

Research Digest

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Item 1

Pavement Maintenance Guidelines for General Aviation Airport Management

TRANSPORTATION RESEARCH BOARD (TRB)

ACRP Report 159 • 2016

"This report provides guidance to general aviation airport managers in determining the most cost-efficient and appropriate preventative maintenance solution to common pavement issues. Research was conducted on the different types of pavement distresses that occur at airports and the types of preventative pavement practices typically used. The guidance includes the effect the climate has on pavement maintenance options and illustrates the range of costs that are expected for each type of preventative maintenance option. In addition to the guidebook, two additional products were developed. The Airport Pavement Maintenance Recommendation Tool (available at <http://acrppavement-tool.tti.tamu.edu>) is an interactive tool that will assist the user in identifying pavement issues and will make appropriate recommendations. The Field Guide for the Airport Pavement Maintenance Recommendation Tool is intended to assist in identifying the specific pavement issues while in the field." -- from TRID
(ix, 70 pages)

CONTENTS

- Quick Guide
- Chapter 1. Introduction to Airfield Pavement Management
- Chapter 2. Airfield Pavement Distress
- Chapter 3. Airport Pavement Maintenance Recommendation Tool Users' Guide
- Chapter 4. How to Use the Field Guide
- Chapter 5. Understanding the Benefit/Cost Analysis Used in the Online Tool Results
- Appendix A. Asphalt Distress Types and Descriptions
- Appendix B. Concrete Distress Types and Descriptions

This report is available for free download:

<https://www.nap.edu/catalog/23649/>

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Item 2

Field Guide for the Airport Pavement Maintenance Recommendation Tool for ACRP Report 159

TRANSPORTATION RESEARCH BOARD (TRB)

ACRP Report 159 Suppl. • 2016

"[ACRP Report 159] provides guidance to general aviation airport managers in determining the most cost-efficient and appropriate preventative maintenance solution to common pavement issues. Research was conducted on the different types of pavement distresses that occur at airports and the types of preventative pavement practices typically used. The guidance includes the effect the climate has on pavement maintenance options and illustrates the range of costs that are expected for each type of preventative maintenance option. In addition to the guidebook, two additional products were developed. The Airport Pavement Maintenance Recommendation Tool (available at <http://acrppavement-tool.tti.tamu.edu>) is an interactive tool that will assist the user in identifying pavement issues and will make appropriate recommendations. The Field Guide for the Airport Pavement Maintenance Recommendation Tool is intended to assist in identifying the specific pavement issues while in the field." -- from TRID (151 pages)

CONTENTS

- Introduction
- Step 1. Determine Airport Classification
- Step 2. Choose Climatic Zone
- Step 3. Identify Distress Types
- Step 4. Determine Treatment
- Asphalt Pavement Treatment Tables
- Asphalt Pavement Maintenance Treatment Hierarchy
- Concrete Pavement Treatment Tables
- Concrete Pavement Maintenance Treatment Hierarchy

This report is available for free download (15 MB):

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_159_FieldGuide.pdf

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Item 3

Guidebook for Assessing Airport Lead Impacts

TRANSPORTATION RESEARCH BOARD (TRB)

ACRP Report 162 • 2016

"This report discusses two strategies that airport operators can potentially implement to minimize the impacts of lead emissions from piston-engine aircraft. These strategies are (1) making available unleaded ethanol-free motor gasoline (MOGAS) for use by aircraft that are compatible with that fuel, and (2) relocating run-up areas. The guidebook begins by educating the user on the history of lead in AVGAS (aviation gasoline), known health impacts, and Environmental Protection Agency regulations. The strategies examine how the impact from lead emissions may be minimized, with a chapter on other factors that should be considered. A Frequently Asked Questions document about aviation and lead is included in Appendix A and is also available on the Transportation Research Board website (www.trb.org)."

-- from TRID

(24 pages)

CONTENTS

- Chapter 1. Background
- Chapter 2. Regulation of Airborne Lead in the United States
- Chapter 3. Use of Lead in Aviation Gasoline
- Chapter 4. Current Sources of Airborne Lead in the United States
- Chapter 5. Assessing Lead Impacts in the Vicinity of Airports
- Chapter 6. Other Factors to Consider When Evaluating Potential Strategies to Reduce Lead Impacts at General Aviation Airports
- Chapter 7. Data Collection at Airports
- Chapter 8. Public Outreach Regarding Lead
- References
- Appendix A. Suggested Public Outreach Document

This report is available for free download:

<https://www.nap.edu/catalog/23625/>

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Item 4

Airport Sustainability Practices: A Synthesis of Airport Practice

TRANSPORTATION RESEARCH BOARD (TRB)

ACRP Synthesis 77 • 2016

"Airport sustainability has evolved considerably, and airports large and small and of most every geographic area are pursuing sustainability initiatives that span environmental protection, social responsibility, and contributions to local economies. In response to this evolution, the Sustainable Aviation Guidance Alliance (SAGA) website was developed to assist airport operators in developing sustainability programs. The website contains entries on more than 900 sustainability practices that were developed by SAGA's initial stakeholder group. However, a large percentage of these entries do not contain actual practice data. Stakeholders of SAGA seek continued enhancement of the website, not only in its structure but in its content. This synthesis compiles data on 10 new sustainability practices and adds them to SAGA. It also provides guidance to those who have new data to input. Case studies were generated by seven airport operators, two airlines, and one concessionaire from a range of geographic locations. The practice topics span issues relating to sustainability management, waste reduction, social responsibility, climate change, and water quality. Those who generated information entered the data into SAGA and provided usability information as to the ease of data entry and enhancements still needed for maximum ease of use." -- from TRID
(39 pages)

This report is available for free download:

<https://www.nap.edu/catalog/23644>

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Item 5

Continuity of Operations Planning for Small Airports: A Synthesis of Airport Practice

TRANSPORTATION RESEARCH BOARD (TRB)

ACRP Synthesis 78 • 2016

"Business continuity planning is the process of developing a plan for operating essential operational and business functions in the face of a disruption caused by any types of emergencies, incidents, or events. The purpose of this study was to compile information about current continuity planning practices at airports of different types and sizes and determine how they can be effectively applied to smaller airports to maintain resilient operational and business capacity during a disruption, regardless of cause. This study was explicitly not about emergency response, but addresses business continuity planning for both emergency and non-emergency disruptions. This report is a companion to ACRP Report 93: Operational and Business Continuity Planning for Prolonged Airport Disruptions. This synthesis report identifies alternatives and effective approaches for continuity planning at smaller airports. A variety of resources are identified in this report that smaller airports can use to develop inexpensive, non-complex but practical continuity plans, business continuity plans, or continuity of operations plans." -- from TRID (xii, 236)

CONTENTS

- Summary
- Chapter 1. Introduction
- Chapter 2. Context for Continuity Planning at Airports
- Chapter 3. Survey Responses
- Chapter 4. Case Examples
- Chapter 5. Benefits and Barriers
- Chapter 6. Effective Practices, Tools, and Templates
- Chapter 7. Conclusions
- Glossary
- Acronyms and Abbreviations
- References
- Bibliography
- Appendix A. Airport Respondents
- Appendix B. Summary of Survey Responses
- Appendix C. Interview Guide Questions for Airports with Business Continuity Plans/Continuity of Operations Plans
- Appendix D. Interview Reports for Airport with Business Continuity Plans/Continuity of Operations Plans
- Appendix E. Interview Guide Questions for Airports without Business Continuity Plans/Continuity of Operations Plans
- Appendix F. Interview Reports for Airports without Business Continuity Plans/Continuity of Operations Plans
- Appendix G. Sample 1 – Airport Improvement Program Grant Oversight Risk Assessment, Sponsor Certification Checklist
- Appendix H. Sample 2 – Continuity of Operations Planning Template Used by Seattle-Tacoma International Airport
- Appendix I. Sample 3 – FEMA Continuity Assistance Tool Overview
- Appendix J. Sample 4 – Continuity of Operations Planning Worksheets Used by Dallas/Fort Worth International Airport
- Appendix K. Sample 5 – Continuity of Operations Planning for Minneapolis-St. Paul International Airport
- Appendix L. Sample 6 – Administrative Continuity Plan Used by Ohio State University Airport
- Appendix M. Sample 7 – Line of Operations Continuity Plan Used by Ohio State University Airport
- Appendix N. Sample 8 – Hurricane Plan Addressing Business Continuity Planning/Continuity of Operations Planning for Savannah/Hilton Head International Airport
- Appendix O. Sample 9 -- H1N1 Business Plan Addressing Business Continuity Planning/Continuity of

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- Operations Planning for Savannah/Hilton Head International Airport
- Appendix P. Sample 10 – Irregular Operations Plan Addressing Business Continuity Planning/Continuity of Operations Planning for Savannah/Hilton Head International Airport
- Appendix Q. Sample 11 – Continuity of Operations Plan Used by Fort Lauderdale Executive Airport
- Appendix R. Sample 12 – Airport Initial Response Actions Used by Watsonville Municipal Airport
- Appendix S. Sample 13 – Sample Standard Operating Procedures Used by Lakeland Linder Regional Airport
- Appendix T. Basic Template for Initial Development of General Aviation, Small Hub, and Non-Hub Airport Business Continuity Plan/Continuity of Operations Plan
- Appendix U. Checklist for Business Continuity Planning/Continuity of Operations Planning Development for General Aviation, Small Hub, and Non-Hub Airport

This report is available for free download:

<https://www.nap.edu/catalog/23675/>

Item 6

Self-Consolidating Concrete for Cast-in-Place Bridge Components

TRANSPORTATION RESEARCH BOARD (TRB)

NCHRP Report 819 • 2016

"This report presents recommended guidelines for the use of self-consolidating concrete (SCC) in cast-in-place highway bridge components. These guidelines address the selection of constituent materials, proportioning of concrete mixtures, testing methods, fresh and hardened concrete properties, production and quality control issues, and other aspects of SCC. The report also presents proposed changes to the AASHTO LRFD Bridge Design and Construction Specifications to address use of SCC for cast-in-place highway bridge components. The information contained in the report will guide materials and bridge engineers in evaluating, selecting, and specifying SCC mixtures for use in cast-in-place concrete bridge components, thereby facilitating construction, improving the working environment and safety, and reducing cost." -- from TRID

(62, A-22, B-17 pages)

CONTENTS

- Summary
- Chapter 1. Research Approach
- Chapter 2. Results, Interpretation, and Application
- Chapter 3. Conclusions and Recommendations for Research
- References
- Glossary
- Acronyms
- Attachment A. Proposed Changes to the AASHTO LRFD Bridge Design and Construction Specifications
- Attachment B. Proposed Guidelines for Use of Self-Consolidating Concrete in Cast-in-Place Bridge Components

This report and its appendices are available for free download:

<http://www.trb.org/NCHRP/Blurbs/174472.aspx>

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Item 7

Linking Transit Agencies and Land Use Decision Making: Guidebook for Transit Agencies

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 182 • 2016

"This report was developed to help transit agencies better address the connections among transit, land use planning, and development decision making. The guidebook promotes improved transit and land use decision making by providing transit agencies with the tools to be more effective at the decision-making table. The guidebook identifies preconditions for success to enhance a transit agency's involvement in land use decisions. It also provides self-assessment questionnaires for transit agencies to evaluate their effectiveness in fostering transit-supportive land use decision making among key stakeholders; helps a transit agency identify strategies to strengthen its effectiveness in affecting land use over the long term; presents tools to help transit agencies foster effective interactions for enhancing communication and coordination as well as building a transit-supportive community; and provides an overview of typical transit agencies' interactions with various stakeholders and the planning processes." -- from TRID (124 pages)

CONTENTS

- Summary
- Chapter 1. Introduction
- Chapter 2. Preconditions for Success
- Chapter 3. The Self-Evaluation Process
- Chapter 4. Building a Transit-Supportive Community
- Chapter 5. Case Studies
- Chapter 6. Key Partners
- Chapter 7. Planning Processes
- Bibliography
- Appendix A. Impact of the 5 Ds on Transit Ridership
- Appendix B. Distributed Survey
- Appendix C. Case Studies
- Endnotes

This report is available for free download (2.2 MB):

http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_182.pdf

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Item 8

A Guidebook on Transit-Supportive Roadway Strategies

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 183 • 2016

"This report is a resource for transit and roadway agency staff seeking to improve bus speed and reliability on surface streets while addressing the needs of other roadway users, including motorists, bicyclists, and pedestrians. This guidebook (1) identifies consistent and uniform strategies to improve transportation network efficiency to reduce delay and improve reliability for transit operations on roadways; (2) develops decision-making guidance for operational planning and functional design of transit/traffic operations on roads that provides information on warrants, costs, and impacts of strategies; (3) identifies the components of model institutional structures and intergovernmental agreements for successful implementation; and (4) identifies potential changes to the Manual on Uniform Traffic Control Devices (MUTCD) and related documents to facilitate implementation of selected strategies." -- from TRID (vii, 200 pages)

CONTENTS

- Summary
- Chapter 1. Introduction
- Chapter 2. The Need for Transit-Supportive Roadway Strategies
- Chapter 3. Ingredients for a Successful Project
- Chapter 4. Selecting an Appropriate Strategy
- Chapter 5. Bus Operations Strategy Toolbox
- Chapter 6. Traffic Control Strategy Toolbox
- Chapter 7. Infrastructure Strategy Toolbox
- Chapter 8. Bus Lane Toolbox
- Appendix A. Understanding Traffic Engineering Practice (for Transit Professionals)
- Appendix B. Understanding Transit Operations (for Transportation Engineers and Planners)
- Appendix C. Managing Bus and Bicycle Interactions
- Appendix D. Request to Experiment Template
- Appendix E. Glossary
- Acronyms and Abbreviations
- References

This report is available for free download:

<http://www.trb.org/Publications/Blurbs/173932.aspx>

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Item 9

Maintenance Technician Staffing Levels for Modern Public Transit Fleets

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 184 • 2016

"This report identifies existing tools and practices used to determine optimum maintenance technician staffing levels and provides an analysis of variables that influence maintenance technician staffing needs. The report also documents the research team's development of an MS Excel-based Maintenance Staffing Calculator, a tool for managers of transit agencies of any size to use in estimating the optimal number of bus maintenance staff to meet current maintenance needs. It may also be used as a predictive tool, to determine staffing needs during the vehicle procurement process. The Maintenance Staffing Calculator is designed to help maintenance managers (1) break down staff by location or sub-fleet; (2) adjust raw employee numbers to full-time equivalents and available productive hours using information on current technician staffing, other employees contributing to maintenance, breaks, vacations, and shift information; (3) calculate preventive maintenance, core maintenance, and unscheduled maintenance task hours required by sub-fleet; (4) calculate heavy maintenance and repair hours required; (5) model effects on staffing of changes to fleet composition or usage; (6) model effects on staffing of changes to maintenance times or intervals, accounting for overtime required; and (7) compare results to a group of peer agencies. The Maintenance Staffing Calculator, a User Guide and a PowerPoint presentation summarizing TCRP Project E-10 are available on TRB.org." -- from TRID

(31 pages)

CONTENTS

- Summary
- Chapter 1. Analysis of the National Transit Database and Other Data
- Chapter 2. Analysis of Maintenance Staffing and Practice at Selected Agencies
- Chapter 3. Training Practices, Skill Gap Analysis and Connection to Staffing Levels
- Chapter 4. Maintenance Staffing Calculator and User Guide
- Chapter 5. Implementation Plan and Future Research

This report and supplemental materials are available for free download:

<http://www.trb.org/Publications/Blurbs/173927.aspx>

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Item 10

Bus Operator Workstation Design for Improving Occupational Health and Safety

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 185 • 2016

"This report was developed to support improved bus procurement by public transit agencies, focusing on the bus operator workstation component of a bus. The project was designed to assist transit agencies and bus manufacturers in integrating improved and emerging technologies into current procurement practices and improving bus operator workstation design across the transit industry. The final deliverables for the project include this report, supplemented by six tools. The report provides an overview of the structure and content of the research, defines the role of each key stakeholder in the procurement process, and presents two types of training needed to support a well-prepared procurement team that includes bus operators trained in their ergonomic needs. The report also presents important computer-aided design (CAD) and human modeling simulation models, now integral to modern bus procurement. Six appendices present detailed research results that complement the research report. The report is supplemented by three organizational tools and three design guidance tools that can be used by transit agencies during bus procurement. The organizational tools support the improvement of the bus procurement process and training for participants. The design guidance tools support current bus design technology. In updating the bus operator workstation guidelines, the research team sought to align the new tools, such as the Bus Operator Workstation Feature Guideline and the three-dimensional (3-D) Bus Operator Workstation Engineering CAD Model, with processes and practices now common in the commercial bus and truck industry. To assist in the communication of bus operator workstation requirements with individuals who are not trained in expensive and difficult CAD software, a Bus Operator Workstation 3-D PDF Model also was created. The six organizational and design guidance tools can be accessed from the report webpage at www.trb.org by searching "TCRP Report 185". -- from TRID

(114 pages)

CONTENTS

- Summary
- Chapter 1. Project Overview
- Chapter 2. Bus Workstation Design and Procurement Process to Protect Operator Health and Safety
- Chapter 3. Training to Support the Procurement Team and Bus Operator Ergonomics
- Chapter 4. Development of Bus Operator Workstation Design Guidelines
- Chapter 5. Human Modeling Validation of Bus Operator Workstation Design Guidelines
- Chapter 6. Conclusions
- References
- Appendix A. Bus Operator Considerations for Purchase Price
- Appendix B. Bus Operator Workstation Engineering CAD Model Specifications
- Appendix C. Construction of Multivariate Manikins in Human Modeling Software
- Annex to Appendices

This report and supplemental materials are available for free download:

<http://www.trb.org/Publications/Blurbs/174183.aspx>

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Item 11

Economic Impact Case Study Tool for Transit

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 186 • 2016

"This report presents the results of a project aimed at creating the prototype for a searchable (web-based) database of public transit investment projects and their associated (transit-driven) economic and land development outcomes. This information is intended to inform future planning efforts for transit-related projects and to support better multimodal planning. The purpose of this system is to provide transportation planners with a consistent base of data on actual, documented economic and land development impacts of completed transit-related investments, along with a narrative describing the form of impact and factors that affected it. This TCRP project builds upon a pioneering database, Transportation Project Impact Case Studies (TPICS), established for highway projects under SHRP 2 (Strategic Highway Research Program 2). The current project modified and extended TPICS to be directly applicable for public transportation case studies and developed pilot case studies to illustrate how it can work for public transit. The report covers the design and development of the case study database and web tool and includes a set of seven prototype case studies. The report examines issues concerning (a) the types of transit projects that are most applicable for case studies, (b) how economic impacts of transit projects can be measured and reported, and (c) how findings on transit projects may be interpreted. Differences between transit case studies and highway case studies are also discussed. Finally, the content of the prototype case studies is included in the report, along with discussion of how a more complete national database and web tool might be implemented and used." -- from TRID

(81 pages)

CONTENTS

- Summary
- Chapter 1. Background and Objectives
- Chapter 2. Case Study Selection and Compilation
- Chapter 3. Web Tool Development
- Chapter 4. Guidance for Web Tool Use
- Chapter 5. Conclusions and Follow-On Research
- References
- Appendix A. Database Dictionary
- Appendix B. Case Study Training
- Appendix C. Case Study Material

This report and supplemental materials are available for free download

<http://www.trb.org/Publications/Blurbs/174387.aspx>

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Item 12

Livable Transit Corridors: Methods, Metrics, and Strategies

TRANSPORTATION RESEARCH BOARD OF THE NATIONAL ACADEMIES

TCRP Report 187 • 2016

"This report presents practical planning and implementation strategies to enhance livability in transit corridors. The handbook provides a definition of transit corridor livability and a set of methods, metrics, and strategies—framed within a five-step visioning and improvement process—that communities can use to improve livability in their transit corridors. This process provides transit corridor stakeholders with a set of tools and techniques that can help in planning and building support for corridor improvements, screening alternatives in preparation for environmental review, identifying a corridor's livability needs, and developing an action-oriented set of strategies for improving transit corridor livability and quality of life. To assist handbook users in this process, a spreadsheet-based Transit Corridor Livability Calculator tool is also available for download from the TRB website (trb.org). The handbook presents five steps for planning livable corridors: initiate project; assess the corridor; identify goals; develop a vision; and implement strategies. The research methods included quantitative, statistical measurement and modeling of over 350 transit corridors in the United States as well as focused qualitative data collection and analysis of 17 case study corridors. Quantitative analysis was primarily used to identify the metrics that worked best to characterize the livability and quality of life outcomes of transit corridors, while qualitative analysis served to identify and evaluate the state of the practice of livability improvement strategies." -- from TRID (132 pages)

CONTENTS

- Handbook Introduction
- Section 1. Initiate Project (Step 1)
- Section 2. Assess the Corridor (Step 2)
- Section 3. Identify Goals (Step 3)
- Section 4. Develop a Vision (Step 4)
- Section 5. Implement Strategies (Step 5)
- Appendix A. Goals and Related Strategies
- Appendix B. Description of Implementation Strategies
- Appendix C. Coordination and Collaboration Strategies
- Appendix D. Livable Transit Corridor Typology
- Appendix E. People and Place Livability Combinations
- Appendix F. Metrics, Methods, and Data
- Appendix G. Statistical Analysis of Metrics and Typology Categories
- Appendix H. Calculator User Manual
- References

This report and calculator tool are available for free download:

<http://www.trb.org/Publications/Blurbs/174953.aspx>

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Item 13

Contracting Commuter Rail Services

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP RRD 112 • 2016

"Project G-14 was designed to provide guidance to public agencies and other key stakeholders in contracting commuter rail services. Currently, there are no guidelines or generally recognized best practices to consider in determining how to provide a city or a metropolitan region with commuter rail service (by direct operation and/or by contract). The digest resulting from Project G-14 presents potential approaches, an evaluation of the approaches, and guidance on how and when to apply different approaches to existing and new services; documents current commuter rail practices and gaps in knowledge; and provides an overview of the commuter rail systems operating in the United States and Canada. This digest has five chapters. Chapter 1 is the introduction and presents the digest organization. Chapter 2 provides information on the history and current status of commuter rail in North America. Chapters 3 and 4 provide a review of the regulatory environment for commuter rail in the United States and Canada, respectively. Chapter 5 discusses how each commuter rail agency approaches contracting for services." -- from TRID
(27 pages)

CONTENTS

- Chapter 1. Introduction
- Chapter 2. Overview
- Chapter 3. Regulatory Environment for Commuter Rail in the United States
- Chapter 4. Regulatory Environment for Commuter Rail in Canada
- Chapter 5. Contracting Commuter Rail
- References

This report is available for free download:

<https://www.nap.edu/catalog/23642/>

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Item 14

Use of Taxis in Public Transportation for People with Disabilities and Older Adults: A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP Synthesis 119 • 2016

"The synthesis explores just how public transportation agencies are using taxis to serve people with disabilities and older adults, and identifies the advantages as well as the challenges of that use. In addition, the experiences of transit agencies participating in the synthesis provide "lessons learned" that can be shared with other agencies that are considering taxis as a resource so those agencies can plan wisely. Thirty-nine of 45 transit agencies in the representative sample responded to a survey questionnaire, a response rate of 87%. Additional information is offered in a literature review and case examples." -- from TRID (103 pages)

CONTENTS

- Foreword
- Preface
- Summary
- Chapter 1. Introduction and Background
- Chapter 2. Literature Review
- Chapter 3. Survey Results
- Chapter 4. Case Examples
- Chapter 5. Conclusions
- References
- Appendix A. List of Transit Agency Respondents
- Appendix B. Survey Questionnaire and Results

This report is available for free download (5.2 MB):

http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_syn_119.pdf

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Item 15

Use of Automotive Service Excellence Tests Within Transit: A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP Synthesis 120 • 2016

"The Automotive Service Excellence (ASE) program is nationally recognized as the standard industry credential provider for automotive professionals. This synthesis documents how the ASE program is accepted and used within the transit bus maintenance community. Barriers preventing more widespread application and suggestions for additional research based on the findings are also provided. Survey responses regarding the program were obtained from 16 transit agencies surveyed and their staff technicians, instructors, and maintenance managers/supervisors/union representatives. Also, a survey mailing was distributed by ASE to its list of transit bus participants. A literature review presents information about ASE and its application to bus transit. Three case study examples provide targeted insight into how ASE is used to validate technician ability, provide incentives, and enhance training programs. The findings report that transit maintenance personnel, like their peers in the automotive industry and other craft professionals, take pride in passing tests and acquiring certifications that validate their knowledge and skills. ASE is accepted by most agencies as the organization to provide such certifications, although more can be done to increase awareness of the program and prove its value to transit. Most of the transit maintenance personnel surveyed report that they require more training in an industry where ensuring passenger safety is paramount and where the pace of technological change is accelerating. In addition, about half of those technicians surveyed do not believe the training they receive is sufficient to pass ASE testing and achieve certification." -- from TRID

(89 pages)

CONTENTS

- Summary
- Chapter 1. Introduction
- Chapter 2. Literature Review
- Chapter 3. Survey Responses
- Chapter 4. Case Examples
- Chapter 5. Conclusions
- Abbreviations and Acronyms
- References
- Appendix A. Listing of Transit Agency Participation
- Appendix B. Examples of Labor Contract Language Regarding ASE Testing and Certification
- Appendix C. Survey Questionnaires

This report is available for free download:

<https://www.nap.edu/catalog/23487>

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Item 16

Transit Agency Practices in Interacting with People Who Are Homeless: A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP Synthesis 121 • 2016

"This synthesis reports on effective practices, approaches, and outcomes regarding interactions within the transit industry with people who are homeless. A literature review summarizes reports that span from the 1980s to today. Because public libraries are similar to public transportation in offering services to all members of the general public and in being viewed as a safe haven for people who are homeless, the literature review also examines library policies and procedures related to people who are homeless. A web-based survey of transit agencies in North America documented current issues and practices regarding transit agency interactions with people who are homeless. The survey included transit agency assessments of factors contributing to the success or failure of various strategies. Six detailed case examples profile innovative and successful practices. Findings suggest that people who are homeless are an issue for transit agencies regardless of size, although larger agencies are more likely to characterize homelessness as a major issue. Successful policies target behavior rather than groups or individuals. Codes of conduct and consistent enforcement clarify agency expectations. Findings also suggest that partnerships are essential and that enforcement is necessary but not sufficient. Case workers and others at social service and nonprofit agencies have a much greater understanding of people who are homeless and they can persuade these individuals, who may initially be service-resistant, to accept services. Law enforcement personnel from transit police or security departments consistently emphasized the need for partnerships and the options these partnerships offered to their police officers. Transit agencies reported that partnerships result in enhanced customer security and perceptions, provision of help for those who need it, and increased sensitivity to the people and issues involved." -- from TRID

(88 pages)

CONTENTS

- Foreword
- Preface
- Summary
- Chapter 1. Introduction
- Chapter 2. Literature Review
- Chapter 3. Survey Results: Transit Agency Interactions with People who are Homeless
- Chapter 4. Survey Results: Assessment of Transit Agency Interactions with People who are Homeless
- Chapter 5. Case Examples
- Chapter 6. Conclusions
- Acronyms
- References
- Appendix A. Participating Transit Agencies
- Appendix B. Survey Questionnaire
- Appendix C. Summary of Survey Results

This report is available for free download:

<https://www.nap.edu/catalog/23450>

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Item 17

Transit Supportive Parking Policies and Programs: A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP Synthesis 122 • 2016

"Parking is a significant factor influencing transit access and ridership. Many communities and transit agencies have been revising their parking policies to encourage the use of transit and to minimize resources expended on parking. This synthesis documents transit agency parking policies and parking management at transit stations using three primary resources: a scan of current research on transit-supportive parking policies, an original survey distributed to a sample of transit agencies, and several brief agency profiles based on interviews and existing available data. Participating transit agencies represent a broad spectrum of service type, jurisdiction, ridership, mode, types of parking, and parking policy. A primary finding of this synthesis is that there is limited research that documents the impact of parking policies on transit ridership. Within the existing literature there are inconsistent findings regarding which parking policies support and promote the use of transit. The survey results also indicate that there are differing approaches to parking management to attract transit riders. Opposing approaches to achieve the same objective furthers the notion that parking management is highly contextual, as well as suggests that further research is warranted." -- from TRID

(69 pages)

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Research Digest

Item 18

Onboard Camera Applications for Buses: A Synthesis of Transit Practice

TRANSPORTATION RESEARCH BOARD (TRB). TRANSIT COOPERATIVE RESEARCH PROGRAM (TCRP)

TCRP Synthesis 123 • 2016

"Transit agencies across the country of every size are successfully using onboard camera applications for their buses for safety and security of bus operators and passengers, and they are reaping financial benefits while doing so. This synthesis provides practical examples of the technologies and opportunities currently in operation at large, medium, and small transit agencies across the country. It focuses on their collection of the media images, what they use them for, and how they keep up with the fast advances of surveillance technology. The study was undertaken to explore the current technologies, research, and opportunities, and to provide examples of how surveillance systems are used to improve operations, safety, security, training, and customer satisfaction. Thirty-two transit agencies responded to the electronic survey sent to 40 agencies, yielding an 80% (32/40) response rate. Based on the survey and in-depth interviews after the survey, five agencies were able to provide information for case examples of the details of their programs and their applications. All of the agencies that responded to the electronic survey achieved their goals of improving safety and security, as well as deterring criminal activity and reducing accident claims. Through coordination and support from multiple departments, the entire agency and public can reap the benefits from camera applications. Most important, customers and bus operators feel more secure and safer. Meanwhile, the agencies feel the impact of a reduction in legal claims payouts and decreased workers' compensation awards so much that they are measuring their return on investment." -- from TRID (70 pages)

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