

Roads Infrastructure & Traffic signing

1 - Water supply network for the village of ZoukHosniyé – Caza of Akkar (1992)

The project consists of a 2 km length of water supply network for the Ministry of Water Resources.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Design of Water Supply Systems
- Detailed Design Drawings
- Tender Documents

2 - Water supply network for the village of Habalsa – Cazaof Akkar (1993)

The project consists of a 3 km length of water supply network for the Ministry of Water Resources.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Design of Water Supply Systems
- Detailed Design Drawings
- Tender Documents

3 - Water supply network for the village of Barr Elias – Caza of Zahlé. (1993)

The project consists of a 4 km length of water supply network for the Ministry of Water Resources.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Design of Water Supply Systems
- Detailed Design Drawings
- Tender Documents

4 - Water supply network for the village of Louaizé – Caza of Baabda(1993)

The project consists of a 1.5 km length of water supply network for the Ministry of Water Resources.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Design of Water Supply Systems
- Detailed Design Drawings
- Tender Documents

5 - Blocking of spring water of Ouyoun El-Samak – Caza of Tripoli. (1994-1995)

Preparation of Preliminary and feasibility studies for the Ministry of Water Resources.

Work includes:

- Detailed design and tender document for the Dam
- Topographic Survey
- Geological and Hydro-geological studies
- Geotechnical investigations
- Environmental Impact Assessment
- Water usage Master Plan
- Execution Drawings

The design is followed by Construction Supervision.

6 - Water supply network with a reservoir for the village of Kobb Elias – Caza of Zahlé.(1995)

The project consists of a 4 km length of water supply network for the Ministry of Water Resources.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Design of Water Supply Systems
- Structural design of a reservoir
- Pumping station
- Detailed Design Drawings
- Tender Documents

7 - ParadiseLand Bridge over Nahr El-Kalb river between caza of Metn and Caza of Kesrouan.(1995)

Construction of Paradise Land Bridge having a span of 22 meters joining two cazas :caza of Metn and caza of Kesrouan including related networks and traffic diversion.

Review and adaptation of feasibility study, preparation of detailed design, detailed topographical surveys, soil investigations and working drawing for the bridge, the pavement, the drainage system, the sewerage system, the traffic design and tender documents.

8 - Sewer network for the villages of DarbEs-Sim, Aadloun and Dayeet Al-Arab – Caza of Saida.(1995-1996)

Construction of 25 km of Sewer Networks and Collector for 3 villages in the caza of Saida in South Lebanon including a Primary Treatment Plant for the Council of the South.

The services include:

- Topographic Survey
- Geotechnical Investigation
- Preparation of documentation for land acquisition
- Identification and Protection of antiquities affected by the construction works
- Preparation of Tender Specifications and Tender Documents for contract packages
- Setting out of Environmental Criteria and preparation of an Environmental Impact Assessment
- Elaboration of execution drawings
- Preparation of Construction cost Estimate
- Assistance in the review of tenders for construction works

9 - Sewer networks in the villages of Bteghrine – Ayta El-Fakhar-Saadnayel – Taalabaya – Jlala – Barr Elias – Aanjar – MajdelAanjar – KhourbetAnafar – Saghbine – Machghara – Sohmor – Rachaya El-Wadi – El-Qaraoun – Job Jannine – El-Raouda – Ali El-Nahri – Rayak – Kobb Elias. (1994-1996)

Construction of Wastewater networks between and in various villages. It includes about 55 km of Wastewater Networks including pumping stations.

Work includes:

- Preparation of Feasibility Study
- Designs
- Tender Documents
- Environmental Impact Assessment

- Project Control and Construction Supervision

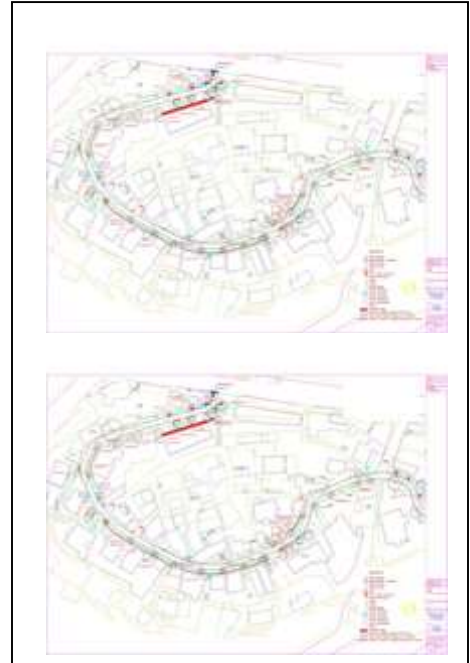


10 – Sewerage and storm-water network for the road Fabraka and its suburbs in the city of Brummana – Caza de Metn (1998)

The road Fabraka is the oldest road in the city of Brummana. The project consists of replacing the existing network by a new one for the municipality of Brummana. Total length of network is 2 Km.

The services include:

- Feasibility Study
- Detailed Design drawings for :
- Topographic Survey
- Road design
- Storm Water network design
- Sewerage network design
- Specifications and Construction Cost Estimates



11 – Sewerage network for the road Lutin and the East road in the city of Brummana – Caza of Metn (1999)

The project consists of designing a new sewer network with house connections for the Municipality of Brummana. (Total length = 1.5 km)

The services include:

- Feasibility Study
- Detailed Design drawings for :
- Topographic Survey
- Road design
- Sewerage network design

Specifications and Construction Cost Estimates

12 - Rehabilitation and restoration of road Brummana - Roumieh in the city of Brummana – Caza of Metn (2000) :

The project consists of the rehabilitation with all kind of networks of this road connecting between Brummana and Roumieh for the municipality of Brummana totaling 1 km length.

The services include:

- Detailed Design drawings for :
- Topographic Survey
- Road design
- Sewerage network Storm water network

- Potable water network
 - Street lighting network
 - Electricity network
 - Road marking
- Specifications and Construction Cost Estimates

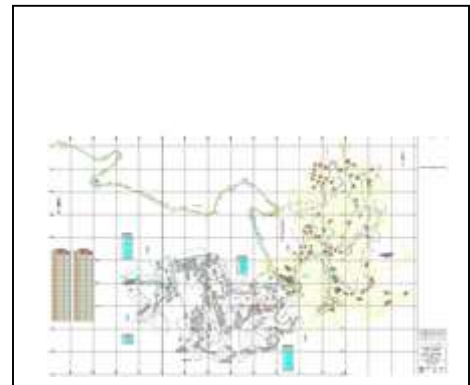
13 - Road Beaulieue – Jouret El Ballout – Mar Chaaya in the city of Brummana – Caza of Metn (2000) :

The project consists of designing a new road with all kind of networks for the municipality of Brummanatotaling 2 km length.

The services include:

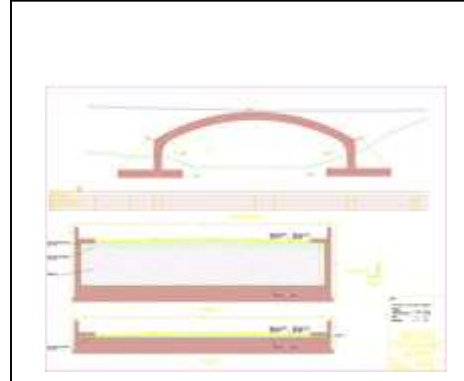
- Detailed Design drawings for :
- Topographic Survey
- Road design
- Sewerage network Stormwater network
- Potable water network
- Street lighting network
- Electricity network
- Road marking

Specifications and Construction Cost Estimates



13' - Bridge over Litani river on road Litani – Yohmor – ArnounCazas of Marjayoun and Nabatieh.(2001)

Construction of an arch Bridge over Litaniriver having a span of 26 meters situated on the road of Litani – Yohmor – Arnoun in the cazas of Marjayoun and Nabatieh including related networks and traffic diversion. Preparation of detailed design, detailed topographical surveys, soil investigations and working drawing for the bridge, the pavement, the drainage system, the sewerage system, the traffic design and tender documents.



14 – Project of Boulevard Camille Chamoun avenue in the city of Brummana - Caza of Metn - (2001 – 2002):

The boulevard of Camille Chamoun is 20 m expropriation width composed of a two kilometres length boulevard from Mounir restaurant to Broummana High School, on international standards comprising complete design with execution drawings followed by Construction Supervision for the Municipality of the city of Brummana.

The services include:

- Roads
- Sewer network
- Storm water network
- Potable water network
- Street lighting network
- Electricity network
- Road marking
- Retaining walls
- Concrete barriers with handrails
- Sidewalks
- Trees along all sidewalks



15 - Rehabilitation, Upgrading and Refurbishing of the South entrance to the city of Broummana – Caza of Metn (2002 – 2003):

Rehabilitation, Upgrading and Refurbishing of the South entrance to the city of Broummana from Mawad Village to Municipality building totalling a length of 5 km.

Work includes complete design with execution drawings followed by construction supervision for the rehabilitation and refurbishing of roads, Two RoundABOUTs, Traffic signalling, surface water and wastewater drainage, Electrical MV and LV, Sidewalks, Concrete barriers with handrails, Planters as well as services diversion.



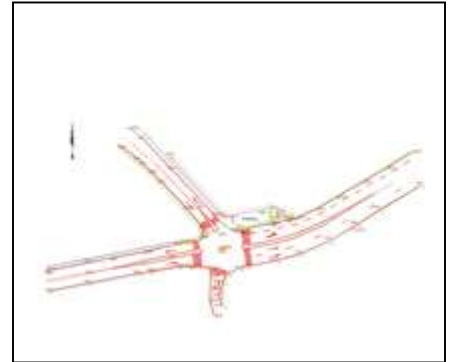
16 - Rehabilitaton of the walkway at Hawiri region in the city of Brummana – Caza of Metn (2003):

To let the pedestrians, feel the nature while walking, the project consists of carrying out the work of the rehabilitation of the walkway at Hawiri of 400 m length inside the nature and beside a cliff of 20 m high having an impregnable view for the municipality of Brummana. The work includes storm-water network, sewer network with pre-cast channels, paving tiles of different colors, rustic lighting with iron forges barrier for the security of the pedestrians walking beside the cliff in addition to the planters full of beautiful flowers.



17 – Design of a Round-about at St. Jean center - Municipal playground intersection in the city of Brummana – Caza of Metn (2004):

To reduce car accidents, the project consists of executing a roundabout between St. Jean center and the municipal playground for the municipality of Brummana. This work includes landscaping, street lighting, road marking and New Jersey concrete barriers.



18 - Project Baadaran – Mrasti – Qataleb (MohafazatMontLiban-Caza of Chouf) (2004)

The project consists of 4.70 km of new roads to elaborate a decree for the Ministry of Public Works in Lebanon.

The services include:

- Data Collection
- Feasibility Study
- Traffic data
- Assistance during expropriation
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network design
 - Specifications and Construction Cost Estimates



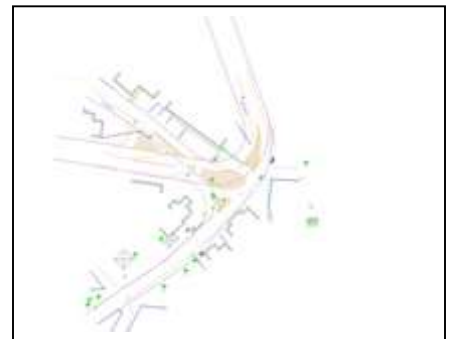
19 – Design of Mawad Round-about in the city of Brummana – Caza of Metn (2004):

To reduce car accidents, the project consists of designing a roundabout between 3 major roads for the municipality of Brummana. This work includes topographic survey, landscaping, geometric design, street lighting, road marking with all kind of safety devices.



20 – Design of a Round-about at the entrance of the city of Brummana from Jouret El Ballout area in the city of Brummana – Caza of Metn (2004):

To reduce car accidents, the project consists of designing a roundabout between 4 major roads for the municipality of Brummana. This work includes topographic survey, landscaping, geometric design, street lighting, road marking with all kind of safety devices.



21 - Rehabilitation and restoration of road Paxslope in the city of Brummana – Caza of Metn (2004) :

The rehabilitation of this unique and beautiful steep slope connecting between principal road and the churches road was made by anti-slipping natural stone pavers (Basalt) to enable the vehicles passing along without any difficulty for the municipality of Brummana. Also a stair was cast on both borders of this road to enable the pedestrians passing comfortably along this path. Work includes all kind of networks.

22 – Master Plan for the Caza of Bcharre – North Lebanon (2005 -Date)

The project consists of elaborating a Zoning Master Plan of the Caza of Bcharre spread across 150 million square meters of land for the Union of Municipalities of the Caza of Bcharre and for the General Directorate of Urbanism (DGU).

The area of the Caza of Bcharre is located in the heart of North Lebanon and is 80 minutes from Beirut by car. The altitude in this area varies from 700m to 3000m above sea level. It includes the Qadisha valley which has been named a UNESCO world heritage site for its many natural, religious and cultural attractions. It includes also the Cedars forest which is the site of the oldest and most majestic examples of this ancient tree.

The work includes:

- Data collection
- Satellite image of the area specially for the project
- Carrying out all cadastral maps
- Strategic Environmental Assessment (SEA)
- Locating areas to be preserved
- Elaborating a geological
- Elaborating a Land Use map
- Elaborating a Soil map
- Elaborating a zoning Master Plan
- Elaborating an explanatory report
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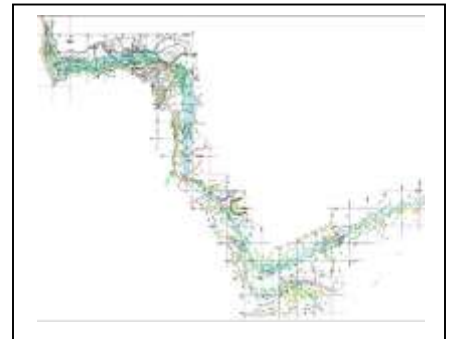
23 - Rehabilitation and maintenance of Lebanese Road Network (2005 -Date)

The Project consists of the Rehabilitation for the Ministry of Public Works in Lebanon. of the following roads:

- Road Bhamdoun – Hammana – Ras El Metn (Length 11.2 km)
- Road Saoufar – Charoun – Azounieh (Length 7 km)
- Road Aley – Souk El Gharb (Length 3.5 km)

The services include:

- Review of feasibility study
- Data collection
- Topographic Survey
- Traffic Data
- Site Specific Environmental Monitoring Procedures
- Geotechnical and Pavement Evaluation Studies including Rehabilitation of existing Pavements
- Assistance during Expropriation
- Tender Documents
- Construction Cost Estimate



- Detailed Design and Preparation of:
- Roadway Plans and Profiles
- Structural Drawings
- Street Lighting Drawings
- Utility Plans
- Landscaping
- Traffic Signals
- Site Specific Archeological and Environmental Monitoring Plans
- Construction Staging and Maintenance of Traffic Plan



24 - Project EKO AKETE – Lagos – Nigeria (2005-date)

The project consists of a 4,000,000 m² plot including 70 km length of roads and 4500 residential units with associated amenities (shopping center, schools, casino, etc.)

The services include:

- Visual survey: detailed reconnaissance of the project location
- Data collection of a comprehensive and workable database
- Topographic Survey: study and checking of the topographic survey
- Master Plan Development: study of the land use development, carrying out of environmental studies to identify areas of environmental interest, implementation of access roads, utilities and utility buildings
- Design of Roads networks, Storm Drainage System with a lagoon, Electrical Systems, Water Supply Systems, Sewerage and Design of Utility Buildings
- Traffic Design: design of vertical and horizontal signing with traffic lights
- Geotechnical Investigation: interpretation of results of the geotechnical investigation report to establish necessary soil and subsoil information
- Pavement design
- Detailed Design Drawings: preparation of comprehensive package of detailed design drawings
- Tender Documents: preparation of the tender document required for the infrastructure development

25 - Rehabilitation of 3 roads in the city of Brummana – Caza of Metn (2005)

The Project consists of the Rehabilitation for the World Bank in the city of Brummana of the following roads:

- Road Al Rassif (2 km)
- Road Hardees-Chaaya (1.5 km)
- Road Belle vue – Boulevard (1.5 km)

-The services include:

- Preparation of feasibility study
- Detailed designs
- Tender documents
- Rehabilitation and extension of the Water Distribution System
- Rehabilitation and extension of the Sewer Network
- Rehabilitation and extension of the Storm-water Drainage Network
- Rehabilitation and extension of the Electrical and Street Lighting Network
- Construction of pavements and resurfacing of roads
- Traffic Signing

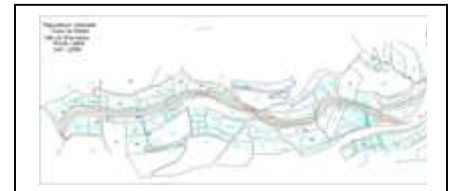


26 - Rehabilitation of the road Latini in the city of Brummana – Caza of Metn – (2006)

The Project consists of the Rehabilitation for the World Bank in the city of Brummana of the road Latini.

The services include:

- Preparation of feasibility study
- Detailed designs
- Tender documents
- Rehabilitation and extension of the Sewer Network
- Rehabilitation and extension of the Storm-water Drainage Network
- Construction of pavement and resurfacing of road
- Traffic Signing



27 – Rehabilitation and upgrading the Road in Haroun area in the city of Brummana – Caza of Metn (2005 – date):

This project consists of legalizing the road in Haroun area (length = 5 km) which exists long ago (around 40 years), by making a decree and by widening it (new width = 10 m). This project is ongoing, and it will comprise all kind of networks, retaining walls and landscaping.



28 – Project Peripheral road to Hadchit village in the caza of Bcharre. (2006-date)

The project consists of 6 km of a new road running around Hadchit village to elaborate a decree for the Municipality of Hadchit and for the General Directorate of Urbanism (DGU) in Lebanon.

The services include:

- Data Collection
- Feasibility Study
- Traffic data
- Assistance during expropriation
- Detailed Design drawings for:
- Topographic Survey
- Road design
- Traffic Design
- Storm Water network design
- Specifications and Construction Cost Estimates

29 – Project Internal Roads to Aabdine village in the caza of Bcharre. (2006-date)

The project consists of 10 km of a new road running inside Aabdine village to elaborate a decree for the Municipality of Abdine and for the General Directorate of Urbanism (DGU) in Lebanon.

The services include:

- Data Collection
- Feasibility Study
- Assistance during expropriation
- Detailed Design drawings for:
- Topographic Survey
- Road design
- Traffic Design
- Storm Water network design
- Specifications and Construction Cost Estimates

30 – Extension of “Bsarma – KfarAaqa” Bridge in the caza of Koura. (2006-date)

The project consists of widening a principal road joining Bsarma village to KfarAaqa village at the location of an existing bridge over an earth ditch to facilitate the traffic flow for the union of the Municipalities of the caza of Koura and for the Ministry of Public works and Transport in Lebanon.

The services include:

- Data Collection
- Feasibility Study
- Detailed Design drawings for:
- Topographic Survey
- Road design
- Traffic Design
- Storm Water network design
- Specifications, Bill of Quantities and Construction Cost Estimates

31 – “BrawellDeepWaterShore Base” – Majalsland – Lagos - Nigeria (2007)

The Lagos Deep Water Base is required to support the ongoing development of oil and gas fields located up to 225 miles offshore in the Northwest of Nigeria. The project consists of one million square meters and the design of all roads and infrastructure networks in this Base.

The services include detailed Design drawings for:

- Road Design
- Traffic Design
- Storm Water network design
- Sewage Design
- Asphalt pavement Design
- Rigid Pavement Design
- Specifications and Bill of Quantities

32 - Upgrading of Kolo Creek Main Road, 43 km, Rivers State, NIGERIA

33 - Construction of Mbiama-Biseni Road, 38 km, Rivers State, NIGERIA

34 - Call-off contract, Upgrade of Road-Field in Marginal Swamp, 50 km, Rivers State, NIGERIA.

35–Project Bani Saab village Road in the caza of Bcharre. (2008)

The project consists of 3 km of a new road running inside the mountain of Bani Saab village to elaborate a decree for the General Directorate of Urbanism (DGU) in Lebanon.

The services include:

- Data Collection
- Feasibility Study
- Assistance during expropriation
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network design
 - Specifications and Construction Cost Estimates

36–Project Riyadh Power Plant No. 10 (PP10) – Saudi Electricity Company (2008-2009)

The project consists of 40 km of a new road for Bemco Int. Offshore s.a.l. Developers and Constructors in a plot of 4,000,000 m² in Riyadh – Saudi Arabia. The roads are divided into 3 types:

- Ring Roads
- Patrol Roads
- Internal Roads

The services include:

- Data Collection
- Feasibility Study
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network design



- Specifications and Construction Cost Estimates

37–Project Waste Water Network & Water Supply Network for the villages of Yohmor, Zaoutar and Kfarsir – South Lebanon –German South Hydroplan (2008-2009)

The project consists of 67 km of Waste Water and Water Supply Network for German Souyth Hydroplan Consultant

The services include:

- Design Criteria.
- Calculation Notes
- Execution Drawings for Water Supply & Waste Water Networks
- Technical Specifications
- Bill Of Quantities

38–Project Annaya – Ehmej – Laqlouq Road (2008-2009)

The project consists of 10 km of road for BTP Consultant The roads are divided into 2 types:

- New Roads
- Widening and upgrading existing Roads

The services include:

- Data Collection
- Feasibility Study
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network design
 - Bill Of Quantities
 - Specifications and Construction Cost Estimates

39 –Construction of Roads and Infrastructures in the Southern Suburbs of Beirut (2008-2009)

The project consists of upgrading and widening of 12 km of road

The services include:

- Data Collection
- Detailed Design drawings for:

- Topographic Survey
- Road design
- Traffic Design
- Bill Of Quantities
- Specifications and Construction Cost Estimates

40–Project Road Sarobi to Khenjkot – Paktika – Afghanistan (2010 to date)

The project consists of 27 km of road for Nassar Group International in Afghanistan including including 80 drainage structure

The services include:

- Data Collection
- Feasibility Study
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network with hydraulic and hydrological design
 - Structural Design
 - Bill Of Quantities
 - Specifications and Construction Cost Estimates
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41–Project: Study Of Traffic Circulation and Parking Demand Along Charles Malek Avenue and Its Surroundings (2018)

The project consists of the rehabilitation of 3 km of road for Council for Development and Reconstruction including design for tunnels bored (TBM) and drainage structure

The services include:

- Data Collection
- Feasibility Study
- Detailed Design drawings for:
 - Topographic Survey
 - Road design
 - Traffic Design
 - Storm Water network with hydraulic and hydrological design
 - Structural Design
 - Bill Of Quantities
 - Specifications and Construction Cost Estimates

