Location of Wayside Access Point

Sr. No.	Name	Chainage	UP/DN Track
1	WRU0101	00+836	Beginning of the track - UP Line
2	WRU0102	00+836	Beginning of the track - Down Line
3	WRU0103	01+068	Up Line
4	WRU0104	01+068	Down Line
5	WRU0105	01+206	Upline Downline Cross Over Point
6	WRU0106	01+315	Down Line
7	WRU0107	01+530	Up Line
8	WRU0108	01+765	Down Line
9	WRU0109	02+020	Up Line
10	WRU0110	02+165	Up Line
11	WRU0111	02+281	Down Line
12	WRU0112	02+535	Up Line
13	WRU0113	02+765	Down Line
14	WRU0201	02+961	Up Line
15	WRU0202	03+219	Down Line
16	WRU0203	03+475	Up Line
17	WRU0204	03+727	Down Line
18	WRU0205	03+970	Up Line
19	WRU0206	04+154	Down Line
20	WRU0301	04+352	Up Line
21	WRU0302	04+590	Down Line
22	WRU0303	04+820	Up Line
23	WRU0304	05+040	Down Line
24	WRU0305	05+226	Up Line
25	WRU0401	05+422	Down Line
26	WRU0402	05+680	Up Line
27	WRU0403	05+915	Down Line
28	WRU0404	06+110	Up Line
29	WRU0405	06+270	Down Line
30	WRU0501	06+510	Up Line
31	WRU0502	06+717	Down Line
32	WRU0503	06+938	Up Line
33	WRU0504	07+098	Down Line
34	WRU0505	07+328	Up Line
35	WRU0506	07+558	Down Line
36	WRU0601	07+748	Up Line
37	WRU0602	07+914	Up Line
38	WRU0603	08+062	Up Line
39	WRU0604	08+231	Down Line
40	WRU0605	08+482	Up Line
41	WRU0701	08+672	Down Line
42	WRU0702	08+893	Up Line
43	WRU0703	09+113	Down Line
44	WRU0704	09+313	Up Line
45	WRU0705	09+513	Down Line
46	WRU0706	09+732	Up Line
47	WRU0801	09+922	Down Line
48	WRU0802	10+100	Up Line
49	WRU0803	10+265	Up Line
50	WRU0804	10+430	Down Line
51	WRU0805	10+668	Up Line
52	WRU0901	10+857	Down Line

SYMBOLS, LEGENDS & NOTES

Sxxy M/D/S/T	3 ASPECTS SIGNAL WITH ROUTE INDICATOR
Sxxy	3 ASPECTS SIGNAL WITHOUT ROUTE INDICATOR
AL xxx	APPROACH LOCKING DISTANCE
Wxxy	AXLE COUNTER WHEEL DETECTOR
BUFFER_END_01	BUFFER STOP
Sxxy	BUFFER STOP PHYSICAL SIGNAL
CHxxy Pxxy	CRANK HANDLE & POINT 'NORMAL' POSITION OF POINT : BLACK LINE 'REVERSE' POSITION OF POINT : ORANGE LINE
FM Pxxy	FOULING POINT
	CRANK HANDLE KEYS
ESPxxy	EMERGENCY STOP PLUNGER
TOWARDS xxx STATION →	END OF LINE STATION DIRECTION
XXY (OC) XXY (OC)	IXL AREA BOUNDARY
→	NORMAL DRIVING DIRECTION
Sxxy-OL(n)	OVERLAP
SHxxy	PHYSICAL SIGNAL-SHUNTING
VSxxy	VIRTUAL SIGNAL
XX+XXX.xx(Tx) STxx	PLATFORM EDGE
SER	SIGNALLING EQUIPMENT ROOM
SPK	STAFF PROTECTION KEY
STXX STXX	STATION BOUNDARY
IXLT CTCT	SYSTEM BOUNDARY
NSMB	NORMAL STOPPING MARKER BOARD
SRMB	STOPPING REVERSE MARKER BOARD
Txxy	TRACK VACANCY SECTION
SLxxy	SLOT SIGNAL
▲	BALISE
Txxyz/Pxxyz	LOGICAL TRACK ELEMENT
CM	AUTOMATIC ROUTE CALLING (ARC)
AOC	AUTOMATIC OVERLAP CALLING
CM	CARROUSEL MODE
FM	FLEET MODE
REVERSAL ZONE	REVERSAL ZONE

CENTER OF PLATFORM

STATION

UP TRACK →

DOWN TRACK ←

XXXXXm XXXXXm

Depending on the station, the equipment in SER is:
-IXL stations: WT, ACM, TGMT, Airlink, SRV-C
-OC stations: WT, ACM

NOTES:

1. All dimensions are in meters.
2. Trains moving from Depot to Mainline.
   a. The operator of Kavi Subhash depot informs the operator of mainline his intention to send a train from Depot to mainline. The Depot operator then asks the mainline operator to set the ahead route (SL06A to S02A or SL08A to S02A or SL08A to S04A).
   b. The operator of mainline then sets the route from SL06A to S02A or SL08A to S02A or SL08A to S04A.
   c. Once the ahead route is set, the operator of the Depot sets the route from SH17Y/SH18Y/SH19Y/SH20Y till SL06A. Or from SH08Y/SH09Y/SH10Y/SH11Y/SH12Y to SL08A.
   d. SH17Y/SH18Y/SH19Y/SH20Y is controlled by (signal aspect released by) SL06A and SH08Y/SH09Y/SH10Y/SH11Y/SH12Y is controlled by (signal aspect released by) SL08A with P13Y reverse for movement from depot to mainline.
   e. Finally the route is set from Depot to mainline.
3. Trains moving from Mainline to Depot.
   a. The operator of Kavi Subhash mainline informs the operator of depot his intention to send a train from mainline to Depot. The Mainline operator then asks the Depot operator to set the ahead route (SL01Y to SH13Y/SH14Y/SH15Y/SH16Y or SL03Y to S02Y/S03Y/S04Y/S05Y/S06Y).
   b. The operator of Depot then sets the route from SL01Y to SH13Y/SH14Y/SH15Y/SH16Y or SL03Y to S02Y/S03Y/S04Y/S05Y/S06Y.
   c. Once the ahead route is set, the operator of the Mainline sets the route from S03A till SL01Y, or S03A to SL03Y, or S01A to SL03Y.
   d. S01A is controlled by (signal aspect released by) SL03Y for movement towards depot with point P06A reverse and S03A is controlled by (signal aspect released by) SL01Y with point P02A reverse or controlled by (signal aspect released by) SL03Y with P06A reverse.
   e. Finally the route is set from mainline to Depot.
4. Electronic Interlocking provided with Hot Standby Configuration at Kavi Subhash Station & Object Controller at Hemanta Mukhopadhyay Station. Also, Electronic Interlocking provided with Hot Standby Configuration at Barun Sengupta & Object Controller at IT Centre.
5. Entire Section is provided with Multi Section Digital Axle Counter for train detection.
6. All points are motor operated.
7. Actual Toe of Switch (ATS) chainage is mentioned in SIP.
   SRJ to ATS distance is considered as -
   I) For 1:8.5 C/S point - 1.5 m. ; II) For 1:12 C/S point - 1.144 m.
8. The Chainage of SIP has been considered as shown in Plan and Profile drawing.
9. (a) Signals S09A, S11A, S11C & S13C are kept spare.
   (b) P10A & P06C are kept spare.
   (c) Axle Counter W02A, W32C, W34C, W36C, W38C & W40C are kept spare.
   (d) Track section T04A, T20A, T32C, T34C & T36C are kept spare.
   (e) Emergency Stop Plungers ESP08A, ESP08B, ESP10B, ESP12C, ESP14C, ESP16C & ESP18C are kept as spare.
10. The following Crank Handle Groups are provided:

Crank Handle Grouping for Emergency Operation of Points

Station Name	Crank Handle	Control Points	Location
Kavi Subhash	CH01A	P07A, P09A	SCR (KKSO)
	CH02A	P01A, P03A, P04A, P05A	SCR (KKSO)
	CH03A	P02A	SCR (KKSO)
	CH04A	P08A, P06A, P11A	SCR (KKSO)
Hemanta Mukhopadhyay	CH01B	P01B, P02B	SCR (KHMD)
	CH02B	P03B, P04B	SCR (KHMD)
Barun Sengupta	CH01C	P01C, P02C	SCR (KBST)
	CH02C	P03C, P04C	SCR (KBST)
	CH03C	P05C, P07C	SCR (KBST)

11. Placement of Balises is as per system requirement.
12. The Section beyond Beleghata shown in dotted line, shall not be commissioned in this phase due to non-availability of viaduct. In the ATS HMI, routes beyond Beleghtata will not be available for operation, and the ATS HMI view will be up to Beleghata Buffer.
13. The fixed Signal (Beleghata Buffer) shall not be controlled from IXL and shall not display on the ATS HMI. Only Fixed Signal shall be lit "ON" physically at site.

BASED ON :
1) SIGNALLING PLAN KAVI SUBHASH TO IT CENTRE LINE 6 (CBTC)
DRG NO. RVNL-S&T-KOL-S02- KB1-SIG-0437, REV.-4.0

RVNL	SCALE	RAIL VIKAS NIGAM LIMITED , KOLKATA PIU			
	NOT TO SCALE	DRAWN BY	RVNL		
		DEBASHIS PAKHIRA	26/11/24 Dy.MGR/S&T	26/11/2024 JGM/S&T/EXP	

METRO RAILWAY KOLKATA	CHECKED			APPROVED			DRAWING NO.
	02/12/24 SSE/DRG	02.12.24 SSE/S/C	2/12/24 ASTE/C	10/12/24 Dy. CSTE/C	11/12/24 Dy. COM/O&M	OCC/BCC WORKING RULE DIAGRAM FOR CBTC SYSTEM FROM KAVI SUBHASH STATION TO BELEGHATA STATION	SWRD/KKSO-KBGA/01