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- Assess the adequacy of navigable waterways and port and harbor facilities, including the need for expansion and improvements.
 - Project future demand based on new or expanded economic activities and recreational trends
 - Assess the adequacy of and safety hazards associated with existing aviation facilities and the need for expansion and improvements.
 - Limit potential noise and safety hazards posed by port activities to surrounding land uses
 - Mitigate aviation-related hazards posed to and by aircraft
 - Make access to and from aviation facilities available by all modes of transportation

Military Airports and Ports

Requirement Description:

The Department of Defense (DOD) has a significant presence in the State of California, using 10% of the State's land. Consequently, military ports and airports impose demands on local circulation infrastructure that should be factored into the overall analysis of local circulation planning in a general plan. Furthermore, changes to circulation patterns and routes may affect military operations. For example, development along formerly rural roads can significantly increase urban traffic and limit the use of routes for military transport purposes. Such changes can impede military operations, especially for units that commute to conduct training operations. On the other hand, improvements to circulation routes, such as ports, can contribute to operations. Additional information on military specific development can be found in the [California Advisory Handbook for Community and Military Compatibility Planning](#).

Public Utilities and Facilities

Requirement Description:

In addition to transportation routes, the circulation element must identify the location and necessity of public utilities and facilities. Relevant utilities include water, sewers, storm-water systems, telecommunications and **broadband**, electric vehicle charging stations, electricity, and natural gas lines. These facilities relate directly to the land uses planned in the [land use element](#), consequently, the circulation element should consider not just “right sizing” such infrastructure to serve only that growth that is actually planned in the land use element, but also placing infrastructure in areas that maximize efficiency and minimize impacts to the community. California courts have noted that plans for infrastructure should follow determinations regarding desired growth that reflect resource constraints and other broader considerations. (See, e.g., *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 949-950.)

“Dig once” policies can help ensure efficiencies and reduce costs among circulation infrastructure. The underlying premise of a **“dig once” policy** is to coordinate conduit construction with unrelated civil works projects, such as digging up the roads and sewer construction, to create a usable infrastructure for future network deployment/provisioning. **Dig once policies** are

flexible and may come in many forms. The goal and emphasis should be on impacting the rights of way as few times as possible by inviting multiple parties to lay their infrastructure together. While not always feasible, coordinating between circulation infrastructure agencies may help reduce costs and impacts on the local community. In identifying existing infrastructure and planning for future needs, local governments should work closely with any relevant service providers, including water districts, utilities and others.

Infrastructure needs of Disadvantaged Unincorporated Communities

In 2011, local governments were required to plan for infrastructure needs of disadvantaged unincorporated communities through [Senate Bill 244](#). The bill requires the [land use element](#) to analyze needs for infrastructure in these communities. To ensure consistency, the circulation and land use elements' policies and programs should be coordinated. For additional information on planning for disadvantaged unincorporated communities, see the Land Use Element chapter of the GPG and [Senate Bill 244: Land Use, General Plans, and Disadvantaged Communities Technical Advisory](#).

Broadband

Both state and federal governments are implementing various funding programs that serve the goal of expanding [broadband](#) access to unserved and underserved areas. Within California, the [California Public Utilities Commission \(CPUC\)](#) manages the [California Advanced Services Fund \(CASF\)](#), which invests hundreds of millions of dollars annually in [broadband deployment](#). The state also created the [California Emerging Technology Fund \(CETF\)](#), which was designed to be a public-purpose venture capital fund.

Dig once policies can substantially reduce costs for providing broadband service to communities. A new provider can run fiber through leased conduit space at a fraction of the costs, incentivizing more private actors to deploy or reducing costs to the city if self-provisioning broadband services. For example, if conduit construction was promoted along ongoing civil work projects, fiber deployment costs drop by \$30,000- \$100,000 per mile. On average, 60 to 90 percent of network deployment costs come from civil works as opposed to equipment and maintenance.

SAMPLE OF OPR-RECOMMENDED DATA FOR CONSIDERATION IN ANALYSIS OF THIS ELEMENT

Intent of Analysis	Recommended Data
Understanding transportation choices and multi-modal needs	Percentage of pedestrians and bicyclists commuting to work and other trips (National Household Travel Survey , California Household Travel Survey , American Community Survey)
Identifying necessary safety improvements	Number or % of injuries and fatalities (Transportation Injury Mapping System)
Analysis of existing and needed active transportation networks	Transit stops and centers, existing and planned bicycle routes, pedestrian facilities, destination centers

access, provide more opportunities for passive observation of what is occurring in the area, and encourage civic engagement to maintain properties. An important aspect of implementing CPTED includes a wide, multi-sector-planning approach including law enforcement, for example- community engagement process to define the problems, opportunities, and solutions. Form Based Codes are another planning tool that focuses on design at a scale that incorporates more granular level changes, such as building facades and street level design. This also has potential to design elements to foster more social cohesion. Civic participation and social cohesion can be supported through the design of community spaces that provide engagement, access to learning opportunities, quality interaction of residents, multi-generational connections, public services such as libraries, and cultural and art facilities. [Joint use agreements](#), also known as shared use agreements, with schools allow for another opportunity to collaborate with school districts, maximize resource utilization, and foster more activated spaces that otherwise would be empty during non-work hours.

A safe community with active streets includes protection from criminal activity, as well as from avoidable collisions. Many design elements such as narrower streets; appropriate lighting, improved signage, and slower speed limits can help reduce collisions. Traffic calming measures, complete streets, and improvement of physical infrastructure are important components of injury prevention. In fact, jurisdictions across the US and beyond have adopted Vision Zero efforts to aim for zero collision-related deaths through street design, engineering, and addressing driver related issues. As referenced in the [circulation element](#), the [California Complete Streets Act of 2008](#) (AB 1358) requires local jurisdictions, upon any substantial revision of the circulation element, to plan for a “balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.”^{lxiii} The [circulation element](#) provides an excellent opportunity to incorporate design for safety and multimodal use. The National Association of City Transportation Officials (NACTO) [Street Design guidelines](#), formally endorsed by Caltrans in 2014, offer examples and a blueprint to guide complete street policy implementation, particularly around priority sites such as schools and daycare centers.^{lxiv}

Health & Human Services

Hospitals and clinics are increasingly recognizing that where patients live, learn, work, go to school, and play affects their health and wellbeing. Through [new paradigms and innovation](#), they are considering what community services are necessary to support health for individuals in their community. Non-profit hospitals conduct community health needs assessments as part of their community tax requirements and can reinvest into the community based on the assessment. Additionally, these reports prioritize key health needs for the catchment area and can provide useful information during the planning process. Increased access to health care, opportunities for physical activity, and healthy foods are key priorities that may be addressed in the general plan to improve community health. In addition, general plan policies may improve access to health services through integrated public transportation and provisions for access to [broadband](#), allowing for telemedicine capacity.

General plan policies authorizing or promoting supportive [housing](#) can facilitate the integration of healthcare services into multifamily housing developments, especially for the elderly and disabled. A number of housing developments in major metropolitan areas include health clinics, and community spaces, and tenant services for special needs populations. Supportive services have multiple benefits, for both tenants and property management. Integrated service delivery plays a critical role with populations at risk of homelessness or institutionalization. Healthcare providers have started to bring farmer’s markets and gardens on clinic and hospital premises to facilitate access to healthy food for their staff and patients.