

DRAFT



SYSTEM EXPANSION

IMPLEMENTATION PLAN

INTRODUCTION

With the November 2016 voter approval of Sound Transit 3 (ST3), Sound Transit will undertake an ambitious mass transit system expansion. ST3 is Sound Transit's third phase of voter-approved capital investments, equal in scope and timeline to the first two phases (Sound Move and Sound Transit 2) combined. Along with Sound Transit 2 (ST2) projects that are progressing through planning, design and construction, the expanded system spanning the urban areas of Snohomish, King and Pierce Counties will include:

- **A 116-mile light rail network with more than 80 stations serving 16 cities. It will expand five-fold beyond its current size, at a scale comparable to the largest such systems in the country.**
- **An expanded and more frequent Sounder commuter rail system serving 14 cities.**
- **Bus Rapid Transit and ST Express buses serving 30 cities.**

Overall, the mass transit system being built by Sound Transit is a central piece of the broader regional transportation network, connecting with local transit providers, Washington State Department of Transportation (WSDOT), private ride share services, and bike and pedestrian amenities. Together these services form an integrated regional network serving a population of over three million people throughout central Puget Sound in addition to business and vacation travelers who have made Sea-Tac Airport among the fastest growing U.S. airports.

The attached Project Timelines for Major Sound Transit Projects, or master schedule, reflects system expansion delivery dates included in voter-approved plans.

Project schedules are influenced by many factors. Particularly complex projects, such as light rail to Ballard, which entails construction of a new downtown tunnel and water crossing, require longer timelines to plan, design and construct. Project schedules are also affected by cash flow and debt capacity limitations. The timelines portrayed in the master schedule take all these factors into account and make clear that Sound Transit will need to launch work on many projects in this and the next few years as we simultaneously complete those that are already underway.

Delivering an ambitious system expansion program of this scale while meeting budget and schedule expectations for each project will require Sound Transit to embrace new ways of organizing internally, as well as new approaches for working with stakeholders, partners, jurisdictions, and the planning, design and construction communities. Prior Sound Transit management systems that were used to effectively deliver projects sequentially will now be adapted to successfully deliver multiple and more extensive projects simultaneously.

Sound Transit undertakes this exciting new challenge in an advantageous position. Over its brief, 20-year history the agency has developed the internal capability and expertise to deliver major new transit projects on schedule and on budget.

The Washington State Auditor made note in its most recent, 2012 Performance Audit of Sound Transit that: "From its inception in 1996, Sound Transit has continuously improved its structure to manage projects and has standardized guidelines on cost estimating, change and cost management, project management and risk assessments. The agency has responded to a number of challenges through improvements in construction planning and management processes and the use of 'best industry practices'."

Continuous improvement in all staff departments will become more important as major projects are layered on top of each other and the agency operates greater and greater volumes of transit service in these coming years.

The Sound Transit 3 Plan highlighted the need for new approaches to project development and permitting. The plan also included an ambitious new approach to implementing a regional transit-oriented development strategy that is intended to focus Sound Transit on the community-building aspects of its projects in addition to the delivery of transit service.

This Implementation Plan develops Sound Transit's approach to delivering the expanded system of projects as well as needed reforms based on lessons learned from delivering major capital infrastructure to date.

Among the first tasks in delivering new transit projects are the required environmental reviews and establishing details of the project to be built. Significant opportunity – and risk – to schedule and budget occur in these early phases prior to construction. Therefore, this report focuses on practices and organizational realignment that will expedite project delivery through these early phases.

STRATEGIC INITIATIVES

Over the course of five major light rail projects to date, the typical time for project development has been in excess of five years from initial contract award to completion. Using the strategic initiatives outlined in this plan, Sound Transit plans to reduce the project development period to less than four and a half years. In the coming months and years, Sound Transit will focus on strategic initiatives in the following three areas where new approaches to current agency practice can make the greatest impact on meeting the aggressive project schedules that were included in the ST3 plan:



Enhance Sound Transit's commitment to partnership, community engagement, collaboration, transparency and accountability.

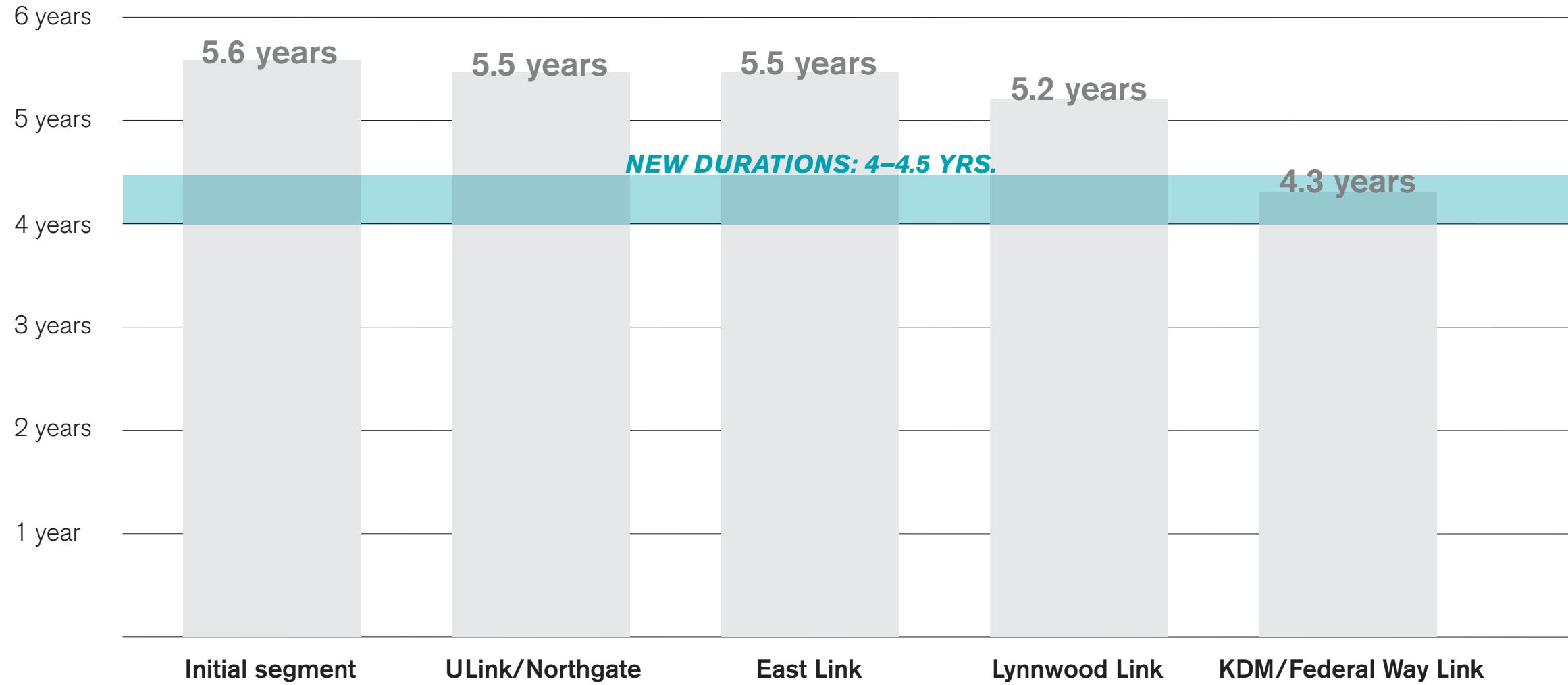


Apply innovative ideas and lessons learned to refine and improve project development and delivery.

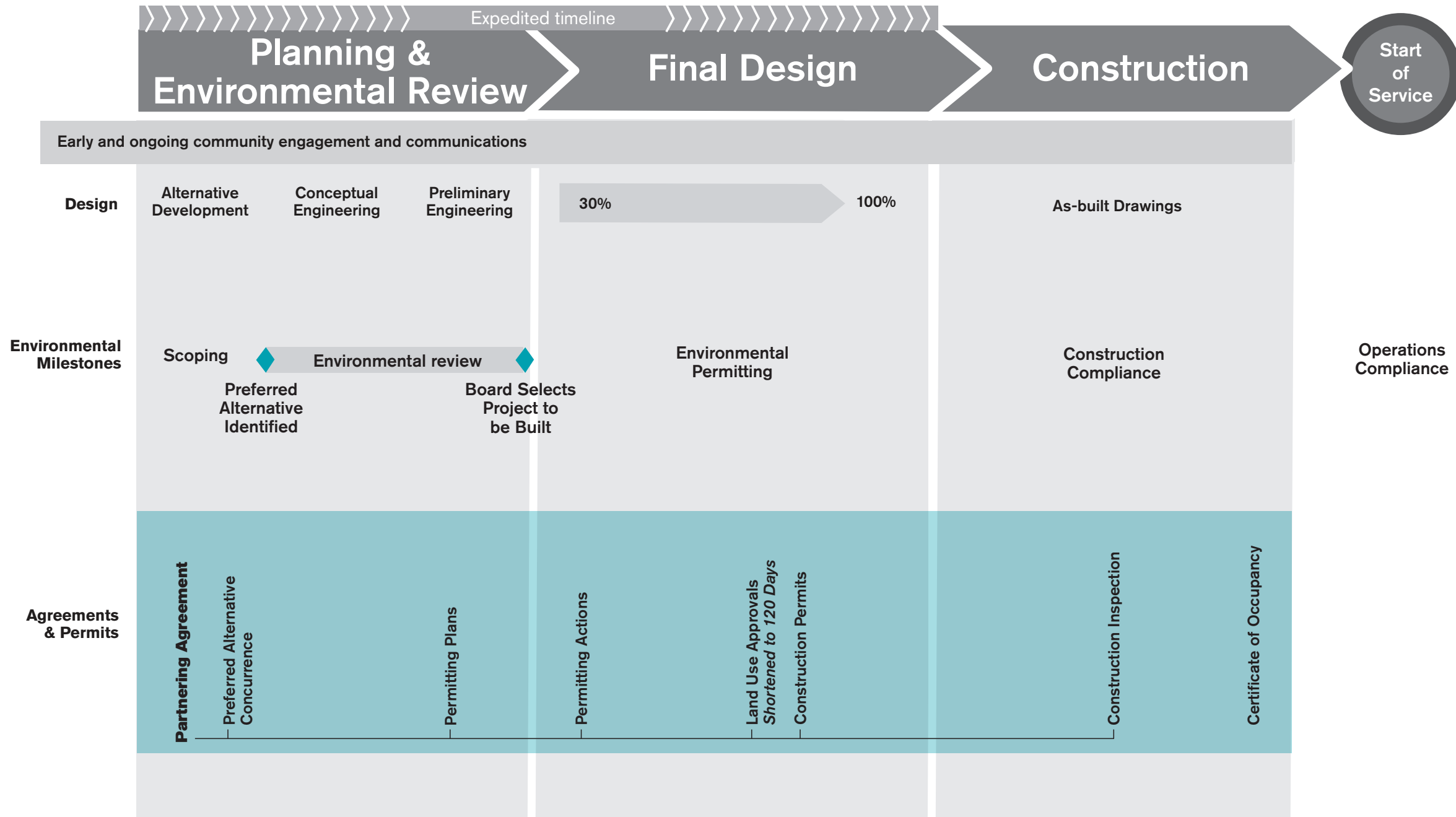


Align internal and external resources to support seamless and collaborative management through all phases of each project.

LIGHT RAIL PROJECT DEVELOPMENT: PAST EXPERIENCE AND FUTURE TARGET
Initial contract award to Record of Decision



LOCAL JURISDICTION AGREEMENTS AND PERMITTING
During project development and delivery





STRATEGIC INITIATIVE 1

Enhance Sound Transit's commitment to partnership, community engagement, collaboration, transparency and accountability

Based on public feedback throughout the development of the ST3 Plan, Sound Transit is embracing the challenge to deliver projects as fast as possible. As recent station openings and ridership growth have demonstrated, people are eager for and ready to use new transit alternatives to avoid rapidly worsening road congestion.

To meet this demand, the ST3 Plan establishes aggressive timelines for project delivery. It is in the mutual interests of Sound Transit, stakeholder organizations, jurisdictions and transit riders to meet these timelines and deliver quality transit expansion projects on schedule and within budget.

Close communication and collaboration with partners during alternatives development, environmental review, preliminary engineering, final design, permitting and property acquisition are critical to bringing projects to the construction phase on schedule and within budget.

EARLY AND SUBSTANTIVE COMMUNITY ENGAGEMENT AND COLLABORATION

Reaching early and durable agreement on project definition, including alignment, station locations and other project components, is a critical step in maintaining schedule and budget. To achieve the goal of early agreement on project definition, Sound Transit will engage with stakeholders in a structured and deliberative manner. For each expansion project, the agency will develop approaches for engaging with elected officials, members of the public, permitting agencies and other stakeholders. Senior leadership at Sound Transit will meet with the elected leaders in each impacted municipality at the very beginning of the project development process to set a cooperative and communicative platform for subsequent staff discussions. The engagement approach will be tailored for each project, but typically could include forming up to three advisory groups to facilitate discussion and resolution of key issues. These include:

Elected Leadership Group

Composed of Sound Transit Board members and other local elected officials in the corridor, its purpose will be to build consensus around key decisions and work through project issues as needed. The Elected Leadership Group will consider the following and present their recommendations to the Sound Transit Board of Directors:

Review and endorse the project timeline

- **Identify alternatives to study during environmental review.**
- **Identify a preferred alternative.**
- **Recommend the project to build after completion of environmental review.**
- **The Elected Leadership Group will also appoint members and identify tasks for the project Stakeholder Group.**

Stakeholder Group

Composed of transit riders, residents, business owners, major institutional representatives, community organizations and other members of the public, its purpose will be to build consensus around key project decisions and work through project issues as needed. The Stakeholder Group will make their recommendations to the Elected Leadership Group, the Sound Transit Board of Directors and relevant city council(s) at key milestones, including:

- **Identifying alternatives to study during environmental review.**
- **Identifying a preferred alternative.**
- **Selecting the project to build after completion of environmental review.**

The work of the Stakeholder Group will highlight specific issues and trade-offs in the corridor, providing valuable input to elected leaders as they work through difficult project decisions. They will consider both the long-term implications of projects and the temporary construction impacts.

Interagency Group

Composed of senior staff from Sound Transit and partner city, county, state and federal permitting agencies empowered with technical decision-making authority, its purpose will be to:

- **Examine technical aspects and resolve issues at a staff level wherever possible.**
- **Identify issues to bring before the Leadership and Stakeholder groups.**
- **Recommend subjects to address within partnering and permitting agreements (described below).**

These above groups will supplement public engagement and outreach techniques already used by Sound Transit and will offer opportunities for greater collaboration early in project development. Providing elected, public, and technical staff with structured opportunities to learn in detail about project risks and opportunities, share multiple interests and to discuss constraints that shape capital projects will allow issues to be understood and surfaced sooner; creative solutions to be developed and assessed; and trade-offs to be identified and decided upon. It will be critical that each of these groups avoids the usual temptation to postpone difficult decisions until a looming deadline. Because high-capacity projects take considerable time to plan, design and construct, these groups will help ensure decisions endure over time.

RESULT: This deep and early level of engagement will better prepare the Sound Transit Board to make informed and durable project decisions and help ensure that the project to be built best reflects local priorities. This broad external engagement also supports transparency, accountability and discipline on project scope, schedule, and budget. Early decision making by invested and engaged parties will best ensure the timely delivery of new transit service to the public.

FORMALIZING PARTNERSHIPS

In addition to engaging with jurisdictional and stakeholder partners, working closely with project delivery partners who have land use, permitting, oversight or regulatory authority is central to maintaining project schedules. Sound Transit will build on its established relationships with federal and state agencies to advance discussions with the Federal Transit Administration (FTA), Federal Highway Administration (FHWA) and WSDOT to prepare for system expansion.

Sound Transit's relationships with local jurisdictions vary by the degree to which past projects have been constructed within their city or county limits. In order to provide greater clarity and predictability for local governments, Sound Transit is developing standardized agreement principles to address planning and permitting.

Four types of agreement and concurrence actions will memorialize shared understanding between Sound Transit and the local jurisdictions where projects are to be built. Project partnering agreements, preferred alternative and permitting concurrence documents, and permitting/development agreements would be jointly developed and agreed to by Sound Transit and jurisdictional partners. A Partnering Agreement and Concurrence Matrix describing topics and objectives of these documents is included in the appendix.

Project Partnering Agreement

At the initiation of each major capital project, Sound Transit will propose a Partnering Agreement to be executed with project partners. It will memorialize:

- **The agreed-upon engagement process (including Elected Leadership, Stakeholder, and Interagency groups described above) and meeting schedules.**
- **Project scope, schedule, and budget from voter approved plans, as well as key project milestones.**
- **A plan for how both Sound Transit and partner agencies will staff the project, including staff roles, responsibilities and contacts.**
- **Anticipated date of future concurrence and agreement actions to document the preferred alternative, design criteria concurrence, and permitting processes.**
- **Partner responsibilities to provide information on existing conditions and planned projects within the planned project area.**

By providing project milestones and establishing partnering agreements, Sound Transit and its partners will have a common understanding of roles, responsibilities and schedule and budget imperatives to ensure timely delivery of capital projects. Funding for a permitting manager may be included for complex projects if Sound Transit determines that so doing would be a benefit to securing permit management services from a partner agency or jurisdiction.

RESULT: Sound Transit and partners share expectations for project schedule and budget and accept mutual accountability for meeting key milestones.

Preferred Alternative Concurrence and Permitting Plan

In addition to executing a Partnering Agreement with the jurisdiction where the project will be built, Sound Transit will seek concurrence documentation signed by executive leadership of each agency to memorialize identification of the preferred alternative and to establish a commitment to streamlined processes with permitting jurisdictions. On previous projects these nonbinding agreements have usually been developed after the Board has already selected the project to be built. For future projects, staff will generally negotiate two term sheets during the environmental review process. For smaller projects, such as access improvements to an existing station, a single term sheet addressing both the preferred alternative and permitting process may be developed.

The preferred alternative concurrence document will be developed at the end of the alternatives development phase and prior to the Board identification of the preferred alternative. The concurrence document would likely take the form of a letter or memo. As the environmental review process nears completion, Sound Transit and jurisdiction staff will develop a permitting plan to document the permitting process, and to identify development code conflicts or issues and the plans to resolve them. The permitting plan will also address the selected construction delivery method and how it relates to the permitting process.

RESULT: By memorializing concurrence on the preferred alternative early in project development, the risk of significant changes to, as well as the number of alternatives studied during environmental review should be reduced. Furthermore, when the Board prepares to select the project to be built, the permitting plan will provide guidance for obtaining permits and approvals with a commitment to efficient permitting. These agreements provide greater transparency and broader understanding of alternatives being studied and when permits will be issued by local jurisdictions.

Establish permitting/development implementation actions

Upon completion of environmental review and selection of the project to be built, the permitting process begins. Sound Transit and jurisdictional staff will implement the permitting process identified in the permitting plan. These actions may include enacting local code amendments and other agreements to facilitate the preparation, filing and diligent processing of any required permit modifications or renewals of permits, with the goal of receiving land use permit decisions from the permitting jurisdiction within 120 days of submittal, and other technical permits within the timeframe established in the permitting plan. Depending upon the permitting plan, the implementation actions could be formalized in either a Permitting Agreement or a Development Agreement (a specific type of land use agreement authorized by Washington state law), or in some cases, a formal agreement may not be necessary. Sound Transit recognizes the need in certain circumstances to provide resources to permitting authorities in order to achieve these schedule goals. Permitting or development agreements will be negotiated and budgeted for during preliminary engineering and executed upon completion of environmental review.

RESULT: More clarity and certainty regarding the permitting process and code requirements will lead to less design re-work, allowing the project to move expeditiously through the final design and permit approval phase. Partners will have resources available to ensure design review and permitting work can be accomplished in the timeframe described in the permitting plan.

ENHANCE COMMUNITY ENGAGEMENT AND COMMUNICATIONS, TRANSPARENCY AND ACCOUNTABILITY

COMMUNICATIONS AND PUBLIC INVOLVEMENT

Robust communications and public involvement with local communities where projects are to be built will be an early and ongoing element of project development and construction. For each project a Community Engagement and Communications plan will be drafted that details points for outreach and engagement with local communities. To support communications and external engagement, Sound Transit will assign a Public Information Officer, Government and Community Relations and Community Outreach staff to each project. Among their duties will be to guarantee that all affected communities, including under-represented, low-income and minority communities, are informed about project development milestones and are encouraged to offer their input and comment.

The public will have opportunities for input on decisions such as route alignment, station location and design, access, transit-oriented development (TOD), and construction plans. Sound Transit will use a variety of tools to engage the public during project development and construction including:

- **Elected Leadership Group meetings (described above).**
- **Stakeholder Group meetings (described above).**
- **Sound Transit Board meetings.**
- **Open Houses, both in-person and online.**
- **Presentations at city council and community meetings.**
- **Formal comment periods and meetings during environmental review.**
- **Targeted outreach to low-income, minority and ethnic populations, including translations.**
- **Outreach presence at community events, fairs and festivals.**
- **Door-to-door outreach, especially immediately prior to and during construction.**
- **Targeted social media posts to reach affected communities.**
- **Emails to self-identified interested constituents.**

RESULT: Project stakeholders, including local residents, are informed of project status and given opportunities to shape project decisions. Projects are responsive to local concerns.

TRANSPARENCY AND ACCOUNTABILITY

To assist in maintaining project delivery timelines, Sound Transit will develop a schedule dashboard to help jurisdictions and the public clearly understand project milestones. The dashboard will be available on each project web page and will illustrate key project milestones tracked throughout the project, especially during early planning, environmental review, and permitting. The milestone completion dates will be developed in conjunction with agency partners and stakeholders. The goals of the dashboard are to provide increased transparency and accountability regarding project schedules; to outline when public input and feedback is needed; to highlight when jurisdictional

approvals and permits are required; to create shared responsibility for achieving the milestones; and to keep projects moving forward in an efficient manner.

The milestones included in the schedule dashboard will be modeled on those tracked in the federal United States Department of Transportation (USDOT) dashboard (permits.performance.gov/projects) for environmental review and other federal approvals but could also include milestones such as those related to state and local approvals and permitting, including state right of way (ROW) use agreements, as well as critical path construction milestones. The level of detail tracked in the dashboard will increase as the project advances and the specific project approvals become better defined.

RESULT: Accountability for meeting project milestones is shared and transparently displayed.



STRATEGIC INITIATIVE 2

Apply innovative ideas and lessons learned to refine and improve project development and delivery

In addition to strengthening external collaboration and communication, Sound Transit will apply innovative ideas and lessons learned from 20 years of project delivery to the development of future projects. The following steps are designed to maintain project schedules, particularly during planning, design and permitting phases, while developing quality projects within budget.

BUILD ON ST3 PLAN AND REPRESENTATIVE PROJECT DEFINITIONS

Representative projects were developed for the purpose of establishing project scope, cost estimates and ridership forecasts. These representative projects formed the basis of the ST3 plan that was subsequently approved by voters. The ST3 Plan will be used to establish transit mode, corridor, number of stations and general station locations during the project's environmental review phase as well as during development of the project budget and schedule. Project development will start with the ST3 representative project to investigate what other reasonable alternatives should be evaluated.

RESULT: Project schedules and budgets benefit by building on work already done and publicly vetted rather than starting anew.

IDENTIFY PREFERRED ALTERNATIVE EARLY

For major projects requiring environmental review of multiple alternatives, a reasonable range of alternatives must be studied in compliance with National Environmental Policy Act and State Environmental Policy Act, and Sound Transit staff and the Board must keep an open mind about all such alternatives until the completion of environmental review. However, staff will ask the Board to identify the preferred alternative at the end of the alternative development process and prior to starting preparation of draft environmental documents, having considered recommendations on this topic from the Leadership and Stakeholder groups. Early identification of the preferred alternative and

key project goals will jump-start the public debate about station and alignment decisions, revealing areas of broad agreement as well as areas where project leadership needs to focus problem-solving efforts. It will also require early risk analysis to identify areas requiring additional engineering investigation prior to identification of the preferred alternative. For example, unique bridge structures, tunnels and sensitive environmental areas may require more than a conceptual level of analysis to fully inform the cost trade-offs between alternatives. In cases where some parties have an interest in expanding project scope beyond that allowed under Sound Transit's financial plan, options for reducing scope elsewhere on the project or increasing funding through local contributions and other means will be analyzed. Agreement on the scope and timing of these investigations will be memorialized in the preferred alternative concurrence document described above.

RESULT: This will allow public consensus on the preferred alternative to emerge earlier in the process and may result in fewer alternatives studied. It will also better ensure budget discipline through the project development process.

INCLUDE CUSTOMER INPUT TO ENSURE AN EXCELLENT RIDER EXPERIENCE

Providing an excellent customer experience is a core value for Sound Transit. From the earliest stages of capital program development, customer needs will be considered, making use of user-centered research, industry best practices and lessons learned from customer feedback. Customers will therefore be included in Stakeholder Groups, described above. Sound Transit is creating a new position of Customer Experience Officer to lead agency representation of rider concerns. The lessons learned by this officer will be provided to project teams.

RESULT: Projects are designed to deliver a consistent, excellent experience for regional transit riders that is cost effective over the entire life cycle of the transit service.

INVOLVE OPERATIONS STAFF EARLY IN ORDER TO DESIGN FOR OPERATIONS AND MAINTENANCE

In addition to direct feedback from transit riders, successful projects need to consider how the project will be operated and maintained to best serve the traveling public from the outset. Sound Transit and transit partner operations staff can provide invaluable perspectives on how best to design a project which will serve transit riders and create efficient operations and maintenance. Therefore, these staff will be included from the formation of project teams (described below).

An early activity with operations staff will be to further develop long-range operations plans. As an example, the phased delivery of light rail extensions requires development of a systemwide Operations Plan for the build-out of the rail network and maintenance facilities. This plan will ensure the operating integrity of the current system during expansion; forecast the fleet needs and base capacity requirements in time to support light rail line extensions; and minimize interim investments. The Operations Plan will be developed in 2017 and 2018. The master project schedule will be evaluated against the scheduled delivery of light rail vehicles and maintenance facilities and expanded to include fleet procurement.

RESULT: Projects are designed with attention to long-term maintenance, operation, and functionality.

INCLUDE MULTI-MODAL ACCESS AND TRANSIT-ORIENTED DEVELOPMENT (TOD) POTENTIAL AS EVALUATION POINTS IN IDENTIFYING A PREFERRED ALTERNATIVE AND STATION LOCATIONS

As reflected in Board policies regarding station access and TOD, station location and design decisions should be informed by the ability for customers to enjoy convenient access, including by connecting local transit, foot, bicycle, carpools and rideshare services. Access is enhanced when considered early in project development and by collaborating with local jurisdictions. Such collaboration allows Sound Transit access investments to be leveraged for maximum value when combined with local plans and funding. TOD, including the development of affordable housing, can be most successful when its potential is included in station and construction staging location decisions. Additionally, early evaluation of station access and TOD opportunities enables the Board to weight these factors when identifying the preferred alternative for a project.

Enhance access to the system

The system expansion program emphasizes the importance of and provides funding for effective access to Sound Transit services. Once a station site is identified, transit integration, nonmotorized access, and in some cases parking will be incorporated as design progresses. When a project includes multiple stations, access budgets will be managed across the entire project in order to focus investments where the benefit will be greatest. Access improvements may be considered for early delivery if they do not conflict with project construction and discretionary approvals for the project have been obtained.

Transit integration: Sound Transit and partner agency staff will develop transit integration plans for on- and off-street transit transfer facilities during conceptual and preliminary engineering. During design, wayfinding and other improvements to the transfer environment will be incorporated.

Nonmotorized access: Sound Transit staff will coordinate with jurisdictional staff to identify priorities for improving pedestrian and bicycle connections to stations and will incorporate these improvements during conceptual and preliminary engineering.

Parking access: Parking will be included at some stations based upon the voter-approved plans. Sound Transit will evaluate potential locations for parking during the conceptual engineering phase of project development by performing access and demand studies. Opportunities for meeting parking demand also include shared and leased parking; construction of new parking; provision by private developers within TODs; pricing and other parking management strategies.

In 2017 Sound Transit will also develop guidelines and procedures for allocating the \$100 million regional System Access fund identified in the ST3 Plan. Staff will prepare draft project eligibility and selection criteria to distribute funds, including expected matching dollars, for the Board of Directors to consider. Staff will define roles of Sound Transit, jurisdictions and other parties such that implementation is efficient, timely, and provides meaningful access improvements for customers.

RESULT: Sound Transit access investments are optimized for customer experience, multi-modality and sustainability, and are leveraged and integrated with local commitments.

Emphasize transit-oriented development opportunities

Leverage community development opportunities to spur growth of compact, sustainable station areas: During project development, the project team (defined below) will include TOD staff representatives who will assess TOD potential in possible station areas, provide technical support to local jurisdictions and identify potential development partnerships. As the project advances through project development, staff will more specifically define TOD opportunities; provide guidance during station design; develop strategies for partnerships; identify timing of parcels available for TOD; and recommend decisions for Board approval.

RESULT: Compact, walkable communities adjacent to stations help increase ridership.

Assess TOD opportunities on surplus property when selecting construction staging areas:

Sound Transit will support analysis of opportunities for development around Sound Transit facilities and on properties owned by Sound Transit that are no longer needed for a transit or construction purpose. This will foster redevelopment of properties for TOD uses that are no longer needed for building or operating the transit system. Properties may be disposed of through sale, lease, or transfer of land or air rights. To prepare for redevelopment of the construction staging areas, the TOD program will lead a TOD-specific community and Board engagement process, develop solicitation documents, offer properties, evaluate proposals and negotiate transactions on properties.

RESULT: Early and strategic staging decisions can result in TOD that contributes to the vitality of station areas rather than undevelopable remnant properties.

Move forward on equitable development and affordable housing: Within 18 months of the passage of the November 2016 ballot measure, Sound Transit will develop an equitable regional TOD strategy. This will require the Sound Transit Board to develop a framework for determining criteria under which surplus property is suitable for housing; how to offer such properties to qualified entities; and whether such properties should be discounted to help facilitate affordable housing. Additionally, Sound Transit is required to contribute \$20 million to a regional affordable housing fund through five annual \$4 million contributions commencing by 2019.

Sound Transit TOD staff in 2017 will use the properties in the TOD offering phase to engage with the Board on how to best formulate the framework discussed above and to inform the Board development of an equitable regional TOD strategy.

RESULT: Early implementation of equitable development and an affordable housing framework for the Board to consider when updating TOD policy will enhance station area TOD.

EMBRACE ALTERNATIVE PROJECT DELIVERY METHODS EARLY

Sound Transit is now experienced with multiple project delivery methods including design-bid-build (DBB), general contractor construction manager, and design-build. Best industry practice is to select the project delivery method early in project development. The final preliminary engineering delivery is then tailored to the selected method and may consist of either 30% plan sets for projects where Sound Transit will directly manage the design, or project requirements and bridging documents for design-build projects. Accordingly, Sound Transit staff intends to select the project delivery method

as soon as a preferred alternative is identified. Alternative delivery methods will be evaluated against project goals before deciding which method to employ.

The agency is also actively studying public private partnership models and procedures to review unsolicited proposals as potential means for delivering some future projects. Public Private Partnership (P3) is a contract whereby Sound Transit enters into a long-term agreement with a private party to build and operate a Sound Transit capital project. Sound Transit will evaluate its capital programs for P3 opportunities and execute those P3 transactions which will result in significant improvement over traditional project delivery methods, including: realizing capital and operating cost savings; reducing risks; augmenting agency financial capacity; improving project outcomes; speeding delivery; and/or supplementing agency project delivery capacity. The preliminary engineering deliverable for P3 projects will include project requirements and bridging documents that address operating as well as project design requirements.

Unsolicited proposals are independently originated and developed by the proposer without Sound Transit's supervision, endorsement, direction, or direct involvement. They can be a valuable means for Sound Transit to obtain innovative or unique supplies, methods, or approaches from outside sources. Sound Transit is developing a procedure for reviewing unsolicited proposals to facilitate their receipt and evaluation while preserving the integrity of the procurement process and conforming to applicable laws and regulations. To be considered, proposals will be required at a minimum to be innovative, unique, pragmatic, and sufficiently detailed that their benefits in support of Sound Transit's mission and responsibilities are apparent.

RESULT: Selecting the project delivery method early will allow the final preliminary engineering deliverable to match the selected method thereby making the most efficient use of engineering resources and potentially accelerate the next phase of design development.

ACCELERATE THE START OF REAL ESTATE PURCHASES

Property purchase is almost always a critical path activity for projects. Moving forward, preparing for property acquisition, including construction staging and temporary construction easements, will be considered earlier in project development and no later than the preliminary engineering stage. Staff will seek letters of concurrence with cities on design issues affecting property acquisition. Prior to a project's transition to final design, staff experts from Real Estate, Right of Way Engineering, Legal, and other Sound Transit departments will work collaboratively with the Project Management Team (see below) to fully develop the project's Real Estate Acquisition Plan and will identify which properties need to be acquired and how soon after completion of environmental review, in order to meet the project schedule. Additionally, agency leadership will continue discussions with WSDOT and FHWA to clarify the approval process for interstate right of way use.

RESULT: Real estate acquisition occurs on a timely basis and meets project schedule milestones.

CONTINUE TO BE INDUSTRY LEADER ON LONG-TERM SYSTEM STATE OF GOOD REPAIR

Maintaining and operating the high-capacity system approved by voters is an essential practice for Sound Transit. Sound Transit will invest in, maintain, and manage its physical assets and infrastructure to ensure safe, cost-effective and sustainable ongoing provision of regional high-capacity transit services to the citizens of the Puget Sound region. This will require that the agency maintains a state of good repair through capital replacement, maintenance reserves and annual budgetary amounts, meeting or exceeding all federal and other regulatory requirements.

RESULT: System continues to serve public for generations.



STRATEGIC INITIATIVE 3

Align internal and external resources to support seamless project management through all project phases

Delivering Sound Transit's ambitious capital program will require new ways of organizing internally as well as working with the contracting and consulting communities. In 2016 under new agency leadership, Sound Transit conducted internal continuous process improvement and engaged in industry review. Needing to improve internal and external collaboration emerged as a theme during these reviews.

Cross-functional project teams

Project teams will be interdisciplinary and, in the case of large projects, co-located. The interdepartmental team will have dedicated representation from key staff disciplines from the start of the project, ensuring that project development integrates key components of planning, design, construction and operations. Leadership of the team will rotate depending on project phase, from Project Development to Design and Construction to Operations, while being supported by a team of other disciplines, including Communications, Procurement and Contracts, Government and Community Relations, Community Outreach, Finance, Real Estate and Legal. This interdisciplinary, co-located concept will provide continuity through the life of a project. For large projects, Sound Transit will also invite partner agency staff to co-locate. Each project leadership team will be charged with engaging their team in developing a project team charter that will establish roles and responsibilities, project goals, and team norms. The project team charter will be updated as the project moves across the phases of delivery. A project team charter outline is available in the appendix. Large capital projects will also develop a Project Management Plan (PMP) following FTA guidelines. A PMP outline is available in the appendix.

Corridor Teams

Project teams will be overseen and supported by geographic corridor teams who will ensure that engagement and communications with jurisdictions are coordinated, for example when multiple projects affect a single jurisdiction. Corridor teams will also draw upon the expertise of staff with broader awareness of project and service delivery in a corridor and provide a venue to problem-solve across projects. Corridor Teams will report quarterly to the Sound Transit Executive Staff Leadership Team, who has responsibility for overall program management of system expansion. A Corridor Team organizational chart is available in the appendix.

Staff training and leadership development

Sound Transit training tools such as the ST University and the Management Excellence Program will be utilized to develop and provide training in the new approaches to community engagement and project delivery described in this document. In addition, value engineering exercises for capital projects and continuous process improvement workshops can provide staff with tools to advance projects through unique challenges.

The continuous process improvement tools were used in 2016 to develop several of the reforms described in this document, including the emphasis on early consensus building, streamlined permitting, and accelerating the start of real estate purchases. As system expansion continues, staff will evaluate these reforms and recommend required changes to the agency's policies and procedures.

BUILD LABOR, TECHNICAL AND PROFESSIONAL SERVICE CAPACITY IN THE REGION

To implement system expansion, Sound Transit will expand its technical capacity including internal staff, and professional service consultant teams as well as labor. We will recruit the region's leading engineers, planners, construction managers, labor partners, procurement specialists and architects to deliver the system expansion program.

Develop labor capacity

Sound Transit predicts that it will require more than 50+ million labor hours to complete voter-approved system expansions over the next 25 years. Assessing Sound Transit's scheduled investments and labor needs is a critical element of construction demand and supply in the region.

Currently the Puget Sound region lacks the necessary depth in the worker base to fill all anticipated upcoming positions. Sound Transit is involved in several collaborative efforts with regional agencies and non-profits focused on expanding the trained labor pool:

Regional Apprenticeship Preparation Integrated Delivery System (RAPID) Fund: supports pre-apprenticeship programs that prepare unemployed and underemployed people to compete for entry level positions as apprentices on construction jobs. RAPID is currently funded by charging the construction contractors \$.05/craft hour.

Ladders of Opportunity: Creates access to construction jobs for underrepresented populations, especially women and people of color.

Tacoma Oriented Development Pilot: Funds an Economic Empowerment Initiative to create access to construction jobs for local residents.

Regional Pre-Apprenticeship Collaborative: Identifies ways for regional agencies, labor and nonprofits to reduce barriers impacting pre-apprentices and to enhance training.

Regional Collaborative of Public Owners: Pools resources of public owners to increase the number of skilled workers in the pipeline; to increase retention through mentoring; and to develop and implement an accountability system.

SMALL BUSINESS DEVELOPMENT AND LABOR COMPLIANCE

Sound Transit's Office of Small Business Development and Labor Compliance works to ensure the businesses and workforce building our regional transit represent the demographics of our region. As a recipient of federal funds, Sound Transit implements a Disadvantaged Business Program (DBE) and a Title VI Program compliant with federal regulations. The Office of Small Business Development and Labor Compliance also administers Sound Transit's Project Labor Agreement to foster labor harmony and promote opportunities for people of color and women in construction.

COLLABORATE WITH THE PRIVATE SECTOR

Sound Transit, the American Council of Engineering Companies (ACEC) and the Associated General Contractors have begun discussions on how to work together to improve project delivery. As an initial step, Sound Transit and ACEC have identified the following four areas for joint work groups to explore potential improvements:

Streamlining opportunities in project development

Examine the level of detail needed to support early identification of a preferred alternative; environmental review processes; and the level of design needed during preliminary engineering for each project delivery type.

Improving contract administration

Examine alternative delivery lessons learned, the schedule and quality incentive performance program, and other contract terms and procedures, with the intent of increasing value to the public through effective procurement processes and decision making.

Small and disadvantaged business participation in the system expansion program

Identify process and/or contracting opportunities that meaningfully improve and increase opportunities for DBEs and small business participation and leadership in the agency's system expansion program.

Project delivery – right sizing for success

Assess the roles and responsibilities between Sound Transit staff and consultants under traditional and alternate delivery methods.

CONCLUSION

While this System Expansion program is ambitious, it comes at a time in Sound Transit's history where the agency has developed a strong base of experience and expertise in project delivery. Continuous improvement has been a hallmark at Sound Transit and the agency has every expectation that project delivery processes will continue to be refined and made more efficient moving ahead.

Lessons learned about which processes work well and which deserve refinement are reflected in the strategic initiatives described in this document. They position Sound Transit to meet the aggressive schedules included in the ST3 Plan and to also address new policy initiatives related to access, TOD and sustainability.

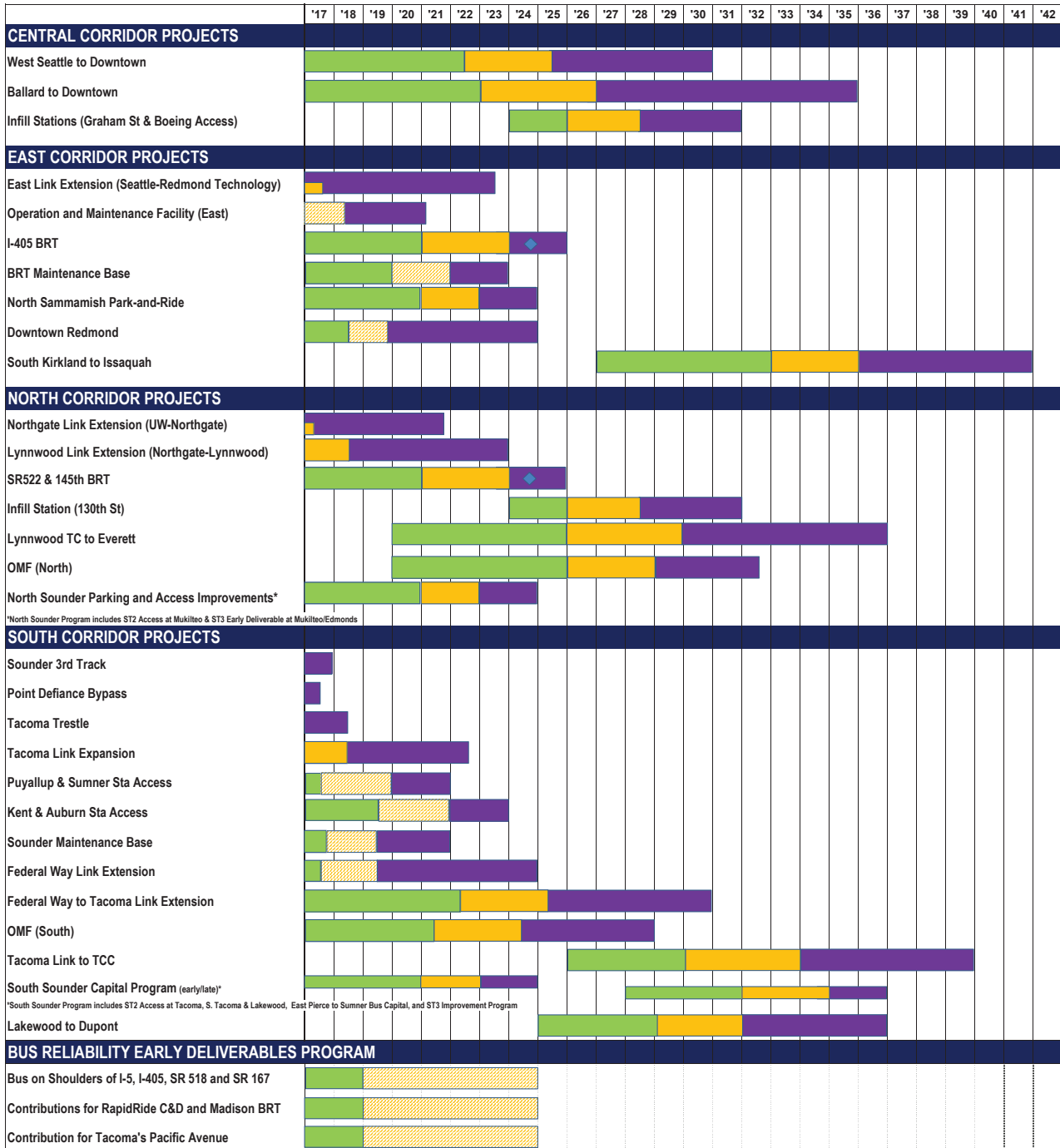
Delivering this system expansion program will make a substantial and positive impact on our region. In the face of continued population growth, the mass transit projects we are preparing to build will provide fast, reliable and stress-free transportation to work and play for hundreds of thousands of riders every day. It will put jobs and economic opportunity in reach of residents throughout the region. And it will reduce carbon emissions and encourage compact, vibrant, walkable communities that together help sustain our environment.

With the stakes this high, it is imperative that we deliver this system expansion in a timely manner. This requires the public and private sector pulling together with discipline, creativity and fiscal prudence to manage the significant risks associated with large capital programs. The reforms described in this report are intended to assist in that pursuit.

APPENDIX

1. Project Timelines of Major Sound Transit Projects
2. System Expansion Map
- 3–5. Partnering Agreement and Concurrence Matrix
6. Project Team Charters Outline
- 7–10. Project Management Plan Outline
11. Corridor and Project Team Org Chart

PROJECT TIMELINES OF MAJOR SOUND TRANSIT PROJECTS



KEY:

- - Project Development
- - Final Design (hatched lines indicates Design-Build)
- - Construction
- ◆ - BRT Revenue Service

SYSTEM EXPANSION MAP



PARTNERING AGREEMENT AND CONCURRENCE MATRIX

Project Phase:	Alternatives Development	Conceptual Engineering	Preliminary Engineering	Final Design	Final Design & Construction
Desired Action:	Partnering Agreement	Preferred Alternative Concurrence	Permitting Plan	Permitting Implementation	Project Implementation
Brief Description:	Establish principles of cooperation and describe project expectations, roles, and responsibilities. This agreement is intended to cover the duration of project development through construction and function as an “umbrella” for subsequent agreements, amendments, and activities	Establish concurrence for the Board identification of the preferred alternative and, if an EIS will be prepared, a range of alternatives for environmental review. Also document project-specific issues needing additional discussion.	Confirm the preferred alternative or describe modifications that may have occurred during environmental review and describe the project permitting strategy including special considerations for the project and construction delivery method.	If the development code provides for a consolidated and streamlined permitting process, a formal agreement might not be needed. If a formal agreement is needed, it may take the form of a Board/Council approved permitting agreement or development agreement.	Implementation agreements are tailored to address project-specific needs to implement the project, such as utility relocations, environmental mitigation projects, joint project partnerships, maintenance agreements, construction services agreements, etc.
Format of Action:	Board/Council approved agreement	Executive level non-binding concurrence document	Mutual acceptance at Executive level of plan or charter document	Case-by-case	Case-by-case
Timing of Action:	Upon Board action to establish the project	Concurrent with Board identification of preferred alternative and range of alternatives, prior to start of environmental review process	Before completion of environmental review, as sufficient information is available	After Board identification of Project to be Built and environmental decision is complete	During Final Design and Construction

Topic	Objectives for Alt. Dev. Phase Partnering Agreement	Objectives for CE Phase Pref. Alt. Concurrence	Objectives for PE Phase Permitting Plan	Objectives for Final Design Permitting Implementation	Objectives for FD&CN Phase Project Implementation
Project Management <ul style="list-style-type: none"> <input type="checkbox"/> Project coordination and communication <input type="checkbox"/> Open & transparent decision-making process <input type="checkbox"/> Engagement process <input type="checkbox"/> Schedule <input type="checkbox"/> Organization charts <input type="checkbox"/> Dispute resolution 	<ul style="list-style-type: none"> <input type="checkbox"/> General goals and expectations of Sound Transit and partners for each phase <input type="checkbox"/> Estimated level of participation for project activities and engagement process <input type="checkbox"/> Processes for document review and comment, decision-making, and dispute resolution <input type="checkbox"/> Commitment to high-level project schedule and budget constraints <input type="checkbox"/> Personnel to serve as primary points of contact 	<ul style="list-style-type: none"> <input type="checkbox"/> Update schedule and provide more specificity, including estimated schedule to address project-specific issues 	<ul style="list-style-type: none"> <input type="checkbox"/> Overall permit approval plan and schedule consistent with project budget and schedule <input type="checkbox"/> Identify agreement(s) to implement plan <input type="checkbox"/> Identify personnel responsible for implementing the permitting plan (who will submit, who will review, who has approval authority) 	<ul style="list-style-type: none"> <input type="checkbox"/> Affirm commitment to project schedule and budget constraints <input type="checkbox"/> Confirm/update responsible personnel <input type="checkbox"/> Execute agreement or proceed with permitting plan if no agreement is necessary, as determined by the permitting plan 	<ul style="list-style-type: none"> <input type="checkbox"/> Project-specific implementation agreements would be identified in permitting plan or during Final Design and Construction
Project Development <ul style="list-style-type: none"> <input type="checkbox"/> Design development and review <input type="checkbox"/> TOD <input type="checkbox"/> Non-motorized access <input type="checkbox"/> Parking <input type="checkbox"/> Transit (bus/rail) integration <input type="checkbox"/> Sustainability <input type="checkbox"/> Partner Capital Project Integration <input type="checkbox"/> Betterments 	<ul style="list-style-type: none"> <input type="checkbox"/> Overall description of design development process <input type="checkbox"/> Establish expectation that partner reviews are intended to identify and resolve code conflicts prior to permitting <input type="checkbox"/> Address incorporating appropriate TOD, non-motorized access, parking, transit integration, and sustainability elements into project <input type="checkbox"/> Review partner’s capital improvements program to identify opportunities for project coordination 	<ul style="list-style-type: none"> <input type="checkbox"/> Address conditions or elements specific or unique to the jurisdiction (such as joint project opportunities) 	<ul style="list-style-type: none"> <input type="checkbox"/> Document development code conflicts with the project design and include plan to resolve conflicts, which may include design changes, code changes, or other means <input type="checkbox"/> Determine project elements or joint projects to be managed by partners 		

PARTNERING AGREEMENT AND CONCURRENCE MATRIX, CONTINUED

Topic	Objectives for Alt. Dev. Phase Partnering Agreement	Objectives for CE Phase Pref. Alt. Concurrence	Objectives for PE Phase Permitting Plan	Objectives for Final Design Permitting Implementation	Objectives for FD&CN Phase Project Implementation
<p>Project Definition</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identification of Alternatives <input type="checkbox"/> Preferred Alternative <input type="checkbox"/> Selection of Project to be Built <input type="checkbox"/> Change Management 	<ul style="list-style-type: none"> <input type="checkbox"/> Alternatives screening process and process to identify preferred alternative, and if appropriate, range of alternative 	<ul style="list-style-type: none"> <input type="checkbox"/> Concurrence for the preferred alternative and range of alternatives, if identified <input type="checkbox"/> Describe decision-making regarding alternatives as environmental review progresses 	<ul style="list-style-type: none"> <input type="checkbox"/> Confirm preferred alternative or document modifications expected to result from environmental review 	<ul style="list-style-type: none"> <input type="checkbox"/> Value Engineering/Alternative Technical Concepts 	
<p>Community Engagement and Communications</p> <ul style="list-style-type: none"> <input type="checkbox"/> Elected, Stakeholder, Technical Groups <input type="checkbox"/> General Project Information and Outreach 	<ul style="list-style-type: none"> <input type="checkbox"/> Roles and responsibilities regarding community engagement and communications, including the leadership and stakeholder group assessment and selection process, ongoing management, and communications 	<ul style="list-style-type: none"> <input type="checkbox"/> Prior to Board identification of the preferred alternative, provide the Board with recommendations from the jurisdiction and community members, including elected, stakeholders, and the public 	<ul style="list-style-type: none"> <input type="checkbox"/> Provide on-going information and engagement of jurisdictions and community members through planning & environmental review <input type="checkbox"/> Identify public notice and hearing requirements required by the permitting plan 		<ul style="list-style-type: none"> <input type="checkbox"/> Provide on-going information and engagement of jurisdictions and community members including elected, stakeholders, and the public through final design and construction
<p>Environmental Review</p> <ul style="list-style-type: none"> <input type="checkbox"/> Public Comment and Review <input type="checkbox"/> Development of Documents <input type="checkbox"/> Use of Documents <input type="checkbox"/> Project Changes 	<ul style="list-style-type: none"> <input type="checkbox"/> Document expectation that project environmental documents will be sufficient for and used for partner permitting decision <input type="checkbox"/> Identify milestones appropriate to level of environmental review 	<ul style="list-style-type: none"> <input type="checkbox"/> Provide clear definition of term “preferred alternative” and relationship between environmental mitigation and permit conditions 	<ul style="list-style-type: none"> <input type="checkbox"/> Confirm that environmental documents are sufficient for partner permitting decisions 	<ul style="list-style-type: none"> <input type="checkbox"/> Commitment for jurisdiction to use Sound Transit environmental documents to establish project environmental mitigation 	
<p>Streamlined Permitting</p> <ul style="list-style-type: none"> <input type="checkbox"/> Development and Building Code Review <input type="checkbox"/> Level of Permitting Review Responsibility <input type="checkbox"/> Land Use & Environmental Approvals including Commission involvement <input type="checkbox"/> Building & Construction/Trade Permits 	<ul style="list-style-type: none"> <input type="checkbox"/> Commitment to develop a permitting plan that supports the preferred alternative and project schedule prior to the conclusion of environmental review <input type="checkbox"/> Expectation that discretionary decisions be provided within 120 days of submittal and administrative permits will be processed within the timelines agreed to in the permitting plan <input type="checkbox"/> Process to review development and building codes, including fire and life safety regulations, the stormwater manual used by the partner, and the Sound Transit Design Criteria Manual 		<ul style="list-style-type: none"> <input type="checkbox"/> Role and extent of partner permitting review and approval (i.e. special engineering reviews) <input type="checkbox"/> ID Potential development and building code conflicts and plan for resolution <input type="checkbox"/> Prioritized list of permits and approvals needed, submittal contents, review durations, and timeline for decisions <input type="checkbox"/> Permitting responsibilities for elements to be managed by partners, if appropriate <input type="checkbox"/> Design criteria for improvements to be owned or maintained by the partner <input type="checkbox"/> Responsibilities with regard to special engineering elements or outside parties (i.e. utilities and/or WA Labor & Industries) 	<ul style="list-style-type: none"> <input type="checkbox"/> Implement schedules and milestones as identified in the permitting plan <input type="checkbox"/> Implement provisions to address specific reviews and approvals as agreed by Sound Transit and the partners <input type="checkbox"/> Enact development code revisions as mutually agreed in the permitting plan. 	<ul style="list-style-type: none"> <input type="checkbox"/> Managing change during construction <input type="checkbox"/> Final Certificate(s) of Occupancy issued prior to revenue operations

PARTNERING AGREEMENT AND CONCURRENCE MATRIX, CONTINUED

Topic	Objectives for Alt. Dev. Phase Partnering Agreement	Objectives for CE Phase Pref. Alt. Concurrence	Objectives for PE Phase Permitting Plan	Objectives for Final Design Permitting Implementation	Objectives for FD&CN Phase Project Implementation
<p>Planning and Managing Construction</p> <ul style="list-style-type: none"> <input type="checkbox"/> Selection of Delivery Method <input type="checkbox"/> Construction Phasing and Packaging <input type="checkbox"/> Addressing Construction Delivery in Permitting <input type="checkbox"/> Contractor Communications 	<ul style="list-style-type: none"> <input type="checkbox"/> Process and schedule for determining the construction delivery method (i.e. design-build vs design-bid-build), and how decisions will be communicated to the partner <input type="checkbox"/> Overall approach to preparing for and closing out construction <input type="checkbox"/> Protocols for communicating with outside utilities (not managed by jurisdiction) 		<ul style="list-style-type: none"> <input type="checkbox"/> Special considerations, if any, related to the selected construction delivery method (i.e. design-build), phasing or contract packages, other construction-related topics <input type="checkbox"/> Inspection responsibilities/acceptance criteria <input type="checkbox"/> Expectations regarding jurisdiction interaction with contractors and terms for obtaining required certificates of occupancy <input type="checkbox"/> Project-specific implementation agreements and estimated timing of those agreements. 		<ul style="list-style-type: none"> <input type="checkbox"/> Responsibilities for improvements constructed or funded by Sound Transit and to be constructed, owned, leased, or maintained by the partner. Implement utility relocation activities
<p>Property Acquisition</p> <ul style="list-style-type: none"> <input type="checkbox"/> Overview of Regulations <input type="checkbox"/> Real Estate Acquisition Plan <input type="checkbox"/> Private Property <input type="checkbox"/> Public ROW: City, WSDOT 	<ul style="list-style-type: none"> <input type="checkbox"/> Describe Sound Transit authority and regulations regarding temporary and permanent property acquisitions <input type="checkbox"/> Purpose of “transit way” agreement, or right to construct and operate in public ROW <input type="checkbox"/> Partner relationship to development within WSDOT ROW, if appropriate 		<ul style="list-style-type: none"> <input type="checkbox"/> Address Sound Transit ability to submit for permits while property acquisition is underway <input type="checkbox"/> Partner involvement, if appropriate, in property acquisition process <input type="checkbox"/> Process to be used to locate Sound Transit facilities on partner’s ROW or property 		<ul style="list-style-type: none"> <input type="checkbox"/> Execute transfer of improvements to be owned/maintained by partner
<p>Staffing Resources and Funding</p> <ul style="list-style-type: none"> <input type="checkbox"/> Project Management <input type="checkbox"/> Design Review <input type="checkbox"/> Permitting <input type="checkbox"/> Construction Services 	<ul style="list-style-type: none"> <input type="checkbox"/> General approach to providing financial resources to partners. Sound Transit may provide resources for project management, and as determined by project need, technical services for complex projects <input type="checkbox"/> Address federal provisions as appropriate 		<ul style="list-style-type: none"> <input type="checkbox"/> Assess partner staffing capacity and resources with regard to implementing the permitting plan and determine if additional resources are necessary 	<ul style="list-style-type: none"> <input type="checkbox"/> If additional resources are needed to implement the permitting plan, include staffing in the permitting implementation agreement or separate staffing agreement 	

PROJECT TEAM CHARTERS OUTLINE

This exhibit provides a sample template and initial guidance for developing a project charter. The project charter will provide a bird's eye view of the project's objectives, team structure, and expectations. When developing the project charter, project teams should consider how an individual project's size, scope, and team may affect the content, structure, and use of the charter. At a minimum, project charters will describe the project scope, team, and decision-making structure. Opportunities to use the project charter as a team-building tool throughout the life of the project should be explored, and the team should review and update the charter as the project and team evolve. The initial project charter should be developed early in project development to allow the team to develop an early, shared understanding of key project objectives, stakeholders, and expected participation from team members.

I. The Project

- a. Project Objectives and Reasons for Undertaking the Project
- b. Scope
- c. Alignment with Agency Objectives

Guidance and Considerations: This section discusses the project reasons and scope – why it is being pursued, what it is, and how it contributes toward the organization meeting its objectives. Elements that are in- and out-of-scope should be discussed, to the extent known. Teams should consider what direction already exists and what direction will need to be provided to fully define the project objectives and scope.

II. The Project Team

- a. Project Team, Relationship to Organizational Structure, & Sponsorship
- b. Stakeholders
- c. Values

Guidance and Considerations: In addition to outlining the project team, project sponsor, and key stakeholders, this section acknowledges the agency organizational approach and describes, at a high level, relationships of the project team to other project teams, to corridor teams, and to departments. The level of expected stakeholder engagement and influence should be considered. Expressing team values is intended to serve as a "touch point" for team members throughout the project and to foster a sense of genuine engagement, ownership, and responsibility of members in defining and achieving a successful project.

III. Project Management Guidelines

- a. Decision-Making and Authority
- b. Communications and Issue Resolution
- c. Project Scope Control and Change Management
- d. Project Charter Reviews and Updates

Guidance and Considerations: This section outlines expectations for decision-making, communications, and managing issues and changes. Teams should consider revisiting and updating the charter as the project team and project definition evolve; at a minimum, the charter should be reviewed at major project gate transitions (e.g., phase gates 4 and 7). The purpose of regular updates is to provide the team a venue for communication and shared responsibility in problem solving, and to ensure the project direction is clear and well-understood by all team members.

IV. Endorsement

- a. Signatories

Guidance and Considerations: Consider having team members sign the charter and provide copies to signatories.

PROJECT MANAGEMENT PLAN OUTLINE

1. Basis for the project

Objectives of the project

Project Description

Name of project sponsor and all partners involved in project development work

Description of project organization with key personnel and support contractors including safety and security, for Project Development

An anticipated timeline for completing the project development work within the two-year timeframe specified in MAP-21

Evidence of LPA adoption into MPO Long Range Plan

Evidence of project in TIP, STIP

Legal Authority to Implement the Project and other Legal Approvals

PMP Workshop Documentation (If applicable)

2. Environmental Assessment / Mitigation Plan

Delineation of NEPA analysis requirements / Project Impact Analysis

Description of the Mitigation Principles

Plan for Management and Implementation Actions

3. Design Control Plan

Description of relationship between forecasted ridership, operating plan and proposed project transit capacity in guideways, stations, support facilities

Design criteria for Each Discipline

Schedule for the development of contract documents (level of development expected at each milestone for design/construction drawings, specifications, general and supplementary conditions of contracts for construction, and the Division 1)

Design Reviews for drawings and Specifications

- Value Engineering Review / Life Cycle Review
- Coordination Review - internal to agency and design team; External to third parties, intergovernmental, Etc.; Transit-oriented and Joint Dev.
- Constructability Review
- Operability and Maintainability Review
- Other peer or industry reviews.

Design Change and Configuration Control of documents during Design and Construction

- Change identifications
- Documents Procedures
- Review and approval

Plan (List and schedule) for third party agreements permits including utilities, real estate, railroads, transit-oriented development / joint development, etc.

Investigation and Test Planning

PROJECT MANAGEMENT PLAN OUTLINE, CONTINUED

- Plan /schedule for site surveys, geotechnical and material investigation before/during design
- Plan / schedule for geotechnical and materials testing during construction

4. Project Controls

Document and Records Controls

- Description of document organization approach including review, distribution, storage
- Identification of physical document location
- Identification of electronic document control system; description of interoperability among management systems
- Evidence of Document Control Procedures being implemented

Cost Control Procedures

- Description of Estimating Methods/Assumptions
- Final Cost Estimating Methodology Report
- Procedures for maintaining Baseline Project Cost through:
 - o Minimizing schedule delays
 - o Contingency management
 - o Contracting techniques
 - o Cost allocation
- Procedures for working with construction contractors to maintain SCC Cost breakdown of contract sum through construction, at contract closeout.

Schedule Control Procedures

- Description of Scheduling methods and Assumptions
- Procedures for updating Baseline Project Schedule
- Procedures for keeping the project on schedule

Risk Control Procedures

- Description of risk identification procedures pertaining to project team organization, scope, cost, schedule, quality;
 - o Risk identification in project team; drawings; General and Supplementary; Conditions; Div. 1, Div. 2 – 48 Technical Specifications
- Risk evaluation / assessment plan and procedures
- Contingency control and management plan and procedures including establishment of minimum contingency levels at each milestone (contingency drawdown)
- Role of Insurance

Dispute / Conflict Resolution Plan (claims avoidance and claims resolution)

- Plan for Design Phases
- Plan for Procurement
- Plan for Construction Phase
- Plan for Start Up and Revenue Operations

PROJECT MANAGEMENT PLAN OUTLINE, CONTINUED

5. Project Delivery and Procurement Plan

Procedures for Procurement (advertising, bidding, awarding of contracts for consultants and construction contractors, procurement for equipment, etc.)

Procurement Plan and Schedule (indicate project phase, durations for RFP, screening, interviews, selection, board approvals, etc.)

- Community Outreach Services
- Information System Services
- Real Estate Services
- Project Management Services
- Design Services
- Legal Services and other services
- Construction Management Services
- Construction
 - Prelim. Selection of Project Delivery Method (DBB, DB, CMGC etc.) (including rationale for and identification of risks inherent in selected method)
 - Final selection of Project Delivery Method
 - Major Contract Packages – Description of Packages and Construction Sequencing
 - Procurement of Long Lead Items and Pre-FFGA items or work
 - Work by Third Parties such as Utilities, Railroads, Private Sector, etc.

Contracting Strategy for Transit-Oriented Development and Joint Development

Identification of Disadvantaged Business Enterprises (DBE) Opportunities, Federal DBE, State/Local WBE & MBE, Plans and Goals

6. Labor Relations and Policies

Wage Rates and Classifications

Wage and hour Requirements

State and Local Regulations

No-Strike Agreements

7. Construction of Fixed Infrastructure – Procedures

Construction Contract Administration

Construction Management

Construction Inspection

Coordination with Third Parties

Site Logistics Plan (materials transport and storage; temporary site facilities, maintenance or existing pedestrian ways, transit and traffic operations during construction; protection of existing utilities)

Processing Shop Drawings, Bulletin, RFIs

Negotiating and Approving Change Orders and Claims

Substantial Completion; Final Completion

PROJECT MANAGEMENT PLAN OUTLINE, CONTINUED

8. Start up and Revenue Operations

Testing Plan

- Systems
- Equipment
- Vehicles

Closeout Materials (warranties, testing results, O&M manuals, spare parts, etc.)

Plan for Training Staff

9. Sponsor Management Capacity and Capability Documents (MCC)

Management Capacity

10. Quality Assurance / Quality Control Program Plan

QA/QC Plan

11. Safety and Security Management Plan

Safety and Security Management Plan

12. Real Estate Acquisition and Management Plan

Real Estate Acquisition and Management Plan

13. Fleet Management Plan

Fleet Management Plan

Source: FTA Project and Construction Management Guidelines 2016

CORRIDOR AND PROJECT TEAM ORGANIZATION CHART

