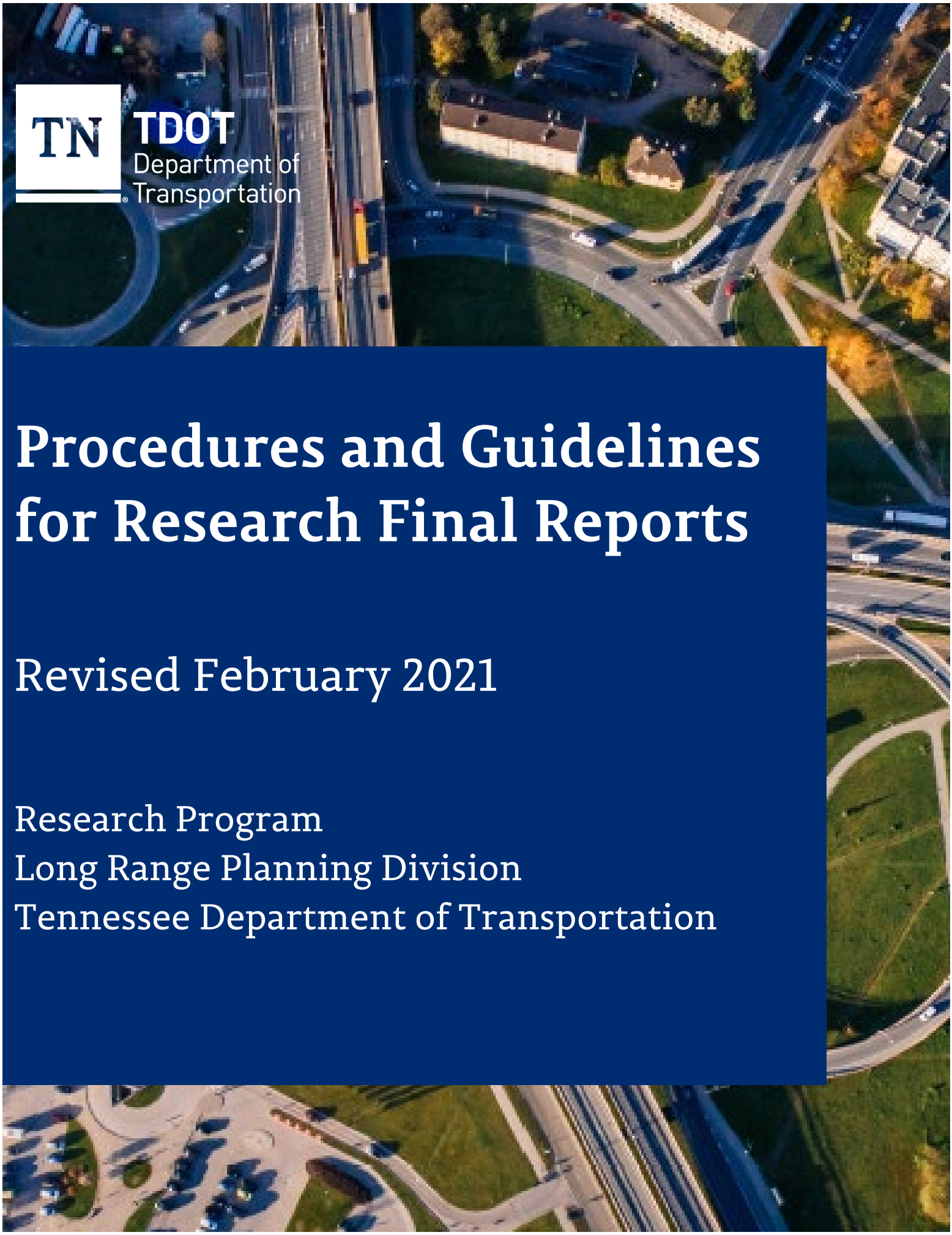

TDOT
Department of Transportation

Procedures and Guidelines for Research Final Reports

Revised February 2021

Research Program
Long Range Planning Division
Tennessee Department of Transportation

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1 Introduction

The following outlines the procedures and guidelines of the expectations of the Tennessee Department of Transportation (TDOT) Research Office for final reports submitted by Principal Investigators (PIs) for research projects sponsored by the Department. These guidelines were created to ensure all federal requirements for final reports are being met for all TDOT sponsored research projects, while also aiming to ensure high quality and publishable reports are submitted to the Research Office.

This document provides guidance on the following:

- The final report review process,
- The final report requirements, including submission and formatting guidelines, and
- An overview of the final report templates.

2 Report Review Process

Research reports go through a technical and editorial review process before the final submittal of the report. Before the draft report is submitted for review, it is the expectation of the Research Office that the PI will assure a thorough spelling and grammar check are completed; reports with more than 5 grammatical errors will not be accepted by the Research Office.

Process Overview and Requirements

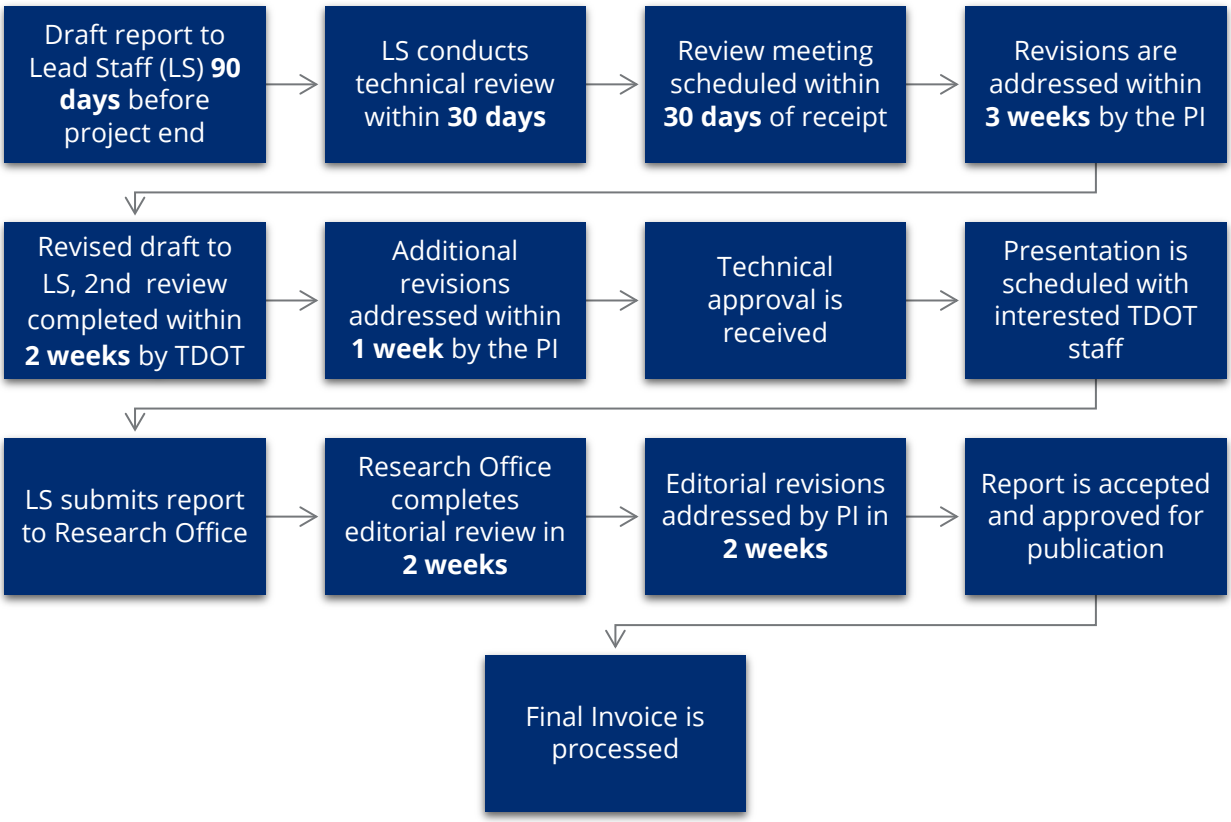
1. The draft report shall be submitted to TDOT Lead Staff for review **90 days** prior to the contract end date. The Research Office email (TDOT.Research@tn.gov) shall be copied on the submission of the draft report.
    - The draft must be a Microsoft Word version (.docx) to allow the reviewers to provide comments and feedback via track changes.
2. The TDOT Lead Staff person will conduct a technical review of the draft **within 30 days** to ensure that the report covers all requirements of the research project per the contract and adequately addresses all technical aspects of the research.
    - The draft may also be reviewed by additional subject matter experts within the Department or from a partnering agency.
    - An evaluation form will be completed at this stage to assess the acceptability of the draft report in its current form. The *Evaluation Form* is found in Appendix B.
    - **The Lead Staff person will set up a meeting with the PI to discuss all revisions, comments, and questions within 30 days of receipt of the initial draft. A Research Office representative must be included in the meeting.**
3. Once the technical review is complete, the research PI will be provided a Microsoft Word version (.docx) of the final report noting the requested revisions via track changes as well as the completed evaluation form.
4. All revisions must be addressed or made to the final report within 3 weeks of the meeting; the revised report must be sent back to Lead Staff again for technical approval. The response to all substantive comments should be documented via the *Final Report Comment Response Form* found in Appendix C. The Research Office should again be copied on the submission of the revised report.
5. Lead Staff will ensure that all technical comments have been addressed within 2 weeks from the PI's submission of the revised draft. Any additional required revisions shall be sent back to the PI and addressed within 1 week of email receipt from the Lead Staff person.
    - Any issues with timelines shall be addressed by both the Lead Staff's Division and the Research Office to ensure timely delivery and the ability for timely closure of the research project.
6. Once the report has received technical approval, Lead Staff will forward the report, evaluation form noting acceptance of the report, and all supporting documentation to

the Research Office (TDOT.Research@tn.gov). Lead Staff will notify (or copy) the PI on the submission to the Research Office for the editorial review.

- Concurrently, **Lead Staff will schedule a presentation of the project with interested parties**. The presentation shall discuss the objectives, findings, recommendations, and potential implementation for the project. Should any other developments come from this meeting, they can be amended into the report once the Research Office is notified of this intention by Lead Staff or the PI.

7. The Research Office will conduct an editorial review of the draft to ensure that it meets the guidelines outlined in Section 3 of this document. The review shall be completed within 2 weeks of receipt of the report from Lead Staff to maintain the contract schedule.
8. Research staff will provide editorial comments to the PI via track changes in Microsoft Word. These revisions may apply to readability, audience accessibility, and federal regulatory requirements
9. All editorial revisions must be addressed within 2 weeks by the PI.
10. Once an acceptable final report has been received by the Research Office, the PI will be notified via email that the report has been accepted and approved for publication by TDOT. **Only upon acceptance of the final report will the final invoice for the project be paid.**

Figure 1 Explanatory Visual of the Final Report Submission Process



3 Final Report Requirements

Below are the submission formatting guidelines for the final report as well as a description of required and optional sections of the report.

To ensure consistency of final reports, the Research Office requests researchers utilize the TDOT Final Report Template, which follows all formatting guidelines and includes all required sections of the report (see Appendix A).

The quality of your report is important as it will be reviewed by Federal, State, local, and other public and private transportation professionals and will be provided to Federal library systems for public availability. Please treat your submission of the final report the same as a submission to TRB or other top peer-reviewed journals.

A checklist of all final report requirements can be found in Appendix D. The *Final Report Checklist* serves as a guide to Principal Investigators before submission of the final report to self-certify the requirements have been met. Review this document before submitting the draft final report to TDOT to ensure the review process can be completed in an efficient manner and minimize revision requests.

3.1 Submission Guidelines

The final report submitted to the Research Office must incorporate all reviewers' comments and feedback. The following standard requirements apply:

- Provide an electronic Microsoft Word file (.docx) of the final report. The file must be emailed to TDOT Lead Staff and the Research Office (TDOT.Research@tn.gov).
- If the final report and the supporting documentation are larger than 10 MB, the report must be sent through either Google Dropbox or ownCloud (a file sharing service used by the State of Tennessee). Discuss the sharing mechanism both with Lead Staff and the Research Office as necessary.

Acceptance of the final report is based on the following criteria:

1. Fulfillment of the scope of work
2. Adequacy of documentation
3. Clarity of presentation
4. Confirmation that comments by Lead Staff and the Research Office have been sufficiently addressed
5. Adherence to the guidelines in this document

The Research Office and TDOT Lead Staff make the decision to accept and publish the final report. ***Failure to fulfill the criteria outlined above will prevent project closure and payment of the final invoice.***

3.2 Formatting Guidelines

As noted previously, the TDOT Final Report Template follows all formatting guidelines outlined below. The Final Report Template has been developed to coordinate with the branding guidelines of the State of Tennessee, including fonts and color schemes. The template can be found in Appendix A.

Accessibility

Research projects funded by TDOT are required to make electronic products accessible to people with disabilities under Section 508 of the Rehabilitation Act of 1973, as amended in 1998. See http://www.section508.gov for more information. Additional guidance and checklists for creating accessible documents is also made available by the General Services Administration, see http://www.gsa.gov/portal/content/103565.

Newer Microsoft Word versions (2010 and later) have a "check accessibility" function. Guidance on using the accessibility tool is provided by Microsoft at Microsoft.com Online Accessibility Center (https://www.microsoft.com/enable/).

FHWA has developed a guide on creating accessible Word files, find the guide at: https://www.fhwa.dot.gov/508/docs/had20001.pdf.

See the checklist found in Appendix E for general guidance. This checklist is used by the Research Office for the final report approval process.

Font and Length

The main text of the report must use 10.5-point font, Open Sans; headings must be no larger than 22-point font. If Open Sans is not available, a comparable sans serif font is acceptable (such as Arial or Helvetica).

The body of the report (not including the cover page, disclaimer, technical documentation page, acknowledgements, table of contents, executive summary, references, and appendices) should be no longer than **50 pages,** single spaced. Any PI anticipating exceeding this 50-page limit should consult Lead Staff and receive approval prior to submitting the report.

Tense

As the project will have been completed prior to the report, the narrative should heavily utilize the past tense throughout when describing what occurred.

Margins and Spacing

Margins must be 1-inch on all sides. Single line spacing must be used throughout the report. The spacing after paragraphs and headings is already formatted; please do not adjust this setting in the template.

Page Numbering

Page numbers shall be vertically centered using 10.5-point font. Page numbering begins with the Introduction and continues through the final page of the report, including appendices. Pages after the cover page shall be numbered with Roman numerals starting at page i.

References and Citations

For works cited in the report, include them on the reference list. Follow the American Psychological Association (APA) style or the Institute for Electrical and Electronics Engineers (IEEE) style for the references.

For APA style, refer to the Manual of the American Psychological Association, 6th edition, or www.apastyle.org for examples and detailed information. For IEEE style, refer to the IEEE Reference Guide at https://ieeeauthorcenter.ieee.org/wp-content/uploads/IEEE-Reference-Guide.pdf.

Your final report will be run through a plagiarism checker. Any deliverable with recognized plagiarizing will not be accepted.

Color Scheme

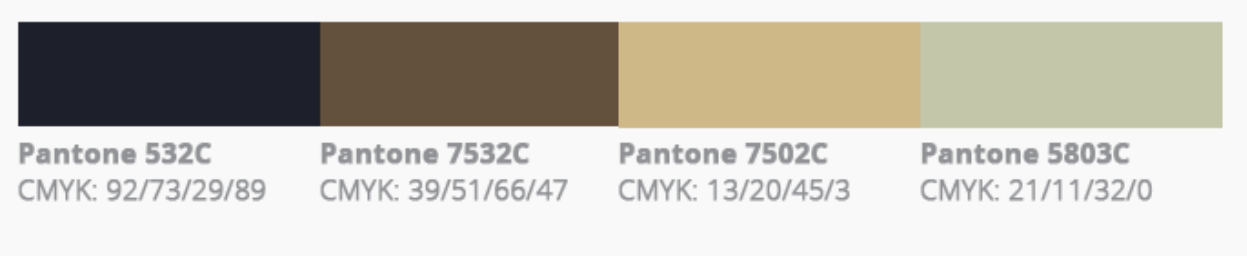
To keep in line with the State of Tennessee's branding guidelines, the color scheme of the report shall adhere to the color palettes below.

Primary Palette

Below is the primary color palette for all reports. Red, navy and gray should be given prominence, with the supporting colors reserved for accents. The RGB numbers for each color are as follows: 210/39/48 (Red), 0/45/114 (Navy), 117/120/123 (Gray).

Supporting Palette

The color palette below should be used in support of the primary palette. The RGB numbers for each color are as follows: 29/31/42 (Black), 99/81/61 (Brown), 206/184/136 (Beige), 195/198/168 (Matte Green).



Figures and Tables

Figures include photographs, graphs, equations, charts, illustrations, and maps.

- All figures and tables must be linked appropriately in the list of figures and list of tables section.
- Figures and tables must be numbered to correspond with the section (i.e. Table 1.1, Table 1.2, Figure 1.1, Figure 1.2).
- Each table and figure must be referenced at the appropriate place in the text.
- Do not use lettering for tables and figures smaller than 10 point.
- All graphs must have labeled y- and x- axes.
- Tables and figures must have titles and be consistent with the chosen citation style.
- To comply with Section 508, **all figures that convey information** must have alternative text (Alt Text) descriptions. At minimum, this includes a figure caption.
- For additional guidance on figures and tables, see the *Section 508 Accessibility Checklist* in Appendix E.

3.3 Report Overview

Research final reports must include the following items in the order specified below. As noted previously, the body of the final report should not exceed **50 pages**; final reports ought to be written to be as concise and succinct as possible.

- Cover page (see the TDOT Final Report Template in Appendix A)
- Disclaimer notice (see the TDOT Final Report Template in Appendix A)
- Technical Report Documentation Page (TCRP) (see the TDOT Final Report Template in Appendix A)
- Acknowledgements page (as applicable)
- Executive Summary
- List of Key Terms and Acronyms (as applicable)
- Table of Contents

- Body of the Report (Introduction, Literature Review, Methodology, Results and Discussion, and Conclusion)
- References
- Appendices (as applicable)

Cover Page

The template for the cover page of the report is provided by TDOT, see Appendix A. The cover page shall include a clear and concise title, the authors(s), the research agency, the report date, and the sponsoring agencies.

Disclaimer Notice

The disclaimer notice template is provided by TDOT, please see Appendix A. The disclaimer must include the RES number given by TDOT and the title of the research project. If any portion of a final report must be translated into another language for public review, another disclaimer in the language will need to be provided. Please reach out to the Research Office if this is needed.

Technical Report Documentation Page

The PI must complete the Technical Report Documentation Page (Form DOT F 1700.7 (8-72)) as required by the Federal Highway Administration. This document is used to help enter information about the project into research databases such as the Transportation Research Information Database (TRID). Instructions for completing it can be found at this link: http://sp.research.transportation.org/Documents/RAC%20Docs/Report%20Guidelines%20and%20Requirements%20Page/1972_TRDP_GUIDELINES_03_01_16.pdf.

Acknowledgements Page

While optional, the acknowledgements section should include the names, titles, and affiliations of the individuals involved in the project and recognize the contributions made to the research. Other acknowledgements towards sponsors should be added. Those that assisted with the report's creation can be added at the researcher's discretion.

Executive Summary

The executive summary should clearly summarize the purpose of the research, the scope of work, findings, and recommendation. The executive summary shall not exceed five pages and should include a short summary of the work done, the methods used, and the general findings from the project.

Glossary of Key Terms and Acronyms

When necessary, define key terms the reader may be unfamiliar with and identify all acronyms used throughout the final report.

Table of Contents

The table of contents must include the section titles, a list of tables and figures, references, and appendix titles. **The table of contents, including all tables and figures, must be properly linked to the major sections of the report.**

Body of the Report

The body of the report ought to be written in such a way that a transportation practitioner is able to easily understand and later implement the findings and recommendations of the research project. The following format shall be followed:

- Introduction – The introduction serves to provide background information on the research topic; the objectives of the research and the scope of work covered with the research should be clearly defined.
- Literature Review – This section should thoroughly report findings from previous research related to the topic.
- Methodology– The method of data collection, data analysis, and research procedures must be clearly described.
- Results and Discussion – The research results must be clearly defined; this section should also include a discussion of the findings and the implications.
- Conclusion – Describe how the conclusions are justified from the data presented and analyzed, suggestions for future research, and recommendations on how TDOT can implement the findings.

References

All references cited in the final report must be listed. As mentioned above, the APA style or IEEE style are to be followed for references. Plagiarism software will be used to ensure no references are missed.

Appendices

The appendices can include any supplementary material that is directly or indirectly related to the research. If any document is determined too large to be included, the deliverable shall be sent to the Research Office where it can be provided upon request. Appendices can include the following:

- Forms
- Surveys used for the research project
- Manuals and guidelines
- Documentation and further elaboration of research findings
- Formulas and mathematical analyses

3.4 Report Publication

The approved final report will be made publicly accessible on the Research Office website (https://www.tn.gov/tdot/long-range-planning-home/longrange-research/longrange-researchprojects.html). The Research Office will also update the Research in Progress (RiP) database managed by the Transportation Research Board to allow other research organizations to review and access the research. Additionally, the report is shared with the following, as mandated by FHWA:

- FHWA Research Library
- Turner-Fairbank Highway Research Center
- National Transportation Library
- National Technical Information Service
- Transportation Library, Northwestern

The University/PI may publish any material developed through the completion of the research project with consent from TDOT's Research Office. A formal acknowledgement must be included in any presentations or publications stating the research project has been done in conjunction with TDOT. The publication must also include the following statement:

"The opinions, findings, and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Tennessee Department of Transportation or the U.S. Department of Transportation."

Please notify TDOT of any publications, papers, or media attention related to a TDOT sponsored project. When an article or a story appears in the media, TDOT's Community Relations and Communications Division often receives inquiries; we ask to be notified in advance of any media activities to allow our Community Relations Division to prepare the appropriate response.

3.5 Best Practices

- **Keep in mind the audience of the report.** TDOT strives to fund applied research, therefore, transportation professionals must be able to easily read the report, understand the outcomes, and work on implementing the findings within the organization. The report should be succinct, well-organized, and avoid being too technical or academic in nature. Find guidance for using plain language here: https://www.plainlanguage.gov/guidelines/.
- **Do a thorough review of the report before sending it over to TDOT.** The most common reason reports are not accepted by the Research Office is due to grammatical errors/formatting issues. It is best practice to have a technical editor review the report before it is submitted to the Department. Research reports not only reflect TDOT but also reflect the University and research team, thus a high-quality deliverable should be of

importance to all parties.

- **Aim for a visually pleasing report.** To make the report accessible for the intended audience, it is important to put the right touches into the appearance of the report. The guidelines in this document and the TDOT Final Report Template have been established for that purpose. Also, see the Guidelines for Figures and Tables for more tips.
- **Keep the report as concise as possible.** To the average transportation professional, length matters. Include only the information necessary to achieve the research objectives; be particularly mindful of redundancies.
- **Interpretation of results helps us determine application.** While the possibilities for next steps from a research project may seem endless, we want to know what the researchers think is the best course of action (based on conversations with the Lead Staff, of course.) This helps us determine the application and implementation of what has been presented. *We want to know how this research will ultimately affect TDOT's performance (preferably through quantitative descriptions of improvements).*

Appendices

Appendix A

TDOT Final Report Template

TN TDOT Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

(Title)

(Subtitle {If Necessary})

Research Final Report from (University) | (Authors) | January 19, 2021

Sponsored by Tennessee Department of Transportation Long Range Planning
Research Office & Federal Highways Administration

(University Logo(s) in Footer. Mark as Decorative.)

DISCLAIMER

This research was funded through the State Planning and Research (SPR) Program by the Tennessee Department of Transportation and the Federal Highway Administration under ***RES #: Research Project Title: .***

This document is disseminated under the sponsorship of the Tennessee Department of Transportation and the United States Department of Transportation in the interest of information exchange. The State of Tennessee and the United States Government assume no liability of its contents or use thereof.

The contents of this report reflect the views of the author(s) who are solely responsible for the facts and accuracy of the material presented. The contents do not necessarily reflect the official views of the Tennessee Department of Transportation or the United States Department of Transportation.

Technical Report Documentation Page

1. Report No. RES	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle *Times New Roman 10 pt Italicized*		5. Report Date July 2005
		6. Performing Organization Code
7. Author(s)		8. Performing Organization Report No.
9. Performing Organization Name and Address Agency (Times New Roman 10pt) Address City, State, Zip Code		10. Work Unit No. (TRAIS)
		11. Contract or Grant No.
12. Sponsoring Agency Name and Address Tennessee Department of Transportation 505 Deaderick Street, Suite 900 Nashville, TN 37243		13. Type of Report and Period Covered
		14. Sponsoring Agency Code
15. Supplementary Notes		
16. Abstract The abstract should not make the TRDP longer than one-page. Times New Roman 10-pt font required (200-300 words)		
17. Key Words **TIMES NEW ROMAN 12 PT, ALL CAPS, BOLD**	18. Distribution Statement	

19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages xxx	22. Price

Acknowledgement

(Optional)

Please include a formal acknowledgement in any presentations made on TDOT sponsored projects and notify TDOT of any publications, papers, or media attention related to a TDOT sponsored project. The acknowledgement should state the research project has been done in conjunction with TDOT. When an article or a story appears in the media, TDOT's Office of Customer Relations and Information often receives inquiries. It helps to let them know in advance so that they are not caught off guard and are prepared to respond.

Executive Summary

The Executive Summary should be no more than 5 pages. It should state the purpose and major points. Each major point should be briefly covered in its own paragraph.

Key Findings

Provide a short summary with how the findings were informed by the research.

- Use bullet points
- Keep to 4-5 points total

Key Recommendations

Provide a short summary with potential benefits of the recommended course of action.

- Use bullet points
- Keep to 4-5 points
- Provide justifications for each point

Table of Contents

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Chapter 5 Conclusion 6
References 7
Appendices 8

List of Tables

Instructions: To Insert the Tables and Figures, go to the 'References' tab, then select 'Insert Table or Figures'. Ensure your Tables are labeled correctly for the citation style being used in the report. Figures should be numbered by which chapter they appear in (see example on next page for figures). For tables, use the 'Insert Caption' function to add numbers and titles to figures and tables. To find the 'Insert Caption' option, right click anywhere in a figure or right click on the all-direction arrows in the top left corner on a table, then select 'Insert Caption'.

List of Figures

Figure 1.1 .....

Figure 1.2 .....

Glossary of Key Terms and Acronyms

(Optional)

When applicable, define terms and acronyms used in the document that are defined specifically for the means of this report or that the reader may be unfamiliar with.

Chapter 1 Introduction

In this section, establish the scope, context, and significance of the research. State the research problem, the purpose of the work, briefly explain the methodological approach, and highlight what outcomes could be developed. Maintain TDOT's required formatting and refrain from strictly copy-pasting from the project's proposal. Lastly, outline the structure/organization of the report.

Make sure to emphasize what you want the reader to think about or react to throughout the report.

Consider using side quotes to emphasize key points. **Text for quotes must be directly quoted from the narrative.** *Quotes must be turned into images for them to be used. Right click and choose "Edit Alt Text" and check "Mark as Decorative" for any images with these quotes.*

1.1 Example Subheading

Additional text should be indented for each subheading.

Chapter 2 Literature Review

Provide an overview of topics and sources that contribute to understanding the research need and any gaps that may currently exist in the topic area. Demonstrate to the reader how each topic category fits into the larger narrative and describe relationships between categories. Should be 3-5 pages. For more information on recommendations for lit review organization, use 'Ctrl + click' to visit this website: https://libguides.usc.edu/writingguide/literaturereview.

2.1 Example Subheading

Additional text should be indented for each subheading.

Chapter 3 Methodology

This section should fully discuss the underlying reasoning for why particular methods were used. The methodology should answer two main questions: How was the data collected or generated? And, how was it analyzed? The writing should be direct and precise and always written in the past tense. Ultimately, we should understand the extent to which the methods used were valid, reliable, and replicable from the narrative regarding the data collected and its further analysis.

4.1 Example Equation

Here is an example of an equation:

$$(1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \cdots$$

For all equations, use the equation capabilities of Word, or use the exact symbol in in-line sentence notation (no approximations). Please include a comment next to the equation with the equation written out as if it were read aloud to a peer (For example, “Open parenthesis, one plus x, closed parenthesis, to the n equals one plus n times x over one factorial plus n times open parenthesis, n minus one, close parenthesis, times x squared over two factorial plus the continued sequence”). The description provided will be added to the PDF that the Research Office creates from the approved final report.

4.2 Example Picture

Figure 0-1 IEEE Example Photo. Notes about photo. All figures should be in-line with text.

Tips: Using Larger/Wider Figures and Tables (Also an Example List):

1. Landscape Orientation: To improve readability of large graphs and tables, insert section breaks on the page before and page of the graphic by clicking "Next Page" break in the 'Layout' tab under 'Breaks'. Then, in the Layout tab, select 'Orientation', then select 'Landscape'.
2. To remove the Page Border from the Footer, select inside the footer where the graphic is. Select the 'Designer' tab in the ribbon above. Select "Different First Page", then delete the page border to prevent the border from overlapping the table or figure.
3. Keep tables to one page where possible. If not, re-use the table's headings for each new page as recommended for 508 compliance.

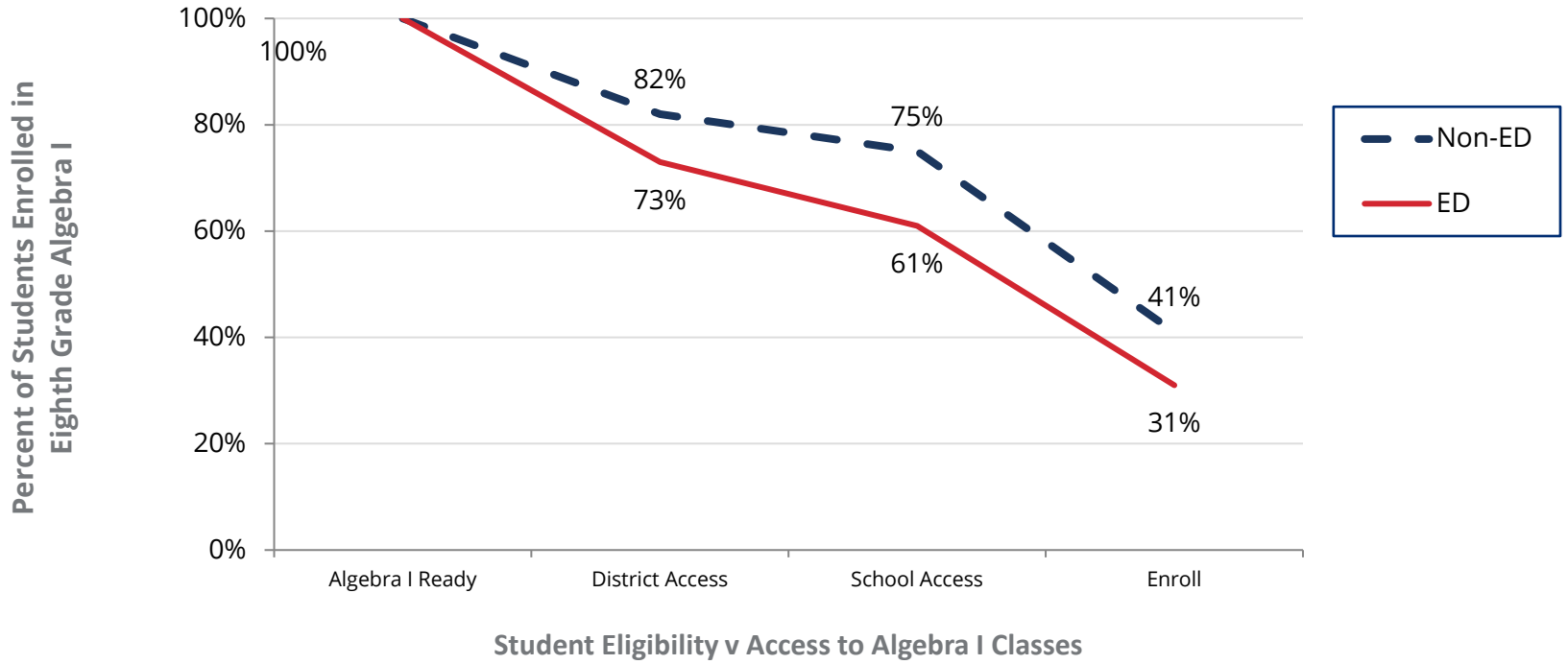

Figure 0-2 IEEE Style Figure Additional notes go after the title. These notes can suffice as the description of the graph that might otherwise go in the alt-text box for 508 compliance. If so, mark the figure as decorative in the 'Edit Alt Text' section. The text for captions should be aligned left for this citation method.

Chapter 4 Results and Discussion

THE DISCUSSION MUST INCLUDE THE FINAL UPDATES ON THE DELIVERABLES, MENTION THE BENEFITS TO TDOT, AND THE POTENTIAL FOR IMPLEMENTATION.

(Sides quotes should follow the color motif described in Final Report Instructions. Important quotes, statistics, or findings would be appropriate as a side bar note for results/discussion.)

Restate the research problem underpinning the study. State the findings of the research in a logical sequence. It is important to remember that the results do not necessarily have to prove anything but should be reported, nonetheless. Avoid providing data that is not critical to answering the research question.

We recommend providing a finding and explaining it before presenting another finding. The narrative can be tied together in the concluding section of the results before moving into the discussion. Strategically use non-textual elements to illustrate findings.

The Discussion can be in this section or a section on its own. What is important is that the Discussion clearly explains how the study advanced the reader's understanding of the research problem starting from the end of the review of prior research. It should also help develop solutions to the problem presented. Here, we should extrapolate meaning, possible implications, and explore improvements. Provide, as best as possible, the evidence-based interpretation of the findings. Any conjectured interpretation should be used with clear identification as a possible explanation and must be supported by previous work.

For the Discussion, use the present tense unless referring to prior works or studies, then use past tense. This section should also cover the limitations and weaknesses of the project as they are important to the next steps for TDOT.

TABLE I

IEEE STYLE EXAMPLE TABLE TITLE: USE SMALL CAPS & ROMAN NUMERALS, ALIGN TO CENTER

Row Title	*Column (measurement)*	*Column (measurement)*
Row 1	123	123
Row 2	456	456
Row 3	789*	789

Note: IEEE Style Tables Notes.
*Reason for asterisk (i.e. $p < .05$, two-tailed)

Chapter 5 Conclusion

This section should review the purpose and main points covered as well as provide final thoughts on the research project's issues, larger significance to the study area, the impact, and provide a sentence or two on insights into thinking on this particular area of research.

IT IS REQUIRED TO DISCUSS RECOMMENDATIONS FROM THE PROJECT VIA FEDERAL REGULATIONS FOR FINAL REPORTS.

References

1. The USC Libraries Guide on Writing Reports was used for our guidance. More information can be found here: https://www.hhs.gov/web/section-508/accessibility-checklists/index.html. (Note: This is not intended to be an example of a proper citation but for report guidance.)

Appendices

Appendices should be separated by category and may include correspondences, interview transcripts, non-textual elements, questionnaires or surveys, research instruments, sample calculations, or raw statistical data. Include raw data used in the making of the report. If the raw data is extensive and would be cumbersome to include, provide the documentation to TDOT Lead Staff and the Research Office in a separate, readable file. Deliverables that are separate from the research project should be provided separately in this manner as well.

Appendix B

Final Report Evaluation Template

Research Project Final Report Evaluation Form

Please complete all sections in blue

Research Project Number and Title:	RES
Principal Investigator(s):	
Research Agency:	

Part I: Place an "Y" or "N" next to the response that most closely matches your assessment of each of the following items. While these ratings are helpful in assessing the quality of a draft report, written comments are typically the best method for conveying this information. Editorial comments are welcome; however, the reviewer should focus primarily on the technical evaluation of the documents.

Factors	Guidelines	Y/N	Comments
Title	1. Is **the title** clear, and promise no more than the study can provide?		
Executive Summary	2. Does the first sentence contain a clear **statement of the purpose**?		
	3. Are all **research areas** evaluated briefly described?		
	4. Does it **conclude** with a paragraph about the research conclusions, benefit, and implementation?		
Introduction	5. Does it clearly **state the purpose** of the study?		
	6. Is the **problem and its significance** clearly stated?		
Objectives/ Scope of Work	7. Is the **need described**, then specific questions raised/hypotheses derived?		
	8. Is **the scope of work** defined with **objectives** clearly stated?		
	9. Are **assumptions and limitations** stated?		
Literature Review	10. Is a **summary** included with subject matter adequately covered?		
	11. Is it well organized with **important findings** noted?		
Methodology	12. Are **samples/relevant variables** described with necessary **controls**?		
	13. Are data-gathering instruments appropriate?		
	14. Are **validity and reliability** established?		
	15. Are **methods** clearly described, referenced, and replicable with appropriate design?		
Results and Discussion	16. Are **findings/deliverables** for the experiment defined and summarized?		
	17. Are they clearly presented with **supporting statistical analyses** and/or charts and graphs when appropriate?		
Benefits/ Execution	18. Are **benefits** to TDOT described fully (i.e. what, how, why?)		
	19. Can the research results be **implemented** at TDOT?		
Conclusion	20. Are **conclusions** justified by the data and analyzed effectively?		
	21. Are **recommendations** clearly stated and organized by type?		
Glossary/ Acronyms	22. Is a glossary or list of acronyms/abbreviations provided? If not, is one needed?		
Appendices	23. Should anything be **moved to the appendices** or vice versa?		

<u>Part II:</u> Place an "X" under the statement that most closely matches your assessment of the final report and/or executive summary. Then please provide additional comments to explain your reasoning for your assessment.

Assessment Grade	Reviewer recommendation for the final report:	Reviewer recommendation for the executive summary:
The draft is acceptable in its present form. No modifications are needed.		
The draft is acceptable with the inclusion of the supplied comments. The submission of a revised draft report is not necessary.		
The draft is in need of significant revisions. A revised draft report based on the supplied comments should be submitted for further review.		
The draft is in need of major revisions. A meeting with the PI to discuss the comments provided and submission of a revised report is requested.		

Additional Comments:					
Reviewer:		**Division:**		**Date:**	

Submit the completed review electronically to: TDOT.Research@tn.gov

A copy of this evaluation form will be provided to the PI along with the requested revisions. Once the draft is considered acceptable, submit the draft report along with the completed evaluation form to the Research Office. Copies of marked-up pages from the draft documents may also be submitted to the Research Office.

Part III: To be completed by Research Office staff.

Factors	Guidelines	Y/N	Comments
Cover Page	1. Is all the requested information on the cover page included?		
Disclaimer	2. Does the disclaimer language remain unchanged?		
	3. Are the RES number and title included?		
TRDP	4. Is the Technical Report Documentation Page completed as required by FHWA?		
Acknowledgement	5. Are acknowledgements appropriately noted?		
Executive Summary	6. Does the executive summary not exceed 5 pages?		
Table of Contents	7. Does the table of contents include section titles, references, and appendix titles?		
	8. Is the table of contents appropriately linked?		
	9. Does the report include a list of tables and figures?		
	10. Are the list of tables and figures appropriately linked?		
Report Body	11. Does the report follow the required format: Introduction, Literature Review, Methodology, Results and Discussion, Conclusion?		
	12. Does the body of the report include the data collected, analyses performed, conclusions, and recommendations as required by FHWA?		
References	13. Are all references cited properly and listed in the references section?		
	14. Is APA style or IEEE style used for references?		
Tables & Figures	15. Are all tables and figures appropriately numbered (i.e. Table 1.1, Figures 2.1, etc.) and titled?		
	16. Are all tables and figures referenced in the appropriate place in the text?		
	17. Do all graphs have labeled y- and x-axes?		
Formatting & Grammar	18. Does the report utilize the required final report template?		
	19. Is the report free of grammatical errors? (Fewer than 5 errors)		
	20. Does the report primarily use appropriate tenses?		
	21. Does the body of the report exceed 50 pages, single spaced? If the limit is exceeded, was prior approval received from Lead Staff?		
	22. Does the report adhere to accessibility requirements as outlined in Section 508 of the Rehabilitation Act of 1973? See the *Section 508 Accessibility Checklist.*		

Additional Comments			
Reviewer:		**Date:**	

Appendix C

Final Report Comment Response Form

Final Report Comment Response Form

Research Project Number:	RES
Research Project Title:	
Principal Investigator(s):	
Research Agency:	

Document below the substantive requested revisions and feedback from Lead Staff and the Research Office and note how the PI/research team responded accordingly. Add/delete rows as necessary.

Comment Number	Page Number	Reviewer Comment	PI Response
1			
2			
3			
4			
5			
6			
7			
8			
9			

Appendix D

Final Report Checklist

Final Report Checklist

Note: This checklist summarizes all final report requirements as outlined in the "Procedures and Guidelines for Research Final Reports." This document serves as a guide to Principal Investigators before submission of the final report and should be used to self-certify the requirements have been met. Review this document before submitting the draft final report to TDOT to ensure the review process can be completed in an efficient manner and minimize revision requests.

Submission & Review

Check	Guidelines
☐	Report is a Microsoft Word file (.docx).
☐	Draft report is submitted to TDOT Lead Staff **90 days** prior to contract end date.
☐	Meeting requested from Lead Staff to address revisions held within 30 days of receipt. Research Office has been invited.
☐	All revisions requested by Lead Staff have been addressed within 3 weeks of meeting.
☐	Additional editorial revisions from Research Office sent and addressed within 2 weeks of receipt of the report from the Lead Staff.

Formatting & Grammar

Check	Guidelines
☐	**Grammar:** The report is free of grammatical errors.
☐	**Accessibility:** Report adheres to accessibility requirements as outlined in Section 508 of the Rehabilitation Act of 1973. *See Section 508 Compliance Checklist.*
☐	**Length:** The body of the report does not exceed 50 pages, single spaced. If the limit is exceeded, prior approval was received from Lead Staff.
☐	**Font:** Report uses 10.5-point font, Open Sans. Headings are no larger than 22-point font. Font utilized is unadorned, with no extra decorations or flourishes for easy readability.
☐	**Tense:** Report primarily uses past tense to describe what occurred.
☐	**Margins:** Margins are 1-inch on all sides.
☐	**Spacing:** Report is single spaced, double spacing is used between paragraphs and headings.
☐	**Page Numbering:** Page numbers are vertically centered in at least 10-point font.
☐	**References and Citations:** APA style or IEEE style is followed. All references are properly cited and included in the reference list.

Report Structure

Check	Guidelines
☐	**Cover Page:** All requested information in the Final Report Template is complete.
☐	**Disclaimer Notice:** The disclaimer language has not been changed; the RES number and title are included.
☐	**TRDP:** The completed Technical Report Documentation Page is included.
☐ ☐ **N/A**	**Acknowledgements Page:** Acknowledgements are appropriately noted.

Check	Guidelines
☐	**Executive Summary:** The executive summary is no longer than 5 pages and summarizes the research purpose, scope, findings, and recommendations.
☐ ☐ N/A	**List of Key Terms and Acronyms:** Acronyms used throughout the report have been identified and key terms have been defined.
☐	**Table of Contents:** The table of contents includes section titles, references, and appendix titles. A list of tables and figures is included.
☐	**Report Body:** The following format is followed: Introduction, Literature Review, Methodology, Results and Discussion, and Conclusion.
☐	**References:** All references cited are properly listed.
☐	**Appendices:** Supplementary material directly or indirectly related to the research is included.

Figures & Tables

Check	Guidelines
☐	Figures and tables are appropriately linked in the list of figures and list of tables.
☐	Figures and tables are numbered appropriately (i.e. Table 1.1, Figure 2.1, etc.).
☐	All figures and tables have a title.
☐	All figures and tables are referenced in the appropriate place in the text.
☐	All lettering for figures and tables is no smaller than 10-point font.
☐	All graphs have labeled y- and x-axes.
☐	**All figures have alternative text descriptions.**

Appendix E

Section 508 Accessibility Checklist

Section 508 Accessibility Checklist

Instructions: Use this checklist before submitting the final report to TDOT to ensure the document is accessible to people with disabilities as required by Section 508 of the Rehabilitation Act of 1973, as amended in 1998. Reference the FHWA guide on how to create accessible Word files (https://www.fhwa.dot.gov/508/docs/had20001.pdf).

Document Properties

Check	Guidelines
☐	The report title replaces the file name and is descriptive and reflects the content of the document.
☐	The title and author have been added to the properties of the document.
☐	The appropriate language has been selected for the document. If specific words or parts of the document are in a language other than English, the language has been updated.
☐	Document is saved as a docx file.

Layout & Formatting

Check	Guidelines
☐	Font utilized is unadorned, with no extra decorations or flourishes for easy readability.
☐	Font colors against a background pass minimum contrast requirement (4.5:1).
☐	Text can be resized and read when zoomed to 200% without assistive technology (except for captions and images of text).
☐	Document uses Style elements appropriately (i.e. Heading 1, Heading 2, Heading 3, etc.).
☐	No flashing/flickering text or images are used. Animated content has an alternative or is described in text.
☐	Automatic page numbering function in Microsoft Word is used.
☐	Built-in tools are used to create lists, tables, columns, footnotes/endnotes, and symbols.
☐	Spacing between paragraphs, headings, and other elements is styled.
☐	All tracked changes have been accepted or rejected. The Track Changes function is off. Comments have been removed.
☐	All URLs are hyperlinked properly and display the full URL with the http prefix. (https://www.tn.gov/)

Figures

Check	Guidelines
☐	All figures that convey information have alternative text (Alt Text) descriptions. Images that are just decorate do not require an Alt Text description but must be marked as “decorative.”
☐	More complex images (such as charts and graphs) are described in the body text immediately preceding or succeeding the image. Complex images are followed by figure captions.
☐	Alternative text does not repeat the caption or other surrounding text.
☐	Alternative text does not start with “this is an image of,” but provides a meaningful description of the figure as succinctly as possible.
☐	The report is free of background images and watermarks.
☐	The text-wrapping style “In Line with Text” is used for all figures with alternative text.

Check	Guidelines
☐	Multiple associated figures on the same page (e.g. boxes in an organizational chart) are "grouped" as one object.
☐	Multilayered objects have been "flattened" into one image and use one Alt Text description for the image.

Tables

Check	Guidelines
☐	Tables have been inserted to create a tabular structure (rather than using tabs or spaces to create a table).
☐	Tables have a logical reading order from left to right, top to bottom.
☐	The first row for each table is designated as a "Header Row" in Table Design Tab for Office365.
☐	Tables are free of "merged cells." Complex tables with merged cells cannot be made accessible in Word, these should only be used when absolutely necessary.
☐	All tables are described in the body text.
☐	Tables are titled and numbered using a defined table style (use Insert Caption).
☐	In Table Properties, "Allow row to break across pages" is unchecked (in Table Properties).
☐	The report is free of pictures of tables.

Other Standards

Check	Guidelines
☐	The Table of Contents for the report, figures, and tables are automatically generated from the Reference > Table of Contents menu.
☐	Complex equations are added using the Microsoft Equation 3.0. A description (of how the equation would be read aloud to a peer) is provided to be added to the PDF version of the report by the Research Office.
☐	Color is not used as the sole method of conveying content or distinguishing visual elements (such as size, shape, and location). See examples here: https://accessibility.psu.edu/images/charts/
☐	Text boxes conveying new information are "in line with text;" text boxes that are purely decorative (e.g. direct quotes from the text) are marked as such (decorative text boxes do not need to be "in line with text").