



Interstate 5/Union Pacific "Disconnect"



Shasta County, Northern California, Congressional District 1
Highway, Bridge and Rail Capital Project: Rural Area
TIGER Request: \$12,760,000
April 2014

Primary Contact:
Daniel S. Little
Executive Director
Shasta Regional Transportation
Agency (MPO)

1255 East Street, Suite 202 Redding,
CA 96001
(530)262-6191
dlittle@srta.ca.gov



Alternate Contact: Jeff Kiser
City Manager
City of Anderson
(Local Government)

1887 Howard Street
Anderson, CA 96007
(530)378-6636
jkiser@ci.anderson.ca.us



TIGER VI – 2014

Interstate 5/Union Pacific

“Disconnect”

Table of Contents

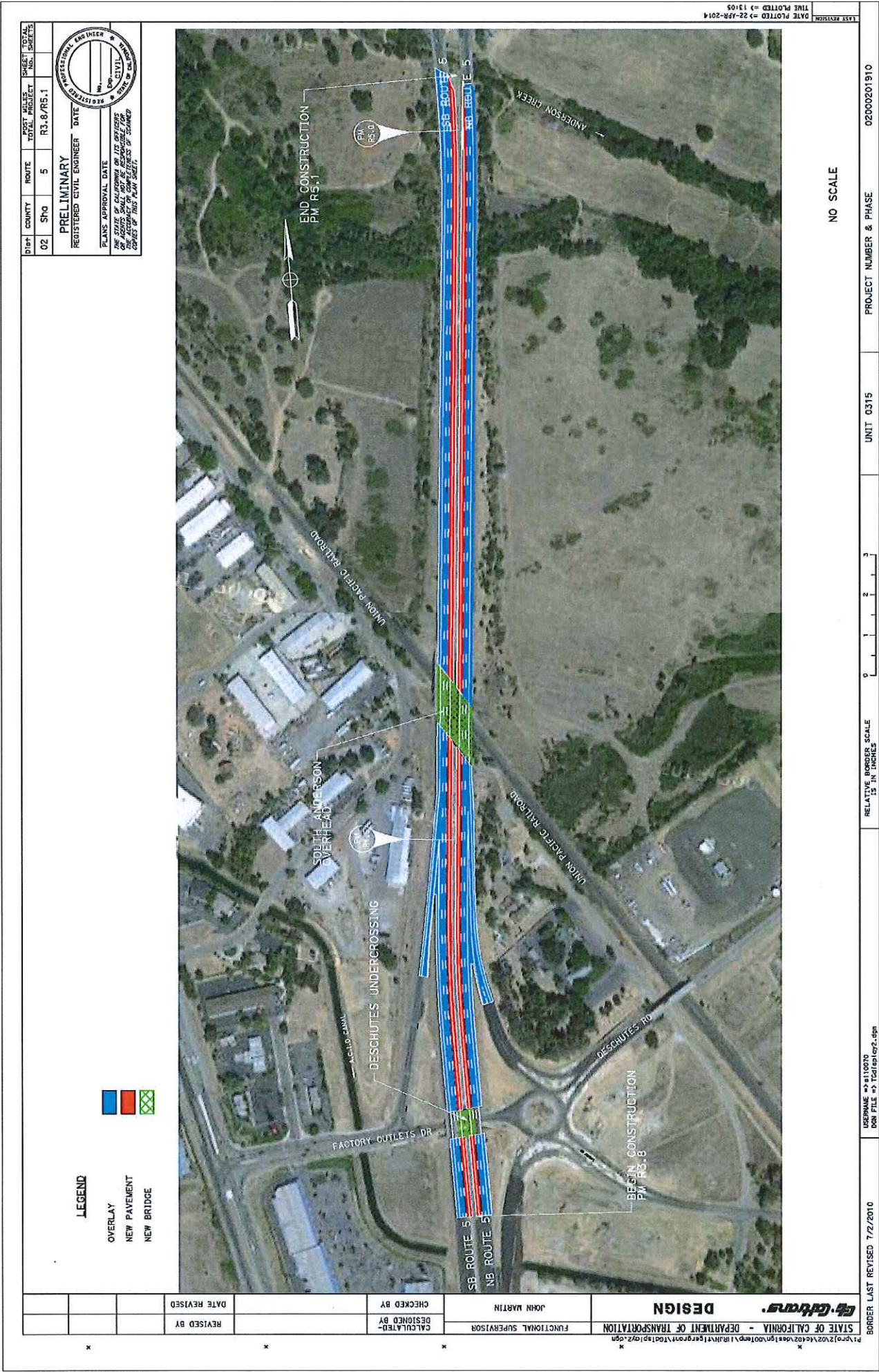
Section 1.	Project Description and Background.....1
1.1	Rural Eligibility.....7
Section 2.	Project Parties.....8
2.1	Project Applicants...8
2.2	Project Supporters...8
Section 3.	Grant Funds Request and Sources/Uses of Project Funds.....8
Section 4.	Selection Criteria.....10
4.1	Primary Selection Criteria.....10
4.1.1	State of Good Repair.....10
4.1.2	Economic Competitiveness...12
4.1.3	Quality of Life.....16
4.1.4	Environmental Sustainability.....17
4.1.5	Safety.....17
4.2	Secondary Selection Criteria.....20
4.2.1	Innovation.....20
4.2.2	Partnership.....22
4.3	Benefit-Cost Analysis.....24
Section 5.	Project Readiness and Schedule.....24
5.1	Project Readiness.....24
5.2	Project Schedule.....25
Section 6.	Certifications.....26
6.1	Federal Wage Rate Certification.....26
6.2	Financial Capability and Grant Management.....26
6.3	Long-Range Plan Consistency.....26
Section 7.	Applicants’ Signatures.....27

MAP 1: PROJECT LOCATION

PROJECT: INTERSTATE 5/UNION PACIFIC DISCONNECT



MAP 2: SITE MAP PROJECT: INTERSTATE 5/UNION PACIFIC DISCONNECT



Section 1. Project Description and Background

The Shasta Regional Transportation Agency (SRTA) and the city of Anderson are pleased to present a TIGER grant proposal for the Interstate 5/Union Pacific “Disconnect.” The project will replace the fifty-year-old, and dangerously substandard, Interstate 5 overcrossing of the Union Pacific Railroad (UP) in Anderson, California. The new Interstate 5 overcrossing will clear-span the entire Union Pacific right-of-way (ROW) and will have six total lanes to align with the existing six-lane freeway section immediately to the south. Total project cost is \$28.654 million, of which \$15.9 million has been raised locally. An initial NEPA document is complete and design is underway. The TIGER request is for \$12.760 million, or 45% of the project cost.

Spanning the entire west coast of the continental United States, Interstate 5 is the only continuous north-south freeway west of the Mississippi that meets all the Primary Freight Network criteria in MAP-21. It runs from Mexico to Canada connecting west coast maritime ports. The UP corridor, running parallel to Interstate 5, is the most significant goods and people movement rail corridor in the west coast states. Just south of Anderson, the UP veers off its parallel course and runs under Interstate 5 at the project site. The trains travel at high speeds between a narrow gap of twelve unfortified interstate bridge supports that do not meet minimum safety clearances (See Safety, Section 4A.5). **Each day, over 7,800 heavy trucks, 20,000 light vehicles, 1500 rail freight cars, and 2 Amtrak trains pass through this I-5/UP intersect¹.** Traffic at the Interstate 5/Union Pacific “Disconnect” consisting of commuters, interregional travelers, local and long-haul trucks, rail freight, and passenger rail is projected to increase across all travel modes by approximately 50% in 20 years².

If funded, the project would address this precarious transect where Interstate 5 and a major rail line meet at the gateway to California’s most northerly metropolitan area. Train derailments and truck-related collisions are all-to-common in the region. The backbone rail and interstate network connecting all west coasts states could be lost in an instant.

Locally, the Interstate 5/Union Pacific “Disconnect” creates community challenges that go beyond the obvious safety concerns. **There are four challenges, or “disconnects,” in all.** With all other state and federal funding options exhausted, and local funds available for most but not all the interstate bridge replacement cost, **the TIGER program represents the last known funding opportunity to help the community reconnect.** Each of the four challenges, along with how the TIGER program can play the pivotal role in resolving them, warrants the detailed discussion that follows:

¹ SRTA, from the Shasta Regional Travel Demand Model, 2014

² SRTA, from the Shasta Regional Travel Demand Model, 2014



Disconnect #1: Separating Residents from Jobs - I-5 and the UP rail line physically divide the community of Anderson, an economically distressed city of over 10,000³ residents. Anderson lies at the southern gateway to the Redding metropolitan area. **The I-5/UP overcrossing remains the biggest impediment to a larger set of planned transportation improvements intended to connect people and jobs.** The I-5/UP overcrossing adjoins the Deschutes Road Interchange to the south. This area, in particular, was especially hard hit by the collapse of the north state's resource-based economy. **The closure of mills and loss of living-wage jobs tied to the declining timber industry have left several-hundred acres of brownfields in its wake,** which Anderson is attempting to redevelop, pending an annexation (See Map 4) in its final review phase.

SRTA has also devoted federal planning funds to study this area because of its rail and interstate access potential. Several uses hold promise, including intermodal freight facilities⁴, a food-fiber-forest-bio-fuel hub⁵, and other activities to support Wheelabrator Shasta Energy Co. Inc. which anchors the area with a major waste-to-energy facility. Anderson's pending annexation leading the way, city services can be extended further east, including the area of the I-5/UP overcrossing and the Deschutes Road Interchange. Anderson, with backing from the entire region and economic development community, has the resources and will to redevelop those vacated industrial lands and create sustainable, living-wage jobs. The area is beginning to reinvent its economic base but can only tackle major redevelopment efforts such as this with needed improvements to Interstate 5 and the Deschutes Road Interchange. Caltrans requires the bridge over the UP rail line be widened to accommodate the on-ramps and off-ramps of the Deschutes Road Interchange. UP insists the bridge may not be widened, and needs to be replaced to meet safety clearances. **Because of Union Pacific's "you touch it, you fix it policy," plans to complete the partial interchange at Deschutes Road or widen Interstate 5 cannot proceed.**



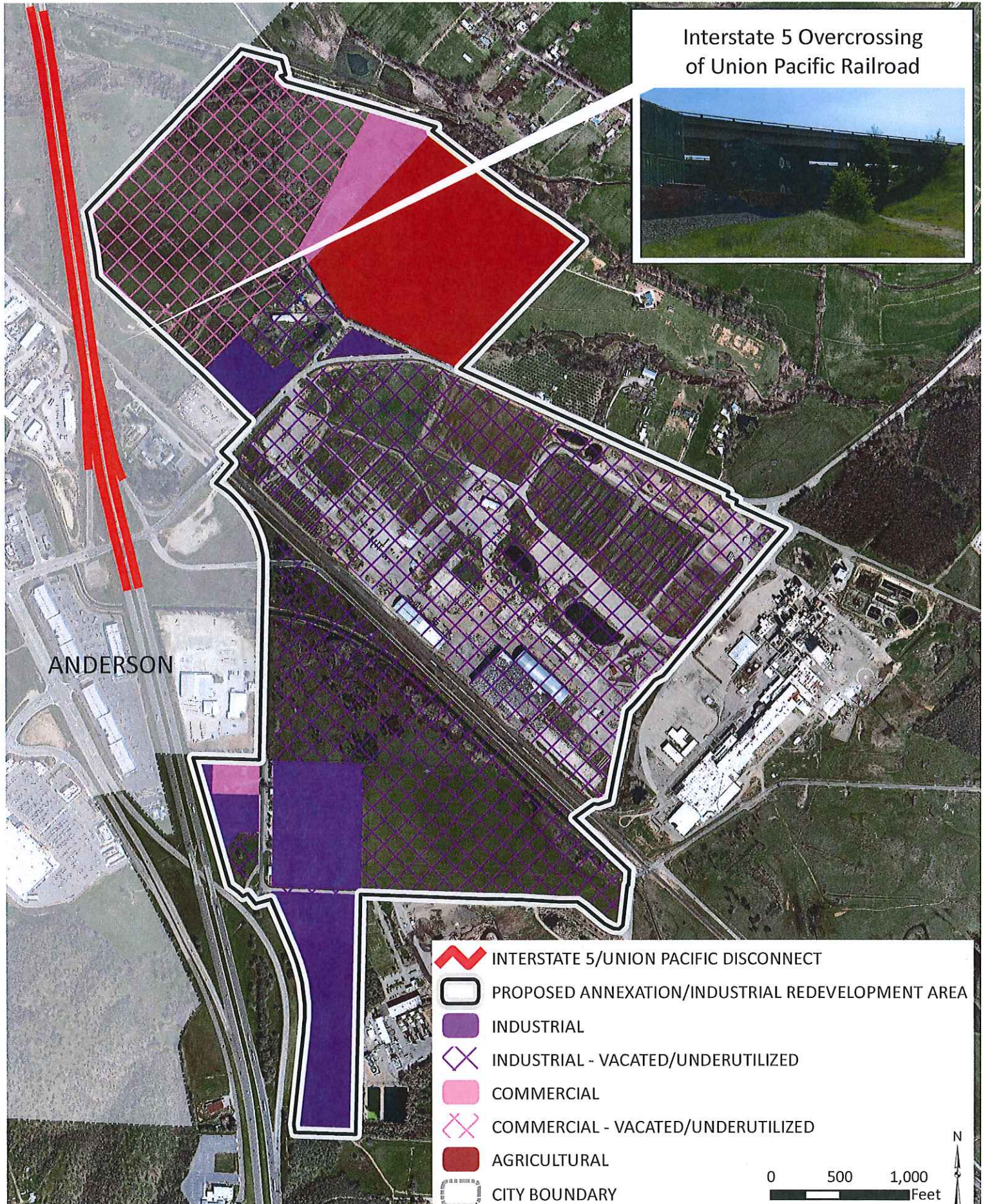
TIGER Reconnect: The Deschutes Road Interchange will better connect residents to employment in Anderson. It cannot be completed until the Interstate 5/UP "Disconnect" Project has been completed. Local government has assembled most of the needed funds. A TIGER grant will provide the missing piece to the finance puzzle. **The new single-span Interstate 5 Bridge will clear the entire 100-foot Union Pacific right-of-way.** It will be wide enough to accommodate the needed Deschutes Road Interchange on- and off-ramps. **The TIGER project will also fix the last broken link** to complete the planned connection of a multi-jurisdictional Interstate 5 widening project through the entire metropolitan area. This will provide reliable access to other job and housing centers in the city of Redding.

³ Attachment "Maps", Map 5, Economically Distressed Area

⁴ North State Transportation for Economic Development Study (NSTEDS), SRTA, 2013;
http://www.sрта.ca.gov/pastel/RTstudy_current.htm

⁵ April 3, 2014 SRTA Letter of Support for Central Valley AgPLUS Manufacturing Community Designation (in response to US Commerce Department solicitation for Investing in Manufacturing Communities Partnership).

MAP 3: ANDERSON PROPOSED ANNEXATION PROJECT: INTERSTATE 5/UNION PACIFIC DISCONNECT





Disconnect #2: Pinch-Point at Epicenter of Larger Set of Improvements - The substandard I-5/UP overcrossing **obstructs several planned transportation investments** – located to the north, south, east, and west – **from connecting in middle.** (See Map 3, Freeway Expansion Projects) SRTA, as the federally designated Metropolitan Planning Organization (MPO), has been working for 20 years on a series of mainline and interchange projects to improve connections on either side of Interstate 5 and the Union Pacific line. While SRTA and the local agencies have been successful on most fronts, the substandard interstate overcrossing remains the major disconnect. Not only is it an unsafe bottleneck for both the interstate and the rail line, **it creates a formidable physical and financial barrier to planned and needed expansion projects at the Deschutes Road (partial) Interchange and Interstate 5's mainline.**



TIGER Reconnect: The TIGER grant will be the minority investor in a high-value improvement that cannot otherwise be funded entirely with local funds, nor should it be. This removes the largest financial impediment to connecting a series of Interstate 5 expansion projects through the entire metropolitan area. Over \$100 million has already been invested over the past twenty years. The wider overcrossing also allows completion of the Deschutes Road Interchange, upgrading it from a partial interchange to a high-capacity interstate access and crossing.

Both the interstate and the rail line divide the community of Anderson separating residents from redevelopment efforts and the new jobs it would create. A wider overcrossing will also allow planned double-tracking of the UP line.

The TIGER project would be the capstone to a larger set of improvements to address

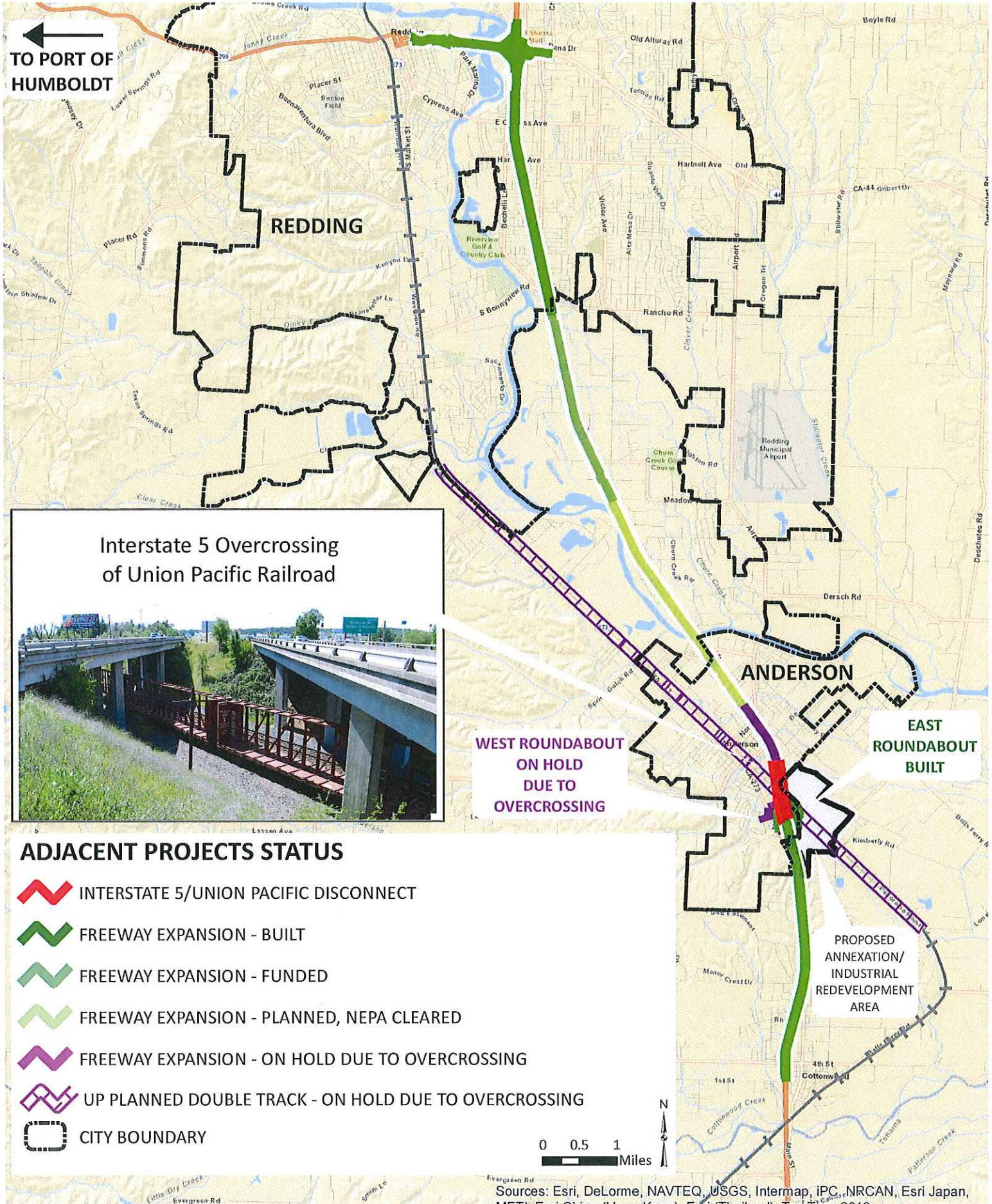
system reliability and expansion for residents, travelers, freight trade, and passenger rail.

Economic, industrial redevelopment, and job recovery efforts have been successful to date but the momentum will be lost without the aforementioned mobility improvements.



Deschutes Road Interchange Phase 1 Groundbreaking, 2013.

MAP 4: FREEWAY EXPANSION PROJECTS
PROJECT: INTERSTATE 5/UNION PACIFIC DISCONNECT





Disconnect #3: Safety and System Reliability - The I-5/UP overcrossing was designed with light supports that have no crash barriers or reinforcement. It fails to meet even the minimum safety standards for vertical or horizontal clearance from the fast-moving Union Pacific and Amtrak trains. Derailments are far-to-common in Shasta County. For example, a Union Pacific train struck an Interstate 5 bridge support earlier this year just north of Anderson in Shasta County (See Safety, Section 4A.5). This bridge was more modern and damage was minor; however, this served as a wakeup call at the older Anderson overcrossing where safety clearances are worse, other safeguards are non-existent, and people and businesses surround the area. Caltrans estimates that a new structure would take at least four months to complete. With the ensuing traffic jams, noise, access and air quality impacts on Anderson city streets, even the best economic recovery efforts over decades could be undone in an instant. **The best solution is prevention, with a “Fix it First” approach. While sizeable, the investment today will prove wise compared to the cost of a bridge replacement under a disaster declaration scenario.**



Union Pacific derailment at Interstate 5 in Shasta County, 2014.



TIGER Reconnect: The TIGER project will meet or exceed the highest standards for horizontal and vertical safety clearances and **virtually eliminate the risk of a catastrophic event**. The new interstate bridge will clear-span the entire 100 foot Union Pacific right-of-way. The bridge will be raised and lengthened, resulting in a bridge deck 10 feet higher than exists today. Retaining walls will be installed on either side of the rail right-of-way. It is a single-span bridge meaning it will have no supports to make the structure vulnerable to train collisions. **The investment is an insurance policy that could save the state and Union Pacific untold millions in injury and settlement cost, while also replacing a 50+ year-old bridge with one that has a longer design life.**





Disconnect #4: Funding and Responsibility - A project like this has major federal and state ramifications yet **funding and support appear upside down to the average citizen**. While state and federal agencies have repeatedly overlooked the community's concerns by denying all attempts at funding a safe I-5/UP overcrossing, SRTA and local agencies took action to develop a program to finance over 55% (\$15.9 million) of a \$28.654 million need. Locals have completed an initial NEPA document and have fully funded design and right-of-way. Unfortunately, the high construction cost has proved more than the local agencies can muster alone. **Without a state or federal partnership, local agencies will be forced to abandon the project despite the risk to the local population and the freight corridors**. With so much local support, and funding to back it up, the TIGER program could be the financing capstone where all other programs have failed. **With a number of derailments in the area and train strikes to Interstate 5 in other locations with greater safety clearance, it is prudent for the community to plan for disaster prevention**. A disaster declaration and the ensuing consequences **would leave many scratching their heads wondering where the state and federal governments were when the locals had offered so much**.



TIGER Reconnect: The TIGER grant will lend federal support and **provide the last piece of funding necessary to complete a project that is otherwise financially out of reach using local resources alone**.



Although the Interstate 5/Union Pacific “Disconnect” faces the above challenges, it holds great promise on one front: It enjoys **broad support with no known opposition**. (See Section 2.2, Project Supporters). The economic, jobs, and connectivity benefits discussed above are confirmed by significant letters of support. Support not only comes from governmental entities, state legislators, and U.S. Congressmen, but also from private industry, area employers, trade organizations, and economic development experts. **But it is much more than lip-service; it is backed by local financial commitments for over half the project need**.

1.1 Rural Eligibility

This project qualifies as a rural project with a fund request of \$12.760 million. The project lies adjacent to, but outside of, the region's urbanized area⁶.

⁶ See Attachment “Maps”, Map 7, US Census Urban and Rural Boundaries

Section 2. Project Parties

2.1 Project Applicants

- ❖ The Shasta Regional Transportation Agency (SRTA) is the primary applicant and serves as the federally designated Metropolitan Planning Organization (MPO) and partner to the US Department of Transportation; and
- ❖ The city of Anderson is the co-applicant. The project is within a rural designated area of the Anderson city limits and pivotal to planned city annexation goals/economic development/industrial redevelopment.

2.2 Project Supporters

The project enjoys wide-spread support from diverse interests. Eighteen letters of support to Secretary Foxx are attached⁷. A summary listing of supporters is included on Page 23.

Section 3. Grant Funds Request and Sources/Uses of Project Funds

SRTA requests **TIGER VI funds in the amount of \$12.760 million, or just under 45% of the total project cost.** Caltrans – the delivering agency – has included a 15% capital construction cost contingency. The funding plan is shown in the following table:

Interstate 5/Union Pacific "Disconnect" Funding Plan			
Phase	(thousands)	% of Total	Agency/Status
Permits and Design	\$ 2,094	7%	SRTA (obligated)
Righ-of-Way	\$ 1,000	3%	Caltrans (committed)
Construction (source 1)	\$ 500	2%	Anderson (committed)
Construction (source 2)	\$ 200	1%	Shasta County (committed)
Construction (source 3)	\$ 12,100	42%	SRTA (available)
Subtotal	\$ 15,894	55%	
Construction (TIGER Need)	\$ 12,760	45%	TIGER (requested)
Total	\$ 28,654	100%	

Caltrans funds are committed from the State Highway Operation and Project Program (SHOPP) Minor Program. These are state funds where the local Caltrans district has flexibility to commit them to qualified uses, but these funds are limited to \$1 million per project. **\$1 million is committed if the TIGER grant is successful.**

SRTA funds are essentially local funds. They are intended to benefit local agencies like the city of Anderson and Shasta County who are members of the Metropolitan Planning Organization. Over and above the 50% SRTA contribution, Anderson and Shasta County have committed **another \$700,000 collectively in local traffic impact fees should the TIGER grant be approved.**

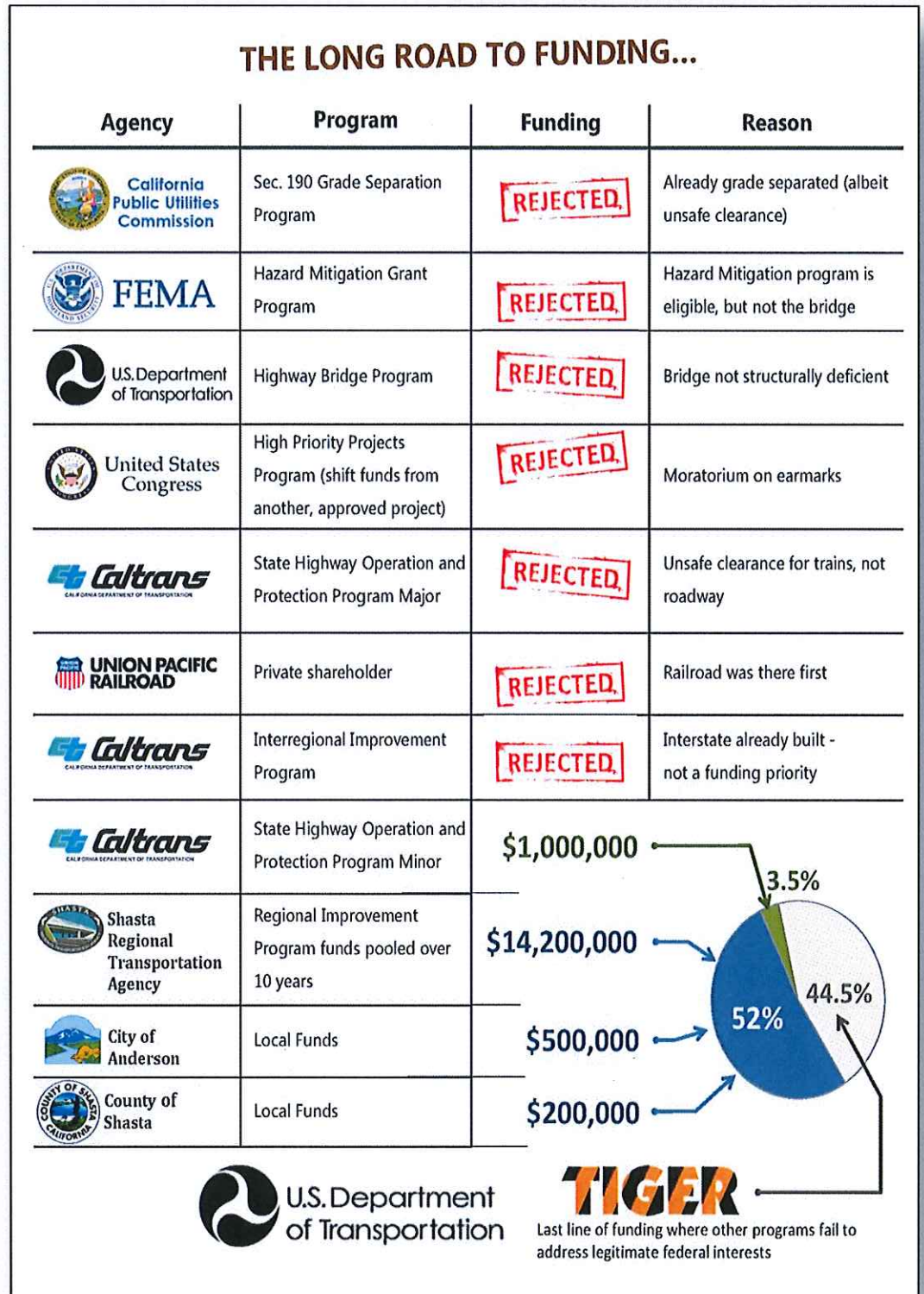
⁷ See Attachment "Letters of Support"

SRTA will be funding about half the project through regional gas tax shares apportioned by the state. These are typically state funds but the project is proceeding with all needed federal clearances. If federal funds are used, federal-approved toll credits would apply to meet match requirements.

\$2.094 million is already obligated for NEPA and design work, currently underway.

\$12.1 million is currently reserved for 2016 construction on an adjacent phase of Interstate 5. This represents all SRTA funds and ten years of accumulated shares. If the TIGER grant is successful, SRTA will reallocate the funds to the I-5/UP "Disconnect" Project, which is a higher priority but financially out of reach.

Without the TIGER grant, SRTA will be forced to abandon the I-5/UP "Disconnect" and programmed funds would remain with the smaller, financially tenable project to the north.



Section 4. Selection Criteria

4.1 Primary Selection Criteria

The Interstate 5/Union Pacific “Disconnect” project offers a myriad of long-term benefits. By unlocking a larger set of mobility investments, it promotes middle class job-creation in an economically distressed region, improves regional and national market competitiveness, and mitigates a potentially catastrophic event capable of disrupting trade along the western seaboard. This section addresses I-5/UP “Disconnect” Project challenges and the benefits that will result from its funding.

4.1.1 State of Good Repair

Union Pacific Railroad currently has a single track and a siding through the project site. The Interstate 5 Bridge constricts the railroads’ opportunities for expansion due to impeded clearances. In addition, the existing, sub-standard horizontal and vertical clearances pose a safety hazard. UP would like to install a double-track in the future, and preserve the siding to accommodate future growth. This could serve the multi-industry intermodal hub being considered in the area to take advantage of existing spur lines in the Anderson redevelopment/annexation area. Amtrak and state rail plans include the addition of daytime passenger rail service between Redding and Bakersfield⁸, further supporting the case for widening the already-impeded clearances.

The project, as proposed, fits into the US DOT’s “**Fix it First**” approach. The existing highway overcrossing structures are nearly a half-century old, with no fortification for train-strikes such as crash walls. With dangerously sub-standard clearances of bridge supports from the UP rail line, the possibility of a future catastrophic accident is an acute source of community concern.

A major source of “disconnect” is one of responsibility. The bridge is maintained by Caltrans. Replacement is not a priority because the safety clearance pertains to train clearances. It is not a UP priority because the bridge encroached into rail right-of-way and Caltrans has more legal responsibility and more to lose. Caught in the middle, the community can’t provide needed interchange and interstate expansion projects needed in the area to connect a larger investment of mobility improvements. Even a simple widening of the overcrossing invokes a “you touch it, you fix it” policy that puts smaller needs financially out of reach. SRTA and the local jurisdictions have reached dead ends at each turn but remain hopeful for assistance. **The project is 55-percent capitalized up front**, provided the TIGER program can cover the remaining 45 percent of this federal interstate project.

SRTA, Caltrans, and the partner local governments will **use asset management approaches to optimize the project’s long-term cost structure**. Indeed, just by replacing this old, non-compliant bridge now, the region avoids having to replace it for over 75 years⁹ or worse, replace it under a disaster declaration scenario. The bridge design will accommodate future needs of the federal interstate, such as an auxiliary lane to serve future operational needs¹⁰ and wider areas for worker safety.

⁸ California State Rail Plan, 2013

⁹ Caltrans District 2, April 2014

¹⁰ Caltrans District 2, April 2014

Long-term operations and maintenance of the project will be covered by Caltrans. Caltrans will use funds from the State Highway Account for routine operations and maintenance, and the State Highway Operation Protection Program (SHOPP) for any rehabilitation work necessary in the future. Both **funding sources are reliable and sustainable** as SHOPP funding has been available for over a quarter of a century, while taxes funding the State Highway Account have existed for over 90 years.

However, minus the necessary funding, this project will not be completed, and the region will be threatened in the following ways:

- Job-creation will be compromised
- Daytime Amtrak rail service will likely be postponed
- UP will be prevented from expanding track for operations
- Decreased network efficiency, reliability, and limited goods movement resulting in lost economic opportunities
- Increased potential for the bridge to be destroyed through a disaster, which further threatens the region in the following ways:
 - Risk of serious injuries and death
 - Lost worker productivity and increase in user delay¹¹
 - Noise, air, and other impacts through several months of Interstate traffic diversion onto Anderson streets. Lost jobs from users avoiding area businesses
 - Risk community exposure to hazardous material¹²
 - Cost to users, based on delay from loss of bridge for the duration of construction, 4 months, amounts to \$8 Million¹³
 - Loss of revenue for businesses operating locally, regionally, and nationally

Table 1 Vehicle Hours of Delay, Shasta Regional Travel Demand Model, 2014

2015 Data	Current Conditions	Without Bridge	Percent Change
Daily Vehicle and Heavy Truck Hours of Delay	1881	4295	128%

SRTA's RTP contains policies and objectives which emphasize the need to maintain transportation facilities in a state of good repair and address current and projected vulnerabilities¹⁴. TIGER funding will enable SRTA to **replace an outdated, non-compliant bridge**. This maintenance **project would mitigate an otherwise preventable disaster** that could potentially close two modal links simultaneously in the country's Primary Freight Network. It would also fortify and enhance **a reliable, multimodal network** that meets the needs of local commuters, inter-regional tourists, interstate trucking, and passenger and freight rail.

¹¹ SRTA, from the Shasta Regional Travel Demand Model, 2014

¹² Shasta County Hazard Mitigation Plan, 2011

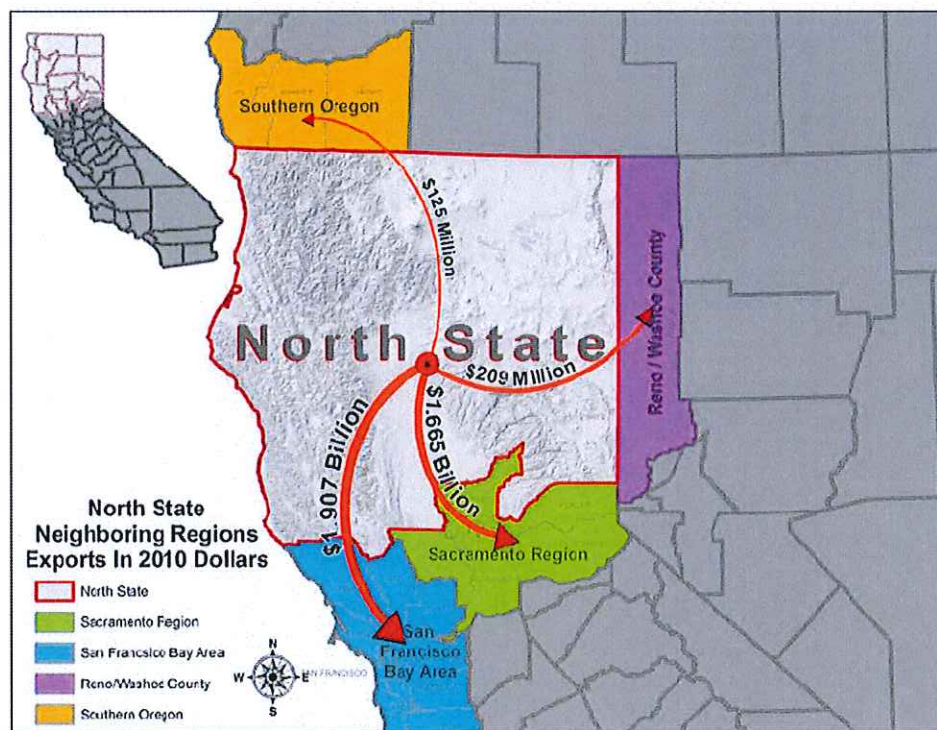
¹³ SRTA, using the TIGER BCA Resource Guide and modeled volumes from the Shasta Regional Travel Demand Model, 2014

¹⁴ SRTA 2010 RTP, Section 5, Objective 2 and Policy 5; available at http://www.srta.ca.gov/pastel/RT_RTP.html

4.1.2 Economic Competitiveness

For many years, Shasta County's economy benefited from the timber, paper products, and lumber industry primarily concentrated in the southeast Anderson area. These industries served as a catalyst drawing the area's development into a more diversified industrial job center. The Great Recession hit the North State, Shasta County, and also the Deschutes/Interstate 5 industrial area especially hard. It was already reeling from the collapse of the timber industry and the acute loss of living-wage jobs.

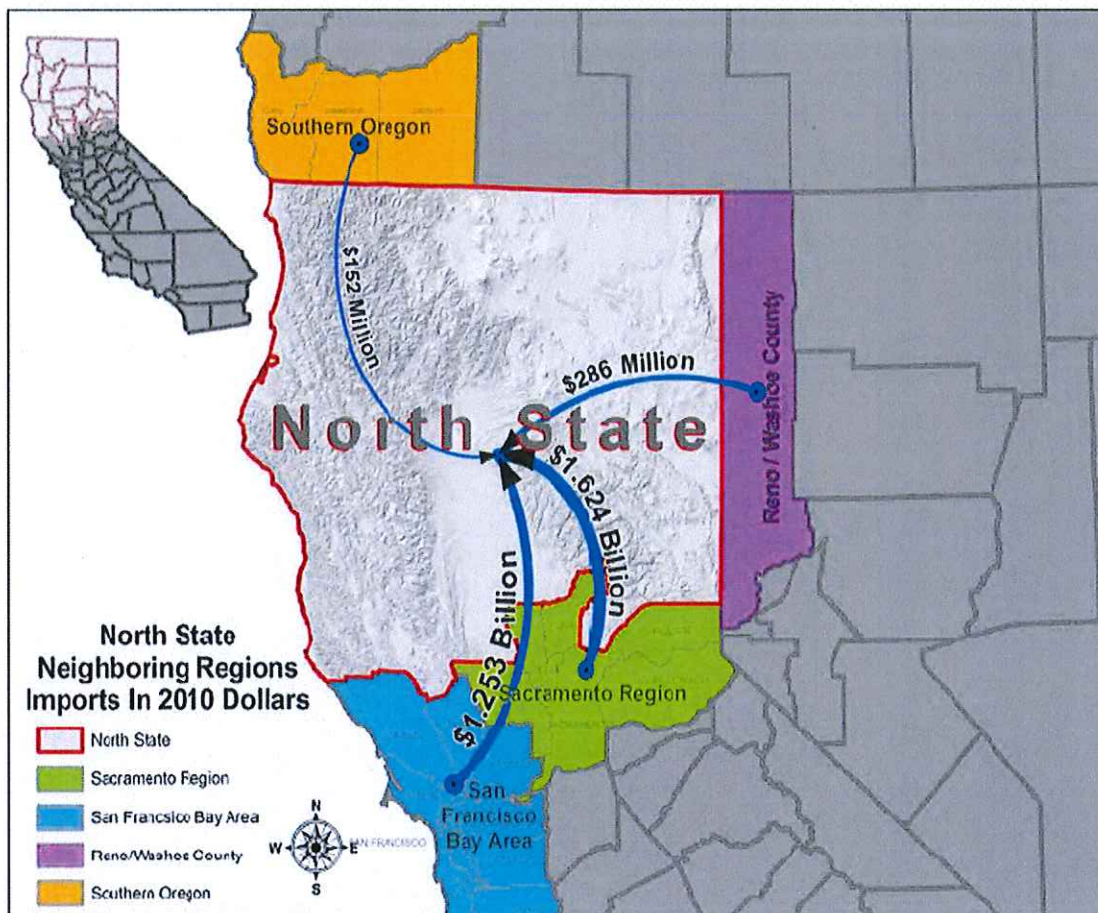
The Shasta Rebound - In spite of numerous limitations and deficiencies, Shasta County has many competitive advantages. Compared with the rest of California, the region has lower costs of doing business, including lower taxes, labor costs, and housing costs¹⁵. The Interstate 5/Union Pacific "Disconnect" Project is located at the geographic center and transportation crossroads of California's sixteen-county North State. It is also at the mid-point of Interstate 5, a contiguous highway corridor spanning the western United States from Canada to Mexico with connections to all major west coast maritime ports in-between. Two major trucking companies recently relocated to the Deschutes Interchange area due to its strategic location. For these and other reasons, the economic value of this facility to the state and national economy must not be underestimated. Figures 1 and 2 illustrate the magnitude of trade going in and out of the region, mostly by the two corridors this project addresses.



Source: Combination of FAF and IMPLAN data in LEAP tool

Value of Commodity Shipments from the North State to Neighboring Regional Markets, 2010, NSTEDS, 2013

¹⁵ North State Transportation for Economic Development Study (NSTEDS), SRTA, 2013



Source: Combination of FAF and IMPLAN data in LEAP tool

Value of Commodity Shipments from Neighboring Regional Markets to the North State, 2010, NSTEDS, 2013

As much of the North State's commodities are exported in raw form, without processing or other value-added economic multipliers, the low cost of doing business in Shasta County presents an opportunity to **fill the raw goods processing gap locally, and create spin-off industrial development**. It is critical that the region maintain these opportunities while seeking to address its many economic constraints.

The Hub of Prosperity - The City of Anderson has recently taken steps to position the city as the logical center for that development by proposing the annexation¹⁶ of 385 acres of land pre-zoned mostly as "Heavy Industrial." The area has been designated a "strategic growth area" in SRTA's draft sustainable communities strategy¹⁷. The property is situated at the junction of Interstate 5 and the UP rail line. In order to facilitate an efficient and wide-reaching logistical solution for this prime

¹⁶ LAFCO to review Anderson's annexation application on May 1st, 2014. City staff expects a smooth transition. (City of Anderson, April, 2014)

¹⁷ SRTA 2015 Regional Transportation Plan Board of Directors Staff Report, February 25, 2014

industrial property, the region is studying the development of a multi-industry intermodal transport hub. The prospective project partners span public and private interests and are listed below:

North State Super Region • Superior CA Economic Dev District • Growing Local • Shasta Growers Assoc. • City of Anderson • Regional Transportation Planning Agencies • Center for Econ Dev @ CSU • Shasta College and Universities • Business & Entrepreneurship Center • Economic & Workforce Development • Healthy Shasta • Shasta County Health & Human Services • Western Shasta Resource Conservation District • McConnell Foundation • Shasta Land Trust • Shasta County Dept. of Ag & Weights and Measures • Shasta County Farm Bureau • Local bank/savings & loan • Dignity Health • Mercy Medical Center

The diverse but complementary goals, reflecting the range of project partners, are listed:

Goals of Multi-Industry Intermodal Transport Hub

- Living-wage jobs, economic opportunity & prosperity
- Reduce food miles
- Food security
- Preserve agricultural, grazing, natural resource production capacity
- Leverage local investments from multiple sectors to attract large-scale funding for infrastructure systems and programs
- Maintain transportation system efficiency

While this intermodal hub, serving the food, fiber, forest, and bio-fuel industries, could be a boon to regional economic development, it also has the potential to serve as a vital cog in a new “mega region” partnership. Shasta County has collaborated with 27 other counties in the Central Valley in an effort to designate this “Mega Region” officially as an Investing in Manufacturing Communities Partnership (IMCP)¹⁸ through the U.S. Department of Commerce. As a designated community, the mega region will receive the coordinated support of thirteen federal agencies and preferential consideration for \$1.3 billion in existing federal funding opportunities.

Through coordination and strategic investments in areas such as in-demand workforce training, commercialized research, strengthened supply chains, improved transportation and energy infrastructure, export promotion and enhanced access to capital, the 28 counties of the Central Valley will mitigate their chronic poverty and unemployment by creating a globally competitive environment that will attract, retain and expand investments in manufacturing. This designation will enable Shasta County and California’s Central Valley, as a whole, to create good-paying jobs while expanding the nation’s manufacturing output and exporting value.

¹⁸ Central Valley AgPLUS, April, 2014, available at: <http://valleyvision.org/resources/agplus-central-valley-fact-sheet>. April 3, 2014 SRTA Letter of Support for Central Valley AgPLUS Manufacturing Community Designation (in response to US Commerce Department solicitation for Investing in Manufacturing Communities Partnership).

Timely Investment - Along with delivery market access to the San Francisco Bay Area and the Sacramento Region, the region has great economic potential. Capturing these economic and job-creation opportunities, directly linked to the Interstate 5/Deschutes Road area, depends on the continued safe, reliable operation of the Interstate 5 and the Union Pacific system – and the ability to improve those systems to support a competitive, growing, and sustainable economy.

If further steps are not taken, transportation models predict future operating conditions will worsen, particularly along I-5. If the I-5 bridge over the railroad is not replaced by 2030, for example, daily vehicle hours of delay will increase by nearly 55 percent¹⁹.

Interstate 5 is unique in the North State in that no economically viable alternate route exists. If the I-5 overcrossing at the project location were destroyed or damaged in a catastrophic event, in addition to the potential loss of life, the general population and businesses relying on the timely transport of goods would incur crippling delays²⁰. The resultant daily vehicle hours of delay from a bridge catastrophe are equivalent to the lost productivity of a 500+ full-time workforce.



South Redding Six Lane Construction, 2011.

Fueling Development - This project will immediately create jobs in the construction industry while the bridges are built and the travel lanes added. According to Caltrans' Economic Analysis Branch (April, 2014), the project will create or support 201 jobs per year and add approximately \$16.8 million per year to the economy (Gross State Product) during construction years. A completed project will encourage redevelopment of industrial property by private sector investment in land, part of which is "shovel ready."

The Union Pacific Railroad has rail spurs that served the large lumber mill (now closed) just southeast of the project. The rail spur can easily be reactivated and used by an industrial development on the former lumber mill parcel. UP is currently active in the region and runs through Redding, connecting Shasta County with 23 western states.

The project will provide traffic-carrying capacity to support the development of an industrial job center. **Backed by real planning and annexation efforts**, the industrial area served by the project has excellent potential to incubate industrial uses of the new economy, such as the opportunity to provide additional green electric power generation from biomass waste – principally from agricultural production waste from the northern Sacramento Valley.

¹⁹ SRTA, from the Shasta Regional Travel Demand Model, 2014

²⁰ SRTA, from the Shasta Regional Travel Demand Model, 2014

Such **long-term job-creation** prospects will not go unnoticed in a region where over one in ten civilians over age 18 are **veterans**²¹, where the **median household income** is \$44,396²² or 70% of the national median, and where 13.7% of the labor force remains **unemployed**²³.

4.1.3 Quality of Life

The Interstate 5 /Union Pacific “Disconnect” is at the center of local and regional efforts to boost economic opportunity; improve access to jobs, education, and essential services; and enhance the overall livability. The region employs a variety of community-based strategies and initiatives to achieve these goals. Some challenges, such as the substandard I-5/UP crossing, are too monumental for locals to tackle alone without federal assistance. TIGER grant funds, when combined with local funds and efforts, will increase livability in the following ways:

- Once a booming area and center of a forest-based industry, the area now has many underutilized industrial parcels with rail and interstate access. To enhance the region’s **economic competitiveness**, several parcels are being annexed by the city of Anderson, and grassroots efforts are underway to create sustainable jobs in high-growth industries²⁴.
- The I-5 /UP “Disconnect” project **invests in existing communities** by creating high-value jobs in proximity to residential development in the city of Anderson and surrounding areas, which offer some of the region’s most **affordable housing**.
- The I-5 /UP “Disconnect” project is a designated ‘Strategic Growth Area’ (SGA) by SRTA’s Regional Transportation Plan Sustainable Communities Strategy. SGAs are geographically small areas targeted for coordinated transportation and land use planning and investment. Within SGAs, a broad range of smart growth strategies are employed to deliver **affordable and convenient transportation choices** and enhance **community health and well-being**. For example, a sustainable development incentive program will be used to encourage infill and redevelopment on vacant and underutilized properties²⁵.
- **Timely access to popular destinations** – including community services; vocational training and higher education facilities; and surrounding state and federal recreation areas – will continue to be dependent on Interstate 5. The I-5/UP “Disconnect” project supports quality of life by tackling the last major bottleneck and obstacle to expanding Interstate 5, resulting in safer and more reliable travel times.
- The I-5/UP “Disconnect” project is **located at the confluence of local, regional, state, and federal interests**. Federal investment will leverage local transportation funds, representing most of the project’s total cost, intended to serve as the impetus for the development of clean energy production. More specifically, the region’s efforts to **develop agriculture and forest-based bio-fuel industry** have been thwarted by the lack of a transportation-accessible production facility. The double-tracking of Union Pacific rails at the project location, combined with adjacent improvements at the Deschutes Road-Interstate 5 interchange, will provide the transportation infrastructure capacity necessary to transport bio-fuel inputs and outputs in a commercially viable manner.

²¹ Table S2101 of the American Community Survey (2008-2012), available at: <http://factfinder2.census.gov>

²² Table DP03 of the American Community Survey (2008-2012), available at: <http://factfinder2.census.gov>

²³ Table DP03 of the American Community Survey (2008-2012), available at: <http://factfinder2.census.gov>

²⁴ See Map 4, Anderson Proposed Annexation under Section 1, Project Description and Background

²⁵ SRTA 2015 Regional Transportation Plan Board of Directors Staff Report, February 25, 2014

4.1.4 Environmental Sustainability

The I-5/UP “Disconnect” project will enhance environmental sustainability in many ways:

- Following a review by the Central Valley Regional Water Quality Control Board, contaminants were documented on the vacated industrial properties currently served by I-5 and UP. The I-5/UP “Disconnect” project would serve this area planned for brownfield clean up, so that this well-situated property may be reused rather than lie economically fallow for decades to come.
- The project is located in a ‘Strategic Growth Area’ (SGA) identified in the region’s Sustainable Communities Strategy. Within SGAs, a broad range of smart growth strategies are employed to deliver affordable and convenient mobility options; support community health and well-being, **reduce greenhouse emissions**, and preserve the region’s environmental integrity. Aside from reducing the air pollution associated with future highway traffic congestion, as projected in the Shasta Regional Travel Demand Model, this project mitigates a hazardous materials disaster. Many of the trains passing through the Shasta region carry hazardous materials (See Safety, Section 4A.5), and the loads represent a high risk to trains passing under the I-5 overpass that impedes on the trains’ clearances²⁶.
- Funding this project opens opportunities to move forward with other projects that benefit the environment. For example, one project in the construction queue is a roundabout offering a safer junction for cyclists and pedestrians accessing the outlet mall adjacent to the interstate, or trying to cross I-5 which separates the city.
- Although hazard and disaster mitigation is not always recognized as environmentally sustainable, the project would result in the virtual elimination of a catastrophic event caused by unsafe interstate bridge support clearances from rail operations. The new bridge will remove all supports from the UP right-of-way and be a single-span structure providing **resilience and longevity for the new transportation asset** and for the transportation system as a whole.
- This project will enable the UP to construct a double track and increase service, thus reducing the freight network’s dependency on trucks, and fossil fuels.
- Caltrans signed a NEPA Categorical Exclusion for a larger I-5 expansion project that included the UP overcrossing. A clear-span of the right-of-way will require amending the documentation; however, none of the adjustments are anticipated to significantly impact the natural, social, and/or economic environment.
- A California Environmental Quality Act Negative Declaration has found that the project will have no substantial negative environmental impacts; however, certain positive impacts such as safety are recognized.

4.1.5 Safety

A train collision with the Interstate 5 bridge over the Union Pacific Railroad not only halts traveler and freight movement in the area, it also means lost commerce, and the potential for serious injuries and loss of life. The I-5/UP “Disconnect” project will remove a major vulnerability to a nationally-sensitive freight corridor and the local community. The new bridge meets all rail safety clearances and offers the **safe and reliable multimodal movement of goods and people**.

²⁶ Shasta County Hazard Mitigation Plan, 2011

The Risk – The following current factors, when viewed together, add up to a high risk to the city, region and nation:

1. Non-compliant railroad clearances (see table below)
2. Trains travel at high speeds in rural areas
3. The transport of hazardous materials along both the I-5 and UP corridors (see Hazardous Materials section on next page)
4. History of train accidents and I-5 truck accidents near the project site

Table 2 UPRR Clearances (SRTA, Caltrans, UP, April 2014)

UPRR Clearances	Existing	Absolute Minimum	Standard	New Clearances
Vertical	22'8"	23'4"	23'4"	23'4"
Horizontal	17'8"	18'	25'	50'

Collision History – In 2013, two freight trains derailed, causing the collapse of a state highway overpass in Missouri (See Figure 4). However, train derailments occur with alarming frequency much closer to home. Just 43 miles north of Anderson, four box cars went off the tracks in January of this year (See Figure 5). The cars hit the Interstate 5 Bridge and came to rest at the supports.



Union Pacific train derailment highway bridge collapse, Missouri, 2013.



Union Pacific Train Derailment at Interstate 5 in Shasta County, 2014.

Train derailments occur with less frequency than vehicle/truck collisions on the Interstate. However, given that the **I-5 overpass is non-compliant** with UP minimum clearances, and the cost and danger associated with a catastrophe, the Shasta region wants to **eliminate the possibility of a train/bridge collision at this location**. The logic that “it has not happened yet here, so it never will” does not hold up. There have been **56 derailments** in Shasta County since records were kept in 1975²⁷. An alarming 11 percent of those derailments have occurred **within three miles of the project site**.

²⁷ Federal Railroad Administration, Office of Safety Analysis, Accident Reports found in April, 2014 at <http://safetydata.fra.dot.gov/officeofsafety/default.aspx>

Table 3 Data on Derailments near Project Site (Derived from Federal Railroad Administration website, April, 2014. Statistics based off of Shasta County train accidents reported since 1975.)

Number of Derailments within Three Miles of Project Site	Percent Derailments within Three Miles of Project Site
6	11%

Hazardous Materials – Areas of concern in Shasta County are the Union Pacific Railroad and Interstate 5, which are major interstate transportation routes that pass through the region. Trains and trucks commonly carry a variety of hazardous materials, including gasoline and various crude oil derivatives, and other chemicals known to cause human health problems. The County is exposed to the effects of a major catastrophic hazardous material emergency due to the proximity of these transportation routes to densely populated areas of the city²⁸. The infamous Cantara Spill took place just north of Shasta County in 1991. A Union Pacific train derailed, killing all life in the Sacramento River for 45 miles. The table below lists the derailments and exposes the hazardous materials risk to our region.

Table 4 Derailment and Hazardous Materials Data (Derived from Federal Railroad Administration website, April, 2014. Statistics based off of Shasta County train accidents reported since 1975.)

Derailments as a Percentage of Train Accidents in Shasta County	Percent Derailments Involving Hazardous Materials
86%	20%

Construction of a new interstate bridge that meets UP clearance standards **greatly reduces the unintended release of hazardous materials**.

On Interstate 5, there have been 139 crashes within the UP/I-5 “Disconnect” Project area over the past ten years. Twenty-percent of these involved heavy trucks, many of which transport hazardous materials.

Worker Safety – Construction of the “Disconnect” project will provide more room for maintenance workers and first responders to stay out of harm’s way.



²⁸ Shasta County Hazard Mitigation Plan, 2011

4.2 Secondary Selection Criteria

4.2.1 Innovation

Integral to the project proposal is the coordinated and systematic modernization of surrounding transportation facilities. In addition to replacing 50+ year old bridges over one of the nation's critical goods movement corridors, the proposed project will enable the region to complete the I-5/Deschutes Road Interchange roundabouts. Once all phases are complete, the overall project will maximize long-term traffic flow through the use of **innovative design and technology solutions**.



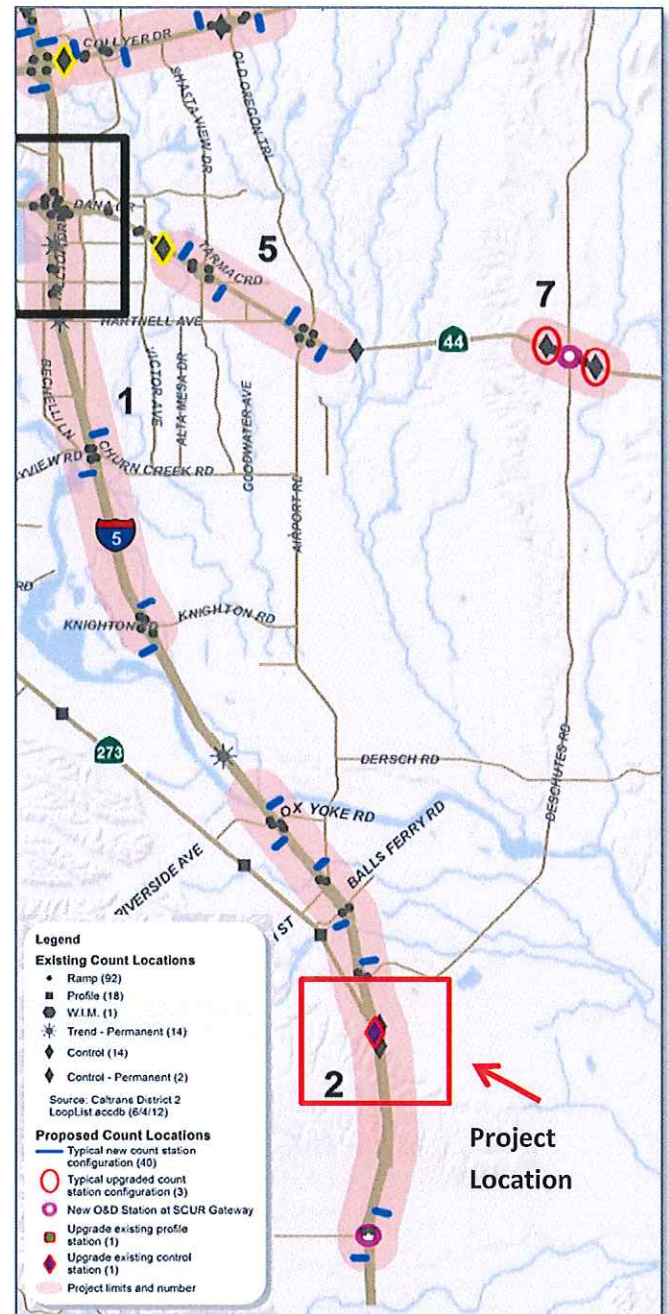
From a design perspective, the proposed project is supported by improved interstate access (including a new northbound I-5 off ramp at Deschutes Road) as well as **innovative local circulation improvements** in the form a new roundabout. In addition to providing much needed access to

adjacent commercial and industrial parcels, these improvements ensure forecast truck and vehicle traffic will not back up and affect Interstate 5 through traffic. Future planned improvements include two additional roundabouts on the west side of I-5 to facilitate local circulation to/from the Deschutes Road interchange.

The **application of transportation technology**, including intelligent transportation systems (ITS) elements, will likewise help ensure long-term project performance. As documented in the *Integrated Traffic Data Collection and Management Plan for the Shasta County South Central Urban Region* (Oct 2013)²⁹, the region's plans call for installation of new permanent mainline vehicle count stations and new permanent on and off-ramp vehicle count stations to the north (Knighton Road) and to the south (Ox Yoke Road and Gas Point Road). This is in addition to existing count locations as shown. All improvements will be connected to the network for real-time data collection and processing as funding allows to enable active traffic management as well as to facilitate incident response.

Such ITS infrastructure is critical because Deschutes Road is the first major interchange after entering Shasta County's southern gateway. Accurate, comprehensive, and timely data regarding traffic volume and vehicle type acquired through these improvements are essential to planning and travel demand modeling processes. In particular, such data is used to determine intra-regional versus interregional trips.

In addition, ramp metering will be particularly important at this location because Interstate 5 is above grade with an uphill northbound merge ramp. Adding a third northbound lane in combination with ramp metering will help minimize merge conflicts caused by differences in vehicle speed.



ITS Infrastructure (Existing & Planned)

²⁹ SRTA, October 2013

4.2.2 Partnership

The Interstate 5/Union Pacific “Disconnect” enjoys broad support with no known opposition (See Section 2 of this narrative and the eighteen letters of support included in Attachment “Letters of Support”). The project benefits discussed throughout this proposal are confirmed by numerous letters of support, not only from governmental entities, but also from private industry, trade organizations, and economic development supporters. What’s more, the local support is more than talk – it is backed by local financial commitments for more than half the project need. Indeed, a total of \$15,900,000, or 55.5% of the project cost has been dedicated to this project. Project funding partners include:

- Caltrans (\$1,000,000);
- SRTA (\$14,194,000);
- City of Anderson (\$500,000); and
- County of Shasta (\$200,000).

Such contributions do not include many more investments that will be made over time as a result of this project, including but not limited to local traffic circulation improvements, and industrial, commercial, residential, and mixed-use infill and redevelopment projects.

BROAD SUPPORT AND EXTENSIVE PUBLIC PARTICIPATION

TIGER Project: Interstate 5/Union Pacific Disconnect

Letters of Support

Metropolitan Planning Organization (MPO)

1. Shasta Regional Transportation Agency – SRTA (Applicant)

City/County/State Agencies

2. City of Anderson (Co-Applicant)
3. City of Redding
4. City of Shasta Lake
5. Shasta County
6. California Department of Transportation

U.S. Congress and California Legislature

7. U.S. Congressman Doug LaMalfa, 1st District
8. California State Assemblyman Brian Dahle, 1st District

Private Industry TIGER Project Area

9. Union Pacific Railroad
10. Roseburg Forest Products, Inc.
11. Wheelabrator Shasta Energy Company, Inc.

Economic Development/Jobs

12. Anderson Chamber of Commerce
13. Shasta County Economic Development Corporation
14. Center for Economic Development
15. Associated General Contractors of America
16. Growing Local – Steering Committee
17. Shasta Voices

North State Regional Transportation Agencies

18. North State Super Region (Sixteen California Counties)

Public Involvement

Fix Five Partnership



- Eleven City Council Meetings
- Four Board of Sup. Meetings
- Six SRTA Board Meetings
- Five Public Hearings
- Joint Televised Forum
- Seven Business Group Meetings

Transportation Improvement Programs

- Five FSTIP Hearings
- Six FTIP Hearings

Transportation Plans

- Metropolitan Improvement Plan
- Regional Transportation Plan

NEPA

- Two Public Open Houses

Sample Support Quotes

The rail crossing is just north of the Deschutes Road interchange, which serves former timber mill property that is a prime candidate for industrial redevelopment. Shasta County struggles with chronic high unemployment; the 2013 jobless rate averaged nearly 11 percent.

Brian Dahle

BRIAN DAHLE
Assemblyman, 1st District

Growing Local's development efforts are motivated in part by the need for living-wage jobs and viable small businesses in the North State. We find that this project could improve our regional food and farm economy by improving access to underutilized agricultural capacity and the natural comparative advantages of our region.

Steven R. Sibilsky

Steven R. Sibilsky
Chairman – Steering Committee

The interchange is an important element to a comprehensive economic development strategy that will redevelop several hundred acres of heavy industrial property to support job creation efforts for the City of Anderson and Shasta County.

Sincerely,

Mark Lascelles

Mark Lascelles
President



4.3 Benefit-Cost Analysis

The California Department of Transportation (Caltrans) compiled a Benefit-Cost Analysis for the I-5/UP “Disconnect” in 2014 with the results attached³⁰. The project costs have been prepared using the Caltrans standards for preparing engineering cost estimates for transportation projects. The project traffic operations benefits have been evaluated using modern traffic modeling and operations tools that have been reviewed and approved by Caltrans. Caltrans has upgraded their Benefit-Cost Analysis Model to ensure its consistency with TIGER parameters.

Though the benefit-cost analysis demonstrates multiple benefits that the project would bring, it is important to remember that benefits are understated because the state’s benefit-cost model currently has no methodology to factor in “what-if” scenarios related to the interstate bridge supports not meeting safety standards. The analysis created shows only the widening benefits from four- to six-lanes of the Interstate, not the benefit of virtually eliminating the chance of a catastrophic accident involving the I-5 and Union Pacific (UP) mainline corridors. In such a scenario, the I-5 mainline corridor would be shut down, leading to huge traffic delays, lost revenue due to reduced/curtailed goods movement, and public safety and local business issues associated with diverted interstate traffic on city streets not designed for such use (See narrative Section 4A.2 for a discussion of impacts). Additionally, the value associated with loss of life, liability, and personal or property injury, cannot be modeled.

Section 5. Project Readiness and Schedule

5.1 Project Readiness

Caltrans will be responsible for all aspects of project delivery. They have a proven track record with the largest team for delivery of mobility projects in the nation. The project is immediately ready to proceed upon receipt of a TIGER VI Discretionary Grant, following the project schedule in section 5.2 below. There is no expectation of project implementation delay. Considering the significance of a TIGER award to the ability of the project to be moved forward, any potential implementation delay will be afforded top priority for resolution.

The overcrossing widening will be toward the median; however, a 10- to 20-foot strip of right-of-way may be required due to heightened bridge and required fill to meet touchdown limits back to existing grade. Caltrans has indicated that retaining walls could be an option if right-of-way acquisition does not progress according to schedule.

Caltrans will be working closely with Union Pacific who is eager to cooperate so the interstate bridge supports are removed from the UP right-of-way.

Caltrans will also coordinate with the city of Anderson to ensure that the new interstate bridge does not interfere with plans to complete the Deschutes Road Interchange.

³⁰ Attachment “B/C Analysis” Executive Summary prepared by SRTA. Calculations prepared by Caltrans Headquarters at the request of Caltrans, District 2.

Engineering and design estimates will be made available to the TIGER Team from Caltrans, District 2, upon request³¹. Early and close coordination will be Caltrans' mainstay for this project.

5.2 Project Schedule

With planning, preliminary engineering and most environmental approval activities already complete, Caltrans is confident they can deliver the project according to the following schedule:

Project Schedule							
	Dec. 2011	Dec. 2012	Dec. 2014	Apr. 2016	May 2016	Summer 2016	Dec. 2018
Project Study Report Approved							
Begin Design Phase							
Design and Revised NEPA Complete							
Begin Right Of Way Phase							
Right of Way Acquisitions Complete							
Funds Obligated							
Start Advertisement							
Start Construction							
End Construction							

- A. *Environmental Approvals*³² – On March 8, 2013, the California Department of Transportation (Caltrans) signed a NEPA Categorical Exclusion for the Redding to Anderson 6-Lane project on I-5 in Shasta County. The NEPA scope of work included the TIGER project area but anticipated widening of the existing UP Overcrossing. However, UP is requiring an entirely new bridge. The NEPA documentation needs to be updated to include replacement of the overcrossing with a new single-span structure. This did not trigger any new studies but several studies such as noise and cultural resources will be updated. None of the adjustments are anticipated to result in new significant impacts and a new Categorical Exclusion would be issued. The California Environmental Quality Act environmental documentation (Negative Declaration) will be updated concurrently.
- B. *Legislative Approvals* – No legislative approvals are required for the proposed project. The project has received legislative support through the U.S. House of Representatives and the California State Assembly, per attached letters of support³³.
- C. *State and Local Planning* – The project is one component of the multi-phased Redding to Anderson Six-Lane Project. The project is consistent with and serves to implement the Anderson General Plan and SRTA's Regional Transportation Plan. The cumulative project was outlined in a Caltrans Project Study Report approved December 15, 2011. Caltrans, the city of Anderson, and the county

³¹ Caltrans District 2 contact: Engineer John Martin at 530-225-3476, or john.martin@dot.ca.gov.

³² Attachment "Environmental", includes March 8, 2013 Caltrans District 2 NEPA Categorical Exclusion and CEQA Initial Study/Negative Declaration for the entire Redding to Anderson 6-Lane Project.

³³ Section 2 of this narrative, as well as Attachment "Letters of Support"

of Shasta will join SRTA as partners on the project. Caltrans will be responsible for approval of the construction documents.

- D. *Technical Feasibility* – Engineering for the project, as modified with a clear-span of the Union Pacific right-of-way, is under design by Caltrans. The initial estimate is that there is a small amount of right-of-way acquisition needed. The project would be constructed in three-stages, in order to facilitate traffic flow during construction. If it appears right-of-way acquisition would cause significant delays in the project schedule, a retaining wall will be considered. Preliminary drawings have already been completed for this project, including a site plan map³⁴, as attached to this application. The project will align seamlessly with existing improvements, grades and curves. The project will meet all Caltrans' and UP standards. No requests for design exceptions are anticipated.
- E. *Timing for Obligation of Funds* – Caltrans will obligate funds in May 2016 and immediately advertise for construction.
- F. *Construction* – Construction will begin in the summer of 2016 and is expected to require two full construction seasons due to the scope of the project. The project will be complete by December 2018.

Section 6. Certifications

6.1 Federal Wage Rate Certification

The Shasta Regional Transportation Agency (SRTA) and the city of Anderson have signed and attached the Federal Wage Rate Certification to the end of this narrative.

6.2 Financial Capability and Grant Management

The Shasta Regional Transportation Agency (SRTA) is financially sound and able to manage multiple federal, state, and local grants. SRTA's financial condition and ability to manage grants is best reported by its June 30, 2013 audited financial statements³⁵. However, as the project is on the federal Interstate system, SRTA anticipates that Caltrans will be the funding oversight entity.

6.3 Long-Range Plan Consistency

The project is included in the 2010 Shasta County Regional Transportation Plan³⁶, prepared by the project applicant: the Shasta Regional Transportation Agency (SRTA). Plans for the continued economic development of the city of Anderson, and its sphere of influence, are included in the City of Anderson General Plan³⁷.

³⁴ Caltrans' site plan map and initial designs (overview and detailed) are included in Attachment "Maps"

³⁵ SRTA's June 30, 2013 audited financial statements are available:

http://www.srta.ca.gov/pastel/audited_financial_statements_6-30-13.pdf

³⁶ Shasta Regional Transportation Agency RTP available at http://www.srta.ca.gov/pastel/RT_RTP.html

³⁷ City of Anderson General Plan available at

http://www.ci.anderson.ca.us/departments/kristen_development_services_and_building_departments/index.php

Section 7. Applicants' Signatures

Primary Applicant Signature



Daniel S. Little, AICP, Executive Director
Shasta Regional Transportation Agency (MPO)

Co-Applicant Signature



Jeff Kiser, City Manager
City of Anderson

April 24, 2014

FEDERAL WAGE RATE CERTIFICATION

This certifies that the Shasta Regional Transportation Agency and the city of Anderson will comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code, as required by the FY 2014 Continuing Appropriations Act, for a TIGER VI funding award.



Daniel S. Little, AICP, Executive Director
Shasta Regional Transportation Agency (MPO)



Jeff Kiser, City Manager
City of Anderson