



Cityringen Branch off to Sydhavnen

SHG-AB-SB 1

CRSH1 Contract Milestone List

Document ID:	CR-CSJV-GEN=GSh-GC-CON-SPE-220331
Version:	4.0
Issue date:	2017-04-27
Issued By	COWI SYSTRA Joint Venture

Employers	MKJ	Mikkel Kjær Jensen
Approval:		
Approved by:	CBO	Christian Boye
Checked by:	SDE	Søren Degn Eskesen
Prepared by:	CBO	Christian Boye



Milestone Abbreviation	Title	Responsible Party	Receiving Party	CRSH1 Payment Milestones Ref, SH1-FT	CRSH1 Penalty Milestone EUR/day	Reference to section in SHG-CB 4.2	Non-location specific or Common for several Milestones	Shaft Hah	Tunnel Hah - Fit	Station Fit	Tunnel Fit-Øvk	Cross-over Øvk	Station Ebr	Tunnel Ebr - Slu	Station Slu	Tunnel Slu - Mop	Station Mop	Tunnel Mop - Gáb	Cross-over Gáb	Tunnel Gáb - Nel	Station and stop tracks Nel
							Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
Contract Verification Phase																					
CA	Contract Award	Employer	-			9.1	2017-08-01														
VOC	Verification of Contract	CRSH1, 4 and TSC	-			9.2	2017-11-01														
Design Phase																					
IAP	Interface Agreement Planning	CRSH1, 4 and TSC	-		10.000	9.3	2018-02-01														
SGDI-CRSH1#1	Starting "Geometrical Design Input" exchange, CRSH1 Underground Stations	CRSH1	CRSH4 and TSC	1%	5.000	9.4	2018-04-03														
SGDI-CRSH1#2	Starting "Geometrical Design Input" exchange, CRSH1 Rest	CRSH1	CRSH4 and TSC	1%	5.000	9.4	2018-04-03														
GDI-CRSH1#1	Geometrical Design Input to CRSH1 Underground Stations	CRSH4 and TSC	CRSH1			9.5	2018-10-01														
GDI-CRSH1#2	Geometrical Design Input to CRSH1 Rest	CRSH4 and TSC	CRSH1			9.5	2018-10-01														
PD-CRSH4-PW	Preliminary Design, Permanent Way	CRSH4	Employer			9.6															
PD-CRSH4-PS	Preliminary Design, Power Supply	CRSH4	Employer			9.6															
PD-CRSH4-TP	Preliminary Design, Traction Power	CRSH4	Employer			9.6															
PD-CRSH4-LS	Preliminary Design, Local SCADA	CRSH4	Employer			9.6															
DD-CRSH1-SP	Detailed Design, Secant Piles, Ebr+Øvk	CRSH1	Employer	1%		9.7															
DD-CRSH1-TS	Detailed Design, Tunnel Segments	CRSH1	Employer	1%		9.7															
DD-CRSH1-ARC	Detailed Design, Architecture, CRSH1 1st station	CRSH1	Employer	1%		9.7															
DD-CRSH4-PW	Detailed Design, Permanent Way	CRSH4	Employer			9.7															
DD-CRSH4-PS	Detailed Design, Power Supply	CRSH4	Employer			9.7															
DD-CRSH4-TP	Detailed Design, Traction Power	CRSH4	Employer			9.7															
DD-CRSH4-LS	Detailed Design, Local SCADA	CRSH4	Employer			9.7															
MU-CRSH1	Mock-up Approval, CRSH1	CRSH1	Employer	2%		A.2															
SLDD	System Level Detailed Design	TSC	Employer			9.9															
OMC	Operation and Maintenance Concept	TSC	Employer			9.10															
OMPD	Operation and Maintenance Preliminary Design	TSC	Employer			9.11															
OMDD	Operation and Maintenance Detailed Design	TSC	Employer			9.12															
Construction Phase																					
AS	Access to Site	Employer	CRSH1			9.13	2018-09-14			2018-03-01				2017-11-30		2018-01-31		2018-03-01		2018-05-04	2018-12-03
ASEbr1	Access to Enghave Brygge Site area #1	Employer	CRSH1			A.3								2017-11-30							
ASEbr2	Access to Enghave Brygge Site area #2	Employer	CRSH1			A.4								2019-03-01							
TBMFAC1	TBM #1 Factory assembly and commissioning	CRSH1	Employer			A.5															
TBMFAC2	TBM #2 Factory assembly and commissioning	CRSH1	Employer			A.6															
TBML	TBM #1 Launch	CRSH1	Employer	3%	5.000	A.7															
TBM-REC-Hah	TBM #1 Reception at Havneholmen	CRSH1	Employer	3%	20.000	A.8															
TBM-REC-Nel	TBM #2 Reception at Ny Ellebjerg	CRSH1	Employer	3%	20.000	A.9															
ASNel1	Access to Ny Ellebjerg Site area #1	Employer	CRSH1			A.10															2018-12-03
ASNel2	Access to Ny Ellebjerg Site area #2	Employer	CRSH1			A.11															2019-03-04
ASGáb1	Access to Gåsebæk Shaft Site area #1	Employer	CRSH1			A.12													2018-05-04		
ASGáb2	Access to Gåsebæk Shaft Site area #2	Employer	CRSH1			A.13													2019-03-14		

Legend:

Milestone Dates provided by Employer

Milestone Dates to be provided by the Responsible Party

Latest changes to milestone dates (Post Addendum 2)

SHG-AB-SB 1 - CRSH1 Contract Milestone List



Milestone Abbreviation	Title	Responsible Party	Receiving Party	CRSH1 Payment Milestones Ref, SH1-FT	CRSH1 Penalty Milestone EUR/day	Reference to section in SHG-CB 4.2	Non-location specific or Common for several Milestones	Shaft Hah	Tunnel Hah - Fit	Station Fit	Tunnel Fit-Øvk	Cross-over Øvk	Station Ebr	Tunnel Ebr - Slu	Station Slu	Tunnel Slu - Mop	Station Mop	Tunnel Mop - Gåb	Cross-over Gåb	Tunnel Gåb - Nel	Station and stop tracks Nel
							Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
RASA-CRSH4	Ready for CRSH4 Access to Surface Site Area	CRSH1	Employer			9.14				2021-12-23			2021-09-21		2021-08-31		2021-10-04		2021-05-19		2022-06-21
ASA-CRSH4	CRSH4 Access to Surface Site Area	Employer	CRSH4			9.15				2022-01-06			2021-10-05		2021-09-14		2021-10-18		2021-06-02		2022-07-05
RASA-TSC	Ready for TSC Access to Surface Site Area	CRSH1	Employer			9.14				2022-02-08			2021-11-05		2021-10-14		2021-10-14		2021-07-02		2022-07-21
ASA-TSC	TSC Access to Surface Site Area	Employer	TSC			9.15				2022-02-22			2021-11-19		2021-10-28		2021-10-28		2021-07-16		2022-08-04
RASCL	Ready for TSC Access to Concourse Level	CRSH1	Employer			9.16				2022-04-04			2022-01-26		2022-01-06		2021-11-15				2022-08-18
ASCL	TSC Access to Concourse Level	Employer	TSC			9.26				2022-04-19			2022-02-09		2022-01-20		2021-11-29				2022-09-01
RASPL#1	Ready for TSC Access to Platform Level	CRSH1	Employer		5.000	9.17				2022-03-10			2021-12-07		2022-01-24		2022-02-07				2022-12-12
ASPL#1	TSC Access to Platform Level	Employer	TSC			9.26				2022-03-24			2021-12-21		2022-02-07		2022-02-21				2022-12-26
RASPL#2	Ready for CRSH1 Access to Platform Level	TSC	Employer			9.18				2022-06-24			2022-03-23		2022-05-10		2022-05-24				2023-03-14
ASPL#2	CRSH1 Access to Platform Level	Employer	CRSH1			9.26				2022-07-08			2022-04-06		2022-05-24		2022-06-07				2023-03-28
RASBPL#1	Ready for CRSH4 Access to Below Platform Level	CRSH1	Employer		5.000	9.19				2022-02-23			2022-03-14		2022-01-24		2022-06-06				2022-08-05
ASBPL#1	CRSH4 Access to Below Platform Level	Employer	CRSH4			9.26				2022-03-09			2022-03-28		2022-02-07		2022-06-20				2022-08-19
RASBPL#2	Ready for TSC Access to Below Platform Level	CRSH4	Employer			9.20				2022-04-06			2022-04-25		2022-03-07		2022-07-18				2022-09-16
ASBPL#2	TSC Access to Below Platform Level	Employer	TSC			9.26				2022-04-20			2022-05-09		2022-03-21		2022-08-01				2022-09-30
RASTR#1	Ready for CRSH4 Access to Technical Rooms	CRSH1	Employer		5.000	9.21				2022-01-25		2022-01-11	2021-10-22		2021-09-30		2021-11-03		2021-06-18		2022-07-21
ASTR#1	CRSH4 Access to Technical Rooms	Employer	CRSH4			9.26				2022-02-08		2022-01-25	2021-11-05		2021-10-14		2021-11-17		2021-07-02		2022-08-04
RASTR#2	Ready for TSC Access to Technical Rooms	CRSH4	Employer			9.22				2022-03-10			2021-12-07		2021-11-15		2021-12-17		2021-08-03		2022-09-06
ASTR#2	TSC Access to Technical Rooms	Employer	TSC			9.26				2022-03-24			2021-12-21		2021-11-29		2021-12-31		2021-08-17		2022-09-20
RASTB#1A	Ready for CRSH4 Access to Track Bed	CRSH1	Employer	2% (Gåb-Nel)	10.000	9.23			2021-07-28		2021-07-28			2022-03-29		2022-04-26		2022-03-21		2022-06-10	
ASTB#1A	CRSH4 Access to Track Bed	Employer	CRSH4			9.26			2021-08-11		2021-08-11			2022-04-12		2022-05-10		2022-04-04		2022-06-24	
RASTB#2A	Ready for CRSH1 Access to Track Bed	CRSH4	Employer			9.24			2022-01-31		2022-01-31			2022-07-01		2022-07-19		2022-07-19		2022-08-31	
ASTB#2A	CRSH1 Access to Track Bed	Employer	CRSH1			9.26			2022-02-14		2022-02-14			2022-07-15		2022-08-02		2022-08-02		2022-09-14	
RASTB#3A	Ready for TSC Access to Track Bed	CRSH1	Employer		5.000	9.25			2022-03-11		2022-03-11			2022-08-26		2022-09-28		2022-09-28		2022-10-13	
ASTB#3A	TSC Access to Track Bed	Employer	TSC			9.26			2022-03-25		2022-03-25			2022-09-09		2022-10-12		2022-10-12		2022-10-27	
RASTB#1B	Ready for CRSH4 Access to Track Bed	CRSH1	Employer		10.000	9.23			2021-07-28		2021-07-28			2022-06-14		2022-07-12		2022-06-06		2022-07-21	
ASTB#1B	CRSH4 Access to Track Bed	Employer	CRSH4			9.26			2021-08-11		2021-08-11			2022-06-28		2022-07-26		2022-06-20		2022-08-04	
RASTB#2B	Ready for CRSH1 Access to Track Bed	CRSH4	Employer			9.24			2022-04-27		2022-04-27			2022-09-16		2022-10-03		2022-10-03		2022-10-10	
ASTB#2B	CRSH1 Access to Track Bed	Employer	CRSH1			9.26			2022-05-11		2022-05-11			2022-09-30		2022-10-13		2022-10-13		2022-10-24	
RASTB#3B	Ready for TSC Access to Track Bed	CRSH1	Employer		5.000	9.25			2022-06-16		2022-06-16			2022-11-14		2022-12-08		2022-12-08		2022-11-21	
ASTB#3B	TSC Access to Track Bed	Employer	TSC			9.26			2022-06-30		2022-06-30			2022-11-28		2022-12-20		2022-12-20		2022-12-05	
POS-Fit	Power on Station, Fisketorvet	CRSH4	CRSH1 and TSC			9.27			2022-07-12												
POS-Ebr	Power on Station, Enghave Brygge	CRSH4	CRSH1 and TSC			9.27							2022-07-19								
POS-Slu	Power on Station, Sluseholmen	CRSH4	CRSH1 and TSC			9.27									2022-07-26						
POS-Mop	Power on Station, Mozarts Plads	CRSH4	CRSH1 and TSC			9.27											2022-08-10				
POS-Gåb	Power on Station, Gåsebæk	CRSH4	CRSH1 and TSC			9.27													2022-08-17		
POS-Nel	Power on Station, Ny Ellebjerg	CRSH4	CRSH1 and TSC			9.27															2023-01-09
SC	Substantial Completion	CRSH1, 4 and TSC	Employer		50.000	9.28	2023-07-03														
SLSC	System Level Substantial Completion	TSC	Employer			9.29	2023-11-02														
PDSFit	Partial Demobilisation of Site	CRSH1	Employer			9.30 and A.14				2022-04-21											
RASA-CRSH4-TL-Ebr	Ready for CRSH4 Access to Surface Site Area for Track Laying	CRSH1	Employer			9.14 and A.15							2021-07-28								
ASA-CRSH4-TL-Ebr	CRSH4 Access to Surface Site Area for Track Laying	Employer	CRSH4			9.15 and A.16							2021-08-11								
LSA-CRSH4-TL-Ebr	CRSH4 Leaving Surface Site Area at Track Laying Completion	CRSH4	CRSH1			A.17							2022-09-22								
PDSFit	Partial Demobilisation of Site	CRSH1	Employer			9.30 and A.18							2022-08-10								
PDSFit	Partial Demobilisation of Site	CRSH1	Employer			9.30 and A.19									2022-02-23						
RASA-CRSH4-TL-Gåb	Ready for CRSH4 Access to Surface Site Area for Track Laying	CRSH1	Employer			9.14 and A.20													2022-01-07		
ASA-CRSH4-TL-Gåb	CRSH4 Access to Surface Site Area for Track Laying	Employer	CRSH4			9.15 and A.21													2022-01-21		
LSA-CRSH4-TL-Gåb	CRSH4 Leaving Surface Site Area at Track Laying Completion	CRSH4	CRSH1			A.22													2022-11-28		
PDSFit	Partial Demobilisation of Site #1	CRSH1	Employer			9.30 and A.23															2022-09-30
DS	Demobilisation of Site	CRSH1, 4 and TSC	Employer		5.000	9.31		2021-08-06		2022-12-09			2023-02-27		2022-10-17		2023-01-09		2023-03-21		2023-05-02
SUP-AB	Physical Supply As-Built Documentation	CRSH1, 4 and TSC	Employer	2%		9.32															
MOB-AB	Mobilisation As-Built Documentation	TSC	Employer			9.33															
RHO	Ready for Hand Over	CRSH1, 4 and TSC	Employer			9.34	2023-11-03														
HO	Hand Over	CRSH1, 4 and TSC	Employer			9.35	2023-11-06														
Construction Phase, Fit Option																					
ASFitO1	Access to Fit Site area, Option 1	Employer	CRSH1			A.24				2018-03-01											
ASFitO2	Access to Fit Site area, Option 2	Employer	CRSH1			A.25				2018-03-01											
PDSFitO1	Partial Demobilisation of Site, Option 1	CRSH1	Fit Mall Con			9.30 and A.26				2022-04-21											
PDSFitO2	Partial Demobilisation of Site, Option 2	CRSH1	Fit Mall Con			9.30 and A.27				2022-04-21											
Trial Run Phase																					
TO	Take Over	TSC	-			9.36	2023-11-06														
TRS	Trial Running Starts	TSC	-			9.37	2023-11-06														
TRC	Trial Running Completed	TSC	-			9.38	2023-12-15														
Revenue Operation Phase																					
MRO	Metro Ready for Operation	TSC	Employer			9.39	2023-12-15														
HB	Hand Back of Cityringen including branch off to Nordhavnen and Sydhavnen	TSC	Employer			9.40															
Contractor Safety Milestones																					
DA	Design Approval ("Projekteringsgodkendelse")	CRSH1, 4 and TSC	Employer			9.41															
ARS	Acceptance of Rolling Stock ("Køretøjstilladelse")	TSC	Employer			9.42															
SA	System Acceptance ("Anlægsgodkendelse")	CRSH1, 4 and TSC	Employer		10.000	9.43															
SLDA	System Level Detailed Design Approval ("Projekteringsgodkendelse")	TSC	Employer			9.44															
AOP	Approval of Operator Procedures and Organisation	TSC	Employer			9.45															
AOT	Approval of Operator Staff Training	TSC	Employer			9.46															
IAS	Installation Acceptance of Section ("Anlægsgodkendelse")	TSC	Employer			9.47															
POC	Preliminary Operator Certificate ("Foreløbig Driftstilladelse")	TSC	Employer			9.48															
OC	Operator Certificate	TSC	Employer			9.49															
TRP	Test Running Permission	Employer	TSC			9.50															

Legend:

Milestone Dates provided by Employer

Milestone Dates to be provided by the Responsible Party

Latest changes to milestone dates (Post Addendum 2)