

Dante, VA: Conceptual Residential Housing Design Guidelines and Infill Prototypes



Prepared for the Dante Community Association
July 2020

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

Project funding provided by an Environmental Protection Agency (EPA)
Brownfields Assessment grant through the Community Design Assistance
Center (CDAC) at Virginia Tech



Cover photo, historical images, and other historical information contained in this report were derived from: Shearer, K. C.. Memories From Dante: The Life of a Coal Town. People Incorporated of Southwest Virginia. 2001

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

Project Team

Elizabeth Gilboy
Director

Nick Proctor
Project Manager

Kevin Jones
Associate Professor of Practice

Joe Morici
Cardno

Josh Sexton
Cardno

Sean Pickering
Architecture
Undergraduate Student

Jessica Wirth
Architecture
Undergraduate Student



CDAC faculty team members (left to right): Elizabeth Gilboy, Nick Proctor, Kevin Jones
CDAC student designers (center)*: Sean Pickering, Jessica Wirth

Not Pictured: Joe Morici, Josh Sexton

*right three people part of separate student team

The Community Design Assistance Center (CDAC) is an outreach center in the College of Architecture and Urban Studies at Virginia Tech that assists communities, neighborhood groups and non-profit organizations in improving the natural and built environments. Assistance is provided in the areas of landscape architecture, architecture, planning, and interior design. Working with communities, the conceptual planning and design provides communities with a graphic vision of their project that can then be used for grant applications and fundraising for the next steps toward implementation.

Community Design Assistance Center
101 South Main Street, Blacksburg, Virginia 24060
p: 540.231.5644 f: 540.231.6089
<http://www.cdac.arch.vt.edu>

ACKNOWLEDGMENTS

The CDAC team would like to acknowledge the following individuals for their contributions throughout the project:

Jarred Glass

Dante Community Association

Carla Glass

Dante Community Association

Lou Wallace

Russell County Board of Supervisor, member

and

Those who volunteered time for the betterment of their community

TABLE OF CONTENTS

Project Description	
Project Overview	7
Project Location	8
Community Background	10
Design Process	11

Part 1: Historic Character

Introduction	14
Housing Type Index	
Type 1A	15
Type 1B	16
Type 2A	17
Type 2B	18
Hollows	
Bearwallow	20
Straight Hollow	22
Bunchtown Road	24
Sawmill Hollow	26

Part 2: Housing Design Guidelines

Introduction	30
Siting and Lot Design	
Setbacks	33
Additions and Accessory Structures	34
Garages, Carports, and Driveways	36
Yard Elements and Landscaping	37
Fencing	42
Housing Characteristics	
Porches	43
Doors and Windows	44
Roof	45
Materials, Finishes, and Color	46
Accessibility	48
Energy Efficiency	49

Part 3: Infill Prototypes

Introduction	51
One Story - Square Shape	
Description	52
Plan	53
Elevations	54

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

One Story - L Shape	
Description	56
Plan	57
Elevations	58
Two Story - Single Family	
Description	61
Plan-First Floor	62
Plan- Second Floor	63
Elevations	64
Two Story - Duplex	
Description	67
Plan- First Floor	68
Plan- Second Floor	69
Elevations	70

Part 4: Appendix

Glossary of Terms	73
Meeting Notes	
Stakeholder Input Session	75
Preliminary Design Presentation	76

PROJECT DESCRIPTION

Project Overview

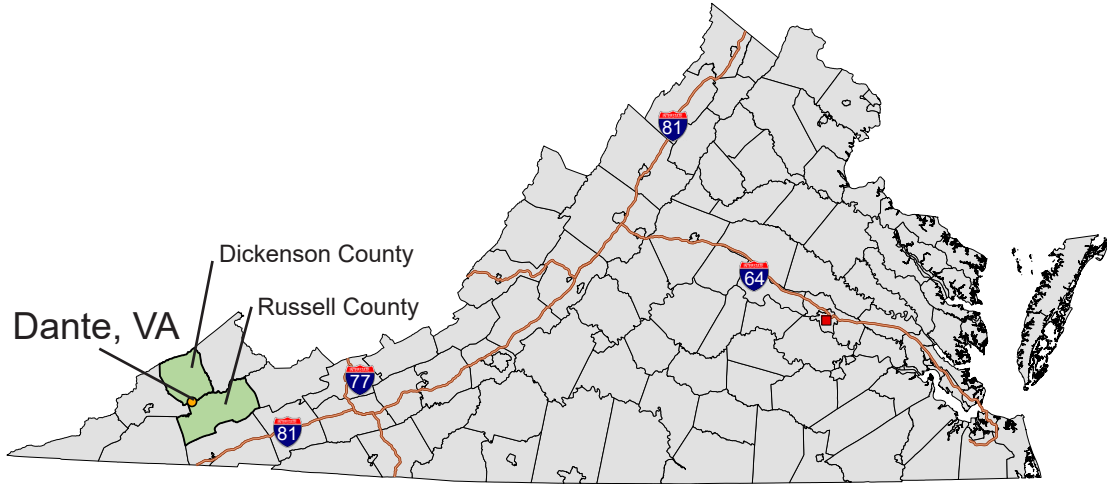
Through a second EPA Brownfields Assessment grant, CDAC continued assisting Dante with its revitalization efforts with this portion of work focused on residential housing design guidelines and infill prototypes. As revitalization efforts continue, it is important to document the coal camp character of Dante's historical housing style while also providing design inspiration for renovations and new construction in order to preserve Dante's architectural uniqueness.

The housing design guidelines provide recommendations for preservation, rehabilitation, and new construction in historic Dante. They place emphasis on maintaining the historic 'coal camp' character of the community while offering prototypical designs for new infill construction. Design suggestions will primarily focus on Bearwallow, Straight Hollow, Bunchtown Rd., and Sawmill Hollow.

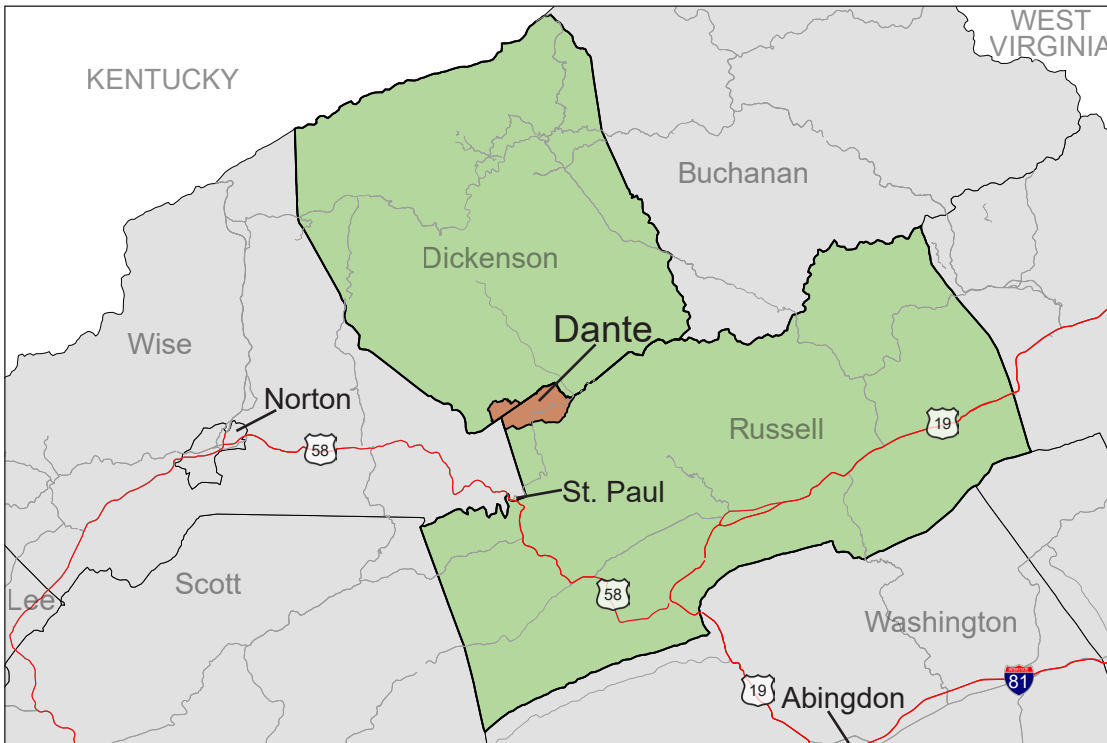
The housing design guidelines and prototype designs will help Dante with their redevelopment and economic revitalization efforts related to housing and rental accommodations for tourists, visitors, and those wishing to explore Dante as a possible community in which to live. This guidance will also help ensure that the character of housing stays within the style and design typical of Dante's coal homes.

PROJECT DESCRIPTION

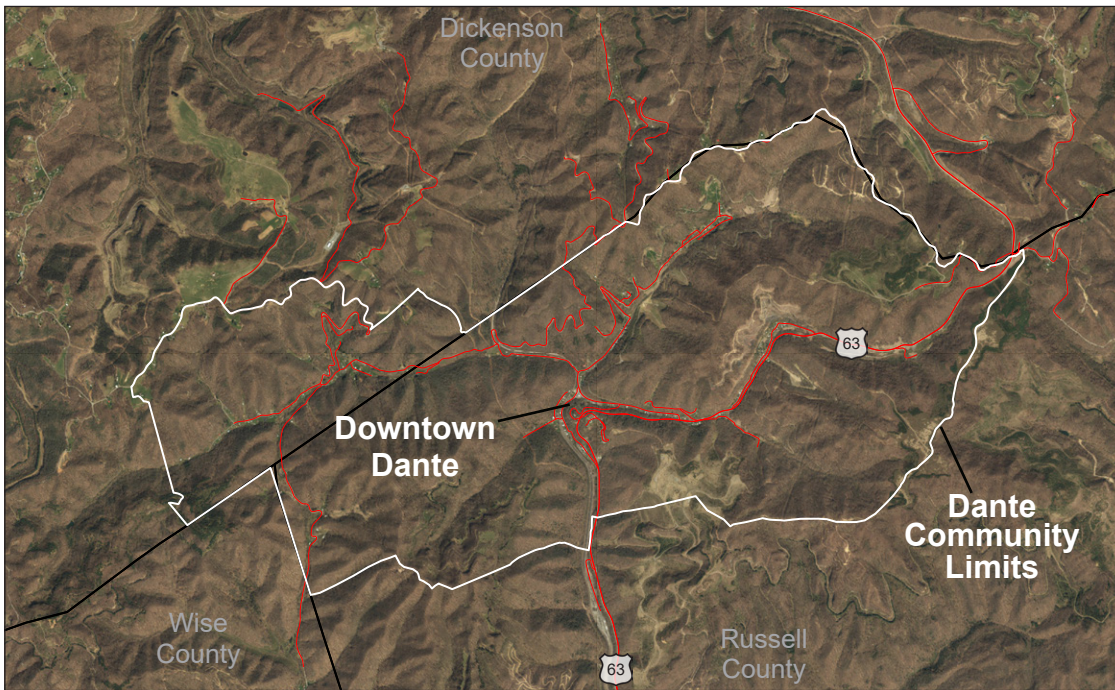
Project Location



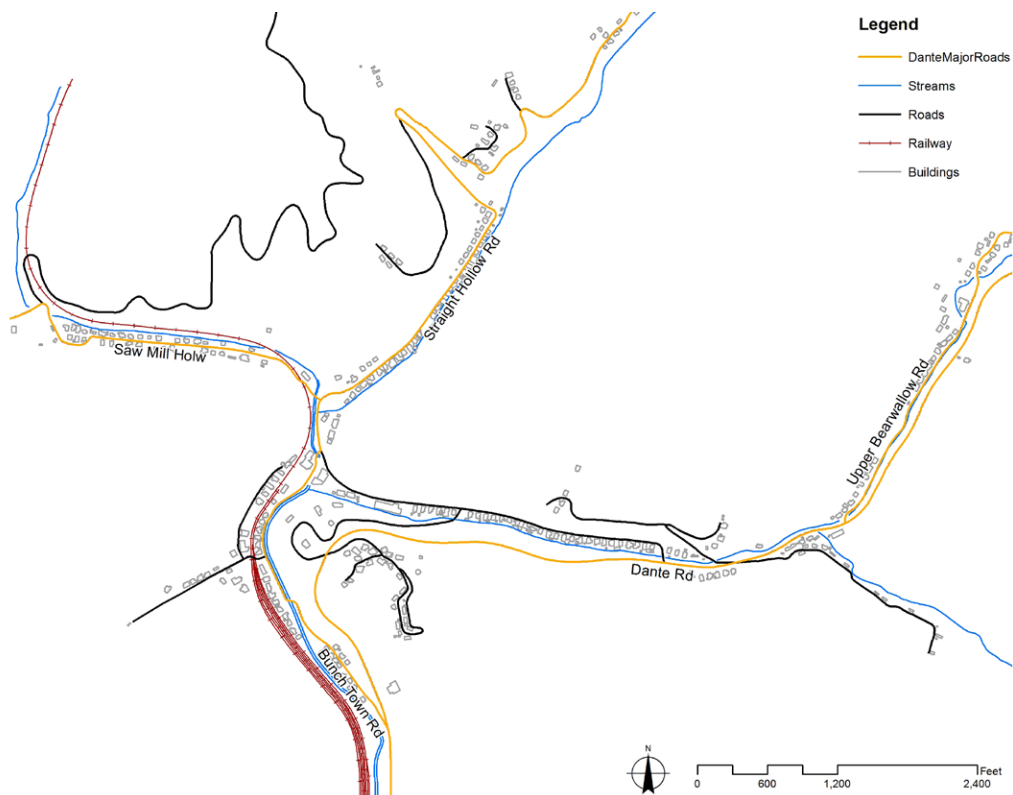
Dante, VA is located in Russell County in southwest Virginia (above), and is approximately ten minutes north of St. Paul, VA, fifty minutes west of Abingdon, VA, and forty minutes east of Norton and Wise, VA (below). A major connector near Dante is Route 58 which connects Russell and Dickenson counties to Interstate 81.



PROJECT DESCRIPTION



While Dante's community limits span seven square miles (above), CDAC's design efforts were focused primarily on residential areas within Sawmill Hollow, Straight Hollow, and Upper/Lower Bearwallow Hollow (below).



PROJECT DESCRIPTION

Community Background

Dante was originally called “Turkeyfoot” due to the confluence of three hollows. Originally settled in the late 1700s and early 1800s by western frontiersmen and farmers, explosive growth occurred in the early 1900s with the discovery and exploitation of numerous bituminous coal seams. Southern industrialist George L. Carter made it the northern terminus of the Clinchfield Railroad and the headquarters of the Clinchfield Coal Company, which began to mine the nearby hollows during the early part of the 20th century. Immigrants from Germany, Hungary, Greece, Poland, and other central European countries flocked to the area. In 1912, Sandy Ridge, which lies immediately to the north of Dante, was punctured by the Sandy Ridge Tunnel and allowed the Clinchfield Railroad to extend all the way to Elkhorn City, Kentucky.

During its heyday in the 1950s, Dante had 6,000 residents, a hotel, a rail depot, an auto dealership, and numerous shops. The coal seams surrounding the community were largely exhausted by the mid 1960s and were closed in favor of new mines such as Moss #3 in Duty, Virginia. The last area mines closed in the late 1970s after mining the combined Jawbone and Tiller seams to a height in excess of 30 feet of clean, refinable coal. With the loss of the coal economy, the community began a steep economic decline. Clinchfield Coal Company began selling off the houses it rented to miners in the late 1940s. Between 1956 and 1978, the community’s hotel, dress shop, and Store B (a major meeting space) all closed. Pittston, who purchased Clinchfield Coal, moved its headquarters to Lebanon, VA in 1972.

In 2016, however, a renewed interest from Dante’s residents prompted community organizations to begin discussions on a path to revitalization. CSX Transportation still operates the Dante Yard and the Clinchfield Coal Company offices are now apartments.

PROJECT DESCRIPTION

Design Process

The design process began with a community input session on September 19, 2019 at the Dante Community Center. During that visit the CDAC team discussed with community members the community's vision and defined parameters for future housing. The CDAC team visited several key sites including the former steam building, the Dante Coal and Railroad Museum, the downtown and park, and walked along each Hollow looking at the residential areas. Photographs, sketches, research, and input from the stakeholders created a comprehensive foundation that the CDAC team used to develop preliminary housing guidelines and prototype designs.

The team returned to Dante on November 13, 2019 to present the preliminary design concepts for the prototype housing and design guidelines. Following the presentation, community members provided feedback. A final design prototype was presented on February 25, 2020.

Meeting notes from the community input session and preliminary design presentation can be found in the Appendix.



Architecture students Sean Pickering (left) and Jessica Wirth (right) present preliminary prototype housing designs to the community for feedback.

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

This page is intentionally left blank.

PART 1: HISTORIC CHARACTER

HISTORIC CHARACTER

Introduction

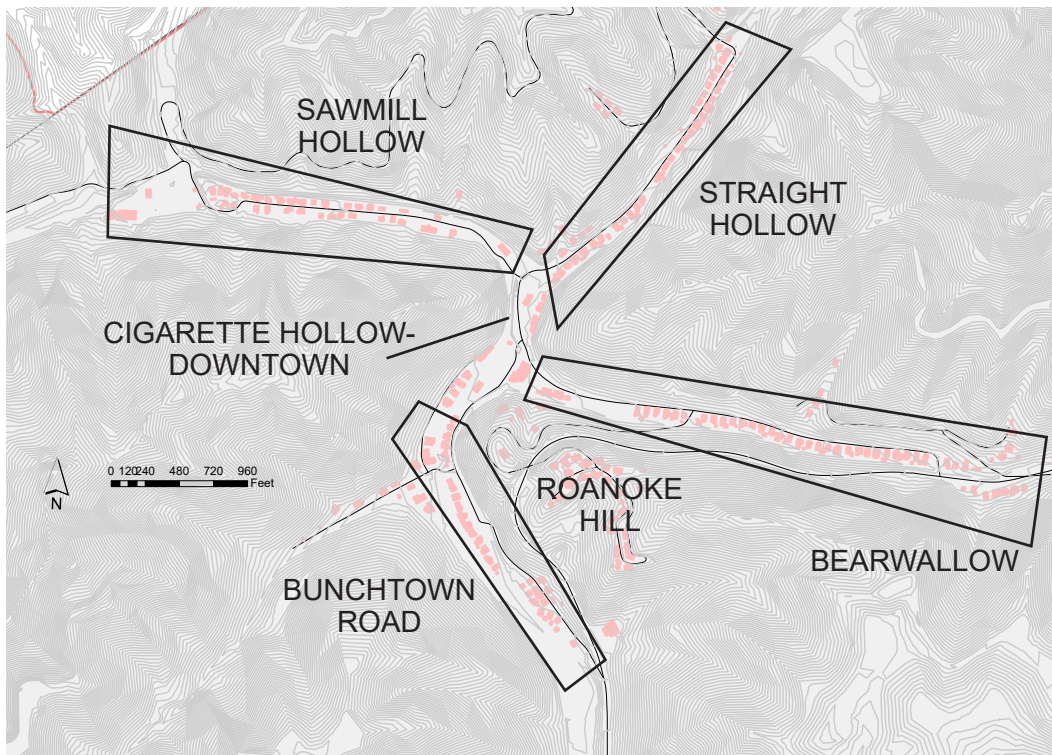
This section provides an overview of the history of the community and the predominant styles of housing that were built. It seeks to provide an understanding of the historical development of the community, its layout, and historical housing types. Through these, new developments can use the historical character information as a reference for the critical aspects of the Dante's residential character. The section provides an overall history of the community with a map of its layout and then provides basic historical information about each hollow. An index of housing types can be used as a graphic reference for the types of housing in each hollow.

Special note: Some words contained in the residential design guidelines are written in *italics*. Specific definitions for these words can be found in the Appendix.

Coal Camp History:

Dante has a strong sense of place due to its history as a coal camp. The chief characteristic of coal camps was the uniformity of their simple housing. Houses were erected in proximity to the mines for the workers and their families. In Dante, each hollow catered to a different ethnic group, with each working the mine of the individual hollow. Those with specific occupations of stature, such as doctors, priests, and pharmacists, had larger homes located in the hollows near the center of the community. Cigarette Hollow was the central area of Dante, which consisted of offices and amenities for the coal company and community. Management for the coal company had housing on Roanoke Hill, which overlooked the community.

14



HISTORIC CHARACTER

Housing Index: One-Story Housing - Type 1A

Facade (front) :

Entrance from street onto covered front porch. Two windows with shutters and central chimney.



Facade (side) :

Overhang above spacious porch and addition to the back. Two windows with shutters and horizontal wood siding.

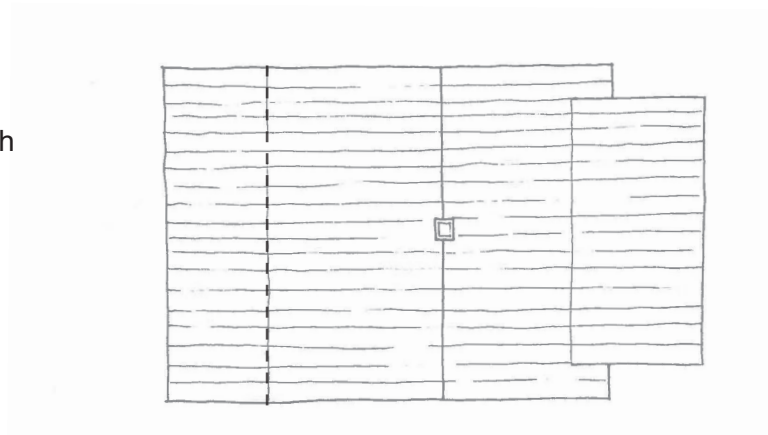


Addition

Original

Roof Plan :

Gabled metal roof with *shed roof* at front and chimney at center.



Addition

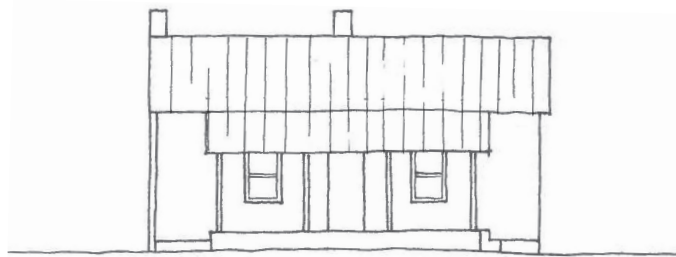
Original

HISTORIC CHARACTER

Housing Index: One-Story Housing - Type 1B

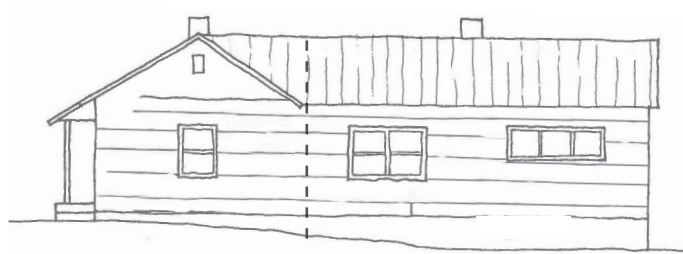
Facade (front) :

Entrance from street onto covered front porch. Two windows and a central chimney with one along the side.



Facade (side) :

Overhang above shallow front porch with steps on the side of the porch and horizontal wood siding. Horizontal window toward back of house.

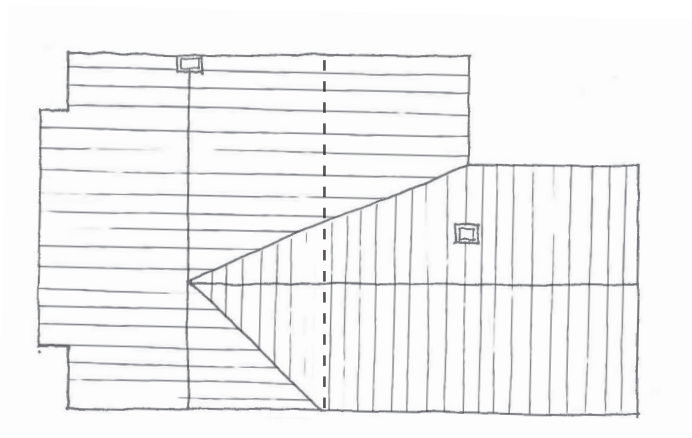


Original

Addition

Roof Plan :

Intersecting *gabled* roof with *shed* roof on porch. One chimney at center of roof along side of house and one along back portion of house.



Original

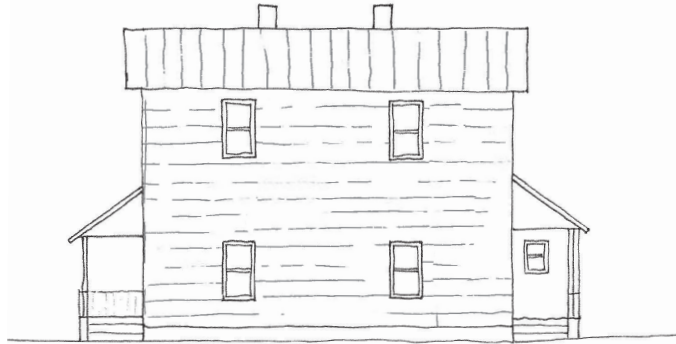
Addition

HISTORIC CHARACTER

Housing Index: Two-Story Housing - Type 2A (Single Family)

Facade (front) :

Symmetrical single family home with side facing front door under overhangs. Four street-facing windows and horizontal wood siding. Two chimneys



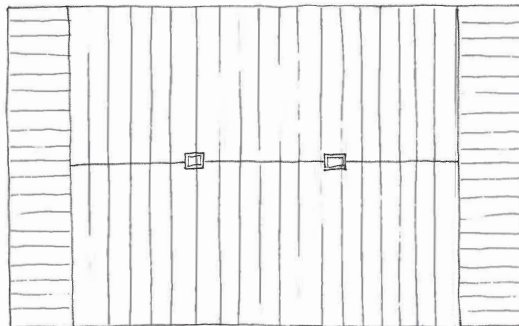
Facade (side):

'Front' door side entry covered by overhang with small window next to entry.



Roof Plan :

Metal or shingled roof with symmetrical overhang and chimneys.

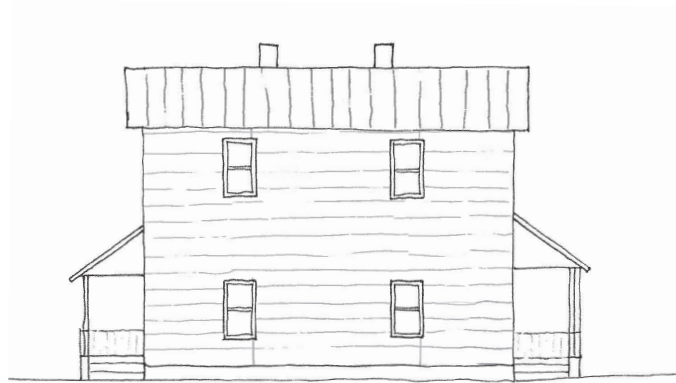


HISTORIC CHARACTER

Housing Index: Two-Story Housing - Type 2B (Duplex)

Facade (front) :

Symmetrical duplex with side facing entries under overhangs. Four street-facing windows and horizontal wood siding. One chimney per side of duplex.



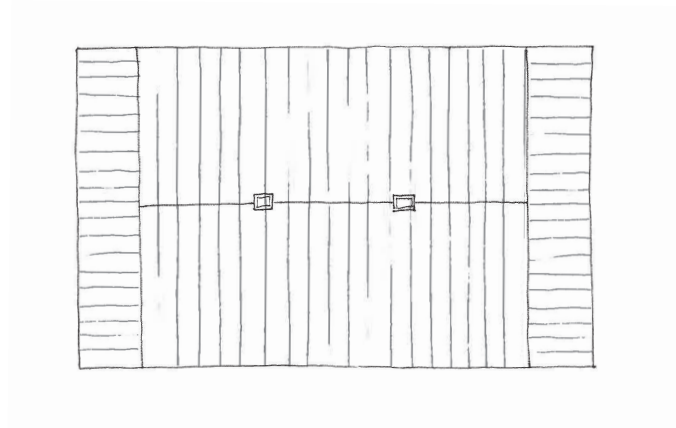
Facade (side):

Front door side entry covered by overhang with small window next to entry.



Roof Plan :

Metal or shingled roof with symmetrical overhang and chimneys.

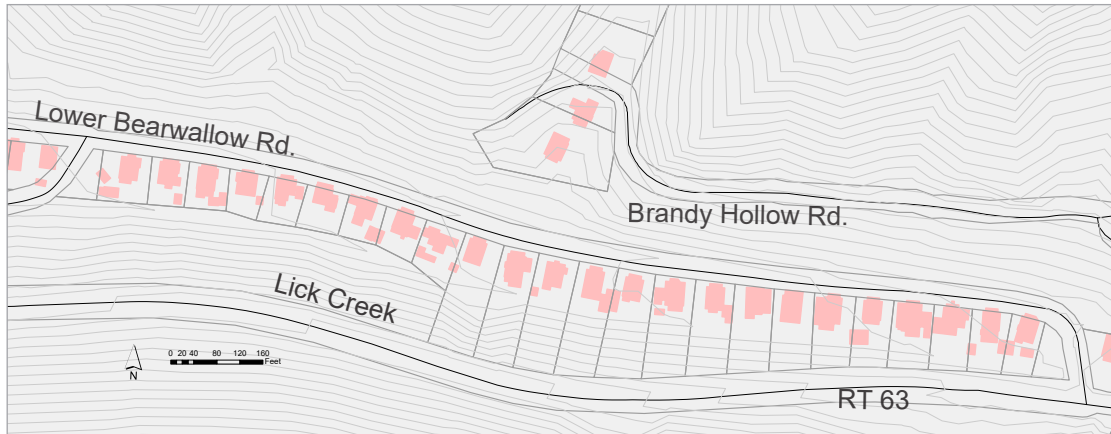


Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

This page is intentionally left blank.

HISTORIC CHARACTER

Bearwallow

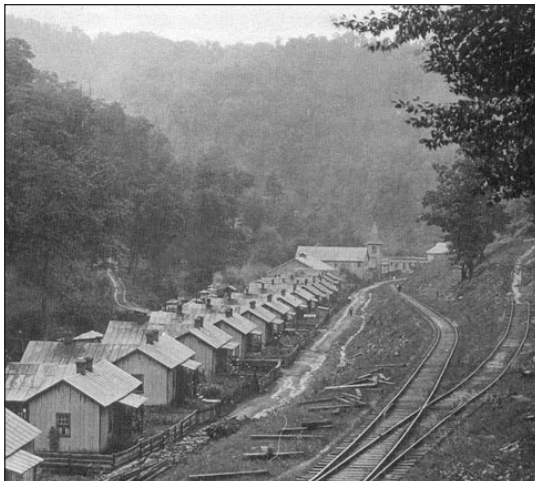


Map of Bearwallow; Locator Map found on P. 14

History

20

Bearwallow is the oldest hollow in Dante and contains the most original housing still standing today. It was the location of mines #52, #53, and #3 while in use. Many town gathering spaces such as St. Catherine's Catholic Church, the Dante Central School, and the Hall were located along the beginning stretch of the Hollow. Larger homes for the doctors, priests, and pharmacists were also located here. The hollow consists of Lower Bearwallow and Upper Bearwallow.

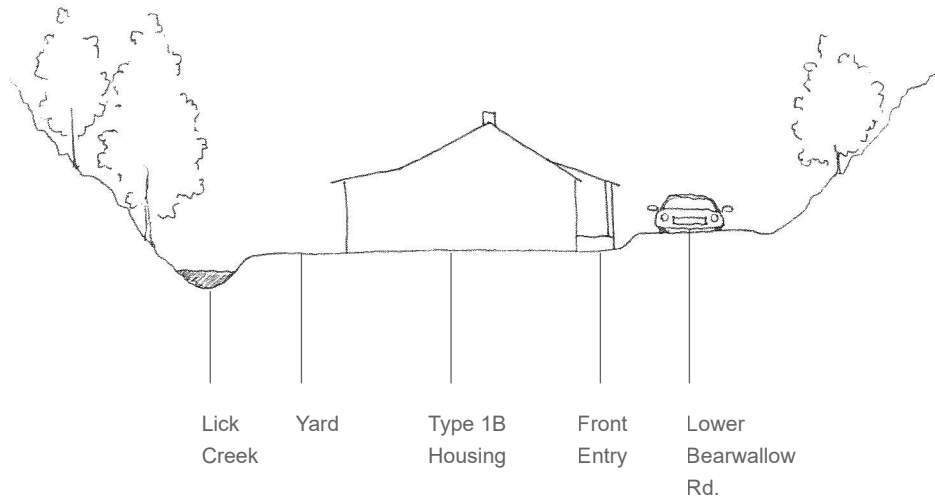


Bearwallow (1918)



Bearwallow (2019)

HISTORIC CHARACTER



Current Lot Characteristics

The average Bearwallow lot faces Lower Bearwallow Road. Most residents utilize street space for parking, however some have detached carports. Yards extend along the sides of the homes to Lick Creek, from which the slope of the mountain begins.

21

Housing Type

The most common housing type found in Bearwallow is Type 1B (pg. 16).



Bearwallow (2019)



Bearwallow (2019)

HISTORIC CHARACTER

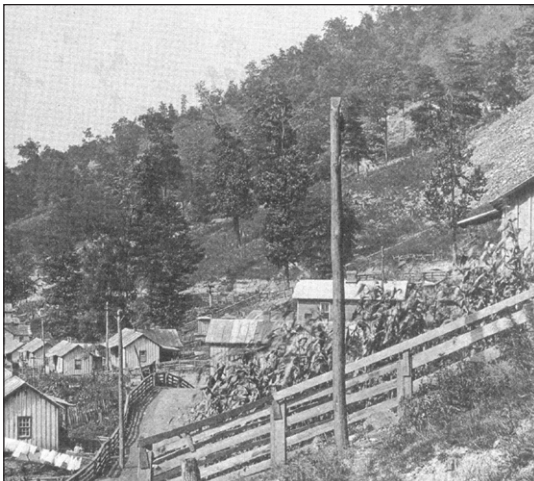
Straight Hollow

History

Hungarian, Greek, and Italian families were most often housed in Straight Hollow. Many families who first came to Dante would also stay in Straight Hollow before moving to a more permanent residence elsewhere.



Map of Straight Hollow. Locator Map found on P. 14

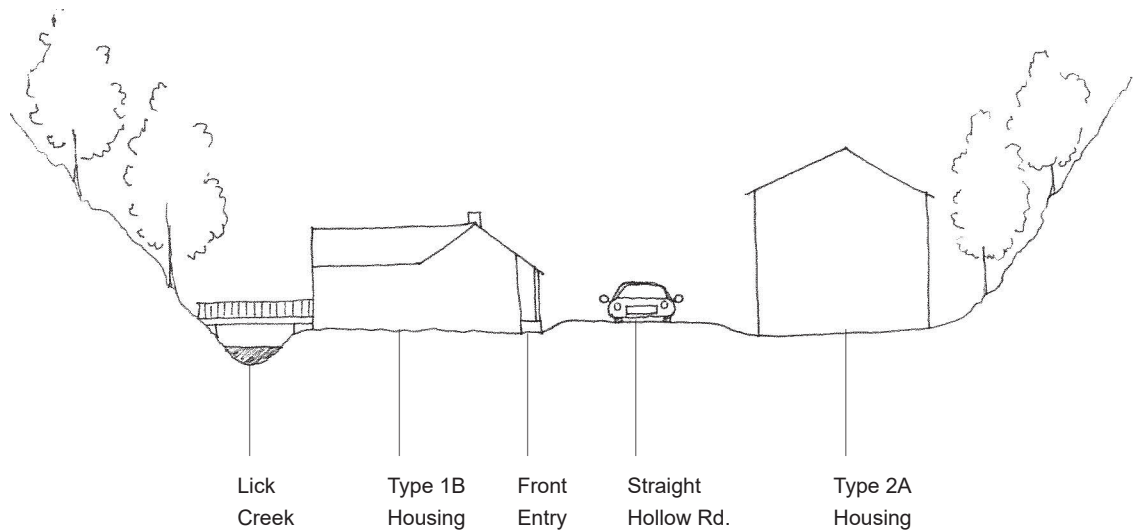


Straight Hollow (1918)



Aerial of Straight Hollow (2019)

HISTORIC CHARACTER



Current Lot Characteristics

Lots run along both sides of Straight Hollow Road. The lots backing up to Lick Creek (shown left) typically lack backyard space and have decks or footbridges crossing over the creek to *accessory structures*. The lots across the street (shown right) typically have entrances from the sides where there are more generous yard spaces.

23

Housing Type

The most common housing types found in Straight Hollow are Type 1B and 2A (pg 16, 17).



Straight Hollow (2019)



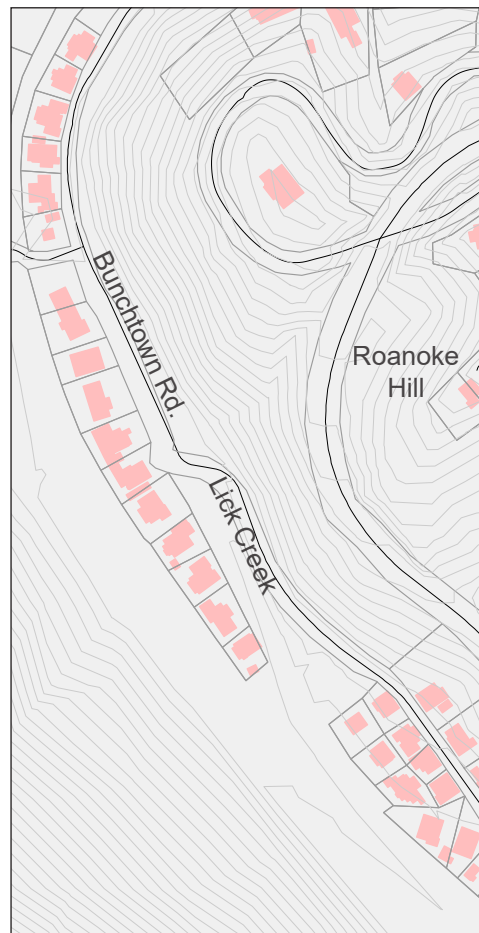
Straight Hollow (2019)

HISTORIC CHARACTER

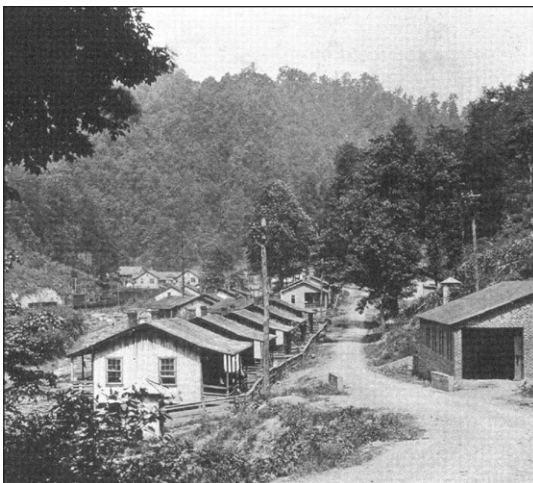
Bunchtown Road

History

Bunchtown Road is one of the newer hollows in Dante. It is located near Cigarette Hollow, the center of town. It is the location of Union Baptist Church and connects Dante's former downtown area with Rt. 63.



Map of Bunchtown Road. Locator Map found on P. 14

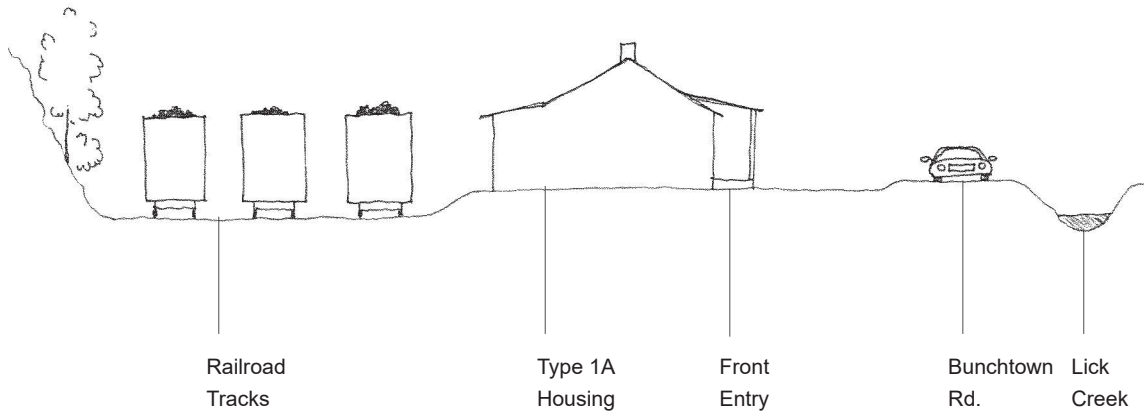


Bunchtown Rd. (1918)



Aerial of Bunchtown Road (2019)

HISTORIC CHARACTER



Current Lot Characteristics

Lots along Bunchtown Road back up to railroad tracks where rail cars are stored. This limits back yard space, so yards are typically placed in the front between Bunchtown Road and the homes.

25

Housing Type

The most common housing type found on Bunchtown Road is Type 1A (pg. 15).



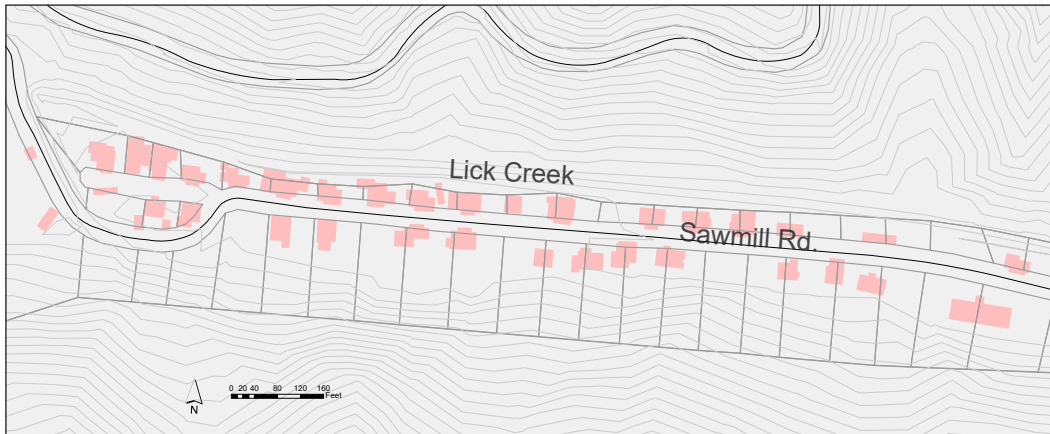
Bunchtown Rd. (2007)



Aerial of Bunchtown Road (2019)

HISTORIC CHARACTER

Sawmill Hollow

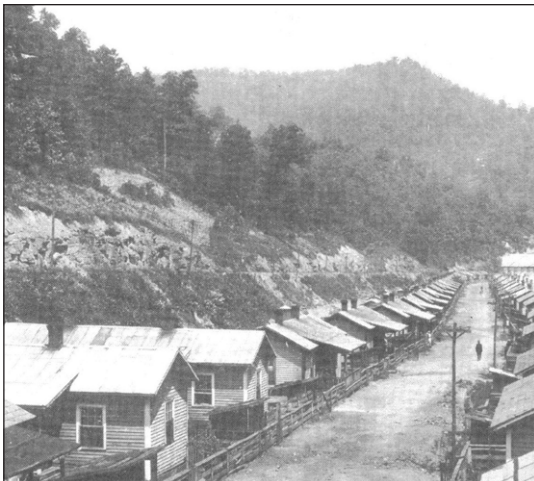


Map of Sawmill Hollow; Locator Map found on P. 14

History

26

Sawmill Hollow was historically home to the African American community of Dante. Due to the hollow's demographics, it was the location of many African American community spaces such as the Arty Lee School and church. Much of the original housing of the hollow has been demolished, leaving considerable empty lots. The Arty Lee School was recently demolished due to its physical deterioration over the years and presence of environmental contaminants such as lead and asbestos. Though the church is no longer used, the Arty Lee School site will be redeveloped into a campground and outdoor community space.

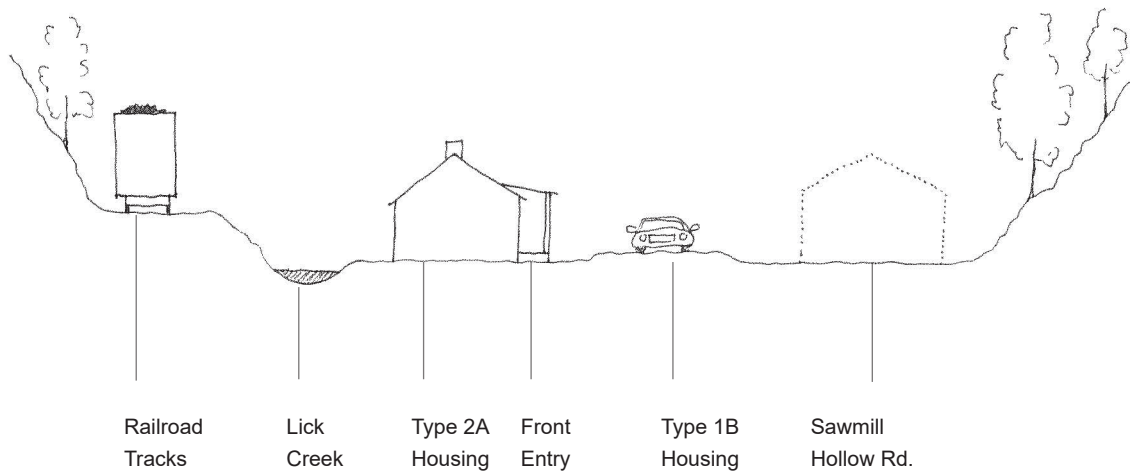


Sawmill Hollow (1918)



Aerial of Sawmill Hollow (2019)

HISTORIC CHARACTER



Current Lot Characteristics

Lots run along both sides of Sawmill Hollow Road. The lots backing up to Lick Creek and the railroad tracks (shown left) or the mountain (shown right), reducing available lot space for a yard. However, since many of the original lots are now empty, there is space for infill housing or larger lot sizes.

27

Housing Type

The most common housing type found in Sawmill Hollow is Type 1B (pg 16).



Sawmill Hollow (2019)



Aerial of Sawmill Hollow (2019)

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

This page is intentionally left blank.

PART 2: HOUSING DESIGN GUIDELINES

HOUSING DESIGN GUIDELINES

Introduction

Communities derive their sense of identity, in part, from the buildings in which they live and work. Reflected in the design and construction of a community's built environment are the aesthetic and social values that tie the community together. The development and growth of Dante's neighborhoods can be traced through its architectural history. These characteristics create a visual identity unique to Dante. Historic buildings reflect the pride and dreams of its citizens. Physical changes that take place should respect the existing architectural environment and the historic values they encompass. There are several ways to achieve this of which design guidelines are one.

Design guidelines are not intended to stop growth or preserve a community at one point in time. Rather, they are intended to offer effective methods of making visual improvements. In this way, Dante's past can be part of the present and future. The aim of these design guidelines is to help achieve the goals of the Dante community in retaining the historical coal camp character of the neighborhoods. Design guidelines are a method of directing appropriate design decisions, whether for renovations or building new residential infill.

Design guidelines can:

- increase awareness of the existing character and how it can be maintained;
- increase awareness of the overall revitalization process to government officials and the public;
- increase understanding of design goals and how they can be accomplished in the neighborhoods;
- offer guidance to property owners on how to make improvements to their homes that maintain the historic character of the Dante neighborhoods;
- be adopted as official design ordinances by local government.

Design guidelines cannot:

- be laws one must adhere to; they are just recommendations;
- guarantee results; they are just suggestions for better design;
- control or manipulate neighborhood growth.

The guidelines are broken into specific design elements that contribute to the character of the town. These are primarily focused on exterior characteristics since they have the most impact on the community's character. The 'Historic Character' section can be used in conjunction with the guidelines to provide context about the community and each specific hollow. The 'Prototype Housing' section provides designs that follow provide specific examples of how these guidelines can be implemented in a new development.

HOUSING DESIGN GUIDELINES

The 'Residential Design Guidelines' section is broken down into the following sub-sections:

- Siting and Lot Design
 - Setbacks
 - Additions and Accessory Structures
 - Landscaping
 - Fences
 - Garage/Driveways
- Housing Characteristics
 - Porch
 - Doors and Windows
 - Roof
- Materials, Finishes, Color, and Details
- Energy and Resource Efficiency

Special note: Some words contained in the residential design guidelines are written in *italics*. Specific definitions for these words can be found in the Appendix. Design terminology is noted at the end of each sub-section.

DESIGN GUIDELINES

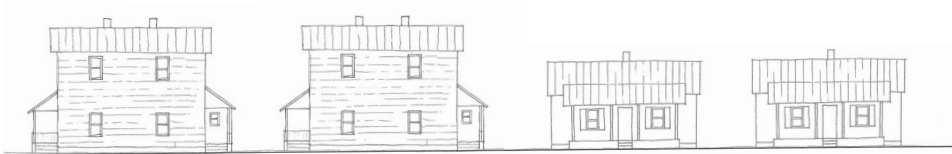
Siting and Lot Design

Dante's historic *site* character is uniquely defined by the *scale* and *spacing* of original houses and the uniformity of the town's small front yards. The apparent size and *scale* of a *structure* from the street is the most critical view in regards to maintaining the character of the town. An effort should be made to develop the *site* in a manner typical for the hollow.

Guidelines:

- Maintain a consistent pattern of one-story or two-story development that matches *adjacent structures*.
- Proposed buildings should relate in size and *mass* to the size or *mass* of abutting or *adjacent structures*. Buildings should generally match the width and height of *adjacent structures*.

YES



NO



- The *primary facade* and main *entry* should face the street. Exceptions include two story houses where *lot* size dictates the *entry* face the side of the *site*.
- The largest building, or *primary structure*, should be closest to the street

Design terminology: additions, adjacent structures, entry, lot, mass, primary facade, primary structure, scale, setbacks, site, spacing

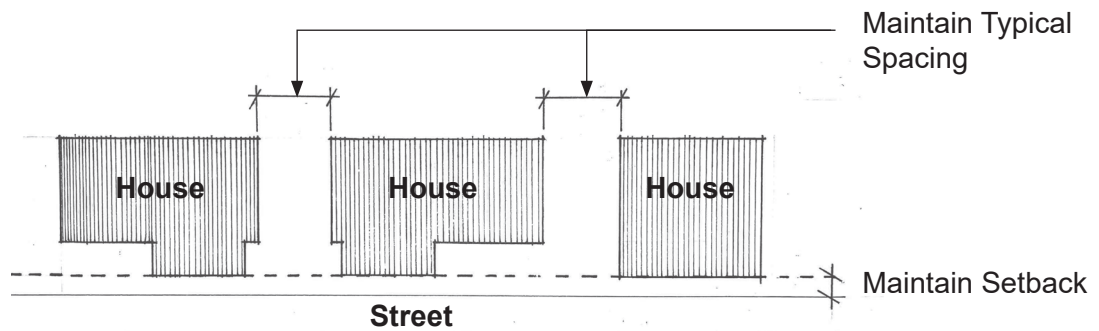
DESIGN GUIDELINES

Setbacks

Dante is characterized by uniform *setbacks* along each hollow. The *setbacks* are a critical component to the street character of the town and should be maintained by *additions* or *infill structures*.

Guidelines:

- *Structures*, including porches, should match the traditional *alignment* of buildings.
- Maintain the typical *spacing* between buildings found in the hollow. See Part 1 for hollow maps and descriptions.



Design terminology: additions, alignment, infill structures, setbacks, spacing, structures

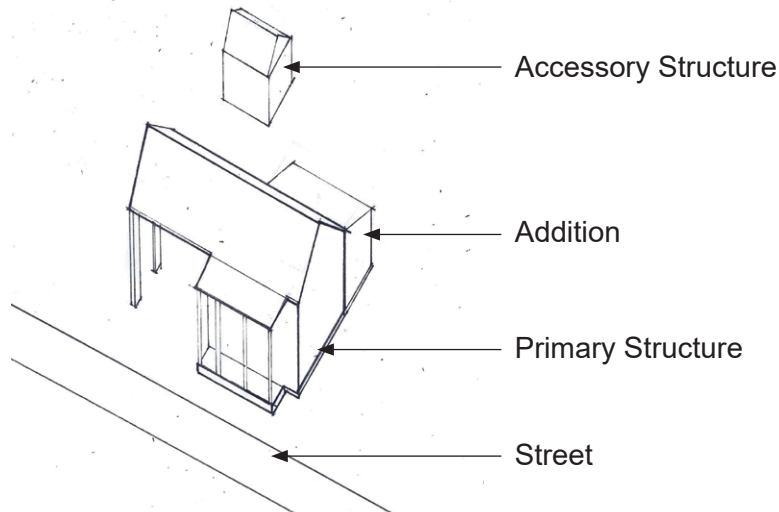
DESIGN GUIDELINES

Additions and Accessory Structures

Accessory structures and *additions* are frequently seen in Dante due to the small size of original housing. They prove useful in providing space for carports, garages, sheds, or other uses. Over the years, most houses in Dante have been added onto in order to accommodate contemporary needs.

Guidelines:

- *Additions* and *accessory structures* should be secondary in size to the *primary structure* and be as inconspicuous as possible from the street. This can be achieved through placement in the rear of the house or an increased *setback*.



- The design of any *additions* and *accessory structures* should relate to and maintain the *setbacks*, side-yards, and building spacing in the original pattern of Dante.
- The design of *accessory structures* and building *additions* should take cues from the architecture of the *primary structure*. These include: material, roof form, and architectural details.
- *Additions* should demolish as little as possible of the original home.
- Any *additions* and *accessory structures* should comply with the rest of the Design Guidelines
- *Additions* should be as inconspicuous as possible from the street. This can be achieved through placement at the rear of the house or set back behind the front wall of the house.
- The *scale* of any *additions* should be secondary to the primary form of the

DESIGN GUIDELINES

- building.
- Designs should be compatible with the existing house through the use of matching materials, colors, and roof lines.
 - *Additions* should retain as much of the original home as possible.

Design terminology: accessory structures, additions, primary structure, scale, setback

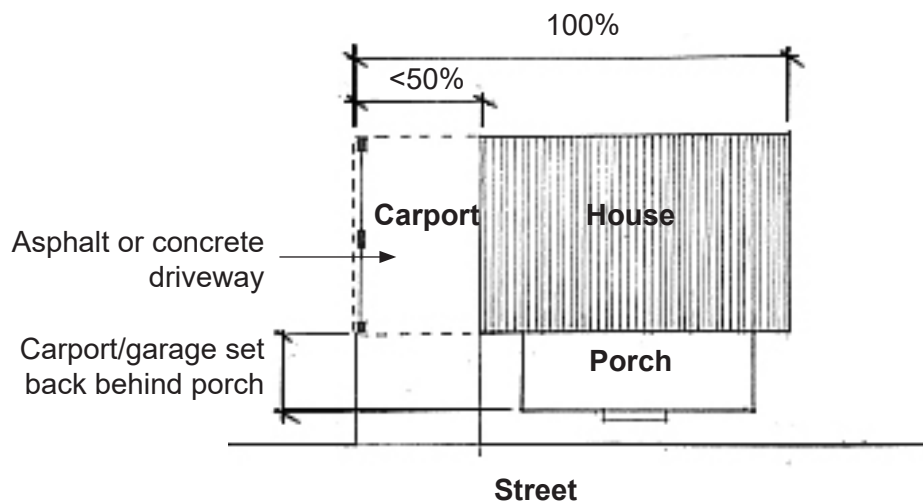
DESIGN GUIDELINES

Garages, Carports, and Driveways

During the original construction of Dante, vehicles were not a consideration. Due to this, none of the original homes contain space for vehicles. In order to accommodate contemporary needs while maintaining the character of the town, certain guidelines should be followed when garages, carports, or driveways are designed.

Guidelines:

- Avoid garage-dominated streetscapes.
- Minimize visual impacts of garage doors, carports, and driveways by providing increased *setbacks*.
- Garages or carports should be located to the rear of the parcel or in side-loaded *structures* where space is available.
- Garages should be located in *accessory structures* or a carport attached to the residential *dwelling*.
- When utilizing a side-loading garage, *articulate* the primary garage *facade* facing the street with window openings and similar materials as the house.
- Front-facing garages or carports should be located further into the lot than the porch.
- Front-facing carports or garages should take up no more than 50% of the width of the front building *elevation*.
- Driveways should be constructed of a durable surface.



Design terminology: accessory structures, articulate, dwelling, elevation, facade, setbacks, structures

DESIGN GUIDELINES

Yard Elements and Landscaping

Historic photographs of the town depict little original landscaping due to the small *lot* sizes. Over time, modifications have been made to many of the *lots* including fenced backyards, concrete driveways, and plantings. Mailboxes, light fixtures, house numbers, and similar details are a matter of personal taste.

Guidelines:

- Care should be taken to select items in *scale* with the Dante setting. Style should reflect the historic character of the town.
- Yard elements should be maintained and replaced when necessary.
- Landscaping should be maintained and incorporate as many native species as possible. Using native species in landscaping emphasizes the regional character of a place and reduces maintenance. Examples of native species can be found on the following pages.

Design terminology: lot, scale

DESIGN GUIDELINES



Arrowwood Viburnum, *Viburnum dentatum*

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers moist loams, but tolerates a wide range of soils. Established plants have some drought tolerance. Prune as needed immediately after flowering.

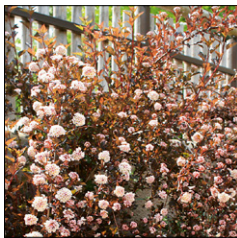
Height: 6 - 10 feet
Spread: 6 - 10 feet
Bloom Time: May to June
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Suggested Use: Hedge



Oakleaf Hydrangea, *Hydrangea quercifolia*

Easily grown in organically rich, medium moisture, well-drained soils in full sun to part shade. Thrives in moist soils, and appreciates a summer mulch which helps retain soil moisture.

Height: 6 - 8 feet
Spread: 6 - 8 feet
Bloom Time: May to July
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Suggested Use: Hedge, Native Planting



Ninebark, *Physocarpus opulifolius*

Easily grown in average, dry to medium moisture, well-drained soil in full sun to part shade.

Height: 4 - 6 feet
Spread: 4 - 6 feet
Bloom Time: May to June
Sun: Full sun to part shade
Water: Dry to medium
Maintenance: Medium
Suggested Use: Hedge



Meadowsweet, *Spiraea alba*

Grow in average, medium to wet, well-drained soil in full sun to part shade. Prefers full sun. Needs constant moisture, and soil must not be allowed to dry out.

Height: 3 - 4 feet
Spread: 3 - 4 feet
Bloom Time: June to August
Sun: Full sun to part shade
Water: Medium to wet
Maintenance: Low
Suggested Use: Hedge

DESIGN GUIDELINES



Bush Cinquefoil, *Potentilla fruticosa*

Easily grown in average, medium moisture, well-drained soils in full sun. Prefers evenly moist soils. Best flowering occurs in full sun, but plants tolerate part shade.

Height: 2 - 4 feet
Spread: 3 - 5 feet
Bloom Time: June to September
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Suggested Use: Pollinator Garden



Inkberry Holly, *Ilex glabra*

Easily grown in average, medium to wet soils in full sun to part shade. Adaptable to both light and heavy soils. Tolerates wet soils.

Height: 5 - 8 feet
Spread: 5 - 8 feet
Bloom Time: May to June
Sun: Full sun to part shade
Water: Medium to wet
Maintenance: Low
Suggested Use: Hedge, Native Planting, Rain Garden



Glossy Abelia, *Abelia x grandiflora*

Easily grown in average, medium, well-drained soil in full sun to part shade. Best flowering in full sun. Prefers moist, organically rich soils which drain well.

Height: 3 - 6 feet
Spread: 3 - 6 feet
Bloom Time: May to September
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Suggested Use: Hedge

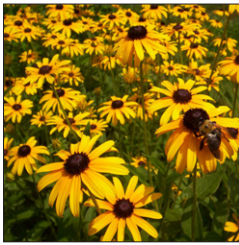


St. Johnswort, *Hypericum kalmianum*

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers moist, rich, sandy loams. Tolerates poor soils. Established plants tolerate some drought.

Height: 2 - 3 feet
Spread: 2 - 3 feet
Bloom Time: July to August
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Suggested Use: Hedge

DESIGN GUIDELINES



Black-Eyed Susans, *Rudbeckia hirta*

It is easily grown in average, medium moisture, well-drained soils in full sun. Best in moist, organically rich soils. Tolerates heat, drought and a wide range of soils except poorly-drained wet ones.

Height: 2 to 3 feet
Spread: 1 to 2 feet
Bloom Time: June to September
Bloom Description: Yellow
Sun: Full sun
Water: Medium
Maintenance: Low
Suggested Use: Native Planting



Big Blue Stem, *Andropogon gerardii*

Easily grown in average, dry to medium, well-drained soils in full sun. Tolerant of a wide range of soils and growing conditions. Freely self-seeds in optimum growing conditions. This grass develops an extensive root system and, once established, has excellent drought tolerance and is easy to maintain.

Height: 4 to 6 feet
Spread: 2 to 3 feet
Bloom Time: September to February
Bloom Description: Purplish-red
Sun: Full sun
Water: Dry to medium
Maintenance: Low
Suggested Use: Native Planting



Butterfly Weed, *Asclepias tuberosa*

Easily grown in average, dry to medium, well-drained soils in full sun. New growth tends to emerge late in the spring. Plants are easily grown from seed, but are somewhat slow to establish and may take 2-3 years to produce flowers.

Height: 1 to 2 feet
Spread: 1 to 1 feet
Bloom Time: June to August
Bloom Description: Yellow/orange
Sun: Full sun
Water: Dry to medium
Maintenance: Low
Suggested Use: Native Planting, Rain Garden



Cone Flower (Echinacea), *Echinacea purpurea*

Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Best in full sun. An adaptable plant that is tolerant of drought, heat, humidity and poor soil. Divide clumps when they become overcrowded (about every 4 years).

Height: 2 to 5 feet
Spread: 1 to 2 feet
Bloom Time: June to August
Bloom Description: Purplish pink
Sun: Full sun to part shade
Water: Dry to medium
Maintenance: Low
Suggested Use: Native Planting

DESIGN GUIDELINES



Bee Balm, *Monarda didyma*

Prefers rich, humusy soils in full sun, although some afternoon shade is appreciated in hot summer climates. Does best in well-draining conditions, but can tolerate heavier clay.

Height: 2 to 4 feet
Spread: 2 to 3 feet
Bloom Time: July to August
Bloom Description: Red
Sun: Full sun to part shade
Water: Medium to wet
Maintenance: Medium
Suggested Use: Herb, Native Planting, Rain Garden



Milkweed, *Asclepias syriaca*

Easily grown in average, dry to medium, well-drained soils in full sun. Drought tolerant. Does well in poor, dry soils. Easily grown from seed, and will self-seed in the landscape if seed pods are not removed prior to splitting open.

Height: 2 to 3 feet
Spread: 0.75 to 1 foot
Bloom Time: June to August
Bloom Description: Pink, mauve, white
Sun: Full sun
Water: Dry to medium
Maintenance: Low
Suggested Use: Native Planting



Lavender, *Lavandula angustifolia*

Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Best flowering in full sun. Prefers moist, acidic, organically rich soils. Little pruning is required. Prune in early spring if necessary. Shrub borders, woodland gardens.

Height: 2 to 3 feet
Spread: 2 to 4 feet
Bloom Time: June to August
Bloom Description: Purple
Sun: Full sun
Water: Dry to medium
Maintenance: Medium
Suggested Use: Herb



Yarrow, *Achillea millefolium*

Best grown in lean, dry to medium, well-drained sandy loams in full sun. Plants do well in average garden soils and tolerate poor soils as long as drainage is good. Plants also tolerate heat and drought.

Height: 2 to 3 feet
Spread: 2 to 3 feet
Bloom Time: June to September
Bloom Description: White
Sun: Full sun
Water: Dry to medium
Maintenance: Medium
Suggested Use: Native Plantings

DESIGN GUIDELINES

Fences

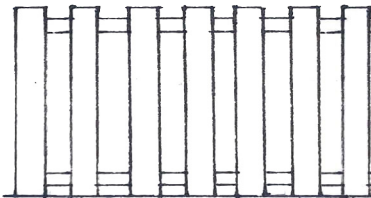
Fences were historically common sights in Dante to distinguish between the street and the yard. Fences consisted of simple wood construction and horizontal boards.

Guidelines:

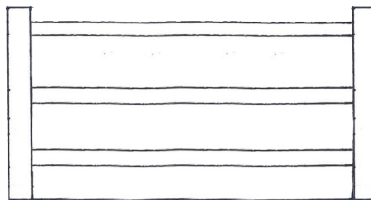
- Fences should be constructed from wood; synthetic material or chain link fences are not suggested.
- Fences along major thoroughfares in Dante should be painted or stained a color that compliments the *primary structure*.
- Fences should be repaired and painted as needed.
- Fences shall be installed with the *finished side* facing the *adjacent* property or the street.
- Fences in front yards should not exceed 3 feet tall. Fences in side and rear yards should not exceed six feet tall.
- Fences can have vertical or horizontal boards and should be visually simple.

42

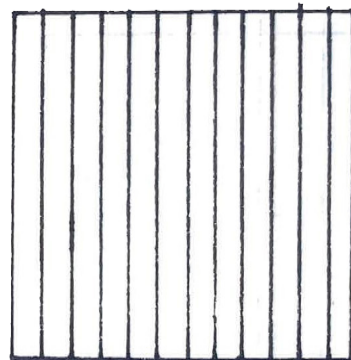
Recommended Fences Below



Picket Fence- 3' Tall



Split Rail Fence- 3' Tall



Solid Board Privacy Fence- 6' Tall

Design terminology: adjacent, finished side, primary structure

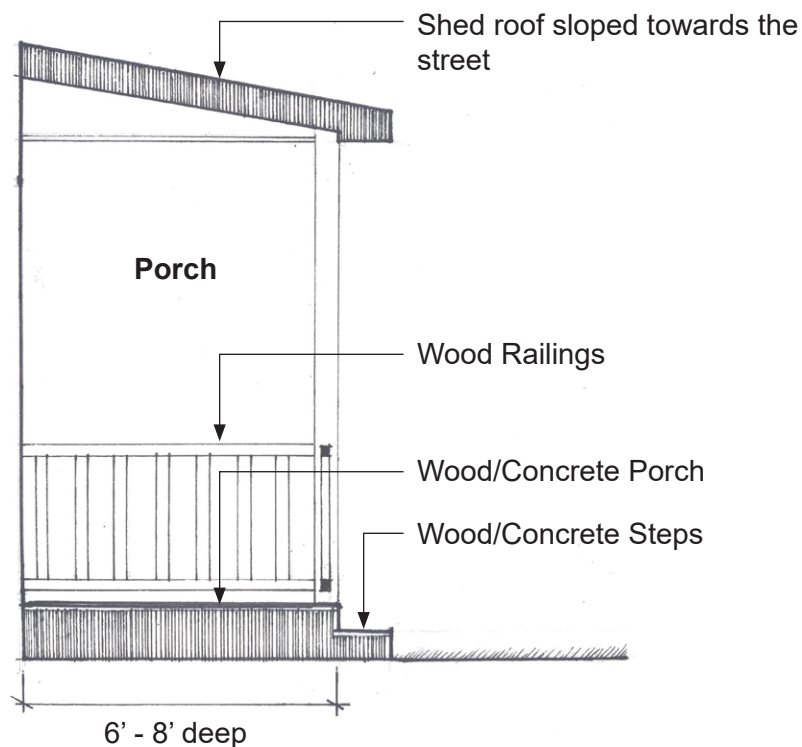
DESIGN GUIDELINES

Porches

Porches are one of the most character-defining feature of houses in Dante. Historically, every home in Dante featured a porch to serve as a social gathering space and shaded outdoor space.

Guidelines:

- Houses should always feature a porch with a sloped *shed roof* facing the street. Exceptions include two story houses in hollows that feature limited *lot* space where porches can be incorporated along the side of the home.
- Porches should be 6-8 feet in depth and should extend along the majority of the *elevation* where they are located.
- Porch construction should be of wood or concrete, including steps.
- All railings should be constructed out of wood. They can be left exposed or finished with paint.



Design terminology: elevation, lot, shed roof

DESIGN GUIDELINES

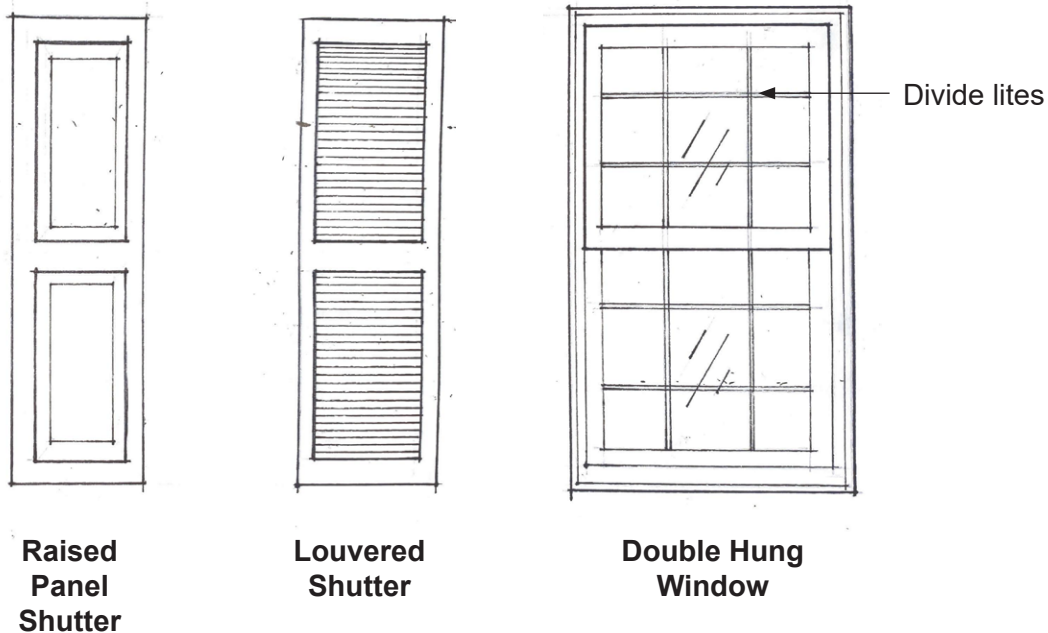
Doors and Windows

The placement and style of doors and windows can define the characteristic housing in Dante. Exterior doors were originally simple and constructed of wood, while windows were originally rectangular *divided lites double hung* windows. Shutters were not an original element of windows in Dante, however many homes later added shutters as a decorative element.

Guidelines:

- Front doors should be located in the center of the porch with symmetrical windows on either side.
- Wooden paneled doors should be used with an optional glass full paneled storm door.
- Windows should be double hung with *divided lites*.
- If shutters are added to windows, louvered or raised panel wooden shutters should be used.

44



Design terminology: divided lites, double hung

DESIGN GUIDELINES

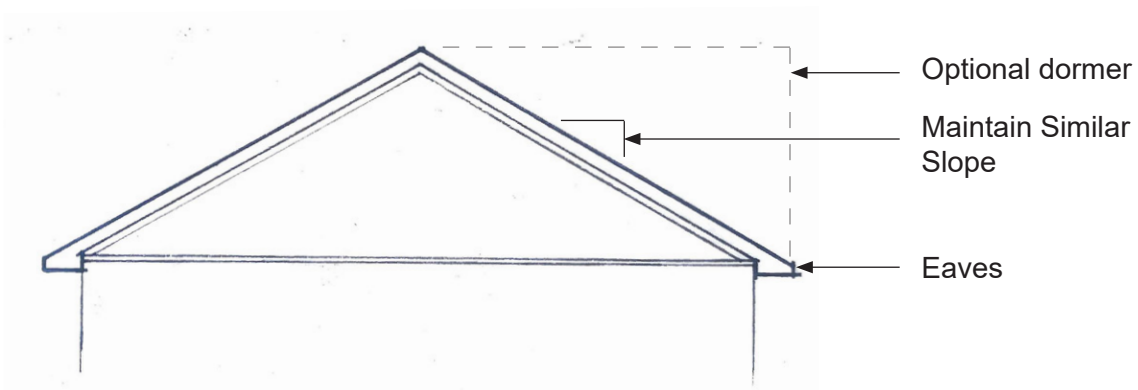
Roof

Historically, roofs in Dante were characterized by *pitched* side *gable* roofs sloping towards the porch. An effort should be made to maintain the typical roof form in the town.

Guidelines:

- Roofs should be similar in height and slope to surrounding houses.
- *Pitched gable* roofs should be the primary roof form on any *structures*. *Shed roofs* are acceptable for porches and *accessory structures*.
- *Dormers* may be used to lessen the visual impact of the roof on the front *elevation* and provide more light into the interior space. *Dormers*⁷ should be compatible with the architectural character of the house and may not rise above the peak of the roof.
- *Standing seam* metal in charcoal is preferred for all roof surfaces.
- *Eaves* should extend out from the exterior walls of the house.
- Gutters should be aluminum and placed in a way to diminish their visual impact on the *facade*. They should be painted to match the colors of the house.

45



**Pitched Gable
Roof**

Design terminology: accessory structures, eaves, dormers, elevation gable, facade, pitched, pitched gable, shed roof, standing seam, structures

DESIGN GUIDELINES

Materials, Finishes, and Color

Due to the coal camp nature of Dante, houses were generally all painted in matching colors. Houses were painted white, with dark colored roofs and contrasting trim. Materials and colors should respect the history of Dante, while accommodating diversity in color and individual tastes.

- All exterior walls of houses in Dante should be *board and batten* or fiber cement siding in colors similar to the example's on the next page. In the event that *board and batten* or *fiber cement siding* is either not available or cost prohibitive, vinyl siding can be used but care should be given to color selection.
- Any corners of buildings should have an edge trim and may be painted in a contrasting color or the same as the rest of the house.
- Porches, railings, shutters, and other details should be made of wood and left exposed or painted.
- Trim should be painted a contrasting color.
- Roof surfaces should be *standing seam* metal in a dark color.
- Any additional details to the design of any *structures* should be visually simple and primarily constructed out of wood.

46



Board and Batten Siding



Fiber Cement Siding



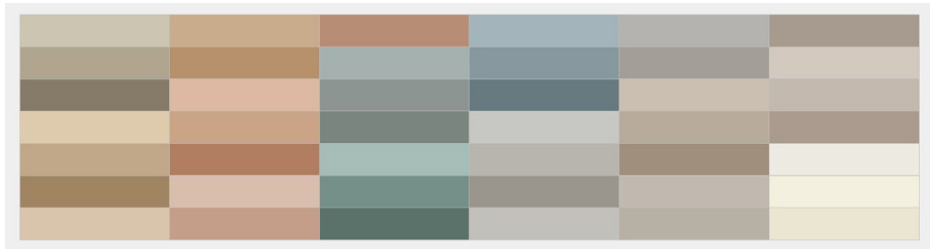
Standing Seam Metal Roof

DESIGN GUIDELINES

Example Colors:

- Exterior paint should be neutral or subdued to respect the character of the town.
- Use a dark color for the roof and select contrasting dark and light colors for the exterior walls and trim.
- A good resource for colors is the Benjamin Moore America's Colors collection shown below. Similar colors from other brands of paints may also be used. Comparison and selection of paints should always be based on actual samples, as color rendition of computer monitors and printers may vary.
- The color collection shown below can be viewed online at: <https://rb.gy/p81mv4>

Benjamin Moore America's Colors Collection:



Design terminology: board and batten, fiber cement siding, simple, standing seam, structures

DESIGN GUIDELINES

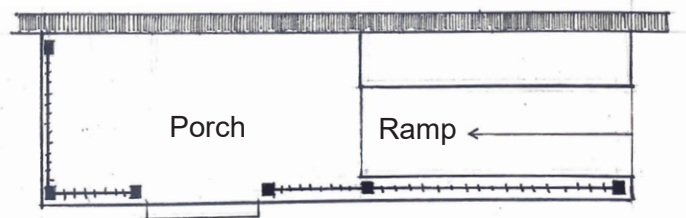
Accessibility

Most of the houses require steps leading to the porch and main entry of the home. To accommodate those with disabilities and aging populations, ramps can be added to the *dwelling*.

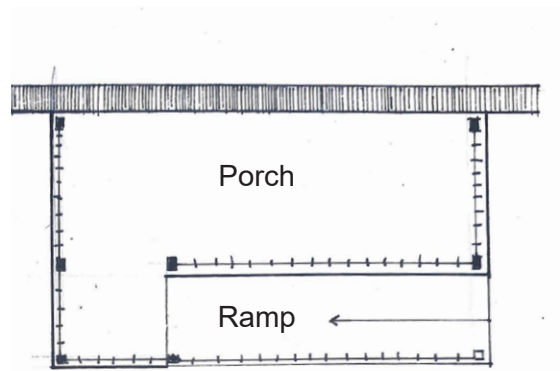
Guidelines:

- Ramps should face the side of the house and be aligned to the front exterior wall to minimize the impact on the side of the house facing the street.
- For new construction where a ramp may be necessary, it can be integrated into the design of the porch.
- Ramps should be constructed of wood and the materials, color, and details should match the design of the porch.
- All ramps should use the standards of the Americans with Disabilities Act as a guideline. More information can be found at: https://www.ada.gov/2010ADAstandards_index.htm

48



Aligning the ramp to the front exterior wall



Integrating a ramp into new construction

Design terminology: dwelling

DESIGN GUIDELINES

Energy Efficiency

Since many of the houses in Dante were constructed during the early 1900s and powered by coal, they did not take energy efficiency into account. Adding energy efficient features to current or new housing can have beneficial impacts on utility costs and environmental sustainability.

Guidelines:

- Cooling costs can be decreased during the summer months by planting trees or shrubs along the side of the house that has the highest solar exposure.
- Skylights and *dormers* may be used to add additional daylight to interior spaces.
- The complete *envelope* of the home should be *insulated* to code, including any attic spaces.
- Appliances should be ENERGY STAR® certified.
- Doors and windows should be *insulated* and have the lowest *U-value* possible.
- Solar power can be difficult due to the geography of the hollows and should only be implemented after a solar study has considered feasibility.
- *Geothermal* heat pumps (GHPs) can be used for a variety of household heating and cooling applications by transferring heat to or from the ground. *Geothermal* systems can all be considered as a heating/cooling alternative when additions are added or during new construction. More information can be found at: [https://www.energy.gov/eere/geothermal/geothermal-basics`](https://www.energy.gov/eere/geothermal/geothermal-basics)

Design terminology: dormers, ENERGY STAR®, envelope, geothermal, insulated, U-value

PART 3: INFILL PROTOTYPES

INFILL PROTOTYPES

Introduction

Dante features a number of empty lots suitable for infill housing development. This would serve to reestablish the thriving community of Dante and its future. To retain the historical character of the town, these prototypes serve as a blueprint for housing that is sensitive to its context while allowing for a new, contemporary vision for the community. The hope is that through this, new housing will be developed that pushes Dante forward into its next chapter while honoring its past identity as a coal town.

To accommodate a variety of personal needs, there are multiple prototypes to choose from. These consist of two single-story houses, a two-story single family home, and a two-story duplex. The prototype designs can be used with no modifications, or can serve as a starting point for personal customization. These designs simply serve to create a proof of concept of new housing types that fit into the existing context of the town and conform to the Housing Design Guidelines.

The housing prototypes establish a cohesive vision and look for the future of Dante. The designs for the prototype houses were derived from looking at existing and historical housing in the town. New floor plans that accommodate contemporary needs were designed to fit into the existing footprints of housing in Dante. The prototypes sought to retain the essential elements of a coal camp house: the importance of the porch, the limited material palette focused on wood construction, and straightforward detailing.

Using this as a framework, key elements were selectively improved to create new housing types. These include enlarged windows, the addition of dormers, and refined trim. These improvements add to the design of the house without interrupting the integral components that uniquely establish the Dante coal camp house.

INFILL PROTOTYPES

One Story - Square Shape



52

Description

The one story - square shape prototype uses the current one-story housing found in Dante as a foundation. The use of increased ceiling heights that are vaulted with dormers will allow more light into the space. The floor plan fits into the existing lot sizes found in Dante, while providing contemporary amenities such as a home office, laundry room, and an open floor plan with built in storage units dividing spaces. This design creates a cozy home for a young couple with smaller families, young professionals, or those who are older and need a compact single level space for aging in place.

Square Footage: 1,344 SF
Bedrooms: 2
Bathrooms: 1
Parking: Attached carport

Exterior Design Details:

- White trim finishes
- Board and batten siding
- Charcoal standing seam metal roof
- Vaulted ceilings with dormers

INFILL PROTOTYPES

One Story - Square Shape

Plan



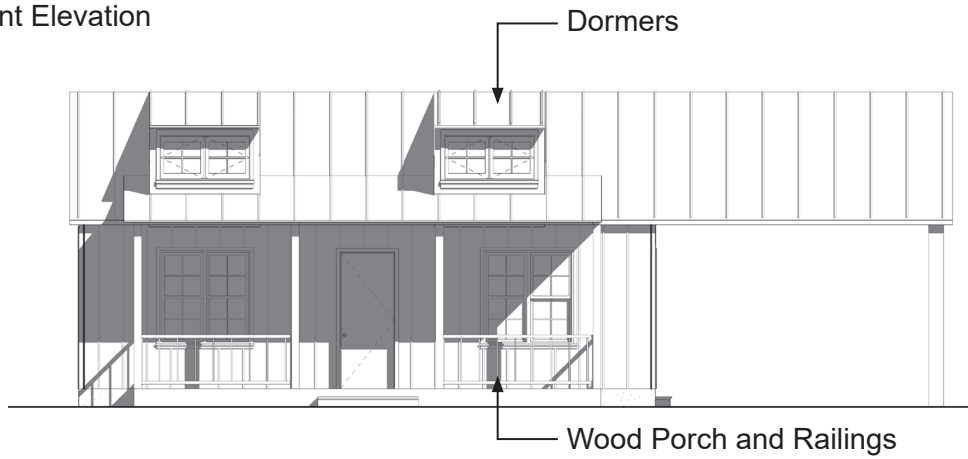
- | | |
|--|------------------------------------|
| 1. Front Porch (26' X 6'); 156 Sf | 7. Bath (10' X 7'); 70 Sf |
| 2. Dining Room (16' X 11'); 176 Sf | 8. Laundry/Office (8' X 7'); 56 Sf |
| 3. Living Room (14.5' X 13.5'); 196 Sf | 9. Utility (7' X 5'); 35 Sf |
| 4. Kitchen (11' X 10.5'); 116 Sf | 10. Closet |
| 5. Bedroom (13' X 11'); 143 Sf | 11. Carport (31' X 15.5'); 480 Sf |
| 6. Master Bedroom (13' X 11'); 143 Sf | |

INFILL PROTOTYPES

One Story - Square Shape

Elevations

Front Elevation



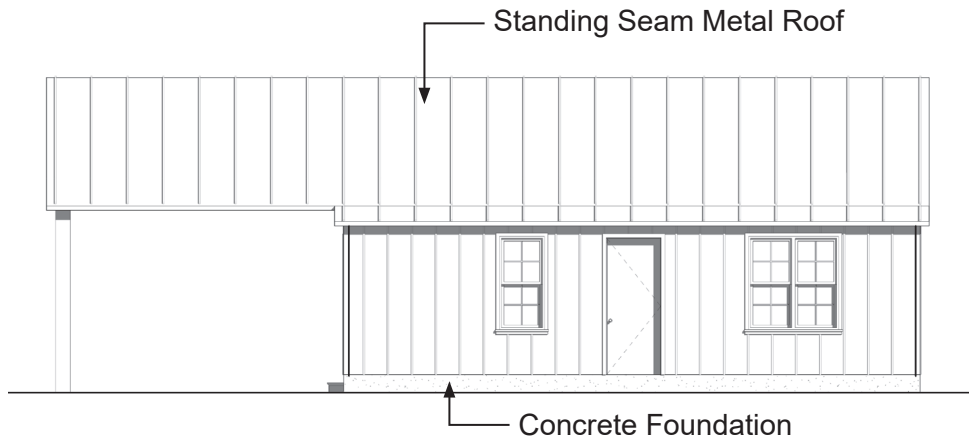
54

Side Elevation



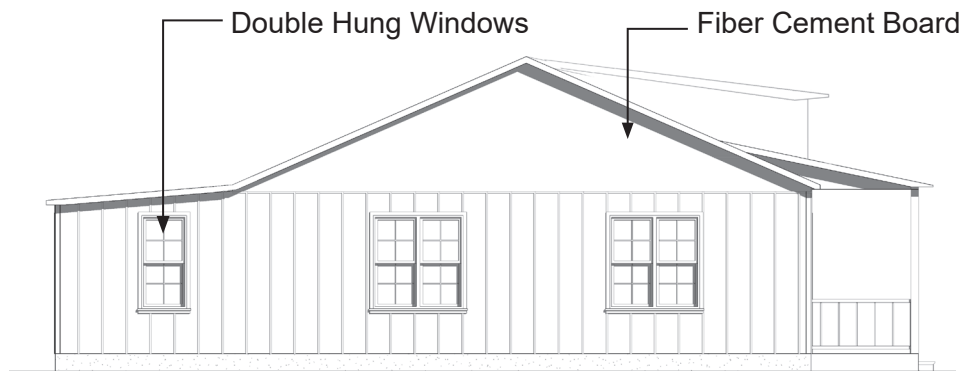
INFILL PROTOTYPES

Rear Elevation



55

Side Elevation



INFILL PROTOTYPES

One Story - L Shape



56

Description

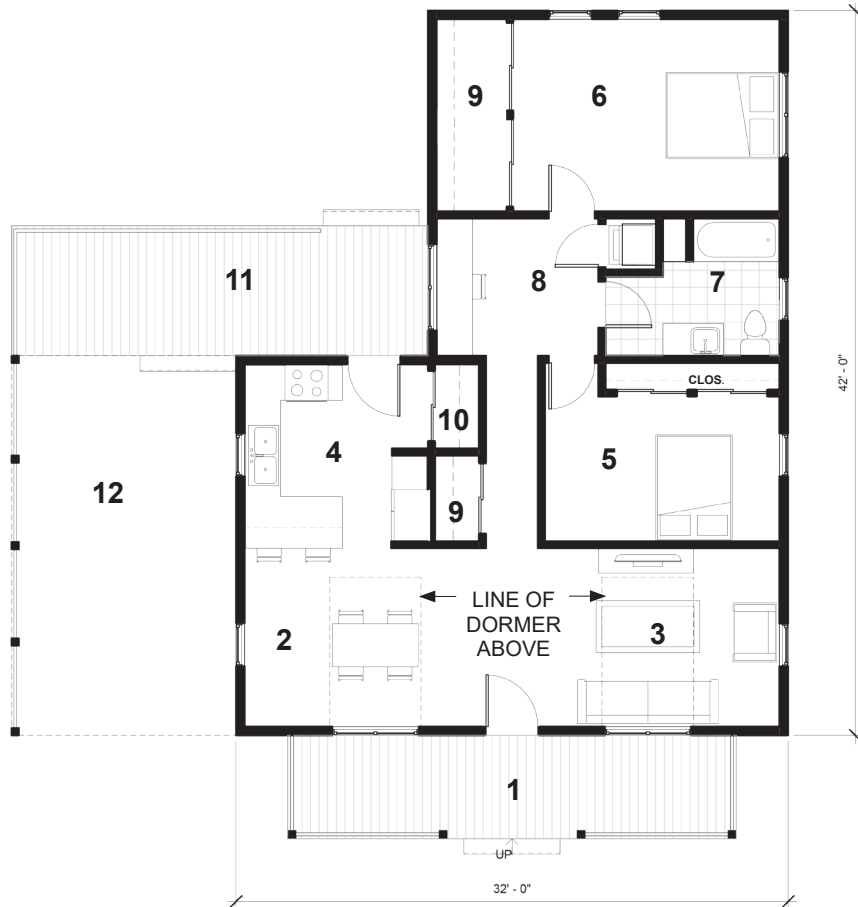
The one story - L shape prototype uses the current one-story housing found in Dante as a foundation. The use of increased ceiling heights that are vaulted with dormers will allow more light into the space. The floor plan fits into the existing lot sizes found in Dante, while providing contemporary amenities such as a home office, laundry room, and an open floor plan with built in storage units dividing spaces. This prototype allows for some rear yard space and a second porch in the back for additional outdoor space. This design creates a cozy home for a young couple with smaller families, young families, or those who are older and need a compact single level space for aging in place.

Square Footage:	1,124 SF	Exterior Design Details:
Bedrooms:	2	- Light-colored board and batten siding
Bathrooms:	1	- White trim finishes
Parking:	Attached carport	- Charcoal standing seam metal roof
		- Vaulted ceilings with dormers

INFILL PROTOTYPES

One Story - L Shape

Plan



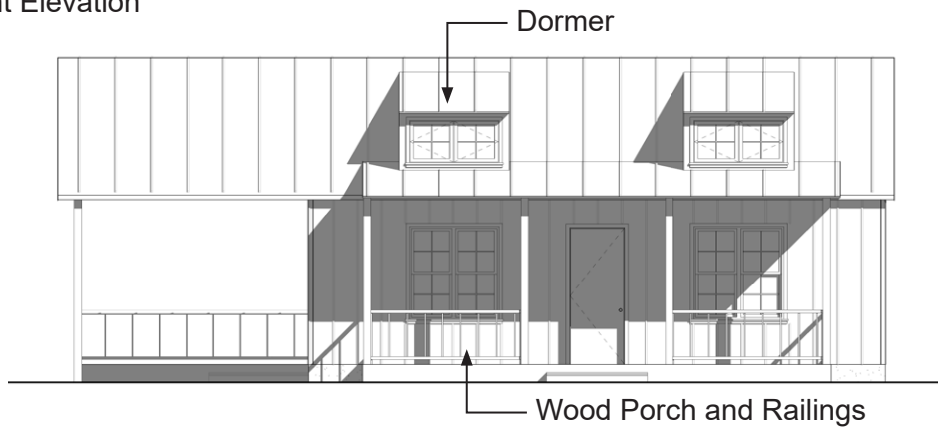
- | | |
|--------------------------------------|-------------------------------------|
| 1. Front Porch (26' X 6') 156 Sf | 7. Bath (8' X 7') 56 Sf |
| 2. Dining Room (14' X 10.5') 147 Sf | 8. Laundry/Office (9.5' X 8') 76 Sf |
| 3. Living Room (14' X 10.5') 147 Sf | 9. Closet |
| 4. Kitchen (11' X 10.5') 116 Sf | 10. Pantry |
| 5. Bedroom (13.5' X 8.5') 116 Sf | 11. Rear Porch (26' X 8') 208 Sf |
| 6. Master Bedroom (15' X 11') 165 Sf | 12. Carport (22' X 15.5') 330 Sf |

INFILL PROTOTYPES

One Story - L Shape

Elevations

Front Elevation



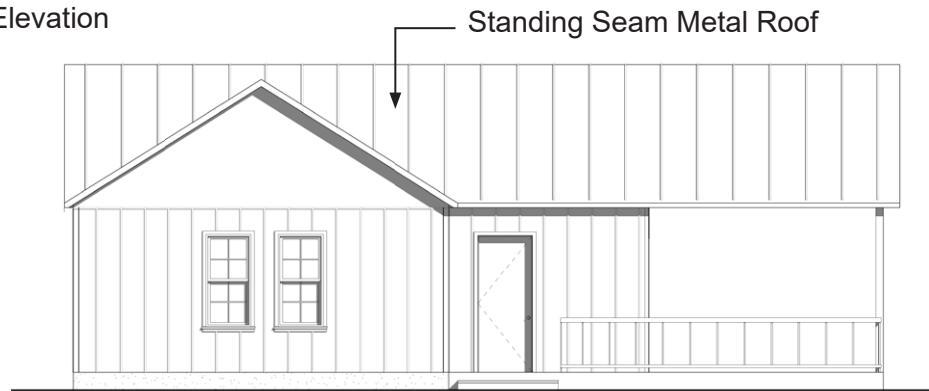
58

Side Elevation

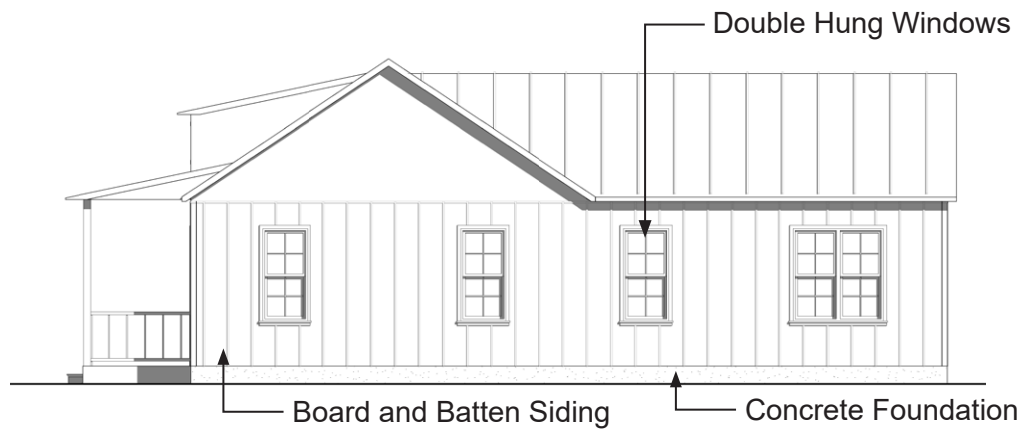


INFILL PROTOTYPES

Rear Elevation



Side Elevation



Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

60

This page is intentionally left blank.

INFILL PROTOTYPES

Two Story - Single Family



61

Description

The two story - single family prototype uses the current two-story housing found in Dante as a foundation. The use of increased ceiling heights with larger windows allows for more light into the space. The floor plan fits into the existing lot sizes found in Dante and can be situated with the porch to the front or oriented to the side if space dictates. This house provides many contemporary amenities such as a home office, laundry room, mudroom, and master suite. The house contains both front and rear porches, and creates a house with room to cater to every need. This design creates an expansive home for larger families or those who need more space.

Square Footage: 2,012 SF
Bedrooms: 3
Bathrooms: 2.5
Parking: Divided garage between lots

Exterior Design Details:
-Light, neutral colored board and batten siding
-Charcoal standing seam metal roof
-White trim finishes

INFILL PROTOTYPES

Two-Story - Single Family

Plan- First Floor



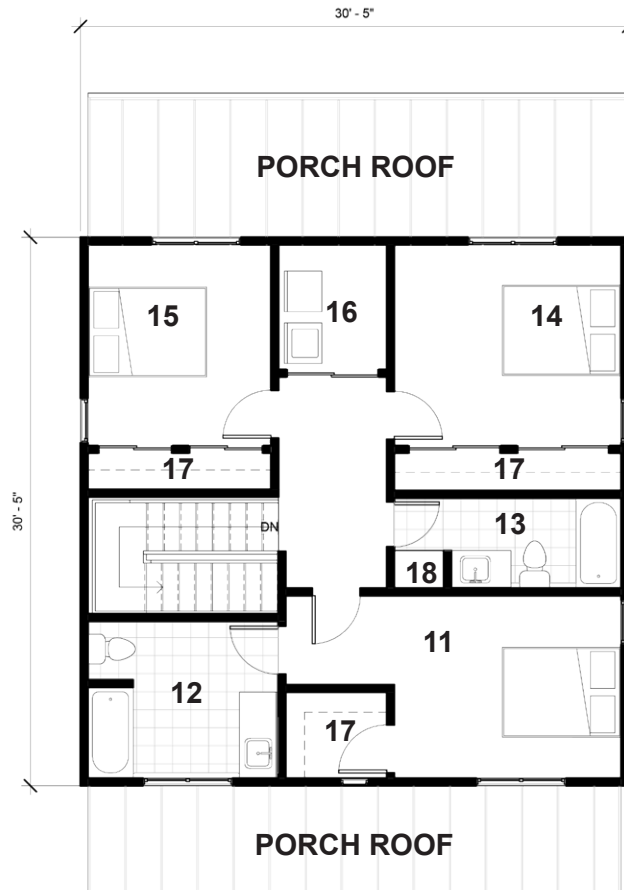
62

- | | |
|-----------------------------------|---|
| 1. Front Porch (30' X 6') 181 Sf | 7. Mudroom/Storage (11.5' X 7.5') 86 Sf |
| 2. Dining Room (11' X 10') 110 Sf | 8. Closet |
| 3. Office (11' X 9') 99 Sf | 9. Pantry |
| 4. Bath (5' X 4.5') 23 Sf | 10. Rear Porch (20' X 8') 160 Sf |
| 5. Kitchen (14' X 11.5') 161 Sf | |
| 6. Living Room (18' X 14') 252 Sf | |

INFILL PROTOTYPES

Two-Story - Single Family

Plan- Second Floor



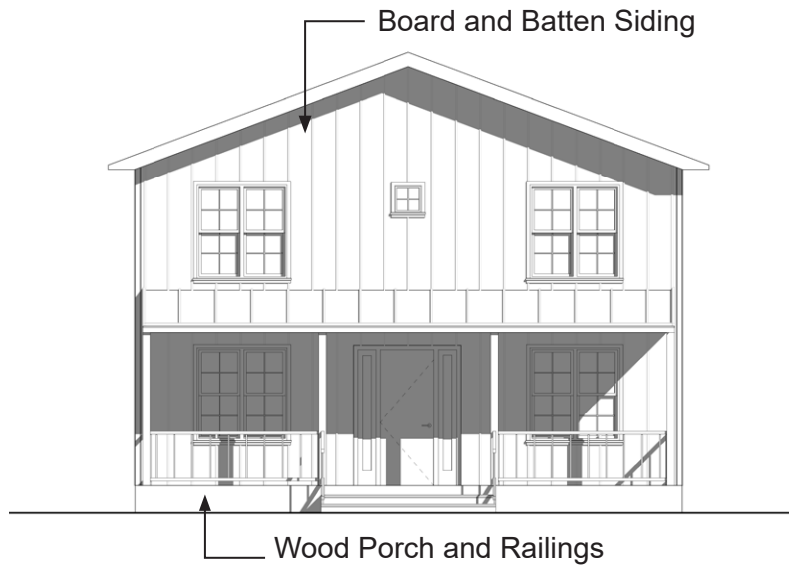
- | | |
|---------------------------------------|------------|
| 11. Master Bedroom (13' X 10') 130 Sf | 17. Closet |
| 12. Bath (11' X 9') 99 Sf | 18. Linens |
| 13. Bath (13' X 5') 65 Sf | |
| 14. Bedroom (12.5' X 11.5') 143 Sf | |
| 15. Bedroom (11.5' X 10') 115 Sf | |
| 16. Laundry/Utility | |

INFILL PROTOTYPES

Two-Story - Single Family

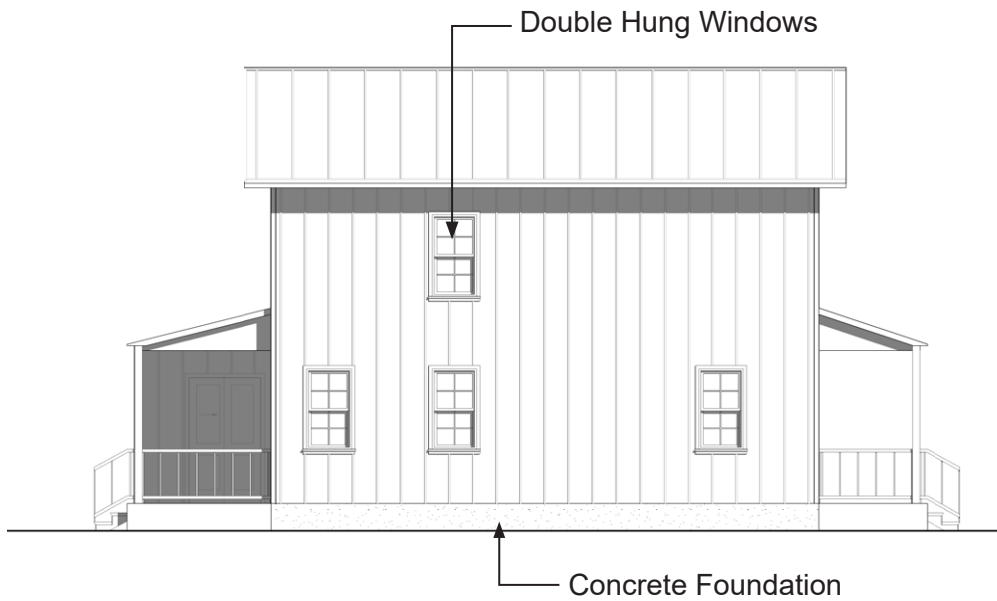
Elevations

Front Elevation



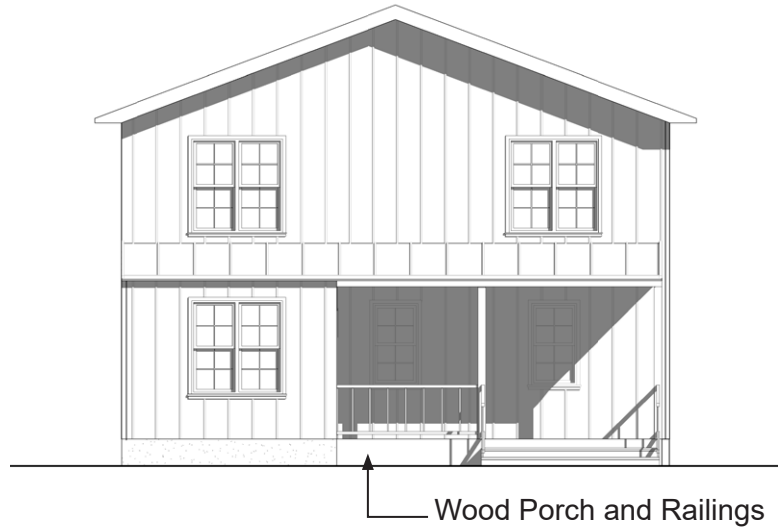
64

Side Elevation



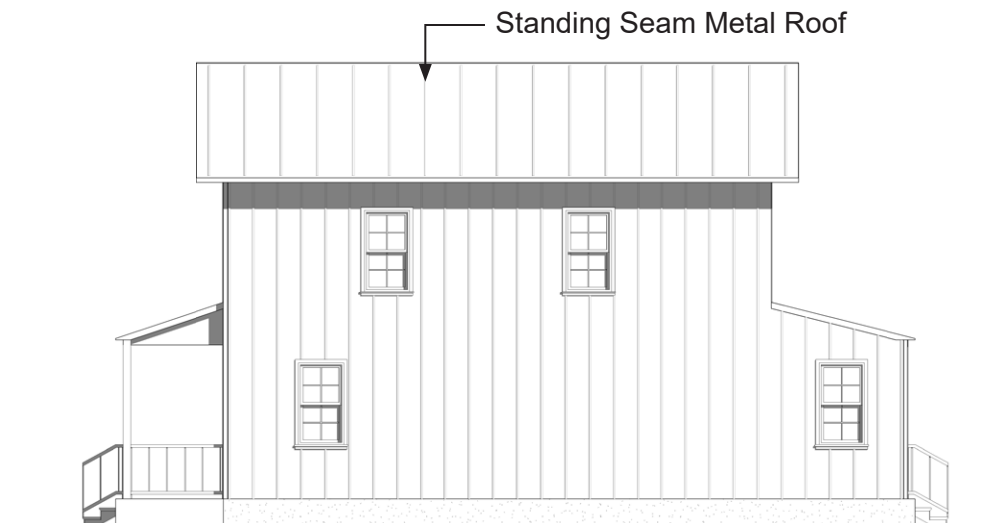
INFILL PROTOTYPES

Rear Elevation



65

Side Elevation



Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

This page is intentionally left blank.

INFILL PROTOTYPES

Two Story - Duplex



Description

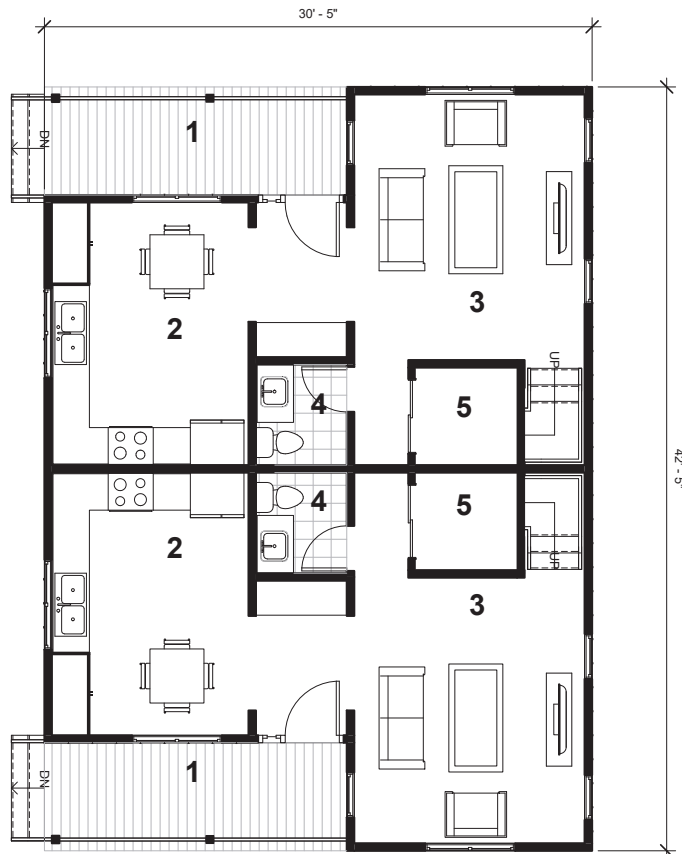
The two story - duplex prototype uses the current two-story housing found in the town as a foundation. The use of increased ceiling heights with larger windows allows for more light into the space. The floor plan fits into the existing lot sizes found in Dante and allows for two residences to fit into one lot. This floor plan makes the most out of available space while still providing many contemporary amenities such as a laundry and an open floor plan. The house contains porches on each side and introduces a new form to the town. This design creates a compact home great for renting out to those who live alone, young couples, or can be an investment opportunity for a variety of different rental arrangements.

Square Footage:	1,129 SF/Unit	Exterior Design Details:
Bedrooms:	2	-Light- colored board and batten siding
Bathrooms:	1.5	-White trim finishes
Parking:	Divided garage between lots	-Charcoal standing seam metal roof

INFILL PROTOTYPES

Two Story - Duplex

Plan- First Floor



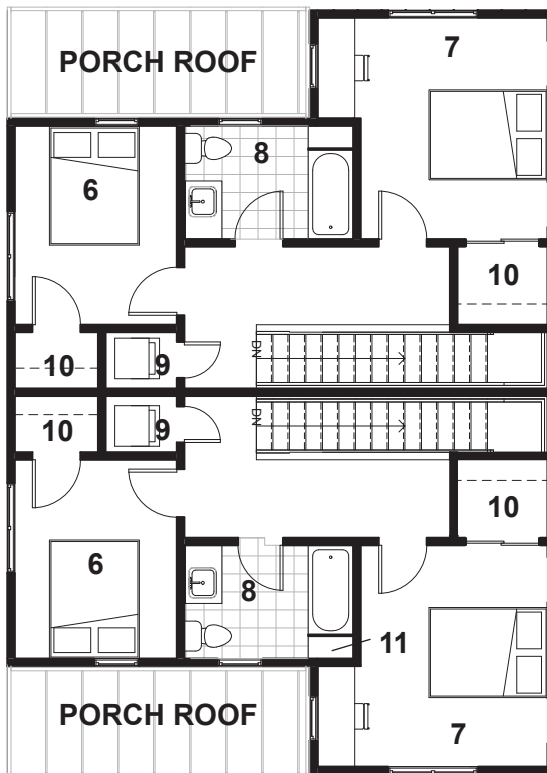
68

1. Front Porch (16' X 6') 96 Sf
2. Kitchen/Dining (14.5' X 11') 160 Sf
3. Living Room (15' X 13') 195 Sf
4. Bath (5.5' X 5') 28 Sf
5. Storage (6' X 5.5') 68 Sf

INFILL PROTOTYPES

Two Story - Duplex

Plan- Second Floor

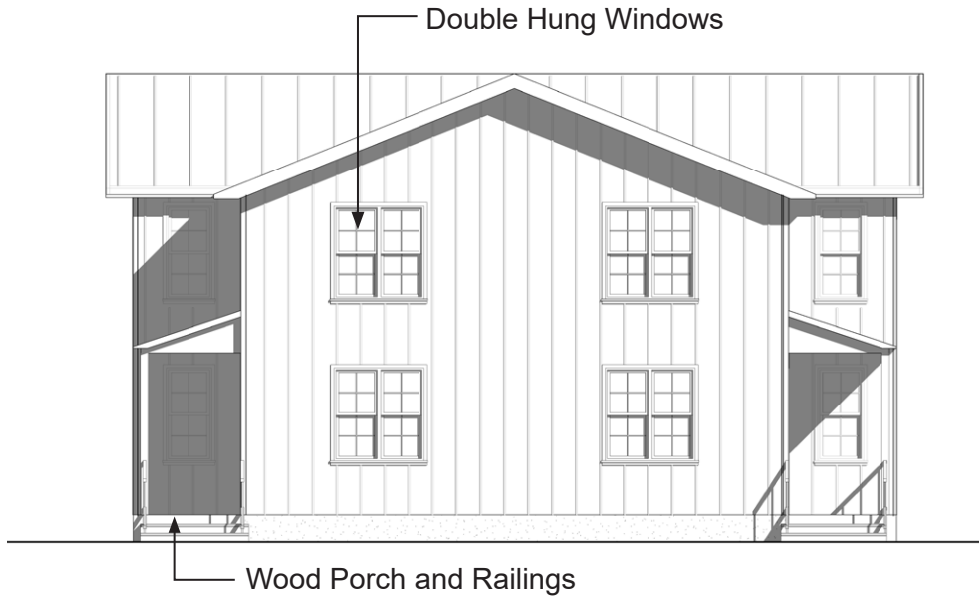


- 6. Bedroom (11' X 10') 110 Sf
- 7. Master Bedroom (13' X 11') 143 Sf
- 8. Bath (9.5' X 6.5') 62 Sf
- 9. Laundry
- 10. Closet
- 11. Linens

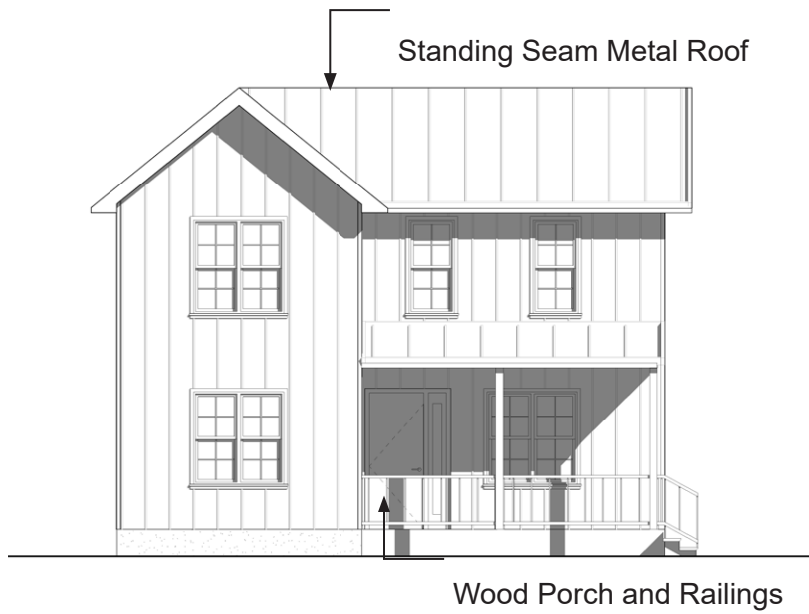
INFILL PROTOTYPES

Two-Story - Duplex

Elevations

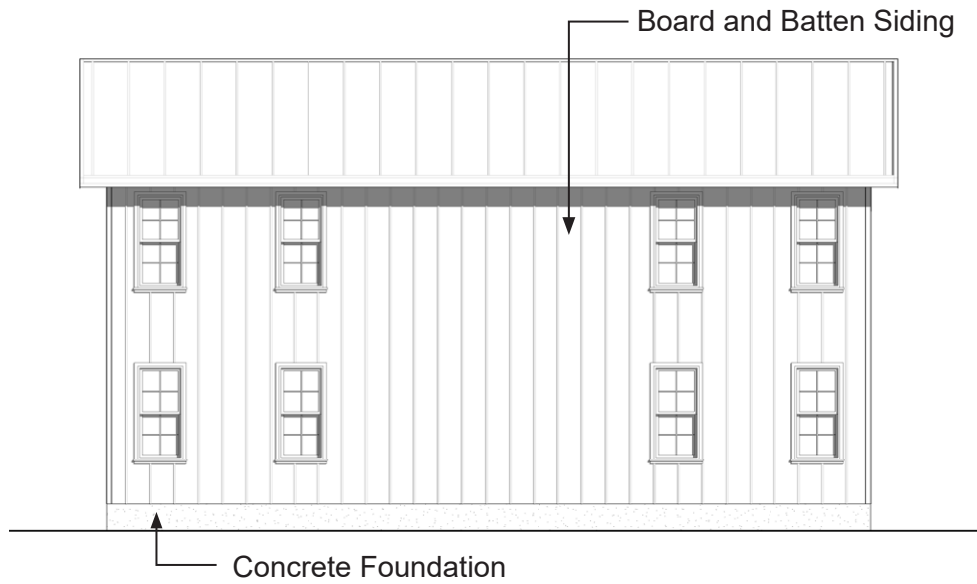


Front Elevation



Side Elevation

INFILL PROTOTYPES



Rear Elevation



Side Elevation

Dante, VA: Conceptual Residential Housing Design
Guidelines and Infill Prototypes

72

This page is intentionally left blank.

**PART 4:
APPENDIX**

APPENDIX

Glossary of Terms

accessory structure: Any other buildings on the site that are not the primary structure

addition: A new part of a building that has been added to an existing building

adjacent structures: Structures next to another structure

alignment: Arrangement in a straight line

articulate: Express through the addition of architectural features

board and batten: Siding that uses strips of narrow wood called battens. Battens are alternated with wider boards, which creates a desirable layered effect

divided lites: Windows made up of multiple panes of glass divided by grilles

dormer: A window that extends outward from the roof

double hung: A window that has two operating sashes that move up and down allowing for ventilation on the top, bottom or both.

dwelling: A house or residence where someone lives

eave: The edges of a roof that overhang a wall

elevation: The flat exterior surface of a building; the facade

74

ENERGY STAR®: a program run by the U.S. Environmental Protection Agency and U.S. Department of Energy that promotes energy efficiency: energystar.gov

entry: The area through which you enter the building

envelope: The complete thermal barrier that surrounds a structure

facade: The exterior side of the building

fiber cement siding: A durable, long-lasting, and low-maintenance material composite material made from cement reinforced with cellulose fibers

finished side: The side that does not show the supports and construction

gable: The triangular portion of a wall between a sloping roof on either side

insulated: Protected by a material to prevent the loss or absorption of heat, depending on the application

lot: A piece of land designated by its property lines

mass: The overall size and shape of a building

pitched: A sloping surface

primary facade: The facade that is facing the street

primary structure: The largest building on the site

scale: Juxtaposition of objects that establishes a size relationship

setback: How far back a building is placed from the street or property lines

shed roof: A roof that slopes in one direction

APPENDIX

site: The location upon which a building is placed

spacing: distance between structures

standing seam: a definable seam that extends vertically from the panel's flat surface

structure: The foundations, columns, beams, and walls which hold a building up

U-value: A measure of a window's insulation

APPENDIX

Meeting Notes

Stakeholder Input Session

September 19, 2019; 12:00-1:45 pm
Dante Community Center
Dante, VA 24237

Initial Design Ideas

- There is interest in the historic character of Dante as a model coal camp in southwest Virginia
- New housing and housing renovations need to relate to the existing culture of place, but provide for modern living
- Keep the 'continuity of how the housing looked in the hollow...but with today's technology, wifi, etc.'
- Want to 'attract people to come here and live, work, and play'
- Flooding has been an issue in the past and has caused substantial damage to the housing in Dante in the past
- Consider FEMA maps as a resource to better understand the history of flooding and potential implications on rebuilding/undertaking new construction projects
- Lower Bearwallow is the most original/historically accurate example of housing
- Sawmill Hollow has most available empty properties to show conceptual infill

APPENDIX

Meeting Notes

Preliminary Design Presentation

November 13, 2019; 5:30-7:00pm
Dante Community Center
Dante, VA 24237

General:

- Road section from the Steam Building to the ballfield/former Arty Lee School should be named "Sawmill Hollow"
 - Before it was Sawmill it was now as "Ziggler"; origin of this name unknown
- Housing should be energy and resource efficient, this is an issue in Dante and would be helpful
- Interested in modern styling, like the precedent images shown
- Make design accommodations for 'aging in place'. Make sure that design elements, such as ramps, align with the aesthetic nature of the house itself.
- Ensure that the scale of the front portion is proportionate to the house.

Likes:

- Cedar material
- Skinny, tall windows; modern aesthetic
- Porch on top right precedent images
- Privacy fencing; "Everyone needs a little privacy."
- Small green space around each house would be nice; "for letting pets use the bathroom"
- Like getting cars off of the road
 - Need to refine garage entrances and how a shared garage between two private properties functions
- Vaulted ceilings; 10'+

Dislikes:

- Roofline of shed roof porch of the single story; "Dark and gloomy"

Add:

- Storage option for yard tools/messy things; "weedeater"
- Variations in the color pallet
- Privacy screening on the carports