

PROPOSED  
HOUSE REMODEL  
AT:123 WILDER AVENUE  
LOS GATOS, CA 95030

Scope of Work

1. Replace (10) wood framed windows at living room with dual glazed double hung wood framed windows.
2. Remodel existing bathroom by stairway that include replace existing tub with a shower.
3. Replaced wood shingle siding finish to be restored by removing the hardy board siding and replace with wood shingle siding to match the areas that remained at the front of the house.
4. Existing Wood Board & Batten siding at garage to be replaced with same type new siding.

Sheet Index

- A-1 Site Plan  
A-2 Existing Floor Plan.  
A-3 Elevations.  
A-4 Proposed Floor Plan.  
BCB Blueprint for a clean bay.  
BMPs Construction best management practices. Santa Clara Valley urban runoff pollution prevention program.  
T24.1 Title 24 energy calculations.  
T24.2 Single family residential mandatory requirements summary.

GENERAL  
SPECIFICATIONS

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS OF THE SITE AND EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION. IF THERE ARE ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IN WRITING. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE DRAWINGS OR CALCULATIONS.
2. ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR THE DESIGNER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
3. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITY LINES AND CONNECTIONS INCLUDING SEWER, WATER, GAS, AND ELECTRIC SERVICES BEFORE AND DURING HIS WORK.
4. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
5. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, FOOTING, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. UNLESS OTHERWISE NOTED. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.
6. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXPECTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
7. CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO ENSURE THAT ALL PROPERTY IS PROTECTED DURING THIS OPERATION. ANY DAMAGES OR CHANGED CONDITIONS SHALL BE REPAIRED AND RESTORED TO A CONDITION EQUAL TO THAT EXISTING AT THE COMMENCEMENT OF THE WORK. CONTRACTOR SHALL RESTORE ANY DAMAGE AT HIS OWN EXPENSE.
8. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE DESIGN ENGINEER. THE DESIGNER, THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEAR WALLS,

Allowable FAR/Floor Area: 2,117 SF  
Garage 604 SF

Deferred Submittals

Fire sprinklers will be required for this project. Fire sprinkled plants to be submitted at a later date as a deferred submittal.  
Note: All construction sites must comply with applicable provisions of the CFC Chapter 33 and the Santa Clara County Fire Department Standard Detail and Specification S1-1

No structural framing being replaced.

No foundation being replaced.

Therefore, this project would not fall into the definition of a new structure for the building dept.

SPECIAL INSPECTIONS: When a special inspection is required by CBC Section 1704, the Architect or Engineer of Record shall prepare an inspection program that shall be submitted to the Building Official for approval prior to issuance of the Building Permit. The Town Special inspection form must be completely filled-out and signed by all requested parties prior to permit issuance.

BACKWATER VALVE: The scope of this project may require the installation of a sanitary sewer backwater valve per Town Ordinance 6.40.020.

The Town of Los Gatos Ordinance and West Valley Sanitation District (WVSD) requires backwater valves on drainage piping serving fixtures that have flood level rims less than 12 inches above the elevation of the next upstream manhole.

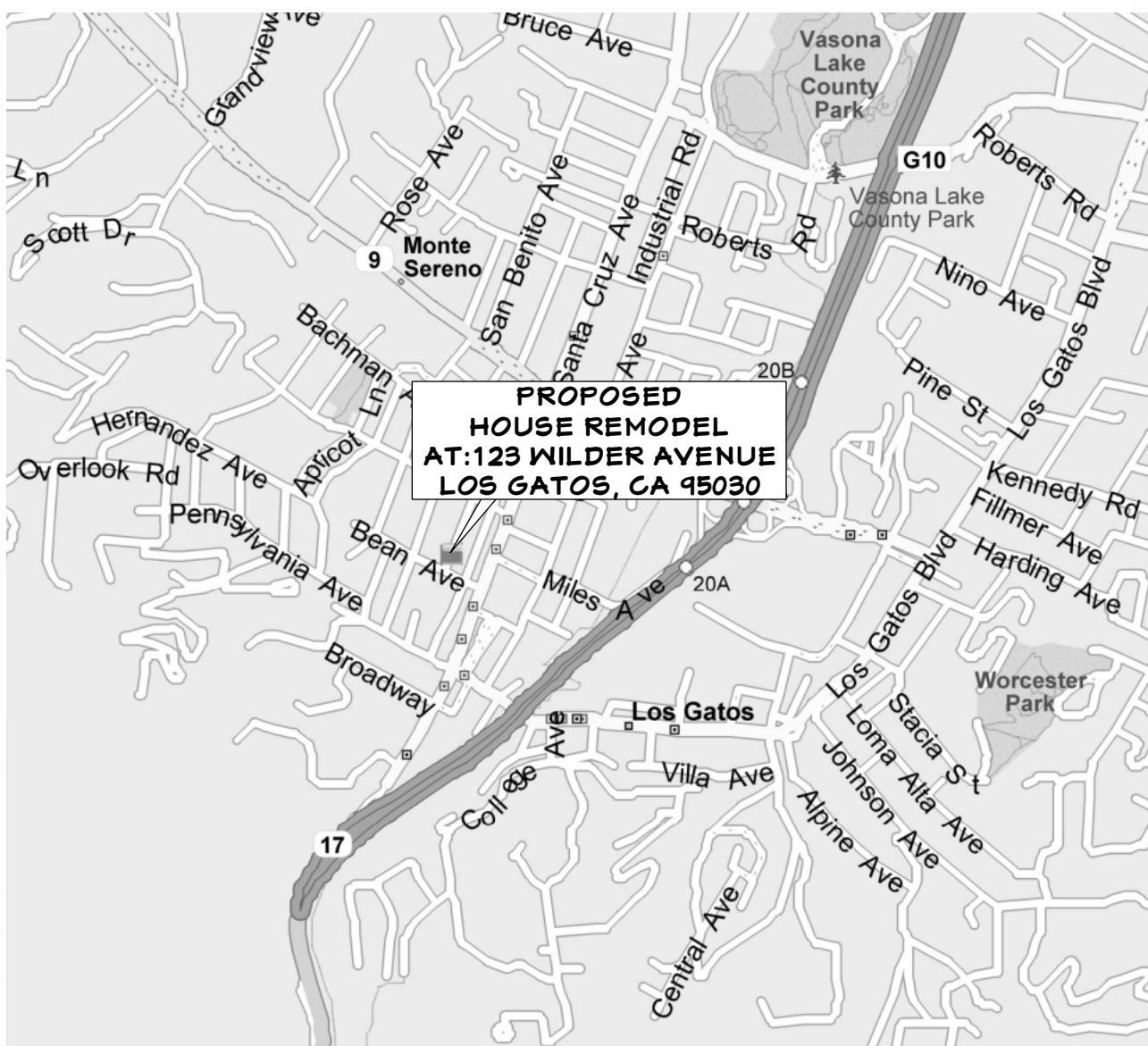
At the moment it is not expected that a backwater valve will be needed but if during construction it is found that it is needed, contractor to the necessary actions to install it.

PLANNING DATA

Parcel Size: 6226 sq. ft.  
Existing house living space: 2225 sq. ft.  
Existing garage/work shop: 470 sq. ft.  
APN: 510-18-008  
Zone: R-1D1LHP  
Required Setbacks:  
Front: 15 ft  
Side: 5 ft  
Rear: 20 ft  
Proposed/Existing Setbacks:  
Front: 15'-11"  
Right Side: 10'-10"  
Left Side: 3'-6"  
Rear: 47'-9"

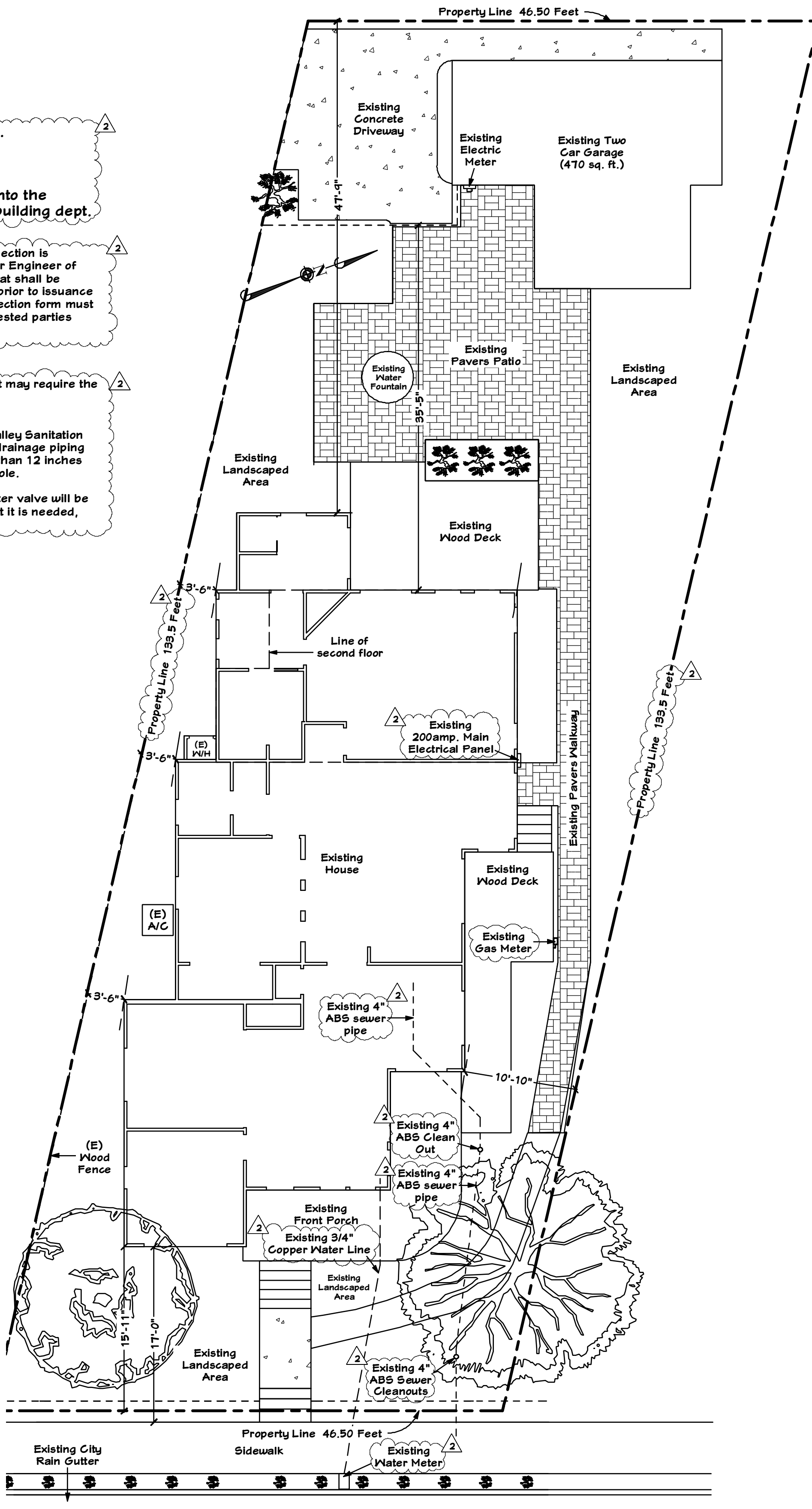
DESIGN DATA

Occupancy group: R3(U), Type(s) of construction: VB, 2022 CALIFORNIA RESIDENTIAL CODE  
WIND LOAD = 110 M.F.H., ROOF LIVE LOAD = 20 psf, FLOOR LIVE LOAD = 40 psf.  
2022 CALIFORNIA ELECTRICAL CODE, 2022 CALIFORNIA PLUMBING CODE  
2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA ENERGY CODE  
2022 CALIFORNIA FIRE CODE. Code editions under which this project is to be approved  
AND ALL OTHER STATE, MUNICIPAL, AND LOCAL ORDINANCES, CODES, RULES AND REGULATIONS.



VICINITY MAP

NOT TO SCALE

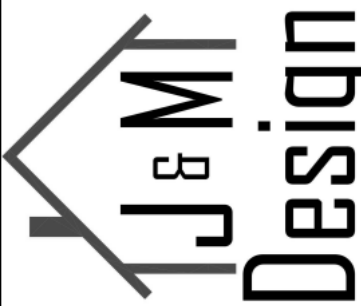


Site Plan

Scale 1/8"=1'-0"

Owner Info:  
Name: Peter Pomianek  
Phone Number: 650-245-1985  
Email: pomiansf@yahoo.com

Designed by: Jose Jimenez  
1005 West Eighth Street  
Stockton California 95206



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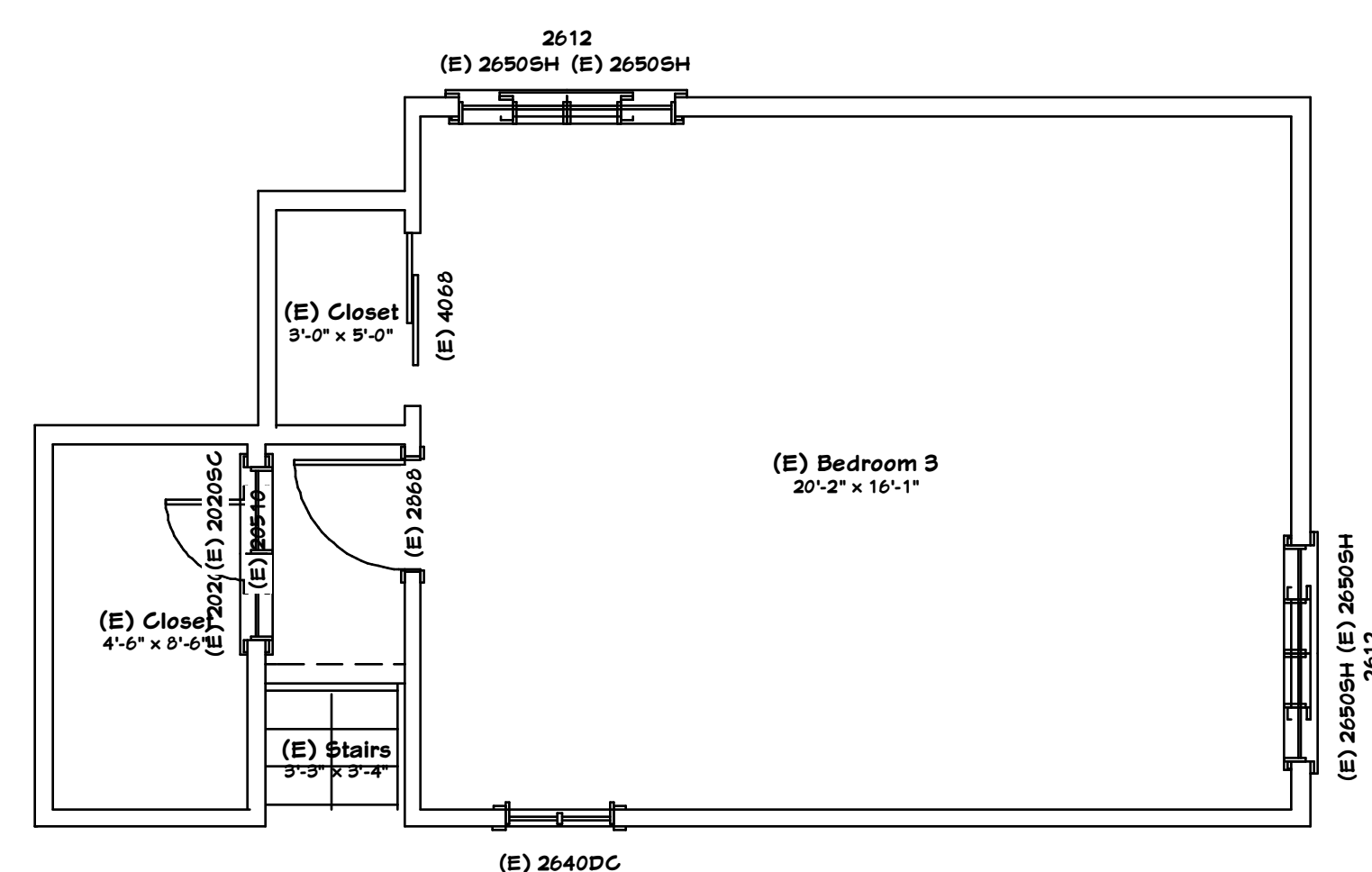
DATE: Oct. 24, 2023

REVISIONS

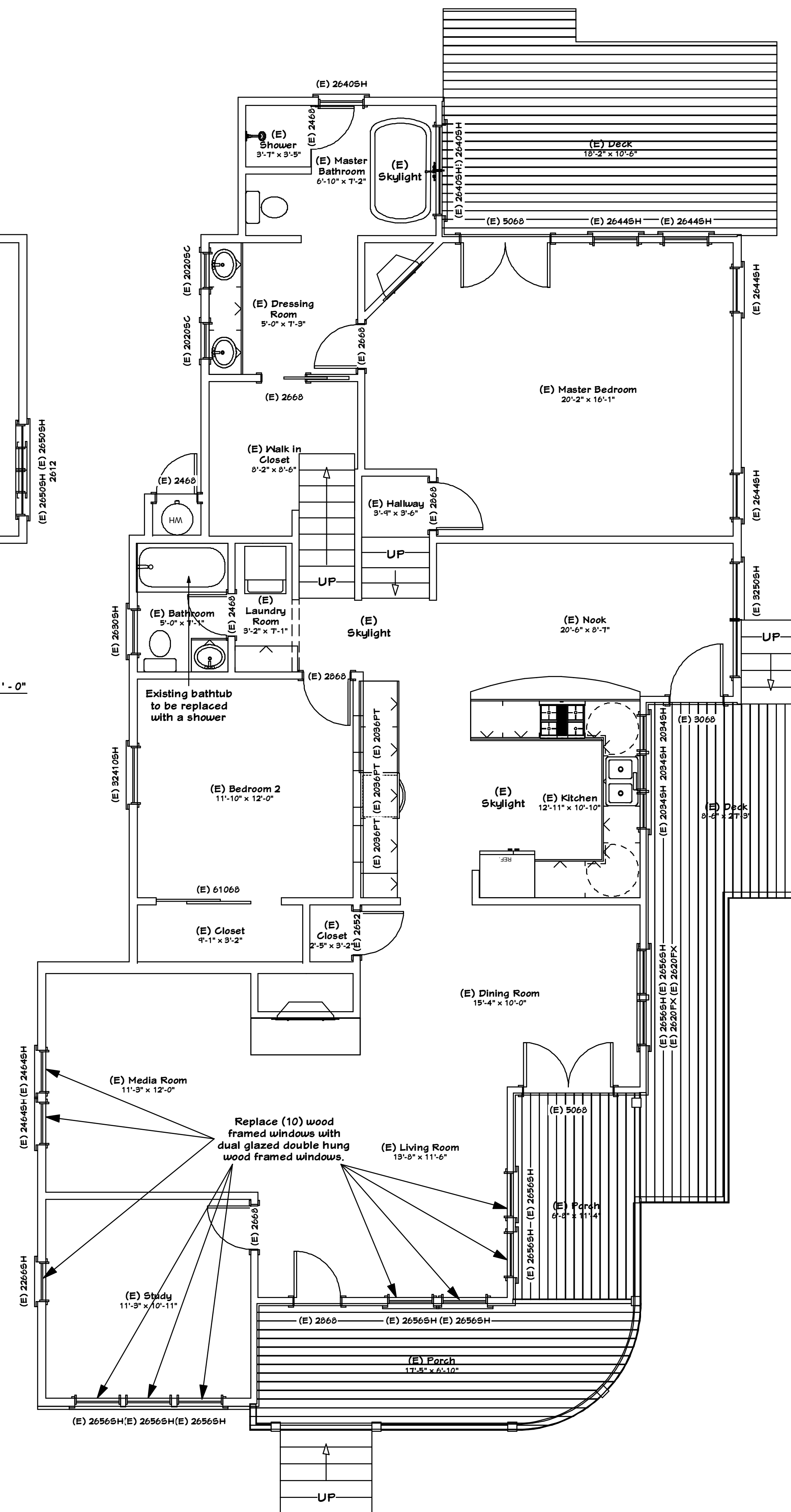
1. Feb. 6, 2024  
Response to comments from Planning Department letter dated December 13, 2023
2. March 29, 2024  
Response to latest plan review comments

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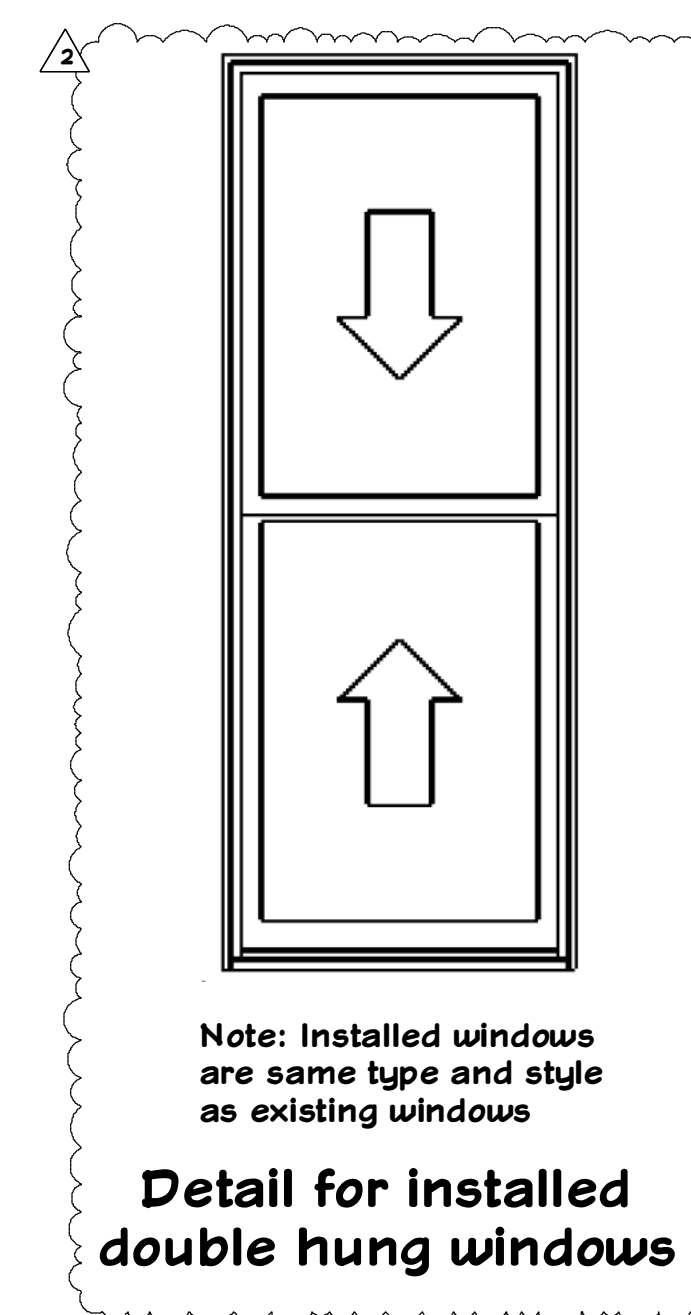
Of 4



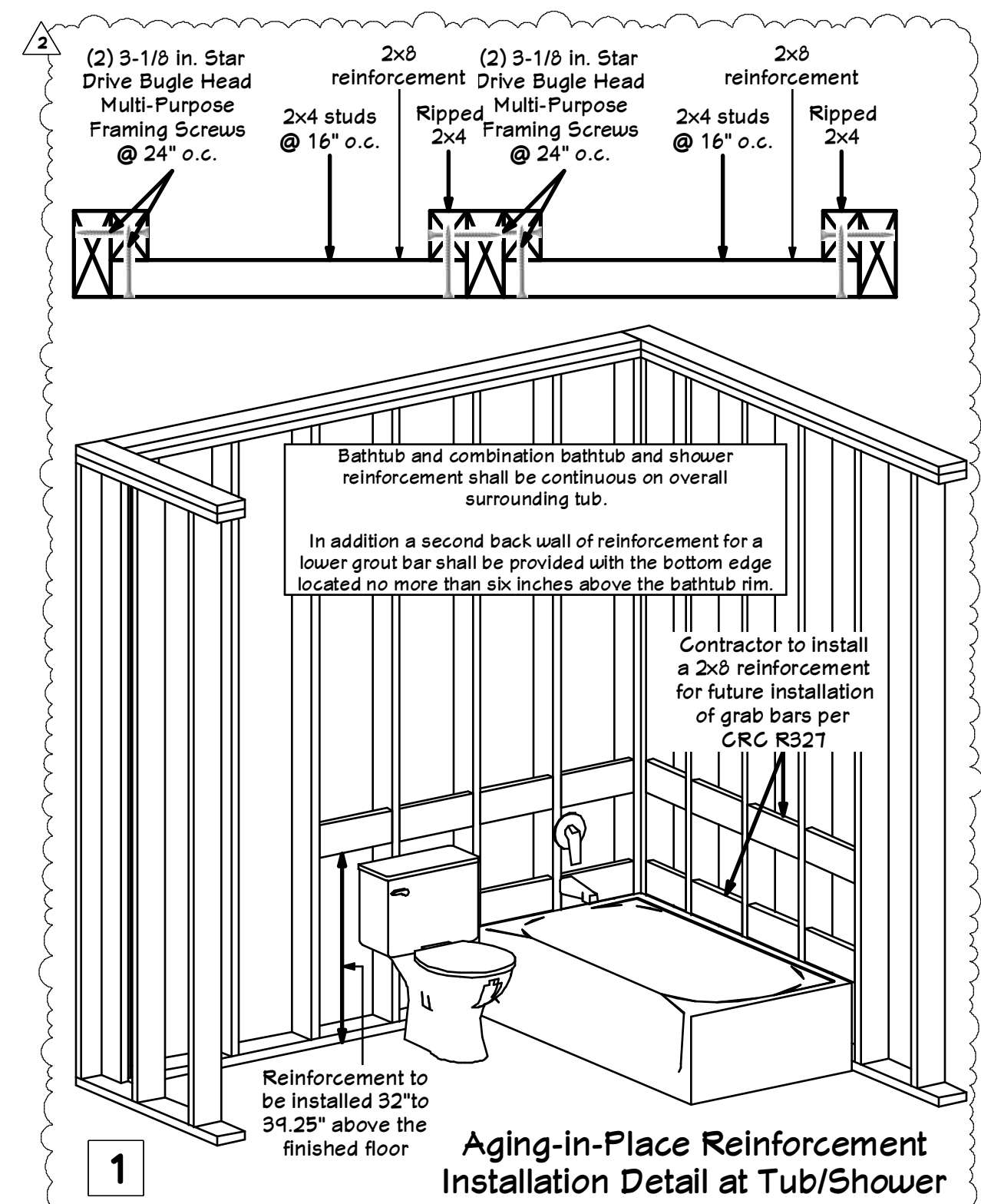
EXISTING UPPER FLOOR PLAN Scale 1/4" = 1' - 0"



EXISTING LOWER FLOOR PLAN Scale 1/4" = 1' - 0"



Note: Installed windows are same type and style as existing windows  
Detail for installed double hung windows



1 Aging-in-Place Reinforcement Installation Detail at Tub/Shower

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1005 West Eighth Street  
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EMAIL: jose@jdesigners.com

J & M Design

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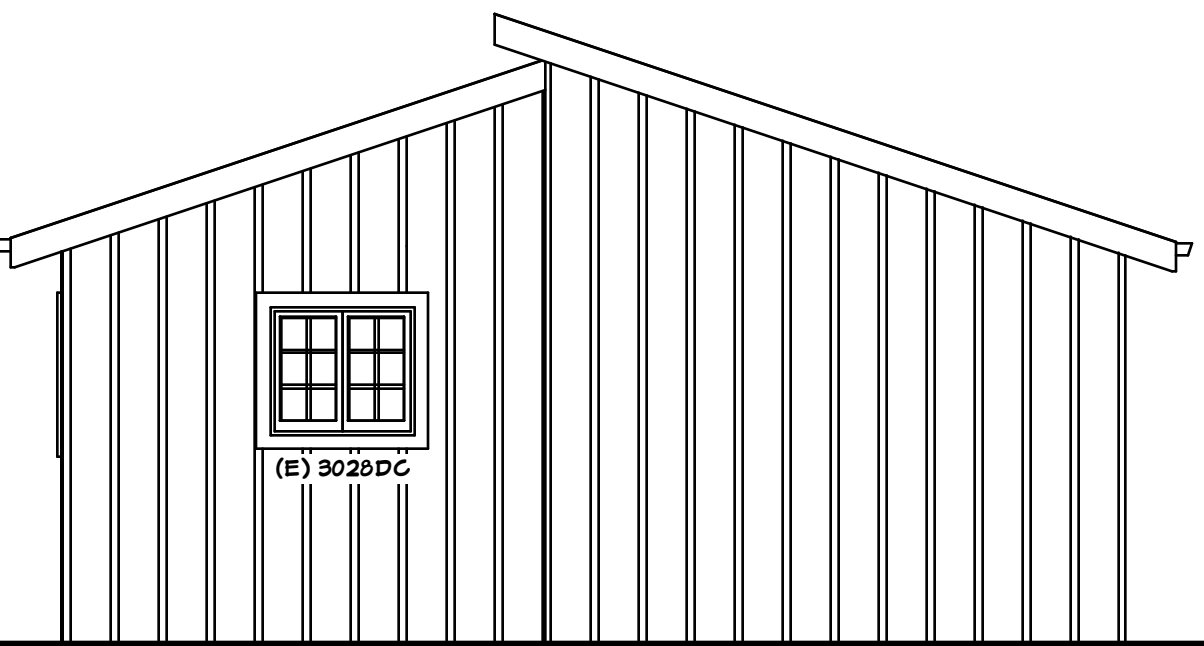
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Garage Elevation Notes

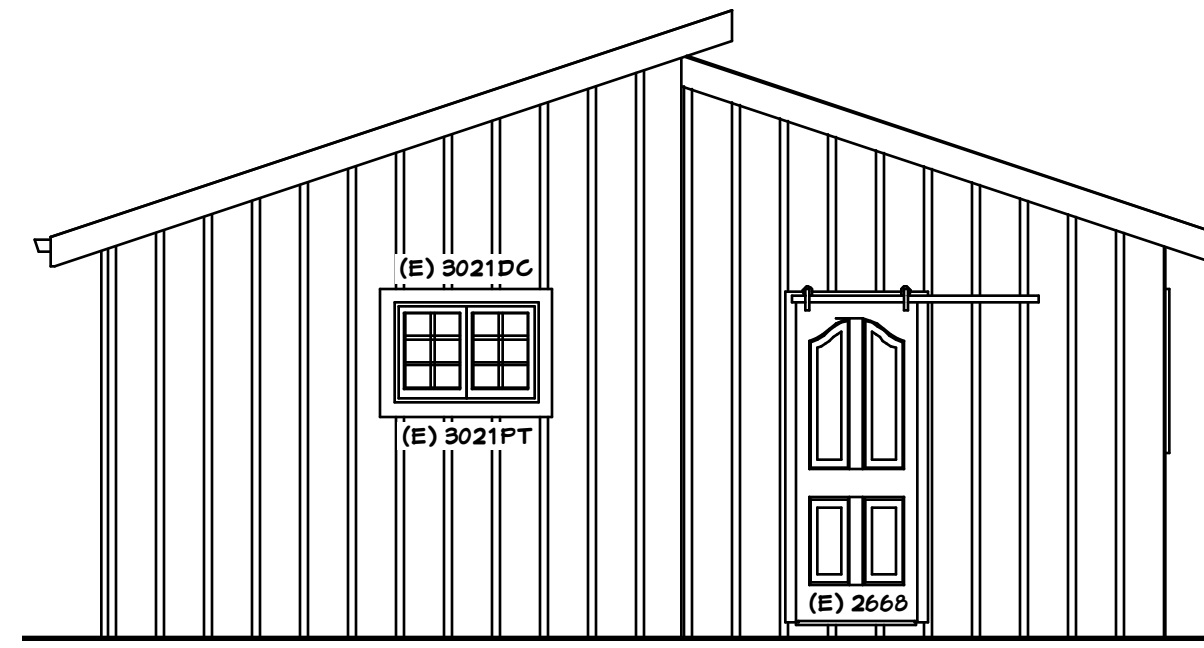
Roof:  
Existing: Comp shingle roof to remain.

Exterior Finish:  
Existing: Wood Board & Batten siding to be replaced with same type new siding.

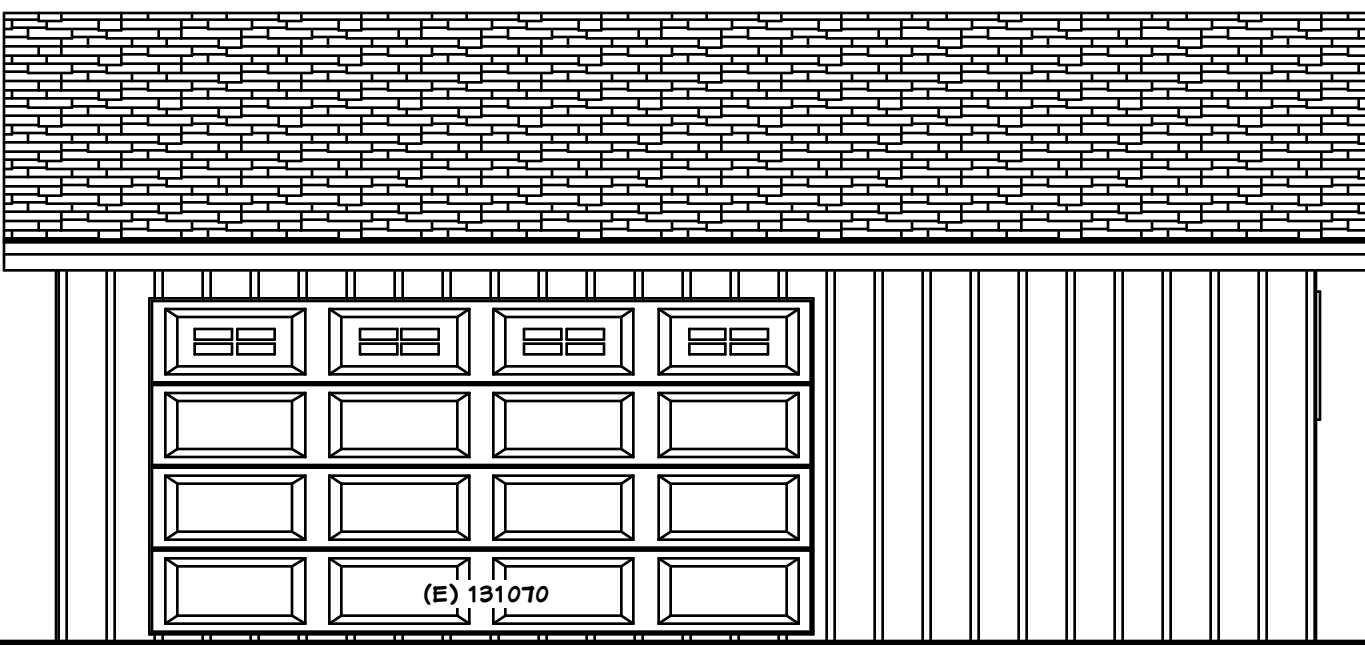
Windows:  
Existing: Existing windows to remain.



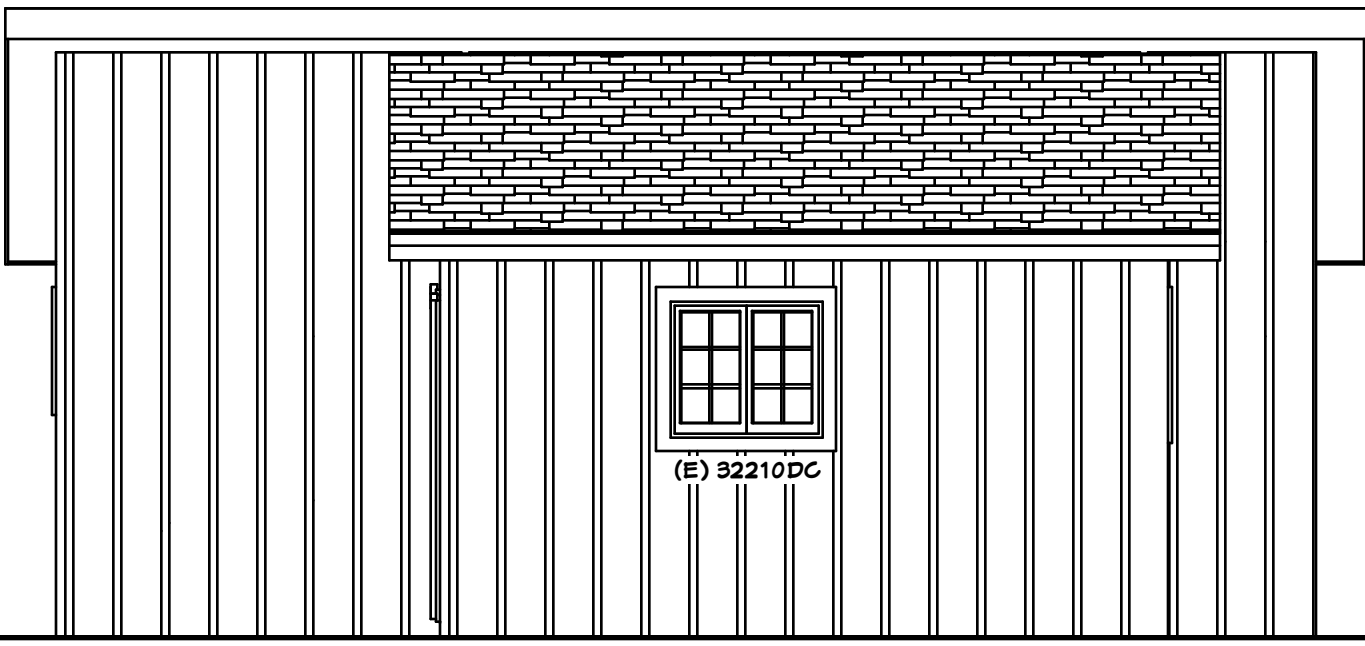
LEFT SIDE FINISH ELEVATION SCALE 1/4"=1'-0"



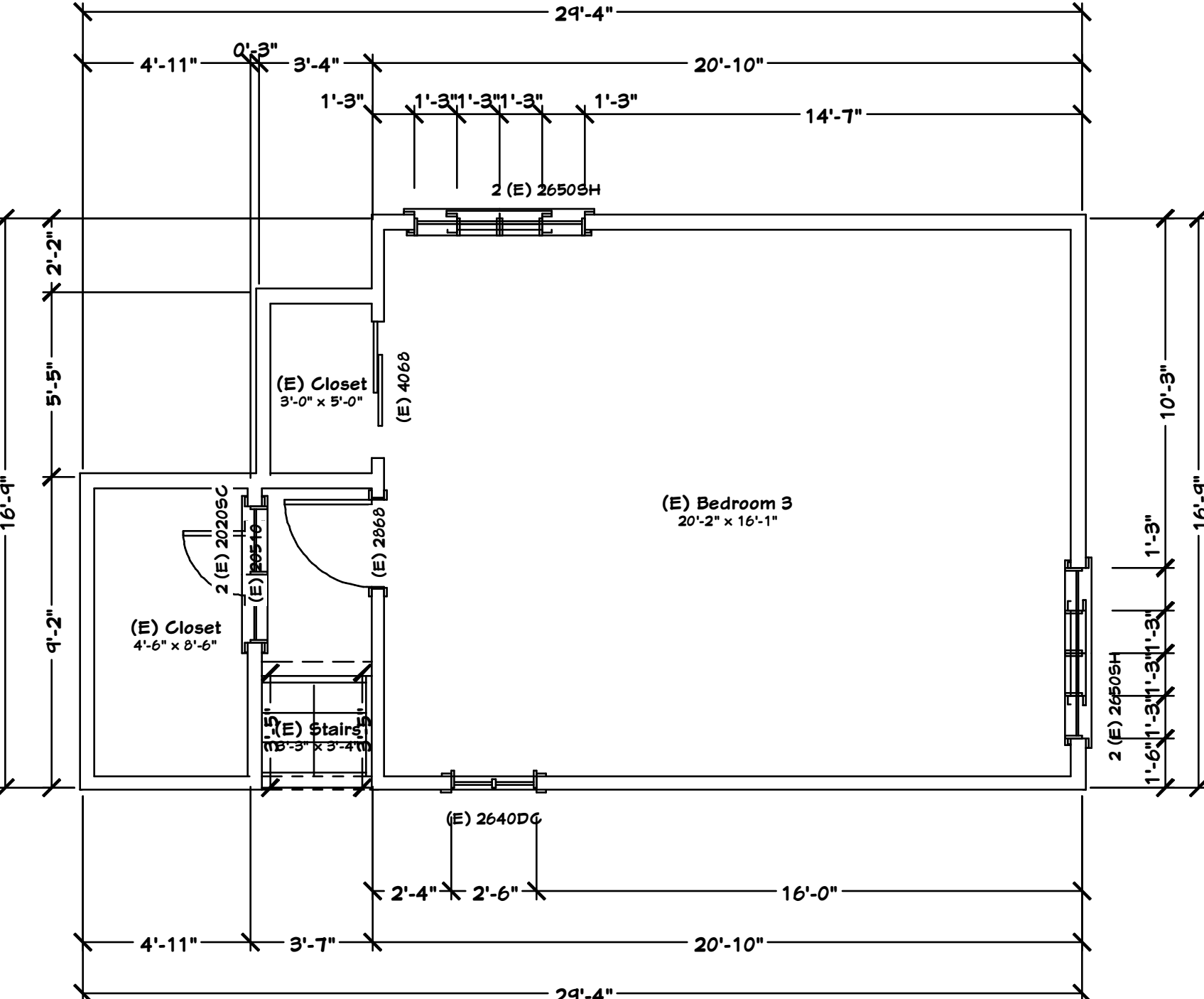
RIGHT SIDE FINISH ELEVATION SCALE 1/4"=1'-0"



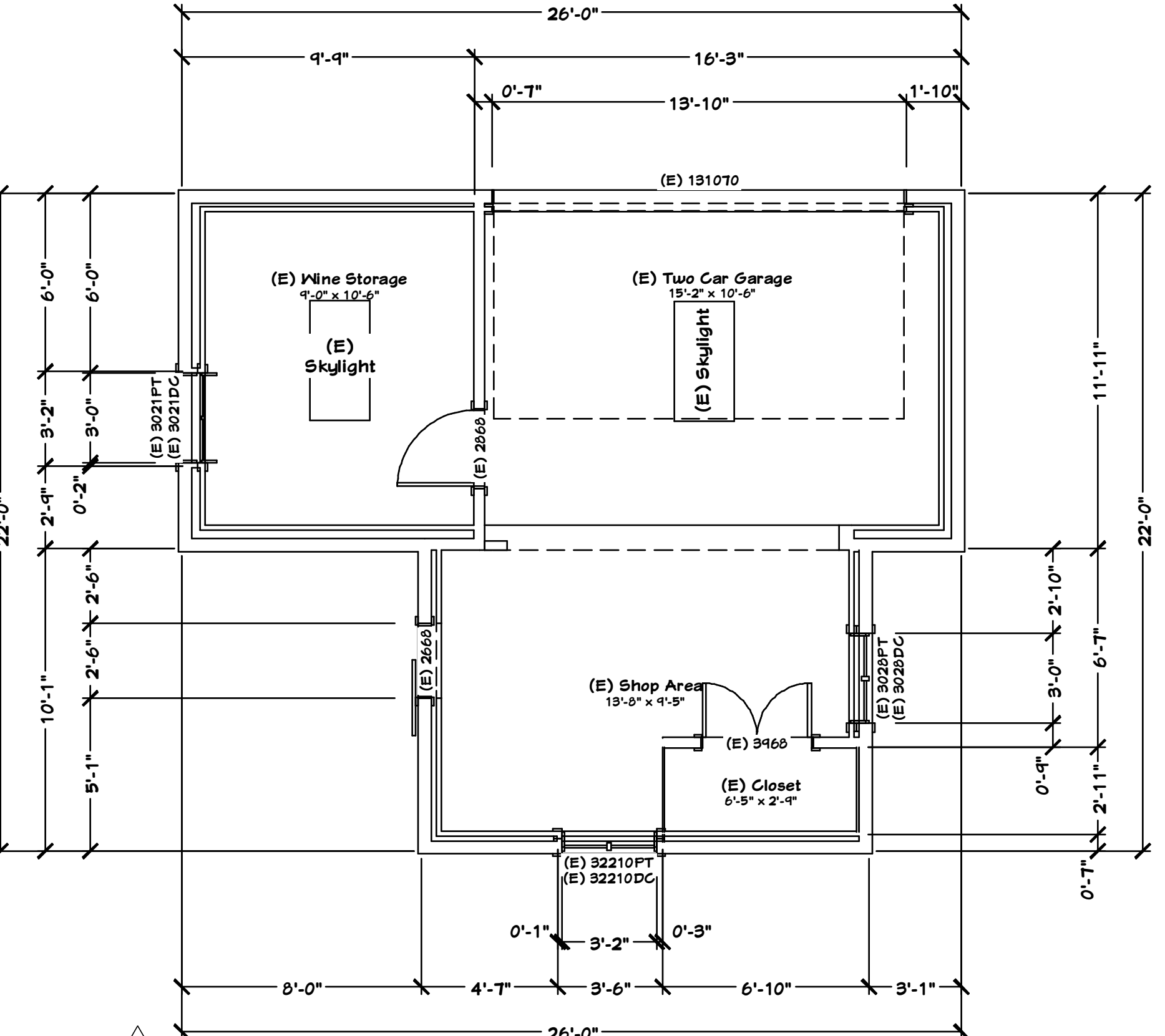
FRONT FINISH ELEVATION SCALE 1/4"=1'-0"



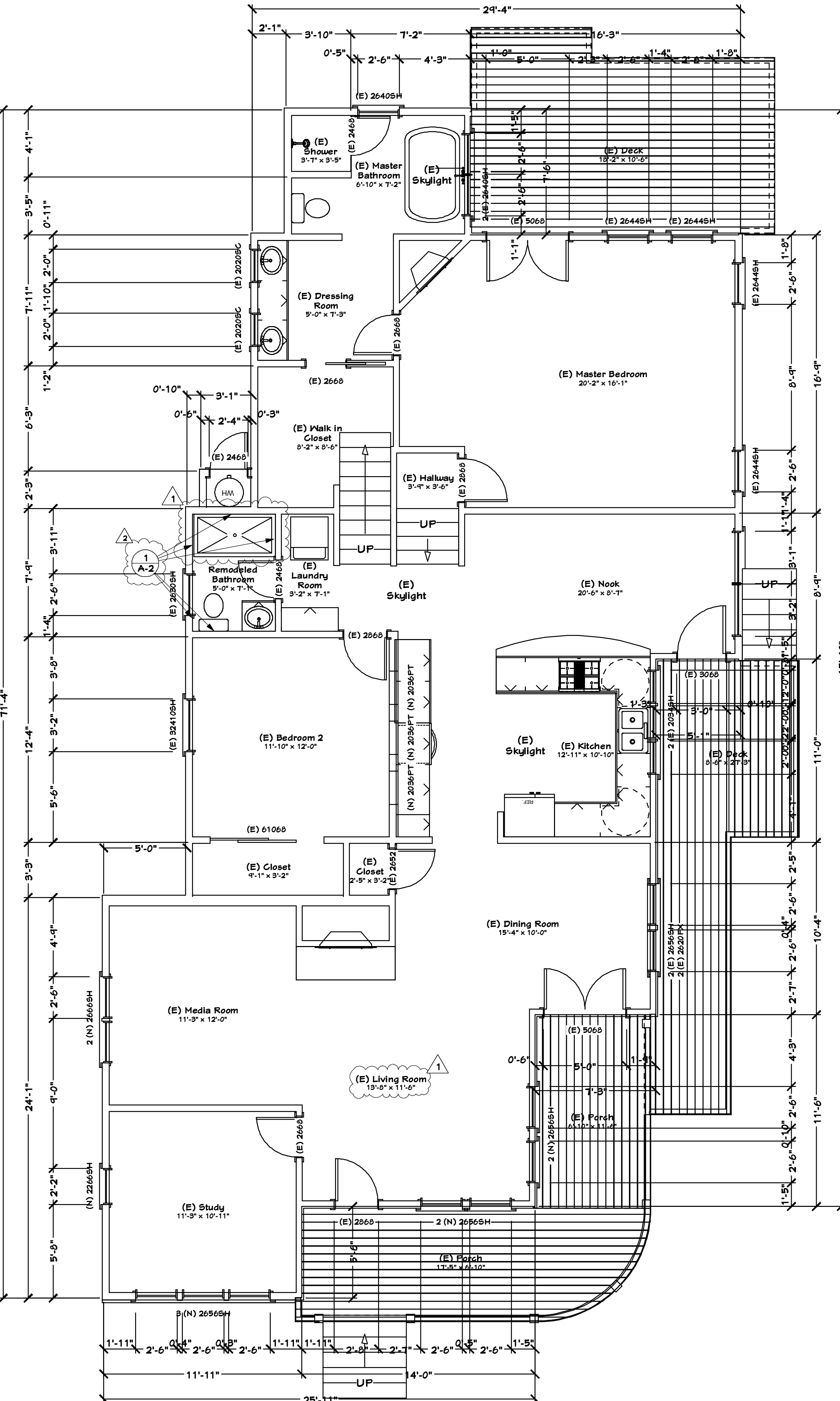
REAR FINISH ELEVATION SCALE 1/4"=1'-0"



PROPOSED UPPER FLOOR PLAN Scale 1/4" = 1' - 0"



EXISTING GARAGE FLOOR PLAN Scale 1/4" = 1' - 0"



PROPOSED LOWER FLOOR PLAN Scale 1/4" = 1' - 0"

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SECTION R703 EXTERIOR COVERING

**2022 CRC SECTION R703 EXTERIOR COVERING**  
**R703.1 General.** Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.4.

**R703.1.1 Water resistance.** The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior cladding as required by Section R703.2 and a means of draining to the exterior water that penetrates the exterior cladding.

**Exceptions:**  
1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapter 6 and flashed according to Section R703.4 or R703.6.

**R703.1.2 Wind resistance.** Wall coverings, backing materials and their attachments shall be capable of resisting wind loads in accordance with Tables R301.2(2) and R301.2(3). Wind-pressure resistance of the siding, soffit and backing materials shall be determined by ASTM E530 or other applicable standard test methods. Where wind-pressure resistance is determined by design analysis, data from approved design standards and analysis conforming to generally accepted engineering practice shall be used to evaluate the siding, soffit and backing material and its fastening.

**R703.2 Water-resistive barrier.** Not fewer than one layer of water-resistive barrier shall be applied over studs or sheathing of all exterior walls with flashing as indicated in Section R703.4, in such a manner as to provide a continuous water-resistive barrier behind the exterior wall veneer. The water-resistive barrier material shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to meet the requirements of the exterior wall envelope as described in Section R703.1. Water-resistive barrier materials shall comply with one of the following:

1. No. 15 felt complying with ASTM D226, Type 1.
  2. ASTM E2556, Type 1 or 2.
  3. ASTM E931 in accordance with Section R703.1.1.
  4. Other approved materials in accordance with the manufacturer's installation instructions.
- No. 15 asphalt felt and water-resistive barriers complying with ASTM E2556 shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches (51 mm), and where joints occur, shall be lapped not less than 6 inches (152 mm).

**R703.3 Fasteners.** Exterior wall coverings and roof overhang soffits shall be securely fastened with aluminum, galvanized, stainless steel or rust-preventative coated nails or staples in accordance with Table R703.3(1) or with other approved corrosion-resistant fasteners in accordance with the wall covering manufacturer's installation instructions. Nails and staples shall comply with ASTM F1667. Nails shall be 1-head, modified round head, or round head with smooth or deformed shanks. Staples shall have a minimum crown width of 7/16 inch (11.1 mm) outside diameter and be manufactured of minimum 16-gage wire. Where fiberboard, gypsum, or foam plastic sheathing backing is used, nails or staples shall be driven into the studs. Where wood or wood structural panel sheathing is used, fasteners shall be driven into studs unless otherwise permitted to be driven into sheathing in accordance with either the siding manufacturer's installation instructions or Table R703.3.3.

**R703.3.4 Minimum fastener length and penetration.** Fasteners shall have the greater of the minimum length specified in Table R703.3(1) or as required to provide a minimum penetration into framing as follows:

1. Fasteners for horizontal aluminum siding, steel siding, particleboard panel siding, wood structural panel siding in accordance with ANSI/APA-PRF 210, fiber-cement panel siding and fiber-cement lap siding installed over foam plastic sheathing shall penetrate not less than 1 1/2 inches (38mm) into framing or shall be in accordance with the manufacturer's installation instructions.
2. Fasteners for hardboard panel and lap siding shall penetrate not less than 1 1/2 inches (38 mm) into framing.
3. Fasteners for vinyl siding and insulated vinyl siding installed over wood or wood structural panel sheathing shall penetrate not less than 1 1/2 inches (32 mm) into sheathing and framing combined. Vinyl siding and insulated vinyl siding shall be permitted to be installed with fasteners penetrating into or through wood or wood structural sheathing as specified by the manufacturer's instructions or test report, with or without penetration into the framing. Where the fastener penetrates fully through the sheathing, the end of the fastener shall extend not less than 3/4 inch (6.4mm) beyond the opposite face of the sheathing. Fasteners for vinyl siding and insulated vinyl siding installed over fiberboard or gypsum sheathing shall penetrate not less than 1 1/4 inches (32 mm) into framing.
4. Fasteners for vertical or horizontal wood siding shall penetrate not less than 1 1/2 inches (38mm) into studs, studs and wood sheathing combined, or blocking.
5. Fasteners for siding material installed over foam plastic sheathing shall have sufficient length to accommodate foam plastic sheathing thickness and to penetrate framing or sheathing and framing combined, as specified in Items 1 through 4.

**R703.4 Flashing.** Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with AIAA-711. Fluid applied membranes used as flashing in exterior walls shall comply with AIAA-714. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at the following locations:

1. Exterior window and door openings.
2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal copings and sills.
4. Continuously above all projecting wood trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly or wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

**R703.5.3 Horizontal wood siding.** Horizontal lap siding shall be installed in accordance with the manufacturer's recommendations. Where there are no recommendations the siding shall be lapped not less than 1 inch (25.4 mm) or 1/2 inch (12.7 mm) if rabbeted, and shall have the ends caulked, covered with a batten or sealed and installed over a strip of flashing.

SECTION R405 REQUIREMENTS  
FOR ROOF COVERINGS

**2022 CRC R405.2.2 Slope.** Asphalt shingles shall be used only on roof slopes of two units vertical in 12 units horizontal (17-percent slope) or greater. For roof slopes from two units vertical in 12 units horizontal (17-percent slope) up to four units vertical in 12 units horizontal (33-percent slope), double underlayment application is required in accordance with Section R405.1.1.

**R405.1.1 Underlayment.** Underlayment for asphalt shingles, clay and concrete tile, metal roof shingles, mineral-surfaced roll roofing, slate and slate-like shingles, wood shingles, wood shakes, metal roof panels and photovoltaic shingles shall conform to the applicable standards listed in this chapter. Underlayment materials required to comply with ASTM D226, D1470, D4364 and D6751 shall bear a label indicating compliance to the standard designation and, if applicable, type classification indicated in Table R405.1.1(1). Underlayment shall be applied in accordance with Table R405.1.1(2). Underlayment shall be attached in accordance with Table R405.1.1(3).

**R405.2.4.1 Wind resistance of asphalt shingles.** Asphalt shingles shall be tested in accordance with ASTM D7150. Asphalt shingles shall meet the classification requirements of Table R405.2.4.1 for the appropriate ultimate design wind speed. Asphalt shingle packaging shall bear a label to indicate compliance with ASTM D7150 and the required classification in Table R405.2.4.1.

**R405.2.5 Fasteners.** Fasteners for asphalt shingles shall be galvanized steel, stainless steel, aluminum or copper roofing nails, minimum 12-gage (0.105 inch (3 mm)) shank with a minimum 3/8-inch-diameter (9.5 mm) head, complying with ASTM F1667, of a length to penetrate through the roofing materials and not less than 3/4 inch (19.1 mm) into the roof sheathing. Where the roof sheathing is less than 3/4 inch (19.1 mm) thick, the fasteners shall penetrate through the sheathing.

**R405.2.6 Attachment.** Asphalt shingles shall have the minimum number of fasteners required by the manufacturer's approved installation instructions, but not less than four fasteners per strip shingle or two fasteners per individual shingle. Where the roof slope exceeds 21 units vertical in 12 units horizontal (21:12, 175-percent slope), shingles shall be installed in accordance with the manufacturer's approved installation instructions.

**From TABLE R405.1.1(2) for Asphalt shingles Section R405.2 Underlayment application.** For roof slopes from two units vertical in 12 units horizontal (2:12), up to four units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied in the following manner: apply a 14-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 14 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of four units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied in the following manner: underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.

**R405.2.6.2 Valleys.** Valley linings shall be installed in accordance with the manufacturer's instructions before applying shingles. Valley linings of the following types shall be permitted:

1. For open valleys (valley lining exposed) lined with metal, the valley lining shall be not less than 24 inches (610 mm) wide and of any of the corrosion-resistant metals in Table R405.2.6.2.
2. For open valleys, valley lining of two plies of mineral-surfaced roll roofing, complying with ASTM D3504 or ASTM D6580 class M, shall be permitted. The bottom layer shall be 18 inches (457 mm) and the top layer not less than 36 inches (914 mm) wide.
3. For closed valleys (valley covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D6580 and not less than 36 inches wide (914 mm) or valley lining as described in Item 1 or 2 shall be permitted. Self-adhering polymer-modified bitumen underlayment complying with ASTM D1470 shall be permitted in lieu of the lining material.

Address Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background.

Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters.

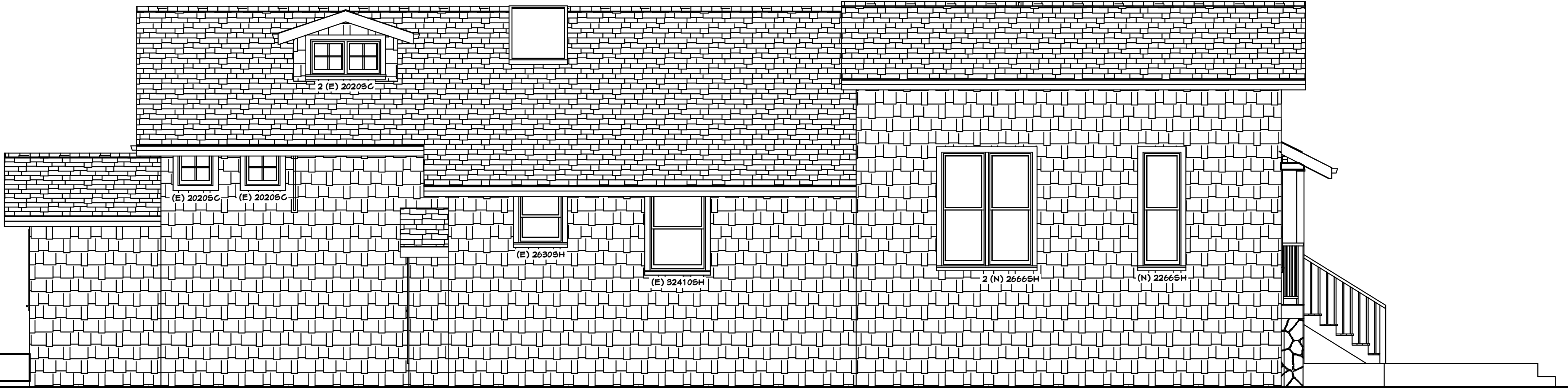
Numbers shall be a minimum of 6 inches (152.4 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained. CFC Sec. 505.1

Elevation Notes

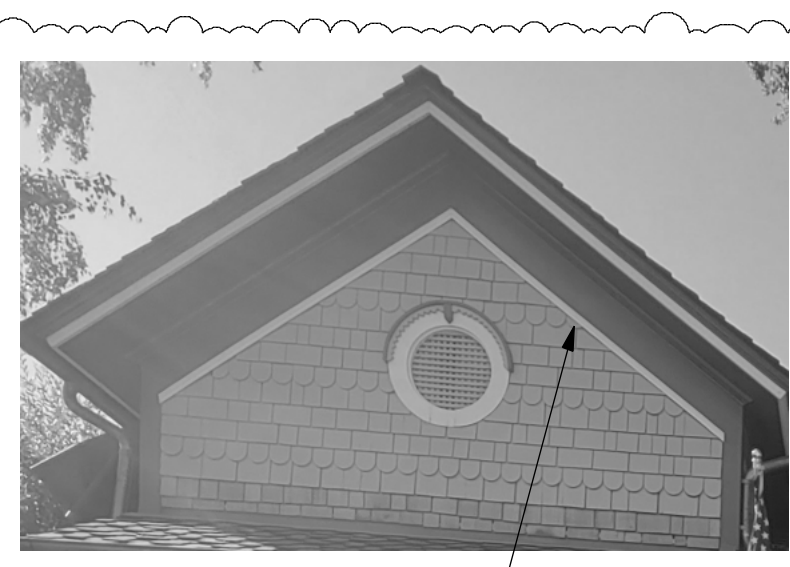
**Roof:**  
**Existing:** Comp shingle roof to remain.  
**Proposed:** Comp shingle roof to match existing.

**Exterior Finish:**  
**Replaced:** wood shingle siding finish to be restored by removing the hardy board siding and replace with wood shingle siding to match the areas that remained at the front of the house.

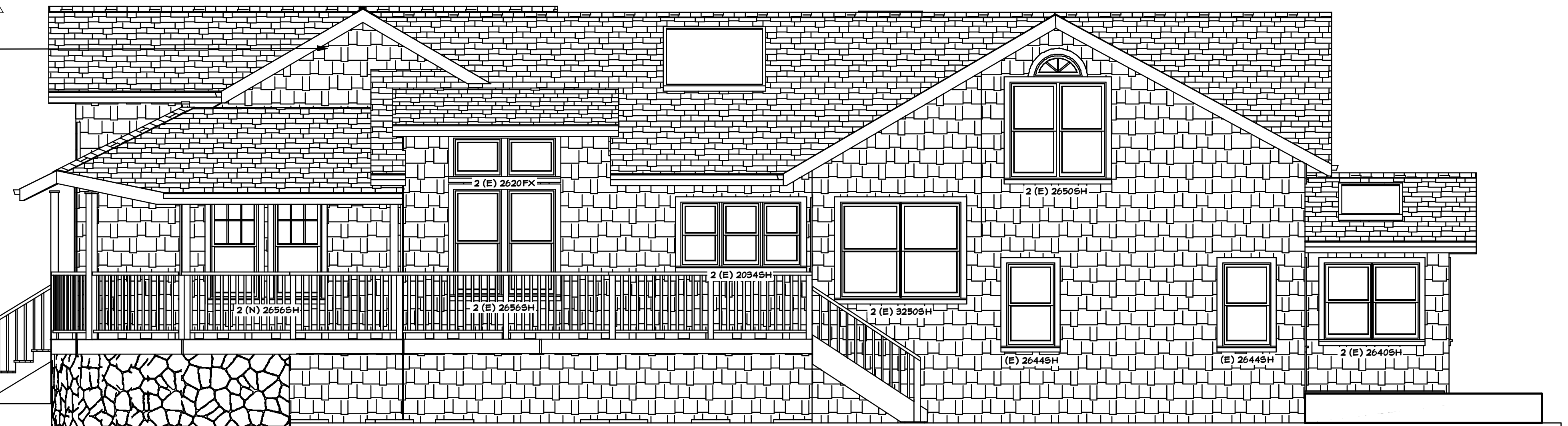
**Windows:**  
**Existing:** Existing windows to remain.  
**Proposed:** New windows to match existing.



(REVISIED) LEFT SIDE FINISH ELEVATION



**Note to contractor: The Historic Preservation Committee approval included a condition that the existing ornate shingle pattern in the front gable end shall be replicated**



(REVISIED) RIGHT SIDE FINISH ELEVATION



(REVISIED) FRONT FINISH ELEVATION



(REVISIED) REAR FINISH ELEVATION

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Name: Peter Pomianek  
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Designed by: Jose Jimenez  
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PHONE #: (650) 710-1441  
EMAIL: jose@jdesigners.com



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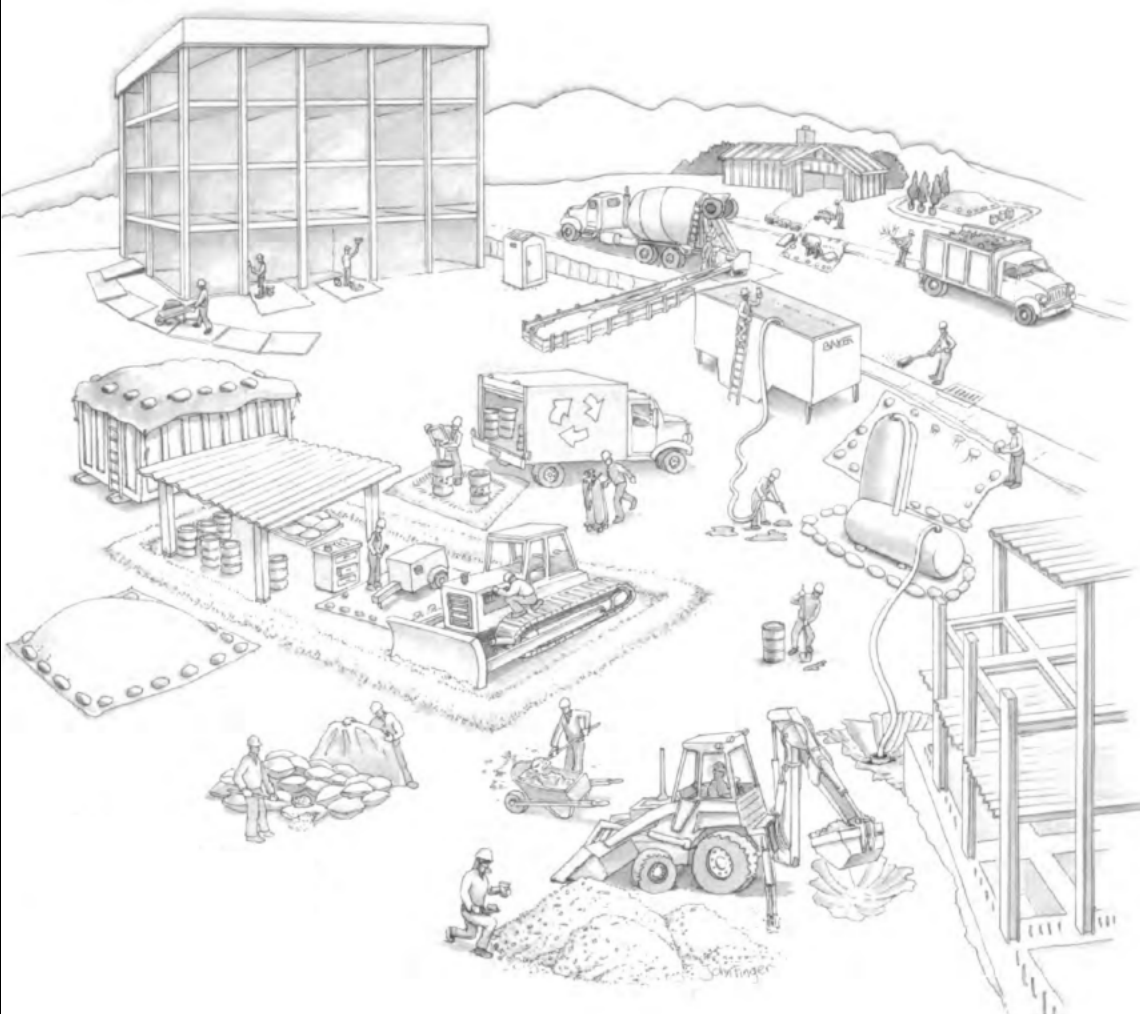
Sheet **A-4**

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# Blueprint for a Clean Bay

## Best Management Practices to Prevent Stormwater Pollution from Construction-Related Activities



The Bay Area Stormwater Management Agencies Association (BASMAA), a consortium of Bay Area municipalities from Alameda, Contra Costa, Marin, San Mateo, Santa Clara, Solano, and Sonoma Counties, developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

### Introduction

Stormwater pollution is a national environmental problem. In California, stormwater runoff is a major source of water pollution. To help combat the problems of stormwater pollution, federal and state governments have developed a program for monitoring and permitting discharges to municipal storm drain systems, creeks, and water bodies such as San Francisco Bay.

Municipalities in the Bay Area are required by the Clean Water Act to develop stormwater management programs that include requirements for construction activities. Your construction project will need to comply with local municipal requirements. If your construction activity will disturb one acre or more, you must also obtain coverage under the General Construction Activity Permit (see Requirements for Dischargers).

Blueprint for a Clean Bay is an introductory guide to stormwater quality control on construction sites. It contains several principles and techniques that you can use to help prevent stormwater pollution. BASMAA has developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

Blueprint for a Clean Bay is not a design manual or a Stormwater Pollution Prevention Plan (SWPPP) (see Requirements for Dischargers). For more information on the General Permit, designing stormwater quality controls, or producing a Stormwater Pollution Prevention Plan, please refer to:

- the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook for Construction,
- the Regional Water Quality Control Board's (RWQCB) Guidelines for Construction Projects, or
- consult your local program or the State Water Resources Control Board (SWRCB) (see below).

Please note that this booklet is concerned only with the management of construction sites and activities during construction.

For more information on stormwater requirements, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

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### Requirements for Dischargers

#### Municipal Stormwater Program

Municipalities in the Bay Area are required by federal regulations to develop programs to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development or significant redevelopment. As a result, your development and construction projects are subject to new requirements designed to improve stormwater quality such as, expanded plan check and review, contract specifications, stormwater treatment measures, runoff monitoring, and increased site inspection. For more information on municipal requirements, please contact the municipal representative listed on the back cover of this booklet.

#### Projects Equal To Or Greater Than 1 Acre

If your construction activity will disturb one acre or more, you must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the SWRCB for stormwater discharges associated with construction activity. To obtain coverage under the General Permit, a Notice of Intent (NOI) must be filed with the SWRCB. The General Construction Permit requires you to prepare and carry out a "Stormwater Pollution Prevention Plan" or SWPPP. Your SWPPP must identify appropriate stormwater pollution prevention measures or best management practices (BMPs), like the ones described in this booklet, to reduce pollutants in stormwater discharges from the construction site both during and after construction is complete. A best management practice or BMP is defined as any program, technology, process, practice, operating method, measure, or device that controls, prevents, removes, or reduces pollution. The General Permit also requires permanent stormwater quality controls (see BASMAA's Start at the Source manual and CASQA's BMP Handbooks New Development and Redevelopment for examples). You should keep a copy of your SWPPP readily available onsite throughout construction.

#### Projects Less Than 1 Acre

If your project is less than one acre, you may still need to use BMPs to comply with local municipal requirements. Check with the local stormwater program (listed on back cover), or planning or engineering department for details.

### Best Management Practices

#### Storm Drain System

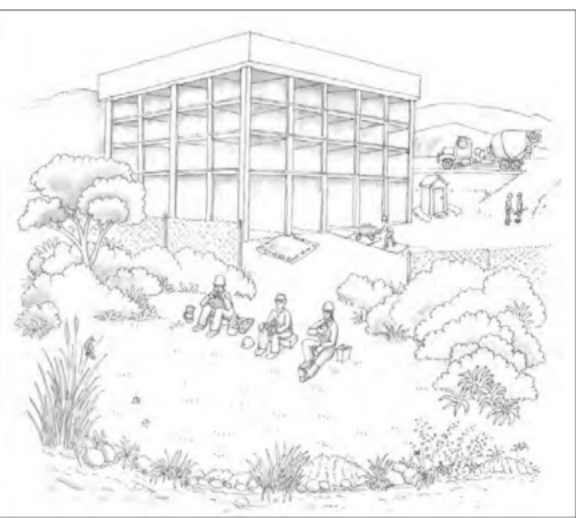
Stormwater or runoff from sources like sprinklers and hoses flows over the ground into the storm drain system. In the San Francisco Bay Area, storm drain systems consist of gutters, storm drains, underground pipes, open channels, culverts, and creeks. Storm drain systems are designed to drain directly to the Bay, Delta, or Pacific Ocean with no treatment.

#### Pollution From Construction Sites

Stormwater runoff is part of a natural hydrologic process. However, land development and construction activities can significantly alter natural drainage patterns and pollute stormwater runoff. Runoff picks up and carries these pollutants into the storm drain system. Common sources of pollutants from construction sites include: sediments from soil erosion; construction materials and waste (e.g., paint, solvents, concrete, drywall); landscaping runoff containing fertilizers and pesticides; and spilled oil, fuel, and other fluids from construction vehicles and heavy equipment.

#### Adverse Effects from Stormwater Pollution

Stormwater pollution is a major source of water pollution in California. It can cause declines in fisheries, damage habitats, and limit water recreation activities. Stormwater pollution poses a serious threat to the overall health of the ecosystem.



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### Best Management Practices

#### General Practices

The following are some general principles that can significantly reduce pollution from construction activity and help make compliance with stormwater regulations easy:

- Identify all storm drains, drainage swales and creeks located near the construction site and make sure all subcontractors are aware of their locations to prevent pollutants from entering them.
- Clean up leaks, drips, and other spills immediately so they do not contact stormwater.
- Refuel vehicles and heavy equipment in one designated location on the site and take care to clean up spills immediately.
- Wash vehicles at an appropriate off-site facility. If equipment must be washed on-site, do not use soaps, solvents, degreasers, or steam cleaning equipment, and prevent wash water from entering the storm drain. If possible, direct wash water to a low point where it can evaporate and/or infiltrate.

- Never wash down pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.
- Avoid contaminating clean runoff from areas adjacent to your site by using berms and/or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams and/or berms where appropriate.
- Protect all storm drain inlets using filter fabric cloth or other best management practices to prevent sediments from entering the storm drainage system during construction activities.

- Keep materials out of the rain—prevent runoff/pollution at the source. Schedule clearing or heavy earth moving activities for periods of dry weather. Cover exposed piles of soil, construction materials and wastes with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.

For more information on the General Permits, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

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#### Specific Practices

Following is a summary of specific best management practices for erosion and sediment control and contractor activities. For more information on erosion and sediment control BMPs and their design, please refer to the RWQCB Erosion and Sediment Control Field Manual (August 2002), the CASQA Stormwater Best Management Practice Handbook for Construction (January 2003), and the Association of Bay Area Governments (ABAG) Manual of Standards for Erosion & Sediment Control Measures (May 1995).

#### Erosion Prevention and Sediment Control

##### Prevent erosion

Soil erosion is the process by which soil particles are removed from the land surface, by wind, water and/or gravity. Soil particles removed by stormwater runoff are pollutants that when deposited in local creeks, lakes, Bay or Delta, can have negative impacts on aquatic habitat. Exposed soil after clearing, grading, or excavation is easily eroded by wind or water. The following practices will help prevent erosion from occurring on the construction site:

- Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the site.
- Delinate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.

- Phase grading operations to reduce disturbed areas and time of exposure.
- Limit on-site construction routes and stabilize construction entrance(s) and exit(s).

- Avoid excavation and grading during wet weather.
- Remove existing vegetation only when absolutely necessary.

- Construct diversion dikes and drainage swales to channel runoff around the site.

- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.

4

### Best Management Practices

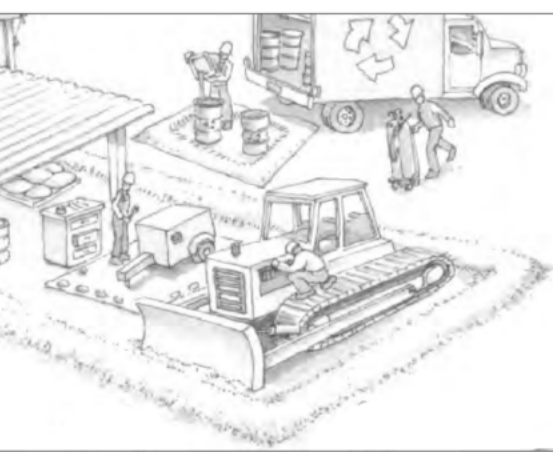
- Plant vegetation on exposed slopes. Where replanting is not feasible, use erosion control blankets (e.g., jute or straw matting, glass fiber or excelsior matting, mulch netting).
- Consider slope terracing with cross drains to increase soil stability.
- Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them.
- As a back-up measure, protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags and/or temporary drainage swales.
- Once grading is completed, stabilize the disturbed areas using permanent vegetation as soon as possible. Use temporary erosion controls until vegetation is established.
- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

#### Control sediment

Sedimentation is defined as the process of depositing sediments carried away by runoff. Sediments consist of soil particles, clays, sands, and other minerals. The purpose of sediment control practices is to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek. The most effective sediment control practices reduce runoff velocity and trap or detain runoff allowing sediments to settle out.

- Use terracing, rip rap, sand/gravel bags, rocks, fiber rolls, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use asphalt rubble or other demolition debris for this purpose.
- Use check dams in temporary drains and swales to reduce runoff velocity and promote sedimentation.
- Protect storm drain inlets from sediment-laden runoff. Storm drain inlet protection devices include sand/gravel bag barriers, filter

### Best Management Practices



Make sure equipment repair area is bermed or well away from creeks and storm drains.

#### General Site Maintenance

##### Prevent spills and leaks

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are common sources of stormwater pollution and soil contamination. Construction material spills can also cause serious problems. Careful site planning, preventive maintenance, and good materials handling practices can eliminate most spills and leaks.

- Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.
- Designate specific areas of the construction site, well away from creeks or storm drain inlets, for vehicle and equipment parking and routine maintenance.

- Perform major maintenance, repair jobs and vehicle and equipment washing off-site when feasible, or in designated and controlled areas on-site.

- Construct diversion dikes and drainage swales to channel runoff around the site.

- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.

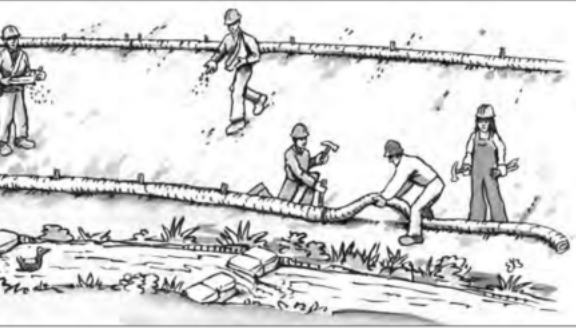
4

### Best Management Practices

- Plant vegetation on exposed slopes. Where replanting is not feasible, use erosion control blankets (e.g., jute or straw matting, glass fiber or excelsior matting, mulch netting).
- Consider slope terracing with cross drains to increase soil stability.
- Cover stockpiled soil and landscaping materials with secured plastic sheeting and divert runoff around them.
- As a back-up measure, protect drainage courses, creeks, or catch basins with fiber rolls, silt fences, sand/gravel bags and/or temporary drainage swales.
- Once grading is completed, stabilize the disturbed areas using permanent vegetation as soon as possible. Use temporary erosion controls until vegetation is established.
- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

*Note: Performance of erosion and sediment controls is dependent on proper installation, routine inspections and maintenance of the controls. Straw bale barriers are an example of a BMP that has not been as effective as expected due to improper use. Most of the BMPs described above are temporary and if left alone can quickly fall into disrepair and/or become ineffective. Routine inspections and maintenance, particularly before and after a storm event, must be part of any erosion and sediment control plan.*

The RWQCB's Field Manual, the CASQA Stormwater Best Management Practice Handbook for Construction, and the ABAG Manual of Standards for Erosion and Sediment Control provide specific details and design criteria for erosion and sediment control plans.



Drainage swales channel runoff around a construction site. Planting temporary vegetation on freshly graded areas, and trenching and staking fiber rolls and/or silt fences downslope are common techniques for preventing erosion and controlling sediment.

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### Best Management Practices

- If you must drain and replace motor oil, radiator coolant, or other fluids on-site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in labeled separate containers, and recycle whenever possible. Note that in order to be recyclable, such liquids must not be mixed with other fluids. Non-recycled fluids generally must be disposed of as hazardous wastes.

#### Clean up spills immediately after they happen

When vehicle fluids or materials such as paints or solvents are spilled, cleanup should be immediate, automatic, and routine.

- Sweep up spilled dry materials (e.g., cement, mortar, or fertilizer) immediately. Never attempt to "wash them away" with water, or bury them. Use only minimal water for dust control.

#### General Site Maintenance

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- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.

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### Best Management Practices

#### Store materials under cover

Wet and dry building materials with the potential to pollute runoff should be stored under cover and/or surrounded by berms when rain is forecast or during wet weather.

- Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.
- Berm around storage areas to prevent contact with runoff.
- Plaster or other powders can create large quantities of suspended solids in runoff, which may be toxic to aquatic life and cause serious environmental harm even if the materials are inert. Store all such potentially polluting dry materials—especially open bags—under a temporary roof or inside a building, or cover securely with an impermeable tarp. By properly storing dry materials, you may also help protect air quality, as well as water quality.

- Store containers of paints, chemicals, solvents, and other hazardous materials in accordance with secondary containment regulations and under cover during rainy periods.

#### Cover and maintain dumpsters

Open and/or leaking dumpsters can be a source of stormwater pollution.

- Cover open dumpsters with plastic sheeting or a tarp. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.
- If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair/exchange.
- Do not clean dumpsters on-site. Return to leasing company for periodic cleaning, if necessary.

#### Collect and properly dispose of paint removal wastes

Paint removal wastes include chemical paint stripping

### Best Management Practices

they are thoroughly dry, empty paint cans, used brushes, rags, absorbent materials, and drop cloths are no longer hazardous and may be disposed of as garbage.

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or creek.

- For water-based paints, paint out brushes to the extent possible using water into a drain leading to the sanitary sewer (i.e., indoor plumbing).

- For oil-based paints, paint out brushes to the extent possible, and filter and reuse thinners and solvents. Dispose of unusable thinners and residue as hazardous waste.

- Recycle, return to supplier or donate unwanted water-based (latex) paint. You may be able to recycle clean empty dry paint cans as metal (check with the local planning or building department for more information).

- Dried latex paint may be disposed of in the garbage.

- Unwanted paint (that is not recycled), thinners, and sludges must be disposed of as hazardous waste.
- More and more paint companies are recycling excess latex paint (check with the local planning or building department for more information).

#### Keep fresh concrete and cement mortars out of gutters, storm drains, and creeks

Concrete and cement-related mortars that wash into gutters and storm drains are toxic to fish and the aquatic environment.

- Locate mortar/stucco mixers inside bermed areas to avoid discharge to street or storm drains.

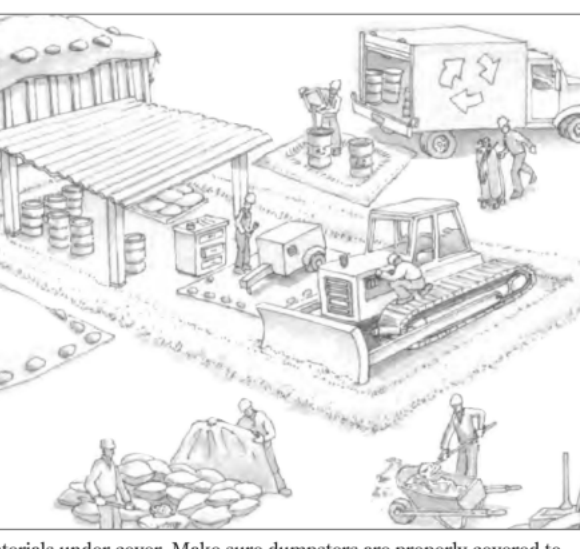
- Avoid mixing excess amounts of fresh concrete or cement mortar.

- Store dry and wet materials under cover, protected from rainfall and runoff.

- Wash out concrete transfer mixers only in designated wash-out areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible, recycle washout by pumping back into

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### Best Management Practices



Store building materials under cover. Make sure dumpsters are properly covered to keep out rain.

residues, paint chips and dust, sand blasting material and wash water. These wastes contain chemicals that are harmful to the wildlife in our creeks and the water bodies they flow to. Keep all paint wastes away from the gutter, street, and storm drains.

- Non-hazardous paint chips and dust from dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash. Chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyl tin must be disposed of as a hazardous waste.

- When stripping or cleaning building exteriors with high-pressure water, cover or berm storm drain inlets. If possible (and allowed by your local wastewater treatment plant), collect (mop or vacuum) building cleaning water and discharge to the sanitary sewer. Alternatively, discharge non-contaminated wash water onto a dirt area and spade into the soil. Be sure to shovel or sweep up any debris that remains in the gutter and dispose of as garbage.

#### Clean up paints, solvents, adhesives, and cleaning solutions properly

Although many paint materials can and should be recycled, liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When

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### Demolition Waste Management

#### Make sure all demolition waste is properly disposed of

Demolition debris that is left in the street or pushed over a bank into a creek bed or drainage facility causes serious problems for flood control, storm drain maintenance, and the health of our environment. Different types of materials have different disposal requirements or recycling options.

- Materials that can be recycled from demolition projects include: metal framing, wood, concrete, asphalt, and plate glass.
- Materials that can be salvaged for reuse from old structures include: doors, banisters, floorboards, windows, 2x4s, and other old, dense lumber.

- Unusable, unrecyclable debris should be confined to dumpsters, covered at night and during wet weather, and taken to a landfill for disposal.

- Hazardous debris such as asbestos must be handled in accordance with specific laws and regulations and disposed of as a hazardous waste. For more information of asbestos handling and disposal regulations, contact the Bay Area Air Quality Management District.

- Arrange for an adequate debris disposal schedule to ensure that dumpsters do not overflow.

- Most local planning or building departments have lists of recycling and disposal services for construction and demolition debris.

- When making saw-cuts in pavement, use as little water as possible. Cover each catch basin completely with filter fabric during the sawing operation and contain the slurry by placing sand/gravel bags around the catch basin. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.

- Wash down exposed aggregate concrete only when the wash water can: (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.

- Allow aggregate rinse to settle, and pump the water to the sanitary sewer if allowed by your local wastewater authority.

- Never wash sweepings from exposed aggregate concrete into a street or storm drain. Collect and return to aggregate base stockpile, or dispose with trash.

- Recycle broken concrete and asphalt (check with the local planning or building department for more information).

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### Contaminated Poned Stormwater, Groundwater, and Soil Guidance

#### Look for ponded stormwater, groundwater, and/or soil contamination

Ponded stormwater, groundwater and soil may become contaminated if exposed to hazardous materials. If any of the following conditions apply, contaminated ponded stormwater, groundwater, and/or soil may be present and pose a potential health and environmental hazard:

- The project site is in an area of previous commercial/industrial dumping;

- There is a history of illegal dumping on the site or adjacent properties;

- The construction site is subject to a Superfund, state, or local cleanup order;

- Ponded stormwater, groundwater and/or water generated by dewatering exhibits an oily-sheen and/or smells of petroleum;

- Soil appears discolored, smells of petroleum and/or exhibits other unusual properties;

- Dispose of cleared vegetation properly. Cleared vegetation, tree trimmings, and other plant material can cause environmental damage if it gets into creeks. Such "organic" material requires large quantities of oxygen to decompose, which reduces the oxygen available for fish and other aquatic life.

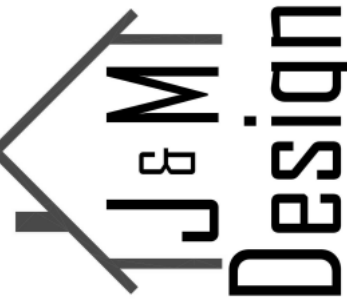
- Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.

- Avoid disposal of plant material in trash dumpsters or mixing it with other wastes. Compost plant material or take it to a landfill or other facility that composts yard waste (check with the local planning or building department for more information).

Remember: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.

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Designed by: Jose Jimenez  
1005 West Eighth Street  
Stockton California 95206



PROPOSED  
HOUSE REMODEL  
AT: 123 WILDER AVENUE  
LOS GATOS, CA 95030

DATE: Oct. 24, 2023

### REVISIONS

- 1. Feb. 6, 2024  
Response to comments from Planning Department letter dated December 13, 2023
- 2. March 29, 2024  
Response to latest plan review comments

BCB  
Sheet 1  
of 1

Owner Info:  
Name: Peter Pomianek  
Phone Number: 650-245-1985  
Email: pomiansf@yahoo.com

Designed by: Jose Jimenez  
1005 West Eighth Street  
Stockton California 95206



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BCB  
Sheet 1  
of 1



# Construction Best Management Practices (BMPs)

Construction projects are required to implement year-round stormwater BMPs.

## Materials, Waste, and Sediment Management



### Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls, and stabilize all construction entrances and exits to sufficiently control erosion, sediment discharges and tracking of sediment offsite.
- Sweep or vacuum immediately any tracking of sediment offsite and secure sediment source to prevent further tracking. Never hose down streets or sidewalks.

### Non-Hazardous Materials and Dust Control

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use. Weigh down and secure tarps for wind protection.
- Keep materials off the ground (e.g., store bagged materials on wood pallets, store loose materials on tarps not pavement, etc.).
- Use captured water from other activities (e.g., testing fire lines) for dust control.
- Ensure dust control water doesn't leave site or discharge to storm drains. Only use enough to control dust. Contain and dispose of excess water properly.

### Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday, during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes. Have all pertinent Safety Data Sheets (i.e., SDS/MSDS/PSDS) onsite.

### Waste Management

- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Repair/replace any dumpster that is not watertight or leaking.
- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. If the dumpster leaks, place a plastic liner underneath the dumpster to collect leaks. Never clean out a dumpster by hosing it down on the construction site – clean with dry methods, clean offsite or replace dumpster.
- Place portable toilets and hand wash stations away from storm drains. Make sure they are equipped with containment pans (secondary containment) and are in good working order. Check frequently for leaks.
- Dispose of all wastes and demolition debris properly per SDS and applicable regulations. Recycle or compost materials and wastes as feasible and appropriate, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste per SDS.
- Keep site free of litter (e.g., lunch items, water bottles, cigarette butts and plastic packaging).
- Prevent litter from uncovered loads by covering loads that are being transported to and from site.

## Equipment Management & Spill Control



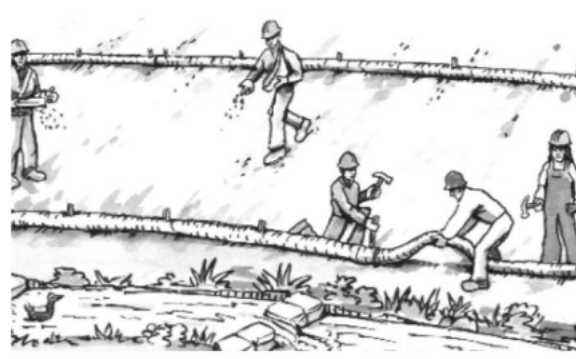
### Vehicle and Equipment Maintenance

- Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle/equipment washing offsite.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

### Spill Prevention and Control

- Always keep spill cleanup materials (e.g., rags, absorbents, and cat litter) available at the construction site.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, report it to the State Office of Emergency Services at (800) 852-7550 (24 hours).

## Earthmoving



### Grading and Earthwork

- Schedule grading and excavation work during dry weather.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- Stabilize all denuded areas and install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- Keep excavated soil and/or transfer it to dump trucks, onsite, not in the streets.
- Ensure all subcontractors working onsite are implementing appropriate BMPs.

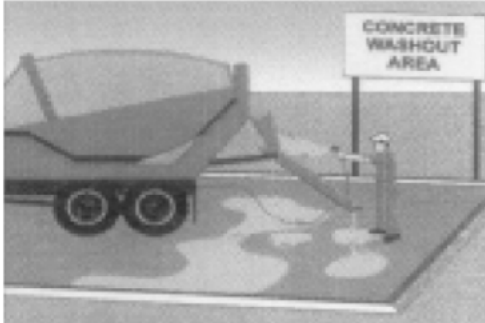
### Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the [Regional Water Quality Control Board](#) and the local agency: 1) Unusual soil conditions, discoloration, or odor. 2) Abandoned underground tanks. 3) Abandoned wells. 4) Buried barrels, debris, or trash.
- If the above conditions are observed, document any signs of potential contamination, clearly mark areas and fence/tape them off so they are not disturbed by construction activities.

### Landscaping

- Protect stockpiled landscaping materials from wind and rain by storing them under tarps year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.
- Store materials onsite, not in the street.

## Concrete Management & Dewatering



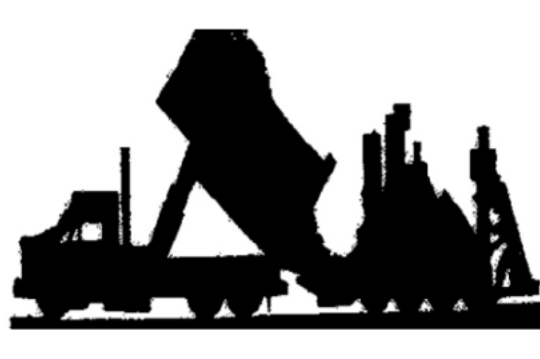
### Concrete Management

- Store both dry and wet concrete-related materials under cover, protected from rainfall and runoff and away from storm drains or creeks. Store materials off the ground on pallets. Protect dry materials from wind.
- Avoid pouring concrete in wet weather or when rainfall is imminent to prevent concrete that has not cured from contacting stormwater runoff.
- Wash out concrete equipment/mixers/trucks offsite, or onsite only in designated washout containers/areas where the water will flow into a temporary lined waste pit and in a manner that will prevent leaching into the underlying soils. (See CASQA Construction Stormwater BMP Handbook for temporary concrete washout facility details).
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose properly.
- Make sure that construction waste (e.g., concrete, stucco, cement wastewater, or residual materials) is collected, removed, and disposed of only at authorized disposal areas. Do not dispose of construction waste in storm drains, ditches, streets, creeks, dirt areas, or the sanitary sewer.

### Dewatering

- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, obtain permission from the local wastewater treatment plant.
- Divert water originating from offsite away from all onsite disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call the local agency to determine whether the groundwater must be tested. Pumped groundwater may need to be collected and hauled offsite for treatment and proper disposal.
- For additional information, refer to the CASQA's Construction Stormwater BMP Handbook, Fact Sheet NS-2 "Dewatering Operations."

## Paving/Asphalt Work



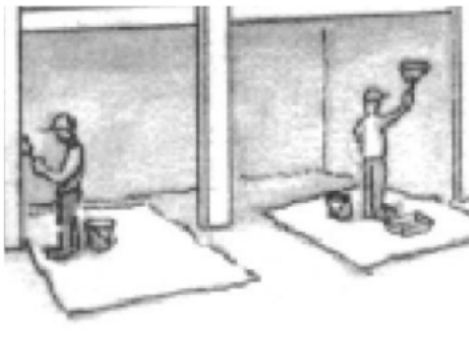
### Paving

- Avoid paving and seal coating in wet weather or when rain is forecast to prevent materials that have not cured from contacting with stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- When construction is complete, remove all covers from storm drain inlets and manholes.
- Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters, storm drains, streets, dirt areas, or the sanitary sewer.

### Sawcutting & Asphalt/Concrete Removal

- Protect storm drain inlets during saw cutting.
- When making saw cuts, use as little water as possible.
- Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device.
- Shovel, absorb, or vacuum saw cut slurry deposits and dispose of all waste properly and as soon as reasonably possible. Sawcutting residue should not be left on pavement surface.
- If saw cut slurry enters a storm drain inlet, clean it up immediately and notify the local municipality.

## Painting & Paint Removal



### Painting Cleanup and Removal

- Never clean brushes or rinse paint containers to landscaping, dirt areas or into a street, gutter, storm drain, or creek.
- For water-based paints, paint out brushes to the extent possible, and then rinse into a drain connected to the sanitary sewer. Never pour paint down a storm drain inlet.
- For oil-based paints, paint out brushes to the extent possible, and then clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Sweep up or collect paint chips and dust generated from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead-based paint removal requires a state-certified contractor.

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



Santa Clara Valley  
Urban Runoff  
Pollution Prevention Program

February 2024

Designed by: Jose Jimenez  
1005 West Eighth Street  
Stockton California 95206

PHONE # (650) 719-1411  
EMAIL [jose@indesigners.com](mailto:jose@indesigners.com)



PROPOSED  
HOUSE REMODEL  
AT: 123 WILDER AVENUE  
LOS GATOS, CA 95030

DATE: Oct 24, 2023

### REVISIONS

- 1. Feb. 6, 2024  
Response to comments from Planning Department letter dated December 13, 2023
- 2. March 29, 2024  
Response to latest plan review comments

BMPs  
Sheet 1  
of 1

Owner Info:  
Name: Peter Pomianek  
Phone Number: 650-245-7985  
Email: [pomiansf@yahoo.com](mailto:pomiansf@yahoo.com)



CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Existing House 2 floors  
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2024-04-08T16:29:02-07:00  
Input File Name: Existing House.rbd22x

CF1R-PRF-01-E  
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GENERAL INFORMATION										
01	Project Name	Existing House 2 floors								
02	Run Title	Title 24 Analysis								
03	Project Location	123 Wilder Ave.								
04	City	Los Gatos	05	Standards Version	2022					
06	Zip code	95030	07	Software Version	EnergyPro 9.2					
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	135					
10	Building Type	Single family	11	Number of Dwelling Units	1					
12	Project Scope	Addition and/or Alteration		13	Number of Bedrooms	2				
14	Addition Cond. Floor Area (ft²)	0		15	Number of Stories	2				
16	Existing Cond. Floor Area (ft²)	2248		17	Fenestration Average U-factor	0.25				
18	Total Cond. Floor Area (ft²)	2248		19	Glazing Percentage (%)	23.20%				
20	ADU Bedroom Count	2		21	ADU Conditioned Floor Area	2248				
22	Fuel Type	Natural gas		23	No Dwelling Unit	No				

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	Building does not incorporate Special Features									

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Registration Date/Time: 04/08/2024 16:30  
Report Version: 2022.0.000  
Schema Version: rev 20220901

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OPAQUE SURFACES										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Front Wall	Existing House	Default Wall Prior to 197	135	Front	402	125	90	none	Existing	No
Left Wall	Existing House	Default Wall Prior to 197	225	Left	750	77	90	none	Existing	No
Rear Wall	Existing House	Default Wall Prior to 197	315	Back	402	64	90	none	Existing	No
Right Wall	Existing House	Default Wall Prior to 197	45	Right	750	167.5	90	none	Existing	No
Front Wall 2	Existing House	Default Wall Prior to 197	135	Front	195	10	90	none	Existing	No
Left Wall 2	Existing House	Default Wall Prior to 197	225	Left	128	8	90	none	Existing	No
Rear Wall 2	Existing House	Default Wall Prior to 197	315	Back	195	25	90	none	Existing	No
Right Wall 2	Existing House	Default Wall Prior to 197	45	Right	128	25	90	none	Existing	No
Roof 2	Existing House	Default Roof Prior to 197	n/a	n/a	1419	n/a	n/a		Existing	No
Roof 3	Existing House	Default Roof Prior to 197	n/a	n/a	386	n/a	n/a		Existing	No
Raised Floor	Existing House	Default Floor No Crawlsps	n/a	n/a	1862	n/a	n/a		Existing	No

OPAQUE SURFACES - CATHEDRAL CEILINGS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Area (ft²)	Skylight Area (ft²)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof	Status	Verified Existing Condition	Existing Construction
Roof	Existing House	Default Roof Prior to 1971	270	n/a	57.1	57	6	0.1	0.85	No	Existing	No	

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OPAQUE SURFACE CONSTRUCTIONS										
01	02	03	04	05	06	07	08			
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers			
Default Roof Prior to 197	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-11	None / None	0.083	Over Ceiling Joists: R-1.9 Insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board			
Default Floor No Crawlsps	Exterior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.24	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12			

BUILDING ENVELOPE - HERS VERIFICATION										
01	02	03	04	05						
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50						
Not Required	Not Required	N/A	n/a	n/a						

WATER HEATING SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater (W)	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (L)	Existing	No	

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ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft²-yr)	Standard Design TDV Energy (EDR2) (kTDU/ft²-yr)	Proposed Design Source Energy (EDR1) (kBtu/ft²-yr)	Proposed Design TDV Energy (EDR2) (kTDU/ft²-yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	116.29	0	113.12	0	3.17
Space Cooling	0	109.42	0	110.28	0	-0.86
IAQ Ventilation	0	3.31	0	3.31	0	0
Water Heating	0	56.03	0	56.03	0	0
Self Utilization/Flexibility Credit						
Efficiency Compliance Total	0	285.05	0	282.74	0	2.31
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	6.74	0	6.74		
Appl. & Cooking	0	21.59	0	21.6		
Plug Loads	0	20.93	0	20.93		
Outdoor Lighting	0	1.68	0	1.68		
TOTAL COMPLIANCE	0	335.99	0	333.69		

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ATTIC										
01	02	03	04	05	06	07	08	09	10	
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition	
Attic Existing House	Attic RoofExisting House	Ventilated	6	0.1	0.85	No	No	Existing	No	

FENESTRATION / GLAZING															
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	Front Wall	Front	135			1	66	0.25	NFRC	0.32	NFRC	Bug Screen	New	NA
French Door (Glass)	Window	Front Wall	Front	135			1	22	0.55	Table 110.6-A	0.67	Table 110.6-B	Bug Screen	Existing	No
Window 2	Window	Left Wall	Left	225			1	46.5	0.25	NFRC	0.32	NFRC	Bug Screen	New	NA
Window 3	Window	Left Wall	Left	225			1	30.5	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No
Window 4	Window	Rear Wall	Back	315			1	31	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No
French Door (Glass) 2	Window	Rear Wall	Back	315			1	33	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No
Window 5	Window	Right Wall	Right	45			1	130	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No
Window 6	Window	Right Wall	Right	45			1	10	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No
Window 7	Window	Right Wall	Right	45			1	27.5	0.25	NFRC	0.32	NFRC	Bug Screen	New	NA
Window 8	Window	Front Wall 2	Front	135			1	10	0.25	NFRC	0.32	NFRC	Bug Screen	Existing	No
Window 9	Window	Left Wall 2	Left	225			1	8	0.25	NFRC	0.32	NFRC	Bug Screen	Existing	No
Window 10	Window	Rear Wall 2	Back	315			1	25	0.32	NFRC	0.39	NFRC	Bug Screen	Existing	No

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WATER HEATERS														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (In/Std)	Standby Loss or Recovery Eff	1st Hx. Rating or Flow Rate	Tank Location	Status	Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	50	EF	0.53	Btu/hr	75000	0	78	n/a		Existing	No

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

SPACE CONDITIONING SYSTEMS				
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### 2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.  
(04/2022)

#### Building Envelope:

§ 110.6(a)1:	<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 1011.5.2/A440-2011. *
§ 110.6(a)5:	<b>Labeling.</b> Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	<b>Field fabricated exterior doors and fenestration products</b> must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-1, 110.6-8, or J44.5 for exterior doors. They must be caulked and/or weather-stripped.
§ 110.7:	<b>Air Leakage.</b> All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	<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(h):	<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(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CFI.
§ 110.8(j):	<b>Radiant Barrier.</b> When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	<b>Roof Deck, Ceiling and Rafter Roof Insulation.</b> Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding 0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling, or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. 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 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 roof 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)1:	<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 crawl space for buildings complying with the exception to §150.0(d).
§ 150.0(g)2:	<b>Vapor Retarder.</b> In climate zones 14 and 16, a Class I or Class II 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 maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45.

#### Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 110.5(e):	<b>Pilot Light.</b> Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	<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)2:	<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 light-fitting damper or combustion-air control device.
§ 150.0(e)3:	<b>Flue Damper.</b> Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

#### Space Conditioning, Water Heating, and Plumbing System:

§ 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-N. *
§ 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-on 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)3:	<b>Insulation.</b> Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)6:	<b>Isolation Valves.</b> Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

5/6/22



### 2022 Single-Family Residential Mandatory Requirements Summary

§ 110.5:	<b>Pilot Lights.</b> Continuously burning pilot lights are prohibited for natural gas, fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *
§ 150.0(h)1:	<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.
§ 150.0(h)3A:	<b>Clearances.</b> Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	<b>Liquid Line Drier.</b> Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(i)1:	<b>Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.</b> All domestic hot water piping must be insulated as specified in § 509.11 of the California Plumbing Code.
§ 150.0(j)2:	<b>Insulation Protection.</b> Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	<b>Gas or Propane Water Heating Systems.</b> Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2' higher than the base of the water heater.
§ 150.0(n)3:	<b>Solar Water-heating Systems.</b> Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

#### Ducts and Fans:

§ 110.8(d)3:	<b>Ducts.</b> Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	<b>CMC Compliance.</b> All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than 1/2". If mastic or tape is used. Building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts, ducts installed in these spaces must not be compressed. *
§ 150.0(m)2:	<b>Factory-Fabricated Duct Systems.</b> Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	<b>Field-Fabricated Duct Systems.</b> Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	<b>Backdraft Damper.</b> Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	<b>Gravity Ventilation Dampers.</b> Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	<b>Protection of Insulation.</b> Insulation must be protected from damage due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.
§ 150.0(m)10:	<b>Porous Inner Core Flex Duct.</b> Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.
§ 150.0(m)11:	<b>Duct System Sealing and Leakage Test.</b> When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1.
§ 150.0(m)12:	<b>Air Filtration.</b> Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

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### 2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(m)13:	<b>Space Conditioning System Airflow Rate and Fan Efficacy.</b> Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≥ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≥ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *
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#### Ventilation and Indoor Air Quality:

§ 150.0(o)1:	<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(o)1. *
§ 150.0(o)1B:	<b>Central Fan Integrated (CFI) Ventilation Systems.</b> Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents all airflow through the space conditioning duct system when the damper(s) is closed and uncontrolled per §150.0(o)1B&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.
§ 150.0(o)1C:	<b>Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses.</b> Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)1C-iii.
§ 150.0(o)1G:	<b>Local Mechanical Exhaust.</b> Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Gii enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.0(o)1Gv, and rated for sound per §150.0(o)1Gvi. *
§ 150.0(o)1H&I:	<b>Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems.</b> The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.
§ 150.0(o)2:	<b>Field Verification and Diagnostic Testing.</b> Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.0(o)1G.

#### Pool and Spa Systems and Equipment:

§ 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: compliance with the Appliance Efficiency Regulations and listing in MAEDDS; 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)1:	<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)2:	<b>Covers.</b> Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	<b>Directional Inlets and Time Switches for Pools.</b> Pools must have directional inlets that 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.

#### Lighting:

§ 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)1A:	<b>Luminaire Efficacy.</b> All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	<b>Screw based luminaires.</b> Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1C:	<b>Recessed Downlight Luminaires in Ceilings.</b> Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.
§ 150.0(k)1D:	<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)1E:	<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 shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(k)1F:	<b>Lighting Integral to Exhaust Fans.</b> Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).

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### 2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(k)1G:	<b>Screw based luminaires.</b> Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1H:	<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)1I:	<b>Light Sources in Drawers, Cabinets, and Linen Closets.</b> Light sources internal to drawers, cabinets 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)2A:	<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)2B:	<b>Interior Switches and Controls.</b> Exhaust fans must be controlled separately from lighting systems. *
§ 150.0(k)2A:	<b>Accessible Controls.</b> Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.0(k)2B:	<b>Multiple Controls.</b> Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.0(k)2C:	<b>Mandatory Requirements.</b> Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2D:	<b>Energy Management Control Systems.</b> An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.0(k)2E:	<b>Automatic Shutoff Controls.</b> In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.0(k)2F:	<b>Dimmers.</b> Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.0(k)2K:	<b>Independent controls.</b> Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.0(k)3A:	<b>Residential Outdoor Lighting.</b> For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	<b>Internally illuminated address signs.</b> Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(k)5:	<b>Residential Garages for Eight or More Vehicles.</b> Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.

#### Solar Readiness:

§ 110.0(a)1:	<b>Single-family Residences.</b> Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.0(b)-(e).
§ 110.0(b)1A:	<b>Minimum Solar Zone Area.</b> The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 3 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *
§ 110.0(b)2:	<b>Azimuth.</b> All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.0(b)3A:	<b>Shading.</b> The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment. *
§ 110.0(b)3B:	<b>Shading.</b> Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.
§ 110.0(b)4:	<b>Structural Design Loads on Construction Documents.</b> For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.0(c):	<b>Interconnection Pathways.</b> The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.0(d):	<b>Documentation.</b> A copy of the construction documents or a comparable document indicating the information from § 110.0(b)-(c) must be provided to the occupant.
§ 110.0(e)1:	<b>Main Electrical Service Panel.</b> The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.0(e)2:	<b>Main Electrical Service Panel.</b> The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."

#### Electric and Energy Storage Ready:

#### CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Existing House 2 floors

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2024-04-08T16:29:02-07:00

Input File Name: Existing House.rbd22x

CF1R-PRF-01-E

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01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
Sfam ADU IAQVentRpt	90	0.35	Exhaust	No	n/a / n/a	No	Yes	

#### HERS RATER VERIFICATION OF EXISTING CONDITIONS

01	02	03	04	05	06	07
Name	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SREIAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASREIAQ Recovery Effectiveness - ASRE
Dwelling Unit 1/0	90	0.35	Exhaust	No	n/a	n/a

Registration Number: 424-P010060733A-000-000-0000000-0000

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Registration Date/Time: 04/08/2024 16:30

Report Version: 2022.0.000

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#### CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Existing House 2 floors

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2024-04-08T16:29:02-07:00

Input File Name: Existing House.rbd22x

CF1R-PRF-01-E

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I, I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Jose Jimenez	Documentation Author Signature: <i>Jose Jimenez</i>
Company: J&M Design	Signature Date: 04/08/2024
Address: 1005 W. 8th Street	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Stockton, CA 95206	Phone: 650-793-1491
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.	
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.	
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Jose Jimenez	Responsible Designer Signature: <i>Jose Jimenez</i>
Company: J&M Design	Date Signed: 04/08/2024
Address: 1005 W. 8th Street	License:
City/State/Zip: Stockton, CA 95206	Phone: 650-793-1491

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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### 2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(s)	<b>Energy Storage System (ESS) Ready.</b> All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s), at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(t)	<b>Heat Pump Space Heater Ready.</b> Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready," and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(u)	<b>Electric Cooktop Ready.</b> Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready," and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(v)	<b>Electric Clothes Dryer Ready.</b> Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 24