



# PROJECT WORKS, ENGINEERING SERVICES

(DRAWINGS, TECHNICAL SOLUTIONS, ADVISORY)





## **WE HAVE PROOVEN EXPERTISE IN THE FIELD OF CONSTRUCTION OF FISH FARMS.**

WE ARE A TEAM OF TECHNICIANS WITH SIGNIFICANT **EXPERTISE IN THE FIELD OF FISH FARMING**. WE SPECIALIZE IN CONSTRUCTION OF TURNKEY FISH FARMS FOR PRODUCTION OF VARIOUS TYPES OF FISH. WE ALSO DELIVER PARTIAL TECHNOLOGICAL UNITS FOR EXISTING FISH PRODUCTION FACILITIES.

THANKS TO THE KNOWLEDGE OF OUR EXPERIENCED TEAM, WE PROVIDE A WHOLE PACKAGE OF SERVICES, TO ANY OF OUR POTENTIAL CLIENTS. **WE HAVE THE KNOWLEDGE** AND SKILLS TO **ENGINEER** FISH FARMS. OUR TEAM UNDERTAKES THE ENTIRE RESPONSIBILITY FOR FULL PREPARATION OF AN AQUACULTURE FISH FARM PROJECT FOR YOU.

## **WE OFFER TO YOU COMPLETE ARCHITECTURAL, PROJECT AND ENGINEERING SERVICES AS FOLLOWS:**

### **a) TECHNICAL DOCUMENTATION GRADE «A» - ARCHITECTURAL SOLUTION AND DESCRIPTION:**

- Technical schemas of the whole fish farm
- Technical drawings/schemas of all construction units on the fish farm
- Technical schemas of all technological units
- Description of the fish farm and its technological solution
- Description of all technological processes and technological operation of the farm
- Technical assistance provided to a head designing company within the preparation of technological project
- Calculation of production capacity, setting of optimal production cycle
- Calculation of necessary area for construction of a fish farm
- Calculation of water volume necessity
- Calculation of heat volume necessity
- Calculation of fresh air volume necessity (ventilation)
- Calculation of feed volume necessity (appropriate feeding)



- Calculation of necessary amount of feed containers and its volume for feed mixtures storage including the necessary feed reserve (necessary days)
- Calculation of waste from the production, calculation of waste water volume
- Specifications of technological devices and units, that that will be delivered under the contract (including positions on drawings and description of features)
- Drawings and schemes of ventilation system
- Drawings and schemes of electrical system
- Drawings and schemes of heating and cooling system
- Drawings and schemes of feeding and drinking system
- Conceptual drawings and schemes of steel structures
- Visualisation of the farm





**b) TECHNICAL DOCUMENTATION IN GRADE “C” WILL BE COMPILED IN FOLLOWING RANGE:**

1. Constructional solution of the farm delivered by us
  - a. Technical description
  - b. Architectural solution of the farm
    - Lay out of the farm
    - Flor plan of all buildings
    - Cross sections of all buildings (2pcs to all buildings)
    - Side views off all buildings
  - c. Constructional and static solution (if required)
    - Static calculation of steel structures
    - Technical drawings of steel structures
    - Sheathing of steel structures (PUR panels, metal sheets)
  - d. Technical information about engineering equipment and technical networks inside the buildings for animals.
    - Drawings and technical description of high-voltage installations inside the buildings for animals
    - Drawings and technical description of low-voltage installations inside the buildings for animals
    - Drawings and technical description of water installations inside the buildings for animals
    - Drawings and technical description of canalisation installations inside the buildings for animals
    - Technical specification of heaters installations inside the buildings for animals
    - List of engineering services
2. Visualisation of the farm

If required, we provide 3D visualisation of the farm. The visualisation realistically shows, how the farm will look like and provide realistic picture of the whole farming complex. We also provide 3D visualisation of technological units.



3. Constructional solution of all buildings for animals
  - a. Technical description
  - b. Architectural solution
  - c. Flor plan
  - d. Cross sections of all buildings (2pcs to all buildings)
  - e. Side views off all buildings
  - f. Informational layout and solution of fundamentals (\*fundamentals must be modified by local static engineer)
  - g. Drawings and schemes of feeding system of all buildings for animals
  - h. Scheme of water/drinking system of all buildings for animals
  - i. Drawings and schemes of cooling and heating of all buildings for animals
  - j. Drawings and schemes of ventilation system of all buildings for animals
  - k. Drawings and schemes of electro - installations (high-voltage and low-voltage installations) of all buildings for animals
  - l. Infrastructure, topography and Engineering survey, geological survey, static calculations of foundations NOT INCLUDED IN THE OUR'S SCOPE OF DELIVERY
  
4. Documentation of steel structures
  - a. Static-constructional solution of all steel structures for all building for animals
  - b. Conceptual construction drawings (floor plan, cross section, technical details)
  - c. Description of technical solution
  - d. Loads from steel structures to fundamentals
  - e. Static calculation of steel structures
  
5. Works NOT included in designing works (this part of works has to be done together with local engineering company, under our management and control):
  - a. Water connection point and line from the connection point towards the farm
  - b. Water lines outside the farm



- c. Water lines inside the farm from the main connection point to all buildings
- d. Electricity connection point and line from the connection point towards the farm
- e. Electricity lines outside the farm
- f. Electricity lines inside the farm from the main connection point to all buildings
- g. Canalisation connection point and line from the connection point towards the farm
- h. Canalisation lines outside the farm
- i. Canalisation lines inside the farm from the main connection point to all buildings
- j. Gas connection point and line from the connection point towards the farm
- k. Gas lines outside the farm
- l. Gas lines inside the farm from the main connection point to all buildings
- m. Connection point to a local road or any other transportation net
- n. Roads inside the farm

**c) ENGINEERING, TECHNICAL ADVISORY AND COSULTANCY**

Engineering, technical advisory and consultancy will be provided during the preparation of the project according to needs of the local general designing company (technical research, designing works, computational analytics, preparation of feasibility studies of projects, etc.)

- i. Consultancy concerns all works connected to the preparation of a technical documentation and budgeting works.
- ii. All works delivered by the Contractor will be compiled in accordance with the technical law and technical standards of the European Union and will respect local technical norms and law in Country. The delivered work shall respects the latest veterinary, zoo technical, technological and technical requirements for the protection of human and animal health, as well as the general environmental standards applicable to the territory of the Country.
- iii. Completion of the agreement means that the execution of pre-designing works according to the above stated conditions and the provision of all drawings in English language (in \* dwg) format of the AutoCAD, to the local – Country head designing



company hired by the customer. The head designing/project organization must be accredited for the official work in Country.

d) **PRICING, CONTRACTING, EXECUTION PERIOD, OBLIGATIONS OF BOTH PARTIES, PAYMENT CONDITIONS**

Every project is very unique and because of that, we set pricing, contracting, execution period, obligations of both parties, payment conditions according to the agreement with our potential client.

Engineering dept., GRETEC