



Infrastructure for Infill

A paper by

The California Planning Roundtable

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For good reason, California is directing most future growth closer to jobs where people can take shorter commutes by multiple means, all to reduce vehicle miles traveled and greenhouse gases generated to slow climate change and its impacts. By design, this means that California's metropolitan areas will mostly grow up with infill and redevelopment of underdeveloped properties rather than grow out by sprawling onto greenfield lands. If planned correctly, more affordable housing opportunities and lower-cost travel options will be available to more California households of different incomes, sizes, and age.

Good planning, however, calls for complete communities with quality sustainable infrastructure—water and waste, energy, digital, storm management, sidewalks and streetscapes—and public facilities—schools, libraries, parks and open space, health services, public safety, and shelter—to serve this growth and remedy past deficiencies to prepare for growth. The former may be called “basic infrastructure” and the latter “social infrastructure.” As we grow housing opportunities with infill development, we need to plan and fund basic and social *Infrastructure for Infill*.

The challenge is not in recognizing the need; it lies in organizing to address this need. Without adequate infrastructure, plans will not be fulfilled and turned into actual development either because of system failures, unacceptable impacts, and growing costs, or because of public opposition. Infrastructure for infill development, unlike greenfield development, involves coordinating many existing and new interests: property owners, renters, businesses, workers, and governments. Infrastructure itself comes in different sizes, conditions, and types. Who benefits and who pays for it is not always clear or fairly apportioned. Those who feel that they have already paid or are still paying are not as willing to tax themselves to pay more unless they feel their services are improved too. Unlike new planned communities with private facilities, there are no homeowners' associations to fund and manage maintenance. The public realm has much broader responsibilities.

Older and vulnerable communities facing greater costs to upgrade often include populations and households with fewer financial means and capacity to fund those costs. The greater good may require cross-subsidies to address these inherent inequities.

Some mechanisms exist but are not always adequate. Either they are too narrowly applied, do not generate the scale of funding needed, have approval requirements designed for a limited number of property owners and voters (such as Community Facilities Districts), or require a super majority of voters jurisdiction wide. These represent clear challenges when the need is for a subset of the jurisdiction and some of the voters being asked to approve new taxes and fees already have adequate infrastructure and facilities. Legacy facility standards are often inappropriate for infill contexts where land is expensive, uses are mixed, and ownership is disaggregated and varied. Common suburban standards, where land costs less, may not work in urban contexts.

California's communities, residents, and businesses need the State to provide local governments and their communities with more tools to fund infrastructure for infill if it expects them to support California's growth strategy. State and federal government attention understandably is placed on big regional infrastructure, such as regional transportation, energy, broadband, and water/sewer systems. However, as the State takes a more direct role in regulating housing, land use, and mobility to further sustainability, resilience, and equity policies, it also needs to take a more direct role in providing localities the tools they need to provide the smaller, but in aggregate, just as important infrastructure needed to maintain and create the balanced communities that Californians want and deserve.

Equities and Inequities

Lower-income communities and disproportionately, communities of color, have historically received the fewest benefits from infrastructure investments. Indeed, historically, when major infrastructure projects were designed and developed, they were often regional serving that traversed, disrupted, divided, and in some cases eliminated these communities, such as California's freeway system, concrete stormwater channels, utilities, and global trade route corridors, to name a few.



Our current system of funding local physical and social infrastructure often exacerbates and reinforces inequities. In California, reliance on impact fees have enabled new planned communities to generate funding at the scale needed to pay for new parks, roads, landscapes, libraries, schools, and other facilities, often at relatively high standards. Infill development in older existing communities, however, are incremental additions to a community and usually are not at the scale necessary to generate sufficient revenue to fund significant new infrastructure improvements.¹ Many modest-income populations live in older communities that were built in eras when public facility standards were lower. Over time, the gap widens between their quality-of-life and the people living in new communities built with higher standards. Special tax districts, such as Community Facility Districts, while available to voters in older communities if they so choose, have formation mechanisms that are easier to organize and apply in new greenfield locations than in older communities where more diverse populations live, ability to pay is less, and approval is by majority of voters rather than property owners weighted by acreage. These challenges apply not only to capital improvements, but to operating, programming, and maintenance capacity as well.

Ascertaining people's priorities also differs, thus contributing to inequities. The planning and design of infrastructure projects should be informed by an open, public process that represents the diversity of community perspectives. Privately developed planned communities and developments inform their plans with market research and consumer response at the targeted price-points. They also target segments of the market consistent with their business objectives, market opportunities, and return-on-investment requirements. Their decision-making structure is tighter and focused.

Local governments do not have that luxury. They must serve a broader citizenry with their diverse backgrounds, incomes, and capacities to fund and maintain improvements for the common good. Their projects require a more inclusive approach and methods to achieve feedback when an infrastructure plan is conceptualized, designed, constructed, operated, and maintained. It is important to move beyond the "usual suspects" for public input by employing new and

evolving outreach strategies that complement traditional community meeting approaches.

The level of inclusive and enthusiastic input should become part of an infrastructure project's story, as integral as the project's environmental, architectural, and engineering designs.

During the COVID-19 pandemic, some cities have found that public participation from home, via the web, has broaden and diversified participation, especially when employing techniques such as videos and recordings that people can watch, and methods for providing input such as on-line surveying and chat rooms that people can access at their convenience.

CPR is starting to develop a checklist of resources and methods to ensure equitable infrastructure development happens in preparation for the anticipated increase in federal infrastructure spending on climate, transportation, and infrastructure. Without attention to who benefits from infrastructure for infill, and how people benefit, these initiatives may become yet another example of disruption and division.

Existing Mechanisms

California cities and counties provide a broad range of public services and infrastructure. The poor condition of basic infrastructure in California¹ reflects inadequate, outdated, and inequitable funding and other tools to build, rebuild and maintain infrastructure; the same is largely true with the social infrastructure of communities. What worked for a century of suburbanization of California does not work for the next century of growing California through infill. To understand what is needed to facilitate infrastructure for infill, a review of existing funding and financing mechanisms provides insights.²

The shortcomings of existing mechanisms for funding infill infrastructure rest in a state-wide tax structure, a scarcity mindset of many communities, and employment of old tools that were developed for suburbanization,

¹ <https://infrastructurereportcard.org/state-item/california/>

² <https://www.ca-ilg.org/document/understanding-basics-county-and-city-revenues>



annexation, fiscalization of land use, and outward growth. Today, the financial health of California’s local governments is in question as revenues have not kept up with the expenses of personnel costs and pension obligations, as well as an expansive fabric of infrastructure built over the past 100 years³, yet the demand for housing—and the associated supportive social and basic infrastructure—continues to grow due to ongoing employment and population growth and the continuing housing affordability crisis.⁴ The challenge of existing mechanisms to fund infill infrastructure also rests in the tension between all of the following key factors: 1) city councils or boards of supervisors are careful to increase fees and charges so as not to further increase costs of living and costs of doing business; 2) increasing costs for personnel in local

governments as the public demands more services that consume the vast majority of general fund revenues—crowding out funds for infrastructure; 3) since Proposition 13 in 1978⁵, political and legal constraints have expanded and limited local government’s ability to independently adjust or adapt revenues to keep up with infrastructure-related expenses; 4) some local government tools have been limited (i.e., the dissolution of redevelopment in California in 2012⁶); 5) infrastructure funding from

³ https://www.auditor.ca.gov/local_high_risk/dashboard-csa

⁴ <https://calmatters.org/housing/2021/01/california-housing-crisis-lessons/>

⁵ [https://ballotpedia.org/California_Proposition_13,_Tax_Limitations_Initiative_\(1978\)](https://ballotpedia.org/California_Proposition_13,_Tax_Limitations_Initiative_(1978))

⁶ <https://www.latimes.com/local/la-xpm-2011-dec-29-la-me-redevelopment-20111230-story.html>

Selected Mechanisms for Funding Basic and Social Infrastructure

Common Funding Sources												
Local									Reg'l, State, Fed'l			
Rates	Fees	DIFs	Development Agreements	Property Tax	Sales and Use Tax	Utility User's Tax	Other (Note 1)	Private / Non-Profit	Public-Private Partnerships	Regional (Mitigation Fees, etc.)	State (Note 2)	Federal Grants and Aid
Basic Infrastructure												
Water												
Wastewater												
Energy												
Storm												
Streets												
Sidewalks												
Social Infrastructure												
Schools												
Libraries												
Parks												
Open Space												
Health Services												
Public Safety												
Food												
Housing												

Notes:

1. Business License Tax, Construction Dev Tax, Parking Tax, Property Transfer Tax, Transient Occupancy Tax, CRIA, EIFD, BIDs, Special Districts, etc.
2. Vehicle Registration, HUTA, RMRA, Prop 42, SB1, Grants



State and federal government has declined significantly, although this may change with passage of the federal infrastructure bill; and 6) shifts to renewable resources have changed revenue streams. To make up for the various shortcomings, ballot box measures have grown statewide,⁷ and tools have surfaced to work around tax-restrictions like Proposition 13 and the loss of redevelopment (such as Mello-Roos, Enhanced Infrastructure Financing District, and Community Revitalization and Investment Authority).

An Urban Strategy for California, prepared in 1978 by the State of California Office of Planning and Research, acknowledged that much of the future of the State was in its cities, stating “California can no longer avoid city problems by moving farther and farther away from the central cities...”⁸. The priorities for new urban development in the *Urban Strategy* focused on infill and the premise that achieving future infrastructure investments is based in State, regional, and local partnerships. Over four decades later, in today’s California, the simultaneous need to invest in infrastructure and meet the demand for attainable housing throughout the State require new models for funding the spectrum of infill infrastructure that meets the needs of well-functioning, complete communities.

Importance of Standards

Infill development presents unique challenges to developing appropriate infrastructure to support it. Most communities have standards for infrastructure based on historical growth patterns. In much of California, that means standards were created to support greenfield development. Many of California’s older communities, especially those built before the 1970s, were not designed and built with specified general plan standards for public facilities, especially social infrastructure. These communities accumulated deficits over time as new standards were introduced and enhanced.

As a community transitions from greenfield development to infill development, several challenges need to be addressed. The first is to ensure that infrastructure is based on appropriate standards.

In many cases, the standard for infill development should be different. An example would be park dedication and improvement standards. In greenfield developments, planners traditionally think in terms of acres of parkland per thousand residents. A large new park within a developed community to serve new residents may not be possible given the difficulty and cost of acquiring land to develop a new park. An alternative would consider standards based on smaller parks and the use of facilities, such as play equipment, gymnasiums, pools, and community centers, to serve more people with less land, or linear park designs that fit within the community. Open space and natural parks are still needed for a complete community and quality of life, but alternative ways to provide recreation value to more people, more efficiently should also be considered.

Another strategy is to design for co-benefits, where a single facility serves multiple uses. An example of this would be a stormwater detention area redesigned to have habitat, park, trails, and recreational components since peak storm water detention times (during and immediately after heavy rains) are different than peak times for park use, or an improved pedestrian and bike trail system for recreation also serving travel circulation demand.

Finally, impacts can be lower for certain infrastructure systems serving infill development. For example, infill units located centrally within a community often have better access to transit or are located in areas closer to commercial uses and other daily needs. In these infill locations, units generate lower impacts on the transportation system. Lumping infill projects into a category that also includes greenfield development for assessing impact fees has the effect of over-charging infill units for their proportional share of impacts. Properly assessing infill units for their marginal impacts would allow additional financial capacity within each project to be directed to the unique challenges faced by infill units. However, new tools are still necessary to capture this value appropriately and equitably.

⁷ <http://www.californiacityfinance.com/Votes2011final.pdf>

⁸ https://test-opr.ca.gov/docs/20190325-urban_strategy-ocr.pdf



Impact on Housing Affordability

The extent to which housing affordability is affected by the expansion of hard and social infrastructure depends on the approach to fund improvements. Literature and experience suggest that the most common approach—imposition of development impact fees—has affected the cost of housing and affordability.⁹ Others argue that impact fees do not increase prices (the market determines how much people are willing and able to pay) but reduces residual land values (how much a developer is willing to pay for real estate to redevelop into more housing).

Both outcomes, however, discourage more housing development to meet market demands. Increasing prices reduces demand. Decreasing residual land values discourages some property owners from selling their real estate to build more housing, depending on the economics. In either case, the reduction in supply increases overall housing prices.

Impact fees, special tax districts, assessment districts, and other mechanisms generate their own biases depending on the apportionment methodologies employed, even when based on a rationale nexus. For example, larger homes with more living space and bedrooms presumably accommodate larger households with more people, who demand more public services and, therefore, logically, should pay more towards infrastructure and public facilities. This leads to family housing (with children, aging parents, or both) costing more. The difficulty in providing affordable family housing, especially now that the millennial generation is in the family formation of life, not to mention increasingly aging parents, is an acute market shortage issue.

Flat-rate citywide fees do not account for marginal variations in demand for facilities, such as charging homes near transit and job centers, where shorter commutes and ability to travel without driving is possible, the same transportation impact fee as homes needing miles of roadway for their 20-mile commute. Conversely, charging a home for transit when it is located miles from transit service fails to reflect actual marginal impacts.

While infrastructure for infill development often is more challenging and expensive to provide per unit—acre of park, lane-mile of road and pipe, etc.—the number of

units needed may be less because of location efficiencies, especially in urban locations where there is surplus infrastructure capacity. Fundamentally, a more efficient and equitable funding mechanism would consider locational efficiencies, economies of scale, and variations in actual facility demand given the context. Home and land prices would then adjust to reflect these marginal costs and benefits.

The alternative—inadequate infrastructure—may burden developments to provide such services privately, project-by-project without economies of scale, thereby increasing household and housing costs.

The Need and Responsibilities for New Tools for Local Jurisdictions and Communities

New tools are needed that provide flexibility and better match those who pay with those who benefit. The California Planning Roundtable has been advocating for **variations of special tax district laws** to allow voters within a sub-area of a jurisdiction or allied communities across multiple jurisdictions (such as a special district for linear infrastructure like a greenbelt park corridor or transit-oriented development at stations along transit corridors) pass special tax districts with a simple-majority vote to fund needed infrastructure and public facilities, together with their operations and maintenance. Like benefit assessment districts, special tax districts would match areas of benefit with funding responsibilities but would have more flexibility in meeting the benefit nexus standard. Like Community Facility Districts, they could target a geographic area but would apply to existing properties to address existing facility deficits, not just new development, with legislation emphasizing that fundamental purpose. Parcel taxes proportioned in various ways, transient-occupancy taxes, user fees, sales and utility tax overages, license excise taxes, property-based business improvement district fees, parking management benefit districts, and other fiscal revenue sources could be used. If spread among a wide variety of taxpayer types, land uses, and geographies, the individual burden may not be great. Regardless, those areas who do not want to tax themselves to improve their public facilities won't. Those who do, can.

⁹ https://turnercenter.berkeley.edu/wp-content/uploads/2020/08/Residential_Impact_Fees_in_California_August_2019.pdf



Strengthening and linking tax increment financing

would help if a portion of tax increment must be used for public facilities. The current Enhanced Infrastructure Financing District (EIFD) mechanism has not been widely adopted because it requires other taxing jurisdictions to agree to apply their share of tax increment, unlike prior redevelopment, which was formula-based. There is little incentive for county governments to participate, and if city governments are only applying their share of tax increment, there is less incentive to form an EIFD. One modification is to provide an incentive for other taxing jurisdictions to participate, such as linking it to regional smart growth strategies and allowing county jurisdictions to transfer some of their Regional Housing Needs Assessment (RHNA) allocations and other development rights from their unincorporated area into receiving cities, such as in their transit-oriented communities, and by formula allocate the county's share of tax increment in these receiving areas to fund infrastructure and public facilities. This would link infill development policies with regional open space and rural protection policies to discourage regional sprawl.

Other potential tools may include **a State block grant program** or bond designed specifically for public facilities to support areas planned to receive infill development. Regional agencies proposing major infrastructure systems might include **a local share percentage in regional special tax measures** for related and supportive local infrastructure improvements, as was done with Measure M in the Los Angeles region.

Public-Private Partnerships are common in other countries to privately finance, develop, operate and maintain certain public facilities, still held by the public agency, under a contract. The facility reverts to the public agency to manage after a designated amortization period. A source of revenue or availability payments from the government to the private partner is still required to cover costs. While toll roads have been a common application, the Long Beach Civic Center is a recent public facility example. Another type of public-private partnership are **Privately Owned-Publicly Accessible (POPA)** facilities, provided on public land leases or private properties under contract or permits, often associated with smaller urban parks and other facilities that are integrated with adjacent development.

Governments have used their entitlement authorities to employ **Value-Capture** programs that provide a base entitlement by-right, and additional entitlements in exchange for funding or direct provision of public facilities, sometimes small like pocket parks when employed at a project level, and sometimes major when employed at a whole district level, like Transit-Oriented Development (TOD) station area and amenity improvements.

Certainly, other creative ideas can be considered.

The point is that since the State is directing its future growth toward infill development to increase housing supply sustainably, the State also needs to participate directly and enable local jurisdictions to fund the infrastructure and public facilities needed to serve not only the infill growth but to address existing facility deficits in the communities targeted to accommodate growth to create complete communities equitably for Californians.

About the California Planning Roundtable

The California Planning Roundtable (CPR) is an organization of experienced planning professionals whose mission is to advance the practice of planning through innovation and leadership. Each year, CPR studies one or more timely and significant planning issues affecting California and publishes the results of the inquiry. For more information, about CPR, visit:

www.cprroundtable.org

