

CUADRO DE CÁLCULO ALCANTARILLADO SANITARIO - SAN NICOLAS

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Area tributaria total	0.77	Ha
Poblacion	280.00	habitantes
Habitantes /Ha	361.80	Hab/Ha
Dotación	140.00	L/hab - día
Coefficiente de retorno	0.85	

Q medio residual	0.39	L/s
Q residual	0.498	(L/seg-Ha)
Q infiltración	0.10	L/s-Ha
Q conexiones erradas	0.20	L/s-Ha
Periodo de Diseño	25 años	

INICIO 1	TRAMO		AREA TRIBUTARIA (Ha)			Q medio residual (L/s)	Población servida (habitantes)	F	Q residual Max. h (L/s)	Q infiltración (L/s)	Q conexiones erradas (L/s)	Qdiseño total (L/s)	Qdiseño total (L/s)	L (m)	Φ _{tub} (pulg)	Φ _{tub interior} (m)	Material tubería
	DE	A	Afluente	Propia	TOTAL												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	P1	P2	0.00	0.206	0.206	0.103	74	3.8	0.39	0.021	0.041	0.451	1.5	96.40	8	0.182	PVC
1	P3	P2	0.00	0.084	0.084	0.042	30	3.8	0.16	0.008	0.017	0.184	1.5	42.53	8	0.182	PVC
		P2	0.29	0.033	0.323	0.161	117	3.8	0.61	0.032	0.065	0.708	1.5	35.26	8	0.182	PVC
1	P4	P5	0.00	0.326	0.326	0.162	118	3.8	0.62	0.033	0.065	0.715	1.5	96.23	8	0.182	PVC
		P5	0.65	0.125	0.774	0.386	280	3.8	1.47	0.077	0.155	1.698	1.7	32.80	8	0.182	PVC

INICIO 1	TRAMO		n	P terreno (%)	S tubería (%)	Sección plena		Q/Qo	Vr (m/s)	d (m)	H (m)	d/D	H/D	R (m)	c (Kg/m2)	V ² /2g (m)	E (m)
	DE	A				Q (L/s)	V (m/s)										
(1)	(2)	(3)	(19)	(20)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
1	P1	P2	0.01	0.43	0.59	25.49	0.98	0.0588	0.45	0.03	0.02033207	0.162	0.112	0.018	0.11	0.010	0.040
1	P3	P2	0.01	-0.31	0.50	23.47	0.90	0.0639	0.42	0.03	0.02139417	0.170	0.118	0.019	0.10	0.009	0.040
		P2	0.01	-0.06	0.82	30.06	1.16	0.0499	0.50	0.03	0.01838075	0.147	0.101	0.017	0.14	0.013	0.040
1	P4	P5	0.01	0.40	1.06	34.17	1.31	0.0439	0.55	0.02	0.01699513	0.136	0.093	0.015	0.16	0.015	0.040
		P5	0.01	-0.76	0.62	26.13	1.00	0.0650	0.47	0.03	0.02160902	0.171	0.119	0.019	0.12	0.011	0.043

INICIO 1	TRAMO		H (m)	NF	Reg. Flujo	COTA RASANTE ORIGINAL		COTA CLAVE		COTA BATEA		PROFUNDIDAD A CLAVE		PROFUNDIDAD A BATEA	
	DE	A				INICIAL	FINAL	INICIAL	FINAL	INICIAL	FINAL	INICIAL	FINAL	INICIAL	FINAL
(1)	(2)	(3)	(32)	(33)	(34)	(45)	(46)	(47)	(48)	(49)	(50)	(55)	(56)	(57)	(58)
1	P1	P2	0.020	1.003	Supercrítico	316.773	316.362	315.773	315.204	315.571	315.002	1.00	1.16	1.20	1.36
1	P3	P2	0.021	0.922	Subcrítico	316.230	316.362	315.230	315.017	315.028	314.815	1.00	1.34	1.20	1.55
		P2	0.018	1.184	Supercrítico	316.362	316.382	314.977	314.688	314.795	314.506	1.38	1.69	1.57	1.88
1	P4	P5	0.017	1.348	Supercrítico	316.763	316.382	315.763	314.743	315.561	314.541	1.00	1.64	1.20	1.84
		P5	0.022	1.026	Supercrítico	316.382	316.630	314.658	314.455	314.476	314.273	1.72	2.18	1.91	2.36