GOVERNMENT OF ANDHRA PRADESH

IRRIGATION AND CAD DEPARTMENT

(H.N.S.S. PHASE-2,PACKAGE NO.2)

HYDRAULIC PARTICULARS HNSS MAIN CANAL(STAGE-II) FROM KM 230.000 TO 244.293/245.000

SL. No	Reach No	Reach in KM			Hydraulic Particulars											Loss (m)			Bed Level		Full Supply Level		Remarks	
		From	To	Distance (In Mts)	Required Discharge (Cumecs)	Bed Width (In Mts)	F.S.D (IN Mts)	Surface Fall	Side Slopes	A(m2)	P(m)	R(m)	R=2/3	Velocity M/Sec	Designed Discharge (Cumecs)	Due To Bed Fall	Due to CM & CD Structures	Total	At Start (M)	At End (M)	At Start (M)	At End (M)		
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	230.000	230.50	500	71.300	14.30	3.70	1:10000	1.00:1	66.600	24.765	2.689	1.934	1.074	71.552	0.050	0.00	0.050	458.987	458.937	462.687	462.637	FSL AT KM 230.000 AS PER AGREEMENT BASIC PARAMETERS +462.687	FULL CUTTING VARIES FROM 6.8M TO 19. 0M (H.R IN WATER PRISM)
3	3	231.375	231.900	525	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.040	0.00	0.040	458.831	458.791	462.531	462.491	FULL CUTTING	H.R WATER PRISM
4		231.900	231.950	50	Transition		3.70	1:11500								0.005	0.00	0.005	458.791	458.786	462.491	462.486		
5	4	231.950	234.325	2375	71.300	14.30	3.70	1:10000	1.00:1	66.600	24.765	2.689	1.934	1.074	71.552	0.237	0.00	0.237	458.786	458.549	462.486	462.249	FULL CUTTING	H.R AND F&F
6		234.325	234.375	50	Transition		3.70	1:11500								0.004	0.00	0.004	458.549	458.545	462.249	462.245	-	
7	5	234.375	234.800	425	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.033	0.00	0.033	458.545	458.512	462.245	462.212	PRTIAL CUTTING AND FILLING	F.R AND H.D.R
8		234.800	234.850	50	Transition		3.70	1:11500								0.004	0.00	0.004	458.512	458.508	462.212	462.208	-	
9	6	234.850	235.300	450	71.300	14.30	3.70	1:10000	1.00:1	66.600	24.765	2.689	1.934	1.074	71.552	0.045	0.00	0.045	458.508	458.463	462.208	462.163	PRTIAL CUTTING AND FILLING	ALL SOILS,HDR & F.F
10		235.300	235.350	50	Transition		3.70	1:11500								0.004	0.00	0.004	458.463	458.459	462.163	462.159		
11	7	235.350	237.300	1950	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.150	0.00	0.150	458.459	458.309	462.159	462.009	PRTIAL CUTTING AND FILLING	F.R AND H.D.R
12		237.300	237.350	50	Transition		3.70	1:14000								0.004	0.00	0.004	458.309	458.305	462.009	462.005	-	

SL. No	Reach No	Reach in KM			Hydraulic Particulars											Loss (m)			Bed Level		Full Supply Level		Remarks	
		From	To	Distance (In Mts)	Required Discharge (Cumecs)	Bed Width (In Mts)	F.S.D (IN Mts)	Surface Fall	Side Slopes	A(m2)	P(m)	R(m)	R=2/3	Velocity M/Sec	Designed Discharge (Cumecs)	Due To Bed Fall	Due to CM & CD Structures	Total	At Start (M)	At End (M)	At Start (M)	At End (M)		
13	8	237.350	237.975	625	71.300	15.00	3.70	1:15000	2.00:1	82.880	31.547	2.627	1.904	0.864	71.580	0.042	0.00	0.042	458.305	458.240	462.005	461.940	BANKING SECTION BED FILLING MAX 5.0 METERS	ALL SOILS,HDR & F.F(AQUEDUCT PROPOSED) AT KM 237.850
14		237.975	238.025	50	Transition		3.70	1:14000								0.004	0.00	0.004	458.240	458.236	461.940	461.936		
15	9	238.025	240.025	2000	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.154	0.00	0.154	458.236	458.082	461.936	461.782	PRTIAL CUTTING AND FILLING	F.R AND H.D.R
16		240.025	240.075	50	Transition		3.70	1:14000								0.004	0.00	0.004	458.082	458.078	461.782	461.778		
17	10	240.075	240.500	425	71.300	15.00	3.70	1:15000	2.00:1	82.880	31.547	2.627	1.904	0.864	71.580	0.028	0.00	0.028	458.078	457.900	461.778	461.600	BANKING SECTION BED FILLING MAX 5.0 METERS	All Soils,HDR & F.F(Aqueduct Proposed) At KM 240.335
18		240.500	240.550	50	Transition		3.70	1:14000								0.004	0.00	0.004	457.900	457.896	461.600	461.596		
19	11	240.550	241.600	1050	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.081	0.00	0.081	457.896	457.815	461.596	461.515	PRTIAL CUTTING AND FILLING	F.R AND H.R
21	12	242.150	243.600	1450	71.300	14.30	3.70	1:10000	1.00:1	66.600	24.765	2.689	1.934	1.074	71.552	0.145	0.00	0.145	457.748	457.603	461.448	461.303	FULL CUTTING DEPTH VARING FROM 2.7M TO 10.60M	End FSL at KM 216.30 as per Pkg 3 Agreement Basic Parameters +461.250
22		243.600	243.650	50	Transition		3.70	1:11500								0.004	0.00	0.004	457.603	457.599	461.303	461.299		
23	13	243.650	244.293/ 245.00	643	71.300	15.00	3.70	1:13000	1.50:1	76.040	28.341	2.683	1.931	0.941	71.533	0.049	0.00	0.049	457.599	457.550	461.299	461.250	FULL CUTTING DEPTH VARING FROM 2.7 M TO 10.60M	End FSL at KM 216.30 as per Pkg 3 Agreement Basic Parameters +461.250

1) Co-efficiect of Rugosity :0.018

2) THE PROPOSED ALIGNMENT AND H.P.'S FURNISHED VIDE LR. NO. ENC/SKHT/HNSS/PHASE-II,PK-2/04 DT. 28-1-2008 ARE VETTED AND APPROVED. SUBJECT TO PROVIDING OF NECESSARY PROTECTION WORKS AS PER SITE CONDITIONS IN EMBANKMENT AND BED FILLING REACHES FROM KM. 237.300 TO KM. 237.975 AND FROM KM. 240.025 TO KM. 240.500

3) THE H.P.S IN H.R. REACHES i.e. FROM KM. 230.500 TO 231.375 AND FROM KM. 241.600 TO 242.150 ARE WITH HOLD FOR WANT OF ACTUAL BORE HOLE DATA.

4) THE LIST OF STRUCTI RES SHALL BE FINALISED SEPERATELY ON RECEIPT OF PROPOSALS AS PER SITE CONDITIONS AND AGREEMENT FROM ENC. TGP, SRIKALAHASTI.

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GOVERNMENT OF ANDHRA PRADESH

IRRIGATION AND CAD DEPARTMENT

(H.N.S.S. PHASE-2,PACKAGE NO.2)

HYDRAULIC PARTICULARS HNSS MAIN CANAL(STAGE-II) FROM KM 230.500 TO KM 231.375

SL. No	Reach No	Reach in KM			Hydraulic Particulars										Loss (m)			Bed Level		Full Supply Level		Remarks
		From	To	Distance (In Mts)	Required Discharge (Cumecs)	Bed Width (In Mts)	F.S.D (IN Mts)	Surface Fall	Side Slopes	A(m2)	P(m)	R(m)	R=2/3	Velocity M/Sec	Designed Discharge (Cumecs)	Due To Bed Fall	Due to CM & CD Structures	Total	At Start (M)	At End (M)	At Start (M)	At End (M)	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3	230.500	230.550	50	Transition		3.70	1: 9000								0.004	0.00	0.004	458.937	458.933	462.637	462.633	
2		230.550	231.325	775	71.3	14.4	3.70	1: 8000	0.50:1	60.130	22.673	2.652	1.916	1.190	71.548	0.097	0.00	0.097	458.933	458.836	462.633	462.536	FULL CUTTING HR IN WATER PRISM
3	4	231.325	231.375	50	Transition		3.70	1: 10500								0.005	0.00	0.005	458.836	458.831	462.536	462.531	

1) Co-efficiect of Rugosity :0.018

Note : THE ABOVE HP'S ARE APPROVED BASED ON BORE HOLE DATA FURNISHED VIDE LETTER NO.ENC TGP/SKHT/LR.NO.ENC/TGS/DW/DD2/DEE3/AEE4/AVRHNSS/C-11-ATP-CAMP 2-DT.16.04.2008.

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GOVERNMENT OF ANDHRA PRADESH

IRRIGATION AND CAD DEPARTMENT

(H.N.S.S. PHASE-2,PACKAGE NO.2)

HYDRAULIC PARTICULARS HNSS MAIN CANAL(STAGE-II) FROM KM 241.600 TO KM 242.150/242.183

SL. No	Reach No	Reach in KM			Hydraulic Particulars											Loss (m)			Bed Level		Full Supply Level		Remarks
		From	To	Distance (In Mts)	Required Discharge (Cumecs)	Bed Width (In Mts)	F.S.D (IN Mts)	Surface Fall	Side Slopes	A(m2)	P(m)	R(m)	R=2/3	Velocity M/Sec	Designed Discharge (Cumecs)	Due To Bed Fall	Due to CM & CD Structures	Total	At Start (M)	At End (M)	At Start (M)	At End (M)	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1		241.600	241.650	50	Transition		3.70	1: 10800								0.005	0.00	0.005	457.815	457.810	461.515	461.510	
2	12	241.650	242.133	483	71.3	13.2	3.70	1: 8600	1: 1	62.530	23.665	2.642	1.911	1.145	71.596	0.056	0.00	0.056	457.810	457.754	461.510	461.454	FULL CUTTING AKS/HDR/F&F/HR
3		242.133	242.150/ 242.183	50	Transition		3.70	1: 9300								0.006	0.00	0.006	457.754	457.748	461.454	461.448	

1) Co-efficiect of Rugosity :0.018

2) The proposed revision of alignment from Km241.600 to Km 242.150/242.183 and HP'S furnished vide ENC TGP/SKHT/LR.NO.ENC/TGS/DW/DD2/DEE3/AEE4/AVRHNSS-II/ATP/PACK-2 /VOL2/-CAMP-1,DT:15/05.2008 are vetted and approved.

3) The revision of alignment and HP'S are approved subject to the condation that necessary protection arrangments in curves shall be approved as per site condations.

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