

2022 SOLUTIONS FOR CONGESTED CORRIDORS PROGRAM (SCCP) WORKSHOP



Wednesday, March 9, 2022



Welcome

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Associate Deputy Director | SCCP

Introduction



SCCP Objective: Provide funding to regional transportation planning agencies, county transportation commissions, and Caltrans to achieve transportation, environmental, and community access improvements to reduce congestion throughout the state.

SCCP Funding: \$250 million per year

- 2020 Cycle (adopted December 2020)
 - FY 2021-22 to FY 2022-23
 - Total project cost valued at \$2.6 billion for 7 projects

GoToWebinar Logistics



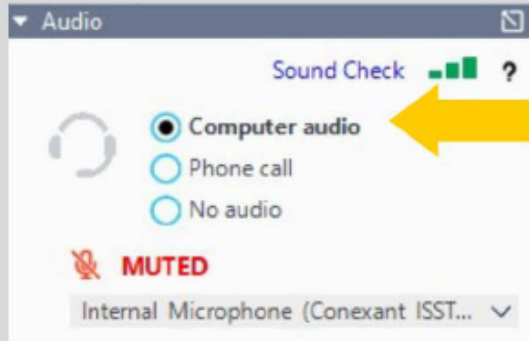
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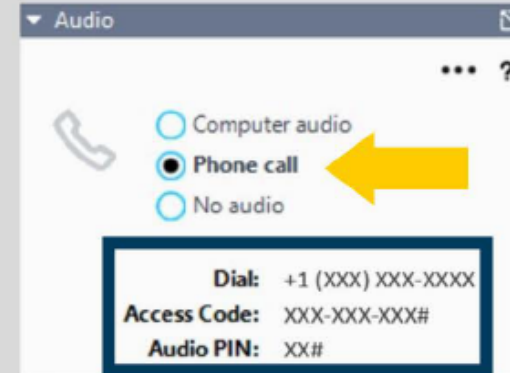
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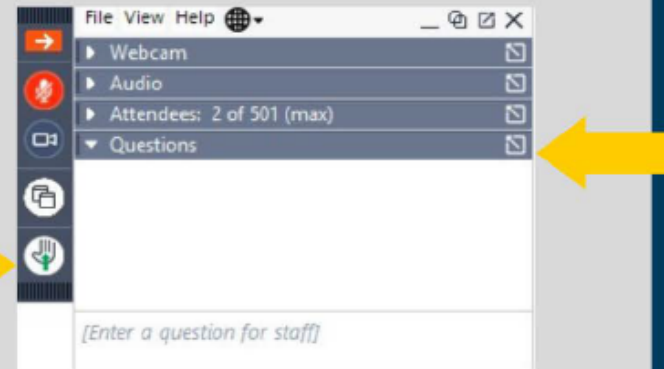


2

HOW TO PARTICIPATE

Send comments through the "Questions" tab for Commission Staff to read on your behalf **OR** by selecting the "Hand" icon to alert the Staff to unmute you.

Please state your name and agency prior to voicing your remarks through the "Questions" tab or "Hand" icon.



Discussion Workshop Format



- Agendas may be posted up to 10 calendar days before each workshop.
- Presentations and recordings will be posted after each workshop.
- Staff will email key decisions made during a workshop to attendees following that workshop.
- Staff will make recommendations based on the consensus reached over the course of roughly two workshops.
- Additional time on any one topic may be limited to ensure all scheduled topics are covered during a given workshop.
- Previously covered topics may not be readdressed at subsequent workshops unless determined necessary.



Workshop Recap

Recap - Previous Topics



September 2021

- Lessons Learned from Program Cycles 1 & 2
- 2022 Proposed Program Schedule
- Proposed Technical Changes to Draft Guidelines

October 2021

- Funding Restrictions
- Cycle 3 & Funding

November 2021

- Evaluation Criteria - Prohousing/Efficient Land Use

January 2022

- California Environmental Quality Act (CEQA) & National Environmental Policy Act (NEPA)

Recap - Efficient Land Use & Housing

Proposed Change (see Supplement B)



Efficient Land Use & Housing – The nomination must address how the proposed project will support **and advance** transportation efficient land use **and/or Prohousing** principles.

For example, describe how the project's expected benefits are supported by the local land-use policies. How will future land development, described and enabled by zoning, permitting, or other local land-use policies, maximize the project's potential to reduce congestion? Is housing an existing or developing issue for the community in the project area? Why or why not? How does the project support **residential, mixed-use, and infill development with multimodal choices?**

The applicant may also identify **1) local government jurisdictions that will be served by the proposed project and have obtained a Prohousing Designation, or have applied for a Prohousing Designation, or 2) established/developing local land-use policies** in the project area which support efficient land use patterns **and/or incorporate Prohousing criteria. These can include, but are not limited to:**

- Policies identified in the *Land Use Efficiency & Prohousing Supplement* developed in partnership with the California Department of Housing and Community Development: **[NEW LINK]**
 - **Cities or counties that contain proposed projects are encouraged to apply for the California Department of Housing and Community Development's Prohousing Designation Program.**
- Any other policies or programs which may support **residential, mixed-use, and/or infill development** with multimodal choices.

Recap - Efficient Land Use & Housing

Proposed Change



Land Use Efficiency & Prohousing Supplement:

- Incorporates Prohousing policies.
- Applicants can now demonstrate their project supports and advances transportation-efficient land use by meeting one of two standards: 1) confirming participation in the California Department of Housing and Community Development's Prohousing Designation Program; and/or 2) providing narrative regarding efficient land use indicators.
- Updates to available resources, including grants and additional resources.

Recap - CEQA & NEPA

Proposed Change



Section 11. Environmental Process – NEW SECTION IN DRAFT 2022 GUIDELINES

A project will only be programmed if, at the time of program adoption, either the project-level environmental process or the final draft of a project-level environmental document is complete in accordance with the California Environmental Quality Act (CEQA).

Federalized projects will only be programmed if, at the time of program adoption, either the project-level environmental process or the final draft of a project-level environmental document is complete in accordance with the National Environmental Policy Act (NEPA).

Environmental clearance must be achieved within six months of program adoption. Funds will not be allocated to any portion of a project until all modes of the project have completed the environmental process. If these requirements are not met, the project will be deleted from the program.

Agenda Review



- Performance Metrics Guidebook
- DRAFT 2022 SCCP Guidelines (markup)
- New Information Areas - Introduction
- Office Hours & Upcoming Workshops
- Key Topics for Subsequent Workshops



Workshop Focus



Performance Metrics Guidebook

HANNAH WALTER

Associate Deputy Director | Trade Corridor Enhancement Program

Guidebook Development Process



- Workgroup process.
- 14 meetings over 7 months.
- About 45 experts from Caltrans and regional agencies.
- Subject matter experts reviewed metrics on a flow basis.
- A consultant helped put the work into one document.
- This guidebook is a working document that will continue to change, and hopefully improve, over time.

Guidebook Purpose



- A tool to help applicants calculate the required metrics.
- Provide additional consistency:
 - Whether information from year 1 or 20 of the project is required
 - Whether the requirement is for a daily or annual number
 - Where only the “change” should be reported
- It is up to the applicant to choose how to calculate each metric.

Evaluation Criteria & Performance Metrics



- The evaluation criteria are not the same thing as the performance metrics.
- Performance metrics can be considered as a subcategory of evaluation criteria.
- Applicants may be asked to quantify information that is not a performance metric.
- Performance metrics are measures that lend themselves easily to a general formula that applies to multiple project types.

Metrics Included



- VMT (SCCP/LPP/ATP)
 - Person Hours of Travel Time Saved (SCCP/LPP/ATP)
 - Change in Daily Vehicle Hours of Delay (TCEP)
 - Change in Daily Truck Hours of Delay (TCEP)
 - Change in Truck Volume (TCEP)
 - Change in Rail Volume (TCEP)
 - Peak Period Travel Time Reliability Index (SCCP/LPP)
 - Truck Travel Time Reliability Index (TCEP)
 - Air Quality (All)
 - Cost Effectiveness - BCR (All)
 - Velocity Freight (TCEP)
 - Safety (fatalities & serious injuries) (All)
 - Jobs Created (All)
 - Transit schedule adherence (SCCP/LPP/ATP)
- The Commission plans to include Accessibility, Equity, Climate Change, and Public Health in the application form as qualitative requests for information.

Metrics



| Metric | Program | | | | Project Type | | | | |
|---|---------|--------------|------|-----|---------------|-------------|---------|------|------|
| | ATP | SCCP/ LPP | TCEP | All | Local Road | HWY Road | Transit | Rail | Port |
| Change in Daily Vehicle Miles Travelled | X | X | | | X | X | X | | |
| Person Hours of Travel Time Saved | | X | | | X | X | X | | |
| Peak Period Travel Time Reliability Index | | X | | | | X | | | |
| Level of Transit Delay | | X | | | | | X | | |
| Change in Daily Vehicle Hours of Delay | | | X | | X | X | | | |
| Change in Daily Truck Hours of Delay | | | X | | X | X | | | X |
| Change in Truck Volume (# of Trucks) | | | X | | X | X | | | X |
| Change in Rail Volume | | | X | | | | | X | |
| Truck Travel Time Reliability Index | | | X | | | X | | | |
| Velocity | | | X | | X | X | | X | X |
| Number of Fatalities and Number of Serious Injuries | X | X | X | X | X | X | X | | X |
| Rates of Fatalities and Rate of Serious Injuries | X | X | X | X | X | X | X | | X |
| Air Quality | X | X | X | X | X | X | X | X | X |
| Cost Effectiveness (Benefit Cost Ratio) | X | X | X | X | X | X | X | X | X |
| Jobs Created | X | X | X | X | X | X | X | X | X |

General Guidance



| Metric | Required For | Average Annual or Daily | Year 20 or Most Current Available | Performance Metrics Columns Required |
|---|---|-------------------------|-----------------------------------|--------------------------------------|
| Change in Daily Vehicle Miles Travelled | SCCP/LPP/ATP | Daily | Year 20 | "No Build"/ "Build"/ Change |
| Person Hours of Travel Time Saved | SCCP/LPP | Daily | Year 20 | Change |
| Peak Period Travel Time Reliability Index | SCCP/LPP (highway only) | Average Daily | Most Current Data Available | "No Build" |
| Level of Transit Delay | SCCP/LPP (transit bus or rail only) | Average Daily | Most Current Available | "No Build"/ "Build"/ Change |
| Change in Daily Vehicle Hours of Delay | TCEP (Required for highways, roads, and ports, not required for rail, not for transit) | Average Annual | Year 20 | "No Build"/ "Build"/ Change |
| Change in Daily Truck Hours of Delay – Cal B/C Sketch Model | TCEP (Required for highways, roads, and ports, not required for rail, not for transit) | Average Annual | Year 20 | "No Build"/ "Build"/ Change |
| Change in Truck Volume (# of Trucks) | TCEP (Highway, road and port projects only) | Annual Average | Year 20 | "No Build"/ "Build"/ Change |

| Metric | Required For | Average Annual or Daily | Year 20 or Most Current Available | Performance Metrics Columns Required |
|---|--|-------------------------|--|--------------------------------------|
| Change in Rail Volume | TCEP (Rail projects only) | Annual Average | Year 20 | "No Build"/ "Build"/ Change |
| Truck Travel Time Reliability Index | TCEP (Highway projects only) | Average Daily | Most current available | "No Build" |
| Velocity | TCEP (Highway and road projects. Rail and port projects only if information is available) | Average Annual | Year 20 | "No Build"/ "Build"/ "Change" |
| Number of Fatalities and Number of Serious Injuries | All Projects (except freight rail and sea port) | Average Annual | Most Current Available | "No Build"/ "Build"/ "Change" |
| Rate of Fatalities and Rate of Serious Injuries | All Projects (except freight rail and sea port) | Average Annual | Most Current Available | "No Build"/ "Build"/ "Change" |
| Air Quality | All Projects | Average Annual | Looks at average from year 1 through year 20 | "Change" |
| Cost Effectiveness | All Projects | N/A | N/A | "Change" |
| Job Created | All Projects | N/A | N/A | "Build" |

Required Back-Up Information



| | |
|---|---|
| Metric Name: | <i>Example: Daily Vehicle Hours of Delay</i> |
| Source Data: | <i>List source(s) of information used in calculations Example: Cal B/C Sketch model</i> |
| Base Numbers & Calculation for "No Build" Estimate | |
| <i>Include the starting numbers used, and the calculation used to develop the "No Build" number. If "No Build" is not required for metric, put "N/A" for "Not Applicable."</i> | |
| <i>Example:</i> | |
| <ul style="list-style-type: none"> • Travel Time tab cell C118: Year 20 No Build Average Volume: 2,070,981 • Travel Time tab cell I118: Year 20 No Build Average Travel Time: 0.01 • Speed limit travel time = 0.4 (impacted length) divided by 65 (speed limit) = 0.006 | |
| <ul style="list-style-type: none"> • 0.01 (No Build average travel time) minus 0.006 (speed limit average travel time) = 0.004 • 2,070,981 (No Build average volume) multiply by 0.004 = 8,284 • 8,284/ 365 (days) = 23 | |
| Base Numbers, Trends or Assumptions, and Calculation for "Build" Number | |
| <i>Include the starting numbers used, and the calculation used to develop the "No Build" number. Include any trends or assumptions used. Explain how the impact of the "Build" number was estimated. If "Build" is not required for metric, put "N/A" for "Not Applicable."</i> | |
| <i>Example:</i> | |
| <ul style="list-style-type: none"> • Travel Time tab cell D118: Year 20 Build Average Volume: 2,080,000 • Travel Time tab cell J118: Year 20 Build Average Travel Time: 0.009 • Speed limit travel time = 0.4 (impacted length)/ 65 (speed limit) = 0.006 | |
| <ul style="list-style-type: none"> • 0.009 (No Build average travel time) - 0.006 (speed limit average travel time) = 0.003 • 2,080,000 (Build average volume) multiply by 0.003 = 6,240 • 6,240/ 365 (days) = 17 | |
| Change | |
| <i>Include the subtraction used to get to the change number here.</i> | |
| <i>Example:</i> | |

All Program Metrics



| Metric | Generalized Formula | Source(s) in Guidebook |
|-------------------------------|--|--|
| Air quality | change in tons of particulates | Cal B/C Sketch model |
| Benefit cost ratio | total benefits / total costs | Cal B/C Sketch model |
| Safety (except rail projects) | fatalities & serious injuries over 5 years / 5 and # / VMT / 5 * 1 million | Cal B/C Sketch model Caltrans collision data Caltrans safety guidance CHP SWITRS data |
| Jobs created | .000013 * total project cost | Federal formula |

Caltrans Economics Branch Cal B/C Sketch Model



- Many of the methodologies are based on the California Benefit-Cost Model (Cal B/C Model), the “Sketch” version.
- It is our understanding that there is general familiarity with this document, which is one of the reasons it is suggested.
- The guidebook includes instructions about how to fill out the inputs needed for the Cal B/C model.
- After the inputs are put in, the model automatically calculates much of the information needed for the metrics.
- Although applicants are responsible to fill this out based on their projects, Caltrans staff are available to answer questions if needed when you’re working on filling this out.

Examples Only



NOTE: THE FOLLOWING EXAMPLES ARE NOT THE STEP-BY-STEP CALCULATIONS FROM THE GUIDELINES.

- It would take too much time to walk through all the steps for each calculation, therefore, some of the steps are included to provide a general understanding of the calculation and how the guidebook works. For the complete calculation, please see the guidelines.

Air Quality - Cal B/C "Emissions Reduction" Tab



| TOTAL VMT (veh-miles/yr) | | RUNNING EMISSIONS (\$/yr) | | STARTING EMISSIONS (\$/yr) | | Constant Dollars | Present Value | TONS EMISSIONS SAVED (tons/yr) | | | | | | DOLLARS EMISSIONS SAVED (PV \$/yr) | | | | | |
|--------------------------|-------|---------------------------|-------|----------------------------|-------|------------------|---------------|--------------------------------|-----------------|-----------------|------------------|-----------------|------|------------------------------------|------|-----------------|-----------------|------------------|-----------------|
| No Build | Build | No Build | Build | No Build | Build | | | CO | CO ₂ | NO _x | PM ₁₀ | SO _x | VOC | PM _{2.5} | CO | CO ₂ | NO _x | PM ₁₀ | SO _x |
| 0 | 0 | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | 0 | 0 | 0 | 0 | 0 | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A |
| 0 | 0 | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | 0 | 0 | 0 | 0 | 0 | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A |

Emissions reductions are calculated in the "Emissions Reduction" tab.

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----|---|--------------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 33 | | Project Open | | | | | | | | | | | |
| 34 | | 1 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 35 | | 2 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 36 | | 3 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 37 | | 4 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 38 | | 5 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 39 | | 6 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 40 | | 7 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 41 | | 8 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 42 | | 9 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 43 | | 10 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 44 | | 11 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 45 | | 12 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 46 | | 13 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 47 | | 14 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 48 | | 15 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 49 | | 16 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 50 | | 17 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 51 | | 18 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 52 | | 19 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 53 | | 20 | \$0 | \$0 | \$0 | #N/A | | | | | | | |
| 54 | | | | | | | | | | | | | |
| 55 | | Total | \$0 | \$0 | \$0 | #N/A | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

| | | | | | | |
|----|------|----------------------------|------|----------------------------|------|----------------------------|
| 56 | 0 | Person-Hours of Time Saved | 0 | Person-Hours of Time Saved | 0 | Person-Hours of Time Saved |
| 57 | | | | | | |
| 58 | | | | | | |
| 59 | tons | \$ PV | tons | \$ PV | tons | \$ PV |
| 60 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 61 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 62 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 63 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 64 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 65 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 66 | 0 | #N/A | 0 | #N/A | 0 | #N/A |
| 67 | | | | | | |

Air Quality - Cal B/C "Results" Tab



Emissions reductions results are summarized in the "Results" tab.

| | Passenger Benefits | Freight Benefits | Total Over 20 Years | Average Annual |
|------------------------------------|--------------------|------------------|---------------------|----------------|
| ITEMIZED BENEFITS (mil. \$) | | | | |
| Travel Time Savings | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Veh. Op. Cost Savings | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Accident Cost Savings | \$0.0 | \$0.0 | \$0.0 | \$0.0 |
| Emission Cost Savings | #N/A | #N/A | #N/A | #N/A |
| TOTAL BENEFITS | #N/A | #N/A | #N/A | #N/A |
| Person-Hours of Time Saved | | | 0 | 0 |

| | Tons | | Value (mil. \$) | |
|-----------------------------------|---------------------|----------------|---------------------|----------------|
| | Total Over 20 Years | Average Annual | Total Over 20 Years | Average Annual |
| EMISSIONS REDUCTION | | | | |
| CO Emissions Saved | 0 | 0 | #N/A | #N/A |
| CO ₂ Emissions Saved | 0 | 0 | #N/A | #N/A |
| NO _x Emissions Saved | 0 | 0 | #N/A | #N/A |
| PM _{2.5} Emissions Saved | 0 | 0 | #N/A | #N/A |
| SO _x Emissions Saved | 0 | 0 | #N/A | #N/A |
| VOC Emissions Saved | 0 | 0 | #N/A | #N/A |

Benefit Cost Ratio



- Total Benefits/Total Costs
- Cal B/C model captures the total user benefits in constant dollars for travel time savings, vehicle operating cost savings, accident reductions, and vehicle emission reductions.
- If you want to add more benefits, you will need to provide a separate calculation.

3

| | |
|-------------------------------|-------|
| Life-Cycle Costs (mil. \$) | \$0.0 |
| Life-Cycle Benefits (mil. \$) | #N/A |
| Net Present Value (mil. \$) | #N/A |
| Benefit / Cost Ratio: | N/A |
| Rate of Return on Investment: | N/A |
| Payback Period: | N/A |

Safety - Number of Fatalities and Serious Injuries



- For Caltrans projects on the State Highway System, applicants may request a copy of the “Crash Data on State Highway System Request Form.”
- Local projects on the SHS should submit a PRA for this information.
- For projects on local streets and roads, applicants should use the California Highway Patrol’s Statewide Integrated Traffic Records System (SWITRS) database.

| | | | | |
|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Number of Fatalities = | | | | |
| Fatalities (Year 1) | + Fatalities (Year 2) | + Fatalities (Year 3) | + Fatalities (Year 4) | + Fatalities (Year 5) |
| <hr/> | | | | |
| 5 | | | | |
| Number of Serious Injuries = | | | | |
| Serious Injuries (Year 1) | + Serious Injuries (Year 2) | + Serious Injuries (Year 3) | + Serious Injuries (Year 4) | + Serious Injuries (Year 5) |
| <hr/> | | | | |
| 5 | | | | |

Safety - Rate of Fatalities and Serious Injuries



- Find the accident and fatality rate for the “no build” scenario.
- You must find the rate group in Caltrans’ 2018 Traffic Collision Data document (link is in guidebook). Information goes into project information tab.

1C HIGHWAY ACCIDENT DATA

| Actual 3-Year Accident Data (from Table B) | | |
|--|-------------|-------|
| | Count (No.) | Rate |
| Total Accidents (Tot) | | 0.85 |
| Fatal Accidents (Fat) | | 0.006 |
| Injury Accidents (Inj) | | 0.29 |
| Property Damage Only (PDO) Accidents | | 0.55 |

| Statewide Basic Average Accident Rate | | |
|---|----------|-------|
| | No Build | Build |
| Rate Group | | |
| Accident Rate (per million vehicle-miles) | | |
| Percent Fatal Accidents (Pct Fat) | | |
| Percent Injury Accidents (Pct Inj) | | |

10/6/2020

BASIC AVERAGE CRASH RATE TABLE FOR HIGHWAYS

| GROUP | RATE | + ADT FACTOR | PCT FAT | PCT INJ | PCT F+I | HIGHWAY TYPE | TERRAIN OR ADT | DESIGN SPEED | AREA | CRASH COSTS (\$1,000) | |
|-------|------|--------------|---------|---------|---------|------------------------------|----------------|--------------|----------|-----------------------|-------|
| | | | | | | | | | | F+I | ALL |
| H 01 | 0.78 | 0.29900 / | 2.5 | 40.2 | 42.7 | CONVENTIONAL 2 LANES OR LESS | FLAT | <=55 | RURAL | 806.8 | 349.4 |
| H 02 | 0.70 | 0.00000 | 3.2 | 38.9 | 42.1 | CONVENTIONAL 2 LANES OR LESS | FLAT | >55 | RURAL | 1001.4 | 426.6 |
| H 03 | 1.14 | 0.72800 / | 2.6 | 44.3 | 46.9 | CONVENTIONAL 2 LANES OR LESS | ROLL | <=55 | RURAL | 772.1 | 366.7 |
| H 04 | 0.65 | 0.47100 / | 3.5 | 41.5 | 45.0 | CONVENTIONAL 2 LANES OR LESS | ROLL | >55 | RURAL | 1021.1 | 464.2 |
| H 05 | 1.57 | 0.42100 / | 2.6 | 47.0 | 49.6 | CONVENTIONAL 2 LANES OR LESS | MTN | <=55 | RURAL | 738.5 | 370.6 |
| H 06 | 0.91 | 0.47600 / | 2.8 | 42.3 | 45.1 | CONVENTIONAL 2 LANES OR LESS | MTN | >55 | RURAL | 846.2 | 386.3 |
| H 07 | 1.60 | 0.00000 | 1.0 | 38.3 | 39.3 | CONVENTIONAL 2 LANES OR LESS | | <45 | SUBURBAN | 417.1 | 170.6 |
| H 08 | 1.32 | 0.00000 | 1.7 | 44.3 | 46.0 | CONVENTIONAL 2 LANES OR LESS | | 45-55 | SUBURBAN | 538.5 | 253.7 |

Safety - Rate of Fatalities and Serious Injuries



- For the “build” scenario, you can estimate the impact that your project’s safety features will have on the rates.
- You can use Caltrans reduction factor information or other information to estimate rate reductions.

Collision Reduction Factors for Highway Safety Projects (from the 2017 State Highway Safety Improvement Program Guidelines)

| Type of Improvement | Average Collision Reduction | Years (Life) | Minimum Collision Experience |
|---------------------|-----------------------------|--------------|------------------------------|
| New Signals | Up to 20% | 15 | 5 or more last year |
| Modified Signals | Up to 20% (1) | 15 | 5 or more last year |
| Flashing Beacons | Up to 20% | 10 | |

Left-Turn Channelization:

| Type of Improvement | Average Collision Reduction | Years (Life) | Minimum Collision Experience |
|-----------------------------|-----------------------------|--------------|---|
| Signalization w/o LT Phase | Up to 15% (2) | 20/10* | 4 or more last 3 years |
| Signalization with LT Phase | Up to 35% (2) | 20/10* | 4 or more last 3 years |
| Non-signalized Intersection | Up to 35% (2) | 20/10* | 4 or more last 3 years |
| Two-Way Left-Turn Lanes | Up to 25% (2) | 20/10* | 4 or more last 3 years |
| Enhanced Lighting | Up to 15% (3) | 15 | 4 or more night collisions last 3 years |
| Curve Improvement | Up to 50% (2) | 20 | 4 or more last 3 years |
| Rumble Strip | Up to 50% (4) | 10 | 4 or more last 3 years, Base Rate of 0.01 |
| Super Elevation Improvement | Up to 50% (4) | 20/10* | 4 or more last 3 years, Base Rate of 0.01 |
| Truck Escape Ramp | Up to 75% (5) | 20 | 4 or more last 3 years, Base Rate of 0.01 |

SCCP / LPP Metrics



| Metric | Generalized Formula | Source(s) in Guidebook |
|---|--|---|
| Person Hours of Travel Time Saved | Average Annual Person Trips X Average Annual Travel Time (in hours) | Cal B/C Sketch Model |
| Travel Time Reliability | 95th percentile TT / 50th Percentile TT | State reliability data/Excel spreadsheet |
| Level of Transit Delay | | |
| Change in Daily Vehicle Miles Travelled | (Vehicle Volume X Project Length)/ 365 If using AADT – use weighted average | <ul style="list-style-type: none"> • Cal B/C Sketch Model • Caltrans Highway Operations Average Annual Daily Traffic reports • Regional Travel Demand Model • NCST Calculator |

Person Hours of Travel Time Saved



- The Cal B/C Sketch model “Travel Time” tab automatically calculates “Person Hours of Travel Time Saved.”
- The “Travel Time” tab calculates estimated annual person trip decreases and average travel time decreases. It also calculates mode shifts and new travel for transit projects. It converts these reductions into monetary savings using cost savings percents.

| | AQ | AF | AS | AT | AU |
|----|--------------------|----|-----------------|----|----------------|
| 18 | | | | | |
| 19 | | | | | |
| 20 | Present | | | | Total |
| 21 | Value of | | | | Per-Hrs |
| 22 | Travel Time | | Constant | | of Time |
| 23 | Benefits | | Dollars | | Saved |
| 24 | \$0 | | \$0 | | 0 |
| 25 | \$0 | | \$0 | | 0 |
| 26 | | | | | |

Travel Time Reliability



- Use the crosswalk provided in the guidebook to find the max Travel Time Reliability for the “no build” scenario.

Example: 6 to 10 am $\frac{80^{\text{th}} \text{ percentile } 150.0}{50^{\text{th}} \text{ percentile } 101.0} = 1.49 \text{ LOTTR}$

| Tmc | TmcType | RoadNumber | RoadName | IsPrimary | FirstName | TmcLine# | Country | State | County |
|-----------|---------|------------|-------------|-----------|---------------|----------|---------------|------------|----------|
| 105-50588 | P1 | | MYRTLE AVE | 1 | US-101/5th St | 50587 | UNITED STATES | CALIFORNIA | HUMBOLDT |
| 105-50007 | P1 | | 4TH ST | 1 | College Ave | 50006 | UNITED STATES | CALIFORNIA | SONOMA |
| 105-09857 | P1 | | E BLANCO RD | 1 | Abbott St | 749 | UNITED STATES | CALIFORNIA | MONTEREY |

| LOTTR AMP | LOTTR MIDD | LOTTR PMP | LOTTR WE | pm Route | pm BegCounty | pm BegPostmile |
|-------------|-------------|-------------|-------------|----------|--------------|----------------|
| 1.429999948 | 1.429999948 | 1.379999995 | 1.389999986 | | | |
| 1.190000057 | 1.190000057 | 1.240000001 | 1.159999967 | | | |
| 1.279999971 | 1.320000052 | 1.409999967 | 1.370000005 | | | |
| 1.429999948 | 1.159999967 | 1.159999967 | 1.179999948 | | | |
| 1.620000005 | 1.5 | 1.399999976 | 1.570000052 | | | |
| 1.520000062 | 1.270000005 | 1.020000048 | 1.200000042 | 005 | LA | 22.081 |

Level of Transit Delay - Using General Transit Feed Specification Realtime (GTFS-RT) Access List



- Go to GitHub.com. If there is a transit agency in the project area that is included on that list, then follow these steps.
- Go to an online map called “GEOJSON Map” and identify your project area, then save the map you create.
- Send Caltrans staff the transit agencies in the project area and your map file, and they’ll send you back the metric information.

```
161 big-blue-bus:
162   agency_name: Big Blue Bus
163   feeds:
164     - gtfs_schedule_url: http://gtfs.bigbluebus.com/current.zip
165       gtfs_rt_vehicle_positions_url: http://gtfs.bigbluebus.com/vehiclepositions.bin
166       gtfs_rt_service_alerts_url: http://gtfs.bigbluebus.com/alerts.bin
167       gtfs_rt_trip_updates_url: http://gtfs.bigbluebus.com/tripupdates.bin
```

Change in Daily Vehicle Miles Traveled



The guidebook offers 4 methodologies to calculate VMT

- Using the Cal B/C model
- Using Average Annual Daily Traffic counts
- Following the example of a regional travel demand model
- Using the Caltrans SB 743 guidance (which includes a Caltrans approved travel demand model or the NCST calculator)

VMT - Cal B/C Model



- Use the volume and project length from the Cal B/C model.

| 1B HIGHWAY DESIGN AND TRAFFIC DATA | | | |
|---|--|----------|-------|
| Highway Design | | No Build | Build |
| Roadway Type (Fwy, Exp, Conv Hwy) | | F | F |
| Number of General Traffic Lanes | | | |
| Number of HOV/HOT Lanes | | | |
| HOV Restriction (2 or 3) | | | |
| Exclusive ROW for Buses (y/n) | | N | |
| Highway Free-Flow Speed | | | 0 |
| Ramp Design Speed (if aux. lane/off-ramp proj.) | | 35 | 35 |
| Length (in miles) Highway Segment | | | 0.0 |
| Impacted Length | | 0.0 | 0.0 |

| A | | | | | |
|-----------------|------------------------------|-------|---------------------|-------|---------------------|
| Peak Period HDV | | | | | |
| Year | AVERAGE VOLUME (vehicles/yr) | | AVERAGE SPEED (mph) | | ANNUAL PEAK (trips) |
| | No Build | Build | No Build | Build | No Build |
| 1 | 0 | 0 | 55.0 | 55.0 | 0 |
| 20 | 0 | 0 | 55.0 | 55.0 | 0 |
| 2 | 0 | 0 | 55.0 | 55.0 | 0 |
| 3 | 0 | 0 | 55.0 | 55.0 | 0 |

VMT - AADTT



- Use the Caltrans AADT reports online to find “no build” AADT and then estimate the “build” AADT.

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
|-----|---------|------|------|--------------|----------|--------------|-----|--|--------------------|------------------|-----------------|------------|------------|------------|------------|----------------|----------------|----------------|----------------|
| RTE | RTE_SFX | DIST | CNTY | POSTMILE_PFX | POSTMILE | POSTMILE_SFX | LEG | DESCRIPTION | VEHICLE_AADT_TOTAL | TRUCK_AADT_TOTAL | TRK_PERCENT_TOT | TRK_2_AXLE | TRK_3_AXLE | TRK_4_AXLE | TRK_5_AXLE | TRK_2_AXLE_PCT | TRK_3_AXLE_PCT | TRK_4_AXLE_PCT | TRK_5_AXLE_PCT |
| 001 | 12 | ORA | R | | 0.129 | | A | DANA POINT, JCT. RTE. 5 | 38250 | 2379 | 6.22 | 807 | 1,126 | 319 | 128 | 33.93 | 47.32 | 13.39 | 5.36 |
| 001 | 12 | ORA | R | | 0.780 | | A | DANA POINT, DOHENY PARK ROAD | 38900 | 1894 | 4.87 | 643 | 896 | 254 | 102 | 33.93 | 47.32 | 13.39 | 5.36 |
| 001 | 12 | ORA | | | 9.418 | | B | LAGUNA BEACH, JCT. RTE. 133 NORTH | 38800 | 675 | 1.74 | 264 | 310 | 62 | 39 | 39.08 | 45.98 | 9.20 | 5.75 |
| 001 | 12 | ORA | | | 9.418 | | A | LAGUNA BEACH, JCT. RTE. 133 NORTH | 38800 | 675 | 1.74 | 264 | 310 | 62 | 39 | 39.08 | 45.98 | 9.20 | 5.75 |
| 001 | 12 | ORA | | | 19.797 | | B | NEWPORT BEACH, JCT. RTE. 55, NEWPORT BOULEVARD | 49600 | 565 | 1.14 | 435 | 78 | 26 | 26 | 76.92 | 13.85 | 4.62 | 4.62 |
| 001 | 12 | ORA | | | 19.797 | | A | NEWPORT BEACH, JCT. RTE. 55, NEWPORT BOULEVARD | 49600 | 397 | 0.80 | 273 | 62 | 12 | 50 | 68.75 | 15.63 | 3.13 | 12.50 |
| 001 | 12 | ORA | | | 21.549 | | B | SANTA ANA RIVER BRIDGE | 38800 | 272 | 0.70 | 187 | 43 | 9 | 34 | 68.75 | 15.63 | 3.13 | 12.50 |

VMT - Sacramento Area Council of Governments



If you have a travel demand model, follow the SACOG example in the guidebook.

- Relies on model runs with built in assumptions.
- Runs a base year model run using existing conditions.
- Selects projects most likely to be implemented and runs that as a “build” scenario.

CEQA / SB 743



- For the CEQA process, lead agencies have the discretion for how to calculate VMT.
- For projects on the State Highway System or where Caltrans is the lead agency, Caltrans requires projects to calculate induced VMT using:
 - A Caltrans approved travel demand model
 - The NCST calculator

NCST Calculator



Caltrans guidance specifies that the NCST Calculator cannot be used:

- In 14 of the MSA counties, the calculator cannot be used for class 1 facilities.
- There are 21 counties where the NCST calculator “does not apply”
- Most project types other than adding an HOV or GP lane.

Table 3. The 21 Rural Counties where the NCST Calculator does not Apply

| | | |
|-----------|-----------|----------|
| Alpine | Inyo | Nevada |
| Amador | Lake | Plumas |
| Calaveras | Lassen | Sierra |
| Colusa | Mariposa | Siskiyou |
| Del Norte | Mendocino | Tehama |
| Glenn | Modoc | Trinity |
| Humboldt | Mono | Tuolumne |



DRAFT 2022 SCCP GUIDELINES

NAVEEN HABIB

Associate Deputy Director | SCCP

DRAFT 2022 SCCP Guidelines

Proposed Changes



- Clarify existing language
- Reorder sections
- Reorganize/Reformat
- Include additional examples or context

The highest-rated nominations will be ~~selected for~~ **programmed for** funding. **The Commission will prioritize jointly nominated projects; construction-ready projects; projects that advance the state's climate goals; projects that employ innovative and/or multimodal solutions; and projects that leverage funding from private, federal, state, local, and/or regional sources that are discretionary funds.**



NEW INFORMATION AREAS

NAVEEN HABIB

Associate Deputy Director | SCCP

Upcoming 2022 Workshops



Save the Dates!

All SB 1 Competitive Programs Workshop –
Follow-up on Incorporating Transportation Equity

→ Friday, April 8 from 1:00 - 4:00 PM

Final SCCP Workshop

→ Wednesday, April 13 from 1:00 - 4:00 PM

Office Hours



- **SCCP virtual office hours end April 2022**
 - Scheduled 30-minute appointments on a bi-weekly basis
 - Up to 9 hours available per month
 - Private sessions
 - 1-on-1 time with Commission staff to answer application questions
 - Appointments will be reserved on a first-come-first-served basis
 - Request an appointment: <https://forms.gle/Hv1jojjYQtHy4gUm9>

Key Topics for Subsequent Workshops



- Integration of Equity
- Project Nominations
- Timely Use of Funds
- New Information Areas
- Any additional topics for consideration

**Additional items could be added on workshop agendas in advance of that respective workshop.*



Closing & Next Steps

Questions or Comments?



Email CTC@catc.ca.gov.

For latest updates, visit the Commission's website at www.catc.ca.gov and follow the Commission on [Twitter](#) and [Facebook](#).

Contact Us



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Thank You!