

US EPA ARCHIVE DOCUMENT

APPENDIX A: ADDITIONAL RESOURCES

The town of Wells could refer to any of the additional transportation, land use, and stormwater resources as they consider the options discussed in this report.

Transportation

In 2006, the Institute of Transportation Engineers published *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*. This working draft document provides engineers and planners guidance on designing major urban streets in a way that supports walkability and livability. Available at: <http://www.ite.org/bookstore/RP036.pdf>.

In 2006, EPA published *Parking Spaces / Community Places: Finding the Balance Through Smart Growth Solutions*. This document highlights proven approaches that balance parking with broader community goals. Communities have found that combinations of parking pricing, shared parking, demand management, and other techniques have helped them create vibrant places while protecting environmental quality. Available at: <http://www.epa.gov/dced/parking.htm>.

In 1999, ICMA and Reid Ewing published *Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth*. This report suggests design elements that make walking and transit use easier and more comfortable. Available at: http://www.epa.gov/dced/pdf/ptfd_primer.pdf.

Portland Metro published *Creating Livable Streets*. This handbook describes how communities can design streets to be people friendly and includes detailed illustrations of designs that integrate streets with nearby land uses. Available at: <http://www.metro-region.org/article.cfm?articleID=261>.

Congress for the New Urbanism published *Traditional Neighborhoods: Street Design and Connectivity*. This image-filled document shows how land use practices and street design can create walkable environments. Available at: <http://www.contextsensitivesolutions.org/content/reading/traditional-neighborhoods-street-design/>.

In 2003, Maryland State Highway Administration published *When Main Street is a State Highway*. This step-by-step guide shows designers and engineers how to retrofit state highways so that they can serve the dual functions of downtown economic development and mobility. Available at: <http://www.sha.state.md.us/businesswithSHA/projects/ohd/mainstreet/MainStreet.pdf>.

New Jersey Department of Transportation published *Flexible Design of New Jersey's Main Streets*. This document provides policy and practice changes that add flexibility and context sensitivity to DOT's design process for main streets. Available at: <http://www.contextsensitivesolutions.org/content/reading/flexible-design-new-jersey/resources/flexible-design-new-jersey/>.

Oregon Departments of Transportation and Land Conservation and Development published *Main Street... When a Highway Runs Through It: A Handbook for Oregon Communities*. This document provides strategies to make state highways more context sensitive as they travel through towns as the main street. Available at: <http://www.contextsensitivesolutions.org/content/reading/main-street/resources/main-street-when-a-highway/>.

Project for Public Spaces wrote *Balancing Street Space for Pedestrians and Vehicles*. This article discusses how to balance pedestrian needs and creating lively public spaces while at the same time maintaining appropriate space for vehicles. Available at:

<http://www.pps.org/civic_centers/info/how_to/transit_tool/balancing_peds_and_vehicles>.

The organization, Context Sensitive Solutions, has a web site that includes hundreds of resources about designing transportation projects in a way that fits the physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. Check it out at:

<www.contextsensitivesolutions.org>.

The organization, Walkable Communities, offers a variety of publications and photos on its website,

<<http://walkable.org/>>.

Land Use

In 2003, the National Association of Realtors and the Local Government Commission published *Creating Great Neighborhoods: Density in Your Community*. The document highlights nine community-led efforts to create vibrant neighborhoods through density, discusses the connections between smart growth and density, and introduces design principles to ensure that density becomes a community. Available at:

<http://www.epa.gov/dced/density.htm>.

In 2005, Smart Growth America published *Choosing Our Community's Future: A Citizen's Guide to Getting the Most Out of New Development*. This document focuses on the visioning and planning efforts that set the stage for smarter growth and how citizens can engage and make suggestions for better growth and development through collaborative stakeholder meetings and workshops. Available at:

<<http://sgusa.convio.net/site/PageServer?pagename=guidebook>>.

The American Planning Association has model smart growth codes. These codes encourage mixing land uses, preserving open space and environmentally sensitive areas, providing choices in housing and transportation, and making the development process more predictable. Available at:

<www.planning.org/smartgrowthcodes>.

The Local Government Commission's *Smart Growth Zoning Codes: A Resource Guide* studies codes that have been implemented in communities around the country. Its main areas include "traditional neighborhood design," which encourages walkable, mixed-use neighborhoods; mixed-use and live/work codes, which help diversify land uses; street and block design that makes it easy and comfortable for people to walk, bike, or drive; parking guidelines that use land more efficiently; and design regulations that help maintain or create attractive, distinctive, safe places. Available at: <www.lgc.org>.

Some communities have found a form-based code to be useful. Form-based codes emphasize the appearance and qualities of buildings and blocks rather than their uses. They encourage great public participation because they are more visual than traditional zoning codes, making it easier to understand what type of buildings they will allow. They encourage a mix of uses and a mix of housing types. A good introduction to form-based codes is available at:

<www.lgc.org/freepub/PDF/Land_Use/fact_sheets/form_based_codes.pdf>.

One example of a form-based code is the Smart Code, developed by urban-design firm Duany Plater-Zyberk. The Smart Code combines zoning, subdivision regulations, urban design, and basic architectural standards. It is intended to be customized to local needs. Available at:

<www.dpz.com/pdf/SmartCodeV7.0-6-06-05.pdf>.

The state of Colorado has a model code for small communities. Available at:
<www.dola.state.co.us/smartgrowth/resources.htm>.

Nashville, Tennessee, recently revamped its subdivision regulations. Available at:
at:<www.nashville.gov/mpc/expanded_subdiv_regs_doc.htm>. In addition, they have an Urban Design Overlay for a specific area. The site includes example overlay codes. Available at:
<<http://www.nashville.org/mpc/urban.htm>>.

Model TND ordinance prepared for Wisconsin is available at:
<<http://www.wisc.edu/urpl/people/ohm/projects/tndord.pdf>>.

Stormwater

The following resources can help communities implement innovative stormwater management approaches at the regional, community, and site level.

The City of Emeryville created *Stormwater Guidelines for Green, Dense Redevelopment* in 2006. The guidelines, and an accompanying spreadsheet model, were developed to manage stormwater on –site during redevelopment activities. Available at: < <http://www.epa.gov/dced/emeryville.htm>>.

In 2006, EPA published *Protecting Water Resources with Higher-Density Development*. This report helps communities better understand the impacts of higher and lower density development on water resources. The findings indicate that low-density development may not always be the preferred strategy for protecting water resources. Available at: <http://www.epa.gov/dced/water_density.htm>.

In 2006, EPA published *Using Smart Growth Techniques as Stormwater Best Management Practices*. This report reviews nine common smart growth techniques and examines how they can be used to prevent or manage stormwater runoff. Available at: < <http://www.epa.gov/dced/stormwater.htm>>.

In 2004, EPA published *Protecting Water Resources with Smart Growth*. This report is intended for audiences already familiar with smart growth concepts who seek specific ideas on how techniques for smarter growth can be used to protect water resources. The report describes 75 policies that communities can use to grow in the way that they want while protecting their water quality. Available at:
<http://www.epa.gov/dced/water_resource.htm>.

In 2006, the Local Government Commission published *The Ahwahnee Water Principles: A Blueprint for Regional Sustainability*. This report provides a practical blueprint for sustainable land-use practices that can improve the reliability and quality of water resources and reduce some of the financial liabilities that new development places on local government. Available at: <<http://water.lgc.org/announcements/water-guidebook>>.

In 2006, NRDC published *Rooftops to Rivers: Green Strategies for Controlling Stormwater and Combined Sewer Overflows*. This report is a policy guide for decision makers looking to implement green strategies in their own area, including nine case studies of cities that have successfully used green techniques to create a healthier urban environment. Available at:
<<http://www.nrdc.org/water/pollution/rooftops/contents.asp>>.

In 2004, American Rivers published *Catching the Rain: A Great Lakes Resource Guide for Natural Stormwater Management*. The publication describes a wide range of low impact development strategies

that can be implemented in a wide range of built environments. Available at:
<<http://www.americanrivers.org/site/DocServer/CatchingTheRain.pdf?docID=163>>.

Portland Metro (Oregon) created *Green Streets: Innovative Solutions for Stormwater and Stream Crossings* in 2002. The handbook describes stormwater management strategies and includes detailed illustrations of “green” street designs that allow infiltration and limit stormwater runoff. Available at:
<<http://www.metro-region.org/article.cfm?articleID=262>>.

Portland also published *Trees for Green Streets: An Illustrated Guide* in 2002. The guidebook helps communities select street trees that reduce stormwater runoff from streets and improve water quality. Available at: <<http://www.metro-region.org/article.cfm?articleID=263>>.

Seattle’s pilot Street Edge Alternatives Project (SEA Streets) is designed to provide drainage that more closely mimics the natural landscape prior to development than traditional piped systems. Good information can be found at:
<http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Street_Edge_Alternatives/index.asp>.

APPENDIX B: BRIEF HISTORY OF DEPOT BROOK PROJECT

PREPARED BY SPAHR AND DABROWSKI, LLC: DESIGN AND ENVIRONMENTAL ANALYSIS

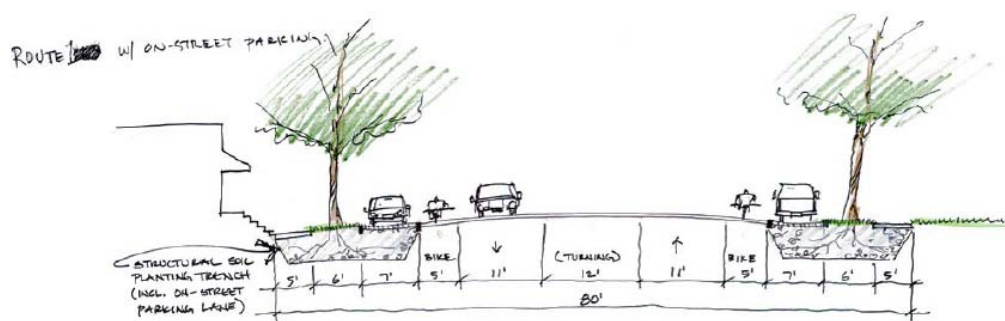
In an effort to curb land-intensive growth patterns, centralize growth, and encourage much-needed tourism dollars, the town of Wells has targeted an area for smart growth near one of the gateway points to the community. In 2001 the town of Wells began planning for the redevelopment of the intersection of US Route 1 and 109.

In conjunction with this planning effort, a state game warden initiated research on a concept that included the incorporation of Depot Brook into the planning and design of the proposed redevelopment area. The study suggested that Depot Brook, which transects this area of town, could be incorporated as an ecologically functional wild trout stream and community greenway. Shortly into the study, coordination with the Wells Town Planner and town committees was initiated and Depot Brook was identified as a valuable resource for the town.

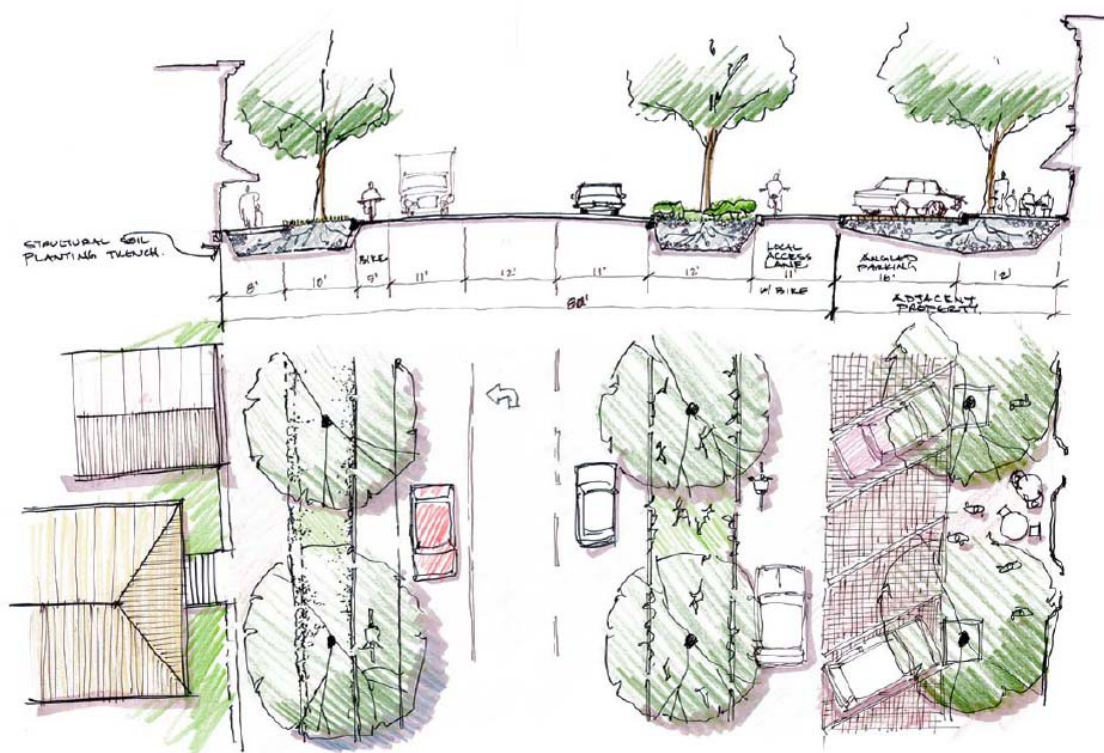
Subsequent design concepts and partnerships were coordinated by the environmental planning team of Tim Spahr and Cindy Dabrowski Kennie; Spahr and Dabrowski LLC, Design and Environmental Analysis. The Maine Department of Inland Fisheries and Wildlife (IF&W) supported the project by providing in-kind electro-shock analysis as well as successfully advocating to the Department of Environmental Protection (DEP) to elevate the class level of Depot Brook from class B to class A, thus requiring more consideration in permit review. In the Fall of 2003, additional partnerships were created when the Sebago Chapter of Trout Unlimited (TU), the Maine Council of TU, and Spencer Press of Wells contributed funds to the Depot Brook Project. In 2004, the Trout and Salmon Foundation awarded additional funds to the project. Wells National Estuarine Research Reserve (Wells NERR) scientists and resource managers have contributed in-kind support including GIS services, research data, and administrative support and have incorporated the Depot Brook Project as an official research project of the Wells NERR. In 2005 this project received an Embrace-a-Stream grant from Trout Unlimited National.

APPENDIX C: WELLS DESIGN IMAGES

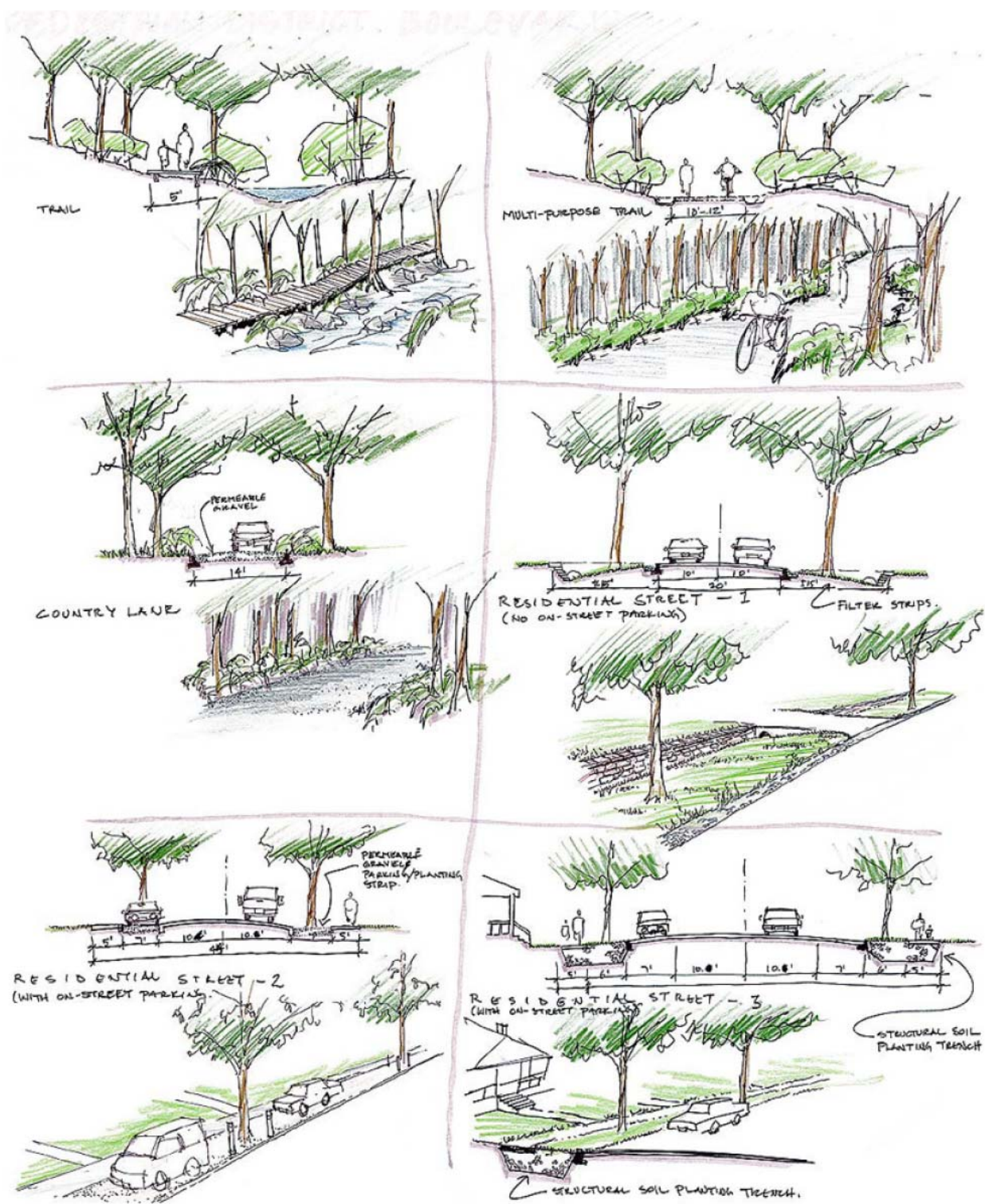
The following designs were completed by the consultant team during the design workshop. Some, but not all, were included in this report. The purpose of this appendix is to provide the town all of the designs that were drawn.



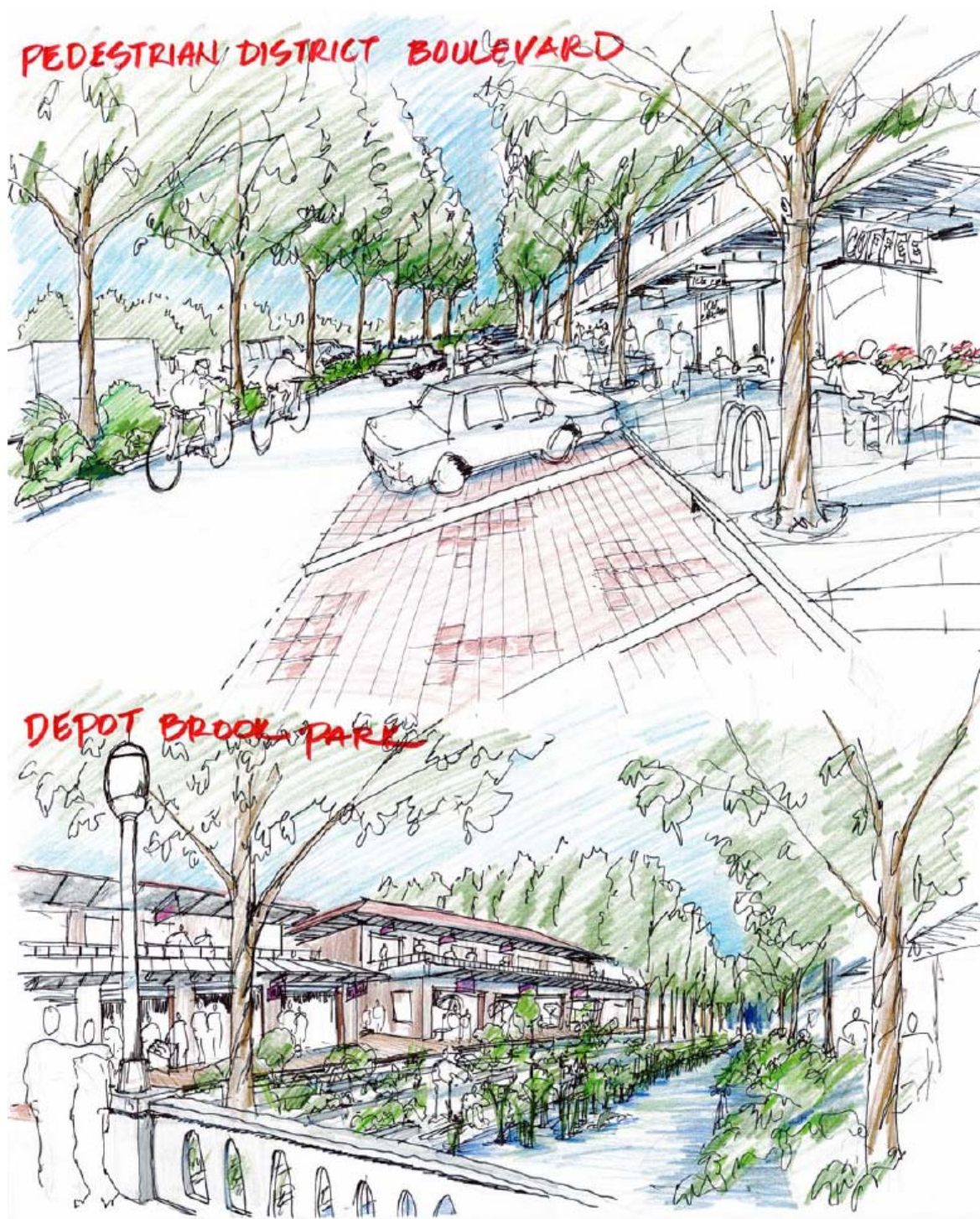
ROUTE 100 w/ LOCAL ACCESS LAKE



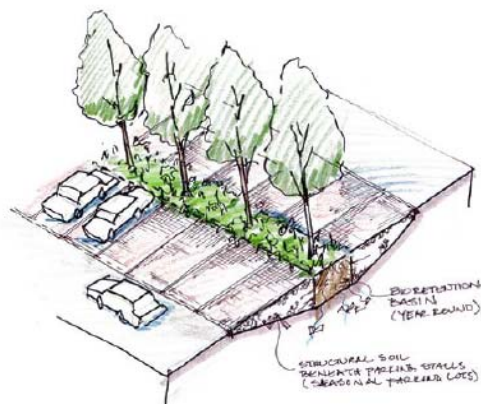
*New trees incorporated into street cross-sections, Clark Wilson,
Community, Design + Architecture*



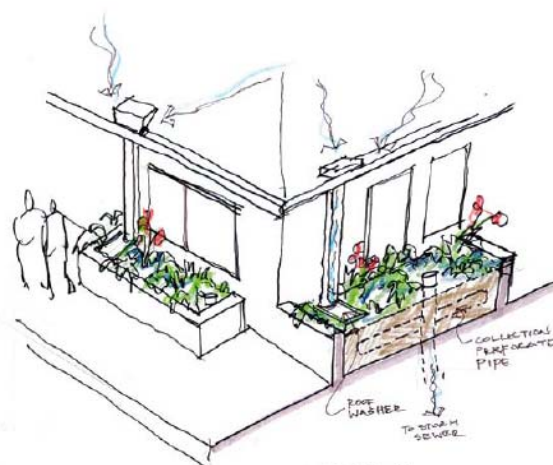
Stormwater management approaches incorporated into several street cross-section, Clark Wilson, Community, Design + Architecture



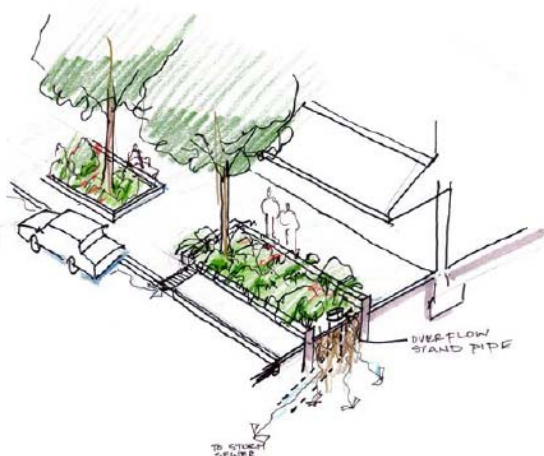
Possible designs for the pedestrian district and Depot Brook Park, Clark Wilson, Community, Design + Architecture



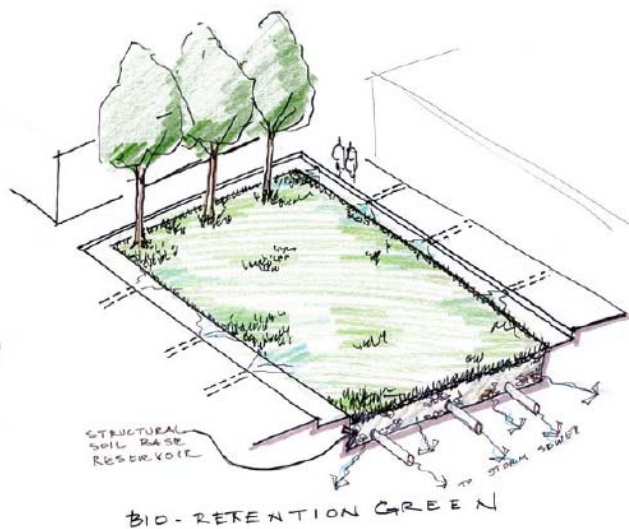
PARKING LOT BASINS



BIO-RETENTION PLANTERS



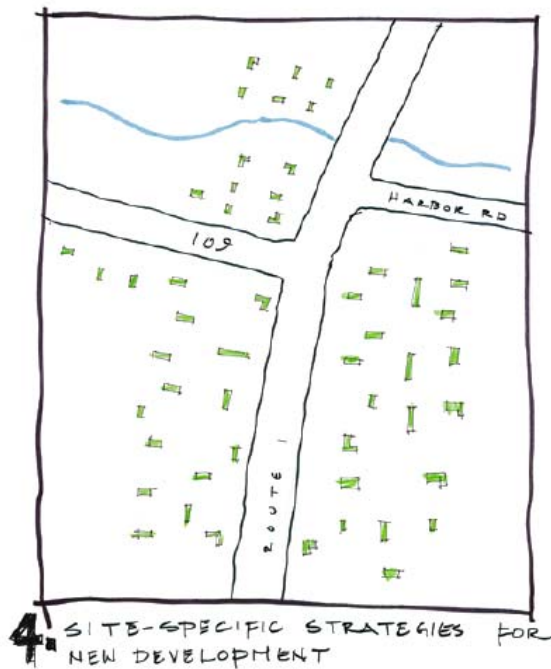
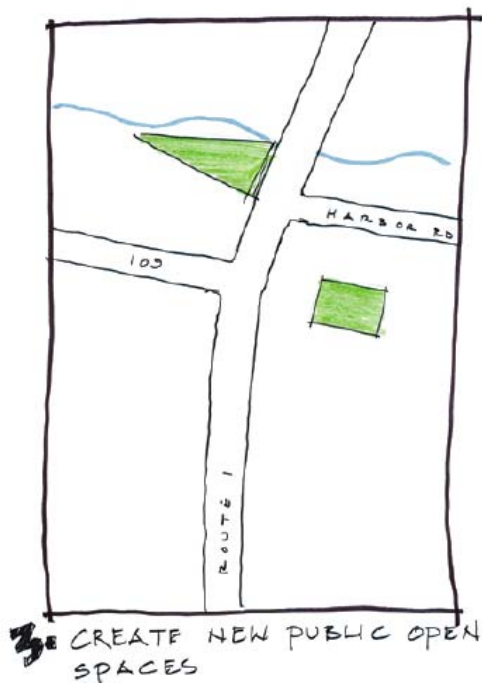
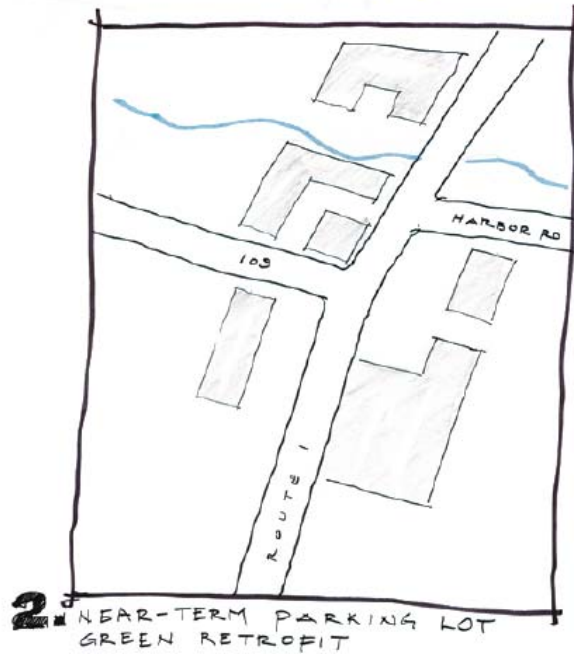
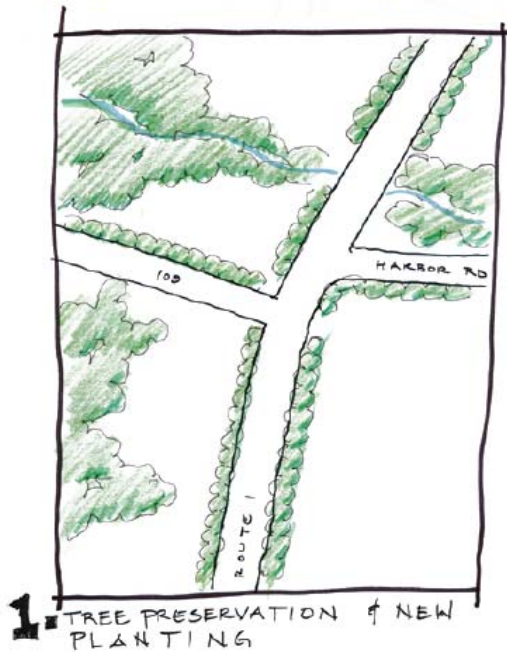
SIDEWALK PLANTER GARDENS



BIO-RETENTION GREEN

Examples of different sidewalk planter gardens, Clark Wilson, Community, Design + Architecture

A STORMWATER STRATEGY



*A possible stormwater management strategy for Wells, Clark Wilson,
Community, Design + Architecture*



CONSULTANTS:
 Van Meter Williams Pollack, LLC
 Charlier Associates
 ICF International
 CD + A

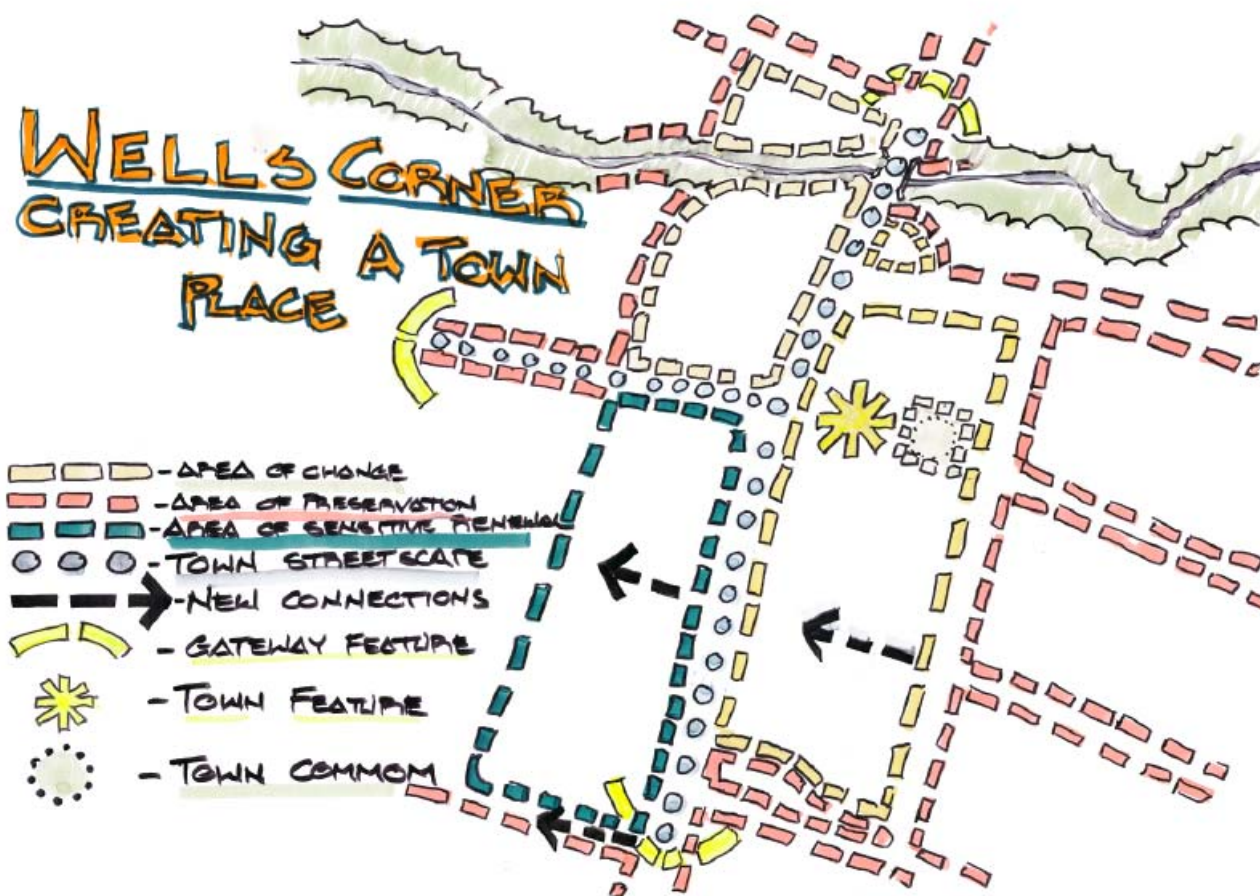
GATEWAY STUDY
DEPOT BROOK & GATEWAY AREA STUDY
WELLS, MAINE
 September 18-20, 2006

0' 60' 120'
 GRAPHIC SCALE





Oblique view of the pedestrian district, Tim Van Meter, Van Meter, Williams, Pollack



Creating a town place, Tim Van Meter, Van Meter, Williams, Pollack

APPENDIX D: EPA-NOAA SMART GROWTH IMPLEMENTATION ASSISTANCE FOR COASTAL COMMUNITIES

Populations and built environments in coastal watersheds are growing rapidly, with 55 percent of the U.S. population already living within 50 miles of the coasts. The environmental impacts of development directly affect the ability of communities to balance natural resource protection with sustainable economic growth in their decision-making. The pressures of coastal growth profoundly affect the ability of NOAA and EPA to achieve national goals for sustainable management of coastal resources and protection of human health and the environment. This challenge has been highlighted in the U.S. Commission on Ocean Policy's report, which calls for improvements in program planning, coordination and implementation to more effectively manage coastal growth.

One key approach to addressing this challenge must be more integrated and coordinated partnerships among all levels of government. In January 2005, EPA and the U.S. National Oceanic and Atmospheric Administration (NOAA) agreed to work together to help coastal communities grow in ways that benefit the economy, public health, and the environment. The two agencies signed a Memorandum of Agreement (MOA) that created a formal partnership between the two agencies supporting state and local development innovations. The EPA-NOAA Partnership will provide: training for local government staff and officials; outreach and education on successful policies, ordinances, and initiatives; and assessments of local development rules and policies.

As part of this MOA, EPA and NOAA agreed to work together to provide smart growth implementation assistance to coastal communities. Through a competitive selection process, six communities with NOAA Sea Grant partners were selected. NOAA provided grants of \$17,000 to each Sea Grant partner that was selected. Working with the Sea Grant partner, the local community host, and its prime contractor, ICF International, EPA assembled contractor teams whose members have expertise that meets a particular community's needs. While working with Sea Grant and community participants to understand their aspirations for their community's future, the teams bring experience from working in other parts of the country to provide best practices for consideration by the assisted community. The goal of the program is to help participating communities attain their goals while producing a report that can be useful to a broad range of communities facing similar challenges.

SMART GROWTH PRINCIPLES

- 1 Mix land uses.
- 2 Take advantage of compact building design.
- 3 Create housing opportunities and choices.
- 4 Create walkable communities.
- 5 Foster distinctive, attractive communities with a strong sense of place.
- 6 Preserve open space, farmland, natural beauty, and critical environmental areas.
- 7 Strengthen and direct development toward existing communities.
- 8 Provide a variety of transportation choices.
- 9 Make development decisions predictable, fair, and cost-effective.
- 10 Encourage community and stakeholder collaboration in development decisions.

Source: The Smart Growth Network.
www.smartgrowth.org

The EPA-NOAA Smart Growth Implementation Assistance Program is designed to help communities achieve growth that supports economic, community, and environmental goals. People in communities around the country are frustrated by development that gives them no choice about driving long distances between where they work, live and shop; that requires costly public expenditures to extend sewers, roads and public services to support new development; that uses up natural areas and farmland for development while land and buildings lie empty in already developed areas; and that makes it difficult for working people to rent or buy a home because of development that focuses only on one or two costly housing types. Smart growth strategies create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They foster design that encourages social, civic, and physical activity. They

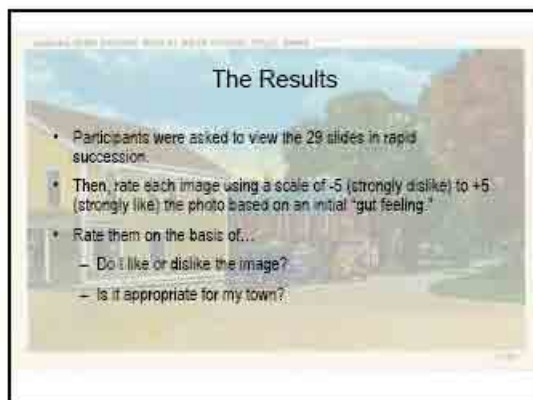
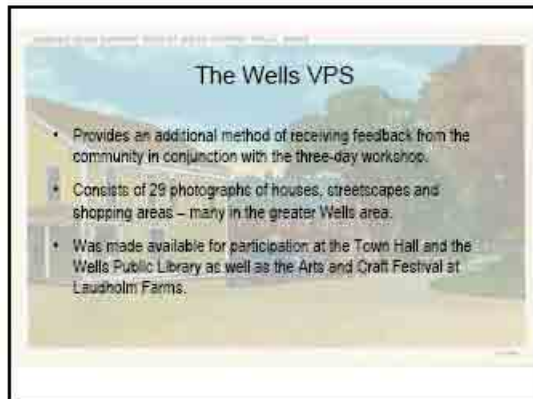
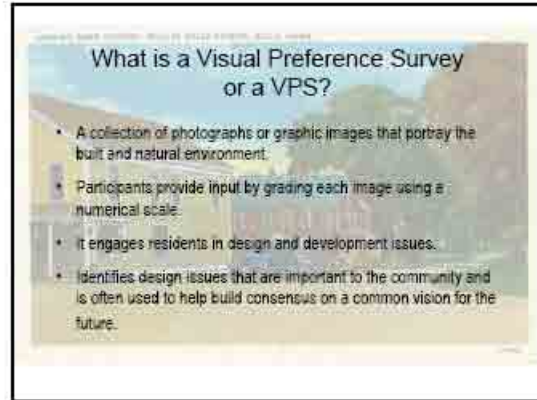
protect the environment while stimulating economic growth. Most of all, they create more choices for residents, workers, visitors, children, families, single people, and older adults—choices in where to live, how to get around, and how to interact with the people around them. When communities undertake this kind of planning, they preserve the best of their past while creating a bright future for generations to come.

Project Manager for the EPA-NOAA Smart Growth Implementation Assistance for Coastal Communities

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APPENDIX E: VISUAL PREFERENCE SURVEY

This survey was developed and implemented by Spahr and Dabrowski, LLC and was made widely available through the town, including copies at the Wells Public Library, the Town Hall, and at the Nature Festival at Laudholm Farm. 118 people responded to the survey. The survey follows, with results for each individual image.







Mean Rating = 1.3

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



Mean Rating = -1.1

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



Mean Rating = 0.1

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



Mean Rating = 1.3

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



Mean Rating = 1.8

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



Mean Rating = -1.0

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



14

Mean Rating = 0.1

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



15

Mean Rating = -2.1

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



16

Mean Rating = -0.3

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



17

Mean Rating = -2.1

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



18

Mean Rating = -1.3

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)



19

Mean Rating = -2.4

(strongly dislike) -5 -4 -3 -2 -1 0 1 2 3 4 5 (strongly like)

