Integrative Process and Eco-Charrette Training

Tuesday, September 30, 2014

8:30 AM—12:30 PM

King Street Center – 8th Flr Conference Room

Agenda

Time	Topic
8:30	**Introduction**
8:45	**Exercise 1: Challenging Experiences**
9:00	**Lecture: IP Overview**
9:20	**Exercise 2: Analyses within the IP Timeline**
9:50	**Lecture: Analyses within the IP Timeline**
10:05	**Break**
10:15	**Lecture: Planning IP Meetings**
10:30	**Exercise 3: Planning IP Meetings**
10:50	**Lecture: Facilitating a Meeting/Eco-charrette**
11:00	**Exercise 4: Conduct a Mini Eco-charrette**
11:50	**Exercise 4: Report out**
12:20	**Q&A**

Course Workbook

Exercise #1– Icebreaker: Challenging Experiences

Take 5 minutes to independently brainstorm a recent challenging experience with a traditional design/construction process. At the 5-minute chime, pair up with a neighbor (groups of 3 okay) – introduce your name, role, and your project example.

Project Example (general description):

What went wrong with the process?

How IP would help?

Why IP would help?

Exercise #2 – Analyses within the IP Timeline

Look at the analysis described on your card. Where within the integrative process will your analysis have the optimal impact? Stand near the appropriate milestone along the timeline posted on the wall.

Exercise #3 – How do you prepare for an eco-charrette?

As a group, select one of the following scenarios and answer the questions below to prepare for your charrette:

FMD is doing a major renovation on a 911 call-center first built in the 80's. The current center is inadequate for modern call-center technology and lighting and HVAC systems negatively impact the comfort of and stress on 911 operators. What do you need to do to prepare for an eco-charrette?

A local government is planning to replace and improve a culvert. The existing culvert is collapsing and undermining the integrity of the road. The culvert is also a partial barrier to fish passage. A new improved box culvert will meet state standards for fish and debris passage. What do you need to do to prepare for an eco-charrette?

1) What information do you need?

2) What questions do you need answered?

3) Who needs to be at the charrette?

Exercise #4 – Conduct a mini-charrette

Each of you will be assigned a role for this exercise, including: facilitator, local government Project Manager, landscape architect, contractor, sustainability consultant, budget/finance/performance measurement specialist, call-center tech specialist, civil engineer, or maintenance staff.

Brainstorm ideas (from the perspective of your role) that meet the following priorities and synthesize them into three to five themes:

911 Call Center	New Fish Culvert
Support the latest call-center technology and adapt to new technologies in the coming years	Ensure traffic safety for vehicles, pedestrians, and other users
provide a support and stress reducing environment for call-center operators	Improve the habitat and fish passage through culvert
demonstrate leadership in meeting the County's Green Building Ordinance and implementing the Strategic Plan	Make a public demonstration of green methods and materials
	Protect/restore a healthy watershed

Notes:

Integrative Process (IP) and Eco-Charrette Training

September 30, 2014
King Street Center
8th Floor Conference Center

INTRODUCTION

King County Strategic Plan

Goal:
Environmental Sustainability – safeguard and enhance County's natural resources and environment.

Objective:
Minimize County's operational environmental footprint

Green Building and Sustainable Development Ordinance 17709

The intent of this policy is to ensure that the planning, design, construction, remodeling, renovation, maintenance and operation of any King County-owned or financed capital project is consistent with the latest green building and sustainable development practices.

Executive Dow Constantine

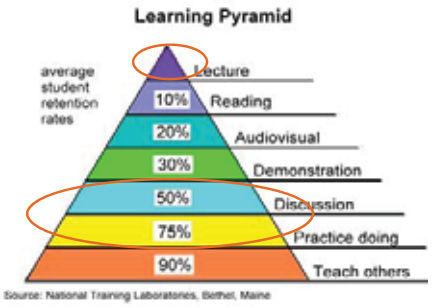
"By embracing the highest green-building standards in the nation, we are taking action to meet our goal of cutting in half the climate impact of County operations. At the same time, we will save money on the energy needed to operate our facilities."

Introduction: Ground Rules

- Team Dynamics
  - Active Listening
  - Openly sharing ideas, perspectives, & information
- Logistics
  - Start and end on time (or early)
  - Follow an agenda
- Design Innovation
  - Listen together for patterns, insights, & common ground

Bike Rack

Today's Roadmap



Source: National Training Laboratories, Bethel, Maine

Today's Roadmap

- Integrative Process
  - Using IP to overcome challenging situations
  - IP Overview
  - Role of Analysis and the IP timeline

Break

- IP Meetings – Charrettes & Workshops
- Planning an Eco-Charrette
- Practicing an Eco-Charrette

Learning Objectives

- **Articulate** the benefits of IP in overcoming conventional challenges in conventional design practice.
- **Describe** the types of analyses that can be part of the IP process and how they result in financial, environmental, and operational benefits to the project.
- **Plan** an eco-charrette or other IP meeting

Integrative Process (IP)

If you approach a project as a collection of parts, you get a collection of parts.

Alternatively

Long-term Outcomes

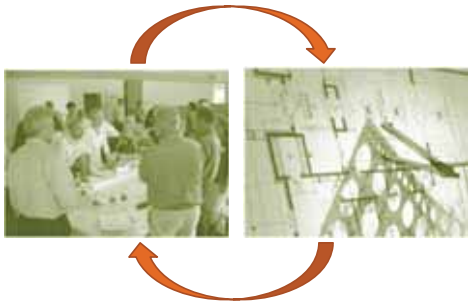
- Incorporate IP into your projects and work
- Save your projects money and improve environmental performance
- Collaborate with coworkers and divisions to maximize effectiveness
- Teach others within your divisions and project teams about IP application and charrette facilitation

Exercise #1 – How IP overcomes project challenges

- Take 5 minutes to independently brainstorm a recent challenging experience with the design/construction process.
- Pair up with a neighbor introduce your name, role, and your project example.
- Brainstorm how and why an integrated process could have improved this situation

IP OVERVIEW

What is IP?



IP and Sustainability

"You can use the integrative process and achieve a high quality design…but it isn't necessarily sustainable unless you have sustainable building goals.

On the other hand you can't achieve a truly sustainable building without an integrative process."

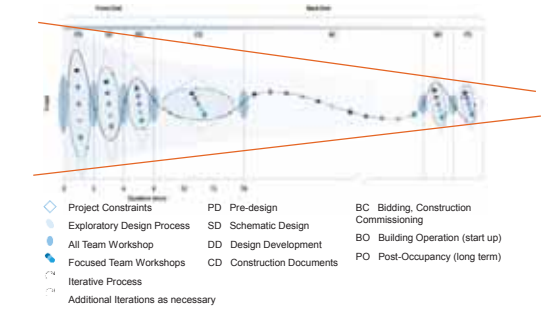
-- Kathleen O'Brien

How does this relate to government?

"NLC promotes the "triple bottom line" definition of sustainability, encompassing the intersections of environmental stewardship, economic prosperity, and social responsibility. For Local governments, sustainability can be used as an organizing framework to comprehensively **plan** and **evaluate** their activities."

- National League of Cities

Integrative Process

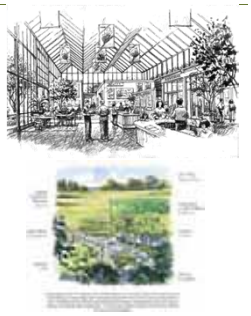


Source: Roadmap for IDP, page 13

Merrill Hall Case Study

Priorities

- Flexible, efficient building that brings nature into the building
- Feature water as a renewable resource



Priorities

- Minimize material use and use green materials
- Demonstrate “good wood” use
- Reduce energy use and use natural strategies

Eco-charrette

Sustainability Plan

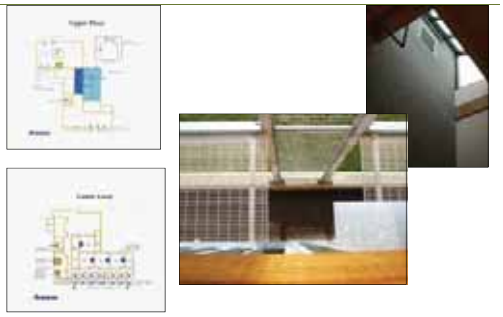
Sustainability

- Over 30 low-to-no cost green features in specifications
- Additional donor funding green strategies

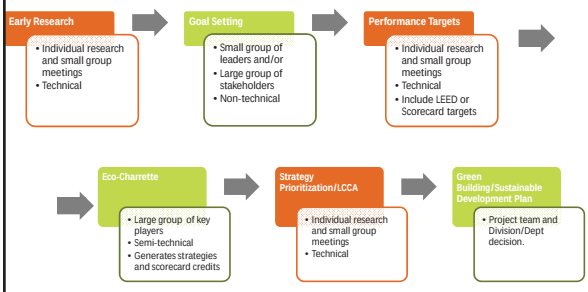
LEED

- Well positioned for certified level (26-32 points)
- Continued to track through project

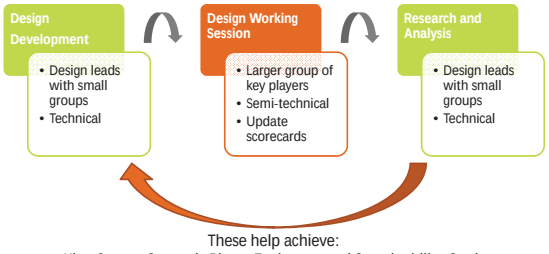
Testing and Verifying the Plan



Early Project (before 30%)



30% and Beyond

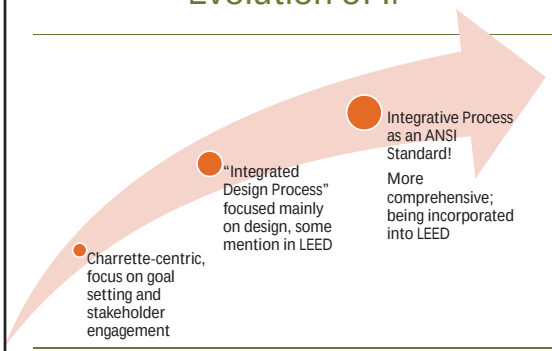


These help achieve:
King County Strategic Plan – Environmental Sustainability Goal:
Reducing Government's Environmental Footprint

Construction and Operations

These help achieve:
King County Strategic Plan – Environmental Sustainability Goal:
Reducing Government's Environmental Footprint

Evolution of IP



IP: ANSI Standard

Why is this important?

- Simple to follow, but specific enough to function as a guideline for practitioners
  - Part A: Discovery
  - Part B: Design & Construction
  - Part C: Occupancy
- Each Part includes very clearly defined stages with tasks outlined

MTS 2010:1 Integrative Process (IP)© - ANSI Consensus National Standard Guide© Design and Construction of Sustainable Buildings and Communities

ANSI Standard Definition

- The Integrative Process seeks to design and construct buildings that are **cost-effective** over both the **short and the long terms**, in a way that unifies technical and living systems into an increasingly life-enhancing **whole system**.

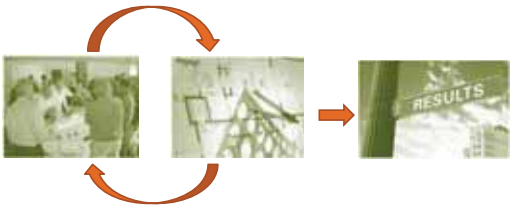
ANSI American National Standards Institute

KC Green Building Ordinance Definition

- An approach to achieve **high performance** on a wide variety of well-defined environmental and social goals while staying **within budgetary and scheduling constraints**. It relies on a **multidisciplinary and collaborative team** whose members make decisions together based on a shared vision and a holistic understanding of the project. It is an **iterative process** that follows the design through the **entire project life** from predesign through operation.

IP and Rating Systems

- Set and test performance
- Require or encourage IP



King County Green Building Ordinance

- All LEED eligible capital projects must register with the USGBC and achieve a **LEED Platinum rating**.
- All non-LEED eligible projects must incorporate sustainable development practices and fill out a **Scorecard** that shows the strategies that are being used.
- County projects should **use an integrative process** and triple-life cycle assessment to optimize design approaches.

Maleng Regional Justice Center Eco-charrette

- Tenant Improvement
- Expected LEED Certified given budget

- Eco-charrette "Headlines"
  - First King County Courthouse Certified!
  - "No news is good news" or "no complaints" with regards to mechanical systems
  - Courthouse utilizes *all* LED lights
  - County saves money on O&M costs
  - King County reaches LEED Platinum on a certified budget

Maleng Regional Justice Center Analyses and Results

- LEED Analysis at Charrette – LEED Gold feasible without cost impact
- LEED Specifications review
- Commissioning
- Awaiting LEED Platinum certification

ANALYSES AND IP

Exercise #2 – Analyses & IP

- Look at the analysis described on your card. Where within the integrative process will your analysis have the optimal impact?
- Stand near the appropriate milestone along the timeline posted on the wall.
- If you have questions or aren't sure where to be, talk to your neighbors.

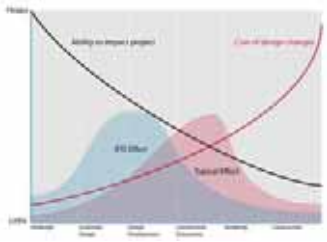
Exercise #2 Debrief

- Are these analyses familiar?
- Do any of them need to be moved? Copied?
- Can you identify example analyses that may benefit your current or future projects?

Making the Case for IP

- With streamlined project management inherent in the integrative process, mistakes and change orders can be reduced.
  - In 2000, The Economist reported that inefficiencies, mistakes, and delays accounted for nearly 1/3 of the $650 Billion spent on construction in America every year.
  - Research by the NIST estimates that poor communication costs $US15.8 billion in the US capital facilities.
  - The Navy found that the integrative process has cut change orders on its projects by 90 percent.

Maximizing Positive Outcomes



"For sustainable strategies, the rule of thumb is the later you think of it, the more it will cost and less benefit you'll get." --Kathleen O'Brien CN17

What are the Benefits?

The later you think of it, the less benefit you'll get and the more you will pay for it.

Key Element to Successful IP - Analysis

Adapted from Building Green: Adding Value Through Process

Analyses Depend on Timeline

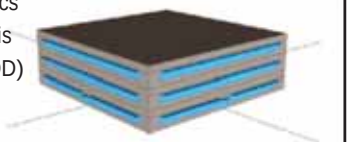
Source: Roadmap for IDP, page 13

Analyses: Early Project

- Site Assessment (impacts, IEQ)
- Water budget (sources, uses)
- Stormwater (flow, treatment)
- Energy (siting, sizing, lighting, comfort)
- Materials (LCA), Deconstruction & Reuse Opportunities
- Owner's Project Requirements (OPR)

Analyses: Before 30%

- Eco-charrette
- Shoebox energy modeling
- Climate assessment and mitigation analysis
- Daylight studies
- LID/stormwater calcs
- Water reuse analysis
- Basis of Design (BOD)



Analyses: 30% and Beyond

- Synergies of Systems
- Water and Energy Models
- LCCA
- Submit Scorecard or LEED Checklist to Green Building Team Division representative at 30% Design and at Project Completion

Analyses: Occupancy

Maximize the Benefits:

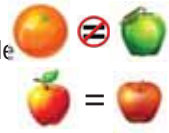
- Third Party Certification
- Commissioning
- Post Occupancy Evaluation
- Feedback from all systems
- O&M Activities (see the Guidelines!)

Analyses required in the Green Building Ordinance

- All capital projects do LCCA
- LEED if eligible, Scorecard if not, or alternative rating system
- LEED Checklist or Scorecard due by 30% Design and at Project Completion to GBT rep
- Energy and climate
- C&D plan
- Stormwater management

LCCA

- Decide what to compare
- Perform modeling, if applicable
  - e.g.: Energy, Water
- Gather cost data
- Confirm LCCA default criteria
- Use the KC LCCA calculator



Commissioning

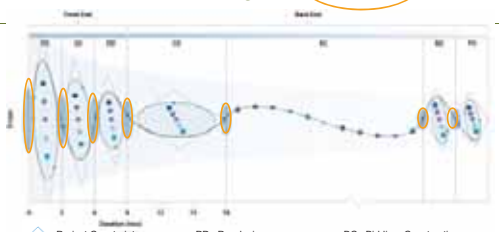
- Owner's Project Requirements (OPR)
  - Develop early, check in often!
  - Early project sessions establish this
- Basis of Design (BOD)
  - Develop early, check in often!
  - Each discipline should develop systems narratives
  - These help identify synergies, explain technical concepts

BREAK!

PLANNING IP MEETINGS

Early/Pre-Design

When do you meet?



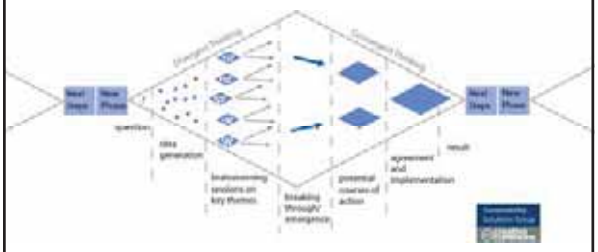
Project Constraints
Exploratory Design Process
All Team Workshop
Focused Team Workshops
Iterative Process
Additional Iterations as necessary

PD Pre-design
SD Schematic Design
DD Design Development
CD Construction Documents

BC Bidding, Construction Commissioning
BO Building Operation (start up)
PO Post-Occupancy (long term)

Source: Roadmap for IDP, page 13

Integrative Process Module – A Meeting!



Source: IDP Facilitation Resource Guide

Questions

- Each phase or meeting starts with a series of questions, for example:

Can we provide all our own energy on-site? → How far can we lower the building energy demand? → What's the best system to heat & cool this building?

Will people support operable windows? → How can we make operable windows viable? → What are other ways to provide fresh air?

High Level Goals

- Based on project discovery
- Expresses purpose of the project
- Aspirational rather than measurable
- Integrative – can influence many parts of the project

High Level Goals Examples

- Accommodate transportation connectivity (TOD project)
- Ensure long term affordability (affordable housing project)
- Preserve history (historic renovation)
- Create a high performance building (operations building)

Performance Metrics

- Precipitate from the goals
- Address all areas of sustainability
- Measurable
  - Quantity
  - Clearly observable quality
  - Can be tested and verified in some way
- Not prescriptive
  - i.e. not the strategy or solution

Performance Metrics Examples

GOALS	PERFORMANCE METRICS
• Innovative water management	• Use 40% less water than LEED baseline
• Integrate urban agriculture	• Each tenant has a gardening space
• Sustainability visibility, demonstration, and education	• Provide tours and classes on sustainability 3 times per week.
• Support company carbon neutrality goals	• Reach Arch 2030 – 60% reduction goal for building type

Rating Systems as Performance Metrics

- Best use
- Resource for establishing other metrics

LEED Gold

40% water savings

35% energy savings

What is an Eco-Charrette?

- Usually refers to the first meeting in the integrative process
- Broad participation to build engagement and identify opportunities early

Achieving the greatest effectiveness in cost and environmental performance requires that every issue and every team member be brought into the project at the earliest point.

- Integrative Process ANSI Standard

Sustainable Infrastructure Scorecard Prerequisite

An eco-charrette is a facilitated meeting for a project design team that explores sustainable and high performance themes and strategies that can be applied to a project.

Sustainable Infrastructure Scorecard

Intent

- To **educate** the team participants about environmental and green building practices, to create a **common language** to explore these issues, to begin the **collaborative approach** necessary for successful integrative design, and to **establish sustainable goals** for the project. When sustainable goals are established collectively and early in the design process at an eco-charrette or similar event, the opportunity to **develop synergistic and cost-effective solutions** are optimized.

Requirements

- To meet this prerequisite, hold an eco-charrette or similar planning meeting in the early phases of project planning – pre-design, **no later than conclusion of the schematic phase**. Participants in the meeting must include **all design team members and selected stakeholders**. A brief report of the eco-charrette or similar meeting, including summaries of the presentations and discussions, will be used to document completion of this prerequisite.

Green Building Requirements

- Hold an Eco-Charrette:
  - LEED-HC Innovation Credit
  - Sustainable Infrastructure Scorecard
  - Sustainable Sites Initiative Prereq.
  - Living Building Challenge

LIVING BUILDING CHALLENGE

THE SUSTAINABLE SITES INITIATIVE

Exercise #3 – Prepare for an Eco-Charrette

1. FMD is doing a major renovation on a 911 call-center first built in the 80's. The current center is inadequate for modern call-center technology and lighting and HVAC systems negatively impact the comfort of and stress on 911 operators.

2. A local government is planning to replace and improve a culvert. The existing culvert is collapsing and undermining the integrity of the road. The culvert is also a partial barrier to fish passage. A new improved box culvert will meet state standards for fish and debris passage.

Exercise #3 Debrief

- What information do you need?
- What questions do you need answered?
- Who needs to be at the charrette?

FACILITATING IP MEETINGS
(including the eco-charrette)

IP Meetings: Purpose and Length

Identify Outcomes → Ways to get there → Who needs to be there? → Meeting Goals and Length

Eco-charrette: Purpose and Length example

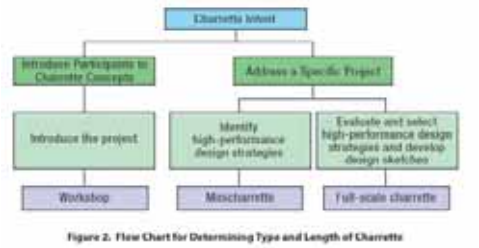


Figure 2. Flow Chart for Determining Type and Length of Charrette

Source: A Handbook for Planning and Conducting Charrettes for High-Performance Projects, NREL

IP Agendas

- Welcome and Introductions
- Overview of project and goals
- Information needed to get to the outcomes
- Facilitated "work" to get to the outcomes
- Report outs and synthesis
- Identification of next steps

IP Facilitation

- What is facilitation?
- Facilitation is the commitment to work in and with groups to find and articulate their collective wisdom.

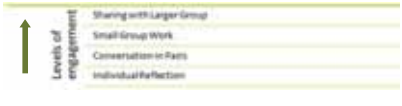
Getting Started

Introductions

- Use name tags or name tents to facilitate discussion with peers by name
- Use introductions to get to know each other better or as part of the brainstorming – or both!

Levels of Engagement

- Start with smaller levels and work up over the course of the workshop



Brainstorming Tools

Structured Brainstorming

- 5 minutes of individual brainstorming
- Round robin sharing of 1 idea at a time until all are on board
- Group discussion

Role play

- Give individuals roles (or randomly draw them) outside of what they normally do
- Ask them to generate ideas and solutions in that role

Getting Results

Dot voting

- Allows individual voting and then observation by groups to see trends.
- Use stop light colors, with a small number of "red" allowed per person, or just a single color and number of votes per person.

Thumbs up, Thumbs Down

- Once you have a general solution or language for a goal
- Ask everyone to show thumbs up, thumbs down, or a middle "flat" hand sign. Identify issues.
- Keep discussing and re-voting until no thumbs down or flat hand signs remain.

Staying On-track

Bike Rack

- Have a place to record ideas that need further discussion so sticking points can be captured and addressed in another forum.
- Also called a "parking lot" but how eco is that?

Agenda Check

- Stop and review the meeting objectives and remaining items.
- Ask participants what is most important to them at this juncture.
- Agree as a group on changes to the objectives or agenda.

Exercise #4 – Conduct an EcoCharrette

- Each of you will be assigned a role for this exercise.
- Brainstorm ideas (from the perspective of your role) that meet the priorities for the same scenario in Exercise #3.

911 Call Center	New Fish Culvert
Support the latest call-center technology and adapt to new technologies in the coming years	Ensure traffic safety for vehicles, pedestrians, and other users
provide a support and stress reducing environment for call-center operators	Improve the habitat and fish passage through culvert
demonstrate leadership in meeting the County's Green Building Ordinance and implementing the Strategic Plan	Make a public demonstration of green methods and materials
	Protect/restore a healthy watershed

Exercise #4 Debrief

- Facilitator: were you able to encourage brainstorming while also "managing" the table?
- Other roles: how did your "role" ideas differ from what you, in your actual role, would contribute?
- What would be the most valuable "next step" in this process?

What's Your IP Role in Your Division or Department?

- What are the challenges you foresee with incorporating IP in your practice?
- What are the solutions to these challenges?
- Identify one way you are going to move toward using IP as a result of this workshop?

Learning Objectives

- **Articulate** the benefits of IP in overcoming conventional challenges in conventional design practice.
- **Describe** the types of analyses that can be part of the IP process and how they result in financial, environmental, and operational benefits to the project.
- **Plan** an eco-charrette or other IP meeting

Long-term Outcomes

- Incorporate IP into your projects and work
- Save your projects money and improve environmental performance
- Collaborate with coworkers and divisions to maximize effectiveness
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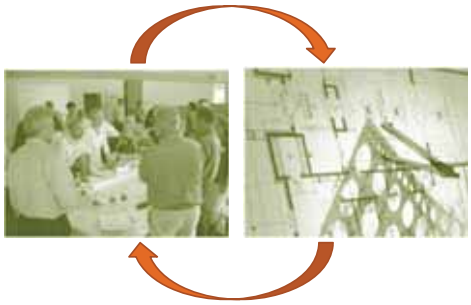
What is IP?



Q & A

Resources

- *Integrative Design Process* by 7group and Bill Reed
- *Roadmap for the Integrated Design Process* by the BC Green Building Roundtable
- *A Handbook for Planning and Conducting Charrettes for High-Performance Projects* by National Renewable Energy Laboratory
- *Whole Building Design Guide: Planning and Conducting Integrated Design (ID) Charrettes*

Resources

For More Information Contact:
Nori Catabay, Program Manager
Internal Green Building Team
nori.catabay@kingcounty.gov
(206) 477-5269

Denise Thompson	Facilities Management Division, DES
Gary Molyneaux	King County International Airport, DOT
Autumn Salamack	Metro Transit Division, DOT
Jim Sussex	Road Services Division, DOT
Chris Erickson	Parks and Recreation Division, DNRP
Neil Fujii	Solid Waste Division, DNRP
Jacquelynn Roswell	Wastewater Treatment Division, DNRP
Nathan Brown	Water and Land Resources Division, DNRP

Resources

Jerry Rutledge	Power and Facilities, Transit
Randy Witt	Design and Construction, Transit
Frank Overton	Parks and Recreation, DNRP
Randy Poplock	Community Services, DCHS
John deChadenedes	Housing Finance, DCHS
Lisa Verner	Permitting and Environmental Review
Dave Cantrell	Public Health
Matt Kuharic	Climate Change Program
Wes Edwards	Energy Manager, DOT
Ben Rupert	Energy Manager, FMD
David Broustis	Energy Manager, DNRP
Karen Hamilton	Environmental Purchasing Program
Richard Gelb	Equity and Social Justice
Todd Scott	Historic Preservation Program
Kinley Deller	GreenTools Program
Patti Southard	GreenTools Program
Sid Bender	Performance, Strategy, and Budget
Megan Smith	Executive Office
Lauren Smith	Executive Office
Bob Burns	Leadership Sponsor, DNRP

Thank You!

Elizabeth Powers
Principal, O'Brien & Company
elizabeth@obrienandco.com
206.261.8626
www.obrienandco.com

9/29/2014

Integrative Process Meetings Tip Sheet

Planning

Questions to ask when planning an IP meeting

- What questions need to be asked at this point in the process?
- What information do we need to answer those questions?
- Who can provide that information? Who will be impacted by the answers to the questions?

IP Meeting Plan Items

- Attendees
- Project Goals (determined at first IP meeting – the "eco-charrette")
- Meeting Objectives (Decisions)
- Meeting Outcomes (Deliverables)
- Processes for achieving desired outcomes
- Logistics (equipment, props, visuals, tools)
- Roles (facilitators, presenters, note takers, etc.)

Key Agenda Items

- Introductions – use this time as part of the process
- Project Goals Review (determined at the first IP meeting – the eco-charrette)
- Ground Rules (ex: respect others while they are talking, bike rack items, etc.)
- Breaks (5-10 min at the top of each hour or 10-15mins in the middle of 3-4 hour meeting)
- Refreshments (longer meetings need refreshments to keep ideas and energy up – snack and meal times are good for spontaneous discussion)
- Wrap up at the end (this is your flex time, adapt to time remaining)

Logistics

Location: Have meetings on-site where possible. Meet in rooms with natural light, views of nature, and the ability to go outside on breaks.
Length: Prioritize longer meetings for goal setting and developing priorities. After that, adjust topics to fit in existing meeting structures or availability of key people.
Room set up: Sit around a table, in a U-shape, or in groups. Avoid classroom style.
Media and supplies: Mix it up, have presentation infrastructure, white boards or easels, trace paper, dots, markers and other supplies handy to allow for lots of creative discussion.

Process

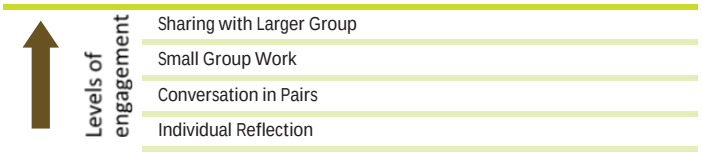
Engaging Participants

Introductions

- Use name tags to facilitate discussion with peers by name
- Use introductions to get to know each other better or as part of the brainstorming – or both!

Levels of Engagement

- Start with smaller levels and work up over the course of the workshop



Brainstorming Tools

Structured Brainstorming

- Individual time to write multiple ideas
- Share one idea at a time per person until all ideas have been shared
- Discuss as a group

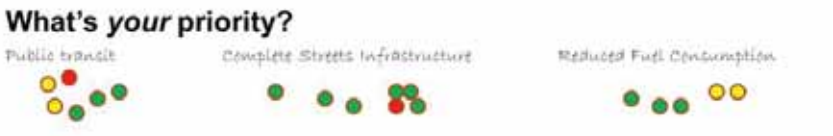
Role Paly

- Give individuals roles (or randomly draw them) outside of what they normally do
- Ask them to generate ideas and solutions in that role

Getting Results

Dot voting

Allows individual voting and then groups to see trends. Use stop light colors, with a small number of "red" allowed per person, or just a single color and number of votes per person.



Thumbs up, down

Ask everyone to show thumbs up, thumbs down, or a middle "flat" hand sign. Identify issues. Keep discussing and re-voting until no thumbs down or flat hand signs remain.

Decide on next steps

Remember you may not have all the information, the right people you need to make a decision, or enough time. Deciding on next steps, person responsible and due dates is okay.

Staying on Track

Bike Rack

Have a place to record ideas that need further discussion so sticking points can be captured and addressed in another forum.

Agenda Check

If pieces of the process need more time than planned, stop at a break in the agenda, review the meeting objectives and remaining items. Ask participants what is most important to them at this juncture. Agree as a group on changes to the objectives or agenda.

Additional Resources

Integrative Design Process by 7group and Bill Reed. Available at: http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470181109.html

Roadmap for the Integrated Design Process by the BC Green Building Roundtable, available at http://cascadiapublic.s3.amazonaws.com/Large%20Cascadia%20Files/RoadmaptotheIDP.pdf

A Handbook for Planning and Conducting Charrettes for High-Performance Projects by Gail Lindsey, Joel Ann Todd, and Sheila J. Hayter, National Renewable Energy Laboratory. Available at http://www.nrel.gov/docs/fy09osti/44051.pdf

Whole Building Design Guide: Planning and Conducting Integrated Design (ID) Charrettes Available at http://www.wbdg.org/resources/charrettes.php. Includes sample agendas.

Sample Eco-charrette Agendas

Simple Ecocharrette Agenda for small projects

1. Overview of green building requirements and other sustainability policy drivers

2. Overview of project

3. Project timeline

4. Establish project goals and objectives
   a. What are the goals and objectives of the project? What are high level targets to strive for? How can this project reduce environmental footprint? What are the sustainability priorities of your division?

5. What performance measures does the project want to establish?

   a. Meet the following minimum performance requirements:
      i. Meet King County Strategic Climate Action Plan energy and climate goals; ensure that energy efficiency is given the highest priority.
      ii. Meet King County Surface Water Design Manual standards and requirements (regardless of where project is located). If local jurisdiction standards are more stringent than County standards, implement the more stringent requirement
      iii. By 2025, achieve an 85% diversion rate for construction and demolition materials, with 80% diversion rate by 2016.
   b. Other performance measures

6. Ways to leverage and save resources.
   a. What else is happening that can impact the project? Are there other projects associated with this site that can be leveraged for greater sustainability? Do we need to be aware of other projects so we are not redoing what might occur in the future or just happened?

7. Review green building rating system (LEED, Sustainable Infrastructure Scorecard, alternative rating system) credits to brainstorm possible opportunities and strategies to achieve high level goals, objectives, performance measures and credits. Discuss and identify strategies that might not be captured by rating system credits. (This can be done in one big group or in small breakout groups.)

8. Prioritize top sustainability strategies

9. Identify next Steps

Appendix B: Sample Agendas

Half-Day Workshop: Setting a Project's High-Performance Goals

Goals

1. Introduce participants to integrated design and high-performance strategies.
2. Identify high-performance goals for the project in each topic area (energy, emissions, water, site, materials, waste, IAQ, O&M, and other relevant topics).
3. Motivate participants to design a high-performance project.
4. Establish next steps and a process for moving forward.

The half-day workshop could be done in a morning session from 8:00 a.m. to noon, or as an afternoon session from 1:00 p.m. to 5:00 p.m. The afternoon session allows time for morning office check-in and after-five discussion, which may be preferable.

Agenda

Noon–1:00	Site tour (optional)
1:00–1:30	Welcome, introductions, expectations, and goals
1:30–2:00	Review of project information
2:00–3:00	High-performance process and issues (Project goals identified during the high-performance goals discussion)

1. High-performance process and video (35–40 minutes)
2. Integrated design (process, benefits, costs) (15–20 minutes)

3:00–3:15	Break
3:15–4:45	Performance goals, process, issues, and case study
4:45–5:00	Review of combined goals and next steps for the project

One and One-Half Day Minicharrette

Goals

1. Introduce the concepts of high-performance green design and specific strategies.
2. Identify performance goals and potential strategies in each topic area (energy, emissions, water, site, materials, waste, IAQ, O&M, and other relevant topics)—what might be possible.
3. Identify issues and questions that will affect implementation of these goals and strategies.
4. Establish next steps and a process for moving forward.

Agenda

Note: Evening reception before next day workshop or minicharrette (optional)

Day One: High-Performance Strategies

8:00–8:30	Continental breakfast
8:30–9:30	Welcome, introductions, expectations, and goals
9:30–10:00	Review of project information

10:00–10:15	Break
10:15–11:45	High-performance process and issues
	1. High-performance process and video (35–40 minutes)
	2. Energy and emissions (or facilities/operations and maintenance for a campus or other larger project; 20–25 minutes), present predesign energy analysis results
	3. Water and site (or master planning or transportation for a campus or other larger project; 20–25 minutes)
11:45–12:45	Lunch
12:45–1:45	High-performance issues
	1. Materials and waste (or green procurement for a campus or other larger project; 15–20 minutes)
	2. IAQ and O&M (or contracting, education, community outreach for a campus or other larger project; 15–20 minutes)
	3. Other—local or project priority topic (15–20 minutes)
1:45–2:00	Q&A on project-specific issues
2:00–4:30	Breakout groups
	What issues, questions, strategies, and actions are needed?
	Four to five groups of 6–8 (maximum 10) people per group
	Groups should be made up of multidisciplinary team members
4:30–5:00	Reporting out
	Performance goals set by breakout groups and large group consensus
5:00–6:00	Site tour (optional)

Day Two: Minicharrette

8:00–8:30	Continental breakfast
8:30–9:00	Review of first day and expectations of second day
9:00–11:30	Breakout groups
	Same breakout groups as first day
	Drawings and concepts
11:30–12:00	Reporting out and next steps
12:00–1:00	Optional lunch

Two-Day Full-Scale Charrette: Developing High-Performance Strategies for a Project

Goals

1. Provide basic training on concepts and importance of high-performance green design to enable attendees to participate effectively in the process.
2. Identify high-performance goals and potential strategies in each topic area (energy, emissions, water, site, materials, waste, IAQ, O&M, and other relevant topics)—what might be possible.
3. Identify issues and questions that will affect implementation of these goals and strategies.

4. Establish next steps and a process for moving forward that includes all relevant participants/stakeholders.

Agenda

Day 1: Defining High-Performance Strategies and Setting Project Goals

8:00–8:30	Continental breakfast
8:30–9:00	Welcome and remarks from owner(s)
9:00–10:00	Charrette overview and expectations, logistics, and introductions
10:00–10:15	Break
10:15–11:00	Review of project information
11:00–12:00	High-performance issues 1. High-performance process and video (35–40 minutes) 2. Energy and emissions (or facilities/operations and maintenance for a campus or other larger project; 15–20 minutes), present predesign energy analysis results 3. Water and site (or master planning or transportation for a campus or other larger project; 15–20 minutes)
1:00–2:00	Lunch and tour
2:00–3:00	High-performance issues 1. Materials and waste (or green procurement for a campus or other larger project; 15–20 minutes) 2. IAQ and O&M (or contracting, education, community outreach for a campus or other larger project; 15–20 minutes) 3. Other—local or project priority topic (15–20 minutes)
3:00–4:30	Breakout groups What issues/questions, strategies, and actions are needed? Four to five groups of 6–8 (maximum 10) people per group Groups should be made up of multidisciplinary team members
4:30–5:00	Reporting out Performance goals set by breakout groups and large group consensus
5:00–	Overnight energy analysis of design concepts from breakout groups (optional)

Day 2: Charrette—Hands-On Drawings and Strategies

8:00–8:30	Continental breakfast
8:30–9:00	Review of first day and expectations of second day
9:00–11:30	Breakout groups Same breakout groups as first day
11:30–1:00	Lunch and tour of groups' progress
1:00–3:45	Breakout groups' drawings and concepts pulled together
3:45–4:30	Reporting out

4:30–5:00	Final wrap-up, final remarks, and next steps

Optional Kickoff Session

This session can be several hours or half a day, depending on the number of speakers invited.

Goals

1. Energize and motivate participants.
2. Demonstrate support for the project within the community and among local dignitaries.
3. Provide support for seeking additional funding for the project.

Agenda

1:00–2:30	Welcome by project owner and speeches by local dignitaries
2:30–3:00	What is possible? (green project video)
3:00–3:30	Break and networking
3:30–5:00	Panel discussion of key issues (energy, emissions, water, site, materials, waste, IAQ, O&M, and other local issues)
5:00–6:30	Reception and networking

The agenda can be shortened by eliminating the panel discussion and limiting the event to speeches followed by a reception.

Dealing with disrupters: Preventions and interventions

Excerpted from Community Toolbox » Leadership and Management » Chapter 16. Group Facilitation and Problem-Solving » Section 2. Developing Facilitation Skills

There are some things you can do both to prevent disruption before it occurs to stop it when it's happening in the meeting. The most common kinds of disrupters are people who try to dominate, keep going off the agenda, have side conversations with the person sitting next to them, or folks who think they are right and ridicule and attack other's ideas.

Preventions

Try using these "Preventions" when you set up your meeting to try to rule out disruption:

Get agreement on the agenda, ground rules and outcomes. In other words, agree on the process. These process agreements create a sense of shared accountability and ownership of the meeting, joint responsibility for how the meeting is run, and group investment in whether the outcomes and goals are achieved.

Listen carefully. Don't just pretend to listen to what someone in the meeting is saying. People can tell. Listen closely to understand a point someone is making. And check back if you are summarizing, always asking the person if you understood their idea correctly.

Show respect for experience. We can't say it enough. Encourage folks to share strategies, stories from the field, and lessons they've learned. Value the experience and wisdom in the room.

Find out the group's expectations. Make sure that you uncover at the start what participants think they are meeting for. When you find out, be clear about what will and won't be covered in this meeting. Make plans for how to cover issues that won't be dealt with: Write them down on newsprint and agree to deal with them at the end of the meeting, or have the group agree on a follow-up meeting to cover unfinished issues.

There are lots of ways to find out what the group's expectations of the meeting are: Try asking everyone to finish this sentence: "I want to leave here today knowing...." You don't want people sitting through the meeting feeling angry that they're in the wrong place and no one bothered to ask them what they wanted to achieve here. These folks may act out their frustration during the meeting and become your biggest disrupters.

Stay in your facilitator role. You cannot be an effective facilitator and a participant at the same time. When you cross the line, you risk alienating participants, causing resentment, and losing control of the meeting. Offer strategies, resources, and ideas for the group to work with, but *not* opinions.

Don't be defensive. If you are attacked or criticized, take a "mental step" backwards before responding. Once you become defensive, you risk losing the group's respect and trust, and might cause folks to feel they can't be honest with you.

"Buy-in" power players. These folks can turn your meeting into a nightmare if they don't feel that their influence and role are acknowledged and respected. If possible, give them acknowledgment up front at the start of the meeting. Try giving them roles to play during the meeting such as a "sounding board" for you at breaks, to check in with about how the meeting is going.

Interventions

Try using these "Interventions" when disruption is happening during the meeting:

Have the group decide. If someone is dominating the meeting, refuses to stick to the agenda, keeps bringing up the same point again and again, or challenges how you are handling the meeting:

- First try to remind them about the agreed-on agenda. If that doesn't work, throw it back to the group and ask them how they feel about that person's participation. Let the group support you.

Use the agenda and ground rules. If someone keeps going off the agenda, has side conversations through the whole meeting, verbally attacks others:

- Go back to that agenda and those ground rules and remind folks of the agreements made at the beginning of the meeting.

Be honest: Say what's going on. If someone is trying to intimidate you, if you feel upset or undermined, if you need to pull the group behind you:

- It's better to say what's going on than try to cover it up. Everyone will be aware of the dynamic in the room. The group will get behind you if you are honest and up -front about the situation.

Use humor. If there is a lot of tension in the room, if you have people at the meeting who didn't want to be there, if folks are scared/shy about participating, if you are an outsider:

- Try a humorous comment or a joke. If it's self-deprecating, so much the better. Humor almost always lightens the mood. It's one of the best tension-relievers we have.

Accept or legitimize the point or deal. If there is someone who keeps expressing doubts about the group's ability to accomplish anything, is bitter and puts down others' suggestions, keeps bringing up the same point over and over, seems to have power issues.Try one or more of these approaches:

- Show that you understand their issue by making it clear that you hear how important it is to them.
- Legitimize the issue by saying, "It's a very important point and one I'm sure we all feel is critical."
- Make a bargain to deal with their issue for a short period of time ("O.K., let's deal with your issue for 5 minutes and then we ought to move on.")
- If that doesn't work, agree to defer the issue to the end of the meeting, or set up a committee to explore it further.

Use body language. If side conversations keep occurring, if quiet people need to participate, if attention needs to be re-focused:

- Move closer to conversers, or to the quiet ones. Make eye contact with them to get their attention and covey your intent.

Take a break. If less confrontational tactics haven't worked, someone keeps verbally attacking others, shuffling papers, cutting others off:

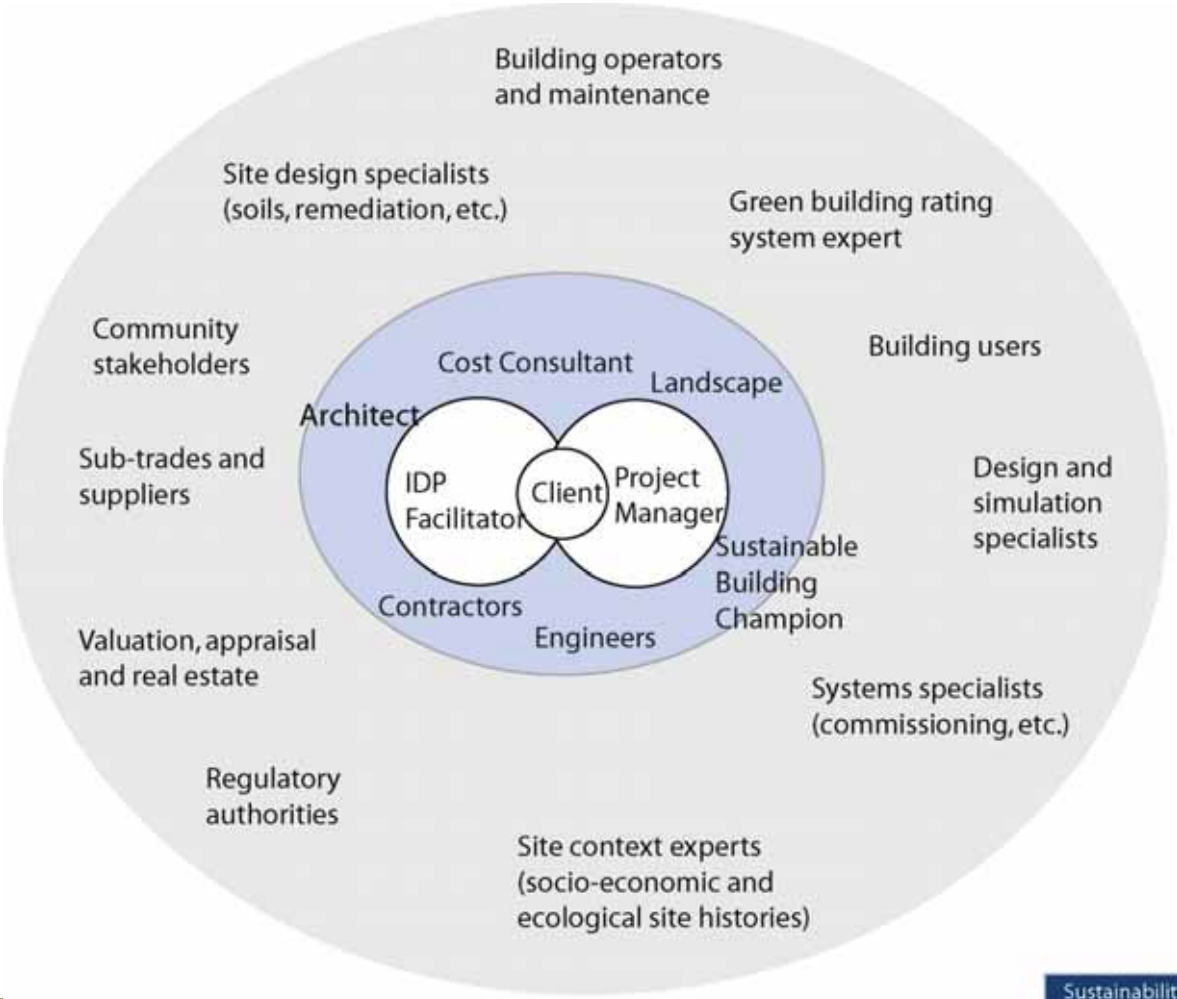
- In case you've tried all of the above suggestions and nothing has worked, it's time to take a break, invite the disruptive person outside the room and politely but firmly state your feelings about how disruptive their behavior is to the group. Make it clear that the disruption needs to end. But also try to find out what's going on, and see if there are other ways to address that person's concerns.

Confront in the room. If all else has failed, if you're sure it won't create backlash, if the group will support you, and if you've tried everything else:

- Confront the disruptive person politely but very firmly in the room. Tell the person very explicitly that the disruption needs to stop now. Use body language to encourage other group members to support you. This is absolutely the last resort when action must be taken and no alternatives remain!

Contributor
Marya Axner

IP Team Organization



Source: IDP Facilitation Resource Guide

Integrative Process Analyses Exercise #2

Recommended Order

Prior to Design

Site Assessment
- Solar analysis
- Rainfall analysis
- Habitat assessment

Stakeholder Engagement and Goal Setting
Pre-project Climate Mitigation Calculation
Owner's Project Requirements
Preliminary LEED checklist or Scorecard

Design - Before 30%

Shoebox Energy Modeling
Daylighting Analysis
Acoustical Analysis
Stormwater Modeling
Total Water Budget
Total Energy Budget
Basis Of Design

30% through End of Design

LCCA of prioritized strategies
- Renewable system sizing / costing
- Energy Modeling for Systems Analysis
- O&M Staff Evaluation of Systems

Building Infiltration Planning
Materials LCA
- O&M Staff Evaluation of Materials

Detailed Drawing and Specifications Review
Thermal Comfort Analysis
Measurement & Verification Planning
Final LEED checklist or Scorecard
Commissioning Plan
O&M Planning

Construction

LEED Energy Modeling and Documentation
Construction Verification
Building Infiltration Testing
Commissioning Implementation
O&M Manual and Staff Training

Operations and Maintenance

Occupant Training
Commissioning Final Report
Energy Star Benchmarking
Post-project Climate Mitigation Calculation
Occupant Comfort Survey
Ongoing performance monitoring
Re-commissioning