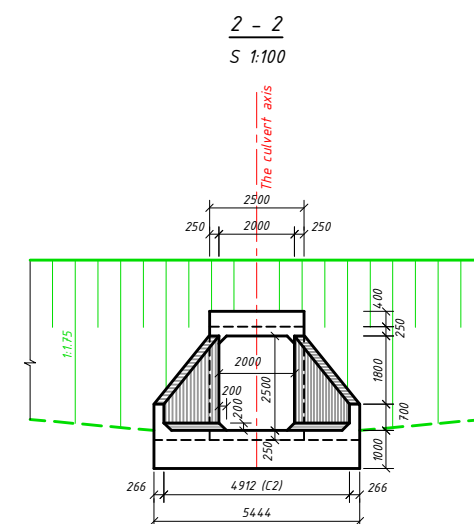
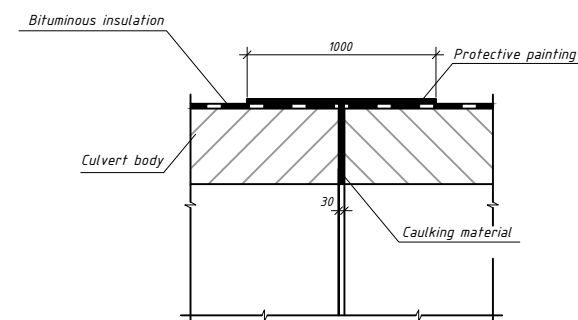




Scheme at waterproofing joints
S 1:20



Staking scheme of culvert

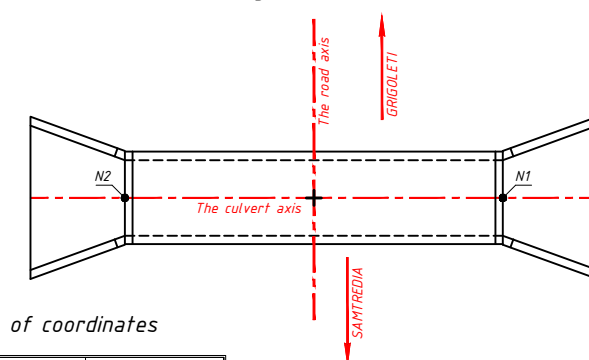


Table of coordinates

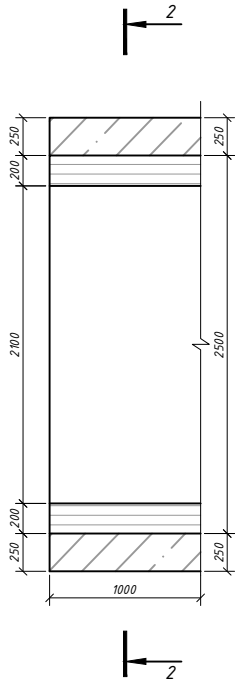
N1	N2
1	2
X=4668386.038 Y=277968.957	X=4668355.37 Y=277987.813



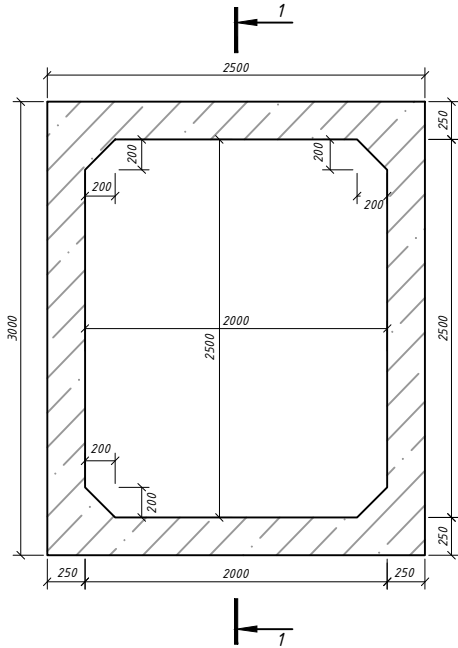
№ n/n	Sites, PK+ Місце положення, ПК +	The angle of intersection with the road deg. °	Input headroom, left / right	Opening pipe, m	Stant pipe, %	Length, m		Options trays/building, m						Signs, m						Remarks
						without inlet and outlet, m	with inlet and outlet, m	D1	D2	A	B	C1	C2	tray input headroom	tray output headroom	brow (right)	brow (left)	top input headroom	top output headroom	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	35+74	90°0'	right	2,00x2,50	3	36,060	44,060	5,444	5,444	3,00	3,00	4,912	4,912	16,28	16,16	20,38	20,38	19,43	19,31	Drainage channel

E-60-00-WD-01-H-1-HP-01-P1				Construction of the road Samtredia - Grigoleti km 0 +000 - km 11 +500			
		Engineer	R.Harlander				
	Proj.Manag.	O.Valuikin	11.14	Highway. Section PK 30+00 - PK 40+00	Stage	Sheet	Sheet
	Checked by	M.Gorobinskaya	11.14		WD	1	3
	Exec. by	M.Varoshlyov	11.14		Culvert. Opening 2,00x2,50m PK35+74	 "Road Building "Altcom" LLC	

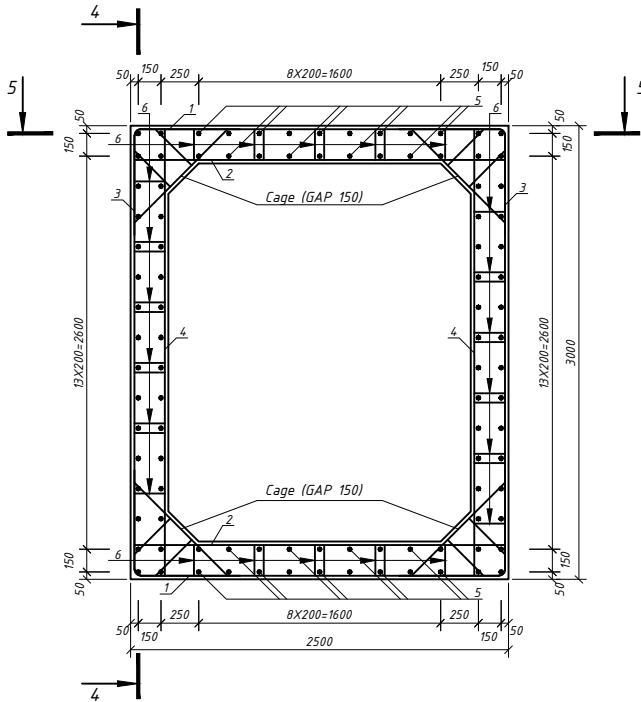
1 - 1
S 1:25



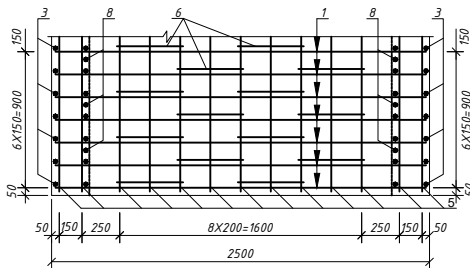
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S 1:25



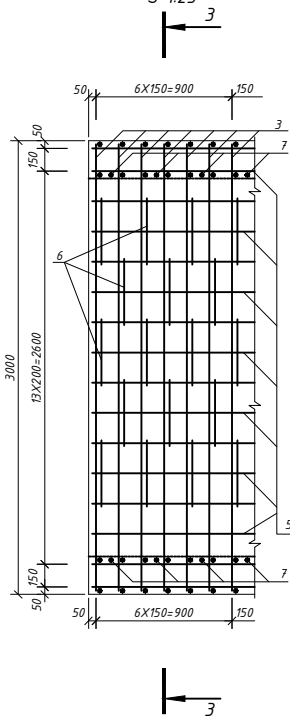
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S 1:25



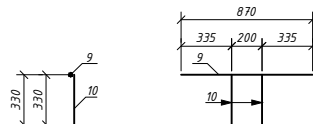
5 - 5
S 1:25



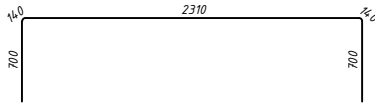
4 - 4
S 1:25



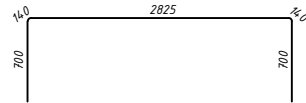
Cage - 1



Position N1



Position N3

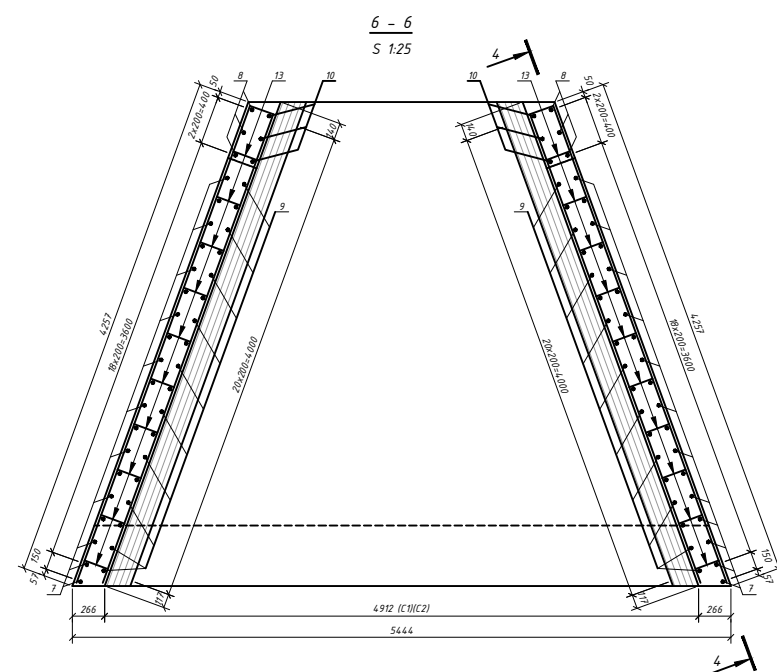
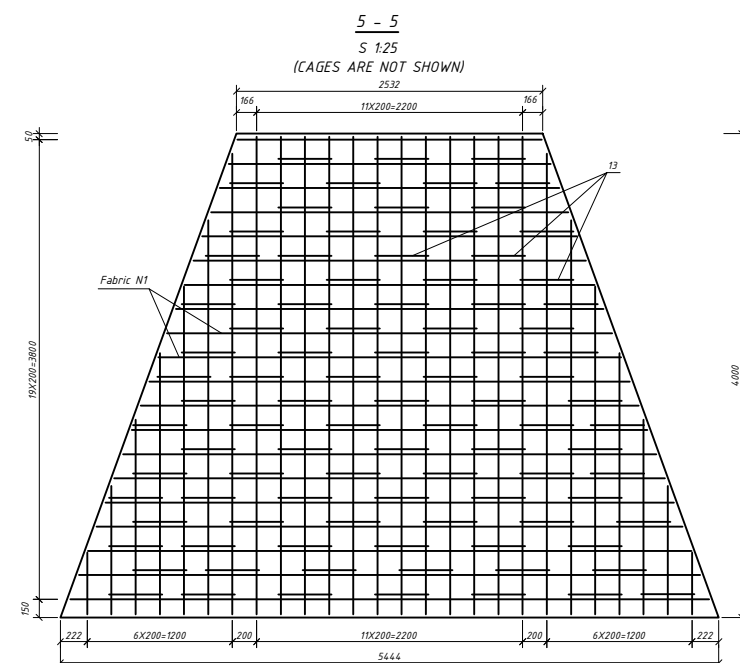
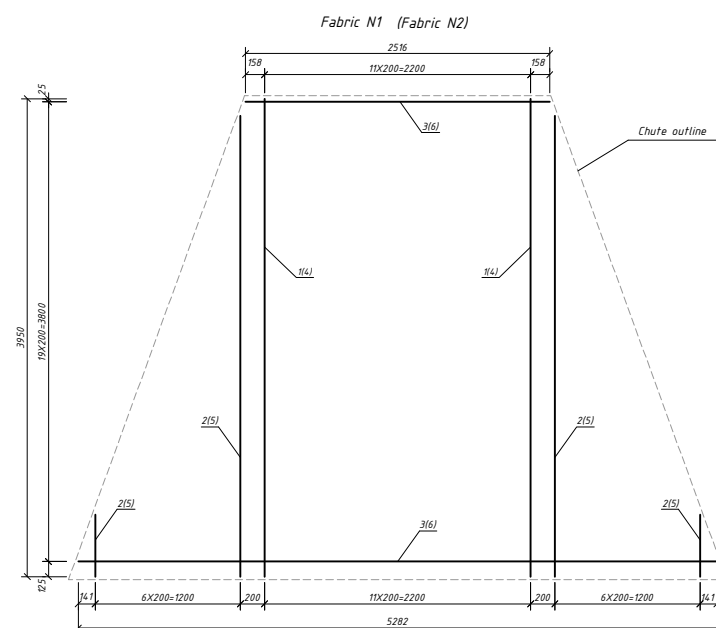
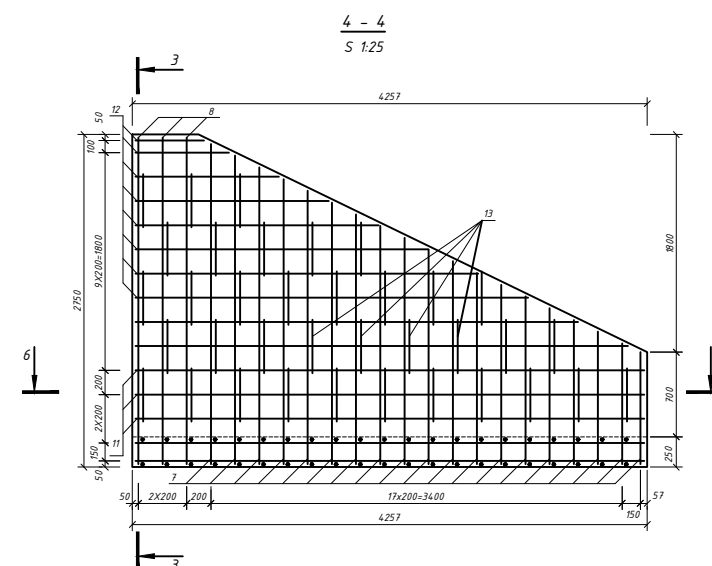
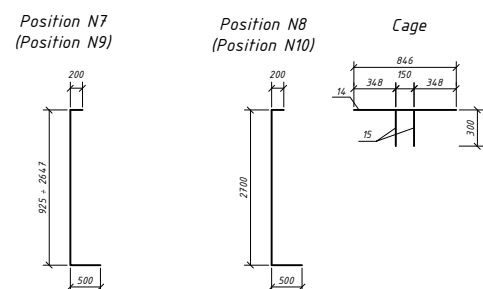
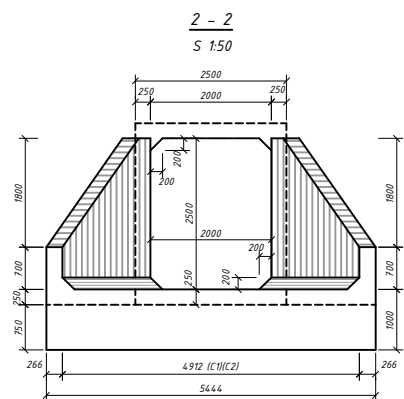


	Steel specification for 1 meter						Steel specification for 1 section (12 m)			Steel specification for 3 section (36 m)		
	Position	Sketch, mm	Diameter or section, mm	Length, mm	Quantity, unit	Total length, m	Length, mm	Quantity, unit	Total length, m	Length, mm	Quantity, unit	Total length, m
Separate bars	1	Is given on drawing	14A-III	3 990	14	55,860	3 990	168	670,320	3 990	504	2 010,960
	2	2450	18A-III	2 450	14	34,300	2 450	168	411,600	2 450	504	1 234,800
	3	Is given on drawing	14A-III	4 505	14	63,070	4 505	168	756,840	4 505	504	2 270,520
	4	2950	14A-III	2 950	14	41,300	2 950	168	495,600	2 950	504	1 486,800
	5	1000	14A-III	1 000	100	100,000	11 950	100	1 195,000	11 950	300	3 585,000
	6	272 172 522	10A-III	1 388	64	88,832	1 388	768	1 065,984	1 388	2 304	3 197,952
	7	2450	18A-III	2 450	8	19,600	2 450	96	235,200	2 450	288	705,600
	8	2950	14A-III	2 950	6	17,700	2 950	72	212,400	2 950	216	637,200
C (28 uni)	9	870	12A-III	870	28	24,360	870	336	292,320	870	1 008	876,960
	10	330	12A-III	330	56	18,480	330	672	221,760	330	2 016	665,280

Remark:
1. Armature adopted in accordance with GOST 5781-82 "Hot-rolled steel for reinforcement of ferroconcrete structures. Specifications"

Selection armature for 1 m			Selection armature for 1 section (12 m)		Selection armature for 3 section (36 m)	
Ø mm and steel grade	The total length, m	Weight, kg	The total length, m	Weight, kg	The total length, m	Weight, kg
10 A-III	88,832	54,809	1 065,984	657,712	3 197,952	1 973,136
12 A-III	42,840	38,042	514,080	456,503	1 542,240	1 369,509
14 A-III	277,930	336,295	3 330,160	4 028,494	9 990,480	12 088,481
18 A-III	53,900	107,800	646,800	1 293,600	1 940,400	3 880,800
Total:						
A-III		536,947		6 437,309		19 311,926
Binding wire 2%		10,74	-	128,75	-	386,24

E-60-00-WD-01-H.1-HP.01-P1				Construction of the road Samtredia - Grigoleti km 0 +000 - km 11 +500			
  	Engineer	DAVID YATES		Highway. Section PK 30+00 - PK 40+00	Stage	Sheet	Sheets
					WD	2	3
					"Road Building "Altcom" LLC		
	Proj.Manag.	O.Valuikin	11.14	Culvert. Opening 2,00x2,50m PK35+74			
	Checked by	M.Gorobinskaya	11.14				
	Exec. by	M.Voroshilov	11.14				



	Steel specification for one head						Steel specification for two heads		
	Position	Sketch, mm	Diameter or section, mm	Length, mm	Quantity, unit	Total length, m	Length, mm	Quantity, unit	Total length, m
Fabric #1 (1 unit)	1		12A-III	3 950	12	4,74,000	3 950	24	94,800
	2		12A-III	L _{2+4x} =2 161	14	30,254	L _{2+4x} =2 161	28	60,508
	3		14A-III	L _{2+4x} =3 899	20	77,980	L _{2+4x} =3 899	40	155,960
Fabric #2 (1 unit)	4		12A-III	3 950	12	4,74,000	3 950	24	94,800
	5		12A-III	L _{2+4x} =2 161	14	30,254	L _{2+4x} =2 161	28	60,508
	6		18A-III	L _{2+4x} =3 899	20	77,980	L _{2+4x} =3 899	40	155,960
Separate bars	7		18A-III	L _{2+4x} =2 486	38	94,458	L _{2+4x} =2 486	76	188,936
	8		18A-III	3 400	6	20,400	3 400	12	40,800
	9		14A-III	L _{2+4x} =2 486	36	89,496	L _{2+4x} =2 486	72	178,992
	10		14A-III	3 400	6	20,400	3 400	12	40,800
	11		12A-III	4 207	12	50,484	4 207	24	100,968
	12		12A-III	L _{2+4x} =2 320	40	92,800	L _{2+4x} =2 320	80	185,600
	13		10A-III	1 516	166	251,656	1 516	332	503,312
C (4,2 un)	14		14A-III	846	42	35,532	846	84	71,064
	15		14A-III	300	84	25,200	300	168	50,400

Selection armature for one head			Selection armature for two heads	
$\varnothing$ mm and steel grade	The total length, m	Weight, kg	The total length, m	Weight, kg
10 A-III	251,656	155,272	503,312	310,544
12 A-III	248,592	265,150	597,184	530,299
14 A-III	248,608	300,816	497,216	601,631
16 A-III	192,848	365,696	385,696	771,392
Total:				
A-III		1 106,933	2 212,866	
Binding wire 2X		22,14	44,28	

Remark:
1. Armature adopted in accordance with GOST 5781-82 "Hot-rolled steel for reinforcement of ferroconcrete structures. Specifications"

E-60-00-WD-01-H1-HP-01-P1				Construction of the road Samtredia - Grigoleti km 0 +000 - km 11 +500				
	Engineer	DAVID YATES						
	Proj. Manag.	O. Valukin	11	14				
	Checked By	M. Gorobiskaya	11	14				
	Exec. by	M. Voroshylov	11	14				
				Highway Section PK 30+00 - PK 40+00		Stage	Sheet	Sheets
						WD	3	3
				Culvert: Opening 2,00x2,50m PK35+74				
						"Road Building "Altcom" LLC		