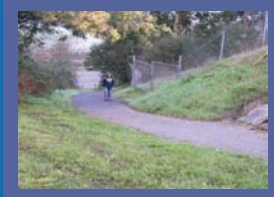
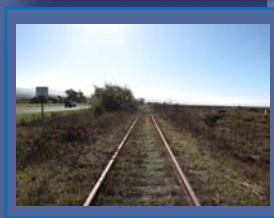
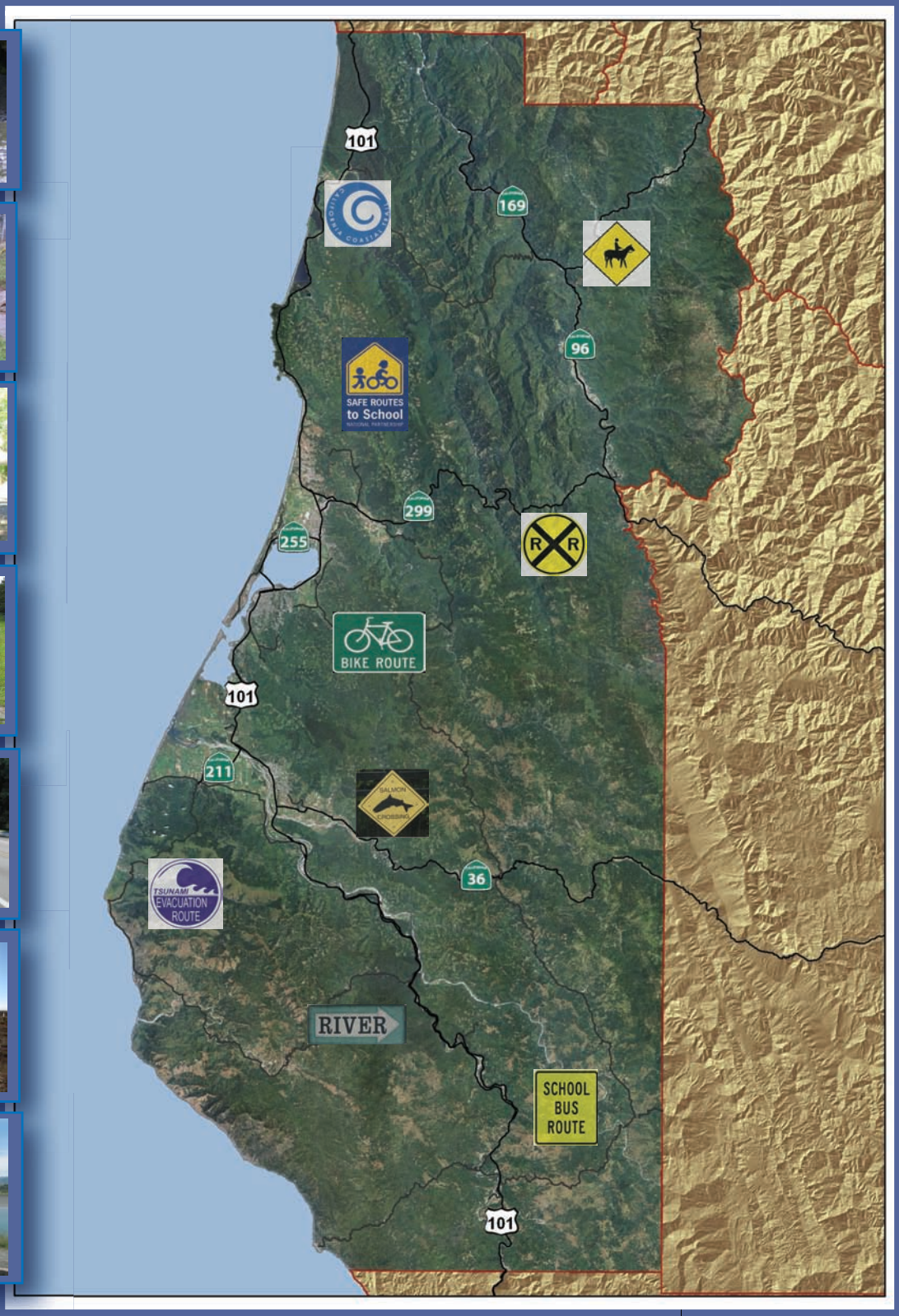
Humboldt County
Corridor Preservation Report







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HUMBOLDT COUNTY CORRIDOR PRESERVATION REPORT

PREPARED FOR:

Humboldt County Association of Governments
427 F Street, Suite 220
Eureka, CA 95501
707.444.8208
www.hcaog.net

PREPARED BY:

PLANWEST PARTNERS, INC.
1125 16th Street, Suite 200
Arcata, CA 95521
707.825.8260
www.planwestpartners.com

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1.0 Introduction and Overview

1.1 The Humboldt County Association of Governments

The Humboldt County Association of Governments (HCAOG) was originally formed in 1968 as a Joint Powers Agency to include the seven incorporated cities in Humboldt County and the County of Humboldt. HCAOG was created to function as a regional planning agency and local clearinghouse for Federal and State programs (HCAOG, 2009). Subsequently, the California Business, Transportation, and Housing Agency designated HCAOG as the Regional Transportation Planning Agency (RTPA) and as such, responsible for the development and implementation of the Regional Transportation Plan (RTP) and the administration of the Transportation Development Act. The Association additionally administers the Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA- LU) program and also monitors Comprehensive Transportation Planning Grants in the region (Ibid).

The HCAOG's 2009-2010 Overall Work Program identifies the 2009 Transportation Corridor and/or Facility Preservation Concepts Report as a "source document for the Regional Transportation Plan and as guidance for regional policy makers when defining and/or selecting transportation corridors for preservation, future use, or improvements."

1.2 Corridor Preservation Defined

A corridor is a geographic alignment that accommodates travel or potential travel. A corridor encompasses a single or multiple transportation routes or facilities (such as thoroughfares, public transit, railroads, highways, bikeways, etc.), the adjacent land uses and the connecting network of streets (ITE, 2006).

Corridor preservation is a strategy aimed at minimizing future expenditures related to transportation by either purchasing right-of-way outright or preventing or slowing development in areas (corridors) that are potentially needed for future improvements. By utilizing a context sensitive approach in transportation design and corridor preservation that is collaborative, interdisciplinary, and involves all stakeholders, community values such as historic, aesthetic, natural environment, and scenic values can rank on an equal basis with those of transportation safety, mobility, economics, and maintenance.

Some of the objectives of corridor preservation include: the prevention of inconsistent development; minimizing or avoiding environmental, social, and economic impacts from future transportation projects; reducing displacement; preventing the foreclosure of desirable location options; allowing for the orderly assessment of impacts; permitting orderly project development; reducing costs; and others (WFRC, 2009).

1.3 Corridor Preservation Needs

Land use decisions affect transportation needs and transportation improvements, in turn, affect land use decisions. Rapid, often unplanned, peripheral development has resulted in problems for both local and state transportation systems (WDT, 1994). For example, buildings are often constructed close to roadways, making future capacity expansion difficult and costly; and too many access points onto roadways have resulted in vehicular conflicts, reduced safety and a general deterioration in traffic flow (Ibid). Once an area has been developed, it can be difficult, if not impossible, to add needed transportation and access improvements.

For several reasons, it is often difficult to preserve rights-of-way for future transportation needs. These reasons include: controversy over the need for the improvement; uncertainty as to exact location; infringement on the property rights of individuals; and unwillingness of units of government to commit funds for property acquisition very far in advance of a project (Ibid).

Corridor preservation is a means of coordinating transportation planning with land use planning with the goal to prohibit, or at least minimize, development in areas which are likely necessary to meet future transportation needs. These areas include: lands adjacent to existing roadways which are projected to require capacity expansion; areas which might be needed to construct entirely new routes for urban bypasses or to serve new developments; and land needed for bicycle, transit and pedestrian facilities (Ibid).

1.4 Corridor Preservation Benefits

Advancing corridor preservation in land use planning can reduce land use and social impacts within and adjacent to the corridor, as well as reduce future transportation improvement costs. Specific benefits of corridor preservation include:

- Identification and preservation of transportation rights-of-way for current and future use;
- Setting alignments early in the planning process to facilitate acquisition;
- Classifying roadways and other transportation facilities (e.g. bike routes) in planned corridors to allow sufficient width;
- Establishing land use and transportation relationships by establishing transportation corridors on land use diagrams of local plans;
- Partnerships with diverse public and private agencies and organizations;
- Resolution of major planning issues prior to the initiation of project development;
- Better defined roadway improvements for inclusion in the Regional Transportation Plan;
- The determination of funding needs to support corridor improvements;
- Protection of transportation investments; and
- A better context for other planning taking place in the corridor (e.g., to modify or propose land use plans in the corridor to support corridor development).

1.5 The Federal Government's Role in Corridor Preservation

The Federal Transportation Authority (FTA) helps communities support corridor preservation by issuing eligible recipients grants for corridor preservation planning and facilitation, and for the fee simple purchase of right-of-way and/or easement acquisition of planned corridors (FTA, 2009). The FTA administers this financial assistance according to the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which restructured and authorized federal funding for transportation programs; provided for an increased role for regional planning commissions in funding decisions; and required comprehensive regional and statewide long-term transportation plans. SAFETEA-LU authorizes specific dollar amounts, funded by Congress each year via annual appropriations, for a variety of transportation programs. Upon receipt of this appropriation, the FTA apportions and allocates these funds according to formulas and earmarks. These FTA apportionments are published annually in the Federal Register (Ibid).

Congress appropriates funds for each program and the FTA awards grants to eligible recipients to meet the goals of that program. Current programs applicable to corridor preservation activities are included in the Appendices. Generally, FTA funds are available to designated public body recipients (i.e. states, cities, towns, regional governments, transit authorities, etc.) with the legal authority to receive and dispense federal funds. The recipients of these grants are responsible for managing their projects in accordance with federal requirements (FTA, 2009).

1.5.1 The Transportation Enhancements Program

Transportation Enhancements (TE) activities are federally funded, community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure (FHWA, 2009). TE projects must be one of 12 eligible activities and must relate to surface transportation. Eligible activities that may include corridor preservation include: Bicycle and Pedestrian Facilities; Scenic or Historic Acquisitions; and Rail Corridor Preservation. Selection criteria include: anticipated benefits for the community, anticipated number or users/beneficiaries, linkage to transportation system, need for TE funds to complete project, maintenance commitment, and relationship to other projects (Ibid).

The federal government provides funding for TE projects through our nation's surface transportation legislation. The TE program funds project design, engineering, construction and environmental elements. The State of California requires TE project sponsors to provide an in-kind match for labor, materials and property. The value of donated property, materials, and services; the labor of state and local government employees; and the costs of preliminary engineering may count towards the matching requirement (Ibid). Federal, non-Department of Transportation (DOT) funds can often be used as matching funds. Additional funds for this activity may come from a variety of sources such as local and state governments, foundations, nonprofit organizations, businesses, or other federal programs (Ibid). .

1.5.2 Federal-aid Project Reimbursement

Under the FHA Functional Replacement Program, states can acquire right-of-way of publicly owned and occupied facilities with their own funds and be eligible for future federal reimbursement of the actual replacement cost (not the fair market value) (WDT, 1994). To take advantage of these reimbursements, acquisitions must be performed in accordance with civil rights provisions of Title VI and provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Some local land use planning ordinances may encourage donations of rights-of-way for future transportation facilities. Under the Surface Transportation and Uniform Relocation Assistance Act of 1987, the market value may be used by state transportation agencies toward local matching share on Federal-aid projects (Ibid).

1.6 The State's Role in Corridor Preservation

The California Public Utilities Code Section 161000 addresses the State's responsibility for implementing a program for the purpose of corridor preservation and protecting valuable transportation rights-of-way. The Code reads as follows:

(a) The Legislature finds and declares as follows:

(1) Transportation is vital to the state's economy, and a complete transportation system is essential in times of disaster;

(2) Transportation corridors should be protected from uses which are incompatible with transportation requirements; and

(3) Important potential transportation corridors are being developed for other purposes.

(b) It is, therefore, the intent of the Legislature in enacting this division to vest in the Department of Transportation responsibility for implementing a program of transportation right-of-way protection and conservation within essential transportation corridors by acquiring and holding transportation corridor lands which would otherwise be lost to public use.

(c) It is the further intent of the Legislature in enacting this division to preserve land which is needed or will be needed for transportation corridors consistent with applicable environmental protection laws and regulations.

The Department of Transportations' (Caltrans) Local Assistance Program oversees more than one billion dollars annually available to over 600 cities, counties and regional agencies for the purpose of improving their transportation infrastructure or providing transportation services (Caltrans, 2005). This funding comes from various federal and state programs specifically designed to assist the transportation needs of local agencies.

Caltrans is required to work on a partnership basis with local land use authorities to identify transportation corridors early and to explore all appropriate means for acquisition and preservation of those corridors (Caltrans, 2009). Acquisition may be through donations, purchase, or other means. Each grant program has different purposes and matching fund requirements. Specific corridor funding opportunities are further discussed in the Appendices.

Every grant proposal submitted for projects within Humboldt County should be submitted to HCAOG for review and recommended action. Any given project can only be submitted to one grant program. The Caltrans staff may refer an application to a different grant program for consideration if the proposal is better suited for that program (Ibid).

1.6.1 Acquisition of State Designated Corridors

Caltrans and the California Transportation Commission (CTC) work in partnership with state and regional agencies to identify, program, and deliver priority projects in key corridors that yield mobility and connectivity benefits. Under Government Code § 65081.3 and Public Resources Code § 33910-17, Caltrans may acquire land located within a designated corridor of statewide or regional priority, where the RTPA and local municipalities have identified the corridor to be preserved, to be held and maintained for future transportation purposes (Ibid).

The RTPA and local municipalities must take several required steps in designating corridors for preservation, including: establishing the corridor's geographic boundaries; completing a survey of traffic and air quality impacts of the corridor; considering the widest possible range of transportation facilities that could be located in the corridor; and assessing the environmental impacts they may cause (Ibid). The CTC may then pursue preservation through donations, dedications, transportation impact mitigations, advance right-of-way purchase, and other means.

1.7 Report Organization and Content

In addition to this Chapter, the Corridor Preservation Report is organized as follows:

Chapter 2. Report Purpose and Goals

Chapter 3. Prioritization and Strategy Development

Chapter 4. Importance of Coordination and Communication

Chapter 5. Planning for Corridor Preservation

Chapter 6. Corridor Preservation Strategic Tools

Chapter 7. Redevelopment in Corridor Rights of Way

Chapter 8. Corridor Preservation Pilot Projects

Chapter 9. Corridor Mapping and Cataloging

Chapter 10. Implementation

Chapter 11. Conclusion

This report is the initial effort by HCAOG to present corridor preservation techniques and practices. As such it contains numerous examples from all across the United States, as to how local, regional and State agencies and organizations are identifying, acquiring, preserving and utilizing transportation corridors for public benefit.

Local agencies were consulted on corridor preservation issues. This had several benefits for the report. Consultation with County public works staff resulted in the description of the County publicly maintained road system description contained in Chapter 5. Consultation with cities resulted in the identification of two pilot projects in Chapter 8. These pilot projects, for the Cities of Rio Dell and Fortuna, provided a mechanism to solicit community input and identify corridor projects with clear community benefits. A more cataloguing of existing corridors in the region was determined not to be feasible, given the overall scope and budget for this report.

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2.0 Report Purpose and Goals

2.1 Key Question Addressed in this Report

Why is corridor preservation in the public interest? Corridor preservation seeks to balance competing public and private land use and transportation interests. Public use of historic transportation corridors, such as railroad right-of-way, non-motorized trail routes and public roads, can be lost by land ownership changes and/or a lack of use, which can often lead to encroachment of private uses. In order to preserve, expand or improve public transportation corridors, public agencies and other transportation providers must identify existing or planned transportation corridors and establish land development provisions for future public use. Advanced corridor planning and preservation is a cost-effective, environmentally responsible, and efficient means of greatly reducing the overall costs of future corridor projects.

2.2 Report Purpose and Need

The Corridor Preservation Report purpose is to identify corridor preservation benefits and strategies for preserving, acquiring and utilizing public transportation corridors for multi-modal uses. Local, State, and regional transportation agencies are continuously faced with competing demands for land needed for transportation corridors. In order to avoid private property encroachment within existing or planned rights-of-way, local and regional land use and transportation planning entities must find ways to protect these corridors for future public use.

2.3 Corridor Preservation Research

In this report, transportation corridor issues specific to Humboldt County have been researched to identify corridor preservation strategies being pursued by state and local governments, as well as to understand the various legal ramifications of corridor preservation.

This report draws from the Federal Highway Administration's (FHWA) commissioned comprehensive research efforts to examine present-day corridor preservation practices. Applicable FHWA study components include local government agency survey and key court cases and statutes.

2.3.1 Local Government Agency Survey

Independent of this report, the FHWA surveyed various local governments and agencies to determine the extent to which corridor preservation is pursued and implemented at the local level. The results shed light on both the implementation strategies and the different agencies and organizations involved in corridor preservation efforts (see references for survey link).

2.3.2 Key Court Cases and Statutes

As a result of their study, the FHWA determined that the legalities of local government preservation policies and programs, as resolved in key court cases, are central to the

effectiveness of corridor preservation (FHWA, 2000). Some states, including California, employ corridor preservation statutes and have enabling legislation for corridor preservation. In 1991, California passed SB 1784, establishing corridor preservation policies and program guidelines to preserve 13 major corridors within the State selected by the Department of Transportation (DOT) as key corridors requiring preservation (FHWA, 2000). The law also established a process for evaluating corridors for future preservation consideration.

Additionally, $25 million was allocated in the State budget for corridor preservation activities. Policies vary from state to state, but many states have a formalized, cooperative check-and-balance program with their localities. Most of the variation among states in this category lies in how states determine priority corridors and how the policies are implemented (FHWA, 2000).

2.4 Corridor Preservation Goals

This Report I intended for use by local and regional land use and transportation planning entities to assist in finding ways to protect key sections of planned corridors with the specific goals to:

- Preserve lands with the potential to be locally and regionally important corridors;
- Minimize long-term acquisition costs by securing right-of-way at time of development;
- Provide corridor acquisition or preservation options that can easily integrate future community corridor planning needs;
- Provide guidance for regional decision makers regarding future projects within the planned corridor;
- Provide direction in determining impact mitigation measures and design guidelines for proposed developments within the corridor;
- Provide guidance for interim projects to ensure the progression towards long-range objectives; and
- Seek community and agency consensus on a preferred Corridor Preservation Plan by all affected communities and agencies through supporting the adoption of consistent local comprehensive plans, zoning, and subdivision regulations.

References Cited

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3.0 Prioritization and Strategy Development

This report is intended as a resource document and tool, to assist in understanding and selecting cost effective corridor preservation and use solutions. Agencies are encouraged to apply techniques and standards in their development of coordinated, achievable, and cost-effective corridor preservation strategies at both the local and regional levels. This chapter presents corridor preservation methodologies and strategy development that can be used by HCAOG member agencies and others with corridor preservation and use interests.

3.1 Preservation Strategy Development

Corridor alignment selection and acquisition, and pressure to convert existing but unused rights-of-way, can be effectively addressed with strategies embodied in clear policy and implementation measures. These policies and implementations address land acquisition and retention, landowner agreements, land-use regulations, and access management. Corridor preservation policy in local and regional plans is critical for government agencies to balance competing public and private property and land use interests.

Policies can include promoting and acquiring of properties, employing basic policy tools, such as building setbacks from roads rights-of-ways, and/or reaching alternative agreements with property owners. Such agreements may include voluntary right-of-way donations or dedications for development projects, interim use agreements, options to purchase, the purchase of development rights, and density credits for right-of-way dedication. Alternatively, planning entities can acquire key properties by subdivision regulation, requiring dedication where there is a development nexus. The most widely accepted and least controversial preservation technique being utilized by agencies is the fee simple purchase of land.

Corridor preservation strategies with an emphasis on best practices and "next steps" that appear to be most suitable for the Humboldt County region include:

- Identifying and preserving land for future transportation facilities in the general plan process, where those facilities are needed to support future land use conditions;
- Conducting public workshops to identify current and historic transportation corridors, determine current and anticipated use, and public support;
- Signing future corridors to raise community awareness for future use;
- Identifying existing deeded rights-of-way, potential prescriptive easements and informal transportation route locations and cataloging the data into an easily accessible format;
- Establishing circulation and corridor objectives in long-range, comprehensive plans (i.e., General Plans) including developing policy and programs that supports transportation corridor management;
- Establishing corridor preservation provisions in implementing ordinances;

- Assessing corridor preservation during subdivision review. This is a low cost and efficient approach for identifying and avoiding corridor threats during the tentative map stage of development (see Beau Pre Heights Subdivision Case Study);
- Identifying land dedications needed for transportation corridors at time of entitlement to minimize taxpayer cost over the long-term for costly right-of-way acquisition of developed property;
- Supporting an integrated public and private approach to land use and transportation planning, such that the regional transportation vision and community goals can be fully realized;
- Utilizing a context-sensitive approach when planning and designing corridor improvement projects that meets local community needs, integrates complete streets concepts and plans for future modifications and expansions;
- Developing a funding strategy for corridor planning, acquisition, construction, and management/maintenance;
- Coordinating with affected agencies and communities when initiating and planning local and regional transportation corridor improvement projects; and
- Maintaining an ongoing commitment to protect the preferred transportation corridors by all affected communities and transportation providers.

3.2 Regional Corridor and Facility Catalogue

Upon identification by jurisdictions of the corridors proposed for preservation, a regional catalogue containing a list of modal corridor classifications and facility types, including trails, rails, surface roadways, rights-of-way/easements, and major public utility alignments for the largest regional communities (Eureka, Arcata, Fortuna and McKinleyville) should be created. This representative information can be compiled from existing maps, general and community plans, and from local jurisdiction representatives, trail stewards and those with knowledge of historical corridors.

For example, information can be catalogued and characterized by mode and community. Corridors and facilities proposed for preservation can be presented in GIS maps, with each corridor/facility type containing a brief description that is coded on the map. Corridor and/or facility preservation candidacy, for the different modal options, can then be determined by analyzing the associated historical, economic, statutory, and regulatory importance. Priority can then be given to those corridors and facilities with a high (existing or potential) service capacity and high risk vulnerability.

3.3 Preservation Prioritization Methodology

Preservation prioritization criteria can be used to evaluate and prioritize transportation corridors and facilities. Listed below are factors that should be considered for potential projects. This list is a guide and other prioritization characteristics are gained through pilot projects and working collaboratively with regional entities.

- Transportation needs and priorities;
- Existing and potential use;
- Regional and sub-regional scale;
- Potential to connect multiple jurisdictions;
- Public access to goods, services, employment, education, and/or recreation;
- Advance ‘complete streets’ for all modes of transportation;
- Ecological value;
- Historical significance;
- Economic and tourism benefits;
- Safety;
- Social values; and
- Community support.

References

None

4.0 Importance of Coordination and Communication

Preservation of the land needed for transportation improvements is best achieved when local, regional, and state agencies work together to identify threats to planned rights-of-way and find solutions to them. In reviewing corridor preservation techniques in this report, agencies can benefit by pursuing communication, coordination, and cooperation within each agency, among the agencies, and with property owners.

This coordination can be promoted at the regional level. For instance, local jurisdictions can be encouraged to notify the HCAOG before approving any rezoning, subdivision, or other permitting activity within a planned corridor. The HCAOG can then respond within a set time frame by seeking state funds for purchasing at risk property, providing the local agency with preservation techniques to discuss with the property owner, or advising the local agency on initiating eminent domain proceedings. Regional and local entities may also foster coordination by incorporating tools such as memorandums of understanding (MOUs) into their planning processes, ensuring that all parties with interest in a corridor are united in their preservation and coordination efforts.

In order to adapt transportation systems and networks to the changing development patterns in the region, land use and transportation planning policies must be closely coordinated. This level of coordination, however, has been difficult in California where land use planning is a local responsibility, and much of the regional transportation plan funding comes from the State.

4.1 Organizational Tools

The distinction between fiscal tools, which rely on financial mediums of coordination, and organizational tools, which rely on institutional interaction as a means of coordination, becomes somewhat blurred in practice. The corridor concept certainly has elements of institutional linkage as well as fiscal coordination.

Organizational tools such as a regional compact, is a possibility for effective regional coordination. In Contra Costa County, California, a regional compact helped to produce a regional political consensus for transportation improvements that had earlier been rejected. In 1986 a new regional 5 cent sales tax was proposed to fund transportation projects. Polls showed that transportation was considered a major problem in the Contra Costa County. Local city officials and the Conference of Mayors supported the measure. The referendum campaign received generous financial backing from developers and seemed likely to pass. However, a citizens advocacy group composed of homeowners, environmentalists, and senior citizens worried about future growth organized a campaign against the measure and defeated it.

4.2 Potential Regional Role Fragmentation

Even if local governments were to be given greater flexibility and authority in addressing transportation issues, this may not guarantee that better area-wide coordination of land use and transportation planning efforts would result. Given the function and extent of transportation

systems, the regional role is more important than either the local or state roles in regards to coordination. Since efforts to control growth and ease transportation woes have an immediate and some-times detrimental effect on neighboring jurisdictions, efforts must be coordinated.

4.3 Regional Coordination through Political Consensus

Clear and coordinated regional transportation policy, approved by elected officials within the region, can help avoid the kinds of policy disputes that can divide communities. Local jurisdictions working to deal with growth control and traffic congestion on a case by case basis might not see the regional perspective. Regional political consensus often comes in a "package deal" that combines land use control, new facilities funding, increased public input into the planning process, and state and federal support for more participation in regional efforts.

Contra Costa County, ultimately achieved such a political consensus, when a diverse coalition of developers, environmentalists, business people, and citizen groups came together to support "Proposition C." These groups were able to cooperate because the proposal explicitly linked a new regional sales tax to growth control measures. A public/private committee thrashed out a growth management program tied to a $155 million fund earmarked for local transportation improvements to be allocated on the basis of adherence to the growth management goals. These funds will be supplemented by state funds that are earmarked to aid "self-help" jurisdictions.

4.4 Case Study of Regional Land Use Planning Coordination

Though the basic police power resides at the state level, land use regulation has traditionally been delegated to localities. In Virginia, as in most other states, land use planning is a jealously guarded local prerogative, and this contributes to a general lack of coordination among localities on land use planning issues. In spite of this, regional organizations play a limited role in coordinating land use controls across political boundaries in Northern Virginia, the District of Columbia, and Maryland Council of Governments.

The Metropolitan Washington Council of Governments (COG) has been the major regional player in both transportation and land use planning. It maintains a "zone land activity" database, which allows COG and local planners to test land use alternatives. It conducts specific land use studies such as those on the land use impacts of mass transit and zoning around airports. In its role as the Metropolitan Planning Organization (MPO) for transportation planning in Northern Virginia, COG's Transportation Planning Board coordinates, reviews, and approves work programs for proposed federally assisted technical studies, including those related to the transportation impacts of land use, and coordinates federal funding for such state activities as site plan reviews for local government land use planners. In addition, the COG established a Growth and Transportation Joint Task Force, which provides a forum for coordination.

References

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5.0 Planning for Corridor Preservation

5.1 Regional Network Planning

Network, or "system," planning sets the strategic direction and framework around which the transportation network and various components will eventually be constructed. It is the highest level of a series of incremental plans leading to the design of individual thoroughfare segments that is consistent with the framework of the network (ITE, 2006). Network planning defines goals and facilities for all modes of transportation in a specific area. The long-range transportation plan is comprised of an integrated transportation network and corridors (Ibid).

Ideally, network planning takes place at the early stages of regional development and is integrated into a comprehensive planning process that concurrently addresses land use, transportation and environmental resource management. It establishes a framework for the transportation system and distinguishes the functions, modal emphasis and operational features of individual segments. Alignment, spacing, functional classification, access control, determination of number of lanes and designation for major freight and transit routes are among the familiar characteristics addressed (Ibid). In practice, especially in areas with multiple jurisdictions, network planning is often conducted in a piecemeal manner by multiple agencies with different geographic jurisdictions, missions and powers.

It is important that the design process recognize the role of a thoroughfare as part of a large-scale multimodal network, weighing the regional, sub-regional and neighborhood functions of the thoroughfare in relation to urban form and character (Ibid). Network characteristics have a very meaningful impact on urban development patterns. For example, compact, mixed-use areas are dependent on a pattern of highly connected local and major thoroughfares. Connectivity, parallel routes and corridor capacity contribute to a transportation system that can accommodate projected demand by dispersing traffic, transit, freight and bicyclists across a system of parallel roadways. The high level of connectivity results in short blocks that provide many route choices, support a fine-grained urban lot pattern and provide direct access to many properties (Ibid).

Regional network planning establishes the framework for the planning of county and citywide networks. The planning of the finer grid of local residential and commercial streets is typically prepared at the county and/or city scale. County and city transportation plans establish a framework for planning and designing the local street system and individual thoroughfares. Finally, site planning and the project development process achieve the highest level of detail (ITE, 2006).

5.2 The Trend Away from Level of Service for Evaluation

Up until recently, many transportation plans used "level of service" (LOS) as a measure of operating conditions for main roadway segments, which is a scale that quantifies the average delay experienced by drivers at an intersection or through a corridor. LOS is measured on a scale from A to F, with different levels being desirable in different contexts (e.g., a country road vs. a main street in a commercial district). According to the some circulation elements, roadways are considered acceptable if they are operating at an LOS of "C" or better.

More stringent LOS standards (particularly in urban areas) tend to necessitate the widening of roads to accommodate development, thus discouraging use by alternative means. Because of this, municipalities often encourage increasing population densities, narrowing streets, managing car use in certain areas, providing sidewalks and safe pedestrian and bicycle facilities, and making the scenery interesting for pedestrians (Ibid).

Some jurisdictions have LOS policies that hamper transportation planning, such as a high minimum LOS, often "C". Such a policy does not offer similar protection to bicyclists, pedestrians, and the neighborhood the road passes through (Ibid). Also, in some cases approval for infill projects may be denied because nearby intersections either do not meet LOS "C" prior to the project or would not meet it if the project were built. However, whether the project may reduce the overall regional road-space demand should also be taken into account. Furthermore, an infill project might be allowed, but only if nearby intersections are widened, thus, raising the cost of the project and promoting the automobile as the primary mode of transportation in a location where transit usage is likely encouraged (Ibid). Lastly, road widening projects in infill areas typically reduce pedestrian amenities that are likely in greater need after the project than before it.

More and more, agencies engaged in transportation planning are changing to the practice of adapting to more a flexible policy that takes into account vehicle movement as only one of a number of context-related factors that need to be considered. With this practice, cities and counties have an opportunity to consider the overall street function, including use by bicycles, pedestrians, and transit networks, when evaluating use. Along certain streets, pedestrian or bicycle movement may be given a higher priority over auto movement capacity. Multi-modal objectives could also include a context sensitive component such that priority modes are identified for various street types. For example, an industrial arterial would likely define vehicle movement (including trucks for goods movement), as the highest priority function, while a main street (i.e., neighborhood shopping district) might define pedestrian mobility or transit access as the highest priority function.

5.3 Roadway and Street System Classifications

Road and street cross-section standards assist in choosing the appropriate design standards for a particular street. The conventional street hierarchy consists of Arterial, Collector, and Local streets. Arterials are the largest, collectors are in between, and locals are the smallest. In a typical city, arterial streets are either four or six lanes wide with a median and turning lanes. Collectors are typically 2-4 lanes with a turn lane, and locals are two wide lanes with room for parking on both sides. Figures 5.3-1 through 5.3-7 illustrate typical street classifications with recommended dimensions for each zone. The zones and other design aspects include the following:

Roadside Zone: Location for planting zone (grass strips, street trees, tree wells and utilities);

Throughway Zone: Accommodates sidewalks, tree wells and utilities;

Edge Zone: Accommodates doors for parked vehicles and utilities;

Parking: Space for parking vehicles on-street; may also contain stormwater facilities;

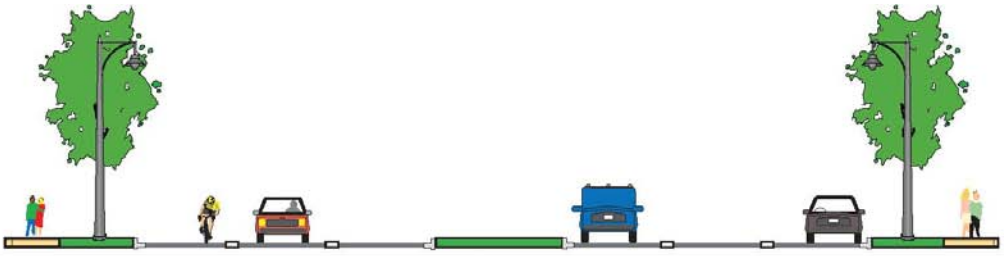
Travel Lanes: Pavement available for through travel by vehicles; and

Median: **S**pace available for additional planting zone, pedestrian refuge, and/or turning lanes.

The HCAOG Regional Transportation Plan (RTP) establishes a system to classify public roads within the County according to function. All state routes in Humboldt County, classified as a Principal Arterial (PA), Minor Arterial (MA), Major Collector, or Minor Collector, are described below (HCAOG, 2008).

Principal Arterials: Principal arterials constitute routes whose design is expected to provide for high overall travel speeds, with minimum interference to through movement (Figure5.3-1). These routes serve corridor movements with trip length and travel density characteristics indicative of substantial statewide or interstate travel. In Humboldt County, U.S. 101 and SR 299 are classified as Principal Arterials.

Figure 5.3-1 Typical Principal/Major Arterial 4-Lane Street Cross-section



Major Arterial 4-Lane

Context	Roadside Zone*	Parking/Bike Lane	Travel Lanes	Median	Travel Lanes	Parking/Bike Lane	Roadside Zone*	Total ROW***	Total Pavement***
Mixed Use Urban	21'	13'	22'	16'	22'	13'	21'	128' w/median	86' w/median
Urban	21'	13'	22'	16'	22'	13'	21'	128' w/median	86' w/median
General Suburban	16'	13'	22'	16'	22'	13'	16'	118' w/median	86' w/median
Restricted Suburban	16'	13'	22'	16'	22'	13'	16'	118' w/median	86' w/median
Estate/Rural	34'**	N/A unless required by bike plan	22'	Optional (16')	22'	N/A unless required by bike plan	34'**	112'	44'

* Includes area for sidewalks, utilities, street trees, tree wells, street furniture, etc.

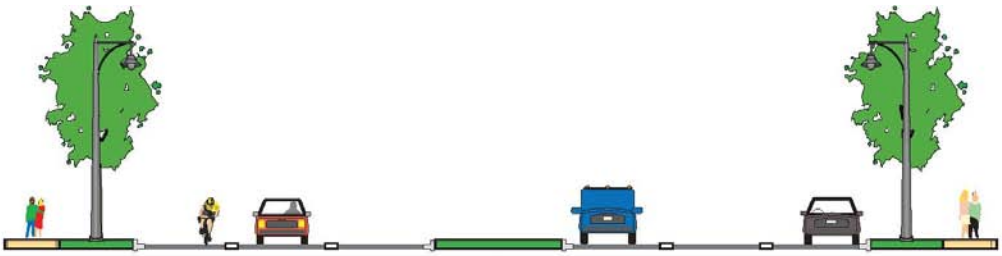
** Includes area for utilities, drainage swales, private plantings, etc.

*** May be reduced by 14' if parking is not required; larger at intersections based on adopted design guidelines (except with estate or rural)

Source: City of College Station, 2009.

Minor Arterials: The rural minor arterial system forms a network linking cities, larger towns, and other traffic generators, such as resort areas and/or recreational attractions. In Humboldt County, the arterial system consists of State Routes 36, 96, 200 and 255. These routes are sparsely connected with a network of local county roads.

Figure 5.3-2 Typical Minor Arterial 4-Lane Street Cross-section



Minor Arterial 4-Lane

Context	Roadside Zone*	Parking/Bike Lane	Travel Lanes	Median	Travel Lanes	Parking/Bike Lane	Roadside Zone*	Total ROW***	Total Pavement***
Mixed Use Urban	19.5'	13'	22'	16'	22'	13'	19.5'	125' w/median	86' w/median
Urban	19.5'	13'	22'	16'	22'	13'	19.5'	125' w/median	86' w/median
General Suburban	14.5'	13'	22'	16'	22'	13'	14.5'	115' w/median	86' w/median
Restricted Suburban	14.5'	13'	22'	16'	22'	13'	14.5'	115' w/median	86' w/median
Estate/Rural	35.5***	N/A unless required by bike plan	22'	Optional (16)	22'	N/A unless required by bike plan	35.5***	115'	44'

* Includes area for sidewalks, utilities, street trees, tree wells, street furniture, etc.

** Includes area for utilities, drainage swales, private plantings, etc.

*** May be reduced by 14' if parking is not required; larger at intersections based on adopted design guidelines (except with estate or rural)

Source: City of College Station, 2009.

Major Collectors: Major collectors provide service to larger towns not directly served by the arterial system, and to other traffic generators of equivalent intra-county importance, such as major recreational areas, schools, airports, and commercial activity centers (Figure 1.8.2-2). Major collectors also link these locations with nearby routes of higher classification. Examples of major collectors in Humboldt County are SR 211, SR 283, and a portion of SR 169.

Figure 5.3-3 Typical Major Collector 4-Lane Street Cross-section

Major Collector 4-Lane

Context	Roadside Zone*	Parking/Bike Lane	Travel Lanes	Median	Travel Lanes	Parking/Bike Lane	Roadside Zone*	Total ROW***	Total Pavement***
Mixed Use Urban	19.5'	13'	22'	16'	22'	13'	19.5'	125' w/median	86' w/median
Urban	19.5'	13'	22'	16'	22'	13'	19.5'	125' w/median	86' w/median
General Suburban	14.5'	13'	22'	May be Required (16')	22'	13'	14.5'	99'	70'
Restricted Suburban	14.5'	13'	22'	May be Required (16')	22'	13'	14.5'	99'	70'
Estate/Rural	28***	N/A unless required by bike plan	22'	Optional (16')	22'	N/A unless required by bike plan	28***	100'	44'

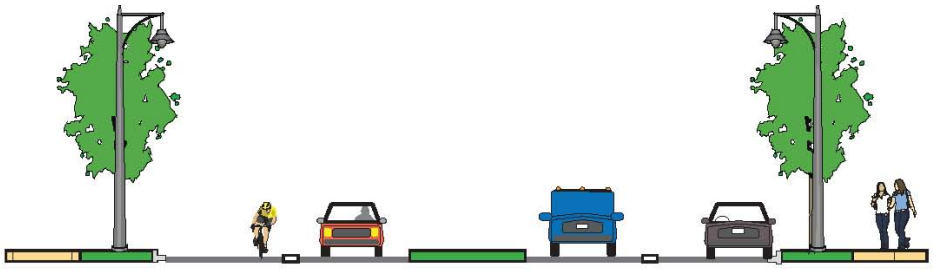
* Includes area for sidewalks, utilities, street trees, tree wells, street furniture, etc.

** Includes area for utilities, drainage swales, private plantings, etc.

*** May be reduced by 14' if parking is not required; would be enlarged by 16' if median required/provided (except with estate or rural); larger at intersections based on adopted design guidelines (except with estate or rural)

Source: City of College Station, 2009.

Figure 5.3-4 Typical Major Collector 2-Lane Street Cross-section



Major Collector 2-Lane									
Context	Roadside Zone*	Parking/Bike Lane	Travel Lanes	Median	Travel Lanes	Parking/Bike Lane	Roadside Zone*	Total ROW***	Total Pavement***
Mixed Use Urban	19'	13'	11'	14'	11'	13'	19'	100' w/median	62' w/median
Urban	19'	13'	11'	14'	11'	13'	19'	100' w/median	62' w/median
General Suburban	14.5'	13'	11'	May be Required (14')	11'	13'	14.5'	77'	48'
Restricted Suburban	14.5	13'	11'	May be Required (14')	11'	13'	14.5'	77'	48'
Estate/Rural	39'**	N/A unless required by bike plan	11'	Optional (14')	11'	N/A unless required by bike plan	39'**	100'	22'

* Includes area for sidewalks, utilities, street trees, tree wells, street furniture, etc.

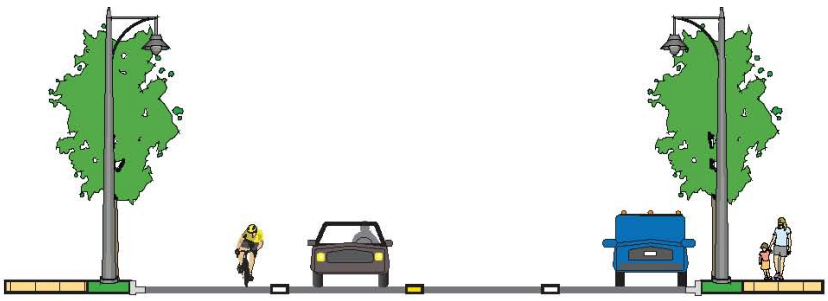
** Includes area for utilities, drainage swales, private plantings, etc.

*** May be reduced by 14' if parking is not required; would be enlarged by 14' if median required/provided (except with estate or rural); larger at intersections based on adopted design guidelines (except with estate or rural)

Source: City of College Station, 2009.

Minor Collectors: Minor collectors provide service to the remaining smaller communities within the county and link the locally important traffic generators with these rural areas (Figure 1.8.2-3). The alignment of minor collectors is often dependent on the terrain. Examples of minor collectors in Humboldt County include SR 169 and SR 271.

Figure 5.3-5 Typical Minor Collector 2-Lane Street Cross-section



Minor Collector 2-Lane								
Context	Roadside Zone*	Parking/Bike Lane	Travel Lanes	Parking/Bike Lane	Roadside Zone*	Median	Total ROW***	Total Pavement***
Mixed Use Urban	18.5'	13'	22'	13'	18.5'	May be Required (14')	85'	48'
Urban	18.5'	13'	22'	13'	18.5'	May be Required (14')	85'	48'
General Suburban	14.5'	13'	22'	13'	14.5'	May be Required (14')	77'	48'
Restricted Suburban	14.5	13'	22'	13'	14.5'	May be Required (14')	77'	48'
Estate/Rural	39'**	N/A unless required by bike plan	22'	N/A unless required by bike plan	39'**	Optional (14')	100'	22'

* Includes area for sidewalks, utilities, street trees, tree wells, street furniture, etc.

** Includes area for utilities, drainage swales, private plantings, etc.

*** May be reduced by 14' if parking is not required; would be enlarged by 14' if median required/provided (except with estate or rural); larger at intersections based on adopted design guidelines (except with estate or rural)

Source: City of College Station, 2009.

Local Roads: The rural local road system serves primarily to provide access from local roads to adjacent land (Figure 1.8.2-4). Local roads provide travel over relatively short distances compared to arterials and collectors. Local roads constitute the remaining roadway mileage not classified as principal arterial, minor arterial, or collector roadways in Humboldt County.

Figure 5.3-6 Typical Local Subdivision Street Cross-section

Local Subdivision Streets								
Context	Roadside Zone*	Parking	Travel Lanes	Parking	Roadside Zone*	Median	Total ROW	Total Pavement
N/A	5' - 14'	8'	22'	8'	5' - 14'	N/A	50'	22' Up to 38' w/ Parking**

* Includes area for utilities, sidewalks, private plantings etc.

** Parking permitted on one-side or "yield" parking in low density developments may require less pavement than high-density developments or accomodation of parking on both sides

Source: City of College Station, 2009.

Figure 5.3-7 Typical Rural Local Subdivision Street Cross-section

Rural Local Subdivision Streets								
Context	Roadside Zone*	Parking	Travel Lanes	Parking	Roadside Zone*	Median	Total ROW	Total Pavement
N/A	16' - 24'	8'	22'	8'	16' - 24'	N/A	70'	22' Up to 38' w/ Parking**

* Includes area for utilities, sidewalks, private plantings etc.

** Parking permitted on one-side or "yield" parking in low density developments may require less pavement than high-density developments or accomodation of parking on both sides

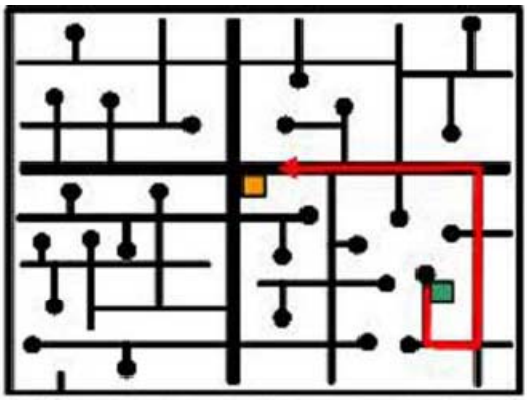
Source: City of College Station, 2009.

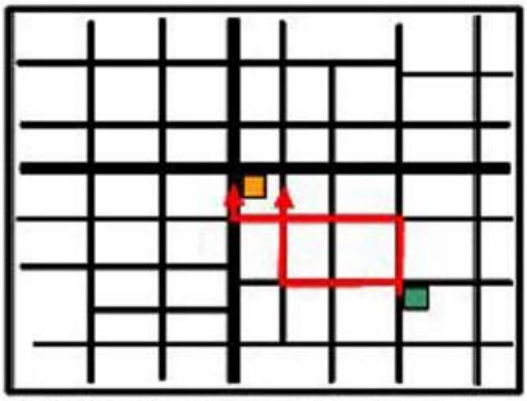
5.4 City Street Network Designs

City Street network types are frequently characterized as either traditional or conventional. The traditional and conventional networks differ in three respects: block size, degree of connectivity, and degree of curvature (Ibid). Traditional networks (Figure 5.4-1(b)) are typically a relatively non-hierarchical pattern of short blocks and straight streets with a high density of intersections (Ibid). In a traditional network, a system of parallel connectors provides multiple and direct routes between origins and destinations.

In contrast, the typical conventional street network often includes a framework of widely-spaced arterial roads with limited connectivity provided by a system of large blocks, curving streets and a branching hierarchical pattern often terminating in cul-de-sacs (Figure 5.4-1(a)). In a typical conventional network, the collector channels traffic from local streets to the arterial street system.

Figure 5.4-1 Network System Designs



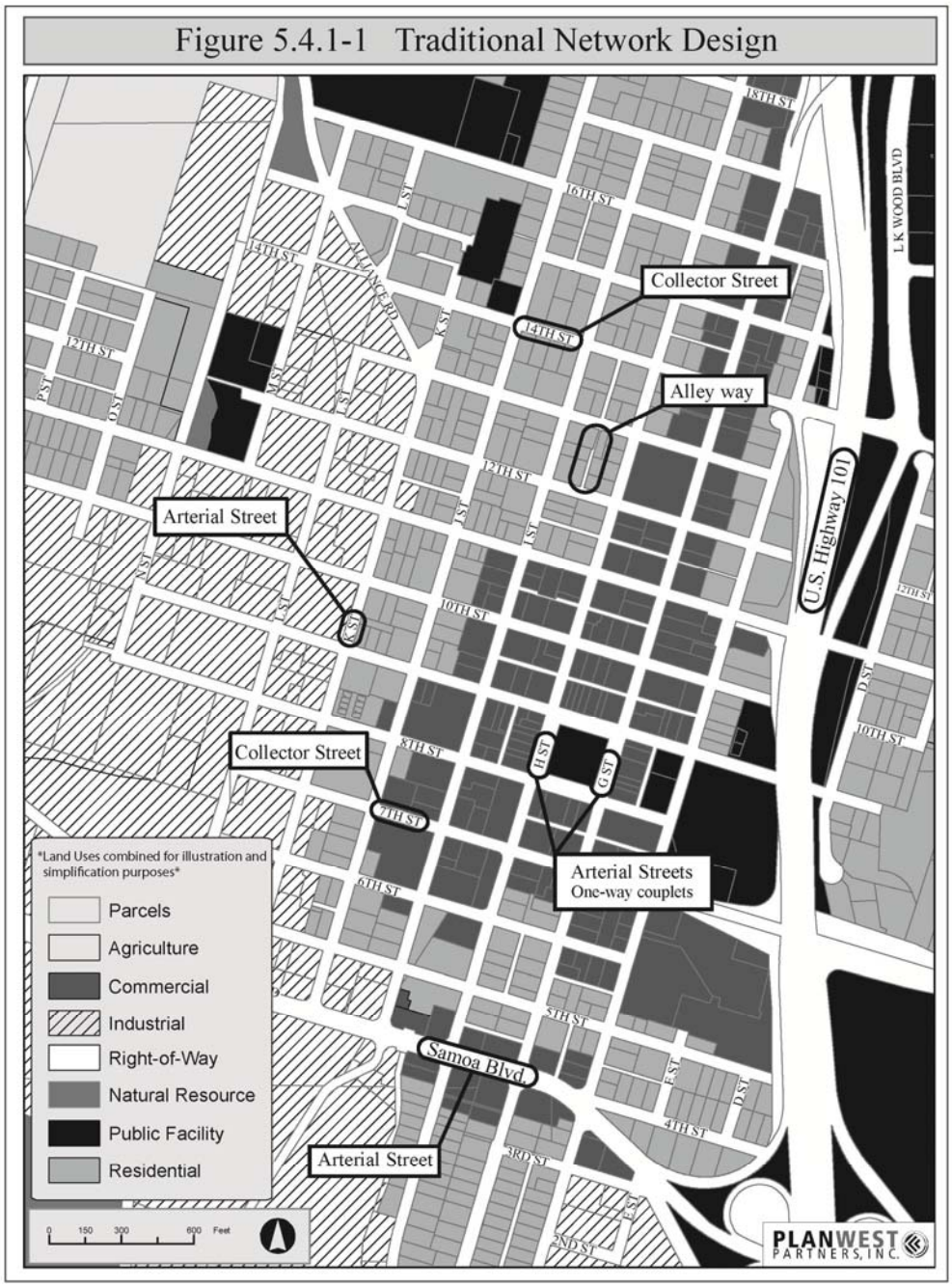


Source: Institute of Transportation Engineers (ITE), 2006.

5.4.1 Traditional Network Design

Traditional Network Designs (TNDs) are typically in a block-like structure, proving development flexibility and allowing land use to evolve and adapt over time (Figure 5.4-1(b)). The TND disperses traffic rather than concentrating it at a limited number of thoroughfares, which reduces the impacts of high traffic volumes on residential collectors (Ibid). The TND of small interconnected streets has more traffic capacity than the same street area arranged in a Conventional Network Design (CND), or sparse hierarchy of large streets. This superior capacity is unrelated to the reduction in travel demand or shortening of travel distances that also results from the TND pattern (Ibid).

Traditional networks encourage pedestrian and bicycle use by providing direct routing options along high or low-volume streets and development patterns that can offer a variety of complementary destinations within close proximity. Also, by providing more direct routes, fewer vehicle miles of travel are generated with TNDs than with conventional networks. Furthermore, these networks are considered more transit-friendly because they provide direct walking routes to transit stops (Ibid). The primary disadvantage of TNDs results from dispersion of traffic, in which some local residential streets experience higher traffic volumes than a similar street in a conventional network.

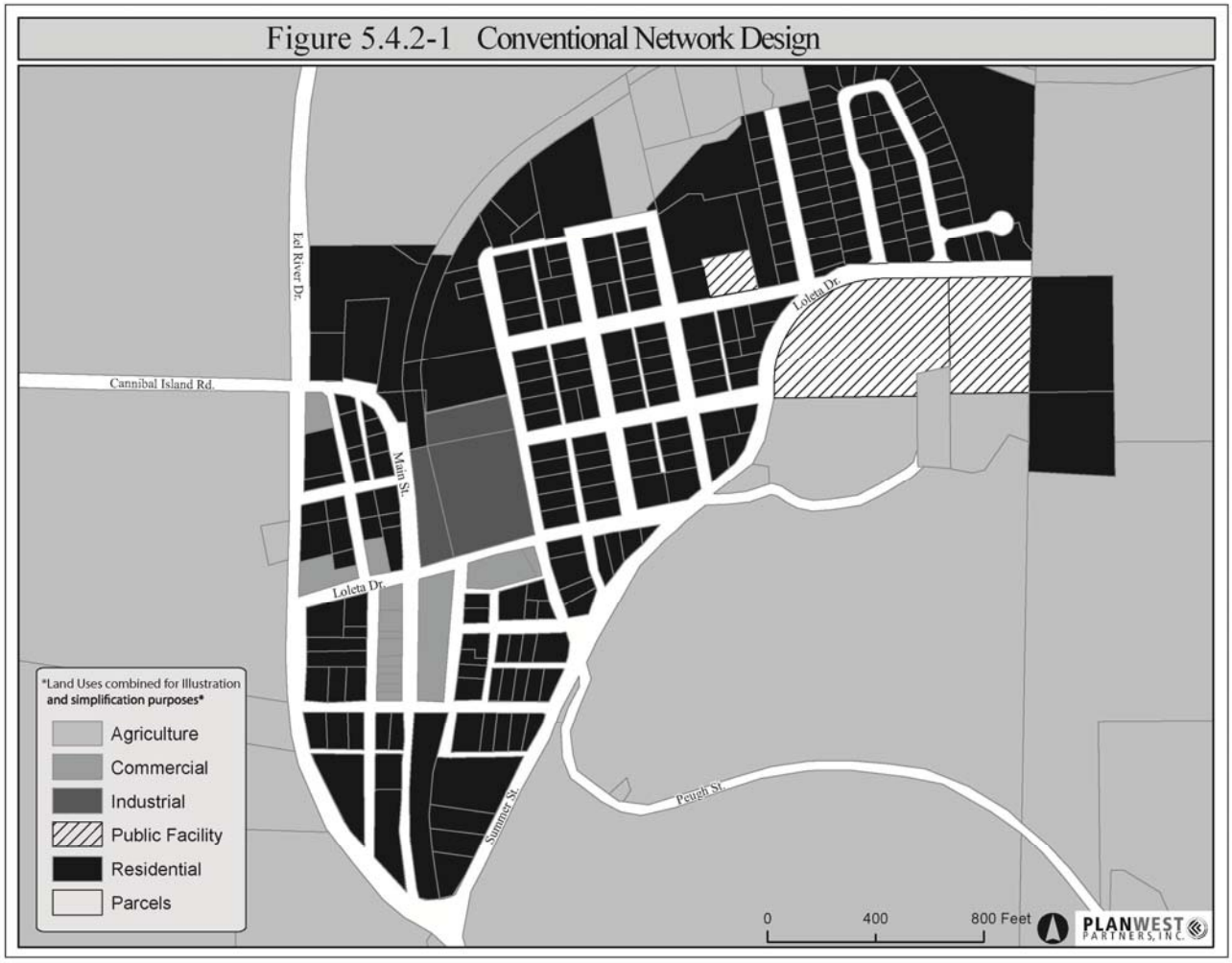


The TND concept calls for street cross-sections that are typically no greater than two travel lanes plus on-street parking, which translates into a maximum pavement width of 40 feet (Kulash, 1998). TND calls for a street right-of-way sufficient to contain this street cross-section, but not intended to accommodate a wider pavement at later stages. Typically, a right-of-way width of 70 feet can accommodate the TND street. Planning for right-of-way should consider needs based on network performance measures that are multimodal and that allow capacity and level-of-service to be considered in conjunction with other measures, both quantitative and qualitative (ITE, 2006).

Figure 5.4.1-1 represents a local example of a TND, utilized by the City of Arcata, in which a block-like system is used to disperse traffic to a limited number of thoroughfares, thus, reducing traffic volumes on residential collector streets, as well as encouraging pedestrian and bicycle use by providing direct routing options.

5.4.2 Conventional Network Design

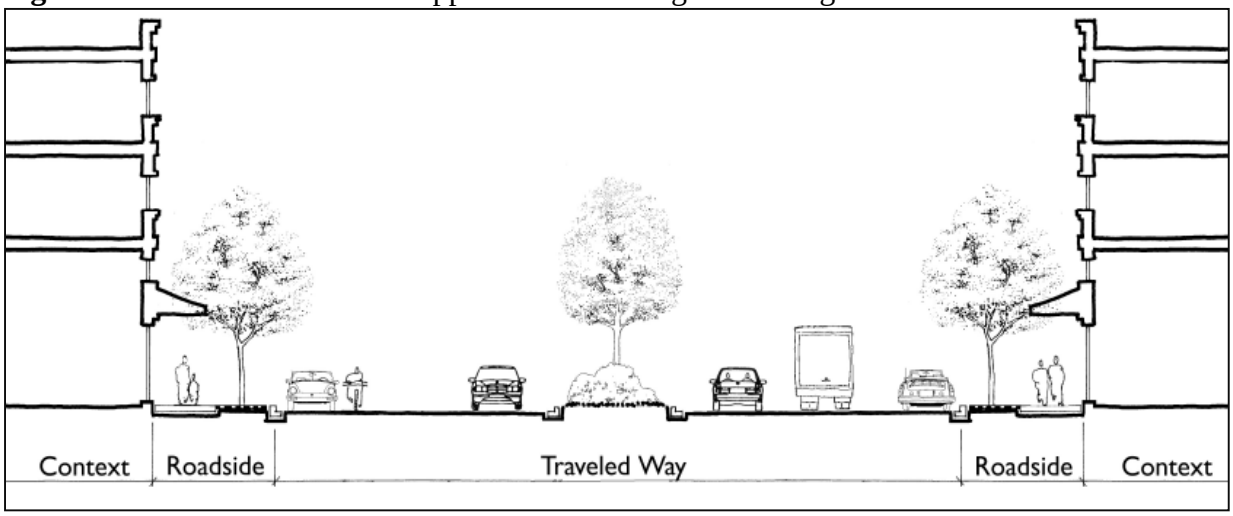
Conventional Network Designs (CNDs) typically contain a hierarchy of local streets, intended for immediate property access (Ibid). A CND results in fewer intersections and reduces through traffic in neighborhoods, which results in lower traffic volumes on local streets. The primary disadvantage of a hierarchy of streets in CNDs is the channelization of traffic and associated impacts into a few residential collectors (Figure 5.4.2-1).



5.5 Context Sensitive Road Classification

Every thoroughfare has an immediate physical context created by buildings and activities on adjacent properties, but is also part of a broader context created by the surrounding neighborhood and/or district. In addition to having a fundamental impact on travel demand, variations in adjacent land use affect the width and design of the roadside (Figure 5.5-1). For example, residential uses have less need for sidewalk space than mixed-use blocks with ground floor commercial uses which generate higher volumes of pedestrian travel. With respect to the traveled way, variations between residential and commercial areas include parking and travel-lane width, and operating and design speeds (ITE, 2006). Commercial areas typically have a higher volume of large vehicles and have a higher turnover of on-street parking than residential areas. Thus, a predominantly commercial thoroughfare often requires a wider traveled way. Commercial areas usually generate more traffic than residential areas, which affects decisions related to the number of lanes, access control and intersection design (Ibid).

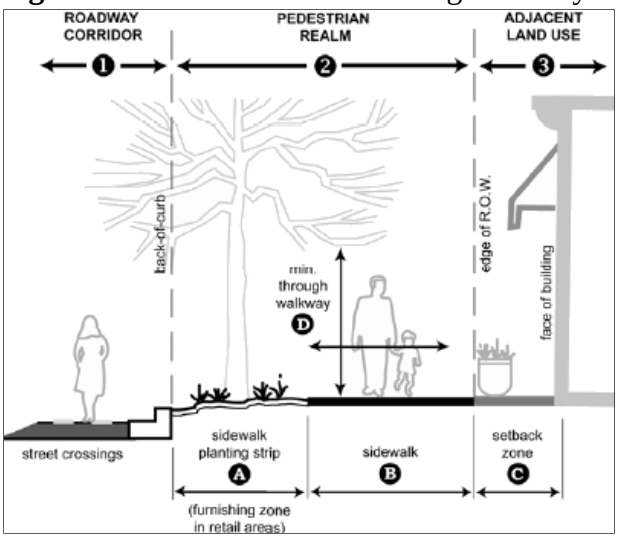
Figure 5.5-1 Context Sensitive Approach to Thoroughfare Design



Source: Institute of Transportation Engineers (ITE), 2006. *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*. Washington D.C: Print.

It is important to recognize the role that different road classifications and designs play in the greater context of the network. Thoroughfare design should be context sensitive and complimentary to the affected environment, taking into consideration the right-of-way necessary for the roadway corridor, pedestrian realm, and adjacent land uses (Figure 5.5-2). Factors to consider include target speeds, travel lane widths, roadside widths used to buffer pedestrians from traffic, intersection frequency and width, and urban streetscaping. In addition, rights-of-way should be acquired in anticipation of planned future modifications and expansions to the network.

Figure 5.5-2 Context Sensitive Right-of-way Allocation



Source: Institute of Transportation Engineers (ITE), 2006.

5.5.1 Complete Streets Concept

Many American streets are designed primarily for the motorist, with the goal of enabling vehicles to move as efficiently as possible. As a result, some communities have adopted "complete streets" laws and policies to ensure that their roads and streets are routinely designed and operated to provide safe access for all users, including motorists, bicyclists, pedestrians and transit riders. In communities with complete streets policies, pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across an urban street (ITE, 2006). A complete streets policy creates a routine process for providing for all travel modes whenever a street is built or altered. Complete streets projects will benefit greatly from the application of CSS principles. The Best Practices for Complete Streets, Suggested Street Standards are included in Appendix A.

5.5.2 Making Streets Match Their Context

Different characteristics should be considered in street design. For example, a street that has a main street type and an arterial function will have different characteristics and design features than a main street with a collector or local access function (STAQC, 2005). Arterial streets serve longer distance trips than residential collector or local streets. As such, maintaining the through capacity should be a higher priority on a mixed-use arterial than on a mixed-use collector or local street. Similarly, a residential collector street and an industrial collector street have different characteristics. A mixed-use collector emphasizes accommodating several transportation modes while an industrial collector emphasizes accommodating heavy trucks and automobiles over other forms of transportation (Ibid).

Developing street types that could be combined with existing functional classifications allows for the adoption of multiple design and access standards within each functional classification to account for differing needs. This allows for the introduction of street elements and operational changes in order to provide a more balanced street function for pedestrians, bicyclists, transit

users, and motorists, especially in relation to adjacent land uses. Table 5.5.2-1 outlays the typical street types and land uses associated with differing functional street classifications.

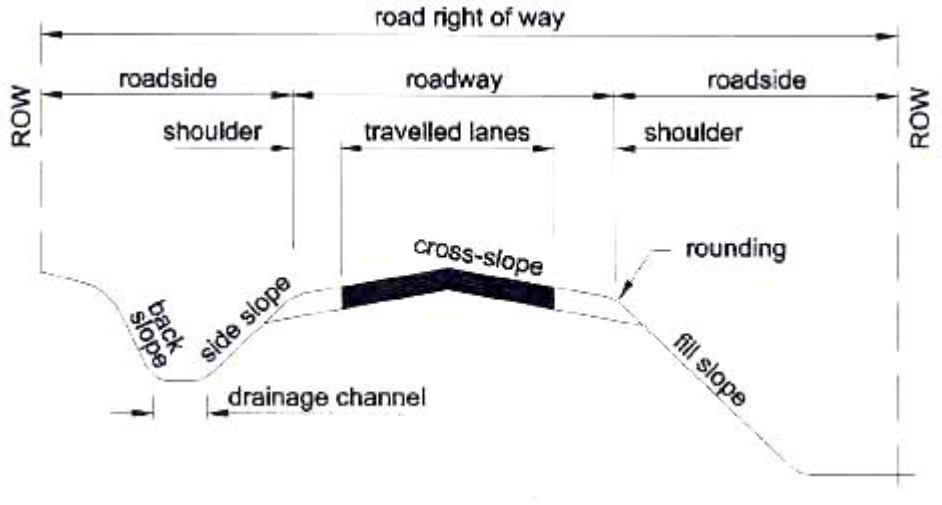
Table 5.5.2-1 Street Types and Functional Classifications

Functional Class	**Street Type**				
	Residential	Main	Mixed-Use	Commercial	Industrial
Arterial		X	X	X	
Collector	X	X	X	X	X
Local	X	X	X		X

Source: Sacramento Transportation and Air Quality Collaborative (STAQC), 2005.

5.5.3 Adapting Rural Roadway Rights-of-Way to Landform Features

In areas of slopes and other landform features, it is important to allow for slope and drainage when establishing sufficient right-of-way. As show in the cross section below, the overall road right of way has been expanded beyond travel lanes and shoulders to include both upslope and downslope areas, and drainage channels. Including these features makes ongoing access for maintenance and repair easier.



Source: City of Hamilton Rural Road Standards Policy Paper

5.5.4 Flexible Lane Width to Reduce Right of Way

Where rights of way is limited or there are topographic constraints, there may be a need for lane width flexibility. This flexibility can be tailored, to fit the roadway functions, such as low-volume rural roads or residential areas. For lower speed, lower volume rural roads and highways with limited truck traffic, lane widths as of 9 feet may be acceptable. Lane widths less than 12 feet may be considered adequate for streets and roadways with relatively low volume, speed, and

other favorable conditions. For rural two-lane roadways, widths less than 12-feet may be retained "where alignment and safety record are satisfactory." According to AASHTO, widening a narrow existing highway is not mandated if its safety performance is acceptable. Flexibility is also warranted for lower-class roads and streets, with recommended narrower lane widths consistent with lower design speeds on such roads (AASHTO Green Book).

5.6 Corridor Preservation Plans

State statutes which grant the authority for intergovernmental agreements and cooperative planning among municipalities provide the basis for multi-jurisdictional corridor planning efforts. A corridor plan would specify how corridor preservation could best be achieved, the type and scale of development which would be sought/encouraged and a conceptual highway layout showing specific access locations and frontage roads (WDT, 1994). It could recommend the use of any or a combination of the techniques described in this report for managing access to the roadway under study. The plan would then be formally adopted by the participating units of governments who would agree to cooperatively implement the plan, any alterations to which would have to be made according to an established amendment procedure (Ibid).

The purpose of corridor planning is to comprehensively address future transportation needs and operational and management strategies within a corridor. Corridor planning fills the gap between long-range transportation planning and project development. It identifies and provides a link between corridor land-use planning and corridor transportation planning and provides an opportunity to direct future development within the corridor (ITE, 2006). A benefit of corridor planning is that it addresses issues prior to project development for specific transportation improvements within the corridor. Finally, it promotes interagency cooperation and broad stakeholder and public involvement (Ibid). Corridor plans should address the following:

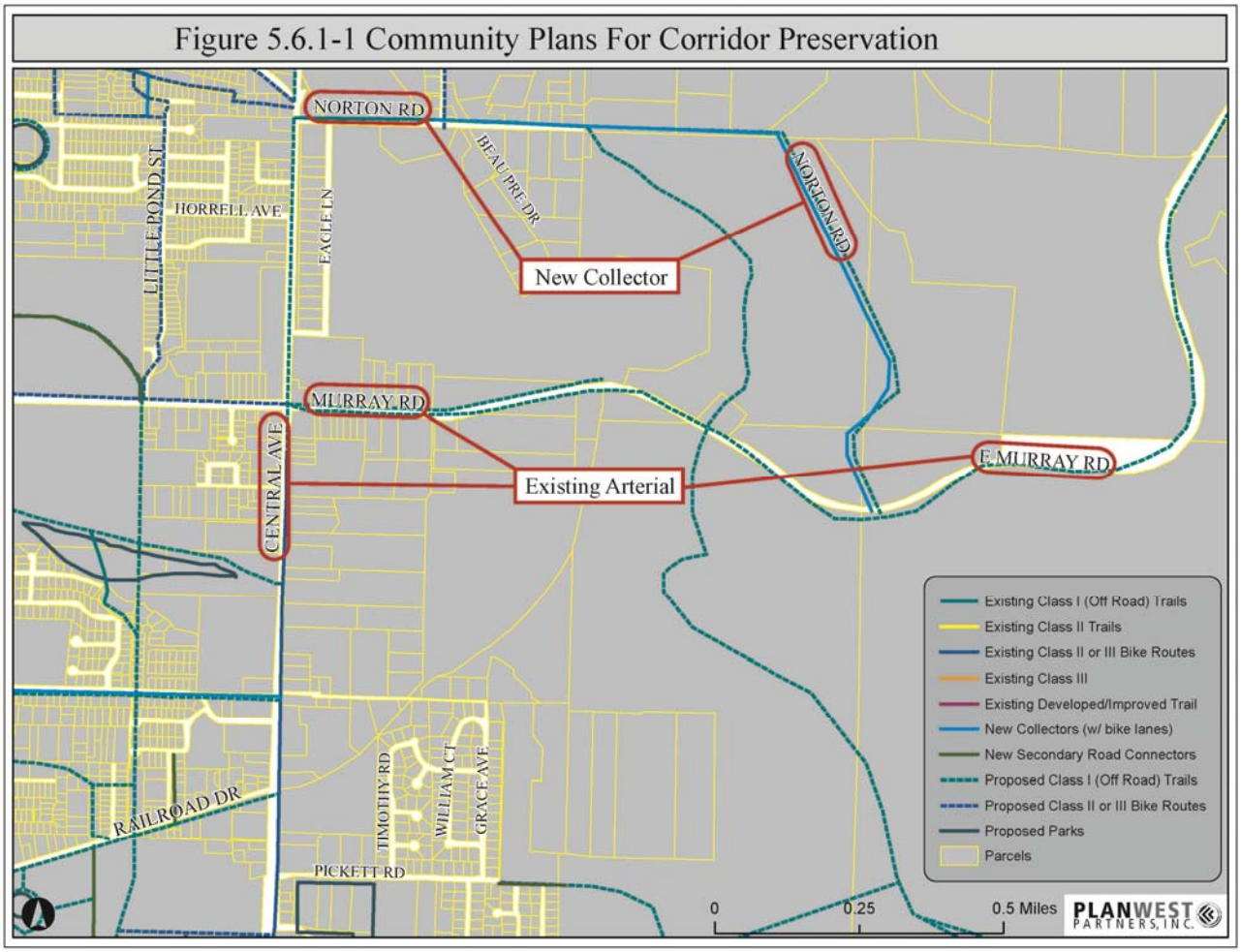
- A vision for the corridor, supported by both long- and short-range recommendations;
- Existing transportation system conditions and analysis with regard to performance objectives;
- Existing and future environmental, land-use and socio-economic conditions in the corridor area, including a community profile, current and planned land uses, historical and cultural buildings and sites, and key environmental resources and environmental issues;
- Public and stakeholder involvement strategy;
- Purpose, need and the relative importance of corridor needs through project goals and community objectives;
- Expected future multimodal travel demand and performance of existing and programmed transportation improvements;
- Identification of feasible alternatives by evaluating all options, and comparing costs, impacts and the degree to which the alternative meets the goals; and
- Available and expected funding for corridor transportation improvements.

5.6.1 General and Community Plans for Corridor Preservation

The need for corridor preservation activities and preferred corridor routes may be identified in General Plans, Regional Transportation Plans, corridor studies for future transportation facilities, District System management Plans and Route Concept Reports (WDT, 1994). A corridor designation would help to ensure that future land use and transportation decisions are not in contrast with the envisioned corridor. Multi-agency and jurisdictional cooperation plays an important role in corridor preservation. As such, it is recommended that jurisdictions along the corridor adopt the preferred corridor plan as part of their respective General Plan update (Ibid).

The McKinleyville Community Plan (MCP) provides a local example of where community planning can successfully achieve corridor preservation. The MCP, together with the Humboldt County General Plan, is intended to guide growth and development within the town of McKinleyville. The MCP clearly identifies various locations proposed for community roads, pedestrian and equestrian trails, and bicycle paths. Figure 5.6.1-1 outlines the locations of existing arterial roads, as well as identifies the locations proposed for a new collector road, bicycle collector, and off-road trail network for the Beau-Pre Heights neighborhood and surrounding area.

Figure 5.6.1-1 Community Plans For Corridor Preservation

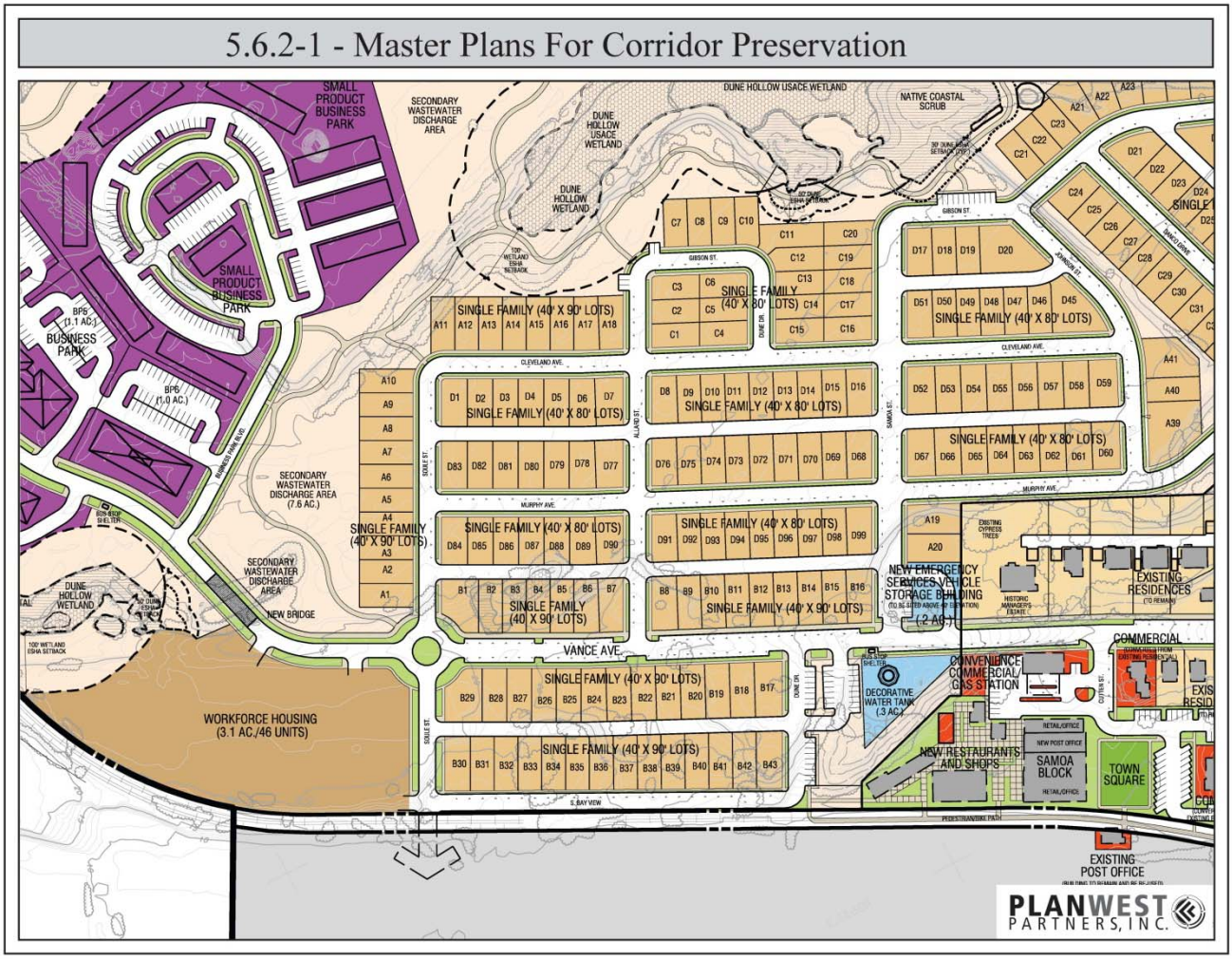


Future development occurring in McKinleyville is subject to the goals of the MCP, as identified by the community. The development review and tentative subdivision map processes provide opportunities to ensure that future transportation corridors proposed in the MCP are recognized and preserved. The MCP guides subdivision and project approval processes, providing the community some assurances that future development within this area brings the community closer to their long-term vision and ensures protection of community valued corridors.

5.6.2 Master Plans for Corridor Preservation

Similar to a Community Plan, a Master Plan can also serve as a tool for corridor protection. A Master Plan describes, in narrative and with maps, an overall development concept for a community which depicts all elements of a project or scheme. Like a Community Plan, a Master Plan can be used by a local government to guide development within a community and to ensure future project compliance with the overall vision of the Master Plan.

As illustrated in Figure 5.6.2-1, the Town of Samoa Master Plan has incorporated a variety of land uses and street classifications intended to serve a diverse planned community.



Because a Master Plan is a comprehensive plan which provides for a variety of land uses and accompanying street classifications, it is essential that current and future corridors within the Master Plan planning area, and the associated rights-of-way necessary for such corridors, be clearly identified and preserved prior to any project development.

5.7 Preserving Transportation Corridors Once Established

Where transportation corridors have been created, they can serve as both the key organizing framework for local planning and the focus for the financing of transportation capital infrastructure through development-generated fees and joint public-private development at major transportation interchanges within the corridor. Many of the tools associated with these corridors are already in use in other jurisdictions, which Humboldt County can learn from.

When planning tools are applied in a geographic framework that would allow land use plans to identify transportation corridors, implementation of regulations aimed at precluding commercial strip development can be considered. These implementing regulations could move beyond the traditional "Euclidean" zoning tools to achieve a coordination of land use and transportation goals.

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6.0 Corridor Preservation Strategic Tools

Corridor preservation is a broad strategy for the long-term planning and management of important roadways. As stated by the Federal Highway Administration (FHA), corridor preservation refers to techniques that state and local governments use to protect existing transportation corridors or planned corridors from inconsistent development. There are a variety of planning tools that can be used by local governments for this purpose. These tools basically fall into three categories: acquisition; exercise of planning and zoning powers; and voluntary agreements and governmental inducements. The latter two offer some distinct advantages from a monetary standpoint, as they may not require outright fee simple acquisition of properties (WFRC, 2009). This section illustrates various techniques that can be used to preserve corridors for future transportation purposes.

Some examples of tools that offer interim corridor protection are: option to purchase, official map, General (Master or Comprehensive) Plan designation, concurrency ordinances, zoning and subdivision controls; development agreements, annexation agreements, voluntary developer reservation, access management and control, and density transfers within the parcel for which development is proposed (Ibid).

Some examples of permanent preservation tools are: fee simple acquisition, development easements, landowner donation, exchange of property, private land trusts, impact fees, exactions, recoupment ordinances, set-back ordinances, transfer of development rights, and development agreements (Ibid).

6.1 Right-of-Way Acquisition

6.1.1 Fee Simple Acquisition and Easements

The fastest way for an entity to acquire rights-of-way for a planned corridor is through fee simple acquisition, or to directly acquire right-of-way or access rights from the private property owner (Land Design, Inc., 2007). Using this approach, property or easements are purchased outright for just compensation to obtain key sections of the corridor right-of-way. A longer term process involves acquisition of multiple parcels over time, concluding in eventual acquisition of the entire corridor (Ibid). This includes acquisition with federal funds, which may be approved only after a public notice and hearing process, and can be combined with land banking, discussed below (MTC, 2007).

Jurisdictions occasionally purchase easements (i.e. interests in land), within which no development can be undertaken, to preserve corridors for future capacity expansion. This is done in situations where right-of-way is being purchased and the easement price is negotiated along with the purchase price (Ibid). By utilizing this method, the property remains on the jurisdiction's tax roles, the cost is considerably less than to purchase the land outright, and if the expansion doesn't prove necessary, the jurisdiction can simply let the easement expire. However, a disadvantage is that easements can expire before the expansion takes place and renegotiation may be difficult (Ibid).

6.1.2 Public Prescriptive Rights

Easement right is an ownership interest in property. It is as "real" as any other form of ownership, from having a title deed to leasing property and it can be bought and sold. Easements can be public or private. A common easement is the right to build or use an existing road or trail across someone else's land in order to gain access to adjacent land.

Prescriptive Rights refer to the public right of access over private lands that is not purchased, but is instead acquired through use (CCC, 2001). A right of access acquired through use is, essentially, an easement over real property that comes into being without the explicit consent of the owner. If use of the servient land is for the benefit of the dominant land and is used for a defined period of time, without objection or action taken from the property owner, then that use can become a right. The acquisition of such an easement is referred to as an "implied dedication" and the right-of-way that is acquired is referred to as a "public prescriptive easement". This term recognizes that use of the servient land must continue uninterrupted for the length of the "prescriptive period" before a public easement comes into being; in California this period is five years (Ibid).

6.1.3 Land Banking

Land banking is the process of purchasing property or acquiring it through land swaps or other means at the current market price, and holding it for future use. Land banking and holding is used to secure rights-of-way where there is no question as to the final corridor location and may result in considerable savings in corridor preservation (MTC, 2007).

Once the alignment of a corridor has been established, a jurisdiction may initiate advanced acquisition of a property, before it is actually needed for project construction, to protect the corridor from development that would make the land more costly at a later date. In other cases, a jurisdiction may purchase a property because knowledge that the land will be required for future transportation purposes has had a negative effect on the value of the property (Ibid). This process is referred to as hardship acquisition.

6.1.4 Rail Banking and Public Use Condition Requests

Railbanking is a condition which allows a railroad to "bank" a corridor for future rail use, while during the interim, alternative trail use is a viable option (Rails-to-Trails Conservancy, 2010). This method is often used when lines proposed for abandonment can be preserved through interim conversion to trail use. Some railroad rights-of-way contain easements that revert back to adjacent landowners when abandonment is consummated. However, if a line is railbanked, the corridor is treated as if it had not been abandoned. As a result, the integrity of the corridor is maintained, and any reversions that could break it up into small pieces are prevented. Railbanking and public use condition requests are filed with the Surface Transportation Board (STB), formerly the Interstate Commerce Commission (Ibid).

A Public Use Condition (PUC) request is a separate request that is complementary to a request for railbanking. If a PUC request is made to the STB, the STB will place a restriction on the abandonment that prevents the railroad company from selling off or otherwise disposing of any property or trail-related structures for a period of 180 days after the abandonment is authorized.

This PUC gives the prospective trail manager some time to prepare an offer to the railroad (Ibid).

There are several important points regarding railbanking. The method can only be utilized on a rail line that is still under the authority of the STB. Generally, the STB loses authority 30 days after the effective date of abandonment. In addition, a railbanking request is not a contract and does not commit the interested party to acquire any property or to accept any liability; it merely invites negotiation with the railroad company (Ibid). Furthermore, under railbanking, there will likely still be a sale of the property, which will require that the railroad be compensated. Lastly, a railbanked line is subject to possible future restoration of rail service. However, if the STB restores rail service, the trail agency is entitled to fair market value for the corridor, the terms and conditions of the transfer to be determined by the STB (Ibid).

The driving policy force behind this huge movement is two pieces of federal legislation: 1) the 1983 railbanking provisions of the National Trails Systems Act allowing unused railroad corridors to be preserved for possible rail reactivation if managed on an interim basis as trails and 2) the Transportation Enhancements (TE) program, which has provided more than $530 million for rail-trail acquisition and development.

6.1.5 Eminent Domain Acquisition

Land acquisition along a corridor can be accomplished by the exercise of eminent domain, or the inherent power of the State to seize a citizen's private property, expropriate property, or rights in property with due monetary compensation, but without the owner's consent. The property is taken either for government, public, or civic use or, in some cases, economic development (Land Design Inc., 2007). Property may be acquired for use in the actual corridor, to control the land use of property near the corridor, or for environmental mitigation. The purpose of the acquisition may determine the methods available for acquiring it; for instance, condemnation will likely require a strong justification on the grounds of safety or other legitimate goal (Ibid). When challenged, some courts are hesitant to allow acquisition for public purpose or necessity unless a relatively short-term construction need is demonstrated. However, this outlook overlooks the importance of avoiding the high costs of securing rights-of-way by acquiring land in anticipation of development or intensified use (Ibid).

Acquisition by eminent domain has both advantages and disadvantages. Acquisition avoids the need for government regulation of the property, fully compensates the property owner, allows for landbanking, and may allow for income on the property prior to construction, helping to recapture the acquisition costs (Ibid). However, eminent domain requires that a property be purchased at fair market value and results in the removal of the property from the local tax base. In addition, the liabilities and responsibilities associated with managing and maintaining the property fall upon the acquiring agency until construction begins (Ibid).

6.2 Exercise of Planning and Zoning Powers

6.2.1 Council or Supervisors Action Measures

Council or Supervisor action measures include access control programs, growth management, official mapping or maps of reservation, exactions from developers, and specific preservation ordinances (SWRTC, 2008). Council or Supervisor action is preferable to outright purchase since current funds need not be diverted for long-term investments, the tax base is maintained, and land management burdens are not added to local governments (Ibid).

6.2.2 Access Management

Access management is a group of strategies, tools, and techniques that work to improve the safety and efficiency of roads – not by adding lanes, but by controlling where vehicles can enter, leave and cross a road. Traditionally, the goal of access management has been to provide adequate access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed (WDT, 1994). Proper access management can be used as a tool to help shape development patterns in a manner consistent with local community plans and desires.

Access management techniques may be applied to existing corridors or to achieve corridor preservation where expansion is planned. These techniques include managing the location, design, operation, and minimum spacing between driveways, reducing the number of driveways present, and managing the usage of frontage roads (Land Design Inc., 2007). These practices not only contribute to the safety, capacity, and appearance of a corridor, but also help discourage development in and near the planned right-of-way. These techniques will be most effective when used in combination with other land use controls such as setbacks, joint and cross access, and lot dimension standards (Ibid).

6.2.3 Implementation of Ordinances

Municipalities may adopt ordinances for preserving or acquiring needed right-of-way as a means of protecting corridors. A corridor preservation ordinance would generally address: land use management within or adjacent to the corridor; construction restrictions within the corridor; uses permitted within the corridor; and the public notification, variance, appeal, and intergovernmental coordination processes (Ibid).

A local government may utilize subdivision regulations and zoning ordinances to carry out the vision of their comprehensive plan. This authority is based on police powers; such regulations are deemed necessary to protect the public health, safety and welfare (IAC, 2006). As with other exercises of police power, corridor preservation ordinances may be challenged in court as takings. A model ordinance for protecting corridors and rights-of-way can be found in Chapter 10 Implementation.

6.2.4 Humboldt County Streamside Management Area Ordinance

The Humboldt County Streamside Management Area Ordinance (SMAO) can serve as a tool to protect riparian corridors from development encroachment. The purpose of the SMAO is to provide minimum standards pertaining to the use and development of land located within

Streamside Management Areas (SMAs) and other wet areas, as defined by the SMAO. In addition to regulations already imposed by a principal zone, combining zone, development regulations, and other open space or resource protection regulations, the SMAO establishes additional zoning regulations within SMAs, pursuant to state law. All development within or affecting SMAs require the issuance of a special development permit.

6.2.5 Zoning and Subdivision Regulation

When formulating local zoning and subdivision regulation, zoning district overlays may be applied along corridors to be preserved, specifying right-of way reservation or dedication provisions, interim use allowances and required setbacks (Land Design Inc., 2007). During the development review process, local jurisdictions can further corridor preservation goals by collaborating with developers to avoid encroachment on planned corridors by utilizing additional preservation techniques, including clustered development and transferable development rights.

6.2.6 Zoning District Overlays

The purpose of a corridor protection overlay district is to impose special development regulations on areas which have already been designated in a General Plan as future "Regional Transportation Corridors". While the general location of these corridors has been established in a General Plan, additional regulation of any future development occurring within or adjacent to these designated corridors may be warranted (MTC, 2007).

6.2.7 Setbacks

A setback is an area within a certain distance from a curb, property line, or building line within which construction is prohibited; this area may provide space for a future right-of way to supplement and widen an existing right-of-way (Land Design Inc., 2007). Certain local governments in Humboldt County already require setbacks to be measured from the future right-of-way line. A required setback must be related to the preservation and promotion of public health, safety, and welfare, and may not be arbitrarily or capriciously applied (Ibid). Therefore, the courts may find a setback unconstitutional if it is viewed as being for the sole purpose of reserving future rights-of-way, in which case, the land owner must be fairly compensated.

6.2.8 Flexible Lot Dimensions

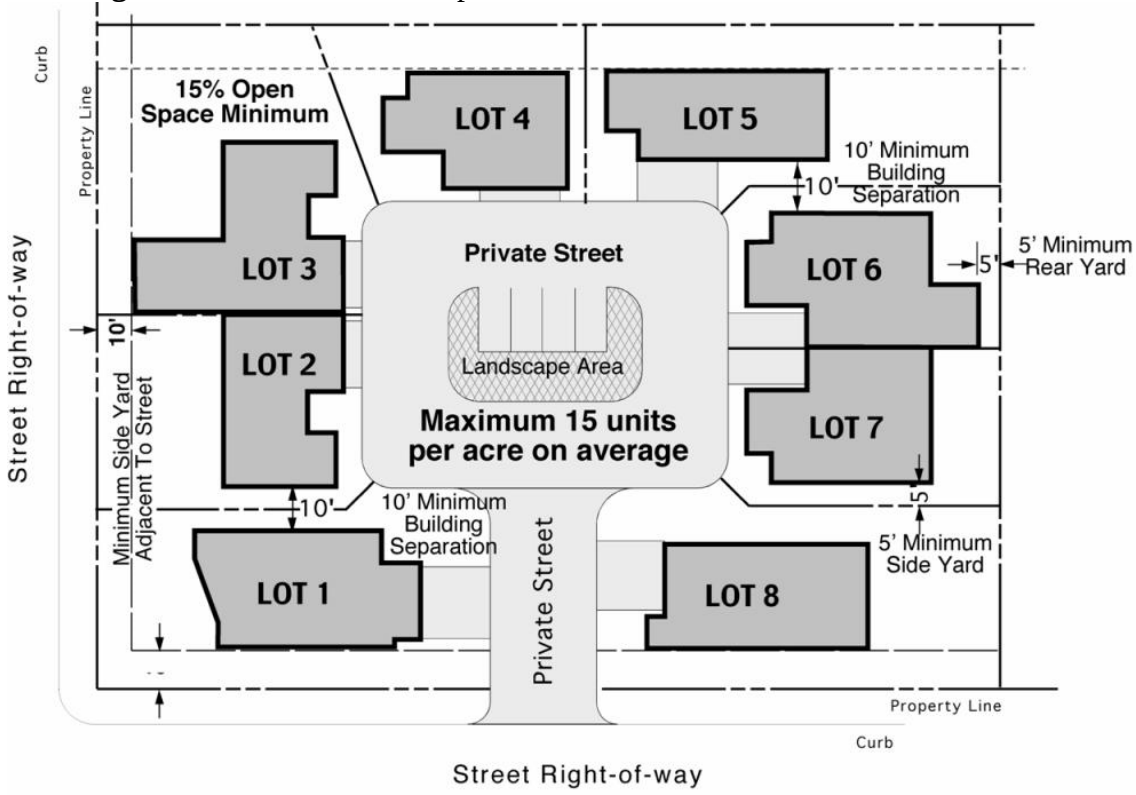
Deeper, wider lots along corridors allow space for future expanded right-of-way. Driveway spacing along corridors can be managed through the implementation of high minimum lot frontage requirements. In addition, to provide alternative access options, joint or cross access can be encouraged through the utilization of density bonuses, variances, or other developer benefits (Ibid).

6.2.9 Cluster Development

Structures located along a corridor may be clustered in such a manner that full development rights are retained, while corridor encroachment is avoided. This can be accomplished by conditioning a project in such a manner that density and intensity is transferred to portions of the site that lie outside the corridor. The gross density and intensity of development shall remain that which is allowed by the land use and zoning designations, however, the development may include the approval to reduce setbacks between buildings, a reduction of buffers, or a variation of other site design requirements intended to avoid corridor encroachment (MTC, 2007).

As illustrated in Figure 6.2-1, the implementation of cluster development standards is an effective tool to avoid encroachment of priority travel corridors. Residential units may be clustered around an access road or feed from a loop or cul-de-sac. This can be accomplished by utilizing a combination of planning tools, including: application of cluster zoning districts, implementing required setbacks and spacing between buildings, minimum density requirements, and open-space preservation requirements.

Figure 6.2-1 Cluster Development for Corridor Preservation



Source: City of Fort Worth, 2010.

6.3 Voluntary Agreements and Governmental Inducements

6.3.1 Transferable Development Rights

Transferable development rights are a form of incentive for developers in which the developer purchases the rights to an undeveloped piece of property in exchange for the right to increase the number of dwelling units on another site; often used to concentrate development density in certain land areas. Local governments are often willing to transfer the density that could have been built on a developer's land within a corridor to the remaining part of the developer's land located outside the corridor or to another appropriate property, allowing the property to which the development right has been transferred, to develop at a higher density than previously allowed (MTC, 2007).

This technique can reduce the objections to police power regulation, since the property owner receives some benefits through the transferring of development rights. Transfer of development rights can only be used when an ordinance allows transferable development rights in the area in question, either on the basis of floor area ratio, or units per acre (Land Design, Inc., 2007).

A mechanism for transferring development rights could facilitate the coordination of land use control and transportation planning on several levels. One important benefit of such a system is that it could bring greater certainty to long-range land use planning by defusing lawsuits brought by landowners adversely affected by each planning decision. For example, a transfer of development rights mechanism can be used to distribute the benefits and burdens of a down-zoning action, so as to avoid costly litigation and uncertainty over the legality of such an action. Another benefit is coordination of public and private decision-making about land use, thereby providing greater certainty for transportation planning efforts.

6.3.2 Exactions and Dedications

An exaction is a contribution by a developer in exchange for a required land use approval or permit, such as a subdivision approval, special or conditional use permit, amendment to a zoning map, or other necessary permit (SWRTC, 2008). A developer may choose to dedicate land for a proposed project that is adjacent to a right-of-way for which a corridor is planned for within the current General Plan. An outline of the dedicated property is drawn on a subdivision map, or plat map, delineating the areas reserved for public use (MTC, 2007).

Some reservations of land for public use may be required within a proposed subdivision based on the policies and standards of the local General Plan or applicable Specific Plan. A property owner may, at any time during the application process for preliminary, conceptual, or final approval of a project, voluntarily dedicate lands within the project site that are within the planned corridor or right-of-way (Ibid). As a condition of approval, the subdivider shall dedicate or make an irrevocable offer of dedication in fee simple of all land needed for access rights, to be determined by the review authority.

Right -of-way acquired through normal zoning and subdivision procedures, which requires the donation or dedication of land, is a utilization of police power and is not considered an acquisition or taking in the constitutional sense (FHWA, 2009). Thus, payment of just compensation is not required. In return for a dedication, developers may receive special financing, such as tax exemptions, revenue bonds, tax increment bonds, or mortgage backed bonds and/or a fast-tracked rezoning and subdivision approval process (MTC, 2007).

6.3.3 Transportation Management Associations

Transportation Management Associations (TMAs), despite their title, can do considerably more than "management." They can be associations of developers, employers, and other private interests who engage in a wide range of activities designed to increase mobility in their own geographic area. TMAs can promote ride-sharing, provide vans for pooling, assist members in meeting trip reduction mandates, finance street improvements, and even assist in long-range transit projects such as line extensions. Many also work with city planners on housing policies, environmental issues, and other mutual concerns. In addition, they serve as an effective tool for integrating land use and transportation concerns in private planning decisions.

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7.0 Redevelopment in Corridor Rights-of-Way

7.1 Uses and Protections of Existing Deeded Rights-of-Way

During conversations with County Public Works staff, during preparation of this Corridor Preservation Report, several areas of the County were identified as potential "at risk" areas for corridor loss or development impact, where rights-of-way are susceptible to loss, and where subdivision could limit or preclude future transportation corridor connectivity.

For example, County staff has noted that some locations within the County contain unrecorded public or private easements, overlapping easements, and/or unrecorded prescriptive rights that lack an officially deeded right-of-way. For example, the routes for both Highway 36 and Highway 96 are prescriptive and do not contain deeded rights-of-way. The County has also identified that they have many types of "paper maps" with proposed road alignments (older subdivisions were not required to build roads) where the County was given deeded rights-of-way. However, some residents are under the assumption that because these roads were never constructed, the existing rights-of-way are by default, the property of the land owners. This is further complicated by subdivision and parcel maps that illustrate parcel lines extending to roadway centerlines.

In addition, there are/were numerous neighborhood trails and roads within the County, used by residents for several decades, which have since become unavailable as a result of encroachment. There are also streets within jurisdictions that are adjacent to or follow a railroad, but are not legally defined streets. While these roads are currently in use, without properly deeded rights-of-way, they may become unavailable to residents in the future. Members of Native American tribes and tribal governments have also expressed concerns about establishment of prescriptive rights and the need to take oral histories in an attempt to document such rights.

Railroad corridors present a very different circumstance. They are well documented on circulation maps and typically have documented rights-of-way. These rights-of-way tend to be carefully protected by railroad stewards. Railroad corridors have become increasingly popular for a variety of uses. Some jurisdictions are concerned that certain locations along rail corridors have, or will become, obstructed, eventually rendering them unusable. They have expressed a desire to preserve rail corridors, regardless of ownership or intended use, to ensure future rail connectivity. Given that these corridors are well documented and well protected, could accommodate a diverse array of uses, and are located in such a manner that they could provide valuable linkage amongst corridors and communities, it's imperative that they be carefully evaluated in a modern context and planned for and protected accordingly.

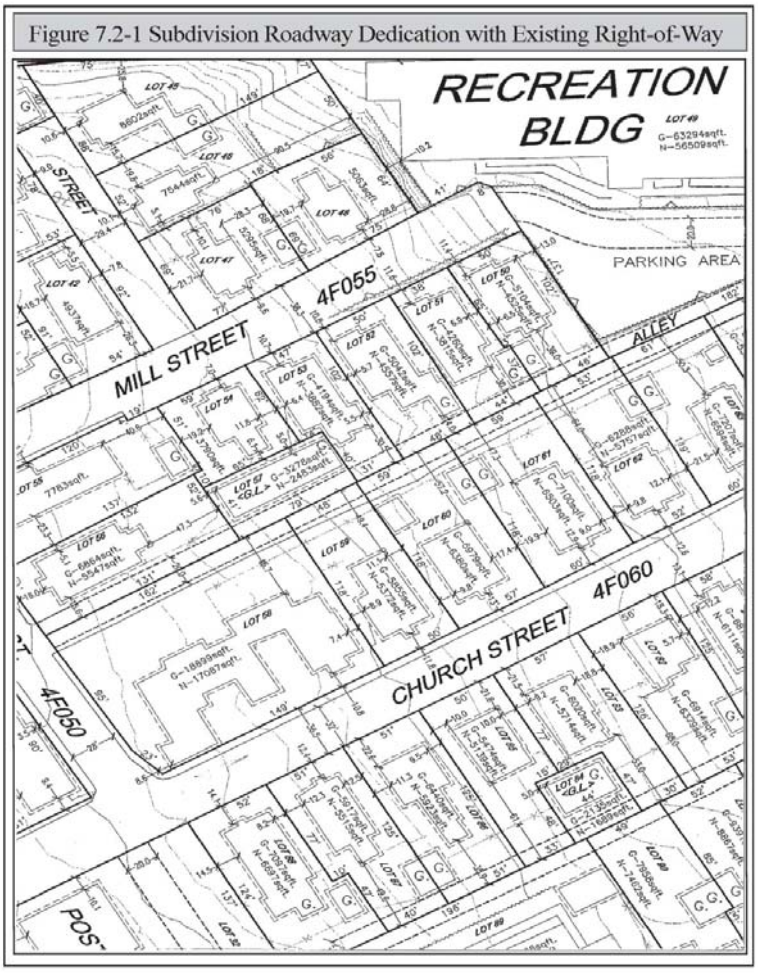
Railbanking, as discussed in Chapter 6.0, is one tool which could assist jurisdictions in preserving rail corridors. Railbanking is a condition which allows a railroad to "bank" a corridor for future rail use, while during the interim, alternative trail use is a viable option (Rails-to-Trails Conservancy, 2010). If a line is railbanked, the corridor is treated as if it has not been abandoned. As a result, the integrity of the corridor is maintained, and any reversions that could break it up into small pieces are prevented.

7.2 Establishing Rights-of-Way in Existing Development

The subdivision of the existing Town of Scotia provides an example of a project location that already contains, or lacks, existing rights-of-way that must be considered in the context of the subdivision project and associated land uses proposed, adjusted and acquired as necessary, and allocated appropriately for the proposed project. As illustrated in Figure 7.2-1, Scotia is currently comprised of a combination of local streets, collector streets, and alleys, with limited rights-of-way. In some locations, rights-of-way must be obtained and/or adjusted prior to future development.

The Town of Scotia is in a position in which future development is dependent upon existing conditions (i.e. documented rights-of-way) that may not be adequate to accommodate future growth. As a company owned town, there was no need to establish individual parcels or rights-of-way. As the town was owned in common, and now that it's being subdivided, adapting current standards to roadways and residences built in a different era presents a challenge. By designating and planning for current and future priority corridors prior to project development, a community can assure that these valuable resources are both protected and adequate to accommodate planned growth.

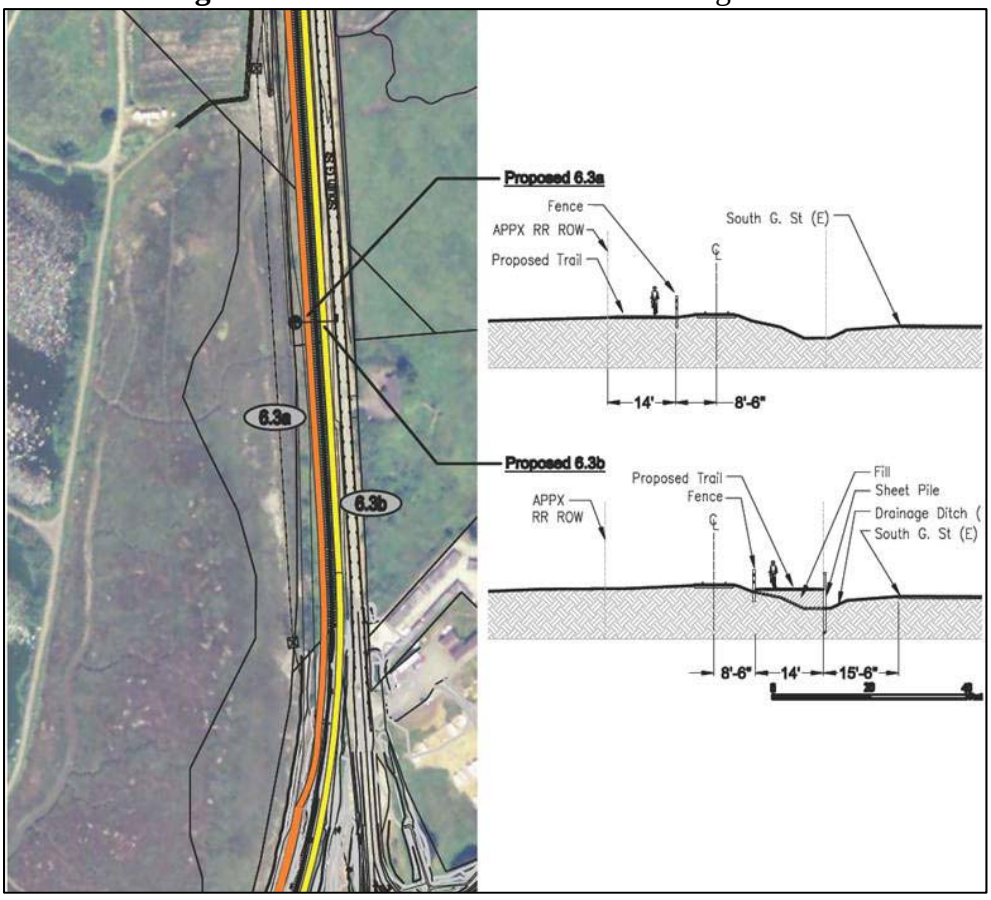
Figure 7.2-1 Subdivision Roadway Dedication with Existing Right-of-Way



7.3 Rails with Trails Conversions

The City of Arcata is currently working on a rail with trail connectivity project. The proposed project involves construction and operation of an approximately 4 mile Class I, ADA accessible, non-motorized multiuse trail. The City of Arcata has received funding from the Coastal Conservancy to complete planning, engineering design and permitting for the proposed project. This project would complete the first portion of a trail to link the Cities of Arcata and Eureka and would serve as an important catalyst for future trails projects.

Figure 7.3-1 Potential Rail with Trail Alignments



The existing corridor includes three transportation corridors: the North Coast Railroad Authority's (NCRA) railroad right of way, a portion of the Highway 101 between Arcata and Eureka and also segments of City-owned road right of way. The NCRA corridor within the proposed trail alignment passes through City parks, across commercial areas within the City, across city streets and state highways, through the City of Arcata Marsh and Wildlife Sanctuary, adjacent to the public works yard and wastewater treatment facility yard, and along the Eureka-Arcata Safety Corridor and Caltrans right-of-way. To comply with NCRA requirements the City is preparing a corridor management plan, trail safety plan, trail maintenance plan, and design guidelines which include signage, fencing, and trail design standards.

7.4 Policy Language Limitations for Application

While the County and some local jurisdictions may have policy in place regarding the provision or protection of public accessways, preservation of prescriptive rights and/or suggested dedications, much of this language is vague, unclear, or lacks application detail.

For example, the Humboldt Bay Area Plan (HBAP) of the Humboldt County Local Coastal Program, last updated in 1995, contains the following language regarding prescriptive rights and dedication:

Prescriptive Rights

a. An initial survey of accessways is included in this Area Plan. This plan does not determine whether implied dedication or prescriptive rights exist. The Plan is made without prejudice to the existence or absence of such rights.

b. Where potential public prescriptive rights of access to the shoreline are affected by new developments, the applicant shall either:

(1) Site and design the project to maintain the accessway, or

(2) Provide an equivalent accessway to the same designation including dedication of an access easement as described in Section 3.50B3 or

(3) Demonstrate that either the State of California has quitclaimed any interest it may have in the accessway or a court of competent jurisdiction has determined that prescriptive rights do not exist along the accessway.

Dedication

New development on parcels containing the accessways Identified in Section 3.50 (access/inventory) hall include an irrevocable offer to dedicate an easement, as described In Section 3.50134 for public use as provided in 3.5OC. Such offers shall run for a period of 21 years and shall be to grant and convey to the people of the State of California an easement for access over and across the offerer's property.

The HBAP policy clearly states that where potential public prescriptive rights of access to the shoreline are affected by new development, the project applicant shall maintain the corridor, provide an equivalent, or demonstrate that there is no interest in access. However, it does not discuss exactly how these policies are applied. For instance, there is no mention of who shall possess and/or maintain a public corridor upon dedication. In addition, while the plan does contain a preliminary access inventory and supporting maps, specific development details regarding each access point are limited and the addition and removal of access locations is limited to periodic plan updates.

Recommendations are made pertaining to trail development to support a variety of uses, but no supporting guidelines exist for such trials pertaining to their construction, associated facilities, if applicable, and their ongoing management and maintenance.

Furthermore, if these public access corridors were to be mapped in the County roadway database and became part of the Circulation System, a complete spatial analysis could be performed. This would allow the County to identify and analyze the existing types of use and resources associated with the access, where similar access exists, or where it should exist, but currently does not, differentiate between existing deeded public and private access vs. prescriptive access, formalize access points and associated amenities, and prioritize corridor objectives accordingly.

Also, by utilizing a County database for corridor preservation, jurisdictions could share their corridor data and planning objectives and coordinate their activities to best identify, acquire, link, and manage corridors effectively.

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8.0 Corridor Preservation Pilot Projects

This chapter identifies and outlines pilot projects or "case studies," to examine the land use/transportation interrelationship of potential corridor preservation. These pilot projects utilize, in some form or another, corridor preservation tools identified in this report. Each pilot project write-up notes whether planning recommendations could result in the implementation of land use changes relative to the transportation corridor.

Two pilot projects were completed for the Corridor/Facility Preservation Report. The pilot projects examined corridor preservation implementation strategies, corridor or facilities identified for preservation, and the prioritization process methodology. The pilot projects visually illustrate corridors and facilities identified for preservation. Strategies defined in this report were applied for corridor preservation. Insights gained from the pilot projects have been incorporated into the report.

8.1 Humboldt County Pilot Project Case Studies

8.1.1 Rio Dell: Eel River Access and Trail Connectivity Project

The City of Rio Dell Transportation Network pilot project included developing a process to identify historic and existing volunteer trails (informally established by repeated use, rather than dedicated right-of-way) and city owned road right-of-way in the area between downtown Rio Dell and the Eel River. The second objective of the Rio Dell pilot project was to identify existing City of Rio Dell right- of-way along Painter Street, Davis Street and Edwards Lane.

Area Characterization

The City of Rio Dell is located in the Eel River Valley and is approximately 1,173 acres in size. The city is bordered by forested hills on the north and west and the Eel River on the east and south. The Eel River cuts through the northern portion of the city and Highway 101 runs north to south, bisecting the city. The Scotia Bluffs to the east and the Eel River and steep, wooded, slopes to the west are the dominant natural features that define the city.

The region's economic history is tied to timber harvesting and processing, which has significantly declined. Timber mills provided jobs and tax revenues that contributed to the growth of Eel River Valley communities. Over the years demand for timber declined and as mills closed, jobs went with them. The only remaining lumber mill in the area is located south of the City of Rio Dell, across the Eel River in Scotia. Although the mill is still in operation, the employment numbers are only a fraction of what they used to be. The area is now largely supported by agricultural operations.

Understanding that the city's economic climate has changed, Rio Dell staff has initiated the development of planning documents to guide growth and develop new economic opportunities. In an effort to increase business diversity, the city annexed the Eel River Sawmill site to expand land designated for industrial uses. The city has also received a Headwaters grant to develop a business plan for a local food collaborative in the Eel River Sawmill area.

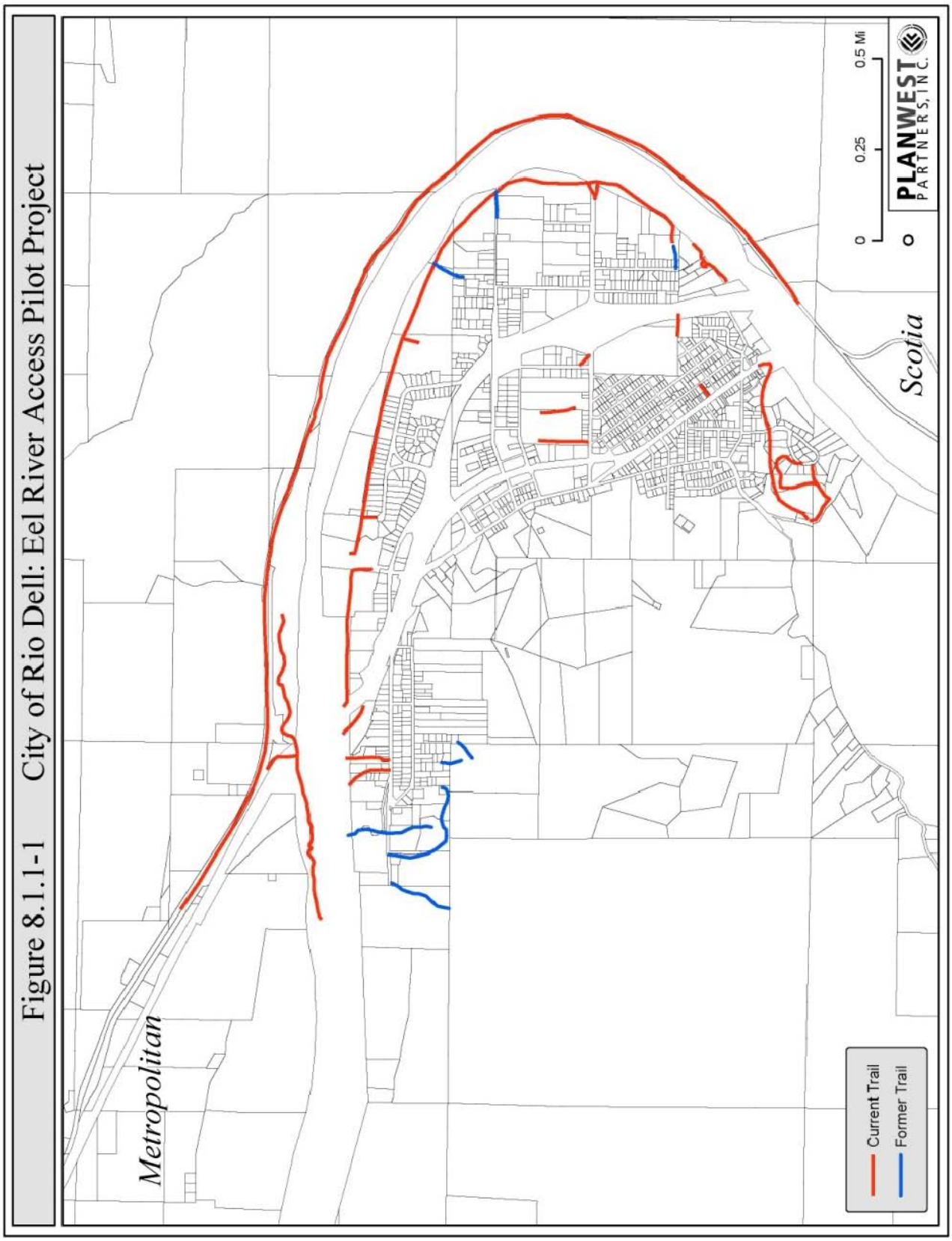
Figure 8.1.1-1 City of Rio Dell: Eel River Access Pilot Project
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PLANWEST PARTNERS, INC.
Current Trail
Former Trail

Ultimately, the city will need to expand and upgrade infrastructure to support business and residential development. The motorized and non-motorized transportation system is a key infrastructure upgrade. The City of Rio Dell pilot project outlines a strategy jurisdictions can use to assist with motorized and non-motorized corridor preservation that ultimately results in infrastructure upgrades and development.

Most communities have a volunteer trail system that has been established through community use. Volunteer trails are corridors that typically provide access to community destinations and facilities, recreational opportunities, and/or adjoin neighborhoods. The trails are established as a result of long-term use and typically are not maintained by a city or county government. The trails do not have trailheads or signage and are often only known of by community residents and frequent visitors of where the trails exist. Volunteer trails are typically found in greenbelts, forested areas, along creeks or rivers, or undeveloped parcels. Often volunteer trails in undeveloped parcels cease to exist upon development, eliminating access to areas of historic use.

Corridor Characteristics

The majority of the volunteer trails in the City of Rio Dell are along the Eel River in the eastern part of the city (Figure 8.1.1-1). In some areas the trails are discernable from an aerial image, with a clear worn path through vegetation. In other areas, the trails snake through thick vegetation and are not discernable to those unfamiliar with the terrain. The volunteer trails along the river have largely been established for recreational uses. Swimmers, boaters, fisherman, and ATV enthusiasts use the trails on a regular basis. Some volunteer trails meander through vacant lots, providing access to the Elementary and Primary school, or between adjoining residential neighborhoods. Analysis of the volunteer trail system clearly indicates a need for the city to establish a designated trail(s) to access the Eel River.

Relevance to the Corridor Preservation Report

One of the objectives of the Rio Dell pilot project was the identification of Rio Dell volunteer trails, both past and present. An identification of the volunteer trail system allows the city to:

1) Understand areas of the community residents would like designated access to;

2) Determine the feasibility of designating certain trails as city maintained facilities;

3) Implement corridor preservation strategies for desirable volunteer trail corridors,;

4) Acquire easements from property owners at the time of development for trails deemed feasible for official trail designation; and

5) Provide property owners with an understanding of historic use to ward off potential issues with community residents at the time of development (e.g., trespassing, conflict when historic use ceases to exist).

The City of Rio Dell is also seeking to identify and more formally establish existing city rights-of-way for roads that have not been constructed. Typically, roads are built with new construction. However, there was a time when the city would acquire road rights-of-way as a condition of subdivision, but didn't require the developer to actually build the road. Un-

established rights-of-way have not been included in the city's circulation data (i.e., general plan circulation element road maps)

Another Rio Dell pilot project objective was to identify City of Rio Dell owned right-of-way for Painter Street, Davis Street and Edwards Lane, which offer potential connections and access to the Eel River. A better understanding and documenting of the city's existing right-of-way is necessary for the development of a Circulation Plan and implementation of corridor preservation strategies.

Report Tools Utilized to Date

The following strategies and methodologies, as discussed in this report, have been or are being utilized for the Rio Dell Eel River Access and Connectivity pilot project:

1. Coordination and Communication

The city invited a focus group to assist in identifying where current and historic volunteer trails may exist by marking their locations on a map. As a result, it became evident that a large portion of the city's volunteer trails served to provide river access. Having determined some current and historic access locations, the city has a better understanding of where corridors are presently located and/or needed.

2. Identification, Cataloguing, and Mapping of Existing Rights-of-Way

One of the objectives of the pilot project was to identify existing rights-of-way along Painter Street, Davis Street and Edwards Lane. The city suspected that rights-of-way along these streets extended further than identified on current maps. Identification of rights-of-way on these streets required an analysis of city parcel maps to determine if and where rights-of-way may exist. Although this information was recorded and available, obtaining it was time consuming and somewhat cumbersome. Compilation and converting of identified rights-of-way into an easily accessible spatial database and/or inputting the information into the city's General Plan Circulation Element and associated Geographic Information System (GIS) mapping layer, would allow for easier access, analysis, and sharing of information amongst jurisdictions. Having identified existing rights-of-way, the city is now in a position to catalogue and map potential corridor locations for current or future use before risk being permanently lost or converted.

3. General Plan and/or Corridor Plan for Corridor Preservation

Upon identifying existing deeded rights-of-way, potential prescriptive easements, and informal volunteer trail locations, they city is in a better position to plan for corridor preservation. To initiate this process, the city is updating their General Plan Circulation Element, which will have a strong focus on preserving existing corridors and acquiring future corridors for public access and use. If the city so chooses, they can utilize additional tools described in this report to acquire and manage desired corridors, including but not limited to: right-of-way acquisition by fee simple purchase, prescriptive right acquisition, exercise of planning and zoning powers, and encouragement of voluntary agreements and government inducements for right-of-way dedication.

Permitting and Regulatory Review

- General Plan Update to establish circulation and corridor objectives and a circulation system classification hierarchy in a city wide, long range planning context;
- Implementing provisions incorporated into city ordinances (i.e., subdivision design guidelines and zoning); and
- Tapping funding sources for corridor planning, acquisition, construction, and management/maintenance.

Conclusion

Based on this pilot project and other circulation interests, the city initiated a Circulation Element update in March, 2010.

8.1.2 City of Fortuna: John Campbell Memorial Parkway

The John Campbell Memorial Parkway is envisioned as a linear park with a multi-use trail along Strongs Creek, stretching west to the Eel River confluence and east to the creek's origins in the Headwaters Forest Reserve. The City of Fortuna pilot project covers the portion of the John Campbell Memorial Parkway that follows Strongs Creek between Fortuna Boulevard and Rohnerville Road. This has been picked as a Corridor Preservation Report pilot project because of the rights-of-way that would be necessary for public improvements and access.

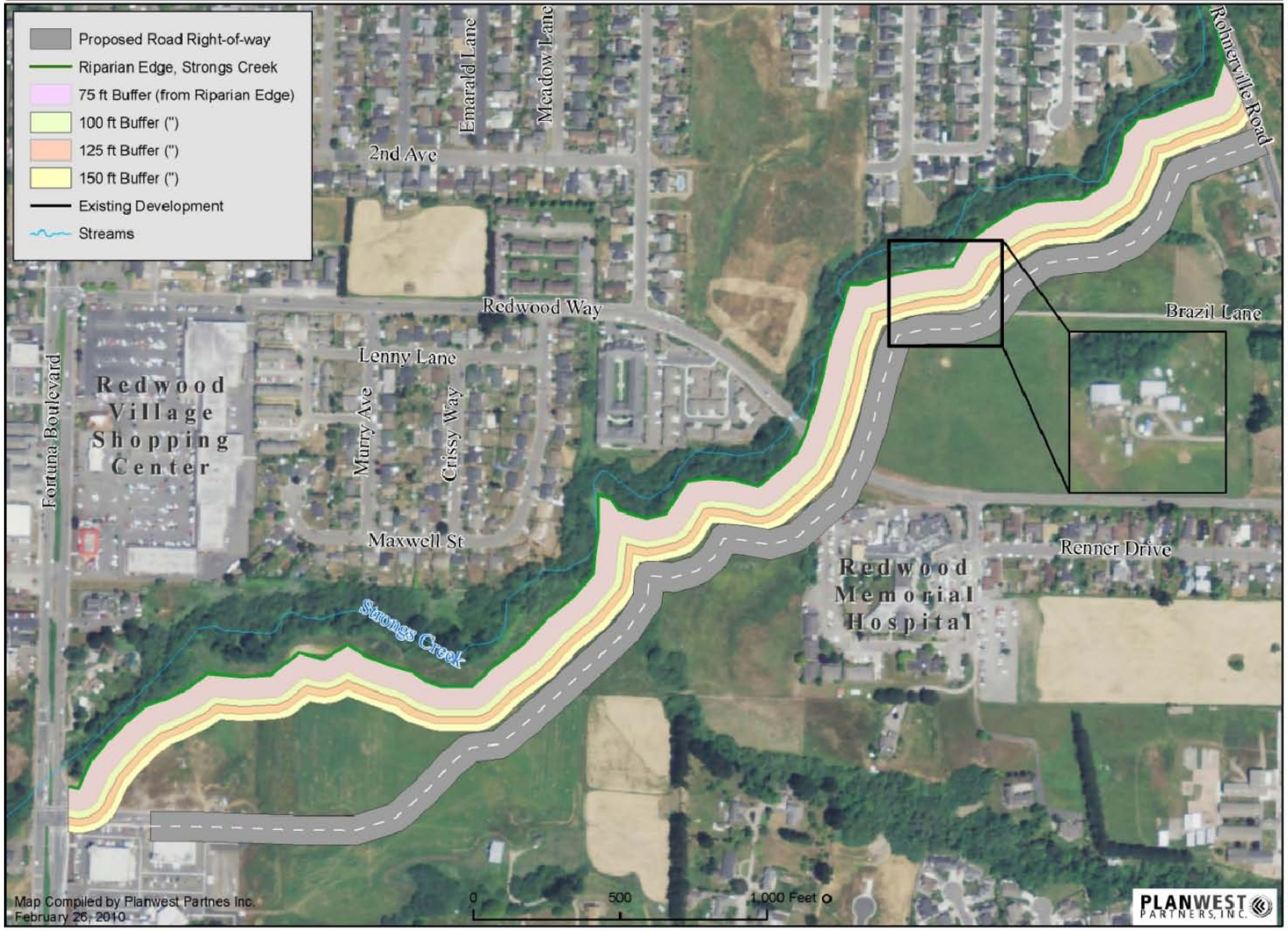
Area Characterization

As a result of the General Plan Update process, the City of Fortuna has identified the potential for a linear park and multi-use trail system along the Strongs Creek corridor. Strongs Creek is a significant natural feature that bisects the City of Fortuna. Originating in the Headwaters Forest Reserve, Strongs Creek meanders west, entering the city from the north east. The creek then flows slightly south west through residential properties, under Rohnerville Road and Redwood Way towards urban neighborhoods. Strongs Creek continues south under Fortuna Boulevard where it comes to a confluence with Mill Creek, and then flows through the Mill District and continues along the Highway 101, ultimately flowing into the Eel River.

Corridor Characteristics

The Strongs Creek linear park system, to be a portion of the John Campbell Memorial Parkway, would initially follow the course of Strongs Creek from Highway 101 to Rohnerville Road. The parkway (Figure 8.1.2-1) will be approximately 1.5 miles long, measured horizontally from the top of the Strongs Creek bank, the width to be determined based upon the proposed uses and constraints present. Native vegetation will be planted in the parkway and a split rail fence will be erected between the multi-use trail and the creek for restoration purposes.

Figure 8.1.2-1 John Campbell Memorial Parkway Pilot Project



Ultimately, the city envisions future parkway extensions in both directions connecting the parkway to the Eel River and Headwaters Forest Reserve. The park system would be named John Campbell Memorial Parkway, after the former Mayor of Fortuna John Campbell, who served the City of Fortuna from 2006 until his untimely death in 2008. Mr. Campbell was instrumental in crafting the Headwaters Agreement between federal and state agencies, which created the only forest reserve in the United States and which serves as the ultimate terminus of the proposed multi-use trail.

Because of the length of the proposed John Campbell Memorial Parkway, only a portion of the Strongs Creek corridor was analyzed for the pilot project. The Strongs Creek corridor pilot project focus area extends south from Strongs Creek until a change in elevation occurs on the parcels that front Kenmar Drive, and is bordered by Fortuna Boulevard on the west, and Rohnerville Road on the east. The project area is dissected by Jameson Creek and includes wetlands, numerous springs, seasonal ponds, and runoff areas. Coho Salmon and Coastal Cutthroat Trout have been observed and are known to occur in Strongs Creek. The study area is largely undeveloped, with the exception of one residence, a hay barn and Redwood Memorial Hospital.

The majority of the study area along this segment of Strongs Creek has been designated in the Fortuna General Plan update as low density residential with an allowable density of three to 6.9 units per acre. The western portion of the project area has been designated corridor mixed use with an allowable density of 12 to 29 units per acre, and a mixed use maximum floor area ratio 2 and non-residential maximum floor area ratio of 0.5. Residential development is being encouraged in this area due to the close proximity of commercial (i.e., Strongs Creek Plaza and Redwood Village), Redwood Memorial Hospital, and existing residential development.

Relevance to the Corridor Preservation Report

With new development comes the need for a neighborhood design that incorporates and preserves the corridor necessary to implement the John Campbell Memorial Parkway. Corridor planning done in advance of new development will provide the city with the foundation necessary to employ corridor preservation strategies. Specifically, with information provided in this pilot project, the city will be able to better assess if the identified corridor has the capacity to support the facilities envisioned, if a revision to facility design is necessary, and the necessary width to preserve for future facility development. It is hoped that corridor preservation will ultimately result in a neighborhood design that incorporates features that will not only make the area safe, attractive and connected to the larger community, but also allow for creek and habitat restoration and educational opportunities.

Most proposed trails in Humboldt County are simply lines on a map. The lines typically follow road networks and do not provide an accurate depiction of the length or width of the corridor needed to support the proposed trail facility. As a result, jurisdictions are at a disadvantage preserving corridors for future trail development.

Typically, trail easements and corridor right of way are acquired through subdivision, new development, and/or property acquisition from willing property owners. The objective of the

City of Fortuna Strongs Creek corridor pilot project, part of the HCAOG corridor preservation report, is to illustrate a process that jurisdictions can follow to 1) determine the length and width of the corridor needed to support proposed trail facilities; and 2) translate the information into tools that can assist with corridor acquisition and preservation, and ultimately plan implementation.

The scope of this pilot project is limited to illustrating the constraints and opportunities of public access issues and presenting ideas for meeting the objectives outlined above. However, it is expected that the city will use the pilot project insights and outcomes to establish long-term planning documents and for the refinement of a city planning tool, as outlined below.

- Use of long range planning documents - Fortuna General Plan Update and John Campbell Memorial Parkway Master Plan - as a foundation for corridor preservation and development;
- Establishment of creek buffers to distinguish between trail use and restoration activities;
- Understanding the corridor width needed to support trail and creek enhancement plans;
- Creating a GIS layer to incorporate into the circulation element, or park and recreation master plan to assist with corridor preservation;
- Use of clustered development and securing right of way / land acquisition at the time of development to allow property use at planned densities, setting aside needed corridor width; and
- Tapping funding sources to implement parkway corridor components, including restoration, flood protection and stream enhancements for fish passage.

Report Tools Utilized to Date

The following strategies and methodologies, as discussed in this report, have been or are being utilized for the John Campbell Memorial Parkway pilot project:

1. Coordination and Communication

To initiate the development of preservation strategies, taking into consideration the concerns of affected agencies, the California Department of Fish and Game (CDFG), the North Coast Regional Water Quality Control Board (NCRWQCB), the Army Corp of Engineers (AOE), and other affected agencies were solicited for input to outlay all potential concerns regarding the project, such as required streamside buffers, wetlands present, and the introduction of non-invasive species, to name a few. Based upon the CDFG's streamside buffer recommendations and the potential uses determined that the corridor could support, an array of streamside buffer alternatives, which vary in width dependent upon the different transportation modes and alignments proposed, were created to help in the determination of the preferred corridor alignment (Figure 6.1.2-1).

2. Mapping and Cataloguing

The suggested buffers where then mapped within a Geographic Information System (GIS) to analyze the feasibility of the various corridor uses proposed, given the available right-of-way once the necessary buffer(s) were taken into consideration. Upon mapping the buffer

alternatives, it became evident that the city may be limited in respect to available right-of-way. Furthermore, as depicted in Figure 8.1.2-1, existing development located within the proposed project site makes right-of-way acquisition and corridor development additionally challenging.

3. Utilizing a Context Sensitive Approach

Wanting to ensure that the Parkway will fit with the overall development goals of the community, an "Origins to Confluence" approach was utilized in which the Parkway parameters were defined and characterized from the Headwaters to the Eel River. Characterizations were based on community values, natural resource management methods and spatial data. Alignments were proposed that were considered to be complimentary to the affected environment, taking into consideration the right-of-way necessary for the corridor travelway, pedestrian realm, and adjacent land uses. In addition, rights-of-way in anticipation of planned future modifications and expansions to the network were also considered.

First, the city inventoried and characterized Strongs Creek Parkway watershed to provide basic inventory and a general characterization of Strongs Creek features from origin to confluence. Maps and descriptions were created that detailed both physical and human components of Strongs Creek. The maps included the following physical and human components:

Physical components:

- Geography/Topography and Climate factors
- Hydrology (e.g. surface water, tributaries, stream channel morphology, water quality, etc)
- Soils, Geology and Geomorphic features
- Biology (e.g. vegetation survey, fauna/wildlife including aquatic species)
- Environmentally sensitive areas
- Watershed and Floodplain mapping

Human components:

- Land ownership including public and private properties adjacent to Strongs Creek
- Land uses
- Planning areas
- Nearby community trip generators/sites of interest (schools, commercial centers)
- Adjacent agriculture
- Point sources (e.g. potential inflows)
- Infrastructure that influences the stream channel (e.g., culverts, utilities, levee fill)
- Public access: formal and informal
- Circulation (e.g. roadways, pathways, crossings, etc.)

Once the preferred alignment(s) are determined, the city's Engineering Department can provide further input regarding the engineering, construction, and maintenance of the proposed corridor alignments and to assist in redefining the mapping as necessary.

4. Master Plan for Corridor Preservation
The analysis performed identified opportunities available for Parkway users and baseline conditions of the Strongs Creek riparian areas. Having identified these opportunities, the city can begin the preparation of a John Campbell Memorial Parkway Master Plan.

This Master Plan will direct and shape development within the John Campbell Memorial Parkway. The purpose is to encourage and allow for higher density than is typically permitted by the city through careful, thoughtful, attractive, and creative design.

The John Campbell Memorial Parkway Master Plan has the capacity to contain a variety of use, resource management, interpretive and circulation concepts. By having a variety of concepts detailed and eligible for funding, the City of Fortuna will be well-equipped to meet a variety of grant funding requirements.

Permitting and Regulatory Review

- General Plan Update and Program Environmental Impact Report - establish corridor / parkway concept in city wide, long range planning context;
- Parkway Master Plan and necessary environmental document - defines length, width, features and implementation measures;
- Implementing provisions incorporated into city ordinances (i.e., subdivision design guidelines and zoning); and
- Tapping funding sources for restoration, flood protection and stream enhancements for fish passage to implement parkway components.

References

City of Rio Dell, 2004 "*City of Rio Dell General Plan*" and associated Geographic Information System (GIS) data.

City of Fortuna, 2009 "*Draft Strongs Creek/ John Campbell Memorial Parkway Master Plan*."

9.0 Corridor Mapping and Cataloging

Many jurisdictions within the County are experiencing similar issues pertaining to rights-of-way/easement recordation. Historic subdivision projects have resulted in "paper dedications", in which roads or public access corridors were dedicated during the tentative subdivision map process, but were never physically constructed. Some dedications have been lost to later construction, have been integrated into private properties and yards, or have simply been overlooked and forgotten. As a result, some jurisdictions are having a difficult time locating where these easements exist and/or how to best utilize these locations, if still feasible due to current conditions and constraints.

In order to identify where easements already exist and to ensure that all future dedications and acquisitions are properly accounted for, community corridors should be mapped in the County roadway database and become part of the Circulation System. In addition to ensuring that corridors are easily accessible to all interested parties, input into a spatial database would allow for a variety of corridor analysis. It would be possible to identify and analyze the existing types of use and resources associated with specific corridors, where similar corridors exist, or where they should exist, differentiate between existing deeded public and private right-of-way vs. prescriptive rights-of-way, formalize corridors and associated amenities, and prioritize corridor objectives accordingly.

Also, by utilizing a County database for corridor preservation, jurisdictions could share their corridor data and planning objectives and coordinate their activities to best identify, acquire, link, and manage corridors effectively.

Both formally deeded rights-of-way and informal community corridors considered to hold prescriptive public rights-of-way should be included in the County roadway database. In doing so, existing rights-of-way and future dedications could be catalogued and spatially mapped, which would serve as a tool for identifying existing or future corridor locations, planning for efficient corridor linkage, and could serve to inform property owners of public rights-of-way locations so that they are well informed if and/or when these areas become utilized.

9.1 General Plan Circulation Elements and Diagrams

In California a City or County general plan is required to address the specified provisions of each of the seven mandated elements listed in §65302—land use, circulation, housing, conservation, open space, noise, and safety—to the extent that the provisions are locally relevant. State General Plan Guidelines (State of California 2003) outline the content of each element as required by statute. The following excerpt from the statewide guidelines, defines what a general plan circulation element might contain:

> The circulation element is not simply a transportation plan. It is an infrastructure plan addressing the circulation of people, goods, energy, water, sewage, storm drainage, and communications. By statute, the circulation element must correlate directly with the land

use element. The circulation element also has direct relationships with the housing, open-space, noise and safety elements.

The provisions of a circulation element affect a community's physical, social, and economic environment as follows:

- *Physical:* The circulation system is one of the chief generators of physical settlement patterns and its location, design, and constituent modes have major impacts on air quality, plant and animal habitats, environmental noise, energy use, community appearance, and other environmental components.
- *Social:* The circulation system is a primary determinant of the pattern of human settlement. It has a major impact on the areas and activities it serves, on community cohesion, and on the quality of human life. The circulation system should be accessible to all segments of the population, including the disadvantaged, the young, the poor, the elderly, and the disabled.
- *Economic:* Economic activities normally require circulation for materials, products, ideas, and employees, thus the viability of the community's economy is directly affected by the circulation element. The efficiency of a community's circulation system can either contribute to or adversely affect its economy.

  No city or county can ignore its regional setting. The local planning agency should coordinate its circulation element provisions with applicable state and regional transportation plans (see §65103(f) and §65080, et seq.). Likewise, the state must coordinate its plans with those of local governments (§65080(a)). The federal government is under a similar obligation (Title 23 USC §134). Caltrans is particularly interested in the transportation planning roles of local general plans and suggests that the following areas be emphasized:
- Coordination of planning efforts between local agencies and Caltrans districts.
- Preservation of transportation corridors for future system improvements.
- Development of coordinated transportation system management plans that achieve the maximum use of present and proposed infrastructure.

State general plan circulation element coordination is addressed through Caltrans' Intergovernmental Review (IGR), Regional Planning, and System Planning programs.

Circulation Elements typically contain a circulation diagram, which offers cities and counties the opportunity to identify and map future transportation corridors. The Humboldt County Framework (General) Plan Volume II, McKinleyville Community Plan provides an example of how mapping future corridors yield actual corridor improvements at time of development.

There are several other examples of corridor cataloguing in this report. They are included to document the importance of this practice. They include the excerpts from circulation and roadway diagrams on Chapter 5. An example of a private development project, the Samoa Town Master Plan also described in Chapter 5, is used to demonstrate how an array of future alignments can be catalogued in a master plan diagram.

9.2 Statutory Mapping Authority of Agencies

When planning for transportation facilities, the state, counties and cities have the statutory authority to prepare plans and maps showing the approximate location and width of future streets and highways (WDT, 1994). The purpose of the map is to inform the public of land areas which may be required for future rights-of way, in order to prevent development from taking place in the corridor. In the case of transportation corridors, mapped right-of-way widths should accommodate anticipated "build-out" traffic conditions. That is, widths should allow for corridors which are sufficient to handle traffic volumes expected when adjacent and neighboring lands are fully developed (Ibid).

Land use and mapping authority in California lies with the state, counties, and cities. A county of city may make and enforce within its limits all local, police, sanitary and other ordinances and regulations not in conflict with general laws" [California Constitution, Article 11, Section]. This section provides the County of Humboldt and its cities with police power, which includes the authority to regulate land use and to impose zoning regulations to benefit the general health and welfare of the people.

Cities can legally map roads, railroad or public transportation facilities within their jurisdictions and in the areas over which they have extraterritorial jurisdiction. County Boards also have the authority to officially map areas along existing roadways or entirely new highway corridor locations with the approval of the governing body of the municipality.

Towns do not have statutory authority for official mapping. However, current state statutes do allow towns to adopt village powers under certain circumstances. One of those powers is the authority to officially map for transportation improvements. Portions of towns within urbanized areas frequently fall within the extraterritorial jurisdiction of cities, thus, can be mapped by those units of government (Ibid).

9.3 Case Study of the Beau Pre Heights Subdivision

The Beau Pre Heights (BPH) Subdivision project, located within the unincorporated community of McKinleyville, is an example of a project in which the local government and the developer successfully collaborated to avoid encroachment on community planned corridors.

In the case of BPH, the developer submitted a proposal to the County in which the parcel(s) proposed to be developed were identified within both the Humboldt County Framework (General) Plan and the McKinleyville Community Plan (MCP) for future development of a public collection road and a separate bicycle path. Unaware of the community's long-term planning objective to obtain these public corridors, the developer was proposing a gated subdivision which would ultimately result in the loss of public access to and through the development.

Upon review of the proposal by the County and its EIR preparers, the developer was notified of the project's inconsistency with the General Plan and MCP and as such, willingly redesigned the project to accommodate the community's envisioned corridors. Thus, by establishing a clear

community vision of all desired corridors to be preserved, and by documenting this vision within a long-term planning document, such as a General Plan, local governments can ensure that valuable community corridors are both protected against future development and become integrated within a development proposal, ensuring both realized development and protection of the corridors.

References Cited

Wisconsin Department of Transportation (WDT), 1994. *Corridor Preservation and Access Management Guidance*. Madison. Print.

County of Humboldt 2004, "*Humboldt County Framework (General) Plan Volume II McKinleyville Community Plan*."

State of California 2003 "*State General Plan Guidelines*" www.opr.**ca**.gov/index.php?a=**planning**/publications.html

10.0 Implementation

10.1 Importance of Implementation

This chapter discusses the importance of City and County procedures and mechanisms to establish and protect circulation corridors. The two most important tools local governments have are 1) the General Plan and 2) ordinances. The General Plan Circulation Element is where corridor preservation policy and measures can be established. These policies can be implemented by adopting implementing ordinances. The following two sections include a set of typical tasks to update a circulation element and model corridor and right-of-way protection ordinances for City's and County to adopt.

10.2 Model General Plan Circulation Element Update

The Circulation Element is one of seven required General Plan elements. Circulation Elements are required to contain "the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the Plan." The Circulation Element preparer proposes the following Circulation Element update scope.

Task 1 Assess Existing Circulation System and Needs

Revise existing circulation system mapping and review data with City, District and/or County staff to ensure accuracy. Prepare circulation base maps. Evaluate roadway traffic volumes and capacity, research accident data, compile additional intersection traffic data as necessary based on initial evaluation of circulation system, evaluate system condition, and prepare overall needs assessment.

Task 2 Prepare Draft Circulation Goals and Objectives

Facilitate circulation element study sessions with the City, District and/or County Planning Commission and Council. The first study session will include a presentation regarding the completed Task 1 assessment of the existing circulation system, discussion of circulation element requirements, and a discussion of needs. The second and third study sessions are intended to identify system needs and circulation element goals and objectives.

Task 3 Update Street, Roadway, and Pathway Classification System and Prepare Draft Circulation Diagram

Evaluate the existing road and street classification system contained in the current Circulation Element. Based on this evaluation and other small city street classification systems, the Circulation Element preparer will revise the classification system and incorporate pedestrian and bicycle facility classifications that better reflect the City, District and/or County's circulation objectives. Prepare a draft Circulation Diagram that attributes the proposed street, road, and pathway classifications to each street in the jurisdiction using parcel level and street GIS databases.

Task 4 Prepare Draft Plan Policies, Programs and Recommended Roadway Improvements

The Circulation Element contents should include:

A. Introduction and Circulation Characteristics

B. Circulation Goals and Objectives

C. Roads and Streets

D. Non- Motorized - Bicycle and Pedestrian - Facilities

E. Transit Facilities

F. Implementation Measures

Task 5 Prepare Environmental Document for CEQA Compliance
Evaluate the potential impacts of the draft Circulation Element with respect to the City, District and/or County General Plan Program Environmental Impact Report. To the extent that the policies of the Circulation Element or portions of the Circulation Diagram are beyond the scope of the General Plan Program EIR, additional environmental review will be required. Additional environmental review would include the preparation of an Initial Study and could range from a negative declaration to some form of supplement to the existing environmental impact report.

Task 6 Planning Commission and Council Hearings
At least two Planning Commission and two City Council / Board of Supervisors Hearings to take public testimony and review the draft Circulation Element. Adoption Hearing to follow.

Task 7 Prepare Circulation Development Standards
It is recommended that the detailed street cross-sections and subdivision street standards be removed from the Circulation Element in the proposed update. The existing street cross-sections and development standards will be evaluated as part of the update, and revised diagrams and standards that conform to the circulation element will be proposed for adoption separately in ordinance form.

10.3 Model Corridor and Right-of-Way Protection Ordinance

This model ordinance language is provided for use by local governments, to establish standards and procedures for consistent practice. The ordinance should begin with general local government provisions for system wide application. The system wide option includes sections for consistency of proposed development with the long-range transportation map, right-of-way dedication, right-of-way preservation, and right-of-way acquisition.

Relationship to City and County General Plans
This ordinance is intended to help implement transportation policies and programs in City and County General Plans. The user should examine the comprehensive plan to determine that an adequate planning foundation has been established for these regulations. If additional plan language is desirable, model plan language is provided as guidance for a plan amendment.

Separate administrative procedures are not specified in this model ordinance. The local government should integrate the regulations of this model ordinance into existing review and approval procedures for developments.

10.3.1 General Ordinance Provisions & Findings

The *(city/county)* has adopted within their General Plan a Circulation Element Diagram, or equivalent, to assure *(city/county)*-wide transportation system continuity.

Anticipating future needs in areas where right-of-way does not exist, to establish harmonious, orderly, efficient development and ensure a safe and efficient transportation system best serves the public interests.

The preservation, protection, or acquisition of rights-of-way and corridors is necessary to implement coordinated land use and transportation planning, to provide for future planned growth, and to ensure that the transportation system is adequate to meet future needs, and complies with the General Plan requirements and this zoning/ land development code.

The interim use of land in future rights-of-way provides a means for economic use of land until that land is needed for transportation purposes. Future corridors and rights-of-way must be protected from permanent encroachment to ensure availability consistent with long-range plans for the *(city/county).*

Intent and Purpose

The intent of this ordinance is to preserve, protect, and/or acquire rights-of-way and transportation corridors that are necessary to provide future facilities and facility improvements to meet the needs of projected *(city/county)*growth. Transportation rights-of-way and corridors are part of a network of transportation facilities and systems, which provide mobility between and access to businesses, homes, and other land uses throughout the jurisdiction, the region, and the state. The *(city council /county board of supervisors)* recognizes that the provision of an adequate transportation network is an essential public service. The plan for that transportation network is described in the General Plan Circulation Element, and implemented through a capital improvements program, other policies and procedures, and through regulations on land use and development as well as regulations to preserve and protect the corridors and rights-of-way for the transportation network. T he purpose of this ordinance is to foster and preserve public health, safety, comfort, and welfare and to aid in the harmonious, orderly, and beneficial development of the (*city/county)* in accordance with the General Plan.

Relationship to General and Regional Transportation Plans

The adoption of this ordinance implements the goals, objectives, and policies of the *(city/county)* General Plan and Regional Transportation Plan. In addition, the provisions of this ordinance are part of the *(city/county)* zoning/ land development code.

Applicability

This ordinance shall apply to all land within the jurisdiction of *(city/county)* which abuts or is located within existing or future corridors and rights-of-way as identified in *(insert name of appropriate plan, map,*

Severability
If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be unconstitutional or otherwise invalid, the validity of the remaining portions of this ordinance shall continue in full force and effect.

Effective Date
This ordinance shall be effective on *(date).*

Consistency of Proposed Development with General Plan Circulation Element Diagram
All development shall be consistent with the General Plan Circulation Element Diagram. Conceptual, preliminary, and final site plans and preliminary or final subdivision plats submitted for review shall include information regarding the location of any corridors designated on the *(city/county)* General Plan Circulation Element Diagram which cross, abut, or are within 1,000' of the property of the proposed project. During the review process, the *(name of reviewing body, such as Technical Review Committee, Development Review Committee, or Planning Commission)* shall consider the proximity of the proposed project to future corridors for purposes of assessing the impact, if any, of the project on future corridors.

Either preliminary or final approval shall include findings regarding the consistency of the proposed project with the future corridor, and shall note any impacts that may be anticipated from the proposed project, along with recommendations for mitigating such impacts. If the proposed project is inconsistent with the future corridor location, it may be necessary for the applicant to modify the proposed project or to propose an amendment to the *(city/county)* comprehensive plan. However, it is intended that corridor locations shall have some flexibility so as to be compatible with proposed development, so long as the basic intent to provide continuity of the corridor is met.

Note: This section is concerned primarily with corridors where studies have not yet been done to establish the alignment. Most jurisdictions have within their development review process requirements to identify specific and detailed information regarding existing roads and planned improvements. Therefore, such information is not presented herein. The user is directed to such documents as the Model Code and address development review, whether site plan review, major development review, or subdivision plat review.

Right-Of-Way Dedication
Projects proposed adjacent to or abutting a right-of-way for which improvements are shown in the current five-year Capital Improvements Program, shall, as a condition of approval, dedicate lands within the project site which are necessary for that right-of-way to *(city/county).* Such dedication shall occur by recordation on the face of the plat, deed, grant of easement, or other method acceptable to *(city/county).* Land to be dedicated shall be only that shown by engineering study and/or design to be necessary for the planned improvements. The amount of land required to be dedicated shall be proportionate to the transportation impacts to be generated by the proposed project unless the landowner is to be compensated in some fashion for any additional dedicated land.

Note: This section provides for the mandatory dedication of right-of-way for projects proposed adjacent to roads with planned improvements within the next five years [the time period of the adopted Capital Improvements Element]. The local government may prefer to use three years to coincide with the time period used for concurrency determinations. The important feature is that the planned improvement be considered imminent, as opposed to long range and therefore potentially less certain.

Local governments must tailor their dedication requirements to comply with Dolan v. City of Tigard, 1994 WL 276693 (June 24, 1994). *In* Dolan, *the United States Supreme Court held that mandatory dedications of land as a condition of development approval must be related both in nature and extent to the impact of the proposed development. Although the Court stated that no precise mathematical calculation is required, it held that the amount of the dedication must be roughly proportionate to the project's impacts.*

The value of dedicated right-of-way shall be a credit against transportation impact fees assessed to the proposed project. In the event that the impact fees calculated for the proposed project are greater than the lands within the project site (the site prior to any dedication or other set-aside) needed for future right-of-way, only the amount of land representing a value approximately equal to the impact fee shall be required to be dedicated.

Note: Generally, credits for right-of-way donations are offered only when the impact fee ordinance included right-of-way costs in the computation of the impact fee structure.

The *(reviewing agency)* may consider the transfer of development rights, based on the gross density or intensity allowable on the site prior to any set-aside for future right-of way. The transfer will be from land to be dedicated to other portions of the site. Approval of transfer of development rights may include consideration of variances from site design standards necessitated by the increased net density or intensity of the portions of the site receiving the transfer of development rights.

Note: The provision for transfer of development rights is based upon a transfer within the site, rather than to another parcel of land.

The *(reviewing agency)* may grant approval of transportation capacity (for concurrency purposes) based upon the approved density or intensity for the project. Such preliminary approval of transportation concurrency and capacity shall be specified as a total number of vehicle trips allowable for the site. The preliminary concurrency approval shall be valid for three years, and eligible for renewal for a period of two years.

Note: The concurrency approved should be expressed in the same terms as the concurrency calculations in use by the local government, which may or may not be vehicle trips. In addition, there should be a specific expiration date, consistent with the concurrency management system in place for the local government.

Right-of-Way and Corridor Preservation

Encroachment Protection

Corridors designated in the *(city/county)* comprehensive plan shall be protected from encroachment by structures, parking areas, or drainage facilities except as otherwise allowable in this ordinance and the comprehensive plan.

Where an alignment has been established by engineering study and/or design, the setbacks of section *(cross-reference to that portion of the local government land development regulations which identify setbacks from roads and rights-of-way)* shall be considered sufficient for preservation of the right-of-way.

Where an alignment has not been established, the following techniques shall be considered for protecting the corridor from encroachment:

(1) The applicant may propose and *(city/county)* shall establish an approximate alignment, consistent with the need to provide continuity of the corridor as well as to meet conceptual site planning needs of the project.

(2) The approximate alignment shall be the basis for applying normal setbacks as specified in section *(cross-reference number).* When the specific alignment is later established through engineering study and design, the setback may be reduced through administrative approval up to, but not exceeding, 10.0% of the otherwise required setback, provided that such reduction is necessitated solely by the final alignment of the right-of-way.

Note: It is the intent that corridors through vacant land be compatible with the proposed development, and that the specific alignment have flexibility, so long as the intent to provide continuity of the corridor as well as the ability of the future facility to function are both met.

(3) Clustering of structures may be allowable in order to retain full development rights while sitting structures, so as to avoid encroachment into the corridor. Clustering of structures under this provision of *(local government code)* may include administrative approval to reduce setbacks between buildings within a project site, reduction of buffers within a project site, or variation of other site design requirements. This provision is not intended to reduce yard setback requirements designed to maintain separation from adjacent uses.

Note: This provision should be used where clustering is not already allowable in the site design standards of the local government. This ensures that clustering, which may reduce standards for space between buildings within a site, or result in a greater net density on the portion of the site developed, is allowable.

(4) Reduction of required setbacks, other than adjacent to the corridor, may be considered, in order to ensure that the location of structures does not encroach into future corridors. A reduction of up to, but not exceeding, 10.0% of the otherwise required setback may be approved administratively, provided such reduction is necessitated solely by the proposed

alignment of the corridor. Greater reductions must be reviewed by the *(name of reviewing agency which considers variances).*

Interim Uses to be Relocated

The purpose of this section is to allow certain uses for a specified period of time within portions of a site designated as future right-of-way, or within a future corridor. The allowance of uses on an interim basis allows the property owner to make economic use of the property until such time as the right-of-way is needed for facilities or improvements.

The following uses, directly related to the primary use of the project site, may be allowable on an interim basis:

(1) Stormwater retention, wet or dry, to serve the project site.

(2) Parking areas to serve the project.

(3) Entry features such as signage, gatehouses, architectural features, walls.

(4) Temporary sales or leasing offices for the project site.

The following conditions shall apply to the approval of interim uses specified in section 4.2.B:

(1) As a condition of preliminary or final development order, the applicant agrees to relocate these uses elsewhere on the project site. A developer's agreement shall specify the terms and conditions, including timing, of the relocation required by this section.

(2) Relocation of approved interim uses shall be beyond the setback area, subject to the provisions referenced above.

(3) Relocation sites shall be identified on the development plans submitted with the preliminary or final development order application. Sites identified for future relocation shall be reserved for that purpose.

The stormwater retention facility may, at the discretion of *(city/county),* be incorporated into the design of the future transportation facility retention facilities. Should this option be chosen by the *(city/county),* the developer need not relocate the storm water retention facility.

Interim Uses to be Discontinued

The following interim uses, not necessarily directly related to the principal use of the site, may be allowable:

(1) Recreational facilities such as playgrounds, ball fields, outdoor courts, exercise trails, walking paths, bridal paths, and similar outdoor recreational uses.

(2) Produce stands, produce markets, farmers markets.

(3) Periodic events such as festivals, carnivals, community fairs.

(4) Plant nurseries and landscape materials yards.

(5) Agricultural uses, such as pasture, crop lands, but not including stables, dairy barns.

(6) Storage yards for equipment, machinery, and supplies for building and trades contractors, and similar outdoor storage.

Note: It is the intent in this section to list those uses that have a relatively low investment in structural improvements to the site. However, the local government may wish to include other uses - such as mini-storage facilities or other warehousing - where the investment in structural improvements is amortized over a relatively short period of time. If such uses are included, additional language in the developer's agreement should specify that the eventual acquisition of the land for right-of-way does not include acquisition of the structures, nor does the future value of the land include value of the structures. The intent is to recognize that a potentially wider range of uses may be allowable provided that the developers agreement recognizes the discontinuance, and that the government is not willing to pay for the structures, but is willing to allow a long enough interim use period for the owner to amortize the investment.

The following conditions shall apply to interim uses:

(1) As a condition of preliminary or final development order, the applicant agrees to discontinue these uses on the project site by a specified date. A developer's agreement shall specify the terms and conditions of both the approval of interim uses pursuant to this section and the discontinuance of interim uses as required in this section.

Note: It may be desirable to include a time period within the ordinance. Such period should be sufficient to allow economically feasible use of the site. Time periods may be as long as 10 or more years for new corridor locations. The designation of a date for discontinuance is most likely a negotiable issue and should be capable of being extended.

(2) Required yard setbacks shall be provided, consistent with provisions of section *(refer to yard setbacks section of the local land development code)*, in order to ensure compatibility of interim uses with other uses adjacent or nearby.

(3) Interim uses shall meet site design requirements for setbacks for the district.

(4) Impervious surface ratios for interim uses shall not exceed 20.0% of the specified interim use site.

Note: Because the list of interim uses includes a wide range of intensities and impact, it may be desirable to specify a buffer rather than to rely on existing yard setback standards. It may also be desirable to include conditions regarding locations of access drives, percent of the site to be devoted to the interim use, parking standards, lot area,.

Right-Of-Way Acquisition

Voluntary Future Right-Of- Way Dedication

The provisions of this section apply to projects proposed adjacent to or abutting a future corridor or right-of-way for which improvements are anticipated beyond the five-year period of the Capital Improvements Program. A property owner may, at any time during the application process for preliminary, conceptual, or final approval of a project, voluntarily dedicate lands within the project site that are in the future corridor or right-of-way.

Where an alignment has been established by engineering study or design, lands to be dedicated shall be within the designated future right-of-way.

Where an alignment has not been established, an approximate alignment shall be established. *Note: It is the intent that corridors through vacant land be compatible with the proposed development, and that the specific alignment have flexibility, so long as the intent to provide continuity of the corridor as well as the ability of the future facility to function are both met.*

Future Corridors and Rights-Of- Way Acquisition

The *(city/county/other agency)* may enter into an agreement to purchase, in fee simple, the lands designated as a future corridor or right-of-way. The *(city/county/other agency)* may enter into an agreement to purchase the development rights to lands designated as a future corridor or right-of-way. Development rights are defined as either the number of residential units allowable on the portion of the site designated, or as the total floor area allowable in non- residential use of the portion of the site designated.

Note: If the local government has a program to purchase development rights, it should be referenced in this section. If no program exists, and the local government wishes to establish one for this purpose, the following issues should be addressed: method of establishing fair market value, timing of purchase, whether or not the rights purchased are available for purchase by other developers in other parts of the jurisdiction, and approval processes for the purchase.

The *(city/county/other agency)* may enter into an agreement to purchase a perpetual easement including lands designated as a future corridor or right-of- way. Land included within the easement shall be either that land designated through engineering study or design as necessary for future right-of-way, or that land established as an approximate right-of-way. An approximate right-of-way shall be consistent with the need to provide continuity of the corridor as well as to meet conceptual site planning needs of the project.

Note: The *agreement should specify the uses granted with the easement to the local government and the interim uses remaining with the property owner. If this section is to be used, the local government should establish a method for determining the value of the easement.*

References Cited

City of Rio Dell, 2010 "*General Plan Circulation Element Scope of Work.*"

Wisconsin Department of Transportation (WDT), 1994. *Corridor Preservation and Access Management Guidance*. Madison. Print.

11.0 Conclusion

Corridor preservation is crucial to ensuring that important transportation projects are able to follow the preferred alignment with minimum capital, environmental, and social costs. Preservation will not be necessary or appropriate for every section of a corridor, and should be applied judiciously and creatively to achieve right-of-way protection goals in a strategic way. HCAOG and its member organizations should consider the following steps for corridor preservation in Humboldt County:

- Develop and distribute a model corridor preservation ordinance for adoption by cities and the county. The model ordinance in Chapter 10 may be used as a starting point, with elements removed or added to create a document that is appropriate for use in Humboldt County;
- Maintain an inventory of Humboldt County corridor preservation activities, which notes which tools are in use, where and how they're being used, by which entities, and level of success;
- Coordinate with the County of Humboldt and cities to promote corridor preservation;
- Implement an educational program to inform the county and cities of the importance of corridor preservation, encourage them to pursue it, and identify the protection tools they can begin using;
- Access Caltrans as a corridor preservation information resource and examine model corridor preservation ordinance materials from other states;
- Study the state-level corridor preservation programs of other states at greater depth and compare them to the needs, issues, and priorities present in California.
- Facilitate coordination of corridor preservation efforts between units of local government that neighbor one another or lie along the same corridor; and
- Undertake advocacy of corridor preservation and the tools necessary to carry it out, including lobbying for legislation to allow corridor protection tools that are deemed necessary but are not currently allowed in Humboldt County.
- Based on this research, develop a program to pursue corridor preservation statewide, either by expanding the Strategic Highway Corridors program or establishing a new system. This state-level program should act proactively and have the resources, staffing, and authority necessary to be effective. Upon creation, the program should assume responsibility for the activities outlined in the previous recommendations as well as pursue those corridor preservation efforts that can be made at the state level.

Corridor preservation strategies addressed in this report have been effective in other communities nation-wide in preserving key corridors that yield mobility and connectivity benefits. This report identifies planning and design tools that are effective in reducing a transportation project's impact and provides policy, programmatic and financial resource information that can support project mitigation, conduct pertinent studies, and otherwise address communities' concerns.

Local pilot projects or "case studies" were completed that examine corridor preservation implementation strategies. The pilot projects demonstrate how corridor preservation can be used to meet transportation needs relative to the local context. Advanced planning and design is necessary to balance land use and transportation interests. It is critical to engage community residents, public and private agencies, and other jurisdictions to establish local and regional goals, identify needs, and generate ideas for the preservation, expansion, and improvement of public transportation corridors.

The tools and resources provided in this report would typically be used under the umbrella of a regional transportation plan, general plan, and implementing programs and ordinances pursuant to established municipality authority. Accordingly, communities and other interested parties may need to manage the potential impacts of the corridor improvements and future growth, using anything from old fashioned, face-to-face meetings that build consensus and trust, to complex plans and ordinances that direct appropriate development to appropriate areas, all while protecting critical resources (Brandywine Conservancy, 2004).

References

Brandywine Conservancy, 2004. *Conservation Opportunities for Corridor Preservation and Community Development*. Chadds Ford. Print.

North Carolina Department of Transportation, 2004. *Corridor Preservation Methods*. Charlotte North Carolina. Print.

12.0 Humboldt County Corridor Mapping

12.1 Introduction

Humboldt County has a network of transportation corridors, both single and multi-purpose. This chapter contains a representative selection of mapped corridors for the county and its seven cities that are good candidates for preservation. These corridors have been selected because they offer good connectivity in and between communities and have the potential to carry more people and goods in the future. They include new corridors included in General Plans, Community Plans and transportation studies, and/or corridors with the potential to be expanded to serve multiple transportation purposes (i.e. Rail with Trail).

Where transportation corridors have been identified and mapped, they can serve as the key organizing framework for local planning and the focus for corridor preservation grant opportunities and financing of transportation capital infrastructure through development-generated fees and/or joint public-private development. Upon identification and mapping of key corridors, jurisdictions can then begin to implement some of the corridor preservation strategies and techniques outlined in this Report.

12.2 Mapped Corridors by Jurisdiction

Humboldt County Rail Corridors

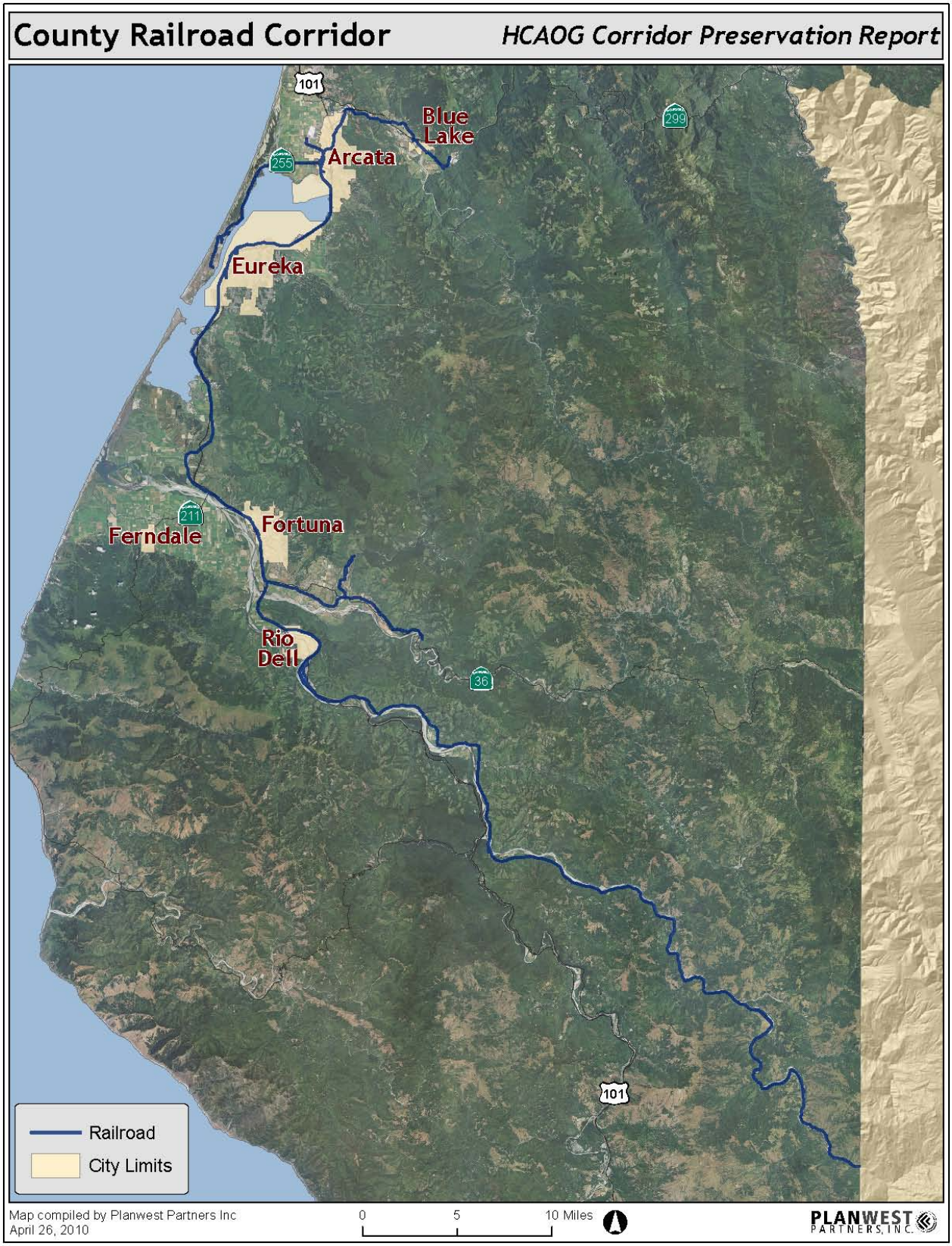
Aside from U.S Highway 101, the North Coast Railroad Authority (NCRA), formerly the Northwestern Pacific Railroad (NWP) railroad corridor represents the longest established corridor in the county. Railroad corridors tend to be well documented on circulation maps and typically have documented rights-of-way which are carefully protected by railroad stewards. With suitable economic conditions, a freight railroad could help timber and other extractive industries decrease their reliance on truck freight, helping them to remain competitive. In addition, railroad corridors have become increasingly valuable for a variety of other transportation modes and uses.

Given that these corridors are well documented and well protected, could accommodate a diverse array of uses, and are located in such a manner that they could provide valuable linkage amongst corridors and communities, it's imperative that they be carefully evaluated in a modern context and planned for and protected accordingly.

North Coast Railroad Authority Willits to Lombard Rehabilitation Project

The NCRA is rehabilitation the Mendocino County line, south of Willits, to Lombard, with the long-term objective of reopening the line. Similar rehabilitation efforts are being considered within the Humboldt County NCRA rail corridor, north of Willits, through the Eel River Canyon to Samoa (Figure 12.2-1).

Figure 12.2-1. Humboldt County Rail Corridors



Northern Freight Corridor Restoration Project
The Harbor District is working with NCRA to develop the "Northern Freight Corridor Restoration Project," which aims to position the Port of Humboldt Bay for growth by providing essential port and rail infrastructure. The Project seeks to reduce shoaling in Humboldt Bay (enhancing navigation efficiency and safety), and to rehabilitate the Northern Corridor of the NWP railroad from the Port of Humboldt Bay to South Fork (Figure 12.2-1).

NWP would operate a separate short-line railroad on the Northern Corridor of the NWP line, extending from South Fork to Samoa. The traffic would be general freight from the Northern Corridor that would be transferred from rail to barge at a transload facility within the Port of Humboldt Bay. The Project would provide the potential to attract additional traffic to the NWP rail service in the South Fork-Samoa area, including the movement of additional traffic that would both originate and terminate on this line segment, and the movement of inbound traffic moving through the Port of Humboldt Bay. Moreover, the Project would also provide the potential to operate excursion passenger train service within the Northern Corridor (HCAOG, 2010).

Humboldt County Planned Trail Corridors

A regional trail system is envisioned for Humboldt County that will provide for continuous travel between communities. The regional trail system will be comprised of a network of individual trail segments that are at various stages of development, from early conceptual planning to built and in-use. Many of these trail segments cross multiple jurisdictions and provide opportunities for collaborative planning and implementation efforts (HCAOG, 2010).

Some of the trail segments that define the regional trail system that are discussed in this Chapter include the Annie and Mary Rail-Trail, Arcata Rail with Trail, and the Eureka Waterfront Trail and Promenade.

Arcata to Blue Lake - Annie and Mary Rail-Trail Project
The proposed Annie and Mary Rail-Trail is envisioned as a Class I facility connecting the Cities of Arcata and Blue Lake. The proposed trail would utilize sections of the northernmost spur of the NWP railroad line, historically known as the Arcata and Mad River (or 'Annie and Mary') line. The spur leaves the main line in downtown Arcata, runs through the community of Glendale, continues past the City of Blue Lake, and ends in the mill town of Korbel. The Annie and Mary corridor is owned and managed by the NCRA and Green Diamond Timber Company, and runs through Humboldt County, the Cities of Arcata and Blue Lake, the Blue Lake Rancheria, and Caltrans jurisdictions.

The Annie and Mary Mad River Bridge

The 6.8 mile Annie and Mary line is one of the oldest rail corridors on the west coast. Trains have not run on the Annie and Mary line since 1992, and

in 1997-1998, the tracks and ties of the rail bed were removed. Encroachment of neighboring uses (e.g., residential, agricultural and industrial) and a lack of corridor maintenance (i.e., drainage structures, vegetation management, etc.) have deteriorated the physical state of the corridor. Due to budgetary constraints, the NCRA has no immediate plans to reopen the corridor for rail service; however, the NCRA wants to retain the right to resume future rail service on the route (HCAOG, 2010).

The community has shown strong support for multi-use trail development on the Annie and Mary corridor that would enable public access for non-motorized recreation and transportation. In addition to having community support and a nonprofit (501 (c)(3)) organization dedicated to the effort (the Friends of the Annie & Mary Rail-Trail), the Annie and Mary Rail-Trail has been identified as a priority, planned or recommended project in a number of plans, which include: *1997 Humboldt County Bicycle Facilities Feasibility Analysis, 2001 Humboldt Bay Trails Feasibility Study, City of Arcata 2004 Bicycle and Pedestrian Plan, 2004 Humboldt County Regional Bicycle Plan,* and *2008 Humboldt County Regional Transportation Plan*.

In 2003, the California Coastal Conservancy funded the development of the *Annie and Mary Rail-Trail Feasibility Study* to analyze the opportunities and constraints of railbanking the Annie and Mary corridor.

The former Annie and Mary railroad depot, which now serves as a museum.

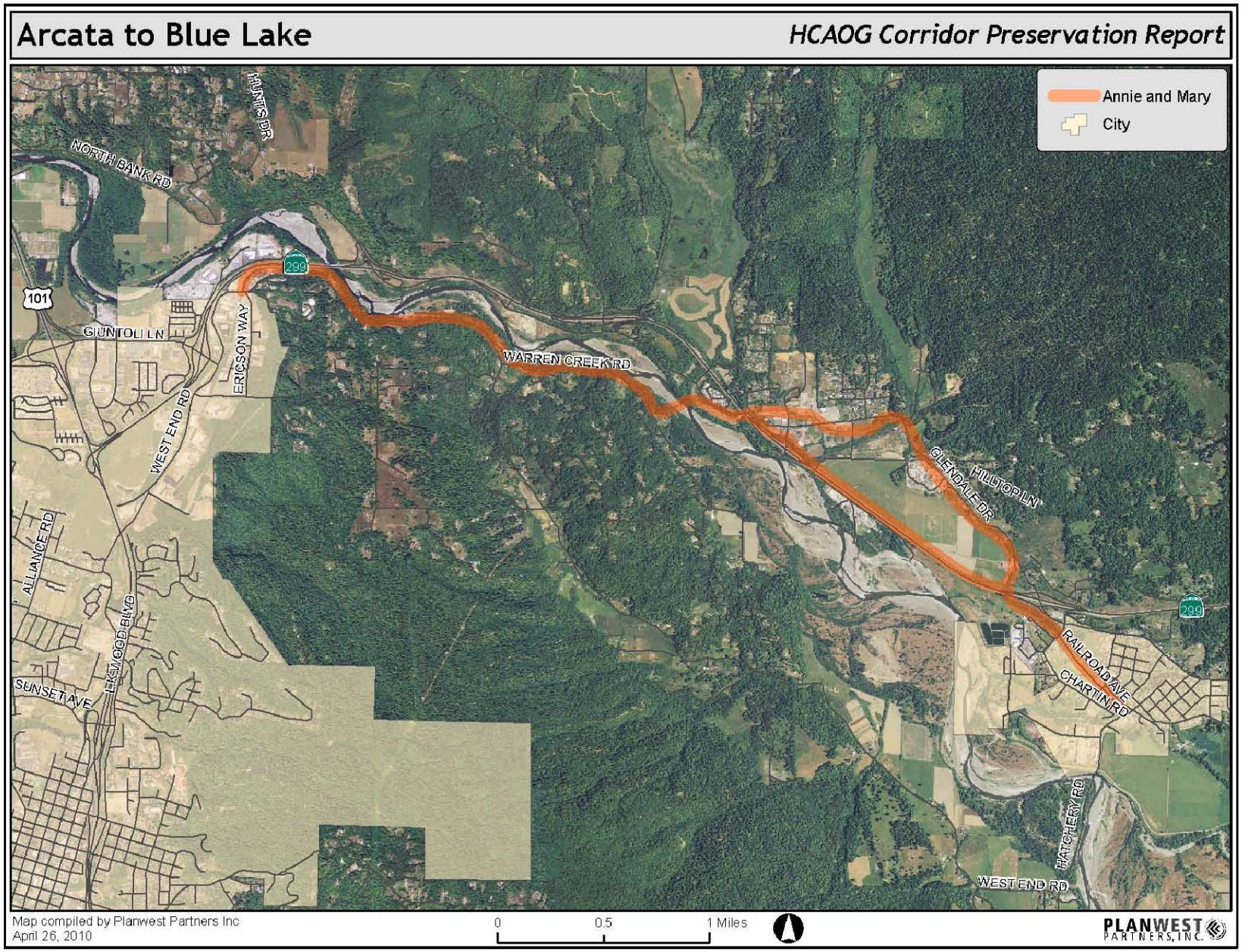
Railbanking is designed to allow other uses while preserving the railroad rights-of-way for possible future rail service. Railbanking will leave the existing corridor, bridges, and other infrastructure intact and relieve the NCRA from responsibility of maintenance and taxation. If economic conditions warrant resuming rail operation, the retained rights-of-way make future restored rail service possible.

HCAOG's 2009/2010 Overall Work Program Element 3.3 is devoted to coordination and planning activities required for the Annie and Mary Trail development. A coordinated multi-jurisdictional effort will be required in order to establish this as the first railbanking project in the region (Ibid).

The HCAOG Board has initiated an amendment to their joint powers agreement to include trail planning activities. The amendment, to include regional trials planning, management and development, is scheduled to be heard for adoption by the end of the 2010 calendar year.

Multi-jurisdictional support between the cities of Arcata and Blue Lake, the County of Humboldt, HCAOG, NCRA, Blue Lake Rancheria, Caltrans and possibly the Humboldt Bay Municipal Water District is critical to the long-term success of the Annie and Mary Rail-Trail, including leveraging funding, adopting a phased construction strategy, and management as a consistent trail corridor through multiple jurisdictions (Ibid).

Figure 12.2-2. Annie and Mary Trail Corridor



McKinleyville Community Plan Roadway Connections

McKinleyville is the largest unincorporated community in Humboldt County, with a population of approximately 13,600. McKinleyville has experienced high growth in the last 20 years (averaging nearly three percent growth per year), but is expected to slow in the next twenty years per the Humboldt County Building Communities report (2002). Given McKinleyville's high growth rate, the County and the McKinleyville community have recognized the need to pro-actively plan for future transportation corridor needs, thus allowing for the protection of these valuable resources.

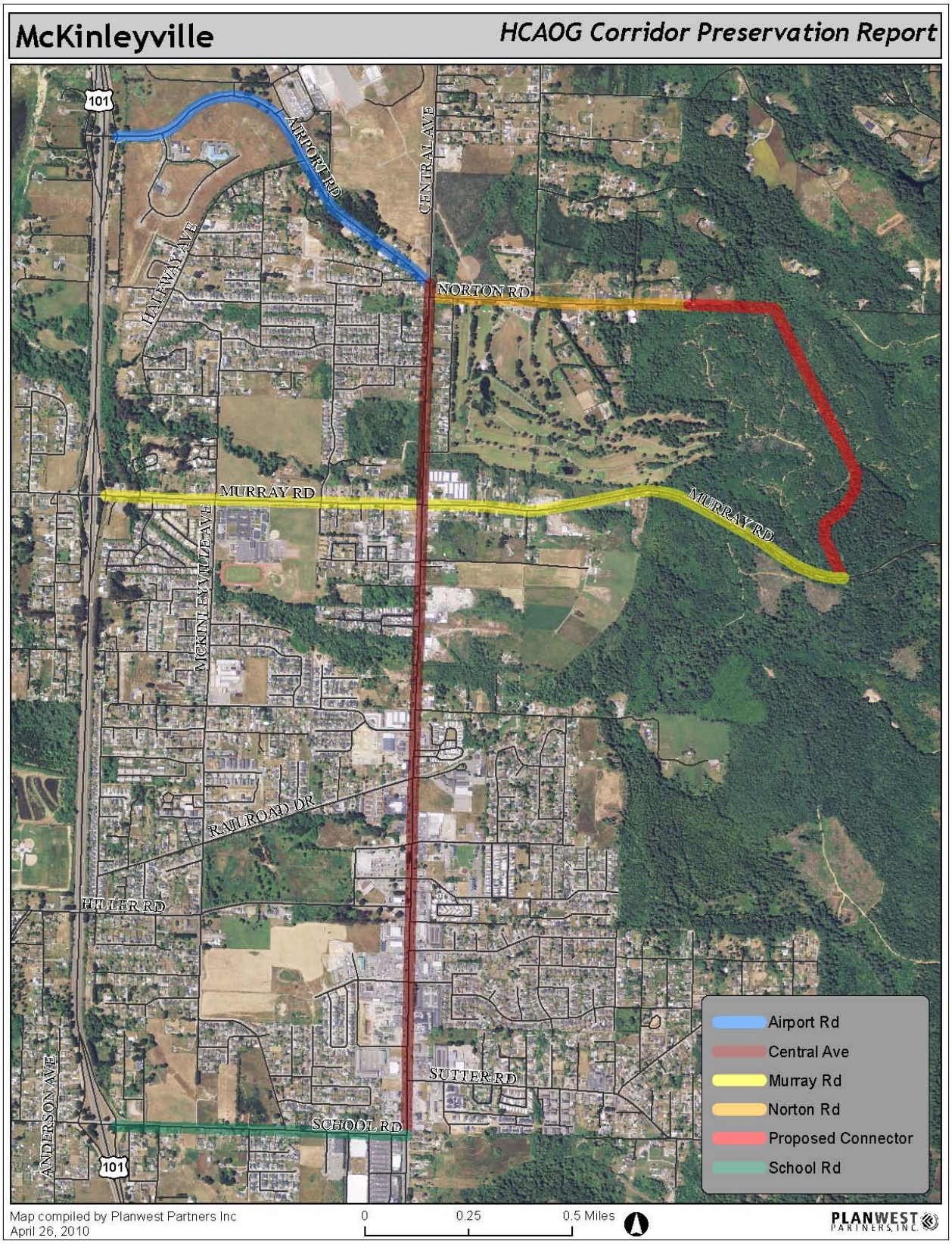
In 1998 the Humboldt County Board of Supervisors and the Humboldt County Planning Commission adopted the revised Circulation Element for the McKinleyville Community Plan. The revised Circulation Plan addresses both vehicular and non-vehicular circulation, and shall be followed by developers and the County whenever new road and/or pathway construction or existing road and/or pathway reconstruction is to be performed (County of Humboldt, 1999).

To improve circulation within McKinleyville, the Circulation Plan provides for:

- Additional north-south and east-west arterials and collectors to facilitate circulation to and within a localized commercial core, the town center, and to avoid further development of commercial strips along arterials; and
- Additional pathways to allow safe, pleasant, efficient circulation of pedestrians and bicyclists, and decrease dependence of automobiles.

In addition, to support the community's desire for the development of a safer, more interconnected network of hiking, biking trails and equestrian trails, the County prepared a trails element in the McKinleyville Community Plan, as part of the 2002 revision.

Figure 12.2-3. McKinleyville Area Planned Corridors



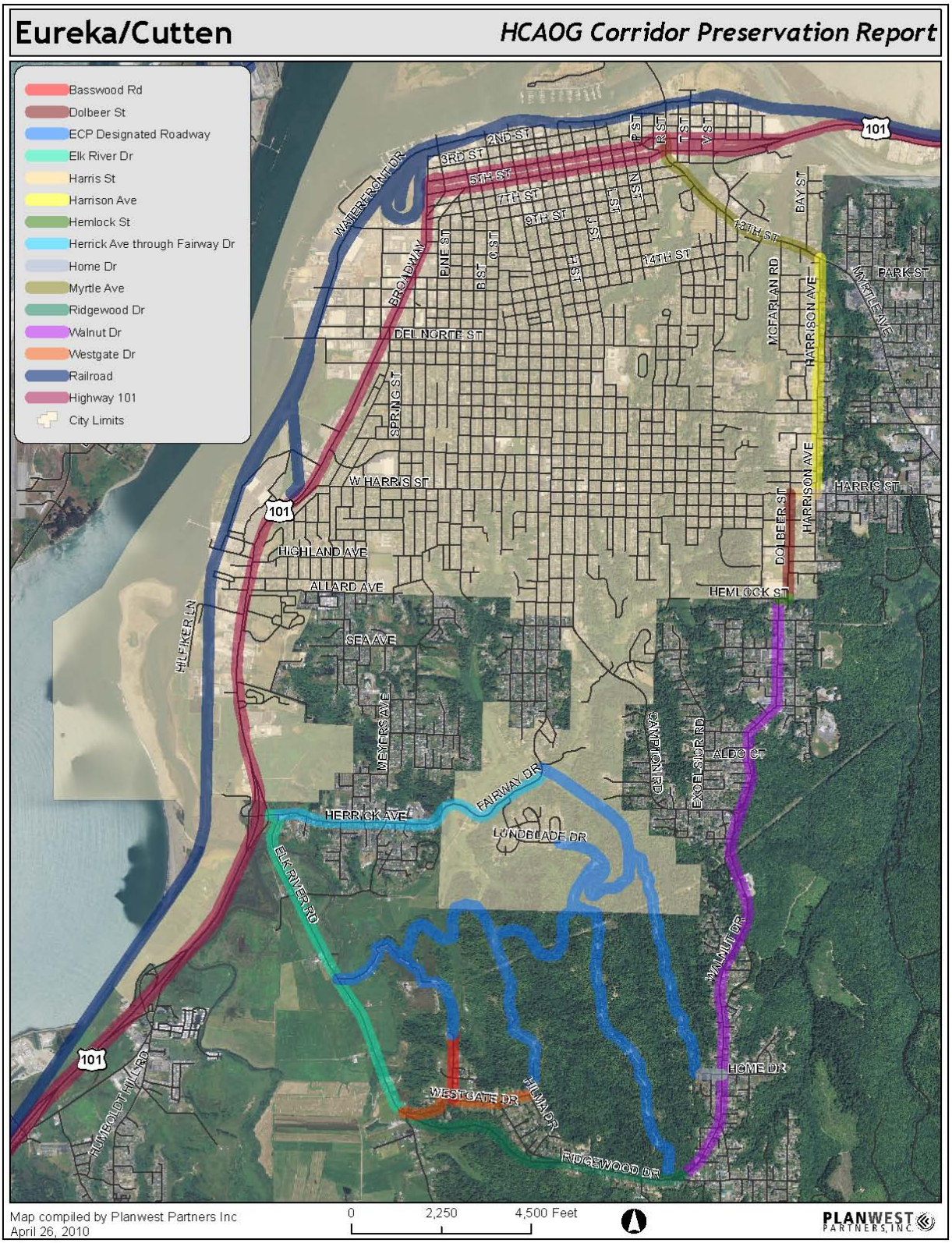
Eureka Community Planning Area Roadway Connections

The City of Eureka is the county seat has a population of approximately 26,000 persons (Department of Finance, 2009). Humboldt Bay wraps around the city with the western and northern Eureka city limits extending into the Bay. The city's eastern and southern boundaries border the growing unincorporated communities of Cutten, Myrtletown and Bayview, although most residents do not differentiate the adjacent unincorporated communities from the city.

The existing circulation system in the Eureka Community Planning Area (CPA) is dominated by a roadway network which serves a mix or urban and rural densities. The CPS is largely dominated by residential land uses, with residents traveling into Eureka for work, shopping, and other trip purposes. The circulation for the Eureka CPA is inter-related with the city's roadway network. Adjacent to the city, the Planning Area's roads are grid oriented. The southern portion of the Planning Area, more rural in nature, is served by arterial loops (County of Humboldt, 1995). Important arterials and collectors in the Eureka CPA include Myrtle Avenue, Harrison Avenue, Harris Street, Walnut Drive, Ridgewood Drive, Campton Road, "F" Street, Elk River Road, Humboldt Hill Road, Union Street and Excelsior Road (Figure 12.2-4).

The city's Transportation Safety Commission is currently discussing development of a Transportation Safety Plan, and actively works to identify and remedy active transportation challenges – when necessary, in partnership with the County of Humboldt. Generally, roadway improvements are being recommended where the circulation system between the Eureka CPA and the City of Eureka interface. In addition, some roadway facilities will need to be improved through widening or provision of left-turn pockets for storage.

Figure 12.2-4. Eureka Area Transportation Corridors



Avenue of the Giants Corridor

The Avenue of the Giants (or Highway 254) is an approximately 32 miles long state maintained road, which parallels U.S Highway 101 and contains 51,222 acres of redwood groves (Figure 12.2-5). The Avenue has little or no shoulders throughout its entirety. Traffic levels in the summer months are substantially higher than in the winter months due to the tourist traffic. Miranda has the highest traffic volume along the Avenue, nearly twice as high as the other communities (County of Humboldt, 2000).

Historically, tourism along the Avenue of the Giants followed a "stagecoach" approach where touring cars would make their way slowly through the trees, stopping at convenient waysides and towns. However, the stagecoach model of tourism is for the most part outdated. Avenue communities are reaching for a new focus to both draw visitors to the area and create a thriving community for themselves. The theme of the Avenues visitor experience is still the same: come and experience the stunning natural environment and small, charming towns. But the model needs updating. Travel today is fast and visitors expect a range of experiences that highlight features of the area (Ibid).

Given the high volume of traffic along the Avenue, particularly during times of peak tourism, and given that the Avenue serves as a vital corridor linking Southern Humboldt communities, the Avenue community has expressed interest in a multi-use recreational trail system (the Avenue Trail) which would both engage visitors and provide local residents with a safe non-motorized transportation option connecting local communities. The Trail could provide a range of experiences for visitors and residents, from family bicycle touring to wilderness backpacking, with well-serviced stopping places all along the Avenue. The Community Plan is in support of this concept. While the pathway would primarily involve State Park property, areas of private property may also be involved. This may require the dedication and acquisition of trail easements on private and public properties (Ibid).

The Humboldt Redwoods State Park (HRSP) has a crucial role in the development of a new focus for tourism along the Avenues. In October of 2001 the HRSP adopted their General Plan, which integrated the community's plan for tourism in the Avenues with the Park's plan for visitor use. The Plan highlighted the values of the communities and the Park, including activities and infrastructure (such as the Avenue Trail). Continued coordination between the communities and agencies has the potential to bring vitality to the communities and full achievement of the Park's mission (DPR, 2001).

Figure 12.2-5. Avenue of the Giants Corridor

City of Arcata Proposed Pedestrian Pathways or Multi-use Trails

Although the city's active transportation network is largely in place, some challenges and gaps still exist. To meet the increasing local demand for non-motorized transportation alternatives, the city has prioritized projects that would improve non-motorized system connectivity, safety, and functionality.

The City of Arcata will serve as a hub for several regional trail systems, including the Humboldt Bay Trail, Hammond Trail, California Coastal Trail and Annie and Mary Rail-Trail. The city's General Plan Transportation Element includes policies that address bicycle and pedestrian facility connectivity. In addition, the city has a Pedestrian and Bicycle Master Plan, Open Space Acquisition and Management Plan, and Parks and Recreation Master Plan that identify important non-motorized transportation and recreational trail system corridors (HCAOG, 2010).

The Arcata General Plan: 2020 emphasizes the goal to provide for pedestrian pathways or multi-use trails for the exclusive use of non-motorized transportation modes. In providing for such trials, the Plan identifies the potential for multi-use paths utilizing creek, utility, and railroad right of way. The Foster Avenue Extension to Sunset Avenue was also identified as a location for future multi-use paths or trails.

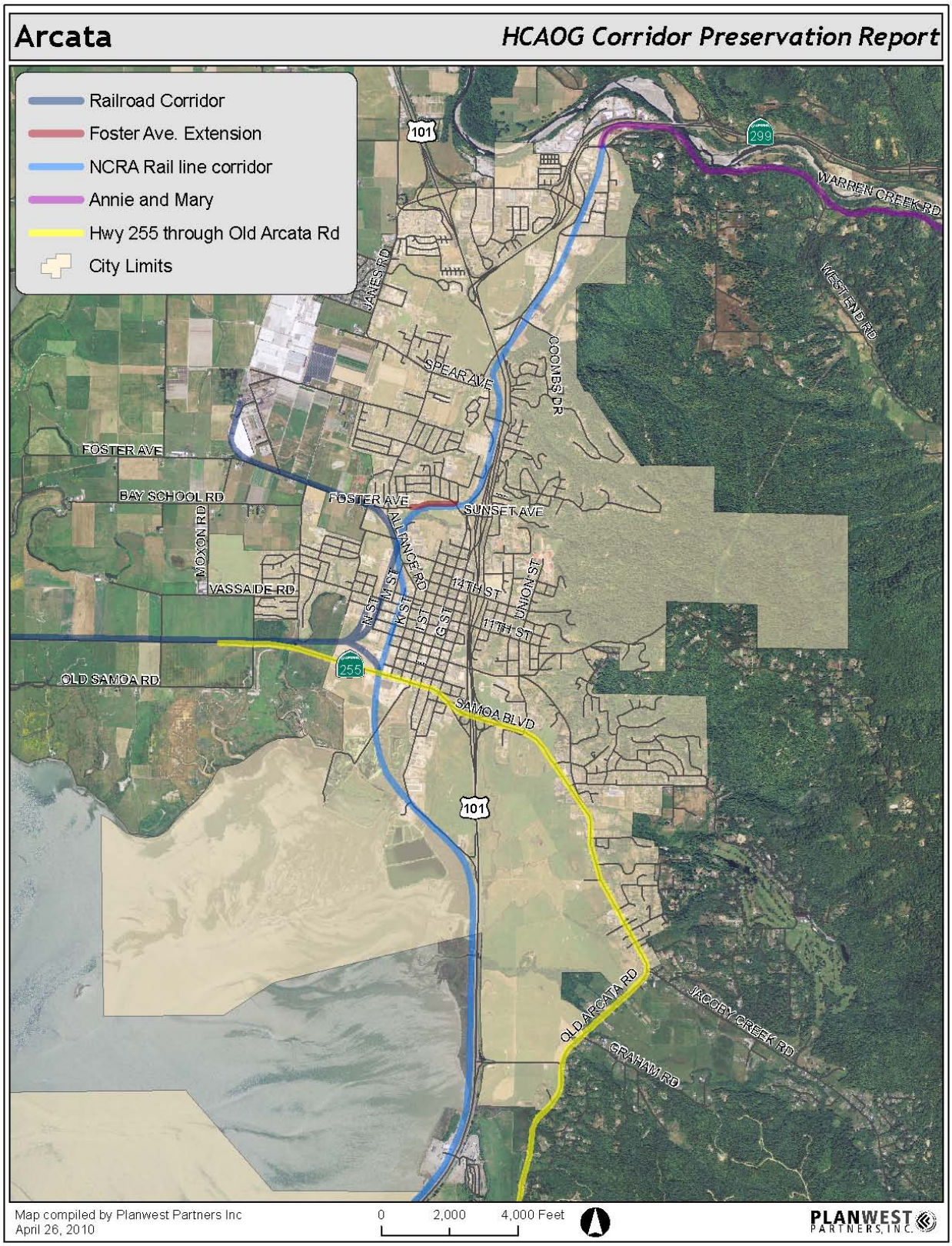
The Arcata Rail with Trail

The Arcata Rail with Trail is envisioned as a 4.5-mile Class I, ADA accessible, non-motorized trail that would extend from the northern end of the City of Arcata near West End Road, south to Samoa Boulevard. The trail corridor would run from the Aldergrove Industrial Park area located in northern Arcata, through Shay Park and the downtown area, and extend south near the Arcata Marsh and Wildlife Sanctuary. The proposed trail alignment would primarily run parallel to and within the North Coast Railroad Authority rail right-of-way, but has the potential to route along city-owned land adjacent to the rail line and Caltrans right-of-way (HCAOG, 2010).

The trail would provide the most direct route for residents and employees in the northern part of the city to the downtown area and would provide connectivity between recreational areas within the city. The trail would serve as an important regional trail link connecting the proposed Annie and Mary Trail, Hammond Trail south, and Humboldt Bay Trail: Arcata to Eureka segment. Key players in the implementation and construction of the trail include the City of Arcata, North Coast Railroad Authority, Caltrans, Redwood Community Action Agency, United States Fish and Wildlife Service, and the State Coastal Conservancy (Ibid).

The Arcata Rail with Trail has been identified in the *City of Arcata 2010 Pedestrian and Bicycle Master Plan* and in the *2007 Humboldt Bay Trail Feasibility Study: Arcata to Eureka segment.* The City of Arcata has initiated the *Arcata Rail with Trail Connectivity Project: Skate Park to Bracut Trail* to complete planning, engineering design and permitting for 3.9 miles of the trail.

Figure 12.2-6. City of Arcata Planned Pathways or Multi-Use Corridors



City of Blue Lake Proposed Pedestrian Trail

The City of Blue Lake is primarily a residential community with approximately 1,200 residents (Department of Finance, 2009). The city is approximately five miles east of the City of Arcata and is located along US Highway 299 and the Mad River. Much of the downtown and community core was constructed in the late 19th and early 20th centuries, and a number of small housing subdivisions have been constructed in recent decades.

Many residents travel out of town by car for work, shopping, and other needs. Within the town there is significant pedestrian activity by those who live and work in Blue Lake, children going to and from school, and for recreation. A one-mile walking trail exists around the industrial park and along the Mad River levee (maintained by the County of Humboldt). Given the close proximity of the Blue Lake Rancheria to the City of Blue Lake there is a need to provide shared community non-motorized walkways between the Rancheria and the city. The city and Rancheria also have an interest in, and support the establishment of a trail in the Annie and Mary railroad corridor (HCAOG, 2010).

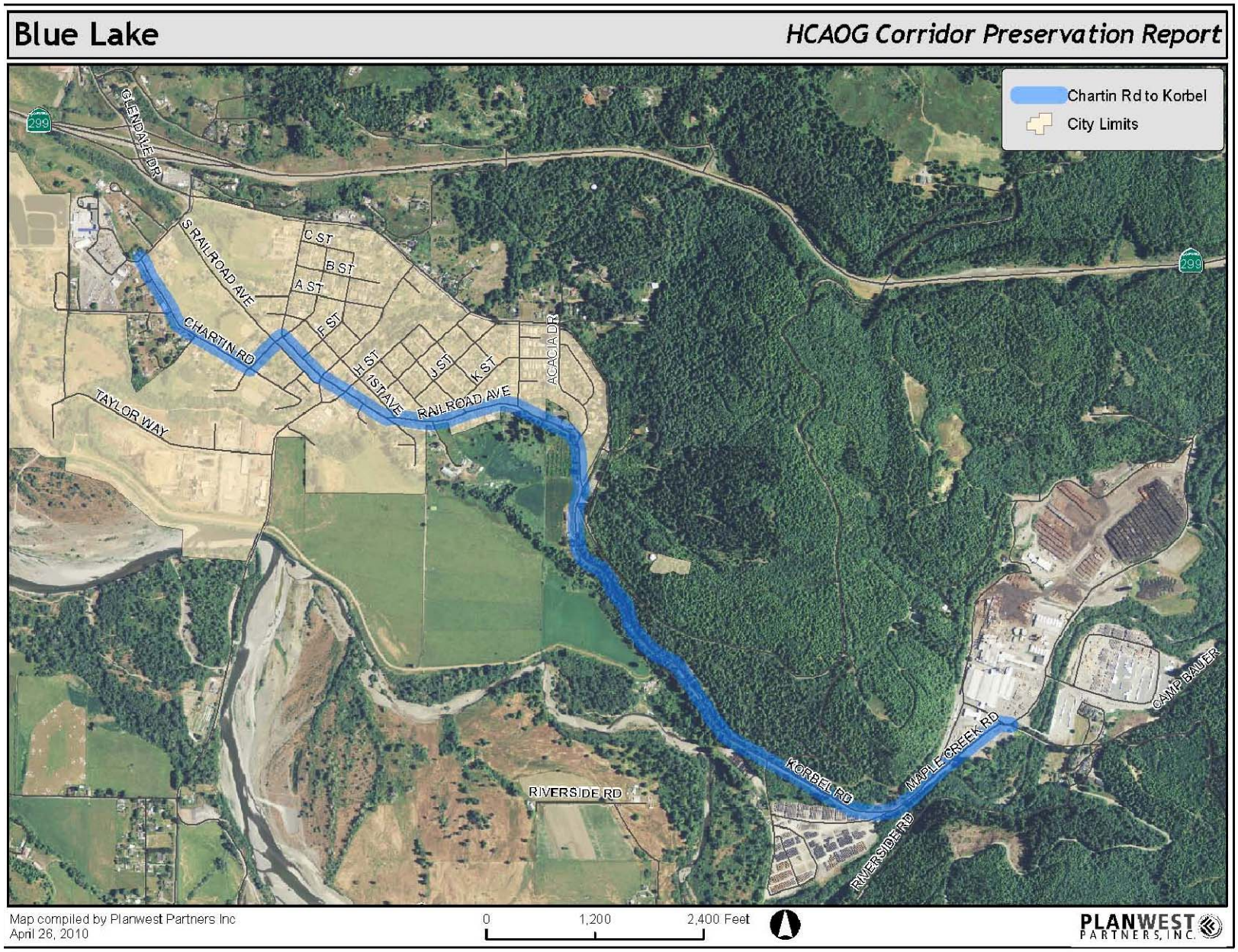
Blue Lake's main arterial enters the city, as Greenwood Avenue, from Blue Lake Boulevard. Greenwood Avenue continues through town to Railroad Avenue and Hatchery Road; this route is used by residential and commercial truck traffic to the City Center, Industrial Park, and to points outside Blue Lake's corporate boundaries, across the Mad River. In some cases, Railroad Avenue is used to connect with Blue Lake Boulevard for travel east of the city. Chartin Road and Rancheria Road are the primary access routes to the Rancheria (City of Blue Lake, 1986).

Blue Lake's collectors include those streets, other than Greenwood Avenue, that draw traffic into town from Blue Lake Boulevard, and that connect the western and eastern points of the city to the City Center. The remaining streets are local, neighborhood streets, serving residences, which make up the majority of the street system.

Circulation is of major concern to the citizens of Blue Lake. The Blue Lake Survey Report indicates that 78% of Blue Lake residents believe streets and roads need more attention. Specific concerns have been expressed regarding the Greenwood Avenue truck route, which is routed past an Elementary School and runs through the center of a residential district. Other concerns include Hatchery Road, which is used by pedestrian, bicycle and equestrian traffic to access the Mad River, and residential development west of Greenwood Avenue. Future new streets in this area will likely be accessed by Greenwood Avenue and subsequently, increase traffic volumes.

The 1980 General Plan proposed an extension of Chartin and Rancheria Roads to serve the Industrial Park from the west, running through the Blue Lake Rancheria along Rancheria Road. Rancheria residents have expressed opposition to the use of the Rancheria Road as a truck route. Until such time that an alternate route is established, the city plans to reduce impacts of truck traffic by limiting the density of development along truck routes. This could be done by an "overlay" zone or district that would include only the affected lots.

Figure 12.2-7. City of Blue Lake Transportation Corridor



City of Eureka Proposed Waterfront Trail and Promenade

The core of Eureka was built primarily between the 1850s and 1940s and is set up in a traditional grid street pattern. Eureka contains large residential neighborhoods and a number of small- to moderate-sized commercial centers. US Highway 101 runs through Eureka and divides the primarily residential areas of the city from its waterfront and "Old Town" commercial districts. In addition to the highway corridor, three other 'one-way couplets' serve the city. The 'at-grade' highway and couplets are a significant challenge to a safe walking and cycling environment in Eureka. The city's Transportation Safety Commission is currently discussing development of a Transportation Safety Plan, and actively works to identify and remedy active transportation challenges – when necessary, in partnership with the County of Humboldt (HCAOG, 2010).

Waterfront Trail near the Adorni

The City of Eureka seeks to increase multi-modal access to and along Humboldt Bay, including access to public recreational resources along the bay. The city's General Plan establishes the framework for the completion of a trail system along the Humboldt Bay waterfront. The 2005 Eureka Waterfront Trail and Promenade Recommendations identify a contiguous non-motorized recreation and transportation route along Humboldt Bay. The city plans to link neighborhoods and gulch greenways to the Waterfront Trail and Promenade.

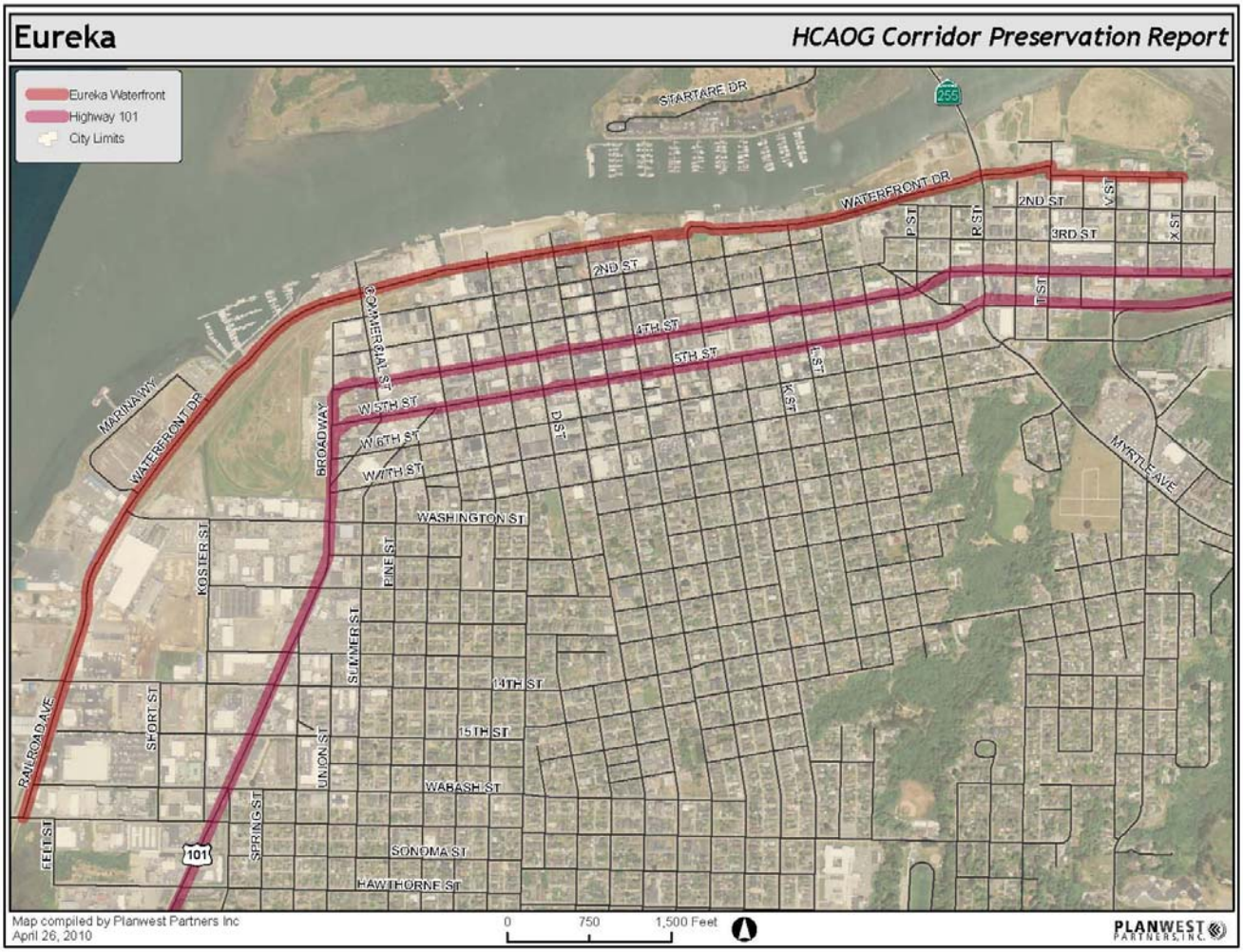
The Eureka Waterfront Trail and Promenade is envisioned as a 6.5 mile contiguous non-motorized public recreation and transportation route along the Humboldt Bay waterfront, from the Eureka Slough to the Elk River Wildlife Sanctuary. The trail and promenade would link together a variety of Eureka's waterfront attributes including the Eureka Slough, inner Humboldt Bay, historic Old Town, the working waterfront, wildlife sanctuaries, and the southern waterfront beaches (Ibid).

The Waterfront Trail would consist of several facility types including multi-use trail, boardwalk (i.e., 14 foot wood or composite structure elevated partially or wholly above water or ground), urban promenade (i.e., a road-adjacent, 12 to 15 foot, concrete or hard surface pedestrian facility that functions as a significantly enhanced sidewalk and includes distinctive amenities such as special paving, landscaping, benches, signage and lighting), bicycle lanes, and bicycle boulevard. The trail would accommodate a variety of users, including but not limited to walkers, bicyclists, runners, wheelchairs, strollers, inline skates, and dog walkers. Proposed trail access amenities include trailhead parking areas, picnic tables and benches, restrooms, observational platforms, site and interpretive signs, trash and dog waste receptacles, and lighting. The proposed Waterfront Trail and Promenade facilities and amenities would provide for a diverse waterfront experience while co-existing with other waterfront uses.

The Waterfront Trail has been identified as a priority in the City of Eureka General Plan, the *2001 Humboldt Bay Trails Feasibility Study*, the *2002 Elk River Access Project Recommendations*, the *2004 Regional Bicycle Transportation Plan*, the *2008 Regional Pedestrian Plan*, and the *2005 Waterfront Trail and Promenade Recommendations*.

To function as a contiguous Waterfront Trail & Promenade, advanced planning is critical to achieve a contiguous, intuitive trail system given that development of the trail will occur as small, individual projects. The potential for varied trail styles and confusing or absent connections is a potential outcome. To ensure the Waterfront Trail and Promenade is identified as one contiguous system, trail users will need clear direction to and along the variety of facilities that will function as a whole. A trail system signage and directional system will need to be developed. When completed, the Eureka Waterfront Trail will provide a local alternative to US Highway101, which has a high occurrence of pedestrian and bicycle collisions and fatalities. When constructed the Eureka Waterfront Trail and Promenade will be part of a regional trail system from McKinleyville to Eureka and the California Coastal Trail, hence it has a great deal of regional importance (Ibid).

Figure 12.2-8. City of Eureka Proposed Waterfront Trail and Promenade



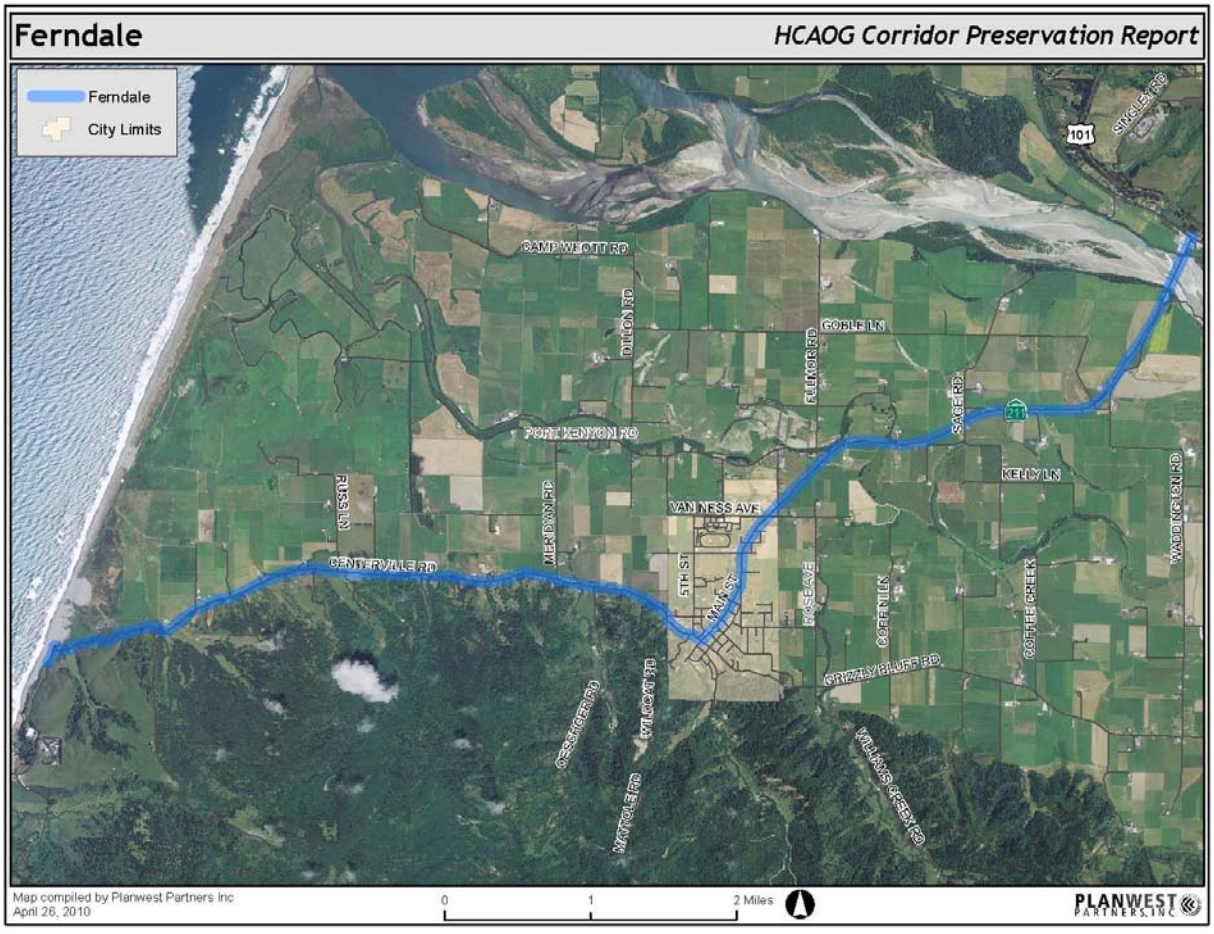
City of Ferndale Transportation Corridor

The City of Ferndale has a population of approximately 1,400 persons (Department of Finance, 2009) and is well known nationally and internationally for its historic Victorian architecture. The city's economic base is primarily tourism and agriculture. The primary access to town, on SR 211 (which turns into Main Street) from US Highway 101, is across Fernbridge, a narrow two lane historic bridge without pedestrian or bicycle facilities. Therefore, most tourists and residents drive into town and then walk in the downtown area (HCAOG, 2010).

Historic Fernbridge

The City of Ferndale is interested in expanding trails within and adjacent to the city. It envisions a system of multi-use, bicycle and pedestrian facilities that loop around the city and connect to neighboring cities (i.e. Cities of Rio Dell and Fortuna) and recreational opportunities (i.e. Centerville County Park and Beach, Eel River). The proposed four mile trail loop is largely undeveloped route frequently used by residents for walking and jogging (Ibid).

Figure 12.2-9. City of Ferndale Main Street (SR 211) Corridor



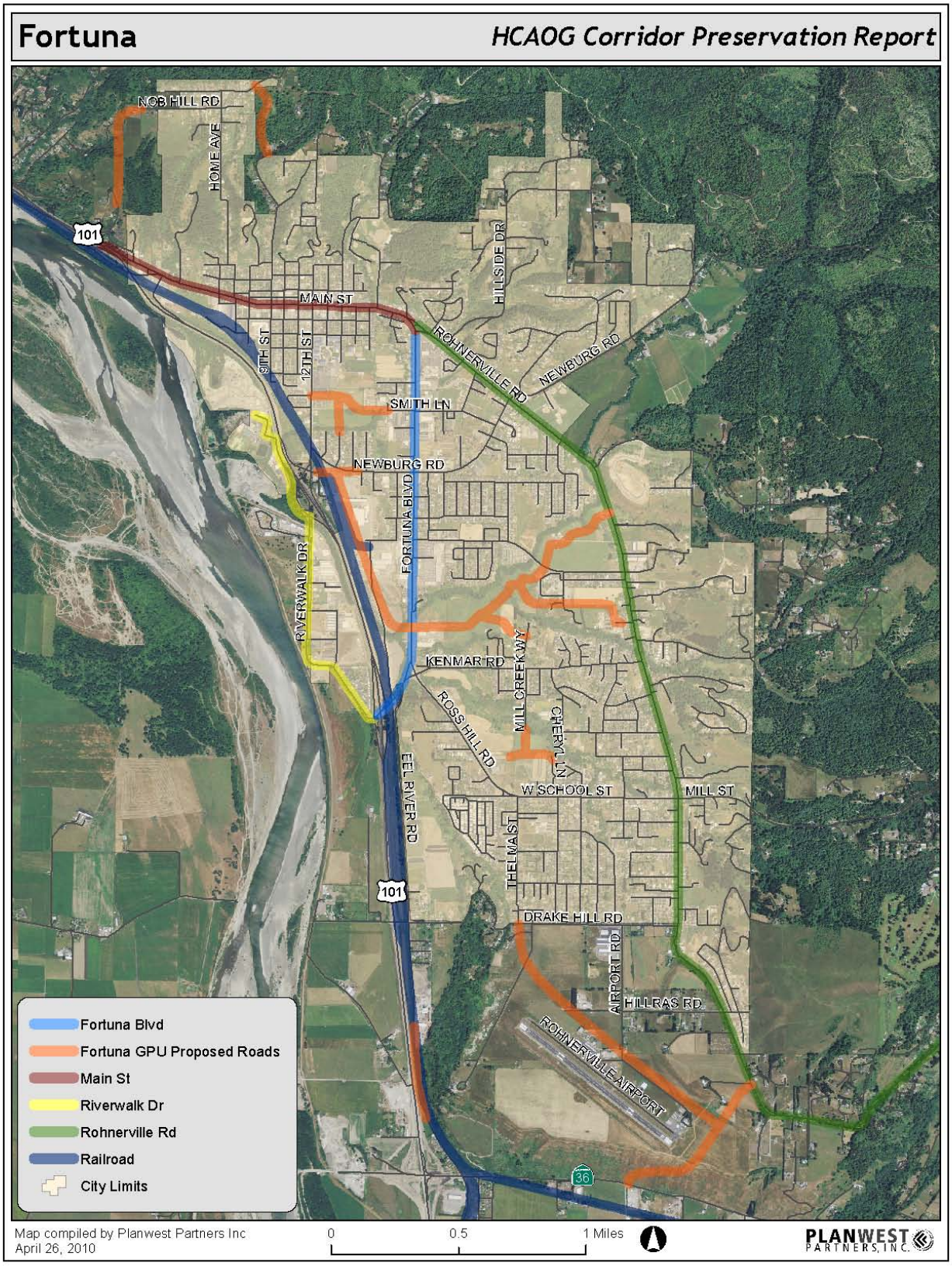
City of Fortuna Transportation Corridors

The City of Fortuna is the third largest city in Humboldt County with a population of approximately 11,400 persons (Department of Finance, 2009). The city has a small, traditionally designed downtown core surrounded by residential subdivisions. Fortuna also has several commercial corridors (e.g., Fortuna Boulevard, Main Street) and industrial areas, along with outlying agricultural and timberland areas. The city is bound by sloped hills and forests to the north and east, agricultural land and State Highway 36 to the south, and US Highway 101 and the Eel River to the west (HCAOG, 2010).

There are many primary arterial and collector roadways that link significant areas of the city together, most of which lack pedestrian and bicycle facilities.US Highway 101 bisects the city and restricts non-motorized access to the Riverwalk District and to Eel River recreational opportunities, such as the Levee Trail near the River Lodge Conference Center.

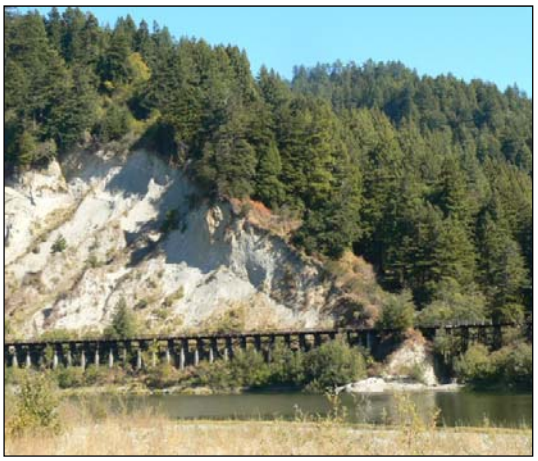
The City of Fortuna is in the process of a General Plan Update. New development is expected to provide circulation improvements, such as new roads, trails, and bicycle facilities. The General Plan Update includes policies supporting city-wide trail system development and programs calling for road standards that include provisions for non-motorized transportation facilities. In addition, a new trial system associated with Strongs Creek is under consideration. When constructed, this trail will extend from the Riverwalk Drive area to the City limits near Newburg Road, with eventual access to the Headwaters Reserve (Ibid).

Figure 12.2-10. City of Fortuna Transportation Corridors



City of Rio Dell Transportation Corridors

The City of Rio Dell has a population of approximately 3,300 persons (Department of Finance, 2009) and is located along a bend of the Eel River, south of Fortuna. Wildwood Avenue, formerly US Highway 101, is the main street through town that provides access to the adjacent Town of Scotia via Eagle Prairie Bridge (see figure to the right). The present US Highway 101 route traverses through the community and separates residential neighborhoods from the downtown area. Unfortunately, residents regularly cross the highway to traverse east / west through the city (HCAOG, 2010).



Railroad trestle passes below Scotia Bluffs

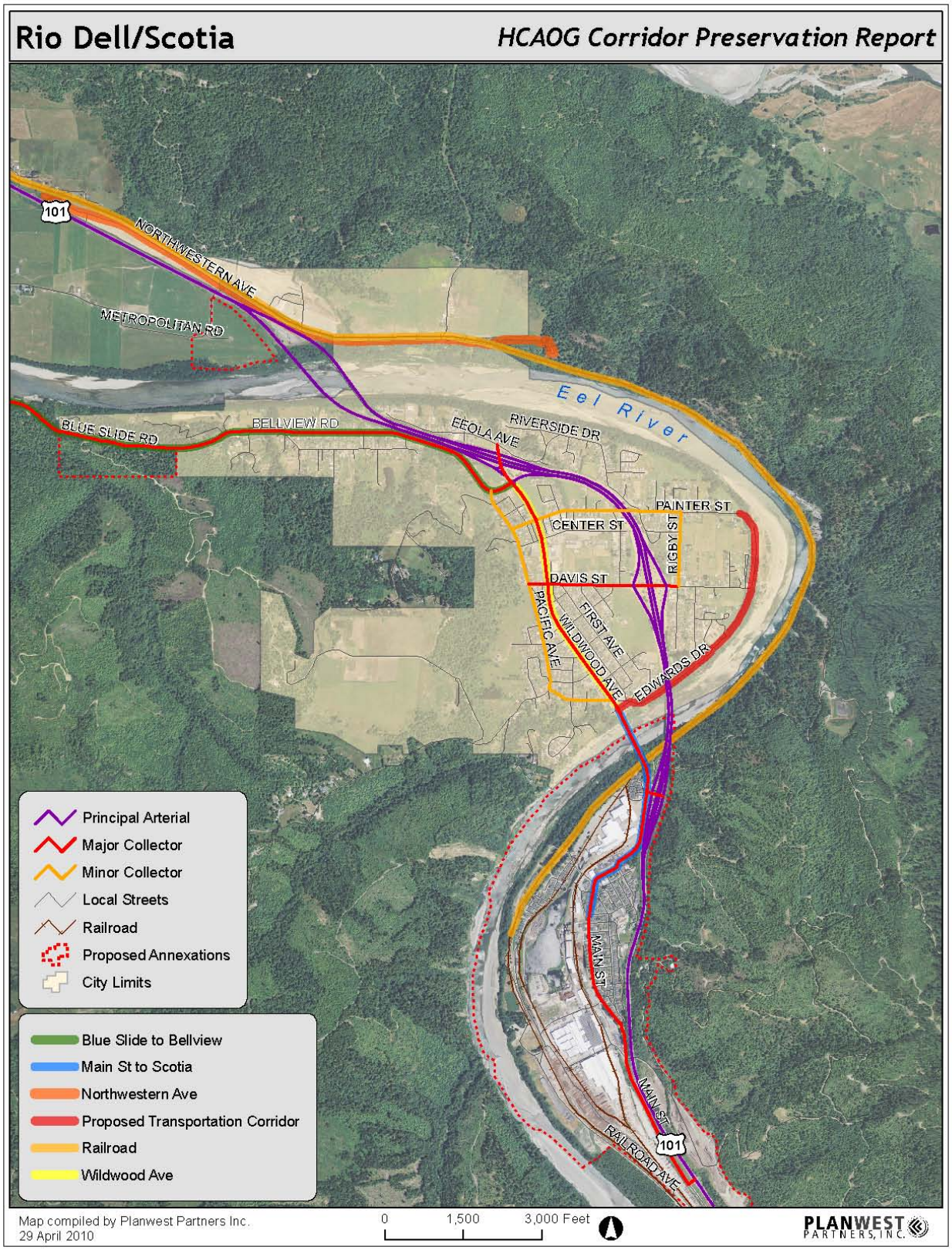
The City of Rio Dell has limited non-motorized transportation facilities. There are a number of informal trails throughout the community that provide connections to the town center and neighborhood destinations, as well as access to the Eel River. By mapping where these informal trails exist and planning for corridor preservation, new development projects proposed within the city can be targeted for future dedication (Figure 12.2-11).

City staff has participated in non-motorized transportation project identification for inclusion in several regionally significant transportation plans, such as the Humboldt Peopled Powered Pathways (HP3) and other HCAOG documents (Ibid).

Furthermore, the City of Rio Dell is in the process of a General Plan Circulation Element update. The Circulation Element will define a non-motorized transportation system for the city and will include goals, policies and implementation measures to support the development of pedestrian, bicycle, and trail facilities.

Trips in and around the City of Rio Dell are completed on a street system that has a hierarchal structure. The highest capacity is provided by the Caltrans-maintained highway, with lower capacities and speeds on city-maintained streets. Figure 12.2-11 shows the proposed street classifications for Rio Dell and the Town of Scotia.

Figure 12.2-11. City of Rio Dell Draft Circulation Map



City of Trinidad Transportation Corridors

The City of Trinidad is a small city of approximately 300 people (Department of Finance, 2009). The combination of its very scenic setting on a coastal point surrounded by public beaches and bluffs, as well as the somewhat traditional architectural style of the small town, attracts a great deal of visitors. The town itself is very compact, and consequently supports a great deal of walking (HCAOG, 2010).

Approaching and leaving the city, the Scenic Drive and Patrick's Point Drive parallel U.S Highway 101 and provide views of, and recreational opportunities to, the Pacific Ocean (Figure 12.2-12). These corridors have the potential to serve as scenic bypasses, multi-use trails, recreational access routes, and/or state designated bicycle and pedestrian routes, such as the Pacific Coast Bicycle Route and the California Coastal Trail.

Policy #64 of the city's 1976 General Plan states:

> A formal pedestrian trail system shall be marked-out around Trinidad. The system should include the beaches, the existing Trinidad Beach State Parks trails, and ascend the bluff at Galindo Street to provide convenient pedestrian access from Edward Street to the harbor, the Old Wagon Road from Wagner Street to the Parker Creek Trail, the private road extending from Scenic Drive along the east branch of Parker Creek to the beach, and the beach extending southeasterly from Parker Creek to the city limits. The system should be advertised in visitor information and mapped at the visitor center.

The city is in the process of a General Plan Update. Through this process, a formal city trail system will be developed that identifies State Park trail connections and the California Coastal Trail alignment through Trinidad. Additionally, the city will continue to coordinate with the Trinidad Rancheria to develop trail connections to Tribal Land (HCAOG, 2010).

Figure 12.2-12. City of Trinidad Transportation Corridors

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City of Blue Lake, 1986. *Blue Lake General Plan*. February. Blue Lake.

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Humboldt County Association of Governments (HCAOG), 2010. Draft *Humboldt County Regional Trails Master Plan*. Eureka: June. Print.

California Department of Parks and Recreation (DPR), 2001. *Humboldt Redwoods State Park General Plan*. Sacramento. October. Print.

Appendix A
Corridor Preservation Funding Opportunities

A.1 The Partnership Planning Grant Program

The Partnership Planning (PP) grant program funded by the Federal Highway Administration (State Planning and Research, Part I) authorizes Caltrans to distribute funds to Regional Transportation Planning Agencies (RTPAs) to encourage or strengthen multi-agency and/or government-to-government partnerships through the facilitation of transportation system projects that have statewide and/or a regional benefit. While RTPAs act as the PP grant primary recipients in rural areas, universities and community colleges, Native American tribal governments, cities and counties, community-based organizations, non-profit organizations, and public entities may apply for the PP as a sub-recipient.

Both federal and California Transportation Plan (CTP) goals provide the framework or basis for the PP grant. Specifically, the PP grant can be utilized for funding transportation planning studies of multi-regional and statewide significance, which includes corridor preservation studies. All federal grant programs require a non-federal local match (i.e. state or local funds). The PP grant program requires the applicant to provide a 20 percent local match. Approximately $1,000,000 in funds will be available in FY 2010-11, the maximum amount per recipient not to exceed $300,000.

A.2 Federal Planning Program

(49 U.S.C. 5305(d)) Section 5305(d) authorizes federal funding to support a cooperative, continuous, and comprehensive planning program for transportation investment decision-making in metropolitan areas as set forth in 49 U.S.C. 5303. Detailed program information was previously published in the Federal Register on December 18, 2008. For more information about Metropolitan Transportation Planning and the Metropolitan Planning Program, including FTA Circular 8100.1C, contact Charles Goodman, of the Office of Planning and Environment, at (202) 366–1944.

For information about published allocations, contact the Office of Transit Programs, at (202) 366–2053. FY 2009 Funding Availability The Omnibus Appropriations Act, 2009, provides $93,887,200 to the Metropolitan Planning Program (49 U.S.C. 5305(d)). The total amount apportioned for the Metropolitan Planning Program to States for use by metropolitan planning organizations (MPOs) in urbanized areas (UZAs) is $93,626,320, as shown in the table below, after the deduction for oversight and the addition of previous year reapportioned funds.

Total Appropriation	$93,887,200
Oversight Deduction	$469,436
Prior Year Funds Added	$208,556
Total Apportioned	$93,626,320

A.3 State Planning and Research Program

(49 U.S.C. 5305(e))
This program provides financial assistance to States for Statewide transportation planning as set forth in 49 U.S.C. 5304 and other technical assistance activities, including supplementing the technical assistance program provided through the Metropolitan Planning Program.

Detailed program information was previously published in the **Federal Register** on December 18, 2008. For more information about statewide transportation planning and the State Planning and Research Program, including FTA Circular 8100.1C, contact Charles Goodman, of the Office of Planning and Environment, at (202) 366–1944. For information about published allocations, contact Kimberly Sledge, Office of Transit Programs, at (202) 366–2053.

FY 2009 Funding Availability
The Omnibus Appropriations Act, 2009, provides $19,612,800 to the State Planning and Research Program (SPRP) (49 U.S.C. 5305(e)). The total amount apportioned for SPRP is $20,348,334, as shown in the table below, after the deduction for oversight (authorized by 49 U.S.C. 5327) and the addition of unspent funds from previous years.

Total Appropriation	$19,612,800
Oversight Deduction	$98,064
Prior Year Funds Added	$833,598
Total Apportioned	$20,348,334

A.4 Alternatives Analysis Program

(49 U.S.C. 5339)
The Alternatives Analysis Program provides grants to States, authorities of the States, metropolitan planning organizations, and local government authorities to develop studies as part of the transportation planning process. Alternatives Analysis Program funds are allocated on a discretionary basis. Detailed program information was previously published in the **Federal Register** on December 18, 2008. For more information about this program contact Maurice Foushee, of the Office of Planning and Environment, at (202) 366–4033.

FY 2009 Funding Availability
The Omnibus Appropriations Act, 2009, provides $25,000,000 to the Alternatives Analysis Program (49 U.S.C. 5339). The amount available for allocation is shown in the table below.

Total Appropriation	$25,000,000
Total Available	$25,000,000
Total Allocated to Specific Projects	$15,188,125
Total Unallocated	$9,811,875

Appendix B
Suggested Street Standards

The following street standards include provisions for narrow street widths where low speeds are appropriate, detached sidewalks, bicycle facilities, and shorter block lengths.

B.1 Local Streets

Key provisions of the street standards are:

- The maximum width of local residential streets is 30-32 feet (two 7-foot parking lanes and two 8-9 foot travel lanes) depending on the expected traffic volume.
- Landscape strips, separating the curb from the sidewalk, are required on local residential streets
- Maximum block length is 600 feet for low-volume residential streets and 800 feet for medium-volume residential streets
- 6” Vertical curbs are required

B.2 Collector Streets

Key provisions of the collector street standards are:

- Landscape strips, separating the curb from the sidewalk, would be required on most new streets
- Maximum block length is 1,000 feet for collector streets
- On streets with on-street parking bulbouts are encouraged at intersections to reduce the crossing distance for pedestrians and discourage speeding through intersections
- Roundabouts should be considered where residential streets intersect and the ultimate combined volume will exceed 1,000 vehicles daily or where the unimpeded distance on any of the approaches not subject to stop control exceeds 600 feet.
- Bicycle lanes should be provided on all collector streets

B.3 Arterial Streets

Key provisions of the arterial street standards are:

- Bulbouts would be allowed at some intersections to reduce the crossing distance for pedestrians and discourage speeding through intersections

- Maximum block length is 1,320 feet (four intersections per mile). This could be lengthened if bike/pedestrian paths were provided that shorten the effective block length for non-auto users

- Raised medians with turn pockets should be provided

- Bicycle lanes should be provided on all arterial streets

References

Sacramento Transportation and Air Quality Collaborative (STAQC), 2005. *Best Practices for Complete Streets. Sacramento*. Print.