Tillamook County **DEPARTMENT OF COMMUNITY DEVELOPMENT**
BUILDING, PLANNING & ON-SITE SANITATION SECTIONS

1510 – B Third Street
Tillamook, Oregon 97141
www.tillamook.or.us
(503) 842-3408

Land of Cheese, Trees and Ocean Breeze

Floodway Development Permit #851-21-000321-PLNG:
Coulter

NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER

NOTICE OF ADMINISTRATIVE REVIEW
Date of Notice: March 15, 2022

Notice is hereby given that the Tillamook County Department of Community Development is considering the following:

851-21-000321-PLNG: A review of a Floodway Development Permit for the placement of a proposed single-family dwelling near the Nestucca River. The subject property is accessed from Rueppell Avenue, a County local access road, and is designated as Tax Lot 4800, of Section 30BD of Township 4 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon. The property is located in the Pacific City/Woods Airpark (PCW-AP) Zone. The applicant is Ronald Coulter. The property owner is David Coulter.

Written comments received by the Department of Community Development prior to 4:00p.m. on March 29, 2022, will be considered in rendering a decision. Comments should address the criteria upon which the Department must base its decision. A decision will be rendered no sooner than the next business day, March 30, 2022.

Notice of the application, a map of the subject area, and the applicable criteria are being mailed to all property owners within 250 feet of the exterior boundaries of the subject parcel for which an application has been made and other appropriate agencies at least 14 days prior to this Department rendering a decision on the request.

A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: https://www.co.tillamook.or.us/commdev/landuseapps and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

If you have any questions about this application, please call the Department of Community Development at 503-842-3408 Ext. 3301 or mjenck@co.tillamook.or.us

Sincerely,

Melissa Jenck

Melissa Jenck, CFM, Land Use Planner II

Sarah Absher, CFM, Director
Enc. Applicable Ordinance Criteria, Maps

REVIEW CRITERIA

ARTICLE III – ZONE REGULATIONS

TCLUO SECTION 3.510: FLOOD HAZARD OVERLAY ZONE

(1) The fill is not within a Coastal High Hazard Area.

(2) Fill placed within the Regulatory Floodway shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(3) The fill is necessary for an approved use on the property.

(4) The fill is the minimum amount necessary to achieve the approved use.

(5) No feasible alternative upland locations exist on the property.

(6) The fill does not impede or alter drainage or the flow of floodwaters.

(7) If the proposal is for a new critical facility, no feasible alternative site is available.

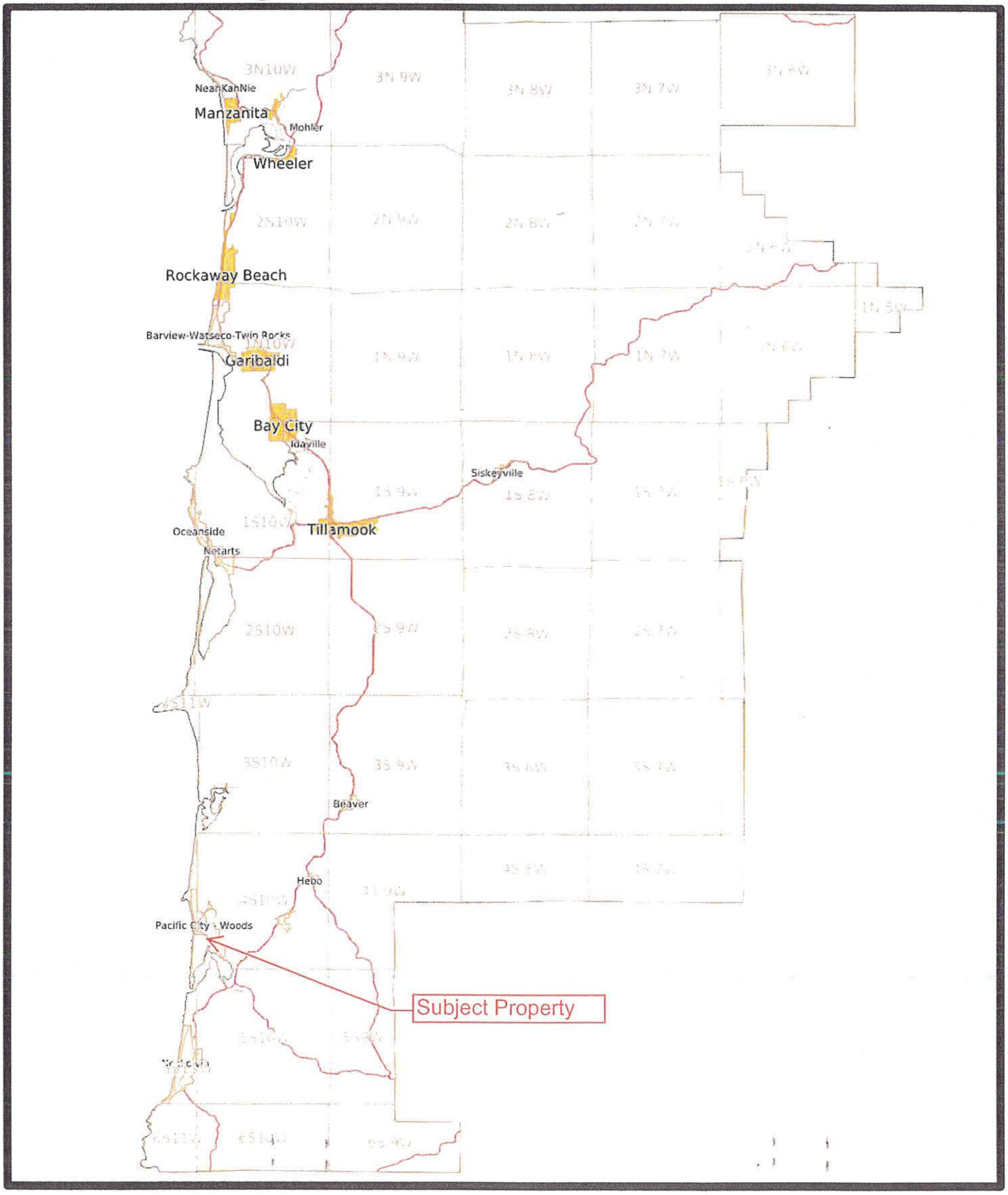
(8) For creation of new, and modification of, Flood Refuge Platforms, the following apply, in addition to (14)(a)(1-4) and (b)(1-5):

> i. The fill is not within a floodway, wetland, riparian area or other sensitive area regulated by the Tillamook County Land Use Ordinance.
>
> ii. The property is actively used for livestock and/or farm purposes,
>
> iii. Maximum platform size = 10 sq ft of platform surface per acre of pasture in use, or 30 sq ft per animal, with a 10-ft wide buffer around the outside of the platform,
>
> iv. Platform surface shall be at least 1 ft above base flood elevation,
>
> v. Slope of fill shall be no steeper than 1.5 horizontal to 1 vertical,
>
> vi. Slope shall be constructed and/or fenced in a manner so as to prevent and avoid erosion.

Conditions of approval may require that if the fill is found to not meet criterion (5), the fill shall be removed or, where reasonable and practical, appropriate mitigation measures shall be required of the property owner. Such measures shall be verified by a certified engineer or hydrologist that the mitigation measures will not result in a net rise in floodwaters and be in coordination with applicable state, federal and local agencies, including the Oregon Department of Fish and Wildlife.

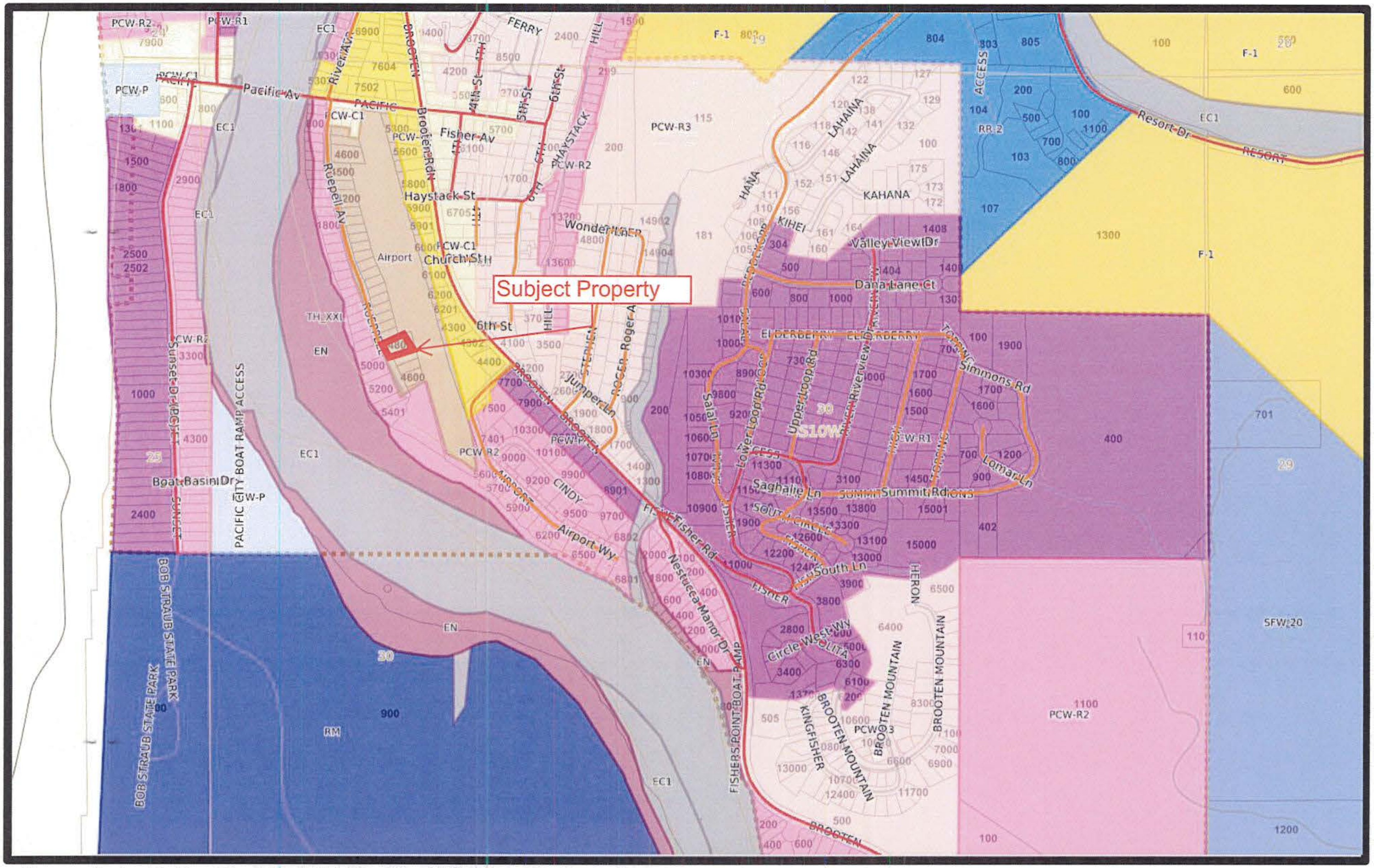
EXHIBIT A

Vicinity Map

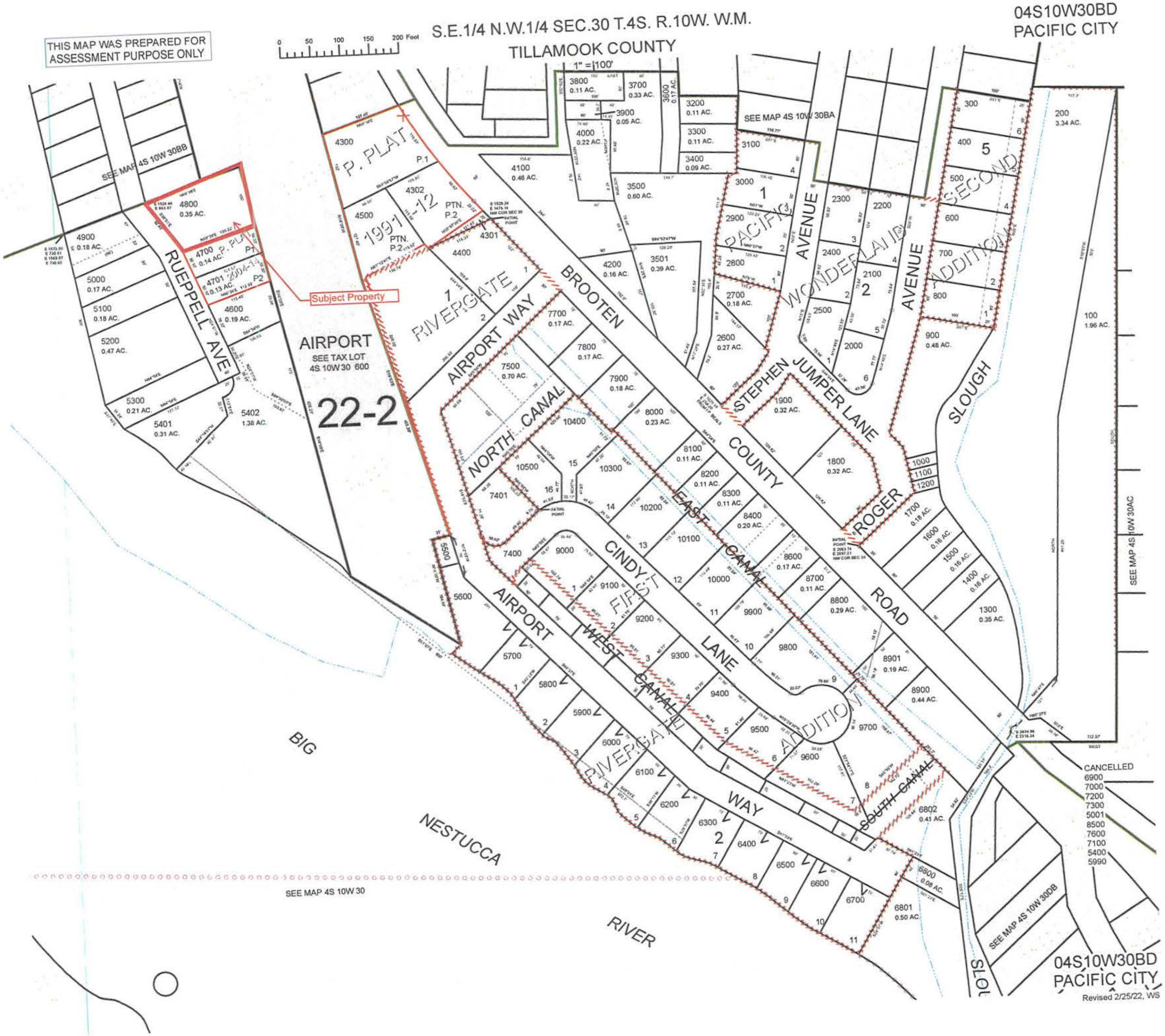


Generated with the GeoMOOSE Printing Utilities

Zoning Map



Generated with the GeoMOOSE Printing Utilities



THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY
0 50 100 150 200 Feet
S.E.1/4 N.W.1/4 SEC.30 T.4S. R.10W. W.M.
TILLAMOOK COUNTY
1" = 100'
04S10W30BD
PACIFIC CITY
SEE MAP 4S 10W 30BB
SEE MAP 4S 10W 30BA
SEE MAP 4S 10W 30AC
SEE MAP 4S 10W 30
SEE MAP 4S 10W 30DB
Subject Property
AIRPORT
SEE TAX LOT 4S 10W 30 600
22-2
P. PLAT 1991-12
P. PLAT 2004-14
RIVERGATE
RIVERGATE FIRST ADDITION
PACIFIC WONDERLAND SECOND ADDITION
RUEPPELL AVE
AIRPORT WAY
BROOTEN COUNTY ROAD
STEPHEN JUMPER LANE
AVENUE
SLOUGH
NORTH CANAL
EAST CANAL
WEST CANAL
SOUTH CANAL
CINDY LANE
ROGER
BIG NESTUCCA RIVER
4800 0.35 AC.
4700 0.14 AC.
4701 0.13 AC.
4600 0.19 AC.
4900 0.18 AC.
5000 0.17 AC.
5100 0.18 AC.
5200 0.47 AC.
5300 0.21 AC.
5401 0.31 AC.
5402 1.38 AC.
4300
4302
4500
4400
4301
4100 0.46 AC.
3800 0.11 AC.
3700 0.33 AC.
3600 0.17 AC.
3900 0.05 AC.
4000 0.22 AC.
3200 0.11 AC.
3300 0.11 AC.
3400 0.09 AC.
3500 0.60 AC.
3501 0.39 AC.
4200 0.16 AC.
3100
3000
2900
2800
2700 0.18 AC.
2600 0.27 AC.
2300
2200
2400
2100
2500
2000
300
400
500
600
700
800
900 0.48 AC.
200 3.34 AC.
100 1.96 AC.
7700 0.17 AC.
7800 0.17 AC.
7500 0.70 AC.
7900 0.18 AC.
8000 0.23 AC.
1900 0.32 AC.
1800 0.32 AC.
10400
10500
10300
7401
10200
8100 0.11 AC.
8200 0.11 AC.
8300 0.11 AC.
8400 0.20 AC.
10100
7400
9000
9100
10000
8600 0.17 AC.
8700 0.11 AC.
8800 0.29 AC.
1000
1100
1200
1700 0.18 AC.
1600 0.18 AC.
1500 0.16 AC.
1400 0.16 AC.
1300 0.35 AC.
5500
5600
9200
9900
9300
9800
8901 0.19 AC.
8900 0.44 AC.
5700
5800
9400
5900
9500
9700
6000
9600
6100
6200
6300
6400
6500
6600
6700
6802 0.41 AC.
6800 0.08 AC.
6801 0.50 AC.
CANCELLED
6900
7000
7200
7300
5001
8500
7600
7100
5400
5990
Revised 2/25/22, WS

TILLAMOOK County Assessor's Summary Report

Real Property Assessment Report

FOR ASSESSMENT YEAR 2021

March 10, 2022 1:44:05 pm

Account #	240698	**Tax Status**	ASSESSABLE
Map #	4S1030BD04800	**Acct Status**	ACTIVE
Code - Tax #	2202-240698	**Subtype**	NORMAL

Legal Descr See Record

Mailing Name	COULTER, DAVID	**Deed Reference #**	2018-3245
Agent		**Sales Date/Price**	05-30-2018 / $250,000.00
In Care Of		**Appraiser**	ROBERT BUCKINGHAM
Mailing Address	217 N GRANT AVE GOLDENDALE, WA 98620-9513		

		MA	SA	NH	Unit
Prop Class	121				
RMV Class	101	09	ST	901	19707-1

Situs Address(s)	Situs City
ID# 1 35465 RUEPPELL AVE	COUNTY

Value Summary

Code Area		RMV	MAV	AV		RMV Exception	CPR %
2202	Land	109,220			Land	0	
	Impr.	231,020			Impr.	0	
Code Area Total		340,240	246,880	246,880		0	
Grand Total		340,240	246,880	246,880		0	

Land Breakdown

Code Area	ID#	RFPD	Ex	Plan Zone	Value Source	TD%	LS	Size	Land Class	Trended RMV
2202					LANDSCAPE - FAIR	100				500
2202	1	☑		PCW-AP	Market	104	A	0.35		80,220
2202					OSD - AVERAGE	100				28,500
						Grand Total		0.35		109,220

Improvement Breakdown

Code Area	ID#	Yr Built	Stat Class	Description	TD%	Total Sq. Ft.	Ex%	MS Acct #	Trended RMV
2202	1	1966	139	Basement First Floor	123	1,736			231,020
				Grand Total		1,736			231,020

Exemptions / Special Assessments / Potential Liability

Code Area 2202

SPECIAL ASSESSMENTS:

■ SOLID WASTE	**Amount**	12.00	**Acres**	0	**Year**	2021

Comments: 04-09-04 Changed land value to reflect residential trends for neighborhood. sm. 10/18/06 input inventory. gb 01/29/14 Reappraised land; tabled values. RBB

National Flood Hazard Layer FIRMette

FEMA

123°58'3"W 45°12'6"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

123°57'25"W 45°11'41"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/10/2022 at 4:42 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Coulter

March 10, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

EXHIBIT B

Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY	
Date Stamp	RECEIVED AUG 10 2021 BY:
☐Approved	☐Denied
Received by: MJ	
Receipt #:	
Fees: $983.00	
Permit No: 851-21-000321-PLNG	

Applicant ☐ *(Check Box if Same as Property Owner)*

Name: Ronald E. Coulter Phone: (509) 630-5518
Address: P.O. Box 2323
City: Chelan State: Wa. Zip: 98816
Email: ron.coulterarchitects@gmail.com

Property Owner

Name: David M. Coulter Phone: (360) 508-0960
Address: 217 N. Grant st.
City: Goldendale State: Wa. Zip: 98620
Email:

Request: Addition to Dwelling

Type II	Type III	Type IV
☐ Farm/Forest Review	☐ Appeal of Director's Decision	☐ Appeal of Planning Commission Decision
☐ Conditional Use Review	☐ Extension of Time	☐ Ordinance Amendment
☐ Variance	☐ Detailed Hazard Report	☐ Large-Scale Zoning Map Amendment
☐ Exception to Resource or Riparian Setback	☐ Conditional Use (As deemed by Director)	☐ Plan and/or Code Text Amendment
☐ Nonconforming Review (Major or Minor)	☐ Ordinance Amendment	
☒ Development Permit Review for Estuary Development	☐ Map Amendment	
☐ Non-farm dwelling in Farm Zone	☐ Goal Exception	
☐ Foredune Grading Permit Review		
☐ Neskowin Coastal Hazards Area		

Location:

Site Address: 35465 Rueppell Ave Pacific City, Oregon
Map Number:
Township Range Section Tax Lot(s)

Clerk's Instrument #: ______________________

Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

Property Owner Signature (Required) Date 8/15/21

Applicant Signature Date 8-10-21

Tillamook County Department of Community Development
1510-B Third Street. Tillamook, OR 97141 | Tel: 503-842-3408 Fax: 503-842-1819
www.co.tillamook.or.us

PLANNING APPLICATION

OFFICE USE ONLY
Date Stamp RECEIVED AUG 10 2021 BY:
☐Approved ☐Denied
Received by: MT
Receipt #:
Fees: 983
Permit No: 851-21-000321-PLNG

Applicant ☐ *(Check Box if Same as Property Owner)*
Name: Ronald E. Coulter Phone: (509) 630-5518
Address: P.O. Box 2323
City: Chelan State: Wa. Zip: 98816
Email: ron.coulterarchitects@gmail.com

Property Owner
Name: David M. Coulter Phone: (360) 508-0960
Address: 217 N. Grant st.
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☐ Nonconforming Review (Major or Minor)	☐ Ordinance Amendment	
☒ Development Permit Review for Estuary Development	☐ Map Amendment	
☐ Non-farm dwelling in Farm Zone	☐ Goal Exception	
☐ Foredune Grading Permit Review		
☐ Neskowin Coastal Hazards Area		

Location:
Site Address: 35465 Rueppell Ave Pacific City, Oregon
Map Number:
Township Range Section Tax Lot(s)

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Authorization
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Property Owner Signature (Required) Date

Applicant Signature Date 8-10-21

COULTER ARCHITECTURE

David and Pattie Coulter, Single-family Residence Addition.

35465 Rueppell Ave. Pacific City, Oregon

MEMO

Melissa, My mailed in submittal is in two packages and includes the following:

(2) Sets of Architectural and Structural Drawings. See index

Photos of the existing building, so you would not have to visit the site. We are replacing the decks (in the same configuration) which are falling apart plus redoing the windows, doors and siding, and revising the entrance (eliminating the front stair.

Community Development checklist (I Assume you check the boxes.)

Spec sheet on the special Neopor insulation in case you are not familiar with it.

(2) bound books that include the following:

1-Project preamble:	Project description
2-Energy forms:	Additional Measures Selection form
3-Structural Calculations:	FORTE -Gravity plus Lateral computations.
4-Building Details:	Construction Details
5-Soils Report:	Morgan Civil Engineers

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

6-Property Surveyor: Bayside Surveying, LLC

7-Project Specifications and catalogue cut sheets

The Hydraulics Analysis Report, dated March 30, 2021 was submitted to you previously, and forwarded to FEMA by you, per your request.

Color perspective renderings to help explain the project.

Utility statements showing connection and services to the property for Power, water and Sewer.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTURE

David and Pattie Coulter, Single-family Residence Addition.

35465 Rueppell Ave. Pacific City, Oregon

RECEIVED
JUL 14 2021
BY:

Project preamble:	Project description
Energy forms:	Additional Measures Selection form
Structural Calculations:	FORTE -Gravity plus Lateral computations.
Building Details:	Construction Details
Soils Report:	Morgan Civil Engineers
Property Surveyor:	Bayside Surveying, LLC

Project Specifications and catalogue cut sheets:

REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

David M. Coulter, Single family residence addition.
35465 Rueppell, Pacific City, Oregon

PROJECT INDEX

PROJECT PREAMBLE:

PROJECT DRAWINGS INDEX:

A-0.1	Site Plan
A-1.1	First Floor Plan
A-1.2	Second Floor Plan
A-1.3	Door and Window Schedules and roof Plan
A-2.1	South and East Elevations
A-2.2	North and West Elevations
A-3.1	Sections
S-1.1	Foundation Planning
S-1.1a	Foundation Details
S-1.2	Second Floor Framing Plan
S-1.3	Roof Framing and SIP Panel Plan
S-1.4	Shear Wall Plans and Details
S-1.5	Structural Notes
E- 1.1	First Floor Electrical Plan
E- 1.2	Second Floor Electrical Plan

RESIDENTIAL ENERGY ADDITIONAL MEASURES SELECTION:

PROJECT SPECIFICATIONS:

Including Catalog Cuts

PROJECT ENCLOSURES:

By reference and previously submitted to Tillamook County Planning, and subsequently submitted to FEMA by Tillamook County:
Waterways Consulting, Inc. Hydraulics Analysis Report, dated March 30, 2021

David M. Coulter, Single family residence addition.
35465 Rueppell, Pacific City, Oregon

PROJECT PREAMBLE

Project Description:

This project includes an existing house, constructed approximately 30 years ago, with deferred maintenance, and the addition of a new Master suite in the rear yard, making this a four bedroom house with additional entertainment deck.

Existing House scope :

The existing house is a two story building with the first story built with Concrete Masonry Unit perimeter walls, containing 5 garage stalls. The second story is a three bedroom area of 1809 S.F. of finished space.
The scope of this phase is to provide new decks, replacing the preexisting in the same configuration and footprint as the existing decks. (see survey site plan.)
The exterior siding will be replaced with new siding, including any deterioration of the sub structure.
All windows and sliding doors will also be replaced with double glazed vinyl windows.
New aluminum garage doors, and a new front entrance replacing the existing exterior stair as the main entrance.

New Master Suite Addition scope:

The addition of a Master suite upper floor of 1606 S.f. of finished area and a large outdoor deck, both for entertaining and accommodating a large family. The first floor of the new addition is constructed of concrete up to the 16.6’ MSL elevation, providing a flood resistant first story. The first story consists of a two stall garage and a two stall carport, all configured to comply with the Hydrologists analysis to the flood criteria of FEMA. See the report from Waterways Consulting Inc. dated March 30, 2021

Design Criteria:

Tillamook land use Ordinance 3.510 (FH):
FEMA Flood way Zone AE (per Jake Hofeld, PE of Waterways Consulting, Inc.)

No scour or erosion is anticipated, and wave action should not be a consideration. (see attached email from Jake Hofeld, PE, dated April 14, 2021)

Hydraulics Analysis Report, prepared by Waterways Consultants, Inc, dated March 30, 2021 has been submitted to Tillamook County on April 19, 2021. This report establishes the viability of the finish lower floor set at elevation 13.0’ MSL. The elevations are based on the topographic survey by Bayside Survey, Inc., by Dallas W. Esplin, dated October 13, 2020. (enclosed)

Flood level established at 16.6’ MSL per Tillamook County Planning Dept. (Specified NAVD 88)

5 - Construction Materials and Methods:

(d) All materials on the ground level are either concrete, or located above the 16.6' MSL level.

(E) The project maximizes the practice of minimizing flood water damage.

(f) All electrical, HVAC, and plumbing are located above (except for piping), and the elevator and its electronics and controllers are located at the top of the shaft of above 16.6 MSL. The elevator is also programmed to return to the upper floor when not is use.

6 - Specific standards for A Zones:

(b) The lower level of the building is not subject to any wave action nor is it anticipated to have any scouring or erosion, per the email from the Hydrologist, listed above. We don't anticipate any flood forces acting on the building.

We comply with (6) (b) (1) and (2), providing the required and appropriate openings as shown on the foundation Plan.

Project designed to the 2018 edition of the IRC and the Oregon designated building codes. Section R322.2 Flood Hazard areas (including A Zones)

R322.2.1 Elevation requirements, exception complying with R322.2.2 Enclosed areas below design flood elevation: This project is designed based on this exception, and the elevation of the first level is a product of the flood modeling done by Waterways Consulting, Inc. (See the referenced report.) Elevaqtion13.0' MSL is established by this report.

2,1- The lower lever is reserved for parking, building access, and storage.

2.2- Flood openings have been provided, see the foundation plan.

R322.2.3 Foundation design and construction: Hydrostatic forces are not a design factor based on the recommendations by Waterways Consulting, Inc. as per email enclosed.

The foundation design is based on the soils report from Morgan Civil Engineering, Inc., and based on that report, at the time of excavation, we will have Jason Morgan, PE look at the site for a final review and recommendations.

Section 3.335 (3) (1) of the PCW-AP Zone with the Airport Overlay Zone.

Section 3.565 call for two height zones, 33' in zone A and 37 feet in zone B. These are MSL numbers, and not building heights from grade.

Melissa Jenk provided an ariel photo of the airport depicting the boundaries of zones A & B.

We aligned the GIS maps with this site and determined where these zone lines appeared on our site. These zone lines are depicted on our site plan drawing-----------

We submitted these boundary lines to Tillamook County on January 19, 2021, and received a response on January 20, 2021 approving these boundary lines.

Soils Considerations for founding:

The soil assessment is prepared by Morgan Civil Engineering, Inc, dated April 29, 2021, and specifies the soil bearing capacity of 1500 pounds per square foot. When this is modified on the drawings, this is also recommended by the engineer, or implemented by the Architect based on his judgment.

Jake Hofeld Wed, Apr 14, 1:08 PM (9 days ago)

to me

Hi Ron,

Given how shallow flooding would be at your property, I don't expect scour/erosion to be an issue.

Regarding the flood zone designation, assume this is a Zone A area (the AE is a subcategory of these zones). Therefore, wave action should not be a consideration.

Hope this helps.

Jake D. Hofeld PE/CWRE

Senior Engineer

Waterways Consulting, Inc.

503-528-4816

www.watways.com

Residential Energy Additional Measure Selection

Department of Consumer and Business Services
Building Codes Division
1535 Edgewater NW, Salem, Oregon
Mailing address: P.O. Box 14470, Salem, OR 97309-0404
503-378-4133 • Fax: 503-378-2322
Web: oregon.gov/bcd

RESIDENTIAL INFORMATION

Date: 7-1-21 Building permit number:

Owner's name: David M. Coulter

Job address: 35465 Rueppell Ave

City: Pacific City State: Oregon ZIP: 97135

INSTRUCTIONS

Please select type of construction below; sign, date, and complete the entire form. Submit this form with your permit application or your project will be placed on hold until the required information is provided.

☒ **New construction.** All conditioned spaces within residential buildings must comply with Table N1101.1(1) and two additional measures (one numbered and one lettered) from Table N1101.1(2) on Page 2.

Additions. Additions to existing buildings or structures may be made without making the entire building or structure comply if the new additions comply with the requirements of this chapter. (N1101.3)

☒ **Large additions.** Additions that are equal to or more than 40 percent of the existing building heated floor area or 600 square feet (55 m^2) in area, whichever is less, must comply with Table N1101.1(2) on Page 2. (N1101.3.1) *(Note: You must select one numbered and one lettered measure.)*

☐ **Small additions.** Additions that are less than 40 percent of the existing building heated floor area or less than 600 square feet (55 m^2) in area, whichever is less, must select one measure from Table N1101.1(2) on page 2 or comply with Table N1101.3 below. (N1101.3.2)

☐ **Exception:** Additions that are less than 15 percent of existing building heated floor area or 200 square feet (18.58 m^2) in area, whichever is less, are not required to comply with Table N1101.1(2) or Table N1101.3.

Selected item number: ____________ **Selected item letter:** ____________

Note: Depending on which Additional Measures you have selected, there may be sub-options that you will have to specify. Check the appropriate box if provided.

Applicant's signature: [signature] Print name: Ronald E. Coulter, AIA.

TABLE N1101.3 – SMALL ADDITION ADDITIONAL MEASURES (SELECT ONE)

☐	1	Increase the ceiling insulation of the existing portion of the home as specified in Table N1101.2.
☐	2	Replace all existing single-pane wood or aluminum windows to the *U*-factor as specified in Table N1101.2.
☐	3	Insulate the floor system as specified in Table N1101.2 & install 100 percent of permanently installed lighting fixtures as CFL, LED, or linear fluorescent or a minimum efficacy of 40 lumens per watt as specified in Section N1107.2.
☐	4	Test the entire dwelling with a blower door and exhibit no more than 6.0 air changes per hour @ 50 Pascals.
☐	5	Seal and performance test the duct system.
☐	6	Replace existing 78 percent AFUE or less gas furnace with a 92 percent AFUE or greater system.
☐	7	Replace existing electric radiant space heaters with a ductless mini split system with a minimum HSPF of 10.0.
☐	8	Replace existing electric forced air furnace with an air source heat pump with a minimum HSPF of 9.5.
☐	9	Replace existing water heater with a water heater meeting Conservation Measure D [Table N1101.1(2)].

TABLE N1101.1(2) ADDITIONAL MEASURES

Envelope Enhancement Measures (Select One)	☐	1	**High-efficiency walls** Exterior walls – U-0.045 / R-21 cavity insulation+R-5 continuous
	☒	2	**Upgraded features** Exterior walls – U-0.057 / R-23 intermediate or R-21 advanced, Framed floors – U-0.026 / R-38, and Windows – U-0.28 (average UA)
	☐	3	**Upgraded features** Exterior walls – U-0.055 / R-23 intermediate or R-21 advanced, Flat ceiling[e] – U-0.017 / R-60, and Framed floors – U-0.026 / R-38
	☐	4	**Super Insulated Windows and Attic OR Framed Floors** Windows – U-0.22 (Triple Pane Low-e), and ☐ Flat ceiling[e] – U-0.017 / R-60 or ☐ Framed floors – U-0.026 / R-38
	☐	5	**Air sealing home and ducts** Mandatory air sealing of all wall coverings at top plate and air sealing checklist[f], and Mechanical whole-building ventilation system with rates meeting M1507.3 or ASHRAE 62.2, and ☐ All ducts and air handlers contained within building envelope[d] or ☐ All ducts sealed with mastic[b]
	☐	6	**High efficiency thermal envelope UA[g]** Proposed UA is 8% lower than the code UA
Conservation Measures (Select One)	☐	A	**High efficiency HVAC system[a]** ☐ Gas-fired furnace or boiler AFUE 94 percent, or ☐ Air source heat pump HSPF 9.5/15.0 SEER cooling, or ☐ Ground source heat pump COP 3.5 or Energy Star rated
	☐	B	**Ducted HVAC systems within conditioned space** All ducts and air handlers contained within building envelope[d] *Cannot be combined with Measure 5*
	☒	C	**Ductless heat pump** Ductless heat pump HSPF 10.0 in primary zone of dwelling
	☒	D	**High efficiency water heater[c]** ☐ Natural gas/propane water heater with UEF 0.85 or ☒ Electric heat pump water heater Tier 1 Northern Climate Specification Product

For SI: 1 square foot = 0.093 m^2, 1 watt per square foot = 10.8 W/m^2.

a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
b. All duct joints and seams sealed with listed mastic; tape is allowed only at appliance or equipment connections (for service and replacement). Meet sealing criteria of Performance Tested Comfort Systems program administered by the Bonneville Power Administration (BPA).
c. Residential water heaters less than 55-gallon storage volume.
d. A total of 5 percent of an HVAC system's ductwork shall be permitted to be located outside of the conditioned space. Ducts located outside the conditioned space shall have insulation installed as required in this code.
e. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
f. Continuous air barrier. Additional requirement for sealing of all interior vertical wall covering to top plate framing. Sealing with foam gasket, caulk, or other approved sealant listed for sealing wall covering material to structural material (example: gypsum board to wood stud framing).
g. Table N1104.1(1) Standard base case design, Code UA shall be at least 8 percent less than the Proposed UA. Buildings with fenestration less than 15 percent of the total vertical wall area, these buildings may adjust the Code UA to have 15 percent of the wall area as fenestration.

FORTE® WEB

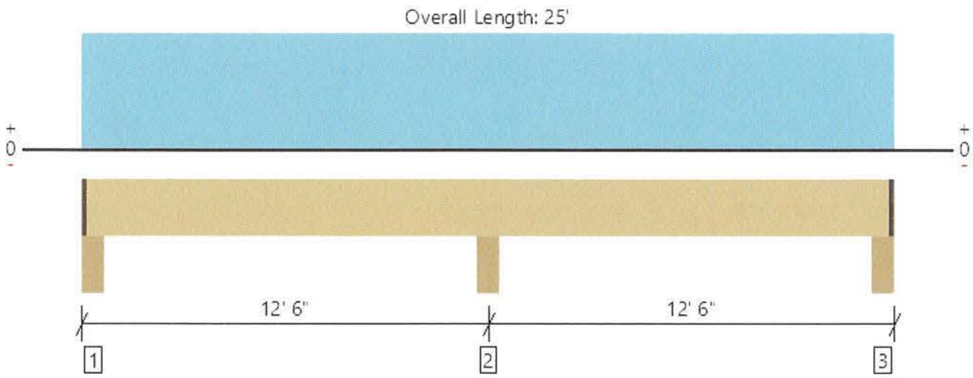
JOB SUMMARY REPORT

Dave's House

Level			
Member Name	**Results**	**Current Solution**	**Comments**
Carport Beam B1	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Floor: Flush Beam B2	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Garage Beam B3	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Garage Beam B4	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B5	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Deck Beam B6	Passed	1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B7	Passed	1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam	
Deck Beam B8	Passed	1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam	
Garage Beam B9	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Garage Door Header H-6	Passed	2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL	
Deck Beam B11	Passed	2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL	
Deck Beam B17	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Deck Beam B18	Passed	1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam	
Roof			
Member Name	**Results**	**Current Solution**	**Comments**
Roof Beam B-10	Passed	1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam	
H-1	Passed	2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL	
H-2	Passed	2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL	
H-3	Passed	2 piece(s) 2 x 10 DF No.1	
H-4	Passed	2 piece(s) 2 x 8 DF No.1	
H-5	Passed	2 piece(s) 2 x 8 DF No.1	
H-6	Passed	2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL	
Existing House			
Member Name	**Results**	**Current Solution**	**Comments**
Deck Beam B12	Passed	1 piece(s) 3 1/8" x 18" 24F-V8 DF Glulam	
Ridge Beam B13	Passed	1 piece(s) 5 1/8" x 10 1/2" 24F-V8 DF Glulam	
Gable Beam B14	Passed	1 piece(s) 5 1/8" x 16 1/2" 24F-V4 DF Glulam	
Deck Beam B15	Passed	2 piece(s) 1 3/4" x 18" 2.0E Microllam® LVL	
Deck Beam B16	Passed	1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam	

Level, Carport Beam B1

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	18506 @ 12' 6"	18322 (5.50")	Passed (101%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	7605 @ 13' 10 1/4"	12223	Passed (62%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	15286 @ 19' 7 7/8"	31134	Passed (49%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-22515 @ 12' 6"	23999	Passed (94%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.132 @ 6' 1 3/16"	0.304	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.185 @ 5' 10 3/4"	0.608	Passed (L/788)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 10' 5/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 1".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

	Bearing Length			Loads to Supports (lbs)			
Supports	Total	Available	Required	Dead	Floor Live	Total	Accessories
1 - Column - DF	5.50"	4.25"	1.91"	2431	4073/-473	6504/-473	1 1/4" Rim Board
2 - Column - DF	5.50"	5.50"	5.56"	7556	10950	18506	None
3 - Column - DF	5.50"	4.25"	1.91"	2431	4073/-473	6504/-473	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	24' 10" o/c	
Bottom Edge (Lu)	24' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 24' 10 3/4"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 25' (Front)	12'	40.0	60.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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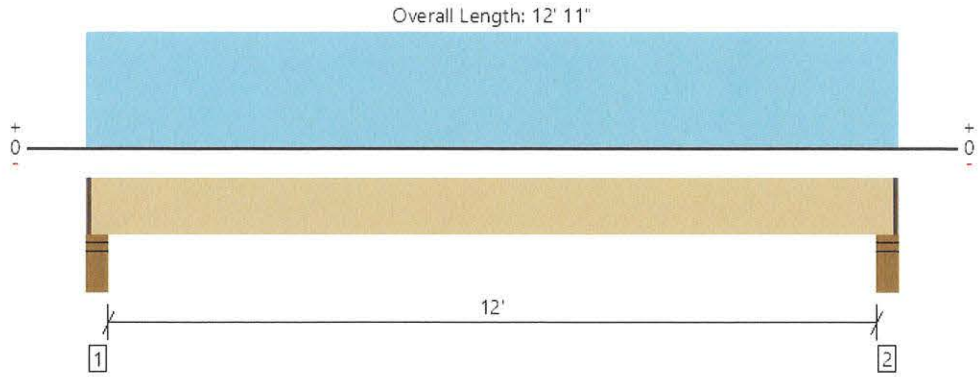
Level, Floor: Flush Beam B2

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2538 @ 4"	9297 (4.25")	Passed (27%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2089 @ 1' 2 3/4"	6151	Passed (34%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	7493 @ 6' 5 1/2"	11204	Passed (67%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.303 @ 6' 5 1/2"	0.306	Passed (L/486)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.465 @ 6' 5 1/2"	0.613	Passed (L/316)	--	1.0 D + 1.0 L (All Spans)

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	900	1679	2579	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	900	1679	2579	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 9" o/c	
Bottom Edge (Lu)	12' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 12' 9 3/4"	N/A	9.4	--	
1 - Uniform (PSF)	0 to 12' 11" (Front)	6' 6"	20.0	40.0	Default Load

Weyerhaeuser Notes

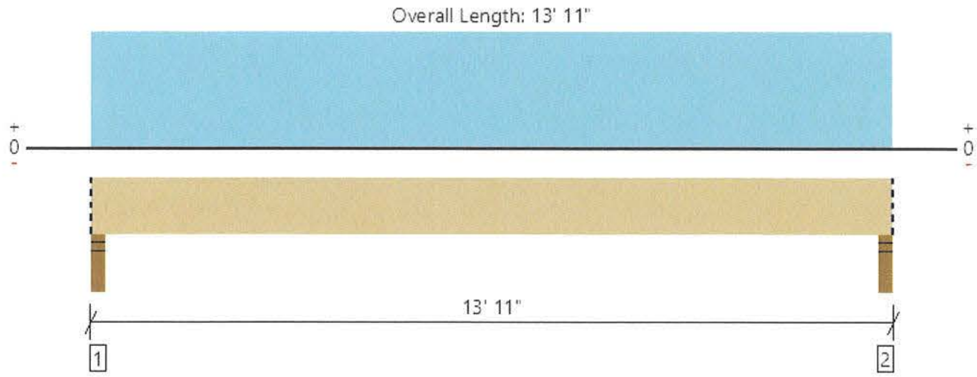
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

MEMBER REPORT

PASSED

Level, Garage Beam B3

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6268 @ 2"	11211 (3.50")	Passed (56%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	4992 @ 1' 5"	12223	Passed (41%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	20776 @ 6' 11 1/2"	31134	Passed (67%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.275 @ 6' 11 1/2"	0.453	Passed (L/592)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.365 @ 6' 11 1/2"	0.679	Passed (L/447)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 13' 7".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

	Bearing Length			Loads to Supports (lbs)			
Supports	Total	Available	Required	Dead	Floor Live	Total	Accessories
1 - Stud wall - DF	3.50"	3.50"	1.96"	1537	4732	6269	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.96"	1537	4732	6269	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' 11" o/c	
Bottom Edge (Lu)	13' 11" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 13' 11"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 13' 11" (Front)	17'	12.0	40.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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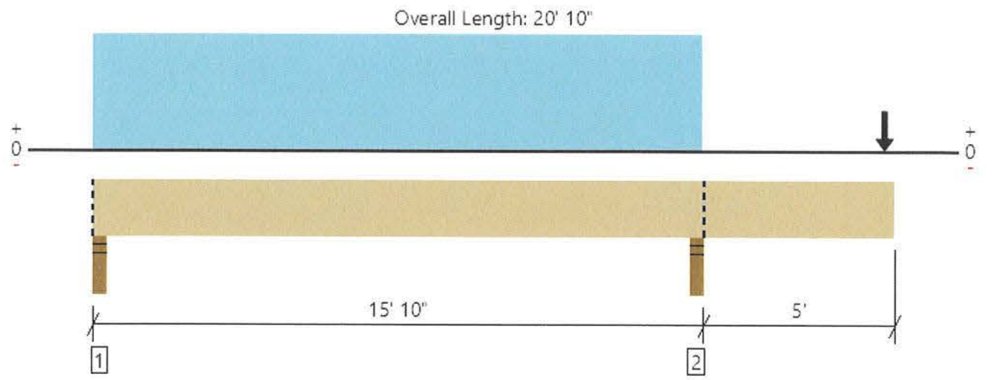
MEMBER REPORT

PASSED

Level, Garage Beam B4

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	10589 @ 15' 8 1/4"	11211 (3.50")	Passed (94%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	6668 @ 14' 5"	12223	Passed (55%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	25406 @ 7' 8 1/8"	31134	Passed (82%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-12765 @ 15' 8 1/4"	23999	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.469 @ 7' 11 1/8"	0.517	Passed (L/397)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.574 @ 7' 10 1/16"	0.776	Passed (L/325)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Overhang deflection criteria: LL (2L/360) and TL (2L/240). Upward deflection on right cantilever exceeds overhang deflection criteria.
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 15' 1/4".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 11 11/16".
- Upward deflection on right cantilever exceeds 0.4".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	3.50"	3.50"	2.16"	1525	5390/-597	6915/-597	Blocking
2 - Stud wall - DF	3.50"	3.50"	3.31"	2723	7866	10589	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 10" o/c	
Bottom Edge (Lu)	20' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 20' 10"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 15' 10" (Front)	17'	12.0	40.0	Default Load
2 - Point (lb)	20' 7" (Front)	N/A	334	946	
3 - Point (lb)	20' 7" (Front)	N/A	334	946	

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ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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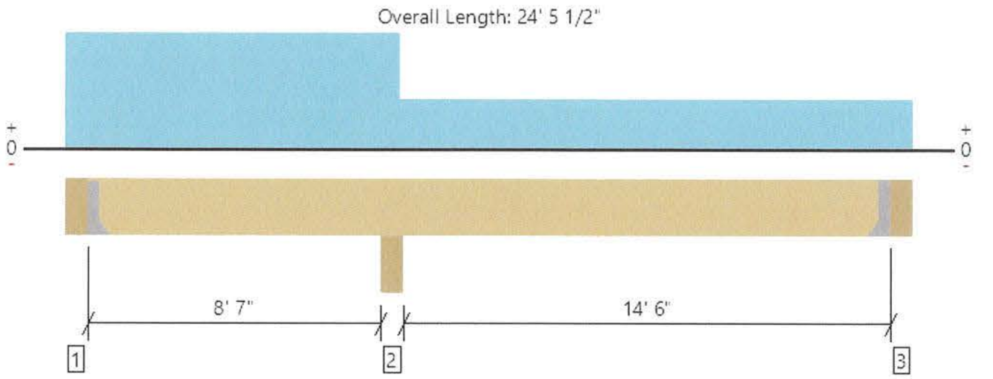
MEMBER REPORT

PASSED

Level, Deck Beam B5

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3024 @ 9' 3 1/4"	7305 (5.50")	Passed (41%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1205 @ 7' 6 1/2"	9938	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	2550 @ 17' 11 1/4"	33750	Passed (8%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-3459 @ 9' 3 1/4"	26016	Passed (13%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.024 @ 17' 2 3/16"	0.368	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.031 @ 17' 3 7/16"	0.736	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 1 9/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 5' 11 5/8".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	292	979/-92	1271/-92	See note [1]
2 - Beam - SPF	5.50"	5.50"	2.28"	838	2186	3024	None
3 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	231	667/-8	898/-8	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	23' 7" o/c	
Bottom Edge (Lu)	23' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	
3 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 24'	N/A	13.7	--	
1 - Uniform (PSF)	0 to 24' 5 1/2" (Top)	2' 6"	10.0	40.0	Default Load
2 - Uniform (PSF)	0 to 9' 6" (Back)	3'	15.0	40.0	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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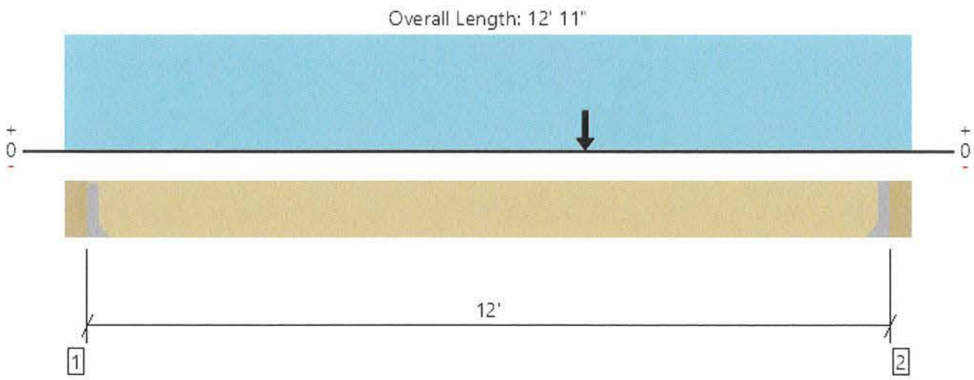
Level, Deck Beam B6

1 piece(s) 5 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5311 @ 12' 5 1/2"	5311 (1.59")	Passed (100%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	4477 @ 11' 4"	12223	Passed (37%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	16680 @ 7' 2"	31134	Passed (54%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.051 @ 6' 8"	0.300	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.225 @ 6' 6 7/16"	0.600	Passed (L/640)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12'.
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

	Bearing Length			Loads to Supports (lbs)			
Supports	Total	Available	Required	Dead	Floor Live	Total	Accessories
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	4332	975	5307	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.59"	4456	1187	5643	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' o/c	
Bottom Edge (Lu)	12' o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HUCQ5.25/11-SDS	3.00"	N/A	14-SDS25212	6-SDS25212	
2 - Face Mount Hanger	HGUS5.25/10	4.00"	N/A	46-10d	16-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

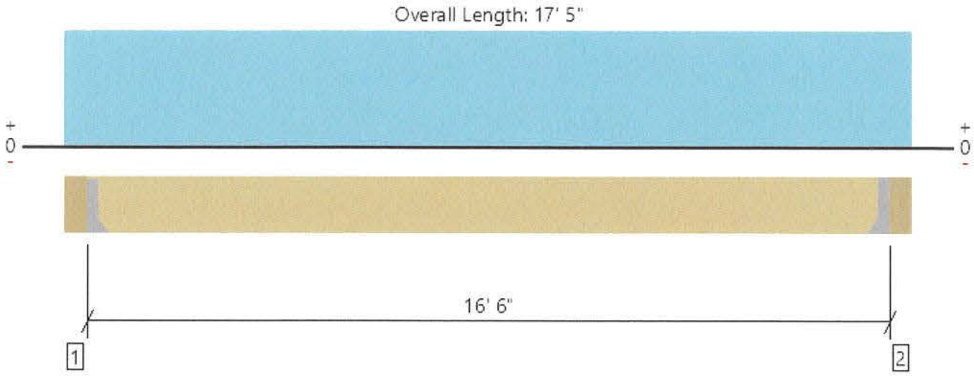
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 12' 5 1/2"	N/A	16.8	--	
1 - Uniform (PSF)	0 to 12' 11" (Front)	2' 6"	250.0	40.0	Default Load
2 - Point (lb)	7' 11" (Front)	N/A	513	871	
3 - Point (lb)	0 (Front)	N/A	-	-	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B7

1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1322 @ 5 1/2"	3047 (1.50")	Passed (43%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1142 @ 1' 7"	7453	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	5454 @ 8' 8 1/2"	18984	Passed (29%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.145 @ 8' 8 1/2"	0.412	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.232 @ 8' 8 1/2"	0.825	Passed (L/854)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 16' 6".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

	Bearing Length			Loads to Supports (lbs)			
Supports	Total	Available	Required	Dead	Floor Live	Total	Accessories
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	520	871	1391	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	1.50"	520	871	1391	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16' 6" o/c	
Bottom Edge (Lu)	16' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LUS210-2	2.00"	N/A	8-10dx1.5	6-10d	
2 - Face Mount Hanger	LUS210-2	2.00"	N/A	8-10dx1.5	6-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 16' 11 1/2"	N/A	10.3	--	
1 - Uniform (PSF)	0 to 17' 5" (Front)	2' 6"	20.0	40.0	Default Load

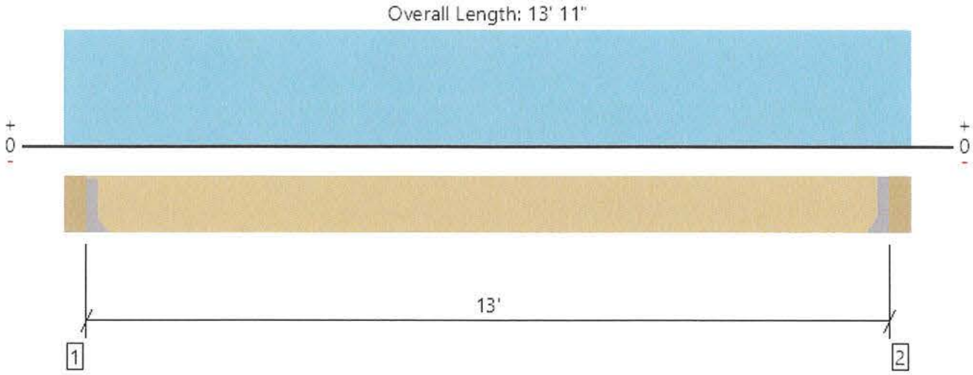
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Level, Deck Beam B8

1 piece(s) 3 1/8" x 13 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4779 @ 5 1/2"	4779 (2.35")	Passed (100%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	3952 @ 1' 7"	7453	Passed (53%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	15532 @ 6' 11 1/2"	18984	Passed (82%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.056 @ 6' 11 1/2"	0.325	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.410 @ 6' 11 1/2"	0.650	Passed (L/381)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 13'.
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	2.35"	4416	696	5112	See note [1]
2 - Hanger on 13 1/2" DF beam	5.50"	Hanger[1]	2.35"	4416	696	5112	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	13' o/c	
Bottom Edge (Lu)	13' o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	HHUS210-2	3.00"	N/A	30-16d	10-16d	
2 - Face Mount Hanger	HHUS210-2	3.00"	N/A	30-16d	10-16d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 13' 5 1/2"	N/A	10.3	--	
1 - Uniform (PSF)	0 to 13' 11" (Front)	2' 6"	250.0	40.0	Default Load

Weyerhaeuser Notes

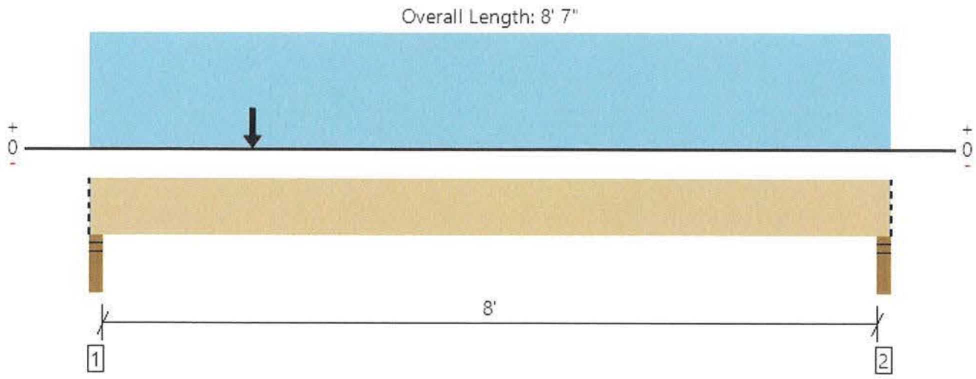
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

MEMBER REPORT

PASSED

Level, Garage Beam B9

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	6750 @ 2"	7656 (3.50")	Passed (88%)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Shear (lbs)	6511 @ 1' 3/4"	7689	Passed (85%)	1.25	1.0 D + 1.0 Lr (All Spans)
Moment (Ft-lbs)	10329 @ 1' 9"	14005	Passed (74%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.180 @ 4' 1/16"	0.275	Passed (L/549)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Total Load Defl. (in)	0.272 @ 3' 11 15/16"	0.412	Passed (L/364)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Roof Live	Total	
1 - Stud wall - DF	3.50"	3.50"	3.09"	2321	1588	4318	8227	Blocking
2 - Stud wall - DF	3.50"	3.50"	1.50"	945	1588	1025	3558	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 7" o/c	
Bottom Edge (Lu)	8' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

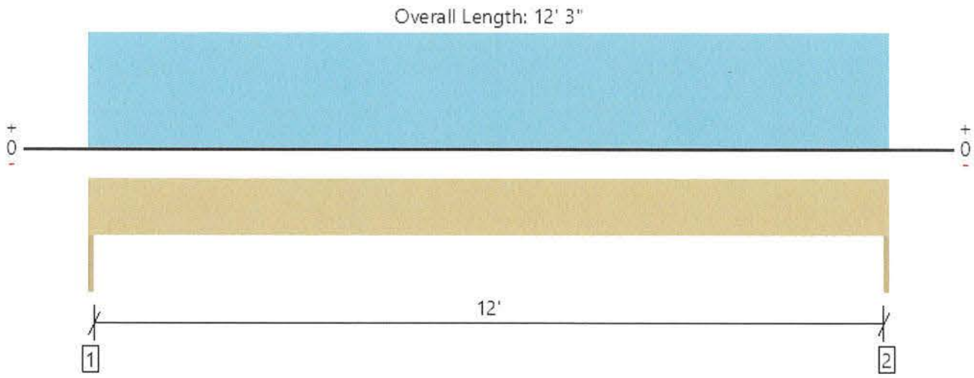
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	0 to 8' 7"	N/A	9.4	--	--	
1 - Uniform (PSF)	0 to 8' 7" (Front)	9' 3"	12.0	40.0	-	Default Load
2 - Point (lb)	1' 9" (Front)	N/A	2233	-	5343	

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Level, Garage Door Header H-6

2 piece(s) 1 3/4" x 9 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	977 @ 0	3938 (1.50")	Passed (25%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	834 @ 10 3/4"	6151	Passed (14%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2991 @ 6' 1 1/2"	11204	Passed (27%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.116 @ 6' 1 1/2"	0.408	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.186 @ 6' 1 1/2"	0.613	Passed (L/792)	--	1.0 D + 1.0 L (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	364	613	977	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	364	613	977	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 3" o/c	
Bottom Edge (Lu)	12' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 12' 3"	N/A	9.4	--	
1 - Uniform (PSF)	0 to 12' 3"	2' 6"	20.0	40.0	Default Load

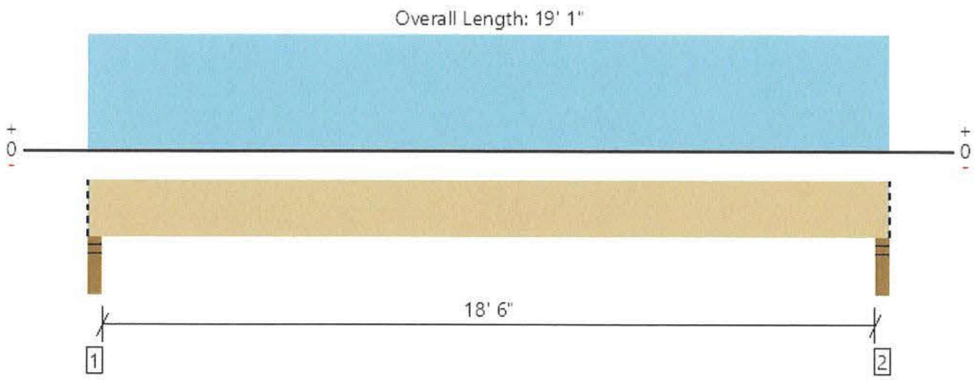
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, Roof Beam B-10

1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	7561 @ 2"	11211 (3.50")	Passed (67%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	6141 @ 1' 9 1/2"	18742	Passed (33%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	34823 @ 9' 6 1/2"	61820	Passed (56%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.347 @ 9' 6 1/2"	0.625	Passed (L/648)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.492 @ 9' 6 1/2"	0.938	Passed (L/458)	--	1.0 D + 1.0 S (All Spans)

System : Floor
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.97 that was calculated using length L = 18' 9".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Stud wall - DF	3.50"	3.50"	2.36"	2218	5343	7561	Blocking
2 - Stud wall - DF	3.50"	3.50"	2.36"	2218	5343	7561	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	19' 1" o/c	
Bottom Edge (Lu)	19' 1" o/c	

- Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 19' 1"	N/A	22.4	--	
1 - Uniform (PSF)	0 to 19' 1" (Front)	14'	15.0	40.0	Default Load

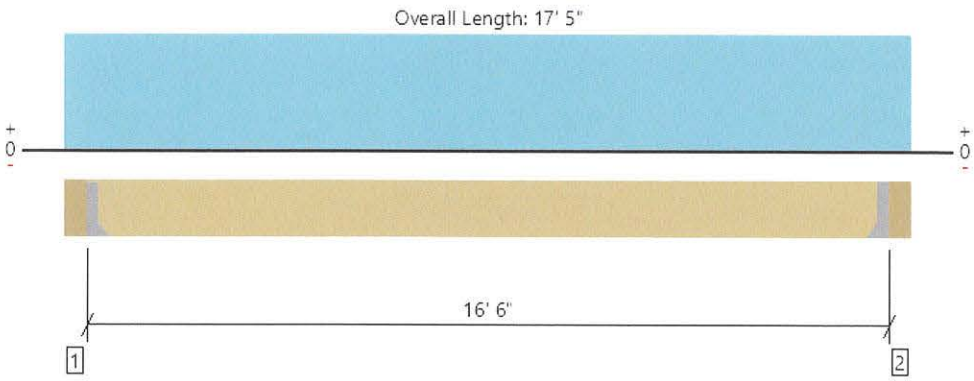
ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

MEMBER REPORT

PASSED

Level, Deck Beam B11

2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1318 @ 5 1/2"	3938 (1.50")	Passed (33%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1191 @ 1' 3"	6318	Passed (19%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	5435 @ 8' 8 1/2"	11775	Passed (46%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.345 @ 8' 8 1/2"	0.412	Passed (L/574)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.551 @ 8' 8 1/2"	0.825	Passed (L/359)	--	1.0 D + 1.0 L (All Spans)

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 9 1/2" DF beam	5.50"	Hanger[1]	1.50"	515	871	1386	See note [1]
2 - Hanger on 9 1/2" DF beam	5.50"	Hanger[1]	1.50"	515	871	1386	See note [1]

- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	16' 6" o/c	
Bottom Edge (Lu)	16' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LUS48	2.00"	N/A	6-16d	4-16d	
2 - Face Mount Hanger	LUS48	2.00"	N/A	6-16d	4-16d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 16' 11 1/2"	N/A	9.7	--	
1 - Uniform (PSF)	0 to 17' 5" (Front)	2' 6"	20.0	40.0	Default Load

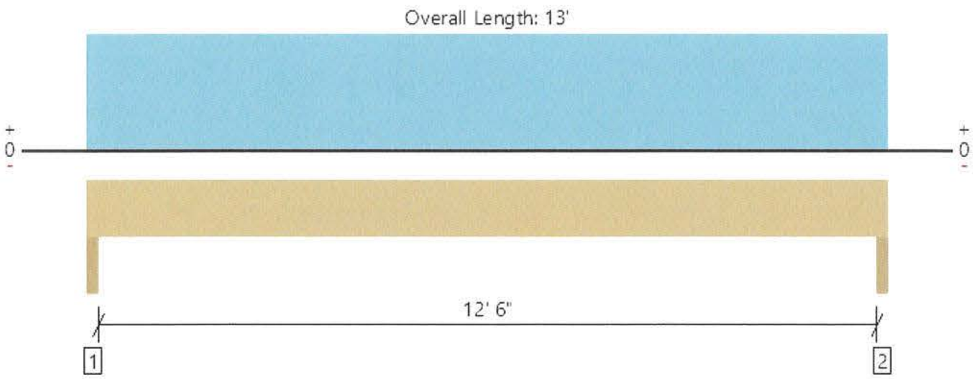
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-1

2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	5080 @ 1 1/2"	7875 (3.00")	Passed (65%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	4152 @ 1' 2 1/4"	8603	Passed (48%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	15880 @ 6' 6"	18558	Passed (86%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.434 @ 6' 6"	0.425	Passed (L/352)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.606 @ 6' 6"	0.637	Passed (L/253)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	3.00"	3.00"	1.94"	1440	3640	3640	8720	None
2 - Trimmer - DF	3.00"	3.00"	1.94"	1440	3640	3640	8720	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 4" o/c	
Bottom Edge (Lu)	13' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 13'	N/A	11.5	--	--	
1 - Uniform (PSF)	0 to 13'	14'	15.0	40.0	40.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

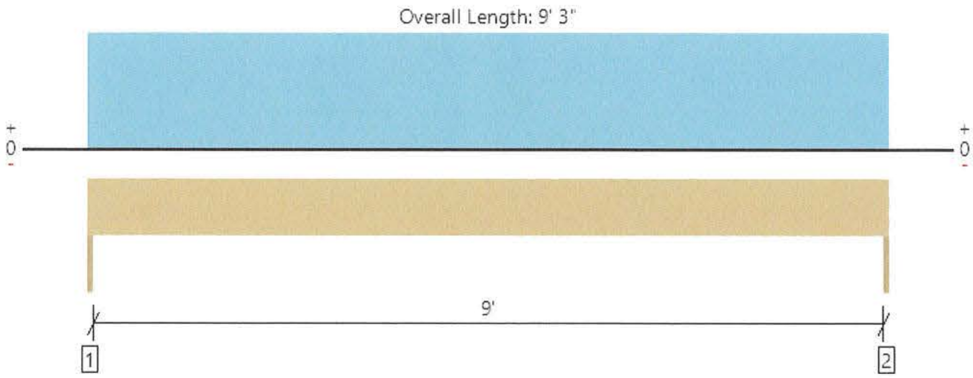
FORTE WEB

MEMBER REPORT

PASSED

Roof, H-2

2 piece(s) 1 3/4" x 11 1/4" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3614 @ 0	3938 (1.50")	Passed (92%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	2784 @ 1' 3/4"	8603	Passed (32%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	8358 @ 4' 7 1/2"	18558	Passed (45%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.129 @ 4' 7 1/2"	0.308	Passed (L/863)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.179 @ 4' 7 1/2"	0.463	Passed (L/619)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	1024	2590	2590	6204	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	1024	2590	2590	6204	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	9' 3" o/c	
Bottom Edge (Lu)	9' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 9' 3"	N/A	11.5	--	--	
1 - Uniform (PSF)	0 to 9' 3"	14'	15.0	40.0	40.0	Default Load

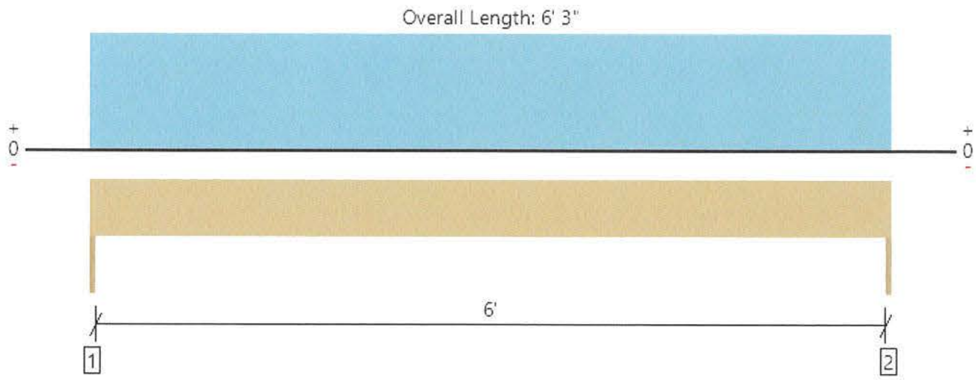
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Roof, H-3

2 piece(s) 2 x 10 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2297 @ 0	2813 (1.50")	Passed (82%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1639 @ 10 3/4"	3830	Passed (43%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	3589 @ 3' 1 1/2"	4510	Passed (80%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.057 @ 3' 1 1/2"	0.208	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.075 @ 3' 1 1/2"	0.313	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	547	1750	1750	4047	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	547	1750	1750	4047	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 3" o/c	
Bottom Edge (Lu)	6' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 3"	N/A	7.0	--	--	
1 - Uniform (PSF)	0 to 6' 3"	14'	12.0	40.0	40.0	Default Load

Weyerhaeuser Notes

Weyerhaeuser warrants that the sizing of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

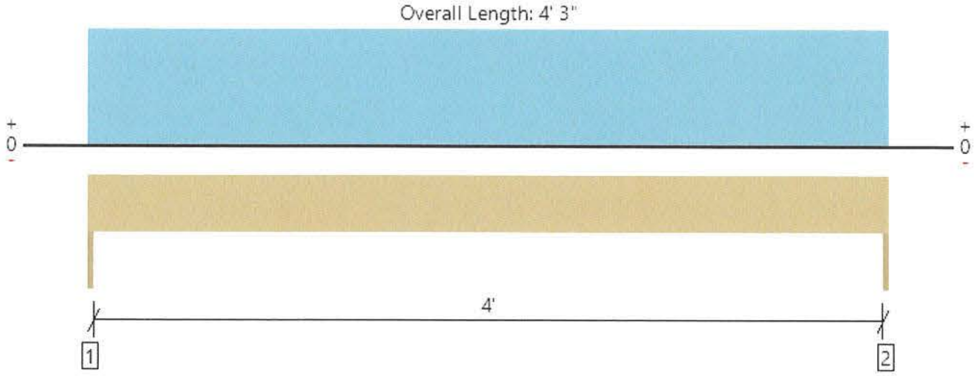
Weyerhaeuser

MEMBER REPORT

PASSED

Roof, H-4

2 piece(s) 2 x 8 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1559 @ 0	2813 (1.50")	Passed (55%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1024 @ 8 3/4"	3002	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1656 @ 2' 1 1/2"	3022	Passed (55%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.025 @ 2' 1 1/2"	0.142	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.033 @ 2' 1 1/2"	0.213	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	1.50"	1.50"	1.50"	369	1190	1190	2749	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	369	1190	1190	2749	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	4' 3" o/c	
Bottom Edge (Lu)	4' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 4' 3"	N/A	5.5	--	--	
1 - Uniform (PSF)	0 to 4' 3"	14'	12.0	40.0	40.0	Default Load

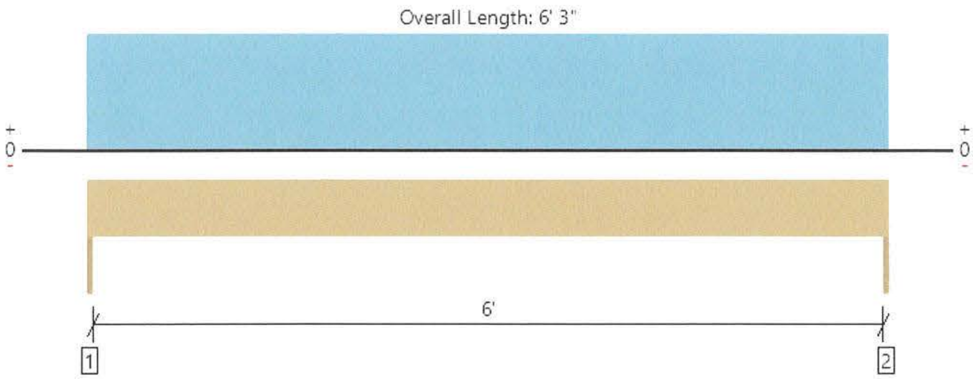
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

PASSED

Roof, H-5

2 piece(s) 2 x 8 DF No.1



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1317 @ 0	2813 (1.50")	Passed (47%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1010 @ 8 3/4"	3002	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	2058 @ 3' 1 1/2"	3022	Passed (68%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.068 @ 3' 1 1/2"	0.208	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.089 @ 3' 1 1/2"	0.313	Passed (L/839)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

	Bearing Length			Loads to Supports (lbs)				
Supports	Total	Available	Required	Dead	Roof Live	Snow	Total	Accessories
1 - Trimmer - DF	1.50"	1.50"	1.50"	317	1000	1000	2317	None
2 - Trimmer - DF	1.50"	1.50"	1.50"	317	1000	1000	2317	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 3" o/c	
Bottom Edge (Lu)	6' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 3"	N/A	5.5	--	--	
1 - Uniform (PSF)	0 to 6' 3"	8'	12.0	40.0	40.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

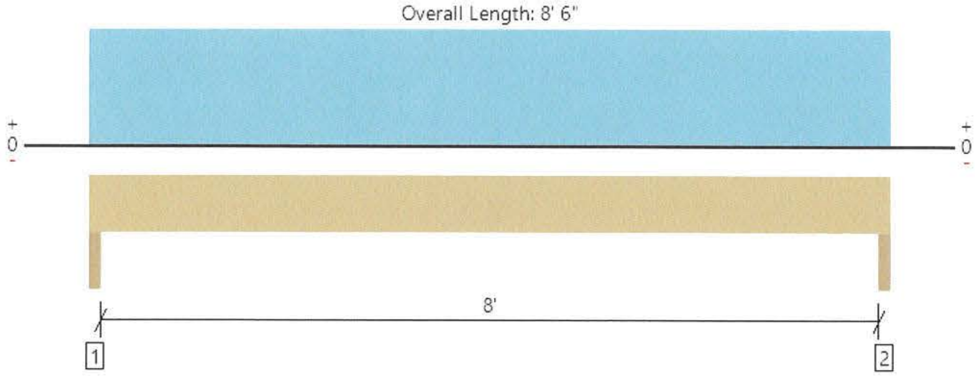
FORTE WEB

MEMBER REPORT

PASSED

Roof, H-6

2 piece(s) 1 3/4" x 9 1/2" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3314 @ 1 1/2"	7875 (3.00")	Passed (42%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	2502 @ 1' 1/2"	7265	Passed (34%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	6634 @ 4' 3"	13541	Passed (49%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.133 @ 4' 3"	0.275	Passed (L/743)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.185 @ 4' 3"	0.412	Passed (L/534)	--	1.0 D + 1.0 S (All Spans)

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Total	
1 - Trimmer - DF	3.00"	3.00"	1.50"	934	2380	2380	5694	None
2 - Trimmer - DF	3.00"	3.00"	1.50"	934	2380	2380	5694	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 6" o/c	
Bottom Edge (Lu)	8' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 8' 6"	N/A	9.7	--	--	
1 - Uniform (PSF)	0 to 8' 6"	14'	15.0	40.0	40.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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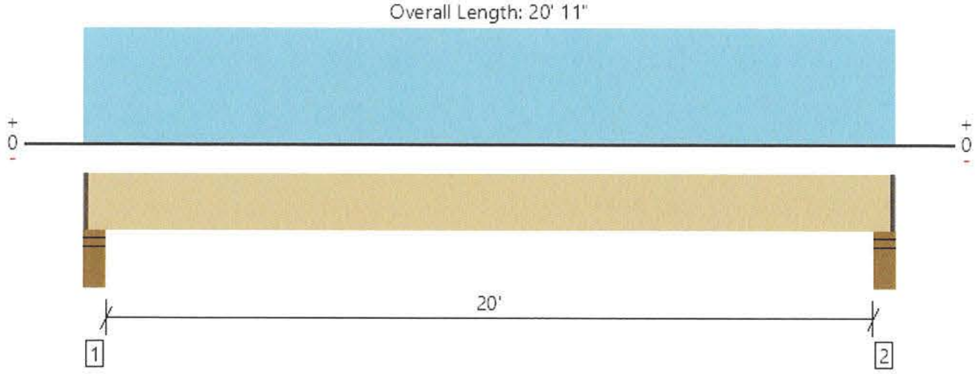
Existing House, Deck Beam B12

1 piece(s) 3 1/8" x 18" 24F-V8 DF Glulam

Overall Length: 20' 11"



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1757 @ 4"	8301 (4.25")	Passed (21%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	1442 @ 1' 11 1/2"	9938	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	8697 @ 10' 5 1/2"	33750	Passed (26%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.166 @ 10' 5 1/2"	0.506	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.235 @ 10' 5 1/2"	1.013	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 20' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	518	1255	1773	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	518	1255	1773	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	20' 9" o/c	
Bottom Edge (Lu)	20' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 20' 9 3/4"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 20' 11" (Front)	3'	12.0	40.0	Default Load

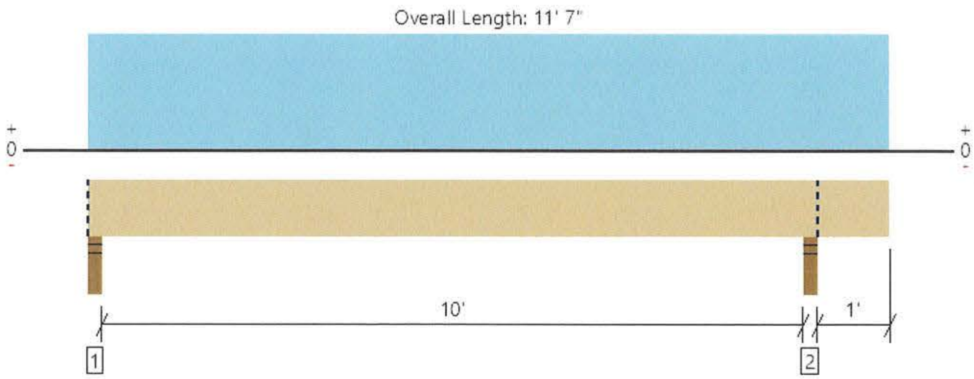
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Ridge Beam B13

1 piece(s) 5 1/8" x 10 1/2" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2875 @ 10' 5 1/4"	7623 (3.50")	Passed (38%)	--	1.0 D + 1.0 Lr (All Spans)
Shear (lbs)	1893 @ 9' 5"	11884	Passed (16%)	1.25	1.0 D + 1.0 Lr (All Spans)
Pos Moment (Ft-lbs)	5871 @ 5' 3 1/16"	23543	Passed (25%)	1.25	1.0 D + 1.0 Lr (Alt Spans)
Neg Moment (Ft-lbs)	-297 @ 10' 5 1/4"	23543	Passed (1%)	1.25	1.0 D + 1.0 Lr (All Spans)
Live Load Defl. (in)	0.076 @ 5' 3 1/2"	0.514	Passed (L/999+)	--	1.0 D + 1.0 Lr (Alt Spans)
Total Load Defl. (in)	0.125 @ 5' 3 7/16"	0.685	Passed (L/987)	--	1.0 D + 1.0 Lr (Alt Spans)

System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 10' 2 3/16".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 1' 3 5/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Roof Live	Total	
1 - Stud wall - SPF	3.50"	3.50"	1.50"	933	1449	2382	Blocking
2 - Stud wall - SPF	3.50"	3.50"	1.50"	1130	1745	2875	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	11' 7" o/c	
Bottom Edge (Lu)	11' 7" o/c	

- Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	0 to 11' 7"	N/A	13.1	--	
1 - Uniform (PSF)	0 to 11' 7" (Front)	11'	15.0	25.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

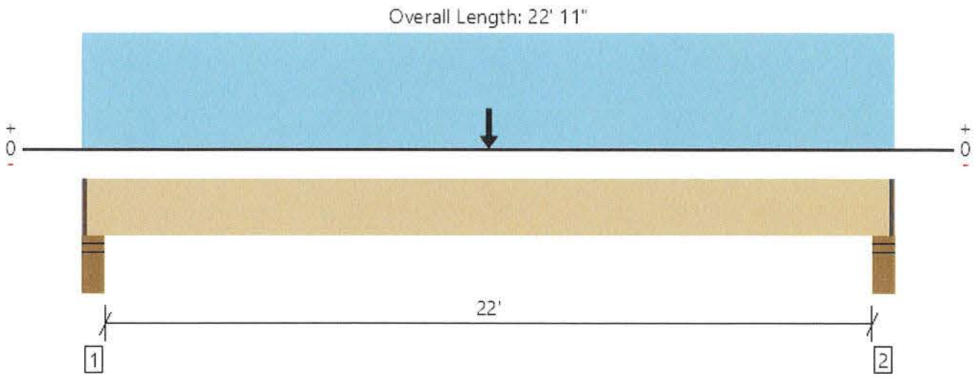
FORTE WEB

MEMBER REPORT

PASSED

Existing House, Gable Beam B14

1 piece(s) 5 1/8" x 16 1/2" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2867 @ 4"	13613 (4.25")	Passed (21%)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Shear (lbs)	2248 @ 1' 10"	14939	Passed (15%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	22457 @ 11' 5 1/2"	55990	Passed (40%)	1.25	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Live Load Defl. (in)	0.294 @ 11' 5 1/2"	0.556	Passed (L/908)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)
Total Load Defl. (in)	0.510 @ 11' 5 1/2"	1.112	Passed (L/523)	--	1.0 D + 0.75 L + 0.75 Lr (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.96 that was calculated using length L = 22' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

	Bearing Length			Loads to Supports (lbs)				
Supports	Total	Available	Required	Dead	Floor Live	Roof Live	Total	Accessories
1 - Stud wall - DF	5.50"	4.25"	1.50"	1195	1375	873	3443	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	1195	1375	873	3443	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	22' 9" o/c	
Bottom Edge (Lu)	22' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

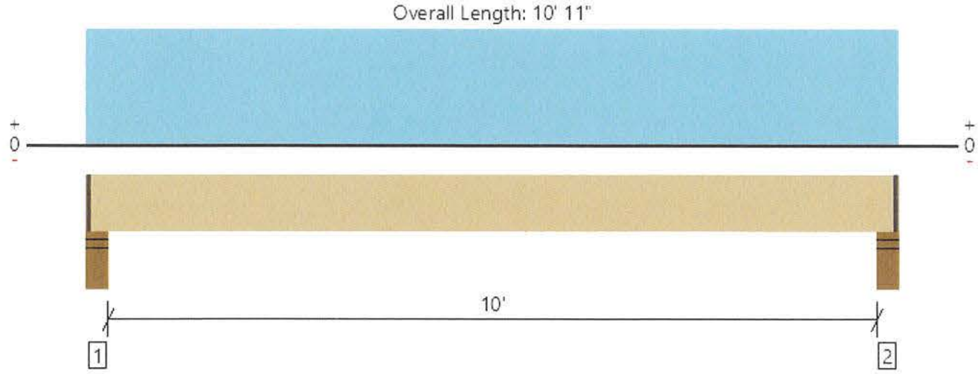
Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Roof Live (non-snow: 1.25)	Comments
0 - Self Weight (PLF)	1 1/4" to 22' 9 3/4"	N/A	20.5	--	--	
1 - Uniform (PSF)	0 to 22' 11" (Front)	3'	12.0	40.0	-	Default Load
2 - Point (lb)	11' 5 1/2" (Front)	N/A	1098	-	1745	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Deck Beam B15

2 piece(s) 1 3/4" x 18" 2.0E Microllam® LVL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	934 @ 4"	9297 (4.25")	Passed (10%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	610 @ 1' 11 1/2"	11970	Passed (5%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	2290 @ 5' 5 1/2"	38753	Passed (6%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.012 @ 5' 5 1/2"	0.256	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.017 @ 5' 5 1/2"	0.512	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	295	655	950	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	295	655	950	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	10' 9" o/c	
Bottom Edge (Lu)	10' 9" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 10' 9 3/4"	N/A	18.4	--	
1 - Uniform (PSF)	0 to 10' 11" (Front)	3'	12.0	40.0	Default Load

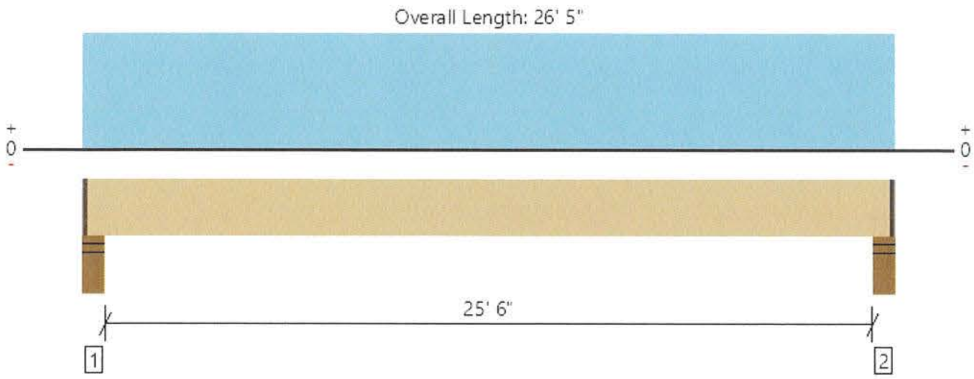
Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

Weyerhaeuser

Existing House, Deck Beam B16

1 piece(s) 5 1/8" x 18" 24F-V8 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	2338 @ 4"	13613 (4.25")	Passed (17%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2007 @ 1' 11 1/2"	16298	Passed (12%)	1.00	1.0 D + 1.0 L (All Spans)
Pos Moment (Ft-lbs)	14788 @ 13' 2 1/2"	52078	Passed (28%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.265 @ 13' 2 1/2"	0.644	Passed (L/999+)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.394 @ 13' 2 1/2"	1.288	Passed (L/785)	--	1.0 D + 1.0 L (All Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 0.94 that was calculated using length L = 25' 9".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Stud wall - DF	5.50"	4.25"	1.50"	769	1585	2354	1 1/4" Rim Board
2 - Stud wall - DF	5.50"	4.25"	1.50"	769	1585	2354	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	26' 3" o/c	
Bottom Edge (Lu)	26' 3" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	1 1/4" to 26' 3 3/4"	N/A	22.4	--	
1 - Uniform (PSF)	0 to 26' 5" (Front)	3'	12.0	40.0	Default Load

Weyerhaeuser Notes

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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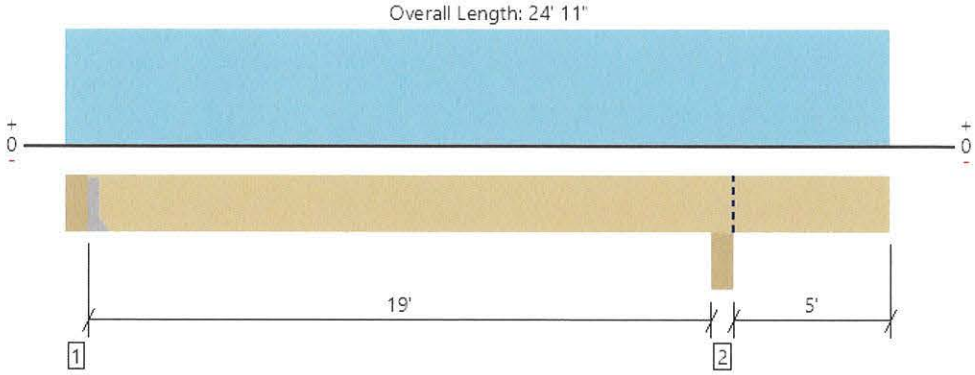
MEMBER REPORT

PASSED

Level, Deck Beam B17

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1306 @ 5 1/2"	3047 (1.50")	Passed (43%)	--	1.0 D + 1.0 L (Alt Spans)
Shear (lbs)	1192 @ 17' 11 1/2"	9938	Passed (12%)	1.00	1.0 D + 1.0 L (Alt Spans)
Pos Moment (Ft-lbs)	6148 @ 9' 10 1/2"	33750	Passed (18%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-1896 @ 19' 8 1/4"	26016	Passed (7%)	1.00	1.0 D + 1.0 L (Alt Spans)
Live Load Defl. (in)	0.113 @ 10' 7/8"	0.481	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.148 @ 10' 1/16"	0.961	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 18' 10".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 7 13/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	356	1007/-25	1363/-25	See note [1]
2 - Beam - DF	5.50"	5.50"	1.50"	602	1555	2157	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	24' 6" o/c	
Bottom Edge (Lu)	24' 6" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 24' 11"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 24' 11" (Front)	2' 6"	10.0	40.0	Default Load

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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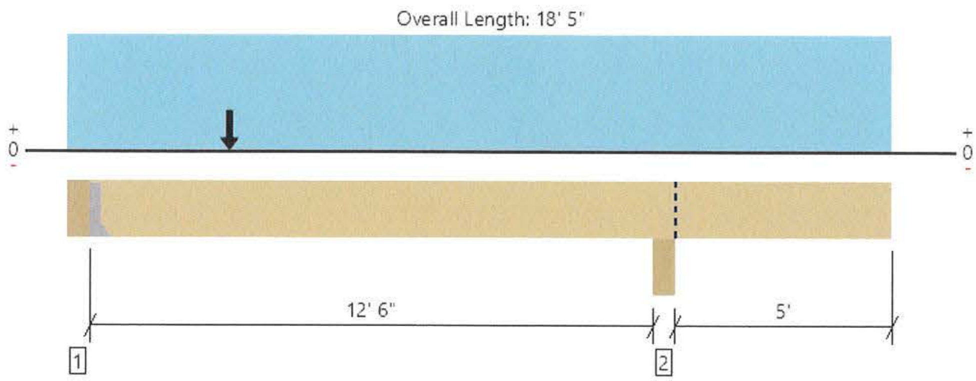
FORTE WEB

MEMBER REPORT

PASSED

Level, Deck Beam B18

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	1754 @ 5 1/2"	3047 (1.50")	Passed (58%)	--	1.0 D + 1.0 L (Alt Spans)
Shear (lbs)	1546 @ 1' 11 1/2"	9938	Passed (16%)	1.00	1.0 D + 1.0 L (Alt Spans)
Pos Moment (Ft-lbs)	4758 @ 4' 5 7/16"	33750	Passed (14%)	1.00	1.0 D + 1.0 L (Alt Spans)
Neg Moment (Ft-lbs)	-1896 @ 13' 2 1/4"	26016	Passed (7%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.039 @ 6' 5 7/8"	0.318	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)
Total Load Defl. (in)	0.048 @ 6' 5 3/16"	0.636	Passed (L/999+)	--	1.0 D + 1.0 L (Alt Spans)

System : Floor
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC 2015
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Overhang deflection criteria: LL (2L/480) and TL (2L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 12' 3 3/8".
- Critical negative moment adjusted by a volume factor of 1.00 that was calculated using length L = 6' 9 9/16".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Hanger on 18" DF beam	5.50"	Hanger[1]	1.50"	399	1413/-62	1812/-62	See note [1]
2 - Beam - DF	5.50"	5.50"	1.50"	547	1496	2043	Blocking

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	18' o/c	
Bottom Edge (Lu)	18' o/c	

- Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
1 - Face Mount Hanger	LGU3.25-SDS H=18	4.50"	N/A	16-SDS25212	12-SDS25212	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	5 1/2" to 18' 5"	N/A	13.7	--	
1 - Uniform (PSF)	0 to 18' 5" (Front)	2' 6"	10.0	40.0	Default Load
2 - Point (lb)	3' 6" (Front)	N/A	240	960	

ForteWEB Software Operator	Job Notes
Ron Coulter Coulter Architects PLLC (509) 630-5518 rkent.architecture@gmail.com	

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6/25/2021 9:57:22 PM UTC
ForteWEB v3.2, Engine: V8.2.0.17, Data: V8.1.0.16
File Name: Dave's House

COULTER ARCHITECTURE

RE: New Home for Pattie and Dave Coulter
35465 Rueppell Avenue
Pacific City, OR
Tillamook County

Design Criteria used in the design of the this structure is listed below:

GRAVITY

Snow Load:	36 PSF Ground Snow Load
	25 PSF Roof Snow)
Live Load:	40 PSF residential & 60 PSF decks
Dead Loads:	15 PSF or "self-weight"

LATERAL

SEISMIC

Equivalent lateral force procedure per 2018 IBC and ASCE 7-16
Site Class E, Seismic Design Category is "D"

UPPER (MAIN) LEVEL:

Systems:
Cantilevered Concrete Columns @ Carport→ R = 2.5
Cs = 0.184
Wood framed shearwalls Balance → R = 6.0 (used 5.0 to be conservative)
Cs = 0.1364
Veq = 14,720 lb Total ←

WIND

WIND SPEED = 115 mph, 3 second gust (ultimate)
WIND EXPOSURE, "C"
WIND Kzt = 1.02
V = 5,862 lb N/S
V = 11,244 lb E/W

SEISMIC FORCES CONTROL LATERAL DESIGN!

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

ASCE 7-16 Wind Forces, Chapter 27, Part I

DESCRIPTION: WIND BASE SHEAR

MAIN WIND FORCE RESISTING SYSTEM

Basic Values

Risk Category	2 per ASCE 7-16 Table 1.5-1	Horizontal Dim. in North-South Direction (B or L) =	71.0 ft
V : Basic Wind Speed	115.0	Horizontal Dim. in East-West Direction (B or L) =	37.0 ft
Kd : Directionality Factor	0.850 per ASCE 7-16 Table 26.6-1	h : Mean Roof height =	22.50 ft

Exposure Category per ASCE 7-16 Section 26.7

North :	Exposure C	East :	Exposure C
South :	Exposure C	West :	Exposure C

Topographic Factor per ASCE 7-16 Sec 26.8 & Figure 26.8-1

	K1	K2	K3	Kzt
North :	0.120	0.120	0.40	1.012
South :	0.120	0.120	0.40	1.012
East :	0.120	0.120	0.40	1.012
West :	0.120	0.120	0.40	1.012

Building Period & Flexibility Category

User has specified the building frequency is >= 1 Hz, therefore considered RIGID for both North-South and East-West directions.

Building Story Data

Level Description	hi ft	Story Ht ft	E_R : X ft	E_R : X ft
ROOF	22.00	11.00	0.000	0.000
FLOOR	11.00	11.00	0.000	0.000

Gust Factor

For wind coming from direction indicated

North =	**0.850**	South =	**0.850**
East =	**0.850**	West =	**0.850**

Enclosure

Check if Building Qualifies as "Open"

	North Wall	South Wall	East Wall	West Wall	Roof	Total
Agross	ft^2	ft^2	ft^2	ft^2	ft^2	0.0 ft^2
Aopenings	ft^2	ft^2	ft^2	ft^2	ft^2	0.0 ft^2
Aopenings >= 0.8 * Agross ?	Yes	Yes	Yes	Yes		

All four Agross values must be non-zero **Building qualifies as "Open"**

North Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross =	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao =	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag =	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi =	0.0			

Building is "Enclosed" when the North wall receives positive external pressure

South Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross =	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao =	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag =	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi =	0.0			

Building is "Enclosed" when the South wall receives positive external pressure

East Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross =	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao =	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag =	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi =	0.0			

Building is "Enclosed" when the East wall receives positive external pressure

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

ASCE 7-16 Wind Forces, Chapter 27, Part I

DESCRIPTION: WIND BASE SHEAR

West Elevation : Determine Enclosure Classification per ASCE Section 26.12

Reference area = smaller of 4 sq. ft. or 1% of Agross	=	0.0 ft^2	Is Ao > 1.10 * Aoi ?	=	No
Aoi = Ao-total - Ao	=	0.0 ft^2	Is Ao > Reference Area ?	=	No
Agi = Ag-total - Ag	=	0.0 ft^2	Is Aoi / Agi >= 0.20 ?	=	Yes
Aoi / Agi	=	0.0			

Building is "Enclosed" when the West wall receives positive external pressure

Velocity Pressures

When the following walls experience leeward or sidewall pressures, the value of Kh shall be (per Table 26.10-1) :

North Wall = 0.9245 psf South Wall = 0.9245 psf East Wall = 0.9245psf West Wall = 0.9245 psf

When the following walls experience leeward or sidewall pressures, the value of qh shall be (per Table 26.10-1)

North Wall = 26.913 psf South Wall = 26.913 psf East Wall = 26.913psf West Wall = 26.913 psf

qz : Windward Wall Velocity Pressures at various heights per Eq. 26.10-1

	North Elevation		South Elevation		East Elevation		West Elevation	
Height Above Base (ft)	Kz	qz	Kz	qz	Kz	qz	Kz	qz
0.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
5.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
10.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
15.00	0.849	24.71	0.849	24.71	0.849	24.71	0.849	24.71
20.00	0.902	26.25	0.902	26.25	0.902	26.25	0.902	26.25

Pressure Coefficients

GCpi Values when elevation receives positive external pressure

GCpi : Internal pressure coefficient, per sec. 26.13 and Table 26.13-1

North		South		East		West	
+/-	0.0	+/-	0.0	+/-	0.0	+/-	0.0

Specify Cp Values from Figure 27.3-1 for Windward, Leeward & Side Walls

Cp Values when elevation receives positive external pressure

	North	South	East	West
Windward Wall	0.80	0.80	0.80	0.80
Leeward Wall				
Side Walls	-0.70	-0.70	-0.70	-0.70

Wind Pressures

Wind Pressures when NORTH Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when SOUTH Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

ASCE 7-16 Wind Forces, Chapter 27, Part I

DESCRIPTION: WIND BASE SHEAR

0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when EAST Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Wind Pressures when WEST Elevation receives positive external wind pressure

	Positive Internal	Negative Internal
Leeward Wall Pressures	0.0 psf	0.0 psf
Side Wall Pressures	-16.013 psf	-16.013 psf

Windward Wall Pressures . . . Height Above Base (ft)	Positive Internal Pressure (psf)	Negative Internal Pressure (psf)
0.00	16.80	16.80
5.00	16.80	16.80
10.00	16.80	16.80
15.00	16.80	16.80
20.00	17.85	17.85

Story Forces for Design Wind Load Cases

Values below are calculated based on a building with dimensions B x L x h as defined on the "Basic Values" tab.

Load Case	Windward Wall	Building level	Ht. Range	Trib. Height	Wind Shear Components (k) In "Y" Direction	In "X" Direction	Eccentricity for (ft) "Y" Shear	"X" Shear		Mt, (ft-k)
CASE 1	North	Level 2	16.50' -> 22.00'	5.50	-3.60	---	---	---		---
CASE 1	North	Level 1	5.50' -> 16.50'	11.00	-6.85	---	---	---		---
CASE 1	South	Level 2	16.50' -> 22.00'	5.50	3.60	---	---	---		---
CASE 1	South	Level 1	5.50' -> 16.50'	11.00	6.85	---	---	---		---
CASE 1	East	Level 2	16.50' -> 22.00'	5.50	---	-6.91	---	---		---
CASE 1	East	Level 1	5.50' -> 16.50'	11.00	---	-13.14	---	---		---
CASE 1	West	Level 2	16.50' -> 22.00'	5.50	---	6.91	---	---		---
CASE 1	West	Level 1	5.50' -> 16.50'	11.00	---	13.14	---	---		---
CASE 2	North	Level 2	16.50' -> 22.00'	5.50	-2.70	---	---	5.55	+/-	15.0
CASE 2	North	Level 1	5.50' -> 16.50'	11.00	-5.14	---	---	5.55	+/-	28.5
CASE 2	South	Level 2	16.50' -> 22.00'	5.50	2.70	---	---	5.55	+/-	15.0
CASE 2	South	Level 1	5.50' -> 16.50'	11.00	5.14	---	---	5.55	+/-	28.5
CASE 2	East	Level 2	16.50' -> 22.00'	5.50	---	-5.18	9.92	---	+/-	51.4
CASE 2	East	Level 1	5.50' -> 16.50'	11.00	---	-9.86	9.92	---	+/-	97.8

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

ASCE 7-16 Wind Forces, Chapter 27, Part I

DESCRIPTION: WIND BASE SHEAR

CASE 2	West	Level 2	16.50' -> 22.00'	5.50	---	5.18	9.92	--- +/-	51.4
CASE 2	West	Level 1	5.50' -> 16.50'	11.00	---	9.86	9.92	--- +/-	97.8
CASE 3	North & East	Level 2	16.50' -> 22.00'	5.50	-2.70	-5.18	---	---	---
CASE 3	North & East	Level 1	5.50' -> 16.50'	11.00	-5.14	-9.86	---	---	---
CASE 3	North & West	Level 2	16.50' -> 22.00'	5.50	-2.70	5.18	---	---	---
CASE 3	North & West	Level 1	5.50' -> 16.50'	11.00	-5.14	9.86	---	---	---
CASE 3	South & West	Level 2	16.50' -> 22.00'	5.50	2.70	5.18	---	---	---
CASE 3	South & West	Level 1	5.50' -> 16.50'	11.00	5.14	9.86	---	---	---
CASE 3	South & East	Level 2	16.50' -> 22.00'	5.50	2.70	-5.18	---	---	---
CASE 3	South & East	Level 1	5.50' -> 16.50'	11.00	5.14	-9.86	---	---	---
CASE 4	North & East	Level 2	16.50' -> 22.00'	5.50	-2.03	-3.89	9.92	5.55 +/-	49.9
CASE 4	North & East	Level 1	5.50' -> 16.50'	11.00	-3.86	-7.40	9.92	5.55 +/-	94.8
CASE 4	North & West	Level 2	16.50' -> 22.00'	5.50	-2.03	3.89	9.92	5.55 +/-	49.9
CASE 4	North & West	Level 1	5.50' -> 16.50'	11.00	-3.86	7.40	9.92	5.55 +/-	94.8
CASE 4	South & West	Level 2	16.50' -> 22.00'	5.50	2.03	3.89	9.92	5.55 +/-	49.9
CASE 4	South & West	Level 1	5.50' -> 16.50'	11.00	3.86	7.40	9.92	5.55 +/-	94.8
CASE 4	South & East	Level 2	16.50' -> 22.00'	5.50	2.03	-3.89	9.92	5.55 +/-	49.9
CASE 4	South & East	Level 1	5.50' -> 16.50'	11.00	3.86	-7.40	9.92	5.55 +/-	94.8
Min per ASCE 27.1.5	North	Level 2	16.50' -> 22.00'	5.50	-3.26	---	---	---	---
Min per ASCE 27.1.5	North	Level 1	5.50' -> 16.50'	11.00	-6.51	---	---	---	---
Min per ASCE 27.1.5	South	Level 2	16.50' -> 22.00'	5.50	3.26	---	---	---	---
Min per ASCE 27.1.5	South	Level 1	5.50' -> 16.50'	11.00	6.51	---	---	---	---
Min per ASCE 27.1.5	East	Level 2	16.50' -> 22.00'	5.50	---	-6.25	---	---	---
Min per ASCE 27.1.5	East	Level 1	5.50' -> 16.50'	11.00	---	-12.50	---	---	---
Min per ASCE 27.1.5	West	Level 2	16.50' -> 22.00'	5.50	---	6.25	---	---	---
Min per ASCE 27.1.5	West	Level 1	5.50' -> 16.50'	11.00	---	12.50	---	---	---

Base Shear for Design Wind Load Cases

Values below are calculated based on a building with dimensions B x L x h as defined on the "General" tab.

North
+Y
West +X

Load Case	Windward Wall	Leeward Wall	Wind Base Shear Components (k) In "Y" Direction	In "X" Direction		Mt, (ft-k)
Case 1	North	South	-10.45	---		---
Case 1	South	North	10.45	---		---
Case 1	East	West	---	-20.05		---
Case 1	West	East	---	20.05		---
Case 2	North	South	-7.84	---	+/-	43.5
Case 2	South	North	7.84	---	+/-	43.5
Case 2	East	West	---	-15.04	+/-	149.2
Case 2	West	East	---	15.04	+/-	149.2
Case 3	North & East	South & West	-7.84	-15.04		---
Case 3	North & West	South & East	-7.84	15.04		---
Case 3	South & West	North & East	7.84	15.04		---
Case 3	South & East	North & West	7.84	-15.04		---
Case 4	North & East	South & West	-5.88	-11.29	+/-	144.6

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

ASCE 7-16 Wind Forces, Chapter 27, Part I

DESCRIPTION: WIND BASE SHEAR

Case 4	North & West	South & East	-5.88	11.29	+/-	144.6
Case 4	South & West	North & East	5.88	11.29	+/-	144.6
Case 4	South & East	North & West	5.88	-11.29	+/-	144.6
Min per ASCE 27.1.5	North	South	-9.77	---		---
Min per ASCE 27.1.5	South	North	9.77	---		---
Min per ASCE 27.1.5	East	West	---	-18.74		---
Min per ASCE 27.1.5	West	East	---	18.74		---

ASD WORKING LEVEL FORCES
NORTH SOUTH = 5,862 LB
EAST WEST = 11,244 LB

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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ASCE Seismic Base Shear

File: DAVE COULTER.ec6

Lic. # : KW-06009465 STRUCTURAL PHIL

DESCRIPTION: COULTER BASE SHEAR

COULTER BASE SHEAR

Risk Category

Calculations per ASCE 7-16

Risk Category of Building or Other Structure : "II" : All Buildings and other structures except those listed as Category I, III, and IV — *ASCE 7-16, Page 4, Table 1.5-1*

Seismic Importance Factor = 1 — *ASCE 7-16, Page 5, Table 1.5-2*

ASCE 7-16 11.4.2

Max. Ground Motions, 5% Damping :

S_S =	1.330 g, 0.2 sec response	Latitude =	45.198	deg North
S_1 =	0.6783 g, 1.0 sec response	Longitude =	123.962	deg West

Site Class, Site Coeff. and Design Category

Site Classification "E" : Shear Wave Velocity must be less than 600 ft/sec		= E	*ASCE 7-16 Table 20.3-1*
Site Coefficients Fa & Fv	Fa	= 1.00	*ASCE 7-16 Table 11.4-1 & 11.4-2*
(using straight-line interpolation from table values)	Fv	= 2.00	
Maximum Considered Earthquake Acceleration	S_{MS} = Fa * Ss	= 1.330	*ASCE 7-16 Eq. 11.4-1*
	S_{M1} = Fv * S1	= 1.357	*ASCE 7-16 Eq. 11.4-2*
Design Spectral Acceleration	S_{DS}= S_{MS} * 2/3	= 0.887	*ASCE 7-16 Eq. 11.4-3*
	S_{D1}= S_{M1} * 2/3	= 0.904	*ASCE 7-16 Eq. 11.4-4*
Seismic Design Category		= **D**	*ASCE 7-16 Table 11.6-1 & -2*

Resisting System

ASCE 7-16 Table 12.2-1

Basic Seismic Force Resisting System . . . **Bearing Wall Systems**
15.Light-frame (wood) walls sheathed w/wood structural panels rated for shear resistance.

Response Modification Coefficient " R "	= 6.50	Building height Limits :	
System Overstrength Factor " Wo "	= 3.00	Category "A & B" Limit:	No Limit
Deflection Amplification Factor " Cd "	= 4.00	Category "C" Limit:	No Limit
		Category "D" Limit:	Limit = 65
		Category "E" Limit:	Limit = 65
		Category "F" Limit:	Limit = 65

NOTE! See ASCE 7-16 for all applicable footnotes.

Lateral Force Procedure

ASCE 7-16 Section 12.8.2

Equivalent Lateral Force Procedure

The "Equivalent Lateral Force Procedure" is being used according to the provisions of ASCE 7-16 12.8

Determine Building Period

Use ASCE 12.8-7

Structure Type for Building Period Calculation : All Other Structural Systems

" Ct " value = 0.020 — " hn " : Height from base to highest level = 24.0 ft

" x " value = 0.75

" Ta " Approximate fundemental period using Eq. 12.8-7 : Ta = Ct * (hn ^ x) = 0.217 sec

"TL" : Long-period transition period per ASCE 7-16 Maps 22-14 -> 22-17 8.000 sec

Building Period " Ta " Calculated from Approximate Method selected = 0.217 sec

" Cs " Response Coefficient

ASCE 7-16 Section 12.8.1.1

S_{DS}: Short Period Design Spectral Response	= 0.887	From Eq. 12.8-2, Preliminary Cs	= 0.136
" R " : Response Modification Factor	= 6.50	From Eq. 12.8-3 & 12.8-4, Cs need not exceed	= 0.642
" I " : Seismic Importance Factor	= 1	From Eq. 12.8-5 & 12.8-6, Cs not be less than	= 0.052
		Cs : Seismic Response Coefficient =	= **0.1364**

Seismic Base Shear

ASCE 7-16 Section 12.8.1

Cs = 0.1364 from 12.8.1.1

W (see Sum Wi below) = 107.92 k

Seismic Base Shear V = Cs * W = 14.72 k

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
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ASCE Seismic Base Shear

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DESCRIPTION: COULTER BASE SHEAR

Vertical Distribution of Seismic Forces

ASCE 7-16 Section 12.8.3

" k " : hx exponent based on Ta = 1.00

Table of building Weights by Floor Level...

Level #	Wi : Weight	Hi : Height	(Wi * Hi^k)	Cvx	Fx=Cvx * V	Sum Story Shear	Sum Story Moment
2	35.50	22.00	781.00	0.4733	6.97	6.97	0.00
1	72.42	12.00	869.04	0.5267	7.75	14.72	69.68

Sum Wi = 107.92 k Sum Wi * Hi = 1,650.04 k-ft Total Base Shear = 14.72 k

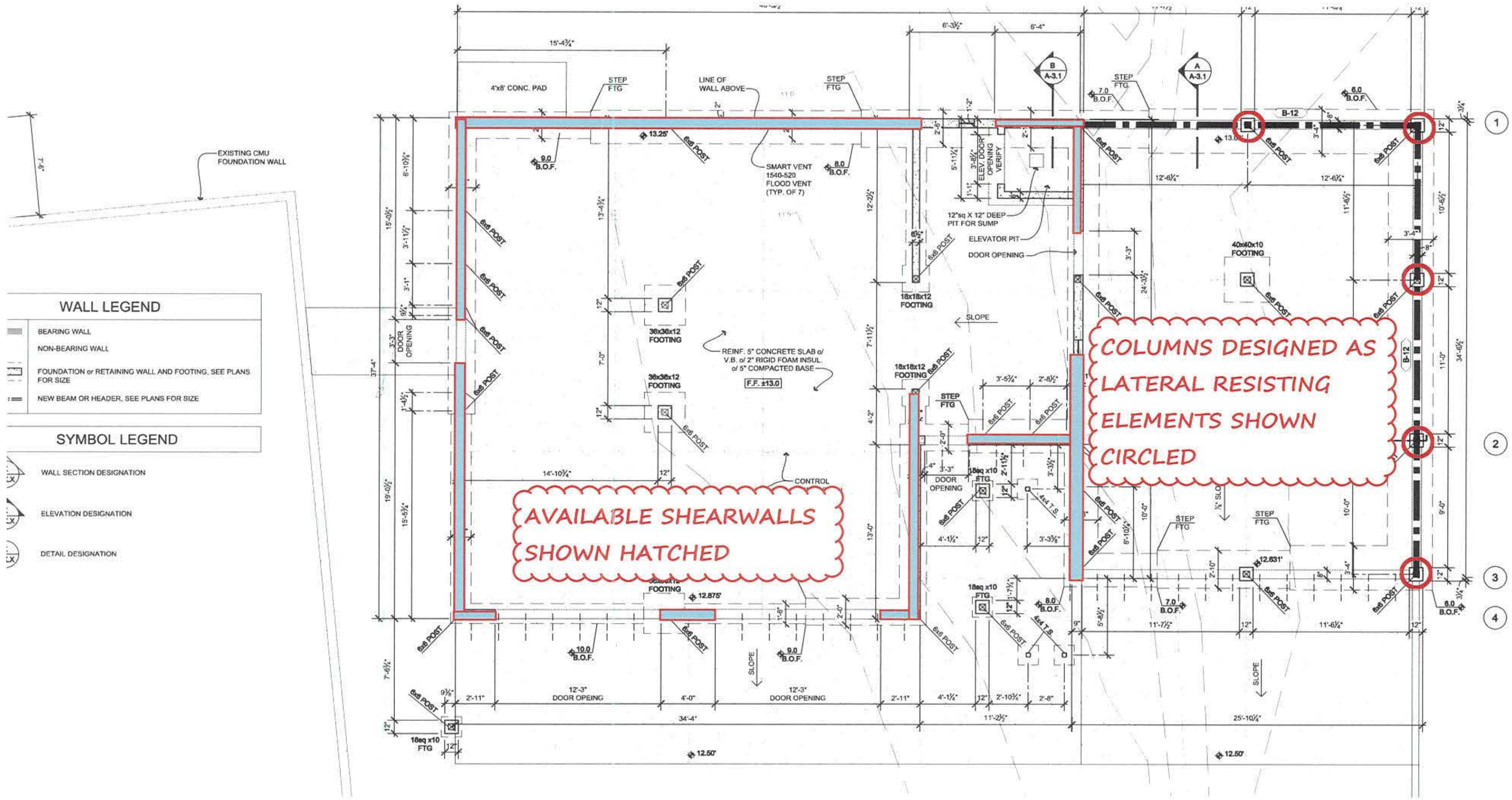
Base Moment = 246.3 k-ft

Diaphragm Forces : Seismic Design Category "B" to "F"

ASCE 7-16 12.10.1.1

Level #	Wi	Fi	Sum Fi	Sum Wi	Fpx : Calcd	Fpx : Min	Fpx : Max	Fpx	Dsgn. Force
2	35.50	6.97	6.97	35.50	6.97	6.30	12.59	6.97	6.97
1	72.42	7.75	14.72	107.92	9.88	12.84	25.68	12.84	12.84

Wpx . . . . Weight at level of diaphragm and other structure elements attached to it.
Fi . . . . Design Lateral Force applied at the level.
Sum Fi . . . . Sum of "Lat. Force" of current level plus all levels above
MIN Req'd Force @ Level . . . . $0.20 * S_{DS} * I * Wpx$
MAX Req'd Force @ Level . . . . $0.40 * S_{DS} * I * Wpx$
Fpx : Design Force @ Level . . . . . . Wpx * SUM(x->n) Fi / SUM(x->n) wi, x = Current level, n = Top Level



COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects
AIA

CORRESPONDENCE
P. O. Box 2323
Lake Chelan, WA 98816
(509) 630 .5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

PATTIE COULTER
55 RUEPPELL AVE
LAMOOK COUNTY, OREGON

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
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Torsional Analysis of Rigid Diaphragm

File: DAVE COULTER.ec6

Lic. # : KW-06009465 STRUCTURAL PHIL

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

General Information

IBC 2018, CBC 2019, ASCE 7-16

Applied Lateral Force	14.720 k
.....Additional Orthogonal Force	k
Maximum Load Used for Analysis :	14.720 k

Note: This load is the vector resolved from the above two entries and will be applied to the system of elements at angular increments.

Load Orientation Angular Increment	45.0 deg
Load Location Angular Increment	15.0 deg

Center of Rigidity Location (calculated) . . .

"X" dist. from Datum	29.351 ft
"Y" dist. from Datum	34.849 ft

Center of Shear Application :

Distance from "X" datum point	33 ft
Distance from "Y" datum point	20 ft

Accidental Torsion values per ASCE 7-05 12.8.4.2

Ecc. as % of Maximum Dimension	5.00 %

Maximum Dimensions :

Along "X" Axis	71.0 ft
Along "Y" Axis	37.0 ft

Accidental Eccentricity +/- from "X" Coord. of Load Application	3.550 ft
Accidental Eccentricity +/- from "Y" Coord. of Load Application	1.850 ft

Wall Information

Label	Wall Deflections (Stiffness) for 1.0 kip load : Along Wall "y" Dir	Along Wall "x" Dir	X Wall C.G. Location	Y Wall C.G. Location	Wall Angle CCW	Wall Fixity	Length	Height	Thickness	E - Bending	E - Shear
LEFT WALL	4.6760E-004 in	1.0680E+006 in	0 ft	18.5 ft	90 deg	Fix-Fix	37 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
REAR LEFT	5.1157E-004 in	1.1622E+006 in	17 ft	37 ft	0 deg	Fix-Fix	34 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
INTERIOR FRONT	1.5468E-003 in	9.2973E+006 in	34 ft	8.5 ft	90 deg	Fix-Pin	17 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
INTERIOR REAR	2.9880E-003 in	1.3171E+007 in	34 ft	31 ft	90 deg	Fix-Pin	12 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
FRONT STAIRWELL	8.7443E-003 in	2.1074E+007 in	42 ft	13 ft	0 deg	Fix-Pin	7.5 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
CARPORT VESTIBULE	1.0213E-003 in	7.1843E+006 in	45.5 ft	11 ft	90 deg	Fix-Pin	22 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi
ELEVATOR REAR	2.5413E-003 in	7.6000E+005 in	42 ft	37 ft	0 deg	Fix-Fix	6.5 ft	7 ft	1 in	1 Mpsi	1 Mpsi
BOAT GARAGE L	3.1007E-002 in	1.3172E+007 in	1.5 ft	0 ft	0 deg	Fix-Fix	3 ft	7 ft	0.5 in	1 Mpsi	1 Mpsi

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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Torsional Analysis of Rigid Diaphragm

File: DAVE COULTER.ec6

Lic. # : KW-06009465 STRUCTURAL PHIL

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Wall Information

Label : BOAT GARAGE MIDDLE

Wall Deflections (Stiffness) for 1.0 kip load :		X Wall C.G. Location	17.5 ft	Length	4 ft
Along Wall "y" Dir	1.4919E-002 in	Y Wall C.G. Location	0 ft	Height	7 ft
Along Wall "x" Dir	9.8787E+006 in	Wall Angle CCW	0 deg	Thickness	0.5 in
		Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
				E - Shear	1 Mpsi

Label : BOAT GARAGE RIGHT

Wall Deflections (Stiffness) for 1.0 kip load :		X Wall C.G. Location	32.5 ft	Length	3 ft
Along Wall "y" Dir	3.1007E-002 in	Y Wall C.G. Location	0 ft	Height	7 ft
Along Wall "x" Dir	1.3172E+007 in	Wall Angle CCW	0 deg	Thickness	0.5 in
		Wall Fixity	Fix-Fix	E - Bending	1 Mpsi
				E - Shear	1 Mpsi

Beam Information

Label : REAR MIDDLE COL

Beam Deflections (Stiffness) for 1.0 kip load :		X Beam C.G. Location	58.25 ft	I-xx	144 in^4
Along Beam "y" Dir	1.3235E-003 in	Y Beam C.G. Location	37 ft	I-yy	144 in^4
Along Beam "x" Dir	1.0000E+015 in	Beam Angle CCW	0 deg	E - Bending	58 Mpsi
		Beam Fixity	Fix-Fix		

Label : REAR RIGHT COL

Beam Deflections (Stiffness) for 1.0 kip load :		X Beam C.G. Location	71 ft	I-xx	144 in^4
Along Beam "y" Dir	5.2942E-003 in	Y Beam C.G. Location	37 ft	I-yy	144 in^4
Along Beam "x" Dir	1.0000E+015 in	Beam Angle CCW	0 deg	E - Bending	58 Mpsi
		Beam Fixity	Fix-Pin		

Label : RIGHT FRONT COL

Beam Deflections (Stiffness) for 1.0 kip load :		X Beam C.G. Location	71 ft	I-xx	144 in^4
Along Beam "y" Dir	3.7241E-003 in	Y Beam C.G. Location	4 ft	I-yy	144 in^4
Along Beam "x" Dir	1.0000E+015 in	Beam Angle CCW	90 deg	E - Bending	58 Mpsi
		Beam Fixity	Fix-Fix		

Label : RIGHT SECOND

Beam Deflections (Stiffness) for 1.0 kip load :		X Beam C.G. Location	71 ft	I-xx	144 in^4
Along Beam "y" Dir	2.4949E-003 in	Y Beam C.G. Location	25.5 ft	I-yy	144 in^4
Along Beam "x" Dir	1.0000E+015 in	Beam Angle CCW	90 deg	E - Bending	58 Mpsi
		Beam Fixity	Fix-Fix		

Label : RIGHT THIRD

Beam Deflections (Stiffness) for 1.0 kip load :		X Beam C.G. Location	71 ft	I-xx	144 in^4
Along Beam "y" Dir	2.8685E-003 in	Y Beam C.G. Location	15.5 ft	I-yy	144 in^4
Along Beam "x" Dir	1.0000E+015 in	Beam Angle CCW	90 deg	E - Bending	58 Mpsi
		Beam Fixity	Fix-Fix		

ANALYSIS SUMMARY

Maximum shear forces applied to resisting elements. Eccentricity with respect to Center of Rigidity

	Max Shear along Member Local "y-y" Axis				Max Shear along Member Local "x-x" Axis			
Resisting Element	Load Angle	X-Ecc (ft)	Y-Ecc (ft)	Shear Force (k)	Load Angle	X-Ecc (ft)	Y-Ecc (ft)	Shear Force (k)
BOAT GARAGE L	0	-3.65	-16.70	**0.201**	90	-0.10	-14.85	**0.000**
'AT GARAGE MIDD	0	-3.65	-16.70	**0.418**	90	-0.10	-14.85	**0.000**
)AT GARAGE RIGI	0	-3.65	-16.70	**0.201**	90	-0.10	-14.85	**0.000**
\RPORT VESTIBUI	90	-3.65	-13.00	**3.023**	0	-0.10	-14.85	**0.000**
ELEVATOR REAR	0	-0.10	-14.85	**1.637**	90	-0.10	-14.85	**0.000**
'RONT STAIRWELI	0	-3.65	-16.70	**0.625**	90	-0.10	-14.85	**0.000**
INTERIOR FRONT	90	-3.65	-13.00	**1.899**	0	-0.10	-14.85	**0.000**
INTERIOR REAR	90	-3.65	-13.00	**0.983**	0	-0.10	-14.85	**0.000**
LEFT WALL	45	-6.72	-15.77	**7.923**	0	-0.10	-14.85	**0.000**
REAR LEFT	0	-0.10	-14.85	**8.132**	90	-0.10	-14.85	**0.000**
REAR MIDDLE COL	0	-0.10	-14.85	**3.143**	90	-0.10	-14.85	**0.000**
REAR RIGHT COL	0	-0.10	-14.85	**0.786**	90	-0.10	-14.85	**0.000**
RIGHT FRONT COL	45	-3.65	-16.70	**1.122**	315	-0.10	-14.85	**0.000**
RIGHT SECOND	45	-3.65	-16.70	**1.675**	315	-0.10	-14.85	**0.000**
RIGHT THIRD	45	-3.65	-16.70	**1.457**	315	-0.10	-14.85	**0.000**

STRUCTURAL PHIL
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7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
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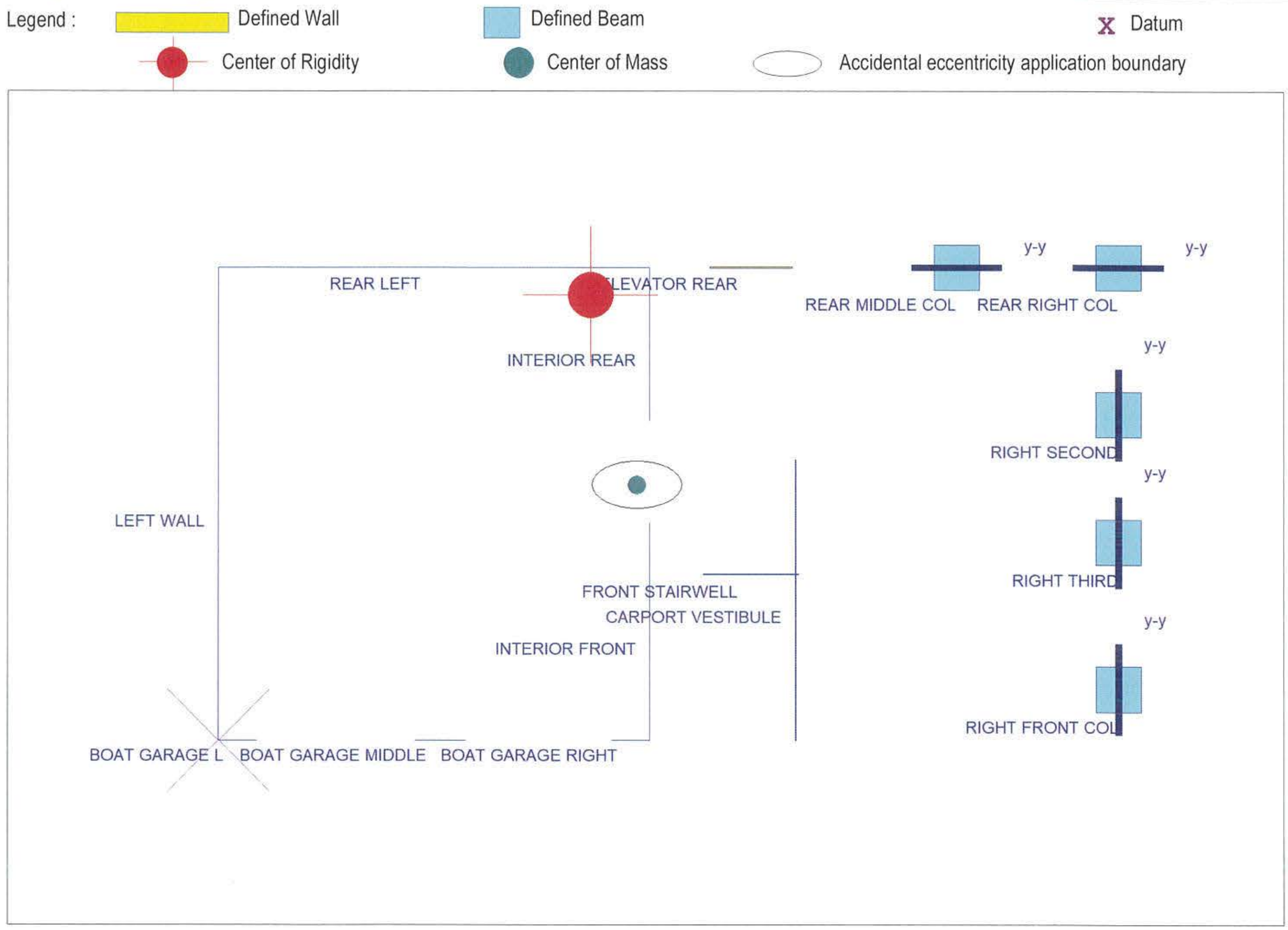
Torsional Analysis of Rigid Diaphragm

DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Layout of Resisting Elements



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DESCRIPTION: RELATIVE RIGIDITY FOR LOWER LEVEL

Analysis Notes

This program is designed to distribute an applied shear load to a set of resisting elements.

Each resisting element data entry specifies a deflection along a "major" and "minor" axis due to a 1,000 lb load. Each resisting element may be entered as a wall or a column (whereby the deflection is calculated), or as a generic resisting element with specified deflection. The deflections define the stiffness of each resisting element.

Each resisting element is defined at an (X,Y) location from a datum the user has previously defined. A counter-clockwise rotation of the element can be entered with respect to a traditional "+X" axis line.

A main "shear" load and an optional orthogonal shear load are specified for distribution to the system of resisting elements. In addition the maximum orthogonal dimensions of the structure and minimum accidental eccentricity percentage are specified.

From the entered loads the program calculates resultant force vectors for each angular orientation that is requested. The force is applied to the resisting elements in angular increments to generate a series of resulting direct and torsional shear loads on each element. This application of force is then repeated at angular intervals along an elliptical path defined by the minimum accidental eccentricity.

The end result is a table of direct shear and torsional shear values for each element from the iterated angles of load application and accidental eccentricity. These values are then searched to find the maximum major and minor axis shears applied to each resisting element.

	Project COULTER SHEAR WALLS	Engineer: Phil Date: 5/31/2021	Project # 28PV21
	Subject Shearwall Design	Checker: Date:	Page

Wall Line: **FRONT WALLS AT BOAT GARAGE**
Floor Level: **LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

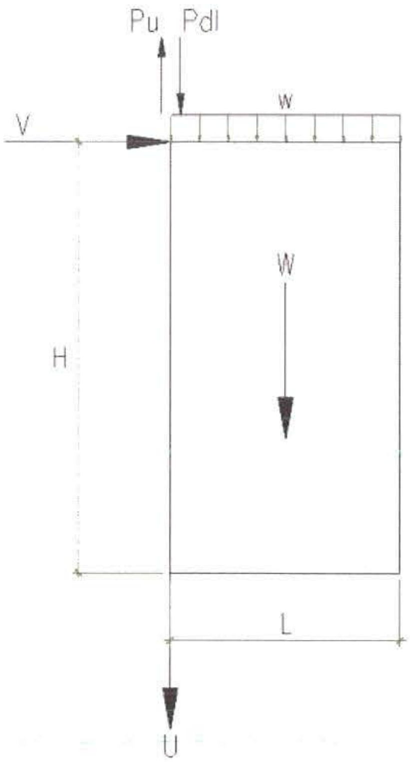
Lateral Load to Wall Line = **820** lbs
Total Length of Shearwalls = **10.0** ft

Unit Shear Load (ν) = **82** plf ←

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *820 (Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown FDN HD	Req'd Holdown FLOOR STRAP
7.0	4.0	328	680	45	135	0	66	NA	NA
7.0	3.0	246	510	45	135	0	162	NA	NA
7.0	3.0	246	510	45	135	0	162	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA

	Project COULTER SHEAR WALLS	Engineer: Phil Date: 5/31/2021	Project # 28PV21
	Subject Shearwall Design	Checker: Date:	Page

Wall Line: **LEFT WALL**
Floor Level: **LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

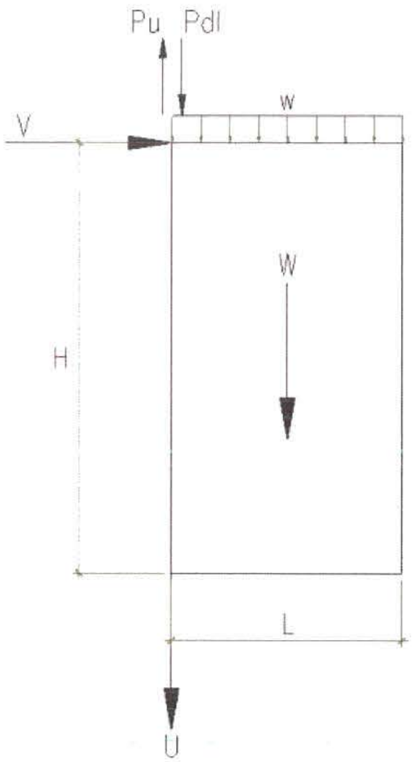
Lateral Load to Wall Line = **8,300** lbs
Total Length of Shearwalls = **34.0** ft

Unit Shear Load (ν) = **244** plf

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-4	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *8,300* *(Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown FDN HD	Req'd Holdown FLOOR STRAP
10.0	34.0	8,300	6,800	110	0	0	-2,302	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA

	Project COULTER SHEAR WALLS	Engineer: Phil Date: 5/31/2021	Project # 28PV21
	Subject Shearwall Design	Checker: Date:	Page

Wall Line: **WALL AT ELEVATOR**
Floor Level: **LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

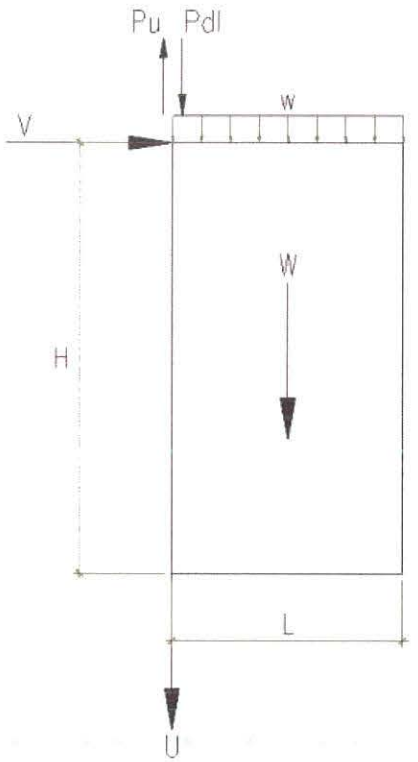
Lateral Load to Wall Line = **1,637** lbs
Total Length of Shearwalls = **7.5** ft

Unit Shear Load (ν) = **218** plf

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology: V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *1,637* *(Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown FDN HD	Req'd Holdown FLOOR STRAP
7.0	7.5	1,637	1,275	45	135	0	681	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA

	Project COULTER SHEAR WALLS	Engineer: Phil Date: 5/31/2021	Project # 28PV21
	Subject Shearwall Design	Checker: Date:	Page

Wall Line: **FRONT OF VESTIBULE AT STAIRWELL**
Floor Level: **LOWER LEVEL**

Unit Shear Calculations

Seismic Design Category D, E, or F? **yes**

REFERENCE DRAWINGS FOR SHEARWALL TYPE AND SCHEDULE PLUS HOLDOWNS.

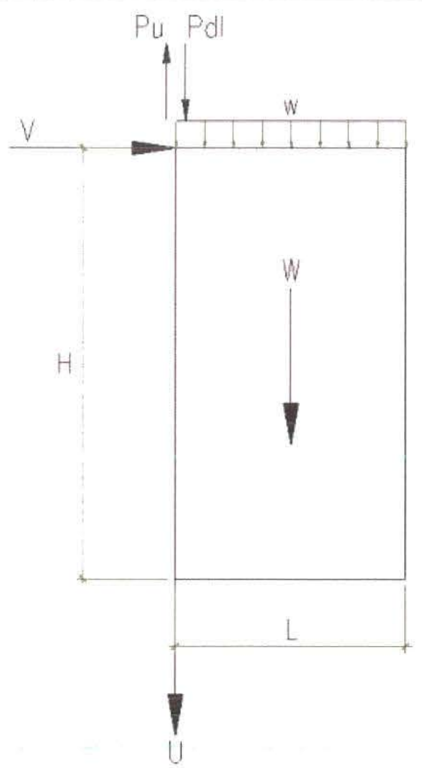
Lateral Load to Wall Line = **623** lbs
Total Length of Shearwalls = **7.5** ft

Unit Shear Load (ν) = **83** plf

Use Shearwall Type	
EARTHQUAKE	**WIND**
P1-6	**P1-6**

Reference attached shearwall schedule for more information.

Overturning Calculations



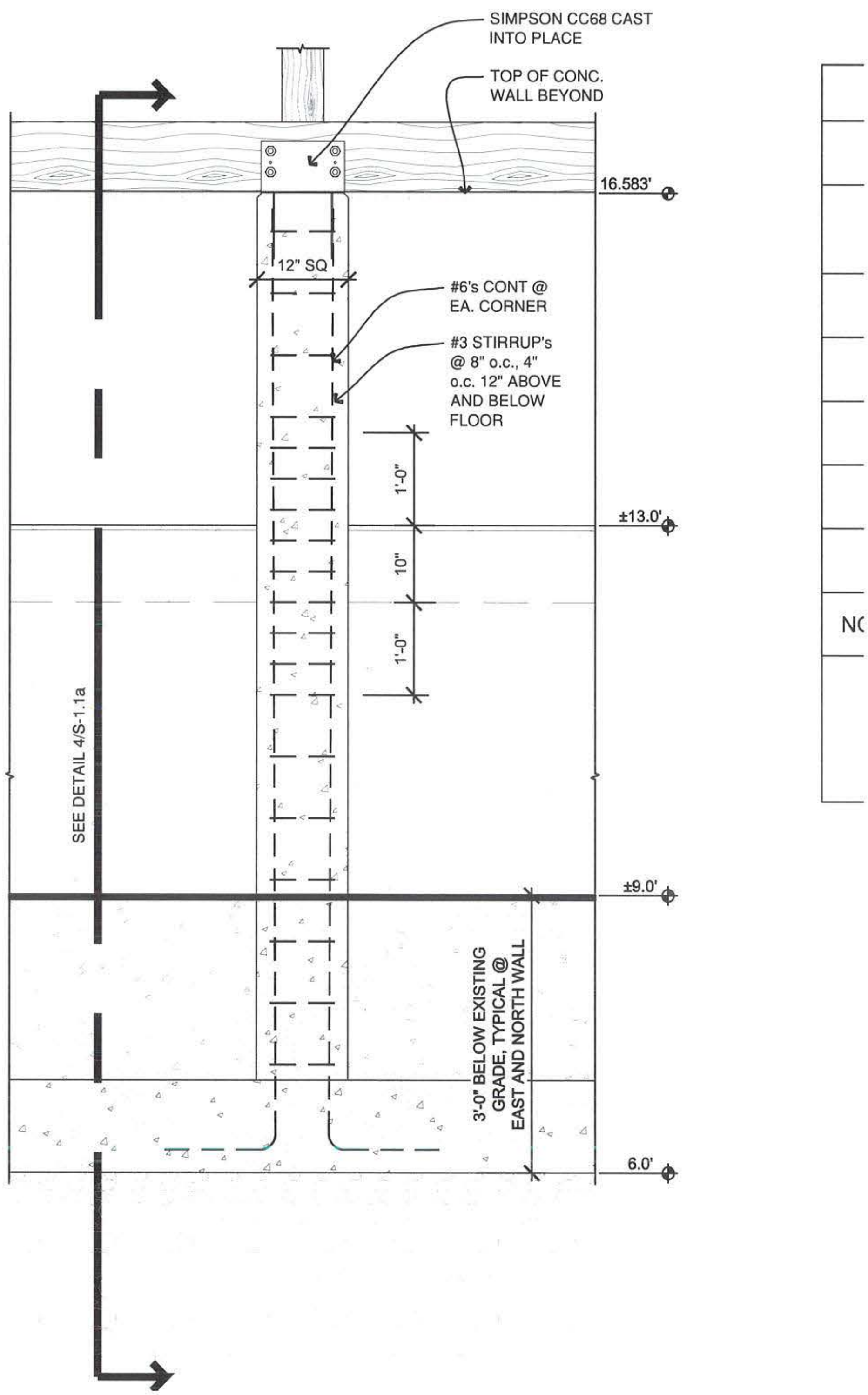
Seismic Controlled Design? **yes** (Affects aspect ratio)

Terminology : V = Panel Shear (lbs)
W = Panel Self Weight (lbs)
w = Trib. Roof/Floor Load (plf)
P_{dl} = DL Reaction from Header/Beam (lbs)
P_u = Uplift from Shearwall Above (lbs)
OTM = Overturning Moment (ft-lbs)
RM = DL Resisting Moment (ft-lbs)

Equations: $V = \nu L$
$OTM = VH$
$RM = 0.9[(W+wL)(L/2)+P_{dl}L]$
$U = (OTM-RM)/L + P_u$

Load Check, ΣV = *623* *(Compare w/ Load Above)*
Max. Aspect Ratio: *2.0*
Check Aspect Ratio: ***OK***
(Ref. IBC Table 2305.3.3, footnote (a), when aspect ratios are exceeded)

H (ft)	L (ft)	V	W	w	Pdl	Pu	Uplift (U)	Req'd Holdown FDN HD	Req'd Holdown FLOOR STRAP
7.0	7.5	623	1,275	45	135	0	-266	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA
0.0	0.0	0	0	0	0	0	0	NA	NA



L
'-0"

3 PILASTER DETAIL

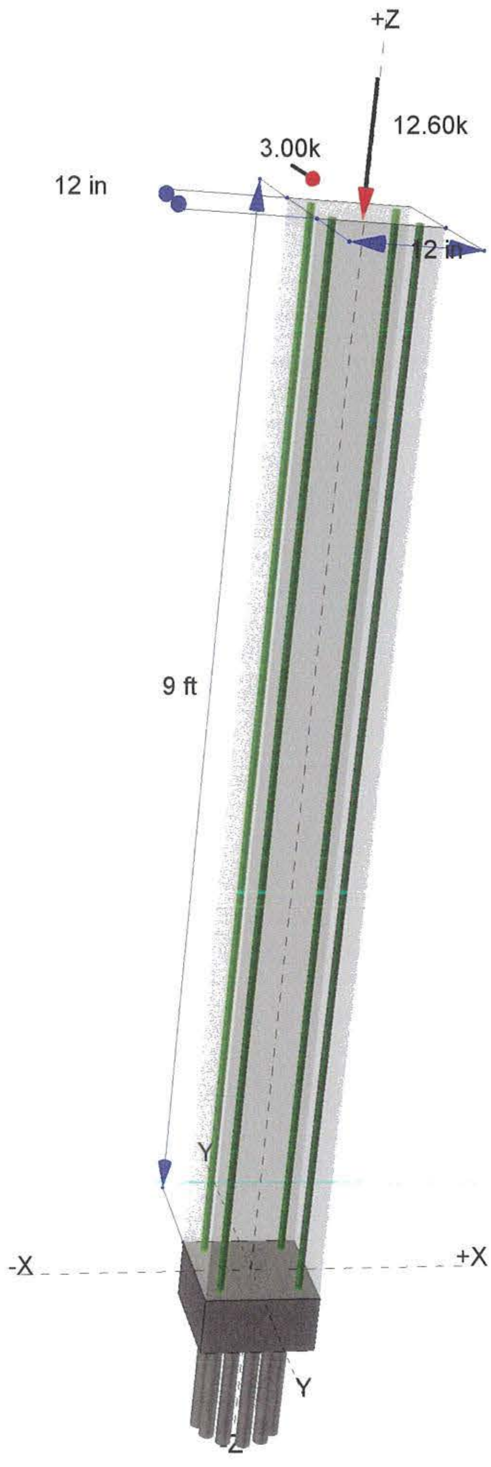
SCALE 3/4"= 1'-0"

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
Engineer: S/P
Project ID: 28PV21
Project Descr: Two - Story @ 35465 Rueppell Ave

Concrete Column

DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL



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DESCRIPTION: CANTILEVERED COLUMNS - PILASTERS CONTINUE ABOVE FOUNDATION WALL

Code References

Calculations per ACI 318-14, IBC 2018, CBC 2019, ASCE 7-16
Load Combinations Used : IBC 2018

General Information

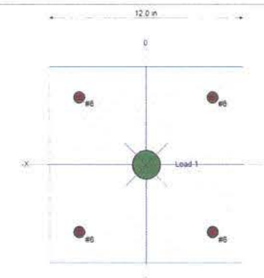
f'c : Concrete 28 day strength	=	4.0 ksi
E =	=	3122 ksi
Density	=	150 pcf
β	=	0.850
fy - Main Rebar	=	60 ksi
E - Main Rebar	=	29000 ksi
Allow. Reinforcing Limits		*ASTM A615 Bars Used*
Min. Reinf.	=	1 %
Max. Reinf.	=	8 %

Overall Column Height = 9.0 ft
End Fixity Top Free, Bottom Fixed
Brace condition for deflection (buckling) along columns
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 9.0 ft, K = 0.80
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 9.0 ft, K = 0.80

Column Cross Section

Column Dimensions : 12.0in Square Column, Column Edge to Rebar Edge Cover = 1.50in

Column Reinforcing : 4 - #6 bars @ corners,



Applied Loads

Entered loads are factored per load combinations specified by user.

Column self weight included : 1,350.0 lbs * Dead Load Factor
AXIAL LOADS . . .
BEAM REACTION FROM UPPER FLOOR: Axial Load at 9.0 ft above base, D = 4.80, L = 4.80, S = 3.0 k
BENDING LOADS . . .
SEISMIC RXN: Lat. Point Load at 9.0 ft creating Mx-x, E = 3.0 k

DESIGN SUMMARY

Load Combination +0.90D+E
Location of max.above base 8.940 ft

Maximum Stress Ratio **0.670 : 1**
Ratio = (Pu^2+Mu^2)^.5 / (PhiPn^2+PhiMn^2)^.5

Pu =	5.535 k	φ * Pn =	7.108 k
Mu-x =	-27.0 k-ft	φ * Mn-x =	40.795 k-ft
Mu-y =	0.0 k-ft	φ * Mn-y =	0.0 k-ft
Mu Angle =	180.0 deg		
Mu at Angle =	27.0 k-ft	φMn at Angle =	40.326 k-ft

Pn & Mn values located at Pu-Mu vector intersection with capacity curve

Column Capacities . . .

Pnmax : Nominal Max. Compressive Axial Capacity	589.22 k
Pnmin : Nominal Min. Tension Axial Capacity	k
φ Pn, max : Usable Compressive Axial Capacity	306.392 k
φ Pn, min : Usable Tension Axial Capacity	k

Maximum SERVICE Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	3.0 k

Maximum SERVICE Load Deflections . . .

Along Y-Y 0.2323 in at 9.0 ft above base
for load combination : E Only
Along X-X 0.0 in at 0.0 ft above base
for load combination :

General Section Information . φ = 0.650 β = 0.850 θ = 0.80

ρ : % Reinforcing	1.222 % Rebar % Ok
Reinforcing Area	1.760 in^2
Concrete Area	144.0 in^2

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction (k) @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments (k-ft) @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					6.150				
+D+L					10.950				

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction (k) @ Base	X-X Axis Reaction @ Top	Y-Y Axis Reaction @ Base	Y-Y Axis Reaction @ Top	Axial Reaction @ Base	My - End Moments (k-ft) @ Base	My - End Moments @ Top	Mx - End Moments @ Base	Mx - End Moments @ Top
+D+S					9.150				
+D+0.750L					9.750				
+D+0.750L+0.750S					12.000				
+D+0.70E			2.100		6.150	18.900			
+D+0.750L+0.750S+0.5250E			1.575		12.000	14.175			
+0.60D					3.690				
+0.60D+0.70E			2.100		3.690	18.900			
L Only					4.800				
S Only					3.000				
E Only			3.000			27.000			

Maximum Moment Reactions

Note: Only non-zero reactions are listed.

Load Combination	Moment About X-X Axis @ Base	Moment About X-X Axis @ Top		Moment About Y-Y Axis @ Base	Moment About Y-Y Axis @ Top	
D Only			k-ft			k-ft
+D+L			k-ft			k-ft
+D+S			k-ft			k-ft
+D+0.750L			k-ft			k-ft
+D+0.750L+0.750S			k-ft			k-ft
+D+0.70E	18.900		k-ft			k-ft
+D+0.750L+0.750S+0.5250E	14.175		k-ft			k-ft
+0.60D			k-ft			k-ft
+0.60D+0.70E	18.900		k-ft			k-ft
L Only			k-ft			k-ft
S Only			k-ft			k-ft
E Only	27.000		k-ft			k-ft

Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection		Distance		Max. Y-Y Deflection		Distance	
D Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+L	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+S	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750L	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750L+0.750S	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.70E	0.0000	in	0.000	ft	0.163	in	9.000	ft
+D+0.750L+0.750S+0.5250E	0.0000	in	0.000	ft	0.122	in	9.000	ft
+0.60D	0.0000	in	0.000	ft	0.000	in	0.000	ft
+0.60D+0.70E	0.0000	in	0.000	ft	0.163	in	9.000	ft
L Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
S Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
E Only	0.0000	in	0.000	ft	0.230	in	8.940	ft

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

Project Title: New Home for Pattie and Dave Coulter
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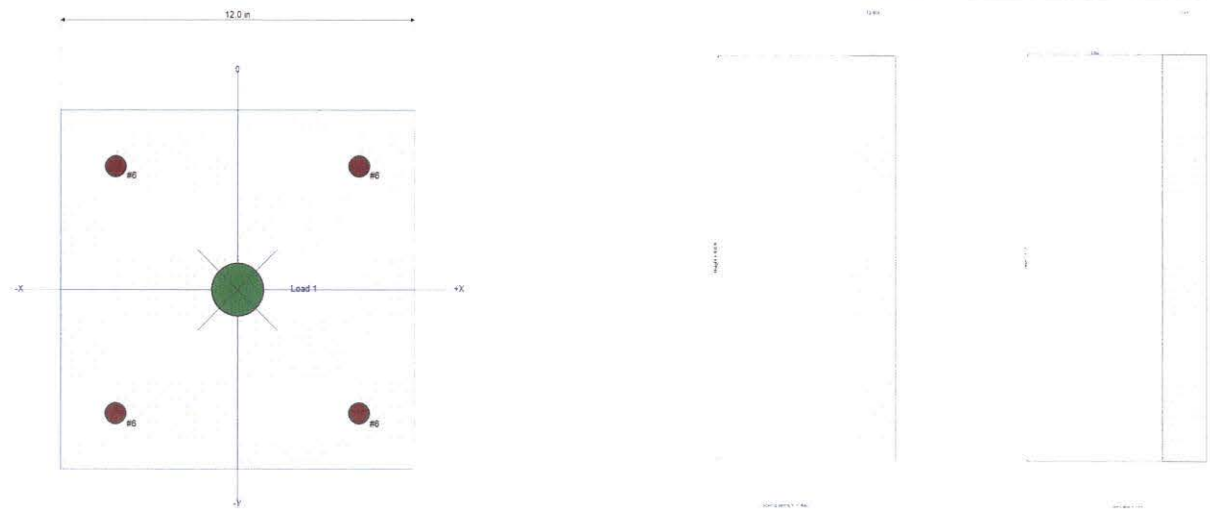
Sketches



Interaction Diagrams

STRUCTURAL PHIL
PHIL VAN HEYNINGEN, PE
7675 NAHAHUM CANYON ROAD
CASHMERE, WA 98815
structuralphil@gmail.com

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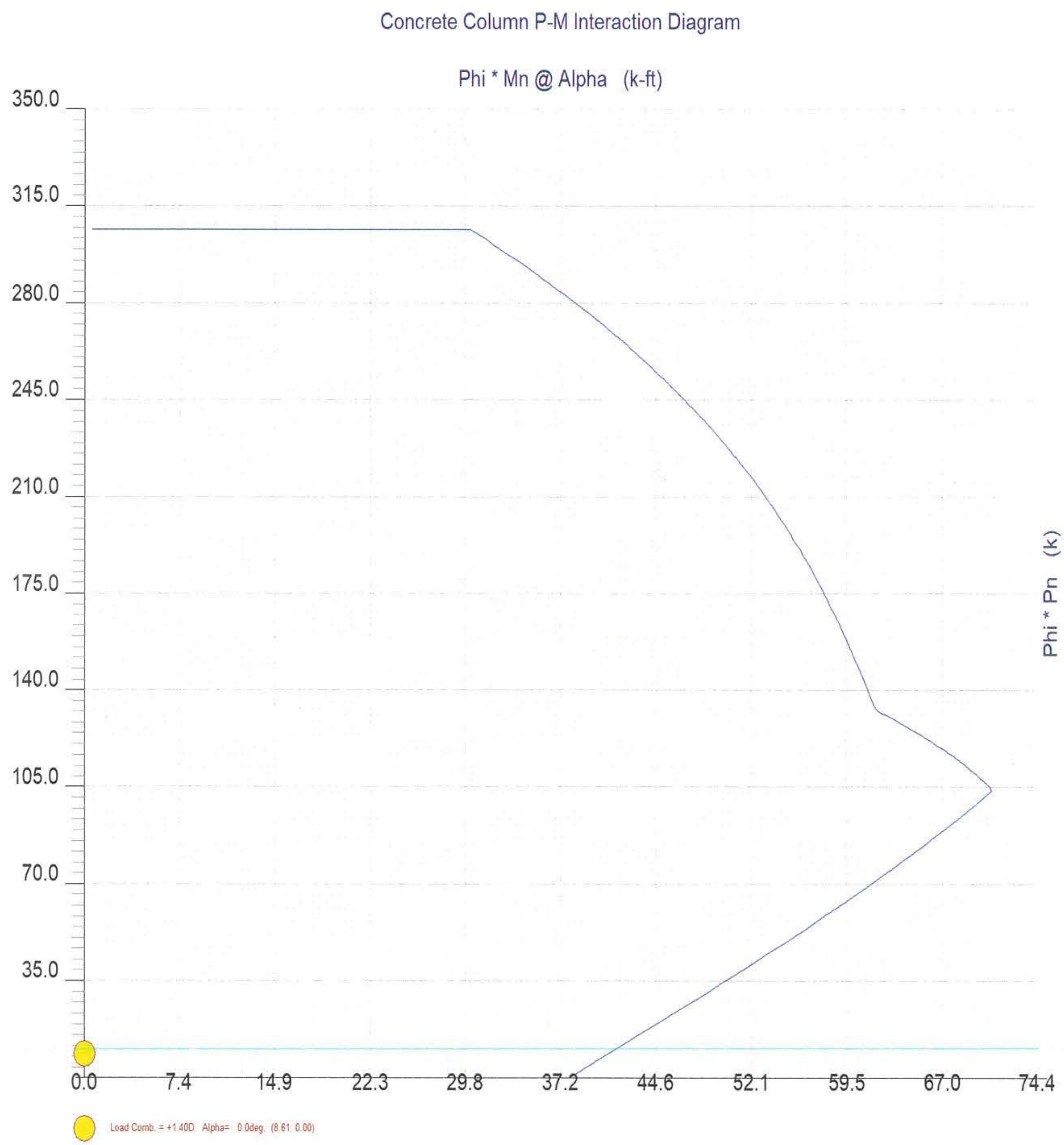

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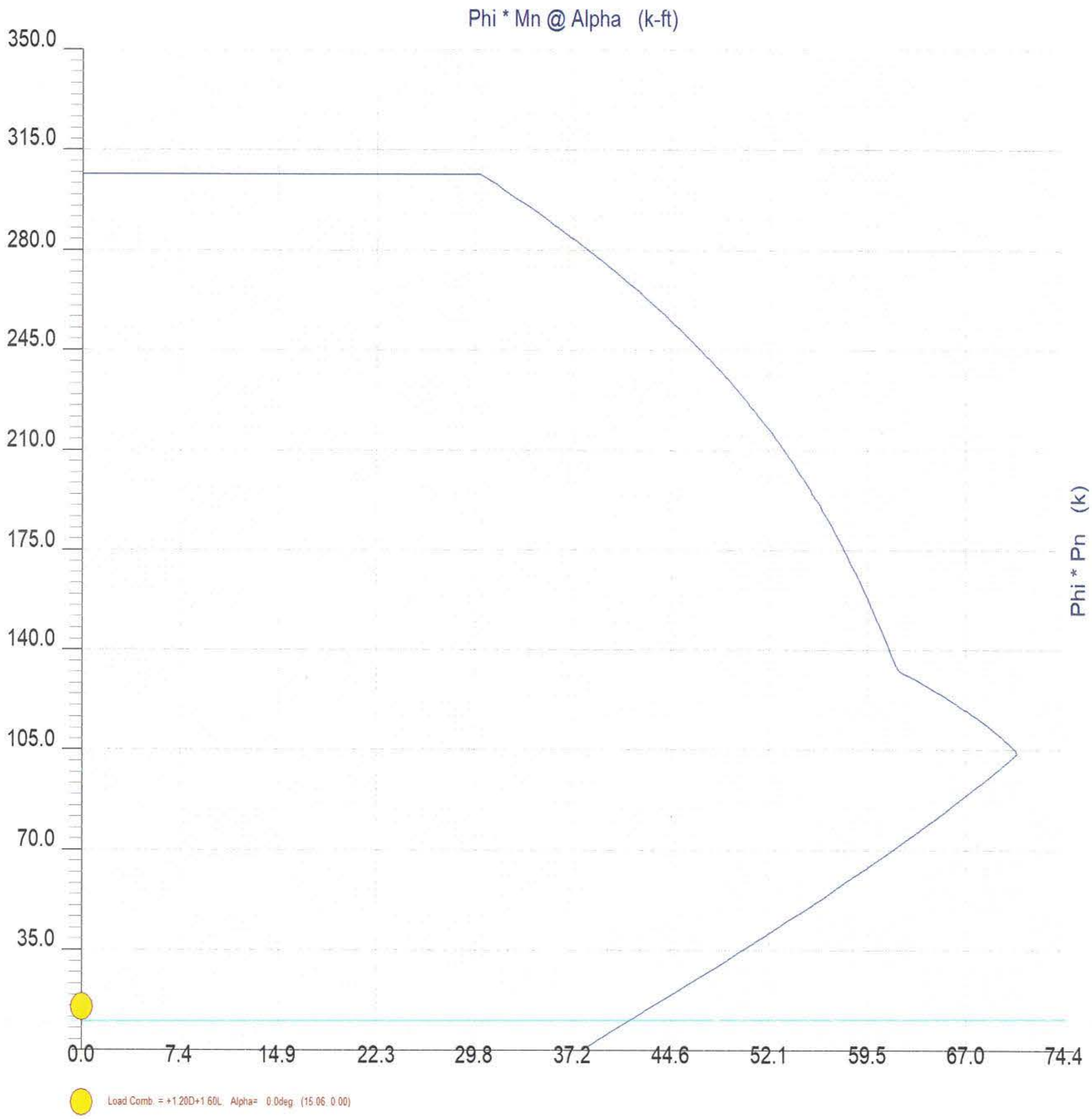
Concrete Column P-M Interaction Diagram



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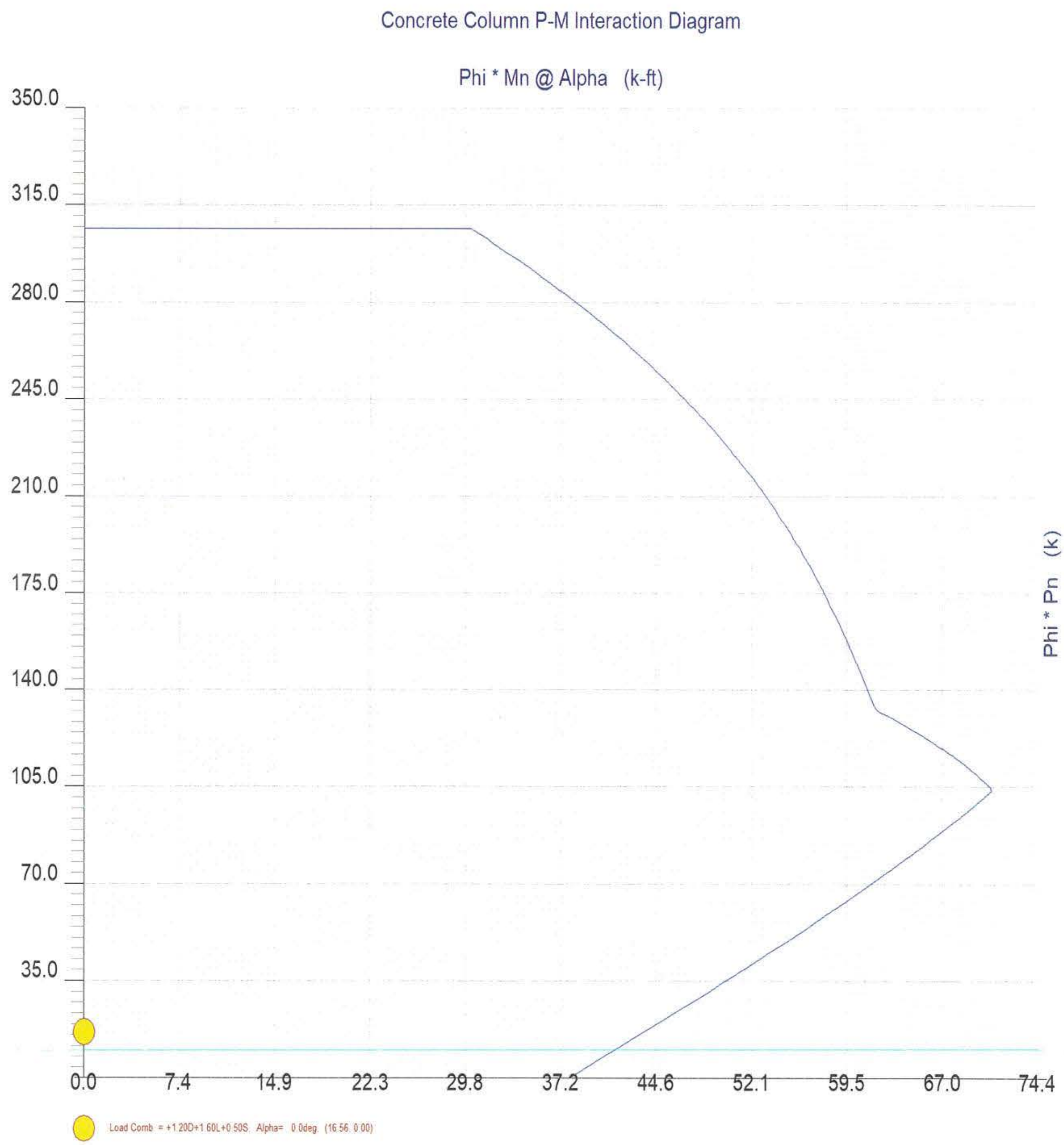

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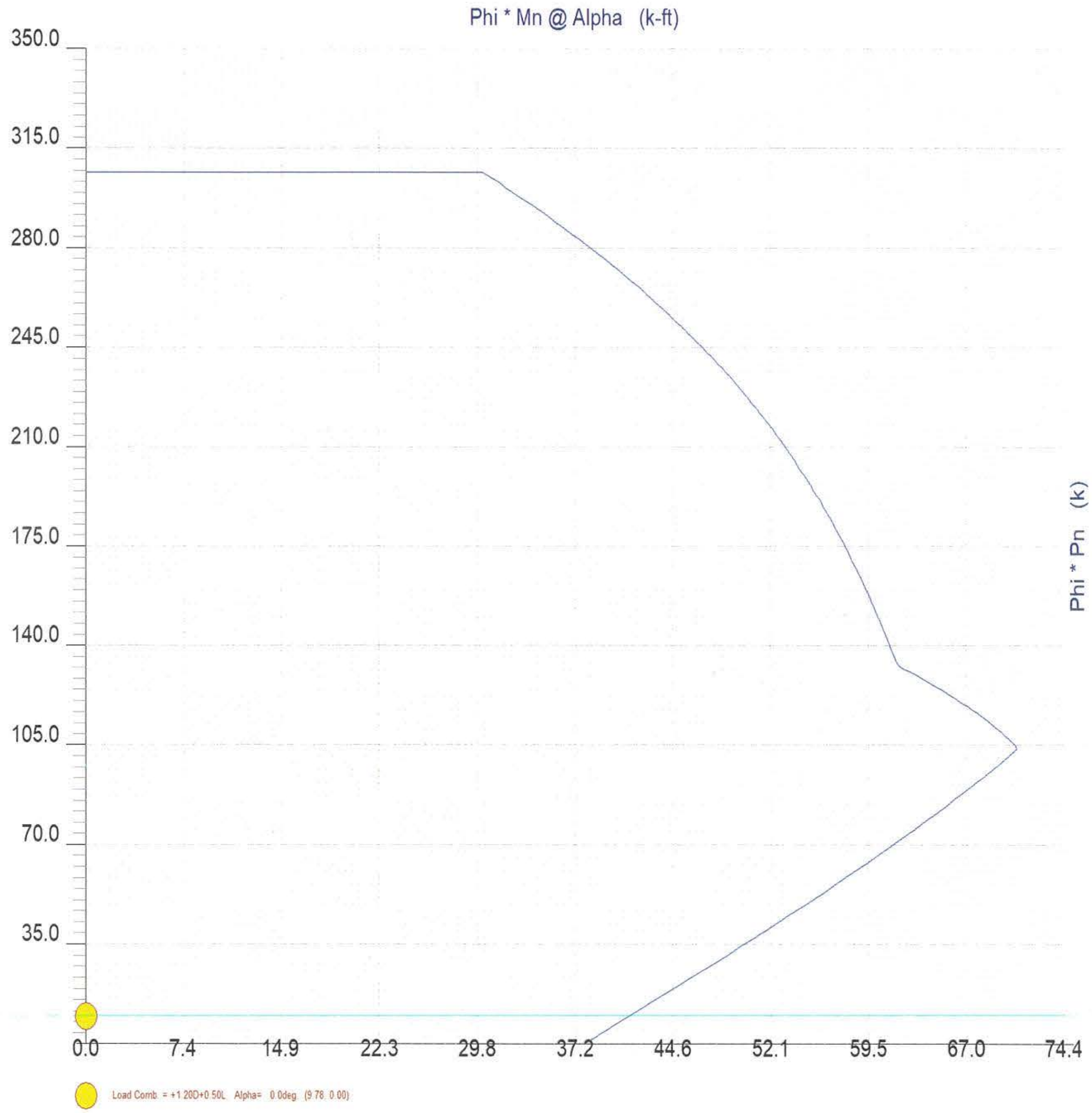

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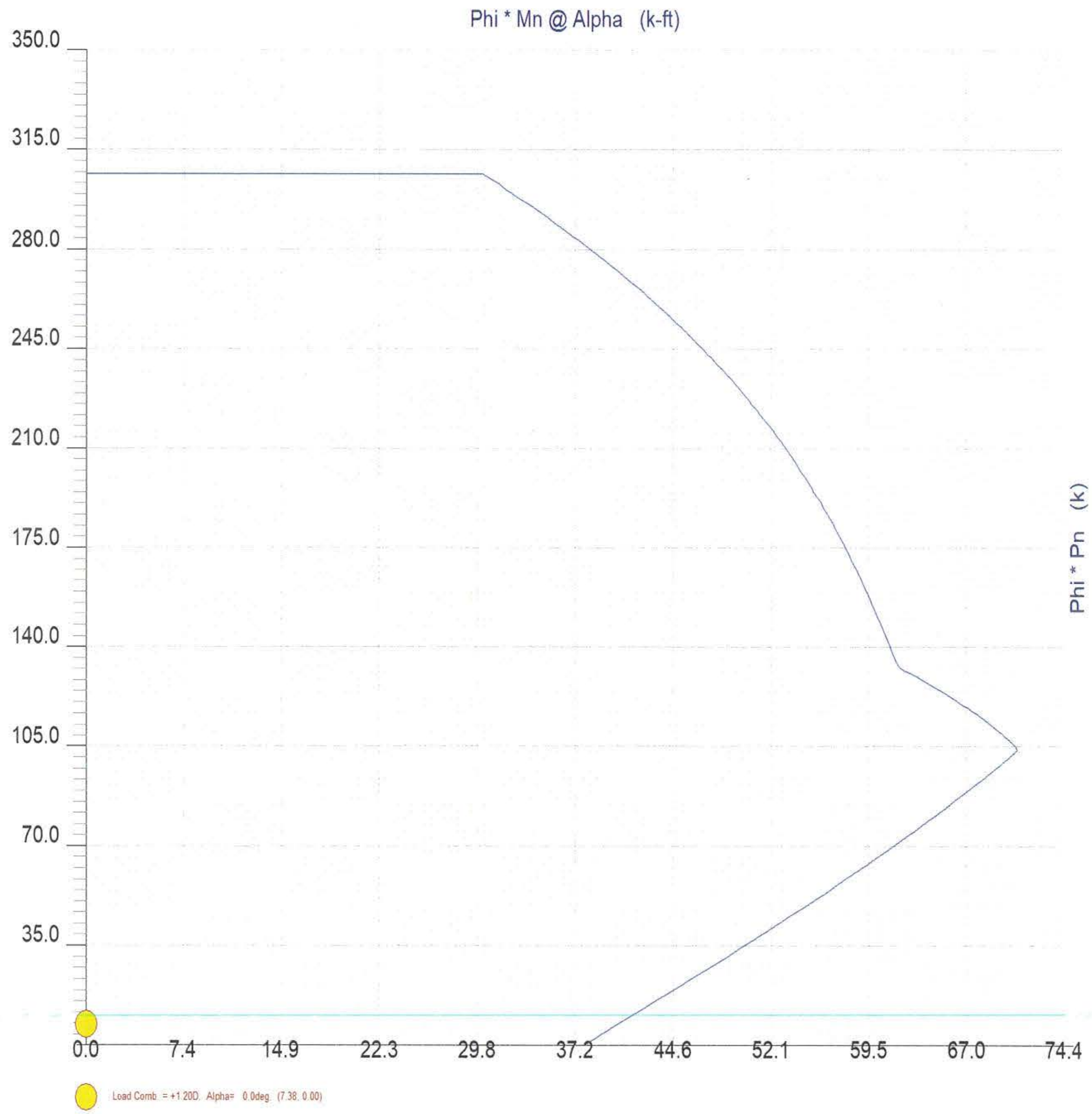

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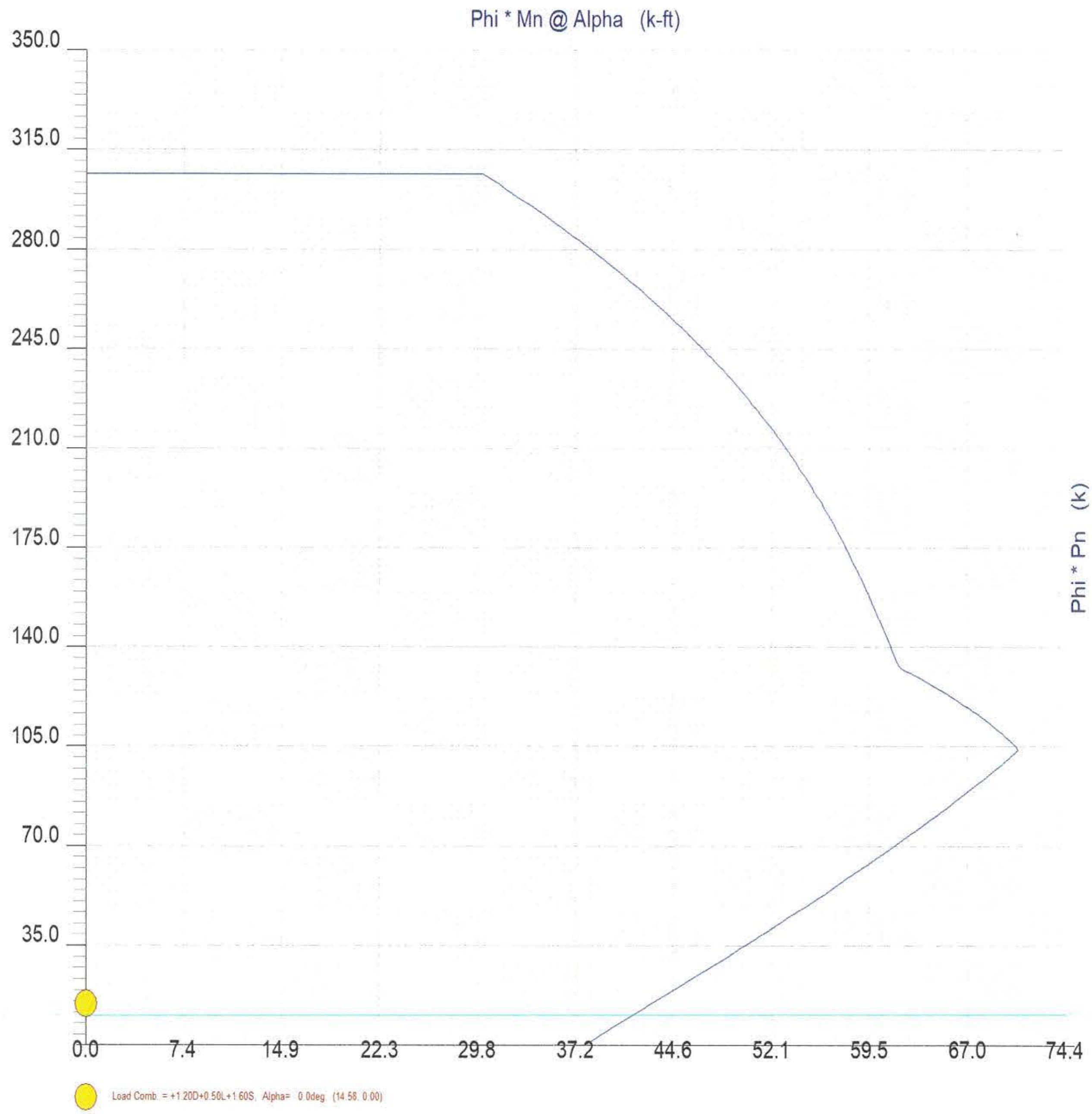

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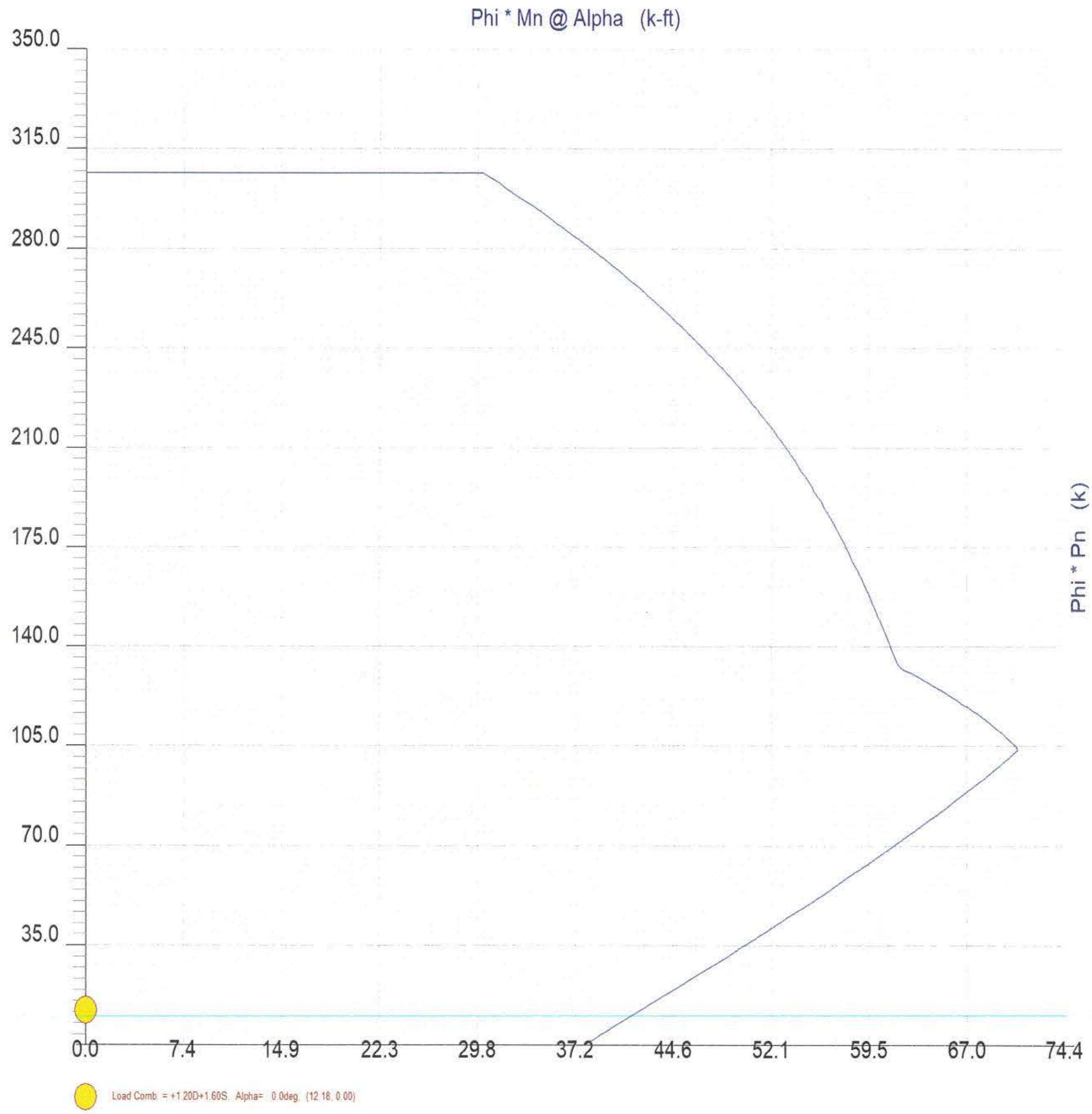

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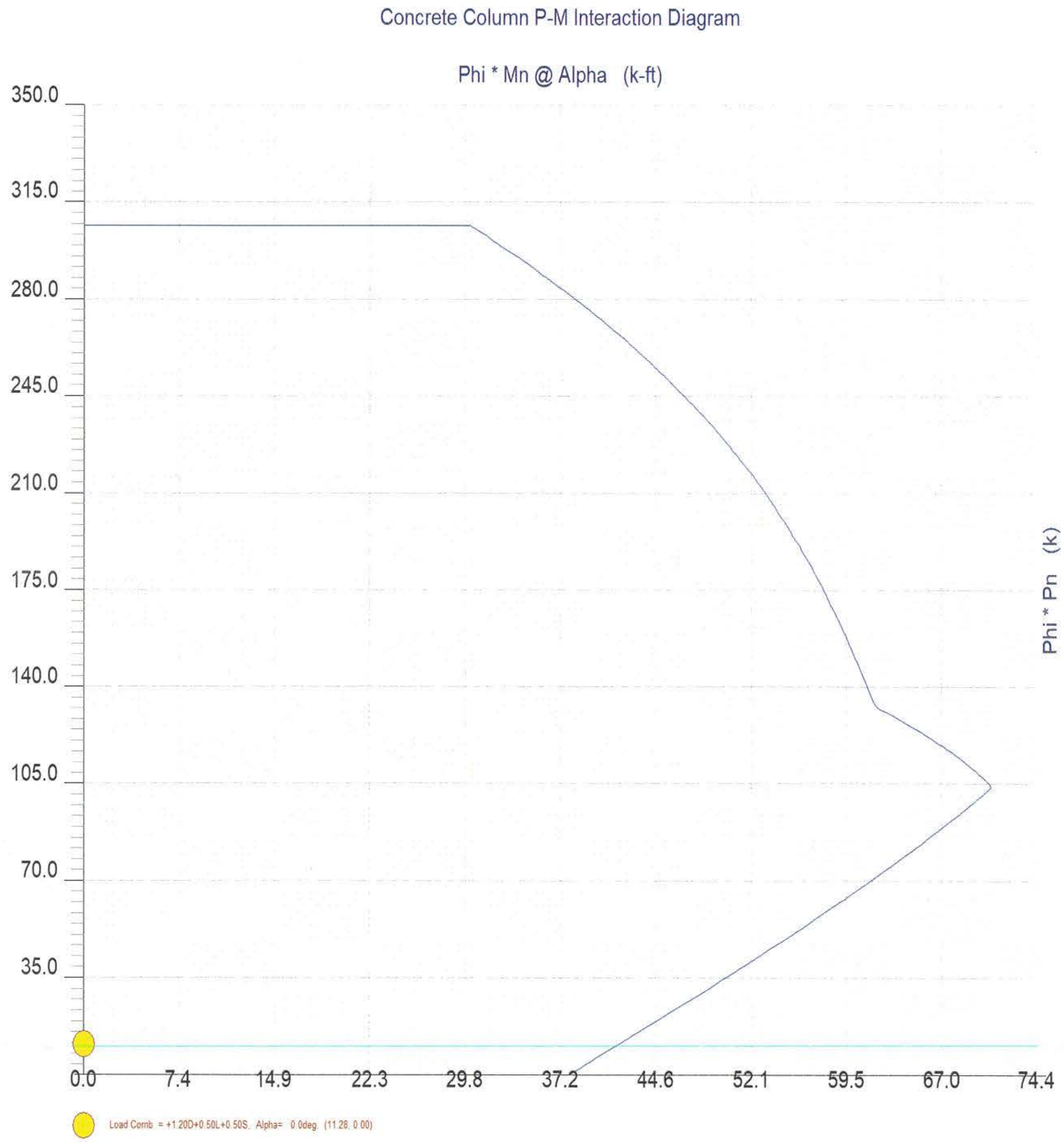

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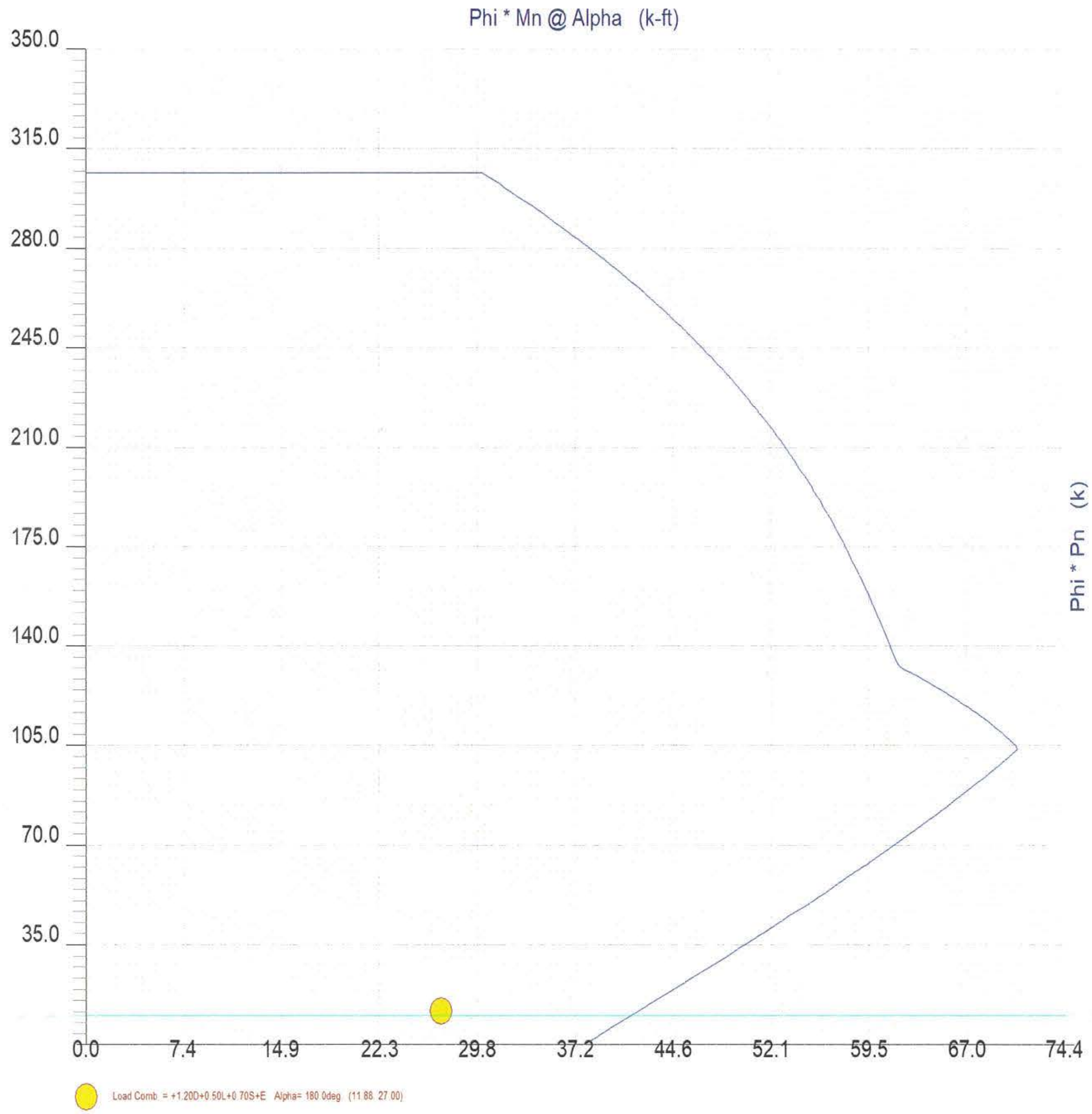

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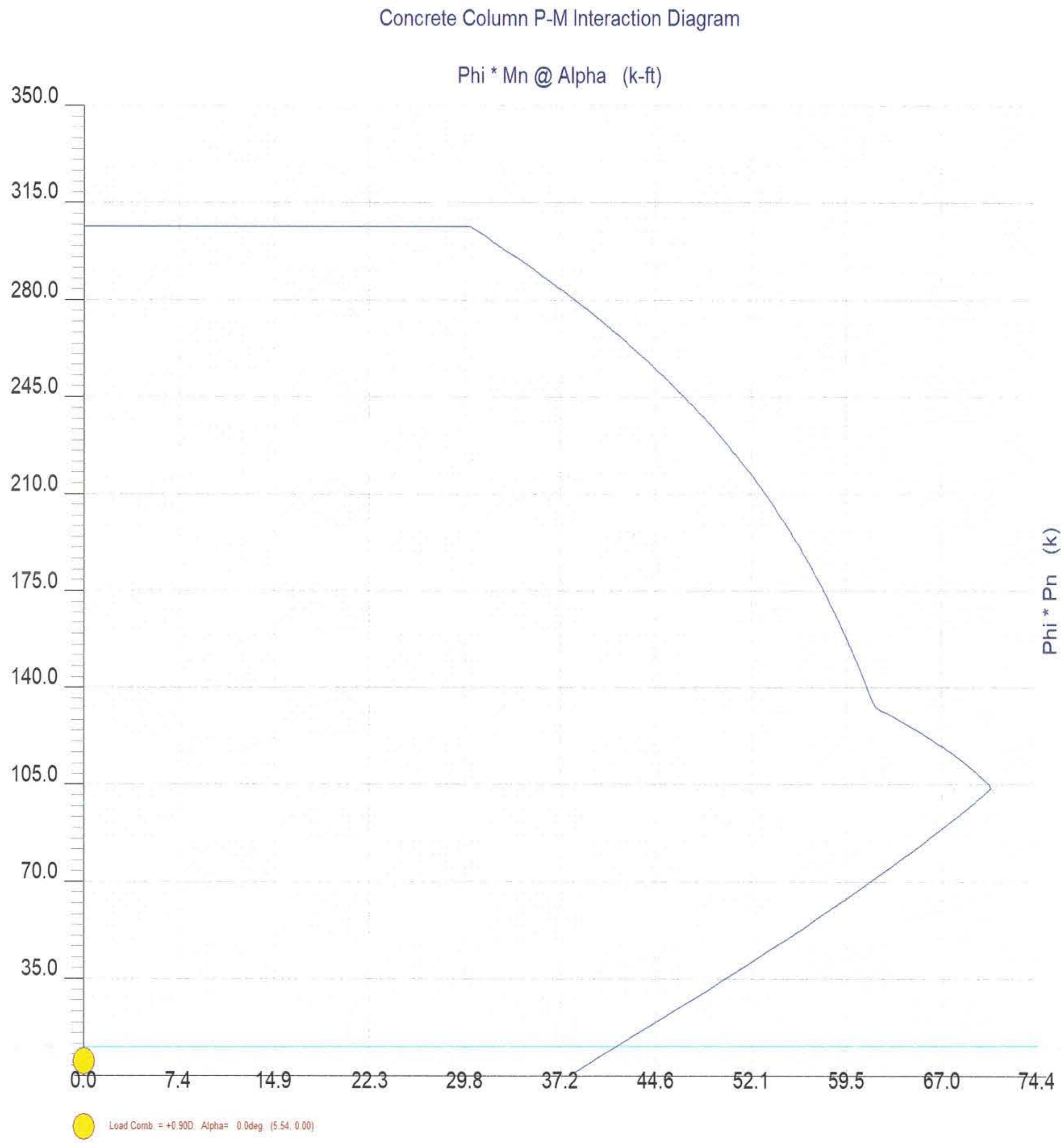

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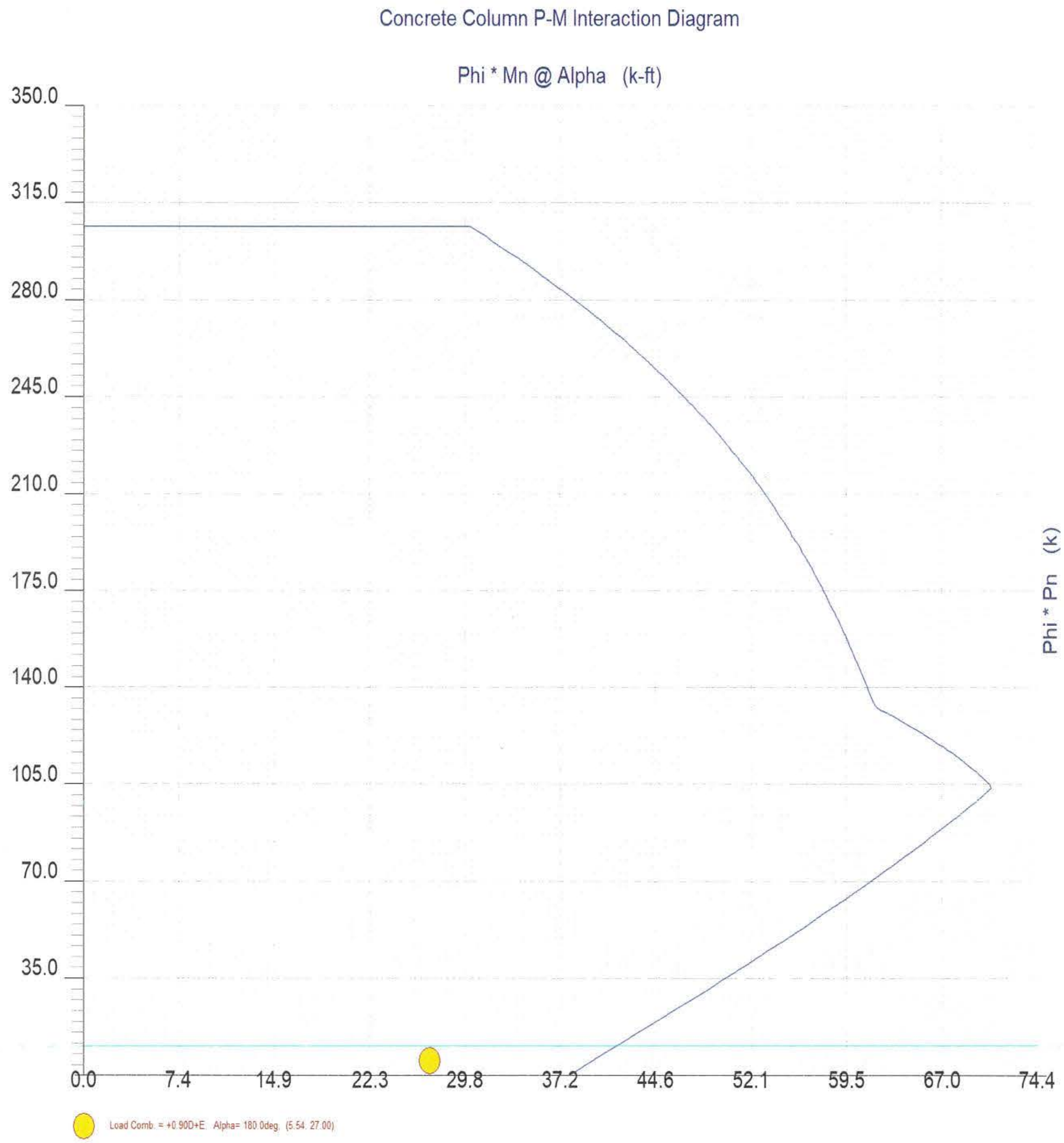
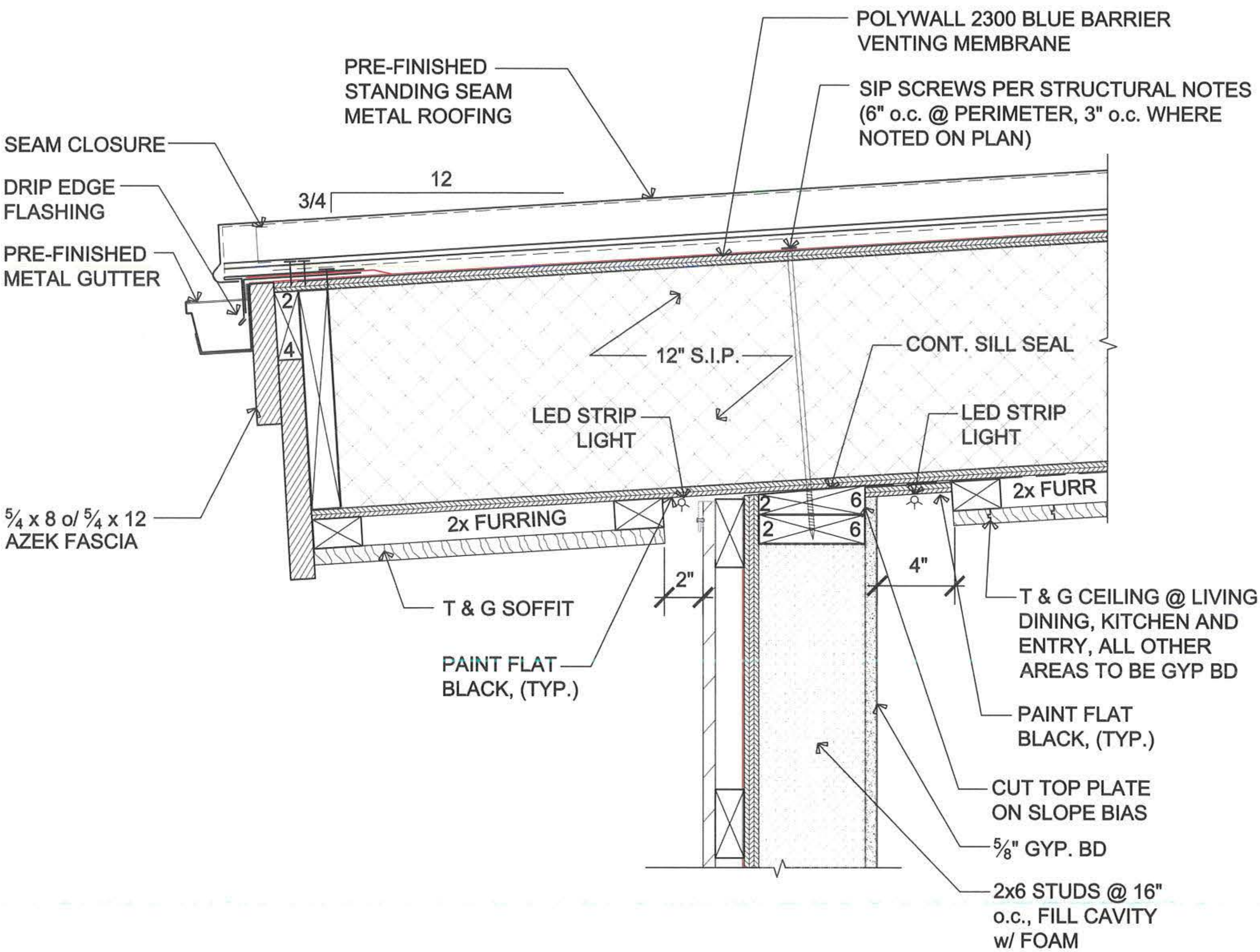


DAVE & PATTIE COULTER RESIDENCE DETAILS

SCHEDULE	
DTL-1	EAVE & GUTTER DETAIL
DTL-2	EAVE @ RAKE DETAIL
DTL-3	OVERHANG DETAIL
DTL-4	DECK EDGE @ SOUTH DETAIL
DTL-5	DECK @ GARAGE DOOR DETAIL
DTL-6	DECK EDGE @ EAST CARPORT WALL DETAIL
DTL-7	DECK EDGE @ SOUTH CARPORT DETAIL
DTL-8	DECK @ OUTDOOR KITCHEN DETAIL
DTL-9	DECK BEAM CONNECTION @ EXISTING HOUSE DETAIL
DTL-10	COLUMN @ TIMBER FRAME PATIO COVER DETAIL
DTL-11	GARAGE WALL @ FOUNDATION DETAIL
DTL-12	CLIPPED EAVE DETAIL
DTL-13	B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL
DTL-14	STEEL STAIR CONNECTION TO WALL DETAIL
DTL-15	DECK STAIR @ EXISTING HOUSE DETAIL
DTL-16	VERT. SIDING AT BOTTOM OF WALL w/ HORIZ. NAILER & DRAINAGE STRIP
DTL-17	VERT. SIDING AT BOTTOM OF WALL DRAINAGE STRIP DETAIL



EAVE AND GUTTER DETAIL

SCALE 1-1/2"= 1'-0"

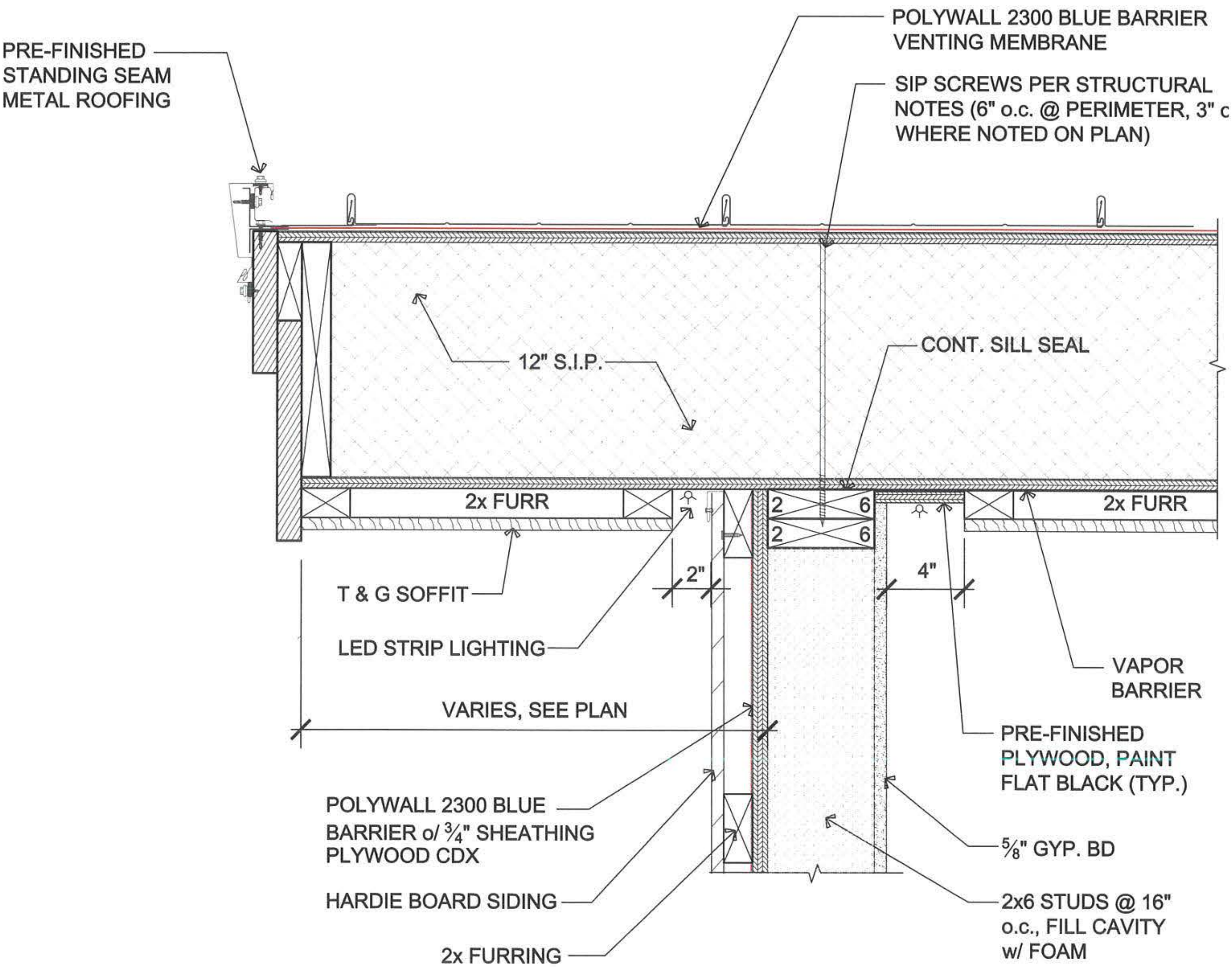
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-1



EAVE @ RAKE DETAIL

SCALE 1-1/2"= 1'-0"

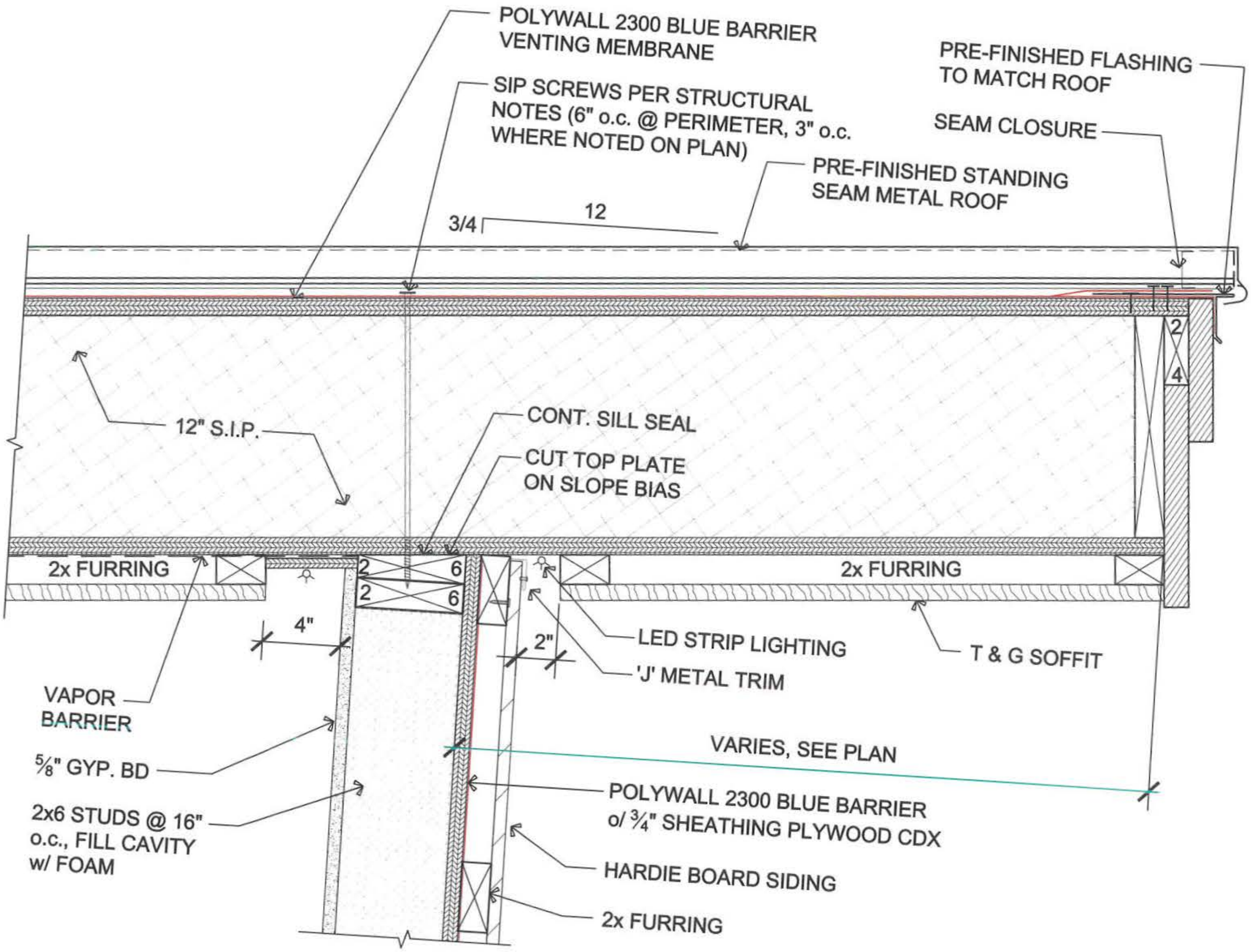
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-2



OVERHANG DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
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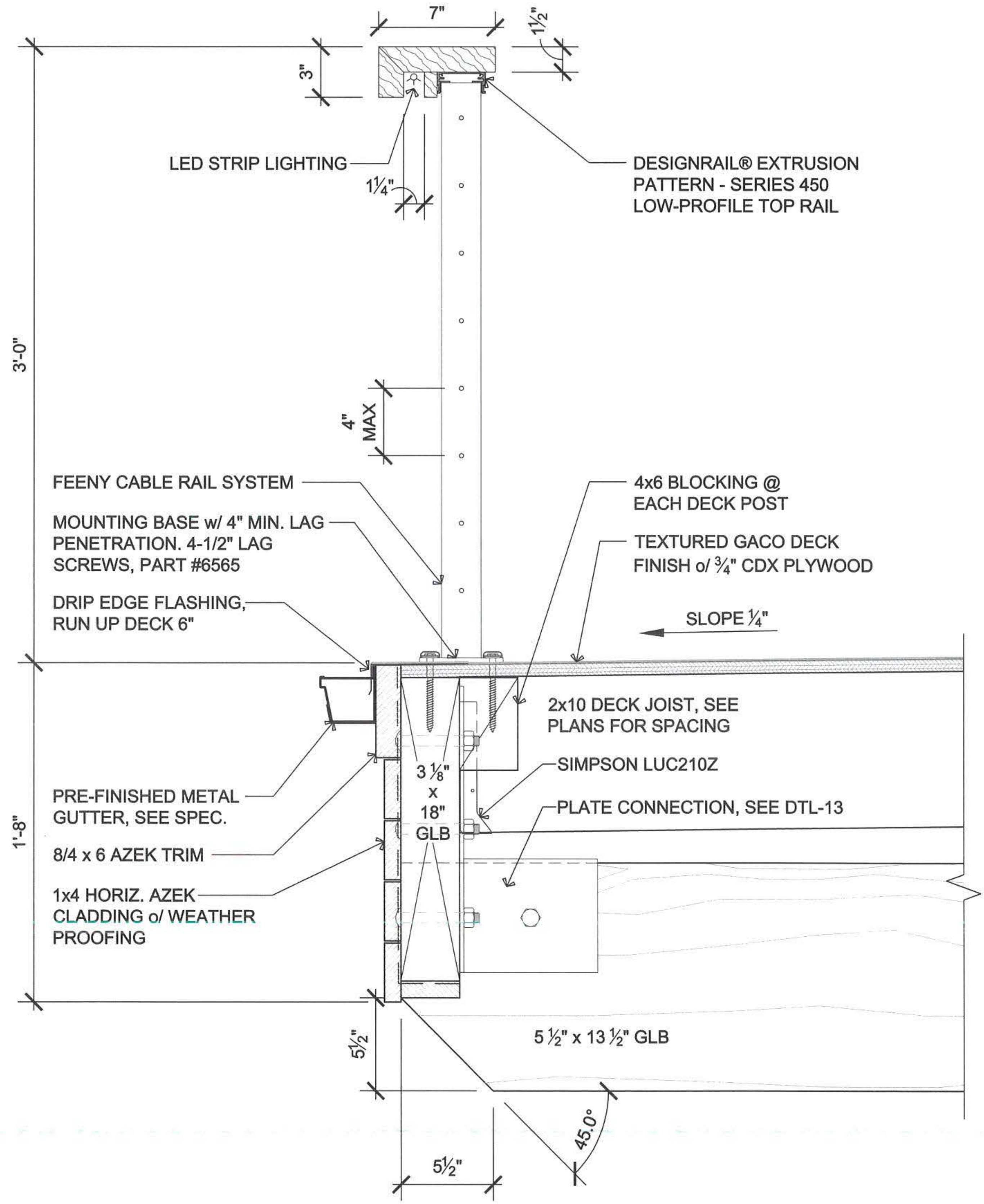
Project #:	2021-1

DTL-3



DECK EDGE @ SOUTH DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
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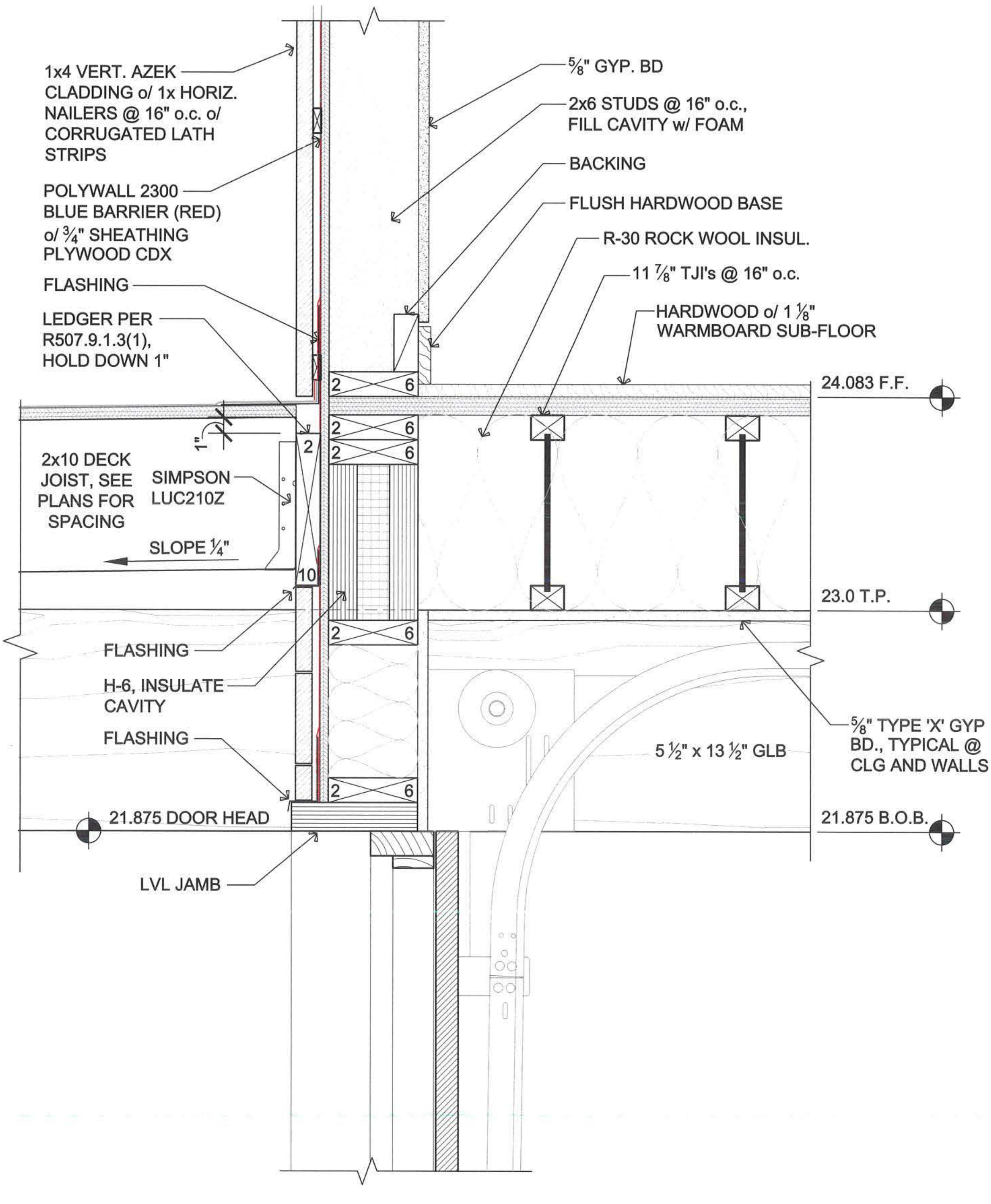
Project #:	2021-1

DTL-4

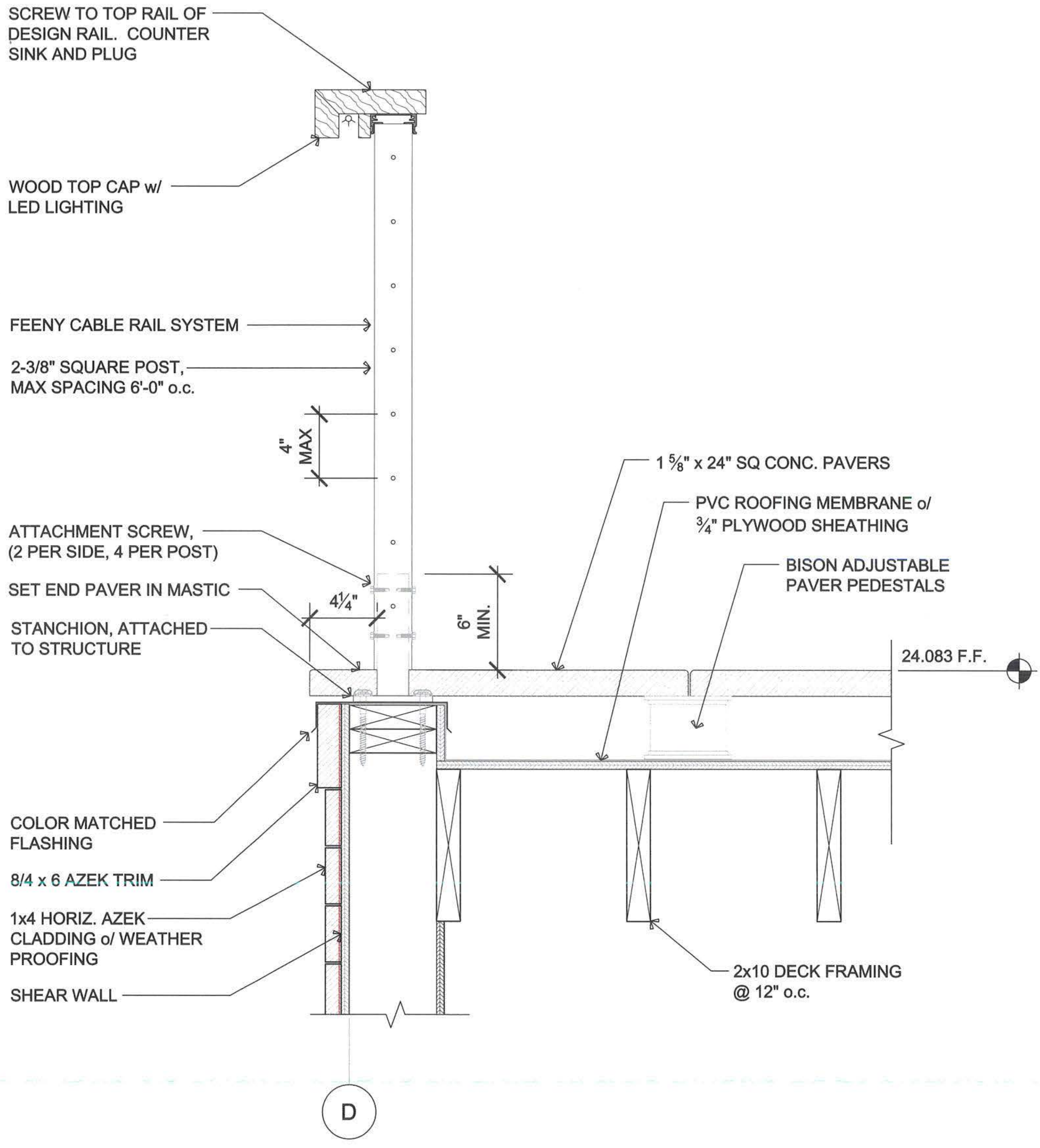


DECK @ GARAGE DOOR DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE	DAVE & PATTIE COULTER RESIDENCE 35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135	Date: 07.01.21 Checked By: REC Drawn By: MEC Project #: 2021-1

DTL-5



DECK EDGE @ EAST CARPORT WALL DETAIL

SCALE 1-1/2"= 1'-0"

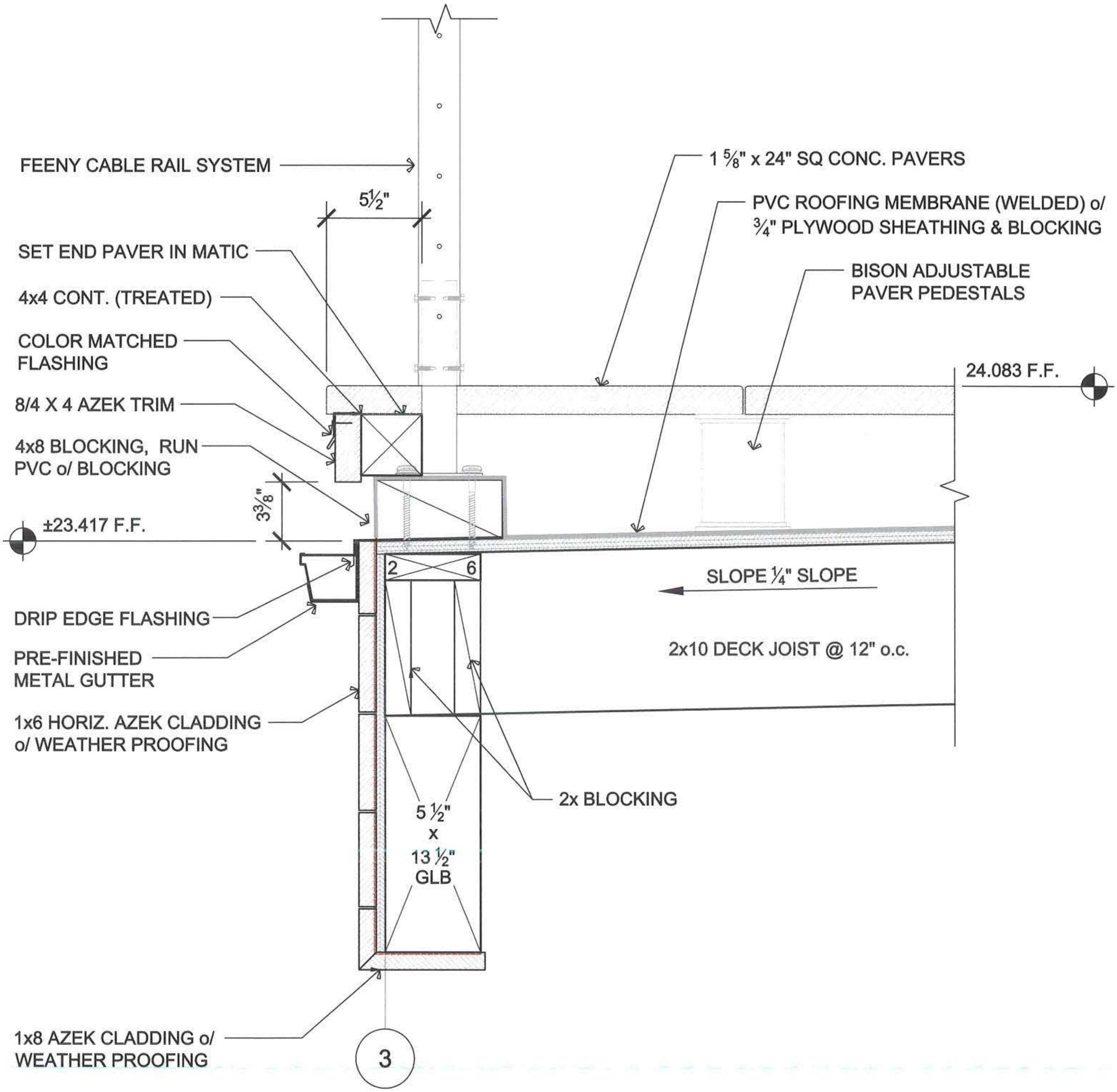
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-6



DECK EDGE @ SOUTH CARPORT DETAIL

SCALE 1-1/2"= 1'-0"

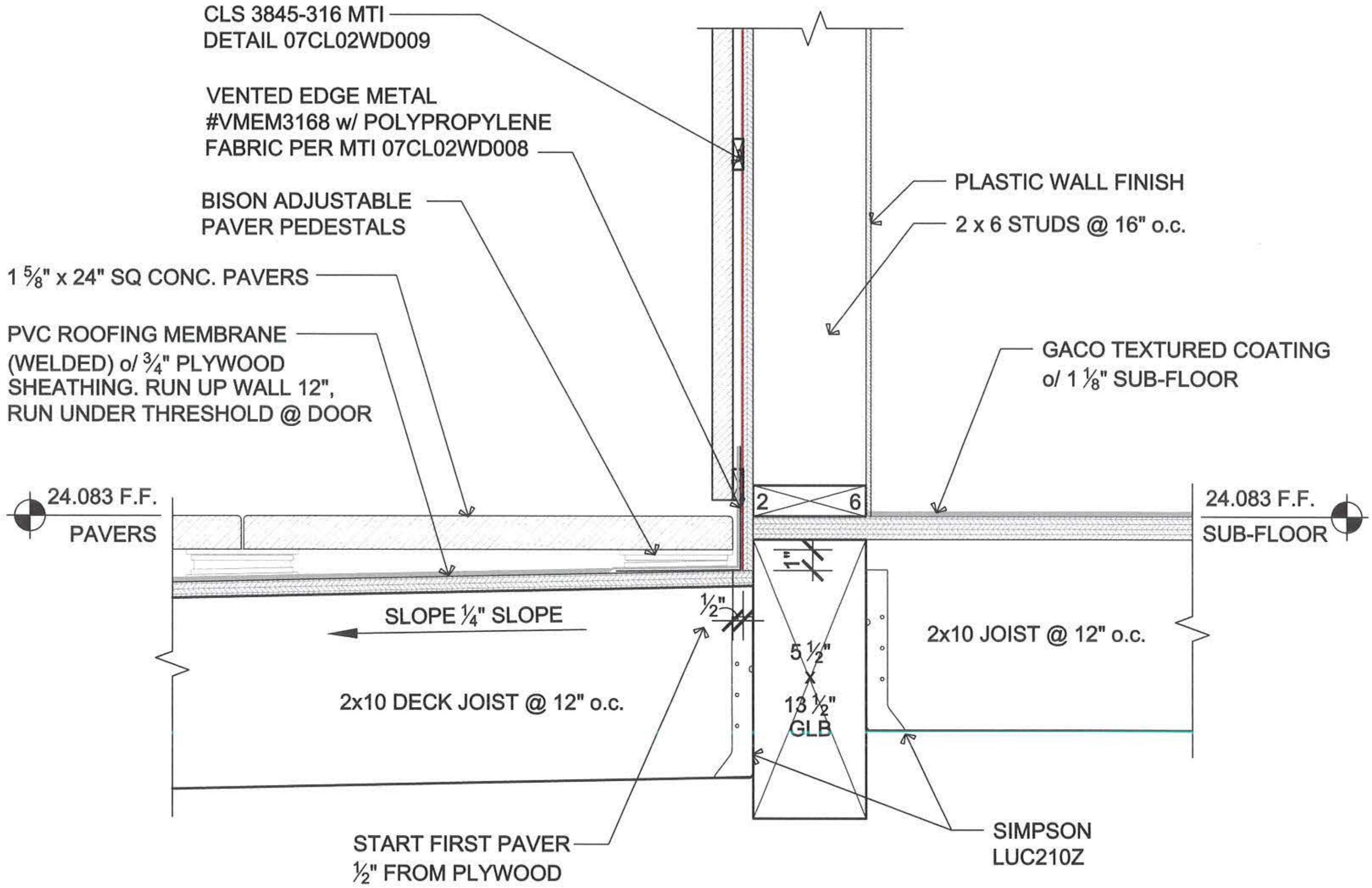
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-7



DECK @ OUT DOOR KITCHEN DETAIL

SCALE 1-1/2"= 1'-0"

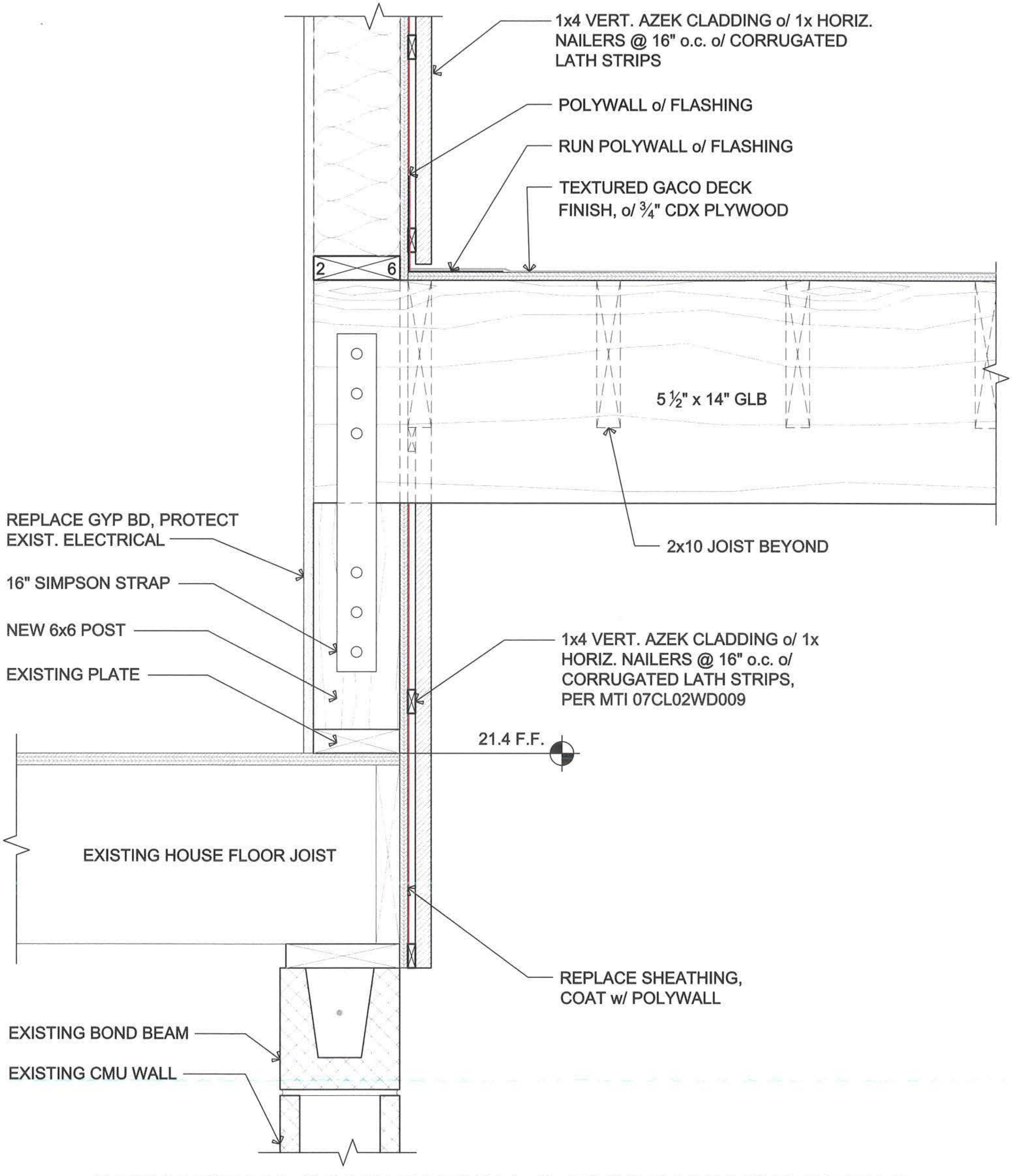
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-8



DECK BEAM CONNECTION @ EXIST HOUSE DETAIL

SCALE 1-1/2"= 1'-0"

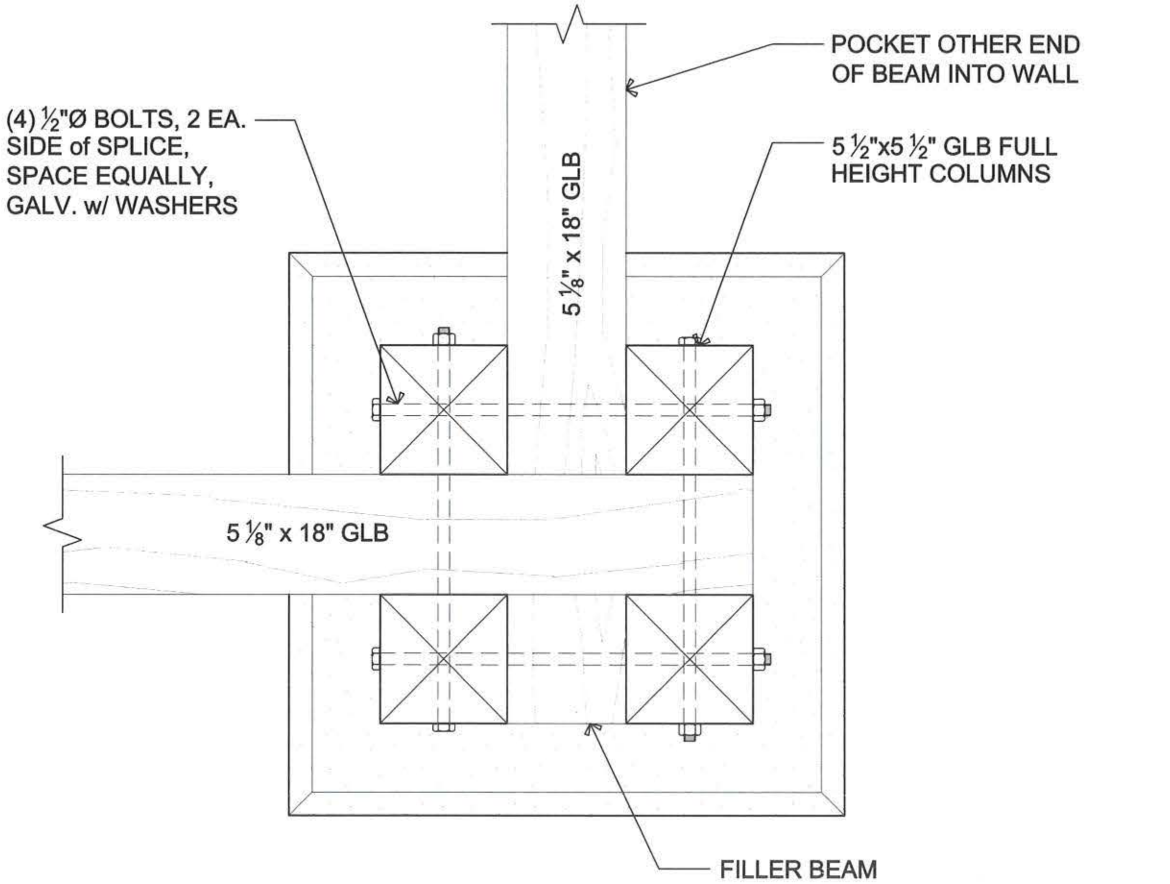
COULTER ARCHITECTURE

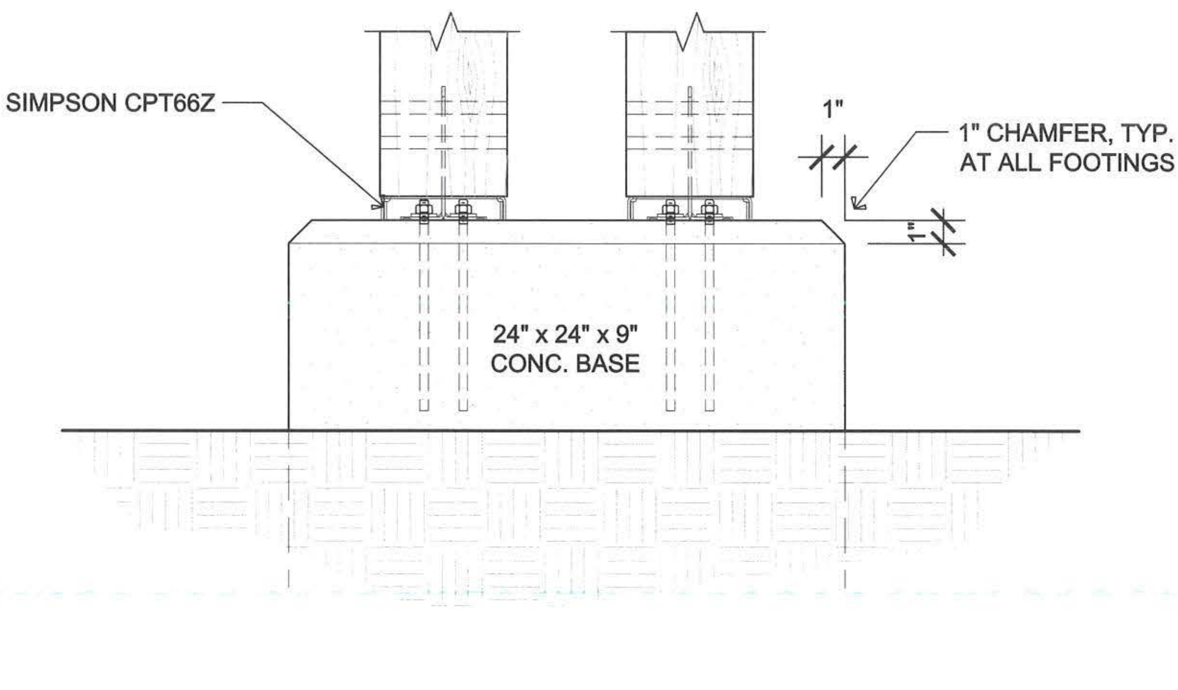
DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-9





COLUMN @ TIMBER FRAME PATIO COVER DETAIL

SCALE 1-1/2"= 1'-0"

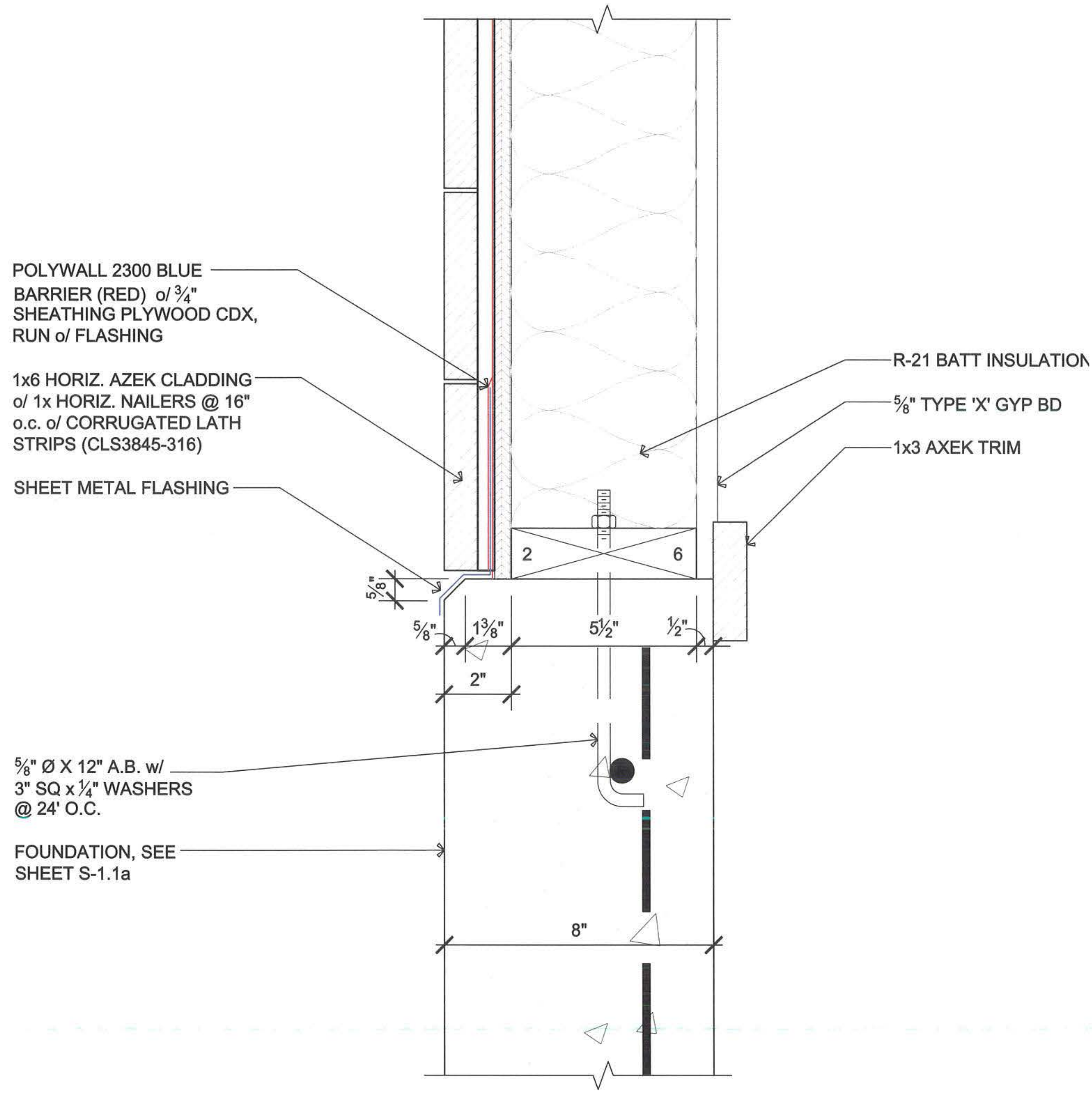
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-10



GARAGE WALL @ FOUNDATION DETAIL

SCALE 3"= 1'-0"

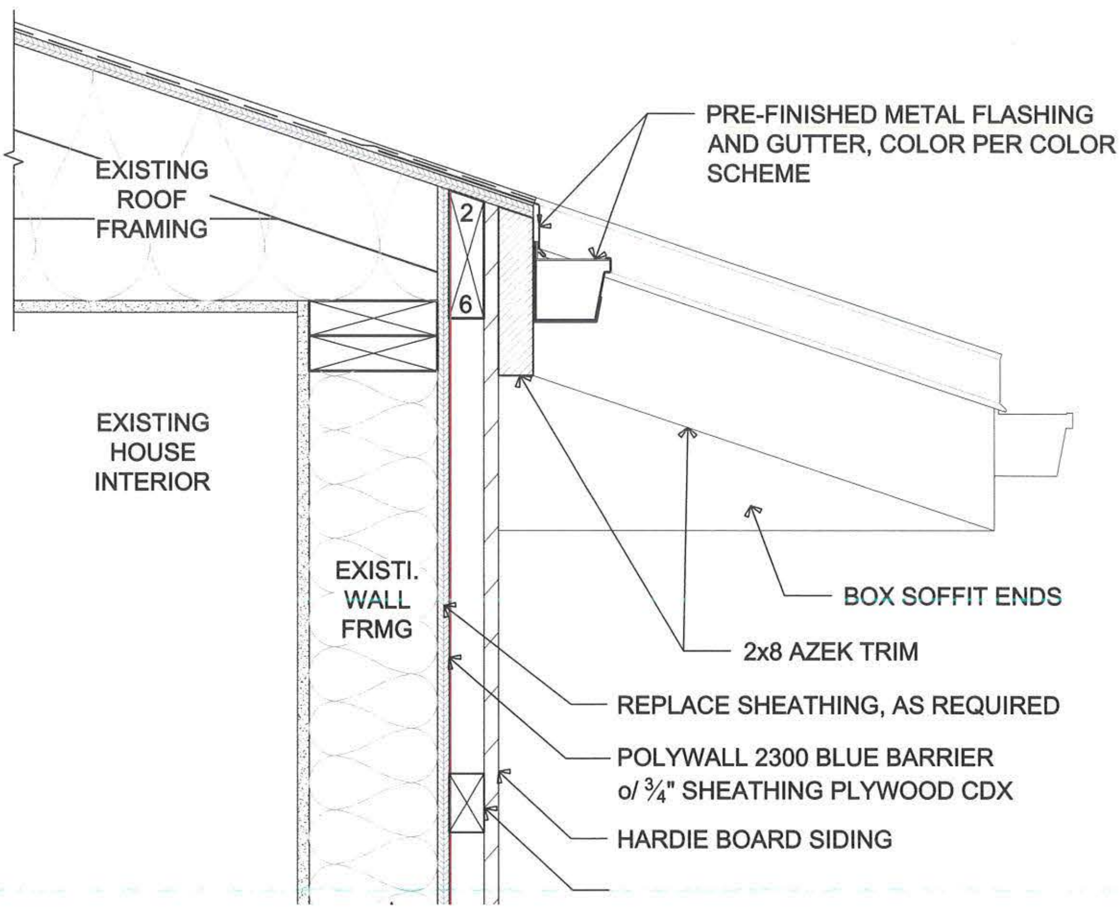
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-11



CLIPPED EAVE DETAIL

SCALE 1-1/2"= 1'-0"

COULTER ARCHITECTURE

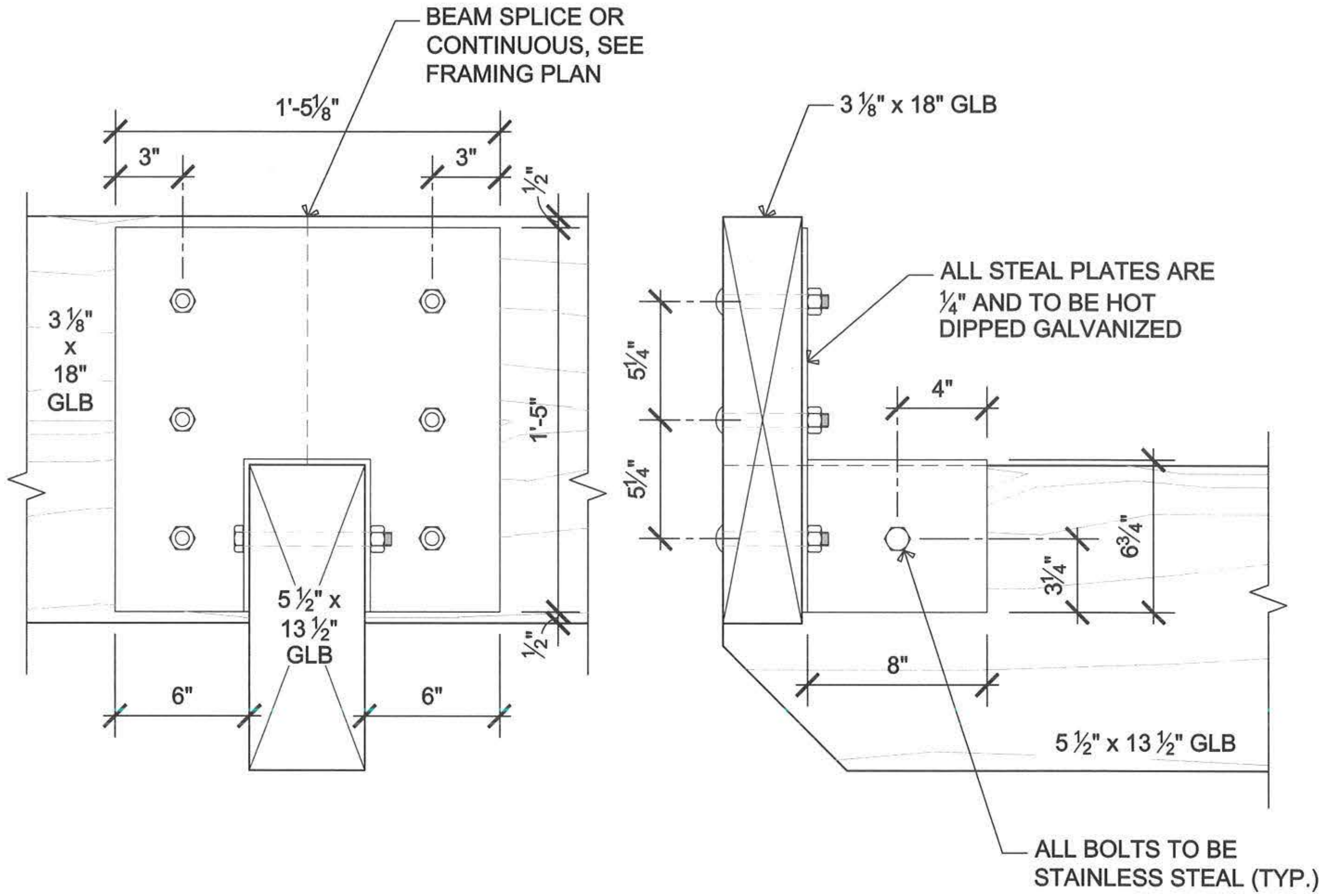
DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-12

NOT ALL COMPONENTS ARE SHOWN FOR CLARITY



B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL

SCALE 1-1/2"= 1'-0"

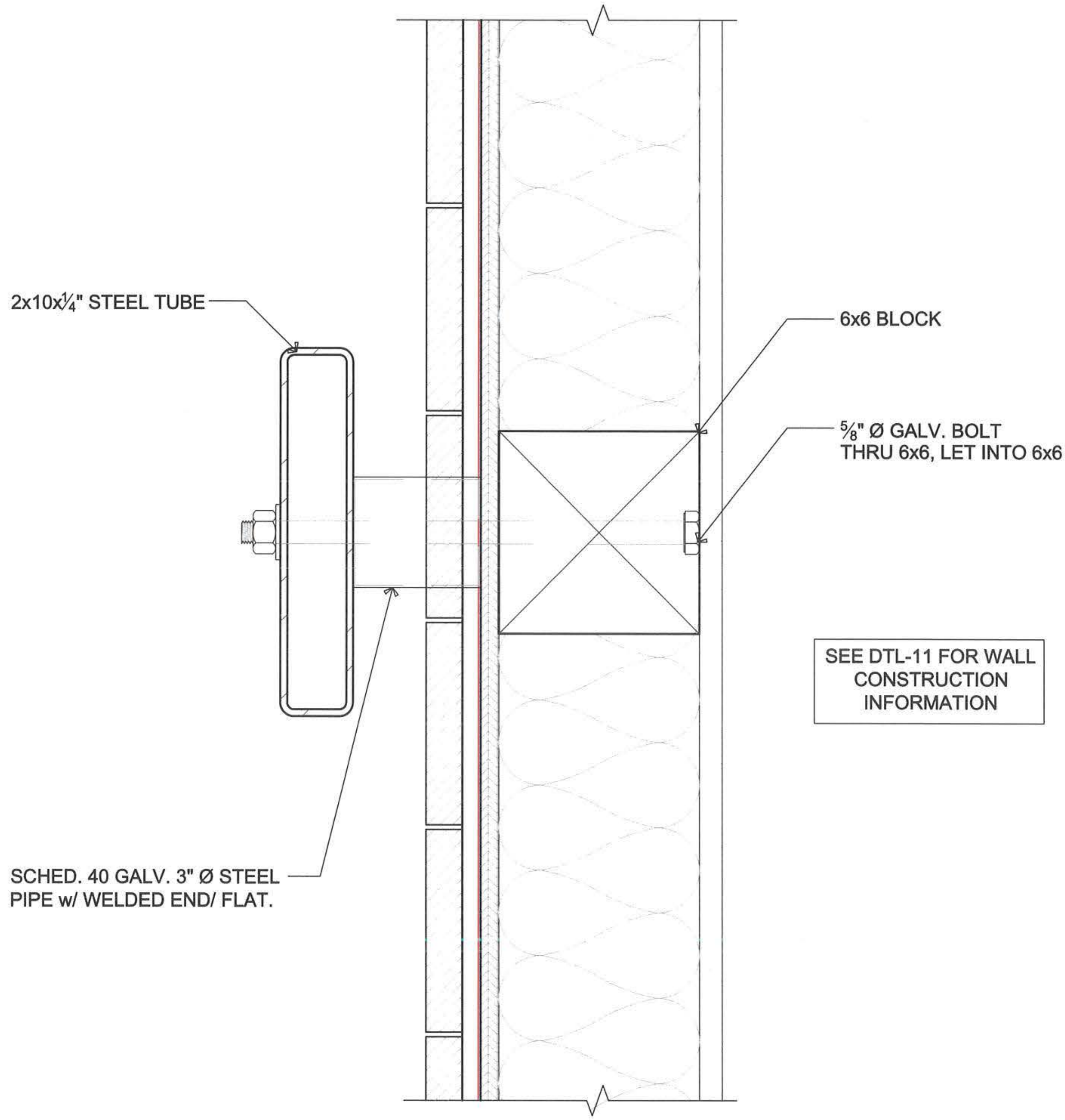
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-13



STEEL STAIR TO CONNECTION TO WALL DETAIL

SCALE 1-1/2"= 1'-0"

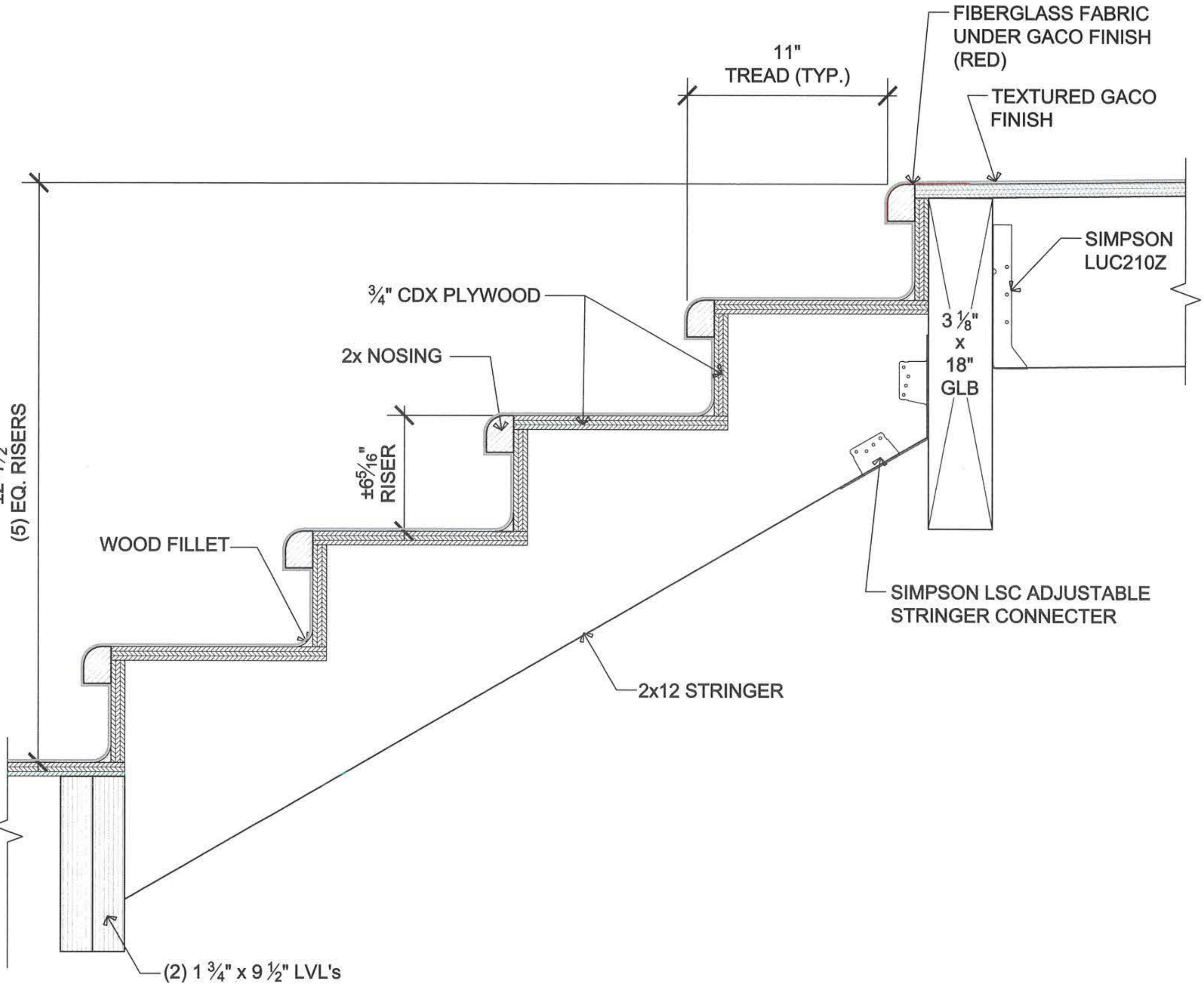
COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-14

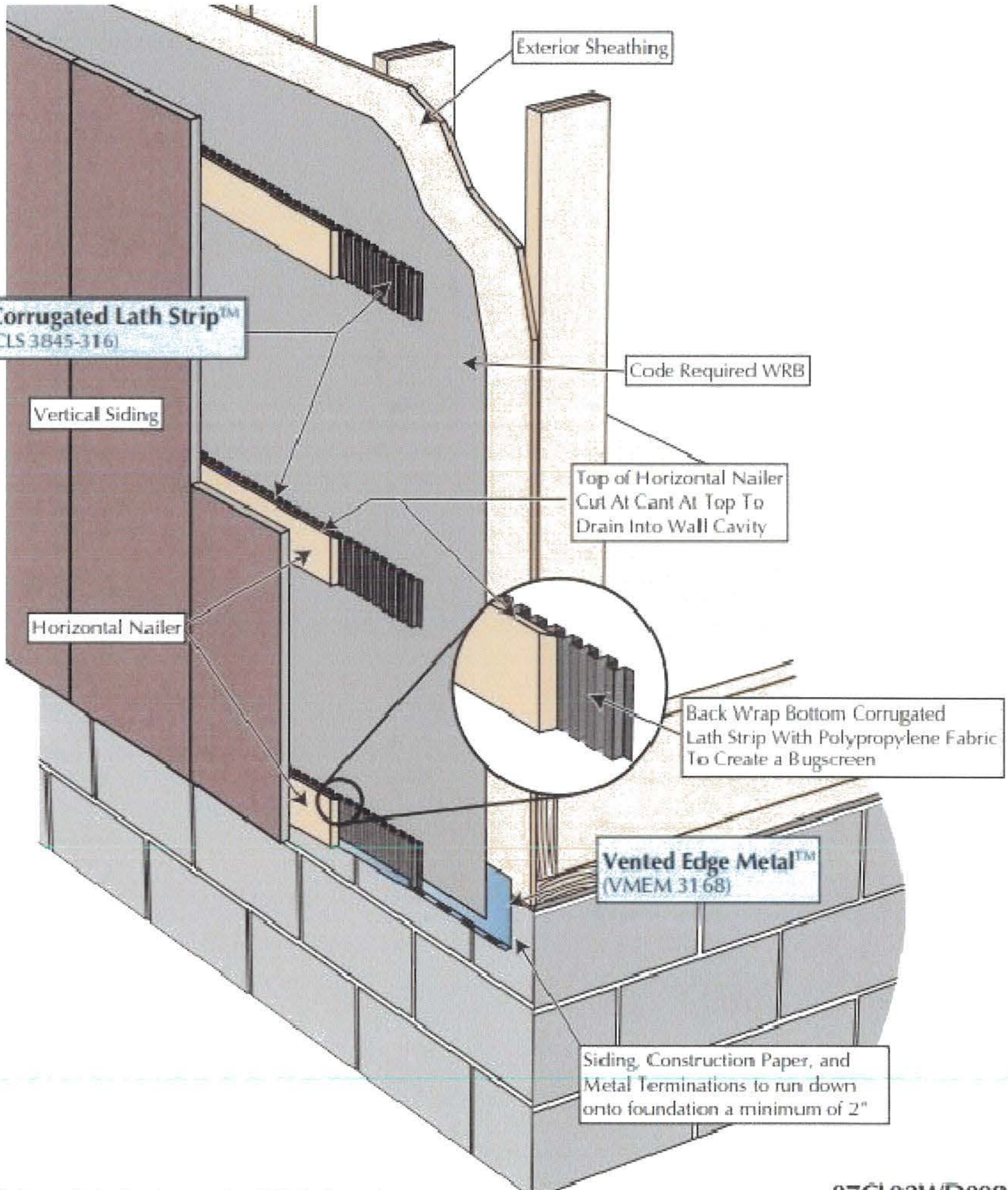


DECK STAIR @ EXISTING HOUSE DETAIL

SCALE 1-1/2"= 1'-0"

Vertical Siding At Bottom of Wall With Horizontal Nailer and Drainage Strip Detail

Corrugated Lath Strip™ (CLS 3845 316) and **Vented Edge Metal**™ (VMEM 3168)



07CL02WD008

COULTER ARCHITECTURE

DAVE & PATTIE COULTER RESIDENCE

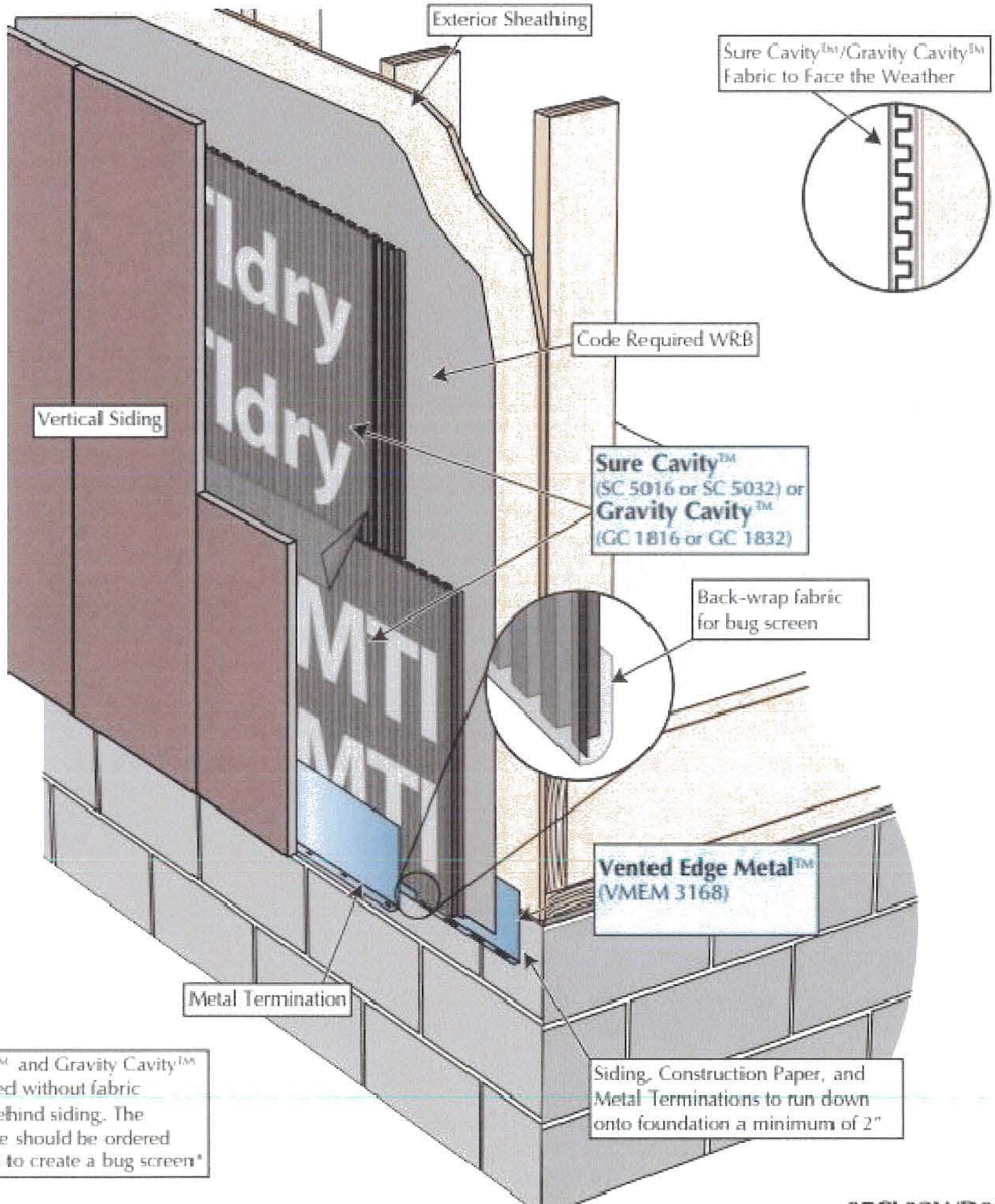
35465 RUEPPELL AVE. PACIFIC CITY, OREGON 97135

Date:	07.01.21
Checked By:	REC
Drawn By:	MEC
Project #:	2021-1

DTL-16

Vertical Siding At Bottom of Wall
Drainage Detail

Sure Cavity™ (SC 5016 or SC 5032) or **Gravity Cavity**™ (GC 1816 or GC 1832)
and **Vented Edge Metal**™ (VMEM 3168)



Sure Cavity™ and Gravity Cavity™ can be ordered without fabric when used behind siding. The bottom course should be ordered with fabric as to create a bug screen

07CL02WD009

MTI details are created from sources deemed to be reliable. However, MTI does not guarantee the accuracy or completeness of any information, nor shall be held responsible for any errors, omissions, or damages arising out of the use of this information. These details are created with the understanding that MTI is providing information but is not attempting to render engineering or other professional service. If such services are required, the assistance of an appropriate profession should be sought. Use MTI materials in strict conformance with local building codes and regulations. Consult local code/code officials prior to installation. It is the buyer's responsibility to ensure that MTI materials are used in strict conformance with local building codes and regulations.

Morgan Civil Engineering, Inc.

PO Box 358, Manzanita, OR 97130
ph: 503-801-6016
www.morgancivil.com

April 29, 2021

Ronald Coulter
105 N. Emerson
P. O. Box 2323
Chelan, WA 98816
ron.coulterarchitects@gmail.com

Re: Soil Assessment at 35465 Rueppell Ave. in the Airport area of Pacific City, Oregon Project #21-04-Cou

Dear Mr. Coulter:

At your request, I have completed a review of the soil conditions at your property. This investigation included document research and knowledge of the area. Site inspection will be made during the excavation and additional information may be incorporated at that time.

The property is nearly flat and about one-third of an acre in size. The rear half of the property is about 3 feet lower than the front half. The property fronts Rueppell Avenue to the southwest for about 100 feet and extends about 130 feet to the northeast. The property borders the Pacific City Airport to the east for 100 feet.

According to the USDA Natural Resources Conservation Service, the soil on the site is Urban land-Udorthents complex, with a 0 to 7 percent slope. In this soil profile, silty clay loam begins at a depth of about 14 inches and continues down several feet. When firm, silty clay loam is typically acceptable for constructing a foundation, with an allowable soil bearing pressure of 1500 pounds per square foot. In order to protect the silty clay from wet weather and degradation during construction activities, a layer of crushed rock should be placed over the soil and thoroughly compacted. The crushed rock layer should be about 4 inches thick.

Since this area does flood, the soil could be weakened when saturated. In order to further improve the site and secure the foundation, excavate the soil below the footings and replace it with pit-run rock. I recommend that the rock fill be at least 2 feet deep and a minimum width of 5 feet, centered on the footing. The rock should be mechanically compacted. Cover the pit-run rock with crushed rock for constructability.

Drainage from the new building should be disposed of on the surface at least 10 feet away from the house, preferably to the east. Due to the topography of the area and the flat site, foundation drains are not necessary.

Please contact me if you have any questions, or if the County requires additional information.

Sincerely,

MORGAN CIVIL ENGINEERING, INC.

Jason R. Morgan, PE
Professional Engineer

REGISTERED PROFESSIONAL ENGINEER
63055
OREGON
JANUARY 15, 2002
JASON R. MORGAN
RENEWAL DATE: DECEMBER 31, 2022

cc: Project File #21-04-Cou

<V:\21-04-Cou\Reports\Coutler site evaluation.docx>

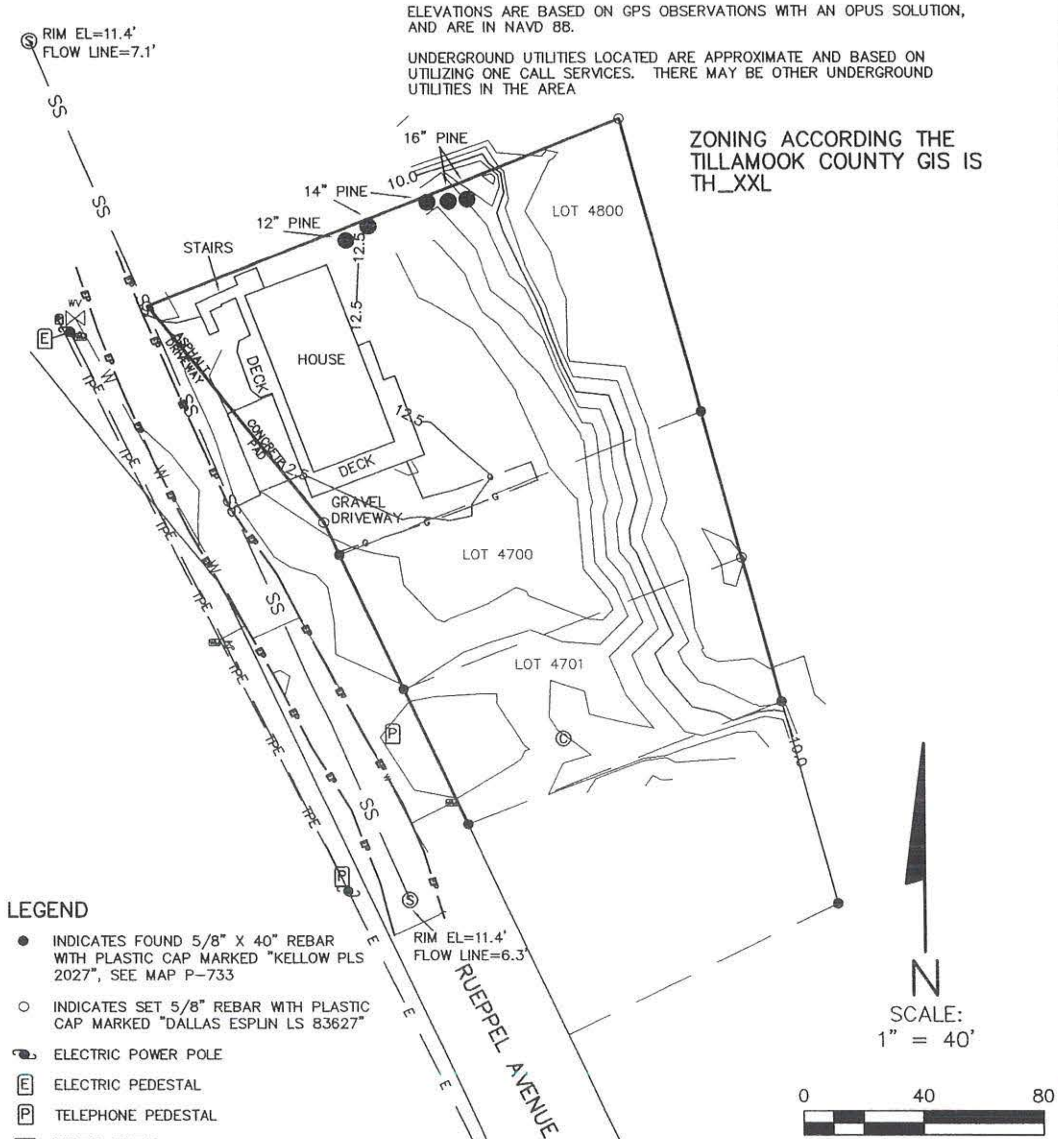
NOTES

THIS IS A TOPOGRAPHIC MAP OF TAX LOT 4800, PARCEL 1 AND PARCEL 2 OF PARTITION PLAT 2014-14. THE PURPOSE OF THIS MAP IS TO SHOW THE TOPOGRAPHY IN RELATION TO THE PROPERTY BOUNDARIES. FOR BOUNDARY INFORMATION SEE MAPS P-733, PARTITION PLAT 20014-14, TILLAMOOK COUNTY SURVEY RECORDS.

ELEVATIONS ARE BASED ON GPS OBSERVATIONS WITH AN OPUS SOLUTION, AND ARE IN NAVD 88.

UNDERGROUND UTILITIES LOCATED ARE APPROXIMATE AND BASED ON UTILIZING ONE CALL SERVICES. THERE MAY BE OTHER UNDERGROUND UTILITIES IN THE AREA

ZONING ACCORDING THE TILLAMOOK COUNTY GIS IS TH_XXL



LEGEND

- ● INDICATES FOUND 5/8" X 40" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", SEE MAP P-733
- ○ INDICATES SET 5/8" REBAR WITH PLASTIC CAP MARKED "DALLAS ESPLIN LS 83627"
- ELECTRIC POWER POLE
- E ELECTRIC PEDESTAL
- P TELEPHONE PEDESTAL
- WM WATER METER
- WV WATER VALVE
- WATER SPIGOT
- S SEWER MANHOLE
- C CLEANOUT
- PINE TREE
- —— E —— OVERHEAD ELECTRIC
- —— EP —— EDGE OF PAVEMENT
- —— G —— EDGE OF GRAVEL
- —— TP —— UNDERGROUND TELEPHONE
- —— W —— WATERLINE PAINTMARKS
- —— SS —— SEWER

REGISTERED
PROFESSIONAL
LAND SURVEYOR

Dallas Esplin

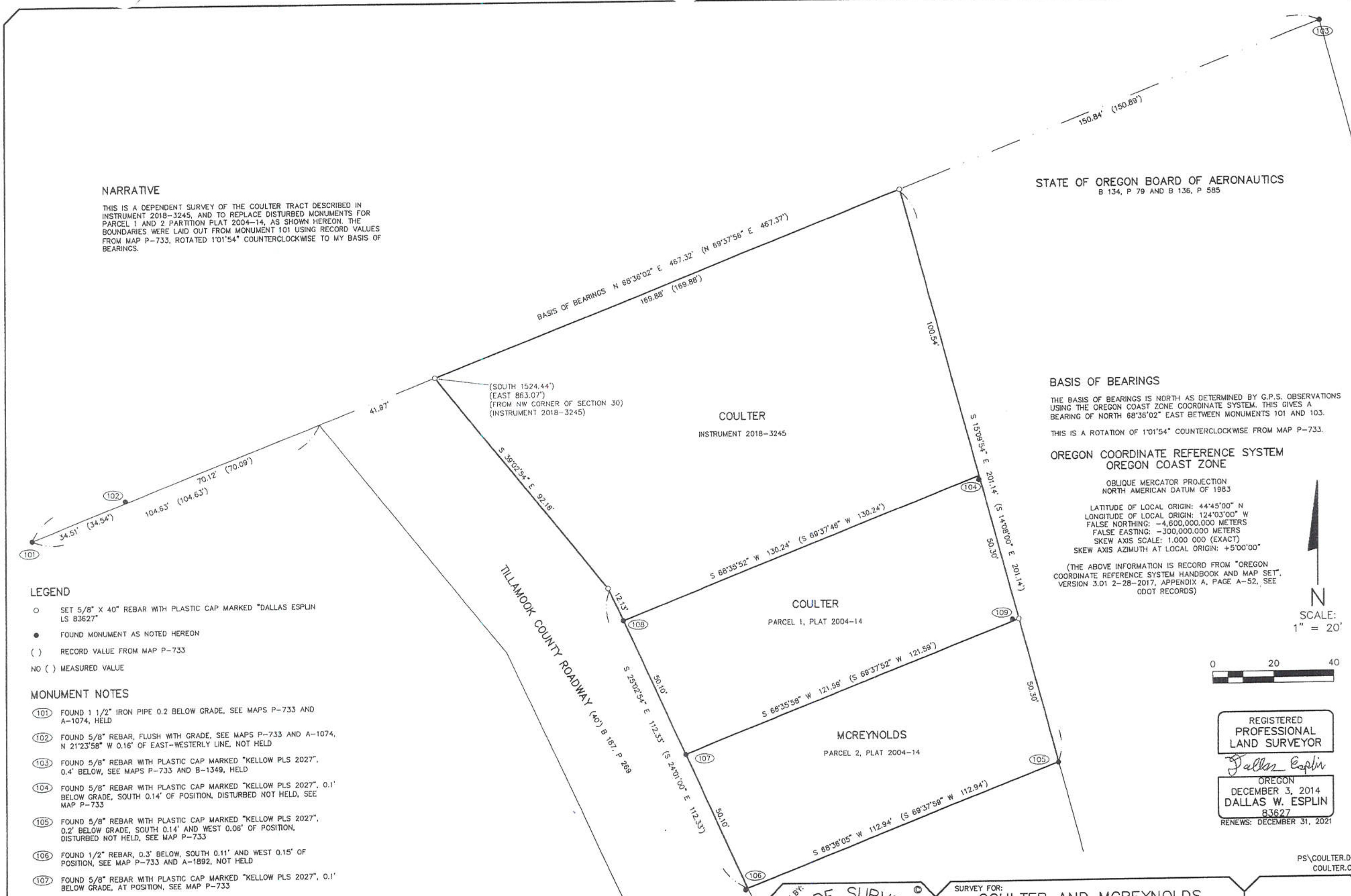
OREGON
DECEMBER 3, 2014
DALLAS W. ESPLIN
83627
RENEWS: DECEMBER 31, 2021

TOPO\COULTER-TOPO.DWG
COULTER.CR5

SURVEY BY:
BAYSIDE SURVEYING LLC ©
11765 HWY 101 SOUTH
TILLAMOOK, OR 97141
503-842-5551

TOPOGRAPHIC FOR:
DAVE COULTER
TAX LOT 4700,
4701,
AND 4800
SE 1/4, NW 1/4 T4S R10W SEC 30, W.M.
TILLAMOOK COUNTY, OREGON

DATE	EQUIPMENT	FIELD	DRAWN	CHECKED	JOB NUMBER
OCTOBER 13, 2020	FC5000 TOPCON HIPER V	DCA	DCA	DWE	#395



NARRATIVE

THIS IS A DEPENDENT SURVEY OF THE COULTER TRACT DESCRIBED IN INSTRUMENT 2018-3245, AND TO REPLACE DISTURBED MONUMENTS FOR PARCEL 1 AND 2 PARTITION PLAT 2004-14, AS SHOWN HEREON. THE BOUNDARIES WERE LAID OUT FROM MONUMENT 101 USING RECORD VALUES FROM MAP P-733, ROTATED 1°01'54" COUNTERCLOCKWISE TO MY BASIS OF BEARINGS.

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS NORTH AS DETERMINED BY G.P.S. OBSERVATIONS USING THE OREGON COAST ZONE COORDINATE SYSTEM. THIS GIVES A BEARING OF NORTH 68°36'02" EAST BETWEEN MONUMENTS 101 AND 103.

THIS IS A ROTATION OF 1°01'54" COUNTERCLOCKWISE FROM MAP P-733.

OREGON COORDINATE REFERENCE SYSTEM
OREGON COAST ZONE

OBLIQUE MERCATOR PROJECTION
NORTH AMERICAN DATUM OF 1983

LATITUDE OF LOCAL ORIGIN: 44°45'00" N
LONGITUDE OF LOCAL ORIGIN: 124°03'00" W
FALSE NORTHING: -4,600,000.000 METERS
FALSE EASTING: -300,000.000 METERS
SKEW AXIS SCALE: 1.000 000 (EXACT)
SKEW AXIS AZIMUTH AT LOCAL ORIGIN: +5°00'00"

(THE ABOVE INFORMATION IS RECORD FROM "OREGON COORDINATE REFERENCE SYSTEM HANDBOOK AND MAP SET", VERSION 3.01 2-28-2017, APPENDIX A, PAGE A-52, SEE ODOT RECORDS)

LEGEND

- ○ SET 5/8" X 40" REBAR WITH PLASTIC CAP MARKED "DALLAS ESPLIN LS 83627"
- ● FOUND MONUMENT AS NOTED HEREON
- ( ) RECORD VALUE FROM MAP P-733
- NO ( ) MEASURED VALUE

MONUMENT NOTES

101 FOUND 1 1/2" IRON PIPE 0.2 BELOW GRADE. SEE MAPS P-733 AND A-1074, HELD

102 FOUND 5/8" REBAR, FLUSH WITH GRADE, SEE MAPS P-733 AND A-1074, N 21°23'58" W 0.16' OF EAST-WESTERLY LINE, NOT HELD

103 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.4' BELOW, SEE MAPS P-733 AND B-1349, HELD

104 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, SOUTH 0.14' OF POSITION, DISTURBED NOT HELD, SEE MAP P-733

105 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.2' BELOW GRADE, SOUTH 0.14' AND WEST 0.08' OF POSITION, DISTURBED NOT HELD, SEE MAP P-733

106 FOUND 1/2" REBAR, 0.3' BELOW, SOUTH 0.11' AND WEST 0.15' OF POSITION, SEE MAP P-733 AND A-1892, NOT HELD

107 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, AT POSITION, SEE MAP P-733

108 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", AT GRADE, AT POSITION, SEE MAP P-733

109 FOUND 5/8" REBAR WITH PLASTIC CAP MARKED "KELLOW PLS 2027", 0.1' BELOW GRADE, DISTURBED, SOUTH 0.07' AND WEST 0.29' OF POSITION, SEE MAP P-733, NOT HELD

EASEMENTS ON TITLE REPORT

BOOK 56, PAGE 612
ELECTRIC EASEMENT FOR THE EXISTING ELECTRICAL INFRASTRUCTURE

BOOK 77, PAGE 227
ELECTRIC EASEMENT FOR THE EXISTING ELECTRICAL INFRASTRUCTURE

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Dallas Esplin
OREGON
DECEMBER 3, 2014
DALLAS W. ESPLIN
83627
RENEWS: DECEMBER 31, 2021

PS\COULTER.DWG
COULTER.CR5

SURVEY BY:
BAYSIDE SURVEYING LLC ©
11765 HWY 101 SOUTH
TILLAMOOK, OR 97141
503-842-5551

SURVEY FOR:
COULTER AND MCREYNOLDS
INSTRUMENT #2018-3245, TILLAMOOK COUNTY DEED RECORDS
AND PARCELS 1 AND 2, PARTITION PLAT 2004-14
TILLAMOOK COUNTY PLAT RECORDS
SE 1/4 NW 1/4 SECTION 30, T4S, R10W, W.M.
TILLAMOOK COUNTY, OREGON

DATE	EQUIPMENT	FIELD	DRAWN	CHECKED	JOB NUMBER
OCTOBER 13, 2020	FC-5000 HYPER-V	DCA	DWE	DWE	#395

COULTER ARCHITECTURE

David and Pattie Coulter House Addition
Project Performance and Product Specification

Division 1: General Requirements:	Project to be constructed per the 2018 edition of the International Residential code (IRC) and the NFPA 70, and the National electrical code designated with the I-codes and Tillamook County codes. Direct all subcontractor and suppliers to comply with the same. See structural General Notes on drawing S-1.5 All modifications and changes shall proceed through the architect for approval. Shop Drawing and sample submittals required: Steel fabrication Windows and doors and hardware Drywells and holding tanks, propane tanks. SIP Panels roof panels including engineering calculations. Warmboard Sub floor, complete system. Finished siding, and details Other items as noted
Division 2: Site Construction:	Dry Wells, and catch basins, located on site Plan, submit details, source: H2 pre-Cast, Wenatchee. Final locations TBD.

	Utilities: final locations per the drawings
Division 3: Concrete:	See Structural General Notes: Architectural concrete: All exterior facing walls, and exposed interior walls, as depicted on the drawings, shall have a special finish as follows: Using new form panels with aligned snap ties as shown, shall be a smooth finish without rock pockets nor any voids. Snap ties to be plastic cone type. See enclosed. Provide a mock-up panel 4' x 8' with anticipated seal breaker and snap tie configuration. Mock-up panel to be subsequently buried on site. Grouts: Non Shrink Basalite or equal Pavers: Unilock, concrete Abbostsford, concrete
Division 4: Masonry	N/A
Division 5: Metals:	Steel frames and beam connections, welding certification required, shop drawings required, see Structural General Notes, Shop Prime Steel tubes are HSS type steel. Exposed Fabricated steel to be Powder Coated and non-exposed, shop primed. Color to be selected and submitted with shops. Steel Stair: submit shop drawing for review and approval, construct so that it can be hot dip

galvanized. Provide attachment as located on the drawings (with stand off through the siding rain screen, and provide footings located per the shop drawings, and sized as shown on the drawings.

Division 6: Wood and Plastics:

Exterior wall sheathing: ½"" CDX (Exposure 1 rated) (most places nailed as shear walls, see shear wall diagrams.)

Dimensional beams and lumber are D.F, #1 or better, Glue lams are framing dimensional 24/V8 unless stated otherwise. Interior Glue Lams are architectural grade.

Sub Floor: 1 1/8" Plywood WarmBoard-S on upper floor, installed per the manufactures instruction, shop drawings and required. Finish floors over WarmBoard-S to be installed per instruction manual, Installation over Joists.

Contact: Shane Banks: 206.276.376 sbanks@warmboard.com

Sill Seal at all concrete plates, and SIP Panels with Owens corning, foam seal R.

Fasteners: Sub-floor screws Simpson, Strong drive, WSV, see cut sheet, 2 ¾" screws.

Wood to steel: Simpson TB screws per table enclosed.

SIP Panels by Insulspan, installation per Factory shop drawings, contractor/ installer to check shop drawing for detail and dimensional fit. See Insulspan construction manual.

Seal all joints on the warm side with factory tape See Structural notes on the drawings for perimeter nailing. Provide continuous V.B on warm side under the furring.

Contact: Dave Stevenson, 604.523.3762, cell 778.846.9512

Siding: Azek or approved equal. Vertical application with "hidden attachments" (screws) using the 2.5 cortex color matched plugs.

Siding mounted on horizontal nailer and drainage strip (corrugated Lath Strip (CLS 3845-316) by MTI and vented edge metal (VMEM 3168 wrapped with Polypropylene fabric bug screen.

Division 7: Thermal and Moisture: Poly Wall Liquid Wrap 2300, or 2400 roll on

60 mil. Min thickness.

Joint filler 2200 with closed cell backer rod

2100 for windows and doors

STEP ONE, PREPARE AND CLEAN: (View factory video prior to application)

A. Using a stiff brush, followed by damp rag, and wipe away debris, sawdust, dirt or foreign matter of all surfaces including the rough opening and 6 inches around the outside perimeter of the window opening on the sheathing itself. Please note that if the substrate is wet, no problem ... Poly Wall Blue Barrier Liquid Flashing 2100 loves water.

B. Provide positive slope on the rough opening sill per Window Manufacturer's Installation Specifications. IMPORTANT: If you choose to do this you must account in advance for the space in the rough opening you take up with the positive slope or your window will not fit.

STEP TWO, DETAIL ANY VOID UP TO 3/4" :

A. Apply PW BB 2200 Joint Filler with a plastic trowel or putty knife to holes, cracks, imperfections in rough opening & sheathing surrounding opening.

B. In the corners, feel free to use your index finger with a damp cloth over it to press product completely into corner and smooth.

C. On average after 30 minutes product is ready for the next step depending on Relative Humidity and Temperature. If it doesn't stick to your finger upon touch it's ready.

STEP THREE: APPLY BB 2100 TO ROUGH OPENINGS:

A. Starting on the top inside of the rough opening apply BB 2100 with sausage gun and trowel smooth so wood is not visible. Minimum 35 mils wet continuous film (46 SF / Gal coverage rate)

B. Apply in 6-inch to 12-inch lengths, complete inside of rough opening.

C. Apply to outside of rough opening on sheathing, approx 6-inches wide.

D. Allow approximately 30 minutes for the flashing to set up depending on Relative Humidity and Temperature. It might still be "tacky" but as long as product does not attach to your finger at touch then your ready to install your window.

STEP FOUR, INSTALL WINDOWS AND DOORS:

A. Install your window or door per manufacturer's specifications and instructions.

B. Many manufacturers call for a compatible sealant to be applied prior to the window being installed into the opening. Poly Wall Blue Barrier 2200 Joint Filler can be used for this purpose.

C. After window has been installed as directed by manufacturer specifications apply Poly Wall Blue Barrier Liquid Flashing 2100 over header and jamb flanges of the window itself with gun and trowel tying it into the existing cured fluid membrane that you had applied earlier. Make sure to completely cover the flange with fluid applied product.

D. It is important to leave the sill flange on the window at the bottom un-flashed with fluid flashing to allow moisture relief in the event of a window leakage.

Wet Set Installation of the rain screen hat channels: Recoat everywhere a penetration of the water barrier occurs with Blue Barrier Joint Filler 2200 when installing the hat channels that hold the Corten siding. This applies to any penetration.

Note: This project shall meet the Blower test. Review manufacturers Video before doing the work. Follow the manufactures recommendations on all steps.

Alternate W.B. Henry Blueskin VP 100, self adhered Water resistive Barrier. Install per the manufactures requirements, including moisture content and raining conditions requirements.

Rain Screen components:

Furring: Masonry Technology, Inc. Vent Edge metal (VMEM 3168), Corrugated Lath Strip (CLS 3845-316), Wrap bottom Lath Strip with Polypropylene Fabric.

Alternate: Advanced Building products, Inc. , Watairvent furr strip and Watairvent starter strip.

Roofing: Taylor Metal products, 24 Ga. Cool Kynar 500, color to be determined. Limit penetrations of the metal roof to plumbing vents, and fireplace flue, all other openings, including fans and dryer vent with INOVATE DryerJack, and Inovate Dryer Box through the walls.

Roof: Roof temporary protection during construction: GAF Deck Armor, during construction, with Ice Guard at the perimeter 4 feet wide.

Final roof deck membrane: Under the metal roof, apply 11 mm VaproShield, Warp Shield RS rain screen.

Vapor Barrier (class 1) required on warm side of all SIP panels, Factory supplied tape to all joints.

Insulation:

Floors: R-30 Rock Wool between the garage and upper floor.

Walls: Closed cell foam, Foamular NGX, in all walls, seal all wall to roof intersection and floor intersections, all corners air tight, 6”=wall R-33, 8"= wall-R-37.5

SIP panels, 12” -R-59.1, Factory applied. High performance GPS Insulation. Factory tape all joints. Apply vapor barrier on entire warm side.

Division 8: Doors & Windows:

Windows and exterior doors: Loewen windows and doors except as shown.

The south facing glass, windows A & B on the schedule, to be design to resist 125 MPH wind loading.

Shop drawings and color samples required

Division 9: Finishes:	Interior details and cabinets to follow. Floors: ¾" hardwood, acclimated and stained all sides, all rooms except the shower and ½ bath. Alternate floor: Pre-finished hardwood engineered floor system , submit specs. Ceilings in the great room, master bedroom, bathroom, and entry are 5/8" T& G # 1 D.F. with recess at the perimeter for LED cont. lighting strips. Exterior soffits to match. IPE Exterior handrail: finish with Messmwe's U.V. Plus, with LED cont. lighting. Gacodeck: All exterior deck and stair walking surface to be covered with Gacodeck, an Acrylic Polymer blend not to be installed over more than an 18% moisture content. Use Gacodeck Polyester Reinforcing tape on the stair nosing and terminations Gacodeck Priner to be utilized in cold weather applications. Gacodeck Granules to be used on the waling surfaces. Color: Standard Oyster, or to match concrete pavers as close as possible. A special color may be needed, and as approved by the Architect.
Division 10: Specialties:	Fireplace: Flare fireplaces, see plan, submit shop R.I. dwgs, Flue to exit SIP Panels, submit detail.

	Toilet and Bath accessories TBD
	Handicap Bars: provide backing, and see interior elevations.
	Shower doors: frameless glass. Submit shop drawings.
	Handrails:
	Cable railings- Keuka Studios, powder coated, 42" mounted off set with powder coated sleeves as shown on the details.
	Screens by US Centor S2 double screen, 102 3/8" x 124", layout to be determined.
Division 11: Equipment:	Security systems TBD
	Appliances: supplied by the owner, installed by the contractor.
Division 12: furnishings:	N/A
Division 13: Special Construction:	Roof structure: SIP Panels are Insulspan, with Graphite Polystyrene cores (GPS) 12" plumb cut (R59.1 @ 25 deg F.) Shop Dwgs. and Engineers stamp required. Limit penetrations to plumbing only and fireplace, all other penetrations to be side wall, utilizing dryer vents and grills by Seiho SB-P, and JSP grilles.
	Warmboard on main floor 11/8" Plywood, with a sealer (glued and screwed.) Installation. Shop installation drawings required.

Division 14: Conveying Systems:	Elevator by: Symmetry Elevator Solutions, (or approved equal) inline gear drive at the top. See specification cut sheet. Car size 40 x 54, accordion door, same side opening. All electronics to be installed above elevation 17' and the car to be set to wait at the upper level.
Division 15: Mechanical:	Water heater: 150 Gal. heat pump configuration. HVAC, Mini-Split, (no duct work) design build by Sub-Contractor and collaboration with Architect. Mitsubishi or approved equal. Room units Located on the fireplace wall in recessed openings on the fireplace wall, see plan.
Division 16: electrical:	Electrical floor plans- Preliminary layout Dwgs. E- 1.1 and E- 1.2 Lutron square Trim: typical, color to be selected. Ceiling Fans: Big Ass Fan, 6' dia. Remote controls Special outlets: Locate in the field, Kitchen counter: Mockett pop up in counter and bar. Walk through with the subcontractor required prior to installation.

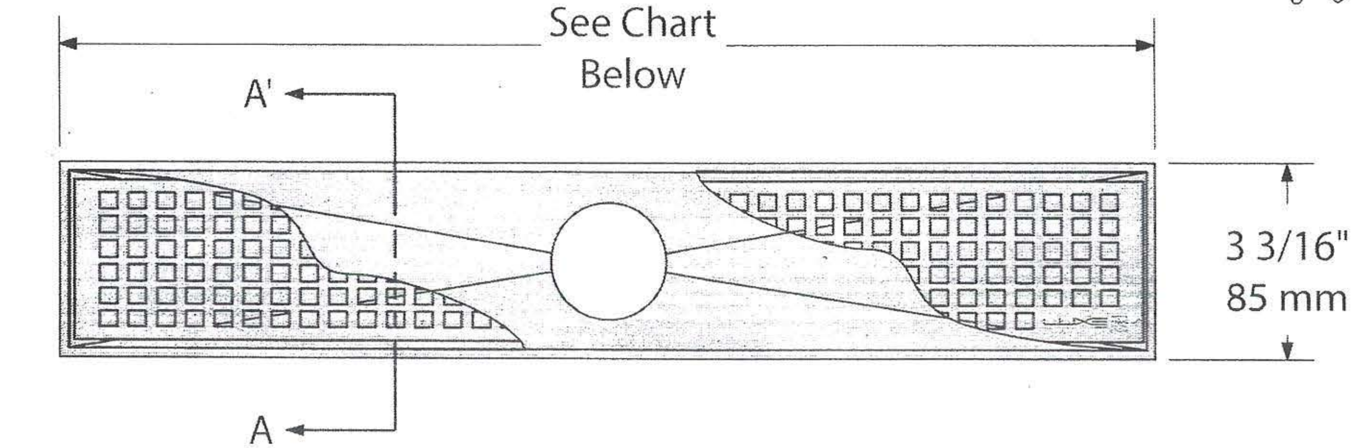
Bath Room Heated floors:	Master Bath shower: The heated floor system to be Schluter Ditra-Heat-Duo system, install per the manufacturer, with controls. See plan for area.
Miscellaneous:	Glass: Discuss with the owner, Electrochromic adjustable performance glass, and bird strike technology prior to ordering glass, guardianglass.com, Bird1st
Window shades:	J-Geiger, R series, with 2 ½" dia. Jamb brackets, clear anodized. Black out fabric for the master suites, and Translucent for the living room and dining Room, remote controlled, wired in motors, coordinated with Lutron, see Electrical.
Patio gas fired tables:	Paloform or approved equal

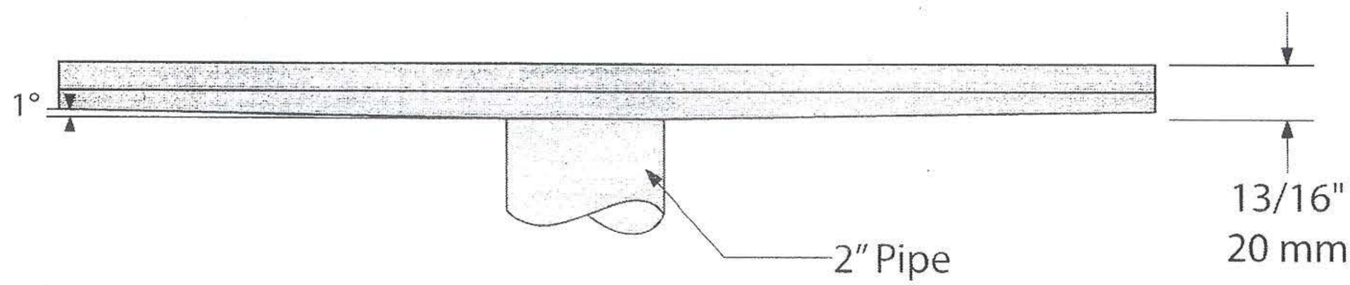
Hot tub deck
floor drain
60"

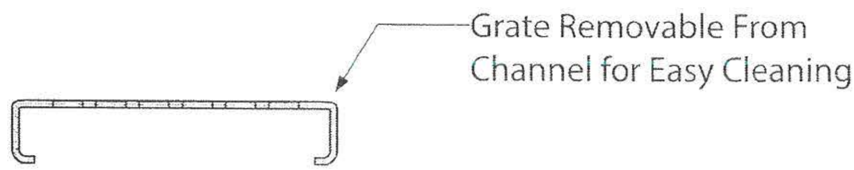
LINEAR DRAINS

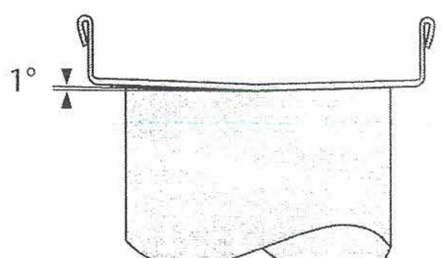
P.O. Box 8064, Atlanta, GA 31106
p: 877.398.8110 f. 877.388.1239
e: sales@lineardrains.com
www.lineardrains.com

Linear Shower Drain - Pattern Grate

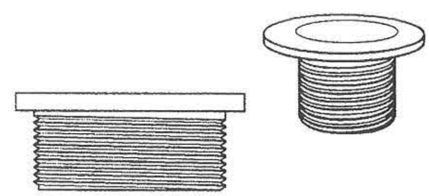








Section A-A'



Threaded Male Adapter Included

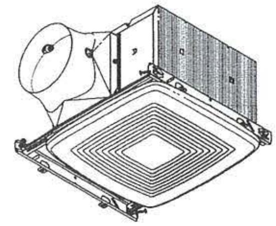
Standard Linear Drain Lengths

Length (Inches)	26"	30"	36"	40"	48"	60"
Finish = Satin Stainless Part No.	SP-26	SP-30	SP-36	SP-40	SP-48	SP-60

BROAN®

SPECIFICATION SHEET

MODEL ZB110 VENTILATION FAN



FEATURES

UltraGreen™ Energy Saving DC Motor
- DC motor for efficiency well beyond ENERGY STAR® requirements.
- Multi-speed capability ideal for meeting ASHRAE 62.2, LEED and ENERGY STAR® for Homes requirements. Can be used to comply with CA Title 24, as well as local/spot ventilation needs.

UltraSilent™ Sound Technology
- HVI certified, best-achievable <0.3 Sone level provides nearly silent operation for a relaxing environment.
- State-of-the-art blower and duct outlet design smooths airflow.
- High tech DC motor designed for nearly silent operation.

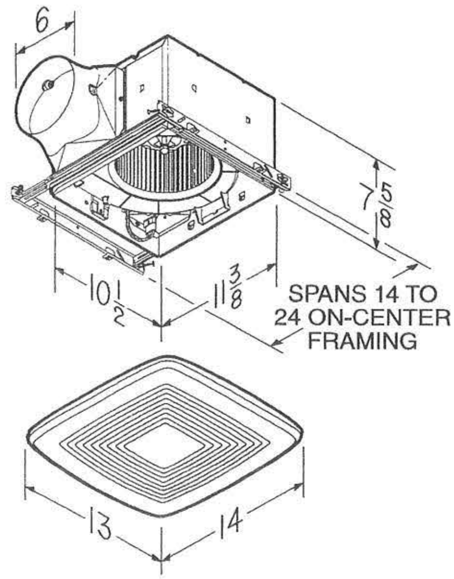
UltraSmart™ Control Technology
- Powerful operation maintained over a wide range of real-world installations (CFM ratings maintained through at least 0.25" static pressure).
- Infinitely adjustable low cfm setting allows precise adjustment to prevent over-ventilating and maximize efficiency.
- Adjustable time delay sets how long fan will run on high speed before returning to a continuous lower speed.

UltraQuick™ Installation Technology
- Unique telescoping mounting frame fits through retrofit drywall opening to allow easy installation from the room side. No attic access needed!
- Captive screws allow for easy new construction installation.
- Mounting frame positioning tabs provide easy vertical positioning for new construction.
- Easy to insert and remove snap-in housing. No screws required!
- Easy to insert and remove snap-in blower.
- Inside or outside duct connector and knockout plate mounting provides flexibility for new construction or retrofit.

U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit (ceiling mount only).

3-year warranty.

DIMENSIONS (Inches)



ENERGY STAR

Broan-NuTone LLC Hartford, Wisconsin www.broan.com 800-558-1711

REFERENCE	QTY.	REMARKS	
			Project
			Location
			Architect
			Engineer
			Contractor
			Submitted by Date

BROAN®

PERFORMANCE SPECIFICATIONS
MODEL ZB110 VENTILATION FAN

HVI PERFORMANCE

Airflow Rate Setting (CFM)	6" Duct				
	0.1 Ps - Static Pressure (inH2O)				0.25 Ps
	Airflow (CFM)	Sound (Sones)	Power (Watts)	Efficacy (CFM/ Watt)	Airflow (CFM)
110	110	< 0.3	7.7	14.2	110
100	100	< 0.3	7.0	14.2	100
90	90	< 0.3	6.4	14.0	90
80	80	< 0.3	5.8	13.7	80
70	70	< 0.3	5.1	13.7	70
60	60	< 0.3	4.6	13.0	60
50	50	< 0.3	4.1	12.1	50
40	40	< 0.3	3.7	10.8	40
30	30	< 0.3	3.3	9.0	30

® 2100 HVI CERTIFIED

HVI-2100 CERTIFIED RATINGS comply with new testing technologies and procedures prescribed by the Home Ventilating Institute, for off-the-shelf products, as they are available to consumers. Product performance is rated at 0.1 in. static pressure, based on tests conducted in a state-of-the-art test laboratory. Sones are a measure of humanly-perceived loudness, based on laboratory measurements.

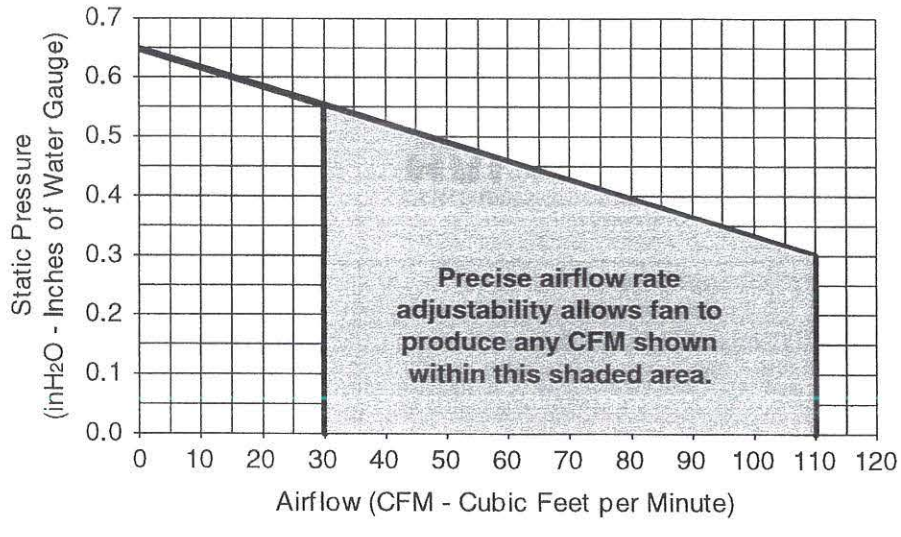
ELECTRICAL & WEIGHT

Volts	Hz	Amps	Shipping Weight (lbs.)
120	60	0.2	12.3

UL®

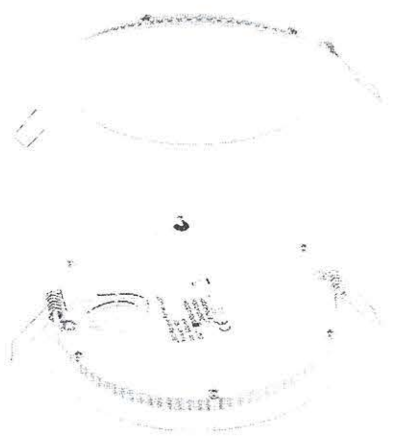
ENERGY STAR

FAN CAPABILITY

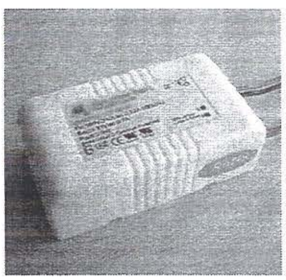


LED WAVES
Saving the Planet
One Bulb at a Time

Ultra-thin LED Recessed Light



- Uses 90% less wattage compared to comparable traditional lights
- Easy to install: LED light fixture and LED driver (included) are all detachable.
- Very small, low profile design; its height is less than 3/4 inch.
- Sturdy aluminum housing.
- High quality diffuser achieves even and soft light output.
- Incredibly bright, this High Power LED Recess Light is the perfect way to modernize your home or business by saving loads of money on your energy and maintenance costs.

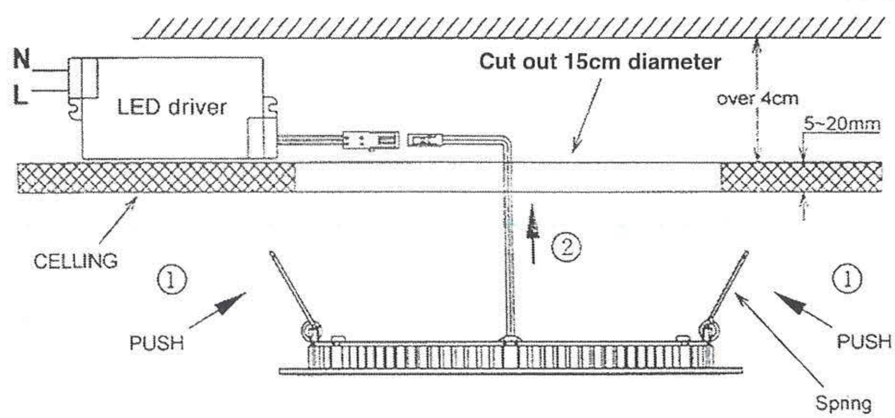


LED driver
(non-dimmable)

Specifications

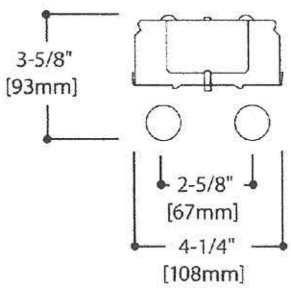
Wattage	12.5 Watt Max. (LED fixture: approx. 9 Watt, LED driver: approx. 3.5 Watt)
LED Chip	High-Power LED (24 LEDs)
LED forward Current	700mA
Beam Angle	Approx. 110°
Light Color	Warm White (approx. 3000K), Neutral White (approx. 4200K), Cool White (approx. 6000K)
Light Output	Warm White: 560 lm, Neutral White: 600lm, Cool White: 620 lm
Color Rendering Index	Cool white: Ra > 70, Warm white: Ra > 75
Life Span	50,000 hours
Voltage	LED driver: 100~240VAC (UL rated)
Dimensions	LED light fixture: height: 1.3cm (0.52"), diameter: 16.2cm (6.38") LED driver (default, non-dimmable): L: 65mm (2.6") x W: 35mm (1.4") x H: 23mm (0.9")
Casing Color	Painted white
Housing	LED light body: Aluminum, Cover: PMML plastic diffuser
Protection Rating	CE, RoHS
Operating Temperature	-10°C ~ +40°C

Installation Diagram



LED Channel Strip

DIMENSIONS



QUICKSHIP DLC ETL DIMMABLE

APPLICATION

The LCS family of LED strip lights combine high-performance LEDs, highly-engineered optics to traditional designs to bring you the most advanced line of LED Strip Lights on the market. Multiple lumen packages mean there is an LCS that is just right for your lighting needs.

FEATURES

- Available in 2', 4', or 8' lengths
- Optional integral emergency battery pack
- Surface mount or suspended
- Heavy die-formed steel channel
- All luminaires are built to UL 1598 and 2108 standards, and bear appropriate ETL labels

ORDERING INFORMATION

[*Options in **Bold** denote Quick Ship configurations]

SERIES	LENGTH	WATTAGE	VOLTAGE	COLOR TEMPERATURE
LCS	4	48	MV	850
	2- 24" Length 3- 36" Length 4- 48" Length 8- 96" Length	24" Housing 18- 18W (1800 Lumens) 36" Housing 27 - 27W (2700 Lumens) 48" Housing **34- 34W (3600 Lumens)** 52 -52W (5200 Lumens) 96" Housing **68- 68W (7200 Lumens)** 108- 108W (10800 Lumens)	**MV- 120-277V** MVD- 120-277V; 0-10V Dimming	840 - 80 CRI; 4000 Kelvin **850 - 80 CRI; 5000 Kelvin**

LITHONIA LIGHTING

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — LBL LED wraparound provides a digital lighting platform to deliver general ambient lighting for surface-mount applications. The LED system delivers long life and excellent color to ensure a quality, low-maintenance lighting installation. Ideal for closets, storage rooms, hallways, and offices.

CONSTRUCTION — Metal parts are die formed from code-gauge steel. Prismatic diffuser is 100% acrylic with sonically welded luminous ends. Continuous side flanges on fixture body provide light trap and continuous diffuser support to prevent accidental opening and simplify maintenance.

Finish: Five-stage iron phosphate pretreatment assures superior paint adhesion and rust resistance.

Painted parts finished with high-gloss, high-reflectivity baked white polyester enamel (low VOC).

OPTICS — Curved prismatic diffuser with linear side prisms and highly transmissive overlay minimizes lamp image and provides high-angle brightness control. Luminous end plates soften appearance for improved aesthetics.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. 90% LED lumen maintenance at 60,000 hours (L90/60,000).

LED drivers deliver dimming from 0-10V control signal.

LISTINGS — CSA certified to U.S. and Canadian standards. Damp listed.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

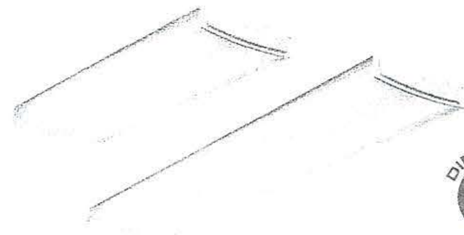
All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Contractor Select

LBLED
Low-Profile Curved-Basket LED Wraparound

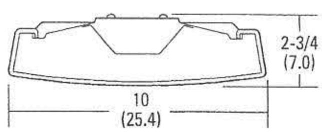
2' and 4'
LED



Specifications

Length: 24 (61.0)
48 (122.0)
Width: 10 (25.4)
Depth: 2-3/4 (7.0)

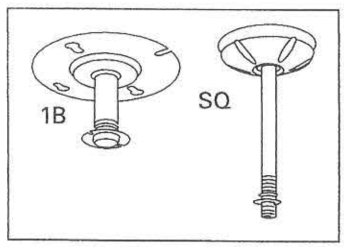
All dimensions are inches (centimeters) unless otherwise indicated.



MOUNTING DATA

Individual Installation —
Two single-stem hangers required.

Row Installation —
One hanger per fixture plus one row required.



ORDERING INFORMATION

See LBL Configurable specification sheet for additional lumen packages and control options.

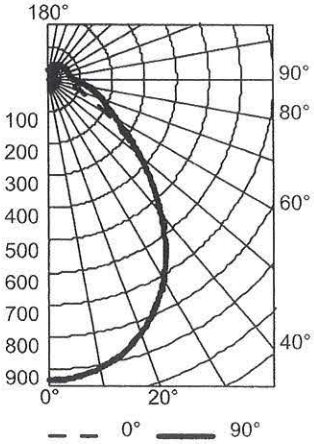
Catalog number	UPC	Description	Lumens	Color temperature	Lens type	Voltage	Wattage[2]	Pallet qty	Standard carton qty.
LBL2 LP835[1]	753573917564	2' LED Wraparound	2,248	3500 K	Patterned #12 acrylic	120-277	23	112	1
LBL2 LP840[1]	753573917595	2' LED Wraparound	2,267	4000 K	Patterned #12 acrylic	120-277	23	112	1
LBL4 LP835[1]	753573917601	4' LED Wraparound	4,564	3500 K	Patterned #12 acrylic	120-277	41	56	1
LBL4 LP840[1]	753573917632	4' LED Wraparound	4,600	4000 K	Patterned #12 acrylic	120-277	41	56	1
LBL4 347 LP835	753573917649	4' LED Wraparound	4,564	3500 K	Patterned #12 acrylic	347	41	56	1
LBL4 347 LP840	820476010279	4' LED Wraparound	4,600	4000 K	Patterned #12 acrylic	347	41	56	1

Notes

1. Product in stock.
2. All values are design or typical values, measured under laboratory conditions at 25°C.

PHOTOMETRICS

LBL2 LP840, 2266.8 delivered lumens, test no. LTL27384P5, tested in accordance to IESNA LM-79.



CP Summary

	0°	90
0°	932	932
5°	927	929
15°	883	881
25°	785	780
35°	640	630
45°	454	453
55°	275	300
65°	147	204
75°	83	152
85°	29	101
90	5	80

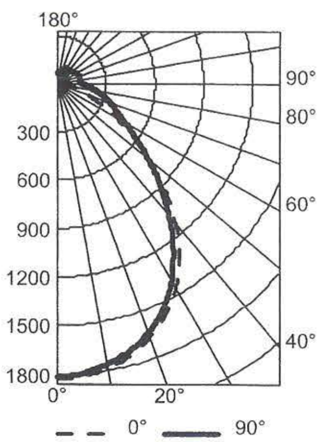
Coefficients of Utilization

pf	20%								
pc	80%			70%			50%		
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	116	116	116	112	112	112	105	105	105
1	106	102	98	99	95	92	92	89	87
2	98	90	84	87	81	76	82	77	73
3	90	80	72	78	71	65	73	67	63
RCR 4	83	72	64	70	62	56	66	59	54
5	77	65	56	63	55	49	60	53	48
6	71	59	50	57	49	44	54	47	42
7	66	54	45	52	45	39	50	43	38
8	62	49	41	48	40	35	46	39	34
9	58	45	38	44	37	32	42	36	31
10	54	42	34	41	34	29	39	33	29

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	692	30.5	30.5
0° - 40°	1082	47.7	47.7
0° - 60°	1669	73.6	73.6
0° - 90°	2010	88.7	88.7
90° - 120°	124	5.5	5.5
90° - 130°	162	7.1	7.1
90° - 150°	225	9.9	9.9
90° - 180°	257	11.3	11.3
0° - 180°	2267	100.0	100.0

LBL4 LP840, 4600.4 delivered lumens, test no. LTL27386P25, tested in accordance to IESNA LM-79.



CP Summary

	0°	90
0°	1820	1820
5°	1820	1802
15°	1742	1715
25°	1578	1540
35°	1311	1242
45°	934	892
55°	567	596
65°	287	399
75°	152	297
85°	52	194
90	8	159

Coefficients of Utilization

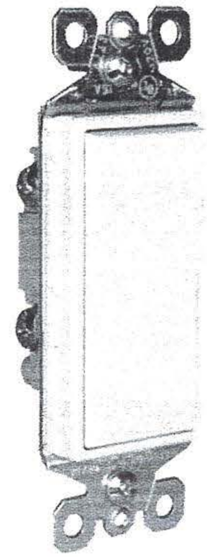
pf	20%								
pc	80%			70%			50%		
pw	70%	50%	30%	50%	30%	10%	50%	30%	10%
0	116	116	116	112	112	112	105	105	105
1	106	102	98	98	95	91	92	89	86
2	98	90	83	87	81	76	82	77	73
3	90	80	72	77	71	65	73	67	62
RCR 4	83	72	63	69	62	56	66	59	54
5	76	64	56	63	55	49	59	53	48
6	71	58	50	57	49	43	54	47	42
7	66	53	45	52	44	39	49	43	38
8	62	49	41	48	40	35	45	39	34
9	58	45	37	44	37	32	42	35	31
10	54	42	34	41	34	29	39	33	28

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1376	29.9	29.9
0° - 40°	2175	47.3	47.3
0° - 60°	3378	73.4	73.4
0° - 90°	4053	88.1	88.1
90° - 120°	269	5.9	5.9
90° - 130°	351	7.6	7.6
90° - 150°	478	10.4	10.4
90° - 180°	547	11.9	11.9
0° - 180°	4600	100.0	100.0

15A Single-Pole Decorator Switch, Light Almond

TM870LA



Our complete line of P&S Decorator devices combine today's design aesthetics with ease of installation, reliability and performance that never goes out of style.

features & benefits

- Designer-style, satin-finish rocker style.
- High-impact resistance thermoplastic construction.
- Narrow back body leaves more room for wires in the box.
- Extra-long, through-body strap eliminates floating installations and imperfect applications.
- For covering patents, see www.legrand.us/patents.

specifications

General Info

Color: Light Almond
Product Series: TradeMaster
Number Of Poles: 1
Style: Decorator

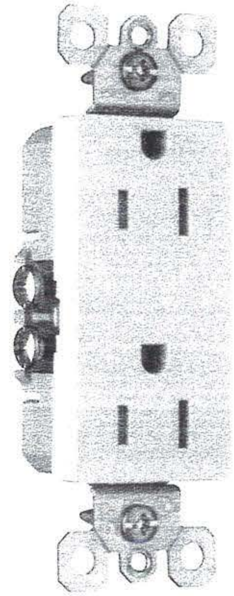
Listing Agencies/Third Party Information

CSA Listing Info: C22.2 111
CSA Standard: Yes
UL Listing No: UL20
UL Standard: Yes
UN SPS C: 39121704

Dimensions

TradeMaster Tamper-Resistant Receptacle

885TRLA



Decorator Tamper-Resistant Receptacle.
15 amp, 125 volt, Light Almond.

features & benefits

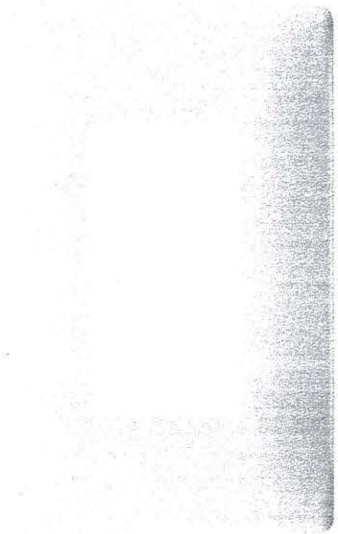
- Meets 2008 National Electrical Code Tamper-Resistant requirements.
- Protects children: patented shutter system—now with black "invisi-shutters" that disappear for an invisible effect—helps prevent improper insertion of foreign objects.
- High-impact resistant thermoplastic construction.
- Extra-long strap.
- Quickloop wire looping aid.
- Long-term blade retention.
- Longer tri-drive screws for easier 12 AWG looping.
- Extra-large circuit break-off tabs.
- Side-access push wire release.
- Ultrasonic welding of face to back body.
- Side wire accepts #12 – #14 AWG solid wire.
- Push wire accepts #14 AWG solid only.
- Superior protection than traditional outlet caps or protection plates.
- Low profile face.
- Traditional contoured face (3232 models).
- Self-grounding models provide automatic ground clip.
- For covering patents, see www.legrand.us/patents.

specifications

General Info

Color: Light Almond
Type: Tamper-Resistant

One-Gang Screwless Decorator Wall Plate, Light Almond



SWP26LA

Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

features & benefits

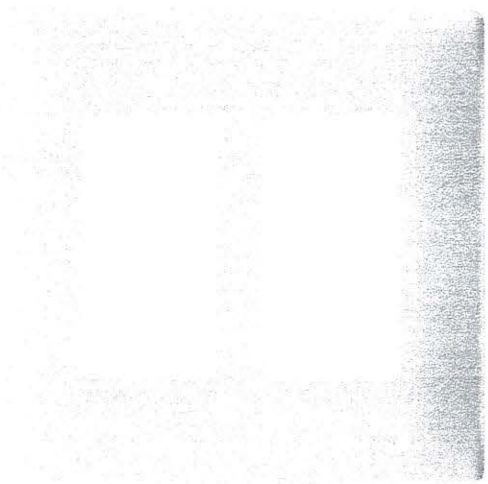
- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

legrand® designed to be better. SWP262LA

Two-Gang Screwless Decorator Wall Plate, Light Almond

SWP262LA



Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

features & benefits

- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

General Info

Color: Light Almond
Special Features: Screwless
Style: Decorator

Listing Agencies/Third Party Information

Federal Spec: No
UN SPS C: 39121704

Dimensions

Height U S: 4.87"
Width U S: 4.912"

Technical Information

Three-Gang Screwless Decorator Wall Plate, Light Almond

SWP263LA

Uniquely constructed P&S Screwless Wall Plates have a no-dirt catching channel around the perimeter, ensuring a clean, uniform look.

features & benefits

- **Unbreakable, flexible polycarbonate construction** conforms to uneven drywall.
- **Smooth, sleek look** hides the screws and highlights the style.
- **Automatic alignment pins** ensure wall plate fits perfectly.
- **Smooth perimeter** eliminates channel that can catch dirt.
- **Includes two-piece, non-conductive polycarbonate subplate** to help speed installation.

specifications

General Info

Color: Light Almond
Special Features: Screwless
Style: Decorator

Listing Agencies/Third Party Information

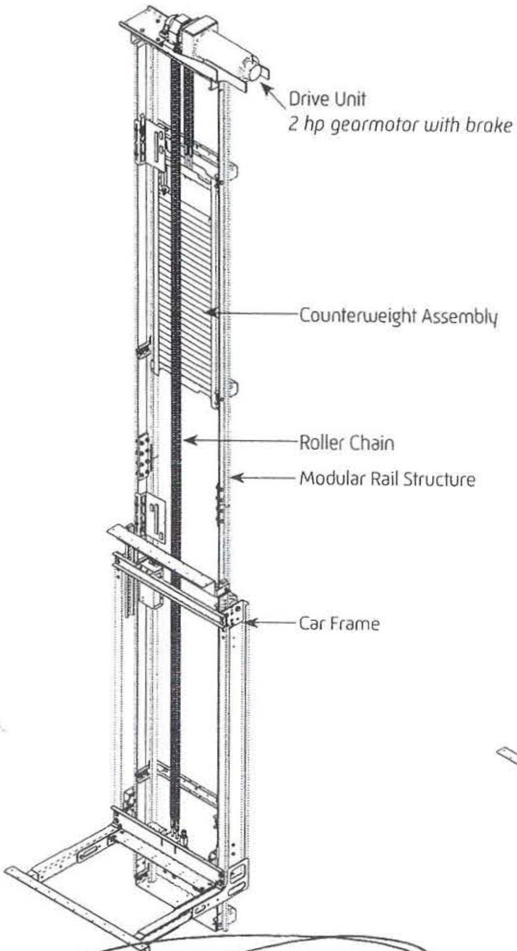
UN SPS C: 39121704

Dimensions

Height U S: 4.87"
Width U S: 6.724"

Technical Information

symmetry elevating solutions



Inline Gear Drive System

General

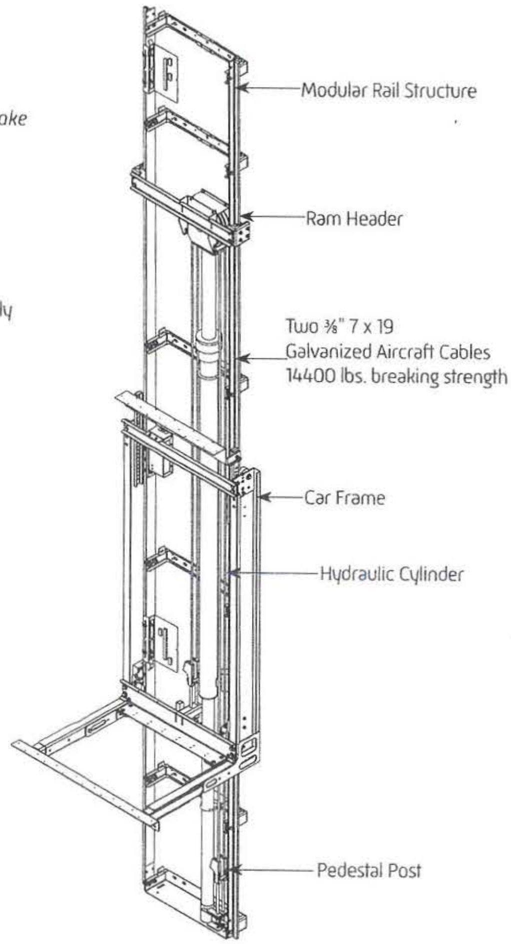
- Overhead minimum of 8'0" (96 inches) with remote controller; mimimum of 9'0" with controller in hoistway with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 20 amp, single-phase power supply for motor controller
- Two #60 roller chains
- Inverter-controlled variable speed Inline Gear Drive unit with counterweight and 2 hp motor
- Manual lowering device

Safety Features

- Slack chain safety device
- Two upper and one lower final limit
- Machine stop switch



Hydraulic Drive System

General

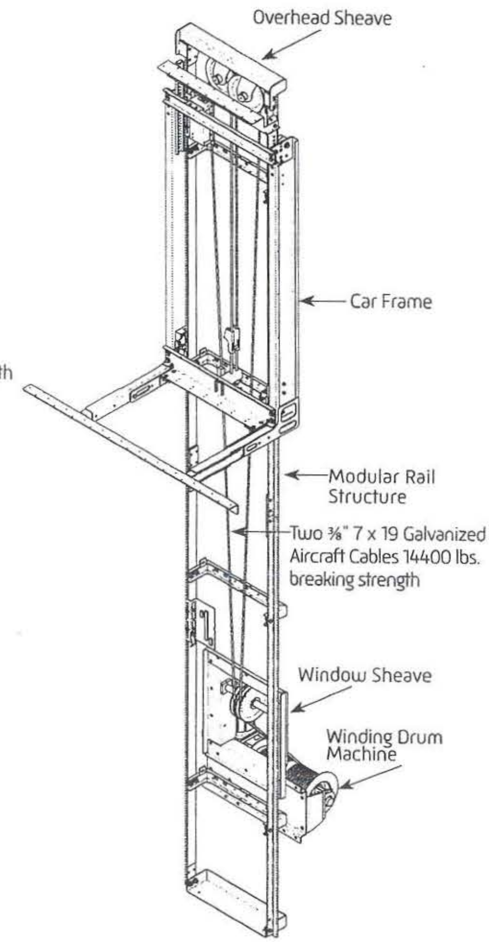
- Overhead minimum of 7'10" (94 inches) with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two ⅜" 7 x 19 galvanized aircraft cable (14400 lbs. breaking strength) with wedge rope shackles
- 80mm diameter piston/102 mm diameter cylinder including ¾" reducer brushing
- 3 hp submersed motor with 2-speed valve assembly
- Manual down valve for emergency lowering

Safety Features

- Slack rope safety device
- Line rupture valve



Winding Drum Drive System

General

- Overhead minimum of 7'10" (94 inches) with a 7'0" interior car height

Mechanical Equipment

- 208/230 VAC, 60HZ, 30 amp, single-phase power supply for motor controller
- Two ⅜" 7 x 19 galvanized aircraft cable (14400 lbs. breaking strength)
- Inverter-controlled variable speed winding drum drive unit and 3 hp motor
- Manual lowering device

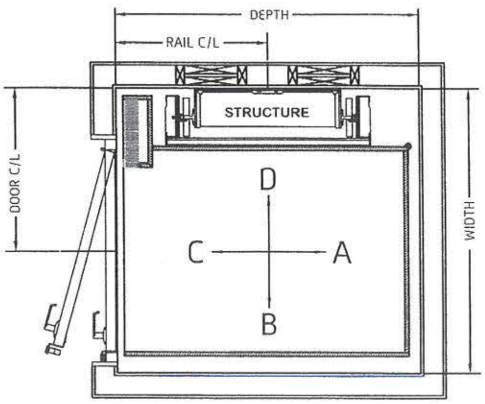
Safety Features

- Slack rope safety device
- Two upper and one lower final limits

SYMMETRY
ELEVATING SOLUTIONS

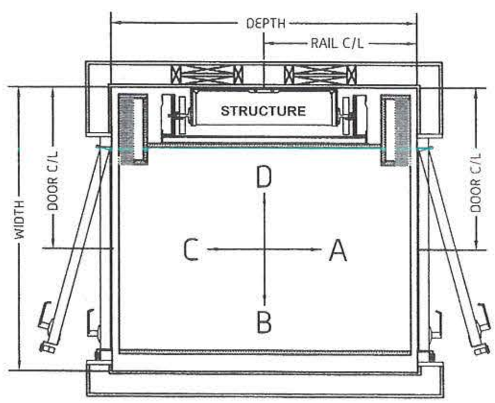
Typical Hoistway Options

All hoistway dimensions reference interior dimensions—finished wall to finished wall.



Single Opening
Rail Left, Right-Hand Door (shown)
Rail Right, Left-Hand Door (opposite)

Car Gate/ Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54¼"	27½"	28¾"	33½"
	36X60	50½"	66¼"	33½"	28¾"	33½"
	40X54	54½"	60¼"	32"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X48	52"	55"	31"	30¼"	33"
	36X60	52"	67"	33½"	30¼"	33"
	40X54	54½"	61"	31"	32¾"	33" (3)



Opposite Opening
Rail Right, Left-Hand Door, Right-Hand Door
Rail Left, Right-Hand Door, Left-Hand Door

Car Gate/ Door	Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
Accordion or Collapsible (2)	36X48	50½"	54"	27"	28¾"	33½"
	36X60	50½"	66"	33"	28¾"	33½"
	40X54	54½"	60"	30"	32¾"	33½" (3)
Symmetry Safety 3-Panel	36X54	52"	61¾"	31"	30¼"	33"
	36X60	52"	67¾"	34"	30¼"	33"
	40X54	54½"	61¾"	31"	32¾"	33" (3)

(1) Inline Gear Drive motor extends into the access hatch
(2) Collapsible gates will have a clear opening approximately 1" less than shown
(3) 36" clear opening available–door centerlines may change

Door centerlines apply to 3'0" doors, except where otherwise noted.

SMART VENT

Product Catalog

Go to Product Catalog ▶

Certification

Download our National Certification (ICC-ESR 2074)

Check out our FAQs

Go to our FAQ page ▶

Still Have a Question?

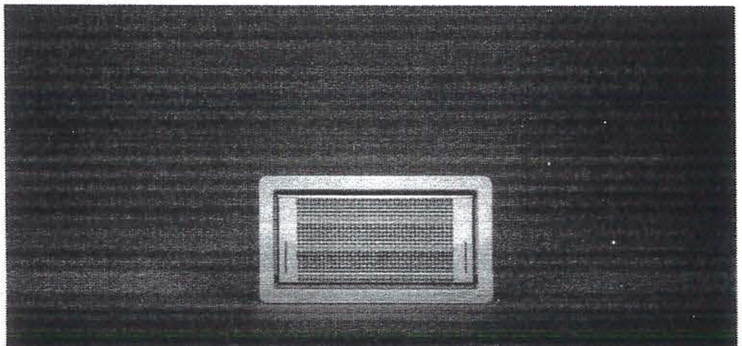
Contact our Sales and Support Office

(877) 441-8368

info@smartvent.com

Where to Buy

Download Spec Sheet | Download CAD File | Download Installation Instructions (PDF or CAD)



Click powder coat paint color to view:

1540-510 SMART VENT in Stainless Steel

Model Number	Description	Flood Coverage	Air Ventilation
1540-510	SMART VENT	200 sq. ft.	51 sq. in.

Vent Size	Rough Opening
16-in. x 8-in.	16 1/4-in. x 8 1/4-in.

Installation and Features-Benefits Videos

About Dual Function Vents

Application

These vents are used for a home with a crawlspace or any enclosed area that desires natural air ventilation and flood protection.

Flood Protection

The vent door is latched closed until it comes in contact with flood water. Entering flood water lifts the patented internal floats which unlatch and allow the door to rotate open. This allows the flood water to automatically enter and exit through the frame opening, relieving the pressure from the foundation walls. Certified flood debris clearance is demonstrated with a 3" diameter opening when the flood door is activated.

Ventilation

A bimetal coil automatically opens and closes the ventilation louvers as temperature changes. No electricity is required. The louvers will be fully closed at 35F and fully open at 75F. In the event of a flood the internal floats lift to release the flood door to rotate open and relieve the hydrostatic pressure regardless of the louvers' position, open or closed.

Flood Resistant Materials

The Smart Vent product line is constructed out of Marine Grade Stainless Steel and is 100% made in the United States. T316L Stainless Steel is renowned for its ability to withstand usage in harsh marine and chemical environments, ensuring that our products will handle everything Mother Nature throws at them. Because T316L Stainless Steel is known for its strength and resistance to cracking, dents, and embrittlement it's utilized in high profile projects meant to last decades. Alloyed with Chrome, Nickel, and Molybdenum, T316L Stainless Steel takes the strength of steel and adds protection making it the ultimate flood resistant material.

REISSUED 11/01/2012

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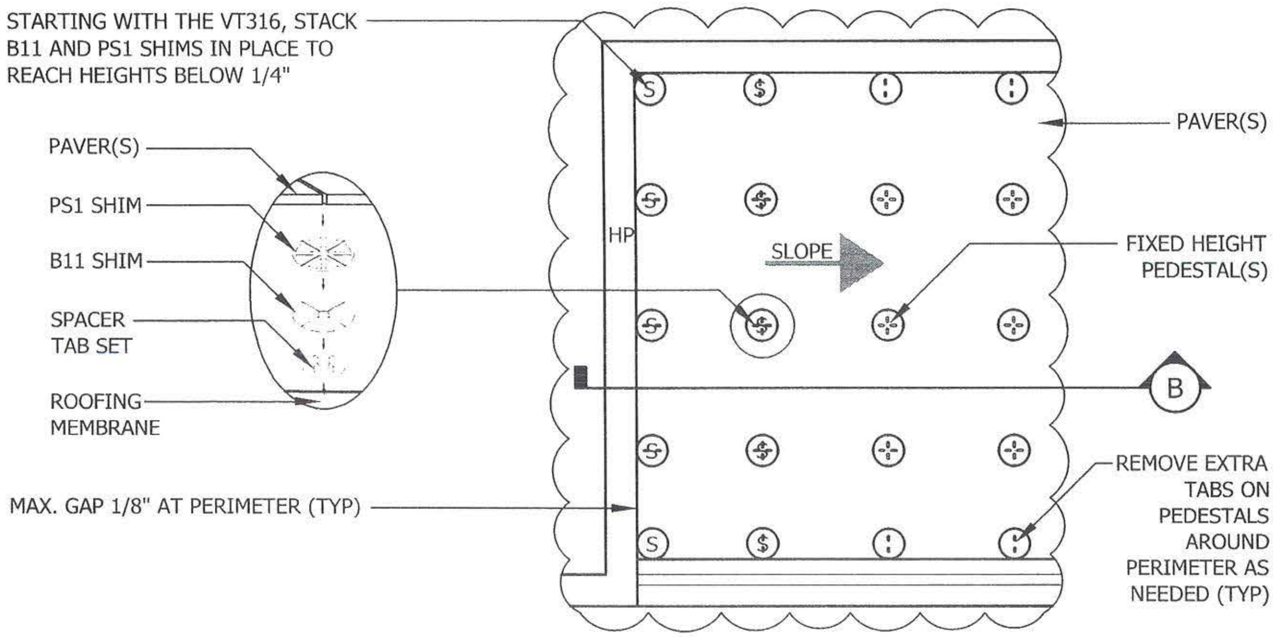
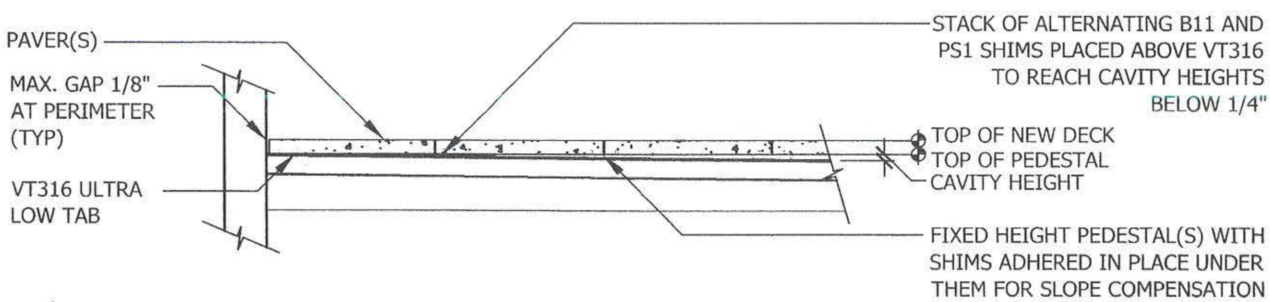
Innovative Products
2395 West 4th Avenue Denver, CO 80223 USA
Phone 303.892.0400 **Toll Free** 800.333.4234 **Fax** 303.825.5988
EMail info@BisonIP.com **Web** www.BisonIP.com



MINIMUM CAVITY HEIGHT PLAN VIEW



B MINIMUM CAVITY HEIGHT SECTION VIEW

GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
1. INSTALLATION MUST BE COMPLETED IN ACCORDANCE WITH BISON INNOVATIVE PRODUCTS SPECIFICATIONS.
2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com
4. ADHERE- INSTALLER MUST ADHERE WITH POLYURETHANE CONSTRUCTION ADHESIVE

F LOW CAVITY HEIGHT PLACEMENT

CAVITY HEIGHTS BELOW 1/4"

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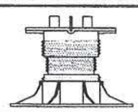
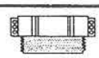
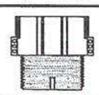
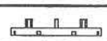
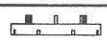
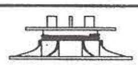
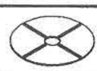
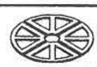
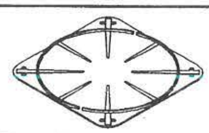
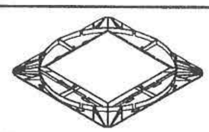
BISON
Innovative Products
2395 West 4th Avenue Denver, CO 80223 USA
Phone 303.892.0400 Toll Free 800.333.4234 Fax 303.825.5988
EMail info@BisonIP.com Web www.BisonIP.com

LEVEL.IT
Adjustable Deck Supports

LEVEL.IT / ACCESSORIES	MODEL NUMBER	RANGE OF ADJUSTMENT	ADDS	DESCRIPTION
	LC	2" - 4 3/4"	-	ADJUSTABLE PEDESTAL
	C1	1/4" - 1 1/2"	UP TO 1 1/2"	1" COUPLER
	C4	2 1/2" - 4"	UP TO 4"	4" COUPLER
	VT18 VT316	- -	- -	1/8" TABS 3/16" TABS
	HD25	-	ADDS 1/4"	FIXED HEIGHT
	HD50	-	ADDS 1/2"	FIXED HEIGHT
	HD75	-	ADDS 3/4"	FIXED HEIGHT
	LO	1 1/4" - 2"	-	ADJUSTABLE PEDESTAL
	LD4	1/4" PER FOOT	ADDS 3/8"	BASE LEVELER DISK
	B11	-	ADDS 1/16"	FLEXIBLE SHIM SOUND DAMPENING
	PS1	-	ADDS 1/8"	RIGID SHIM
	FFB	-	ADDS 1/4"	FLOATING FOUNDATION BASE 12" x 12" x 1/4"
	FIB	-	ADDS 11/16"	FLOATING INSULATION BASE 12" x 12" x 11/16"

GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
1. INSTALLATION MUST BE COMPLETED IN ACCORDANCE WITH BISON INNOVATIVE PRODUCTS SPECIFICATIONS.
2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com

LEVEL.IT PEDESTALS

PRODUCT LINE

REISSUED 11/01/2012

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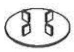
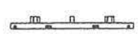
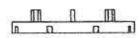


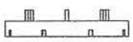
VT316 / VT18
FIXED HEIGHT 1/8"



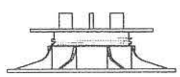
HD25
FIXED HEIGHT 1/4"



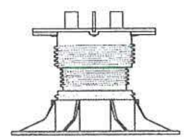
HD50
FIXED HEIGHT 1/2"



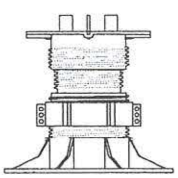
HD75
FIXED HEIGHT 3/4"



LO
1 1/4" - 2" VERTICAL RANGE

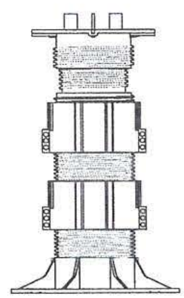


LC
2" - 4 3/4" VERTICAL RANGE



LC + C1
4 3/4" - 6 1/2" VERTICAL RANGE

LC + C4
6 1/2" - 9" VERTICAL RANGE



LC + C4 + C4
9" - 12" VERTICAL RANGE

PRODUCT CHARACTERISTICS
-MAXIMUM DESIGN CAPACITY OF **750** LBS PER PEDESTAL, FACTOR OF SAFETY 3.
-SCREW ADJUSTABILITY WHILE PEDESTALS ARE LOADED FOR FINAL ADJUSTMENT.
-IMPERVIOUS TO FREEZE-THAW, WATER, MOLD AND SOLVENT FREE CHEMICALS.
-SCORED BASE ALLOWS SUPPORTS TO BE TRIMMED FOR TIGHT AREAS.
-WEIGHT BEARING SYSTEM DOES NOT PENETRATE ROOFING MEMBRANE OR SUBSTRATE.
-LARGE FOOTPRINT SPREADS WEIGHT OVER ROOFING MEMBRANE AND SUBSTRATE.
-MAXIMUM CAVITY HEIGHT 12".

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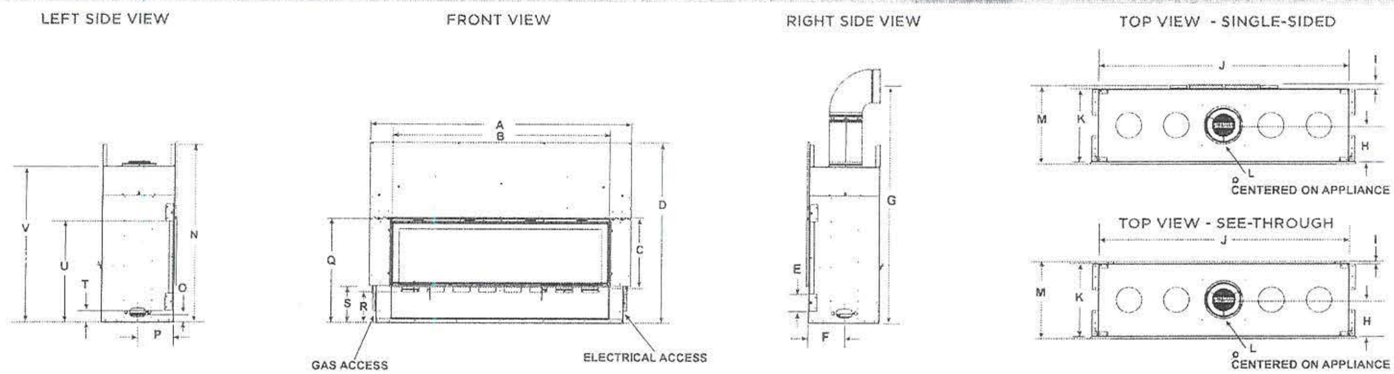
2. DRAWINGS NOT TO SCALE.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com

LEVEL.IT PEDESTAL ELEVATIONS

ELEVATIONS FROM 1/8" TO 12"

SPECIFICATIONS

MODEL	FRONT WIDTH		BACK WIDTH		HEIGHT		DEPTH		GLASS SIZE	BTU/HOUR INPUT (NG)
	UNIT	FRAMING	UNIT	FRAMING	UNIT	FRAMING	UNIT	FRAMING		
MEZZO36, MEZZO36ST	46-3/16 [1173]	48-1/4 [1226]	46-3/16 [1173]	48-1/4 [1226]	41-3/4 [1060]	42 [1067]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	35-1/2 x 12-1/2 [908 x 318]	17,500 - 30,000
MEZZO48, MEZZO48ST	58 [1473]	60-1/4 [1530]	58 [1473]	60-1/4 [1530]	41-3/4 [1060]	42 [1067]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	47-1/2 x 12-1/2 [1207 x 318]	21,000 - 40,000
MEZZO60, MEZZO60ST	70 [1778]	72-1/4 [1835]	70 [1778]	72-1/4 [1835]	47-3/4 [1213]	48 [1219]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	59-1/2 x 12-1/2 [1511 x 318]	26,000 - 50,000
MEZZO72, MEZZO72ST	82 [2083]	84-1/4 [2140]	82 [2083]	84-1/4 [2140]	47-3/4 [1213]	48 [1219]	17-1/8 [435]	18-1/4 [464] **ST: 17 [432]**	71-1/2 x 12-1/2 [1861 x 318]	30,000 - 58,000



Model	A	B	C	D	E	F	G	H	I	J	K
MEZZO36, MEZZO36ST	49-1/2 [1257] **ST: 50 [1270]**	39-1/4 [997]	15-5/8 [397]	42-1/2 [1080]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	46-3/16 [1173]	17-1/8 [435]
MEZZO48, MEZZO48ST	61-1/2 [1562] **ST: 62 [1575]**	51-1/8 [1299]	15-5/8 [397]	42-1/2 [1080]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	58 [1473]	17-1/8 [435]
MEZZO60, MEZZO60ST	74 [1880]	63-1/8 [1603]	15-5/8 [397]	48-1/2 [1232]	4 [102]	8-9/16 [217]	63 [1600]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	70 [1778]	17-1/8 [435]
MEZZO72, MEZZO72ST	86 [2184]	75-1/8 [1908]	15-5/8 [397]	48-1/2 [1232]	4 [102]	8-9/16 [217]	75 [1905]	8-9/16 [217]	1 [25] **ST: 1/2 [13]**	82 [2083]	17-1/8 [435]

Model	L	M	N	O	P	Q	R	S	T	U	V
MEZZO36, MEZZO36ST	8 [203]	18-5/8 [473] **ST: 18-1/8 [460]**	41-3/4 [1060]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-5/8 [930]
MEZZO48, MEZZO48ST	8 [203]	18-5/8 [473] **ST: 18-1/8 [460]**	41-3/4 [1060]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-5/8 [930]
MEZZO60, MEZZO60ST	8 [203]	18-5/8 [473] **ST: 18-1/4 [464]**	47-3/4 [1213]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-1/2 [927]
MEZZO72, MEZZO72ST	8 [203]	18-5/8 [473] **ST: 18-1/4 [464]**	47-3/4 [1213]	2-3/8 [60]	8-9/16 [217]	24-1/2 [622]	7-1/4 [184]	8-7/8 [225]	2-3/4 [70]	23-3/4 [603]	36-1/2 [927]

Dimensions are in inches and millimeters. Product information is not complete and is subject to change without notice. Product installation must adhere strictly to instructions shipped with product. We recommend measuring individual units at installation. Assumes the use of 1/2" sheetrock. NOTE: Combustible material should not cover the face. Make sure you do NOT cover the decorative door opening.

Refer to installation manual for detailed specifications on installing this product. Hearth & Home Technologies® reserves the right to update units periodically. The flame and ember appearance may vary based on the type of fuel burned and the venting configuration used. Actual product appearance, including flame, may differ from product images.

CANADA EFFICIENCIES EnerGuide (CSA P.4.1-15) - EnerGuide is a rating used in Canada to measure annual fireplace efficiency.

MEZZO36	MEZZO36ST	MEZZO48	MEZZO48ST	MEZZO60	MEZZO60ST	MEZZO72	MEZZO72ST
47.8% (NG), 50.8% (LP)	45.9% (NG), 50.1% (LP)	53.2% (NG), 56.3% (LP)	51.3% (NG), 57.0% (LP)	52.6% (NG), 52.2% (LP)	57.4% (NG), 56.1% (LP)	51.3% (NG), 49.9% (LP)	55.9% (NG), 57.7% (LP)

For complete information on this model, please contact us at:

HEAT & GLO

No one builds a better fire

Web: heatnglo.com
Phone: (888) 427-3973
E-mail: info@heatnglo.com

facebook.com/HeatandGlo
twitter.com/HeatandGlo
youtube.com/HeatandGlo

LIMITED LIFETIME WARRANTY[3]

The strongest in the industry, Heat & Glo provides a limited lifetime warranty on the most important aspects: firebox and heat exchanger.

3: For full warranty details see heatnglo.com
Fireplace glass and other surfaces get extremely HOT and can cause severe burns if touched. Do not remove the protective safety screen from the front of the glass. Keep a safe distance away. To learn more visit www.heatnglo.com/fireplace safety

HNG-1134U-0520

c UL US LISTED

Canada
ENERGUIDE
Look for the EnerGuide Gas Fireplace Energy Efficiency Rating in this brochure
Based on CSA P.4.1-15

COULTER ARCHITECTS, PLLC

October 26, 2021

Memo to: Melissa Jenck, CFM,

From: Coulter Architects, PLLC

RE: As a response to your letter of August 10, 2021, I have enclosed Drawing revisions to comply with the FEC Form from Bayside Surveying, and also removing all appliances from the lower level of the existing and new lower levels.

Melissa, Please replace the current drawings with the following revised drawings dated Oct. 11, 2021

Enclosures:
Bayside Elevation Certificate, Signed by Dallas and myself as Dave's representative.

Architectural Drawings to be replaced:

Drawing A- 1.1 Upper left, shows the removal of the water Heater, which is being replaced by an on demand water heater on the upper floor.

Drawing A-1.2 shows the new on Demand water heater located in the store room next to the kitchen of the addition, and an on demand water heater in the closet of bedroom #1 of the existing house.

Drawings A-2.1, A- 2.2, and A-2.3 elevations, show the addition of the 10 smart vents discussed in the FEC form, and clarifies the location on both the existing and the new addition as being no more than 12" above grade.

I am sending these drawings both digitally and hard copy so they can be substituted in the existing drawing sets submitted previously.

Thanks for you help clarifying this.

Ronald E. Coulter, AIA, NCARB

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

RECEIVED
NOV
BY: ....

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name
David Coulter

Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
35105 Rueppel Ave

Company NAIC Number:

City	State	ZIP Code
Pacific City	Oregon	97135

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Tax Lot 4700, 4701 and 4800 4S 10W Section 30 BD

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential

A5. Latitude/Longitude: Lat. 45-11-53.826 Long. -123-57-44.371 Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 7

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) 0.00 sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 0

c) Total net area of flood openings in A8.b 0.00 sq in

d) Engineered flood openings? ☐ Yes ☒ No

A9. For a building with an attached garage:

a) Square footage of attached garage 3204.00 sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 17

c) Total net area of flood openings in A9.b 3400.00 sq in

d) Engineered flood openings? ☒ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
Tillamook County 410196	TILLAMOOK	Oregon

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
41057C0855	F	09-28-2018	09-28-2018	AE	16.6

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No

Designation Date: ☐ CBRS ☐ OPA

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: GPS Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	N/A	☒ feet	☐ meters
b) Top of the next higher floor	21.4	☒ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	☒ feet	☐ meters
d) Attached garage (top of slab)	12.4	☒ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	21.4	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	10.9	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	12.6	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	12.2	☒ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☐ Check here if attachments.

Certifier's Name DALLAS ESPLIN	License Number LS 83627		REGISTERED PROFESSIONAL LAND SURVEYOR Dallas Esplin OREGON DECEMBER 3, 2014 DALLAS W. ESPLIN 83627 RENEWAL DATE: DECEMBER 31, 2021 Place Seal Here
Title MANAGER			
Company Name BAYSIDE SURVEYING LLC			
Address 11765 HWY 101 SOUTH			
City TILLAMOOK	State Oregon	ZIP Code 97141	
Signature Dallas Esplin	Date 10-06-2021	Telephone (503) 842-5551	Ext.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

Pre fec for residential addition to existing structure. Represents both structures combined as a whole and reflects the changes to the existing structure and the addition. Both structures living quarters are on top of a slab on grade garage.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.			FOR INSURANCE COMPANY USE
35105 Rueppel Ave			Policy Number:
City: Pacific City	State: Oregon	ZIP Code: 97135	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is ____________ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is ____________ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is ____________ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is ____________ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is ____________ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name: Ronald E. Coulter

Address	City	State	ZIP Code
105 N. Emerson	Chelan	Wa	98816

Signature	Date	Telephone
[signature]	10/28/21	(509) 630-5518

Comments

Mail Address
P.O. Box 2323
Chelan, Wa. 98816

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: ________ ☐ feet ☐ meters Datum ________

G9. BFE or (in Zone AO) depth of flooding at the building site: ________ ☐ feet ☐ meters Datum ________

G10. Community's design flood elevation: ________ ☐ feet ☐ meters Datum ________

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Photo One Caption Front

Clear Photo One

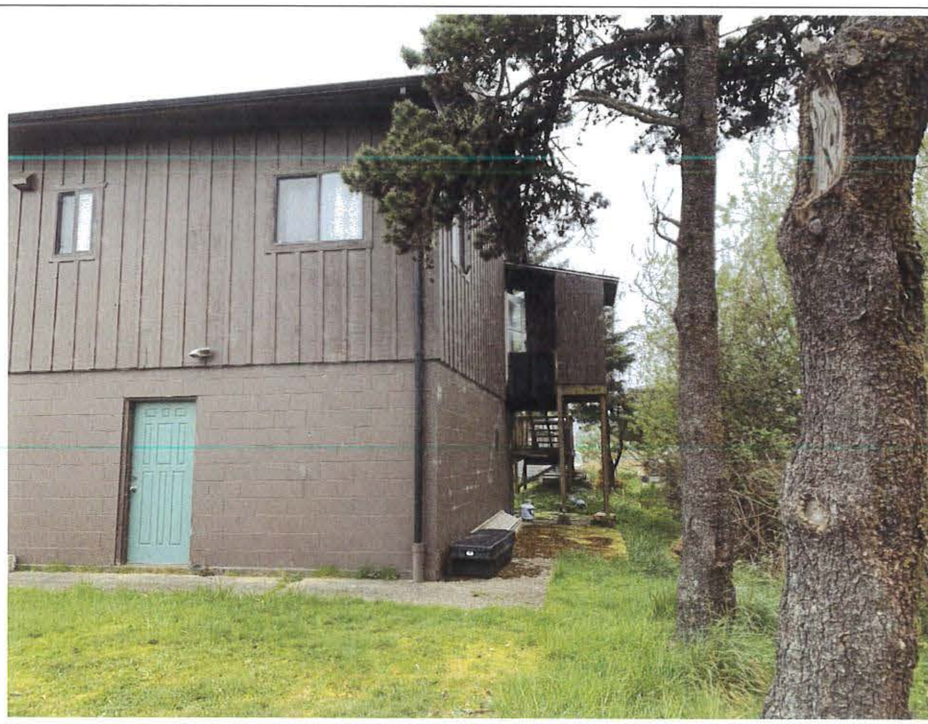


Photo Two

Photo Two Caption Left

Clear Photo Two

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 35105 Rueppel Ave			Policy Number:
City Pacific City	State Oregon	ZIP Code 97135	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three Caption Rear

Clear Photo Three

Photo Four

Photo Four Caption Right

Clear Photo Four

COULTER ARCHITECTS, PLLC

February 7, 2022

Hello Melissa;

RE: Dave Coulter project

In response to your 2-3-22 email questions, I have for you the following:

ELEVATOR:

I have enclosed the product cut sheets, which identifies how it is constructed, and he layout.

To reiterate, we discussed this at length back at the beginning, and I have addressed the issues as follows:

The motor is located at the top of the shaft above the car in the up position. This keeps it out of the way of the flooding, as well as the control panel being located above the flood level. (above the concrete lower portion of the ground floor walls.)

This unit is capable of being programmed to return to the upper level when not is use. (at a set time delay.)

The shaft itself is also concrete to match the same configuration of the rest of the ground level walls.

We will also provide a submersible sump pump in the shaft pit to clear out any water that intrudes.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

COULTER ARCHITECTS, PLLC

THE EXISTING BUILDING ENTRY:

This has always been the entry to the building, and is an existing stairway with only some minor adjustments. The difference is, instead of opening a garage door for entry, we have a standard person door in a new exterior wall.

The floor is the original concrete garage floor, with new ceramic tile on top.

Any new framing could be treated lumber, which would provide some protection.

VALUE:

We have discussed this previously and we gave you our estimated value number.

105 N. Emerson Street, Suite 201, Chelan, Washington
Mail: P.O. Box 2323, Lake Chelan, WA 98816
Office: 509.630.5518

www.coulterarchitects.com

Melissa Jenck

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Wednesday, September 29, 2021 9:07 AM
To: Melissa Jenck
Subject: EXTERNAL: Project value

Good morning Melissa,

I know you are at a conference, but will send this along so you have it.

We are currently bidding the job with two contractors, one from Tillamook and one from Pacific City. We don't have the bids yet, so we don't even know what it will cost. With the volatility in the supply chain and the commodities, it's even difficult for the contractors to bid a job accurately without some provisions to adjust prices.

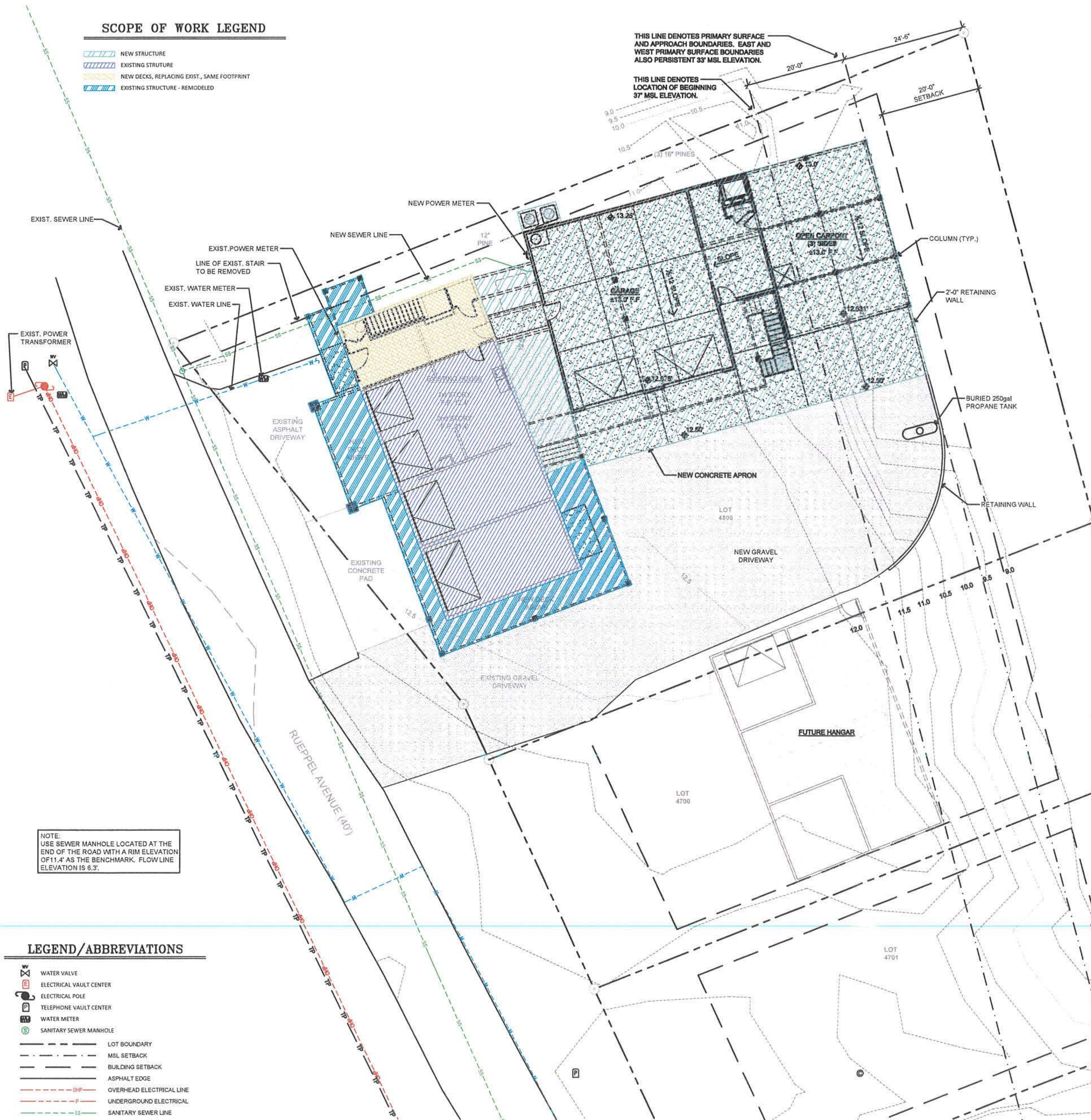
Second, based on the banking requirements, we can't get an appraisal until we have a signed contract with the contractor. This will be a while yet, until we have bids and can select a contractor.

We don't plan on getting two appraisals,

As a professional in this business, I can give you a number based on my experience. In Discussing This With Dave as well.....we would stipulate a price of $ 650,000.

I have not received anything from Dallas yet.

Thanks,
Ron



NORTH

SITE PLAN
SCALE 1" = 10'-0"

SITE DATA

SITE ADDRESS:	35465 RUEPPELL AVE PACIFIC CITY, OREGON 97135
PARCEL #:	4S1030BD04800
LOT AREA:	14,810.4 S.F. / 0.34 ACRES

TILLAMOOK COUNTY ZONING DATA

JURISDICTION:	TILLAMOOK COUNTY
ZONING:	PCW-AP
USE:	SINGLE FAMILY DWELLING
FRONT YARD BSL:	20' SETBACK FROM PL
SIDE YARD BSL:	5' SETBACK FROM PL
REAR YARD BSL:	20' SETBACK FROM PL
HEIGHT LIMIT:	35' & AIRPORT OVERLAY HEIGHT RESTRICTIONS

DESIGN CRITERIA

GRAVITY:

SNOW LOAD: 36 PSF
25 PSF
LIVE LOAD: 40 PSF RESIDENTIAL & 60 PSF DECKS
DEAD LOADS: 15 PSF or "SELF-WEIGHT"

LATERAL:

SEISMIC:
EQUIVALENT LATERAL FORCE PROCEDURE PER 2018 IBC AND ASCE 7-16 SITE CLASS E, SEISMIC DESIGN CATEGORY IS "D"

UPPER (MAIN) LEVEL:
SYSTEMS:
CANTILEVERED CONCRETE COLUMNS @ CARPORT → R=2.5
Cs = 0.184
WOOD FRAMED SHEAR-WALLS BALANCE → R=6.0 (USED 5.0 TO BE CONSERVATIVE)
Cs = 0.1364
Veq = 14,720 LB TOTAL

WIND:
WIND SPEED = 115 MPH, 3 SECOND GUSTS (ULTIMATE)
WIND EXPOSURE, "C"
WIND Kzt = 1.02
V = 5,862 LB N/S
V = 11,244 LB E/W

TYPE OF CONSTRUCTION:
TYPE V-B

SHEET SCHEDULE

A-0.1	SITE PLAN
A-1.1	FIRST FLOOR PLAN
A-1.2	SECOND FLOOR PLAN
A-1.3	DOOR/WINDOW SCHEDULES and ROOF PLAN
A-2.1	SOUTH and EAST ELEVATIONS
A-2.2	NORHT and WEST ELEVATIONS
A-3.1	SECTIONS
S-1.1	FOUNDATION PLAN
S-1.1a	FOUNDATION DETAILS
S-1.2	FLOOR FRAMING PLAN
S-1.3	ROOF FRAMING PLAN
S-1.4	SHEAR WALL PLANS and DETAILS
S-1.5	STRUCTURAL NOTES
E-1.1	MAIN FLOOR ELECTRICAL PLAN
E-1.2	UPPER FLOOR ELECTRICAL PLAN

DETAIL SHEET SCHEDULE

DTL-1	EAVE & GUTTER DETAIL
DTL-2	EAVE @ RAKE DETAIL
DTL-3	OVERHANG DETAIL
DTL-4	DECK EDGE @ SOUTH DETAIL
DTL-5	DECK @ GARAGE DOOR DETAIL
DTL-6	DECK EDGE @ EAST CARPORT WALL DETAIL
DTL-7	DECK EDGE @ SOUTH CARPORT DETAIL
DTL-8	DECK @ OUTDOOR KITCHEN DETAIL
DTL-9	DECK BEAM CONNECTION @ EXISTING HOUSE DETAIL
DTL-10	COLUMN @ TIMBER FRAME PATIO COVER DETAIL
DTL-11	GARAGE WALL @ FOUNDATION DETAIL
DTL-12	CLIPPED EAVE DETAIL
DTL-13	B-4 to B-5 & B-18 STEEL PLATE CONNECTION DETAIL
DTL-14	STEEL STAIR CONNECTION TO WALL DETAIL
DTL-15	DECK STAIR @ EXISTING HOUSE DETAIL
DTL-16	VERT. SIDING AT BOTTOM OF WALL w/ HORIZ. NAILER & DRAINAGE STRIP
DTL-17	VERT. SIDING AT BOTTOM OF WALL DRAINAGE STRIP DETAIL

SUBMITTAL NOTES

DEFERRED SUBMITTALS:

PLUMBING PERMIT

HVAC PERMIT

ELECTRICAL PERMIT

NOTE: POWER, SEWER AND WATER UTILITIES ARE EXISTING.

ENERGY CODE SUMMARY

WHOLE HOUSE VENTILATION, NEW CONSTRUCTION ONLY:
- FOLLOW ASHRAE STANDARD 62.2, WITH FLOOR AREA BETWEEN 1,501 to 3,000 S.F.
- WITH ONE BEDROOM, 45 CFM IS REQUIRED. TABLE 4.1z AND IS THE SAME AS IMC TABLE.
- M1507.3.3(1), CHAPTER 15

HEAT SOURCE:
HIGH EFFICIENCY DUCTLESS SPLIT SYSTEM WITH HEAT PUMPS, ZONAL CONTROL

COMPONENTS WILL MEET THE FOLLOWING:
- FENESTRATION: U-0.28
- SKYLIGHT: U-0.50 N/A
- CEILING: R-49
- 6" WOOD FRAME WALL: R-21
- 8" WOOD FRAME WALL: R-21
- FLOOR: R-30
- BELOW GRADE WALL R-VALUE: 10/15/21 INT + TB
- SLAB: R-10

COMPONENTS PROPOSED:

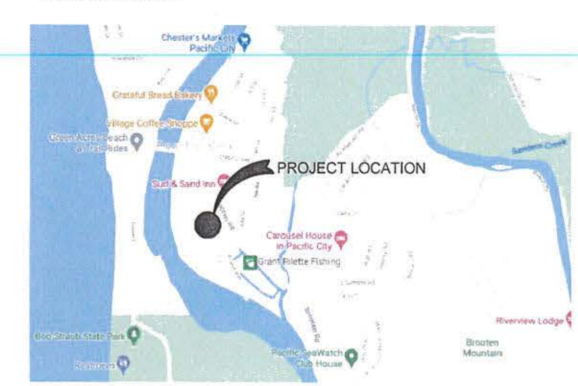
- FENESTRATION:	U-0.28
- SKYLIGHT:	U-.55
- CEILING:	R-59.1
- 6" WOOD WALL:	R-33
- 8" WOOD WALL:	R-45
- FLOOR:	R-30
- B.G. WALL:	R-10
- SLAB:	R-10

WINDOW AND DOOR HEADERS SHALL BE INSULATED TO A MINIMUM OF R-10

RESIDENTIAL ENERGY ADDITIONAL MEASURE SELECTION:

TABLE N1101.1(2) ADDITIONAL MEASURES:
ENVELOPE ENHANCEMENT MEASURES:
- UPGRADED FEATURES
  - EXTERIOR WALLS - U-0.057 / R-23 INTERMEDIATE or R-21 ADVANCED
  - FRAMED DOORS - U-0.026 / R-38
  - WINDOWS - U-0.28 (AVERAGE UA)

CONSERVATION MEASURES:
- DUCTLESS HEAT PUMP
  - DUCTLESS HEAT PUMP HSPF 10.0 IN PRIMARY ZONE OF DWELLING
- HIGH EFFICIENCY WATER HEATER
  - ELECTRIC HEAT PUMP WATER HEATER TIER 1 NORTHERN CLIMATE SPECIFICATION PRODUCT



NORTH

VICINITY MAP
SCALE NONE

COULTER ARCHITECTURE

RESIDENTIAL & COMMERCIAL ARCHITECTURE

Member, The American Institute of Architects
AIA

CORRESPONDENCE
P.O. Box 2323
Lake Chelan, WA 98816
(509) 630.5518 off

OFFICE
105 N Emerson St. Suite 201
Lake Chelan, WA 98816

REGISTERED ARCHITECT
RONALD E. COULTER
CHELAN, WASHINGTON
STATE OF OREGON

ADDITION FOR:
DAVE AND PATTIE COULTER
35465 RUEPPELL AVE
PACIFIC CITY, TILLAMOOK COUNTY, OREGON

Project No:	2021-1
Drawn:	MEC
Checked By:	REC
Date:	July 01, 2021
REV. 1:	Aug 12, 2021
REV. 2:	XXX

A-0.1
PERMIT SET DRAWINGS

Pacific City Joint Water-Sanitary Authority
PO Box 520
Pacific City, OR 97135
(503) 965-6636
www.pcjwsa.com

Statement

ACCOUNT INFORMATION

ACCOUNT:	**002685-000**
SERVICE ADDRESS:	35465 RUEPPELL AVENUE
SERVICE PERIOD:	04/01/2021 to 04/30/2021
BILLING DATE:	04/30/2021
DUE DATE:	**05/17/2021**

DAVE AND PATTY COULTER
217 N GRANT ST
GOLDENDALE WA 98620-9513

BILLING DETAIL

METER READING

Serial No	Previous Read Date	Previous Read	Current Read Date	Current Read	Cons
2100022744	03/25/2021	417	04/27/2021	826	409

CURRENT CHARGES

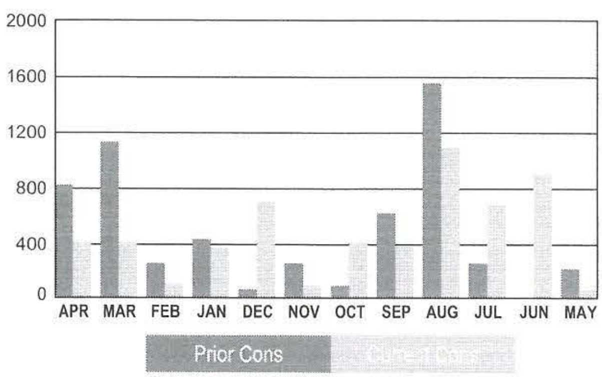
Water	29.8
Sewer	35.06
Streetlights	0.45
Water Capital Improvement Charge	3
Sewer Capital Improvement Charge	5
WWTP Capital Improvement Charge	8.5
TOTAL CURRENT CHARGES	**81.81**

BILL SUMMARY

PREVIOUS BALANCE	81.89
PAYMENTS RECEIVED	81.89
ADJUSTMENTS	0.00
ADDITIONAL BILLING	0.00
CURRENT CHARGES	81.81
TOTAL AMOUNT DUE	**81.81**

SPECIAL MESSAGE

USAGE HISTORY



PLEASE RETURN THIS PORTION ALONG WITH YOUR PAYMENT. PLEASE MAKE CHECK PAYABLE TO: PCJWSA

ACCOUNT NUMBER	DUE DATE	TOTAL DUE
002685-000	05/17/2021	$81.81

Please Indicate Amount Enclosed $

PCJWSA
PO Box 520
Pacific City, OR 97135
(503) 965-6636

2519 1 AB 0.428 8/220 003965 0001:0001

DAVE AND PATTY COULTER
217 N GRANT ST
GOLDENDALE WA 98620-9513

PCJWSA
PO BOX 520
PACIFIC CITY OR 97135-0520

YYYN

Tillamook People's Utility District
PO Box 433
Tillamook, OR 97141-0433

Office Address:
1115 Pacific Ave, Tillamook, OR 97141

Hours: 7:00 AM-5:30 PM Monday-Thursday

Phone: (503) 842-2535 Fax: (503) 842-4161
Toll Free: (800) 422-2535 Web: www.tpud.org

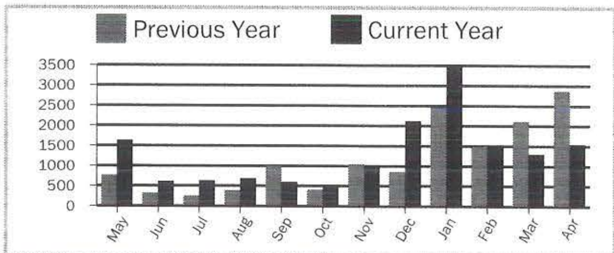
Billing Date	04/08/2021
Account Number	104503
Payment Due	**05/03/2021**

Billing Summary

Previous Balance		$128.95
Payment Received 03/24/2021	*Thank you!*	$128.95CR
Balance Forward		$0.00
Current Charges		$147.66
Total Balance		**$147.66**

2132 1 AB 0.428 5 2132
C-8
DAVID M COULTER
PATTIE FRITZ
217 N GRANT ST
GOLDENDALE WA 98620-9513

Meter No.	Services From	Services To	Days	Readings Previous	Readings Present	Meter Multiplier	kWh Usage	Rate Number and Description	Service Address and Description
133386	03/04/21	04/04/21	31	26960	28501	1	1541	12 RESIDENTIAL SEASONAL	35465 RUEPPELL AVE



Current Service Detail

Balance Forward		**$0.00**
Basic Fee		$29.00
Energy Charge	1,541 kWh @ 0.077	$118.66
Total Electric Charges		**$147.66**
Total Amount Due 05/03/2021		**$147.66**

Message from Tillamook PUD

Click on the Nixle logo on our home page at www.tpud.org to sign up to receive important outage alerts from Tillamook PUD via email or text messages.

RETURN BOTTOM PORTION WITH YOUR PAYMENT. PLEASE DO NOT FOLD, STAPLE, TAPE, OR PAPERCLIP.

DAVID M COULTER
PATTIE FRITZ
217 N GRANT
GOLDENDALE WA 98620-0000

Home: (360) 508-1050
Work: None on File
Cell: None on File

Amount Due	**$147.66**
Customer Assistance Donation	
Amount Enclosed	

Current Charges Due 05/03/2021

Please notify us of any changes to your personal information below:

TILLAMOOK PEOPLE'S UTILITY DISTRICT 1
PO BOX 433
TILLAMOOK OR 97141-0433

Account Number 104503

000001045030001476661

Connect With Us

Phone: 503.842.2535 **Toll Free:** 1.800.422.2535 • **Office Hours:** Monday – Thursday 7:00 a.m. – 5:30 p.m.

Address: P.O. Box 433 • 1115 Pacific Avenue, Tillamook, OR 97141

Emergency and after hours phone: 503.842.2122 or 1.800.842.2122

Website: www.tpud.org **Email:** service@tpud.org

SmartHub: An online application to pay your bill, view and monitor energy usage, report outages, and receive account notifications. Visit our website at www.tpud.org to learn more.

Nixle Alerts: Sign up for this alert system that allows us to send you important outage information via text message and/or email. Visit our website at www.tpud.org and click on the Nixle logo to sign up.

Power Outages

If your power goes out: Check your fuses and breakers to ensure the problem is not within your electrical system. Report the outage immediately if you have determined the outage is on the Tillamook PUD system.

How to report a power outage:

By Phone: Call Tillamook PUD's 24-hour operation's center at 503.842.2122 or 1.800.842.2122 to report the location and circumstances of an outage. During large outages, the line may be busy due to the large volume of callers. Please continue to call until you get through or report the outage online.

Online: Use the SmartHub application to report an outage using your mobile device, tablet or personal computer.

For mobile and tablet users, login to your account via the SmartHub app. Once there, select the "Service Status" icon and then select the "Report My Power is Out" option.

When reporting through the Tillamook PUD website, www.tpud.org, click on the red text "Report An Outage" on the left side of the screen and log into your SmartHub account. Follow the prompts to report the outage.

Help Your Neighbors in Need

The Customer Assistance Program (CAP) is Tillamook PUD's emergency assistance program to help spread warmth throughout our community. The long-standing CAP program is designed to assist limited-income families in crisis situations who need help paying their electric bills. Tillamook PUD matches the amount of every donation and it is placed into a fund where it provides twice the assistance. It's easy to make a one-time gift, sign-up for monthly recurring donations, or add extra to your monthly electric bill. Please help your neighbors in need through Tillamook PUD's Customer Assistance Program.

Payment Options

We accept your check, debit card, MasterCard and Visa

Online Payment: Visit our website at www.tpud.org and click on the SmartHub logo. All you'll need is your Tillamook PUD account number, which can be found on your electric bill, and a checking account number or a debit card, MasterCard or Visa.

Budget Billing: If you've lived in the same home for more than 12 months with Tillamook PUD, you may qualify for our Budget Billing plan. With Budget Billing, you make equal payments throughout the year, with a true-up annually.

Paperless Billing: This online resource is easy, convenient and saves resources by eliminating a paper bill each month. Go to SmartHub on our website and enter your email address and password. Click on the "My Profile" button, then click "Update My Printed Bill Settings", "Turn off/on Printed Bill."

Auto Pay: Automatically pay your monthly electric bill directly from your bank account or with a debit card, MasterCard or Visa. Combine Auto Pay with Budget and Paperless Billing to make your monthly payment predictable and simple. Please contact our front office staff to sign up for the Auto Pay option.

Office Counter, Drive-Through, Phone, or Drop Box: Drop by our office, use our drive-up window, or call 503.842.2535 or 1.800.422.2535, Monday through Thursday, 7:00 a.m. – 5:30 p.m. A drop box is available at our drive through lane to make your payment outside these hours.

Neopor® GPS Smart Insulation

Neopor® Innovation in Insulation

Neopor® GPS (Graphite Polystyrene) rigid insulation is today's energy-efficient and cost-effective insulation solution for architects, builders and contractors. The table shows data of Neopor® GPS F5300 Plus. Dave Coulter

Property	Unit	Neopor® GPS F5300 Plus[3]				
ASTM C578 Classification[1]		Type I	Type VIII	Type II	Type II+	Type IX
Compressive Resistance	at yield of 10% deformation in psi (min)	10.0	14.0	15.0	20.0	25.0
Thermal Resistance (R-value)[2]	°F·ft2·h/BTU (°C·m2/W) at 75°F	5.0	5.0	5.0	5.0	5.0
	°F·ft2·h/BTU (°C·m2/W) at 40°F	5.2	5.2	5.2	5.3	5.3
Water Vapor Permeance	Max perm (ng/Pa·s·m2)	4.0	3.1	3.1	3.1	2.5
Water Absorption by Total Immersion	Max volume % absorbed	1.1	1.1	1.1	1.1	1.1
Flexural Strength	psi (min)	25.0	32.0	39.0	40.0	50.0
Density	lbs./ ft^3 (min)	0.90	1.15	1.35	1.45	1.80
Flame Spread	Index			5		
Smoke Development	Index			25		

1) Neopor® GPS meets and exceeds ASTM C578-13, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation"; published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.
2) R means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values.
3) The technical and physical metrics provided in this table are reference values for insulation products made of Neopor GPS. The values and properties may vary depending on how they are processed and produced. The R-value properties are based on 1-1/16 in thickness.

BASF
We create chemistry

LEED v4 Compliant
MR Credit
Material Ingredients
Option 1 Manufacturer Inventory
#18-0487 Certification Period: 1 Nov. 2018 - 31 Oct. 2019

Product Name: Neopor® F 5300 Plus

October 30, 2018

Material Ingredient Reporting for LEED v4, Option 1 Manufacturer Inventory

BASF Corporation certifies the following information for Neopor® F 5300 Plus - 30570155.

A complete content inventory for this product to 1,000 ppm is provided based on the addenda to Option 1 of the Building product disclosure and optimization – material ingredients credit released by the U.S. Green Building Council on April 5, 2016. The information generated is based on the BASF Product Compliance Management Process which has been third party audited by GreenCircle Certified, LLC (GreenCircle). GreenCircle has verified that BASF's Product Compliance Management System assesses the hazards of all the ingredients that make up a product, including impurities. This assessment has verified all hazard classification, assessment and communication is conducted within the provisions of North American countries' regulatory requirements.

1. Publicly available ingredients are identified by name and Chemical Abstract Service Registration Number (CASRN)
2. Ingredients defined as trade secret or intellectual property have been withheld; however, the role, amount and hazards based on screening for the levels of ingredients presented are reported on this page per the requirements of the Globally Harmonized System of Classification and Labelling of Chemicals rev. 6 (2015).

David Green
Applied Sustainability
BASF Corporation - Construction Chemicals

BASF

We create chemistry

Publicly Available Ingredients	
Substance Name	**Substance CAS Number**
polystyrene	9003-53-6
Pentane	109-66--0
Graphite	7782-42-5
isopentane	78-78-4
Sulfonium compounds, C11-14-alkylbis(hydroxyethyl), 2-hydroxyethyl sulfates (salts)	78169-20-7

Proprietary Ingredients		
Role for proprietary substances	**Ingredient Amount (% by weight)**	**Hazard Category**
Polymer	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Residual Monomer	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold
Additive	<5%	Below GHS reporting threshold

BASF Corporation
1609 Biddle Avenue
Wyandotte, MI 48192

Neopor®
Innovation in Insulation
provided by BASF

Technical Leaflet | May 2020

Neopor® F 5300 Plus

Application

Neopor® F 5300 Plus is an expandable polystyrene with increased graphite content which is used to manufacture silver-gray colored foams with a very low thermal conductivity.

The fire characteristics of these foams are in conformity with:

- DIN 4102-B1 (flame retardant)
- EN ISO 13501-1 class E

For additional information regarding fire fire behaviour, please contact your local BASF representative.

Neopor® F 5300 Plus	For block molding, shape molding (minimum wall thickness 30 mm) and loose fill applications.

Product description

Expandable polystyrene (EPS) with infrared reflecting additive. Contains uniformly distributed polymeric flame retardant.
Blowing agent (pentane) content approx. 5.3 % by weight.

Product	Bead size class	Typical bead size
Neopor® F 5300 Plus	0.9 - 1.4 mm	0.8 - 1.5 mm (≥ 95 % by weight)

Physical form

Neopor® F 5300 Plus is supplied in the form of a lentil-shaped granulate.

Storage

Neopor® is usually supplied in cardboard containers (octabins). It can be stored in these unopened receptacles for three months before processing.

The octabins should not be exposed to weather conditions (rain, water, snow, frost, and sunlight) and must be protected from damage. They should always be stored in a cool place (below 20 °C if possible) to minimize loss of blowing agent.

Once containers have been opened, their contents should be used as soon as possible. In the meantime the octabins should be kept tightly sealed.

It is not recommended to stack octabins more than one layer high. In case of double-stacking octabins under controlled conditions, a strong plywood board must be placed between the stacked containers.

Octabins covered with a plastic hood and/or shrink-wrapped should never be double stacked.

Product	Usual bulk density-range	Recom-mended intermediate aging period	Achievable bulk density by single step pre-expansion
Neopor® F 5300 Plus	12* - 20 kg/m³	10 - 48 h	17 kg/m³

*by double pass expansion

Neopor® | BASF We create chemistry

Processing

The raw material must not be mixed with other raw materials in order to comply with the requirements of fire test certificates.

Neopor® is processed into foam in 3 steps.

- **Preexpansion**

Neopor® F 5300 Plus can be preexpanded to the above-mentioned densities without any problems using discontinuous, state-of-the-art preexpanders. Lower densities can be achieved by double step preexpansion.

- **Intermediate aging**

The intermediate aging time should be selected depending on the bulk density, the ambient temperature and the intended application. It is usually between 10 and 48 hours.

- **Molding**

Neopor® F 5300 Plus can be molded in commercially available block- and shapemolding machines. Due to the slightly lenticular shape of the particles, adjustments to the filling systems of the shapemolding machines may be necessary.

If recycling material is to be added, it must be ensured that the density of the recycling material is as closely as possible to the preexpansion density in order to avoid separation effects in the molds. Moreover it is recommended to work up the recycling material in a dedusting system before use.

For further information regarding processing, please contact your local BASF contact person.

Further information about the properties and uses of Neopor® is given at www.neopor.de

Packaging

Sheets and molded parts made of Neopor® must not be packed in transparent films. The use of an opaque/white or dyed film is strongly recommended.

Safety precautions

It should be noted, that during the processing and storage of Neopor®, as well as of foams produced from it, explosive blowing agent/air mixtures may be formed by diffusing blowing agent (pentane, LEL 1.3 vol%).

Therefore, adequate ventilation must be provided at all times. All conceivable ignition sources (open flames, welding sparks, electrical sparks etc.) must be kept away and electrostatic charging must be avoided. Smoking must be strictly prohibited!

It is forbidden to transport Neopor® raw material or Neopor® foam in unventilated or closed vehicles. Further information is given in the respective safety data sheet.

Industrial hygiene

Pentane escapes during storage and processing of Neopor®. The workplace should therefore be well ventilated. Especially when hot-wire cutting the foams, it is important to ensure that the vapours produced are extracted, as they contain small amounts of styrene in addition to pentane.

The regionally applicable workplace concentration limits for styrene and pentane must be observed.

Foodstuffs legislation

Foams made of Neopor® shall not be used in direct contact with food.

Note

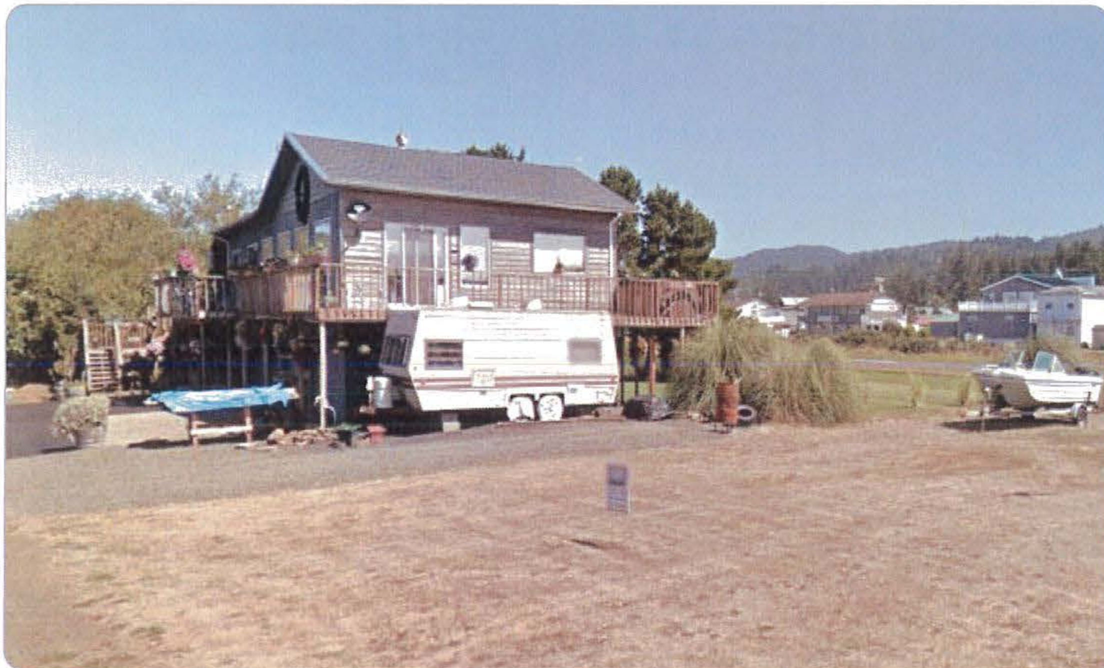
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

® = registered trademark of BASF SE


35465

35465 Rueppell Avenue
Pacific City, OR

Hydraulics Analysis Report



prepared for

David Coulter

prepared by

Jake Hofeld, P.E.

WATERWAYS
CONSULTING, INC.

March 30, 2021

WATERWAYS CONSULTING

Contents

List of Figures

List of Attachments

INTRODUCTION

Waterways Consulting Inc. (Waterways) has been retained by David Coulter to evaluate the hydraulic effects on the Nestucca River during a 100-year base flood discharge from a proposed residential structure. The proposed residential structure is located on the east (left) bank floodplain of the Nestucca River at 35465 Rueppell Avenue in Pacific City, Oregon. The existing site is currently a residential single-family home with a grassy backyard adjacent to the Pacific City State Airport.

The proposed development on the parcel will add a two-story structure with a second story living space and a ground floor garage with an abutting open carport. A gravel driveway will be graded to provide access to the garage and carport in addition to a retaining wall located at the east edge of the carport. The entire property being developed will occur within the FEMA designated floodway, effective September 28, 2018 (Figure 1).

The following report has been prepared to support floodplain development permitting with Tillamook County for the proposed project and presents our hydraulic analysis of existing and proposed conditions for the 100-year flood event along the Nestucca River within the vicinity of the proposed residential structure. This report is based on the guidance outlined in Section 3.510(9)(a) of the Tillamook County Land Use Ordinance which requires, "...certification is provided by a professional registered civil engineer demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such encroachment shall not result in any increase in flood levels during the occurrence of the based flood discharge."

HYDRAULIC MODELING METHODOLOGY

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) has mapped Nestucca River at the project area as a Special Flood Hazard Area (SFHA) within the regulatory floodway Zone AE (Figure 1). Tillamook County provided Waterways with a hydraulic model of the Nestucca River covering the project area for a Letter of Map Revision (LOMR), effective September 24, 2015 (Case. Number 14-10-1727P). The LOMR and corresponding hydraulic model conducted in the United States Army Corps of Engineers (USACE) Hydraulic Engineering Center River Analysis Software (HEC-RAS) by West Consultants updated the previous modeling and FIRM Panels dated August 1, 1978. All elevations are referenced to a NAVD 88 vertical datum. This model was used as the basis for all hydraulic modeling.

Waterways updated the hydraulic analysis using HEC-RAS, version 5.0.7. A one-dimensional hydraulic model was completed to characterize the existing and proposed conditions at the project site during the 100-year recurrence interval peak flow at the Nestucca River. Additional cross sections were added to the provided model in the vicinity of the project area. The two modeling scenarios include the Existing Conditions Model ("Ex. Cond." is the Plan identifier in the model) and the Proposed Conditions Model ("Prop. Cond." is the Plan identifier in the model). Figure 2 shows the proposed project location, cross section locations used in the hydraulic analysis, and the effective FEMA floodplain and floodway boundaries (FEMA 2018).

Existing Conditions Model

Additional cross sections added to the LOMR model were sampled from a terrain surface derived from LiDAR data from the Department of Geology and Mineral Industries (DOGAMI) North Coast collected by Watershed Sciences Inc. in 2009. LiDAR was updated and overlain with existing topographic survey data for the project parcel. The existing topographic survey was provided by the Domus Design Build, dated January 19, 2021 (Figure 3). Bathymetry for the additional cross sections were interpolated from upstream and downstream cross sections of the LOMR model.

The downstream model boundary extends approximately 1.1 miles downstream of the project area and the upstream model boundary extends approximately 2.7 miles upstream of the project area (Figure 2). The bridge crossing geometry at Ferry Street and at Pacific Avenue downstream of the project area were included in the model from drawings provided by Oregon Department of Transportation (ODOT) and Tillamook County. Hydraulic roughness values for the additional cross sections were based on values published in the provided model. Hydraulic roughness values, known as Manning's Roughness, for the additional cross sections are outlined in Table 1.

Table 1*. Manning's Roughness for Different Land Use Types*

Land Use Type	Manning's 'n'
Channel	0.03
Gravel Driveway	0.03
Open Pervious Areas (grassed)	0.04 - 0.05
Residential Area	0.08
Open Pervious Areas (trees)	0.10

Proposed Conditions Model

The proposed conditions model included the additional cross sections created in the existing conditions model. The existing conditions terrain was updated with the approximate proposed garage structure first floor footprint of 46 feet by 37 feet provided by design drawings supplied from the client (Figure 4). The proposed residential structure was modeled as a blocked obstruction at cross sections located at the upstream and downstream sides of the proposed structure. The location of the proposed structure is approximate due to the surveyed property boundaries being in an arbitrary horizontal datum but is considered accurate enough for the purposes of this analysis. The existing terrain was also updated with the grading of the gravel driveway provided by design drawings supplied from the client (Figures 4 and 5). The proposed open carport finished ground elevation was modeled as a blocked obstruction up to the finished ground elevation of 13.0 feet on the upstream and downstream sides of the proposed structure. The proposed gravel driveway slopes down from the finished floor of the garage and finished ground at the carport to an elevation of 12.67 feet which adds additional gravel fill to cross section located at the downstream side of the proposed structure and existing house. Structural posts supporting the raised roof deck over the carport were not included in the model because these are assumed to have negligible effect on the river hydraulics (i.e. the river can flow unimpeded through these areas).

Boundary Conditions

The downstream boundary condition used in the two models was set to a known water surface elevation of 14.15 feet (NAVD 88) per the provided model. The downstream boundary condition is located downstream of FEMA Cross Section A near where Nestucca River meets the Nestucca Bay.

Peak Flow Hydrology

According to the FEMA FIS report and the provided model, the 100-year peak flow event for this portion of the Nestucca River is 49,700 cubic feet per second (cfs). Therefore, 49,700 cfs was assumed for the 100-year peak flow (i.e. base flood discharge) in all models.

RESULTS

Results of the hydraulic modeling are presented in Attachment A. These results show that the proposed building will not result in a rise in water surface elevations anywhere in the model. No change between the Existing Conditions Model and Proposed Conditions Model can likely be attributed to the relatively small building footprints and minor grade change as compared to a much larger/wider floodplain area.

CONCLUSIONS

The results of this hydraulic analysis indicated no rise in the 100-year water surface elevations for the Proposed Conditions Model when compared to the Existing Conditions Model. Based on this, the proposed project satisfies the requirement of Section 3.510(9)(a) of the Tillamook County Land Use Ordinance.

REGISTERED PROFESSIONAL ENGINEER
77870PE
OREGON
JANUARY 3, 2011
JAKE DYLAN HOFELD

2021.03.30
13:26:37 -07'00'

EXPIRES: 6/30/2021

REFERENCES

Federal Emergency Management Agency. 2018. Flood Insurance Rate Maps (FIRMs) for Tillamook County (panel 0855), Oregon and Incorporated Areas. September 28, 2018.

Federal Emergency Management Agency. 2018. Flood Insurance Study (FIS) for Tillamook County, Oregon and Incorporated Areas. September 8, 2018.

Domus Design Build. Site Plan Dave and Pattie Coulter 35465 Rueppell Ave. Pacific City, Oregon. January 19, 2021.

U.S. Army Corps of Engineers. Hydrologic Engineering Center. Computer Program HEC-RAS Version 5.0.7 Davis, California. March 2019.

U.S. Army Corps of Engineers. Hydrologic Engineering Center. Hydraulic Reference Manual. Version 5.0 Davis, California. February 2016.

Watershed Sciences. LiDAR Remote Sensing Data Collection Oregon North Coast. Prepared for Department of Geology and Mineral Industries (DOGAMI). December 21, 2009.

West Consultants. Hydraulic Engineering Center River Analysis Software (HEC-RAS) Model of the Nestucca River. 2014.

FIGURES

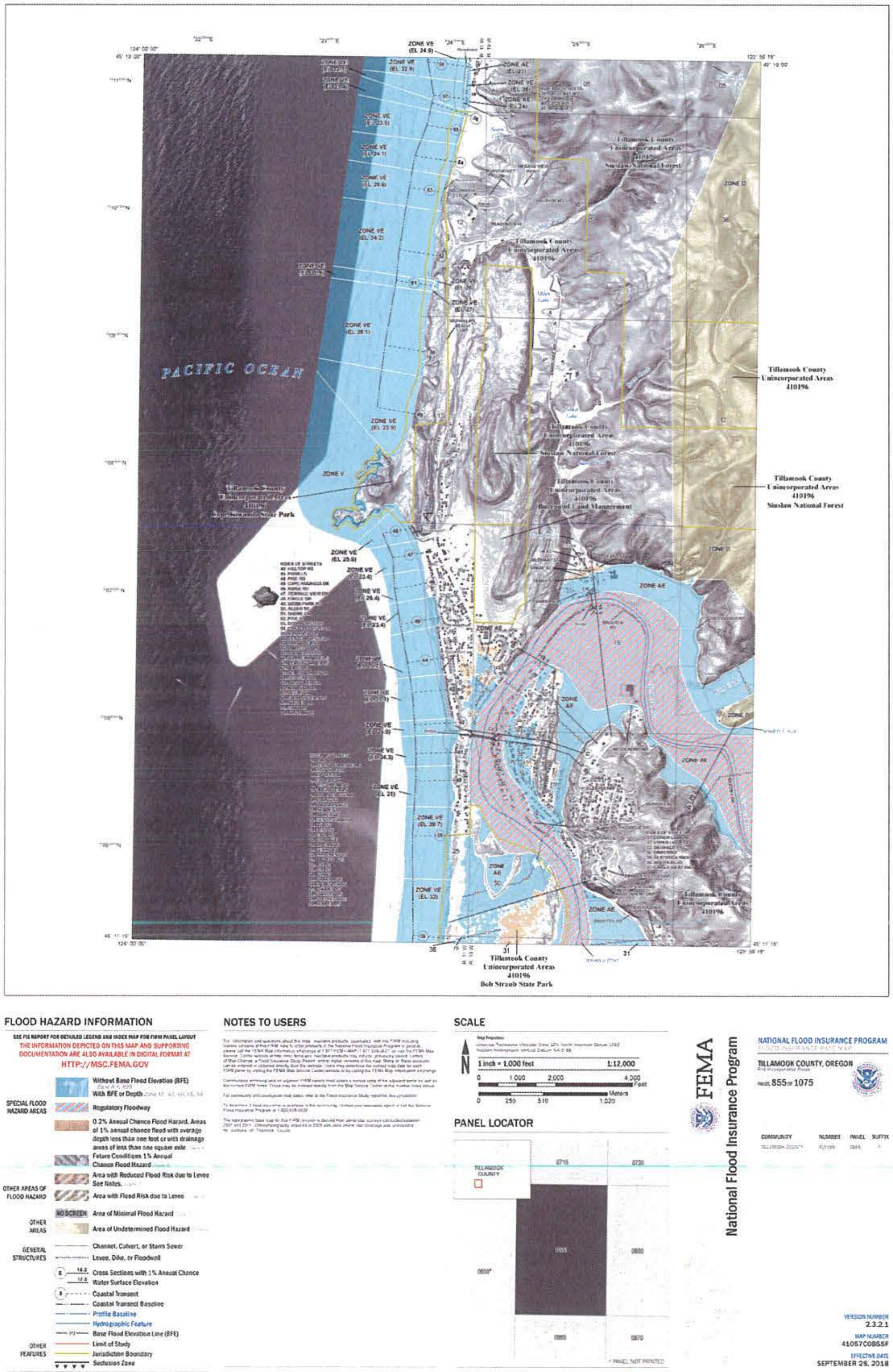


FIGURE 1: FEMA FIRM PANEL

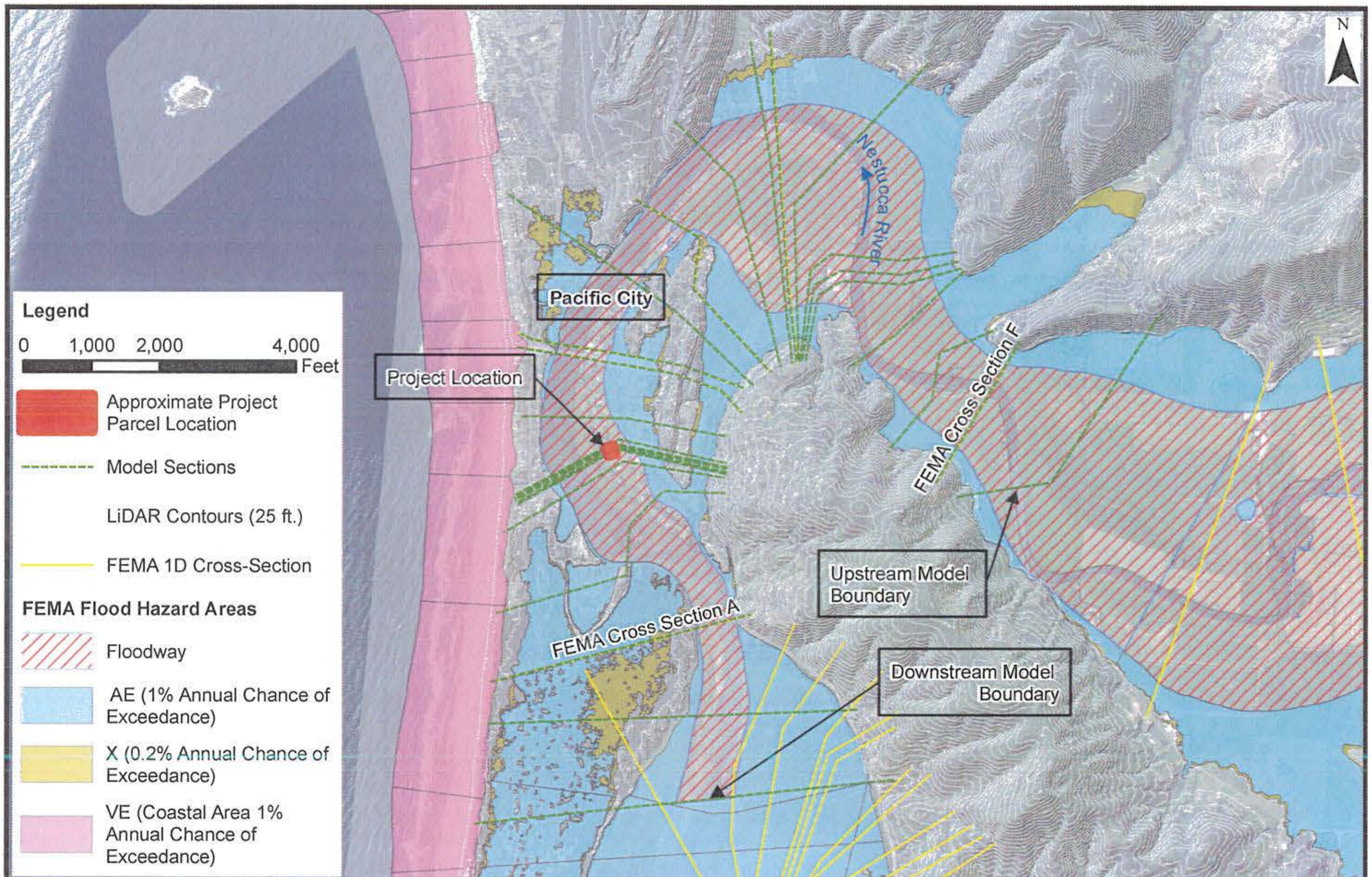


FIGURE 2	Hydraulic Analysis Overview Map of Proposed Project	35465 Rueppell Ave Hydraulic Analysis	WATERWAYS CONSULTING, INC. Santa Cruz, CA | watways.com | Portland, OR

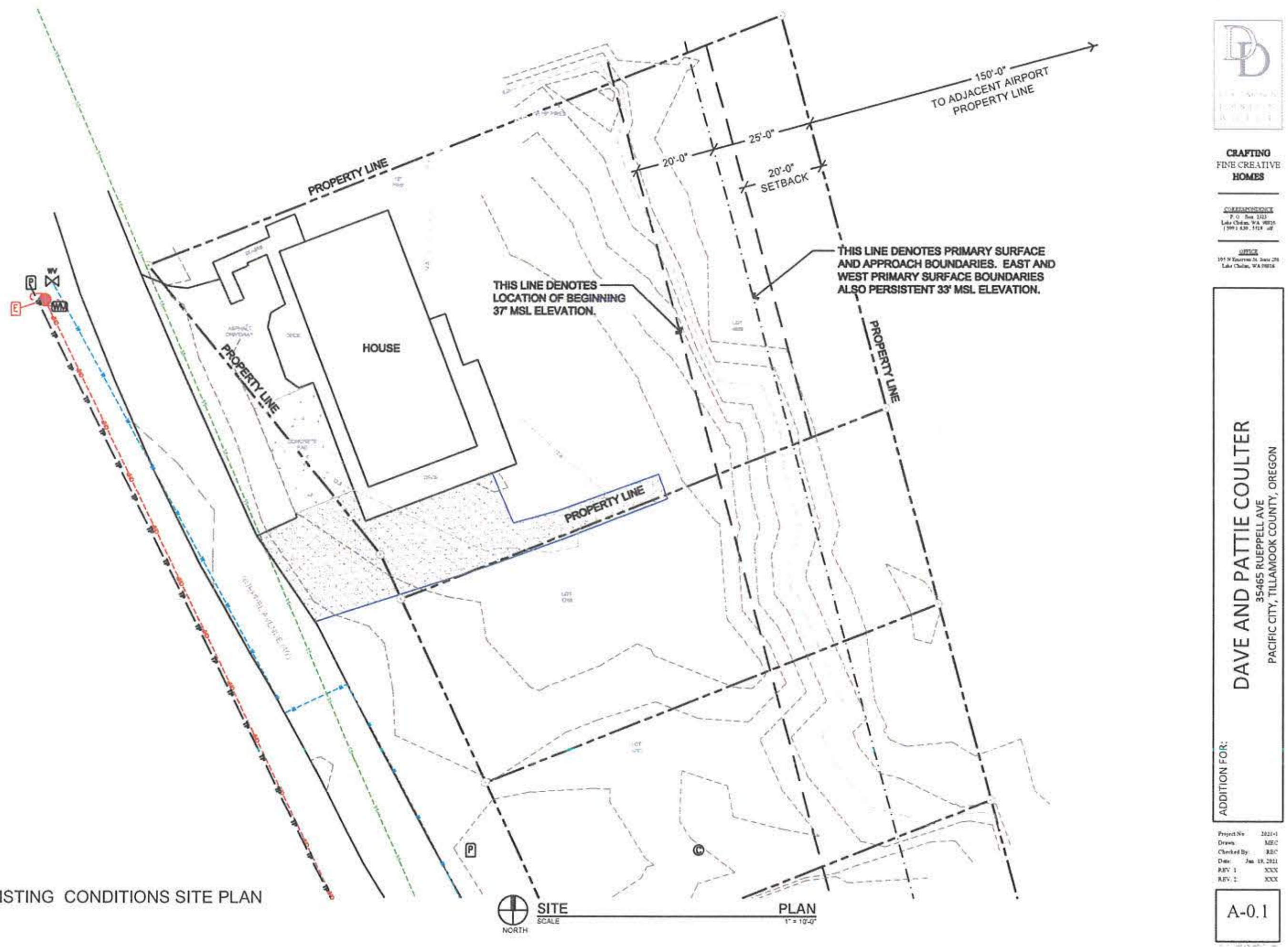


FIGURE 3: EXISTING CONDITIONS SITE PLAN

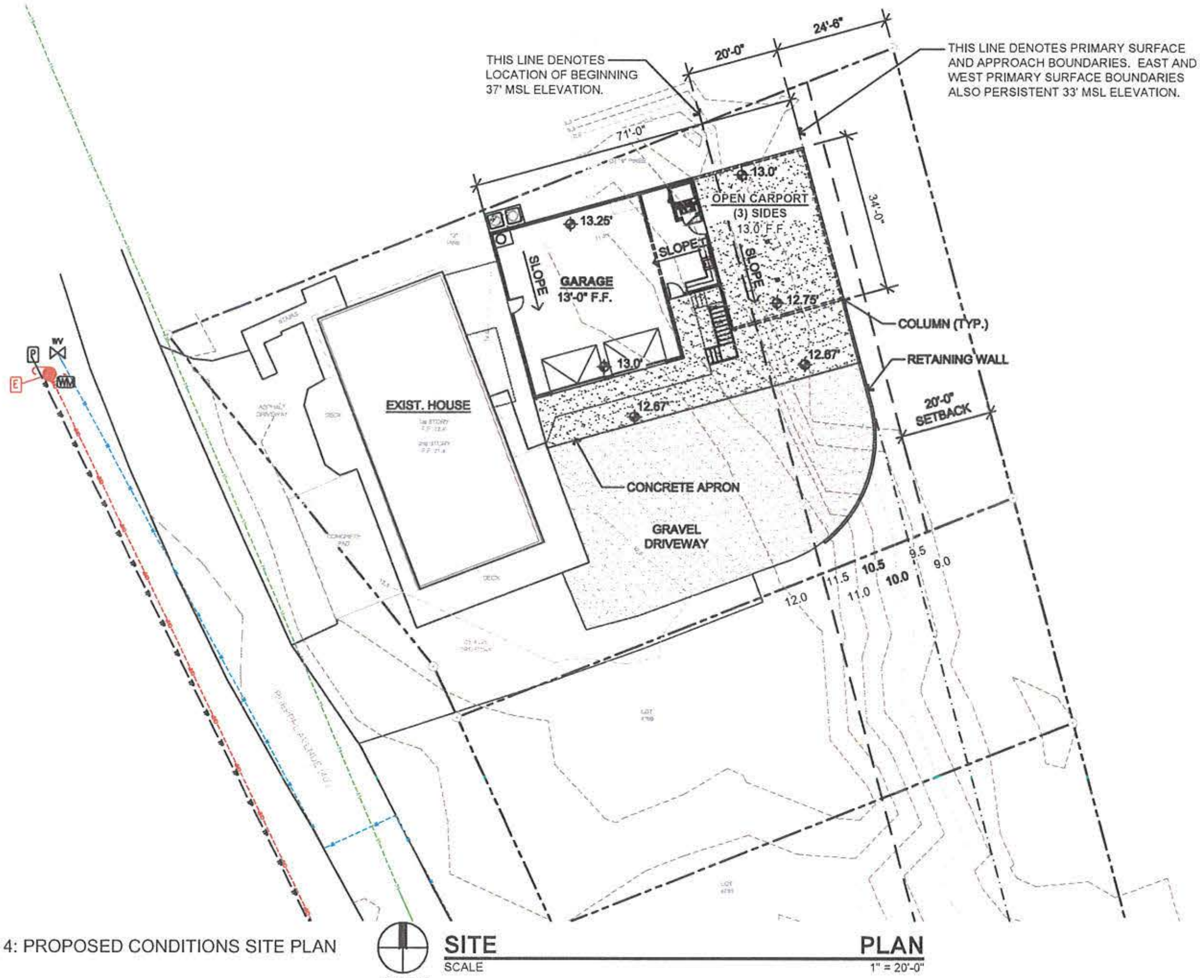


FIGURE 4: PROPOSED CONDITIONS SITE PLAN

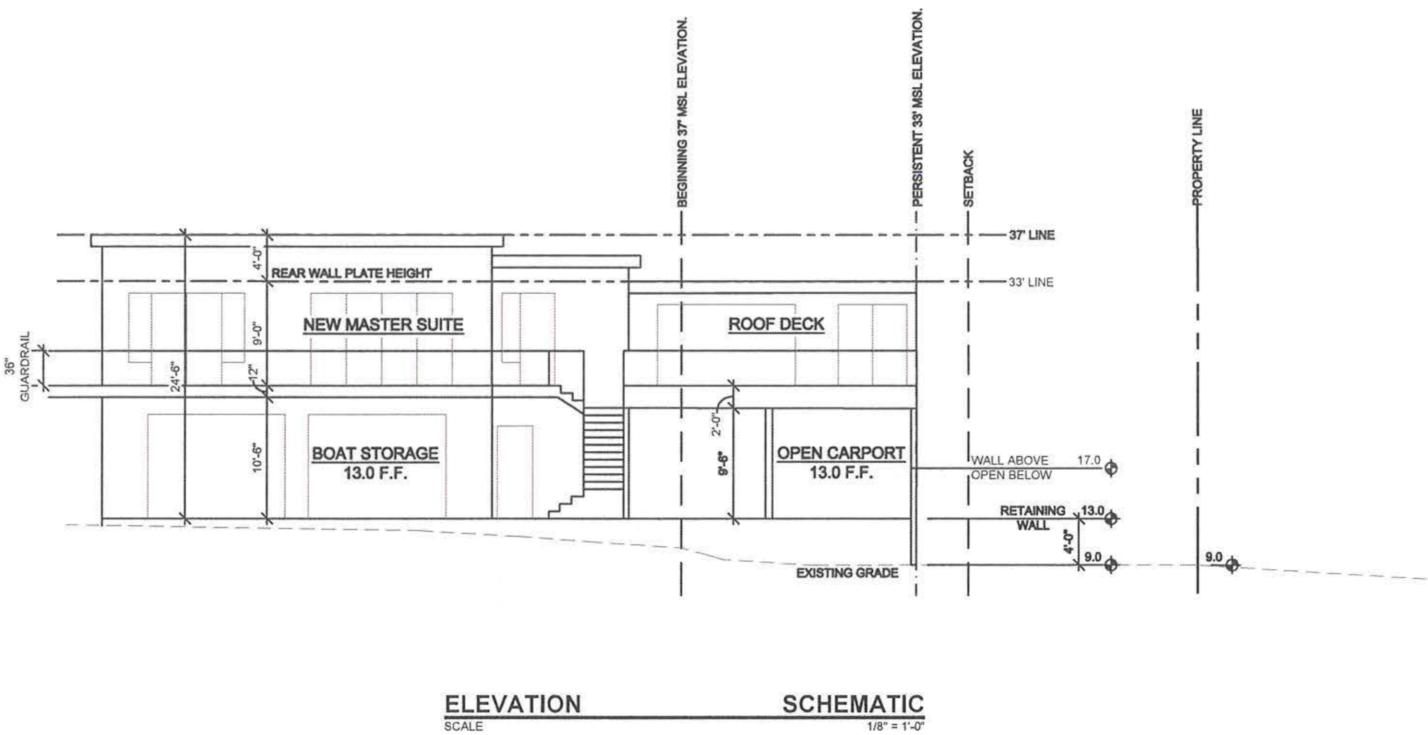


FIGURE 5: PROPOSED CONDITIONS ELEVATION SECTION

Attachment A

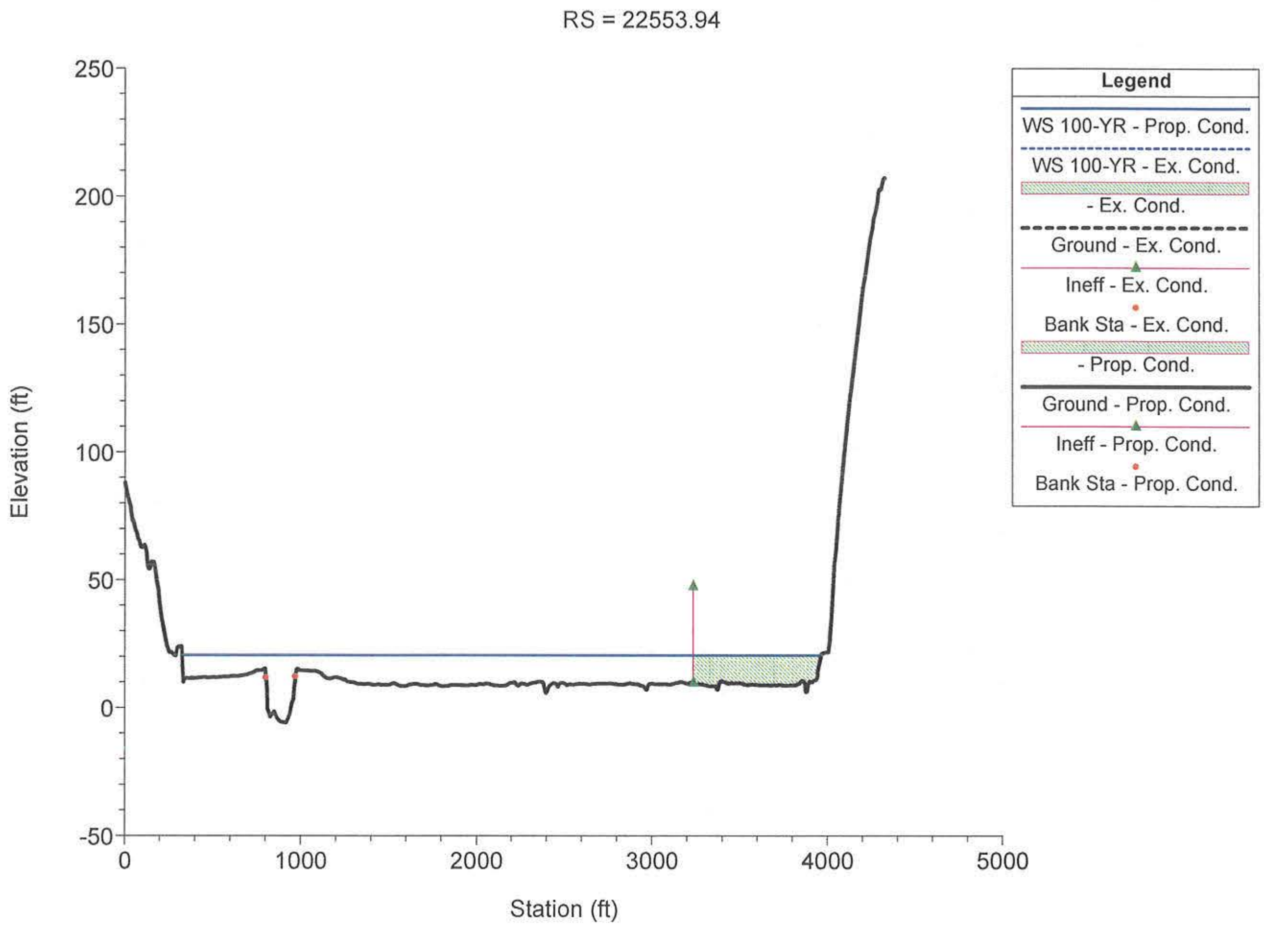
HEC-RAS Output Files

HEC-RAS River: Nestucca River Reach: Lower Profile: 100-YR

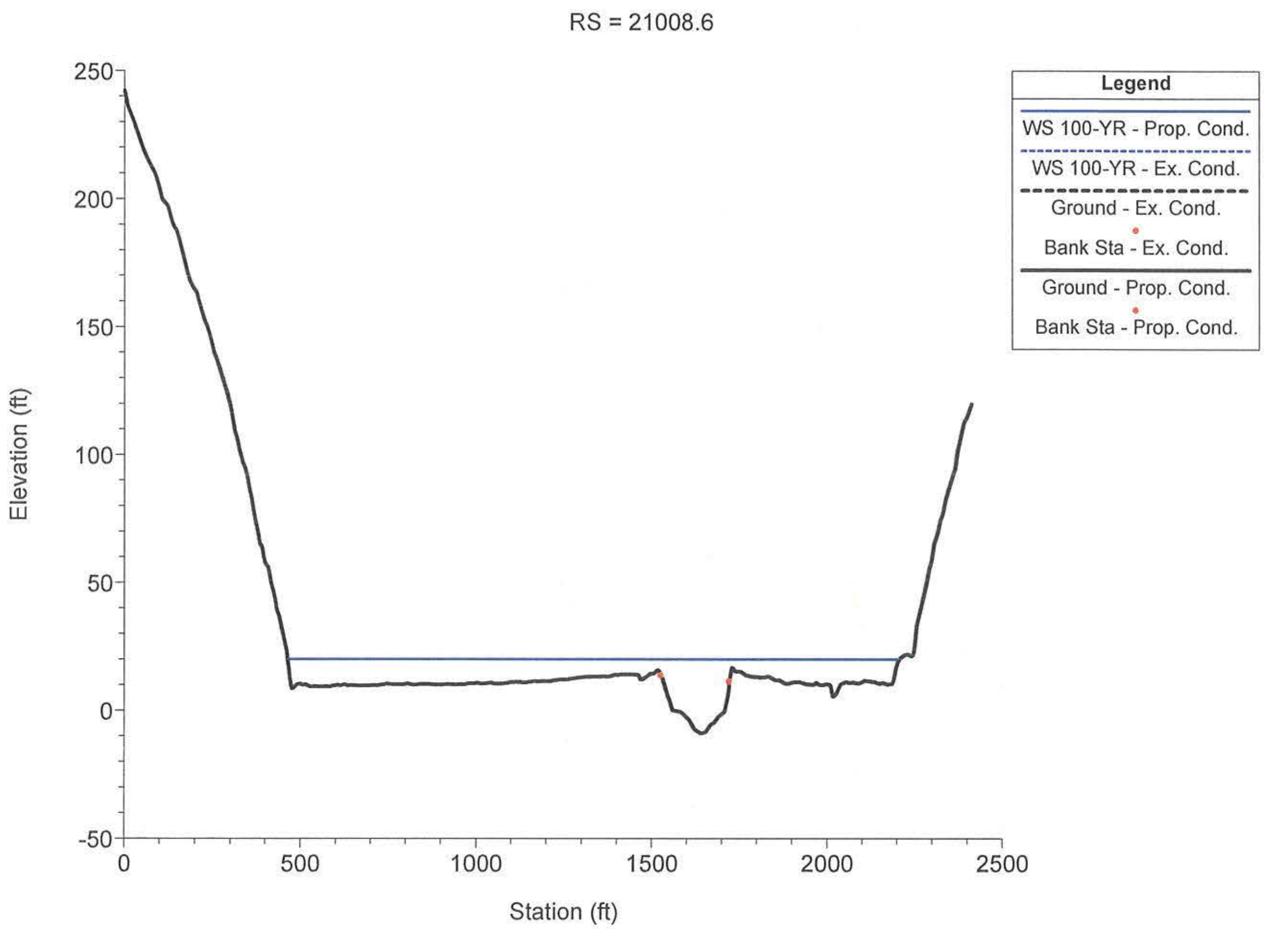
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	22553.94	100-YR	Ex. Cond.	49700.00	-5.99	20.50	12.22	20.55	0.000090	3.06	32247.60	3644.65	0.11
Lower	22553.94	100-YR	Prop. Cond.	49700.00	-5.99	20.50	12.22	20.55	0.000090	3.06	32247.83	3644.66	0.11
Lower	21008.6	100-YR	Ex. Cond.	49700.00	-8.92	20.09		20.31	0.000259	5.18	17865.91	1743.77	0.20
Lower	21008.6	100-YR	Prop. Cond.	49700.00	-8.92	20.09		20.31	0.000259	5.18	17866.07	1743.77	0.20
Lower	20157.05	100-YR	Ex. Cond.	49700.00	-9.15	19.94	12.36	20.10	0.000212	4.43	20015.00	2302.29	0.17
Lower	20157.05	100-YR	Prop. Cond.	49700.00	-9.15	19.94	12.36	20.10	0.000212	4.43	20015.19	2302.29	0.17
Lower	19079.89	100-YR	Ex. Cond.	49700.00	-11.85	19.70		19.89	0.000228	5.02	20295.96	1888.75	0.18
Lower	19079.89	100-YR	Prop. Cond.	49700.00	-11.85	19.70		19.89	0.000228	5.02	20296.16	1888.75	0.18
Lower	18019.8	100-YR	Ex. Cond.	49700.00	-7.69	19.54	11.35	19.68	0.000186	4.31	22190.83	2668.25	0.16
Lower	18019.8	100-YR	Prop. Cond.	49700.00	-7.69	19.54	11.35	19.68	0.000186	4.31	22191.05	2668.26	0.16
Lower	17875.97	100-YR	Ex. Cond.	49700.00	-7.60	19.52	11.05	19.65	0.000168	4.13	23065.31	2677.05	0.16
Lower	17875.97	100-YR	Prop. Cond.	49700.00	-7.60	19.52	11.05	19.65	0.000168	4.13	23065.55	2677.05	0.16
Lower	17653.2	100-YR	Ex. Cond.	49700.00	-4.67	19.54	11.28	19.61	0.000095	3.21	29282.63	3181.65	0.12
Lower	17653.2	100-YR	Prop. Cond.	49700.00	-4.67	19.54	11.28	19.61	0.000095	3.21	29282.93	3181.65	0.12
Lower	15949.74	100-YR	Ex. Cond.	49700.00	-7.67	19.49	9.86	19.52	0.000032	1.90	46748.95	4377.64	0.07
Lower	15949.74	100-YR	Prop. Cond.	49700.00	-7.67	19.49	9.86	19.52	0.000032	1.90	46749.38	4377.65	0.07
Lower	14728.64	100-YR	Ex. Cond.	49700.00	-9.90	19.44	10.23	19.48	0.000043	2.46	37331.63	3855.78	0.09
Lower	14728.64	100-YR	Prop. Cond.	49700.00	-9.90	19.44	10.23	19.48	0.000043	2.46	37332.01	3855.78	0.09
Lower	14621.23			Bridge									
Lower	14544.91	100-YR	Ex. Cond.	49700.00	-8.62	19.42	10.32	19.46	0.000045	2.54	36915.93	3871.12	0.10
Lower	14544.91	100-YR	Prop. Cond.	49700.00	-8.62	19.42	10.32	19.46	0.000045	2.54	36916.31	3871.12	0.10
Lower	13541.26	100-YR	Ex. Cond.	49700.00	-7.81	19.38	10.21	19.42	0.000052	2.50	32796.95	3280.39	0.10
Lower	13541.26	100-YR	Prop. Cond.	49700.00	-7.81	19.38	10.21	19.42	0.000052	2.50	32797.25	3280.39	0.10
Lower	12396	100-YR	Ex. Cond.	49700.00	-3.59	18.51		19.22	0.000462	7.06	9099.18	2050.30	0.30
Lower	12396	100-YR	Prop. Cond.	49700.00	-3.59	18.51		19.22	0.000462	7.06	9099.27	2050.30	0.30
Lower	11367.2	100-YR	Ex. Cond.	49700.00	-3.05	17.74	9.51	18.66	0.000619	7.83	7539.82	2019.55	0.34
Lower	11367.2	100-YR	Prop. Cond.	49700.00	-3.05	17.74	9.51	18.66	0.000619	7.83	7539.93	2019.58	0.34
Lower	10048.77	100-YR	Ex. Cond.	49700.00	-3.49	16.99	9.18	17.82	0.000617	7.52	8689.80	2063.64	0.34
Lower	10048.77	100-YR	Prop. Cond.	49700.00	-3.49	16.99	9.18	17.82	0.000617	7.52	8690.02	2063.67	0.34

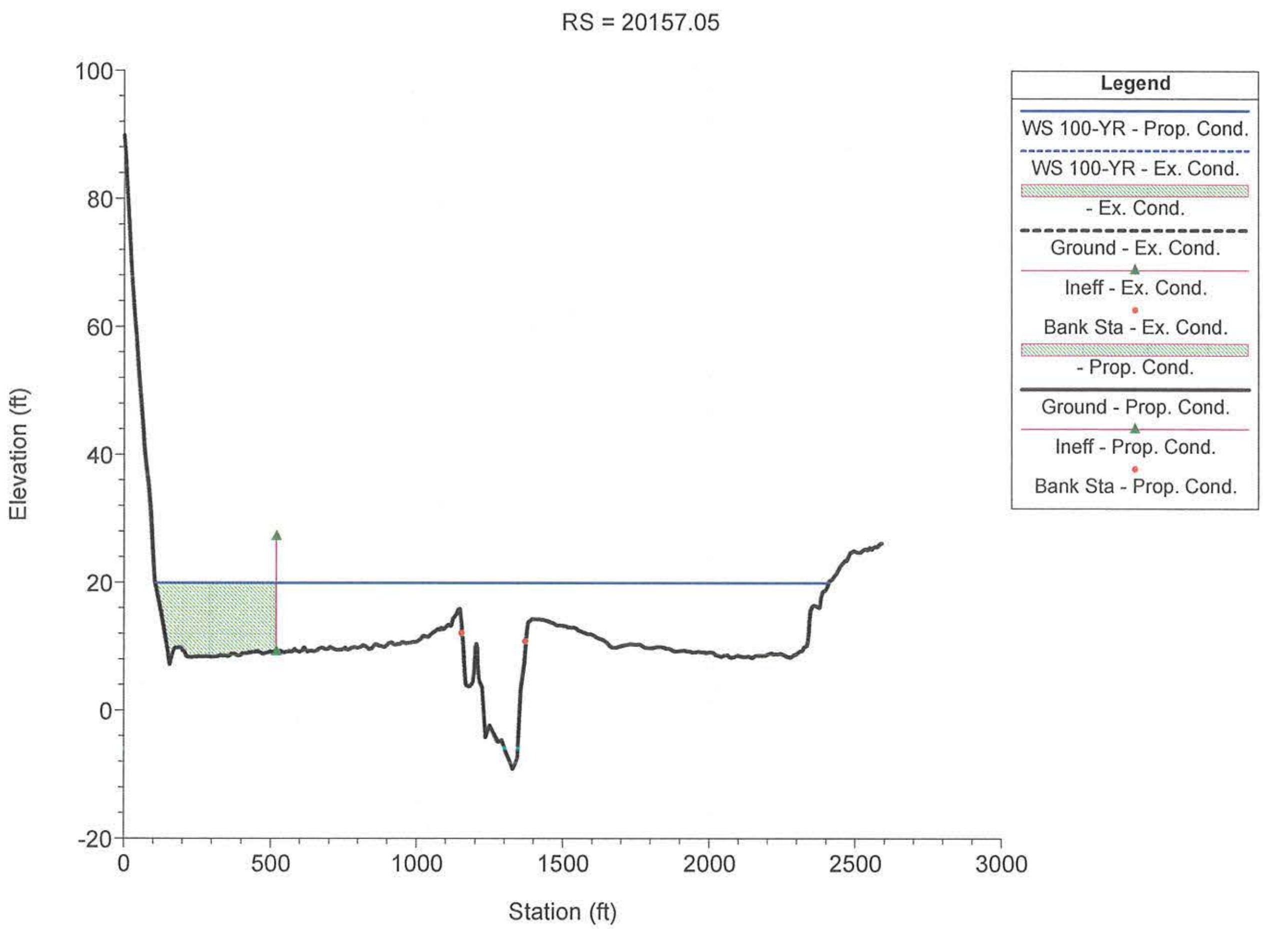
HEC-RAS River: Nestucca River Reach: Lower Profile: 100-YR (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Lower	9942.323			Bridge									
Lower	9904.361	100-YR	Ex. Cond.	49700.00	-8.44	16.84	8.05	17.52	0.000540	6.93	10040.74	2094.21	0.31
Lower	9904.361	100-YR	Prop. Cond.	49700.00	-8.44	16.84	8.05	17.52	0.000540	6.93	10040.98	2094.21	0.31
Lower	8988.11	100-YR	Ex. Cond.	49700.00	-4.80	16.62	8.14	16.98	0.000328	5.35	12974.76	1987.89	0.24
Lower	8988.11	100-YR	Prop. Cond.	49700.00	-4.80	16.62	8.14	16.98	0.000328	5.35	12975.12	1987.91	0.24
Lower	8192.259	100-YR	Ex. Cond.	49700.00	-18.19	16.37	6.30	16.73	0.000306	5.46	12950.26	2042.12	0.23
Lower	8192.259	100-YR	Prop. Cond.	49700.00	-18.19	16.37	6.30	16.73	0.000306	5.46	12950.67	2042.12	0.23
Lower	8165	100-YR	Ex. Cond.	49700.00	-17.33	16.36	6.23	16.72	0.000285	5.38	13042.24	1970.46	0.23
Lower	8165	100-YR	Prop. Cond.	49700.00	-17.33	16.36	6.23	16.73	0.000290	5.42	12717.24	1924.26	0.23
Lower	8131	100-YR	Ex. Cond.	49700.00	-16.25	16.34	6.32	16.71	0.000297	5.49	12737.63	1923.02	0.23
Lower	8131	100-YR	Prop. Cond.	49700.00	-16.25	16.33	6.32	16.72	0.000303	5.54	12447.08	1876.78	0.23
Lower	8092	100-YR	Ex. Cond.	49700.00	-15.01	16.34	6.28	16.70	0.000269	5.27	12608.40	1838.87	0.23
Lower	8092	100-YR	Prop. Cond.	49700.00	-15.01	16.34	6.28	16.69	0.000261	5.19	12569.58	1839.59	0.22
Lower	8061	100-YR	Ex. Cond.	49700.00	-14.02	16.34	6.35	16.68	0.000278	5.15	12768.88	1825.31	0.22
Lower	8061	100-YR	Prop. Cond.	49700.00	-14.02	16.34	6.35	16.68	0.000278	5.15	12768.88	1825.31	0.22
Lower	8031	100-YR	Ex. Cond.	49700.00	-14.02	16.35		16.67	0.000266	5.01	13841.53	1832.03	0.22
Lower	8031	100-YR	Prop. Cond.	49700.00	-14.02	16.35		16.67	0.000266	5.01	13841.53	1832.03	0.22
Lower	7839.108	100-YR	Ex. Cond.	49700.00	-6.96	16.25	6.76	16.61	0.000310	5.16	12464.76	1879.15	0.23
Lower	7839.108	100-YR	Prop. Cond.	49700.00	-6.96	16.25	6.76	16.61	0.000310	5.16	12464.76	1879.15	0.23
Lower	6628.945	100-YR	Ex. Cond.	49700.00	-1.36	16.04	6.84	16.27	0.000208	3.91	14212.35	3171.30	0.19
Lower	6628.945	100-YR	Prop. Cond.	49700.00	-1.36	16.04	6.84	16.27	0.000208	3.91	14212.35	3171.30	0.19
Lower	4746.314	100-YR	Ex. Cond.	49700.00	-11.72	14.76	7.45	15.56	0.000672	7.30	7417.23	2442.34	0.34
Lower	4746.314	100-YR	Prop. Cond.	49700.00	-11.72	14.76	7.45	15.56	0.000672	7.30	7417.23	2442.34	0.34
Lower	3370.732	100-YR	Ex. Cond.	49700.00	-3.40	14.28	6.63	14.73	0.000430	5.53	9803.55	3594.57	0.27
Lower	3370.732	100-YR	Prop. Cond.	49700.00	-3.40	14.28	6.63	14.73	0.000430	5.53	9803.55	3594.57	0.27
Lower	2099.855	100-YR	Ex. Cond.	49700.00	-3.90	14.15	5.85	14.31	0.000175	3.42	17693.71	5262.50	0.17
Lower	2099.855	100-YR	Prop. Cond.	49700.00	-3.90	14.15	5.85	14.31	0.000175	3.42	17693.71	5262.50	0.17



RS = 22553.94
Elevation (ft)
Station (ft)
250
200
150
100
50
0
-50
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 21008.6
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
250
200
150
100
50
0
-50
0
500
1000
1500
2000
2500
Station (ft)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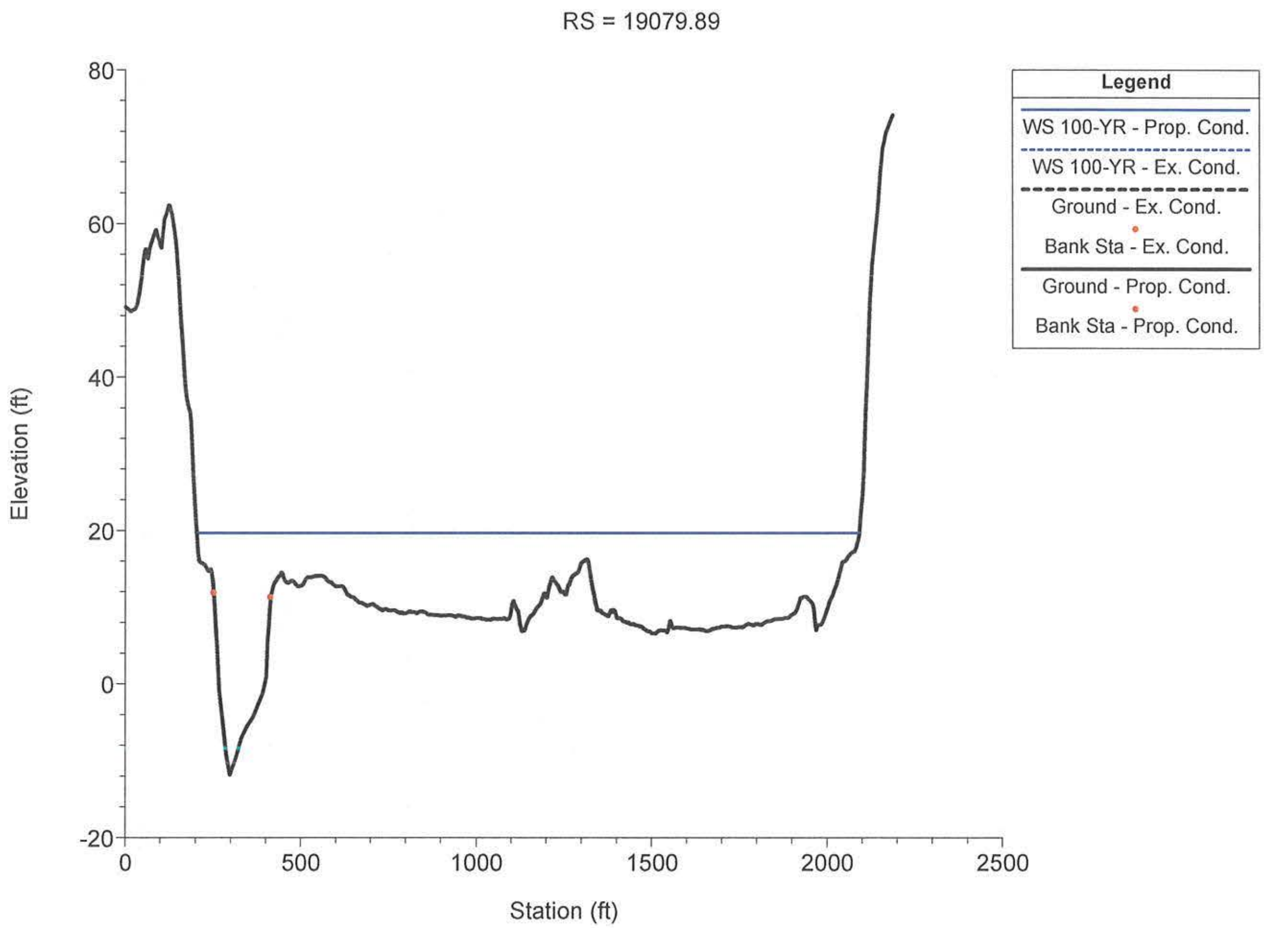
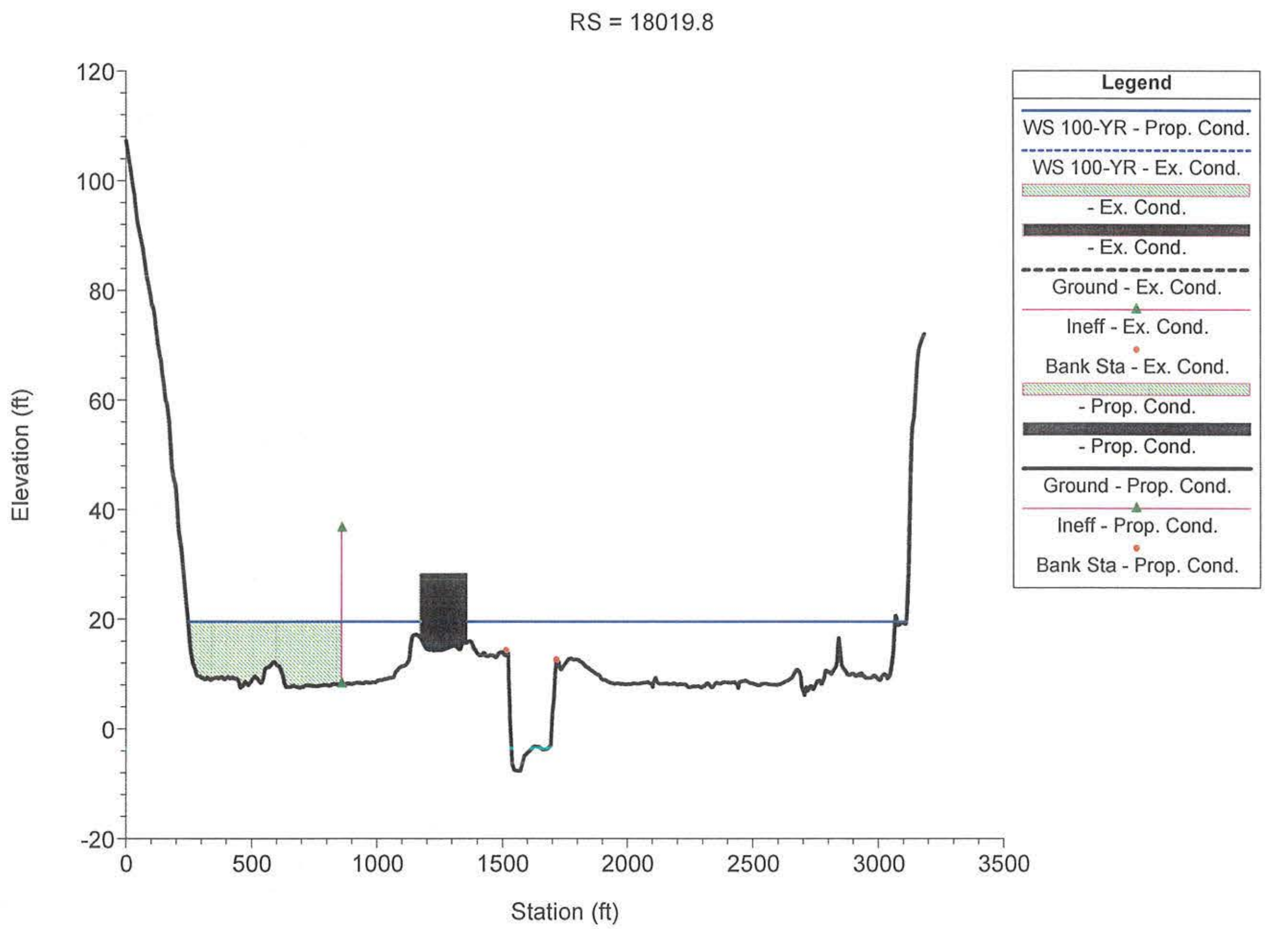
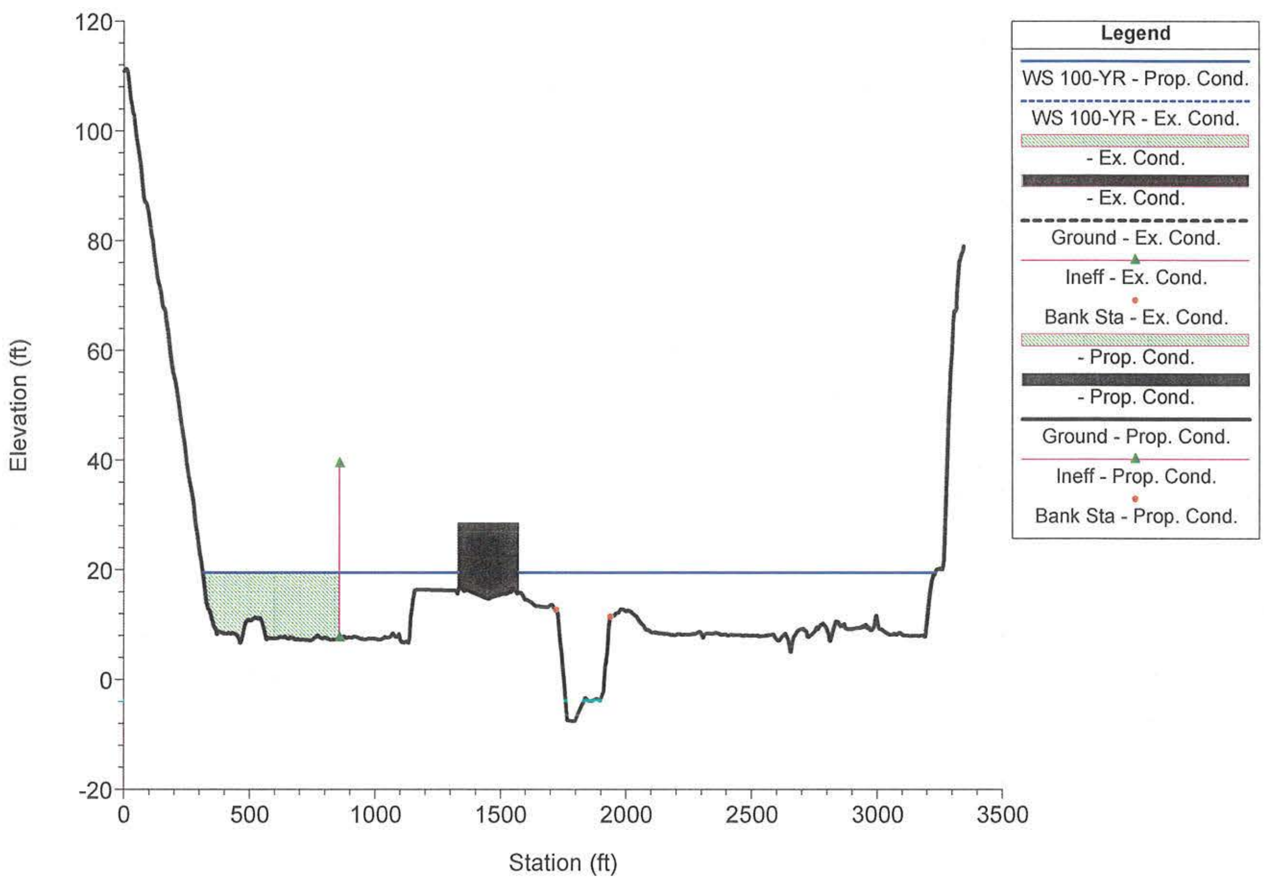
Elevation (ft)
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 19079.89
80
60
40
20
0
-20
Elevation (ft)
0
500
1000
1500
2000
2500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.

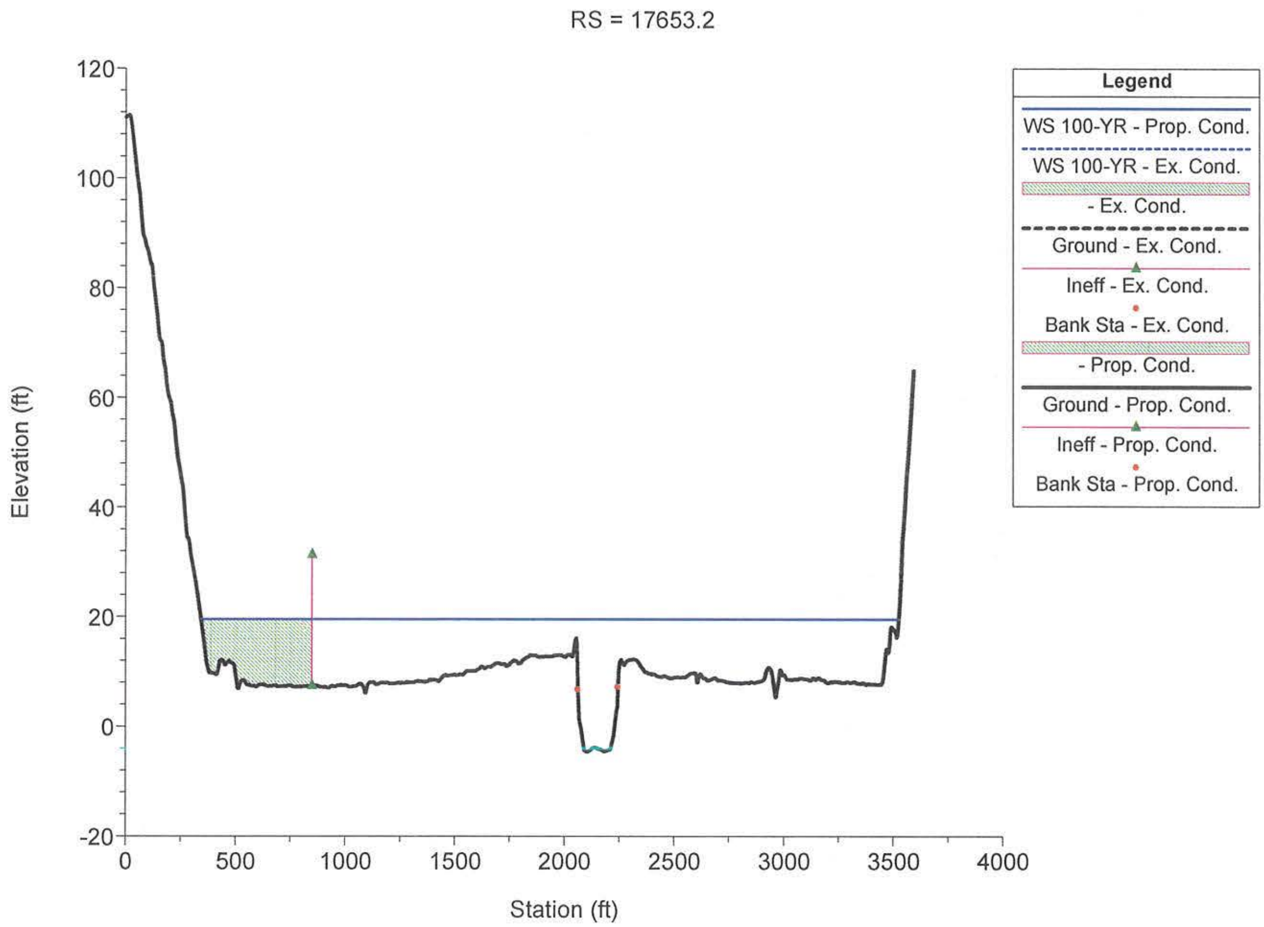


RS = 18019.8
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

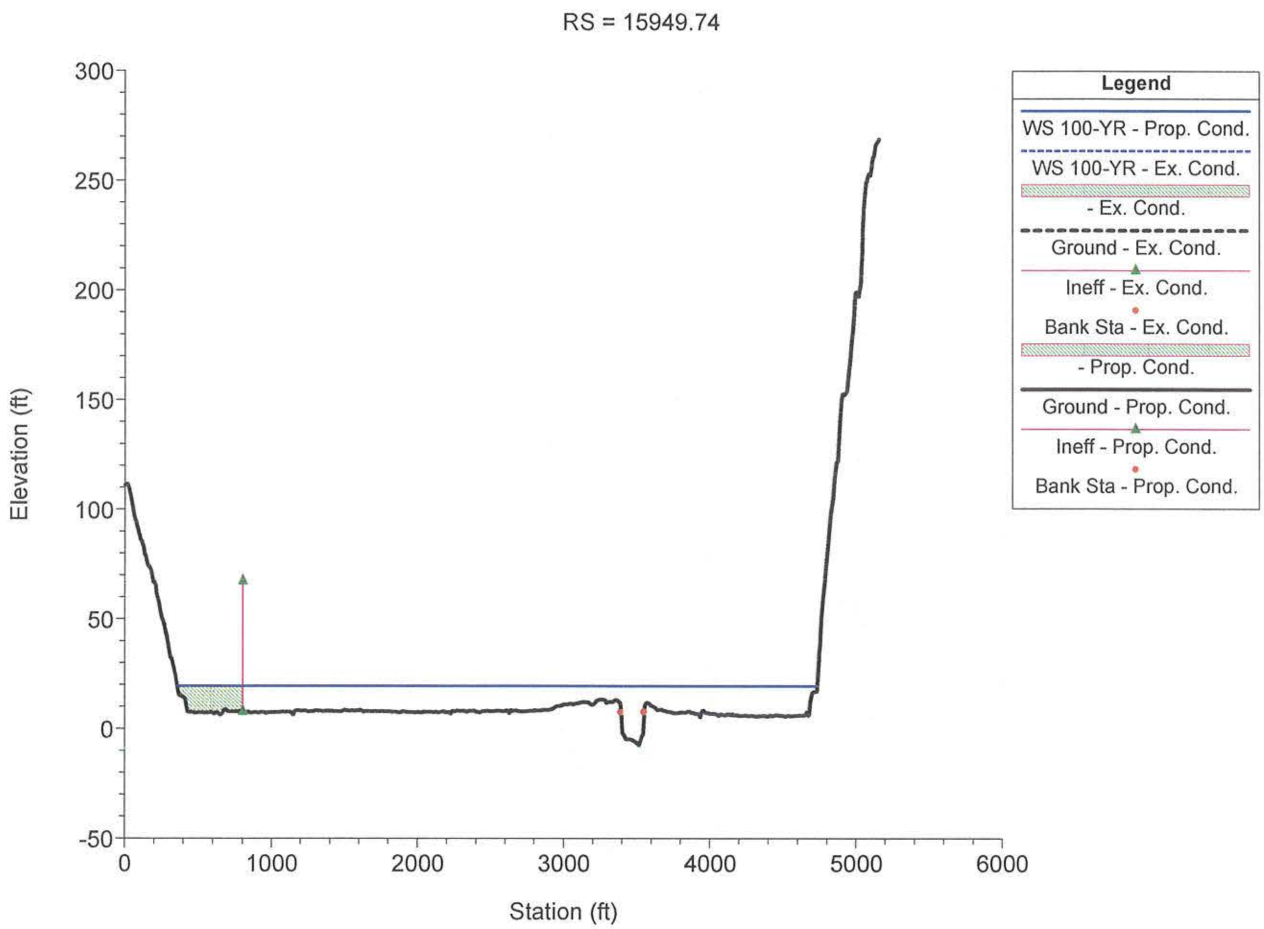
RS = 17875.97

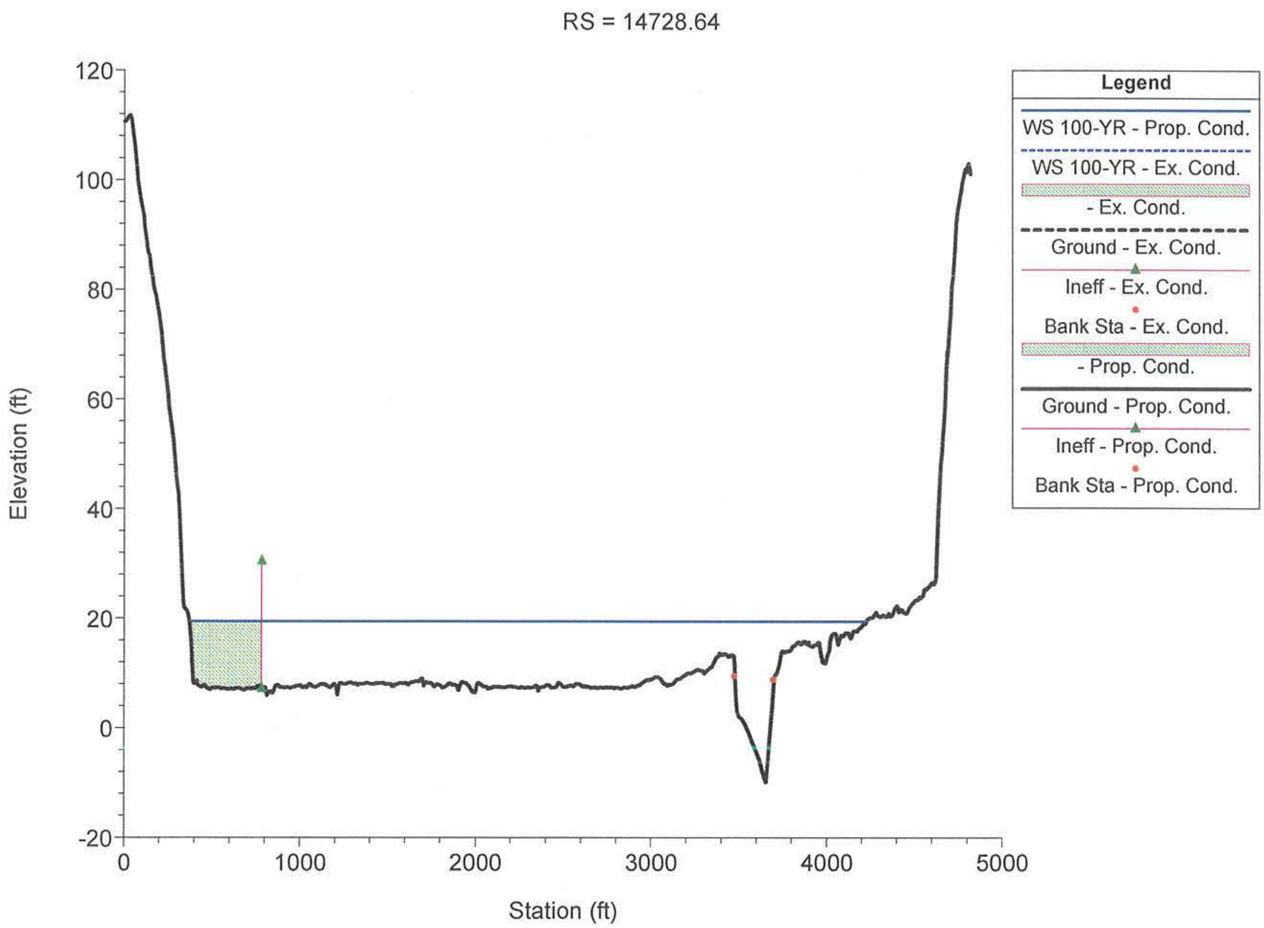


Elevation (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

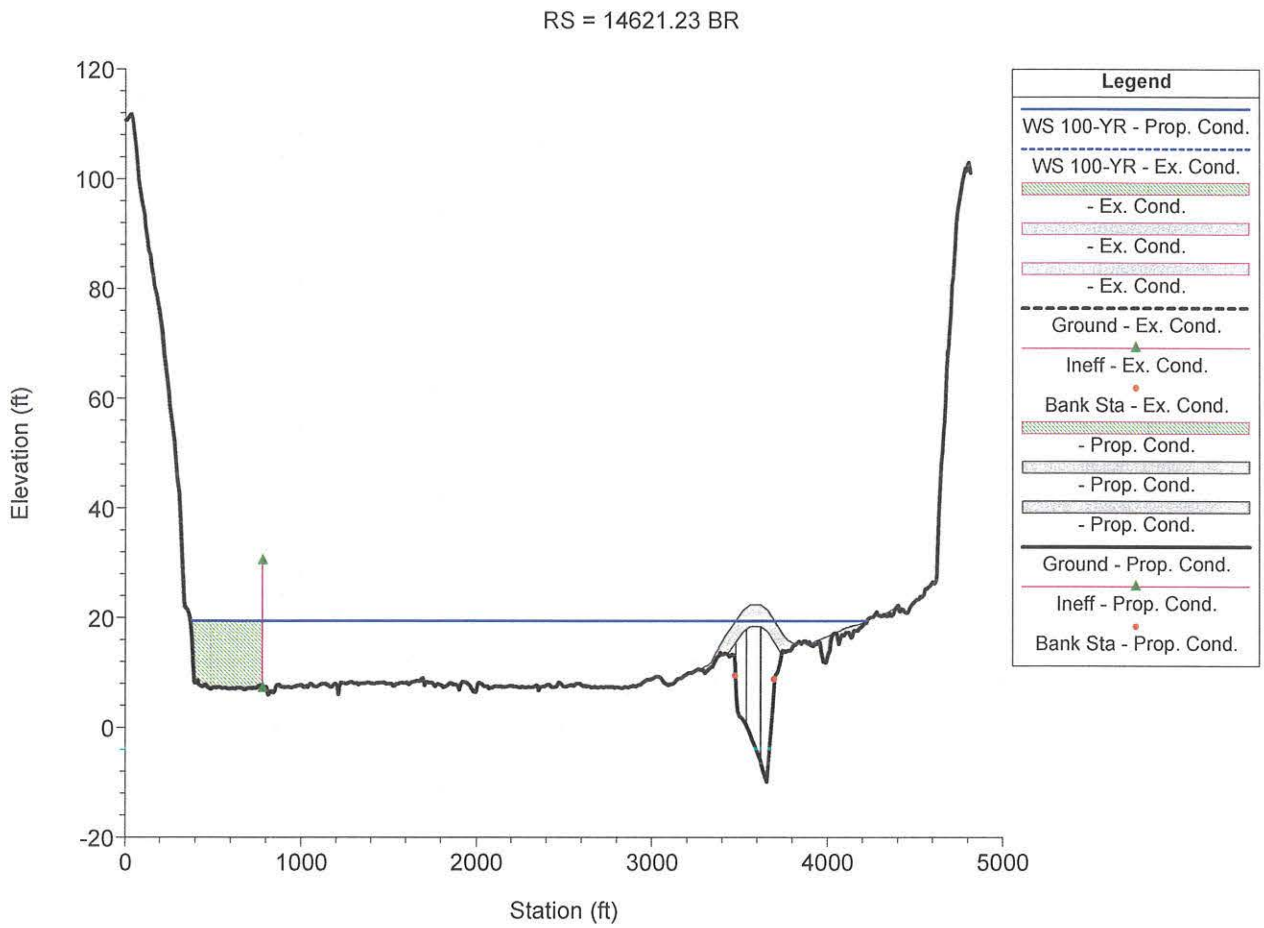


RS = 17653.2
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
4000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

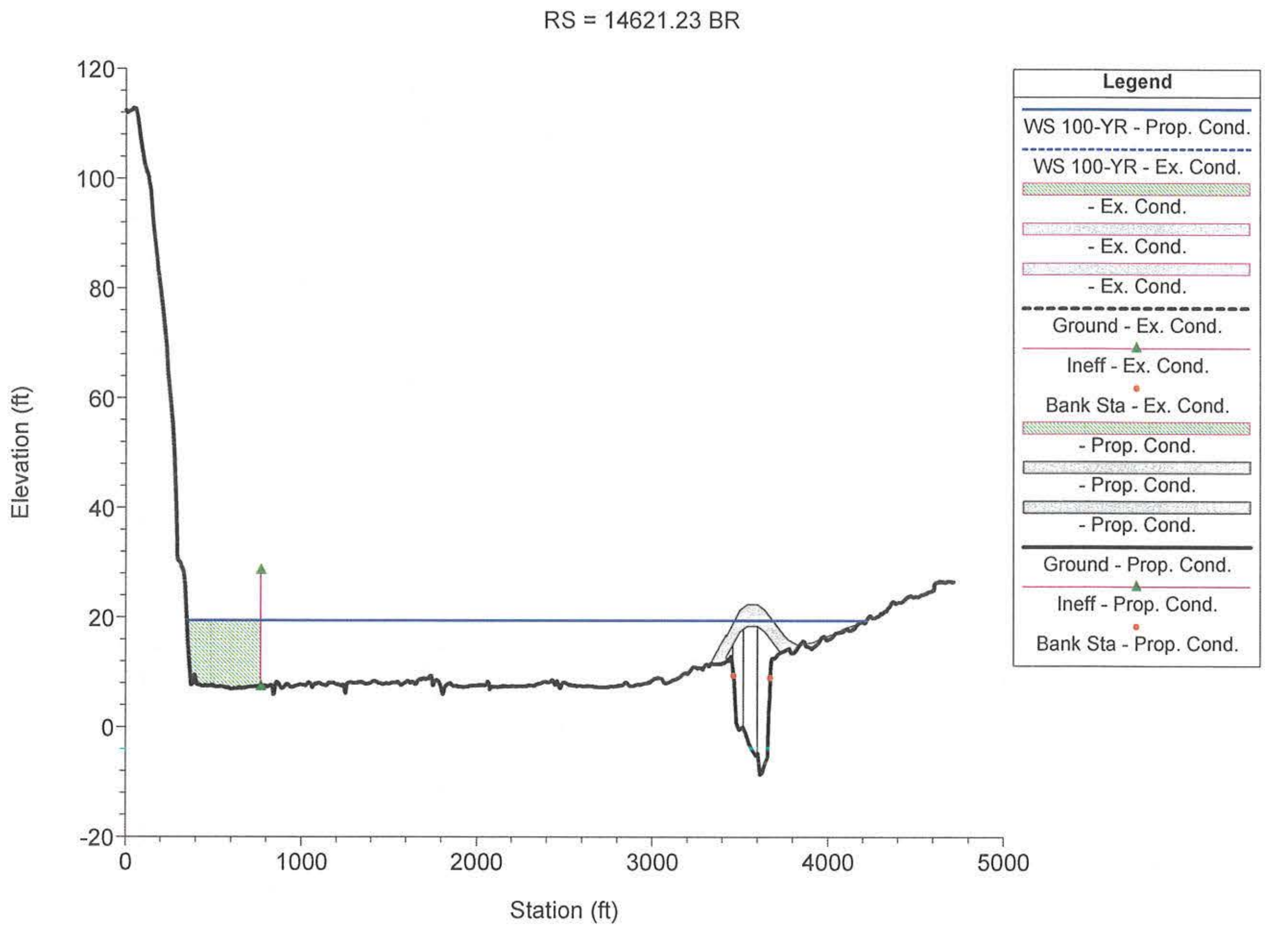

RS = 15949.74
Elevation (ft)
300
250
200
150
100
50
0
-50
Station (ft)
0
1000
2000
3000
4000
5000
6000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.



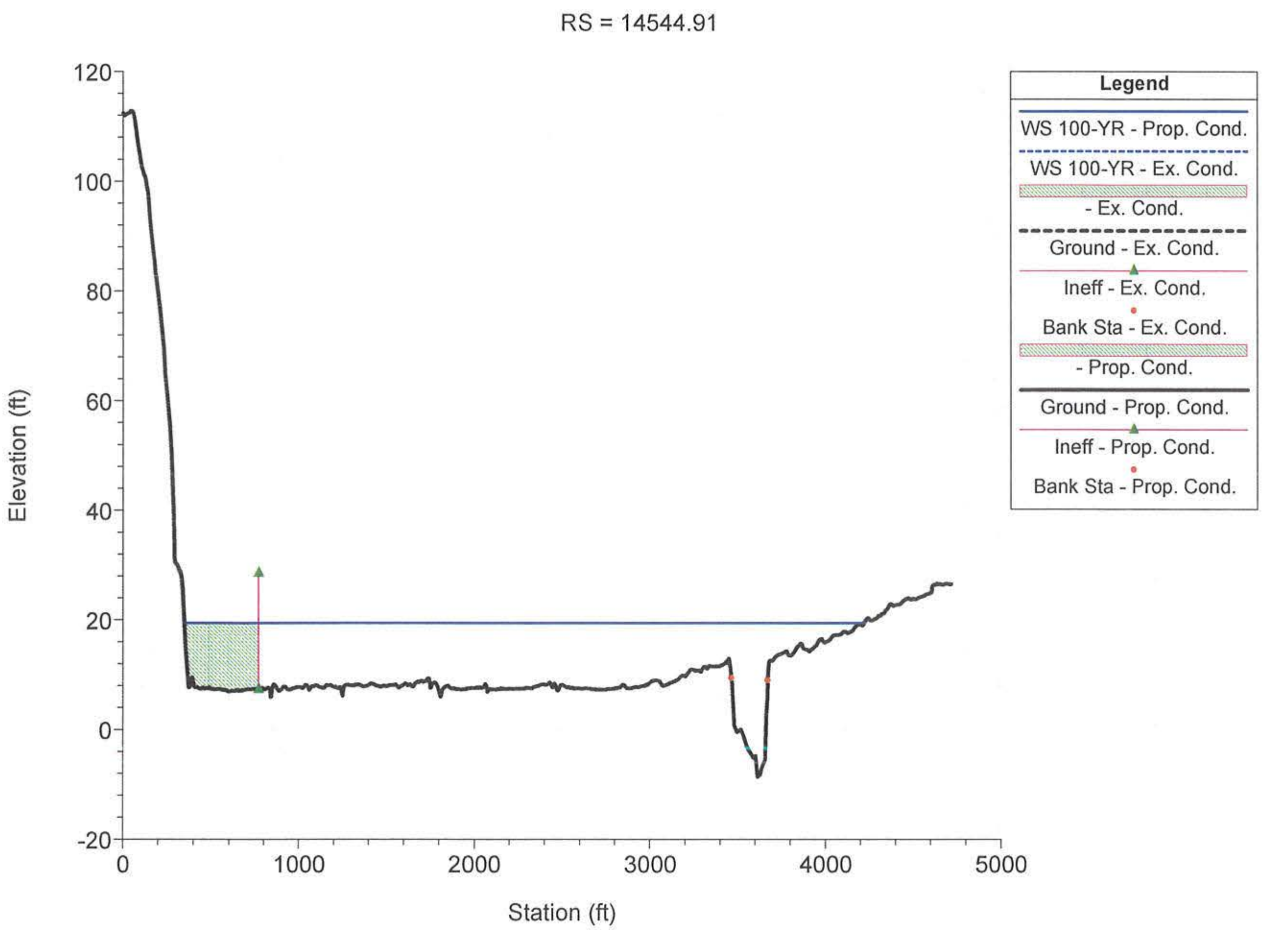
RS = 14728.64
Elevation (ft)
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.



RS = 14621.23 BR
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

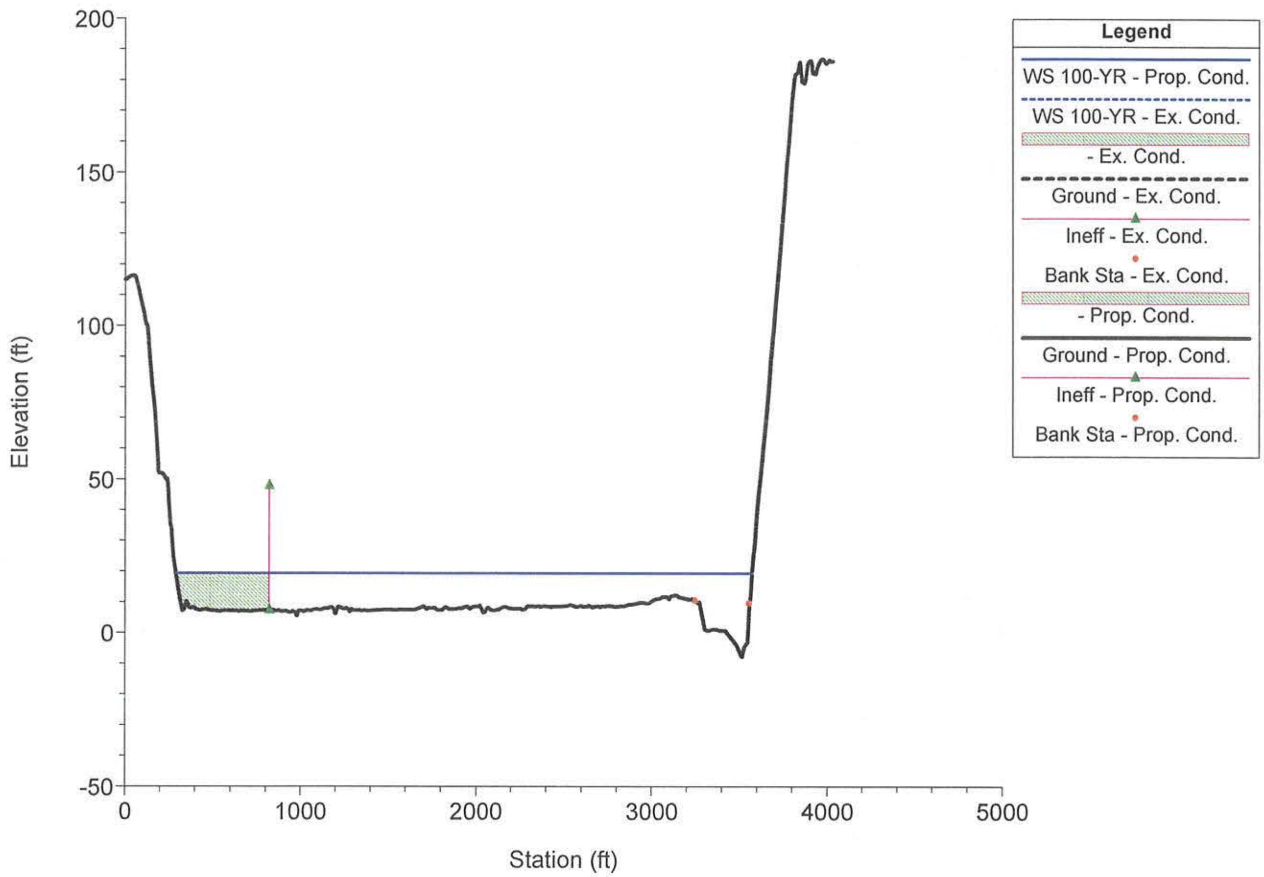


RS = 14621.23 BR
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.



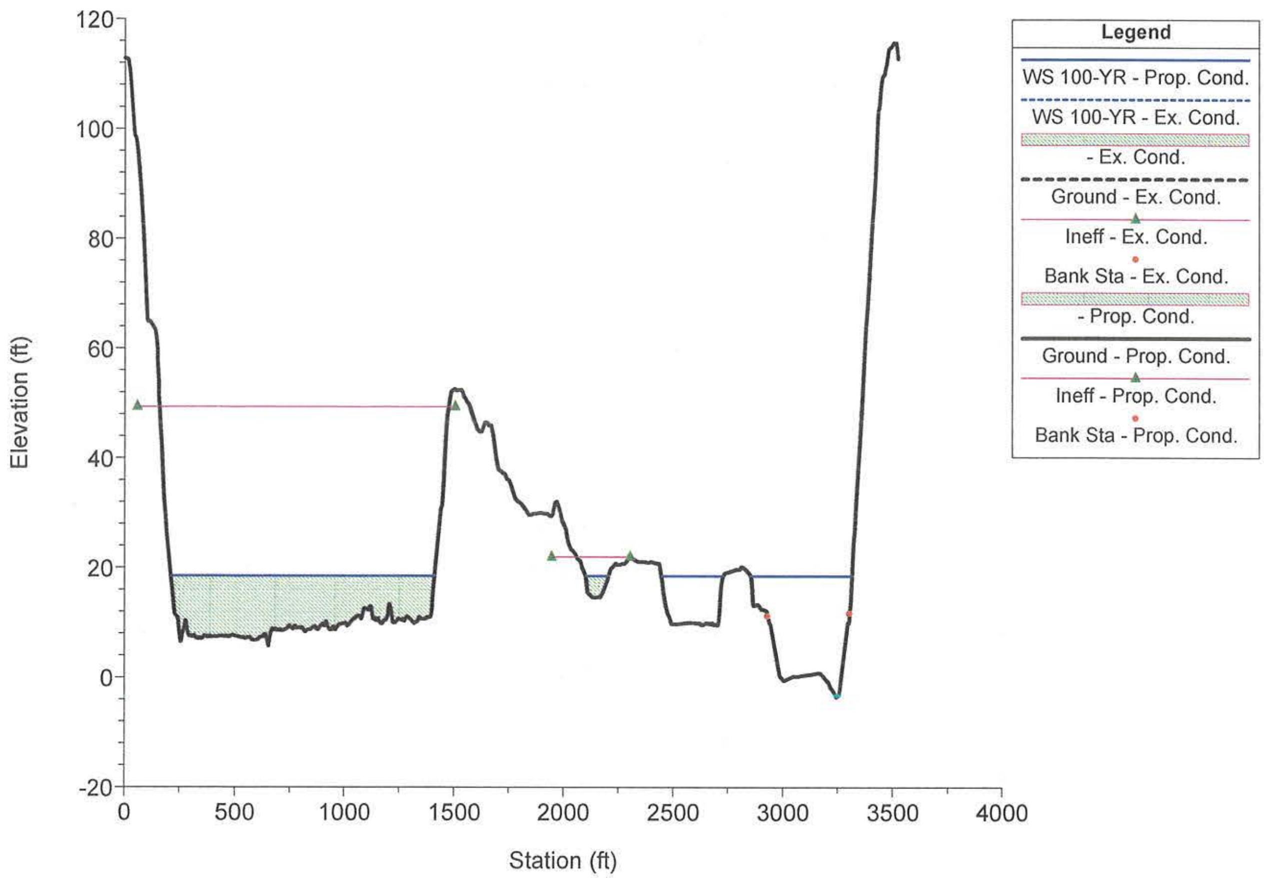
RS = 14544.91
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Station (ft)

RS = 13541.26

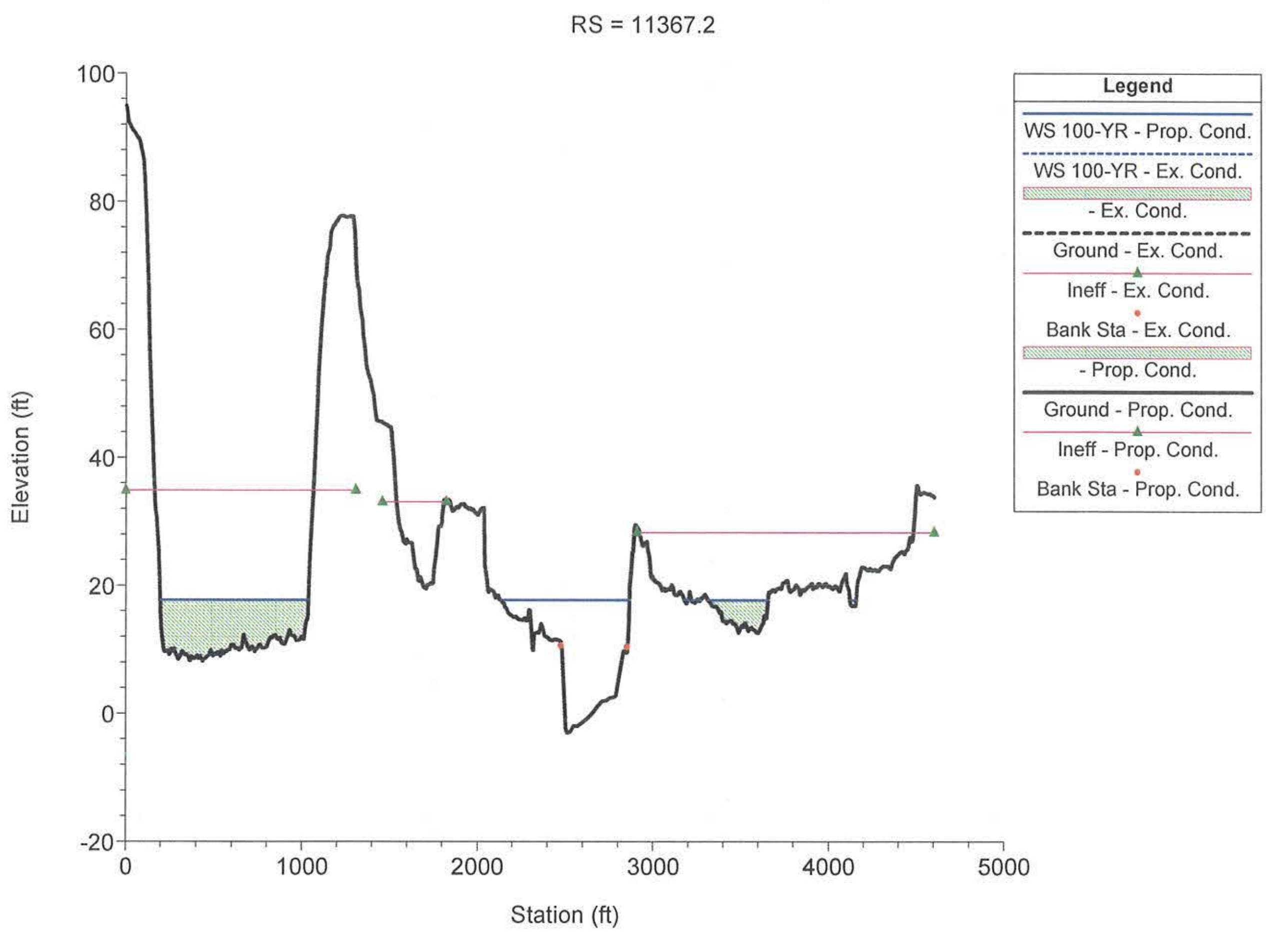


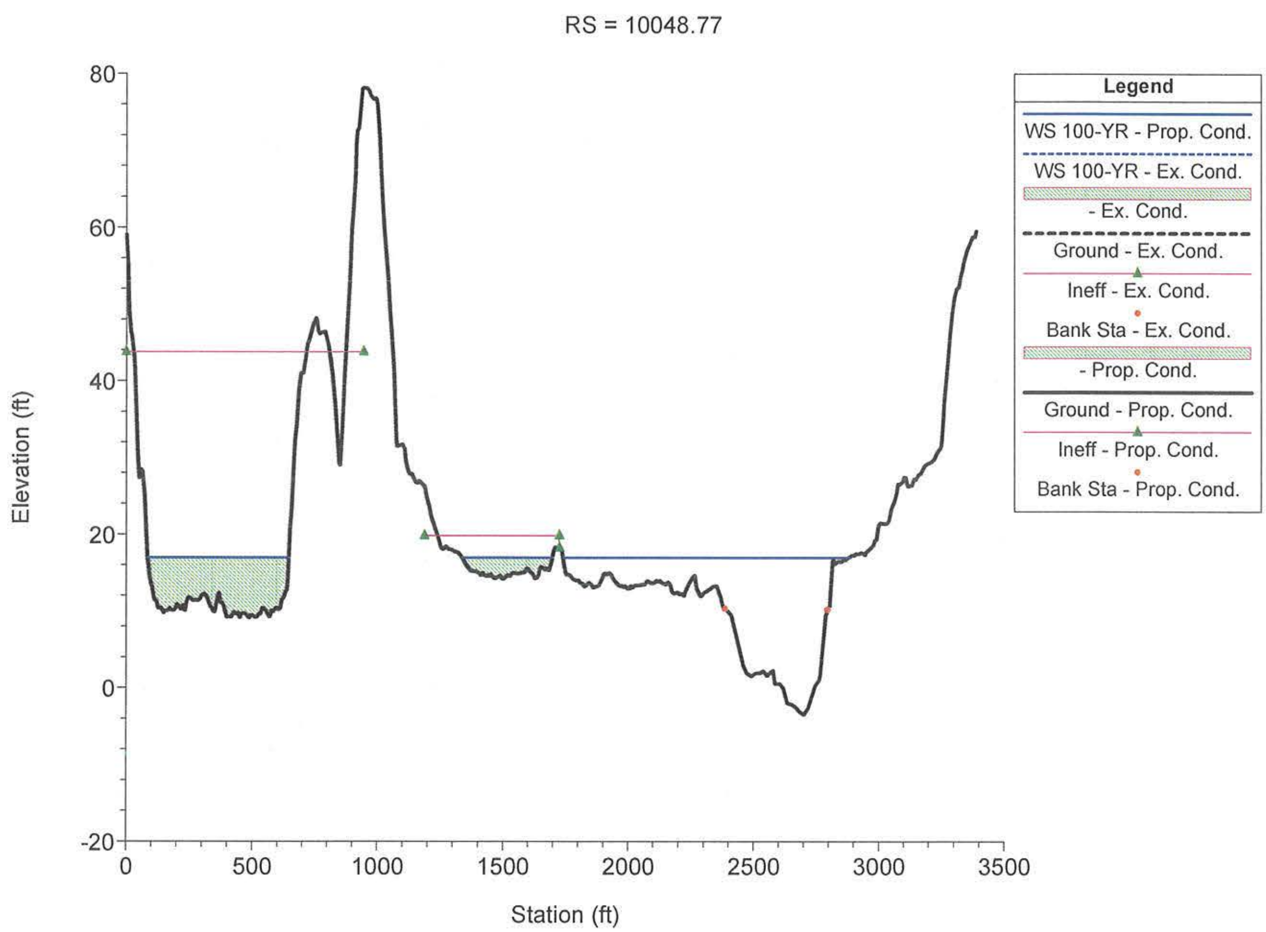
200
150
100
50
0
-50
Elevation (ft)
0
1000
2000
3000
4000
5000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 12396

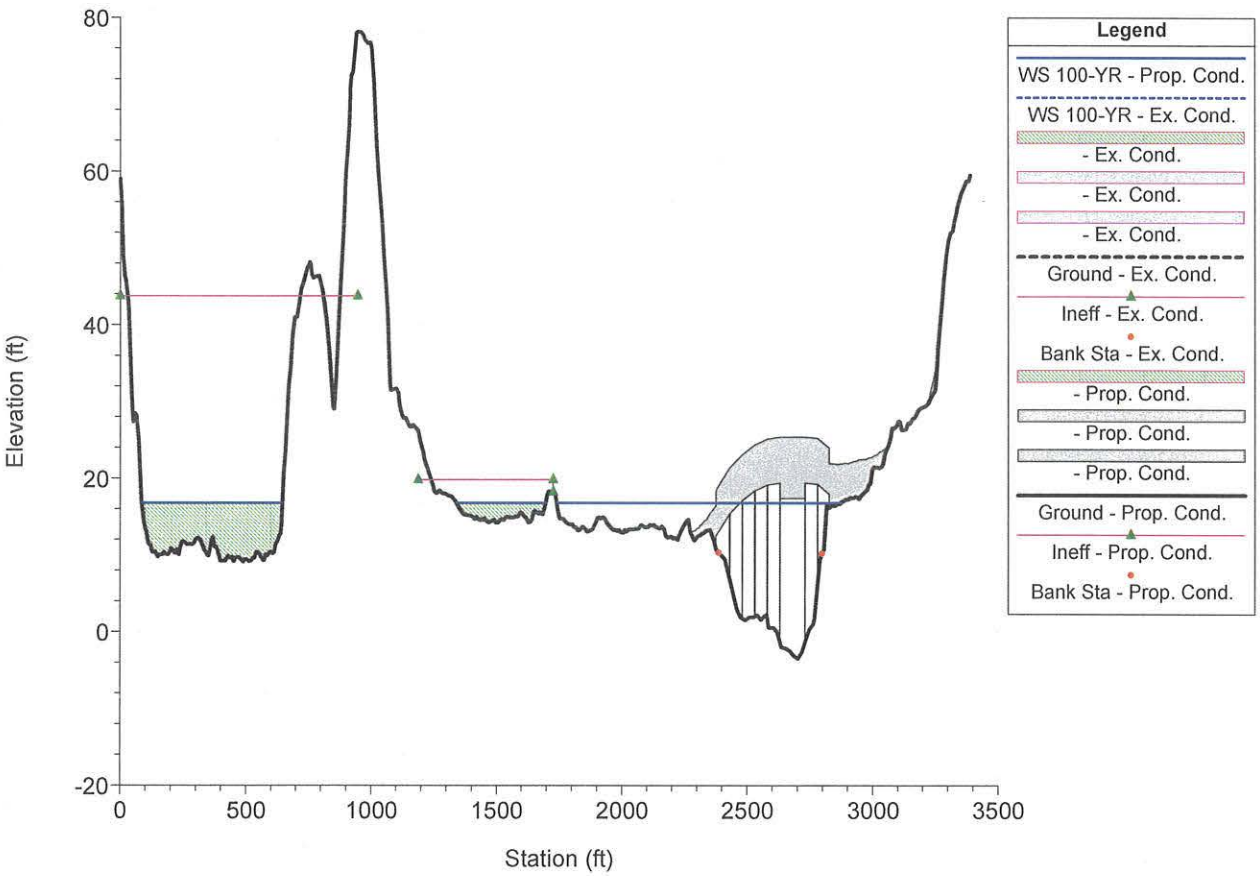


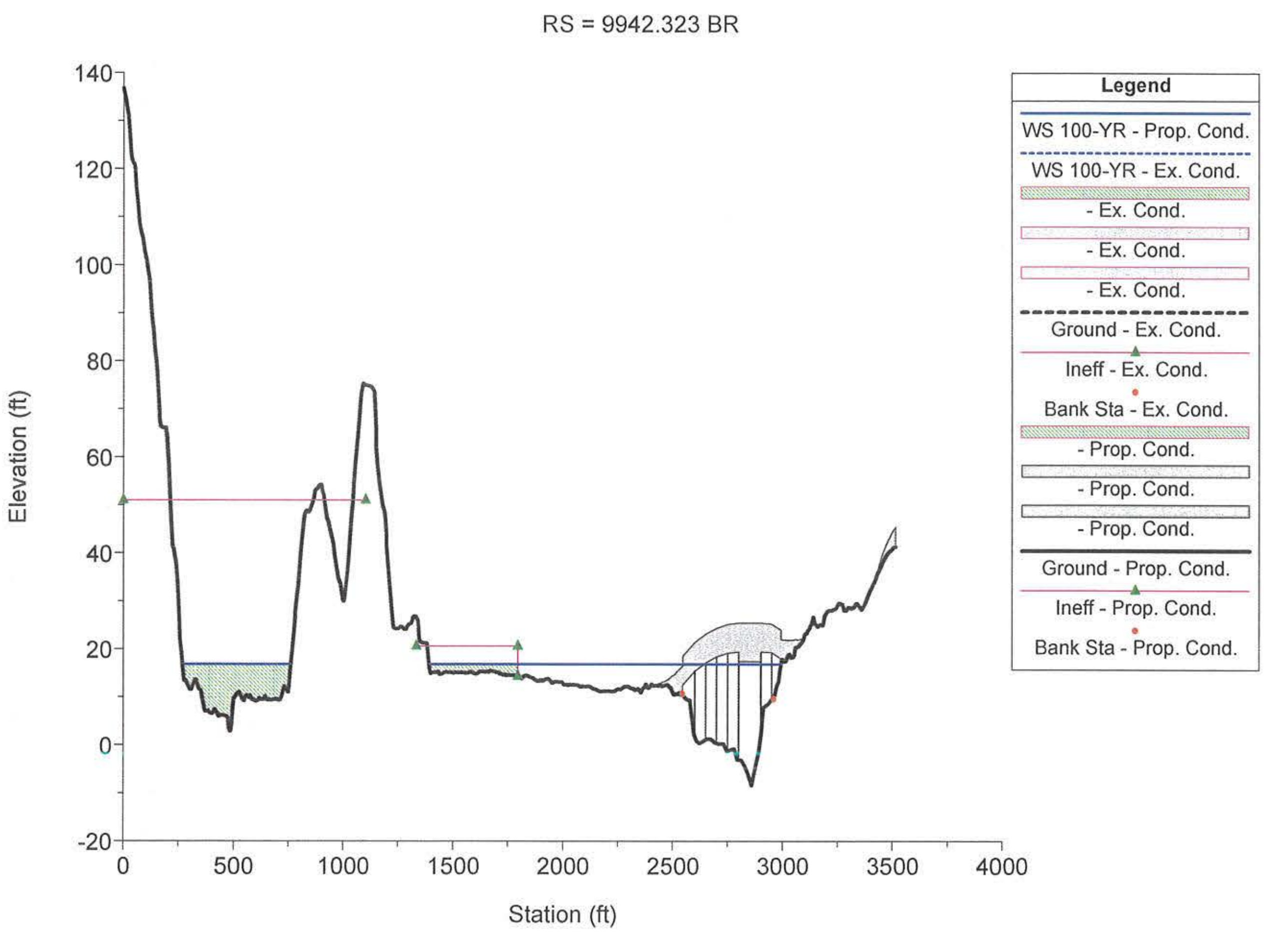
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
4000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 11367.2
Elevation (ft)
Station (ft)
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 10048.77
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
Station (ft)
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500

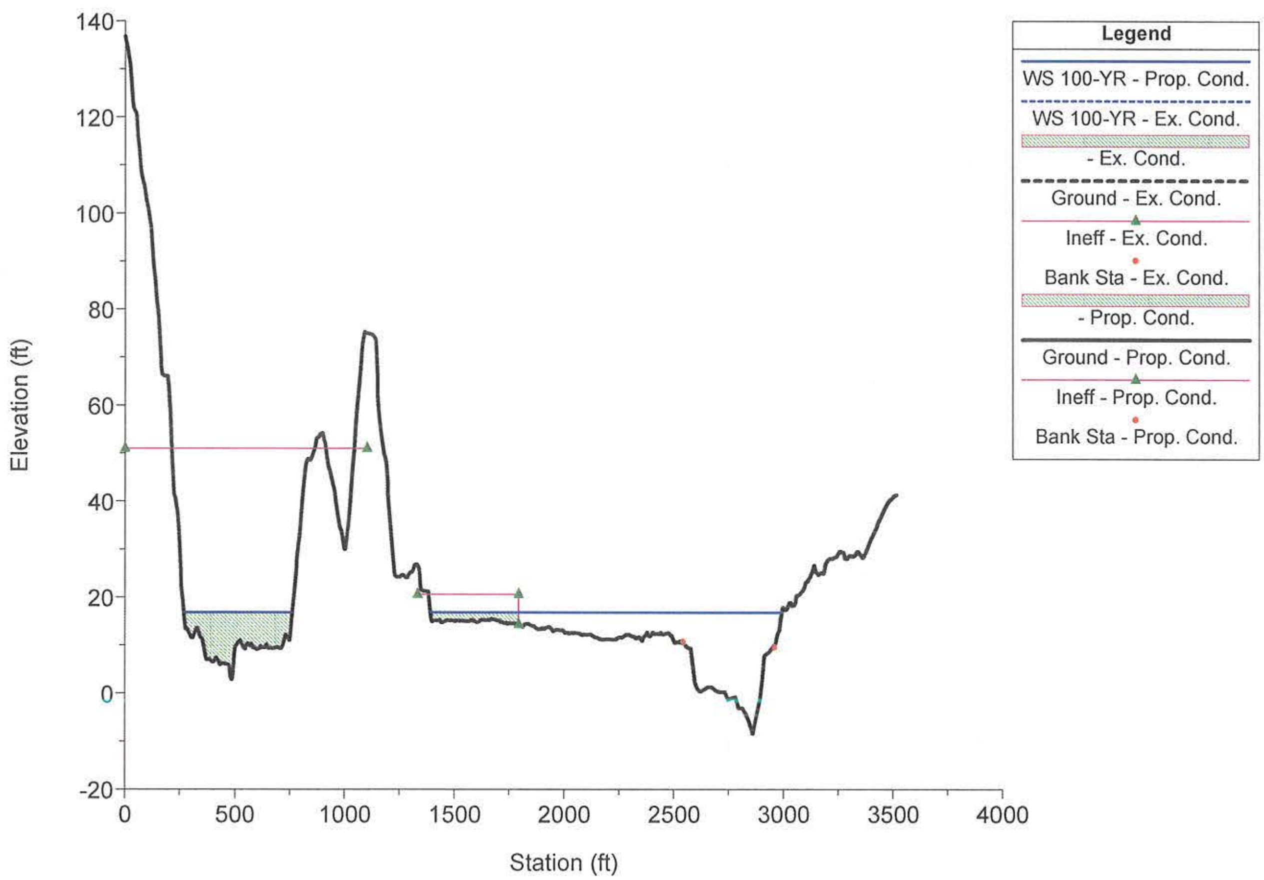
RS = 9942.323 BR



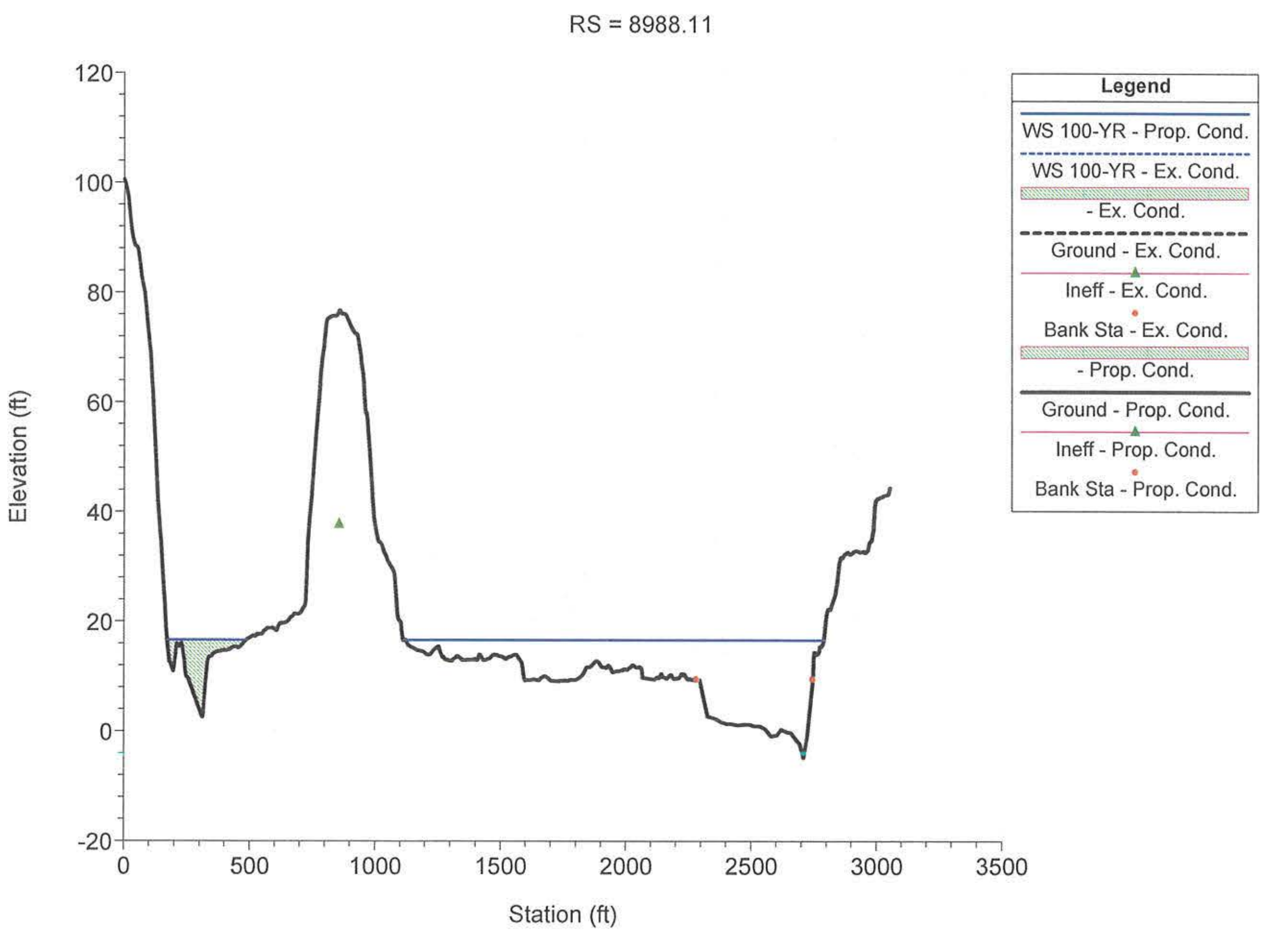


RS = 9942.323 BR
Elevation (ft)
Station (ft)
140
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
4000
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

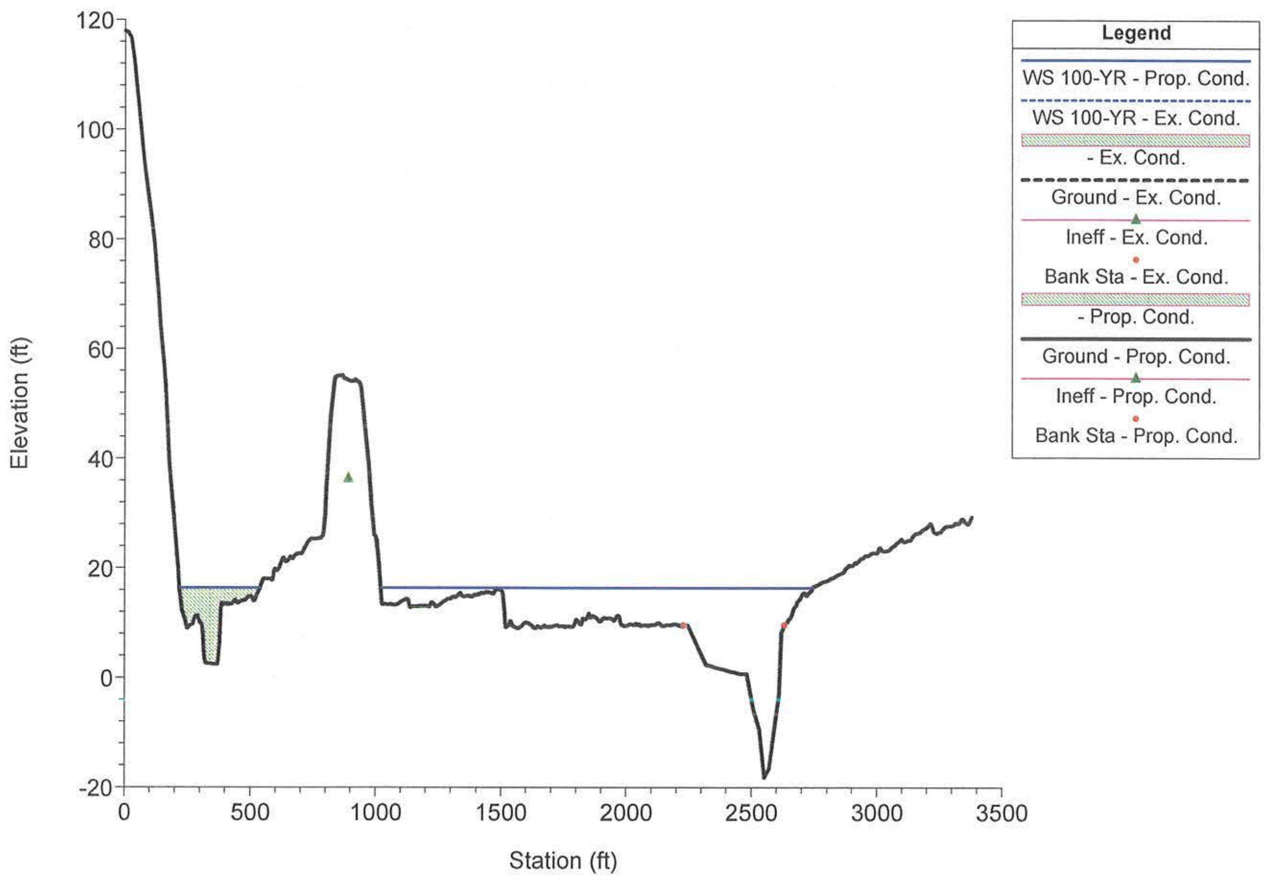
RS = 9904.361



140
120
100
80
60
40
20
0
-20
Elevation (ft)
0
500
1000
1500
2000
2500
3000
3500
4000
Station (ft)
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

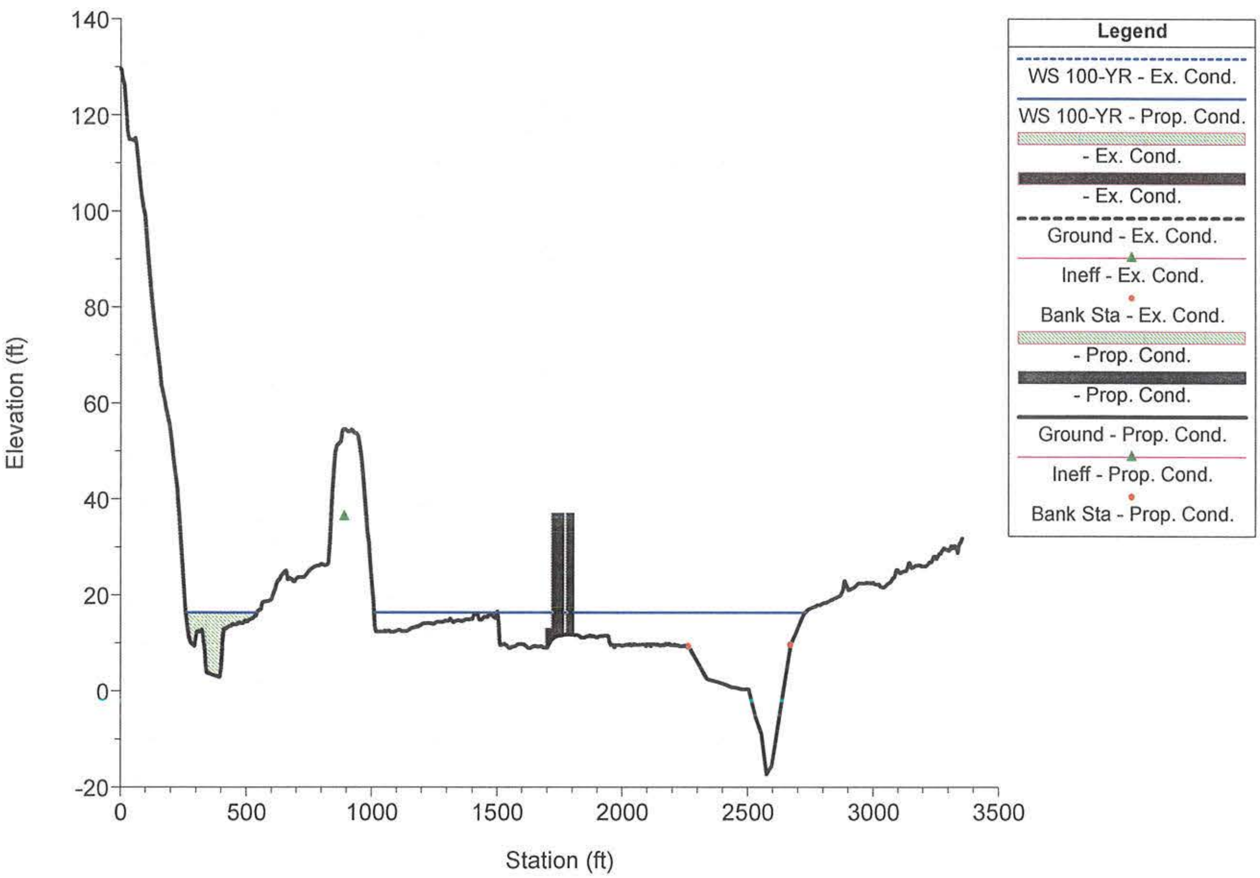

RS = 8988.11
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 8192.259

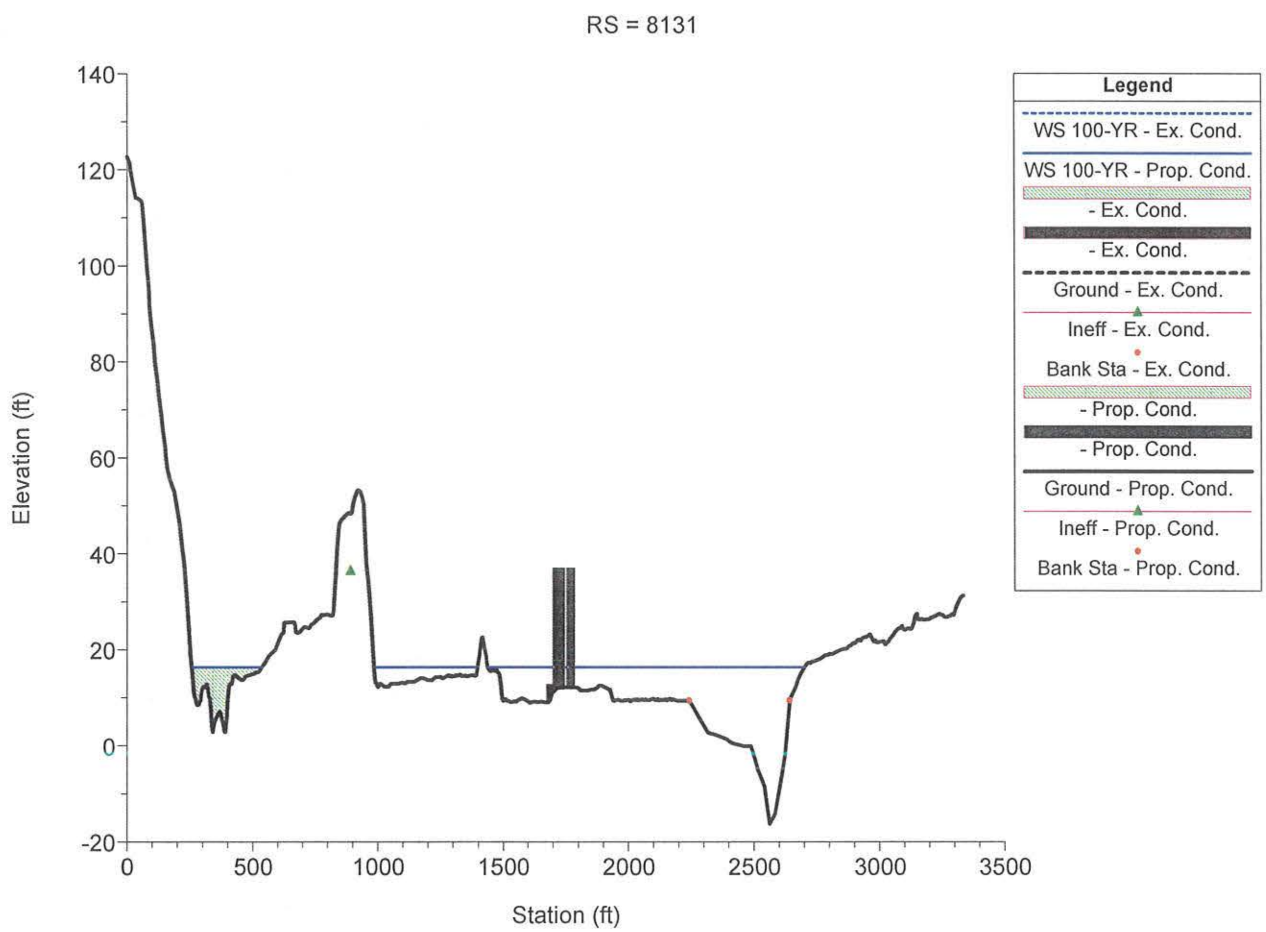


Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Station (ft)

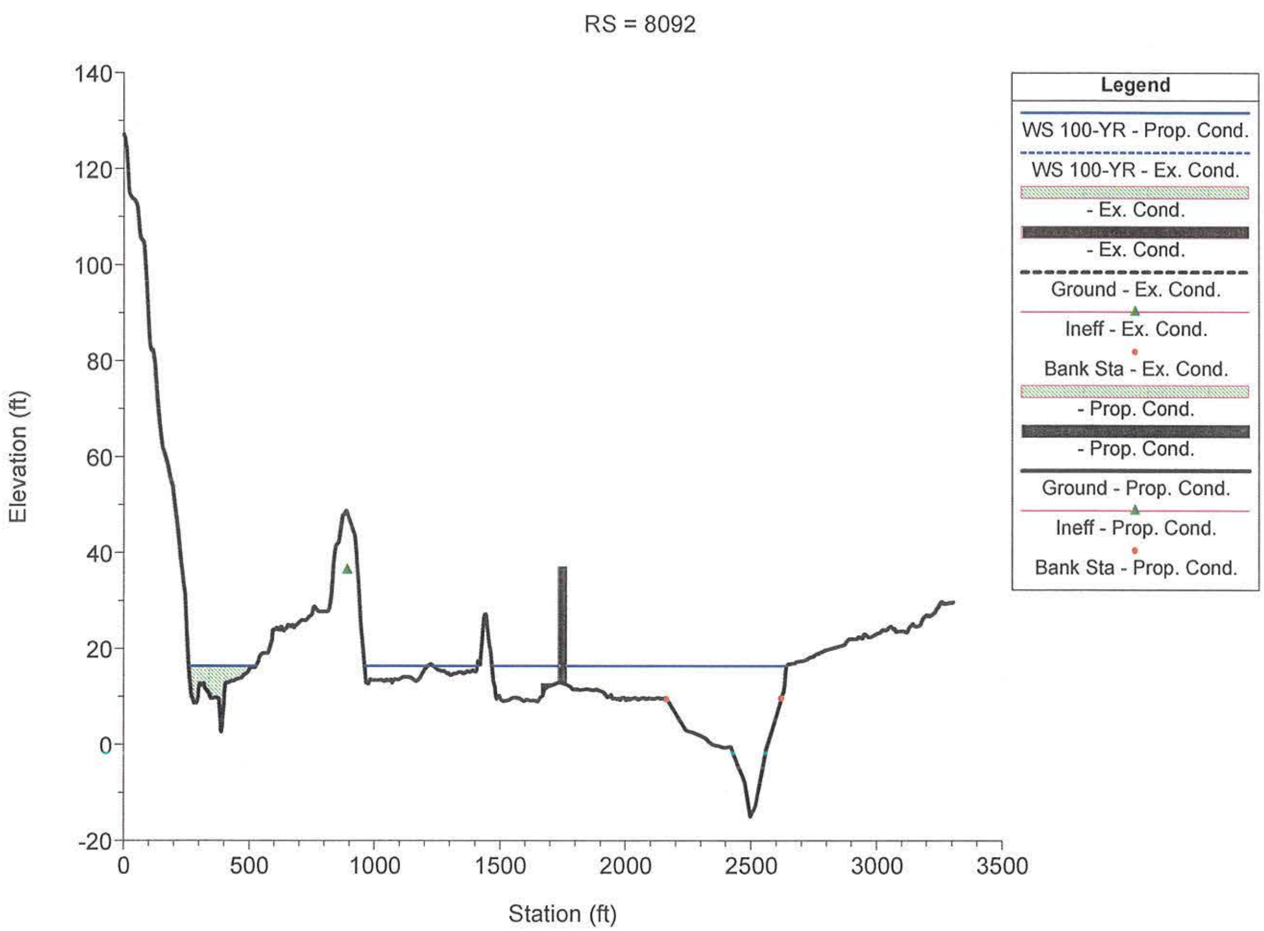
RS = 8165



140
120
100
80
60
40
20
0
-20
Elevation (ft)
0
500
1000
1500
2000
2500
3000
3500
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

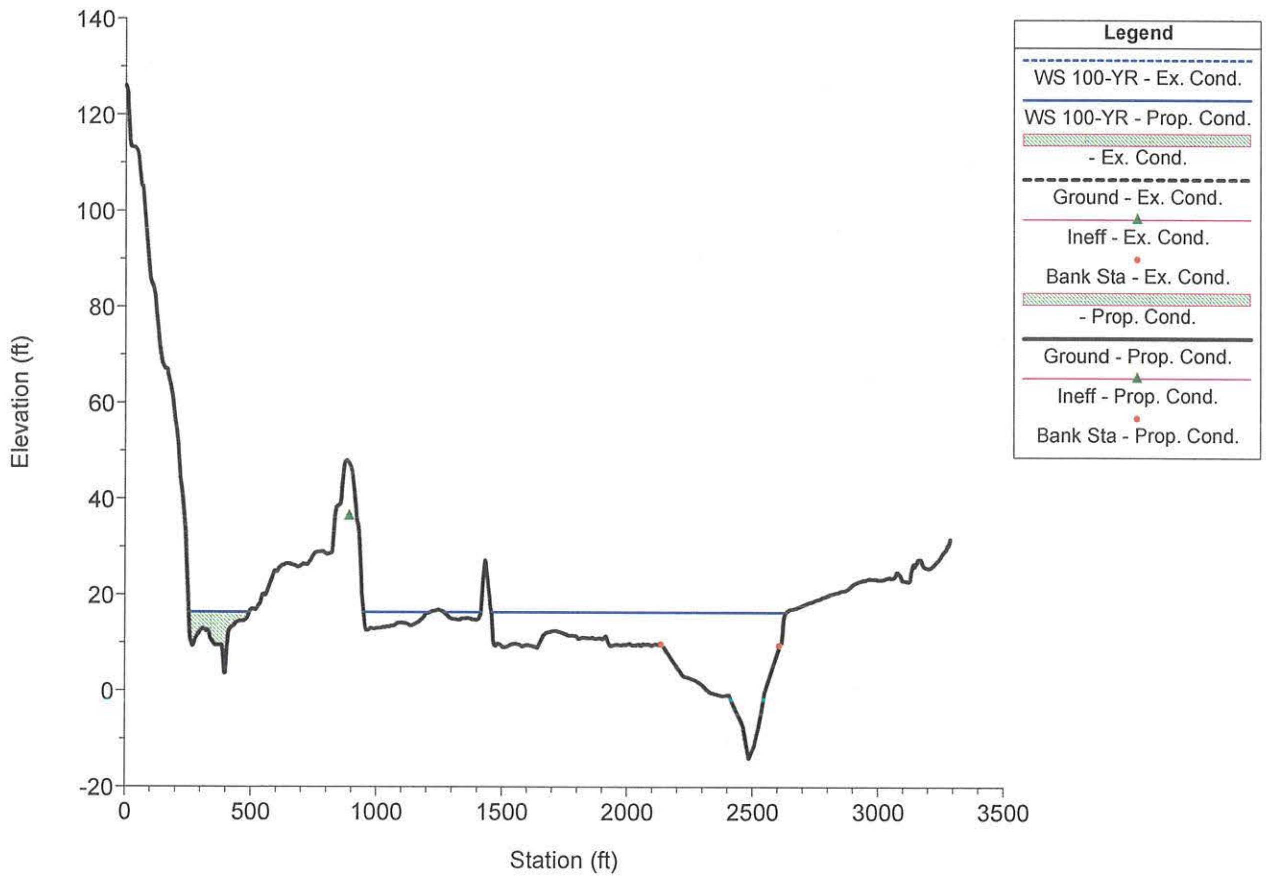


RS = 8131
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
Station (ft)
140
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500

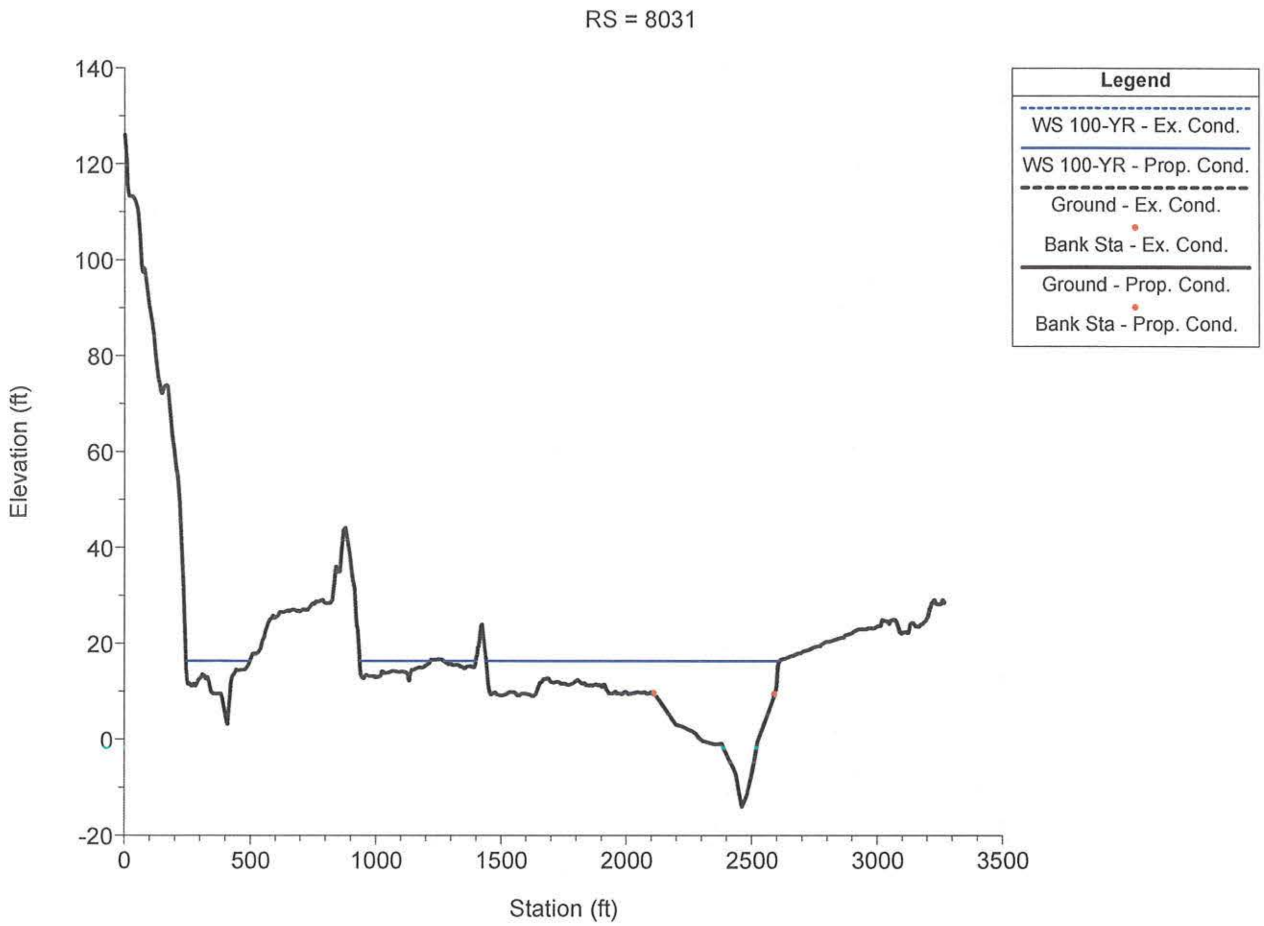


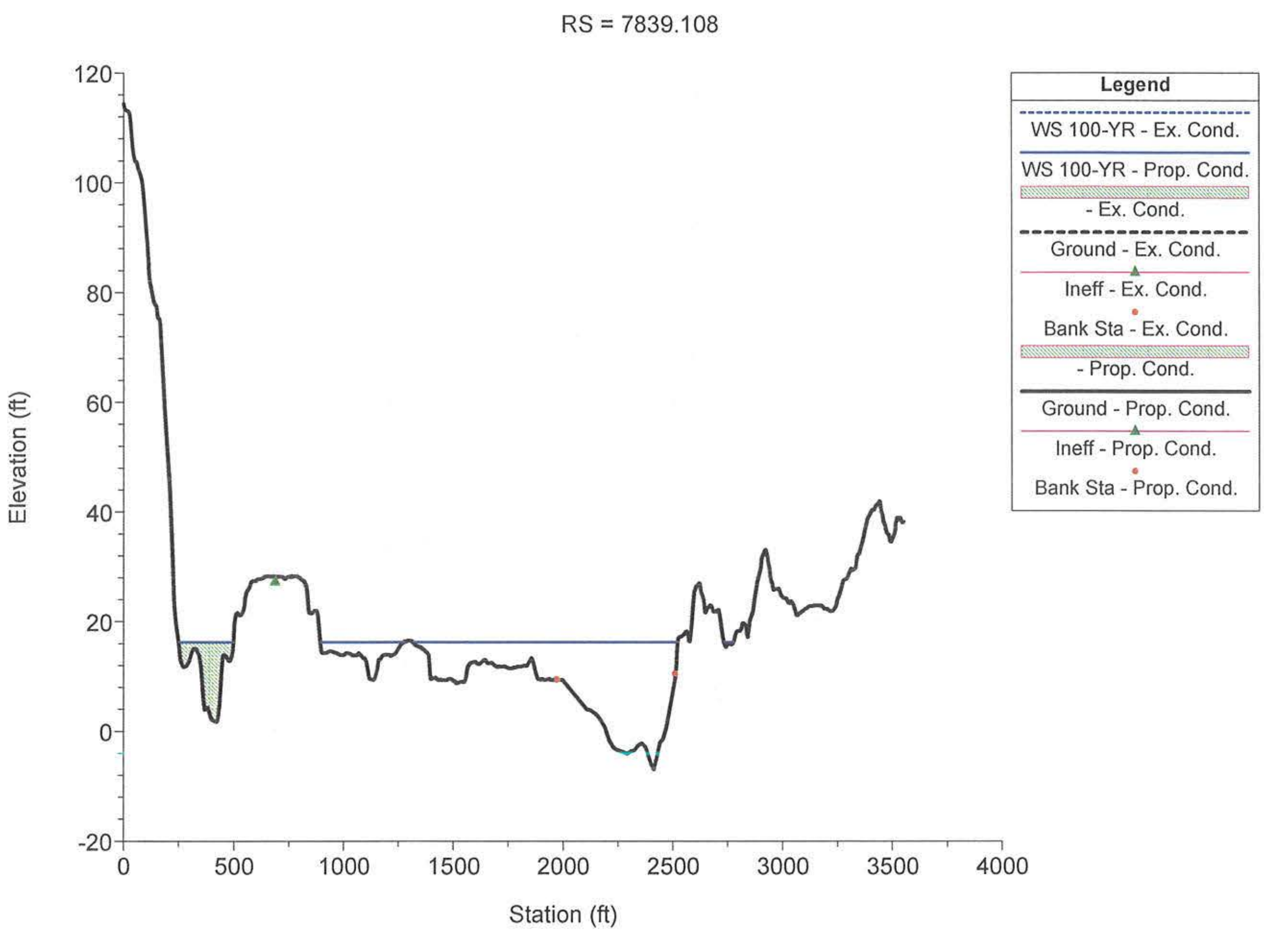
RS = 8092
Elevation (ft)
Station (ft)
140
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Prop. Cond.
WS 100-YR - Ex. Cond.
- Ex. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 8061

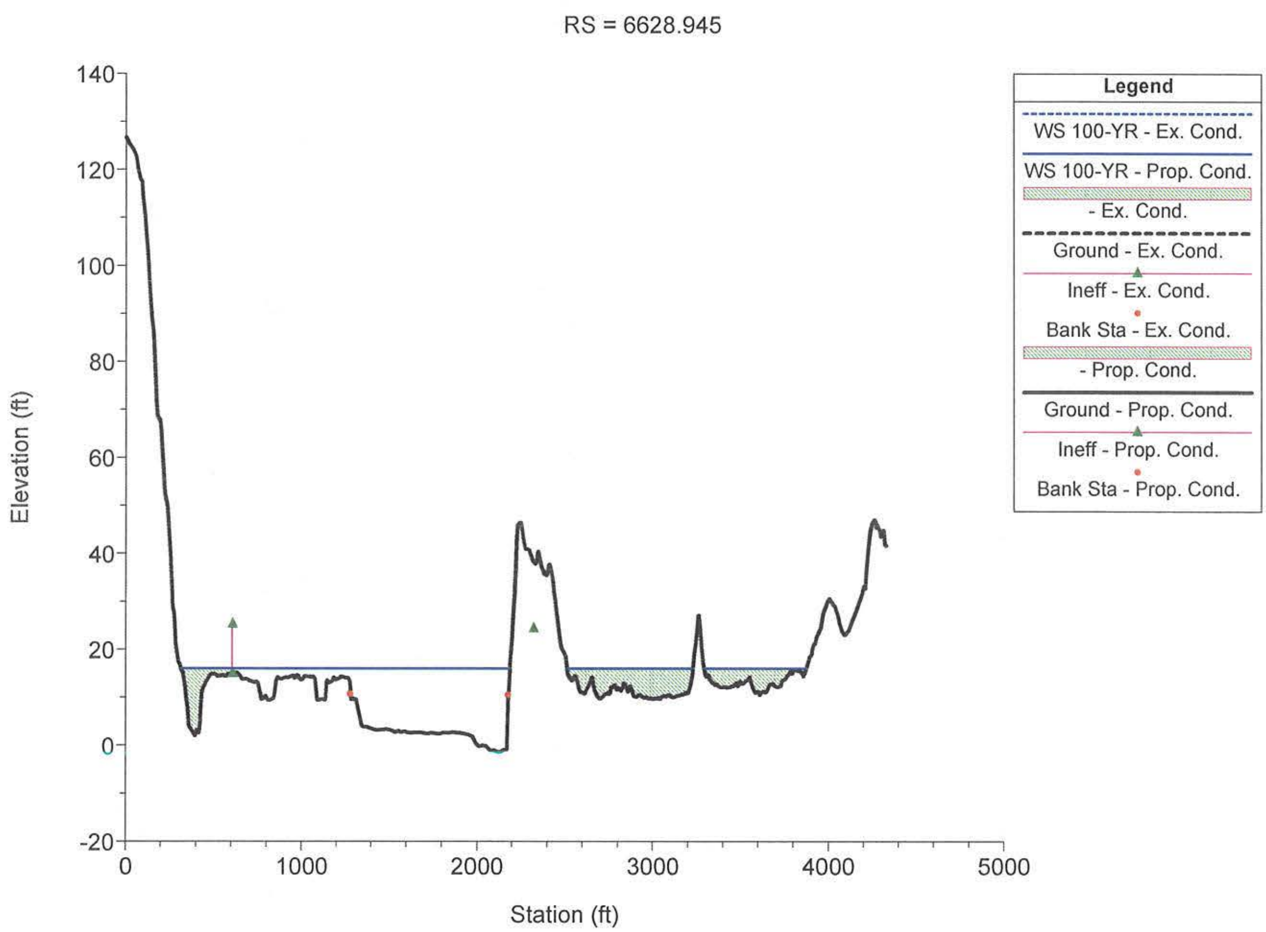


Elevation (ft)
Station (ft)
140
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 8031
Elevation (ft)
140
120
100
80
60
40
20
0
-20
Station (ft)
0
500
1000
1500
2000
2500
3000
3500
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
Ground - Ex. Cond.
Bank Sta - Ex. Cond.
Ground - Prop. Cond.
Bank Sta - Prop. Cond.

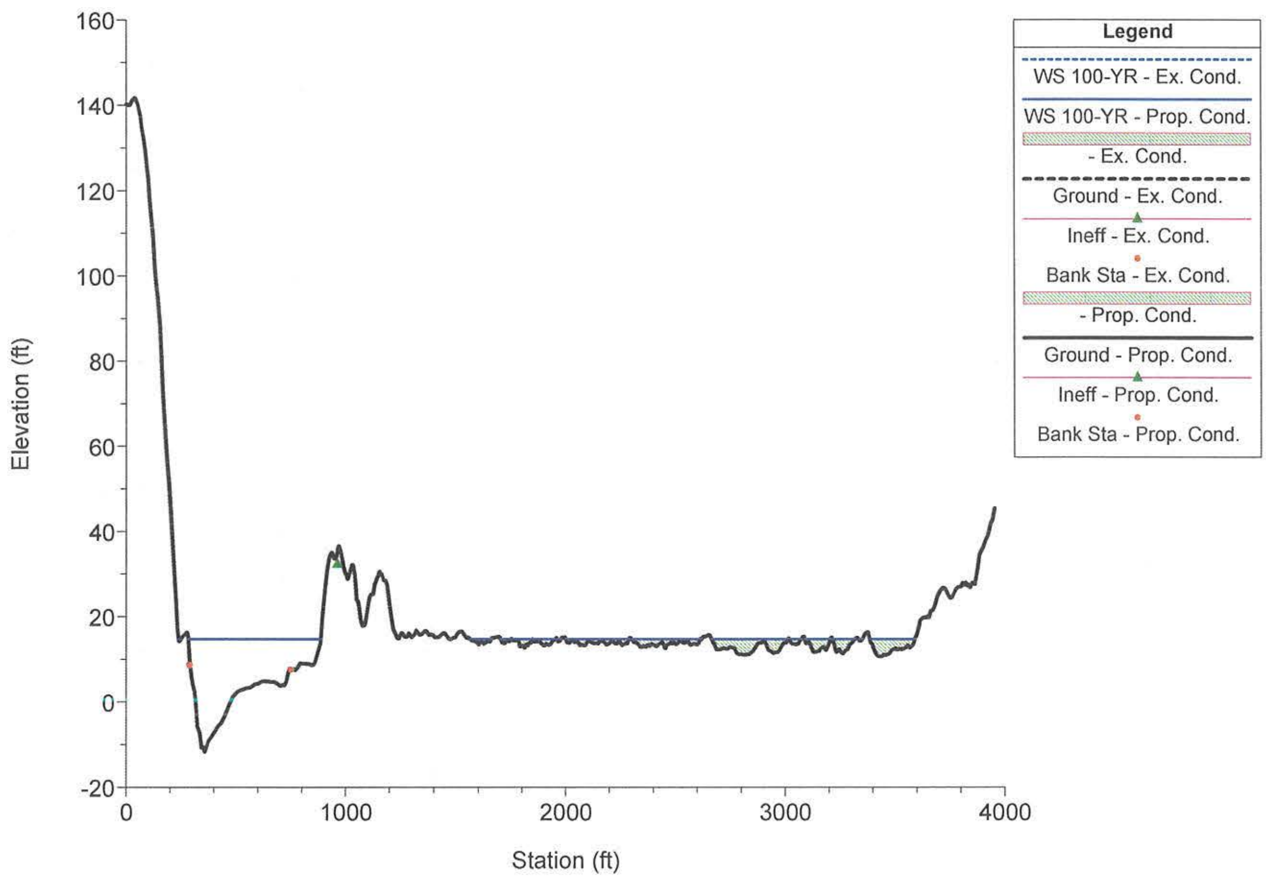


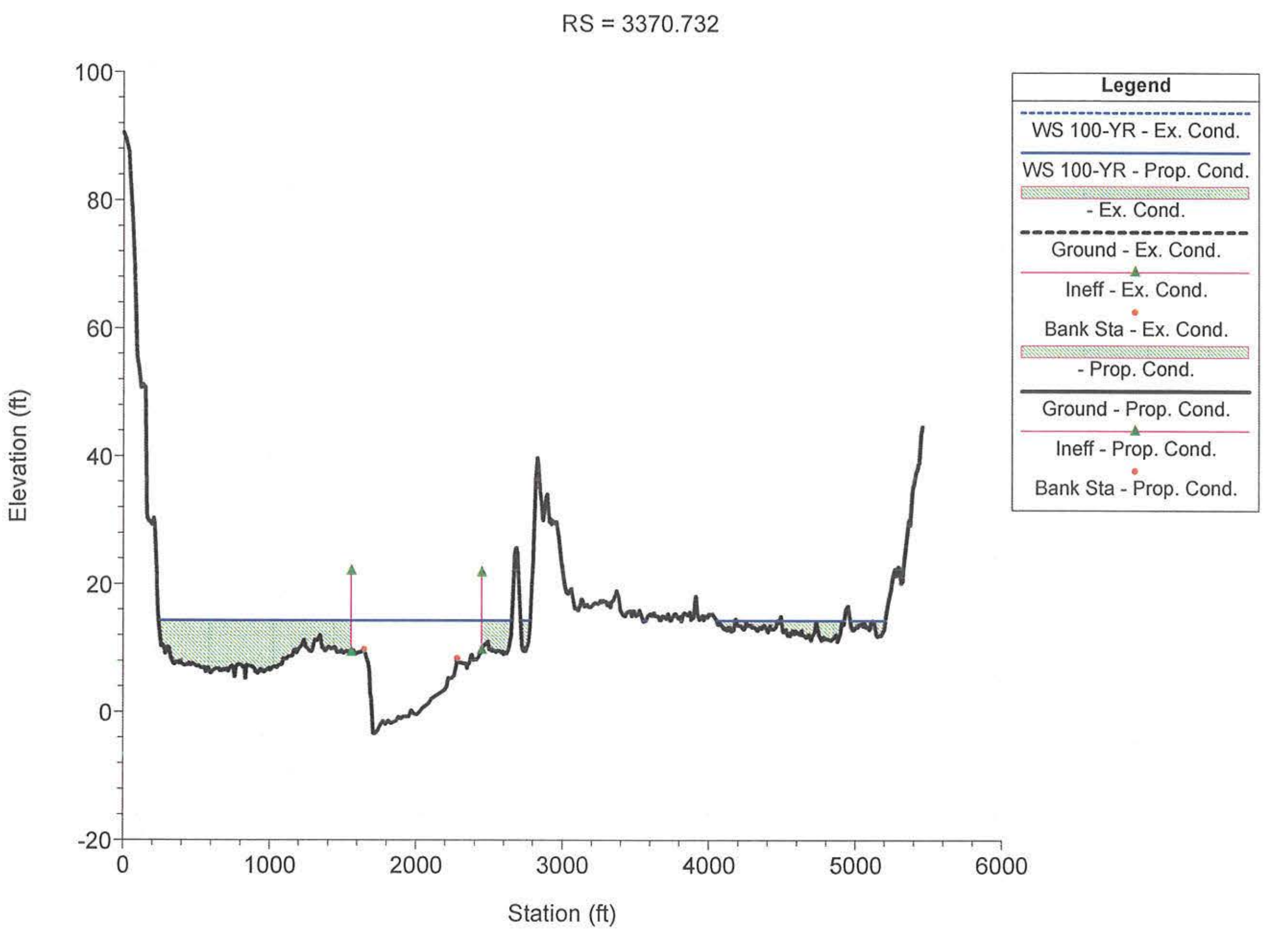
RS = 7839.108
Elevation (ft)
Station (ft)
120
100
80
60
40
20
0
-20
0
500
1000
1500
2000
2500
3000
3500
4000
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

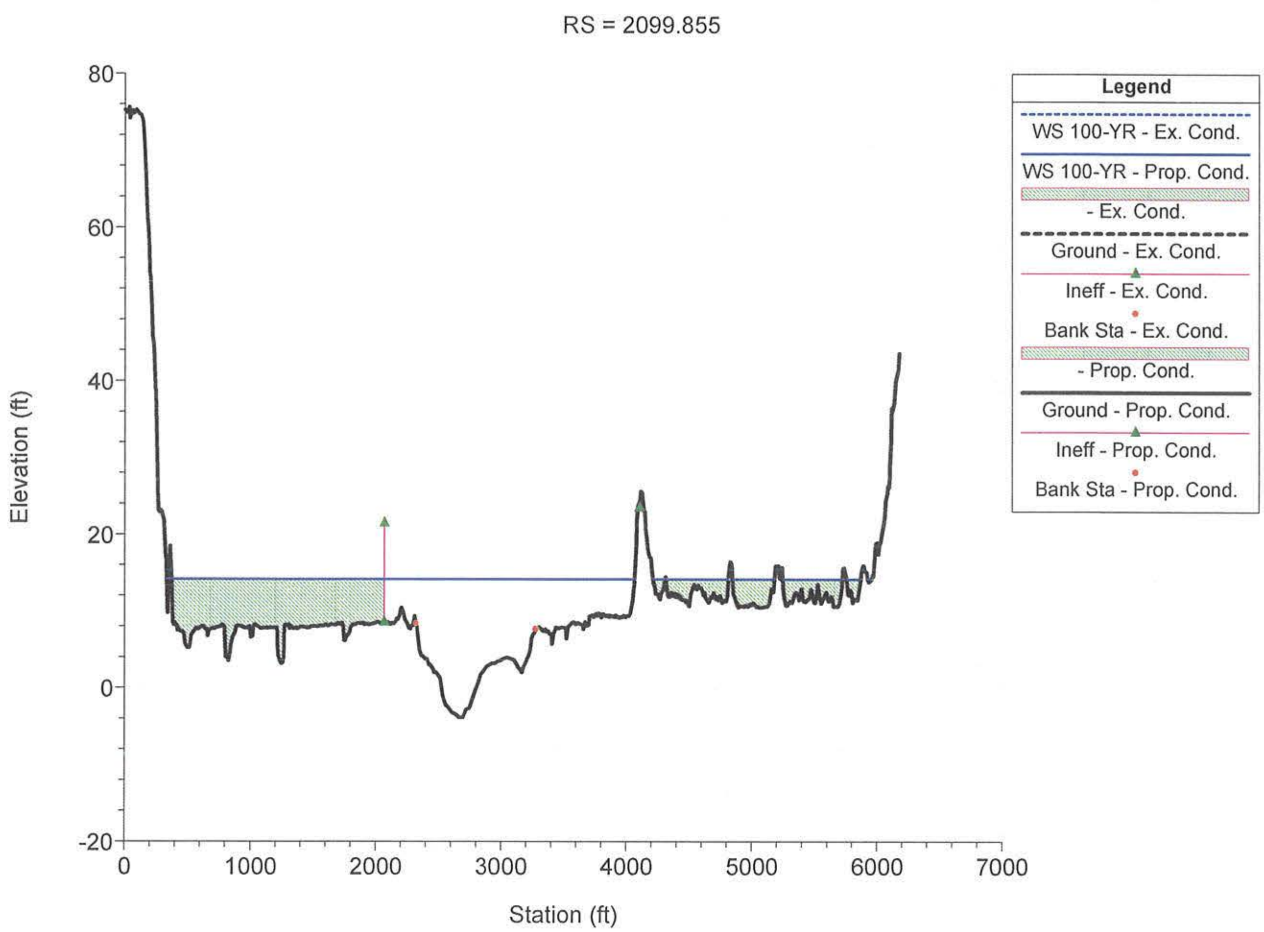


RS = 6628.945
Elevation (ft)
Station (ft)
140
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.

RS = 4746.314


Elevation (ft)
160
140
120
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
Station (ft)
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.


RS = 3370.732
Elevation (ft)
Station (ft)
100
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
6000
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.



RS = 2099.855
Legend
WS 100-YR - Ex. Cond.
WS 100-YR - Prop. Cond.
- Ex. Cond.
Ground - Ex. Cond.
Ineff - Ex. Cond.
Bank Sta - Ex. Cond.
- Prop. Cond.
Ground - Prop. Cond.
Ineff - Prop. Cond.
Bank Sta - Prop. Cond.
Elevation (ft)
80
60
40
20
0
-20
0
1000
2000
3000
4000
5000
6000
7000
Station (ft)

EXHIBIT C

Melissa Jenck

From: Crowley, Josha <Josha.Crowley@atkinsglobal.com>
Sent: Monday, April 26, 2021 8:51 AM
To: Melissa Jenck
Subject: RE: EXTERNAL: Fwd: David Coulter

Melissa – this looks good to me. No comments.

Josha Crowley, PE, PMP, CFM, D.WRE
RSC Lead | STARR II - Region X Service Center
Phone: (425) 329-3679
Cell: (206) 499-2440

From: Melissa Jenck <mjenck@co.tillamook.or.us>
Sent: Monday, April 19, 2021 3:32 PM
To: Crowley, Josha <Josha.Crowley@atkinsglobal.com>
Subject: FW: EXTERNAL: Fwd: David Coulter

Good afternoon Josha,

Another day, another model 😊 I hope I'm not keeping you too busy! I've got another no-rise for a property in Nestucca. Can you please review for compliance?

Thank you much!

Melissa Jenck | CFM, Land Use Planner II
Phone (503) 842-3408 x3301
(she/her)

The Department is excited to announce that we are OPEN to the public by appointment. To review the list of services provided and to schedule an appointment with us, please visit https://www.co.tillamook.or.us/gov/ComDev/ to access the appointment scheduler portal.

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Monday, April 19, 2021 12:31 PM
To: Melissa Jenck <mjenck@co.tillamook.or.us>
Subject: EXTERNAL: Fwd: David Coulter

[**NOTICE:** This message originated outside of Tillamook County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

I'm forwarding Jake's final report.....this has both the PDF and the computer model.
Per our discussion this morning.

thanks Melissa

---------- Forwarded message ---------
From: **Jake Hofeld** <jakeh@watways.com>
Date: Tue, Mar 30, 2021 at 1:27 PM
Subject: RE: David Coulter
To: ronald coulter <ron.coulterarchitects@gmail.com>

Hi Ron,

Attached is our report and the associated hydraulic model for you to send to the County. Please let me know if you have any questions.

Thanks,

Jake D. Hofeld PE/CWRE

Senior Engineer

Waterways Consulting, Inc.

503-528-4816

www.watways.com

From: Jake Hofeld
Sent: Monday, March 29, 2021 1:31 PM
To: ronald coulter <ron.coulterarchitects@gmail.com>
Subject: RE: David Coulter

Hi Ron,

The next step will be for me to finalize the hydraulic analysis model and report for you to send to the County with your permit application. I expect to have this over to you by tomorrow.

Thanks,

-Jake

From: ronald coulter <ron.coulterarchitects@gmail.com>
Sent: Monday, March 29, 2021 12:56 PM
To: Jake Hofeld <jakeh@watways.com>
Subject: David Coulter

What's the next step......do I review, then you send to the county?

Hope you had a great vacation on the coast.

Ron
