FEATURE OF TEC	CHNICAL SERVICE	INTERCHANGES AND TUNNELS	
Subject	Executive Project – Detailed executive design and variant construction design of - ANAS GE 34/08 S.S. 1 «Nuova Aurelia» - Access to the port hub in Savona interconnection between the A10 toll booths of Savona and Albisola and the ports of Savona and Vado: Variant at S.S. 1 Aurelia in the stretch between Savona Letimbro creek and Albissola Marina and Albisola Superiore	<ul> <li>N. 3 Road interchanges: Letimbro, Miramare e Sansobbia</li> <li>N. 4 Tunnels of new construction single tube: "Cappuccini" (1126.31m), "San Paolo" (2053.63m), "Basci" (535.80m) and "Grana" (190.02m)</li> <li>VIADUCTS, BRIDGES AND BYPASS</li> <li>N. 1 Viaduct: "Grana" (165.00m)</li> <li>N. 2 Bridges: "La Rusca" (181.92m) and "Sansobbia" (115.60m)</li> <li>N. 2 Bridges: "La Rusca" (181.92m) and "Sansobbia" (115.60m)</li> </ul>	
Carried out by	SGAI S.r.l. of E. Forlani & C.	- N. 2 Bypass: "Via Turati" (17.48m) and "Rampa H" (21.22m)	
Client	Letimbro scarl	- Numerous boxes, sustain walls/bulkheads and minor works	Figure 1 –Mi portal East
Service length PE-PC	2012 - 2019		
Value of works PE-PC	€ 145'373'827,00		
Categories value PC	S.03 $\in$ 553'405,37S.04 $\in$ 3'661'579,06S.05 $\in$ 5'785'766,34S.06 $\in$ 850'217,45D.04 $\in$ 1'437'574,66V.03 $\in$ 80'749,00	Figure 3 - Portal East Basci tunnel and TBMFigure 4 - La Rusca bridge Letimbu	ro interchange
The new "New S.S.1 A produced by the need t as a tangential axis to and/or distributing trat roads from the flows planned by the Executi creek (Letimbro inter (Sansobbia interchange regulations (Ministeria secondary extraurban r In the Executive Desig of Public Authorities a Sansobbia; and the TR has been rationalized, the roundabout on Co before the execution Sansobbia interchange works of art, at the san in the Miramare met t works of art, providing	Aurelia" roadway in the Savona-Albisola Superiore section is part of a broad context o adapt the entire Liguria Transport System. The new roadway is set up, as a whole, o the City of Savona, developing for 5.1km, fulfilling the functions of collecting ffic coming/going from the more intensely urbanized areas, relieving the coastic crossing and returning most of the city road network to local traffic. The route ve Project originates in Savona with a junction along Corso Ricci near the Letimbro change), and ends at the intersection with Via Saettone in Albisola Superiore e). The main axis and the junctions have been verified according to the current road al Decree 5/11/2001 and 19/04/2006), considering a road section Type C1 - oad. mp hase of the construction project of detail and variant, due to the changed needs and the client, the THREE JUNCTIONS were redesigned: Letimbro, Miramare and E VIADUCT: «La Rusca», «Grana» and «Sansobbia». The Letimbro interchange inserting a roundabout on the main axis, extracting the "Rampa E", and adjusting pros Ricci, increasing the usability of the infrastructure in the transitional period and completion of the works on the next construction requirements of the ne time rationalizing the intersections and exchanges with the local roads. In detail, he major design issues, which required careful 3D modeling of road layouts and an accurate construction site phasist. <b>ENT Modeling, interference and checks</b> udy of the road alignements were conducted by 3D modeling the morphology of the infrastructure with the aid of a special road design software ( <i>Digicorp Civil Design</i> ov which it was also possible verify the deviations from the project of the works the gallery portal.	Vidotto LA FUSCA MURO SCHIANTAPETTO B B Calleria naturale CAPUICINI B Calleria naturale SAN PACIO C C C MIRAMAE C C C C C C C C C C C C C C C C C C C	Calleria national control cont





ramare interchange Cappuccini tunnel



Figure 5 – Grana viaduct



Figure 2 - Portal West San Paolo tunnel



Figure 6 – Portal East San Paolo tunnel

