



Path of Construction



Laying the Foundation for Success

Agenda

Item	Topic	Presenter/Facilitator	Timing (min)
1	Safety Moment	Linda Clary	3
2	Introduction	Linda Clary	5
3	Session & Path of Construction Objectives	Linda Clary	2
4	Path of Construction Process	Darrell Coughlin, Geoff Ryan, Linda Clary	20
5	Interactive Session	Darrell Coughlin, Geoff Ryan, Linda Clary	30

Introduction

- WorkFace Planning Lesson Learned
 - Construction needs to be “involved” in the Front End?
- CII identified barriers to Front End Planning
 - Silo based project organizations are a barrier to collaboration
 - Contract models institutionalize non-collaborative approaches
 - Decision aids do not exist that allow project managers to prioritize activities that require and benefit from construction input

Session Objectives

- Understand the COAA “Path of Construction” Process
- Buy In to the Importance and Timing of the Development of the Path of Construction
- Acknowledgement that a FORMAL Process is Required
- Interactive Real Time Feedback on Path of Construction Concept

Path of Construction Objective

- Alignment of key players on the optimum building sequence
- Use the path of construction outputs to develop an integrated schedule
- Formalize the path of construction process so it becomes a project deliverable
- Ensure WorkFace Planning success in the field through rigorous Front End Planning



Path of Construction



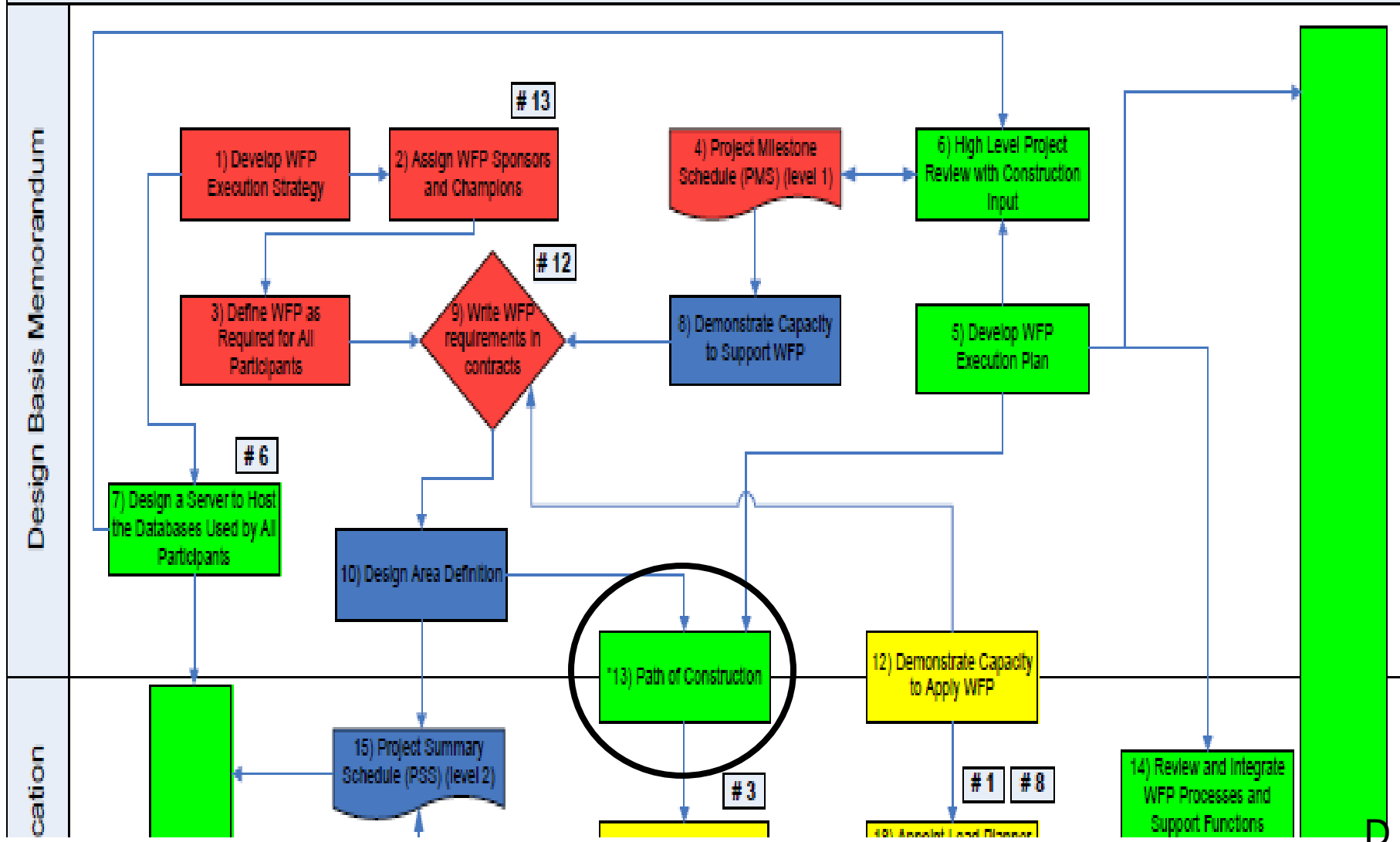
Path of Construction Working Definition

- Path of Construction is the articulation of the optimum building (installation, erection) sequence of the physical components of the facility.

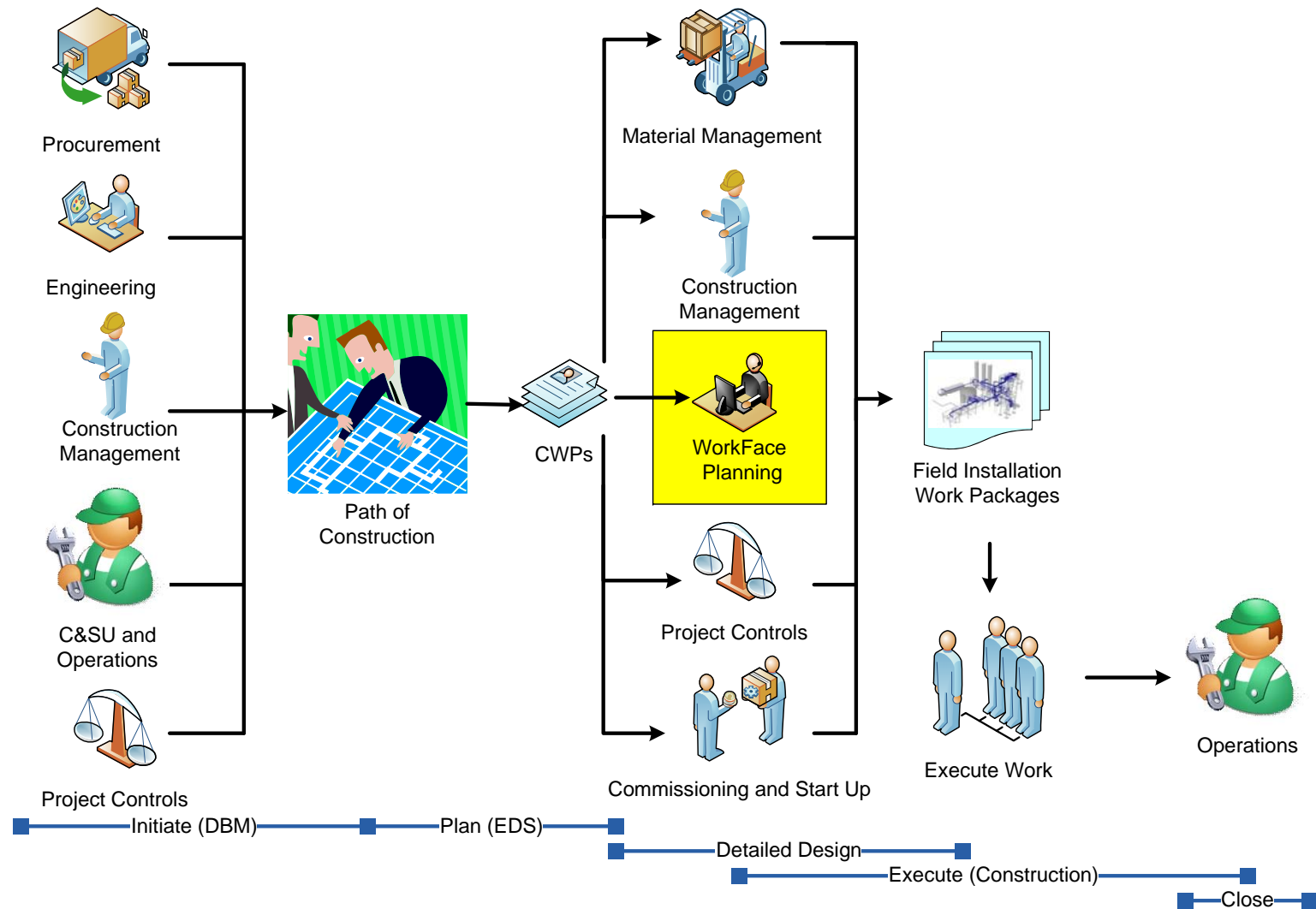
Workforce Planning Flowchart:

An Example of the Processes that are Involved in Workforce Planning

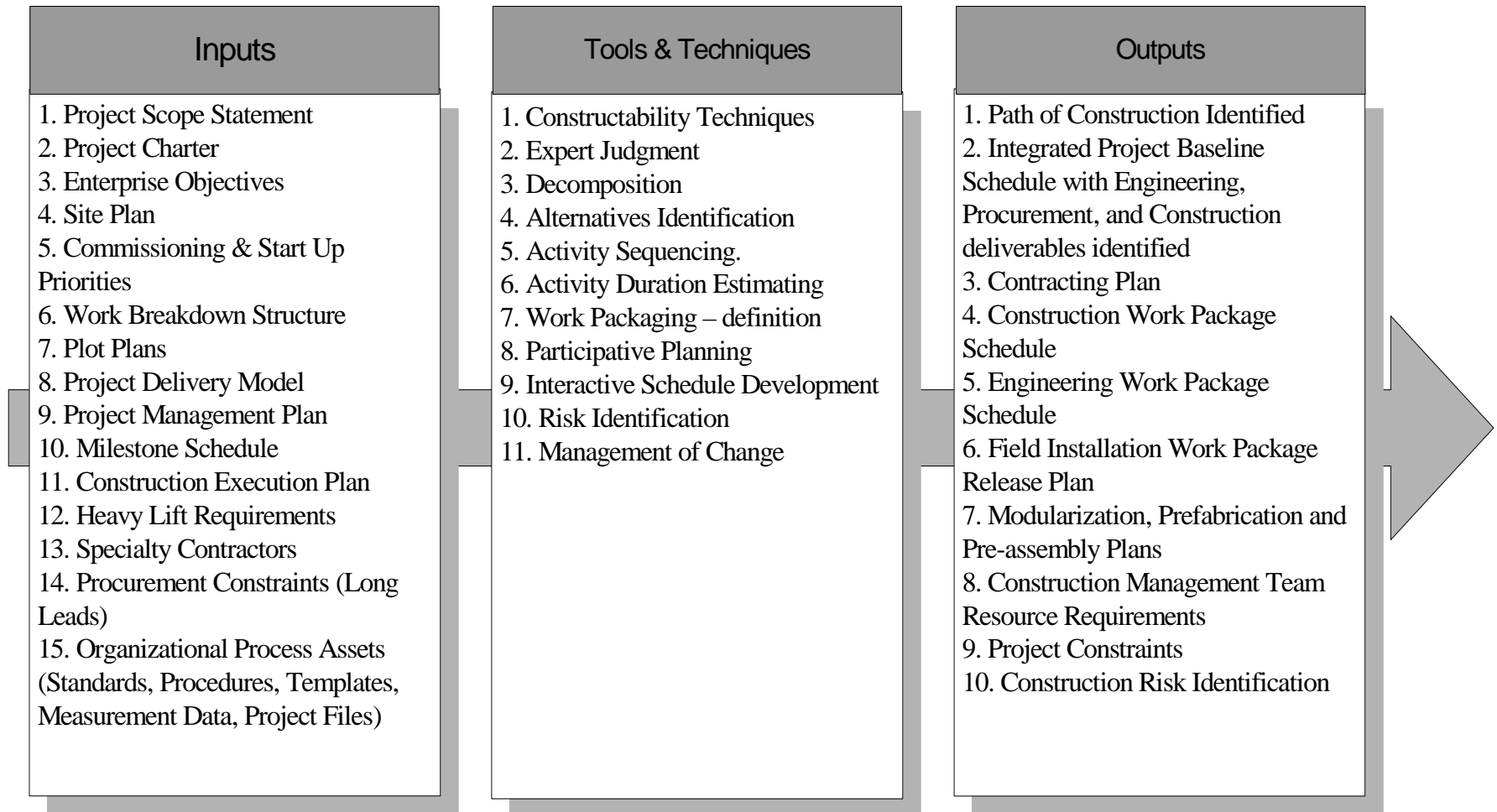
Contract is Cost Reimbursable



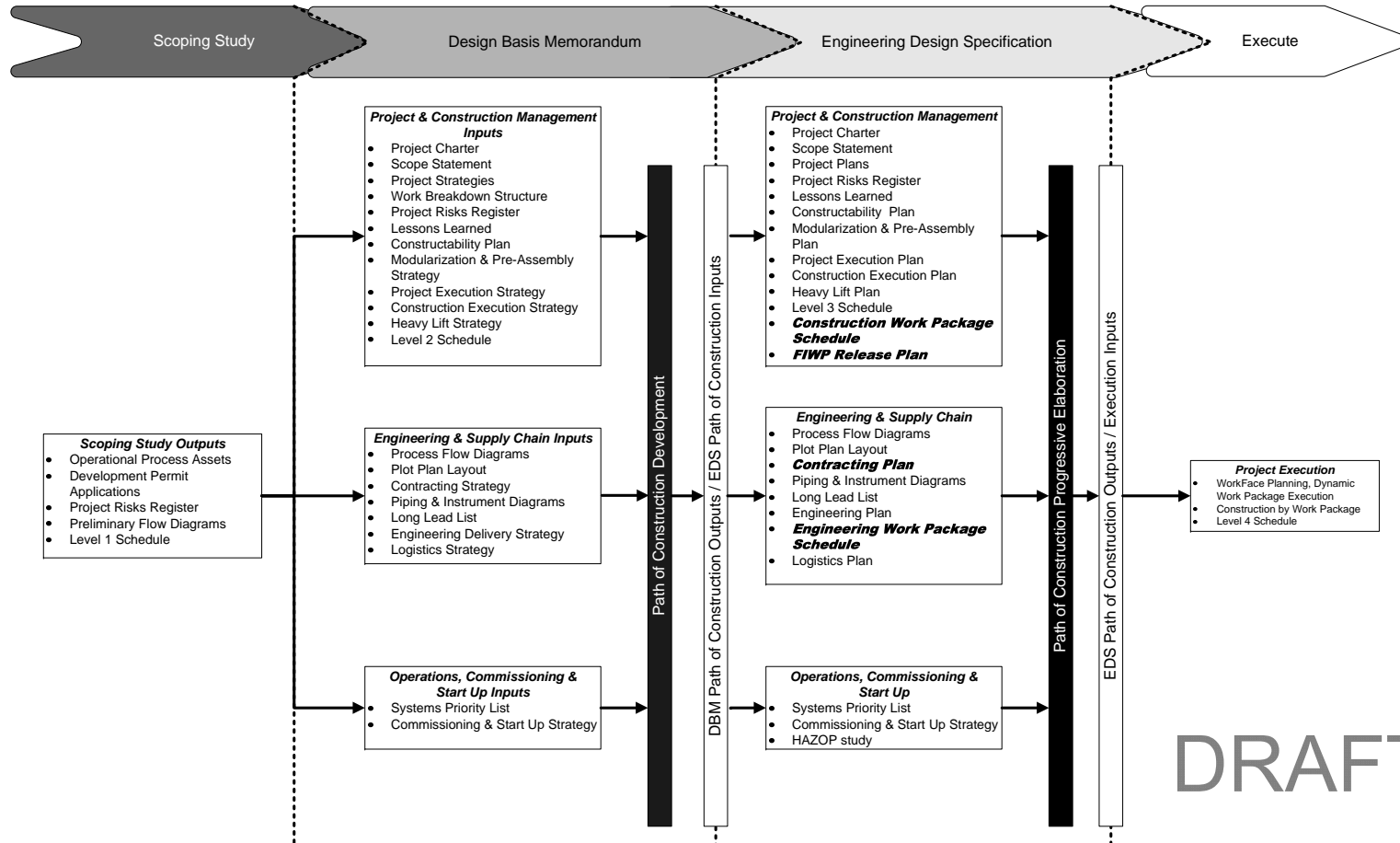
Influence Diagram



Inputs, Tools & Techniques, Outputs



Block Diagram

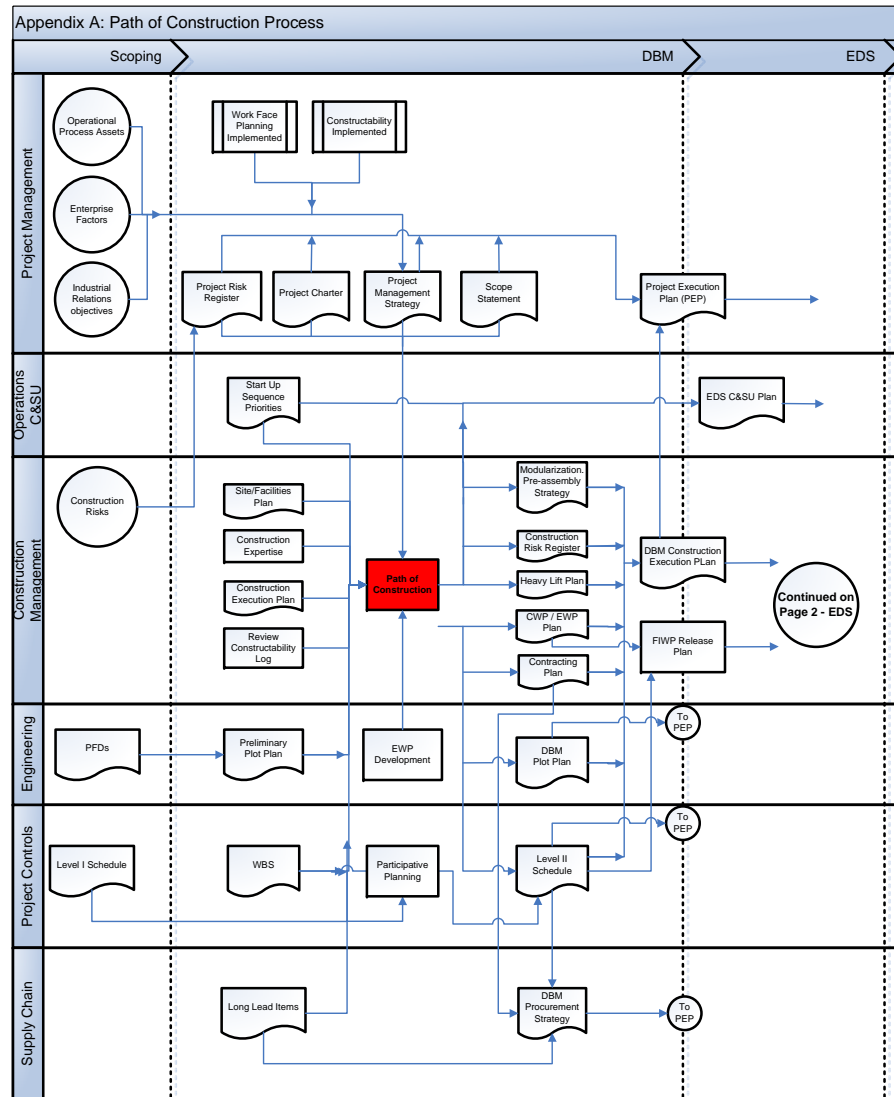


DRAFT

Procedure

- Procedure – documentation of the established method of performing work. It explains WHO does WHAT by WHEN. Procedures present a step-by-step sequenced way to do a task consistently and with maximum efficiency
- [Link to Procedure](#)

Flow Diagram



Input Checklist and Tracking Log

Functional Area	Input	Type	Due Date (D/M/Y)	Check ✓	Input Owner (specific person)
Project Management	Project Charter	Doc			
	Scope Statement	Doc			
	Project Plans	Doc			
	Project Risks Register	Doc			
	Lessons Learned	Doc			
	Project Execution Plan	Doc			
	Level 3 Schedule	Schedule			
Construction Management	Constructability Plan	Doc			
	Modularization & Pre-Assembly Plan				
	Construction Execution Plan				
	Heavy Lift Plan				
	Construction Work				
Engineering	Process Flow Diagram	Doc			
	Piping Diagram	Doc			
	Equipment List	Doc			
	Equipment Schedule	Schedule			
	Control System	Doc			
Supply Chain	Logistics Plan	Doc			
	Systems Priority List	Doc			
	Commissioning & Start Up Strategy	Doc			
Operations and Maintenance	HAZOP study	Doc			

Path of Construction

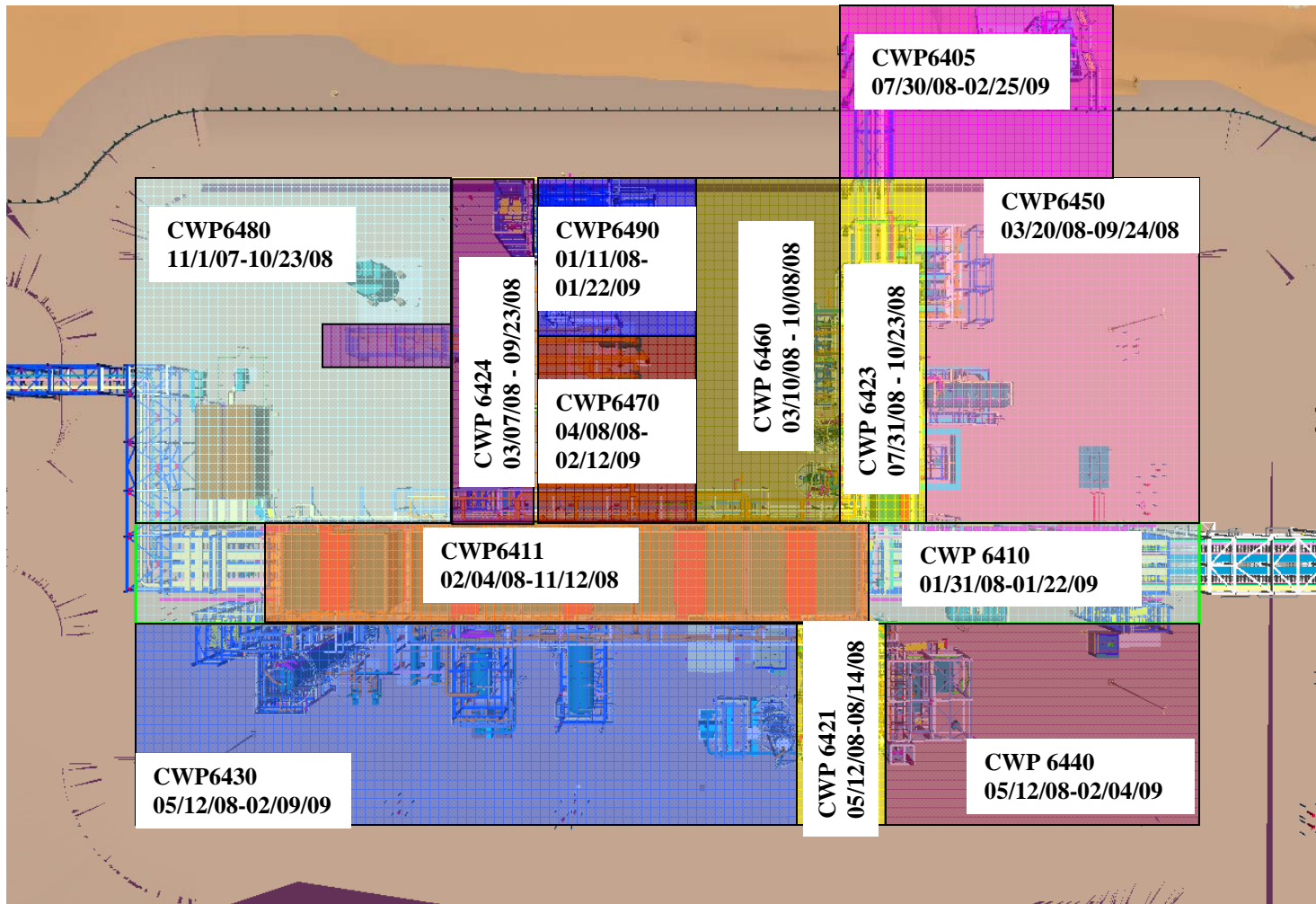
- The Flow Diagram is a roadmap for the development of the Path of Construction
 - a plot plan and drawings are not enough
- The procedure, checklist, tracking log, etc. are like a compass, providing direction for who does what, when
 - “informal” planning and tracking will get you inconsistent, inexperienced, ill-timed results
- The schedule should be integrated and reflect the path of construction
 - not a bias schedule for just engineering, procurement or construction



Suncor MNU Project ISBL

Presentation to:
Suncor
14 January 2008

Path of Construction - ISBL

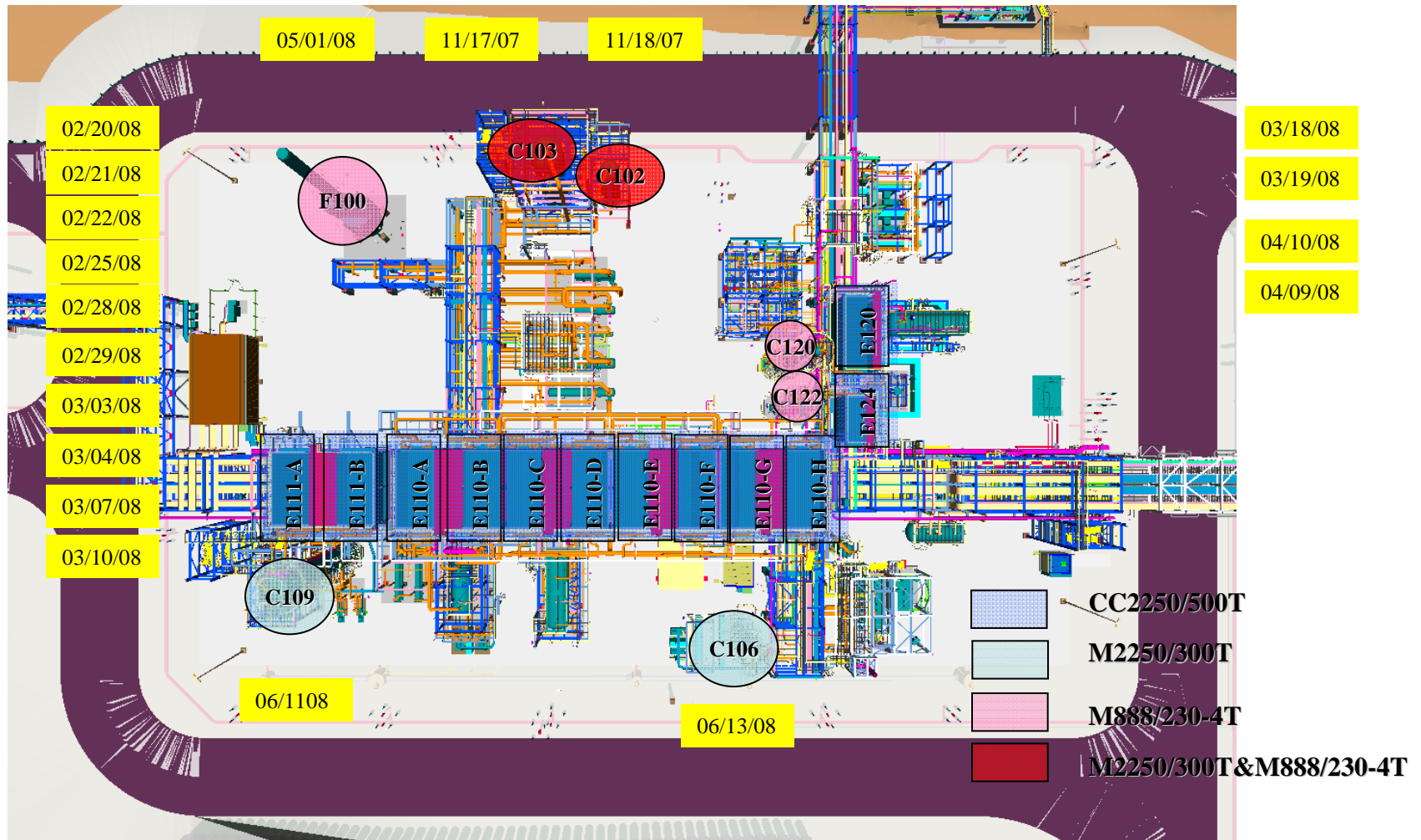


Edmonton Module Yard Schedule

Scope	CWA	Module ID	Finished Dates
ISBL	CWA 64-05	64-PRM-1201	7-Apr-08
	CWA 64-10	64-PRM-100A	13-Dec-07
		64-PRM-101A	10-Jul-07
		64-PRM-100B	21-Jan-08
		64-PRM-101B	11-Dec-07
		64-PRM-100C	11-Feb-08
		64-PRM-101C	14-Dec-07
		64-PRM-100D	14-Feb-08
		64-PRM-101D	31-Oct-07
		64-PRM-100E	17-Jan-09
		64-PRM-101E	31-Oct-07
	CWA 64-21	64-PRM-100H	31-Mar-08
	CWA 64-23	64-PRM-100F	20-Feb-08
		64-PRM-101F	7-Mar-08
	CWA 64-24	64-PRM-100G	14-Mar-08
		64-PRM-100J	28-Mar-08
	CWA 64-30	64-PRM-100K	13-Mar-08
		64-PM-204	26-Mar-08
CWA 64-60	64-PM-202	14-Mar-08	
	64-PM-203	19-Mar-08	

Scope	CWA	Module ID	Finished Dates	
OSBL	CWA 56-40	56-PRM-0040M	31-Jul-07	
		56-PRM-0040N	31-Jul-07	
		56-PRM-0040P	31-Jul-07	
		56-PRM-0040Q	1-Aug-07	
		56-PRM-0040R	2-Aug-07	
	CWA 56-50	56-PRM-0080A	23-Nov-07	
		56-PRM-0080B	16-Nov-07	
		56-PRM-0080C	14-Nov-07	
		56-PRM-0080D	29-Jan-08	
		56-PRM-0080E	30-Jan-08	
		56-PRM-0080F	31-Jan-08	
		56-PRM-0080G	14-Nov-07	
		56-PRM-0080H	31-Jan-08	
		56-PRM-0080J	7-Aug-07	
		56-PRM-0080K	6-Sep-07	
		56-PRM-0080L	19-Sep-07	
		56-PRM-0080M	3-Oct-07	
		56-PRM-0080N	28-Aug-07	
		CWA 56-52	56-PRM-C100	28-Feb-08
			56-PRM-C101	18-Apr-08
	56-PRM-C102		3-Mar-08	
	Hydrogen	56-PRM-C103	21-Apr-08	
		East PR Module	30-Apr-08	
		West PR Module	30-Apr-08	
		East Cable Tray Modle	2-Apr-08	
		West Cable Tray Modle	5-Mar-08	
		Process Module 1	Technip	
	Process Module 2	Technip		

Construction Execution Plan – ISBL (Heavy Lift Equipments Setting)





Path of Construction



Interactive Session

- Goal
 - Get Your Feedback on this DRAFT Path of Construction Process
 - Harness Your Experience
 - We need Your HELP!

Interactive Session

- Rules of Engagement
 - Cell phones off
 - When you have a comment or question raise your hand and wait to be called on
 - Respect other speakers, wait your turn

Interactive Session Agenda

Item	Topic	Timing
1	Conceptually Sound	2
2	Players	5
3	Timing	3
4	Deliverables	15
5	Q&A and VOTE	5



Choose One

	Execution Sequence
	Path of Construction
	Construction Sequence
	Project Sequence
	Path of Construction Sequence
	Participative Planning
	Project Sequence Planning
	Other:

www.workfaceplan.com