

PREVIEW VERSION

Bridge Technical Services

Notebook Series # MSP-01

PREVIEW VERSION

PROJECT QUICK GUIDE

Step-by-Step Guide to Create and Set Up a
New Project in Microsoft Project

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PURPOSE

This is a quick guide for creating and setting up a project in Microsoft Project. Screenshots are from Microsoft Project Online Desktop Client, Version 2211.

PROCEDURE

1.0 Collect Project Information

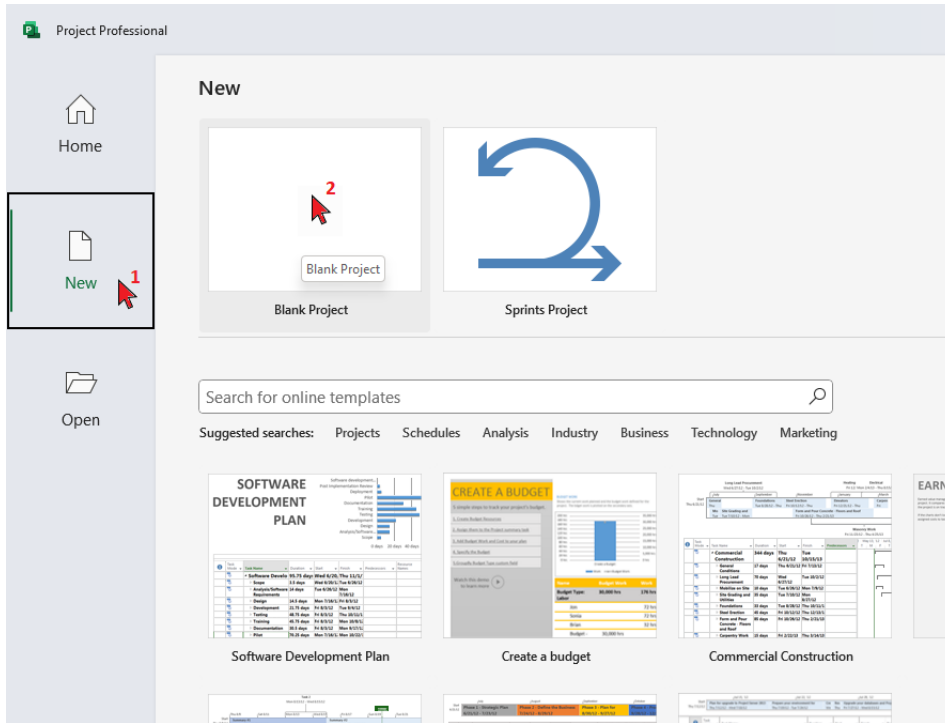
These are the project details you should have before starting a project in MS Project:

- Project Name
- Start Date and/or Finish Date
- Schedule, work days, times, hours per day, exceptions
(e.g. M-F, 10 hours per day, 7-6, holidays or non-working days)
- Resources (people, equipment, material)
 - o As much detail as needed for how Microsoft Project (MSP) will be used.
 - o If scheduling only, you don't need hourly rates for each person or rental equipment or cost for material (steel, concrete).
 - o Good to have schedules and availability of each person.
- Detailed task list with duration of each task and Predecessors

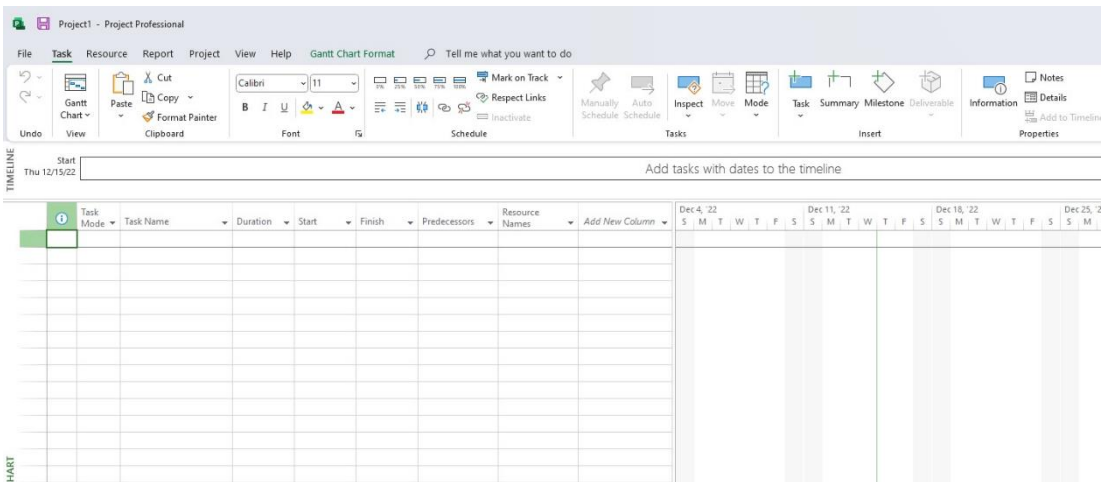
2.0 Create a New Project

2.1 Open MS Project.

From the Opening Screen, click **(1) New**, then **(2) Blank Project**.
(If MS Project is already open, click **File, New, Blank Project**.)



The screen should look like this:



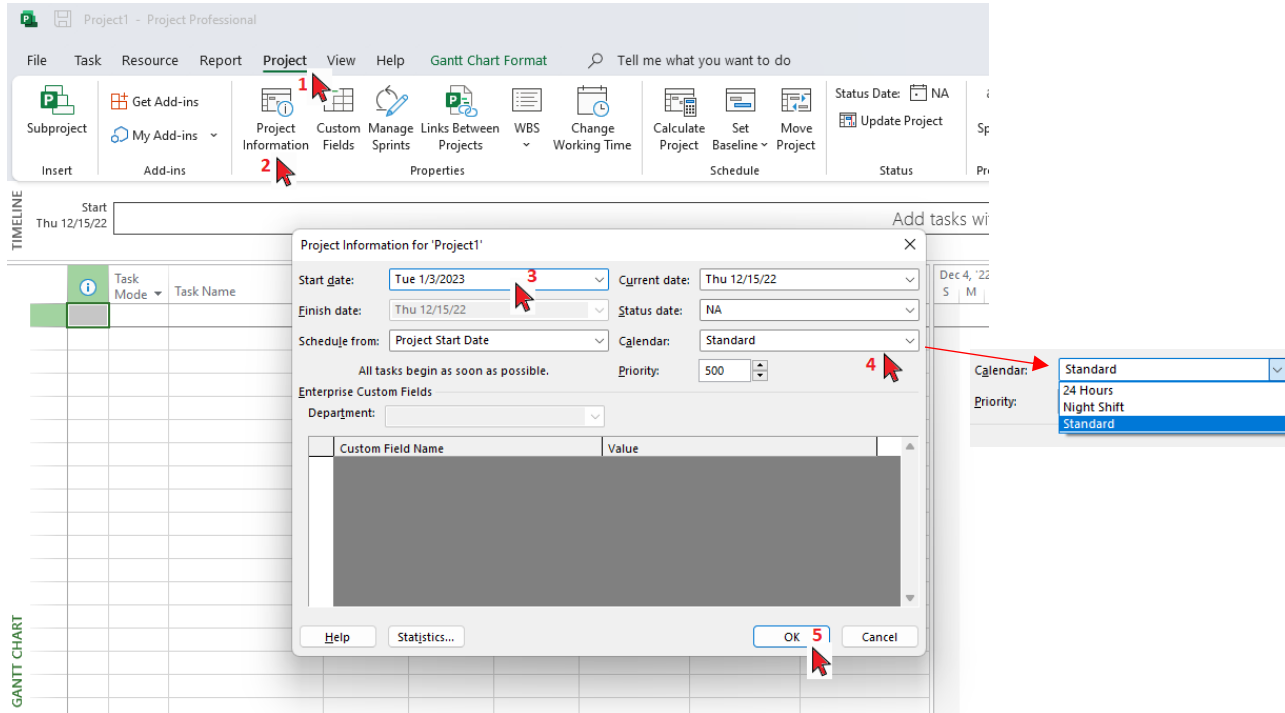
2.2 Do a **SaveAs** with the Project Name – typical Windows **SaveAs** function.

3.0 Set the Project Schedule Information

3.1 Project Start Date

Click (1) **Project** tab, (2) **Project Information** icon, then (3) **Start Date**.
Select and click on your desired project start date.

(On some projects you might want to begin with the desired Finish Date and work backwards to develop a schedule – in that case, you would select Finish date here, directly below Start date.)



Optional: While you're on this menu, if you want to use one of the default MSP Calendars (Standard, Night Shift, or 24 Hours) or a Calendar you have previously created as the **Project Work Calendar**, you can select your desired calendar in the (4) **'Calendar'** dropdown. If you want to create your own calendar for this project, we'll cover that next.

Click (5) OK when you're done.

Your Gantt chart will now have a dotted vertical line at the date you selected and your tasks will default to the start date you entered.

Note: Do not skip these steps and jump to entering project tasks. Otherwise, you will be back here when your durations and dates are not correct.

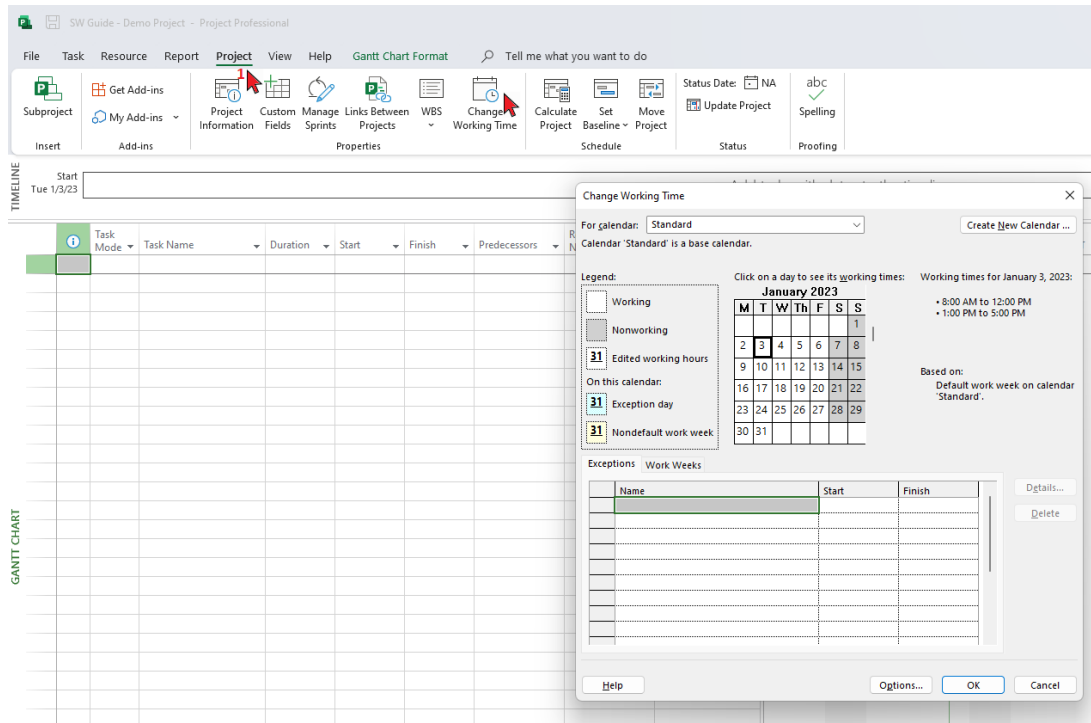
3.2 Set Project Work Calendar

Note: This step creates and sets a new Work Calendar and schedule for the project. This example sets the work calendar and schedule for a 10-hour work schedule. (If you're using one of the default calendars or one you've saved before, you can skip any of the following steps you don't need to change.)

3.2.1 Open the Change Working Time screen

Click **(1) Project**, then **(2) Change Working Time**.

The Change Working Time screen will be displayed.



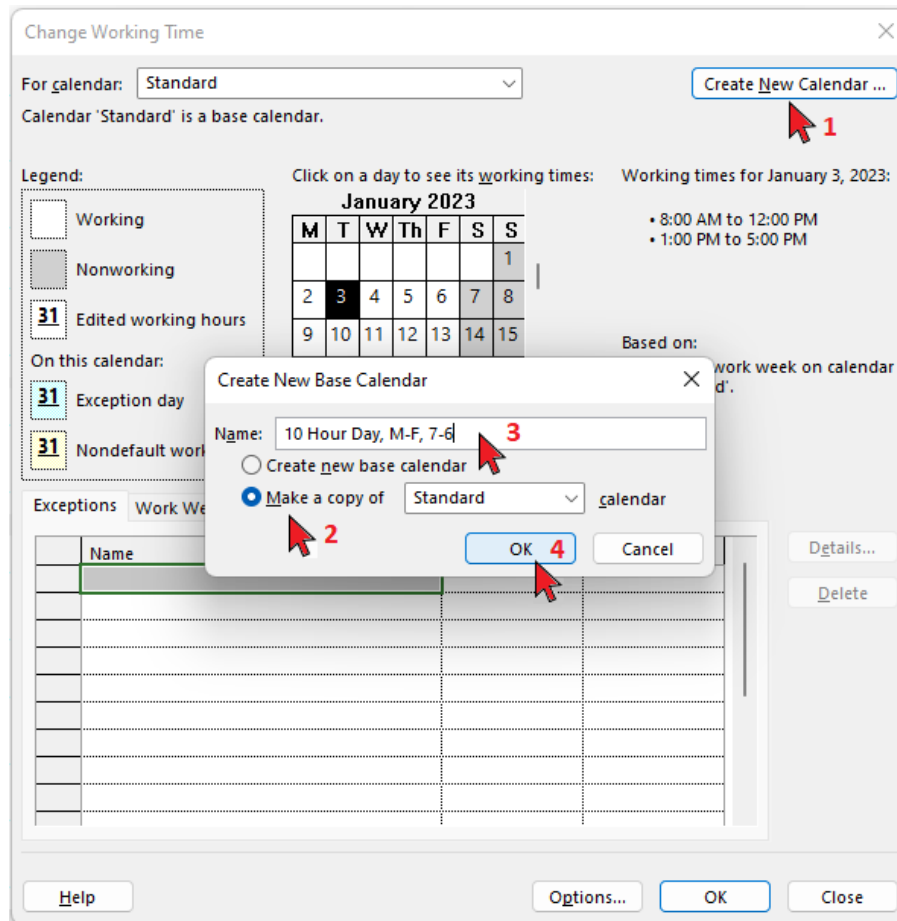
3.2.2 Create the custom 10-hour day calendar

Click on **(1) Create New Calendar**.

(2) Select '**Make a copy of**' and pick a calendar to copy.

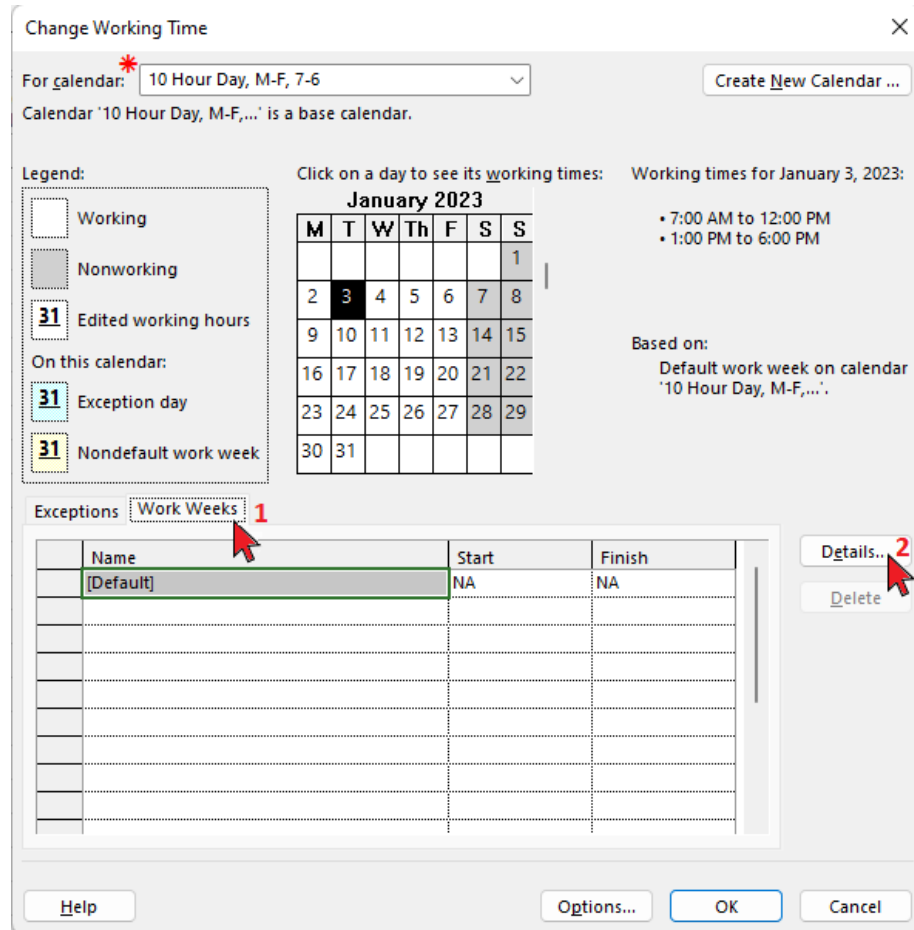
(3) Type a **Name** for the new calendar. (For this example, I used "10 Hour Day, M-F, 7-6.")

The screen will look like this:

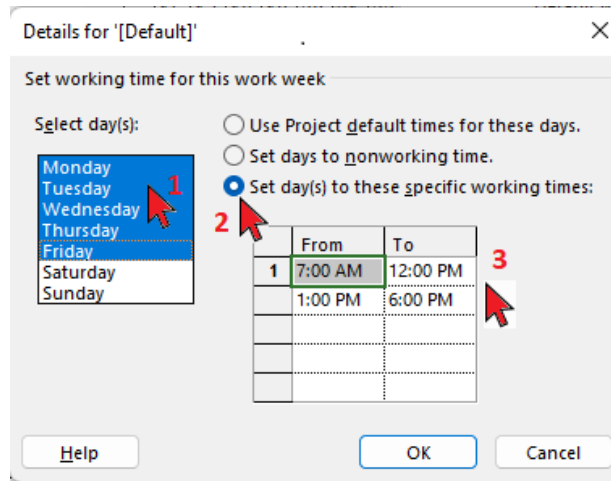


(4) Click **OK**. That brings you back to the **Change Working Time Calendar** screen.

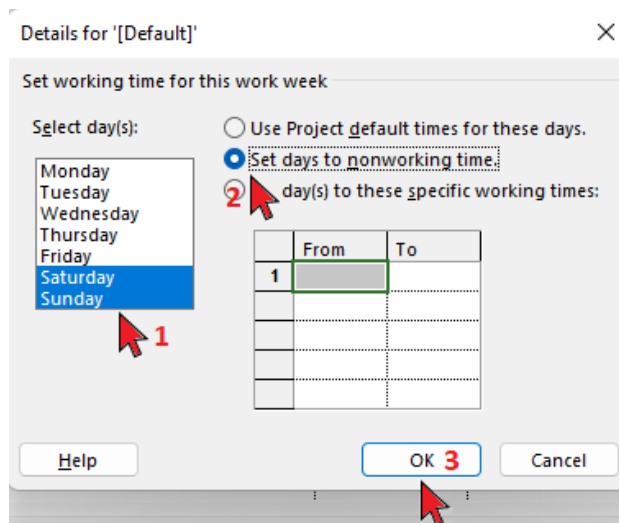
- 3.2.3** Set the work hours for the new calendar
Make sure your new calendar name (“*10 Hour Day, M-F, 7-6*” in example) is in the (*) ‘For calendar:’ dropdown over the next several steps.
- (1) Select the ‘Work Weeks’ tab. The ‘Details’ button should be available (ungrayed) now.
 - (2) Click on ‘Details.’



- **Working Days** - select each day (or highlight multiple using Shift or Ctrl keys) and set the project work time for each day.
 - (1) **Select day(s):** Monday – Friday and (2) **Set days(s) to these specific working times:**
 - Then (3) enter the 'From' and 'To' times. In the example shown, I show a work day from 7-12, then 1-6 after an hour break.



- **Non-Working Days**
 - (1) **Select day(s):** Saturday – Sunday and (2) **'Set days to nonworking times.'**

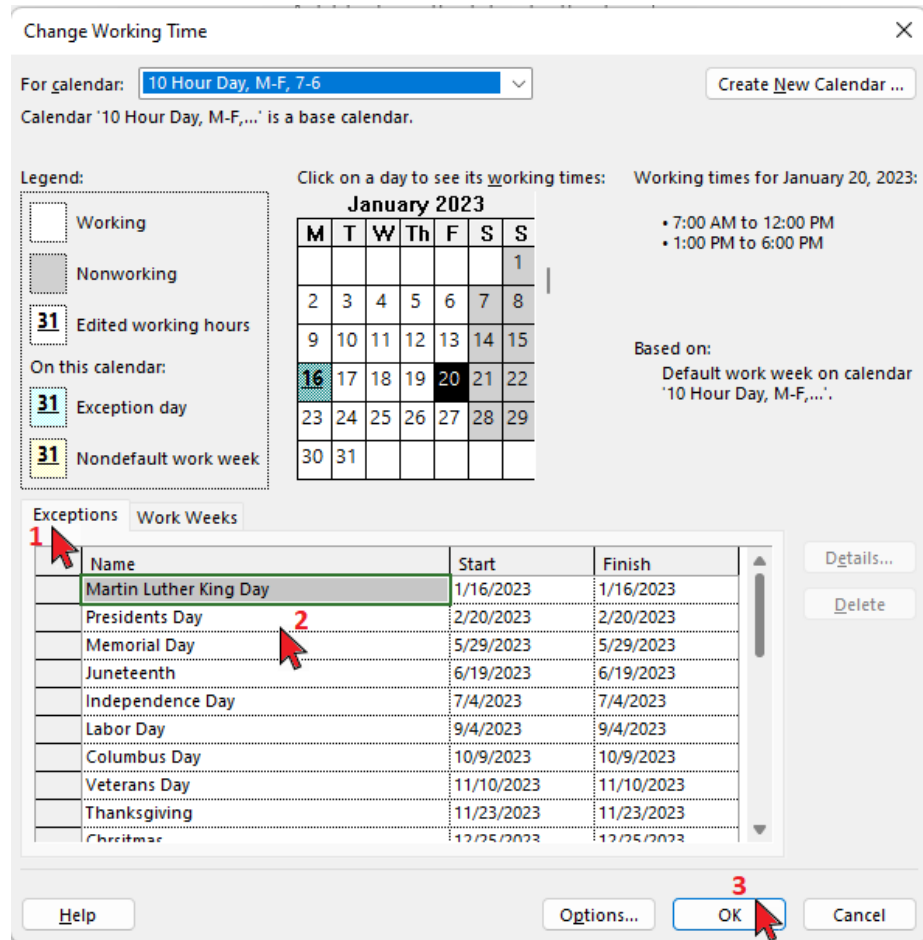


Go back and review each day, one at a time, to make sure you got what you wanted for each day. Once you're satisfied, (3) click OK.

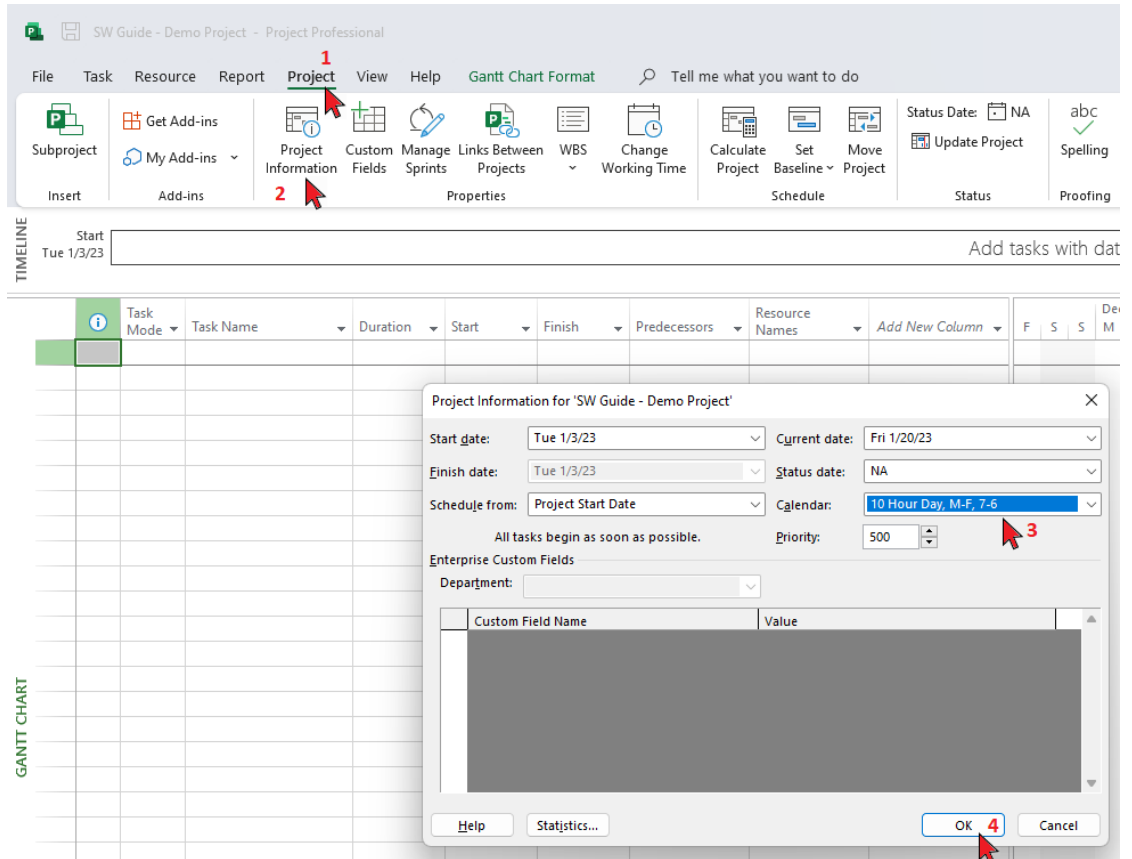
If you leave the screen too soon, click the Details button again.

– **Exceptions**

- (1) Select the **Exceptions** tab, then (2) enter your holidays and other nonworking days. Click on each cell to enter the text and dates.
- (3) Click **OK** when you're done.



- 3.2.4 Select the new calendar for the project.
IMPORTANT STEP - You created the calendar in the previous step; now you have to select that calendar for the project. Click on (1) Project, (2) Project Information, then in the Calendar dropdown, (3) select your new calendar, and (4) click OK.



At this point, we have created and selected a new calendar for the project.

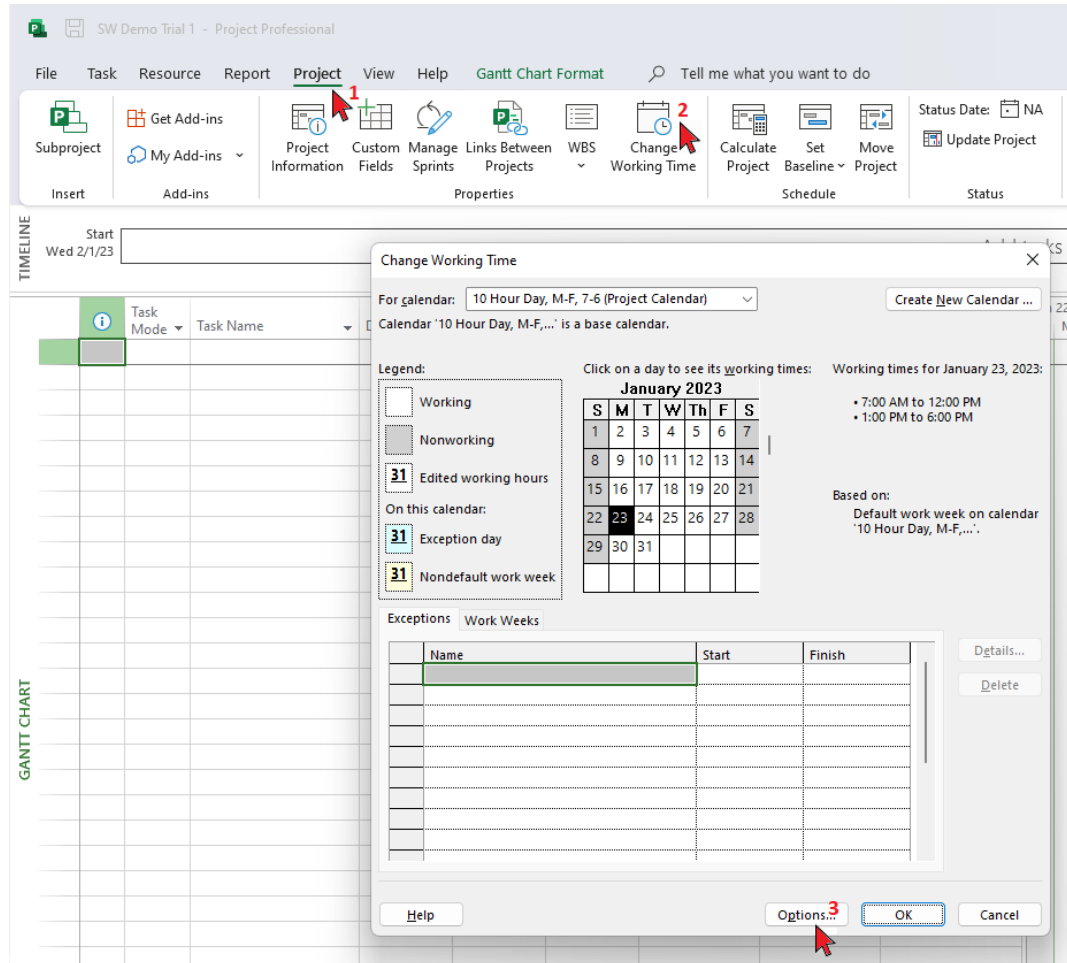
3.3 Set the default task times

Note: This is the start and stop times for new tasks. Here we make this match the project work schedule set up previously.

3.3.1 Project Options, Schedule screen

Click **(1) Project** tab, **(2) Change Working Time**, **(3) Options** button.

(Alternatively Click **File, Options**, then **Schedule**.)



The screenshot on the next page shows the Schedule screen with MS Project defaults.

3.3.2
Section A

3.3.2
Section B

Project Options

Change options related to scheduling, calendars, and calculations.

Calendar options for this project: SW Guide - Demo Project

Week starts on: Sunday

Fiscal year starts in: January

Use starting year for FY numbering

Default start time: 8:00 AM

Default end time: 5:00 PM

Hours per day: 8

Hours per week: 40

Days per month: 20

These times are assigned to tasks when you enter a start or finish date without specifying a time. If you change this setting, consider matching the project calendar using the Change Working Time command on the Project tab in the ribbon.

Schedule

Show scheduling messages

Show assignment units as a: Percentage

Scheduling options for this project: SW Guide - Demo Project

New tasks created: Manually Scheduled

Auto scheduled tasks scheduled on: Project Start Date

Duration is entered in: Days

Work is entered in: Hours

Default task type: Fixed Units

New tasks are effort driven

Autolink inserted or moved tasks

Split in-progress tasks

Update Manually Scheduled tasks when editing links

Tasks will always honor their constraint dates

Show that scheduled tasks have estimated durations

New scheduled tasks have estimated durations

Keep task on nearest working day when changing to Automatically Scheduled mode

Schedule Alerts Options: SW Guide - Demo Project

Show task schedule warnings

Show task schedule suggestions

Calculation

Calculate project after each edit:

On

Off

Calculation options for this project: SW Guide - Demo Project

Updating Task status updates resource status

Inserted projects are calculated like summary tasks

Actual costs are always calculated by Project

Edits to total actual cost will be spread to the status date

Default fixed cost accrual: Prorated

OK Cancel

3.3.2 Set Task Options

Your choices here will set the options for the **TASKS** you will enter in future steps. In this example, I set the default Task Start/Stop times to match the Project schedule we created in 3.2.

A. Set Task Calendar Options

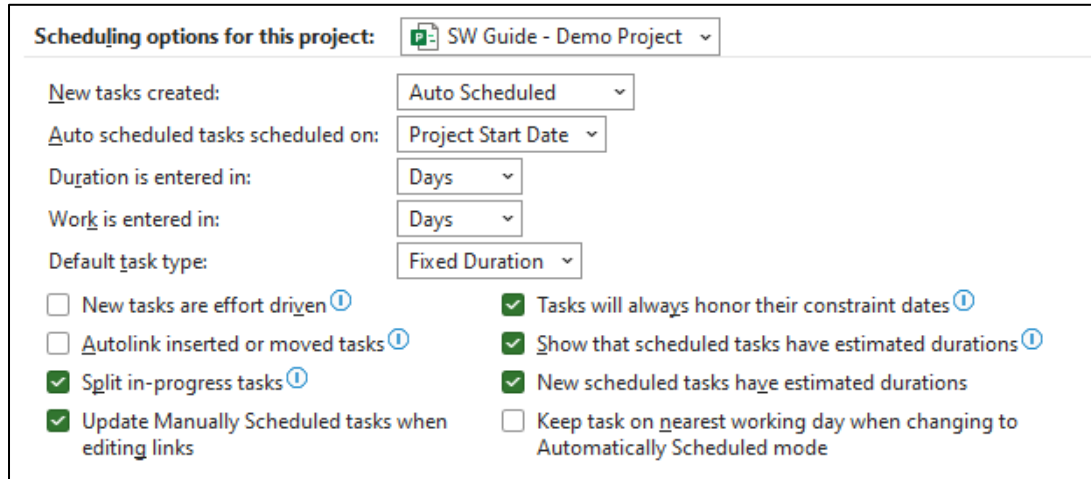
Click on each dropdown shown below (and in the top red box in the figure on page 11) and set your expected project work schedule.

Week starts on:	Monday
Fiscal year starts in:	January
<input type="checkbox"/> Use starting year for FY numbering	
Default start time:	7:00 AM
Default end time:	6:00 PM
Hours per day:	10
Hours per week:	50
Days per month:	20

In the example above, I set the week start day to Monday, a 10-hour workday from 7-6 (1 hour of break time), so 50 hours per week.

B. Set scheduling options for new **TASKS**.

Click on each dropdown shown below (and in the bottom red box in the figure on page 11) and set your preferred options for new tasks.



Scheduling options for this project: SW Guide - Demo Project

New tasks created: Auto Scheduled

Auto scheduled tasks scheduled on: Project Start Date

Duration is entered in: Days

Work is entered in: Days

Default task type: Fixed Duration

New tasks are effort driven

Autolink inserted or moved tasks

Split in-progress tasks

Update Manually Scheduled tasks when editing links

Tasks will always honor their constraint dates

Show that scheduled tasks have estimated durations

New scheduled tasks have estimated durations

Keep task on nearest working day when changing to Automatically Scheduled mode

In the example above, I made the following choices:

- **New tasks created: Auto Scheduled** – When you first enter a new task, the initial start date will be the Project Start Date. Once you start adding predecessors, the date will be adjusted. This setting can be changed for each task later – setting this here just establishes the project default.
- **Auto Scheduled tasks scheduled on: Project Start Date** – this can be set to Current Date. Your call.
- **Duration is Entered In: Days** – The choice you make here sets the project default for how you will enter duration for each task later. I chose 'Days' here for the demo. You can do hours, weeks, etc.
- **Work is entered in: Days** – This is the project default for new tasks.
- **Default Task Type: Fixed Duration** – Choices here are *Fixed Units*, *Fixed Duration*, and *Fixed Work*. Choosing *Fixed Duration* means that the duration of the task does not change, even if you change the resources assigned.

After making the changes below, click OK to leave this screen.

If you got here from the Project Information Pop-up window, click OK on that screen as well.

4.0 Assign Project Resources

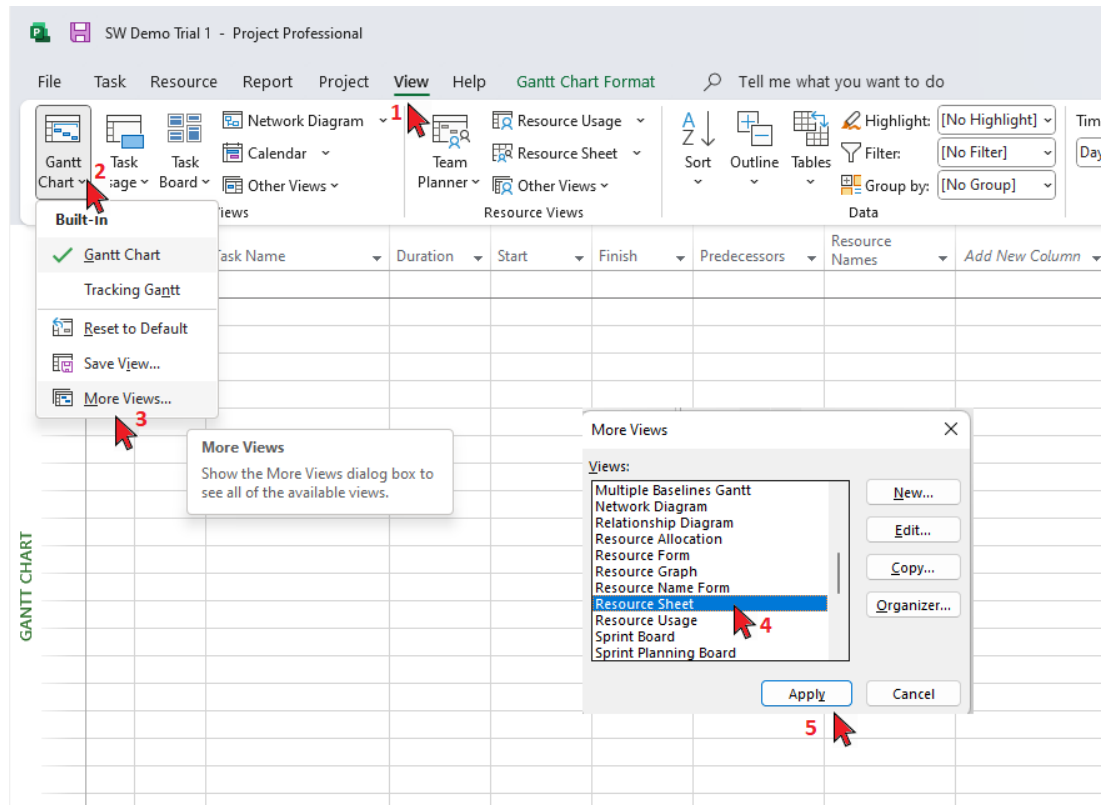
Next, we'll add Resources to the project. In this example, I'll add some mechanics, electricians, subcontractors, materials, equipment...

Note: *At this point, we're moving around in MSP enough that it will be easy to get "lost" in the menus. There are several ways to get to each menu/screen. For example, the next step takes you to the Resource Sheet; there are multiple ways to get there.*

Pull up the **Resource Sheet**.

Click on (1) View, (2) the bottom half of the Gantt Chart button, then (3) More Views.

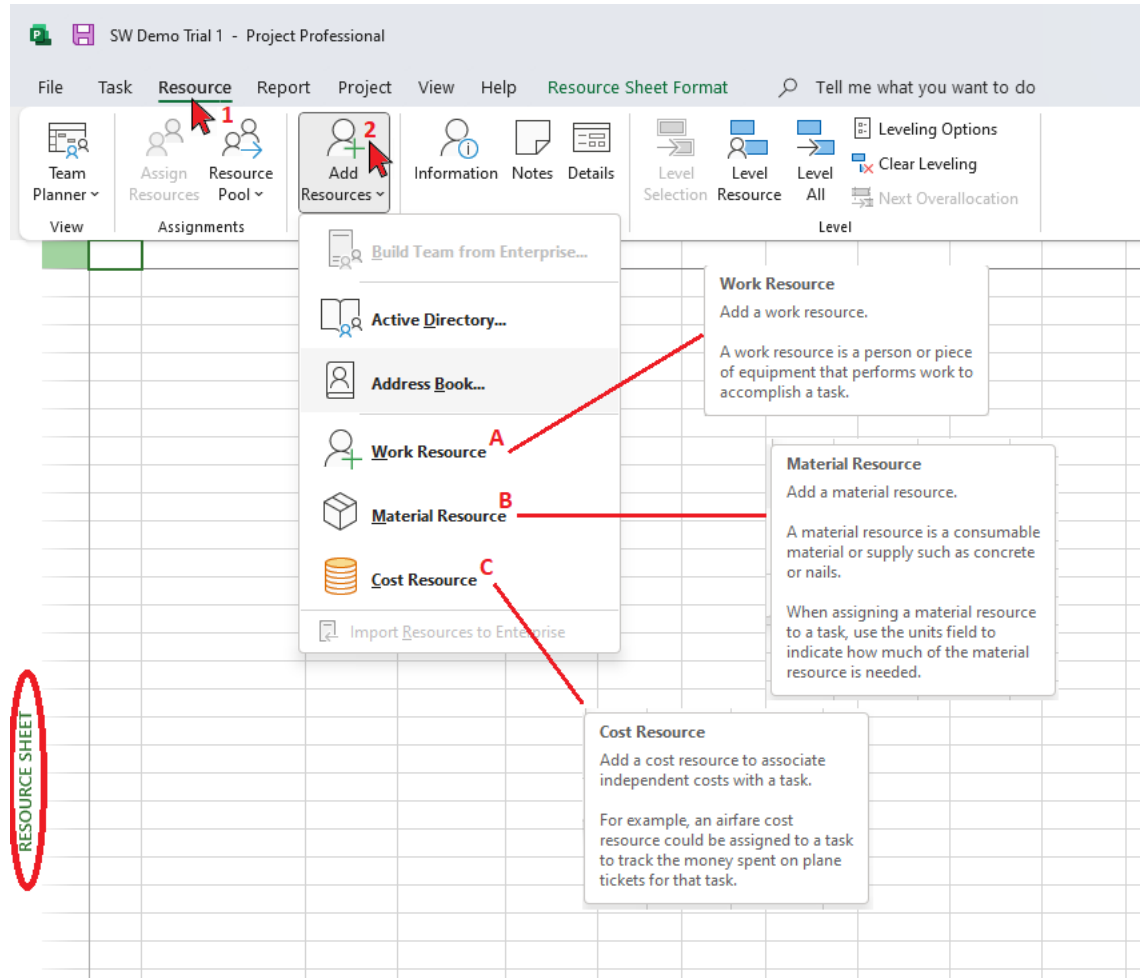
In the Views dropdown, scroll down to (4) highlight Resource Sheet. (5) Click Apply.



The Resource Sheet will be displayed.
(You could also have clicked on View, Resource Sheet, then checked the box by Resource Sheet.)

4.1 Assign Resources

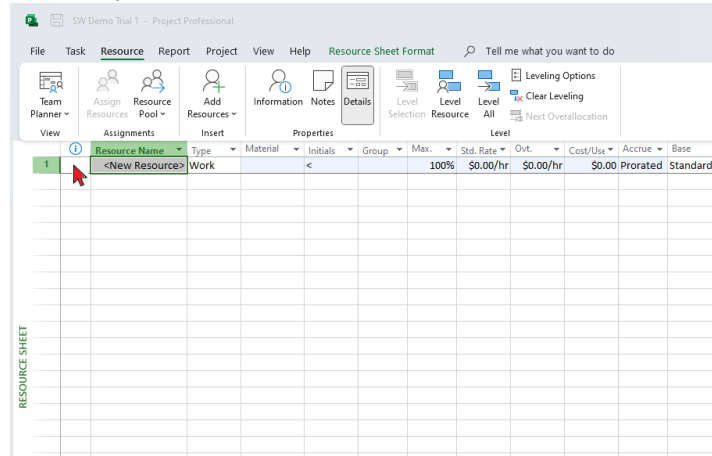
(1) Click the **Resource** tab, (2) the **Add Resources** button, then (3) the resource type you want to add first: (A) **Work Resource**, (B) **Material Resource**, or (C) **Cost Resource**.



A. Work Resources

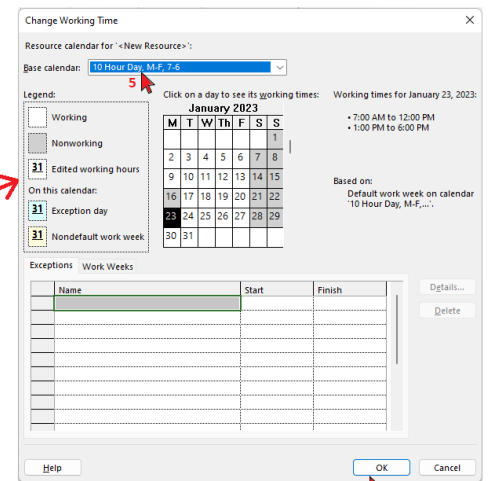
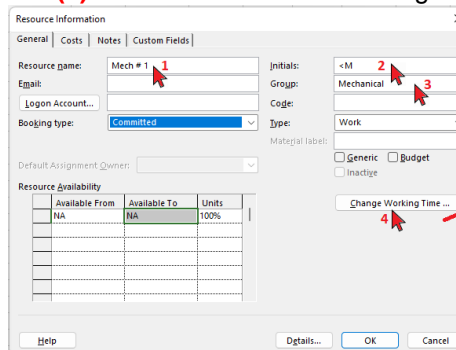
1. **Double-click** anywhere on the row to pull up the **Resource Information** window.

(Alternatively, you can add/edit resources directly on the Resource Sheet.)



2. In the **Resource Information** window, enter the information below for the new resource (example text in blue):

- (1) Resource Name – Mech # 1
- (2) Initials – M
- (3) Group (optional) – Mechanical
- (4) Click **Change Working Time** to set the working schedule for this resource.
- (5) In the Base Calendar dropdown, select the calendar for this resource - I chose the **10 Hour Day, M-F, 7-6** calendar, assuming Mechanic # 1 is working the same schedule as the project schedule.
- (6) Click OK to close the Change Working Time window.



3. Enter Cost information for this new resource.
 - (1) Click on the Costs tab, then (2) enter a cost for this resource. I put \$25/h for Standard and \$37.50/h for Overtime Rate. You can also do costs per day, week, month, etc.

Resource Information

General **Costs** Notes Custom Fields

Resource Name: Mech #1

Cost rate tables

For rates, enter a value or a percentage increase or decrease from the previous rate. For instance, if a resource's Per Use Cost is reduced by 20%, type -20%.

A (Default)	B	C	D	E
Effective Date	Standard Rate	Overtime Rate	Per Use Cost	
--	\$25.00/h	\$37.50/h	\$0.00	

Cost accrual: Prorated

Help Details... OK Cancel

- There is a Notes tab if you want to add notes for this resource (e.g., “Mechanic # 1 is not available on date...”) as well as a Custom Fields tab where you can add fields. This example does not use these tabs.
- Click (3) OK to close the Resource Information window.

The Resource Sheet will show the new resource, as shown below.

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt.	Cost/Use	Accrue At	Base Calendar
1	Mech #1	Work		<M	Mechanical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,
2											

Note: You can double-click any row on the Resource Sheet to go back and edit the task information.

- Repeat the above steps to add additional Work resources for the project. *MSP allows you to copy and paste resources – just remember to update each resource name.*

The figure below show the Work resources I added to the example. Note that Equipment is also included as a Work resource.

	Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt.	Cost/Use	Accrue At	Base Calendar	Code
1	Mech # 1	Work		<M	Mechanical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
2	Mech # 2	Work		<M	Mechanical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
3	Mech # 3	Work		<M	Mechanical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
4	Mech # 4	Work		<M	Mechanical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
5	Elect # 1	Work		<E	Electrical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
6	Elect # 2	Work		<E	Electrical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
7	Elect # 3	Work		<E	Electrical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
8	Elect # 4	Work		<E	Electrical	100%	\$25.00/hr	\$37.50/hr	\$0.00	Prorated	10 Hour Day, M-F,	
9	Manlift # 1	Work		ML	Rental Eqpt.	100%	\$166.67/day	\$0.00/hr	\$0.00	Prorated	10 Hour Day, M-F,	
10	Scissor Lift # 1	Work		SL	Rental Eqpt.	100%	\$133.33/day	\$0.00/hr	\$0.00	Prorated	10 Hour Day, M-F,	
11	Detailer	Work		D	Shop	100%	\$50.00/hr	\$75.00/hr	\$0.00	Prorated	10 Hour Day, M-F,	

B. Material Resources

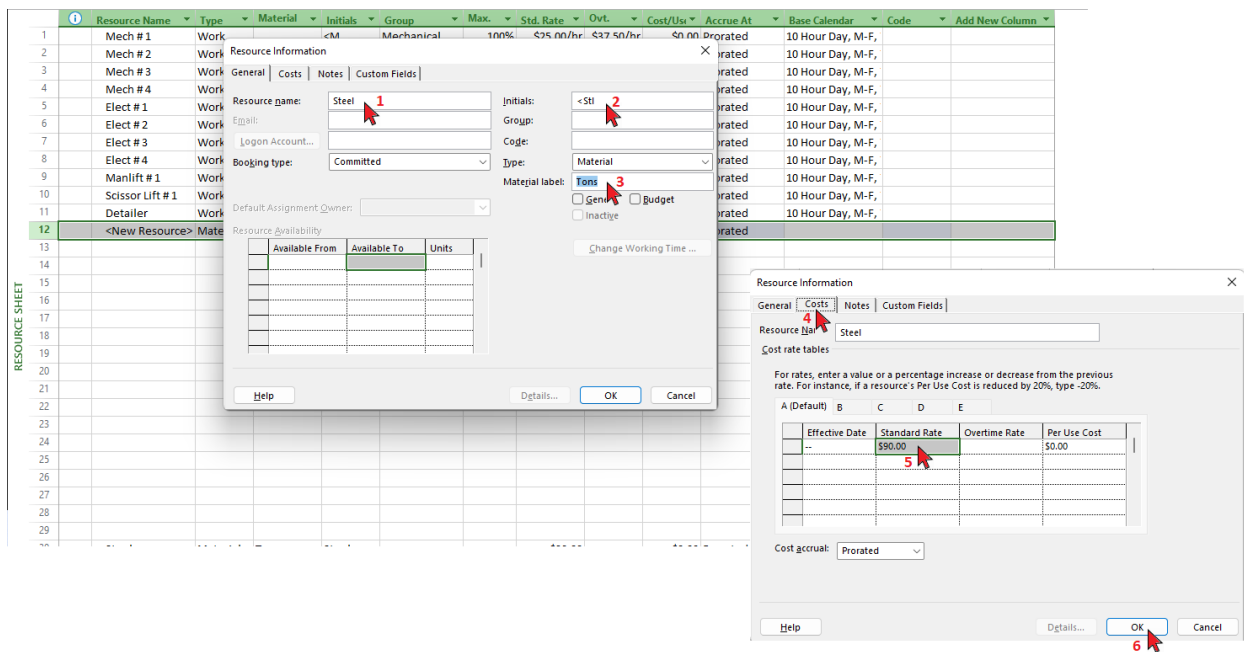
Material Resources includes consumables (steel, concrete, paint, etc.).

Click **Resource**, then **Add Resources**, then **Material Resource** – A new line is added below with ‘**Material**’ in the ‘**Type**’ column. This is similar to how we added the previous resource type.

1. **Double-click** anywhere on the new row to edit details.

Enter the information below for the new resource (example text in blue):

- (1) Resource Name – Steel.
- (2) Initials – Stl.
- (3) Material Label – Tons (This will be the units for this material.)
- (4) Click the **Costs** tab and (5) enter the cost per unit - \$90.
- (6) Click OK to close the **Resource Information** window.



2. Repeat the above steps to add additional Work resources for the project.

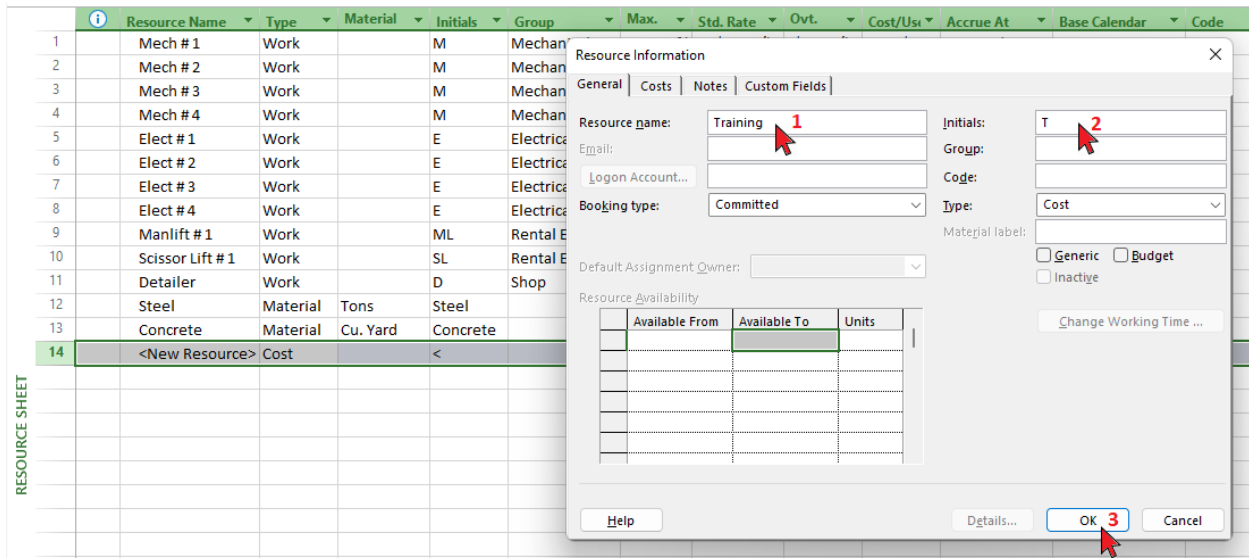
The figure below shows the combined Work and Material resources we’ve added so far. The Material Resources we just added are at the bottom.

C. Cost Resources

Cost Resources are costs that are not directly related to the amount of work or material on a task. Cost Resources can include costs like travel, food, meetings, training, etc. The example creates a Cost Resource called Training, where Training costs can be captured in the project in the future.

1. As before, click **Resource**, then **Add Resources**, then **Cost Resource** – a new resource line will be added. Double-click to bring up the **Resources Information** dialog window. Enter the information below for the new resource (example text in blue):

- (1) Resource Name – Training.
- (2) Initials – T.
- (3) Click OK to save and close the window.



2. Repeat the above steps to add additional Cost resources for the project.

5.0 Add Tasks

Next, we'll add the tasks to the project.

For this example, the work is broken out in these groups:

- **Structural Steel**
 - Platform 1
 - Platform 2
- **Dust Collection**
 - Ducting
 - Collection Hoods
- **Foundations**
 - Foundation # 1
 - Foundation # 2
- **New Equipment**
 - Equipment # 1
 - Equipment # 2
- **Piping**
- **Material Conveying Lines**
- **Fire Protection**
- **Startup Assistance**

The tasks will look very similar to the above when entered into Project.

Options

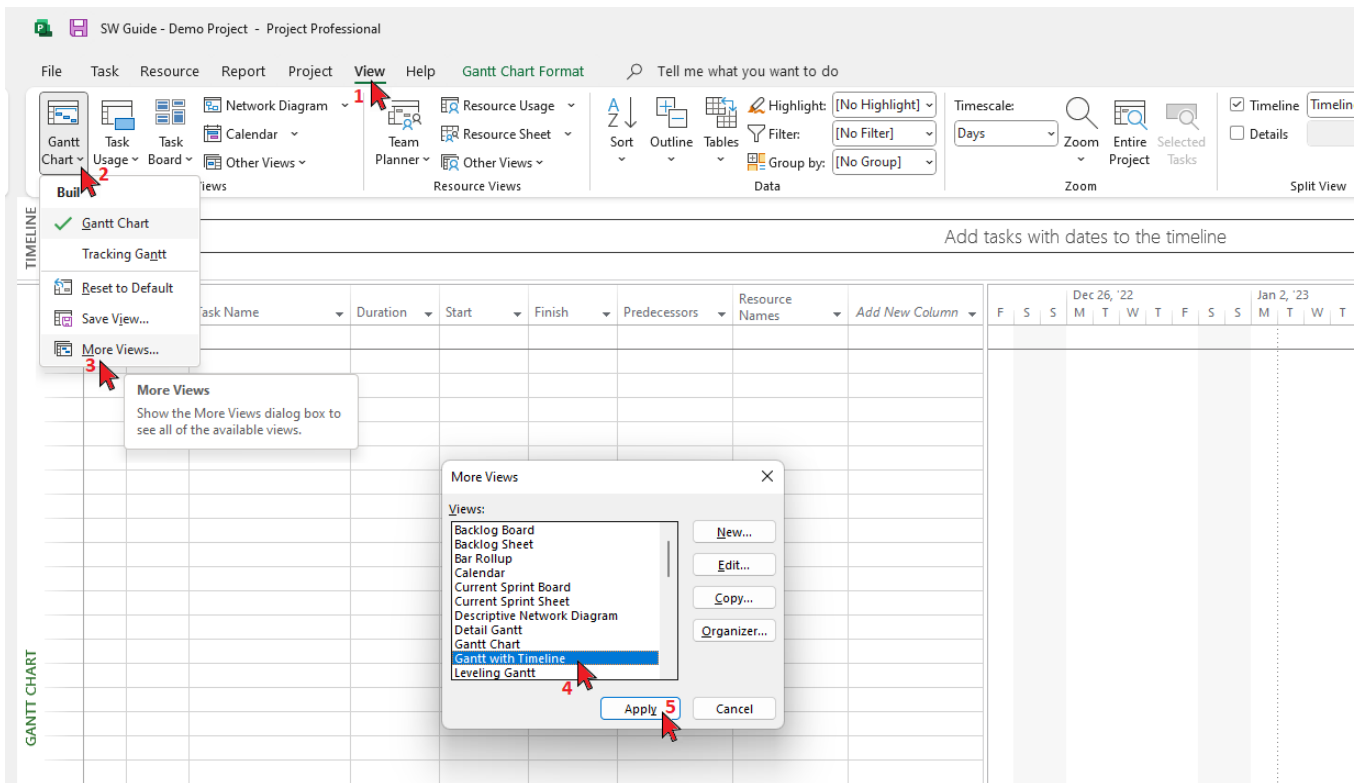
There are a couple ways you can enter tasks: **(5.1)** type or paste them directly into the timeline or **(5.2)** use the **Task**, **Summary**, and **Milestone** buttons.

5.1 Type directly into the timeline.

(I'm starting with this method because I usually end up pasting the task list into MS Project from another program. See section 5.2 below for the more structured MS Project approach.)

Click (1) the **View** tab, (2) the bottom half of the **Gantt Chart button**, then (3) **More Views**.

In the pop-up window, (4) scroll down and select **Gantt with Timeline**, then (5) **Apply**.



5.1.1 In the Task Name column, start typing in the tasks/events:

- Customer PO Received (used as the event to start other tasks)
- Structural Steel (which will have 2 platforms)
- Platform 1
- Detailing
- Review and Approval
- Order
- Fabrication
- Installation

(I am not entering task Durations at this point.)

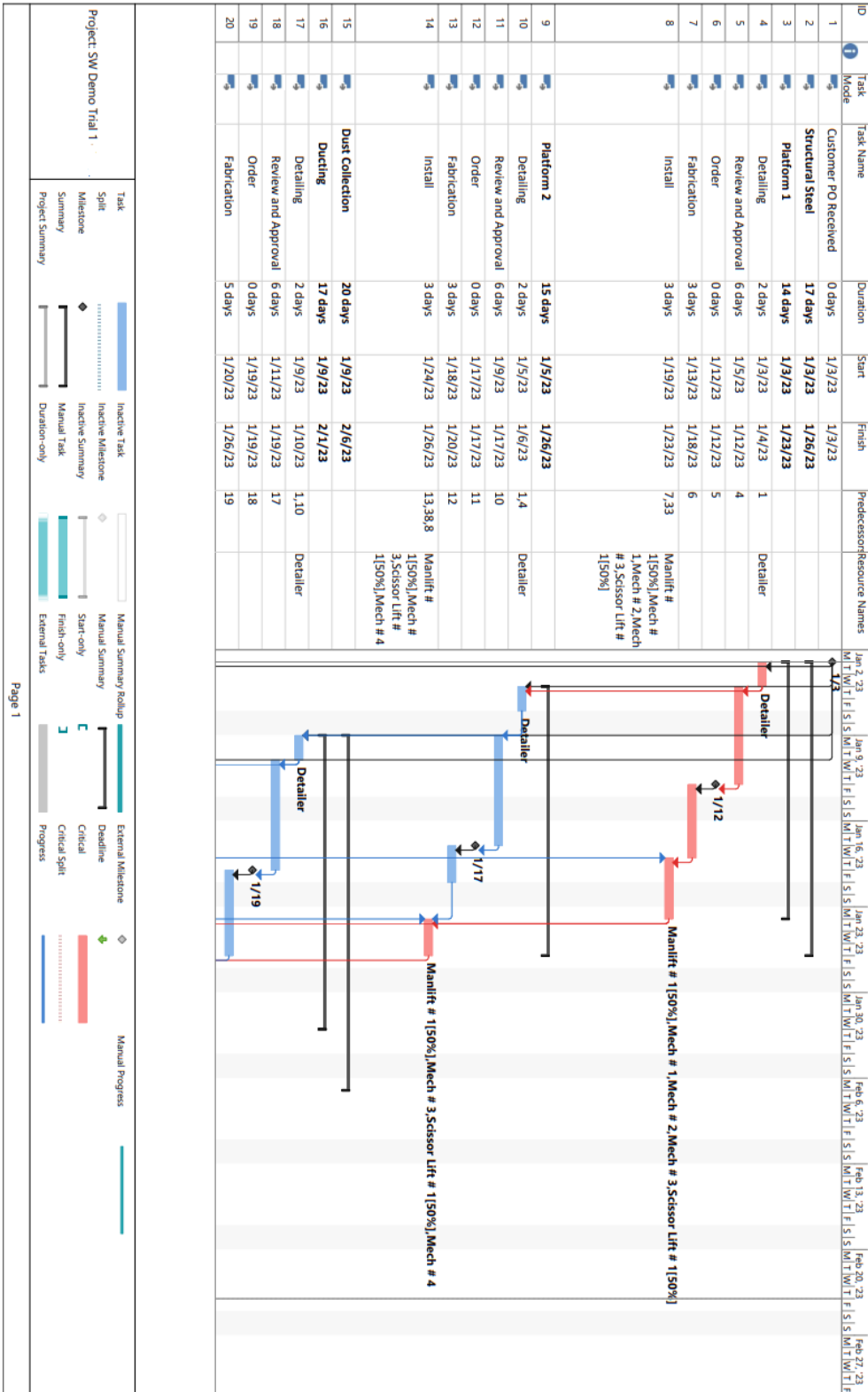
The Task Mode will default to 'Automatically Scheduled' and the Start date will default to the Project Start date, because we selected those options in the New Task setup previously.

		8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
TIMELINE	Start Tue 1/3/23										
	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names				
	1	Customer PO Received	1 day?	Tue 1/3/23	Wed 1/4/23						
	2	Structural Steel	1 day?	Tue 1/3/23	Wed 1/4/23						
	3	Platform 1	1 day?	Tue 1/3/23	Wed 1/4/23						
	4	Detailing	1 day?	Tue 1/3/23	Wed 1/4/23						
	5	Review and Approval	1 day?	Tue 1/3/23	Wed 1/4/23						
6	Order	1 day?	Tue 1/3/23	Wed 1/4/23							
7	Fabrication	1 day?	Tue 1/3/23	Wed 1/4/23							
8	Install	1 day?	Tue 1/3/23	Wed 1/4/23							

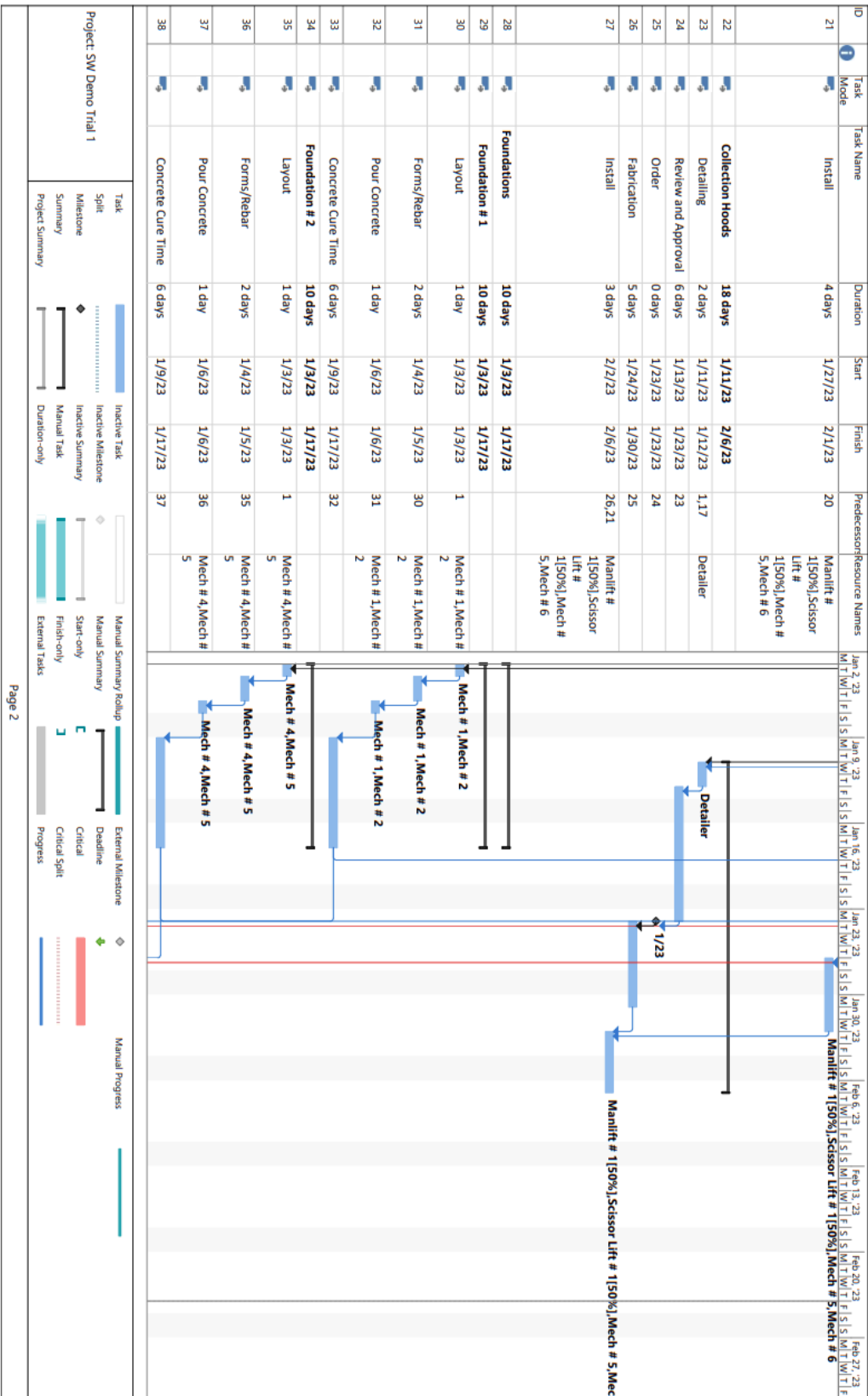
Pages 25 – 40 are available in the purchased download.

APPENDIX 1

The following pages show the final schedule, with the Critical Path highlighted in red.



APPENDIX 1



APPENDIX 1

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessor/Resource Names	Jan 2, '23	Jan 9, '23	Jan 16, '23	Jan 23, '23	Jan 30, '23	Feb 6, '23	Feb 13, '23	Feb 20, '23	Feb 27, '23
39	Task	New Equipment	9 days	1/24/23	2/3/23										
40	Task	Equipment # 1	9 days	1/24/23	2/3/23										
41	Task	Mechanical Install	3 days	1/24/23	1/26/23	Mech # 1, Mech # 2									
42	Task	Electrical Install	3 days	1/27/23	1/31/23	Elect # 1, Elect # 2									
43	Task	Equipment # 2	6 days	1/27/23	2/3/23										
44	Task	Mechanical Install	3 days	1/27/23	1/31/23	Mech # 4									
45	Task	Electrical Install	3 days	2/1/23	2/3/23	Elect # 3, Elect # 4									
46	Task	Piping	3 days	2/6/23	2/8/23										
47	Task	Compressed Air	3 days	2/6/23	2/8/23	Mech # 1, Mech # 2									
48	Task	Chilled Water	3 days	2/6/23	2/8/23	Mech # 3, Mech # 4									
49	Task	Domestic water	1 day	2/7/23	2/7/23	Mech # 5, Mech # 6									
50	Task	Material Conveying Lines	3 days	2/1/23	2/3/23										
51	Task	Install Tubing	3 days	2/1/23	2/3/23	Mech # 1, Mech # 2									
52	Task	Fire Protection	6 days	2/9/23	2/16/23										
53	Task	Sprinkler Lines over equipment	2 days	2/9/23	2/10/23	3rd Party									
54	Task	Overhead Sprinkler Lines	2 days	2/13/23	2/14/23	3rd Party									
55	Task	System Tie-in	2 days	2/15/23	2/16/23	3rd Party									
56	Task	Startup Assistance	4 days	2/17/23	2/23/23	52, 39, 46, 51, Elect # 1, Mech # 1									

