irrigation notes for required content of the Irrigation Guarantee.
- 20. The landscape contractor shall provide Controller certification letter to Landscape Architect for documentation package. See irrigation plan, notes and details. 21. MWELO Compliance. The landscape contractor shall provide to Landscape Architect all required permanent irrigation schedules, installation certification letter, maintenance information and third party audit as required by the Water Efficiency Landscape Ordinance . See Irrigation Notes for additional requirements.

LANDSCAPE IMPROVEMENTS 634 PALOMAR DR. REDWOOD CITY, CALIFORNIA



LEGEND

APPROXIMATE TOTAL SQ. FT. OF LANDSCAPE AND MAINTENANCE RESPONSIBILITY FOR PROJECT PRIVATE AREA LANDSCAPE = 14,265 SQ. FT.

THIS AREA SHALL BE PERMANENTLY MAINTAINED BY THE OWNER

SHEET INDEX

IIILE SHEET	L-1
IRRIGATION PLAN	L-2
HYDROZONE PLAN	L-3
IRRIGATION DETAILS	L-4
PLANTING PLAN	L-5
PLANTING DETAILS/NOTES	L-6

NOTES:

AT THE TIME OF FINAL INSPECTION. THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED BY A CERTIFIED IRRIGATION AUDITOR AT THE TIME OF FINAL INSPECTION, REPORT SHALL BE SUBMITTED TO SAN MATEO COUNTY PLANNING FOR REVIEW AND ACCEPTANCE.

A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.

A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE LANDSCAPE ARCHITECT, DESIGNER, OF THE PLANTING / IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

WATER EFFICIENT LANDSCAPE ORDINANCE COMPLIANCE

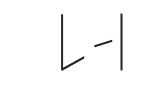
I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE.

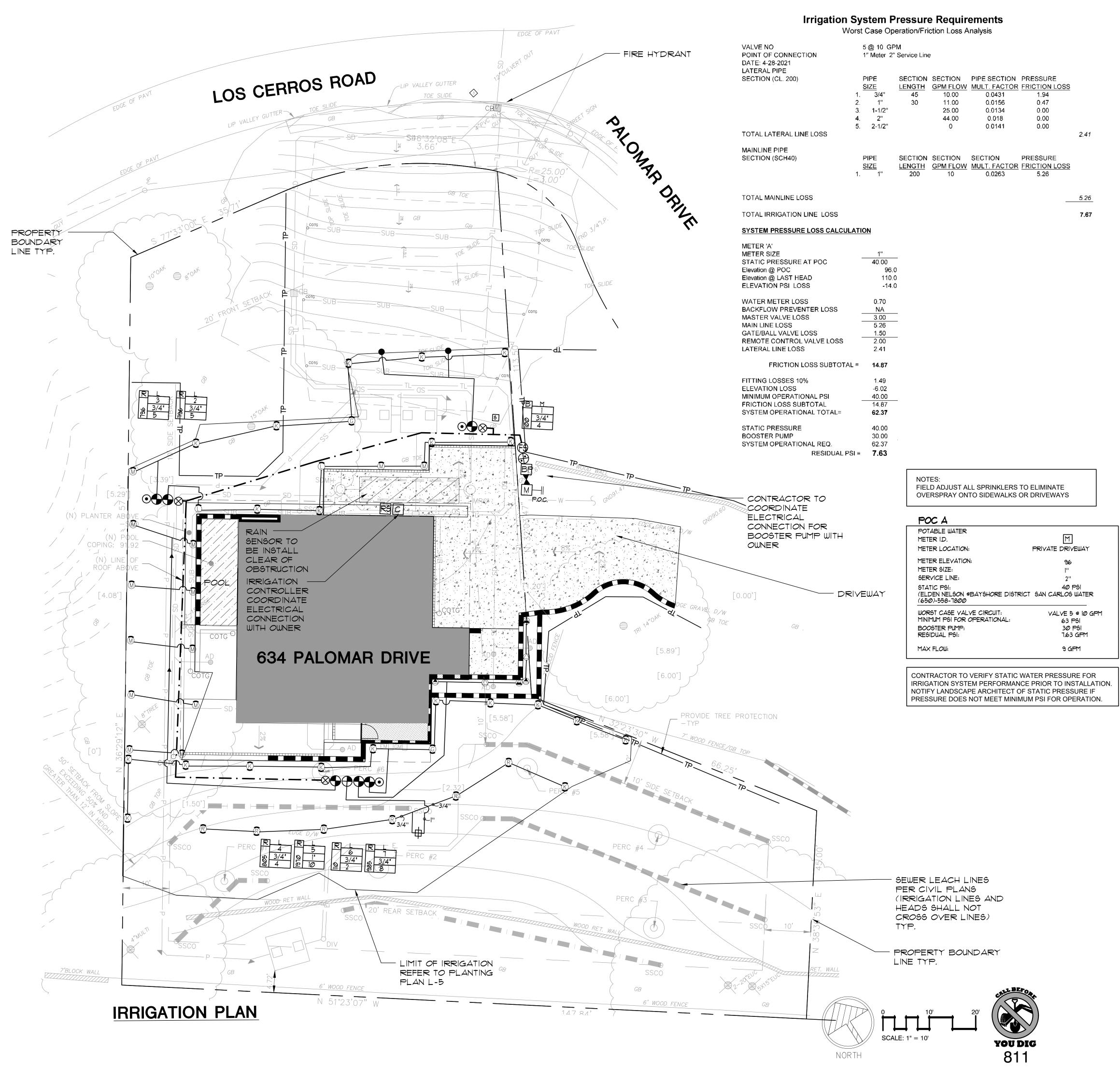
LANDSCAPE ARCHITECT

DATE



SHEET NUMBER:





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IRRIGATION NOTES

1. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE SAN MATEO COUNTY STANDARD AND REQUIREMENTS. AN AUTOMATIC BELOW GRADE IRRIGATION SYSTEM SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME, LOW FLOW IRRIGATION EQUIPMENT AND CONSERVATION TECHNIQUES SHALL BE EMPLOYED ALONG WITH THE DOCUMENTATION PACKAGE TO PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH A MINIMUM WATER LOSS DUE TO WATER RUN-OFF. ZERO RUNOFF IS PERMITTED.

- 2. BUBBLERS AND ROTARY SPRAYS IRRIGATION SYSTEMS SHALL BE USED WITH HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS, MASTER VALVE, FLOW SENSOR AND RAIN SHUT-OFF SENSOR AND OTHER NECESSARY IRRIGATION EQUIPMENT FOR BEST EFFICIENCY AND WATER CONSERVATION.
- ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL.
 ALL IRRIGATION EQUIPMENT, SENSORS AND CONTROLLERS
 SHALL BE INSTALLED PER MANUFACTURER GUIDELINES AND
 SPECIFICATIONS, AND ADHERE TO ALL CODE RESTRICTIONS AND
 GUIDELINES.
- 5. ALL IRRIGATION PIPING AND WIRING SHALL BE SLEEVED UNDER ALL HARDSCAPE AND VEHICULAR AREAS, WITH STANDARD
- DEPTH OF COVER PER SAN MATEO COUNTY REQUIREMENTS.

 6. SPRAY NOZZLES, AND/OR OR EFFICIENT ROTARY AND ROTOR SPRAY SYSTEMS THAT ARE ORDINANCE-COMPLIANT AND PROVIDE ZERO OVERSPRAY MAY BE USED.
- 7. FIELD ADJUST ALL SPRINKLERS AND EMITTERS TO ELIMINATE OVERSPRAY ONTO SIDEWALKS, DRIVEWAYS AND HARDSCAPE AREAS
- 8. ALL IRRIGATION AREAS SHALL BE APPROPRIATELY HYDROZONED AND INSTALLED ACCORDING TO ORDINANCE REQUIREMENTS AND LANDSCAPE DESIGN STANDARDS.

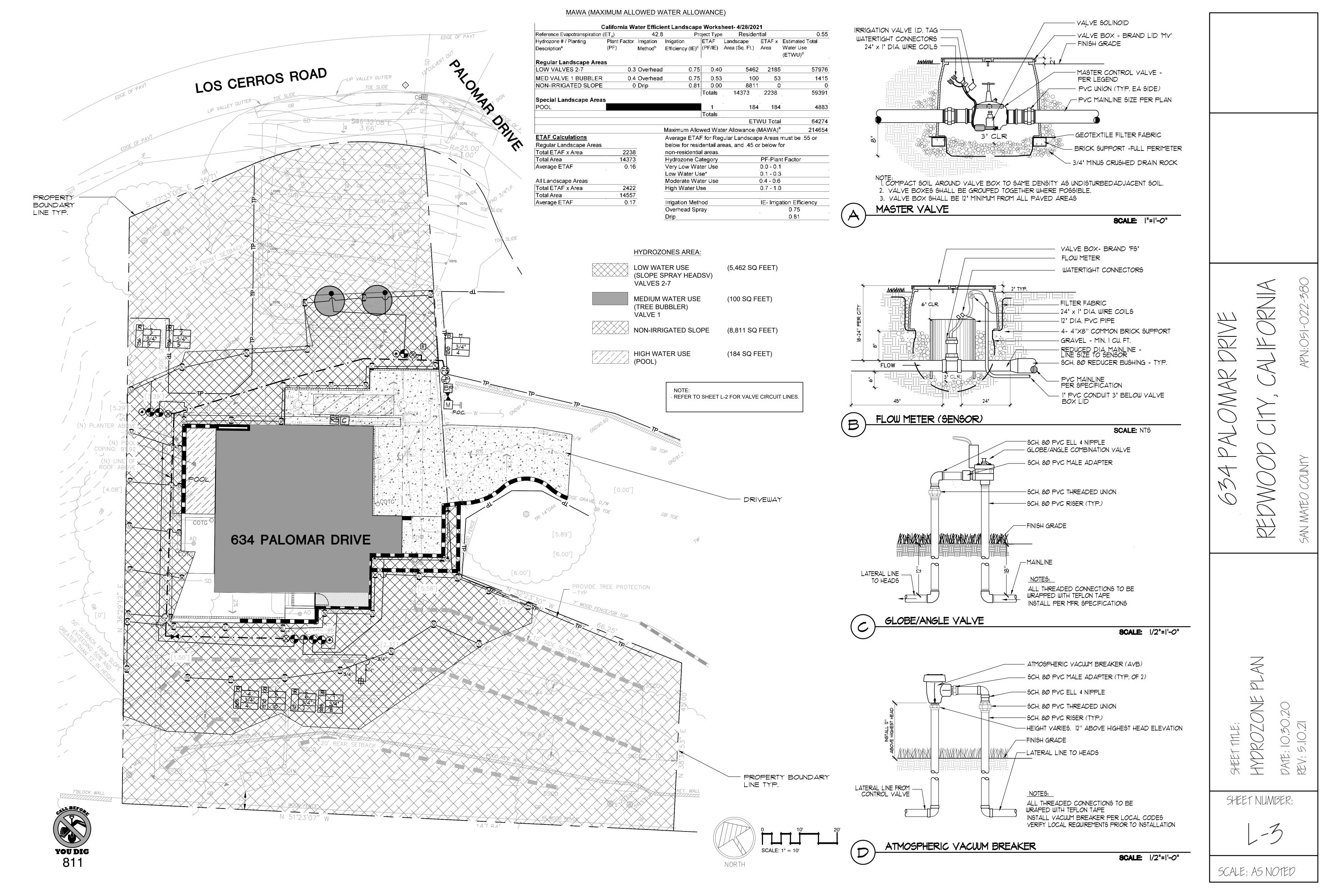
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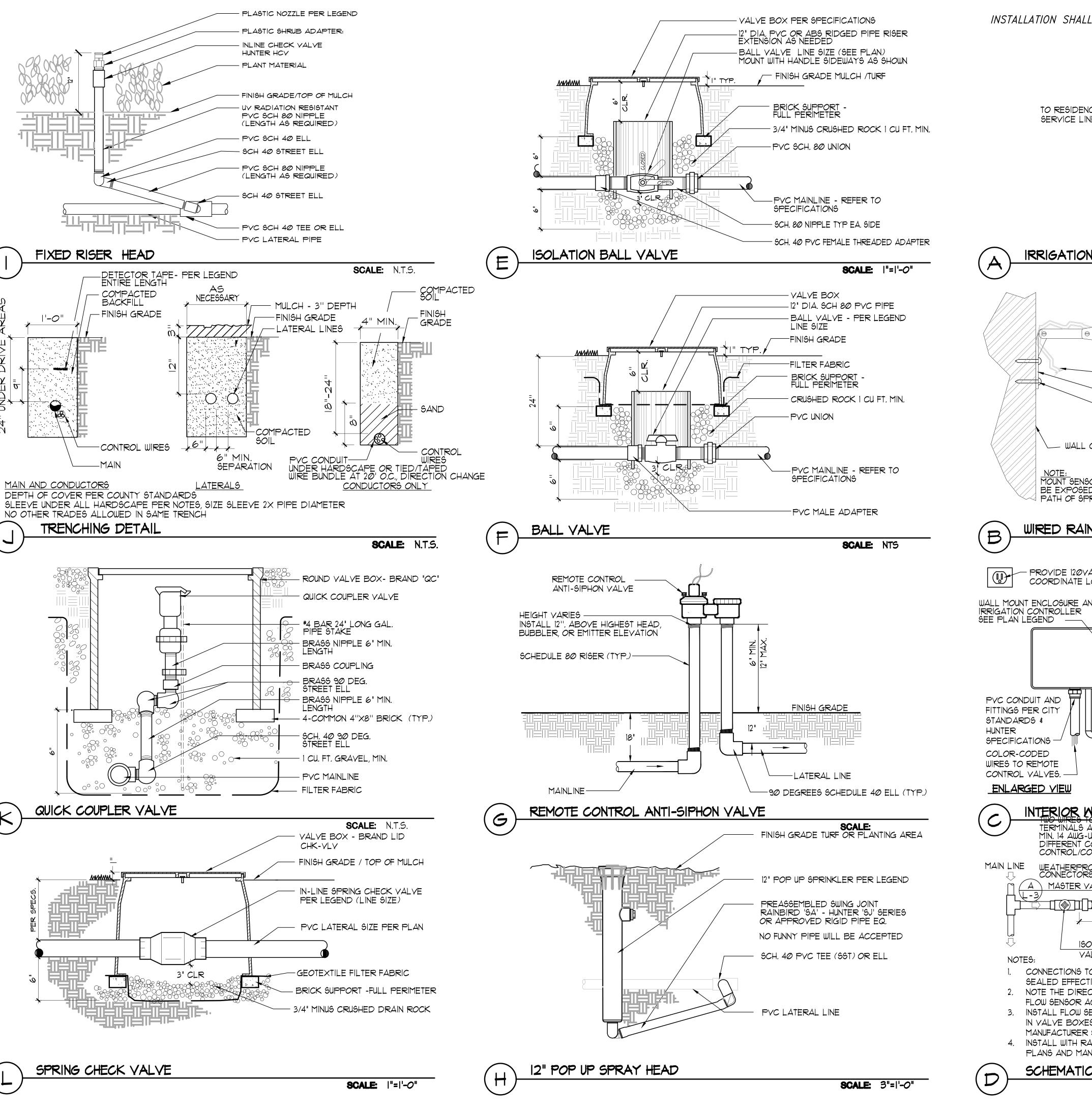
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IRRIGATION PLAI DATE: 10,30,20 REV: 5,10,21

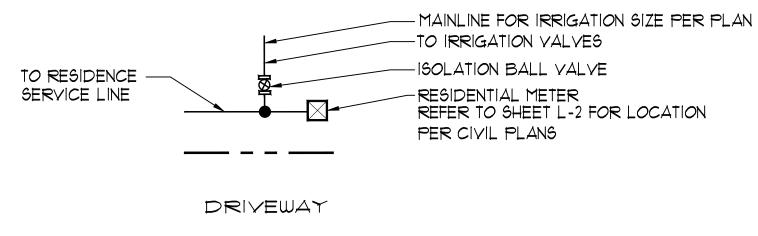
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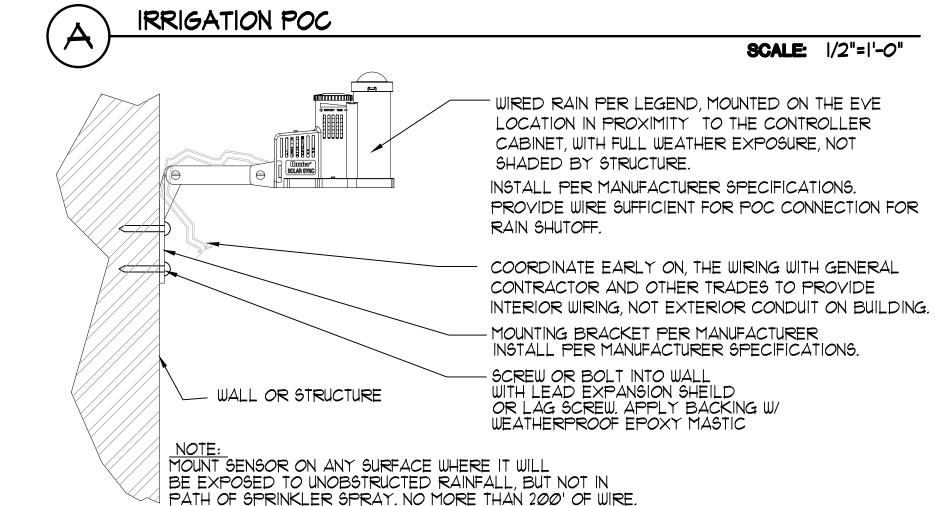


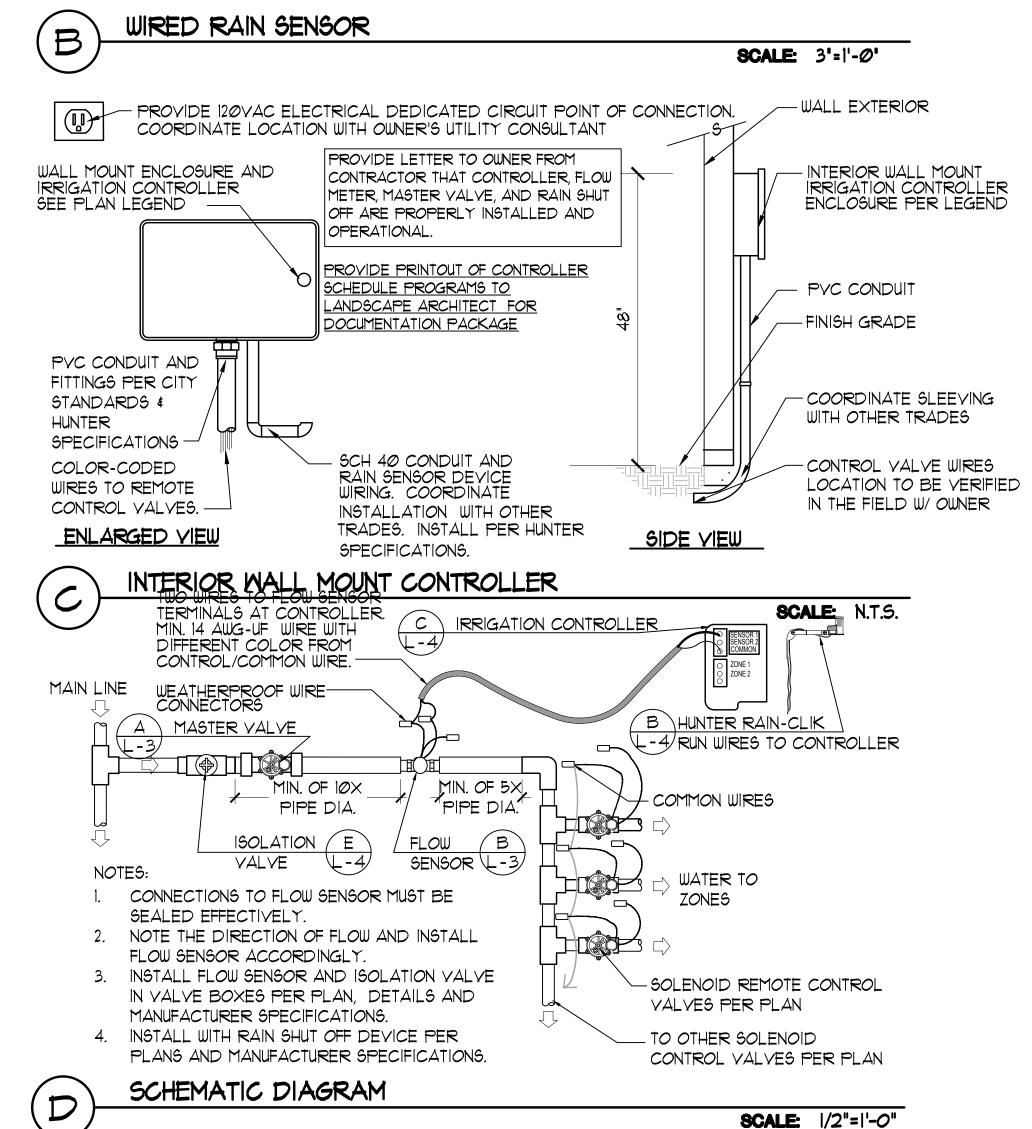


INSTALLATION SHALL MEET SAN MATEO COUNTRY STANDARDS AND REGULATIONS



PLAN VIEW IRRIGATION P.O.C.



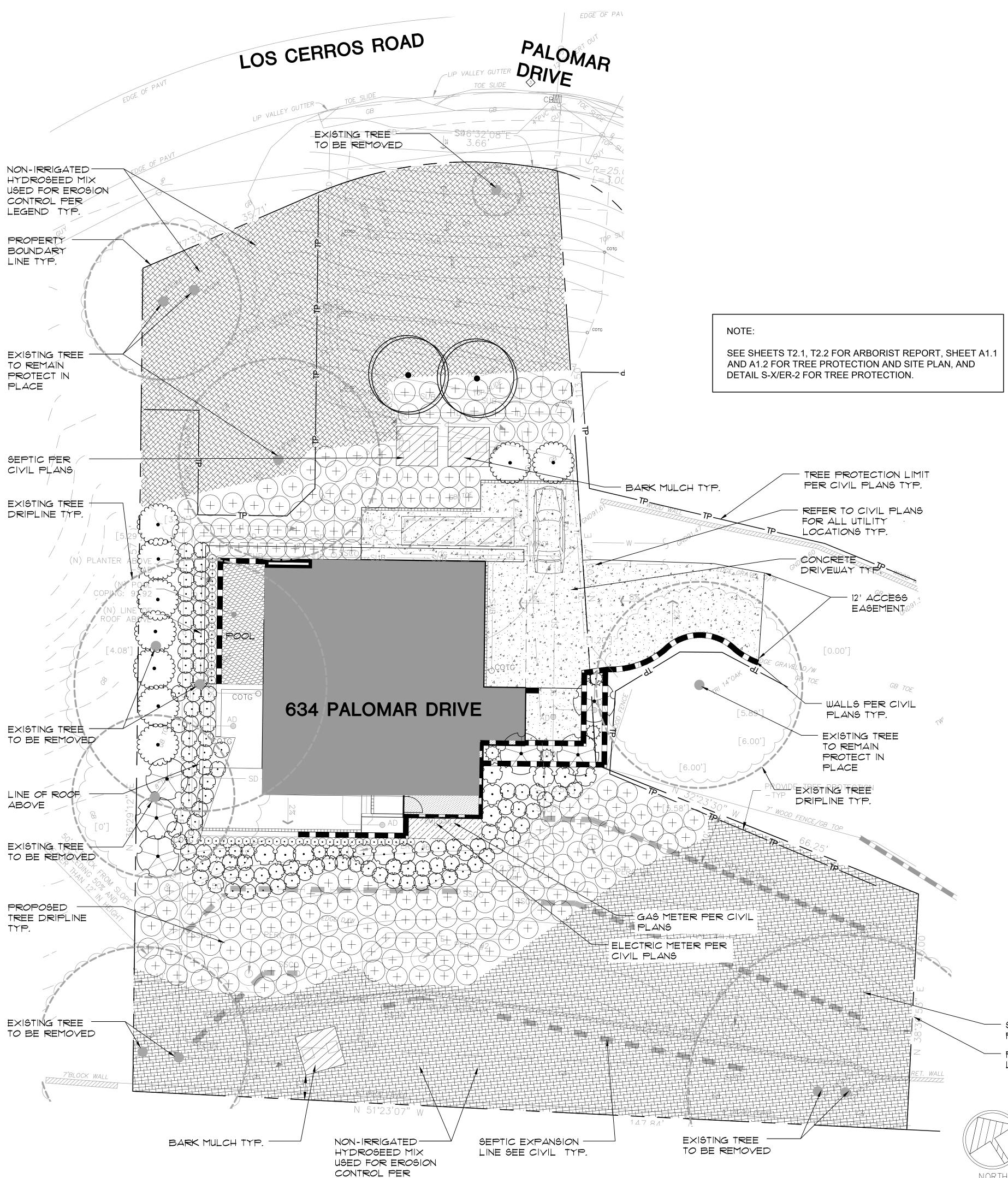


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LEGEND TYP.

PLANT SC	HEDULE					Wate	r Use	
TREES	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS
$\overline{(\cdot)}$	Geijera parviflora	Australian Willow	24" Box	As Shown	2		Х	A,B/L-6
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS
$\langle \cdot \rangle$	Agave attenuata	Foxtail Agave	5 gal.	4' o.c.	12	X		C,D/L-6
\odot	Aloe x `Blue Elf`	Aloe	1 gal.	18" o.c.	46	Х		C,D/L-6
£()	Dodonaea viscosa `Purpurea`	Purple Leafed Hopseed Bush	15 gal.	8' o.c.	9	X		C,D/L-6
$\overline{\mathbb{O}}$	Lomandra longifolia `Breeze` TM	Breeze Mat Rush	1 gal.	3' o.c.	104	Х		C,D/L-6
+	Muhlenbergia rigens	Deer Grass	1 gal.	4' o.c.	195	X		C,D/L-6
₹÷}	Phormium x `Amazing Red`	Amazing Red New Zealand Flax	5 gal.	3' o.c.	10	X		C,D/L-6
GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	Low	Medium	DETAILS
	Dymondia margaretae	Silver Carpet Dymondia	flat	12" o.c.	57 sf	X		D/L-6
	This is a mixture of showy, provide months of bright S	 Native Hydroseed Mix- S &S Seeds , low growing annual and perennial s Spring color in a non-irrigated setting nded Application Rate – 42 lbs/acre	species tha	at will	8,811 sf	x		MFR. SPEC.

SOIL PREPARATION-FOR BID PURPOSES

Gro-Power Plus is designed for soil conditions that are impossible, such as highly-compacted, hard pan areas (clay, adobe, caliche soils) or areas that have extremely high levels of salt (EC), sodium boron or pH problems. Here is what Gro-Power Plus does for you:

you:

(1) Increases the rate and depth water penetration.
(2) Aerates the soil.
(3) Reduces evaporation.
(4) Deepens root system.
(5) Makes plant food in soil more available.

(7) Soil does not become waterlogged.

I. **Gro-Power Plus Used For Soil Preparation**:
Use Gro-Power Plus at the rate of 150 lbs. to 200 lbs. per 1000 square feet Rototill Gro-Power Plus into the top 6" to 8" of soil. Then water thoroughly; the water activates the penetrant and starts to break up the compacted soil. Each time the water is added, the

II. **Gro-Power Plus Used For Turf Maintenance**:
Use Gro-Power Plus at the rate of 25 lbs. to 30 lbs. per 1000 square feet on areas that have become highly compacted, hard-pan areas, areas where water stands, the center of football fields or high traffic areas. Use Gro-Power Plus once a year, then regular Gro-Power formula or Gro-Power Hi Nitrogen at 7 lbs. to 8 lbs per 1000 square feet the rest of the application. Usually one or two more applications of regular Gro-Power or Gro-Power Hi-Nitrogen is all that is needed the balance of the year after Gro-Power Plus has been

soil is broken up deeper until the penetrant is finally used up. The best part - the Humus

III. **Gro-Power Plus Used For Hydroseeding**:
Use for those difficult soil conditions - on cut and fill slopes, decomposed granite, etc.
Apply at the rate 1,000 lbs. to 1,300 lbs per acre in slurry.

SPECIFICATIONS:

(6) Frees trace minerals.

Gro-Power Plus 5-3-1 Soil Penetrant Added (1.00% Alkyl Naphthalene Sodium Sulfonate)

Fertilizer - Conditioner - Organic materials, higher plant form life, composted below the fibrous stage to support bacterial cultures. Gro-Power contains no poultry, animal or human waste.

PHYSICAL PROPERTIES: A uniform "Beaded" homogenous mixture - 100.00% passing through a #4 mesh screen - a water soluble bio-degradable binder is used to insure fast breakdown.

CHEMICAL ANALYSIS: 5-3-1, Nitrogen (available) 5.00%, Phosphate 3.00%, Potash 1.00% Humus 70.00%, Humic Acids 15.00% Soil Penetrant 1.00%. Gro-Power bacterial "stimulator" included.

GROW PLANTING TABLETS

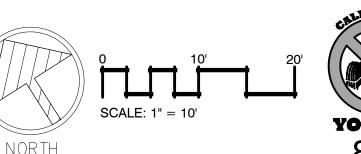
GRO-POWER PLANTING TABLETS: 7 gram planting tablet designed for 12 month slow release. Components of tablets allow for breakdown within all soil mediums. May be used in new plantings, existing plants, containers, water plants.

12-8-8 NPK, 20% Humus, 4% Humic Acids, 3.5% Sulfur, 2% Iron, Micronutrients.

		blets Application Rate antings or Containers	
4" Pot Ground Cover	6" Pot Liner	1 Gal. Plant	3 Gal. Plant
1	1-2	2-3	3-6
5 Gal. Plant	7 Gal. Plant	10 Gal. Plant	15 Gal. Plant
6-9	8-10	10-12	12-15
20" - 24" Box	30" Box	36" Box	42" Box
14-16	16-18	18-20	20-22
48" Box	60" Box	Larger sizes for e	ach ½" caliper use
22-24	32-36		3-4

PER CIVIL PLANS

PROPERTY BOUNDARY LINE TYP.





BACKFILL - FOR BID PURPOSES

0.05%

1.00%

Minimum 60,000 per 100 gram

Derived from ammonium phosphate, urea, sulphate of potash, compost and sulfides and oxides of iron, manganese and zinc.

- A. 7 PARTS OF NATIVE ON-SITE SOIL, 3 PARTS OF NITROLIZED SHAVINGS AND 15LBS. OF GRO -POWER PER CUBUC YARD OF MIX. MIX THIS THOROUGHLY AND BACKFILL.- OR-.
- B. MIX 7 PARTS OF ROCK-FREE SOIL AND 3 PARTS OF NITROLIZED SHAVINGS AND MIX THOROUGHLY.
 BACKFILL WITH THIS MIXTURE TO TOP OF PLANTING PIT. APPLY GO-POWER, PLUS OR PLUS w/M ON TOP OF MIX

1 gallon 5 gallon 15 gallon 24" box 30" box 36" box 42" box 48" box 54" box 60" box 72" box	PIT SIZE	Dig hole twice the size of ball Dig hole twice the size of ball Dig hole twice the size of ball Allow 2 ft. on each side of box	FEED GRO-POWER*	1/2 cup 1 cup 2 cups 4 cups 4 1/2 cups 5 cups 6 cups 7 cups 8 cups 9 cups 12 cups
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624 PALOMAR DRIVE EDWOOD CITY, CALIFORNIA

MATEO

ANTING PLAN

**E: 07.6.20

V: 5.10.21

SHEET NUMBER:

1-5

PLANTING NOTES:

1.A MINIMUM OF THREE (3) INCHES OF MULCH SHALL BE ADDED TO THE SOIL SURFACE AFTER PLANTING IN NON-TURF AREAS. NON-POROUS MATERIAL SHALL NOT BE PLACED UNDER THE MULCH.

2.FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS, AND GROUNDCOVERS.

3.ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM A SOIL SUITABILITY SAMPLE TAKEN FROM THE SITE PRIOR TO PLANTING.

4.DESIGN SHALL MEET ALL WATER CONSERVATION POLICY AND GUIDELINES AND THE SAN MATEO COUNTY REQUIREMENTS.

5.CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. COORDINATE WITH THE OWNER TO OBTAIN ANY REQUIRED PERMITS NECESSARY TO COMPLETE WORK. ALL WORKMANSHIP AND MATERIALS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE(1) CALENDAR YEAR AFTER FINAL ACCEPTANCE.

6.MAINTAIN ALL PLANT MATERIAL FOR A THREE(3) MONTH PERIOD FROM DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE SHALL INCLUDE PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, SPRAYING FOR DISEASE AND INSECTS. RECOMMENDED LONG-TERM MAINTENANCE PROCEDURES SHALL BE PROVIDED TO THE OWNER BEFORE EXPIRATION OF THIS PERIOD.

7.ALL REQUIRED LANDSCAPE AREAS SHALL BE THE RESPONSIBILITY OF THE OWNER. THE LANDSCAPE AREAS SHALL BE MAINTAINED PER THE COUNTY OF SAN MATEO COUNTY REQUIREMENTS.

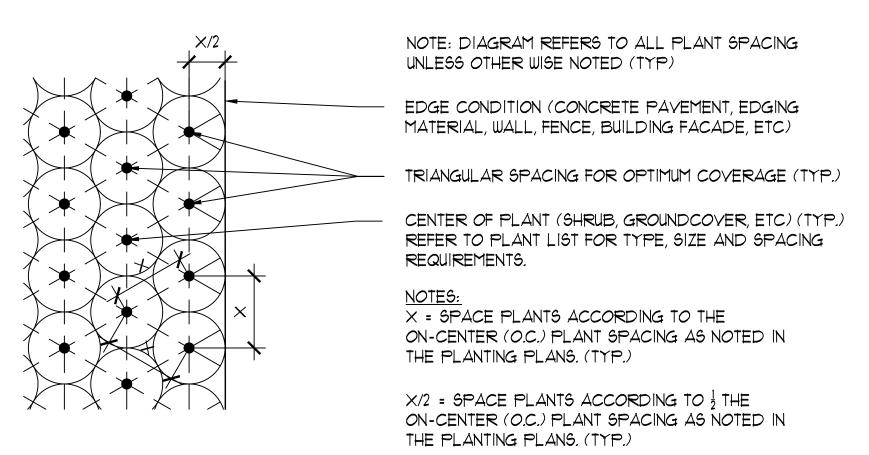
8. VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. REPAIR ALL DAMAGED UTILITIES IF DAMAGED BY CONSTRUCTION TO SATISFACTION OF THE OWNER AND OPERATING AUTHORITY AT NO ADDITIONAL COST.

9.ALL EXISTING TREES THAT ARE TO REMAIN SHALL BE PROTECTED IN PLACE AND SHALL NOT DISTURB ROOTS UNDER TREE DRIPLINE. REFER TO CIVIL FOR ADDITIONAL NOTES.

10. A FUEL BREAK OF DEFENSIBLE SPACE IS REQUIRED AROUND THE PERIMETER OF ALL STRUCTURES TO A DISTANCE OF NOT LESS THAN 30 FEET AND MAY BE REQUIRED TO A DISTANCE OF 100 FEET OR TO THE PROPERTY LINE. THIS IS NEITHER A REQUIREMENT NOR AN AUTHORIZATION FOR THE REMOVAL OF LIVING TREES. TREES LOCATED WITHIN THE DEFENSIBLE SPACE SHALL BE PRUNED TO REMOVE DEAD AND DYING PORTIONS, AND LIMBED UP 6 FEET ABOVE THE GROUND. NEW TREES PLANTED IN THE DEFENSIBLE SPACE SHALL BE LOCATED NO CLOSER 10' TO ADJACENT TREES WHEN FULLY GROWN OR AT MATURITY. REMOVED THAT PORTION OF ANY EXISTING TREE, WHICH EXTENDS WITHIN 10 FEET OF THE OUTLET OF A CHIMNEY OR STOVEPIPE OR IS WITHIN 5' OF ANY STRUCTURE MAINTAIN ANY TREE ADJACENT TO OR OVERHANGING A BUILDING FREE OF DEAD OR DYING WOOD.

11. ROOT BARRIER SHALL BE IMPLEMENTED IN AREAS WHERE TREES ARE WITHIN 10 FEET ADJACENT TO COUNTY FACILITIES AND HARDSCAPE. DETAIL A/L-2

12.LANDSCAPING WITH DEEP ROOTS SYSTEM SHALL NOT BE PLACED ON STORMWATER IMPROVEMENTS UNLESS THEY ARE AN INTEGRAL PART OF THE STORMWATER POLLUTION PREVENTION MEASURES. CONSTRACTOR TO VERIFY THAT LANDSCAPING DOES NOT IMPACT STORAGE VOLUMES IN STORMWATER BASINS, SWALES, OR OTHER HYDRAULIC STRUCTURES.



TRIANGULAR SPACING DIAGRAM

SOILS REPORT

Analytical data determined on soil fraction passing a 2 mm sieve.

WALLACE LABS

SCALE: 3/4" = 1'-0"

YOU DIG

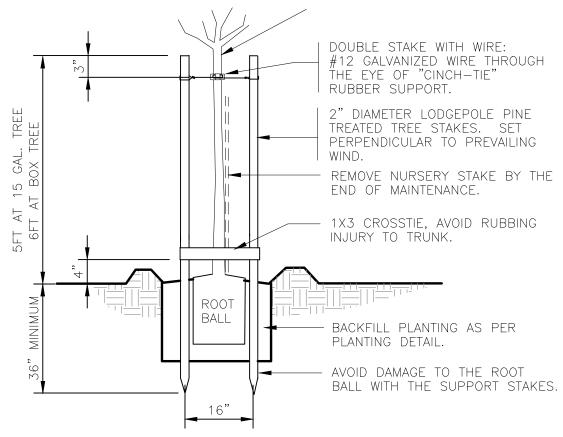
SOILS ANALYSIS REPORT

Print Date

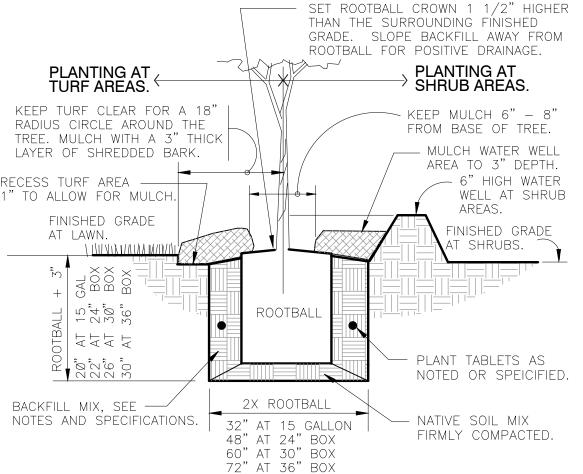
Aug. 6, 2020

Receive Date

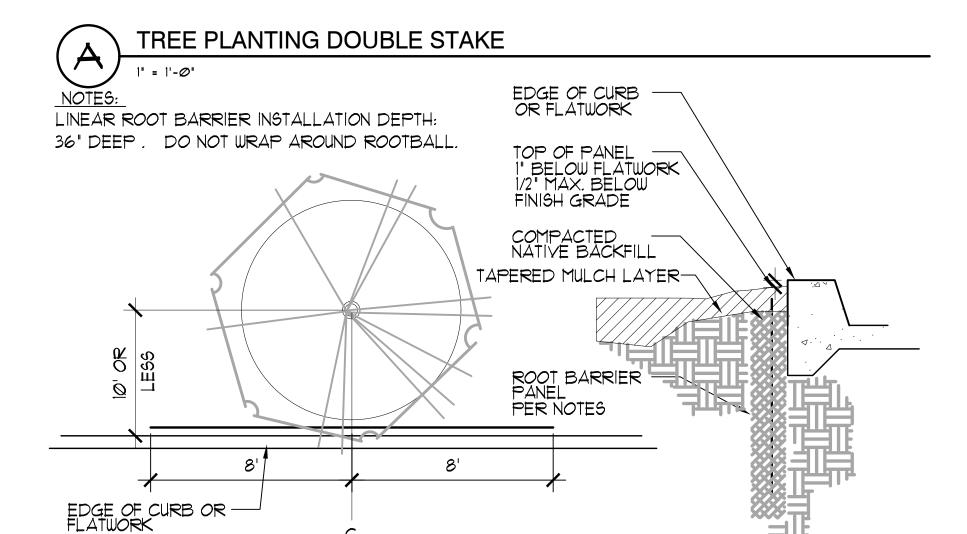
WALLACE LAB	5	SOILS REPORT	Print Date	Aug. 6, 2020	Receive Date	8/5/20
365 Coral Circle		Location	634 Palomer Dr., Red	lwood City, CA / Thala	pancni Residence	
El Segundo, CA 9	00245	Requester	Enrique Guzman, Co	CAN CONTRACT TO SECURITY OF THE SECURITY OF TH		
(310) 615-0116	100 miles	graphic interpretation: * very low, **	The formal of 20th of the property of the same and the			
ammonium bicar	honate/D'		****high, *****very	high		
extractable - mg/kg so		Sample ID Number	20-219-28	40.0 P. C.		
Interpretation of data		Sample 1D Number Sample Description				
low medium high		elements	Redwood City, o	graphic		
0 - 7 8-15 over 15		phosphorus	34.98	инини инини		
0-60 60 -120 121-18	0	potassium	557.85	10. 10. 10. 10. 10.		
0 - 4 4 - 10 over 1		iron	54.18	ple ple ple ple ple		
0- 0.5 0.6- 1 over 1	,	manganese	51.77	ale ale ale ale		
0 - 1 1 - 1.5 over 1.	5	zinc	12.80	als als als als als		
0- 0.2 0.3- 0.5 over 0		copper	0.0000000000000000000000000000000000000	operate aperate aper		
0- 0.2 0.2- 0.5 over 1		boron	0,20	12 July 10 10 10		
O- OLE OLE- OLD OVER I		calcium	447.80	oje oje oje		
		magnesium	304.44	***		
		sodium	27.78	Phys 2 4 5 5 (6) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
		sulfur	20,16			
		molybdenum	0.04	111111111111111111111111111111111111111		
		nickel	6.05	1/4/1/4/14		
The following trace		aluminum	n d			
elements may be toxic		arsenic	0,20			
The degree of toxicity		barium	2.08			
depends upon the pH o	of	cadmium	0.08			
the soil, soil texture,		chromium	0.15			
organic matter, and the	0	cobalt	0.29			
concentrations of the		lead	8.37	MILE ALL AND		
individual elements as	well	lithium	0.23			
as to their interactions		mercury	n d	nja		
		selenium	n d	N/4		
The pH optimum dep	pends	silver	n d	N		
upon soil organic		strontium	2.07	N		
matter and clay cont	ent-	tin	n d	n e		
for clay and loam soi under 5.2 is too acidi		vanadium	0.41	No.		
	c	Cotoostico Estado				
6.5 to 7 is ideal		Saturation Extract	6.60	ste ste ste		
over 8.0 is too alkalir	Name and Address of the Owner o	pH value	6.62			
The ECe is a measur	e of	ECe (milli-	0.47			
the soil salinity:		mho/cm)		millieq/l		
1-2 affects a few plan		calcium	62.7	3.1		
2-4 affects some plan		magnesium	24.3	2.0		
> 4 affects many plan	nts.	sodium	11.1	0.5		
		potassium	24.1	0.6		
nuchlama avan 160 m		cation sum chloride	21	6.2 0.6		
problems over 150 p good 20 - 30 ppm	Pili	nitrate as N	21	0.5		
good 20 - 30 ppm			4.7	0.3		
toxic over 800		phosphorus as P sulfate as S	15.8	1.0		
toxic over 800		anion sum	15,8	2.3		
toxic over 1 for many	v nlante	boron as B	0.19	The Artist		
toxic over 1 for many increasing problems star		SAR	0.19	**		
est. gypsum requiren		AND A TANAH TA	23	A 1 1 1 1 1 1 1 1 1		
esa gypsum requiren		ltration rate	fair/slow			
	estimated so		loam			
		m carbonate)	The state of the s			
	and the same of the same of the same of		no fair/low			
	organic ma	ntent of soil	5.2%			
	120000000000000000000000000000000000000	ATT IN TOTAL OF THE TAX	40.8%			
	la m I C man don man d	tion percentage	371 800			

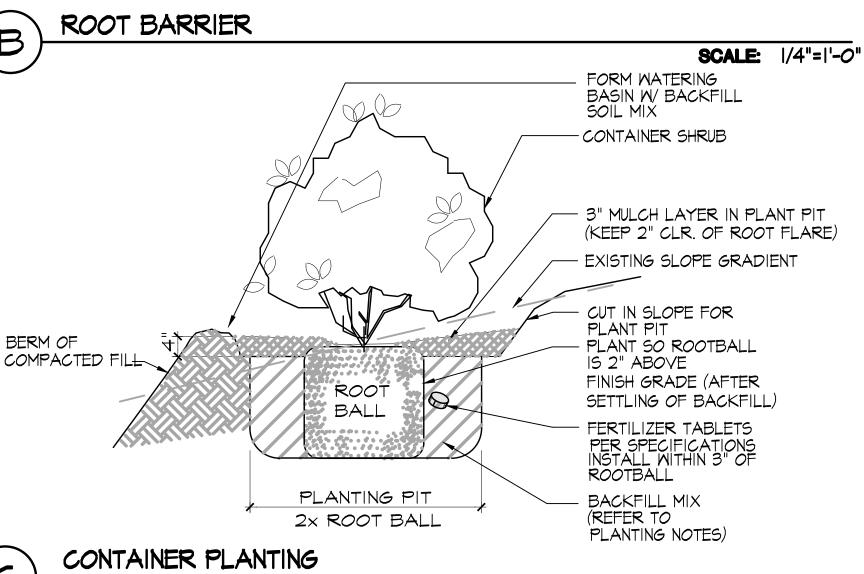


STAKING DETAIL



PLANT PIT DETAIL





SCALE: |"=|'-0"

SCALE: AS NOTED

RFDW

APN:051-

SAN MATEO

/5 DETAIL ANTING DATE: 10

SHEET NUMBER: