

7.3 Deliverable – Team Case Study Chapter 9

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Embry-Riddle Aeronautical University Worldwide Campus

Fundamentals of Project Management

PMGT-501

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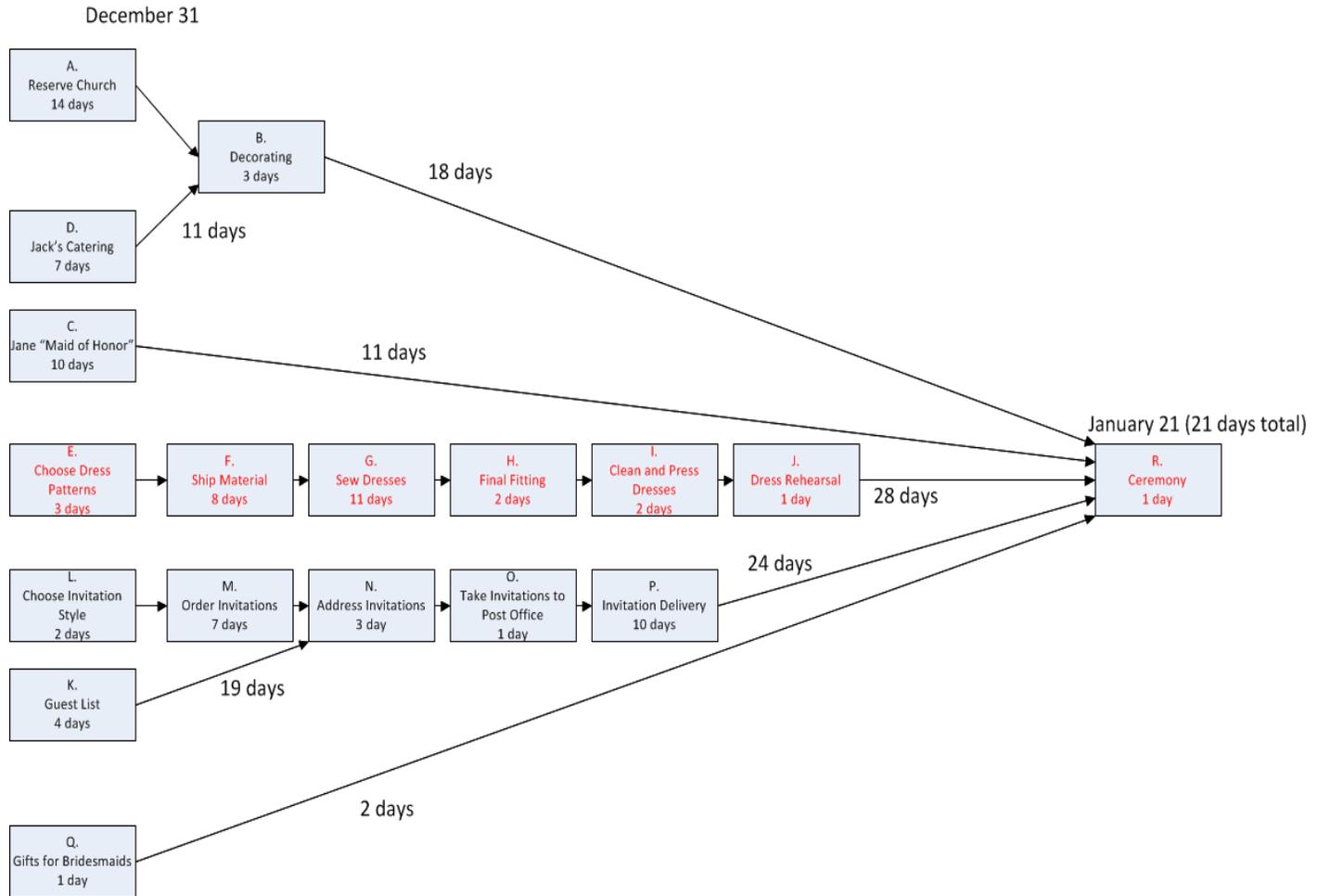
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	TASK	Normal Time	Crash Cost	Max Crash Time	PREDECESSOR
A	Reserve Church	14 Days	\$200	7 Days	None
B	Decorating	3 Days			A, D
C	Jane “Maid of Honor”	10 Days	\$1000	2 days	None
D	Jack’s Catering	7 Days			None
	Dresses				
E	Choose Dress Patterns	3 Days			None
F	Ship material	8 Days	\$20	3 Days	E
G	Sew Dresses	11 Days	\$48	5 Days	F
H	Final Fitting	2 Days			G
I	Clean & Press Dresses	2 Days			H
J	Dress Rehearsal	1 Day			I
K	Guest List	4 Days			None
	Invitations				
L	Choose Invitation Style	2 Days			None
M	Order Invitations	7 Days	\$20	1 Days	L
N	Address Invitations	3 Days	\$40	2 Days	K, M
O	Take Invitations to Post Office	1 Day			N
P	Invitation Delivery	10 Days	\$200	2 Days	O
Q	Gifts for Bridesmaids	1 day			None
R	Ceremony (January 21)	1 Day	\$3000	1 Day “Elope”	All but Honeymoon

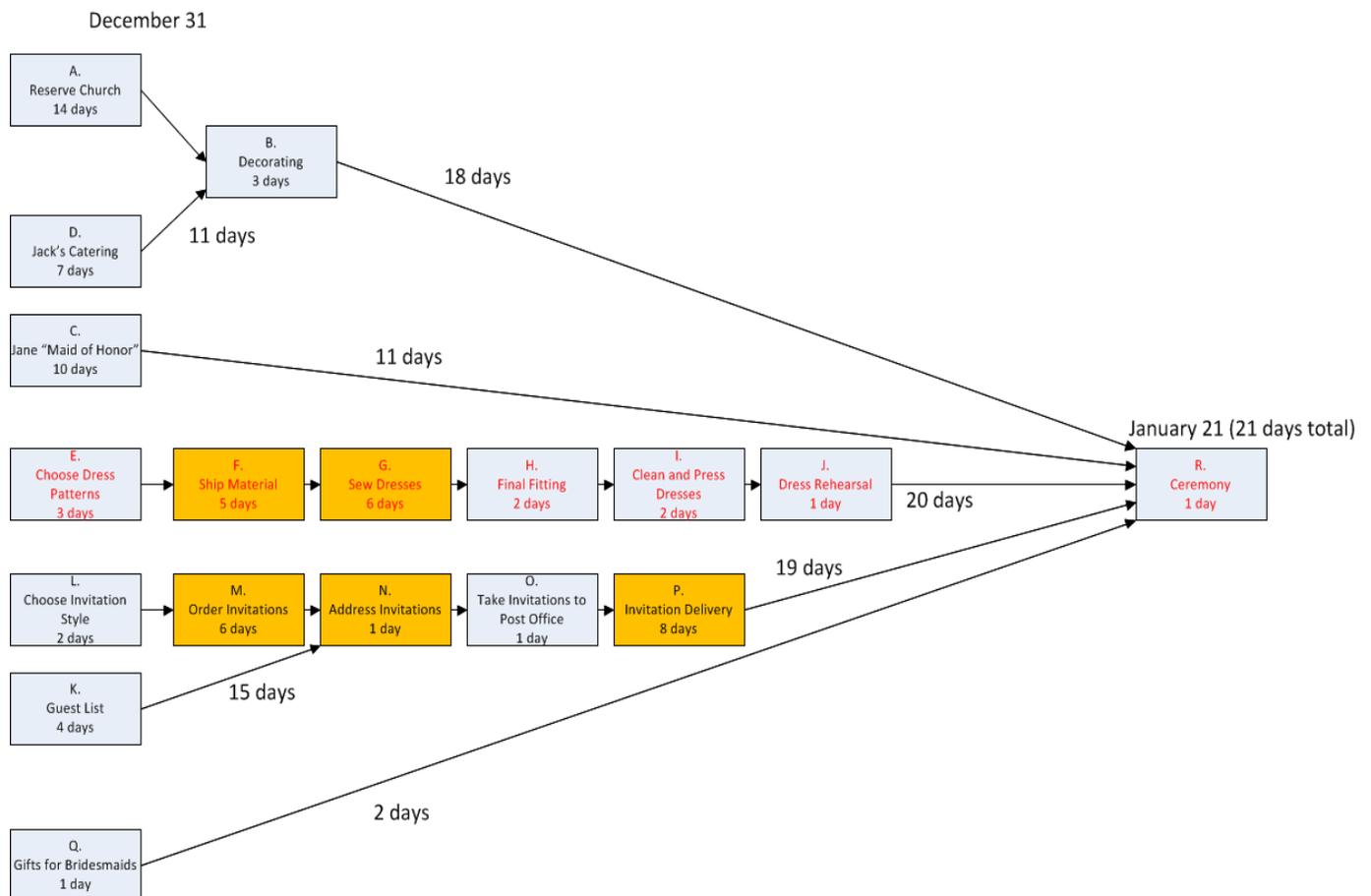


1. January 21st cannot be reached because there are two critical paths that are over the 21 day limit.

Here is the crashed schedule and the reasoning behind it. From the numbers the date can be reached in at the cost of \$600.00 additional funding. Here is the reasoning and the crashed schedule.

1. The critical path is E,F,G,H,I,J,R at a duration of 28 days. We need to get this down to 20 days. Another path which is critical as well, but not as much as above is L,M,N,O,P,R which has a duration of 24 days. We need to get this down to 20 days as well.
2. On the critical path E,F,G,H,I,J,R we can crash activity F - 3 days at the cost of 20\$ per day as it is the least cost candidate on the critical path. Total cost would be 60\$ and has a new duration of 25 days.
3. On the other critical path L,M,N,O,P,R we can crash activity M - 1 day at the cost of 20\$ per day as it is the least cost candidate on that path. New total cost would be 80\$ and that duration is 23 days.

4. On the critical path E,F,G,H,I,J,R we can crash activity G - 5 days at the cost of 48\$ per day as it is the least cost candidate left on the critical path that has any crash time left. Total cost would be 320\$ and has a new duration of 20 days. This path will now meet the timeline for the wedding.
5. On the other critical path L,M,N,O,P,R we can crash activity N – 2 days at the cost of 40\$ per day as it is the least cost candidate on that path. New total cost would be 400\$ and that duration is 21 days.
6. On the other critical path L,M,N,O,P,R we can crash activity P – 2 day at the cost of 200\$ for aunt Ethel as it is the least cost candidate on that path. New total cost would be 600\$ and that duration is 19 days.
7. The critical path remains at E,F,G,H,I,J,R.



The “Now” Wedding - Part B

Several complications arose during the course of trying to meet the deadline of January 20 for the “Now” Wedding rehearsal. Since Lauren was adamant on having the wedding on January 21 (as was Connor for obvious reasons), the implications of each of these complications had to be assessed.

1. On January 1, the chairman of the Vestry Committee of the church was left unimpressed by the added donation and said he wouldn't reduce the notice period from 14 to 7 days.
2. Mother comes down with the three-day flu as she starts work on the guest list January 2.
3. Bob's Printing Shop press was down for one day on January 5 in order to replace faulty brushes in the electric motor.
4. The lace and dress material are lost in transit. Notice of the loss is received on January 10.

Can the wedding still take place on January 21? If not, what options are available.

Part B presents some interesting challenges. Some items have little impact, other than additional cost, while others prove impossible to overcome.

1. The chairman of the Vestry Committee's decision to hold fast to their 14 day policy has little impact as it is the first item to be scheduled within an overall project window of 21 days.
2. Mother comes down with flu which creates a three-day delay. The time to complete the guest list is extended from 4 to 7 days. This delay will not impact task “N” (Addressing the Invitations) as there is still sufficient slack to absorb this delay.
3. Bob's Printing Shop creates a 1 day delay in task “M” (Ordering Invitations). This extends the time from 6 to 7 days. While this day is an inconvenience, there is still sufficient time to allow for the completion of related tasks L, M, N, O, and P, prior to the ceremony.
4. The lace material is lost in transit. Since the notice wasn't received until January 10, the completion, pressing, and dress rehearsal cannot be completed with the 21 day window. This is the item that makes the current plan unattainable.

Can the wedding still place on January 21? Yes.

What options are available:

1. Change material selection and buy material locally to restore the timeline.
2. Purchase a dress from a local dress shop and, either (1) crash the fitting cost against the project timeline, or (2) stick with the plan of having mom fit the dress.
3. Accept Dad's offer of \$3000, elope, and have a really great honeymoon prior to Connor's deployment.

The answer to whether or not it is possible rests with the bride and groom and whether or not they are willing to compromise on aspects of the wedding plan.