Waabnoong Bemjiwang
Association
of First Nations

PROJECT SCHEDULING AND BUDGETING

WELCOME

Aanii Boozhoo
Derek McGregor
n’dizhnikaaz.
N’daaw.
Mskwo-Shingwaak
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n’dizhnikaaz.
Makwa n’doodem

SCHEDULING

- Project scheduling is a mechanism to communicate what tasks need to get done and which organizational resources will be allocated to complete those tasks in what timeframe. A project schedule is a document collecting all the work needed to deliver the project on time. The Project schedule will anticipate critical paths, procurement, lags & leads.

These are the typical stages in any construction project.
Good planning at the beginning and anticipation of contingencies
will help the entire process go much more smoothly.

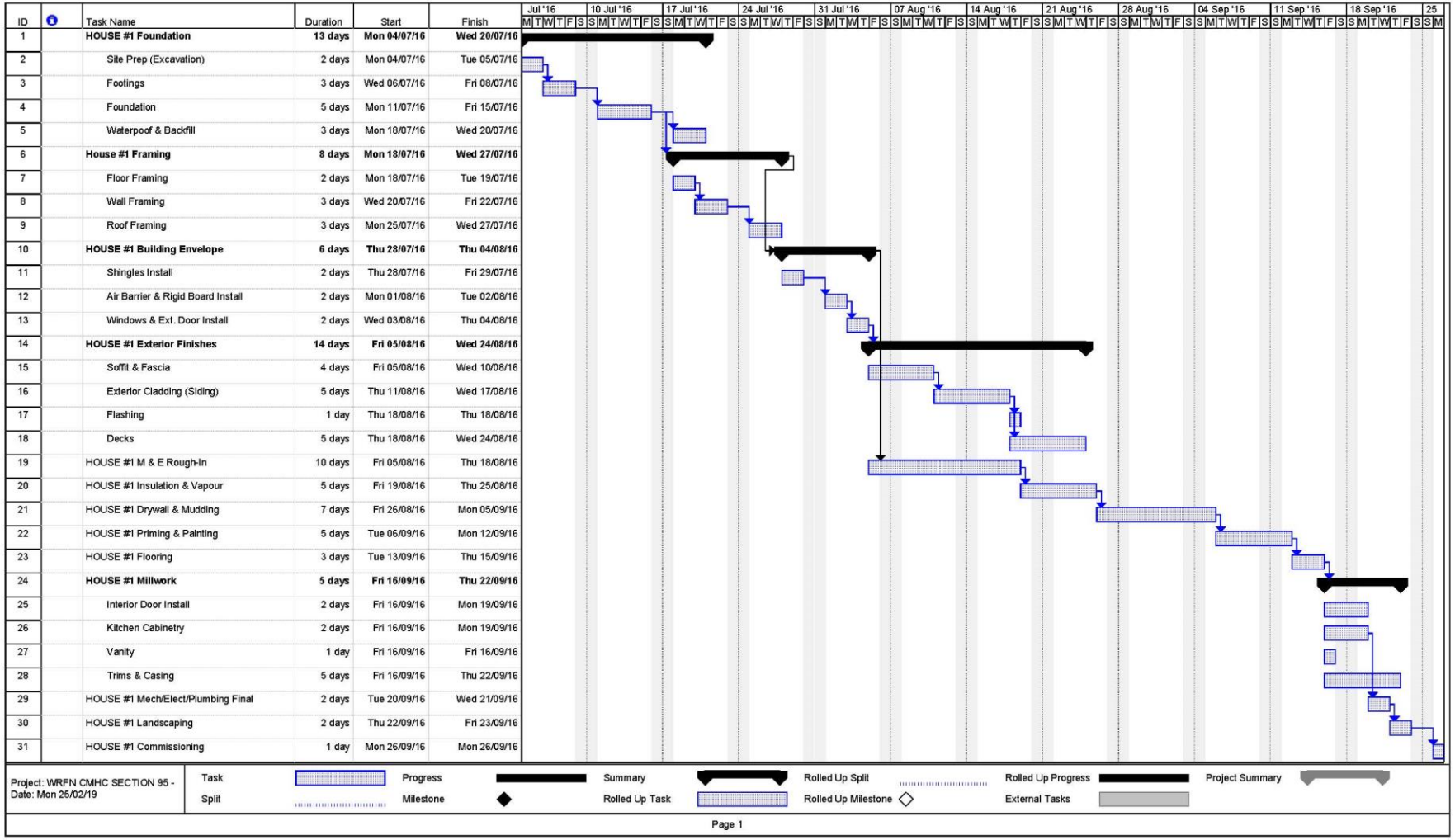
SCHEDULING TOOLS

- Spreadsheets
- Tables and Graphs
- Whiteboards
- Gantt charts
- Calendar
- Day / week Planner

What is a Gantt Chart?

A chart in which a series of horizontal lines showcase the amount of work done or production completed in certain periods of time in relation to the amount planned for those periods.

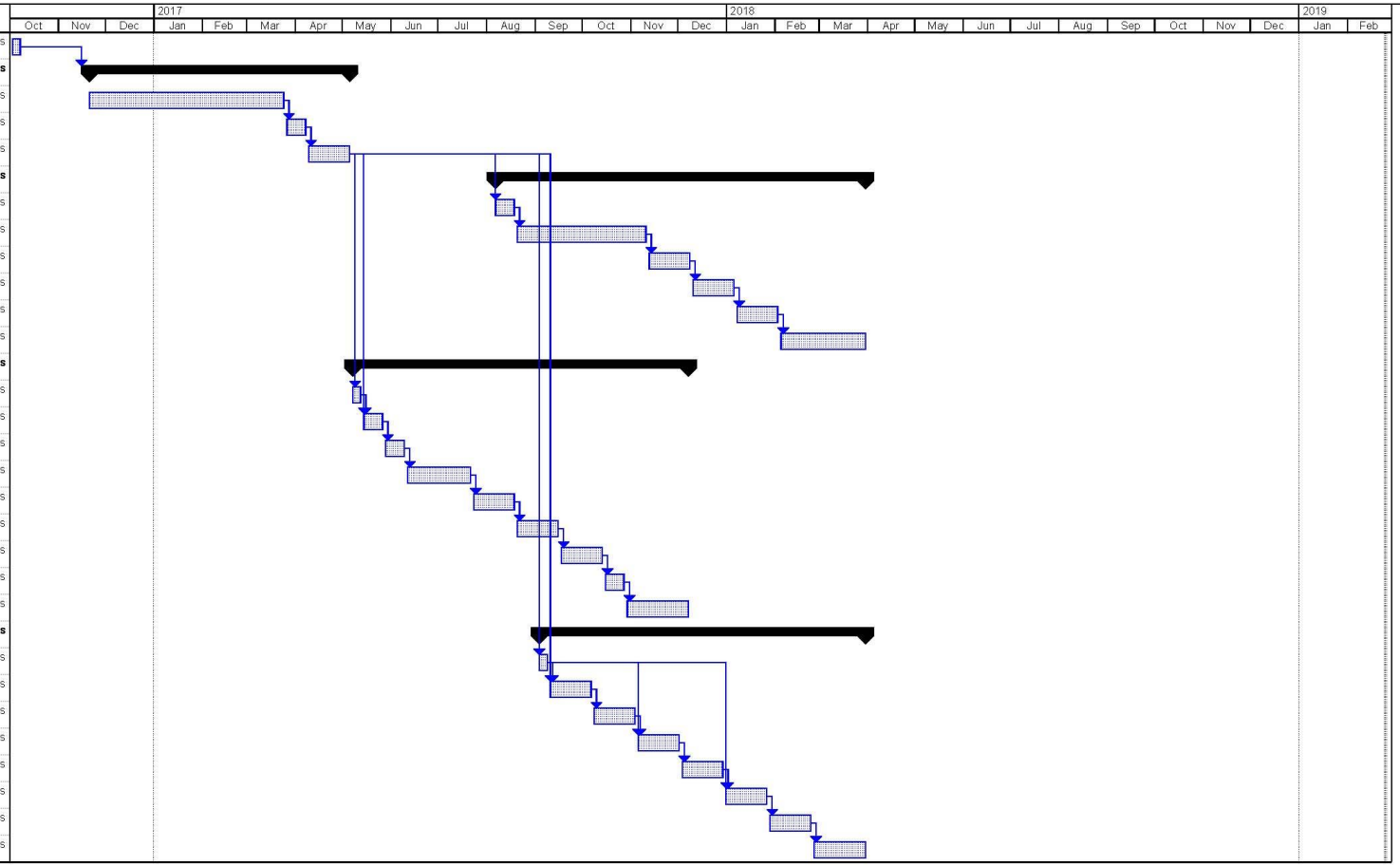
In a **Gantt chart**, dependencies allow you to define relationships between tasks and visualize the sequence in which they must be completed in order to close a project. ... A dependency is the relationship between **predecessor** and successor tasks. Tasks may have multiple **predecessors** or multiple successors.



ID	Task Name	Duration	Start	Finish
1	**HOUSE #1 Foundation**	**13 days**	**Mon 04/07/16**	**Wed 20/07/16**
2	Site Prep (Excavation)	2 days	Mon 04/07/16	Tue 05/07/16
3	Footings	3 days	Wed 06/07/16	Fri 08/07/16
4	Foundation	5 days	Mon 11/07/16	Fri 15/07/16
5	Waterpoof & Backfill	3 days	Mon 18/07/16	Wed 20/07/16
6	**House #1 Framing**	**8 days**	**Mon 18/07/16**	**Wed 27/07/16**
7	Floor Framing	2 days	Mon 18/07/16	Tue 19/07/16
8	Wall Framing	3 days	Wed 20/07/16	Fri 22/07/16
9	Roof Framing	3 days	Mon 25/07/16	Wed 27/07/16
10	**HOUSE #1 Building Envelope**	**6 days**	**Thu 28/07/16**	**Thu 04/08/16**
11	Shingles Install	2 days	Thu 28/07/16	Fri 29/07/16
12	Air Barrier & Rigid Board Install	2 days	Mon 01/08/16	Tue 02/08/16
13	Windows & Ext. Door Install	2 days	Wed 03/08/16	Thu 04/08/16
14	**HOUSE #1 Exterior Finishes**	**14 days**	**Fri 05/08/16**	**Wed 24/08/16**
15	Soffit & Fascia	4 days	Fri 05/08/16	Wed 10/08/16
16	Exterior Cladding (Siding)	5 days	Thu 11/08/16	Wed 17/08/16
17	Flashing	1 day	Thu 18/08/16	Thu 18/08/16
18	Decks	5 days	Thu 18/08/16	Wed 24/08/16
19	HOUSE #1 M & E Rough-In	10 days	Fri 05/08/16	Thu 18/08/16
20	HOUSE #1 Insulation & Vapour	5 days	Fri 19/08/16	Thu 25/08/16
21	HOUSE #1 Drywall & Mudding	7 days	Fri 26/08/16	Mon 05/09/16
22	HOUSE #1 Priming & Painting	5 days	Tue 06/09/16	Mon 12/09/16
23	HOUSE #1 Flooring	3 days	Tue 13/09/16	Thu 15/09/16
24	**HOUSE #1 Millwork**	**5 days**	**Fri 16/09/16**	**Thu 22/09/16**
25	Interior Door Install	2 days	Fri 16/09/16	Mon 19/09/16
26	Kitchen Cabinetry	2 days	Fri 16/09/16	Mon 19/09/16
27	Vanity	1 day	Fri 16/09/16	Fri 16/09/16
28	Trims & Casing	5 days	Fri 16/09/16	Thu 22/09/16
29	HOUSE #1 Mech/Elect/Plumbing Final	2 days	Tue 20/09/16	Wed 21/09/16
30	HOUSE #1 Landscaping	2 days	Thu 22/09/16	Fri 23/09/16
31	HOUSE #1 Commissioning	1 day	Mon 26/09/16	Mon 26/09/16

AANDC CAPACITY DEVELOPMENT HOUSING MANAGEMENT STREAM

ID	Task Name	Duration
1	STREAMS AWARDED	5 days
2	**MAINTENANCE STREAM**	**120 days**
3	Logistics	90 days
4	Consultants	10 days
5	Budgeting	20 days
6	**LIFECYCLE MAINTANANCE & BUDGE**	**170 days**
7	Adopt New Policy	10 days
8	Select and Deploy Pilot Site	60 days
9	Results Documentation	20 days
10	Draft O&M Training Regime	20 days
11	Implement O&M Training	20 days
12	Reporting Documentation	40 days
13	**MAINTENANCE MANUALS**	**154 days**
14	Retain Consultant	5 days
15	Analysis Existing Standards	10 days
16	Analysis Mainstream Standards	10 days
17	Survey Needs Assessment	30 days
18	Comprehensive Gap Analysis	20 days
19	Results Documentation	20 days
20	Draft Review Community Consult	20 days
21	Final Documentation & Ratification	10 days
22	Reporting Documentation	29 days
23	**TRAINING**	**150 days**
24	Retain Training Co-ordinator	5 days
25	Draft HVAC Training Regime	20 days
26	Implement HVAC Training	20 days
27	Draft Mould Remedy Training Regim	20 days
28	Implement Mould Remedy Training	20 days
29	Draft Building Series Training Regim	20 days
30	Implement Building Series Training	20 days
31	Reporting Documentation	25 days



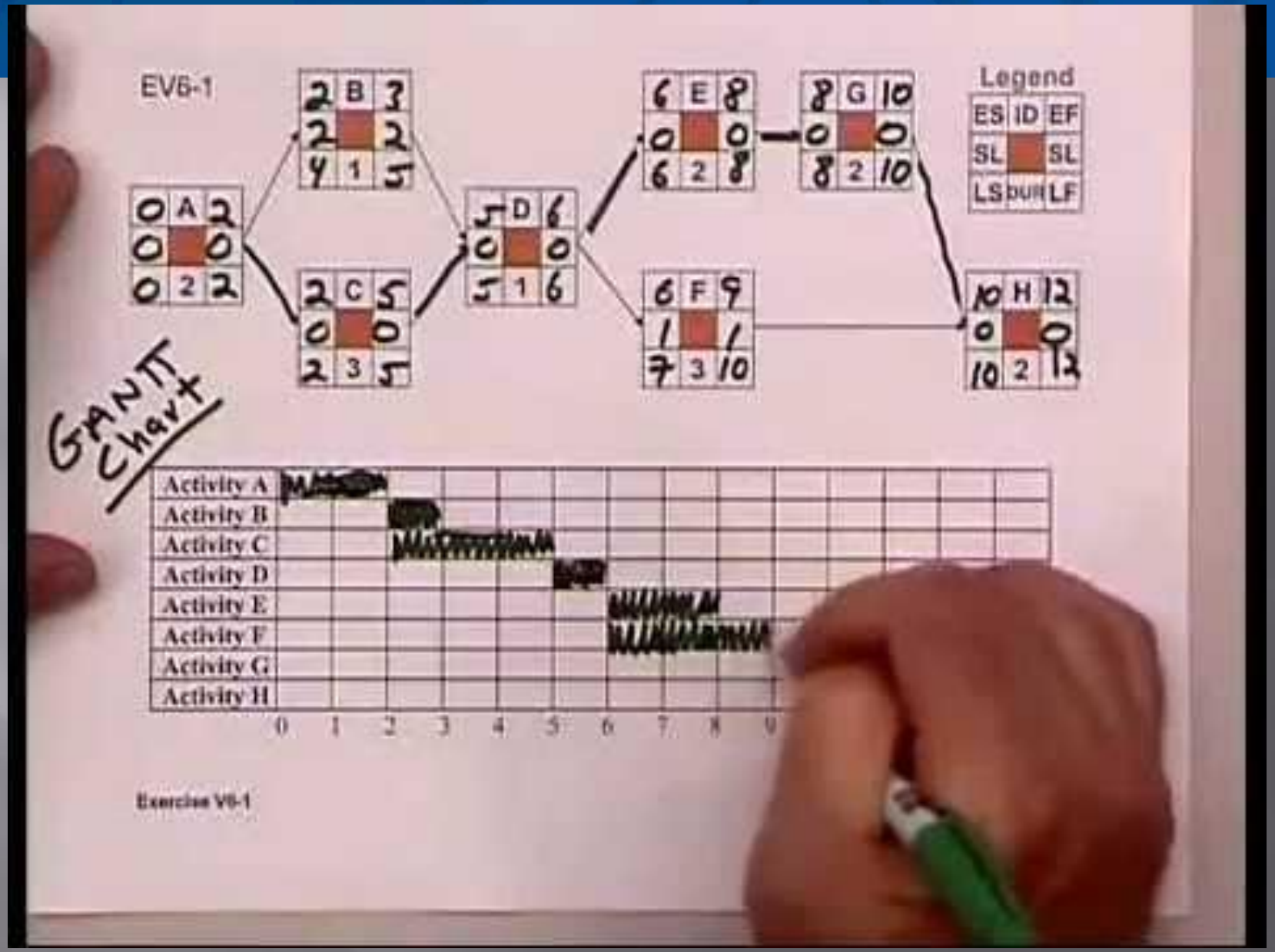
Project: INAC CAPACITY DEVELOPM
Date: Mon 25/02/19

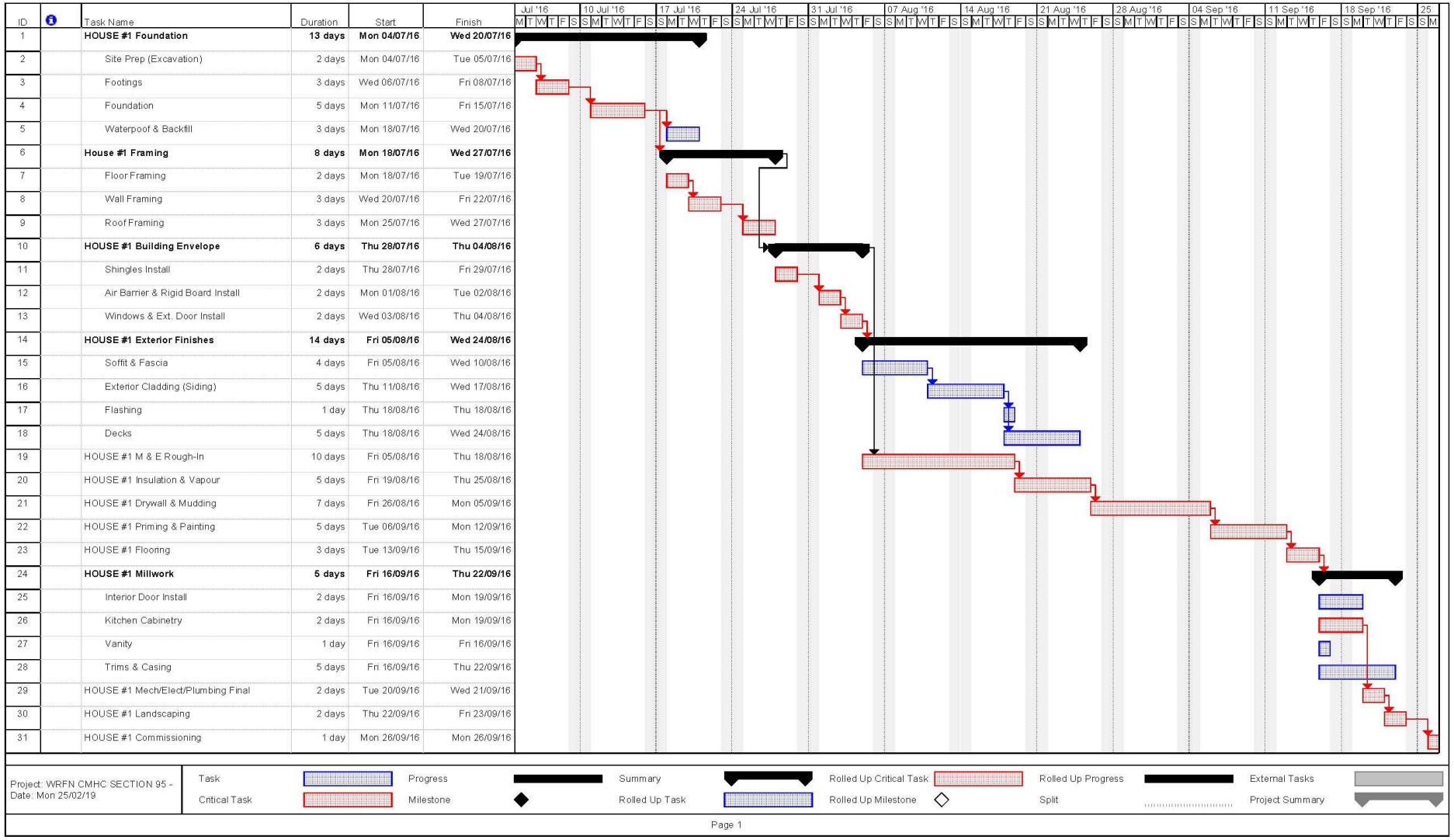
Task | Progress | Summary | Rolled Up Split | Rolled Up Progress | Project Summary
Split | Milestone | Rolled Up Task | Rolled Up Milestone | External Tasks

What is a Critical Path?

- The Critical path is the longest sequence of activities in a project plan which must be completed on time for the project to complete on due date. An activity cannot be started until its predecessor activity is complete.

- When the Critical path has been identified, it can clearly be seen where effort cannot be compromised. If any of the activities on the critical path change, the end date of the project and any milestones will be affected.


EV6-1
Legend
ES ID EF
SL SL
LS DUR LF
GANTT Chart
Activity A
Activity B
Activity C
Activity D
Activity E
Activity F
Activity G
Activity H
0 1 2 3 4 5 6 7 8 9
Exercise V6-1



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22	HOUSE #1 Priming & Painting	5 days	Tue 06/09/16	Mon 12/09/16
23	HOUSE #1 Flooring	3 days	Tue 13/09/16	Thu 15/09/16
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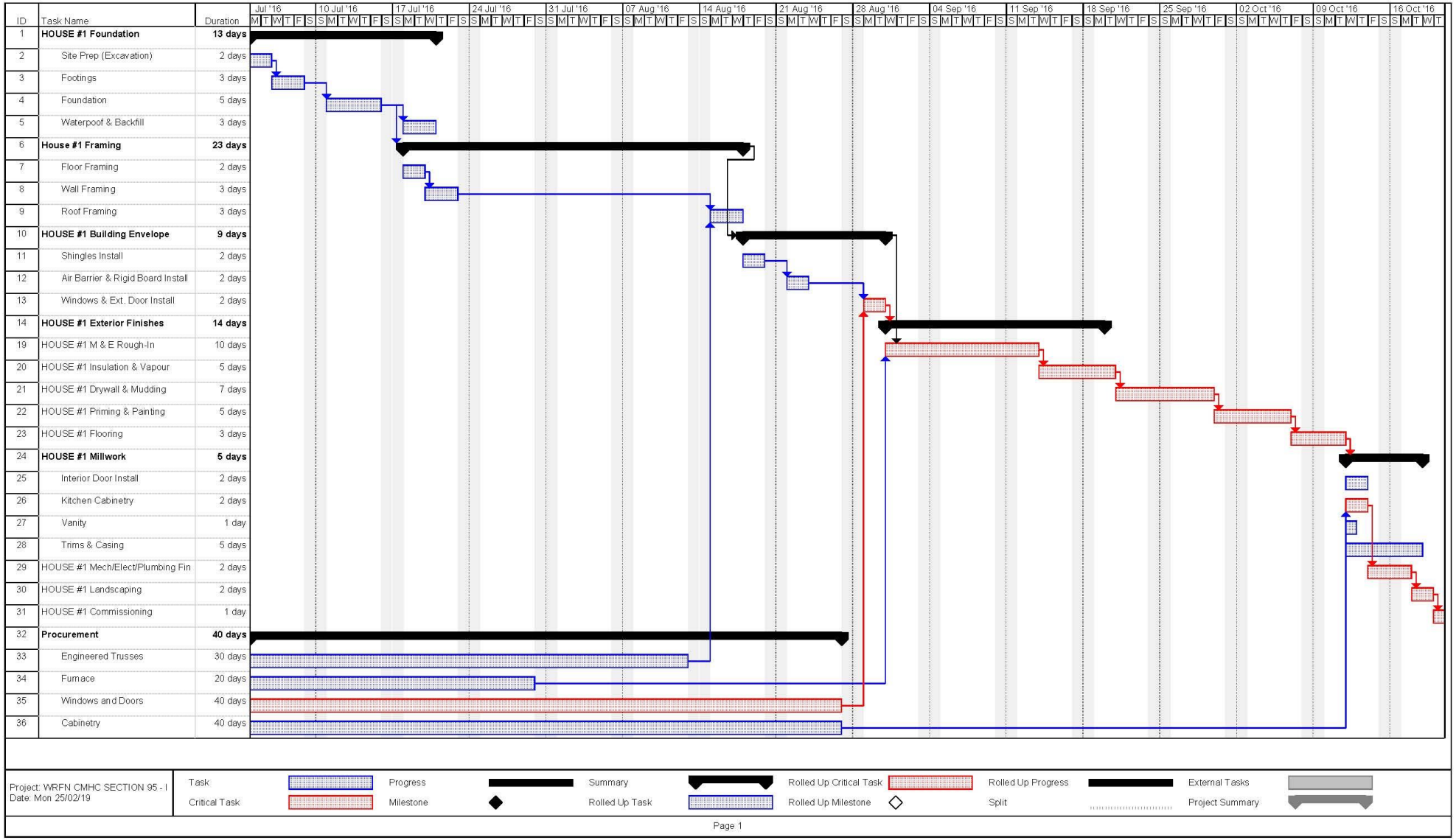
Lags, Leads and Float

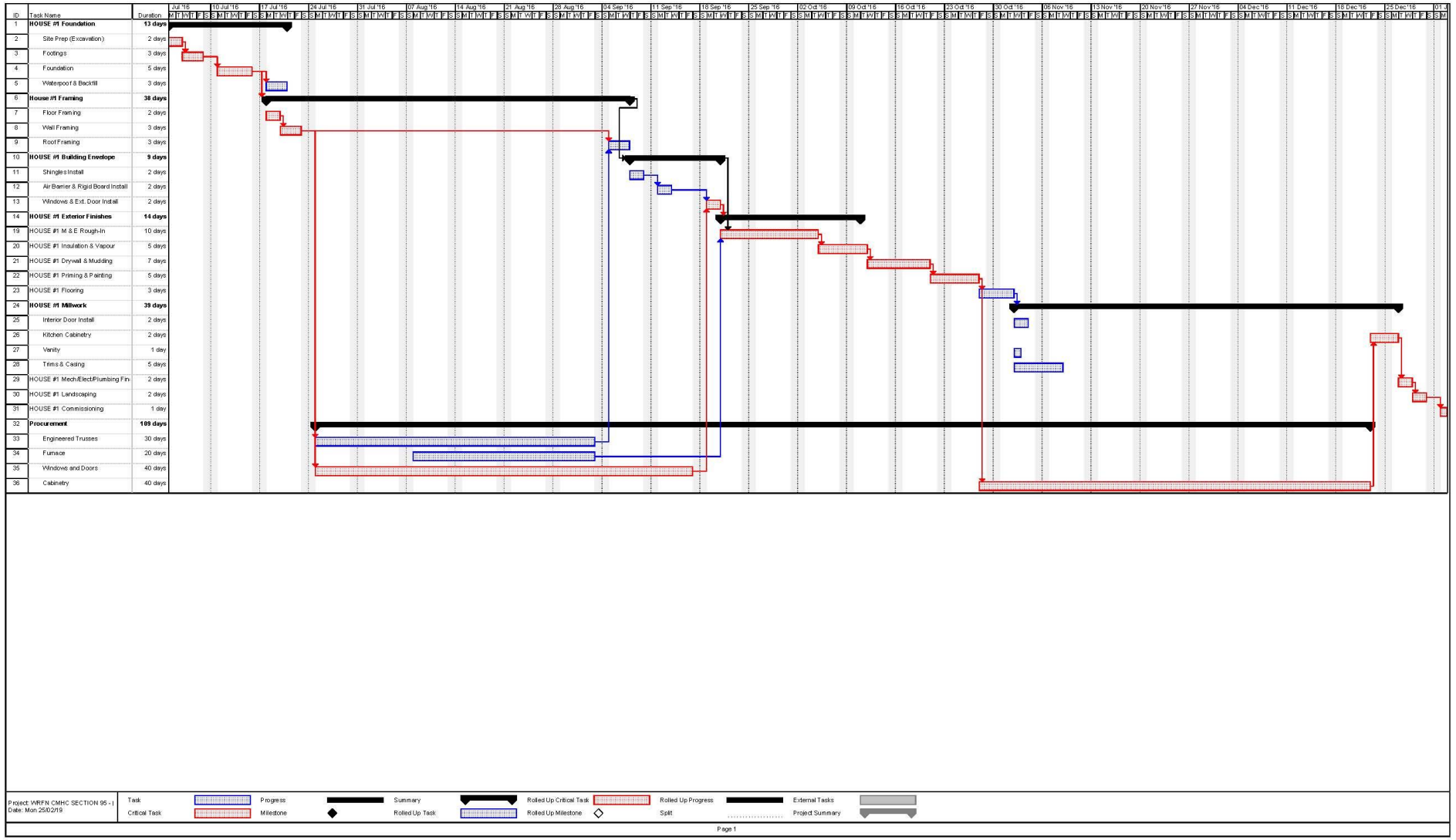
- LEAD is an acceleration of the successor activity and can be used only on finish-to-start activity relationships. Lead time strategies are usually deployed in Procurement type activities, however can be utilized during tasks.
- LAG is a delay in the successor activity and can be found on all activity relationship types.
- FLOAT or slack is the amount of time that a task in a project can be delayed without causing a delay to subsequent tasks.

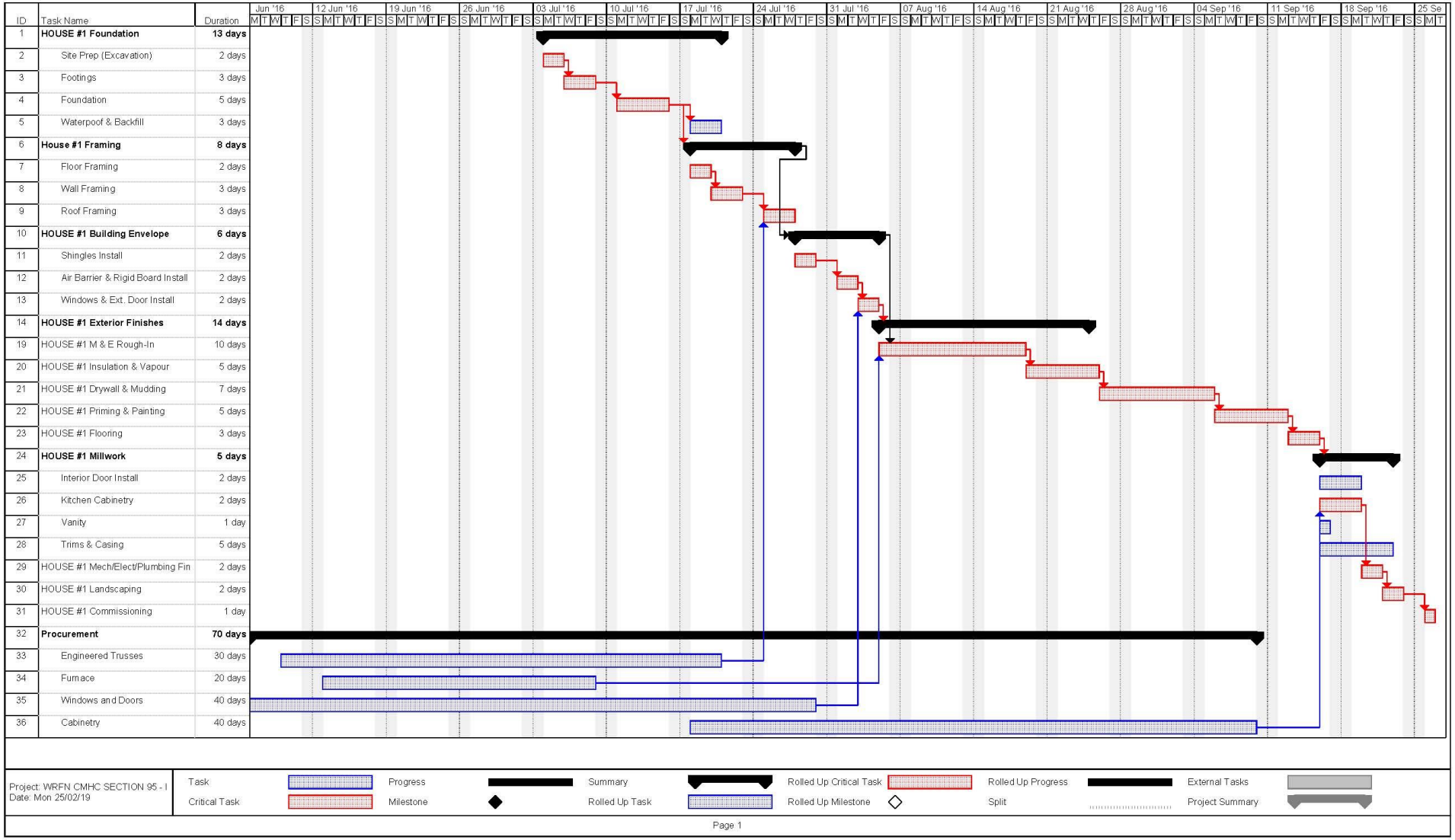
Procurement

- Procurement is the process of finding and agreeing to terms and acquiring goods, services, or works from an external source, often via a tendering or competitive bidding process.
- Examples:
  - Engineered wood products (roof trusses, wood I's)
  - Windows and Doors
  - Trade Contractors
  - Cabinetry



ID	Task Name	Duration
1	**HOUSE #1 Foundation**	**13 days**
2	Site Prep (Excavation)	2 days
3	Footings	3 days
4	Foundation	5 days
5	Waterpoof & Backfill	3 days
6	**House #1 Framing**	**23 days**
7	Floor Framing	2 days
8	Wall Framing	3 days
9	Roof Framing	3 days
10	**HOUSE #1 Building Envelope**	**9 days**
11	Shingles Install	2 days
12	Air Barrier & Rigid Board Install	2 days
13	Windows & Ext. Door Install	2 days
14	**HOUSE #1 Exterior Finishes**	**14 days**
19	HOUSE #1 M & E Rough-In	10 days
20	HOUSE #1 Insulation & Vapour	5 days
21	HOUSE #1 Drywall & Mudding	7 days
22	HOUSE #1 Priming & Painting	5 days
23	HOUSE #1 Flooring	3 days
24	**HOUSE #1 Millwork**	**5 days**
25	Interior Door Install	2 days
26	Kitchen Cabinetry	2 days
27	Vanity	1 day
28	Trims & Casing	5 days
29	HOUSE #1 Mech/Elect/Plumbing Fin	2 days
30	HOUSE #1 Landscaping	2 days
31	HOUSE #1 Commissioning	1 day
32	**Procurement**	**40 days**
33	Engineered Trusses	30 days
34	Furnace	20 days
35	Windows and Doors	40 days
36	Cabinetry	40 days


ID
Task Name
Duration
1 HOUSE #1 Foundation 13 days
2 Site Prep (Excavation) 2 days
3 Footings 3 days
4 Foundation 5 days
5 Waterproof & Backfill 3 days
6 House #1 Framing 38 days
7 Floor Framing 2 days
8 Wall Framing 3 days
9 Roof Framing 3 days
10 HOUSE #1 Building Envelope 9 days
11 Shingles Install 2 days
12 Air Barrier & Rigid Board Install 2 days
13 Windows & Ext. Door Install 2 days
14 HOUSE #1 Exterior Finishes 14 days
19 HOUSE #1 M & E Rough-In 10 days
20 HOUSE #1 Insulation & Vapour 5 days
21 HOUSE #1 Drywall & Mudding 7 days
22 HOUSE #1 Priming & Painting 5 days
23 HOUSE #1 Flooring 3 days
24 HOUSE #1 Millwork 39 days
25 Interior Door Install 2 days
26 Kitchen Cabinetry 2 days
27 Vanity 1 day
28 Trims & Casing 5 days
29 HOUSE #1 Mech/Elect/Plumbing Fin 2 days
30 HOUSE #1 Landscaping 2 days
31 HOUSE #1 Commissioning 1 day
32 Procurement 109 days
33 Engineered Trusses 30 days
34 Furnace 20 days
35 Windows and Doors 40 days
36 Cabinetry 40 days
Jul '16
10 Jul '16
17 Jul '16
24 Jul '16
31 Jul '16
07 Aug '16
14 Aug '16
21 Aug '16
28 Aug '16
04 Sep '16
11 Sep '16
18 Sep '16
25 Sep '16
02 Oct '16
09 Oct '16
16 Oct '16
23 Oct '16
30 Oct '16
06 Nov '16
13 Nov '16
20 Nov '16
27 Nov '16
04 Dec '16
11 Dec '16
18 Dec '16
25 Dec '16
Project: WREN CMHC SECTION 95 - I
Date: Mon 25/02/19
Task
Critical Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Critical Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Page 1



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9	Roof Framing	3 days
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25	Interior Door Install	2 days
26	Kitchen Cabinetry	2 days
27	Vanity	1 day
28	Trims & Casing	5 days
29	HOUSE #1 Mech/Elect/Plumbing Fin	2 days
30	HOUSE #1 Landscaping	2 days
31	HOUSE #1 Commissioning	1 day
32	**Procurement**	**70 days**
33	Engineered Trusses	30 days
34	Furnace	20 days
35	Windows and Doors	40 days
36	Cabinetry	40 days

Milestones

- A milestone is a specific point in time within a Project lifecycle used to measure the progress of a project toward the ultimate goal. In Project management, milestones are used as signal posts for: a project's startup or end date, a need for external review or input, a need for budget checks, submission of a major deliverable. Milestones have a fixed date but no duration.
- A good example is scheduling in the Building Inspector. They may only be able to visit your community at select times.

BUILDING INSPECTIONS MILESTONES

INSPECTION DATE	ACTIVITY	PROJECT MILESTONE
JULY 15TH	SITE & FOOTINGS	JULY 14TH
AUGUST 15TH	FOUNDATION & PRE-BACKFILL	AUGUST 14TH
SEPTEMBER 15TH	FRAMING / M&E ROUGH IN	SEPTEMBER 14TH
OCTOBER 15TH	INSULATION/VAPOUR-PRE DRYWALL	OCTOBER 14TH
NOVEMBER 15TH	FINISH	NOVEMBER 14TH

MATERIAL CASH FLOW MILESTONES

PURCHASE MATERIALS	PROGRESS INSPECTION	PAYMENT LAG	PAYMENT DUE
JULY 1ST	JULY 15TH	10 DAYS	JULY 30TH
AUGUST 1ST	AUGUST 15TH	10 DAYS	AUGUST 30TH
SEPTEMBER 1ST	SEPTEMBER 15TH	10 DAYS	SEPTEMBER 30TH
OCTOBER 1ST	OCTOBER 15TH	10 DAYS	OCTOBER 30TH
NOVEMBER 1ST	NOVEMBER 15TH	10 DAYS	NOVEMBER 30TH

PROJECT / CONSTRUCTION BUDGETING

- Project/Cost budgeting is a tool to estimate the costs or necessary efforts for projects, work packages or activities in a project. Cost budgeting includes the estimation of costs, setting a fixed budget, and managing and controlling the actual costs (compared to the estimated ones).

STEPS TO PREPARING A BUDGET

- Allowance
  - How much money is available for you to achieve your objective
- Estimate
  - One of the most crucial components of the construction process, construction cost estimating is the process of forecasting the expense of building a physical structure
- Cost Control
  - budget study is undertaken to determine the total costs and returns expected from the project. ... The purpose of the cost plan is to allocate the budget to the main elements of the project to provide a basis for cost control.

4 Key Phases of Construction Budgeting

- Phase 1: Analysis and Discovery
  - Start by assembling your team, as it takes more than one person to plan a budget.
  - An understanding of your Band's overall cost structure is critical. Your funding for the project should be secure and well-established.
  - Construction projects are expensive, so being prepared to withstand overruns without breaking the bank is essential. Research and analyze the goals and requirements that you have for this project
  - Assess your project resources and limitations; know your realistic limits so you can work within them

Phases - continued

- Phase 2: Design and Development
  - During this phase, you need to determine the potential scope of your project. The first step is to meet with your architects and design consultants to draw on their expertise as needed.
  - After you analyze your potential work, ask consultants to come up with creative options and pitch them with drawings or models. It's critical for all stakeholders and decision makers to be aligned on the final design before you get started.
  - At the end of this phase, finalize your budget and timeline and start seeking bids from potential contractors. When doing so, ensure that contractors have completed all requirements for the bid.

Phases - continued

- Phase 3: Documentation and Pre-construction
  - Secure approval of the final design and budget, ensure decision makers understand the project and are prepared to move forward with it.
  - Before breaking ground, have a meeting with all stakeholders (contractors, architects, utilities, etc.) to discuss the project, assess any potential issues, and work to resolve them.
  - Keep all documentation for permits, regulations, deliverables, and contracts in an organized location. Prepare and submit all necessary paperwork
  - When managing your pre-construction, everything should be properly documented and tracked

Phases - continued

- Phase 4: Construction and Closeout
  - Actually building and closing out contracts will almost certainly be the longest phase of the project. Monitor the build and ensure progress is keeping as close to your projected schedules and costs as possible.
  - Keep a detailed change order log to ensure that when changes need to be made, they're tracked and noted for the future.
  - Keep all stakeholders aligned, from contractors to utilities. Track your deliverables and any materials being used. This will help keep your contractors' progress payments timely, accurate, and fair to the work that has been completed. Prepare closeout checklists, warranties, and any necessary inspections.

ESTIMATING –CLASS D

- A class “D” estimate is prepared when a project is at the “Conceptual Design” stage. Conceptual design is defined as the beginning of a project when preliminary spatial needs have been identified, and a space program is being developed. At this stage of a project, conceptual drawings of physical space layouts and elevations are being developed by the architect, and the remainder of the design team are developing and evaluating different ideas regarding the types of systems to be used in the project. Project development at this stage is approximately 30% complete.

ESTIMATING –CLASS C

- A class “C” estimate is prepared when a project is at the “Preliminary Design” stage. Preliminary design is when the space program of a project has, for the most part, been developed but additional changes or additions to the program are still being made. Also, preliminary design and the preparation of detailed specifications for the project in all disciplines (architectural, mechanical, electrical and structural) are underway, and the project development at this stage is approximately 70% complete

ESTIMATING –CLASS B

- A class “B” estimate is prepared when a project is at the “Detailed Design” stage. Detailed design is defined as having a finalized space program, and having the drawings and specifications for all disciplines (architectural, mechanical, electrical and structural) complete to 99%. Although addendums clarifying certain aspects of the project can still be issued at this stage of a project, we proceed to “Call for Tenders”.

ESTIMATING –CLASS A

- A class "A" estimate is attained when the bids for a project have been received, evaluated, verified, and the award of a contract has been made. Note if the scope of a project is technically complicated an Engineering Consultant may have to be retained for technical expertise in design costing. The cost of these services will be attributed to the project, whether or not the project proceeds to full completion.

CONSTRUCTION BUDGET

Awesome Builders — Costing Estimate
Random First Nation Housing
3 Units

New Construction	Units	Quantity	Unit Rate	Sub-total
Div. 1. General Requirements				
1.1 Insurance & bonds	fixed	1.00	$5,000.00	$5,000.00
1.2 Inspection and Testing	fixed	0.00	$2,500.00	$0.00
1.3 Supervision	weeks	24.00	$500.00	$12,000.00
1.4 Temporary Utilities	fixed	6.00	$1,500.00	$9,000.00
1.5 Temporary Sanitary Facilities	fixed	6.00	$250.00	$1,500.00
1.6 Field Office and Storage	fixed	5.00	$500.00	$2,500.00
1.7 Health and Safety	fixed	4.00	$100.00	$400.00
1.8 Final Cleanup	fixed	1.00	$2,500.00	$2,500.00
1.9 Fleet	fixed	24.00	$1,000.00	$24,000.00
				$56,900.00
Div. 2. Sitework				
2.1 Backfilling / gravels	fixed	4.00	$5,000.00	$20,000.00
2.2 Exterior Drainage	lnft	600.00	$3.00	$1,800.00
2.3 Interior Drainage	lnft	450.00	$3.00	$1,350.00
				$23,150.00
Div. 3. Concrete				
3.1 **Concrete 2 Bed**				
3.1.1 Footings	cu.meter	6	$240.00	$1,440.00
3.1.2 Foundation	cu.meter	13.00	$240.00	$3,120.00
3.1.3 Foundation-Pour machine	per/dy	1.00	$1,400.00	$1,400.00
3.1.4 S.O.G.	cu.meter	9	$240.00	$2,160.00
3.1.5 Piers	cu.meter	2.00	$240.00	$480.00
3.1.6 Footings labour	per/dy	2.00	$1,400.00	$2,800.00
3.1.7 Foundation labour	per/dy	1.00	$1,400.00	$1,400.00
3.1.8 S.O.G. labour	per/dy	2.00	$1,400.00	$2,800.00
3.1.9 Piers labour	per/dy	1.00	$500.00	$500.00
3.2 **Concrete 3 bed-A**				
3.2.1 Footings	cu.meter	7	$240.00	$1,680.00
3.2.2 Foundation	cu.meter	15.00	$240.00	$3,600.00
3.2.3 Foundation-Pour machine	per/dy	1.00	$1,200.00	$1,200.00
3.2.4 S.O.G.	cu.meter	10	$240.00	$2,400.00
3.2.5 Piers	cu.meter	2.00	$240.00	$480.00
3.2.6 Footings labour	per/dy	2.00	$1,400.00	$2,800.00
3.2.7 Foundation labour	per/dy	1.00	$1,400.00	$1,400.00
3.2.8 S.O.G. labour	per/dy	2.00	$1,400.00	$2,800.00
3.2.9 Piers labour	per/dy	1.00	$500.00	$500.00

Awesome Builders — Costing Estimate
Random First Nation Housing
3 Units

New Construction	Units	Quantity	Unit Rate	Sub-total
6.5 **Rough Framing Bed 2**				
6.5.1 Sheathing Sub-Floor	ea	30	$28.00	$840.00
6.5.2 Sheathing Ext. Walls	ea	50	$20.00	$1,000.00
6.5.3 Sheathing Roof	ea	40	$21.00	$840.00
6.5.4 install Sheathing	per/dy	4.00	$1,400.00	$5,600.00
6.5.5 Wood Framing	fixed	1	$5,000.00	$5,000.00
6.5.6 Framing labour	per/dy	5.00	$1,400.00	$7,000.00
6.5.7 misc (clips/fasteners/hardware)	fixed	1	$1,000.00	$1,000.00
6.6 **Rough Framing Bed 3-A**				
6.6.1 Sheathing Sub-Floor	ea	35	$28.00	$980.00
6.6.2 Sheathing Ext. Walls	ea	60	$20.00	$1,200.00
6.6.3 Sheathing Roof	ea	55	$21.00	$1,155.00
6.6.4 install Sheathing	per/dy	4.00	$1,400.00	$5,600.00
6.6.5 Wood Framing	fixed	1	$5,000.00	$5,000.00
6.6.6 Framing labour	per/dy	5.00	$1,400.00	$7,000.00
6.6.7 misc (clips/fasteners/hardware)	fixed	1	$1,000.00	$1,000.00
6.7 **Rough Framing Bed 3-B**				
6.7.1 Sheathing Sub-Floor	ea	35	$28.00	$980.00
6.7.2 Sheathing Ext. Walls	ea	60	$20.00	$1,200.00
6.7.3 Sheathing Roof	ea	55	$21.00	$1,155.00
6.7.4 install Sheathing	per/dy	4.00	$1,400.00	$5,600.00
6.7.5 Wood Framing	fixed	1	$5,000.00	$5,000.00
6.7.6 Framing labour	per/dy	5.00	$1,400.00	$7,000.00
6.7.7 misc (clips/fasteners/hardware)	fixed	1	$1,000.00	$1,000.00
6.8 **Rough Framing Bed 3-B**				
6.8.1 Sheathing Sub-Floor	ea	35	$28.00	$980.00
6.8.2 Sheathing Ext. Walls	ea	60	$20.00	$1,200.00
6.8.3 Sheathing Roof	ea	55	$21.00	$1,155.00
6.8.4 install Sheathing	per/dy	4.00	$1,400.00	$5,600.00
6.8.5 Wood Framing	fixed	1	$5,000.00	$5,000.00
6.8.6 Framing labour	per/dy	5.00	$1,400.00	$7,000.00
6.8.7 misc (clips/fasteners/hardware)	fixed	1	$1,000.00	$1,000.00
				$123,185.00

Awesome Builders — Costing Estimate
Random First Nation Housing
3 Units

New Construction	Units	Quantity	Unit Rate	Sub-total
Div. 8. Doors & Windows				
8.1 **Doors & Windows BED 2**				
8.1.1 Supply	per unit	1.00	$8,500.00	$8,500.00
8.1.2 install	per/dy	2.00	$900.00	$1,800.00
8.1.3 interior sup/install	per unit	1.00	$1,600.00	$1,600.00
8.2 **Doors & Windows BED 3-A**				
8.2.1 Supply	per unit	1.00	$6,800.00	$6,800.00
8.2.2 install	per/dy	2.00	$900.00	$1,800.00
8.1.3 interior sup/install	per unit	1.00	$1,600.00	$1,600.00
8.3 **Doors & Windows BED 3-B**				
8.3.1 Supply	per unit	1.00	$6,800.00	$6,800.00
8.3.2 install	per/dy	2.00	$900.00	$1,800.00
8.1.3 interior sup/install	per unit	1.00	$1,600.00	$1,600.00
8.4 **Doors & Windows BED 3-C**	fixed	1	$3,000.00	$3,000.00
8.4.1 Supply	per unit	1.00	$6,800.00	$6,800.00
8.3.2 install	per/dy	2.00	$900.00	$1,800.00
8.1.3 interior sup/install	per unit	1.00	$1,600.00	$1,600.00
				$45,500.00
Div. 9. Finishes				
9.1 **Gypsum Board**				
9.1.1 Material & Install	s.f.	24000.00	$1.50	$36,000.00
9.1.2 labour	s.f.	24000.00	$1.20	$28,800.00
9.2 **Painting**	s.f.	24000.00	$0.50	$12,000.00
9.3 **Floor Finishes**				
9.3.1 Floor prep	s.f.	4000.00	$2.00	$8,000.00
9.3.2 VCT. Floor	l.s	4000.00	$3.00	$12,000.00
				$96,800.00
Div. 10. Specialties				
10.1 Washroom Accessories	fixed	1.00	$1,000.00	$1,000.00
				$1,000.00

NORTHERN HOUSING CONFERENCE FEB 2019 - BUDGETING DEMO
Project Budget
Divisional Budget Breakdown

Project Mid-point

	Budget	Actual	Variance
Div. 1. General Requirements			
1.1 Insurance & bonds	$10,000.00	$5,000.00	$5,000.00
1.2 Supervision	$35,000.00	$17,000.00	$18,000.00
1.3 Temporary Utilities	$5,000.00	$3,000.00	$2,000.00
1.4 Temporary Heat	$25,000.00	$15,000.00	$10,000.00
1.5 Field Office and Storage	$8,000.00	$4,000.00	$4,000.00
1.6 Hoarding	$3,500.00	$2,500.00	$1,000.00
1.7 Fencing & Barricades	$2,500.00	$3,500.00	$1,000.00
Division Percentage 11.2%	**$89,000.00**	**$50,000.00**	**$39,000.00**
Div. 2. Sitework			
2.1 Mobilization	$4,000.00	$4,000.00	$0.00
2.2 Sewer & Water	$30,000.00	$26,000.00	$4,000.00
2.3 Rock Blasting	$35,000.00	$40,000.00	$5,000.00
2.4 Rock Excavation	$25,000.00	$26,000.00	$1,000.00
2.5 Foundation Excavation	$10,000.00	$11,000.00	$1,000.00
2.6 Parking Lot Extension	$15,000.00	$10,000.00	$5,000.00
2.7 Building Backfill	$20,000.00	$18,000.00	$2,000.00
2.8 Pavers & Landscaping	$25,000.00	$0.00	$25,000.00
2.9 Doweling	$2,000.00	$3,000.00	$1,000.00
Division Percentage 20.8%	**$166,000.00**	**$138,000.00**	**$28,000.00**
Div. 3. Concrete			
3.1 Concrete Forming (Footings/Foundation wall)	$6,000.00	$6,500.00	$500.00
3.2 Concrete Reinforcing	$1,500.00	$2,000.00	$500.00
3.3 Cast-in-place Concrete (Footing)	$6,000.00	$5,500.00	$500.00
3.4 Cast-in-place Concrete (Floor)	$22,000.00	$19,000.00	$3,000.00
Division Percentage 4.5%	**$35,500.00**	**$33,000.00**	$2,500.00
Div. 4. Masonry			
4.1 Masonry Block (below grade)	$18,000.00	$15,000.00	$3,000.00
4.2 Stone Veneer	$24,000.00	$26,000.00	$2,000.00
Division Percentage 5.3%	**$42,000.00**	**$41,000.00**	$1,000.00
Div. 5. Metals			
5.1 Structural Steel	$20,500.00	$15,000.00	$5,500.00
5.2 Metal Fabrications	$3,500.00	$2,000.00	$1,500.00
Division Percentage 3.0%	**$24,000.00**	**$17,000.00**	$7,000.00
Div. 6. Wood & Plastics			
6.1 Pre-Engineered Roof Trusses	$9,000.00	$8,500.00	$500.00
6.2 Timber Structure	$90,000.00	$90,000.00	$0.00
6.3 Rough Carpentry	$20,000.00	$15,000.00	$5,000.00
6.4 Finished Carpentry	$20,000.00	$0.00	$20,000.00
Division Percentage 17.5%	**$139,000.00**	**$113,500.00**	$25,500.00
Div. 7. Thermal & Moisture Protection			
7.1 Dampproofing	$1,500.00	$1,500.00	$0.00
7.2 Insulation S.O.G.	$5,000.00	$6,000.00	$1,000.00
7.3 Insulation Walls	$3,500.00	$3,500.00	$0.00
7.4 Insulation Walls (spray)	$3,000.00	$4,500.00	$1,500.00
7.5 Insulation Ceiling	$3,500.00	$3,500.00	$0.00
7.6 Gutters & Downspouts	$2,500.00	$0.00	$2,500.00
7.7 Joint Sealing	$1,000.00	$0.00	$1,000.00
7.8 Fire Stopping	$1,000.00	$0.00	$1,000.00
7.9 Exterior Finishes (Siding/metal)	$2,000.00	$0.00	$2,000.00
8 Roofing Membrane (ice/water)	$2,500.00	$2,500.00	$0.00
8.1 Asphalt Shingles 25YR	$9,000.00	$7,500.00	$1,500.00
8.2 Asphalt Shingles EPDM	$5,000.00	$4,500.00	$500.00
Division Percentage 5.0%	**$39,500.00**	**$33,500.00**	$6,000.00
Div. 8. Doors & Windows			
8.1 Aluminum Entrance Doors & Frames	$27,000.00	$9,000.00	$18,000.00
8.2 Aluminum Entrance Doors & Frames	$4,500.00	$1,500.00	$3,000.00
8.3 Hardware (Steel Doors & Frames)	$7,500.00	$1,500.00	$6,000.00
8.4 Steel Door and Frames	$7,500.00	$0.00	$7,500.00
Division Percentage 5.8%	**$46,500.00**	**$12,000.00**	$34,500.00
Div. 9. Finishes			
9.1 Gypsum Board	$25,000.00	$0.00	$25,000.00
9.2 Painting (Walls)	$6,000.00	$0.00	$6,000.00
9.3 Painting (Ceiling)	$2,500.00	$0.00	$2,500.00
9.4 Acoustic Tile Units	$4,000.00	$0.00	$4,000.00
9.5 Floor Finishes misc	$20,000.00	$0.00	$20,000.00
Division Percentage 7.2%	**$57,500.00**	**$0.00**	$57,500.00
Div. 10. Specialties			
10.1 Washroom Accessories	$1,500.00	$0.00	$1,500.00
10.2	$3,000.00	$0.00	$3,000.00
Division Percentage 0.6%	**$4,500.00**	**$0.00**	$4,500.00
Div. 15. Mechanical			
15.1 Mechanical HVAC	$38,000.00	$15,000.00	$23,000.00
15.2 Mechanical Plumbing	$29,000.00	$15,000.00	$14,000.00
Division Percentage 8.4%	**$67,000.00**	**$30,000.00**	$37,000.00
Div. 16. Electrical			
16.1 General Electric	$80,000.00	$65,000.00	$15,000.00
16.2 Voice/Data/Security	$6,000.00	$0.00	$6,000.00
Division Percentage 10.8%	**$86,000.00**	**$65,000.00**	$21,000.00
SUBTOTAL	**$796,500.00**	**$533,000.00**	**$263,500.00**

NORTHERN HOUSING CONFERENCE FEB 2019 - BUDGETING DEMO
Project Budget
Divisional Budget Breakdown

Project Mid-point

	Budget	Actual	Variance
Div. 1. General Requirements	$ 89,000.00	$ 50,000.00	$ 39,000.00
Div. 2. Sitework	$ 166,000.00	$ 138,000.00	$ 28,000.00
Div. 3. Concrete	$ 35,500.00	$ 33,000.00	$ 2,500.00
Div. 4. Masonry	$ 35,500.00	$ 33,000.00	$ 2,500.00
Div. 5. Metals	$ 24,000.00	$ 17,000.00	$ 7,000.00
Div. 6. Wood & Plastics	$ 139,000.00	$ 113,500.00	$ 25,500.00
Div. 7. Thermal & Moisture Protection	$ 39,500.00	$ 33,500.00	$ 6,000.00
Div. 8. Doors & Windows	$ 46,500.00	$ 12,000.00	$ 34,500.00
Div. 10. Specialties	$ 4,500.00	$ -	$ 4,500.00
Div. 15. Mechanical	$ 67,000.00	$ 30,000.00	$ 37,000.00
Div. 16. Electrical	$ 86,000.00	$ 65,000.00	$ 21,000.00
	$ 732,500.00	$ 525,000.00	$207,500.00

AWESOME CONSTRUCTION COMPANY LTD.		Invoice Summary	Jan18/2019
Client:	Random First Nation		
Project:	Health Centre		

Divisions	Budget	% Complete	Expenditures	Paid to Date	Pro.draw #1	Bal. remaining
Div. 1. General Requirements	$ 89,000.00	10.0%	$8,900.00	$0.00	$8,900.00	$ 80,100.00
Div. 2. Sitework	$ 166,000.00	30.0%	$49,800.00	$0.00	$49,800.00	$ 116,200.00
Div. 3. Concrete	$ 35,500.00	30.0%	$10,650.00	$0.00	$10,650.00	$ 24,850.00
Div. 4. Masonry	$ 42,000.00	30.0%	$12,600.00	$0.00	$12,600.00	$ 29,400.00
Div. 5. Metals	$ 24,000.00	10.0%	$2,400.00	$0.00	$2,400.00	$ 21,600.00
Div. 6. Wood & Plastics	$ 139,000.00	25.0%	$34,750.00	$0.00	$34,750.00	$ 104,250.00
Div. 7. Thermal & Moisture Protection	$ 39,500.00	0.0%	$0.00	$0.00	$0.00	$ 39,500.00
Div. 8. Doors & Windows	$ 46,500.00	0.0%	$0.00	$0.00	$0.00	$ 46,500.00
Div. 9. Finishes	$ 57,500.00	0.0%	$0.00	$0.00	$0.00	$ 57,500.00
Div. 10. Specialties	$ 4,500.00	0.0%	$0.00	$0.00	$0.00	$ 4,500.00
Div. 15. Mechanical	$ 67,000.00	0.0%	$0.00	$0.00	$0.00	$ 67,000.00
Div. 16. Electrical	$ 86,000.00	0.0%	$0.00	$0.00	$0.00	$ 86,000.00
SUBTOTAL	**$ 796,500.00**	15.0%		$0.00	$119,100.00	$ 677,400.00

Contract Status

Original Contract	$795,000.00	
Cumulative Change Orders to Date	$900.00	
Total Current Contract		$795,900.00

Request for Payment

VALUE OF WORK PERFORMED AND PRODUCTS ON SITE	(GROSS)	$119,100.00
LESS PREVIOUSLY CLAIMED	(GROSS)	$0.00
CUMULATIVE AMOUNT CLAIMED		$119,100.00
Holdback at 10%		$11,910.00
NET INVOICE		$107,190.00
VALUE ADDED TAXES		$0.00
TOTAL INVOICE		**$107,190.00**

NORTHERN HOUSING CONFERENCE FEB 2019 - BUDGETING DEMO

AWESOME CONSTRUCTION COMPANY LTD.		Invoice Summary	March 18/2019
Client:	Random First Nation		
Project:	Health Centre		

Divisions	Budget	% Complete	Expenditures	Paid to Date	Pro.draw #2	Bal. remaining
Div. 1. General Requirements	$ 89,000.00	30.0%	$26,700.00	$8,900.00	$17,800.00	$ 62,300.00
Div. 2. Sitework	$ 166,000.00	85.0%	$141,100.00	$49,800.00	$91,300.00	$ 24,900.00
Div. 3. Concrete	$ 35,500.00	85.0%	$30,175.00	$10,650.00	$19,525.00	$ 5,325.00
Div. 4. Masonry	$ 42,000.00	75.0%	$31,500.00	$1,260.00	$30,240.00	$ 10,500.00
Div. 5. Metals	$ 24,000.00	30.0%	$7,200.00	$2,400.00	$4,800.00	$ 16,800.00
Div. 6. Wood & Plastics	$ 139,000.00	50.0%	$69,500.00	$34,750.00	$34,750.00	$ 69,500.00
Div. 7. Thermal & Moisture Protection	$ 39,500.00	15.0%	$5,925.00	$0.00	$5,925.00	$ 33,575.00
Div. 8. Doors & Windows	$ 46,500.00	0.0%	$0.00	$0.00	$0.00	$ 46,500.00
Div. 9. Finishes	$ 57,500.00	0.0%	$0.00	$0.00	$0.00	$ 57,500.00
Div. 10. Specialties	$ 4,500.00	0.0%	$0.00	$0.00	$0.00	$ 4,500.00
Div. 15. Mechanical	$ 67,000.00	0.0%	$0.00	$0.00	$0.00	$ 67,000.00
Div. 16. Electrical	$ 86,000.00	0.0%	$0.00	$0.00	$0.00	$ 86,000.00
SUBTOTAL	**$ 796,500.00**	25.7%		$107,760.00	$204,340.00	$ 484,400.00

Contract Status

Original Contract	$795,000.00	
Cumulative Change Orders to Date	$900.00	
Total Current Contract		$795,900.00

Request for Payment

VALUE OF WORK PERFORMED AND PRODUCTS ON SITE	(GROSS)	$204,340.00
LESS PREVIOUSLY CLAIMED	(GROSS)	$107,760.00
CUMULATIVE AMOUNT CLAIMED		$96,580.00
Holdback at 10%		$9,658.00
NET INVOICE		$86,922.00
VALUE ADDED TAXES		$0.00
TOTAL INVOICE		**$86,922.00**

5 Tips for Managing Project Costs

1.Achieve a baseline budget, and ensure that the actual funds get released and allocated to the project. ...
2.Establish cost controls. ...
3.Record actual costs. ...
4.Calculate metrics. ...
5.Update forecasts.

ALMOST THERE

Budgeting is not just a financial exercise. You must also budget your time and your energy.

Thank You, Merci, Meegwetch.

Derek McGregor – Infrastructure Specialist
WBAFN
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