

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address:	7515 Carroll Ave., Takoma Park	Meeting Date:	6/26/2024
Resource:	Contributing Resource Takoma Park Historic District	Report Date:	6/18/2024
Applicant:	Sarah Brookshier (Michael Lucy, agent)	Public Notice:	6/12/2024
Review:	HAWP	Tax Credit:	No
Permit Number:	1073431	Staff:	Chris Berger
PROPOSAL:	Deck alteration and expansion.		

STAFF RECOMMENDATION

Staff recommends that the Commission **approve with two conditions** the HAWP application with final approval delegated to staff:

1. Applicant must revise the plans to show the existing railing will be replaced as was stated by the agent in the June 12, 2024, email included as Attachment A to the staff report.
2. Applicant must provide a specification for the composite decking and railing.



Figure 1. The subject property at 7515 Carroll Avenue in the Takoma Park Historic District is indicated with a gold star. The red cross hatches indicate the district boundaries.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Contributing Resource within the Takoma Park Historic District
STYLE: Sears Avalon Craftsman
DATE: circa 1920s

PROPOSAL

The applicant proposes to expand the existing 120-square-foot deck to a 300-square-foot deck. First, the existing wood decking, railing, and stairs will be removed. Then the deck will be expanded. The expanded deck will have Aeratis composite decking; wood handrails at the new stairs; and wood railing with stainless steel cables and Aeratis rail at the top. A storage area will be added under the deck.

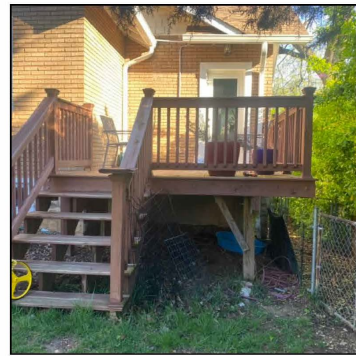
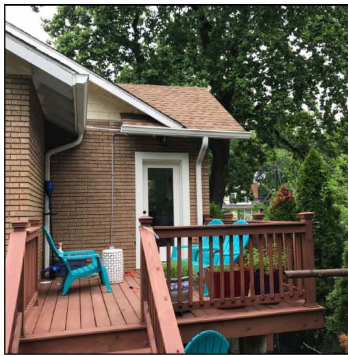
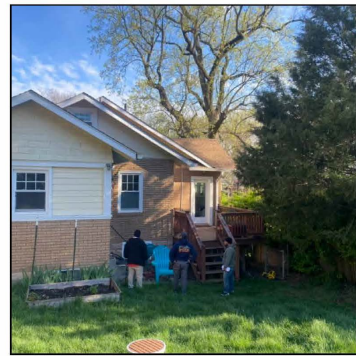
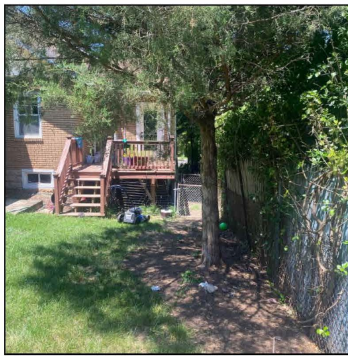


Figure 2: Photos of the existing deck provided by the applicant. It will be altered to accommodate expansion.

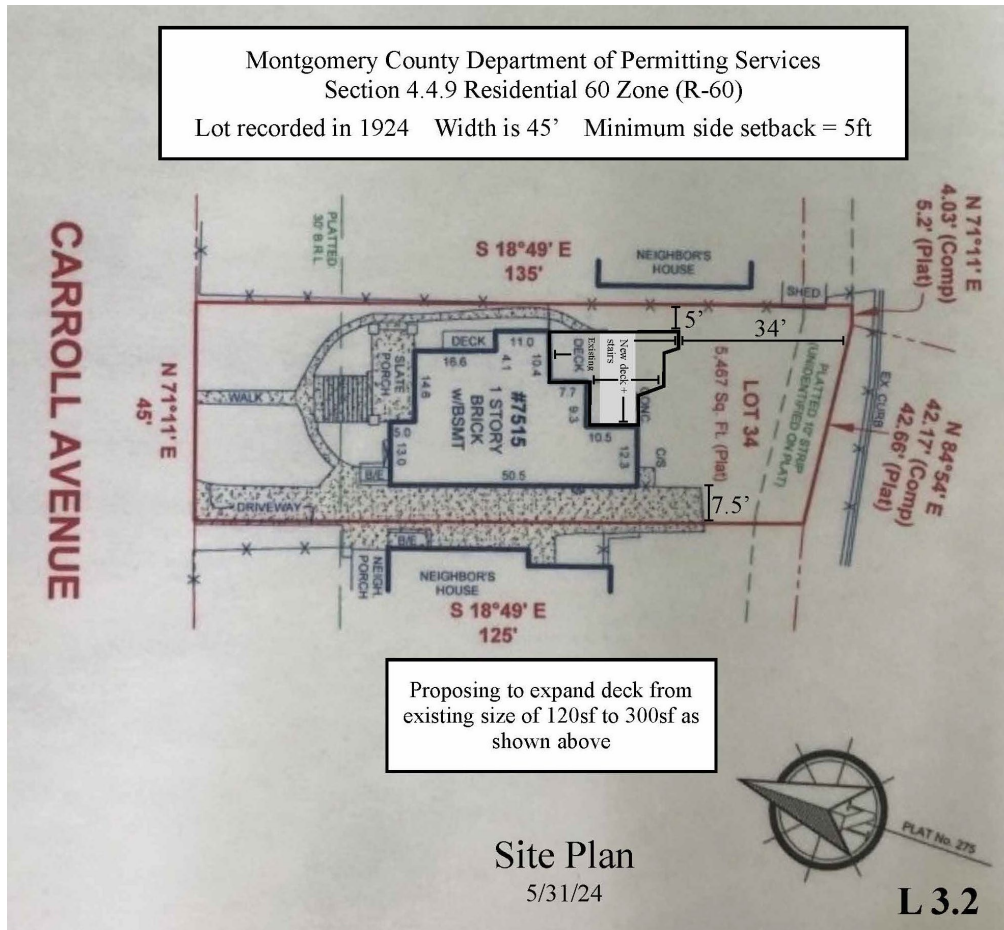


Figure 3: The proposed site plan for the subject property.

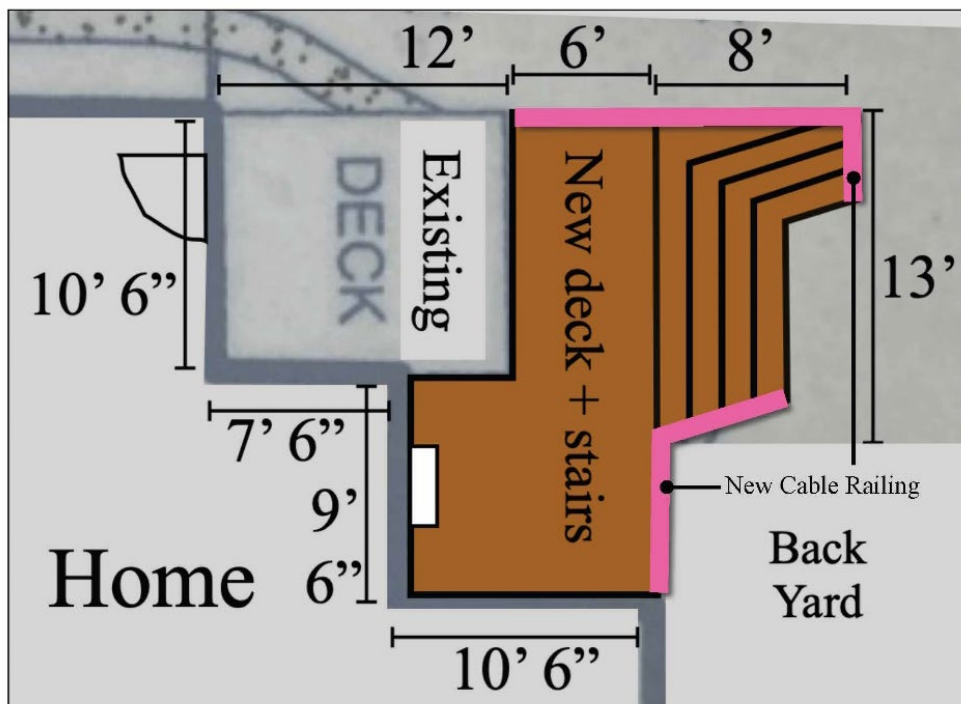


Figure 4: The proposed deck plan.

APPLICABLE GUIDELINES

The Historic Preservation Office and Historic Preservation Commission (HPC) consult several documents when reviewing alterations and new construction within the Takoma Park Historic District. These documents include the historic preservation review guidelines in the approved and adopted amendment for the *Takoma Park Historic District (Guidelines)*, *Montgomery County Code Chapter 24A (Chapter 24A)*, and *the Secretary of the Interior's Standards for Rehabilitation (Standards)*. The pertinent information in these three documents is outlined below.

Takoma Park Historic District Guidelines

There are two broad planning and design concepts that apply to all categories. These are:

- The design review emphasis will be restricted to changes that are all visible from the public right-of-way, irrespective of landscaping or vegetation (it is expected that the majority of new additions will be reviewed for their impact on the overall district), and
- The importance of assuring that additions and other changes to existing structures act to reinforce and continue existing streetscape, landscape, and building patterns rather than to impair the character of the historic district.

A majority of the buildings in the Takoma Park Historic District have been assessed as being “Contributing Resources.” While these buildings may not have the same level of architectural or historical significance as Outstanding Resources or may have lost some degree of integrity, collectively, they are the basic building blocks of the historic district. They are important to the overall character of the district and the streetscape due to their size, scale, and architectural qualities, rather than for their particular architectural features.

Contributing Resources should receive a more lenient level of design review than those structures that have been classified as Outstanding. This design review should emphasize the importance of the resource to the overall streetscape and its compatibility with existing patterns rather than focusing on a close scrutiny of architectural detailing. In general, however, changes to Contributing Resources should respect the predominant architectural style of the resource.

The following guidance which pertains to this project are as follows:

- All exterior alterations, including those to architectural features and details, should be generally consistent with the predominant architectural style and period of the resource and should preserve the predominant architectural features of the resource; exact replication of existing details and features is, however, not required.
- Major additions should, where feasible, be placed to the rear of existing structures so that they are less visible from the public right-of-way; additions and alterations to the first floor at the front of a structure are discouraged but not automatically prohibited.
- While additions should be compatible, they are not required to be replicative of earlier architectural styles.
- Some non-original building materials may be acceptable on a case-by-case basis. Artificial siding on areas visible to the public right-of-way is discouraged where such materials would replace or damage original building materials that are in good condition.

- Alterations to features that are not visible at all from the public right-of-way should be allowed as a matter of course.
- All changes and additions should respect existing environmental settings, landscaping, and patterns of open space.

Montgomery County Code Chapter 24A-8

The following guidance that pertains to this project are as follows:

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter;
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The applicable *Standards* are as follows:

- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

Staff supports the proposed deck demolition, alteration, and expansion and recommends approval.

The construction will be limited to the rear of the building, approximately 75 feet from the right of way, and will not be visible to the public; therefore, per the *Guidelines*, it should be approved as a matter of

course. Staff regularly administratively approves decks not visible from the right of way made of wood. The only reason this deck has come before the HPC is because it is made of composite materials. Staff notes that the composite material selected complies with the recently adopted HPC Policy No. 24-01 for the Appropriateness of Substitute Materials for Porch and Deck Flooring.

In accordance with Chapter 24A-8(b)(1), the addition will not substantially alter the exterior features of the historic resource where a deck already exists, and Chapter 24A-8(b)(2) it will be compatible in character and nature with the historic district where rear additions and decks are common. Chapter 24A-8(d) states that “the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district.” Staff does not find the project would seriously impair the historic or architectural value of the surrounding historic resources. The addition will also meet *Standards* #2, 9, and 10 because the historic character of the property will be retained; the new addition will not destroy the historic materials that characterize the property; and the form and integrity of the property will be unimpaired if the deck is removed in the future.

Staff seeks a condition that the applicant revise the plans to indicate the placement of the new handrails to reflect the description made by the applicant’s agent in a June 12, 2024, email.

STAFF RECOMMENDATION

Staff recommends that the Commission **approve with two conditions** the HAWP application with final approval delegated to staff:

1. Applicant must revise the plans to show the existing railing will be replaced as was stated by the agent in the June 12, 2024, email included as Attachment A to the staff report.
2. Applicant must provide a specification for the composite decking and railing.

the HAWP application under the Criteria for Issuance in Chapter 24A-8(b)(1) and (2) and Chapter 24A-8(d), having found that the proposal will not substantially alter the exterior features of the historic resource and is compatible in character with the purposes of Chapter 24A;

and with the *Secretary of the Interior’s Standards for Rehabilitation* #2, 9, and 10;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to HPC staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the HPC as a revised HAWP application at staff’s discretion;

and with the general condition that the applicant shall notify the HPC staff if they propose to make **any alterations** to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or chris.berger@montgomeryplanning.org to schedule a follow-up site visit.



APPLICATION FOR HISTORIC AREA WORK PERMIT
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP#
DATE ASSIGNED

APPLICANT:

Name: E-mail:
Address: City: Zip:
Daytime Phone: Tax Account No.:

AGENT/CONTACT (if applicable):

Name: E-mail:
Address: City: Zip:
Daytime Phone: Contractor Registration No.:

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property

Is the Property Located within an Historic District? Yes/District Name
No/Individual Site Name

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: Street:

Town/City: Nearest Cross Street:

Lot: Block: Subdivision: Parcel:

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

- New Construction, Addition, Demolition, Grading/Excavation, Deck/Porch, Fence, Hardscape/Landscape, Roof, Shed/Garage/Accessory Structure, Solar, Tree removal/planting, Window/Door, Other:

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Signature of owner or authorized agent

Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address	Owner's Agent's mailing address
Adjacent and confronting Property Owners mailing addresses	

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

Description of Work Proposed: Please give an overview of the work to be undertaken:

Work Item 1: _____	
Description of Current Condition:	Proposed Work:

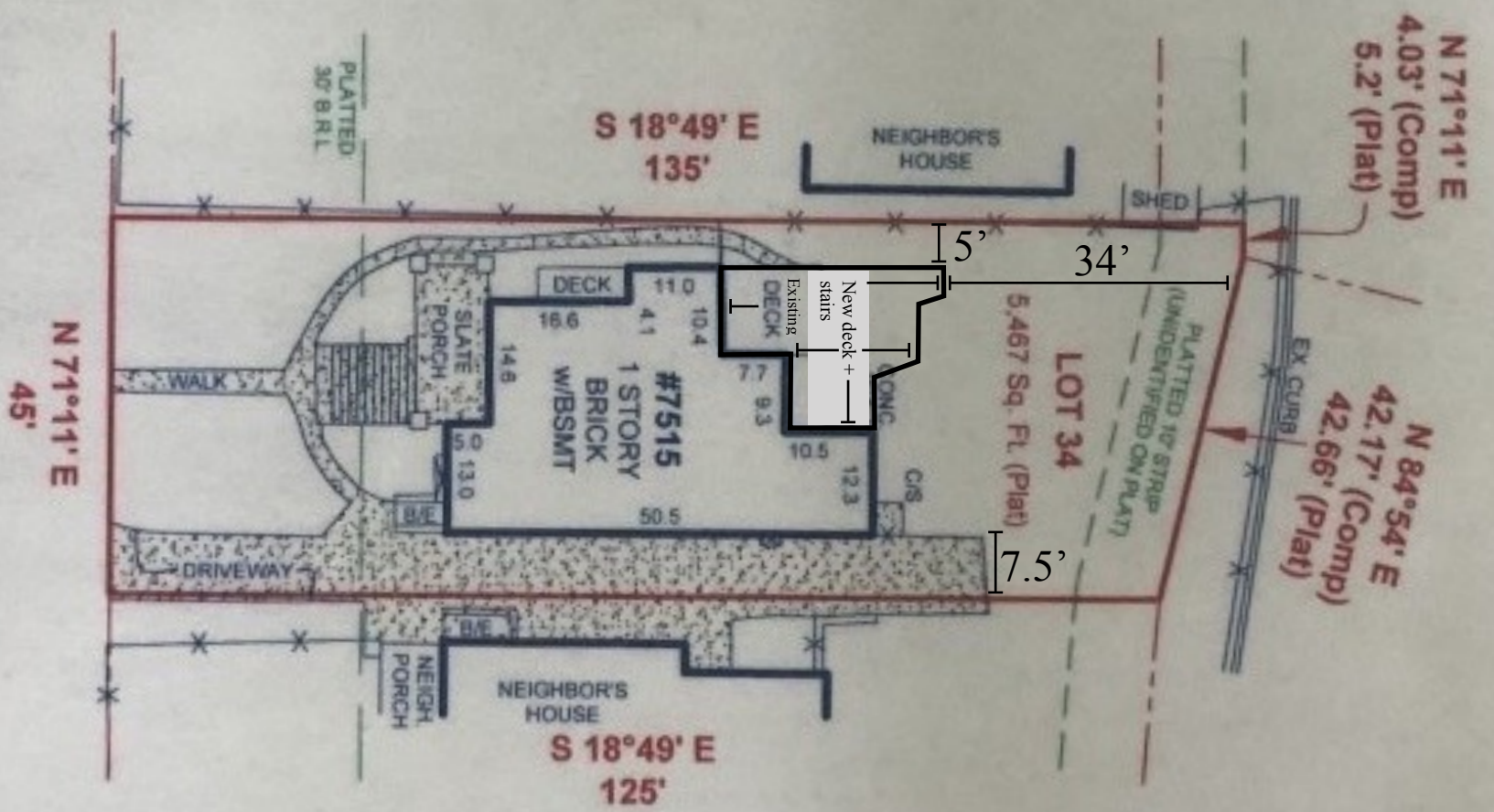
Work Item 2: _____	
Description of Current Condition:	Proposed Work:

Work Item 3: _____	
Description of Current Condition:	Proposed Work:

**HISTORIC AREA WORK PERMIT
CHECKLIST OF
APPLICATION REQUIREMENTS**

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Excavation/ Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*

Montgomery County Department of Permitting Services
 Section 4.4.9 Residential 60 Zone (R-60)
 Lot recorded in 1924 Width is 45' Minimum side setback = 5ft



Proposing to expand deck from existing size of 120sf to 300sf as shown above

Site Plan
 5/31/24



L 3.2

CARROLL AVENUE

LOCATION DRAWING OF:
#7515 CARROLL AVENUE
LOT 34 BLOCK 37
 GILBERT'S ADDITION TO
TAKOMA PARK
 PLAT NUMBER 275
 MONTGOMERY COUNTY, MARYLAND
 SCALE: 1"=30' DATE: 07-18-2019
 DRAWN BY: JCW FILE #: 195846 - 667

LEGEND:

-	FENCE
B/E	BASMENT ENTRANCE
B/W	BAY WINDOW
BR	BRICK
BR/L	BLDG. RESTRICTION LINE
BSMT	BASMENT
C/S	CONCRETE STOOP
CONC	CONCRETE
D/W	DRIVEWAY
FR	FRAME
M/C	MASONRY
O/H	OVERHANG
PUE	PUBLIC UTILITY EMPT.

COLOR KEY:

(RED)	RECORD INFORMATION
(BLUE)	IMPROVEMENTS
(GREEN)	EMPTS & RESTRICTION LINES

A Land Surveying Company

DULEY
 and
Associates, Inc.

Serving D.C. and MD.

14604 Elm Street, Upper Marlboro, MD 20772
 Phone: 301-888-1111
 Email: orders@duley.biz

Fax: 301-888-1114
 On the web: www.duley.biz

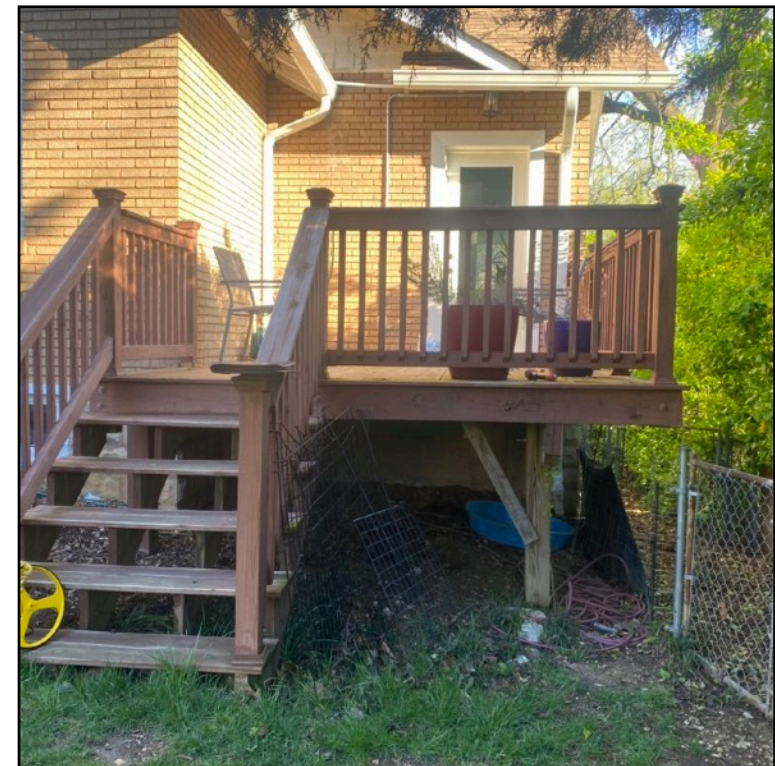
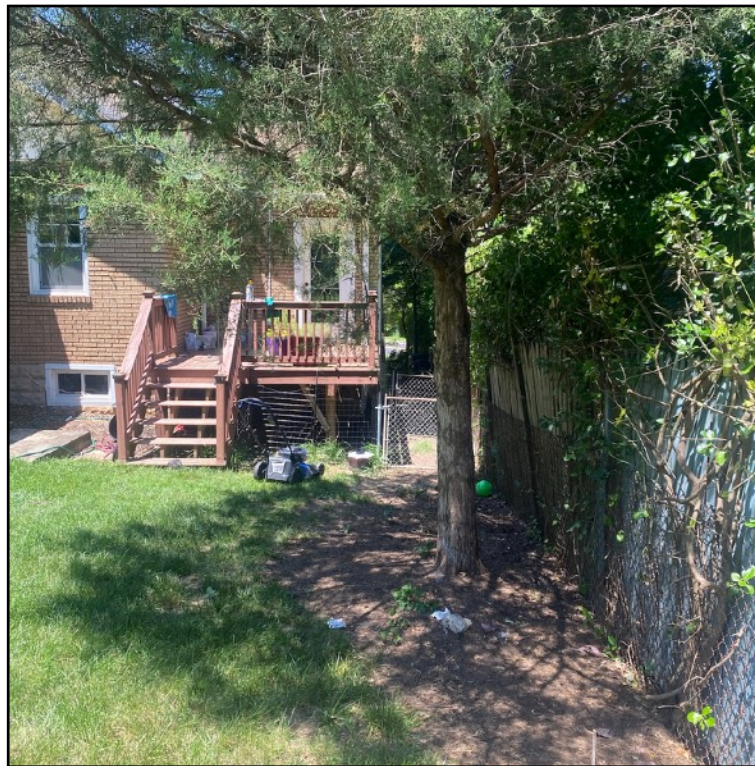


SURVEYOR'S CERTIFICATE

I HEREBY STATE THAT I WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEY WORK REFLECTED HEREIN AND IT IS IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN REGULATION 12 CHAPTER 09 13.06 OF THE CODE OF MARYLAND ANNOTATED REGULATIONS. THIS SURVEY IS NOT TO BE USED OR RELIED UPON FOR THE ESTABLISHMENT OF FENCES, BUILDING, OR OTHER IMPROVEMENTS, THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING THIS PLAT IS OF BENEFIT TO A CONSUMER ONLY INsofar as it is required by a LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTINGENT TRANSFER, FINANCING OR REFINANCING THE LEVEL OF ACCURACY FOR THIS DRAWING IS 1". NO TITLE REPORT WAS FURNISHED TO NOR DONE BY THIS COMPANY. SAID PROPERTY SUBJECT TO ALL NOTES, RESTRICTIONS AND EASEMENTS OF RECORD. BUILDING RESTRICTION LINES AND EASEMENTS MAY NOT BE SHOWN ON THIS SURVEY. IMPROVEMENTS WHICH IN THE SURVEYOR'S OPINION APPEAR TO BE IN A STATE OF DISREPAIR OR MAY BE CONSIDERED "TEMPORARY" MAY NOT BE SHOWN. IF IT APPEARS ENCROACHMENTS MAY EXIST, A BOUNDARY SURVEY IS RECOMMENDED.

LICENSE EXPIRATION DATE: 12-31-2019

DULEY & ASSOC.
 WILL GIVE YOU A 100%
 FULL CREDIT TOWARDS
 UPGRADING THIS
 SURVEY TO A
 "BOUNDARY/STAKE"
 SURVEY FOR ONE
 YEAR FROM THE DATE
 OF THIS SURVEY.
 (EXCLUDING D.C. & BALT. CITY)



Brookshier Residence
7515 Carroll Ave
Takoma Park, MD 20902

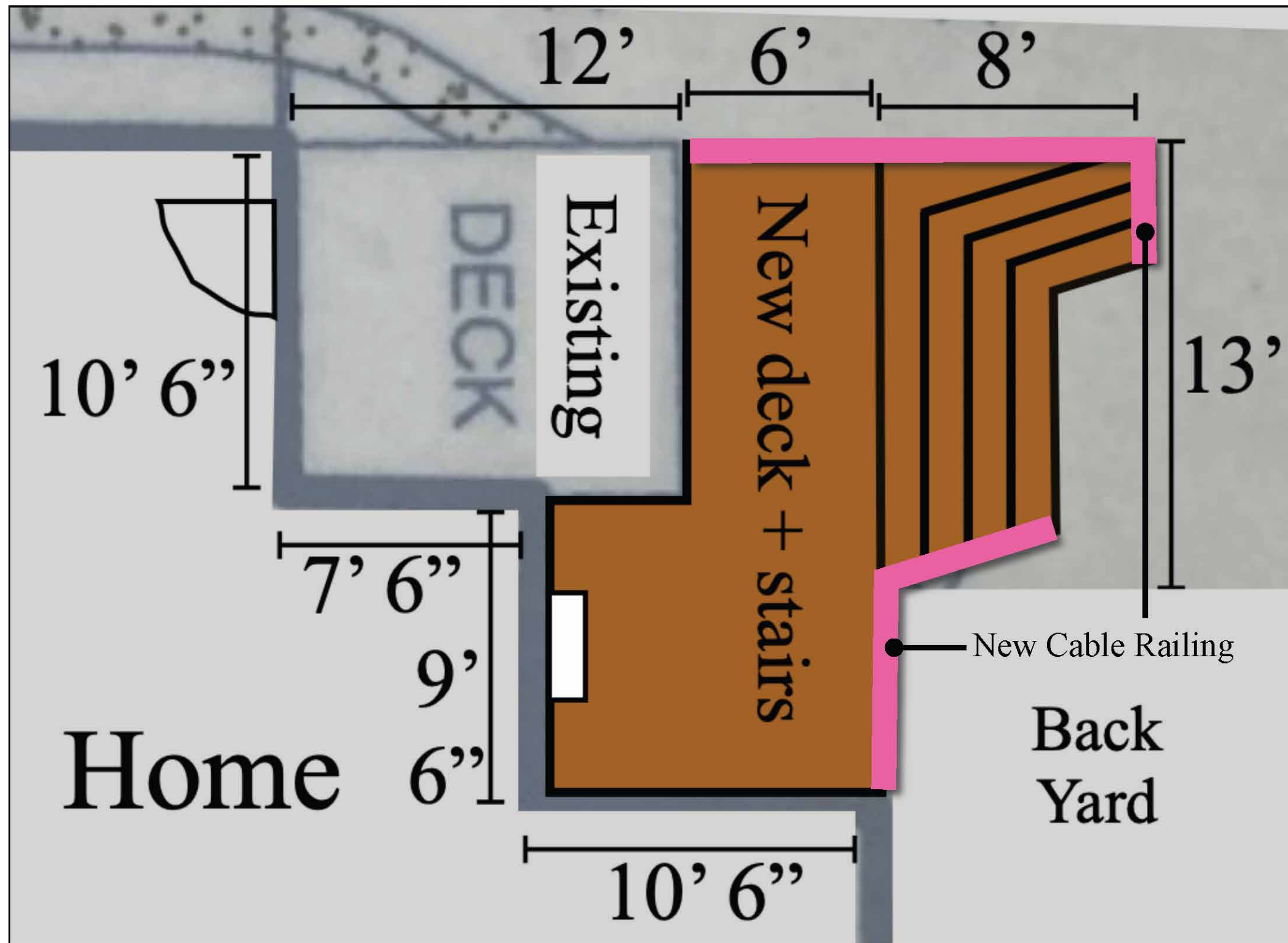
Pictures of Existing Deck
6/5/24



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Not for construction

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L 3.3



- Back Deck is NOT visible from public ROW. It sits approximately 75' from, and 15' above, the two nearest sidewalks on Carroll Ave.
- Proposing to expand deck from existing size of 120sf to 300sf as shown on left.
- Existing decking and railing to be removed.
- New decking material to be **Aeratis** paintable composite lumber.
- Railing to be made of wood posts, stainless steel cable, **Aeratis** drink rail with wooden hand rails at stairs.

Evans + Brookshier Residence
7515 Carroll Ave
Takoma Park, MD 20902

Deck + Railing Plan
Revised 6/17/24

 Sustainable
LIFE DESIGNS
Historic Preservation Drawings
Builder must use MoCo Deck Details

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L 3.3

From: [Michael Lucy](#)
To: [Berger, Chris](#)
Cc: [Sarah Brookshier SLD / JSLi & JSS Client 2019-23](#); [Ashley Evans](#)
Subject: Re: HAWP Permit application # 1073431 (Moco Deck Permit application # 1072077)
Date: Wednesday, June 12, 2024 3:38:05 PM

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Hello Mr. Berger,

For the decking material we would now like to use a paintable composite or wood.

In response to Staff questions:

- Will the railing on the existing deck be removed or retained? Removed and replaced
- What will be the material of the new deck railing? Wood, paintable composite and stainless steel metal cable
- What will be the material of the proposed stair treads and risers? Paintable composite or wood
- Will railings be installed to either side of the stairs? Yes, and will meet all County Code Requirements

Thanks for your assistance with this Chris. Please let me know if there is anything else you need.

Sincerely,

Michael S. Lucy
(202) 557-5814
www.SustainableLifeDesigns

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Thanks

On Mon, Jun 10, 2024 at 12:52 PM Berger, Chris <Chris.Berger@montgomeryplanning.org> wrote:

Hello,

Your Historic Area Work Permit application for the deck expansion project is tentatively scheduled for review at the June 26 Historic Preservation Commission meeting.

Staff has the following questions:

- Will the railing on the existing deck be removed or retained?
- What will be the material of the new deck railing?
- What will be the material of the proposed stair treads and risers?
- Will railings be installed to either side of the stairs?

Staff has the following comments:

- The Historic Preservation Commission has not approved non-paintable composite decking and railing such as Timbertech for contributing properties in the Takoma Park Historic District. If you would like to proceed with Timbertech, staff will recommend in the staff report denial of that material and installation instead of either wood decking and railings or a paintable composite such as Aeratis or Acre.
- If you change all the deck materials to wood, staff can approve administratively and the work would not require Historic Preservation Commission review.

Please respond to this email by Thursday, June 13.

Chris Berger, AICP

Cultural Resources Planner III

Montgomery County Planning Department

2425 Reedy Drive, 13th Floor, Wheaton, MD 20902

Chris.Berger@montgomeryplanning.org

Office: 301-495-4571

From: Michael Lucy <michael@sustainablelifedesigns.com>

Sent: Wednesday, June 5, 2024 4:46 PM

To: HAWP <HAWP@montgomeryplanning.org>; Berger, Chris <Chris.Berger@montgomeryplanning.org>

Cc: Sarah Brookshier SLD / JSLi & JSS Client 2019-23 <sbrooksh@gmail.com>

Subject: HAWP Permit application # 1073431 (Moco Deck Permit application # 1072077)

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Thanks for the opportunity to submit our HAWP Supporting Documentation,

Please let me know if there is anything else you need from us.

Sincerely,

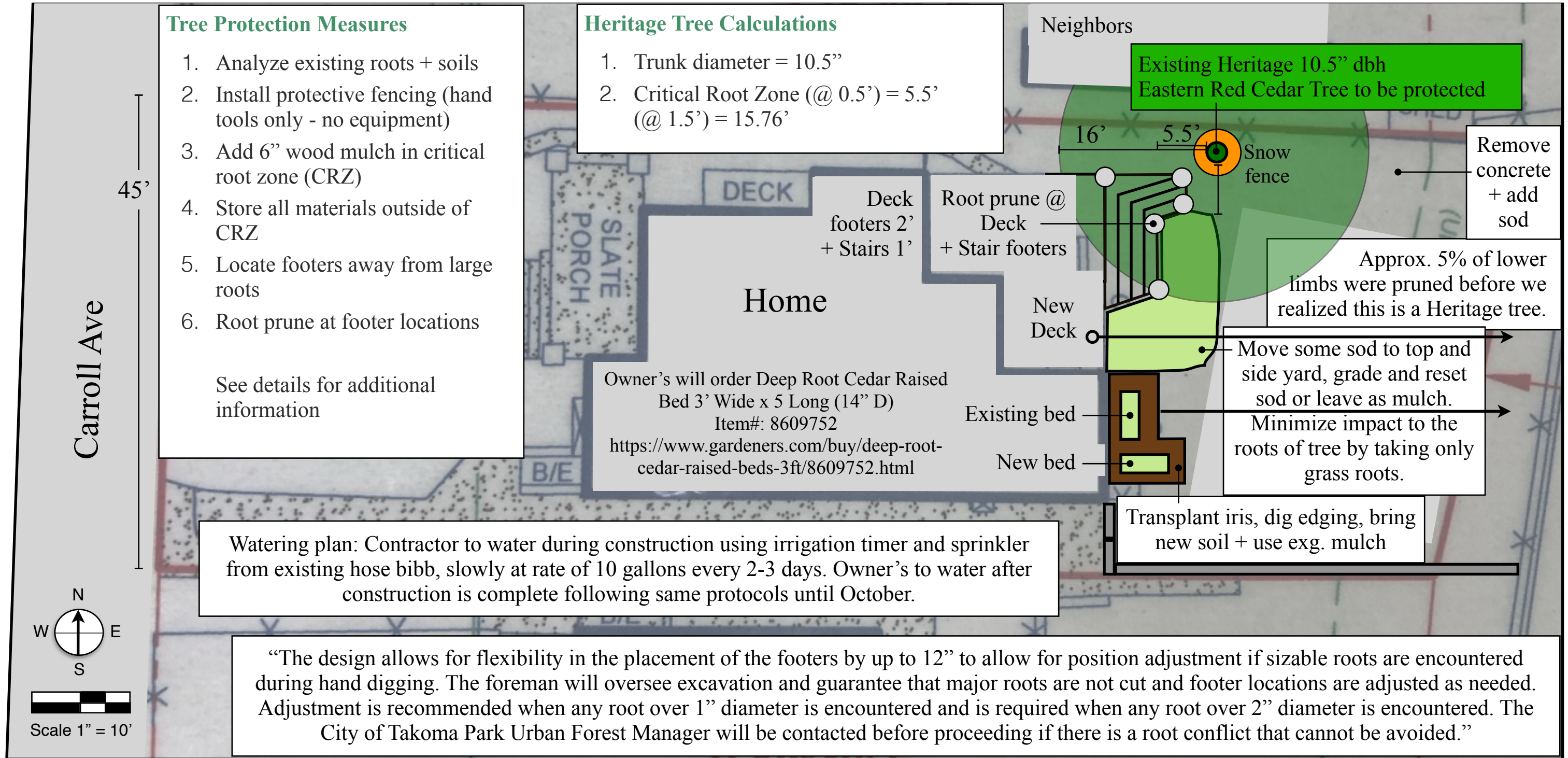
Michael S. Lucy

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Thanks



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7515 Carroll Ave
Takoma Park, MD 20902

Tree Inventory + Landscaping Plan
6/1/24

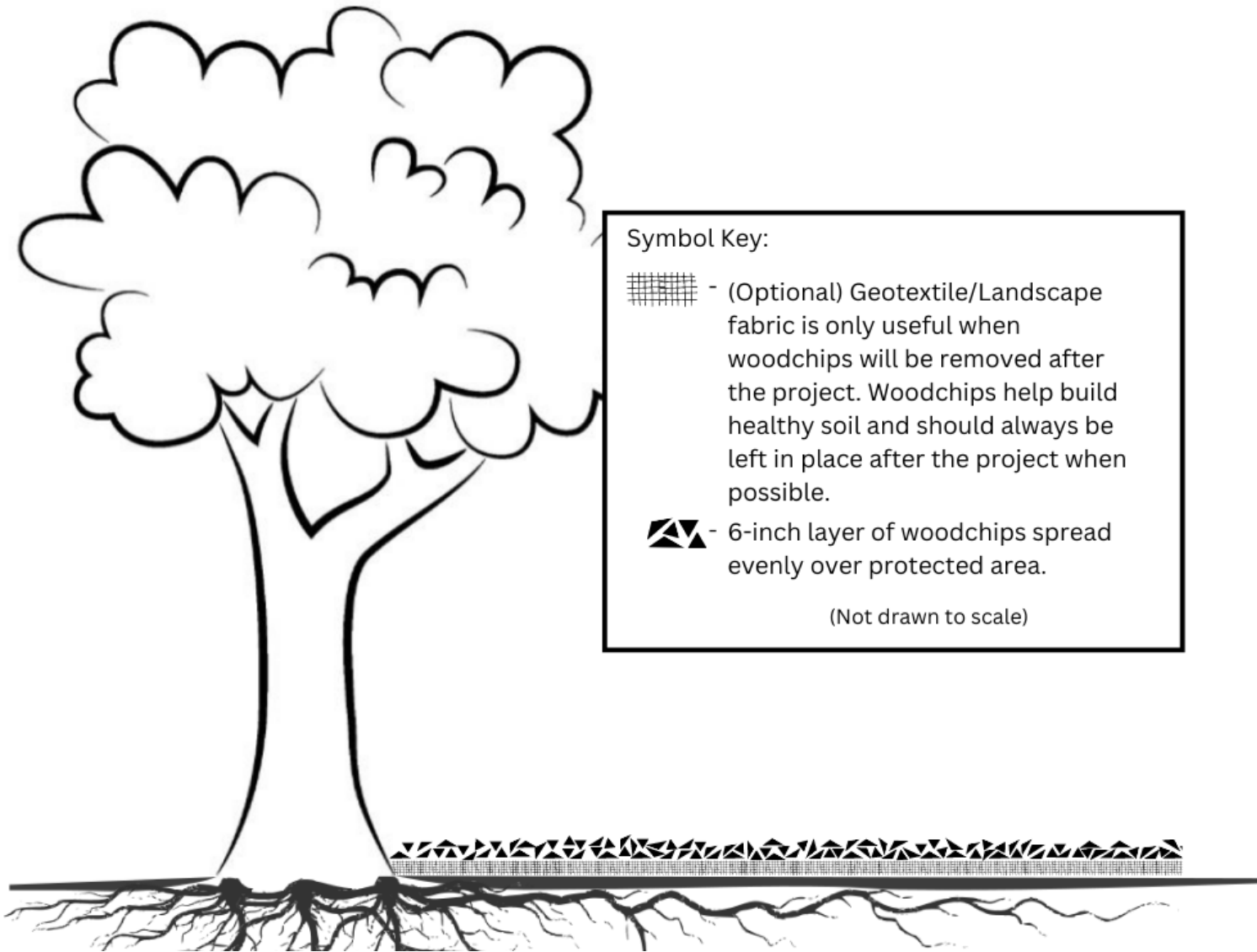
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Permit Drawings
Builder must use MoCo Deck Details

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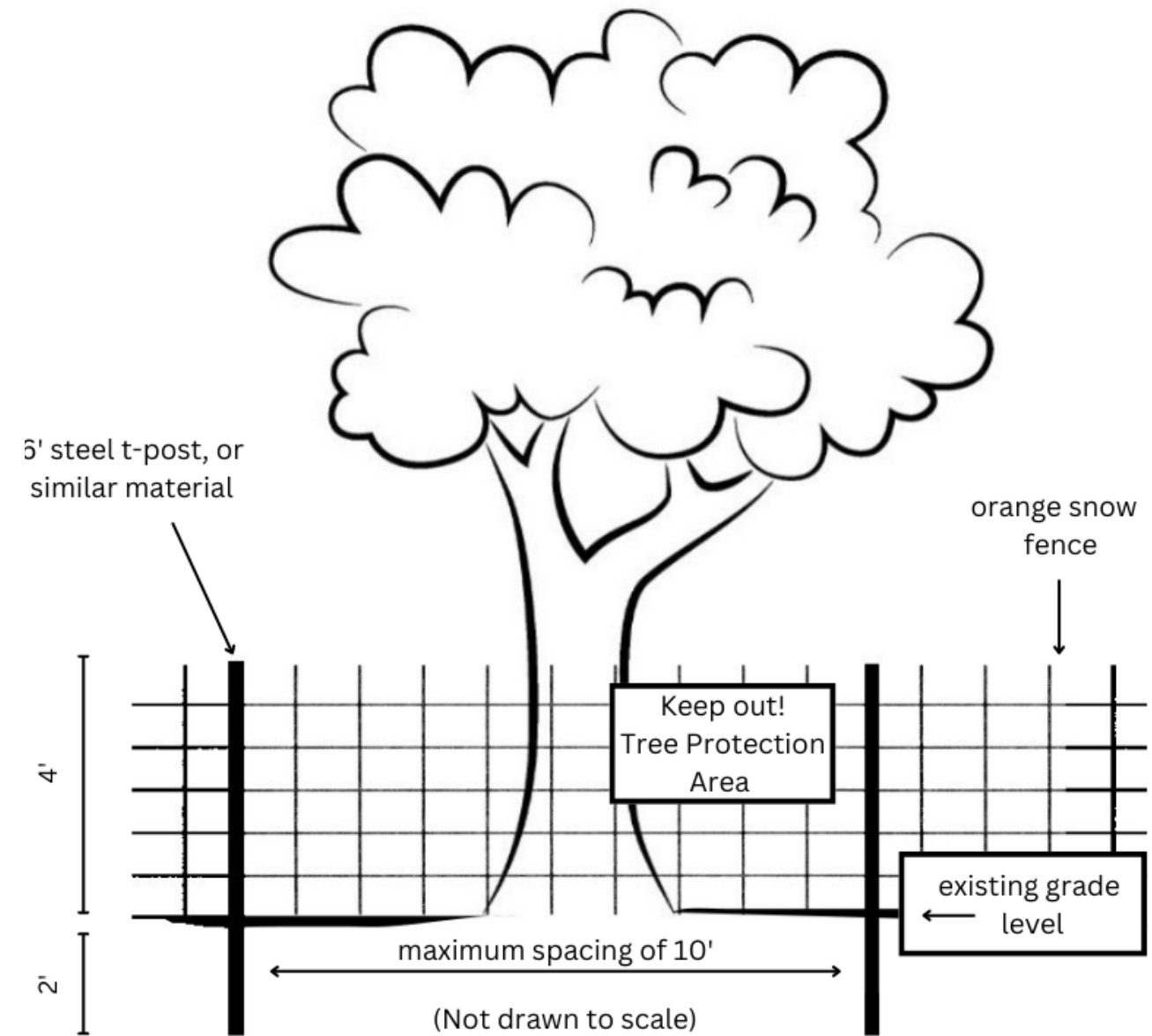
L 3.4



Root Protection Matting: Light Duty
Urban Forest Manager Approved Tree
Protection Detail



Tree Protection Fence: Orange Snow Fence
Urban Forest Manager Approved Tree
Protection Detail



Evans + Brookshier Residence
7515 Carroll Ave
Takoma Park, MD 20902

Tree Protection Details
6/1/24



Permit Drawings
Builder must use MoCo Deck Details

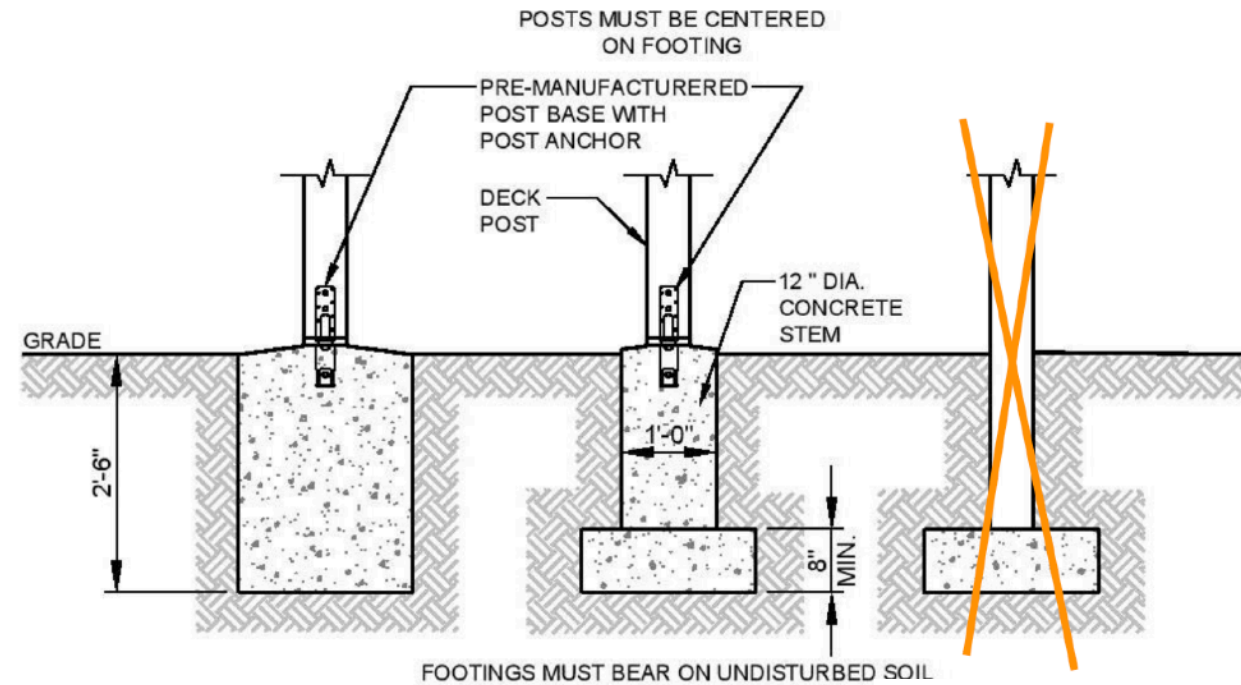
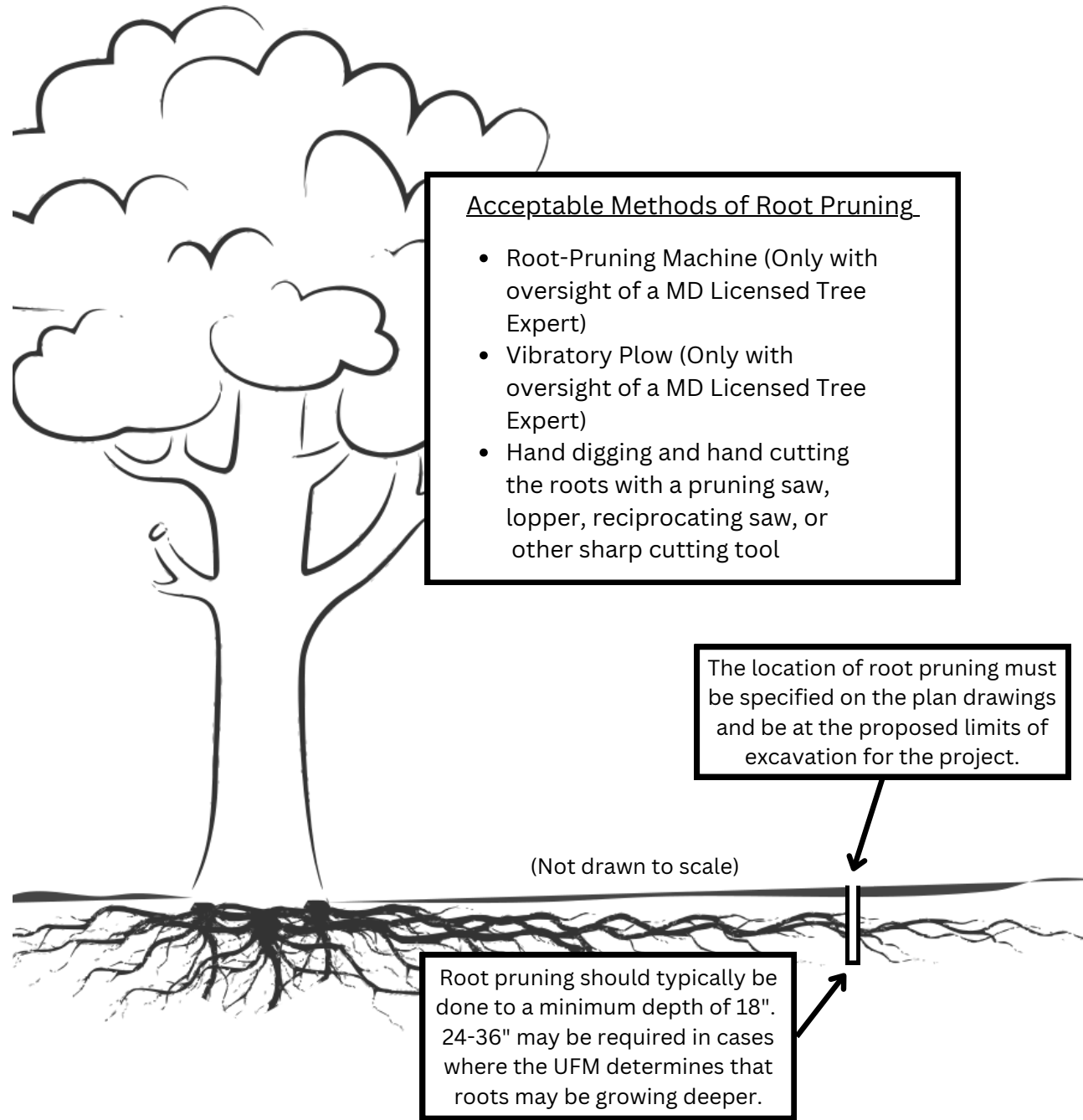
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L 3.5



Root Pruning

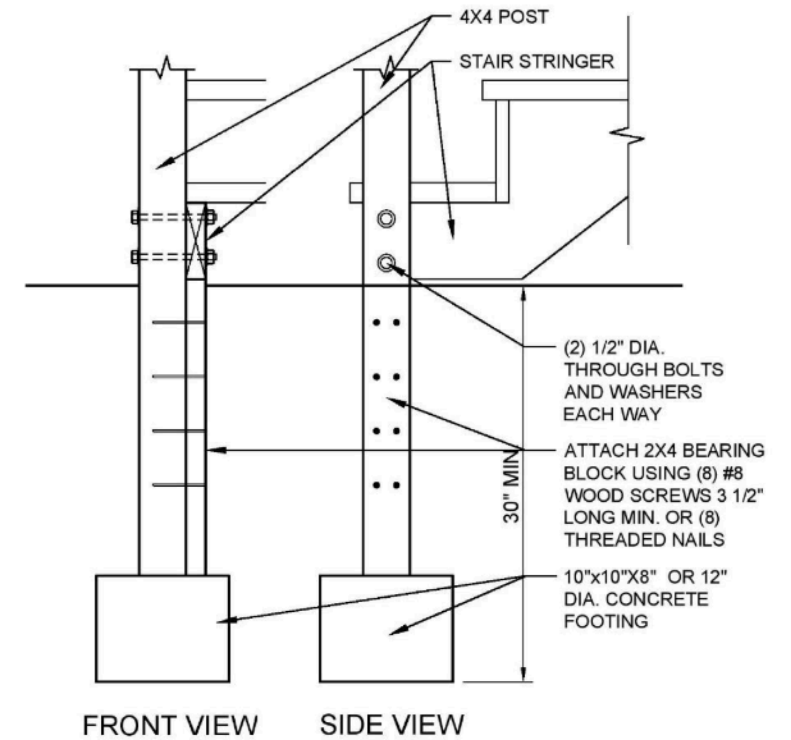
Urban Forest Manager Approved Tree Protection Detail



DECK FOOTINGS

Figure 5

Deck + Stair Footing details not to scale



STAIR FOOTING DETAIL

Figure 34

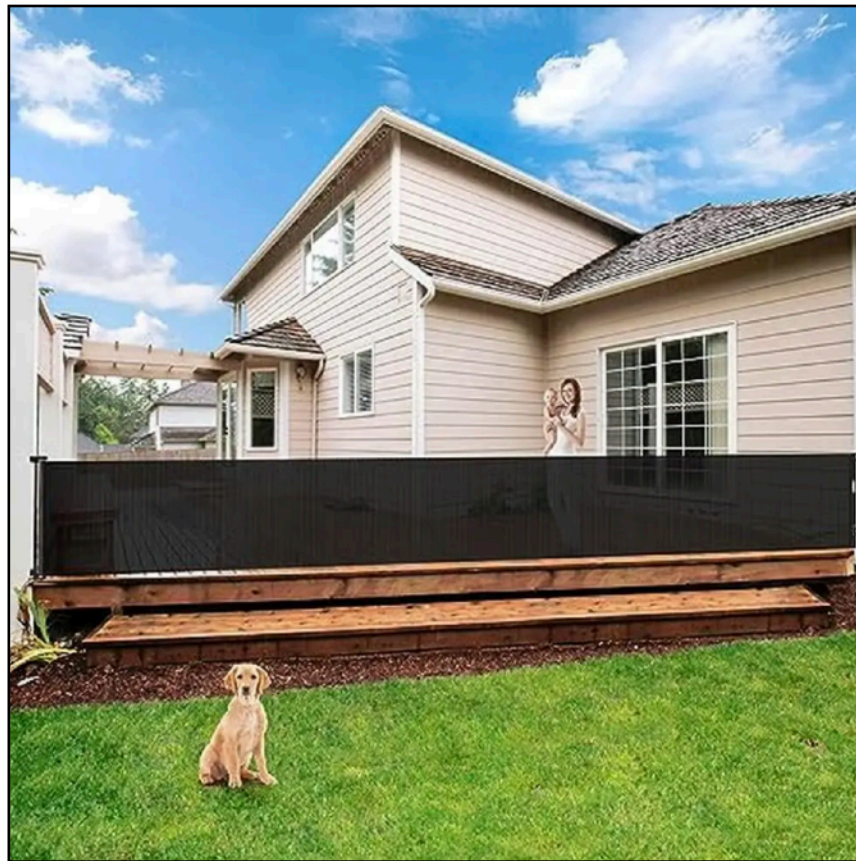
Evans + Brookshier Residence
7515 Carroll Ave
Takoma Park, MD 20902

Tree Protection + Footer Details
6/1/24

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Permit Drawings
Builder must use MoCo Deck Details

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L 3.6



Retractable Baby Gate (16' Wide + 35" tall)

https://www.aliexpress.us/item/3256806677605756.html?spm=a2g0o.detail.similar_items.1.68425fc2Bz4fWB&utp aram-url=scene%3Asearch%7Cquery_from%3A&pdp_npi=4%40dis%21USD%21391.54%21144.87%21%21%212824.93%211045.22%21%402103080e17164842746643977e152c%2112000038553457238%21sea%21US%210%21



Hinged under deck facing to allow for storage

ACCESSORIES Transformer

Give your customers the convenience of lighting on their schedule. Timers and photocells allow for preset hours of illumination or auto-on during low daylight hours.

PRODUCT CODE	DESCRIPTION
PT-MT1	Mechanical Timer
PT-PC1	Photocell



Brookshier Residence
7515 Carroll Ave
Takoma Park, MD 20902

Deck Details + Materials
5/23/24

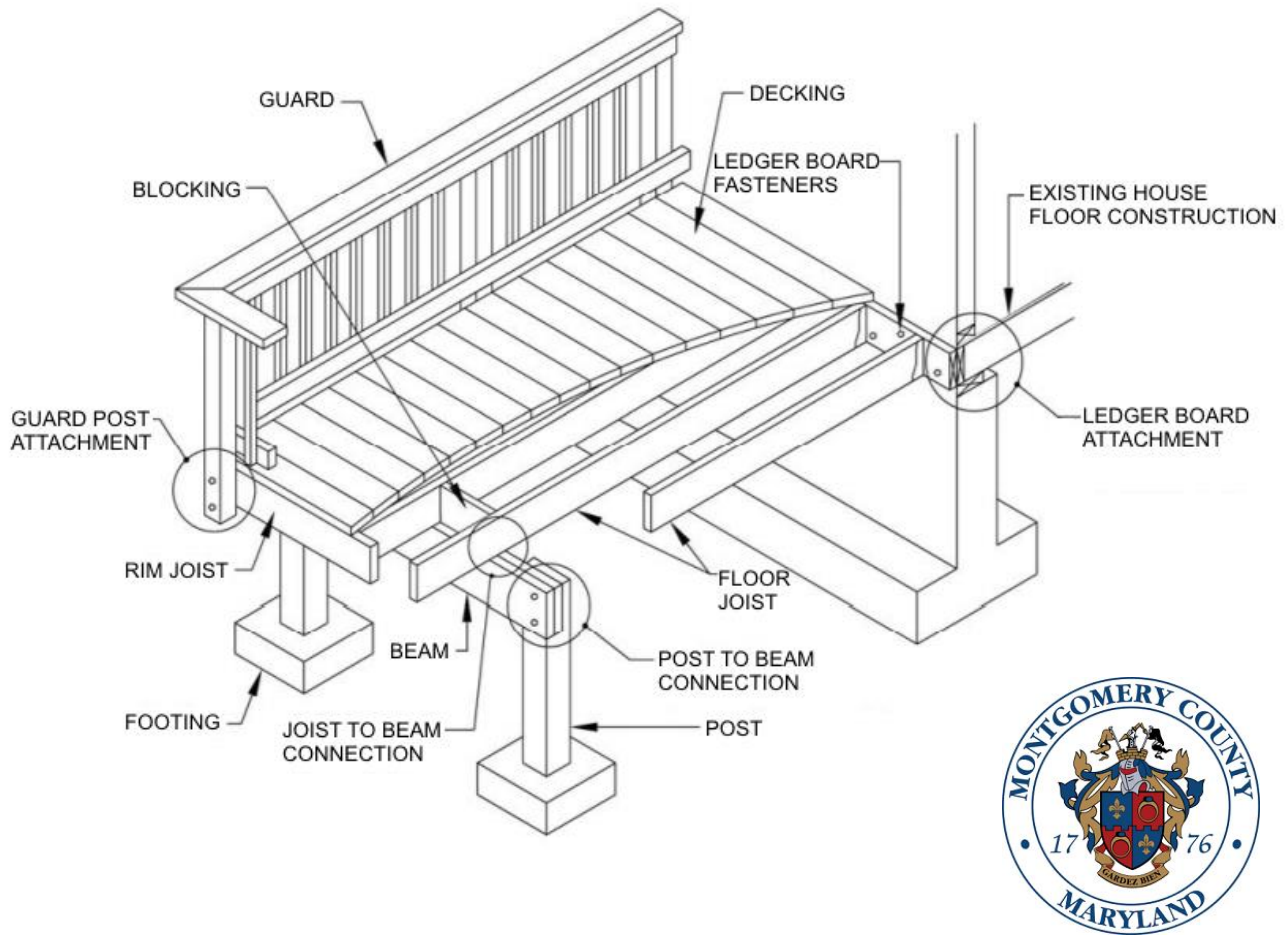

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L 3.3

MONTGOMERY COUNTY RESIDENTIAL TYPICAL DECK DETAILS Based on the 2018 International Residential Code

Evans + Brookshier Deck Renovation + Deck Addition 2024



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6. Post to Beam Connection.....	7	14. Guardrail	15
7. Joist	9	15. Stairway	17
8. Floor Joist to Beam Connection.....	9	16. Deck Worksheet	20

1. GENERAL REQUIREMENTS

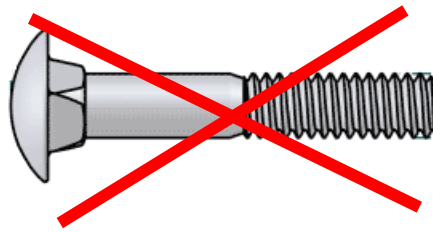
1. This document can be used in lieu of construction plans and it applies to single level – single span rectangular decks only. The overall deck length shall be equal to or less than the overall deck width. (Figures 1 or 2, page 4)
2. Band joists supporting attached decks shall be capable of supporting the new deck. If the condition can't be verified a free-standing deck or full plan submission will be required.
3. A copy of this document is required to be on the jobsite and available for inspection.
4. Deck joists shall be parallel to the house joists. When house joists are perpendicular to the deck joists a free-standing deck or full plan submission will be required.
5. Decks constructed according to these guidelines are not approved for future hot tub installations.
6. Decks shall not be attached to house overhangs, bay windows, or chimneys.
7. Deck shall not be loaded with more than 50 psf (pounds per square foot) total load. Soil bearing capacity shall be minimum 2000 psf and the minimum compressive strength of concrete shall be 3000 psi (pounds per square inch).
8. All deck lumber shall be #2 Southern Pine or better. All lumber shall be pressure-treated – with an approved process and preservative in accordance with the American Wood Protection Association standard. All lumber in contact with the ground shall be approved preservative treated wood suitable for ground contact.
9. Deck post size and maximum post height shall be in accordance with Table 1, page 5.
10. All screws, bolts, washers, nuts and nails shall be hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Hot-dipped galvanized fasteners shall meet the requirements of ASTM A 153. Class D for fasteners 3/8" diameter and smaller or Class C for fasteners with diameters over 3/8". Stainless steel driven fasteners shall be in accordance with the material requirements of ASTM F 1667. Fasteners other than nails and timber rivets shall be permitted to be of mechanically deposited zinc-coated steel with coatings and weights in accordance with ASTM B695, Class 55, minimum.
11. All connectors (joist hangers, cast-in-place post anchors, etc.) shall be galvanized or shall be stainless steel. Hardware to be hot-dipped galvanized prior to fabrication shall meet ASTM A653, G-185 coating. Hardware to be hot-dipped galvanized after fabrication shall meet ASTM A123.
12. Screws, spirally grooved and ring shanked nails shall be used for the deck surface and only manufacturer-specified fasteners shall be used to attach the connectors. Do not mix galvanized and stainless-steel connectors.
13. Decks 30 inches or less above grade are not required to have a guardrail. Grade measurement is at any point within 36" horizontally.
14. All decks that are accessible from the inside of the dwelling shall have at least one receptacle outlet accessible from the deck. (NEC 210.52(e)3).
15. Before you dig call MISS UTILITY 1-800-257-7777 (2-day notice is required). Please note that the Maryland High Voltage Line Act prohibits any person or object from getting closer than 10 feet to high voltage power lines.

DECK TYPES

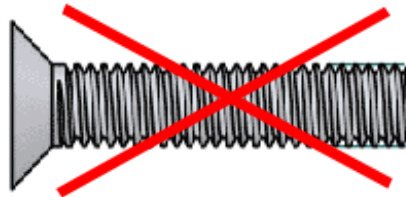
Attached Deck: a deck structure that is physically attached to and supported by the house with a ledger board.

Note: Not all decks are permitted to be attached to the house. Ledger Board attachment to brick veneer, stone or cultured stone, house cantilever, bay windows or chimneys, and web floor trusses are not permitted. Band joists supporting attached decks shall be capable of supporting the new deck. Deck joists shall be parallel to the house joists. If the condition can't be verified a free-standing deck or full plan submission will be required

Free-Standing Deck: a self-supporting deck structure built independently from the house, requires two support beams.

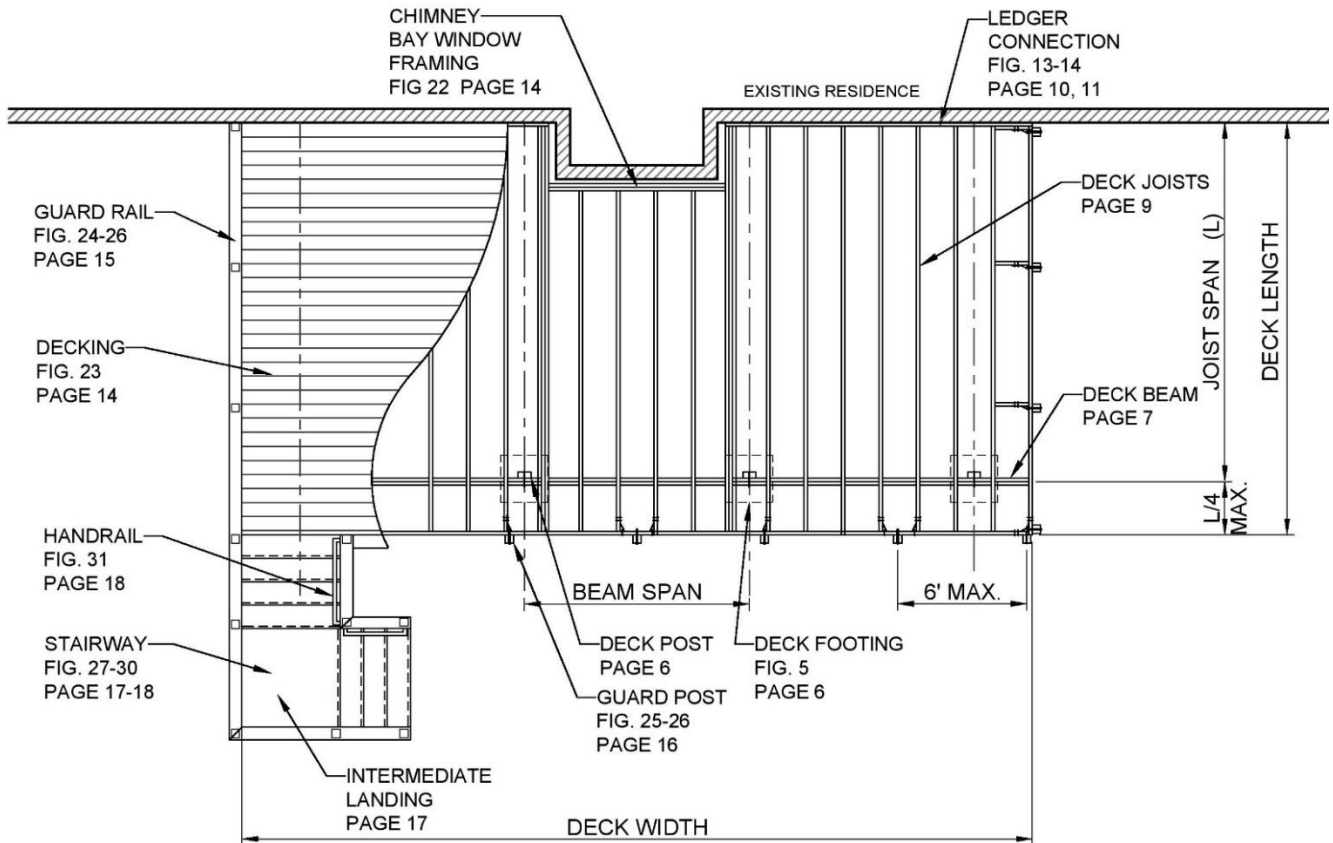


Carriage Bolts are not Permitted



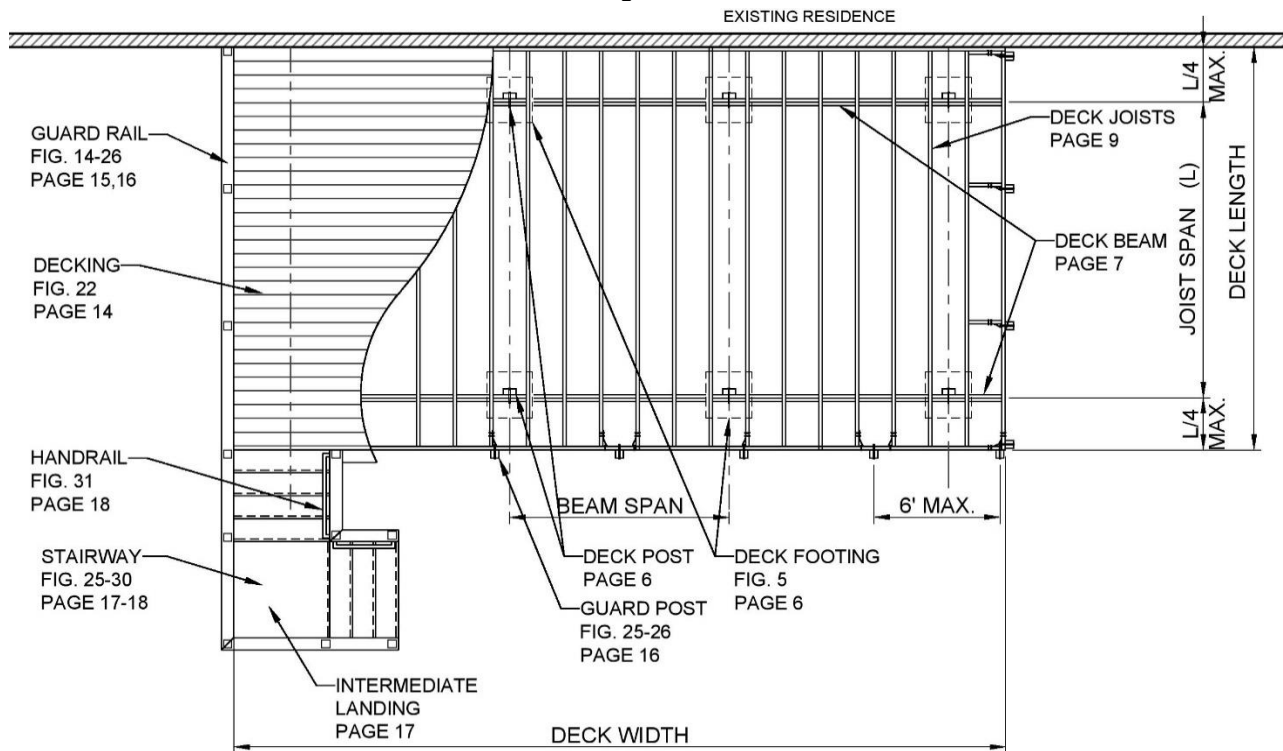
Countersunk bolts are not Permitted

2. DECK FRAMING PLANS AND SECTIONS



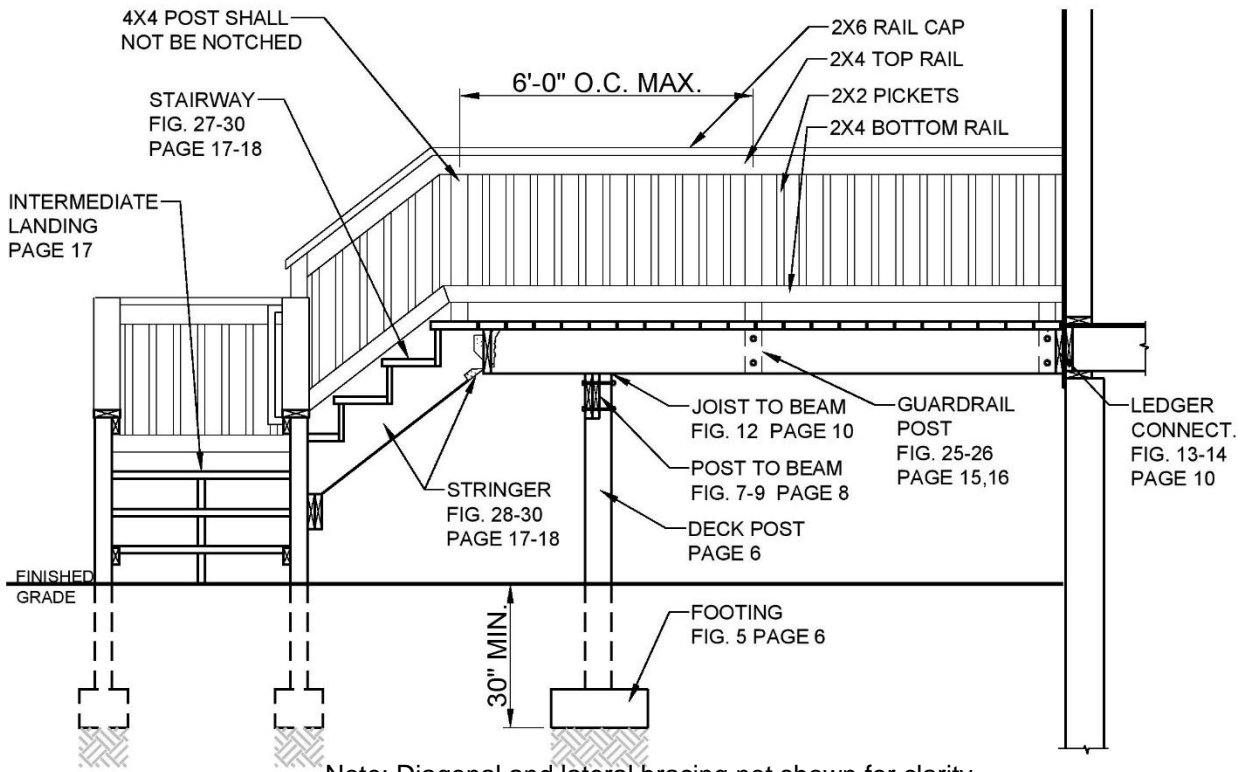
~~ATTACHED DECK~~

Figure 1



FREE STADING DECK

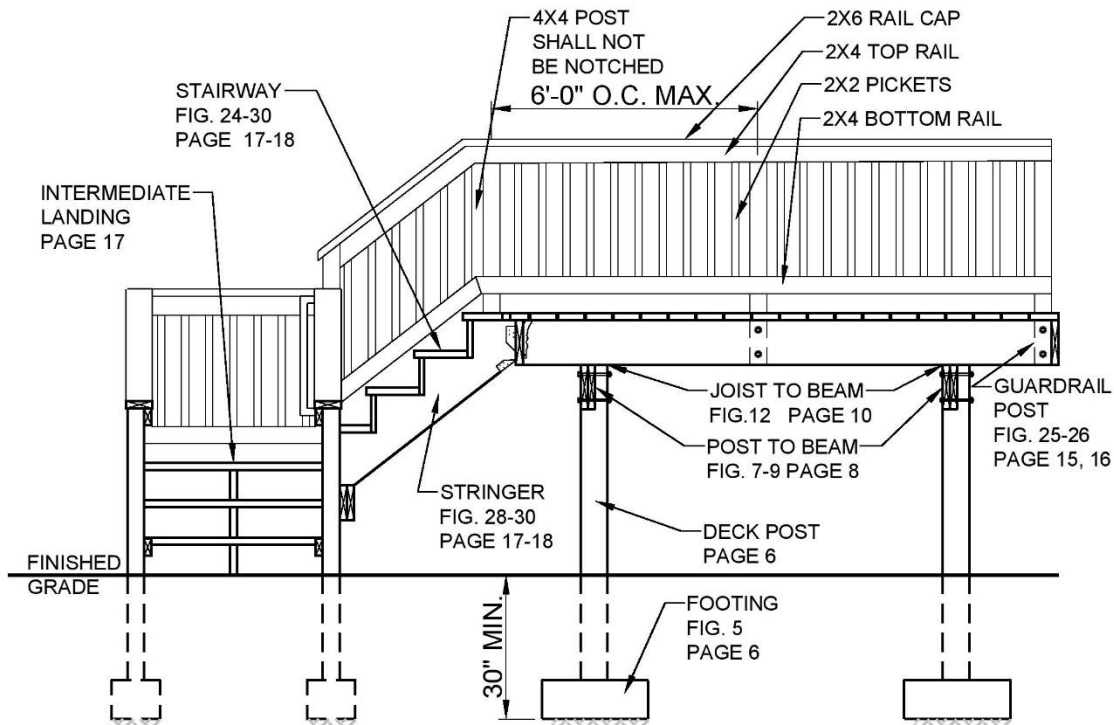
Figure 2



Note: Diagonal and lateral bracing not shown for clarity

ATTACHED DECK

Figure 3



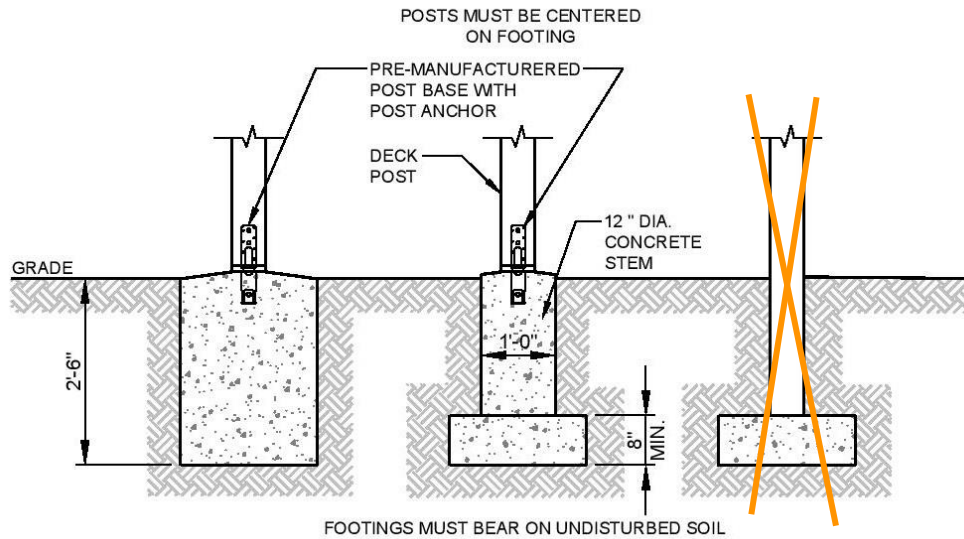
Note: Diagonal and lateral bracing not shown for clarity

FREE STANDING DECK

Figure 4

3. DECK FOOTINGS

Footings shall be minimum 20 inches square or 22 inches diameter. Bottom of footings shall be a minimum of 30 inches below grade and shall bear on undisturbed soil. **Deck footings closer than 5'-0" to an exterior house foundation wall must bear at the same elevation as the existing house foundation.** Distances to the edges of the footing and connector's embedment must be in accordance with the manufacturer's recommendations.



DECK FOOTINGS

Figure 5

- Posts shall be restrained to prevent lateral displacement at the bottom support by manufacturer connectors or by a minimum of 12" in surrounding soils or concrete piers. Where expansible, compressible, shifting or other questionable soils are present, soils shall not be relied on for lateral support.
- Cut ends of posts shall be field treated with an approved preservative.

4. DECK POSTS

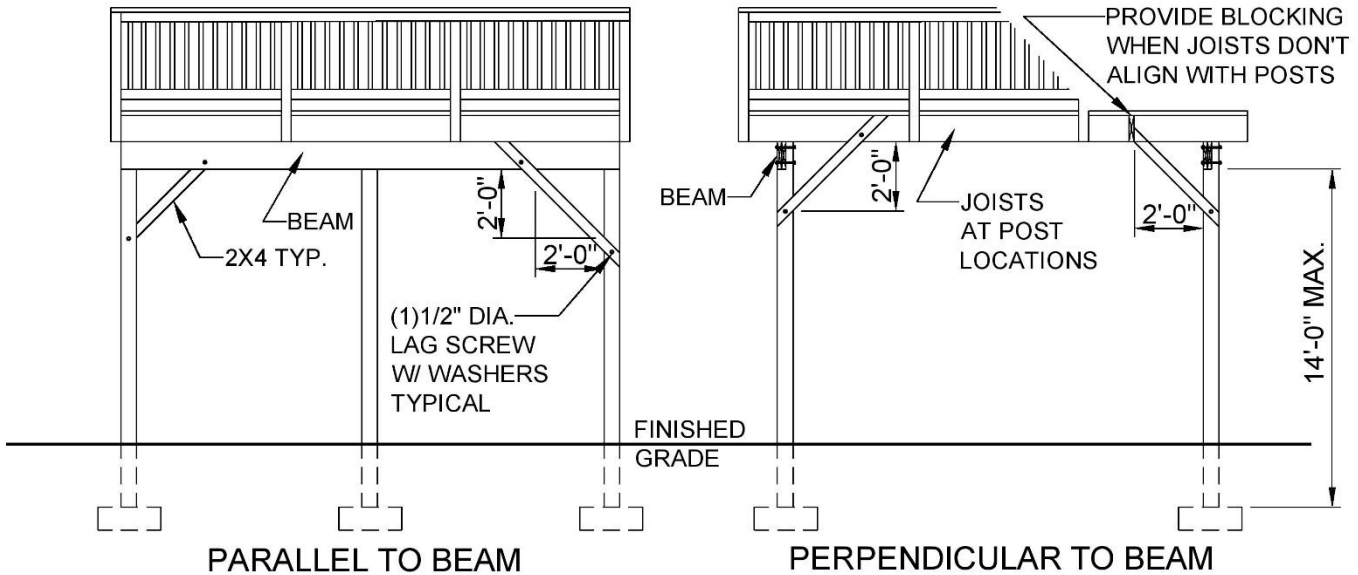
Deck post size shall be in accordance with Table 1. The height of the post is measured from grade or top of foundation (whichever is higher) to the underside of the beam. Post shall be centered on the footing. Cut ends and notches of post shall be field treated with an approved preservative. The post shall be attached to the beam by notching as shown in Figure 7 or by providing an approved post cap to connect the post to the beam as shown in Figure 7. Where post bear on concrete footings lateral restraint shall be provided by manufactured connectors or a minimum post embedment of 12 inches in surrounding soils of concrete piers.

Provide diagonal bracing at each post greater than 2 feet in height (grade to bottom of beam) as shown in Figure 6. Diagonal bracing is prohibited on center posts. Bracing shall be fastened to the post at one end with 1/2" dia. Lag screws. One set of diagonal bracing shall be located between posts and beams or parallel to the house. Another set of diagonal bracing shall be located perpendicular to beams and house in the end spans. This bracing shall be bolted to the post and joist above the post location. If the joist spacing is such that a joist does not align over a post location an extra joist shall be added to facilitate connection of the diagonal bracing. For free standing decks (see Figure 4) diagonal bracing may be omitted at the beam and posts adjacent to the house.

DECK POST SIZE	MAXIMUM HEIGHT ^{a,b} (feet and inches)
4x4	6'-9"
6x6	14'-0"

- Measured to the underside of the beam
- Based on 40 psf live load

Table 1



Note: Diagonal bracing prohibited on center posts

Figure 6

5. DECK BEAM

Maximum allowable spans for deck beams to be as per Table 2. Beam plies shall be fastened with two rows of 10d (3 in x 0.128 in) nails minimum at 16" o.c. along each edge. Beams shall be permitted to cantilever up to 2 feet or up to one-fourth of the beam span, whichever is less. The ends of beams shall have a minimum of 1 1/2" inches of bearing.

DECK BEAM SPANS ^{a,b}

Southern Pine No. 2	Size	DECK JOIST SPAN LESS THAN OR EQUAL TO:						
		(feet)						
		6	8	10	12	14	16	18
	(2) 2x6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"	4'-0"
	(2) 2x8	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
	(2) 2x10	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
	(2) 2x12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-6"	7'-0"
	(3) 2x6	8'-2"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"	5'-0"
	(3) 2x8	10'-10"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
	(3) 2x10	13'-0"	11'-3"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
	(3) 2x12	15'-3"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"

a. Beam depth shall be greater than or equal to the depth of the floor joist with a flush beam condition.

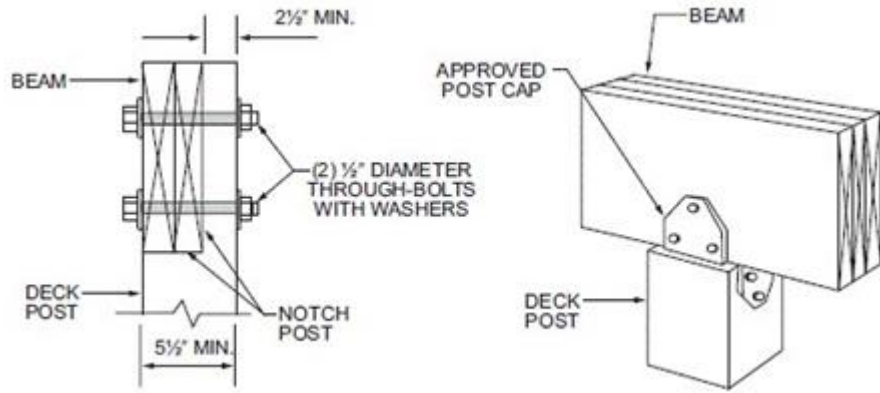
b. Beams shall be permitted to cantilever at each end 2 feet or up to one-fourth of the actual beam span, whichever is less.

Table 2

6. POST TO BEAM CONNECTION

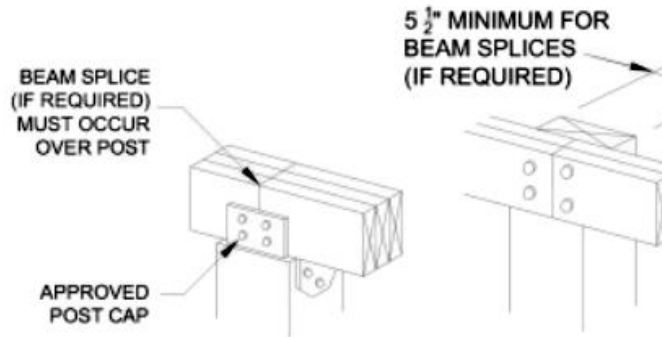
Deck beams shall be attached to deck post in a manner capable of transferring vertical loads and resisting horizontal displacement. Where multiple span beams bear on intermediate posts each ply must have full bearing on the post as shown on Figures 7, 8 and 9 Connections shall be as per Figures 7,8 and 9. Manufactured post to beam connectors shall be sized for the post and beam sizes. Bolts shall have washers under the head and nut.

Beam to post connection with fasteners only is prohibited, see Figure 10. Built-up beams shall be assembled in accordance with Figure 11. For triple member beams, provide the nailing pattern shown to the outside member on each side; however staggered rows shall be offset so as not to occur in the same location.



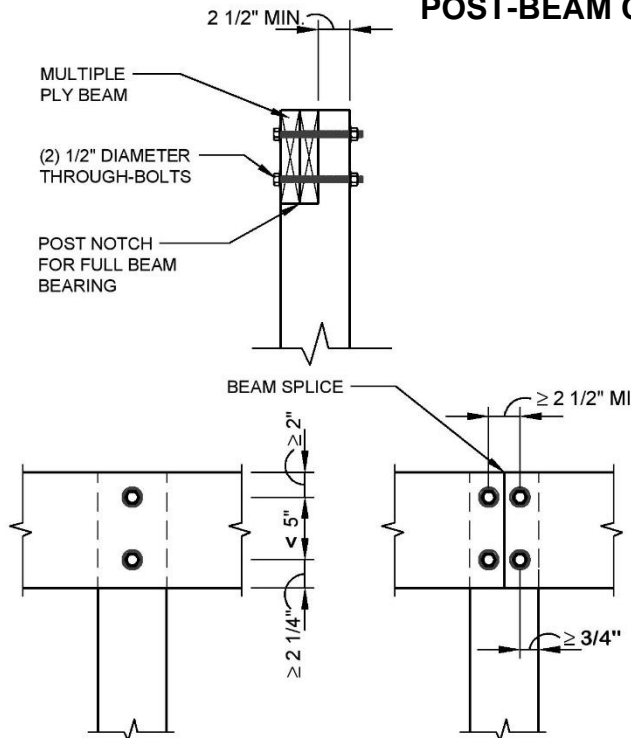
POST-BEAM CONNECTION

Figure 7



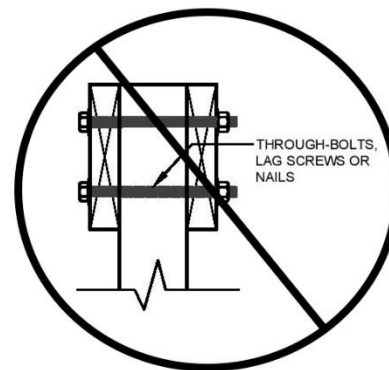
POST-BEAM CONNECTION AT SPLICE

Figure 8



NOTCHED POST TO BEAM CONNECTION

Figure 9

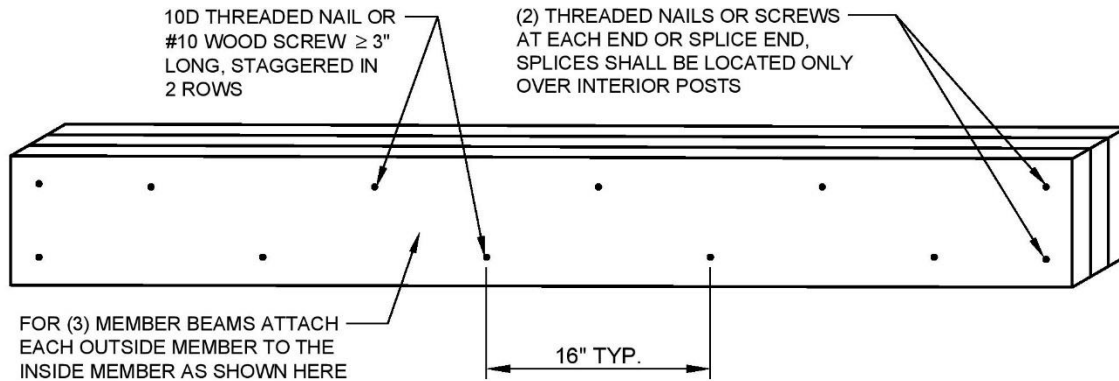


POST TO BEAM PROHIBITED CONNECTION

Figure 10

Note:

- a. Beams must span continuously between posts and shall be spliced at interior post locations only.
- b. Spans are measured between the centerline of bearings or supports.



BUILT-UP BEAM CONNECTION

Figure 11

7. DECK JOIST

Maximum allowable span for deck joists to be as per Table 3. The maximum cantilever shall be limited to one-fourth of the actual adjacent joist span or the maximum cantilevered length shown on table 3. Whichever is less. The ends of joists shall have not less than 1 ½” bearing on wood or metal. Joist framing into the side of a beam or ledger shall be supported by approved joists hangers. Joist ends and bearings shall be provided with lateral resistance to prevent rotation by joists hangers or blocking and their depth shall not be less than 60% of the joist depth. Rim joists shall be secure to the end of each joist with no less than three 10d (3-in x 0.128in) nails or three No. 10 x 3-in long wood screws.

SPECIES	SIZE	ALLOWABLE JOIST SPAN SPACING OF DECK JOISTS			MAXIMUM CANTILEVER SPACING OF DECK JOISTS WITH CANTILEVER		
		(inches)			(inches)		
Southern Pine No. 2		12	16	24	12	16	24
	2x6	9'-11"	9'-0"	7'-7"	1'-3"	1'-4"	1'-6"
	2x8	13'-1"	11'-10"	9'-8"	2'-1"	2'-3"	2'-5"
	2x10	16'-2"	14'-0"	11'-5"	3'-4"	3'-6"	2'-10"
	2x12	18'-0"	16'-6"	13'-6"	4'-6"	4'-2"	3'-4"

Table 3

8. JOIST TO BEAM CONNECTION

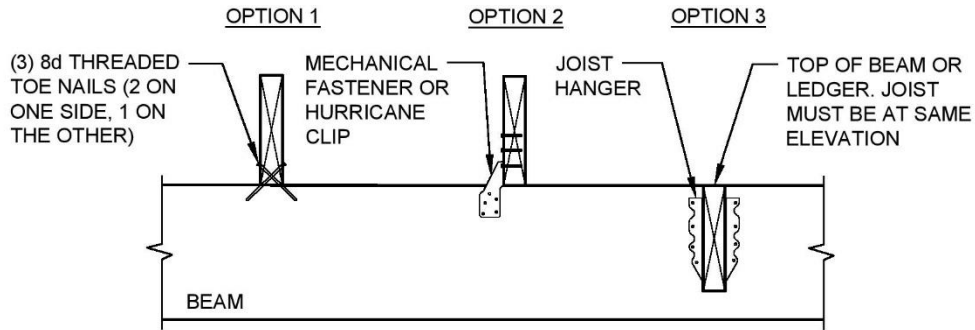
Each joist shall be attached to the beam as shown on Figure 12. Joist may bear on an overhang past the beam face when Option 1 or Option 2 is used, and blocking is provided between joists at beam bearing. Option 2 mechanical fasteners of hurricane clips must have a minimum uplift and lateral load capacity of 100 lbs in both uplift and lateral load directions. Joists may also be attached to the side of the beam with joist hangers per Option 3. Joists shall not frame in from opposite sides of the beam. Joist hangers shall be at least 60% of the ledger of beam depth. See Table 4 for minimum joist hanger capacity. Inside flange hangers can be used at edge conditions. Clip angles or brackets to support deck joists are prohibited.

F

JOIST SIZE	MIN. CAPACITY
2x6	400 lbs
2x8	500 lbs
2x10	600 lbs
2x12	700 lbs

JOIST HANGER VERTICAL CAPACITY

Table 4

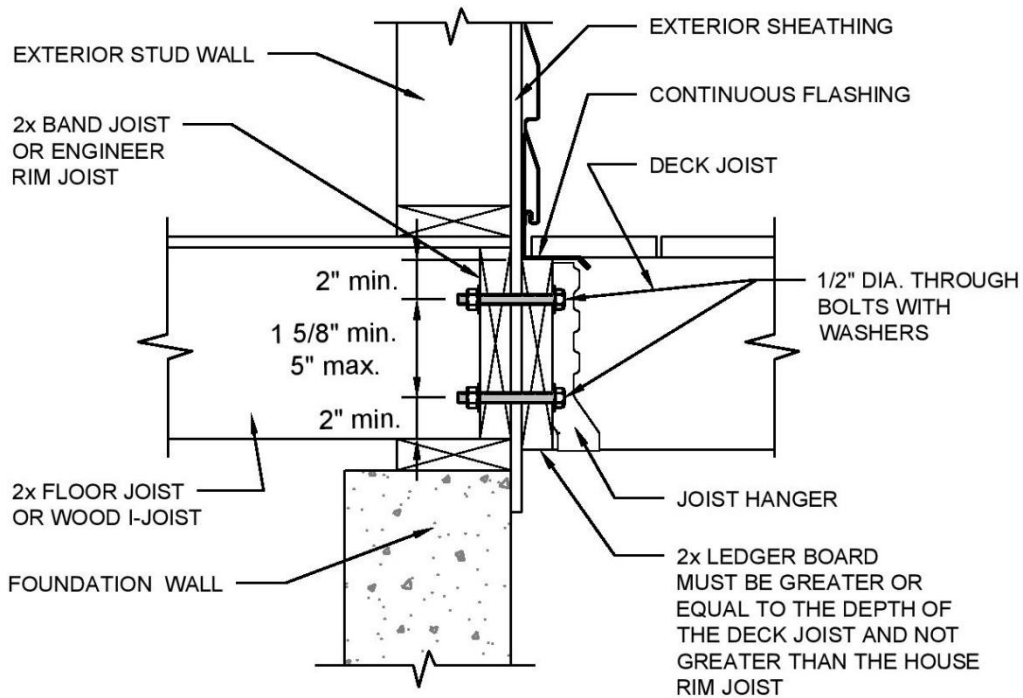


JOIST TO BEAM CONNECTION

Figure 12

9. LEDGER DECK ATTACHMENT

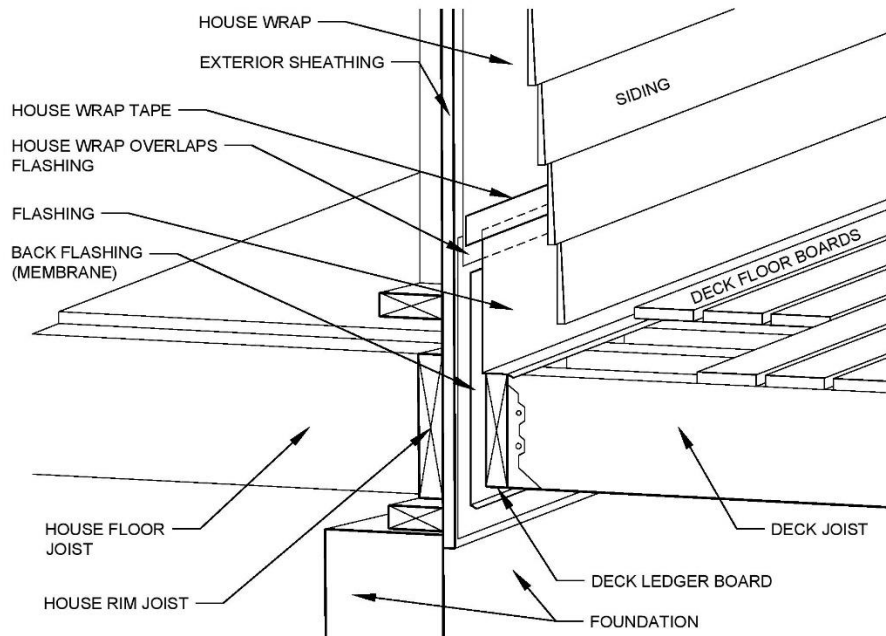
The ledger board shall be equal to or greater than the deck joist depth but equal or less than the house band or rim joist. Ledger board attachments to the exterior wall shall be constructed as indicated in Figure 13. The ledger shall be a minimum nominal 2x8. When attachments are made to the house band joist the connection shall be to a 2" nominal lumber band joist or LVL rim joist bearing on a sill plate or wall plate and it shall be constructed with 1/2" bolts with washers. The band joist shall be capable of supporting the new deck. If this cannot be verified or conditions at the house differ from the details herein, a free-standing deck or full plan submission will be required. Prohibited ledger board attachments are attachment to or through exterior veneers (Brick, Masonry, Stone) Figure 16, cantilever floor overhangs Figure 16, open web trusses Figure 16, as they are not intended or designed to support a new deck.



Note: Flashing is not shown for clarity

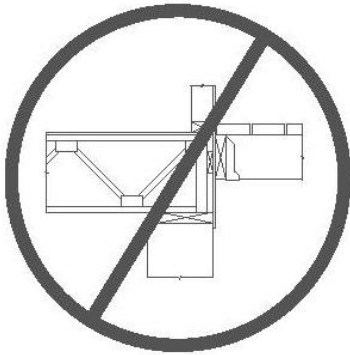
LEDGER BOARD TO RIM JOIST ATTACHMENT

Figure 13

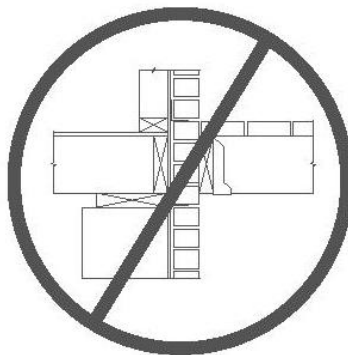


ATTACHED DECK FLASHING DETAIL

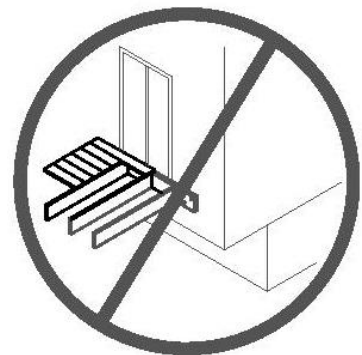
Figure 15



Attachment to Open Web Trusses



Attachment to Brick, Masonry or Stone Veneers

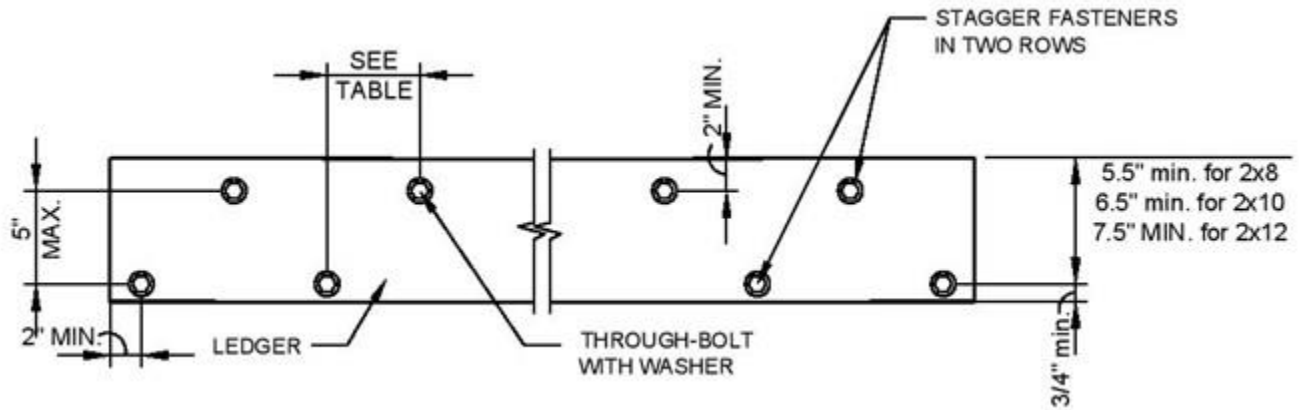


Attachment to House Overhang or Chimney

PROHIBITED LEDGER ATTACHMENTS

Figure 16

10. LEDGER BOARD FASTENERS



LEDGER FASTENER SPACING AND CLEARANCES

Figure 17

Connection	On-Center Spacing of Fasteners						
	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
Max. Joists Span	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
1/2" dia. bolt	24"	18"	14"	12"	10"	9"	8"

FASTENER SPACING

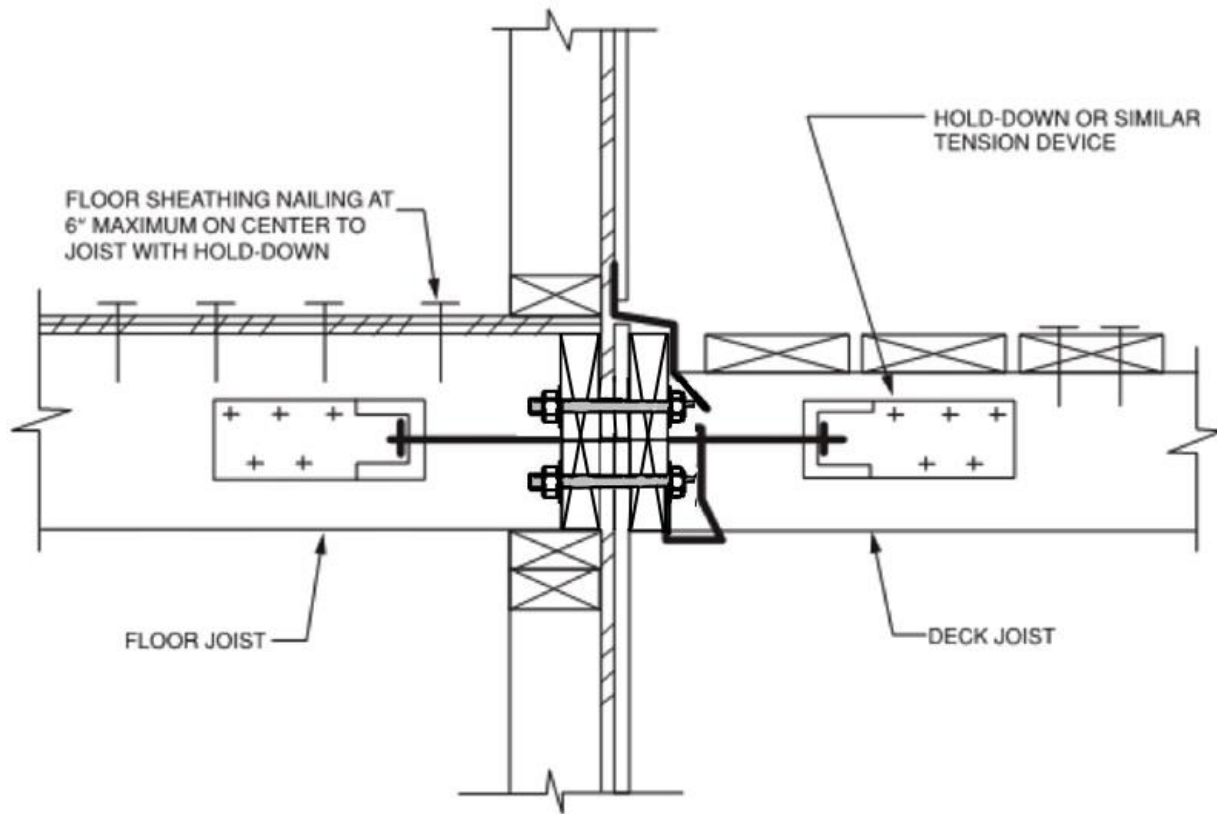
Table 5

Through-Bolts

Through-Bolts shall have a diameter of 1/2". Pilot holes for through-bolts shall be 17/32" to 9/16" in diameter. Through-Bolts require washers at the bolt head and nut.

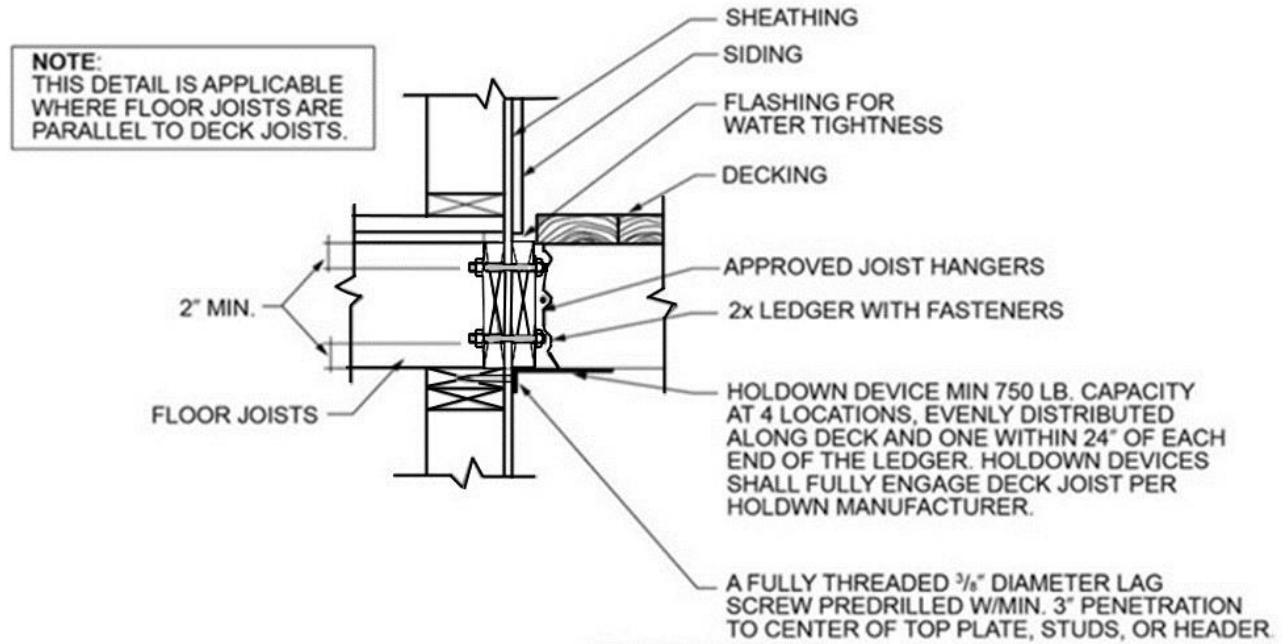
11. DECK LATERAL LOAD CONNECTION

Decks shall be positively anchored to the primary structure. The lateral connection shall be permitted in accordance with Figures 19 and 20. For conditions where the house joists are parallel to the deck joists hold-down devices shall be provided not less than two locations within two feet of the edge of the deck and shall have an allowable design capacity of not less than 1,500lbs (Figure 19); or hold down devices shall be connected to the base of the deck to house structure at not less than 4 locations, evenly distributed along deck and within 2 ft of each end and shall have an allowable design capacity of not less than 750 lbs each (figure 20).



**LATERAL LOAD CONNECTION
DECK JOISTS PARALLEL TO HOUSE JOISTS**

Figure 19

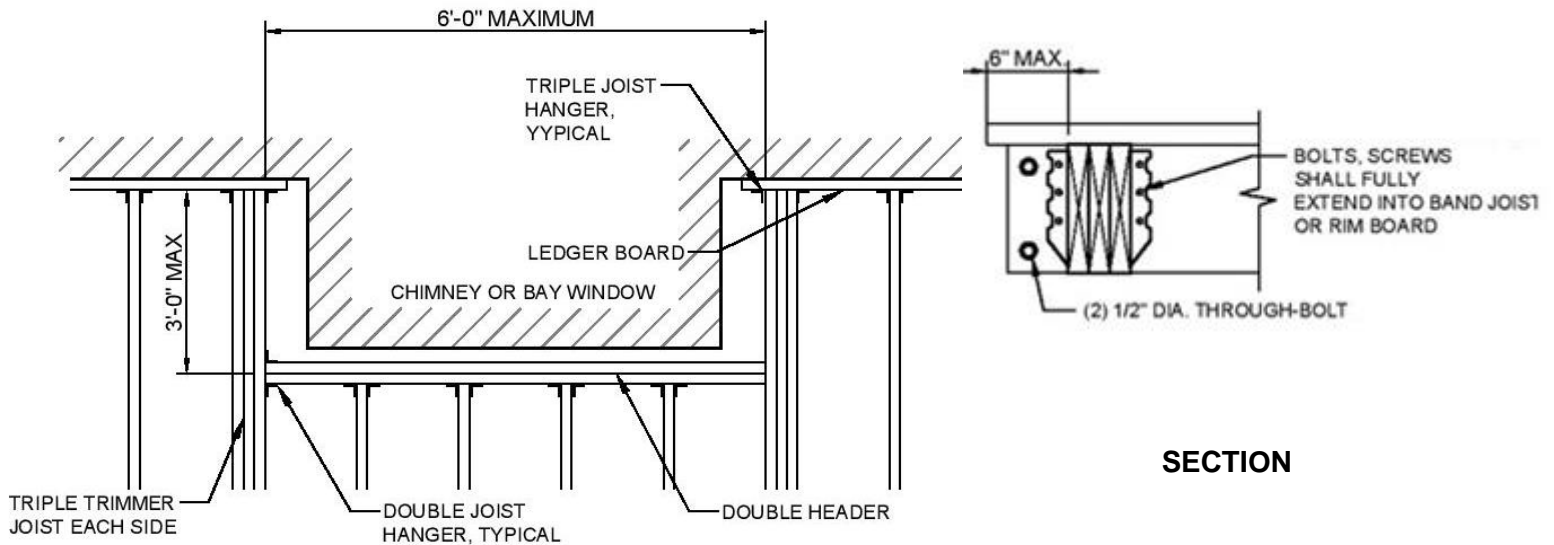


**LATERAL LOAD CONNECTION
DECK JOISTS PARALLEL TO HOUSE JOISTS**

Figure 20

12. DECK FRAMING AT CHIMNEY OR BAY WINDOW

All members at chimneys or bay windows shall be framed in accordance with Figure 22. Header may span a maximum of 6'-0". When a chimney or bay window is wider than 6'-0", one or more 6x6 post may be added to reduce header spans to less than 6'-0". In such cases, the post footing must meet the requirements in the footings section. Headers shall be located no more than 3'-0" from the end of the trimmer joist. Triple trimmer joists are required on each side of the header. Joist hangers shall each have a minimum vertical capacity in accordance with Table 4. Bolts, screws, or lag screws used to attach the hanger to the ledger shall fully extend through the ledger into the 2-inch nominal lumber band joist (1-1/2" actual) or LVL rim joist. Otherwise a free-standing deck is required.



FRAMING AROUND CHIMNEY OR BAY WINDOW

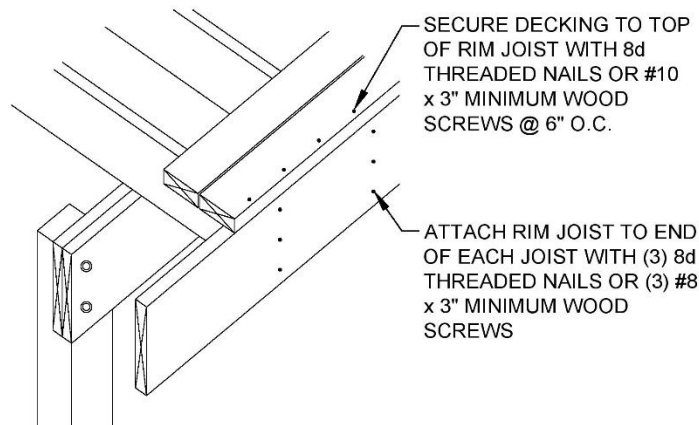
Figure 22

13. DECKING

Decking laid perpendicular to joists may consist of 2x6 structural lumber supported by joists spaced at 24" o.c. maximum or 1 1/4 inch thick wood decking supported by joists spaced 16" o.c. maximum. Attach decking to each joist with 2-8d threaded nails or 2-#10 screws. Space decking boards approximately 1/8" apart. See figure 23 for decking connection requirements to rim joist. Decking placement may range from an angle perpendicular to the joist to an angle of 45 degrees to the joist. Each segment of decking must bear on a minimum of 3 joist.

Plastic composite deck boards and stair treads will be accepted if they are labeled to indicate compliance with ASTM D7032. A complete current code evaluation report for the manufactured decking system that includes the maximum allowable load and span must be provided to the building inspector at the time of framing inspection. Manufactured decking systems must be installed in accordance with the code evaluation report and manufacturer's specifications.

Designer and/or builder to confirm



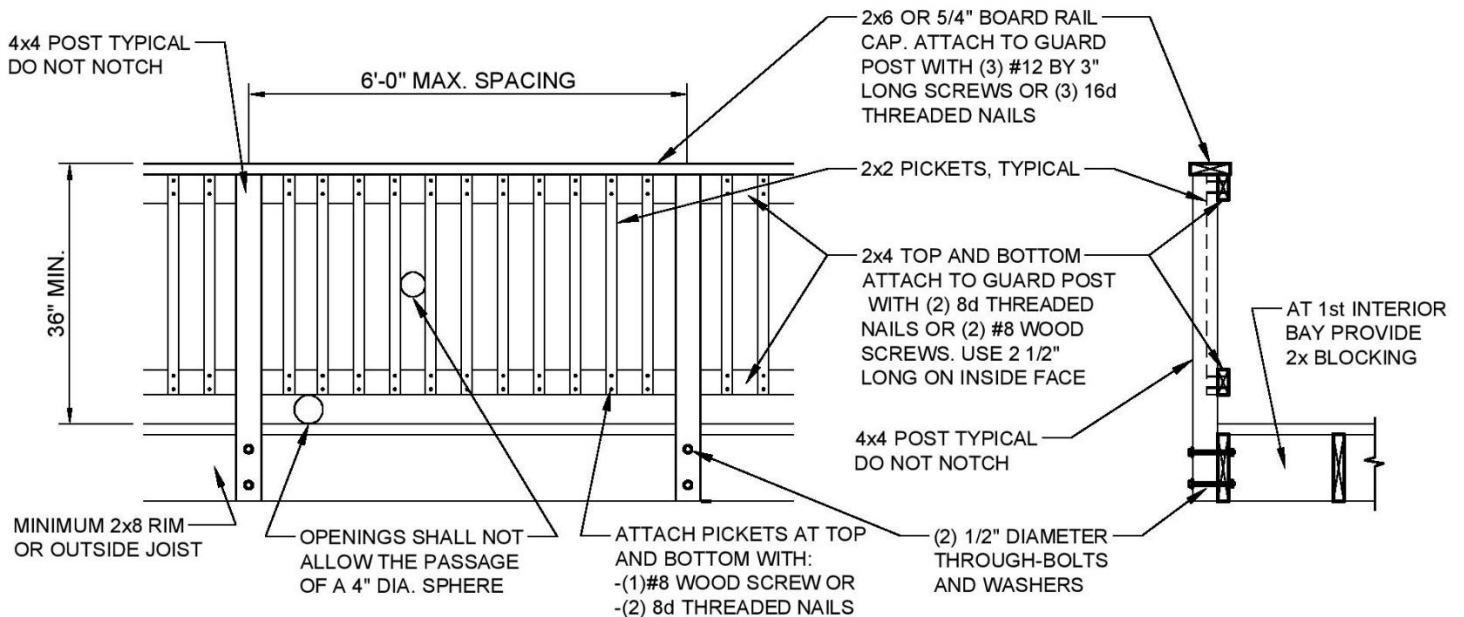
RIM JOIST CONNECTION DETAIL

Figure 23

14. DECK GUARDRAIL

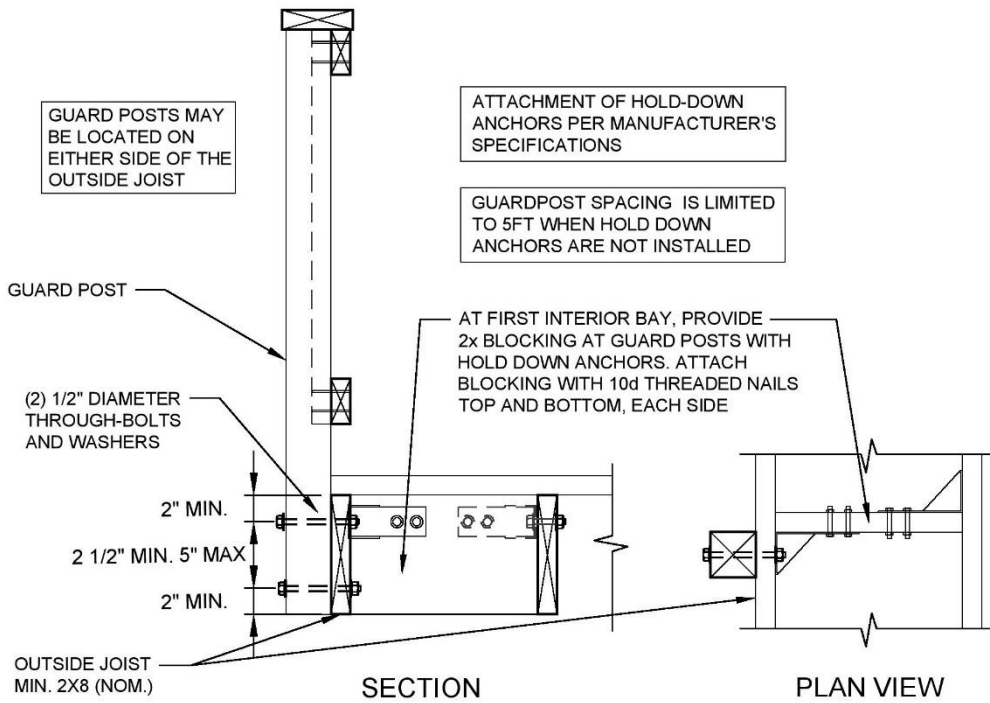
All decks greater than 30" above grade are required to have a guard constructed as shown in Figure 24. Deck guard posts shall be a minimum 4x4 (nominal). Joists and rim joists to which guard post are attached shall be a minimum of 2x8 (nominal). Guard post which run parallel to the deck joist shall be attached to the outside joist as per figure 25. Guard post that run perpendicular to the deck joists shall be attached to the rim joist in accordance with Figure 26. Hold down anchors shall have a minimum allowable tension load of 1,800 lbs for a 36" maximum guard height and shall be installed in accordance with manufacturer's instructions.

Manufactured railing systems will be accepted only if they are labeled to indicate compliance with ASTM D7032 and listed by an approved code agency in a current code evaluation report. A complete current code evaluation report for the manufactured railing system to be installed must be provided to the building inspector at the time of framing inspection. Manufactured railing systems must be installed in accordance with the report and manufacturer's specifications. Wood post spacing and connections, if used for supporting manufactured rails, balusters or pickets, must follow the conditions specified by the code evaluation report.



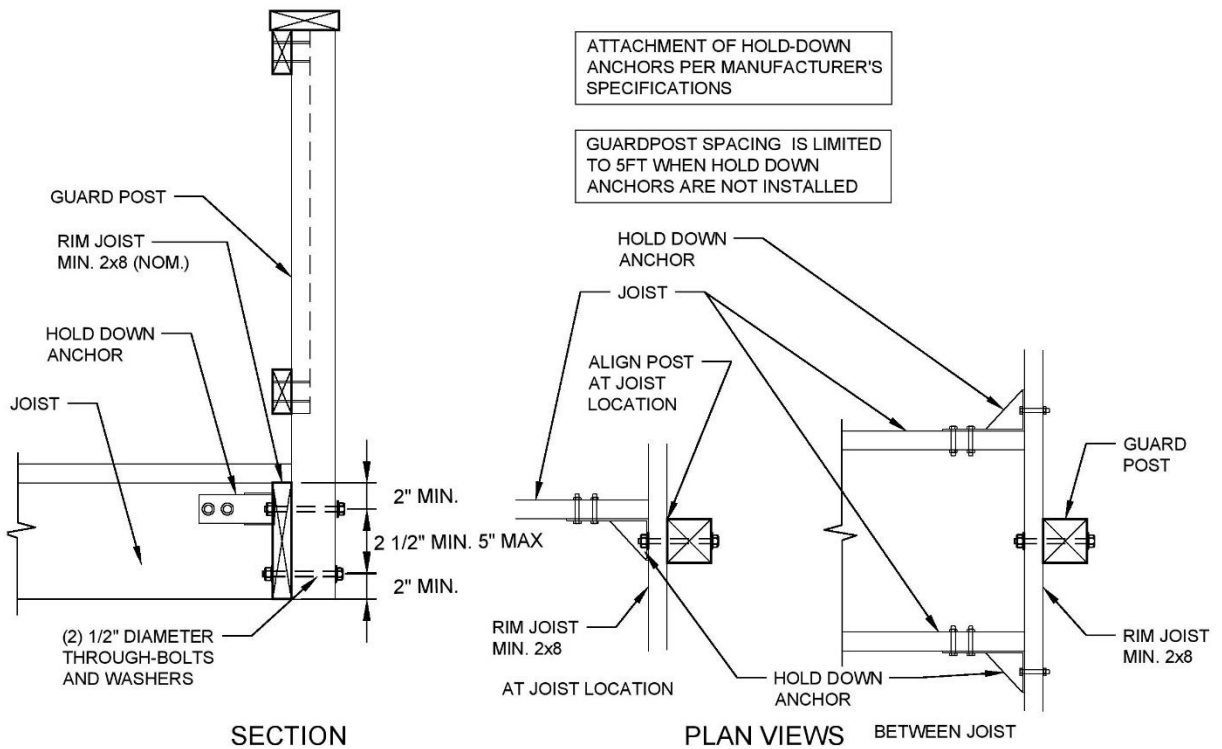
DECK GUARD DETAIL

Figure 24



GUARD POST TO OUTSIDE JOIST

Figure 25



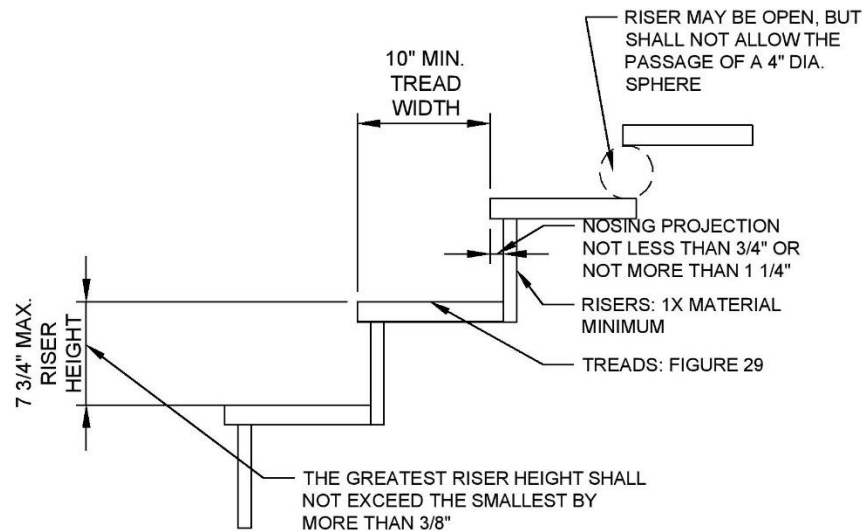
GUARD POST TO RIM JOIST

Figure 26

15. STAIR REQUIREMENTS

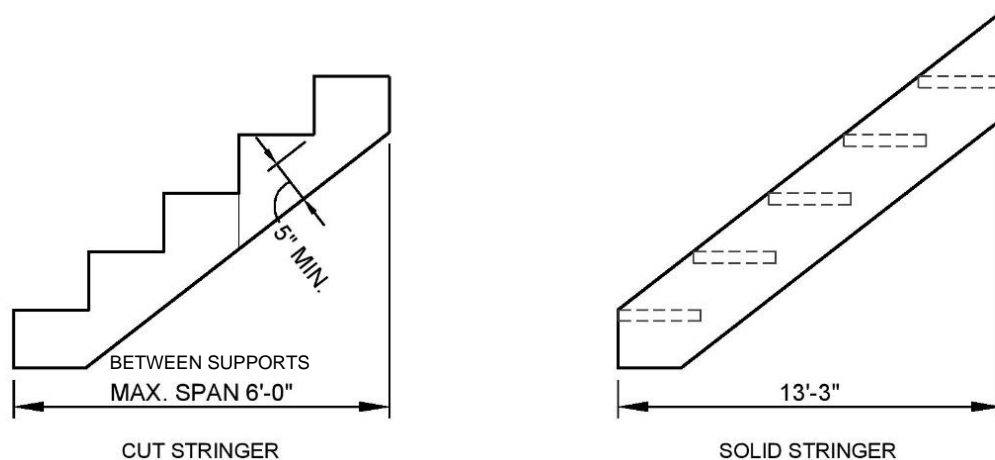
Stair, stair stringers, and guards shall meet the requirements shown in Figure 27 through Figure 34. All stringers shall be a minimum of 2x12. Stair stringers shall not span more than the dimensions shown on Figure 28. An intermediate landing may also be provided to shorten the stringer span. If the total vertical height for a stairway exceeds 12'-0" and intermediate landing will be required.

All **intermediate stair landings** must be constructed as a non-ledger deck using the details in this document. Stair shall be a minimum of 36" in width. If only cut stringers are used, a minimum of 3 stringers are required. For stairs greater than 36" in width, a combination of cut and solid stringers can be used but shall be placed at a maximum spacing of 18" on center (see Figure 29). Stair stringers must be fully supported or connected to the deck structure (see Figures 30 and 33) The width of each landing shall not be less than the width of the stairway served. Every rectangular landing shall have a minimum dimension of 36" measured in the direction of travel and not less than the width of the stair served.



TREAD AND RISER DETAIL

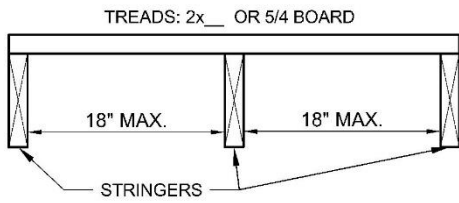
Figure 27



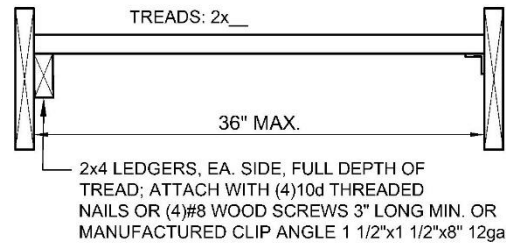
STAIR STRINGER REQUIREMENTS

Figure 28

ATTACHMENT PER TREAD AT EACH STRINGER OR LEDGER:
 2x__ OR 5/4" TREADS - (2)#8d THREADED NAILS OR (2)#8 SCREWS 2 1/2" LONG MIN.
 3x__ TREADS - (2) 16D THREADED NAILS OR (2)#8 SCREWS 3 1/2" LONG MIN.



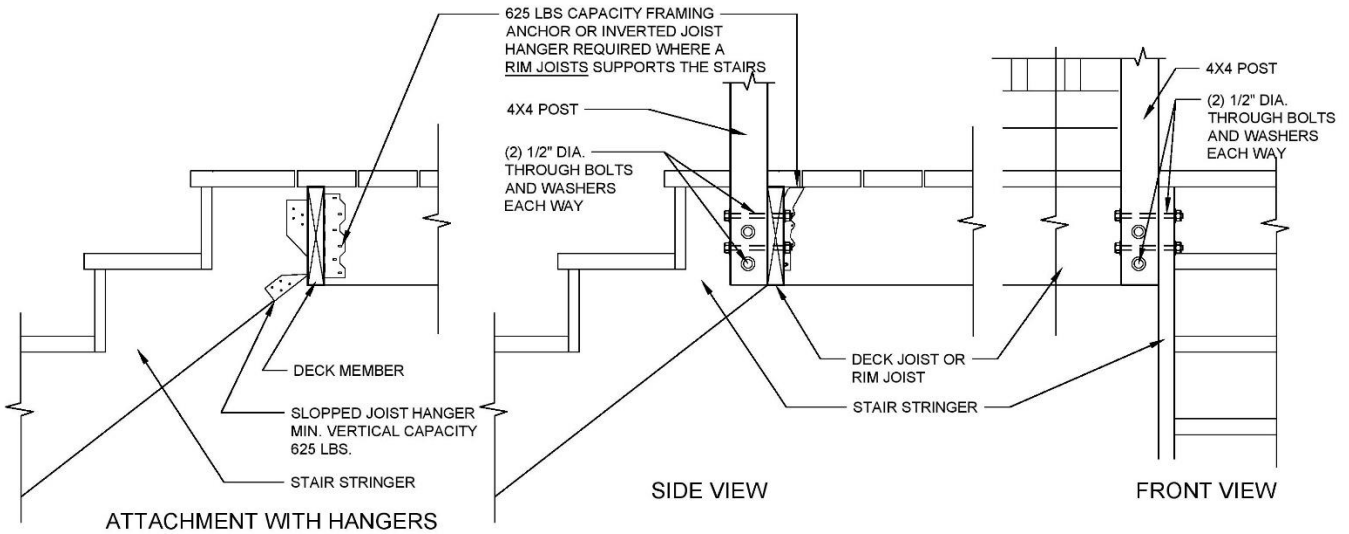
CUT STRINGER



SOLID STRINGER

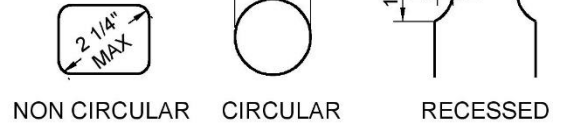
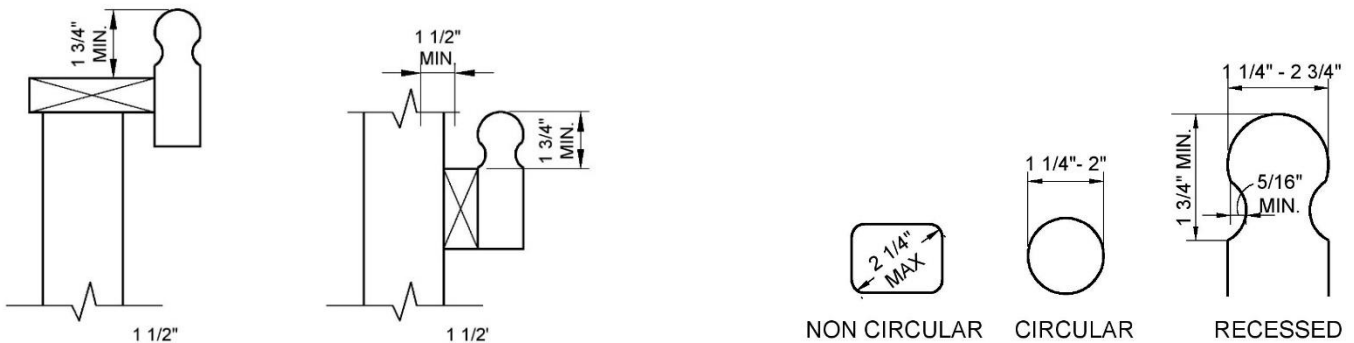
TREAD CONNECTION REQUIREMENTS

Figure 29



STAIR STRINGER ATTACHMENT

Figure 30

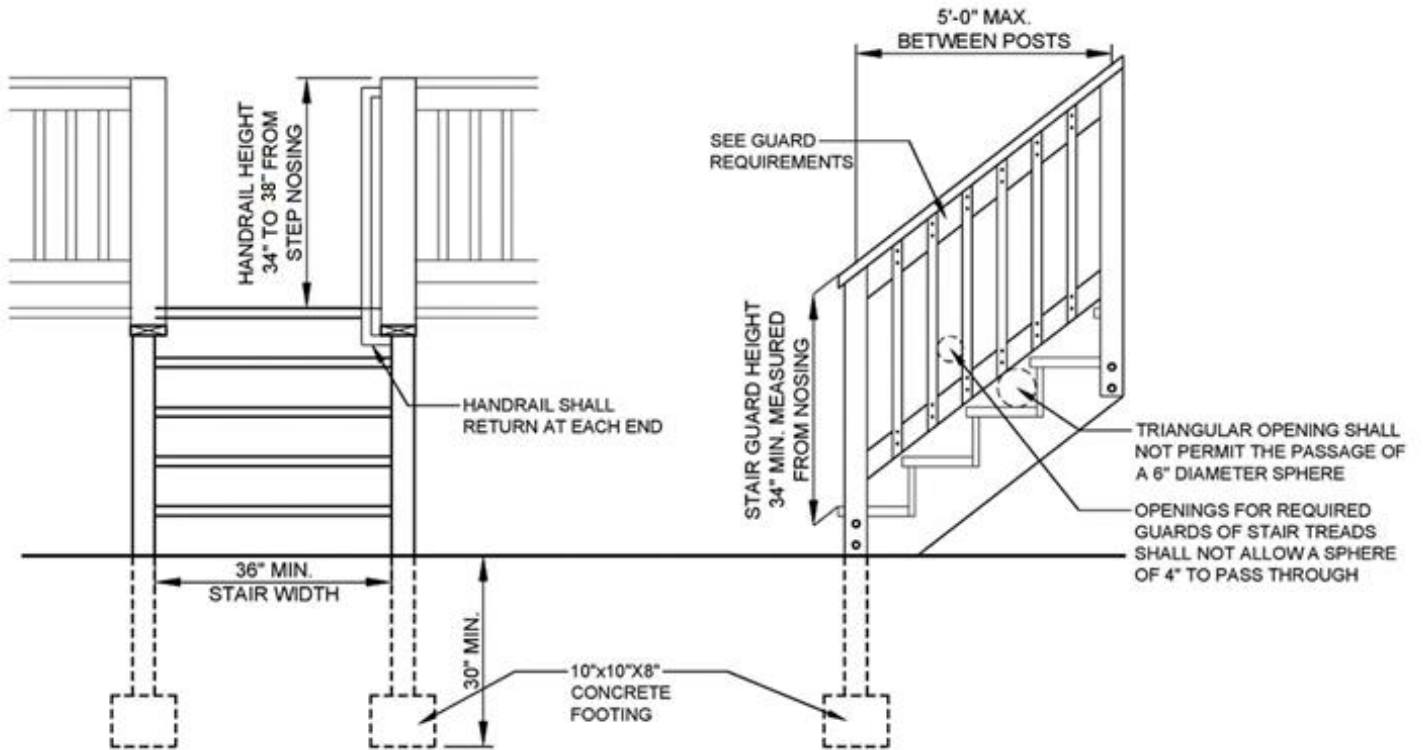


HANDRAIL GRIP SIZE

Figure 32

HANDRAIL MOUNTING EXAMPLES

Figure 31



STAIR AND GUARDRAIL REQUIREMENTS

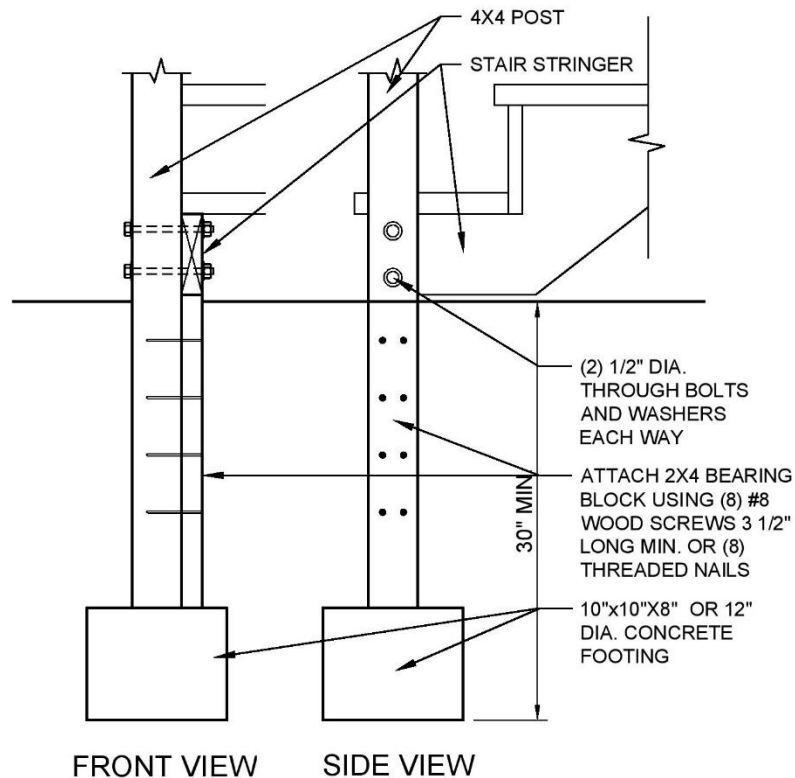
Figure 33

STAIR FOOTING REQUIREMENTS

Where the stair meets the grade, attach the stringers to the stair guard post as shown of Figure 33. Post shall bear on footings. All footing shall bear on solid ground at least 30" below grade. Stringers shall bear on 2x4 bearing block attached to the post as shown.

STAIR LIGHTING REQUIREMENTS

Stairways shall have a light source located at the top landing such that all stairs and landings are illuminated. The light switch shall be operated from the inside of the house. Motion detected or timed switches are acceptable



FRONT VIEW SIDE VIEW

STAIR FOOTING DETAIL

Figure 34

16. DECK WORKSHEET

This worksheet is provided to help you determine compliance with the requirements of the Montgomery County Residential Typical Deck Details

1. Attached Deck or Free-Standing Deck
2. Deck Dimensions (L): _____ x (W) _____ x Height _____
3. Footing Size: _____ Total #: _____ (including stairs)
4. Post Spacing: _____
5. Beam Size () _____ x _____
6. Post Base/Cap Connectors: YES NO
7. Ledger Size: _____ x _____ w/ 1/2" dia. Bolts
8. Joists _____ x _____ @ _____ o.c.
9. Deck Boards: Wood Composite*

(*Provide current Code Evaluation Report @ Framing Inspection)

10. Guardrails: Wood or Composite*

(*Provide current Code Evaluation Report @ Framing Inspection)