

## References

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# **Appendices**

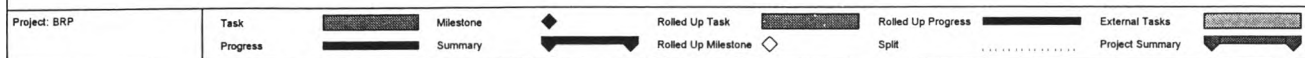
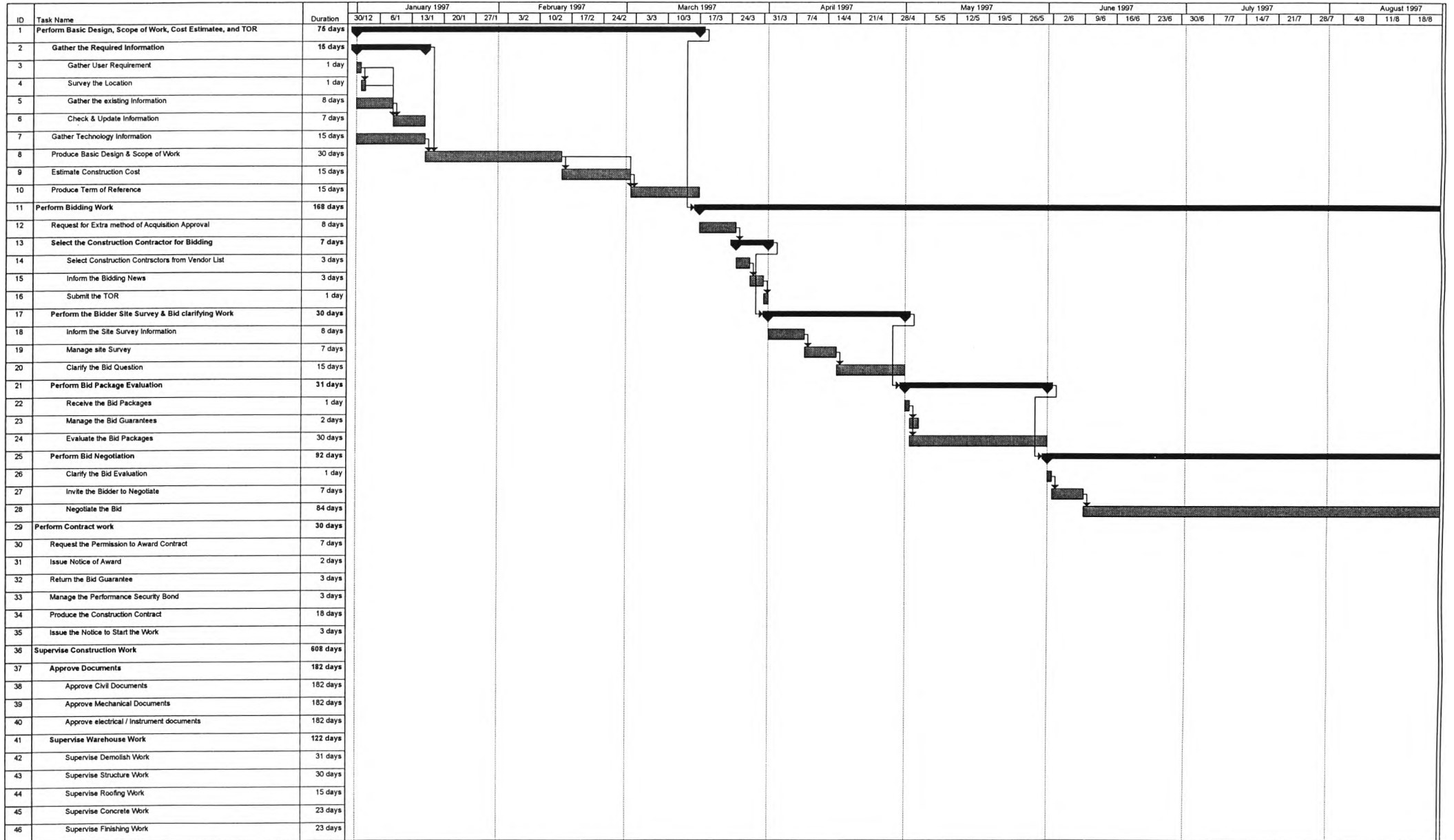
**Appendix A**  
Payment of Project

### Payment of Project

| Payment Milestone Description                                  | Payment in % of total cost |
|--|----------------------------|
| 1. Complete of office / warehouse                              | 5 %                        |
| 2. The case company approved of all drawing included P&ID      | 10 %                       |
| 3. Delivery on site of the sphere tank steel plate             | 20 %                       |
| 4. Completion of Firewall                                      | 5 %                        |
| 5. Completion of the sphere tank include testing & calibration | 30 %                       |
| 6. Completion of mechanical, electrical & civil work           | 5 %                        |
| 7. Completion of commissioning                                 | 10 %                       |
| 8. Initial acceptance certificate issued by the case company   | 10 %                       |
| 9. Completion of As-build Drawing                              | 5 %                        |

## **Appendix B**

### Project Schedule



| ID | Task Name                                      | Duration | January 1997 |     |      |      | February 1997 |     |      |      | March 1997 |     |      |      | April 1997 |      |     |      | May 1997 |      |     |      | June 1997 |      |     |     | July 1997 |      |      |     | August 1997 |      |      |     |      |
|----|--|----------|--------------|-----|------|------|---------------|-----|------|------|------------|-----|------|------|------------|------|-----|------|----------|------|-----|------|-----------|------|-----|-----|-----------|------|------|-----|-------------|------|------|-----|------|
|    |  |          | 30/12        | 6/1 | 13/1 | 20/1 | 27/1          | 3/2 | 10/2 | 17/2 | 24/2       | 3/3 | 10/3 | 17/3 | 24/3       | 31/3 | 7/4 | 14/4 | 21/4     | 28/4 | 5/5 | 12/5 | 19/5      | 26/5 | 2/6 | 9/6 | 16/6      | 23/6 | 30/6 | 7/7 | 14/7        | 21/7 | 28/7 | 4/8 | 11/8 |
| 47 | Supervise Painting Work                        | 15 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 48 | Supervise Main Construction work               | 288 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 49 | Supervise Tank Work                            | 288 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 50 | Supervise Pre-erection Work                    | 184 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 51 | Inspect Steel Plates                           | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 52 | Inspect Materials                              | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 53 | Supervision Pre-fabrication Work               | 177 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 54 | Supervise Firewall Installation                | 31 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 55 | Inspect Firewall Material & Equipment          | 3 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 56 | Supervise Firewall Erection                    | 21 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 57 | Supervise Firewall Equipment Installation      | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 58 | Supervise Tank Erection Work                   | 120 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 59 | Supervise Column & Bracing Erection            | 15 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 60 | Supervise Shell Plate Installation & Welding   | 90 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 61 | Supervise Spray Water Ring Erection            | 15 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 62 | Supervise tank Accessories Erection            | 15 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 63 | Supervise Post-erection Work                   | 45 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 64 | Supervise NDE Work                             | 8 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 65 | Supervise PWHT Work                            | 8 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 66 | Supervise Painting Work                        | 15 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 67 | Supervise Hydrostatic Work                     | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 68 | Supervise Tank Calibration Work                | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 69 | Supervise Civil Work                           | 181 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 70 | Supervise Drainage System Work                 | 31 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 71 | Supervise Concrete Pavement Work               | 28 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 72 | Supervise Pipe Support Work                    | 61 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 73 | Supervise Pipe Crossing Walkway Work           | 30 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 74 | Supervise Spillwall / Bundwall work            | 62 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 75 | Supervise Mechanical Work                      | 212 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 76 | Inspect Piping Materials                       | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 77 | Supervise Spool Piece Work                     | 122 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 78 | Supervise Pipeline Installation                | 164 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 79 | Supervise Pipeline Erection                    | 123 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 80 | Supervise NDE Work                             | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 81 | Supervise Hydrostatic Test & Flushing          | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 82 | Supervise Pipeline Painting                    | 14 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 83 | Supervise Pipe tie-in                          | 3 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 84 | Supervise Pipeline Pre-commissioning           | 14 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 85 | Supervise Electrical / Instrument work         | 151 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 86 | Inspect Electrical & Instrument Equipment      | 7 days   |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 87 | Supervise Electrical & Instrument Installation | 105 days |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 88 | Supervise Trench Work                          | 60 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 89 | Supervise Conduit & Support Work               | 30 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 90 | Supervise Cable Laying & Wiring                | 45 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 91 | Supervise Tank Grounding system                | 60 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |
| 92 | Supervise Instrument Installation              | 30 days  |              |     |      |      |               |     |      |      |            |     |      |      |            |      |     |      |          |      |     |      |           |      |     |     |           |      |      |     |             |      |      |     |      |


Project: BRP

Task Milestone Rolled Up Task Rolled Up Progress External Tasks


Progress Summary Rolled Up Milestone Split Project Summary



| ID  | Task Name   | Duration | January 1997 |     |      |      |      | February 1997 |      |      |      |     | March 1997 |      |      |      |     | April 1997 |      |      |     |      | May 1997 |      |     |     |      | June 1997 |      |     |      |      | July 1997 |     |      |      |  | August 1997 |  |  |  |
|-----|---|----------|--------------|-----|------|------|------|---------------|------|------|------|-----|------------|------|------|------|-----|------------|------|------|-----|------|----------|------|-----|-----|------|-----------|------|-----|------|------|-----------|-----|------|------|--|-------------|--|--|--|
|     |   |          | 30/12        | 6/1 | 13/1 | 20/1 | 27/1 | 3/2           | 10/2 | 17/2 | 24/2 | 3/3 | 10/3       | 17/3 | 24/3 | 31/3 | 7/4 | 14/4       | 21/4 | 28/4 | 5/5 | 12/5 | 19/5     | 26/5 | 2/6 | 9/6 | 16/6 | 23/6      | 30/6 | 7/7 | 14/7 | 21/7 | 28/7      | 4/8 | 11/8 | 18/8 |  |             |  |  |  |
| 93  | Supervise control Panel Modification                | 30 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 94  | Supervise Electrical & Instrument Pre-commissioning | 8 days   |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 95  | Supervise Final Commissioning work                  | 47 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 96  | Supervise Hand-over Work                            | 61 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 97  | Supervise One Month of Operation                    | 30 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 98  | Supervise Site Cleaning & Demolishing Work          | 16 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 99  | Issue the Initial Acceptance Certificate            | 2 days   |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |
| 100 | Approve As-built Documents                          | 15 days  |              |     |      |      |      |               |      |      |      |     |            |      |      |      |     |            |      |      |     |      |          |      |     |     |      |           |      |     |      |      |           |     |      |      |  |             |  |  |  |

Project BRP

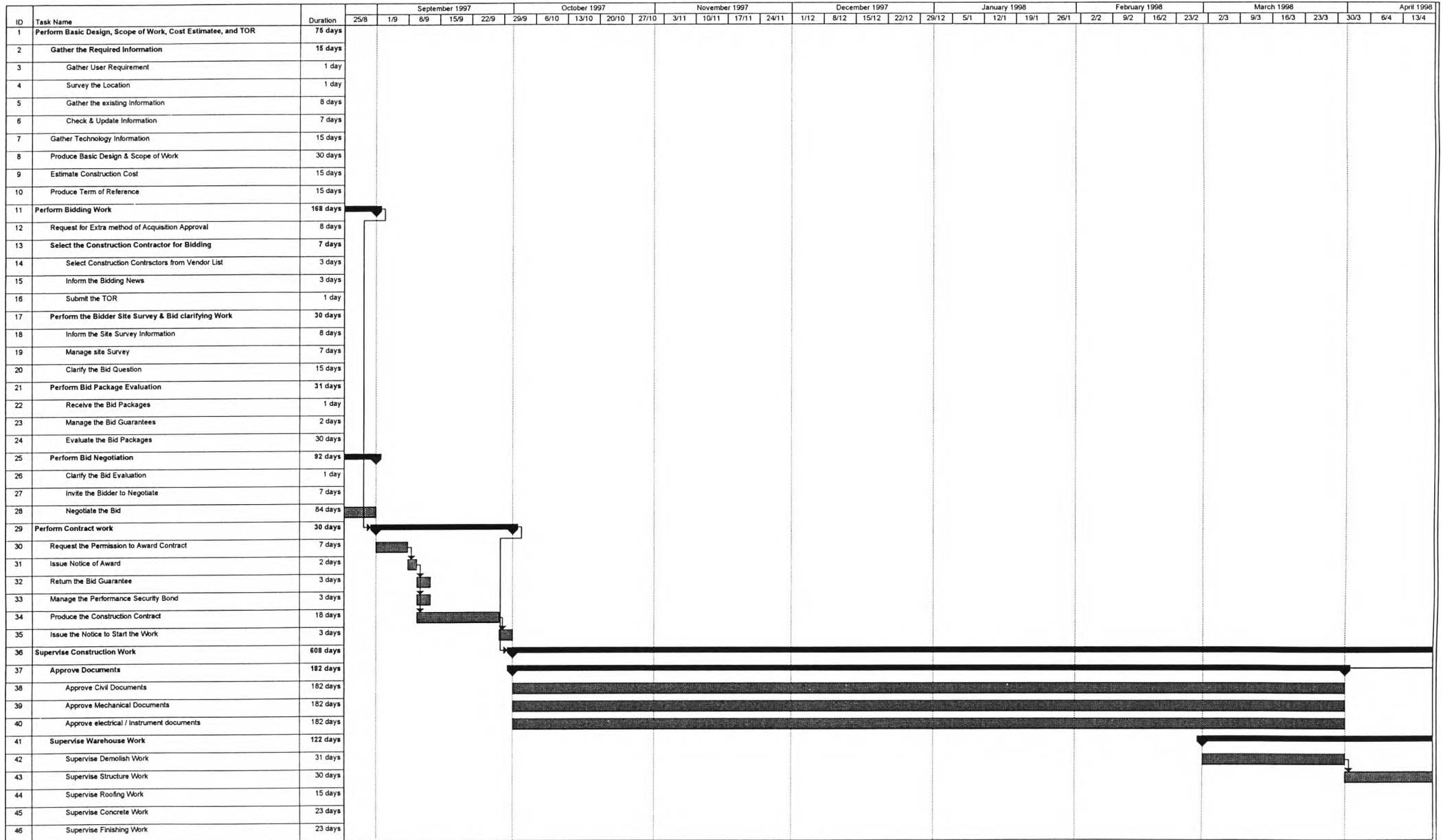
Task  Milestone 

Progress  Summary 

Rolled Up Task  Rolled Up Progress  External Tasks 

Rolled Up Milestone  Split  Project Summary 



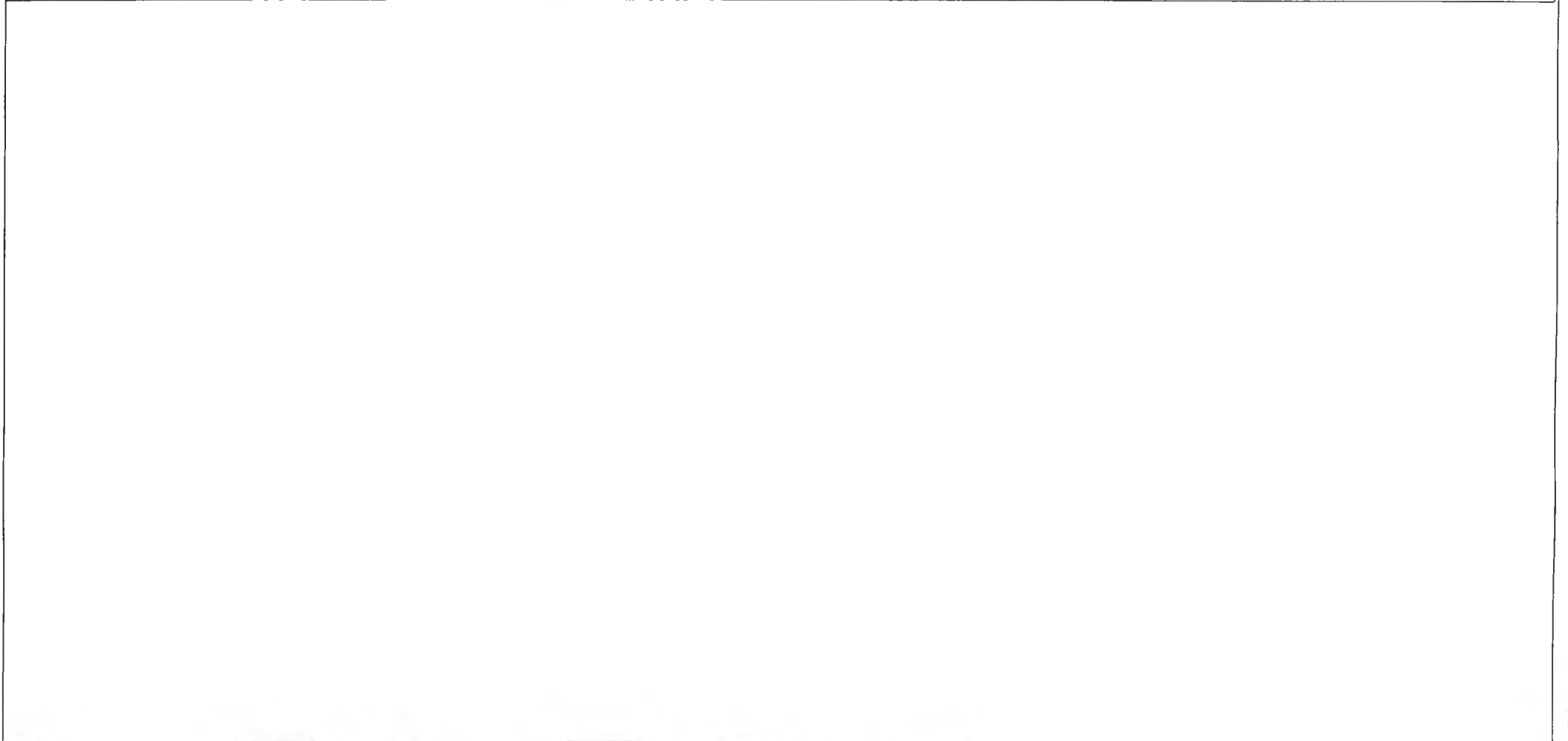


Project: BRP

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

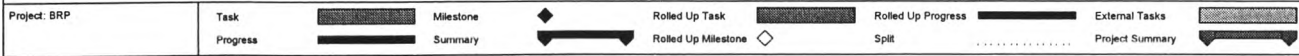
| ID | Task Name                                      | Duration | September 1997 |     |     |      | October 1997 |      |      |       | November 1997 |       |      |       | December 1997 |       |      |      | January 1998 |       |       |     | February 1998 |      |      |     | March 1998 |      |      |     | April 1998 |      |      |      |     |      |
|----|--|----------|----------------|-----|-----|------|--------------|------|------|-------|---------------|-------|------|-------|---------------|-------|------|------|--------------|-------|-------|-----|---------------|------|------|-----|------------|------|------|-----|------------|------|------|------|-----|------|
|    |  |          | 25/8           | 1/9 | 8/9 | 15/9 | 22/9         | 29/9 | 6/10 | 13/10 | 20/10         | 27/10 | 3/11 | 10/11 | 17/11         | 24/11 | 1/12 | 8/12 | 15/12        | 22/12 | 29/12 | 5/1 | 12/1          | 19/1 | 26/1 | 2/2 | 9/2        | 16/2 | 23/2 | 2/3 | 9/3        | 16/3 | 23/3 | 30/3 | 6/4 | 13/4 |
| 47 | Supervise Painting Work                        | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 48 | Supervise Main Construction work               | 288 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 49 | Supervise Tank Work                            | 288 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 50 | Supervise Pre-erection Work                    | 184 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 51 | Inspect Steel Plates                           | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 52 | Inspect Materials                              | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 53 | Supervision Pre-fabrication Work               | 177 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 54 | Supervise Firewall Installation                | 31 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 55 | Inspect Firewall Material & Equipment          | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 56 | Supervise Firewall Erection                    | 21 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 57 | Supervise Firewall Equipment Installation      | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 58 | Supervise Tank Erection Work                   | 120 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 59 | Supervise Column & Bracing Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 60 | Supervise Shell Plate Installation & Welding   | 90 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 61 | Supervise Spray Water Ring Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 62 | Supervise Tank Accessories Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 63 | Supervise Post-erection Work                   | 48 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 64 | Supervise NDE Work                             | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 65 | Supervise PWHT Work                            | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 66 | Supervise Painting Work                        | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 67 | Supervise Hydrostatic Work                     | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 68 | Supervise Tank Calibration Work                | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 69 | Supervise Civil Work                           | 181 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 70 | Supervise Drainage System Work                 | 31 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 71 | Supervise Concrete Pavement Work               | 28 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 72 | Supervise Pipe Support Work                    | 61 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 73 | Supervise Pipe Crossing Walkway Work           | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 74 | Supervise Spillway / Bundwall work             | 62 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 75 | Supervise Mechanical Work                      | 212 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 76 | Inspect Piping Materials                       | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 77 | Supervise Spool Piece Work                     | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 78 | Supervise Pipeline Installation                | 184 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 79 | Supervise Pipeline Erection                    | 123 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 80 | Supervise NDE Work                             | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 81 | Supervise Hydrostatic Test & Flushing          | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 82 | Supervise Pipeline Painting                    | 14 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 83 | Supervise Pipe tie-in                          | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 84 | Supervise Pipeline Pre-commissioning           | 14 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 85 | Supervise Electrical / Instrument work         | 151 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 86 | Inspect Electrical & Instrument Equipment      | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 87 | Supervise Electrical & Instrument Installation | 106 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 88 | Supervise Trench Work                          | 60 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 89 | Supervise Conduit & Support Work               | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 90 | supervise Cable Laying & Wiring                | 45 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 91 | Supervise Tank Grounding system                | 60 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 92 | Supervise Instrument Installation              | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |

| ID  | Task Name   | Duration | September 1997 |     |      |      |      | October 1997 |       |       |       |      | November 1997 |       |       |      | December 1997 |       |       |       | January 1998 |      |      |      | February 1998 |     |      |      | March 1998 |     |      |      | April 1998 |     |      |  |
|-----|---|----------|----------------|-----|------|------|------|--------------|-------|-------|-------|------|---------------|-------|-------|------|---------------|-------|-------|-------|--------------|------|------|------|---------------|-----|------|------|------------|-----|------|------|------------|-----|------|--|
|     |   |          | 1/9            | 8/9 | 15/9 | 22/9 | 29/9 | 6/10         | 13/10 | 20/10 | 27/10 | 3/11 | 10/11         | 17/11 | 24/11 | 1/12 | 8/12          | 15/12 | 22/12 | 29/12 | 5/1          | 12/1 | 19/1 | 26/1 | 2/2           | 9/2 | 16/2 | 23/2 | 2/3        | 9/3 | 16/3 | 23/3 | 30/3       | 6/4 | 13/4 |  |
| 93  | Supervise control Panel Modification                | 30 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 94  | Supervise Electrical & Instrument Pre-commissioning | 9 days   |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 95  | Supervise Final Commissioning work                  | 47 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 96  | Supervise Hand-over Work                            | 81 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 97  | Supervise One Month of Operation                    | 30 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 98  | Supervise Site Cleaning & Demolishing Work          | 16 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 99  | Issue the Initial Acceptance Certificate            | 2 days   |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |
| 100 | Approve As-built Documents                          | 15 days  |                |     |      |      |      |              |       |       |       |      |               |       |       |      |               |       |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |  |



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

| ID | Task Name   | Duration | May 1998 |      |     |      |      | June 1998 |     |     |      | July 1998 |      |     |      | August 1998 |      |     |      | September 1998 |      |      |     | October 1998 |      |      |      | November 1998 |       |       |      | Dec  |       |       |       |      |  |  |
|----|---|----------|----------|------|-----|------|------|-----------|-----|-----|------|-----------|------|-----|------|-------------|------|-----|------|----------------|------|------|-----|--------------|------|------|------|---------------|-------|-------|------|------|-------|-------|-------|------|--|--|
|    |   |          | 20/4     | 27/4 | 4/5 | 11/5 | 18/5 | 25/5      | 1/6 | 8/6 | 15/6 | 22/6      | 29/6 | 6/7 | 13/7 | 20/7        | 27/7 | 3/8 | 10/8 | 17/8           | 24/8 | 31/8 | 7/9 | 14/9         | 21/9 | 28/9 | 5/10 | 12/10         | 19/10 | 26/10 | 2/11 | 9/11 | 16/11 | 23/11 | 30/11 | 7/12 |  |  |
| 1  | Perform Basic Design, Scope of Work, Cost Estimate, and TOR | 75 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 2  | Gather the Required Information                             | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 3  | Gather User Requirement                                     | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 4  | Survey the Location   | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 5  | Gather the existing information                             | 8 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 6  | Check & Update Information                                  | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 7  | Gather Technology Information                               | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 8  | Produce Basic Design & Scope of Work                        | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 9  | Estimate Construction Cost                                  | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 10 | Produce Term of Reference                                   | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 11 | Perform Bidding Work  | 168 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 12 | Request for Extra method of Acquisition Approval            | 8 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 13 | Select the Construction Contractor for Bidding              | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 14 | Select Construction Contractors from Vendor List            | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 15 | Inform the Bidding News                                     | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 16 | Submit the TOR  | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 17 | Perform the Bidder Site Survey & Bid clarifying Work        | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 18 | Inform the Site Survey Information                          | 8 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 19 | Manage site Survey  | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 20 | Clarify the Bid Question                                    | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 21 | Perform Bid Package Evaluation                              | 31 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 22 | Receive the Bid Packages                                    | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 23 | Manage the Bid Guarantees                                   | 2 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 24 | Evaluate the Bid Packages                                   | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 25 | Perform Bid Negotiation                                     | 82 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 26 | Clarify the Bid Evaluation                                  | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 27 | Invite the Bidder to Negotiate                              | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 28 | Negotiate the Bid   | 84 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 29 | Perform Contract work                                       | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 30 | Request the Permission to Award Contract                    | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 31 | Issue Notice of Award                                       | 2 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 32 | Return the Bid Guarantee                                    | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 33 | Manage the Performance Security Bond                        | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 34 | Produce the Construction Contract                           | 18 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 35 | Issue the Notice to Start the Work                          | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 36 | Supervise Construction Work                                 | 608 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 37 | Approve Documents   | 182 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 38 | Approve Civil Documents                                     | 182 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 39 | Approve Mechanical Documents                                | 182 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 40 | Approve electrical / Instrument documents                   | 182 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 41 | Supervise Warehouse Work                                    | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 42 | Supervise Demolish Work                                     | 31 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 43 | Supervise Structure Work                                    | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 44 | Supervise Roofing Work                                      | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 45 | Supervise Concrete Work                                     | 23 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |
| 46 | Supervise Finishing Work                                    | 23 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |      |       |       |       |      |  |  |





| ID  | Task Name   | Duration | May 1998 |      |     |      |      | June 1998 |     |     |      |      | July 1998 |     |      |      |      | August 1998 |      |      |      |      | September 1998 |      |      |      |      | October 1998 |       |       |      |      | November 1998 |       |       |      |  | Dec |
|-----|---|----------|----------|------|-----|------|------|-----------|-----|-----|------|------|-----------|-----|------|------|------|-------------|------|------|------|------|----------------|------|------|------|------|--------------|-------|-------|------|------|---------------|-------|-------|------|--|-----|
|     |   |          | 20/4     | 27/4 | 4/5 | 11/5 | 18/5 | 25/5      | 1/6 | 8/6 | 15/6 | 22/6 | 29/6      | 6/7 | 13/7 | 20/7 | 27/7 | 3/8         | 10/8 | 17/8 | 24/8 | 31/8 | 7/9            | 14/9 | 21/9 | 28/9 | 5/10 | 12/10        | 19/10 | 26/10 | 2/11 | 9/11 | 16/11         | 23/11 | 30/11 | 7/12 |  |     |
| 93  | Supervise control Panel Modification                | 30 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 94  | Supervise Electrical & Instrument Pre-commissioning | 9 days   |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 95  | Supervise Final Commissioning work                  | 47 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 96  | Supervise Hand-over Work                            | 61 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 97  | Supervise One Month of Operation                    | 30 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 98  | Supervise Site Cleaning & Demolishing Work          | 16 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 99  | Issue the Initial Acceptance Certificate            | 2 days   |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |
| 100 | Approve As-built Documents                          | 15 days  |          |      |     |      |      |           |     |     |      |      |           |     |      |      |      |             |      |      |      |      |                |      |      |      |      |              |       |       |      |      |               |       |       |      |  |     |



| ID | Task Name   | Duration | December 1998 |       |       | January 1999 |      |      |      | February 1999 |     |      |      | March 1999 |     |      |      | April 1999 |     |      |      | May 1999 |     |      |      | June 1999 |      |     |      | July 1999 |      |     |      |      |      |     |  |  |
|----|---|----------|---------------|-------|-------|--------------|------|------|------|---------------|-----|------|------|------------|-----|------|------|------------|-----|------|------|----------|-----|------|------|-----------|------|-----|------|-----------|------|-----|------|------|------|-----|--|--|
|    |   |          | 14/12         | 21/12 | 28/12 | 4/1          | 11/1 | 18/1 | 25/1 | 1/2           | 8/2 | 15/2 | 22/2 | 1/3        | 8/3 | 15/3 | 22/3 | 29/3       | 5/4 | 12/4 | 19/4 | 26/4     | 3/5 | 10/5 | 17/5 | 24/5      | 31/5 | 7/6 | 14/6 | 21/6      | 28/6 | 5/7 | 12/7 | 19/7 | 26/7 | 2/8 |  |  |
| 1  | Perform Basic Design, Scope of Work, Cost Estimate, and TOR | 78 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 2  | Gather the Required Information                             | 18 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 3  | Gather User Requirement                                     | 1 day    |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 4  | Survey the Location   | 1 day    |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 5  | Gather the existing Information                             | 8 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 6  | Check & Update Information                                  | 7 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 7  | Gather Technology Information                               | 15 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 8  | Produce Basic Design & Scope of Work                        | 30 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 9  | Estimate Construction Cost                                  | 15 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 10 | Produce Term of Reference                                   | 15 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 11 | Perform Bidding Work  | 168 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 12 | Request for Extra method of Acquisition Approval            | 8 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 13 | Select the Construction Contractor for Bidding              | 7 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 14 | Select Construction Contractors from Vendor List            | 3 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 15 | Inform the Bidding News                                     | 3 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 16 | Submit the TOR  | 1 day    |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 17 | Perform the Bidder Site Survey & Bid clarifying Work        | 30 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 18 | Inform the Site Survey Information                          | 8 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 19 | Manage site Survey  | 7 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 20 | Clarify the Bid Question                                    | 15 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 21 | Perform Bid Package Evaluation                              | 31 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 22 | Receive the Bid Packages                                    | 1 day    |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 23 | Manage the Bid Guarantees                                   | 2 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 24 | Evaluate the Bid Packages                                   | 30 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 25 | Perform Bid Negotiation                                     | 82 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 26 | Clarify the Bid Evaluation                                  | 1 day    |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 27 | Invite the Bidder to Negotiate                              | 7 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 28 | Negotiate the Bid   | 84 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 29 | Perform Contract work                                       | 36 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 30 | Request the Permission to Award Contract                    | 7 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 31 | Issue Notice of Award                                       | 2 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 32 | Return the Bid Guarantee                                    | 3 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 33 | Manage the Performance Security Bond                        | 3 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 34 | Produce the Construction Contract                           | 18 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 35 | Issue the Notice to Start the Work                          | 3 days   |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 36 | Supervise Construction Work                                 | 608 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 37 | Approve Documents   | 182 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 38 | Approve Civil Documents                                     | 182 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 39 | Approve Mechanical Documents                                | 182 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 40 | Approve electrical / Instrument documents                   | 182 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 41 | Supervise Warehouse Work                                    | 122 days |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 42 | Supervise Demolish Work                                     | 31 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 43 | Supervise Structure Work                                    | 30 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 44 | Supervise Roofing Work                                      | 15 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 45 | Supervise Concrete Work                                     | 23 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |
| 46 | Supervise Finishing Work                                    | 23 days  |               |       |       |              |      |      |      |               |     |      |      |            |     |      |      |            |     |      |      |          |     |      |      |           |      |     |      |           |      |     |      |      |      |     |  |  |

Project: BRP

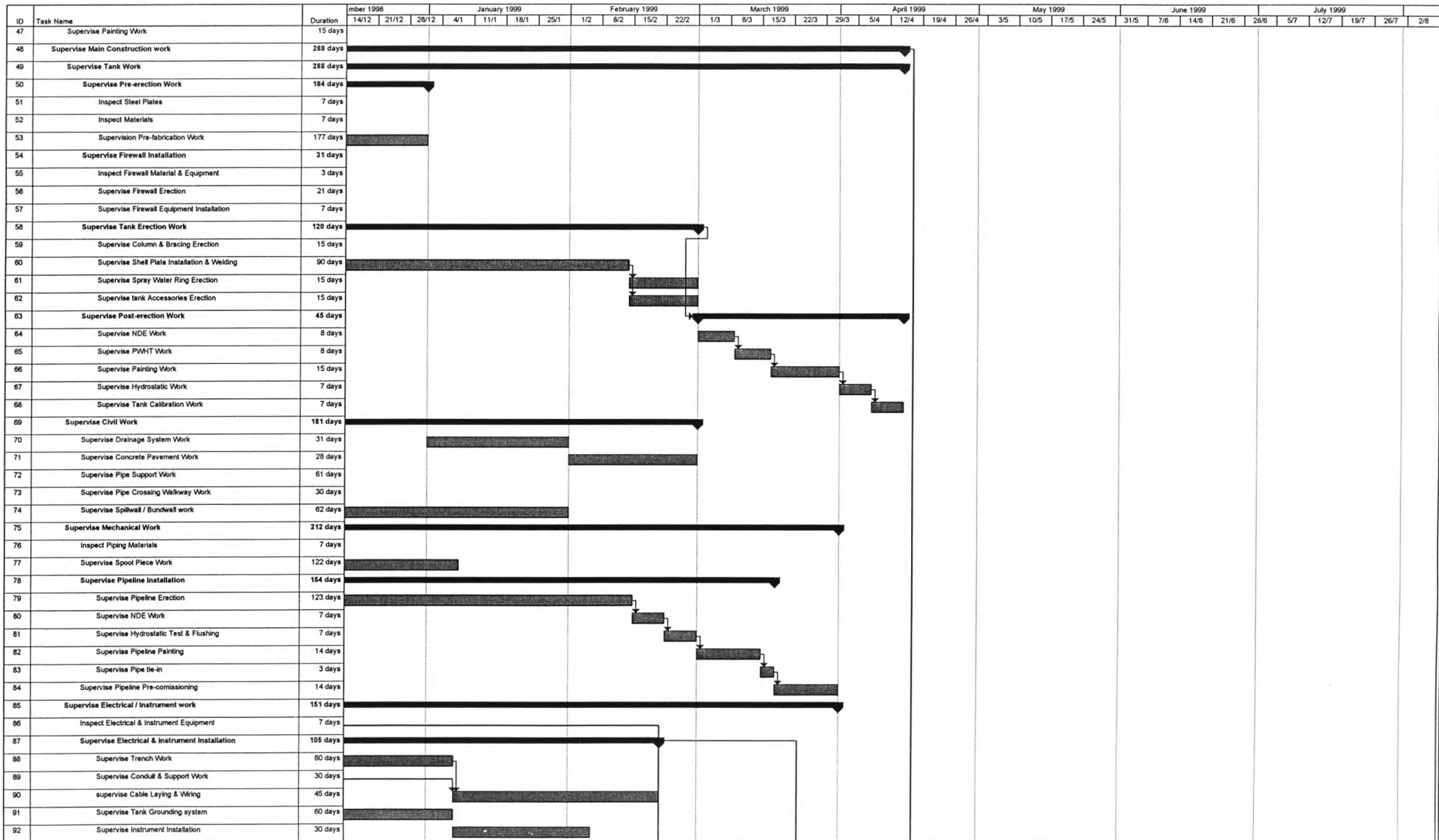
Task: [ ] Milestone: [ ]

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Project: BRP

Task Milestone 
 Rolled Up Task Rolled Up Progress External Tasks

Progress Summary 
 Rolled Up Milestone Split Project Summary





# **Appendix C**

## Cost Simulation

Appendix C-1: The Personnel Manpower Cost of The Personnel Who Work in This Project

| Personel Manpower Cost (Baht/month) |          |        |                |          |                     |
|-------------------------------------|----------|--------|----------------|----------|---------------------|
| Name                                | Level    | Salary | Fringe Benefit | Training | Total Manpower Cost |
| K.P.                                | 12       | 80,860 | 5,000          | 500      | 86,360              |
| N.W.                                | 11       | 66,100 | 5,000          | 500      | 71,600              |
| K.W.                                | 11       | 66,100 | 5,000          | 500      | 71,600              |
| D.K.                                | 9        | 45,860 | 5,000          | 500      | 51,360              |
| P.R.                                | 9        | 45,860 | 5,000          | 500      | 51,360              |
| K.D.                                | 8        | 39,480 | 5,000          | 500      | 44,980              |
| I.N.                                | 8        | 39,480 | 5,000          | 500      | 44,980              |
| P.S.                                | 7        | 31,530 | 5,000          | 500      | 37,030              |
| K.T.                                | 7        | 31,530 | 5,000          | 500      | 37,030              |
| W.S                                 | 5        | 21,680 | 5,000          | 500      | 27,180              |
| J.B.                                | 5        | 21,680 | 5,000          | 500      | 27,180              |
| N.S.                                | Contract | 10,000 |                |          | 10,000              |
| R.K.                                | Contract | 10,000 |                |          | 10,000              |
| N.I.                                | Contract | 10,000 |                |          | 10,000              |

Appendix C-2: The Manpower Cost and Percentage of Time Allocation of This Project of Each Personnel in Each Functional Element

| Personel<br>Name | Manpower Cost<br>(Baht/Month) | Time Allocation (%) |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
|------------------|-------------------------------|---------------------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|
|                  |                               | P.D.                | P.M. | P.C. | B.A. | T.B. | C.M. | EM | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T. | L.G. | A.M. |
| K.P.             | 86,360                        | 27                  |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| N.W.             | 71,600                        |                     | 27   |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| K.W.             | 71,600                        |                     |      |      |      |      |      | 27 |      |      |      |      |      |      |      |      |      |
| D.K.             | 51,360                        |                     |      | 9    |      | 27   |      |    |      |      |      |      |      |      |      |      |      |
| P.R.             | 51,360                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      | 9    |      |
| K.D.             | 44,980                        |                     |      |      |      |      |      |    | 100  |      |      | 9    |      |      |      |      |      |
| I.N.             | 44,980                        |                     |      |      |      |      |      |    |      |      |      |      |      | 9    |      |      |      |
| P.S.             | 37,030                        |                     |      | 9    |      | 9    |      |    |      |      |      | 9    |      |      |      |      |      |
| K.T.             | 37,030                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 18   |
| W.S              | 27,180                        |                     |      |      | 9    |      | 9    |    |      | 100  |      |      |      |      |      |      |      |
| J.B.             | 27,180                        |                     |      | 9    |      | 18   |      |    |      |      | 100  |      | 9    |      |      |      |      |
| N.S.             | 10,000                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| R.K.             | 10,000                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |
| N.I.             | 10,000                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |

Appendix C-3: The ManPower Cost of All Element in This Project

| Personel<br>Name | Manpower Cost<br>(Baht/Month) | Cost distribute to functional element (Baht/month) |        |        |       |        |       |        |        |        |        |       |       |       |       |       |        |
|------------------|-------------------------------|--|--------|--------|-------|--------|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|--------|
|                  |                               | P.D.   | P.M.   | P.C.   | B.A.  | T.B.   | C.M.  | E.M.   | C.C.   | M.C.   | E.C.   | C.E.  | M.E.  | E.E.  | S.T.  | L.G.  | A.M.   |
| K.P.             | 86,360                        | 23,317   | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| N.W.             | 71,600                        | 0  | 19,332 | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| K.W.             | 71,600                        | 0  | 0      | 0      | 0     | 0      | 0     | 19,332 | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| D.K.             | 51,360                        | 0  | 0      | 4,622  | 0     | 13,867 | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| P.R.             | 51,360                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 4,622 | 0      |
| K.D.             | 44,980                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 44,980 | 0      | 0      | 4,048 | 0     | 0     | 0     | 0     | 0      |
| I.N.             | 44,980                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 4,048 | 0     | 0      |
| P.S.             | 37,030                        | 0  | 0      | 3,333  | 0     | 3,333  | 0     | 0      | 0      | 0      | 0      | 0     | 3,333 | 0     | 0     | 0     | 0      |
| K.T.             | 37,030                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 6,665  |
| W.S              | 27,180                        | 0  | 0      | 0      | 2,446 | 0      | 2,446 | 0      | 0      | 27,180 | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| J.B.             | 27,180                        | 0  | 0      | 2,446  | 0     | 4,892  | 0     | 0      | 0      | 0      | 27,180 | 0     | 0     | 2,446 | 0     | 0     | 0      |
| N.S.             | 10,000                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0      |
| R.K.             | 10,000                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 2,700  |
| N.I.             | 10,000                        | 0  | 0      | 0      | 0     | 0      | 0     | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 2,700  |
| Total            |                               | 23,317   | 19,332 | 10,401 | 2,446 | 22,092 | 2,446 | 19,332 | 44,980 | 27,180 | 27,180 | 4,048 | 3,333 | 2,446 | 4,048 | 4,622 | 12,065 |

Appendix C-4: Total Working Time of Each Functional Element

| Functional Element                         | Working Time (Month) |
|--|----------------------|
| Project Director (PD)                      | 23.00                |
| Project Management (PM)                    | 23.00                |
| Planning & Control (PC)                    | 2.00                 |
| Budget & Accounting (BA)                   | 0.50                 |
| TOR & Bidding (TB)                         | 6.00                 |
| Contract Management (CM)                   | 1.00                 |
| Engineering & Construction Management (EM) | 23.00                |
| Civil Construction (CC)                    | 10.00                |
| Mechanical Construction (MC)               | 9.75                 |
| Electrical & Instrument Construction (EC)  | 6.25                 |
| Civil Engineering (CE)                     | 4.50                 |
| Mechanical Engineering (ME)                | 4.50                 |
| Electrical Engineering (EE)                | 4.50                 |
| Safety (ST)                                | 14.50                |
| Legal (LG)                                 | 7.00                 |
| Administration (AM)                        | 23.00                |

Appendix C-5: The Percentage of Supplies Usage and total Supplies Cost Each Functional Element

| Functional Element                         | Supplies Cost<br>(Baht) | Usage<br>(%) | Total Cost<br>(Baht) |
|--|-------------------------|--------------|----------------------|
| Project Director (PD)                      | 62,100                  | 2            | 1,242                |
| Project Management (PM)                    | 62,100                  | 2            | 1,242                |
| Planning & Control (PC)                    | 62,100                  | 4            | 2,484                |
| Budget & Accounting (BA)                   | 62,100                  | 2            | 1,242                |
| TOR & Bidding (TB)                         | 62,100                  | 8            | 4,968                |
| Contract Management (CM)                   | 62,100                  | 4            | 2,484                |
| Engineering & Construction Management (EM) | 62,100                  | 2            | 1,242                |
| Civil Construction (CC)                    | 62,100                  | 2            | 1,242                |
| Mechanical Construction (MC)               | 62,100                  | 2            | 1,242                |
| Electrical & Instrument Construction (EC)  | 62,100                  | 2            | 1,242                |
| Civil Engineering (CE)                     | 62,100                  | 12           | 7,452                |
| Mechanical Engineering (ME)                | 62,100                  | 12           | 7,452                |
| Electrical Engineering (EE)                | 62,100                  | 12           | 7,452                |
| Safety (ST)                                | 62,100                  | 2            | 1,242                |
| Legal (LG)                                 | 62,100                  | 2            | 1,242                |
| Administration (AM)                        | 62,100                  | 30           | 18,630               |
| Total                                      |                         | 100          | 62,100               |

Appendix C-6: Total Car Rental Cost of Each Functional Element

| Functional Element                         | Car Cost<br>(Baht/month) | Usage Time<br>(%) | Working Time<br>(Month) | Total Cost<br>(Baht) |
|--|--------------------------|-------------------|-------------------------|----------------------|
| Project Director (PD)                      | 30,000                   | 30                | 23                      | 207,000              |
| Project Management (PM)                    | 30,000                   | 30                | 23                      | 207,000              |
| Planning & Control (PC)                    | 30,000                   |                   |                         | 0                    |
| Budget & Accounting (BA)                   | 30,000                   |                   |                         | 0                    |
| TOR & Bidding (TB)                         | 30,000                   | 10                | 6                       | 18,000               |
| Contract Management (CM)                   | 30,000                   |                   |                         | 0                    |
| Engineering & Construction Management (EM) | 30,000                   | 30                | 23                      | 207,000              |
| Civil Construction (CC)                    | 30,000                   | 100               | 7.9                     | 237,000              |
| Mechanical Construction (MC)               | 30,000                   | 100               | 3.8                     | 114,000              |
| Electrical & Instrument Construction (EC)  | 30,000                   | 100               | 2.1                     | 63,000               |
| Civil Engineering (CE)                     | 30,000                   |                   |                         | 0                    |
| Mechanical Engineering (ME)                | 30,000                   |                   |                         | 0                    |
| Electrical Engineering (EE)                | 30,000                   |                   |                         | 0                    |
| Safety (ST)                                | 30,000                   |                   |                         | 0                    |
| Legal (LG)                                 | 30,000                   |                   |                         | 0                    |
| Administration (AM)                        | 30,000                   |                   |                         | 0                    |



Appendix C-7: Total Rental Cost of Computer &amp; Accessories of Each Functional Element

| Functional Element                         | Comp. Cost<br>(Baht/month) | No. of<br>computer | Usage<br>Time (%) | Working Time<br>(Month) | Total Cost<br>(Baht) |
|--|----------------------------|--------------------|-------------------|-------------------------|----------------------|
| Project Director (PD)                      | 1,650                      | 1                  | 30                | 23.00                   | 11,385               |
| Project Management (PM)                    | 1,650                      | 1                  | 30                | 23.00                   | 11,385               |
| Planning & Control (PC)                    | 1,650                      | 2                  | 30                | 2.00                    | 1,980                |
| Budget & Accounting (BA)                   | 1,650                      | 1                  | 30                | 0.50                    | 248                  |
| TOR & Bidding (TB)                         | 1,650                      | 2                  | 30                | 6.00                    | 5,940                |
| Contract Management (CM)                   | 1,650                      | 1                  | 30                | 1.00                    | 495                  |
| Engineering & Construction Management (EM) | 1,650                      | 1                  | 30                | 23.00                   | 11,385               |
| Civil Construction (CC)                    | 1,650                      |                    |                   | 10.00                   | 0                    |
| Mechanical Construction (MC)               | 1,650                      |                    |                   | 9.75                    | 0                    |
| Electrical & Instrument Construction (EC)  | 1,650                      |                    |                   | 6.25                    | 0                    |
| Civil Engineering (CE)                     | 1,650                      |                    |                   | 4.50                    | 0                    |
| Mechanical Engineering (ME)                | 1,650                      |                    |                   | 4.50                    | 0                    |
| Electrical Engineering (EE)                | 1,650                      |                    |                   | 4.50                    | 0                    |
| Safety (ST)                                | 1,650                      |                    |                   | 14.50                   | 0                    |
| Legal (LG)                                 | 1,650                      |                    |                   | 7.00                    | 0                    |
| Administration (AM)                        | 1,650                      | 2                  | 30                | 23.00                   | 22,770               |

Appendix C-8: Total Rental Cost of Mobile Phone of Each Functional Element

| Functional Element                         | Mobile P. Cost<br>(Baht/month) | Usage<br>Time (%) | Working Time<br>(Month) | Total Cost<br>(Baht) |
|--|--------------------------------|-------------------|-------------------------|----------------------|
| Project Director (PD)                      | 2,500                          | 30                | 23.00                   | 17,250               |
| Project Management (PM)                    | 2,500                          | 30                | 23.00                   | 17,250               |
| Planning & Control (PC)                    | 2,500                          | 10                | 2.00                    | 500                  |
| Budget & Accounting (BA)                   | 2,500                          |                   | 0.50                    | 0                    |
| TOR & Bidding (TB)                         | 2,500                          | 30                | 6.00                    | 4,500                |
| Contract Management (CM)                   | 2,500                          |                   | 1.00                    | 0                    |
| Engineering & Construction Management (EM) | 2,500                          | 30                | 23.00                   | 17,250               |
| Civil Construction (CC)                    | 2,500                          |                   | 10.00                   | 0                    |
| Mechanical Construction (MC)               | 2,500                          |                   | 9.75                    | 0                    |
| Electrical & Instrument Construction (EC)  | 2,500                          |                   | 6.25                    | 0                    |
| Civil Engineering (CE)                     | 2,500                          |                   | 4.50                    | 0                    |
| Mechanical Engineering (ME)                | 2,500                          | 5                 | 4.50                    | 563                  |
| Electrical Engineering (EE)                | 2,500                          |                   | 4.50                    | 0                    |
| Safety (ST)                                | 2,500                          |                   | 14.50                   | 0                    |
| Legal (LG)                                 | 2,500                          |                   | 7.00                    | 0                    |
| Administration (AM)                        | 2,500                          |                   | 23.00                   | 0                    |

Appendix C-9: The Total Rental Cost of Copy Machine of Each Functional Element

| Functional Element                         | Copy M. Cost<br>(Baht) | Usage<br>(%) | Total Cost<br>(Baht) |
|--|------------------------|--------------|----------------------|
| Project Director (PD)                      | 27,945                 | 2            | 559                  |
| Project Management (PM)                    | 27,945                 | 2            | 559                  |
| Planning & Control (PC)                    | 27,945                 | 5            | 1,397                |
| Budget & Accounting (BA)                   | 27,945                 | 3            | 838                  |
| TOR & Bidding (TB)                         | 27,945                 | 9            | 2,515                |
| Contract Management (CM)                   | 27,945                 | 5            | 1,397                |
| Engineering & Construction Management (EM) | 27,945                 | 2            | 559                  |
| Civil Construction (CC)                    | 27,945                 | 0            | 0                    |
| Mechanical Construction (MC)               | 27,945                 | 0            | 0                    |
| Electrical & Instrument Construction (EC)  | 27,945                 | 0            | 0                    |
| Civil Engineering (CE)                     | 27,945                 | 12           | 3,353                |
| Mechanical Engineering (ME)                | 27,945                 | 12           | 3,353                |
| Electrical Engineering (EE)                | 27,945                 | 12           | 3,353                |
| Safety (ST)                                | 27,945                 | 3            | 838                  |
| Legal (LG)                                 | 27,945                 | 3            | 838                  |
| Administration (AM)                        | 27,945                 | 30           | 8,384                |

Appendix C-10: The Pager Cost and Percentage of Time Allocation of This Project of Each Personnel in Each Functional Element

| Personel Name | Pager Cost (Baht/Month) | Time Allocation (%) |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
|---------------|-------------------------|---------------------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|
|               |                         | P.D.                | P.M. | P.C. | B.A. | T.B. | C.M. | EM | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T. | L.G. | A.M. |
| K.P.          | 436                     | 27                  |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| N.W.          | 436                     |                     | 27   |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| K.W.          | 436                     |                     |      |      |      |      |      | 27 |      |      |      |      |      |      |      |      |      |
| D.K.          | 436                     |                     |      | 9    |      | 27   |      |    |      |      |      |      |      |      |      |      |      |
| P.R.          | 436                     |                     |      |      |      |      |      |    |      |      |      |      |      |      |      | 9    |      |
| K.D.          | 436                     |                     |      |      |      |      |      |    | 100  |      |      | 9    |      |      |      |      |      |
| I.N.          | 436                     |                     |      |      |      |      |      |    |      |      |      |      |      | 9    |      |      |      |
| P.S.          | 436                     |                     |      | 9    |      | 9    |      |    |      |      |      | 9    |      |      |      |      |      |
| K.T.          | 0                       |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 18   |
| W.S           | 436                     |                     |      |      | 9    |      | 9    |    |      | 100  |      |      |      |      |      |      |      |
| J.B.          | 436                     |                     |      | 9    |      | 18   |      |    |      |      | 100  |      |      | 9    |      |      |      |
| N.S.          | 436                     |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| R.K.          | 0                       |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |
| N.I.          | 0                       |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |

Appendix C-11: The Pager Cost of All Element in This Project

| Personel<br>Name        | Pager Cost<br>(Baht/Month) | Cost distribute to functional element (Baht/month) |       |      |      |       |      |       |       |       |       |      |      |      |      |      |      |
|-------------------------|----------------------------|--|-------|------|------|-------|------|-------|-------|-------|-------|------|------|------|------|------|------|
|                         |                            | P.D.   | P.M.  | P.C. | B.A. | T.B.  | C.M. | E.C.  | C.C.  | M.C.  | E.C.  | C.E. | M.E. | E.E. | S.T. | L.G. | A.M. |
| K.P.                    | 436                        | 118  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| N.W.                    | 436                        | 0  | 118   | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| K.W.                    | 436                        | 0  | 0     | 0    | 0    | 0     | 0    | 118   | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| D.K.                    | 436                        | 0  | 0     | 39   | 0    | 118   | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| P.R.                    | 436                        | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 39   | 0    |
| K.D.                    | 436                        | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 436   | 0     | 0     | 39   | 0    | 0    | 0    | 0    | 0    |
| I.N.                    | 436                        | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 39   | 0    | 0    |
| P.S.                    | 436                        | 0  | 0     | 39   | 0    | 39    | 0    | 0     | 0     | 0     | 0     | 0    | 39   | 0    | 0    | 0    | 0    |
| K.T.                    | 0                          | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| W.S                     | 436                        | 0  | 0     | 0    | 39   | 0     | 39   | 0     | 0     | 436   | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| J.B.                    | 436                        | 0  | 0     | 39   | 0    | 78    | 0    | 0     | 0     | 0     | 436   | 0    | 0    | 39   | 0    | 0    | 0    |
| N.S.                    | 436                        | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| R.K.                    | 0                          | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| N.I.                    | 0                          | 0  | 0     | 0    | 0    | 0     | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Total Cost (Baht/month) |                            | 118  | 118   | 118  | 39   | 235   | 39   | 118   | 436   | 436   | 436   | 39   | 39   | 39   | 39   | 39   | 0    |
| Time (Months)           |                            | 23   | 23    | 2    | 0.5  | 6     | 1    | 23    | 10    | 9.75  | 6.25  | 4.5  | 4.5  | 4.5  | 14.5 | 7    | 13   |
| Total Cost (Baht)       |                            | 2,708  | 2,708 | 235  | 20   | 1,413 | 39   | 2,708 | 4,360 | 4,251 | 2,725 | 177  | 177  | 177  | 569  | 275  | 0    |

Appendix C-12: The Facilities Cost and Percentage of Time Allocation of This Project of Each Personnel in Each Functional Element

| Personel<br>Name | Pager Cost<br>(Baht/Month) | Time Allocation (%) |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
|------------------|----------------------------|---------------------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|
|                  |                            | P.D.                | P.M. | P.C. | B.A. | T.B. | C.M. | EM | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T. | L.G. | A.M. |
| K.P.             | 1,171                      | 27                  |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| N.W.             | 1,171                      |                     | 27   |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| K.W.             | 1,171                      |                     |      |      |      |      |      | 27 |      |      |      |      |      |      |      |      |      |
| D.K.             | 1,171                      |                     |      | 9    |      | 27   |      |    |      |      |      |      |      |      |      |      |      |
| P.R.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      |      |      | 9    |      |
| K.D.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      | 9    |      |      |      |      |      |
| I.N.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      | 9    |      |      |      |
| P.S.             | 1,171                      |                     |      | 9    |      | 9    |      |    |      |      |      |      | 9    |      |      |      |      |
| K.T.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 18   |
| W.S              | 1,171                      |                     |      |      | 9    |      | 9    |    |      |      |      |      |      |      |      |      |      |
| J.B.             | 1,171                      |                     |      | 9    |      | 18   |      |    |      |      |      |      |      | 9    |      |      |      |
| N.S.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| R.K.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |
| N.I.             | 1,171                      |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |

Appendix C-13: The Total Facilities Cost of Each Functional Element

| Personel<br>Name        | Pager Cost<br>(Baht/Month) | Cost distribute to functional element |       |      |      |       |      |       |      |      |      |      |      |      |       |      |        |
|-------------------------|----------------------------|---------------------------------------|-------|------|------|-------|------|-------|------|------|------|------|------|------|-------|------|--------|
|                         |                            | P.D.                                  | P.M.  | P.C. | B.A. | T.B.  | C.M. | E.C.  | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T.  | L.G. | A.M.   |
| K.P.                    | 1,171                      | 316                                   | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| N.W.                    | 1,171                      | 0                                     | 316   | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| K.W.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 316   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| D.K.                    | 1,171                      | 0                                     | 0     | 105  | 0    | 316   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| P.R.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 105  | 0      |
| K.D.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 105  | 0    | 0    | 0     | 0    | 0      |
| I.N.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 105   | 0    | 0      |
| P.S.                    | 1,171                      | 0                                     | 0     | 105  | 0    | 105   | 0    | 0     | 0    | 0    | 0    | 0    | 105  | 0    | 0     | 0    | 0      |
| K.T.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 211    |
| W.S                     | 1,171                      | 0                                     | 0     | 0    | 105  | 0     | 105  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| J.B.                    | 1,171                      | 0                                     | 0     | 105  | 0    | 211   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 105  | 0     | 0    | 0      |
| N.S.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0      |
| R.K.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 316    |
| N.I.                    | 1,171                      | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 316    |
| Total Cost (Baht/month) |                            | 316                                   | 316   | 316  | 105  | 632   | 105  | 316   | 0    | 0    | 0    | 105  | 105  | 105  | 105   | 105  | 843    |
| Time (Months)           |                            | 23                                    | 23    | 2    | 0.5  | 6     | 1    | 23    | 10   | 9.75 | 6.25 | 4.5  | 4.5  | 4.5  | 14.5  | 7    | 13     |
| Total Cost (Baht)       |                            | 7,272                                 | 7,272 | 632  | 53   | 3,794 | 105  | 7,272 | 0    | 0    | 0    | 474  | 474  | 474  | 1,528 | 738  | 10,961 |

Appendix C-14: The Utilities Cost and Perce Appendix C-15: The Total Utilities Cost of Each Functional Element

| Personel<br>Name        | Pager Cost<br>(Baht/Month) | Cost distribute to functional element |       |      |      |       |      |       |      |      |      |      |      |      |       |      |       |
|-------------------------|----------------------------|---------------------------------------|-------|------|------|-------|------|-------|------|------|------|------|------|------|-------|------|-------|
|                         |                            | P.D.                                  | P.M.  | P.C. | B.A. | T.B.  | C.M. | E.C.  | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T.  | L.G. | A.M.  |
| K.P.                    | 831                        | 224                                   | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| N.W.                    | 831                        | 0                                     | 224   | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| K.W.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 224   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| D.K.                    | 831                        | 0                                     | 0     | 75   | 0    | 224   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| P.R.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 75   | 0     |
| K.D.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 75   | 0    | 0    | 0     | 0    | 0     |
| I.N.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 75   | 0     | 0    | 0     |
| P.S.                    | 831                        | 0                                     | 0     | 75   | 0    | 75    | 0    | 0     | 0    | 0    | 0    | 0    | 75   | 0    | 0     | 0    | 0     |
| K.T.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 150   |
| W.S                     | 831                        | 0                                     | 0     | 0    | 75   | 0     | 75   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| J.B.                    | 831                        | 0                                     | 0     | 75   | 0    | 150   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 75   | 0     | 0    | 0     |
| N.S.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| R.K.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 224   |
| N.I.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 224   |
| Total Cost (Baht/month) |                            | 224                                   | 224   | 224  | 75   | 449   | 75   | 224   | 0    | 0    | 0    | 75   | 75   | 75   | 75    | 75   | 598   |
| Time (Months)           |                            | 23                                    | 23    | 2    | 0.5  | 6     | 1    | 23    | 10   | 9.75 | 6.25 | 4.5  | 4.5  | 4.5  | 14.5  | 7    | 13    |
| Total Cost (Baht)       |                            | 5,161                                 | 5,161 | 449  | 37   | 2,692 | 75   | 5,161 | 0    | 0    | 0    | 337  | 337  | 337  | 1,084 | 524  | 7,778 |



Appendix C-15: The Total Utilities Cost of Each Functional Element

| Personel<br>Name        | Pager Cost<br>(Baht/Month) | Cost distribute to functional element |       |      |      |       |      |       |      |      |      |      |      |      |       |      |       |
|-------------------------|----------------------------|---------------------------------------|-------|------|------|-------|------|-------|------|------|------|------|------|------|-------|------|-------|
|                         |                            | P.D.                                  | P.M.  | P.C. | B.A. | T.B.  | C.M. | E.C.  | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T.  | L.G. | A.M.  |
| K.P.                    | 831                        | 224                                   | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| N.W.                    | 831                        | 0                                     | 224   | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| K.W.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 224   | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| D.K.                    | 831                        | 0                                     | 0     | 75   | 0    | 224   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| P.R.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 75   | 0     |
| K.D.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 75   | 0    | 0    | 0     | 0    | 0     |
| I.N.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 75    | 0    | 0     |
| P.S.                    | 831                        | 0                                     | 0     | 75   | 0    | 75    | 0    | 0     | 0    | 0    | 0    | 0    | 75   | 0    | 0     | 0    | 0     |
| K.T.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 150   |
| W.S                     | 831                        | 0                                     | 0     | 0    | 75   | 0     | 75   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| J.B.                    | 831                        | 0                                     | 0     | 75   | 0    | 150   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 75   | 0     | 0    | 0     |
| N.S.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0     |
| R.K.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 224   |
| N.I.                    | 831                        | 0                                     | 0     | 0    | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 224   |
| Total Cost (Baht/month) |                            | 224                                   | 224   | 224  | 75   | 449   | 75   | 224   | 0    | 0    | 0    | 75   | 75   | 75   | 75    | 75   | 598   |
| Time (Months)           |                            | 23                                    | 23    | 2    | 0.5  | 6     | 1    | 23    | 10   | 9.75 | 6.25 | 4.5  | 4.5  | 4.5  | 14.5  | 7    | 13    |
| Total Cost (Baht)       |                            | 5,161                                 | 5,161 | 449  | 37   | 2,692 | 75   | 5,161 | 0    | 0    | 0    | 337  | 337  | 337  | 1,084 | 524  | 7,778 |

Appendix C-16: The Security Cost and Percentage of Time Allocation of This Project of Each Personnel in Each Functional Element

| Personel<br>Name | Pager Cost<br>(Baht/Month) | Time Allocation (%) |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
|------------------|----------------------------|---------------------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|
|                  |                            | P.D.                | P.M. | P.C. | B.A. | T.B. | C.M. | EM | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T. | L.G. | A.M. |
| K.P.             | 234                        | 27                  |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| N.W.             | 234                        |                     | 27   |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| K.W.             | 234                        |                     |      |      |      |      |      | 27 |      |      |      |      |      |      |      |      |      |
| D.K.             | 234                        |                     |      | 9    |      | 27   |      |    |      |      |      |      |      |      |      |      |      |
| P.R.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      | 9    |      |
| K.D.             | 234                        |                     |      |      |      |      |      |    |      |      |      | 9    |      |      |      |      |      |
| I.N.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      | 9    |      |      |
| P.S.             | 234                        |                     |      | 9    |      | 9    |      |    |      |      |      |      | 9    |      |      |      |      |
| K.T.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 18   |
| W.S              | 234                        |                     |      |      | 9    |      | 9    |    |      |      |      |      |      |      |      |      |      |
| J.B.             | 234                        |                     |      | 9    |      | 18   |      |    |      |      |      |      |      | 9    |      |      |      |
| N.S.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |
| R.K.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |
| N.I.             | 234                        |                     |      |      |      |      |      |    |      |      |      |      |      |      |      |      | 27   |

Appendix C-17: The Total Security Cost of Each Functional Element

| Personel<br>Name        | Pager Cost<br>(Baht/Month) | Cost distribute to functional element |       |      |      |      |      |       |      |      |      |      |      |      |      |      |       |
|-------------------------|----------------------------|---------------------------------------|-------|------|------|------|------|-------|------|------|------|------|------|------|------|------|-------|
|                         |                            | P.D.                                  | P.M.  | P.C. | B.A. | T.B. | C.M. | E.C.  | C.C. | M.C. | E.C. | C.E. | M.E. | E.E. | S.T. | L.G. | A.M.  |
| K.P.                    | 234                        | 63                                    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| N.W.                    | 234                        | 0                                     | 63    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| K.W.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 63    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| D.K.                    | 234                        | 0                                     | 0     | 21   | 0    | 63   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| P.R.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 21   | 0     |
| K.D.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 21   | 0    | 0    | 0    | 0    | 0     |
| I.N.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 21   | 0    | 0     |
| P.S.                    | 234                        | 0                                     | 0     | 21   | 0    | 21   | 0    | 0     | 0    | 0    | 0    | 0    | 21   | 0    | 0    | 0    | 0     |
| K.T.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 42    |
| W.S                     | 234                        | 0                                     | 0     | 0    | 21   | 0    | 21   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| J.B.                    | 234                        | 0                                     | 0     | 21   | 0    | 42   | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 21   | 0    | 0    | 0     |
| N.S.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| R.K.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 63    |
| N.I.                    | 234                        | 0                                     | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 63    |
| Total Cost (Baht/month) |                            | 63                                    | 63    | 63   | 21   | 126  | 21   | 63    | 0    | 0    | 0    | 21   | 21   | 21   | 21   | 21   | 168   |
| Time (Months)           |                            | 23                                    | 23    | 2    | 0.5  | 6    | 1    | 23    | 10   | 9.75 | 6.25 | 4.5  | 4.5  | 4.5  | 14.5 | 7    | 13    |
| Total Cost (Baht)       |                            | 1,453                                 | 1,453 | 126  | 11   | 758  | 21   | 1,453 | 0    | 0    | 0    | 95   | 95   | 95   | 305  | 147  | 2,190 |

Appendix C-18: Total Cost of Each Functional Element of This Project

| Functional Element | Working Time (Month) | Manpower Cos (Baht/Month) | Total Manpower Cost (Baht) | Allowance (Baht/Month) | Allowance (Baht) | Supplies (Baht) | Rental Equipment (Baht) |          |          |       |         | Facilities (Baht) | Utilities (Baht) | Security (Baht) | Total Cost (Baht) |
|--------------------|----------------------|---------------------------|----------------------------|------------------------|------------------|-----------------|-------------------------|----------|----------|-------|---------|-------------------|------------------|-----------------|-------------------|
|                    |                      |                           |                            |                        |                  |                 | Car                     | Computer | M. Phone | Pager | Copy M. |                   |                  |                 |                   |
| PD                 | 23.00                | 23,317                    | 536,296                    | 0                      | 0                | 1,242           | 207,000                 | 11,385   | 17,250   | 2,708 | 559     | 7,272             | 5,161            | 1,453           | 790,325           |
| PM                 | 23.00                | 19,332                    | 444,636                    | 0                      | 0                | 1,242           | 207,000                 | 11,385   | 17,250   | 2,708 | 559     | 7,272             | 5,161            | 1,453           | 698,665           |
| PC                 | 2.00                 | 10,401                    | 20,803                     | 0                      | 0                | 2,484           | 0                       | 1,980    | 500      | 235   | 1,397   | 632               | 449              | 126             | 28,607            |
| BA                 | 0.50                 | 2,446                     | 1,223                      | 0                      | 0                | 1,242           | 0                       | 248      | 0        | 20    | 838     | 53                | 37               | 11              | 3,671             |
| TB                 | 6.00                 | 22,092                    | 132,554                    | 0                      | 0                | 4,968           | 18,000                  | 5,940    | 4,500    | 1,413 | 2,515   | 3,794             | 2,692            | 758             | 177,134           |
| CM                 | 1.00                 | 2,446                     | 2,446                      | 0                      | 0                | 2,484           | 0                       | 495      | 0        | 39    | 1,397   | 105               | 75               | 21              | 7,063             |
| EM                 | 23.00                | 19,332                    | 444,636                    | 0                      | 0                | 1,242           | 207,000                 | 11,385   | 17,250   | 2,708 | 559     | 7,272             | 5,161            | 1,453           | 698,665           |
| CC                 | 10.00                | 44,980                    | 449,800                    | 10,500                 | 105,000          | 1,242           | 237,000                 | 0        | 0        | 4,360 | 0       | 0                 | 0                | 0               | 797,402           |
| MC                 | 9.75                 | 27,180                    | 265,005                    | 9,000                  | 87,750           | 1,242           | 114,000                 | 0        | 0        | 4,251 | 0       | 0                 | 0                | 0               | 472,248           |
| EC                 | 6.25                 | 27,180                    | 169,875                    | 9,000                  | 56,250           | 1,242           | 63,000                  | 0        | 0        | 2,725 | 0       | 0                 | 0                | 0               | 293,092           |
| CE                 | 4.50                 | 4,048                     | 18,217                     | 0                      | 0                | 7,452           | 0                       | 0        | 0        | 177   | 3,353   | 474               | 337              | 95              | 30,104            |
| ME                 | 4.50                 | 3,333                     | 14,997                     | 0                      | 0                | 7,452           | 0                       | 0        | 563      | 177   | 3,353   | 474               | 337              | 95              | 27,447            |
| EE                 | 4.50                 | 2,446                     | 11,008                     | 0                      | 0                | 7,452           | 0                       | 0        | 0        | 177   | 3,353   | 474               | 337              | 95              | 22,895            |
| ST                 | 14.50                | 4,048                     | 58,699                     | 0                      | 0                | 1,242           | 0                       | 0        | 0        | 569   | 838     | 1,528             | 1,084            | 305             | 64,266            |
| LG                 | 7.00                 | 4,622                     | 32,357                     | 0                      | 0                | 1,242           | 0                       | 0        | 0        | 275   | 838     | 738               | 524              | 147             | 36,121            |
| AM                 | 23.00                | 12,065                    | 277,504                    | 0                      | 0                | 18,630          | 0                       | 22,770   | 0        | 0     | 8,384   | 10,961            | 7,778            | 2,190           | 348,217           |
| Total              |                      |                           |                            |                        |                  |                 |                         |          |          |       |         |                   |                  | 4,495,922       |                   |

Appendix C-19: Support Cost Allocation Of This Project

| Organization<br>Element | Percentage of average Use (%) |        |       | Organization<br>Elements | Initial<br>Cost | Admin.<br>Allocation | Sub-total | Safety<br>Allocation | Sub-total | Legal<br>Allocation | Total Support<br>Allocation |
|-------------------------|-------------------------------|--------|-------|--------------------------|-----------------|----------------------|-----------|----------------------|-----------|---------------------|-----------------------------|
|                         | Administration                | Safety | Legal |                          |                 |                      |           |                      |           |                     |                             |
| AM                      |                               |        |       | AM                       | 348,217         |                      |           |                      |           |                     |                             |
| ST                      | 1                             |        |       | ST                       | 64,266          | 3,482                | 67,748    |                      |           |                     |                             |
| LG                      | 1                             |        |       | LG                       | 36,121          | 3,482                | 39,603    | 0                    | 39,603    |                     |                             |
| PD                      | 10                            |        |       | PD                       | 790,325         | 34,822               | 825,146   | 0                    | 825,146   | 0                   | 825,146                     |
| PM                      | 10                            |        |       | PM                       | 698,665         | 34,822               | 733,487   | 0                    | 733,487   | 0                   | 733,487                     |
| EM                      | 10                            |        |       | EM                       | 698,665         | 34,822               | 733,487   | 0                    | 733,487   | 0                   | 733,487                     |
| PC                      | 10                            |        |       | PC                       | 28,607          | 34,822               | 63,428    | 0                    | 63,428    | 0                   | 63,428                      |
| BA                      | 8                             |        |       | BA                       | 3,671           | 27,857               | 31,529    | 0                    | 31,529    | 0                   | 31,529                      |
| TB                      | 12                            |        | 20    | TB                       | 177,134         | 41,786               | 218,920   | 0                    | 218,920   | 7,921               | 226,841                     |
| CM                      | 3                             |        | 60    | CM                       | 7,063           | 10,446               | 17,509    | 0                    | 17,509    | 23,762              | 41,271                      |
| CC                      | 3                             | 60     | 20    | CC                       | 797,402         | 10,446               | 807,848   | 40,649               | 848,498   | 7,921               | 856,418                     |
| MC                      | 3                             | 24     |       | MC                       | 472,248         | 10,446               | 482,694   | 16,260               | 498,954   | 0                   | 498,954                     |
| EC                      | 2                             | 10     |       | EC                       | 293,092         | 6,964                | 300,056   | 6,775                | 306,831   | 0                   | 306,831                     |
| CE                      | 9                             | 2      |       | CE                       | 30,104          | 31,339               | 61,444    | 1,355                | 62,799    | 0                   | 62,799                      |
| ME                      | 9                             | 2      |       | ME                       | 27,447          | 31,339               | 58,787    | 1,355                | 60,142    | 0                   | 60,142                      |
| EE                      | 9                             | 2      |       | EE                       | 22,895          | 31,339               | 54,235    | 1,355                | 55,590    | 0                   | 55,590                      |
| Total                   | 100                           | 100    | 100   | Total                    | 4,495,922       | 348,217              | 4,495,922 | 67,748               | 4,495,922 | 39,603              | 4,495,922                   |

Appendix C-20: Managerial Cost Allocation of This Project

| Organization Elements | Time Allocation of Management Element (%) |    |    | Organization Elements | Direct & Support Cost | Project Director Allocation | Sub-total Division | Division Allocation | Final Distribution |
|-----------------------|---|----|----|-----------------------|-----------------------|-----------------------------|--------------------|---------------------|--------------------|
|                       | PD  | PM | EM |                       |                       |                             |                    |                     |                    |
|                       |   |    |    | PD                    | 825,146               |                             |                    |                     |                    |
| PM                    | 30  |    |    | PM                    | 733,487               | 247,544                     | 981,031            |                     |                    |
| EM                    | 70  |    |    | EM                    | 733,487               | 577,602                     | 1,311,089          |                     |                    |
| PC                    |   | 26 |    | PC                    | 63,428                |                             |                    | 255,068             | 318,496            |
| BA                    |   | 24 |    | BA                    | 31,529                |                             |                    | 235,447             | 266,976            |
| TB                    |   | 30 |    | TB                    | 226,841               |                             |                    | 294,309             | 521,150            |
| CM                    |   | 20 |    | CM                    | 41,271                |                             |                    | 196,206             | 237,477            |
| CC                    |   |    | 20 | CC                    | 856,418               |                             |                    | 262,218             | 1,118,636          |
| MC                    |   |    | 20 | MC                    | 498,954               |                             |                    | 262,218             | 761,172            |
| EC                    |   |    | 10 | EC                    | 306,831               |                             |                    | 131,109             | 437,940            |
| CE                    |   |    | 20 | CE                    | 62,799                |                             |                    | 262,218             | 325,017            |
| ME                    |   |    | 20 | ME                    | 60,142                |                             |                    | 262,218             | 322,359            |
| EE                    |   |    | 10 | EE                    | 55,590                |                             |                    | 131,109             | 186,699            |
|                       |   |    |    | Total (Baht)          | 4,495,922             |                             |                    | Total (Baht)        | 4,495,922          |



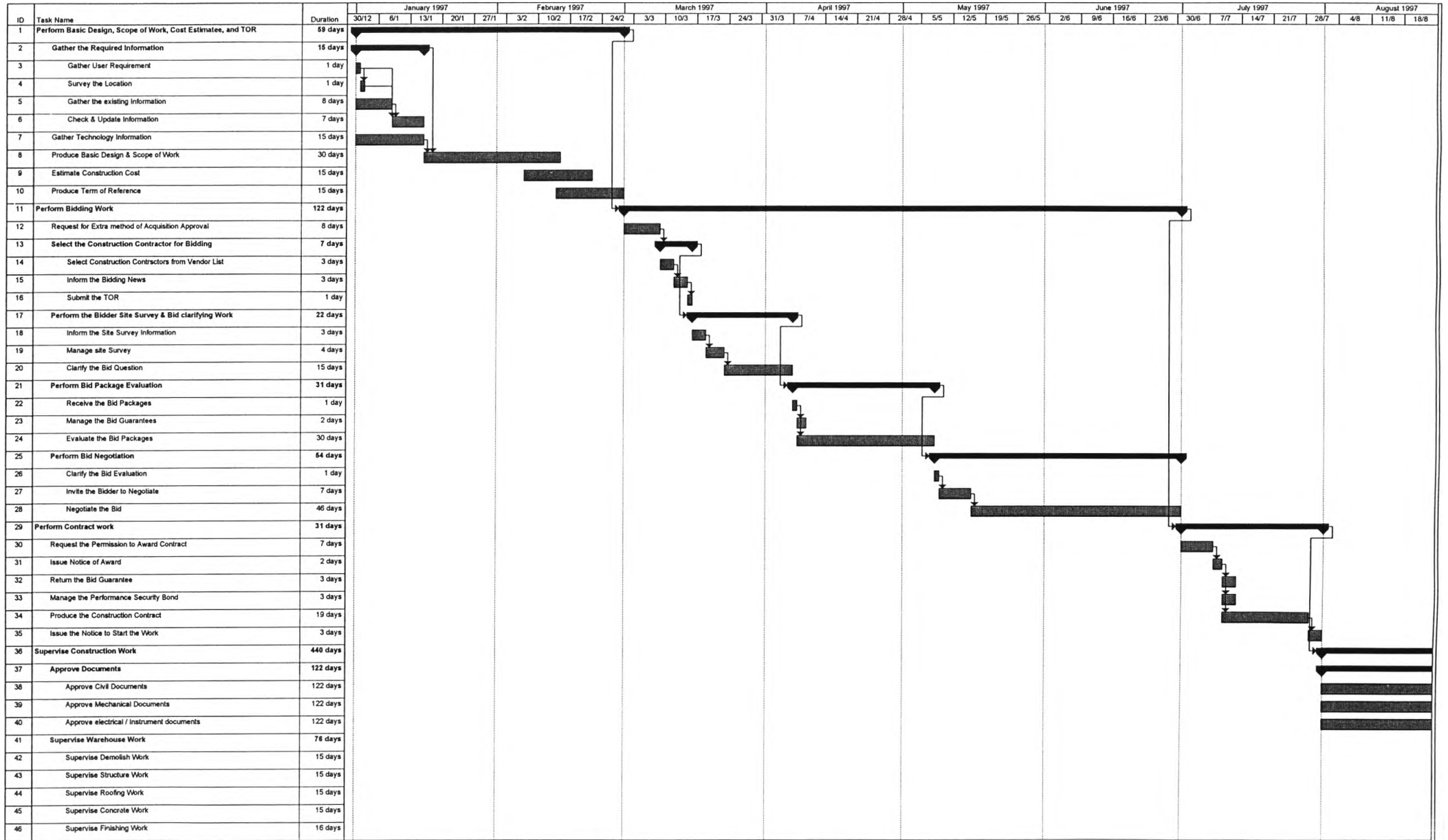
## Appendix C-21: Final Distribution of Each Operational Element on Each Activity

| Activity            | PC      | BA      | TB      | CM      | CC        | MC      | EC      | CE      | ME      | EE      | Total     |
|---------------------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|-----------|
| Element Cost (Baht) | 318,496 | 266,976 | 521,150 | 237,477 | 1,118,636 | 761,172 | 437,940 | 325,017 | 322,359 | 186,699 | 4,495,922 |
| A1                  | 318,496 | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 318,496   |
| A11                 | 127,399 | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 127,399   |
| A12                 | 159,248 | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 159,248   |
| A13                 | 31,850  | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 31,850    |
| A2                  | 0       | 0       | 162,859 | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 162,859   |
| A21                 | 0       | 0       | 27,141  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 27,141    |
| A211                | 0       | 0       | 907     | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 907       |
| A212                | 0       | 0       | 907     | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 907       |
| A213                | 0       | 0       | 12,664  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 12,664    |
| A214                | 0       | 0       | 12,664  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 12,664    |
| A22                 | 0       | 0       | 27,141  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 27,141    |
| A23                 | 0       | 0       | 54,293  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 54,293    |
| A24                 | 0       | 0       | 27,141  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 27,141    |
| A25                 | 0       | 0       | 27,141  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 27,141    |
| A3                  | 0       | 0       | 358,291 | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 358,291   |
| A31                 | 0       | 0       | 16,286  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 16,286    |
| A32                 | 0       | 0       | 16,286  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 16,286    |
| A321                | 0       | 0       | 6,514   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 6,514     |
| A322                | 0       | 0       | 6,514   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 6,514     |
| A323                | 0       | 0       | 3,257   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 3,257     |
| A33                 | 0       | 0       | 65,144  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 65,144    |
| A331                | 0       | 0       | 16,286  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 16,286    |
| A332                | 0       | 0       | 16,286  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 16,286    |
| A333                | 0       | 0       | 32,572  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 32,572    |
| A34                 | 0       | 0       | 65,144  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 65,144    |
| A341                | 0       | 0       | 2,189   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 2,189     |
| A342                | 0       | 0       | 4,378   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 4,378     |
| A343                | 0       | 0       | 58,577  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 58,577    |
| A35                 | 0       | 0       | 195,431 | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 195,431   |
| A351                | 0       | 0       | 2,189   | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 2,189     |
| A352                | 0       | 0       | 16,104  | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 16,104    |
| A353                | 0       | 0       | 177,139 | 0       | 0         | 0       | 0       | 0       | 0       | 0       | 177,139   |
| A4                  | 0       | 0       | 0       | 222,635 | 0         | 0       | 0       | 0       | 0       | 0       | 222,635   |
| A41                 | 0       | 0       | 0       | 55,665  | 0         | 0       | 0       | 0       | 0       | 0       | 55,665    |
| A42                 | 0       | 0       | 0       | 7,979   | 0         | 0       | 0       | 0       | 0       | 0       | 7,979     |
| A43                 | 0       | 0       | 0       | 15,887  | 0         | 0       | 0       | 0       | 0       | 0       | 15,887    |
| A44                 | 0       | 0       | 0       | 15,887  | 0         | 0       | 0       | 0       | 0       | 0       | 15,887    |
| A45                 | 0       | 0       | 0       | 111,329 | 0         | 0       | 0       | 0       | 0       | 0       | 111,329   |
| A46                 | 0       | 0       | 0       | 15,887  | 0         | 0       | 0       | 0       | 0       | 0       | 15,887    |
| A5                  | 0       | 0       | 0       | 0       | 1,013,764 | 697,743 | 379,550 | 300,016 | 297,564 | 172,338 | 2,860,975 |
| A51                 | 0       | 0       | 0       | 0       | 0         | 0       | 0       | 300,016 | 297,564 | 172,338 | 769,918   |
| A511                | 0       | 0       | 0       | 0       | 0         | 0       | 0       | 300,016 | 0       | 0       | 300,016   |
| A512                | 0       | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 297,564 | 0       | 297,564   |
| A513                | 0       | 0       | 0       | 0       | 0         | 0       | 0       | 0       | 0       | 172,338 | 172,338   |
| A52                 | 0       | 0       | 0       | 0       | 270,330   | 0       | 0       | 0       | 0       | 0       | 270,330   |
| A521                | 0       | 0       | 0       | 0       | 60,071    | 0       | 0       | 0       | 0       | 0       | 60,071    |
| A522                | 0       | 0       | 0       | 0       | 60,071    | 0       | 0       | 0       | 0       | 0       | 60,071    |
| A523                | 0       | 0       | 0       | 0       | 30,035    | 0       | 0       | 0       | 0       | 0       | 30,035    |
| A524                | 0       | 0       | 0       | 0       | 45,059    | 0       | 0       | 0       | 0       | 0       | 45,059    |
| A525                | 0       | 0       | 0       | 0       | 45,059    | 0       | 0       | 0       | 0       | 0       | 45,059    |
| A526                | 0       | 0       | 0       | 0       | 30,035    | 0       | 0       | 0       | 0       | 0       | 30,035    |
| A53                 | 0       | 0       | 0       | 0       | 642,041   | 602,597 | 291,962 | 0       | 0       | 0       | 1,536,600 |
| A531                | 0       | 0       | 0       | 0       | 281,594   | 346,950 | 0       | 0       | 0       | 0       | 628,544   |
| A5311               | 0       | 0       | 0       | 0       | 11,265    | 189,243 | 0       | 0       | 0       | 0       | 200,507   |
| A53111              | 0       | 0       | 0       | 0       | 0         | 7,566   | 0       | 0       | 0       | 0       | 7,566     |
| A53112              | 0       | 0       | 0       | 0       | 11,265    | 7,566   | 0       | 0       | 0       | 0       | 18,831    |
| A53113              | 0       | 0       | 0       | 0       | 0         | 174,110 | 0       | 0       | 0       | 0       | 174,110   |
| A5312               | 0       | 0       | 0       | 0       | 45,059    | 0       | 0       | 0       | 0       | 0       | 45,059    |
| A53121              | 0       | 0       | 0       | 0       | 4,508     | 0       | 0       | 0       | 0       | 0       | 4,508     |
| A53122              | 0       | 0       | 0       | 0       | 30,416    | 0       | 0       | 0       | 0       | 0       | 30,416    |
| A53123              | 0       | 0       | 0       | 0       | 10,135    | 0       | 0       | 0       | 0       | 0       | 10,135    |
| A5313               | 0       | 0       | 0       | 0       | 180,212   | 110,393 | 0       | 0       | 0       | 0       | 290,605   |
| A53131              | 0       | 0       | 0       | 0       | 20,024    | 0       | 0       | 0       | 0       | 0       | 20,024    |
| A53132              | 0       | 0       | 0       | 0       | 120,141   | 82,793  | 0       | 0       | 0       | 0       | 202,934   |
| A53133              | 0       | 0       | 0       | 0       | 20,024    | 13,800  | 0       | 0       | 0       | 0       | 33,824    |
| A53134              | 0       | 0       | 0       | 0       | 20,024    | 13,800  | 0       | 0       | 0       | 0       | 33,824    |
| A5314               | 0       | 0       | 0       | 0       | 45,059    | 47,314  | 0       | 0       | 0       | 0       | 92,373    |
| A53141              | 0       | 0       | 0       | 0       | 0         | 7,886   | 0       | 0       | 0       | 0       | 7,886     |
| A53142              | 0       | 0       | 0       | 0       | 11,265    | 7,886   | 0       | 0       | 0       | 0       | 19,150    |
| A53143              | 0       | 0       | 0       | 0       | 22,529    | 15,771  | 0       | 0       | 0       | 0       | 38,301    |
| A53144              | 0       | 0       | 0       | 0       | 0         | 7,886   | 0       | 0       | 0       | 0       | 7,886     |
| A53145              | 0       | 0       | 0       | 0       | 11,265    | 7,886   | 0       | 0       | 0       | 0       | 19,150    |
| A532                | 0       | 0       | 0       | 0       | 270,330   | 0       | 0       | 0       | 0       | 0       | 270,330   |
| A5321               | 0       | 0       | 0       | 0       | 38,615    | 0       | 0       | 0       | 0       | 0       | 38,615    |
| A5322               | 0       | 0       | 0       | 0       | 38,615    | 0       | 0       | 0       | 0       | 0       | 38,615    |
| A5323               | 0       | 0       | 0       | 0       | 77,242    | 0       | 0       | 0       | 0       | 0       | 77,242    |





## Appendix C-22: Project schedule of simulation



Project: BRP

Task: [Task bar] Milestone: [Diamond symbol] Rolled Up Task: [Thick bar] Rolled Up Progress: [Thin bar] External Tasks: [Dashed bar]

Progress: [Thin bar] Summary: [Arrow symbol] Rolled Up Milestone: [Diamond symbol] Split: [Dotted line] Project Summary: [Thick bar]

Page 1

| ID | Task Name                                      | Duration | January 1997 |     |      | February 1997 |      |     |      | March 1997 |      |     |      | April 1997 |      |      |     | May 1997 |      |      |     | June 1997 |      |      |     | July 1997 |      |      |      | August 1997 |      |      |      |
|----|--|----------|--------------|-----|------|---------------|------|-----|------|------------|------|-----|------|------------|------|------|-----|----------|------|------|-----|-----------|------|------|-----|-----------|------|------|------|-------------|------|------|------|
|    |  |          | 30/12        | 6/1 | 13/1 | 20/1          | 27/1 | 3/2 | 10/2 | 17/2       | 24/2 | 3/3 | 10/3 | 17/3       | 24/3 | 31/3 | 7/4 | 14/4     | 21/4 | 28/4 | 5/5 | 12/5      | 19/5 | 26/5 | 2/6 | 9/6       | 16/6 | 23/6 | 30/6 | 7/7         | 14/7 | 21/7 | 28/7 |
| 47 | Supervise Painting Work                        | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 48 | Supervise Main Construction work               | 242 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 49 | Supervise Tank Work                            | 243 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 50 | Supervise Pre-erection Work                    | 120 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 51 | Inspect Steel Plates                           | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 52 | Inspect Materials                              | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 53 | Supervision Pre-fabrication Work               | 113 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 54 | Supervise Firewall Installation                | 18 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 55 | Inspect Firewall Material & Equipment          | 3 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 56 | Supervise Firewall Erection                    | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 57 | Supervise Firewall Equipment Installation      | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 58 | Supervise Tank Erection Work                   | 107 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 59 | Supervise Column & Bracing Erection            | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 60 | Supervise Shell Plate Installation & Welding   | 77 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 61 | Supervise Spray Water Ring Erection            | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 62 | Supervise tank Accessories Erection            | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 63 | Supervise Post-erection Work                   | 48 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 64 | Supervise NDE Work                             | 8 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 65 | Supervise PMWT Work                            | 8 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 66 | Supervise Painting Work                        | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 67 | Supervise Hydrostatic Work                     | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 68 | Supervise Tank Calibration Work                | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 69 | Supervise Civil Work                           | 181 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 70 | Supervise Drainage System Work                 | 31 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 71 | Supervise Concrete Pavement Work               | 30 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 72 | Supervise Pipe Support Work                    | 45 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 73 | Supervise Pipe Crossing Weirway Work           | 30 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 74 | Supervise Spillway / Bundwall work             | 45 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 75 | Supervise Mechanical Work                      | 181 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 76 | Inspect Piping Materials                       | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 77 | Supervise Spool Piece Work                     | 90 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 78 | Supervise Pipeline Installation                | 122 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 79 | Supervise Pipeline Erection                    | 92 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 80 | Supervise NDE Work                             | 8 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 81 | Supervise Hydrostatic Test & Flushing          | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 82 | Supervise Pipeline Painting                    | 14 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 83 | Supervise Pipe tie-in                          | 3 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 84 | Supervise Pipeline Pre-commissioning           | 15 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 85 | Supervise Electrical / Instrument work         | 106 days |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 86 | Inspect Electrical & Instrument Equipment      | 7 days   |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 87 | Supervise Electrical & Instrument Installation | 82 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 88 | Supervise Trench Work                          | 46 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 89 | Supervise Conduit & Support Work               | 30 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 90 | Supervise Cable Laying & Wiring                | 46 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 91 | Supervise Tank Grounding system                | 46 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |
| 92 | Supervise Instrument Installation              | 30 days  |              |     |      |               |      |     |      |            |      |     |      |            |      |      |     |          |      |      |     |           |      |      |     |           |      |      |      |             |      |      |      |

Project: BRP


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







| ID | Task Name  | Duration | September 1997 |     |     |      | October 1997 |      |      |       | November 1997 |       |      |       | December 1997 |       |      |      | January 1998 |       |       |     | February 1998 |      |      |     | March 1998 |      |      |     | April 1998 |      |      |      |     |      |
|----|--|----------|----------------|-----|-----|------|--------------|------|------|-------|---------------|-------|------|-------|---------------|-------|------|------|--------------|-------|-------|-----|---------------|------|------|-----|------------|------|------|-----|------------|------|------|------|-----|------|
|    |  |          | 25/8           | 1/9 | 8/9 | 15/9 | 22/9         | 29/9 | 6/10 | 13/10 | 20/10         | 27/10 | 3/11 | 10/11 | 17/11         | 24/11 | 1/12 | 8/12 | 15/12        | 22/12 | 29/12 | 5/1 | 12/1          | 19/1 | 26/1 | 2/2 | 9/2        | 16/2 | 23/2 | 2/3 | 9/3        | 16/3 | 23/3 | 30/3 | 6/4 | 13/4 |
| 1  | Perform Basic Design, Scope of Work, Cost Estimates, and TOR | 88 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 2  | Gather the Required Information                              | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 3  | Gather User Requirement                                      | 1 day    |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 4  | Survey the Location  | 1 day    |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 5  | Gather the existing information                              | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 6  | Check & Update Information                                   | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 7  | Gather Technology Information                                | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 8  | Produce Basic Design & Scope of Work                         | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 9  | Estimate Construction Cost                                   | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 10 | Produce Term of Reference                                    | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 11 | Perform Bidding Work   | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 12 | Request for Extra method of Acquisition Approval             | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 13 | Select the Construction Contractor for Bidding               | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 14 | Select Construction Contractors from Vendor List             | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 15 | Inform the Bidding News                                      | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 16 | Submit the TOR   | 1 day    |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 17 | Perform the Bidder Site Survey & Bid clarifying Work         | 22 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 18 | Inform the Site Survey Information                           | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 19 | Manage site Survey   | 4 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 20 | Clarify the Bid Question                                     | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 21 | Perform Bid Package Evaluation                               | 31 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 22 | Receive the Bid Packages                                     | 1 day    |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 23 | Manage the Bid Guarantee                                     | 2 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 24 | Evaluate the Bid Packages                                    | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 25 | Perform Bid Negotiation                                      | 64 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 26 | Clarify the Bid Evaluation                                   | 1 day    |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 27 | Invite the Bidder to Negotiate                               | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 28 | Negotiate the Bid  | 46 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 29 | Perform Contract work  | 31 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 30 | Request the Permission to Award Contract                     | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 31 | Issue Notice of Award  | 2 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 32 | Return the Bid Guarantee                                     | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 33 | Manage the Performance Security Bond                         | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 34 | Produce the Construction Contract                            | 19 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 35 | Issue the Notice to Start the Work                           | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 36 | Supervise Construction Work                                  | 440 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 37 | Approve Documents  | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 38 | Approve Civil Documents                                      | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 39 | Approve Mechanical Documents                                 | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 40 | Approve electrical / Instrument documents                    | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 41 | Supervise Warehouse Work                                     | 78 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 42 | Supervise Demolish Work                                      | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 43 | Supervise Structure Work                                     | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 44 | Supervise Roofing Work                                       | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 45 | Supervise Concrete Work                                      | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |
| 46 | Supervise Finishing Work                                     | 16 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |




Project: BRP

Task  Milestone  Rolled Up Task  Rolled Up Progress  External Tasks 

Progress  Summary  Rolled Up Milestone  Split  Project Summary 

| ID | Task Name                                      | Duration | September 1997 |     |     |      | October 1997 |      |      |       | November 1997 |       |      |       | December 1997 |       |      |      | January 1998 |       |       |     | February 1998 |      |      |     | March 1998 |      |      |     | April 1998 |      |      |      |     |      |  |  |  |
|----|--|----------|----------------|-----|-----|------|--------------|------|------|-------|---------------|-------|------|-------|---------------|-------|------|------|--------------|-------|-------|-----|---------------|------|------|-----|------------|------|------|-----|------------|------|------|------|-----|------|--|--|--|
|    |  |          | 25/8           | 1/9 | 8/9 | 15/9 | 22/9         | 29/9 | 6/10 | 13/10 | 20/10         | 27/10 | 3/11 | 10/11 | 17/11         | 24/11 | 1/12 | 8/12 | 15/12        | 22/12 | 29/12 | 5/1 | 12/1          | 19/1 | 26/1 | 2/2 | 9/2        | 16/2 | 23/2 | 2/3 | 9/3        | 16/3 | 23/3 | 30/3 | 6/4 | 13/4 |  |  |  |
| 47 | Supervise Painting Work                        | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 48 | Supervise Main Construction work               | 242 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 49 | Supervise Tank Work                            | 242 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 50 | Supervise Pre-erection Work                    | 120 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 51 | Inspect Steel Plates                           | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 52 | Inspect Materials                              | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 53 | Supervision Pre-fabrication Work               | 113 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 54 | Supervise Firewall Installation                | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 55 | Inspect Firewall Material & Equipment          | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 56 | Supervise Firewall Erection                    | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 57 | Supervise Firewall Equipment Installation      | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 58 | Supervise Tank Erection Work                   | 107 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 59 | Supervise Column & Bracing Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 60 | Supervise Shell Plate Installation & Welding   | 77 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 61 | Supervise Spray Water Ring Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 62 | Supervise tank Accessories Erection            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 63 | Supervise Post-erection Work                   | 45 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 64 | Supervise NDE Work                             | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 65 | Supervise PWHT Work                            | 8 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 66 | Supervise Painting Work                        | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 67 | Supervise Hydrostatic Work                     | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 68 | Supervise Tank Calibration Work                | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 69 | Supervise Civil Work                           | 181 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 70 | Supervise Drainage System Work                 | 31 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 71 | Supervise Concrete Pavement Work               | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 72 | Supervise Pipe Support Work                    | 45 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 73 | Supervise Pipe Crossing Walkway Work           | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 74 | Supervise Spillwall / Bundwall work            | 45 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 75 | Supervise Mechanical Work                      | 181 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 76 | Inspect Piping Materials                       | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 77 | Supervise Spool Piece Work                     | 90 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 78 | Supervise Pipeline Installation                | 122 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 79 | Supervise Pipeline Erection                    | 92 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 80 | Supervise NDE Work                             | 6 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 81 | Supervise Hydrostatic Test & Flushing          | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 82 | Supervise Pipeline Painting                    | 14 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 83 | Supervise Pipe tie-in                          | 3 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 84 | Supervise Pipeline Pre-comissioning            | 15 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 85 | Supervise Electrical / Instrument work         | 108 days |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 86 | Inspect Electrical & Instrument Equipment      | 7 days   |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 87 | Supervise Electrical & Instrument Installation | 92 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 88 | Supervise Trench Work                          | 46 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 89 | Supervise Conduit & Support Work               | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 90 | supervise Cable Laying & Wiring                | 46 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 91 | Supervise Tank Grounding system                | 46 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |
| 92 | Supervise Instrument Installation              | 30 days  |                |     |     |      |              |      |      |       |               |       |      |       |               |       |      |      |              |       |       |     |               |      |      |     |            |      |      |     |            |      |      |      |     |      |  |  |  |

Project: BRP     
 Task      
 Milestone      
 Rolled Up Task      
 Rolled Up Progress      
 External Tasks 

Progress      
 Summary      
 Rolled Up Milestone      
 Split      
 Project Summary 



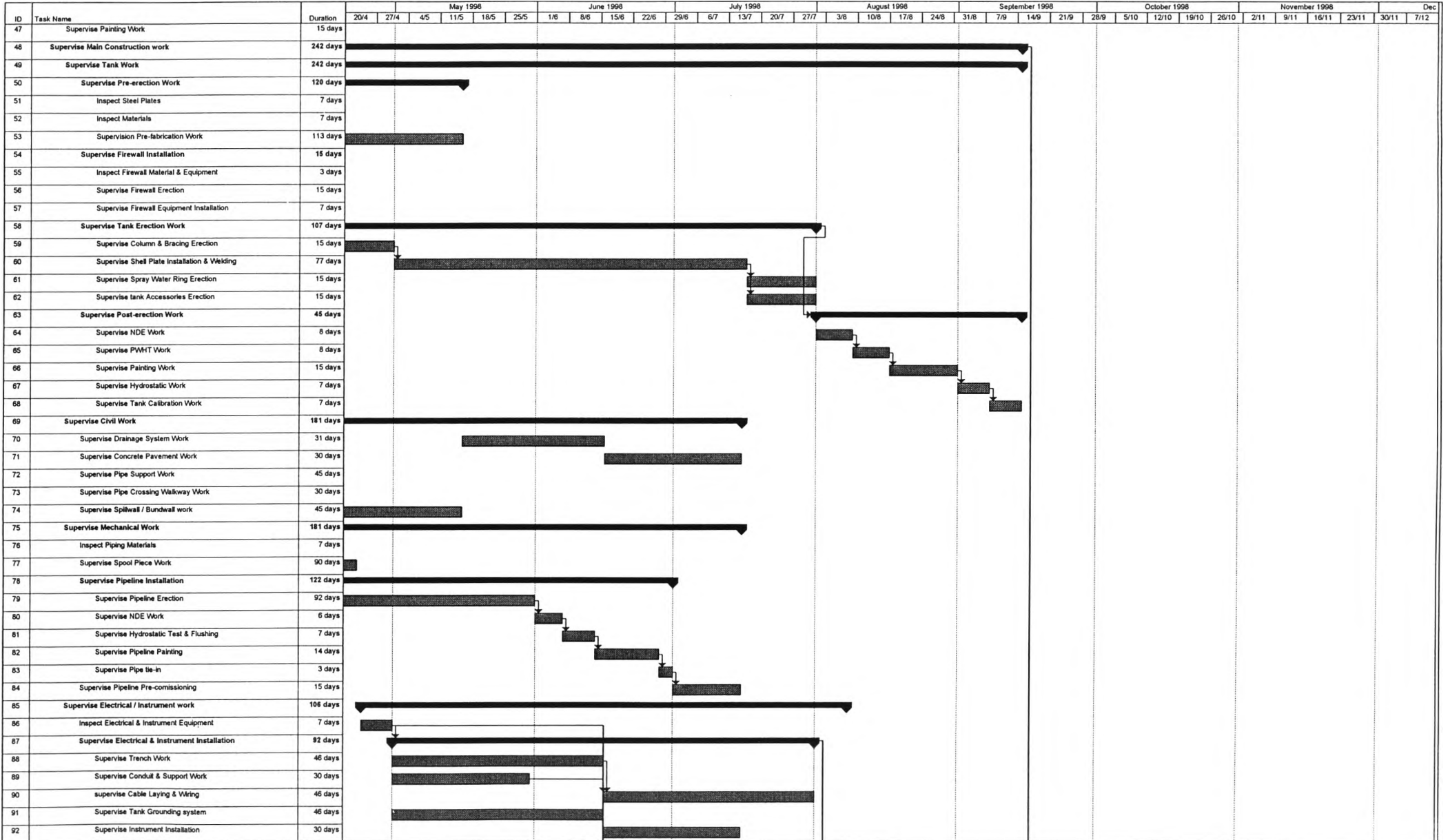
| ID | Task Name  | Duration | May 1998 |      |     |      |      | June 1998 |     |     |      | July 1998 |      |     |      | August 1998 |      |     |      | September 1998 |      |      |     | October 1998 |      |      |      | November 1998 |       |       |      | Dec |      |       |       |       |      |
|----|--|----------|----------|------|-----|------|------|-----------|-----|-----|------|-----------|------|-----|------|-------------|------|-----|------|----------------|------|------|-----|--------------|------|------|------|---------------|-------|-------|------|-----|------|-------|-------|-------|------|
|    |  |          | 20/4     | 27/4 | 4/5 | 11/5 | 18/5 | 25/5      | 1/6 | 8/6 | 15/6 | 22/6      | 29/6 | 6/7 | 13/7 | 20/7        | 27/7 | 3/8 | 10/8 | 17/8           | 24/8 | 31/8 | 7/9 | 14/9         | 21/9 | 28/9 | 5/10 | 12/10         | 19/10 | 26/10 | 2/11 |     | 9/11 | 16/11 | 23/11 | 30/11 | 7/12 |
| 1  | Perform Basic Design, Scope of Work, Cost Estimates, and TOR | 88 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 2  | Gather the Required Information                              | 16 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 3  | Gather User Requirement                                      | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 4  | Survey the Location  | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 5  | Gather the existing information                              | 8 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 6  | Check & Update Information                                   | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 7  | Gather Technology Information                                | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 8  | Produce Basic Design & Scope of Work                         | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 9  | Estimate Construction Cost                                   | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 10 | Produce Term of Reference                                    | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 11 | Perform Bidding Work   | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 12 | Request for Extra method of Acquisition Approval             | 8 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 13 | Select the Construction Contractor for Bidding               | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 14 | Select Construction Contractors from Vendor List             | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 15 | Inform the Bidding News                                      | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 16 | Submit the TOR   | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 17 | Perform the Bidder Site Survey & Bid clarifying Work         | 22 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 18 | Inform the Site Survey Information                           | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 19 | Manage site Survey   | 4 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 20 | Clarify the Bid Question                                     | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 21 | Perform Bid Package Evaluation                               | 31 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 22 | Receive the Bid Packages                                     | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 23 | Manage the Bid Guarantees                                    | 2 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 24 | Evaluate the Bid Packages                                    | 30 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 25 | Perform Bid Negotiation                                      | 64 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 26 | Clarify the Bid Evaluation                                   | 1 day    |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 27 | Invite the Bidder to negotiate                               | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 28 | Negotiate the Bid  | 46 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 29 | Perform Contract work  | 31 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 30 | Request the Permission to Award Contract                     | 7 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 31 | Issue Notice of Award  | 2 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 32 | Return the Bid Guarantees                                    | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 33 | Manage the Performance Security Bond                         | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 34 | Produce the Construction Contract                            | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 35 | Issue the Notice to Start the Work                           | 3 days   |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 36 | Supervise Construction Work                                  | 440 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 37 | Approve Documents  | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 38 | Approve Civil Documents                                      | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 39 | Approve Mechanical Documents                                 | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 40 | Approve electrical / Instrument documents                    | 122 days |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 41 | Supervise Warehouse Work                                     | 78 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 42 | Supervise Demolish Work                                      | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 43 | Supervise Structure Work                                     | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 44 | Supervise Roofing Work                                       | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 45 | Supervise Concrete Work                                      | 15 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |
| 46 | Supervise Finishing Work                                     | 16 days  |          |      |     |      |      |           |     |     |      |           |      |     |      |             |      |     |      |                |      |      |     |              |      |      |      |               |       |       |      |     |      |       |       |       |      |

Project: BRP

Task Milestone Rolled Up Task Rolled Up Progress External Tasks

Progress Summary Rolled Up Milestone Split Project Summary





Project: BRP  
 Task: Milestone:   
 Progress: Summary:   
 Rolled Up Task: Rolled Up Progress:   
 External Tasks:   
 Rolled Up Milestone: Split:   
 Project Summary:



# Biography

Paramate Suwanpradit was born on November 3, 1970 in Bangkok, Thailand. He obtained a Bachelor's Degree in Mechanical Engineering from King Mongkut's Institute of Technology Ladkrabang in academic year of 1991.

He has worked for the case company since 1992. In 1997, he got a full grant from the case company to continue studying in Engineering Management at the Regional Center for Manufacturing Systems Engineering at Chulalongkorn University. At present, he is working as a project engineer at the Project Management Department of the case company.