

International Research Journal of Engineering and Technology (IRJET)Volume: 07 Issue: 09 | Sep 2020www.irjet.net

PLANNING AND ANALYSIS OF HIGHWAY BRIDGE USING MICROSOFT PROJECT AND PRIMAVERA 6

Praveen Kumar.S¹, A.Krishnamoorthi²

¹PG Student, Construction Engineering and Management, Dept. of Civil Engineering, ²Assistant Professor, Dept. of Civil Engineering, Adhiparasakthi College of Engineering, Melmaruvathoor, India

***______

Abstract - *This research work brings out certain common* elements of risks and issues involved for any project. For a construction project it is very important to look out for the threshold and risks involved for it to be handled easily and comfortably. Management of these risks and issues are very important to achieve the objectives of the project. Construction industry has been following method for managing these risks and issues to be arising from a project. But this will be a question for a firm if they diversify or when they enter into any new venture of business domain. To understand this model of risk handling in the business the author have taken a case study for developing a risk mitigation plan by using analytical method and the same with the help of risk management computing tools using Primavera (P6) and finally comparing the results thus achieved. The analytical model is the one using the manual techniques for assessing risks involved from the experience, knowledge and competency gained in the business domain. Using Primavera (P6) the risk in been managed by creating several models generated which explains the process of additions of risks, identification of type of risk, calculation of exposure values, calculation of risk impact, assigning the person responsible to the risk, time frame of risk, preparation of control plans if the risk occur. Finally the results thus obtained from both the methods are been compared and the results are been calculated.

Key Words: CPM, PRIMAVERA P6, MS PROJECT, basics of CPM scheduling, EPS, Gantt chart

1. INTRODUCTION

Planning and scheduling is important role in construction projects because of the increasing complexities in this field. Construction Planning is the necessary warning to Scheduling and determining general sequence, defining labor tasks, construction methods and assigning responsibilities. Inappropriate planning can lead to major delays in the project work.For the planning and scheduling work huge amount of paperwork, which makes the management very burdensome These problems can be solved using a project management software which helps to give a planned approach to planning. In this study, a case of a highways bridge has been taken to demonstrate how proper planning and scheduling is done using primavera and MS project.

1. MSP INTRODUCTION

Planning and scheduling is important role in construction projects because of the increasing complexities in this field. Construction Planning is the necessary warning to Scheduling and determining general sequence, defining labor tasks, construction methods and assigning responsibilities. Inappropriate planning can lead to major delays in the project work. For the planning and scheduling work huge amount of paperwork, which makes the management very burdensome these problems can be solved using a project management software which helps to give a planned approach to planning. In this study, a case of a highways bridge has been taken to demonstrate how proper planning and scheduling is done using primavera and MS project.

1.2 PLANNING WITH MSP PROJECT DETAILS:

Name of the project:	Construction of Highway
	bridge in thiruporur –
	nememii road.
Clint:	Highways department
Consultant:	R.S.K. CONSTRUCTION
Contractor:	Three key Builders Pvt.
Ltd., Tuticorin	
Construction period:	Jan. 2019 – Feb. 2020
Type of contract:	Lump sum or cost plus
fixed fee contract	
Estimated cost:	4 crores

1.3 MICROSOFT PROJECT FILE

1.3.1 Gannt chart

Planning of the project activity in step by step manner to create the order of the work activity in corresponding details with the time details the following gannt chart fig.1 mentioned bellow.



1.3.1 GANNT CHART



rig 1.3.1 Gamme Chart



Fig 1.3.2 Gannt chart

1.3.2 NETWORK DIAGRAM





1.3.3 RESOURCE SHEET







Fig 1.3.4 Resource usage

1.3.5 TASK SHEET

	٠.				Highway project scedule - Project			
	719	Resource						
1	in te	X, Cut R3 Copy - & Format Painter	Caleri + 11 + ₹ ₹ 8 / ¥ ☆ - ▲ - ₹ ₹	There are a set of the	naily Ado Robert Schedulg	Tak Serenary Milestone Definition	Information ■ Cosats ■ Social ■ Cosats ■ Cosats	
	-	Cipbeard	2101	schedule	Naki	Po4/1	maperilas Editing	
-	0	Tak + Tap	k Narse • Dusation	* Start * Peich * Prec	prosport • Relation Names • 5.1	Work Complete Add New Column		
100	×.	× 9	W D days	The 23-04-15 The 30-04-15	Excualdon learn	100%		
1	×.	E	ecavation, standard spill days	PH 01-05-15 Tue 12-05-15 1	Pile Ceps and Piler	100%		
2	×.	P	oviding HUC cost an si 9 days	Wee 13 05-15 Mon 25 05-15 2	HCC and Case of Se	300%		
2	×.		ement concrete acccor y days	100 28-05-15 14105-06-15 3	PCC for two Caps 2	100%		
2	×.	× v	brated RCC as per star 7 days	Mon 03 06-15 Tue 16-06-15 4	RCC Contritor	100%		
•	×.		brated RCC for abutes 22 days	Wed 17 06-15 Thu 16-07-15 5	RCC Contritor	100%		
	~		brated RCC for bed bit 15 days	F# 17-07-15 Thu 06-08-15 6	Ded blocks and abs	100%		
÷.	1		brated RCC for fly wilk 9 days	Fr 07-08-15 Wed 19-08-11 7		100%		
3	×.	× v	orated RCC for Circula 10 days	110 20-08-15 Wed 02-09-15 8	NCC COMPLET	100%		
÷.	×.	× v	orased scill, for capped is days	186 85-09-15 Mill 14-09-15.9	HEL CONFICTOR	100%		
21	×.	× v	brated RCC for pedest 6 days	Tue 15-09-15 Tue 22-09-15 10	RCC Contritor	100%		
14	×.	P FI	sing of elastromer bea 7 days	Wed 23-00-15 Thu 01-10-15 11	Flantro Workers	100%		
2	×.	× v	brated RCC for dock si 9 days	Fe 02 10 15 Wed 14 10 15 12	NCC Contrition	100%		
8	~	* v	brated RCC for T-Bear 10 days	The 15-10-15 Wed 28-10-15-13	ACC Contrctor	100%		
12	×.	× v	brated CC wearing coc 9 days	Thu 29-10-15 Tue 10-11-15 14	ACC Contrctor	100%		
20	~	× v	brated RCC for crash t 23 days	Wed 11-11-15 Fill 11-12-15 15	crash barrier work	100%		
38.	1.1	× PI	umbing G.L pipes 2011 15 days	Mon 14-12-15 Fri 01-01-16 16		100%		
M.,	¥.	* ¥	brated CC for base col 10 days	Mon 04-01-16 Fri 15-01-16 17	RCC Contrctor	100%		
2	×.	× v	ibrated RCC for approa 10 days	Mon 18-01-16 Fri 29-01-16 18	ACC Contrictor	100%		
50	¥.	* V	ibrated CC for parapet 10 days	Mon 01-02-16 Fri 12-02-16 19	ACC Contrctor	100%		
10	× .	× 0	opper plote at expansic 2 days	Mon 15-02-16 Tue 15-02-16 20	Elastro Workers	100%		
22	× .	* P	/C seepage pice 4 days	Wed 17-02-16 Mon 22-02-10 21	Planbing workers	100%		
23	×	P P	osiding filterr media b 4 days	Tue 23-02-16 Pri 25-02-16 22	Filterr media abatr	100%		
24	~	P FI	ling behind abstement 9 days	Mon 29-02-16 Thu 10-03-16 23	Filing work	100%		
25	~	P P1	roviding MS liner of thir 4 days	Fn 11-03-16 Wed 16-03-16 24	MIS lese work	100%		
20	1	* B	abrication of Fe-415 ins 212 days	The 17-03-16 Fei 06-01-17 25	Staul Stars	100%		
27	~	P 6	abrication of Fe-240 222 days	Mon 09-01-17 Tue 14-11-17 26	Steel Stees	100%		
58	~	* Fi	orming apporach road / 222 days	Wed 15-11-17 The 20-09-18 27	Road and revetine	100%		
29	✓	\$ 21	rosision for sub soil sta 1 day	Mon 09 03 20 Mon 09 03 20	Road and revoting	100%		
30	~	* n	ovision for investigate 1 day	Mon 09 03-20 Mon 09 03-20	inspactor	100%		
51		P 19	revision for labor wells			0%		

Fig -1.3.5 Task sheet



International Research Journal of Engineering and Technology (IRJET)e-ISSN: 2395-0056Volume: 07 Issue: 09 | Sep 2020www.irjet.netp-ISSN: 2395-0072

1.3.6 TASK USAGE



Fig 1.3.6 Task usage

1.3.7 TASK SHEET

	Tosk	Resource							
Saett Nart -	Date -	X Cut Ph Copy * * Connet P	caleri • 11 • ₹ ₹ srcer 8 / ¥ ☆·▲· 5-₹	Alex on Track * Alex on Track * Alex on Track * Alex on Track * Alexon	Auto Schedule	Tat. Surray Miestow Deiversite	Wormation	Pred - Teol € Clear - To fast ≣ Fas -	
den .		cipboard	F012 %	schedule	Taska	Ruert	repartes	6509	
1000	0	lask	Taix Name • Duration	 Start Finith Precince 	son • Recource Names • %	Work Complete Add Naw Cotiven	*		
	×	1	SNI Is days	100 23 04-15 100 30 04-15	Excuation beam	100%			
1	Y.	-	Excavation, Mandard spill days	Fr 01-03-15 Tue 12 05-15 1	Pile Caps and Pier	100%			
1	×.	1	providing HUC cast -in-st 9 days	Wed 13-05-15 Mon 25-05-15-2	HCC and Case In-Se	100%			
- 2	×.	1	cement concrete accour 9 days	10220-05-15 14105-06-15 3	POC for Pile Caps 2	100%			
1	×.		Viorated RCC as per star 3 days	Mon 08-06-15 Tue 16-06-15 -4	RCC Contrictor	100%			
	Y		viorated HLC for souten 22 days	Web 17-06-15 (MI 16-07-15-5	HLL CONDICTOR	100%			
1	~		Viorated RCC for bed bic 15 days	Pr 17-07-15 Thu 05-08-15 6	Bed blocks and alx	100%			
	1		vibrated RCC for fly way 9 days	Ph 07-08-15 Wed 19-08-157	1477/1000-1000-10	100%			
3	×.	1	Viorated RCC for circular 10 days	Thu 20-08-15 Wed 02-09-15.8	RCC Contrctor	100%			
10	×		Vibrated RCC for capping 8 days	Thu 05 09 15 Mos 14 09 15 9	NCC Costrictor	100%			
11	×.	-	Worated RCC for pedest 6 days	Tue 15-09-15 Tue 22-09-15 10	RCC Contrctor	100%			
14	V.	1	Fining of elastromer bea 7 days	Wed 23-09-15 Thu 01-10-15 11	Hantro Workers	100%			
12	V.	1	Worated RCC for deck sl 9 days	Fri 02-10-15 Wed 14-10-15-12	RCC Contrctor	100%			
14	V	1	Vibrated RCC for T-Bean 10 days	Thu 15-10-15 Wed 28-10-15 13	RCC Contrctor	100%			
12	V	1	Worsted CC wearing cos 9 days	Thu 29-10-15 Tue 10-11-15 14	RCC Contrctor	100%			
10	V		Vibrated RCC for crash til 23 days	Wed 11-11-151-0 11-12-15 15	crash bannier work	100%			
17		*	Plumbing G.I. pipes 20ni 15 days	Mon 14-12-15 Fri 01-01-16 16		100%			
18.	~	*	Vibrated CC for base co: 10 days	Mon 04-01-16 Fri 15-01-16 17	RCC Contrctor	100%			
19	~	1	Vibrated RCC for approa 10 days	Mon 18-01-16 Fri 29-01-16 18	RCC Contrctor	1004			
50	V .	*	Vibrated CC for parapet 10 days	Mon 01-02-16 Frii 12-02-16 19	RCC Controtor	100%			
21	~	*	copper plate at expansic 2 days	Mon 15-02-16 Tue 16-02-16 20	Elestro Workers	10006			
22	~	*	PVC seepage pipe 4 days	Wed 17-02-16 Mon 22-02-15 21	Plambing workers	100%			
21	~	*	Providing filterr media b-4 days	Tue 23-02-15 Pri 26-02-15 22	Filterr media abatr	100%			
24	~	+	Filling behind abstement 9 days	Mon 29-02-16 Thu 10-03-16 23	Filing work	100%			
25	~	*	Providing MS liner of thir4 days	Fri 11-03-16 Wed 16-03-16 24	MS live work	100%			
26	~	*	Fabrication of Fe-415 in 212 days	The 17-03-16 Pri 06-01-17 25	Steel fitters	100%			
52	~	*	Fabrication of Fe-243 222 days	Mon 09-01-17 Tue 14-11-17 26	Steel fitters	100%			
28	~	*	Forming apporach road - 222 days	Wed 15-11-17 Thu 20-09-18 27	Road and revetme	100%			
29	~	*	Provision for sub soil sta 1 day	Mon 09-03-20 Mon 09-03-20	Road and revetine	100%			
30	~	*	Provision for investigatg 1 day	Mon 09-03-20 Mon 09-03-20	inspactor	100%		Activate Windows	
31		1	Provision for labor wells			0%		Go to Settings to activity Windows	
	A 100	- These - Lines	and a Scheduled						

Fig 1.3.7 Task sheet

3.7 TRACKING SHEET

Image: Control (Control (•		Gartt	Cur Test	Highway project sortule - Project Professional	- 3 ×
Non-transmitter Non-transmiter Non-transmitter Non-transmi	Re	Tes	Resource				
No. No. <th>Gartt Chart + thay</th> <th></th> <th>X Cut Rt Copy + I Comat R Cipboard</th> <th>catter 11 - 7 1 erter 8 / 12 💩 · 🛆 · 5 3 Fox -</th> <th>Markon Tack - Markon Tack - Menab Sheday</th> <th>And head like Mode too too too too too too too too too too</th> <th></th>	Gartt Chart + thay		X Cut Rt Copy + I Comat R Cipboard	catter 11 - 7 1 erter 8 / 12 💩 · 🛆 · 5 3 Fox -	Markon Tack - Markon Tack - Menab Sheday	And head like Mode too too too too too too too too too too	
Image: Construction Standard and the standard standa		0	Node •	Texhane - Ouston	• Start • Finish • Predeces	1 (64.5) (1 (64.5) (1 (64.5)) (1 (64.5)) (1 (64.5)) (1 (74.5)) (1	I AN T W T F S S F
1 2 8 Construct structure tay May At 88 (45): No 12 (45): N	1	~	1	SNI 6 days	Thu 23 04-15 Thu 30-04-15	100%	
1 2 Providegt Contract on the PAre Not and Contre Contand Contract Not and Contract on the PARe Not and	2	~	*	Excervation, standard spi 8 days	Fri 01-05-15 Tue 12-05-15 1	160%	
1 2 Provide Class provide Dials The Bool 11 Million Dials		~	*	providing IXC cast -in-si 9 days	Wed 13-05-15 Mon 25-05-15 2	100%	
1 * Multical Clob angle Allow Multical Clob angle Allow 2 * Multical Clob angle Allow Multical Clob angle Allow 3 * Multical Clob angle Allow Multical Clob angle Allow 4 * Multical Clob angle Allow Multical Clob Allow Allow 10 * Multical Clob Allow Allow Multical Clob Allow Allow 11 * Multical Clob Allow Allow Multical Clob Allow Allow 11 * Multical Clob Allow Allow Multical Clob Allow Allow 11 * Multical Clob Allow Allow Multical Clob Allow 11 * Multical Clob Allow Allow Multical Clob Allow 11 * Multical Clob Allow Multica	- e	~	*	coment concrete accor 9 days	Tue 26 05-15 Pri 05 06-15 3		105%
6 * Windows C. L. Companyi and Market C. Market 2013 Market 2014 Marke	5	~	*	Vibrated RCC as per star 7 days	Mon 08-06-15 Tue 15-06-15 4		-
V Window City Consequence Status All 2013 Window 2015 Bits All 2013 Window 2015 Bits V V Window City Consequence Status All 2013 Window 2015 Bits All 2013 Window 2015 Bits V V Window City Consequence Status All 2013 Window 2015 Bits All 2013 Window 2015 Bits V V Window City Consequence Status All 2013 Window 2015 Bits All 2013 Window 2015 Bits V Window City Consequence Status All 2013 Window 2015 Bits All 2013 Window 2015 Bits V Window City Consequence Status All 2013 Window 2015 Bits All 2015 Bits V Window City Consequence Status All 2013 Bits All 2015 Bits V Window City Consequence Status Minis 2014 Bits Minis 2014 Bits V Window City Consequence Status Minis 2014 Bits Minis 2014 Bits V Window City Consequence Status Minis 2014 Bits Minis 2014 Bits V Window City Consequence Status Minis 2014 Bits Minis 2014 Bits V Window City Consequence Status Minis 2014 Bits Minis 2014 Bits V Window City Consequ	6	~	*	Vibrated BCC for abuten 22 days	Wed 17-06-15 Thu 15-07-15 5		
1 # Window Cite: De Novely Name All 2018 Novel 2004 Novel		~	*	Vibrated RCC for bed bic 15 days	Fri 17-07-15 Thu 05-08-15 6		
1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2003 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 Provide Constant III Sign Rev 2004 200 313 1 2 2 Provide Constant III Sign Rev 2004 200 310 1 2 2 Provide Constant III Sign Rev 2004 200 310 </td <td>1</td> <td></td> <td>1</td> <td>Vibrated RCC for Dy wing 9 days</td> <td>Fri 07-08-15 Wed 19-08-15 7</td> <td></td> <td></td>	1		1	Vibrated RCC for Dy wing 9 days	Fri 07-08-15 Wed 19-08-15 7		
10 V Window CC to particle manual from 100 100 1100 1100 1100 1100 1100 1100	÷.	~	*	Vibrated RCC for circular 10 days	The 20-08-15 Wed 02-09-15-8		
11 V Window (C: Voise) No. 10. 10. 20. 00. 10. 10. 20. 00. 10. 10. 20. 00. 10. 10. 10. 10. 10. 10. 10. 10. 1	10	~	*	Vibrated RCC for capping 8 days	Thu 03 09 15 Mon 14 09 15 9		
Bit Weight State Provide State Provi	E TI	~	1	Vibrated RCC for podest 6 days	Tue 15 09-15 Tue 22 09-15 10		
10 v * Window KC: be down (Window Field 1010; Weit 42-03 511 10 v * Window KC: be field 1010; Weit 42-03 511 10 v * Window KC: be field 1010; Weit 42-03 511 10 * * Window KC: be field 1010; Weit 42-03 511 10 * * Window KC: be field 1010; Weit 42-03 511 10 * * Window KC: be field 1010; Weit 42-03 511 10 * * Window KC: be field 1010; Weit 42-03 511 10 * * Window KC: be field 1010; Weit 42-03 511 11 * * Window KC: be field 1010; Weit 42-03 511 12 * * Window KC: be field 1010; Weit 42-03 511 12 * * Window KC: be field 1010; Weit 42-03 511; H 12 * * Reside 1010; Weit 42-03 51; H 12 * * Reside 1010; Weit 42-03 51; H 12 * * Reside 1010; Weit 42-03 11; H 12 * * Reside 1010; Weit 42-03 11; H 12	11 12	~	*	Fixing of elastromer bea 7 days	Wed 23-09-15 Thu 01-10-15 11		
Min V Windowski C. Wardski K. Min Pholod Web 2002 111 Min V Pinnewski C. Wardski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min V Pinnewski K. Min Pholod Web 2002 111 Min Pinnewski K. Min Pholod Web 2002 111 Pholod Web 2002 111 Min Pinnewski K. Min Pholod Web 2002 111 Pholod Web 2002 111 Min Pinnewski K. Min Pholod Web 2002 111 Pholod Web 2002 111 Min Pinnewski K. Min Pholod Web 2002 111 Pholod Web 2002 111 Min Pinnewski K. Min Pholod Web 2002 111 Pholod Web 2002 111 Min PinneWeb 2002 1111 Pholod Web 2002 1111	13	~	*	Vibrated RCC for deck sl 9 days	Fri 02-10-15 Wed 14-10-15 12		
10 4 Minuted Companyation Markov The 2013 The 00 131 10. 16 14 10 4 Among La, may alber 3 and 3	20 14	~	1	Vibrated RCC for T-Bear 10 days	Thu 15-10-15 Wed 28-10-15 13		
Fill V Viewerk/CE weak/D Am Weiter/KE 2015 (2013) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/CE weak/D Am Mile 142 (2014) 2015 IS V Viewerk/D Am Mile 142 (2014) 2015 Mile 142 (2014) 2015 V Viewe	9 15	~	*	Vibrated CC wearing cos 9 days	The 29 10 15 Tee 10 11 15 14		
9 Proming 81, proce 2015 data Non-164 (2015 0.15 1.15 1.15 1.15 1.15 1.15 1.15 1	₩ 15	~	*	Vibrated RCC for crash t 23 days	Wed 11-11-15 Fri 11-12-15 15		
N P Window GC: None anciol data, None Status CC: None and CC: Non	12		*	Plumbing G.I. pipes 20th 15 days	Mon 14-12-15 Fri 01-01-15 16		
10 V Winner ACC V argung (1) Ar	75	~	*	Vibrated CC for base cos 10 days	Mon 04-01-16 Fri 15-01-16 17		
III V Processing list an approximation and the DAS (Mr. 2024.35.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	.19	~	*	Vibrated RCC for approa 10 days	Mon 18-01-16 Pri 29-01-16 18		
17 P Copyre plant expression/of data Main 10:00:310:11:01:00:31:01 Main 10:00:310:01:01:01:01:01 27 P Copyre plant expression/of data Main 10:00:30:01:01:01:01:01 Main 10:00:30:01:01:01:01:01:01 27 P Copyre plant expression/of data Main 10:00:30:01:01:01:01:01:01 Main 10:00:01:01:01:01:01:01:01:01:01:01:01:0	- 20	~	*	Vibrated CC for parapet 10 days	Mon 01-02-16 Fri 12-02-16 19		
III V P To coupy ping from reds 10 (MMD 2018.01) V P To coupy ping from reds 10 (MMD 2018.01) V V P To coupy ping from reds 10 (MMD 2018.01) V V P To coupy ping from reds 10 (MMD 2018.01) V V P To coupy ping from reds 10 (MMD 2018.01) V P To coupy ping from reds 10 (MMD 2018.01) V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X V P To coupy ping from reds 10 (MMD 2018.01) X P To coupy ping from reds 10 (MMD 2018.01) P To coupy ping from reds 10 (MMD 2018.01)	21	~	*	copper plate at expansic 2 days	Mon 15-02-16 Tue 15-02-16 20		
21 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 24 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 25 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 26 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 27 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 28 /r Providing Bitm condition (Streep Display) (PRI/DEN) / 22. 29 /r Reference of the 2 (PRI/DEN) / 22. 20 /r Reference of the 2 (PRI/DEN) / 22. 21 /r Reference of the 2 (PRI/DEN) / 22. 21 /r Reference of the 2 (PRI/DEN) / 22. 22 /r Reference of the 2 (PRI/DEN) / 22. 23 /r /r Reference of the 2 (PRI/DEN) / 22.	22	V	*	PVC seepage pipe 4 days	Wed 17-02-16 Mon 22-02-16 21		
N ≤ P Resentationsementation Non 304 301 301 401 304 30 30 Non 304 301 301 401 304 30 30 Non 304 301 301 401 301 301 301 301 301 301 301 301 301 3	- 23	~	*	Providing filterr media b-4 days	Tue 23-02-16 Fri 26-02-16 22		
B) Phodagethered this data Ref 104.503. Work (50.81) Set 50.81) Set 50.81) Activate Windows Activate Windows Set 50.81) Activate Windows Set 50.81) Set 50.81)	- 24	~	1	filling behind abutement 9 days	Men 29-02-16 Thu 10-03-16 23		
21 🗸 I Satication of Fe-150 in (22 days - The 1740-16 fr (65-05-17 25 - ACtivate Windows - Construction of Fe-260 - 222 days - Man (1940)-157 Tee 16-13-17 26 - Construction of Fe-260 - 222 days - Construction	25	1	*	Providing MS liner of this 4 days	Fri 11-03-16 Wed 16-03-16 24		
27 🗸 🖉 Fabrication of Fe-240 222 days Men 09-01-17 Tee 14-11-17 26 Go to Setting L to activate Windows.	- 25	1	*	Fabrication of Fe-415 in: 212 days	The 17-03-16 Fri 06-01-17 25	Activate Win	
	27	1	*	Fabrication of Fe-240 222 days	Men 03-01-17 Tue 14-11-17 26	Go to SetSings to	
						P. 4.	3

Fig 3.7 Tracking sheet

2. ANALYSISI IN PRIMAVERA Risk Management Features using Primavera (P6)

The module is ideal for organizations that need to simultaneously manage multiple projects and support multiuser access across a department or the entire organization. It supports an enterprise project structure (EPS) with an unlimited number of projects, activities, baselines, resources, work breakdown structures (WBS) as in figure 6.2, organizational breakdown structures (OBS), codes critical-path-method(CPM) user-defined and and scheduling leveling. Large-scale resource implementations for organization-wide project portfolio management use it with oracle or SQL server as the project database. For smaller implementations, we can use SQL server express.

2.1 WORK BREAKDOWN STRUCTURE



Fig 2.1 Wbs sheet

2.2ENTERPRISE OF PROJECT

		Enterprise Project Structure (EPS)		
Dienlay: FPS			R	
D	T EPS Name			-
b01	constuction of bridge		D	
Facilities	Facilities Division	•	-	
- A Health Care	Health care		X	
- A Education	Education		v	
- () Commercial	Commercial, Manufacturing & Distribution		- b	
E 📣 Backlog	Facilities Division Pipeline		h	
-4 Awarded	Contracted Backlog (Not Started)		-	
- 👍 In Estimating	In Estimating			
- A Project Leads	In Business Development (Project Leads)			
Infrastructure	Transportation & Infastructure Division		-	
Transportation	Transportation			
- 👍 Roads & Bridges	Roads & Bridges			
- 👍 Rail	Rail		•	
-4 Airports	Airports & Multimodal			
- 👍 Ports & Harbors	Ports & Harbors			
↓ Water/Waste	Water & Wastewater			
Industrial	Industrial			
- A Process	Petrochemical & Process			
- 👍 Manufacturing	Manufacturing			
A Corporate	Corporate Services Division		,	
Admin	Executive & Administration Management		_	
EPS ID	EPS Name			
b01	constuction	of bridge		
Responsible Manager				

Fig 2.2 Enterprise of project

2.3 ORGANISATIONAL BREAKDOWN STRUCTURE



Fig 2.3 Organisational breakdown structure

2.4 PROJECT CALENDER

	Cal	endars			×
Global	C Reso	urce	0	Project	
🗢 Display: Global Calendars	3				Close
Calendar Name	∇	Default	^		
5 Day 24 hour Milestones	only		_	ß	Add
7 x 24hr. Days				_	
7-Day Workweek				X	Delete
📷 EM11 - 1 - 4 DAYS					
EM11 - 2 - 5 DAYS					Modify
📆 EM11 - 4 - 7 DAYS				-	
📆 EM11 - 5 - Unit 10 Treater	s			2	Used By
School District 5 Day					
5tandard					To Global
5 Standard 24/7 Workweek	Schedule (_	
👪 Standard 5 Day Workwee	ek				Hale
Standard 5 Day Workwee	ek w/ Basic		~	•	neip
-			_		

Fig 2.4Project calender

2.5 RESOURCE SHEET

0		Primavera P6 : 04, N	NEWPROJ, NEWPROJ-1	(Construction of Bridge At Kn	n 3/2 of Thiruporur - Nemili Road,	(New Project), (New Project)) -	ð X
File	Edit View Project E	Enterprise Tools Admin Help					
F	Disabas Associa Desirata	D					
	V Uispay: Current Projectis Neonume II	RESOURCES Desnume Name	George Type Int of B	Jassura Drimony Dola	Default linite / Time		
l	2 Info Resources	Lotu Heichts Resources	Norlahor	noose (nine y non	8/4		- 1
	e LH Labor	LH Labor	Labor	Corporate Roles	8/d		0
	A EMA	Ed Malaid	Labor	Project Executive	8/d		4
	a nikeb	Mike Brown, CIO	Labor		8/d		
	la johm	John McDougal	Labor	Project Manager	8/d		4
	linatEng	Instrumentation Engineers	Labor				
	CSA	Chris Sawyer	Labor	Superintendant	8/8		1
1	lo R	Oliver Rock	Labor	Accounting	8/d		
1	Arch	Senior Architects	Labor				
	CiviEng	Civil Engineers	Labor				
	CHP CHP	Dverhead & Profit	Nonlabor		8/d		
	Cear	Site Clearing Crew	Nonlabor		8/8		
	AL B	Jeff Lange	Labor	Superintendant	8/8		
	a hanki	Frank Lee	Labor	Project Manager	8/d		
	challeon	Unaries North	Labor	Buoness Analyst	8/d		
ľ	runon	Punch Liew	Noriabor	Driveller	8/8		
	New Do	Nen Angeson John Dack	1.400	Project Mahager	8/8		
		- D:	1.1	r ·	0/0		۷

Fig 2.5 Resource sheet

2.6 RISK SHEET AND RISK MANAGEMENT

	Primavera	P6:04, NEWPRO	DJ, NEWPROJ-1	Construction of Bridge At Km 3/2 of Thiruporur - Nemili Road, (New Project), (New Project))	- 8
Edit View Project Ente	rrprise Tools Admin	Help			
o Disalan Data for Current line	**				
a subject the set of the set	Desconsible Mary	an Disk Tune	Innact Date		
halcot	Innovative SC	Requirement Charu	15.1415		
machinery	Innovative GC	Supplier	155ep15		
escalation	Innovative GC	Financial	08Jun-15		
labour .	Innovative GC	Labor Unions	29 Apr 15		
cost variance	Innovative GC	Project Facilities	23Jan 16		
material	Innovative GC	Schedule	130et15		
schedule	Innovative GC	Schedule	10Nov-15		
In the India					
neral Description Impact Cr	kreino				
Rek Name				Satus	
abour				Open	•
A surface for 1988		L			
Apples to WBS		Apple	is to Resource	Prorty	
Construction of Brid	oge ALKIN 3/2 of Thirupory	r-hens 8		2 - Hgh	•
Bannonakia Mananar		Dec 1		Data Mantified	
Response e Wahager		Risk 7	ype	Dete Kertifhed	_
M movacie GC			acor unionă	p3-4p-15	

Fig 2.6.1Risk sheet and management



Fig 2.6.2 Risk sheet and management



3. CONCLUSIONS

Planning and scheduling helps in future situation and implementation of the project. The Primavera Software provides user friendly options while performing any task. The cost of individual work break down can be known along with the duration. Thus decisions can be made sensibly for proper management. In multiple projects resource leveling is very important to maintain proper resource allocation. For multiple projects under a single company such analysis should be done to check out for over allocation. Scheduling real-time projects is also an important standard for managing multiple projects. A Resource constrained project schedule as per the site situation. For resource constrained analysis resource leveling is arranged. Scheduling using Microsoft project Software gives good controlling and clear schedule to a project. This project deals with scheduling using Microsoft project.

REFERENCES

- [1] Rhuta Joshi, Prof. V. Z. Patil "Resource Scheduling of Construction Project": Case Study 4.438 Volume 4 Issue 5, May 2015.
- [2] Abhishek sharma,and K.K.pathak "Manpower Planning, Scheduling and Tracking of a Construction Project Using Microsoft Project Software "
- [3] E. Suresh kumar, S. Krishnamoorthi "Scheduling and Financial Analysis of a High Rise Building" ISSN: 2278-1684 Volume 12, Issue 6 Ver. I (Nov. -Dec. 2015).
- P M Wale1, N D. Jain, N R Godhani2, S R Beniwal, "Planning and Scheduling of Project using Microsoft Project" Volume 12, Issue 3 Ver. III (May. - Jun. 2015),
- [5] Rhuta Joshi, Prof. V. Z. Patil "Resource Scheduling of Construction Project: Case Study": 2319-7064 Volume 4 Issue 5, May 2015
- [6] Raj saran, Neel fondekar, Yash matalia," planning and scheduling of a two storey building Using primavera p6."
- T.Subramani, K.Chinnadurai, "Construction Management And Scheduling Of Residential Building Using Primavera" ISSN 2319 - 4847 Volume 4, Issue 5, May 2015.
- [8] Sushant Pradhan, Rajendra .S, Vijay.K " planning, scheduling and resource optimisation ofmultiple projects usingoracle primavera p6"ISSN: 2321-7308,Volume: 05 Issue: 06 | Jun-2016
- [9] Rohit.R.Salgu,Umesh.Y.Polekar, Planning, Scheduling and Tracking of a residential Project using Primavera SoftwareISSN: 2321-7782
- [10] Veena H C, Vijay K "Schedule Control of an Apartment Building using Primavera Techniques" ISSN: 2278-0181, Vol. 5 Issue 06, June-2016

[11] T. Subramani, A. Sarkunam2 J. Jayalakshmi "Planning and Scheduling of High Rise Building Using Primavera ISSN : 2248-9622 Vol. 4, Issue 6.

BIOGRAPHIES



Praveen kumar.S PG Student, Construction Engineering and Management, Dept. of Civil Engineering, Adhiparasakthi College of Engineering, Melmaruvathoor, India