Transit Development Plan (TDP)

Guidelines

DRPT
Virginia Department of Rail and Public Transportation

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DRPT

Virginia Department of Rail and Public Transportation

Contents

I.   Transit Development Plans

The Virginia Department of Rail and Public Transportation (DRPT) requires that any public transit operator receiving state funding complete either a Transit Strategic Plan (TSP) or a Transit Development Plan (TDP). Transit operators *not* subject to TSP requirements must complete a new TDP at least once every 10-years and develop a mid-cycle update at least every 5-years. This guidebook was prepared to support Virginia's transit providers in preparing and updating TDPs and describes their purpose, update frequency, and required elements.

II.   Detailed Purposes of a Transit Development Plan

It is helpful to approach the preparation of a TDP as a critical planning process. A TDP is not an operations plan. By its very nature, TDPs must address strategic issues. TDPs offers opportunities to rethink the goals of transit operators and identify needs and strategies to achieve those goals. A TDP is not intended to supplant an implementation plan for a system redesign. Preliminary planning and initial vision for a system redesign process may be included in an agency's TDP, however, such process may not replace the completion of a TDP.

TDPs serve a variety of purposes:

1. They serve as a planning, management, and policy document for transit operators;
2. They provide a review and assessment of route performance, route design standards, and schedule standards;
3. They inform DRPT of transit operators' capital, operating, state of good repair, and maintenance needs;
4. They provide the basis for inclusion of an operator's capital and operating programs in planning and programming documents such as: the Six Year Improvement Program (SYIP), Statewide Transportation Improvement Program (STIP), Transportation Improvement Program (TIP) and Constrained Long Range Plan (CLRP);
5. They provide a clear understanding of unmet or unfunded needs;
6. They develop and track the progress of short-, mid- and long-term goals for transit in the region;
7. They continually aim to improve efficiency and effectiveness of public transportation services;
8. They promote transparency and accountable decision-making.

III. TDP Parameters

Agency Size Requirements

TDPs are required for all transit operators who are *not* subject to the Transit Strategic Plan (TSP) requirements.requirements.

Planning Horizon

The planning horizon for a TDP is 10-years; this includes the fiscal year for which funds are being sought and the subsequent nine (9) years. The minimum 10-year planning horizon will provide a clearer understanding of any unmet or unfunded needs. Transit operators must *fully* update their TDP at the end of each 10-year planning horizon.

A longer planning horizon allows for agencies to better prepare for SMART SCALE and other discretionary grant programs. A longer planning horizon also reflects significant capital replacement/rehabilitation needs, or the capital and operating budget implications of significant service expansion.

Update Frequency

<u>**Minor Update:**</u>

<u>A minor update to each TDP must occur once every 5 years. The minor update will include the full review of an agency's existing TDP and must include at a minimum any updates, or major changes to each of the chapters highlighted by this guideline document with a high level of detail. The minor update must also be adopted by the operator's governing body (i.e. Operations Board, City Council, or County Board) and endorsed by the designated MPO in the Region. A resolution of approval shall be provided to DRPT with the submittal of the TDP document. An agency may complete a new TDP during this cycle. Agencies will determine whether a complete TDP overhaul, or a minor update is necessary in consultation with their designated DRPT Program Manager.</u>

<u>**Annual Updates**</u>

<u>A TDP is a living document, and the planning process must provide flexibility to address major changes in areas such as: organizational/governance changes, fare changes, new services/facilities, available funding, economic conditions, demographic and employment patterns, and changes in federal and state laws and regulations. These annual updates serve as intermediate corrections in accounting for unexpected changes.</u>

<u>To reflect and address these changes, the plan is to be assessed annually and an updated Service, Asset and Financials worksheet must be completed in consultation with the agency's DRPT Program Manager and assigned DRPT Transit Planner.</u>

<u>DRPT will use existing quarterly meetings to help agencies complete the annual update. DRPT staff (Planners and Program Managers) will annually conduct a joint quarterly meeting by January 15th each year. The joint quarterly will focus on a range of topics and sections in the TDP. To facilitate the discussion, DRPT will provide transit agencies with a pre-meeting worksheet related to TDP needs. In some cases, DRPT may request transit agencies make changes to their TDP as an outcome of the joint quarterly meeting.</u>

~~Transit operators must *fully* update TDPs every 10 years. Because changes will occur over the life of the plan, key sections must be refreshed 5-years after plan adoption during a "mid-cycle" update. Annually, operators are expected to provide an update to the TDP that consists of a letter, worksheet, or quarterly meeting with DRPT. The requirements for each type of update are further detailed below.~~

~~**Major Update**~~

~~A major update to each TDP **must occur once every 10 years**. This includes the completion of a new TDP with each of the chapters highlighted by this guidance document with a high level of detail. The major update must be adopted by the operator's governing body (i.e. Operations Board, City Council, or County Board) and endorsed by the designated MPO, if applicable. A resolution of approval shall be provided to DRPT with the submittal of the TDP document.~~

~~**Mid-Cycle Update**~~

~~Transit operators must refresh/amend their TDP **5 years after adoption**. Requirements for this mid-cycle update include reflecting changes documented during the annual update process with DRPT Planning and Program Management staff. Mid-cycle updates will minimally include refreshing demographics and other relevant sections highlighted in Table 1 below. DRPT may require additional sections be updated on a case-by-case basis.~~

~~Operators wishing to do a full rewrite at the 5-year mark are encouraged to explore funding opportunities such as DRPT Technical Assistance Grants and local funds.~~

~~**Annual Update (Joint Quarterly)**~~

~~A TDP is a living document, and the planning process must provide flexibility to address major changes in areas such as: organizational/governance changes, fare changes, new services/facilities, available funding, economic conditions, demographic and employment patterns, and changes in federal and state laws and regulations. To reflect and address these changes, the plan is to be assessed annually.~~

~~DRPT will be utilizing existing quarterly meetings to satisfy the annual update. DRPT staff (Planners and Program Managers) will annually conduct joint quarterly meeting. The joint quarterly will focus on a range of topics and sections in the TDP. To facilitate the discussion, DRPT may provide transit agencies with a pre-~~

meeting worksheet related to TDP needs. In some cases, DRPT may request transit agencies make changes to their TDP as an outcome of the joint quarterly meeting.

Table 1: Update Frequency and Requirements

Update Type	Time Frame/Format	Requirements
Major	Every 10 years/New document	Complete rewrite of all chapters and sections outlined in this guidance document: • Chapter 1: System Overview, Goals, Objectives, and Service Design Standards • Chapter 2: System Performance Evaluation • Chapter 3: Planned Improvements and Modifications • Chapter 4: Implementation Plan • Chapter 5: Financial Plan
Mid-Cycle	Every 5 years/Amended planning document	5 year updates must include all changes listed in the Annual Update plus updates to the following sections. • 2.2 Performance Evaluation • 2.3 Evaluation of Transit Market Demand and Underserved Areas • 4.2 Capital Implementation Plan • 5.0 Financial Plan

Annual	Annually/DRPT planning staff will participate in one Quarterly meeting with transit agencies and program managers. A worksheet will be provided prior to the meeting to frame the discussion.	Address changes in areas such as:
		• Review any progress/changes to the TDP and Transit systems
		  o Fare changes
		  o Services and facilities
		  o Unforeseen fluctuations with operation, maintenance, and capital expenses or revenues
		  o Status updates on ongoing projects and grants (smart scale, etc.)
		• Discuss performance data
		• Review short term needs
		• Review asset inventory in TransAM
		• Discuss PTASP and TAM related compliance (where applicable)
		• Discuss other planning needs
		• Updated financial plan

Table 1: Update Frequency and Requirements

Update Type	Time Frame/ Format	Requirements
Minor	Every 5 years/ Updated Sections	Complete update of all chapters and sections outlined in this guideline document: • Chapter 1: Overview and Strategic Vision • Chapter 2: Performance and Operations Analysis • Chapter 3: Improvements and Modifications • Chapter 4: Implementation Plan • Chapter 5: Financial Plan
Annual	Annually/ Completed Service, Asset and Financials worksheet to DRPT and the Designated MPO	Address changes in areas such as: • Organizational/governance changes • Fare changes • New services/facilities

- Unforeseen fluctuations with operation, maintenance, and capital expenses or revenues
- Status updates on ongoing projects and grants (SMARTSCALE, etc.)
- Fleet and facilities management (TAM & PTASP)

Plan Deliverables

For each **minor update** (every 5 years), the following deliverables must be submitted to DRPT and the designated MPO in each region:

- An electronic, editable version of the TDP including all appendices and related documents;
- Proof of adoption of the TDP by the applicable board or commission, including the official date (month and year) of adoption on title page
- An updated, electronic version of the TDP available to the public on the agency's website, or that of the agency's governing body
- **Data Requirement 1**: Assets and their conditions must be listed and updated in the TransAM, online asset management portal (See Chapter 4 guidelines for more details).
- **Data Requirement 2**: GIS data created or obtained in a geodatabase and system-wide GTFS feed where applicable.
- Additional sections may be required depending on individual agency needs. DRPT staff may identify these needs during an annual update.

Annual Update Deliverables

For each **annual update**, the following deliverables must be submitted to:

- A completed electronic Service, Assets, and Financials worksheet as provided by DRPT
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- Complete one joint quarterly meeting per fiscal year with DRPT planning and programming staff. The meeting will include agencies filling out a pre-meeting worksheet signing off on a post-meeting report. The joint quarterly will cover, at a minimum, data requirements and discussion topics listed below:
    - **Discussion Topic 1**: Any TAM related compliance needs.
    - **Discussion Topic 2:** Any PTASP compliance needs. Tier 2 Group PTASP Plan participants (Small Urban agencies) will need to provide documentation of an annual PTASP review. This can be in the form of a checklist or a revised PTASP document. Note: If the PTASP is revised it requires sign off by the transit agency board or equivalent authority.
    - **Discussion Topic 3**: A review of short and mid-term needs
- **Data Requirement 1**: All assets and their conditions must be listed and updated in the TransAM, online asset management portal.
- **Data Requirement 2**: Any updates to GIS and or GTFS data created or obtained
- **Data Requirement 3**: Any updates to fares, routes, and service levels
- **Data Requirement 4**: Any Unforeseen fluctuations with operation, maintenance, and capital expenses or revenues

Major Update Deliverables

For each **Major Update** (every 10 years), the following deliverables must be submitted to DRPT and the designated MPO in each region if the agency provides service within an MPO area:

- An electronic, editable version of the TDP including all appendices and related documents;
- Proof of adoption of the TDP by the applicable board or commission;

- **Data Requirement 1**: Assets and their conditions must be listed and updated in the TransAM, online asset management portal (See Chapter 4 guidelines for more details).
- **Data Requirement 2**: GIS data created or obtained in a geodatabase and system-wide GTFS feed where applicable.

Mid-Cycle Update Deliverables

For each Mid-Cycle Update, the following deliverables must be submitted to DRPT and the designated MPO in each region (if applicable)

- An electronic editable version of the TDP with the mid-cycle amendments clearly highlighted
- An updated financial plan with 10-year forecast including current year Proof of approval of the TDP mid-cycle amendment by the Accountable Executive;
- **Data Requirement 1**: All assets and their conditions must be listed and updated in the TransAM, online asset management portal.
- **Data Requirement 2**: Any updates to GIS data created or obtained in a geodatabase and system-wide GTFS feed where applicable
- Additional sections may be required depending on individual agency needs. DRPT staff may identify these needs during an annual update.

Annual Update Deliverables

For each **Annual Update**, the following deliverables must be provided to DRPT:

- An updated financial plan that removes the previous year, and adds a new tenth year (on a rolling basis);
- Complete one joint quarterly meeting per fiscal year with DRPT planning and programming staff. The meeting will include agencies filling out a pre-meeting worksheet signing off on a post-meeting report. The joint quarterly will cover data requirements and topics listed below:

    - **Data Requirement 1**: All assets and their conditions must be listed and updated in the TransAM, online asset management portal.

    - **Data Requirement 2**: Any updates to GIS and or GTFS data created or obtained

    - **Data Requirement 3**: Any updates to fares, routes, and service levels

    - **Data Requirement 4**: Any Unforeseen fluctuations with operation, maintenance, and capital expenses or revenues

    - **Discussion Topic 1**: Any TAM related compliance needs.

    - **Discussion Topic 2**: Any PTASP compliance needs. Tier 2 Group PTASP Plan participants (Small Urban agencies) will need to provide documentation of an annual PTASP review. This can be in the form of a checklist or a revised PTASP document. Note: If the PTASP is revised it requires sign off by the transit agency board or equivalent authority.

    - **Discussion Topic 3**: A review of short and mid-term needs

~~XXX.~~IV.   Plan Requirements

Each TDP must address all plan requirements and follow the chapter structure specified below. While transit agencies may go beyond the plan requirements to examine specific issues that are pertinent to their services or areas, DRPT must be informed of budget impacts and any additional funding needs prior to examining issues outside of the plan requirements for state-supported plans.

In addition to the written documentation of the plan, "Data Requirements" are highlighted in text boxes in various sections and are listed again in the Plan Deliverables section.

Title page

The TDP title page must include the words "Transit Development Plan", the fiscal years covered by the plan, the official name of the transit operator, and the date approved by the governing board. For mid-cycle updates, the date must be added to the title page.

Chapter 1: System Overview, Goals, Objectives, and Service Design Standards

This chapter should provide a high-level overview of the transit agency and each of the agency's strategic priorities.

1.1 System Overview

This section should include the following basic overview information:

1.1.1 Services Provided and Areas Served:
Describe all fixed route, demand response, and connecting services for each transit mode provided (i.e., commuter rail, heavy rail, light rail, bus rapid transit, express bus, local bus, ferry service). Include a limited number of system and service area maps to illustrate this information.

1.1.2 Current/Recent Initiatives:
Describe any ongoing initiatives that your agency is currently undertaking that affect the provision of transit services in your area. This can include the introduction of new infrastructure or guideway (e.g. light rail or bus rapid transit systems), systematically reconfiguring the bus transit network, the introduction of new technology and/or propulsion systems (such as hybrid or electric vehicles), upgrading stops and station, etc.

Appendix A contains more detailed information on the agency profile.

1.2 Goals, Objectives, and Service Design Standards

This section will describe the current goals, objectives, and service design standards that reflect the basis under which new service would be deployed and existing service modified. This section should also describe the process for establishing, reviewing, and updating these. These should reference agency specific goals and objectives, as well as statewide funding and capital goals. Since this section will impact other aspects of the TDP, it is recommended that the vision, and any goals, objectives, and strategies included in it, be developed in consultation with the transit agency's governing body and/or approved by that body prior to completing other elements of the plan. If applicable, an agency should also consult any relevant rider and/or operator advisory bodies around its vision, goals, and objectives. These should reference agency specific goals and objectives, as well as statewide funding and capital goals. If feasible, agencies should consider identifying goals such as fleet and facility electrification and emissions reductions, as well as innovation and technology-related goals for service improvement, and fleet and facility resilience.

1.2.1 Goals and Objectives:
The goals and objectives should be comprehensive and address all major areas of concern and activity for public transit operators.

Goals and objectives should be based **SMART** principles: **Specific, Measurable, achievable, Realistic, and Time-bound**. It is recommended that each goal and objective have an associated performance measure to track progress.

The following guidelines should also be taken into account:

- The goals and objectives should reflect the basis under which new service would be deployed and existing service evaluated and modified.
- The goals and objectives should be comprehensive and address all major areas of concern and activity for public transit operators.

1.2.2 Public Outreach, Engagement and Involvement:

Describe your agency's public outreach and involvement process including outreach relative to schedule or fare changes, service expansion, and service reduction.

NOTE: Depending on each agency's on-going public engagement process and whether previous planning studies or visioning projects have been completed, it is likely that a public outreach phase will be necessary to gather input on the priorities of the community to address these issues and determine Goals, Objectives, and Service Standards.

Effective TDP Stakeholder Consultation may include a combination of the following:

- Advisory Committee(s) that may include both agency and public stakeholders, in addition to the agency's governing body;
- Surveys of existing riders, potential riders, and drivers, mechanics and agency staff (online, in-person, or mail/insert);
- Stakeholder interviews/focus groups;
- Outreach events such as project information tables at popular gathering places such as the library, transit center, social service center, cultural center, or grocery store;
- Design charrettes with the advisory committee(s) and other stakeholders;
- Work sessions with the transit provider's board or the body that will ultimately adopt the TDP;
- Project web site, if applicable;
- Open houses and/or virtual open houses may be useful in some cases. For example, they can be effective in smaller urban areas where the transit service area coincides with the city limits. An open house may also be a necessary or required step for the transit provider prior to an adoption hearing by the governing body.

1.2.3̶2̶ Service Design Standards:

This section should present service design standards for all modes and service types (i.e. rail, local bus, commuter bus, demand response, etc.) based on the newly defined goals and objectives. The service design standards should address all facets of transit such as scheduling and route planning; service reliability; system efficiency; safety and security; customer service; multimodal connectivity; and regulatory compliance.

Chapter 2: System ~~Performance~~ Evaluation

This section will present performance measures that are used to evaluate route-level and system-wide performance. This analysis should highlight agency strengths and identify opportunities for improvement that will be addressed by specific recommendations in the subsequent chapter. This also presents an opportunity for agencies to rethink the design of their existing transit network in order to identify ways to improve operational efficiency.

Agencies will also present an evaluation of its 10-year asset management plan using its TransAM data. This section should include an analysis of the state of its fleet and major facilities, including vehicle useful life and miles, and the agency's plan to maintain and improve anticipated fleet replacement schedules relative to recent service improvements.

Transit needs that are identified through this analysis should be addressed by "opportunities for improvement" in each step listed below. Each of the "opportunities for improvement" should be focused on maximizing system performance, efficiency, or coverage within existing funding structures. Emphasis should be placed on technological and other innovative solutions such as zero emissions fleet and facilities transition, as appropriate.

2.1 Performance Standards

Develop performance standards based on the adopted goals and objectives for both fixed-route and demand response services. At a minimum, this must include the following elements, using narrative, tables, and other graphic formats as warranted:

- System-wide and route-level performance standards for each mode and/or type of service (e.g. local, express, or commuter service) for fixed route and demand response service.
- Fleet and facilities management standards, including anticipated fleet replacement schedule and State of Good Repair (SGR) needs.

Performance standards should include specific measures, determined by the agency, that quantify the following aspects of transit service: **ridership** (i.e. passengers per mile, passengers per hour, total passenger miles, etc.), **cost efficiency** (i.e. cost per mile, cost per hour, cost per trip, farebox recovery, etc.), **safety** (i.e. accidents, injuries, etc.), and **system accessibility** (i.e. how many people can access the system, how many jobs are accessible, etc.). Additional measures ~~can~~ should be included that address other goals and objectives, such as: customer satisfaction, vehicle maintenance, accessibility for people with disabilities, travel information, or affordability.

2.2 Performance Evaluation

2.2.1 Performance Evaluation
Existing performance should be measured against the performance standards defined in Section 2.1. At a minimum, this must include the following elements, using narrative, tables, and other graphic formats as warranted:

- Observed system-wide and route-level performance for each mode and/or type of service (e.g. local, express, or commuter service) for fixed route and demand response service.

  - The performance evaluation should include specific measures, determined by the agency, that quantify the performance standards presented in Section 2.1.
  - Additional measures can be included that address other goals and objectives, such as: customer satisfaction, vehicle maintenance, accessibility for people with disabilities, travel information, or affordability.
  - In addition to agency-specific performance measures, the TDP should include specific performance measures as identified by state policy. Where available, a three-year retrospective analysis of performance including trend analysis for the performance measures outlined by DRPT's performance-based methodology for allocating state operating assistance.

2.2.2 Performance Based Opportunities for Improvement

Based on the performance evaluation, provide "**Opportunities for Improvement**" focused on agency goals and objectives within existing funding structures which includes the following:

- A description of deviations from adopted service standards and proposed remedies, including service expansion and/or contraction;
- A description of specific solutions to any gaps or service deficiencies for fixed-route and demand response services, which will be incorporated into Chapter 3.
- An analyses of the agencies past performance (3-5 years where available) related to the five performance metrics used in DRPTs performance based operating assistance allocation process:
  - Passengers per Revenue Vehicle Hour
  - Passengers per Revenue Vehicle Mile
  - Operating Cost per Revenue Vehicle Hour
  - Operating Cost per Revenue Vehicle Mile
  - Operating Cost per Passenger

  Note: When developing solutions, emphasis should be placed on technological and other innovative approaches, as appropriate.

2.3 Evaluation of Transit Market Demand and Underserved Areas

2.3.1 Transit Demand and Underserved Area Evaluation

This section should provide an overview of factors influencing demand for transit within and outside of the existing service areas. This should include the following elements:

- An analysis of existing land use, employment, population, and demographics (e.g. the location and prevalence of population groups including, but not limited to: minority groups, older adults, low-income earners, those with limited English proficiency, and persons with disabilities), and discussion of how these groups effect transit demand and/or the propensity to utilize public transit services;
- Projected employment and population growth over the next 10 years, and a discussion of how this may change transit needs in and around the existing service area;
- An analysis of opportunities to expand service to underserved areas, including:

  - An analysis of areas within the existing service area; and
  - An analysis of areas outside of the existing service areas.

2.3.2 Transit Demand and Underserved Area Opportunities for Improvement

Based on the evaluation of transit demand and underserved areas, provide "**Opportunities for Improvement**" which include the following:

- A description of areas with high transit demand and underserved areas that would benefit from additional service and a description of areas with low transit demand that may have too much service;
- A description of specific solutions to any gaps or service deficiencies for fixed-route and demand response services, which will be incorporated into Chapter 3.
- Per FTA and FHWA's Planning Emphasis Areas released December 30, 2021, agencies should consider the following strategies in collaboration with VDOT, DRPT, regional MPOs, and local governments for improving service for disadvantaged populations:
  - improve infrastructure for non-motorized travel, public transportation access, and increased public transportation service in underserved communities;
  - plan for the safety of all road users, particularly those on arterials, through infrastructure improvements and advanced speed management;
  - reduce single-occupancy vehicle travel and associated air pollution in communities near high-volume corridors;
  - offer reduced public transportation fares as appropriate;

- target demand-response service towards communities with higher concentrations of older adults and those with poor access to essential services; and
- Consider equitable and sustainable practices while developing transit-oriented development including affordable housing strategies and consideration of environmental justice populations.

2.4 Opportunities to Collaborate with other Agencies and Stakeholders

Assessing opportunities to further coordinate and collaborate with other transit providers operating services in the vicinity, including the identification of additional coordination and collaboration activities that could improve efficiency in the provision of transit services. Examples of such collaboration opportunities include the following: mergers, transfers, or deduplication of services; providing a regional fare media and/or payment system; providing joint training to personnel; developing joint procurement agreements; providing shared customer service and/or administrative functions; etc.

Agencies should use this opportunity to discuss strategies and plans to collaborate with relevant local governments, their designated MPOs, as well as VDOT and DRPT to meet goals that require multiple stakeholders, and leveraging different funding sources.

For example, a critical issue facing transit operators and riders is safety due to poor historical investment in multimodal infrastructure. Agencies should collaborate with their regional and State partners to plan for and fund Complete Streets infrastructure connecting riders to the public transit network. To be considered complete, these roads should include safe pedestrian facilities, safe transit stops,and safe crossing opportunities on an interval necessary for accessing destinations.

Chapter 3: Planned Improvements and Modifications

This chapter must contain a prioritized list of improvements and modifications to existing services that each agency plans to make over the following ten (10) years. The improvements outlined here should directly address the "opportunities for improvement" identified in the previous chapter, along with other known needs that address agency goals and regulatory requirements.

In addition, the TDP improvements outlined here <u>must be financially constrained</u>, meaning that funding for them must be reasonably expected to be available over the timeframe of the plan. Agencies may choose to develop unconstrained scenarios based on funding that is not reasonably expected to available at the time of adoption, but these must be clearly labeled as such.

3.1 Planned Service Improvements

Describe fixed route and demand response services the operator intends to provide over the next 10 years, and identify necessary improvements to service. In addition, this section can contain information on how new mobility options, such as demand-response services and other options that can be integrated with fixed route service (i.e. bikeshare).

- Transit service improvements should address transit needs identified by:

  - Adopted goals, objectives, and service standards,
  - "Opportunities for Improvement" identified in Chapter 2, and
  - State and Federal legal and regulatory requirements

- Each planned service improvement must include a separate description showing how it will support an identified need from one of the sources listed above;
- An estimate of future ridership based on these improvements should be provided using either of the following approaches:

  - A model for any proposed fixed route or demand response services for other similar type and size systems in Virginia; or
  - By applying one or more generally employed ridership proxies, such as the number of riders per bus-hour that is based on actual transit agency ridership characteristics.

3.2 Prioritization of Planned Service Improvements

Assign a desired timeframe for implementation of each project and estimate capital and operational costs. Focus should be placed on projects that can be funded under existing funding structures. If a desired project will require additional operating or capital funds, the source of additional funds (SMART SCALE, Discretionary Grant Programs, local operating funds, etc.) should be noted.

- Timeframes should be organized into the following categories

  - Short-term transit improvements (1 to 3 years)
  - Mid-term transit improvements (3 to 7 years)
  - Long-term transit improvements (7 to 10 years)

- Capital and operating cost estimates associated with any potential service expansions or modifications should be prepared using standard vehicle acquisition and operating cost information for systems of a similar type and size;
- Describe any planned facility improvements or capital projects to improve operations;
- Discuss whether or not the planned or proposed capital and/or service project(s) are currently contained in the CLRP, STIP, and/or SYIP. If the project is not included in any of these documents, discuss when it will be submitted for inclusion in the CLRP, and/or when funding for the project will be sought so it may be submitted for inclusion in the STIP and SYIP.
- Mid- and long-term projects should be considered part of the agency's long term vision. Inclusion of these projects is primarily for agency use to provide a clearer understanding of unmet or unfunded needs, and to focus staff efforts on pursuing those projects to meet the needs;

3.3 Service Development

Describe the levels of service planned using a table to show service hours and service miles.

- Separately identify fixed route service (by mode and type of service), demand responsive service (by type of service), and expansion services (by mode and type of service):

    - The table must clearly identify service expansion and/or reduction by the year of planned deployment and/or elimination;
    - There must be a rational relationship between the information portrayed and Chapter 2 of the TDP.

- Where reductions in service levels are required to achieve a balanced operating budget, describe the reductions and assess their impact on the affected service areas and communities in order to prepare for any eventual Title VI issues that will arise at the time of implementation;
- Describe any planned service changes in response to the most recent federal Title VI report and/or FTA Triennial Review;
- Discuss any additional, current, or anticipated policy, planning, funding, or operating issues that may affect the operations of the existing or planned transit system;
- Provide current schedule for projects, showing completed and anticipated milestone dates.
- ~~Describe any new programs to coordinate with TNCs, and discuss~~Discuss any policy changes, funding or capital projects needed for implementation.

Chapter 4: Implementation Plan

The Implementation Plan lists steps required by an agency to carry out the operations and services described in Chapter 4. The implementation plan also should reference the approved Transit Asset Management plan to guide the schedule for replacing and/or increasing rolling stock and facilities to maintain a State of Good Repair (SGR).

4.1 Asset Management

Transit agencies that receive federal funding from the Federal Transit Administration (FTA) must create and maintain a Transit Asset Management (TAM) plan for their rolling stock, non-revenue vehicles, facilities, and other equipment. These plans are divided into two types: Tier I and Tier II. The tiers are determined based upon the size of the agency's fleet and/or presence of rail service. DRPT developed and maintains the Tier II plans for all Tier II-eligible agencies in Virginia. The remaining agencies are either Tier I agencies and responsible for their own TAM plans, Tier II agencies that did not opt in to the Tier II group plan, or agencies that do not receive federal funding. Such information should be used to identify capital needs associated with attaining and maintaining a state of good repair for all assets.

Describe the policies set forth in the applicable TAM plan for the agency, including the following:

- Policies for replacement, rehabilitation, retrofitting, expansion and reduction of the revenue and non-revenue fleet to carry out the implementation plan above.
- Policies for maintenance or replacement of the vehicle maintenance and operations facilities.
- Policies for passenger facilities, infrastructure, or amenities such as bus stops, shelters, or stations.
- Policies for updating technology and ITS such as CAD/AVL systems, APCs, scheduling software, fare processing equipment, and data processing hardware or software.
- Planning and prioritization for addressing any state of good repair (SGR) needs. This may include identifying replacement years based on condition indicators such as TERM rating and or Useful Life Benchmarks. SGR needs should be included as a prioritized list.

This can be a detailed summary of the TAM plan developed by DRPT or internally. If items are not included in the TAM plan, they should be added to meet these requirements.

4.2 Capital Implementation Plan

Provide a detailed implementation plan for meeting the capital needs of the agency. This plan should take into account the current asset plan detailed above and the planned service developments outlined in Chapter 3. Other than state of good repair or replacement bus purchases, which should also be detailed within the implementation plan, each implementation step should be tied directly to a planned service improvement or development and identified fund source.

Capital implementation plans should consider electrification and zero-emissions transition plans to ensure fleet replacement schedules and infrastructure investments. These investments should help agencies work towards Federal climate change mitigation goals outlined in the FTA and FHWA Planning Emphasis Areas including:

- Helping achieve the national greenhouse gas reduction goals of 50-52 percent below 2005 levels by 2030, and net-zero emissions by 2050; and
- Increasing resilience to extreme weather events and other disasters resulting from the increasing effects of climate change.
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Chapter 5: Financial Plan

In the financial plan, service costs are projected and financial resources are identified. Consequently, it is through the development of the TDP's financial plan that transit agencies determine which service improvements can be realistically achieved and when those service improvements should be implemented. In developing a financial plan, agencies throughout the commonwealth are encouraged to explore entrepreneurial strategies at attracting novel sources of funds, such as corporate or institutional support for specific routes and services.

The financial plan should include:

- "Baseline" level of service at the time of the TDP preparation. Committed service changes must also be defined, with their expenses and revenue separately identified in the operating and capital financial plan tables;
- Capital and operating budget forecasts; federal, state, regional, and local revenue projections; fare policies, labor or service agreements, competitive demands on funding, and regional priorities and policies;

  - Show projected cash flow needs, including any anticipated difficulties, and approved or anticipated decisions on bond financing;
  - Identify funds that have been programmed, allocated or received, and funds that have not been secured;
  - Include the source of funds and amount from each source for the last five years;
  - Use the recently approved Six Year Improvement Program (SYIP) to help with current and future estimates.

- The capital and the operations budget must be sustainable and generally balanced each year over the period of the TDP, using currently available or reasonably projected revenues;
- All capital and operations expenses and revenues stated in year of expenditure dollars, with the assumed escalation factor of at least three percent per year;

  - All sources of revenue shown in the operations and capital plans should be identified individually;
  - All assumptions that relate to expenditure and revenue estimates must also be documented;

- A narrative explaining any major changes in service hours and miles due to deployment of new service or major service reductions; changes in fare revenue due to changes in the level of service; changes in expenses due to changes in the level of service; and changes in expenses due to labor or service contract changes;
- Where increases in revenues (e.g., fares, sales taxes, general fund revenues) are required in order to sustain service levels, the steps and timelines needed to achieve the revenue increases, and the policies and actions that will be taken if the proposed revenues do not materialize;
- Planned fare increases and decreases, and/or changes in fare policies, including the years these changes are planned to take effect. Also describe planned changes in inter-operator transfer agreements and/or regional policy on fare coordination;
- Significant service expansion or reduction, and the introduction of new service;
- Reserves available for operations and changes to reserves over the period of the TDP, including anticipated unallocated reserves;
- In addition to future year forecasts, the Appendix should include a three-year retrospective of operating and capital expenses and revenues (provide audited budgets if available).

Appendix A: Agency Profile and System Overview

This appendix will provide a detailed overview of the transit agency and system. This should including the following elements:

A.1 History

Provide a brief history of the transit system (e.g., year of formation, facilities and fleet development, changes in service focus areas, key milestones and events).

A.2 Governance

Provide an overview of the governance process, governing body, and decision makers involved in the transit system. This should include:

- Type of governance (e.g., city, joint powers authority, transit district);
- The composition and nature of representation of the governing body (including the number of members). Indicate if members are elected or appointed and if appointed, how; what agencies and/or groups do members represent (e.g., cities, county, general public);
- A list of current members and their terms; and
- A description of any advisory committees that provide direct input to the governing body.

A.3 Organizational Structure

Provide a brief description of the organizational structure and staffing including:

- An organizational chart that identifies departments and reporting relationships. The names of key management personnel should be provided in the organizational chart;
- Identification of all contracted transportation services (including the name of contractors and length of current contracts); and
- Identification of the labor unions representing agency employees (including the length of current contracts).

A.4 Services Provided and Areas Served

Describe all fixed route, demand response and connecting services for each transit mode provided (i.e., commuter rail, heavy rail, light rail, bus rapid transit, express bus, local bus, ferry service) including:

- The areas served and the peak vehicle requirement for each type of service provided (i.e. any express bus, radial, circulator services);
- Details of any services provided with funding and/or oversight partnerships with other agencies or organizations;
- A description of infrastructure used to access the transit system, including safe, accessible pathways to stops and stations as well as any other bicycle or pedestrian accommodations provided;
- How the service is deployed to meet the Americans with Disabilities Act (ADA) requirements;
- Any bus stop and shelter placement guidelines;
- A description of any existing travel training programs for students, seniors, or persons with disabilities; and
- Additional transportation services in the area that may impact transit and its connections.

> **Data Requirement 2:** Provide GIS shapefiles of each transit route or service area and submit shapefiles to DRPT. In the GIS data, include origins and destinations, trip generators, and transit facilities and, if the agency has existing GTFS data, check the accuracy of the data and make corrections.

A.5 Fare Structures, Payments, and Purchasing

Describe the fare structure and payment methods for each mode of transit provided for both fixed route and demand responsive services. Describe how and where customers can purchase fare media. Include information on the following:

- Single fare (e.g., adults, seniors, student/youth);
- Discounted or multi-ride fares/passes (e.g., adults, seniors, student/youth);
- Changes in fares since the last TDP (include the date instituted) and the reason the fare structure was changed;
- Transfer agreements if applicable;
- Customer payment methods (Cash, magnetic strip paper fare cards, smartcards, credit cards, mobile apps, etc.); and
- Fare media purchase locations (website, mobile app, ticket vending machines, commuter store, etc.).

A.6 Transit Asset Management – Existing Fleet and Facilities

On July 26, 2016, FTA published a Final Rule for Transit Asset Management in Federal Register Volume 81, Number 143. The rule requires FTA grantees to develop asset management plans for their public transportation assets, including vehicles, facilities, equipment, and other infrastructure. Transit providers have the option to develop their own plans or, depending on their characteristics, use DRPT's Transit Asset Management group plan.

In this subsection, provide status of provider's Transit Asset Management plan or, if applicable, reference the use of the state Transit Asset Management Plan as the chosen alternative.

Provide a high level overview of existing fleet and facilities, including:

- Type number of vehicles used for revenue and non-revenue operations. This list should identify assets that are at or beyond a state of good repair based on standard measures including TERM ratings and Useful Life Benchmarks;
- Type and number of vehicles used;
- The location of maintenance, storage, and parking facilities;
- The presence of guideways and their location;
- The location of fueling, or electric charging stations.

In this section, agencies should include electrification or zero-emissions transition plans if applicable. FTA requires a Zero Emissions Transition Plan in order to be eligible for FTA's Buses and Bus Facilities Competitive Grants Program (49 U.S.C. § 5339(b)). Zero Emissions Transitions Plans must:

- Demonstrate a long-term fleet management plan with a strategy for how the applicant intends to use the current request for resources and future acquisitions.

- Address the availability of current and future resources to meet costs for the transition and implementation.

- Consider policy and legislation impacting relevant technologies.

- Include an evaluation of existing and future facilities and their relationship to the technology transition.

- Describe the partnership of the applicant with the utility or alternative fuel provider.

- Examine the impact of the transition on the applicant's current workforce by identifying skill gaps, training needs, and retraining needs of the existing workers of the applicant to operate and maintain zero-emission vehicles and related infrastructure and avoid displacement of the existing workforce.

The length and complexity of an agency's plan will vary depending on a number of factors, including the size of the agency's fleet, service provided, etc. DRPT may provide technical assistance through its General Planning Consultant bench, as outlined within this document in Appendix B – Available Data & Resources.

A.7 Transit Security Program

Describe all security plans and programs that are in place to protect riders, employees and general public, including:

- System security and emergency preparedness plan(s);
- Fare inspection;
- Security features on vehicles;
- Security features at transit stations and facilities;
- Security training programs and drills or exercises; and
- Public Awareness programs and campaigns.

A.8 Intelligent Transportation Systems (ITS) Programs

Describe any intelligent transportation systems (ITS) programs for the agency and any technology projects to improve efficiency and operations and provide information to customers.

Include information on:

- Computer aided dispatch (CAD) or automatic vehicle locator (AVL) systems;
- Automatic passenger counters (APC);
- Traffic signal priority (TSP) system;
- On-board cameras;
- Trip planners;
- Scheduling and run cutting software;
- Maintenance, operations, and yard management systems;
- Information displays;
- Real time arrival; and
- Information to mobile devices or applications.

A.9 Data Collection and Ridership/Revenue Reporting Method

Describe the agency policies for collecting, processing, verifying, storing and reporting ridership and revenue service data. Include information on:

- Electronic registering fireboxes (ERF);
- Cash fare boxes (rural systems only);
- Automatic passenger counters (APC) and status of any APC calibration/validation efforts made for NTD reporting;
- Manual count including free fares;
- Scheduling software;
- Accounting/payroll systems;
- Mobile data terminals (MDT) for demand response service;
- Automatic vehicle locator (AVL) system;
- Odometer readings or driver logs if used for mileage and hours;
- Operating expense and revenue data including fares and revenue from leases, advertising, contract service, and other sources;
- Agency accountability policy;
- On-Line Grant Administration (OLGA) performance data submission;
- Executive director or board certification of adherence to standards and accuracy of data submitted to OLGA;
- National Transit Database (NTD) data submission practices (or explanation of why agency does not submit data to the NTD); and
- Financial audit review of verification method.

A.10 Coordination with Other Transportation Service Providers

Describe any coordination with transit service providers in adjacent jurisdictions, Transportation Network Companies (TNC), taxi companies, human service providers, bikeshare systems, carshare companies, etc. including designating pickup and drop off at stations or transit centers, schedule coordination, fare agreements, programs to subsidize fares, programs to utilize TNCs for senior or disabled service, or other initiatives.

Appendix B: Available resources for TSP development

B.1 DRPT Website

B.2 DRPT Open Data Portal

B.3 Online Grants Administration (OLGA)

B.4 DRPT Grants references and guidelines (Blue Book and Purple Book)

B.5 Transit Asset Management Plan (TAM)

B.6 Public Transportation Agency Safety Plan (PTASP)

B.7 Virginia Department of Transportation (VDOT) SMARTSCALE program

B.8 VDOT Pathways for Planning

B.9 FTA/FHWA Planning Emphasis Areas (December 30, 2021)

~~A.11 Public Outreach/Engagement/Involvement~~

~~Describe your agency's public outreach and involvement process including outreach relative to schedule or fare changes, service expansion, and service reduction.~~