

March 18, 2020

Mr. Jean-Paul Popoff, ARM-E, CRIS
Claims & Liability Manager
Alameda-Contra Costa Transit District
1600 Franklin Street
Oakland, California 94612

RE: Risk Bearing Analysis and Recommendations of Alameda-Contra Costa Transit District

Dear Mr. Popoff:

Attached please find our report that presents the risk bearing analysis and recommendations for the Alameda-Contra Costa Transit District (AC Transit) with regards to the Scope of Services outlined in the agreement between AC Transit and Albert Risk Management Consultants.

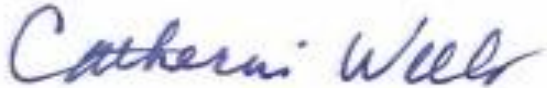
Two subcontractors were utilized in the completion of this assignment: Risk Management Specialists and Bickmore Actuarial.

The process in completing this report included:

- Interviews with AC Transit executives.
- Benchmarking AC Transit's current insurance program against other comparable California transit agencies.
- Research of various issues including transportation issues and probable loss forecasts
- Preparation of this report.

It has been our pleasure to be of service to AC Transit in the preparation of this report.

Sincerely,



Catherine Wells, CPCU, ARM, CRIS
Principal & West Coast Practice Leader
Albert Risk Management Consultants



Richard Cho, CPCU, ARM, CRIS
President & Principal
Risk Management Specialists



Mark Priven, FCAS, MAAA
Vice President & Principal
Bickmore Actuarial

Alameda-Contra Costa Transit District



Risk Bearing Analysis and Recommendations

March 18, 2020

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
BACKGROUND.....	4
APPROACH	4
OBSERVATIONS	5
ANALYSIS / FINDINGS.....	6
<i>Risk Tolerance / Risk Bearing Capacity</i>	6
<i>Risk Controls</i>	7
<i>Risk Finance</i>	8
<i>Benchmarking</i>	10
CONCLUSIONS / RECOMMENDATIONS	12
<i>Overall</i>	12
<i>Workers' Compensation</i>	12
<i>Commercial Property Insurance</i>	12
<i>Commercial Crime Insurance</i>	13
EXHIBIT A – INSURANCE SUMMARY MATRIX.....	15
EXHIBIT B -_ACTUARIAL_ANALYSIS	17
EXHIBIT C - PROBABLE MAXIMUM LOSS (PML) ESTIMATION	43
EXHIBIT D - RISK CONTROL QUESTIONNAIRE RESULTS	45
EXHIBIT E – BENCHMARKING COMPARABLE TRANSIT AGENCIES	51
APPENDIX A - GLOSSARY OF RISK MANAGEMENT TERMS	53

EXECUTIVE SUMMARY

Alameda-Contra Costa Transit District (AC Transit) directed this study to assess AC Transit's optimal risk bearing capacity including the feasibility of fully self-insuring itself for workers' compensation, property and commercial crime.

An analysis was performed that included: a review of AC Transit's insurance programs, financials, and policies/procedures; interviews of AC Transit's executives; and benchmarking AC Transit against comparable California transit agencies.

Findings

The executive interviews also included completion of a risk questionnaire that focused on risk concerns involving operational, financial, reputational, and legal/human resources. The top three (3) risk concerns amongst AC Transit executives were: financial; operational; and human resources. These were primarily in the areas of financial health of the organization, delivery of capital construction projects and employee recruitment/retention (see Exhibit D).

An actuarial analysis (see Exhibit B) of AC Transit's historical financials demonstrate that AC Transit may be able to tolerate and bear the following amounts attributable to claims/losses:

General Liability/Automobile Liability	Self-Insured Retention (SIR) of \$1 million to \$2 million per year
Workers' Compensation	Self-Insured Retention (SIR) of \$1 million to \$2 million per year

To properly analyze the maximum probability of a property loss from a fire incident, a perfunctory estimation using industry known percentages was utilized against AC Transit's owned and leased property locations. This resulted in calculations that determine the effects of a catastrophic fire on those locations, which is also known as a Probable Maximum Loss (PML) study. PMLs are an extensive analysis in determining property losses, which are very expensive and can take over three (3) months to complete. Using this perfunctory method, our estimation of AC Transit's PML exposure to any one fire loss is approximately \$117 million (see Exhibit C).

Conclusions

AC Transit annually spends almost \$8.9 million for its insurance premiums but accrues almost \$19.6 million in incurred and developed claims. Based on these amounts, the ratio of the claim liabilities exceeds the insurance premiums by 2:1, which confirms that AC Transit has sufficiently mitigated any financial loss with the purchase of its insurance. In this regard, \$9 millions of insurance buys AC Transit \$19 million of coverage.

Furthermore, the benchmarking results against AC Transit's California peer transit agencies show that AC Transit's current insurance program structure is comparable (see Exhibit E); specifically, all the surveyed transit agencies purchase excess liability insurance with high SIRs.

Recommendations

Based on AC Transit's requested scope of work and resulting analysis in this report, our team makes three (3) recommendations:

- **Continue to Purchase Workers' Compensation Insurance.** AC Transit currently purchases workers' compensation with a SIR of \$1 million. However, if lower premiums are desired, AC Transit may consider exploring a higher SIR based on the actuarial analysis revealing that AC Transit may be able to bear a higher retention of up to \$2 million.
- **Continue to Purchase Property Insurance.** Based on the cursory PML analysis of AC Transit's owned and leased property, it is recommended that AC Transit continue to purchase property insurance. Given the recent fire events that California has experienced within the last three (3) years, coupled with the probability of a fire loss of up to \$117 million, purchasing commercial property insurance is justified. Further, a catastrophic fire event could jeopardize AC Transit's financial well-being by forcing AC Transit to cover a loss if that catastrophic fire event were to happen.
- **Continue to Purchase Crime Insurance.** While AC Transit may have strong internal protocols and controls to deal with theft from fraud, the risk of losses being incurred from external (and possibly internal) forces is always present. At a premium of \$13,250 for limits of \$5 million, the risks of self-insuring for this exposure far outweighs the cost for this insurance.

BACKGROUND

Alameda-Contra Costa Transit District (AC Transit) directed this study to assess their optimal risk bearing capacity, inclusive of all current lines of coverage, self-insured retentions and deductibles. The assessment will also include an analysis of the contractual, regulatory, statutory and financial feasibility, and any recommendations, in AC Transit fully self-insuring the insurance lines of coverage for workers compensation, property and crime. Furthermore, this assessment is being sought to provide AC Transit with information as to whether AC Transit's current insurance program reflects the best use of its financial resources or to determine if there are other risk transfer options that would be more advantageous to AC Transit.

In the course of this study, the following tasks were conducted:

- Review and evaluate AC Transit's current insurance programs;
- Review and evaluate risks that are faced by AC Transit;
- Conduct general benchmarking against peer transit agencies within California;
- Review and analyze contracts and purchasing agreements;
- Conduct an actuarial review of AC Transit's financials in conjunction to its risks; and
- Conduct interviews with AC Transit executives to ascertain the risk concerns and risk tolerance of organization.

APPROACH

In regard to the overall scope of this assignment, the analysis will need to be addressed within the framework of the following:

- Risk Tolerance / Risk Bearing Capacity;
- Risk Controls; and
- Risk Finance

Risk tolerance is defined as the quantitative thresholds/boundaries or acceptable range of outcomes and risks AC Transit is willing to assume that is aggregated across the organization, as a critical part of risk exposure management. In this regard, risk tolerance can be considered as AC Transit's potential risk exposure or willingness to assume risk to achieve its strategic goals, which may be larger than its existing exposures. Risk bearing capacity consists of all possibilities that could impact AC Transit's abilities to achieve strategic goals which can be categorized as: strategic; non-strategic/non-transferrable; blended risks; and non-strategic/transferrable.

Risk controls are based on a view of AC Transit's ability to measure, monitor, and limit its risks as well as the ability to keep its losses within the defined risk tolerances. These tolerances are assessed by interviewing key individuals within AC Transit, and determining from their respective responses the impact and likelihood of such risks on the organization as whole.

Risk finance is the planning and management of funds to pay losses. Typically, losses are financed through a combination of self-insurance and insurance.

OBSERVATIONS

AC Transit currently purchases its insurance programs through the commercial insurance marketplace. Alliant Insurance Services is AC Transit's current insurance broker and has been since 2019. USI Insurance Services was the broker prior to Alliant. AC Transit insures its exposures through insurance coverages that are either in excess of self-insured retentions or subject to deductibles. AC Transit's insurance programs are as follows (please see the summary matrix in Exhibit A for a detailed description of the insurance policies):

- **Excess Liability (XS).** Total limits of \$51,000,000 excess of the following SIRs:
 - \$1,000,000 for General Liability (GL);
 - \$2,000,000 for Automobile Liability (AL);
 - \$1,000,000 for Employment Practices Liability (EPL);
 - \$1,000,000 for Public Officials Liability (POL); and
 - \$1,000,000 for Law Enforcement Legal Liability (LEL).
- **Workers Compensation (WC).** California Statutory WC indemnity limits and Employers Liability limits of \$1,000,000, which are excess of a \$1,000,000 SIR per occurrence;
- **Commercial Property (Property).** \$150,000,000 per occurrence limit for AC Transit's scheduled commercial locations that includes the buildings, business personal property and business income subject to a \$100,000 per occurrence deductible. Under this Property program, AC Transit insures the Physical Damage to its vehicles subject to deductibles of \$25,000 per occurrence and \$100,000 per occurrence for vehicles over twenty-five (25) feet in length. AC Transit does not purchase any earthquake or flood insurance;
- **Fiduciary Liability.** Covers AC Transit's fiduciary responsibilities in the management of its benefit/retirement plans with limits of \$5,000,000 subject to a \$50,000 per claim retention;
- **Cyber Liability.** Covers for loss of data due to a breach or system failure with limits of \$5,000,000 subject to a \$50,000 per claim retention;
- **Commercial Crime.** Limits of \$5,000,000 subject to a \$25,000 per occurrence deductible covering incidents of theft that include employee theft, forgery or alteration, counterfeit currency and funds transfer by fraud.

- **Travel Accident.** Limits of \$100,000 per loss providing death benefits for an AC Transit executive that may occur during any business-related travel.

Analysis / Findings

Risk Tolerance / Risk Bearing Capacity

Based on an actuarial analysis of AC Transit's historical financials, which are further discussed in detail in Exhibit B, the annual risk tolerance figures in line with the risk bearing capacity for WC and liability (GL and AL combined) indicates a range from \$6 to \$12 million. However, it is noted that the analysis stressed that both WC and liability costs are usually paid over an extended time period, and not within that annual time period. Thus, the annual WC and liability costs cumulate in AC Transit's long-term liabilities. Further, based on the actuarial analysis, it is noted that AC Transit should consider annually self-funding WC and liability risks of between \$2 to \$4 million, which corresponds to a SIR range of \$1 to \$2 million for each coverage.

To properly determine the risk tolerance and risk bearing capacity for AC Transit's property insurance exposures, a cursory estimation using industry known percentages were utilized against AC Transit's owned and leased property locations. This is also known as a Probable Maximum Loss (PML) study, which is an extensive analysis that determines the maximum probability of a property loss that an organization may experience from a catastrophic event.

The estimation of AC Transit's PML exposure to any one fire loss generated an approximate figure of \$117 million (see Exhibit C). To ascertain an exact PML for AC Transit, a formal study would need to be conducted, which was not a part of the scope of work for this assignment. A PML study takes into account the construction type of the structure, the occupancy of the structure (i.e., what is the use of the building), protection of the structure (e.g., sprinklers, fire alarms, etc.) and exposure (e.g., distance from other structures, location of structure, etc.). In the insurance world, the acronym COPE is utilized to reference such information. These types of studies are very time intensive (i.e., usually takes 3-months or longer), and are very expensive to conduct given the extent of work that needs to be done (i.e., physical inspections of each location).

Figure 1.
Cursory Probable Maximum Loss (PML) Estimation

Description	Estimated Damage
Real Property (Buildings/Structures)	78,638,807
Business Personal Property (Contents)	38,147,905
Total Estimated PML	116,786,712

* For a further detailed breakdown of these estimations, please see Exhibit C.

AC Transit currently purchases an overall limit of \$150 million in all-risk property insurance that provides coverage to the AC Transit's buildings and contents from property damage caused by fire. To this end, the current property insurance limits adequately covers AC Transit from one catastrophic fire loss based on the PML estimations outlined in Figure 1.

In addition, AC Transit currently property insurance also covers the physical damage portion for its vehicles, which is very uncommon for commercial property insurance policies. This coverage is usually afforded by the automobile liability insurance company. To this end, it should be noted that this PML estimate does not include the probability of losses sustained by AC Transit for damages to its vehicles. Thus, this figure could be higher if those losses are included in this cursory estimation.

Risk Controls

Interviews of key personnel within AC Transit's executive leadership were conducted to measure and identify the areas of risk that are seen by the organization. In coordination with those interviews, an enterprise-wide risk survey was administered to further assist in the assessment of the risk controls observed by AC Transit. Heat maps and charts were generated in order to visually assist in identifying the key areas of risk between the impact and likelihood that may be experienced by AC Transit. Results may be found in Exhibit D of this report.

Analysis of the interview responses resulted in three (3) primary and salient risk concerns:

- Financial Health of the Organization;
- Capital Projects;
- Employee Recruitment, Retention and Safety

The financial health of AC Transit was the primary concern based on the interviews. AC Transit's primary funding source of its operating budget is dependent on property and sales tax revenue, which are directly tied into the overall health of the local economy. In this regard, budgetary constraints could be experienced should there be another economic downturn as experienced in 2008.

Another risk issue identified is AC Transit's ability to deliver on its capital projects on time and within the estimated budgets. The immediate concern expressed was the completion and delivery of the Bus Rapid Transit (BRT) Project, which is a \$230 million project that will provide light rail type service between Oakland and San Leandro through the use of streetcar vehicles that will travel on dedicated lanes on main thoroughfares within those cities.

Finally, employee recruitment, retention and safety were echoed by the interviewees as another high-level risk to AC Transit. As the primary workforce is aging, the recruitment and retention of qualified vehicle operators are in short supply. As experienced in other industries – namely, construction - AC Transit is experiencing competition with neighboring transit agencies in order

to recruit the same individuals. In line with recruitment and retention, employee safety while in the field has also been identified as a risk.

The heat maps (see Exhibit D) show that the overall risk impact concern is centered around catastrophic natural events (e.g., earthquakes, fires, etc.) and budget impairment events. However, the overall likelihood of risk events indicate that the concerns are focused on workers' compensation claims coupled with employee recruitment and retention. These findings reflect that the basis of these concerns – especially the risk impact of natural events – may be indicative of the recent catastrophic fire events that were experienced in California in 2019. However, the concern of risk impact with budgetary impairments and the likelihood of risk issues surrounding employee recruitment and retention are in line with the concerns discussed during the executive interviews.

In line with other California public agencies, AC Transit has enacted a fairly robust internal risk control system through various board policies and administrative regulations ranging from the handling of cash to the use of district owned mobile devices. These established controls reflect confidence amongst the executives concerning several of the risk concerns in the heat map regarding the likelihood of a risk event occurring.

Risk Finance

The goal of any risk finance program is to minimize costs while ensuring the availability of adequate post-loss funds. This section will analyze the benefits of insurance for AC Transit, and identify the various methods available in insuring its exposures.

Benefits of Insurance

The benefits of insurance compare the amount an organization expends on premiums paid to an insurer the risks (i.e., losses) transferred to that insurer.

Figure 2 outlines AC Transit's annual insurance premiums and annual developed ultimate loss payout estimations. It should be noted that these figures should be viewed on a wholistic basis in the assessment of the benefits of insurance.

The premiums represent what AC Transit has paid for its insurance for the 2019 to 2020 policy term.

The figures under the Developed Losses column represent claims that were incurred that same policy year, but with estimations of what the final claims payout will be. These estimations are based on the actuarial analysis, and are the total amounts paid (or will be paid) by AC Transit (through its SIR), and its insurance policies.

Figure 2.
Benefits of Insurance

Coverage	19/20 Premium (\$)	Developed Losses (\$)
Excess General Liability & Automobile Liability	7,541,560	6,200,000
Fiduciary	28,040	0
Property (includes Automobile Physical Damage)	723,889	40,000
Crime	13,250	0
Cyber	33,516	0
Excess Workers' Compensation	548,029	13,400,000
Total Premium	8,888,284	
Total Losses		19,640,000

* Developed losses include AC Transit's retained layer, the amounts retained by insurance, and their developed ultimate loss payout estimations.

Total premiums paid by AC Transit for the 2019 to 2020 policy term are approximately \$8.9 million with the developed losses estimated at \$19.6 million. It can be inferred that AC Transit's purchase of \$8.9 million of insurance has provided \$19.6 million worth of coverage for the 2019 to 2020 policy term.

To this end, AC Transit has benefited from purchasing insurance since the ratio of monies spent on insurance to the ultimate payout of claims is 1:2. In the most convenient terms, every \$1 spent on insurance has equated to \$2 worth coverage.

As previously discussed, the property PML for AC Transit resulting from a catastrophic fire is approximately \$117 million, which would be covered under the current property insurance program.

In line with the actuarial analysis on the Risk Tolerance/Risk Bearing Capacity levels, AC Transit may be able to reduce its premiums in exchange for taking on additional layers of risk through higher SIRs. This will be discussed further in the Conclusions and Recommendations portion of this report.

Risk Financing Vehicles

Methods in which AC Transit may finance its risk is either the use of traditional insurance or self-insurance.

Traditional insurance is a contractual relationship that is developed between two (2) parties when one party (the insurer) agrees to cover the loss of another party (the insured) in return for payment of a premium. Within this context, AC Transit would purchase its coverages through the commercial insurance marketplace. Subsets of these programs would be: guaranteed costs, deductible, and retention programs.

Self-insurance is a system whereby an entity sets aside an amount of its monies to provide for any losses that occur; these losses would be those that are ordinarily covered under an insurance program. Subsets in this category would consist of the following: joint powers authorities (JPA), captives, self-insured fronted programs.

Benchmarking

To ascertain the adequacy of AC Transit's current insurance program, a benchmarking survey was conducted of comparable transit agencies within California. It should be noted that most of the comparable transit agencies have rail operations, which may skew the comparison in regards to risk exposures. However, the closest agencies with respects to revenue were selected to provide a macro overview of the insurance program structure. A complete breakdown of the benchmarking results may be found in Exhibit E.

In analyzing the program structures of those agencies, it is evident that all are on a loss sensitive program whereby they purchase their primary coverages (GL, AL and WC) on an excess basis over SIRs.

Each transit agency has purchased property insurance covering the building structures at their respective scheduled locations, business personal property and contents, and boiler and machinery. The total insurable values (TIV) of AC Transits range from \$615 million to \$13 billion, which is applicable to the more sizable California transit agencies; AC Transit being one of them.

In addition to GL, AL and WC, these agencies also purchase similar ancillary insurance programs as AC Transit such as commercial crime insurance and cyber insurance.

**Figure 3.
Benchmarking Results of**

	AC Transit		Transit District A		Transit District B		Transit District C	
Insurance Schedule	Policy Limit	Deductible / Retention / Attachment	Policy Limit	Deductible/ Retention/ Attachment	Policy Limit	Deductible/ Retention/ Attachment	Policy Limit	Deductible/ Retention/ Attachment
Excess (Total limits if multiple carriers are utilized)	\$51,000,000	\$1,000,000 – GL \$2,000,000 – AL	\$300,000,000	\$8,000,000	\$107,000,000	\$3,000,000	\$100,000,000	\$2,000,000
General Liability	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess
Automobile Liability	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess
Workers' Compensation	Statutory	\$1,000,000	No response		No response		Statutory	\$2,000,000
Property (All Other Perils – AOP)	\$150,000,000	\$100,000	\$400,000,000	\$250,000	\$160,000,000	\$100,000	\$250,000,000	\$100,000
Property (Difference in Conditions – DIC)(e.g., Earthquake, Wind, Flood, etc.)	N/A	N/A	N/A	N/A	N/A	N/A	\$3,912,000	\$50,000
Employment Practices Liability	Incl in Excess	\$1,000,000	Incl in Excess	Incl in Excess	Incl in D&O	Incl in D&O	\$2,000,000	\$250,000
Directors and Officers Liability	Incl in Excess	\$1,000,000	Incl in Excess	Incl in Excess	\$2,000,000	\$2,500,000	Incl in Excess	Incl in Excess
Fiduciary Liability	\$5,000,000	\$50,000	No response		N/A	N/A	N/A	N/A
Crime	\$5,000,000	\$25,000	No response		\$3,000,000	\$25,000	\$3,000,000	\$2,500
Cyber Liability	\$5,000,000	\$50,000	No response		\$2,000,000	\$10,000	\$5,000,000	\$50,000
Environmental (First Party & Third Party)			No response		\$5,000,000	\$100,000	\$1,000,000	\$10,000
* NOTE: Transit Districts A, B and C have rail exposures in addition to buses.								

CONCLUSIONS / RECOMMENDATIONS

Overall

As a point of interest, it should be noted that at the time of the administering of the enterprise-wide risk assessment questionnaire, the current situation with the novel coronavirus, COVID-19, was not as rampant as the time of this report. As such, it is assumed that the responses specific to the risk concern of “pandemic” may not have received the low scores as they are presented in this report.

The actuarial analysis of AC Transit’s current finances determined that AC Transit is able to tolerate/bear higher self-insured retentions in the range of \$1 to \$2 million dollars for workers’ compensation, general liability and automobile liability. The consideration of taking on additional risk in the higher self-insured retentions would be in exchange for possible lower premiums.

Workers’ Compensation

On the feasibility of fully self-insuring for workers’ compensation, it should first be noted that AC Transit is currently self-insuring the first \$1 million, and purchases excess insurance that provides unlimited California statutory indemnity limits. Coverage is through Safety National Casualty Corporation with A.M. Best financial ratings of A+ (Superior), XV.

In this regard, based on the actuarial analysis and the benefits of insurance analysis outlined in this report, the financial viability of fully self-insuring AC Transit for workers’ compensation is not within the risk tolerance/risk bearing capacity analysis that assessed a SIR range of \$1 million to \$2 million. AC Transit’s annual incurred and developed losses are \$13 million, which far exceed the \$1 million self-insured retention of the current Excess Workers’ Compensation insurance program.

Another determining factor in the risk of fully self-insuring for workers’ compensation is the consideration of the maximum number of 2,488 employees during any one shift with annual payroll of approximately \$187 million. In the event of a catastrophic event (e.g., fire, earthquake, violent acts of an intruder, etc.), injuries to those individuals could result in costs accumulating to tens of millions of dollars for medical treatment, wage-loss benefits and other payouts under the California workers’ compensation statutes.

Therefore, it is recommended that AC Transit continue purchasing Excess Workers’ Compensation insurance, but possibly consider a higher self-insured retention between the ranges of \$1 to \$2 million should lower premiums be desired.

Commercial Property Insurance

AC Transit is currently insured through Alliant Insurance Services’ Alliant Property Insurance Program (APIP), which is made up of various insurance companies with A.M. Best financial

ratings of A (Excellent), XV ratings. The current commercial property insurance program with overall limits of \$150 million that provides all risk coverage for buildings, contents including boiler and machinery, and auto physical damage. AC Transit does not purchase any earthquake, wind and flood (cumulatively called Difference in Conditions or DIC) coverage. It should be noted that auto physical damage coverage is a very unique type of cover that is not offered in the commercial property insurance marketplace. The genesis of such coverage enhancement is due to auto physical damage normally being offered by an automobile liability insurance company subject to lower deductibles; usually \$25,000 or less. However, since AC Transit is self-insuring its auto liability, an alternative program was sought to fulfill this need.

Based on the PML estimations of \$117 million, the current property insurance program would adequately cover AC Transit in the event of a catastrophic fire event. In this regard, it would not be financially feasible for AC Transit to consider self-insuring this exposure. Note that these estimations are based on a probable maximum fire loss without the consideration of a catastrophic event such as an earthquake. AC Transit does not purchase earthquake insurance, which any losses directly resulting from that event would not be covered. However, a fire loss experienced following an earthquake event would be covered by insurance. To this end, should there be an earthquake event, and a resultant fire erupts, the estimations for a loss may increase given the limited resources (i.e., first responders) that may be available to address the fire event.

It should be noted that some additional impediments preventing AC Transit in proceeding to fully self-insure itself for commercial property are the contractual requirements with regards to insurance in its real estate leases with various landlords. Therefore, it is recommended that AC Transit continue to purchase Commercial Property Insurance.

Commercial Crime Insurance

AC Transit purchases commercial crime insurance for limits of \$5 million with a \$25,000 deductible through Great American Assurance with an A.M. Best financial rating of A+ (Superior), XV.

Commercial crime insurance provides protection from financial losses related to business-related crime, including theft by employees, forgery, robbery, and electronic crime. While strong internal protocols can help a company avoid fraud, dishonest employees and external fraudsters can circumvent the security of even the most well-run companies and ones with the most robust controls, leading to potentially substantial financial losses. Although employees remain the greatest area of concern for organizations, a crime policy generally also covers losses caused by specific acts of non-employees, including:

- Theft, damage, or destruction of money, securities, and/or other property both on the insured's premises or elsewhere (for example, while in transit).
- Forgery or alteration of negotiable instruments, including forging of the insured's signature on business checks.

- Fraudulent manipulation of the insured's computer system, including a hacker transferring funds to an outside account.
- Fraudulent electronic funds transfer instructions sent to the insured's bank purporting to be from the insured.
- Receipt of counterfeit currency by the insured.
- Social engineering fraud.
- The consequences of any of the above crimes can be financially devastating for companies and lead to severe reputational harm, making crime insurance an essential part of a company's arsenal.

It is recommended that AC Transit continue to purchase its Commercial Crime Insurance. The benchmarking results of the peer transit agencies show that crime is a recognized risk amongst its peer groups, and thus this insurance is purchased. The costs associated with the expenditure of \$13,250 in premiums for coverage of up to \$5 million far outweigh the risks associated with AC Transit self-insuring itself for such an amount.

EXHIBIT A

INSURANCE SUMMARY MATRIX

**Alameda-County ContraTransit District
2019/2020**

Coverage	Carrier	Policy #	Effective Date	Expiration Date	Limits	Retention	Annual Cost
Excess Liability					Includes TRIPRA		
Layer 1	Munich Re	N1-A3-RL-0000100-04	4/26/2019	4/26/2020	2 Million - GL 1 Million - AL	1 Million - GL 2 Million - AL	1,550,925
Layer 2	Lexington	21391556	4/26/2019	4/26/2020	5 Million	XS 3 Million	3,273,016
Layer 3	Hallmark	77PEF190077	4/26/2019	4/26/2020	3 Million	XS 8 Million	1,137,956
Layer 4	Arch	UXP101114302	4/26/2019	4/26/2020	2 Million	XS 11 Million	345,013
Layer 5	Berkley National	CEX0960019006	4/26/2019	4/26/2020	15 Million	XS 13 Million	889,810
Layer 6	Great American	EXC2969299	4/26/2019	4/26/2020	5 Million	XS 28 Million	121,600
Layer 7	Allied World	3089605	4/26/2019	4/26/2020	10 Million	XS 33 Million	156,275
Layer 8	Berkley National	CEX0966191-06	4/26/2019	4/26/2020	10 Million	XS 43 Million	112,918
					Total: 53 Million		* 7,587,513
Excess Workers' Compensation							
Workers' Comp	Safety National	SP4059011	7/1/2018	4/26/2020	Statutory - WC 1 Million - EL	1Million	548,029
Crime							
Crime	Great American Insurance Co.	SAA E454775 00 00	4/26/2019	4/26/2020	5 Million	25,000	* 11,263
Property / B&M / Auto PD							
Property / B&M / Auto PD	Various (APIP)	PROP1920	7/1/2019	7/1/2020	150 Million	100,000 - All Risk/EQSL 25,000 - BM & Auto PD 100,000 - Vehicle over 25 F*	\$ 723,889
Cyber							
Cyber	Beazley	W1F3F0190301	4/26/2019	4/26/2020	5 Million	50,000	* \$ 31,237
Travel Accident							
Travel Accident	ACE American Insurance Co.	ADD N04981595	4/26/2019	4/26/2022	100,000 Class I 100,000 Class II	NIL	\$ 5,415



EXHIBIT B

ACTUARIAL ANALYSIS



Actuarial Review of the Risk Tolerance Workers' Compensation and Liability Programs

Program Year 2020-21

Presented to
Alameda-Contra Costa County Transit District

March 3, 2020

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
SCOPE and SIGNATURE	4
BACKGROUND	5
OBSERVATIONS AND ANALYSIS	7
Historical Financial Risk	7
Risk Tolerance	9
Annual Risk Tolerance	10
Losses by Layer	13
METHODOLOGY	14
CONSIDERATIONS and KEY ASSUMPTIONS	15
CONDITIONS AND LIMITATIONS	17
DISTRIBUTION and USE	18
GLOSSARY OF ACTUARIAL TERMS	19
EXHIBITS and APPENDICES	21

EXECUTIVE SUMMARY

This is an analysis of Alameda-Contra Costa Transit District's ("the District") financial risk tolerance as it relates to its workers' compensation and liability programs. The following is a summary of our findings:

1. **Risk Tolerance:** We believe that the District's risk tolerance with respect to its workers' compensation and liability programs should only be a subset of its overall capacity to bear risk. This is because the District has other risks which are tied to its strategic success as well as non-strategic risks that cannot be financially transferred to a third party. An example of a strategic risk is the risk associated with infrastructure. An example of a non-strategic risk that cannot be transferred is the risk of a recession. We believe that the District's risk within its workers' compensation and liability programs should not be so high that it impinges on the District's ability to bear these other types of risks.

In order to evaluate the District's financial risk tolerance within the workers' compensation and liability programs, we first looked at variability in the District's historical financials as a way of measuring historical tolerance for overall financial risk. We then assumed that the District's risk tolerance related to the workers' compensation and liability programs should only be 10%-20% of the overall financial risk. Based on this we believe a reasonable risk tolerance range is \$6 - \$12 million. Given that District's liabilities reflect the self-insured retentions (SIRs) of many individual years, we believe a reasonable risk tolerance range for an individual year is \$2 - \$4 million.

2. **Workers' Compensation and Liability Program:** The following chart shows the current self-insured retentions for each coverage as well as what we consider to be a reasonable range in light of the District's risk tolerance:

Self-Insured Retentions

Coverage	Current 2019/20	Recommended SIRs Based on Risk Tolerance	
		Low	High
Workers' Compensation	\$1,000,000	\$1,000,000	\$2,000,000
General Liability	\$1,000,000	\$1,000,000	\$2,000,000
Auto Liability	\$2,000,000	\$1,000,000	\$2,000,000

Note that the low and high retentions in the above chart are based on the District's financials as of 6/30/19 and current workers' compensation and liability projections. The retention figures could change as the District's financial position and these insurance programs change. In addition, under certain circumstances it could make sense for the District to purchase retentions outside of the low/high range due to conditions in the insurance market.

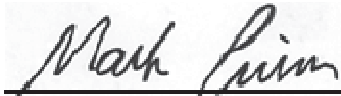
SCOPE and SIGNATURE

The District has engaged Albert Risk Management to provide insurance risk consulting services. As part of this contract, Albert Risk Management has subcontracted with Bickmore Actuarial to conduct a review of the District's financial risk bearing capacity as it relates to its workers' compensation and liability programs.

The following are specific objectives of the study:

1. Define and evaluate the District's risk bearing capacity, risk appetite, and risk tolerance with respect to its workers' compensation and liability programs.
2. Evaluate different workers' compensation and liability self-insured retention options in light of the District's risk tolerance in those programs.

We appreciate the opportunity to be of service to the District in preparing this report. Please feel free to call Mark Priven at (916) 244-1161 or James Kim at (916) 290-4644 with any questions you may have concerning this report.



Mark Priven, FCAS, MAAA
Vice President and Principal



James Kim, ACAS, MAAA
Senior Actuarial Analyst

BACKGROUND

We believe that the District's risk tolerance related to its workers' compensation and liability programs is related to its overall risk bearing capacity and appetite for risk. In this section we describe these concepts as well as the District's current retentions.

1. Discussion and Definitions Related to Risk: In order to ultimately evaluate the District's workers' compensation and liability program retention levels, it is first important to understand how we evaluate risk within the organization.

- a. Risk Bearing Capacity: This encompasses all the possibilities that could impact the District's ability to meet its strategic objectives. We think of these in different categories:

- i. Strategic: These are risks that are integral to the District reaching its goals. For example, it is essential that the District be able to engage in capital projects, so we consider the risks associated with the financing and execution of these projects to be strategic risks.
- ii. Non-Strategic/Non-transferrable: There are other risks that are not essential to the mission of the District but which the District cannot transfer to a third party. For example, a recession could pose a financial risk to the District, but the District is not able to purchase insurance for this risk.
- iii. Blended Risks: These types of risk have elements of both of the above items. Examples of these are risks associated with pensions and retiree medical expenses. These risks are strategic because employee benefits are important in attracting and keeping a skilled workforce as well as in maintaining positive labor relations.

On the other hand, retirees are no longer actively engaged in furthering the mission of the District, and the performance of the assets and liabilities associated with these benefits is not entirely within the District's control. To some extent the investment returns are dependent on the performance of financial markets that are outside of the control of the District. Similarly, the District has limited or no control over some key issues that impact future pension and retiree medical costs, such as mortality rates, retiree medical utilization, and medical inflation.

- iv. Non-Strategic/Transferrable: The District's workers' compensation program is critical to the District's ability to ensure injured workers get appropriate medical care and receive compensation for lost wages, and the liability program is very important to the District's

ability to weather third party claims and lawsuits. To that extent they are key programs to the District. In the context of this report we consider them to be non-strategic, because for example the choice between self-insuring \$1 million vs. \$2 million of each claim is purely a financial decision and does not otherwise impact the District's ability to meet its strategic goals.

- b. Risk Tolerance: This is the amount that District is willing to accept in order to reach its strategic goals. In order to evaluate the District's financial risk tolerance within the workers' compensation and liability programs, we first looked at variability in the District's historical financials as a way of measuring historical tolerance for overall financial risk. This included looking at both 11 and 18 year averages of key financial data such as total revenue, revenue from operations, net position, change in net position, total assets, current assets, unrestricted cash & cash equivalents, and cash flow from operations. We then assumed that the District's risk tolerance related to the workers' compensation and liability programs should only be 10%-20% of the overall financial risk.
- c. Workers' Compensation and Liability Retentions: The District began its self-insured liability program on July 1, 1978 and workers' compensation program on 8/1/1971. Its current self-insured retention is \$2,000,000 for automobile liability, \$1,000,000 for general liability and \$1,000,000, for workers' compensation program. Excess coverage is provided by various excess carriers.

OBSERVATIONS AND ANALYSIS

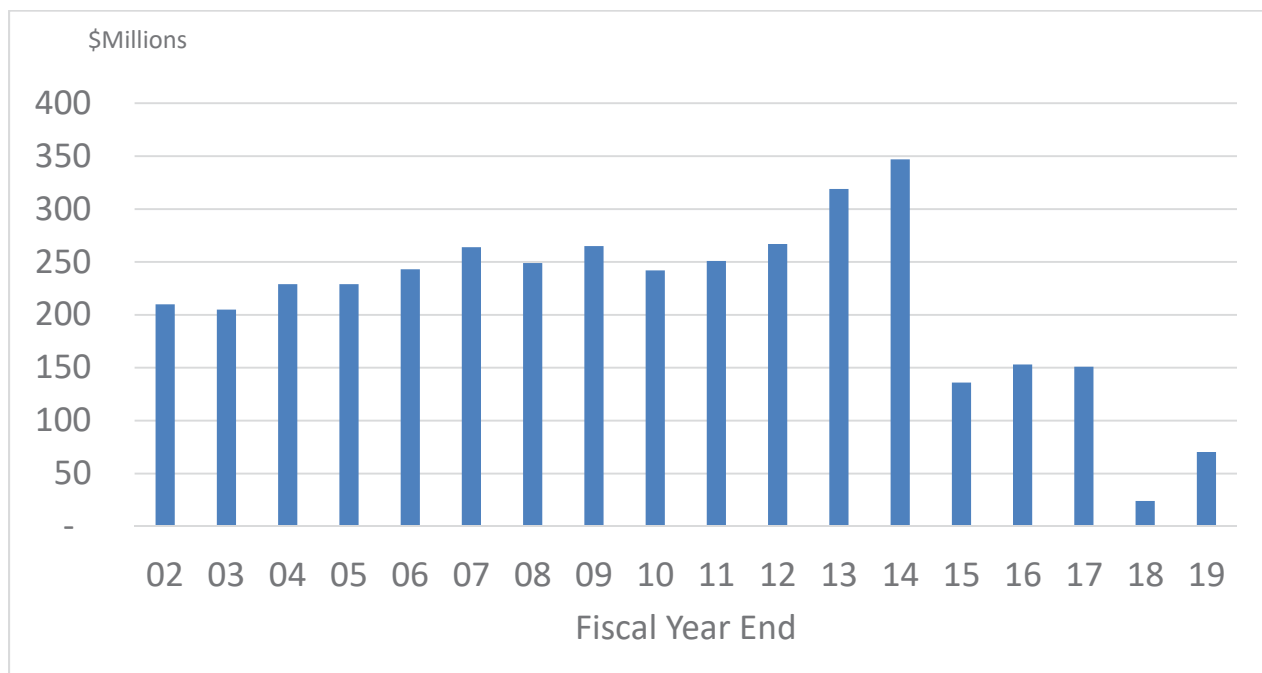
In this section, we present our evaluation of the District's risk tolerance with respect to its workers' compensation and liability programs as well as observations we have made.

Historical Financial Risk

We have used key aspects of the District's historical financials to evaluate historical risk that the District has experienced. While we looked at a variety of financial indicators, we believe that the ones that are most critical to the District's risk tolerance are net position and unrestricted cash & cash equivalents. We feel these are most important because it is critically important that the District remain financial solvent and have money on hand to pay for obligations as they become due. A display of all the financial indicators we evaluated is in Exhibit A.

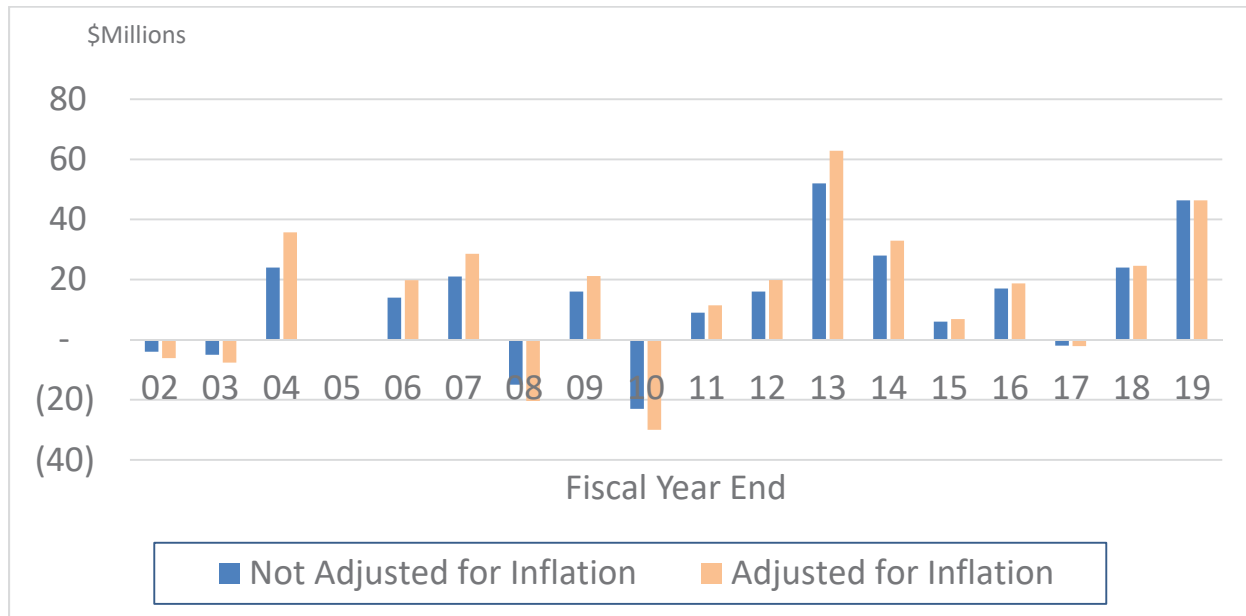
The following chart shows the District's historical net position over time. This has been impacted by two substantial changes: in 2014/15 there was a \$217 million adjustment due to pension liabilities (GASB 68), and in 2017/18 there was a \$151 million adjustment due to retiree medical benefits (GASB 75).

Net Position Over Time



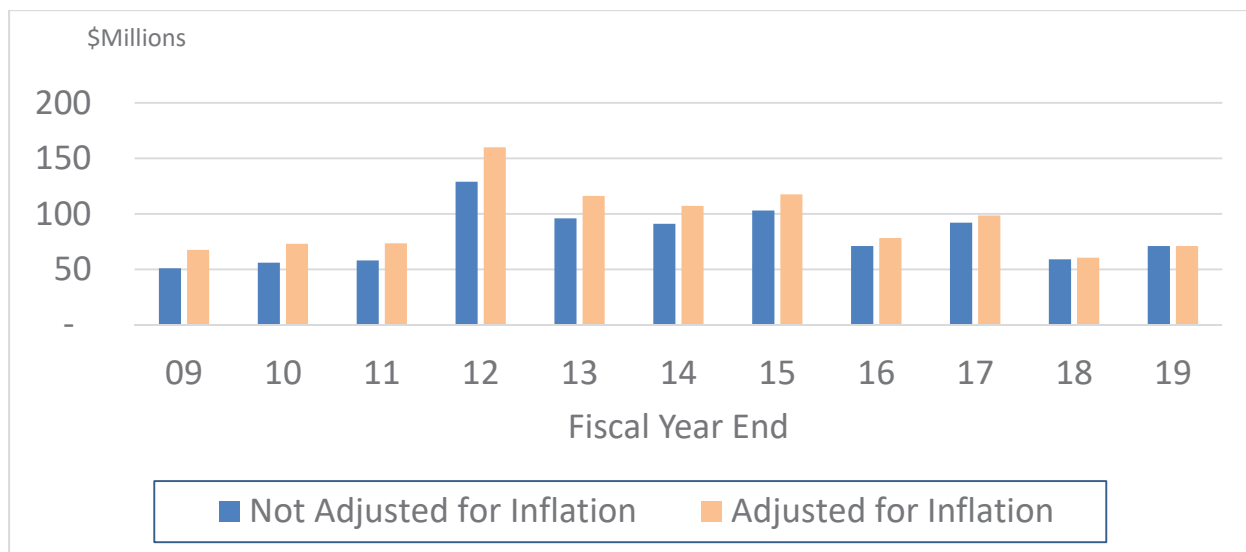
The following shows the change in net position adjusted for the two accounting changes highlighted in the preceding paragraph. We also show the net position adjusted to for inflation using the consumer price index (CPI) specific to the Bay Area.

Change Net Position Over Time Adjusted for 2 Accounting Changes



The other financial indicator we gave substantial weight to is unrestricted cash & cash equivalents. The following displays these assets both with and without adjustments for inflation.

Unrestricted Cash & Cash Equivalents Over Time



Risk Tolerance

We utilized standard deviations of the financial indicators as a measure of historical variability. In addition, we utilized the coefficient of variation as a measure of variability in relation to the average financial value (i.e. "mean"). A display of these statistics for each financial indicator is in Exhibit B, Pages 1-3.

We then added the assumption that only 10% - 20% of the District's overall financial risk should come from the workers' compensation and liability programs. This is based on our determination that, as discussed in the "Background" section, the selection of the retention is purely a financial and not a strategic decision. The lion's share of the District's capacity to bear risk should be associated with risks that further the strategic goals of the District and those that can't be transferred to a third party. The 10% - 20% range correspond to 0.13 – 0.26 standard deviations, respectively. Using the figures adjusted for inflation, we arrived at the following risk tolerance levels.

Risk Tolerance¹
Based on Financials Adjusted for Inflation
(\$000s)

	Net Position	Unrestricted Cash & Cash Equivalents	Selected
18 Years: Standard Deviation			
Low	14.5	n/a	
High	29.1	n/a	
11 Years: Standard Deviation			
Low	17.2	3.9	
High	34.4	7.8	
18 Years: Coefficient of Variation			
Low	3.6	n/a	
High	7.3	n/a	
11 Years: Coefficient of Variation			
Low	5.0	3.0	
High	9.9	6.0	
Selected			
Low	8.2	3.3	6.0
High	16.3	6.6	12.0

¹ Exhibit A

The selected figures in the preceding chart are based on giving 1/3 and 2/3 weight to the indications based on standard deviations and coefficients of variation, respectively.

We believe the coefficient of variation indications should get more weight because they more directly reflect the District's most recent financial information.

Annual Risk Tolerance

The preceding section indicates a risk tolerance of \$6 - \$12 million for the workers' compensation and liability programs. However, we believe that the District should also take into account that both workers' compensation and liability costs are typically paid over an extended time period. As a result, annual decisions related to self-insured retentions cumulate over many years included in the District's liabilities. As a result, it would be inappropriate to set annual SIRs in those programs in a way that reflected \$6 - \$12 million of risk per year. The following chart shows the relationship between the most recent actuarial evaluation of liabilities and projected annual costs.

Liabilities vs. Forecast for Upcoming Fiscal Year¹
(\$000s)

	Liabilities 6/30/19	Forecasted Ultimate Loss & ALAE 2019/20	Ratio Liabilities/ Forecast
At Expected			
Workers' Compensation	58.5	14.1	4.2
General & Auto Liability	13.0	5.8	2.3
Total	71.5	19.8	3.6
At 75% Confidence Level			
Workers' Compensation	66.5	16.0	4.2
General & Auto Liability	14.8	6.6	2.3
Total	81.3	22.6	3.6

¹ AMI Risk Consultants, Inc. WC & Liability actuarial studies 11/2/19
Figures do not reflect the impact of net present value

As a result of the accumulation of multiple years of claims into the liabilities, we believe it is appropriate for the District to adjust the overall risk tolerance of \$6 - \$12 million for the workers' compensation and liability programs to \$2M - \$4 million when considering annual SIRs.

Workers' Compensation & Liability Programs

The next task was to overlay the risk tolerances developed in the prior section to the District's workers' compensation and liability program. We developed loss & ALAE projections at various self-insured retentions (SIRs) and confidence levels for both programs. The following summarizes our results for these two programs.

Liability Program
Projected Ultimate Loss & ALAE: Fiscal Year 2019-20¹

Dollars (\$000s)	Current \$1M/\$2M ³	← \$2M	Self-Insured Retention \$3M \$4M \$5M \$10M				→
Projected Cost							
Expected	\$5.3	\$5.6	\$6.0	\$6.3	\$6.5		\$7.2
75% Confidence Level	6.2	6.5	7.1	7.6	7.8		9.2
90% Confidence Level	7.2	7.7	8.5	9.2	9.7		11.6
Additional Risk²							
75% Confidence Level	0.8	0.9	1.1	1.2	1.3		2.1
90% Confidence Level	1.8	2.0	2.5	2.9	3.2		4.5

¹ Reflects net present value assuming an annual discount rate of 3.0%

² Risk in excess of "expected" (i.e. average or mean)

³ \$2M for auto liability, \$1M for general liability

Workers' Compensation Program
Projected Ultimate Loss & ALAE: Fiscal Year 2019-20¹

Dollars (\$000s)	Current \$1M	← \$2M	Self-Insured Retention \$3M \$4M \$5M			→
Projected Cost						
Expected	\$11.9	\$12.2	\$12.4	\$12.4	\$12.5	
75% Confidence Level	13.4	13.8	14.0	14.1	14.2	
90% Confidence Level	15.5	16.1	16.3	16.4	16.5	
Additional Risk²						
75% Confidence Level	1.5	1.6	1.6	1.7	1.7	
90% Confidence Level	3.6	3.8	3.9	4.0	4.0	

¹ Reflects net present value assuming an annual discount rate of 3.0%

² Risk in excess of "expected" (i.e. average or mean)

Risk Tolerance: Workers' Compensation & Liability Programs

The following represents the projection for the liability and workers' compensation programs together. It is important to note that together the additional risk at the 75% and 90% confidence levels are less than the sum of two individual programs. This is because the results of the two programs are relatively independent of each other, so a year with higher than expected workers' compensation costs may be offset by a year with relatively low liability costs, and vice versa.

Liability & Workers' Compensation Programs Combined
Projected Ultimate Loss & ALAE: Fiscal Year 2019-20¹

Dollars (\$000s)	Current \$1M/\$2M ³	← \$2M	Self-Insured Retention \$3M	\$4M	→ \$5M
<u>Projected Cost</u>					
Expected	\$17.3	\$17.9	\$18.4	\$18.7	\$19.0
75% Confidence Level	19.0	19.7	20.5	21.0	21.4
90% Confidence Level	21.2	22.0	23.1	24.0	24.7
<u>Additional Risk²</u>					
Expected					
75% Confidence Level	1.7	1.9	2.1	2.3	2.4
90% Confidence Level	3.9	4.2	4.7	5.3	5.7

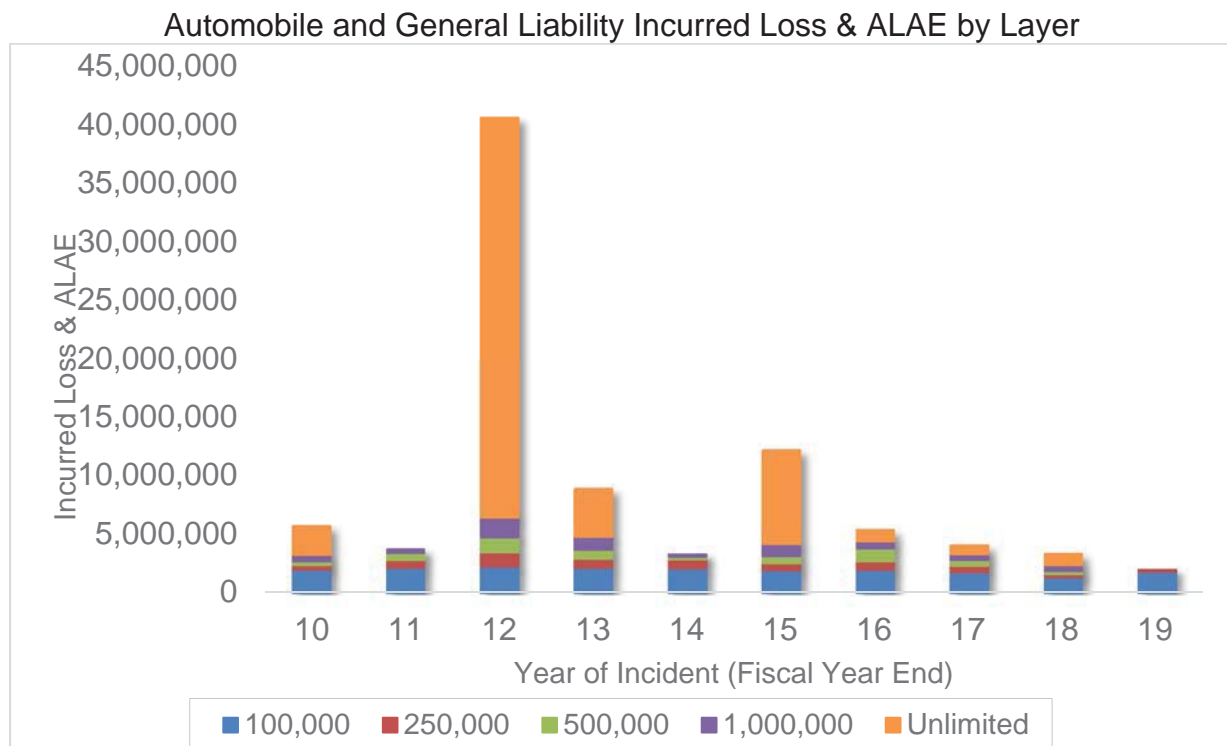
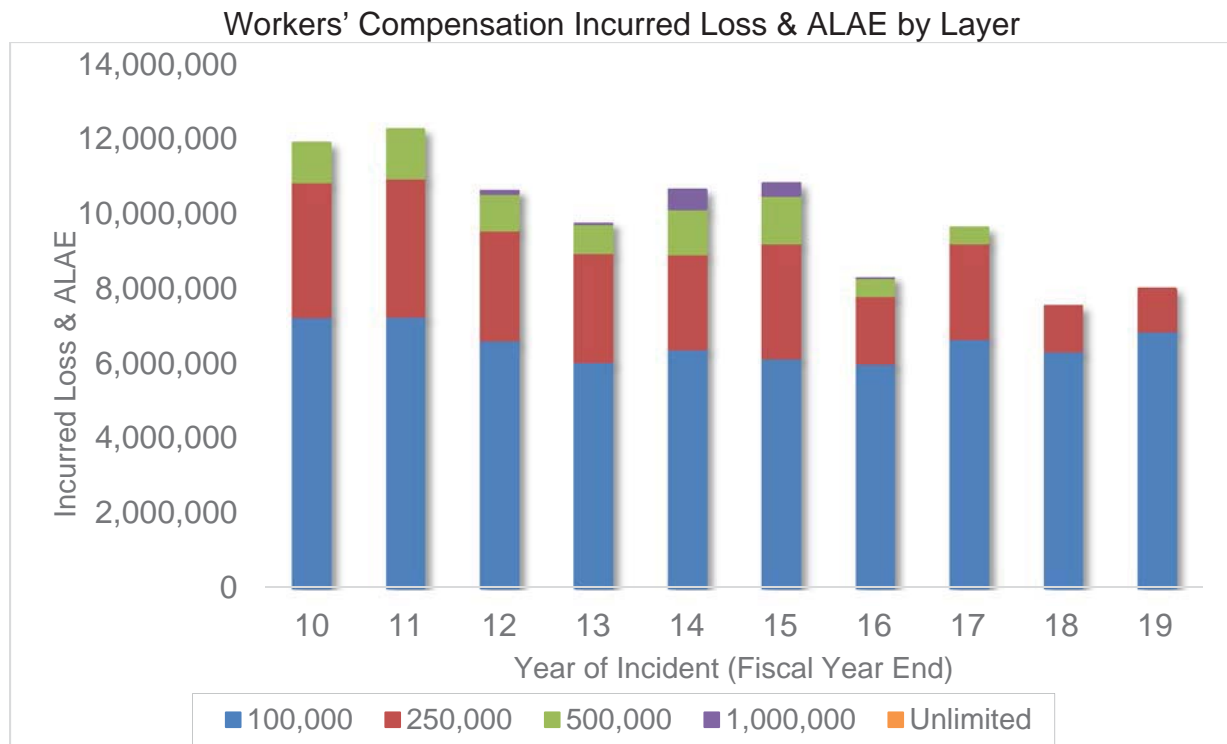
¹ Reflects net present value assuming an annual discount rate of 3.0%

² Risk in excess of "expected" (i.e. average or mean)

³ \$2M for auto liability, \$1M for general liability, \$1M for workers' compensation

Losses by Layer

The following graphs show the incurred losses by layer as of 12/31/2019.



METHODOLOGY

The methodology that we have used to estimate ultimate Loss & allocated loss adjustment expense (ALAE) costs is in accordance with standard actuarial principles. The following describes this process.

1. Estimate Ultimate Loss & ALAE for 2019/20: The ultimate value of losses associated with a given policy year is usually not known until many years after the policy year has expired. For the liability program we utilized projections from the latest actuarial report by AMI Risk Consultants, Inc. (AMI), dated 11/2/19.

We did an independent analysis of the District's projected ultimate 2019/20 workers' compensation loss & ALAE. That analysis is provided separately to the District.

2. Risk Tolerance: We assumed that the District's risk tolerance in the liability and workers' compensation program is 10% - 20% of the District's overall risk appetite. The District's risk appetite was measured based on the standard deviation and coefficient of variation of key financial indicators.
3. Self-Insured Retentions: We overlaid the risk tolerance calculated in step #2 above with potential variability in the District's liability and workers' compensation program assuming various SIRs. Potential variability was measured based on Monte Carlo simulations of the two programs individually and in tandem. We also reflected that the District's liabilities reflect SIR decisions from many years. For example, the liability and workers' compensation actuarial studies by AMI Risk Consultants, Inc., dated 11/2/10, indicate total liabilities 3 to 4 times higher than the 2019/20 loss projections for 2019/20. As a result we allocated only 1/3 of the total program risk tolerance to annual SIR decisions.
4. Confidence Levels: The "expected" estimate of unpaid Loss & ALAE is our best estimate given current information. However, there is uncertainty inherent in the claims settlement process. This uncertainty is quantified via confidence levels. For example, we believe that future payments have a 75% chance of being less than the liabilities at the 75% confidence level and have only a 25% chance of exceeding the 75% confidence level estimates.
5. Excess Layer Loss Distribution: Our estimates of excess layer loss costs are based upon a loss simulation model fitted to the loss data for AC Transit. Claim frequency is modeled by a Poisson distribution and claim severity is modeled by a mixture of lognormal distributions. The resulting frequency and severity assumptions were used to produce 10,000 iterations of Monte Carlo simulation to arrive at our estimate of aggregate loss distribution. The expected losses in the excess layers and appropriate percentiles were calculated based on the Monte Carlo simulation results. After the losses are modeled, they are checked against prior actuarial study and industry data for reasonability.

CONSIDERATIONS and KEY ASSUMPTIONS

Several considerations should be taken into account when evaluating property/casualty claim liabilities and funding projections for upcoming years. The following is a list of issues that we have considered in this report, along with some key assumptions that we have made.

Data

Data Quality: Our analysis is based on loss experience, exposure data, and other general and specific information provided to us by or on behalf of the District. While we have not independently audited or verified this information, we have reviewed it for reasonability and internal consistency. We have assumed that the data is accurate and complete. Any material inaccuracy or omission could invalidate the conclusions in this report and should be brought to our attention immediately.

We also utilized the liability and workers' compensation actuarial studies by AMI Risk Consultants, Inc., dated 11/2/10.

Exposure: The exposure bases utilized in this study are payroll and annual mileage, for workers' compensation and liability, respectively.

Claims: The claims data utilized in this study was provided to us by the District or included in the previously mentioned AMI actuarial studies.

Other Program Information: Key program information including retentions, program financials, were provided to us by the District. We relied on this information without audit.

Key Dates

Valuation Date: The loss data underlying this study are valued as of December 31, 2019.

Review Date: We have not considered any claims information subsequent to the valuation date, so the review date is also December 31, 2019.

Other Actuarial Considerations

Discounting to Reflect Net Present Value: Some of the figures in this report are presented on a discounted basis. Consistent with the AMI actuarial studies, we have assumed that assets held for investment will generate an average annual rate of return of 3.0% over the time during which the loss liabilities are paid out. It should be noted that actual future investment returns may vary significantly from this assumption, depending upon prevailing investment market conditions.

Uncertainty & Risk Margin: There is uncertainty regarding the ultimate cost of the amounts that are estimated in this report. This uncertainty was quantified via Monte Carlo simulation. The projections at higher confidence levels reflect uncertainty by including a risk margin for the potential of costs coming in higher than at the expected level.

External Influences: This analysis does not contemplate any major social, economic, judicial, or legislative changes.

Large Losses & Catastrophes: The impact of large losses and catastrophes have the potential to distort the results of actuarial analyses. We have reflected the potential for these events through Monte Carlo simulation.

Loss Limitations: Our projections are focus on the impact of several self-insured retention options on ultimate costs and potential variability.

Recoveries: The data underlying this report are net of salvage, subrogation and other recoveries.

Operational Changes: This analysis has not made special adjustment for any specific operational changes at the District.

Reasonableness: We have established the reasonability of our results by utilizing standard actuarial techniques and reasonable assumptions.

Claims Administration Costs (Unallocated Loss Adjustment Expense or ULAE): ULAE costs have been excluded in our estimate funding costs for future program years.

Other Program Costs: Our estimate of the funding amounts for future program years exclude program costs other than loss & ALAE.

CONDITIONS AND LIMITATIONS

It is important to recognize that the projections in this report are estimates at one point in time and are subject to future changes. Since the emergence and settlement of claims are subject to uncertainty, actual developments likely will vary, perhaps significantly, from the amounts carried in this report. No warranty is expressed or implied that such variance will not occur. The accuracy of the conclusions in this report depends on many factors, including the following:

Loss Activity since the Evaluation Date: The losses in this study were valued as of 12/31/19. It is possible that there has been significant loss activity that has occurred since that date which would change the findings of this report.

Data Accuracy: This report relies on unaudited loss and exposure information provided by the District. The accuracy of our projections relies on the accuracy of this data.

Loss Development: The appropriateness of the District's historical and industry loss development patterns in projecting future loss development.

Trend Changes: The appropriateness of the trend indices used to adjust historical losses.

Net Present Value: Our estimates that are discounted to reflect net present value assume a certain investment return on assets. This adjustment to reflect net present value is inaccurate to the extent that actual investment returns deviate from the assumed returns.

Future Law Changes: We cannot predict, nor have we attempted to predict, the impact of future law changes and court rulings on claims costs.

New Classes of Claims: Our projections make no provision for the extraordinary future emergence of new classes of loss or types of loss not sufficiently represented in the District's historical data, or which are not yet quantifiable.

DISTRIBUTION and USE

This report was prepared for the sole use of the District. This report is neither intended nor necessarily suitable for any other use. It may be forwarded to regulatory authorities as required by law. Any other distribution of this report requires the express written consent of Bickmore Actuarial. If such consent is granted, the report should be forwarded in its entirety, including all exhibits and appendices. It should also be understood that Bickmore Actuarial would be available to answer any questions regarding this report and its conclusions.

GLOSSARY OF ACTUARIAL TERMS

Accident Year – Year during which the accidents that generate a group of claims occurs, regardless of when the claims are reported, payments are made, or reserves are established.

Allocated Loss Adjustment Expenses (ALAE) – Expense incurred in settling claims that can be directly attributed to specific individual claims (e.g., legal fees, investigative fees, court charges, utilization review, bill review, etc.)

Benefit Level Factor – Factor used to adjust historical losses to the current level of workers' compensation benefits.

Case Reserve – The amount left to be paid on an open claim, as estimated by the claims administrator.

Claim Count Development Factor – A factor that is applied to the number of claims reported in a particular accident period in order to estimate the number of claims that will ultimately be reported.

Claim Frequency – Number of claims per unit of exposure (payroll or annual mileage).

Confidence Level – An estimated probability that a given level of funding will be adequate to pay actual claims costs. For example, the 85% confidence level refers to an estimate for which there is an 85% chance that the amount will be sufficient to pay loss costs.

Discount Factor – A factor to adjust estimated loss costs to reflect net present value.

Expected Losses – The best estimate of the full, ultimate value of losses.

Exposure Base – An objective and easily measurable quantity that is correlated with loss. Commonly used exposure bases include payroll, population, revenue, number of employees (FTE), average daily attendance (ADA), number of vehicles and total insured value (TIV).

Incurred but not Reported (IBNR) Losses – This is the ultimate value of losses less any amount that has been paid to date or set up as a case reserve by the claims adjuster. It includes amounts for claims incurred but not yet received by the administrator as well as loss development on already reported claims.

Loss Adjustment Expense – The sum of Allocated Loss Adjustment Expense (ALAE) and Unallocated Loss Adjustment Expense (ULAE).

Loss Development Factor – A factor applied to losses for a particular accident period to reflect the fact that reported and paid losses do not reflect final values until all claims are settled. See the Methodology section.

Loss Rate – Ultimate losses per unit of exposure (payroll or annual mileage).

Non-Claims Related Expenses – Program expenses not directly associated with claims settlement and administration, such as excess insurance, safety program expenses, and general overhead. These exclude expenses associated with loss settlements (Indemnity/Medical, BI/PD), legal expenses associated with individual claims (ALAE), and claims administration (ULAE).

Outstanding Losses – Losses that have been incurred but not paid. This is the ultimate value of losses less any amount that has been paid.

Paid Losses – Losses actually paid on all reported claims.

Program Losses – Losses, including ALAE, limited to the SIR for each occurrence.

Reported Losses – The total expected value of losses as estimated by the claims administrator. This is the sum of paid losses and case reserves.

Self-Insured Retention (SIR) – The level at which an excess insurance policy is triggered to begin payments on a claim. Financially, this is similar to an insurance deductible.

Severity – Average claim cost.

Ultimate Losses – The value of claim costs at the time when all claims have been settled. This amount must be estimated until all claims are actually settled.

Unallocated Loss Adjustment Expenses (ULAE) – Claim settlement expenses that cannot be directly attributed to individual claims (e.g., claims administration expenses, taxes, etc.)

AC Transit
Key Financial Indicators
Summary

Exhibit A
Page 1

\$Millions

Fiscal Year End	Earnings				Financial Strength			Liquidity	
	Total Revenues	Operating Revenues	Unadjusted Change in Net Position	Adjusted Change in Net Position	Current Assets	Total Assets	Net Position	Cash Flow from Operations	Cash & Cash Equivalents (Unrestricted)
Not Adjusted for Inflation¹									
<u>18 Years</u>									
Std. Dev.	65	6	63	19	n/a	n/a	81	n/a	n/a
Mean	332	64	(8)	12	n/a	n/a	214	n/a	n/a
Coef of Var	0.20	0.09	(7.93)	1.55	n/a	n/a	0.38	n/a	n/a
<u>11 Years</u>									
Std. Dev.	58	6	80	21	37	96	103	59	24
Mean	368	66	(16)	17	198	502	202	(328)	80
Coef of Var	16%	9%	-496%	122%	19%	19%	51%	-18%	31%
Adjusted for Bay Area Inflation²									
<u>18 Years</u>									
Std. Dev.	30	8	71	23	n/a	n/a	112	n/a	n/a
Mean	415	82	(8)	15	n/a	n/a	280	n/a	n/a
Coef of Var	7%	10%	-917%	160%	n/a	n/a	40%	n/a	n/a
<u>11 Years</u>									
Std. Dev.	33	8	90	24	31	56	132	37	30
Mean	425	77	(17)	19	229	578	245	(378)	93
Coef of Var	8%	10%	-522%	126%	14%	10%	54%	-10%	32%
Variability Factors as a % of Standard Deviation									
Low ³	0.13								
High ⁴	0.26								
Risk Appetite Based on Data Adjusted for Bay Area Inflation									
<u>18 Years Based on Standard Deviation</u>									
Low	3.9	1.1	9.3	3.0	n/a	n/a	14.5	n/a	n/a
High	7.9	2.2	18.5	6.1	n/a	n/a	29.1	n/a	n/a
<u>11 Years Based on Standard Deviation</u>									
Low	4.2	1.0	11.7	3.2	4.1	7.3	17.2	4.8	3.9
High	8.5	2.0	23.4	6.3	8.1	14.6	34.4	9.6	7.8
<u>18 Years Based on Coefficient of Variation & 6/30/19 Values</u>									
Low	4.6	1.0	(55.2)	9.6	n/a	n/a	3.6	n/a	n/a
High	9.1	2.0	(110.5)	19.3	n/a	n/a	7.3	n/a	n/a
<u>11 Years Based on Coefficient of Variation & 6/30/19 Values</u>									
Low	4.8	1.0	(31.5)	7.6	4.1	8.5	5.0	5.4	3.0
High	9.6	2.0	(62.9)	15.2	8.2	17.1	9.9	10.9	6.0

¹ Exhibit B, Page 1

² Exhibit B, Page 3

³ Roughly 10% chance that loss above tolerance level exceeds normal variation

⁴ Roughly 20% chance that loss above tolerance level exceeds normal variation

AC Transit
Key Financial Indicators
Not Adjusted for Inflation

Exhibit B
Page 1

\$Millions

Fiscal Year End	Earnings				Financial Strength			Liquidity	
	Total Revenues ¹	Operating Revenues ¹	Unadjusted Change in Net Position ¹	Adjusted Change in Net Position ²	Current Assets	Total Assets	Net Position ³	Cash Flow from Operations	Cash & Cash Equivalents (Unrestricted)
6/30/02	257	60	(4)	(4)			210		
6/30/03	246	55	(5)	(5)			205		
6/30/04	261	60	24	24			229		
6/30/05	263	59	-	-			229		
6/30/06	297	63	14	14			243		
6/30/07	310	65	21	21			264		
6/30/08	302	67	(15)	(15)			249		
6/30/09	338	69	16	16	151	425	265	(292)	51
6/30/10	327	67	(23)	(23)	141	394	242	(288)	56
6/30/11	319	61	9	9	139	387	251	(273)	58
6/30/12	322	61	16	16	194	416	267	(290)	129
6/30/13	325	63	52	52	230	464	319	(273)	96
6/30/14	331	69	28	28	209	498	347	(284)	91
6/30/15	338	54	(211)	6	222	521	136	(305)	103
6/30/16	419	70	17	17	230	554	153	(384)	71
6/30/17	405	69	(2)	(2)	221	572	151	(383)	92
6/30/18	441	71	(127)	24	216	617	24	(405)	59
6/30/19	481	77	46	46	230	677	70	(429)	71
<u>18 Years</u>									
Std. Dev.	65	6	63	19	n/a	n/a	81	n/a	n/a
Mean	332	64	(8)	12	n/a	n/a	214	n/a	n/a
Coef of Var ⁴	0.20	0.09	(7.93)	1.55	n/a	n/a	0.38	n/a	n/a
<u>11 Years</u>									
Std. Dev.	58	6	80	21	37	96	103	59	24
Mean	368	66	(16)	17	198	502	202	(328)	80
Coef of Var ⁴	0.16	0.09	(4.96)	1.22	0.19	0.19	0.51	(0.18)	0.31

¹ latest 8 years from page 60 of 6/30/10 CAFR

² 2014/15 Adj. of \$217M due to GASB 68 (Pensions)
2017/18 Adj. of \$151M due to GASB 75 (OPEB)

³ latest 8 years from page 46 of 6/30/10 CAFR

⁴ Coefficient of Variation = Standard Deviation / Mean

AC Transit
Key Financial Indicators
Adjusted for Nationwide Inflation (CPI)

Exhibit B
Page 2

\$Millions

Fiscal Year End	Earnings				Financial Strength			Liquidity	
	Total Revenues	Operating Revenues	Unadjusted Change in Net Position	Adjusted Change in Net Position	Current Assets	Total Assets	Net Position	Cash Flow from Operations	Cash & Cash Equivalents (Unrestricted)
6/30/02	366	85	(6)	(6)			299		
6/30/03	342	76	(7)	(7)			285		
6/30/04	355	82	33	33			312		
6/30/05	347	78	-	-			302		
6/30/06	379	80	18	18			310		
6/30/07	386	81	26	26			328		
6/30/08	361	80	(18)	(18)			298		
6/30/09	404	82	19	19	180	508	317	(349)	61
6/30/10	380	78	(27)	(27)	164	458	281	(335)	65
6/30/11	366	70	10	10	159	443	288	(313)	66
6/30/12	358	68	18	18	216	463	297	(322)	143
6/30/13	355	69	57	57	251	507	349	(298)	105
6/30/14	356	74	30	30	225	536	374	(306)	98
6/30/15	361	58	(226)	6	237	557	145	(326)	110
6/30/16	445	74	18	18	244	589	163	(408)	75
6/30/17	422	72	(2)	(2)	230	595	157	(399)	96
6/30/18	450	72	(129)	24	220	629	24	(413)	60
6/30/19	481	77	46	46	230	677	70	(429)	71
<u>18 Years</u>									
Std. Dev.	40	7	67	21	n/a	n/a	99	n/a	n/a
Mean	384	75	(8)	14	n/a	n/a	255	n/a	n/a
Coef of Var ¹	0.10	0.09	(8.71)	1.57	n/a	n/a	0.39	n/a	n/a
<u>11 Years</u>									
Std. Dev.	45	6	85	23	32	75	117	48	26
Mean	398	72	(17)	18	214	542	224	(354)	86
Coef of Var ¹	0.11	0.09	(5.06)	1.24	0.15	0.14	0.52	(0.14)	0.30

Unadjusted Figures in Exhibit B, Page 1

AC Transit
Key Financial Indicators
Adjusted for California Bay Area Inflation (CPI)

Exhibit B
Page 3

\$Millions

Fiscal Year End	Earnings				Financial Strength			Liquidity	
	Total Revenues	Operating Revenues	Unadjusted Change in Net Position	Adjusted Change in Net Position	Current Assets	Total Assets	Net Position	Cash Flow from Operations	Cash & Cash Equivalents (Unrestricted)
6/30/02	395	92	(6)	(6)			323		
6/30/03	374	84	(8)	(8)			312		
6/30/04	389	89	36	36			341		
6/30/05	384	86	-	-			334		
6/30/06	419	89	20	20			343		
6/30/07	421	88	29	29			359		
6/30/08	410	91	(20)	(20)			338		
6/30/09	448	91	21	21	200	563	351	(387)	68
6/30/10	427	87	(30)	(30)	184	514	316	(376)	73
6/30/11	404	77	11	11	176	491	318	(346)	74
6/30/12	399	76	20	20	241	516	331	(360)	160
6/30/13	393	76	63	63	278	561	386	(330)	116
6/30/14	390	81	33	33	246	586	409	(334)	107
6/30/15	386	62	(241)	7	253	594	155	(348)	118
6/30/16	462	77	19	19	253	611	169	(423)	78
6/30/17	434	74	(2)	(2)	237	612	162	(410)	98
6/30/18	452	73	(130)	25	221	632	25	(415)	60
6/30/19	481	77	46	46	230	677	70	(429)	71
<u>18 Years</u>									
Std. Dev.	30	8	71	23	n/a	n/a	112	n/a	n/a
Mean	415	82	(8)	15	n/a	n/a	280	n/a	n/a
Coef of Var ¹	0.07	0.10	(9.17)	1.60	n/a	n/a	0.40	n/a	n/a
<u>11 Years</u>									
Std. Dev.	33	8	90	24	31	56	132	37	30
Mean	425	77	(17)	19	229	578	245	(378)	93
Coef of Var ¹	0.08	0.10	(5.22)	1.26	0.14	0.10	0.54	(0.10)	0.32

Unadjusted Figures in Exhibit B, Page 1

¹ Coefficient of Variation = Standard Deviation / Mean

AC Transit
Key Financial Indicators
Inflation Adjustment Factors

Exhibit C
Page 1

Based on CPI: Urban

Fiscal Year End	Nationwide ¹	Bay Area ¹
6/30/02	1.424	1.537
6/30/03	1.390	1.521
6/30/04	1.362	1.489
6/30/05	1.318	1.460
6/30/06	1.275	1.412
6/30/07	1.244	1.359
6/30/08	1.195	1.359
6/30/09	1.195	1.325
6/30/10	1.162	1.305
6/30/11	1.146	1.267
6/30/12	1.112	1.240
6/30/13	1.093	1.209
6/30/14	1.076	1.177
6/30/15	1.069	1.141
6/30/16	1.063	1.102
6/30/17	1.041	1.071
6/30/18	1.019	1.025
6/30/19	1.000	1.000

¹ Based on CPI valued in the middle of the fiscal year (i.e. 12/31/xx)

EXHIBIT C

PROBABLE MAXIMUM LOSS (PML) ESTIMATION

AC Transit

Statement of Values - Probable Maximum Loss (PML) Estimations

Location Number	Building Description	Occupied As	Const Desc	% Sprinklered	Auto Sprinklers	Total Real Property	% Damage Considered	Expected Damage	Total Personal Property	% Damage Considered	Expected Damage	Total Estimated Damage
1	GENERAL OFFICE (G.O)	OFFICE	FIRE RESISTIVE	100	Y	30,556,177	25%	7,639,044	29,817,547	50%	14,908,774	22,547,818
2	FRONT OFFICE BLDG	OFFICE	MASONRY CONST/WOOD ROOF		N	1,885,985	50%	942,993	9,246,815	60%	5,548,089	6,491,082
2	EMPLOYEE PARKING	PARKING	FIRE RESISTIVE		N	1,937,850	50%	968,925	0	60%	0	968,925
2	CENTRAL STORES BLDG (WAREHOUSE)	LUNCHROOM & LOCKERS & STORAGE	MASONRY CONST/WOOD ROOF	100	Y	11,655,400	50%	5,827,700	1,395,957	50%	697,979	6,525,679
2	MAINTENANCE BLDG. (AUTO REPAIR SHOP)	MAINTENANCE BLDG	MASONRY CONST/NON-COMB ROOF	100	Y	27,709,691	25%	6,927,423	9,368,604	50%	4,684,302	11,611,725
2	UNIT SHOP	UNIT SHOP	NON COMB STEEL FRAME		N	3,296,404	50%	1,648,202	0	60%	0	1,648,202
2	DIAGNOSTIC BLDG (CARWASH)	DIAGNOSTIC BLDG	MASONRY CONST/NON-COMB ROOF	100	Y	2,858,350	25%	714,588	0	50%	0	714,588
3	MAINTENANCE OFFICE	OFFICE	MASONRY CONST/NON-COMB ROOF	50	Y	5,559,348	25%	1,389,837	6,351,053	50%	3,175,527	4,565,364
3	EMPLOYEE PARKING STRUCTURE	PARKING	FIRE RESISTIVE	100	Y	4,267,768	25%	1,066,942	0	50%	0	1,066,942
3	TRANSPORTATION BLDG	TRANSPORTATION (SITE IMPROVMENT)	NON COMB STEEL FRAME		N	6,030,272	50%	3,015,136	0	60%	0	3,015,136
3	FUEL ISLAND BLDG (TRAILER OFFICE)	FUEL ISLAND	ALL COMB (WOOD FRAME)		N	52,445	80%	41,956	0	60%	0	41,956
3	FUEL ISLAND CANOPY (GAS STATION)	FUEL ISLAND CANOPY	MASONRY CONST/NON-COMB ROOF		N	3,185,844	50%	1,592,922	0	60%	0	1,592,922
3	BUS WASH BLDG	BUS WASH BLDG	MASONRY CONST/NON-COMB ROOF		N	900,404	50%	450,202	0	60%	0	450,202
3	MAINTENANCE BLDG (SHOP BLDG)	MAINTENANCE BLDG	FIRE RESISTIVE	100	Y	11,975,638	25%	2,993,910	4,108,280	25%	1,027,070	4,020,980
3	TIRE SHOP	TIRE SHOP	MASONRY CONST/NON-COMB ROOF	100	Y	1,356,648	25%	339,162	0	25%	0	339,162
4	OFFICE (SITE IMPROVEMENTS)	OFFICE	MASONRY CONST/NON-COMB ROOF		N	4,293,218	50%	2,146,609	0	60%	0	2,146,609
4	EMPLOYEE PARKING STRUCTURE	PARKING	FIRE RESISTIVE		N	0	50%	0	0	60%	0	0
4	TRANSPORTATION AREA	TRANSPORTATION AREA	UNKNOWN		N	0	80%	0	0	80%	0	0
4	MAINTENANCE AREA (AUTO REPAIR SHOP)	MAINTENANCE AREA	MASONRY CONST/WOOD ROOF	100	Y	12,535,156	40%	5,014,062	4,510,038	50%	2,255,019	7,269,081
4	FUEL ISLAND & CANOPY	FUEL ISLAND BLDG. (GAS STATION)	MASONRY CONST/NON-COMB ROOF		N	2,610,346	50%	1,305,173	0	60%	0	1,305,173
4	BUS WASHER CANOPY	BUS WASHER CANOPY	MASONRY CONST/NON-COMB ROOF		N	982,643	50%	491,322	0	60%	0	491,322
5	OFFICE (SITE IMPROVEMENTS)	OFFICE	NON COMB STEEL FRAME		N	7,436,705	50%	3,718,353	0	60%	0	3,718,353
5	PARKING STRUCTURE	PARKING	FIRE RESISTIVE		N	4,949,058	50%	2,474,529	0	60%	0	2,474,529
5	TRANSPORTATION BLDG.	TRANSPORTATION BLDG	NON COMB STEEL FRAME		N	5,388,989	50%	2,694,495	0	60%	0	2,694,495
5	FUEL ISLAND & CANOPY	FUEL ISLAND BLDG. (GAS STATION)	MASONRY CONST/NON-COMB ROOF	100	Y	3,044,036	25%	761,009	0	50%	0	761,009
5	GENERATOR BLDG	GENERATOR BLDG	MASONRY CONST/WOOD ROOF		N	44,931	50%	22,466	0	60%	0	22,466
5	BUS WASH BLDG & CANOPY	BUS WASH BLDG	NON COMB STEEL FRAME		N	1,243,180	50%	621,590	0	60%	0	621,590
5	MAINTENANCE BLDG (SHOP)	MAINTENANCE BLDG	MASONRY CONST/NON-COMB ROOF		N	13,309,512	50%	6,654,756	5,035,031	60%	3,021,019	9,675,775
6	OFFICE (INCLUDES TRAINING CENTER AREA)	OFFICE (SITE IMPROVEMENTS)	NON COMB STEEL FRAME		N	8,828,240	50%	4,414,120	0	60%	0	4,414,120
6	PARKING STRUCTURE	PARKING	FIRE RESISTIVE		N	4,249,688	50%	2,124,844	0	60%	0	2,124,844
6	TRANSPORTATION BLDG	TRANSPORTATION BLDG	NON COMB STEEL FRAME	100	Y	4,854,877	25%	1,213,719	1,475,255	50%	737,628	1,951,347
6	FUEL ISLAND BLDG & CANOPY	FUEL ISLAND BLDG (GAS STATION)	MASONRY CONST/NON-COMB ROOF		N	2,357,451	50%	1,178,726	0	60%	0	1,178,726
6	BUS WASH BLDG & CANOPY	BUS WASH BLDG	MASONRY CONST/WOOD ROOF		N	1,095,949	50%	547,975	0	60%	0	547,975
6	MAINTENANCE BLDG (SHOP)	MAINTENANCE BLDG	NON COMB STEEL FRAME	100	Y	10,549,632	25%	2,637,408	3,843,687	50%	1,921,844	4,559,252
6	TIRE SHOP/DYNO/CHASSIS CLEAN 1ST FLOOR	TIRE SHOP/DYNO/CHASSIS CLEAN 1ST FLOOR	NON COMB STEEL FRAME	100	Y	2,790,685	25%	697,671	0	50%	0	697,671
6	BLDG. MAINTENANCE BLD. 1ST FLOOR	BLDG. MAINTENANCE BLD. 1ST FLOOR	NON COMB STEEL FRAME		N	1,719,131	50%	859,566	0	60%	0	859,566
6	TRAINING CENTER	TRAINING CENTER	NON COMB STEEL FRAME	100	Y	6,912,283	25%	1,728,071	341,314	50%	170,657	1,898,728
7	LEASED OFFICE	OFFICE	MASONRY CONST/WOOD ROOF		N	3,546,810	50%	1,773,405	0	60%	0	1,773,405
						215,970,744		78,638,807	75,493,581		38,147,905	116,786,712



Risk Management Specialists

Independent Risk Advisors and Consultants

EXHIBIT D

RISK CONTROL QUESTIONNAIRE RESULTS

AC TRANSIT RISK ASSESSMENT KEY

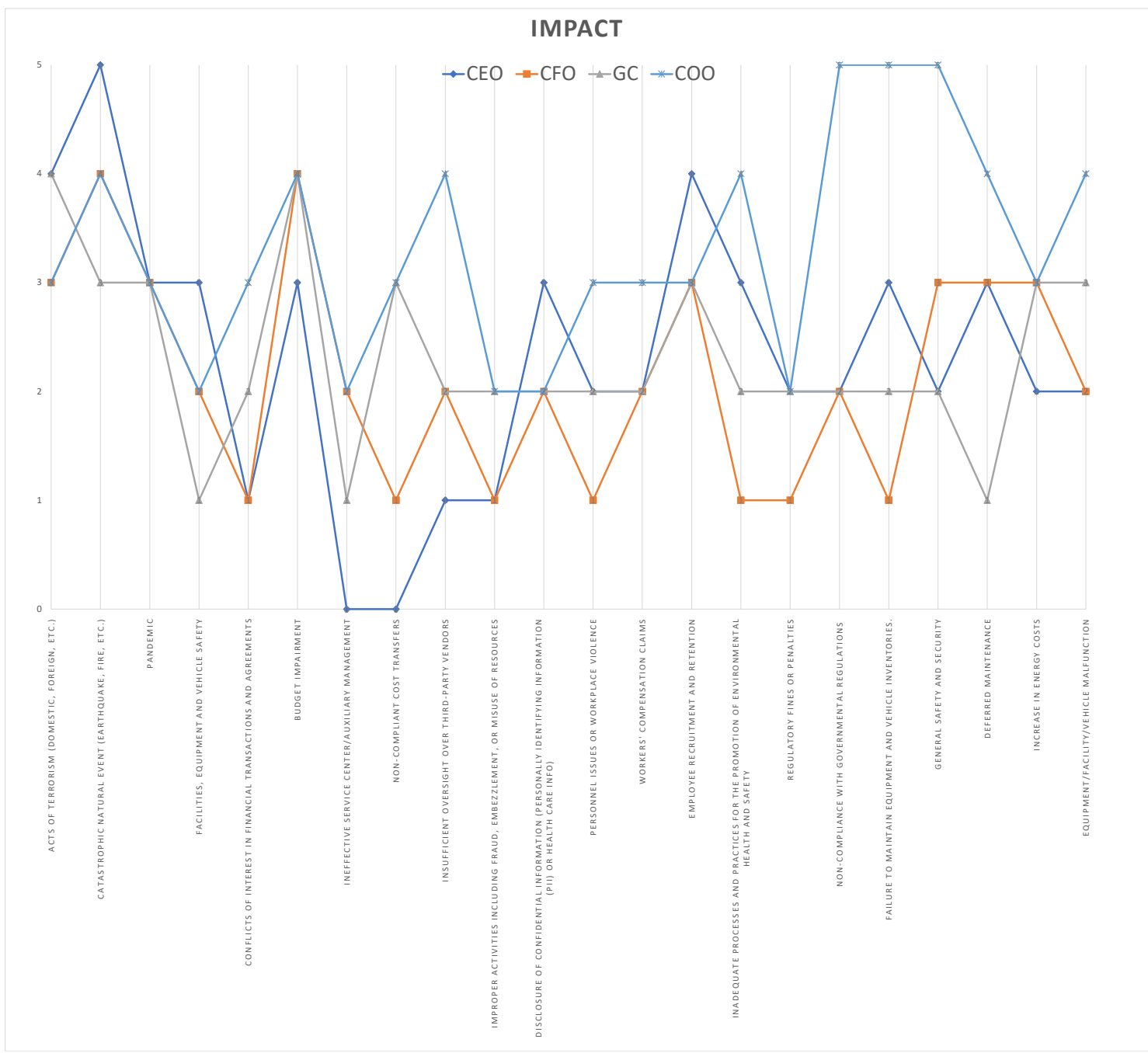
SCALES

Risk Impact	
Scale	Definition
5	Very High. Core mission impaired, operationally disabling
4	High. Operations must shift significantly to adjust to conditions created by consequences of risk-related incident or control failure
3	Moderate. Operational changes are necessary to adjust to conditions created by consequences of risk-related incident or control failure
2	Low. Consequences of risk-related incident or control failure are tangible, but operations remain largely intact and maintain status quo.
1	Very Low. Operations are unaffected, but risk awareness and monitoring is appropriate.
0	Don't know/Unsure. Not Applicable.

Risk Likelihood	
Scale	Definition
5	Very High. Certain to occur.
4	High. Almost certain to occur
3	Moderate. May occur within the year
2	Low. Not likely to occur within the year
1	Very Low. Not likely to occur within the next 10 years
0	Don't know/Unsure. Not Applicable.

AC TRANSIT
ENTERPRISE-WIDE RISK ASSESSMENT
RISK IMPACT

Risks		Potential Consequences of Control Failure	Impact			
			CEO	CFO	GC	COO
1	Acts of terrorism (domestic, foreign, etc.)	Damage to facilities, equipment and vehicles resulting in operational impairment; injury to personnel, or the public; reputational impact.	4	3	4	3
2	Catastrophic natural event (earthquake, fire, etc.)	Damage to facilities, equipment and vehicles resulting in operational impairment; injury to personnel, or the public; reputational impact.	5	4	3	4
3	Pandemic	Operational impairment due to staff unavailability; staff, and public health impacts.	3	3	3	3
4	Facilities, equipment and vehicle safety	Injury to staff, or public; reputational degradation.	3	2	1	2
5	Conflicts of interest in financial transactions and agreements	Financial costs, loss of future agreements or grants, reputational impact.	1	1	2	3
6	Budget impairment	Loss of personnel or program funding, inability to meet core mission objectives	3	4	4	4
7	Ineffective service center/auxiliary management	Inefficient utilization of program resources, waste.	0	2	1	2
8	Non-compliant cost transfers	Financial costs, loss of future agreements or grants, reputational impact.	0	1	3	3
9	Insufficient oversight over third-party vendors	Financial costs, loss of future agreements or grants, reputational impact.	1	2	2	4
10	Improper activities including fraud, embezzlement, or misuse of resources	Financial costs, loss of future agreements or grants, reputational impact.	1	1	2	2
11	Disclosure of confidential information (personally identifying information (PII) or health care info)	Reputational and financial impacts, potential liability, confidential information corruption.	3	2	2	2
12	Personnel issues or workplace violence	Injury to staff, students, or public; reputational degradation; potential liability.	2	1	2	3
13	Workers' compensation claims	Financial costs, adverse personnel morale impact, operational delays due to understaffing.	2	2	2	3
14	Employee recruitment and retention	Financial costs, adverse reputational impacts; operational delay due to turnover and training delays.	4	3	3	3
15	Inadequate processes and practices for the promotion of environmental health and safety	Fire; chemical spill; biohazard incident; environmental impairment; injury to staff, public or emergency responders.	3	1	2	4
16	Regulatory fines or penalties	Financial costs, reputational impacts, loss of future grants or agreements.	2	1	2	2
17	Non-compliance with governmental regulations	Financial costs, reputational impacts, loss of future grants or agreements.	2	2	2	5
18	Failure to maintain equipment and vehicle inventories.	Financial costs, reputational impacts, loss of future grants or agreements.	3	1	2	5
19	General safety and security	Injury to staff, or public; reputational degradation.	2	3	2	5
20	Deferred maintenance	Damage to facilities resulting in operational impairment; injury to personnel, students, or the public.	3	3	1	4
21	Increase in energy costs	Financial costs, inefficient utilization of resources.	2	3	3	3
22	Equipment/facility/vehicle malfunction	Damage to facilities/vehicle resulting in operational impairment; injury to personnel, students, or the public.	2	2	3	4



AC TRANSIT
ENTERPRISE-WIDE RISK ASSESSMENT
RISK LIKELIHOOD

Risks		Potential Consequences of Control Failure	Likelihood			
			CEO	CFO	GC	COO
1	Acts of terrorism (domestic, foreign, etc.)	Damage to facilities, equipment and vehicles resulting in operational impairment; injury to personnel, or the public; reputational impact.	2	2	0	0
2	Catastrophic natural event (earthquake, fire, etc.)	Damage to facilities, equipment and vehicles resulting in operational impairment; injury to personnel, or the public; reputational impact.	3	3	0	4
3	Pandemic	Operational impairment due to staff unavailability; staff, and public health impacts.	3	3	2	3
4	Facilities, equipment and vehicle safety	Injury to staff, or public; reputational degradation.	2	2	4	4
5	Conflicts of interest in financial transactions and agreements	Financial costs, loss of future agreements or grants, reputational impact.	2	1	2	1
6	Budget impairment	Loss of personnel or program funding, inability to meet core mission objectives	2	3	3	2
7	Ineffective service center/auxiliary management	Inefficient utilization of program resources, waste.	0	1	3	1
8	Non-compliant cost transfers	Financial costs, loss of future agreements or grants, reputational impact.	0	1	2	1
9	Insufficient oversight over third-party vendors	Financial costs, loss of future agreements or grants, reputational impact.	2	2	4	2
10	Improper activities including fraud, embezzlement, or misuse of resources	Financial costs, loss of future agreements or grants, reputational impact.	2	1	2	2
11	Disclosure of confidential information (personally identifying information (PII) or health care info)	Reputational and financial impacts, potential liability, confidential information corruption.	3	2	4	2
12	Personnel issues or workplace violence	Injury to staff, students, or public; reputational degradation; potential liability.	3	2	4	3
13	Workers' compensation claims	Financial costs, adverse personnel morale impact, operational delays due to understaffing.	5	2	5	3
14	Employee recruitment and retention	Financial costs, adverse reputational impacts; operational delay due to turnover and training delays.	5	2	5	5
15	Inadequate processes and practices for the promotion of environmental health and safety	Fire; chemical spill; biohazard incident; environmental impairment; injury to staff, public or emergency responders.	2	1	2	2
16	Regulatory fines or penalties	Financial costs, reputational impacts, loss of future grants or agreements.	3	2	4	2
17	Non-compliance with governmental regulations	Financial costs, reputational impacts, loss of future grants or agreements.	2	2	3	1
18	Failure to maintain equipment and vehicle inventories.	Financial costs, reputational impacts, loss of future grants or agreements.	2	1	2	1
19	General safety and security	Injury to staff, or public; reputational degradation.	3	2	2	2
20	Deferred maintenance	Damage to facilities resulting in operational impairment; injury to personnel, students, or the public.	2	1	4	2
21	Increase in energy costs	Financial costs, inefficient utilization of resources.	4	2	3	3
22	Equipment/facility/vehicle malfunction	Damage to facilities/vehicle resulting in operational impairment; injury to personnel, students, or the public.	3	1	2	2

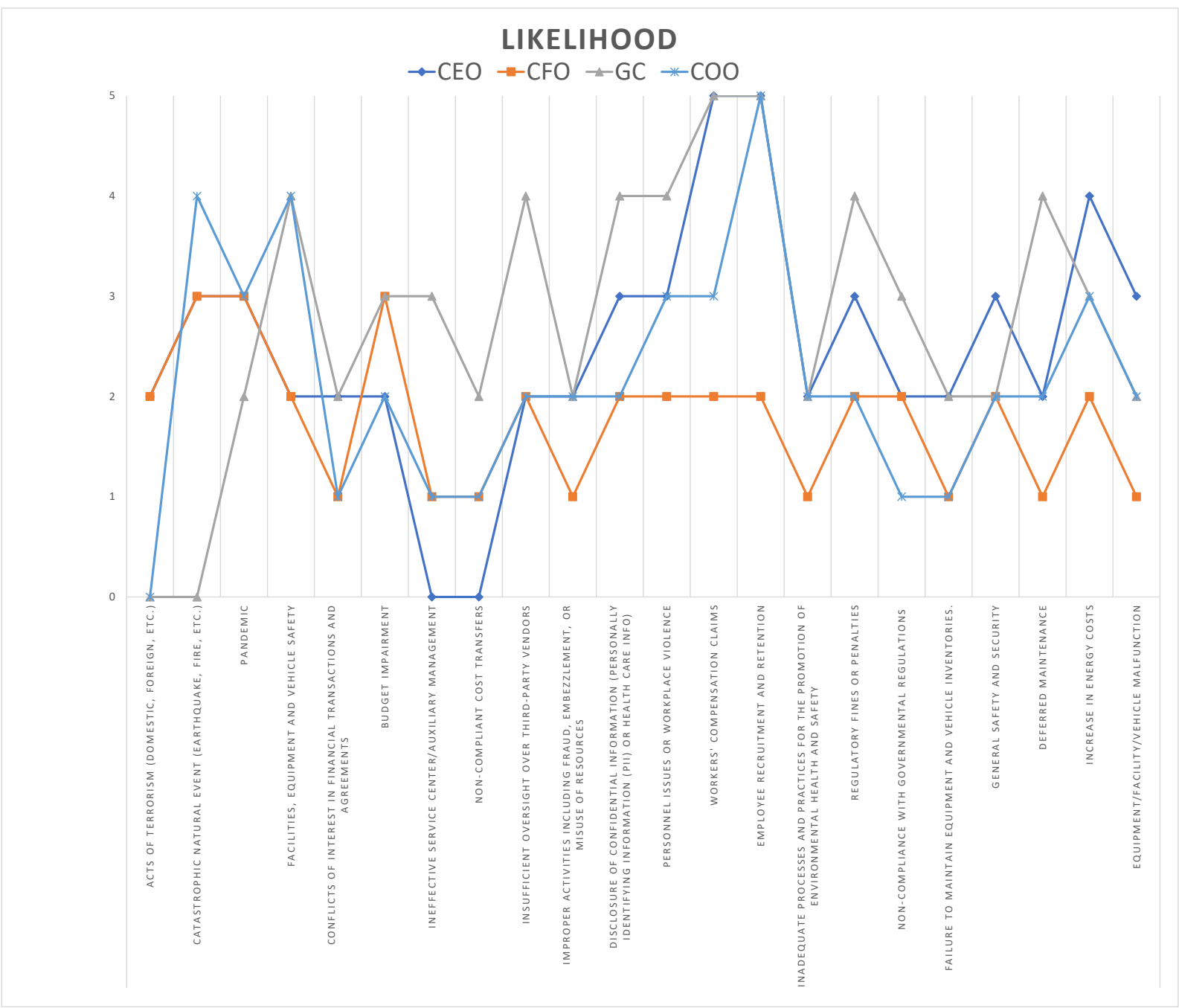


EXHIBIT E

BENCHMARKING COMPARABLE TRANSIT AGENCIES

Transit Agencies/Districts Insurance Benchmark Results

	AC Transit		Transit District A		Transit District B		Transit District C	
Demographics								
Total Annual Revenues (Most Recent)	\$480,585,000		\$6,625,200,000		\$816,949,000		\$26,500,000	
Total Number of Employees	2,488		11,257		2,238		1,146	
Total Annual Payroll (Most Recent)	\$186,549,739		\$817,200,000		\$186,768,282		\$74,380,000	
Total Number of Vehicles	662		2,665		554		461	
- Buses	662		2,209		456		307	
- Rail Car	0		456		98		96	
Total Annual Ridership	63,875,000		371,501,000		40,639,000		25,582,000	
-Buses	63,875,000		257,731,000		30,385,000		10,300,000	
- Rail Car	0		113,770,000		10,254,000		11,282,000	
Total Annual Revenue Miles	53,041,000		8,447,763		22,050,000		11,795,000	
- Buses	53,041,000		7,003,410		19,300,000		7,285,000	
- Rail Car	0		1,134,952		2,750,000		4,511,000	
Property Total Insured Values	\$715,738,329		\$13,317,493,977		\$1,304,698,968		\$615,000,000	
Insurance Schedule	Policy Limit	Deductible/ Retention/ Attachment	Policy Limit	Deductible/ Retention/ Attachment	Policy Limit	Deductible/ Retention/ Attachment	Policy Limit	Deductible/ Retention/ Attachment
Excess (Total limits if multiple carriers are utilized)	\$51,000,000	\$1,000,000 - GL \$2,000,000 - AL	\$300,000,000	\$8,000,000	\$107,000,000	\$3,000,000	\$100,000,000	\$2,000,000
General Liability	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess
Automobile Liability	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess	Incl in Excess
Workers' Compensation	Statutory	\$1,000,000	No Response		No Response		Statuory	\$2,000,000
Property (All Other Perils – AOP)	\$150,000,000	\$100,000	\$400,000,000	\$250,000	\$160,000,000	\$100,000	\$250,000,000	\$100,000
Property (Difference in Conditions – DIC)(e.g., Earthquake, Wind, Flood, etc.)	N/A	N/A	N/A	N/A	N/A	N/A	\$3,912,000	\$50,000
Employment Practices Liability	Incl in Excess	\$1,000,000	Incl in Excess	Incl in Excess	Incl in D&O	Incl in D&O	\$2,000,000	\$250,000
Directors and Officers Liability	Incl in Excess	\$1,000,000	Incl in Excess	Incl in Excess	\$2,000,000	\$2,500,000	Incl in Excess	Incl in Excess
Fiduciary Liability	\$5,000,000	\$50,000	No Response		N/A	N/A	N/A	N/A
Crime	\$5,000,000	\$25,000	No Response		\$3,000,000	\$25,000	\$3,000,000	\$2,500
Cyber Liability	\$5,000,000	\$50,000	No Response		\$2,000,000	\$10,000	\$5,000,000	\$50,000
Environmental (First Party & Third Party)	N/A	N/A	No Response		\$5,000,000	\$100,000	\$1,000,000	\$10,000

* NOTE: TRANSIT DISTRICTS A, B AND C HAVE RAIL EXPOSURES IN ADDITION TO BUS OPERATIONS



APPENDIX A

GLOSSARY OF RISK MANAGEMENT TERMS

Captive – An insurance company that has as its primary purpose the financing of the risks of its owners or participants.

Cost of Risk (COR) – The cost of managing risks and incurring losses.

Deductible – An amount the insurer will deduct from the loss before paying up to its policy limits.

Guaranteed Cost – Premiums charged on a prospective basis without adjustment for loss experience during the policy period.

Joint Powers Authority (JPA) – A pooling of finances by public agencies where the member entities agree to reciprocally indemnify the other for each other's losses.

Retention – Assumption of risk of loss by means of noninsurance, self-insurance, or deductibles. Retention can be intentional or, when exposures are not identified, unintentional.

Risk Bearing Capacity – All of the possibilities that could impact an organization's ability to achieve strategic goals which can be categorized as strategic; non-strategic/non-transferrable; blended risks; and non-strategic/transferrable.

Risk Controls – An organization's ability to measure, monitor, and limits its risks as well the ability to keep its losses within the defined risk tolerances.

Risk Finance – The planning and management of funds to pay losses. Typically, losses are financed through a combination of self-insurance and insurance.

Risk Tolerance – The quantitative thresholds/boundaries or acceptable range of outcomes and risks AC Transit is willing to assume that is aggregated across the organization, as a critical part of risk exposure management.

Self-Insurance – A system whereby a firm sets aside an amount of its monies to provide for any losses that occur - losses that could ordinarily be covered under an insurance program.

Self-Insured Fronted Program – An insurer that issues a policy and cedes all or a substantial part of the risk to the organization self-insuring itself.

Self-Insured Retention (SIR) – A dollar amount specified in a liability insurance policy that must be paid by the insured before the insurance policy will respond to a loss.