



## CAPE COD TRANSIT SUPPORT FACILITIES WORKBOOK

### BACKGROUND

The Cape Cod Transit Task Force has advanced a number of recommended projects and programs focused on improving public transportation through connecting and coordinating existing services and identifying needed new facilities and services. The Task Force, along with the Cape Cod Regional Transit Authority and the Cape Cod Commission, developed the Cape Cod 5-Year Plan for Public Transportation in June of 2002.

This plan was a vision for the future of the Cape's public transportation and includes the proposal of a network of alternative transportation routes linking local bus stops with small transportation centers or "mini-modal" centers located at key transfer points around the Cape. These mini-modal centers would in turn be connected with the new regional transportation hub in Hyannis that would be the gateway to statewide and nationwide air, ground, and water transportation services. The design of these alternative transportation facilities is of key importance, both in establishing the Cape-wide identity of the transportation system, but also in contributing to positive local land use and complementing regional and village growth centers.

### THE DESIGN WORKSHOP

To provide a foundation for the design of the transit facilities, a design workshop was held in July of 2003 with invited members of the community, local transportation officials, transit-interest groups, and participants from the Cape Cod Commission, National Park Service, and the U.S. Department of Transportation. Working together with consultant architects and transportation planners, the group explored the unique qualities of Cape Cod's built environment and applied these qualities to the design of transit facilities that will respond to local needs.

The formal objective of the workshop was to explore a set of alternative Cape Cod - specific design concepts for transit support facilities leading to design prototypes for a system of bus stops and transfer facilities. *Refer to the side-bar for the identified goals that address this objective.*

After preliminary research, investigation, and discussion, participants agreed that future design work should be guided by the following conditions and standards, *refer to the side-bar for the list of identified standards and conditions.*

#### IDENTIFIED GOALS

- Identify the comfort and convenience requirements for transit users that would guide the design of transit support facilities.
- Develop an identity for the transit system established through high quality and characteristic architectural design, logos, and other means.

#### IDENTIFIED CONDITIONS AND STANDARDS

- Facilities need to be welcoming for users and meet minimum requirements for orientation, seating, and protection from wind, weather, and sun.
- Architectural elements and materials that represent the entire Cape include rectangular building forms, gable roofs, cedar shingle finishes, dimensioned siding, white trim on windows and siding, and familiar details such as cupolas, clocktowers, weathervanes, and chimneys.
- Architectural prototypes typical of the Cape that may be applied to the design of transit facilities include Cape Cod-style houses and barns (including the "Salt Box" style), lighthouses, traditional railway stations and outbuildings, and roadside vending structures.
- Facility design should address low maintenance and utilize durable materials.
- Facility design must incorporate accessibility and safety features.
- All Cape towns have common elements, yet details of scale, ornamentation, and building materials may vary from town to town. The use of local design variations such as wall finishes, colors, unique architectural elements, and public art will result in transit facilities with a strong sense of local identity and ownership.
- Unifying elements for transit stops could include a common system symbol or logo and consistent facility signage or markers.

### WE NEED YOUR REVIEW AND ADVICE

The July design workshop was just a start in the process of developing a transit facility prototype guide for the Cape. Through this workbook, we would now like to share the initial results of the workshop with the wider Cape community. We welcome the review, advice, and recommendations of all members of the Cape community that may be interested in becoming involved in the formation of these design prototypes.

The workbook is divided into four sections that reflect the traditional path of facility planning and design. The first section examines facility requirements or “programs” that list the particular features and improvements that must be included in each final design solution. Second is a study of the Cape’s architectural character based on a photo inventory of building examples collected before the workshop and evaluated with the workshop participants. The third section develops architectural concepts and themes that begin to outline our prototypical transit facility alternatives. Fourth and last is a look to the future at “intelligent transportation systems” or ITS. ITS is a family of information technologies that will help the emerging Cape transit system become more clearly accessed and easier to use while being operated more cost effectively.

We ask that you get involved in this design process, *refer to the side-bar for the next steps.*

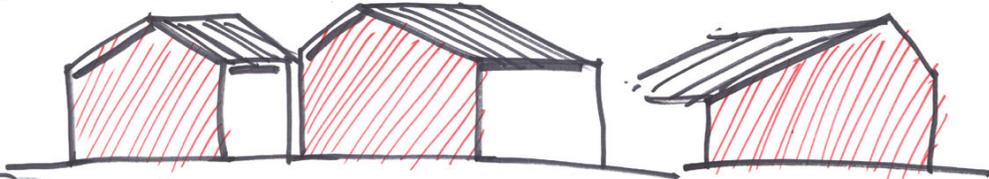
**Thank you for your time and guidance in the design of facilities for this important regional transportation system!**

### NEXT STEPS

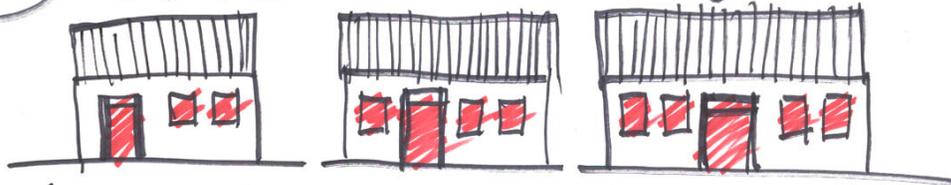
1. Review the workbook and work products.
2. Evaluate the preliminary design concept approaches in the workbook.
3. Share the workbook and discuss your responses with your town officials and interested citizens.
4. Communicate your comments to the design team via the comment sheet provided or by email, *refer to comment sheet for email address. Comments must be received by : October 18, 2003.*
5. Comments received shall be incorporated into creating the final prototype(s) for the transportation facilities.

# ELEMENTS of CAPE COD STYLE (FORMS)

## ① THE SIMPLE GABLE END



## ② OBVIOUS OPENINGS



"1/2 HOUSE" "HOUSE AND A HALF" "FULL HOUSE"

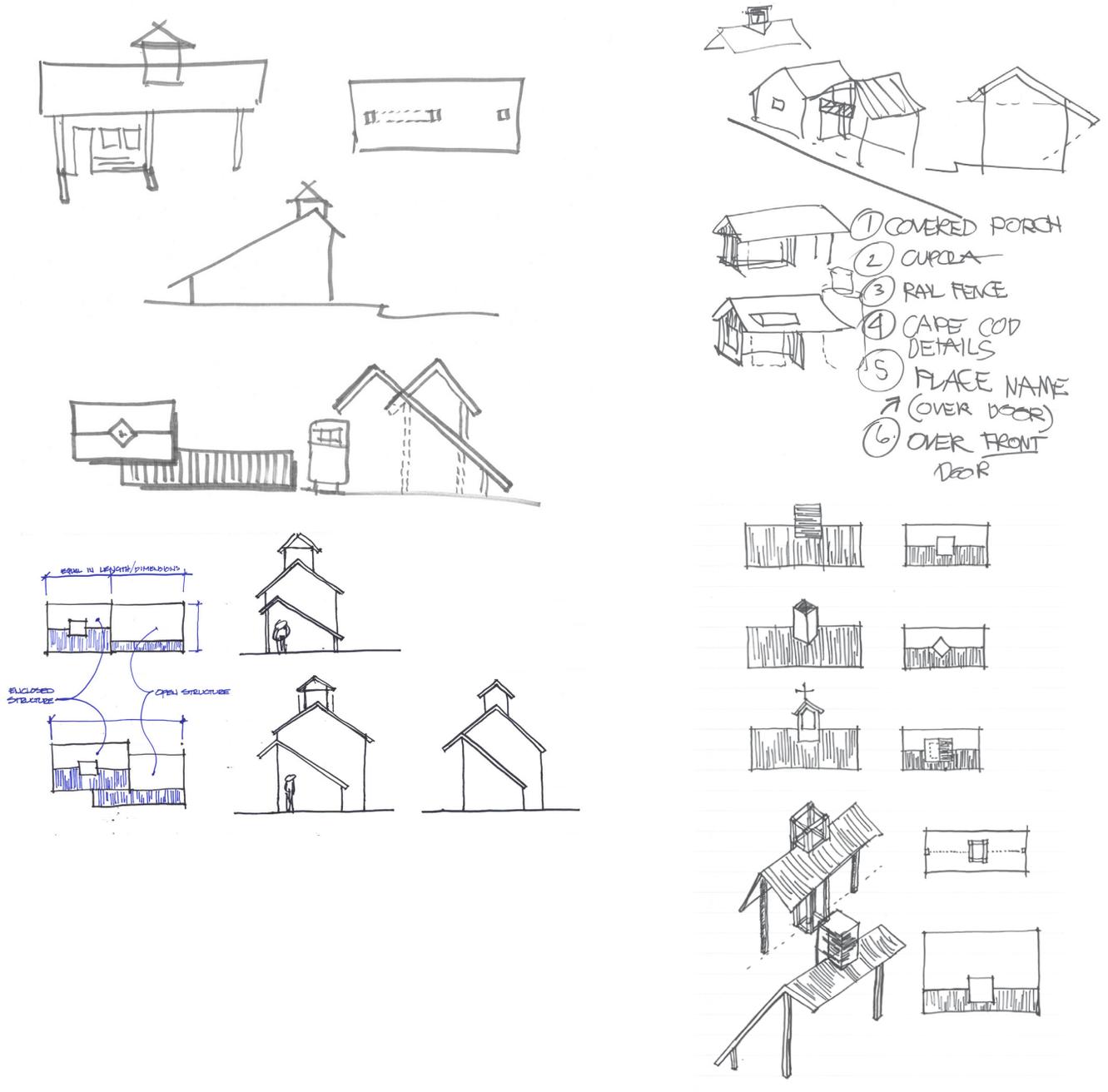
## ③ THE "ADD-ON" HOUSE



## ④ A VERTICAL FEATURE



In the days before the July workshop, the consultant team toured Cape Cod to discover and appreciate the area's unique architectural characteristics. We distilled our observations into a set of elements typical of the "Cape Cod Style" of building. Elements include the basic shapes of historic buildings, traditional roof forms, how buildings are added onto, and the features that distinguish private buildings (like houses) from public buildings (like churches).



**FINDINGS**

- Transit system facilities must reinforce the character / image of Cape Cod.
- Successful transportation planning on Cape Cod must incorporate a system for the whole region.
- Cape Cod style elements will help preserve the community character and link the transit facility to the specific location.

**OPPORTUNITIES AND CONSIDERATIONS**

- Roadside “jelly shacks” are a historically common feature throughout the Cape but now are a vanishing feature.
- Ability to diversify and customize facilities to fit within the character of each community yet maintain some fundamental themes / style elements for the overall transit system.

## THREE TYPES OF CAPE TRANSIT FACILITIES

At the July design workshop, we looked three types, or “scales”, of transit stops that work together to provide an easily-accessed, integrated bus system for the Cape. Our intent, as expressed in this workbook, was to develop preliminary design concepts for each of the types and to show how they combine to create a common image for Cape transit. The three types are:

- **Local Bus Stop:** This facility is the basic building block of Cape transit, a location along a road or street where a bus stops to board or discharge passengers. It can be as simple as a bench and a sign but should also provide basic shelter from the weather and essential transit information.
- **Community Bus Transfer Stop:** This facility is a “super bus stop” that serves as a transfer point between local bus routes and longer distance routes that run along the “spine” of the Cape, Highway 6. There may be one of these along Highway 6 at each town or major center of activity. This facility would combine all the features of the local bus stop with greater shelter and more information, including enhanced information for visitors. A minimal amount of bus user parking (“Park & Ride”) may be provided at some of these facilities.
- **Mini-Intermodal Center:** This facility is similar in function to the new Cape-wide intermodal center at Hyannis but on a smaller scale. Three facilities are currently envisioned, one in Provincetown, one in Orleans and one in the Upper Cape (*location to be determined*). These are major hubs where patrons can transfer between multiple local and regional bus routes. Like Hyannis, other features may include Park & Ride, patron drop-off zones (“Kiss & Ride”), an indoor ticketing and waiting room, and a full offering of transit system and visitor information.

## ANATOMY OF A BUS STOP / BUS TRANSFER STOP

1. **A Shelter**
  - Pleasant Micro-climate
  - Seating
  - Bike Storage
  - Luggage Lockers
2. **A Curb-Side**
  - On-road, or...
  - Lay-by
3. **An “Identity”**
  - A Sign, or
  - A Symbol, or
  - A Distinctive Architecture
4. **Pedestrian Pathways**
  - Sidewalks
  - Bikeways
  - Crosswalks
  - Roadside
5. **Visibility of Bus**
6. **Lighting and Safety**
7. **Accessibility (MABBC, ADA, etc.)**
8. **Information**
  - Bus Stop: Schedule & Route, “Next Bus” display
  - Bus Transfer Stop: Interactive Information Kiosk (transit and tourism)

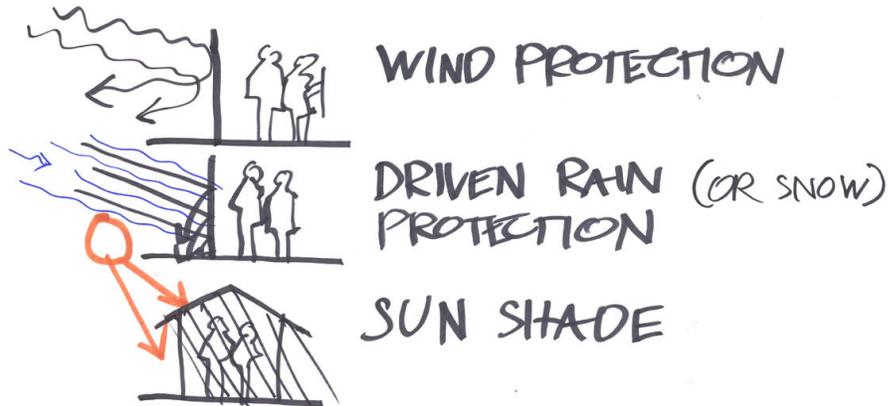
## ANATOMY OF A “MINI-INTERMODAL” CENTER

1. **Bus Facility**
  - Bus Stops, or...
  - Bus Bays
  - On-street and/or...
  - Off-street
  - Bus Off-line (or Remote) Parking
  - Drive Routes to/from Street
2. **Patron Facility**
  - Shelter or Waiting Room
  - Ticket / Information Counter
  - Interactive Information Displays (“ITS”, Touch-Screen Kiosks, etc.)
  - Rest Rooms
  - More...? (NPS or Local Information, Vending, etc.)
3. **Identity**
  - A Sign, or...
  - A Symbol, or...
  - A Distinctive Architecture, or...
  - Any/All of Above
4. **The Other Modes**
  - Walk-in / Walk-out
  - Bicycles
    - Store at Site, or...
    - Take on Bus
  - Cars Drop-off / Pick-up
    - Curbside, or...
    - “Kiss & Ride” (Off-street)
  - Cars Parking
    - On-street
    - “Park & Ride” Lot
  - Shared Lots (local or remote)
  - Wheelchair Users
  - Ships and Ferries (Provincetown)
  - Other...? (Taxis, Paratransit, etc.)
5. **Accessibility (MABBC, ADA, etc.)**

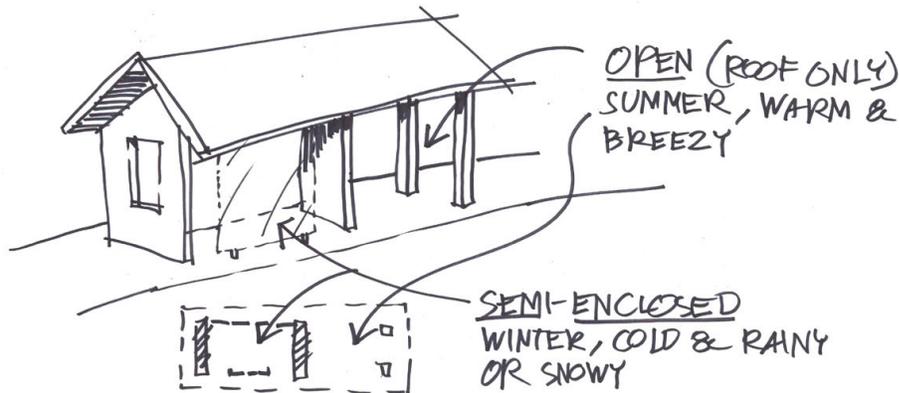
# WHAT'S IN A BUS STOP

## ① ALL-YEAR STOP

= SHELTER :



= ENCLOSED & OPEN SHELTER :  
(SEASONAL OPTIONS)



The bus stop is the basic building block of all transit facilities on the Cape. In this exercise, the Workshop examined the basic service a bus stop should provide to people waiting for a bus, i.e. shelter from the weather during all seasons of the year.

### FINDINGS

- All shelters should be designed with vertical walls for wind / weather protection.

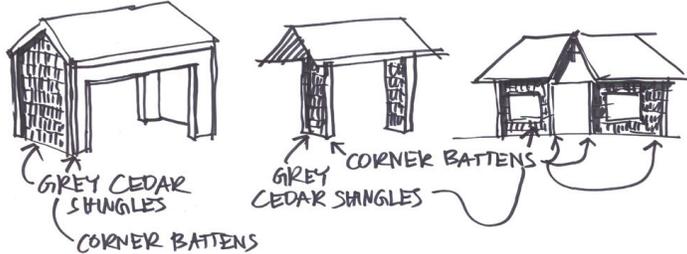
### OPPORTUNITIES AND CONSIDERATIONS

- Shelters could be oriented by solar access and prevailing wind.
- Removable panels could provide seasonal wind/weather protection.
- Emergency response system at all stops.

# BUS STOP - "IDENTITY" OPTIONS

## ① "CAPE COD" MATERIALS/DETAILS

ARCHITECTURE MAY VARY BUT CONSISTANT MATERIALS & DETAILS GIVE UNITY OF IMAGE



Transit stops should fit comfortably within their surroundings yet be recognized instantly as places where Cape-wide transit may be boarded. Building on the Character Study, this exercise explored a variety of ways create a Cape Cod "transit identity". These can all be mixed and matched to generate bus stops that fit their local towns or neighborhoods yet reflect an overall "Cape Cod Style".

## ② A STRONG VERTICAL FEATURE

(LIKE A CHIMNEY, A DOME, A CUPOLA, A LIGHTHOUSE)

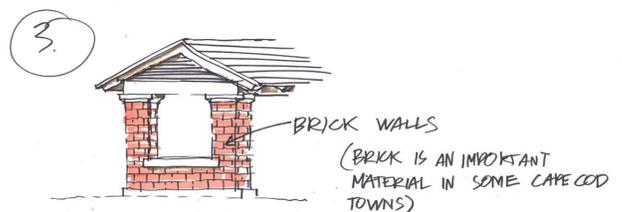


## ③ COMMON SIGNS/SYMBOLS



## COMMON THEMES / DIFFERENT MATERIALS

Within the Cape Cod Style, building materials and architectural details vary across the Cape from town to town. Using an area's own materials for walls and roofs is an excellent way to give transit stops a strong local flavor while maintaining an overall Cape Cod transit identity. In this exercise, the same bus stop is rendered in three different materials: cedar shingles, clapboard siding, and brick.

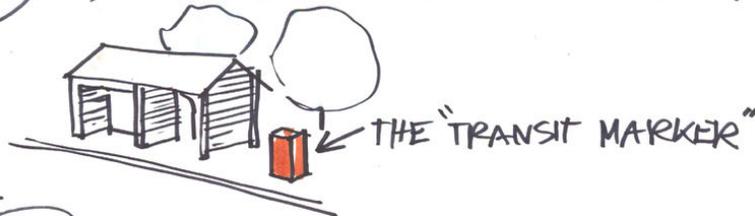


# COMMON THEMES / DIFFERENT FACILITIES

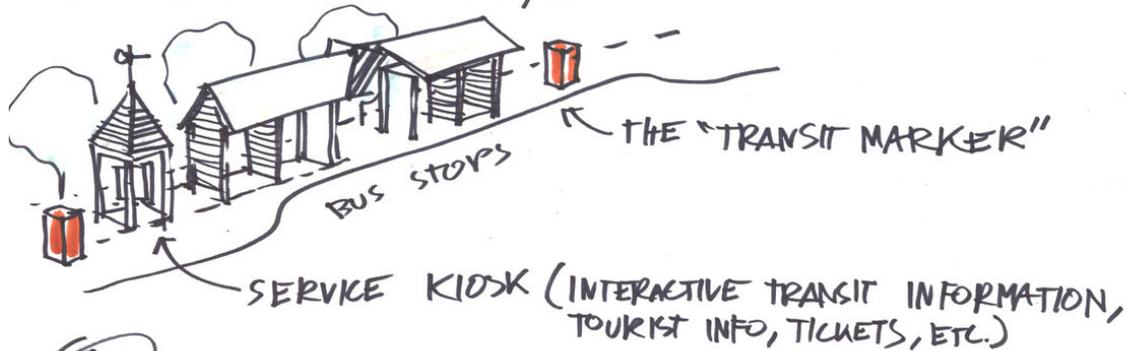
## ① BUS STOP



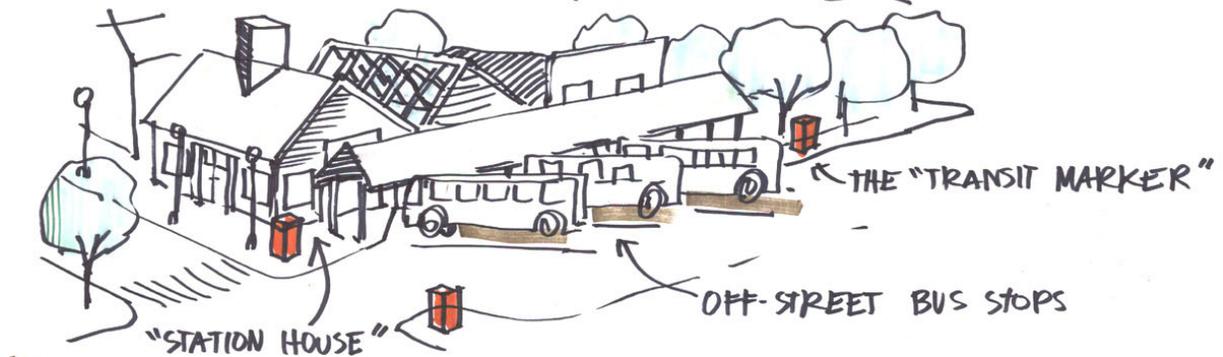
## ② BUS STOP WITH SHELTER



## ③ BUS TRANSFER/COLLECTOR STOP



## ④ MINI-INTERMODAL CENTER

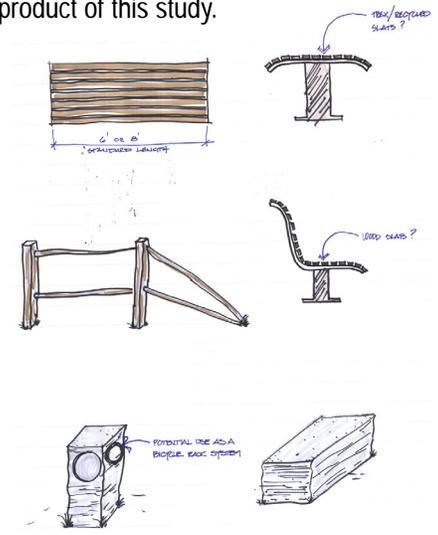
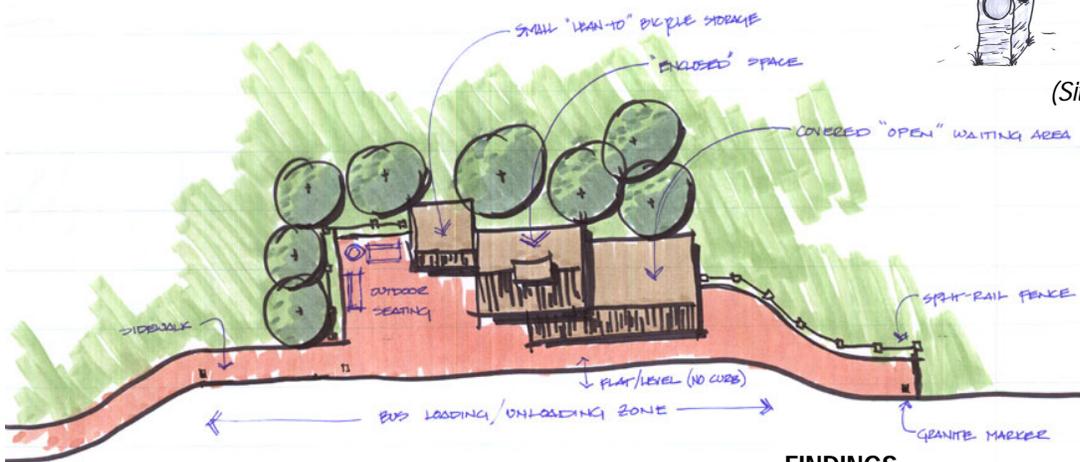
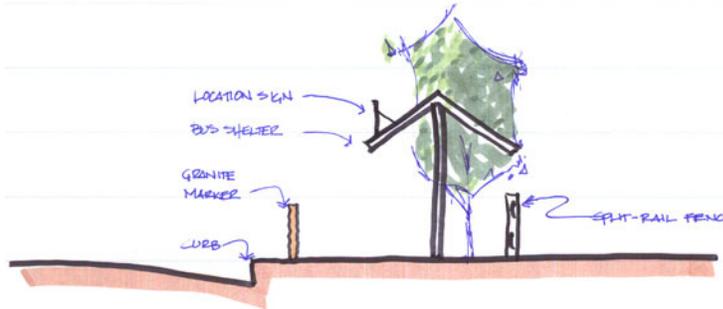
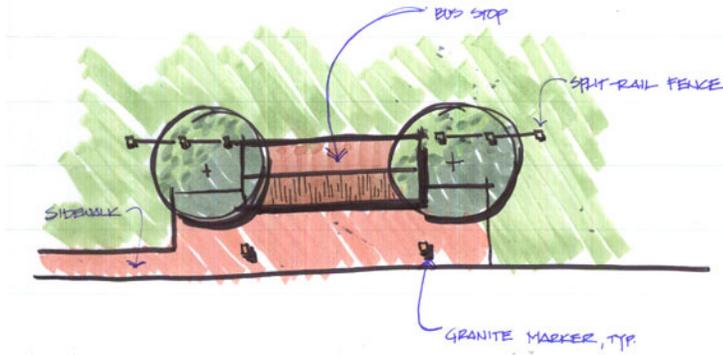


In this exercise, the Workshop took the next step: assembling the elements of shelter and identity into the three types of Cape transit facilities: the Bus Stop, the Community Bus Transfer Stop, and the Mini Intermodal Center. A common identity is carried through all three types. The Bus Stop is expanded to form the Transfer Stop and elements of both show up in the Intermodal Center. Cape Cod Style unifies them all.

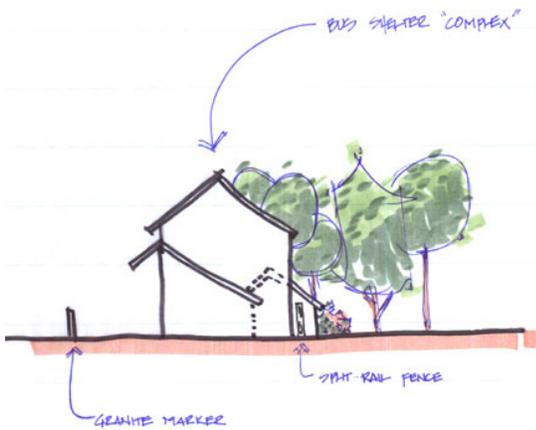
# PRELIMINARY PROTOTYPES

## PUTTING IT ALL TOGETHER - A BUS STOP PROTOTYPE

In the final exercise of the Workshop, we generated a "first draft" of a prototypical Cape Cod bus stop along with ideas for a variety of supporting features and elements. We invite you to review the sketches on the following pages. What do you think? Based on your comments and recommendations, we will refine this prototype and present it to the Cape Cod community as the final product of this study.



(Site Amenity Ideas / Options)

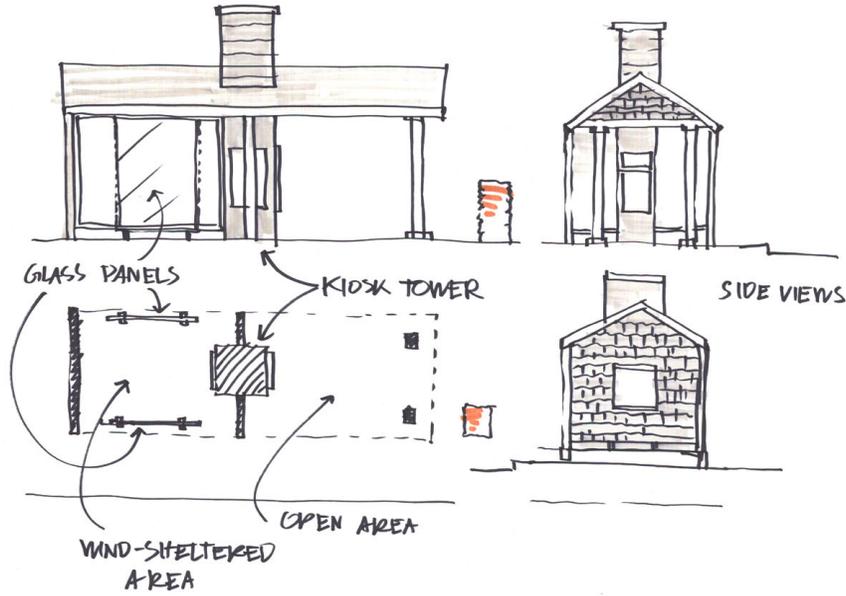


## FINDINGS

- Bus facilities are a gateway to the Cape as well as the individual towns
- To much design detail and/or strong architectural elements could overpower or compete with local settings and its surroundings
- Transportation stops must serve a desired destination directly
- Themes that unite entire Cape Cod should be used
- Transit support facilities must address the needs and requirements of the transit user, including comfort, security and convenience
- Collector transfer stops should be located in town centers or active commercial centers.

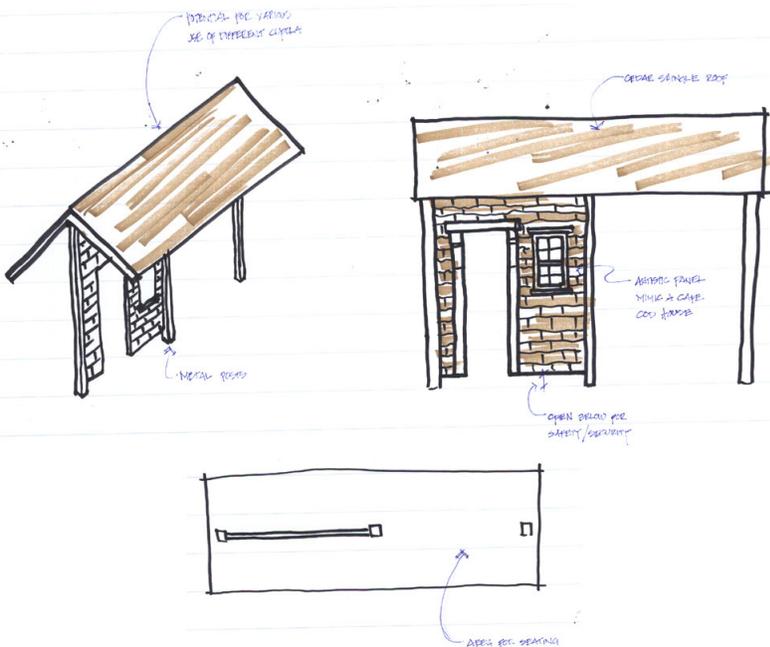
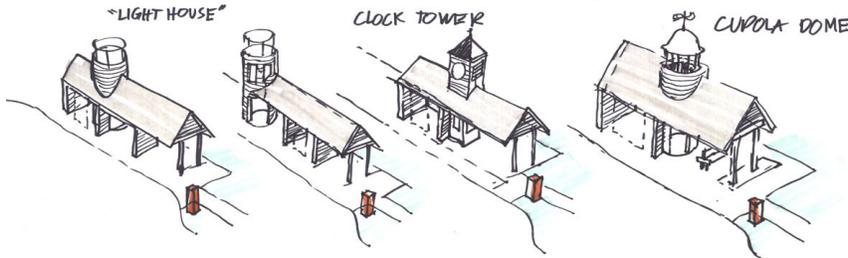
# PRELIMINARY PROTOTYPES

## OPPORTUNITIES AND CONSIDERATIONS

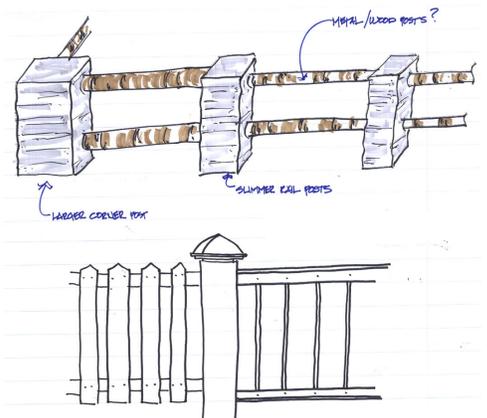


## BUS SHELTER WITH VERTICAL ELEMENT

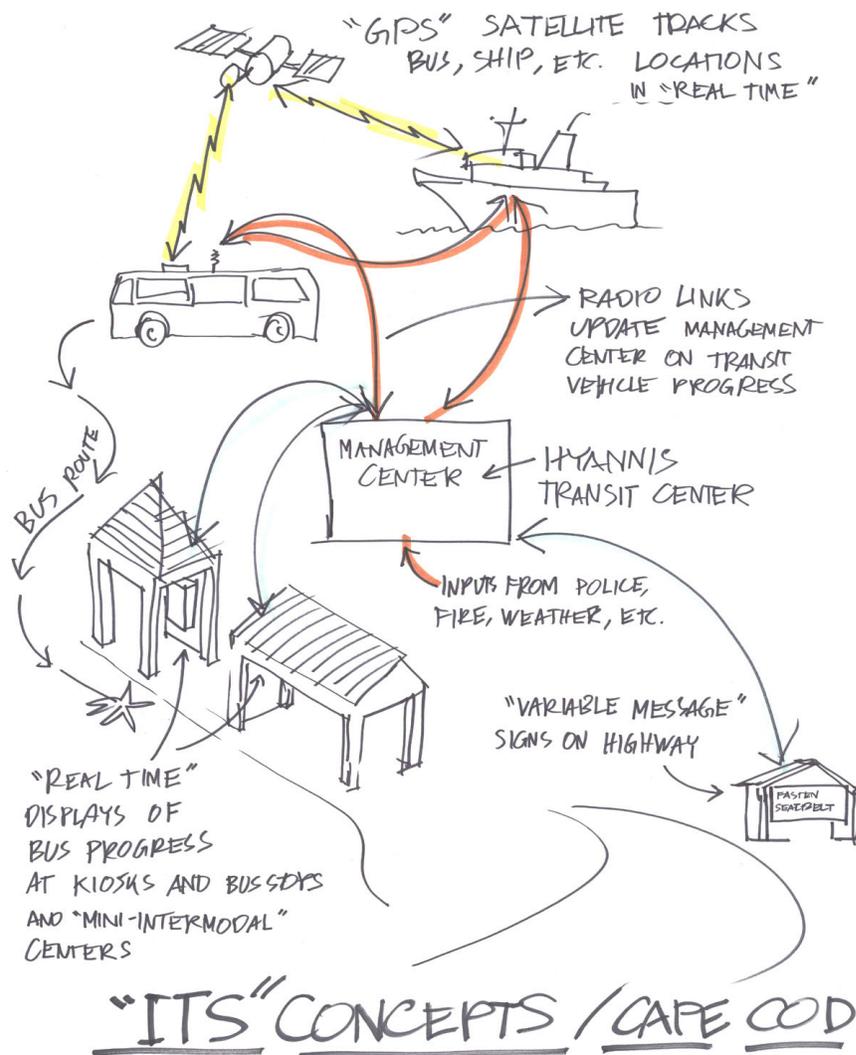
### VARIATIONS ON VERTICAL ELEMENTS



- Bus stop in Provincetown was vandalized by kids, lost windows and doors, stripped to just being a roof with posts
- Need to deter vandalism by:
  - Using video surveillance (or non-functional cameras)
  - Placement of stops in highly populated areas
  - Well-lit
- Name the stops and add distinctive town symbols to aid orientation
- Recognizable symbol and logo, and distinctive shape and architecture are all part of "branding" the system
- New, unifying shuttle symbol should be developed for the entire transportation system
- Use of public art should be promoted
- Art / gallery shuttle stops and tours
- Allow businesses the opportunity to market at the stops, which will:
  - Help defer maintenance costs
  - Create a sense of ownership and deter vandalism
- Local / Minimal advertising on shelters could be allowed to support costs and maintenance.
- Should plan stops for full year, all season use.
- Include community bulletin boards at the stops.
- Local information available, maybe community bulletin board.
- Concerns about homeless and vagrants around shelters.
- Access to rail trail and various bike trails are important connections.
- Need for bike storage and lockers.



(Site Amenity Ideas / Options)



ITS means "Intelligent Transportation Systems". In the old days, transit information was conveyed by signs, maps, and printed schedules. Today, these methods are augmented by "real time" information generated by computers, data links, even satellites! Simple displays bring this information right to the bus stop or to the computer in your own home or office. On the Cape, this information will come to you from electronic message signs in bus stops and along highways, and at user-operated kiosks in Transfer Stops and Intermodal Centers. ITS features are already in use at the Hyannis Transportation Center and this is only the beginning. In the final step of this study, we will present ideas for the design of highway ITS displays, mixing today's technology with Cape Cod Style.

**FINDINGS**

- More developed ITS system will increase rider information which in turn may increase the rider's confidence and lessen their frustration.

**OPPORTUNITIES AND CONSIDERATIONS**

- Charter bus connections and interface with ATS needed.
- Collector Transfer stops need "next bus" time and schedule.

# Comment Sheet

Name:	<input type="text"/>		
Address:	<input type="text"/>		
City:	<input type="text"/>	State:	<input type="text"/>
		Zip:	<input type="text"/>
Organization (if applicable):	<input type="text"/>		

What Features would make a bus stop on Cape Cod more useful or attractive to you?

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What architectural elements or building styles seem most appropriate for Cape Cod?

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Is Cape-wide uniformity among bus stop structures or signs important to tie the transit system together?

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**Comments** *(Please print or type):*

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*(Attach Additional Pages as necessary.)*

*Please attach to the following page and fold as shown, tape, affix necessary postage and mail.*

*Must be received by October 18, 2003*

*or*

*Email your comments to: [cschofield@capecodcommission.org](mailto:cschofield@capecodcommission.org)*

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*Return Address:*

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*Postage*

**B. CLAY SCHOFIELD, P.E.  
TRANSPORTATION ENGINEER  
CAPE COD COMMISSION  
3225 MAIN STREET  
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