

COMPLETE STREETS DISCUSSION PAPER

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POLICY IN BRIEF

Regional planning at SANDAG is guided by a policy framework based on the principles of smart growth and sustainability. Under this framework, much of the region's future development will occur within the existing urbanized area in more compact, mixed-use neighborhoods that provide a variety of housing and transportation choices. Complete Streets is an important planning concept in this policy framework because it is a process for ensuring the transportation system is useful and attractive for all users of the transportation network – motorists, pedestrians, bicyclists, and transit users alike. The commitment that SANDAG made in the 2050 Regional Transportation Plan and its Sustainable Communities Strategy (2050 RTP/SCS) to develop a Complete Streets policy was made in recognition of this role that the policy could play.

To be effective, a regional Complete Streets policy should be grounded in the existing policies and requirements established at the local, regional, state, and federal levels. It also should recognize that, with limited exceptions, SANDAG does not own or operate the elements of the region's transportation system and cannot make policy for the local or state agencies that do. However, SANDAG is responsible for programming a significant portion of the region's transportation funds, and for regional transit system development. In this context, SANDAG typically approaches implementation of regional policies through a combination of financial incentives based on policy-driven funding criteria, and by providing a policy framework and guidance to local agencies and regional partners through plans and programs. An effective regional Complete Streets policy will be built from this approach.

There are several potential benefits to developing an effective *regional* Complete Streets policy. As described in this paper, Complete Streets can improve mobility, sustainability, and health. There are national and state requirements to incorporate a Complete Streets framework into planning documents and environmental review. Beyond these requirements, by including accommodations for all modes of travel within a transportation network, residents can be afforded travel options and more easily incorporate active transportation (e.g. walking and biking) into their daily lives.

Because Complete Streets remains a relatively new concept, some existing plans and procedures do not fully align with some of the newer design and policy ideas. There also is considerable variation in how local agencies operationalize Complete Streets concepts and policies. As agencies continue to set local and regional Complete Streets goals and visions, they can work to modify some existing practices or find similarity between newer concepts and adopted and accepted protocol. While this has been seen at the local level, in cities like San Marcos, which developed a new street typology as part of its General Plan update, an opportunity exists for SANDAG to provide overarching guidance at the regional level to assist local jurisdictions as they update local plans.

SANDAG currently offers several technical and funding resources for smart growth, active transportation accommodations, and mixed-use development, which are discussed in this paper. In further discussions between member agencies and SANDAG, the region can help define SANDAG's role and level of involvement in establishing a series of Complete Streets policies and programs to guide its own work and to support complete streets programs by local agencies.

This paper is presented in four sections:

1. Defining Complete Streets
2. Context and Need
3. Best Practices
4. Implementation Options

First, Complete Streets are defined, including an overview of what Complete Streets are, costs and benefits, and the elements of a Complete Streets policy. Next, the context and need is discussed. In this section, an overview of how Complete Streets are taking shape at a local, regional, state, and national level is discussed. The current practices at SANDAG are highlighted in this section. Best practices for Complete Streets policies and programs are provided in the third section of this paper. Regional planning organizations who have established programs and policies are discussed, as are areas where SANDAG could consider incorporating some of these. The fourth and final chapter presents a spectrum of implementation choices for SANDAG, including both policy development and program implementation aspects relevant to the region. The intent of this paper is to inform member agencies and facilitate discussion around how SANDAG can support Complete Streets implementation across the San Diego region.

DEFINING COMPLETE STREETS

What it is, What it is Not

Complete Streets are streets for everyone. People of all ages and abilities are able to safely and comfortably travel along and across them, whether they are walking, bicycling, taking public transportation, or driving a car or truck. California's Complete Streets Act of 2008 (AB 1358) defines Complete Streets as "a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways [including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors] for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context."¹ This landmark legislation cited previously adopted greenhouse gas emissions targets, high percentages of household trips that are one mile or less, and a desire to shift travel to healthier lower cost modes like walking and bicycling.

Design Prescription versus Planning

Implementing Complete Streets ensures that the entire right-of-way is planned, designed, constructed, operated, and maintained to provide safe access for all users. Under this paradigm, transportation agencies change their approach to local streets and roads so that the default outcome is a transportation network that balances the needs of all users. Each transportation project begins with an understanding of the current and planned community character and associated multimodal transportation needs. Through continued and incremental changes in capital projects that meet community-supported design guidelines, and through regular maintenance and operations work, a community's street network gradually becomes better and safer for people driving, taking transit, walking, and bicycling, improving the quality of life for all residents.

¹ State of California. (2008). Assembly Bill No. 1358. Available at: http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.pdf

As communities have different needs, characteristics, and users, Complete Streets is a flexible, comprehensive planning and design approach to transportation. There is no singular design prescription or outcome; each street is unique and its design responds to the community and network context, while still providing necessary and appropriate infrastructure for the various modes. Agencies that implement Complete Streets successfully consider each project within the overall transportation system. Some street segments will be prioritized for walking, others for transit, and others for bicycling. Low speed streets can also be identified to ensure a connected network for neighborhood electric vehicles. Some streets will have extensive facilities for all modes; many will not, but all will still allow for safe travel. Current best practices as embodied in broadly accepted design guidance are encouraged. The Complete Streets design toolbox may include: sidewalks, several types of bike facilities, accessible curb ramps, special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, traffic calming devices, narrower travel lanes, roundabouts and well-timed traffic lights that encourage an orderly flow of traffic at safe speeds. The street environment also can be enhanced with pedestrian wayfinding signs, street furniture and landscaping.

The emerging field of Intelligent Transportation Systems may enhance safety with improvements like pedestrian/bicycle advance warning systems at intersections and crosswalks; as well as connected vehicle technologies that provide on-board systems to alert drivers for collision avoidance with pedestrians, and lane departure warnings which can reduce vehicle-bicycle collisions. Parking management systems, especially in smart growth settings, could reduce vehicle traffic by encouraging park once and walk trips, and use of mobility services, like bike share can be incorporated to provide more mobility options.

While a relatively new term, Complete Streets is rooted in the growing national and statewide move toward inclusive transportation projects. Over 600 agencies nationally have adopted a formal Complete Streets policy. The U.S. Department of Transportation has promoted increased emphasis on multimodal projects and improving the safety of people walking and bicycling. Research on transportation safety in urbanized areas increasingly shows that community streets are safer when they are not designed using one-size-fits-all highway standards. Streets designed for lower vehicular speeds are more effective in reducing collisions and protecting the most vulnerable people using the street by reducing both frequency and severity of collisions.² When lower operating speeds are combined with multiple modes and transportation demand management programs, and reflect the desired land use context, Complete Streets can support broader livability and active transportation goals.

In addition to the state requirement for California counties and cities to modify their general plans to support Complete Streets, Caltrans has embraced the Complete Streets concept with its adoption and implementation of Deputy Directive 64³. These state-level policies support successful implementation of SANDAG's regional transportation plans (see subsequent section for more on the state level).

Adopting Complete Streets policies at local and regional levels can help achieve the goals and visions outlined in adopted general plans and other plans and programs. Complete Streets can help achieve the region's safety, accessibility, land use, economic development, and environmental goals, such as the greenhouse gas reduction goals set forth in the California Global Warming Solutions Act of 2006 (AB32) as well as the 2050 RTP/SCS, developed in accordance with the Sustainable Communities and Climate Protection Act of 2008 (SB375). With the recent passage of SB743, which substantially diminishes the

² W.A. Leaf and D.F. Preusser, Literature Review on Vehicle Travel Speeds and Pedestrian Injuries, NHTSA, DOT HS 809 021 October 1999

³ Available at http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html along with the implementation plan

importance of vehicular level of service in environmental impact reports for projects in “infill opportunity zones” and potentially elsewhere, resolution of conflicts or tradeoffs between community goals, active transportation projects, and vehicular delay will be an increasingly local and regional matter.

Implementation Process

Complete Streets can be achieved with a variety of policies, including ordinances and resolutions; rewrites of design manuals; inclusion in community and general plans; internal memos from directors of transportation agencies; policies adopted by city and county councils; and executive orders from elected officials. An effective Complete Streets policy, however, requires three main components: that it is developed with the perspectives of a broad group of stakeholders, sets a clear policy direction, and creates a path for implementation.

A Complete Streets policy sets the high-level direction to change the everyday decision-making processes and procedures, so that transportation professionals consistently approach any changes to the right-of-way as opportunities to accommodate all anticipated users. The most effective policies are those that become part of institutional culture. Taking a Complete Streets policy from paper into practice is not a simple process, but providing specific implementation steps and goals in an adopted policy is an effective approach.

10 Elements of a Complete Streets Policy

Based on previous research and practices, the National Complete Streets Coalition has identified ten key elements to include in a Complete Streets policy:

1. Includes a vision for how and why the community wants to complete its streets
2. Specifies that ‘all users’ includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses and automobiles.
3. Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right-of-way.
4. Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
5. Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes.
6. Is adoptable by all agencies to cover all roads.
7. Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
8. Directs that Complete Streets solutions will complement the context of the community.
9. Establishes performance standards with measurable outcomes.
10. Includes specific next steps for implementation of the policy.

Policy Elements

For more detail on each element, visit www.smartgrowthamerica.org/complete-streets/changing-policy/policy-elements.

Benefits and Costs

Benefits of Complete Streets

Complete Streets can offer many benefits to a community, regardless of size or location. They can add lasting value by supporting multiple categories of benefits, including economic development, safety, mobility and access, and environmental benefits including health. These benefits are described below.

From an economic development perspective, a balanced transportation system that includes Complete Streets can bolster economic growth and stability. A complete streets network can improve placemaking and create an environment that attracts more people to the street.⁴ A balanced transportation system can bolster economic development by providing accessible and efficient connections.⁵ A commercial area that is accessible and attractive for all modes of travel is vital for strategies to create jobs, spur private investment, increase tax revenue, and encourage new businesses. For example, the Lancaster, CA plan to remake downtown's Lancaster Boulevard from an auto-centric thoroughfare to a place where people felt comfortable traveling by foot and bicycle as well as car, spurred a reported \$125 million in private investment.

There are fiscal savings to building a complete streets network within a jurisdiction. In the travelway, Complete Streets facilities can cost less to build and maintain, as roadways require less asphalt and tend to have a longer design life, thus reducing the cost of road paving. Complete Streets also create more value because they serve non-motorists as well as motorists.⁶

Multimodal projects are job-creators in themselves, too. Projects that in some way incorporate bicycling and walking facilities can create more jobs than road-only projects.⁷ The investment in Complete Streets through transit infrastructure creates jobs, fostering local economies—more jobs means more money getting inserted into local economies.⁸

Complete Streets improve transportation safety by encouraging slower speeds through good design and the construction of proven safety countermeasures. A Federal Highway Administration (FHWA) review of the effectiveness of a wide variety of measures to improve pedestrian safety found that simply painting crosswalks on wide high-speed roads does not reduce pedestrian crashes. Measures, however, that design the street with pedestrians in mind—sidewalks, raised medians, better bus stop placement, traffic-calming measures, and treatments for travelers with disabilities—all improve pedestrian safety. Because Complete Streets can reduce speeds on roadways, the severity of injuries on these roadways decreases compared to high-speed roads.⁹ In the San Diego region, 1/3 of residents in low-income neighborhoods lack access to a car. Complete Streets can provide safety benefits to these neighborhoods, which are very dependent on walking, cycling, and transit.¹⁰

⁴ Walk San Diego/American Planning Association. (2012). From Policy to Pavement: Implementing Complete Streets in the San Diego Region, 11. Available at: http://www.apacalifornia.org/wp-content/uploads/2013/02/APA_Report_Final_compressed.pdf

⁵ National Complete Streets Coalition "Benefits of Complete Streets" Available at: <http://www.smartgrowthamerica.org/complete-streets/complete-streets-fundamentals/benefits-of-complete-streets/>

⁶ Walk San Diego/American Planning Association, 12

⁷ Garrett-Peltier, Heidi. University of Massachusetts Political Economy Research Institute. (2011) Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts. Retrieved from: <http://www.peri.umass.edu/236/hash/64a34bab6a183a2fc06fdc212875a3ad/publication/467/>

⁸ Smart Growth America. (2011). Recent Lessons from the Stimulus: Transportation Funding and Job Creation. Retrieved from <http://www.smartgrowthamerica.org/documents/lessons-from-the-stimulus.pdf>

⁹ Walk San Diego/American Planning Association, 16.

¹⁰ Ibid, 14.

Public health efforts get a boost from Complete Streets, too. Incorporating features that promote regular walking, cycling and transit use provide opportunities for regular physical activity as part of daily travels—and increased physical activity can prevent chronic diseases. In San Diego County, the top four chronic diseases are cancer, heart disease and stroke, type 2 diabetes, and pulmonary disease such as asthma. According to the San Diego County Department of Health and Human Services, sedentary behavior is one of the main causes contributing to these diseases.¹¹ By supporting transportation networks that encourage physical activity, San Diego helps improve its residents' physical health. The California Department of Public Health forecasts that a shift in active transportation to 15% of all daily miles traveled in the Bay Area would save \$1.4 to 2.2 billion in annual health costs and add 9.5 months of life expectancy.¹²

Complete Streets also improve access to public transportation and the effectiveness of a public transportation system. Simple changes such as providing crosswalks and sidewalks near stops and stations safely connect transit users to their destinations. Improving access to transit also reduces dependence on more costly alternatives, such as paratransit or private transportation services, and can catalyze further economic development. Complete Streets policies help guide the collaborative planning process with transit agencies to ensure the needs of the transit system are addressed.

Although Complete Streets reduce vehicular travel speed, the vehicle throughput on many roadways is maintained.¹³ Local evaluations of road diets, such as the La Costa Avenue road diet in Carlsbad, have identified that the roadways can handle the same vehicular volumes. Traffic controls such as roundabouts can also enhance vehicle throughput. Additionally, emergency response times can remain consistent with complete streets countermeasures, as reported in Carlsbad. Effective implementation of complete streets requires a multimodal approach to performance evaluation. When the goal is providing access for all modes, the measurement tools that evaluate system performance should address these broader objectives.

There are environmental benefits, including noise reduction, green streets opportunities, and greenhouse gas emissions reductions. As roadways operate at lower speed, the noise pollution can decrease.¹⁴ During Complete Streets building or retrofitting, there is the opportunity to explore green streets. Complete Streets have the opportunity to introduce ground cover techniques that reduce heat load and pollution, and capture and treat stormwater on-site.¹⁵ Additionally, complete streets offer the opportunity for lower total energy use when coupled with compact, mixed-use development.¹⁶ By changing some trips from vehicular to active transportation, greenhouse gas and carbon dioxide emissions can be reduced.¹⁷

For more information, please see: <http://www.smartgrowthamerica.org/completestreets/complete-streets-fundamentals/benefits-of-complete-streets/>

¹¹ Ibid, 12.

¹² Ibid, 14.

¹³ Ibid, 15.

¹⁴ Ibid, 16

¹⁵ Ibid, 15

¹⁶ Ibid, 19

¹⁷ Ibid.

Costs of Complete Streets

Expected Savings

Jurisdictions implementing a Complete Streets policy have experienced little to no added expense to their transportation budgets. Complete Streets are often more cost effective than the alternative—streets made only for cars—when considering person throughput and the many potential community benefits discussed above.

In some cases, Complete Streets can even help jurisdictions save money. By integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project, a Complete Streets approach eliminates the expense of retrofits later or of construction delays caused by later demands to change the project scope so that it includes all users. Costs also are avoided by right-sizing projects. As part of their Complete Streets implementation process, Lee County, FL staff re-examined their list of road projects approved in the Metropolitan Planning Organization's 2035 Long Range Transportation Plan (LRTP). When they applied a Complete Streets analysis to the projects, staff determined that five road projects slated for widening from two to four lanes were unnecessary. Instead, the projects were proposed as two-lane divided roadways with medians and turn lanes. The county asked for amendments to the 2035 LRTP to reflect these changes in roadway plans. The changes are estimated to reduce the cost of these five projects by \$58.5 million, a significant savings for the county and its taxpayers that will also create streets that are better for all users.

Many of the tools for building Complete Streets are low-cost, fast to implement, and high-impact. The San Diego region has already experienced the benefits of these low-cost Complete Streets solutions. The addition of a midblock crossing on Adams Avenue in University Heights cost only \$20,000, but it provided residents in a lower-income neighborhood safe access to their only park. Another low-cost solution was a project at the 50th and University Avenue intersection that enhanced safety and calmed traffic with the application of paint and the installation of bollards. The project cost \$4,500 and provided a safer, high-visibility pedestrian crossing of University Avenue.¹⁸

In addition, multimodal planning and design can be an opportunity rather than a cost constraint. Complete Streets projects can open up funding streams and garner public support. National, state, and local polls show consistent support for ensuring that transportation projects include all modes. Popular support can translate into financial support when funding measures come up either for a general vote or for consideration in the legislature or city council.

For more information, please see: <http://www.smartgrowthamerica.org/complete-streets/implementation/cost-concerns>

Expected Increases

While the incorporation of Complete Streets does not necessarily lead to increased costs, there may be some upfront implementation costs.

Initially, there is a planning cost associated with implementing Complete Streets. Because Complete Streets projects can be a change from "business as usual," staff would need to invest time to research appropriate facilities, design improvements, develop community consensus for the change, and develop methods of evaluation. Baseline analyses, such as an existing conditions reconnaissance, are also

¹⁸ National Complete Streets Coalition. (2013). *Complete Streets: Guide to Answering the Cost Question*. Available at: <http://www.smartgrowthamerica.org/complete-streets/implementation/cost-concerns>

generally necessary to implement Complete Streets projects. These are one-time non-capital costs for a jurisdiction that is developing a Complete Streets approach or plan. Once the initial framework is in place, however, these costs are greatly reduced.

On the capital side, investing in retrofitting an existing street would entail a new cost. While these costs may typically have been assumed by roadway expansion projects in the past, some cities are using Complete Streets policies to establish the nexus to capital investments in active transportation projects as mitigation measures that can be required of new development. Capital costs can also be reduced by planning for Complete Streets in tandem with operations and maintenance projects and including complete streets elements on new roads.¹⁹

On a roadway, the cost per mode varies between a traditional roadway and a complete streets roadway. In some contexts, the cost of developing a complete street could be higher, but in other cases it could be lower. For example, a four-lane roadway with minimal sidewalk width would have lower landscaping and concrete expenses than a complete street with two travel lanes, wide sidewalks, and a landscaped buffer between the sidewalk and roadway. Conversely, the complete street would have lower asphalt costs. Over time, both roadway types may have similar operations and maintenance costs, but the costs would be allocated to different portions of the street. It is important to note, however, that complete streets do not have to be particularly elaborate to function. Although there is a return on investment for placemaking, having a network of complete streets of varying levels of enhancement can be very functional and cost-effective.

Grants from the SANDAG Smart Growth Incentive Program, Active Transportation Program and others are available to support pilot complete streets projects, but as planning for multiple modes becomes the “status quo” for a local jurisdiction, the upfront planning and research costs will decrease. Non-motorized facilities are generally less expensive to maintain than motorized facilities, as the design life for motorized pavement is shorter than for sidewalks and non-motorized facilities. A retrofit planned in tandem with other roadway improvements can reduce the cost of introducing Complete Streets to a given facility, and technical support assistance and regional, state, and national grant opportunities can offset some non-capital costs.

CONTEXT AND NEED

Complete Streets policies have been addressed to varying degrees at the local, regional, state, and national levels. Developing a regional policy that supports local policies and programs can ensure SANDAG projects are consistent with local projects and it can aid member agencies in implementing Complete Streets practices in their jurisdictions. This can be done by providing technical resources, model documents, and upfront research to alleviate some concerns of cost and time for implementing these changes. Examples of how Complete Streets have been evolving at each level are described in this section.

This section provides an overview of existing legislation and programs at the regional, local, state and national levels that could be considered by SANDAG and its member agencies.

¹⁹ National Complete Streets Coalition. Costs. Available at: <http://www.smartgrowthamerica.org/complete-streets/implementation/factsheets/costs>.

Regional Context

The 2050 RTP/SCS was adopted in October 2011.²⁰ It presents a shared regional vision for 2050, which includes a “transportation system [that] should promote environmental sustainability and foster efficient development patterns that optimize travel, housing, and employment choices.”²¹

The 2050 RTP/SCS also provides mobility and social equity goals and policies relating to complete streets and multimodal transportation. These include a mobility goal to provide convenient travel choices along multiple modes of travel and policy objectives to increase use of non-automotive travel.²² Goals also include providing equitable transportation for all segments of the population, and environmentally sustainable development patterns which would support non-automotive travel.²³²⁴

The 2050 RTP/SCS calls for reducing Greenhouse Gas Emissions (GHG) in accordance with SB 375. The plan guides the region toward meeting the GHG reduction targets of 7% by 2020 and 13% by 2035. In accordance with SB375, main building blocks of the 2050 RTP SCS include a land use pattern accommodating future employment and housing needs, a multimodal transportation network, transportation demand management systems, and other policies and measures to reduce peak period traffic.²⁵

Among these building blocks, three (those referring to land use, a balanced transportation network, and transportation system management) relate directly to Complete Streets. In developing a network where all modes of travel are attractive, users have transportation choices that can result in fewer automobile trips and, in turn, lower vehicle miles traveled and GHG.

The 2050 RTP/SCS states that investments that promote bicycling and walking are an important part of the transportation network.

Another impetus for complete streets within the region is the, *TransNet* Extension Ordinance. Section 4(E)(3) of the ordinance requires all *TransNet* funded projects to accommodate bicyclists and pedestrians unless special circumstances make doing so unreasonable.²⁶ Implementation of this provision is guided by policies adopted by the SANDAG Board of Directors (Board Policy 31, Rule 21.) Also supporting implementation at the regional level is the SANDAG Regional Transit Oriented Design strategy currently under development.

Local Jurisdiction Context

Among the 19 jurisdictions in the San Diego region, eight have addressed Complete Streets from a policy perspective, primarily as part of a comprehensive general plan update. In many of these cases, the complete streets goals and policies produced by the city has been incorporated into the City’s General Plan. Some highlights of the local goals and policies regarding Complete Streets are described below.

The City of **Carlsbad** has been undergoing its General Plan update in conjunction with a Livable Streets Assessment and Active Transportation Strategy. The General Plan introduces a multimodal level of service

²⁰ San Diego Association of Governments (October 2011). 2050 Regional Transportation Plan. Available at: http://www.sandag.org/uploads/2050RTP/F2050rtp_all.pdf

²¹ Ibid., 2-3.

²² Ibid., 2-6.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid., 3-4.

²⁶ Ibid, 6-52.

for evaluating Carlsbad's transportation infrastructure. Additionally, the document rethinks the traditional functional classification of roadways and instead applies a street typology to the transportation system, prioritizing different modes along different types of roadways to more directly account for land use context. The City completed a Livable Streets Assessment in 2013, which identified livable streets best practices, and evaluated how the City was doing in implementing livable streets policy, design, funding, and operations. The City is now preparing an Active Transportation Strategy, which will be used to guide Carlsbad to get livable streets projects on the ground.

The City of **Escondido** has a complete streets vision and supporting policies in its Mobility & Infrastructure Element,²⁷ adopted in May 2012.

Complete Streets Vision: Consistently design and plan all transportation and land use projects in Escondido with all users of all ages and abilities in mind. Provide a balanced multimodal transportation network with context sensitive solutions throughout the city and promote non-vehicular facilities, walkability, active living, transit usage, and Transportation Demand Management (TDM) measures in downtown and mixed use villages.

The Complete Streets policies presented in the Escondido Mobility Element highlight the importance of integration, connectivity, and systems. The policies do not focus on preparing a certain type of facility, but rather that activity centers and transportation systems are connected such that a user has the ability to choose their mode of transportation.

The City of **Imperial Beach** General Plan,²⁸ published in 2010, presents a goal of "balanced circulation," stating that "the quality of life and economic vitality of Imperial Beach is dependent upon a safe and efficiently operating circulation system that provides for pedestrians, bicycles, trucks, automobiles, and public transportation." Subsequent policies refer to the balance but without specific mention of Complete Streets.

The City of **La Mesa** General Plan²⁹ was adopted in 2013 with a certified EIR, and includes Complete Streets policies. The policies presented in La Mesa's plan include more implementation language, although Complete Streets is not wholly defined in the policies. Policy CE-1.1.3 states that the City should "Require new developments to provide for on- and off-street improvements directly related to the project, found to be needed to meet the City's policies regarding street function, design, and safety and that advance the City's "Complete Streets" objectives." Furthermore, Policy CE-1.1.8 notes that the City should "apply a "Complete Streets" approach to future transportation infrastructure projects."

The City of **Lemon Grove** is currently in the process of developing a Health and Wellness element to be adopted as part of their General Plan, one of the optional plan elements. As an outgrowth of the Health and Wellness Element, the city is exploring Complete Streets policies to enhance the safety, access, convenience and comfort of all users in all transportation choices. These principles will guide the planning, design, construction and maintenance of the City's transportation improvements.

²⁷ City of Escondido General Plan. *Mobility and Infrastructure*. Available at: <http://www.escondido.org/Data/Sites/1/media/PDFs/Planning/GPUpdate/GeneralPlanChapterIII.pdf>

²⁸ City of Imperial Beach (2010). General Plan and Local Coastal Plan: Circulation Element. Available at: http://www.imperialbeachca.gov/vertical/sites/%7B6283CA4C-E2BD-4DFA-A7F7-8D4ECD543E0F%7D/uploads/General_Plan_LCP_Updated_2010.pdf

²⁹ City of La Mesa (2012). General Plan Circulation Element. Available at: <http://www.cityoflamesa.com/DocumentCenter/View/6198>

The City of **National City** has developed “Community Corridors” throughout their City, which are Complete Streets Avenues. They have updated their procedures for mitigations on Community Corridors, which prohibit these roadways from being widened.³⁰

The City of **Oceanside**, like Escondido, presents policies that focus on serving “all users of streets, roads, and highways, regardless of their age or ability.”³¹ A unique policy included in the City’s General Plan states that Oceanside will “strive to stay up-to-date with legislation and emerging technologies as it relates to complete streets and multimodal analysis.” The City’s Circulation Element includes a Complete Streets Checklist, which presents complete streets policies (provided in AB1358) and identifies those that are most applicable to Oceanside.

The City of **San Marcos**’ General Plan includes a complete streets guide, with prioritized and non-prioritized modes for different street typologies, similar to that being prepared by the City of Carlsbad. The City also provides a policy that they will strive to make streets complete, where feasible, and that “appropriate new local streets and Main Streets will prioritize pedestrian and bicycle users through the corridor.”³² The City’s general plan also includes multimodal level of service standards based on the street typology, rather than solely for automobile travel. As a result, the San Marcos Boulevard Complete Street project was undertaken, representing one of the first complete street retrofits on a major street in the north county. Planning and construction of projects like this can be supported through a variety of funding sources such as Caltrans Community-Based Planning Grants and the SANDAG Active Transportation Program and Smart Growth Incentive Program grants.

The Mobility Element of the City of **San Diego** General Plan emphasizes the need for a balanced, multi-modal transportation network to ensure the safety of all roadway users including pedestrians, bicyclists, transit users, the disabled, elderly, motorists, freight providers, and emergency responders. These policies ensure that the entire right of way is routinely designed and operated to enable safe access for all users. With these policies and the guidance of the City’s Street Design Manual, all transportation improvements (new and retrofit) are viewed as opportunities to improve safety, access and mobility for all travelers. This advances transportation choices in support of the General Plan’s City of Villages land use vision, and helps achieve healthy and sustainable communities. The Street Design Manual also states that the traffic volumes should not be used as the sole factor in determining the appropriate street classification, since other factors play an important role in shaping the operating conditions on a facility. Based on this approach, the City has lowered its LOS requirements from D to E in the downtown core, thus allowing for roadways and intersections that may not prioritize the automobile³³

The City of **Vista**’s complete streets policies are located in the [Land Use and Community Identity \(LUCI\) Element and Circulation Element of its General Plan](#). The policies presented mirror those of Escondido. Additionally, the plan requires the City to “develop policies and tools to improve Complete Streets practices. These could include place-based street typologies, a Complete Streets checklist for all new development/redevelopment projects, multi-modal analysis software, and revisions to the City’s street design guidelines to ensure the inclusion of infrastructure that benefits all roadway users.”

A number of other cities in the region are also moving in this direction, including both **Santee** and **Solana Beach**, where Complete Streets policies are under development in the context of General Plan updates.

³⁰ Walk San Diego/American Planning Association (2012). “From Policy to Pavement: Implementing Complete Streets in the San Diego Region.” pp 30.

³¹ City of Oceanside (2012). General Plan Circulation Element. Available at: <http://www.ci.oceanside.ca.us/civica/filebank/blobload.asp?BlobID=29697>

³² City of San Marcos, Policy M-1.7

³³ Walk San Diego, pp. 30.

Statewide Context

At the state level, Assembly Bill 1358, Caltrans Policy and Design Guidance, and several approaches to streamlining the California Environmental Quality Act (CEQA) are changing statutes and state policies in ways that support planning for Complete Streets in the San Diego Region.

Assembly Bill 1358 (AB1358) is the 2008 **California Complete Streets Act**. This act requires cities and counties to include Complete Streets policies as part of their general plans so that roadways are designed to accommodate all users. As of January 2011, any substantive revision of the circulation element in the general plan of a California local government is required to include Complete Streets provisions.³⁴ As required by AB1358, the Governor's Office of Planning and Research issued *General Plan Guidelines: Complete Streets and the Circulation Element* to inform this process to jurisdictions and their consultants. It is intended that the jurisdictions acknowledge within the General Plan that providing for all users is a new way of doing business, not simply an add-on program that competes with other departments.³⁵

Senate Bill 97 (SB97), adopted in 2008, directed the California Office of Planning and Research to revise its CEQA guidelines to clarify how greenhouse gas emissions and their impacts can be addressed in the CEQA Process. Some changes to the environmental checklist in response to SB97 included changing the language from focusing on just automobile impacts to all modes of travel, removing the parking provisions, and providing more detailed language on alternative mode impacts.³⁶

In 2011, the State of California passed **Senate Bill 226** (SB226), which provides for CEQA streamlining for infill projects.³⁷ The State CEQA Guidelines were amended to allow for a more streamlined process for infill projects in an urban area, that would "adjoin" the urban core, or in a non-urban area that qualified as a "small walkable community."³⁸ This promotes Complete Streets as projects in walkable areas can be developed in a more streamlined manner.

In September 2013, Governor Brown signed into legislation Senate Bill 99, creating the **Active Transportation Program** for Caltrans.³⁹ The Active Transportation Program (ATP) "consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation."⁴⁰ The purpose of the ATP is to increase the use of active transportation and fulfill several goals related to Complete Streets, with regard to safety, mobility, and public health.

Senate Bill 743, also signed into law in 2013, made several changes to CEQA related to the analysis of transportation impacts.⁴¹ Notably for Complete Streets, it requires a change in how "level of service" is

³⁴ State of California (2008). Assembly Bill No. 1358. Available at: http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.pdf

³⁵ Governor's Office of Planning and Research, State of California (2010). Update to the General Plan Guidelines: Complete Streets and the Circulation Element. Available at: http://opr.ca.gov/docs/Update_GP_Guidelines_Complete_Streets.pdf.

³⁶ Walk San Diego/American Planning Association, 37-38.

³⁷ State of California (2011). Senate Bill No. 226. Available at: http://leginfo.ca.gov/pub/11-12/bill/sen/sb_0201-0250/sb_226_bill_20110914_enrolled.pdf

³⁸ Governor's Office of Planning and Research, State of California (2011). State CEQA Guideline Section 15183.1. Streamlining for Infill Projects. Available at: http://opr.ca.gov/docs/Section_15183.3_feb2013.pdf.

³⁹ Caltrans. Active Transportation Program (ATP). Available at: <http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html>.

⁴⁰ Ibid.

⁴¹ State of California (2013). Senate Bill No. 743. Available at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743#

used in transportation planning and the evaluation of transportation impacts. The Office of Planning and Research (OPR) is directed to develop revisions to the CEQA Guidelines that establish new criteria for determining the significance of transportation impacts by projects in transit priority areas. OPR has the discretion to develop such criteria for projects outside transit priority areas as well, and the initial report suggests that a number of alternatives to level of service, volume-to-capacity ratio, or other measures of delay, are under consideration. The bill requires OPR to transmit the new guidance to the Secretary on or before July 1, 2014.

Caltrans also released the Deputy Directive on **"Integrating the Transportation System."** (DD64-R1) The policy discusses the obligation to provide a network of Complete Streets, including the necessity to revise processes and policies to address Complete Streets. It states that "bicycle, pedestrian, and transit travel is facilitated by creating "Complete Streets" beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of "Complete Streets" requires collaboration among all Department functional units and stakeholders to establish effective partnerships... the Department and local agencies have the duty to provide for the safety and mobility needs of all who have legal access to the transportation system... to ensure successful implementation of complete streets, manuals, guidance, and training will be updated and developed.⁴² The Caltrans Complete Streets Implementation Action Plan, adopted in 2010, provides actions required to implement DD-64-R1, including priorities and responsible units. Categories include highest focus areas; guidance, manuals & handbooks; policies & plans; funding & project selection; raising awareness; training; and research. This document also identifies lead districts and divisions and timelines.

Caltrans also issued **Directors Policy 22** on Context Sensitive Solutions. This policy provides for flexibility in the application of design standards. As cited in *From Policy to Pavement*, the intent of this policy is to move away from "one size fits all" road designs that ignore the context of a road segment including demand for safe and convenient walking, biking, and transit. This is accomplished by (1) incorporating the viewpoints and needs of local stakeholders in all project phases, and (2) utilizing the flexibility in design afforded by primary design documents. "The department uses "Context Sensitive Solutions" as an approach to plan, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.⁴³

The California Transportation Commission's **Regional Transportation Plan Guidelines** were amended in 2010 to read, in part:

MPOS and RTPAs should integrate Complete Streets Policies into their Regional Transportation Plans, identify the financial resources necessary to accommodate such policies, and should consider accelerating programming for projects that retrofit existing roads to provide safe and convenient travel by all users. MPOs and RTPAs should encourage all jurisdictions and agencies within the region to ensure that their circulation elements and street and road standards, including planning, design, construction, operations, and maintenance procedures, address all users of the transportation system, to the extent possible.⁴⁴

⁴² California Department of Transportation (2008). Deputy Directive-64: Complete Streets – Integrating the Transportation System. Available at: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets_files/dd_64_r1_signed.pdf.

⁴³ Walk San Diego/American Planning Association, 23.

⁴⁴ Ibid.

National Context

At the national level, Complete Streets is supported by various national organizations, federal agencies, and, to a certain extent, Congress. Professional organizations such as Institute of Transportation Engineers (ITE), American Planning Association (APA), and the American Society of Landscape Architects work to support their members who implement Complete Streets. The American Public Transportation Association sees Complete Streets as vital to transit customers nationwide. With increasing evidence that Americans desire walkable neighborhoods, the National Association of REALTORS® has committed to supporting local and federal Complete Streets efforts. Numerous public interest groups, including AARP, represent the traveling public as they work for Complete Streets.

As the concept catches on, an increasing number of resources have been developed for implementing agencies. Multiple national guides and manuals provide broad guidance on Complete Streets. Some of the examples include:

- National Association of City Transportation Officials' (NACTO) *Urban Street Design Guidelines*, and *Urban Bikeway Design Guide*;
- ITE and Congress for New Urbanism's *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*;
- Los Angeles County's *Model Design Manual for Living Streets*;
- Active Transportation Alliance's *Complete Streets Complete Networks: A Manual for the Design of Active Transportation*; and
- APA's *Complete Streets: Best Policy and Implementation Practices*.

The US Department of Transportation (US DOT) supports local agencies working to develop truly integrated transportation networks. In 2010, the agency released a policy statement on bicycle and pedestrian accommodation regulations and recommendations. It states: "The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems."⁴⁵ The policy statement also encourages state and local governments to adopt similar policies and to go beyond minimum design standards to implement a Complete Streets approach.

The Federal Highway Administration (FHWA) released a memorandum in August 2013 that encourages transportation agencies at various levels to take a flexible approach to bicycle and pedestrian facility design, specifically noting the applicability of the NACTO and ITE guides mentioned above.⁴⁶ FHWA includes an updated list of Complete Streets friendly design treatments that are allowed or not precluded in the 2009 version of the Manual on Uniform Traffic Control Devices (MUTCD), as well as those that may be piloted through the MUTCD experimentation process.⁴⁷ In January 2014, the National Committee on Uniform Traffic Control Devices will likely approve two of such intersection treatments: bicycle boxes and

⁴⁵ Federal Highway Administration (FHWA). (2010). United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations. Retrieved from http://www.fhwa.dot.gov/environment/bicycle_pedestrian/overview/policy_accom.cfm

⁴⁶ FHWA. (2013). Memorandum on Bicycle and Pedestrian Facility Design Flexibility. Retrieved from http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/design_flexibility.cfm

⁴⁷ FHWA. (2013). Bicycle Facilities and the Manual on Uniform Traffic Control Devices. Retrieved from http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/mutcd_bike.cfm

bicycle specific signals. Support for a Complete Streets approach and design flexibility from US DOT and FHWA gives jurisdictions reassurance as they implement Complete Streets.

Support for Complete Streets exists in the current surface transportation authorization bill, Moving Ahead for Progress in the 21st Century (MAP-21). It continues a history of flexibility in federal funding, allowing to funds to be spent on walking and bicycling projects in addition to automobile projects. MAP-21 included a provision in the Highway Safety Improvement Program that provides a new, more comprehensive definition of street users that is based on Complete Streets language. The expanded definition of road users is certainly an indication of the shift towards strengthened federal support for Complete Streets.

The Role of SANDAG in Complete Streets Implementation

SANDAG currently has several resources in place for jurisdictions in the region related to Complete Streets. These include technical support, design, and policy resources.

Existing Technical Support Resources

SANDAG has produced several resources, made available through their website, on planning for livable communities. These include:

- *Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region*– This document can be used as a template for cities to develop their own pedestrian design guidelines
- *Trip Generation for Smart Growth* – This report presents an overview of a mixed-use trip generation method, which can be used to improve trip generation forecasts for mixed-use developments
- *Integrating Transportation Demand Management into the Planning & Development Process* – Provides best practices of transportation demand management, policy guides, and identifies program assistance resources in the region
- *Parking Strategies for Smart Growth* – Includes a literature review and best practices for parking in smart growth environments, and seeks to establish reasonableness for lower parking rates for smart growth development
- *Designing for Smart Growth, Creating Great Places in the San Diego Region* – Provides smart growth design guidelines for the region
- *Smart Growth Photo Library* – SANDAG has a DVD available with a collection of photographs of smart growth
- Visualization tools of smart growth and 3-D simulation projects

SANDAG has also provided direct technical assistance to member agencies to develop complete Streets implementation plans with support from the Communities Putting Prevention to Work grant received by the County of San Diego Health and Human Services Agency from the U.S. Centers for Disease Control and Prevention.

Existing Active Transportation Project Development

SANDAG supports active transportation project development through a variety of initiatives, including a smart growth outreach program, the regional bike plan and its implementation, the Safe Routes to School Strategic Plan, Safe Routes to Transit, and the Active Transportation Implementation Strategy.

As part of the **Smart Growth Outreach Program**, SANDAG staff can visit jurisdictions to present on Smart Growth. They have also prepared written materials, as noted above, to aid member agencies in project development through applying their guidelines and simulations.

The **Regional Bicycle Plan** was developed to support the implementation of the Regional Comprehensive Plan and Regional Transportation Plan. The plan is also part of the Sustainable Community Strategy. It proposes an extensive regional bicycle system, consisting of corridors, facilities, and programs, to be implemented by year 2050. The plan includes five categories of bicycle-related programs, including education, public awareness, encouragement, enforcement, and monitoring and evaluation.⁴⁸ In 2013, SANDAG approved the **Early Action Program (EAP)** for the Regional Bike Plan, as a preferred implementation option. The overall goal of the EAP is to implement the regional bicycle network high priority projects within 10 years, and to continue to fund local plans, programs, and projects through a competitive grant program.⁴⁹

In 2012, SANDAG finalized a **Safe Routes to School Strategic Plan**. The plan guides SANDAG to make walking and bicycling to school safer and more attractive. Technical assistance programs proposed as part of the Strategic Plan include planning workshops, seminars and training, and offering planning services to member agencies.⁵⁰ The plan outlines an implementation process and the need to develop a need analysis, with some benchmarks for the first year of plan implementation.

SANDAG approved funding for the development of a **Safe Routes to Transit Regional Plan** in 2011.⁵¹ The purpose of the project is to provide enhanced bicycle and pedestrian access at transit stop and station areas, which will be used in the development of San Diego Forward: The Regional Plan.⁵² SANDAG will examine other regions' Safe Routes to Transit efforts, identify potential policy options, and identify projects in the 2050 RTP/SCS transit corridor areas. As part of these efforts, SANDAG will prepare concept-level cost estimates for inclusion in the regional plan.

SANDAG is currently developing the **Active Transportation Implementation Strategy**. This strategy will incorporate the various active transportation efforts, including the Regional Bicycle Plan, Safe Routes to School and Safe Routes to Transit. It will be used to develop a comprehensive Active Transportation Program for the region, and identify active transportation projects and programs associated with the RTP and SCS for consideration in San Diego Forward: The Regional Plan. The strategy will also identify performance measures for active transportation for ongoing monitoring and program evaluation.⁵³

Beyond the technical support, and design and policy resources, SANDAG has a role in supporting Complete Streets through its transit project implementation process. Coordinating project development with local smart growth and active transportation plans can ensure the region's transit projects are serving all roadway users' needs. Through its role a *TransNet* program administrator, SANDAG also works closely

⁴⁸ SANDAG (2010). Riding to 2050: San Diego Regional Bike Plan. Available at: http://www.sandag.org/uploads/projectid/projectid_353_10862.pdf

⁴⁹ SANDAG (2013). Proposed Regional Bike Plan Early Action Program. Available at: http://www.sandag.org/uploads/meetingid/meetingid_3488_16569.pdf

⁵⁰ SANDAG (2012). San Diego Regional Safe Routes to School Strategic Plan. Available at: http://www.sandag.org/uploads/publicationid/publicationid_1665_14448.pdf.

⁵¹ SANDAG (2013). Active Transportation Working Group Meeting Agenda (May 2, 2013). Available at: http://www.sandag.org/uploads/meetingid/meetingid_3688_15947.pdf, p. 18.

⁵² SANDAG (2013). Active Transportation Working Group Meeting Agenda (July 11, 2013). Available at: http://www.sandag.org/uploads/meetingid/meetingid_3608_16223.pdf, P. 21.

⁵³ SANDAG (2013). Active Transportation Working Group Meeting Agenda (May 2, 2013). Available at: http://www.sandag.org/uploads/meetingid/meetingid_3688_15947.pdf, pp. 17-18.

with Caltrans on highway development projects. This provides an opportunity to encourage Complete Streets design concepts where state highways are, or intersect with local circulation roads.

Existing Active Transportation Funding

SANDAG administers multiple funding programs that support Complete Streets and Active Transportation, including the *TransNet* Local Systems Improvements program, which includes the *TransNet* Smart Growth Incentive Program, and the Active Transportation Grant Program.

The ***TransNet* Local Systems Improvements** program represents a substantial and ongoing funding source for local jurisdictions. The focus of the program is to reduce traffic congestion but these projects often include provisions that also support active transportation. The funds may be used for any purpose eligible under the overall program, including transit and smart growth-supportive projects.

Under the *TransNet* Ordinance, 2% of the funds are allocated to a competitive grant program known as ***TransNet* Smart Growth Incentive Program**. These grants are available to improve streetscapes, provide for bicycle and pedestrian access, improving access to transit, and other improvements that would support mixed-use Transit-Oriented Development. Up to 20 percent of the funds may be allocated to support smart growth planning, which could lay the groundwork for Complete Streets projects.

SANDAG also administers an **Active Transportation Grant Program**, funded by the *TransNet* Ordinance and the state Transportation Development Act (TDA). The majority of these funds currently are dedicated to implementing the high priority bicycle projects in the Regional Bike Plan. For the remaining funds, member agencies can apply for funding to develop active transportation plans, to implement supporting education and encouragement programs, and to design and construct active transportation infrastructure.

Barriers to Implementation

Barriers to implementing Complete Streets in the San Diego Region include policy, design, liability concerns, and funding.

Policy

The main policy barriers include conflicts with existing plans and policies and conformance to CEQA guidelines. Each agency has an adopted General Plan, which includes a Circulation Element. Some Circulation Elements developed before the Complete Streets Act primarily focus on mobility for automotive travel. They generally include a Level of Service Policy, which also focuses on automotive travel. Member agencies may also have additional plans and policies – such as growth management policies or traffic study guidelines – that dictate a threshold of significance or provision for a particular vehicular Level of Service. These guidelines then feed into CEQA, as the policies of the lead agency are used to determine whether or not an impact is significant. Some local agencies, such as San Marcos, have recently introduced Multimodal Level of Service, which complements Complete Streets. However, jurisdictions with transportation policies focusing predominantly on the automobile may find these policies conflict with a Complete Streets policy.

Design

There are several flexible design resources available, and local, national, and international guidance on Complete Streets design. However, many of the innovative resources are not widely accepted, formally adopted or approved for use.

Caltrans' Directors Policy 22 provides context-sensitive flexible design guidelines. Additionally, the California Highway Design Manual establishes uniform policies and procedures to carry out the State Highway Design Functions of the Department and has undergone recent and substantial updates in 2012. Even with these changes, some of the newer designs identified in other design guides are not yet incorporated. Other major design standards come from the American Association of State Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets* (AASHTO Green Book) and the Manual of Uniform Traffic Control Devices, which presents design standards for traffic control devices. These guidance documents already provide flexibility in design, and they are evolving toward a more Complete Streets approach. Additional publications by AASHTO specifically highlight flexibility in roadway design. In general these standards and guidelines encourage a conservative approach to design, and their processes for change are lengthy.

Local member agencies may also develop and maintain their own design standards, which can include a minimum lane width or vehicular right-of-way. The flexibility of applying local standards would also depend on the agency.

Design Exceptions and Liability Concerns

Cities and designers have broad legal protection from liability when their practices conform to the widely accepted design standards and when new treatments are documented through formal exception procedures. As noted, there are several roadway design standards and accepted or adopted resources that agencies reference in designing streets. Departure from accepted design guidance can introduce liability concerns and represent a barrier to innovation. This risk can be seen as a barrier to Complete Streets implementation. However, new and innovative design treatments that may provide safety and operational benefits and that are not yet incorporated into the accepted design manuals can still be utilized. Most design manuals, including the California Highway Design Manual, incorporate specific design exception procedures and documentation requirements that can help document due diligence by the implementing agency. Furthermore, design exceptions have an important role: When they are granted, they can be evaluated after implementation and may become standards in future.

Funding

Funding can be seen as another barrier to implementing Complete Streets. Although implementing Complete Streets can ultimately save money for the agencies, there can be upfront costs for designing and constructing Complete Streets treatments. These capital costs can be offset through grant funding, or timing the projects with other capital improvements projects.

BEST PRACTICES

This section identifies best practices from other regional agencies on policy, technical support project development, checklist examples, and funding. Each MPO described has developed programs with attributes worth considering that include developing additional technical resources, consolidating existing

policies, or creating funding strategies that encourage Complete Streets policies. These practices provide a menu of options to evaluate when developing a regional policy.

Policy

The **Metropolitan Washington Council of Governments** (MWCOG) developed the “Complete Streets Policy for the National Capital Region.”⁵⁴ At the time of development, some MWCOG member agencies had existing Complete Streets policies and others did not, similar to the current state of the San Diego region. Thus, they prepared a consensus policy to have some common policy background between member agencies in MWCOG. In developing the Consensus Policy, they drew from highlights of existing policies. The MWCOG policy provides guidance and a template for member agencies to adopt their own Complete Streets policies.

The **Indianapolis Metropolitan Planning Organization** (IMPO) adopted a complete streets policy in March 2014 based on a vision and intent to “create a safe, balanced, and effective transportation system where every roadway user can travel safely and comfortably and where multi-modal transportation options are available to everyone.” The policy will require all projects within the urbanized area that are funded with federal Surface Transportation Program and Transportation Alternatives Program funds to support Complete Street principles. The policy includes minimum requirements for bicycle and pedestrian access, design guidance, a procedure for exceptions to the requirements, and an evaluation process that establishes performance measures.⁵⁵

The **National Complete Streets Coalition**, in collaboration with the American Planning Association, developed “Complete Streets: Best Policy and Implementation Practices.” This publication provides case study examples of the best policy and implementation guidelines. It draws from 30 communities nationwide and provides a framework to build support, adopt a policy, and integrate Complete Streets concepts into plans, processes, and standards.

Technical Support

Broward County, Florida, developed the “Complete Streets Guidelines,” which provides design guidance for Broward County.⁵⁶ This process was led by the Broward Regional Health Planning Council (BRHPC) as part of an award to help create healthier communities in Broward County. The County held several local outreach efforts, including Complete Streets workshops throughout the county, charrettes, and surveys, and have ongoing outreach efforts by email and phone. The resulting guidelines include an extensive chapter with prescriptive ways for agencies to reach out to public.

The **Maricopa Association of Governments (MAG)** in Arizona developed the Complete Streets Guide in 2011 that provides its own design guidelines for member jurisdictions.⁵⁷ The guide features a unique chapter on Design Techniques and Sample Outcomes that identifies how projects can be developed with

⁵⁴ Metropolitan Washington Council of Governments (2012). “Complete Streets Policy for the National Capital Region.” Available at: <http://www.mwcog.org/uploads/committee-documents/mV1dXI9e20120510092939.pdf>

⁵⁵ Indianapolis Metropolitan Planning Organization Complete Streets Policy. Available at http://www.indympo.org/Plans/MultiModalPlanning/Documents/Complete%20Streets/IMPO%20FINAL%20Complete%20Streets%20Policy_March%202014.pdf.

⁵⁶ Broward County. Broward Complete Streets Guidelines. Available at: <http://dl.dropboxusercontent.com/u/29194392/Broward%20Complete%20Streets%20Guidelines%20-%20Complete.pdf>

⁵⁷ Maricopa Association of Governments (2011). “Complete Streets Guide.” Available at: http://www.azmag.gov/Documents/BaP_2011-01-25_MAG-Complete-Streets-Guide-December-2010.pdf

regard to the existing land use context and character. Outcomes for different types of land use contexts are also provided to help right-size projects. Although MAG does not develop their own complete streets, they have a process for member jurisdictions to apply to MAG to obtain design assistance for complete streets projects.

The **Regional Transportation Commission of Southern Nevada (RTCSNV)** developed the “Complete Streets Design Guidelines for Livable Communities,” published in March 2013.⁵⁸ RTCSNV also held Complete Streets workshop for member agencies to attend.⁵⁹ The guidelines have a focus on public outreach, and provide sections for each mode of transportation. This document provides design guidance for the region, which includes Las Vegas, Boulder City, and other cities in Clark County. RTCSNV acknowledged that most local jurisdictions’ design guidelines and policies are geared toward motor vehicle travel. The document focuses on how to implement Complete Streets at a local level, by providing a template and model manual that can be adopted to replace existing design manuals. It focuses on designing streets for health, safety, livability, and sustainability, and provides policies for Southern Nevada that align with the ten elements for Complete Streets, noted earlier. The document provides benchmarks and performance measures. The guidelines include traveled way design, intersection design, pedestrian access and crossings, bikeway design, transit accommodations, traffic calming, and streetscape ecosystem. The publication also includes information on land use and transportation integration, livable streets in suburban environments, and community engagement.

The **Association of Monterey Bay Area Governments** in northern California developed the Complete Streets Guidebook in August 2013, which also functions as a design guide.⁶⁰ The guidebook provides guidance on how communities can meet requirements of the Complete Streets Act (AB 1358) by incorporating complete streets policies into their general plans. It contains a unique Complete Streets action plan for coordinating intra-agency tasks and context-sensitive Complete Streets types.

Project Development

The **Washoe County Regional Transportation Commission** in Nevada established the Pavement Preservation Program in 2004.⁶¹ This was conducted in conjunction with member agencies, such as the public works departments of Reno, Sparks, and Washoe County. They also partnered with a local university to do in-depth studies of road diet projects in conjunction with this project. The purpose of the program is to maintain roads in good condition and minimize long term costs, which can be done by applying the most cost effective treatments to the right pavements at the right times. RTC funds tactical roadway preservation programs while the local governments provide preservation services for non-regional roadways; they maintain data on index ratings for each regional road to assist in project selection. The program strategy relies on preventative and corrective maintenance methods to maintain roadways in good condition. Through the program, RTC has narrowed travel lanes, added bicycle lanes, and – in some cases – eliminated travel lanes. The desired effects of the program are to slow traffic to designated posted speed, reduce vehicular collisions, and provided space for non-auto users. The RTC has found that crash reductions have ranged between 25 to 45 percent.

⁵⁸ Regional Transportation Commission of Southern Nevada. “Complete Streets Design Guidelines for Livable Communities.” March 2013. Available at: <http://www.rtcnv.com/wp-content/uploads/2013/03/Complete-Streets-Design-Guidelines-for-Livable-Communities.pdf>

⁵⁹ Conversation with Stefanie Seskin, NCSC, 12/12/13

⁶⁰ Association of Monterey Bay Area Governments (2013). “Complete Streets Guidebook.” Available at: <http://sccrtc.org/wp-content/uploads/2013/08/final-2013-complete-streets-guidebook.pdf>

⁶¹ Washoe County Regional Transportation Commission. “Regional Preventative Maintenance Program.” April 2004. Available at: <http://www.rtcwashoe.com/shfunding/documents/Reg%20Prev%20Maint%20Manual%20April%202004.pdf>

Checklists

The **Mid-Ohio Regional Planning Commission**, which serves the Columbus, Ohio region, developed a Regional Complete Streets policy for its member agencies. One feature of the policy is that it is accompanied by a checklist, which was developed to assist project sponsors in defining and designing their projects in adherence to the policy.⁶² The checklist includes explaining existing conditions, such as routine accommodations, and how a project will improve pedestrian and bicycle safety. The checklist is a combination of narrative and “check off” items, with the applicant providing information including whether design guidance and interjurisdictional consultation has been completed. The checklist also provides information on how to conduct public outreach.⁶³

The San Francisco Bay Area’s **Metropolitan Transportation Commission (MTC)** also provides a checklist for livable streets projects. The checklist includes policies for routine accommodation, and provides those applying for regional funding for transportation projects the opportunity to identify trip generators near the project site for attracting bicyclists and pedestrians. The checklist also asks the applicant to supply collision information, identify local plans and policies, and note whether there are additional alternative mode accommodations.⁶⁴

Funding and Project Selection

The MTC **OneBayArea** grant program provides funding to local agencies to support the region’s Sustainable Communities Strategy.⁶⁵ To be eligible for funds, jurisdictions need to address complete streets policies by either adopting a Complete Streets resolution or having a General Plan that is compliant with the California Complete Streets Act. This funding requirement is one of the more aggressive approaches to encourage member jurisdictions to develop and adopt policies.⁶⁶

The **Nashville Area MPO** and the **Mid-American Regional Council (MARC)** have similar mechanisms for project selection and funding. The Nashville Area MPO adopted its 2035 Regional Transportation Plan in 2010.⁶⁷ The guiding principles for the plan include: livability, prosperity, sustainability, and diversity with an emphasis on public health and equity. The scoring system used to prioritize projects in the plan dedicates 50 percent of the available points to quality of life, accessibility, health, and safety.⁶⁸ The plan has also incorporated regional health impact assessments on transportation as part of the project selection process and criteria.

MARC is the regional planning organization for the bi-state Kansas City region. Like the Nashville area, MARC drew heavily on its member agencies’ comprehensive and adopted plans in developing project selection criteria, and developed a focus on healthy living and economic activity. Similar to the Nashville

⁶² Mid-Ohio Regional Planning Commission. “Complete Streets Checklist for Project Sponsors.” Available at: <http://www.smartgrowthamerica.org/documents/cs/impl/oh-morpc-checklist.pdf>.

⁶³ Ibid.

⁶⁴ Metropolitan Transportation Commission. Routine Accommodation Checklist. http://www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist_FINAL.pdf

⁶⁵ Metropolitan Transportation Commission. OneBayArea Program Information. Available at: <http://www.mtc.ca.gov/funding/onebayarea/>

⁶⁶ Metropolitan Transportation Commission. “Resolution No. 4035, Revised.” OneBayArea Grant Programming Policies, Page 11. Available at: http://www.mtc.ca.gov/funding/onebayarea/RES-4035_approved.pdf

⁶⁷ Nashville MPO. 2035 Regional Plan. Available at: http://www.nashvillempo.org/plans_programs/rtp/2035_rtp.aspx

⁶⁸ Federal Highway Administration. “Kansas City, MO-KS and Nashville, NT – Incorporating Livability into the Metropolitan Planning Organization Project Prioritization Process” *FHWA’s Livable Communities Case Study Series*. Available at: http://www.fhwa.dot.gov/livability/case_studies/kansas/kansascitynashville.pdf

Area MPO, MARC developed a 100-point scoring system to prioritize projects.⁶⁹ The result of the prioritization process was to refocus 75 percent of its financially constrained projects to support higher-intensity lane use in regional activity centers.

Reporting and Monitoring

The **Seattle Department of Transportation** provides a progress report of its work over a two-year period, called the “Transportation Action Agenda.” Within this report, the agency identifies new projects, recent accomplishments, and project highlights. They also present a summary of transportation work, such as the number of miles of new bicycle lanes, number of potholes filled, and bridge repairs completed. They identify the projects that were funded using the “Bridging the Gap” levy revenues, a program designed to provide the capital necessary for ongoing operations and maintenance for the department. The entire report is written for the average resident, with accessible language, concise tables, and a depth of information that informs users without overburdening them with data.⁷⁰

The City of **Billings, Montana** prepared a Complete Streets Benchmark Report in 2013 to address Complete Streets performance measures and benchmarking for the city. The report is designed attractively with infographics and charts to display information, such as changes in pedestrian counts, the addition of bicycle lane miles, and major roadway projects completed. One highlight of the Billings report is that they provide charts illustrating year over year changes, and summarize the projects’ compliance with Complete Streets.⁷¹

New York City maintains a website, sustainablestreets.info, which maps sustainable streets projects in an interactive manner. By visiting the site, users can view Complete Streets projects by year and type, as well as streetscape and safety improvements.⁷² The City has also prepared a summary document presenting accomplishments and benchmarks for sustainable streets projects.

IMPLEMENTATION

Table 1 provides a series of Policy Implementation Options for SANDAG and member agencies consideration. For each implementation category, potential actions and potential benefits are provided. These solutions are intended to be a discussion point, both for available resources and importance of implementation in each category. In some cases, SANDAG has already invested substantial effort, so continued action may be the status quo. In other cases, SANDAG and member agencies may choose to further enhance implementation resources, or may decide that going beyond the current level of effort is unnecessary.

Table 1. IMPLEMENTATION OPTIONS

Category	Potential Actions	Potential Benefits
Technical Support	Expand existing technical resources to include Complete Streets best practices for design, construction, operation, and maintenance	Easier access to Complete Streets resources for local agency staff

⁶⁹ Mid-American Regional Council (2010). “Appendix C: Project Solicitation & Evaluation.” Transportation Outlook 2040. Available at: http://www.to2040.org/assets/plan/AppendixC_ProjectSolicitationEvaluation.pdf.

⁷⁰ Seattle Department of Transportation (2013). Action Agenda: 2013 Progress Report. Available at: http://www.seattle.gov/transportation/docs/SDOTActionAgendaProgRep_2013-01.pdf.

⁷¹ City of Billings (2013). Complete Streets Benchmark Report. Available at: http://www.healthybydesignyellowstone.org/wp-content/uploads/REPORT_BillingsCSBenchmarkRprt_2013.08.08_FINAL.pdf.

⁷² City of New York (2013). Sustainable Streets: 2013 and Beyond. Available at: www.sustainablestreets.info.

	Provide training on using existing SANDAG guidelines for SANDAG and local projects	More knowledgeable planning and engineering staff
	Adapt existing complete streets design best practices as templates for the San Diego region	Easier to adapt Complete Streets best practices to local projects
	Develop complete streets design guidance for the San Diego region	Common and easily implemented local standards for complete streets
	Support the development of updated traffic impact study guidelines	Updated regional guidelines that are more consistent with current state, regional and local laws and policies Added certainty in the development review process
	Provide technical assistance to member agencies on the development of individual design guidelines and policies. Use model as starting point, but provide assistance in developing unique set of guidelines for particular agency.	Common and easily implemented local standards for complete streets
Operations and Maintenance	Compile and make available best practices as a checklist for incorporating Complete Streets changes into routine operation and maintenance activities	Facilitate low-cost Complete Streets improvements
	Develop checklist to incorporate routine accommodations into Operations & Maintenance	Minimize missed opportunities for improvements
	Identify opportunities in SANDAG funding programs to encourage jurisdictions to develop preventative maintenance programs that identify and implement Complete Streets enhancements in routine operation and maintenance activities.	Increased cost efficiency
	Require agencies to prepare and submit checklist identifying all potential routine accommodations for operations & maintenance projects in order to be considered for funding.	Increased accountability
Project Development Checklists	Compile library of project development checklists.	Easy access to best planning and design practices for local planners and engineers
	Develop a custom project development checklist for the San Diego region	Common understanding of how to develop complete streets and coordination between agencies and departments within agencies
	Develop a checklist and procedures for use by SANDAG in its project development and oversight role.	Regional projects provide examples of good Complete Streets development and consistency between SANDAG projects and local complete streets efforts
	Provide assistance in developing unique checklists for member jurisdictions.	Improved integration of CS elements in projects linked to local priorities
Funding	Add "priority points" for project applications in jurisdictions that have addressed complete streets at the local level. Review selection criteria to encourage social equity for agencies with limited resources in high-need areas.	Increased delivery of highest value and performing projects
	Require that member agencies have Complete Streets policy language or update General Plans in order to be selected for Complete Streets funding through regional grant opportunities.	Encourages timely local resolution of barriers and conflicts related to policy and implementation
	Create a new grant funding mechanism dedicated to Complete Streets projects.	Increased delivery of highest value and highest performing projects
Reporting and Monitoring	Provide member agencies with opportunities to provide periodical reports to SANDAG policy committees showcasing model complete streets projects.	Member agencies learn from local best practices
	Develop basic benchmarking checklist for SANDAG project	Improved integration of CS

managers and member agencies	elements in projects
Develop model monitoring document, which can be used by SANDAG project development staff and as template for member agencies	With improved travel monitoring, potential improved understanding of how active transportation infrastructure affects travel choices
Provide annual Complete Streets progress report on SANDAG projects to Transportation Committee.	Better informed regional policies about supporting different mode choices
Require periodic reporting and monitoring of complete streets projects as condition of grant funding	Improved ability to assess return on investment and increase effectiveness over time

Choices and Discussion

As presented in this paper, there are several approaches that SANDAG could take to play a role in the development of a regional Complete Streets policy and program. SANDAG already offers several methods of assistance – both from a technical and financial perspective – to its member agencies. The crucial point of discussion would therefore be to decide what level of involvement SANDAG should have as it works with member agencies to incorporate Complete Streets within the general agency protocol, and how a regional Complete Streets policy should influence the project development and implementation process at SANDAG.

There is a spectrum of options, as presented in the accompanying table, for each type of assistance that could be administered by SANDAG. In some cases, SANDAG would have a greater amount of guidance as to what is required of member agencies. Key benefits of increased regional guidance may be more expedient resolution of cross jurisdictional issues, ensuring adequate minimum accommodation, and guidance for routine decision making. The challenges include having member agencies adhere to these requirements in a rapid manner while still taking the time and securing resources to develop long-term and vetted plans that align with a given agency's local goals.

On the other hand, SANDAG could play only a supporting role, providing static technical resources to member agencies, but with little to no direct involvement in how local agencies address Complete Streets. This would allow each agency to develop policies and programs that fully align with their individual goals.

In the middle of the spectrum, SANDAG could continue to offer technical resources and funding, but continue to enhance the resources offered. Developing a series of Complete Streets resources over time can assist agencies in preparing their own documents, but with some common threads between agencies. It would be of benefit to the region to identify the key themes to address in the Complete Streets discourse, and to create a desirable list of resources for SANDAG to develop over time.