24TH ANNUAL

24TH LCI CONGRESS
OCTOBER 18-21

Leveraging Digital Board Technology to Boost Planning and Collaboration

Enno Fritsch (LLB Architects), Bryan Hughes (D.O'C.) Peter L'Hommedieu (D.O'C.),
Greg Waugh (Narragansett Bay Commission)



LEAN GUMBO: THE RIGHT INGREDIENTS FOR PROJECT SUCCESS

October 20, 2022

© LEAN CONSTRUCTION INSTITUTE

Daniel O'Connell's Sons: Firm Overview

143 Years
Established 1879

$192M
Annual Revenue

200
Employees

5
Regional Offices

15 Years
Average Tenure of Employees

Building and Civil Work


UMass Amherst
South College


MDC Aeration & Final
Settling Tanks, Hartford, CT

5 Office Locations




Daniel O'Connell's Sons
Headquarters
800 Kelly Way
Holyoke, MA 01040

Narragansett Bay Commission

Working For A Clean Bay Today!



LLB ARCHITECTS
Lerner Ladds Bartels

A leader in designing timeless environments that allow people to thrive

- Award-winning, midsized 28 person firm
- Two offices – Pawtucket, RI & Worcester, MA
- Established in 1936 / 86 year-old firm
- Sectors including higher education, libraries, K-12 schools, laboratories & civic buildings
- Projects throughout New England





- Design-Build Delivery
- 6 months from Concept Design thru Construction Documents - during COVID protocols
- Early Bid packages required by Construction Schedule
- $33M Construction Cost

Color/ICON	Responsible Party
	NBC
	DOC
	LLB Architects
	Woodard & Curran
	Odeh Engineers
	Building Engineering & Resources
	Jensen Hughes
	Traverse
	Paul Aldinger
	Building Enclosure Science
	The Skyline Group
	Colliers Commissioning
	E.W. Audet
	DiGregorio
	Task not Complete
	Review Meetings
	Task Complete
	Task not Complete
	Milestone

NBC User Group Meetings

Design team - Consultant Coordination Meetings

	Week 1 (5-9)	Week 2 (12-16)	Week 3 (19-23)	Week 8 (24-28)	Week 5 (3-7)	Week 6 (10-14)	Week 7 (17-21)	Week 8 (24-29)	Week 9 (31-4)	Week 10 (7-11)	Week 11 (14-18)	Week 12 (21-25)	Week 13 (28-2)	Week 14 (5-9)	Week 15 (12-16)	Week 16 (19-23)	Week 17 (26-30)	Week 18 (2-6)	Week 19 (9-13)	Week 20 (16-20)	Week 21 (23-27)	Week 22 (30-3)	Week 23 (6-10)	Week 24 (13-17)	Week 25 (20-24)	Week 26 (27-1)	Week 27 (4-8)	Week 28 (11-15)	Week 29 (18-22)	Week 30 (25-29)
	April				May				June				July					August				September					October				
CONCURRENT DESIGN ACTIVITIES	Project Award											30% CD Complete 6/21		EBP1 Complete 7/6			EBP2 Complete 7/28	60% CD Complete 8/5							90% CD Complete 9/22		100% CD Complete 10/8			
TRACK 1 : Program Verification & Space Planning Review current program based on the RFQP and confirm requirements **KEY ISSUES MAY INCLUDE:** - Program mandates and desires - Support program (offices, storage, conference room) - MEP and infrastructure - Ratio of general open space to program space - Approved alternates	Award & NOI	4/13/21 Kick Off Meeting (Program, Elevations, Materials Review)			5/3 Building Program Finalized																									
TRACK 2 : Borings, Survey, and Soil Permitting Perform Borings, Survey, and Soil Permitting Process with RIDEM **KEY ISSUES MAY INCLUDE:** - Site Diagrams - Environmental borings - Geotechnical borings - Soil Sampling/pre-characterization - Hazardous Materials survey - RIDEM permit applications	Feature Borings (Environmental &														7/12/21 Submit RIDEM permit applications															
TRACK 3 : Early Bid Package 1 Maintenance & Storage Building Civil, Foundations, and Superstructure **KEY ISSUES MAY INCLUDE:** - Location & Orientation - Crane - Structural					Early Bid Package 1 Design (5/3-7/6)																										
					Review Crane scope of work																										
TRACK 4 : Early Bid Package #2 Temporary Facilities (SCADA, Office, & LAB) and Enabling KEY ISSUES MAY INCLUDE: - Permits for temporary scapes		Review of needs			Early Bid Package 2 Design (5/3-7/28)																										
TRACK 5 : Maintenance & Storage Building CD's 30%, 60%, 90%, & 100% CD's **KEY ISSUES MAY INCLUDE:** - Location & Orientation - Crane		Building Location & Orientation/General Overview				Produce Room Data Sheets AHU Review				Confirm Room Data Sheets		Confirm Room Furniture Layouts		30% CD Complete 6/21				60% CD Complete 8/5		8/16/21 Full Building Permit Set Complete & Submit for Permit					90% CD Complete 9/22		100% CD Complete 10/8			
TRACK 6 : Operations Building CD's 30%, 60%, 90%, & 100% CD's **KEY ISSUES MAY INCLUDE:**		Building Location & Orientation/General Overview				Produce Room Data Sheets AHU Review				Confirm Room Data Sheets Coordinate Access Floor		Confirm Room Furniture Layouts		30% CD Complete 6/21				60% CD Complete 8/5							90% CD Complete 9/22		10/8/21 100% CD's/Full Building Permit Set Complete			

General Updates

Track progress for previous week
Task
Done or Not Done



for each track

Look-ahead for upcoming week (review stickies/add tasks as needed, discuss information handoff and constraints)

Keep an eye on upcoming milestone

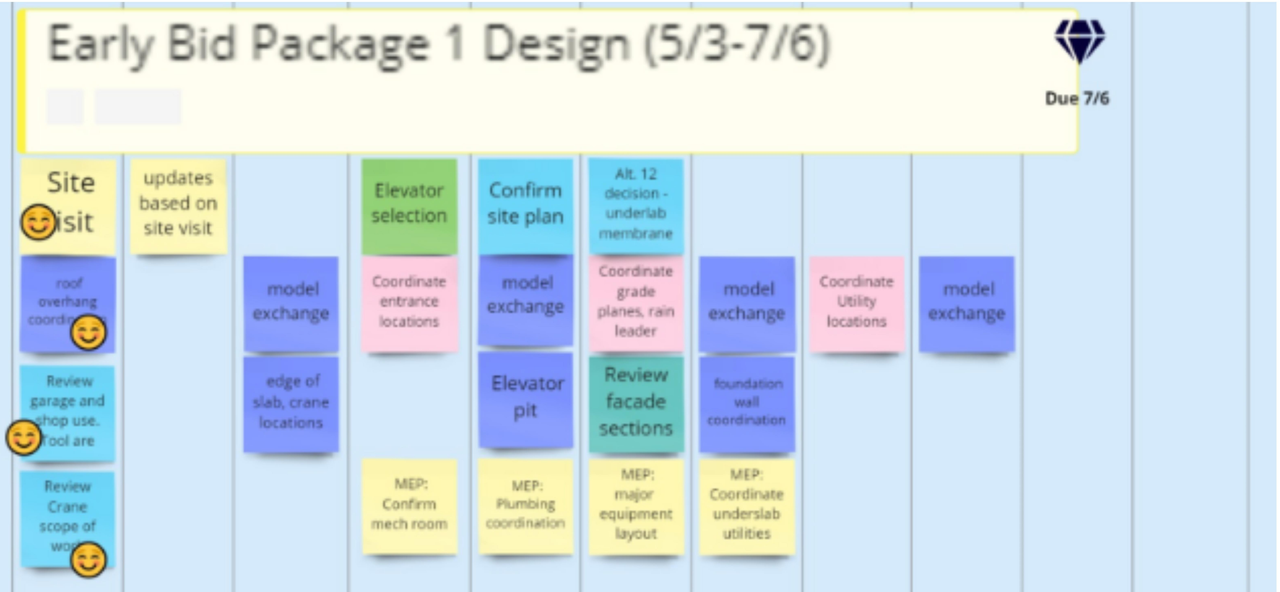
Review Constraint Log

Discuss upcoming meetings/Action items

TRACK 3 : Early Bid Package 1 Maintenance & Storage Building Civil, Foundations, and Superstructure

KEY ISSUES MAY INCLUDE:

- Location & Orientation
- Crane
- Structural



LEGEND

Responsible Party	Color/ICON
NBC	
DOC	
LLB Architects (Architecture & Interior Design	
Woodard & Curran (IT/SCADA)	
Odeh Engineers (Structural Engineering)	
Building Engineering & Resources (MEP Engineering)	
Jensen Hughes (FP/Code Consulting)	
Traverse (Landscape Architecture)	
Paul Aldinger (Geotechnical Eng.)	
Building Enclosure Science (Build. Envelope Commissioning)	
The Skyline Group (AV/Security/Digital Signage/PA System)	
Colliers Commissioning (Commissioning Services)	
E.W. Audet (Elec/Telecomm/FA)	
DiGregorio (Site & Demo)	
Review Meetings	
Task Complete	
Task not Complete	
Milestone	

STAKEHOLDER GROUPS MEETING SCHEDULE

NBC User Group Meetings

Design team - Consultant Coordination Meetings

Week 1 (5-9) | Week 2 (12-16) | Week 3 (19-23) | Week 8 (24-28) | Week 5 (3-7) | Week 6 (10-14) | Week 7 (17-21) | Week 8 (24-29) | Week 9 (31-4) | Week 10 (7-11) | Week 11 (14-18) | Week 12 (21-25) | Week 13 (28-2) | Week 14 (5-9) | Week 15 (12-16) | Week 16 (19-23) | Week 17 (26-30) | Week 18 (2-6) | Week 19 (9-13) | Week 20 (16-20) | Week 21 (23-27) | Week 22 (30-3) | Week 23 (6-10) | Week 24 (13-17) | Week 25 (20-24) | Week 26 (27-1) | Week 27 (4-8) | Week 28 (11-15) | Week 29 (18-22) | Week 30 (25-29)

April | May | June | July | August | September | October

CONCURRENT DESIGN ACTIVITIES

- Project Award
- 30% CD Complete 6/21
- EBP1 Complete 7/6
- EBP2 Complete 7/28
- 60% CD Complete 8/5
- 90% CD Complete 9/22
- 100% CD Complete 10/8
- NO MORE Programming changes

TRACK 2 : Borings, Survey, and Soil Permitting
Perform Borings, Survey, and Soil Permitting Process with RIDEM
KEY ISSUES MAY INCLUDE:
- Site Diagrams
- Environmental borings
- Geotechnical borings
- Soil Sampling/pre-characterization
- Hazardous Materials survey
- RIDEM permit applications

Feature Borings (Environmental &

Boring Results 1 due | DiGrigorio test pits @ Storm water b | Boring Results 2 | W&C initial input due by 5/13 | Welsh to perform final site survey - waiting on | Boring Report Complete 3/20 | Coordinate with Paul Aldinger on rock borings | Welsh to perform final site survey | Develop environmental closure strategy and permitting Approach | Develop and submit Boring plan | Pre-RIDEM coord. mtg with Project Team | Rock Driller on site, June 3 | SOUTH POND Pre-RIDEM coord. mtg with Project Team (not held) | RIDEM Mtg - NV | Rock Driller on site, June 9 | South Pond review with CRMC | Additional Soil Boring per RIDEM | Propose underslab drainage | Rock Driller on site, June 23 and 24 | Compile documents for CRMC App submission | 7/2/21 Submit final site investigation report RIDEM | Review rock boring information | Submit to CRMC | Review rock boring information | Submit to CRMC | 7/15/21 Submit RIDEM RAWP and public notice | Digregorio develop rock removal plan with DOC | Submit to CRMC | Digregorio develop rock removal plan with DOC | Submit RAWP 7/23 | Digregorio develop rock removal plan with DOC | Haz Mat Survey | Digregorio develop rock removal plan with DOC | W+C meeting with CRMC for update | Haz Mat Report/Spec | Digregorio develop rock removal plan with DOC | Permit allowed to start on site | Haz Mat Report/Spec | CONSTRUCTION based on 60% updates | Construction Start 8/11 | Haz Mat Report/Spec | Haz Mat Report/Spec | Additional soil test results | Haz Mat Report/Spec | Foundations Permit MAINTENANCE BLDG | Plan Review Set - Maintenance BLDG | Haz Mat Report/Spec | Abatement Plan - Bid process | Demo Permit for Admin - Start | 9/22/21 90% CD's and exterior envelope | Accept bids for abatement | WP and Roofing, Fire Protection Bid Package | Award Abatement | Q&A period for EBP3 | RIBCC schedule review | Include LLB in Scope review/award | Confirm Code drawings review | Confirm Elevator pit sizes and connections IF NOT TKE | 10/20/21 100% CD's Both Buildings | Include EBP3 Answers in 100% CD

TRACK 3 : Early Bid Package 1 Maintenance & Storage Building Civil, Foundations, and Superstructure
KEY ISSUES MAY INCLUDE:
- Location & Orientation
- Crane
- Structural

Early Bid Package 1 Design (5/3-7/6) — Due 7/6

Site visit | roof overhang coord | Review garage and shop use, tool are | Review Crane scope of wo | updates based on site visit | model exchange with ODEH | DOC MEP on-boa | model exchange | edge of slab, crane locations | Coordinate entrance locations & confirm FFEs | Elevator selection | Confirm crane structural del | Begin Coordination | MEP: Confirm mech room | Confirm site plan | Foundation design confirmation (crane, geotec | Elevator sizes based on manufacturers largest stuff requirem | MEP: Plumbing coordination - underslab (floor drains) | Slab depression at entrance systems (walk-off) | Alt. 12 decision - underlab membrane | Sheet/foundation redesign narrative (crane) | Review facade sections | MEP: major equipment layout | Slab depression at entrance systems (walk-off) | RIDEM Mtg Civil | Coordinate grade planes, rain leader | Review/confirm Alt. 12 decision - underslab membrane | model exchange | Review facade sections (for structu | MEP: Coordinate underslab utilities | Confirm existing utilities | Steel Tonnage for Cost Reconciliation | Coordinate grade planes, rain leader | Review and accept Alt 12 - Underslab drainage | Review 30% Structural Constructability Workshop | Foundation wall coordination, edge of foundation, brick she | MEP: Coordinate underslab utilities | Coordinate Utility locations (meet with DG | Workshop Structural Design w/DOC | Review and accept Alt 12 - Underslab drainage | Cover sheet TOC | Foundation wall coordination, edge of foundation, brick she | Coordinate Structural Grading Underslab drain | Coordinate Utility - Retaining walls | Structural Details - band window support | Retaining wall concrete | Further coordination to take place in shop | DOC will review underslab drainage system in EBP language - final design requ | DOC to include coordination language for retaining walls in EBP | DOC to review typ details in EBP and include language in scope sheet for coordination | Issue addendum 1, if req | Review bids, scope and award | Review bids, scope and award | Review bids, scope and award | Receive submittals | Flow Test Data (permanent | Review bids, scope and award

TRACK 4 : Early Bid Package #2 Temporary Facilities (SCADA, Office, & LAB) and Enabling
KEY ISSUES MAY INCLUDE:

- Permits for temporary scopes

Fume Hood - 8 week lead time

Early Bid Package 2 Design (5/3-7/28)

DOC to Schedule Review of needs for 3 Trailer with NBC | Expectations for EBP 2 - Jen to prepare questions | SCADA Kickoff | Meeting with NBC 5/20/21 to review 3 trailers | Review Jen's questions for EBP 2 during 5/7 mtg | DOC to give feedback to Jen after 5/20 meeting re: | DOC to give feedback to LLB after 5/20 meeting re: comments from LLB and other DOC stakeholders | DOC and NBC to review summary of 5/20 meeting | DOC and NBC to review summary of 6/4 | DOC and NBC to review summary of 5/20 meeting | Permitting for trailers; Define Trailer Scope | Receive quotes for trailers | Meet Audet and NBC on-site to review utility connections | Push pad locks for securi | Develop MOPO Pl | Finalize temp trailer full scope pa | Develop MOPO plan | Finalize temp trailer full scope package | Develop MOPO plan | Update Narratives for Elec, Water/ Sanitary, Plumbing Fi | Finalize temp trailer full scope package | Contribute to MOPO Plan | Submit site plan and trailer docs to Warren | Contribute to MOPO Plan | APPROVE permit to bring trailers on site | Order HEMCO Fume Hood (8 weeks) | Construction Fence Start | Pricing for utility tie-in; water heater | APPROVE permit to bring trailers on site | Order HEMCO Fume Hood (8 weeks) | Reduce HVAC capacity at SCADA; Mechanical and Plumbing Permits | Trailer Mobilization | Order HEMCO Fume Hood (8 weeks) | SCADA trailer Mobilization | Power and internet to SCADA and DOC tr | Lab Trailer Mobilization | Power and internet to SCADA and DOC trailers | NBC office trailer mobilization | Shutdown for Power Start up | NBC office trailer mobilization | Power to lab and office trailers | Material procurement LAB tie-in | Fiber to SCADA | NBC office trailer mobilization | Power to lab and office trailers | Material procurement LAB tie-in | Arrival of SCADA equipment 9/17 | NBC office trailer mobilization | Power to lab and office trailers | Water tie-in to Lab Trailer | Fiber to SCADA | Patch Panels, Rack deliv | Purchase/ Install Lab casework | Testing for SCADA trailer | Testing for Office and Lab trailers | Begin Move-in to Temp Facilities | Move Rack/new TransitionServer into SCADA | Move existing servers to SCADA | AC Unit Spring of '22

TRACK 5 : Maintenance & Storage Building CD's
30%, 60%, 90%, & 100% CD's

KEY ISSUES MAY INCLUDE:
- Location & Orientation
- Crane

Building Location & Orientation/ General Overview | Joe W | Produce Room Data Sheets | Initial Discussion with AHJ | Produce Room Data Sheets | Ongoing structural Coordination | Produce Room Data Sheets | Review prelim. RDS | Review Exterior materials - elevations 5/27 | MEP Kick-Off & Model Exchange to begin Confirming MEP related items | Review meeting with NBC of Room Data Sheets 6/4 | Code drawings (submit after 5/28) | Revise Room Data Sheets | Provide wall and roof sections for Grodsky Load calcs | code drawings review with JH | Code-required outlet locations, Electrical room layout | Sheet schedule nomenclature | Confirm 600A load strategy | Model exhange Maint. Dwg | JH review FD connections, 3D dwgs | Review and incorporate Vision 3 Comments | Drawing List from Subs by 6/18 | 30% CD Complete 6/21 | Confirm 600A load strategy | Research alternative Dust Collection Unit | Confirm additional cooling ROM | Review and incorporate Vision3 Comments | 30% docs to LLB by NOON | Review and incorporate NBC Comments | Review 30% page turn | Update schedule, constructability review | Procure and review samples - Dri-Design | Summary of page turn notes | Site: Lighting & Furnishings | Incorporate review feedback | JH visit site for FA/FP | Design underslab drainage | AV Review with NBC | Review Int./Ext. Finishes, incl. doors 10am @ Field 1 | Meet on-site with Audet for pad-mount transformer | Design underslab drainage | Security Review with NBC | Review Int./Ext. Finishes, incl. doors 10am @ Field 1 | Light fixture model upload | Design underslab drainage | Design underslab drainage | VRF Load schedule for Audet | Light fixture model upload | Supplemental and back-up cooling requirements (SCADA Room | Abernathy - Light fixture photometrics | 60% CD Complete 8/5 | DOCUMENTS TO LLB BY EOD on 8/4 | Show electric vehicle stations per Alt. | JH review floor plans for Permit | Review 60% | Review facade sections | Determine strategy for WP in Elevator | model exchange | JH review floor plans for Permit | Review 60% | Define final scope for Security and AV - Allowance | Determine strategy for WP in Elevator | MEP Coordination meeting; DOC facilitation | Lightning protection SPEC ONLY | Light fixture and egress coordination | BER Review 60% | Fire Pump design (Alternate?) | Security and AV review | MEP Coordination meeting; DOC facilitation | 9/1/21 PLAN REVIEW set | Egress door ext. lighting - battery pack | Coordination W+C, Skyline, EWA based on AV/Security on plans | Draft specifications (TOC) | Security, IT, NBC and Electrical Coordination - FLOOR | MEP Coordination meeting; DOC facilitation | Vision 3 Comments review | 200V operating required for indoor unit and electric unit heaters | SCADA Condenser meeting discussion | Door HW review | Landscape Meeting 9/7 or 9/8 | Finishes exterior and interior review | Draft specifications | Lighting Coordination; Abernathy to determine Lumens | MEP Coordination meeting; DOC facilitation | Vision 3 Comments review | Finish exterior and interior review | Door HW review | Envelope Design Workshop and Constructability | Elevator Coordination meeting - JH, BER, LLB and Sc | Old Elevator shop drawings for BER review | Lighting controls | FLOOR BOXES | Lighting Coordination; Abernathy to determine Lumens | MEP Coordination meeting; DOC facilitation | Lighting Coordination; Abernathy to determine Lumens | 90% CD Complete 9/22 | Furniture and Main Lobby | Internal Lighting controls meeting | Site Lighting Cost - Electrical drawings | Review light layout/RCP and levels | MEP Coordination meeting; DOC facilitation | 100% CD Complete 10/8 | Hardware | Board room presets (wall wash and downlight | Lab Casework | Single control for open office fixtures | Site Lighting Cost - Electrical drawings | Keep AV scope as drawn | Civil/Landscape coordination with Condenser Farm | Security scope trimmed. Control panel/power locations?

TRACK 6 : Operations Building CD's
30%, 60%, 90%, & 100% CD's

KEY ISSUES MAY INCLUDE:

Building Location & Orientation/ General Overview | L1 Layout options | Review L1 | Review Scada room | Review office program | L1 further studies | L2 storage room updates | Field's Point Office site visit 5/20 | model exchange | Elevator selection, location | L1 and L3 further studies | Coordinate Comp. Access Floor | MEP Kick-Off & Model Exchange to begin Confirming MEP related items | MEP: Confirm mech rm boiler rm | Review Exterior materials - elevation | SCADA kick-off, inte | MEP: Plumbing coordination | Code drawings | Review VRF design change | model exchange | Provide wall and roof sections for Grodsky Load calcs | Review facade materials | MEP: major equipment layout (Downsize Mech Ro | code drawings review | Present VRF to NBC prior to proceeding | Confirm 600A load strategy | Review ribbon window bracing/lintels for inclusion in EBP | Revise structure for new L3 floor plan | Finalize plans | Approve VRF Strategy | model exchange | 30% CD Complete 6/21 | Outline specs | Revise structure for new L3 floor plans; Enclosures? | Finalize sections | 30% docs to LLB by NOON | Review and incorporate NBC Comments | Prepare RDS | Review 30% | VRF Load schedule for Audet | model exchange | Prepare RDS | AHJ Review | FA/FP: existing conditions | Ext. Details | Set up RCPs | SF and Height info for VRF condensers | Review Int./Ext. Finishes, Incl. doors | AV/ Security Review | RDS/ DD review: casework, furnehood, finish | Door schedule - start | Ext. Det. Special Conditions | Refine RCPs (Need light Fixture Designations, types, locations/rooms by 7/23) | Supplemental and back-up cooling requirements (SCADA Room | Design underslab drainage | Review Int./Ext. Finishes, Incl. doors | Review RDS | Review Lab in Ops | Confirm Room Data Sheets | Refine RCPs (Need light Fixture Designations, types, locations/rooms by 7/23) | Light fixture model upload | Supplemental and back-up cooling requirements (SCADA Room | Design underslab drainage | VRF Load schedule for Audet | SF and Height info for VRF condensers | Confirm reduction in floor boxes | Reduce operating voltage to 208V | Elec. Water heater ILO gas service to the building | Review facade sections | Review facade sections | Condenser location - SCADA | Reconcile cost savings VRF | 60% CD Complete 8/5 | DOCUMENTS TO LLB BY NOON on 8/4 | FM 200 design coordination | Finalize RDS | Supplemental and back-up cooling requirements (SCADA Room | Design underslab drainage | Reconcile cost savings VRF | model exchange | Review 60% | Light fixture model upload shown- not yet circuited or controlled | Complete Elevator Spec for final Electrical design | Review facade sections | Determine strategy for WP in Elevator | model exchange | Review 60% | AV review | Elevator control jamb - detail to LLB | MEP Coordination meeting; DOC facilitation | Condenser location - SCADA, IT | Reconcile cost savings VRF | Condenser location and IT room loads - SCADA | Reconcile cost savings VRF | Security review | Security and AV review | Condenser location - SCADA; IT rooms cooling not required | Reconcile cost savings VRF | model exchange | Vision 3 Comments review | Review 60% HVAC/Plumbing with BER | 200V operating required for indoor unit and electric unit heaters | SCADA Condenser meeting discussion | Vision 3 Comments review | Door HW review | Vision 3 Comments review | Envelope Design Workshop and Constructability | Elevator Coordination meeting - JH, BER, LLB and Sc | Old Elevator shop drawings for BER review | Vision 3 Comments review | 90% Spec comments | Schedule condensers | Flow Data/Pipe size in 90% | model exchange | 100% CD Complete 10/8 | Typical Stair Details, floor finishes | Rubber floor finish, Wire mesh infill panels | model exchange | Lights not scheduled; i.e. RCP/S AHU on floor plan not in schedule | Control wiring for Drycoolers | Purchase/ Install Lab casework | MEP Coordination meeting; DOC facilitation | Testing for SCADA trailer | Testing for Office and Lab trailers | Begin Move-in to Temp Facilities | 10/8/21 100% CD's/Full Building Permit Set Complete | Move Rack/new TransitionServer into SCADA | Move existing servers to SCADA | AC Unit Spring of '22 | ECU 5 ampsteach Compare with Schedule | W+C Cabling | Confirm with NBC for redundancy at Server room. INDEPENDENT system? | Calcs | Civil/Landscape coordination with transformer pad

ARCHIVED TRACK 1 : Program Verification & Space Planning
Review current program based on the RFQP and confirm requirements

KEY ISSUES MAY INCLUDE:
- Program mandates and desires
- Support program (offices, storage, conference room)
- MEP and infrastructure
- Ratio of general open space to program space
- Approved alternates

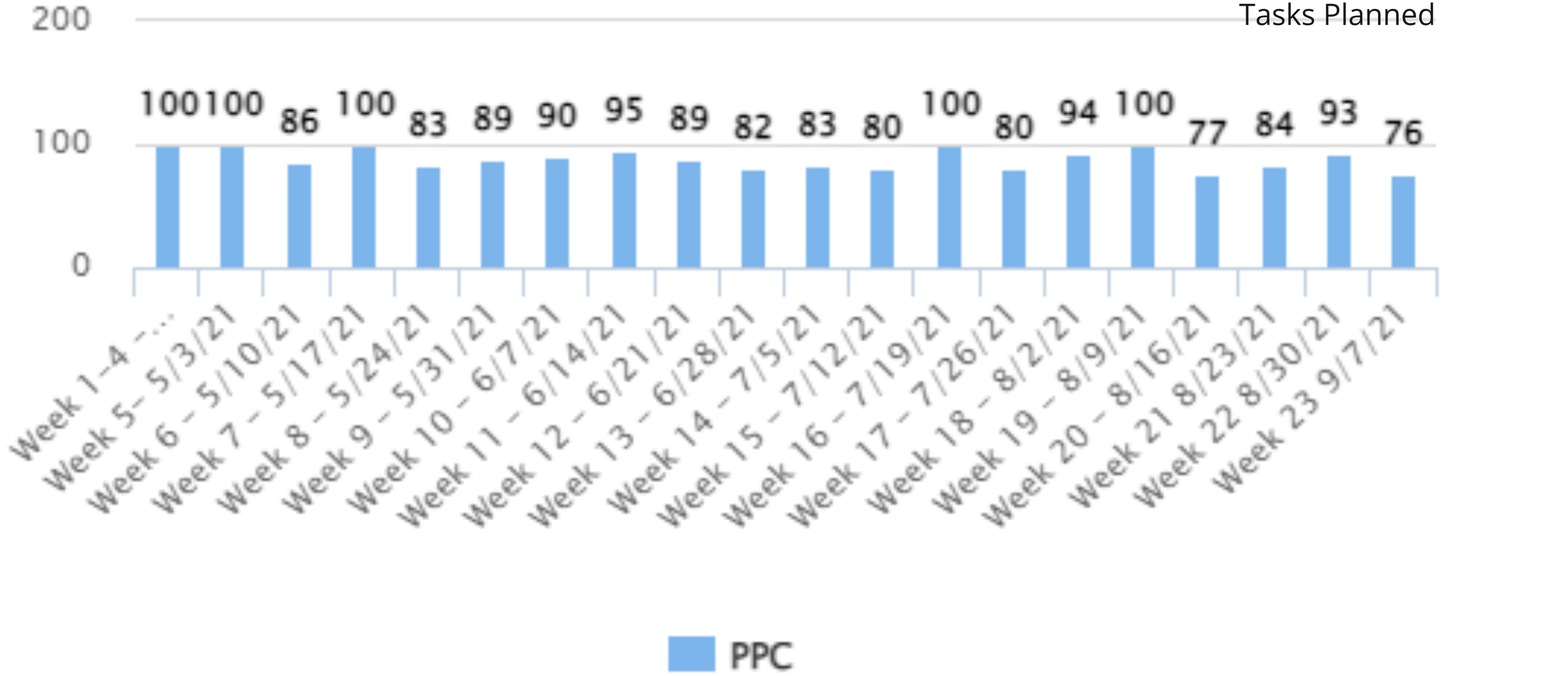
Award & NOI | 4/12/21 Kick Off Meeting (Program, Elevations, Material Finish) | 5/3 Building Program Finalize | Create Report to memorialize Program Finalized (needed NBC feedback | Create Report to memorialize Program Finalized | Sign off on Program | Sign off on Progra | Review 30% and Sign off on Programming/ RDS

Constraint Log

No.	Date Identified	Identified by	Comment/Concern Description	Status/Process	Responsible Individual	Priority	Date Needed by	Date Resolved
~~1~~	~~5/3/21~~	~~DOC (proposal)~~	~~DOC review crane configuration with Odeh, then review options with NBC~~	~~ODEH to review selected crane/configuration impact on structure~~	~~Odeh~~	~~High~~	~~5/26/2021~~	~~6/8/21~~
2	~~5/6/21~~	~~NBC (site visit)~~	~~Request that roll-up coiling doors become wider and as tall as possible. Especially north-most entry to bridge crane area~~	~~Proposed Biltrite doors abandoned, return to basis of design coiling door with small window panel options. Doors have been made larger in the plans, need to report back to NBC with changes/dimensions~~ ~~**AND options for windows** Addressed in 30% set~~	~~LLB~~	~~Low~~	~~6/24/21~~	
~~3~~	~~5/13/21~~	~~LLB~~	~~Confirm bathroom fixture count~~	~~Additional office space on L3 might have increased occupancy such that additional fixtures would be required~~	~~LLB/Jensen Hughes~~	~~High~~		~~5/20/2021 May 17 by Jen W~~
4	~~5/13/21~~	~~NBC (Programming)~~	~~Reconfigure south offices to accommodate plan review table, plotter, etc~~	~~NBC reviewed preferred options with LLB during site visit 5/20. LLB to study and share updates with NBC for final approval.~~ ~~**LLB sent options to NBC for L3 layout, 5/25/2021**~~	~~NBC~~	~~Low~~	~~5/25/2021~~	~~6/7/21 Programming generally accepted~~
~~5~~	~~5/13/21~~	~~NBC~~	~~Review SCADA and EMDA Area layout~~	~~NBC to review internally.~~ ~~**30% set will show existing layout.**~~ ~~Layout of equipment from NBC 7/7. Meeting scheduled for 7/12. NBC has confirmed layout of EMDA lab and SCADA area in time for 60% docs~~	~~LLB~~	~~Low~~	~~7/16/21~~	~~Confirm layout approval at 60% document review~~
~~6~~	~~5/13/21~~	~~NBC~~	~~Doors to Storage and Kitchen Storage, 206 and 209A~~	~~Reconfigure/swap rooms/doors so that access to 209A is provided from the corridor and kitchen storage becomes 206~~	~~LLB~~	~~Low~~	~~6/24/2021~~	~~6/7/21 programming accepted~~
~~7~~	~~5/13/21~~	~~NBC~~	~~Relocate mud room and survey equipment room to the south entrance~~	~~Update 5/20/21 NBC has decided to eliminate the L1 bathroom, move the mud room back to the north, create extra space in the exercise room. LLB to update plans~~	~~LLB~~	~~Low~~	~~6/24/21~~	~~6/7/21 programming accepted~~
~~8~~	~~5/11/21~~	~~NBC~~	~~Curb/landscape to the south of the lower parking spaces may inhibit access to the north most OH door (crane area)~~	~~W+C has moved the building to the south and skinnied the island. They provided layout plan showing drivable access to the coiling doors.~~ ~~**W+C skinnied up island in new "Box Truck" site plan for NBC review, 5/24/2021**~~	~~NBC~~	~~Low~~	~~5/25/2021~~	~~5/24/2021~~
9	~~5/3/21~~	~~NBC (proposal)~~	~~ROM to install underdrain system ILO underslab waterproofing~~	. ~~Recommendation sent to NBC on 6/16~~ **Direction received**	~~NBC~~	~~Medium~~	~~6/24/2021~~	
~~10~~	~~5/17/21~~	~~Odeh. Email to LLB~~	~~Request for design loads in MS building for vehicular loads~~	~~Vehicular design loads provided by NBC~~	~~NBC~~	~~Medium~~	~~5/21/2021~~	~~5/20/2021~~
11	~~5/19/2021~~	~~LLB, Odeh~~	~~Depending on the categorization of the buildings, there may be a requirement for impact resistant glazing~~	~~Jensen Hughes has interpreted the code such that there is no need for this change. LLB will present the 30% documents to the AHJ such that impact resistance would not be required. The AHJ can review and comment at that time.~~ ~~**Schedule Meeting for plan review with Warren (Include NBC)**~~ **We will formally submit our permit set in August for both buildings**	~~LLB, Jensen Hughes~~	~~Low~~	~~6/25/2021~~	
~~12~~	~~5/27/2021~~	~~W+C~~	~~South Pond was not built to plan in a previous project. NBC has no record of why the work wasn't done, nor a record of approval by RIDEM~~	~~W+C would like permission from NBC to contact RIDEM to explain the situation prior to proceeding with calculations and drawings~~	~~NBC~~	~~High~~	~~6/2/2021~~	~~6/9/21 South Pond strategy reviewed with CRMC - storm water plans can move forward~~
~~13~~	~~6/3/2021~~	~~DOC~~	~~VRF Substitution Strategy~~	~~*NBC has approved DCR 1 to proceed with Design Work*~~ ~~**Grodsky confirmed VRF units available in 460V**. Condenser farm SF, sit on concrete pad and up off the ground 18" - Location has been approved just west of the Pavilion, where they are currently shown~~	~~NBC/Grodsky~~	~~High~~	~~7/23/21~~	~~7/23/21~~
14	6/4/21	NBC	Slip resistance in Maintenance garage/shop	LLB to provide data on type of sealer, in lieu of broom finish **NBC recommended a Euco Grip product - DOC to submit**	LLB	Low	before 60% set is issued on 8/5/21	
15	6/7/21	DOC	Dust Collector Eliminated in Maintenance shop	NBC has shared a "portable" fume collection unit option, ILO BOD, for the weld shop. **Grodsky asked NBC 8/2/21 to specify requirements in the Wood shop.** **ELECTRICAL CONNECTIONS?**	NBC	Low	6/18/21	
~~16~~	~~6/8/21~~	~~W+C~~	~~Existing Utilities confirmations~~	~~NBC to provide history on "witness" utility locations in order for W+C to complete civil drawings~~ ~~**Response from NBC 6/18**~~	~~NBC~~	~~Med~~	~~6/18/21~~	~~6/18/21~~
17			~~Sewer exit from the Maintenance Building~~	~~Foundations to be coordinated with established sewer invert info from Grodsky.~~ **Captured in EBP1**	~~LLB/Odeh~~		~~7/6/21~~	~~7/6/21~~
18			~~Special inspections by Owner~~	~~NBC to provide clarity on Special Inspections, as required by Code. NBC has mentioned inspections will take place by in-house engineers.~~ **Warren Ducharme stated that inspections by NBC are OK, but testing must be by "certified" lab**	~~NBC~~			~~7/12/21~~
19			~~Floor Drain coordination and requirements for slope-to-drain~~	~~DOC to inquire with NBC if pitch-to-drain is required.~~ **Eye wash stations need floor drains near by.**	~~NBC/LLB~~	Med		~~7/12/21~~
20	7/12/21	DOC	Electrical floor boxes and data outlet locations? Mass Crane electrical requirements	Bridge Crane requirements shared with EWA. Floor boxes already reduced to (5) in the Briefing Room. W&C to show floor box layout based on AV design (per AV meeting 7/16) **60% I-drawings still show many floor boxes**	W+C/Audet	Med	before 60% set is issued on 8/5/21	Floor box layout to be confirmed in 60% docs
21	7/12/21	DOC	NBC to provide requested Exterior Convenience Outlet locations	None required by Code; NBC has noted preferred exterior outlet AND hose bib locations 7/29	BER/Grodsky	Low	before 60% set is issued on 8/5/21	To confirm inclusion in 60%
~~22~~	~~7/9/21~~	~~JH~~	~~Fire Protection strategy at Bay Storage; Calculations for Fire Pump~~	Jensen Hughes to ~~Jensen Hughes to clarify, JH has stated that~~ height of Racks should be less than 12'; should not be made of plastic; storage usage should consist of materials used in the existing storage space; No "cushion" of 5psi currently, as specified by EP/Fire Marshall	~~JH~~		~~before 60% set is issued on 8/5/21~~	
23	7/6/21	W+C	Cooling data for SCADA independent system	W+C working through alternatives for in-rack cooling. Requirements for independent unit have been shared	W+C	High		8/3/21
24	7/6/21	NBC	Lubricant storage	NBC to provide photos and select location Equipment NEW vs. REUSED	NBC	Low		
25	7/30/21	Grodsky	Access to Strobic Fan	NBC recommended roof-hatch through the roof deck at either of the stairs. **LLB will create closet next to chase for roof hatch.**	LLB	Low	before 60% set is issued on 8/5/21	
26	7/23/21	DOC	Eliminate epoxy rebar in elevated slabs; ~~replace light weight concrete with normal weight~~	DOC to confer with Odeh - Concrete bidders have identified this as a deduct alternate	DOC	Low	8/15/21	
~~27~~	~~7/28/21~~	~~NBC~~	~~Gas connection to buildings - Master meter for the whole plant? Gas install to the building by contractor?~~	~~Gas connections will be by private contractor; contrary to the BER narrative~~	~~DOC/Digregorio~~	~~Low~~	~~8/15/21~~	
~~28~~	~~7/29/21~~	~~LLB~~	~~2:12 roof slope at Maintenance -~~	~~Most manufacturers have a 3:12 minimum slope requirement to provide a 30-year warranty. LLB has procured a waiver from Firestone~~	~~LLB~~	~~Med~~	~~8/15/21~~	~~8/6/21~~
~~29~~	~~7/30/21~~	~~DOC~~	~~Confirm there are no LEED or Sustainable Building requirements on the project.~~	~~NBC checking with Legal department.~~ ~~**DOC has discussed with RIBCC and will note NBC as being exempt.**~~	~~NBC~~	~~High~~	~~ASAP~~	~~8/6/21~~
30			Replace guy wire support at tree	Tree must go for proposed grading and drainage. Guy wire must be moved by the owner of the pole in question. **DOC has contacted Verizon; Guy wire will be removed**	NBC			
31			Utility Sink type	Shown in model/Maintenance Shop bay 215A. Not described in the BER narrative. NBC to provide requirements	NBC			
~~32~~	~~8/2/21~~		~~Plumbing questions - Operations BLDG~~	~~Per e-mail on 8/10, with DOC and LLB responses. NBC responded~~				
33			~~Special Outlet coordination with Copiers~~					
34	8/23/21		Fire Pump design	1 hr walls, dedicated room, JH to provide cut sheets for Power requirements, update Civil utility plan. NBC recommends locating the room in the Maintenance Building for scheduling and building turnover purposes **Permanent hydrant being installed 9/14 for new flow test data**	Jensen Hughes	Medium		
35	8/23/21		Ceiling height confirmation - DOC coordination	DOC performing clash detection for Coordination meeting week of 8/30. Coordination meetings take place once each week.				
~~36~~	~~8/23/21~~		~~Vent space for shift kitchen~~	~~Coordinated with LLB~~				
37	8/23/21		Do electrical pads need to be same distance from the building? Clearance from the building required	Audet confirms Transformers can be located in the enclosure north of the maintenance building.	BER			
			UPS information from W+C to BER	UPS info delivered				
			Retaining wall at mechanical yard coordination	Retaining wall layout in email thread				
			W+C to schedule meeting with Grodsky/DOC/LLB	Meeting took place				
			Additional Receptacles required in the Weld Shop and Wood shop??	DOC to ask NBC				
			Electrical coordination of Overhead Doors	DOC to share contact with BER - answer door questions. 208V operating power				

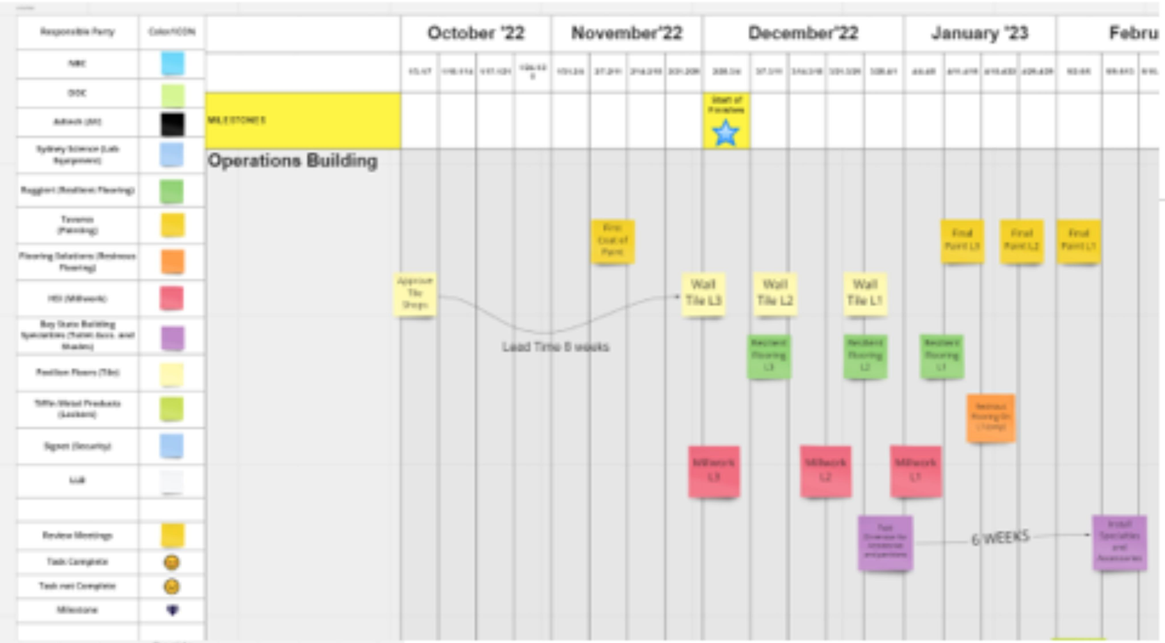
Plan Percent Complete

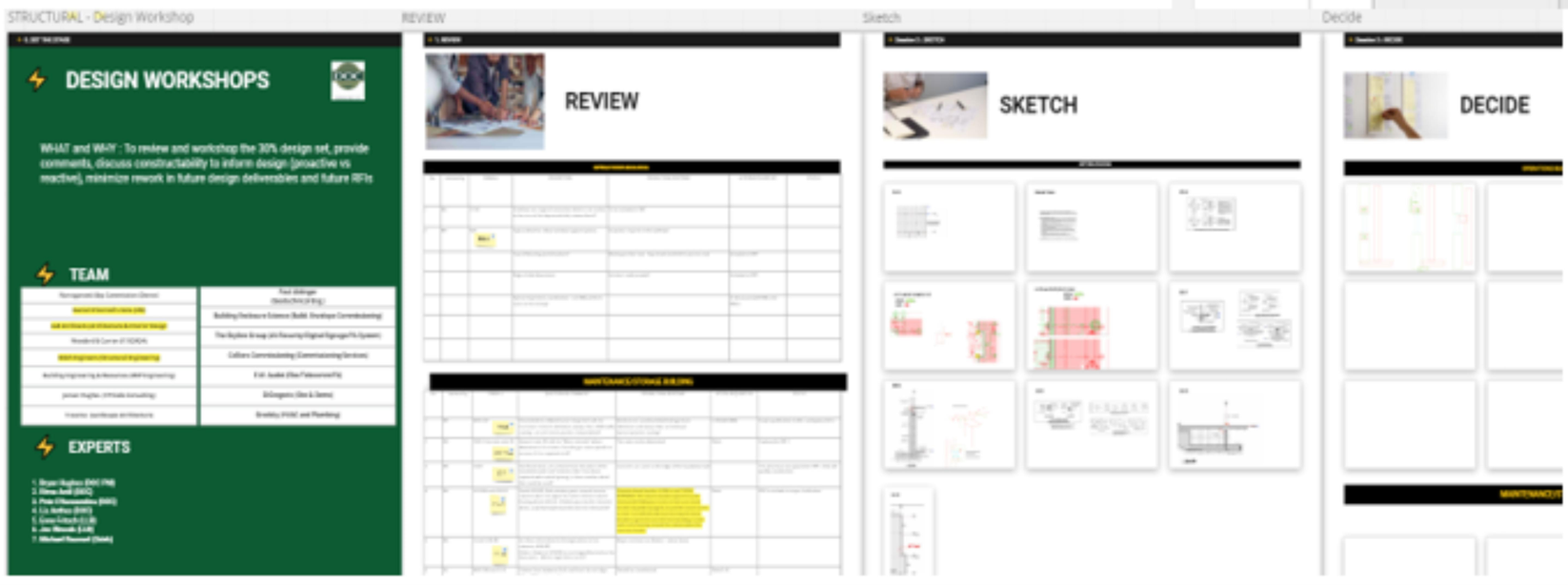
$$PPC = \frac{\text{Task Completed}}{\text{Tasks Planned}} \times 100\%$$



Takeaways

- *Long Lead items led to Early Bid Packages*
- *Miro was a "home-base"*
  - *Determined "to-do"*
  - *Initiated internal meetings*





Other Applications

- *Design Workshops*
- *"Make Ready" meetings*

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