# Attachment A: Staff Report

**January 28, 2013 - Board of Supervisors Hearing**
**Legistar Item No.: 12-1578**

The Department of Transportation recommends the Board receive information regarding the Capital Improvement Program, the Traffic Impact Mitigation Fee Program, and the Travel Demand Model.

**BACKGROUND:**

The Department of Transportation (Department) is presenting information on the Capital Improvement Program (CIP), the Traffic Impact Mitigation (TIM) Fee Program, and the Travel Demand Model (TDM).

**<u>Capital Improvement Program:</u>**

The purpose of the CIP is to provide strategic direction regarding the Department's capital project priorities over a current year to 20 year horizon. A 20 year horizon applies to road improvement projects, and a current year to 10 year horizon applies to all other projects. The CIP is a planning tool that the Department updates annually as new information becomes available regarding priorities, funding sources, project cost estimates, and timing.

All CIP projects that have federal funds or are considered regionally significant are required to be programmed in the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Improvement Program (MTIP). Currently, 45 of the Department's CIP projects are included in the SACOG 2013/2016 MTIP, 33 of which have federal funding. The other 12 projects are considered regionally significant.

The CIP includes projects in:

- West Slope Road/Bridge CIP
- Capital Overlay and Rehabilitation Program (CORP)
- Tahoe Environmental Improvement Program (EIP)
- Airport Capital Improvement Program (AICP)

This year, the CIP will also include the following Programs:

- Road Maintenance Program (RMP)
- National Pollution Discharge Elimination System (NPDES) Program

The RMP and NPDES are also reviewed and updated annually, including revenue estimates, project scopes, costs and schedules.

The proposed CIP workshop will be presented to the Board for direction on February 5, 2013. Staff will then return with Board requested changes to the CIP in April, and finalize by Board adoption in May. The CIP forms the basis for the Department's budget for the upcoming fiscal year.

The Airport CIP and the Tahoe EIP have additional review requirements, primarily tied to their specific funding sources. The Airport CIP is tied directly to the Federal Aviation

Administration's annual grant cycle and the Tahoe EIP is tied directly to the Tahoe Regional Planning Agency's Regional Plan annual planning cycle.

*Road Maintenance Program (RMP):*

The 2013 CIP will include the RMP, a program which facilitates repair or replacement of existing facilities before they fail. The Board has expressed concern regarding the cost of postponing road maintenance. If road defects are repaired promptly, the cost is usually modest. If defects are neglected, an entire road section may fail completely, requiring full reconstruction at three times or more the cost of maintenance. The Department developed a Pavement Management System over the course of many years, which has provided the necessary information to guide and prioritize various capital overlay projects. Recently, the Department incorporated the existing system into a more robust Geographic Information System tool entitled "The Pavement Management Program," (PMP).

The Pavement Management Program (PMP) - The information provided by the PMP drives the Department's RMP and CORP programs. The PMP is a tool used to assist in monitoring the condition of all paved roads within the County. It maintains a history of surface treatment and overlay work performed on the roads. In addition, it assists in funding procurement by demonstrating use of proper maintenance strategy with existing funds.

The PMP allows staff to evaluate and monitor the condition of pavement to enable the Department to use its limited resources in the most efficient manner possible. Ideally, each road should be inspected every other year. Surface treatment and overlay data is entered upon completion of work, and used to prioritize maintenance and overlay work plans.

The PMP Inspection Process has two components.

In the field:

- For every 1,000 feet of roadway, 100 feet are inspected on foot.
- Each inspection looks for 19 different potential deficiencies.
- Each deficiency encountered is measured and evaluated for severity.
- Inspectors must be trained to identify deficiencies and properly evaluate severity.
- Inspection is quantitative and statistics-based.

In the office:

- Data is entered into the Streetsaver program.
- Pavement Condition Index (PCI) is calculated and updated.
- Roads are prioritized for maintenance or overlay work.

Over the past six years, the Department has spent $4.86 million on chip seal work and $9.87 million on asphalt concrete overlay projects. The PMP will enable staff to focus on common-sense preventative maintenance, which will maximize the useful life of the County's roadway infrastructure.

Alternative funding streams will remain closed if the County cannot demonstrate that it is using its current resources in the most efficient manner possible. The Metropolitan Transportation Commission (Bay Area) has used its PMP to obtain millions in funding for maintenance and rehabilitation over the past several years. The Department is working with the El Dorado County Transportation Commission (EDCTC) and the City of Placerville to investigate new maintenance funding sources through SACOG and Caltrans.

On October 23, 2012, the Department presented the Board with a summary of the RMP and PMP. Within that presentation, staff explained that the Maintenance Unit is responsible for maintenance of 1,079 centerline miles of roadway. The roadway surface types are as follows:

- 433 miles of AC surfaced
- 586 miles of chip seal
- 60 miles of unconstructed roads
- 70 miles of sidewalks

Maintenance activities include, but are not limited to, brushing, ditching, grading, asphalt concrete patching, chip and cape seal, crack seal, Dura Patching, sweeping, vegetation control, drainage, traffic signals, sign maintenance and snow removal.

On December 11, 2012, the Department returned to the Board with road system sustainability and investment options for the Board's consideration. Within that presentation, staff described that the Department's current budget is allocated over 17 categories, where limited funding is used in the most efficient manner possible to maintain the County roadway system. Funding limitations and material cost increases have prevented the Department from performing certain maintenance tasks at targeted frequencies.

Staff has determined that the following maintenance areas will require more concentration:

- Brushing and Ditching - brushing improves site distance and fire safety. Ditching provides drainage improvements and water quality.
- Surface Treatment - prevents deterioration of infrastructure and improves ride ability.
- Vegetation Control - reduces vegetation in drainage structures, increases site distance and helps with fire prevention.
- Sign Maintenance - is required by the Federal and State Manual on Uniform Traffic Control Devices (MUTCD) to replace signage with new retro-reflective sheeting for improved visibility, especially at night. With the current allocation of employees in Sign Maintenance, the Department will not be able to complete this requirement by 2015.
- Pavement Management Program **-** maintains an inventory and history of County infrastructure assets and the importance of the system to help plan for future maintenance work on County roadways.

If funding remains level:

- 28 miles of surface treatment will be completed this fiscal year with budgeted funding. This is 52 miles below the targeted production
- Pavement Condition Indexes (PCIs) will continue to deteriorate below the critical 70 index level
- Costs to bring PCIs back to standard will multiply by a factor of four
- Deterioration compounds each year

*National Pollutant Discharge Elimination System (NPDES) Program:*
The 2013 CIP will also include a section on the NPDES Program. The NPDES program is a provision of the Clean Water Act. It is a permitting mechanism that requires the implementation of controls designed to prevent harmful pollutants from being washed by storm water runoff into local water bodies.

Both the Tahoe EIP and the West Slope CIP are facing increased NPDES requirements that come with more restrictions and with no identified funding sources. The upcoming 2013 CIP workshop will include further information on overall costs of the program and propose implementation and funding options.

**TIM Fee Program:**

On September 20, 2005, the Board approved Resolution No. 292-2005 adopting the 2004 General Plan TIM Fee Program. This Resolution adopted an interim 10-Year Fee Program.

On August 22, 2006, the Board approved Resolution No. 266-2006 adopting the 2004 General Plan TIM Fee Program pursuant to a comprehensive review. The Board also adopted Resolution No. 265-2006, which certified the TIM Fee Program Supplement to the 2004 General Plan Environmental Impact Report, issued a Supplemental Statement of Overriding Considerations, and made Supplemental Findings of Fact. These Resolutions created the 20-Year TIM Fee Program we know today.

Resolution 266-2006 requires the annual review of the TIM Fee Program and directs the Department to return to the Board with a recommendation to adjust the TIM fees, based upon changes in the cost of construction or other costs. The Department characterizes this kind of annual review a “minor” update. The General Plan’s Policy TC-Xb, Item B, requires the Department to “at least every five years, prepare a Traffic Impact Mitigation (TIM) Fee Program specifying roadway improvements to be completed within the next twenty years to ensure compliance with all applicable level of service and other standards in this plan”. The Department considers this five year analysis to be a “major” update, requiring review and update, if necessary, to the County’s Travel Demand Model.

Since the TIM Fee Program was adopted on August 22, 2006, the Department has performed five minor updates, from 2007-2011.

- On September 25, 2007, the Board adopted Resolution 243-2007 to raise TIM

Fees by 14.16%, based on inflation of construction costs during the preceding year. The inflation index used in that adjustment was the Caltrans Price Index for Selected California Construction Items.

- On July 29, 2008, the Board adopted Resolution 205-2008 to:
    - o Decrease TIM Fees by 1.73% based upon a decrease of construction costs during the preceding year;
    - o Switch the inflation cost index from Caltrans to the Engineering News Record-Building Cost Index; and,
    - o Shift the index from third quarter (October) to fourth quarter (December).
- On June 2, 2009, the Board adopted Resolution 114-2009, which left the TIM Fee Program rates unchanged from the 2008 annual review.
- On June 8, 2010, the Board adopted Resolution 070-2010, which also left the TIM Fee Program rates unchanged from the 2008 annual review.
- On February 14, 2012, the Board adopted Resolution 021-2012, which allocated approximately $40.9M of a $138.6M TIM fee reduction available to offset lower fees for Age Restricted categories added in Zones 2, 3, and 8. This action added 1,200 units in Zone 8, 600 units in Zone 2, and 400 units in Zone 3. The total 2,200 units represented approximately 10% of the total housing forecast in the TIM Fee Program.

After using $40.9M of the $138.6M available for Age Restricted, the remaining $97.7M ($138.6M - $40.9M) was allocated to reduce fees as follows:

1) Zone 8 Local Fee: $32.9M reduction (resulting in fee reductions between approximately 11% and 12%, depending on the land use category);
2) Zones 1–7 Local Fee: $34.9M reduction (resulting in fee reductions between approximately 12.5% and 13.5%);
3) Zone 8 Highway 50 Component: $12.7M reduction (resulting in fee reductions between approximately 17% and 21%);
4) Zones 1-7 Highway 50 component: $17.3M reduction (resulting in fee reductions between approximately 15% and 22%).

One of the major factors affecting the TIM Fee Program is Measure Y. On November 3, 1998, voters passed the “Control Traffic Congestion Initiative” (Measure Y) which was implemented as Policy TC-Xa in the 2004 El Dorado County General Plan. This measure required development to be responsible for mitigating road impacts. It also states that residential development cannot cause a Level of Service (LOS) F or worsen LOS.

In November 2008, voters passed an amendment to Measure Y. The amendment allowed for the Board, with a 4/5 vote, to add road segments to Table TC-2 of the General Plan that are permitted to go to LOS F. Policy TC-Xf was also amended to clarify when residential subdivision (five or more parcels) and commercial projects would be required to mitigate their roadway impacts. Policy TC-Xf deems development projects that worsen (as defined in Policy TC-Xe) traffic on the County road system to be mitigated, if the necessary road improvement traffic mitigation measures are included within:

- the ten year CIP (for residential projects of five or more parcels)

- the twenty year CIP (for all other discretionary projects).

*TIM Fee Cost Reduction Process:*
In order to achieve the $138.6M cost reduction, in April, 2011, the Department began to explore five areas for possible cost reductions. These five areas included:

A) Deletion of projects not absolutely necessary for Traffic Impact Mitigation. The trigger would be in compliance with General Plan LOS requirements.
B) Deletion of the remaining HOV Lane Project (Bass Lake Road to Cameron Park Drive section) from the TIM Fee Program, as it was expected that this project would be funded by grants and/or payments under the MOU with the Shingle Springs Band of Miwok Indians.
C) Reduction of the Traffic Signals, Operational and Safety Improvements line item in the TIM Fee Program. This has implications as to what the County will need to require from developers (i.e., developer constructed signals with no reimbursement).
D) Identify the likely impacts of eliminating any expenditure on the State Highway System, with the exception of the Silva Valley Parkway Interchange Project.
E) Review 2011 CIP Cost Estimates in coordination with a third party Cost Estimate Review Committee (CCERC).

Based on the nature of review required to further reduce costs in items A, C, and D, staff advised the Board that the Department would require a revised Travel Demand Model (TDM).

The TDM update will incorporate current and any updated information as a result of past General Plan Amendments, the Targeted General Plan Amendment (TGPA) and Zoning Ordinance Update. As a result of the TDM update, the Department will evaluate if roadway projects can be removed or reduced, thereby providing information to enable staff to update the CIP and TIM Fee Program. The TDM will also be useful in providing planning level information for proposed development projects and what type of impacts the projects may have on surrounding roadways.

Many components come into play when considering removing projects from the TIM Fee Program. These components are interrelated – changing one component may affect another component. Factors that influence and/or constrain TIM fees include:

- Federal laws and agency rules;
- State laws and agency rules;
- General Plan policies;
- Land use entitlements;
- Travel Demand Model;
- Improvement standards;
- Regulations/guidelines;
- Grants and Reimbursement Agreements;
- Economic development;
- Political pressure;
- Special interests;
- Litigation;

- Utilities;
- Oak woodlands; and
- Rare plants.

The Department will continue to review costs of the projects in the TIM Fee Program to explore opportunities for further reductions. The Department will report findings from the review to the Board and request direction on how to move forward, should any potential cost reductions or increases be identified.

Further reductions in TIM Fees may reduce revenues, which could contribute to current cash flow challenges. Lower fees may mean there will be less revenue in the near term available to repay existing Reimbursement Agreements or work on critical CIP Projects. Conversely, lowering fees may also stimulate permit activity and potentially increase revenues into the TIM Fee Program. In either scenario, the Department's current cash flow forecasts from building permits are fairly low in the near term, so lowering the fees is not anticipated to significantly impact total revenue at this time.

*TIM Fee Annual Update Process:*
The TIM Fee Program has a minor revision every year and a major update every five years as required by General Plan policies. The Department completes the minor or major TIM Fee update pursuant to the following process:

*Minor Fee Update:*
The minor fee update process involves:
- Reconciliation of project cost estimates and descriptions based on the current CIP. The most recent CIP was adopted by the Board on June 19, 2012. For projects in the preliminary planning phase, the Engineering News Record – Building Cost Index is used. For projects in the advance design stage (65-90%), current cost data is used;
- Updating the descriptions and cost estimates in Exhibit B of the TIM Fee Program, addition of new roadway segments (identified by traffic studies), and direction from the Board;
- Calculating Exhibit B's total program cost and percentage change from the previous year's total program cost;
- Calculating new fees within each zone pursuant to each TIM Fee category; and,
- Preparing Resolution for the Board's review and approval.

*Major Update:*
The next comprehensive update will occur in 2014, after the new TDM is completed and roadway scenarios are run. In addition to the above steps, the major update involves:
- Establishing a baseline TDM using 2010 Census information;
- Updating growth forecasts;
- Reviewing LOS standards;
- Using updated land use projections to run scenarios in the updated TDM;
- Identifying roadways in need of improvement;
- Examining roadway standards;
- Verifying grant forecast revenue assumptions;

- Calculating total improvement costs and total new construction TIM fee revenue based on revised land use projections.

Staff will return to the Board in February to request direction on whether to keep the 2013 TIM fees the same as the 2012 TIM fees, or to complete a minor update. Cost estimates for roadway projects have not changed significantly, so major changes to the TIM Fee program would not be required. Staff will re-evaluate the County roadway network after completion of the TDM, and anticipates seeing changes at that time. The re-evaluation of the roadway network is scheduled to be completed in 2014.

**Relationship between the TIM Fee Program, CIP and General Plan Policies:**

General Plan Policy TC-Xb ensures that potential development in the County does not exceed available roadway capacity. It requires the County to prepare an annual Capital Improvement Program (CIP), specifying expenditures for roadway improvements within the next ten years, and to, at least every five years, prepare a CIP specifying expenditures for roadway improvements within the next twenty years.

The 2012 CIP includes the ten and twenty year future West Slope Road/Bridge Program and current and five year CIP work plans. The CIP is the mechanism for constructing projects, whereas the TIM Fee Program is one of the funding mechanisms for development driven projects.

On May 8, 2012 and December 4, 2012 the Board approved the projects listed in Attachment B. These projects are not necessarily scheduled to be constructed within the Department's five year CIP Work Plan. See Attachment C for a breakdown of the current, five, ten and twenty year CIP Work Plans. In some cases (e.g. Ponderosa Interchange) these projects only have funding currently available to work on limited parts of the projects, such as design and environmental analysis. Construction for these projects has been pushed out to the ten or twenty year future plan, when funding becomes available.

The Board previously expressed that some projects (e.g. Ponderosa Interchange, Cameron Park Drive Interchange) are not needed. However, removing such projects is not as simple as it sounds. Removing projects affects compliance with General Plan TC-Xa and related policies included in the General Plan Circulation Element. The General Plan TC-X policies were implemented to maintain adequate levels of service on County roads. If interchange projects are removed, alternate solutions to maintain adequate LOS will need to be developed. Something will have to be built, perhaps phases or sub-parts of the entire project.

In addition, Ponderosa Interchange and Cameron Park Drive Interchange are tied to approved commercial and multifamily development projects. Developers consider their projects mitigated if these interchange projects are included in the TIM Fee Program and/or the CIP. Removing interchange projects from the CIP and/or TIM Fee Program requires consistency with the General Plan, Travel Demand Model and potential impacts on development, as well as identification the appropriate alternative to these improvements.

**Travel Demand Model:**

On December 19, 2011, the Board received a TDM Needs Assessment. The assessment highlighted areas where the existing model could be improved. On January 24, 2012, the Board of Supervisors authorized the update of the TDM through a contract with Kimley-Horn and Associates, Inc. (KHA).

The new TDM is an essential tool to assist with:

- Implementing General Plan goals;
- Updating the Zoning Ordinance;
- Planning of new roadways for the CIP;
- Updating TIM Fees;
- Analyzing the adopted Resolutions of Intention to Amend the General Plan.

The Scope of Work for the TDM update includes the following components:

- Update TDM to 2010 Baseline
- Environmental Impact Analysis for Targeted General Plan Amendment and Zoning Ordinance Update
- Land Use Forecast for the TDM

Since the beginning of the KHA contract for the TDM Update, staff has provided monthly updates to the Board. Major components of the TDM were presented to the Board on the following dates:

- April 16, 2012 - KHA presented the Draft Land Use Assumptions
- May 1, 2012 - Board approved the assumptions for determining the projections for a new 2035 planning horizon.
- July 24, 2012 – Staff presented the Roadway Network and Traffic Analysis Zone (TAZ) maps which incorporated comments from the June 26, 2012 Board hearing.

**Strategies for Additional TIM Fee Reductions:**

Upon completion of the TDM, staff can begin the analysis process in the adjustment of the TIM Fee Program. Below are several strategies for this process.

1. Road Constrained Alternative - A road constrained alternative will allow the Board to hold a roadway to a determined number of lanes. For example, the Board can determine that Pleasant Valley Road should remain at two lanes instead of increasing to four lanes based on growth in the area as allowed by land use. If the TDM Model output results in four lanes on Pleasant Valley Road, several strategies may be used to control the desired results. These strategies include:

   a. Development management
      - Types of uses
      - Mixture of uses

- Location of uses

b. Access management
- Number of access points
- Location of access points
- Allowable turn movements

c. Corridor Management
- Parallel corridor capacity
- Signals and other traffic control
- Capacity Enhancements

d. Policy Considerations
- Level of Service thresholds (See discussion in Item 5 below)
- Threshold required for improvement

Staff will return to the Board in February 2013 with a TDM Update. When the TDM update is complete, the Department will be able to run existing and future scenarios to evaluate traffic impacts from existing traffic and traffic generated using the land use forecast information to determine the appropriate roadway infrastructure needs.

The TDM can then be re-run, using the strategies discussed above. This will be an iterative process, with allowance for continued adjustments until the desired roadway size is achieved. Reducing road size doesn't necessarily reduce TIM fees, as it may result in lower numbers of units to share the costs.

2. Removing Projects - There are some projects in the TIM Fee Program that may not be necessary for traffic impact mitigation. The Department is not recommending deletion of any specific projects at this time. Rather, as directed by the Board on February 14, 2012, Department staff will; 1) examine, identify, and list all projects that may not be necessary for traffic mitigation, along with associated cost savings; and, 2) return to the Board upon completion of analysis based on the updated TDM to ask for direction on which projects the Board would consider removing from the TIM Fee Program.

   *Interchange Projects:*
   The Board stated previously that some projects (e.g. Ponderosa Interchange) are not needed. Approximately a third of the TIM Fee Program is slated for improvements on the State Highway System. As the Board is aware, a great deal of funding, both TIM Fee Program and State and Federal grant funding, have been expended for these projects. Any actions to eliminate all or a portion of the State Highway Projects from the TIM Fee Program will have to take those expenditures into account. Several of the projects, such as the Missouri Flat Interchange Project (Phase 1B) cannot be eliminated from the TIM Fee Program even if they are completed, since the funds have been obligated.

   Additional issues that will need to be analyzed include the need for additional environmental documentation – likely a supplement to the General Plan EIR. Also, the TIM Fee Program includes an expectation for approximately $180M in State and Federal grant funds. Since most of these grants are directed at State Highway

Improvements, the elimination of State Highway Projects from the TIM Fee Program may put those funds at risk.

Given the complexity of this portion of the TIM Fee Program, along with the issue of compliance with General Plan policies, effects of reimbursement and development agreements, State Government Code requirements, etc., the Department recommends the Board provide any guidance and instructions on how to proceed. Such direction may include looking only at removing selected interchanges, removing the Highway 49 Projects, or removing the Highway 50 Mainline Projects to the extent possible.

Upon Board identification of those Projects to be deleted from the TIM Fee Program (if any), Department staff would re-evaluate the TIM Fee Program as a whole, identify and document likely ramifications, and pursue any administrative functions that may be necessary to implement the proposed changes. This would include, but not be limited to, such items as, updating the TDM, identifying actual impacts to TIM Fee Program and CIP, and determining if any environmental update to the General Plan EIR would be necessary.

*Intersection/Safety Line Item:*
The TIM Fee Program includes a line item entitled “Traffic Signal, and Intersection Operational Improvements” with a total cost of $89.3M. Traffic Signal Projects include such intersection improvements as signalization, widening for turn pockets and shoulders, bike and pedestrian facilities, and Americans with Disabilities Act (ADA) required improvements. The intersection operational improvement costs are to pay only for required local match funds on State and Federal grants for operational improvement projects such as Intelligent Transportation System (ITS) facilities and high accident location mitigation improvements.

The Department will create and evaluate a list of areas that may require signals or intersection operational improvements. This evaluation will determine which signals or intersection operational improvements should be included within the TIM Fee Program and the CIP. The ramification of reducing funding for the “Traffic Signals and Intersection Operational Improvements” line item would be, primarily, fewer intersections in the County improved through the TIM Fee Program. Intersection improvements beyond those funded by the TIM Fee Program would need to be funded from another source. For example, development projects could be required to construct the required mitigation improvements.

*Bridge Line Item:*
The Bridge line item is similar to the “Traffic Signals and Intersection Operational Improvement” line item above which uses funds for the local match on State and Federal grants for bridge projects ($8.1M). The result of reducing funding for the grant match funds could be the reduction in outside grants used by the Department to construct needed improvements. This is a case where spending a dollar of County money nets nine dollars of Federal money.

*Other:*

The TIM Fee Program includes funding for Highway 50 improvement study in Camino, with a cost of $2M, although $0.6M has already been spent. There is a “Transit Improvement” line item for the construction of Park and Ride lots, purchase of commuter buses, etc., totaling approximately $10.5M. This has been allocated to El Dorado County Transit in order to help alleviate traffic on Highway 50. (Note that $1.3M has already been spent.)

The Department is not recommending the deletion or reduction of any of these specific line item amounts at this time. Rather, if directed by the Board to proceed, the Department will look at the issues involved in such a deletion or reduction, and report back to the Board on the impacts of such decision(s). One issue the Department will need to evaluate as part of this process is to review how much funding has already been expended within each specific line item. In some cases the results of the evaluation may preclude deleting the specific line item entirely.

3. Reviewing Soft Costs - Soft costs include professional, technical and management services related to the design and construction of projects during the preliminary engineering, final design, and construction phases of the project. This includes environmental work, engineering design services, risk assessment, cost estimating, scheduling, surveying services, materials testing, administration, and management by Department staff or outside consultants. Soft costs are in some cases (i.e. grant funded projects, Caltrans projects) calculated as percentages of hard construction cost estimates. On other projects, the percentage is used as a guideline, and soft costs are estimated by engineering project managers, based on a level of work effort analysis. Variables considered when estimating soft costs include:

    - Contract duration;
    - Project size and price;
    - Complexity of the project;
    - Timing of the project’s Notice to Proceed;
    - The physical location of the project;
    - The amount of night work that may be involved;
    - The type of project (i.e. bridge, wall, roadwork, drainage, etc.;
    - The current bidding environment; and
    - Current labor cost.

    The Department has recently developed and implemented a project delivery system using a Work Breakdown Structure (WBS), which will assist the Department in tracking and accurately estimating project delivery soft costs. The project delivery system will provide insight into process improvements that will help the Department effectively forecast and manage project delivery soft costs.

4. Revising Road Standards - Pursuant to General Plan Policy TC-1a, “The County shall plan and construct County-maintained roads as set forth in Table TC-1 (see attachment D). Road design standards for County-maintained roads shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards, and supplemented by California Department of Transportation

(Caltrans) standards and by County Department standards. County standards include typical cross-sections by road classification, consistent with right-of-way widths summarized in Table TC-1.

Roadway width should provide the minimum pavement width to support travel lanes for public, emergency, maintenance, and service vehicles. As part of the Targeted General Plan Amendment (TGPA), the County is analyzing the impacts of reducing road spacing, right-of-way widths and roadway widths. Reduced roadway width may result in lower CIP construction and maintenance costs, which may result in lower TIM fees.

5. Altering LOS and Concurrency Policies - LOS analysis determines how well a roadway functions during peak hour conditions and calculates the efficiency of the traffic flow for the motorist. LOS delay is based on the difference between travel time under ideal conditions and travel time actually experienced. Six levels of service are defined for capacity analysis. The levels of service are given letter designations A through F, with LOS A representing the best range of operating conditions and LOS F the worst.

   General Plan Policy TC-Xd states that “LOS for County-maintained roads and state highways within unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in Rural Centers or Rural Regions except as specified in Table TC-2,” (attachment E). The policy further states, “the volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table.”

   As part of the TGPA, the County is analyzing revising policies to clarify the definition of “worsen,” what action or analysis is required if the definition of “worsen” is met, clarification of the parameters of analysis (i.e. analysis period, analysis scenarios methods) and thresholds of timing improvements. Changes to the definitions could potentially modify the TDM analysis and impact the Circulation Element within the General Plan.

   Review of current LOS thresholds will be taken into consideration during the TDM update process. Revising thresholds for LOS may impact the size of infrastructure needed, which could increase or decrease required mitigations. If required mitigations can be decreased, TIM fees may be lowered as a result.

**Next Steps:**
Department staff will:
- Return to the Board on February 5 with a CIP workshop;
- Continue with the update to the design standards;
- Evaluate the Targeted General Plan Amendment’s analysis of the County’s LOS Policies;
- Analyze the “Traffic Signals and Intersection Operational Improvements” priority list;
- Review project soft costs;
- Schedule future Board workshops to discuss roadway scenarios after completion of the TDM; and

- Return to the Board in February with a discussion regarding the 2013 TIM Fee Program.

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