



# Document Organization & Process

## Compiled Comments

Introduction		Consider adding a paragraph on how other airports can use the Manual. It is hard to tell from the Intro that the Manual is designed to support and to encourage sustainability at airports all over the world, not just in Chicago. Also, how people in different regions will need to think about the unique issues facing their local areas, and how that governs the sustainability considerations.	E. Leavitt
Introduction		Might want to consider a statement on why this Manual is necessary given that it approximates LEED. What is it specifically about the Manual that enhances or supplements the LEED process	E. Leavitt
Intro	i	Second paragraph, remove “ quotation mark at end of the sentence	E. Chin
Intro	ii	In the TOC, right justify the page numbers into a separate column so they are lined up	T. Merrihew
Intro	iv	Verify “CxA” used for commissioning authority instead of “CA”	T. Merrihew
General	vii	<b><u>Vision Statement</u></b> The vision of the Chicago Airport System is to be environmental stewards by the development and implementation of sustainable practices at all levels of airport development and operations. Through collaborations and the exchange of information and ideas with our industry partners, the Chicago Airport System will serve as a model to airport systems around the world.	E. Chin
General	vii	<b><u>Mission Statement</u></b> The Chicago Airport System is the one of the largest airport systems in the world and recognizes our responsibility to incorporate sustainable practices. We consider the best possible environmental, social, and fiscally responsible practices to enhance the quality of life through the planning, operations, design and construction of airport facilities.	E. Chin
Introduction	vii	CHANGE: <b>Implementation of</b> Sustainable design elements can reduce operational costs and increase occupant productivity, for example, through energy efficiency and indoor air quality <del>considerations</del> improvements. The <b>on-site</b> recycling and reuse of construction waste and materials reduces transportation cost and the use of regionally obtainable	S. Clermont

		materials benefits the local economy <b>and reduces life-cycle emissions of those materials.</b> <del>Depending on</del> <b>Regardless of</b> the scale and scope of a project, it is anticipated that with the appropriate level of investment in these sustainable design elements, all parties including owners, occupants, contractors, and the general public can benefit environmentally and <del>financially</del> <b>economically</b> . In many cases, there is little or no impact on the project budget or schedule in the implementation of some of these sustainable design elements.	
Intro	vii	Suggest a paragraph to properly manage the expectations of other airports that may read the document. Explain that the manual was designed for use by the Chicago DOA, but it is made available to other airports to interpret and use the guidelines in their own sustainability programs. It is not intended to be comprehensive as some of the guidelines may not be applicable other airports, and some topics may have been excluded because they did not apply to Chicago airports.	S. Clermont
Introduction	vii	Include a section on “Intended Audience.”	S. Clermont
Intro	vii	Pre-planning, key sustainable goals need to be added to intro / vision statement.	All
Intro	vii	Benefits of Sustainable Design, 1 <sup>st</sup> sentence, replace “commercial buildings” with “facilities”	T. Merrihew
Intro	Vii	Benefits of Sustainable Design, 2nd sentence, replace “built” with “constructed”	T. Merrihew
Intro	Vii	Benefits of Sustainable Design, 3rd sentence, delete the word occupant	T. Merrihew
Intro	Vii	The vision statement reflects the vision of OMP/O’Hare for use of the manual, but should be updated to reflect the new broader vision about the manual’s applicability elsewhere	E. Leavitt
Introduction	ix	Reorganize projects chart and move it to an appendix so it can be updated more frequently without impacting the overall document, the chart appears to show good compliance during design but not construction. Consider including projects that are in the process of being certified with an asterisk or similar denotation to show that construction projects are in the process of gaining certification as well. Add text to the process section stating the addition. <u>Note: this chart was removed from July 2 RSA review version</u>	T. Merrihew
Introduction	ix	Recommend moving project list to appendix (or at least explain what the projects area).	E. Leavitt
Introduction	ix	“This Version Two update incorporates the most current information available and has been expanded to include design and construction efforts for both O’Hare and Midway	E. Leavitt

		International Airports.”  Might want to consider explaining that USGBC standards have been updated and new technologies and designs have become available since the previous version.	
Intro	ix	Reorganize the LEED project table – what is the status of these projects? Some have been completed; others shelved.	All
Intro	X	First paragraph “The Manual is written...”: This seems redundant as this is addressed in the acknowledgement, consider removing paragraph.	E. Chin
Intro	X	Paragraph 2, sentence “For this reason...”, remove “effort has been made to keep” This tightens the sentence, too wordy.	E. Chin
Intro	X	Paragraph 2, last line...”Web site” is actually two words	E. Chin
Intro	x	Civil – Airside bullet, add “navigational aids” to the projects list	T. Merrihew
Intro	X	A chart defining which points are applicable to Civil Airside, Civil Landside, Occupied Buildings, and Unoccupied Buildings needs to be developed and added to the manual.	J. Lyons
Intro	Xi	Occupied Buildings bullet, remove hyphen from “normally-occupied” to match previous page	T. Merrihew
Intro	Xi	Occupied Buildings bullet, delete “relocations of previously-occupied facilities”	T. Merrihew
Intro	Xi	4 <sup>th</sup> paragraph, 3 <sup>rd</sup> sentence, replace “types” with “categories”	T. Merrihew
Intro	Xi	4 <sup>th</sup> paragraph, 3 <sup>rd</sup> sentence, add “buildings” after “occupied”	T. Merrihew
General	xi	Overall in the credits, add consideration for life-cycle cost/benefit analysis	S. Clermont
Intro	xii	Under Requirements: The first sentence is confusing. Consider rewording to “A set of Requirements that includes institutional, operational, mechanical, or design elements that summarize and meet the Intent.”	E. Chin
Intro	xii	Submittals: Consider rewording first line to “Required and supporting documentation and/or information required to achieve applicable credits.”	E. Chin
Intro	xii	Consider removing first sentence “Certain technologies....”; removing second sentence “Many examples...”; beginning 3 sentence with “Highlight specific Technology/Strategy...” REASON: Redundant to the other information included in paragraph.	E. Chin
Intro	xii	Current Practices: Reword last sentence...not sure what this means, confusing.	E. Chin
Intro	xii	Rating Systems: is the certification called the “Sustainable Design Certification” or “Green Airport Certification” or are these two separate certificates (ie. One for design, one for	E. Chin

		construction). My suggestion is to call it one certification, can thus be branded accordingly.	
Intro	Xii	Requirements bullet, 2 <sup>nd</sup> sentence, replace “or design elements” with “design or construction elements”.	T. Merrihew
Intro	Xii	Submittals bullet, 2 <sup>nd</sup> and 3 <sup>rd</sup> sentence, instead of referencing LEED just reference documentation as identified in the specific SDM manual section. Make sure the documentation and templates, etc. are included in each section.	T. Merrihew
Intro	xii	Technology/Strategy bullet, 3 <sup>rd</sup> sentence, delete the second occurrence of the word “in”.	T. Merrihew
Intro	xii	<p>Additional clarification is required with respect to the definitions or terminology related to Requirements, Current Practices, Recommendations, and Guidelines.</p> <ol style="list-style-type: none"> <li>1. Requirements – In general, these seem to be LEED requirements because they are in gray italic. So, they must be met to obtain LEED credit. Are they also required for “Green Airport” credits?</li> <li>2. Current Practices – are these requirements to obtain “Green Airport” credits? Are they “current practices” regardless of their contribution to sustainability? The term “current practice” implies what airports are doing now, but they may not necessarily be something you want to promote in the future. It almost sounds like these are DOA’s “minimal requirements” that each project must have to get credits or before being considered for “Green Airport” credits.</li> <li>3. Design Recommendations – are these optional? Does the design or construction receive credit or extra credit for including these elements?</li> <li>4. Design Guidelines – are these optional or required? Do they obtain credit or extra credit?</li> </ol> <p>Is the only difference between Design Recommendations and Design Guidelines the perceived level of impact to the budget or schedule? If that is the case, why not combine the categories and allow the designer to determine or manage the impact as part of their proposal?</p>	All
Intro	Xii	Ensure that Design Recommendations and Guidelines have guidelines that are relevant and appropriate to the design or construction element. For example, the requirement for 1.4.1 is to locate a project within walking distance of public transit. But the design guidelines are out of the control of the designer or builder: “Provide incentives for	All

		employees to use public transit” is an operational issue that the designer has no control over, and thus may struggle with incorporating such elements into the design.	
Intro	Xii	Technology/Strategy bullet, consider renaming the practice headings to more closely define what they represent: <ul style="list-style-type: none"> <li>• Current Practices = Standard Practices or Required Practices</li> <li>• Design Recommendations = Recommended Practices</li> <li>• Design Guidelines = Provisional Practices or Preferred Practices</li> </ul>	T. Merrihew
Intro	Xiv	Rating System still left me asking "What does it mean to be a 5 Green airplane project?" Does that mean that the project was almost 100% green or something else?	J. Lyons
Intro	Xiv	The point values for different credits do need to be reevaluated however it should be done in a logical and repeatable fashion so that when industry standards change the manual will be able to adjust predictably.	J. Lyons
Intro	Xiv	Were other rating systems from around the world explored for potential practices or standards missed by USGBC?	J. Lyons
Intro	xiv	Rating system tables, include points for the “required” items in the sustainable design and construction checklist to take credit for the basic items that the OMP/DOA require above and beyond the standard practices	All
Intro	Xiv	Add prerequisites to rating system tables.	All
Intro	Xiv	Change “total” to “maximum” in rating system tables	All
Intro	xv	Under “Design Phase” 3 <sup>rd</sup> to last paragraph, begins with “Certain credits pertain to OMP specifications...” should we change this to “Department of Aviation specifications...”	E. Chin
Intro	Xv	Implementation and Review Process, If all panel members are LEED certified state it in this section.	All
Intro	Xv	Implementation and Review Process, consider adding individuals from independent organizations or outside agencies to the SRP	All
Intro	Xv	Design Phase, 7 <sup>th</sup> sentence, include the relevant specifications, checklists, templates, etc. with the appropriate SDM section or if not feasible include in an appendix or include a reference.	All
Intro	Xvi	The SDM reviews should be incorporated into the standard review process to keep the design process moving	All
Introduction	xvii	In addition to the process flow, consider identifying roles and responsibilities	S. Clermont

Introduction	xvii	Reorganize the Process table to provide Project Title, Brief Description, Design Rating, Construction Rating, and current status. Also, consider moving to [earlier in] the introduction as it is not relevant to the process sections.	S. Clermont
Intro	Xvii	Last sentence on the page, change "OMP" to "DOA"	T. Merrihew
Intro	Xvii	Construction Phase, 3 <sup>rd</sup> sentence, states that the CM verifies compliance during closeout. The specifications require the Contractor to provide verification of on-going sustainable items during construction that the CM currently verifies.	All
Intro	xvii	Access to the USGBC's credit templates are limited to members of USGBS or those involved in registered projects. What happens when a contractor is not a member and the project that they bid on is not going thru the official LEED process?	J. Lyons
Intro	xvii	Add section after "Construction Phase" about the importance of commissioning.	All
Intro	Xiii	Sustainable Design and Construction Checklist, break the checklist up into each of the potential categories four for design and four for construction to clarify the possible points available for each option.	All
Intro	Xiii	2 <sup>nd</sup> note in box, to date the Construction Manager has been overseeing the implementation of sustainable design during construction. Does the program intend to increase the Designer's involvement in the construction phase?	All
Credits		Reference is made to DOA's Best Practice Manual. Consider explaining what this manual is, the relationship to the SDM, and where it can be found	S. Clermont
Overall		Is this the "Chicago Department of Aviation" or "Chicago Airport System" Sustainable Design Manual, it is referred to as both in the document	E. Chin
General		What does the copyright at bottom of each page refer to?	J. Lyons
General		An effort should be made to limit the amount of pages in the entire manual. Consider formatting pages so that there is a .5 inch right, bottom and top margin.	J. Lyons
General		Eliminate white space and unessential passages to keep manual as concise and straight forward as possible.	J. Lyons
General		Delete all blank pages.	J. Lyons
General		Change page numbering format to match Section 9 and as shown in table of contents. It will help document users know where they are in the manual when section headers are not on the sheets.	J. Lyons
General		Administration Procedures is not in the Table of contents. Consider moving it to the front	J. Lyons

		of the document.	
General		Revise where appropriate to state that the SDM provides direction not suggestions.	All
General		Section on record keeping may be helpful. For example after a project has been completed, create a document that lists the actual amount of material that has been diverted from landfills or the amount of energy and water saved. The information can be used for public relations and could eventually provide a way to rate Airports as whole entities by quantifying the impact that its sustainable practices has had on the surrounding region.	J. Lyons
General		Following the same logic as above changing baselines should be done with caution and should try to stay consistent with the rest of the LEED products. We should look at our manual as a part of a whole.	J. Lyons
General		Way finding is a large part of airport operations and more airports are supplementing standard signs with electrical signs. Signage practices need to be included in one of the points. It could be the ability to include the recycled content of sign faces and supports or realize energy savings by not lighting a sign or using strategies such a wind turbines or solar for signs with an electrical requirement.	J. Lyons
General		All references to Illinois agencies should be changed to 'State" agencies where meant to be applicable to all such state agencies.	J. Lyons
General		Focus on creating green roofs at airports may be counter productive. Thou it helps with heat island effect, water quality, etc., it also creates a habitat for insects and attracts birds which airports try to repel. Roof products that do not introduce contaminants into the rain water or cool roofs could be alternate substitutions where ever green roofs are mentioned.	J. Lyons
General		Some of the technical specs are outdated. Current engineers are proposing LEED-based specs, but the standards are outdated.	All
General		Adding a standard or spec helps document	All
General		Introduce the additional chapters in introduction (Planning, O&M, C&T)	All
General		Intro needs more detail on the purpose of the manual	All
General		The manual needs an expanded introduction, or perhaps a new section that addresses broad issues that affect airport sustainability- the importance of beginning sustainability work in planning and conceptual design; the importance of efficiency improvements on	E. Leavitt

		sustaining an airport's life and getting the greatest use from the asset; Total Cost of ownership/Sustainable asset management.	
General		The document is silent on climate change. Suggest adding a section on how CC is a critical issue affecting the sustainability of the aviation industry, and can reduce GHG emissions thru sustainable design and operations, AND how adaptation and planning come into play with sustainable design.	E. Leavitt
General		The SDM team needs to be engaged earlier in the design process to discuss potential sustainable design opportunities for the subject project. To emphasize the importance this could be done in a separate meeting from the design kick-off meeting which sets sustainable design goals for the project.	T. Merrihew
General		Set a procedure for submission and review of innovative ideas for possible incorporation into a specific project or program wide.	T. Merrihew
General		Consider giving Contractors incentives to put forth cost saving sustainable design ideas during the construction phase. Certification lends prestige to a designer who is selected based on qualifications but since Contractors are selected by low bid the same incentive is not there. Possibly consider sharing in the savings associated with cost saving ideas.	T. Merrihew
General		Expand upon wildlife deterrence issues in section on competing interests between airport environments and LEED.	All
General		Differentiate between initial versus life cycle costs especially in sections on current practices, design recommendations, and design guidelines	All
General		Make sure guidelines are actionable by designer.	All
General		Is there a need for a section on transparency or 3 <sup>rd</sup> party, independent review or public review?	All
Appendix A		Checklist in Appendix A needs more description.	All
Appendix A		Need a lead-in describing in Appendix.	All
Appendix A		Design Guidelines section – rename these to “Best Practices”?	All
Appendix A		Add section on how the sustainable review panel was assembled	All
Appendix A		Elaborate on rating system (# of green airplanes). How was this system developed?	All
Appendix A		Add specs to Appendix – problem is that these specs apply to ORD, not necessarily all airports	All