****

**Region VII- Commercial Building Division**

**February 5-7, 2015**

**Addendum 1:**

**J-Annex Building**

**10:00 AM**

**Mariposa Land Port of Entry**

**Nogales, AZ**

**Problem Sponsor:**

****

**J-Annex General Conditions**

**\*\*EARLY DELIVERABLE – 2:00 PM\*\***

Three months into Phase 3 you were given an Owner change for the addition of the **J-Annex Building**. The purpose of the J-Annex building is to provide additional outbound inspection capabilities for traffic traveling into Mexico **(Please reference the “J-Annex Schedule Addendum” for additional information related to the J-Annex Owner Change.)** As part of the overall cost of this change, you will need to determine the additional General Conditions and staffing needs required.

Create an additional General Conditions Estimate (See sheet X.4.1) and Staffing Matrix (sheet X.4.2)**specific only to this change** that you feel reflects the GC costs that will be associated with J-Annex. Be prepared to justify and clarify these costs to the owner.

Be prepared to clarify and negotiate your J-Annex GC estimate and staffing plan with the Owner between 3:00 PM and 8:00 PM

***Answer: Reference J-Annex General Conditions Estimate in Section X.4.3.a and J-Annex Staff Matrix in Section X.4.4.a.***

**J-Annex General Conditions Deliverables:**

1. Submit (1) one hard copy and (2) electronic copies in native format (Excel) of your J-Annex Building General Conditions Estimate at 2:00 PM
2. Submit (1) one hard copy and (2) electronic copies in native format (Excel) of your J-Annex Building Staffing Matrix by 2:00 PM
3. **J-ANNEX SCHEDULE**

Written by Shaun Jolley and Lisandra Pagan

**\*\*EARLY DELIVERABLE 8:00 PM 12:00 AM\*\***

(Time warp to May 1st, 2012.)

Today Upper Management received notification from the owner that they would like additional space to house administrative processes for outbound inspection team. This means adding an additional annex building adjacent to the J. Outbound Inspection Building. The Owner would like this building delivered at the same time as the J outbound building so that outbound improvements will be fully functional at original substantial completion date.

The owner has conceptual design plans for the J Annex, but no construction documents have been finalized. Originally, your firm procured the Mariposa Land Crossing as a Design-Bid-Build Contract, meaning that the construction documents were finalized at the time of procurement. If this same procurement/design process is implemented, plans will be available for your use in approximately eight months.

**PART A: Provide a letter to the owner due at 8:00 PM**

Your Upper Management believes that using the Owner’s designer will create a major obstacle. They fear that the desired schedule date will not be attainable using the Design-Bid-Build method as used previously for the project. They has asked that you provide a letter to the Owner suggesting an alternate method for design deliverables. This method should be able to provide drawings early enough to get construction underway and finished before the substantial completion deadline. The letter you are submitting needs to address the design method that you wish to use and clearly explain how it will save time on the overall duration of the project. Since time is of the essence, your manager has asked you to provide him with this letter in **at 8:00 PM.**

***Answer: Design-build. Using this delivery method will allow for a quicker turnaround of drawing packages and an accelerated construction start. If design-build was answered and a reasonable response given, credit was received for this letter.***

**PART B: Provide a complete CPM Schedule for J annex Due at 12:00AM**

Similar Criteria with minor additions and subtractions will apply to the schedule for J Annex. Pay attention to additions as they may apply to other aspects of the job beyond just the schedule.

General CPM Schedule Criteria:

1. Presentation Criteria:
2. Format:
3. At a minimum show the following columns to the left of the timescale: Activity ID, Activity Description, Original Duration (OD), Early Start (ES), Early Finish (EF), and Total Float (TF) per activity (see Figure “A” Example below):

Figure A:



1. Activity count: No More than 125-175 Activities.
2. There should be a continuous logic flow of critical path activities from Notice to Proceed, Design, Procurement *(Subcontractor Buy-Out)*, Submittals, Fabrication and Delivery lead times, Construction, Punchlist and Completion.
3. Clearly identify the critical path of the schedule.
4. Organize your activities so they are easy to read, activities are grouped intuitively, and the schedule “flows” well.
5. Work Breakdown Structure (WBS). Similar to J outbound, Constraints for each WBS have been provided in Working Days (WD). The Design Working days should not be altered, but the working days for all other WBS should be considered a maximum allowable duration.
	* 1. J. Annex Outbound inspection Building WBS
6. Design (160 WD), Assume Design Package One (DP1), DP2, and DP3 start simultaneously, DP4 can’t start until the others are finished.

DP1- Foundations/Site Utilities Design Package. (60WD).

DP2- Structural/Tilt-Up Design Package. (60 WD)

DP3- Framing/Skin Design Package/R/I. (70 WD)

DP4- Finishes Design Package. (90 WD)

1. Procurement/ Fabrication (60WD)
2. Foundations (90WD)
3. Structure (70WD)
4. Skin Exterior/ Roofing (50WD)
5. Rough In (70WD)
6. Electrical/Mechanical Spaces (50WD)
7. Finishes (50 WD)
8. Site work (70 WD)
9. Closeout (110 WD)
	1. Owner Punchlist Acceptance
	2. Initiate Building Air
	3. Equipment Functional Testing
	4. Balance Air
	5. HP Internal Punchlist
	6. Test Fire Alarm
	7. Commissioning
	8. Owner Punchlist
	9. Fire Marshall Signoff
10. Contractual Requirements
11. Assume that Notice to Proceed for this phase of work is May 2nd, 2012.
12. Show Substantial Completion.
13. The schedule should account for all state of Arizona holidays being non work days.
14. Assume a period of 20 working days for subcontractors to create submittal, 20 working days for in house review of submittals, 10 working days for submission to Architect/Engineer and 10 working days for submission and review by the owner.
15. Provide Submittals for the following scopes:
	* + - 1. Temporary Owners Trailer.
				2. Concrete Reinforcement.
				3. Concrete Walls and Panels
				4. Mechanical Systems.
				5. Electrical Systems.
				6. Structural Steel.
				7. Fire Suppression Systems.
				8. Plumbing
				9. Finishes
16. The schedule should depict fabrication and delivery of the following critical items.
17. Concrete Reinforcement (10 WD).
18. Mechanical Systems (60 WD).
19. Structural Steel (45 WD).
20. Electrical Systems (30 WD)
21. Glazing/ Curtain Wall (30WD).
22. Owner Trailer
	1. Provide a submittal to Owner only (10 WD) from NTP.
	2. Procure (20 WD) Tie this to first Construction Activity.
23. Please include the following activities for the Electrical Room, Mechanical Room, and Fire Alarm. The drawings have not been provided. Note that the activities below only provide specific equipment, normal build out activities will need to be reasonably implied throughout schedule.
24. Building J Annex Outbound Electrical Room Activities.
25. Electrical Gear
26. Energize Lights
27. Energize Building
28. Connect to J Outbound Electrical Room Feed
29. Connect Low Voltage Equipment
30. Building J. Annex Mechanical Room Activities.
31. Mechanical Equipment Roof
32. Install Solar Water System
33. Land and Power Mechanical System
34. Building J. Annex Fire Alarm Activities
35. Install Fire Alarm Panel.
36. Land Final Connections.

**Schedule Deliverables Due at 12:00am:**

1. **Complete CPM Schedule:** *(Two (2) Electronic Copies of Schedule for J Outbound Building in Native Format and Two (2) pdf copies on a thumb drive).*
2. **Required CPM Reports:** *(Include Two (2) Electronic and Two (2) hard copies of each report)*
	1. **Complete CPM:** *Filtering all activities sorted by start date. No WBS provided.*
	2. **Primary Critical Path Report.**
	3. **Complete CPM with WBS:** *Filter all actives by early start.*
	4. **WBS Report.** *Schedule with WBS and durations. No activities.*
3. **Narrative** (Include Hard Copy and (2) Electronic copies in PDF Format.) Schedule clarifications and assumptions utilized in reaching the Baseline.

***Answer: Reference J-Annex CPM Schedule in Section X.6.2.a.***