PAS REPORT 589

CREATING PLANNING DOCUMENTS

Allyson Mendenhall, Claire Hempel, AICP CUD, Emily Risinger, and Stephanie Grigsby, AICP

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E-mail: pasreports@planning.org

ABOUT THE AUTHORS

Allyson Mendenhall, PLA, LEED Green Associate, is the director of Legacy Design at Design Workshop and a principal in the Denver office. She leads initiatives related to practice-based research, project sustainability agendas, and protocols for project and quality management. Mendenhall is distinguished for her project leadership of large-scale, complex, multidisciplinary design and planning efforts, including the Lowry redevelopment in Denver. A graduate of Harvard College and Harvard Graduate School of Design (GSD), she is the chair of the GSD Alumni Council. She serves as a trustee of the Denver Botanic Gardens and on the Advisory Board of the CU Denver College of Architecture and Planning.

Claire Hempel, AICP CUD, PLA, LEED Green Associate, is a principal in Design Workshop's Austin office. She oversees a wide range of planning and design projects, and has led numerous comprehensive community and environmental planning efforts. She holds a master's degree in community and regional planning from the University of Texas at Austin and a bachelor's degree in landscape architecture from Louisiana State University. Hempel is an active participant in the American Planning Association, cochairing the awards process for the Texas Chapter of APA and serving as secretary for the Central Texas section of APA Texas.

Emily Risinger, LEED Green Associate, NCI CS, is an associate at Design Workshop and executive director of the Design Workshop Foundation. Her work is recognized through many awards and speaking engagements. Her contribution to the recent publication *Design as Democracy: Techniques for Collective Creativity* (Island Press, 2017) highlights participatory budgeting as a transactional design approach for communities. She has served as a leader of the American Planning Association's Urban Design and Preservation Division. Risinger holds a master of science degree in Community and Regional Planning from the University of Texas at Austin School of Architecture.

Stephanie Grigsby, AICP, PLA, LEED Green Associate, is a principal in Design Workshop's Lake Tahoe office and serves on the board of directors of the Landscape Architecture Foundation. Conference presentation credits have included Nevada APA, the American Society of Landscape Architects, and the Society of Outdoor Recreation Professionals as well as a webinar, Best Practices for Producing Plans, Guidelines & Reports, for APA's Urban Design and Preservation Division. Her leadership has resulted in several award-winning planning documents, including the Nevada Department of Transportation's Statewide Landscape and Aesthetics Corridor Plans and the State Route 28 Corridor Management Plan.

Design Workshop is an international practice providing landscape architecture, land planning, urban design, and strategic services to developers, government agencies, institutions, and other clients engaged in improvements to the land. The firm has evolved a proprietary DW Legacy Design approach and distinct culture focused on creating legacy-minded projects that seek to imbue every project with a balance of environmental sensitivity, community connection, artistic beauty, and economic viability that demonstrates measurable results. For almost five decades, Design Workshop has been committed to creating special places that meet today's needs and that are sustainable environments for all time.

ON THE COVER

Planning documents (Design Workshop)

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BONUS CONTENT

As an added benefit, APA has made editable versions of all templates listed in the appendix of this PAS report freely available to APA members, PAS subscribers, and purchasers of this report. Visit www.planning.org/publications/report/9136804/ to download these resources.

PREFACE

The impetus for creating this Planning Advisory Service (PAS) report was a recognition on the part of the authors, all of whom work for Design Workshop, Inc.—a planning, urban design, and landscape architecture firm with a global practice—that there are no industry standards or recommended practices for creating planning documents.

As planning consultants, the authors of this report are aware that many project teams—both in the public sector or in private firms—can underestimate the time and effort needed up front to develop, iterate, and finalize the complex content and format of planning documents. Even in large firms or agencies, project teams engaged in similar endeavors do not always impart the knowledge necessary to successfully synthesize written and graphic materials from many sources. To rectify this knowledge gap, the authors created an internal guide that tapped the deep experience of staff members to teach a common set of standards across the company. This resource has helped to ensure that clear communication, contained scope efforts, efficient processes, and high-quality content mark all final products.

Through frequent collaboration with public-sector planners and community stakeholders, the authors realized that the profession would benefit from a common industry standard for planning documents. The architecture, engineering, and construction (AEC) professions consistently document design proposals as construction documentation (CD) sets, but the planning profession does not have a standard approach for report deliverables. The firm believes that sharing recommended practices improves the skills of all planners, in both public and private practice, and impacts our profession's ability to shape communities and influence the world.

As part of the American Planning Association's PAS report series, this report will broaden the reach of these recommendations, which are of value to anyone engaged in a planning effort and responsible for providing content for a planning document—whether a staff member of a municipal planning department, a planning consultant, or a stakeholder.

EXECUTIVE SUMMARY

Planners frequently create documents and reports that capture the research, recommendations, process, and stakeholder input that are central activities to planning work. These documents are a synthesis of written and graphic materials from many sources. However, there is no industry standard for planning documents. While planning documents are very diverse as far as the breadth and depth of topics and the types of plans being prepared, planning agencies and consulting firms would benefit from some standards to guide the creation of these documents.

This PAS report is intended to serve as a recommended-practices guide for both public-sector planners and planning consultants to create efficiencies, ensure quality, provide clarity on how to set up and contain document creation efforts and review processes, demonstrate ideal work flows, and empower teams to stay within the parameters of project scopes and fees. It is geared toward public-sector and consulting planners that have a role in document oversight, content development, production, and quality management. It may be shared in part or in whole with collaborators to align expectations and processes.

Why This Report?

Planning for sites, communities, and regions is a complex undertaking. The effort to synthesize and distill graphic exhibits and written content from diverse sources requires knowledge, experience, and organizational systems. The suggestions provided in this guide are intended to help planners—both public sector and private sector—to develop and deliver successful planning documents.

Planning documents are very often the key deliverables of a planning project. They are the primary methods planners use to capture the process, design, and planning recommendations for a site, district, community, or regional planning effort, or to address a specific policy topic. Examples include comprehensive plans, design guidelines, strategic plans, master plans, site plans, and corridor plans. Common policy report topics include parking studies, cultural assets and inventories, public facilities and financing, community resiliency, and zoning issues, among many others. Often, these deliverables become legal documents that are adopted by municipalities. Document content must be accurate and must precisely reflect the expert analysis, sound data sources, and many stakeholder inputs received.

Both public- and private-sector planners face challenges in writing planning documents and reports. This PAS report has been developed for all planners who engage in developing, iterating, producing, reviewing, and delivering planning documents that capture the planning processes and proposals for sites, communities, states, or regions. The guidelines and recommendations offered in this report will assist planners in creating efficient processes that enable the work to be completed on time and on budget and that match the objectives that the planning project set out to accomplish.

Project document efforts are typically undertaken by a team and require extensive coordination. Therefore, this report and the tools it provides should be shared with collaborators to ensure that all contributors have the same understanding of the process and anticipated outcome of the project document.

SCOPING CONSIDERATIONS FOR DOCUMENT PRODUCTION

The success of any project is dependent on having a clear and viable scope of work, well-defined deliverables, and widely understood expectations on the part of everyone involved. The process of creating documents typically occurs within the scope of a larger planning effort, for which the final deliverable is the document or report. However, many planners may not adequately consider the elements of the document and document production that impact the work plan, budget, and schedule.

After a project has been approved to go forward, consultants and their public agency clients should come together at a scoping meeting to approve as many expectations of the interim and final document deliverables as possible to finalize the overall scope of work. At that meeting and during the subsequent overall project kickoff meeting the team should capture the client (or project) vision, identify critical success factors, describe the project's dilemma and thesis, and select metrics.

Elements of a project's scope of work that are often overlooked are those associated with the planning document's content and appearance. Most planning documents aim to

encapsulate the process, findings, and recommendations of the overall project. Such a document is very often the primary deliverable of most planning projects, and therefore the project scope of work should describe as many elements as possible regarding its purpose, audience, content, layout, and appearance.

Developing a Project Schedule

The project team should provide input to develop the document production schedule and consider how it relates to the overall project schedule. When the entire team is part of the discussion and agrees to the schedule, each person is more likely to be committed to the schedule because they have been empowered as part of the decision-making process.

The schedule must include adequate time for production and proper quality management review, and it must meet internal review period requirements for public agencies. Accurately anticipating deadlines and review cycles, estimating production efforts, and properly adjusting for the review time required of each document is a critical responsibility of project management. In the event an agency review takes longer than originally agreed upon, the overall schedule may need to shift to allow the consultant or project staff adequate time to address comments and conduct their review.

Often, a general project time line may be initially developed and deadlines refined as an agency's schedule and adoption constraints become known. Public noticing requirements add another layer of consideration. Agencies and consultants should plan to accommodate the schedule requirements to ensure review time is not forfeited.

Developing a Project Budget

Planners who recognize the importance of managing the document production process within the confines of a developed budget are more likely to have successful projects. Planners primarily use two methods to develop a project budget: (1) use the budget from a prior project as a reference, or (2) start from scratch using a spreadsheet. The total amount available for any given project may be determined by how much the sponsoring agency has allocated for it internally as well as the amount of any grant funding the agency has been awarded to pay for the work. Consulting firms must manage their projects to meet client expectations within the available budget.

Managing Change

Changes happen over the course of virtually every project. Project team supervisors, elected and appointed officials, and stakeholder members may change; additional work may be required; or the breadth of work anticipated may be modified. Existing conditions in the planning area may also change over the course of a lengthy project. These and other factors over the project course present distinct challenges and should be addressed as soon as they arise.

The most common change for most planning document efforts is *scope creep*: an incremental expansion of the project scope that can negatively affect the outcome of a project. Scope creep may also affect the project team's job satisfaction and morale. A common example of scope creep is when the team's supervisors, elected or appointed officials, stakeholders, or others ask for more meetings or additional rounds of review, or when stakeholders request that additional topical issues be addressed that were not considered in the initial scope. Many project managers recognize large scope changes but are not as diligent in mitigating smaller scope changes that may cumulatively add up over time. This can reduce the team's ability to deliver work that meets the expectations established during the initial project stages.

PLANNING THE DOCUMENT

Following the kickoff meeting for the broader planning project, a second meeting to start the production of the planning document should be convened with key stakeholders, project managers from the project sponsor (i.e., the agency leading and funding the effort), the consultant group, and team members who will be directly responsible for the written content, graphics, and maps.

The scope items for the planning document inform the agenda for the document kickoff meeting and are key topics to cover. Project leaders might start with a brainstorming exercise to flesh out what the document is intended to accomplish and who the audiences are for the final product. Project leaders should present the public engagement and communications plan to the team to ensure understanding of how that aspect of the project will proceed in tandem with the development of the planning document. Team members should provide and receive input on the schedule, format, structure, major content elements, and review process of the document.

Every planning document should be written with the intent to meet or exceed the overall project objectives. Affirming the project vision and discussing how the document will align with its goals and objectives lays the foundation for a successful document.

Ideally, a draft table of contents should be made available to the entire team at the document kickoff meeting. If the table of contents has not been previously articulated,

it should be discussed at the kickoff meeting and a draft should be completed as an early deliverable of the document effort. The topics discussed at the document kickoff meeting can eventually solidify into a table of contents that structures the finished document.

How the project document will be set up and worked on collaboratively are critical early decisions for the team. Document layout must meet the vision of the project manager or sponsoring agency as well as the printing capabilities of the document recipient. Software must be selected based on the level of graphic sophistication desired in the final product weighed against the software programs available to those doing the production work and post-adoption revisions and updates. If the document is to be a collaborative effort, this requires a discussion about the optimal organization of multiple writers and editors without compromising the document.

It is critical to determine at the planning document kickoff meeting who the audiences are for the final document, what will be included in the document, and who is responsible for developing it. Tasks to be assigned include data collection and analysis; writing text; producing graphic exhibits such as maps, figures, diagrams, charts, tables, and images; and formatting, producing, and printing the document. An editor should be identified to review text, graphics, and formatting for clarity and consistency. Staff coordination is important to ensure a cohesive process and to reduce inefficiencies.

The document kickoff meeting is also the time for project team to discuss the review and revision process that will be followed, as well as how the report will be printed and delivered. The project manager should articulate assumptions about who will review the document as well as expectations about the number of days allowed for reviewers to provide comments. It is essential to build time into the schedule for planning staff reviews, while at the same time defining limits and deadlines so the document effort is not delayed due to waiting for comments.

Typically, a planning document is part of a larger planning project that has an emphasis on stakeholder engagement and sharing information with the public. The process of developing the document often runs in parallel to the effort of engaging the public. Careful consideration should be given to the content and format of exhibits that will be presented during the planning effort and that will also appear in the document. Anticipating the multiple purposes of exhibits at the document kickoff meeting will enable the planning team to be nimble in its use of content for different audiences and avoid reformatting, which requires staff time and expends the budget unnecessarily.

Determining Writing and Graphic Style

Planning documents must be consistent in their message, analyses, conclusions, and recommendations. With multiple authors and editors it is wise to establish word treatment rules for the team to follow. Similarly, a coherent graphic style should be developed to result in a visually unified report. But such rules are only as valuable as the authors' abilities and willingness to follow them.

Consistent writing style and use of language is essential to authoring a planning document, whether as an individual writer or a group of coauthors. Using a style guide increases the coherency and quality of the document, and the efficiency of its production. It is important to note that planners should strive to produce jargon-free planning documents and reports for the members of the public and the boards and officials they serve.

It is also essential to consider graphic logic and coherence to create a visually unified document. Starting with a standard document template is vital to achieve consistency and will add a more professional appearance as well as be easier for the reader to navigate. If the report is to become part of a collection of documents, it is useful to use the same graphic style and format. If the planning project has a website and online tools for communication and community engagement, the graphic style of the document should clearly relate to the online presence of the overall planning project.

Printing and Digital Specifications

If the document is to be printed, it is important to make informed decisions about printing specifications in the project contract, as this can have significant impacts on project budgets and schedules. Printing specifications must be outlined for consistency and ease of production. These considerations include the type of paper stock to be used for the cover and the internal pages, the bleed, the binding material and method, the use of tabs, the quantity of reports to be printed, and a distribution plan. Printing arrangements must be confirmed with the team and vendor because they affect time and budget management.

Many planning documents are instead posted online in digital format for viewing and downloading. In these increasingly prevalent situations, the document is finalized as a PDF only, and then distributed electronically.

FILE SETUP AND MANAGEMENT

In collaborative document efforts with evolving content, the way that digital files are set up and managed is a critical con-

sideration. When working with a team of contributors, the organization of folders on internal servers or online collaboration websites is important to anticipate, as is the naming of files to keep track of different authors and versions. There are several elements to consider when starting the document production process and preparing to set up the digital files, the most important of which are the software that will be used and the template to guide the document's format.

Starting the document effort with a consistent method for naming folders and files and a clear plan for managing content from diverse sources will create a smooth workflow and reduce inefficiencies as the project progresses.

Content may be coming from multiple entities with existing protocols for folder and file naming. For the purpose of consistency, project managers should request at the document kickoff meeting that everyone use the same method. The chosen method should also be included in any written guidance on document production that is provided to all team members. Saving all document drafts is recommended to maintain an official record in case the need arises to provide old versions as part of litigation.

Sometimes it is not possible to have a single project file structure. In these situations, file proliferation and duplication by multiple planning document contributors saving locally are inevitable. Protocols for file naming to keep track of different versions are critical.

CONTENT COLLECTION AND CREATION

Teams often underestimate the amount of time and early decision making required to develop, iterate, and receive endorsement for the complex content and format of planning documents. Moreover, the knowledge necessary to synthesize materials from many sources in a user-friendly manner can be a challenge.

Research and Data Collection

Planners must identify research questions related to each project and collect the best available content to answer the questions or visualize solutions. Every planning project has a central research question. Data collection requires research, original data creation, document collection, writing, and generation of graphics, all of which will help support the findings and solutions to the research question.

Quantitative data for planning documents typically includes statistics, models, maps, simulations, previous plans, studies, and surveys. Qualitative data can be gathered from stakeholder dialogue or other types of research. Background research also often includes gathering and reviewing key findings from related policy documents for a plan, or researching other topics through reports or articles.

The kickoff meeting for the project is the best opportunity for identifying project-specific needs, brainstorming the necessary steps to collect data, and considering the best way to display it. Arranging and delivering data in meaningful ways lays the framework for communication at meetings, in media interviews, and in the final document.

Copyright Law

Project documents are often examined from many perspectives, so it is important to collect data and create content in a comprehensive and transparent manner. Planners must identify research questions and the best available data with which to answer these questions. Quantitative data must be collected alongside new and qualitative ideas emerging and being revealed through dialogue among various stakeholders.

All creative works, not just photographs, are copyrighted to their creator by federal law. This means that text, photos, and graphics (maps, charts, or data tables), the design of posters, signage, websites, paintings, or other works cannot be copied and used for commercial purposes.

Planners are responsible for obtaining permission for the reproduction of copyrighted materials. The author must determine if materials are copyright protected and then seek permission immediately for any borrowed content. Content creators should each keep a simple log of all copyrighted material that denotes the date permission was requested, the copyright holders' response(s), original file names, new file names (if renamed), and any other usage requirements.

DRAFT PRODUCTION

When research, analysis, public engagement, and content creation is complete, the planning document goes into production. This is when the benefits of project management and astute quality control are critical for the team and the sponsoring agency. Review processes must be of finite duration and there must be adequate time to perform quality control checks prior to document delivery and project wrap-up.

Draft Management

As a team works together to produce a draft document, managing how it is produced will ease the workflow and contribute to a more efficient process. The schedule, team member

availability, and budget will determine how many and which team members participate in draft production.

The work should be divided up as appropriate for the project and its team. If one team member contributed more content—such as research for a certain chapter, for instance—then it most likely makes sense for that person to write or produce graphics for that chapter.

Delays can result from missed deadlines early in the process, which require later draft production milestones to be pushed back. Missed deadlines can result when content development takes longer than initially budgeted for, or when reviews take longer or are added to the time line later in the project. Defining roles, reviews, and timelines at the kickoff meeting should alleviate some delays; however, as staff work on other projects, are out of the office, or take longer than expected, the proactive management of team dynamics is critical.

People-management pitfalls can arise during draft production. Interdisciplinary or multiagency teams collaborate on many documents, while individuals may report to various bosses having differing missions, values, or work styles. A project manager may operate in an environment where he or she does not control competing project schedules. In such cases, the project manager should help everyone be aware of factors that may limit participation and understand how conflicts will be resolved.

Often multiple team members are required to work on a single document. Version control can be managed in a variety of ways. First, when possible, strive to limit editing to one person at a time in each section of the document. Second, save versions with a naming convention to prevent confusion on the most updated files to be editing. Third, consider shared file apps, which immediately save the most up-to-date versions that can be accessed and viewed by all personnel.

Internal Quality Review

Quality review is defined as proofreading the draft document, ensuring consistency with the style guide, making sure reviewer comments have been addressed, and checking for grammatical and spelling errors. Quality control is a key step in draft production. Internal reviews occur prior to sending a document out to the reviewing entity, project partners, or the sponsoring agency. Having someone who has not been involved read the document is a good way to test it for clarity.

Sponsoring agencies or large planning firms may have their own quality management protocols with required steps and sequences for shepherding a document through a quality control process. This might include specific personnel who must perform reviews in a hierarchical order, or sign-off by a project supervisor. Quality control checklists may be required. Smaller public-sector or consulting entities will likely follow the basic quality control review steps related to reviewing a planning document for factual, grammatical, and spelling errors; confirming that it adheres to the agreed-upon style guide; and checking whether reviewer comments have been addressed.

External Quality Review

A draft of the document should be sent to all reviewing entities for comments and questions. After the reviewing entity receives the draft, they should be given a firm period to review the document; for example, five business days. This information should be agreed upon and documented at the planning document kickoff meeting.

The amount of time provided for review should be reflected in the overall project schedule with the knowledge that reviewers will often request additional time when the review process gets under way. To save time, the team may provide specific direction to the reviewing entity for what parts of the document or what narrow aspects they should review.

The team project manager should determine the flow of the draft production and determine which tools can help ensure an efficient process. Schedules, team member availability, and the project budget should be carefully considered before and during draft production, and work should be divided up as appropriate for each project and its team.

DOCUMENT DELIVERY AND PROJECT WRAP-UP

Managing a project document so that there is adequate time for quality control, test printing, and delivery by a final deadline can be challenging. Many decisions must be made and approved prior to the final printing and successful delivery of a document.

For the final product to be produced efficiently and with the highest quality, documents must be built according to the parameters outlined in this report. Printing companies are key partners in the planning document process. It is optimal to contact the vendor early on to communicate specifications and other requirements, to learn about materials and printing options, and to be aware of the costs. An initial conversation helps the printing company to anticipate what needs to be done and by when, leaves adequate time for quality control, and goes a long way toward eliminating unpleasant last-minute surprises that no one wants to experience.

There are several considerations to think about when determining whether to print in-house or to send to a printing vendor. Most document file formats, including Word, InDesign, and PDF, can be printed on basic in-house printers. Outsourcing is typically required for full-bleed pages or other special features. Online programs are another option for printing planning documents.

Digital-Only Deliverables

Websites are an increasingly common way for cities and planners to share information with the public and a wide range of stakeholders. Many agencies now have paperless standards for planning documents. Publishing documents on websites, and designing them so that they can be viewed on mobile phones and tablets, can save on printing costs and provide access to a broader constituency, including lower-income residents, youth, and underrepresented groups that are more likely to have mobile phones than computers.

Whereas printed planning reports are static documents and are often costly to produce in terms of materials and labor, digital files are user-friendly tools that can be uploaded to a website and frequently updated. The information that websites contain is available anytime and anywhere. Digitized content can offer more interactive approaches such as hyperlinks, embedded videos, and animations, and can provide links to more information and keyword search functions. Full planning documents can be made available as digital files on websites, but they can also be broken into discrete items and shared in a more accessible way to appeal to broader audiences only interested in specific aspects of a project or report.

While the public is comfortable with online navigation and interaction and increasingly expects to have access to information in digital formats, there are several considerations to think about when deciding whether to go the digital route. Documents should always be designed and formatted with printing in mind, even if the requirement is digital. While the trend is moving toward digital, there is always going to be someone wanting to print who will be frustrated if the content is not formatted for them to do so. Formatting for printing is important to protect the brand of the sponsoring agency and planning effort. In addition, many projects require a printed copy for city council or a printable PDF for the project record.

These considerations should be discussed at the scoping stage of the project and at the launch of the planning document effort. Other questions to answer are whether a digital-only deliverable will be politically feasible: will the planning commission or city council endorse the idea, or will they be more comfortable with a traditional printed document?

Other considerations are technical. Questions of equitable access to information need to be addressed, including how it displays on smart phones and tablets, which some agencies require in addition to computer display. Not all constituents will be comfortable with the digital format. Special requests for emailed or printed copies of the report need to be anticipated.

Wrapping Up a Successful Planning Document

At the end of the planning document process, there are several housekeeping issues that the production team should consider to successfully wrap up the report effort.

Even if the deliverable was a print-ready document, it is important to save the final document as a PDF and as an editable version for future iterations. Most organizations have archiving guidelines and procedures that should be followed to properly organize project files and store not only the final deliverable, but the various drafts, research sources, and communication records for future access.

The production team will have accumulated many working documents. If these documents were not developed internally by an agency and a consultant was hired to lead the report process, the agency may want to request certain files before they are archived or disposed of. Often files are required to be saved by agencies as evidence of the iterations during an adoption process.

When the project has been completed and all deliverables submitted, it is a good idea for key members of the team, either an internal agency production team on its own or, if a firm was hired, with the consultant team, to convene a post-project review. Aside from officially closing out the effort, this can be a forum for all team members to share feedback on the process and the product. That way, successful practices can be honed for the next planning document effort and everyone will learn how to improve their approach to this prevalent yet complicated planning project deliverable.

All the comments and decisions from this post-project review should be summarized and saved into the project folder for archiving along with all of the other valuable project content. Finally, it is always nice to thank everyone for their hard work and to celebrate.

CHAPTER 1

AN INDUSTRY STANDARD FOR PLANNING DOCUMENTS

Planners frequently create documents and reports that capture the research, recommendations, process, and stakeholder input that are central activities to planning work. These documents are a synthesis of written and graphic materials from many sources.

However, there is no industry standard for planning documents such as, for example, the construction documents and specifications that are used by our colleagues in the architecture and landscape architecture fields. While planning documents are very diverse as far as the breadth and depth of topics and the types of plans being prepared, planning agencies and consulting firms would benefit from some standards to guide the creation of these documents.

This PAS report is intended to serve as a recommended-practices guide for both public-sector planners and planning consultants to create efficiencies, ensure quality, provide clarity on how to set up and contain document creation efforts and review processes, demonstrate ideal work flows, and empower teams to stay within the parameters of project scopes and fees. It is geared toward public-sector and consulting planners that have a role in document oversight, content development, production, and quality management. It may be shared in part or in whole with collaborators to align expectations and processes.

WHY THIS REPORT?

The planning documents that this PAS report describes are very often the key deliverables of a planning project (see the sidebar on p. 13). They are the primary methods planners use to capture the process, design, and planning recommendations for a site, district, community, or regional planning effort, or to address a specific policy topic. Examples include comprehensive plans, design guidelines, strategic plans, master plans, site plans, and corridor plans. Common policy report topics include parking studies, cultural assets and inventories, public facilities and financing, community resiliency, and zoning issues, among many others. Often, these deliverables become legal documents that are adopted by municipalities. These documents are complex efforts that require a high level of coordination among different entities to generate and iterate content and to secure all the necessary approvals from clients, boards, or supervisors so that the work can be finalized.

Both public- and private-sector planners face challenges in writing planning documents and reports. The guidelines and recommendations offered in this PAS report will assist planners in creating efficient processes that enable the work to be completed on time and on budget and that match the objectives that the planning project set out to accomplish.

Work produced for and by the public sector is under the scrutiny of many people, including both supporters and detractors of the policies or development proposals under consideration. Given the sometimes sensitive nature of the plan or document content and recommendations, it is important to remember that words and facts matter. Document content must be accurate and must precisely reflect the expert analysis, sound data sources, and many stakeholder inputs received. The best guarantee for delivering an excellent planning document is to use a clear and efficient process to create it, such as the approach presented in this report.

WHO IS THIS REPORT WRITTEN FOR?

This PAS report has been developed for both public-sector and consulting planners who engage in developing, iterating, producing, reviewing, and delivering planning documents that capture the planning processes and proposals for a site, community, state, or region. Project document efforts are typically undertaken by a team and require extensive coordination. Therefore, this PAS report and the tools it pro-

vides should be shared with collaborators to ensure that all contributors have the same understanding of the process and anticipated outcome of the project document.

In addition to explaining why certain considerations are important as part of the planning document process, this guide provides technical advice on document setup, management of content and files from many sources, and software. Many of the recommendations assume the use of Adobe InDesign. This is the software program of choice for most planning consultants because of the ease with which written and graphic content can be incorporated into a sophisticated aesthetic and impressive deliverable. Some public planning agencies have staff people who are proficient in InDesign, although many documents produced internally by agencies are in Microsoft Word or, less commonly, Microsoft Publisher.

The choice of which software to use often depends on the nature of the document. Staff reports on zoning and subdivision proposals prepared for review bodies are almost always produced in Word using a template that staff has created and refined over time. Text-heavy agency reports used for early internal decision making and containing few graphics often are produced in Word; documents that feature maps, interplay between text and figures, and other graphic enhancements are well suited for InDesign.

Readers who do not have InDesign will find tips on using Microsoft applications and should also consult the many resources for help in using this common program, including manufacturer manuals, the *For Dummies* series published by Wiley, and online templates.

ABOUT THIS PAS REPORT

This PAS report is a reference guide to the planning document development and delivery process as depicted in Figure 1.1. Therefore, its table of contents matches the planning document workflow diagram so that readers can quickly locate the recommended practices that are applicable to each stage in the document's creation and each member's role in the production process. Within each chapter, the recommended practices discussed for that stage of the production process are summarized in tables for easy reference.

Chapter 2, Scoping Considerations for Document Production, highlights methods for preparing each opportunity to be a successful project from the very beginning. This chapter describes the importance of writing a scope with a proactive understanding of what the document will look like and how it will be produced. Identifying these factors early will align expectations of the team and set up the project for success.

Chapter 3, Planning the Document, outlines the first steps toward creating a meaningful, compelling, and high-quality document. Creating a strong outline and sharing document examples will support realistic expectations amongst team members.

Chapter 4, File Setup and Management, offers recommendations for setting up digital files. The way digital files are set up can affect the amount of time spent on production, the ease of content creation and editing by multiple parties, and final print quality.

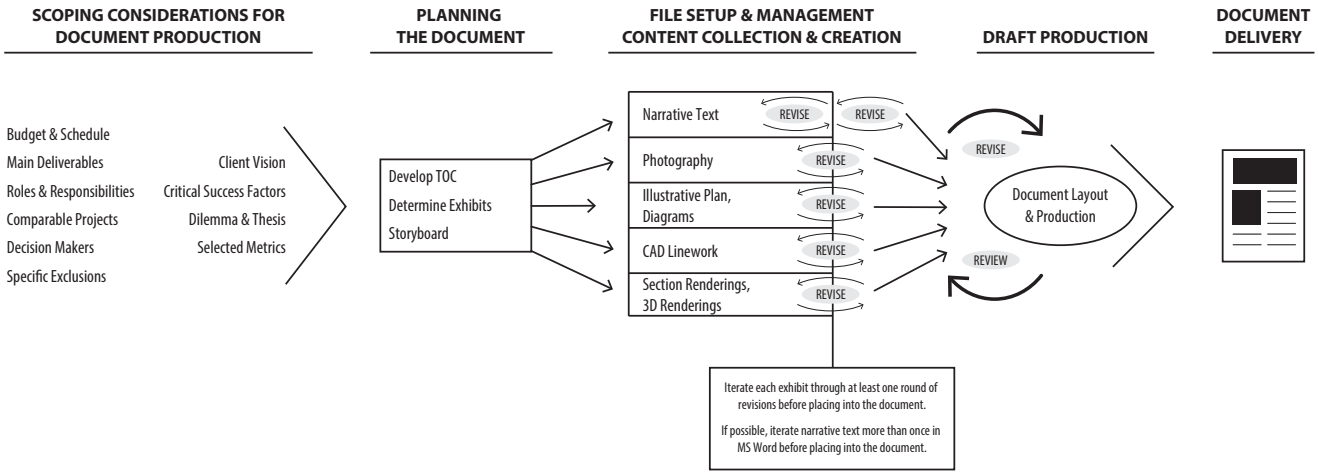


Figure 1.1. The ideal planning document workflow (Design Workshop)

WHAT IS A "PLANNING DOCUMENT"?

A note about terminology: the term "planning document" is used as a catch-all phrase in this PAS report to mean every type of plan, report, study, document, or book that is produced by planners and planning consultants in furtherance of the goals of the local agency or entity that is sponsoring the effort. A planning document is often the key deliverable of a planning project, as represented in Figure 1.2.

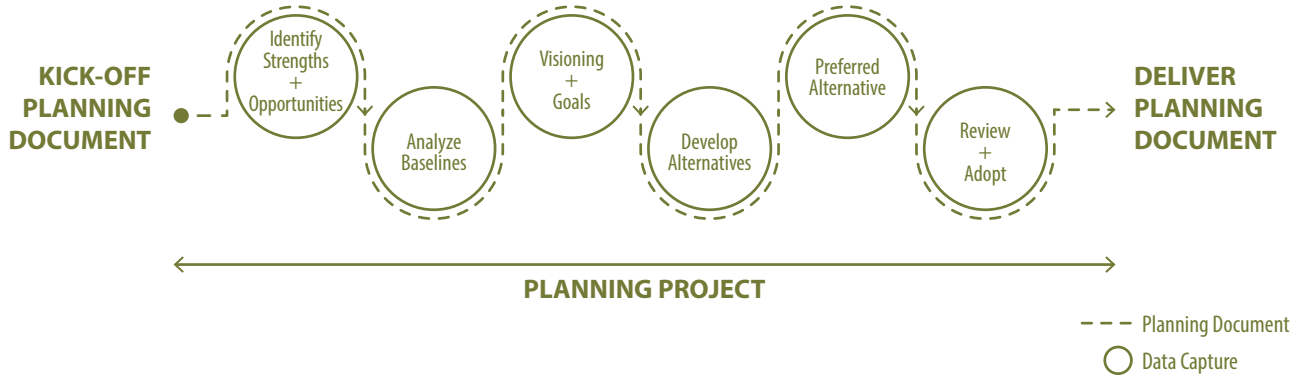


Figure 1.2. A planning document is often a key deliverable of a planning project (Design Workshop)

Chapter 5, Content Collection and Creation, discusses strategies for efficient content creation and provides standards for citing research and other published sources, benchmarks, metrics, and other content. With careful, well-executed project management, content creation should occur before, during, and after each phase (or deliverable milestone) in a project's lifecycle.

Chapter 6, Draft Production, describes recommended practices for document editing and production, often with many collaborators. This is a delicate time in the process, in that expectations and reality need to match for both document authors' and stakeholders' satisfaction.

Chapter 7, Document Delivery and Project Wrap-Up, outlines recommended practices for printing, binding, packaging, and delivering the final product. It describes processes and considerations for hard copies and digital versions of planning documents. Successfully coordinating the document's printing ensures quality and can help to save the project team significant time, money, and effort.

Finally, a collection of appendices provides readers with templates for many of the planning spreadsheets, checklists, logs, and guides referenced in the report. Versions of these template documents in Microsoft Word and Excel formats are available through the APA website (www.planning.org/pas/reports/) for download alongside the downloadable PDF version of this report. Readers are encouraged to download and adapt these forms as needed to assist them in their planning document workflows and production processes.

By following the practices recommended in this PAS report, planners can create high-quality planning documents through efficient and cost-effective processes. Those who are embarking on a large planning document effort and are accountable for the delivery of the complete document should read this PAS report in full to understand the ideal processes comprehensively. Those who are working on a specific stage of a planning document can locate the component for which they are responsible to more incisively access relevant recommendations. Defining a clear scope and anticipating the document development process are critical early steps that are discussed in the next chapter.

CHAPTER 2

SCOPING CONSIDERATIONS FOR DOCUMENT PRODUCTION

The success of any project is dependent on having a clear and viable scope of work, well-defined deliverables, and widely understood expectations on the part of everyone involved. The process of creating documents typically occurs within the scope of a larger planning effort, for which the final deliverable is the document or report. However, many planners may not adequately consider the elements of the document and document production that impact the work plan, budget, and schedule.

This chapter describes the components of the document and document production that should be taken into account during overall project scoping, schedule, and budgeting considerations, and how to manage document production efforts to proactively address potential changes in the process. This chapter is generally written from the perspective of a consultant who has been hired by a public agency to work on a project. But these guidelines can also be applied to in-house projects undertaken by planning departments that culminate in a planning document.

For many planning projects, the overall project scope of work is defined in authorizing budget documents, agency work plans, or commission or council resolutions directing the project. (See the sidebar on p. 16 for further discussion of this tool.) The earliest discussions about an idea for project—in the mayor's office, at a community group meeting, among planning commissioners, or within the planning department— can inform the scope.

A request for proposals (RFP) process and project scoping often offer planners one of their first opportunities to think through what the final document may look like and the steps that will be needed to produce it. The opportunity to think through the document production process begins with sleuthing during the RFP phase. The proposal submitted by the selected consultant advances work completed by the planning agency; it adds the consultant's own ideas and approaches to accomplishing the work described in the RFP.

After a project has been approved to go forward, consultants and their public-agency clients should come together (at a scoping meeting) to approve as many expectations of the interim and final document deliverables as possible to finalize the overall scope of work. At that meeting and during the subsequent overall project kickoff meeting the team should capture the client (or project) vision, identify critical success factors, describe the project's dilemma and thesis, and select metrics.

Critical success factors are those items that must be completed for the project to be a success. The dilemma sums up the major challenges that must be reconciled, and the thesis is a proposed solution to the central problem stated in the dilemma. Each of the items should be discussed at both an overall project level and in consideration of the final document itself.

Following the above steps, but while still early in the overall project process, the project team should convene a document kickoff meeting to confirm and authorize the Document Production Checklist (see Chapter 3, Figure 3.1, p. 28, for an example and Appendix B for a template). The document kickoff meeting is more fully described in Chapter 3.

SCOPING CONSIDERATIONS FOR A PLANNING DOCUMENT

Elements of a project's scope of work that are often overlooked are the items associated with the planning document's content and appearance. Most planning documents aim to encapsulate the process, findings, and recommendations of the overall project. Such a document is very often the primary deliverable of most planning projects, and therefore the project scope of work should describe as many elements as possible regarding its purpose, audience, content, layout, and appearance.

At the scoping stage, many details regarding expectations of the final document may not be known. However, it is still valuable for consultants and public agencies to think

WHAT IS A SCOPE OF WORK?

A scope of work, also called a scope of services, defines the activities and time line to successfully complete a project. They are developed for projects of all types and for both internal planning agency projects and for external consultant teams. The scope consists of a project description that sets out the general topic, parameters, and location or physical boundaries of the project area; a list of tasks to complete the work; the products (or deliverables) to be produced; a budget; a plan for public engagement; a review process; and a schedule.

The scope is a blueprint from which deliverables and other project milestones are derived. By clearly defining expectations of the public, project team, and local officials, the scope reduces ambiguity and increases the likelihood of success. Further, a sound understanding of available fees (see Figure 2.1, Sample Fee Spreadsheet, p. 21) or expected budget and the project schedule establishes a framework for the main deliverable of the project, which for the purposes of this PAS report is a planning document.

To get started, the project manager can use a scope from a similar project as a template or develop a new scope template to use for current and future projects. The Appendix of PAS report 573, *Working with Planning Consultants*, by Eric Damian Kelly, FAICP, includes example scopes that planners can refer to. However, all projects and agency requirements are different, and each should be thoughtfully considered as the overall project scope and considerations for the final document deliverable are developed.

through the document production process and make high-level decisions about the desired outcome.

Table 2.1 includes all the elements of the planning document and the document production process that should be considered during scoping. During this stage, the more that is known and that can be committed to in writing about the planning document, the quicker it will be for the team to get started. Though the list is presented in this chapter, in reality many of the items on the list will not be finalized until after the project gets under way, a process which is discussed in Chapter 3.

Guidelines for Scoping a Planning Document

The following items represent recommended practices for scoping a project in which a planning document is the primary deliverable. Table 2.2 (p. 18) offers additional recommendations and describes features of the planning document that should be addressed in the overall project scope.

The scope should include as much substantive content as is available. The vision, goals, and objectives that come out of the broad scoping exercise for the project should form the basis of the planning document content.

Depending on the information available, creating a table of contents and drafting a conceptual storyboard (see Chapter 3) allows the project team to better identify content needs. It will give insight to the types and quantities of graphics required and the amount of new research to be developed.

Internal and interim planning documents should be addressed in the scope of work. There are some planning documents, such as preliminary policy studies and analyses of issues and options for a site, which are not intended for wide public release. Their purpose is to generate dialogue with local elected and appointed officials and agency staff. They are often the precursor for the launch of a new planning project or new development regulations.

A scope of work should still address the format and overall intent of these reports, and guidance regarding internal and external feedback should be made clear. The scope should also indicate whether the project document will be released for public comment and how those comments will be considered.

A scope can provide for document production to occur in stages. The scope of work can be divided into phases that correspond with the document outline. The project team and stakeholders, if appropriate, can review interim work products and provide feedback as chapters or sections of the document are completed and ready for review. This helps manage expectations and allows for adjustments throughout the project rather than extensive rework at the end.

Alternately, the scope can call for an initial concept document followed by a final document. The concept document is an interim, trial-balloon deliverable that highlights the general intent or direction of the final document, without all of the details. It is generally short and heavy on graphics, and does not contain detailed plans or specific design solutions. It may identify themes or spell out goals or performance measures for the final project. This method is valuable in instances where there is considerable uncertainty and potentially divergent views among stakeholders about the project direction.

Define the number of revision cycles in the scope of work. Managing document review and revision cycles can lead to more successful project delivery efforts. Responding to numerous unplanned requests for revisions can require substantial time commitment from project staff. Additionally, if a project team is required to make revisions immediately after comments are received from each individual agency department, the project decision makers and project staff do not have the ability to identify conflicting comments. This can result in the project becoming stuck in endless revision cycles.

TABLE 2.1. ELEMENTS OF THE PLANNING DOCUMENT AND DOCUMENT PRODUCTION PROCESS TO BE CONSIDERED DURING SCOPING

Document Purpose

- Identification of audiences and public communication methods
- Project vision
- Statement of project goals and objectives and their relationships to planning document

Document Content

- Rough draft of the table of contents
- Preliminary storyboards
- Interim deliverables that may be included in the final document

Document Setup

- Layout, size, and orientation
- Anticipated number of pages
- Publication software
- Process for multiple editors

Content Collection and Creation

- Narrative text
  - Content development responsibilities and sources
  - Availability of previous studies
- Visuals, maps, and supporting graphics
  - Types and quantities of maps, diagrams, and illustrations
  - Level of photography (is professional photography needed or will images need to be purchased?)
- Table of contents checklist for narrative text and visuals

Draft Production

Review and Editing Cycles

- Project manager and project team review responsibilities
- Length and number of assignments and reviews
  - Technical advisory group review schedule
  - Sponsoring agency project staff review schedule
  - Internal (i.e., consulting firm, lead agency) quality management reviews
  - Stakeholder review schedule
  - Consolidation and incorporation of public comments received online and at in-person events

Printing and Delivery

- Hard copies
  - In-house printing or outside vendor
  - Quantity of hard copies printed
  - PDF hosting
- Online publishing formatting considerations
  - Project website hosting
  - PDF posting
  - Web and mobile devices
  - Formatting primarily for online viewing
  - Staff capability

Community Engagement and Approvals

- Public meetings
- Website development
- Approval process
  - Commissions, councils, and board review requirements
  - Roles and responsibilities
  - Schedule considerations
  - Noticing requirements
  - Consideration of public comments
  - Environmental review requirements

Source: Design Workshop

TABLE 2.2. RECOMMENDED PRACTICES: PLANNING DOCUMENT SCOPING DECISIONS

✔	Affirm the overall project goals and objectives through discussion and reference to content generated in the project-wide scoping effort.
✔	Identify audiences for the planning document and means of communication during document production.
✔	Consider a scope that allows for document production and contract authorization to occur in stages.
✔	Prepare a draft table of contents and storyboard.
✔	Draft a list of "must-have" maps, photos, charts, and other graphics.
✔	Identify if new photography is needed or if copyright authorizations will need to be acquired.
✔	Assign team members authorship responsibility for narrative text sections, maps, rendering, charts, data, etc.
✔	Lay out the document review process, including the number and duration of revision cycles, list of reviewing entities, and point persons responsible for consolidating comments and making changes to the draft document.
✔	Clarify how the document schedule relates to and is coordinated with the overall project schedule, including public engagement events.
✔	Identify how public comments will be addressed.
✔	Select publication software.
✔	Discuss hard copy printing and electronic delivery options.
✔	Identify the formats in which the final document will be delivered (e.g., print, digital, web based).
✔	Explain team members' respective roles in formal adoption of the planning document.
✔	Describe planning document close-out process and system for cataloging lessons learned.

Source: Design Workshop

To minimize the risk of this type of scenario for both external consultants and internal agencies, the scope of work should clearly specify the number of review cycles for each deliverable. This section of the contract should also identify the individuals responsible for reviewing the document as well as the individual responsible for consolidating comments and determining how to address conflicting comments prior to the changes being made.

The full project team should be engaged in developing the scope of work. Lead consultants should work with their entire team to identify particular needs and to confirm their understanding of the process and expectations. Roles and responsibilities should be determined, especially as they relate to quality management and expectations for deliverables' content and format. Subconsultants may also know of available resources and existing research that can streamline production efforts.

Public planning agencies may reach out to consultants for input. As a planning agency is putting together a RFP, it may wish to research comparable documents and reach out to consultants to better understand the processes involved to produce them. These conversations and research can establish a foundation from which expectations and goals are established to guide document production. Alternatively, as part of their RFP response or after they are awarded the work, consultants can help planning agencies to think through the document's desired content and production process to clarify expectations.

Stakeholder and public input can guide document content and scope development. External public input can inform all parts of a document, from content and structure to specific scope recommendations. For example, feedback from an advisory group may help determine the broad themes and objectives of a report from its outset, while focus group input may lead to a case study feature. Early work with key stakeholders or the general public can highlight specific topics of focus for the document and subject that require special attention to meet community expectations. Planning documents should reflect individual community values. Meeting in a project's first phase and allowing for the scope to be adjusted to incorporate public feedback can result in meaningful documents that are more supported by their citizenries.

DEVELOPING A PROJECT SCHEDULE

The entire team should provide input to develop the document production schedule and consider how it relates to the

overall project schedule. Engaging the project team leads to improved workflow and ability to meet deadlines. For example, it is important to understand the time needed to create specialty documents and graphics or complete supporting research. Review schedules need to reflect the number of reviewers and whether the reviewers are analyzing the document concurrently or consecutively. One of the biggest challenges that public agency and consultant teams face is how to best navigate review cycles of project deliverables (most notably the planning documents addressed in this report). These decisions should be documented early in the process and be reflected in the schedule. When the entire team is part of the discussion and agrees to the schedule, each person is more likely to be committed to adhering to the schedule because they have been empowered as part of the decision-making process.

The schedule must include adequate time for production and proper quality management review, and it must meet internal review period requirements for public agencies. Accurately anticipating deadlines and review cycles, estimating production efforts, and properly adjusting for the review time required of each document is a critical responsibility of project management. In the event an agency review takes longer than originally agreed upon, the overall schedule may need to shift to allow the consultant or project staff adequate time to address comments and conduct their review.

Often, a general project time line may be initially developed and deadlines refined as an agency's schedule and adoption constraints become known. Public noticing requirements add another layer of consideration. Agencies and consultants should plan to accommodate the schedule requirements to ensure review time is not forfeited.

DEVELOPING A PROJECT BUDGET

Planners who recognize the importance of managing the document production process within the confines of a developed budget are more likely to have successful projects. Planners primarily use two methods to develop a project budget: (1) use the budget from a prior project as a reference, or (2) start from scratch using a spreadsheet. The total amount available for any given project may be determined by how much the sponsoring agency has allocated for it internally as well as the amount of any grant funding the agency has been awarded to pay for the work. Consulting firms must manage their projects to meet client expectations within the available budget.

Using Reference Projects

Reference projects may provide a starting point for determining the budget associated with developing the planning document; however, this should not replace the use of a spreadsheet to identify more detailed task requirements. Although some documents may require similar levels of effort, every project is different and therefore the process will vary. For example, the costs and scope of work associated with a project that creates a 200-page document that includes a robust public outreach process will differ from a project that produces a 200-page document that is generated largely from project team research. In addition to other major project tasks such as inventory and analysis and public outreach, variables such as document type, length, review/editing cycles, project duration, digital or print delivery, and metrics should be identified and budget implications considered.

When considering the use of reference projects to understand budget needs, it is essential that project teams record the actual time and costs associated with developing documents in order to have reliable project references for future contracts. Both public-sector planners and planning consultants should record and track their time for all projects. They may use spreadsheet programs such as Microsoft Excel or special software systems. For example, enterprise resource planning software systems such as Deltek Vision (www.deltek.com/en/products/project-erp/vision), Microsoft Dynamics 365 (https://dynamics.microsoft.com/en-us), and Oracle E-Business Suite (www.oracle.com/us/products/applications/ebusiness) can be used to collect and analyze activities associated with producing a planning document. Team members should be familiar with how to use the software to run reports to help plan for future projects and manage current projects.

Estimating a Project Budget Using Spreadsheets

Consultants often use spreadsheets to estimate project fees based on the team members' billing rates and number of hours per task (see Figure 2.1, p. 21, for a sample fee spreadsheet and Appendix A for a template). A spreadsheet is also a helpful organizational tool to assign responsibilities and identify action items associated with each task.

The spreadsheet typically breaks down a project's tasks by listing the associated action items or subtasks needed to produce the deliverable. Hours are then assigned to individual team members based on their role, skills, or expertise. In the case of private-sector work, the product of the billing rate associated with each team member and the number of assigned hours will generate an estimate of the project's

labor costs, as shown in Figure 2.1. Instead of listing each staff position, the team's overall level of work effort or estimated number of hours may also be multiplied with an averaged or blended billing rate to estimate the budget.

Public-sector planners might use spreadsheets in a similar way to estimate project budgets for internal work efforts or for an RFP. The planner may identify the anticipated tasks, the estimated number of hours for task completion, and a consultant's blended billing rate from a similar project to identify the potential budget required.

Expenses

For the private sector, expenses—meaning all project costs other than labor—can be between five and eight percent of the labor fees for local projects and more for projects requiring significant travel and community outreach events.

The format of planning document deliverables impacts expenses and should be described in the scope. Some agencies prefer that the consultant provides hard copies for reviews and final deliverables, while others have moved to digital submittals (or a portable document format (PDF)). The contract should also clarify whether a "digital" submittal means a PDF of the document for which the file can still be printed or viewed as a traditional document, or if it means that the document is primarily designed for being viewed on the web. A document that is designed for online viewing requires different formatting, which will affect budget, schedule, and skillset needs. The decision to have the document formatted primarily for online viewing should be made at the project onset so that the scope and budget accurately reflect the expectation.

MANAGING CHANGE

Changes happen over the course of virtually every project. Project team supervisors, elected and appointed officials, and stakeholder members may change; additional work may be required; or the breadth of work anticipated may be modified. Existing conditions in the planning area may also change over the course of a lengthy project. For example, newly released census data may change some of the demographic and growth assumptions. These and other factors over the project course present distinct challenges and should be addressed as soon as they arise. Good project management practices not only help keep the overall project on track, but they are critical to making sure a document production process is successful. Effective documents are generated by a well-managed process, which is a result of good project management practices.

The most common change for most planning document efforts is *scope creep:* an incremental expansion of the project scope that can negatively affect the outcome of a project. Scope creep may also affect the project team's job satisfaction and morale. A common example of scope creep is when the team's supervisors, elected or appointed officials, stakeholders, or others ask for more meetings or additional rounds of review, or when stakeholders request that additional topical issues be addressed that were not considered in the initial scope.

Project managers should distinguish between formal and informal requests for additional work, where the request is coming from, and what the consequences may be of agreeing or not agreeing to do it. In any instance, before proceeding the project manager must consider (usually in consultation with project supervisors and other project managers) how such requests may affect the project time line, the budget, other deliverables, and, if applicable, the project sponsor. If the project manager recognizes that a change to a deliverable will add value to the project and not impact the budget and schedule, that decision should be clearly communicated and authorized by the project supervisor or the project sponsor, when applicable.

Many project managers recognize large scope changes but are not as diligent in mitigating smaller scope changes that may cumulatively add up over time. Often a team member may go ahead and immediately perform the requested additional work with little thought or discussion amongst the project team and between the team and the project supervisor. When all the small changes are combined, the team often realizes that it has taken on too much extra work and can no longer make its contracted budgetary or schedule commitments. This can affect the outcome of the final project document by reducing the team's ability to deliver work that meets the expectations established during the initial project stages.

Guidelines for Managing Change

Many of the guidelines and steps described below involve proactively assessing the project's status and the risk of potential changes. Use of a Document Production Checklist (further discussed in Chapter 3 and provided as Appendix B) helps to ensure that the supervisor or decision maker will approve the project approach, document content, production techniques, and anticipated deliverables associated with the production of the project document. This attachment strengthens the project manager's ability to manage requests

FIGURE 2.1. SAMPLE FEE SPREADSHEET

Task	Subtask	Consultant Firm Effort					
		Supervisor/ Principal	Project Manager	Staff: Level II	Staff: Level I	Total Labor Fee	Direct Costs *
1	**Task 1: Project Start-Up — Site Visit**						
	Task 1.1 Kickoff meeting	2	2	0	0	$710	$20
	Task 1.2 Date collection/base mapping	0	12	8	2	$2,570	$50
	Task 1.3 Site visit	6	6	0	0	$2,130	$800
	Task 1.4 Meeting notes/PM	0	4	0	0	$520	$30
	Subtotal Task 1	8	24	8	2	$5,930	$900
2	**Task 2: Conceptual Design**						
	Task 2.1 Prepare site analysis framework plan	1	24	20	8	$6,065	$50
	Task 2.2 Develop concept options (3)	2	20	60	10	$10,300	$250
	Task 2.3 Prepare preliminary layout of report doc	1	4	4	2	$1,315	$25
	Task 2.4 Meeting in person	1	8	0	0	$1,265	$650
	Task 2.5 Meeting notes/PM	0	12	0	0	$1,560	$30
	Subtotal Task 2	5	68	84	20	$20,505	$1,005
3	**Task 3: Public Workshop and Final Site Plan Alternatives**						
	Task 3.1 Prepare presentation materials	1	12	16	4	$3,805	$450
	Task 3.2 Conduct public workshop	8	8	0	0	$2,840	$1,300
	Task 3.3 Review meeting (teleconference)	2	2	2	0	$930	$40
	Task 3.4 Revise alternatives	2	8	24	2	$4,260	$50
	Task 3.5 Prepare draft report document	2	12	12	8	$3,850	$300
	Task 3.6 Meeting notes/PM	0	12	0	0	$1,560	$30
	Subtotal Task 3	15	54	54	14	$17,245	$2,170
4	**Task 4: Final Master Plan Document — Project Close-Out**						
	Task 4.1 Produce final report	1	16	32	8	$6,345	$400
	Task 4.2 Prepare cost estimate	0	4	12	0	$1,840	$10
	Task 4.3 Review meeting (teleconference)	1	2	2	0	$705	$20
	Task 4.4 Make minor final revisions (if needed)	1	4	8	4	$1,885	$50
	Task 4.5 Meeting notes/PM	0	8	0	0	$1,040	$30
	Task 4.6 Provide project database	0	4	4	4	$1,220	$20
	Subtotal Task 4	3	38	58	16	$13,035	$530
	Total Hours	31	184	204	52	471	$4,605
	Staff Rates	$225	$130	$110	$65		
	Total Labor Costs	$6,975	$23,920	$22,440	$3,380	**$56,715**	**$61,320**

** Inclusive of expenses such as supplies, printing, mileage, meals, and lodging.*

Figure 2.1. Fee spreadsheets are commonly used in the private sector to estimate project fees and may help public agencies recognize the level of effort anticipated for different task items (Design Workshop)

THOUGHTS ON PROJECT MANAGEMENT FROM A PLANNING AGENCY DIRECTOR

There are a lot of theories of project management and a variety of tools. In small projects we may use a simple approach, with a fairly linear set of steps and review cycles. For those projects my department uses a simple schedule in Excel. For complex projects, we have many tasks, subtasks, and dependencies and employ more sophisticated project management approaches and software, such as MS Project.

More recently planners in my agency are also borrowing project management approaches from the software industry, which has developed an interesting set of workflow approaches to manage the rapid pace of software delivery. For example, in some aspects of our work, we have abandoned the more traditional project management approach and experimented with a "Scrum" method (on Wikipedia see "Scrum (software management)"). It is particularly useful as a tool if you anticipate a lot of unpredictable external input or if the project time line is unreasonably short and cannot accommodate traditional review cycles.

Trello is an interesting interactive web-based app that some younger planners use to coordinate workflow. Although the program doesn't track schedules or provide a progress report, it is a highly visual, online workspace that allows users to create boards, lists, and cards to track tasks. With this, and other Kanban board-style applications, a project team can quickly see who is doing what, what tasks are completed, and what tasks remain.

for contract amendments should scope items change over the course of the project.

Consider the use of project management and workflow software. A wide range of project management books and articles have been written and can be of value to planners as their experience working with teams and meeting deadlines grows. Software programs are also available which can help consultants and public planning departments organize team work efforts around tasks and schedules. Many planners use Excel or other spreadsheets to keep track of timelines and project deliverables. Although these programs can be used to develop a Gantt chart (a bar chart that depicts a project's timeline, tasks, and sequencing), they are not set up to easily maintain or track progress.

If planners are interested in using project management software or workflow software, they should recognize that the two systems are not the same. Project management software such as Microsoft Project (https://products.office.com/en-us/project) and project management system applications such as Teamwork Projects (www.teamwork.com), LiquidPlanner (https://go.liquidplanner.com/project-management-software), and Zoho Projects (www.zoho.com/projects), allow users to assign every milestone, task, and subtask to a specific person and give a deadline. If updated regularly, the team can see who is on track to complete their work on time and how delays can affect downstream work. Visually, the project timeline may appear as a Gantt chart, but resources and specific staff can be associated with each of the tasks.

Workflow software systems such as Trello (https://trello.com) and Asana (https://asana.com) are used more for managing recurring or ongoing tasks. These systems may not have start and end dates associated with the tasks, but they can help teams coordinate who is doing what and track what has been completed. Both project management and workflow software may be helpful to planners as they produce planning documents and reports.

Project managers should periodically review the contracted scope statement. Project status meetings or steering committee meetings, which should be held at regular intervals, are a logical place to conduct this review. It is the project managers' responsibility to ensure that the work that has been completed and is aligned with the project's goals and stakeholder and decision maker expectations. A project status meeting is also an opportunity for the project managers to look beyond the next work period to remind the team of future key deliverables. This can keep team members focused on the overall schedule as well as be a reminder of project intent and vision to motivate and inspire team members.

Weekly to-do lists keep project teams on task and schedule. A to-do list should identify responsibilities and priorities and share "who" is doing "what" by "when." Capturing weekly progress allows teams to work together by improving collaboration, efficiency, and transparency of the entire team. Writing and graphic tasks should be assigned and tracked through regular team reporting. Subconsultant responsibilities should be included and discussed as part of regular team meetings. All content submitted by a subconsultant should be in a form and fashion consistent with the established guidelines for the planning document.

Turnover among project supervisors, managers, stakeholders, and staff should be handled professionally and with transparency. Projects with longer time frames may experience turnover as stakeholders, supervisors, team members, and elected or appointed officials enter and exit the scene. A change in personnel at the project management and decision maker levels can change expectations for the project. Defining the expectations at the project onset and getting endorsement at the highest levels possible can provide project managers the credibility they need to get buy-in from new decision makers and personnel.

Turnover can also create uncertainty among project team members about who will be responsible for what assignments and who they should report to going forward. Project supervisors and managers should answer these questions at the earliest opportunity to ensure work continues apace and deadlines are not missed. A team-wide email announcing who is leaving, who is coming on board, and what changes are being made to assignments and scheduling is an effective means for getting the word out.

Identify strategies to address project changes while maintaining the budget and schedule to keep the project on track. A project team may proactively identify an approach to address a project change while meeting budget and schedule expectations. For example, a team may reallocate time from low-priority tasks to address a critical need. If issues arise, team members should provide a solution, or multiple solutions, to address the situation. Team members should help make the supervisor's and project manager's jobs easier, not more difficult, whenever possible. Changes to the contract deliverables requirements should be documented, if required.

Amend the contract if necessary. There may be times when enough significant changes have occurred to the substantive circumstances of the project, the project schedule, or the staffing structure that amendments to the contract are warranted. Generally, this would involve a modification to the schedule, but in cases where additional, unanticipated work on the part of the consultant is needed, the contract amendment would also include a revised budget that includes additional funding.

TABLE 2.3. RECOMMENDED PRACTICES: MANAGING CHANGE

✔	Use a Document Production Checklist (Appendix B).
✔	Periodically review the contracted scope statement.
✔	Inform team members about how to recognize scope creep and how to manage requests that are outside the scope.
✔	Create a weekly to-do list and provide reminders to team members about future deadlines.
✔	Be prepared to handle turnover among project staff, key stakeholders, and decision makers.
✔	Identify and document strategies to address needs while keeping the project on budget and on schedule.
✔	When needed, amend the contract.

Source: Design Workshop

Document decisions throughout the process. Changes to the project team, stakeholders, and decision makers have the potential to derail document delivery. In one case, a project team experienced sizeable cost overruns and schedule delays after a new planning director came on board just as the final draft of a document was delivered. Because the director was unfamiliar with the project goals and decision making, he took considerable time to review the document and submitted numerous requests for new edits.

The consultant team could have avoided significant cost overruns had they confirmed and documented the agency's decisions and direction from the beginning of the project. Creating a record of decisions made throughout the process, especially in respect to addressing comments and providing a final deliverable, can help consultants and public agencies better navigate changes in staff and agency decision makers. Ultimately, this oversight forced the consultant to perform revisions that were far beyond its contracted scope of services.

CONCLUSION

A clearly written scope of work and agreed-upon project management approach aligns the collective expectations of everyone involved and organizes the team's work efforts. It documents the tasks to be completed, establishes a schedule, describes the anticipated deliverables, and sets a budget (this could represent either a fee amount for a consultant or an hours limit for a public-sector planning team). In addition to being the foundation for project delivery, when teams periodically review the scope it can be used as a communication tool between team members and between consultants and contracting agencies throughout the course of the project. The next chapter describes how the scope is put into action and used to more fully plan for document production.

CHAPTER 3

PLANNING THE DOCUMENT

Planning documents capture the issues, analysis, images, and recommendations of a planning project. They usually are created by multiple authors and entities and include written and graphic content that serves multiple purposes, from an explanation of the planning process, to alternative scenario analysis, to implementation items. The old adage, "Begin with the end in mind," is a valuable guiding principle for planning document efforts.

With solid preparation, the production of the planning document can be a linear, organized process that leverages collaboration, stays on schedule, and comes in at or under budget. This chapter outlines the first steps to align the full document team involved in document setup, content collection and creation, draft production, and delivery to ensure a cohesive process and successful product.

LAUNCHING THE PLANNING DOCUMENT EFFORT

Chapter 2 presented the elements of a planning document that should be considered when preparing the overall project scope. That chapter also discussed how to prepare a project budget and how to manage change. Once these early, high-level decisions have been made, it is time to launch the document effort as part of the overall planning project (see Chapter 1, Figure 1.1, p. 12).

Planning Document Kickoff Meeting

Following the kickoff meeting for the broader planning project, a second meeting to start the production of the planning document should be convened with key stakeholders, project managers from the project sponsor (i.e., the agency leading and funding the effort, whether or not a consultant is involved), the consultant group, and team members who will be directly responsible for the written content, graphics, and maps.

The scope items for the planning document—presented in Chapter 2—inform the agenda for the document kickoff meeting and are key topics to cover. The convener of the meeting should prepare a draft table of contents to share at or prior to the kickoff meeting. It is easier to spur attendees to react to a draft rather than expect that they will efficiently develop a table of contents from scratch at a meeting. While the table of contents will evolve over the course of the planning document effort, having an early discussion establishes a framework for the report and answers key questions about content.

The project leaders might start with a brainstorming exercise to flesh out what the document is intended to accomplish and who the audiences are for the final product. Project leaders should present the public engagement and communications plan to the team to ensure understanding of how that aspect of the project will proceed in tandem with the development of the planning document. Team members themselves, both from the sponsoring agency and consulting firm, also represent the audiences' interest, but their role at the kickoff meeting is to provide and receive input on the schedule, format, structure, major content elements, and review process of the document.

If the document needs to be translated into another language, that should also be discussed and confirmed at this meeting. For example, Portland, Oregon, now requires all planning documents to have one or two sentences in 12 languages near the front of the document describing what the document is, with a phone number for additional translation. The city also may also translate the executive summary of the project if it is affecting a neighborhood or area known to have a specific non-English-speaking community (Spanish, Vietnamese, etc.).

Team members who will be working on maps and graphics can also come prepared to share a list of must-haves based on what they can anticipate about the project and what they know will be needed based on prior efforts. These discussions will help team members tasked with writing and producing the document content to envision what their roles

FIGURE 3.1. SAMPLE DOCUMENT PRODUCTION CHECKLIST

Document Purpose	
Audience and Objectives	☐ Audience: city staff, planning commission, developers, AEC industry, general public ☐ Viewed primarily online as PDF ☐ Coordinated with city code ☐ Document should be highly graphic and easy to navigate
Document Contents	
Create Table of Contents and Storyboard	1. Project Background a. Development history b. Demographic trends c. Economic trends d. Pertinent local and state plans 2. Existing Conditions a. Market Assessment i. Future demand by land use • Retail • Restaurant • Residential • Office • Entertainment • Civic b. Physical Assessment i. Land-use and development patterns ii. Thoroughfare and pedestrian linkages iii. Accessibility iv. Streetscape and parking v. Infrastructure c. Financial Assessment i. Funding mechanisms ii. Public/private partnerships 3. Vision a. Community Engagement i. Overview of outreach b. Master Plan Alternatives i. Alternative 1 ii. Alternative 2 iii. Alternative 3 4. Recommendations a. Preferred Master Plan Alternative b. Implementation Matrix Interim Deliverables to Become Content of Master Plan Chapters • Existing conditions summary (interim deliverable) • Technical reports (interim deliverables include in appendix) • Public outreach summary (interim deliverable included in appendix) • Draft goals (interim deliverable)

Document Setup		
Layout	☐	8.5" x 11", color
	☐	Up to 40–60 pages in length
	☐	Full bleed front and rear covers
	☐	Plastic spiral coil bound
	☐	Up to 1-inch margined interior pages
Software Requirements	☐	Visual renderings: Adobe Creative Suite 6
	☐	Master Plan document: Adobe Creative Suite 6
	☐	Presentations, memos, and meeting records: Microsoft Office
	☐	Existing conditions analysis: ESRI ArcGIS
Multiple Editors	☐	4 editors
	☐	Use OneDrive
	☐	Consultant file naming protocols
	☐	Consultant folder structure to be used
	☐	Word working files, InDesign chapters with booklet
Content Collection and Creation		
Narrative Text	☐	Stakeholder engagement strategy
	☐	Project goals and background for website
	☐	Baseline assessment memorandum (not to exceed 5–10 pages)
	☐	Market assessment memorandum (not to exceed 5–10 pages)
	☐	Physical assessment memorandum
	☐	Matrix of alternative funding mechanisms
	☐	Master plan document (not to exceed 40–60 pages)
Visuals	☐	Existing conditions photographs
	☐	Regional overview exhibit (1)
	☐	Project boundary exhibit (1)
	☐	Existing conditions charts, graphics, exhibits (up to 5)
	☐	Development opportunity map (1)
	☐	Vision charrette presentation (1)
	☐	Hand-drawn master plan alternatives (up to 3)
	☐	Refined digital master plan (1)
	☐	Photographs of vision charrette
	☐	Final document presentation (1)
	☐	No new photography
Table of Contents Checklist	☐	Assignments made and deadlines assigned
Draft Production		
Review and Editing Cycles	☐	Up to 3 client review/editing cycles
	☐	Comments due 10 days after receipt of draft
	☐	Consultant to provide comment log to client
	☐	Client responsible for compiling city comments, addressing conflicting comments, and providing direction as to how to proceed
	☐	Consultant responsible for compiling public comments; client responsible for addressing conflicting comments and providing direction as to how to proceed
	☐	Comments provided in PDF
	☐	Consultant to document how comments were addressed
Printing and Delivery	☐	Draft document: PDF format
	☐	Final document: PDF format
	☐	Online viewing as PDF document

Community Engagement and Approvals	
Stakeholder and Public Meetings	☐ Consultant may prepare graphics for advertisements secured by client ☐ Consultant to secure and negotiate locations of public meetings ☐ 3 public meetings, information gathering, stakeholder input ☐ Use keypad polling for stakeholder input at meetings
Website Development	☐ Create 1 MindMixer project website ☐ Client to provide desired logo, color, or typography content ☐ Provide content for up to 10 MindMixer updates
Approvals Process	☐ To be approved by planning commission and city council ☐ Presentations by city staff ☐ Noticing by city ☐ Presentation to be complete 2 weeks prior to meetings ☐ Draft presentation to be provided to city 3 weeks prior to meetings to allow for review time ☐ No changes to document after approval meeting; public comments to be noted and included in city record ☐ No environmental review/clearance required

Figure 3.1. A Document Production Checklist serves as a reminder of key considerations and a record of team decisions about document content, format, setup, and collaboration processes (Design Workshop)

will be and team leaders to understand what resources will be required to complete the task.

Once the process of creating the planning document gets under way, project supervisors (i.e., the lead consultant and the lead project sponsor) may find it necessary to make adjustments and midcourse corrections to the document content and organization to ensure that the final product successfully serves its intended purposes and audiences. With multiple project managers involved and numerous staff persons creating content, it is critical that everyone involved be kept up-to-date on any significant changes to the document—for example, changes stemming from the public input process. How such communication will be handled and by whom should be discussed at the kickoff meeting.

PLANNING THE DOCUMENT

To develop a clear vision for the project document that is shared by all who will be involved in its development and who will implement its recommendations, several topics must be addressed at the very beginning of the effort.

During the kickoff meeting, a Document Production Checklist should be consulted to ensure that the project team considers options, comes to consensus, and records decisions regarding the document purpose, content and setup, content collection and creation, draft production, and community engagement and approvals process. These are the main sections of the Document Production Checklist, for which a template is provided in Appendix B. Figure 3.1 demonstrates a sample Document Production Checklist that has been completed in a document kickoff meeting and that will serve as a record of the key decisions about a planning document effort.

Document Purpose

Every planning document should be written with the intent to meet or exceed the overall project objectives. Affirming the project vision and discussing how the document will align with its goals and objectives lays the foundation for a successful document.

Another key consideration is determining who will read the document and how they will use it. This is commonly referred to as identifying the audience and considering the optimal methods for communicating the ideas presented in the document. For example, a set of design guidelines might be geared to be easily understood by a planning agency's staff, developers, landscape architects, designers, architects, engineers, and other planners. This information informs additional decisions such as layout and the level of graphics.

Document Content

Ideally, a draft table of contents should be made available to the entire team at the document kickoff meeting. As mentioned earlier, the planned content may have already been articulated in the request for proposals (RFP), in the consultant's submittal, or in a grant proposal prepared by the

sponsoring agency. If the document is being developed internally within a public-sector planning department, or for a corporate client, there may be set items that must be included to match the format of all department reports. If the table of contents has not been previously articulated, it should be discussed at the kickoff meeting and a draft should be completed as an early deliverable of the document effort.

Project managers may want to prepare (or assign a staff member the task of preparing) an annotated table of contents for the planning document. It will explain the proposed content of each chapter of the document in one or more paragraphs per chapter. This is an effective approach to organizing a project to revise zoning and land development codes.

Often a document's content is developed in steps. The team should identify if there are any interim reports that must be prepared, how they should be prepared, whether they will be made public, and how they will be incorporated into the final document. For example, existing conditions reports, traffic studies, technical reports, market studies, and draft recommendations may be reviewed as the overall document is developed. These reports may be summarized in chapter content, included as appendices, or referenced and made available in digital form online.

A storyboarding activity can help add a visual element to this exercise, with individual pieces of 8.5" x 11" paper labeled according to the key document components pinned to the wall in the anticipated order (Figure 3.2). A stack of blank sheets should be available to capture new ideas generated. Attendees are then invited to adjust the order and to add elements as they envision the document. The convener should take a picture of the wall at the conclusion of the exercise to help document agreement among participants. The storyboard becomes an early depiction of the formatted document and is an excellent early predictor of the outcome (Figure 3.3, p. 32).

Alternately, the draft table of contents can be projected as an editable Microsoft Word document for everyone to see. This enables easy editing during the meeting to address each suggestion and allows attendees to shape the contents of the document. After the meeting, the file can be shared with attendees via a file-sharing platform such as Google Docs (www.google.com/docs/about) or Microsoft OneDrive (https://onedrive.live.com/about/en-us) to enable subsequent editing of the same document as the topics and structure of the document are iterated.

The topics discussed at the document kickoff meeting can eventually solidify into a table of contents that struc-

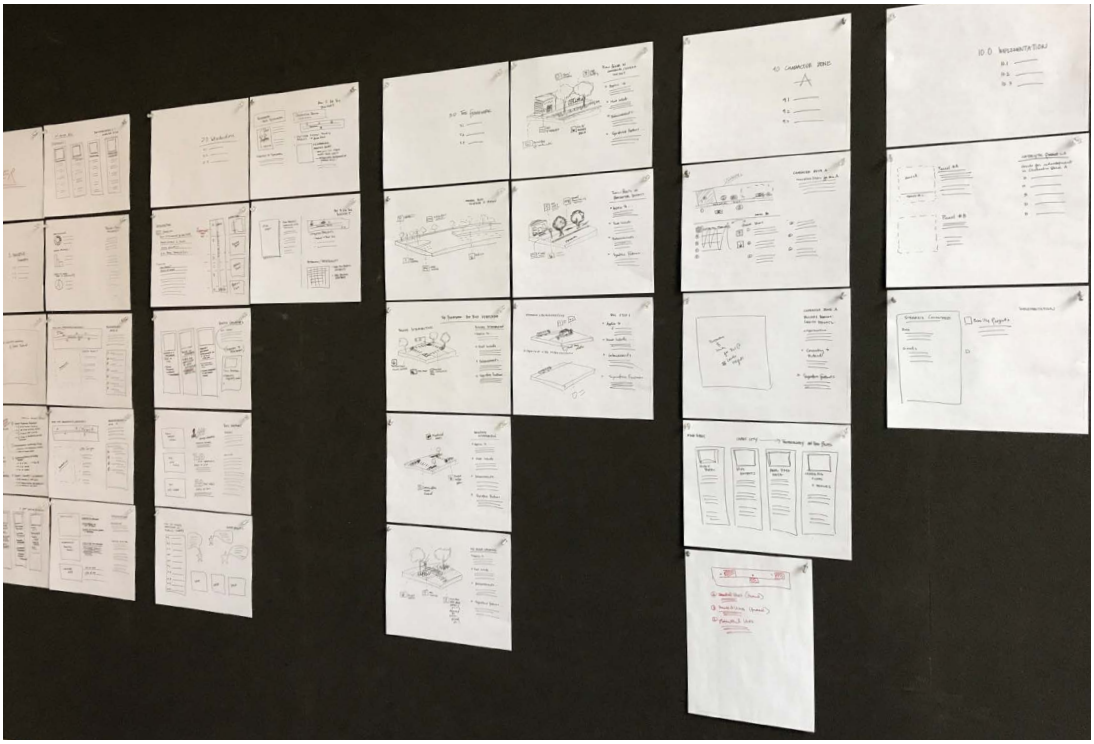


Figure 3.2. A storyboarding activity at a planning kickoff meeting helps the project team outline document content and anticipate key graphics (Design Workshop)

Storyboard

Final Document

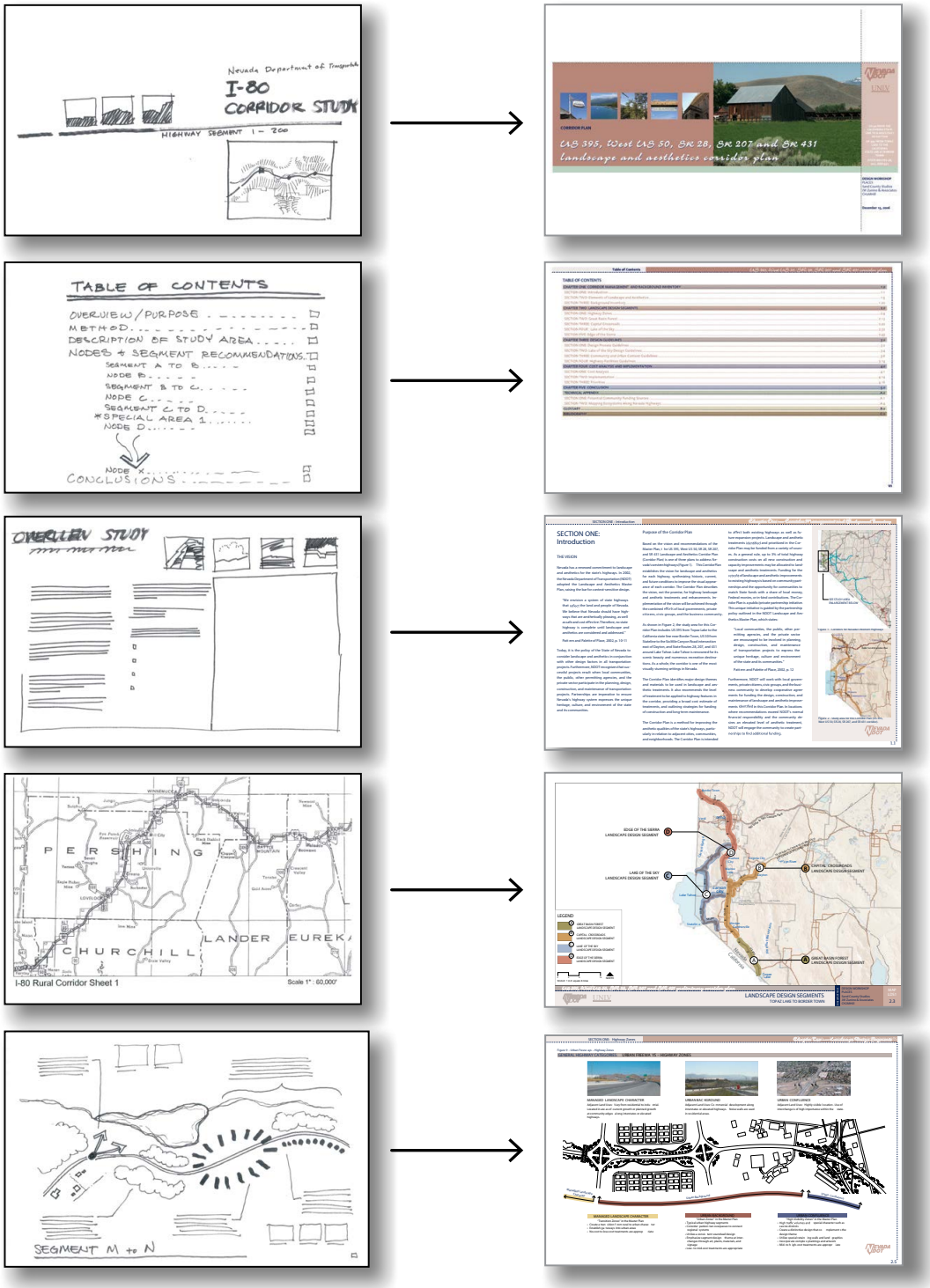


Figure 3.3. Creating a storyboard illustrates the layout and organization of key content in the planning document and helps to secure the decision maker's approval of the final product (Design Workshop)

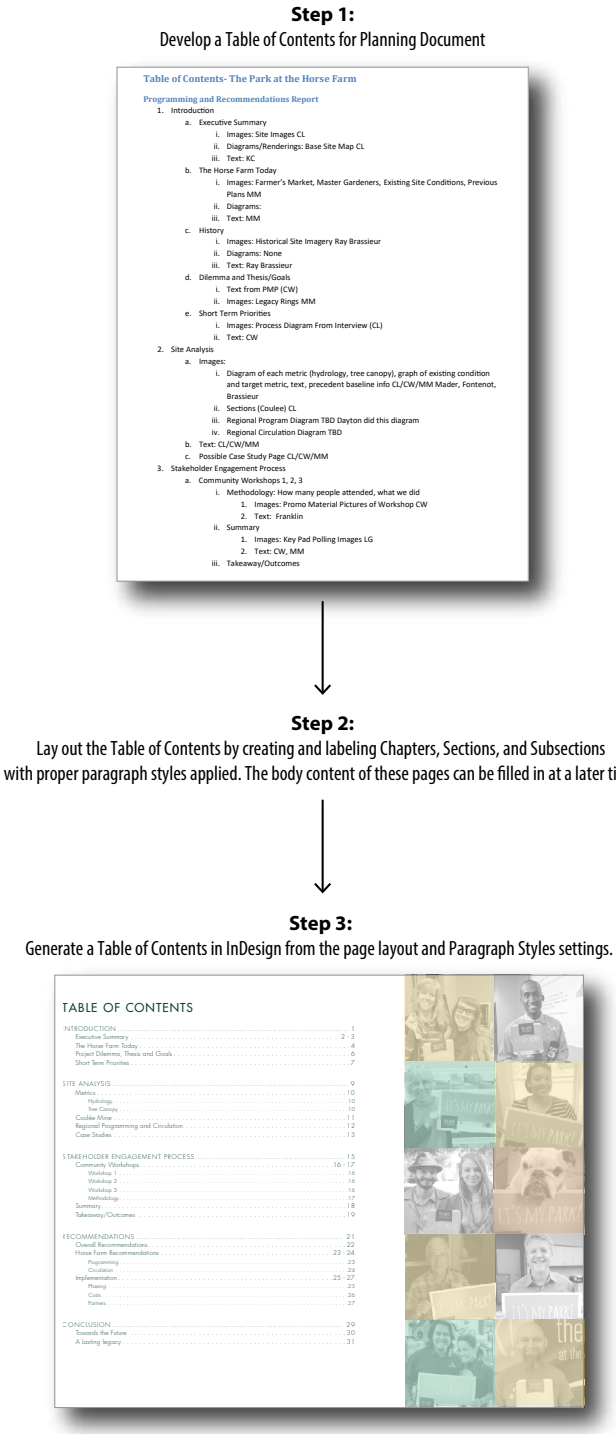


Figure 3.4. The table of contents created in Word informs the template structure in InDesign, which then automatically generates a table of contents in InDesign (Design Workshop)

tures the finished document. Figure 3.4 shows how an initial Word document is translated into the structure of the Adobe InDesign template in which the document is created. A collection of sample tables of contents from various document types is included in this report as Appendix C to assist with determining the high-level sections of the document that will organize content.

Asking for early endorsement of a table of contents comes with challenges. It is hard to fully conceptualize the document at the kickoff meeting and before the public input process. Sometimes it is impossible to gauge the balance of text and graphics at this early stage. Until the project team receives all the public input and knows the direction of the documentation, it is hard to anticipate outcomes and achieve buy-in. Yet it is important to have a starting point that has been developed in collaboration. Refinements are inevitable.

Project documents and reports are an iterative process. Providing examples of documents from similar efforts is one way to trigger a clear reaction from a supervisor or project sponsor to gauge what they are envisioning related to document content, structure, and appearance. Providing the document production team, whether consultants or in-house planning staff, with examples of documents is a direct way of showing what is seen by the project sponsor or supervisor as successful. Sharing examples of other documents (developed by other cities and organizations, or other departments within the same city) and identifying what works well eliminates the abstraction from the anticipated deliverable and gives the team a concrete model to emulate.

Sometimes a certain layout and template is required by a project sponsor, or conversely the production team has been encouraged to develop a fresh look. If the latter, then it is a good idea to create a mock-up at an early stage of the effort to ensure that the direction of the document meets basic requirements. This is a valuable approach both for an agency staff member receiving direction to create a new look for an internally produced document, or for a consultant hired to develop the document for a project sponsor. How will the team know it is headed in the right direction without providing a mock-up and inviting feedback?

Rather than waiting to be shown a mock-up, supervisors are encouraged to show examples of what is envisioned to those developing the format. Planning consultants appreciate being directed to document examples as early as the RFP stage so that the scope and fee are tailored to deliver the document as envisioned by the project sponsor. This can be done by simply listing project document names and URLs and highlighting the elements of each document that is seen as successful.

Document Setup

How the project document will be set up and worked on collaboratively are critical early decisions for the team. Document layout must meet the vision of the project manager or sponsoring agency as well as the printing capabilities of the document recipient. Software must be selected based on the level of graphic sophistication desired in the final product weighed against the software programs available to those doing the production work and even post-adoption revisions and updates in some cases. If the document is to be a collaborative effort, anticipating who will be working with the document should trigger a discussion about the optimal organization of multiple writers and editors without compromising the document.

Layout. Ideally, the size and format of the document should be predetermined and captured as a provision in the consultant's contract. The size and format of the document should be one of the first items discussed at the document kickoff meeting. Very often the paper size (i.e., 8.5" x 11"; 11" x 17") and page orientation (i.e., portrait or landscape) of the document is driven by the optimal map size. In turn, the general shape and north/south or east/west orientation of the planning area (i.e., a jurisdiction, subarea, or site) will determine the map shape and size. A document that is 11" x 17" can be unwieldy, but sometimes this size is necessary if the shape of the area is linear and requires a full spread to properly features maps, and 8.5" x 11" is too small for this purpose.

Other considerations include the type of printer available to a public agency or stakeholder. Consultants typically have access to tabloid (11" x 17") printers and ability to print with a full bleed (printed all the way to the edge of the paper; see Chapter 4, Figure 4.2, p. 47) or in color. These more graphic capabilities may not be available to public-sector planners or community stakeholders; a more widely available letter (8.5" x 11") size may be more universally accepted. Public agencies may also budget for the document to be printed by an outside vendor. Some public agencies adhere to accessibility standards related to font choice or size. Check with the project sponsor to learn if there are templates that must be adopted. Non-U.S. agencies may require the use of international standard paper sizes such as A3 or A4.

Increasingly, clients will request a web-friendly version of the document and a printable version such as a PDF. It is important to verify screen size or resolution requirements before the graphics are finalized. Higher-resolution graphics make file sizes much larger. The file size affects the ease and convenience with which readers can open and navigate the documents online (on mobile phones, tablets, or desktop computers). Template sizes and setups are considered in more detail in Chapter 4.

Software. It is crucial to determine at the outset which software application will be used to produce the document. Adobe InDesign is the preferred choice of planning consultants as it is suited to incorporating a mix of written and graphic content to create a professional and attractive document. Increasingly, public-sector planning departments, particularly those in larger cities, are investing in this program to have the capability of generating graphically robust documents in-house. Still, public-sector planners may not have access to this software and likely use a more universally available program such as Microsoft Word.

Planning consultants working in InDesign should confer with contracting agencies to determine if the agency anticipates the need to handle future revisions in-house. This may dictate the use of Word. Another solution is to structure the document with the graphics-heavy sections completed in InDesign, and the sections that are predominantly text completed in Word. This hybrid approach adds graphic flair to sections of the document but retains access to written sections for future editing by those who do not have InDesign as a resource.

There are many approaches to creating successful, polished documents, but the conversation about software must take place as early as possible to manage expectations.

Multiple editors. It is important at the beginning of the effort to understand how many people will be assigned to the document and if they will be working on it simultaneously. Choosing the most appropriate approach will depend on several factors, including the makeup and size of the team making decisions about and producing the document. Whether the document is anticipated to be a large digital file with many high-resolution images is also important to know. If a large team and large file sizes are anticipated, creating chapters as separate files is the most efficient approach in terms of computing power. Approaches to collaborative document efforts with many authors and editors developing and iterating content, including file-sharing platforms and version control, are discussed in more detail in Chapter 6.

If Word is used to produce the document, after determining the format based on a template, the document can be broken into separate files based on chapters or other logical sections represented in the table of contents. Individual authors can develop content separately. When chapters are reviewed or edited by other team members, reviewers can insert their initial at the end of the file name to indicate they have performed a review. The chapters can then be reassembled into a single final deliverable. Folder structure and file-

naming recommendations to manage multiple contributors are addressed in Chapter 4.

When InDesign is used to produce the document, it is important to determine if the document will be iterated as a single InDesign file or an InDesign book with several chapters that will be edited and updated simultaneously by multiple authors. The latter approach means that the document can be divided more easily and multiple people can work on different sections of the document simultaneously. Refer to Chapter 4 to learn more about creating an InDesign book, and to Chapter 6 to learn about version control and managing multiple editors.

Content Collection and Creation

The creation of content and the production of drafts are discussed further in Chapters 5 and 6. However, it is critical to determine at the planning document kickoff meeting who the audiences are for the final document, what will be included in the document, and who is responsible for developing it.

Narrative text and visuals. Tasks to be assigned include data collection and analysis; writing text; producing graphic exhibits such as maps, figures, diagrams, charts, tables, and images; and formatting, producing, and printing the document. An editor should be identified to review text, graphics, and formatting for clarity and consistency. Staff coordination is important to ensure a cohesive process and to reduce inefficiencies.

Once content development tasks are assigned, an Exhibits Checklist can be created, working backward from the due date (Figure 3.5). It is important for the schedule to reflect production time for text and exhibits based on staff estimates, revisions of drafts, supervisor reviews, and quality control reviews at key stages. An Exhibits Checklist template is provided as Appendix D.

Table of Contents Checklist. A Table of Contents Checklist (Figure 3.6, p. 36) tracks the sections of the table of contents, showing what needs to be produced, in which chapter and section it will appear, which team member is responsible for it, and by when drafts are due to meet a final deadline. Assignments for developing content can fall to a variety of individuals, including agency staff or the consultant team members. The checklist will help keep sections and assignments in order and reduce the need for additional coordination when it is time to assemble the document. Table of Contents Checklists are further discussed in Chapter 6 and a template is provided as Appendix E.

Draft Production

The document kickoff meeting is also the time for the project team to discuss the review and revision process that will be followed, as well as how the report will be printed and delivered. These items are addressed less specifically in the scope of services, but it is important to affirm the details of these decisions.

FIGURE 3.5. SAMPLE EXHIBITS CHECKLIST

Purpose: The intent of this checklist is to provide a clear understanding of roles and deliverable dates for the internal team.

Deliverable	Estimated Hours	Final File Format	Production Staff	Draft Due	QM Staff	QM Date	Final Due	Notes
Existing Land-Use Map	2	TIFF	AL	11/15	AD	11/18	11/20	Data in GIS
Existing Transit Networks Map	2	TIFF	AL	11/15	AD	11/18	11/20	Data in GIS, pull from existing printed plans for additional data
Proposed Transit Networks Diagram	1	Illustrator	MV	11/15	AD	11/18	11/20	Use base map produced by DW, diagram over map in Illustrator
Bicycle Network Metric Diagram	1	Illustrator	JT	11/15	AD	11/18	11/20	Graph—Existing and proposed miles of bicycle lanes. Use metrics charts as template.

Figure 3.5. An Exhibits Checklist provides clear understanding of roles and deliverable dates for the internal team (Design Workshop)

FIGURE 3.6. SAMPLE TABLE OF CONTENTS CHECKLIST

Purpose: The intent of this checklist is to ensure understanding of deadlines for initial and final drafts and to gain buy-in for deliverable dates.

Chapter	Section	Internal Review Draft Deadline	Team Member	External Review Draft Deadline	Final Draft Deliverable Date
Executive Summary	N/A	To be produced by 12/14	SL	To be produced by 12/20	2/16
Purpose	Project Vision	To be produced by 11/15	SL	To be produced by 11/26	2/14
	Project Goals	To be produced by 11/15	SL	To be produced by 11/26	2/14
Process	Project Approach	To be produced by 11/15	JR	To be produced by 11/26	2/14
	Stakeholder Engagement	To be produced by 11/15	JR	To be produced by 11/26	2/14
Challenges and Opportunities	Context	To be produced by 12/14	SL	To be produced by 12/20	2/26
	Needs Assessment	To be produced by 12/14	SL	To be produced by 12/20	2/26
Recommendations	Transportation	To be produced by 3/12	Transportation Consultant—HW	To be produced by 3/20	3/28
	Land Use	To be produced by 3/12	SL	To be produced by 3/20	3/28
	Market Analysis	To be produced by 3/12	Market Analysis Consultant—GN	To be produced by 3/20	3/28
	Streetscape	To be produced by 3/12	AB	To be produced by 3/20	3/28
	Utilities	To be produced by 3/12	AB	To be produced by 3/20	3/28

Figure 3.6. A Table of Contents Checklist clearly itemizes key content and communicates assignments and deliverable dates (Design Workshop)

Review and editing cycles. At the document kickoff meeting, the project manager should articulate assumptions about who will review the document, including specific stakeholders and agencies, as well as expectations about the number of days allowed for reviewers to provide comments. It is essential to build time into the schedule for planning staff reviews, while at the same time defining limits and deadlines so the document effort is not delayed due to waiting for comments. Ideally this has been covered in the scope and contract and the kickoff meeting serves as a reinforcement of what has already been articulated.

If multiple planners from, for example, the sponsoring public agency are reviewing drafts and providing comments and changes to the consultant, it is critical for that agency to have someone compile and consolidate all comments from the multiple reviewers in the agency, eliminating duplicates and resolving conflicting comments. Comments from members of technical advisory committees and stakeholder groups should also be consolidated into a single file. If such groups have met in person, a team member should be assigned the role of primary note taker. Notes from such meetings can then be given directly to whomever is making the changes to the document.

If many parties will be providing feedback, a Comment Log can provide a clear way to gather comments in one document and demonstrate that they have been addressed. Comment Logs are discussed further in Chapter 6 and a template is provided as Appendix G.

Finally, unexpected changes to and consequences of the review process should be discussed, such as the need to add organizations to the reviewer list at a late stage due to an outcome of the public process, or too few review responses received from key stakeholders.

Quality reviews. Whether the document is being produced by a planning consultant or by a public-sector agency, it is critical that the highest-level project supervisor or manager oversee and be accountable for the quality review of the document. Actual edits to the electronic draft of the document should be assigned to the team member or members who have the best skills in graphic production, prose, and grammar. Reviewers should have the authority to flag portions of text or charts that would be unclear to any one of the

document's audiences or that are incomplete or inaccurate. Chapter 6 discusses quality review processes and protocols, including the international quality management system ISO 9001, in more detail.

Printing and delivery. While printing and delivery occurs at the end of the document effort, it is crucial to align expectations at the beginning of the overall project, ideally in the scope of work or contract negotiations. Questions to ask include: In what format will the document be delivered? Will it be printed or shared digitally or both? If it will be printed, how many copies are needed and how will they be distributed? Does the agency expect digital files for the ability to edit and print additional copies of the document in the future? If it is digital, are there size restrictions for the document and, if so, how will it be transmitted? Document delivery considerations are discussed further in Chapter 7.

Community Engagement and Approvals

Typically, a planning document is part of a larger planning project that has an emphasis on stakeholder engagement and sharing information with the public. The process of developing the document often runs in parallel to the effort of engaging the public. To that end, the in-progress and final recommendations of the planning effort are often shared via a project website or other publications.

Careful consideration should be given to the content and format of exhibits that will be presented during the planning effort and that will also appear in the document. Anticipating the multiple purposes of exhibits at the document kickoff meeting will enable the planning team to be nimble in its use of content for different audiences and avoid reformatting, which requires staff time and expends the budget unnecessarily.

Stakeholder and public meetings. To streamline the document production process and to minimize duplication of efforts, consider the size and format of any presentation boards or PowerPoint images that will be required to share the project with the public agency and key stakeholders or at public meetings. Project staff responsible for graphics should understand in the early part of the project how such images will need to be reformatted to fit in the document. Not all of the graphics and text used on presentation boards can serve double duty in the project document because of the different scales of the content, but it is worth discussing to identify where efficiencies can be achieved.

Source file management, explained in detail in Chapter 4, must be kept organized, with folders for all imagery, links, sources, and research. Refer to Chapter 4 for a more detailed explanation of creating content such as tables, importing graphics, file resolution and format, libraries, automation, copyright laws, formatting, file naming, and folder structure and file linking.

Website development. Websites are an efficient and increasingly expected way to provide access and updates on a community planning effort and its progress. Depending on what is decided in the overall project scope, the consultant may create and host the project website and the domain while the planning project is under way. Or the sponsoring agency may create a page for the project on the municipality (or county, regional agency, private-sector client) website. Wherever the website is based, it is important for project managers and the team to agree on who will create the content, who will update the content, and at what points or project intervals those updates will occur. Websites are discussed further in Chapter 7.

The planning agency may use the website to share content of the process as each task or stage is completed, advertise public meetings, post meeting agendas and presentations, seek and receive stakeholder input, or post planning scenarios and alternatives under consideration. For example, the website may feature exhibits presented at public meetings that may be included in the final document.

If the document is lengthy or an extremely large digital file, at a minimum, an executive summary should be made available for download on the website. Or graphics and text may be extracted from the document and featured in an overview. When the project is completed, the sponsoring agency's website and the project's unique website (if one was created) can provide separate PDFs of the executive summary, each chapter, and all appendices. A single PDF containing all the content can also be posted for users who are able to download very large documents.

It is critical for team members to anticipate these multiple uses of project content prior to exhibits being created for presentations, websites, and the document so that there is flexibility with their size and format. A website may have been included in the scope and budget for the project, but it is important to revisit key decisions to ensure that the various parties have given enough thought to content development and multipurpose file formats. The planning document kickoff meeting is the ideal time to agree on an approach.

Approval process. Most planning projects have a review requirement, whether it will be by the agency sponsoring the project, the planning commission, or the city council. It is critical to understand the approvals process prior to launching the planning document in order to establish when and how drafts will be reviewed and how the schedule is impacted.

TABLE 3.1. RECOMMENDED PRACTICES: PLANNING FOR DOCUMENT PRODUCTION

✔	Determine the audience of the document. Is it a visioning plan with high-level recommendations to be shared with the public? Or is it a more technical volume for those who will implement the recommendations?
✔	Determine if the project sponsor has any requirements related to language translation.
✔	Confirm if the document is to be adopted by a governing body (e.g., a city council). If so, factor this into scheduling, review periods, etc.
✔	Determine what the content of the report will be.
✔	Consider if graphics will be stock or custom.
✔	Ensure that stock image license and usage information is filed with the image after usage fees are paid and the resource is downloaded.
✔	Assign who will be creating the content—graphics, text, photographs, and formatting, for example.
✔	Create a Table of Contents Checklist (Figure 3.5/Appendix E) and Exhibits Checklist (Figure 3.6/Appendix D).
✔	Create a production schedule, incorporating key deadlines for review and final production.
✔	Determine how subsequent copies of the report are to be printed—and by whom.
✔	Confirm the number of copies to be printed or if the document will be available to download digitally—or both.
✔	Determine if the content developed during the planning project will serve multiple purposes, for example as exhibits at public meetings and also in the planning document.
✔	Review and confirm all assumptions of document production with the team during the kickoff meeting.

Source: Design Workshop

Most entities specify a minimum number of days prior to public meetings when drafts must be submitted for review or to be included in council representative packets. For example, in California, the Brown Act requires that legislative bodies of local agencies meet specific noticing requirements. Many local governments require staff packets to be completed at least two weeks prior to the meeting to allow adequate time for review by elected officials. In order to allow the public the same opportunity for review, many agencies make the staff packets available online as well. Projects may require an environmental review to be completed prior to document approval. This should also be considered as part of the production schedule.

Regardless of the type of project, to ensure a smooth final approval process, the team should provide interim updates to the final decision makers and enabling body to keep them informed throughout the planning project. Because public comments may be received as part of public meetings, it is important to determine how those comments will be recorded and addressed, especially as the document moves toward adoption.

DETERMINING WRITING AND GRAPHIC STYLE

Planning documents must be consistent in their message, analyses, conclusions, and recommendations. With multiple authors and editors touching the document, it is wise to establish rules for the team to follow related to word treatment. Similarly, a coherent graphic style should be developed and adhered to throughout the document to result in a visually unified report. But such rules are only as valuable as the authors' abilities and willingness to follow them. That is why the quality review process described briefly in this chapter and in greater detail in Chapter 6 is crucial.

Style Guide for Writing

Consistent writing style and use of language is essential to authoring a planning document, whether as an individual writer or a group of coauthors. Using a style guide increases the coherency and quality of the document, and the efficiency of its production.

A standard style source used frequently by writers in a variety of disciplines is *The Associated Press Stylebook and Briefing on Media Law 2011*. *The Chicago Manual of Style* is widely used for academic reports and is discussed further in Chapter 5 in the section on citation styles. Both resources can be obtained via online subscription.

There are alternatives to these subscription fee programs, including OWL, a free online writing and style resource available through the Purdue University Online Writing Lab (https://owl.english.purdue.edu). Another approach is for individual companies to develop their own style guides based on common terms and usage that relate to their industry. Local governments or planning agencies within them may have their own style guides and particular ways of referring to the project as well. Various options are described further below.

It is important that planners strive to produce jargon-free planning documents and reports for the members of the public and the boards and officials they serve. An excellent background source on how to avoid jargon is *Planning in Plain English* (APA Planners Press, 2002) by Natalie Macris.

The Associated Press Stylebook and Briefing on Media Law

The Associated Press Stylebook and Briefing on Media Law (AP Stylebook; www.apstylebook.com) is a well-known standard for print journalism. It provides guidelines for grammar, spelling, punctuation, abbreviation, and language usage. This is an especially helpful resource for teams in which multiple authors must work together to create consistent and concise content. Subscribers to the AP Stylebook can take advantage of a software titled StyleGuard that integrates with Word, similar to the way spell-check works. This software helps authors catch redundant wording, find errors often missed by spelling and grammar check features, apply common unit conversions, and use correct phrases and hyphenation.

Developing a Project-Specific Style Guide

Sometimes a municipality has a host of unusual word treatments or place names that are specific to its locale that must be used accurately in the planning document. The project name may have been branded in a certain way, or the project sponsor may have word usage requirements to incorporate. The project sponsor or key stakeholder may have preferences and style rules that are important to understand at the outset.

At the document kickoff meeting, begin with a standard style guide and modify the language and style with the team members, including planning agency, key stakeholders, and consultant team staff if applicable, to create a project-specific style guide. If it is not possible to devote time to this at the initial meeting, assign representatives from key parties to review the style guide with necessary colleagues and respond with any adjustments by a certain date.

The project's style guide should be shared with the entire team, including the planning agency project manager, if applicable, prior to beginning the report. In a situation where a consultant is writing the planning document, the planning agency supervisor should sign off on the style guide to indicate agreement with the usage of grammar, naming conventions, and use of professional industry terms. It behooves the project leader to solidify the style guide at the beginning of the document process. Not doing so exposes the effort to 11th-hour changes to address style issues that should have been agreed on at the kickoff stage.

Below are examples of items that should be discussed and included in a project's style guide prior to sharing it with team members responsible for developing content. An example of a style guide is provided as Appendix F.

Project Title

- Is there a shortened version of the project title that will be used consistently throughout the document(s)?

Word Treatment and Sentence Length

- Are the audience's needs being considered?
- Does the public agency have a particular way of referring to the project, street names, or the name of a district in the city? For example, Westmore Meyers Road or Westmore-Meyers Road? LaGrange Park or La Grange Park? RidgeGate Parkway or Ridgegate Parkway or Ridge Gate Parkway?
- Are planning terms and phrases used consistently throughout the document and in accordance with the consultants' or public agency's existing style guide? (e.g., is stormwater spelled as one or two separate words (storm water)?

Capitalization and Punctuation

- Should a comma be added before the conjunction?
- When is the word "city" capitalized and when is it not?

Voice

- Will the standard be active or passive voice?
- Will the text be written in first person or third person?

When making style decisions, the audience must be kept in mind. If the document is aimed at a broad spectrum of the public, it is important to consider sentence length and the complexity of the writing. Similar to Word's as-you-write indicators of incorrect spelling or grammar, there are tools to generate readability statistics, including sentence length and the grade level of the writing. Writing guru Ann Wylie describes research by the American Press Institute showing that when the average sentence length is nine to 14 words, readers understand more than 90 percent of what they're reading. Increasing a sentence to 43 words decreases comprehension to less than 10 percent (Wylie 2009).

Graphics Style

It is essential to consider graphic logic and coherence to create a visually unified document. Starting with a standard document template is essential to achieve consistency. It will add a more professional appearance and be easier for the reader to navigate. If the report is to become part of a collection of documents (either created by the consultant or public agency, or to serve as a reference to other related reports such as subarea plan to comprehensive plan), it is useful to use the same graphic style and format. The planning project may have a website and online tools for communication and community engagement. The graphic style of the document should clearly relate to the online presence of the overall planning project. Template considerations are further discussed in Chapter 4.

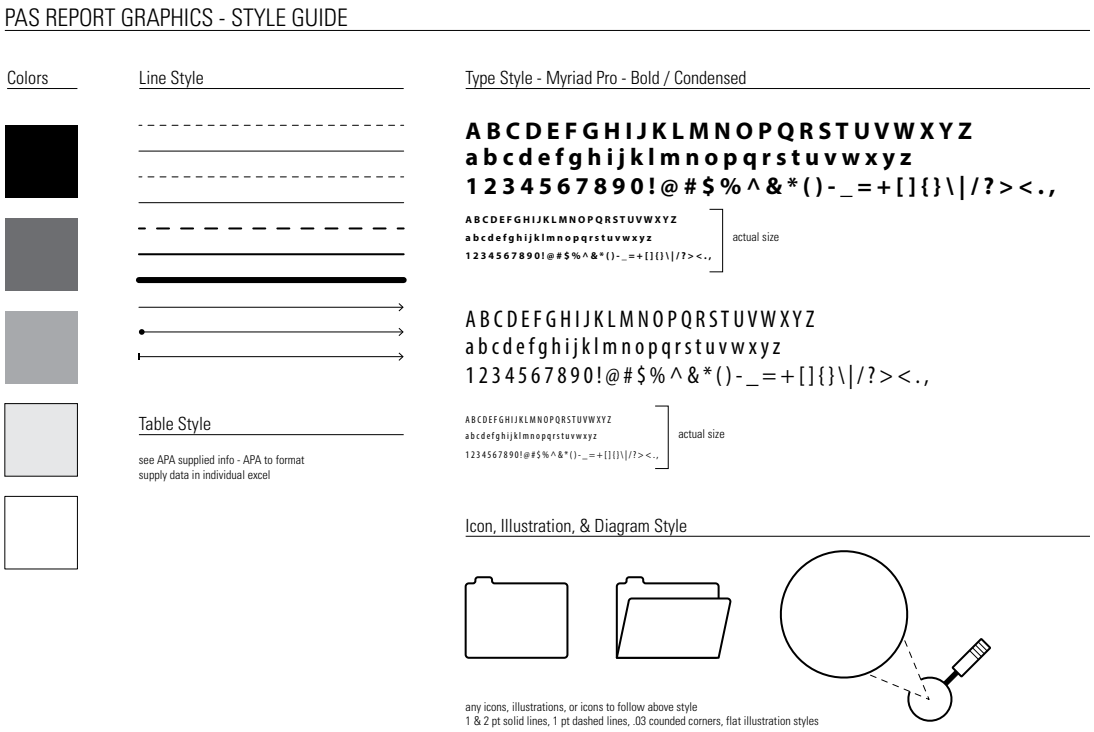
Styles, including colors, paragraph styles, and scales to be used for each exhibit, must be agreed upon before production begins. This helps to align the production team and the project sponsor and avoids rework. At times, it may be appropriate to create a storyboard of a few example pages to gain supervisor approval or team endorsement of the direction, look, and feel of the content being generated. Figures 3.7 and 3.8 show graphic style boards that capture the colors, line styles, type styles, and icon, illustration, logo, and diagram styles to govern all graphics generated for a report.

Aside from clearly demonstrating a consistent graphic approach, taking the time at the beginning of the project to define the look and feel of the document will aid in securing the necessary endorsements from multiple parties so that the effort can progress smoothly and efficiently. It is helpful to develop at least two graphic style alternatives for feedback on document aesthetics.

PRINTING AND DIGITAL SPECIFICATIONS

Many planning documents are not printed at all and instead are posted online in digital format for viewing and downloading. In these increasingly prevalent situations, the document is finalized as a PDF only, and then distributed electronically. File formats, including PDFs, are covered in Chapter 4. Digital-only delivery is discussed further in Chapter 7.

If the document is to be printed, it is important to make informed decisions about printing specifications in the project contract, as this can have significant impacts on project budgets and schedules. Printing specifications must be out-



Figures 3.7 and 3.8. Graphics style boards capture the colors, line styles, type styles, and icon, illustration, and diagram styles to ensure graphic consistency throughout a report (Design Workshop)

lined for consistency and ease of production. These considerations include the type of paper stock to be used for the cover and the internal pages, the bleed, the binding material and method, the use of tabs, the quantity of reports to be printed, and a distribution plan.

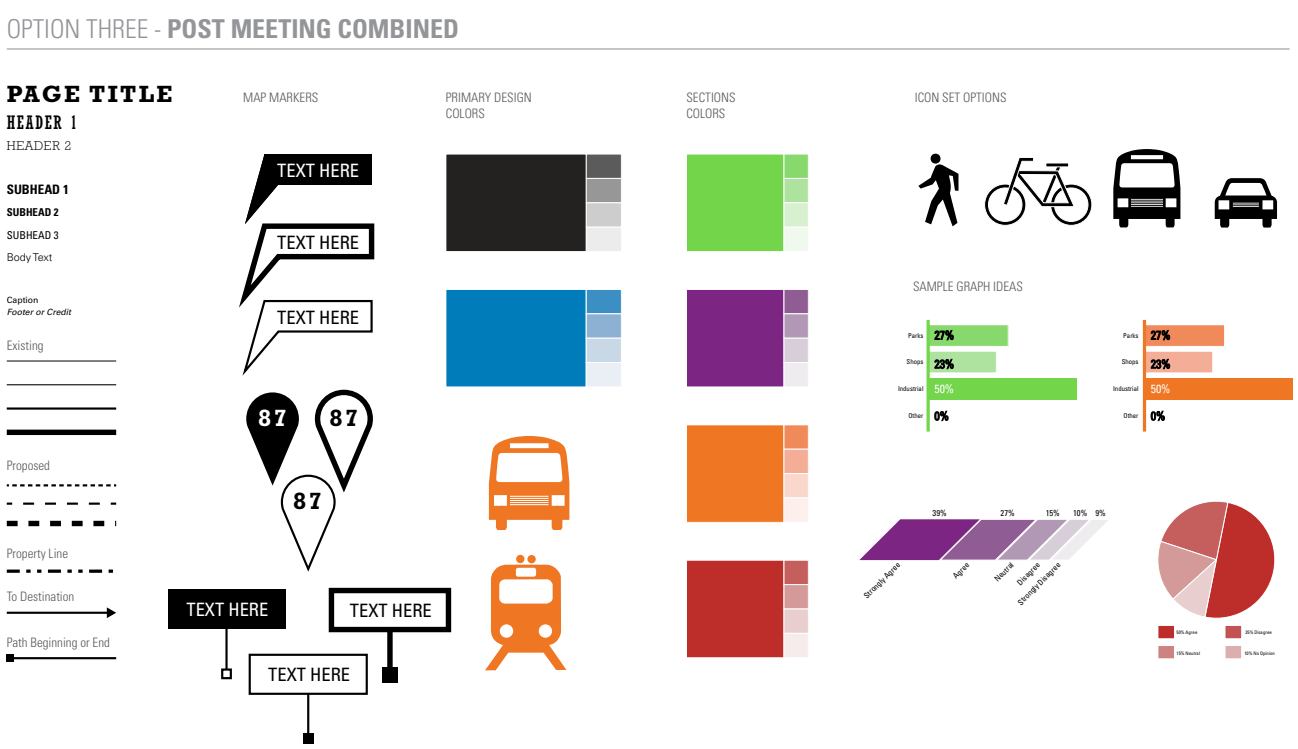
Printing arrangements must be confirmed with the team and vendor because they affect time and budget management. Understanding these costs and relaying them to the project manager of the sponsoring agency is necessary to make informed decisions. A printing checklist captures the agreed-upon specifications in one place at the front end of the effort for the production team and can be shared with the printing vendor (see Chapter 7, Figure 7.1, p. 78).

Depending on decisions made about document binding and bleed, documents may be printed in-house or through a vendor. Using vendors can seem more expensive at first glance; however, staff time spent on in-house printing and binding adds up quickly as well, often justifying the expense of using outside resources. Printing full-color bleed in-house is not effective from both financial and quality standpoints. Many planning firms and public agencies do not have printers that can handle complex graphic specifications. Even if they do, pages need to be cut down to achieve full-color bleed, so this task is best sent to a third-party printer, although this adds an extra step to the production process and impacts the schedule.

At the initiation of the planning project, project managers should research printing costs for both options and verify the approach with clients or supervisors. In situations where a planning consultant is producing the document and arranging for its printing, often the costs are already known at the launch of the project because the figure was incorporated into fee estimating in the proposal phase. When estimating costs, it is important to factor in the costs of stapling, binding, and covers, as well as any tax and shipping or delivery fees. Vendor prices vary based on geographic location and production levels.

When selecting an external vendor, it is a good idea to send the same test file to multiple vendors to compare color differences and print quality. Creating a list of resources and vendors can help project managers compare costs between printing in-house or utilizing an external vendor. It is helpful to build relationships with vendor salespeople to be able to contact a trusted representative to advise on and price the job.

Even if a vendor is selected for the first batch of printing, planning agencies often want the ability to print additional



copies in-house in the future. If this is anticipated, it is important to verify printer and binding capabilities so that copies printed in different locations and periods of time share the same quality, look, and feel.

Finally, remember to build in enough time within the production schedule to complete the physical printing, whether done in-house or by a vendor, and to consider delivery time if handled externally. A detailed discussion of factors that must be addressed when deciding upon a printing approach is provided in Chapter 7.

CONCLUSION

The successful completion of a planning document, including the process it followed from planning and production to completion and delivery, depends on a logical workflow and early critical conversations among the members of the document team. Convening a planning document kickoff meeting is essential to align the decision makers and the production team. Capturing and sharing conclusions about the document's content, format, software, editing and review process, and writing and graphic style goes a long way toward eliminating surprises that impact the schedule, budget, and quality of the effort. Determining how the document will be finalized—printed copies, digital format, or both—is a critical early decision for the planning document leaders. The next chapter addresses how digital files are set up and managed to ensure efficient efforts with smooth workflows and high print quality.

CHAPTER 4

FILE SETUP AND MANAGEMENT

In collaborative document efforts with evolving content, the way that digital files are set up and managed is a critical consideration. This chapter offers guidelines for file setup that result in more efficiently managed efforts with smoother workflows and higher print quality. When working with a team of contributors, the organization of folders on internal servers or online collaboration websites is important to anticipate, as is the naming of files to keep track of different authors and versions.

INITIAL DOCUMENT SETUP

There are several elements to consider when starting the document production process and preparing to set up the digital file, the most important of which are the software that will be used and the template to guide its format.

Verifying Size, Software, and Format

Before starting, verify the report size, software, and format to be used with the project sponsor or supervisor, as mentioned in Chapter 3. Decisions such as the page orientation and sizing of a document must be determined early in a project as they can have lasting impacts. When making these decisions, consider how the graphics will read on the page at a particular scale and create a mock-up for approval. The physical shape and size of corridor projects make these images especially challenging to place in smaller documents.

Changing the document's page size (e.g., from 8.5" x 11" letter to 11" x 17" tabloid) or orientation (e.g., from portrait to landscape) after a first draft has been developed requires rescaling every exhibit to fit the new format. This process can be extremely time consuming. By establishing the document layout early in the project through visual mock-ups and agreements on other important formatting choices, the overall production process can be streamlined and additional reformatting can be avoided later. The Document Production Checklist should be approved by a key decision maker at the planning document kickoff meeting (see Chapter 3).

Software is another critical decision at the initiation of the planning document effort. Planning consultants and public-sector planners most frequently use Adobe InDesign for document layout and design. It is the standard software used for document layout across industries and internationally. It is important to note which version of InDesign team members will use. InDesign is not backward-compatible, meaning that documents created in the latest version may not open in older versions.

Team members who write the text of the planning document will often use Microsoft Word, and that text is later imported into the InDesign document file by the person compiling the final document. Many planning agencies use Word for layout and design of simple documents that are primarily text or that have tables and charts but not maps or renderings.

If the consultant plans to provide the document source files to the sponsoring agency or third party at the end of the project, it is crucial to verify whether the InDesign format is acceptable. If an agency plans to update the document in the future, they may require a Word file instead. If this is the case, there will be limitations to how the document is constructed, as Word is a word-processing application and does not have the

TABLE 4.1. RECOMMENDED PRACTICES: DOCUMENT FORMAT APPROVAL

✔	When making decisions about document size and orientation, consider how the graphics will read at a particular scale and create a mock-up for approval.
✔	Obtain approval on the document's page size and orientation to avoid time-consuming redos at later stages.
✔	Obtain approval of the Document Production Checklist from a key decision maker before developing a template.

Source: Design Workshop

capability of more complex page layouts. Regardless, always begin a document effort with a template, as described below.

Starting with a Template

Template files are preformatted documents that are starting points for creating new documents. A template can be customized with preloaded paragraph styles (with defined fonts and text hierarchy) and graphic styles, logos, and colors to celebrate a community's identity. Typical sizes are letter (8.5" x 11") and tabloid (11" x 17"). Once decisions about these elements have been solidified, the document is ready for the team to add content. Using a template adds to the visual coherence and navigation of the document, and generally lends a more professional appearance to the document.

Many municipalities, agencies, planning departments, and consultants have established branded styles and templates for documents. However, if there are no such templates available to use for the document, Microsoft Office offers free templates online at https://templates.office.com. Browse the categories for options; the most applicable for project documents are "Papers and Reports" and "Brochures." In addition, Microsoft Publisher, a desktop publishing application that comes with some versions of Microsoft Office, offers a range of template options for simple layouts.

Within Adobe Creative Cloud, Adobe Stock offers a collection of templates (for print, web, mobile, illustrations, video, and more) developed by professional designers and built to work with Adobe applications, including Photoshop, Illustrator, and InDesign, to increase efficiency (https://stock.adobe.com/templates). Discussed further in the digital deliverables section of Chapter 7, iBooks Author (www.apple.com/ibooks-author) is a free app for creating a variety of digital document types for iPad and Mac, but it only works within the Apple platform.

InDesign templates should have the necessary master pages, margins, and style sheets so that content can be added and formatted immediately to maintain a consistent visual effect. Just as with Word, typical sizes include letter (8.5" x 11") and tabloid (11" x 17"). It is important to set up the template with an underlying column or grid structure to which content can be aligned for visual consistency. For example, an InDesign template with a five-column grid structure allows for a variety of page layout options (Figure 4.1). For international documents, it may be necessary to select an A3 (11.7" x 16.5") or A4 (8.3" x 11.7") template.

For consistency and document cohesion, all text and images should be aligned to an exact multiple of columns, using the margin and column guides included in the template. This provides a more professional appearance than having randomly sized and positioned content that differs from page to page.

If the document will have "bleeds"—portions that print all the way to the edge of the paper—include a 1/8" bleed in the InDesign Document Setup dialog (File > Document Setup), and extend those images and objects beyond the page dimensions to that line. In order to produce the bleed, the document is printed on a larger sheet of paper and trimmed to the final page size (Figure 4.2). For example, an 8.5" x 11" document with a color bar at the bottom of every left-hand page would need to be printed on 11" x 17" paper and trimmed down to size (8.5" x 11"). This requires coordination with an external print vendor and can increase both the production cost and turnaround time. It is also important to understand constraints of layout as they relate to how the final product will be bound.

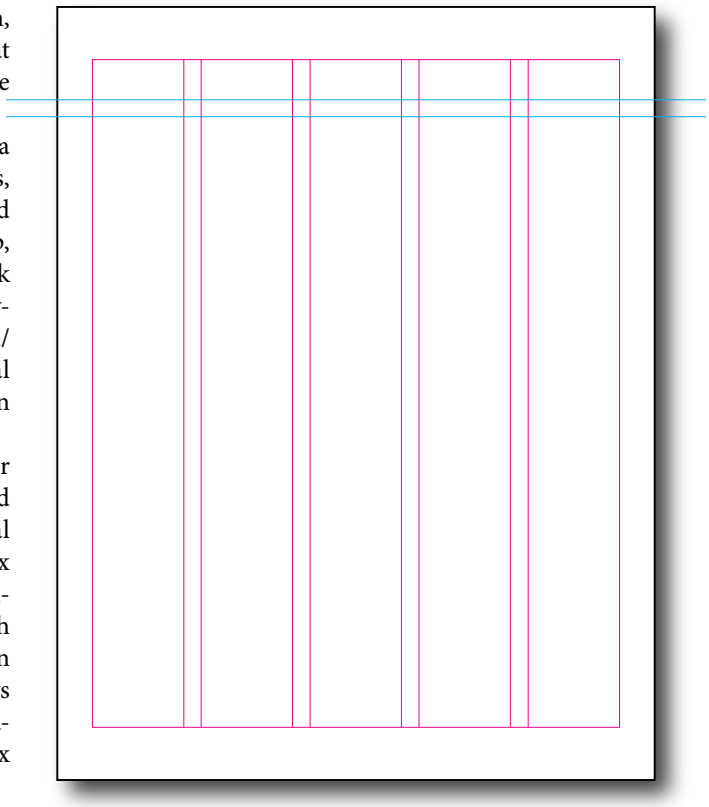


Figure 4.1. An underlying column grid structure ensures consistent placement of content in the document template (Design Workshop)

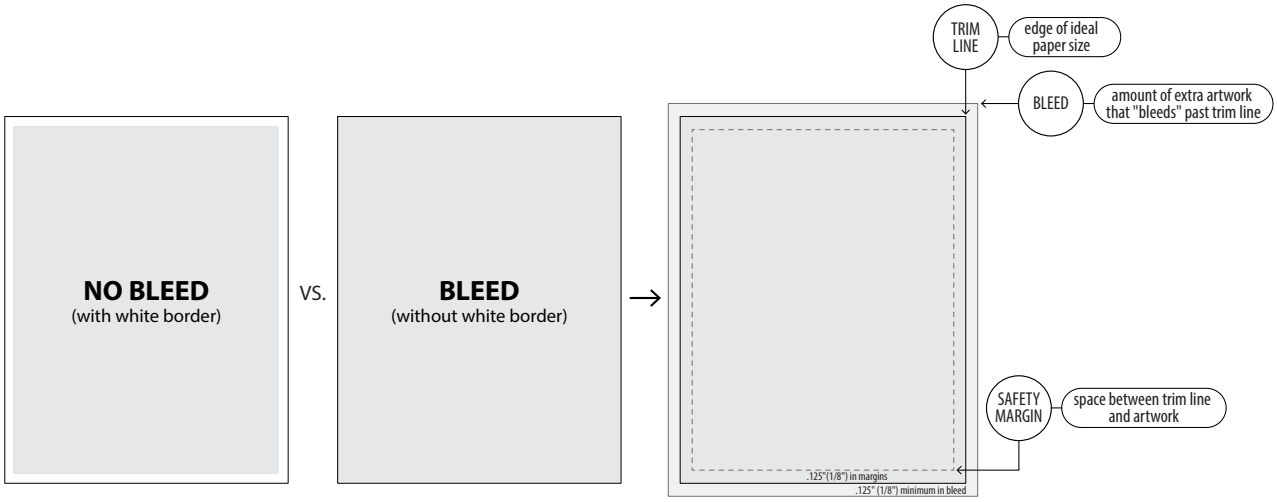


Figure 4.2. A bleed requires printing on a larger sheet of paper and trimming to the final page size (Design Workshop)

Building the Document

Follow these steps to begin building a document in a template. Practices shared by Word and InDesign are listed first. Recommendations specific to InDesign follow.

1. Select a template and save it into the project folder.
2. Modify the master pages to customize the footers with the project name, location and/or document title, and consultant and/or agency logos. Footers are preferable to headers due to their placement at the bottom of the page. The reader most often starts at the top of the page and then progresses to the bottom. The main content of the document should be read first without any distractions in the header. Footers are not throw-away space; they consolidate key document details in a consistent place and should be designed to help the reader navigate. A common approach is to provide the section title and page number on the left page of a document spread, and the document title, name of responsible entity, and other page number on the right page of the spread.
3. Create chapter divider pages or spreads for each chapter based on the table of contents determined during the document planning phase described in Chapter 3. Introductory content such as text or an image can be added to the chapter dividers.
4. If sections of the document will be assigned to different authors and editors, save each chapter as a separate file clearly named with the chapter title. See below for more information on file naming. InDesign only: If the document will be managed with the InDesign Book feature (see sidebar on p. 48), after saving each chapter as a separate file, load them into the InDesign Book palette.
5. Create at least one regular content spread after each chapter divider. Additional pages can be added later to each chapter as needed. InDesign only: Unless there will be footnotes in the document, do not link text boxes to "thread" text across chapters (meaning that the text automatically flows into it from the preceding chapter). Each chapter should start with a new text box, which allows for additional pages to be added to any chapter without interfering with the following chapter divider or content. It is preferable to make text edits within discrete chapter sections and avoid inadvertently bumping a paragraph from one chapter to the next, which can happen when chapters are linked. Text boxes do not have to be linked to apply paragraph styles across the document.
6. InDesign only: Define each chapter as its own "section" via the Numbering & Sections dialog box, which is accessible in the Pages panel—sometimes called the Pages window—or by right-clicking the page in the Pages panel and selecting from the pop-up menu.
7. Begin typing or inserting content. InDesign only: Insert image content by clicking File > Place and then browse to select the desired image. Similarly, click File > Place to browse and select a Word document to import text. This retains the formatting styles and editing flexibility. Copying and pasting from Word should be avoided as formatting is not retained and content can be lost.

ADOBE INDESIGN BOOK FEATURE

The Adobe InDesign Book feature is helpful when creating lengthy documents with many chapters or numerous graphics, or those in which multiple creators or editors need to access chapters simultaneously or independently. To use this feature, a document template should be saved as separate InDesign files, each representing a chapter, a group of chapters, or a section, and then linked together as an InDesign book utilizing the book panel.

When linked using the book panel, individual InDesign files are treated as a cohesive group, so the process for continuous page numbering across the document is efficiently automated. An InDesign Book can also be exported quickly to PDF and style changes are updated and universally reflected through all chapters. An additional benefit of this approach is that it reduces the number of graphics continuously being loaded into a computer's memory. This speeds up processing time, reduces software crashes on less capable machines, and makes it easier to work on the document individually or as a team.

InDesign has a track changes function similar to Word's that can be turned on to make evident all changes made by multiple editors. However, for significant amounts of text changes, it is recommended to make edits in Word and then to reflow the text back in to the InDesign document.

ADDING CONTENT

After initial decisions have been made about format and a template has been selected or developed, the document is ready for content to be added, including text, tables, and graphics. Additional considerations include resolution, file format, the use of common elements collected in libraries, and document automation to avoid manual adjustments. Each of these is described in more detail below. Project managers should brief all content creators on the rules and protocols for adding content to the document in advance to minimize need for corrections later.

Text

Text typically is developed in Word, and if using only Word to create the document, it can simply remain. While the narrative is being developed, the writers may identify specific visuals that should be associated with particular passages. It is best to add notes in brackets directly within the Word document that can serve as a reference and reminder when the document is being assembled. Placeholder boxes can be created while the layout is being developed, but the reference in the text should remain until the visual has been added.

If the document text has already been formatted consistently in Word, it is better to place a text file (choose File > Place) in InDesign, as formatting can be lost when text is cut and pasted from Word into InDesign. It can be useful to place the entire file into empty pages at the end of the document, then cut and paste the text into the corresponding content spreads. Alternatively, separate Word files can be saved for each chapter that can be placed individually into each content spread. There may also be portions within a single chapter where the links between text boxes should be broken to force content to break at logical points, such as full-page exhibits with associated descriptions.

When text is received from a variety of sources and has not been consistently preformatted in Word, the InDesign Paragraph Style feature is an efficient way to apply the same styles to fonts, body text, and heading styles across sections or the full document. InDesign features more robust formatting capabilities than Word, so regardless of how the text is imported, InDesign should be used to define and apply paragraph styles.

Tables

Tables are excellent formats for presenting information and data in a way that can be compared and contrasted. The information is contained in one place yet divided into sections

for clearer understanding by the reader. Tables are typically created in Microsoft Excel and Word.

If preparing the project document in Word, one approach is to simply build the table directly into the document, inserting it in the proper location amidst the text and graphics. Alternately, if the data presented is numeric in nature and includes calculations determined by Excel formats, it makes more sense to build the table in an Excel spreadsheet, and to simply Copy > Paste the table into the Word document.

There are a number of ways to move tables into InDesign. It is preferable to place the Excel or Word files directly into InDesign, which makes them fully editable as true tables. This allows the text to be styled using style sheets for consistency and color swatches to be applied to match the rest of the document. Another benefit is that these tables can then span across multiple pages and InDesign will automatically repeat the table headers at the top of each page. However, calculations determined by and editable through Excel formulas will be lost.

An alternate method is to export the table file as a PDF file and place that as a graphic. This is the best approach for spreadsheets containing calculations to preserve formulas and formatting, if desired. In these situations, try to mimic the style of the InDesign document in the Excel file, at least using the same fonts and colors so the spreadsheet complements the other content in the planning document. The drawbacks to this approach include the following: (1) the formatting in the PDF file is often different from the rest of the document, including font sizes that vary depending on how much the graphics are scaled; (2) the contents are not editable within InDesign, so changes to text and formatting need to be done in the source file, re-exported, and updated within InDesign; and (3) spell-check will not work on text within the imported graphics.

Importing Graphics

To effectively tell the story of the process and outcomes of a planning effort, planning documents typically include both text and graphics. While written explanations go far in summarizing and describing, so do illustrative plans and maps that graphically communicate planning conditions or intentions. The balance of text and graphics will change depending on the emphasis of the planning project. The method for inserting graphics depends on the software being used for the document.

When working in Word, from the menu, choose Insert > Pictures to select and insert the desired image. Once inserted, the graphic can be resized and repositioned. To view options for wrapping text around an image, click on the image. To view options for text interface with images, use the Wrap Text function which can be accessed via the Format > Picture Tools menu, or the Layout menu. Scrolling down the list provides a dynamic demonstration for how each Wrap Text application will appear.

In InDesign, the photo or graphic should be placed into the document using either the menu (File > Place) or by dragging and dropping from the Windows File Manager window into the InDesign file. Prior to placing any photos or graphics, each image file should first be saved in the projects folder. Do not copy images from another application and paste directly into InDesign. Images can be copied and pasted from other InDesign files, but keep in mind that the image will still be linked to its original location, which may be within a different project folder. It is best to copy the original file into the project's current working folder and to link to that instead. It is a good idea to package the file after every version to retain each as a backup of links, fonts, and document instructions.

Although Photoshop files can be placed into InDesign, it is almost always better to save a copy as a TIFF file with no layers and place that instead. InDesign recognizes layers within placed Photoshop files, so storing all the layer information in memory can result in a large file with very slow performance and potential software crashes when printing or exporting.

Excel datasets can be saved as native Excel documents or, among a variety of options, exported as PDF files. Either of these can be used in InDesign. The PDF file can be placed into the document using the menu (File > Place) and will be treated similarly to any other graphic or image placed in the document in this way. The Excel spreadsheet can be placed as a live file and remain editable in InDesign where styles can be applied and content edited.

InDesign also will recognize objects in Illustrator files, which theoretically is subject to the same issues discussed above regarding Photoshop files (although most often there is only one layer with a high-resolution image, such as a base aerial photo, map, or illustrative plan). Layers within the Illustrator file can be turned on and off within InDesign to reduce the amount of memory needed to run the program and speed up the processing.

Image Resolution

Terms used to describe image resolution can be confusing and are often incorrectly used. To the layperson, they are used interchangeably. However, when developing and saving content and when talking to printers about desired outputs, it is helpful to be conversant.

When referring to the resolution of a digital file, it is correct to use pixels per inch (PPI). Technically, the file does not become dots per inch (DPI) until the printer converts it to dots on paper. DPI is crucial to developing the most vivid and detailed print quality. More relevant to consultants and agencies producing project documents is PPI, which is an important consideration in developing content and saving it as a variety of file types.

Image resolution ideally should be at least 300 PPI at the size at which it is being used, but must be 150 PPI at a minimum for the type of printing often used to produce planning documents. Images with lower resolution may appear pixilated and blurry, resulting in lower overall document quality. Images downloaded from the internet are often not of sufficient resolution to use in a document that will be printed. Additionally, downloaded images often come with uncertain provenance and permissions (see discussion of copyright law in Chapter 5).

Note that there is a difference between the original resolution at which the file is saved (i.e., the resolution that Photoshop shows) and the effective resolution after the image has been resized within InDesign and other software programs. For example, if a 4" x 6" image is saved at 200 PPI and is placed in InDesign at 8" x 12", the effective resolution is only 100 PPI and the image will likely print with low quality. Conversely, if the image is used at 2" x 3" the effective resolution is 400 PPI, which is more than enough for quality printing. Keep this in mind for all placed images, especially when cropping out a portion of a larger image. Images should never be scaled above 100 percent.

To determine the scaling of an image in InDesign, click on it with the white arrow tool and view the scaling percentage in the Properties bar; to view both the original and effective resolution, refer to the bottom of the Links palette when the image is selected. While Word offers fewer image-related tools, there is a host of options accessible from the Format > Picture Tools menu.

Image File Format

Generally, the TIFF format for images is preferable to JPG format. While JPG files are very common and typically have smaller file sizes, they often lack the quality of a TIFF. This is because details of the image are discarded when saved, so the smaller file sizes are due to information being removed from the file, reducing quality. Resaving a JPG file as a JPG again causes further loss of quality, which cannot be recovered (even if it is then resaved as a TIFF). Note that JPG compression occurs when saving a PDF as a JPG file, which is then the second round of compression if JPGs were imported into the document in any software program. For this reason, the TIFF format is preferred, which retains all original quality even when resaved again as a TIFF.

One drawback of using TIFF files is a large document size. ZIP compression can be used on TIFF files to reduce their file size; they will usually still be larger than JPG versions, but the trade-off is increased quality.

Planning documents are often complex operations incorporating graphic and written content from a host of contributors. When assembling a document with exhibits prepared by others, it is preferable to receive files in TIFF format. However, if exhibits are transmitted in PDF format, they can be turned into TIFF format by exporting as a TIFF through Adobe Acrobat. The conversation about file formats and resolution should occur at the document kickoff meeting (see Chapter 3) to ensure that team members deliver the various components of the document as specified.

Team members will typically generate maps and other graphics in Adobe Illustrator. Maps created in ArcGIS and AutoCAD line work are often imported into Illustrator as base layers or for additional graphic treatment. If drafts have been reviewed and iterated prior to the final assembly of the document, the author of the document should have made all the changes and delivered a file that is ready to be incorporated into the document. However, if images are transmitted in formats such as Illustrator (.ai), Encapsulated PostScript (.eps), and Scalable Vector Graphics (.svg) in addition to the preferred TIFFs, they can be edited if necessary before final delivery.

Automation

Automation is a handy feature to efficiently and consistently duplicate and cross-reference content throughout the planning document. Both Word and InDesign have automation functions, but each goes about the tasks in different ways with different user interfaces. InDesign's capabilities are more robust.

Through automated processes, users can add page numbering, generate tables of contents corresponding directly to document contents, autofill footers with chapter titles, consecutively number sets of exhibits, produce footnotes, apply type styles based on preset rules, and execute many other time-saving operations. One example—automating tables of contents in both InDesign and Word—is described further below.

In InDesign, a table of contents can be created and items can be updated when the various headings in the document change as drafts are iterated. As long as there is a hierarchy

of headings—Heading 1, Heading 2, and so on—and they are used appropriately and consistently throughout the document, a table of contents can be automatically created that displays the key sections of the document. When headings are added or eliminated, the table of contents can be automatically updated to reflect the changes. In Word, a table of contents can be generated by going to the References tab and clicking on the Table of Contents. Online resources and program manuals explain the simple steps in detail.

This feature also allows for quick navigation from an entry in the table of contents to the matching heading and content in the document—using Ctrl + click in Word, and simply clicking on hyperlinked headers in InDesign.

In InDesign, the automation feature can also be used to create a list of figures and, as with tables of contents, this list can be made to include hyperlinks when exported to PDF format that help readers quickly navigate to content within the document. Automatic figure and table numbering can also be set up if needed, which avoids the need to manually renumber if additional figures or tables are added in the middle of the document.

Through software users' manuals, books, web articles, and online communities, planners can learn how to use automation to their advantage when preparing a planning document. In reducing the number of times content must be retyped, automation increases the efficiency of the planning document effort and reduces the risk of mistakes caused by duplicative manual entry.

Libraries

Word features a Symbols library that can be opened (Insert > Symbol) to view symbols and special characters that can be used in the text. While basic, this function enables writers to use foreign characters such as an umlaut, a grave accent, or a cedilla, or to insert arrows, computational symbols, and other special characters for which there are no shortcut keys. The dialog box lists the shortcuts for commonly used elements and serves as a quick reference of the efficiencies that can be achieved.

InDesign's robust Libraries feature, now also provided in the Adobe Creative Cloud, provides an ample selection of prebuilt objects and graphics that users can drop into a collection for a specific document, including scale bars, north arrows, and numbered circles. It also allows users to add objects or graphics, such as logos, that have been developed by the project team. Once such elements are saved in the InDesign document, they can be accessed and shared by the entire project team.

InDesign library files can be saved on a server and updated with new items by others (although only one person at a time can have the library open). Library files also can be saved in a common location on the server, outside of a specific project folder, so they are available for multiple projects.

FORMATTING

Style attributes are the collection of values and settings in the software program that control the appearance and formatting of text and objects in a document. They override the program's default functions and settings associated with fonts, graphics, and other elements, enabling a customized appearance applied consistently across the document. Making decisions about formatting at the beginning of the document effort, and establishing and applying style attributes across the document, will avoid the time-consuming process of manually selecting text and objects to apply attributes.

Text

With rare exceptions, all text throughout the document—including section headings and subheadings—should be formatted by applying agreed-upon automated style attributes instead of manually selecting text and choosing the font, size, and other attributes. This ensures consistency and allows text formatting to be updated document-wide with minimal effort. Consistent use of the proper style hierarchy (such as headings, subheadings, and body text) also enables the table of contents to be generated automatically and easily updated as the document evolves.

Documents with multiple authors who may be cutting and pasting content from multiple sources will need to be cleaned up by a team member who will apply the appropriate style to headings and paragraphs. Text imported into InDesign can be efficiently adjusted to the document style using the program's Paragraph Style feature so that fonts, body text, and heading styles are consistent across the document. When content is being generated by a large group, it is recommended that a single team member shepherd the document from start to finish to ensure conformity to established styles—especially after an effort has been made to clean it up and apply the styles throughout. However, this is not always realistic and some planning documents require an "all-hands-on-deck" approach, which can be successful with clearly defined protocols.

Word's Style Set feature provides a collection of styles from which to choose a default that establishes a hierarchy

SOURCES FOR COLOR PALETTES

There are free online resources for assistance in generating color themes or sharing color palettes. These are either standalone programs or complementary to the Adobe Creative Cloud platform. They serve as forums for exchanging information and finding inspiration about color schemes that can be applied to documents for consistent visual appearance.

The programs guide users to develop schemes based on color theory rules, or offer ready-to-use curated collections. Color palettes can be developed online and shared with others on a team. The colors in a palette have specific codes that can be referenced or exported, and then applied to a project document. Adobe users can integrate palettes directly into any Adobe software program. There are dozens of online resources, a few of which are noted below:

Adobe Color (https://color.adobe.com/create/color-wheel): This software is available online for anyone wanting to generate color themes and share palettes. It applies to many software programs and is designed to both stand alone and to complement Adobe Creative Suite software. It is free and can be accessed by anyone with an Adobe ID.

COLOURlovers(www.colourlovers.com): COLOURlovers is a free online community where colors, palettes, and patterns are shared and color trends are discussed.

Colllor Color Palette Generator (http://colllor.com): Colllor is a free online resource that enables users to create consistent color schemes to ensure that a document uses colors that share a common hue, lightness, or saturation value.

of text fonts and hierarchy. It controls fonts, font sizes, line and paragraph spacing, numbering styles, heading and paragraph indentation, and more. A default style can be used as a starting point and modified to create a custom style set for a specific document. InDesign allows users to develop and implement paragraph and character styles similarly to Word.

A note about paragraph styles: Fully justified text (where both the right and left edges of paragraphs align evenly) can cause very poor word spacing—some lines can have very wide gaps between words while others have barely any space at all between words. This in turn makes the text more difficult to read and looks unpolished in print and on the screen. While it is possible to manage the awkward spacing by fine-tuning some settings and manually inserting soft returns throughout the text, this process is time consuming both at the onset and when changes are made to the text. For these reasons, left-justified text is recommended.

Color

In InDesign, always define colors and apply to text and objects using the Swatches feature. This allows colors to be modified easily throughout the entire document at once. This can be a big timesaver if adjustments need to be made (after seeing a printed sample from the printer, for example, or based on feedback). If swatches are not used, every instance would have to be selected and recolored individually. Color swatches can now be added to Adobe Creative Cloud color libraries for ease of consolidating and sharing across Adobe Creative Suite applications, across various devices, and among multiple team members. See the sidebar on this page for further information about color palette sources.

Inks used in printers are cyan, magenta, yellow, and black (CMYK). InDesign documents are automatically designed and displayed in the CMYK color space because the program is intended for printing documents. Images and graphics in the RGB color space may print incorrectly, even if they display correctly on screen.

Well before the final document printing, it is a good idea to send a test print to the printer (internal or external) that will be used for the final printing. Ask external vendors to note which machine they used for the sample and make sure to request the same machine for the final document. Usually vendors have more than one machine and every device can print colors differently, even from the same digital file. Print vendors are accustomed to testing and adjusting for color as part of the printing process.

For presentation boards, create one InDesign file with a page for each exhibit. This allows for the title block and other

universal elements to be updated once (per sheet size) and be applied to all boards consistently.

FOLDER STRUCTURE AND FILE NAMING

Starting the document effort with a consistent method for naming folders and files, and a clear plan for managing content from diverse sources, will create a smooth workflow and reduce inefficiencies as the project progresses.

Content may be coming from multiple entities with existing protocols for folder and file naming. For the purpose of consistency, however, project managers should request at the document kickoff meeting that everyone use the same method. The chosen method should also be included in any written guidance on document production that is provided to all team members.

Figures 4.3 through 4.5 (pp. 54–55) illustrate examples of recommended folder and file naming. Discussed further in Chapter 6, saving all document drafts is recommended to maintain an official record in case the need arises to provide old versions as part of litigation.

Sometimes it is not possible to have a single project file structure. This is particularly true for efforts involving multiple agencies with different approaches or large organizations that reserve different portions of the network for discrete departmental functions (e.g., graphics, GIS, etc.) with restrictive access. In these situations, file proliferation and duplication by multiple planning document contributors saving locally are inevitable. Protocols for file naming to keep track of different versions are critical. Examples are below.

An alternative to duplication of files in multiple locations is establishing an online file sharing site (through Google Docs, OneDrive, SharePoint, or Dropbox, for example) during the content creation stage. Every agency has a preference and some block certain sites to maintain firewalls. File sharing, and its associated advantages and risks, is discussed further in Chapter 6.

Folders and Subfolders

Folders and subfolders should be used to group related files and streamline file browsing, using the following points as a guide:

Under an **Administration** folder, subfolders should be titled by topic, such as "Correspondence," "Meeting Agendas and Records," and "Schedule."

Under a **Deliverables** folder, subfolders should be named with the date first (in "YYMMDD_[Name]" or "YYYY-MM-DD_[Name]" format) with a descriptive name indicating the contents. It is important for the deliverables to appear in chronological order. Create a subfolder even if only one file is being saved—this prevents having many loose unordered files. Often there are multiple versions of files delivered as a project progresses, so by consistently naming these folders in this format, the most recent files are always in the folders at the bottom of the list. This also avoids the relative terms of "New" or "Final" which may be superseded with changes made later. Examples of folder names include:

170210_50% Complete Planning Document
170228_Presentation #2
170313_Master Plan Illustrative
170428_50% Design Guidelines Submittal
170507_90% Draft Report [often referred to as an Admin Draft]

Under an **Images** folder, additional folders should be titled by topic such as "Character Images," "Diagrams," or "Illustratives," which include maps, illustrated plans, and other rendered graphics. Image file names should indicate the source name to keep track of where they came from and any necessary credits to ensure content is used legally. For example, include the name of the photographer in the file name, or right click on the image and select Properties > Details to type in the photographer's name and copyright information to ensure the credit follows the image wherever it is used. Proper citation of sources is discussed further in Chapter 5.

Under a **Research** folder, subfolders should be titled by topic, such as "Population Projections," "Existing Land Use," or "Economic Growth/Leakage Analysis."

Under a **Source Data** folder, top-level subfolders should be named with the source name, such as the project sponsor, another municipal department, or consultant expert providing content for the planning document. Subfolders within those should be named with the format "YYMMDD [Content Description]."

Under a **Working Documents** folder, name folders based on the content type or milestone event, such as "50% Complete Report," "Meeting #1," "Stakeholder

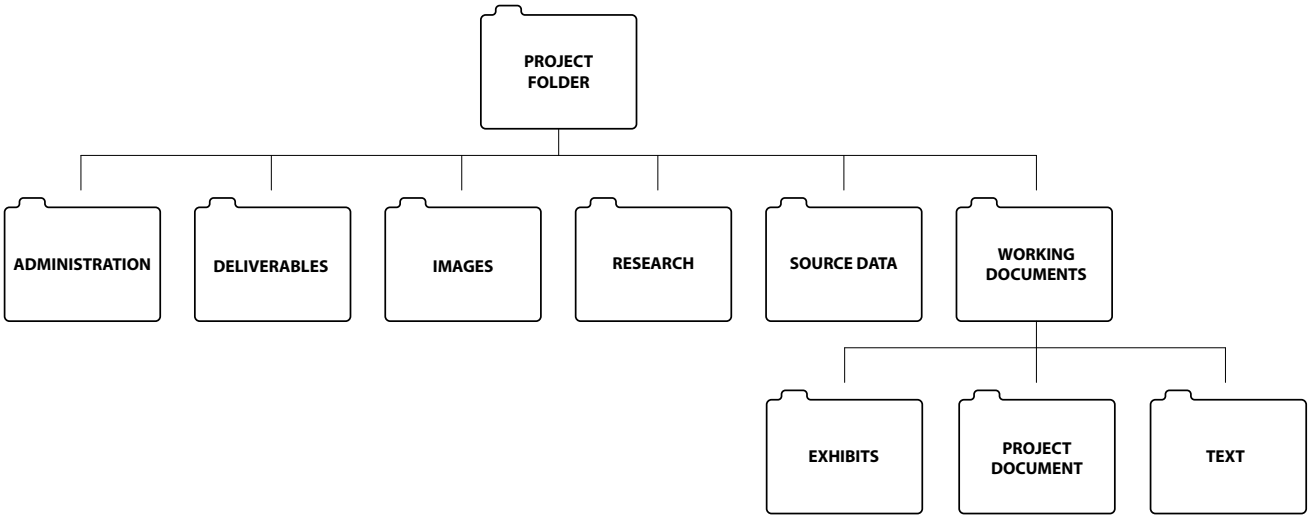


Figure 4.3. A consistent method for naming folders is critical for managing content from diverse sources and ensures smoother workflows (Design Workshop)

Engagement," or "Design Guidelines." Folders such as "Stakeholder Engagement" may contain subfolders for individual milestone events or deliverables.

When a subfolder becomes full of outdated or previous versions of files, a folder called "old" can be created in that location where these files can be moved. This makes the parent folder easier to navigate and makes the most recent version easier to find.

File Naming

The point of a good file-naming scheme is to make it easy for people to find what they need and to make collaboration more facile. Using logical file names makes files easier to find, both when browsing through a list of documents and when using the operating system search functions. Clear file naming helps keep track of which version of the text or graphics is most current, and also can reflect which documents have been reviewed and when—and by whom. Version control is discussed further in Chapter 6.

Use spaces, hyphens, or underscores between words—running all the letters together into one long string makes it difficult to read and impedes file searches for specific words. Also avoid acronyms and abbreviations unless they are extremely common (e.g., ROW for right-of-way).

In contrast to subfolder names, file names should not begin with dates. Most often, people are searching for a specific piece of content and not for files created on a certain date.

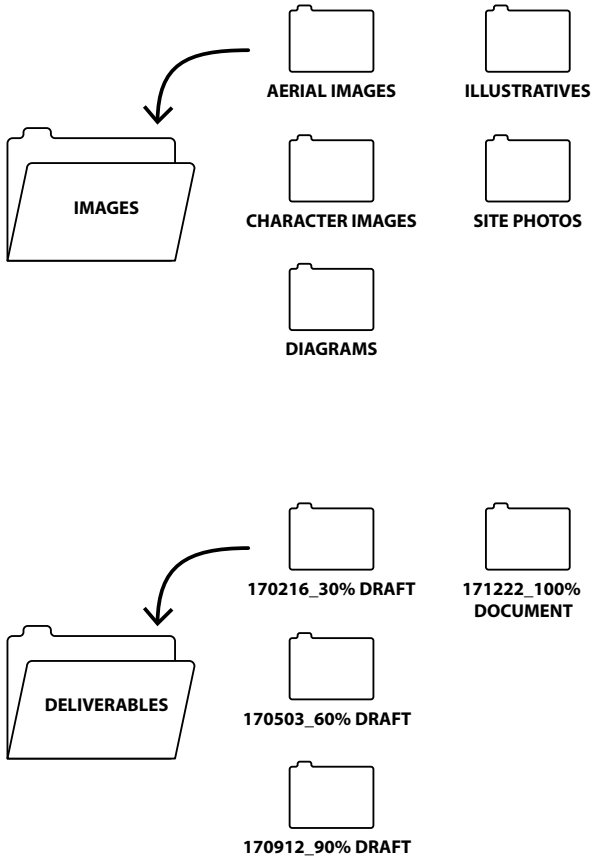


Figure 4.4. Subfolders group related files and streamline file storage and browsing (Design Workshop)

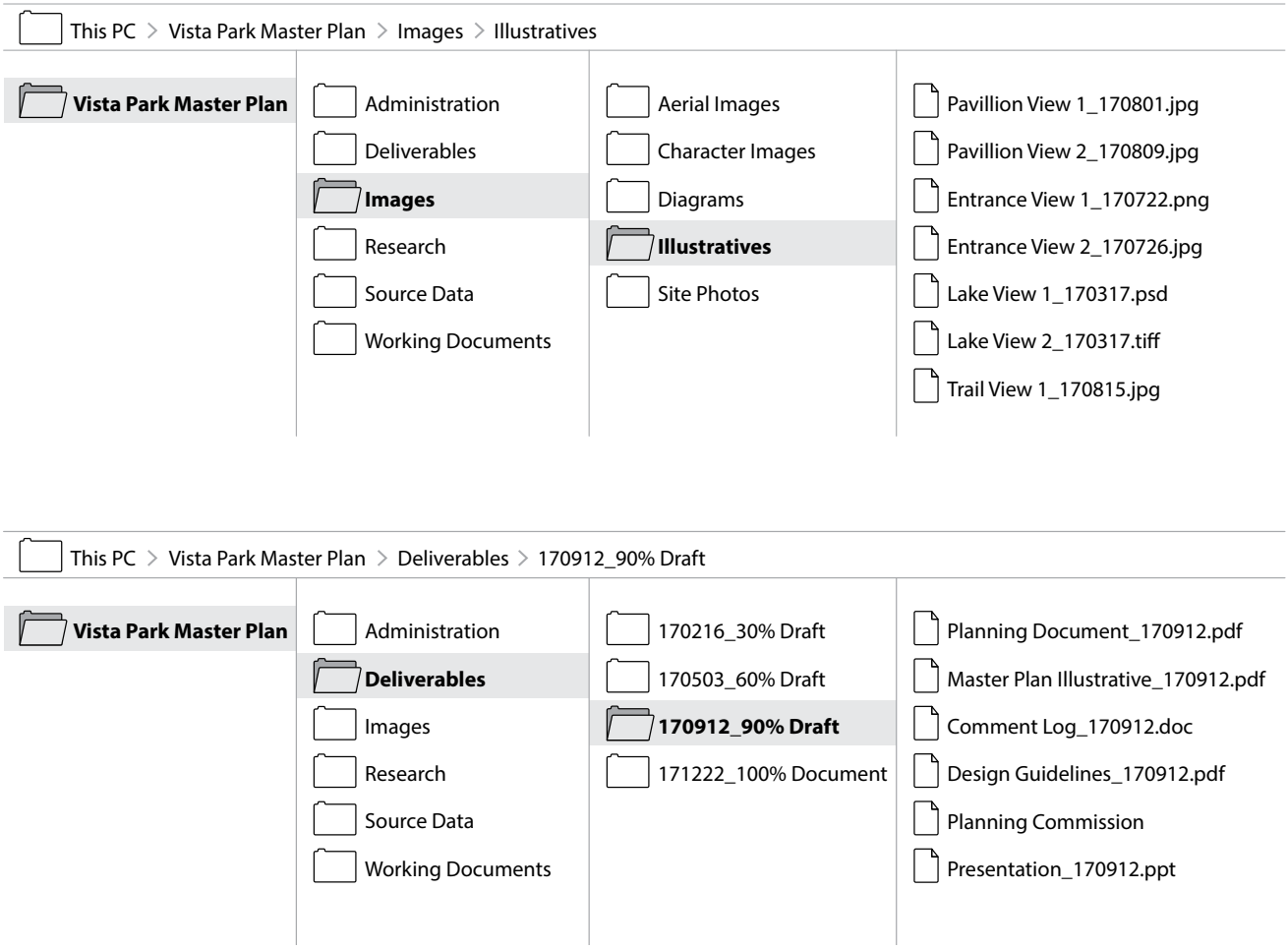


Figure 4.5. Examples of recommended folder and file naming for a master plan project (Design Workshop)

This suggests that the content description, not the date it was created, is the most important part of the file name, and this should be reflected in the position of the description in the file name. A better approach is to append the date at the end of the file name (Figure 4.6, p. 56). Other reasons include:

- Starting file names with dates forces the files to be listed by date first, so all files are listed chronologically and versions of the same content do not appear together.
- The operating system provides the date already (date modified, date created, and date accessed), which is always available even if the file name does not contain a date.
- The purposes of adding a date to file names are for version control, to know which files are the most recent ones, and to have a record of various project milestones. Not all files need to have a date in the name—consider adding dates only when multiple versions of a file are needed.
- The Search functions available through the operating system are helpful tools that can be used to find files based on specific criteria, such as a date range. Having these search options as a "skeleton key" puts less emphasis on forcing a date into file names and more emphasis on using a clear description in the name—including keywords that someone might use during a search.
- Don't use "new," "final," or "v1" in file or folder names, since there is always a chance of future revisions. Instead, rely on the appended date in _YYMMDD or YYYY-MM-DD formats to differentiate. That way the newest date is the most recent version. If the document is being rapidly iterated among a group of editors, the file should still be

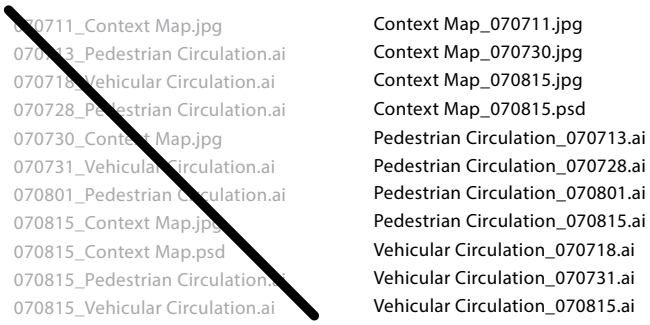


Figure 4.6. Adding the date to the beginning of file names prevents the ability to sort them by name (Design Workshop)

appended with the date and then the initials or name of the person who reviewed the file.

Tags that specify key details about the file may be appended at the end of file names and set off with a single underscore mark. For example:

_171022: Use a date for version control
_170927: Use a date for a milestone event
_170815_JH: Use a date plus editor initials for version control when multiple reviews take place on the same date
_171103_Porter: Use a date plus photographer name to track and attribute
_11x17: State the dimensions of images if multiple sizes are created
_200scale: Specify the scale of images if multiple scales of the same exhibit are created

Add custom differentiators only if necessary and inform the team if a new naming rule has been added.

File Linking

Graphics should always be "Placed" into InDesign rather than copied and pasted. This creates a link to the file instead of embedding it, which saves computer memory and makes documents operate faster.

The advantage of linked files is that they can be edited and the changes will be reflected in the document. If a working document linked to the InDesign file is edited, the software will prompt an update. InDesign creates a very low-resolution (36 PPI) preview of placed graphics that are embedded in the file. Note that these are only visual reminders, not the actual graphics.

Links to files become broken when any folder containing the source file or the source file itself is renamed or relocated. Broken links are easily repaired, however, by using the InDesign Links panel.

Image Management

The following definitions establish a common approach for managing digital image files and clarifying different types of files. The purpose of these distinctions is to underscore that any given graphic or image (asset) can be used in multiple different documents (products), and should be managed accordingly. This has a direct relationship to the folder locations used for saving these files, as shown in Figure 4.4 (p. 54). Individual exhibits are saved under an Images folder, while documents are saved under the Working Documents folder.

Native Assets are defined as being the original, fully editable versions of a file, such as a Photoshop file with all layers intact. These files can be opened and modified as desired.

Derivative Assets are the flattened JPG or TIFF versions of a file, which are not fully editable. These are often cropped or resized for a particular purpose—for example, an illustrative rendering may have been originally created at 36" x 48",

TABLE 4.2. RECOMMENDED PRACTICES: FILE MANAGEMENT

✔	Before setting up the document, verify the software, bleed, and size with decision makers.
✔	Always start with a template.
✔	If using InDesign, take advantage of the Adobe InDesign Book feature.
✔	Stay organized and support collaboration by following folder structure and file naming conventions.
✔	Use Word and Excel to draft text, tables, and charts.
✔	Always use File > Place to insert images, graphics, or illustrations into Adobe InDesign.
✔	Make sure image resolution is 200 ppi or greater at the size it is being used for printing.
✔	Use and organize standard graphic elements (such as scale bars, north arrows, and logos).
✔	Send a test print to the printer (internal or external) to verify color quality prior to the final printing of a document.

Source: Design Workshop

but a copy is resized down to 7.5" x 10" for importing into a PowerPoint document. These files are the parts to the whole, the building blocks for a product.

Products are the documents into which the assets are imported. Examples include presentation boards for public meetings, design guideline documents, PowerPoint presentations, and a variety of planning documents.

CONCLUSION

Planning documents are collaborative efforts that incorporate a range of written and graphic content and most often are produced by a team of planners. The way in which the digital files are organized and made accessible for multiple contributors is critical. The recommendations in this chapter cover best practices for the initial setup of files, adding text and graphic content, file formatting, and folder structure and file naming. Once the digital files have been set up and organized, the focus shifts to collecting and creating content. These topics are covered in the next chapter.

CHAPTER 5

CONTENT COLLECTION AND CREATION

Public-sector and consultant planners create plans and documents that capture and display many types of content, such as research, recommendations, and stakeholder input. These documents help set guiding principles for decision making on specific planning issues or for specific geographic areas or entire communities.

Teams often underestimate the amount of time and early decision making required to develop, iterate, and receive endorsement for the complex content and format of planning documents. Moreover, the knowledge necessary to synthesize materials from many sources in a user-friendly manner can be a challenge.

This chapter highlights techniques for efficiency during research and data collection, team coordination, and quality management processes. It also explores copyright law, guidelines for citing sources of content, and recommended stylebooks. These recommendations for content creation and collection can help improve the skills of all planners.

RESEARCH AND DATA COLLECTION

All planners must identify research questions related to each project and collect the best available content to answer the questions or visualize solutions. Every planning project has a central research question—such as, what opportunities exist to redevelop a large vacant or undeveloped strip shopping center or commercial corridor? Or how can the city improve connections from the existing park and trail system to underserved neighborhoods? Data collection requires research, original data creation, document collection, writing, and generation of graphics, all of which will help support the findings and solutions to the research question.

Quantitative data for planning documents typically includes statistics, models, maps, simulations, previous plans, studies, and surveys. Qualitative data can be gathered from stakeholder dialogue or other types of research. Background research also often includes gathering and reviewing key findings from related policy documents for a plan, or researching other topics through reports or articles.

Background research should first explore which data and content can be collected or created internally, versus those that might require external sources. Reaching out to colleagues who have managed similar projects can save considerable time and provide invaluable data. Using existing data, such as population statistics or traffic counts, frees up time that can be otherwise spent on creating more meaningful content. This approach also helps agencies compare data over time.

The question of when to repeat content found in an external report or simply reference it will depend on the preferences of the sponsoring agency regarding the length of the document. A good rule of thumb is to reference any information that cannot be paraphrased in one or two paragraphs. This will help the document's overall readability and flow.

Many planners face the challenge of balancing or sharing vast amounts of data in a way that is user friendly. A team can become overwhelmed as data changes or becomes newly available over the course of a project.

Conversely, there may be gaps in data that require background research by the team to deliver the project successfully. It is important to collect data that helps create a meaningful message. After the team has launched the data collection phase of the project, be sure to confirm periodically that what is being gathered (or created, if data is unavailable) is on point to tell the story of the project. A key question for the team in considering what data to gather and use is whether it convey the benefits of planning or urgency of the issues at hand. Charts, graphs, photographs, data callouts, and maps are all part of telling this story.

The kickoff meeting for the project (see Chapter 2) is the best opportunity for identifying project-specific needs, brainstorming the necessary steps to collect data, and considering the best way to display it. Arranging and delivering data

OPEN-SOURCE DATA TOOLS

Visiting the websites of local, regional, state, or national governmental entities as well as organizations is often a first step in data collection. These community open-source platforms can be used to download, share, collect, or map data.

U.S. Government Open Data (www.data.gov): Data for agriculture, business, climate, consumer trends, ecosystems, education, energy, finance, health, local governments, manufacturing, oceans, public safety, and science

United States Census Bureau (www.census.gov/data/data-tools.html): TIGER/Line Shapefiles, KMLs, cartographic boundaries, geographic and thematic maps

ArcGIS Open Data (http://opendata.arcgis.com): Various datasets from organizations worldwide

Community Commons (www.communitycommons.org): Equity, economy, education, environment, food, and health

National Neighborhood Indicators Partnership (www.neighborhoodindicators.org/data-tech/sources): Education, child welfare, health, crime, public safety, and business/economy

in meaningful ways lays the framework for communication at meetings, in media interviews, and in the final document.

There are several classic texts on the topic of displaying quantitative data, including *The Planner's Use of Information, Second Edition* (APA Planners Press, 2003), edited by Hemalata Dandekar, professor and chair of the Department of City and Regional Planning at California State University San Luis Obispo. Additional titles include Edward Tufte's *The Visual Display of Quantitative Information, Second Edition* (Graphics Pr., 2001) and *How to Lie with Statistics* (Norton, 1993) by Darrell Huff. Table 5.1 provides some basic guidance on what graphic styles to use when displaying different types of information visually.

Communities look to planners for expert guidance and direction, so it is important to ensure that sources are accurate. Good choices are peer-reviewed journal articles accessed on Google Scholar (scholar.google.com) or other reliable sources. Taking every effort to ensure that reliable sources are cited in a consistent manner adds to the quality and credibility of the work. Various open-source tools are available to planners as they collect data for their projects. See the sidebar on this page for a few examples of these tools.

CONTENT CREATION

On complex projects, the team may generate substantial quantities of content such as narratives, illustrations, photographs,

TABLE 5.1. BASIC GUIDANCE FOR DISPLAYING INFORMATION VISUALLY

Information Type	Graphic Style(s)
Exact, absolute numbers	Table, ordered list
Relative, proportional figures and comparison	Bar chart, pie chart
Trends, changes over time	Line chart, scatter chart
Hierarchy and relationship	Organizational chart
Geographic location and spatial relationships	Map
Complex and situational	Photographs, three-dimensional renderings

From Dandekar 2003, p. 303

charts, graphs, models, maps, simulations, or surveys, which all must be synthesized and evaluated for inclusion in the planning document. What follows here are recommendations that all team members should consider relative to their roles.

Establish consistent styling and formatting. Depending on the form in which new content arrives, it may require refining or editing before it is incorporated into the document. The project manager should provide to all members of the team who will be producing content a style guide, planning document template, and other relevant items. This reduces the likelihood of having to rework content later.

Assign responsibilities for assembling the final product. For planning documents with multiple content contributors, project managers must establish clear accountability for assembling the text, illustrations, tables, and other elements of the document. Will a central editor assemble the document or will different lead content experts be assigned to each chapter? Will content experts have an opportunity to review edited drafts to ensure accuracy? Editors with communications backgrounds are often concerned with clarity and brevity while content experts opt for thoroughness and fine detail. Answering questions about roles, accountability, and conflict resolution mechanisms can help avoid misunderstandings within the project team. See the sidebar on this page for additional suggestions on working with teams during content creation.

Keep the big picture in mind. Writers and data experts should think about how information in the existing conditions assessment links to potential recommendations and alternatives exploration. This will save time in creating future content that will go into the concluding chapters of a planning document.

Expend effort in proportion to importance. The team should allocate more time to creating content deemed most critical by the community or sponsoring agency. Project managers and team members should also discuss and agree upon what content will live in the body of the document versus the appendix. Less time should be spent on content and information better suited for the appendix. Similarly, the amount of content created should be scaled to the project scope. Project managers should advise content creators on the amount of text, tables, etc. they expect in each section.

Document sources as data is collected or created. Pay it forward by being rigorous in the documentation of analysis at the beginning of each project. If the team has conducted GIS analyses, for example, write a single-paragraph explanation of the methodology employed to create the map, data sources used, and the key takeaway(s) from the map. Not only will this help to create content for the document, such

TEAM DYNAMICS

According to Richard Willson, FAICP, because planners often work in diverse, multidisciplinary teams, it is important to link professional knowledge to specific actions for the planning document. Teammates have different skills and styles of writing and creating content. Teams flourish when everyone recognizes and values these differences. Dynamic and successful teams have the following qualities.

- Attention to process and addressing team dynamics
- A willingness to learn from all team members
- A willingness to think critically and problem solve
- Reliability in completing tasks and providing feedback
- Good communication skills, especially in active listening
- Appropriate flexibility and understanding that content creation approach may evolve as a planning document is produced

No discussion of teams can avoid the topic of interpersonal conflicts. Planning document project managers can create accountability by encouraging an inclusive process. Time-limited, specific tasks improve effectiveness. Teams work best—and planning outcomes are more effective—when challenges are identified and schedules are realistic (Willson 2017).

concise summaries of findings help everyone prepare for answering questions that may arise from the community about the analysis conducted.

Standardize repeating text. Consider creating standardized text for document templates that can be used to speed up building content. For example, the introduction paragraphs for community engagement efforts in any planning document should include the date, time, and location of the event; the goal or aim of the event; the outreach techniques used; and the number of participants that attended.

Visually document public outreach efforts. Taking pictures at community outreach events and site visits also helps to collect graphic content for the document. Photographs of chip games, keypad polling, or charrette activities almost always are included in the project document. Other opportunities for creating this content include meeting records, survey results, mapping diagrams, or other findings. This is content that a team member can insert into the document as soon as the event is completed. Planners spend a lot of time collecting, cataloging, and editing photographs. Explore the use of a shared photo database, such as via Adobe Bridge, to streamline the process.

Layer public outreach data to support findings. Typically, it involves effort to break down outreach data into palatable sections, data visualizations, quotes, sidebars, or photos, but a key guiding principle for any public process is to relay overall metrics (number of participants, number of ideas shared, demographic data if available) and indicators of representative feedback (photos, captions from events). This information is often highlighted via an outreach chapter early in the document, with more detailed findings addressed in individual chapters that follow. For instance, a transportation chapter may highlight the findings of a poll that supported a priority therein (e.g., 90 percent of people polled ranked "walkability" as a top priority). The planning team may support this further by inserting a quote from a resident and photos, always striving to provide a breadth of data points. Another approach is to create short videos that serve as executive summaries, typically two to three minutes in length, that celebrate the outreach and engagement that took place during the project.

Implement quality control early and regularly. Periodic quality control checks save significant time and resources that can be better applied to producing quality content. More specifically, the project manager overseeing content creation by new or junior-level team members should check in regularly to ensure they understand the assignment and that it meets the quality standards of the consulting firm or agency.

Use the table of contents and other guidance to keep the project on track. Content should follow an approved style guide and an agreed-upon table of contents established at the beginning of a project (see Chapter 3). Teams should review and further develop annotations for this table of contents before expending time or resources on gathering or writing content. Modifications to the table of contents should be communicated to the sponsoring agency and all project staff immediately via the Table of Contents Checklist (see Chapter 6) to ensure that staff efforts align with the desired outcomes and that the project stays on time and within budget. See the sidebar on p. 63 for various considerations for delivering snapshots of chapters as a project progresses.

Cite established standards and strategies. As the team refines content for implementation programs, policies, and project recommendations, it is especially important to rigorously cite any standards, benchmarks, regulations, or plans. For example, make note of supporting strategies derived from the publications of other organizations, such as local nonprofit advocacy groups, APA, the U.S. Green Building Council, the U.S. Environmental Protection Agency, the Institute of Transportation Engineers, the Congress for the New Urbanism, or other entities. Referencing strategies established and adopted by well-respected, third-party institutions adds weight to project recommendations.

Periodically debrief the team on project progress. Having a team-wide debriefing after each deliverable milestone is an opportunity to synthesize findings, implement lessons learned from tasks just completed, and reaffirm goals and assignments for future tasks and deliverables.

COPYRIGHT LAW

All creative works, not just photographs, are copyrighted to their creator by federal law. This means that text, photos, and graphics (maps, charts, or data tables), the design of posters, signage, websites, paintings, or other works cannot be copied and used for commercial purposes. Team members can be inspired by the work of others but should not copy it outright. They should be aware that even using a portion of a copyrighted work is not permitted, regardless of how much it may have been modified (this is called a "derivative work").

Planners are responsible for obtaining permission for the reproduction of copyrighted materials. The *AICP Code of Ethics and Professional Conduct* of the American Institute of Certified Planners states that "conduct inconsistent with the responsibilities of a certified planner" includes "knowingly

infring[ing] the copyright or other intellectual property of another" (APA 2016). The author must determine if materials are copyright protected and then seek permission immediately for any borrowed content.

Content creators should each keep a simple log of all copyrighted material that denotes the date permission was requested, the copyright holders' response(s), original file names, new file names (if renamed), and any other usage requirements. See the sidebar on p. 65 for various tools available to planners seeking understanding of copyright law and fair use restrictions.

Resources from the federal government are generally in the public domain, but state and local governmental agencies often copyright their materials. Any author who wishes to use content from a governmental agency must contact staff at that office to apply for reproduction permissions. While the agency may respond that materials are in the public domain, planners must know with certainty that their work is not infringing on the copyrights of others. Many large public agencies have libraries of images that can be good sources of project materials. The source of such images should be noted in the document.

Reproduction of Tables, Graphs, or Charts

Reproducing a table, graph, or chart also requires getting permission from the copyright holder or publisher, because these elements are graphic expressions and can be copyrighted. Data sources, like any other source used, must be cited. Be sure to use credible, well-known sources. As it is very easy for anyone to publish on the internet, it is essential to verify the integrity of each source before using it for project work. Not taking this step exposes planners to the risk of using faulty data.

Guidelines for Determining Image Copyright

There are a few basic guidelines for determining whether an image can be used in a document without infringing on someone's copyright.

If you took a photo yourself, then you have unlimited control over how it is used.

If the sponsoring agency provides photos and they verify they own the rights to use, then confirm the original source and usage rights prior to use. Public agencies and subconsultants may not be aware of copyright law.

If a photo is purchased from a stock photo agency or other vendor, then the image can be used according to the license granted via that purchase. Some images are "royalty-free," which generally means they can be used multiple times

SETTING CLEAR EXPECTATIONS FOR SHARING DRAFT CONTENT

There is great value in writing and delivering "snapshots" of chapters as a project progresses. A team risks political backlash when information is not of high quality or not shared in a timely way. Conversely, there may be risk if clients are not able to visualize snapshots as part of a larger effort, which may lead to confusion based on an incomplete picture of the ultimate document. Revisions due to errors impact the overall schedule and delay deliverables promised to stakeholders or other departments, and cause doubt among interested parties. Do not postpone sharing drafts of a planning document until the project is nearly completed. If the community, project sponsor, or interested parties have concerns regarding style or content, it saves considerable resources to identify and address these concerns at each phase rather than at the end.

Early iterations of a document are helpful—both to get feedback and to assure the project sponsor that deliverables are in progress. However, sometimes it is hard for reviewers to take an early iteration seriously and provide detailed comments because they know that they will have other opportunities to provide feedback down the road. It is easier to get comments when a planning document is scheduled for release to external stakeholder groups—that gets attention!

Excellent project managers understand that the process of iterating a planning document can be messy, but finding a balance is critical to the success of each project. Set clear expectations and assure everyone involved that the outcome is coming, but that the process is critical as well.

TABLE 5.2. RECOMMENDED PRACTICES: CREATING AND MANAGING NEW CONTENT

✔	Immediately communicate modifications to the table of contents to the sponsoring agency and all project staff via a Table of Contents Checklist (see Chapter 6/Appendix E).
✔	Create summaries for engagement efforts, mapping methods, and alternatives as they occur.
✔	Standardize frequently used text so that time can be focused on creating other quality content.
✔	Keep readers' attention by placing summaries into the body of a planning document and detailed analyses into an appendix.
✔	Consistently and accurately record methodologies for research as the project progresses, not at the end.
✔	Rigorously cite any standards, benchmarks, regulations, or plans.
✔	Reference guidelines established and adopted by well-respected, third-party institutions.
✔	Avoid the risk of having to recreate or rework content by having the sponsoring agency sign off on deliverables as they are transmitted using the Table of Contents Checklist.
✔	Always perform style guide and quality control checks before inserting content into the document.

Source: Design Workshop

for different purposes after being purchased. (Licensing details can vary, so always consult the licensing agreement from the vendor—sometimes there is a time limit or a restriction on saving to a common server location). Some images are "rights-managed," which means the right to use the image for a specific period and for a specific product in a specific media must be purchased, and any other use is prohibited. This is used more often for higher-quality photography.

If written permission from the copyright holder is obtained, then the image can be used according to the agreement reached with them. Sometimes the copyright holder may only require attribution via a credit line, but others may require payment.

If third-party artwork from other previously published reports is being used, separate permissions from all image copyright holders must be secured again.

Any other use of images that is not covered by the above scenarios is likely a copyright infringement, with penalties ranging from $200 to $150,000 per image. This means that it is illegal to use any image found on the internet, or scanned from a book or magazine. Adding a credit line does not make an illegal image legal—it just notes from where the image was stolen. There are many photography resources available that make it easy to avoid using photos without permission; see the sidebar on p. 66 for examples of some online open-source imagery sites.

Free websites such as Google and Flickr may contain photos from individuals around the world who have specifically made their images available for use by others. Often these images are posted under the Creative Commons license. Creative Commons provides free copyright licenses to those who post images with the intent of sharing their intellectual property but who also wish to stipulate the conditions for their use. A Creative Commons license describes what uses are permitted (e.g., personal or commercial use) and the required attribution. Typically, this involves adding a photo credit adjacent to the image where applicable. Usage terms are outlined further at http://creativecommons.org/licenses.

Whether an image is obtained via Creative Commons or purchased from Shutterstock, it is critical to consult the license on a case-by-case basis. Do not download any image you have not checked for permissions or that you cannot use indefinitely. There is a risk of even having it on a computer or in a project folder as its provenance is easily forgotten and someone may interpret its presence as an invitation to use it.

CITATIONS AND RECOMMENDED STYLEBOOKS

It is important to cite sources for many reasons. First, it lends authority to the document. Second, it allows the reader to find more information by giving the information needed to identify sources. Most importantly, however, transparent citations give due credit to original authors. This is a requirement of law; failure to do so constitutes plagiarism, for which writers can be liable if sources are not cited properly. It is also important to properly cite sources if content within the project document will be used for future publication with an academic journal, national magazine, or other publication in which rigorous standards for citations are required.

The best way to create accurate content is to "cite as you write." Citation and style depends on the preferences of the sponsoring agency but should remain consistent throughout each project phase and the entire document effort.

TABLE 5.3. RECOMMENDED PRACTICES: COPYRIGHT LAW

✔	Brief all team members who will be creating content about copyright law.
✔	Determine copyrighted materials on a case-by-case basis and seek permissions immediately.
✔	Create a log to track copyright requests.
✔	Double-check copyright permissions for works provided by the sponsoring agency.
✔	Properly cite all copyrighted works and keep records of secured permissions.

Source: Design Workshop

A best practice for creating citations is to use Word to build a bibliography as the text is drafted. Word has a built-in reference tab that enables efficient citing of sources, and the user does not need any knowledge about citations. Word will prompt the user for the required source information. Fill in the boxes and it will automatically generate the citation. As an additional benefit, Word stores citations created in the past. This allows citations for new documents to be incorporated for future projects without having to recreate the citation.

To access the citation maker in Word, click on the References tab on the navigation bar. There are two groups to use to create citations: "Footnotes" and "Citations and Bibliography." The former allows users to insert footnotes or endnotes into text; the latter allows users to create and manage references using a number of preset style options.

Citation Style Guidelines

Any time an author paraphrases, quotes, or references a source, a parenthetical note and bibliography must be provided. Citation style varies across disciplines; however, each citation should provide readers with enough information to quickly identify the source being referenced. Basic citation ingredients include the title of the work, author or authors, date of publication, the publisher, and where to find the source (printed or online). A side-by-side comparison of commonly used citations in the Chicago and MLA styles is provided in Table 5.4 (p. 67) to help illustrate these basic ingredients.

A good rule of thumb for planners is to use footnotes for project documents exceeding 25 pages in length. Footnotes allow the project document to be more concise without breaking up the flow of text. They also allow the reader the

MORE GUIDANCE ON FAIR USE AND COPYRIGHT LAW

The following tools are available to help planners better understand copyright law and fair use restrictions.

Author's Permission Guidelines
University of Chicago Press
http://press.uchicago.edu/infoServices/permissions.html

Guidelines on Permission to Reprint
Cornell University Press
www.cornellpress.cornell.edu/html/WYSIWYGfiles/file/Guidelines%20on%20Permission%20to%20Reprint%20pamphlet.pdf

Copyright & Fair Use
Stanford University Libraries
http://fairuse.stanford.edu

Permission FAQs
Association of American University Presses
www.aaupnet.org/images/stories/documents/aauppermfaqs.pdf

Digital Copyright Slider
American Library Association Office for Information Technology Policy
www.librarycopyright.net/resources/digitalslider

OPEN-SOURCE IMAGERY RESOURCES

There are many resources online that can be searched for free imagery. In all cases, be sure to confirm that images are free of copyright restrictions; set search filters where relevant to only search this category of content and properly cite image sources.

American Planning Association Image Library (https://conference.planning.org/imagelibrary): This website is available to APA members only. Photographs from the APA Image Library must at minimum be accompanied by the citation "Copyright American Planning Association."

Google Images (https://images.google.com): Go to Advanced Search and choose "free to use, share or modify, even commercially" from the Usage menu before beginning a search.

Flickr (www.flickr.com): Navigate to Advanced Search and choose "creative commons" and "for use commercially" before beginning a search.

Wikimedia Commons: Free Media Resources/Photography (https://commons.wikimedia.org/wiki/Commons:Free_media_resources/Photography): This page offers a collection of open-source and public domain images on the web, but cautions that users are still responsible for checking copyright status of these images.

ability to find all information about a source on the same page (when using long-version footnotes), without having to navigate to the back of a project document for a bibliography. *The Chicago Manual of Style* provides guidance on short and long-version footnotes and bibliographies (www.chicagomanualofstyle.org).

As noted in Chapter 3, Purdue University offers a free Modern Language Association (MLA) style website featuring guidance on writing under rules of the *MLA Handbook for Writers of Research Papers* (7th ed.) and the *MLA Style Manual and Guide to Scholarly Publishing* (3rd ed.). This free, online resource is a great tool for the format of MLA style research reports, in-text citations, endnotes/footnotes, and creating an MLA Works Cited page (https://owl.english.purdue.edu/owl/section/2/11/).

CONCLUSION

All planners must identify research questions and the best available data with which to answer these questions. Quantitative data must be collected alongside qualitative ideas emerging and being revealed through dialogue among various stakeholders. Project documents are often examined from many perspectives, so it is important to collect data and create content in a comprehensive and transparent manner.

Successful plans result from collaborative processes. Document content is often created in every stage of the planning process, and planners must strive to contextualize their findings to larger bodies of knowledge along the way. Quality content contributes knowledge relevant to other geographies and professions, enabling all planners to translate their research into practice. Complying with copyright law, following guidelines for citing sources, and identifying the best stylebook for each effort all improve the process of creating content for draft production, which is addressed in the next chapter.

TABLE 5.4. EXAMPLES OF COMMON CITATIONS

Type of Source	Chicago Style	MLA Style
Book (one author)	Jacobs, Jane. 1961. *The Death and Life of Great American Cities.* New York: Random House.	Jacobs, Jane. *The Death and Life of Great American Cities.* New York: Random House, 1961.
Book (multiple authors)	Lydon, Mike, and Anthony Garcia. 2015. *Tactical Urbanism: Short-Term Action for Long-term Change.* Washington, D.C.: Island Press.	Lydon, Mike and Anthony Garcia. *Tactical Urbanism: Short-Term Action for Long-term Change.* Washington, D.C.: Island Press, 2015.
Article in a newspaper or magazine	Leonard, Rebecca, and Sara Egan. 2014. "Really Complete Streets." *Planning* (American Planning Association) Volume 80 (Issue #9).	Leonard, Rebecca and Sara Egan. "Really Complete Streets." *Planning* Volume 80. Issue #9 (2014). Printed magazine article.
Article in a journal	Jepson, Edward, and Anna Haines. 2014. "Zoning for Sustainability: A Review and Analysis of the Zoning Ordinances of 32 Cities in the United States." *Journal of the American Planning Association* 80(3): 239–252.	Jepson, Edward and Anna Haines. "Zoning for Sustainability: A Review and Analysis of the Zoning Ordinances of 32 Cities in the United States." *Journal of the American Planning Association* 80.3 (2014): 239–252. Print Journal.
Meeting or conference presentation	Beske, Jason, Craig Lewis, and David Dixon. 2016. "Urban Design for an Urban Century." Phoenix: American Planning Association National Planning Conference, April 2. www.planning.org/events/nationalconferenceactivity/9002187.	Beske, Jason, Craig Lewis and David Dixon. "Urban Design for an Urban Century." Phoenix: American Planning Association National Planning Conference, 2 April 2016. <www.planning.org/events/nationalconferenceactivity/9002187>.
Website	American Planning Association. 2016. AICP Certification. Accessed September 15, 2016. www.planning.org/aicp.	American Planning Association. AICP Certification. 2016. Website. 15 September 2016. <www.planning.org/aicp>.

Source: Design Workshop

CHAPTER 6

DRAFT PRODUCTION

When research, analysis, public engagement, and content creation is complete, the planning document goes into production. This chapter focuses on how to produce the draft document, which is also a complex process. This is when the benefits of project management and astute quality control are critical for the team and the sponsoring agency.

Dividing work across the team and using the tools in this chapter will ensure that review processes are of finite duration, and that there is adequate time to perform quality control checks prior to document delivery and project wrap-up. The recommendations and tools presented here provide guidance on how to oversee the production of documents of any type or scale and streamline the editorial process.

DRAFT MANAGEMENT

As a team works together to produce a draft document, managing how it is produced will ease the workflow and contribute to a more efficient process. The schedule, team member availability, and budget will determine how many and which team members participate in draft production.

The work should be divided up as appropriate for the project and its team. If one team member contributed more content—such as research for a certain chapter, for instance—then it most likely makes sense for that person to write or produce graphics for that chapter. Mock-ups of the overall draft layout should be created at or immediately following the project kickoff meeting (covered in Chapters 2 and 3).

Delays can result from missed deadlines early in the process, which require later draft production milestones to be pushed back. Missed deadlines can result when content development takes longer than initially budgeted for, or when reviews take longer or are added to the time line later in the project. Defining roles, reviews, and timelines at the kickoff meeting should alleviate some delays; however, as staff work on other projects, are out of the office, or take longer than expected, the proactive management of team dynamics is critical.

People-management pitfalls can arise during draft production. Interdisciplinary or multiagency teams collaborate on many documents, while individuals may report to various bosses having differing missions, values, or work styles. A project manager may operate in an environment where he or she does not control competing project schedules.

In such cases, the project manager should ensure supervisors are aware of a teammate's participation and the work expected. This helps everyone be aware of factors that may limit participation and understand how conflicts will be resolved. With consultants and subcontractors this is often explained in the contract, but this is less common within the public sector. It is a good practice, especially for multiagency efforts, to write down a project charter, work plan, interagency agreement, or memorandum of understanding that guides the process.

Table of Contents Checklist

As described in Chapter 3, the sponsoring agency will vet an initial table of contents at the planning document kickoff meeting. That table of contents may evolve over the course of the project. When the document goes into production, a final table of contents is required.

Once reviewers (or, more aptly, the project manager representing the reviewing entity) have an approved table of contents, it can be converted into a checklist. A Table of Contents Checklist can be used to keep track of various components of the project report while it is in process. See a sample Table of Contents Checklist in Chapter 3, Figure 3.6, p. 36; a template is provided as Appendix E.

To start the review process, the checklist should be sent in Word format to reviewers with instructions shared in advance about using "Track Changes" to make edits. Going forward, the Table of Contents Checklist should be sent to the reviewers along with each chapter or section of the document that is being reviewed.

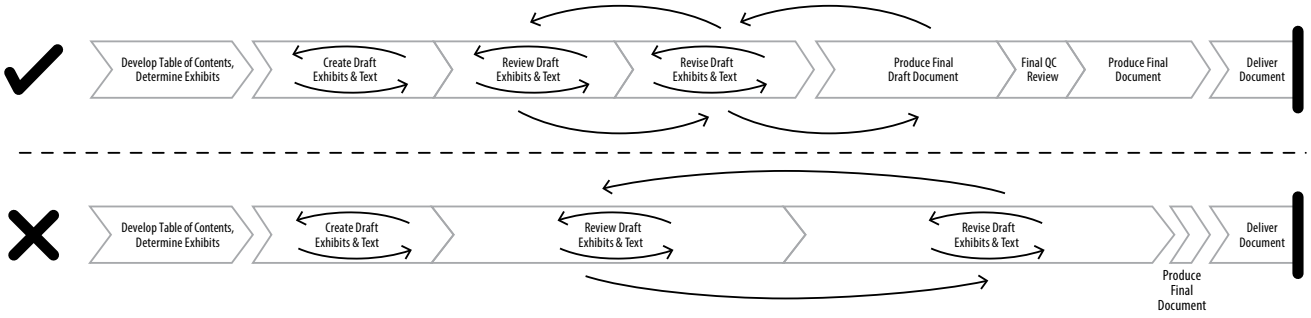


Figure 6.1. An endless editing and review process leaves no time for quality control, and the compressed schedule can increase the number of errors in the final document (Design Workshop)

To keep the draft on schedule, the checklist should include "review by" dates for reviewers to return comments on each chapter or section. Each section or chapter should have limited review cycles to minimize confusion. A check mark should be placed next to each section or chapter each time the reviewing entity accepts it as complete. Each time the Table of Contents Checklist is sent with subsequent chapters, reviewers can see what is completed and what is outstanding.

Figure 6.1 graphically depicts the writing workflow and illustrates the negative consequences of endless review and editing processes. As editing and review cycle durations grow, the time available for adequate quality control and delivery of the final document shrinks. Figure 6.2 illustrates the magnitude of changes that should occur during the overall project document process—in short, major changes at the beginning, with lessened, minor changes toward the later drafts.

Graphics

Graphics is defined as any image, including maps, diagrams, photos, illustrations, and more. They are as important as the text in a project document; as the saying goes, a picture is worth a thousand words.

Document text and graphics should support each other to provide a clear story. The Quality Control Checklist for Graphics Content, provided as Appendix I, provides useful tips for the review of graphics in project reports. This check-

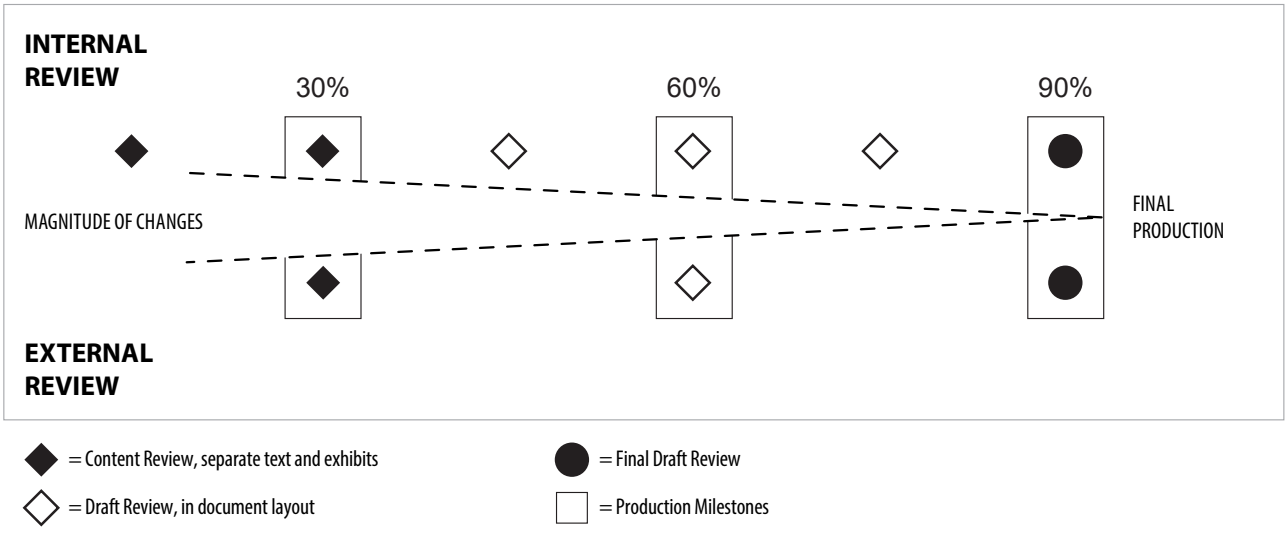


Figure 6.2. The number and timing of reviews, as well as the specific reviewers, should be determined at the beginning of the project (Design Workshop)

list should be used to ensure that graphics are clear and support the associated text.

Be strategic about which software the team will use to create graphics such as maps and diagrams by weighing the benefits and risks of software compatibility. For example, PowerPoint can import TIFFs, but JPGs are preferred to keep file sizes smaller. TIFF and PDF formats are important for document production, as explained in Chapter 4, so the process of creating JPG files for a PowerPoint should be separate and the PowerPoint file requirements should not influence the document production method.

If team members have been exporting images as TIFF or PDF files, however, the decision to use PowerPoint will create more work. In many situations, a slideshow can just as easily be presented from Adobe or other presentation options, such as Prezi (https://prezi.com). Any exhibits for PowerPoint can still be created in Adobe software—the PDFs can be converted to JPG and resized to be placed into PowerPoint. Often, building graphics in Adobe Illustrator or InDesign saves a few steps in that PDFs of pages can easily be plotted or presented digitally at a workshop or public meeting. However, if the team is conducting keypad polling, then PowerPoint may be required. Cell phone-based live polling is becoming more popular than PowerPoint-based keypad polling systems because live polling is easier to use and does not require special equipment or PowerPoint.

In short, there are many approaches that can be taken in creating the graphics for document production and the overall planning process. The overarching goal for all projects should be to save time and stress by anticipating ways to make sure that the graphics created for handouts, presentations, imagery boards, or other interface materials can be placed into a document easily (or vice versa).

Style Guide

As discussed in Chapter 3, each department or company should have a style guide as part of its project management plan. However, each project is different, with its own nomenclature and abbreviations. The project manager should capture unique elements in the style guide to communicate these to the team.

The style guide is a living document, continuously updated as the draft progresses. The project manager should have the reviewing entity initial, sign, and date each time the style guide has a major update. Major changes will be different for every project, and project manager and supervisor have discretion to determine what this means for the project. Being strategic about when this occurs is important to not overburden the reviewers with additional documents to review and sign.

Each team member should have either a printed copy or easily accessible digital copy of the style guide for easy reference during draft production. If any changes or updates need to be made, check with the project manager before making any adjustments, and then alert the entire team to the change. Make sure that external subcontractors who are contributing parts of the document are aware of the style guide for the project. The project manager should immediately provide all content creators as well as the sponsoring agency with an updated style guide when any changes are approved.

Teams can save time by adding graphics into the document during each phase and by completing style guide quality review checks to ensure content is consistent with agreed-upon guidelines. Periodic checks also will ensure that graphics include citations for external data and ideas. It is vital that copyright permissions be obtained when necessary for images not owned by the reviewing entity or team to avoid infringing on copyright protections. See Chapter 5 for a more detailed discussion of copyright law.

Version Control

Often multiple team members with varying areas and levels of expertise are required to work on a single document. Version control can be managed in a variety of ways. First, when possible, strive to limit editing to one person at a time in each section of the document. Second, save versions with a naming convention (see Chapter 4) to prevent confusion on the most updated files to be editing. Third, consider shared file apps, which immediately save the most up-to-date versions that can be accessed and viewed by all personnel.

Microsoft's OneDrive (https://onedrive.live.com/about/en-us) is an example of such a tool. OneDrive is web-based software that enables the production and editing of a single report in real-time online among multiple team members without having to save and email versions. This increases productivity and eliminates the need to flood email inboxes with multiple versions of the same file. Using OneDrive with the reviewing entity on a draft document is not recommended, however, because the team needs to be able to track comments and keep detailed histories of document changes.

Similar software programs to OneDrive are Adobe InCopy, Dropbox, Google Docs, Box, Basecamp, and Evernote. InCopy (www.adobe.com/products/incopy.html) lets copywriters and editors style text, track changes, and make simple layout modifications to a document while designers work on the document simultaneously in InDesign—all without over-

TABLE 6.1. RECOMMENDED PRACTICES: PRODUCING HIGH-QUALITY DRAFTS

✔	Use the style guide established during the project kickoff meeting.
✔	Confirm updates to the style guide with team members and the reviewing entity as they occur.
✔	If writing assignments are divided among team members, provide all individuals with the appropriate style guide, including writing and graphics standards information.
✔	Follow file setup and file management best practices (see Chapter 4).
✔	Run spellcheck regularly, especially before submitting a draft to reviewers.
✔	Export PDF files for review.
✔	During draft production, review tables, charts, and graphics for informational clarity.
✔	Verify that exhibits reflect the underlying thought process and tell the project story.
✔	Create one-sentence captions for each figure or table that describe the "takeaway." What should the reader take away from looking at the graphic?
✔	Source all images.
✔	Keep a log that provides the source for each image or photo in the same folder where the document's images are saved.
✔	Review caption text for grammar and consistency.
✔	Send a color test to printer if necessary to test final production quality.
✔	Discuss early the best size dimensions for graphics created and who is responsible for each.
✔	Be strategic about software used to create graphics by weighing the benefits and risks of software compatibility.
✔	Obey copyright law and obtain use permissions when required for images owned by third parties (see Chapter 5).
✔	When possible, encourage all comments to be added in PDF for tracking and reference.

Source: Design Workshop

writing each other's contributions. Dropbox (www.dropbox.com) and Box (www.box.com) operate like OneDrive in that they are platforms for concurrent editing, version control, file, and task sharing. Basecamp (https://basecamp.com) and Evernote (https://evernote.com) are helpful tools for teams that would like to collect and share documents or images and manage collaborative workflows using shared notes online.

EDITORIAL PROCESS

Planners can use several methods to manage documents with multiple editors, depending upon whether the editors are internal or if they are agencies or consultants. There are varying levels of cost and security associated with various computer programs.

Technology has complicated how agencies handle public records requests, because more staff communication is occurring on special-purpose platforms outside of email. Planners also now can use virtual teleconferencing programs, such as GoToMeeting (www.gotomeeting.com) or Skype (www.skype.com), to view, discuss, and edit drafts collaboratively. Consultants should be aware that shared folders and app data can be discoverable as public records, and public staff are often obligated to preserve records of this communication, which can be challenging depending on the app.

Word can be used for reviewing the document when the text for a report is still being written. Very often a file needs to be shared among multiple editors. Programs like Dropbox or Box, as described above, are useful for these situations. The "Track Changes" feature in Word keeps track of revisions made by multiple editors; Word also allows users to write comments directly within a file. These features can be accessed via the "Review" tab on the ribbon in Word.

When a report draft is issued in PDF format for review, comments from multiple reviewers need to be captured with Adobe Acrobat for ease of file transmission. Adobe Acrobat Pro Group Review is a useful feature that enables groups of people to provide feedback in separate copies of a PDF report and automatically consolidates all comments into a single file. This can save a significant amount of time compared to manual compiling. The person who initiates the group review can set deadlines and is able to view details about which participants have reviewed the report. Detailed instructions and tips for using Adobe and other software programs mentioned in this chapter can be found online on the software website, blogs and message boards, and in books.

Internal Quality Review

Quality review is defined as proofreading the draft document, ensuring consistency with the style guide, making sure reviewer comments have been addressed, and checking for grammatical and spelling errors. Quality control is a key step in draft production. Internal reviews occur prior to sending a document out to the reviewing entity, project partners, or the sponsoring agency. Having someone who has not been involved read the document is a good way to test it for clarity.

Sponsoring agencies or large planning firms may have their own quality management protocols with required steps and sequences for shepherding a document through a quality control process, such as specific personnel who must perform reviews in a hierarchical order, sign-off by project supervisors, or the use of quality control checklists.

Large entities may be certified by ISO 9001, an international standard organization for management and quality assurance (www.iso.org/iso-9001-quality-management.html). ISO provides a generic model that can be applied by any enterprise of any size as a foundation for management, quality, and organizational improvement. Organizations interpret the standard and devise their own systems to meet customer expectations and regulatory requirements. ISO-certified organizations are audited to ensure they are adhering to set standards. While ISO is a recognized global standard for quality management, the program requires a significant investment of personnel, time, and money to pursue and uphold and is not within the capacity of all organizations (Cochran 2008).

Smaller public-sector or consulting entities will likely follow the basic quality control review steps related to reviewing a planning document for factual, grammatical, and spelling errors; confirming that it adheres to the agreed-upon style guide; and checking if reviewer comments have been addressed. This PAS report provides a collection of basic quality control checklists as Appendices H, I, and J to assist with the review of written and graphic content, and as reminders of key steps for successful InDesign printing and document delivery.

The project manager should schedule time for an internal third party to provide a quality review, and provide the reviewer with the style guide, which should be studied prior to reading the document, as well as any applicable quality control checklists. The time needed depends on the complexity and length of the document. Generally, a reviewer needs two to four hours to review a 50- to 100-page document. More time should be allotted for longer or more technical documents. Give the reviewer a minimum of one to two business days to proof the document prior to making edits and sending the draft to the reviewing entity.

If agreed to between the project manager and the reviewer, grammatical changes can be made directly in the working document. Proofreading symbols save time when reviewing a document. When reviewing a hardcopy, the internal reviewer should use shorthand symbols such as those provided by *The Chicago Manual of Style* and *Associated Press Stylebook* (see Chapter 3). The team should refer to this legend and be familiar with these symbols. With practice, these should become second nature to both the reviewer and team.

Larger questions over content can be sent back to the team. The team needs one to two days to review the comments and make changes before sending the revised draft to the reviewing entity.

External Quality Review

A draft of the document should be sent to all reviewing entities for comments and questions. After the reviewing entity receives the draft, they should be given a firm period to review the document; for example, five business days. Factors that can help determine an appropriate review time include:

- Length of document
- The number of departments, committees, or councils in the reviewing entity's organization through which the draft must be cycled
- Project schedule

This information should be agreed upon and documented at the planning document kickoff meeting. The amount of time provided for review should be reflected in the overall project schedule with the knowledge that reviewers will often request additional time when the review process gets under way. To save time, the team may decide to provide specific direction to the reviewing entity for what parts of the document or what narrow aspects they should review.

Public input in a document depends on the type and use of the document. Many technical documents rely on internal reviews consisting of written and verbal comments provided via email or in person during formal or informal meetings. External input from experts or the public can inform all parts of a document from content and structure to specific features. For example, feedback from an advisory committee may help determine themes and objectives from a project's outset, while focus group input may lead to a case study feature.

FIGURE 6.3. SAMPLE COMMENT LOG

Purpose: The goal of the quality control review Comment Log is to list all items discovered in the quality review process that need to be addressed by the project team and who is responsible. While comments and edits are frequently recorded as redlines directly on a document, some deliverables or agencies require that they be captured in a separate log. Consistent use of a Comment Log to track and respond to comments during a project's duration helps facilitate communication and fosters the resolution of questions, comments, and markups.

Number	Date of Comment	Draft Version	Reviewer	Page/ Line	Comment	Response/Action	Status
					DRAFT 170504		
1	5/29/16	5/20/16	CN	15	Sentence does not make sense.	Reviewed sentence. Made minor edits for additional clarity.	Revision complete
2	5/29/16	5/20/16	CN	22	Stakeholder and Focus Groups worked to determine the definition of and criteria for Urban Centers (Table 2). Once established, the next step was to . . .	Inserted text	Revision complete
3	5/29/16	5/20/16	CN	41	New map	Comment and direction is unclear	No revision
4							
5							
6							
					DRAFT 170816		
1							
2							
3							
4							
5							

Source: Design Workshop

Comment Log

The Comment Log is a valuable tool for gathering edits and comments on a variety of documents. Asking draft reviewers to add their comments to a shared log, rather than having one person compile comments from different sources, promotes efficiency and transparency during the process. A project manager can create a Comment Log and instruct external reviewers on how to use it. Figure 6.3 illustrates one example of this tool for cataloging the comments' date, draft name, page number, reviewer name, comment, and response to the comment. A template is provided as Appendix G.

The tool is essential for drafts with multiple reviewing entities, given that the team may receive conflicting comments. If there are multiple decision makers, this tool allows

for discussion among the team and reviewing entity to decide a direction. The Comment Log should be used each time the reviewing entity returns a draft. It should be established at the beginning of the project that the reviewing entity will submit comments on a draft in a single document.

Comments provided to the team may be handwritten, provided in PDF format, or tracked in Word. The file type may also change throughout the document's life. For example, early in the drafting process, comments may be primarily tracked in Word, but later versions of the document might be provided as PDFs or hard copies to reviewers. The project manager should determine early in the project process how comments are to be received.

Carefully consider the relationship between a Comment Log and the use of shared editing apps. When both tools are used at once, it is important that the project manager communicates expectations. This ensures that edits occurring in a shared document are logged, or that a teammate is responsible for confirming when edits submitted via the log are added into the actual document.

For comments that are delivered in PDF format, the Adobe Acrobat Pro Group Reviews comment collection method described earlier should be used. Transfer each comment to a separate line item in the Comment Log. The log should include the date of the comment, the title of the document that received the comment, the commenter's name or other identifier, page number, comments, team member action, and action status. Comment Logs may look slightly different depending on if they are internal or external, or at what the stage of the process they are used.

It is important to translate the comments exactly as they are written, identify who made the comment, and provide a clear, concise response. If the comment is unclear, it is okay to note in the log that further clarification is needed. Project members should not feel the need to agree or accommodate every comment made, nor revise the document for every entry in the log. Instead, it should be used for recording responses to the comments. Often, the Comment Log is a place to defend both content and the established style guide agreed upon by the reviewing entity and consultant team during kickoff.

Advanced Technologies

Technologies used to gather comments on documents continues to evolve. With more communications via email and specialized apps the volume of comments also increases, especially as projects go through public hearings. Large projects may generate thousands of comments, so individualized responses become difficult to manage.

Planners can use various comment tracking apps that link to databases. Advantages of using sophisticated databases for comment logging is that they allow tagging and sorting using keywords, link to GIS systems, and integrate with automated mailing apps.

The same principles described above apply in these cases, but there is added need for accountability. In such cases it is helpful to sort comments into themes and provide responses to each theme. The task of responding to individual or grouped comments can be split across the team according to their expertise or authorship of the portion of the document to which the comments are directed.

CONCLUSION

The tools and processes described in this chapter are scalable to the size and type of document on which the project team is working. The team project manager should determine the flow of the draft production and determine which tools can help ensure an efficient process. Schedules, team member availability, and the project budget should be carefully considered before and during draft production, and work should be divided up as appropriate for each project and its team. Mock-ups of the overall draft layout should occur at or immediately following project kickoff (see Chapters 2 and 3).

Considerations and best practices for facilitating internal and external review processes are pivotal to a project's success. There are varying levels of cost and security associated with various approaches to draft production. The final chapter of this report offers recommendations for delivery of the final planning document to various audiences.

CHAPTER 7

DOCUMENT DELIVERY AND PROJECT WRAP-UP

Managing a project document so that there is adequate time for quality control, test printing, and delivery by a final deadline can be challenging. Many decisions must be made and approved prior to the final printing and successful delivery of a document.

In addition to printing considerations, this chapter offers recommendations for digital delivery, since many agencies now have paperless standards. Publishing documents on websites, and designing them so that they can be viewed on mobile phones and tablets, can save on printing costs and provide access to a broader constituency, including lower-income residents, youth, and underrepresented groups that are more likely to have mobile phones than computers.

For the final product to be produced efficiently and with the highest quality, documents must be built according to the parameters outlined in Chapter 4. The next step is to clearly communicate with the printing vendor about the details of the final document. Printing companies are key partners in the planning document process. As mentioned in Chapter 3, it is optimal to contact the vendor early on to communicate specifications and other requirements, to learn about materials and printing options, and to be aware of the costs. Often a consultant team will have already estimated these costs at the proposal stage. An initial conversation helps the printing company to anticipate what needs to be done and by when, leaves adequate time for quality control, and goes a long way toward eliminating unpleasant last-minute surprises that no one wants to experience.

PRINTING CONSIDERATIONS

The following printing-related details should be determined early in the project and communicated to the printing vendor. The Printing Checklist is a tool to capture in one place all the decisions about the format of the final deliverable. Ideally, the Printing Checklist is completed as part of the planning document kickoff meeting and then revisited as drafts are iterated and the report is nearing the delivery stage. An example of a completed Printing Checklist is shown in Figure 7.1 (p. 78) and a template is provided as Appendix K.

Quantity. In addition to the number of copies required, the production team may want to order additional copies for its members. Typically, there is little or no unit cost savings for the kind of project documents produced by the planning industry, so the 50th copy is the same price as the first, although it is worth asking the printing company representative. If the deadline is urgent, discuss whether the vendor can produce a portion of the print job quickly and send the remaining copies later.

Size and format. Most documents are either 8.5" x 11" or 11" x 17", but there may be 11" x 17" z-folded sheets that are included in an 8.5" x 11" document, or even 11" x 16" foldouts with a single fold if those sheets will be double-sided (11" x 16" foldouts require additional setup and coordination). Be aware that non-U.S. contracting agencies may require documents using the international standard paper sizes of A3 or A4. Other considerations include orientation (portrait or landscape) and bleed.

Bleed. Pages that have printing all the way to the edge of the paper need to be set up as discussed in Chapter 4, and the PDF file used for printing must include crop marks. The print vendor will need to print on larger paper to fit the bleed area and crop marks on the page, and then trim down to the specified size. Often the items that are intended to bleed are photos or solid blocks of color as design elements, which sometimes is a useful visual technique for large exhibits that span across a full spread so the content can be viewed as one contiguous element.

Double-sided versus single-sided pages. Be sure footers and page numbers are set up accordingly. It is awkward to have the page number flip back and forth between the left and right corners if the report is single-sided.

FIGURE 7.1. SAMPLE PRINTING CHECKLIST

Purpose: This form is intended to serve as a checklist for final document printing.
Project: City of Greenwood Parks and Open Space Master Plan
Document Name: Technical Report
Received Public or Contracting Agency Approval of Specifications: ☐ Yes ☐ No

Quantity		Notes
	# to client: 24 # to consultant: 4 # to Other:	
Size and Format		
	8.5" x 11"	
✓	8.5" x 11" with 11" x 17" z-fold foldouts	
	8.5" x 11" with 11" x 16" foldouts	
	11" x 17"	
✓	☑ Portrait ☐ Landscape	
Bleed		
	Full Bleed: ☑ Yes ☐ No	Full bleed front and rear covers
Binding Method		
	Plastic Coil	
	Wire	
	Three-ring binder	
Tabs		
	3-bank	
✓	4-bank	
	5-bank	
	Other:	
	None	
Paper Type		
✓	Glossy	
	Recycled	
	Plain White	
Cover		
	Printed Cardstock	
✓	Clear Acetate	
Printer		
	☐ In-house ☑ Outside vendor	
Delivery and Distribution		
	Address: 1300 Laurel Street, Suite 150, Denver, CO 80202	
	Shipping Method: ☐ FedEx/UPS ☑ Courier ☐ Hand-deliver ☐ Other	Call ahead of delivery

Figure 7.1. A Printing Checklist helps track key decisions about printing specifications at the beginning of the document effort for ease of production and understanding of costs and schedules (Design Workshop)

Binding. Typical binding methods are wire or plastic coil, which are more professional in appearance than comb binding. If the final document will be contained in a three-ring binder, all pages will have to be three-hole drilled and the cover will have to be sized to fit inside the clear binder cover. Some vendors can print directly on the binders for high-end deliverables.

Tabs. Including tabs in a report can help readers jump to specific chapters easily, but plan for extra production time for the vendor to produce this feature. It is a good idea to send the tabs to the printer a day or two in advance so they are ready to go when the document is done. Note that the chapter titles need to be finalized before the tabs are ordered, and the front and back covers should be 0.5" wider so they cover the tabs.

Paper type. The higher-quality papers are a brighter white, are not too thin, and have a smooth-coated surface on which the ink is applied, resulting in crisper, more vibrant images. If recycled paper is used, sometimes images can appear blotchy and the color appears more subdued depending on the percentage of recycled content (up to 30 percent recycled content usually has minimal effect). However, it may be a requirement of the contracting agency to use recycled paper, or the team may feel that the environmental concerns outweigh the print quality. Regardless, the differences should be noted and expectations should be managed. A good paper choice is Hammermill Laser Print, 24 lb., 98 brightness, or equivalent. The cover is best when printed on heavy cardstock, but it can be mounted to thicker poster board for a more rigid and durable result.

Cover. A report will be more durable and professional in appearance if its cover is printed on a thicker material, such as card stock. A clear acetate layer can be added on top of the cover and bound with the document for additional protection and visual effect. A card stock back should be considered as well.

Schedule. Always notify a vendor of the printing job in advance to verify that it has capacity, time availability, and the necessary paper and materials. Be sure to obtain an estimated turnaround time and work backward from the due date, sending the files to the vendor with adequate lead time for them to meet the deadline.

Color testing. If possible, send a text page or two in advance with actual project graphics to judge color and print quality. Prepare the test file in the same template and save it with the same PDF settings as the final.

Delivery and distribution. Confirm with the project manager where the final documents need to be delivered. There may be multiple recipients in different locations and shipping time needs to be factored into the overall schedule.

TABLE 7.1. RECOMMENDED PRACTICES: PRINTING

✔	Verify size, bleed, and paper requirements during the project kickoff meeting.
✔	Use the Printing Checklist (Figure 7.1/Appendix K) to verify quantity, size and format, binding method, tabs, paper type, cover materials, printing options, and delivery and distribution method.
✔	Communicate print quality, quantity, and delivery expectations to the vendor.
✔	Allow time in the schedule for test printing.

Source: Design Workshop

Ideally the final printed reports should be reviewed by the team for any production errors prior to being delivered, but if the schedule is tight sometimes the fastest approach is to have the vendor ship directly after it is printed.

Printing In-House Versus Outsourcing

There are several considerations to think about when determining whether to print in-house or to send to a printing vendor. Most document file formats, including Word, InDesign, and PDF, can be printed on basic in-house printers. Outsourcing is typically required for full-bleed pages or other special features. Table 7.2 (p. 80) lists several factors that come into play. Online programs are another option for printing planning documents, as described in the sidebar on p. 82.

FINALIZING THE DOCUMENT

InDesign has a method for analyzing documents called a Preflight Profile, which compares a variety of document attributes with predetermined requirements. As recommended in Chapter 4, image resolution should be at least 300 PPI at the size it is being used, but must be 150 PPI at a minimum for the type of printing often used to produce planning documents. These requirements can be entered into a preflight profile and InDesign can check the entire document for any spot colors or any images with resolution lower than 150 PPI.

Another important item that the profile can check is overset text, which occurs when there is additional hidden text that is too long to fit inside its text box (indicated by a red plus sign in the lower right corner of the InDesign text box).

TABLE 7.2. CONSIDERATIONS FOR IN-HOUSE VERSUS OUTSOURCED PRINTING

Topic	In-House Printing	Outsourced Printing
Quantity and Number of Pages	The time required for in-house production varies depending on the project book length and binding method, so teams should coordinate on a case-by-case basis.	If many copies need to be produced, it may be most efficient to outsource given the time it would take for staff members to print and bind.
Binding and Finishing	Coil binding machines are a typical in-house binding method and different models use plastic or wire. The machine aligns and punches holes into which the coil is threaded. A selection of coils with different diameters should be stocked to accommodate documents of varying thickness. After the coil is threaded through the holes, it is crimped to stay in place. Another method easily accomplished in-house is to contain the document in a three-ring binder. Considerations include the size of the binder to accommodate report thickness, and D- or O-ring options.	Outsource if the desired binding type is not available in-house, if the project book is too thick for the office binding equipment, or when binding large quantities. If the final format is a three-ring binder with large quantities of pages, then outsourcing would be needed for the three-hole drilling.
Schedule	If teams are still producing content on the day the project is due, in-house printing may be the only option.	Outsourcing usually requires at least a one-day turnaround time from the vendor, depending on their overall work load. Be sure to build this into the schedule and confirm turnaround time based on the document specifications.
Full Bleeds	Letter-sized covers with a bleed can be printed in-house on 11" x 17" cardstock and trimmed down.	For project books that contain a full bleed on any of the content pages, outsourcing would be required in order to print on larger paper and be trimmed to size. 11" x 17" covers would need to either avoid a bleed or be outsourced.
Foldouts	Small quantities of 11" x 17" foldouts can be manually folded in-house.	Large quantities of 11" x 17" foldouts are better to outsource (for a better-quality fold).
Costs	Doing work in-house can seem like it would save money, but it takes staff time away from other priorities and will likely take more time than sending the job to a vendor.	Contact local printing vendors to request a quote for a printing job. Printing costs vary across geographic regions. Early communication will ensure a vendor has the materials in stock and can process the job by the deadline.

Source: Design Workshop

After running the preflight operation, a listing of missing file linkages and overset text errors appears. All errors in the preflight panel listing must be resolved prior to exporting and printing the document.

Exporting to PDF

Regardless of how the document was produced, make a PDF of the document for final printing. This process embeds all fonts and graphics and removes any extra resolution from images. A PDF file is easier to coordinate with print vendors than the source file, especially an InDesign file with separate links. A PDF also serves as a reliable file for archiving, since graphic links cannot be broken and missing fonts are not an issue. The major drawback of PDF format is that the vendor cannot make last-minute adjustments.

In Word, click on "Printer Properties" to review options in the Adobe PDF Settings tab. Most users simply retain the default "Standard" setting, but the basic settings related to quality, compression, font, and color can be adjusted by clicking "Edit." Detailed instructions about Adobe Acrobat

and its settings are located in program manuals as well as other online sources.

In InDesign, check if the selected printing vendor has particular specifications for PDFs to ensure the file is set up correctly for the anticipated printing process. These specifications can be imported and set up as a preset option. There are a variety of settings in the PDF export dialog box in InDesign, with categories on the left side. Listed below are the most important ones to control:

Under the General category. For "Pages" make sure "All" document pages are included unless only a portion of the report is to be included in the PDF. For Standard choose "None" and for Compatibility choose Acrobat 7 or higher.

Under the Compression category, for the "Color Images" and "Grayscale Images" sections. Choose "Bicubic Downsampling" and enter 200 for both "pixels per inch" fields. For Compression, choose JPG and select "High" for image quality.

Under "Marks and Bleeds." If the document has bleeds, check the boxes for "Crop Marks" and "Use Document Bleed Settings" (assuming the file is set up with a bleed under Document Setup). Leave all settings untouched if the document does not have a bleed.

Under "Output." For Color Conversion, choose "No Color Conversion," and choose "Include All Profiles" for Profile Inclusion Policy. Click the "Ink Manager" button and verify that no spot colors are used. The only colors that should be listed are Cyan, Magenta, Yellow, and Black (CMYK). If Pantone or other spot colors are listed, check the box in the lower left called "All Spots to Process."

Once the above settings are selected, click the "Save Preset" button in the lower left to save them. For future documents, choose the preset from the top drop-down menu to avoid selecting all these settings manually each time.

Packaging the Adobe InDesign Document

To capture key milestone deliverables, the InDesign document should be "packaged" in order to collect all fonts and linked images into a single location. The Package command ensures that key information used in the document is saved along with the InDesign file and readies the file for either in-house or outsourced printing. These packaged folders should be saved within the appropriate subfolder under Deliverables. This is a key archiving step and ensures that the document is saved as an editable file along with all its components in one place.

Set up the InDesign package export to include the following items:

TABLE 7.3. RECOMMENDED PRACTICES: ADOBE INDESIGN DOCUMENT PRODUCTION

✔	Run spell-check in InDesign.
✔	Prior to exporting, use InDesign Preflight Panel to check for overset text, link or color space issues, and any other listed errors.
✔	Package InDesign documents in a deliverables subfolder after each key milestone. Include a zipped version of this package.

Source: Design Workshop

1. InDesign file (current editable version of document)
2. .idml file (allows older versions of InDesign to access document)
3. .PDF file (captures the true intent of the document but is not extensively editable)
4. Fonts folder (package process can automatically collect all fonts used in the document that are not accessed from Adobe Typekit)
5. Links folder (package process can automatically collect all graphics, images, and other files externally linked to the document)

This collection of formats, fonts, and links ensures that the various components of the InDesign file accompany it as it is delivered to a printer or a project sponsor, or saved in an archive.

If a consultant team is required to provide the digital deliverable files to the contracting agency, the steps described above to package the document is an efficient way to gather the InDesign file and the PDF file in one folder so they can be transmitted efficiently. If the agency wishes to print additional copies of the report in the future, they will have the editable and PDF files. Depending on how the original printing was handled and what was specified in the consultant contract, the agency can elect to print in-house, request additional copies from the consultant, or contact a printing vendor directly.

DIGITAL-ONLY DELIVERABLES

Websites are an increasingly common way for cities and planners to share information with the public and a wide range of

ONLINE TOOLS FOR REPORT PRINTING

Options for creating and printing planning documents online are extensive and offer an expanded range of possibilities that, just a decade ago, were cost prohibitive. Online services such as Blurb and iBooks Author have opened up possibilities by offering free templates with a variety of report layouts and ability to customize. Finished reports can be posted online for downloading, or printed to achieve a professional and sophisticated appearance.

Blurb (www.blurb.com): Blurb offers several online creation and layout tools that can be used to create reports, books, and magazines in print and digital formats. Its free desktop software package BookWright features starter templates with adjustable fonts and layouts to publish custom documents in print or electronic format. In addition, Blurb offers an Adobe InDesign plug-in to automatically create templates that can be printed through Blurb. A specifications calculator enables the adaptation of a preexisting PDF to any size output. The PDF can then be uploaded to Blurb and ordered in book or report format. Blurb's Bookify bookmaking tool offers free templates to create books with preset layouts and text styles. Both BookWright and Bookify are applicable to planning documents and are a resource for those who do not have access to Adobe InDesign but want to achieve a level of graphic sophistication.

iBooks Author (www.apple.com/ibooks-author): iBooks Author is a free app for creating a variety of digital documents, manuals, books, and handbooks for iPad and Mac. Available for download from the Mac App Store, the app offers a selection of template styles, orientations, and page layouts. It features options for including text, graphics, video, audio, galleries, interactive diagrams, charts, tables, 3-D objects, and more to create a highly interactive document. Word documents can be dragged and dropped to add new sections; text automatically flows around added images. InDesign files can be imported and edited. For planning documents aiming to be accessible to people with disabilities, iBooks Author features built-in VoiceOver technology. The app enables easy editing and previewing as content is developed, and simple steps for publishing for purchase or download on iBookstore, which automatically notifies readers when a new version of the published document is available. This is handy for notifying, for example, a stakeholder group that has received early iterations of a planning document in a review phase that an updated or final deliverable has been completed and is available.

stakeholders. Many agencies now have paperless standards for planning documents. Whereas printed planning reports are static documents and are often costly to produce in terms of materials and labor, digital files are user-friendly tools that can be uploaded to a website and frequently updated. Project websites that offer digital documents designed for mobile phone and tablet viewing can engage a broader constituency for whom computers are not necessarily available.

Websites have the potential to reach a high number of people and diverse constituencies, and the information they contain is available anytime and anywhere. Digitized content can offer more interactive approaches such as hyperlinks, embedded videos, and animations, and can provide links to more information and keyword search functions. Full planning documents can be made available as digital files on websites, but they can also be broken into discrete items and shared in more accessible ways to appeal to broader audiences only interested in specific aspects of a project or report. See the sidebar on this page for some examples of planning documents made available in easily accessible online versions.

While the public is comfortable with online navigation and interaction and increasingly expects to have access to information in digital formats, there are several considerations to think about when deciding whether to go the digital route. Digital delivery can mean that only a PDF is provided but that it is provided in a printable format. Often such PDFs are posted to a project website where visitors have the option to read online or print hard copies. A digital deliverable can also be designed solely for a website, with content not composed as a traditional report with a front and back cover. However, the document should always be designed and formatted with printing in mind, even if the requirement is digital.

While the trend is moving toward digital, there is always going to be someone wanting to print who will be frustrated if the content is not formatted for them to do so. Formatting for printing is important to protect the brand of the sponsoring agency and planning effort. In addition, many projects require a printed copy for city council or a printable PDF for the project record. Keep in mind how the document will print in black and white even if designed with color, and stick to formats for standard paper sizes. This way, the needs and expectations of a variety of readers are accommodated.

These considerations should be discussed at the scoping stage of the project and at the launch of the planning document effort. Other questions to answer are whether a digital-only deliverable will be politically feasible: will the planning commission or city council endorse the idea, or will they be more comfortable with a traditional printed

EXAMPLES OF WEB-BASED DIGITAL DELIVERABLES

The following web-based planning documents are excellent examples of project reports that were delivered digitally. Provided in this format, the information about these community planning efforts is available to large and diverse constituencies, is interactive and searchable, and can be easily updated. Instead of a single large document with buried content, the information about the planning process and outcomes is presented as discrete accessible items.

Dublin, Ohio's ***Community Plan***
http://communityplan.dublinohiousa.gov

Plan Houston
http://planhouston.org

OKI (Ohio, Kentucky, Indiana) Land Use Commission's ***How Do We Grow from Here? Strategic Regional Policy Plan***
http://howdowegrow.org

Plano, Texas's ***Plano Tomorrow: A Comprehensive Plan for Excellence*** (winner of APA's 2017 National Planning Excellence Award)
http://planotomorrow.org

document? If the decision is made to provide a digital file, the team should discuss whether the website will include policy elements or be linked to other community web pages containing policy statements.

Other considerations are technical. Questions of equitable access to information need to be addressed, including how the document displays on smart phones and tablets, which some agencies require in addition to computer display. Not all constituents will be comfortable with the digital format. Special requests for emailed or printed copies of the report need to be anticipated.

The team must discuss whether the website will disseminate information as a one-way communication tool, or have the capability for two-way feedback. If the latter, the digital format must be designed to accept public comments. A system must be developed for who will review and respond to comments. One way to handle comments is to provide a comment link on every page of the website and tie each one to specific strategies and recommendations so that they can be traced and responded to appropriately.

The team must discuss whether the contracting agency has the technical expertise and staff capacity to develop, operate, and update the website. If not, training may be necessary, or the work may need to be subcontracted to a vendor. If updates or amendments to the website content or report document are anticipated, then an implementation matrix is recommended. This lists all the roles and responsibilities associated with the website and digital content, spanning initial development and launch to ongoing maintenance and updates.

The visual quality of exhibits on the website must be considered to ensure the user receives clear and compelling content, and isn't turned off by inaccessibility or poor quality. As described earlier, a high-quality file can be created from a print document through "printing" to PDF in Word and "exporting" to PDF in InDesign. The end file posted on the website should be the smallest document size while maintaining on-screen resolution. Files should be flattened to avoid layer lag (when digital files slowly build layer by layer on a screen rather than appear at once). This will maximize the speed with which the digital file can be opened by the user—via landline or mobile network. It is always a shame when the hard work and long process of developing a planning document conclude in an online document that cannot be opened due to an unwieldy file size.

Finally, remember to remove the crop marks on the digital version when a report is intended for both print and electronic formats. The online version should not appear as an afterthought to the printed report. Table 7.4 summarizes these important considerations. Though they come into play at the end of the planning document production process, they should be discussed at the scoping stage (see Chapter 2) and at the planning document effort kickoff meeting (see Chapter 3).

The delivery format and method for the digital planning document should also be discussed at the document scoping and kickoff stages so that the team prepares and shares the deliverable as promised. There are several ways the document can be formatted and transferred for final delivery, including:

1. Web version PDF for website
2. Full-size PDF for full resolution capture of document and printing, if desired
3. InDesign package for future editing and use by agency
4. PDFs and InDesign package folder uploaded to File Transfer Protocol (FTP) site, or file sharing sites like Dropbox and OneDrive

In some cases, the project sponsor may request multiple or all of these methods of delivery. It is critical for the team to understand the requirements at the beginning so there are no surprises as the document effort is coming to a close.

WRAPPING UP A SUCCESSFUL PLANNING DOCUMENT

At the end of the planning document process, there are several housekeeping issues that the production team should consider to successfully wrap up the report effort.

As mentioned above, even if the deliverable was a print-ready document, it is important to save the final document as a PDF and as an editable version for future iterations. The agency may want to make adjustments in the future or use the document for other purposes. The consultant will want to save the document and its fonts and links in a separate folder for future reference and to clearly capture the final deliverable. Most organizations have archiving guidelines and procedures that should be followed to properly organize project files and store not only the final deliverable, but the various drafts, research sources, and communication records for future access. There are a variety of archiving practices recommended online or vendors who will consult on this critical function.

The production team will have accumulated many working documents. If these documents were not developed internally by an agency and a consultant was hired to lead the report process, the agency may want to request certain files before they are archived or disposed of. Often files are re-

TABLE 7.4. RECOMMENDED PRACTICES: CONSIDERATIONS FOR WEB-BASED DELIVERABLES

✔	**Endorsement:** Is a digital-only deliverable politically feasible?
✔	**Policy:** What policy elements will the website include?
✔	**Technical Considerations:** What format will work best for equitable access to the digital content?
✔	**Comments:** How will the digital tool handle public comments?
✔	**Updates:** Will the document be updated or amended?
✔	**Staff Capacity and Expertise:** Does the contracting agency have the staff capacity and technical expertise to operate and update the website and any linked digital documents?
✔	**Resolution and Visual Quality:** What can be done to maximize the visual quality of the digital content?

Source: Design Workshop

quired to be saved by agencies as evidence of the iterations during an adoption process.

Sometimes documents developed by a consultant for a planning process are not public. If permissions are required for the disclosure of the report or specific content, the contracting agency should clearly document which products may be used and which cannot be shared as work examples to secure similar commissions.

When the project has been completed and all deliverables submitted, it is a good idea for key members of the team, either an internal agency production team on its own or, if a firm was hired, with the consultant team, to convene a post-project review. Aside from officially closing out the effort, this can be a forum for all team members to share feedback on the process and the product. That way, successful practices can be honed for the next planning document effort and all team members will learn how to improve their approaches to this prevalent yet complicated planning project deliverable.

Key topics to discuss include document quality—including any errors that occurred, how they were addressed, and how to ensure they are not repeated. Communication should be covered and whether any protocols need to be adjusted to improve the process for the next time. The completed schedule, scope, and if applicable, the final budget for the planning document should be reviewed by the team so that resources can be better calibrated for other efforts. If any big changes occurred in the middle of the project that impacted the document effort, they should be acknowledged. Team members should be given the opportunity to share what they learned, and to offer suggestions for doing something differently in the future. This step can be an important way to support employee morale over the long term.

All the comments and decisions from this post-project review should be summarized and saved into the project folder for archiving along with all of the other valuable project content. Finally, it is always nice to thank everyone for their hard work and to celebrate.

CONCLUSION

The suggestions provided in this guide are intended to help planners from both the public and private sectors to develop and deliver successful planning documents. Planning for sites, communities, and regions is a complex undertaking. The documents that capture the research, plan alternatives and recommendations, planning processes, and stakeholder feedback for planning efforts are complicated projects within larger planning activities. Teams responsible for document development often underestimate the time and early decision making required to develop, iterate, and receive endorsement for the content and format of these documents. The effort to synthesize and distill graphic exhibits and written content from diverse sources requires knowledge, experience, and organizational systems.

In the absence of a planning industry standard for planning documents, this guide was developed for public-sector planners and planning consultants to create efficiencies, ensure quality, and provide clarity on how to set up and contain planning document production efforts. Following an ideal workflow depicted in Figure 1.1 (p. 12), this report shares recommended practices for defining the document, planning the document effort, setting up and managing files, collecting and creating content, producing drafts, delivering the final document, and wrapping up the project. Planners will find it useful to follow these key steps to produce rigorous planning documents that communicate the important processes and recommendations of planning efforts that shape our communities.

APPENDIX A: FEE SCHEDULE TEMPLATE

PROJECT NAME

Date

Task	Subtask	Consultant Firm Effort					
		Supervisor/ Principal	Project Manager	Staff: Level II	Staff: Level I	Total Labor Fee	Direct Costs *
1	**Task Name**						
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtotal Task 1	0	0	0	0	$	$
2	**Task Name**						
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtotal Task 2	0	0	0	0	$	$
3	**Task Name**						
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtotal Task 3	0	0	0	0	$	$
4	**Task Name**						
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtask					$	
	Subtotal Task 4	0	0	0	0	$	$
	Total Hours	0	0	0	0	0	$
	Staff Rates	$225	$130	$110	$65		
	Total Labor Costs	$	$	$	$	**$**	**$**

** Inclusive of expenses such as supplies, printing, mileage, meals, and lodging.*

APPENDIX B: DOCUMENT PRODUCTION CHECKLIST

Document Purpose	
Audience and Objectives	☐ Identify audience ☐ Determine public communication methods ☐ Review project vision ☐ Review project goals and objectives and their relationship to document
Document Contents	
Table of Contents (TOC) and Storyboard	☐ Develop draft table of contents ☐ Identify interim deliverables and how they coordinate with final document ☐ Develop preliminary storyboards to understand content and visuals needed
Document Setup	
Layout	☐ 8.5″ x 11″ or 11″ x 17″ (Determine document size and orientation) ☐ Estimate the anticipated number of pages ☐ Confirm specifications such as bleed and binding method ☐ Identify any agency standards/requirements for layout and branding
Software Requirements	☐ Contracting agency—consider future editing, software, and staff capabilities ☐ Contracting agency and consultant staff—determine software formats for exchanging information ☐ Consider level of graphic needs and implications for software selection ☐ Consider version compatibility—saving to earlier versions
Multiple Editors	☐ Estimate size and makeup of document production team ☐ Determine need for working simultaneously on content ☐ Confirm software platform for simultaneous editing ☐ Determine if document is one file or separate files (booklet) ☐ Confirm file-naming protocol ☐ Describe process for tracking changes and comments and saving clean versions
Content Collection and Creation	
Narrative Text	☐ Determine if information is readily available ☐ Availability and relevance of previous studies ☐ Identify new information to develop and research needs ☐ Identify metrics ☐ Assign responsibilities ☐ In-house development responsibilities ☐ Client responsibilities ☐ Subconsultant development ☐ Assign content editors? ☐ Assign quality control (QC) responsibilities? ☐ Establish form and quality expectations
Visuals	☐ Anticipate type and quantity (diagrams, maps, illustrations, photography) ☐ Identify available existing resources ☐ Identify need to purchase or commission professional photography ☐ Establish quality expectations ☐ Assign responsibilities ☐ Contracting agency and consultant staff responsibilities
Table of Contents Checklist	☐ Document decisions made regarding narrative text and visuals in TOC ☐ Assign team responsibilities ☐ Document schedule deadlines for content elements ☐ Document QC decisions

Draft Production	

Review and Editing Cycles	External Review Cycles (client or public agency)
	☐ Determine number of external review cycles
	☐ Determine format of review documents (digital or printed)
	☐ Confirm number and type of reviewers
	  ☐ Client team reviewers
	  ☐ Stakeholder team reviewers
	☐ Confirm length of review cycle
	  ☐ Relationship to document type and size (time commitment)
	  ☐ Agency standards
	☐ Confirm who will consolidate external comments, address conflicting comments, and sign off on revision approach
	☐ Confirm who compiles public comments and how they will be addressed
	Consultant Team QC Review Cycles
	☐ Determine number of internal QC review/editing cycles
	☐ Confirm length of review cycle, format for review document, and how comments will be provided
	☐ Assign QC responsibilities
	☐ Review QC checklist

Printing and Delivery	☐ Confirm quantity ☐ Confirm binding method ☐ Confirm use of tabs ☐ Confirm if printing in-house or vendor ☐ Confirm digital delivery requirements ☐ Consider ability for public or contracting agency to reproduce ☐ Confirm how document will be viewed online (PDF or web formatted) ☐ Consider schedule implications, production needs, and staffing capabilities
Community Engagement and Approvals	
Stakeholder and Public Meetings	☐ Confirm who advertises—consultant staff may prepare the graphics for use in advertisements secured by the public or contracting agency ☐ Confirm who secures and negotiates the location/logistics ☐ Identify number and location ☐ Describe purpose and general agenda ☐ Consider use of technologies for public engagement
Website Development	☐ Confirm who creates ☐ Confirm who updates ☐ Identify number and frequency of anticipated updates ☐ Identify content source—project deliverables or other
Approvals Process	☐ Outline approval process and venues (e.g., planning commission, city council, board of supervisors) ☐ Identify schedule implications ☐ Consider noticing requirements ☐ Confirm roles and responsibilities for presentations ☐ Confirm environmental review requirements ☐ Confirm how public comments will be addressed

Signature: _____ **Date:** _____

APPENDIX C: SAMPLE TABLES OF CONTENTS

DOWNTOWN PLAN

1. Project Background and Goals
2. Vision for Downtown
    a. Strategic Recommendation
    b. Catalyst Projects
3. Recommendations
    a. Transportation
    b. Market and Economic Development
    c. Parking
    d. Utilities
    e. Streetscape
4. 4. Implementation
    a. Phasing and Prioritization
    b. Cost Estimate
    c. Alignment with Existing Plans

TRANSPORTATION CORRIDOR PLAN

1. Project Introduction
    a. Background
    b. Vision and Critical Success Factors
2. Existing Conditions
    a. Demographics
    b. Land Use and Zoning
    c. Market
    d. Transportation
3. Alternatives
    a. Public Input
4. Recommendations
    a. Transportation
    b. Future Land Use
    c. Streetscape
5. Implementation
    a. Prioritization
    b. Strategies and Action Items
    c. Cost Estimate

OPEN SPACE PLAN

1. Introduction
    a. Context
    b. Plan Purpose and Process
    c. Relevant Studies and Plans
    d. Plan Vision
    e. Guiding Principles and Goals
2. Existing Conditions
    a. Funding
    b. Parks, Open Space, and Trails
    c. Growth and Development
    d. Land Characteristics and Land Cover
    e. Agricultural Resources
    f. Wildlife
3. Evaluating Lands for Future Open Space
    a. Land Analysis and Maps
4. Action Plan
    a. Proposed Open Space
    b. Proposed Trails
    c. Programmatic Recommendations
    d. Policy Implications
    e. Performance Measures
    f. Funding Sources

COMPREHENSIVE PLAN

1. Introduction
    a. Planning History
    b. Plan Implementation
    c. Plan Time Frame and Updates
    d. Intergovernmental Cooperation
2. General Policies
    a. Core Values
    b. Sustainability Framework
    c. Built Environment
    d. Natural Environment
    e. Energy and Climate
    f. Economy
    g. Transportation
    h. Housing
    i. Community Well-Being
    j. Agriculture and Food
3. Implementation
    a. Amendment Procedures
    b. Action Plan

CONCEPTUAL DESIGN PACKAGE (STREETSCAPE/PARK)

1. Executive Summary
    a. Project Context and Scope
    b. Previous Studies and Plans
    c. Project Vision, Approach, and Goals
2. Analysis of Existing Conditions
    a. Community and Demographics
    b. Parks and Open Space
    c. Drainage
    d. Transportation
3. Community Engagement
    a. Workshop 1
    b. Workshop 2
    c. Workshop 3
4. Conceptual Development
    a. Design Concept 1
    b. Design Concept 2
5. Park Design

a. Preferred Alternative
b. Programmatic Plan
c. Circulation Plan
d. Lighting Plan
e. Planting Plan
f. Green Stormwater Plan
g. Signage and Wayfinding Plan
h. Sections and Perspective Views

6. Implementation
   a. Probable Costs at Full Build-Out
   b. Probable Costs for Initial Improvements
   c. Building Partnerships
   d. Identifying Funding
   e. Operations and Maintenance

MARKET STUDY

1. Summary of Findings and Recommendations
2. Introduction
   a. Study Objectives
   b. SWOT Analysis
3. Local and Regional Market Conditions
   a. Local Demographic and Transportation Trends
   b. Psychographic Segment Analysis
   c. Existing Market Conditions
   d. Competing Downtowns in Chicagoland
4. Summary of Key Trends Impacting Suburban Downtowns
   a. Attributes of Successful Downtown Retail
   b. Attributes of Successful Downtown Office
5. Comparable Downtown Profiles
   a. Example 1
   b. Example 2
   c. Example 3
6. Development Recommendations and Conclusions

DESIGN GUIDELINES

1. Introduction
2. Purpose, Vision, and Goals
   a. Purpose
   b. Vision
   c. How To Use This Document
      i. Intent, Standards, and Guidelines
      ii. ii. Definitions of Terms
3. Review Process
   a. Review and Approval Authority
   b. Responsibility for Compliance
   c. Governmental Requirements
   d. Design Review and Approvals
   e. Submission Requirements
4. Master Plan Concept
   a. Systems
      i. Automobile and Truck Circulation
      ii. Entry and Portals
      iii. Building Placement
      iv. Pedestrian and Bicycle Circulation
      v. Parks and Plazas
   b. Master Plan
5. Public Realm
   a. Building Setback and Build-to Lines
   b. Streetscapes
   c. Plazas and Park Spaces
   d. Project Entry and Portals
   e. Lighting
      i. Streetscape Lighting
      ii. Open Space Lighting
      iii. Parking Lot Lighting
6. Building Form and Articulation
   a. Mass and Scale
      i. Building Mass and Form
      ii. Step-backs
   b. Articulation
      i. Architectural Scaling Elements
      ii. Fenestration
   c. Building Entries and Courtyards
   d. Balconies, Galleries, and Awnings
   e. Building Materials
7. Service and Delivery
   a. Back of House Service and Delivery
   b. Front of House Delivery
8. Location and screening
9. Utilities
   a. Equipment on Buildings
   b. Rooftop Equipment
   c. Street-level Services
10. Signage
    a. Residential
    b. Office
    c. Retail
    d. Hotel

DESIGN GUIDELINES—MASTER PLANNED COMMUNITY

1. Introduction
   a. Purpose
   b. Vision
   c. Using the Standards
2. Land Use and Community Character
   a. Residential Uses
   b. Nonresidential Uses
3. Parks and Open Space
   a. Parkland Dedication and Design
   b. Park Activation Sources
4. Mobility
   a. Community Gateways
   b. Street Connectivity
   c. Pedestrian and Bicycle Network
5. Environment
   a. Landscape Design
   b. Lighting and Site Furnishings
   c. Safety and Security
   d. Solar Orientation

MASTER PLANNED COMMUNITY

1. How to Use this Document
   a. Elements
   b. Applicability
   c. Definitions
2. Guiding Principles and Desired Outcomes
   a. Development Pattern
   b. Natural Environment and Stewardship
   c. Community Identity, Health, and Diversity
   d. Economic Activity and Employment Centers
   e. Access and Connectivity
3. Centers and Mixed Use
   a. Town Center
   b. Mixed Commercial and Business
   c. Neighborhood Centers
   d. Resort Commercial
4. Neighborhoods
   a. High-density Residential
   b. Neighborhood (Mixed Density) Residential
5. Open Space and Parks
6. Plat Design Code
   a. Applicability
   b. Objectives
   c. Development Standards
7. Residential Design Code
   a. Applicability
   b. Objectives
   c. Single-family (Detached) Development Standards
   d. Single-family (Attached) Development Standards
   e. Multifamily Development Standards
8. Town Center Design Code
   a. Applicability
   b. Objectives
   c. Development Standards
9. Mixed Commercial and Business Design Code
   a. Applicability
   b. Objectives
   c. Development Standards
10. Neighborhood Center and Community Use Design Code
    a. Applicability
    b. Objectives
    c. Development Standards
11. Resort Commercial Code
    d. Applicability
    e. Objectives
    f. Development Standards
12. Park Planning Code
    g. Application
    h. Objective
    i. Development Standards
13. Environmental Management and Amenity Protection Code
14. Signage

HOUSING STUDY

1. Executive Summary
2. Purpose
   a. Project Approach
   b. Project Vision
   c. Project Goals
3. Process
   a. Time Line
   b. Stakeholder Engagement
4. Challenges and Opportunities
   a. History
   b. Regional Context
   c. Previous Plans and Studies
   d. Economic Trends
   e. Sustainability Gap Analysis
5. Closing the Gap
   a. Quality of Life Projects
   b. Long-term Projects

STATION AREA PLAN

1. Introduction
2. Context
   a. Location
   b. Vision
   c. Objectives
   d. Process
   e. Project Boundaries
3. Inventory and Analysis
   a. Surrounding Context
   b. Circulation
   c. Centers
   d. Existing Land Uses
   e. Existing Views
   f. Likelihood of Redevelopment
4. Development of Alternatives
5. Community Outreach
   a. Charrette Stakeholder Process
   b. Charrette Week Overview
   c. Development of Alternatives
   d. Charrette Conclusion
   e. Community Comments
6. Employment District Concept Alternative
   a. Character
   b. Circulation
   c. Parks and Open Space
7. Preferred Alternative
   a. Character
   b. Circulation
   c. Parks and Open Space
8. Stormwater Approach
   a. Bioretention
   b. Control of Stormwater Quantity
   c. Landscape Swales
   d. Street Swales

    e. Parking Swales
9. Streetscape Character
    a. Commercial Zone
    b. Residential Zone
10. Signage
11. Utilities and Infrastructure
    a. Water Infrastructure Plan
    b. Storm Sewer System
    c. Sanitary System
    d. Conceptual Cost Estimates
12. Character of Land Uses

APPENDIX D: EXHIBITS CHECKLIST

Purpose: The intent of this checklist is to provide a clear understanding of roles and deliverable dates for the internal team.

Deliverable	Estimated Hours	Final File Format	Production Staff	Draft Due	QC Staff	QC Date	Final Due	Notes

APPENDIX E: TABLE OF CONTENTS CHECKLIST

Purpose: The intent of this checklist is to ensure understanding of deadlines for initial and final drafts and to gain buy-in for deliverable dates.

Chapter	Section	Internal Review Draft Deadline	Team Member	External Review Draft Deadline	Final Draft Deliverable Date

APPENDIX F: SAMPLE STYLE GUIDE

Purpose: The purpose of the Style Guide is to ensure consistency in terminology throughout the document. It is intended to be modified for each project and reviewed and approved by the client prior to document production, as well as shared with subconsultants for production and writing. Based on *The Associated Press Stylebook and Briefing on Media Law 2011.*

CAPITALIZATION

1. Organizational Entities (including "state," "region," "department," "neighborhood," etc.)
    a. Capitalize the full and proper names of governmental agencies, departments, and offices. (Example: The Nebraska State Senate, the U.S. Department of State, etc.)
    b. Capitalize agency titles and initially spell out the full name before using the acronym (i.e., Environmental Protection Agency (EPA), or National Park Service (NPS)).
    c. All words that are capitalized when part of a proper name should be lowercased when they do not refer to a specific, existing body or are, instead, referring to a geographic area. (Example: The town does not have a fire department. The bill requires city councils to provide matching funds.)
    d. Capitalize any official tool names. (Example: Green Roof Energy Calculator). In some instances both capitalization accompanied by lowercase is required (Example: i-Tree Eco.)
    e. If referencing LEED, indicate the version. (Example: LEED v4.)
    f. Italicize references to publications. (Example: The New York Times.)
2. "City"
    a. In the case where the word is referencing the organization acting as the city's government, the word "city" should always be capitalized. (Example: The City has several economic development programs in place.)
    b. In the case where the word is referencing the geographic area of the city, the word "city" should never be capitalized. (Example: The creeks in the city provide an opportunity for a connected greenbelt.)
    c. In the case where the word "city" is part of the official name of place, it is always capitalized. (Example: New York City has several significant park spaces that contribute to the quality of life of residents.)
3. "Park," "Corridor," "Greenway," "Community," "Plaza," etc.
    a. Capitalize when part of a full and proper name or when used in reference to a full or proper name. (Example: The Lafitte Greenway, the Greenway, Central Park)
    b. All words that are capitalized when part of a proper name should be lowercased when they do not refer to a specific, existing body. (Example: The town is divided into seven neighborhoods. Each has two parks.)
4. "Landscape architect (or landscape architect)"
    a. Does not need to be capitalized. Similarly, architect, engineer, planner, etc. do not need to be capitalized.
5. Cardinal directions
    a. North, south, east, west, etc., do not need to be capitalized.
6. Trees and plant names
    a. Capitalize any proper nouns (i.e., Colorado blue spruce) but do not capitalize the full tree name (i.e., blue spruce, oak tree).
7. When in doubt on use of acronyms defer to the following:
    a. ASLA
    b. ESRI
    c. HUD
    d. Architectural Landmarks Preservation Commission
    e. SITES
    f. USGBC

COMMAS

1. Use commas to separate elements in a series. (Examples: The flag is red, white, and blue. I had orange juice, toast, and ham and eggs for breakfast. The main points to consider are whether the athletes are skillful enough to compete, whether they have the stamina to endure the training, and whether they have the proper mental attitude.)

FIGURES (title for maps, title for tables, etc.)

1. Typically use a phrase, not a complete sentence.
2. Capitalize all words (except "and," "or," "a," etc.).
3. Always include source information.
4. Make sure that figures include correct north arrows, scales, and other graphic conventions as necessary.

GRAMMAR AND WRITING STYLE

1. Only submit original writing—information obtained from other sources should be paraphrased and cited.
2. Avoid passive voice (Example: "it was decided" should be "the landscape architect decided"), especially for discussions of the design/development process given the many parties involved, such as the landscape architect, developer, municipality, etc.

HIGHLIGHTING OR CALLING OUT TERMS

1. Use italics (not quotes) to highlight a specific term or phrase the first time it is used. Subsequent uses of terms and phrases should not be italicized.

NUMBERS

1. In general, in narrative text, spell out whole numbers below 10, use figures for 10 and above. (Example: There are four urban parks highlighted in the City's redevelopment plan. The plan recommends adding 25 trees along the Lafitte Corridor. The 10-year storm.) In lists, figures are acceptable.
2. Always spell out a numeral at the beginning of a sentence (except when the numeral identifies a calendar year).
3. **Site sizes:** use dashes (-), i.e., 10-acre site.
4. **Measurements:** Always spell out "per" for measurements (i.e., saved $700 per year, not $700/year). Hyphenate measurements that serve as adjectives preceding a noun. (Examples: The 5-acre site, a 6-foot-wide bench, a 3,000-gallon cistern, 250-year-old trees, 100-year storm event, a 3,000-square-foot grayfield site.) When measurements do not precede the noun, hyphens are not required. (Examples: The site is 5 acres, the bench is 4 feet wide.)
5. **Fractions:** Spell out amounts less than 1, using hyphens between the words: two-thirds, fourth-fifths, etc. Use figures for precise amounts larger than 1, converting to decimals whenever practical. For mixed numbers, use 1 ½, 2 5/8, etc. with a full space between the whole number and the fraction.
6. **Ratios:** Use figures and hyphens: the ratio was 2-to-1, a ratio of 2-to-1, a 2-1 ratio. As illustrated, the word "to" should be omitted when the numbers precede the word ratio. Always use the word ratio or a phrase such as a 2-1 majority to avoid confusion with actual figures.
7. **Percentages:** Use figures for percent and percentages: 1 percent, 2.5 percent (use decimals, not fractions). For a range, 12 to 15 percent, or between 12 and 15 percent. For amounts less than 1 percent, precede the decimal with a zero: The cost of living rose 0.6 percent. In narrative text, always write out the word percent; in lists and figures, always use %.
8. **Chapters:** Always use figures: Chapter 1, Chapter 20.
9. **Dimensions and Weights:** Use figures and always spell out inches, feet, yards, pounds, ounces, etc.
10. **Miles:** Use figures for amounts under 10 in dimensions, formulas, and speeds: The park measures 2 miles by 4 miles. The new posted speed limit in the school zone is 5 miles per hour. Spell out below 10 in distances.
11. **Dollars:** Use figures and the $ sign in all except casual references or amounts without a figure. For specified amounts, the word takes a singular verb: "Currently $5.3 million has been assessed." For amounts of more than $1 million, use up to two decimal places.
12. **Dates:** Always use Arabic figures without st, nd, rd, th.
13. **International Conventions:** When writing for an international publication or audience, always include
    a. Units of measure in both English and metric figures (mile/kilometer and acre/hectare, etc.)
    b. Monetary references in both U.S. dollars and appropriate international unit

PUNCTUATION OF BULLETED LISTS

1. In the case where bullets complete a sentence, bullets are really just acting as a graphic convention for breaking down long sentences. In a strictly technical document, bullets would just be avoided and the text would be written (and punctuated) as a sentence. In the type of documents we write (user-friendly . . . made for public consumption), it helps to break up long sentences with bullets thereby giving a hierarchy to the text. In this instance, they should be punctuated in the same manner as the sentence would have been with consistent use of a comma (or semicolon) after each phrase and a period after the last.
2. In the case where bullets are not completing a sentence, bullets are really just providing information or a menu. An example would be a table of contents or a plant list. If the menu is just a collection of phrases (not complete sentences) like a table of contents, we would not punctuate.
3. In the case where bullets contain one or more complete sentences (such as this bulleted list), punctuate completely.

PHOTOGRAPH CAPTIONS

1. Always include captions that are full sentences with appropriate punctuation.
2. Include credit and source information—i.e., the design firm or the photographer. Photos taken by design firm teams do not need credit.
3. Preferably include the location (and date) the photo was taken.

STREET NAMES

1. Always use an abbreviation for north "N." or "S."
2. Always spell out entire street name including words such as Avenue, Street, Boulevard.

WORD TREATMENT

- baseline
- bicycle, not bike
- biodiversity
- bioremediation
- bioswales
- brownfield
- brownwater
- buildup (n.)
- build up (v.)
- citywide
- cost-benefit analysis
- dataset
- densify
- farmland
- floodplain
- geothermal
- graywater
- green roof
- greenfield
- greenhouse gas
- greenspace
- greenwaste
- greenway

- grayfield
- groundwater
- hardscape
- infill
- life-cycle cost, life-cycle assessment.
- long-term and short-term
- mixed-use
- multifamily
- multimodal
- ongoing is one word
- on-site, not onsite or on site
- open grid pavement
- photovoltaic
- place-making
- pre-consumer, post-consumer.
- rain garden
- revegetation
- reusability, reuse
- right-of-way, rights-of-way
- runoff
- semipervious
- shared lane
- single-family
- stakeholder
- stormwater
- streetfronts
- subconsultants
- total suspended solids
- treatment train
- viewsheds
- wastewater
- wayfinding
- wetland

LANGUAGE AND USAGE TO AVOID

1. Avoid using words like "unique" and especially any modifiers of this word such as "very unique," "rather unique," or "somewhat unique." Either it is or isn't unique. The word "unique" is overused and its meaning is diluted so avoid it.

Signature: _____ **Date:** _____

APPENDIX G: COMMENT LOG TEMPLATE

Purpose: The goal of the Quality Control (QC) Review comment log is to list all items discovered in the quality review process that need to be addressed by the project team and whoever is responsible. While QC comments and edits are frequently recorded as redlines directly on a document, some deliverables or agencies require that they be captured in a separate log. Consistent use of a comment log to track and respond to comments during a project's duration helps facilitate communication and fosters the resolution of questions, comments, and markups.

Number	Date Of Comment	Draft Version	Reviewer	Page/ Line	Comment	Response/Action	Status
				[DOCUMENT VERSION]			
1							
2							
3							
4							
5							
6							
				[DOCUMENT VERSION]			
1							
2							
3							
4							
5							

APPENDIX H: QUALITY CONTROL CHECKLIST: WRITTEN CONTENT

Purpose: The intent of this checklist is to provide clear direction on the level of review anticipated when a Project Manager asks for a Quality Control (QC) review of written content. For example, the Principal-in-Charge may focus more on high-level recommendations, while staff may focus on style, sourcing, and formatting. This checklist can be printed and attached to the deliverable so the QC reviewer understands her/his role and what has been completed.

- ☐ Run spell-check, including find/replace for commonly misused/misspelled words.
- ☐ Check for consistency with a style guide (Associated Press Stylebook or other) (e.g., abbreviations, terminology, capitalization).
- ☐ Check for consistent punctuation (e.g., commas, semicolons, periods, bullets, complete sentences).
- ☐ Check for consistency with tense.
- ☐ Check for consistency with word choice.
- ☐ Verify that sources for images and text are cited according to a manual of style (Chicago, MLA, or other).
- ☐ Eliminate redundant words or phrases.
- ☐ Confirm cross-references for figure and table numbers.
- ☐ Check for consistency with paragraph styles and header hierarchy.
- ☐ Confirm that the table of contents matches page numbers.
- ☐ Check for consistent abbreviation treatment (spell out the first use).
- ☐ Check for consistency with captions (as complete sentences or not).
- ☐ Verify that information is current (e.g., firm profile, resumes, project status, cutsheets).
- ☐ Confirm that document meets requirements (e.g., page limit, format, font size, margins).
- ☐ Make sure captions match the graphics they describe.
- ☐ Confirm that appropriate terminology and writing style matches the audience.
- ☐ Minimize industry jargon in public documents.
- ☐ Review grammar.
- ☐ Confirm that the document meets project needs.
- ☐ Review the flow and organization of the document.

APPENDIX I: QUALITY CONTROL CHECKLIST: GRAPHICS CONTENT

Purpose: The intent of this checklist is to provide clear direction on the level of review anticipated when a Planning Agency or Consultant Project Manager asks for a Quality Control (QC) review of graphics and project books. This checklist can be printed and attached to the document so the QC reviewer understands her/his role and what has been completed.

- ☐ Verify correct scales, north arrows, labels, and legend entries.
- ☐ Check for correct page footers:
  - ☐ Chapter name
  - ☐ Page numbering
  - ☐ Project name and location
- ☐ Confirm that table of contents matches page numbers.
- ☐ Preform preflight:
  - ☐ Ensure no text is overset/hidden/cut off.
  - ☐ Ensure smallest font sizes are large enough to read.
  - ☐ Image resolution should be at least 150 DPI at the final size.
  - ☐ Find and fix missing links.
  - ☐ Check for and correct disproportionate image scaling.
  - ☐ Convert spot colors when exporting to PDF.
  - ☐ Do not use registration black.
- ☐ Check for consistency in color palettes, text sizes, fonts, and line weights.
- ☐ Confirm that text and image boxes are aligned to the document grid.
- ☐ Verify document bleeds (for external printing)—ensure images extend 0.125" beyond page edges.
- ☐ Confirm permission for image copyrights and remove illegal ones.
- ☐ Check for widows and orphans—last or first line of paragraph ending up by itself at bottom or top of page.
- ☐ Verify there is no justified text.
- ☐ Check front- and back-side pagination for facing pages documents.

APPENDIX J: QUALITY CONTROL CHECKLIST: ADOBE INDESIGN PRINTING & DELIVERY

Purpose: The intent of this checklist is to provide clear direction on the steps required to ensure that an Adobe InDesign document is printed accurately at the highest quality, and is delivered on time.

- ☐ Coordinate with external printer in advance to schedule the job.
- ☐ Send color test to printer early in the process (on the actual printer to be used).
- ☐ Run spell-check.
  - ☐ Preform preflight:
  - ☐ Ensure no text is overset/hidden/cut off.
  - ☐ Ensure smallest font sizes are large enough to read.
  - ☐ Image resolution should be at least 150 DPI at the final size.
  - ☐ Find and fix missing links.
  - ☐ Check for and correct disproportionate image scaling.
  - ☐ Convert spot colors when exporting to PDF.
  - ☐ Do not use registration black.
- ☐ Select appropriate PDF settings:
  - ☐ Compression (resolution) should be 200 DPI.
  - ☐ Note crop marks and bleed, if appropriate.
  - ☐ Include all pages (or all documents if exporting from an INDD book).
  - ☐ Under the Output section, check "All Spots to Process" under Ink Manager.
- ☐ Confirm quantity of prints for:
  - ☐ Public or contracting agency
  - ☐ Consulting agency
  - ☐ Other
- ☐ Confirm delivery address(es).
- ☐ Communicate all specifications to print vendor:
  - ☐ Quantity
  - ☐ Binding method (plastic coil, wire, or other)
  - ☐ Paper choice (front/back cover, main content pages)
  - ☐ Delivery address
  - ☐ Due date and time
- ☐ Package final InDesign document, save as ZIP file in deliverables folder in project folder on appropriate server

APPENDIX K: PRINTING CHECKLIST

Purpose: This form is intended to serve as a checklist for final document printing.
Project:
Document Name:
Received Public or Contracting Agency Approval of Specifications: ☐ Yes ☐ No

Quantity		Notes
	# to client: # to consultant: # to Other:	
Size and Format		
	8.5" x 11"	
	8.5" x 11" with 11" x 17" z-fold foldouts	
	8.5" x 11" with 11" x 16" foldouts	
	11" x 17"	
	☐ Portrait ☐ Landscape	
Bleed		
	Full Bleed: ☐ Yes ☐ No	
Binding Method		
	Plastic Coil	
	Wire	
	Three-ring binder	
Tabs		
	3-bank	
	4-bank	
	5-bank	
	Other:	
	None	
Paper Type		
	Glossy	
	Recycled	
	Plain White	
Cover		
	Printed Cardstock	
	Clear Acetate	
Printer		
	☐ In-house ☐ Outside vendor	
Delivery and Distribution		
	Address:	
	Shipping Method: ☐ FedEx/UPS ☐ Courier ☐ Hand-deliver ☐ Other	

REFERENCES

American Planning Association (APA). 2016. *AICP Code of Ethics and Professional Conduct.* Available at https://planning.org/ethics/ethicscode.htm.

Cochran, Craig. 2008. *ISO 9001 in Plain English*. Chico, Calif.: Paton Professional.

Dandekar, Hemalata, editor. 2003. *The Planner's Use of Information*. Second edition. Chicago: APA Planners Press.

Willson, Richard. 2017. "Making Planning Teams Work." *APA Blog*, May 10. Available at www.planning.org/blog/blogpost/9125010.

Wylie, Ann. 2009. *Wylie's Writing Tips*. Wylie Communications. Available at https://freewritingtips.wyliecomm.com/2009/11/november-2009.

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