






Activity Name	2016		2017					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>TMCLK - Northern Connection Sub-Sea Tunnel Section</b>								
<b>Contract Dates</b>								
<b>Commencement and Completion Dates</b>								
KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS			◆ KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS					
<b>Site Possession Date</b>								
Portions: X1,(N10,11,13 & 14) - Sth Landfall								
Portions: N1 to N4 & N12			◆ Portions: N1 to N4 & N12					
<b>General Submissions</b>								
<b>Environmental</b>								
<b>Environmental Permit Submissions</b>								
<b>Supplementary WMP of C&amp;C Tunnel at Sth.Landfall</b>								
Supplementary WMP of C&C Tunnel at Sth.Landfall								
<b>Sediment Quality Report/Dumping Permit</b>								
<b>Southern Landfall</b>								
Southern landfall - Commencement of Shaft & C&C Tunnel Dwall								
Southern Landfall - Commencement of Retrieval Shaft Excavation								
<b>Sediment Sampling &amp; Testing Plan (SSTP) - if required</b>								
Complete SSTP and Obtain EPD's approval								
<b>Sediment Quality Report (SQR) - if required</b>								
Advance Ground Investigation works for Sediment sampling								
Sediment Sample Testing & Report preparation								
<b>Dumping Permit for Load Dumping (Loading Permit) - if required</b>								
Finalize the application document and submit to EPD - for Dwall								
Notify the results and issue Loading Permit for Local & Cross Boundary Crossing - for Dwall								
<b>PAYMENT MILESTONE</b>								
<b>Design and Design Checking of the Works</b>								
MS 2.5 Submit AIP for seawall modification works at Southern Landfall			◆ MS 2.5 Submit AIP for seawall modification works at Southern Landfall					
MS 2.44 Approve DDA for South Ventilation Building by the Supervising Officer								
MS 2.48 Approve DDA for North Ventilation Building by the Supervising Officer								
MS 2.52 Approve DDA for Facilities Provision for TCSS by the Supervising Officer								
MS 2.56 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Southern Landfall by the Supervising Officer								
MS 2.60 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Northern Landfall by the Supervising Officer								
MS 2.69 Submit draft Operation and Maintenance Manual for all Tunnels and Cross Passgaes								
MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgaes by the Supervising Officer								
MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes								
MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes by the Supervising Officer								
<b>Tunnel Boring Machine (TBM) and Back-up Equipment for TBM Tunnel</b>								
MS 3.1.6 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel			◆ MS 3.1.6 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel					
MS 3.1.12 Removal of TBM for Northbound Tunnel from Site after the completion of TBM Tunnel			◆ MS 3.1.12 Removal of TBM for Northbound Tunnel from Site after the completion of TBM Tunnel					
MS 3.1.25 Demolition of Slurry Treatment Plant on completion			◆ MS 3.1.25 Demolition of Slurry Treatment Plant on completion					
MS 3.1.26 Complete the whole of the activities under this Cost Centre Part to the satisfaction of the Supervising Officer								
<b>TBM Tunnel</b>								
MS 3.3.4 Complete walls of retrieval shaft								
MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab			◆ MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab					
MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM								
MS 3.3.6 Completion of excavation, support and permanent lining for 37.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.6 Completion of excavation, support and permanent lining for 37.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.37 Completion of excavation, support and permanent lining for 40% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.37 Completion of excavation, support and permanent lining for 40% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.38 Completion of excavation, support and permanent lining for 42.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.38 Completion of excavation, support and permanent lining for 42.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.39 Completion of excavation, support and permanent lining for 45% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.39 Completion of excavation, support and permanent lining for 45% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.40 Completion of excavation, support and permanent lining for 47.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.40 Completion of excavation, support and permanent lining for 47.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.41 Completion of excavation, support and permanent lining for 50% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.41 Completion of excavation, support and permanent lining for 50% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.42 Completion of excavation, support and permanent lining for 52.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.42 Completion of excavation, support and permanent lining for 52.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.43 Completion of excavation, support and permanent lining for 55% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.43 Completion of excavation, support and permanent lining for 55% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.44 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.44 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.45 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.45 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.46 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.46 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.47 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.47 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.48 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.48 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.49 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.49 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.50 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.50 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.51 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.51 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.52 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.52 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.53 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.53 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.54 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.54 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.55 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.55 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.56 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.56 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.57 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.57 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.58 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.58 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.59 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.59 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.60 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.60 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.99 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.99 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.100 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.100 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.101 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.101 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.102 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.102 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.103 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.103 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.104 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.104 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.105 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.105 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.106 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.106 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.107 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.107 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.108 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.108 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.109 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.109 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.110 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.110 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the TBM Tunnel					
MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the TBM Tunnel			◆ MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the TBM Tunnel					

	Planned Bar
	Planned Bar - Critical
	Planned Milestone
	Progress bar
	Progress Milestone

**TMCLK - Northern Connection Sub-Sea Tunnel Section**  
 Detailed Works Programme (Rev. F)  
 Three Months Rolling Programme  
 Progress as of 29-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG-08507	WYu	SPe
08-Apr-14	TMCLKDBJGEN-PRG-08507 Rev.B	SPe	WYu
28-Aug-14	TMCLKDBJGEN-PRG-08507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG-08507 Rev.F	WYu	

Activity Name	2016		2017					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the Northbound TBM Tunnel		◆ MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the Northbound TBM Tunnel						
MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the Northbound TBM Tunnel		◆ MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the Northbound TBM Tunnel						
MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the Northbound TBM Tunnel		◆ MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the Northbound TBM Tunnel						
MS 3.3.117 Complete tunnel internal structures for 25% of total length (measured on plan) of the Northbound TBM Tunnel	◆ MS 3.3.117 Complete tunnel internal structures for 25% of total length (measured on plan) of the Northbound TBM Tunnel							
MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound TBM Tunnel				◆ MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound TBM Tunnel				
MS 3.3.121 Complete tunnel internal structures for 25% of total length (measured on plan) of the Southbound TBM Tunnel	◆ MS 3.3.121 Complete tunnel internal structures for 25% of total length (measured on plan) of the Southbound TBM Tunnel							
MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbound TBM Tunnel				◆ MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbound TBM Tunnel				
<b>Cross Passages for TBM Tunnel</b>								
MS 3.3.1 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be certified for 50% completion)		◆ MS 3.3.1 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be certified for 50% completion)						
MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be certified for 50% completion)		◆ MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be certified for 50% completion)						
MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified for 50% completion)			◆ MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified for 50% completion)					
MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified for 50% completion)			◆ MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified for 50% completion)					
MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentage to be certified for 50% completion)				◆ MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentage to be certified for 50% completion)				
MS 3.3.11 Complete 50% of permanent lining and internal structures for all Type 2 Cross Passages(Percentage to be certified for 50% completion)					◆ MS 3.3.11 Complete 50% of permanent lining and internal structures for all Type 2 Cross Passages(Percentage to be certified for 50% completion)			
<b>Cut-and-cover Tunnels at Southern Landfalls</b>								
MS 4.1.1 Complete 10% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.2 Complete 20% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.3 Complete 30% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.4 Complete 40% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.5 Complete 50% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.6 Complete 60% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.7 Complete 70% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.8 Complete 80% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.9 Complete 90% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.10 Complete 100% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover Tunnel								
MS 4.1.11 Complete 40% of excavation for Cut-and-cover tunnel								
MS 4.1.12 Complete 60% of excavation for Cut-and-cover tunnel	◆ MS 4.1.12 Complete 60% of excavation for Cut-and-cover tunnel							
MS 4.1.13 Complete 80% of excavation for Cut-and-cover tunnel		◆ MS 4.1.13 Complete 80% of excavation for Cut-and-cover tunnel						
MS 4.1.14 Complete 100% of excavation for Cut-and-cover tunnel			◆ MS 4.1.14 Complete 100% of excavation for Cut-and-cover tunnel					
MS 4.1.15 Complete permanent tunnel structure for 10% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.16 Complete permanent tunnel structure for 20% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.17 Complete permanent tunnel structure for 30% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.18 Complete permanent tunnel structure for 40% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.19 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cover Tunnel	◆ MS 4.1.19 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cover Tunnel							
MS 4.1.20 Complete permanent tunnel structure for 60% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.21 Complete permanent tunnel structure for 70% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.22 Complete permanent tunnel structure for 80% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.23 Complete permanent tunnel structure for 90% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.24 Complete permanent tunnel structure for 100% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.26 Complete excavation for 50% of total length (measured on plan) of all Cross Passages								
MS 4.1.27 Complete excavation for 100% of total length (measured on plan) of all Cross Passages								
MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel			◆ MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel					
<b>Cut-and-cover Tunnel at Northern Landfall</b>								
MS 4.2.22 Complete tunnel internal structure for 50% of NB Northern Landfall TBM Tunnel								
MS 4.2.23 Complete tunnel internal structure for 100% of NB Northern Landfall TBM Tunnel								
MS 4.2.24 Complete tunnel internal structure for 50% of SB Northern Landfall TBM Tunnel	◆ MS 4.2.24 Complete tunnel internal structure for 50% of SB Northern Landfall TBM Tunnel							
MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel		◆ MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel						
MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passages	◆ MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passages							
MS 4.2.30 Complete Permanent tunnel structure for 25% of Cut and Cover Tunnel								
MS 4.2.31 Complete Permanent tunnel structure for 50% of Cut and Cover Tunnel								
MS 4.2.32 Complete Permanent tunnel structure for 75% of Cut and Cover Tunnel								
MS 4.2.34 Complete Permanent junction structure at interface between Cut-and-cover and TBM Tunnel								
<b>Approach Ramp Structures to Cut-and-cover Tunnel at Southern Landfall</b>								
MS 5.1.2 Complete 40% of excavation for approach ramp structures								
MS 5.1.3 Complete 60% of excavation for approach ramp structures								
MS 5.1.4 Complete 80% of excavation for approach ramp structures								
MS 5.1.5 Complete 100% of excavation for approach ramp structures								
MS 5.1.6 Complete retaining wall foundation for 10% of the total length (measured on plan) of approach ramp structures								
MS 5.1.7 Complete retaining wall foundation for 20% of the total length (measured on plan) of approach ramp structures								
MS 5.1.8 Complete retaining wall foundation for 30% of the total length (measured on plan) of approach ramp structures								
MS 5.1.9 Complete retaining wall foundation for 40% of the total length (measured on plan) of approach ramp structures								
MS 5.1.10 Complete retaining wall foundation for 50% of the total length (measured on plan) of approach ramp structures								
MS 5.1.11 Complete retaining wall foundation for 60% of the total length (measured on plan) of approach ramp structures								
MS 5.1.12 Complete retaining wall foundation for 70% of the total length (measured on plan) of approach ramp structures								
MS 5.1.13 Complete retaining wall foundation for 80% of the total length (measured on plan) of approach ramp structures								
MS 5.1.14 Complete retaining wall foundation for 90% of the total length (measured on plan) of approach ramp structures								
MS 5.1.15 Complete retaining wall foundation for 100% of the total length (measured on plan) of approach ramp structures								
<b>At grade Roads at Northern Landfall</b>								
MS 6.2.13 Complete drainage installation of 20% length of total length (measured on plan) of drainage pipes								◆ MS 6.2.13 Complete drainage installation of 20% length of total length (measured on plan) of drainage pipes
MS 6.2.17 Complete sewerage installation of 20% length of total length (measured on plan) of sewerage pipes								◆ MS 6.2.17 Complete sewerage installation of 20% length of total length (measured on plan) of sewerage pipes
<b>South Ventilation Buildings</b>								
MS 7.1.1 Complete 100% of cofferdam for excavation								
MS 7.1.2 Complete 100% of excavation to the formation level								
MS 7.1.3 Complete 100% of foundation for the ventilation building								
MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building	◆ MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building							
MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building		◆ MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building						
MS 7.1.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building								
MS 7.1.7 Complete concreting works of 100% area of the total construction floor area for the ventilation building								◆ MS 7.1.7 Complete concreting works of 100% area of the total construction floor area for the ventilation building
<b>North Ventilation Buildings</b>								
MS 7.2.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building								
MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building	◆ MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building							
MS 7.2.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building								
MS 7.2.7 Complete concreting works of 100% area of the total construction floor area for the ventilation building								◆ MS 7.2.7 Complete concreting works of 100% area of the total construction floor area for the ventilation building
<b>Facilities Provision for E&amp;M Works for TBM Tunnel, Cut &amp; Cover Tunnels and Cross Passages</b>								
MS 9.1.1 Complete 25% of bonding terminal, opening and accessories, etc.								
MS 9.1.2 Complete 25% of plinth, hoisting facilities and accessories, etc.								
MS 9.1.3 Complete 50% of bonding terminal, opening and accessories, etc.								◆ MS 9.1.3 Complete 50% of bonding terminal, opening and accessories, etc.

- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBUGEN-PRG08507	WYu	SFe
08-Apr-14	TMCLKDBUGEN-PRG08507 Rev.B	SFe	WYu
28-Aug-14	TMCLKDBUGEN-PRG08507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBUGEN-PRG08507 Rev.F	WYu	

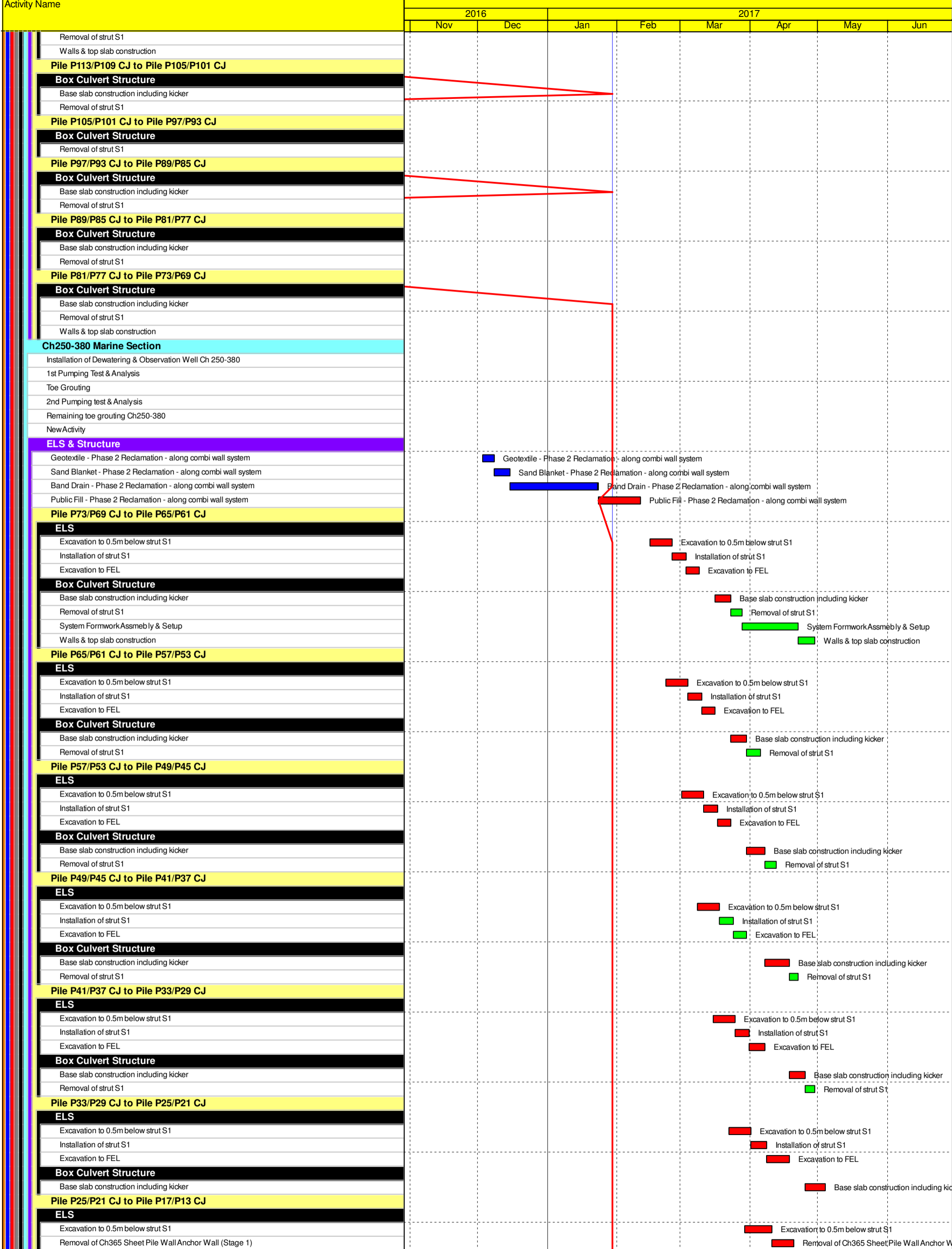


Activity Name	2016		2017					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.				◆ MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.				
MS 9.1.5 Complete 75% of bonding terminal, opening and accessories, etc.							◆ MS 9.1.5 Complete 75% of bonding terminal, opening and accessories, etc.	
MS 9.1.6 Complete 75% of plinth, hoisting facilities and accessories, etc.							◆ MS 9.1.6 Complete 75% of plinth, hoisting facilities and accessories, etc.	
<b>Facilities Provision for E&amp;M Works for North Ventilation Building</b>								
MS 9.5.1 Complete 25% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal							◆ MS 9.5.1 Complete 25% of bonding terminal, main earth mat, clean earth mat, earth pit, lightning pit, conceal	
MS 9.5.2 Complete 25% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.							◆ MS 9.5.2 Complete 25% of plinth, hoisting facilities, louver, wire mesh and accessories, etc.	
MS 9.5.3 Complete 25% of floor drain, water tank and accessories, etc.							◆ MS 9.5.3 Complete 25% of floor drain, water tank and accessories, etc.	
<b>Construction</b>								
<b>Northern Landfall</b>								
<b>North Reclamation (Phase 1)</b>								
<b>Construction</b>								
<b>Zone B</b>								
<b>Reclamation</b>								
Surcharge Removal - Zone B - (CH598 to 648)								
Surcharge Removal - Zone B - (CH598 to 698) stage 1								
Surcharge Period - Zone B - (CH648 to 698) stage 2								
Surcharge Removal - Zone B - (CH598 to 698) stage 2								
<b>Zone F</b>								
<b>CH184 to CH231</b>								
F - Anchor wall Installation - CH184 to CH231								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH184 to CH231								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall- CH184 to CH231								
F - Backfilling up to +6.0mPD to Anchor Wall - CH184 to CH231								
F - Backfilling to +6.0mPD to Existing Seawall - CH184 to CH231								
<b>CH231 to CH278</b>								
F - Backfilling up to +6.0mPD - CH231 to CH278								
F - Anchor wall Installation - CH231 to CH278								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall- CH231 to CH278								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH231 to CH278								
F - Backfilling up to +6.0mPD to Anchor Wall - CH231 to CH278								
F - Backfilling to +6.0mPD to Existing Seawall - CH231 to CH278								
<b>CH278 to CH327</b>								
F - Backfilling up to +6.0mPD - CH278 to CH327								
F - Anchor wall Installation - CH278 to CH327								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH278 to CH327								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH278 to CH327								
F - Backfilling up to +6.0mPD to Anchor Wall - CH278 to CH327								
F - Backfilling to +6.0mPD to Existing Seawall - CH278 to CH327								
<b>CH327 to CH381</b>								
F - Backfilling up to +6.0mPD - CH327 to CH381								
F - Anchor wall Installation - CH327 to CH381								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH327 to CH381								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH327 to CH381								
F - Backfilling up to +6.0mPD to Anchor Wall - CH327 to CH381								
F - Backfilling to +6.0mPD to Existing Seawall - CH327 to CH381								
<b>Box Culvert Extension</b>								
<b>Construction</b>								
<b>Ch000-010 Culvert Outfall</b>								
Removal of temporary bulk head								
<b>CH100-150 Land Section</b>								
<b>Pile A41/A39 CJ to Pile A39/A37 CJ</b>								
<b>Box Culvert Structure</b>								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Sliding formworks 1st assembly								
Walls & top slab construction								
Removal of strut S2 & Backfilling up to required level								
<b>Pile A39/A37 CJ to Pile A37/A35 CJ</b>								
<b>Box Culvert Structure</b>								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Walls & top slab construction								
Removal of strut S2 & Backfilling up to required level								
<b>Pile A37/A35 CJ to Pile A35/A33 CJ</b>								
<b>ELS</b>								
Excavation to FEL								
<b>Box Culvert Structure</b>								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Walls & top slab construction								
Removal of strut S2 & Backfilling up to required level								
<b>Pile A35/A33 CJ to Pile A33/P117 CJ</b>								
<b>ELS</b>								
Excavation to FEL								
<b>Box Culvert Structure</b>								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Walls & top slab construction								
<b>Ch150-250 Marine Section</b>								
<b>ELS &amp; Structure</b>								
<b>Pile A33/P117 CJ to Pile P113/P109 CJ</b>								
<b>Box Culvert Structure</b>								
Base slab construction including kicker								

- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone



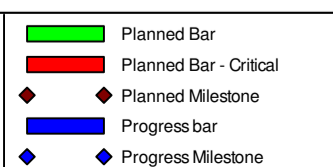
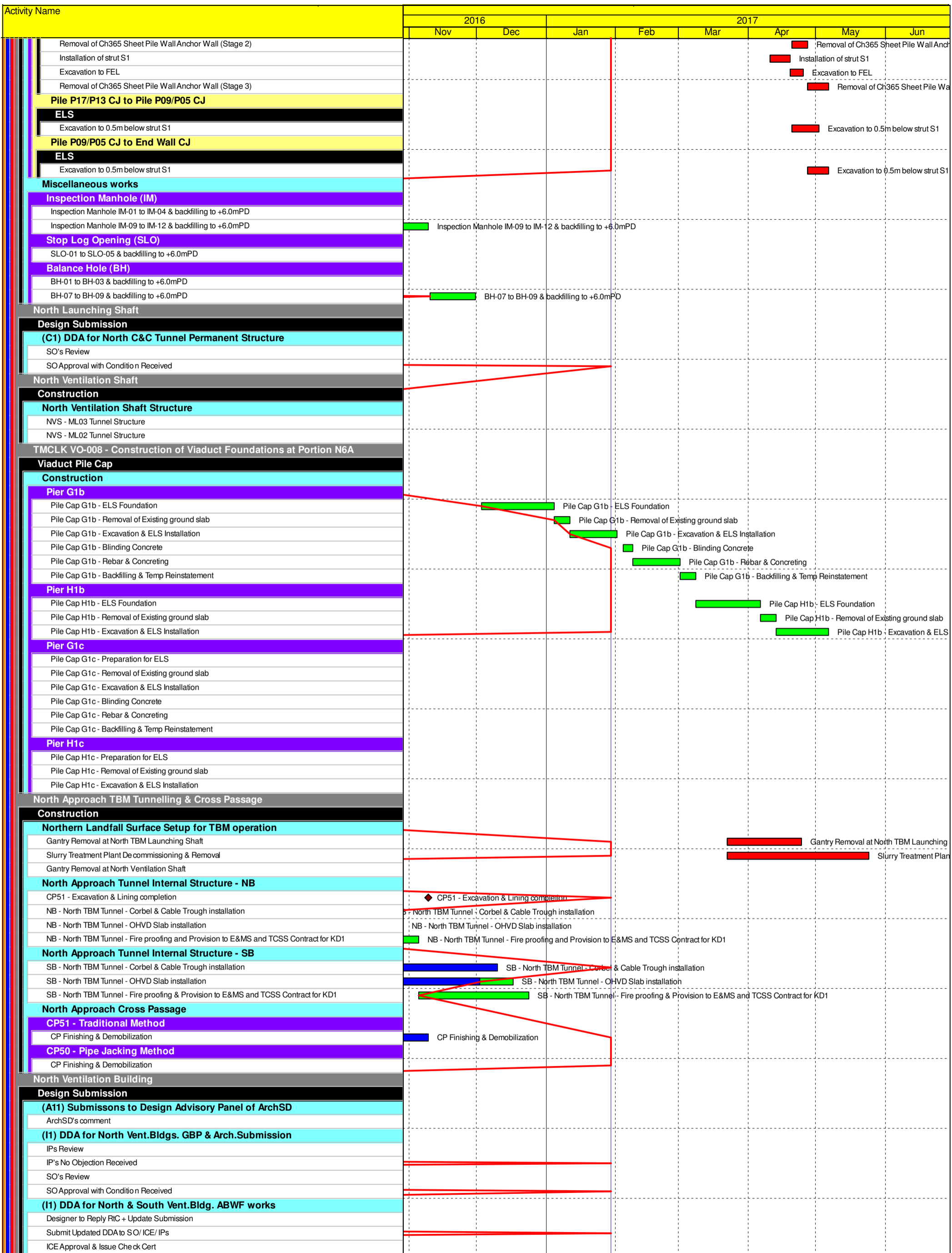
Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBUGEN-PRG08507	WYu	SFe
08-Apr-14	TMCLKDBUGEN-PRG08507 Rev.B	SFe	WYu
28-Aug-14	TMCLKDBUGEN-PRG08507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBUGEN-PRG08507 Rev.F	WYu	



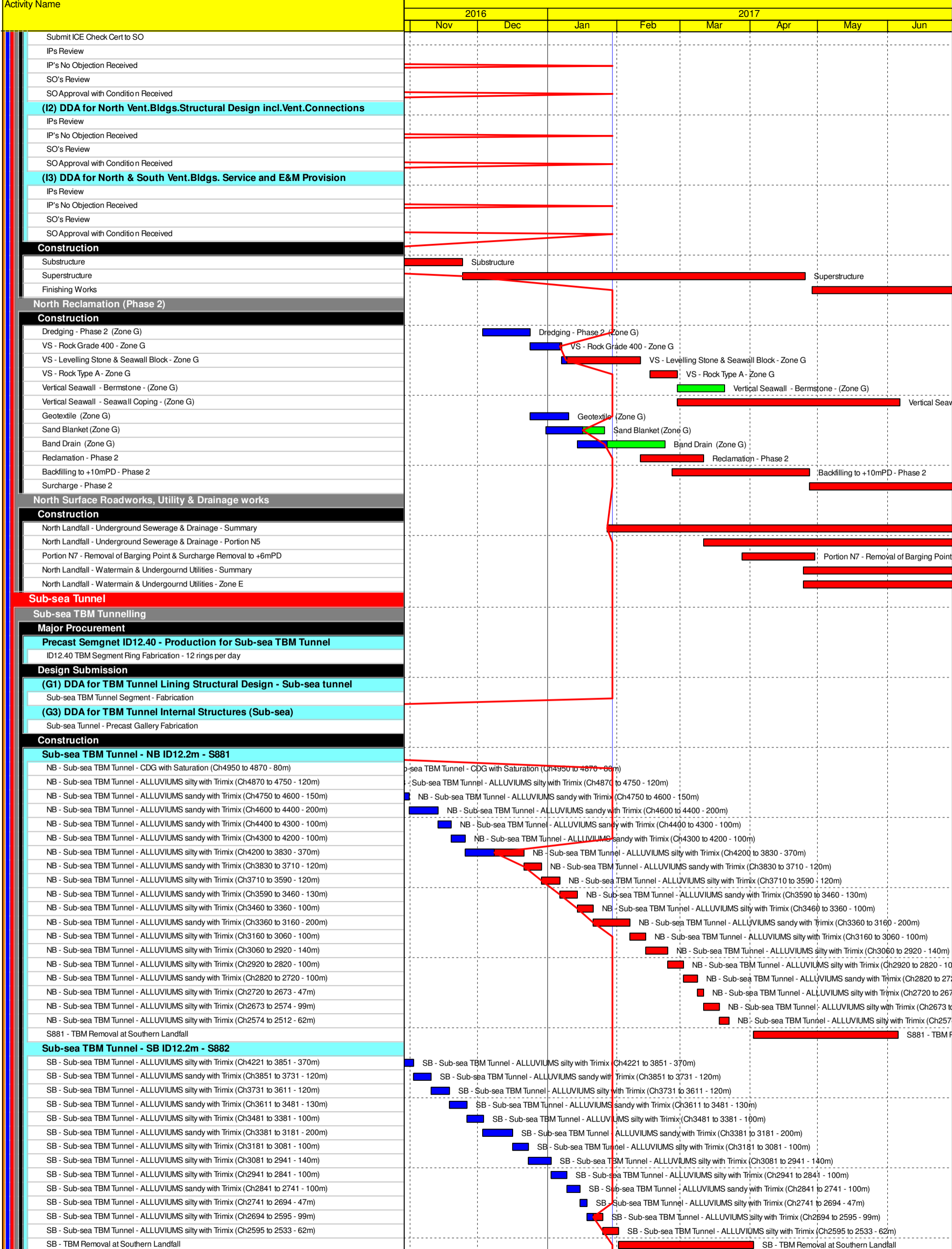
- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG-98507	WYu	SFz
08-Apr-14	TMCLKDBJGEN-PRG-98507 Rev.B	SFz	WYu
28-Aug-14	TMCLKDBJGEN-PRG-98507 Rev.C	CLz	WYu
30-Oct-15	TMCLKDBJGEN-PRG-98507 Rev.F	WYu	



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBUGEN-PRG-98507	WYu	SFz
08-Apr-14	TMCLKDBUGEN-PRG-98507 Rev.B	SFz	WYu
28-Aug-14	TMCLKDBUGEN-PRG-98507 Rev.C	CLz	WYu
30-Oct-15	TMCLKDBUGEN-PRG-98507 Rev.F	WYu	



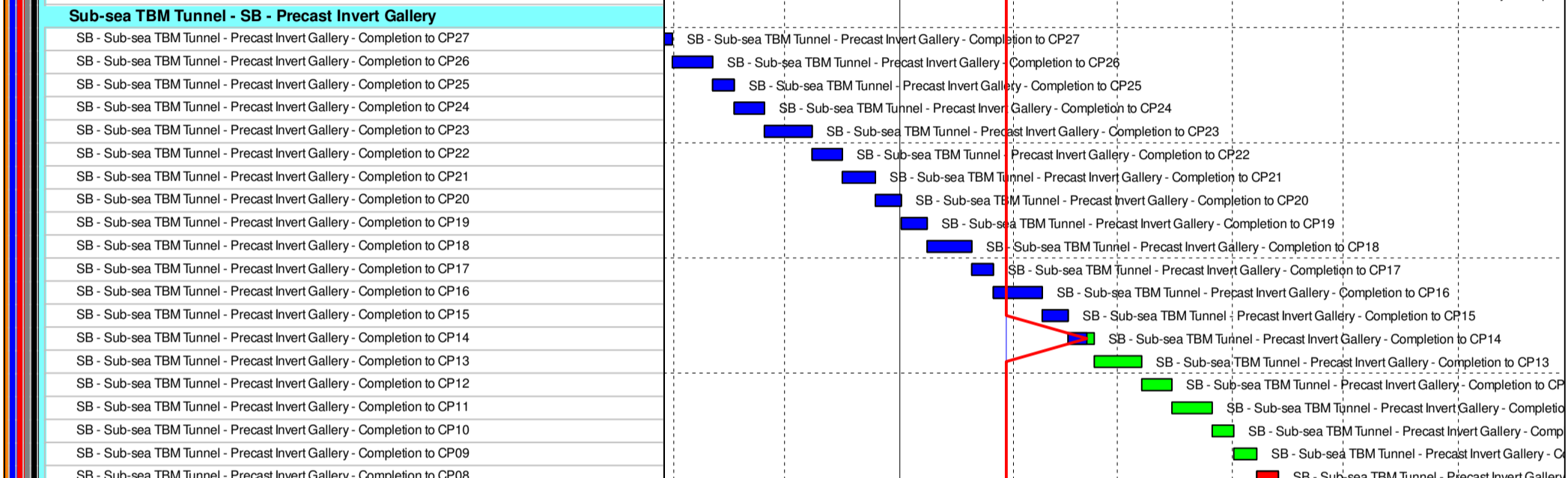
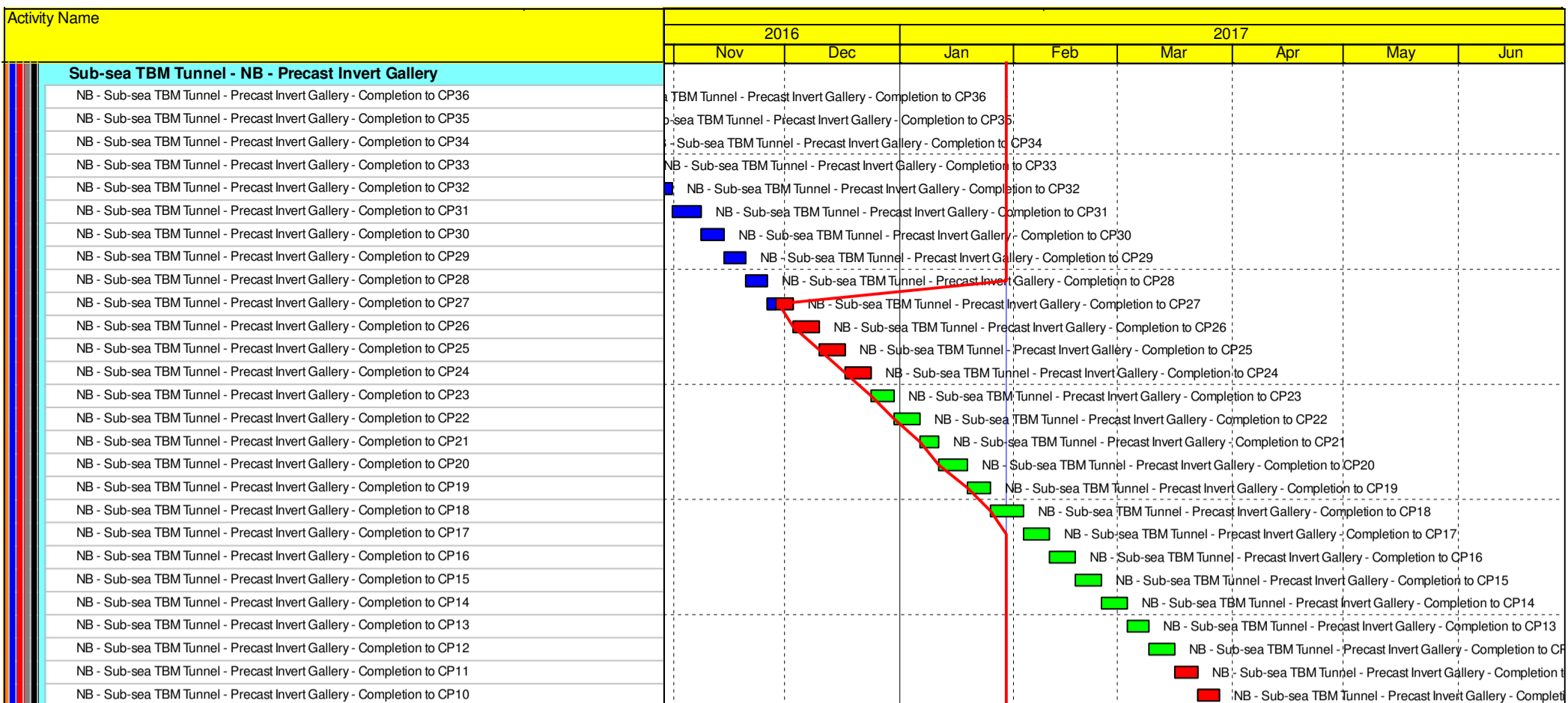
- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section  
 Detailed Works Programme (Rev. F)  
 Three Months Rolling Programme  
 Progress as of 29-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG098507	WYu	SPe
08-Apr-14	TMCLKDBJGEN-PRG098507 Rev.B	SPe	WYu
28-Aug-14	TMCLKDBJGEN-PRG098507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG098507 Rev.F	WYu	

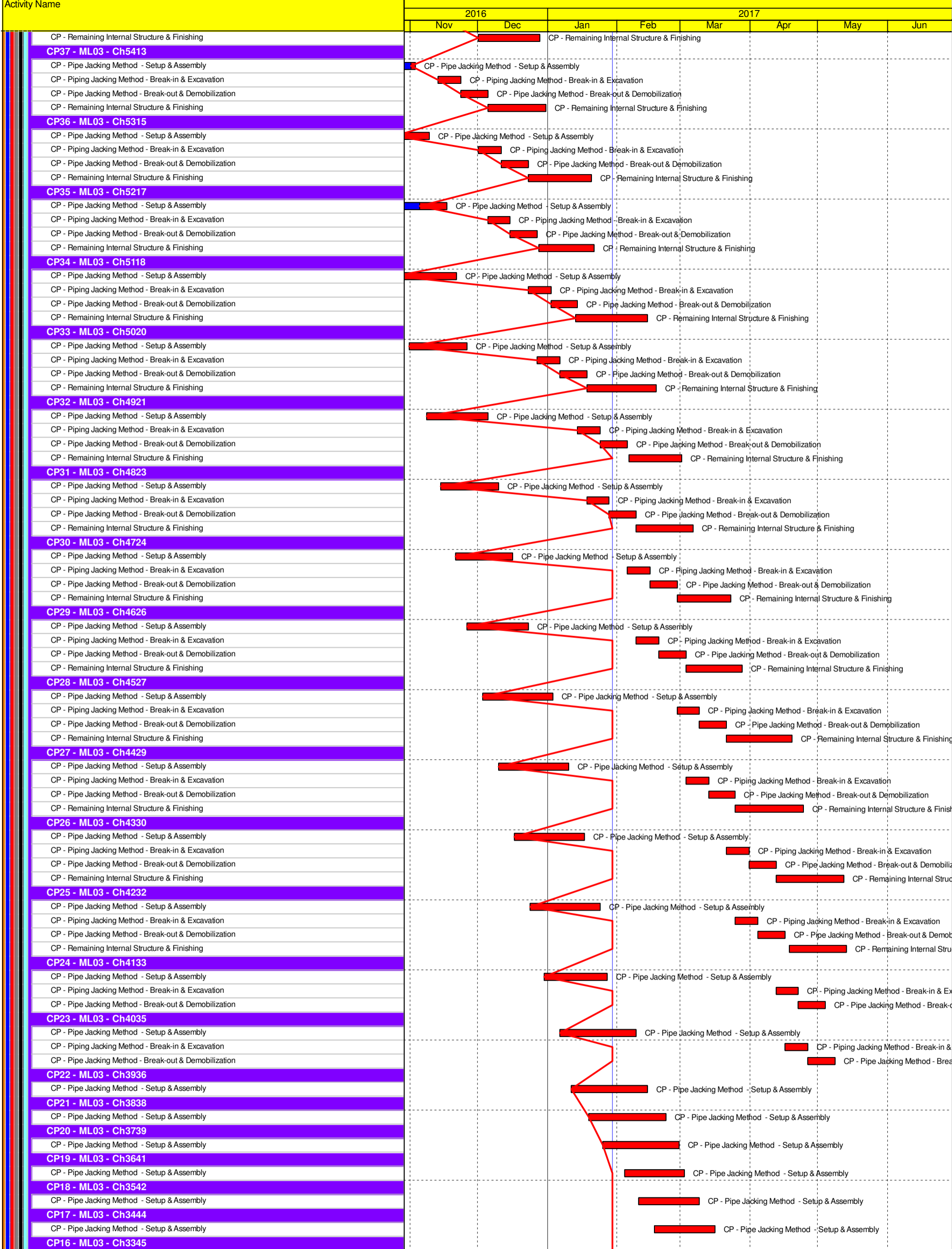




- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG-98507	WYu	SPe
08-Apr-14	TMCLKDBJGEN-PRG-98507 Rev.B	SPe	WYu
28-Aug-14	TMCLKDBJGEN-PRG-98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG-98507 Rev.F	WYu	

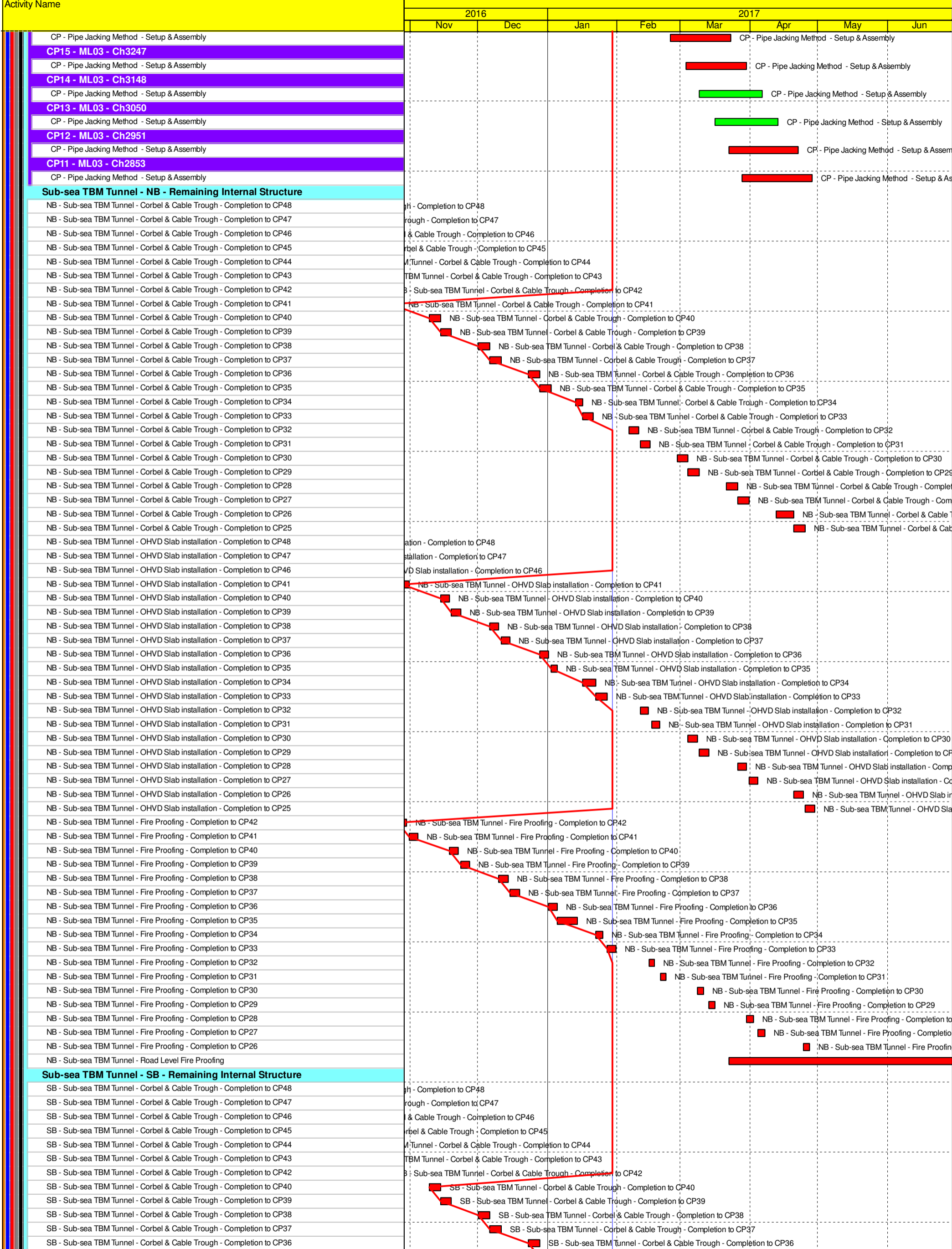


- Planned Bar
- Planned Bar - Critical
- Planned Milestone
- Progress bar
- Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG098507	WYu	SFr
08-Apr-14	TMCLKDBJGEN-PRG098507 Rev.B	SFr	WYu
28-Aug-14	TMCLKDBJGEN-PRG098507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG098507 Rev.F	WYu	



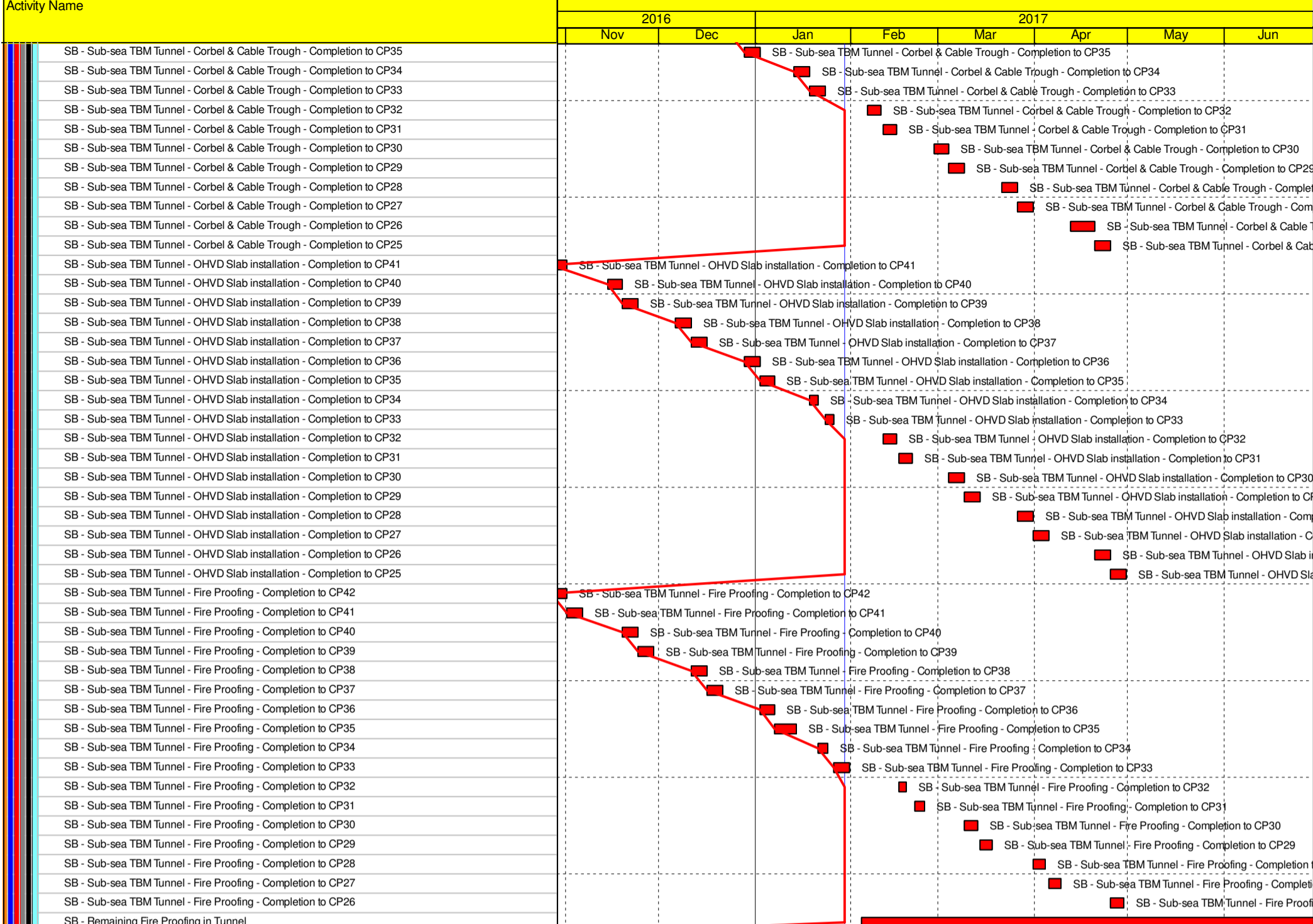


	Planned Bar
	Planned Bar - Critical
	Planned Milestone
	Progress bar
	Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section  
 Detailed Works Programme (Rev. F)  
 Three Months Rolling Programme  
 Progress as of 29-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG08507	WYu	SFe
08-Apr-14	TMCLKDBJGEN-PRG08507 Rev.B	SPH	WYu
28-Aug-14	TMCLKDBJGEN-PRG08507 Rev.C	CLH	WYu
30-Oct-15	TMCLKDBJGEN-PRG08507 Rev.F	WYu	



**Southern Landfall**

**South Cut & Cover Tunnel**

**Design Submission**

**(E2) DDA for South C&C Box & Approach Ramp**

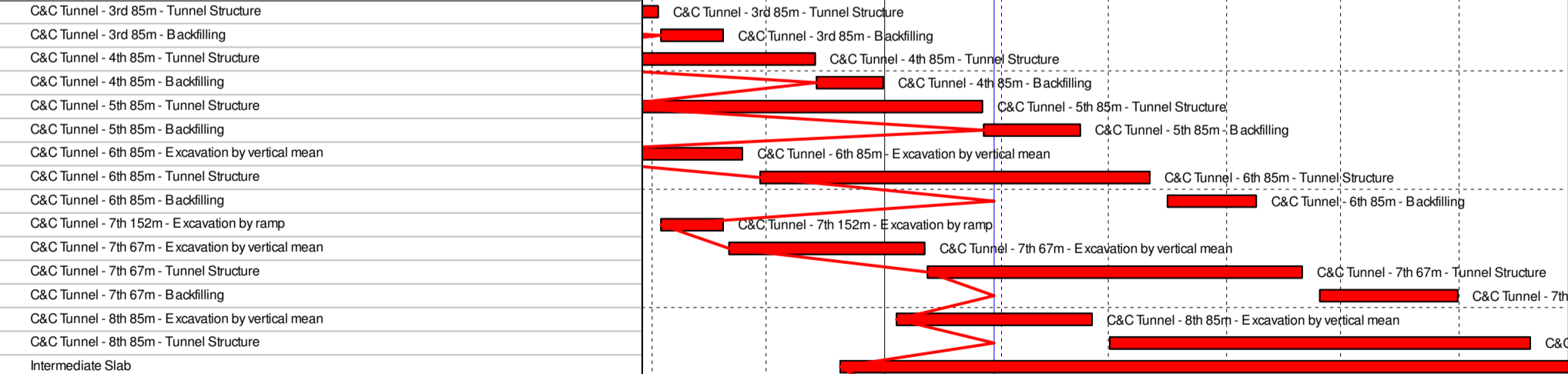
- Review & Comment by JV
- Designer prepare DDA
- Formal Submission of DDA to ICE/IPs
- Advanced Submission to SO
- IPs/SO's Advance Comments/ICE Comments
- Comments Received
- Designer to Reply RtC + Update Submission

**Method Statement Submission**

**Method Statement of Construction Methodology of C&C Tunnels**

- Preparation Method Statement for C&C Tunnels
- Submit Method Statement to SO
- SO Reviews & Comments
- Re-submission
- SO's Review

**Construction**



**South Retrieval Shaft**

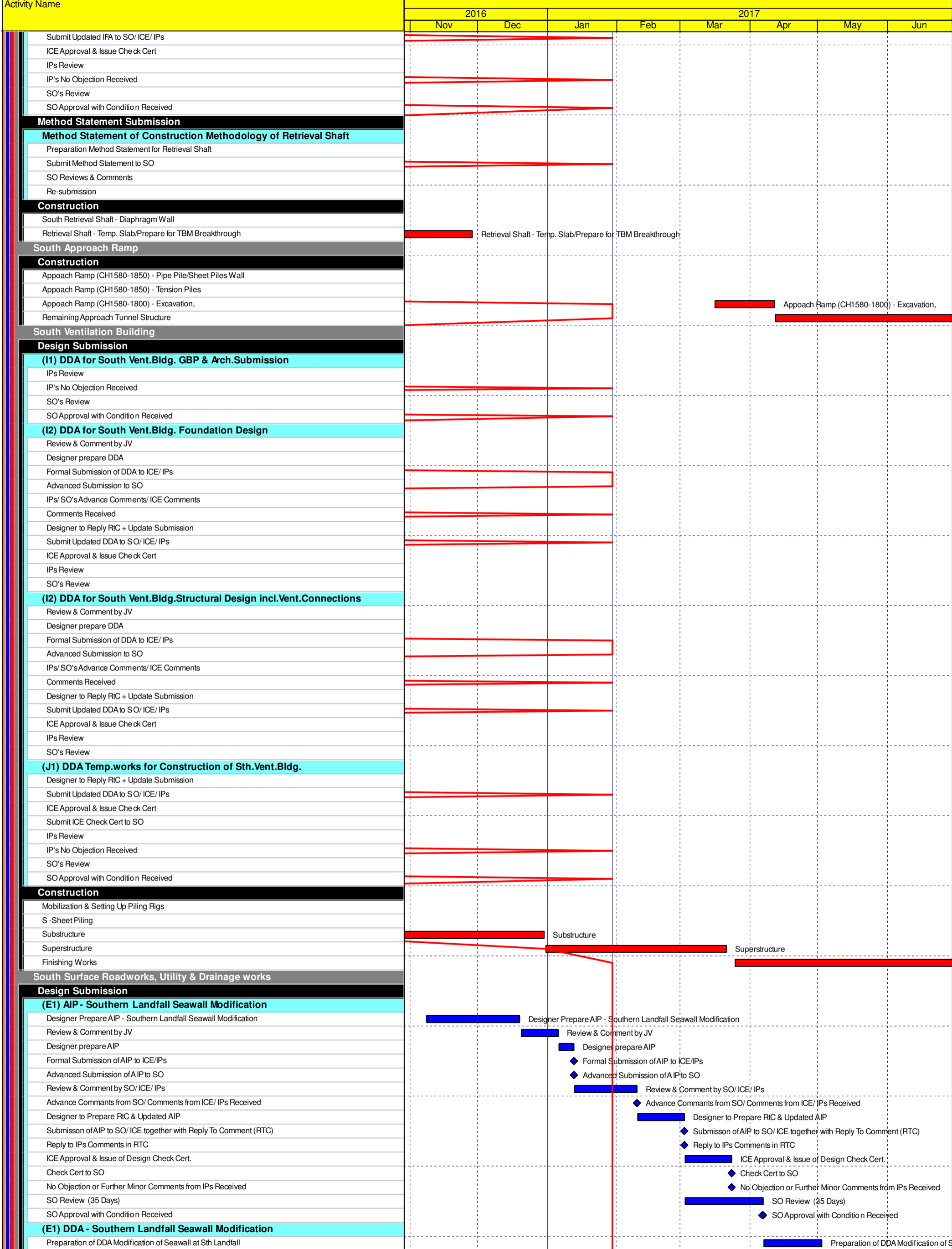
**Design Submission**

**(F4) Gantry Crane Support/Foundations in Southern Landfall**

- IPs/SO's Advance Comments/ICE Comments
- Comments Received
- Designer to Reply RtC + Update Submission



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBUGEN-PRG-98507	WYu	SPe
08-Apr-14	TMCLKDBUGEN-PRG-98507 Rev.B	SPe	WYu
28-Aug-14	TMCLKDBUGEN-PRG-98507 Rev.C	CLi	WYu
30-Oct-15	TMCLKDBUGEN-PRG-98507 Rev.F	WYu	



■ Planned Bar  
■ Planned Bar - Critical  
◆ Planned Milestone  
■ Progress bar  
◆ Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBUGEN-PRG098507	WYu	SPe
08-Apr-14	TMCLKDBUGEN-PRG098507 Rev.B	SPe	WYu
28-Aug-14	TMCLKDBUGEN-PRG098507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBUGEN-PRG098507 Rev.F	WYu	



Activity Name	2016			2017				
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Designer to Reply RIC + Update Submission								
Submit Updated DDA to SO/ICE/IPs								
IPs Review								
IP's No Objection Received								
SO's Review								
SO Approval with Condition Received								
<b>(E3) DDA for Sewerage, Drainage, Waterworks &amp; Utility works for South Landf</b>								
IPs Review								
IP's No Objection Received								
SO's Review								
SO Approval with Condition Received								
<b>Method Statement Submission</b>								
<b>Method Statement of Ground Treatment for TBMs Passing under Southern La</b>								
Preparation Method Statement for Ground Improvement in South Landfall								
Submit Method Statement to SO								
SO Reviews & Comments								
Re-submission								
SO's Review								
SO's Approval								
<b>Construction</b>								
Temporary Platform for Ground Treatment for TBM passing under Southern Seawall								
Grouting Treatment for TBM passing under Southern Seawall								
<b>Testing &amp; Commissioning/Inspection &amp; Handover</b>								
<b>Final Inspection &amp; Handover</b>								
<b>Design Submission</b>								
<b>(A12) Maintenance Matrix</b>								
Preparation of Maintenance Matrix								
Prepare Re-submission								
2nd Submission								
SO's Condition Approval								
<b>(A13) Operation &amp; Maintenance Manual</b>								
Preparation of Operation and Maintenance Manual								
1st Submission								
SO's Comments for 1st Submission								
Prepare Re-submission								
<b>(A14) As-built &amp; As-fabricated Drawings</b>								
Preparation of As-built and As-fabricated Drawings								
1st Submission								
SO's Comments for 1st Submission								
<b>(A15) Health &amp; Safety File incl. As-built Dwgs &amp; Records, Maintenance Schedul</b>								
Preparation of Health and Safety File including as-built drawings and records, maintenance schedules, or								
1st Submission								
SO's Comments for 1st Submission								

- Planned Bar
- Planned Bar - Critical
- Planned Milestone
- Progress bar
- Progress Milestone



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJGEN-PRG-98507	WYu	SFz
08-Apr-14	TMCLKDBJGEN-PRG-98507 Rev.B	SFz	WYu
28-Aug-14	TMCLKDBJGEN-PRG-98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG-98507 Rev.F	WYu	