

## El Segundo Uniform Security Code

### Section 13-20-15: SPECIAL RESIDENTIAL BUILDING PROVISIONS

The provisions of this section shall apply only to single- and multiple-family dwelling units.

- A. Except for vehicular access doors, all exterior swinging doors of any residential building and garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:

- All wood doors shall be of solid core construction with a minimum thickness of 1 1/4 inches, or with panels not less than 9/16 inch thick.
- Main entry doors constructed of glass shall not be permitted in residential applications except if the glass panel in the top eighth of the door.
- A single or double door shall be equipped with a single cylinder deadbolt lock. The bolt shall have a minimum projection of one inch and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least 3/4 inch into the strike receiving the projected bolt. The cylinder shall have a cylinder guard, a minimum of five-pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least one-fourth inch in diameter.
- The inactive leaf of double door(s) shall be equipped with metal flush bolts having a minimum embedment of 5/8 inch into the head and threshold of the door frame.
- Glazing in exterior doors, or within 40 inches of any locking mechanism, shall be of fully tempered glass or rated burglary resistant glazing.
- All front exterior doors shall be equipped with a wide-angle door viewer with a minimum viewing angle of 190, not to be mounted more than fifty eight (58) inches from the bottom of the door.
- Dutch-type doors shall have a deadbolt on the upper and lower half, both engaging the door frame.

- B. Multiple family buildings shall display a street address number conforming to the following specifications:

- Numerals shall be located where they are clearly visible from the street on which they are addressed. They shall be of a color contrasting to the background to which they are affixed. Method of attachment shall not include the use of two-sided tape or any material not resistant to weather conditions.
- Numerals shall be no less than four inches in height and illuminated during the hours of darkness. The numerals and light source shall be contained within a single, weather-resistant fixture. The light source shall be provided with an uninterruptible A.C. power source or controlled only by a photoelectric device. Battery operated units are prohibited. Nothing in this section shall preclude the requirement for circuit protection devices where applicable.
- Numerals shall be in a Sans Serif font with a stroke weight of medium to bold, or an approved equivalent font which is clearly legible.
- Any building which affords vehicular access to the rear through a public or private alley shall display, in a clearly visible location, an address number that is a minimum of four inches in height.

6. Second dwelling units on the same single-family parcel, which are further than 100 feet from the center line of the addressed street or are not visible from the addressed street, in addition to the illuminated address fixture, shall have an illuminated address fixture containing a directional arrow or wording indicating the second dwelling unit location, and mounted on the primary dwelling unit that is visible from the addressed street.

10. Exterior address identification numbers and/or letters shall not be affixed to a surface using two-sided tape or any material not resistant to weather conditions.

- E. Multiple-family buildings, carports, parking areas, driveways, and walking surfaces shall conform to the following lighting standards:

1. All vehicular drive surfaces, open parking areas and carports shall be illuminated with a minimum maintained one foot-candle of light at ground level during the hours of darkness.

- Exceptions: (1) A residential drive aisle may be illuminated with a minimum maintained 0.50 foot-candles of light on the ground level during the hours of darkness, if it is no wider than 30 feet, has buildings on each side of it and pedestrian circulation routes are not part of this aisle.

- (2) Model home temporary parking lots may be illuminated with a minimum maintained 0.50 foot-candles of light on the ground surface during the hours of operation and one hour thereafter

2. All exterior common area pedestrian walkways and recreation areas shall be illuminated with a minimum maintained 0.25 foot-candle of light at ground level during the hours of darkness.

3. Open stairways and enclosed common area corridors shall be illuminated with a minimum maintained one foot-candle of light on all landings and stair treads during the hours of darkness. Enclosed stairways shall be illuminated at all times with a minimum maintained one foot-candle of light on all landings and stair treads.

4. Open stairways and enclosed common area corridors shall be illuminated with a minimum maintained 0.5 foot-candle of light on all landings and stair treads during the hours of darkness. Enclosed stairways shall be illuminated at all times with a minimum maintained one foot-candle of light on all landings and stair treads.

7. Accessible luminaires utilized to meet the requirements of this section shall have fully enclosed vandal resistant light fixtures and be not less than three feet in height from the walking surface when used to illuminate walkways and a minimum of 78 inches in height above the driving surface when illuminating surfaces associated with vehicles. Light fixtures shall be deemed accessible if mounted within 15 feet vertically or six feet horizontally from any accessible surface or any adjoining roof, balcony, landing, stair tread, platform or similar structure.

8. The light source utilized to comply with this section to meet parking and drive surface lighting shall have a rated average bulb life of not less than 12,000 hours.

10. The required light source shall be controlled by a photocell device or a timeclock with an astronomic feature.

# VIRGINIA STREET RESIDENCE



### PROJECT DESCRIPTION AND SCOPE OF WORK

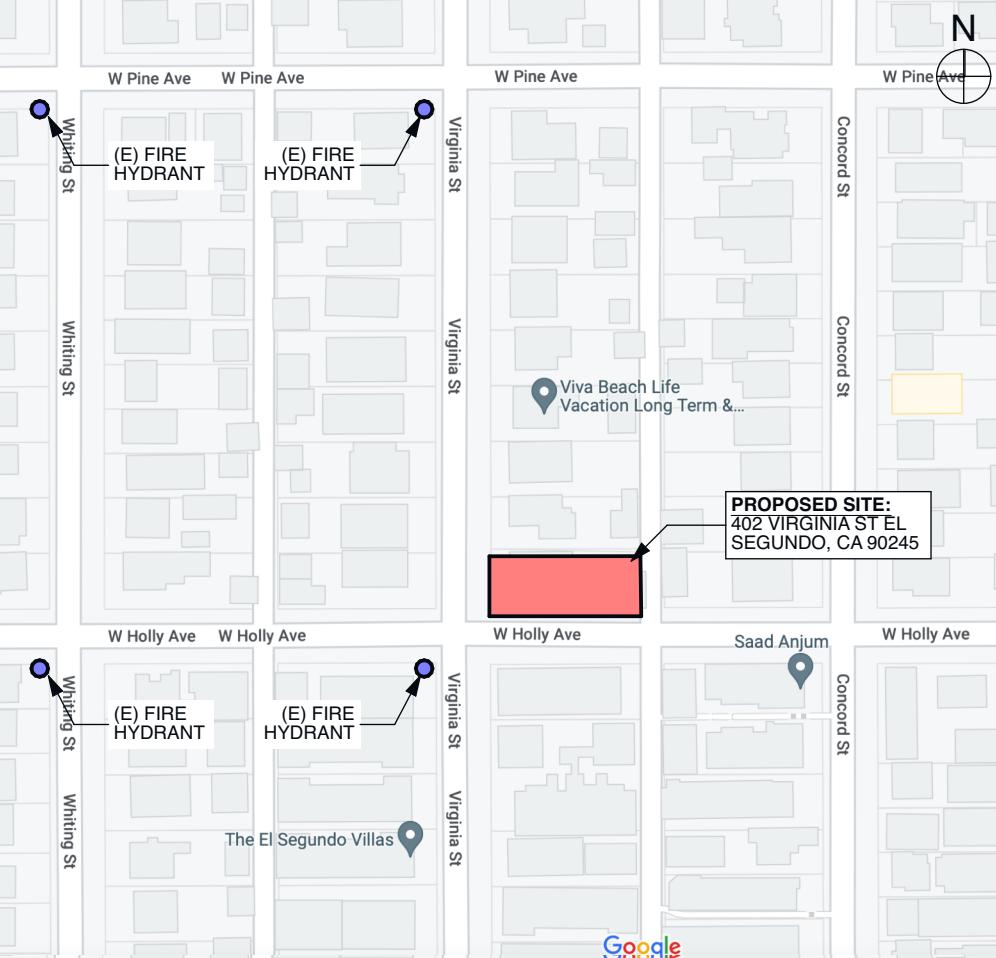
CONSTRUCT A NEW 3,724 SF, TWO-STORY SINGLE-FAMILY RESIDENCE AND A NEW 669 SF 3-CAR GARAGE + 119 SF STORAGE. SPECIFICALLY, THE RESIDENCE INCLUDES A 2,026 SF FIRST FLOOR AND A 1,636 SF SECOND FLOOR; AN UNCOVERED, 328 SF WRAPAROUND DECK AT THE SOUTHWEST FRONT OF THE RESIDENCE, A COVERED, 155 SF DECK AT THE SOUTH CENTER OF THE RESIDENCE, A NEW UNCOVERED 340 SF DECK AT THE EAST OF THE SECOND FLOOR; A NEW 289 SF UNCOVERED TERRACE AT THE EAST OF THE SECOND FLOOR; AND A NEW, 662 SF ROOF DECK ABOVE THE NEW GARAGE W/ A NEW, 185 SF OPEN TRELLIS. (SEE SHEET A002 FOR A COMPREHENSIVE AREA BREAK DOWN)

INSTALLATION OF PV SOLAR PANELS IS UNDER SEPARATE PERMIT. THIS PROJECT SHALL NOT BE FINALIZED WITHOUT INSTALLING PV SOLAR PANELS.

### DEFERRED SUBMITTALS:

- NEW SITE WALLS - PERMIT# B0533-22
- DEMO (E) DETACHED GARAGE - PERMIT# B0531-22
- DEMO SFD - PERMIT# B0528-22
- SOLAR PANEL
- FIRE SPRINKLERS (NFPA 13D)
- EXTERIOR PRE-FAB STEEL STAIR

### VICINITY MAP



### PROPERTY INFORMATION

#### PROJECT ADDRESS

402 VIRGINIA ST EL SEGUNDO CA 90245

#### LEGAL DESCRIPTION

AIN 4136013009  
LOT AREA 7,579 SQ.FT.  
APN 4136-013-009  
TRACT EL SEGUNDO  
MAP REFERENCE M B 18-145  
BLOCK 56  
LOT 9 (3' OF LOT 8)

#### PLANNING AND ZONING INFORMATION

ZONE R-1 SINGLE FAMILY RESIDENTIAL

#### EXISTING BUILDING INFORMATION

BUILDING TYPE SINGLE FAMILY RESIDENCE  
YEAR BUILT 1912  
BUILDING SQUARE FOOTAGE 2,500 SQ FT  
NO. OF STOREYS 2  
NO. OF BEDROOMS 3  
NO. OF BATHROOMS 2  
SPRINKLERED NO

#### GRADE PLANE: (PER 15-1-6 DEFINITIONS):

196.9' ABOVE SEA LEVEL

#### PROPOSED BUILDING HEIGHT

28'-5 3/4" FROM GRADE PLANE

MAX. ALLOWED BLDG HGT PITCHED ROOF: 32'-0" FROM GRADE PLANE

MAX. ALLOWED BLDG. HGT FLAT ROOF: 26'-0" FROM GRADE PLANE

#### FLOOR AREA RATIO:

SEE SHEET A002

#### FRONT YARD SETBACK (PER 15-4A-3G):

22'-0"

#### SIDE YARD SETBACK:

5'-4"

#### REAR YARD SETBACK:

8'-0"

#### PROPOSED BUILDING INFORMATION

MAIN HOUSE SQUARE FOOTAGE: 3,823 SQ FT

GARAGE SQUARE FOOTAGE: 669 SQ FT

\* SEE SHEET A002 FOR DIAGRAMS AND EXEMPTIONS

OCCUPANCY R3 - RESIDENTIAL / U-GARAGE

CONSTRUCTION TYPE TYPE V-B

STORIES 2

SPRINKLERED YES, DEFERRED SUBMITTAL

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### VIRGINIA ST RESIDENCE

402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

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ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 23
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 3

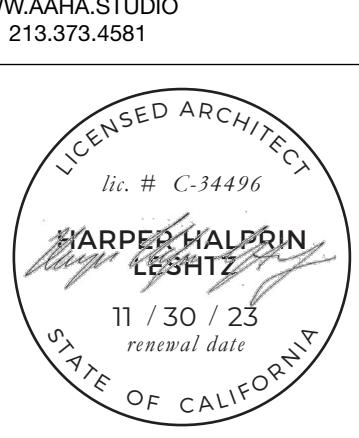
### TITLE SHEET

A000

<b>GENERAL DOOR AND WINDOW NOTES</b>	<b>GENERAL SITE PLAN NOTES</b>	<b>GENERAL ROOF PLAN NOTES</b>	<b>REFLECTED CEILING PLAN NOTES</b>	<b>GENERAL DEMOLITION NOTES</b>	<b>GENERAL FLOOR PLAN NOTES</b>	<b>DRAWING SYMBOL LEGEND</b>
<p>1. VERIFY ALL EXISTING DOOR AND WINDOW DIMENSIONS IN FIELD IF APPLICABLE.</p> <p>2. IN THE EVENT AN EXISTING DOOR OR WINDOW IS TO BE REPLACED, OR REPAIRED, IT MUST MATCH THE ORIGINAL DESIGN, COLOR, AND MATERIALS. VERIFY IF DOOR OR WINDOW NEEDS TO BE CODE COMPLIANT.</p> <p>3. ALL GLAZING SHALL BE SPECIFIED PER TITLE 24 UNLESS OTHERWISE NOTED. PROVIDE SAMPLE FOR REVIEW AND APPROVAL BY ARCHITECT AND OWNER.</p> <p>4. WHERE REQUIRED BY CODE, ALL GLAZING SHALL BE TEMPERED UNLESS OTHERWISE NOTED.</p> <p>5. GLAZING IN HAZARDOUS LOCATIONS SHALL BE TEMPERED. (LARC R508, LABC SECTION 2404.4) FIXED OR OPERABLE PANELS IN HAZARDOUS LOCATIONS SHALL BE APPROVED AS OPERABLE PANELS ADJACENT TO DOORS, FIXED OR OPERABLE WINDOW PANELS WITH PANES LARGER THAN 9 SQUARE FEET AND ARE LESS THAN 18 INCHES ABOVE THE FLOOR, AND A TOP EDGE OF THE GLAZING IS LOCATED 18 INCHES ABOVE ONE OF MORE WALKING SURFACES WITHIN 36 INCHES, MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING, INCLUDING LANDINGS, ADJACENT TO STAIRS AND RAMPS, AND ADJACENT TO BOTTOM STAIR LANDINGS.</p> <p>6. ALIGN TOPS OF WINDOWS WITH TOPS OF DOORS IN A LEVEL PLANE ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED.</p> <p>7. CONTRACTOR SHALL VERIFY ALL WINDOW AND DOOR ROUGH OPENING DIMENSIONS WITH MANUFACTURER PRIOR TO FRAMING.</p> <p>8. CONTRACTOR SHALL REVIEW AND APPROVE SHOP DRAWINGS OF ALL DOOR AND WINDOW UNITS, SYSTEMS AND ASSEMBLIES WITH FIELD VERIFIED DIMENSIONS PRIOR TO SUBMITTAL TO ARCHITECT FOR ARCHITECT'S REVIEW AND APPROVAL.</p> <p>9. ALL FRAMES TO MATCH CORRESPONDING WINDOW AND DOOR FINISH UNLESS OTHERWISE NOTED.</p> <p>10. SEE FLOOR PLANS AND ELEVATIONS FOR WINDOW AND DOOR SWING DIRECTION.</p> <p>11. PROVIDE 32" WIDE DOORS TO ALL INTERIOR ACCESSIBLE ROOMS WITHIN A DWELLING UNIT. (LARC SECTION R311.2, LABC SECTION 6304.1)</p> <p>12. ALL REQUIRED EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPEN AREA OF 5' SQAUE FEET, THE MINIMUM NET CLEAR OPEN WIDTH SHALL BE 24". THE MAXIMUM CLEAR OPEN WIDTH DIMENSION SHALL BE 20" WHEN WINDOWS ARE PROVIDED AS MEANS OF ESCAPE OR RESCUE THEY SHALL HAVE A FINISHED SILL HEIGHT NOT MORE THAN 42" FROM THE FINISH FLOOR. (LABC SECTION R310, LABC SECTION 1029)</p> <p>13. WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE, THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR.</p> <p>14. INTERIOR DOOR SHALL HAVE A CLEARANCE NOT MORE THAN 3/8" ABOVE FINISH.</p> <p>15. ALL EXTERIOR METAL THRESHOLD FINISHES SHALL MATCH HARDWARE UNLESS OTHERWISE NOTED.</p> <p>16. ALL WOOD DOORS SHALL BE SOLID WOOD UNLESS OTHERWISE NOTED.</p> <p>17. ALL DOORS SHALL HAVE A MINIMUM OF 3 HINGES PER LEAF UNLESS OTHERWISE NOTED. VERIFY FINISH AND HARDWARE SPECIFICATIONS WITH ARCHITECT.</p> <p>18. ALL DOOR AND WINDOW FINISHES SHALL BE REVIEWED BY ARCHITECT AND APPROVED BY OWNER PRIOR TO FABRICATION, IF REQUIRED.</p> <p>19. AGGREGATE GLAZING AREA OF HABITABLE ROOMS MUST BE A MINIMUM 8% OF THE ROOM FLOOR AREA.</p> <p>20. MINIMUM OPENABLE AREA OF HABITABLE ROOMS MUST BE 4% OF THE FLOOR AREA.</p>	<p>1. CONTRACTOR TO PROVIDE SHORING AND BRACING PRIOR TO AND DURING ANY DEMOLITION AS REQUIRED.</p> <p>2. CONTRACTOR TO PROVIDE WEATHER PROTECTION DURING DEMOLITION AND CONSTRUCTION OF ADJOINING SURFACES AND SPACES. ALL AREAS NOT IMPACTED BY CONSTRUCTION SHALL BE LEFT IN SAME CONDITION FOUND PRIOR TO START OF CONSTRUCTION UNLESS OTHERWISE NOTED.</p> <p>3. CONTRACTOR TO PROVIDE DUST CONTROL DURING DEMOLITION AND CONSTRUCTION.</p> <p>4. SITE TO BE KEPT CLEAN AND IN ACCORDANCE WITH A SITE MAINTENANCE PLAN.</p> <p>5. STREET, CURB, AND GUTTER AND SIDEWALK ARE TO BE PROTECTED FROM DAMAGE SUCH AS INDENTATIONS FROM TRASH CONTAINER OR OTHER HEAVY OBJECTS PLACED ON PAVEMENT DURING CONSTRUCTION.</p> <p>6. CONTRACTOR TO PROVIDE SECURITY CHAIN-LINK FENCE AROUND UNSECURED SITE AREAS.</p> <p>7. VERIFY EXISTING HARDCAPE AND LANDSCAPE TO BE REMOVED. NOTIFY ARCHITECT, DESIGNER, ARCHITECT, AND OWNER. ALL LANDSCAPE TO REMAIN SHALL BE MAINTAINED AND PROTECTED FROM DAMAGE.</p> <p>8. CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR OFF SITE IMPROVEMENTS.</p> <p>9. ALL OFFSITE IMPROVEMENTS SHALL BE DONE IN ACCORDANCE WITH PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS AND LOCAL REQUIREMENTS.</p> <p>10. AN APPROVED SEISMIC GAS SHUTOFF VALVE SHALL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE (SEPARATE FROM THE UTILITY METER).</p> <p>11. PROVIDE 5/8" PLYWOOD SHEATHING OVER 2X STRIPPING @ 16" O.C. OVER ROOF DIAPHRAGM TO PROVIDE SLOPE TO RAINS.</p> <p>12. WATER SHALL NOT BE ALLOWED TO PUDLE ON ANY PART OF THE ROOF AND NO OBSTACLE SHALL PREVENT WATER TO FLOW TO DRAINS.</p> <p>13. BUILDING SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS, OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.</p> <p>14. PROVIDE 10 YEAR WARRANTY AGAINST LEAKAGE.</p> <p>15. RESIDENTIAL SWIMMING POOLS SHALL HAVE A POOL ENCLOSURE AS REQUIRED BY SECTION AG105 OF THE 2013 CRC.</p> <p>16. IMPERVIOUS SURFACE SHALL BE SLOPED AWAY FROM BUILDING AT 2% MINIMUM SLOPE FOR A MINIMUM DISTANCE OF 10 FEET; LOT SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS PER R401.2.</p> <p>17. MECHANICAL EQUIPMENT SHALL BE MOUNTED ON MASON SPRING ISOLATORS (SLRA-15 OR APPROVED EQUIVALENT) PROVIDED BY CONTRACTOR.</p> <p>18. ALL HARDCAPE ADJACENT TO THE STRUCTURE SHALL DRAIN ABOVE ROOF BY THE MINIMUM DISTANCE REQUIRED BY APPLICABLE CODES AND SHALL BE LOCATED IN AREAS NOT VISIBLE FROM STREET. EXACT LOCATION TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.</p> <p>19. NOTIFY THE GRADING INSPECTOR PRIOR TO THE START OF GRADING.</p> <p>20. THESE PLANS ARE FOR BUILDING PERMIT ONLY.</p> <p>21. A SEPARATE PERMIT SHALL BE REQUIRED FOR LANDSCAPE ELEMENTS, HARDCAPE, SWIMMING POOL, SPA, WATER FEATURES, AND FOUNTAINS.</p> <p>22. COLOR OF ALL EXPOSED VENTS AND ROOF STACKS TO MATCH ADJACENT ROOF MATERIAL, UNLESS SPECIFIED OTHERWISE BY ARCHITECT. PROVIDE PAINT SAMPLES FOR ARCHITECT'S APPROVAL.</p> <p>23. A SEPARATE PERMIT SHALL BE REQUIRED FOR MECHANICAL, ELECTRICAL, AND PLUMBING. ARCHITECT WILL PROCESS PLANS AND DRAWINGS FOR THE BUILDING PERMIT ONLY. THE CONTRACTOR WILL BE RESPONSIBLE TO SIGN AND OBTAIN THE BUILDING PERMIT ON BEHALF OF THE OWNER.</p> <p>24. ATTIC VENTILATION SHALL BE A MIN OF 1/300 OF THE AREA TO BE VENTILATED. THIS SHALL HAVE A VAPOUR RETARDER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM, INSTALLED ON THE WARM SIDE OF THE INSULATION.</p> <p>25. VENTILATION IS NOT REQUIRED IN AREAS WHERE ROOF INSULATION IS INSTALLED BETWEEN RAFTERS WITH NO AIR SPACE INSULATION IN ATTIC AND EXTERIOR SHEATHING.</p> <p>26. VENTS SHALL BE CONSTRUCTED WITH 16 OZ COPPER LOUVERS AND MAX 1/4" X 1/4" COPPER WIRE CLOTH PER S.M.A.C.N.A. CODES. LOUVERS SHALL BE DESIGNED SO THAT WATER IS DEFLECTED IN A DRIVING RAIN.</p> <p>27. FENCE/WALL/HANDRAL AND HEDGE HEIGHT AS MEASURED FROM THE LOWEST FINISHED GRADE ADJACENT TO EACH SECTION OF THESE STRUCTURES, MADE BE A MAXIMUM OF 42" IN THE FRONT YARD SETBACK, AND 6' AT ALL OTHER LOCATIONS ON THE LOT IN DRIVEWAY, VISIBILITY TRIANGLE AND TRAFFIC VISION PERFORMANCE TRIANGLE.</p> <p>28. THE CONSTRUCTION SHALL NOT PROVIDE OVER 4 FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, ETC.). THE ELECTRICAL ENGINEER SHALL PROVIDE OVERHEAD CONSTRUCTION, SHALL NOT BE WITHIN 10 FEET OF ANY POWER LINES, WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND / OR ADDITIONAL EXPENSES.</p> <p>29. PROVIDE A 42 INCH GUARDRAIL ON TOP OF THE WALL FOR YARD AREAS WHICH DROP VERTICALLY MORE THAN 30 INCHES.</p> <p>30. SEPARATE PERMITS AND PLANS ARE REQUIRED FOR SPAS, POOL/SPA SYSTEMS, DEMOLITION, AND CONSTRUCTION OF EXISTING BUILDINGS. SUCH IMPROVEMENTS OR DEMOLITION IS REQUIRED AS A CONDITION OF APPROVAL FOR DISCRETIONARY ACTIONS OR TO COMMENCE BUILDING, THEN SUCH PERMITS MUST BE OBTAINED BEFORE OR AT THE TIME THIS PROPOSED BUILDING PERMIT IS ISSUED.</p>	<p>1. ROOF SLOPES ARE SHOW DIRECTLY ON ROOF PLAN.</p> <p>2. ALL FLAT ROOF AND BALCONIES SHALL SLOPE A MINIMUM OF 2% TOWARD DRAINS.</p> <p>3. PROVIDE 5/8" PLYWOOD SHEATHING OVER 2X STRIPPING @ 16" O.C. OVER ROOF DIAPHRAGM TO PROVIDE SLOPE TO RAINS.</p> <p>4. WATER SHALL NOT BE ALLOWED TO PUDLE ON ANY PART OF THE ROOF AND NO OBSTACLE SHALL PREVENT WATER TO FLOW TO DRAINS.</p> <p>5. BUILDING SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS, OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.</p> <p>6. ALL DOWNSPOUTS AND RUNOFF TO DRAIN TO STORMWATER CISTERNS. REFER TO CIVIL PLANS.</p> <p>7. IMPERVIOUS SURFACE SHALL BE SLOPED AWAY FROM BUILDING AT 2% MINIMUM SLOPE FOR A MINIMUM DISTANCE OF 10 FEET; LOT SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS PER R401.2.</p> <p>8. MECHANICAL EQUIPMENT SHALL BE MOUNTED ON MASON SPRING ISOLATORS (SLRA-15 OR APPROVED EQUIVALENT) PROVIDED BY CONTRACTOR.</p> <p>9. ALL VENTS AND ROOF STACKS TO HAVE RAIN PROTECTION CAPS.</p> <p>10. PROVIDE WATERPROOFING AT ALL ROOF PENETRATIONS. ALL JOINTS AT SHEET METAL SHALL BE CAULKED.</p> <p>11. COLOR OF ALL EXPOSED VENTS AND ROOF STACKS TO MATCH ADJACENT ROOF MATERIAL, UNLESS SPECIFIED OTHERWISE BY ARCHITECT. PROVIDE PAINT SAMPLES FOR ARCHITECT'S APPROVAL.</p> <p>12. ATTIC VENTILATION SHALL BE A MIN OF 1/300 OF THE AREA TO BE VENTILATED. THIS SHALL HAVE A VAPOUR RETARDER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM, INSTALLED ON THE WARM SIDE OF THE INSULATION.</p> <p>13. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS. ANY APPLICATION FORMS OR DRAWINGS REQUIRED FOR SAID PERMITS WILL BE PREPARED BY THE ARCHITECT AND REMUNERATION SHALL BE INCLUDED IN THE BID.</p> <p>14. VENTS SHALL BE CONSTRUCTED WITH 16 OZ COPPER LOUVERS AND MAX 1/4" X 1/4" COPPER WIRE CLOTH PER S.M.A.C.N.A. CODES. LOUVERS SHALL BE DESIGNED SO THAT WATER IS DEFLECTED IN A DRIVING RAIN.</p> <p>15. FENCE/WALL/HANDRAL AND HEDGE HEIGHT AS MEASURED FROM THE LOWEST FINISHED GRADE ADJACENT TO EACH SECTION OF THESE STRUCTURES, MADE BE A MAXIMUM OF 42" IN THE FRONT YARD SETBACK, AND 6' AT ALL OTHER LOCATIONS ON THE LOT IN DRIVEWAY, VISIBILITY TRIANGLE AND TRAFFIC VISION PERFORMANCE TRIANGLE.</p> <p>16. PROVIDE A 42 INCH GUARDRAIL ON TOP OF THE WALL FOR YARD AREAS WHICH DROP VERTICALLY MORE THAN 30 INCHES.</p> <p>17. SEPARATE PERMITS AND PLANS ARE REQUIRED FOR SPAS, POOL/SPA SYSTEMS, DEMOLITION, AND CONSTRUCTION OF EXISTING BUILDINGS. SUCH IMPROVEMENTS OR DEMOLITION IS REQUIRED AS A CONDITION OF APPROVAL FOR DISCRETIONARY ACTIONS OR TO COMMENCE BUILDING, THEN SUCH PERMITS MUST BE OBTAINED BEFORE OR AT THE TIME THIS PROPOSED BUILDING PERMIT IS ISSUED.</p>	<p>1. ALL CEILINGS SHALL BE 5/8" TYPE "X" GYPSUM BOARD WITH SKIMCOAT, SEE SPECIFICATIONS.</p> <p>2. VERIFY ALL CEILING HEIGHTS, CEILING DESIGNS, AND ALIGNMENTS WITH INTERIOR ELEVATIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.</p> <p>3. REFER TO ELECTRICAL PLAN FOR FIXTURE SCHEDULES, SPECIFICATIONS, SWITCHING, OUTLETS, HEATER, ETC.</p> <p>4. PROVIDE MOCK-UP SAMPLES OF ALL CEILING TREATMENTS AND DESIGN ELEMENTS FOR APPROVAL BY INTERIOR DESIGNER, ARCHITECT, AND OWNER PRIOR TO FABRICATION AND INSTALLATION.</p> <p>5. COORDINATE LIGHTING FIXTURE LAYOUTS WITH STRUCTURAL PLANS. PROVIDE HEAD CUTS AS REQUIRED. NOTIFY ARCHITECT OF ANY DISCREPANCIES.</p> <p>6. COORDINATE CURTAIN POCKETS WITH STRUCTURAL PLANS. PROVIDE HEAD CUTS AS REQUIRED. NOTIFY ARCHITECT OF ANY DISCREPANCIES.</p> <p>7. COORDINATE LIGHTING FIXTURE LAYOUTS WITH STRUCTURAL PLANS. PROVIDE HEAD CUTS AS REQUIRED. NOTIFY ARCHITECT OF ANY DISCREPANCIES.</p> <p>8. COORDINATE CURTAIN POCKETS WITH STRUCTURAL PLANS. PROVIDE HEAD CUTS AS REQUIRED. NOTIFY ARCHITECT OF ANY DISCREPANCIES.</p> <p>9. SRI VALUE = .41</p> <p>10. SLOPED ROOF:</p> <p>CLASS "A" STANDING SEAM METAL ROOF</p> <p>11. SLOPED ROOF:</p> <p>CLASS "A" GAUGE METALLIC COATED STEEL METAL. NOT TO EXCEED 15°.</p> <p>12. PANEL WIDTH:</p> <p>ICC-ES-1082</p> <p>13. COLOR:</p> <p>SOLAR REFLECTANCE - 0.39</p> <p>THERMAL EMISSANCE (EMISSIVITY) - 0.84</p> <p>SRI VALUE = .41</p> <p>14. CONTRACTOR SHALL VERIFY CLASS "A" ASSEMBLY WITH MANUFACTURER, SEE SPECS. ON SHEET XXXX. PROVIDE WALK PADS FROM ROOF ACCESS HATCH TO ALL MECHANICAL EQUIPMENT.</p> <p>15. CONTRACTOR SHALL VERIFY CLASS "A" STANDING SEAM METAL ROOF.</p> <p>16. CONTRACTOR SHALL VERIFY CLASS "A" GAUGE METALLIC COATED STEEL METAL. NOT TO EXCEED 15°.</p> <p>17. CONTRACTOR SHALL VERIFY CLASS "A" ROMAN PAN ROOF BAJA MISCELLANEOUS COLOR BLEND BY REDLANDS ROOF TILE THREE (3) COLOR BLEND. VERIFY COLOR WITH ARCHITECT. LARR#25124, ICC-ES 1489, OVER 2-LAYER LAYFAST SBS TU 43, SEE SPECS</p> <p>18. CONTRACTOR SHALL PROVIDE SECURITY CHAIN-LINK FENCE AROUND UNSECURED SITE AREAS.</p> <p>19. CONTRACTOR SHALL TEST ALL CONCEALED DOWNSPOUTS FOR WATER LEAKAGE PRIOR TO CLOSING UP BUILDING AND SHALL PROVIDE A 10 YEAR WARRANTY AGAINST LEAKAGE.</p> <p>20. ALL DOWNSPOUTS AND RUNOFF TO DRAIN TO STORMWATER CISTERNS. REFER TO CIVIL PLANS.</p> <p>21. IMPERVIOUS SURFACE SHALL BE SLOPED AWAY FROM BUILDING AT 2% MINIMUM SLOPE FOR A MINIMUM DISTANCE OF 10 FEET; LOT SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS PER R401.2.</p> <p>22. MECHANICAL EQUIPMENT SHALL BE MOUNTED ON MASON SPRING ISOLATORS (SLRA-15 OR APPROVED EQUIVALENT) PROVIDED BY CONTRACTOR.</p> <p>23. ALL HARDCAPE ADJACENT TO THE STRUCTURE SHALL DRAIN ABOVE ROOF BY THE MINIMUM DISTANCE REQUIRED BY APPLICABLE CODES AND SHALL BE LOCATED IN AREAS NOT VISIBLE FROM STREET. EXACT LOCATION TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.</p> <p>24. NOTIFY THE GRADING INSPECTOR PRIOR TO THE START OF GRADING.</p> <p>25. THESE PLANS ARE FOR BUILDING PERMIT ONLY.</p> <p>26. A SEPARATE PERMIT SHALL BE REQUIRED FOR LANDSCAPE ELEMENTS, HARDCAPE, SWIMMING POOL, SPA, WATER FEATURES, AND FOUNTAINS.</p> <p>27. COLOR OF ALL EXPOSED VENTS AND ROOF STACKS TO MATCH ADJACENT ROOF MATERIAL, UNLESS SPECIFIED OTHERWISE BY ARCHITECT. PROVIDE PAINT SAMPLES FOR ARCHITECT'S APPROVAL.</p> <p>28. A SEPARATE PERMIT SHALL BE REQUIRED FOR MECHANICAL, ELECTRICAL, AND PLUMBING. ARCHITECT WILL PROCESS PLANS AND DRAWINGS FOR THE BUILDING PERMIT ONLY. THE CONTRACTOR WILL BE RESPONSIBLE TO SIGN AND OBTAIN THE BUILDING PERMIT ON BEHALF OF THE OWNER.</p> <p>29. ATTIC VENTILATION SHALL BE A MIN OF 1/300 OF THE AREA TO BE VENTILATED. THIS SHALL HAVE A VAPOUR RETARDER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM, INSTALLED ON THE WARM SIDE OF THE INSULATION.</p> <p>30. VENTILATION IS NOT REQUIRED IN AREAS WHERE ROOF INSULATION IS INSTALLED BETWEEN RAFTERS WITH NO AIR SPACE INSULATION IN ATTIC AND EXTERIOR SHEATHING.</p> <p>31. VENTS SHALL BE CONSTRUCTED WITH 16 OZ COPPER LOUVERS AND MAX 1/4" X 1/4" COPPER WIRE CLOTH PER S.M.A.C.N.A. CODES. LOUVERS SHALL BE DESIGNED SO THAT WATER IS DEFLECTED IN A DRIVING RAIN.</p> <p>32. FENCE/WALL/HANDRAL AND HEDGE HEIGHT AS MEASURED FROM THE LOWEST FINISHED GRADE ADJACENT TO EACH SECTION OF THESE STRUCTURES, MADE BE A MAXIMUM OF 42" IN THE FRONT YARD SETBACK, AND 6' AT ALL OTHER LOCATIONS ON THE LOT IN DRIVEWAY, VISIBILITY TRIANGLE AND TRAFFIC VISION PERFORMANCE TRIANGLE.</p> <p>33. PROVIDE A 42 INCH GUARDRAIL ON TOP OF THE WALL FOR YARD AREAS WHICH DROP VERTICALLY MORE THAN 30 INCHES.</p> <p>34. SEPARATE PERMITS AND PLANS ARE REQUIRED FOR SPAS, POOL/SPA SYSTEMS, DEMOLITION, AND CONSTRUCTION OF EXISTING BUILDINGS. SUCH IMPROVEMENTS OR DEMOLITION IS REQUIRED AS A CONDITION OF APPROVAL FOR DISCRETIONARY ACTIONS OR TO COMMENCE BUILDING, THEN SUCH PERMITS MUST BE OBTAINED BEFORE OR AT THE TIME THIS PROPOSED BUILDING PERMIT IS ISSUED.</p>	<p>1. REMOVAL OF THE EXISTING IMPROVEMENTS SHALL BE AS REQUIRED BY THE ARCHITECT. THE SITE SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER PER FEDERAL STATE AND / OR LOCAL LAWS AND ORDINANCES.</p> <p>2. IF ANY HAZARDOUS MATERIALS ARE ENCOUNTERED, THE OWNER SHALL BE NOTIFIED. THOSE MATERIALS SHALL BE REMOVED AND DISPOSED OF AS APPROPRIATE BY ALL GOVERNING AGENCIES AND IN A LANDFILL OR DISPOSAL FACILITY LICENSED TO ACCEPT HAZARDOUS MATERIAL.</p> <p>3. PRE-DEMOLITION PHOTOGRAPHS SHALL BE TAKEN THAT SHOW EXISTING CONDITIONS OF THE SITE AND ADJOINING BUILDINGS TO REMAIN. PHOTOS SHALL INCLUDE DAMAGE TO FINISH SURFACES THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY DEMOLITION OR DEMOLITION.</p> <p>4. SEPARATE PERMIT AND PLANS ARE REQUIRED FOR SPAS, POOL/SPA SYSTEMS, DEMOLITION, AND CONSTRUCTION OF EXISTING BUILDINGS. IF SUCH IMPROVEMENTS OR DEMOLITION IS REQUIRED AS A CONDITION OF APPROVAL FOR DISCRETIONARY ACTIONS OR TO COMMENCE BUILDING, THEN SUCH PERMITS MUST BE OBTAINED BEFORE OR AT THE TIME THIS PROPOSED BUILDING PERMIT IS ISSUED.</p> <p>5. SEE T24 FOR INSULATION.</p> <p>6. ROUGH CARPENTER TO COORDINATE FRAMING LAYOUT WITH LIGHTING, MECHANICAL, AND MEASURE PLANS AND INFORMATION FOR ANY DISCREPANCIES.</p> <p>7. THE CONTRACTOR SHALL PROVIDE PROTECTION FOR EXISTING BUILDINGS, PAVEMENT, SIDEWALKS, CURB, DRIVEWAYS, ELECTRICAL TRANSFORMERS, DITCHES, DRAINAGE PIPES, FENCES, LAWNS, TREES, BUSHES, POWER POLES, AND OTHER EXISTING FEATURES. THE EXISTING BUILDINGS AND / OR CONSTRUCTION SHALL BE RESTORED OR RECONSTRUCTED OR REPLACED BY THE CONTRACTOR AT THE EXPENSE OF DAMAGES. ALL REQUIRED FURNITURE, SOFTS, VOLUME CEILINGS AND NON-STRUCTURAL FRAMING SHALL BE INCLUDED IN BID.</p> <p>8. REFER TO REFLECTED CEILING PLANS, BUILDING SECTIONS, AND INTERIOR ELEVATIONS FOR VOLUME CEILINGS.</p> <p>9. ALL EXTERIOR STUDS SHALL BE 2X6 FRAMING UNLESS OTHERWISE NOTED. ALL INTERIOR WALLS SHALL BE 2X6 FRAMING UNLESS OTHERWISE NOTED. SPACING AND SPECIFICATION ARE PER STRUCTURAL DESIGNER.</p> <p>10. PROVIDE DRAFT STOPS AS REQUIRED IN SECTION R302.11 OF THE 2013 CRC. MINIMUM 24 INCHES CLEAR HEIGHT, 20 INCHES CLEAR WIDTH, 5.7 SQ. FT. MINIMUM AREA (5.0 SQ. FT. AT GRADE), AND 44 INCHES MAXIMUM TO WINDOW SILL.</p> <p>11. CONTRACTOR SHALL PROVIDE ALL REQUIRED SHIMMING SO THAT FINISH FLOOR MATERIALS ALIGN AT THE SAME ELEVATION, UNLESS OTHERWISE NOTED.</p> <p>12. CONTRACTOR SHALL COORDINATE ALL WINDOW AND DOOR ROUGH OPENING WITH MANUFACTURER.</p> <p>13. PROVIDE EMERGENCY EGGS FROM SLEEPING ROOMS ACCORDING TO SECTION R310 OF THE 2013 CRC. MINIMUM 24 INCHES CLEAR HEIGHT, 20 INCHES CLEAR WIDTH, 5.7 SQ. FT. MINIMUM AREA (5.0 SQ. FT. AT GRADE), AND 44 INCHES MAXIMUM TO WINDOW SILL.</p> <p>14. CONTRACTOR SHALL COORDINATE ALL PLUMBING FIXTURES AND APPLIANCES WITH INTERIOR DESIGNER.</p> <p>15. REQUIRED PARKING AREA IS TO BE 18' X 18' CLEAR OF ANY OBSTRUCTIONS NOT LESS THAN SEVEN (7) FEET ABOVE THE FINISH FLOOR TO ANY CEILING, BEAM, PIPE, VENT, MECHANICAL EQUIPMENT OR SIMILAR CONSTRUCTION.</p> <p>16. PROVIDE DRAFT STOPS AS REQUIRED IN SECTION R302.11 OF THE 2013 CRC. MINIMUM 24 INCHES CLEAR HEIGHT, 20 INCHES CLEAR WIDTH, 5.7 SQ. FT. MINIMUM AREA (5.0 SQ. FT. AT GRADE), AND 44 INCHES MAXIMUM TO WINDOW SILL.</p> <p>17. CONTRACTOR SHALL COORDINATE ALL STAIRWAYS SHALL BE ILLUMINATED (R303.7 &amp; R303.8).</p> <p>18. HEATER SHALL BE CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68°F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS AT THE DESIGN TEMPERATURE. (R303.9)</p>	<p>1. NO SCALE DRAWINGS. REFER TO DIMENSIONS AS SHOWN. COORDINATE PROJECT FOR ANY MISSING DIMENSIONS OR INFORMATION. ALL DIMENSIONS ARE TO FACE OF CONCRETE OR FACE OF STUD.</p> <p>2. VERIFY EXISTING CONDITIONS AND INFORM ARCHITECT OF ANY DISCREPANCIES.</p> <p>3. AN AUTOMATIC RESIDENTIAL SPRINKLER SYSTEM SHALL BE PROVIDED IN THE NEW DWELLING UNIT(S) PER R312. A RESIDENTIAL FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN NEW ATTACHED GARAGE PER R309.6.</p> <p>4. SEE T24 FOR INSULATION.</p> <p>5. ROUGH CARPENTER TO COORDINATE FRAMING LAYOUT WITH LIGHTING, MECHANICAL, AND MEASURE PLANS AND INFORMATION FOR ANY DISCREPANCIES.</p> <p>6. THE CONTRACTOR SHALL PROVIDE PROTECTION FOR EXISTING BUILDINGS, PAVEMENT, SIDEWALKS, CURB, DRIVEWAYS, ELECTRICAL TRANSFORMERS, DITCHES, DRAINAGE PIPES, FENCES, LAWNS, TREES, BUSHES, POWER POLES, AND OTHER EXISTING FEATURES. THE EXISTING BUILDINGS AND / OR CONSTRUCTION SHALL BE RESTORED OR RECONSTRUCTED OR REPLACED BY THE CONTRACTOR AT THE EXPENSE OF DAMAGES. ALL REQUIRED FURNITURE, SOFTS, VOLUME CEILINGS AND NON-STRUCTURAL FRAMING SHALL BE INCLUDED IN BID.</p> <p>7. REFER TO REFLECTED CEILING PLANS, BUILDING SECTIONS, AND INTERIOR ELEVATIONS FOR VOLUME CEILINGS.</p> <p>8. ALL EXTERIOR STUDS SHALL BE 2X6 FRAMING UNLESS OTHERWISE NOTED. ALL INTERIOR WALLS SHALL BE 2X6 FRAMING UNLESS OTHERWISE NOTED. SPACING AND SPECIFICATION ARE PER STRUCTURAL DESIGNER.</p> <p>9. PROVIDE DRAFT STOPS AS REQUIRED IN SECTION R302.11 OF THE 2013 CRC. MINIMUM 24 INCHES CLEAR HEIGHT, 20 INCHES CLEAR WIDTH, 5.7 SQ. FT. MINIMUM AREA (5.0 SQ. FT. AT GRADE), AND 44 INCHES MAXIMUM TO WINDOW SILL.</p> <p>10. 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<b>AHA STUDIO ARCHITECT</b>	<b>PROJECT NO. 2201</b>	<b>VIRGINIA ST RESIDENCE</b>	<b>OWNER'S CONSULTANTS</b>			
9856 WILSHIRE BLVD. LOS ANGELES, CA 90035 WWW.AHA.STUDIO O   213.373.4581	PROJECT NO. 2201	402 VIRGINIA ST EL SEGUNDO CA 90245	MARC CAVAGNOLI & SARAH TOWNSEND T: 408.355.4824 E: MCAGAVNOLI@GMAIL.COM			
<p><b>LICENSED ARCHITECT</b> Harper Halprin Lesht 11 / 30 / 23 Renewal Date State of California License # C-34496</p>						
<b>GENERAL SECTION NOTES</b>	<b>GENERAL ELECTR</b>					



AAHA STUDIO ARCHITECT  
9856 VIDOR DRIVE LOS ANGELES, CA 90035  
WWW.AAHA.STUDIO O | 213.373.4581



### VIRGINIA ST RESIDENCE

402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

OWNER'S CONSULTANTS  
PROPERTY OWNER  
MARC CAVAGNOLI & SARAH TOWNSEND  
T: 408.355.4824 E: MCAVAGNOLI@GMAIL.COM

ARCHITECT  
AAHA STUDIO  
9856 VIDOR DRIVE LOS ANGELES, CA 90035 T: 213.373.4581 E: HELLO@AAHA.STUDIO

CONTRACTOR  
STYLEQ CONSTRUCTION, INC.  
3856 W. EL SEGUNDO BLVD.  
EL SEGUNDO, CA 90250 T: 310.597.5445 E: STYLEQCONSTRUCTION@GMAIL.COM

STRUCTURAL ENGINEER  
PARIS & ASSOCIATES ENGINEERS  
118 S. CARSON AVE., SUITE E REDONDO BEACH, CA 90277 T: 310.318.6769

CIVIL ENGINEER  
LGS & ASSOCIATES  
1740 ELAINE AVE.  
ARTESIA, CA 90701 T: 562.584.1071

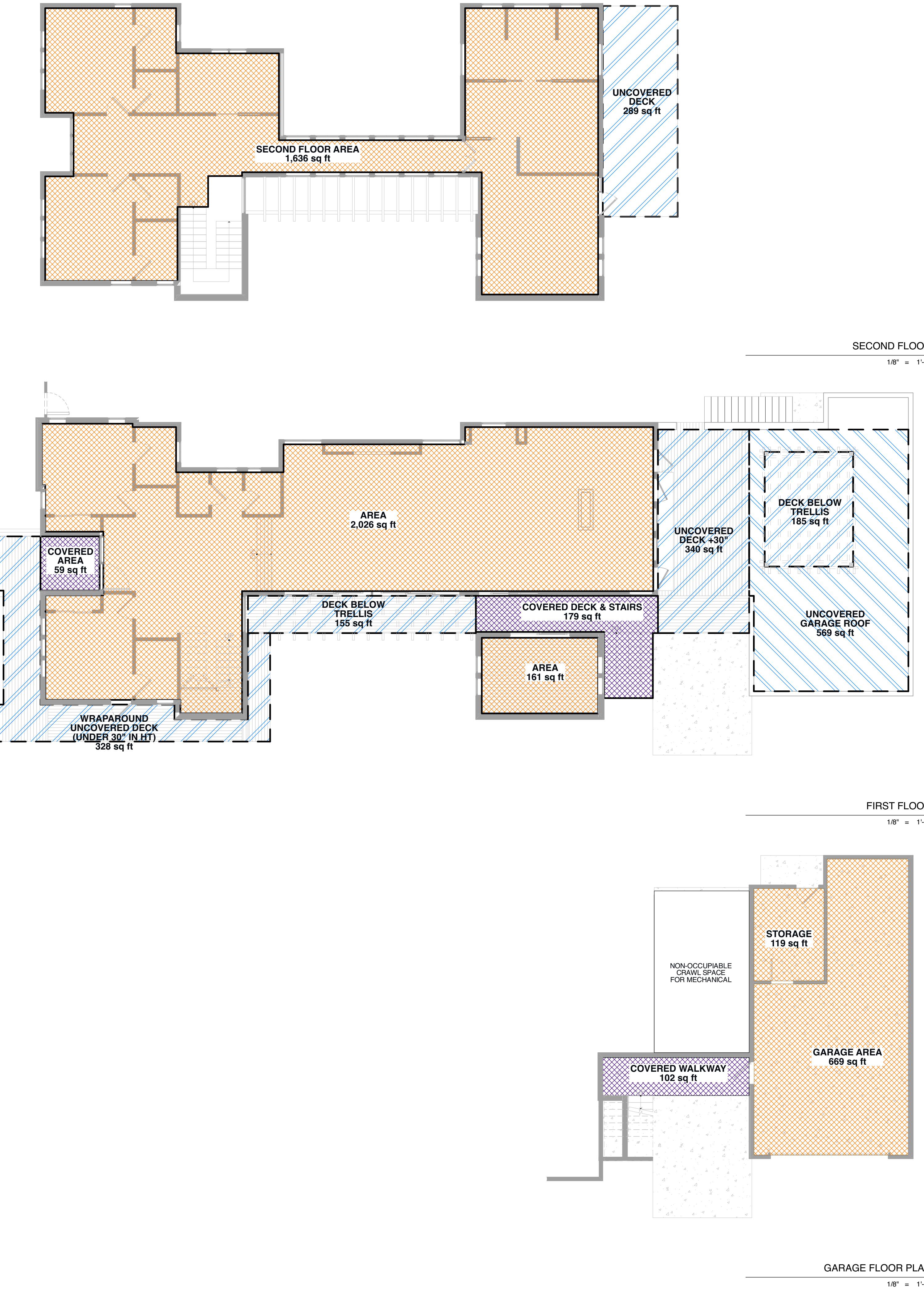
TSA CONSULTANT  
TITLE 24 DATA CORP  
633 MONTEREY TRAIL, POB 2199 FRAZIER PARK, CA 93225 T: 800-237-8824

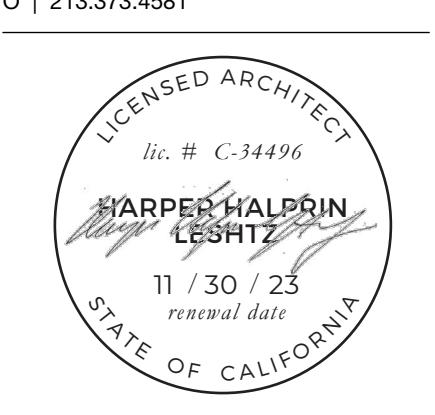
ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 2023
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 2

### FLOOR AREA PLANS

A002





ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 23
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

EL SEGUNDO FORMS
A003

Building Safety Division



Building Division Policy  
Date: 01/14/17  
Applicable Code: 2016 CalGreen  
Lucas Quach, Building Official

PC-17 201

WASTE REDUCTION AND RECYCLING PLAN						
Compliance Report						
2016 CALGREEN CODE Effective January 1, 2017						
CONSTRUCTION WASTE MANAGEMENT PLAN REQUIRED						
California Green Building Standards Code Sections 4.408 and 5.408 require the submittal of a construction waste management plan or the submittal of certified waste management facility receipts prior to final inspection. The Certificate of Occupancy (CO) and Temporary Certificate of Occupancy (TCO) cannot be issued without complete documentation and recycling facility receipts.						
Submit the complete form and documentation with original recycling facility receipts prior to final inspection. Original, dated recycling facility receipts showing project addresses are required.						
PROJECT INFORMATION						
Plan Check Number: C0113-22	Project Address: 402 VIRGINIA STREET					
Description of Work: DEMO OF (E) SFR AND (E) DETACHED GARAGE, CONSTRUCTION OF (N) 2-STORY SFR AND (N)						
Project Type: <input checked="" type="checkbox"/> Alteration <input type="checkbox"/> Construction <input type="checkbox"/> Demolition <input type="checkbox"/> Addition (Residential) <input type="checkbox"/> Addition (Commercial) <input type="checkbox"/> Tenant Improvement	Start Date:	Completion Date:				
ESTIMATED SQUARE FOOTAGE						
HOUSING CONTACT INFORMATION						
Name: MARC CAVAGNOLO & SARAH TOWNSEND	Address: 402 VIRGINIA STREET					
Company:						
Address: 402 VIRGINIA STREET	City: EL SEGUNDO					
Daytime Phone:	Cell Phone:	Email:				
REQUIRED DIVERSION AND ACKNOWLEDGMENT						
Project Type						
Project Area (square feet)						
Estimated Debris Weight (lbs)						
Required Diversion (Multiply Weight by 0.65)						
I hereby certify that I have read and state that this information is correct. I understand that the project final approval may be withheld until I comply with California Green Building Standards Code 4.408 or 5.408 which require a minimum of 65% construction and demolition waste diversion or the use of a certified waste management company.						
Applicant Signature		Date: 8/1/2022				

350 Main Street, El Segundo, CA 90245 (310)524-2380 www.elsegundo.org/depts/planningsafety/

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WASTE MANAGEMENT PLAN (WMP)/RECYCLING SUMMARY REPORT (RSR)						
PROJECT DIVERSION ACHIEVED						
Verifiable Project Diversion-Waste Reduction and Recycling Plan (Salvage, Reuse or Recycle): Fill out the following table with estimated tonnage for each material that will be generated (A = B + C). Original tags documenting this diversion are required. These tags will NOT be returned. If conversion factors are needed to convert weights, visit <a href="http://www.calrecycle.ca.gov/">http://www.calrecycle.ca.gov/</a>						
Material Type	A. Estimated Total Debris Quantity (tons)	B. Estimated Salvage, Reuse, or Recycle (tons)	C. Estimated Disposal (Trash) (tons)	Hauler	Certified Recycling Facility or Disposal Destination	
Asphalt and Concrete						
Brick/Masonry/Tile						
Cabinets, Doors, Fixtures, Windows (Circle applicable)						
Cardboard						
Carpet/Padding/Foam						
Ceiling Tile (acoustic)						
Dirt						
Drywall						
Landscape Debris						
Mixed C & D Debris						
Mixed Inerts						
Roofing Materials						
Scrap Metal						
Stucco						
Universal Waste						
Unpainted Wood & Pallets						
Garbage/Trash						
Other						
TOTAL	Total A:	Total B:				
Determine the Project's Overall Recycling Rate (Percentage): [Total B/Total A] x 100 = _____ %						
Example:						
TOTAL 20,000 13,400 6,000 6,000 6,000 6,000 6,000						
OVERALL RECYCLING RATE: 13,400/20,000 = .67 X 100 = 67%						
Project Notes (if needed):						

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CAL GREEN CODE - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING					
4.408.1, 5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with either Section 4.408.1, 5.408.1.					
4.408.2, 5.408.1.1 Construction waste management plan. Submit a construction waste management plan meeting Items 1 through 5 of Section 4.408.2 or Items 1 through 4 of Section 5.408.1.1.					
4.408.3, 5.408.1.2 Waste management company. Utilize a waste management company, approved by the City of El Segundo, which can provide verifiable documentation that diverted construction and demolition waste materials meet the requirements in Section 4.408.2 or 5.408.1.2.					
4.408.4, 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed 3.4 pounds per square foot of building area (4.408.4) or 2.0 pounds per square foot of building area (5.408.1.3) may be deemed to meet the 65 percent minimum requirement as approved by the El Segundo Building Safety Division.					
4.408.5, 5.408.1.4 Documentation. Documentation shall be provided to the inspector which demonstrates compliance with Sections 4.408.2, 4.408.3, or 4.408.4 or 5.408.1.1 through 5.408.1.3.					
5.408.3 Excavated soil and land clearing debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled.					
METHODS OF COMPLIANCE					
1. The contractor shall develop and maintain a waste management plan and document diversion and disposal, OR					
2. Utilize a waste management company that certifies a minimum 65% waste diversion, OR					
3. Waste stream reduction alternative.					
<ul style="list-style-type: none"> <li>Non-residential new construction projects with a combined disposal weight of less than 2 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.</li> <li>Residential low rise (3 stories or less) with a combined weight of new construction disposal less than 3.4 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.</li> <li>Residential high rise (4 stories or more) with a combined weight of new construction disposal less than 2 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.</li> </ul>					
RECYCLING BY OCCUPANTS (SPACE FOR RECYCLING)					
Newly constructed non-residential buildings, certain non-residential additions and multi-family housing with ≥ 5 units should provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at minimum) paper, corrugated cardboard, glass, plastics, organic waste and metals. (4.410.2, 5.410.1)					
UNIVERSAL WASTE (NONRESIDENTIAL PROJECTS)					
Universal waste (as defined in CALGreen Section 202) including batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes, cathode ray tube glass, aerosol cans from non-residential addition and alteration projects shall require verification that the materials are disposed of properly and diverted from landfills. A list of prohibited universal waste materials shall be included in the construction documents. This is required for non-residential projects subject to the requirements of the California Green Building Standards Code (additions of 1,000 square feet or greater and/or building alterations with a permit value of \$200,000 or more (CALGreen Sections 301.3 and 5.408.2).					

WHAT ARE CONSTRUCTION AND DEMOLITION MATERIALS?	
Materials	Components
Wood	Lumber, plywood, scraps, laminates (no pressure-treated wood)
Drywall	Sheetrock, gypsum, plaster
Metals	Pipes, rebar, flashing, steel, aluminum, copper, brass, stainless steel
Plastics	Vinyl siding, doors, windows, floor tiles, pipes
Roofing	Asphalt & wood shingles, slate, tile, roofing felt
Rubble	Asphalt, concrete, cinder block
Brick	Bricks and decorative blocks
Glass	Windows, mirrors, lights
Miscellaneous	Carpeting, fixtures, insulation, ceramic tile

### COMPLIANCE

Diversion of debris to a recycling facility does not require an additional step by the contractor or homeowner/builder. The difference is where the debris is hauled - to a recycling facility instead of a landfill.

The same methods of collection or containment that are used for waste disposal can be used for recycling. Typically, a haulers licensed to do business in the City already recycle the construction and demolition debris they transport method of meeting the requirements of the California Green Building Standards Code.

Sorting the waste into different types of material is not required or necessary to recycle. The debris can be taken to contractor or homeowner could get money back from the recycling facility for certain materials.

### ESTIMATION OF DEBRIS TONNAGE

This chart below illustrates the typical amount of construction debris created in pounds per square foot for the most common types of residential and non-residential projects.

### ESTIMATED DEBRIS GENERATION (pounds per square foot)

Category	Volume	Unit	Column I	Column II	Column III
Asphalt/Concrete					
Asphalt (broken)					
Concrete (broken)			CY	0.7	=
Concrete (solid slab)			CY	0.9	=
Brick/Masonry/Tile			CY	1.3	=
Brick (broken)			CY	0.7	=
Brick (whole, palletized)			CY	1.512	=
Masonry block (broken)			CY	0.6	=
Tile			SF	.00175	=
Building Materials (doors, fixtures, windows, plate glass, cabinets)			CY	.15	=
Cardboard			CY	.05	=
Carpet			SF	.0005	=
flat			CY	.3	=
loose			SF		
Carpet Padding/Foam			CY		
flat			SF		
loose			CY		
Ceiling Tiles			SF	.00013	=
Whole (Palletized)			SF	.0003	=
loose			CY	.0875	=
Drywall, new or used			CY		
1/4"			SF	.0008	=
5/8"			SF	.00105	=
mixed			CY	.25	=
Scrap Metal			CY	.453	=
Wood & Pallets (no pressure-treated lumber)			BD FT	.00138	=
clean, unpainted			CY	.15	=
loose			CY	.175	=
Non-Recyclable Debris			CY	.175	=
Recyclable Mixed Debris			CY	.175	=
CY - Cubic Yards, SQ FT = Square Feet, BD FT = Board Feet					

### CONSTRUCTION AND DEMOLITION MATERIALS CONVERSION WORKSHEET

Use this worksheet to convert from common construction units to TONS. This worksheet can be used to complete a Waste Management Plan (WMP) or Recycling Summary Report (RSR), but it does not have to be completed or submitted. WMPs and RSRs should be submitted with all materials listed in TONS.

Step 1. Calculate scrap or waste quantity for each material in typical units (square feet, board feet, or cubic yards). Calculate from materials take offs and waste factors. Enter into Column 1



AAHA STUDIO ARCHITECT  
9856 Vidor Drive  
Los Angeles, CA 90035

WWW.AAHA.STUDIO  
O | 213.373.4581



VIRGINIA ST RESIDENCE  
402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

**El Segundo Notes:**

City of El Segundo – Division of Building Safety

**VERIFYING THE EXISTENCE OF EASEMENTS**  
It is the responsibility of the applicant to verify the existence of easements and properly label them on the Plot/Site Plan. Structures may be prohibited from being constructed within easements without the easement holder's approval.  
*Signature of owner or owners agent*  
Date: 8/1/2022

**EROSION AND SEDIMENT CONTROL PLAN STATEMENT**  
I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, to the best of my knowledge and belief, the information submitted is true, accurate and complete. I am aware that submitting false and/or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/or adequately implement the ESCP may result in revocation of grading and/or other permits or other sanctions provided by law.  
*Signature of owner or owners agent*  
Date: \_\_\_\_\_

**ASBESTOS NOTIFICATION**  
X Notification Letter sent to AQMD and/or EPA.  
□ I declare that notification of asbestos removal is not applicable to this project.

**HAZARDOUS MATERIAL DECLARATION**  
Will the applicant or future building occupant handle a hazardous material or a mixture containing a hazardous material equal to or greater than the amount specified on the hazardous material information guide? (YES) (NO)

Will the intended use of the building by the applicant or future building occupant require a permit for construction or modification from the South Coast Air Quality Management District (SCAQMD)? (YES) (NO) See permitting checklist for guidelines.

I have read the hazardous materials information guide and the SCAQMD permitting checklist. I understand my requirements under the Los Angeles County Title 2, Chapter 220 Sections 220.11.00 through 220.14.00 concerning hazardous material reporting and for obtaining a permit from the SCAQMD.

**FINAL DECLARATION**  
By my signature below, I certify to each of the following:  
- I am the property owner or authorized to act on the property owner's behalf.  
- I have read this application INCLUDING THE ABOVE DECLARATIONS and state that the information INCLUDING THE ABOVE DECLARATIONS is correct.  
- I agree to comply with all applicable city and county ordinances and state laws relating to building construction.  
- I understand that this permit is applicable for me to build or alter the work specified herein, and it does not authorize or permit any violation or failure to comply with any applicable law. Furthermore, neither the City of El Segundo nor any board, department office, or employee thereof, make any warranty, nor shall be responsible for the performance or results of any work described herein, nor the condition of the property or on the soil upon which such work is performed. I further affirm under penalty of perjury, that the proposed work will not destroy or unreasonably interfere with any access or utility easement belonging to others and located on my property, but in the event such work does destroy or unreasonably interfere with such easement, a substitute easement(s) satisfactory to the holder(s) of the easement will be provided.  
*Applicant's Signature*  
Date: 8/1/2022

2017 El Segundo SFD Correction List Page 17 of 26 Updated 2/13/2018

**PLANNING AND BUILDING SAFETY**  
350 Main Street  
El Segundo, CA 90245  
Phone: (310) 524-2380  
Fax: (310) 322-4167  
elsegundo.org

**CERTIFICATE OF COMPLIANCE FOR WATER-CONSERVING PLUMBING FIXTURES**  
The purpose of this certificate is to certify the installation of water-conserving plumbing fixtures within existing buildings built and available for use on or before January 1, 1994, in lieu of an inspection when a permit is issued for building alterations or improvements. A signed copy of this certificate shall be submitted to the Building Inspector prior to final inspection. Existing noncompliant plumbing fixtures must be replaced with water-conserving plumbing fixtures in accordance with SB 407 (CA Civil Code Sections 1101.1-1101.8), which is attached to and part of this certification form.  
Property Address: 402 VIRGINIA STREET  
Permit # (if applicable): \_\_\_\_\_  
Unit number (e.g., Unit A, #203, etc.) when applicable: \_\_\_\_\_  
Per Civil Code Section 1101.3, non-compliant plumbing fixture means any of the following:  
(1) Any toilet manufactured to use more than 1.6 gallons of water per flush.  
(2) Any urinal manufactured to use more than one gallon of water per flush.  
(3) Any showerhead manufactured to have a flow capacity of more than 2.5 gallons of water per minute.  
(4) Any interior faucet that emits more than 2.2 gallons of water per minute.  
Water-conserving plumbing fixture means any fixture that is in compliance with current building standards applicable to a newly constructed real property of the same type.  
**Exceptions:** Per Civil Code Section 1101.7, this article shall not apply to any of the following (if applicable circle exception):  
a) Registered historical sites.  
b) Real property for which a licensed plumber certifies that due to age or configuration of the property or its plumbing, installation of water-conserving plumbing fixtures is not technically feasible. (Certification below must be signed by licensed plumbing contractor).  
c) A building for which water service is permanently disconnected.  
d) Building was built and available for use on or after January 1, 1994.  
I hereby certify that all existing plumbing fixtures are exempt pursuant to CA Civil Code Section 1101.7.  
Print Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Business Name (if applicable): \_\_\_\_\_ License Number: \_\_\_\_\_  
Please check one of the following, where applicable:  
□ Plumbing Contractor □ General Contractor □ Property Owner □ Owner's Agent □ Engineer □ Architect  
**Compliance:** I hereby certify that existing plumbing fixtures, affected by Civil Code, Sections 1101.1-1101.8 do not exceed the water usage of noncompliant plumbing fixtures and that existing noncompliant plumbing fixtures have been replaced with water-conserving plumbing fixtures installed pursuant to applicable current California Codes.  
Print Name: HARPER HALPRIN LESHTZ Date: 11/17/2022  
Signature: \_\_\_\_\_  
Business Name (if applicable): \_\_\_\_\_ License Number: C34496  
Please check one of the following, where applicable:  
□ Plumbing Contractor □ General Contractor □ Property Owner □ Owner's Agent □ Engineer □ Architect

**CERTIFICATE OF COMPLIANCE**  
Project Name: New Residence  
Calculation Description: Title 24 Analysis

CF1R-PRF-01E  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x

GENERAL INFORMATION											
01	Project Name	New Residence									
02	Run Title	Title 24 Analysis									
03	Project Location	402 Virginia Street									
04	City	El Segundo	05	Standards Version	2019						
06	Zip code	90245	07	Software Version	EnergyPro 8.3						
08	Climate Zone	6	09	Front Orientation (deg/ Cardinal)	270						
10	Building Type	Single family	11	Number of Dwelling Units	1						
12	Project Scope	NewConstruction	13	Number of Bedrooms	4						
14	Addition Cond. Floor Area (ft²)	0	15	Number of Stories	3						
16	Existing Cond. Floor Area (ft²)	n/a	17	Fenestration Average U-factor	0.3						
18	Total Cond. Floor Area (ft²)	3993	19	Glazing Percentage (%)	32.84%						
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a						
22	Is Natural Gas Available?	Yes									

COMPLIANCE RESULTS											
01	Building Complies with Computer Performance										
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.										
03	This building incorporates one or more Special Features shown below										

Registration Number: 422-P010056889A-000-000-000000-0000  
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CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.2.000 Report Generated: 2022-04-19 14:16:45  
Schema Version: rev20200901

**CERTIFICATE OF COMPLIANCE**  
Project Name: New Residence  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x

ZONE INFORMATION											
01	02	03	04	05	06	07	08	09	10	11	12
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2					
Storage Floor	Conditioned	#1 Res HVAC1	170	8	DHW Sys 1	N/A					
First Floor	Conditioned	#2 Res HVAC2	2010	11	DHW Sys 1	N/A					
Playroom	Conditioned	#2 Res HVAC2	161	8	DHW Sys 1	N/A					
Second Floor	Conditioned	#3 Res HVAC3	1000	9	DHW Sys 1	N/A					
Master Suite 2nd Floor	Conditioned	#4 Res HVAC4	652	9	DHW Sys 1	N/A					

OPAQUE SURFACES											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	Tilt (deg)				
Stor North Wall	Storage Floor	R-21 Wall	0	Left	94	9	90				
Stor South Wall	Storage Floor	8in R-15 Concrete Wall	270	Front	91	0	90				
1st North Wall	First Floor	R-21 Wall	0	Left	859	160.25	90				
1st South Wall	First Floor	R-21 Wall	180	Right	964	303.26	90				
1st East Wall	First Floor	R-21 Wall	90	Back	485	164.38	90				
1st West Wall	First Floor	R-21 Wall	270	Front	450	125	90				
Play North Wall	Playroom	R-21 Wall	0	Left	187	54	90				
Play South Wall	Playroom	R-21 Wall	180	Right	187	0	90				
Play East Wall	Playroom	R-21 Wall	90	Back	127	25	90				
Play West Wall	Playroom	R-21 Wall	270	Front	127	25	90				
2nd North Wall	Second Floor	R-21 Wall	0	Left	549	72	90				
2nd South Wall	Second Floor	R-21 Wall	180	Right	547	61.25	90				
2nd East Wall	Second Floor	R-21 Wall	90	Back	308.3	47.5	90				
2nd West Wall	Second Floor	R-21 Wall	270	Front	358.2	111.67	90				

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CA Building Energy Efficiency Standards - 2019 Residential Compliance  
Report Version: 2019.2.000 Report Generated: 2022-04-19 14:16:45  
Schema Version: rev20200901

**CERTIFICATE OF COMPLIANCE**  
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Input File Name: 137343-AAHA-rev04.19.22.rbd19x

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CF1R-PRF-01E  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x

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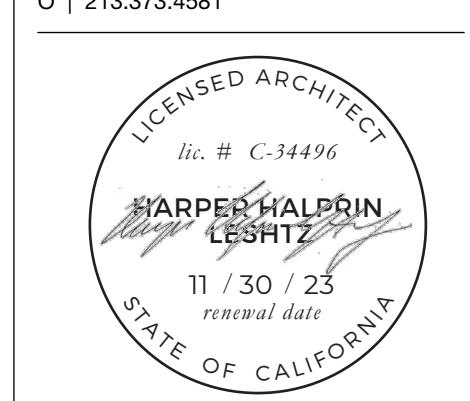
ENERGY DESIGN RATING											
Energy Design Ratings								Compliance Margins			
Efficiency <sup>1</sup> (EDR)				Total <sup>2</sup> (EDR)				Efficiency <sup>3</sup> (EDR)			
Standard Design				45.7				24.2			
Proposed Design				44.5				1.2			
RESULT: <sup>3</sup> COMPLIES											

1: Efficiency EDR includes improvements to the building envelope and more efficient equipment  
2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries  
3: Building complies when efficiency and total compliance margins are greater than or equal to zero

• Standard Design PV Capacity: 3.52 kWdc  
• PV System resized to 3.52 kWdc (a factor of 3.516) to achieve 'Standard Design PV' PV scaling

ENERGY USE SUMMARY											
Energy Use (kTDE/ft²-yr)				Standard Design		Proposed Design		Compliance Margin		Percent Improvement	
Space Heating	12.35		10.2			2.15		17.4			
Space Cooling	6.9		8.07			-1.17		-17			
IAQ Ventilation	3.04		3.04			0		0			
Water Heating	6.91		6.19			0.72		10.4			
Self Utilization/Flexibility Credit	n/a		0			0		n/a			
Compliance Energy Total	29.2		27.5			1.7		5.8			

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CERTIFICATE OF COMPLIANCE

Project Name: New Residence

Calculation Date/Time: 2022-04-19T14:10:24-07:00

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FENESTRATION / GLAZING														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	
1st S Window W17	Window	1st South Wall	Right	180			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	
1st S Glass Door 123	Window	1st South Wall	Right	180			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	
1st S Glass Door 152A	Window	1st South Wall	Right	180			1	105.3	0.3	NFRC	0.23	NFRC	Bug Screen	
1st S Glass Door 152B	Window	1st South Wall	Right	180			1	8	0.3	NFRC	0.23	NFRC	Bug Screen	
1st S Glass Door 160	Window	1st South Wall	Right	180			1	36	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 7	Window	1st East Wall	Back	90			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 11	Window	1st East Wall	Back	90			1	17.5	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 12	Window	1st East Wall	Back	90			1	17.5	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 13	Window	1st East Wall	Back	90			1	17.5	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 14	Window	1st East Wall	Back	90			1	17.5	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 16A	Window	1st East Wall	Back	90			1	39.38	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Window 16B	Window	1st East Wall	Back	90			1	10	0.3	NFRC	0.23	NFRC	Bug Screen	
1st E Glass Door 170	Window	1st East Wall	Back	90			1	27	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window 4	Window	1st West Wall	Front	270			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window 18	Window	1st West Wall	Front	270			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window 19	Window	1st West Wall	Front	270			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window 20	Window	1st West Wall	Front	270			1	15	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window (Entry)	Window	1st West Wall	Front	270			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Window (Entry) 2	Window	1st West Wall	Front	270			1	18	0.3	NFRC	0.23	NFRC	Bug Screen	
1st W Glass Door 100	Window	1st West Wall	Front	270			1	31.5	0.3	NFRC	0.23	NFRC	Bug Screen	
Play N Glass Door 180	Window	Play North Wall	Left	0			1	54	0.3	NFRC	0.23	NFRC	Bug Screen	
Play E Window 21	Window	Play East Wall	Back	90			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	
Play E Window 22	Window	Play East Wall	Back	90			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	
Play W Window 23	Window	Play West Wall	Front	270			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	

Registration Number: 422-P010056889A-000-000-00000-0000

Registration Date/Time: 04/20/2022 09:54

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

Calculation Date/Time: 2022-04-19T14:10:24-07:00

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Input File Name: 137343-AAHA-rev04.19.22.rbd19x

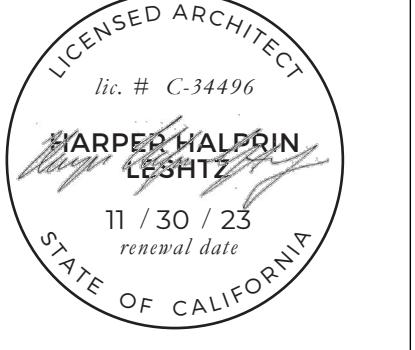
CERTIFICATE OF COMPLIANCE

Project Name: New Residence

Calculation Date/Time: 2022-04-19T14:10:24-07:00

(Page 8 of 18)

FENESTRATION / GLAZING														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	
Play W Window 24	Window	Play West Wall	Front	270			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window28	Window	2nd North Wall	Left	0			1	12.5	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 30	Window	2nd North Wall	Left	0			1	17.5	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 31	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 32	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 33	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 34	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 35	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd N Window 36	Window	2nd North Wall	Left	0			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 46	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 47	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd Window 48	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 49	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 50	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 51	Window	2nd South Wall	Right	180			1	7	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 58	Window	2nd South Wall	Right	180			1	8.75	0.3	NFRC	0.23	NFRC	Bug Screen	
2nd S Window 59	Window	2nd South Wall	Right	180			1	10.5	0.3	NFRC	0.2			



ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 2023
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK SUBMITTAL

TITLE 24  
CERTIFICATE OF  
COMPLIANCE  
**A007**

CERTIFICATE OF COMPLIANCE  
Project Name: New Residence  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Calculation Description: Title 24 Analysis

CF1R-PRF-01E  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x  
(Page 13 of 18)

WATER HEATERS												
01	02	03	04	05	06	07	08	09	10	11	12	
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	
DHW Heater 1	Gas	Consumer Instantaneous	1	0	0.93-UEF	<= 200 kbtu/hr	0	n/a	n/a	n/a	n/a	

WATER HEATING - HER'S VERIFICATION												
01	02	03	04	05	06	07	08					
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery					
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required					

SPACE CONDITIONING SYSTEMS												
01	02	03	04	05	06	07	08	09	10	11		
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count		
#1 Res HVAC1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	n/a	n/a	Setback	New	NA	1	1		
#2 Res HVAC2	Heating and cooling system other	Heating Component 2	Cooling Component 2	HVAC Fan 2	Air Distribution System 2	Setback	New	NA	1	1		
#3 Res HVAC3	Heating and cooling system other	Heating Component 3	Cooling Component 3	HVAC Fan 3	Air Distribution System 3	Setback	New	NA	1	1		
#4 Res HVAC4	Heating and cooling system other	Heating Component 4	Cooling Component 4	HVAC Fan 4	Air Distribution System 4	Setback	New	NA	1	1		

Registration Number: 422-P010056889A-000-000-000000-0000  
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CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Report Generated: 2022-04-19 14:16:45 Schema Version: rev20200901

CERTIFICATE OF COMPLIANCE  
Project Name: New Residence  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Calculation Description: Title 24 Analysis

CF1R-PRF-01E  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x  
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HVAC - DISTRIBUTION SYSTEMS												
01	02	03	04	05	06	07	08	09	10	11	12	
			Duct Ins. R-value		Duct Location		Surface Area					
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	
Air Distribution System 2	Unconditioned crawl space	Non-Verified	R-6	R-6	Crawl Space	Crawl Space	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 2-hers-dist	
Air Distribution System 3	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 3-hers-dist	
Air Distribution System 4	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 4-hers-dist	

HVAC DISTRIBUTION - HER'S VERIFICATION												
01	02	03	04	05	06	07	08	09				
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Ducts Entirely in Conditioned Space				
Air Distribution System 2-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No				
Air Distribution System 3-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No				
Air Distribution System 4-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No				

Registration Number: 422-P010056889A-000-000-000000-0000  
Registration Date/Time: 04/20/2022 09:54  
HERS Provider: CHEERS  
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CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Report Generated: 2022-04-19 14:16:45 Schema Version: rev20200901

CERTIFICATE OF COMPLIANCE  
Project Name: New Residence  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Calculation Description: Title 24 Analysis

CF1R-PRF-01E  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x  
(Page 14 of 18)

CERTIFICATE OF COMPLIANCE  
Project Name: New Residence  
Calculation Date/Time: 2022-04-19T14:10:24-07:00  
Calculation Description: Title 24 Analysis

CF1R-PRF-01E  
Input File Name: 137343-AAHA-rev04.19.22.rbd19x  
(Page 14 of 18)

HVAC - HEATING UNIT TYPES														
01	02	03	04											
Name	System Type	Number of Units		Heating Efficiency										

<tbl



## 2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the section for more information. \*Exceptions may apply.

(01/2020)

### Building Envelope Measures:

§ 110.6(j):	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101.3.2/A440-2011.*
§ 110.6(j):	<b>Latching.</b> Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather-stripped.
§ 110.7:	<b>Insulation Certification by Manufacturers.</b> Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	<b>Insulation Requirements for Heated Slab Floors.</b> Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(j):	<b>Roofing Products Solar Reflectance and Thermal Emittance.</b> The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(j) and be labeled per §10-113 when the installation of a cool roof is specified on the CTR.
§ 110.8(j):	<b>Radiant Barrier.</b> When required, radiant barriers must have an emittance of 0.05 or less and be certified by the Department of Consumer Affairs.
§ 150.0(a):	<b>Ceiling and Rafter Roof Insulation.</b> Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-10 or weighted average U-factor of 0.054 or less in a rafter roof insulation. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the deck or on top of a drywall ceiling.
§ 150.0(b):	<b>Loose-fill Insulation.</b> Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	<b>Wall Insulation.</b> Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less; or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.
§ 150.0(d):	<b>Raised-floor Insulation.</b> Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	<b>Slab Edge Insulation.</b> Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g):	<b>Vapor Retarder.</b> In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation slab floors for buildings complying with the exception to § 150.0(d).
§ 150.0(g):	<b>Vapor Retarder.</b> In climate zones 14 and 16, a Class I vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	<b>Fenestration Products.</b> Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a minimum U-factor of 0.56; or the weighted average U-factor of all fenestration must not exceed 0.58.
§ 110.5(e):	<b>Fireplaces, Decorative Gas Appliances, and Gas Log Measures:</b>
§ 150.0(e):	<b>Pilot Light.</b> Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e):	<b>Closable Doors.</b> Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e):	<b>Combustion Intake.</b> Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.
§ 150.0(e):	<b>Flue Damper.</b> Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.
§ 110.5(f):	<b>Space Conditioning, Water Heating, and Plumbing System Measures:</b>
§ 110.0-§ 110.3:	<b>Certification.</b> Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
§ 110.2(a):	<b>HVAC Efficiency.</b> Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	<b>Controls for Heat Pumps with Supplementary Electric Resistance Heaters.</b> Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-off temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
§ 110.2(c):	<b>Thermostats.</b> All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.
§ 110.3(c):	<b>Water Heating Recirculation Loops Serving Multiple Dwelling Units.</b> Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c).4.
§ 110.3(c):	<b>Isolation Valves.</b> Instantaneous water heaters with an input rating greater than 6.8 kW per hour (2 kW) must have isolation valves with hose bibbs or other fittings on cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	<b>Pilot Lights.</b> Continuously burning pilot lights are prohibited for natural gas; fan-type central furnaces, household cooking appliances (except appliances with a natural supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.*
§ 150.0(h):	<b>Building Cooling and Heating Loads.</b> Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h).2.



## 2019 Low-Rise Residential Mandatory Measures Summary

### Requirements for Ventilation and Indoor Air Quality:

§ 150.0(j):	<b>Requirements for Ventilation and Indoor Air Quality.</b> All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(j).
§ 150.0(j):	<b>Single Family Detached Dwelling Units.</b> Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupied spaces, public garages, or commercial spaces must have mechanical ventilation almost provided at rates determined by ASHRAE Standard 62.2, except as specified in § 150.0(j)(1).
§ 150.0(j):	<b>Multi-dwelling Attached Dwelling Units.</b> Multi-dwelling attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system and the dwelling-unit envelope leakage must be controlled per Reference Residential Appendix RA3.8.
§ 150.0(j):	<b>Multifamily Building Control Ventilation Systems.</b> Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 percent of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(j):	<b>Kitchen Range Hoods.</b> Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(j):	<b>Field Verification and Diagnostic Testing.</b> Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. A kitchen range hood must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated for HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
§ 150.0(k):	<b>Pool and Spa Systems and Equipment Measures:</b>
§ 110.4(a):	<b>Certification by Manufacturers.</b> Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on/off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b):	<b>Piping.</b> Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b):	<b>Covers.</b> Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b):	<b>Directional Inlets and Time Switches for Pools.</b> Directional inlets must adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	<b>Pilot Light.</b> Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	<b>Pool Systems and Equipment Installation.</b> Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.
§ 150.0(q):	<b>Lighting Measures:</b>
§ 110.9:	<b>Lighting Controls and Components.</b> All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 150.0(k):	<b>Luminaire Efficacy.</b> All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k):	<b>Blank Electrical Boxes.</b> The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or fan speed control.
§ 150.0(k):	<b>Recessed Downlight Luminaires in Ceilings.</b> Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k):	<b>Electronic Ballasts for Fluorescent Lamps.</b> Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k):	<b>Night Lights, Step Lights, and Path Lights.</b> Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k):	<b>Lighting Integral to Exhaust Fans.</b> Lighting integral to exhaust fans (except when installed in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k):	<b>Screw based luminaires.</b> Screw based luminaires must contain lamps that comply with Reference Joint Appendix JAB.*
§ 150.0(k):	<b>Light Sources in Enclosed or Recessed Luminaires.</b> Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k):	<b>Light Sources in Drawers, Cabinets, and Linen Closets.</b> Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k):	<b>Interior Switches and Controls.</b> All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k):	<b>Interior Switches and Controls.</b> Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k):	<b>Interior Switches and Controls.</b> Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k):	<b>Interior Switches and Controls.</b> Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k):	<b>Interior Switches and Controls.</b> Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k):	<b>Interior Switches and Controls.</b> Lighting controls must comply with the applicable requirements of § 110.9.



## 2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the section for more information. \*Exceptions may apply.

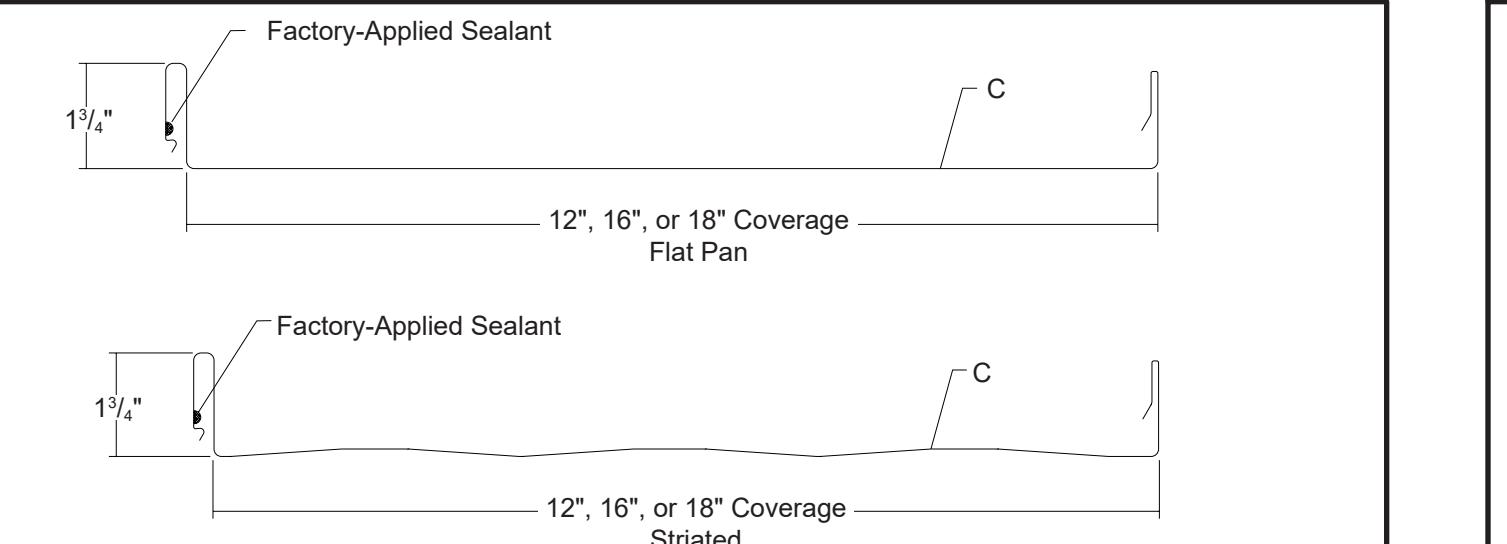
(01/2020)

### Building Envelope Measures:

§ 150.0(j):	<b>Air Leakage.</b> Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101.3.2/A440-2011.*
§ 150.0(j):	<b>Latching.</b> Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather-stripped.
§ 110.7:	<b>Insulation Certification by Manufacturers.</b> Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	<b>Insulation Requirements for Heated Slab Floors.</b> Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(j):	<b>Roofing Products Solar Reflectance and Thermal Emittance.</b> The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(j) and be labeled per §10-113 when the installation of a cool roof is specified on the CTR.
§ 110.8(j):	<b>Radiant Barrier.</b> When required, radiant barriers must have an emittance of 0.05 or less and be certified by the Department of Consumer Affairs.
§ 150.0(a):	<b>Ceiling and Rafter Roof Insulation.</b> Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-10 or weighted average U-factor of 0.054 or less in a rafter roof insulation. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the deck or on top of a drywall ceiling.
§ 150.0(b):	<b>Loose-fill Insulation.</b> Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	<b>Wall Insulation.</b> Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less; or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.
§ 150.0(d):	<b>Raised-floor Insulation.</b> Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	<b>Slab Edge Insulation.</b> Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g):	<b>Vapor Retarder.</b> In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation slab floors for buildings complying with the exception to § 150.0(d).
§ 150.0(g):	<b>Vapor Retarder.</b> In climate zones 14 and 16, a Class I vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
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§ 110.5(f):	<b>Space Conditioning, Water Heating, and Plumbing System Measures:</b>
§ 110.0-§ 110.3:	<b>Certification.</b> Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission.
§ 110.2(a):	<b>HVAC Efficiency.</b> Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	<b>Controls for Heat Pumps with Supplementary Electric Resistance Heaters.</b> Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-off temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
§ 110.2(c):	<b>Thermostats.</b> All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.
§ 110.3(c):	<b>Water Heating Recirculation Loops Serving Multiple Dwelling Units.</b> Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c).4.
§ 110.3(c):	<b>Isolation Valves.</b> Instantaneous water heaters with an input rating greater than 6.8 kW per hour (2 kW) must have isolation valves with hose bibbs or other fittings on cold and hot

## VERTICAL SEAM

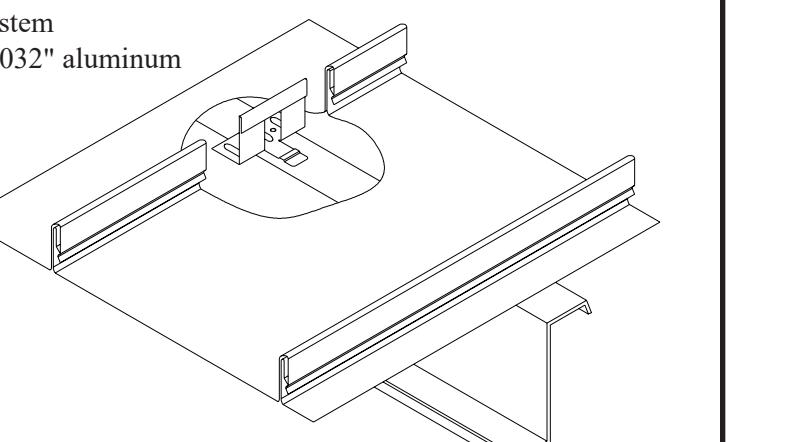
Condensed  
Technical  
Reference



ARCHITECTURAL COMMERCIAL PANEL CONCEALED FASTENED 12", 16" OR 18" COVERAGE MINIMUM SLOPE 1:12" OPEN FRAMING OR SOLID SUBSTRATE

### PANEL OVERVIEW

- Finishes: PVDF, MS Colorfast45® and Acrylic-Coated Galvalume®
- Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume® AZ50 per ASTM A 792 for painted Galvalume® G90 per ASTM A 653 for Galvanized
- Gauges: 24 ga standard; 26 ga and 22 ga optional
- 12", 16" or 18" panel coverage, 1/4" rib height
- Panel Length: Minimum: 5'; Maximum: 45' recommended
- Architectural, structural integral standing seam roof system
- Alternate materials include 16 and 20 oz copper and 0.032" aluminum
- Snap-together side lap with factory-applied sealant
- \* Minimum roof slope is 1:12 for solid substrates and 3:12 for open framing



### TESTING AND APPROVALS

- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance - Rating per assembly
- ASTM E 283 Air Leakage - 0.035 cfm/ft² at 1.57 psf
- ASTM E 331 Water Penetration - none at 12 psf
- ASTM E 1680 Air Leakage - 0.036 cfm/ft² at 6.24 psf
- ASTM E 1646 Water Penetration - none at 6.24 psf
- ASTM E 1592 Structural Performance
- UL 580 Uplift Resistance - Class 90 Constructions: #436, #446 and #448
- Texas Windstorm - Evaluation RC-412
- 2017 FBC Approvals - FL11560.10, FL11560.11, FL11560.12, FL11560.13 and FL11560.14
- Miami-Dade County, Florida - NOA 13-0905.05, expires 3/8/2019
- ICC Evaluation Report - ESR-2385

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## Color Guide

### PVDF Paint System



Visit [metalsales.us.com](http://metalsales.us.com) for valuable tools and resources.

### 45 Year Paint Warranty

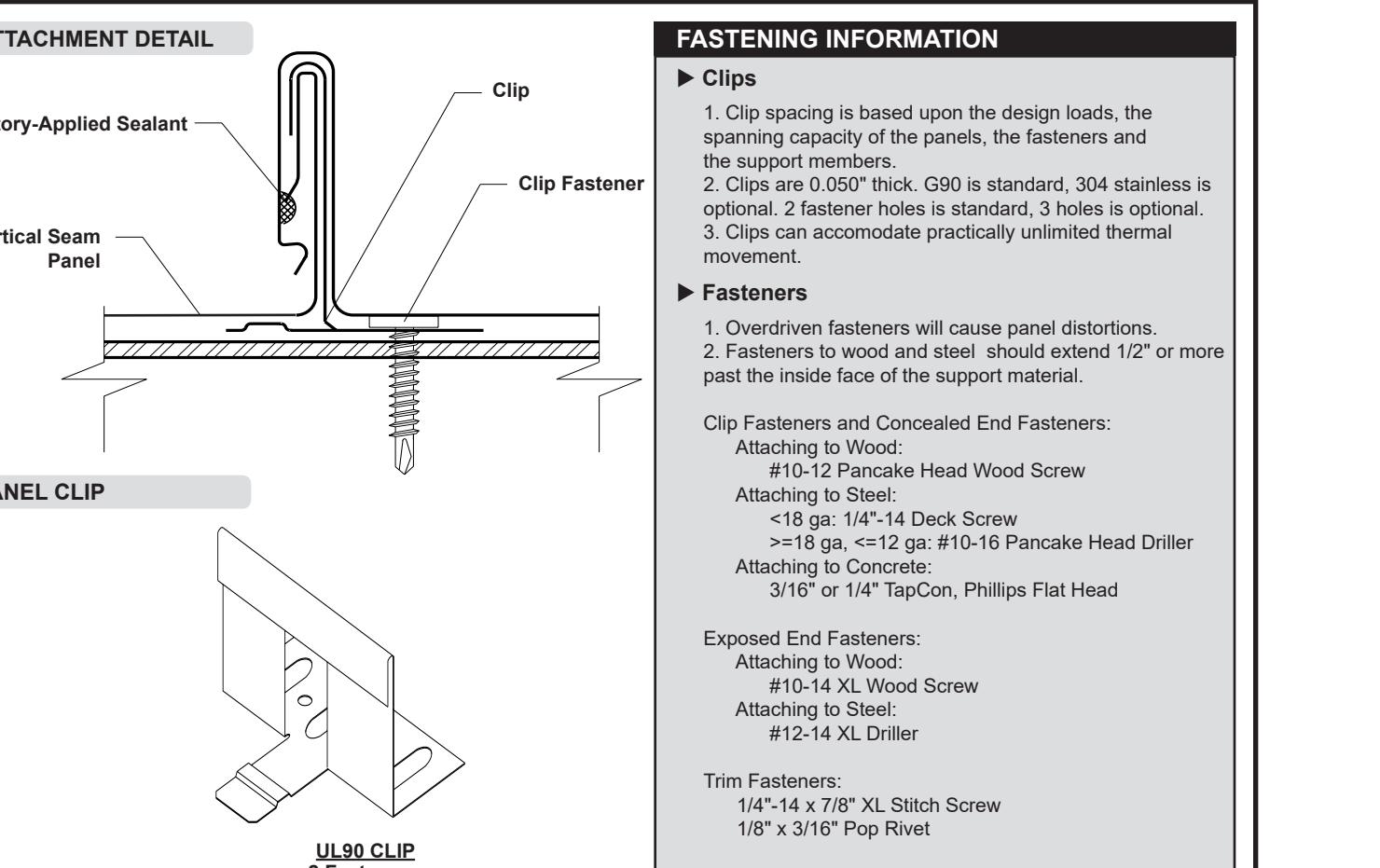
All colors carry a 45 year limited paint warranty.  
Color selections are close representations but are limited by printing and viewing conditions. Actual samples are available by request.

**24 GAUGE**

**24 GAUGE**

## VERTICAL SEAM

Condensed  
Technical  
Reference



SECTION PROPERTIES				ALLOWABLE UNIFORM LOADS, psf For various clip spacings										Inward Load					
Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load						
				Ixx in³/ft	Sxx in³/ft	Ixx in³/ft	Sxx in³/ft	2.5'	3'	3.5'	4'	4.5'	5'	2.5'	3'	3.5'	4'	4.5'	5'
26	12	50	1.06	0.0781	0.0530	0.0377	0.0408	148	104	77	59	-	-	55	49	42	36	-	-
26	16	50	0.97	0.0614	0.0402	0.0283	0.0306	114	79	58	45	-	-	55	49	42	36	-	-
26	18	50	0.94	0.0553	0.0358	0.0253	0.0273	-	-	-	-	-	-	-	-	-	-	-	-
24	12	50	1.36	0.1118	0.0774	0.0553	0.0567	204	143	105	81	64	52	44	43	42	41	40	39
24	16	50	1.26	0.0885	0.0589	0.0398	0.0419	153	107	79	61	48	39	42	38	34	30	27	24
24	18	50	1.22	0.0800	0.0526	0.0363	0.0372	136	98	70	54	43	35	33	30	27	24	20	19
22	12	50	1.81	0.1533	0.1071	0.0773	0.0773	284	198	146	112	89	72	69	67	65	60	58	56
22	16	50	1.66	0.1238	0.0822	0.0598	0.0579	213	149	110	84	66	54	51	48	45	36	35	33
22	18	50	1.60	0.1113	0.0736	0.0520	0.0515	190	132	97	75	59	48	31	30	29	29	28	27

1. Theoretical section properties have been calculated per AISI 2012 North American Specification for the Design of Cold-Formed Steel Structural Members.  
Ix = xx moment of inertia about the center of gravity; Iy = yy moment of inertia about the center of gravity.

(S2/2018)

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Bay City, MI 868.777.7640 Fontana, CA 800.782.7953 Sioux Falls, SD 800.899.8320

(S2/2018)

Deer Lake, PA 800.544.2577 Fort Smith, AR 877.452.3915 Spokane, WA 800.572.6565

(S2/2018)

Denver, CO 800.289.7683 Independence, MO 800.747.0012 Rock Island, IL 800.747.1206 Temple, TX 800.543.4415

(S2/2018)

Jacksonville, FL 800.594.1394 Rogers, AR 800.328.9316 Woodland, CA 800.759.6019

(S2/2018)

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SERVICE

ICC-ES Legacy Report

SBCCI-9650A  
Reissued December 2021  
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Legacy report on the 1999 Standard Building Code® and the 1998 International One and Two Family Dwelling Code®

The Subcommittee on Evaluation has reviewed the data submitted for compliance with the *Standard Building Code®* and the *International One and Two Family Dwelling Code®*. The following Officer(s) and committee having jurisdiction the following report. The Subcommittee on Evaluation, ICC-ES and its staff are not responsible for any errors or omissions to any documents, calculations, drawings, specifications, tests or summaries prepared or submitted by the design professional or preparer of record that are listed in the Substantiating Data Section of this report. Portions of this report were previously included in Evaluation Reports #9650.

REPORT NO.: 9650A

EXPIRES See the current EVALUATION REPORT INDEX

CATEGORY: ROOF COVERINGS AND ROOF DECK CONSTRUCTION

SUBMITTED BY:

O'HAGIN MANUFACTURING, LLC

1.0 PRODUCT TRADE NAME

O'HAGIN Cloaked Vent Tile (Aluminum, Galvanized Steel, or Copper)

2.0 SCOPE OF EVALUATION

2.1 Ventilation Openings  
2.2 Roof Covering Fire Classification

3.0 USES

O'HAGIN Cloaked Vent Tiles are installed on the slope of concrete or clay tile roofs to provide attic ventilation for wood framed roof construction.

4.0 DESIGNATION

4.1 General:  
O'HAGIN Cloaked Vent Tiles are manufactured from either 0.032 Aluminum, 26 Ga galvanized steel or 10 oz copper. The vent system consists of two vents - a Primary Vent sub flashing that includes over openings cut in the roof deck and a Secondary Vent that is installed over the Primary Vent and takes the place of two field tiles. The Primary Vent is screened with galvanized #4 mesh wire insect screen. The Secondary Vent is painted to match the surrounding tiles.

Model 50043 Flat: Installed using two 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank corrosion resistant roofing nails spaced 5 ½ inches on center around the perimeter. The Secondary Vents are installed over the Primary Vents as follows:

Models 50044-M and 50044-S: Installed using two 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank corrosion resistant roofing nails at the top of the vent and two 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails spaced 5 ½ inches on center along the long side of the vent and 4 ½ inches along the short side of the vent. The Secondary Vents are installed over the Primary Vents as follows:

Model 50044-M: Installed using two (1) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and two (2) 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50044-S: Installed using two (1) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and two (2) 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50043 Flat: Installed using five (5) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and an O'HAGIN Wind Clip installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50044 Flat: Installed using four (4) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and one (1) O'HAGIN Wind Clip installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50044-M: Installed using four (4) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and one (1) O'HAGIN Wind Clip installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50044-S: Installed using four (4) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and two (2) 1½-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

Model 50043 Flat: Installed using five (5) 1-inch-by-¾-inch-diameter head by ¼-inch-diameter shank electro galvanized roofing nails at the top of the vent and an O'HAGIN Wind Clip installed at the bottom of the vent. The Wind Clip hooks under the preceding course tile and is adjustable for head lap.

5.0 WIND UPLIFT:  
Wind uplift resistance is outside the scope of this evaluation report. The wind uplift shall be limited to the uplift capacity of the concrete and clay tile roof assemblies that the O'HAGIN vents are installed with.

6.0 LIMITATIONS:  
The vents shall be used only on wood framed roofs for buildings of Type V and VI Construction.

7.0 SUBMITTING DATA:  
The Submittal on Evaluation in review of the data submitted finds that, in their opinion, the O'HAGIN Cloaked Vent Tiles as described in this report conform with or are suitable alternates to that

## Sikalastic® RoofPro Top Coat Colors



Steel Gray



Pearl Gray



White



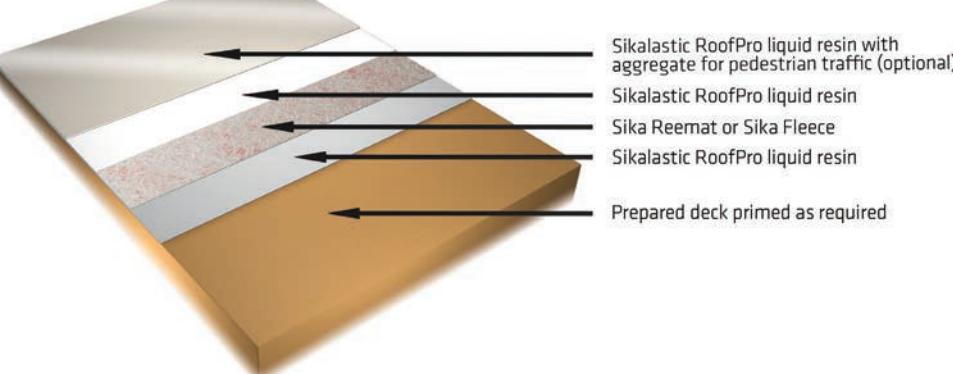
Mushroom



Copper Green

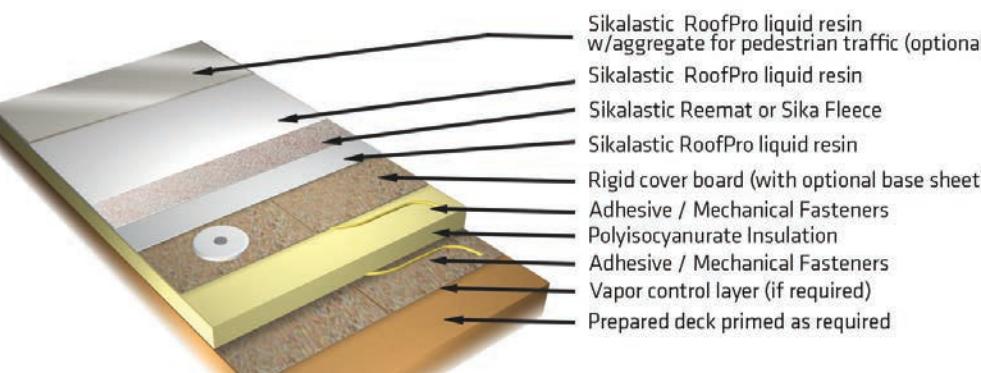
### SIKALASTIC ROOFPRO DIRECT-TO-SUBSTRATE ASSEMBLY

Suitable for direct application to structural concrete decks, plywood decks, and many existing smooth and granule-surfaced roofing systems. Reference Product/System Data Sheet for membrane/system requirements.



### SIKALASTIC ROOFPRO BUILT-UP INSULATED ASSEMBLY

Suitable for applications requiring the installation of insulation, including new construction, roof replacement, and upgrading of existing roofing systems. Full System Warranty available. Reference Product/System Data Sheet for membrane/system requirements.



Colors show approximate tone without any texture, and color of actual product may vary slightly. Custom colors available with adequate lead time and minimum batch quantities. Please consult your Sika representative for further information and pricing.



Sika Corporation  
201 Pollio Avenue  
Lyndhurst, NJ 07071  
Phone: 201.933.8800  
[www.sikaconstruction.com](http://www.sikaconstruction.com)

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FOR FLAT ROOF - OR EQUAL

6 REFURBISHMENT  
Sikalastic RoofPro Systems

## ADVANCED TECHNOLOGY SEAMLESS ROOFING AND WATERPROOFING

### Sikalastic® RoofPro Systems

#### SIKA - A HISTORY OF INNOVATION

The history of Sika began in 1910 when the Gotthard rail tunnel running through the Swiss Alps was to be electrified and needed a secure waterproofing system. A completely new solution for chemically waterproofing cement mortars and concrete was developed to address this need, and so the company and brand of Sika was founded. Today Sika is the global technology and market leader in specialty chemicals for construction and industry, providing complete systems and problem solutions worldwide.

Sika continues to pioneer innovative solutions to today's construction requirements through its twelve Research & Development facilities located worldwide. Product development is typically initiated in Sika's corporate R & D laboratories, and then further developed locally to meet climatic, regulatory, and industry demands. Sika is truly a global company with a local focus.

The Sikalastic RoofPro family of polyurethane-based roofing and waterproofing systems has had a 25 year track record of successful applications worldwide. These systems combine a uniquely-formulated liquid resin with a high-strength fiberglass or polyester-based fabric reinforcement to form a tough, resilient membrane that conforms and bonds tightly to the substrate surface.

Sikalastic RoofPro moisture-triggered liquid resins, primers, and reinforcements represent the innovative, intelligent product design that is fundamental to Sika.

#### Sikalastic RoofPro SYSTEMS WITH MTC

Sikalastic RoofPro systems with MTC (Moisture-Triggered Chemistry) incorporate a unique technology that allows the material to use atmospheric moisture to trigger the curing process. This means the waterproofing membranes are capable of curing in a wide range of conditions including extreme temperature ranges and humidity variations.

Moisture-triggered chemistry provides Sikalastic RoofPro systems with increased tolerance to substrate and incidental moisture at time of application.

Sikalastic RoofPro systems are waterproof shortly after application, providing protection against sudden rainstorms and adverse weather conditions.

Due to its unique moisture-triggered chemistry, Sikalastic RoofPro systems offer installation advantages that other liquid-applied systems cannot match:

- Unlike typical polyurethane systems, Sikalastic RoofPro systems do not release CO<sub>2</sub> during the curing process, which can cause outgassing and bubbling.
- Unlike typical polymethyl methacrylate and other multi-component systems, Sikalastic RoofPro systems are more applicator-friendly in temperature extremes, particularly hot weather.

#### REFLECTIVE, FIRE-RATED, WIND-RATED, AND ALKALINE-RESISTANT

Sikalastic RoofPro systems are available with Energy Star reflectivity, ASTM E-108 Class A fire resistance, wind uplift ratings to I-950, and alkalinity resistance incorporated into the waterproofing membrane. An additional surfacing is not required to achieve these performance requirements.

In addition, working time is greatly extended, minimizing material waste due to cured, but not applied, material.

#### SINGLE COMPONENT TECHNOLOGY

Sikalastic RoofPro membranes are single-component resins, which eliminates the labor costs, inconvenience and potential error involved in mixing multiple components. Single-component technology eliminates incomplete curing and variations in membrane performance that can occur if proper mixing ratios of multiple components are not maintained.

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## ICC-ES Evaluation Report

Reissued May 2022

ESR-1388

This report is subject to renewal May 2023.

## DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

## Section: 07 52 00—Modified Bituminous Sheet Roofing

## REPORT HOLDER:

CERTAINTEED LLC

## EVALUATION SUBJECT:

CERTAINTEED FLINTLASTIC MODIFIED BITUMEN ROOF COVERING SYSTEMS

## 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2018, 2015, 2012 and 2009 International Building Code® (IBC)
- 2018, 2015, 2012 and 2009 International Residential Code® (IRC)

## Properties evaluated:

- Fire classification
- Wind uplift resistance
- Physical properties
- Impact resistance

## 2.0 USES

The CertainTeed Flintlastic modified bitumen roof covering membranes are used as roof coverings in Class A, B or C roof covering systems, described in this report, on new or existing roofs.

## 3.0 DESCRIPTION

## 3.1 General:

CertainTeed roofing membranes are atactic polypropylene (APP) or styrene butadiene styrene (SBS) modified bitumen membranes, complying with ASTM D6222, ASTM D6162, ASTM D6163 or ASTM D6164, as applicable. Roof covering systems utilizing CertainTeed roofing membranes consist of single-ply membranes, base sheets and ply sheets, approved insulation, flashing, asphalt, adhesives, coatings and mechanical fasteners that are installed to produce an integrated roof system.

## 3.2 Membranes:

- 3.2.1 Flintastic FR Cap 30 (Standard or CoolStar): Flintastic FR Cap 30 is a 0.138-inch-thick (3.5 mm). The membrane is a Type I, Grade G, membrane

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granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and intended for adhesive or hot asphalt application. The membrane weighs approximately 7.2 pounds per square yard (3.9 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.2 Flintastic FR-P (Standard or CoolStar): Flintastic FR-P is a 0.17-inch-thick (4.3 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6164 and intended for adhesive or hot asphalt application. The membrane weighs approximately 8.4 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.3 Flintastic Premium FR-P (Standard or CoolStar): Flintastic Premium FR-P is a 0.17-inch-thick (4.3 mm), mineral-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and intended for adhesive or hot asphalt application. The membrane weighs approximately 8.4 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.4 Flintastic GTS (Standard or CoolStar): Flintastic GTS is a 0.176-inch-thick (4.5 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and intended for torch application only. The membrane weighs approximately 9.9 pounds per square yard (5.4 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.5 Flintastic GMS (Standard or CoolStar): Flintastic GMS is a 0.176-inch-thick (4.5 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and is intended for self-adhered application only. The membrane weighs approximately 7.3 pounds per square yard (4.0 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.6 Flintastic Premium GMS (Standard or CoolStar): Flintastic Premium GMS is a 0.17-inch-thick (4.3 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and is intended for self-adhered application only. The membrane weighs approximately 9.9 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.7 Flintastic STA: Flintastic STA is a 0.16-inch-thick (4 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. Flintastic STA is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.8 Flintastic STA Plus: Flintastic STA Plus is a 0.18-inch-thick (4.5 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. The membrane is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.9 Flintastic GTA (Standard or CoolStar): Flintastic GTA is a 0.16-inch-thick (4 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 7.8 pounds per square yard (4.2 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.10 Flintastic GTA-FR (Standard or CoolStar): Flintastic GTA-FR is a 0.160-inch-thick (4.1 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.11 Flintastic SA Cap-FR (Standard or CoolStar): Flintastic SA Cap-FR is a 0.125-inch-thick (3.2 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and is intended for self-adhered application only. The membrane weighs approximately 7.3 pounds per square yard (4.0 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

4.0 INSTALLATION

## 4.1 General:

Installation of the CertainTeed Flintlastic membrane roof covering systems described in this report must comply with the applicable code, the manufacturer's published installation instructions and this report. The manufacturer's published installation instructions must be available at all times on the jobsite during installation. CertainTeed Flintlastic roof covering membranes are components of covering systems that may be installed over new or existing roofs as described in Tables 1A through 1D and 2A through 2F.

The roof slope must be a minimum of 1/12 (2 percent slope) and must not be more than maximum slope for the particular system as specified in Tables 1A through 1D.

Penetrations and terminations of the roof covering must be flashed and made weathertight in accordance with the CertainTeed LLC's published installation instructions and the applicable code.

## 4.2 Fire Classification:

## 4.2.1 New Construction:

Roof covering systems described in Tables 1A through 1D, when installed in accordance with this report, are Class A, B or C roof coverings in accordance with ASTM E108 or UL 790.

3.2.12 Flintastic SA Cap (Standard or CoolStar): Flintastic SA Cap is a 0.16-inch-thick (4 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a non-woven polyester/fiber glass scrim combination mat, impregnated and coated with a superior grade of modified bitumen compound. The membrane is a Type I, Grade G membrane complying with ASTM D6164 and is intended for self-adhered application only. The membrane weighs approximately 9.5 pounds per roll. The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.13 Flintastic Premium GMS (Standard or CoolStar): Flintastic Premium GMS is a 0.17-inch-thick (4.3 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with SBS modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6164 and intended for adhesive or hot asphalt application only. The membrane weighs approximately 9.5 pounds per roll. The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.14 Flintastic FR Cap 30 T (Standard or CoolStar): Flintastic FR Cap 30 T is a 0.15-inch-thick (3.8 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and is intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.15 Flintastic STA: Flintastic STA is a 0.16-inch-thick (4 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. Flintastic STA is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.16 Flintastic STA Plus: Flintastic STA Plus is a 0.18-inch-thick (4.5 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. The membrane is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.17 Flintastic GTA: Flintastic GTA is a 0.16-inch-thick (4 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.18 Flintastic GTA-FR: Flintastic GTA-FR is a 0.160-inch-thick (4.1 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.19 Flintastic SA Cap-FR: Flintastic SA Cap-FR is a 0.125-inch-thick (3.2 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and is intended for self-adhered application only. The membrane weighs approximately 7.3 pounds per square yard (4.0 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.20 Flintastic GMS: Flintastic GMS is a 0.176-inch-thick (4.5 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6222 and intended for self-adhered application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.21 Flintastic STA: Flintastic STA is a 0.16-inch-thick (4 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. Flintastic STA is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.22 Flintastic STA Plus: Flintastic STA Plus is a 0.18-inch-thick (4.5 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. The membrane is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.23 Flintastic GTA: Flintastic GTA is a 0.16-inch-thick (4 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.24 Flintastic GTA-FR: Flintastic GTA-FR is a 0.160-inch-thick (4.1 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.25 Flintastic SA Cap-FR: Flintastic SA Cap-FR is a 0.125-inch-thick (3.2 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and is intended for self-adhered application only. The membrane weighs approximately 7.3 pounds per square yard (4.0 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.26 Flintastic GMS: Flintastic GMS is a 0.176-inch-thick (4.5 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6222 and intended for self-adhered application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.27 Flintastic STA: Flintastic STA is a 0.16-inch-thick (4 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. Flintastic STA is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.28 Flintastic STA Plus: Flintastic STA Plus is a 0.18-inch-thick (4.5 mm), smooth-tape-surfaced, reinforced, APP modified bitumen roofing membrane. The membrane is used as a cap sheet or ply sheet and is manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

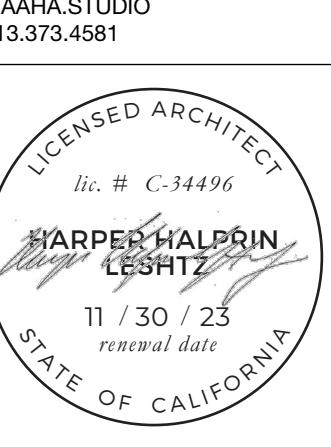
3.2.29 Flintastic GTA: Flintastic GTA is a 0.16-inch-thick (4 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.1 pounds per square yard (4.6 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.30 Flintastic GTA-FR: Flintastic GTA-FR is a 0.160-inch-thick (4.1 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6222 and intended for torch application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.31 Flintastic SA Cap-FR: Flintastic SA Cap-FR is a 0.125-inch-thick (3.2 mm), granular-surfaced, reinforced, SBS modified bitumen roofing membrane manufactured from a glass fiber mat impregnated and covered with SBS modified bitumen. The membrane is a Type I, Grade G, membrane complying with ASTM D6163 and is intended for self-adhered application only. The membrane weighs approximately 7.3 pounds per square yard (4.0 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.32 Flintastic GMS: Flintastic GMS is a 0.176-inch-thick (4.5 mm), granular-surfaced, reinforced, APP modified bitumen roofing membrane manufactured from a nonwoven polyester fabric impregnated and covered with APP modified bitumen. The membrane is a Type II, Grade G, membrane complying with ASTM D6222 and intended for self-adhered application only. The membrane weighs approximately 8.6 pounds per square yard (4.7 kg/m<sup>2</sup>). The membrane is also available as a CoolStar option, which utilizes bright white granules.

3.2.33 Flintastic STA: Flintastic STA is a 0.16-inch-thick (4 mm), smooth-tape-surfaced, reinforced, APP modified bit



**VIRGINIA ST RESIDENCE**

402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

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ISSUE HISTORY  

ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 2023
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 2

**PRODUCTS AND SPECIFICATIONS**



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**ICC-ES Evaluation Report**  
**ESR-1757**

Reissued March 2022  
This report is subject to renewal March 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION  
Section: 07 18 13—Pedestrian Traffic Coatings

REPORT HOLDER:

CROSSFIELD PRODUCTS CORP.

EVALUATION SUBJECT:

DEX-O-TEX WEATHERWEAR ROOF DECK COVERING

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012, 2009 and 2006 International Building Code® (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 International Residential Code® (IRC)
- 1997 Uniform Building Code™ (UBC)
- 2013 Abu Dhabi International Building Code (ADIBC)™

The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Durability
- Wind resistance
- Fire classification
- Fire resistance

2.0 USES

Dex-O-Tex Weatherwear Roof Deck Covering is a walking deck and Class A roof system for use over plywood, steel or concrete decks. The system is also used as a component of a one-hour fire-resistance-rated roof assembly.

3.0 DESCRIPTION

Dex-O-Tex Weatherwear roof deck covering is a multi-layered, trowel-applied, waterproof roof coating that is subjected only to normal foot traffic. The system consists of a series of troweled coatings that form, successively, an elastic latex membrane, an integral composition flashing, and a flexible rubber cement traffic surface, made of Resistite paste, Resistite powder, Neobond II membrane

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edges blocked, and face grain perpendicular to supports. The plywood must be supported along all edges, and adequately fastened to all bearings by means of countersunk wood screws, or screw nails equivalent to 8d ring shank nails spaced at 6 inches (152 mm) on center, or as otherwise required by the applicable code. The nails must have a minimum penetration into the beams or joists supporting the plywood as required by the applicable code.

The plywood surface must be clean, dry and free of all foreign materials, such as dust, grease, oil and dust. Cracks in the plywood and all panel butt joints are to be sealed using a caulking compound.

4.2 Steel: Steel surfaces, having sufficient rigidity to avoid excessive deflections or being solidly backed by a rigid support, must be cleaned of all dust, grease, oil, silicone, loose paint, etc. The surface must be sufficiently roughened to assure a good bond by sanding, grinding, etc., and the resultant dust must be carefully removed.

4.3 Class A Roof Covering over Plywood Deck:

a. The plywood is described and installed as set forth in Section 4.2.2, at a maximum slope of 1/4:12 (2.1%). Plywood panel joints must be filled with joint compound consisting of one part Resistite paste to three parts Resistite powder, by weight. Total minimum thickness is 1/8 inch (7.1 mm).

b. One layer of Type IV, asphalt-coated, fiberglass base sheet complying with ASTM D 2178 must be applied to the plywood. The sheets must be nominally 36 inches (919 mm) wide by 56 yards (51.2 m) long and must weigh a minimum of 10.5 pounds per 100 square feet (0.5 kg/m²). The base sheet must terminate 2 inches (51 mm) from the perimeter, protrusions and other flashing areas, and must be lapped 2 inches (51 mm) at joints.

c. Metal flashing must be less than 0.019-inch (0.49 mm) (No. 26 galvanized sheet gauge) corrosion-resistant steel and must be degreased before installation. The base sheet must lap over the horizontal flange of installed vents.

d. A mixture of one part Resistite paste and 2.25 parts Resistite powder, by weight, must be applied to all exposed surfaces and extend 4 inches (102 mm) onto the adjacent base sheet. Coverage must be a minimum of 19 pounds per 100 square feet (0.9 kg/m²).

e. Perimeter and flashing areas must receive a coating of Neobond II megamarine liquid at a rate of 2 pounds per square yard (1.5 kg/m²). Loose-woven jute fabric, nominally 0.035 inch (0.9 mm) thick and weighing 7 ounces per square yard (237 g/m²), must be embedded into the wet Neobond II. The combined thickness of Neobond II and fiberglass must be approximately 0.050 inch (1.3 mm). Each coating must be dry (this normally requires 12 to 16 hours) before recoating.

f. Flat (field) areas must receive a coat of Neobond II megamarine liquid at a rate of 2 pounds per square foot (1 kg/m²). Resin-rich stone or fiberglass mesh, weighing 1/4 ounce per square foot (76 g/m²), must be embedded into the wet Neobond II. The combined thickness of Neobond II and fiberglass must be approximately 0.050 inch (1.3 mm). Each coating must be dry (this normally requires 12 to 16 hours) before recoating.

g. An additional coat of Neobond II is applied, to fill voids in the jute and fiberglass fabrics, at the rate, respectively, of 6 pounds and 5 pounds per square foot (29 kg/m² and 24 kg/m²). Thickness of the membrane system must be 0.085 inch (2.1 mm) at perimeter and flashing areas and 0.032 inch (1.6 mm) in the field area. About six hours are needed for cure.

4.4 Class A Roof Covering Over Concrete and Steel Decks:

The roof deck must be concrete or steel prepared as noted in Section 4.2 of this report, with a minimum slope of 1/12 (4%). For concrete substrates, the base sheet must be bonded to metal flashing at the perimeter. For steel decks, the base sheet is optional. If a base sheet is used on steel decks, it must be bonded directly to the steel deck at the perimeter or installed as a flat flashing for the concrete surface. The roof covering must be installed in accordance with items e through j of Section 4.3, above.

4.5 One-hour Fire-resistance-rated Construction:

The Dex-O-Tex Weatherwear Roof Deck covering installed as described in this report over 1/2-inch-thick (15.9 mm) exterior-grade plywood with 2-inch-by-8-inch (51 mm by 203 mm) joists spaced 16 inches (406 mm) on center, with all plywood and joists to be above the double wood floor described in Footnote 13 of Table 7-C of the UBC and Item 13 and footnote m of Table 721.1(3) of the 2021, 2018, 2015 and 2012 IBC [Item 13 and footnote m of Table 720.1(3) of the 2009 and 2006 IBC]. When installation is over nominally 2-by-8 joists, the design bending stress assigned to the joists must be limited to 78 percent of the code-prescribed design values.

5.0 CONDITIONS OF USE

The Dex-O-Tex Weatherwear Roof Deck Covering described in this report complies with, or is a suitable

**ESR-1757 | Most Widely Accepted and Trusted**

Page 3 of 5

alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Materials must be manufactured and applied in accordance with the report and the manufacturer's instructions. In the event of conflict between this report and the manufacturer's installation instructions, this report must govern.

5.2 Applications must be by applicators authorized by Crossfield Products.

5.3 Fire classification must be as described in Sections 4.3 and 4.4.

5.4 Under the 2021, 2018, 2015 IBC and IRC, and 2012 IBC, installation must be limited to areas subject to an ultimate design wind speed ( $V_{ad}$ ) of 130 mph (209 km/h) on structures with a maximum height of 40 feet (12,192 mm) in Exposure B areas.

Under the 2012 IBC, 2009 IBC, 2004 IBC, 2006 IBC and 2009IRC, installation may be limited to areas subject to a maximum 3-second gust basic wind speed ( $V_{3s}$ ) of 100 mph (161 km/h) on structures with a maximum height of 40 feet (12,192 mm) in Exposure B areas.

Under the UBC, installation must be limited to areas subject to a maximum fastest-mile basic wind speed of 80 mph (129 km/h) on structures with a maximum height of 40 feet (12,192 mm) in Exposure B areas.

5.5 Materials are manufactured by Crossfield Products Corporation, in Rancho Dominguez, California, under a quality control program with inspections by ICC-ES.

7.2 The report holder's contact information is the following:

CROSSFIELD PRODUCTS CORP.

3001 EAST HARCOURT STREET

RANCHO DOMINGUEZ, CALIFORNIA 90221

(310) 886-9100

[www.dextortex.com](http://www.dextortex.com)

[lamb@ccpcmail.net](mailto:lamb@ccpcmail.net)

03

DECK WATERPROOFING

1' = 1'0"

1

**PRODUCTS AND SPECIFICATIONS**

**A012**

# TOPOGRAPHIC SURVEY

402 VIRGINIA STREET, EL SEGUNDO, CA 90245

## NOTES

### UNDERGROUND UTILITIES

EXCEPT FOR THOSE SHOWN HEREON NO ATTEMPT HAS BEEN MADE TO OBTAIN OR SHOW DATA CONCERNING EXISTENCE, SIZE, DEPTH, CONDITION, CAPACITY OR LOCATION OF ANY UTILITY EXISTING ON THE SITE, WHETHER PRIVATE, MUNICIPAL OR PUBLIC OWNED.

### BOUNDARY & EASEMENTS

THE PROFESSIONAL SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NOT ALL TREES ARE SHOWN HEREON.

THIS IS NOT A BOUNDARY SURVEY.

## LEGEND AND SYMBOLS ABBREVIATIONS

	LOT LINE	AC : ASPHALTIC CONCRETE
	CENTER LINE	CB : CATCH BASIN
	CHAIN LINK FENCE	CONC : CONCRETE
	IRON FENCE	CL : CENTER LINE
	WOODEN FENCE	CD : CURB DRAIN
	BLOCK WALL	AD : AREA DRAIN
	RETAINING WALL	W : WATER
	STREET LIGHT	FDC : FIRE DEPARTMENT CONNECTION
	TREE	HB : HOSE BIB
	PINE TREE	EG : EDGE OF GUTTER
	PALM TREE	IV : IRRIGATION CONTROL VALVE
	POWER POLE	FH : FIRE HYDRANT
	STREET SIGN	FF : FINISH FLOOR
	STREET LIGHT POOL BOX	FL : FLOW LINE
	WATER METER	FS : FINISH SURFACE
	WATER VALVE	FW : FACE OF WALL
	FIRE HYDRANT	TC : TOP OF CURB
	BOLLARD	TRW : TOP OF RETAINING WALL
	GAS METER	TW : TOP OF WALL
	GUY WIRE	BFL : BACK FLOW PREVENTER
	ELECTRICAL BOX	C/O : CLEANOUT
	PARKING SIGN	SS : SANITARY SEWER
	FW : FRONT OF WALK	BW : BACK OF WALK
	BW : BACK OF WALK	LE : LANDSCAPE EDGE

## BRIEF LEGAL DESCRIPTION

LOT 9 AND PORTION OF LOT 8 OF EL SEGUNDO TRACT, IN THE CITY OF EL SEGUNDO, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 18, PAGE 45 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

## BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING EAST A COURSE IN THE STREET RIGHT-OF-WAY LINE OF HOLLY AVENUE AS SHOWN ON THE MAP OF EL SEGUNDO TRACT, M.B. 18, PAGE 145.

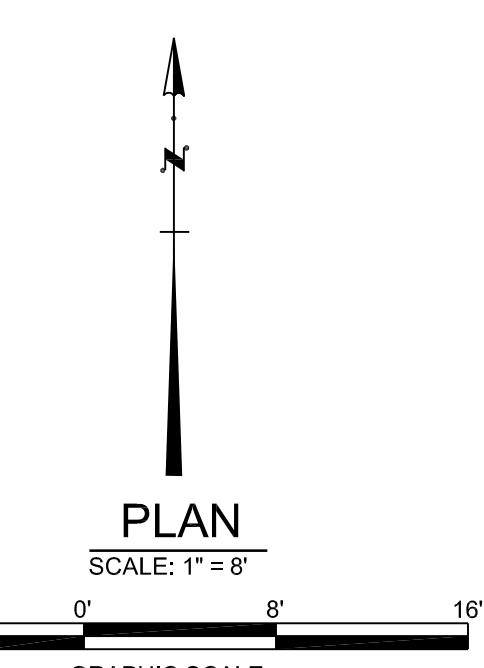
## BENCHMARK

ASSUMED BENCHMARK:

FINISH FLOOR ELEVATION = 200.00 FT.

## DATE OF SURVEY

NOVEMBER 30, 2021

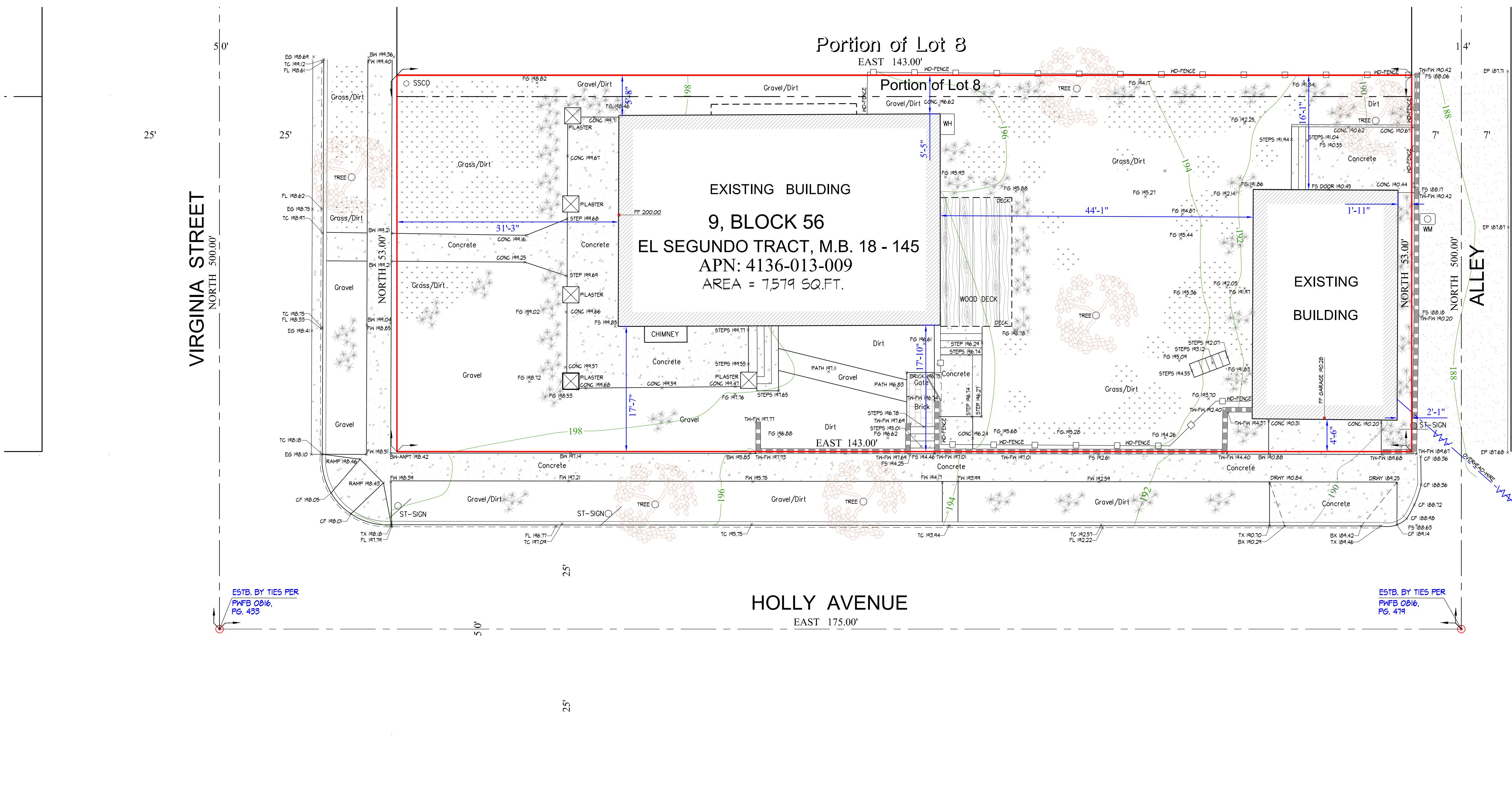


ARCHITECTURAL SURVEY

A013



12-01-2021



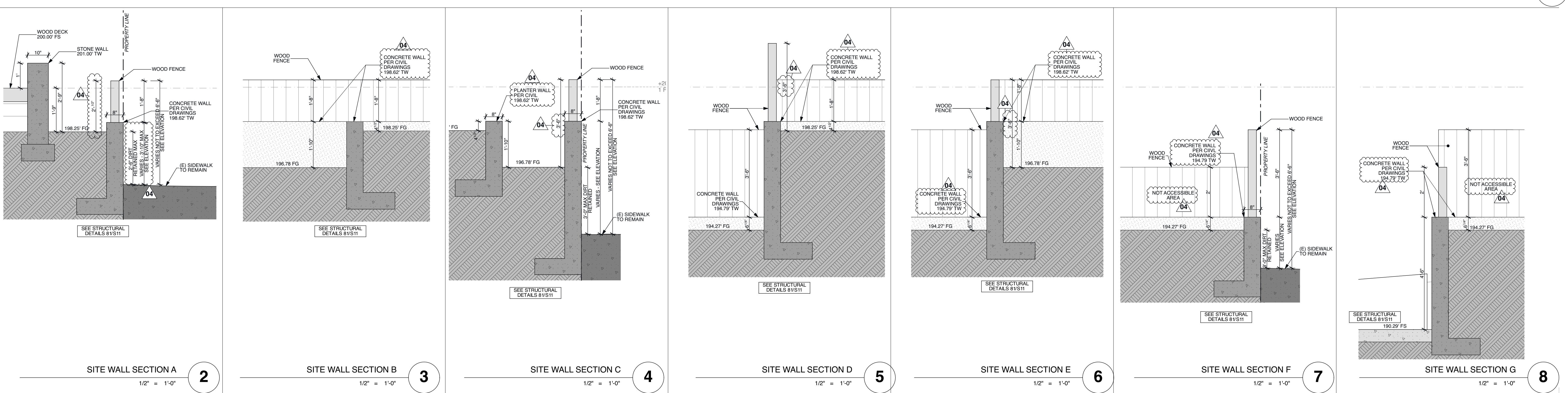
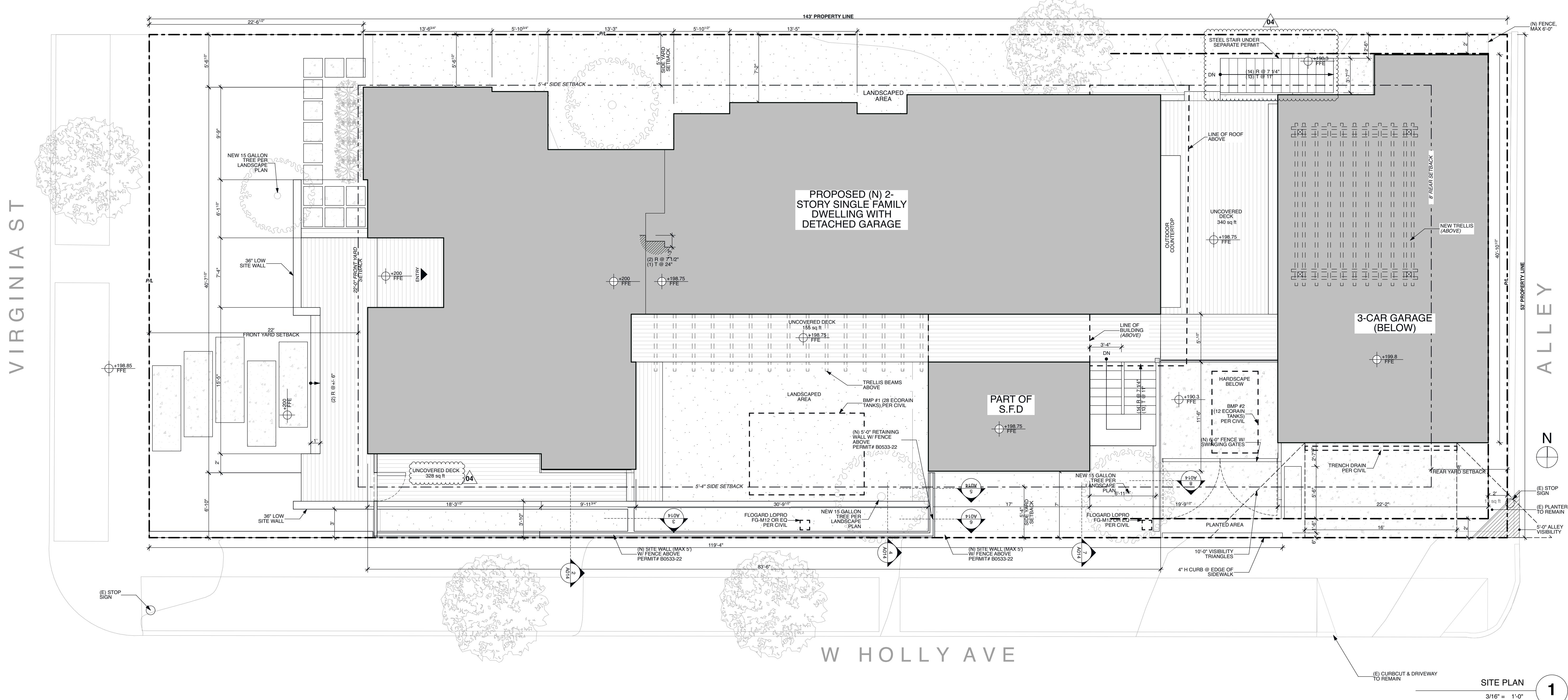


ID	ISSUE	DATE
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04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 3

## SITE PLAN

A014



Planning and Building  
Safety Department



350 Main Street  
El Segundo, CA 90245  
(310)524-2380  
[www.elsegundo.org/depts/planningsafety/](http://www.elsegundo.org/depts/planningsafety/)

**NEW RESIDENTIAL BUILDINGS  
MANDATORY MEASURES**

2019 CALGREEN CODE  
Effective January 1, 2020

**PROJECT INFORMATION**

Plan Check Number: **B0533-22** Owner's Name: **MARC CAVAGNOLO & SARAH TOWNSEND**

Project Address: **402 VIRGINIA ST, EL SEGUNDO, CA 90245**

Description of Work: **(N) TWO-STORY SINGLE FAMILY RESIDENCE AND GARAGE**

Designer Responsible for CalGreen Compliance: **HARPER HALPRIN LESHTZ** Phone: **213.373.4581**

Signature of Designer Responsible for CalGreen Compliance: **[Signature]** Date: **11/17/2022**

**INSTRUCTIONS**

The Owner or the Owner's Agent shall employ a Design Professional experienced with the 2019 California Green Building Standards Code to assure that all required work described herein is properly planned and implemented in the project.

The Design Professional shall complete this checklist and in the Plan Reference column provide the applicable plan Sheet number and detail/note where CalGreen compliance is detailed. The completed and signed checklist shall be printed on all final sets of plans.

**MANDATORY FEATURE OR MEASURE**

Plan Reference

**Chapter 1 - ADMINISTRATION**

**101.3 Scope.** Applies to ALL newly constructed buildings or structures.

**Section 4.106 - SITE DEVELOPMENT**

**4.106.2 Storm water drainage and retention during construction.** Projects which disturb less than 1 acre of soil and are not part of a larger common plan of development shall manage storm water drainage during construction. Provide an erosion control plan.

**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.

**Section 4.106.4 - ELECTRIC VEHICLE (EV) CHARGING**

**4.106.4 Electric vehicle (EV) charging for new construction.**

- Comply with Section 4.106.4.1, 4.106.4.2, or 4.106.4.3 for future installation and use of EV chargers.
- Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

Page 1 of 7

**MANDATORY FEATURE OR MEASURE**

Plan Reference

**4.504.2 Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the Air Resources Board Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limit 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 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 VOC in Section 94522(e)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, as Section 94522(e)(1) and (f)(1) of the CCR, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District shall additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

**4.504.2.4 Documentation.** Documentation shall be provided to verify that compliant VOC limit finish materials have been used.

**4.504.3 Carpet systems.** Carpet installed in the building interior shall meet the testing and product requirements of one of the following:

- Carpet and Rug Institute's Green Label Plus Program
- California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)
- NSF/ANSI 140 at the Gold level Scientific Certifications Systems Indoor Advantage™ Gold

**4.504.3.1 Carpet cushion.** Carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label Plus Program.

**4.504.3.2 Carpet adhesive.** Carpet adhesives shall meet the requirements of Table 4.504.4.

**4.504.4 Resilient flooring systems.** Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall comply with one or more of the following:

- Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified in the Collaborative for High Performance Schools (CHPS) High Performance Products Database
- Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools Program)
- Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program
- Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)

**4.504.5 Composite wood products.**

- Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in the Air Resources Board's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et. seq.), as shown in Table 4.504.5. Documentation is required per Section 4.504.5.1.
- Definition of Composite Wood Products: Composite wood products include hardwood plywood, particleboard, and medium density fiberboard. "Composite wood products" do not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joints, or finger-jointed lumber, all as specified in CCR, Title 17, Section 93120, 1(a).

**4.504.5.1 Documentation.** Verification of compliance shall be provided as requested by the enforcing agency, and as required in Section 4.504.5.1.

Page 5 of 7

MANDATORY FEATURE OR MEASURE	Plan Reference
<b>Section 4.106.4.1 - EV CHARGING 1- &amp; 2-FAMILY DWELLINGS AND TOWNHouses</b>	
<b>4.106.4.1 EV charging:</b> 1- & 2-family dwellings and townhouses with attached private garages	A014
• Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit.	
• Raceway shall not be less than size 1 (nominal 1-inch inside diameter).	
• Raceway shall originate at the main service or subpanel and terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger.	
• Raceways shall be continuous at enclosed, inaccessible or concealed areas and spaces.	
• Service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.	
• <b>4.106.4.1.1 Service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE".</b> The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".	
<b>Section 4.106.4.2 - EV CHARGING MULTI-FAMILY DWELLINGS</b>	
<b>4.106.4.2 EV charging for multifamily dwellings:</b> Building sites with 17 or more multifamily dwelling units.	
3% of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the number of EV spaces shall be rounded up to the nearest whole number.	
<b>4.106.4.2.1 EV charging space (EV space) locations for multifamily dwellings</b>	
• Construction plans shall indicate the location of proposed EV spaces. At least one EV space shall be located in common use areas and available for use by all residents.	
• When EV chargers are installed, EV spaces required by Section 4.106.4.2.2, Item 3, shall comply with at least one of the following options: a) The EV 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; b) The EV space shall be located on an accessible route to the building, as defined in the California Building Code, Chapter 2.	
<b>4.106.4.2.2 EV charging space (EV space) dimensions for multifamily dwellings</b>	
• The minimum length of each EV space shall be 18 feet.	
• The minimum width of each EV space shall be 9 feet.	
• One in every 25 EV spaces, but not less than one, shall also have an 8-foot wide minimum aisle. A 5-foot wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet. Surface slope for this EV space and aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083% slope) in any direction.	
<b>4.106.4.2.3 Single EV space required for multifamily dwellings</b>	
• Install 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 other enclosure in close proximity to the proposed location of the EV space.	
• Construction documents shall identify the raceway termination point.	
• The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.	
<b>4.106.4.2.4 Multiple EV spaces required for multifamily dwellings</b>	
• Plans shall show raceway termination point and proposed location of future EV spaces and EV chargers.	
• Plans shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify 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 full rated amperage of the EVSE.	
• Plan design shall be based upon a 40-ampere minimum branch circuit.	
• Raceways and related components planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.	
<b>4.106.4.2.5 Identification.</b> 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.	
L1-L3	

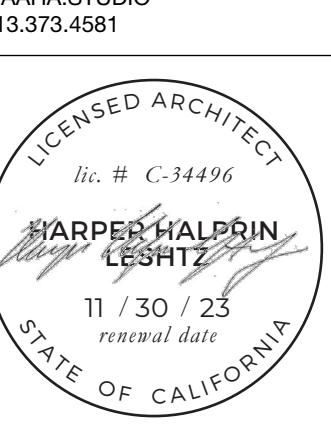
Page 2 of 7

MANDATORY FEATURE OR MEASURE	Plan Reference
<b>4.106.4.3 New hotels and motels.</b> All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction document shall identify the location of EV spaces.	
<b>Division 4.2 - ENERGY EFFICIENCY</b>	
<b>4.201. Building meets or exceeds the requirements of the 2019 California Energy Code.</b>	
<b>4.303.1 Water conserving plumbing fixtures and fittings.</b> Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the prescriptive requirements of 4.303.1.1 through 4.303.1.4.	
<b>4.303.1.1 Water Closets.</b> 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 US EPA WaterSense Specification for Tank-type Toilets.	
<b>4.303.1.2 Urinals.</b> 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.	
<b>4.303.1.3.1 Single showerhead.</b> Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 60 psi. Showerheads shall be certified to the performance criteria of the US EPA WaterSense Specification for Showerheads.	
<b>4.303.1.3.2 Multiple showerheads serving one shower.</b> When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 60 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: a hand-held shower shall be considered a showerhead.	
<b>4.303.1.4.1 Residential lavatory faucets.</b> 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.	
<b>4.303.1.4.2 Lavatory faucets in common and public use areas.</b> 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.	
<b>4.303.1.4.3 Metering faucets.</b> Metering faucets when installed in residential buildings shall not deliver more than 0.25 gallons per cycle.	
<b>4.303.1.4.4 Kitchen faucets.</b> The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.	
<b>4.303.2 Standards for plumbing fixtures and fittings.</b> Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the California Plumbing Code, and shall meet the applicable referenced standards.	
<b>Section 4.304 - OUTDOOR WATER USE</b>	
<b>4.304.1 Outdoor potable water use in landscape areas.</b> Residential developments shall comply with El Segundo Ordinance 1514. Obtain landscape approval from the Planning Division.	L1-L3

Page 3 of 7

MANDATORY FEATURE OR MEASURE	Plan Reference
<b>703.1 Documentation.</b> Documentation of compliance shall include, but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the local enforcing agency. Other specific documentation or special inspections necessary to verify compliance are specified in appropriate sections of CALGreen.	
<b>703.2 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.2.1 Capillary break.</b> A capillary break shall be installed in compliance with at least one of the following:	
• A 4-inch thick layer of 1/2-inch or larger clean aggregate shall be provided with a vapor retarder in direct contact with concrete and a concrete mix design which will address bleeding, shrinkage and curling shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.	
• Other equivalent methods approved by the enforcing agency.	
• A slab design specified by a licensed design professional.	
<b>703.2.2 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.3 Moisture content of building materials.</b> 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% moisture content. Moisture content shall be verified in compliance with the following:	
• Moisture content shall be determined with either a probe-type or a contact-type moisture meter.	
• Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements in Section 101.8.	
• Moisture readings shall be taken at a point 2 feet to 4 feet from the grade-stamped end of each piece to be verified.	
• At least 3 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. Manufacturers' drying recommendations shall be followed for wet-applied insulation products prior to enclosure.	
<b>703.4 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.5 Adhesive.</b> Adhesives shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.6 Coatings.</b> Coatings shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.7 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.8 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.9 Sealant.</b> Sealants shall be applied in accordance with the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.	
<b>703.10 Sealant.&lt;/</b>	

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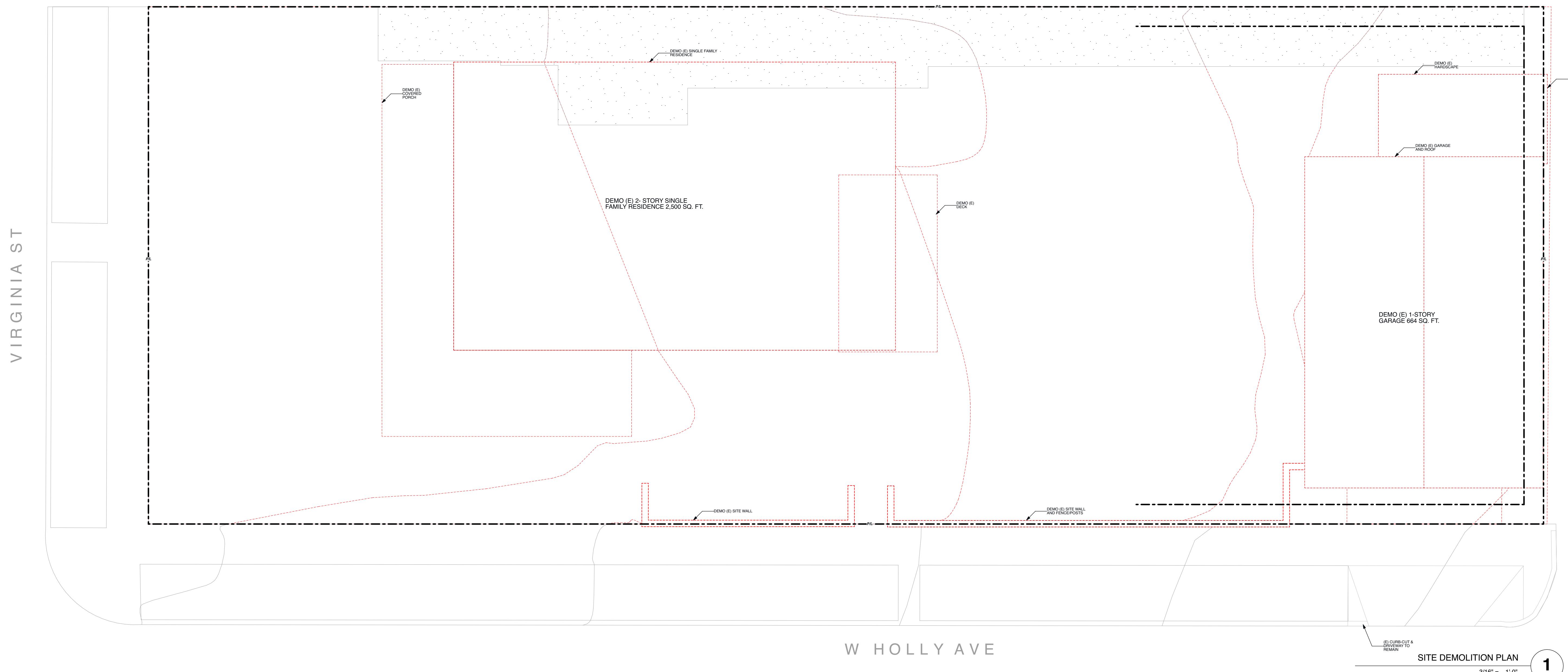
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PLAN CHECK SUBMITTAL

## DEMOLITION PLAN

A100





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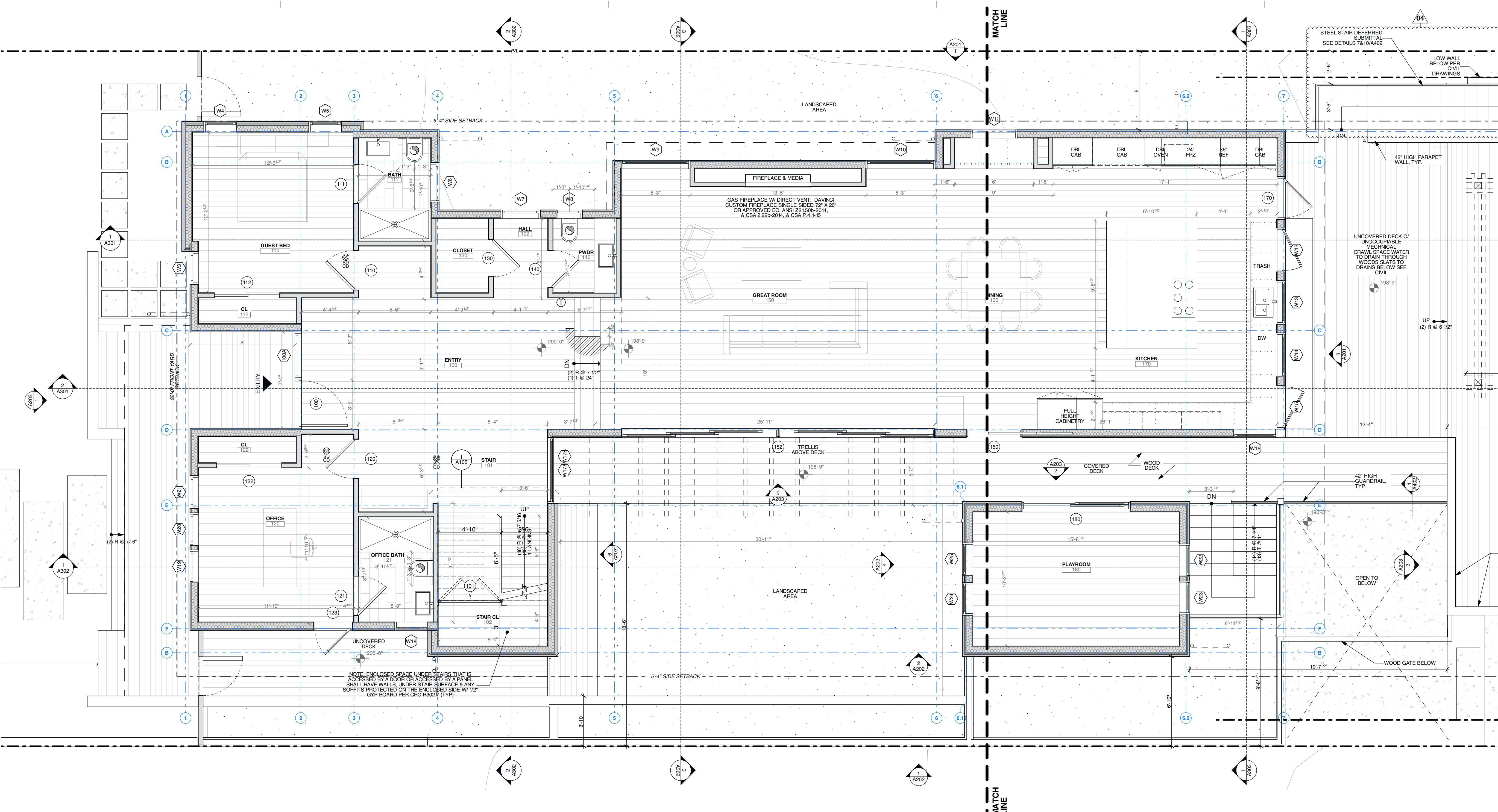
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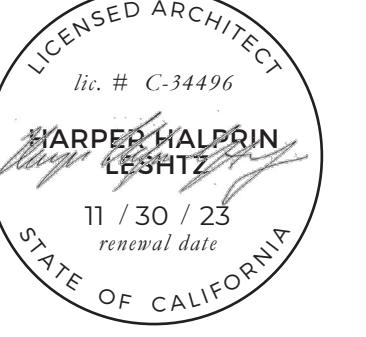


FIRST FLOOR PLAN

A101.1



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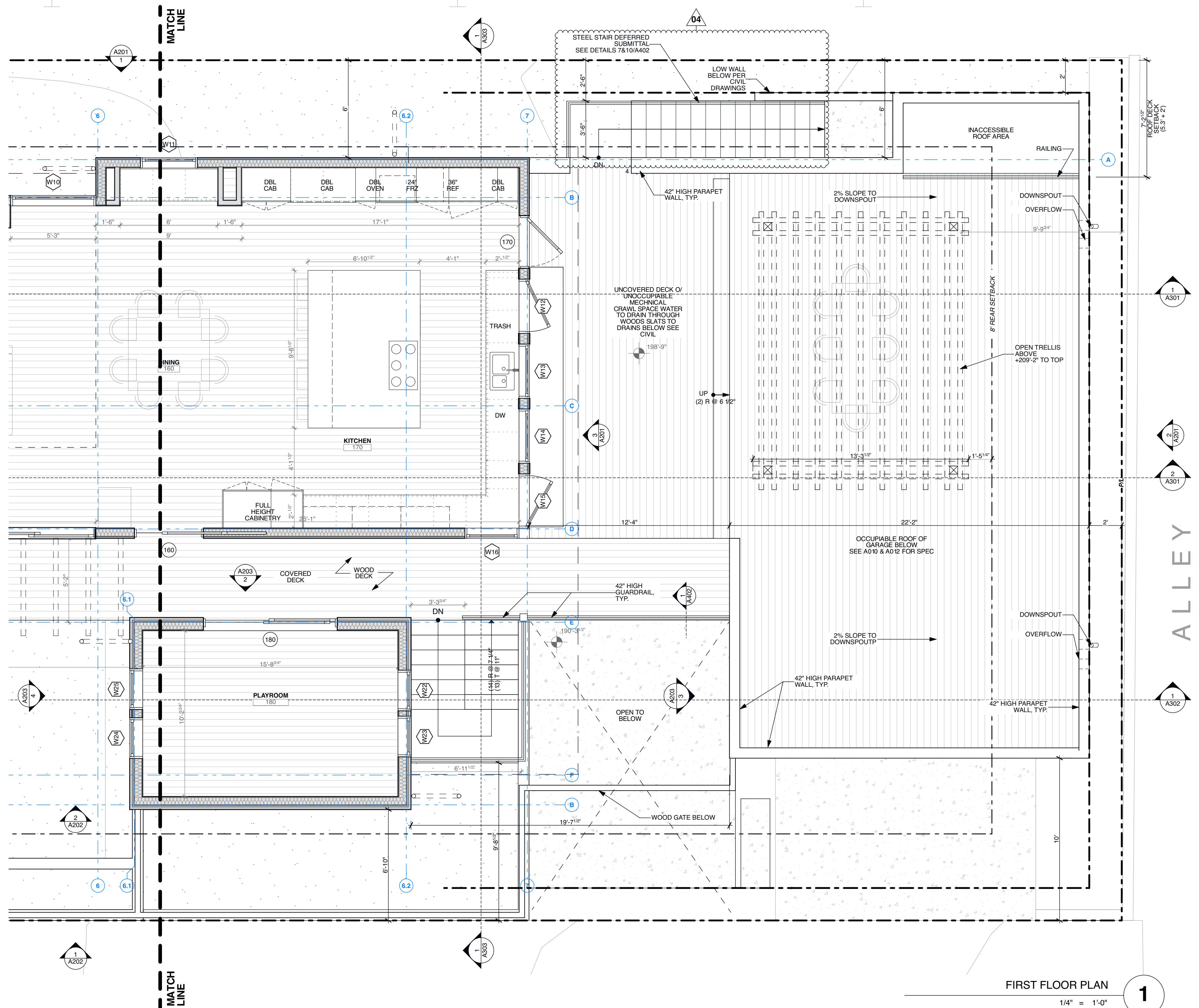
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FIRST FLOOR PLAN

A101.2



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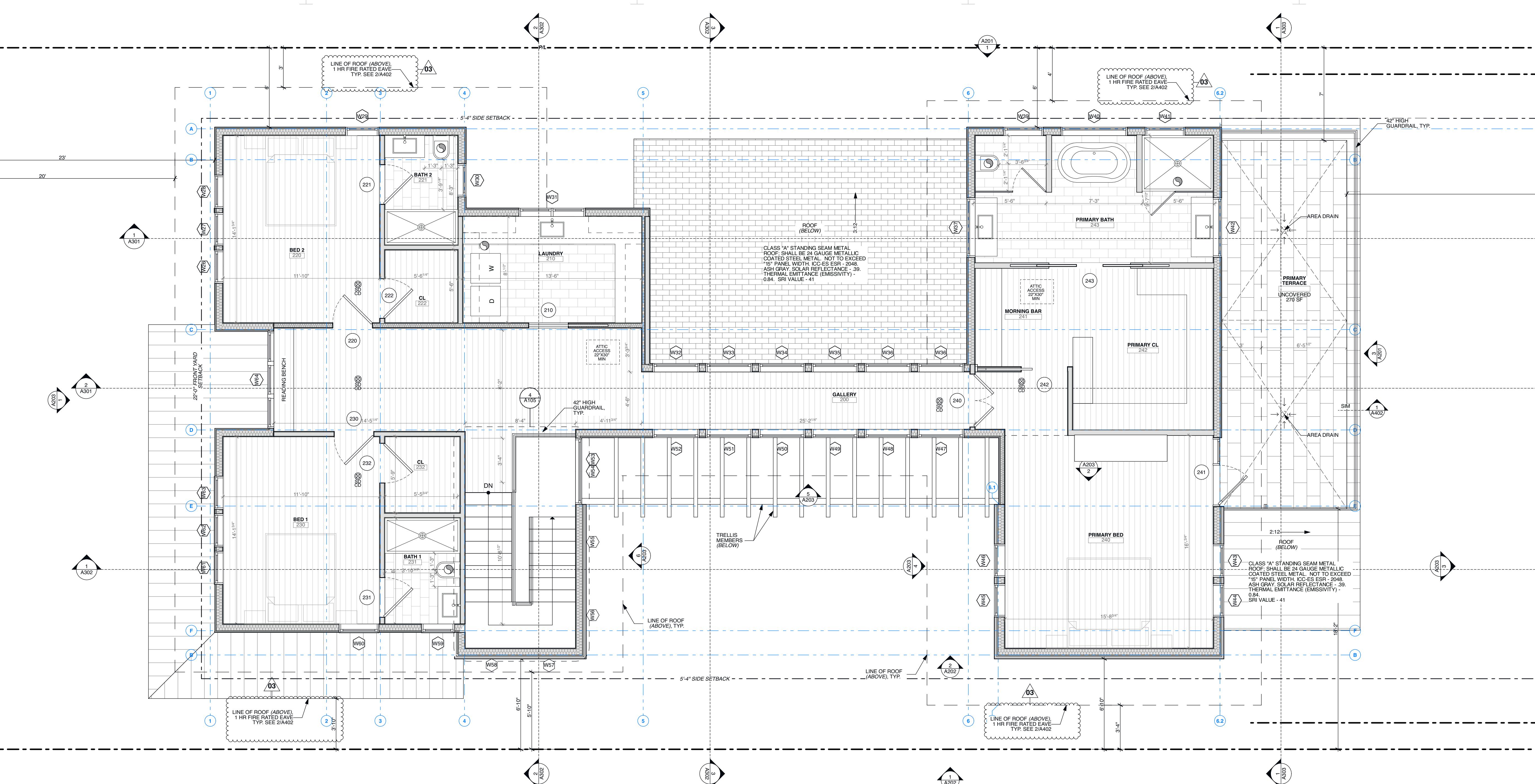
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**PLAN CHECK RESUBMITTAL 2**

# SECOND FLOOR PLAN

A102

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SECOND FLOOR PLAN

1400

This architectural floor plan illustrates a building layout with various rooms and specific dimensions. Key features include:

- Rooms:** A large rectangular room on the left, a central room with a grid pattern, and a long corridor-like room on the right.
- Dimensions:** The overall width of the building is 4' 11 3/4". The height of the guardrail is 42" HIGH GUARDRAIL, TYP. Vertical dimensions include 8'-4", 3'-4", 10'-8 1/2", and 10". Horizontal dimensions include 110" and 4' 11 3/4".
- Labels:** Labels such as DN, A105, W53, W54, W55, W56, W57, and W58 are placed near specific structural elements or rooms.
- Staircase:** A staircase is located in the central room, indicated by a vertical line and a small arrow pointing upwards.

## SECOND FLOOR CLERESTORY WINDOW PLATE

1/4" = 1'-0"

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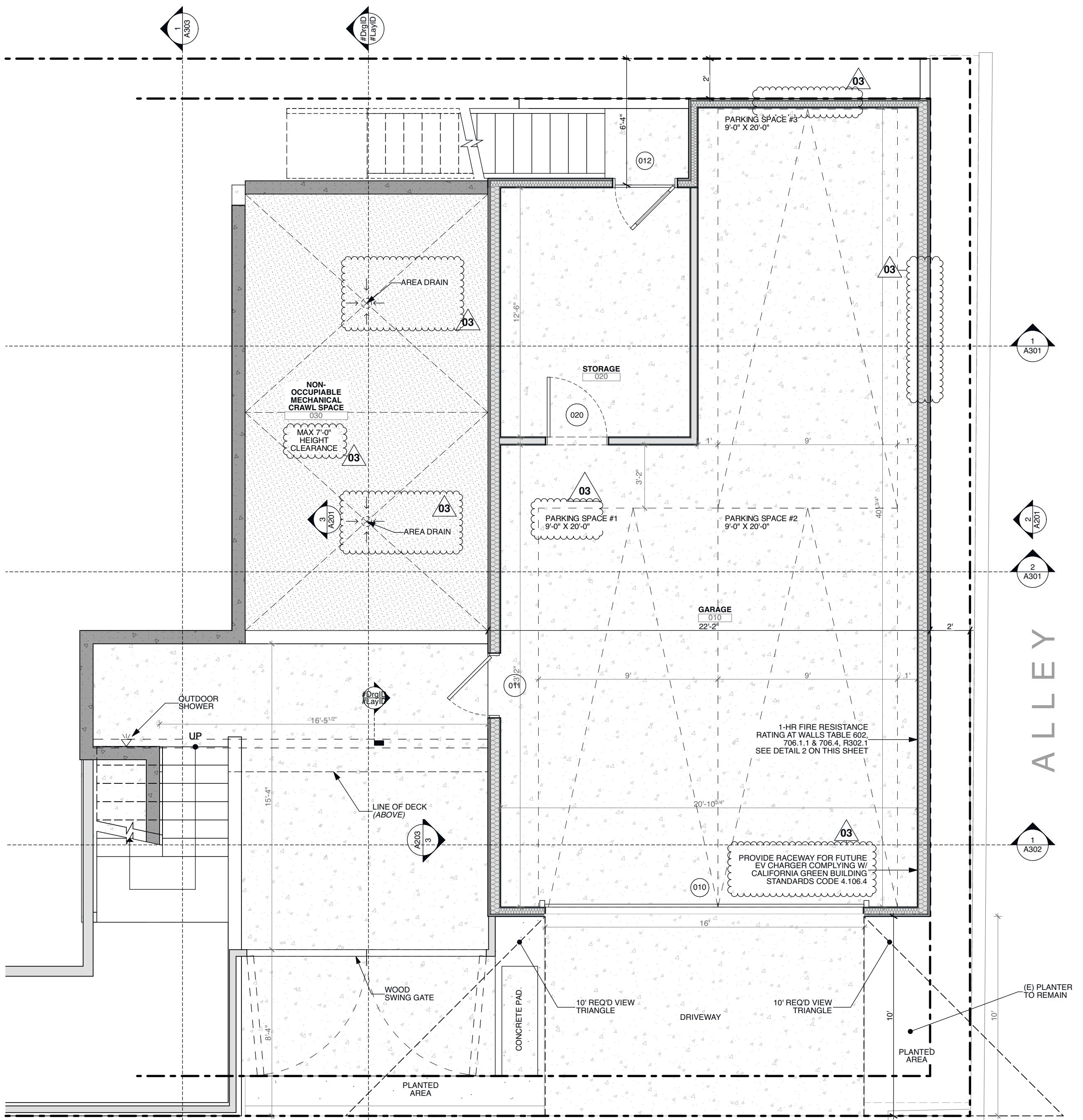
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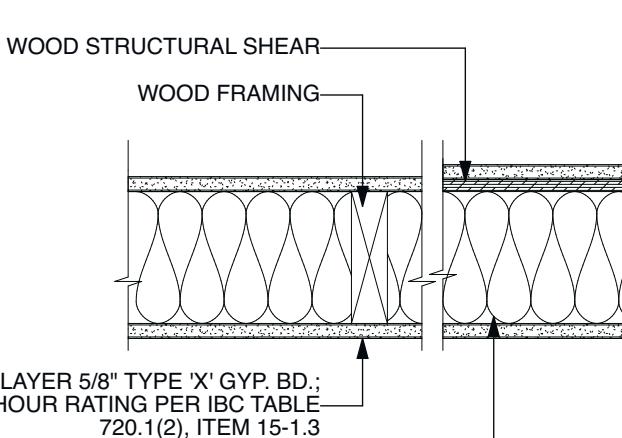
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GARAGE PLAN

1/4" = 1'-0"

1



I-HR SEPARATION

1 1/2" = 1'-0"

**GARAGE FLOOR  
PLAN**

**A103**

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T: 800-237-8824

 ROOF PLAN  
1/4" = 1'-0"

ATTIC VENTILATION CALCULATION		
ATTIC SPACE "A"		
678 SQ. FT. = 4.52 SQ. FT.		
150		
4.52 SQ. FT. X 144 = 650.88 SQ. IN. OF VENTILATION REQUIRED		
ATTIC SPACE "B"	04	
976 SQ. FT. = 6.5 SQ. FT.		
150		
6.5 SQ. FT. X 144 = 936.96 SQ. IN. OF VENTILATION REQUIRED		
REQUIRED VENTING TO BE PROVIDED BY (10) OHAGIN'S LOW PROFILE VENT FOR COMPOSITE SHINGLE ROOF (EACH PROVIDING 72 SQ. IN. OF VENTING) FOR A TOTAL OF 720 SQ. IN.		
REQUIRED VENTING TO BE PROVIDED BY (14) OHAGIN'S LOW PROFILE VENT FOR COMPOSITE SHINGLE ROOF (EACH PROVIDING 72 SQ. IN. OF VENTING) FOR A TOTAL OF 937 SQ. IN.	04	

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 CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 3

**ROOF PLAN**
**A104**





**HA STUDIO**                           **ARCHITECT**  
56 VIDOR DRIVE  
S ANGELES, CA 90035

| 213.373.4581



# **VIRGINIA ST RESIDENCE**

2 VIRGINIA ST  
SEGUNDO CA 90245

JECT NO. 220

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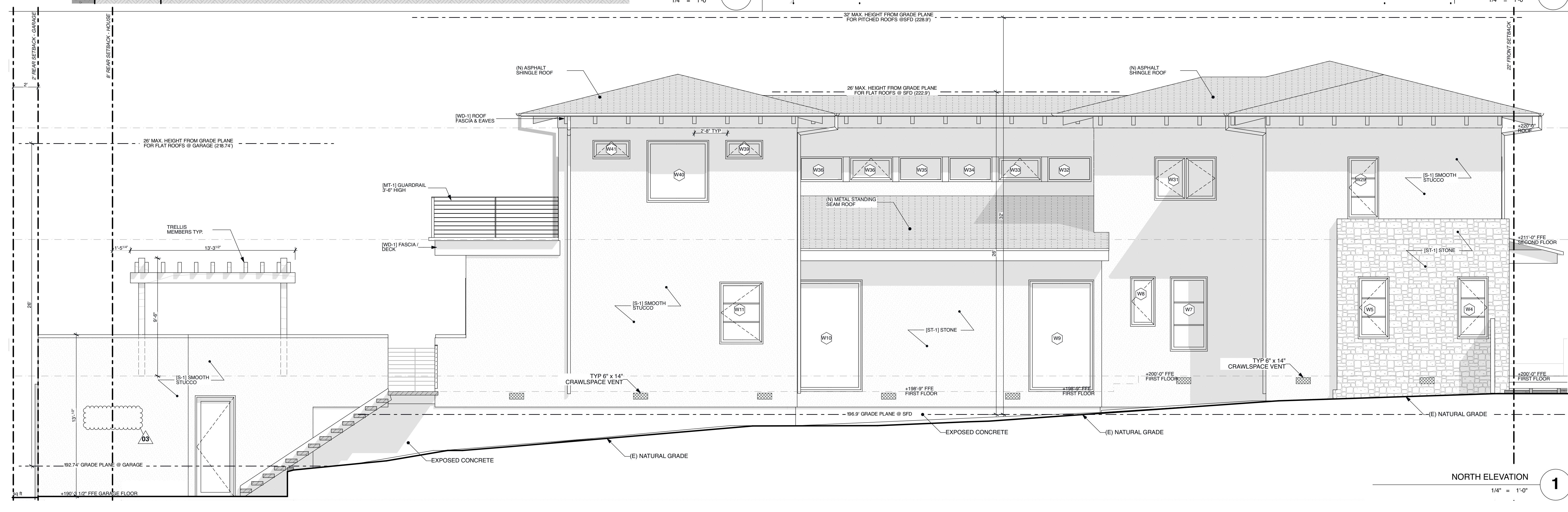
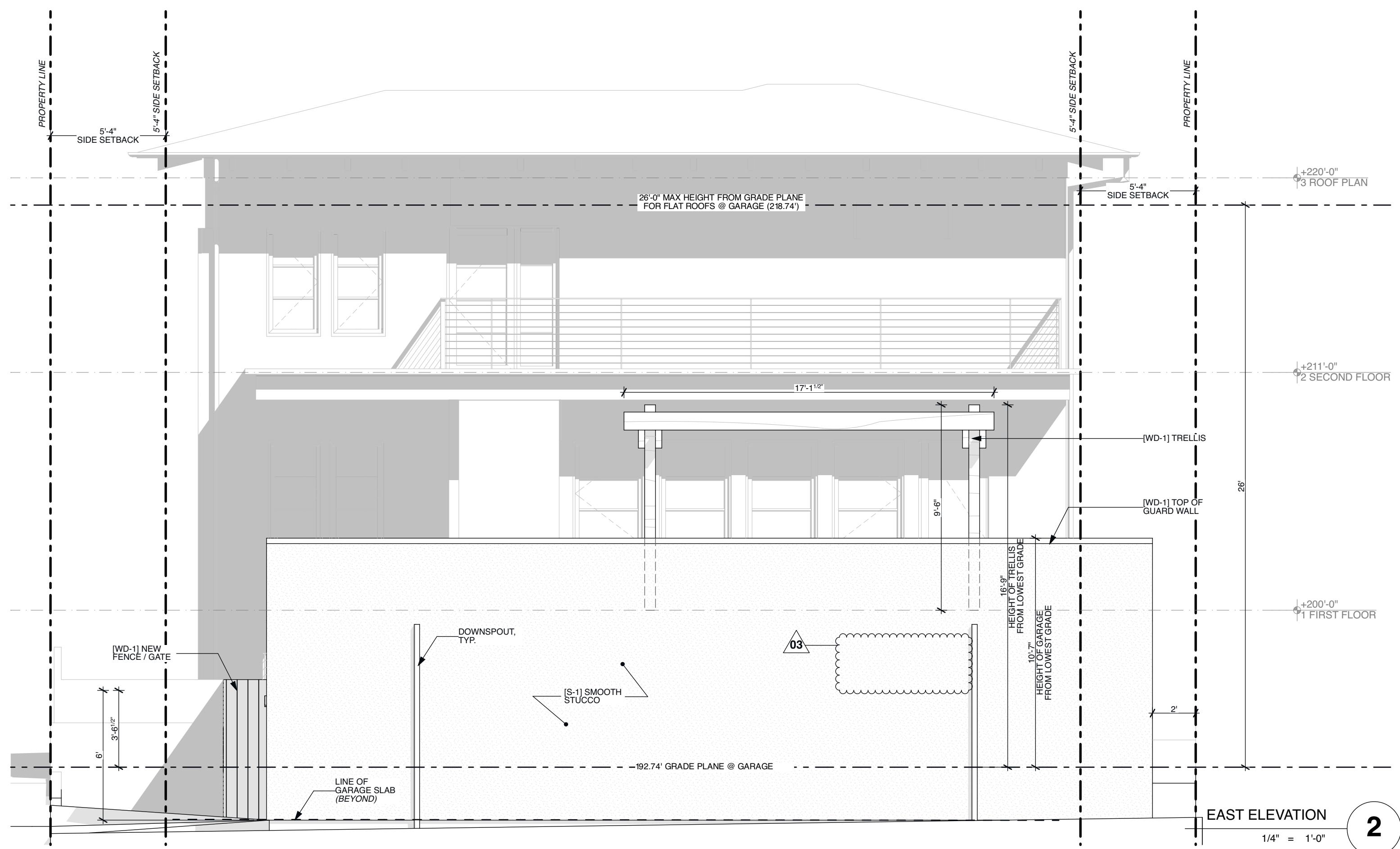
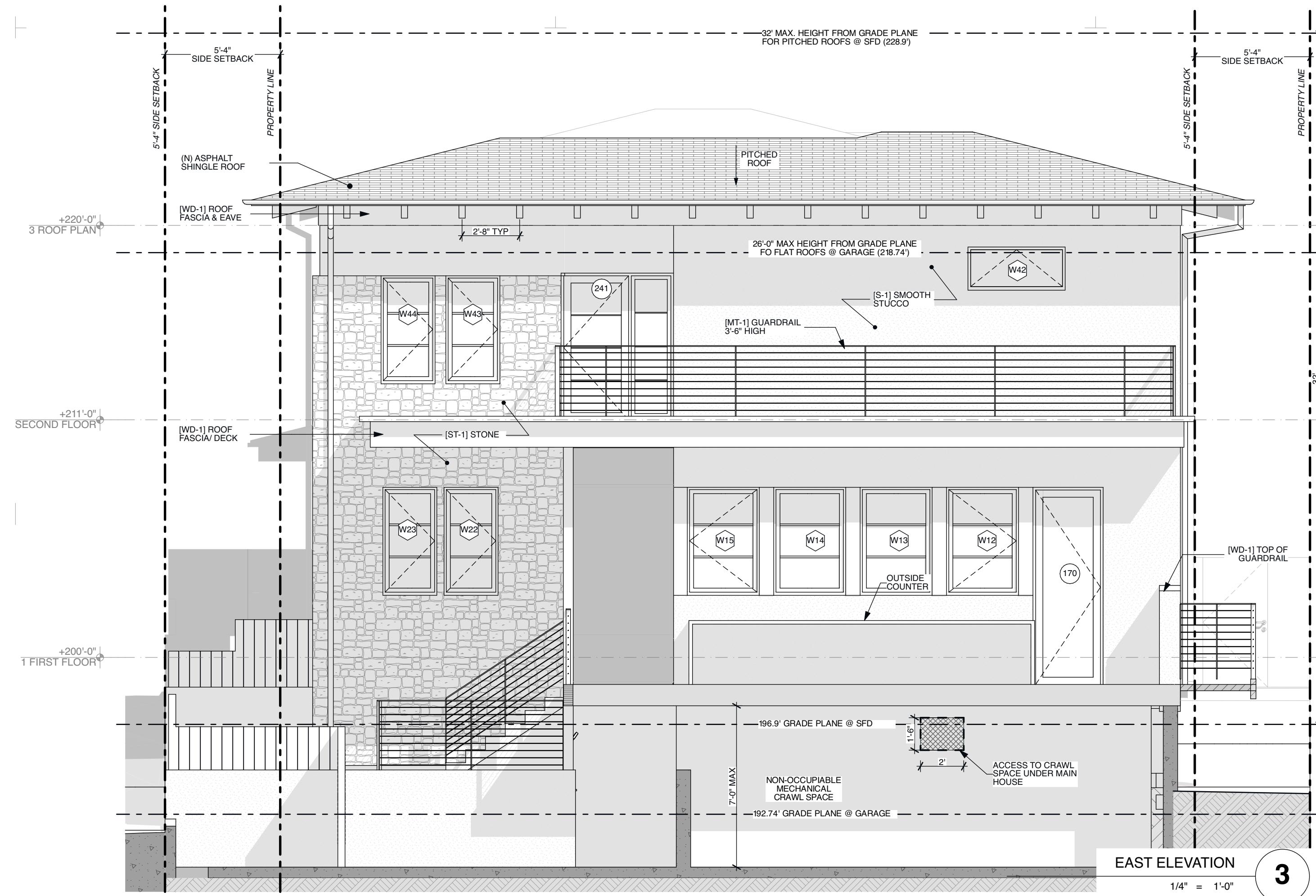
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PLAN CHECK RESUBMITTAL 3	09 FEB 2023

PLAN CHECK RESUBMITTAL 2

# PROPOSED ELEVATIONS

A201



**AAHA STUDIO** ARCHITECT  
9856 VIDOR DRIVE  
LOS ANGELES, CA 90035  
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O | 213.373.4581


**VIRGINIA ST RESIDENCE**

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PROJECT NO. 2201

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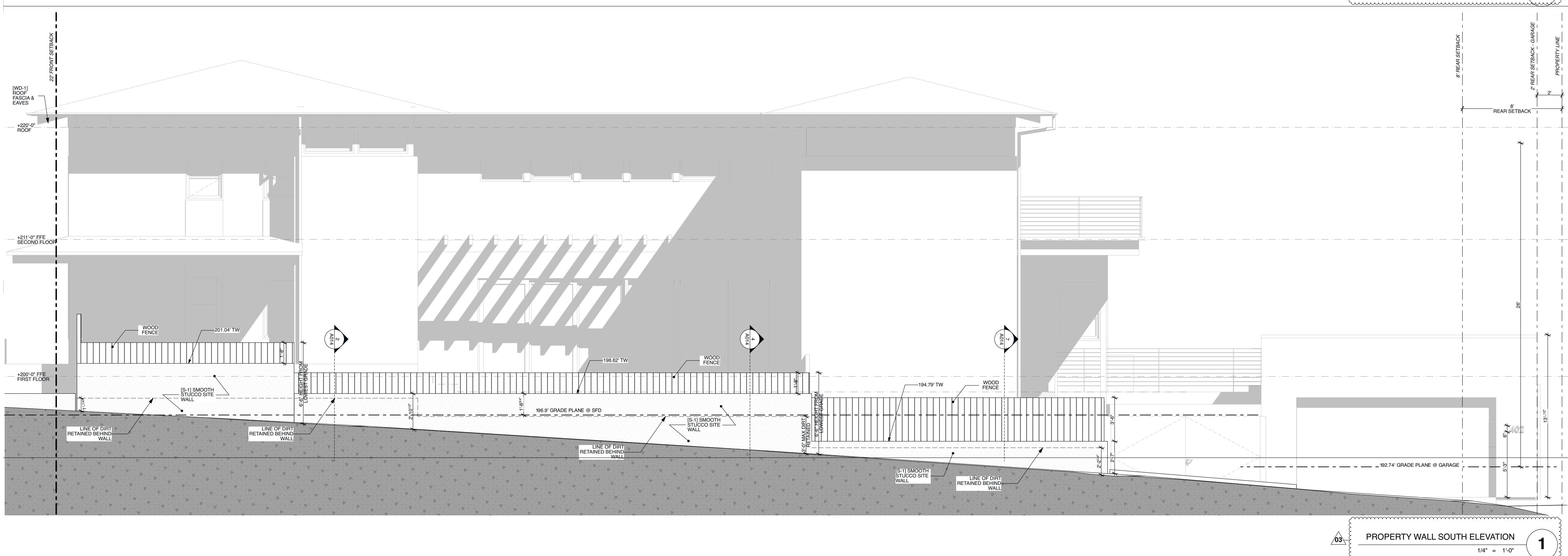
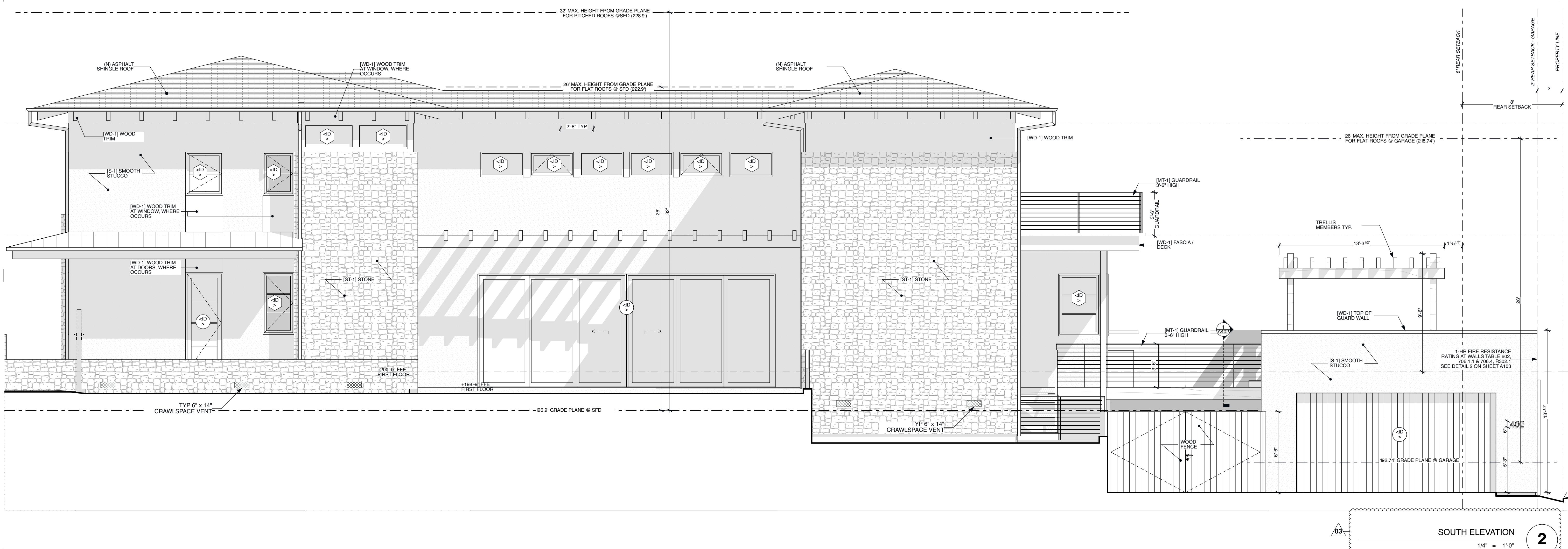
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**CURRENT ISSUE:**  
PLAN CHECK RESUBMITTAL 2

**PROPOSED ELEVATIONS**
**A202**



**VIRGINIA ST RESIDENCE**  
402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

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**CURRENT ISSUE:**  
PLAN CHECK RESUBMITTAL 2

### PROPOSED ELEVATIONS

**A203**

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VIRGINIA ST RESIDENCE

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PLAN CHECK RESUBMITTAL 2

## SECTIONS

A301


**VIRGINIA ST RESIDENCE**

 402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

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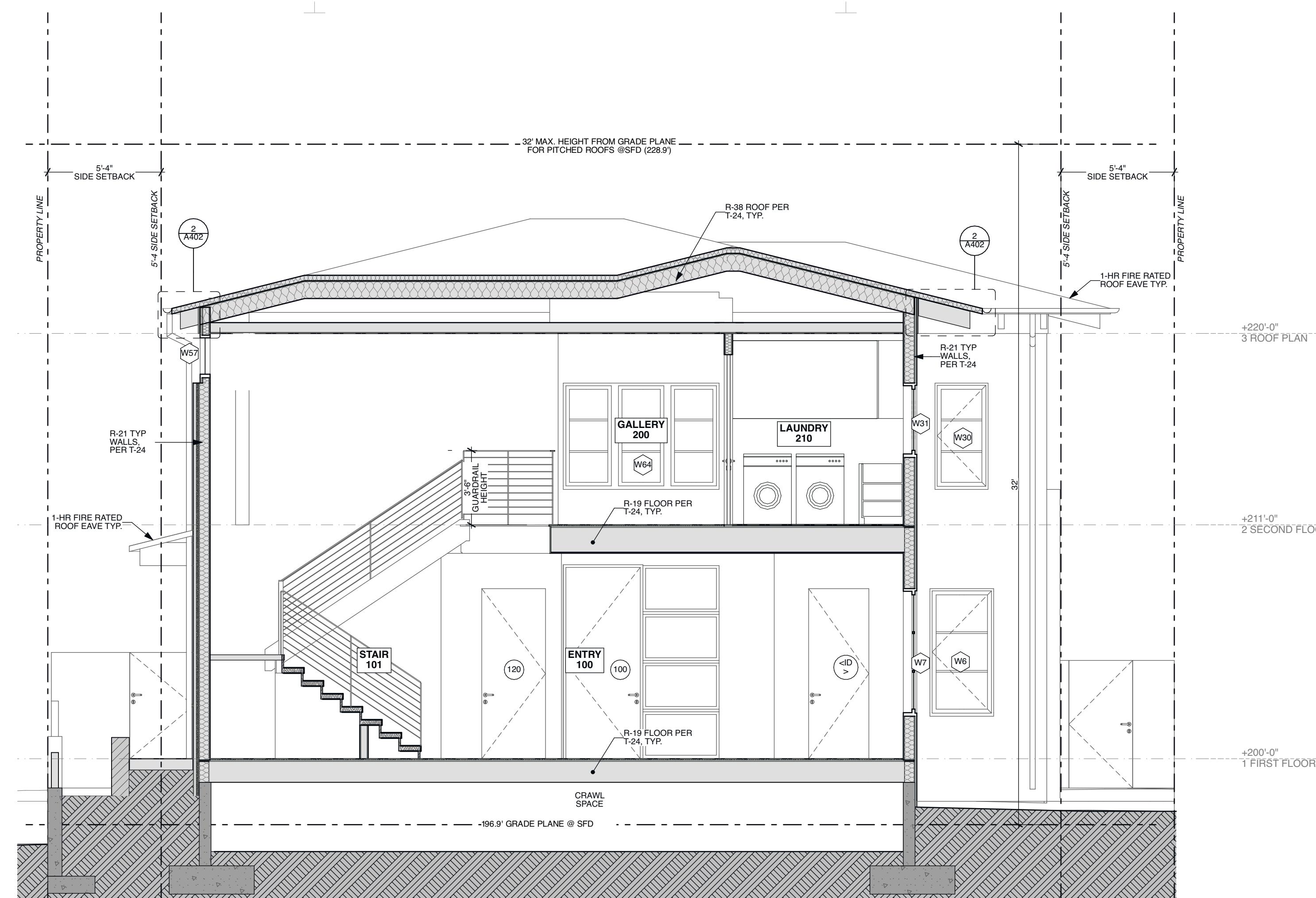
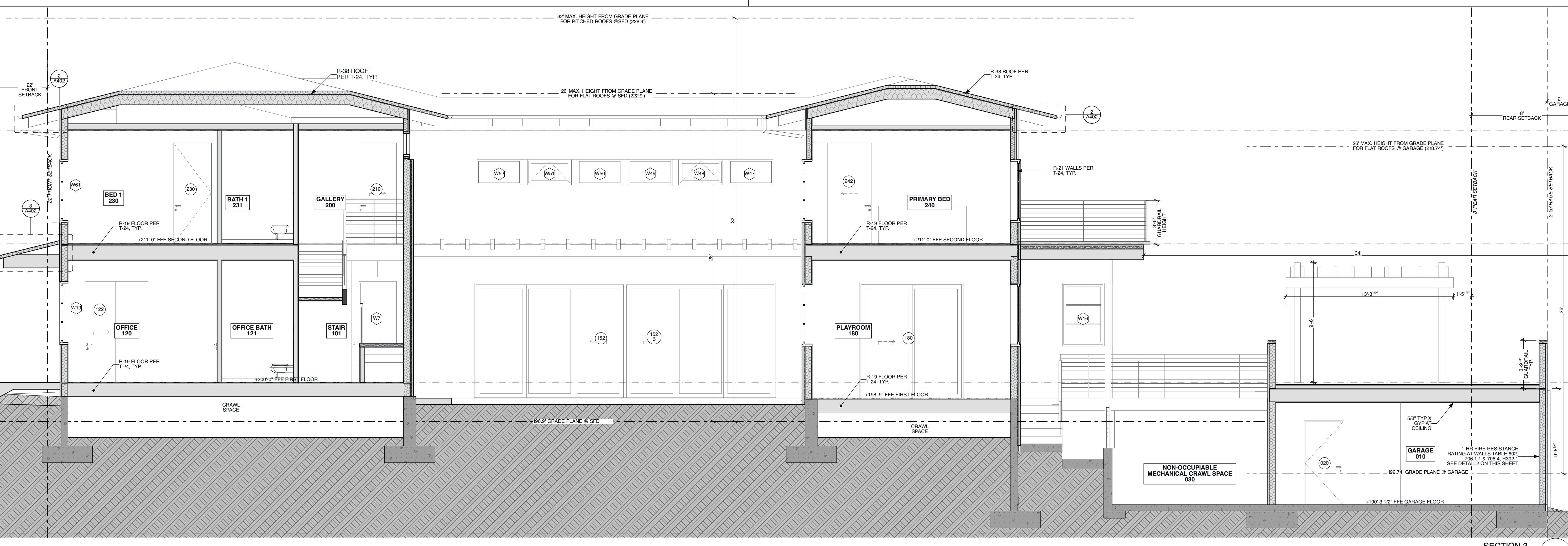
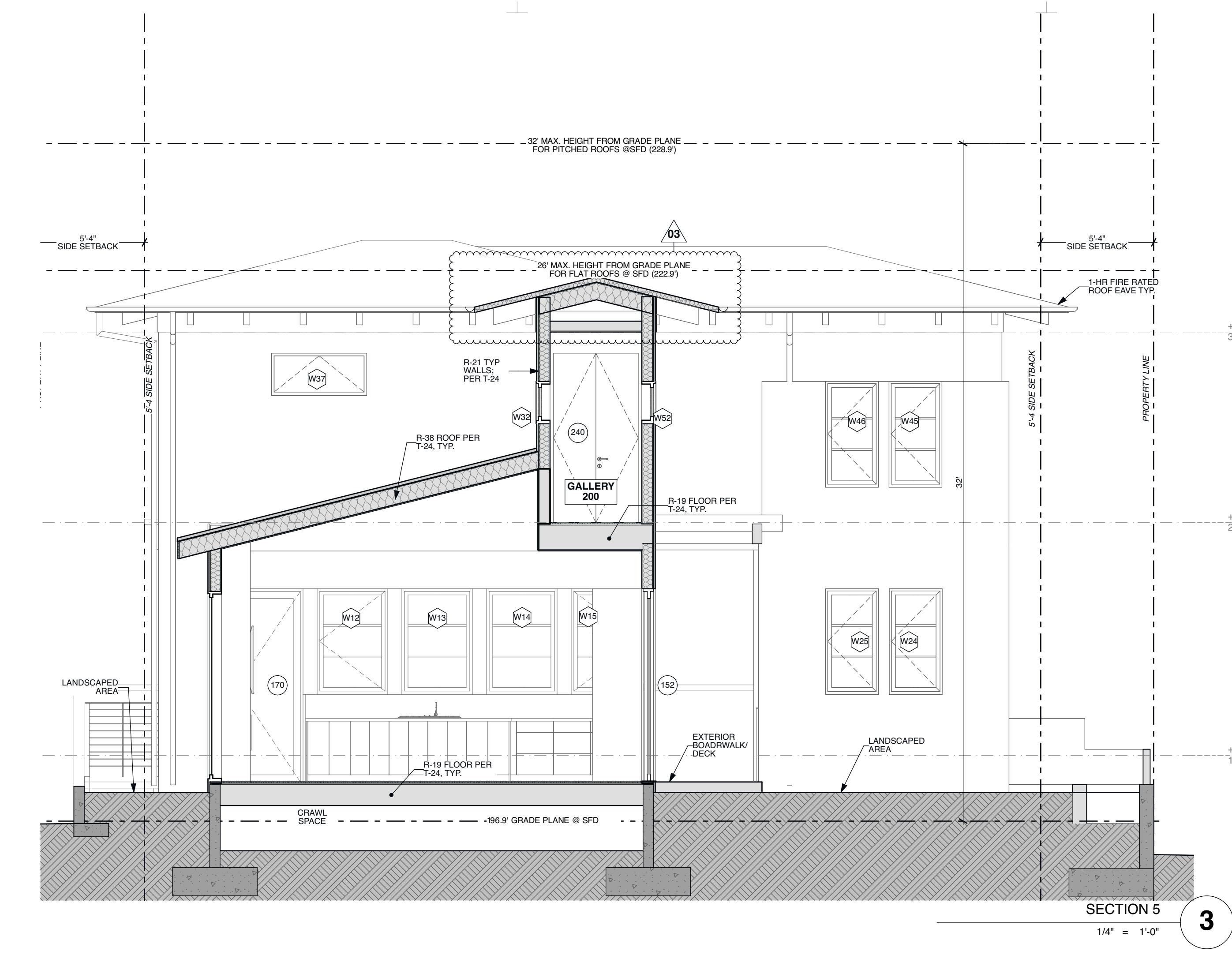
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 CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 2

**SECTIONS**
**A302**




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---

— 1 —



# VIRGINIA ST RESIDENCE

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OBJECT NO. 220

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**CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 3**

## SECTIONS

A303

This architectural cross-section diagram illustrates the interior of a house, focusing on a staircase and surrounding rooms. The diagram shows a staircase with a metal railing and wooden treads. Above the stairs, a series of horizontal lines represent ceiling joists. To the left of the stairs, there is a room with a window. To the right, a large room contains three rectangular recessed light fixtures. The diagram includes several callouts with labels:

- A callout labeled "3 A105" points to a circular feature on the left wall.
- A callout labeled "11 A105" points to a circular feature on the upper right wall.
- A callout labeled "8 A105" points to a circular feature on the lower right wall.
- A dimension line indicates a width of "11\" TYP." between two vertical supports.
- A dimension line indicates a height range of "34\" MIN. - 38\" MAX." between the floor and the underside of the ceiling joists.
- A dimension line indicates a height of "7<sup>1</sup>/<sub>4</sub>" TYP." from the floor to the top of the stairs.

**NOTE: ENCLOSED SPACE UNDER STAIRS THAT IS ACCESSED BY A DOOR OR ACCESSED BY A PANEL SHALL HAVE WALLS, UNDER-STAIR SURFACE & ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE W/ 1/2" GYP BOARD PER CRC R302.7 (TYP)**

# STAIR SECTION 2

---

1/2" = 1'-0"

**3**

This architectural cross-section diagram illustrates the building's exterior wall and roof construction. The wall features a vertical insulation layer with a thickness of 3'-6". The roof is a steep-pitched, shingled surface. Key dimensions and details include:

- Vertical Insulation Thickness:** 3'-6" (indicated by a dimension line at the bottom left).
- Roof Slope:** 11" TYP. (indicated by a dimension line near the bottom center).
- Roof Shingles:** A layer of shingles is shown on the roof surface.
- Roof Edge:** A decorative or structural element runs along the top edge of the roof.
- Roof Support:** A vertical support structure is located on the right side of the roof.
- Roof Vent:** A circular vent labeled "3 A105" is positioned on the right side of the roof.
- Roof Access:** A small opening or access point is indicated on the right side of the roof.
- Roof Edge Detail:** A detailed view of the roof edge shows a stepped or cantilevered structure supported by brackets.
- Roof Slope Range:** 34" MIN. - 38" MAX. (indicated by a dimension line on the right side).
- Roof Edge Height:** 7 1/4" TYP. (indicated by a dimension line on the right side).

## STAIR SECTION 1

**SECTION 6**

32' MAX. HEIGHT FROM GRADE PLANE FOR PITCHED ROOFS @SFD (228.9')

5'-4" SIDE SETBACK

PROPERTY LINE

5'-4" SIDE SETBACK

+220'-0" 3 ROOF PLAN

32'

31'-6"

PROPERTY LINE

1 A402

W42

1 A402

+211'-0" 2 SECOND FLOOR

R-21 TYP WALLS, PER T-24

W17 B

W17 A

100

R-19 FLOOR PER T-24, TYP.

TYP 6" x 14" CRAWLSPACE VENT

1 A402

SEE STRUCTURAL DETAILS 81&82/S11

CONCRETE STAIR ON GRADE PER STRUCTURAL DRAWINGS

04

196.9' GRADE PLANE @ SFD

CRAWL SPACE

04

+200'-0" 1 FIRST FLOOR

1/4" = 1'-0"

## SECTION 6


**VIRGINIA ST RESIDENCE**

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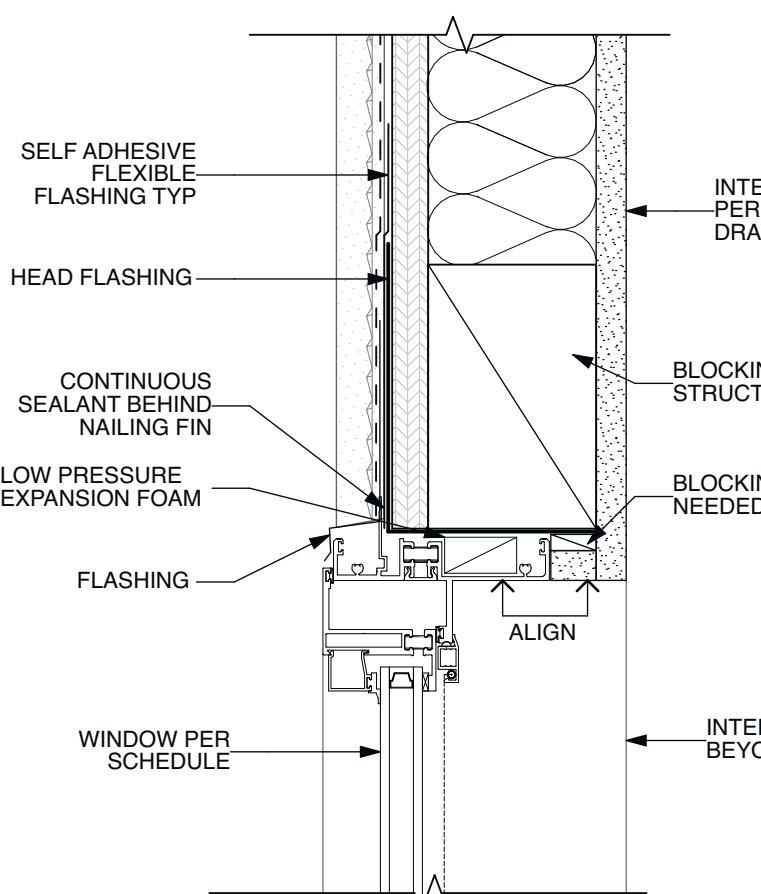
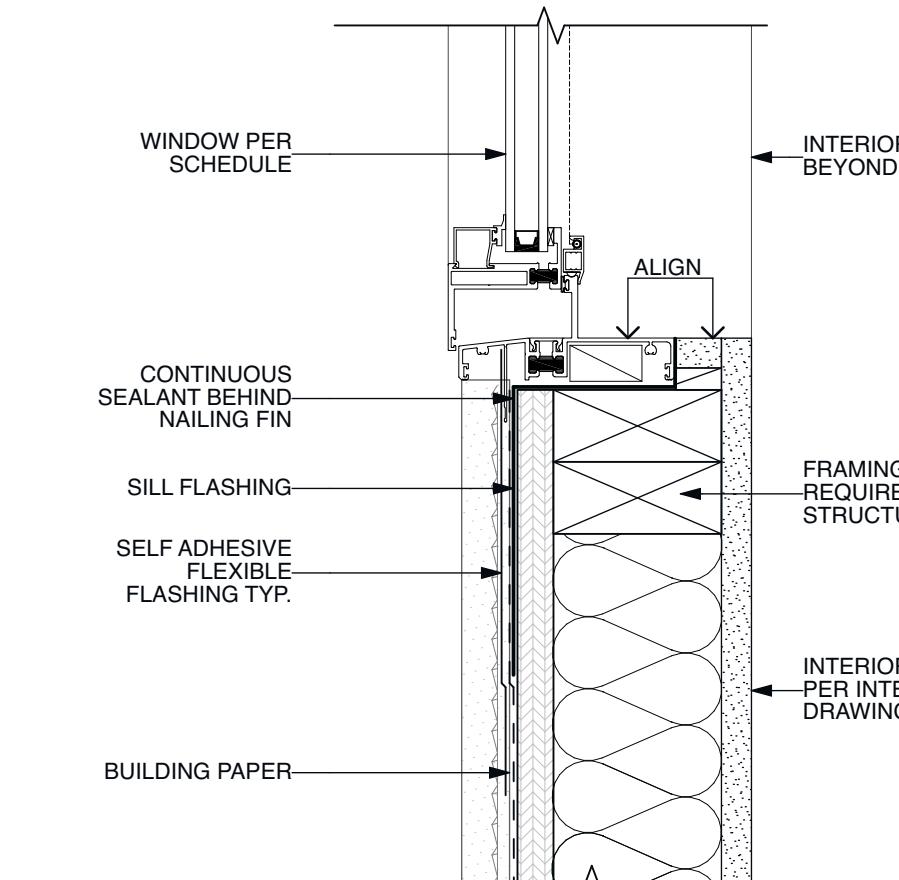
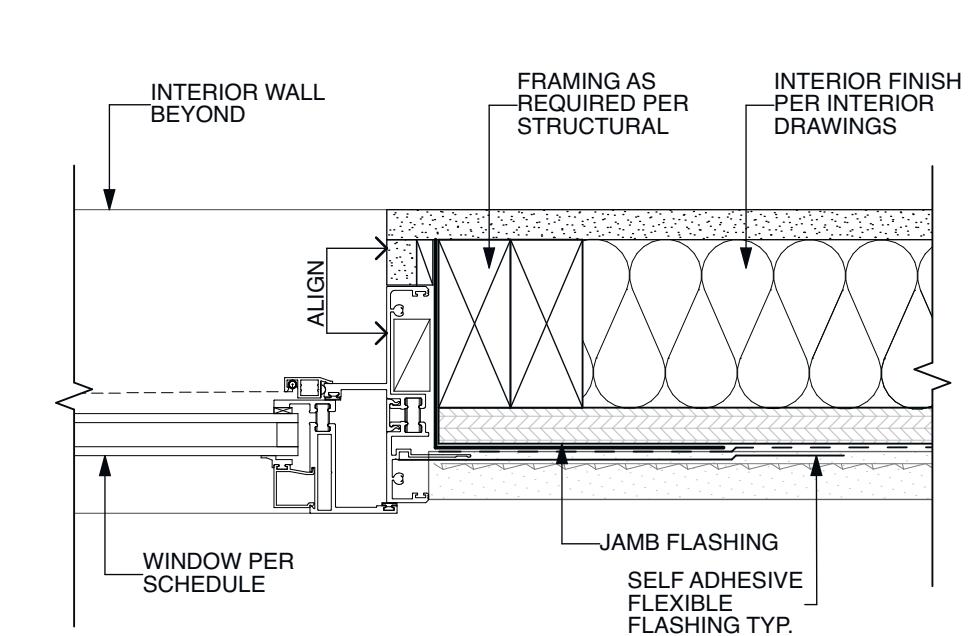
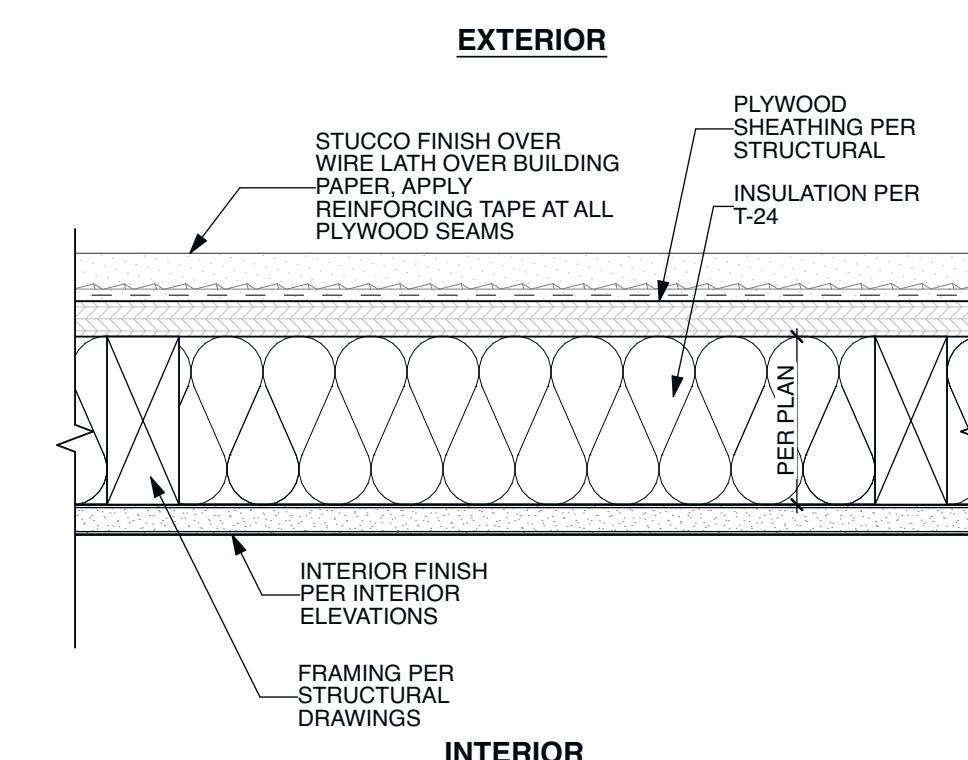
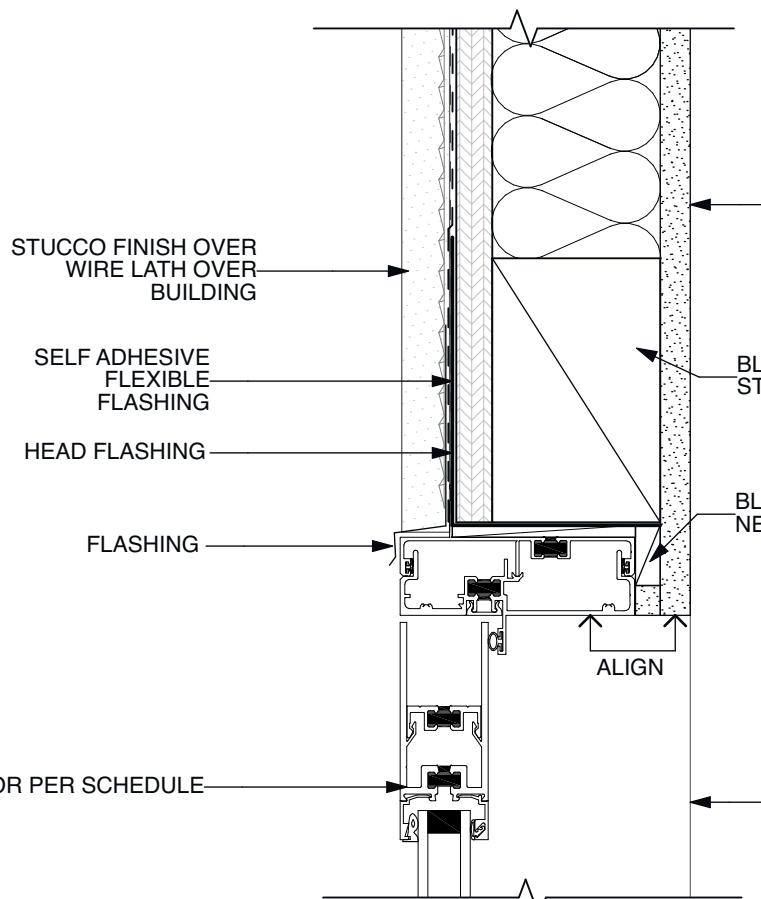
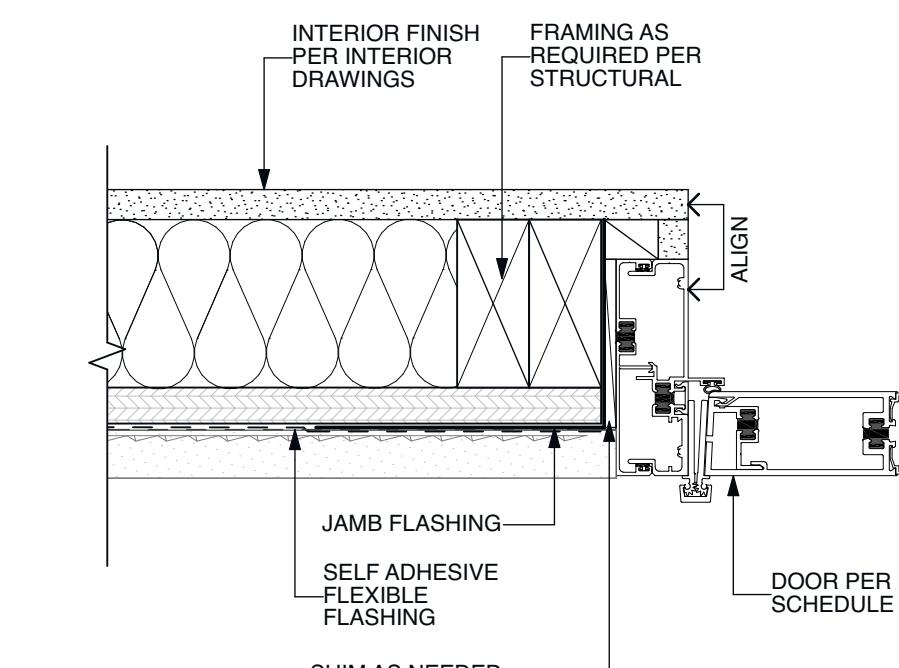
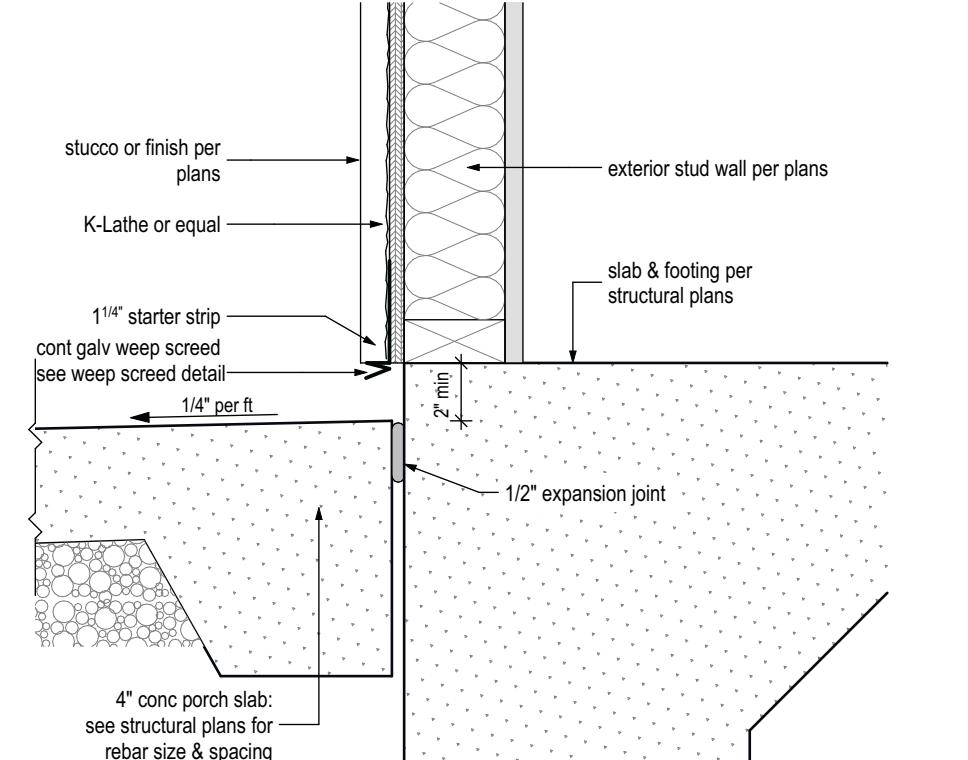
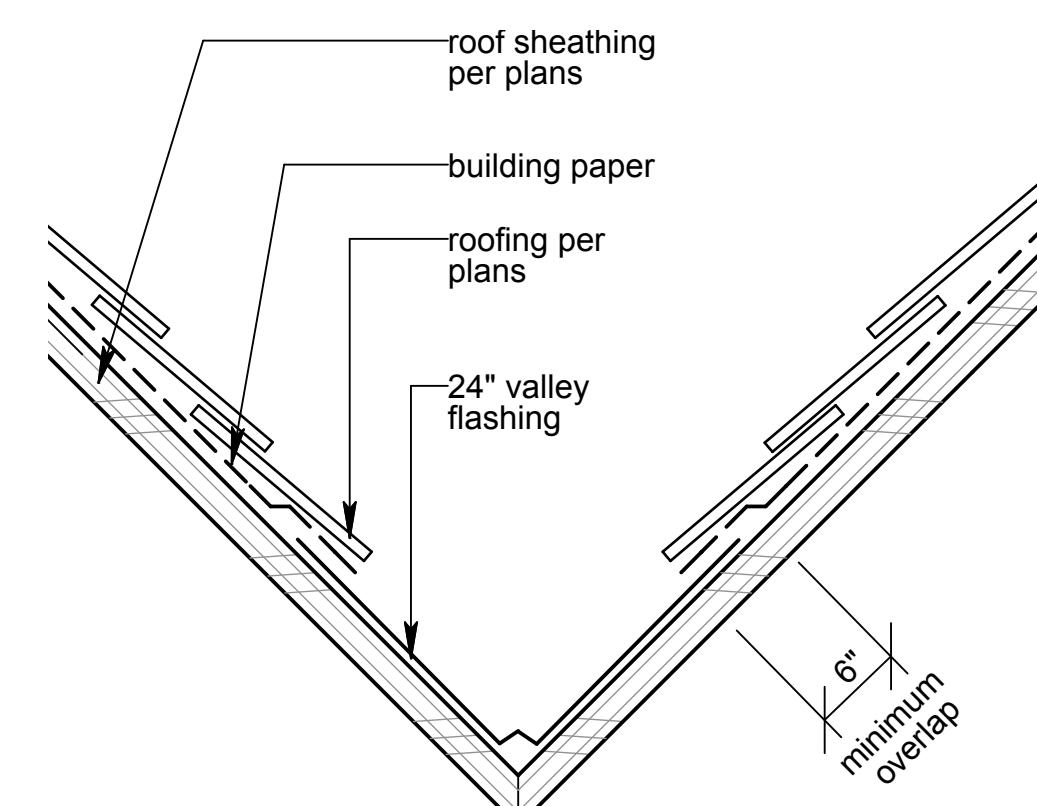
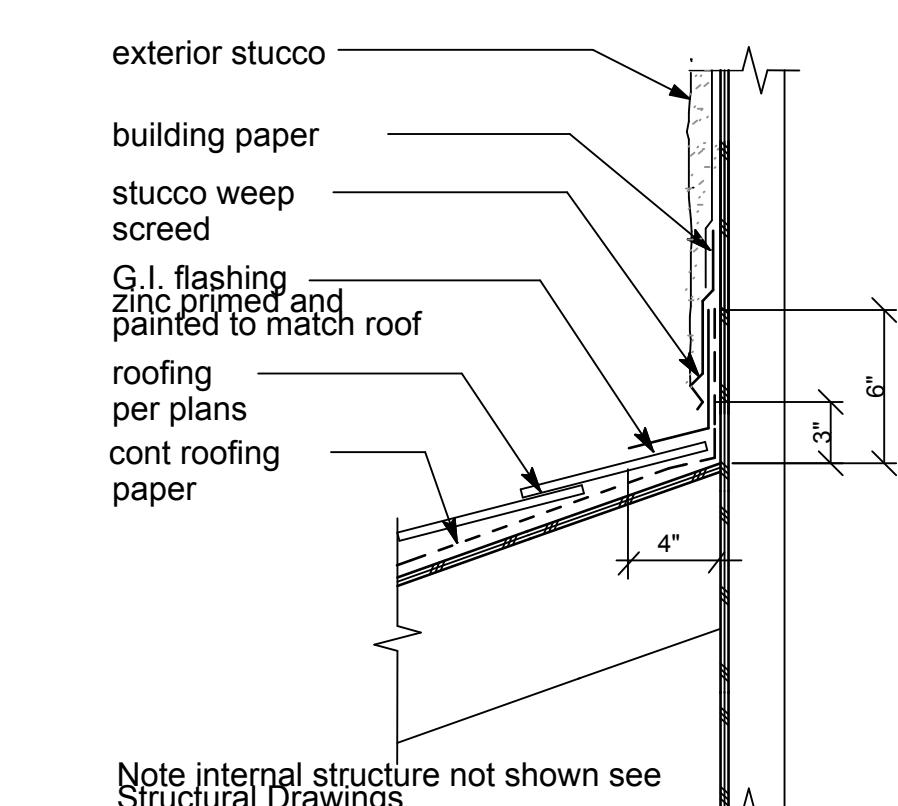
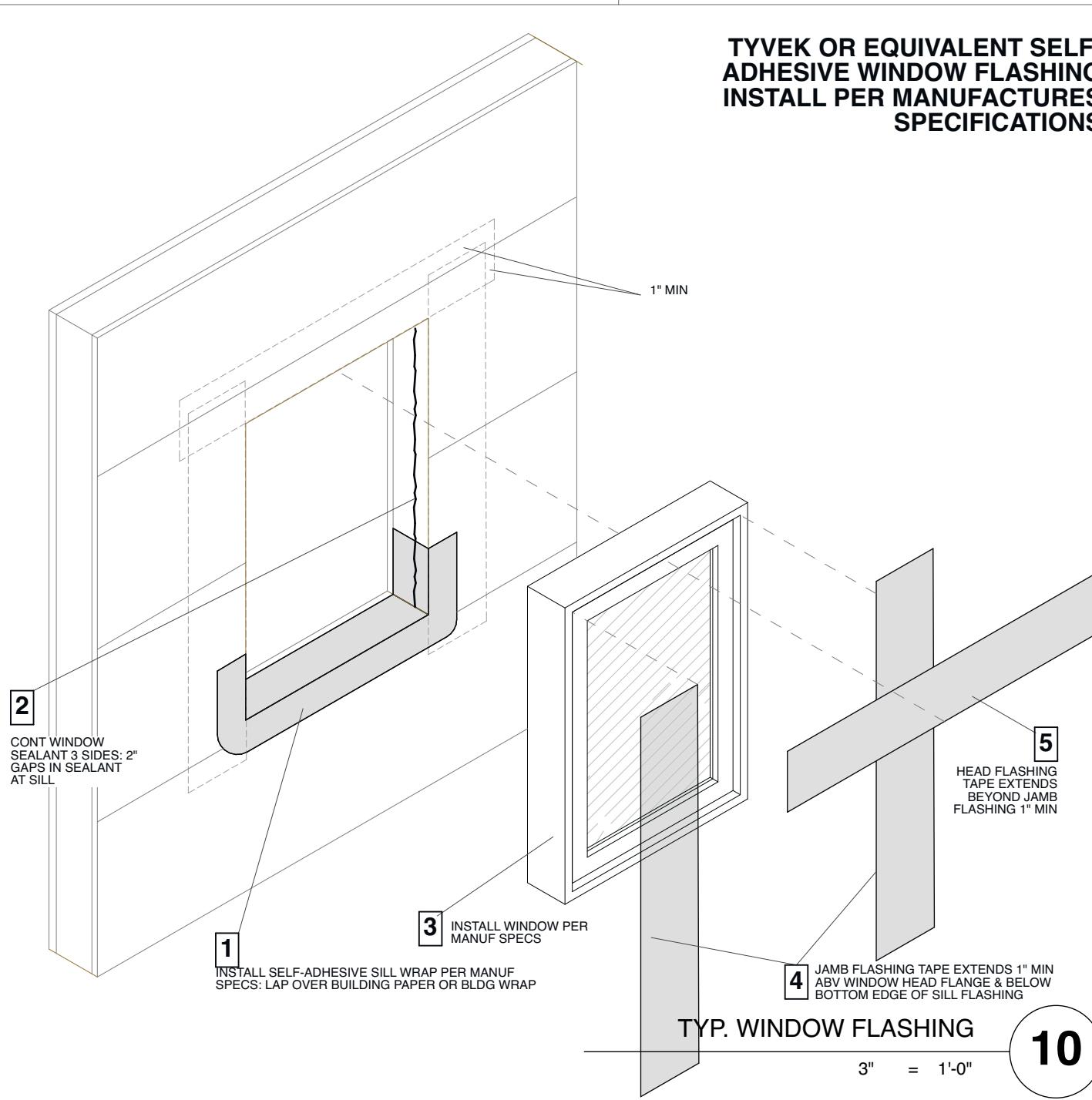
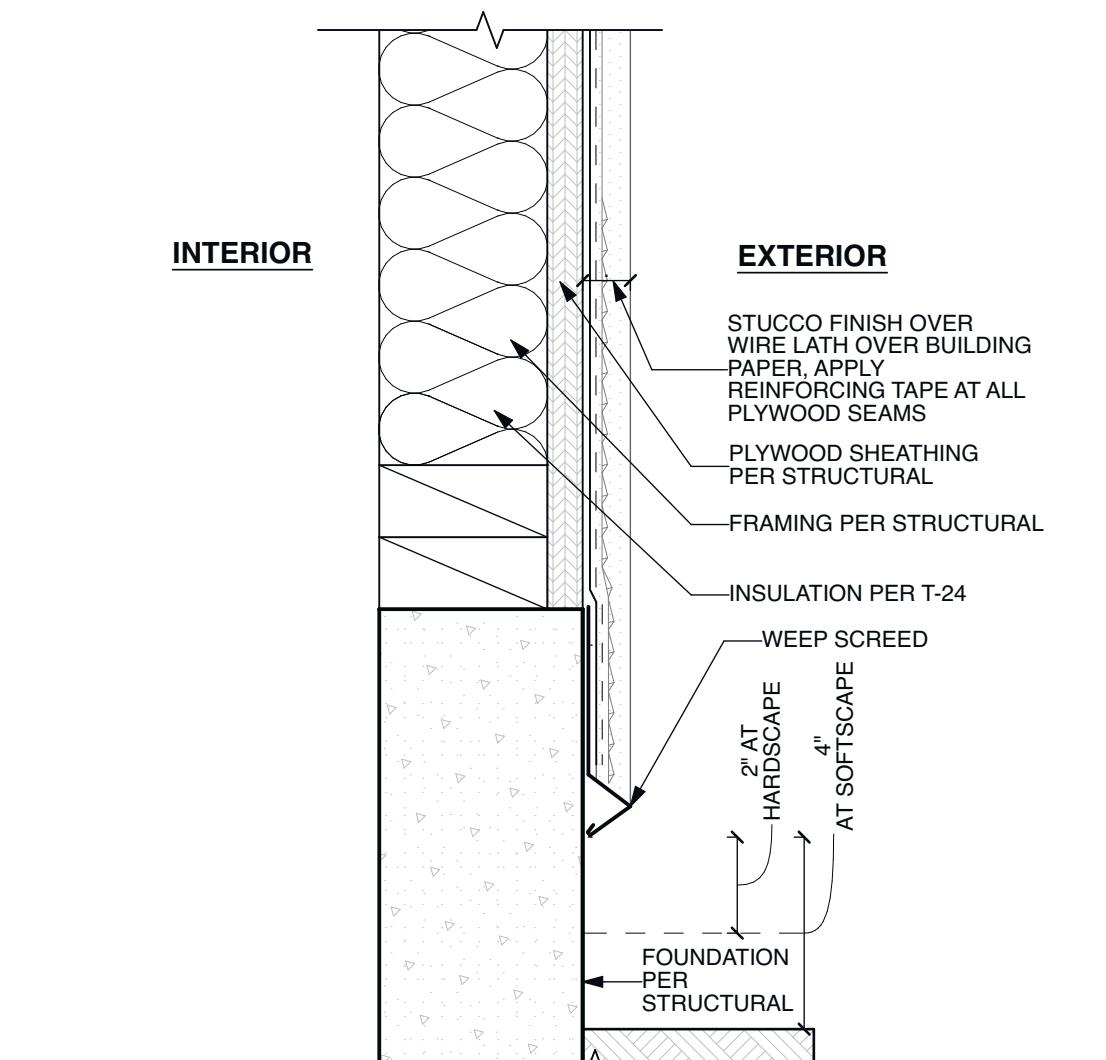
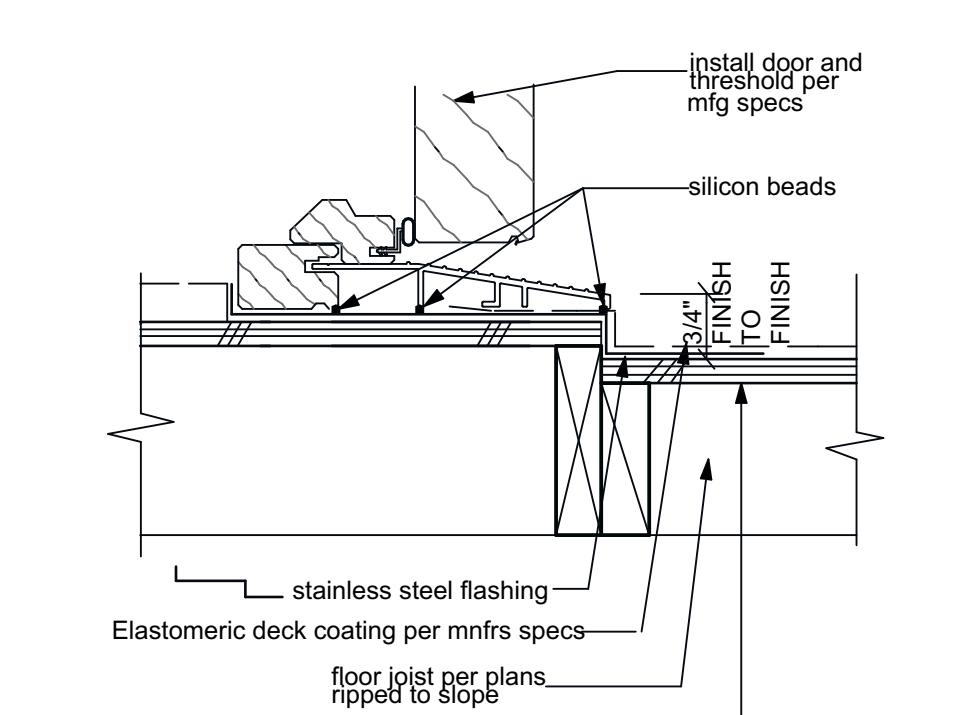
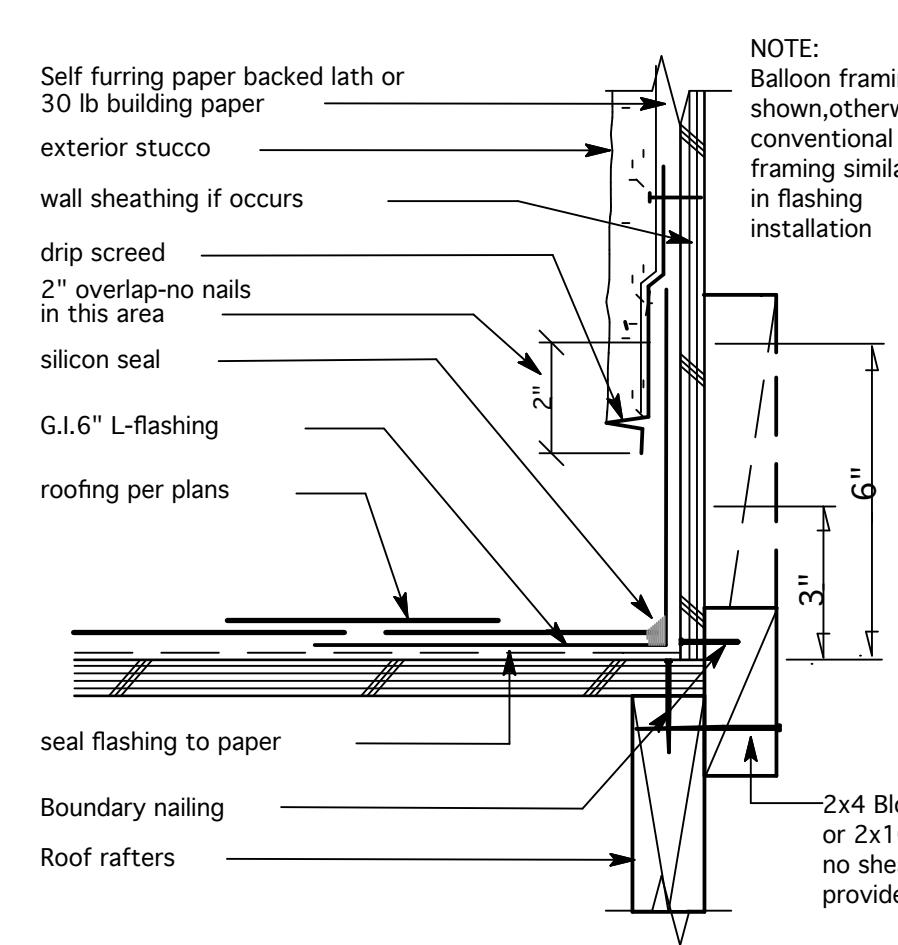
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**PLAN CHECK SUBMITTAL**
**EXTERIOR DETAILS**
**A401**

**WINDOW HEAD @ STUCCO**  
3' = 1'-0"  
**15**

**WINDOW SILL @ STUCCO**  
3' = 1'-0"  
**12**

**WINDOW JAMB @ STUCCO**  
3' = 1'-0"  
**9**

**EXT. WALL BUILD @ STUCCO**  
3' = 1'-0"  
**6**

**DOOR HEAD @ STUCCO**  
3' = 1'-0"  
**14**

**DOOR JAMB @ STUCCO**  
3' = 1'-0"  
**11**

**Typ. Ext. Wall @ SLAB**  
1 1/2' = 1'-0"  
**8**

**VALLEY FLASHING**  
1' = 1'-0"  
**5**

**ROOF TO WALL FLASHING**  
1' = 1'-0"  
**2**

**TYVEK OR EQUIVALENT SELF-ADHESIVE WINDOW FLASHING**  
INSTALL PER MANUFACTURERS SPECIFICATIONS

**WEEP SCREEN FLASHING DETAIL @ STUCCO**  
3' = 1'-0"  
**7**

**TYP. FLASHING AT DECK**  
1 1/2' = 1'-0"  
**4**

**ROOF TO WALL FLASHING**  
1' = 1'-0"  
**1**


**VIRGINIA ST RESIDENCE**

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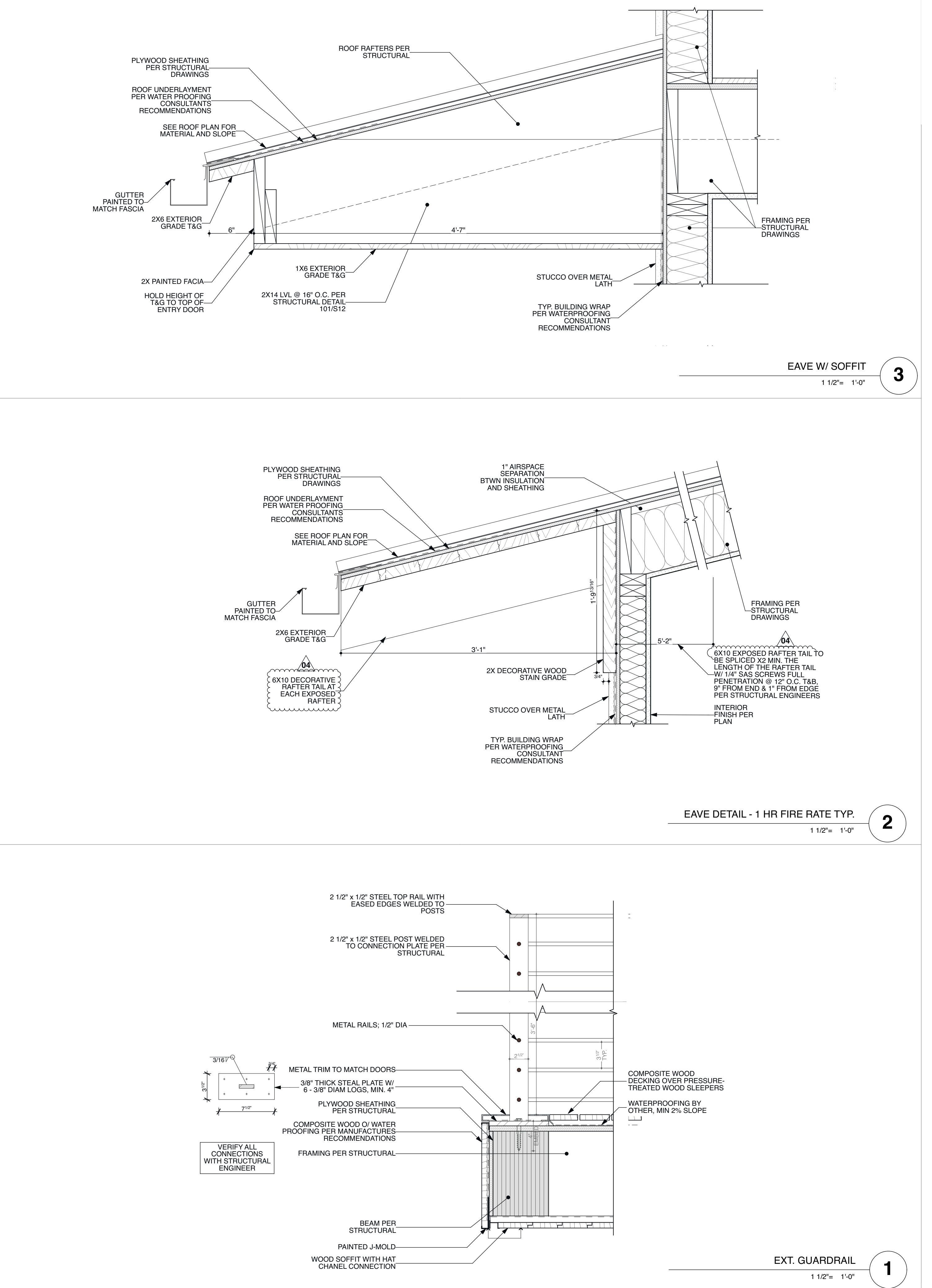
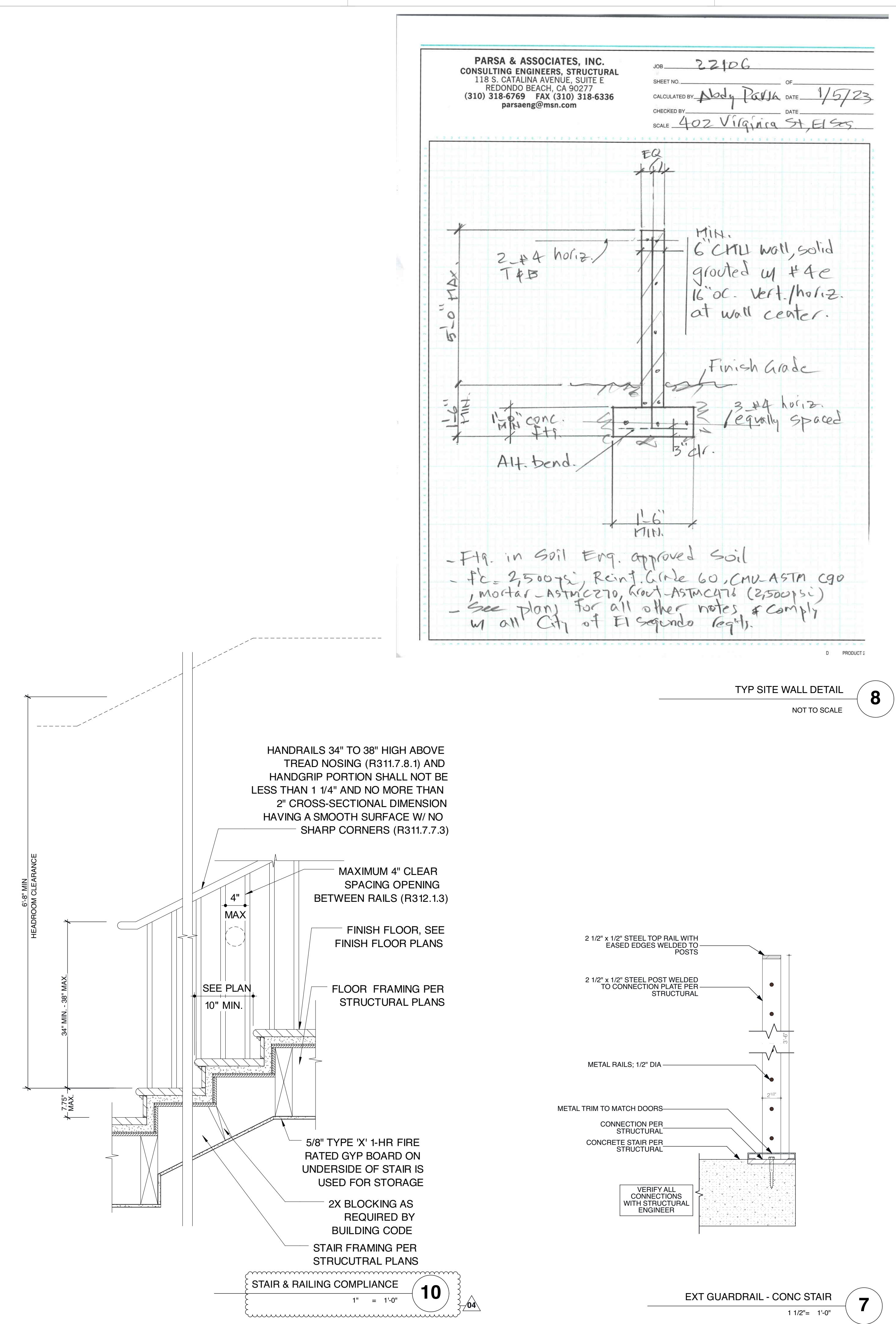
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TECHNICAL CONSULTANT  
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ID	ISSUE	DATE
01	PLAN CHECK SUBMITTAL	27 APR 2022
02	PLAN CHECK RESUBMITTAL 1	10 OCT 2022
03	PLAN CHECK RESUBMITTAL 2	06 JAN 2023
04	PLAN CHECK RESUBMITTAL 3	09 FEB 2023

CURRENT ISSUE:  
PLAN CHECK RESUBMITTAL 3

**EXTERIOR DETAILS**
**A402**


AAHA STUDIO ARCHITECT  
9856 VIDOR DRIVE  
LOS ANGELES, CA 90035

WWW.AAHA.STUDIO  
O | 213.373.4581



VIRGINIA ST  
RESIDENCE

402 VIRGINIA ST  
EL SEGUNDO CA 90245

PROJECT NO. 2201

WINDOW SCHEDULE													
ID	QTY.	TYPE	W x H	LOCATION	MANUF.	MODEL	FINISH	U-FACTOR	SHGC	EGRESS	TMPPR'D	REMARKS	
<b>FIRST FLOOR</b>													
100A	1	D.1 - FIXED/DIRECT SET	43"x109"	ENTRY	ANDERSEN	TBD		0.30	0.23	NO	YES	D100 SIDE LITE	
W3	1	B.1 - CASEMENT LEFT	30"x60"	GUEST BED	ANDERSEN	TBD		0.30	0.23	NO	YES		
W4	1	A.1 - CASEMENT RIGHT	30"x60"	GUEST BED	ANDERSEN	TBD		0.30	0.23	NO	YES		
W5	1	B.1 - CASEMENT LEFT	30"x60"	GUEST BED	ANDERSEN	TBD		0.30	0.23	NO	YES		
W6	1	B.1 - CASEMENT LEFT	36"x72"	BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W7	1	D.1 - FIXED/DIRECT SET	36"x72"	HALL	ANDERSEN	TBD		0.30	0.23	NO	YES		
W8	1	B.1 - CASEMENT LEFT	24"x48"	PWDR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W9	1	D.1 - FIXED/DIRECT SET	63"x108"	GREAT ROOM	FLEETWOOD	TBD		0.30	0.23	NO	YES		
W10	1	D.1 - FIXED/DIRECT SET	63"x108"	DINING	ANDERSEN	TBD		0.30	0.23	NO	YES		
W11	1	B.1 - CASEMENT LEFT	42"x60"	DINING	FLEETWOOD	TBD		0.30	0.23	NO	YES		
W12	1	A.1 - CASEMENT RIGHT	40"x60"	KITCHEN	ANDERSEN	TBD		0.30	0.23	NO	YES		
W13	1	D.1 - FIXED/DIRECT SET	40"x60"	KITCHEN	ANDERSEN	TBD		0.30	0.23	NO	YES		
W14	1	D.1 - FIXED/DIRECT SET	40"x60"	KITCHEN	ANDERSEN	TBD		0.30	0.23	NO	YES		
W15	1	B.1 - CASEMENT LEFT	40"x60"	KITCHEN	ANDERSEN	TBD		0.30	0.23	NO	YES		
W16	1	D.1 - FIXED/DIRECT SET	40"x60"	BOARDWALK	ANDERSEN	TBD		0.30	0.23	NO	YES		
W17A	1	D.1 - FIXED/DIRECT SET	60"x84"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES	PART OF W16B	
W17B	1	D.1 - FIXED/DIRECT SET	60"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES	PART OF W16A	
W18	1	A.1 - CASEMENT RIGHT	30"x60"	OFFICE BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W19	1	B.1 - CASEMENT LEFT	30"x60"	OFFICE	ANDERSEN	TBD		0.30	0.23	NO	YES		
W20	1	D.1 - FIXED/DIRECT SET	30"x60"	OFFICE	ANDERSEN	TBD		0.30	0.23	NO	YES		
W21	1	B.1 - CASEMENT LEFT	30"x60"	OFFICE	ANDERSEN	TBD		0.30	0.23	NO	YES		
W22	1	A.1 - CASEMENT RIGHT	30"x60"	PLAYROOM	ANDERSEN	TBD		0.30	0.23	NO	YES		
W23	1	A.1 - CASEMENT RIGHT	30"x60"	PLAYROOM	ANDERSEN	TBD		0.30	0.23	NO	YES		
W24	1	B.1 - CASEMENT LEFT	30"x60"	PLAYROOM	ANDERSEN	TBD		0.30	0.23	NO	YES		
W25	1	B.1 - CASEMENT LEFT	30"x60"	PLAYROOM	ANDERSEN	TBD		0.30	0.23	NO	YES		
<b>SECOND FLOOR</b>													
W26	1	B.1 - CASEMENT LEFT	30"x60"	BED 2	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W27	1	D.1 - FIXED/DIRECT SET	30"x60"	BED 2	ANDERSEN	TBD		0.30	0.23	NO	YES		
W28	1	B.1 - CASEMENT LEFT	30"x60"	BED 2	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W29	1	B.1 - CASEMENT LEFT	30"x60"	BED 2	ANDERSEN	TBD		0.30	0.23	YES	YES	4" LIMIT STOP w/ EMERGENCY ACCESS BUTTON	
W30	1	B.1 - CASEMENT LEFT	30"x60"	BATH 2	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W31	1	C.1 - FRENCH CASEMENT	60"x42"	LAUNDRY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W32	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W33	1	E.1 - AWNING	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W34	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W35	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W36	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W37	1	E.1 - AWNING	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W38	1	E.1 - AWNING	54"x24"	PRIMARY BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W39	1	E.1 - AWNING	36"x18"	PRIMARY BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W40	1	D.1 - FIXED/DIRECT SET	60"x60"	PRIMARY BATH	ANDERSEN	TBD		0.30	0.23	NO	YES	FROSTED	
W41	1	E.1 - AWNING	36"x18"	PRIMARY BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W42	1	E.1 - AWNING	54"x24"	PRIMARY BATH	ANDERSEN	TBD		0.30	0.23	NO	YES		
W43	1	A.1 - CASEMENT RIGHT	30"x60"	PRIMARY BED	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W44	1	A.1 - CASEMENT RIGHT	30"x60"	PRIMARY BED	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W45	1	B.1 - CASEMENT LEFT	30"x60"	PRIMARY BED	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W46	1	B.1 - CASEMENT LEFT	30"x60"	PRIMARY BED	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W47	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W48	1	E.1 - AWNING	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W49	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W50	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W51	1	E.1 - AWNING	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W52	1	D.1 - FIXED/DIRECT SET	42"x24"	GALLERY	ANDERSEN	TBD		0.30	0.23	NO	YES		
W53	1	D.1 - FIXED/DIRECT SET	60"x60"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W54	1	D.1 - FIXED/DIRECT SET	60"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W55	1	D.1 - FIXED/DIRECT SET	60"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W56	1	D.1 - FIXED/DIRECT SET	60"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W57	1	D.1 - FIXED/DIRECT SET	48"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W58	1	D.1 - FIXED/DIRECT SET	48"x24"	STAIR	ANDERSEN	TBD		0.30	0.23	NO	YES		
W59	1	A.1 - CASEMENT RIGHT	30"x42"	BATH 1	ANDERSEN	TBD		0.30	0.23	NO	YES		
W60	1	A.1 - CASEMENT RIGHT	36"x42"	BED 1	ANDERSEN	TBD		0.30	0.23	YES	YES	4" LIMIT STOP w/ EMERGENCY ACCESS BUTTON	
W61	1	B.1 - CASEMENT LEFT	30"x60"	BED 1	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W62	1	D.1 - FIXED/DIRECT SET	30"x60"	BED 1	ANDERSEN	TBD		0.30	0.23	NO	YES	4" LIMIT STOP	
W63	1	B.1 - CASEMENT LEFT	30"x60"	BED 1	ANDERSEN	TBD		0.30	0.23	NO			

## General Notes

### GENERAL

1. All workmanship and materials shall conform to the 2019 Edition of CRC, CBC, CMC, CPC & CEC.  
 2. Proof of certificate of all necessary insurance shall be filed with the Owner to indemnify and hold harmless the Owner, Landlord, Architect and agents thereof from damages and losses resulting from Contractor's execution of work.  
 3. The architectural plans shall be used for all dimensions and wall layouts. All dimensions shall take precedence over scale shown on plans. Contractor shall verify all dimensions and report any discrepancies to the Architect before proceeding with construction.  
 4. During construction the Contractor shall notify the Architect of any unusual or unforeseen condition prior to continuing with construction. Where the intent of the drawings is doubt or a discrepancy between the drawings and the condition in the field exists the Architect shall be notified before to continuing with work. There shall be no deviation from structural details without the approval of the Architect. Approval by City Inspector does not constitute authority to deviate from plans or specifications.  
 5. Before submitting his bid, the Contractor shall examine the site to compare it with the plan and note as to the conditions under which this work will be performed.  
 6. Unless specifically detailed on these drawings, the Contractor shall provide temporary braces, shoring and guys wherever necessary to support all loads to which the structure may be subjected during construction. This temporary support system shall hold all elements and members in their final position until totally and finally connected to the permanent bracing elements.  
 7. Contractor shall comply all local, California state and federal regulations (Cal State Construction, CALOSHA, etc.)  
 8. The typical notes and details shall apply unless specific details occur elsewhere. Where no detail is shown construction shall be as for similar work.  
 9. If a conflict is found between different portions of the contract documents the Contractor shall notify the Architect immediately. Continued construction of the area in conflict shall be at the Contractor's risk until the conflict is resolved by the Architect.

### INSPECTIONS AND QUALITY CONTROL

1. The Contractor shall have primary responsibility for quality and shall provide supervision and internal control processes as necessary to assure that the work is performed in accordance with contract documents.  
 2. The Contractor shall coordinate the work with inspection requirements.  
 3. The Contractor shall be responsible for assuring that all required inspections are performed.  
 4. The Contractor shall cooperate with any inspector authorized by Owner, Building Department, Architect and Engineer of Record and shall allow complete access to the site to any such inspector at all times.  
 5. The contractor shall maintain on site copies of all required material certifications and report to of all required tests and inspections. Access to these records shall be provided to the Owner, Building Department, Architect and Engineer of Record, or the testing agency on request.  
 6. Any required special inspections will be provided by a registered Deputy Inspector approved by the Architect and licensed by the Governing Agency to perform special inspections. The special inspector shall be employed by the Owner, the Architect or Engineer of Record, but not by the Contractor or any other person responsible for the construction work.  
 7. Inspection by a Registered Deputy Inspector is required for the following:  
     a. All field welding, unless noted otherwise on drawing.  
     b. Installation of high strength bolts, e.g. ASTM A-325 bolts.  
     c. For concrete w/compressive strength greater than 2,500 psi.  
     d. Installation of epoxy bolts or dowels.

### FOUNDATION

1. Foundation design is based on a certified soils report # 22923-21, dated December 21, 2021, prepared by Norcal Eng.  
 2. The bottom of all footings shall be free of loose soil.  
 3. Footing backfill and all utility trench backfill shall be mechanically compacted in layers. Flooding is not permitted.  
 4. Foundation as shown is for bidding purposes. Actual conditions may vary at time of construction and additional work may be required.  
 5. There shall be no deviation from structural details without the approval of the Architect. Approval by City Inspector does not constitute authority to deviate from plans or specifications.  
 6. Cement: Test, Type II Portland, ASTM - C15  
 7. Aggregates: ASTM - C33. Maximum size 1 1/2" for footings and 1" for all other work.  
 8. Dowels: to be provided for all vertical and horizontal reinforcing bars in walls, columns, etc. of the same size and number from footings, supporting beams and/or columns.  
 9. All reinforcing steel and dowels shall be well secured in place prior to pouring concrete.  
 10. Field welding requires continuous inspection by a registered Deputy Inspector unless noted otherwise on plan.  
 11. All structural steel shall be A-36.

### WOOD

1. All lumber shall be Douglas Fir or Douglas Fir Larch. All nails shall be Common Wire Nails unless otherwise noted.  
 2. All beams and post shall be #1 grade, unless noted otherwise.  
 3. All joist, rafters studs and plates shall be #2 grade, unless noted otherwise.  
 4. All nailing shall be in accordance with the 2019 CBC Table 230 4.10.1, using Common Wire Nails.  
 5. Nailing of roof and floor sheathing shall be inspected by Building Department before covering.  
 6. All plywood shall be Douglas Fir ps-95.  
 7. Sill plates shall be pressure treated Douglas Fir. Sill plate bolts shall be 5/8" diameter x 12" long (7" minimum embedment) @ min 4'-0" on center and starting not more than 9" from ends of each sill plate, unless otherwise noted.  
 8. All bolts and lag screws shall have standard cut washers under heads & nuts and upon installation all nuts and screws shall be tightened and retightened before covering. Bolt holes in wood shall be 1/2" to 1 1/2" oversized. Holes over 1/16" larger shall require replacement of lumber piece.  
 9. Screws and lag bolts shall not be hammered into place.  
 10. Sill plates of interior non bearing and not plywood walls may be anchored to concrete with 1/2" diameter power driven pins with steel washers at 30° unless detailed otherwise, ICC # 1372  
 11. All breaks for vents, ducts, plumbing shall be strapped with 1 1/2" x 1/2" steel straps with four 16d nails on each side.  
 12. If top plates or studs are notched or drilled with a hole larger than 1/2 of the member width, a 14 gauge bent plate channel (1/2" flanges) shall be slipped over the member, channel shall extend 12" beyond holes on each side, Nail with 6 8d each side of opening. Place nails in side flanges.  
 13. Install 2x full depth cross bridging at 10' - 0" on center for roof rafters and 8'-0" on center for floor joists.  
 14. Install 2x solid blocking at each support.  
 15. Install 2x solid fire blocking in stud walls at 10'-0" max. or at ceiling line or as permitted by governing code.  
 17. Doubled 2x joists shall be nailed with 16d common nails at 9" on center.  
 18. 1 1/2" from top and bottom staggered.  
 18. 3 or more joists or rafters shall be joined together with 1/2" diameter machine bolts at 18" on center. 3" from top and bottom, staggered, with 2 bolts vertically spaced over support.  
 19. Notching shall not be in excess of 25% in bearing walls and 40% in nonbearing walls.  
 20. Bored holes shall not exceed 40% in bearing walls and 60% in nonbearing walls.  
 21. Bored holes shall not be within 2" of the top or bottom of joist and the diameter of such holes shall not exceed 1/3 of the depth of the joist.  
 22. Notches in the ends of joist shall not exceed 1/4 the depth of the joist and shall not be located in the middle 1/3 of the span per the requirements of CBC Sect. 2308.4.2.4 - Conventional Light frame Construction Provisions.  
 23. Provide fire blocking along the run of stairways at the junction of vertical and horizontal surfaces such as drop soffits, along landings, in furred spaces and vertical.  
 24. All lumber shall be D.F. Larch-Grading rules agency WCL1B/WWPA  
 25. All parallams shall be E=2.0x10 psi min.  
 26. All parallams/micro-lams :  
     a) are to be fabricated in the shop of a licensed fabricator b) manuf. logo to be imprinted on the side of the beam.  
     c) beams to be load tested by manuf. and test results submitted to the building inspector.  
 27. All joist shall comply with ICC # ER-4979, ner -481.  
 28. Provide double 1/2" (u.o.n) under all parallel partitions.  
 29. All nailing shall be per Table 2304.10.1.  
 30. Contractor shall provide shoring as required by the local jurisdiction.  
 31. All parallams shall have min. e=2.0x10psi / ICC # ER-4979, ner -481  
 32. If where stud heights at non-bearing rake walls exceed 14", use 3x4@16"oc.  
 33. All Timber Strands must be min. E=1.7x10<sup>6</sup> psi.

### REINFORCING STEEL

1. Reinforcing steel shall be new stock deformed bars conforming to ASTM A-615 grade 40 bars up to and including #4 and grade 60 for all bars greater than #5. All bars shall be deformed and shall comply with ASTM A-305.  
 2. All reinforcing steel shown continuous may be lapped 30 times bar diameter for grade 40 and 40 times bar diameter for grade 60. However, minimum lap shall be 24".  
 3. Do not weld grade 60 reinforcing steel unless it is ASTM A-706.  
 4. Concrete shall have the following compressive strength at 28 days, U.O.N. on plans, Type II cement :  
     a. Continuous and Isolated Footings = 2,500 psi  
     b. Slab on Grade = 2,500 psi  
     c. At concrete grade b'm's = Fc = 3,500 psi with Deputy Inspector.  
 5. Continuous inspection by a Registered Deputy Inspector is required for all concrete with design compressive strength greater than 2,500 psi.  
 6. Concrete mixes shall be designed by an approved laboratory currently doing this type of work.  
 7. Portland cement shall conform to ASTM C-33 type II. Hardrock Aggregate shall conform to ASTM C-33. Their maximum sizes shall be 1 1/2" for footings, caissons and grade beams and 3/4" for all other work.  
 8. Forms:  
     a. Shall be smooth, well braced and tight so as to prevent leakage and conform to the shape and dimensions specified.  
     b. Clear coverage of concrete over outer reinforcing bars as follows:  
         A) Footings and walls against earth shall be 3" clear if not formed or 2" clear if formed.  
         B) Main bars in columns and beams: 2" clear  
         C) Formed walls: 1/2" clear - #6 or smaller; 2" clear - #6 or larger.  
 9. All reinforcing steel and dowels shall be well secured in place prior to placing concrete.  
 10. All reinforcing shown continuous may be lapped 30 times bar diameter for grade 40 and 40 times bar diameter for grade 60. However, minimum lap shall be 24".  
 11. Drypack shall be one of the following nonshrink grouts mixed with water according to manufacturers speculations:  
     BURKE READY-TO-USE GROUT EMBECO 636;  
     MASTERFLOW 713; FIVE STAR GROUT;  
     RAPIDSET GROUT;  
     SAUREISEN NO. F100 LEVEL-FILL GROUT;  
     BONSAUL NON-METALLIC CONSTRUCTION GROUT  
 12. Contractor shall review Electrical Plan prior to forming concrete walls for placement of any flush electrical boxes.  
 13. See foundation plan for additional notes.

### WELDING

1. All welds shall be made and inspected in accordance with all requirements of the latest edition of the Structural Welding Code of the American Welding Society (AWS D1.1 & AISC - A.S.P)  
 2. Arc welding electrodes shall be E-70 series and conform to ASTM A-233.  
 3. All welding shall be performed by welders certified by the city agency of project location for the type of weld being made. Light gauge welding (material less than 1/8" thick) to be performed by a licensed light gauge welder.  
 4. Welding of dowels to steel shall be by the reinforcing steel subcontractor certified by the city agency governing project.  
 5. All structural welds, shop or field shall be inspected by a Deputy Inspector certified by the city agency governing project unless specifically noted otherwise. Continuous inspection shall be provided for multiple pass welds.  
 7. All partial and full penetration welds shall be ultrasonically inspected.  
 8. Contractor shall retest any weld suspected by the Architect, Engineer of Record or Deputy Inspector of being unsound.  
 9. All weld found to be defective shall be repaired or replaced in an approved manner.  
 10. Field welding requires continuous inspection by a registered Deputy Inspector unless noted otherwise on plan.  
 11. All structural steel shall be A-36.

### ABBREVIATIONS

CBC California Building Code  
 ICC International Code Council  
 ACI American Institute of Concrete  
 AISC American Institute of Steel Construction  
 AWS American Welding Society  
 ASTM American Society for Testing Materials  
 CRSI Concrete Reinforcing Steel Institute  
 ABV Above  
 BTWN Between  
 REQD Required  
 BOT Bottom  
 CG Compacted Grade  
 C/L Center Line  
 COL Column  
 CONT Continuous  
 (E) Existing (Contractor to Field Verify)  
 ELEV Elevation  
 FIN Finish  
 FP Fireplace  
 FPW Full Penetration Weld  
 FFE Finish Floor Elevation  
 FG Finish Grade  
 FS Finish Surface  
 HORIZONTAL Horizontal  
 HSB High Strength Bolts (indicates ASTM A325, UNO)  
 MAX Maximum  
 M.B. Machine Bolt(s) (indicates ASTM A307 fasteners)  
 MIN Minimum  
 (N) New  
 NG Natural Grade  
 NIC Not In Contract  
 NOM Nominal  
 NTS Not To Scale  
 O/C On Center  
 P/L Plate Line  
 Property Line  
 PPW Partial Penetration Weld  
 PSF Pounds per Square Foot  
 PSI Pounds per Square Inch  
 TofRF Top of Roof

### REINFORCING STEEL

1. All reinforcing steels shall be new deformed bars conforming to ASTM A615 Grade 60 (U.N.O.) No. 3 ties and stirrups shall conform to ASTM A 615 Grade 40.  
 2. All mesh shall conform to ASTM A 185 and shall have a minimum side and end lap of 1 1/2 mesh or 9", whichever is greater.  
 3. All detailing, fabrication and erection of reinforcing steel shall conform to the ACI Manual of Standard Practice for Detailing Reinforced Concrete Structures, ACI 318.  
 4. Unless shown otherwise, reinforcing bars in continuous concrete beams and spandrels shall have top bars spliced at the midspan and bottom bars spliced over the supports.  
 5. Dowels from footings into walls and columns shall be the same size, spacing and numbers as the vertical reinforcing called out in the walls and columns.  
 6. Reinforcing shall have minimum concrete cover as follows: (unless specifically detailed.)  
 7. Walls and columns  
     unformed surfaces exposed to earth..... 3"  
     Formed surfaces exposed to weather or earth  
         No. 5 bars and smaller..... 1 1/2"  
         No. 6 bars and larger..... 2"  
     Formed surfaces not exposed to weather or earth;  
         No. 11 bars and smaller..... 1"  
         No. 14 and No. 18 bars..... 1 1/2"  
     Bush hammered surfaces..... 2"  
 8. Beams  
     Surface poured against earth..... 3"  
     All other surfaces..... 2"  
 9. Slabs  
     Surfaces poured directly on earth..... 2"  
     All other surfaces..... 3"  
 10. Columns  
     Interior..... 1 1/2"

### STRUCTURAL STEEL

1. All structural steel work shall be designed, fabricated and erected to AISC specifications and standard practices for buildings.  
 2. Structural steel plates and shapes shall conform to ASTM A-36.  
 3. Structural steel pipe shall conform to ASTM A-53, grade "B".  
 4. Structural steel tube shall conform to ASTM A-500, grade "B".  
 5. Paint one coat of rust-inhibitive paint, and two coats in exposed areas.  
 6. A Licensed fabricator approved by the building department shall furnish shop drawings for approval by Engineer prior to fabrication of structural steel members. Holes for bolts and/or rivets shall not be cut with a torch.  
 7. Bolt holes for steel connections shall be 1/16" larger in diameter than anchor bolts.  
 8. All connections not detailed on plans shall be detailed by steel fabricator and shall be submitted on shop drawings for approval by Engineer.  
 9. Bolts shall be ASTM A-307, U.N.O.

## SHEAR PANEL SCHEDULE

KEY	1	2	3
MATERIAL	15/32" PLYWD STRUCT. 1	15/32" PLYWD STRUCT. 1	15/32" PLYWD STRUCT. 1
NO. OF PLIES	4 OR 5 PLY	4 OR 5 PLY	4 OR 5 PLY
EDGE NAIL	10d @ 6" O.C.	10d @ 4" O.C.	10d @ 3" O.C.
FIELD NAIL	10d @ 12" O.C.	10d @ 12" O.C.	10d @ 12" O.C.
SPlice AT VERTICAL EDGES, MINIMUM	2x STUD	3x STUD	3x STUD
SPlice AT HORIZONTAL EDGES, MINIMUM	2x BLOCKING	3x BLOCKING	3x BLOCKING
(MIN. U.O.N.) WALL BOUNDARY	4x	4x	4x
SILL PLATE	2x	3x	3x
SILL NAIL	16d @ 6" O.C.	3/8" x 8" LAG SCREWS @ 8" O.C.	3/8" x 8" LAG SCREWS @ 8" O.C.
ANCHOR BOLT	5/8" @ 16" O.C.	5/8" @ 16" O.C.	5/8" @ 16" O.C.
FRAMING ANCHOR	A35 @ 16" O.C.	A35 @ 16" O.C.	A35 @ 16" O.C.
ALLOW LOAD	≤ 255 LB/FT	≤ 380 LB/FT	≤ 500 LB/FT
HOLDOWN BETWEEN FLOORS	MST 48 OR MTC 48B3	MST 60 OR MTC 66B3	MST 72 OR MTC 66B3
HOLDOWN TO FOUNDATIONS	HDU4	HDU5	HDU8
NAIL PATTERN	N / A	STAGGERED IN TWO LINES ALONG PANEL EDGES	STAGGERED IN TWO LINES ALONG PANEL EDGES

1- ALL NAILS SHALL BE COMMON NAILS.

2- SQUARE PLATE WASHER SHALL BE USED WITH ALL ANCHOR BOLTS

FOR 5/8"dia BOLT 3 x 3 1/4

FOR 3/4"dia BOLT 3 x 3 1/4

FOR 7/8"dia BOLT 3 x 3 5/16

FOR 1"dia BOLT 3 1/2 x 3/8

3- ALL SHEAR PANELS SHALL BE FULL HEIGHT TO DIAPHRAGM.

4- SHEAR PANELING MAY BE INSTALLED ON EITHER SIDE OF THE WALL.

5- "APA" APPROVED "OSB" MAY BE USED IN LIEU OF PLYWOOD.

6- BOLT HOLES SHALL BE MAX. 1/16" OVERSIZED AT THE CONNECTOR OF HOLD DOWN TO POST.

7- ALL HOLD-DOWNS SHALL BE TORQUED AS REQUIRED BY MANUFACTURER.

THEY SHALL ALSO BE RETIGHTENED.

8- MINIMUM LENGTH OF SHEAR PANELS ARE CALLED ON PLANS

NEXT TO THEM (L=)

9- ALL NUT AND WASHER SHALL BE TIGHTENED ON EACH ANCHOR BOLT

TO THE PLATE.

10- MINIMUM EDGE NAILING DISTANCE AT PANEL EDGES AND ENDS

SHALL BE 1/2"

11- TWO LAYERS OF GRADE "D" PAPER ARE REQUIRED UNDER STUCCO APPLIED

OVER WOOD SHEATHING (SHEAR WALLS). SEC.2506.4 CBC.

## DESIGN CRITERIA

### GRAVITY:

FLOOR:	DL 12 psf
	LL 40 psf
	52 psf

BALCONY	DL 25 psf
	LL 60 psf
	85 psf

## **FOUNDATION NOTES:**

- |  |  |
|--|--|
| <p>1- All anchor bolts (A.B.'s) shall be 5/8" dia. x 12" long "L" bolts.</p> <p>2- All A.B.'s shall be spaced equally within a shear panel, no closer than 9" and no further than 12" from panel end.</p> <p>3- All footings shall have A.B.'s at 4'-0" o.c. minimum. Each wall panel shall have minimum 2-A.B.'s per panel.</p> <p>4- All footings shall be minimum 18" into Soil Eng. approved compacted fill or competent soil. See soil's report, page 7.</p> <p>5- Slab on grade shall be minimum 4" thick placed over 2" sand and 10 mil vapor barrier. Place #4 @ 24 o.c. both ways positioned in the center of the slab. The slab subgrade must also comply with all City, Estate &amp; Federal requirements, verify with City &amp; Architect. See page 8 &amp; 9 of soil's report for additional requirements.</p> <p>6- Install templates for all A.B.'s and hold-downs before pouring concrete.</p> <p>7- Minimum sill bolt embedment shall be 7" measured from the top of the lower pour (between slab and footing in double pour cases).</p> | <p>9- Place A.B.'s @ 16" o.c. at all shear panel sills, min. U.O.N.</p> <p>10- Place 2-#5 horizontal bar at top and bottom of all footings U.O.N. { 2- #5 top<br/>2- #5 bottom}</p> <p>11- All concrete shall be 2500 psi. At 28 days. Use 3,500 psi W/ Dep. Inspect. at grade bm.</p> <p>12- For locations of ret.wls/ftg, see arch/site plans.</p> <p>13- Where adjacent site retaining wall, lower down ftg &amp; pour monolithic w/build'g ftg. </p> <p>14- For reinf. splice, ties, etc., see detail </p> <p>15- For ftg/wall intersections, see detail </p> <p>16- For all dimensions, hold-down/ foundation location, refer to architectural plans.</p> <p>17- All clearances, dimensions, must be verified in field and against architectural plans before Foundation pour.</p> |
|--|--|

- For concrete steps on grade, see <sup>88</sup>  
S11

Where stepped foundation required, see <sup>89</sup>  
S11

For location of all basement and site retaining walls, see architectural/site plans.

Where there are surcharged retaining walls verified in fields, contact project Engineer any Foundation work, grading or Forming starts.

Provide survey stakes prior to foundation inspection to verify lot lines.

All hold-down anchors shall be tied in place prior to calling foundation inspection.

"Hold-downs shall be re-tightened just prior to covering the wall framing"

All foundation, soil, compaction, grading, drainage, flatwork, etc, work shall be in compliance with Soil's report # 22923-21, dated December 21, 2021, prepared by Norcal Eng. An approved copy of such report shall be considered as an indispensable part of plans, and a copy present at all times.

Where concrete stem wall exceeds 2'-6" in height, place #5 @ 16" o.c. horiz./vert. at wall center.

27- Contractor must verify location of all existing underground utility/ sewer/ etc/ and any other existing items, and protect them as required before ground and foundation work begins.

28- Where there are surcharged retaining walls (verify in field), contact project Engineer before any foundation work, grading or forming starts.

29- Soil type is Sandy Clayey with allowable S.B.P = 2,000 psf.

30- All Hardy Frame wall base metal templates must be installed per manufacturer's instructions. Verify all height/ width clearance/ curb height/widths before installation.

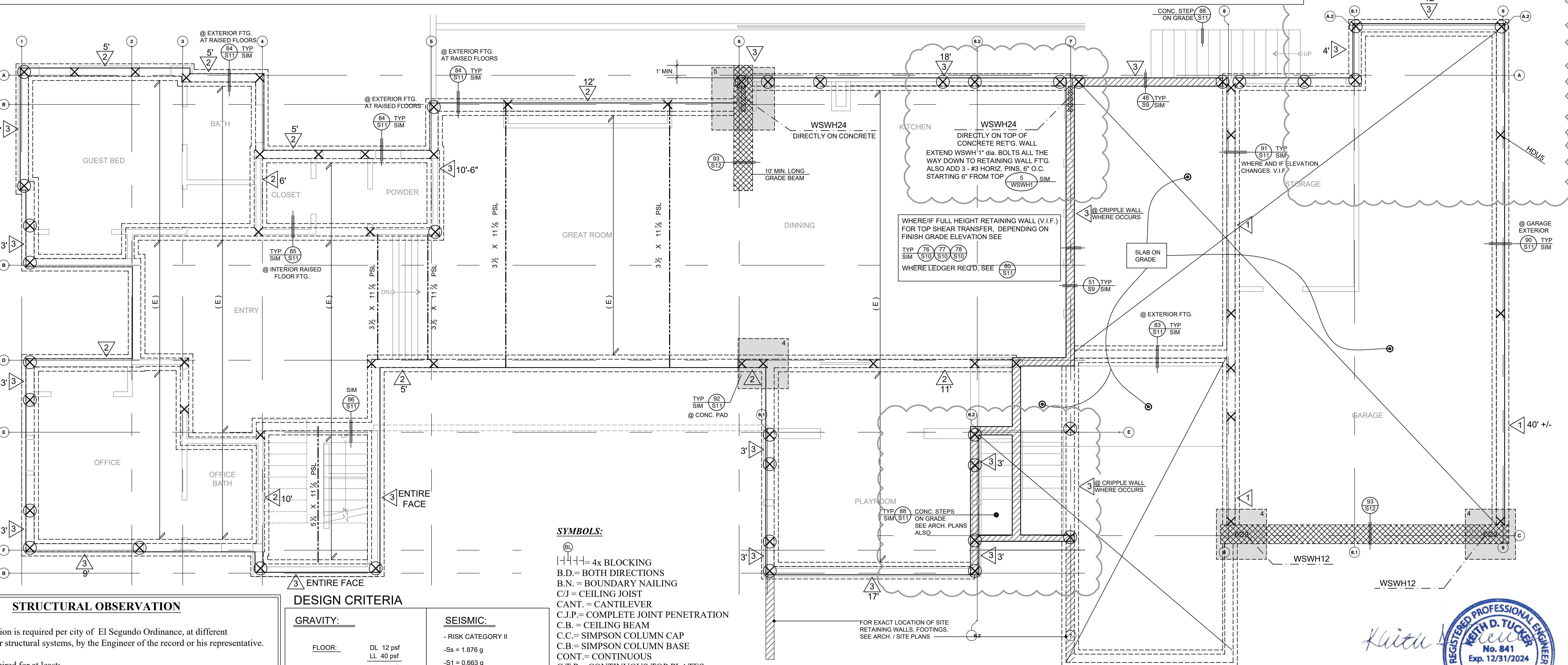
31- Fasteners in pressure-treated and fire-retardant, treated wood shall be of hot-dipped, zinc-coated galvanized steel, stainless steel, silicon bronze or copper per CBC 2304.9.5.

32- Special inspection by Soils Engineer required for existing soil conditions, fill placement, and load bearing requirements per CBC Section 1704.7. Table 1705.A.6

33- Grading and foundation shall be inspected and certified by the soils engineer prior to concrete placement.

**PARSÀ & ASSOCIATES**  
engineers

118 S. CATALINA AVENUE, SUITE E, REDONDO BEACH, CALIFORNIA 90277 TEL: (310) 318-6769



## STRUCTURAL OBSERVATION

- 1- Structural observation is required per city of El Segundo Ordinance, at different construction stages for structural systems, by the Engineer of the record or his representative.
  - 2- Observation is required for at least:
    - a) Foundation trench widths, reinforcement, anchor bolts, hold-downs before Foundation is poured.
    - b) Retaining walls, size & reinforcement.
    - c) All framing elements and details
    - d) All shear elements and details.
  - The contractor must comply with the reported deficiencies and get a written report for compliance.
  - 3- Structural observation is the visual observation of elements and connections of structural system at significant construction stages for general conformance to approved plans and specifications.
  - 4- Structural observation does not waive the responsibility for the inspections required of the Building Inspector or Deputy Inspector.
  - 5- The Engineer or Architect of record shall develop all changes relating to the structural systems. The Building Department must review and approve plans and specifications before construction, for all the revisions.
  - 6- Contractor shall give minimum 4 business days notice prior to structural observation to the

# DESIGN CRITERIA

GRAVITY

<u>GRAVITY:</u>	<u>SEISMIC:</u>								
<u>FLOOR:</u> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>DL 12 psf</td> <td>- RISK CATEGORY II</td> </tr> <tr> <td>LL 40 psf</td> <td>-Ss = 1.876 g</td> </tr> <tr> <td><hr/></td> <td>-S1 = 0.663 g</td> </tr> <tr> <td>52 psf</td> <td>-SITE CLASS : D-STIFF SOIL</td> </tr> </table>	DL 12 psf	- RISK CATEGORY II	LL 40 psf	-Ss = 1.876 g	<hr/>	-S1 = 0.663 g	52 psf	-SITE CLASS : D-STIFF SOIL	
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DL 12 psf	- RISK CATEGORY II								
LL 40 psf	-Ss = 1.876 g								
<hr/>	-S1 = 0.663 g								
52 psf	-SITE CLASS : D-STIFF SOIL								

<u>BALCONY</u>	DL 25 psf LL 60 psf <hr/> 85 psf	- SIMPLIFIED DESIGN METHOD  V = CSW  -CS = SDS / (R/I ) -SDS = 1.251  -R = 6.5 -I = 1.0  -CS = 1.251 / (6.5/1.0) = 0.19  - $\rho$ = 1.3
<u>FLOOR:</u> SLOPED METAL OR COMPOSITE	DL 12 psf LL 20 psf <hr/> 32 psf	

$$V = 0.19 \times 1.3 \times 1 / 1.4 = 0.18W$$

WIND:

ASCE 7\_16

$P_s = \lambda K_{zt} I_{ps} 30$

$\lambda = 1.0$

$-K_{zt} = 1.0$

$- P_{s30} = 24.1 \text{ psf}$

$- P_s = (1 \times 1 \times 24.1) 0.6 = 15 \text{ psf}$

## ***SYMBOLS***

- BL**

|---+---+ = 4x BLOCKING  
B.D. = BOTH DIRECTIONS  
B.N. = BOUNDARY NAILING  
C/J = CEILING JOIST  
CANT. = CANTILEVER  
C.J.P. = COMPLETE JOINT PENETRATION  
C.B. = CEILING BEAM  
C.C. = SIMPSON COLUMN CAP  
C.B. = SIMPSON COLUMN BASE  
CONT. = CONTINUOUS  
C.T.P. = CONTINUOUS TOP PLATES  
(IF SPLICE NEEDED USE MST48)

(IF SPLICE NEEDED USE MST48)

CS= CORNER STRAP, MSTC28

(E)= EXISTING

E.N. = EDGE NAILING

F/J = FLOOR JOIST

H.B.=HIGH BEAM

K.P. = KING POST

M.B= MACHINE BOLT

O.C. = ON CENTER

P = POST

PLM = PARALLAM

PA= POST ABOVE

PC= SIMPSON POST CAP

R/R = ROOF RAFTER

R/J = ROOF JOIST (FLAT)

(S)= MST60 STRAP

SIM. = SIMILAR

SA= STRAP ABOVE

SPC= STEEL PIPE COLUMN

TYP. = TYPICAL

U.P.A. = UNDER POST ABOVE

U.O.N. = UNLESS OTHERWISE NOTED

U.L.E. = UNVERIFIED FIELD

## LEGEND

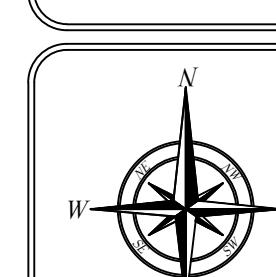
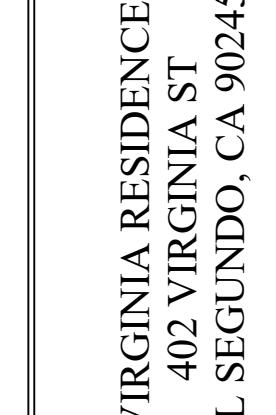
- |               |             |  |
|---------------|-------------|--|
| <b>LEGEND</b> |             |  |
|               | =           | HDU5   |
|               | =           | HDU8   |
|               |             | Hold-down w/ 4x4 Post at both ends of all shear panels. See S.W. Sch. for size. If not at shear panel, use minimum HDU5.   |
| 4             | =           | 4'-0" Square Concrete Pad, 16" thick w/ #5 @ 6" O.C. Horizontal Bottom Each Way  |
| 5             | =           | 5'-0" Square Concrete Pad, 16" thick w/ #5 @ 6" O.C. Horizontal Bottom Each Way  |
| SWH           | =           | Simpson Strong Wall per Manuf. instructions<br>Top flush with drag member (See Framing plans)beam with minimum and bottom directly on concrete and <u>not</u> on mud-sill.<br>Verify exact height in field and custom order if needed.<br>Bottom Conc. curb height may be increased and top may be shaved as instructed by |
| zzz           | =           |  |
|               | =           | 16" Wide Continuous Footing with 2 - #5 horizontal top and 2 - #5 horizontal bottom.   |
|               | =           |  |
|               | =           | 24" Square Conc. Grade Beam With { 4 - #5 Horizontal. Top} { 4- #5 Horizontal bottom} & #3 ties @ 9"oc f'c= 3,500 PSI W/ Dep. Inspect.   |
|               | =           |  |
|               | =           | Non surcharge, level granular backfill ret'g walls. Verify in field.<br>For exact location/height, see arch/site plan  |
|               | (81)<br>S11 | Toe under  |
|               | (82)<br>S11 | Toe out  |

SEARCHABLE

CEIL'G JST. TABLE	
2x6 @ 16" OC.	MAX ALLOW CLEAR SPAN ----- 12'-0"
2x8 @ 16" OC.	MAX ALLOW CLEAR SPAN ----- 18'-0"

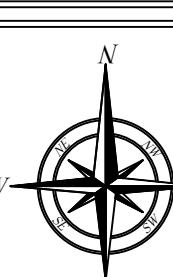
# OUNDAT

A circular blue ink stamp. The outer ring contains the text "REGISTERED PROFESSIONAL ENGINEER" at the top and "STATE OF CALIFORNIA" at the bottom, separated by stars. The inner circle contains "KEITH D. TUCKER" in large letters, "No. 841" below it, and "Exp. 12/31/2024" at the bottom.



**PROJECT#**

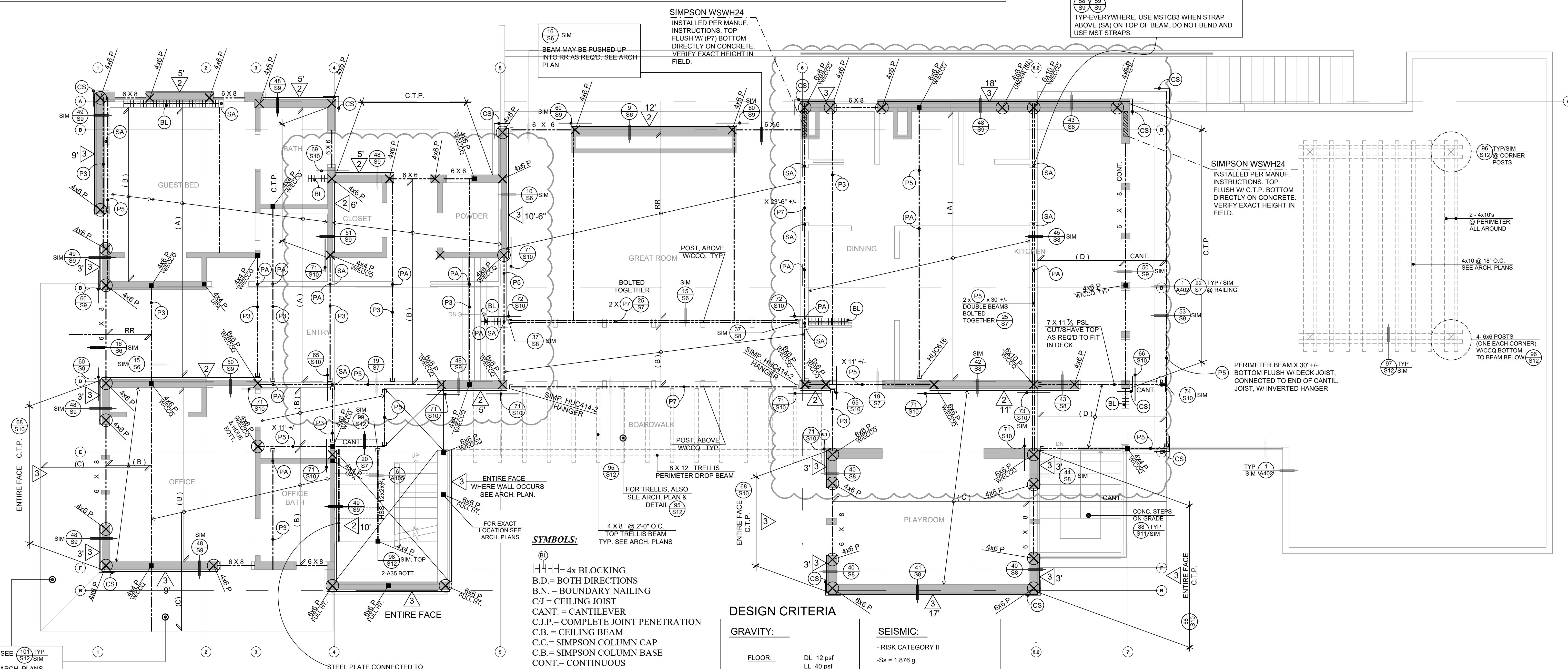




CEIL'G JST. TABLE

2x6 @ 16" OC.	MAX ALLOW CLEAR SPAN ----- 12'-0"
2x8 @ 16" OC.	MAX ALLOW CLEAR SPAN ----- 18'-0"
2x10 @ 16" OC.	MAX ALLOW CLEAR SPAN ----- 22'-0"

- STRUCTURAL NOTES / TYPICAL / SIMILAR ALL LEVELS-EVERYWHERE U.O.N.
- 1- FOR ALL EXPOSED ELEMENTS AND MEMBERS ALSO REFER TO ARCH. PLANS
  - 2- VERIFY ALL CLEARANCES, LIMITS BEFORE, ETC. GRADING BEGINS & STEEL FABRICATIONS.
  - 3-  $\frac{1}{56}$  OR  $\frac{2}{56}$  AT KING POST (K.P.)
  - 4-  $\frac{3}{56}$  AT END OF HIP / VALLEY BEAMS TO EXTERIOR WALLS.
  - 5-  $\frac{4}{56}$  AT ROOF BEAM CONNECTION.
  - 6-  $\frac{6}{56}$  SHAVE BEAM END WHERE REQUIRED TO FIT WITHIN ROOF FRAMING SPACE.
  - 7- USE 3x4 OR 2x6 @ 8" O.C. STUDS, PLATES - MIN. AT UNBRACED WALLS OVER 10' HIGH
  - 8-  $\frac{12}{56}$ ,  $\frac{14}{56}$  SPLICE LOW ROOF TO ADJACENT UPPER WALL. INSTALL MIN.  $\frac{1}{4}$ " AT WALL/CRISSWALL - SEE PLANS
  - 9- PLACE RIPPED ON TOP OF JOIST WHERE NEEDED FOR DRAINAGE SLOPE MIN.  $\frac{1}{2}"$ : 1'-0" - SEE ARCH. PLANS.
  - 10- PLACE RIPPED ON TOP OF TJI WHERE NEEDED FOR DRAINAGE SLOPE MIN.  $\frac{1}{2}"$ : 1'-0" - SEE ARCH. PLANS.
  - 11- BEAM MAY BE PUSHED UP INTO RR SPACE WHERE REQUIRED FOR CLEARANCE BELOW.
  - 12- TOP PLATE SPLICE
  - 13- WOOD BEAM/POST CONNECTION
  - 14- RELATIVE WOOD POST/BEAM POSITION -VIF
  - 15- DOUBLE BEAM CONNECTION.
  - 16- JOIST/BEAM - BEAM/BEAM CONNECTION - U.O.N.
  - 17- TJI CONNECTORS
  - 18- AT VENEER TO STUD WALL
  - 19- AT METAL RAILING



DESIGN CRITERIA

GRAVITY:

FLOOR:	DL 12 psf LL 40 psf 52 psf
BALCONY	DL 25 psf LL 60 psf 85 psf

FLOOR:	DL 12 psf SLOPED METAL OR COMPOSITE
	LL 20 psf 32 psf

SEISMIC:

- RISK CATEGORY II
- $S_6 = 1.876 \text{ g}$
- $S_1 = 0.663 \text{ g}$
- SITE CLASS : D-STIFF SOIL
- SIMPLIFIED DESIGN METHOD
V = CSW
- CS = SDS / (R/I)
- SDS = 1.251
- R = 6.5
- I = 1.0
- CS = $1.251 / (6.5/1.0) = 0.19$
- $P = 1.3$
- $V = 0.19 \times 1.3 \times 1/4 = 0.18W$

WIND:

ASCE 7-16
$P_s = \lambda K_{st} I_{ps}$
$\lambda = 1.0$
$K_{st} = 1.0$
$P_{s30} = 24.1 \text{ psf}$
$P_s = (1 \times 1 \times 24.1) 0.6 = 15 \text{ psf}$

- (RR) = 2 x 10 @ 16" O.C. SLOPED ROOF RAFTERS.  
(RJ) = 2 x 10 @ 16" O.C. ROOF JOISTS OVER FLAT ROOF.  
EITHER RIP DOWN FOR DRAINAGE SLOPE  
(MINIMUM DEPTH = 6") OR PLACE RIPPED BOARDS ON  
TOP  $\frac{13}{56}$  SIM  
MINIMUM DRAINAGE SLOPE =  $\frac{1}{2}"$ : 1'-0". SEE ARCH. PLAN.  
(R) = 4 x 10 SLOPED/ OR FLAT ROOF BEAM W/ B.N. ON TOP.  
 $\frac{56}{56}$ ,  $\frac{58}{56}$ ,  $\frac{59}{56}$  TIE-DOWN STRAP W/ 4x POST MIN. U.O.N AT  
BOTH ENDS OF ALL SHEAR PANELS- SEE S.W.  
SCH. FOR SIZE.  
WHEN ON TOP OF BEAM BELOW, USE MSTCB3.  
DO NOT USE AND BEND MST STRAPS.
- (A) = 14" TJI 560 @ 16" O.C.  
(B) = 14" TJI 210 @ 16" O.C.  
(C) =  $1\frac{3}{4}" \times 14" @ 16" \text{ O.C. LVL (E = 2.0) SHAVE/SLOPE AS$   
REQ'D FOR DRAINAGE SLOPE (MINIMUM  $\frac{1}{2}"$ : 1'-0") SEE  
ARCH. PLAN.  
(D) =  $1\frac{3}{4}" \times 11\frac{7}{8}" @ 16" \text{ O.C. LVL (E = 2.0) SHAVE/SLOPE AS$   
REQ'D FOR DRAINAGE SLOPE (MINIMUM  $\frac{1}{2}"$ : 1'-0") SEE  
ARCH. PLAN.  
(E) =  $11\frac{1}{8}" \text{ TJI 560 @ 16" O.C.}$   
(F) =  $11\frac{1}{8}" \text{ TJI 210 @ 16" O.C.}$   
(P) =  $3\frac{1}{2} \times 14 \text{ PSL W/ B.N. ON TOP}$   
(P) =  $5\frac{1}{4} \times 14 \text{ PSL W/ B.N. ON TOP}$   
(P) =  $7\frac{1}{4} \times 14 \text{ PSL W/ B.N. ON TOP}$

SYMBOLS:

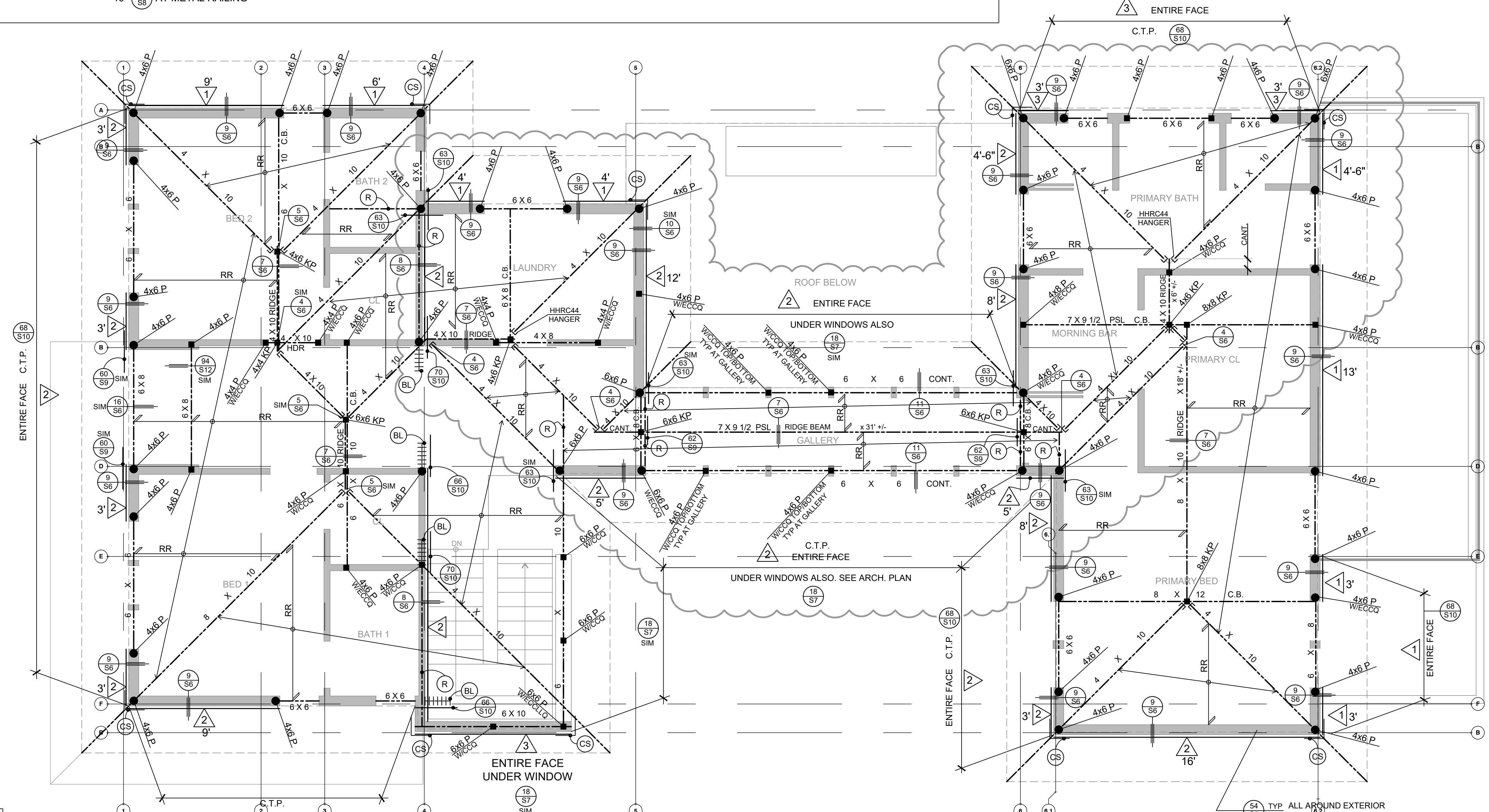
BL = 4x BLOCKING  
B.D. = BOTH DIRECTIONS  
B.N. = BOUNDARY NAILING  
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(IF SPLICE NEEDED USE MST48)  
CS = CORNER STRAP, MSTC28  
(E) = EXISTING  
E.N. = EDGE NAILING  
F/J = FLOOR JOIST  
H.B. = HIGH BEAM  
K.P. = KING POST  
M.B. = MACHINE BOLT  
O.C. = ON CENTER  
P = POST  
PLM = PARALLAM  
PA = POST ABOVE  
PC = SIMPSON POST CAP  
R/R = ROOF RAFTER  
R/J = ROOF JOIST (FLAT)  
(S) = MST60 STRAP  
SIM. = SIMILAR  
SA = STRAP ABOVE  
SPC = STEEL PIPE COLUMN  
TYP. = TYPICAL  
U.P.A. = UNDER POST ABOVE  
U.O.N. = UNLESS OTHERWISE NOTED  
V.I.F. = VERIFY IN FIELD

CEIL'G JST. TABLE

2x6 @ 16" OC. .... MAX ALLOW CLEAR SPAN .... 12'-0"
2x8 @ 16" OC. .... MAX ALLOW CLEAR SPAN .... 18'-0"
2x10 @ 16" OC. .... MAX ALLOW CLEAR SPAN .... 22'-0"

- FOR ALL EXPOSED ELEMENTS AND MEMBERS ALSO REFER TO ARCH. PLANS
- VERIFY ALL CLEARANCES, LIMITS BEFORE, ETC. GRADING BEGINS & STEEL FABRICATIONS.
- OR AT KING POST (K.P.)
- AT END OF HIP / VALLEY BEAMS TO EXTERIOR WALLS.
- AT ROOF BEAM CONNECTION.
- SHAVE BEAM END WHERE REQUIRED TO FIT WITHIN ROOF FRAMING SPACE.
- USE 3x4 OR 2x6 @ 8" O.C. STUDS, PLATES - MIN. AT UNBRACED WALLS OVER 10' HIGH
- SPICE LOW ROOF TO ADJACENT UPPER WALL. INSTALL MIN. AT WALL/CRIPPLE WALL - SEE PLANS
- PLACE RIPPED ON TOP OF JOIST WHERE NEEDED FOR DRAINAGE SLOPE MIN. 1/2": 1'-0" - SEE ARCH. PLANS.

- PLACE RIPPED ON TOP OF TJI WHERE NEEDED FOR DRAINAGE SLOPE MIN. 1/2": 1'-0" - SEE ARCH. PLANS.
- BEAM MAY BE PUSHED UP INTO RR SPACE WHERE REQUIRED FOR CLEARANCE BELOW.
- TOP PLATE SPLICE
- WOOD BEAM/POST CONNECTION
- RELATIVE WOOD POST/BEAM POSITION - VIF
- DOUBLE BEAM CONNECTION.
- JOIST/BEAM - BEAM/BEAM CONNECTION - U.O.N.
- TJI CONNECTORS
- AT VENEER TO STUD WALL
- AT METAL RAILING



WHERE STUD WIDTH CHANGES, USE 2X STUDS,  
SAME WIDTH AS WIDEST SECTION AND CUT ABOVE  
WHERE WIDTH REDUCED. VERIFY WITH ARCH.  
PLANS. SEE SECTIONS/ELEVATION

DESIGN CRITERIA

GRAVITY:

FLOOR: DL 12 psf  
LL 40 psf  
52 psf

BALCONY: DL 25 psf  
LL 60 psf  
85 psf

FLOOR:  
SLOPED METAL  
OR COMPOSITE DL 12 psf  
LL 20 psf  
32 psf

SEISMIC:

- RISK CATEGORY II
- Ss = 1.876 g
- S1 = 0.663 g
- SITE CLASS : D-STIFF SOIL
- SIMPLIFIED DESIGN METHOD

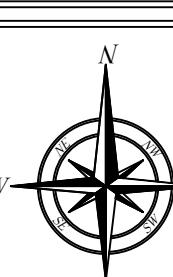
(RR) = 2 x 10 @ 16" O.C. SLOPED ROOF RAFTERS.	(A) = 14" TJI 560 @ 16" O.C.
(RJ) = 2 x 10 @ 16" O.C. ROOF JOISTS OVER FLAT ROOF. EITHER RIP DOWN FOR DRAINAGE SLOPE (MINIMUM DEPTH = 6") OR PLACE RIPPED BOARDS ON TOP (13 S6 SIM)	(B) = 14" TJI 210 @ 16" O.C. (C) = 1 1/4" x 14" @ 16" O.C. LVL (E = 2.0) SHAVE/SLOPE AS REQ'D FOR DRAINAGE SLOPE (MINIMUM 1/2": 1'-0") SEE ARCH. PLAN.
MINIMUM DRAINAGE SLOPE = 1/2": 1'-0". SEE ARCH. PLAN.	(D) = 1 1/4" x 11 1/8" @ 16" O.C. LVL (E = 2.0) SHAVE/SLOPE AS REQ'D FOR DRAINAGE SLOPE (MINIMUM 1/2": 1'-0") SEE ARCH. PLAN.
(R) = 4 x 10 SLOPED/ OR FLAT ROOF BEAM W/ B.N. ON TOP.	(E) = 11 1/4" TJI 560 @ 16" O.C. (F) = 11 1/8" TJI 210 @ 16" O.C.
● TIE-DOWN STRAP W/ 4x4 POST MIN. U.O.N AT BOTH ENDS OF ALL SHEAR PANELS- SEE S.W. SCH. FOR SIZE. WHEN ON TOP OF BEAM BELOW, USE MSTCB3. DO NOT USE AND BEND MST STRAPS.	(P3) = 3 1/2 x 14 PSL W/ B.N. ON TOP (P5) = 5 1/4 x 14 PSL W/ B.N. ON TOP (P7) = 7 x 14 PSL W/ B.N. ON TOP

ROOF FRAMING PLAN

1/4" = 1'-0"

PA# 22106

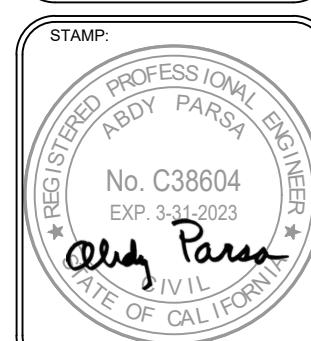
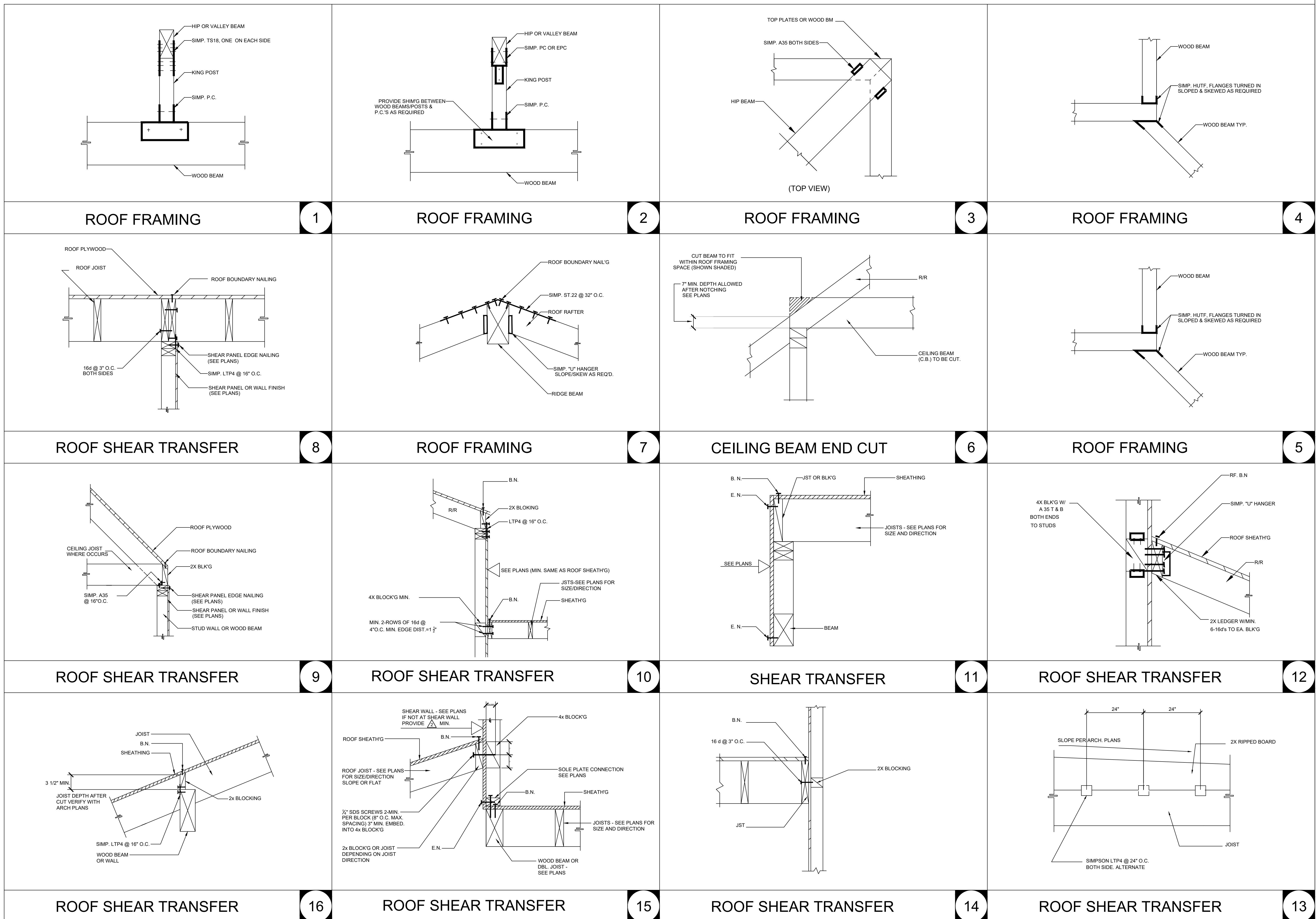
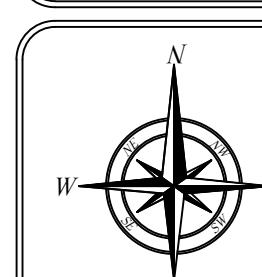
VIRGINIA RESIDENCE  
402 VIRGINIA ST  
EL SEGUNDO, CA 90245

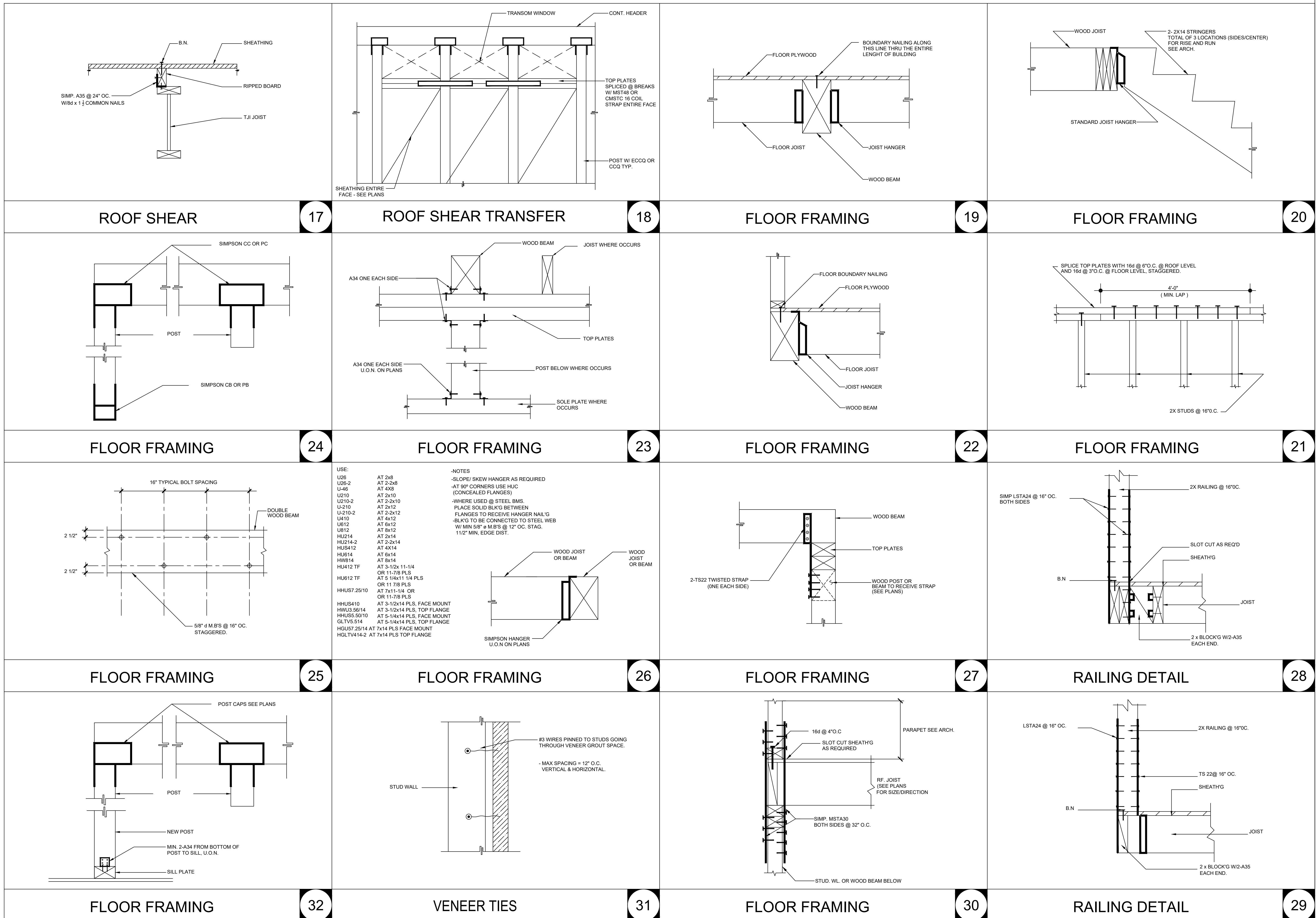


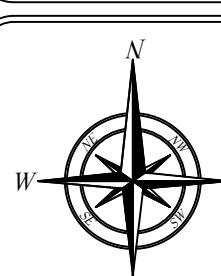
PROJECT#  
22106

DRAWN BY:  
B.F.

**S5**





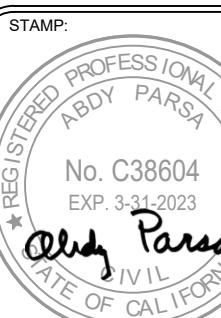
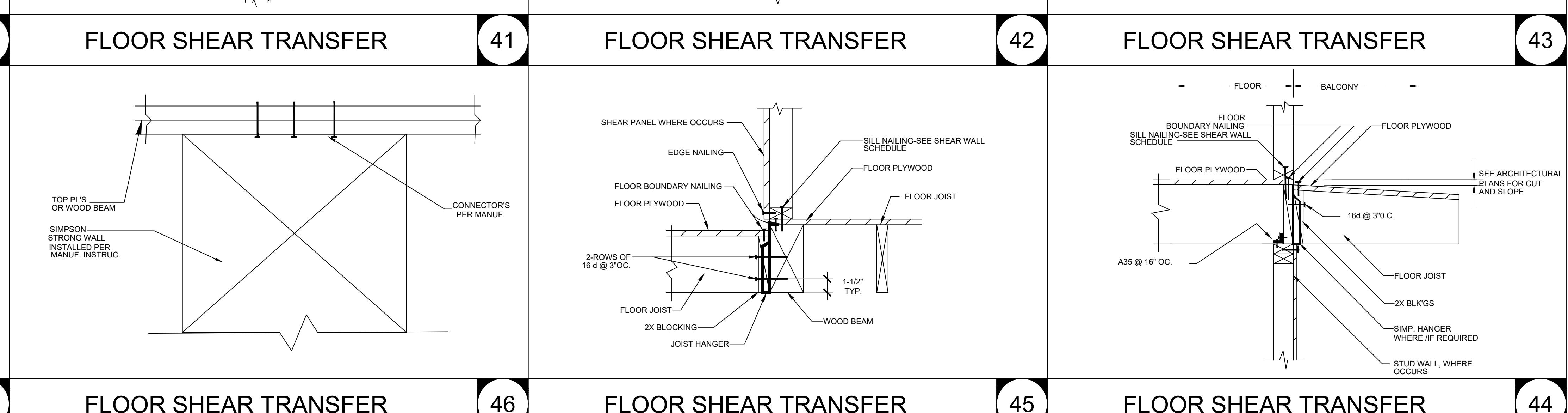
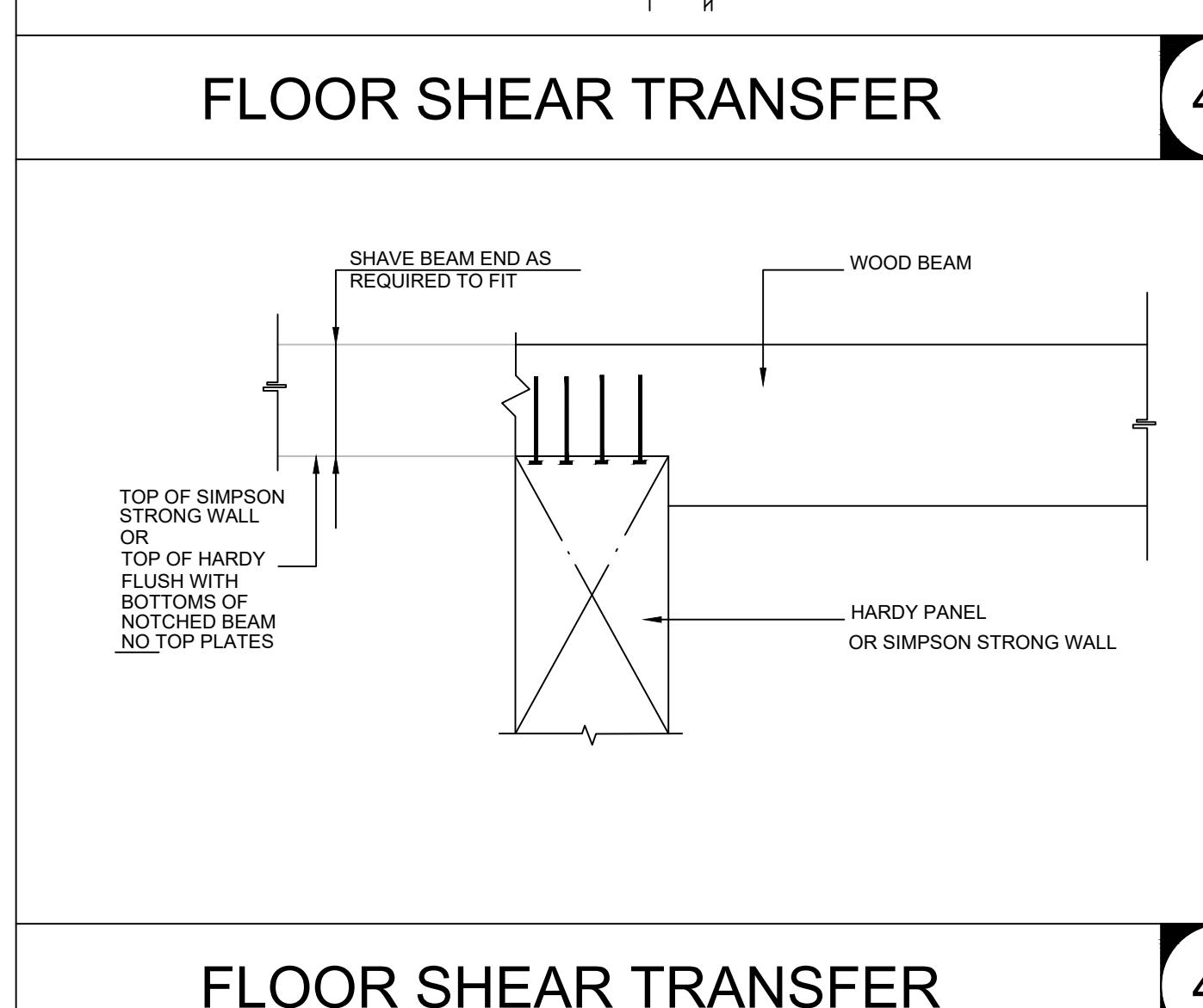
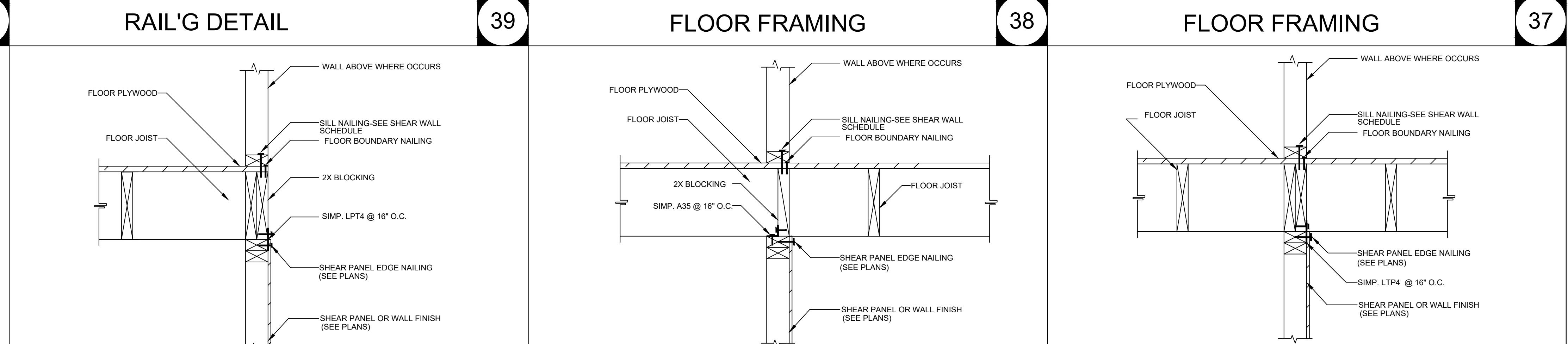
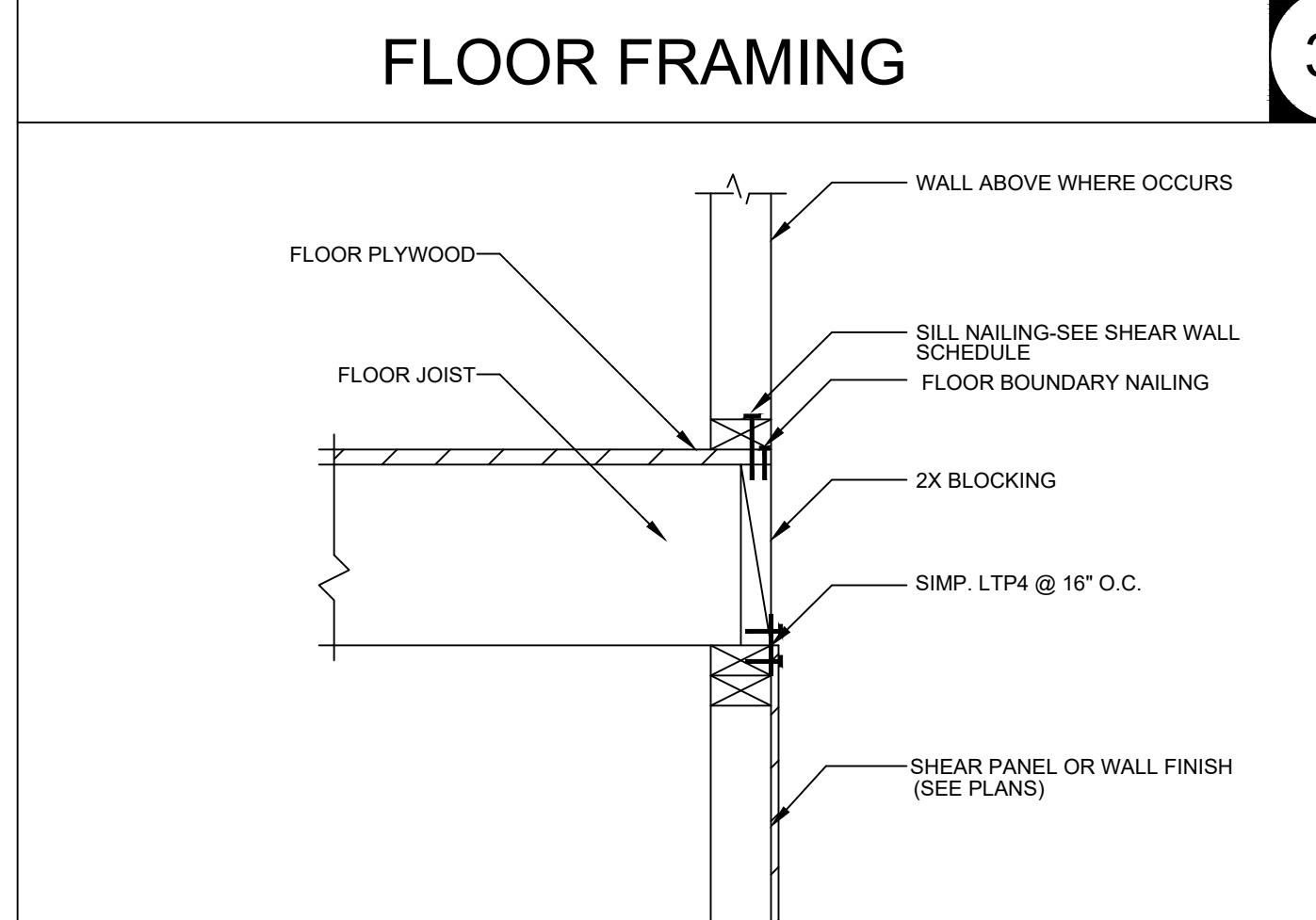
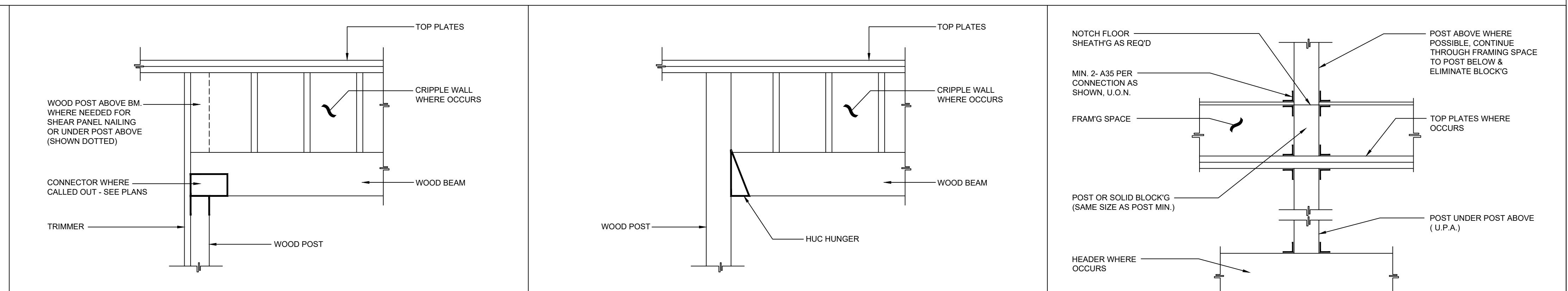


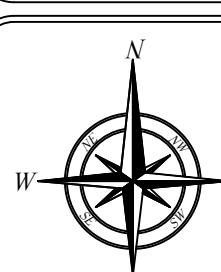
FRAMING CONNECTORS (SIMPSON STRONG-TIE)												
Joist	Single Joist — Top Mount			Single Joist — Face Mount			Face Mount Skewed 45° Joist Hanger (1)					
	T.J.F.	Hanger	Capacity (lbs)	Nailing	Hanger	Capacity (lbs)	Header	Joist	Hanger	Capacity (lbs)	Nailing	
9½"	110	ITS1.810.5	975	10d	N.A.	ITS1.810.5	950	10d	N.A.	SUR1.810.5	1,220	10d x 1½"
9½"	210	ITS2.069.5	1,070	10d	N.A.	ITS2.069.5	950	10d	N.A.	SUR1.810.5	1,330	10d x 1½"
11½"	110	ITS1.811.88	975	10d	N.A.	ITS1.811.88	975	10d	N.A.	SUR1.811.88	1,240	10d x 1½"
11½"	210	ITS2.061.88	1,070	10d	N.A.	ITS2.061.88	1,070	10d	N.A.	SUR1.811.88	1,380	10d x 1½"
14"	230	ITS2.071.88	1,070	10d	N.A.	ITS2.071.88	1,070	10d	N.A.	SUR1.811.88	1,430	10d x 1½"
14"	360	ITS3.071.88	1,150	10d	N.A.	ITS3.071.88	1,150	10d	N.A.	SUR1.811.88	1,495	10d x 1½"
14"	560	ITS3.071.88	1,150	10d	N.A.	ITS3.071.88	1,150	10d	N.A.	SUR1.811.88	1,610	10d x 1½"
16"	360	ITS3.071.88	1,140	10d	N.A.	ITS3.071.88	1,140	10d	N.A.	SUR1.811.88	1,430	10d x 1½"
16"	560	ITS3.071.88	1,150	10d	N.A.	ITS3.071.88	1,150	10d	N.A.	SUR1.811.88	1,460	10d x 1½"

Double Joist — Top Mount		Double Joist — Face Mount		Variable Slope Seat Connector						
Joist	T.J.F.	Hanger	Capacity (lbs)	Header	Joist	T.J.F.	Hanger	Capacity (lbs)	Header	Joist
9½"	110	MT4.289.5	2,115	10d x 1½"	MU3.569.10	2,215	16d	10d x 1½"		
9½"	210	MT4.289.5	2,115	10d x 1½"	MU4.289.5	2,305	16d	10d x 1½"		
11½"	230	MT5.958.2	2,115	10d x 1½"	MU4.759.5	2,305	16d	10d x 1½"		
11½"	360	MT5.958.2	2,115	10d x 1½"	MU4.759.5	2,305	16d	10d x 1½"		
11½"	560	MT5.958.2	2,115	10d x 1½"	MU4.759.5	2,305	16d	10d x 1½"		
14"	230	MT5.118.2	2,115	10d x 1½"	MU4.911.10	2,490	16d	10d x 1½"		
14"	360	MT5.118.2	2,115	10d x 1½"	MU4.911.10	2,490	16d	10d x 1½"		
14"	560	BT2.111.88	2,925	16d	MU4.142.2	2,380	16d	10d x 1½"		
14"	110	MT4.144.4	2,115	10d x 1½"	MU3.957.14	2,215	16d	10d x 1½"		
14"	210	MT4.144.4	2,115	10d x 1½"	MU4.144.4	2,385	16d	10d x 1½"		
14"	360	MT4.144.4	2,115	10d x 1½"	MU4.144.4	2,385	16d	10d x 1½"		
14"	560	BT2.111.88	2,925	16d	MU4.142.2	2,380	16d	10d x 1½"		
16"	230	LBV4.287.6	2,395	16d	MU4.287.6	2,985	16d	10d x 1½"		
16"	360	LBV4.757.6	2,115	10d x 1½"	MU4.757.6	2,525	16d	10d x 1½"		
16"	560	LBV4.757.6	2,115	10d x 1½"	MU4.757.6	2,525	16d	10d x 1½"		

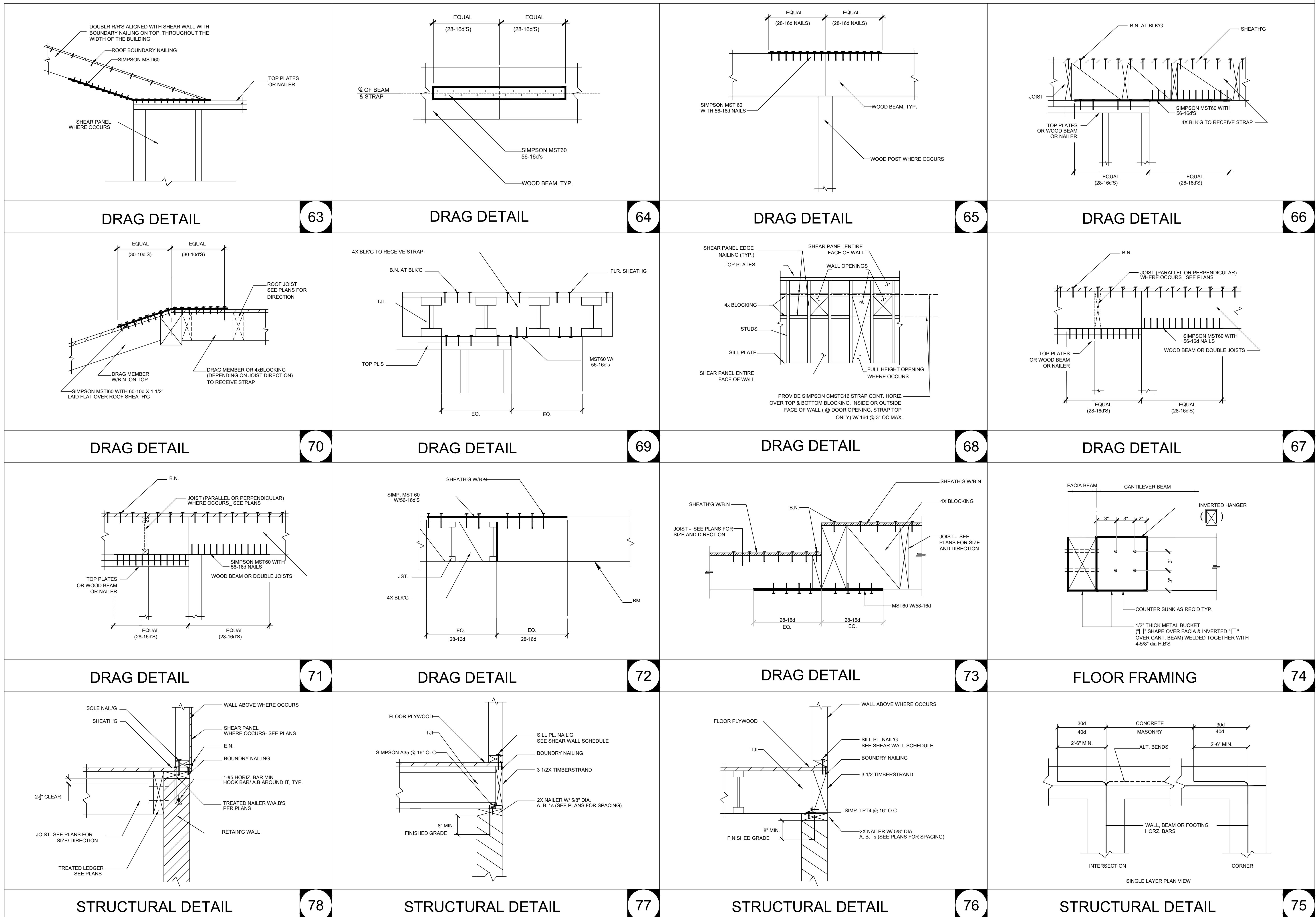
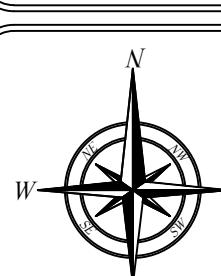
**General Notes**  
Bold railchangers require web stiffeners.  
Capacities will vary with different nailing criteria or other support conditions; contact your Weyerhaeuser representative for assistance.  
Hanger capacities shown are either joist bearing capacity or hanger capacity—whichever is less. Joist end reaction must be checked to ensure it does not exceed the capacity shown in the tables.  
All capacities are for downward loads at 100% duration of load.  
Fill all round, dimple, and positive-angle nail holes.  
Use sloped seat hangers and beveled web stiffeners when T.J.=joist slope exceeds  $\frac{1}{12}$ . Leave 1/16" clearance (1/8" maximum) between the end of the supported joist and the header or hanger.  
Nails: 16d = 0.162" x 3/4", 10d = 0.148" x 3", and 10d x 1½" = 0.148" x 1½".



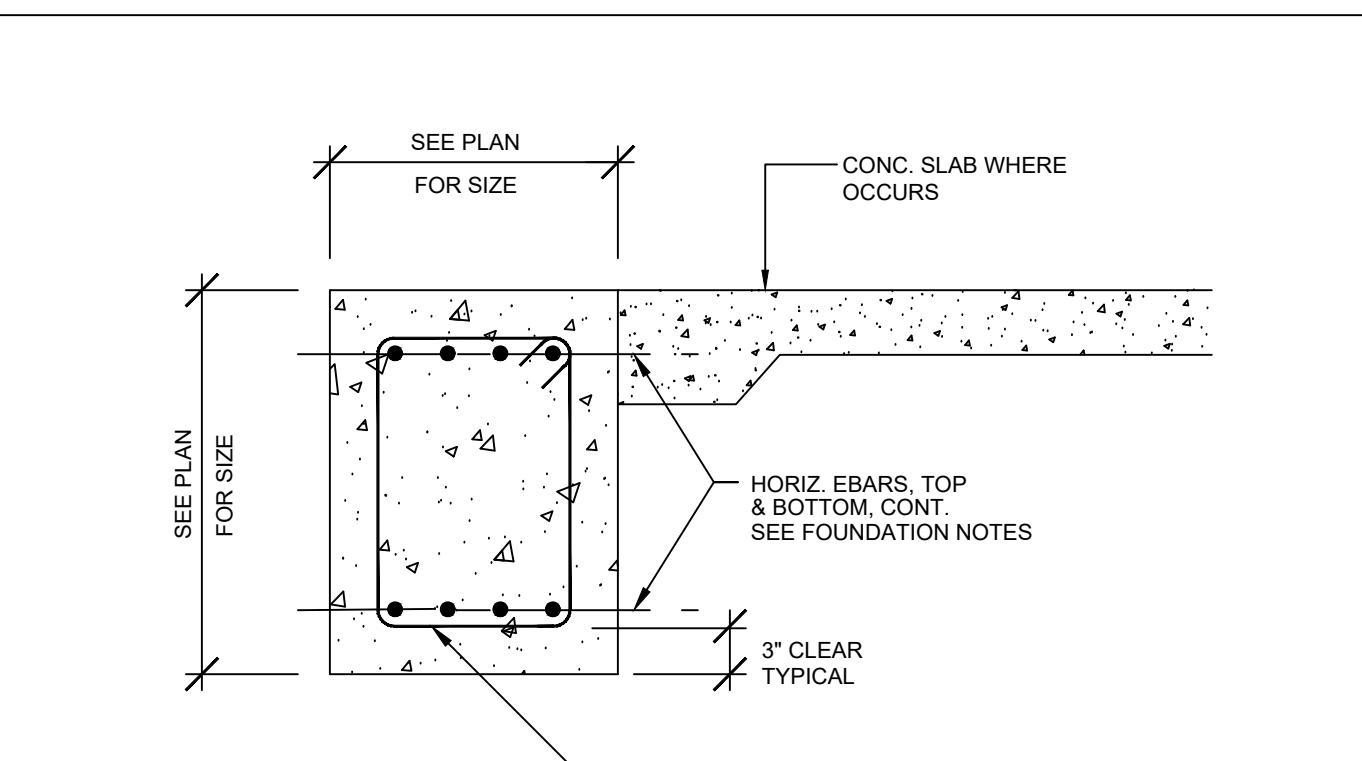
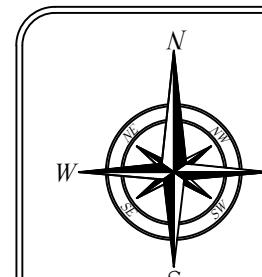


FLOOR SHEAR TRANSFER 48	FLOOR SHEAR TRANSFER 49	FLOOR SHEAR TRANSFER 50	FLOOR SHEAR TRANSFER 51															
 <table border="1"> <thead> <tr> <th></th> <th>ROOF</th> <th>FLOOR</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")</td> <td>103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")</td> </tr> <tr> <td>2</td> <td>103 x 2 7/8 @ 12" O.C. COMMON NAIL (0.148")</td> <td>103 x 3 9/16 @ 10" O.C. COMMON NAIL (0.148")</td> </tr> <tr> <td>3</td> <td>103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")</td> <td>103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")</td> </tr> <tr> <td>4</td> <td>2X4 FLAT BLOCKING THRU-OUT</td> <td>NO. U.O.N.</td> </tr> </tbody> </table>		ROOF	FLOOR	1	103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")	2	103 x 2 7/8 @ 12" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 10" O.C. COMMON NAIL (0.148")	3	103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")	4	2X4 FLAT BLOCKING THRU-OUT	NO. U.O.N.	 <p>STUDS NOTCHED AT ARCHITECTURAL BREAK MIN. 4x BLOCK'G CUT TO FIT SEE PLANS</p>	 <p>SDS SCREWS TO PENETRATE FULLY THE WOOD BEAM 1 1/2" EDGE DISTANCE JST, SEE PLANS FOR SIZE / DIRECTION WOOD BEAM 2X BLKG OR JOIST (DEPENDING ON JOIST DIRECTION) W/ SDS X X (LENGTH, V.I.F.) @ 4" O.C. T. &amp; B. CS16 COIL STRAP @ 16" O.C. MAX. W/ 10x 1 3/8" O.C. MAX. WHERE JOIST PARALLEL TO BEAM, USE 4x BLOCKING W/ 2 - A35 EACH SIDE TO RECEIVE STRAP</p>	 <p>SHEATH'G B.N. B.N. B.N. B.N. JSTS- SEE PLANS FOR SIZE / DIRECTION LTP4 @ 16" O.C. E.N. E.N. SEE PLANS JSTS- SEE PLANS FOR SIZE / DIRECTION</p>
	ROOF	FLOOR																
1	103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")																
2	103 x 2 7/8 @ 12" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 10" O.C. COMMON NAIL (0.148")																
3	103 x 2 7/8 @ 4" O.C. COMMON NAIL (0.148")	103 x 3 9/16 @ 3" O.C. COMMON NAIL (0.148")																
4	2X4 FLAT BLOCKING THRU-OUT	NO. U.O.N.																
ROOF AND FLOOR PLYWOOD LAYOUT AND NAILING 55	FLOOR SHEAR TRANSFER 54	FLOOR SHEAR TRANSFER 53	FLOOR SHEAR TRANSFER 52															
 <p>WOOD POST SIMPSON STRAP, SEE PLAN FOR SIZE EQUAL EQUAL POST BELOW TO RECEIVE ABOVE STRAP EQUAL</p>	 <p>WOOD POST SIMPSON "HDU" WOOD SCREWS TREATED SILL PLATE CONCRETE CONCRETE BOLT "E" MIN. EMBED. IN LOWEST Poured CONCRETE.</p>	 <p>WOOD POST SHEAR PANEL FLOOR PLYWOOD WHERE REQUIRED SLOT CUT PLYWOOD SIMPSON MSTCB3 F/J</p>	 <p>POST ABOVE SIMP. MSTCB3 No. C38604 EXP. 5-31-2023 4X BLOCKING TO RECEIVE STRAP WITH 4-A35 EACH END (TWO EACH SIDE)- TOTAL 8-A35, CONNECTED TO JOISTS.</p>															
TIE-DOWN DETAIL 56	FLOOR SHEAR TRANSFER 54	FLOOR SHEAR TRANSFER 53	TIE-DOWN DETAIL 59															
 <p>EQUAL (28-16d's) EQUAL (28-16d's) TOP PLATES SIMPSON MST60 WITH 56-16d's WOOD BEAM, TYP.</p>	 <p>EQUAL (23-16d's) EQUAL (23-16d's) TOP PLATES TYP. OR WOOD BEAM 3X BLKG -2 BAYS SIMPSON MST48 WITH 48-16d's STUD, TYP.</p>	 <p>EQUAL (28-16d's) EQUAL (28-16d's) TOP PLATES SIMPSON MST60 WITH 56-16d's WOOD BEAM, TYP.</p>	DRAG DETAIL 60															
DRAG DETAIL 62	HOLDOWN DETAIL 57	DRAG DETAIL 61	DRAG DETAIL 60															



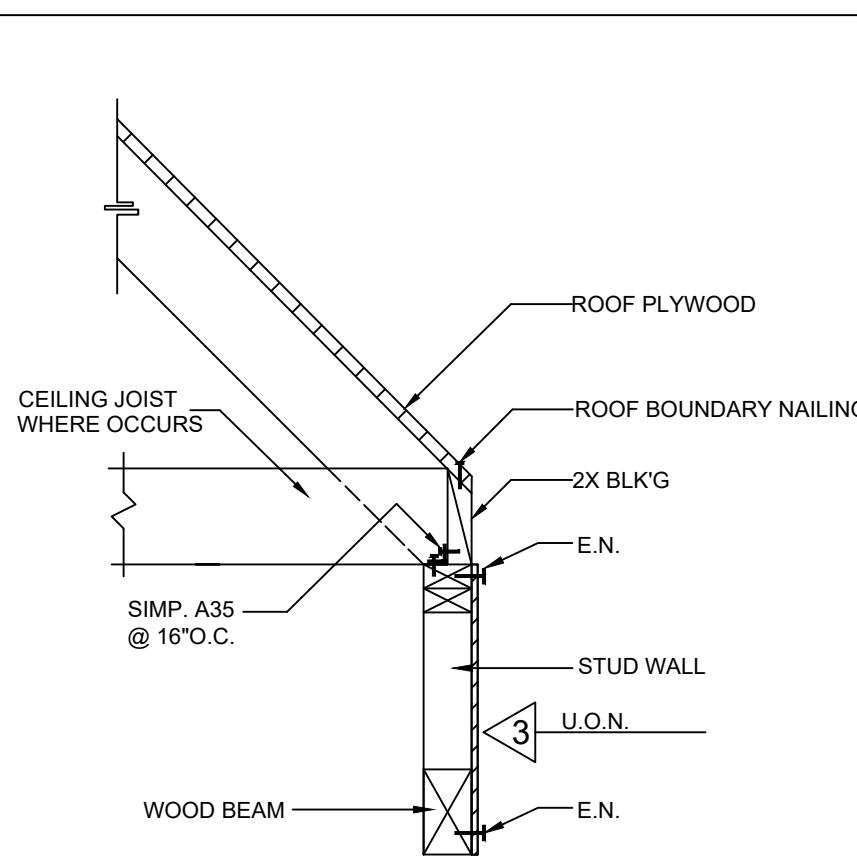






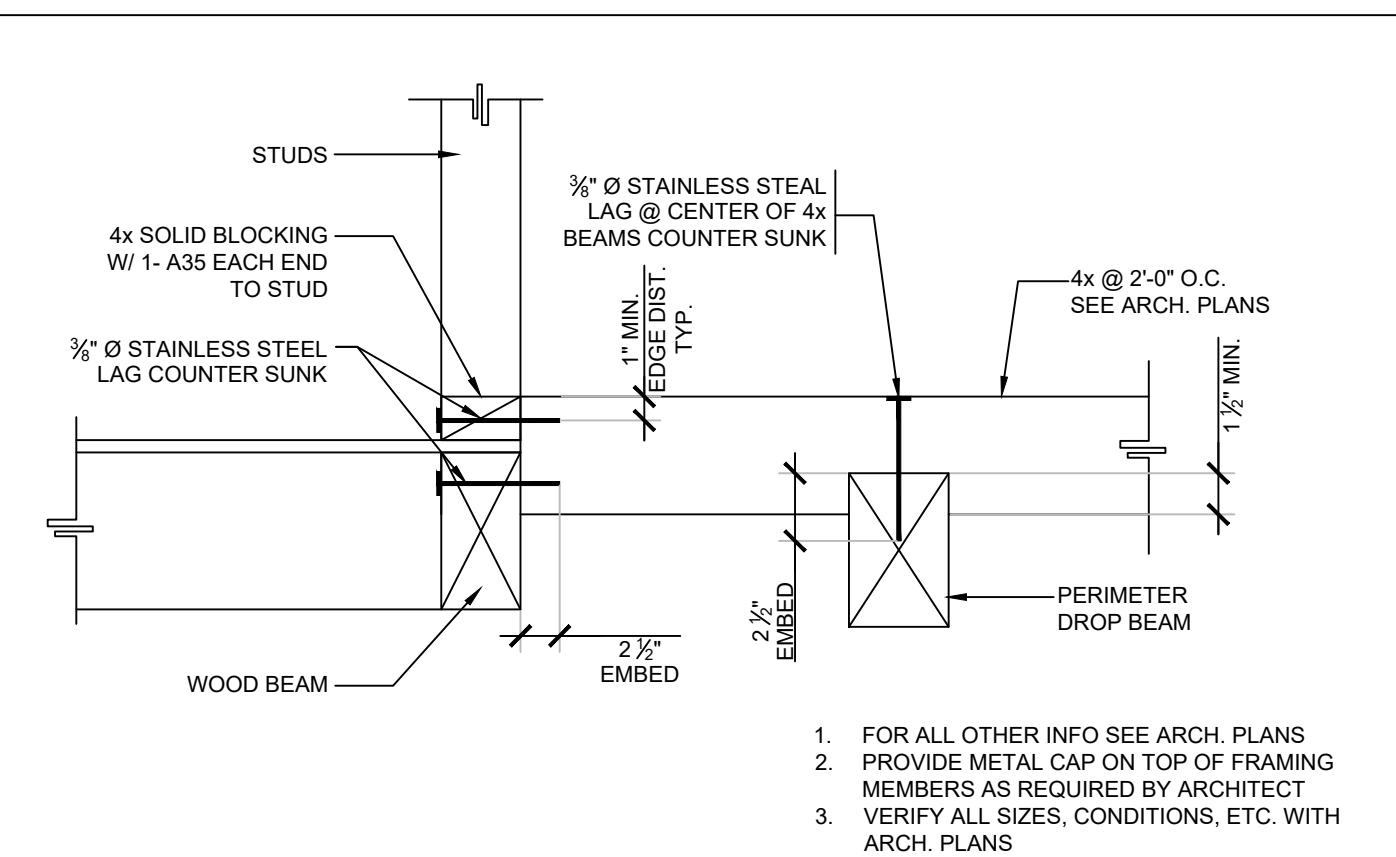
FOUNDATION DETAIL

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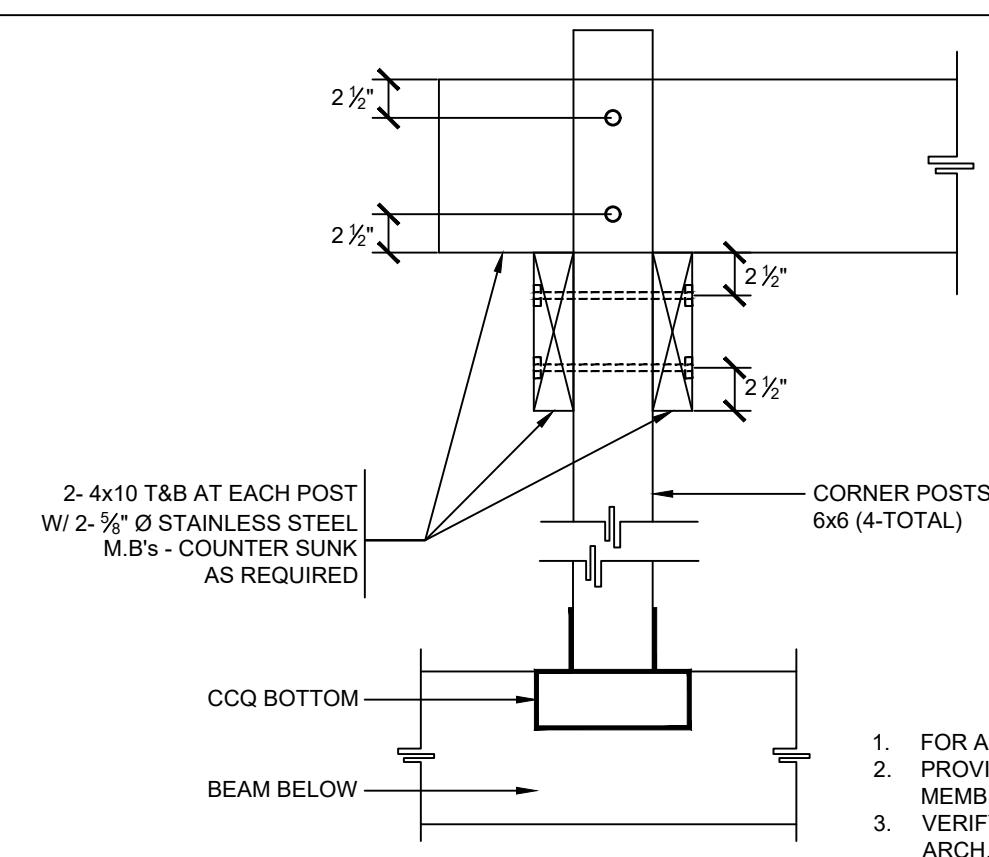
ROOF SHEAR TRANSFER

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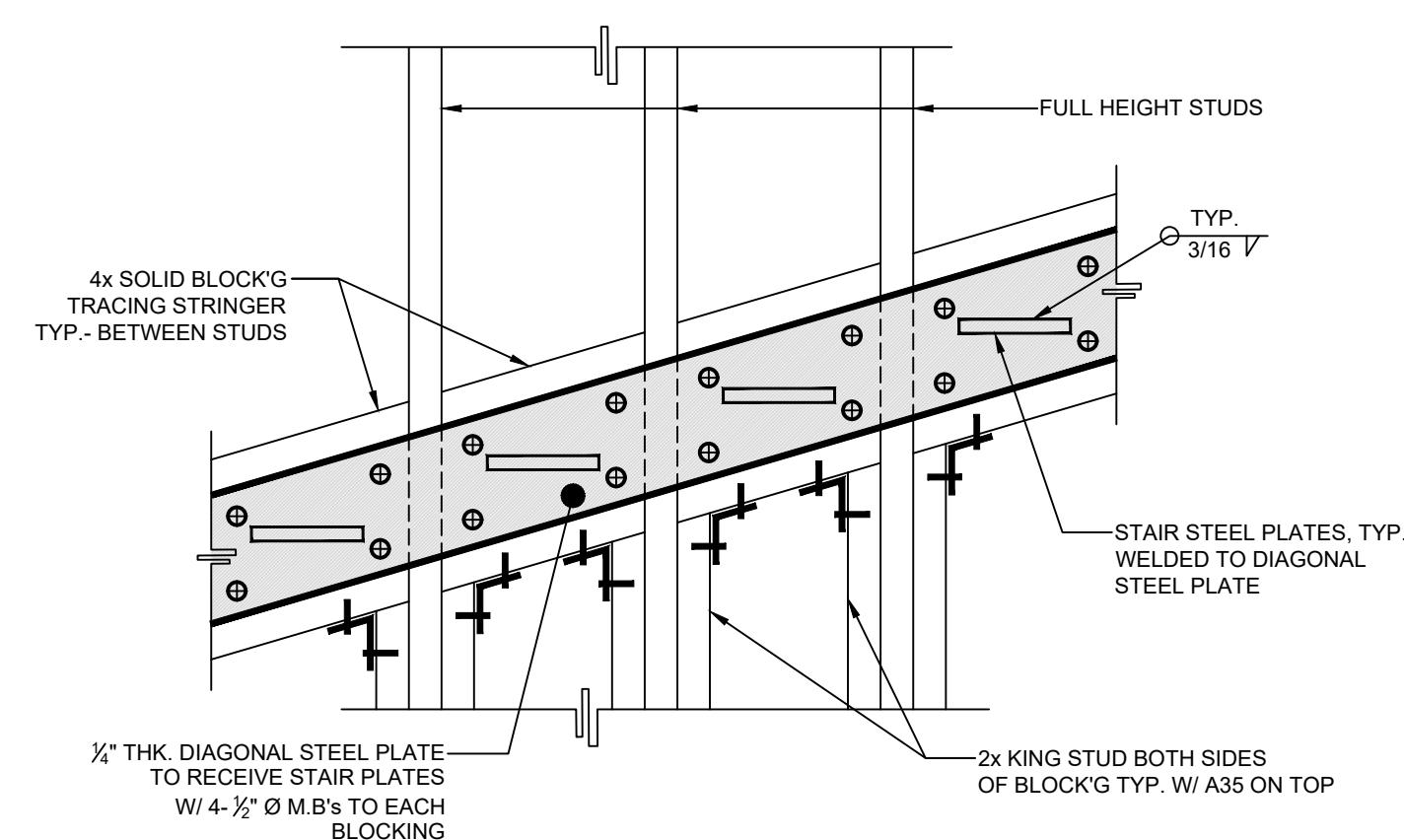
FLOOR FRAMING

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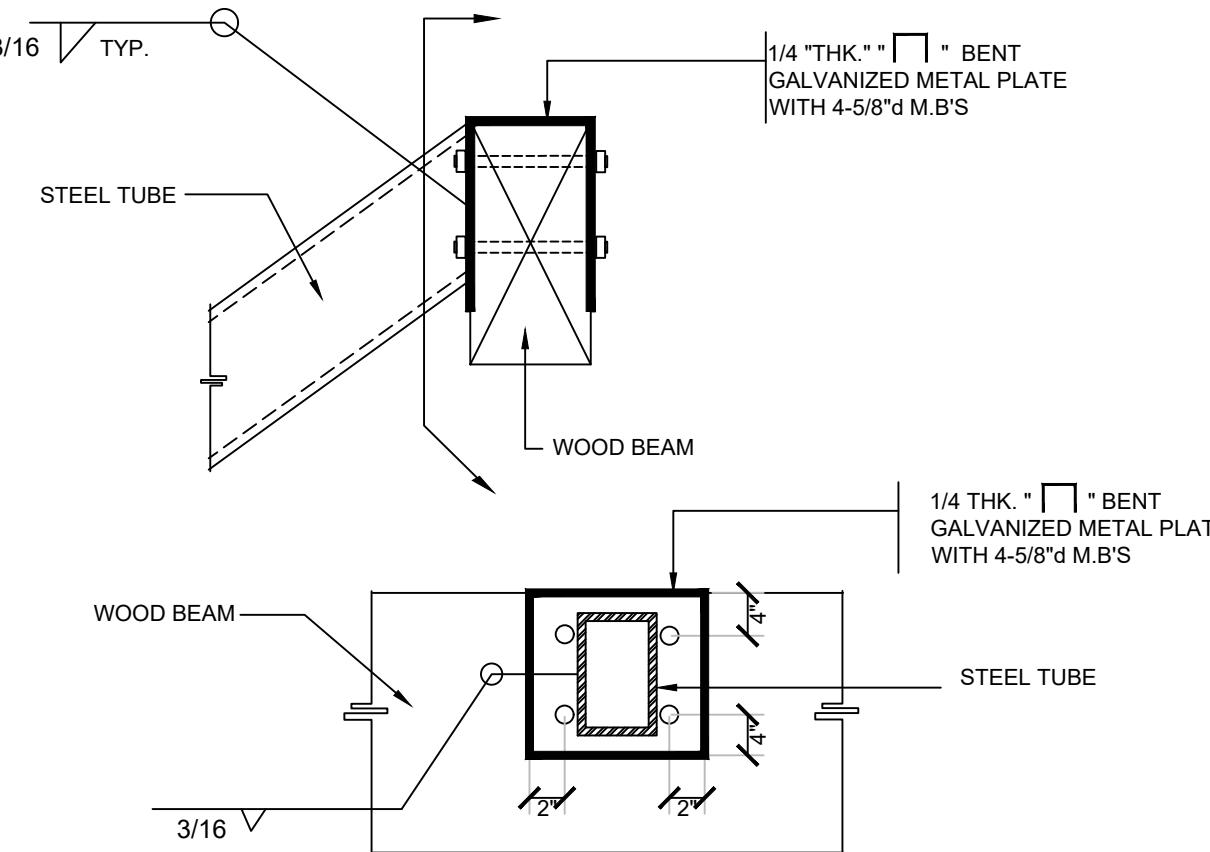
FLOOR FRAMING

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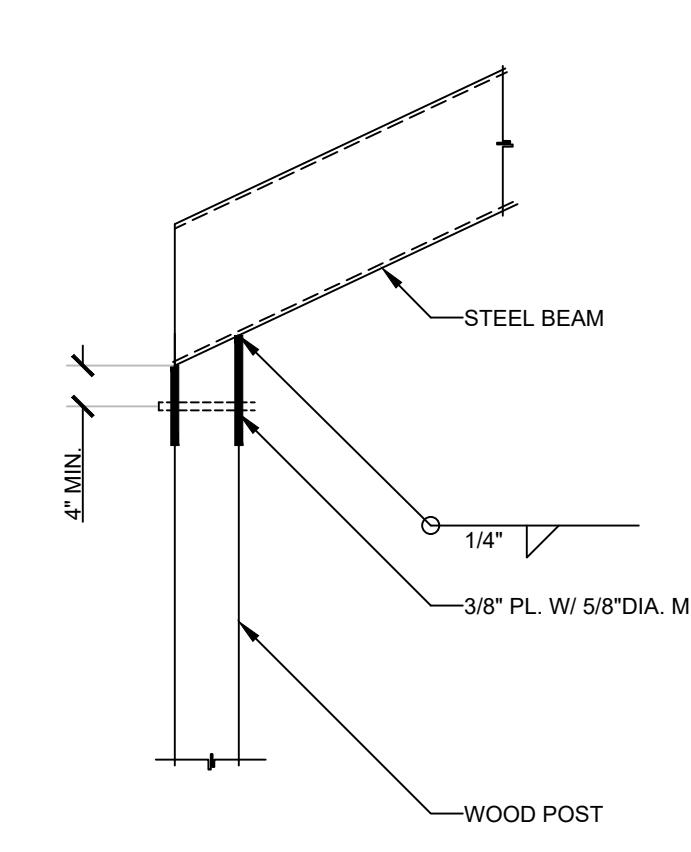
STEEL CONNECTION

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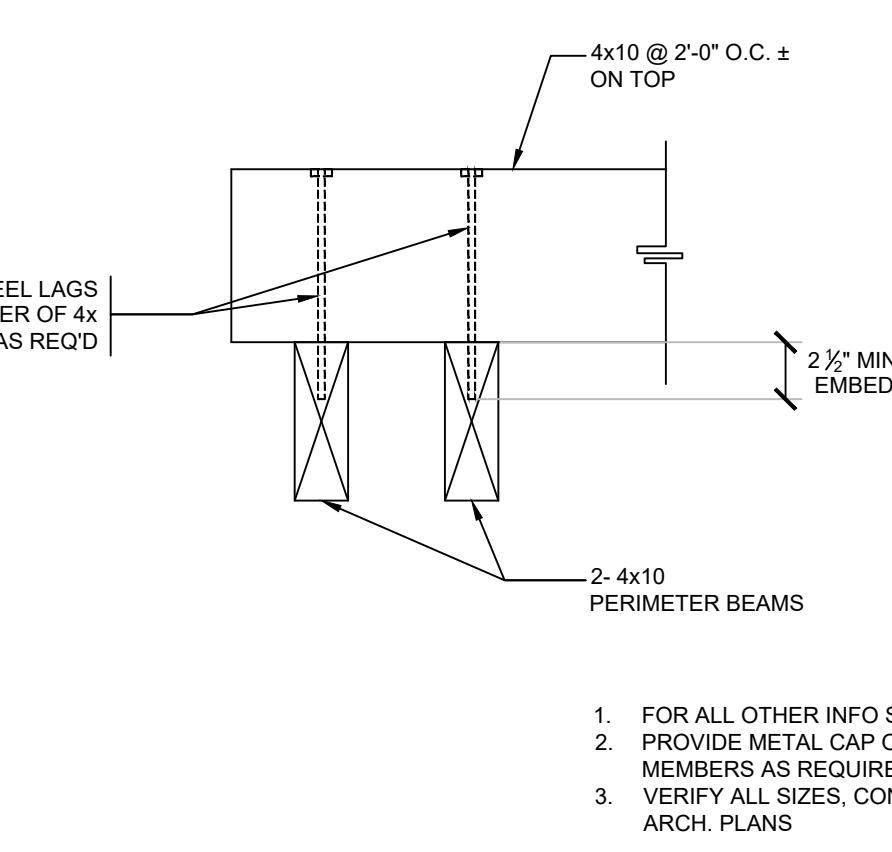
STEEL STRINGER

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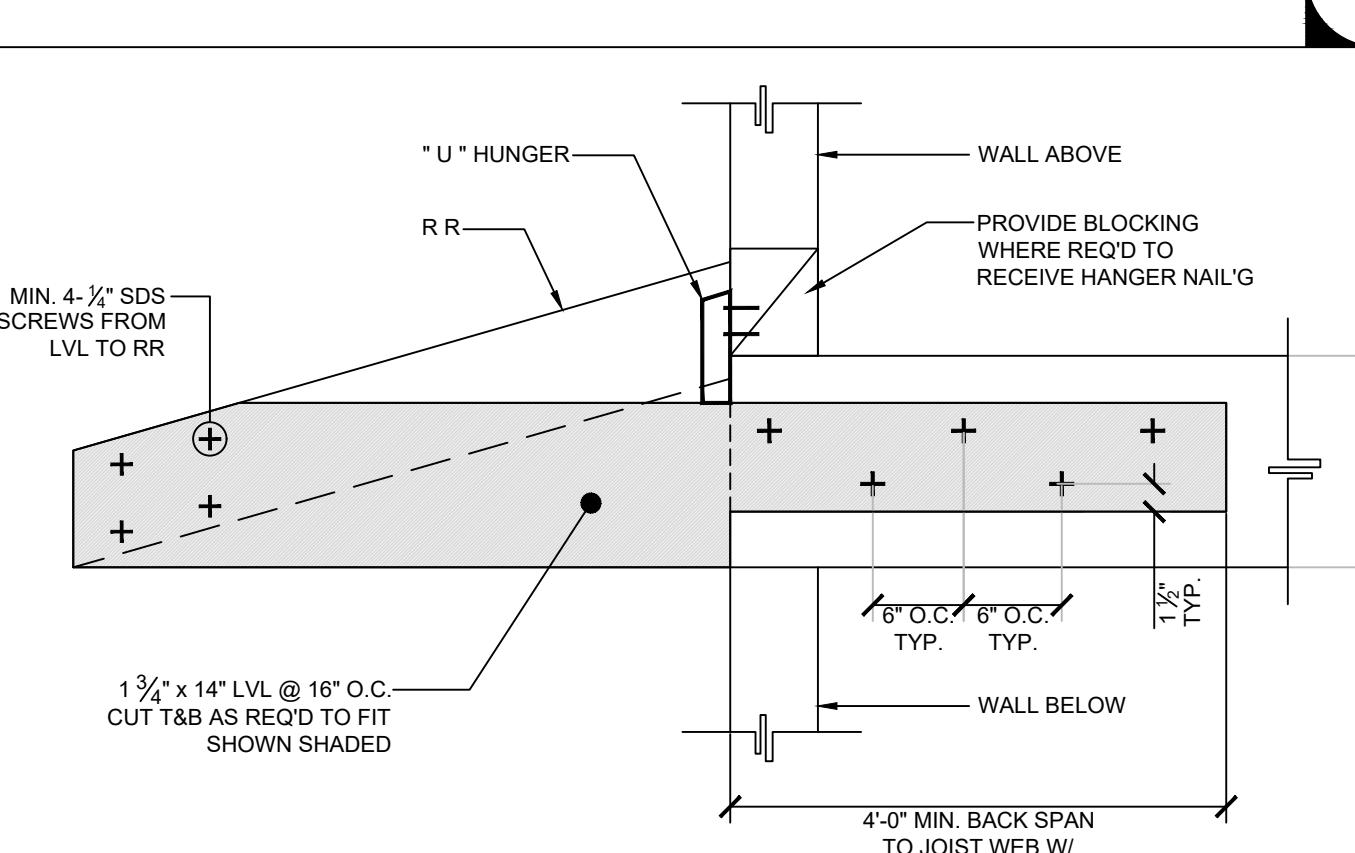
STEEL BEAMS

98



FLOOR FRAMING

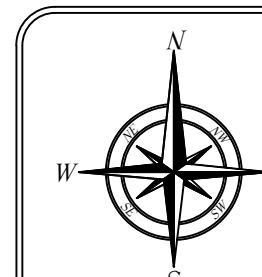
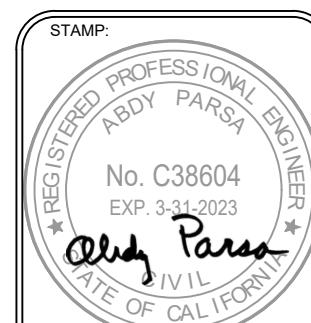
97



FLOOR FRAMING

101

102



NO.	DATE	REVISIONS
0	02-26-2021	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS

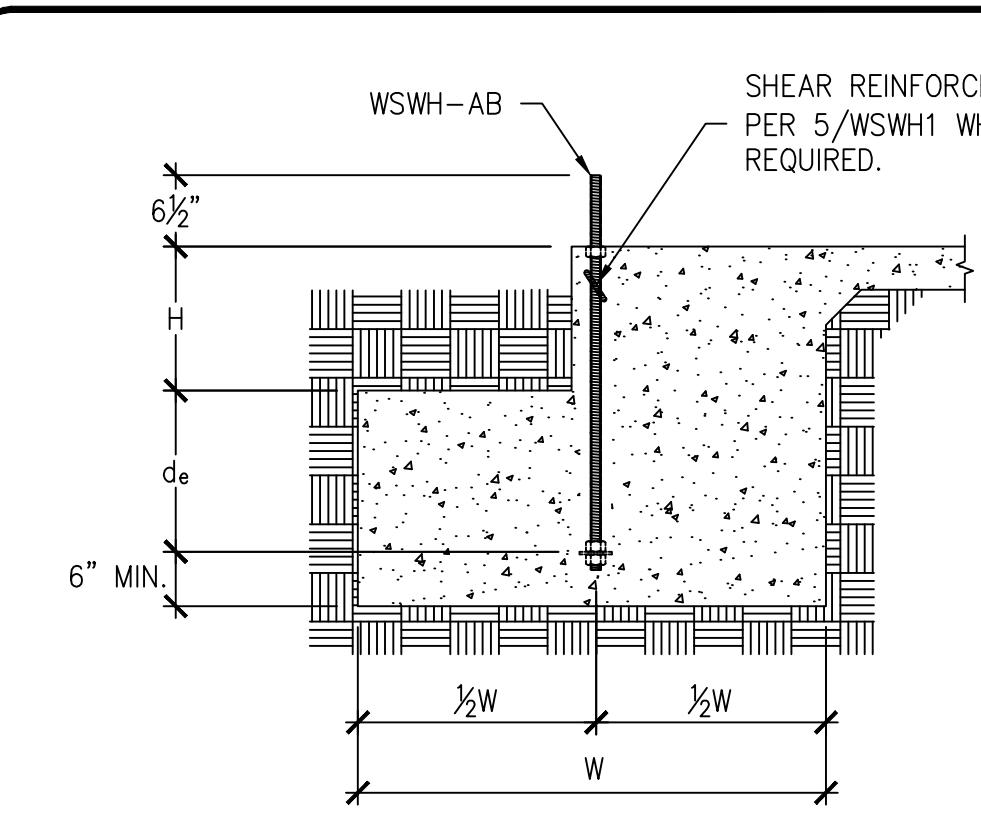
**SIMPSON Strong-Tie, Co., Inc.**

• 5956 W. Los Postos Blvd.  
Pleasanton, CA 94588  
• Tel: (800) 989-5099  
• Website: www.strongtie.com

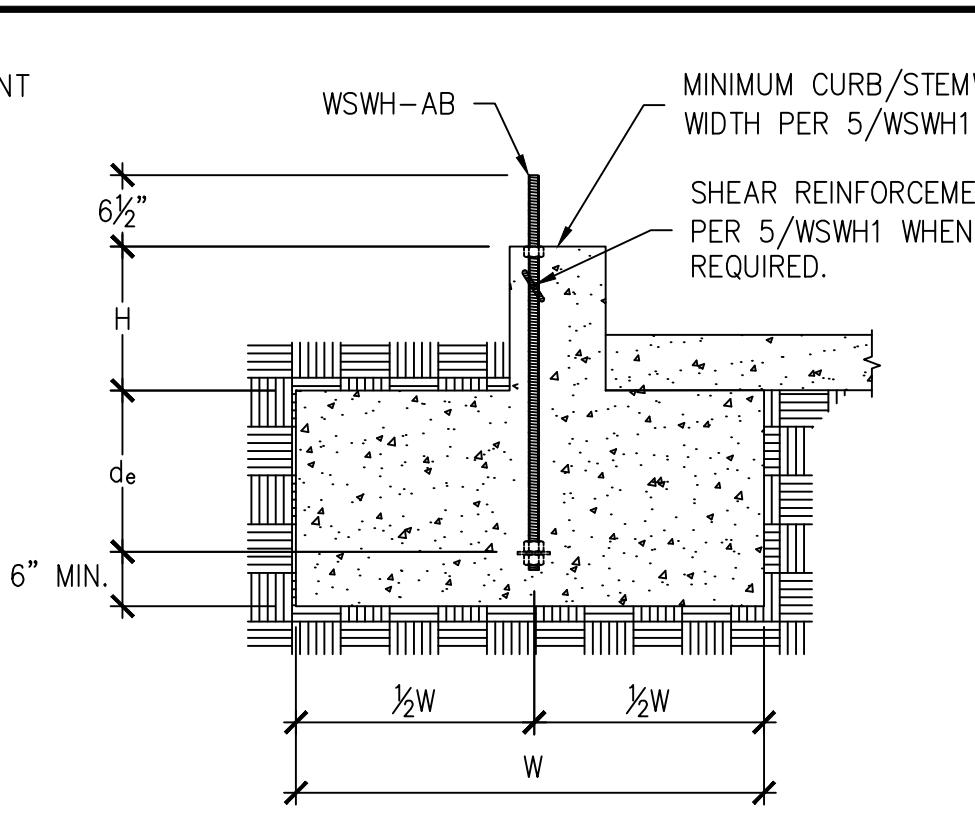
## STRONG-WALL® WSWH ANCHORAGE DETAILS ENGINEERED DESIGNS

**SIMPSON Strong-Tie®**

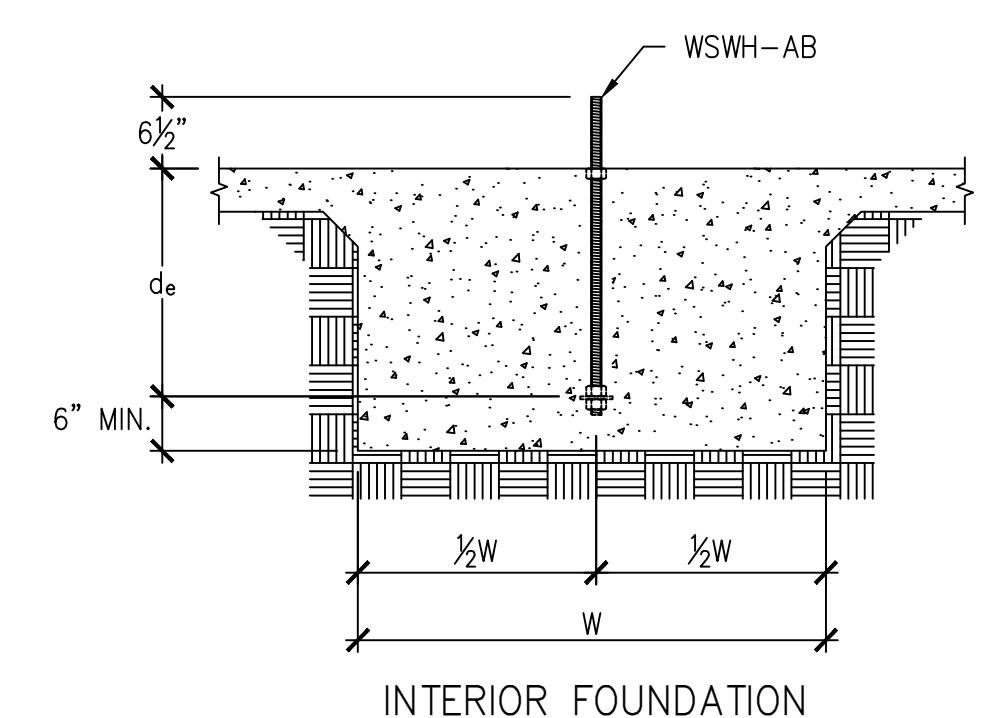
THERE IS NO EQUAL



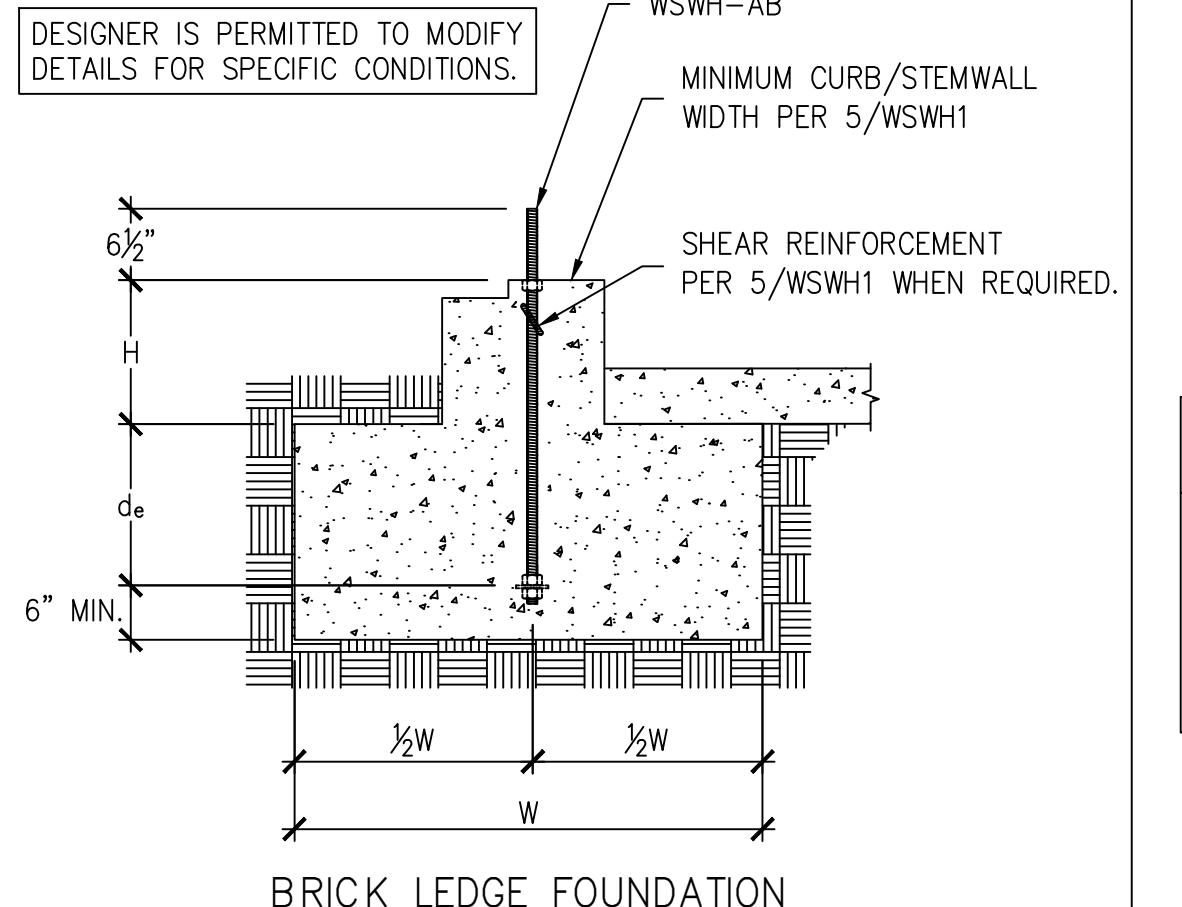
NOTES:  
1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.  
2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.  
3. MAXIMUM H =  $l_e$ . SEE 3/WSWH1 AND 4/WSWH1 FOR  $l_e$ .



CURB OR STEMWALL FOUNDATION

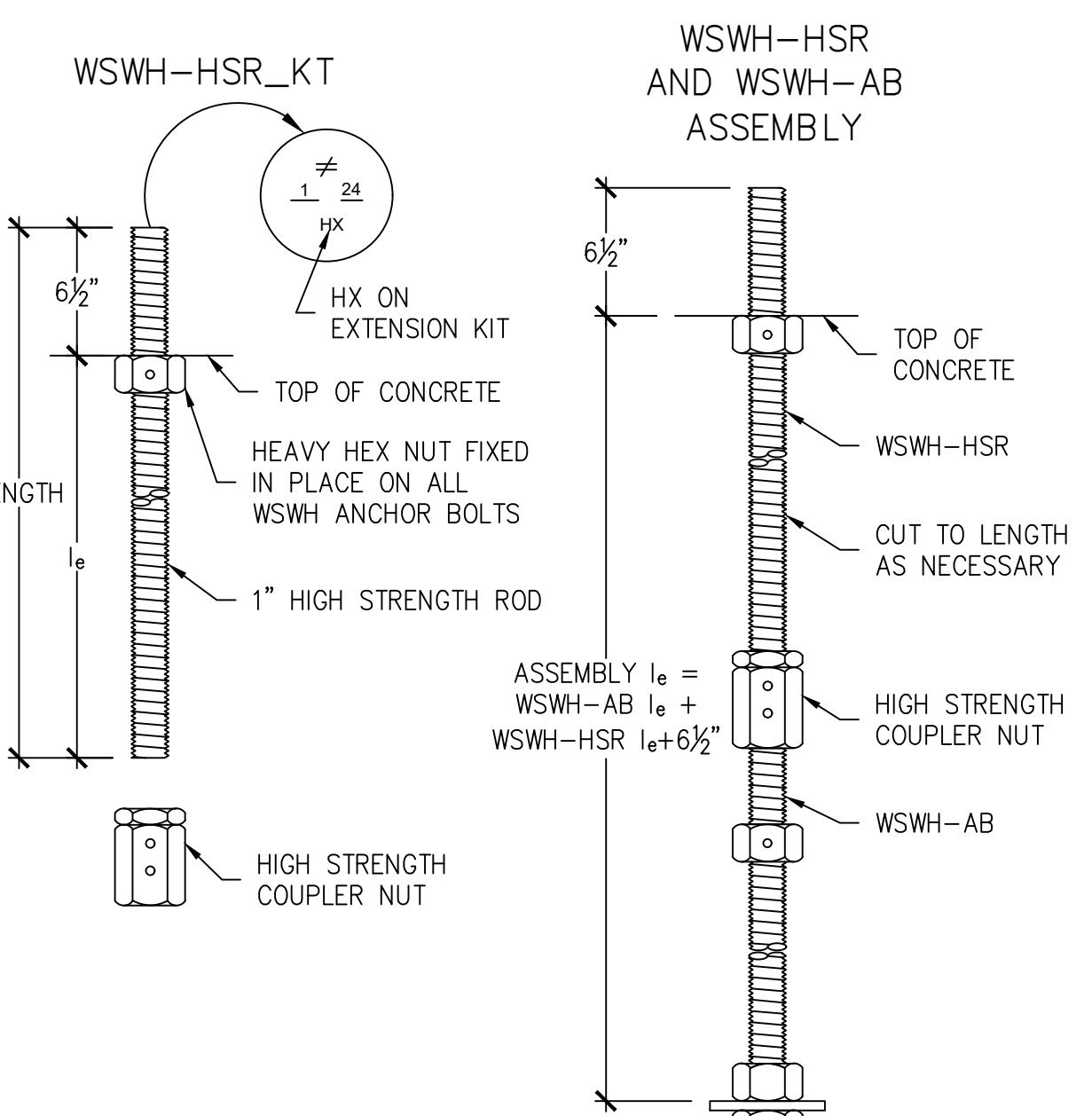
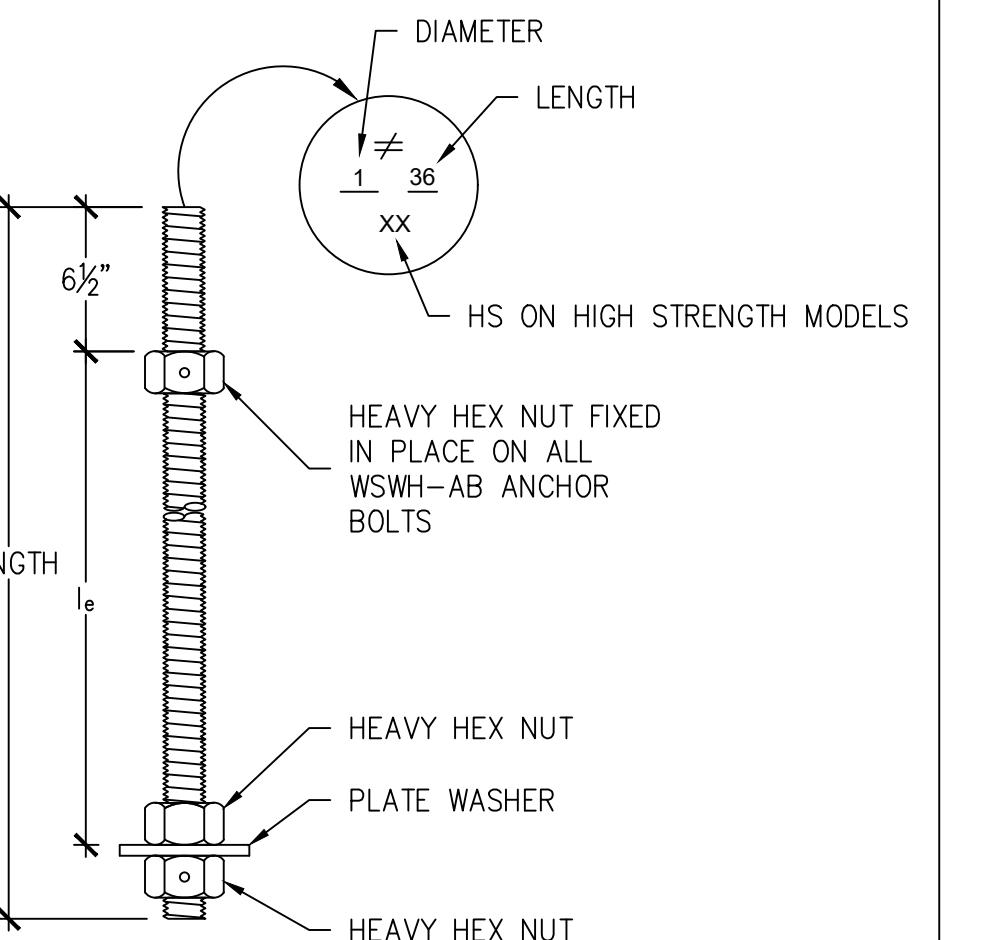


INTERIOR FOUNDATION

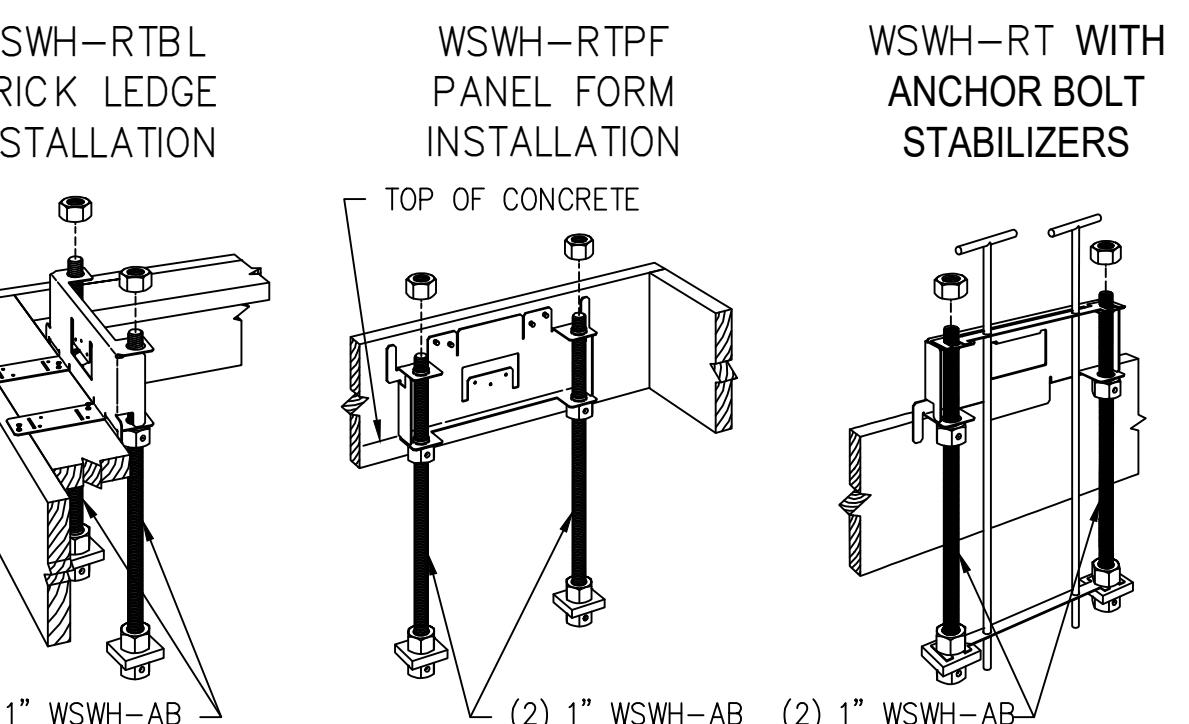
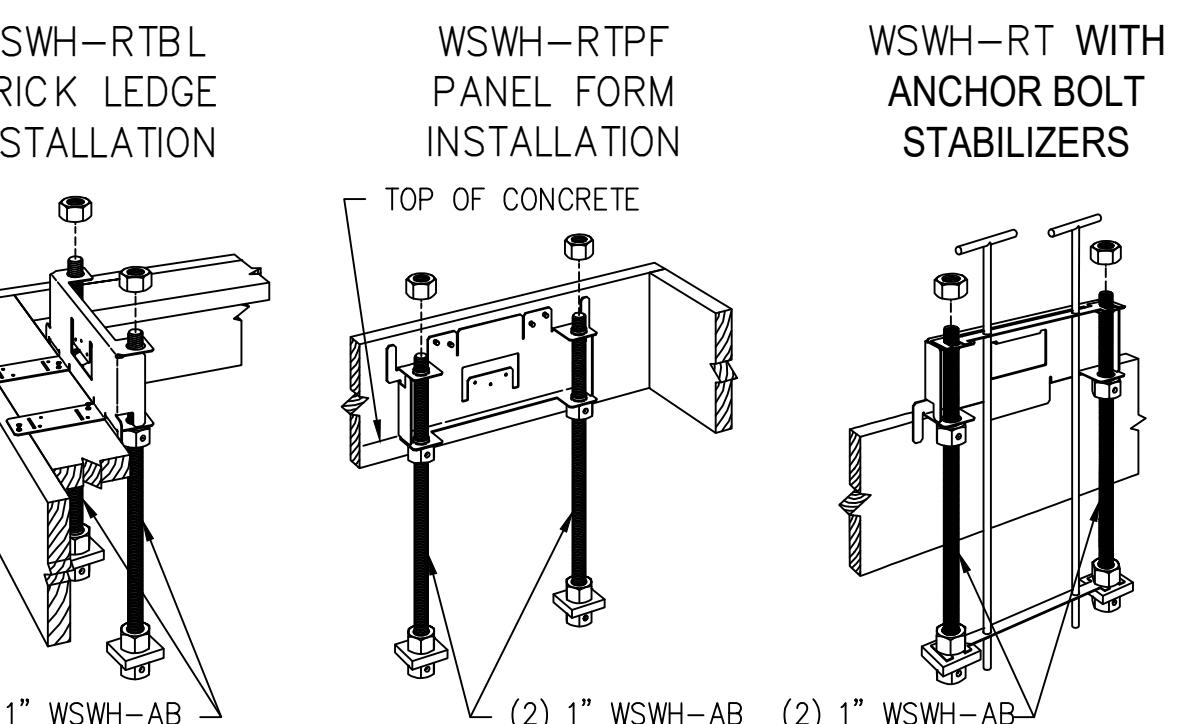
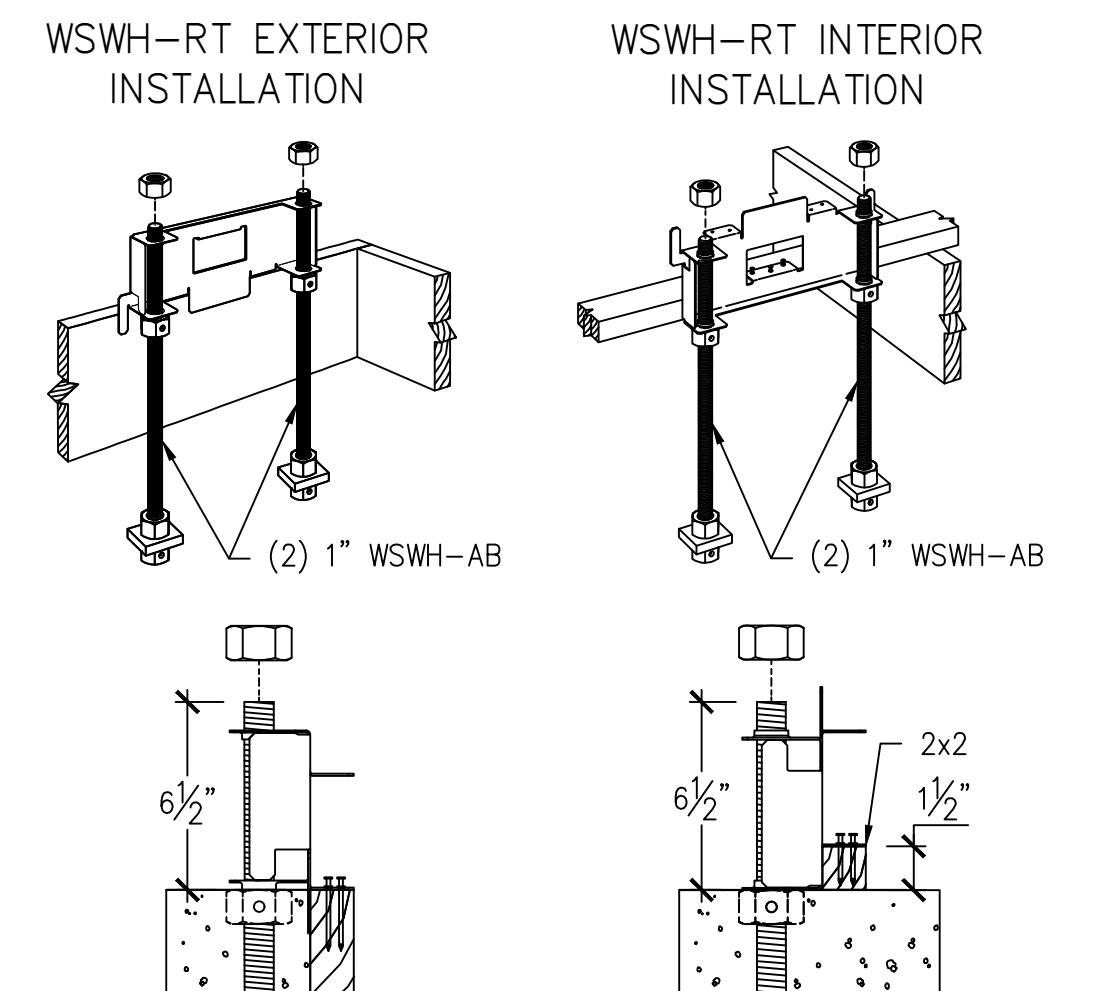


BRICK LEDGE FOUNDATION

WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	$l_e$
WSWH12, WSH18 AND WSH24	WSWH-AB1x24	1"	24"	15½"
	WSWH-AB1x24HS	1"	24"	15½"
	WSWH-AB1x30	1"	30"	21½"
	WSWH-AB1x30HS	1"	30"	21½"
	WSWH-AB1x36	1"	36"	27½"
	WSWH-AB1x36HS	1"	36"	27½"



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	$l_e$
WSWH12, WSH18 AND WSH24	WSWH-HSR1x24KT	1"	24"	17½"
	WSWH-HSR1x36KT	1"	36"	29½"



## STRONG-WALL® WSWH ANCHORAGE – TYPICAL SECTIONS

1

## WSWH ANCHOR BOLTS

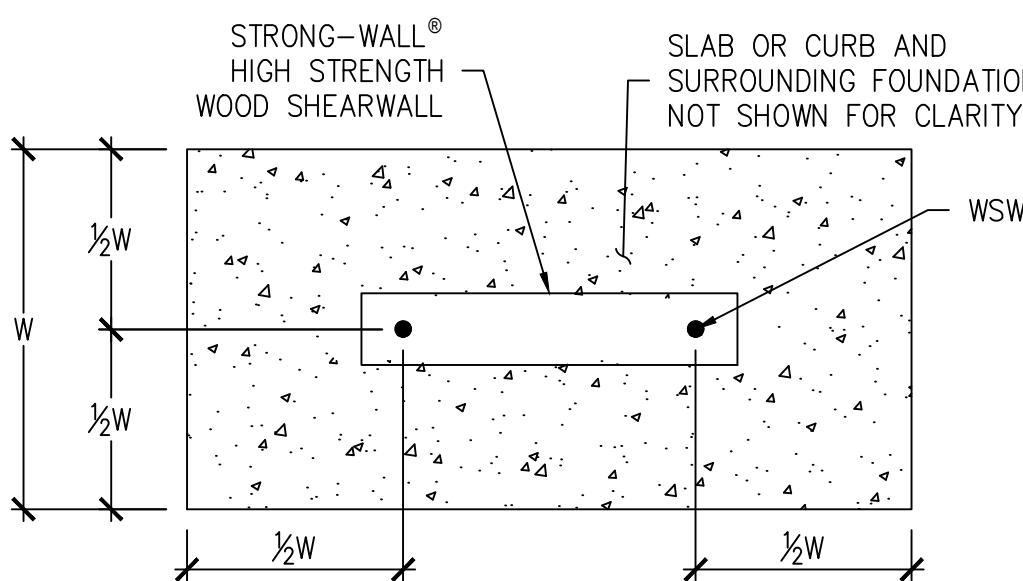
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## WSWH ANCHOR BOLT EXTENSION

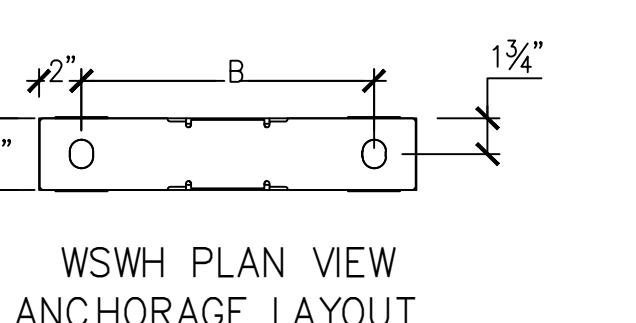
4

## WSWH ANCHOR BOLT TEMPLATES

6



FOUNDATION PLAN VIEW



STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODEL NO.	DISTANCE FROM CENTER-TO-CENTER OF WSWH-AB, B (in.)
WSWH12	8 1/2
WSWH18	14
WSWH24	20

NOTES:  
1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.  
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).  
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.  
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.  
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.  
6. REFER TO 1/WSWH1 FOR  $d_e$ .

### WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in.)	$d_e$ (in.)
SEISMIC	CRACKED	STANDARD	16,000	33	11
		HIGH STRENGTH	17,100	35	12
	UNCRAKED	STANDARD	34,100	52	18
		HIGH STRENGTH	36,800	55	19
WIND	CRACKED	STANDARD	15,700	28	10
		HIGH STRENGTH	17,100	30	10
		STANDARD	33,500	45	15
		HIGH STRENGTH	36,800	48	16
	CRACKED	STANDARD	6,200	16	6
		HIGH STRENGTH	11,400	24	8
		STANDARD	17,100	32	11
		HIGH STRENGTH	21,100	36	12
	UNCRAKED	STANDARD	27,300	42	14
		HIGH STRENGTH	34,100	48	16
		STANDARD	36,800	51	17
		HIGH STRENGTH	6,400	14	6
	CRACKED	STANDARD	12,500	22	8
		HIGH STRENGTH	17,100	28	10
		STANDARD	22,900	33	11
		HIGH STRENGTH	26,400	36	12
	UNCRAKED	STANDARD	34,200	42	14
		HIGH STRENGTH	36,800	44	15

### WSWH ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in.)	$d_e$ (in.)
SEISMIC	CRACKED	STANDARD	16,000	31	11
		HIGH STRENGTH	17,100	33	11
	UNCRAKED	STANDARD	36,800	52	18
		HIGH STRENGTH	36,800	55	19
WIND	CRACKED	STANDARD	15,700	28	10
		HIGH STRENGTH	17,100	30	10
		STANDARD	34,100	45	15
		HIGH STRENGTH	36,800	48	16
	CRACKED	STANDARD	5,600	14	6
		HIGH STRENGTH	10,200	21	7
		STANDARD	20,000	33	11
		HIGH STRENGTH	26,500	39	13
	UNCRAKED	STANDARD	33,600	45	15
		HIGH STRENGTH	36,800	48	16
		STANDARD	6,200	13	6
		HIGH STRENGTH	12,800	21	7
	CRACKED	STANDARD	17,100	26	9
		HIGH STRENGTH	21,800	30	10
		STANDARD	28,900	36	12
		HIGH STRENGTH	33,100	39	13
	UNCRAKED	STANDARD	36,800	42	14

### WSWH ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
ASD ALLOWABLE UPLIFT (lbs)	W (in.)	$d_e$  (in.)			



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NO.	DATE	REVISIONS
0	10-12-2020	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS

**SIMPSON Strong-Tie, Co., Inc.**

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Pleasanton, CA 94588  
• Tel: (800) 989-5099  
• Website: www.strongtie.com

**SIMPSON**  
**Strong-Tie**

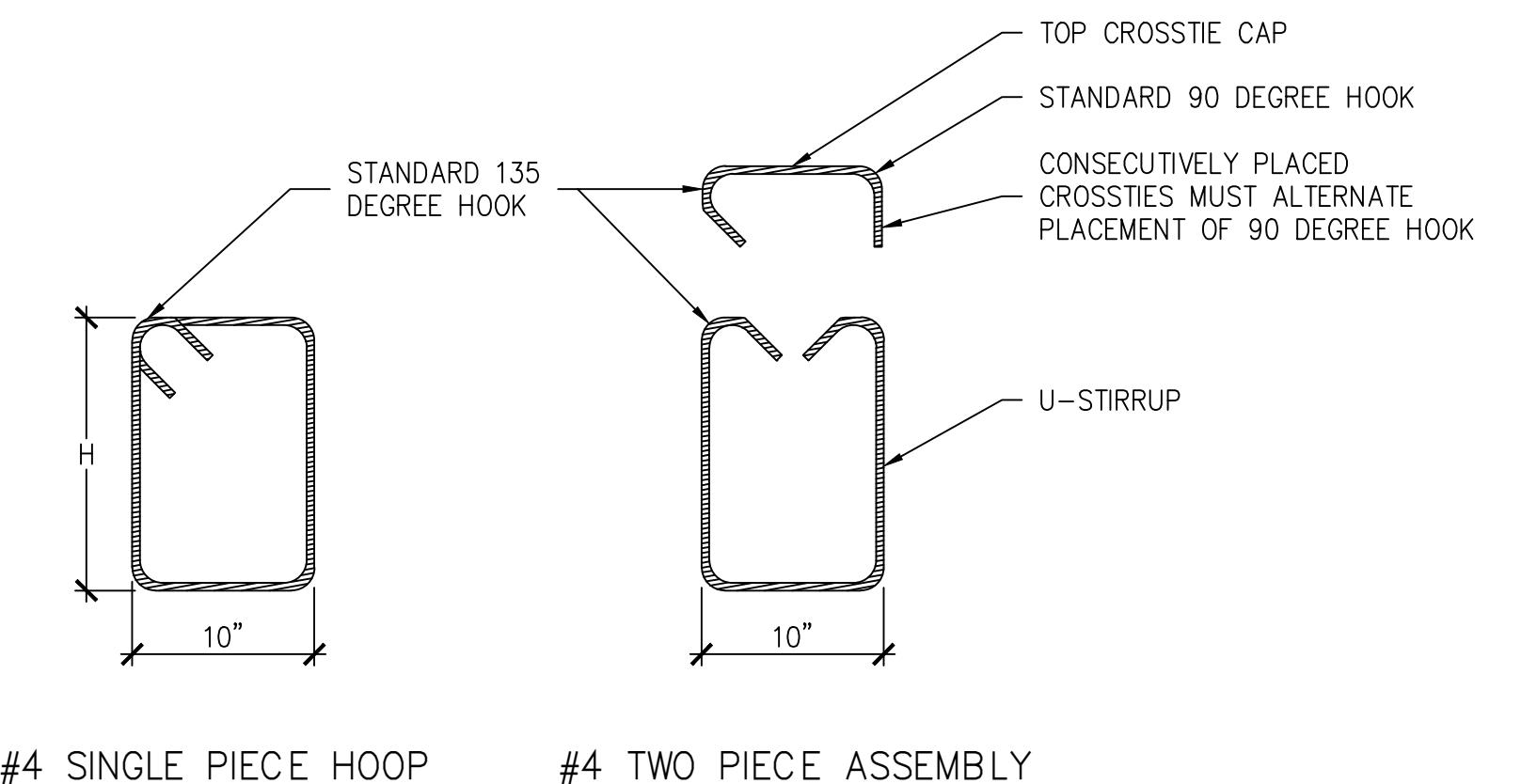
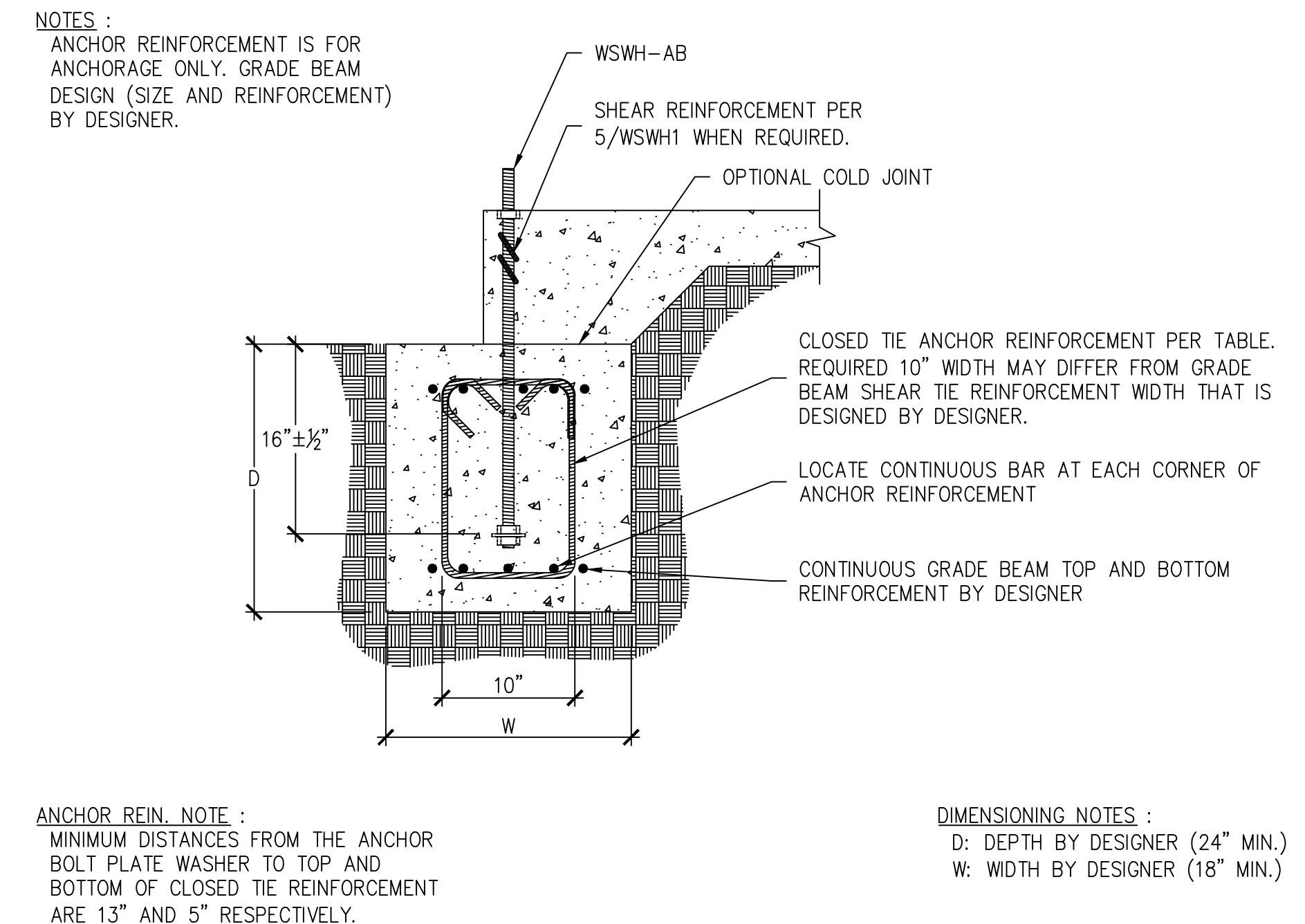
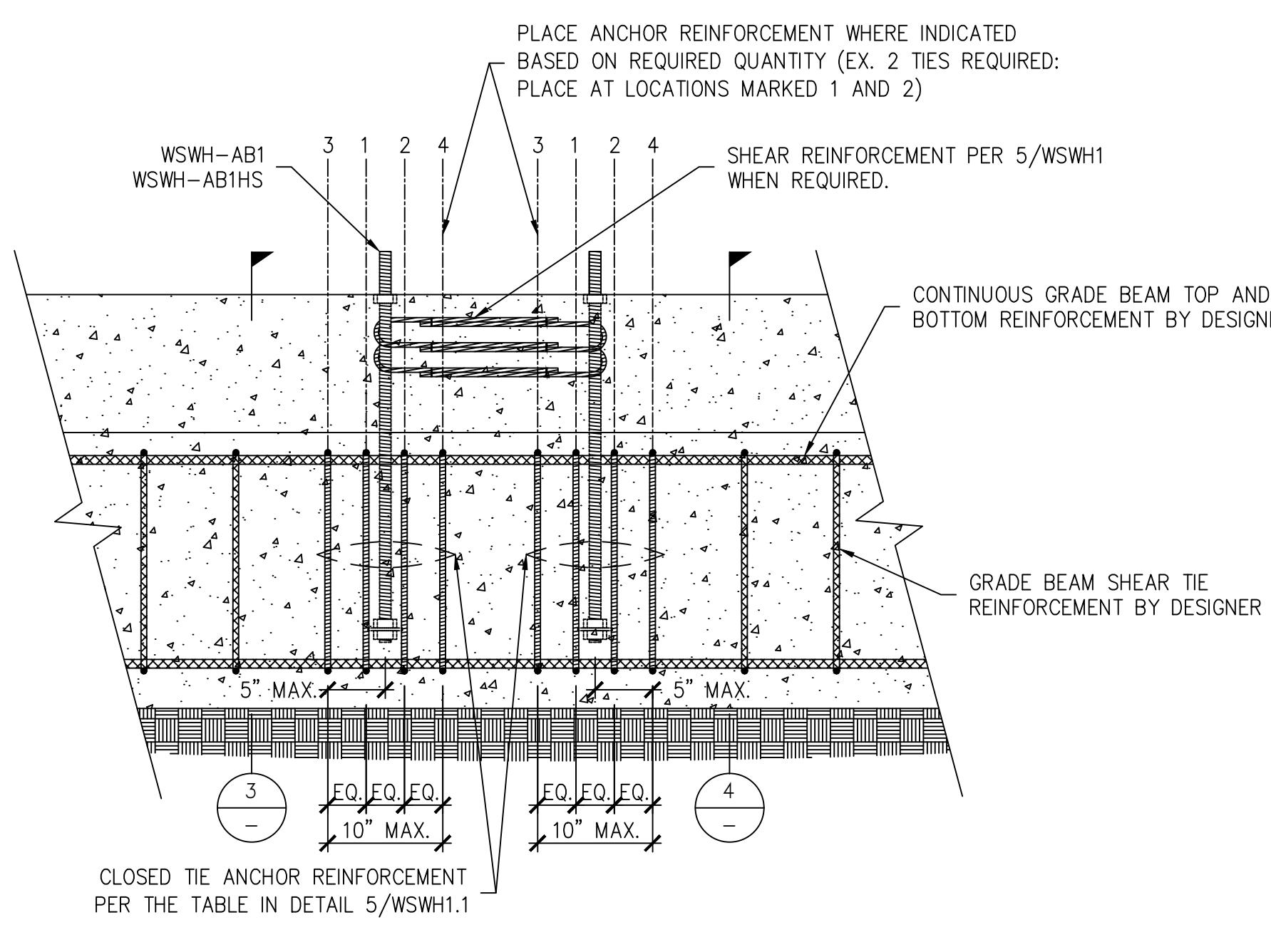


## STRONG-WALL® WSWH ALTERNATE ANCHORAGE DETAILS ENGINEERED DESIGNS

**SIMPSON**  
**Strong-Tie**



NAME	
DATE	03-16-2021
SCALE	N.T.S.
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WSWH1.1	
OF SHEETS	
JOB NO.	



DIMENSIONING NOTES : H: HEIGHT OF ANCHOR REINFORCEMENT ASSEMBLY BY DESIGNER, SEE DETAIL 3/WSWH1.1 FOR MINIMUM REQUIREMENTS

### GRADE BEAM ELEVATION AT 18" AND 24" WALL MODELS

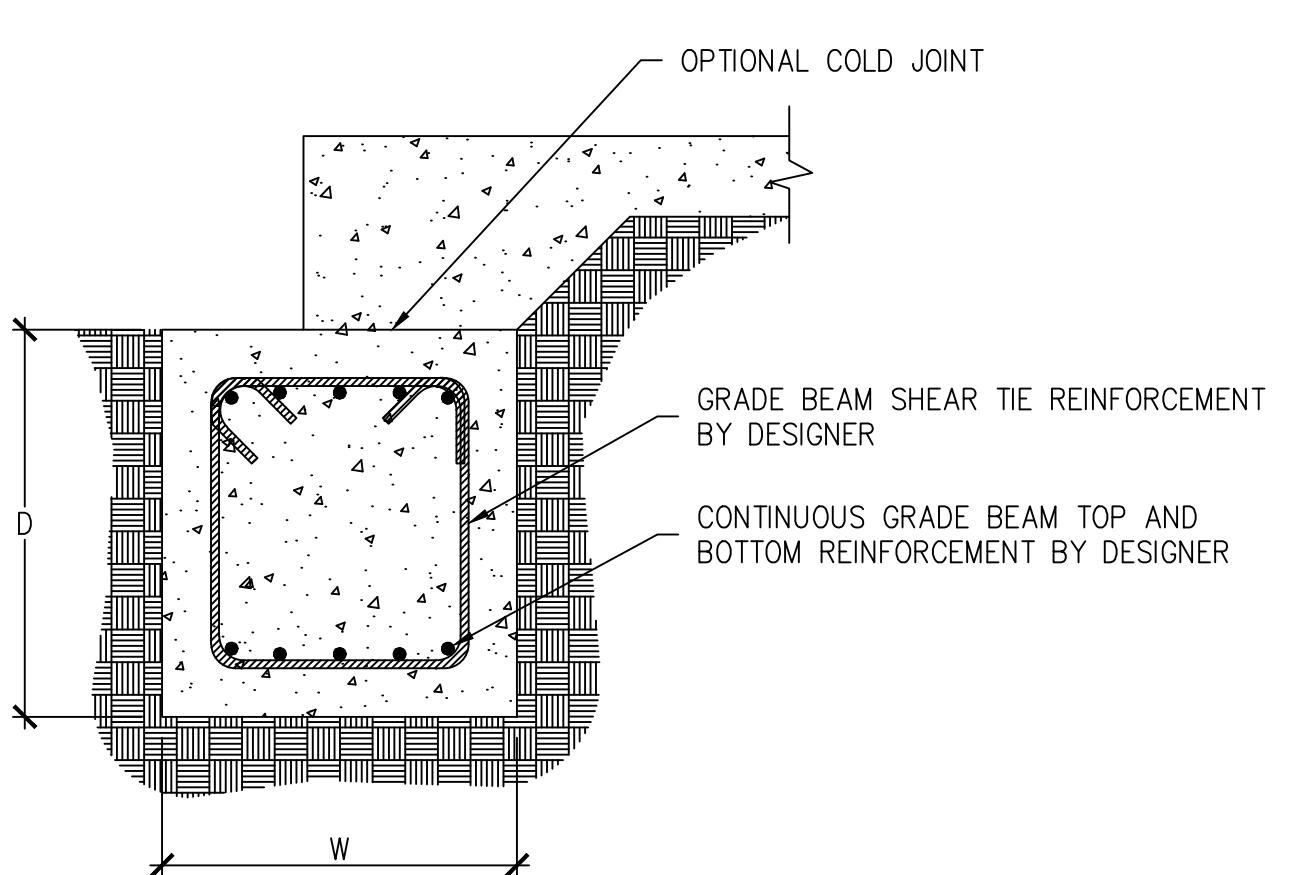
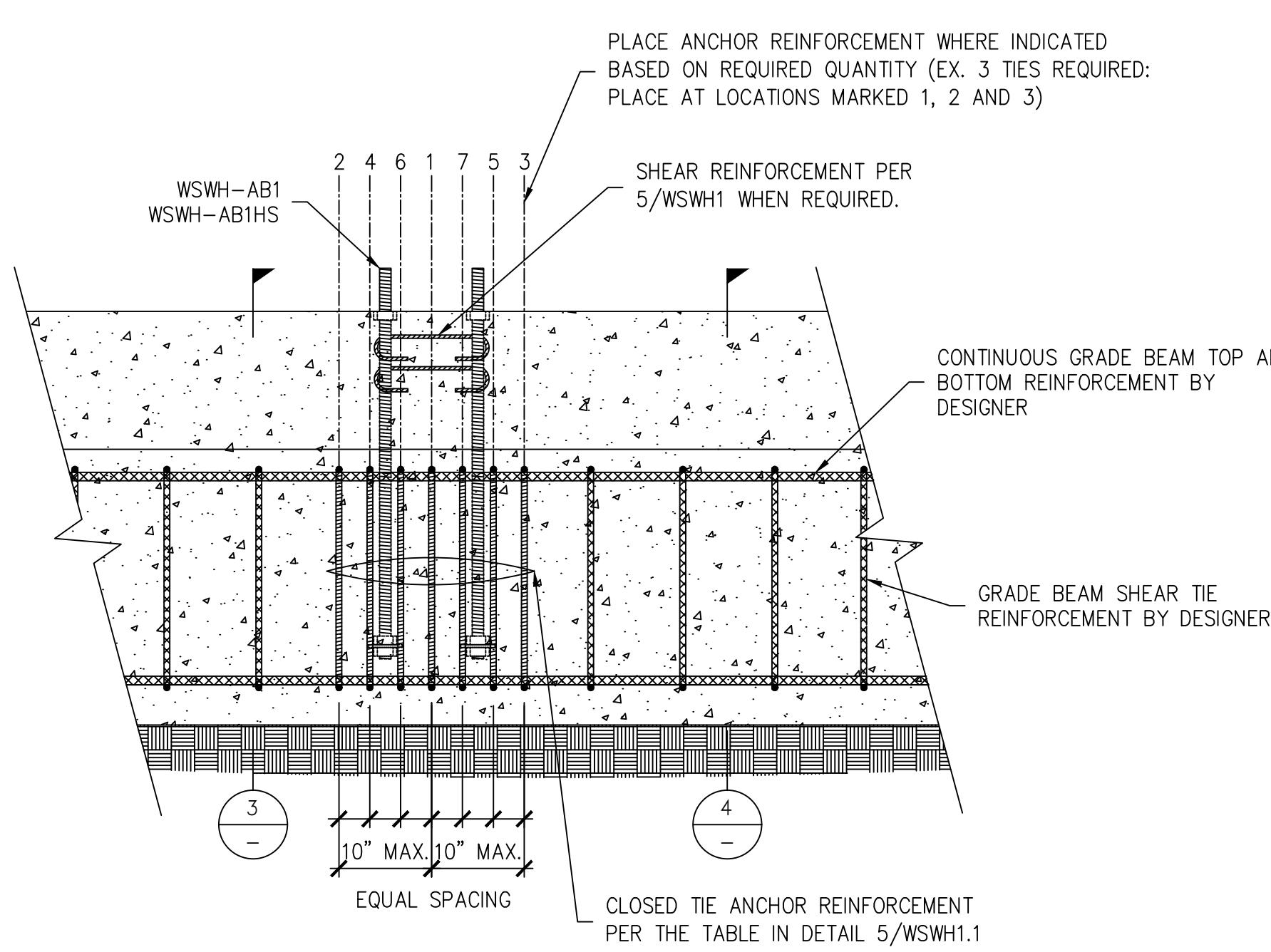
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### GRADE BEAM SECTION AT ANCHOR REINFORCEMENT

3

### CLOSED TIE ANCHOR REINFORCEMENT

6



### GRADE BEAM ELEVATION AT 12" WALL MODEL

2

### GRADE BEAM SECTION AWAY FROM ANCHOR REINFORCEMENT

4

WSWH GRADE BEAM ANCHOR REINFORCEMENT				
HIGH STRENGTH STRONG-WALL® WOOD SHEARWALL WIDTH (in.)	ANCHOR MODEL NO.	ANCHOR DIAMETER (in.)	ANCHOR REINFORCEMENT FOR WIND AND SEISMIC <sup>3,8,9</sup>	
			STANDARD STRENGTH WSWH-AB1	HIGH STRENGTH (HS) WSWH-AB1HS
12" MODEL	WSWH-AB1 WSWH-AB1HS	1	3-#4 CLOSER TIES PER	7-#4 CLOSER TIES PER
			2-#4 CLOSER TIES PER	4-#4 CLOSER TIES PER
18" MODEL				29,500
24" MODEL				31,300
				48,000
				72,900
				67,100
				103,500

- NOTE :
1. ANCHOR REINFORCEMENT CONFORMS TO ACI 318-19 SECTION 17.5.2.1, ACI 318-14 SECTION 17.4.2.9 AND ACI 318-11 SECTION D.5.2.9. FULL-SCALE TESTING WAS USED TO VALIDATE ANCHOR REINFORCEMENT CONFIGURATION AND PLACEMENT.
  2. MINIMUM CONCRETE COMPRESSIVE STRENGTH,  $f'_c = 2500$  psi.
  3. CLOSED TIE ANCHOR REINFORCEMENT TO BE ASTM A615 GRADE 60 (MIN) #4 REBAR.
  4. GRADE BEAM LONGITUDINAL AND TIE REINFORCEMENT SHALL BE SPECIFIED BY THE DESIGNER FOR FLEXURE AND SHEAR LOADING. DESIGN SHOULD CONSIDER PROJECT SPECIFIC DESIGN LOADS AND ALLOWABLE SOIL PRESSURE.
  5. SIMPSON STRONG-TIE RECOMMENDS USING THE TABULATED MINIMUM AMPLIFIED LRFD APPLIED SEISMIC DESIGN MOMENT TO ENSURE GRADE BEAM DESIGN FLEXURE AND SHEAR STRENGTH IS ADEQUATE TO PREVENT PLASTIC HINGE FORMATION UNDER DEMANDS ASSOCIATED WITH ANCHORAGE FORCES CORRESPONDING TO ACI 318-19 SECTION 17.0.5.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-11 SECTION D.3.3.4.3.
  6. DESIGNER MAY USE REDUCED MOMENT DUE TO APPLIED WSWH LATERAL LOAD. MINIMUM MOMENT SHALL BE THE LESSER OF THE TABULATED MOMENT OR THE AMPLIFIED LRFD DESIGN MOMENT FOR SEISMIC: (ASD DESIGN DEMAND SHEAR/0.7)  $\times Q_6 \times$  WSWH WALL HEIGHT FOR GRADE BEAM DESIGN.
  7. MINIMUM GRADE BEAM DESIGN MOMENT FOR WIND AND SEISMIC IN SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C: (ASD DESIGN DEMAND SHEAR/0.6)  $\times$  WSWH WALL HEIGHT.
  8. CLOSED TIE MAY BE SINGLE PIECE HOOP OR TWO PIECE ASSEMBLY WITH A U-STIRRUP WITH STANDARD 135 DEGREE HOOKS AND A TOP CROSS TIE CAP. SEE DETAIL 6/WSWH1.1.
  9. SEE DETAILS FOR GRADE BEAM ANCHOR REINFORCEMENT PLACEMENT, INSTALLATION AND SPACING REQUIREMENTS. CLOSED TIE ANCHOR REINFORCEMENT QUANTITY IS PER WALL FOR THE 12" WALL MODEL AND PER ANCHOR FOR THE 18" AND 24" MODELS.

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## STRONG-WALL® WSWH FRAMING DETAILS ENGINEERED DESIGNS

SIMPSON Strong-Tie  
THERE IS NO EQUAL

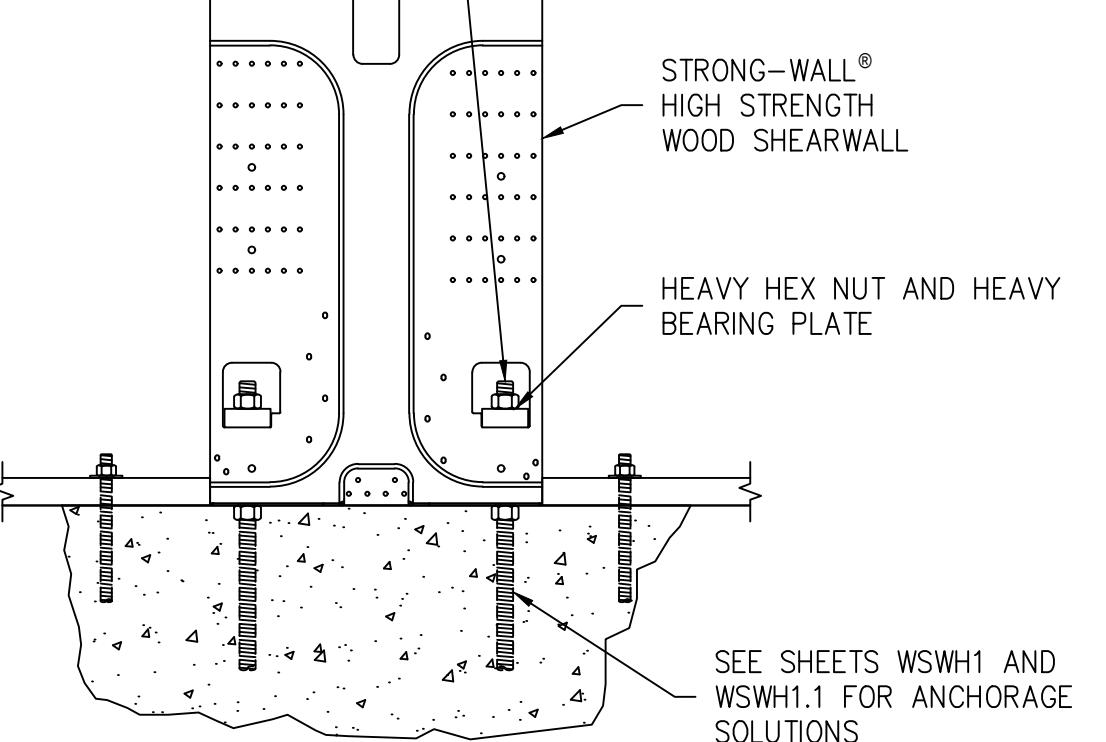
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WSWH2	
OF SHEETS	
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### STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS QUANTITY	DIA. (in.)	TOTAL WALL WEIGHT (lb.)
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

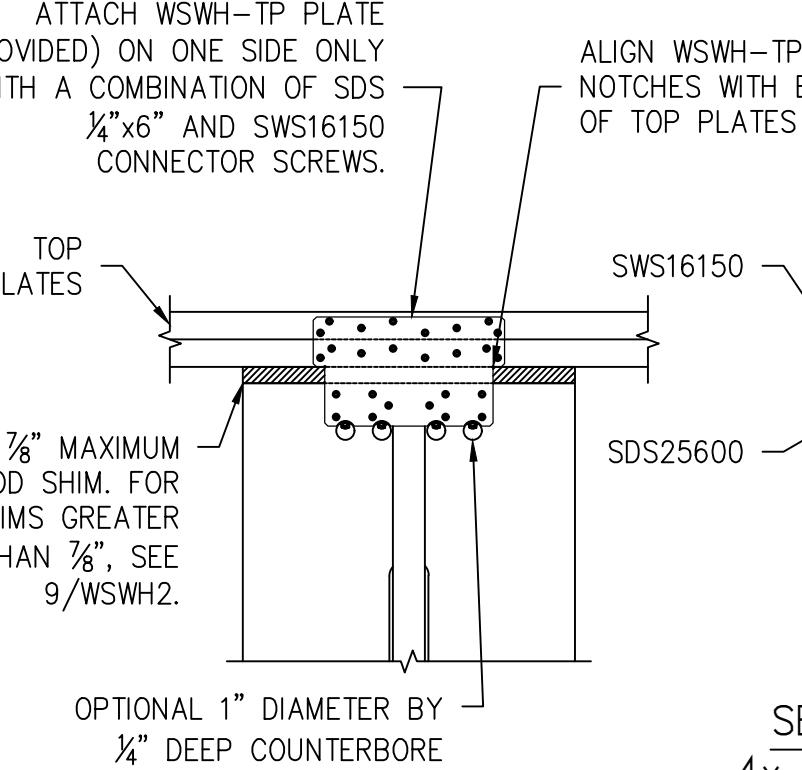
- NOTES:  
 1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT.  
 MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 $\frac{1}{2}$ ".  
 2. ALL PANELS COME WITH PRE-ATTACHED HOLDOWNS, TWO HEAVY HEX NUTS, TWO  
 HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED  
 FASTENERS AND INSTALLATION INSTRUCTIONS.  
 3. ALL PANELS ARE 3 $\frac{1}{2}$ " THICK.

PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1 $\frac{1}{8}$ " WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT +  $\frac{1}{2}$  TURN.

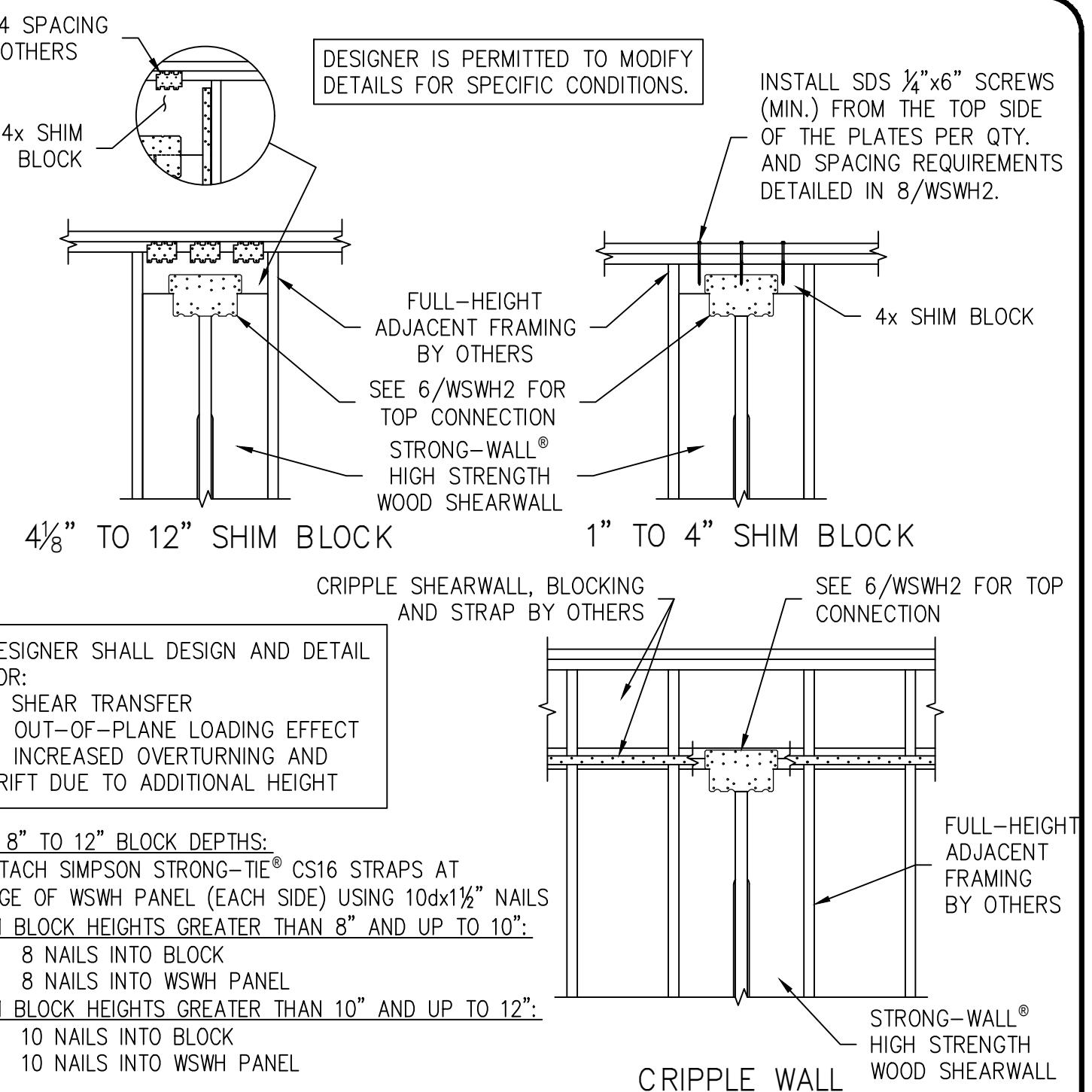
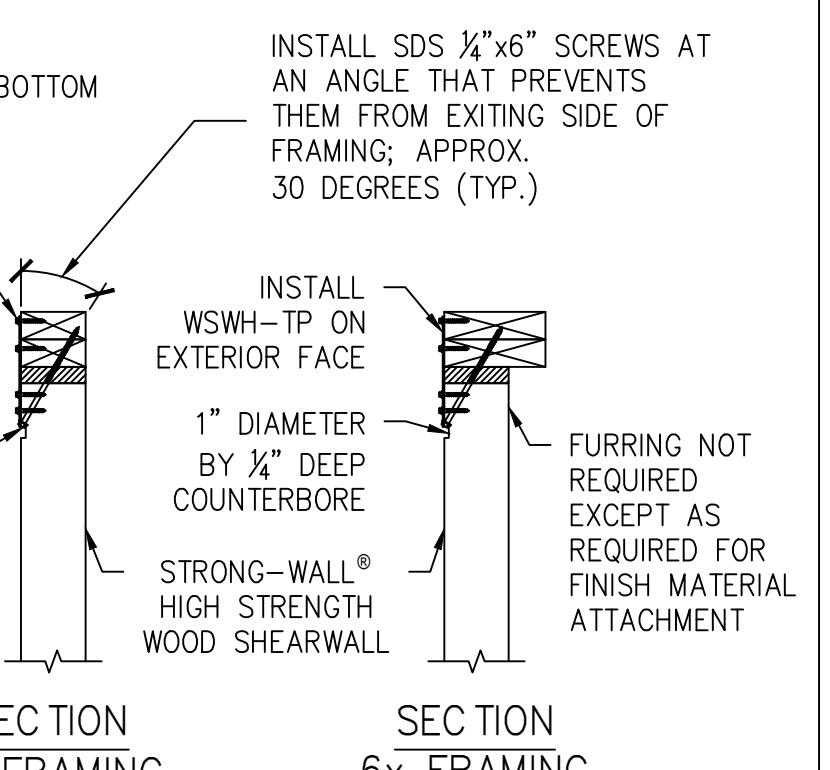


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WSWH-TP CONNECTION	FASTENER QUANTITY
MODEL NO.	SWS16150 SDS25600
WSWH-TP12	14
WSWH-TP18	26
WSWH-TP24	46
	8



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

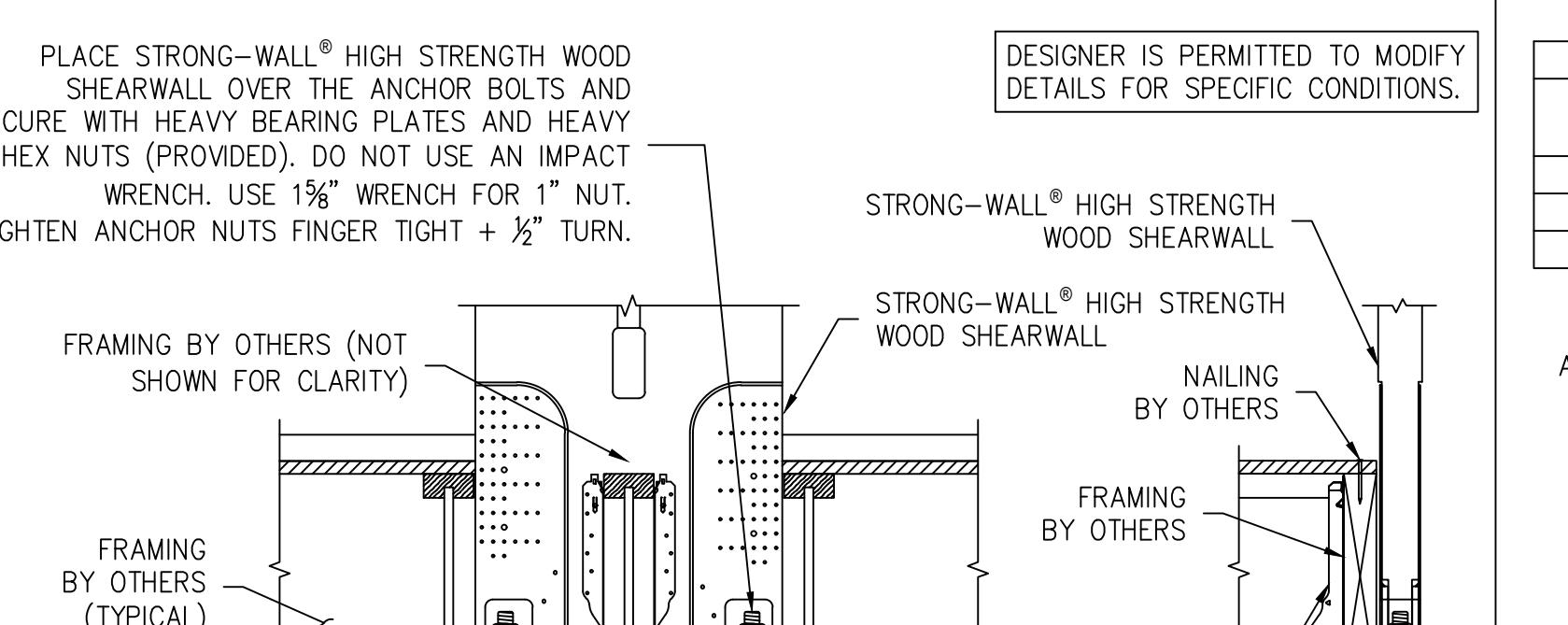
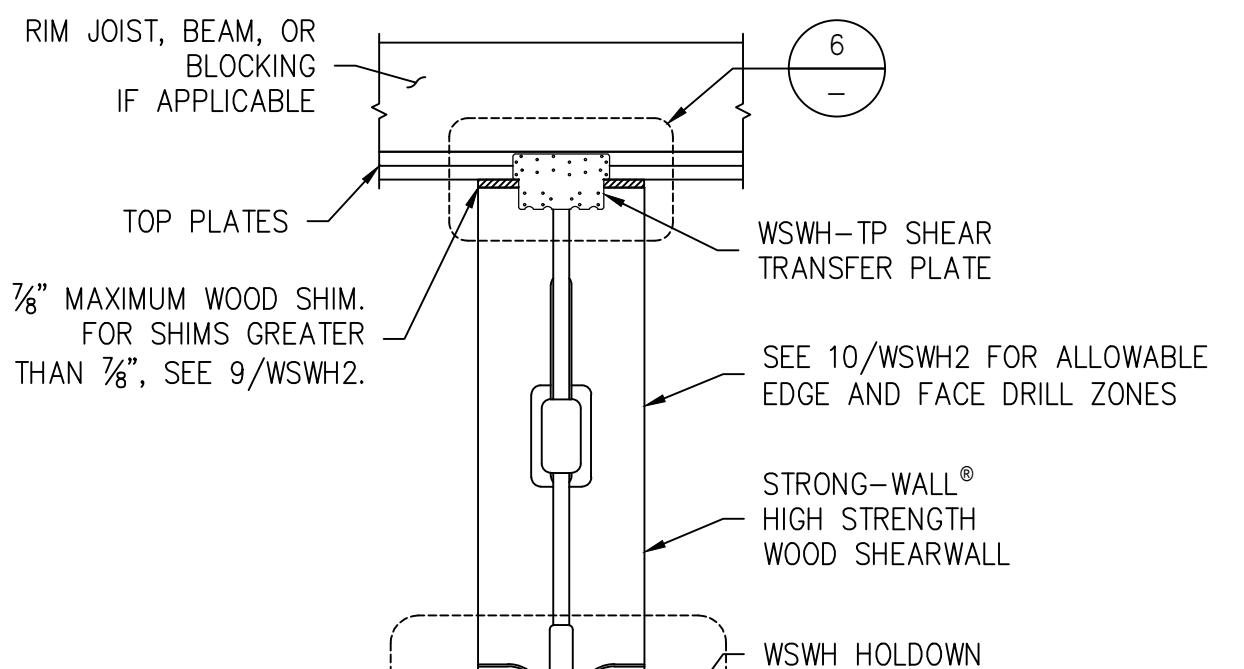


### STRONG-WALL® WSWH MODELS

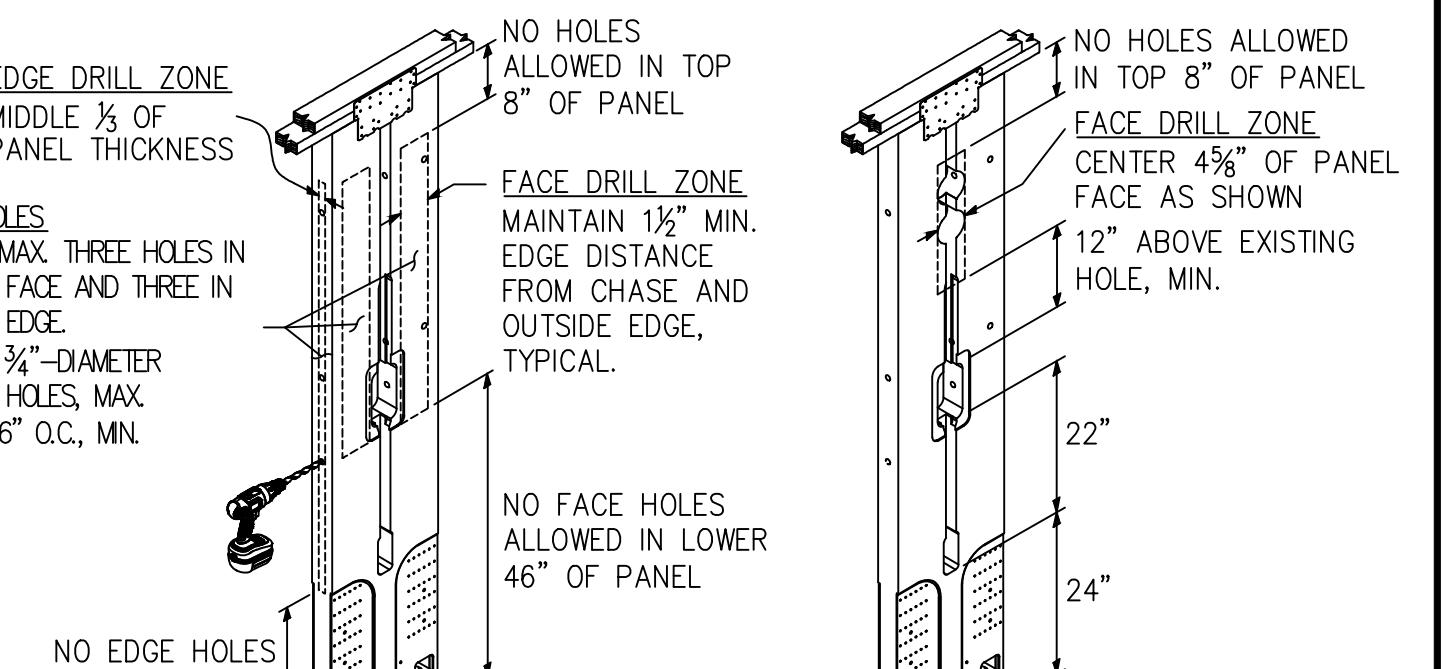
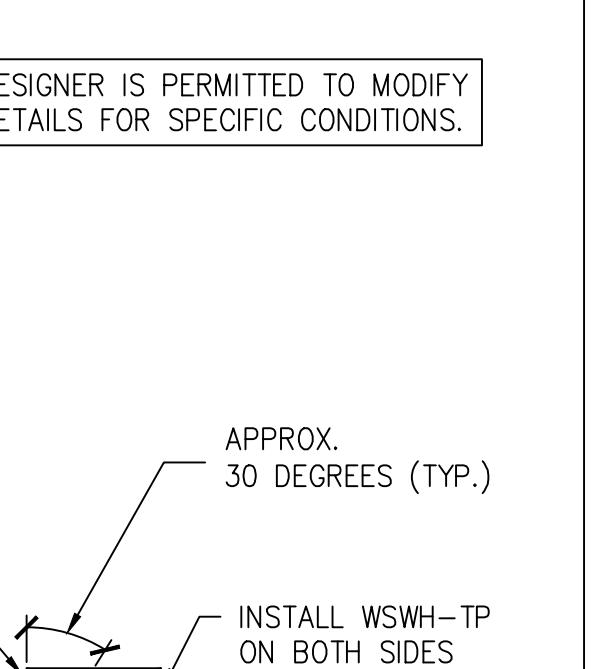
#### 1 STANDARD INSTALLATION BASE CONNECTION

#### 4 TOP CONNECTION

#### 6 TOP OF WALL HEIGHT ADJUSTMENTS



WSWH-TP CONNECTION	FASTENER QUANTITY
MODEL NO.	SWS16150 SDS25600
WSWH-TP12	28
WSWH-TP18	52
WSWH-TP24	92
	16

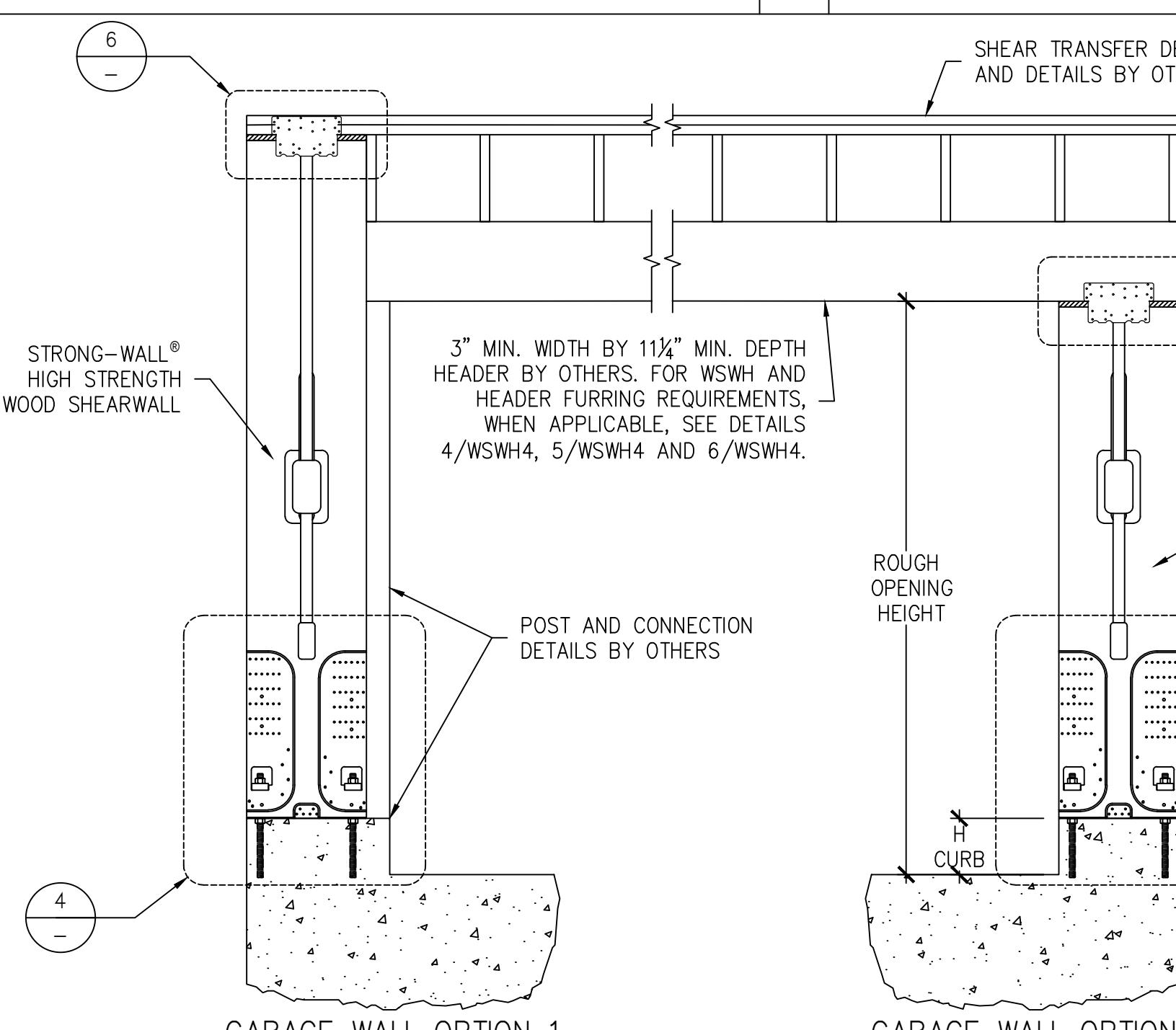


### SINGLE STORY WSWH ON CONCRETE

#### 2 WOOD FLOOR SYSTEM BASE CONNECTION

#### 5 BACK-TO-BACK TOP CONNECTION

#### 7 TRIM ZONE AND ALLOWABLE HOLES



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSWH-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

GARAGE HEADER ROUGH OPENING HEIGHT			
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7	78"	5 $\frac{1}{2}$ "	6'-11 $\frac{1}{2}$ "
WSWH18x7		6"	7'-0"
WSWH24x7			
WSWH12x8	85 $\frac{1}{2}$ "	0"	7'-1 $\frac{1}{2}$ "
WSWH18x8			
WSWH24x8	93 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	8'-2 $\frac{3}{4}$ "
		6"	8'-3 $\frac{1}{4}$ "

- NOTES:  
 1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74 $\frac{1}{2}$ ".  
 2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

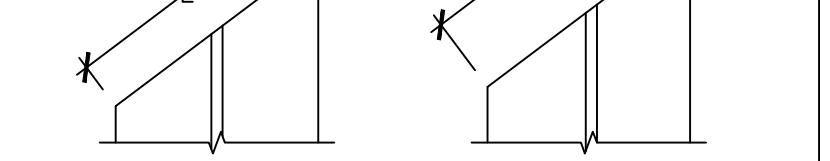
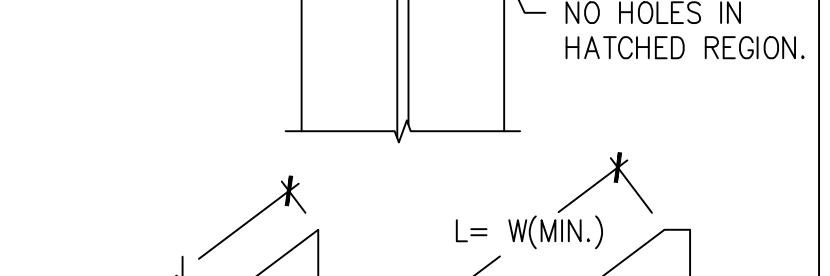
FOR GARAGE WALL OPTION 2, DESIGNER SHALL DESIGN AND DETAIL FOR:  
 1. SHEAR TRANSFER  
 2. OUT-OF-PLANE LOADING EFFECT  
 3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

QTY. OF SDS 1/4x6" SCREWS REQ'D.	
WSWH12	4
WSWH18	8
WSWH24	16

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

INSTALL SDS 1/4x6" SCREWS (ORDER SEPARATELY), INSTALL IN 2 ROWS AS SHOWN AND COUNTERSINK AS REQUIRED.

NOTES:  
 1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.  
 2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.  
 3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.



NOTES:  
 1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).  
 2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.  
 3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

1. STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.  
 2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.  
 3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.  
 4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.  
 5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.  
 6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.  
 7. SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.  
 8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.  
 9. SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

### ALTERNATE WSWH GARAGE FRONT OPTIONS

#### 3 RAKE WALL

#### 8 NOTES



**TION:**

RACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA - U.S.A. 1. FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

**ERAL SITE NOTES:**

RACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE BIDDING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSITION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.

WORK ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS.

TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL EXISTING ELEVATIONS MARKED WITH AND REPORT ANY DISCREPANCIES TO THE PROJECT MANAGER.

GE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.

RACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY AND PERSONNEL PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT IND, INDEMNIFY, AND HOLD THE CLIENT, THE CONSULTING ENGINEER, AND THE CITY ILESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE ORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE IGENCE OF THE CLIENT OR THE CONSULTING ENGINEER.

ORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

**OLITION NOTES**

RACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE DISPOSAL OF HAZARDOUS MATERIAL(S).

RACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.

CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE NT OF THE DEMOLITION WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY STATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED THE DEMOLITION WORK.

FILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE TECHNICAL ENGINEER.

LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS.

CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR ORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND ILATIONS.

CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND CTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR HIS AGENTS NT ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS PROVIDED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.

DINATE WITH ELECTRICAL, MECHANICAL, LANDSCAPING AND ARCHITECTURAL DRAWINGS FO SHUT-DOWN/CONNECT LOCATIONS. CONTRACTOR IS TO SHUT OFF ALL UTILITIES AS SSARY PRIOR TO DEMOLITION. CONTRACTOR IS TO COORDINATE SERVICE INTERRUPTIONS THE CLIENT. DO NOT INTERRUPT SERVICES TO ADJACENT OFF-SITE OWNERS. ALSO SEE CHITECTURAL PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.

PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND TIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE RMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT VN, IT IS NOT IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR REMOVED. THE RACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE IN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND NT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR RMING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OF WORK VED IN REMOVING THESE ITEMS FROM THE SITE.

**ORD DRAWINGS:**

CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS HE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, RIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD PRINTS SHALL BE SUBMITTED TO THE CITY ENGINEER AND DEVELOPER'S CIVIL ENGINEER TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE CITY ENGINEER.

**E/PLANT PROTECTION NOTES:**

TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECTING TREES AND PLANTS DESIGNATED AS TO REMAIN.

ECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL, OIL, MOTOR OIL, GASOLINE LL OTHER CHEMICALLY INJURIOUS MATERIAL, AS WELL AS FROM PUDDLING OR INJUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND ACT THE CITY'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.

RACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED MAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. RACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

**HORIZONTAL CONTROL NOTES:**

- ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.
- AN ELECTRONIC FILE WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST FOR THE CONTRACTOR'S SURVEYOR TO LAYOUT THE STAKING PLAN WITH. THE SURVEYOR OR CONTRACTOR WILL NEED TO SIGN A WAIVER FORM BEFORE RELEASE OF ELECTRONIC DRAWINGS IS APPROVED.
- REFER TO ARCHITECTURAL PLANS FOR MORE DIMENSION INFORMATION.

**PAVEMENT SECTION:**

- SEE STRUCTURAL DRAWINGS FOR BUILDING SLAB SECTIONS AND PAD PREPARATIONS.
- SEE GEOTECHNICAL REPORT FOR ALL FLATWORK AND VEHICULAR PAVEMENT SECTIONS AND BASE REQUIREMENTS.
- THE FINAL OR SURFACE LAYER OF ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL ALL ON-SITE IMPROVEMENTS HAVE BEEN COMPLETED, INCLUDING ALL GRADING, AND ALL UNACCEPTABLE CONCRETE WORK HAS BEEN REMOVED AND REPLACED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND/OR DEVELOPER'S CIVIL ENGINEER.
- ALL PAVING SHALL BE IN CONFORMANCE WITH THE LATEST GREENBOOK STANDARD SPECIFICATIONS.

**SITE MAINTENANCE:**

- REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
- SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEEP MANUALLY.
- CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND-BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
- NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
- ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.
- UPON PROJECT COMPLETION THE CLIENT SHALL BE SOLELY RESPONSIBLE TO ROUTINELY INSPECT AND MAINTAIN ALL ON-SITE STORM DRAIN FACILITIES. STORM DRAIN SYSTEM SHALL BE CLEANED AND/OR FLUSHED ON A BIENNIAL BASIS OR AS FOUND NECESSARY.

**DUST CONTROL:**

- WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
- ALL PUBLIC STREETS AND MEDIANAS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEEP ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE CITY'S DEPARTMENT OF PUBLIC WORKS.
- ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAILS OR OTHER EFFECTIVE COVERS.
- WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT-TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
- GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH NPDES AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS.

**SITE FENCE NOTES:**

- CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
- CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
- CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS ONLY FOR VISUAL CONFORMANCE OF THIS CONSTRUCTION SITE TO THE CITY STANDARDS. CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES TO KEEP THE SITE SECURE AND SAFE.

RACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED MAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. RACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

**GENERAL UTILITY SYSTEM NOTES:**

- ALL TRENCHES SHALL BE BACK FILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.
- CLEAN OUTS, CATCH BASINS AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, ROOF DRAINS, AND/OR CURB LAYOUT, NOT BY THE LENGTH OF PIPE SPECIFIED IN THE DRAWINGS (WHICH IS APPROXIMATE).
- CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (BACKFLOW PREVENTOR, SATELLITE DISH, TRANSFORMER, GAS METER, ETC.) AND MEET WITH CLIENT TO REVIEW LOCATION PRIOR TO INSTALLATION. PLANNING DOCUMENT MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.
- CONTRACTOR SHALL PREPARE AN ACCURATE COMPOSITE UTILITY PLAN THAT TAKES INTO ACCOUNT THE ACTUAL LOCATION OF EXISTING UTILITIES AS DETERMINED DURING THE DEMOLITION WORK. THE UTILITIES SHOWN ON THE CIVIL DRAWINGS, AND THE SITE POWER, CONDUITS AND LIGHTING SHOWN ON THE ELECTRICAL PLANS, THE FIRE SPRINKLER SYSTEM SHALL BE INCLUDED AS DESIGNED BY THE DESIGN/BUILD UNDERGROUND FIRE SPRINKLER CONTRACTOR.

- CATHODIC PROTECTION MAY BE REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL. IF RECOMMENDED BY THE GEOTECHNICAL REPORT, CONTRACTOR IS RESPONSIBLE TO FULLY ENGINEER AND INSTALL THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH OWNER'S PROJECT MANAGER.
- COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.

- UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CLIENT, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.

- CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UP STREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY. CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SEWER LATERAL WITH OWNER PRIOR TO CONSTRUCTION.

- EXISTING UTILITY CROSSINGS OF NEW PIPELINE ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. GAS, WATER AND SEWER SERVICE LATERALS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSING (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND SHALL PROTECT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) FROM DAMAGE DUE TO HIS OPERATION.

- VERTICAL SEPARATION REQUIREMENTS:

A MINIMUM OF SIX (6) INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE/OVER EXISTING SANITARY SEWER PIPELINES.

WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EXISTING AND/OR NEW SANITARY SEWER PIPELINES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THAN 10' MINIMUM HORIZONTAL DISTANCE FROM CENTERLINE OF UTILITY CROSSINGS, WHERE FEASIBLE.

- HORIZONTAL SEPARATION REQUIREMENTS:

A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE 5 FEET, EXCEPT THAT THE MINIMUM HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER PIPELINES SHALL BE 10' MINIMUM, UNLESS OTHERWISE NOTED.

A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5 FEET.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR FACILITIES AND TO COORDINATE WORK SCHEDULES.

- ANY EXISTING UNDERGROUND UTILITY LINES TO BE ABANDONED, SHOULD BE REMOVED FROM WITHIN THE PROPOSED BUILDING ENVELOPE AND THEIR ENDS CAPPED OUTSIDE OF THE BUILDING ENVELOPE.

**SHORING NOTES:**

- A SHORING PERMIT IS REQUIRED FOR ANY VERTICAL CUT OR FILL THAT IS 4'-0" IN HEIGHT OR OVER. ENGINEERED SHORING PLANS AND CALCULATIONS MUST BE SUBMITTED TO THE BUILDING DIVISION FOR REVIEW AND APPROVAL PER SECTION 3301.2 OF THE CBC. THE HOLDER OF A SHORING PERMIT SHALL NOTIFY IN WRITING TO ALL ADJOINING PROPERTY OWNERS, NOT LESS THAN 10 DAYS BEFORE SUCH EXCAVATIONS IS TO COMMENCE. AN OSHA PERMIT IS ALSO REQUIRED A COPY OF WHICH SHALL BE SUBMITTED TO THE BUILDING DIVISION.
- SHORING CONTRACTOR SHALL NOTIFY THE UNDERGROUND SERVICE ALERT (1-800-422-4233) PRIOR TO ANY EXCAVATION.

**CALIFORNIA GREEN BUILDING CODE (CGBC)**

- COMPLY WITH SECTION 301.3.2 REGARDING WASTE DIVERSION REQUIRED FOR ALTERATION (T.I.) THAT REQUIRES BUILDING PERMIT.
- COMPLY WITH SECTION 4.408 REGARDING CONSTRUCTION WASTE REDUCTION DISPOSAL AND RECYCLING.

**STORM DRAIN MAINTENANCE NOTES:**

PLEASE NOTE THAT REGULAR MAINTENANCE ON GRADING AND DRAINAGE STRUCTURES IS REQUIRED TO ENSURE FUNCTIONALITY THROUGHOUT THE LIFE OF THE PROPERTY. MAINTENANCE SHOULD INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

- THE CLEARING OF DEBRIS AND SEDIMENTS FROM THE STORM DRAIN SYSTEM, UNDERGROUND TANKS, LOPRO FLOODGARD BASIN, TRENCH DRAIN FILTER, AND DRAINAGE BASINS
- ROOF GUTTERS AND DOWNSPOUTS SHOULD BE CLEARED BEFORE THE BEGINNING OF EACH RAINY SEASON AND AS NEEDED THROUGHOUT THE WINTER MONTHS.
- FOUNDATION SUBDRAINS SHOULD BE INSPECTED VIA CLEANOUTS ONCE EVERY 5 YEARS AND SNACKED AS NEEDED TO CLEAR DEBRIS.
- SURFACE GRADING MAY ALSO REQUIRE CONTINUED REFINEMENT TO MINIMIZE PONDING, MAINTAIN POSITIVE DRAINAGE AWAY FROM IMPROVEMENTS AND PROTECT AGAINST EROSION.

**NPDES REQUIREMENTS:**

- ALL CONSTRUCTION ON OFF-SITE OR ON-SITE IMPROVEMENTS SHALL ADHERE TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE CITY OR COUNTY STORM DRAIN SYSTEMS.
- ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
- STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND.
- SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENT FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
- CLEAN UP ALL SPILLS USING DRY METHODS.
- SWEEP ALL GUTTERS AT THE END OF EACH WORKING DAY. GUTTERS SHALL BE KEPT CLEAN AFTER LEAVING CONSTRUCTION SITE.
- CALL 911 IN CASE OF A HAZARDOUS SPILL.
- PG-64-10 TACK COAT AND HOT MIX ASPHALT SHALL BE USED FOR ALL SLOT PAVING REQUIRED NEXT TO NEW CONCRETE. SLOT PAVING SHALL BE 3 FEET WIDE AND 1 FOOT DEEP, CONSISTING OF 6 INCHES OF ASPHALT OVER 6 INCHES OF BASE.
- NONSTANDARD BOULDERS OR HARDSCAPE ARE NOT ALLOWED ON THE PUBLIC RIGHT-OF-WAY.
- THE DEVELOPER OR CONTRACTOR SHALL INFORM ALL NEIGHBORING PROPERTIES IN WRITING OF ANY STREET LANE CLOSURES OR OTHER SIGNIFICANT TRAFFIC IMPACTS ON THE ADJACENT STREETS AT LEAST ONE WEEK BEFORE THEY OCCUR

PRINT NAME  
Sarah Townsend

(OWNER OR AUTHORIZED AGENT OF THE OWNER)

SIGNATURE  




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ANAHEIM, CA 92805  
TEL: 562.584.1071  
[WWW.FGBANDASSOCIATES.COM](http://WWW.FGBANDASSOCIATES.COM)

# CONSTRUCTION NOTES

- PROTECT IN PLACE EXISTING IMPROVEMENTS
  - CONSTRUCT 3" SCHEDULE 40 PVC CURB DRAIN PIPES PER SPPWC STD 150-4
  - CONSTRUCT PIPE OUTLET PER DETAIL 'K' C-5.1
  - CONSTRUCT TYPE A1 CURB PER CITY OF EL SEGUNDO STD NO. ST-9
  - CORE DRILL AND CONSTRUCT 2" SCHEDULE 80 PVC PIPE TO DAYLIGHT TO FACE OF CURB PER DETAIL 'A' C-5.1.
  - CONSTRUCT 6" SCHEDULE 80 PVC PIPE TO DAYLIGHT TO FACE OF CURB PER DETAIL 'A' C-5.1
  - CONSTRUCT ON-SITE HARDSCAPE PER LANDSCAPE ARCHITECT
  - CONSTRUCT DRIVEWAY PCC CONCRETE PER DETAIL 'B' C-5.1
  - DOWNSPOUT PER ARCHITECTURAL PLANS. DOWNSPOUT TO CONNECT TO ON-SITE STORM DRAIN SYSTEM. SEE DETAIL 'C' C-5.1
  - CONSTRUCT 6" AREA DRAIN FOR CONCRETE AREAS PER DETAIL 'E' C-5.1
  - CONSTRUCT 6" AREA DRAIN FOR LANDSCAPED AREAS PER DETAIL 'E' C-5.1
  - CONSTRUCT 8" WIDE TRENCH DRAIN WITH TRAFFIC RATED GRATE. SEE DETAIL 'D' C-5.1 FOR CHANNEL DRAIN OUTLET DETAIL.
  - CONSTRUCT 12"X12" PRECAST CONCRETE BOX WITH TRAFFIC RATED GRATE, BROOKS PRODUCT OR APPROVED EQUAL. DECORATIVE GRATES PER ARCHITECT OR LANDSCAPE ARCHITECT
  - CONSTRUCT STORM DRAIN CLEANOUT PER DETAIL 'J' C-5.1.
  - CONSTRUCT 4" SDR35 PVC PIPE AND FITTINGS OR APPROVED EQUAL. SEE DETAIL 'F' C-5.1 FOR TRENCHING DETAILS.
  - CONSTRUCT 6" SDR35 PVC PIPE AND FITTINGS OR APPROVED EQUAL. SEE DETAIL 'F' C-5.1 FOR TRENCHING DETAILS.
  - CONSTRUCT DECK DRAIN AND ROUTE TO ON-SITE STORM DRAIN. PIPE ROUTING OF DECK DRAINS WITHIN BUILDING FOOTPRINT PER PLUMBING ENGINEER
  - FURNISH AND INSTALL BMP #1, (20) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL 'A/C-5.2
  - FURNISH AND INSTALL BMP #2, (12) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL 'B/C-5.2
  - FURNISH AND INSTALL MAINTENANCE CLEANOUT PER MANUFACTURER SPECIFICATIONS. SEE DETAIL 'H' C-5.2
  - FURNISH AND INSTALL FLOGARD LOPRO FG-M12 OR APPROVED EQUAL. SEE DETAIL I/C-5.1
  - FURNISH AND INSTALL TRENCH DRAIN FILTER INSERT, OLDCASTLE FG-TDOF8 OR APPROVED EQUAL
  - SEWER POC TO BUILDING. SEE PLUMBING PLANS FOR CONTINUATION
  - CONSTRUCT SEWER CLEANOUT PER SPPWC STD PLAN NO. 204-3
  - FURNISH AND INSTALL BACKWATER VALVE
  - 72 HOURS PRIOR TO CONSTRUCTION, POTHOLE AND VERIFY LOCATION, DEPTH, MATERIAL, SIZE, AND CONDITION OF EXISTING SEWER LATERAL. REPORT FINDINGS TO CIVIL ENGINEER PRIOR TO CONSTRUCTION
  - NEW RETAINING WALL PER SEPARATE PERMIT.
  - NEW GATE PER ARCHITECTURAL PLANS
  - CONTRACTOR TO VERIFY EXISTING WATER METER SERVES THE PROJECT SITE. IF DETERMINED TO NOT SERVE THE EXISTING RESIDENCE, CONTRACTOR SHALL FIELD VERIFY WHICH WATER METER SERVES THE PROJECT SITE AND REROUTE THE PROPOSED WATER LINE ACCORDINGLY
  - CONSTRUCT 1" SCHEDULE 40 PVC PIPE AND FITTINGS OR APPROVED EQUAL. SEE DETAIL 'F' C-5.1 FOR TRENCHING DETAILS.
  - CONNECT AREA DRAIN TO ECORAIN TANK PER DETAIL 'J' C-5.1
  - FURNISH AND INSTALL NEW TREE PER LANDSCAPE PLAN, 15 GALLON MIN.
  - CONSTRUCT 6" TYPE A1 CURB PER CITY OF EL SEGUNDO STD NO. ST-9
  - CONSTRUCT 6" TYPE A2 CURB AND GUTTER PER CITY OF EL SEGUNDO STD NO. ST-9
  - CONSTRUCT 36" WIDE FULL DEPTH AC PAVEMENT
  - CONSTRUCT SIDEWALK PER CITY OF EL SEGUNDO STD NO. ST-12
  - SAWCUT AND MATCH EXISTING CURB AT NEAREST JOINT
  - SAWCUT AND MATCH EXISTING SIDEWALK TO NEAREST JOINT

PROJECT NO.  
2-0014

PRINT DATE

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3/06/2023

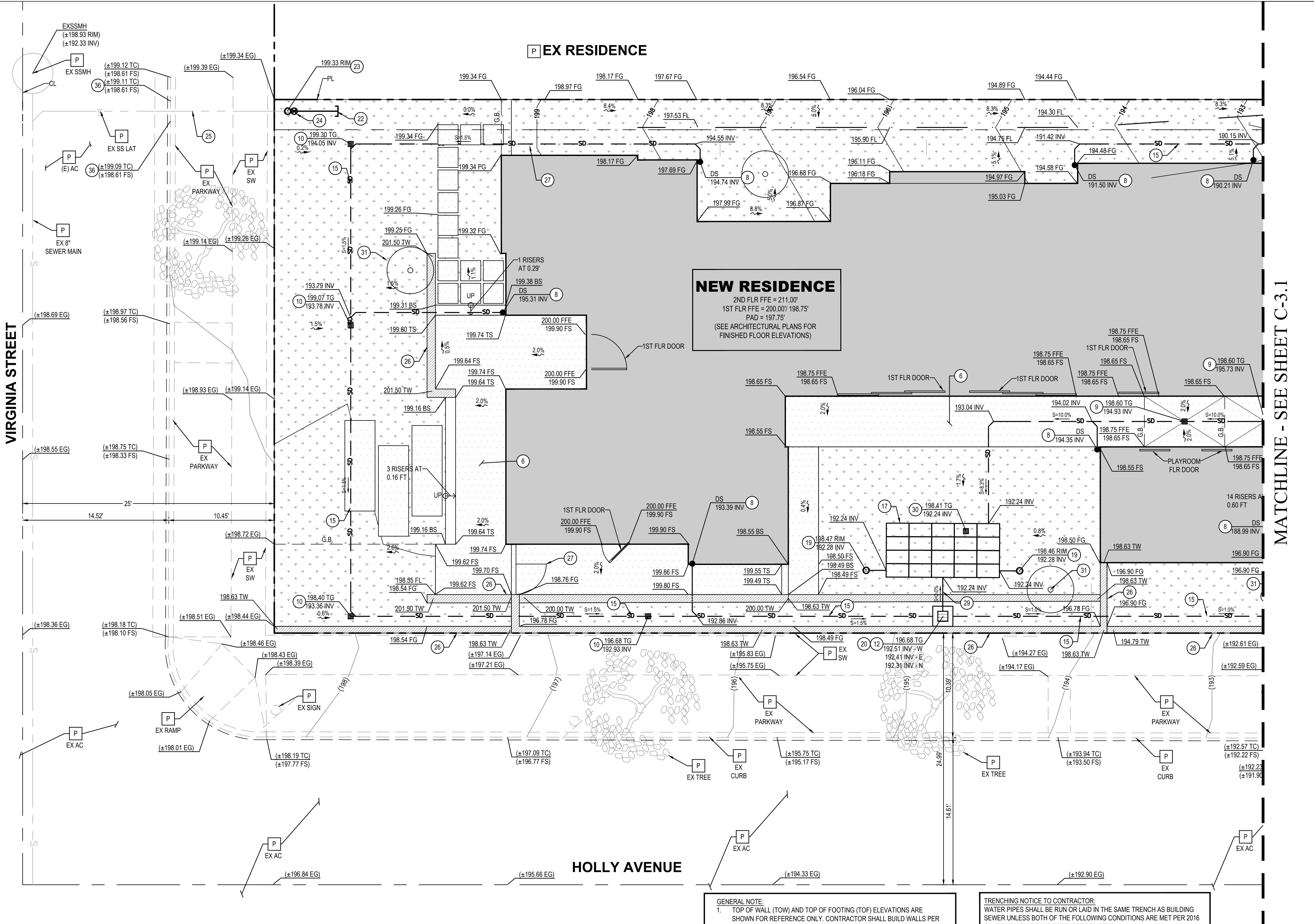
# **GRADING & DRAINAGE PLAN**

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OBTAINING THE EXPRESS WRITTEN PERMISSION AND  
CONSENT OF F&B & ASSOCIATES, LLC.**

HEET NO.

# C-3.0

(1) (1) (1) (1) (1) (1) (2) (2) (2)



# HOLLY AVENUE

ERAL NOTE:  
TOP OF WALL (TOW) AND TOP OF FOOTING (TOF) ELEVATIONS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL BUILD WALLS PER ARCHITECTURAL PLANS.

PROTECT IN PLACE ALL PROPERTY MONUMENTS.

CONTRACTOR IS REQUIRED TO RESTORE ALL EXISTING IMPROVEMENTS TO THE SAME CONDITION, THAT ARE NOT PART OF THIS PROJECT, THAT EXISTED PRIOR TO HIS STARTING CONSTRUCTION.

CONSTRUCTION TOLERANCES DO NOT PERMIT THE VARIATION OF DIMENSIONS OR GRADES AND SLOPES AND THEIR RELATIONSHIPS REQUIRED BY CODE. ADJUST WORK AS REQUIRED TO COMPLY WITH SUCH REQUIREMENTS.

STRAIGHT GRADES SHALL BE CONSTRUCTED BETWEEN SPOT ELEVATIONS OR CONTOURS INDICATED, EXCEPT WHERE GRADE BREAKS INTERVENE.

ALL SLOPES MUST BE VEGETATED.

CONTRACTOR TO TAKE EXTREME CARE NOT TO DISTURB EXISTING UNDERGROUND PIPES/ CONDUITS IN AREA OF NEW WORK SPECIFIED TO BE PROTECTED IN PLACE.

CONTRACTOR TO VERIFY PAD ELEVATION WITH STRUCTURAL AND GEOTECHNICAL ENGINEER PRIOR TO GRADING.

**RENCHING NOTICE TO CONTRACTOR:**  
WATER PIPES SHALL BE RUN OR LAID IN THE SAME TRENCH AS BUILDING  
EWER UNLESS BOTH OF THE FOLLOWING CONDITIONS ARE MET PER 2016  
CALIFORNIA PLUMBING CODE, SECTION 609.2:  
  
THE BOTTOM OFF THE WATER PIPE, AT ALL POINTS, SHALL BE AT

## RENCHING BACKFILL, BEDDING, AND COMPACTION PER GEOTECH



# **GRADING & DRAINAGE PLAN**

SCALE: 1"=5'

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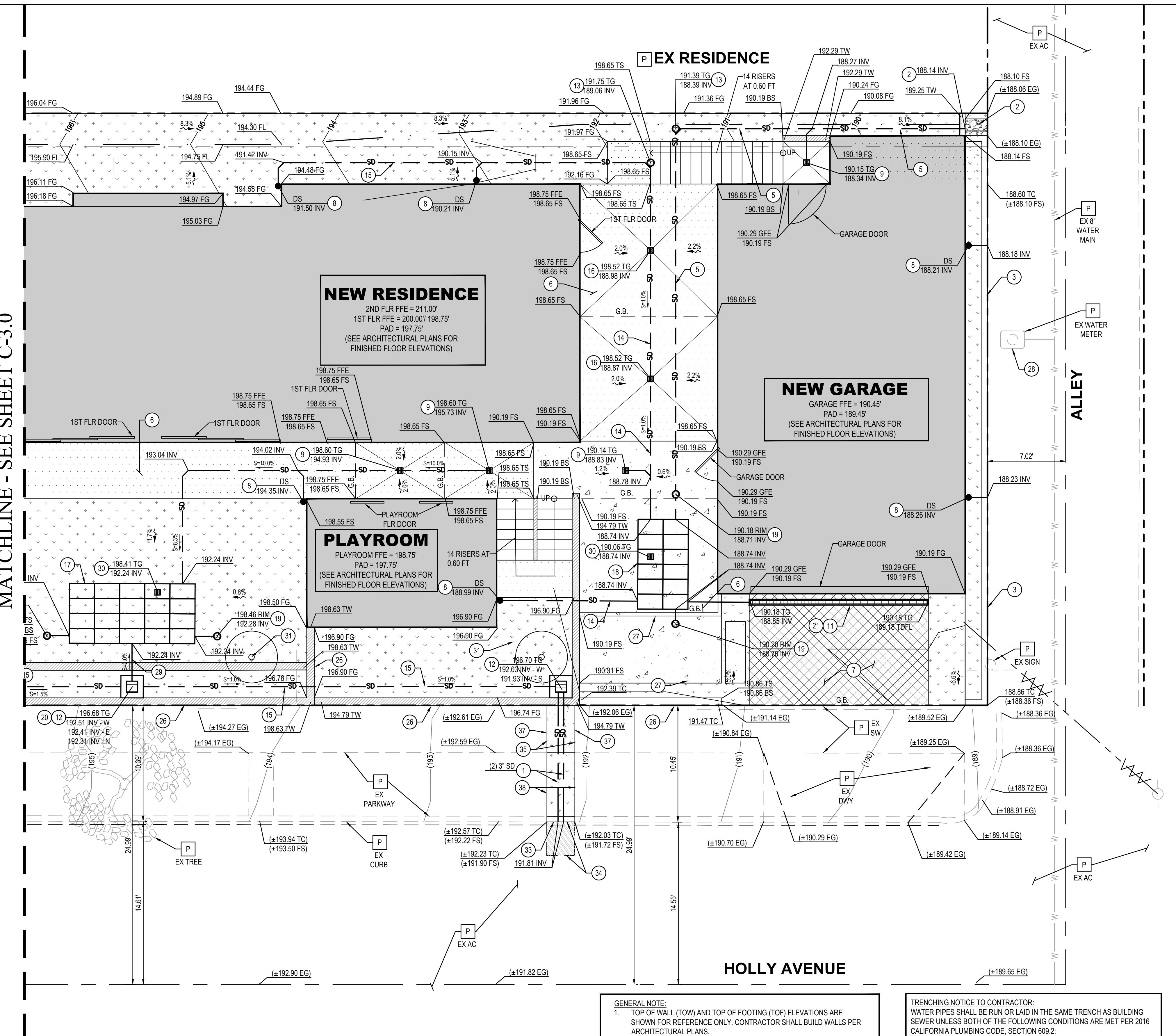
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## **MATCH LEGEND**

-  ON-SITE PAVEMENT PER LANDSCAPE PLANS
-  NEW PCC CONCRETE
-  NEW LANDSCAPING PER LANDSCAPE PLANS  
IRRIGATION SHALL UTILIZE WEATHER-BASED SMART IRRIGATION SYSTEM
-  NEW BUILDING
-  NEW DRIVEWAY PCC
-  NEW WALL PER ARCHITECTURAL PLANS.



MATCHLINE - SEE SHEET C-3.0



**GENERAL NOTE:**  
1. TOP OF WALL (TOW) AND TOP OF FOOTING (TOF) ELEVATIONS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL BUILD WALLS PER ARCHITECTURAL PLANS.  
2. PROTECT IN PLACE ALL PROPERTY MONUMENTS.  
3. CONTRACTOR IS REQUIRED TO RESTORE ALL EXISTING IMPROVEMENTS TO THE SAME CONDITION THAT ARE NOT PART OF THIS PROJECT, THAT EXISTED PRIOR TO HIS STARTING CONSTRUCTION.  
4. CONSTRUCTION TOLERANCES DO NOT PERMIT THE VARIATION OF DIMENSIONS OR GRADES AND SLOPES AND THEIR RELATIONSHIPS REQUIRED BY CODE. ADJUST WORK AS REQUIRED TO COMPLY WITH SUCH REQUIREMENTS.  
5. STRAIGHT GRADES SHALL BE CONSTRUCTED BETWEEN SPOT ELEVATIONS OR CONTOURS INDICATED, EXCEPT WHERE GRADE BREAKS INTERVENE.  
6. ALL SLOPES MUST BE VEGETATED.  
7. CONTRACTOR TO TAKE EXTREME CARE NOT TO DISTURB EXISTING UNDERGROUND PIPES/CONDUITS IN AREA OF NEW WORK SPECIFIED TO BE PROTECTED IN PLACE.  
8. CONTRACTOR TO VERIFY PAD ELEVATION WITH STRUCTURAL AND GEOTECHNICAL ENGINEER PRIOR TO GRADING.

**TRENCHING NOTICE TO CONTRACTOR:**  
WATER PIPES SHALL BE RUN OR LAID IN THE SAME TRENCH AS BUILDING SEWER UNLESS BOTH OF THE FOLLOWING CONDITIONS ARE MET PER 2016 CALIFORNIA PLUMBING CODE, SECTION 609.2:  
1. THE BOTTOM OFF THE WATER PIPE, AT ALL POINTS, SHALL BE AT LEAST TWELVE (12) INCHES ABOVE THE TOP OF THE SEWER LINE.  
2. THE WATER PIPE SHALL BE PLACED ON A SOLID SHELF EXCAVATED AT ONE SIDE OF THE COMMON TRENCH WITH A MINIMUM CLEAR HORIZONTAL DISTANCE OF AT LEAST TWELVE (12) INCHES FROM THE SEWER.

TRENCHING BACKFILL, BEDDING, AND COMPACTION PER GEOTECH REPORT.

**CONSTRUCTION NOTES**

- P PROTECT IN PLACE EXISTING IMPROVEMENTS
- ① CONSTRUCT 3" SCHEDULE 40 PVC CURB DRAIN PIPES PER SPPWC STD 150-4
- ② CONSTRUCT PIPE OUTLET PER DETAIL 'K' C-5.1
- ③ CONSTRUCT TYPE A1 CURB PER CITY OF EL SEGUNDO STD NO. ST-9
- ④ CORE DRILL AND CONSTRUCT 2" SCHEDULE 80 PVC PIPE TO DAYLIGHT TO FACE OF CURB PER DETAIL 'A/C' C-5.1
- ⑤ CONSTRUCT 6" SCHEDULE 80 PVC PIPE TO DAYLIGHT TO FACE OF CURB PER DETAIL 'A/C' C-5.1
- ⑥ CONSTRUCT ON-SITE HARSCAPE PER LANDSCAPE ARCHITECT
- ⑦ CONSTRUCT DRIVEWAY PCC CONCRETE PER DETAIL 'B/C' C-5.1
- ⑧ DOWNSPOUT PER ARCHITECTURAL PLANS. DOWNSPOUT TO CONNECT TO ON-SITE STORM DRAIN SYSTEM. SEE DETAIL 'C/C' C-5.1
- ⑨ CONSTRUCT 6" AREA DRAIN FOR CONCRETE AREAS PER DETAIL 'E/C' C-5.1
- ⑩ CONSTRUCT 6" AREA DRAIN FOR LANDSCAPED AREAS PER DETAIL 'E/C' C-5.1
- ⑪ CONSTRUCT 8" WIDE TRENCH DRAIN WITH TRAFFIC RATED GRATE. SEE DETAIL 'D/C' C-5.1 FOR CHANNEL DRAIN OUTLET DETAIL.
- ⑫ CONSTRUCT 12"X12" PRECAST CONCRETE BOX WITH TRAFFIC RATED GRATE, BROOKS PRODUCT OR APPROVED EQUAL. DECORATIVE GRATES PER ARCHITECT OR LANDSCAPE ARCHITECT
- ⑬ CONSTRUCT STORM DRAIN CLEANOUT PER DETAIL 'J/C' C-5.1
- ⑭ CONSTRUCT 4" SDR35 PVC PIPE AND FITTINGS OR APPROVED EQUAL. SEE DETAIL 'F/C' C-5.1 FOR TRENCHING DETAILS.
- ⑮ CONSTRUCT 6" SDR35 PVC PIPE AND FITTINGS OR APPROVED EQUAL. SEE DETAIL 'F/C' C-5.1 FOR TRENCHING DETAILS.
- ⑯ CONSTRUCT DECK DRAIN AND ROUTE TO ON-SITE STORM DRAIN. PIPE ROUTING OF DECK DRAINS WITHIN BUILDING FOOTPRINT PER PLUMBING ENGINEER
- ⑰ FURNISH AND INSTALL BMP #1, (20) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL 'A/C' C-5.2
- ⑱ FURNISH AND INSTALL BMP #2, (12) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL 'B/C' C-5.2
- ⑲ FURNISH AND INSTALL MAINTENANCE CLEANOUT PER MANUFACTURER SPECIFICATIONS. SEE DETAIL 'H/C' C-5.2
- ⑳ FURNISH AND INSTALL FLOGARD LOPRO FG-M12 OR APPROVED EQUAL. SEE DETAIL 'I/C' C-5.1
- ㉑ FURNISH AND INSTALL TRENCH DRAIN FILTER INSERT, OLDCASTLE FG-TDOF8 OR APPROVED EQUAL
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- ㉗ NEW GATE PER ARCHITECTURAL PLANS
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- ㉛ FURNISH AND INSTALL NEW TREE PER LANDSCAPE PLAN, 15 GALLON MIN.
- ㉜ CONSTRUCT 6" TYPE A1 CURB PER CITY OF EL SEGUNDO STD NO. ST-9
- ㉝ CONSTRUCT 6" TYPE A2 CURB AND GUTTER PER CITY OF EL SEGUNDO STD NO. ST-9
- ㉞ CONSTRUCT 36" WIDE FULL DEPTH AC PAVEMENT
- ㉟ CONSTRUCT SIDEWALK PER CITY OF EL SEGUNDO STD NO. ST-12
- ㉟ SAWCUT AND MATCH EXISTING CURB AT NEAREST JOINT
- ㉟ SAWCUT AND MATCH EXISTING SIDEWALK TO NEAREST JOINT
- ㉟ MATCH NEW GRASS AREA TO EXISTING GRADE

PROJECT NO.  
22-0014

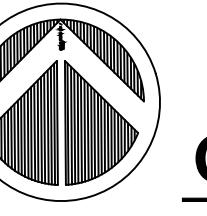
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**HATCH LEGEND**

- ON-SITE PAVEMENT PER LANDSCAPE PLANS
- NEW PCC CONCRETE
- NEW LANDSCAPING PER LANDSCAPE PLANS  
IRRIGATION SHALL UTILIZE WEATHER-BASED SMART IRRIGATION SYSTEM
- NEW BUILDING
- NEW DRIVEWAY PCC
- NEW WALL PER ARCHITECTURAL PLANS



**GRADING & DRAINAGE PLAN**  
SCALE: 1'=5'

SHEET NO.  
**C-3.1**



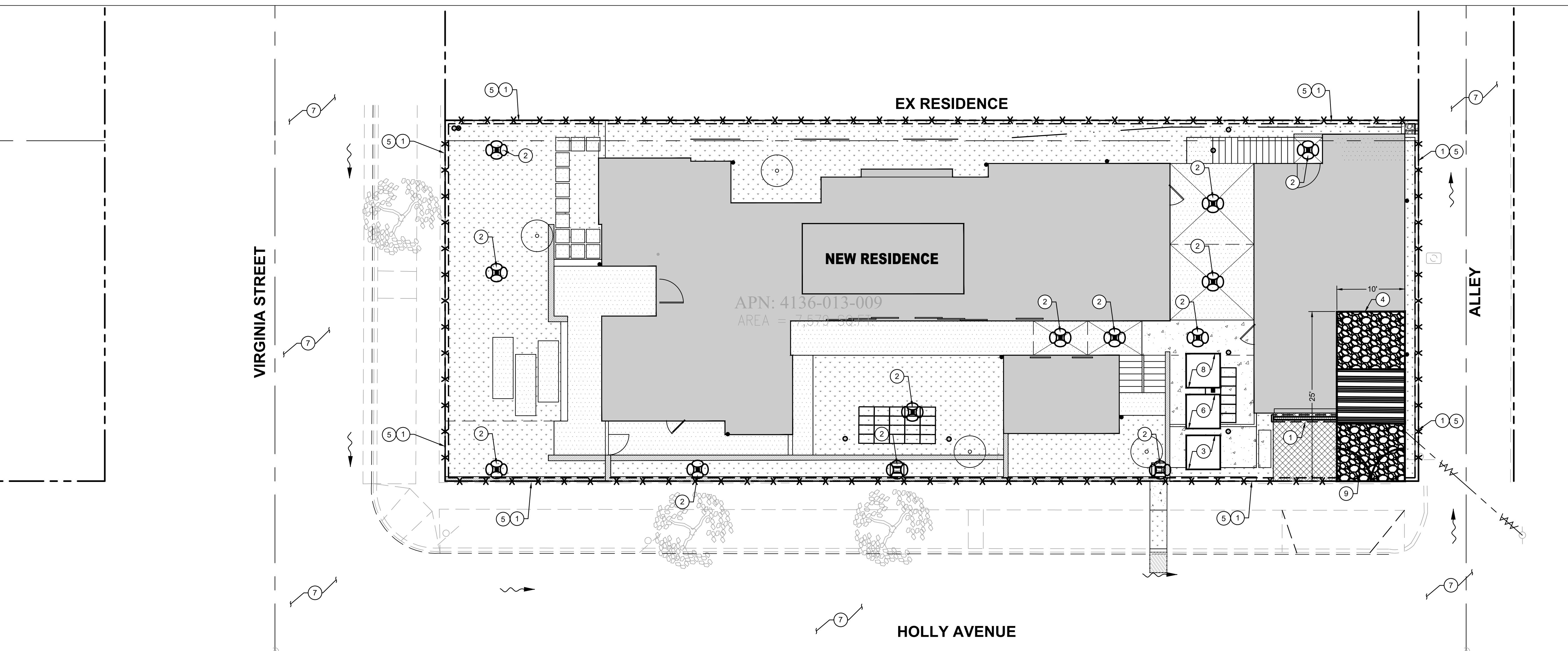
PROJECT  
**NEW RESIDENCE**  
402 VIRGINIA ST  
EL SEGUNDO  
CA 90245

REVISIONS

0 8 24

**EROSION CONTROL PLAN**

SCALE: 1"=8'



24 HOUR EMERGENCY CONTACT  
NAME: MARC CAVAGNOLO  
TEL NO: (408) 355-4824

**EROSION AND SEDIMENT CONTROL PLAN (ESCP) GENERAL NOTES:**

- A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (NOVEMBER 1 TO APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.
  - EROSION CONTROL DEVICES SHOWN ON THIS PLAN MAY BE REMOVED WHEN APPROVED BY THE BUILDING OFFICIAL IF THE GRADING OPERATION HAS PROGRESSED TO THE POINT WHERE THEY ARE NO LONGER REQUIRED.
  - GRADED AREAS ADJACENT TO THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY. ALL LOOSE SOILS AND DEBRIS THAT MAY CREATE A POTENTIAL HAZARD TO OFF-SITE PROPERTY SHALL BE STABILIZED OR REMOVED FROM THE SITE ON A DAILY BASIS.
  - ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL DEVICES WITHIN 24 HOURS AFTER EACH RAINSTORM AND BE DISPOSED OF PROPERLY.
  - A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED DRY WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
  - THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE AND CONTAIN POLLUTANTS WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER. ADDITIONAL DEVICES AS NEEDED SHALL BE INSTALLED TO RETAIN SEDIMENTS AND OTHER POLLUTANTS.
  - DESLITTING BASINS MAY NOT BE REMOVED OR MADE INOPERABLE BETWEEN NOVEMBER 1 AND APRIL 15 OF THE FOLLOWING YEAR WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL.
  - STORM WATER POLLUTION AND EROSION CONTROL DEVICES ARE TO BE MODIFIED, AS NEEDED, AS THE PROJECT PROGRESSES. THE DESIGN AND PLACEMENT OF THESE DEVICES IS THE RESPONSIBILITY OF THE FIELD ENGINEER. PLANS REPRESENTING CHANGES MUST BE SUBMITTED FOR APPROVAL BY THE BUILDING OFFICIAL.
  - EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORM WATER FROM THE PROJECT SITES AT ALL TIMES.
  - ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
- FRANKLOYD BUENDIA  
CIVIL ENGINEER
- 03/06/2023  
DATE

- STOCKPILES OF EARTH AND OTHER CONSTRUCTION-RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
- FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOILS AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- DEVELOPERS/CONTRACTORS ARE RESPONSIBLE TO INSPECT ALL EROSION CONTROL DEVICES AND BMPs ARE INSTALLED AND FUNCTIONING PROPERLY IF THERE IS A 50% OR GREATER PROBABILITY OF PREDICTED PRECIPITATION AND AFTER ACTUAL PRECIPITATION. A CONSTRUCTION SITE INSPECTION CHECKLIST AND INSPECTION LOG SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE BUILDING OFFICIAL (COPIES OF THE SELF-INSPECTION CHECK LIST AND INSPECTION LOGS ARE AVAILABLE UPON REQUEST).
- TRASH AND CONSTRUCTION-RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINFOREST AND DISPERSED BY WIND.
- SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
- ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
- AS THE ENGINEER, I HAVE SELECTED APPROPRIATE 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 THE SELECTED BMPs MUST BE INSTALLED, MONITORED, AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS.

**OWNER OR AUTHORIZED REPRESENTATIVE (PERMITTEE)** \_\_\_\_\_ **DATE** \_\_\_\_\_

**EROSION CONTROL**

- EC1 - SCHEDULING
- EC2 - PRESERVATION OF EXISTING VEGETATION
- EC3 - HYDRAULIC MULCH
- EC4 - HYDROSEEDING
- EC5 - SOIL BINDER
- EC6 - STRAW MULCH
- EC7 - GEOTEXTILES & MATS
- EC8 - WOOD MULCHING
- EC9 - EARTH DIKES AND DRAINAGE SWALES
- EC10 - VELOCITY DISSIPATION DEVICES
- EC11 - SLOPE DRAINS
- EC12 - STREAMBANK STABILIZATION
- EC13 - RESERVED
- EC14 - COMPOST BLANKETS
- EC15 - SOIL PREPARATION/ROUGHENING

**NON-STORMWATER MANAGEMENT**

- NS1 - WATER CONSERVATION PRACTICES
- NS2 - DEWATERING OPERATIONS
- NS3 - PAVING AND GRINDING OPERATIONS
- NS4 - TEMPORARY STREAM CROSSING
- NS5 - CLEAR WATER DIVERSION
- NS6 - ILLICIT CONNECTION/DISCHARGE
- NS7 - POTABLE WATER/IRRIGATION
- NS8 - VEHICLE AND EQUIPMENT CLEANING
- NS9 - VEHICLE AND EQUIPMENT FUELING
- NS10 - VEHICLE AND EQUIPMENT MAINTENANCE
- NS11 - PILE DRIVING OPERATIONS
- NS12 - CONCRETE CURING
- NS13 - CONCRETE FINISHING
- NS14 - MATERIAL AND EQUIPMENT USE
- NS15 - DEMOLITION ADJACENT TO WATER
- NS16 - TEMPORARY BATCH PLANTS

**TEMPORARY SEDIMENT CONTROL**

- SE1 - SILT FENCE
- SE2 - SEDIMENT BASIN
- SE3 - SEDIMENT TRAP
- SE4 - CHECK DAM
- SE5 - FIBER ROLLS
- SE6 - GRAVEL BAG BERM
- SE7 - STREET SWEEPING AND VACUUMING
- SE8 - SANDBAG BARRIER
- SE9 - STRAW BALE BARRIER
- SE10 - STORM DRAIN INLET PROTECTION

**POLLUTION CONTROL**

- SE11 - ACTIVE TREATMENT SYSTEMS
- SE12 - TEMPORARY SILT DIKE
- SE13 - COMPOST SOCKS & BERMS
- SE14 - BIOFILTER BAGS

**WASTE MANAGEMENT & MATERIAL**

- WM1 - WASTE MANAGEMENT
- WM2 - MATERIAL AND EQUIPMENT USE
- WM3 - DEMOLITION ADJACENT TO WATER
- WM4 - TEMPORARY BATCH PLANTS

**WIND EROSION CONTROL**

- WE1 - WIND EROSION CONTROL

**EQUIPMENT TRACKING CONTROL**

- TC1 - STABILIZED CONSTRUCTION ENTRANCE EXIT
- TC2 - STABILIZED CONSTRUCTION ROADWAY
- TC3 - ENTRANCE/OUTLET TIRE WASH

**LEGEND:**

- = SANBAGS
- ~~~~ = FLOW DIRECTION
- ||||| = STABILIZED CONSTRUCTION ENTRANCE
- X- = CONSTRUCTION FENCE
- - - = FIBER ROLL

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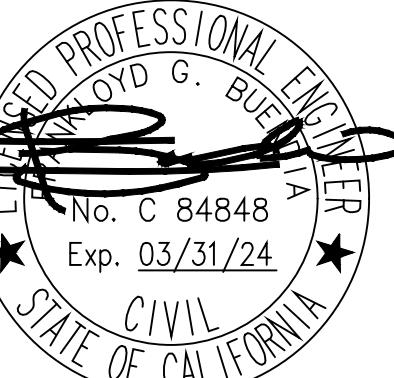
SHEET NO.

**C-4.0**

PROJECT NO.  
22-0014

PRINT DATE  
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**EROSION CONTROL PLAN**  
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PROJECT  
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CA 90245

REVISIONS

PROJECT NO.  
22-0014

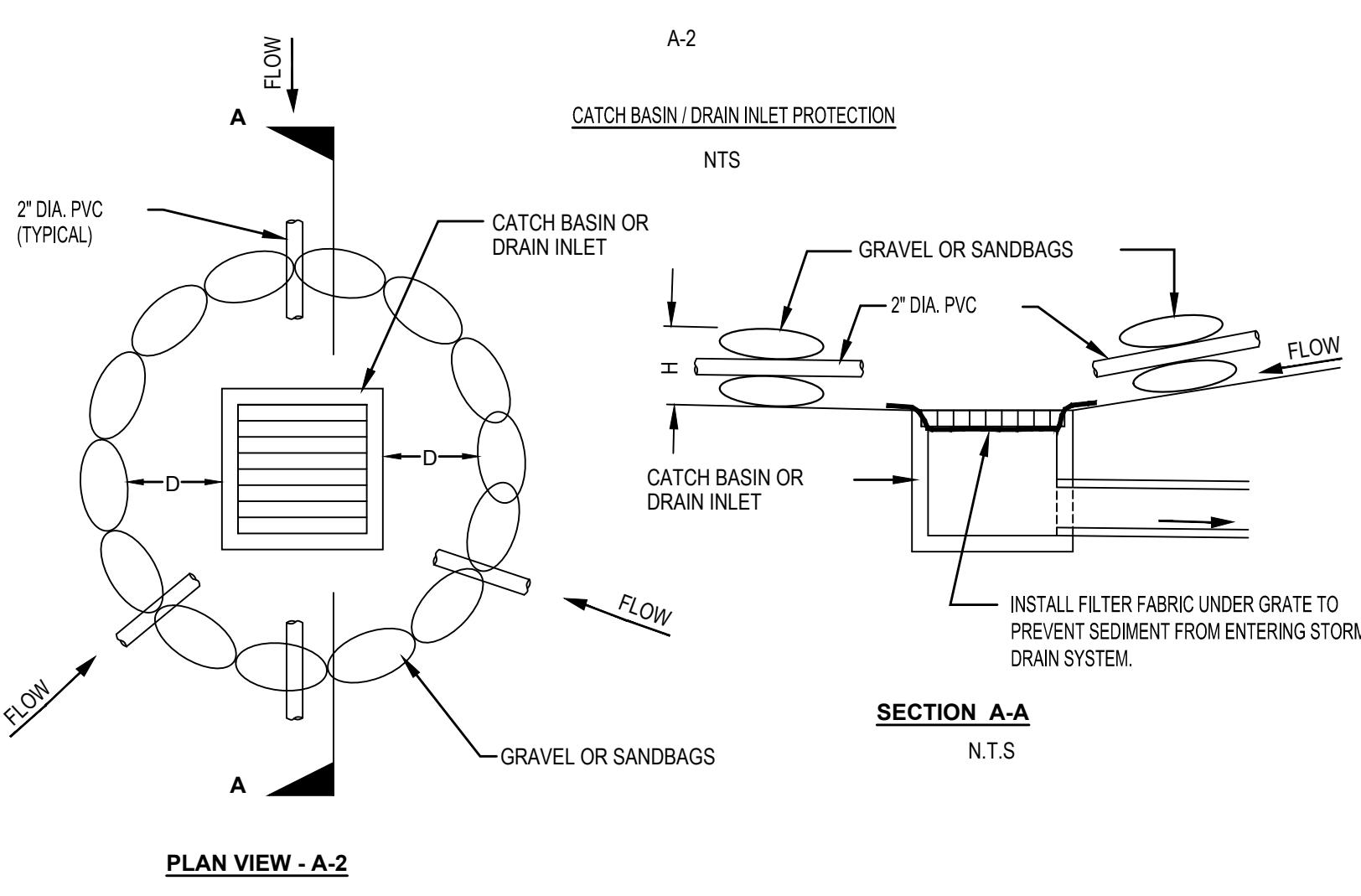
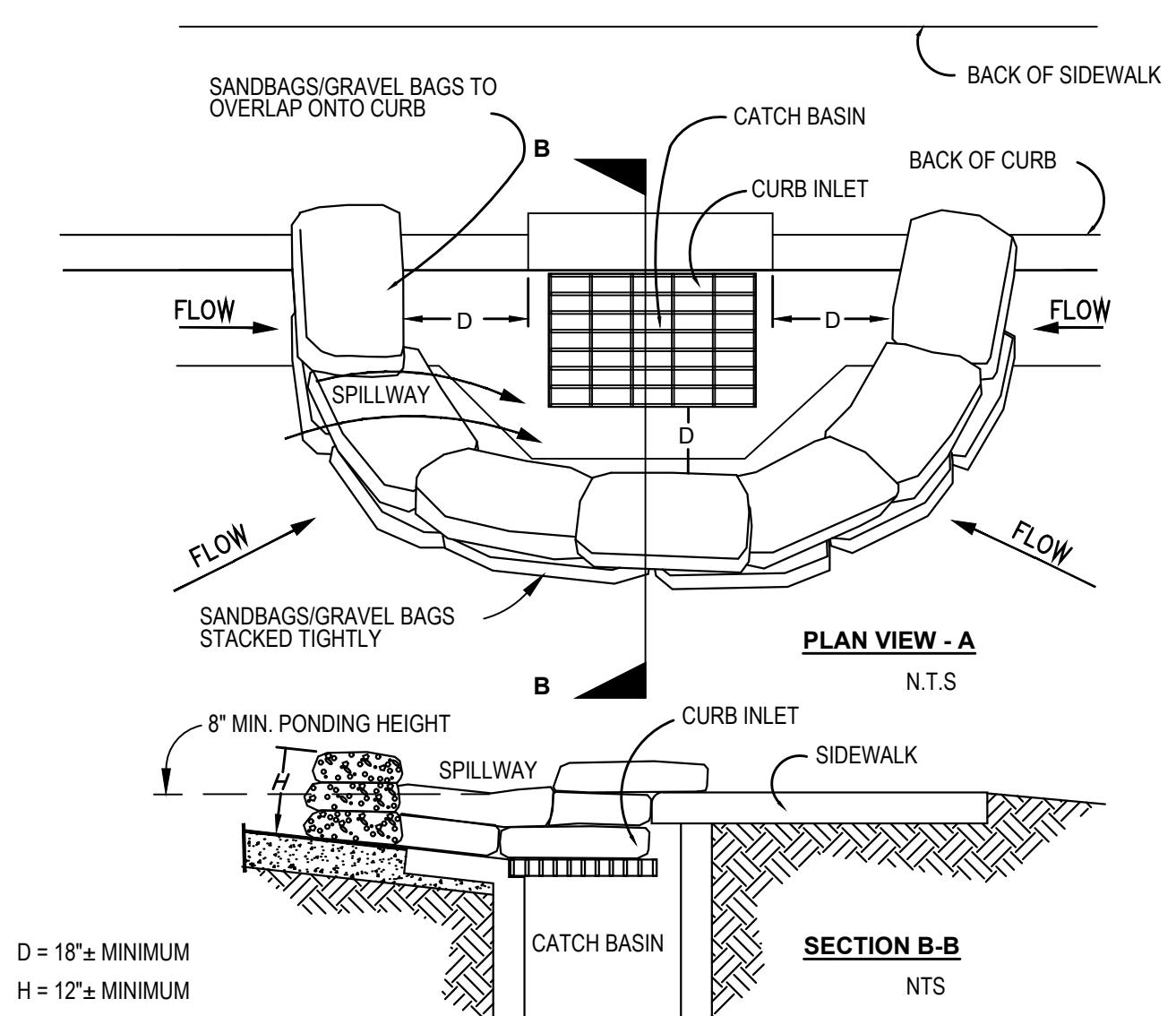
PRINT DATE  
03/06/2023

DRAWING  
**DETAILS**

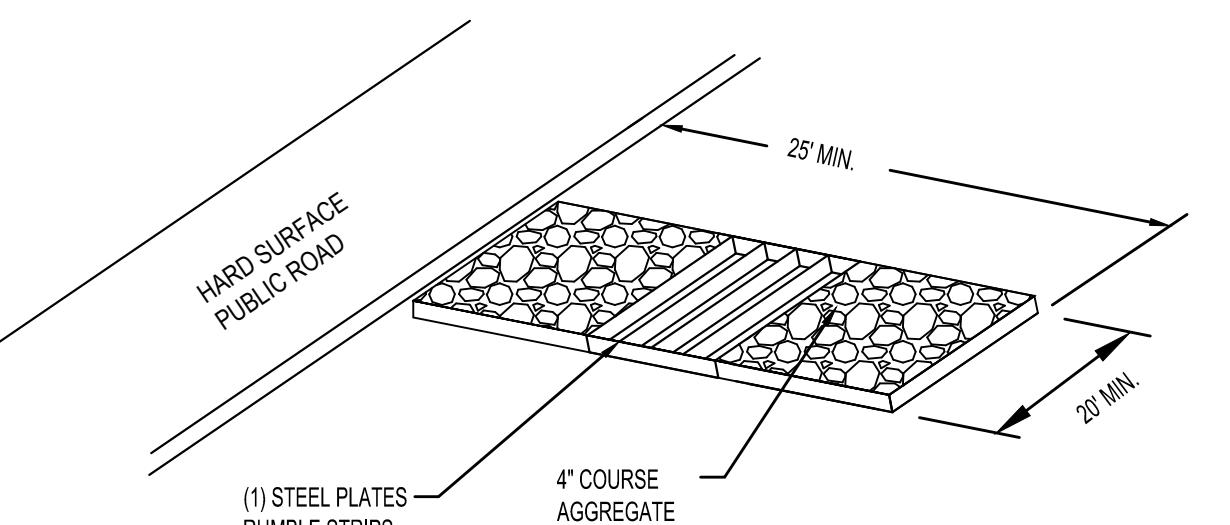
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SHEET NO.

**C-5.0**



**A CATCH BASIN/ DRAIN INLET PROTECTION (SE-10)**  
NOT TO SCALE



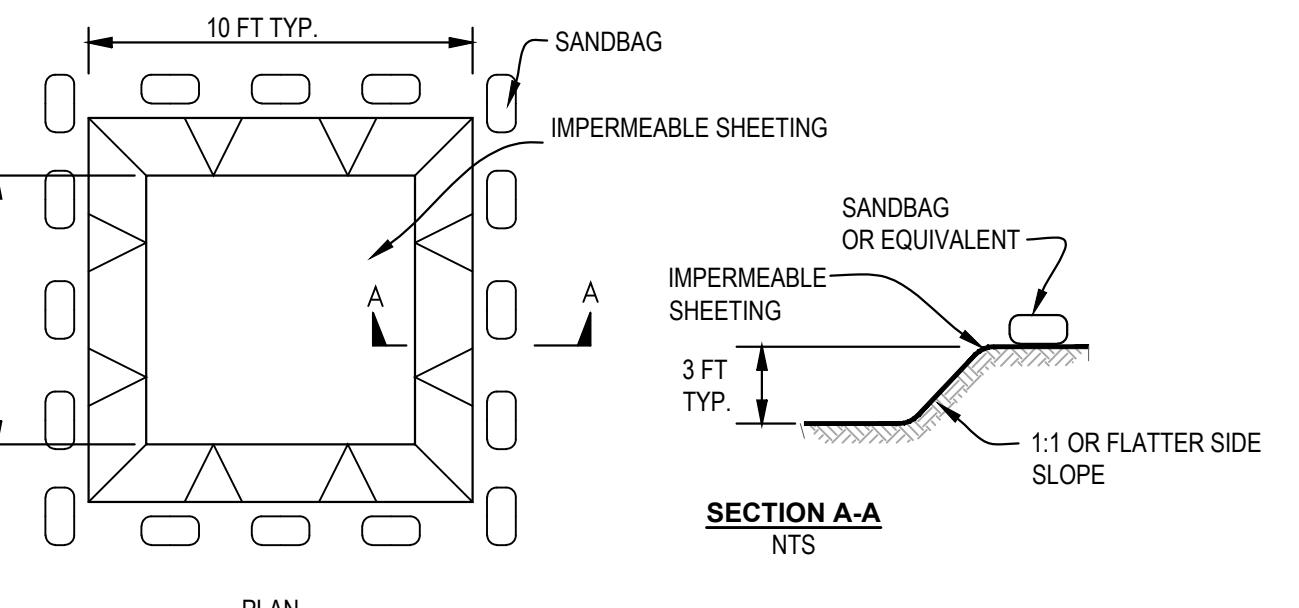
NOTES:

1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:  
A. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.  
B. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN. 4" COARS AGGREGATE WITH LENGTH, WIDTH, AND THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED AREAS.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.

STREET MAINTENANCE

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

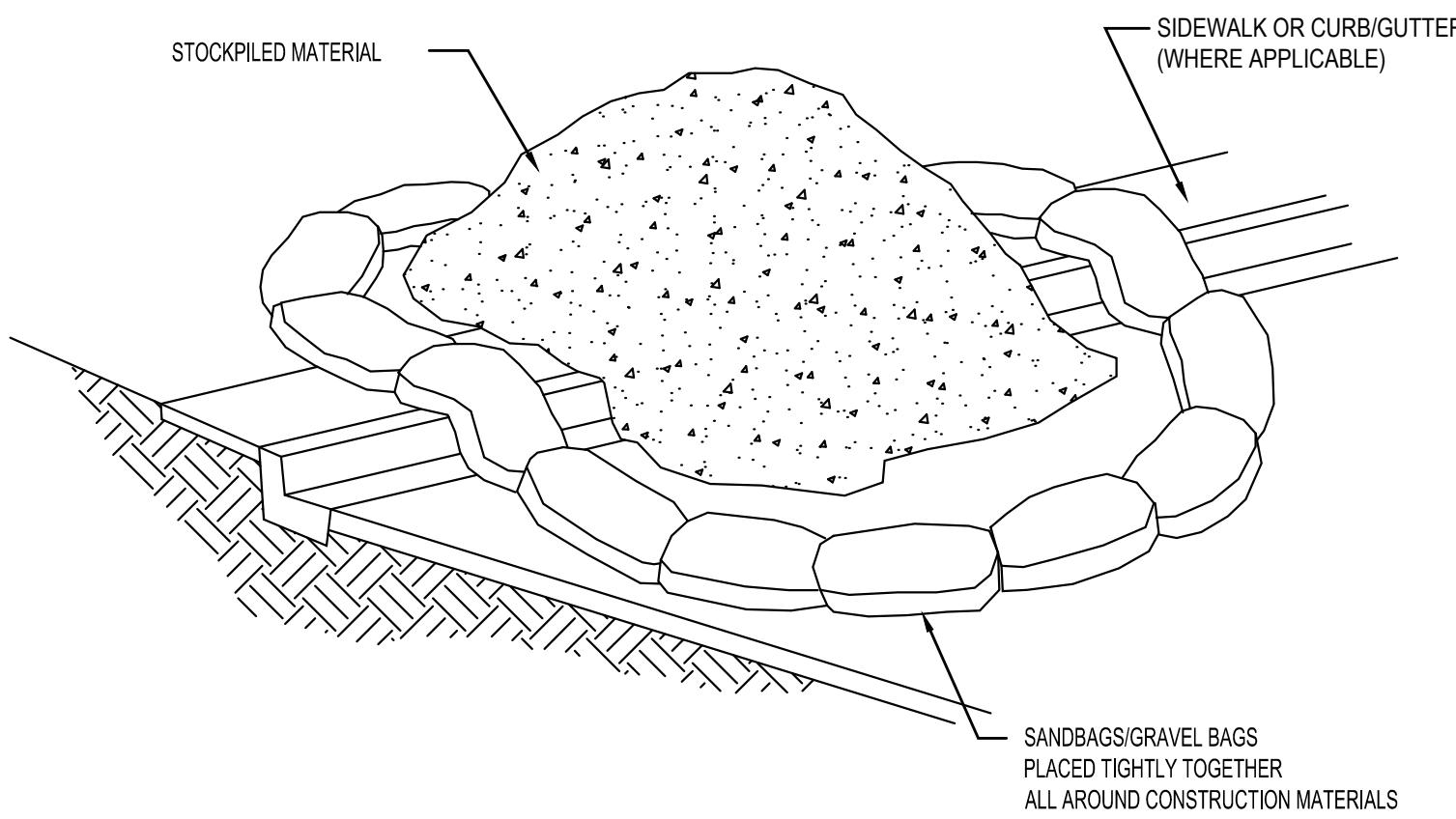
**B STABILIZED CONSTRUCTION ENTRANCE (TC-1, TC-2, & TC-3)**  
NOT TO SCALE



NOTES:

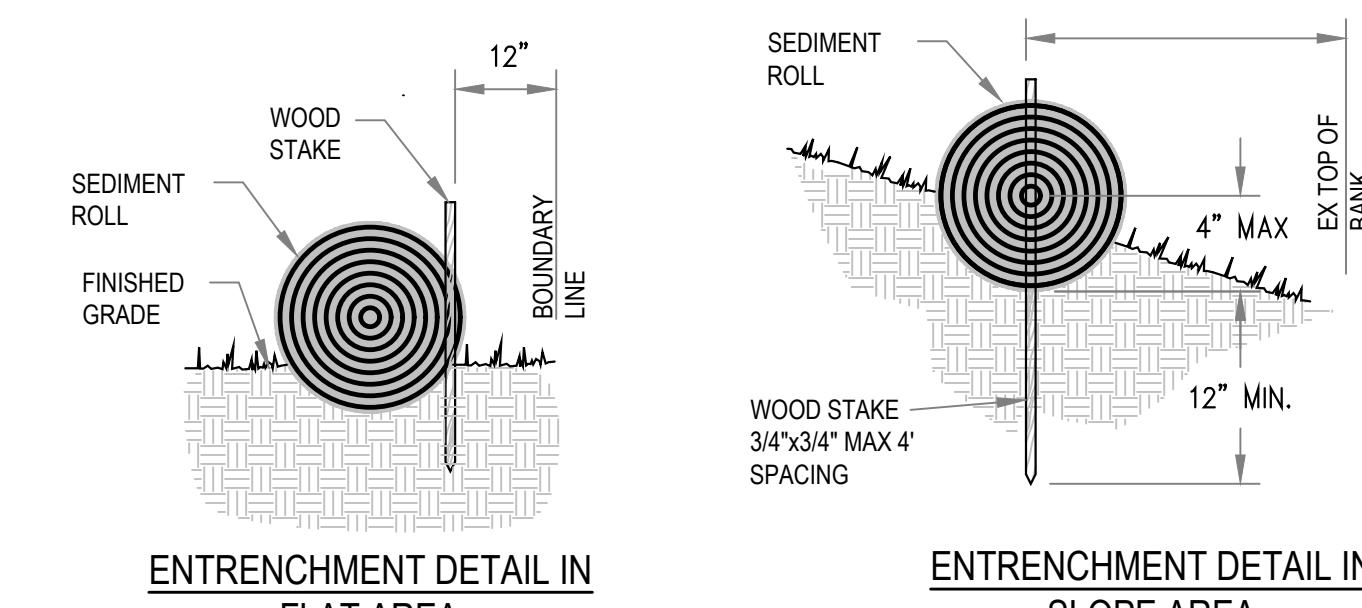
1. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
2. ACTUAL LAYOUT WILL BE DETERMINED IN THE FIELD.

**D CONCRETE WASTE MANAGEMENT (WM-8)**  
NOT TO SCALE



- NOTES:  
1. DIRT AND OTHER CONSTRUCTION RELATED MATERIALS PLACED IN THE STREET OR ON OTHER IMPERVIOUS SURFACES MUST BE CONTAINED WITH SANDBAGS OR OTHER MEASURES TO PREVENT TRANSPORT TO THE STORM DRAIN SYSTEM. ANY CONSTRUCTION MATERIAL STORED OR STOCKPILED ON-SITE SHALL BE PROTECTED FROM BEING TRANSPORTED BY THE FORCE OF WIND OR WATER. COVER MATERIAL WITH PLASTIC SHEETS (MIN. 10 MIL.) WITH SAND BAGS FOR ANCHORING.

**C MATERIAL STORAGE (WM-1)**  
NOT TO SCALE



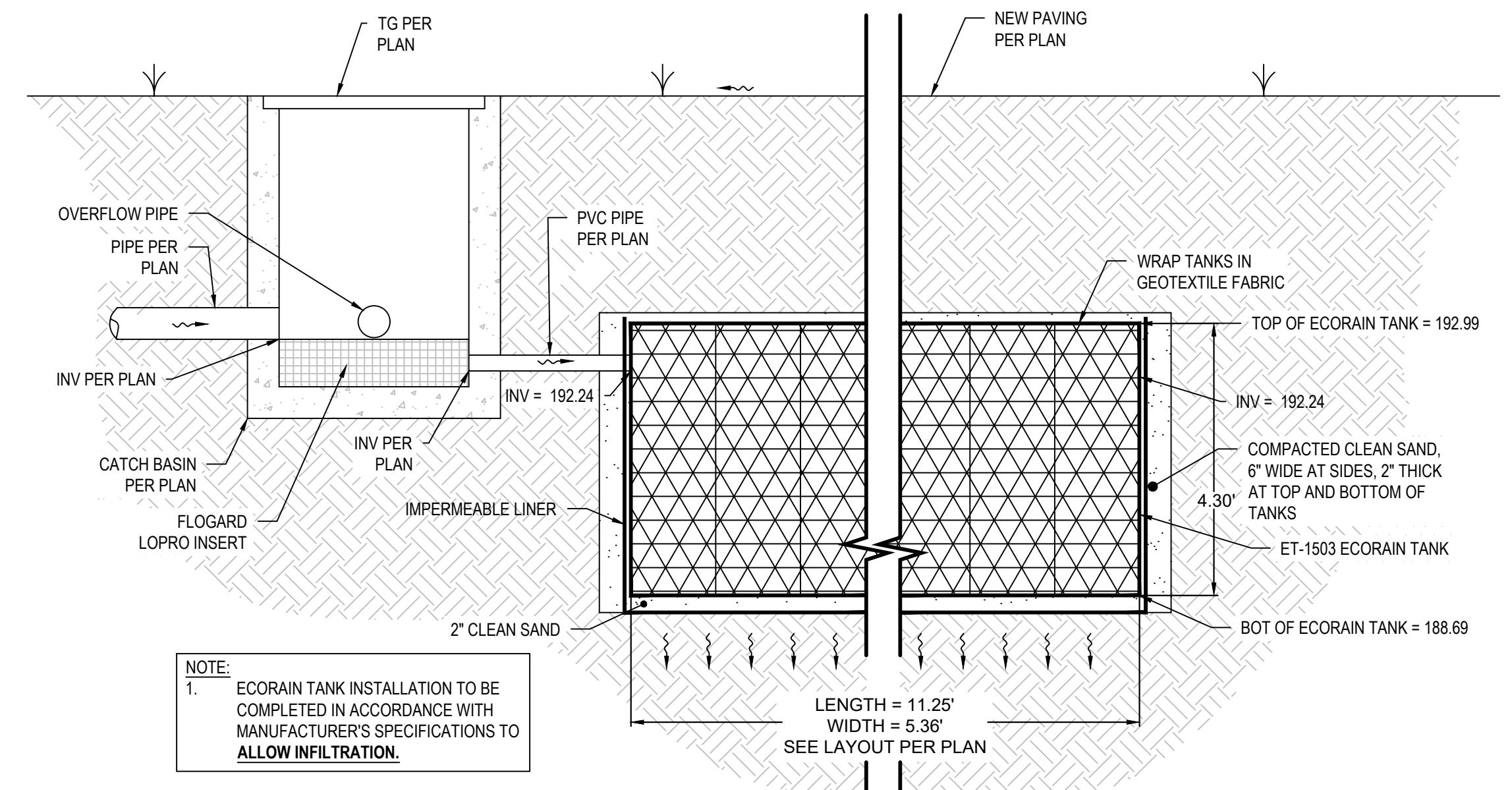
INSTALLATION PROCEDURE:

1. FIBER ROLLS ARE TUBES MADE FROM POROUS BIODEGRADABLE FIBER STUFFED IN A PHOTO-DEGRADABLE OPEN WEAVE NETTING. THEY ARE APPROX. 8" DIAMETER.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2'-4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. ROLLS SHOULD BE OVERLAPPED SECURELY TO PROVIDE A TIGHT JOINT, NOT ABUTTED.

**E FIBER ROLL (SE-5)**  
NOT TO SCALE

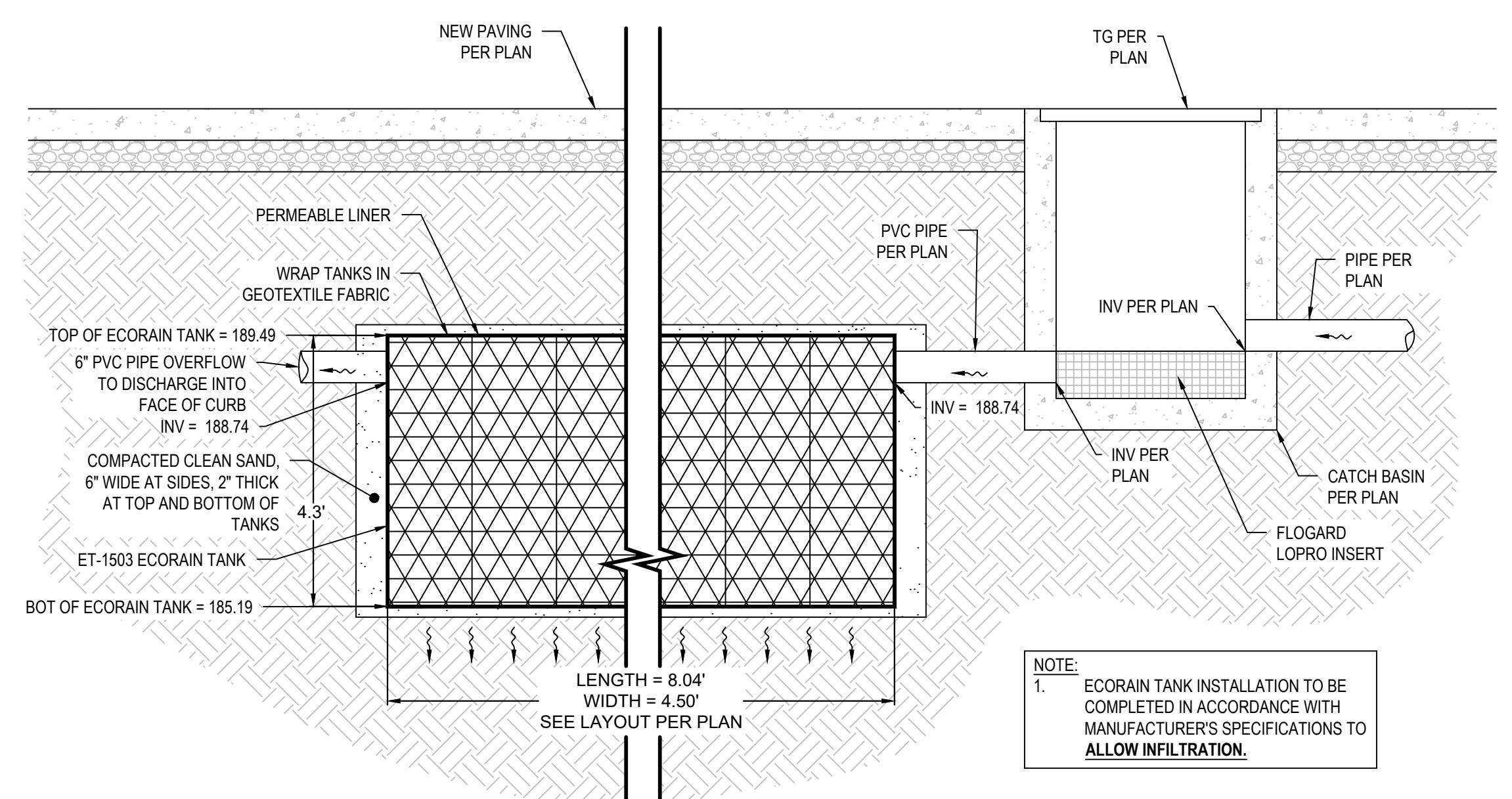
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PROJECT  
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CA 90245

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PROJECT NO.  
22-0014

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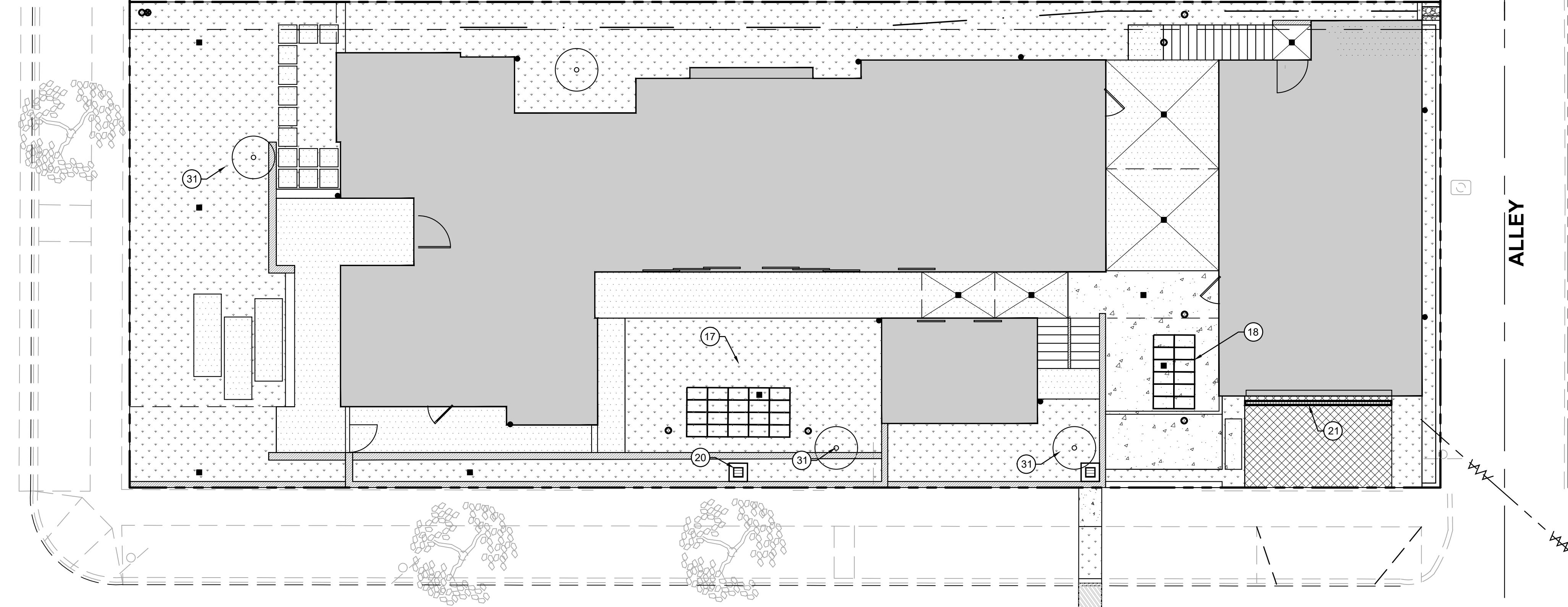
**C-5.2**



PROJECT  
**NEW RESIDENCE**  
402 VIRGINIA ST  
EL SEGUNDO  
CA 90245

VIRGINIA STREET

**EX RESIDENCE**



HOLLY AVENUE

**CONSTRUCTION NOTES**

- (17) FURNISH AND INSTALL BMP #1, (20) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL A/C-5.2
- (18) FURNISH AND INSTALL BMP #2, (12) ECORAIN TANKS (ET-1503) OR APPROVED EQUAL. SEE DETAIL B/C-5.2
- (20) FURNISH AND INSTALL FLOGARD LOPRO FG-M12 OR APPROVED EQUAL. SEE DETAIL I/C-5.1
- (21) FURNISH AND INSTALL TRENCH DRAIN FILTER INSERT, OLDCASTLE FG-TDOF8 OR APPROVED EQUAL
- (31) FURNISH AND INSTALL NEW TREE PER LANDSCAPE PLAN, 15 GALLON MIN.

**LEGEND**

- |  |  |
|--|--|
|  | NEW LANDSCAPING PER LANDSCAPE PLANS<br>IRRIGATION SHALL UTILIZE WEATHER-BASED<br>SMART IRRIGATION SYSTEM |
|  | NEW 15 GALLON TREE, 10-FT FROM IMPERVIOUS<br>AREA  |
|  | NEW ECORAIN TANKS, SEE SHEET C-3.0 AND<br>C-3.1 FOR ADDITIONAL INFO                                      |



**LID PLAN**

SCALE: 1"=8'

0 8 24

PROJECT NO.  
22-0014

PRINT DATE  
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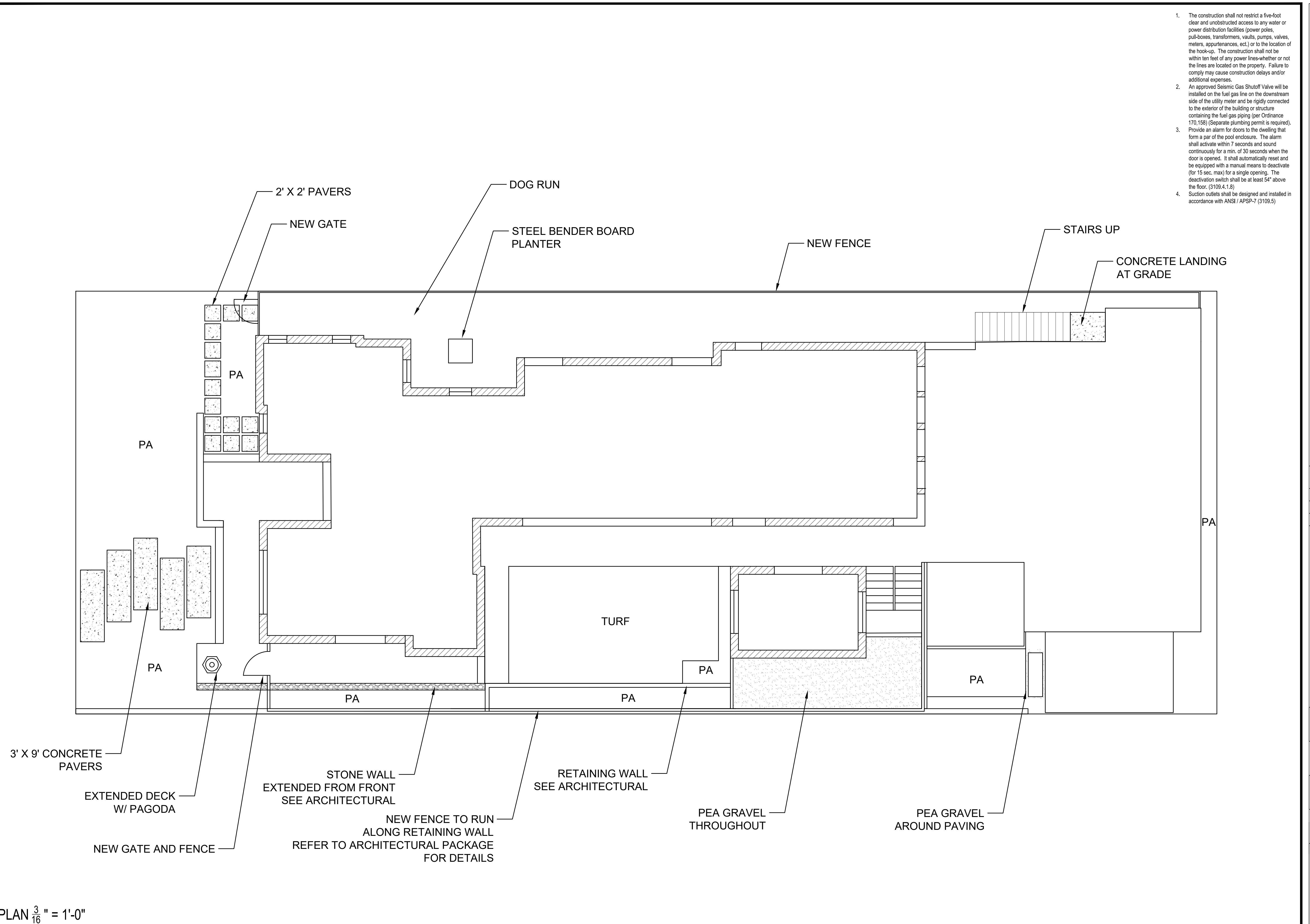
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SHEET NO.  
**C-6.0**

# VIRGINIA RESIDENCE

402 VIRGINIA ST.  
EL SEGUNDO, CA 90245



- The construction shall not restrict a five-foot clear and unobstructed access to any water or power distribution facilities (power poles, pull-boxes, transformers, vaults, pumps, valves, meters, appurtenances, ect.) or to the location of the hook-up. The construction shall not be within ten feet of any power lines-whether or not the lines are located on the property. Failure to comply may cause construction delays and/or additional expenses.

An approved Seismic Gas Shutoff Valve will be installed on the fuel gas line on the downstream side of the utility meter and be rigidly connected to the exterior of the building or structure containing the fuel gas piping (per Ordinance 170,158) (Separate plumbing permit is required). Provide an alarm for doors to the dwelling that form a part of the pool enclosure. The alarm shall activate within 7 seconds and sound continuously for a min. of 30 seconds when the door is opened. It shall automatically reset and be equipped with a manual means to deactivate (for 15 sec. max) for a single opening. The deactivation switch shall be at least 54" above the floor. (3109.4.1.8)

Suction outlets shall be designed and installed in accordance with ANSI / APSP-7 (3109.5)

ISSUES/REVISIONS:		
NO.	DATE	DESCRIPTION
1.	DATE	ORIGINAL

1. THIS DESIGN IS CONCEPTUAL IN NATURE. ALL MEASUREMENTS, ELEVATIONS, AND EXISTING CONDITIONS WILL BE CONFIRMED ON SITE.
2. EXACT PLANT LOCATIONS WILL BE DETERMINED ACCORDING TO THE REQUIREMENTS OF THE INSTALLER.
3. CITY REQUIREMENTS, PERMITS, AND CODE COMPLIANCE ARE TO BE MET BY THE PROPERTY OWNER AND SHOULD BE CONVEYED TO THE INSTALLER.
4. I AM SATISFIED WITH AND APPROVE THE DESIGN AND PLANT SELECTION AND UNDERSTAND THAT

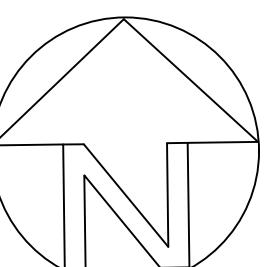
**ANY CHANGES DURING CONSTRUCTION WILL  
INCUR ADDITIONAL COSTS.**

# SITE PLAN

# CHRIS BARKER

12.11.2022

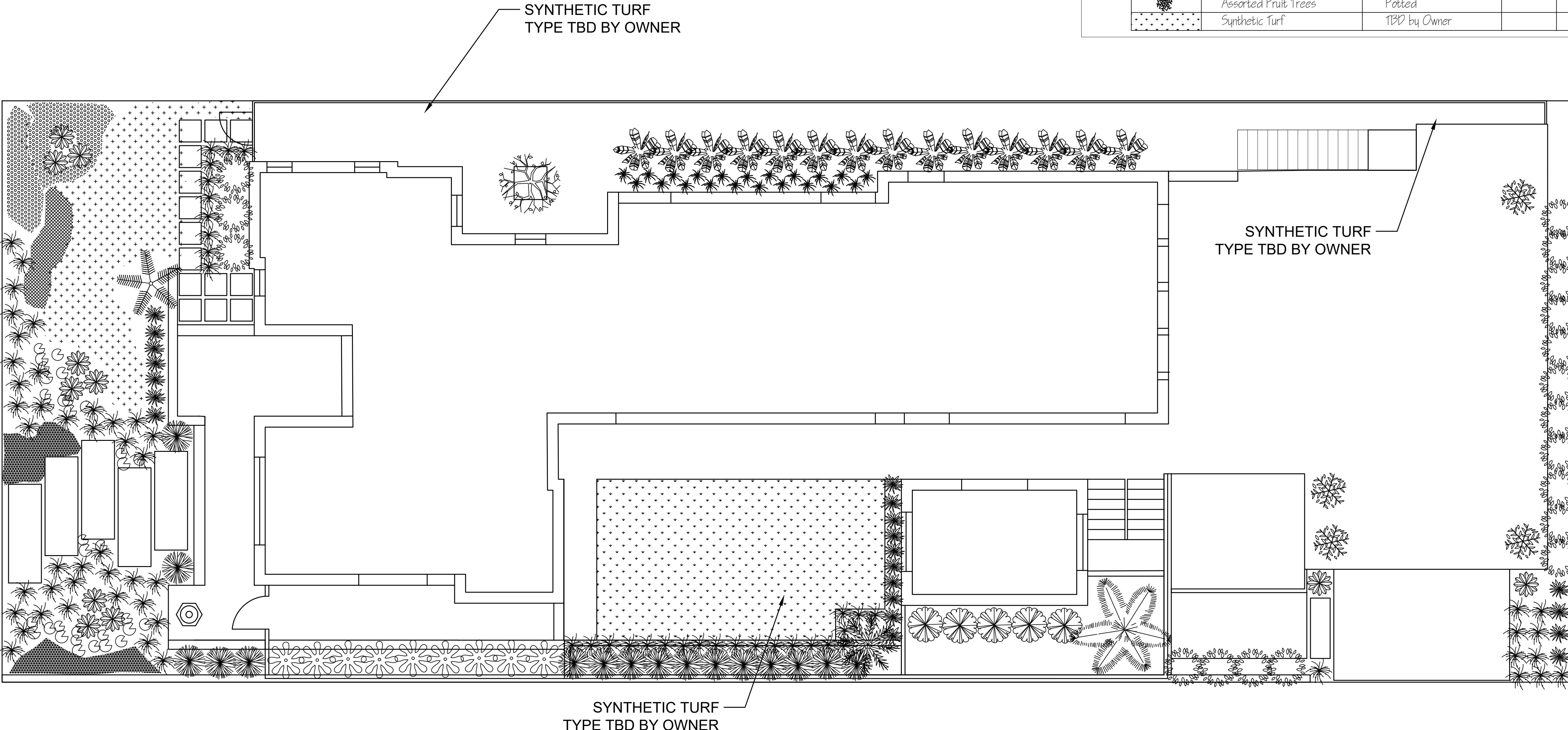
1



**PLAN  $\frac{3}{16}$ " = 1'-0"**

402 VIRGINIA ST.  
EL SEGUNDO, CA 90245

## VIRGINIA RESIDENCE



Plant Legend

Plant Code	Botanical Name	Common Name	Size	Qty.
●	Agave attenuata	Foxtail Agave	15 GAL	11
●	Carex divulsa	Carex	5 GAL	80
●	Anigozanthos flavidoides	Kangaroo Paw	5 GAL	22
●	Philodendron xanadu	Philodendron	5 GAL	14
●	Acer palmatum	Japanese Maple	15 GAL	1
●	Cycas revoluta	Sago Palm	15 GAL	1
●	Archontophoenix alexandrae	King Palm	15 GAL	1
●	Pittosporum 'Silver Sheen'	Silver Sheen	15 GAL	15
●	Echeveria Mix	Echeveria	4" FLAT	3
●	Podocarpus henkellii	Podocarpus	15 GAL	5
●	Ophiopogon japonicus	Mondo Grass	1 GAL	21
●	Festuca mairei	Atlas Fescue	1 GAL	16
●	Strelitzia sp.	Bird of Paradise	5 GAL	9
●	Ceanothus 'Yankee Point'	Yankee Point Ceanothus	1 GAL	30
●	Ophiopogon japonicus 'Nana'	Dwarf Mondo Grass	4" FLAT	5
●	Phlox stolonifera	Creeping Phlox	4" FLAT	3
●	Thymus praecox 'Coccineus'	Creeping Thyme	4" FLAT	5
●	Assorted Fruit Trees	Potted		4
●	Synthetic Turf	TBD by Owner		375 sq. ft.

ISSUES/REVISIONS:		
NO.	DATE	DESCRIPTION
1.	DATE	ORIGINAL

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4. I AM SATISFIED WITH AND APPROVE THE DESIGN AND PLANT SELECTION AND UNDERSTAND THAT ANY CHANGES DURING CONSTRUCTION WILL INCUR ADDITIONAL COSTS.

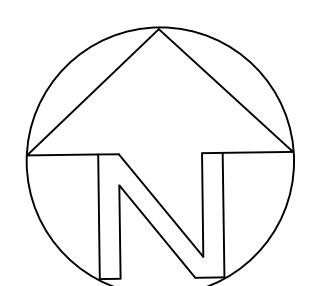
OWNER DATE

## PLANTING PLAN

CHRIS BARKER

12.10.2022

L.2.



402 VIRGINIA ST.  
EL SEGUNDO, CA 90245

# VIRGINIA RESIDENCE

