

OR INCONSISTENCIES. IN THE EVENT OF SUCH ERRORS AND! OR OMISSIONS, THE OWNER OR CONTRACTOR UNDERSTAND THAT IF IT IS FOUND THAT THE DD OR ENGINEER IS AT FAULT, THE DD, ENGINEER OR THE AUTHOR OF THESE DOCUMENTS SHALL NOT BE RESPONSIBLE FOR THE COST THAT MAY BE REQUIRED TO RECTIFY OR CORRECT SUCH WORK. IN SUCH EVENT, THE PLANS AND/OR CALCULATIONS WILL BE CORRECTED AT NO COST TO THE OWNER.

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL BECOME FAMILIAR, VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND/OR CONDITIONS IN THE FIELD PRIOR TO COMMENCING OF WORK. IN THE EVENT OF A DISCREPANCY, THE CONTRACTOR SHALL REPORT THE DISCREPANCY TO DD PRIOR TO COMMENCING OF WORK. CONTRACTOR MUST ALSO NOTIFY THE ARCHITECT OF ANY VARIATIONS FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN WITHIN THE CONTRACT DOCUMENTS. ELEVATIONS OF THE BUILDING EXTERIOR AND/ OR CABINET ELEVATIONS ARE TO BE USED AS A GUIDELINE ONLY AND DO NOT REPRESENT AN EXACT SCALED DRAWING. OWNER TO SELECT

IT IS UNDERSTOOD THAT THESE CONTRACT DOCUMENTS DO NOT HAVE EVERY CONSTRUCTION DETAIL AND/OR SPECIFICATION THAT COULD BE DRAWN AND/OR DESCRIBED. THE CONTRACT DOCUMENTS ARE FOR THE EXCLUSIVE USE OF REPUTABLE, EXPERIENCED, WELL-SEASONED, WELL VERSED AND LICENSED CONTRACTORS AND THEIR TRADESMEN. IT MAY BE NECESSARY THAT SHOP DRAWINGS TO INCLUDE SPECIAL MANUFACTURED ORDER ARE TO BE PROVIDED, AND SO, SHALL BE PREPARED BY THE ABOVE CONTRACTORS FOR THEIR OWN USE.

THESE CONTRACT DOCUMENTS ARE DEEMED UNACCEPTABLE FOR CONSTRUCTION AND/OR COST-ESTIMATING PURPOSES UNLESS THE ARCHITECT HAS WET STAMPED AND SIGNED EACH DRAWING. THE PLOT PLAN ON THESE DRAWINGS MAY NOT BE ACCURATE UNLESS THEY HAVE BEEN STAMPED AND SEALED BY A LICENSED CIVIL ENGINEER AND/OR SURVEYOR.

GENERAL INFORMATION

GENERAL NOTES

ALL WORK SHALL CONFORM TO ALL PERTINENT CODES, REGULATIONS, LAWS, ORDINANCES AND CONDITIONS OF APPROVAL. AS REQUIRED BY THE CITY OF HUNTINGTON BEACH AND THE STATE OF CALIFORNIA. ALL WORK SHALL COMPLY WITH THE 2022 EDITION OF THE CALIFORNIA BUILDING AND RESIDENTIAL

OBTAIN AND PAY FOR DEMOLITION PERMIT, IF REQUIRED. HAND WRECKING REQUIRED THROUGHOUT.

DO NOT START DEMOLITION WITHOUT OBTAINING OWNERS APPROVAL COORDINATE DEMOLITION WITH OWNER, SO AS TO CAUSE THE LEAST DISTURBANCE

LEAVE BUILDING IN LOCKABLE CONDITION DURING PERIOD OF THIS WORK WHILE WORKMEN ARE NOT ON THE PROJECT. DEACTIVATE UTILITY AND PLUMBING LINES, AS REQUIRED IN CONTRACT AREA BEFORE STARTING WORK. SECURE OWNERS PERMISSION PRIOR TO REMOVAL OF REROUTING.

NOTIFY OWNER OF UTILITIES, PIPES, CONDUITS, ETC. FOUND WITHIN THE CONTRACT AREA THAT ARE NOT SHOWN ON THE CONTRACT DRAWINGS. OBTAIN PERMISSION FROM OWNER PRIOR TO REMOVAL OF REROUTING

DO NOT DEMOLISH OR REMOVE STRUCTURAL MEMBERS, EXCEPT AS NOTED ON DRAWINGS. PROVIDE SHORING OR INSTALL NEW STRUCTURAL MEMBERS PRIOR TO DEMOLITION OR REMOVAL OF EXISTING STRUCTURAL MEMBERS. PROPER SHORING THE RESPONSIBILITY OF CONTRACTOR.

PROTECT ALL EXCAVATION AND EXISTING CONSTRUCTION TO REMAIN FROM DAMAGE, BREAKAGE AND EXPOSURE TO THE ELEMENTS. REMOVE AND DISPOSE OF ALL HAZARDOUS MATERIALS, IF ANY, INCLUDING ASBESTOS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND REQUIREMENTS. ANY AND ALL NOTIFICATIONS OF GOVERNMENTAL AGENCIES

SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL PLAN DIMENSIONS INDICATED ARE TO FACE OF STUD, TO FACE OF CONCRETE OR STUDS, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT AND SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS IN THE FIELD

TEMPORARY ON-SITE TOILET FACILITIES SHALL BE PROVIDED, AS REQUIRED BY THE CITY OF HUNTINGTON BEACH AND THE STATE OF CALIFORNIA (IF REQUIRED BY

REFER TO INDIVIDUAL SHEETS FOR ADDITIONAL NOTES. SPECIAL INSPECTION OF HIGH-STRENGTH A325 BOLTS SHALL BE IN ACCORDANCE WITH APPROVED NATIONALLY RECOGNIZED STANDARDS AND REQUIREMENTS OF

16. CONCRETE SHALL BE 3,000 PSI WITH WATER CEMENT RATIO OF 0.45 AND CEMENT TYPE V HIGH SULFATE. BUILDING SHALL HAVE ADDRESS NUMBERS PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. NUMBERS SHALL CONTRAST WITH BACKGROUND, BE ARABIC OR

18. CEILING FINISHES SHALL BE INSTALLED WITH GALVANIZED NAILS OR APPROPRIATE 19 FIELD VERIFICATION FOR ALL DIMENSIONS AND CONDITIONS SHALL BE DONE BY THE GENERAL CONTRACTOR PRIOR TO COMMENCING THE WORK AND REPORT

ALPHABETICAL LETTERS AND BE A MINIMUM OF 4" HIGH WITH A MINIMUM STROKE

INCONSISTENCIES (IF ANY) TO DESIGN AND DRAFTING (DD) OR ENGINEER FOR APPROPIATE ACTION. 20. THE PLAN WAS PREPARED AS A GUIDE AND INTENT OF THE PROPOSED ADDITION. WHETHER SHOWN OR NOT IN THE DRAWING, THE CONTRACTOR SHALL BE RESPONSIBLE TO FOLLOW THE PERTINENT CODES AND MUNICIPAL REGULATIONS

GOVERNED BY ITS JURISDICTION. FIELD-CUTTING ENDS, NOTCHES AND DRILLED HOLES SHALL PRESERVATIVE HIGHTENED TREATED WOOD IN THE FIELD IN ACCORDANCE WITH AWPA M4. WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES (203 MM) FROM THE EXPOSED

GROUND SHALL BE PRESSURE TREATED OR NATURALLY DURABLE TO DECAY. WELDED, FULLY RESTRAINED CONNECTIONS BETWEEN MEMBERS OF ORDINARY MOMENT FRAMES OR SPECIAL MOMENT- RESISTING FRAMES SHALL HAVE SPECIAL CONT. INSPECTION AND CONNECTIONS TESTED BY NONDESTRUCTIVE METHODS PER SECTION 1703.

24. STUCCO LATH AND DRYWALL SHALL BE NAILED TO ALL STUDS AND TO TOP AND 25. PROVIDE STAKES PRIOR TO FORMING TO VERIFY DIMENSIONS WITH ACCORDANCE TO PLAN.

26. ALL HOLDOWN ANCHORS SHALL BE TIED IN PLACE PRIOR TO CALLING FOUNDATION INSPECTION. 27. ALL STEEL MEMBERS SHALL BE MADE IN AN APPROVED FABRICATOR'S SHOP, THE FABRICATOR SHALL SUBMIT THE CERTIFICATE OF COMPLIANCE TO THE BUILDING INSPECTION PRIOR TO ERECTION.

28. HOLDOWN ANCHORS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. 29.MECHANICAL, ELECTRICAL AND PLUMBING PLANS ARE NOT REVIEWED AND ARE SUBJECT TO FIELD INSPECTION. 30. EVERY PERMIT 199UED SHALL BECOME INVALID UNLESS WORK AUTHORIZED 19

COMMENCED WITHIN 180 DAYS OR IF THE WORK AUTHORIZED IS SUSPENDED OR ABANDON FOR A PERIOD OF 180 DAYS. A SUCCESSFUL INSPECTION MUST BE OBTAINED WITHIN 180 DAYS. A PERMIT MAY BE EXTENDED IF A WRITTEN REQUEST STATING JUSTIFICATION FOR EXTENSION AND AN EXTENSION FEE IS RECEIVED PRIOR EXPIRATION OF THE PERMIT AND GRANTED BY THE BUILDING OFFICIAL. NO MORE THAN ONE (1) EXTENSION MAY BE GRANTED. PERMITS THAT HAVE BECOME INVALID SHALL PAY A REACTIVATION FEE OF APPROXIMATE 50% OF THE ORIGINAL PERMIT FEE AMOUNT WHEN THE PERMIT HAS BEEN EXPIRED FOR UP TO SIX (6) MONTHS. WHEN A PERMIT HAS BEEN EXPIRED FOR A PERIOD IN EXCESS OF ONE (I) YEAR, THE REACTIVATION FEE SHALL BE APPROXIMATELY 100% OF THE ORIGINAL PERMIT FEE. (R105.5). CONCRETE SLAB AND UNDER-FLOOR INSPECTIONS SHALL BE MADE AFTER

IN-SLAB OR UNDERFLOOR REINFORCING STEEL AND BUILDING SERVICE EQUIPMENT, CONDUITS, PIPING OR OTHER ANCILLARY BUILDING TRADE PRODUCTS OR EQUIPMENT ARE INSTALLED, BUT BEFORE ANY CONCRETE IS PLACED OR FLOOR SHEATHING IS INSTALLED, INCLUDING THE SUBFLOOR, (RIOS.1.1.1). ROUGH INSPECTION OF PLUMBING, MECHANICAL, GAS AND ELECTRICAL SYSTEMS

SHALL BE MADE PRIOR TO COVERING OR CONCEALMENT, BEFORE FIXTURES OR APPLIANCES ARE SET OR INSTALLED, AND PRIOR TO FRAMING INSPECTION. 33.ALL WINDOWS AND DOORS SHALL MEET CITY OF HUNTINGTON BEACH SECURITY ORDINANCE.

CODE COMPLIANCE

ALL DESIGN \$ PLANS BASED ON THE FOLLOWING 2022 CALIFORNIA BUILDING CODE 2022 CALIFORNIA RESIDENTIAL CODE 2022 CALIFORNIA MECHANICAL CODE 2022 CALIFORNIA ELECTRICAL CODE 2022 CALIFORNIA PLUMBING CODE

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE CITY OF HUNTINGTON BEACH MUNICIPAL CODE

SHEET INDEX (A)

HBZSO SECTION 230.76

ARCHITECTURAL

2022 CALIFORNIA ENERGY CODE

SITE PLAN, VICINITY MAP, GENERAL NOTES, PROJECT \$ PROPERTY INFORMATION, SCOPE OF WORK, POLLUTANT/FIRE DEPARTMENT/DEMOLITION/SITE \$ PLUMBING/ADDITIONAL NOTES, CODE COMPLIANCE, SHEET INDEX GROUND FLOOR PLAN, ABBREVIATIONS, PLAN KEYNOTES, LEGEND \$ WALL LEGEND, REQUIRED EMERGENCY EXIT ON

STAIR DETAIL, FIRE RATED EAVES/OVERHANG, SCHED. OF DECK \$ ROOF PLAN, SCHED. OF DOORS AND WINDOWS, MIN. REQ'D EGRESS \$ NATURAL LIGHTING, DOORS \$ WINDOW NOTES, TYP. YELUX SKYLIGHT MODULAR DETAIL SHEET 4 OF 9. ELEVATIONS, 1-HR WALL, FLOOR-CEILINGSYSTEM, ELEVATION

NOTES, ROOF VENT INSTALLATION GROUND FLOOR ELECT./HYAC LAYOUT, ELECTRICAL NOTES, CROSS SECTIONAL VIEW, ELECT. SYMBOLS DECK FLR. ELECT./HYAC LAYOUT, PLUMBING/MECHANICAL NOTE,

BEDROOM, STUCCO WALL DETAIL, WEATHER BARRIER DETAIL,

BEST MANAGEMENT PRACTICES, SANDBAG VELOCITY REDUCER, EMPORARY DRAINAGE OUTLET, EROSION CONTROL CALGREEN

CALGREEN 2

STRUCTURAL

GENERAL NOTES \$ STRUCTURAL SPECIFICATIONS GENERAL NOTES \$ STRUCTURAL SPECIFICATIONS, DESIGN CRITERIA \$ DESIGN LOADS FOUNDATION PLAN

ROOF FRAMING PLAN DECK FRAMING PLAN STRUCTURAL DETAILS STEEL CONNECTION DETAILS, BASE PLATE DETAILS, STRUCTURAL DETAILS STEEL CONNECTION DETAILS, BASE PLATE DETAILS, STRUCTURAL DETAILS

TITLE - 24 :

RESIDENTIAL TITLE 24 SHEET RESIDENTIAL TITLE 24 SHEET

PROPERTY INFORMATION:

HOME-OWNER: BERKMAN HONG 16252 \$ 16246 TISBURY CIRCLE JOB ADDRESS: HUNTINGTON BEACH, CA. 92649 MAILING ADDRESS: 16252 \$ 16246 TISBURY CIRCLE HUNTINGTON BEACH, CA. 92649 ASSESSOR'S PARCEL: 178-034-35/178-034-77 LOT NUMBER: 45 / 46

5481

PROJECT INFORMATION

BERKMAN HONG (702)-274-9187 ZONING: YEAR BUILT: 1997 SFD OCCUPANCY: TYPE OF CONST. OCCUPANCY GROUP: TOTAL NO. OF BEDROOM: TOTAL NO. OF BATHROOM NUMBER OF STORY:

AREA CALCULATION:

SPRINKLERED:

TRACT NUMBER:

16252 TISBURY EXISTING SFD FOOTPRINT 16246 TISBURY PROPOSED POOL HOUSE TOTAL FOOTPRINT AREA

BUILDING COVERAGE

SCOPE OF WORK:

PROPOSED (1) STOREY POOL HOUSE W/ POOL DECK.

CONSTRUCTION HOURS:

1 A.M.-8 P.M. MONDAY THRU' FRIDAY 9 A.M.-8 P.M. SATURDAY (NO SUNDAY OR LEGAL HOLIDAYS

POLLUTANT NOTES:

(E) DENOTES EXISTING.

THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BY-PRODUCTS, SOIL PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM.

DEMOLITION NOTES

SECURE ALL WIRINGS, PROTECT/CAP-OFF (E) WATER AND SEWER PIPING AND OTHER COMPONENTS AFFECTED BY ADDITION ESPECIALLY IN CONCEALED AREAS OR SPACES.

SITE & PLUMBING NOTES:

MAINTAIN DIRT SLOPE WITHIN 5' AWAY FROM THE BLDG. AND SLOPE TOWARD FRONT AND BACK. PROVIDE CONC. SWALE PER PLOT PLAN

GRADE TO SLOPE MINIMUM 1% FOR DIRT, 2% FOR CEMENTED SURFACE. CONCRETE SLAB AND UNDER-FLOOR INSPECTIONS SHALL BE MADE AFTER IN-SLAB OR UNDER-FLOOR REINFORCING STEEL AND BUILDING SERVICE EQUIPMENT, CONDUITS, PIPING OR OTHER ANCILLARY BUILDING TRADE PRODUCTS OR EQUIPMENT ARE INSTALLED, BUT BEFORE ANY CONCRETE IS PLACED OR FLOOR SHEATHING IS INSTALLED, INCLUDING THE SUBFLOOR.

ROUGH INSPECTION OF PLUMBING, MECHANICAL, GAS AND ELECTRICAL SYSTEMS SHALL BE MADE PRIOR TO COVERING OR CONCEALMENT BEFORE FIXTURES OR APPLIANCES ARE SET OR INSTALLED, AND PRIOR TO FRAMING INSPECTION.

FIRE DEPARTMENT NOTES:

A SEPARATE SUBMITTAL FOR FIRE SPRINKLERS IS REQUIRED WHEN SQUARE FOOTAGE IS ADDED TO A SINGLE FAMILY HOME AND THE TOTAL EXCEEDS 5 000 AS PER HBMC SECTIONS 17 56 300 \$ 17 56 450 AS PER CITY SPECIFICATION #420. A FIRE SPRINKLER PLAN WILL NEED TO BE SUBMITTED TO THE HBFD FOR REVIEW AND APPROVAL, A PERMIT ISSUED AND FINAL INSPECTION REQUIRED. SYSTEM SHALL BE DESIGNED AS PER 2019 CFC, NFPA 13D \$ HBMC REQUIREMENTS. NOTE: THE STRUCTURE IS ON PROPERTY IMMEDIATELY ADJACENT TO THE WATER. AS SUCH, THE PUBLIC WORKS DEPARTMENT WILL REQUIRE A REDUCED PRESSURE BACKFLOW PREVENTER (RPBP) ON THE WATER SERVICE. IT MUST BE DESIGNED AND CALCULATED INTO THE FIRE SPRINKLER SYSTEM.

NOTE: FIRE CONTRACTOR SHALL SUBMIT TO THE CITY FOR APPROVAL (DEFERED SUBMITAL).

MAINTAIN JOBSITE SAFETY DURING CONSTRUCTION AS PER CHAPTER 33 OF THE 2019 CALIFORNIA FIRE CODE. ADDRESS NUMBERS MUST BE PLACED OVER THE EXTERIOR OF THE MAIN ENTRANCE AS PER CITY SPECIFICATION #428. MINIMUM SIZE OF NUMBERS IS

", AND THEY MUST CONTRAST WITH BACKGROUND. FOR FIRE DEPARTMENT INSPECTIONS, CALL (114) 536-5411 AT LEAST 3 DAYS IN ADVANCE TO SCHEDULE INSPECTIONS.

SMOKE ALARM/CARBON MONOXIDE:

ALL NEW CONSTRUCTION, INTERIOR AND EXTERIOR ALTERATIONS, REPAIRS, OR ADDITION REQUIRING A PERMIT AND HAVING A VALUATION IN EXCESS OF \$1.000 OR WHEN ONE OR MORE SLEEPING ROOMS ARE ADDED OR CREATED, THE ENTIRE DWELLING SHALL BE PROVIDED WITH DETECTORS LOCATED A REQUIRED FOR A NEW DWELLING. THUS, APPLIES TO BEDROOMS AND HALLWAYS LEADING TO SLEEPING ROOM IN THE VICINITY OF SLEEPING ROOMS. WHEN ONE OR MORE SMOKE ALARM IS REQUIRED, THE ALARM DEVICE SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. EXCEPTION: INTERCONNECTION IS NOT REQUIRED IN EXISTING WHERE REPAIRS DO NOT RESULT IN THE REMOVAL OF WALL AND CEILING FINISHES, THERE IS NO ACCESS BY MEANS OF ATTIC, BASEMENT OF CRAWL SPACE, AND NO PREVIOUS METHOD FOR INTERCONNECTION EXISTED.

ALL NEW CONSTRUCTION, INTERIOR AND EXTERIOR ALTERATIONS, REPAIRS. OR ADDITION REQUIRING A PERMIT AND HAVING A VALUATION IN EXCESS OF \$1,000, AN APPROVED CARBON MONOXIDE ALARM SHALL BE NSTÁLLED IN DWELLING UNITS AND IN SLEEPING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES IN ACCORDANCE WITH R315.1. CARBON MONOXIDE SHALL ONLY BE REQUIRED IN SPECIFIC DWELLING UNITS OR BLEEPING UNITS FOR WHICH THE PERMITS WERE OBTAINED. WHEN ONE OR MORE SMOKE ALARM IS REQUIRED, THE ALARM DEVICE SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

EXCEPTION: INTERCONNECTION IS NOT REQUIRED IN EXISTING WHERE REPAIRS DO NOT RESULT IN THE REMOVAL OF WALL AND CEILING FINISHES, THERE IS NO ACCESS BY MEANS OF ATTIC, BASEMENT OF CRAWL SPACE, AND NO PREVIOUS METHOD FOR INTERCONNECTION

ADDITIONAL NOTES

INTERIOR COVERINGS AND WALL FINISHES SHALL COMPLY WITH SECTION RESIDENTIAL CODE R103.1. THERE SHALL BE NO TRENCH OR EXCAVATION 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN PERMIT FROM STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (CAL/09HA). THIS PERMIT AND ANY OTHER SAFETY PERMIT SHALL BE OBTAINED PRIOR TO COMMENCE OF ANY WORK CONTRACTOR TO COMPLY WITH CITY OF HUNTINGTON BEACH SURFACE

DEFERRED ITEM TO BE SUBMITTED:

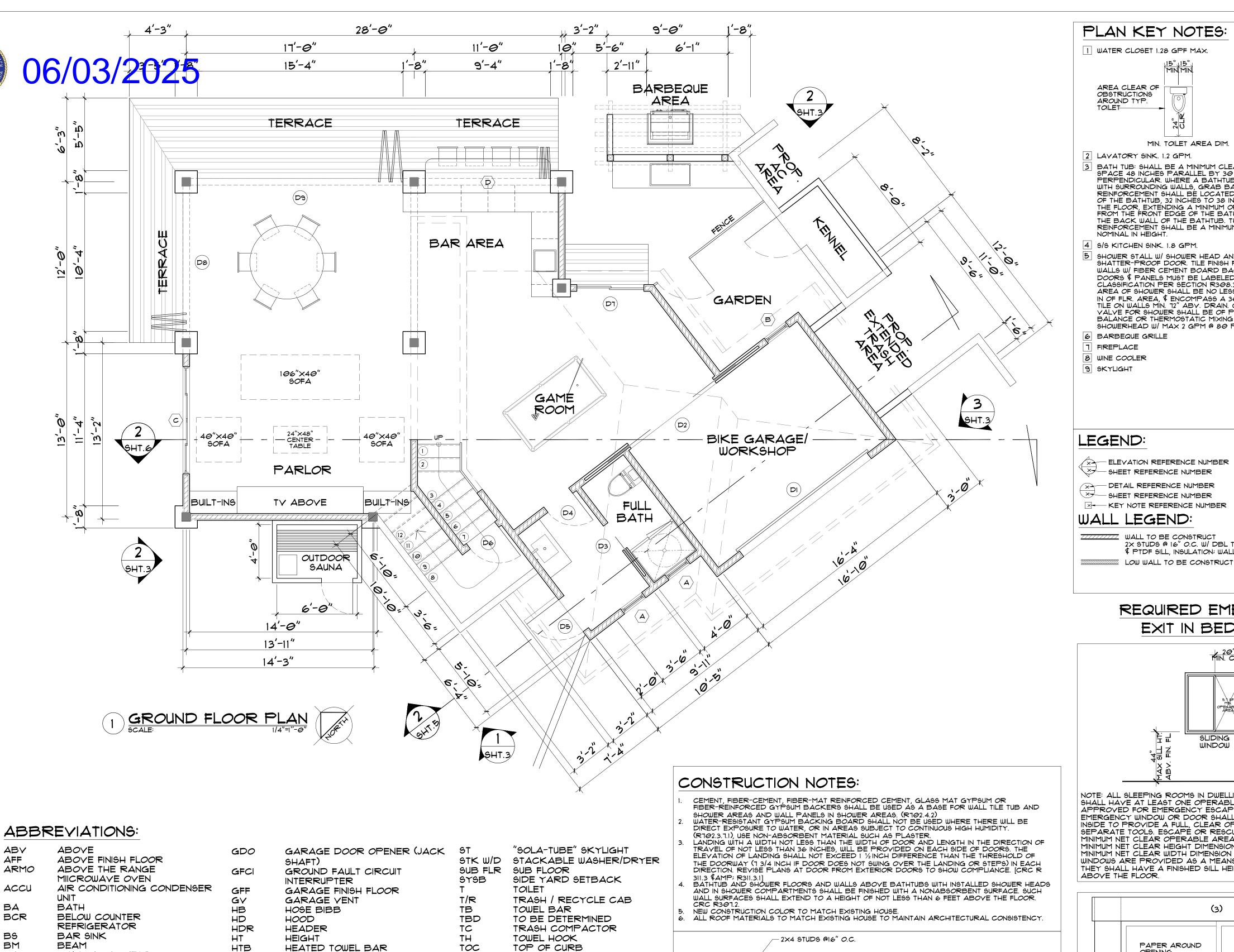
WATER QUALITY CONTROL, INFORMATION NOT AVAILABLE ONLINE.

IF DEMANDED: FIRE SPRINGKLER SYSTEM PLAN.

PLUMBING SINGLE LINE DIAGRAM. 3. PHOTOVOLTAIC SYSTEM (MINUMUM OF 4.03 KWDC). MAY 28, 2025

PROJE PROPC POOL 1 JOB AL HUNTING

SHEET: 0F: 9



TOE NICHE

SOAKING TUB

YERIFY IN FIELD

WATER HEATER

WALK IN CLOSET

WATER METER

WARMING DRAWER

WASHER / DRYER

RACK

URINAL

WINDOW

CEILING

FINISH FLOOR

LAYATORY / SINK

MATCH EXISTING

ICE MAKER

INTERIOR

SLOPE

WIDTH

TUB

TWH

UR

 WD

W/D

TWH

 $\mathbb{W}M$

WND

WRB

U.F.A.

CLG

ME

T\$G

TD

Y.I.F.

U.A.O.

TOILET PAPER HOLDER

TOILET PAPER / MAGAZINE

TANKLESS WATER HEATER

UNLESS NOTED OTHERWISE

TANKLESS WATER HEATER

UNDER FLOOR ACCESS

TONGUE AND GROOVE

TRENCH / TROUGH DRAIN

WEATHER RESISTIVE BARRIER

AFF

CF

CT

D

CNTR

DDV

DET

DN

DO

DR

DS

DY

DW

(E)

ΕV

EXT

FAU

FD

FG

FRZ

FYSB

GB

GD

FY

DO/M

BUILT-IN CABINETRY

DOWN DRAFT YENT

DOUBLE OVEN

DOOR ACTIVATED LIGHT

DOUBLE OVEN W/MICRO COMBO

ELECTRIC VEHICLE CHARGER

FIELD GAS SUPPLY OUTLET

CURB FACE

DOWNSPOUT

COOKTOP

DETAIL

DOWN

DOOR

DISH SINK

EXISTING

ELEVATION

EXTERIOR

FREEZER

GREY BOX

FORCED AIR UNIT

GR FINISHED GRADE

FRONT YARD SETBACK

GARBAGE DISPOSER

FOUNDATION VENT

FLOOR DRAIN

DRYER VENT

DISHWASHER

COUNTERTOP

HAND WAND

INSTANT HOT

LAZY SUSAN

MISCELLANE OUS

POCKET DOOR

PROPERTY LINE

RETURN AIR GRILL

RECESSED HOSE BIBB

REAR YARD SETBACK

SHOWER CONTROLS

SHAMPOO RECESS

DOUBLE SHELF AND POLE IN

REFRIGERATOR

PLATE HEIGHT

MICROWAYE

BUILD)

NEW

MIRROR

PANTRY

RANGE

CLOSET

SKYLIGHT

SOAP RECESS

SERVICE SINK

MCC

MIR

MISC

MW

PKT

PLT HT

RAG

REF

RHB

RNG

SR

RYSB

MEDICINE CABINET (PREFAB)

MEDICINE CABINET (CUSTOM

MULTI-FAMILY DWELLING UNIT

PLAN KEY NOTES:

1 WATER CLOSET 1.28 GPF MAX. AREA CLEAR OF OBSTRUCTIONS AROUND TYP. TOILET

MIN. TOILET AREA DIM.

- 2 LAVATORY SINK. 1.2 GPM. BATH TUB: SHALL BE A MINIMUM CLEAR FLOOR SPACE 48 INCHES PARALLEL BY 30 INCHES PERPENDICULAR, WHERE A BATHTUB IS INSTALLED WITH SURROUNDING WALLS, GRAB BAR REINFORCEMENT SHALL BE LOCATED ON EACH END OF THE BATHTUB, 32 INCHES TO 38 INCHES ABOVE THE FLOOR, EXTENDING A MINIMUM OF 24 INCHES FROM THE FRONT EDGE OF THE BATHTUB TOWARD THE BACK WALL OF THE BATHTUB. THE GRAB BAR REINFORCEMENT SHALL BE A MINIMUM OF 6 INCHES NOMINAL IN HEIGHT.
- 4 S/S KITCHEN SINK. 1.8 GPM. SHOWER STALL W/ SHOWER HEAD AND SHATTER-PROOF DOOR. TILE FINISH FLOOR AND
- WALLS W/ FIBER CEMENT BOARD BACKING. WALLS WI FIBER CEMENT BOARD BACKING.

 DOORS \$ PANELS MUST BE LABELED CATEGORY II

 CLASSIFICATION PER SECTION R308.3.1 CRC. THE NET

 AREA OF SHOWER SHALL BE NO LESS THAN 1024 SQ

 IN OF FLR. AREA, \$ ENCOMPASS A 30" DIA. CIRCLE.

 TILE ON WALLS MIN. 12" ABY. DRAIN. CONTROL

 VALVE FOR SHOWER SHALL BE OF PRESSURE

 BALANCE OR THERMOSTATIC MIXING VALVE TYPE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. SHOWERHEAD W/ MAX 2 GPM @ 80 PSI.
- 6 BARBEQUE GRILLE 1 FIREPLACE
- 8 WINE COOLER
- 9 SKYLIGHT

LEGEND:

SOLID SHEATHING APPLIED TO THE WOVEN WIRE FABRIC LATH SECURED

TWO LAYERS OF GRADE 'D' BUILDING OR 60 MINUTE GRADE D PAPER SHALL BE APPLIED OVER ALL WOOD BASE SHEATHING 15# MIN. WHERE

STUCCO WEEP SCREED: WEEP SCREEDS THAT PERMITS TRAPPED WATER

STEEL OR 50 MIL PVC SHEET. AND SHALL BE INSTALLED IN A MANNER TO

TO ESCAPE FROM BEHIND THE EXTERIOR WALL COVERING SHALL BE

BE MADE FROM A NONCORROSIVE NO. 26 GAGE (19 MIL) GALVANIZED

HAVE THE MINIMUM 3-1/2" TALL ATTACHMENT FLANGE PLACED AT OR

A MIN. OF I LAYER OF NO.15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING ASTM D226 FOR TYPE I FELT SHALL BE APPLIED

GRADE D OR 60 MINUTE GRADE D PAPER SHALL BE APPLIED OVER

USE TYPE W OR S SCREWS IN ACCORDANCE W/ ASTM C1002 W/ MIN. 3/4

STAPLE SHALL HAVE A MIN. CROWN OF 1/16" OUTSIDE DIAMETER AND

PENETRATION TO WOOD NOT LESS THAN 5/8". ATTACHMENTS PER CRC TABLE R103.3.3. INSTALLATION PER ASTM F1661 USING ROUND T-HEAD

VERTICALLY AND A MINIMUM 6" HORIZONTALLY. USE 2 LAYERS OF

OR MODIFIED ROUND HEAD W/ SMOOTH OR DEFORMED SHANKS.

OVER STUDS OF ALL EXTERIOR WALLS LAP BOTH LAYERS 2"

BELOW THE SILL/CONCRETE INTERFACE AND THE BOTTOM OF THE WEEF

SCREED PLACED A MINIMUM OF 4 INCHES ABOVE EARTH OR 2 INCHES

PLACED AT THE BOTTOM OF THE STUCCO WALL. WEEP SCREEDS SHALL

TO SHEATHING (WHERE OCCURS) \$ STUDS

THREE COAT EXTERIOR PORTLAND CEMENT PLASTER,

3/8"+3/8"+1/8"=7/8" (SCRATCH, BROWN, FINISHED)

NO SOLID SHT'G OCCURS

ABOYE PAYED AREAS.

WOOD BASE SHEATHING.

MODIFIED MIN. 16 GA WIRE.

STUCCO WALL DETAIL

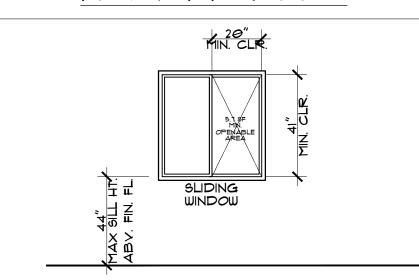
METAL LATH OR CHICKEN WIRE

- ELEVATION REFERENCE NUMBER SHEET REFERENCE NUMBER
- X DETAIL REFERENCE NUMBER SHEET REFERENCE NUMBER

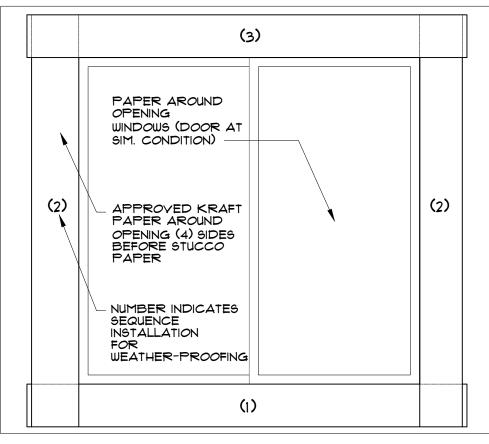
WALL LEGEND

WALL TO BE CONSTRUCT 2× STUDS @ 16" O.C. W/ DBL TOP PL \$ PTDF SILL, INSULATION; WALL= RI5

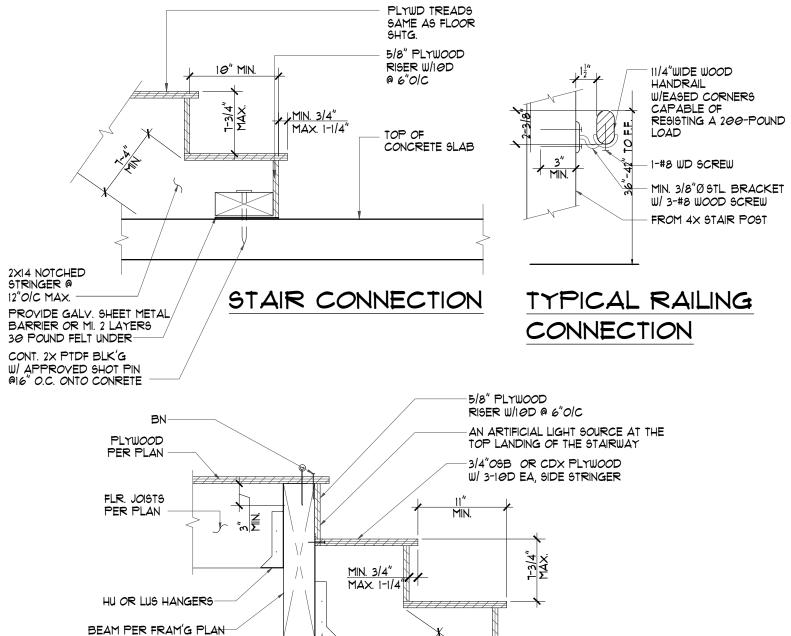
REQUIRED EMERGENCY EXIT IN BEDROOM



NOTE: ALL SLEEPING ROOMS IN DWELLING UNITS BELOW THE FOURTH SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE. THE EMERGENCY WINDOW OR DOOR SHALL BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL, CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. ESCAPE OR RESCUE WINDOW SHALL HAVE A MINIMUM NET CLEAR OPERABLE AREA OF 5.0 SQUARE FEET. THE MINIMUM NET CLEAR HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR WIDTH DIMENSION SHALL BE 20 INCHES. WHEN WINDOWS ARE PROVIDED AS A MEANS OF ESCAPE OR RESCUE, THEY SHALL HAVE A FINISHED SILL HEIGHT NOT MORE THAN 44 ABOVE THE FLOOR.



3 WEATHER BARRIER DETAIL

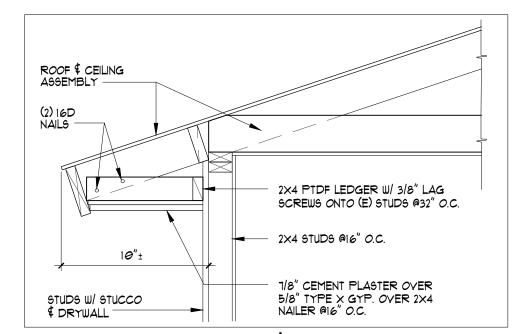


4 STAIR DETAIL

STAIR CONNECTION

HU OR LUS HANGERS

FROM 4X14 WHERE POST OCCURS, 2X14 OTHERWISE



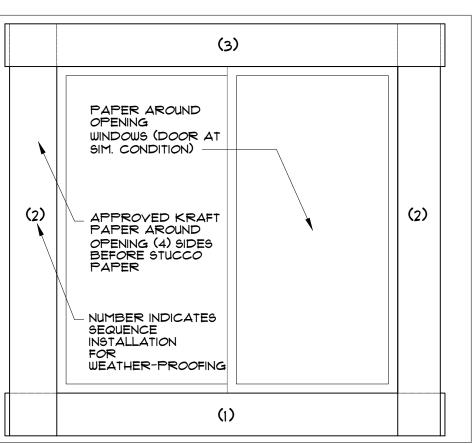
FIRE RATED EAVES/OVERHANG DETAIL

SCHEDULE OF FINISHES

<u> </u>	OHLDULL OF T			
ROOM NAME	FLOOR	BASE	WALL	CEILING
TERRACE	TREX COMPOSITE PLANKS ESR-3168, 3/16 GAP	CONC.	GYP. BD.	GYP. BD.
LIVING	VINYL	CONC.	GYP. BD	GYP. BD
KITCHEN	VINYL	CONC.	GYP. BD.	GYP. BD.
BATH (ALL)	TILE	CONC.	GYP. BD.	GYP. BD.
CLOSET (ALL)	VINYL	CONC.	GYP. BD.	GYP. BD.
DINING ROOM	VINYL	CONC.	GYP. BD.	GYP. BD.
STAIR	VINYL	WOOD	GYP. BD.	GYP. BD.
BEDROOM	VINYL	CONC.	GYP. BD.	GYP. BD.
OPEN DECK	TREX COMPOSITE PLANKS ESR-3168, 3/16 GAP	WOOD	GYP. BD.	GYP. BD.

FINISHES NOTES

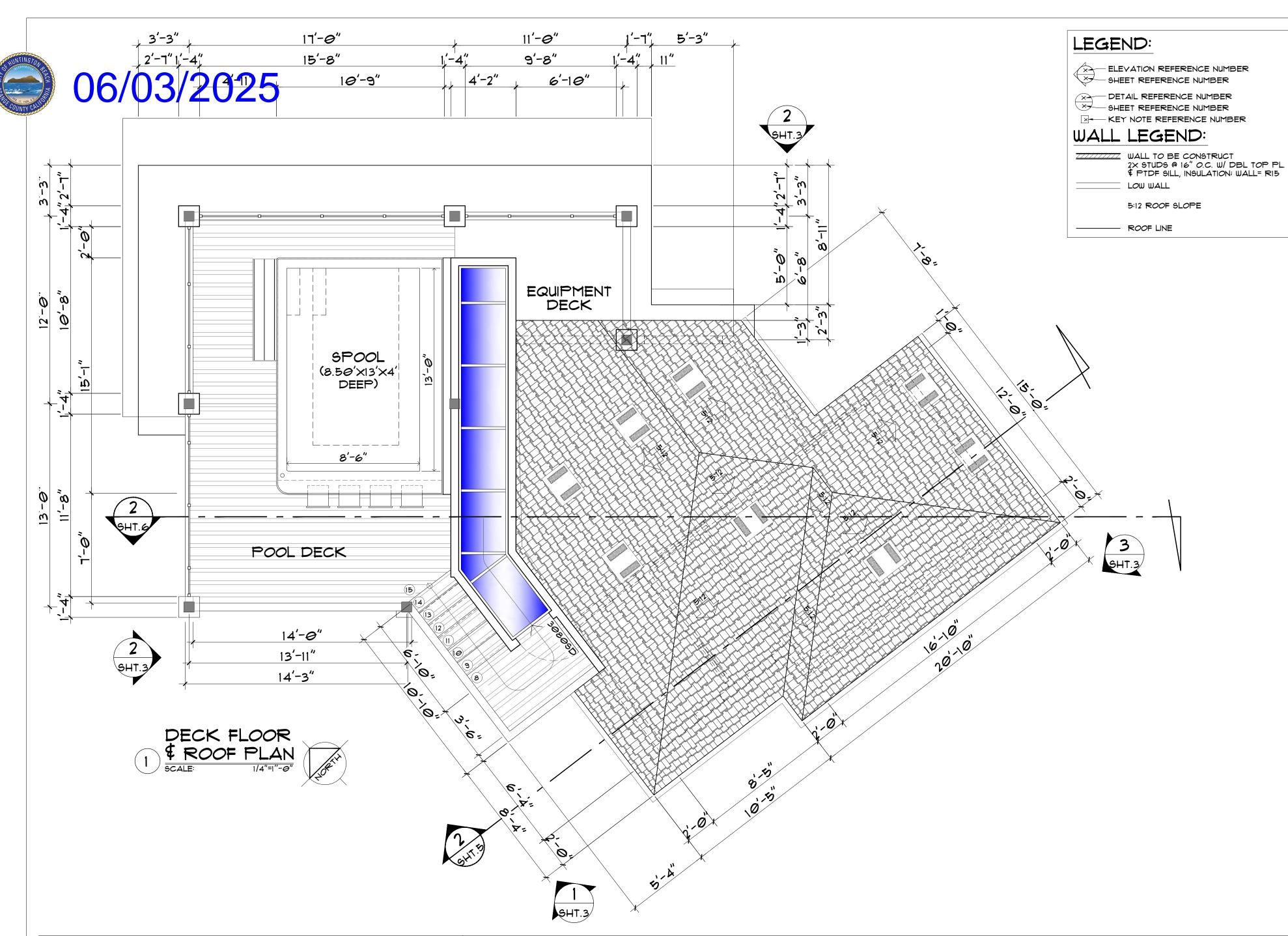
- ALL DRYWALL TO RECEIVE A FINISH PER OWNER'S SELECTION. ALL INTERIOR EDGES \$ CORNERS TO RECEIVE ROUND EDGES
- ALL DRYWALL TO BE 5/8". ALL WALLS WHICH RECEIVE TILE TO BE SCRATCHED COATED WITH PLASTER. 5. ALL NEW CARPET \$ TILE PER OWNER SELECTION.



SHEET: of: 9 MAY 28, 2025

DRAWING O GROUND FI PLAN KETY REQUIRED 9TUCCO W DETAIL, 9T, EAVE9/0V!

PROP PROP JOB AL HUNTIN



PLAN KEY NOTES: 1 WATER CLOSET 1.28 GPF MAX.

AREA CLEAR OF OBSTRUCTIONS AROUND TYP.

MIN. TOILET AREA DIM.

2 LAVATORY SINK. 1.2 GPM. BATH TUB: SHALL BE A MINIMUM CLEAR FLOOR
SPACE 48 INCHES PARALLEL BY 30 INCHES
PERPENDICULAR. WHERE A BATHTUB IS INSTALLED
WITH SURCEMENT CHALLS, GRAB BAR WITH SURROUNDING WALLS, GRAB BAR
REINFORCEMENT SHALL BE LOCATED ON EACH END
OF THE BATHTUB, 32 INCHES TO 38 INCHES ABOVE
THE FLOOR, EXTENDING A MINIMUM OF 24 INCHES
FROM THE FRONT EDGE OF THE BATHTUB TOWARD
THE BACK WALL OF THE BATHTUB. THE GRAB BAR
REINFORCEMENT SHALL BE A MINIMUM OF 6 INCHES
NOMINAL IN HEIGHT.

4 S/S KITCHEN SINK. 1.8 GPM.

SHOWER STALL W/ SHOWER HEAD AND SHATTER-PROOF DOOR. TILE FINISH FLOOR AND WALLS W/ FIBER CEMENT BOARD BACKING. WALLS W/ FIBER CEMENT BOARD BACKING.

DOORS & PANELS MUST BE LABELED CATEGORY II

CLASSIFICATION PER SECTION R308.3.1 CRC. THE NET

AREA OF SHOWER SHALL BE NO LESS THAN 1024 SQ
IN OF FLR. AREA, & ENCOMPASS A 30" DIA. CIRCLE.

TILE ON WALLS MIN. 12" ABY. DRAIN. CONTROL

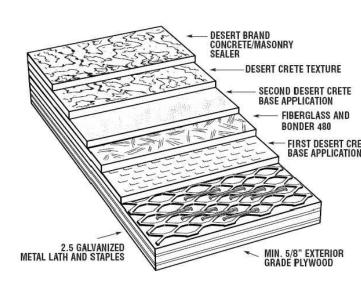
VALVE FOR SHOWER SHALL BE OF PRESSURE

BALANCE OR THERMOSTATIC MIXING VALVE TYPE.

SHOWERHEAD W/ MAX 2 GPM @ 80 PSI. 6 BARBEQUE GRILLE 1 FIREPLACE 8 WINE COOLER

9 SKYLIGHT

DESERT CRETE DECKING SYSTEM



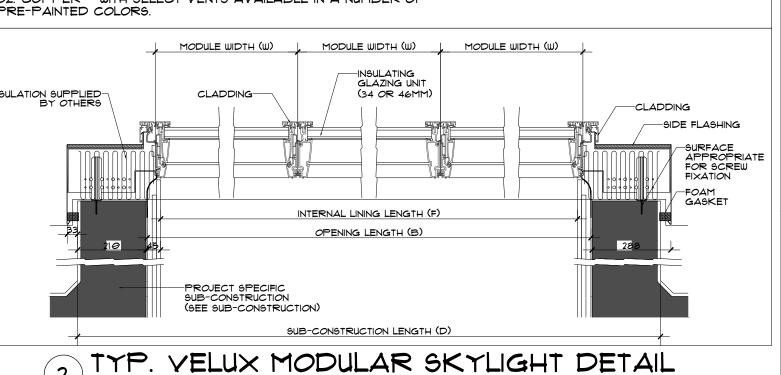
ATTIC ROOF VENTILATION CALCULATION:

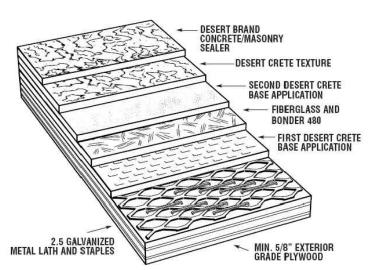
TOTAL ATTIC AREA = 536.00 SF VENT REQUIRED = $\frac{1}{150}$ (156.23) = 3.51 SF "FLAT" STYLE (HIGH AND LOW) A = 0.68 × .70 (%) A = 0.48 SF PC9. = 3.51 9F / 0.48 9F PC9. = 1.44 PC9.

PROVIDED, = 8 × 0.48 = 3.84 SF >> 3.51- OK LOCATION = 8 PCS. AT ROOF

MANUFACTURER: O' HAGIN (SUPERIOR ATTIC VENTILATION PRODUCTS)

ALL VENTS IN O'HAGIN STANDARD LINE ARE AVAILABLE IN MIL FINISH 26GAUGE G90 GALVANIZED STEEL, 0.032 ALUMINUM OR 16 OZ. COPPER - WITH SELECT VENTS AVAILABLE IN A NUMBER OF PRE-PAINTED COLORS.





SHEET: 3 OF: 9 MAY 28, 2025

MIN. REQ'D. EGRESS AND NATURAL LIGHTING TO COMPLY:

PROVIDE EMERGENCY EXIT DOOR OR WINDOW FROM ALL SLEEPING ROOMS. NET CLEAR WINDOW OPENING AREA SHALL NOT BE LESS THAN 5.7 SQ. FT. (821 SQ. IN.)

MINIMUM NET WINDOW OPENING- HEIGHT DIMENSION 24" CLEAR MINIMUM NET WINDOW OPENING- WIDTH DIMENSION 20" CLEAR FINISH SILL HEIGHT MAX. 44" ABOVE FLOOR.

SEE EXTERIOR ELEVATIONS FOR ALL WINDOW AND LITE CONFIGURATIONS. ALL WINDOWS WITHIN 40" OF DOOR EDGE TO BE TEMPERED GLASS. MIRRORS OR GLASS DOORS SHALL BE TEMPERED GLASS

5. GLAZING IN HAZARDOUS AREAS SHALL BE TEMPERED. 6. ALL DOORS \$ WINDOWS SHALL COMPLY WITH BUILDING SECURITY STANDARD,

ORDINANCE #7-79.

1. GLASS DOORS UP TO 18" ABOVE WALKING AREA SHALL BE TEMPERED GLASS, TYPICAL.
8. FOR NATURAL LIGHT, THE GLAZING SHALL BE A MINIMUM OF 10% OF THE TOTAL AREA OF

9. FOR NATURAL VENTILATION, THE OPENABLE PORTION OF THE WINDOW SHALL BE A MINIMUM OF 5% THE TOTAL ROOM AREA. 10. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE CLEAR OF ANY OBSTRUCTION AND OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE (R310.1.1).

DOOR NOTES:

THE HABITABLE ROOM.

- ALL SWING DOORS SHALL HAVE MIN. 3 HINGES. PROVIDE RAIN DRIP, RAIN GUARD ON EXTERIOR SIDE. PROVIDE WEATHER-STRIPPING AND INSECT SCREEN FOR DOOR MARK DI
- 3. ALL EXTERIOR DOORS SHALL COMPLY WITH BUENA PARK SECURITY ORDINANCE. 4. IN DOOR 1: SOLID WOOD DOOR, 1-1/2" THICK COMPLETE HARDWARE WITH DEAD
- BOLT \$ RAIN-GUARD \$ SWEEP. THAT IS READILY OPENABLE FROM THE INSIDE WITHOUT REQUIRING A KEY, SPECIAL EFFORT OR SPECIAL KNOWLEDGE. CONTRACTOR TO VERIFY ALL OPENING SIZES BEFORE ORDERING DOORS. EGRESS DOORS: THE LANDING AT IN-SWINGING DOORS SHALL NOT BE MORE THAN 1.15" BELOW THE TOP OF THE THRESHOLD. FLOOR ELEVATION FOR OTHER THAN EGRESS DOOR SHALL BE PROVIDED

WITH LANDING OR FLOORS NOT MORE THAN 1.75" INCHES BELOW TOP OF

WINDOW NOTES:

ALL WINDOWS TO BE DUAL GLAZED. FENESTRATION MUST HAVE TEMPORARY AND PERMANENT LABELS. ALL WINDOWS AND WITH GLAZING SHALL HAVE A LABEL INDICATING THE

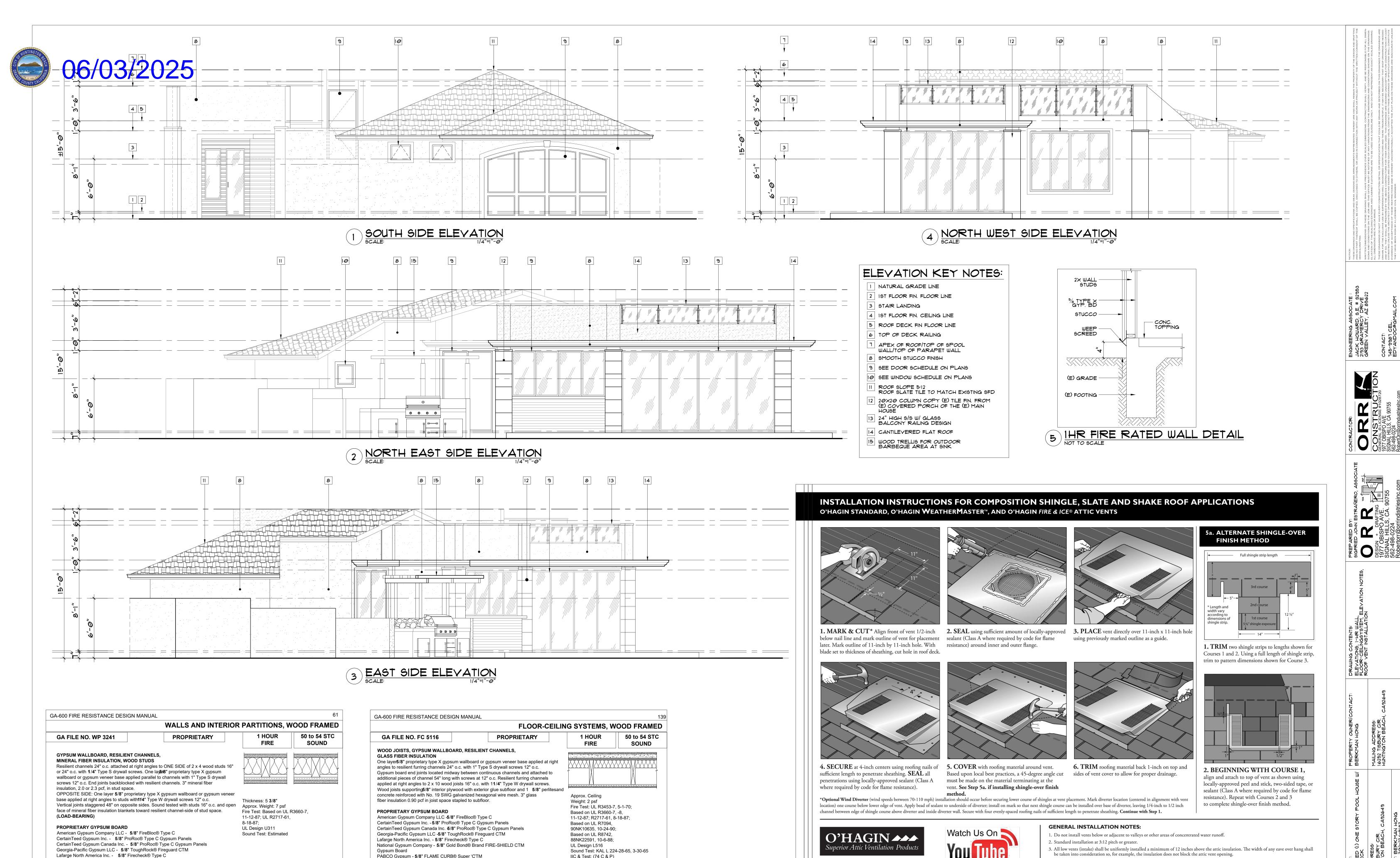
U-FACTOR AND SHGC. CONTRACTOR TO VERIFY ALL OPENING SIZES BEFORE ORDERING WINDOWS. 5. WINDOWS TO COMPLY WITH CITY OF BUENA PARK APPROVAL.

SCHEDULE OF DOORS:

	MARK	SIZE (W × H)	QTY.	DESCRIPTION	FRAME	OPERATION	ORIENTATION	U-FACTOR	SHGC	REMARKS
AR	DI	156" × 81"	1	CLASSIC STEEL LONG PANEL 12 FT INSULATED 18.4 R-VALUE WHITE GARAGE DOOR WITH WINDOWS	STEEL	DRIVE MECHANISM	N/A	N/A	N/A	COMPLETE GARAGE DOOR MECHANISM W/ AUTO REVERSE SAFETY FEATURE, HARDWARE \$ SWEEP \$ RAIN GUARD.
	(D2)	96" × 80"	1	1-3/8" THK. HOLLOW CORE TWO PANEL POCKET DOOR	W00D	SLIDING	N/A	N/A	N/A	1" UNDERCUT, COMPLETE HARDWARE WITH CHANNEL \$ TRACKS
	D3	28" × 8 <i>0</i> "	1	1-3/8" THK. HOLLOW CORE TWO PANEL POCKET DOOR	W00D	SLIDING	N/A	N/A	N/A	1" UNDERCUT, COMPLETE HARDWARE WITH CHANNEL \$ TRACKS
	D4	28" × 8 <i>0</i> "	1	1-3/8" THK. HOLLOW CORE PANEL POCKET DOOR	WOOD	SWING	N/A	N/A	N/A	1" UNDERCUT, COMPLETE HARDWARE
	D5	36" × 8 <i>0</i> "	1	1-3/8" THK. HOLLOW CORE PANEL DOOR	WOOD	SWING	N/A	N/A	N/A	COMPLETE HARDWARE \$ RAIN-GUARD \$ SWEEP
OF	D6	32" × 80"	1	1-3/8" THK. HOLLOW CORE PANEL DOOR	WOOD	SWING	N/A	N/A	N/A	COMPLETE HARDWARE \$ RAIN-GUARD \$ SWEEP
٧	(D1)	60" × 96"	1	MILGARD V300 TWO PANEL GLASS SLIDING DOOR	ALUM.	SLIDING	N/A	0.30	Ø.23	COMPLETE HARDWARE WITH CHANNEL AND TRACKS \$ RAIN GUARD
	DS	124" × 96"	1	4 PANEL ALUMINUM BI-FOLD DOORS	ALUM.	SLIDE \$ FOLD	N/A	0.30	Ø.23	COMPLETE HARDWARE WITH CHANNEL AND TRACKS \$ RAIN GUARD
	(Pg)	184" × 96"	1	4 PANEL ALUMINUM BI-FOLD DOORS	ALUM.	SLIDE \$ FOLD	N/A	0.30	0 .23	COMPLETE HARDWARE WITH CHANNEL AND TRACKS \$ RAIN GUARD
	(D-)	-	-	-	-	-	_	_	_	-

SCHEDULE OF WINDOWS:

MARK	SIZE (W × H)	QTY.	DESCRIPTION	FRAME	OPERATION	ORIENTATION	U-FACTOR	SHGC	REMARKS
(A)	24" × 18"	2	CLEAR DUAL GLAZED VINYL WINDOW	VINYL	AWNING	N/A	0.30	€.23	XO VINYL WINDOW WITH WEATHER STRIPPING AND INSECT SCREEN
(B)	24" × 24"	1	CLEAR DUAL GLAZED VINYL WINDOW	VINYL	AWNING	N/A	0.30	€.23	XO VINYL WINDOW WITH WEATHER STRIPPING AND INSECT SCREEN
(c)	96" × 72"	1	4 PANEL CLEAR DUAL GLAZED VINYL WINDOW	VINYL	SLIDING	N/A	0.30	€.23	XO VINYL WINDOW WITH WEATHER STRIPPING AND INSECT SCREEN
D	112" × 54"	1	4 PANEL ALUMINUM BI-FOLD DOORS	ALUM	SWING \$ FOLD	N/A	0.30	<i>0</i> .23	BI-FOLD ALUM WINDOW WITH WEATHER STRIPPING, CHANNEL AND TRACKS.



PABCO Gypsum - 5/8" FLAME CURB® Super 'CTM

Temple-Inland - 5/8" TG-C

National Gypsum Company - 5/8" Gold Bond® Brand FIRE-SHIELD CTM

*Contact the manufacturer for more detailed information on proprietary products.

5 1 HR FIRE RATED WALLS WOOD FRAMED WP3241

PABCO Gypsum5/8" FLAME CURB® Super 'CTM

Gypsum Board

Temple-Inland -5/8" TG-C

IIC & Test: (74 C & P)

*Contact the manufacturer for more detailed information on proprietary products.

6 1 HR FLOOR-CEILING SYSTEMS, WOOD FRAMED FC5116

KAL L 224-27-65, 3-30-65

www.youtube.com/ohaginllc

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8 ROOF VENT INSTALLATION GUIDE

framing or other design limitations.

performance and will void warranty protection.

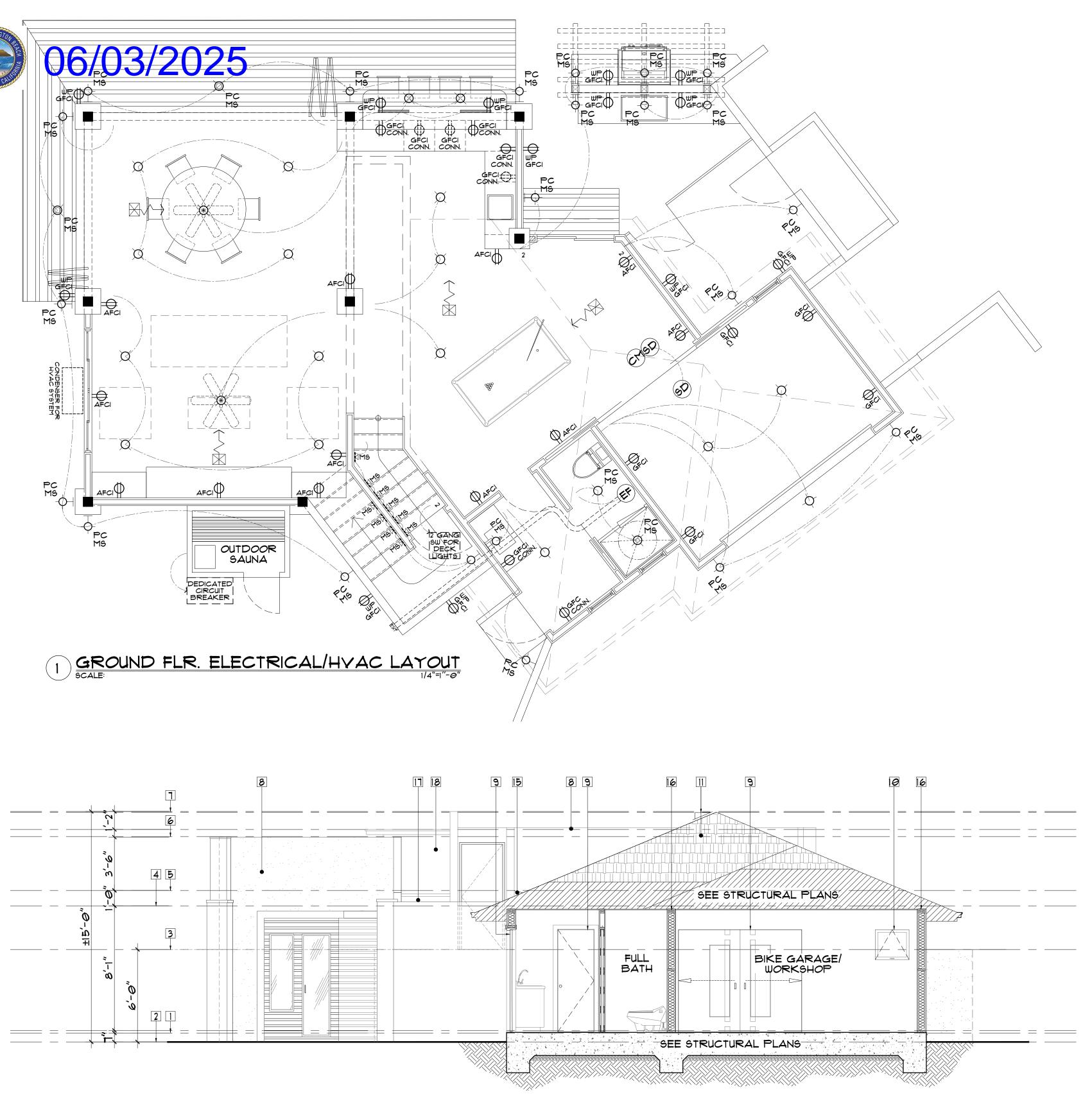
6. For specific information regarding snow and high velocity wind applications, contact O'Hagin.

4. All high vents (exhaust) shall be uniformly installed two (2) to three (3) courses below the ridge assembly, unless prevented by structural

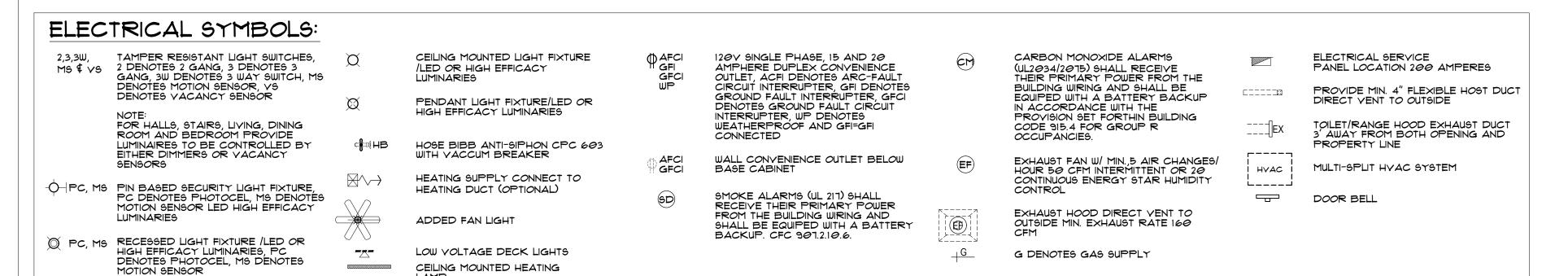
5. O'Hagin vents are designed to be part of a complete roofing system. Failure to properly install all components will negatively impact overall

SHEET: 4 OF: 9

MAY 28, 2025



CROSS SECTIONAL VIEW



ELECTRICAL NOTES

- 1. ANY WALL THAT IS 2FT. OR LONGER REQUIRES RECEPTACLE SUCH THAT NO POINT ALONG ANY WALL IS FARTHER THAN 6FT. TO A RECEPTACLE.
 2. ANY WALL ALONG A KITCHEN COUNTER TOP THAT IS 12" OR LONGER REQUIRES GFCI PROTECTED RECEPTACLES THAT ARE LOCATED NO FURTHER THAN 48" APART. NO POINT ALONG ANY COUNTER TOP WILL BE FURTHER THAN 24" TO A RECEPTACLE. AN ISLAND COUNTER TOP REQUIRES AT LEAST ONE RECEPTACLE AND IF IT CONTAIN A SINK, THAN GFI RECEPTACLES ARE REQUIRED ON EITHER SIDE OF SINK. THERE SHALL BE TWO 20 AMP CIRCUITS WHICH ARE EXCLUSIVELY FOR USE IN THESE COUNTER TOP AREAS, EXCEPT THAT A CLOCK RECEPTACLES AND RECEPTACLES FOR DINING AREAS MAY BE INCLUDED.
- 4. RECEPTACLE AT EXTERIOR LOCATIONS SHALL BE PROTECTED. IN ADDITION, THE EXTERIOR ONES SHALL BE WEATHER PROTECTED.
 5. RECEPTACLES FOR FIXED APPLIANCES SUCH AS MICROWAVE OVENS, DISHWASHER, COMPACTORS, GARBAGE- DISPOSERS, FURNACES, AIR CONDITIONING UNITS, AND ELECTRIC DRYERS CIRCUITS APPROPRIATE FOR THEIR RATED AMPERAGE.

BATHROOMS REQUIRE AT LEAST ONE GFI RECEPTACLE THAT IS CONVENIENT TO THE LAVS. THESE RECEPTACLES SHALL BE ON 20 AMP DEDICATED CIRCUIT

- DRYERS CIRCUITS APPROPRIATE FOR THEIR RATED AMPERAGE.

 6. A NEW ELECTRICAL SERVICE SHALL HAVE 3-3/4" CONDUITS EMANATING FROM THE PANEL FOR FUTURE USE. TWO SHALL TERMINATE IN THE ATTIC AND OTHER TO AN EXTERIOR
- RECEPTACLE PLACEMENT. IN APPLYING THE PROVISIONS OF 210.52 (A), THE TOTAL NUMBER OF RECEPTACLE OUTLETS SHALL NOT BE LESS THAN THE MINIMUM NUMBER THAT WOULD COMPLY WITH THE PROVISIONS OF THAT SECTION. THESE RECEPTACLE OUTLETS SHALL BE PERMITTED TO BE LOCATED CONVENIENTLY FOR PERMANENT FURNITURE LAYOUT. PROVIDE MIN. 20AMPS DEDICATED CIRCUITS FOR BATHROOMS.
- INSPECTOR TO FIELD VERIFY EXISTING CIRCUITS FOR THE FOLLOWING AND COMPLY AS REQ'D. -KITCHEN COUNTER TOP -RANGE HOOD
- -GARAGE -APPLIANCES OVER 1/4 HP
- 9. EACH ROOM WILL HAVE A LIGHT OR RECEPTACLE WIRED TO A SWITCH AT THE ENTRY TO THE ROOM. EXTERIOR DOOR WILL HAVE AN EXTERIOR LIGHT CONTROLLED BY A SWITCH AT THE EXIT DOORWAY.

 10. GENERAL ROOM LIGHTING FOR KITCHENS AND BATHROOMS WITH BATHING FACILITIES SHALL HAVE FLUORESCENT LIGHTING. THE FIRST AVAILABLE SWITCH UPON ENTERING THE KITCHEN
- OR BATHROOM SHALL CONTROL THIS LIGHTING.

 11. WHERE EXISTING OUTLET OCCURS AT SAME PLACE AS INDICATED, IGNORE AS SHOWN UNLESS IS NECESSARY.

 12. PERMANENT INSTALLED LUMINARIES IN BATHROOMS, ATTACHED AND DETACHED GARAGES, LAUNDRY ROOM CLOSETS UTILITY ROOMS SHALL BE HIGH EFFICIENCY.
- 12. PERMANENT INSTALLED LUMINARIES IN BATHROOMS, ATTACHED AND DETACHED GARAGES, LAUNDRY ROOM CLOSETS UTILITY ROOMS SHALL BE HIGH EFFICIENCY.

 MANUAL-ON/AUTOMATIC-OFF OCCUPANT SENSORS, ALSO KNOWN AS VACANCY SENSORS, AUTOMATICALLY TURN LIGHTS OFF IF AN OCCUPANT FORGETS TO TURN THEM OFF WHEN A ROOM IS UNOCCUPIED. ADDITIONALLY, THESE SENSORS ARE REQUIRE TO PROVIDE THE OCCUPANT THE ABILITY TO MANUALLY TURN THE LIGHTS.
- 13. SPECIFY ALL INSTALLED LUMINAIRES TO BE EFFICACY IN ACCORDANCE WITH CENEGRYC TABLE 150.0-A CENERGYC 150(KXIXA).

 14. AT BATHROOM, GARAGE, LAUNDRY ROOM AND UTILITY ROOMS, SPECIFY AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES TO BE CONTROLLED BY A VACANCY SENSOR PER CENERGYC TABLE 150(KY2Y).
- 15. SPECIFY INTERIOR LIGHTING FIXTURE THAT ARE NOT CONTROLLED BY OCCUPANCY OR VACANCY SENSORS TO BE EQUIPPED WITH DIMMING CONTROLS. CENERGYC 150.0 (KX2XJ).
 16. DIMMERS OR VACANCY SENSORS ARE NOT REQUIRED ON ANY LUMINARIES LOCATED IN CLOSETS LESS THAN 10 SQUARE FEET, OR IN HALLWAYS. LUMINARIES PROVIDING OUTDOOR LIGHTING, INCLUDING LIGHTING FOR PATIOS, ENTRANCE, AND PORCHES, WHICH ARE PERMANENTLY MOUNTED SHALL BE HIGH EFFICIENCY. THE LIGHTING SHALL BE CONTROLLED BY A MANUAL ON/OFF SWITCH, A MOTION DETECTOR NOT HAVING AN OVERRIDE OR BYPASS SWITCH THAT DISABLES THE TIME CLOCK; OR AN EMCS NOT HAVING AN OVERRIDE OR BYPASS SWITCH THAT ALLOWS THE LUMINARIES TO BE ALWAYS ON.
- 17. PROVIDE PANEL GROUNDING AND BONDING SIZE PER CEC 250.52, 250.53, TABLE 250.66 AND TABLE 250.102 (C) (1).
 18. ALL LUMINAIRES INSTALLED IN RESIDENTIAL CONSTRUCTION MUST QUALIFY AS "HIGH EFFICACY LUMINAIRES".
- 19. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER (AFCI) PROTECTION IN COMPLIANCE WITH CEC 210.12 AT ALL L20-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED KITCHENS, FAMILY ROOMS, DINING ROOMS, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMPLY ROOMS OR AREAS.
- 20. ELECTRICAL BOXES THAT PENETRATE THE MEMBRANE OF A FIRE-RESISTANCE RATED WALL SHALL BE STEEL ELECTRICAL BOXES THAT DOESNOT EXCEED 16 SQUARE INCHES PER BOX AND 100 SQUARE INCHES PER 100 SQUARE FEET OF WALL AREA. THE ANNULAR SPACE BETWEEN THEWALL MEMBRANE AND THE ELECTRICAL BOX SHALL NOT EXCEED 1/8" AND SUCH BOXES ON THE OPPOSITE SIDE OF WALL WITH NON-COMMUNICATING STUD CAVITIES SHALL BE SEPARATE BY A MINIMUM DISTANCE OF 24" OR LISTED PUTTY PADS SHALL BE

28. IMPORTANT; ELECTRICAL CONTRACTOR, SUB-CONTRACTOR OR LICENSED ELECTRICIAN SHALL SUBMIT ELECTRICAL LOAD CALCULATION SHALL SUBMITTED TO FIELD INSPECTOR DURING

- 21. ALL LIGHTING AND RECEPTACLE WIRINGS SHALL BE MIN OF 14 AWG, THHN, 110V, 90°C INSULATED COPPER CONDUCTOR.
 22. ELECT. OUTLET SHALL BE INSTALLED 12" ABOVE FINISHED FLOOR LINE OR 9" ABOVE FIN. COUNTER LINE UNLESS NOTED OTHERWISE.
- 23. ALL BRANCH CIRCUITS THAT SUPPLY 125 V, SINGLE PHASE 15- AND 20- AMPS RECEPTACLES INSTALLED IN DWELLING UNIT.

 24. BEDROOMS SHALL BE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER(S)
- 25. LUMINAIRES RECESSED IN INSULATED CEILINGS MUST MEET REQUIREMENTS OF 150(K)5 OF ELECTRICAL CODE.

INSTALLED ONEACH BOX IN ACCORDANCE WITH THE LISTING.

- 26. REFER TO ELECTRICAL LAYOUT FOR LOCATION OF MOTION DETECTORS, OCCUPANCY SENSORS, DIMMERS & REQUIRED FLUORESCENT LIGHTING.
 21. ELECTRICIAN SHALL PROVIDE AT JOB SITE THE FOLLOWING FOR THE ELECTRICAL INSPECTOR: SINGLE LINE DIAGRAM, PANEL SCHEDULES AND LOAD CALCULATIONS IF DEMANDED.
- 29. PROVIDE MIN. 30AMPS DEDICATED CIRCUITS POWER OPERATED APPLIANCES PER CEC 220.54.
 30. PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479, WITH A POSITIVE PRESSURE DIFFERENTIAL OF NOT LESS THAN 0.01 INCH OF WATER (3 PA) AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL OR
- FRESSURE DIFFERENTIAL OF NOT LESS THAN 8.81 INCH OF WATER (3 FA) AND SHALL HAVE AN FRATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL FLOOR-CEILING ASSEMBLY PENETRATED.

 31. PENETRATIONS OF WALL OR FLOOR-CEILING ASSEMBLIES REQUIRED TO BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH SECTION R302.2 OR R302.3 SHALL BE PROTECTED IN ACCORDANCE WITH THIS SECTION.
- 32. CONTROLLED BY A MANUAL ON AND OFF SWITCH THAT DOES NOT OVERRIDE TO ON THE AUTOMATIC ACTIONS.
 33. CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY REACTIVATES THE MOTION SENSOR WITHIN 6 HOURS.
- 34. WATER HEATER USING GAS OR PROPANE WATER HEATER TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING PER CENERGYC 150.0(N):
- B. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.
- C. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION
 OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE WATER HEATER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."
- 35. SYSTEMS USING GAS OR PROPANE FURNACE TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING PER CENERGYC 150.0(T):
- B. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE FURNACE AND ACCESSIBLE TO THE FURNACE WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL
- COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE. C. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE HEAT PUMP SPACE HEATER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."
- 36. SYSTEMS USING GAS OR PROPANE COOKTOP TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING PER CENERGYC 150.0(U):
- B. A DEDICATED 240 YOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE COOKTOP AND ACCESSIBLE TO THE COOKTOP WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 50 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240Y READY." ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.
- COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE. C. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC COOKTOP INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."
- 37. SYSTEMS USING GAS OR PROPANE DRYER TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING PER CENERGYC 150.0(V):
- B. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE DRYER AND ACCESSIBLE TO THE DRYER WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 50 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL COMPONENTS SHALL BE
- INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

 C. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC DRYER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."

WINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE DESIGNA AND DRAFTING.
WAT THERE OF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT WITHOUT THE WITTEN CONSENT OF THE WINDS ON THE LOS AND THE DISCLOSED TO OTHERS, OR AND THE DISCLOSED TO OTHER PROJECT WITHOUT THE DISCLOSED THE SHALL WERFY AND BE RESPONSIBLE FOR ALL DING OF THE BUILDING EXTERNOR AND CANDITIONS SHOWN ON THE DEAWWINGS AND THE BUILDING EXTERNOR AND CARBIET ELEVATIONS RRET OR BUILDING EXTERNOR AND CONDITIONS SHOWN ON THE DEAWWINGS AND THE BUILDING EXTERNOR AND CANDITIONS SHOWN ON THE DEAWWINGS AND THE SHALL BE PREPARED BY THE SACURATION OF THE TRADES PEOPLE. IT MAY BE NECESSARY THAT SHOP DRAWINGS BE NEEDED THEY SHALL BE PREPARED BY THE ABOVE CONTRACTORS AND THERE TRADES PEOPLE. IT MAY BE NECESSARY THAT SHOP DRAWINGS BE NEEDED AND SHALL BY PREPARED BY THE ABOVE CONTRACTORS AND THE DESTANDED SHAWINGS AND SHALL BY ARRACHITED ON REMAININGS. THE ABOVE CONTRACTORS AND THE DESTANDED SHAWINGS AND SHALL BY ARRACHITED ON REMAININGS THE ABOVE CONTRACTORS AND THE SHAWINGS AND SHAWINGS AND SHALL BY ARRACHITED ON REMAININGS THE ABOVE CONTRACTORS AND THE SHAWINGS AND SHAWINGS AND SHALL BY ARRACHITED ON REMAININGS THE ABOVE CONTRACTORS AND DAWNINGS THE PROSTANDED SHAWINGS AND SHALL BY ARRACHITED ON REMAININGS AND SHALL BY ARRACHITED ON THE SHAWINGS AND SHALL BY ARRACHITED ON THE SHAWINGS AND SPECIFICATIONS SHALL BY AND SHAL

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DRAWING CONTENTS:
GRD. FLOOR ELECT./HVAC LAYOUT,
ELECTRICAL NOTES, CROSS SECTIONAL VIE
ELECT. SYMBOLS

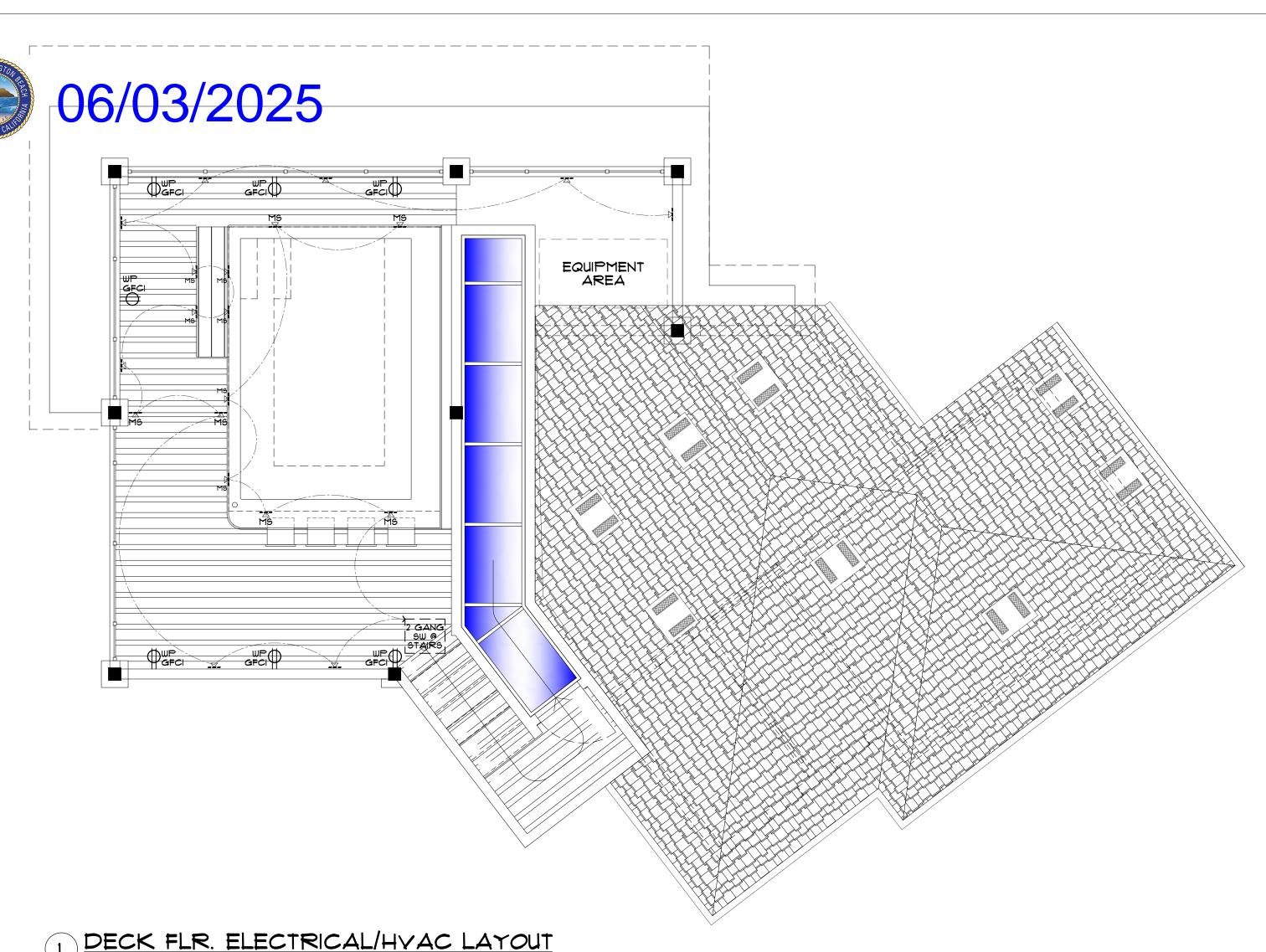
SERKRIAN HONG

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6252 TISBURY CIR.
1UNTINGTON BEACH, CA92649

PROJECT:
PROPOSED (I) ONE STORY POOL HOUSE W/
POOL DECK
JOB ADDRESS:
16252 TISBURY CIR.
HUNTINGTON BEACH, CAS2649

9HEET: **5**OF: **9**

OF: **3**



SMOKE DETECTOR REQUIREMENTS IN CALIFORNIA

TAKEN FROM CA HEALTH AND SAFETY CODE 13113.8A) ON AND AFTER JANUARY 1, 1986, EVERY SINGLE-FAMILY DWELLING AND FACTORY-BUILT HOUSING, AS DEFINED IN SECTION 19971, WHICH IS SOLD SHALL HAVE AN OPERABLE SMOKE DETECTOR. FROM CALIFORNIA BUILDING CODE R314.3 LOCATION. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

IN EACH SLEEPING ROOM.

OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEYELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. THERE ARE EXCEPTIONS IN MOST COMMUNITIES IF INTER-CONNECTING THE DEVICES WOULD RESULT IN DAMAGE TO PROPERTY, UNLESS CONSTRUCTION IS TAKING PLACE

SUMMARY TABLE OF ELECTRICAL OUTLET MINIMUM \$ MAXIMUM HORIZONTAL \$ YERTICAL DISTANCES TO BUILDING FEATURES

* 0" MIN RECEPTACLE HEIGHT ABOVE FLOORS INDOORS

* MIN 6-1/2" ABOVE GRADE OUTDOORS

* 9" LOW SIDE REACH MINIMUM HEIGHT ABOVE FLOOR FOR

*14" TO CENTER OF RECEPTACLE, ABOVE FLOOR, IN

CANADA, HIGHER ALLOWED. * 15" MINIMUM RECEPTACLE HEIGHT TO BOTTOM OF OUTLET BOX - CALIFORNIA

* 15" MINIMUM RECEPTACLE HEIGHT TO BOTTOM OF OUTLET BOX - CALIFORNIA

* 15" MINIMUM HEIGHT ABOVE A KITCHEN COUNTERTOP * 16" TO TOP OF BOX - COMMON INSTALL HEIGHT ABOVE

FLOOR BUT SEE 18" BELOW. * 18" (MAX?) ABOVE COUNTERTOPS (IN SOME JURISDICTIONS)

* 18" ABOYE FLOOR TO TOP OF OUTLET BOX - STANDARD PRACTICE AMONG MANY ELECTRICIANS

* 18" ABOVE FINISHED FLOOR IN A GARAGE

* 48" DOOR BELL MAXIMUM HT FROM EXTERIOR FLOOR FIN.

* 20" OR LESS ABOVE THE WORKING SURFACE OF A [KITCHEN] COUNTERTOP

* 40" MAXIMUM HEIGHT ABOVE FINISHED FLOOR TO SWITCH FOR HUD SECTION 8 HOUSING

* 42" FLOOR TO BOTTOM OF LIGHT SWITCH BOX - SOME

INSTALLERS USE 48" TO THE TOP OF * 44" TO TOP OF BOX FOR BATH VANITY RECEPTACLES

* 44" TO 46" - MOST ELECTRICAL SWITCHES ABOVE FLOOR TO BOTTOM OF BOX * 48" FLOOR TO CENTER OF LIGHT SWITCH (MAX PER NFPA)

* 48" MAXIMUM HIGH FORWARD REACH FOR ADA (AMERICANS WITH DISABILITIES ACT)

* 48" MAXIMUM HEIGHT TO TOP OF OUTLET BOX -CALIFORNIA

* 54" MAXIMUM HIGH SIDE REACH (ADA)

* 5'6" MAXIMUM ABOVE FLOOR LEVEL FOR RECEPTACLES MEETING THE 6' HORIZONTAL SPACING RULE (NEC 210-52) [4] EXAMPLE CA CODE ON LAYOUT AND HEIGHTS IS GIVEN

ALSO IN

PLUMBING NOTES:

PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH SECTIONS 4.303.1.1, 4.303.1.2, 4.303.1.3, AND 4.303.1.4 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. WHERE A FIXTURE COMES IN CONTACT WITH THE WALL OR FLOOR, THE JOINT BETWEEN THE FIXTURE AND THE WALL OR FLOOR SHALL BE MADE

THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB AND WHIRLPOOL BATHTUB FILLER SHALL BE LIMITED TO 120°F (49°C) BY A DEVICE THAT COMPLIES WITH ASSE 1070/ASME A112.1070/CSA B125.70. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL FOR

MEETING THIS PROVISION 4. WATER CLOSETS SHALL BE "ULTRA LOW FLUSH" TYPE WITH 1.28 GALLONS MAX. PER FLUSH.
5. ALL WATER HEATERS SHALL BE PROVIDED WITH SEISMIC STRAPS AND SHALL BE VENTED OUTSIDE. ALSO, PROVIDE COMBUSTION AIR VENTS PER UPC.

SHOWER HEADS SHALL HAVE A WATER FLOW NOT TO EXCEED 1.8 GALLONS PER MINUTE.

LAYATORY FAUCETS SHALL HAVE A WATER FLOW NOT TO EXCEED 1.2 GALLONS PER MINUTE FAUCETS IN KITCHEN, WETBARS, LAVATORIES, LAUNDRY SINKS, ETC. SHALL HAVE A WATER FLOW NOT TO EXCEED 1.8 GALLONS PER MINUTE WATER PIPING MATÉRIALS WITHIN A BUILDING SHALL BE IN ACCORDANCE WITH SEC. 604.1 OF THE CALIFORNIA PLUMBING CODE. PEX, CPVC AND OTHER

PLASTIC WATER PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SEC, 604 OF THE CPC, INSTALLATION STANDARDS OF APPENDIX I OF THE CPC AND MANUFACTURERS RECOMMENDED INSTALLATION STANDARDS. CPVC WATER PIPING REQUIRES A CERTIFICATION OF COMPLIANCE AS SPECIFIED IN SEC 604.1.1 OF THE CPC PRIOR TO PERMIT ISSUANCE.

10. BATHTUBS OR WHIRLPOOL BATHTUBS SHALL HAVE A WASTE OUTLET AND FIXTURE TAILPIECE NOT LESS THAN 11/2 INCHES (40 MM) IN DIAMETER. FIXTURE TAILPIECES SHALL BE CONSTRUCTED FROM THE MATERIALS SPECIFIED IN SECTION 101.2 FOR DRAINAGE PIPING. WASTE OUTLETS SHALL BE PROVIDED

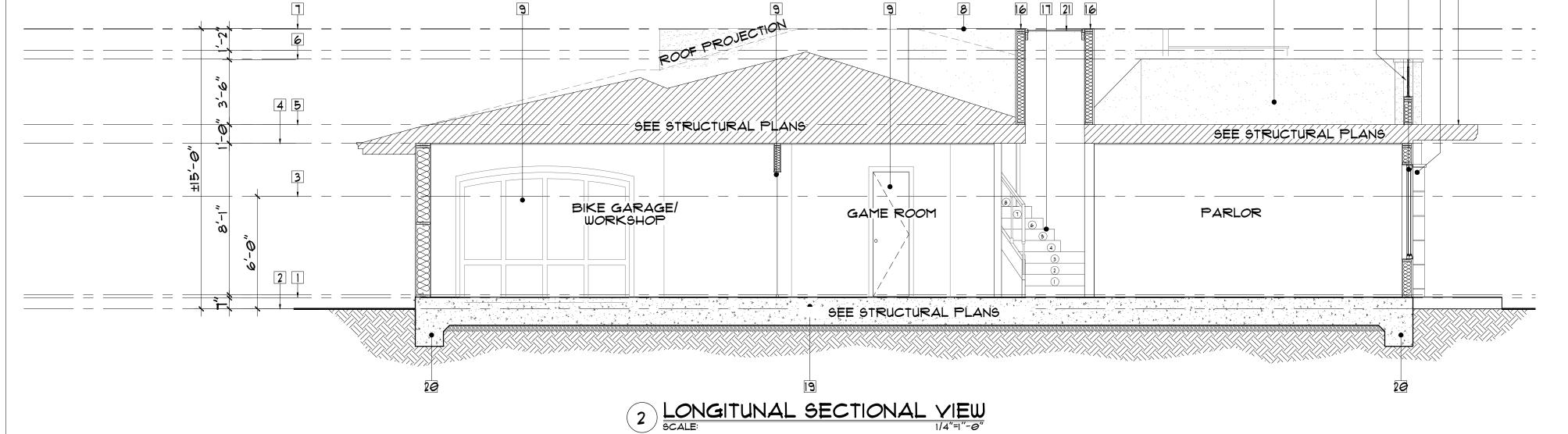
WATER PIPING MATERIALS WITHIN A BUILDING SHALL BE IN ACCORDANCE WITH SEC. 604.1 OF THE CALIFORNIA PLUMBING CODE. PEX, CPVC AND OTHER PLASTIC WATER PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 604 OF THE CPC, INSTALLATION STANDARDS OF APPENDIX I OF THE CPC AND MANUFACTURERS RECOMMENDED INSTALLATION STANDARDS. CPVC WATER PIPING REQUIRES A CERTIFICATION OF

COMPLIANCE AS SPECIFIED IN SEC 604.1.1 OF THE CPC PRIOR TO PERMIT ISSUANCE.
PLUMBING MATERIAL WILL BE CAST IRON FOR VENT AND DRAINS, WATER LINES WILL BE PEX.

12 14

ELECTRICAL SYMBOLS: TAMPER RESISTANT LIGHT SWITCHES, 2 DENOTES 2 GANG, 3 DENOTES 3 GANG, 3W DENOTES 3 WAY SWITCH, MS DENOTES MOTION SENSOR, VS DENOTES VACANCY SENSOR FOR HALLS, STAIRS, LIVING, DINING ROOM AND BEDROOM PROVIDE LUMINAIRES TO BE CONTROLLED BY EITHER DIMMERS OR VACANCY PC, MS PIN BASED SECURITY LIGHT FIXTURE, PC DENOTES PHOTOCEL, MS DENOTES MOTION SENSOR LED HIGH EFFICACY RECESSED LIGHT FIXTURE /LED OR HIGH EFFICACY LUMINARIES, PC DENOTES PHOTOCEL, MS DENOTES CEILING MOUNTED LIGHT FIXTURE /LED OR HIGH EFFICACY PENDANT LIGHT FIXTURE/LED OR HIGH EFFICACY LUMINARIES (SD) (CM) I HYAC

HOSE BIBB ANTI-SIPHON CPC 603 WITH VACCUM BREAKER HEATING SUPPLY CONNECT TO HEATING DUCT (OPTIONAL) ADDED FAN LIGHT LOW YOLTAGE DECK LIGHTS CEILING MOUNTED HEATING 120Y SINGLE PHASE, 15 AND 20 AMPHERE DUPLEX CONVENIENCE OUTLET, ACFI DENOTES ARC-FAULT CIRCUIT INTERRUPTER, GFI DENOTES GROUND FAULT INTERRUPTER, GFCI DENOTES GROUND FAULT CIRCUIT INTERRUPTER, WP DENOTES WEATHERPROOF AND GFI-GFI WALL CONVENIENCE OUTLET BELOW BASE CABINET SMOKE ALARMS (UL 217) SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPED WITH A BATTERY BACKUP. CFC 907.2.10.6. CARBON MONOXIDE ALARMS (UL2034/2015) SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPED WITH A BATTERY BACKUP N ACCORDANCE WITH THE PROVISION SET FORTHIN BUILDING CODE 915.4 FOR GROUP R OCCUPANCIES. EXHAUST FAN W/ MIN.,5 AIR CHANGES/ HOUR 50 CFM INTERMITTENT OR 20 CONTINUOUS ENERGY STAR HUMIDITY EXHAUST HOOD DIRECT YENT TO OUTSIDE MIN. EXHAUST RATE 160 G DENOTES GAS SUPPLY ELECTRICAL SERVICE PANEL LOCATION 200 AMPERES PROVIDE MIN. 4" FLEXIBLE HOST DUCT DIRECT VENT TO OUTSIDE TOILET/RANGE HOOD EXHAUST DUCT 3' AWAY FROM BOTH OPENING AND MULTI-SPLIT HYAC SYSTEM DOOR BELL



MECHANICAL NOTES:

SMOKE ALARMS ARE INTERCONNECTED BY THE BUILDING ELECTRICAL AND EQUIPPED WITH BATTERY SMOKE ALARM SHALL BE INTERCONNECTED SO THAT THE OPERATION OF ONE SMOKE ALARM WILL CAUSE ALL ALARMS TO SOUND. CARBON MONOXIDE INSTALLED AT HALLWAY LEADING BEDROOM, MUST BE POWERED BY BUILDING ELECTRICAL AND EQUIPPED WITH BATTERY BACKUP. ALL ARE SUBJECT FOR VERIFICATION BY FIELD INSPECTOR. SMOKE ALARMS SHALL NOT BE INSTALLED WITHIN A 36" HORIZONTAL PATH FROM THE TIP OF THE BLADE OF A CEILING-SUSPENDED FAN. CFC 907.2.10.8.

SMOKE DETECTORS SHALL BE ON A PERMANENT WIRING WITHOUT ANY DISCONNECTING SWITCH OTHER THAN THOSE FOR OVERCURRENT PROTECTION, INTERCONNECTED AND EQUIPPED WITH BATTERY BACK-UP.

ENVIRONMENTAL KITCHEN, BATHROOM AND DRYER EXHAUST DUCTS SHALL BE EXHAUSTED TO THE OUTSIDE AND SHALL BE EQUIPPED WITH A BACKDRAFT DAMPER WHERE DEMAND-CONTROLLED (INTERMITTENTLY OPERATED). EXCEPT FOR EXHAUST HOODS/FANS WITH A MINIMUM EXHAUST RATE GREATER THAN 400 CFM OR WHERE THE THERE IS MINIMUM OF 4-FEET OF DUCT WORK BETWEEN THE REGISTER AND REMOTELY LOCATED EXHAUST FAN, THE KITCHEN EXHAUST HOOD AND BATHROOM FANS SHALL BE SHOWN WITH A MAXIMUM EXHAUST RATING OF ONE SONE WHERE CONTINUOUSLY OPERATED OR IS A PART OF THE WHOLE HOUSE VENTILATION SYSTEM, AND A MAXIMUM OF 3-SONES WHERE THE EXHAUST HOOD/FAN IS DEMAND-CONTROLLED. A. PROVIDE FANS WITH A MAXIMUM SOUND RATING OF ONE SONE FOR CONTINUOUS FANS OR FANS FOR WHOLE-HOUSE VENTILATION.

DEMAND-CONTROLLED (INTERMITTENT) FANS ARE TO HAVE A MAXIMUM 3-SONE SOUND RATING. REMOTE LOCATED FANS IN COMPLIANCE WITH THE EXCEPTION IN ASHRAE 62.2, 1.2 AND FANS WITH A MINIMUM EXHAUST RATE GREATER THAN 400 CFM ARE EXEMPT FROM THE SOUND RATINGS. D. BESIDES THE OTHER GENERAL REQUIREMENTS FOR ENVIRONMENTAL EXHAUST DUCTS AND SOUND RATING, BATHROOM FANS SHALL BE SHOWN ENERGY STAR COMPLIANT, CONTROLLED BY A HUMIDITY SENSOR THAT CAN BE ADJUSTED FROM BETWEEN LESS THAN OR EQUAL TO 50-PERCENT TO 80-PERCENT [CGBSC 4.506.1]; AND BATHROOM FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTS, UNLESS THE FAN IS ALLOWED TO OPERATE WHEN THE FAN IS SWITCHED OFF [CENC 150.0(K)2B].

EXHAUST DUCT TERMINATION IS AS FOLLOWS PER CMC 502.2: 3 FEET FROM A PROPERTY LINE,

10 FEET FROM A FORCED AIR INLET, AND 3 FEET FROM OPENINGS INTO THE BUILDING.

EXHAUST DUCT SHALL NOT DISCHARGE ONTO A PUBLIC WAY. CMC 502.2 UNLESS OTHERWISE PERMITTED OR REQUIRED BY THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPROVED BY THE CITY, DOMESTIC DRYER MOISTURE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF FOURTEEN FEET. INCLUDING TWO 90-DEGREE ELBOWS. TWO FEET SHALL BE DEDUCTED FOR EACH 90-DEGREE ELBOW IN EXCESS OF TWO. CMC 504.4.2.

SHEET: 6

EROSION CONTROL BMPS



- PRACTICE EROSION \$ SEDIMENT CONTROL YEAR ROUND
- CLOSE \$ STABILIZE OPEN TRENCHES AS SOON AS POSSIBLE

CALTRANS / SECTION 4 / SC-01

PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS FROM CONSTRUCTION SITES BY USING DUST CONTROL MEASURES TO STABILIZE SOIL FROM WIND EROSION, AND REDUCE DUST GENERATED BY CONSTRUCTION ACTIVITIES.

• STREET SWEEPING OF ADJACENT PUBLIC RIGHT-OF-WAY

SAND BAG BARRIER

CALTRANS / SECTION 4 / SC-08 PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS FROM CONSTRUCTION SITES BY STACKING SAND BAGS ALONG A LEVEL CONTOUR CREATING A BARRIER WHICH DETAINS SEDIMENT LADEN WATER PROMOTING SEDIMENTATION. USE ALONG THE PERIMETER OF THE SITE AND AROUND CATCH BASIN INLETS TO STORM DRAINS

TO CREATE A TEMPORARY SEDIMENT TRAP.

- USE SAND BAGS LARGE ENOUGH TO WITHSTAND FLOODING.
- INSPECT SAND BAGS AFTER EACH RAIN. • REMOVE SEDIMENT BEHIND SAND BAGS.
- RESHAPE OR REPLACE DAMAGED SAND BAGS.

CONSTRUCTION ACTIVITY BMPS

CLEAN SITE MEASURES STANDARDS:

- EATING ON SITE SHALL TAKE PLACE OUTSIDE THE BUILDING. ANY FOOD OR DRINK WITHIN THE BUILDING SHALL BE CLEANED UP AND DISPOSED OF IMMEDIATELY.
- NO SMOKING WITHIN THE HOME
- SWEEP UP JOB SITE DAILY. YACUUM ALL STUD BAYS AND SUB FLOOR BEFORE INSULATING, THEN AGAIN BEFORE INSTALLING DRYWALL

WATER CONSERVATION

CALTRANS / SECTION 7 / NS-01 PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS FROM CONSTRUCTION SITES BY USING CONSTRUCTION WATER THAT DOES NOT CAUSE EROSION OR WASH MATERIALS OFF-SITE. STANDARDS:

- DISCOURAGE WASHING OF EQUIPMENT ON SITE. AVOID USING WATER TO CLEAN CONSTRUCTION AREAS.
- SWEEP PAYED AREAS WHERE PRACTICAL
- DIRECT CONSTRUCTION WATER RUN-OFF TO AREAS WHERE IT CAN SOAK INTO THE GROUND.
- APPLY WATER FOR DUST CONTROL MODERATELY SO RUN-OFF DOES NOT OCCUR.

MATERIAL DELIVERY AND STORAGE CALTRANS / SECTION 8 / WM-01

PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS DURING THE DELIVERY AND STORAGE PROCESS BY MINIMIZING THE CONTACT OF MATERIALS WITH RUN-OFF. STANDARDS:

• DESIGNATED STORAGE AREAS AT THE PROJECT SITE PREVENT SPILLS OR LEAKAGE OF LIQUID MATERIALS FROM

CONTAMINATING SOIL OR SOAKING INTO THE GROUND BY PLACING STORAGE AREAS ON IMPERVIOUS SURFACES. DO NOT STORE HAZARDOUS CHEMICALS, DRUMS

OR BAGGED MATERIALS DIRECTLY ON THE GROUND.

- PROVIDE CURBS OR DIKES AROUND THE PERIMETER OF MATERIAL
- STORAGE AREAS. • MINIMIZE HAZARDOUS MATERIAL STORAGE ON SITE.
- KEEP HAZARDOUS MATERIALS IN THEIR ORIGINAL CONTAINERS AND KEEP THEM WELL LABELED.
- KEEP AMPLE SUPPLY OF APPROPRIATE SPILL CLEAN UP MATERIAL
- NEAR STORAGE AREAS. • CONTAIN AND CLEAN UP ANY SPILL IMMEDIATELY.

ADDITIONAL STANDARDS:

• SOURCE PRODUCTS CLOSE TO PROJECT SITE TO MINIMIZE TRAVEL! DELIYERY IMPACT.

MATERIAL USE

CALTRANS / SECTION 8 / WM-02 PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS BY PROPERLY STORING AND UTILIZING MATERIALS. STANDARDS:

- USE MATERIALS ONLY WHERE AND WHEN NEEDED TO COMPLETE THE CONSTRUCTION ACTIVITY. LAYOUT AND CUTTING PROCEDURES SHOULD BE EXECUTED TO MINIMIZE WASTE MATERIALS.
- FOLLOW MANUFACTURER'S INSTRUCTIONS REGARDING THE
- PREPARATION, USE, AND DISPOSAL OF MATERIALS. • AVOID EXPOSING APPLIED MATERIALS TO RAINFALL AND RUN-OFF UNLESS SUFFICIENT TIME HAS BEEN ALLOWED FOR THEM TO DRY. • DON'T PURCHASE MORE MATERIAL THAN WILL BE USED ON SITE.

ADDITIONAL STANDARDS:

- LOOK FOR MATERIALS \$ FINISHES WITH POST-CONSUMER \$
- POST-INDUSTRIAL RECYCLED CONTENT. USE STANDARD HEIGHT CEILINGS (8' OR 9')

 STANDARD LENGTH / WIDTH

MATERIAL MODULES TO SAVE ON CUT-OFF WASTE.

SPILL PREVENTION AND CONTROL CALTRANS / SECTION 8 / WM-04

PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS FROM SPILLS BY PREVENTING, CONTAINING AND CLEANUP SPILLS. STANDARDS:

- HOLD REGULAR MEETINGS TO DISCUSS AND REINFORCE APPROPRIATE DISPOSAL PROCEDURES
- USE ABSORBENT MATERIALS ON SMALL SPILLS RATHER THEN HOSING DOWN OR BURYING THE SPILL
- FOR SIGNIFICANT OR HAZARDOUS SPILLS THAT CANNOT BE CONTROLLED BY PERSONNEL IN THE IMMEDIATE VICINITY NOTIFY THE LOCAL EMERGENCY RESPONSE BY CALLING 911.

SOLID WASTE MANAGEMENT

CALTRANS / SECTION 8 / WM-05

PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS AS A RESULT OF THE CREATION, STOCKPILING AND REMOVAL OF LITTER AND OTHER CONSTRUCTION WASTE. STANDARDS:

- COLLECT SITE TRASH REGULARLY, DAILY DURING RAINY AND WINDY
- KEEP SOLID MATERIALS SHIELDED BY EITHER A COVERED DUMPSTER OR OTHER ENCLOSED TRASH CONTAINER THAT LIMITS CONTACT WITH RAIN, RUN-OFF, AND SCATTERING DUE TO WINDS
- RECYCLE EVERY POSSIBLE MATERIAL. CONTRACTOR TO FURNISH RECYCLING BIN FOR SUCH USE AND NOTIFY ALL PERSONS WORKING ON SITE THAT RECYCLING IS MANDATORY FOR THIS PROJECT SITE.
- MAKE SURE THAT TOXIC WASTES AND CHEMICALS ARE NOT DISPOSED OF IN DUMPSTERS DESIGNED FOR CONSTRUCTION DEBRIS

HAZARDOUS WASTE MANAGEMENT

- CALTRANS / SECTION 8 / WM-06
- PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS BY THE PROPER STORAGE AND DISPOSAL OF WASTE. STANDARDS:
- SITES WITH EXISTING STRUCTURES MAY CONTAIN WASTE WHICH MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS WHICH INCLUDE
- SANDBLASTING GRIT MIXED WITH LEAD, CADMIUM, OR

CHROMIUM BASED PAINTS AND ASBESTOS.

- MAJOR CONTAMINATION, LARGE SPILLS, AND OTHER SERIOUS HAZARDOUS WASTEINCIDENTS REQUIRE IMMEDIATE RESPONSE FROM
- KEEP LIQUID OR SEMI-LIQUID HAZARDOUS WASTE IN APPROPRIATE
- CONTAINERS AND UNDER COVER. • CLEARLY MARK *o*n all hazard*o*us waste containers which
- MATERIALS ARE ACCEPTABLE FOR THE CONTAINER. • PLACE HAZARDOUS WASTE CONTAINERS IN SECONDARY CONTAINMENT MAKE SURE THAT TOXIC WASTES AND CHEMICALS ARE NOT DISPOSED. OF IN DUMPSTERS DESIGNED FOR CONSTRUCTION DEBRIS.

ADDITIONAL STANDARDS:

• THE SITE AND BUILDING SHALL BE TESTED FOR HAZARDOUS MATERIALS INCLUDING, BUT NOT LIMITED TO LEAD PAINT, ASBESTOS, MERCURY (FLUORESCENT LIGHT BULBS,

THERMOSTATS, ELECTRONIC SWITCHES, AND OTHER PRODUCTS), BATTERIES, OR ELECTRONICS OF ANY KIND AND ABATED, REMOVED, AND DISPOSED OF PROPERLY

- CONTACT THE CALFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL FOR ADDITIONAL INFORMATION DISPOSE TREATED WOOD (PDTF, WOLMANIZED \$ OTHER TREATED WOOD) SEPARARTELY. NOTIFY THE REFUSE CENTER FOR DIVERSION OF SUCH
- MATERIAL TO ARRANGE FOR THE DELIVERY TO A REGULATED TREATED
- LANDFILL • THE SITE SHALL BE TESTED FOR RADON. PROPER VENTING BELOW THE FOUNDATION SHALL BE PROVIDED TO DIVERT RADON FROM THE INTERIOR ENVIRONMENT OF THE FINISHED PRODUCT PER DIVISION I

CONCRETE WASTE MANAGEMENT

CALTRANS / SECTION 8 / WM-08 PURPOSE: TO REDUCE THE DISCHARGE OF PORTLAND CEMENT, CONCRETE SLURRIES AND ASPHALT BY IMPLEMENTING APPROPRIATE WASH-OUT PROCEDURES, SLURRY CONTAINMENT, HOUSEKEEPING AND DISPOSAL PRACTICES. STANDARDS

- DO NOT ALLOW SLURRY RESIDUE FROM WET CORING OR SAW-CUTTING
- TO ENTER STORM DRAINS. SHOVEL OR VACUUM SLURRY RESIDUE AND DISPOSE IN A TEMPORARY
- DESIGNATE AREAS TO BE USED FOR WASHOUT OF YEHICLES
- TRANSPORTING CONCRETE. • WASHOUT AREAS SHALL HAVE A TEMPORARY PIT OR BERMED AREA OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE
- CONCRETE. • ONCE THE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREAS AND ALLOWED TO HARDEN, THE CONCRETE CAN BE PROPERLY

YEHICLE AND EQUIPMENT MAINTENANCE

STANDARDS:

DRAIN.

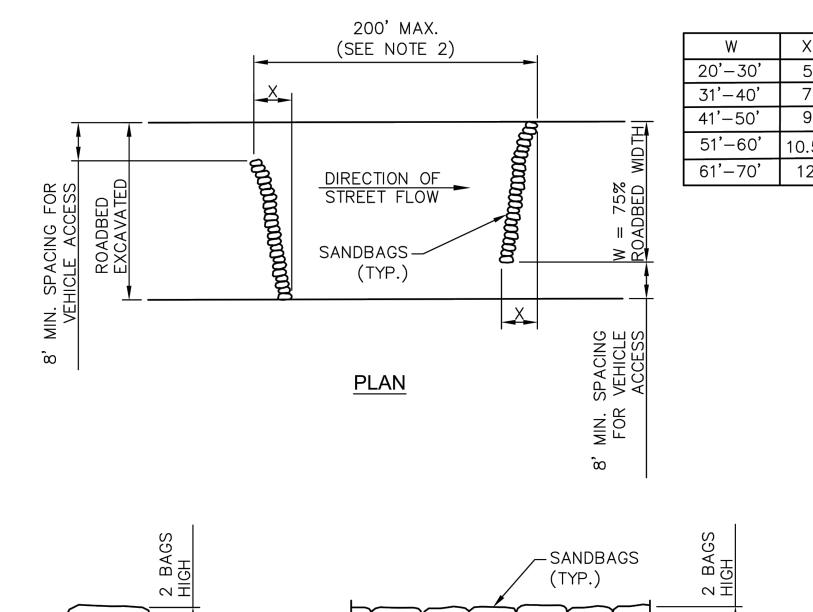
CALTRANS / SECTION 7 / NS-10 PURPOSE: TO REDUCE THE DISCHARGE OF POLLUTANTS AS A RESULT OF VEHICLE AND EQUIPMENT MAINTENANCE BY CONDUCTING THESE ACTIVITIES OFF-SITE OR IN A DESIGNATED AREA.

- LOCATE ON PAYED SURFACES WHERE PRACTICAL
- USE BERMS TO PROTECT MAINTENANCE AREAS FROM RUN-ON. • DO NOT DUMP FUELS AND LUBRICANTS ONTO THE GROUND. • DO NOT PLACE USED OIL IN A DUMPSTER OR POUR INTO A STORM

BEST MANAGEMENT PRACTICES

"AS THE ARCHITECT/ENGINEER OF RECORD. I HAVE SELECTED APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO EFFECTIVELY MINIMIZE THE NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE PROJECT OWNER AND CONTRACTOR ARE AWARE THAT SELECTED BMPS MUST BE INSTALLED, MONITORED AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS. THE BMPS NOT SELECTED FOR IMPLEMENTATION ARE REDUNDANT OR DEEMED NOT APPLICABLE TO THE PROPOSED CONSTRUCTION ACTIVITIES.

SEE STAMP FOR SIGNATURE, LICENSE#, \$ EXPIRATION



- GRAVEL BAGS ARE ENCOURAGED OVER THE USE OF SANDBAGS AND MAY BE REQUIRED IN AREAS WHICH ARE PARTICULARLY SENSITIVE TO SEDIMENT DEPOSITION.
- REQUIREMENTS AND SPACING OF VELOCITY REDUCERS FOR STREETS WITH GRADES OF LESS THAN 4 PERCENT SHALL BE AS SHOWN ON THE APPROVED EROSION CONTROL PLAN.

TYPICAL ELEVATION

THIS STANDARD DETAIL SHALL BE USED AS SHOWN ON THE APPROVED EROSION CONTROL PLAN.

EROSION CONTROL

TYPICAL SECTION

- EROSION AND SEDIMENT CONTROL -SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTRACTED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO THE STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES
- WASTE AND MATERIALS MANAGEMENT CONTROL -APPROPRIATE BMP'S FOR CONSTRUCTION RELATED MATERIALS. WASTES SPILLS. OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO THE STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF

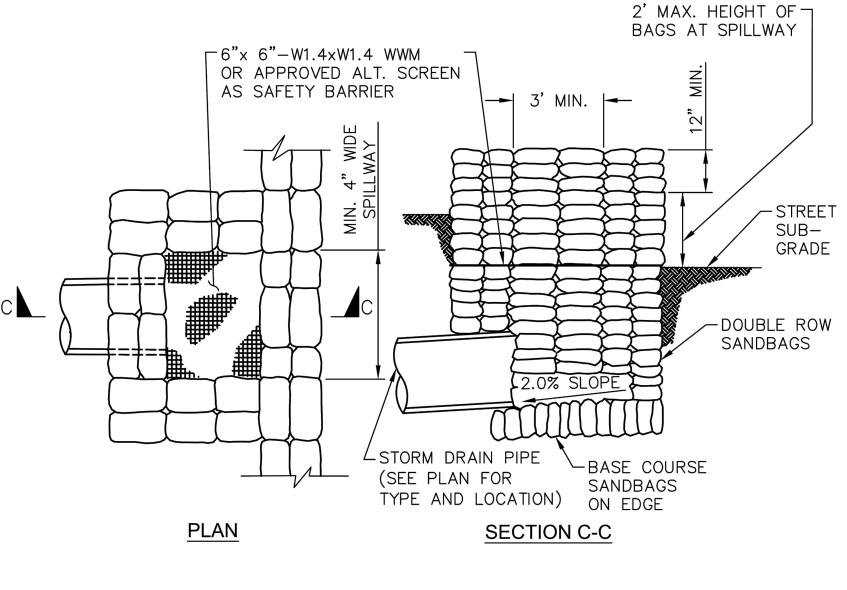
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES NOTES)

IN CASE OF EMERGENCY, CALL AT WORK OR HOME PHONE# PHONE#

- EROSION CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED TO MINIMIZE AND/OR PREVENT THE ENTRAINMENT OF SOIL IN RUNOFF FROM DISTURBED SOIL AREAS ON CONSTRUCTION SITES.
- SEDIMENT FROM AREAS DISTRIBUTED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM PRACTICABILITY.
- STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUN OFF, VEHICLE TRACKING OR WIND.
- APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS, OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF. 5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT
- CONSTRUCTION SITES AND MUST NOT BE DISCHARGED TO RECEIVING WATERS OR LOCAL STORM DRAIN SYSTEM. 6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE FOR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD

HOUSEKEEPING MEASURES FORM THE PROJECT SITE AND ANY ASSOCIATED

- CONSTRUCTION AND STAGING AREAS. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH RECYCLE BINS.
- 8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTE OR POLLUTANTS OFF THE SITE. DISCHARGES OR MATERIAL OTHER THAN STORM WATER ARE PROHIBITED, EXCEPT AS AUTHORIZED BY AN INDIVIDUAL NPDES PERMIT OR THE STATEWIDE GENERAL PERMIT-CONSTRUCTION. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS, WASTES FROM PAINTS, STAINS, SEALANTS SOLVENTS, DETERGENTS, GLUES, LIME, PESTICIDES, HERBICIDES, FERTILIZERS, WOOD PRESERVATIVES. AND ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE AND RELATED CUTTING OR CURING RESIDUES; FLOATABLE WASTES; WASTES FROM ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; WASTES FROM STREET CLEANING; AND SUPER-CHLORINATED POTABLE WATER FROM LINE FLUSHING AND TESTING. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.



NOTES:

- 1. GRAVEL BAGS ARE ENCOURAGED OVER THE USE OF SANDBAGS AND MAY BE REQUIRED IN AREAS WHICH ARE PARTICULARLY SENSITIVE TO SEDIMENT
- 2. A PORTION OF CATCH BASIN MAY BE CONSTRUCTED IN PLACE OF
- 3. THIS STANDARD DETAIL SHALL BE USED AS SHOWN ON THE APPROVED EROSION CONTROL PLAN.

DISCHARGING CONTAMINATED GROUNDWATER PRODUCED BY WATERING GROUNDWATER THAT HAS INFILTRATED INTO THE CONSTRUCTION SITE IS PROHIBITED DISCHARGING OF CONTAMINATED SOILS VIA SURFACE EROSION IS ALSO PROHIBITED. DISCHARGING NON- CONTAMINATED GROUNDWATER PRODUCED BY WATERING ACTIVITIES MAY REQUIRE A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ISSUED BY THE REGIONAL BOARD.

10. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESIGNATING FACILITIES.

THE PERMIT AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

12. THE PERMIT AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLAN. 13. THE PERMIT SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS MATERIAL SUPPLIERS, LESSEES, PROPERTY OWNERS: THAT DUMPING OF CHEMICALS

IN THE STORM DRAIN SYSTEM OR WATERSHED IS PROHIBITED. 14. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID

CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS EMINENT. 15. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECASTS EXCEED 40%.

16. SEDIMENTS FROM AREAS DISTRIBUTED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORTED FROM THE SITE TO THE STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.

RESPONSIBILITY TO ENSURE FULL COMPLIANCE AND IMPLEMENTATION AND ALL OF ITS ELEMENTS, INCLUDING ELIMINATION OF ALL UNAUTHORIZED DISCHARGES. RESTS WITH:

TELEPHONE#





PROP POOL JOB AI HUNTIN

SHEET: 0F: 9 MAY 28, 2025

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

NOT APPLICABLE

CHAPTER 3 **GREEN BUILDING SECTION 301 GENERAL**

> 301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

> > 301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

> > The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

> 1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable. 2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the California

Building Code, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS: Department of Housing and Community Development

California Building Standards Commission Division of the State Architect, Structural Safety OSHPD Office of Statewide Health Planning and Development Low Rise High Rise

Additions and Alterations

CHAPTER 4 RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

The following terms are defined in Chapter 2 (and are included here for reference)

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

. Retention basins of sufficient size shall be utilized to retain storm water on the site. 2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved

3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

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:

2. Water collection and disposal systems 3. French drains

Water retention gardens

5. Other water measures which keep surface water away from buildings and aid in groundwater

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions: 1.1 Where there is no local utility power supply or the local utility is unable to supply adequate

1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional

local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project. 2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

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 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the California Electrical Code.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities. When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2

4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of

a. Construction documents are intended to demonstrate the project's capability and capacity for facilitating

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms. The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

a. Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).

Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1 Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable

4.106.4.2.2.1.1 Location. EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Exception: Electric vehicle charging stations designed and constructed in compliance with the California

Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions. The charging spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486 mm).

2. The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section

4.106.4.2.3 EV space requirements.

1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated 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 enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code. 4.106.4.2.4 Identification.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage. Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or

altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future

2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION 4.303 INDOOR WATER USE 4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and

urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil

buildings affected and other important enactment dates. 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

Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

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.

4.303.1.3 Showerheads

Specification for Tank-type Toilets.

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 Showerheads.

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 the 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 only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

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.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver

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

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve

4.303.1.4.5 Pre-rinse spray valves.

When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section

TABLE H-2

1701.1 of the California Plumbing Code.

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDIVIDUAL NEEDS. THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpr	
Product Class 1 (≤ 5.0 ozf)	1.00	
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20	
Product Class 3 (> 8.0 ozf)	1.28	

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial

Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the California Plumbing Code. **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table

THIS TABLE COMPILES THE DATA IN SECTION 4.303.1. AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code Regulations, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE **EFFICIENCY**

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

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

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING **4.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65

percent of the non-hazardous 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.

1. Excavated soil and land-clearing debris.

Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably

3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan 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.

. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream). Identify diversion facilities where the construction and demolition waste material collected will be

4. Identify construction methods employed to reduce the amount of construction and demolition waste

. Specify that the amount of construction and demolition waste materials diverted shall be calculated

by weight or volume, but not by both. **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 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined

per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Department of Resources Recycling and Recovery (CalRecycle).

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates

documenting compliance with this section 2. Mixed construction and demolition debris (C & D) processors can be located at the California

4.410 BUILDING MAINTENANCE AND OPERATION

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. . Roof and yard drainage, including gutters and downspouts.

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 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,

9. Information about state solar energy and incentive programs available. 10. A copy of all special inspections verifications required by the enforcing agency or this code. 11. Information from the Department of Forestry and Fire Protection on maintenance of defensible

12. Information and/or drawings identifying the location of grab bar reinforcements.

painting, grading around the building, etc.

space around residential structures

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of

DIVISION 4.5 ENVIRONMENTAL QUALITY SECTION 4.501 GENERAL

The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors. **SECTION 4.502 DEFINITIONS**

5.102.1 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference)

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

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NOT APPLICABLE

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O³/g ROC). Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a)

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & 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, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives. Sealants and Caulks. Adhesives, sealant 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

- 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 tricloroethylene), 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.

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.

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

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the

1. Manufacturer's product specification. 2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT _{1,2}	'' \		
(Less Water and Less Exempt Compounds in Grams per Liter)			
ARCHITECTURAL APPLICATIONS	VOC LIMIT		
INDOOR CARPET ADHESIVES	50		
CARPET PAD ADHESIVES	50		
OUTDOOR CARPET ADHESIVES	150		
WOOD FLOORING ADHESIVES	100		
RUBBER FLOOR ADHESIVES	60		
SUBFLOOR ADHESIVES	50		
CERAMIC TILE ADHESIVES	65		
VCT & ASPHALT TILE ADHESIVES	50		
DRYWALL & PANEL ADHESIVES	50		
COVE BASE ADHESIVES	50		
MULTIPURPOSE CONSTRUCTION ADHESIVE	70		
STRUCTURAL GLAZING ADHESIVES	100		
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250		
OTHER ADHESIVES NOT LISTED	50		
SPECIALTY APPLICATIONS			
PVC WELDING	510		
CPVC WELDING	490		
ABS WELDING	325		
PLASTIC CEMENT WELDING	250		
ADHESIVE PRIMER FOR PLASTIC	550		
CONTACT ADHESIVE	80		
SPECIAL PURPOSE CONTACT ADHESIVE	250		
STRUCTURAL WOOD MEMBER ADHESIVE	140		
TOP & TRIM ADHESIVE	250		
SUBSTRATE SPECIFIC APPLICATIONS			
METAL TO METAL	30		
PLASTIC FOAMS	50		
POROUS MATERIAL (EXCEPT WOOD)	50		
WOOD	30		
FIBERGLASS	80		

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE

(Less Water and Less Exempt Compounds in Grams per Liter)				
SEALANTS	VOC LIMIT			
ARCHITECTURAL	250			
MARINE DECK	760			
NONMEMBRANE ROOF	300			
ROADWAY	250			
SINGLE-PLY ROOF MEMBRANE	450			
OTHER	420			
SEALANT PRIMERS				
ARCHITECTURAL				
NON-POROUS	250			
POROUS	775			
MODIFIED BITUMINOUS	500			
MARINE DECK	760			
OTHER	750			

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS1	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340
GRAMS OF VOC PER LITER OF COATING, INCLUDING WAT	
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISORSEQUENT COLUMNS IN THE TABLE.	SED LIMITS ARE LISTED IN

FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION				
PRODUCT	CURRENT LIMIT			
HARDWOOD PLYWOOD VENEER CORE	0.05			
HARDWOOD PLYWOOD COMPOSITE CORE	0.05			
PARTICLE BOARD	0.09			
MEDIUM DENSITY FIBERBOARD	0.11			
THIN MEDIUM DENSITY FIBERBOARD2	0.13			

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued) 4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhtps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.),

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

- 1. Product certifications and specifications.
- 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see
- CCR, Title 17, Section 93120, et seq.). 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered
- Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
- 5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL **4.505.1 General.** Buildings shall meet or exceed the provisions of the California Building Standards Code.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by 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 this section.

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 (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier 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,
 - 2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.

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 2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end

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.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST 4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the

- 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
- a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of
- b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

of each piece verified.

1. For the purposes of this section, a bathroom is a room which contains a shower or tub/shower combination 2. Lighting integral to bathroom exhaust fans shall comply with the California Energy Code.

4.507 ENVIRONMENTAL COMFORT **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.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

- State certified apprenticeship programs.
- Public utility training programs
- Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. 4. Programs sponsored by manufacturing organizations.
- Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

- Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building
- performance contractors, and home energy auditors. Successful completion of a third party apprentice training program in the appropriate trade.
- 4. Other programs acceptable to the enforcing agency.

1. Special inspectors shall be independent entities with no financial interest in the materials or the

project they are inspecting for compliance with this code. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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