State of Minnesota

Department of Administration

Predesign Manual for Capital Budget Projects

8th Edition

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Preface

P1 - Contact for Questions

For questions concerning the predesign process and this manual, please contact:

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P2 - Key Information and Template

Guidelines Site
Predesign Template

P3 - Certification Signatures

State agencies and others that are undertaking a predesign are strongly encouraged to engage a licensed architect or engineer to assist. When the final predesign document is submitted to the Commissioner of Administration, the signature of the licensed architect or engineer should accompany the document.

P4 - Sample Certification

Architect or Engineer Certification

I hereby certify that this report was prepared by me or under my direct supervision and

that I am a duly registered _____ARCHITECT or ENGINEER_____ under the laws of the

State of Minnesota

_____

Date: _____ Registration Number _____

Section 1. Introduction

1.1. Applicability

1.1.1 Statutory Requirement

Minnesota Statute §16B.335 requires the preparation and submittal of a predesign report to the Department of Administration for review and recommendation before proceeding with any design activities. A predesign is strongly encouraged in advance of a capital budget request or request for a state appropriation from the State of Minnesota.

Applicable Statutes Regarding Capital Projects

The predesign report should address relevant statutory requirements related to a capital project. See the current Applicable Statutes charts for more detailed applicability and requirements:

- General Fund Appropriation (Cash)
- Bond Appropriations

Non-profit recipients of appropriations

If a non-profit receives a state grant for a capital project, the entity is required to follow predesign requirements.

Predesign is missing or a project is already in design

Situations occur where a capital project used non-state funding to advance a project before requesting (and receiving) state funds. Upon receipt of state funding, a predesign is still required. Please consult with the Department of Administration Real Estate and Construction Services for further guidance on how to meet that obligation.

1.1.2 Predesign Submittals and Review

A predesign report should meet the current Predesign and Space Guidelines and provide sufficient detail to define the scope, cost and schedule of a proposed project.

Deadline for Review. The Department of Administration must complete the review and recommendation of a predesign within ten working days after receiving a complete predesign submittal.
Full and Complete Submittals. A complete predesign submittal means all documents, including any and all required forms and appendixes are attached and certified.

Failure to review and recommend a **complete** predesign submittal within ten working days is considered a positive recommendation.

1.1.3 Capital Budget Process

Predesign is an integral part of the state's Capital Budget System process. After a predesign package is reviewed and recommended by the Department of Administration, a state agency or other public entity undertaking the predesign will need to work with the Department of Minnesota Management and Budget (MMB) to submit their Capital Budget Request for funding using the information developed in the predesign report. For more information, check the Capital Budget Instructions and information provided by MMB.

1.1.4 Predesign Requirements

A recipient of state appropriations is required to prepare a predesign package and submit it to the Department of Administration for review and recommendation. Minn. Stat. §16b.335, Subd. 3 (c). A named exception to the predesign requirement pertains to capital projects for park buildings owned by a local government unit in the metropolitan area defined in section 473.121, subdivision 2.

State agency:	A predesign is required if the construction cost is greater than $750,000 (Also see Minn. Stat. §16B.33 for designer selection requirement). This provision is also applicable to the University of Minnesota and Minnesota State Colleges and Universities.
A local government unit:	A predesign is required if any amount of state funding is to be used, and the project construction cost is greater than $1,500,000.
Exception:	A predesign is not required for capital projects for park buildings owned by a local government unit in the metropolitan area defined in section 473.121, subdivision 2.
Non-profit entity:	A predesign is required if the construction cost is more than $1,500,000.
Exceptions:	See section 1.1.5

1.1.5 Predesigns and Legislative Notice, Review and Recommendations

State appropriations for capital projects trigger specific legislative notice, review and recommendations requirements. Minn. Stat. §16b.335, Subd. 1 and Subd. 2. The predesign report approved by the Department of Administration is used to inform those legislative processes which the Department of Administration coordinates.

Legislative Review and Recommendations Required - Construction and Major Remodeling (Minn. Stat. §16B.335, Subd. 1)

Predesign:	Required, subject to exceptions
Recipient of Funding:	Any recipient who receives a state appropriation
Type of Projects:	Acquisition, construction and/or betterment of public lands, buildings or other public improvements
Action required:	Review and recommendation
Recommendation:	Advisory only, failure or refusal to recommend is considered a negative recommendation.
Review and Recommend by:	Chair of the Senate Finance Committee Chair of the House of representatives Ways and Means Committee
Receives Notice:	Chair of the Senate Capital Investment Committee Ranking minority member of the Senate Capital Investment Committee Chair of the House of Representatives Capital Investment Committee Ranking minority member of the House of Representatives Capital Investment Committee
Exceptions:	Local government project with a construction cost of less than $1,500,000, or any other capital project with a construction cost of less than $750,000 are not subject to the review and recommendation requirement but are subject to a Legislative Notification requirement under Minn. Stat. 16b.335, Subd. 2.

Other Statutory Exceptions to review and recommendation (but still subject to legislative notification) include:

- Demolition or decommissioning of state assets Hazardous material projects
- Utility infrastructure projects
- Environmental testing
- Parking lots and parking structures
- Park and ride facilities
- Bus rapid transit stations
- Light rail lines, passenger rail projects, freight rail projects
- Exterior lighting, fencing, highway rest areas, truck stations
- Storage facilities not consisting primarily of offices or heated work areas
- Roads, bridges, trails, pathways
- Campgrounds, athletic fields, dams, floodwater retention systems
- Water access sites, harbors
- Sewer separation projects, water and wastewater facilities
- Port development projects for which the commissioner of transportation has entered into an assistance agreement under Minn. Stat. §457A.04,
- Ice centers

Legislative Notification Required - Other projects (Minn. Stat. §16b.335, Subd. 2)

Predesign:	Required subject to exceptions
Recipient of Funding:	All other capital projects with a specific appropriation
Type of Projects:	All other capital projects
Action required:	Notice to legislators for projects including those projects that are exempt under Minn. Stat. 16b.335, subdivision 1, paragraph (b).
Receives notice:	Chair of the senate Capital Investment Committee Ranking minority member of the senate Capital Investment Committee Chair of the house of representatives Capital Investment Committee Ranking minority member of the house of representatives Capital Investment Committee
Exceptions:	Capital projects needed to comply with the Americans with Disabilities Act Asset preservation projects to which section 16B.307 applies; Projects funded by an agency's operating budget; or Projects funded by a capital asset preservation and replacement account under section 16A.632, a higher education asset preservation and replacement account under section 135A.046, or a natural resources asset preservation and replacement account under section 84.946.

1.2 Summary

Predesign is the planning and documentation required to identify the scope, schedule and cost of a capital project when requesting money from the State of Minnesota. Since all subsequent decisions on the development of the project will be established in the predesign, it requires the full engagement and support from management and stakeholders.

1.2.1 Purpose of the Predesign

A predesign is intended to answer the fundamental project questions, such as:

1. What is the project?
    - By providing a brief overview of the project's purpose and goals.
2. Where is it located?
    - Specify the site or geographic location.
3. What is the size and scope?
    - By including the square footage, acreage and major features.
4. Who is involved?
    - Identify key stakeholders, partners, and participants in the predesign process.
    - Who will benefit from the project (e.g., patients, public, employees)?
5. How does this project support the agency's mission?
    - Explain how it aligns with strategic goals and priorities.
6. How much will it cost, and how will it be funded?
    - Outline estimated costs, funding sources, and the project delivery method.
7. Why is this project needed?
    - Describe the problem it solves or the opportunity it creates.
8. What is the timeline?
    - Provide expected dates for design, funding, and construction.

The predesign will:

- Identify and describe the project
- Incorporate space standards and expectations for hybrid work space
- Incorporate sustainable building principles (B3 and SB2030) into its analysis
- Investigate and evaluate alternatives solutions
- Identify and evaluate risks associated with the project
- Provide information legislators and stakeholders to review and recommend
- Analyze and recommend best construction delivery method

- Analyze funding alternatives best suited for the project
- Provide a basis for a Request For Proposal (RFP) for design services
- Provide guidance to future architectural and engineering design firms and the foundation on which to base their design
- Provide the road map for future development of the project.
- Serve as the source for future decision making during the development.

The following section lists the components of predesign and comprise the body of a Predesign document. Additionally, the final Predesign document shall be structured with each component labeled and tabbed.

1.3 Outline of Predesign Contents

The predesign report should follow the major topics in order as described below:

1. Predesign Summary Statement
   - A paragraph summarizing the scope of work, the cost, and project schedule.
   - A "Building Project Data Sheet" similar to what is found in the predesign template
   - For existing building remodels, also include a "Building Audit" sheet which gives an overview of the key characteristics of the building
2. Project Background Narrative
   - Brief narrative on the background of the project to provide context
   - Summary of Agency's Mission, Strategic Plan, and Operational Program that provide the need for the project.
   - Statutory requirements that drive the project's operational program.
   - Summary of the agency's needs analysis including how it meets the latest Strategic Facilities planning efforts for the state
3. Agency / Organization Planning Efforts
   - Agency Organizational Charts for the project
   - Comprehensive Planning, Technology Needs, Stakeholders, and Impacts
   - Co-location of multiple agencies, if relevant
4. Project Description
   - Architectural/engineering program
   - Space Needs Inventory Sheets
   - Space Adjacency and Space Organization Diagrams
   - Precedent studies of like projects and the elements to be incorporated
   - Hybrid work plans
   - Technology Plan (See Technology Checklist)
   - Sustainability, Energy Conservation, Carbon Emissions reduction
   - Operations and Maintenance Requirements

- Statute Requirements
- Specialty Requirements
- Project Procurement and Delivery
- Project Design Services and other Owner costs
- Quality Control Plan

5. Site Selection and Analysis
   - Review of current site and at least 3 alternative site options
   - Analysis of alternative site options and financial impacts
   - Parking and access considerations
   - Sustainable site criteria (B3)
   - Compatibility with zoning and neighborhood
6. Financial Information – Capital Expenditures
   - Proposed project cost plan (initial capital cost). (Forms are located Section 6)
   - Estimate of project impact on the organization's operating budgets (state agencies). (Form is located in Section 6)
   - Summary of proposed operating revenues and expenditures (nonstate agencies and grants).
7. Schedule Information
   - Proposed project schedule.
   - Proposed funding sequence if applicable.

Section 2. Context For Predesign

2.1 What Comes Before Predesign

2.1.1 Agency planning

Agency planning is a critical process that identifies an organization's strategic business needs and determines how to address them effectively. While planning itself is not eligible for bond funding, it serves as the foundation for prioritizing an agency's project requirements and should precede a project predesign.

2.1.2 Project Prioritization

A key outcome of the planning process is the prioritization of capital projects. For projects seeking capital funding through legislative channels, a project predesign is mandatory. The capital project lifecycle typically progresses through three bond-eligible phases:

1. Predesign (including land or building acquisitions)
2. Design
3. Construction (including furnishing and equipping)

This structured approach ensures that agencies systematically evaluate, plan, and execute projects aligned with their strategic objectives and available resources.

2.2 Design Phase

2.2.1 Predesign

Predesign identifies the scope, schedule, and cost for a project. The predesign process evaluates and documents project requirements, considers alternatives, recommends a construction delivery method, and estimates the forecasted cost of a project, taking into account such features like sustainable building guidelines that may be applied. Agencies use the predesign to develop a capital budget request through the legislative process and guide their requirements throughout the project.

2.2.2 Acquisitions

Section 5 discusses considerations when evaluating potential site acquisitions. Where a site has not been secured, an agency may request bond funds for land or building acquisitions as a bond eligible expense. Be sure to include any costs required for demolition buildings are part of the acquisition.

2.2.3 Design

The State of Minnesota Design Guidelines govern the design process and incorporates the required sustainable building and energy design standards. The three stages of the design process are described below:

2.2.3.1 Schematic design

- **Plans and Building Sections.** Diagrammatic plans and building sections.
- **Site Layouts.** A site layout that satisfies the requirements of existing codes and ordinances and the physical attributes of the site.
- **Stacking Diagrams.** An organization of the space list into two-dimensional plans and three-dimensional stacking diagrams conforming to codes and the requirements of the architectural/engineering program.
- **Alternatives.** Alternative schemes and a recommended preferred alternative that depict the general relationships of spaces and the relationship of the building(s) to the site.
- **Sustainability and Renewables.** Incorporation of B3 and energy guidelines into the design solutions, including renewable energy options.

2.2.3.2 Design Development

- **Site plans.** A site plan that satisfies the requirements of existing codes and ordinances and the physical attributes of the site.
- **Building Plans and Elevations.** Building plans, elevations, and sections defining all two- and three-dimensional relationships.
- **System plans.** Building plans, elevations, and sections depicting basic material and physical system selections.
- **Costing information.** Costs should become more refined and precise at the design development phase.

2.2.3.3 Construction/Contract documents:

- **Drawings and specifications for bidding.** The results of this stage are drawing and specifications suitable to bid and construct the project.
- **Drawings** in sufficient detail to obtain a building permit.
- **Cost Estimates.** Detailed cost estimate demonstrating that the work defined by the contract documents can be performed within the project budget.

2.2.3.4 Construction administration

- **Monitor progress.** Monitoring of the construction progress, payments, and schedule
- **Verify installations.** Verifying that the specified products are being installed (e.g. shop drawing review)
- **Contract interpretations.** Providing contractors with interpretation of construction documents
- **Coordinating Permitting.** Tracking building, occupancy, stormwater interconnection and other permits.

2.2.3.5 Commissioning and Post-Construction Phase

- Receive all equipment documentation and record drawings and specifications.
- Review of completed construction prior to 1 year warranty expiration.
- Conduct post-occupancy evaluation (if funding is approved in the appropriation).

2.3 Predesign and Capital Budget Requests

2.3.1 Timing of request

Although a capital budget request can be made before predesign is complete, the Department of Administration highly recommends preparing a full predesign to sort out the scope, schedule and prospective cost of a project before submitting it through the capital budget request process. Predesigns are eligible for bond funding and may be requested as part of a bonding request.

2.3.2 Bonding Bills and Capital Budget

Bonding bills are traditionally considered during even-numbered legislative years, but the legislature is not bound by that tradition. The simple list below offers context as to when a predesign should be completed to meet the traditional capital budget intake process.

Hire an Architecture Firm	12-14 months before even-numbered year
Develop predesign report	6 – 9 months (odd-numbered year)
Submit preliminary bonding request	June (odd-numbered year)
Submit final bonding request	October (odd-numbered year)
Governor’s bonding recommendations	January or February (even numbered years)
Legislative Session	February to May
Project is funded	May

2.3.3 Improving Success of Receiving Bond Funding

The bonding process is highly competitive. In an average year, total requests exceed available bonding dollars by a factor of six to seven. Agencies improve their odds by completing a predesign with a well-defined scope and funding details.

2.4 Predesign After Full or Partial Project Funding

2.4.1 Hiring a Designer

For projects that receive bond funding based on the predesign report, the next step is to hire a designer to design the project.

2.4.2 State Designer Selection Board

There are cost thresholds that apply to certain projects before a designer can be selected. The State Designer Selection Board (SDSB), is an independent state board that selects the primary designer for projects when:

- A state building is being designed for construction or remodeling.
- The estimated project cost is greater than $4,000,000 or
- It involves a planning project with estimated fees greater than $400,000
- SDSB projects **do not** include projects that utilize Agency Asset Preservation appropriations or Agency operating funds.

Predesign cost estimates are used to determine whether a project must follow the State Designer Selection Board process. To start the State Designer Selection Board process, the agency receiving the appropriation must make a written request to the Commissioner of Administration, who will coordinate the request with the Board.

2.4.3 Predesign Updates and Revisions

If the project is partially funded or does not receive funding during a legislative session and a request will be made for the next capital budget cycle:

- Update the predesign report and
- Resubmit to the Commissioner of Administration for review and recommendation before submitting through the Capital Budget process.

What to include in an Updated Predesign

Consult with the Department of Administration in advance of engaging the architect to update a predesign to determine the extent of the revision. At a minimum, the updated predesign should:

1. Verify scope and programming
2. Update anticipated schedule and budget
3. Apply an updated inflation factor (MMB)
4. Review of any current updated requirements related to B3 guidelines or other statutory requirements, such as renewable energy or resilience considerations.

The predesign update should be paired with the original predesign when submitting to the Department of Administration.

Section 3. Preparation of a Predesign Report

3.1 Who Performs a Predesign

3.1.1 Hiring A Predesign Consultant

Architecture or Engineering Firm. An agency should hire a licensed architecture and/or engineering firm with experience in preparing predesign reports for public users in the State of Minnesota. While not comprehensive, an agency would be well served to hire a consultant team that has the following attributes and expertise:

- **Familiarity with Predesign Guidelines.** Familiarity with State of Minnesota predesign requirements
- **Program Analysis.** Skilled in facilitating programmatic analysis and translating that into space needs
- **Space Planning.** Expertise in space planning, including hybrid work environment and specialized space planning (e.g. labs or other equipment space)
- **B3/Sustainable Building Guidelines.** Experience successfully applying B3 and SB2030 sustainable building guidelines
- **Cost estimating.** Preliminary cost estimates should be made to forecast expected request for funding and based on expected project delivery methods, adherence to Sustainable Building Guidelines and incorporation of renewable energy into the project.

3.2 Agency Responsibility

The Agency is responsible for preparing a predesign. Agencies should schedule a consultation with the Department of Administration to discuss their facility needs, project scope, and alignment with state policies. The Agency:

- **Pays for the Predesign Report.** The agency that hires a predesign consultant is responsible for paying the full cost required to prepare a final report.
- **Coordinates the Necessary Participants.** The agency is responsible for making staff available to participate in the predesign process and recommend other stakeholders who should participate.
- **Establishes the business need.** The agency proposing the project will be responsible for providing information on how the project meets statutory requirements, strategic plan, operational program and anticipated changes in their operating costs.
- **Submits the signed Predesign Report.** Regardless of who prepared the predesign report, the agency is responsible for submitting a complete and accurate predesign report to the Department of Administration.

The Department of Administration recommends early engagement to help clarify basic requirements in advance of hiring a firm to complete a predesign report. The Department will discuss:

- Expected scope, timelines and phases of a capital project
- Eligibility of project costs under capital bonding guidelines
- Sustainable Building Guidelines (B3) and their inclusion the project's design and budget
- Understanding project funding strategies
- Ensuring compliance with legislative and technical requirements

3.3 Cost Of Predesign

3.3.1 Typical Range of Costs for Predesigns

Predesign fees range between 0.25% - 2% of construction costs depending on the size and complexity of a project. Higher percentages may occur due to the relative size and complexity of the anticipated project or the need for additional updating due to changes in scope or delay in receiving funding. Achieving these cost ranges is also dependent on the agency completing its preliminary planning on their strategic and operational plans before undertaking predesign; and, costs can vary depending upon the project needs and the expertise required; for instance, specialty consultant designers may be needed to accurately identify the needs and costs for bio-hazard labs, maximum security prisons, Data Center Tier Level design, Historic Preservation, or Food Service.

3.3.1.1 Predesigns are bond eligible

The costs to prepare a predesign report are bond eligible and may be funded by a capital appropriation in a bonding bill. However, predesign costs are generally not eligible for reimbursement from a bonding bill unless specifically authorized in legislation.

- **General Bonding Restrictions** – Minnesota Management and Budget (MMB) guidelines for General Obligation (GO) bonds typically require that bond funds be used for capital expenditures (e.g., design, construction, renovation) but not for expenses incurred prior to the bond's authorization unless explicitly permitted.
- **Predesign Must Be Completed Before Bonding Requests** – Under Minnesota Statutes §16B.335, a predesign is required before requesting bond funds for design and construction. This means agencies usually must fund predesign through operating budgets or other non-bond sources.
- **Possible Reimbursement If Authorized in Legislation** – In rare cases, a bonding bill may include specific language allowing reimbursement of predesign costs. If the bonding appropriation does not explicitly authorize reimbursement, agencies cannot use bond funds retroactively.

3.3.1.2 Matching Funds, Capital Grants and Other Funding

The predesign report must account for all sources of funds that will be used to support the design and construction and completion of the project. Grant recipients who are required to provide matches for state funds are encouraged to include the cost of predesign within their match portion. Other considerations when multiple funding sources are used:

- **Ensure Compliance with Minnesota's Bonding Guidelines.** State bond funds are typically subject to restrictions on use, such as public ownership, public purpose, and maintenance of state interest in the project.
- **Consult with Admin and MMB if Private Funds Are Involved.** Any private involvement must be carefully reviewed to ensure compliance with state constitutional and statutory requirements.
- **Understand Matching Fund Requirements.** Many state bonding appropriations require a local or non-state match, and some grants may require funds to be committed before state dollars are released.
- **Be Transparent About Project Costs and Timeline.** Clearly document total project costs, breaking down state funding, private contributions, and any other state or federal grants.
- **Comply with Prevailing Wage and Contracting Rules.** State-funded projects must comply with prevailing wage laws and follow competitive bidding processes.

3.4 Cover Letter – 3.4 Submittal of Predesign and Project Information

The **template cover letter** at the back of this Manual can be used to submit the completed Predesign document. Prior to beginning construction documents, use the cover letter format in this Manual to submit and notify the applicable committee chairs and members of the Senate and House of Representatives.

Section 4. Contents of a Predesign Submittal

This section along with the **Predesign Template** outlines the information expected in a complete predesign. A predesign is meant to identify the major elements expected in a project and translate them into the scope, schedule and estimated costs. The predesign should demonstrate that an agency has carefully considered the project's purpose and the best approach for its delivery if funded.

Section 4.1. Predesign Summary Statement

The predesign summary section is crucial and regularly the source of information for high level descriptions of the project when seeking funding at the legislature. The summary should be distilled to the key highlights that are important to know about a project.

4.1.1 Key Information to Cover

Organized around scope, schedule and cost, the following are a sampling of key information to be included:

4.1.1.1 Scope

1. A short lead (e.g. 1-2 sentences) describing the project, its size and location.
2. What problem it is meant to solve or opportunity its meant to create?
3. Who will benefit from this project?
4. How does this project support the agency's mission?
5. What alternatives were considered, and why is this the preferred solution?

4.1.1.2 Schedule

1. What is the overall timeline from design to construction and occupancy?
2. Highlight key milestones (e.g., predesign completion, schematic design, construction start and end).
3. What are potential risks to the schedule, and how will they be managed?
4. Are there external deadlines or constraints that affect the schedule?
5. Are interim solutions needed before project completion? (e.g., temporary space, decanting, swing space).

4.1.1.3 Cost

1. What is the total estimated project cost? Cost by phase?
2. What are the identified funding sources?
3. What risks could affect costs, and how will they be mitigated? (e.g., scope changes, regulatory shifts, material pricing).
4. Are there ongoing operational or maintenance costs resulting from the project, and how will they be funded?
5. What is the proposed project delivery method, and how might it impact cost?

4.1.2 Other Information to Highlight:

4.1.2.1 Capital Funding Timeline

Identify the status of the request in the capital budget process (e.g., new request or resubmission). If the project is phased, outline multi-year funding assumptions, such as design in one bonding year and construction in another. Include estimated costs and schedules for each phase.

4.1.2.2 Space Standards

Outline space assumptions, including any special-purpose spaces or deviations from the state's space guidelines. Provide brief explanations for exceptions to standard office or support space allocations.

4.1.2.3 Deferred Maintenance Reductions

For projects involving building or system replacement, provide the Facilities Condition Index (FCI) of the existing facility and describe anticipated reductions in deferred maintenance because of the project.

4.1.2.4 Renewable Energy

Identify renewable energy systems to be integrated into the project, including system type, capacity, and projected energy savings or reductions.

Form 4.1.1 Building and Project Data Sheet – Data of New Building (or New Work), Renovations and Renewal (also found in the Predesign Template)

Instructions: *Complete this sheet and insert behind the Project Summary Narrative to describe the key data elements in the new project. If project is not a building or is a site improvement, edit this section to describe the elements and metrics of the project.*

Project Name and Location

Name of Project:
Agency/Organization:
Project/Building Location:

Construction Type

Building Occupancy Type:
[if not a building, provide code information that classifies the structure]
Primary Space Types:
Type of Construction:

Building Size or Impact:
(List the current state of the building and future after the work is complete). (If the project is not a building, list the major elements and provide metric measurements of their sizes; if an asset preservation project, identify the total impact to the building, (e.g. HVAC replacement serves a specific wing))

Number of Stories:
Square Feet per Floor:
Total Square Feet:
Space Efficiency: Usable v. Circulation/Mechanical etc.
Office Space:
Gross Sq. Ft./ person:
Work Station Size:
(Space guidelines are 200 sq. ft. and standard 6'x8' work stations)

Building Cost:

Site Size

Site Size (sq. ft.):
Number of Acres:

Parking

Type (surface or structured): Number of Stalls:
Area of Parking:
Parking Ramp Cost:
Total per stall

Mechanical, Electrical, Plumbing and Fire Protection

Roofing Type:
[list the major elements of the project and provide metrics on their sizes]
Exterior Wall Type:
Interior Wall Type:

Structural System Type
Mechanical System Type
Fire Protection Description
Electrical System Type
Technology Systems
Life Expectancy of New Work

Costs

Costs

[list the costs of all components that comprise the total budget]

Total Project Cost:

- Predesign Cost:
- Design Cost (including B3 sustainability):
- Phasing Cost:
- Site Acquisition Cost:
- Site Improvements Cost:
- Commissioning (req'd for B3):
- Technology Cost:
- Construction/Building Cost:
- Furniture, Fixtures, Equipment, Signage:
- Relocation Cost: (not bondable)
- Parking Structure Cost:

Hazardous Materials Abatement Cost:

Funding

State Funding amount:
Other Funding Source(s) Amount(s):

Form 4.1.2 Building and Project Data Sheet – Data of Existing Building Renovation

Instructions: *Complete this sheet and insert behind the Project Summary Narrative to describe the key data elements in the new project. If project is not a building or is a site improvement, edit this section to describe the elements and metrics of the project.*

Project Name and Location

Name of Project:

Agency/Organization:

Project/Building Location:

Construction Type

Building Occupancy Type:
[if not a building, provide code information that classifies the structure]

Primary Space Types:

Type of Construction:

Building Size

Building Size or Impact:
(List the current state of the building and future after the work is complete). (If the project is not a building, list the major elements and provide metric measurements of their sizes; if an asset preservation project, identify the total impact to the building, (e.g. HVAC replacement serves a specific wing))

Number of Stories:

Square Feet per Floor:

Total Square Feet:

Space Efficiency: Usable v. Circulation/Mechanical etc.

Office Space:

Gross Sq. Ft./ person:

Work Station Size:
(Space guidelines are 200 sq. ft. and standard 6'x8' work stations)

Building Cost: $

Site Size

Site Size (sq. ft.):

Number of Acres:

Parking

Type (surface or structured): Number of Stalls:

Area of Parking:

Parking Ramp Cost: $

Total per stall

Mechanical, Electrical, Plumbing and Fire Protection

Roofing Type:

[list the major elements of the project and provide metrics on their sizes]

Exterior Wall Type:

Interior Wall Type

Structural System Type:

Mechanical System Type:

Fire Protection Description:

Electrical System Type:

Technology Systems:

Life Expectancy of New Work:

Costs

Costs:

[list the costs of all components that comprise the total budget]

Total Project Cost:

Predesign Cost:

Design Cost (including B3 sustainability):

Phasing Cost:

Site Acquisition Cost:

Site Improvements Cost:

Commissioning (req'd for B3):

Technology Cost:

Construction/Building Cost:

Furniture, Fixtures, Equipment, Signage:

Relocation Cost: (not bondable)

Parking Structure Cost:

Hazardous Materials Abatement Cost:

Funding

State Funding amount:

Other Funding Source(s) Amount(s):

Section 4.2. Basis For Need – Project Background Narrative

This section of the predesign submittal describes and justifies the need for the project. The information to be included in this Section includes:

4.2.1 Mission, Strategic Plan and Operational Programs

- **Summary.** Summarize the requesting agency's/organization's own approved mission, strategic plan and operational program that are tied to the project.
- **Statement.** Make a clear summary statement of how the project will assist in meeting and furthering the mission, strategic, and operational plans of the agency or institution.

4.2.2 Operational or Legislative Objectives

The requesting agency/organization must identify the operational program to be supported by the project. This should include:

- **Statutory or Legal Support.** This section should identify relevant law or rule that establish the operational program and any requirements related to physical accommodations.
- **Program Impacts.** The predesign section should also demonstrate the effect of expanding or creating new programs, modifying legal requirements (e.g. such as sentencing guidelines), or other directives that create the need to provide appropriate facilities.
- **Programming Requirements.** The program should clearly identify the basic elements of what is, what will be done, how, to whom, by whom, with what in terms of resources, and the results anticipated. This summary should focus on the people and equipment needed to accomplish the mission and not the physical facility requirements (unless specified in legislation).

4.2.3 New Space

A request for new space must be tied to a requesting entity's public mission and demonstrated business needs. New space analysis must incorporate the state's latest State of Minnesota *Space Guidelines* found on the Department of Administration's website. At a minimum, the predesign for new space should include considerations regarding:

- **Current and planned shared workspaces.** The agency must include an analysis of current and future hybrid work plans for its staff members that reflect anticipated minimum days in the office and how those plans will be deployed for future staff.
- **Meeting space standards.** The project should target a Full Time Equivalent staff space standard for office space of 200 usable square feet or less; consult with the Department of Administration regarding space recommendations for other types of space.
- **Meeting standards for assigned workstations or offices.** The default planning assumption is unassigned workstations and offices; the predesign should consider what job functions may require assigned spaces. Examples of functions that may require assigned and lockable office

spaces include audit or investigatory functions, legal, or law enforcement.

- **Identify Potential for co-location.** Before new space is considered, a thorough analysis of a potential co-location with other state agencies or other units of government is required.

4.2.4 Alternatives Analysis

The predesign must evaluate and document viable alternatives to meet the project's program requirements while ensuring cost-effectiveness and efficient space utilization. The analysis should address the following considerations:

- **Hybrid Work Feasibility** – The agency must how telework arrangements for eligible staff can effectively meet program needs while reducing the need for additional space and minimizing project costs.
- **Alternative Space Utilization** – The agency must review available space in other state agency locations within a 35-mile radius of the project site. If suitable space is available, the agency should consider reuse or adaptive modifications to meet project requirements.
- **Storage Needs and Reduction** – The predesign report must document the requestor's electronic storage policies and efforts to minimize the need for physical storage. Agencies should prioritize digital file retention and demonstrate an effort to reduce reliance on paper-based storage.

4.2.5 Identify Alternatives Considered

The predesign must document the alternatives evaluated to meet project needs, emphasizing cost-effectiveness and operational efficiency. The analysis should include the following:

- **Agency Collaboration** – agencies must explore opportunities to co-locate with other state agencies when feasible.
- **Comparative Analysis** – Each alternative must be evaluated based on its ability to meet operational, programmatic, and service delivery requirements. This analysis should identify the strengths and limitations of each option.
- **Optimal Solution Selection** – The chosen alternative should represent the best overall fit by balancing program suitability with financial considerations, including both initial investment and long-term asset costs.
- **Justification of Decision** – The final recommendation must clearly document the rationale for selecting the preferred alternative, including:
    - **Decision Criteria** – A summary of key decision-making factors, trade-offs considered, and the evaluation process used to determine the best option.
    - **Stakeholder Consultation** – A detailed account of user group engagement, specifying the number of consultations, meetings, or feedback sessions conducted. This transparency ensures the decision reflects input from relevant stakeholders and aligns with the organization's broader goals.

4.2.6 Renovation of Existing Space

Before considering new construction, agencies must first assess whether existing spaces can be repurposed to meet their program needs effectively.

4.2.6.1 Can Existing Space Meet the Need?

Agencies must evaluate whether their requirements can be met by reconfiguring or upgrading current facilities. If the existing size, layout, and infrastructure align with program needs, renovation may be the most efficient and cost-effective solution.

4.2.6.2 Is the Existing Space Available and Suitable for Repurposing?

If suitable space is available, agencies should prioritize renovation as a viable alternative to acquiring new space. Key factors to consider include:

- **Infrastructure and Sustainability** – Assess the cost-effectiveness of upgrading energy systems, implementing carbon reduction measures, and aligning with sustainability goals.
- **Accessibility and Compliance** – Ensure renovations address current accessibility requirements and regulatory standards.
- **Functional Upgrades** – Adapt spaces to support evolving operational needs at a lower cost than new construction.

4.2.6.3 How Does Hybrid Work Impact Space Needs?

The transition to hybrid work significantly influences space requirements. Renovated spaces must align with the state's hybrid space standards, optimizing workspace design for a flexible workforce. Agencies should evaluate how hybrid work reduces the need for dedicated offices and identify opportunities for shared, adaptable spaces.

4.2.6.4 Other Requirements - Existing Facilities Renovations

For projects involving the renovation of an existing facility, agencies must conduct thorough assessments to identify necessary upgrades and compliance requirements. The predesign process should include:

- **Facility Condition Assessments (FCA)** – Evaluating the condition of structural, mechanical, electrical, and civil systems to determine necessary replacements and upgrades.
- **Hazardous Materials Surveys** – Identifying the scope and cost of abatement for hazardous materials such as asbestos, lead, PCBs, and other substances requiring remediation before work begins.
- **Other Investigations** – Conducting assessments related to historical preservation (if the facility has historic features) and environmental/ecological considerations (if there are potential impacts on plant or animal habitats).

Section 4.3 - Agency/Organization Planning

4.3.1 Agency Planning as the Foundation for Capital Projects

Planning is the first and most critical step in identifying an agency's business and programming needs, such as through studies, strategic plans, space planning, or comprehensive planning efforts. It establishes the priority framework for capital projects.

4.3.2 Planning Comes Before Predesign

- **Planning Precedes Predesign.** Planning must be completed before a project moves into predesign. It should be thoroughly documented, referenced, and incorporated into the predesign submittal. Common planning efforts include strategic plans and space planning.
- **Predesign Refines Planning.** Predesign builds upon the key priorities and findings identified during planning, refining them into a more detailed project scope

4.3.3 Planning is Not Eligible for Bond Funding

- Agencies must use their own operational funds to conduct planning
- General obligation bond funding is typically not available for planning efforts

4.3.4 Planning Considerations in the Predesign Submittal

For the predesign phase, planning should highlight key highlights of prior planning documents. For example:

4.3.4.1 Comprehensive or Strategic Facilities Plans

- **Key Priorities.** The project should align with key priorities identified in a strategic plan.
- **Scope and Impact.** The submittal should include a review of area, neighborhood, agency or campus facility plans or other plans that may affect the project.
- **Matching local planning, where possible.** Project decisions should do align with plans prepared and enforced by local levels of government or strategic plans previously prepared by the Agency.

4.3.4.2 Site Selection or Acquisition Plans

- **Identification of sites or locations.** If site selection is needed for the project, the Agency will need to provide identification of potential sites and definition of site selection criteria.

- **Acquisition plans.** Identify acquisition funding and timing is part of the total project request; alternatively, the Agency should identify the source of funds for the acquisition if there are other non-state sources being used.
- **Site selection.** Actual site selection may occur before predesign but the predesign should contain information as to why the site was selected; the site highlights should be identified.

4.3.4.3 Technology and Telecommuting (Remote Work) Plans

- **Designation of applicable information technology:** Before predesign begins, both the type of information technology to be incorporated into the project and the telecommuting plan for the facility should be defined. Include Agency expectations regarding hybrid work and how that impacts the overall space requirements and how it aligns with Technology Plans.
- **Approval of Technology Plans.** The Technology Plan will require review and written approval from the State's information technology agency (MN.IT).

4.3.4.4 Historic Documentation

- If the project is located within a historic district or involves disposal of buildings that are on the National Register of Historic Places, provide all documentation and correspondence for inclusion into the predesign document. If none exists; meet with the State Historic Preservation Office to determine requirements.

4.3.4.5 Disposal of State-Owned Buildings

- **Disposition process.** If the project involves the disposal or demolition of a State-owned building, the Agency must obtain legislative authority for the disposal or demolition. Contact the Department of Administration's Real Estate and Construction Services for assistance.
- **Stakeholders:** Provide a list and narrative regarding the stakeholders involved and affected by the project (i.e. other agencies, organizations, and entities).

4.3.4.6 Operational Impacts

The Agency should provide a brief narrative of the impacts the project will have on:

1. Their operations
2. Their operational budget, and
3. Facility and staff members (i.e. including any temporary functional impacts that the facility will need to accommodate during design, construction, relocation, occupancy.)

Section 4.4 - Project Description

4.4.1 Architectural/Engineering (A/E) Program

The architectural/engineering program ("A/E program") provides instructions and assumptions to the design professionals for future phasing. The nature and extent of the instructions required are specific to the project. Considerations when preparing the A/E Program include:

4.4.2 Review and Incorporate Space Guidelines

Projects for new and remodeling of state offices must follow the state's latest Space Guidelines which makes hybrid work the baseline assumption when preparing space plans.

- **Consultation with the Department of Administration.** Prior to finalizing the predesign document for a state-owned project, the Department of Administration's Real Estate and Construction Services group shall review for adherence to the enterprise "Space Guidelines"

4.4.3 Stakeholder Consultation

Effective stakeholder consultation is essential to ensure that space planning and program development align with organizational goals and user needs. The following principles should guide the consultation process:

- **Broad and Inclusive Engagement** – Stakeholders should be identified comprehensively, considering all groups affected by the space planning process, including leadership, staff, facility managers, and end users.
- **Consensus-Driven Approach** – The consultation process should encourage wide participation, ensuring diverse perspectives are heard. The goal is to foster collaboration and establish the broadest possible consensus to support decision-making.
- **Clear Documentation** – All stakeholder input, concerns, and recommendations should be systematically recorded as part of the program document to provide transparency and inform final decisions.

A well-structured stakeholder consultation process enhances project buy-in, improves decision-making, and minimizes resistance to proposed changes.

4.4.4 Requirements for the A/E Program

The A/E program translates high-level project goals into technical instructions that guide architects and engineers in creating a functional, efficient, and compliant design. To further that goal, the predesign document should include:

- **Detailed Space Program.** A detailed space program using a table of space names and sizes.
- **Space Needs Inventory Data Sheets.** Space Needs Inventory data sheets for individual rooms (See Appendix 4a template form)
- **Adjacencies.** Adjacency Diagrams showing the activity and functional relationships among the spaces.
- **Furniture, Fixtures and Equipment.** A listing of Furniture/Fixtures/Equipment/signage (FF&E) needs.
- **Major System Descriptions.** Narrative descriptions of the major Architectural, Civil, Structural, Mechanical, Electrical, and Specialty systems that are part of the proposed project.

4.4.5 Architectural/Engineering (A/E) Program Definitions

The A/E program translates high-level project goals into technical instructions that guide architects and engineers in creating a functional, efficient, and compliant design.

4.4.5.1 Types of Programs:

- **Existing Programs.** If a project is similar to one that has been built before, you don't need to create a brand-new program. You can reuse the instructions from a previous project as long as they are still relevant.
- **New and Unique Programs.**
  - If the project is unique (meaning it hasn't been built before), new instructions are required.
  - **For simple and low-cost projects,** the A/E program can usually be completed during the predesign phase.
  - **For complex and expensive projects**, only a general outline of the A/E program is developed during predesign. The full, detailed program is completed later during the schematic design phase.
- **Funding.**
  - **Totality of Funding.** The project budget should include funding to develop the full A/E program as part of the design process, but within the constraints set during predesign
  - **Alternative Funding Considerations.** To meet current sustainability guidelines, renewable energy design will need to be fully incorporated into the design program. Consult the Project Matrix
- **Methodology.** The processes used to establish the program should include methodologies (see participatory programming in **Appendix 4b**) that establish the greatest client consensus possible using established state space guidelines. These should be clearly documented as a part of the program document.

1. **Components of an Architectural/Engineering Program**
   - **Strategic and Operational Alignment.** Summarize how the project will meet the requirements of the requesting agency's strategic plan and operational program for the project.
     - Use the "*Programming Methodology for Participatory Design"* document
     - Complete the *"Space Needs Inventory"* located in the **Appendix 4b** of this Section).

2. **Space/Area Program**
    - **Summary of Planning.** Summary of existing applicable master plans or other area wide (urban design, architectural, or engineering) plans pertaining to the project.
    - **Definition of needs.** The A/E program should define human and operational needs to be met by the project. Needs are derived from
        - the operational program,
        - programming interaction with potential users,
        - new or existing research, and
        - standards for architectural/engineering practice.
    - The processes for deriving these needs should be clearly identified and explained.
    - **Colocation Opportunities.** The predesign analysis should consider hybrid work and the need for shared space, including with other agencies.
    - **Site selection criteria and site selection recommendations.** Agencies must include an analysis of location(s) using the "Criteria for Locating State Offices and Agencies" (See Appendix H).
        - If schematic design of alternative solutions is both desired and highly dependent on site characteristics, then final site selection may occur during schematic design and only the selection criteria identified as part of predesign.
    - **Facility Condition.** A current Facility Condition Assessment of the existing building's physical condition should be included. Most State Agency Projects maintain current reviews of their building and system conditions in the Enterprise Property system.
    - **Modification Triggering Code, Guideline or other Changes.** If the project involves modification of an existing building, the conditions to be changed should be recorded. For example, if an existing building needs modifications to meet code requirements for its intended use, then the required improvements should be listed. Design standards, guidelines, and performance characteristics for site and building systems.
    - **Performance Characteristics (B3 and Sustainability standards)** The performance characteristics of physical components of the project should be described. For example, with respect to heating, ventilation, and air conditioning performance: the inside summer and winter temperatures to be maintained, the acceptable relative humidity range, and the outside fresh air ventilation rate should all be defined.
    - **Individual space requirements**. *See the State's Space Guidelines*. This should include Identification of:
        - Size and characteristics of required spaces and rooms
        - Space and room adjacency requirements
        - Special room characteristics
    - **Project Budget items.** Extracts from the project budget and schedule that may apply to the work by design
    - **Applicability of Codes.** Bibliography of applicable codes, standards, cited research, and other publications referenced in the program. Current issues as applicable building codes, sun charts, and building air quality guidelines are assumed.
    - **Notable Differences or Unique Characteristics.** If the proposed project is different from similar, well-understood building types, the differences should be highlighted. For example, if administrative offices are proposed to have an unusually high potential for internal layout change, the type of changes expected should be defined.
    - **Table of Spaces.** Include the space program in the format of a table with the name of

each space along with the square foot area required of each room, each floor and total square feet.

3. **Alternatives/Options**
   - Develop three options, in bubble diagram format on the site, that will satisfy the program;
   - Briefly identify the pros and cons of each and identify why the selected / recommended option is preferred
   - Identify specific reasons for selected options and any trade offs
4. **Site infrastructure and zoning**
   - **Site Utilities**. When the proposed project will be a major renovation or an addition, investigate the site utility infrastructure needs to determine if the existing utilities have the capacity or will meet the current codes to support the proposed project.
   - **Zoning.** Although most state projects are not subject to local zoning, verify zoning requirements.
     - When the predesign team has developed the proposed size and location of the project, it is recommended that the predesign team meet with code and zoning officials to obtain information and requirements.
     - Compatibility check. Identify and document any compatibility concerns raised by the local officials; recommend solutions on how to mitigate concerns

For projects on new sites, see Section 5- Site Analysis and Selection.

4.4.6 Precedent Studies

4.4.6.1 Visiting Other Facilities

Visit and investigate at least two project facilities that are similar to the project that is being proposed in this predesign. Include the following:

- Brief description and location of the project
- Significance of the project
- Description of the successful design features, systems, or elements that will be incorporated into the proposed project.
- When using terms such as “cutting edge”, or “at the fore-front” describe what makes those facilities “cutting edge” and specifically what will be incorporated into the proposed project to make it “cutting edge”.
- Use other facilities examples that co-locate or promote the sharing of space.

4.4.7 Technology Plan & Telecommunications Plan Requirements

4.4.7.1 Summarize key technology plans

Predesign should summarize key information technology and telecommunication plans, ensuring they align with the capital project’s goals.

- **Technology and Telecommunication Plans.** Provide a summary of planned IT and

telecommunication infrastructure to be incorporated into the project.

- **Optimizing Space Utilization.** Identify cost-effective IT and telecommunication investments that can reduce office space needs, expand electronic service delivery, and support centralized or decentralized operations.
- **Transition to Electronic Storage.** Assess the need for physical document storage in the new space. Outline plans for electronic document conversion and summarize strategies to minimize physical storage requirements.

4.4.7.2 Technology Guidelines

For all State Agency predesigns, the preparer must review the "Technology Guidelines – Building Infrastructure for State-Owned Buildings." This document outlines standards for telecommunications cabling and related infrastructure in new or renovated state facilities.

- **Accessing the Guidelines:** The document is available on the Minnesota Department of Administration's Manuals, Guidelines, and Forms webpage. It is listed as **Appendix B** under the Design Guidelines section.
- **Coordination with User Agencies:** The predesign preparer must work closely with the user agency to identify and document the project's technology needs, ensuring alignment with state requirements.

4.4.7.3 Technology Plan is required

- For **State Agency (State-owned) projects**, Minnesota Statutes § 16B.335 requires the submission of a technology plan to the State's information technology agency (MN.IT Services.) MN.IT will review, provide comments, and issue an approval. A **signed response letter from MN.IT** must be included in the predesign submission.
- For **Local Government projects**, the predesign preparer should consult with the local government to determine whether a technology plan needs to be submitted for review. This ensures compatibility and compliance with local technology standards.

4.4.7.4 Predesign Meeting with MN.IT

For projects requiring a technology plan by statute, the predesign team and the Department of Administration's Project Manager will:

- Notify MN.IT about the project.
- Convene a Predesign Meeting to discuss agency needs, goals, timelines, objectives, and the integration of technology into the project.

A. Predesign Team Members

The Predesign Team will include, but is not limited to:

- Agency/Customer Representative
- Department of Administration's Project Manager
- Consultant Technology Designer
- MN.IT Staff

B. Hybrid Work Technology Standards

All workstations are expected to have standardized office technology, which includes:

- A docking station
- Two monitors, at a minimum

4.4.7.5 Technology Plan Checklist

A. Technology Checklist Submission:

- Submit a completed Technology & Telecommunications Checklist as required in the Predesign Manual.

Technology Plan Review & Approval:

- Each project has unique technology needs. MN.IT will evaluate the Technology Plan to determine if the proposed approach meets approval criteria.

Telecommuting (Remote Workplace) Plan:

- If your agency has a telecommuting (remote workplace) plan or policy, provide a description.
- Minnesota Statutes § 16E.05, Subd. 3 requires state agencies to:
    - Address and prepare a telecommuting plan when proposing capital investments in office space.
    - If remote work arrangements are not feasible, agencies must explain why.

4.4.8 Sustainability, Renewable Energy and Carbon Emission Reductions

4.4.8.1 Meeting the Sustainable Building Guidelines (Minn. Stat. §16B.325)

The **Minnesota Sustainable Building Guidelines (B3)** apply to new construction and major renovations of state buildings and may be required for any project receiving state funds.

A. Key Considerations:

- **Assume Compliance**: Always assume that B3 Guidelines apply when preparing a predesign report for state-funded projects.
- **Review Requirements:** The guidelines include requirements for predesign, design, construction, project management, and post-occupancy—all of which impact project costs and schedules.
- **Applicability Review:** The Department of Administration and Commerce, in consultation with the Center for Sustainable Design, may determine whether a project must comply with B3.
- **Work Closely with B3 Staff:** Consult early in the predesign with the University of Minnesota's Center for Sustainable Building Research to accurately evaluate the options and prospective costs to consider in meeting B3 building and energy guidelines.

B. Applicable Projects:

- **New Construction:** Applies to buildings 10,000 gross square feet or larger with conditioned space.
- **Major Renovations:** Applies to projects with at least 10,000 gross square feet of conditioned space or those replacing a mechanical, ventilation, or cooling system.

- **Small Projects:** Smaller projects can voluntarily adopt the guidelines and use the B3 Small Projects Process—contact B3 for details.

4.4.8.2Setting the SB 2030 Standards

A. **Setting Targets.** During pre-design, project teams should be working with the Center for Sustainable Building Research to set net energy use intensity (kBtu/sf-year) and carbon emission intensity (lb CO2e/sf-year) targets.
    - **The energy target** is based on the operational energy used at the project site - such as kilowatt-hours of electricity, therms of utility gas, ton-hours of chilled water, and British thermal units of hot water or steam - rather than the source energy used off-site for generation.
    - **The carbon target** includes the three greenhouse gases associated with energy use in buildings: carbon dioxide, methane, and nitrous oxide. These gases are translated into the common metric of carbon dioxide equivalents (CO2e) using global warming potentials published by the Intergovernmental Panel on Climate Change.

B. **Identifying possible Renewable Energy Systems.** With the 2025 standard reducing energy use intensity by 90% from the 2003 baseline, the predesign should contemplate an on-site or on-campus renewable energy system to reach the Energy Use Intensity expectations if the project is funded for design and construction. The predesign firm should consult with the Center for Sustainable Building Research as they model this and other options.
    - **EV Charging Not Included in EUI Calculations.** Energy used to charge electric vehicles (EVs) is not included as part of project energy use within the SB 2030 program. These loads are excluded from SB 2030 target setting and energy modeling, and projects will need to provide metering that enables EV charging to be excluded from the reported energy consumption.

4.4.9 Energy Use / Alternative Energy Sources (Minnesota Statute §16B.32)

Recent legislative actions revised renewable energy requirements, impacting projects subject to SB 2030 that enter schematic design after January 1, 2025.

4.4.9.1 Key Legislative Changes:

- Solar Heating & Cooling Requirements Removed (Minn. Stat. §16B.326)
- "Made in Minnesota" PV Solar Requirement Removed (Minn. Stat. §16B.323)
- 2% Renewable Energy Requirement Repealed (Minn. Stat. §16B.32)

4.4.9.2 New Renewable Energy Requirement for SB 2030 Projects:

If a project cannot meet cost-effective energy efficiency measures, it must incorporate renewable energy sources to comply with SB 2030 standards, which may include:

- On-site renewable energy (e.g., solar, wind, geothermal)
- Solar thermal energy systems
- Both options

Expanded Renewable Energy Allowance

A project can incorporate renewable energy sources to generate up to 120% of its average annual electric energy consumption.

Supplement to Section 4.4.9 – Elective Pay & Federal Tax Rebates (Inflation Reduction Act of 2022)

As of this predesign manual edition, the Inflation Reduction Act introduced opportunities for post-project recovery of capital costs through a tax rebate program where certain renewable energy systems are incorporated.

1. **What is Elective Pay?** The federal Inflation Reduction Act of 2022 allows states to claim tax rebates on certain renewable energy projects such as -
    a. solar,
    b. geothermal,
    c. wind,
    d. energy storage and
    e. microgrid controllers

2. **How does the Act impact a project?**
    a. The Act has no impact on the source of funds requested for a project. All rebates occur after a project is fully operational.
    b. Full funding must be obtained before a project may begin and rebates are not factored in any capital funding used to construct the project.
    c. The Act allows the State of Minnesota to seek out tax rebates for the cost of certain renewable energy systems in their projects.

3. **What is required?** The state must register the project, collect project information and file a tax return to receive a tax rebate. Upon review, the state may receive a rebate check for a percentage of the qualifying project cost.

4. **Why is this relevant in a predesign?**
    a. **Identify Possible Eligible systems for Elective Pay.** The predesign report should identify whether this project may have a renewable energy system that may be eligible for an Elective Pay tax rebate.

b. **Documentation Requirements.** To claim a rebate, the state will be required to provide the IRS certain design and cost information related to the renewable energy systems for the IRS to calculate the rebate amount.
c. **Costs.** The predesign should signal to the designer and contractors that tracking of design and cost information is a prerequisite and may involve interaction with the state's tax consultant as rebate documentation is prepared.
d. Projected In-Service Dates. The rebate is calculated from the projected in-service date of the renewable energy system. This predesign should project when the expected in-service dates would be for the renewable energy systems.

5. **Takeaways:** The predesign should put designers and contractors on notice that general financial data, contracts and plan sets related to renewable energy systems will be collected along with construction start and in-service dates for renewable energy systems.

4.4.10 Operations And Maintenance Requirements

Given the lifespan of state buildings, operation and maintenance costs often represent a larger portion of a building's life cycle cost than the original design and construction. Sustainable Building Guidelines and incorporating renewable energy in a project has a direct impact on the operational and maintenance requirements.

4.4.10.1 Impact of Project on Agency Operating Budget

The predesign must assess how the project will affect the agency's operations and budget by:

- Evaluating the project's impact on staffing, operations, and maintenance costs.
- Incorporating input from operational staff regarding space, maintenance, and building system requirements.
- Documenting maintenance needs to ensure long-term sustainability.

4.4.10.2 Operations and Maintenance Considerations

The predesign should include:

- **Staffing Changes:** Current and projected staffing levels, including any additional expertise required to operate building systems.
- **Budget Impact:** Estimated costs for salaries, operations, maintenance, and utilities.
- **Future Funding Needs:** Forecasts for funding levels to sustain operations.
- **Service Responsibilities:** Clarification of which maintenance and operational tasks will be handled by agency staff versus private vendors.

Use **Appendix E** to record operating cost estimates.

4.4.11 Applicability of Statutory Requirements

Real Estate and Construction Services maintains a current edition of Applicable Statutes on its public website. The statutes are categorized based on funding sources and the type of recipient, including:

- State agency or public higher education system
- Political subdivisions (cities, counties, school districts)
- Non-profit corporation

For detailed guidance on the relevant statutes, please visit our public webpage or contact Real Estate and Construction Services for assistance with specific funding or compliance inquiries.

4.4.12 Specialty Requirements

This Section is for unique or specialized requirements related to the project. Project Costs should take into consideration any specialized requirements. List these requirements in Section 4G of the body of the predesign or reference that they are bound in an Appendix. Depending on the agency involved, Specialty Requirements may include:

4.4.12.1 Healthcare or Laboratory (e.g. Department of Health)

- Department of Health licensing requirements / rules / legislation for Supportive Living Facilities.
- Laboratory Certification Requirements (i.e. Contamination/ Biohazard Level design requirements).

4.4.12.2 Correctional Facility / Security (e.g. Department of Corrections or Direct Care and Treatment)

- Correctional facility design and security requirements
- "Contractor Security Requirements" for projects located within a Minnesota Correctional Facility. (Available from the correctional facility).

4.4.12.3 Assisted Living, Nursing Home or Residential Living Facility (e.g. Direct Care and Treatment, Veterans Affairs)

- Assisted living or nursing home design requirements (both federal and state).
- Hospital design requirements

4.4.12.4 Information Technology (e.g. MnIT)

- Data Center Tier Level design requirements
- On Premises Data Center requirements

4.4.12.5 Sound, Vibration and Humidity

- Acoustical design requirements
- Vibration or electronic interference mitigation
- Humidification controlled environments (Museum, wood instrument storage, etc)

4.4.12.6 Cultural, Historical Design / National Register of Historical Places

- Identify, assess, and manage cultural resources, which include historic sites, buildings, structures, landscapes, and artifacts
- Archeological Site Surveys, coordination with State Historical Preservation Office (SHPO)

Compliance with Section 106 of the National Historic Sites Act

4.4.12.7 Environmental

National Environmental Preservation Act-NEPA, or State Environmental Assessments and/or Environmental Impact Statements).

- Federal Funding requirements

4.4.12.8 State of Minnesota Guidelines

All State of Minnesota Projects are subject to current space, design, construction and technology Guidelines. Unless otherwise noted, the Guideline Documents are available at on the current Guidelines webpage and include:

- State of Minnesota Design Guidelines
- State of Minnesota Space Guidelines
- Telecommunication Infrastructure Guidelines for State Owned Buildings. Include a Technology Plan for the project.
- Criteria For Locating State Offices and Agencies: Predesigns for State Office facilities shall address and incorporate these criteria.
- Capitol Complex: “Plant Management Preferred Equipment List”

4.4.12.9 Additional Guidelines

The Minnesota Sustainable Building Guidelines (B3) and SB 2030 Energy Standard

The B3 Guidelines apply to the design of new buildings or renovations to meet sustainability goals for site, water, energy, indoor environment, materials and waste. The B3 Guidelines are required on all projects that receive general obligation bond funding from the State of Minnesota. The guidelines can also be used on a voluntary basis on any project. By using the B3 Guidelines, projects will automatically be applying the SB 2030 Energy Standard.

Guide to Minnesota Environmental Review Rules

The Environmental Quality Board (EQB) oversees the state of Minnesota’s environmental review program, which provides usable information for project proposers, government decision makers, and members of the public about a proposed project’s primary environmental effects.

Contractors/Vendors Guidelines Related To Buildings and Parking Facilities. For Projects located on the Capitol Complex.

4.4.12.10Additional Considerations

A. **Demolition of State buildings:** Legislative Authority is required if the project involves the disposal of a State-owned building.

B. **Security & Vulnerability Assessments** – Unless an agency has security expertise, a qualified security consultant should be retained during the predesign process and work in coordination with the predesign team.

C. **Hazardous materials**. Consider the cost of survey, design, air monitoring, removal costs.

D. **Furniture, Fixtures, and Equipment (FF&E).** The new building will need to be equipped with furniture and other non-construction related elements. The agency will need to consider office furniture, office equipment, computers, wall hangings/art (See percent for art in State Buildings), plants, files, signage, directories, video conferencing equipment, conference room projection, etc.

E. **Exterior landscaping and site amenities**. Include all costs for landscaping and site amenities that will be part of the project.

- Landscape design fees and amenities (plants, trees, bushes, benches, bike racks, fencing, walkway paving, trash enclosures, fencing).
- Exterior lighting design and construction (parking areas and building areas).
- Exterior signage (design and installation).

F. **Tenant Relocation Costs.** Finally, if the project includes relocation of existing tenants; these costs need to be included in the total project cost. Costs to be considered are:

- **Move Consultant** (Company organizing the move and assisting with bidding)
- **Move vendor** (company that will do the moving)
- **Swing space lease costs** (if tenants will be relocated to another location during construction)
- **Short term storage costs** (needed for furnishings and equipment if there will be a phased move in)

Note: Agencies must use operating funds for Relocation Costs - Relocation Costs are not bondable. The consultant predesign team should include a move coordinator to determine the needs and costs of the move(s).

Practice Advice: The above requirements cover the majority of issues that can arise on a project but not all. The predesign team should consider other specialty requirements not otherwise named that are unique to a specific project and have a material impact on the project's scope, schedule, and cost.

4.5 Project Procurement and Delivery

4.5.1 Project Delivery Method

This section describes the proposed method for delivering the project. Options for Project delivery include:

a. Design-Bid-Build (Low-Bid),
b. Design-Bid-Build (Best Value),
c. Construction Manager at Risk, or
d. Design-Build.

4.5.2 Rationale for Selection

The recommended Project Delivery Method is to be accompanied by the reasons it will serve to deliver the project as distinguished from other options.

4.5.3 Costs

The project cost plan and estimates are to include the costs associated with the recommended delivery method.

4.5.4. Product Specifications

The predesign shall also contain instructions to future design teams regarding product specifications based on the State's guidelines. All product specifications are to be written to allow multiple manufacturers and suppliers to competitively bid the products. No single product or sole source shall be specified unless formal prior justification and approval are received. For State agency projects there is a formal process for submitting a written request for approval.

4.6 Project Design Services And Additional Owner Costs

4.6.1 Scope of Design Services

This section is for determining the design services required to deliver the project along with additional services the owner/State will need to provide.

4.6.2 Appendix for List of Common Costs

Carefully consider all of the design services and other owner soft costs that will be needed. Please reference **Appendix 6** has a comprehensive list of possible design and soft costs that should be considered for the proposed project.

4.7 Quality Control Plan

4.7.1 Quality Control Plan required

The predesign review should provide a quality control plan outline and a listing of quality control measures that will be incorporated into the project delivery process for the project. The predesign should specify quality control plans by the contractor and subcontractors and any code required testing,

State Agency projects for new construction, additions and major renovations, are to include the following quality control measures in the project AND project budget:

4.7.2 Building Envelope Commissioning

- A building commissioning agent should be hired to ensure compliance with sustainable building design and operations
- Design review commissioning and commissioning and inspections during construction

4.7.3 Building Envelope Analysis

- Using WUFI software (performed by envelope commissioning agent). https://wufi.de/en/
- Consultant will be expected to perform this analysis during the design phase of the project.

4.7.4 HVAC and Electrical Systems Commissioning

- An HVAC and Electrical system commissioning agent should be hired to ensure the building systems operate as designed
- Design review commissioning and construction commissioning and inspections during construction
- Specify mock-ups of envelope component systems and pre-installation conferences.

4.7.5 Construction Cost Auditing

A construction cost auditing firm will be engaged to review and verify construction costs throughout the project

4.7.6 MN Sustainable Building Guidelines (B3) with SB2030 energy efficient design

4.7.7 Building Information Modeling (BIM)

- for clash detection
- BIM must interface with Archibus for loading installed equipment.

Section 4 – Forms and Appendices

APPENDIX 4a – Space Needs Inventory Form

APPENDIX 4b – Programming Methodology for Participatory Design

APPENDIX 4c – Applicable Statutes for State Funded Projects

Appendix 4a - Space Needs Inventory

Room/Space Name►

Square Foot Area► See State's *"Space Guidelines"* For State Agency Projects

Space Standard:

Space Standard Area:

NUMBER OF OCCUPANTS►

Function

(Describe The Activities That Will Occur In This Space)

(Describe The User's Objectives For This Space)

Adjacencies

(Describe The Spaces That Need To Be Adjacent To This Area)

Furniture, Fixtures & Equipment

(Describe the equipment and furnishings that will be needed)

ARCHITECTURAL FINISHES

Floor:	Walls:
Walls:	Wall Base:
Ceiling:	Ceiling Height:
Lighting:	Special Criteria:

MECHANICAL/HVAC/PIPING REQUIREMENTS:

ELECTRICAL REQUIREMENTS:

TECHNOLOGY REQUIREMENTS:

ROOM LAYOUT DIAGRAM

(Provide a conceptual layout of the room with furnishings and equipment)

ADJACENCY LAYOUT DIAGRAM

(Provide a conceptual diagram showing all room adjacencies for the building spaces)

Following the Space Needs Inventory Sheets, attach an overall adjacency diagram of all spaces included in the project.

Appendix 4b – Programming Methodology

Programming Methodology for Participatory Design

Participatory Design

Participatory Design is a collaborative design approach that involves end-users in the design process. The participatory design goal is to create spaces that meet the needs of the people who will use them. The following methodology is an example framework. The predesign firm has latitude to use other methodologies to assist end users in planning effective spaces.

Goal Setting

Organize a programming team.

- **Members**
  - Designer and user group representatives
  - A typical user group would consist of individuals from each department of the organization
  - May include advisory groups
- **Framework Documents.**
  - Obtain the mission statement of the organization, a strategic plan, and operational plan.
  - Obtain an organizational chart for the organization.
  - Space and Design guidelines are available on the Department of Administration's web site
- **Focus on Business Needs**
  - Business needs drive the need for space.
  - The programming team should focus on job functions and whether the job function can be accomplished in a hybrid format
- **Consultation with the Department of Administration**
  - Final approval of the space program will be made by the Department of Administration staff; thus, periodic consultation with the Department of Administration needs to occur during the programming phase of predesign.

Chose a Goal Setting methodology

- **Soliciting User Input.** User input is gathered and foundation for future decisions is based.
- **Brainstorm Goals.** Organize a workshop, ask user group bring a brainstorm list of goal statements. Discuss goal statements with participants, consolidate common themes and prioritize goals.
- **Refine Goals.** Goals should be less granular and more comprehensive in nature. Something that would have a system wide affect or application. E.g. Project should support flexible delivery of our services everywhere in the state or the project will standardize the look and feel of our public facing building to better serve the public)
- **Identify 3-5 Key Goals.** Prioritize and produce a final list of three to five goals the project seeks to achieve. Align goals with organization's mission statement, strategic plan and operational plan.
- **Obtain Leadership Support.** Share the project goals with the agency leadership team for final approval.
- **Include in Predesign Document.** Include the goal setting documentation in the Predesign Document.

Inventory of space

Identify each "unit" in the organization.

- The designer shall create a space needs inventory form. (See attached example).
- Record the activities performed by each unit and the equipment and space needed to carry out the activity. Include days & times this activity is performed in the space (i.e. time can be important if, for instance, with a code compliance office or sales office where the occupants are out of the office for much of the time.)
- On the inventory form, indicate internal and external interactions that take place.
- Have the user groups list desired objectives for the space. (or develop a questionnaire). i.e. view to exterior, more privacy when in meetings, and closeness to a printer.

Evaluate

- Using the completed inventory form and the list of desired objectives, schedule a workshop to discuss and evaluate the requirements for each functional "unit".
- The designer, using a kits of 1/4" scale models of typical spaces and equipment, will facilitate the workshop in modeling and evaluating various options.
- Summarize conceptual approaches and options resulting from the evaluation.

Define & Develop relationships

- The designer should at this point facilitate two research studies such as:
    - Social Mapping
    - Behavioral Mapping
        - Document this research and include in the Predesign Document.
- Bubble Diagram.
    - In a workshop, have the participants discuss and diagram relationships of the activities. Include this in the Predesign Document
- Activity matrix.
    - After diagramming and determining desired relationships between activities, the designer will develop a matrix showing the relationships.

Synthesis

- Synthesize the information from the mission statement, strategic plan, operational plan, project goals, research, questionnaires, activities inventory, and workshops to develop a program and potentials for design.
- Include the space program in the format of a table with the name of each space along with the square foot area required.
- Develop three options, in bubble diagram format on the site, that will satisfy the program; evaluate each option and select the preferred one. Provide explicit reasons for selecting the preferred option.

Approval (for State Agency projects)

- Obtain approval of the space program from the Department of Administration.

Appendix 4c - Statutory Applicability

Statutory applicability changes periodically.

Check the current statutory applicability on the State of Minnesota Guidelines page.

Section 5 - Site Analysis and Selection

Introduction

This section outlines the process and criteria for selecting appropriate sites for state offices and agencies. It covers key considerations in site analysis, selection, and development to ensure optimal location and functionality of state facilities.

5.1 Locating Sites for Projects

5.1.1 Criteria for Locating State Offices and Agencies

Use the criteria developed by the Department of Administration for locating state offices: *Criteria for Locating State Offices and Agencies*

5.1.2 Site Selection Process

1. **Key Criteria and Prioritization.** Develop a list of key criteria that the agency considered when analyzing sites for the project. Prioritize the key criteria for site locations
2. **Multiple options.** Review multiple site options; summarize the conclusions as to why finalist and preferred option chosen.
3. **Short List.** Recommend, present and include three site options in the final Predesign document for potential development of the project
4. **Preferred Option.** Identify a preferred option with detailed financial data and cost estimates for development and building

- **Consult with the Department of Administration.** The Department of Administration's Real Estate Management group can assist in finding and assessing potential sites for consideration.

5.1.3 Acquisition Strategies and Financing

1. **Timing.** Prepare strategies to account for timing of financing for acquisition
2. **Financing.** Agencies may need to self-fund financing;
3. **Authority**. Most agency acquisitions require specific legislative or statutory authority
4. **Multi-year Phasing**. When the proposed project will be large scale, the consultant shall provide financial expertise, experienced in large scale construction funding, to work with the agency and Minnesota Management & Budget (MMB) to determine cost saving options and delivery methods for funding the construction.
5. **Financial Plan.** Financial options for funding the project are to be integrated in the predesign document and presented with the consultant's formal submittals.

5.2 Site Evaluations and Considerations

5.2.1 Key Evaluation Features

For the short-listed and recommended sites, identify key attributes and drawbacks for each site option, along with aerial photographs and site photos of improvements on site. The feasibility of development and construction of the project on each of the site options shall be presented and integrated into the predesign document.

Site selection studies and criteria shall include but are not limited to:

- Size and Topography
- Suitability for intended use
- Accessibility for public clients and employees
- Transportation options and proximity
- Environmental impact and sustainability
- Site development costs (utilities/infrastructure)
- Parking requirements and costs
- Potential for phased development

5.2.2 Parking

Parking is one of the key aspects of site development and a major consideration in any site selection. Accessibility, size and location of parking and easy of ingress and egress are all considerations for a site in the predesign analysis. The predesign should consider:

- **Costs.** Provide cost estimates for surface and structured parking (where applicable) for each site being considered
- **Hybrid Work.** Consider the impact of hybrid working on parking demands
- **Consider Operational Needs.** Analyze parking needs for staff, visitors, and other operational requirements
- **Sustainable Options**
  - Consider locations and sizing of bike parking
  - Evaluate and include recommendations for electric vehicle charging and infrastructure

5.2.3 Operating Cost Impact

Where a site is located and how it functions will directly impact an organization's operations and ongoing operational costs.

Example 1. Proximity to Service Area. If an agency requires close highway access to provide their services, such as law enforcement or snowplowing, siting away from highways will result in long drives and impact operating costs in the form of higher fuel costs.

Example 2. The orientation and topography of a site. A site that allows for a specific directional orientation of the building, may improve HVAC performance depending on how the building is oriented, resulting in lower energy costs and usage.

5.3.4 Site Considerations

During the predesign process, the agency and their consultant should review the following site considerations and document relevant items for further review or to account for additional costs to the project.

- **Site Restrictions.** Although the state is not subject to municipal zoning ordinances, consider how well the project integrates with existing municipal zoning ordinances and expectations of surrounding uses.
- **Soils.** Identify any anticipated soil issues, such as if there might be buried construction debris, high water table or similar impacts due to challenging soil conditions.
- **Site Coverage and Buffering.** Consider coverage of the building, parking and other impervious areas on the site and neighboring uses; agency missions may conflict with neighboring uses, so it's critical to identify buffering options to minimize neighbor disruptions.
- **Vehicular circulation.** Identify expected vehicle access, parking, circulation, and delivery on the site to meet the needs of the agency operation. In particular, consider any truck accessibility if deliveries are made.
- **Utility capacities.** Verify that utilities servicing the site along with their capacities are adequate or what additional service lines need to be brought to the site.
- **Service Area.** Identify the service area the facility serves. Forecast the anticipated parking needs for those who will receive services and any special events that need to be considered when siting.
- **Transportation and Roadway Accessibility.** If known, identify where the majority of staff commute from and where they will park. Identify public transportation servicing the site.
- **Suitability for Trucks and Deliveries.** Consider the grades or complicated topography and Where shipments and receipts are made
- **Environmental conditions**. Conduct a preliminary investigation and document any known or expected hazardous abatement, soils or groundwater impacts to the site. Due diligence will be conducted on any final recommended site, but pre-acquisition work, such as the Minnesota Pollution Control's What's in my Neighborhood, and any current owner documentation should be

consulted. Consider whether an Environmental Assessment or Environmental Impact Assessment will be needed

- **Traffic study.** Identify whether a traffic study may be warranted and account for it in the pricing of the project and capital request.
- **Historical/Archeological requirements**. Identify and document whether any historical, archaeological are anticipated on the site. It may be necessary to consult with the tribes as the siting process progresses.
- **Security criteria.** The predesign should identify security considerations that may be required as part of the agency mission on site; for example, law enforcement, data centers and correctional facilities all have operational security requirements may benefit from site attributes.

5.3.5 Sustainable sites criteria

All bond funded and most general funded capital projects must adhere to B3 State of Minnesota Sustainable Building Guidelines (B3-MSBG). B3 Site criteria focuses on:

- Construction activity pollution prevention
- Brownfield redevelopment
- Storm water design
- Light pollution reduction
- Bird protection
- Pollinator friendly, drought resistant and native plantings
- Renewable energy systems

Site criteria is considered as part of the B3 program.

5.3.6 Site Amenities and Signage

- **Water, plantings and pedestrian walkways.** Identify anticipated site amenities, such as water features, walking paths and gardens
- **Signage.** Identify expected site signage – number of signs and their locations and types, such as monument or pylon signage – to signal the delineation of site boundaries; include their anticipated costs
- **Off Site Directional Signage.** Consider off site wayfinding to the location – establish directional signs that guide customers to the site, placement and number of signs off site

5.3.7 Security

- **Identify need for security assessment.** Depending upon the State Agency's needs and operations, a security/vulnerability assessment for site and building may be needed to establish the security criteria for site selection. This should be accomplished along with associated costs to implement.
- **Geographic Requirements.** Account for any minimum geographic distance – e.g. minimum distance

between two data centers to ensure redundancy in the event of a disaster

5.3.8 Consultation with local officials

- When the predesign team has developed the proposed size and location of the project, it is recommended that the predesign team meet with code and zoning officials to obtain additional property information and requirements.
- Depending on the site, there may be subdivision requirements or consolidations required

Section 6 - Financial Information

Goals of this section

This predesign section should identify the Source of Funds and estimate the expected Capital and Operating Costs to complete design, construct and operate a finished project. The purpose of this section is to ensure that the requestor has enough money to complete the entirety of the project scope when receiving the state bond or cash appropriation.

6.1 Source of Funds

The source of funds will be used to identify what financial resources have been secured or will be requested to complete the project in its entirety. Using the naming and definitions that Minnesota Management and Budget uses, the **Source** of Funds (e.g. bonds or cash) should match the **Use** of funds (e.g. total costs). Identify the following Sources of Funding that applies:

- **State Funds Requested.** This is the amount expected to be requested in the state's capital budget process.
- **Prior Year State Appropriations.** This identifies state funds appropriated during past fiscal years for the project (e.g. design funding appropriated during a previous year)
- **State Funds Pending.** This identifies any state grant funds requested that have an award pending for use in the project.
- **Non-State Funds Already Committed to Project.** This is the amount a third party has committed to a project without any further action required.
- **Non-State Funds Pending.** This may be the amount a third party may match pending a state appropriation.

The total source amounts should be equal to the total capital costs to complete the project.

6.2 Capital Expenditures

Key Costs

Key costs in a predesign include estimated expected costs associated with designing, constructing, equipping, and furnishing a project. The costs should account for the expected project delivery method and phasing, incorporation of B3 Sustainable Building Guidelines and dependencies on when funding is obtained for the full project.

The following includes most major cost items but is not exhaustive.

6.2.1 Site Acquisition and Development

- Land
- Buildings
- Permanent and temporary easements required for the project
- Ground Leases (long term)

6.2.2 Predesign

- Costs for the predesign report
- B3 does start at predesign phase (predesign costs should contemplate B3 compliance)
- Do the predesign costs fully account for all the obligations required at this phase?
- For multi-phased projects – an update and validation of the predesign may be required

6.2.3 Design and Preconstruction

- Design
    - Schematic Design
    - Design Development
    - Contract documents
    - Construction Administration
- Sustainable Building guidelines (B3) and SB 2030 Compliance
    - Fees and costs associated with B3 Guideline Review and Compliance
    - Maintenance and update costs
    - Post-occupancy submittals
- Preconstruction services (for Construction Manager at Risk)
- Cost estimating

6.2.4 Project Management Costs

- State Staff Project Management Fee
- Non-State Project Management Costs
- Owner's Representative Costs
- Commissioning
    - Envelope – Design review, mockups and inspections during construction. (required on state projects).
    - HVAC & Electrical systems commissioning – Design review and inspections. (required)
    - Specialty design consultants and systems. (Security, Acoustics, Food Service, Lab, cultural or archaeological)
- Investigations
    - Land survey
    - Environmental investigations and remediations
    - Utility surveys

    - Geotechnical reports
    - Archaeological or cultural,
    - Facility condition assessments
- Demolition design and deconstruction (if applicable)
- Hazardous Material abatement

6.2.5 Construction

- Site and building preparation
- Demolition and Deconstruction
- Construction
- Infrastructure/Roads/Utilities
- Hazardous Materials Abatement
- Testing
- Other Costs
    - Sewer and Water Charges
    - Permitting costs
    - Winter conditions premium
    - Temporary utilities and facilities
    - Site limitation Costs (e. g. construction staging of materials or equipment) to consider or occupancy limitations (renovation while occupants are in place)
    - Phasing costs
    - Sustainability Features
        - Preparing for Upgrades. Meeting certain future sustainability features (e.g. pre-wire for installation of charging infrastructure or constructing roof to accommodate solar)
        - Rebate or Incentive reporting after Project is in Service. Costs to maintain separate accounting of sustainability features that may be eligible for certain tax rebates or incentives, when requested (e.g. solar array, ground source heat pumps, etc.)
- Construction Contingency (8-12% of total construction costs)

6.2.6 Furnishings, Equipment and Technology

Furnishings, Equipment and technology costs should be included to make a fully functional and operational project. Specialized equipment or technology needed to operate or maintain the building or functions of the building may be included in the capital funding request. Common equipment that may be needed for the project (e.g. forklifts, snow removal equipment, or other regular equipment used to maintain the building) would be an operating dollar purchase and should not be included in a capital funding request.

6.2.7 Inflation Factor

Consult the current edition of the Minnesota Management Capital Budget instructions for the latest approach and inflation factor to apply to the project's estimated mid-point of construction.

Current project and construction cost forms are found on the Department of Administration's web site.

6.3 Other Cost Considerations

6.3.1 State Project Management Costs

State Staff Project Costs. When planning state-funded projects, include a 1% fee for state staff project costs in predesign calculations. This fee covers project management services provided by state agencies or higher education institutions with construction authority. These organizations may allocate project funds from bonding appropriations to support in-house project management staff responsible for overseeing project design, construction, and compliance. More information on this fee can be found here: Minnesota Management and Budget Policy Regarding Use of General Obligation Bond Proceeds to Fund Staff Costs.

6.3.2 Owner's Project Management Costs

For larger projects, owner's (agency) project management services are essential to ensure effective project oversight and administration. Since many agencies lack the internal staff capacity to manage large-scale project development and construction, hiring a dedicated owner's representative or firm to handle the agency's day-to-day project activities is highly advisable. This fee is in addition to the state staff project management services and focuses more on managing the agency's internal requirements, decision making and communications. The cost for these services typically ranges from 2% to 5% of the total construction cost, depending on the scope and complexity of the project, as well as the desired level of service.

6.3.3 Moving and Relocation Costs

State Policy prohibits the use of bond funds for moving and relocation costs. See: Statewide Operating Policy, Moving and Relocation Expense for Capital Projects, MMB Policy 0308-01. Moving and relocation costs, if applicable, need to be identified in the predesign. These costs are to be funded from any agency's general (operating) fund and not part of the capital request.

6.4 Cost Impacts / Ranges By Building Type

6.4.1 Building Types

6.4.1 Major Building Types.

The predesign report should identify the type of building that is being constructed and provide some historical cost ranges to compare with the proposed cost estimates. Consult with the Department of Administration to identify combined uses or if the use is not identified below.

- Monumental office buildings
- Office buildings
- Correctional/detention facilities
- Nursing or long-term care facilities
- Medical clinics and facilities
- Hospitals
- Residential/Community healthcare facilities
- K-12 Educational facilities
- Laboratories
- Teaching/laboratories
- Data facilities
- Library facilities
- Higher education facilities
- Auditorium
- Cafeteria/kitchen/food service
- Warehouse
- Maintenance facilities
- Heating/cooling plants
- Utility infrastructure facilities
- Parking structures

6.4.2 Deviation from current cost profiles.

The predesign should identify any special features of the proposed project that may warrant additional cost above and beyond historical ranges typically seen for a project of this type and scope.

6.5 Operating Expenses

A. Required Forecast of Operating Costs After Project Completion. Along with the initial capital cost of a project, the ongoing operational costs must be estimated and compared with current levels of funding for operations, maintenance and staffing.

B. Cost estimate form. Provide a breakdown of ongoing operating costs that will be incurred as a result of the project using the *State Operating Costs Form* found on the Department of Administration's web site for a current version.

i. **Estimate of project impact on the requesting agency's operating budgets (for state agencies):** Include staffing levels and corresponding salaries, building repair, replacement, utilities, and maintenance. Particular attention should be paid to whether the maintenance and operational services are expected to be performed by agency personnel or will be contracted out to private vendors.

ii. **Summary of proposed operating revenues and expenditures (nonstate agencies and grants):** A five-year estimate of operating budgets that identifies major categories of expenditures and identifies associated revenue sources. If revenue sources include fee generated revenue, a full description of these fees and the assumptions used in making the projections and their justifications should be provided. Potential revenue sources and amounts should also be discussed in this section. All revenue sources (parking decks, dormitories, student centers, cafeterias, etc.) should be listed individually and totaled to show the offset of operational expenses.

iii. **Compare current vs future operating expenses.** This section should end with a narrative that illustrates a comparison of costs that are anticipated over or under present levels of funding for operations and maintenance and staffing.

6.6 Building Systems Lifecycle

A comprehensive lifecycle assessment should be conducted to estimate the expected lifespan of the proposed project and its major building components. This analysis ensures that long-term costs, sustainability considerations, and maintenance needs are accounted for in the planning process.

6.6.1 Estimated Life Expectancy of Major Building Systems.

The following components should have their estimated lifespans documented in the predesign phase:

- **Site & Utility Systems** – Includes stormwater management, sanitary and water mains, telecommunications, and other critical site infrastructure.
- **Building Envelope** – Roof, exterior walls, windows, and insulation that impact energy efficiency and structural longevity.
- **Structural System** – Foundations, framing, and load-bearing elements.
- **Mechanical System** – HVAC, boilers, chillers, and other climate control components.
- **Electrical System** – Power distribution, emergency backup systems, and integrated building controls.

6.6.2 Lifecycle Cost Analysis

The predesign should evaluate the **total cost of ownership** by assessing:

- **Initial Capital Costs** – Design, permitting, and construction expenses.
- **Operating Costs** – based on the current sustainability guidelines and energy codes, energy consumption, water/sewer usage, waste management, and other utility expenses.
- **Maintenance, Repair & Replacement Costs** – Regular upkeep, system upgrades, and major component replacements.
- **Environmental and Resilience factors –** the total cost should consider the projects resilience to weather trends and system durability due to extreme heat, cold or storm impacts

6.7 Comparative Financial Analysis

6.7.1 Purpose of Financial Analysis

A **financial analysis** should be conducted to determine whether the agency's space needs are best met by:

1. **Leasing New Space** – Renting from a third party with ongoing operational expenses
2. **Lease-to-Purchase Agreements** – A financing structure where lease payments transition into ownership and require special legislation.
3. **Owning a State-Owned Facility** – Capital investment in construction or acquisition of a state owned property.

6.7.2 Funding Considerations

Any studies or analyses to compare leasing versus ownership must be funded by the agency from sources outside of bond proceeds. If the financial analysis supports the construction or acquisition of a state-owned facility, bond funding may be requested for predesign and subsequent phases. The predesign document should include a long-term cost comparison that evaluates total expenses over the life of the facility.

6.8 Risk Mitigation

6.8.1 Budget and Quality Control and Budget Contingencies

A comprehensive risk assessment should be conducted to identify potential site, design, and construction-related risks and assign appropriate budget contingencies. This ensures that unexpected challenges can be effectively managed within the project scope and budget.

6.8.1.1 Overall Project Quality Control

For State Agency projects involving new construction, additions, or major renovations, the following quality control measures should be included in both the project design and construction budget:

- **Building Envelope Commissioning** – Includes design reviews, construction commissioning, and inspections to ensure envelope integrity and energy efficiency.
- **HVAC and Electrical Systems Commissioning** – Involves design reviews, functional testing, and inspections to verify system performance.
- **Minnesota Sustainable Building Guidelines (B3)** – Ensures compliance with state-mandated sustainability requirements for energy efficiency, materials, and site design.
- **Building Information Modeling (BIM)** – Requires BIM integration with facility management systems such as Archibus for long-term building operations.

6.8.1.2 Site-Related Risks

Potential risks associated with site conditions and development should be evaluated, including:

- **Property Ownership & Legal Issues** – Title status, property liens, deed restrictions, and ownership transfers.
- **Zoning & Land Use Regulations** – Compliance with local zoning ordinances, setback requirements, parking ratios, and exterior lighting guidelines.
- **Easements** – Identification of existing easements and required new easements for development.
- **Land Acquisition & Timing** – Consideration of potential delays in acquisition and related costs.
- **Community & Stakeholder Engagement** – Evaluation of local/community interests and the need for public meetings or outreach.
- **Site Conditions** – Assessment of soil type, climate factors, and topography to determine construction feasibility.
- **Proximity to Sensitive Uses** – Analysis of neighboring properties, vibration concerns, or adjacency to critical facilities.
- **Utility Infrastructure** – Availability and capacity of water, sewer, power, and data connections, as well as any required extensions or relocations.
- **Environmental & Regulatory Considerations**:
    - **Contamination history** and required mitigation efforts.
    - **Wetlands & shoreline impacts**, including delineations and filling permits.
    - **Shoreline jurisdiction issues** that require compliance.
    - **Environmental regulations**, including State Environmental Policy Act (SEPA) and National Environmental Policy Act (NEPA) requirements.
    - **Environmental Worksheets & Impact Statements**, including expected schedule impacts.
    - **Additional permits** such as **U.S. Army Corps of Engineers or Department of Natural Resources (DNR) approvals**.
- **Access & Transportation Considerations** – Evaluation of site access, parking demand, traffic impact, and local road improvements required.
- **Construction Laydown & Phasing** – Assessment of temporary construction staging areas and logistics to minimize disruption.
- **Historic & Archaeological Considerations** – Identification of any historical structures or artifacts that may affect project planning.
- **Sustainability and Energy Considerations** – Ensuring compliance with sustainable building goals and energy implications.

6.8.1.3 Design & Construction-Related Risks

Potential risks related to **building design, labor availability, and construction timelines** should be accounted for in predesign planning:

- **Compliance with Building Codes** – Ensuring all aspects of design and construction meet current building code requirements.
- **Bidding Climate & Cost Volatility** – Understanding market conditions and potential fluctuations in material/labor costs.
- **Availability of Skilled Labor & Trades** – Assessing workforce availability for HVAC, electrical, plumbing, and structural trades.
- **Labor Union Agreements & Potential Strikes** – Planning for possible labor disruptions due to collective bargaining agreements expiring mid-project.
- **Material Procurement & Lead Times** – Identifying risks of supply chain disruptions or delays in key materials/components.
- **Critical Completion Deadlines** – If construction must be completed by a specific date (e.g., relocating operations from leased space before a lease expiration), contingency planning should be included.

6.8.1.4. Risk Mitigation & Budget Contingencies

The **predesign phase** must include:

- A detailed risk assessment with a risk mitigation strategy for each identified issue.
- Contingency amounts in the project budget, allocated based on risk severity and likelihood.
- Adjustments to project phasing or scope based on identified risks.

By incorporating these risk factors into the planning process, agencies can ensure smoother project execution and avoid costly delays or budget overruns.

Appendices for Section 6

Appendix 6a Worksheet For Designer And Owner Costs

The Worksheet for Designer and Owner Costs is meant to help the agency identify and quantify designer and specialty consultant work that may be required in a project.

Item	Scope of Work	Fee/Cost
X	Basic Services -Architectural	
	Civil	
	Landscape	
	Structural	
	MEP (Mechanical, Electrical, Plumbing)	
	Hazardous Material survey, design, air monitoring, abatement	
	Additional Services	
	1. Specialty Design Demolition Security design Food Service Technology Fire Protection Full time site observation Historical Other	
	2. Interior & Furniture, Fixtures & Equipment (FF&E) bid package(s)	
	3. Minnesota Sustainable Building Guidelines & SB2030	
	4. Building Information Modeling (BIM) *	
	5. Move/Occupancy Consultant & Moving company	
	6. Environmental Assessment Worksheet-Impact of selected site	
	7. Phase I & II Environmental Site Assessments	
	7. Presentation model of building	
	8. Presentation Sketches of building	

	9. Presentations to Legislature, Agency Management, others	
	10. Exterior utility costs	
OWNER COSTS		
	1. Owner's Project Representative (1 – 2% of construction)	
	2. CM at Risk Preconstruction Fees (0.5% of construction)	
	3. Other State Project Management Costs (0.75%-1% of construction)	
	4. Construction costs auditor – (for CM-Risk & Design Build)	
	5. Building Abatement Design and Removal (Renovation & Demo)	
	6. Topographic (ALTA) Survey of selected site	
	7. Geotechnical Investigation of selected site	
	8. Phase I and II Environmental Site Assessment (for contaminants)	
	9. Environmental Assessment Worksheet-Impact Statement (if required)	
	10. HVAC and Electrical Systems Commissioning (B3 Requirement)	
	11. Building Envelope Commissioning	
	12. Construction Testing and curtainwall testing services	
	13. Permit Costs	
	14. Sewer Access Cost (SAC) and Water Access Cost (WAC)	
	15. Wetlands Delineation and (Design & Mitigation)	
	16. Utility Service Upgrades (Water, sewer, gas, electric) & Const'n	
	17. Traffic Studies	
	18. Historic Structures Report (Historic Preservation Consultant fee)	

Appendix 6b – Project Cost Form

PROJECT COST FORM
Fiscal Years 2026-2031
Dollars in Thousands ($137,500 = $138 thousand)

TOTAL PROJECT COSTS All Years and All Funding Sources	Project Costs All Prior Years	Project Costs FY 2026-2027	Project Costs FY 2027-2028	Project Costs FY 2028-2029	Project Costs All Years	Project Start (Month/ Year)	Project Finish (Month/ Year)
1. Property Acquisition							
Land, Easements, and Options							
Buildings and Land							
Other Costs							
SUBTOTAL							
2. Predesign SUBTOTAL							
3. Design Fees							
Schematic							
Design Development							
Contract Documents							
Construction Administration							
Other Costs							
SUBTOTAL							
4. Project Management							

State Staff Project Management							
Non-State Project Management							
Other Costs							
SUBTOTAL							
5. Construction Costs							
Site & Building Preparation							
Demolition/Decommissioning							
Construction							
Infrastructure/Roads/Utilities							
Hazardous Material Abatement							
Construction Contingency							
Other Costs							
SUBTOTAL							
6. Art SUBTOTAL							
7. Occupancy							
Furniture, Fixtures and Equipment							
Telecommunications (voice & data)							
Security Equipment							
Commissioning							

Other Costs (i.e. relocation)							
SUBTOTAL							
8. Inflation							
Midpoint of Construction						Midpoint Date:	
Inflation Multiplier							
Inflation Cost **SUBTOTAL**							
9. Other **SUBTOTAL**							
GRAND TOTAL							

Appendix 6c Construction Cost Form

Construction Cost Form

Construction **Type of space**	**Existing**	**New construction**			**Remodeled**			**Renewal** **(asset preservation)**			**TOTAL** **COST** **(in $000)**
List Major Type of Space (Office, Lab, Ramp, etc.)	Gross Sq. Feet	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	Gross Sq. Feet	Cost (in $000)	Cost Per Sq. Foot (in $)	
TOTAL											

This Form is for Reporting and Analysis of *Construction Costs* only
No other cost items from the Project Cost Form should be included on this form.

APPENDIX 6d – Operating Cost Form

Capital Budget Request

Operating Costs Form

The Operating Cost Form may be used to forecast the impact the capital project has on the agency's operating budget while the project in process and through initial occupancy. This form is the place to capture anticipated carrying costs or savings, such as moving and storage costs, leasing and building expenses that may need to be considered.

Operating Cost Form					
Descriptions	Current Cost	Projected Cost (Without Inflation)			
	Current FY	FY2026	FY2027	FY2028	FY2029
Compensation (Program and Building Operations)					
Other Program Related Expenses					
Building Operating Expenses					
State-Owned Lease Expenses					
Nonstate-Owned Leased Expenses					
Other Expenses: (specify):					
Revenue Offsets					
TOTAL					
No. of FTE* Personnel					

*FTE= Full Time Equivalent

Section 7 - Schedule

7.1. Schedule Information

7.1.1 Proposed project schedule

The predesign report must address the expected schedule for the project and include all stages of the project, such as:

- Site selection and acquisition
- Designer selection, design approvals (e.g. State Designer Selection Board)
- Specialized site considerations (e.g. environmental, historical designations and cultural resource reviews)
- Government approvals and proceedings at all levels
- Construction, furnishing and equipping – the mid-point of construction is a crucial schedule point used to apply an inflation factor on capital bonding projects
- Commissioning
- Occupancy/relocation

Scope changes and funding availability have the most direct impact on schedule.

7.1.2 Proposed funding sequence

For large-scale projects or those requiring phased construction, it is often unrealistic to secure full funding in a single capital bonding cycle. A strategic, phased approach should be incorporated into the project schedule to align with available funding opportunities and legislative cycles.

7.1.3 Project Cycle and Multi-Cycle Funding

Given the competitive nature of state capital bonding dollars and the unpredictability of bonding bill passage, projects requiring multi-phase renovation or new construction should establish a realistic, multi-year funding and implementation schedule.

Key considerations:

- Projects should be structured in phases that align with available funding.

- Agencies should plan for alternative funding sources where possible, particularly for preliminary work such as site acquisition, environmental studies, or predesign.
- A contingency plan should be included to adapt to delays in bonding bill approvals or alternative legislative actions.

7.1.4 Traditional and Off Cycle Bonding Bill Schedules

The traditional capital bonding bill cycle occurs in even-numbered years when the legislature formally considers capital investment requests. However, off-cycle bonding bills (odd-numbered years) may still be passed depending on legislative priorities.

- **Primary Bonding Cycle**: Occurs in even-numbered years, with funding requests submitted in advance.
- **Off-Cycle Bonding Opportunities**: While less common, the legislature may approve smaller-scale bonding requests in odd-numbered years.
- **Planning Considerations**: Multi-cycle requests should be based on the traditional even-numbered cycle, with adjustments made if an off-cycle opportunity arises.

7.1.5 Other Key Scheduling Considerations

Beyond legislative timing, agencies should factor in owner-driven and regulatory requirements that impact overall project timelines, including:

1. **Site & Infrastructure Readiness**
    - Identification and acquisition of land.
    - Development of essential utility services for the site.
    - Completion of environmental assessments or impact statements to meet regulatory requirements.
2. **Operational & Security Constraints**
    - Planned facility shutdowns to accommodate construction without disrupting critical services.
    - Secure access protocols for contractors when working in restricted or high-security areas, which may extend timelines due to:
        - Entry/exit inspections
        - Tool inventories
        - Limited working hours due to security protocols

3. **Design & Regulatory Review Processes**
    - Owner review of project documents before advancing to the next phase.
    - Regulatory approvals, including:
        - State and local building codes
        - Health department reviews
        - Environmental permits
        - Planning commissions and zoning requirements
4. **Material Availability & Supply Chain Factors**
    - Lead times for material delivery should be accounted for, particularly for specialized building systems, structural components, and long-lead items that may be impacted by market conditions or supply chain disruptions.

7.2 Schedule Requirements

A summary of key milestone dates should be provided to establish a clear timeline for funding, design, bidding, and construction. This timeline should account for potential delays, funding cycles, and necessary approvals.

7.2.1 Date Funding Received

- Identify the date(s) when funding was secured.
- If multiple funding sources are involved (e.g., state and non-state funds), include expected dates for receipt of additional funds.
- If a project is dependent on multi-cycle bonding requests, note anticipated funding intervals and any required design updates.

7.2.2 Design Completion Date

- The date when final construction drawings are complete and ready for bidding.
- Account for potential design refresh if funding is delayed (e.g., a two-cycle bonding request may require updates before proceeding to bidding).

7.2.3 Bidding and Award of Construction Date

- The expected start and completion dates for the competitive bidding process.
- Include time for reviewing bids, selecting a contractor, and executing contracts.

7.2.4 Construction Start Date

- The projected date when onsite construction begins.
- Consider any seasonal factors or permit approval timelines that could affect the schedule.

7.2.5 Mid-Point of Construction Date

- Minnesota Management and Budget provides inflation adjustment guidance based on the mid-point construction date
- The estimated halfway mark of the construction timeline.
- Useful for tracking progress, anticipating potential delays, and aligning budget and schedule adjustments.

7.2.6 Estimated Substantial Completion Date

- The projected date when major construction is complete, and the facility is ready for occupancy or final inspections.
- Include time for punch list items, commissioning, and closeout procedures.

SAMPLE PREDESIGN SUBMITTAL COVER LETTER

LETTERHEAD of Agency or Organization
[insert date]

Commissioner **[insert name of Commissioner of Administration]**
c/o Eric Radel
Real Estate and Constructions Services
309 Administration Building
50 Sherburne Ave
St. Paul, MN 55155

Dear Commissioner **[insert name]**,

RE: Predesign Submittal for **[insert "a new"]** or **["the remodeling of"] [insert name]** building

In accordance with Minnesota Statutes §16B.335, Subdivision 3, enclosed you will find the Predesign submittal document for the **[insert name of project, building & location**]. This predesign outlines the **[insert name of agency/political subdivision]** 's capital budget request for the **[insert year]** state legislative session.

This project consists of the **[new construction of]** or **[remodeling of] [insert number of square feet]** of space to support **[insert operational plan/goal]**. The total project cost is estimated to be **[insert amount]**. This proposal seeks **[insert "full funding"]** or **["matching funds"]** in the amount of **[insert amount]**.

Sincerely,

[insert Commissioner/Authority Name]
[or head of political subdivision or other approving authority]

Enclosure

cc: