



DIJLAHAM

REFINING • POWER • WATER • SUSTAINABLE CITIES



IRAQ
SMART CITIES

Concept **Design**

Concept Design

Partners

In 2014, DijlahAM partnered with Arup and Overland Partners to develop the initial concept for the Iraq Smart Cities™ initiative, a series of agro-industrial, self-sustaining, oil-producing cities **constructed above proven oil and gas reserves**.



DijlahAM is a team of independent designers, planners, engineers, consultants, and technical specialists, guiding every operation to the needs of the oil and gas industry, sustainable cities and organic farming.



Arup employs 13,000 staff, specializing in engineering, master-planning, construction, mechanical, electrical, transportation, geotechnical, and many other areas in the built environment.



Overland Partners Architects brings together diverse talents to provide comprehensive design services in architecture and planning throughout the world.

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Arup-Overland Planning Team

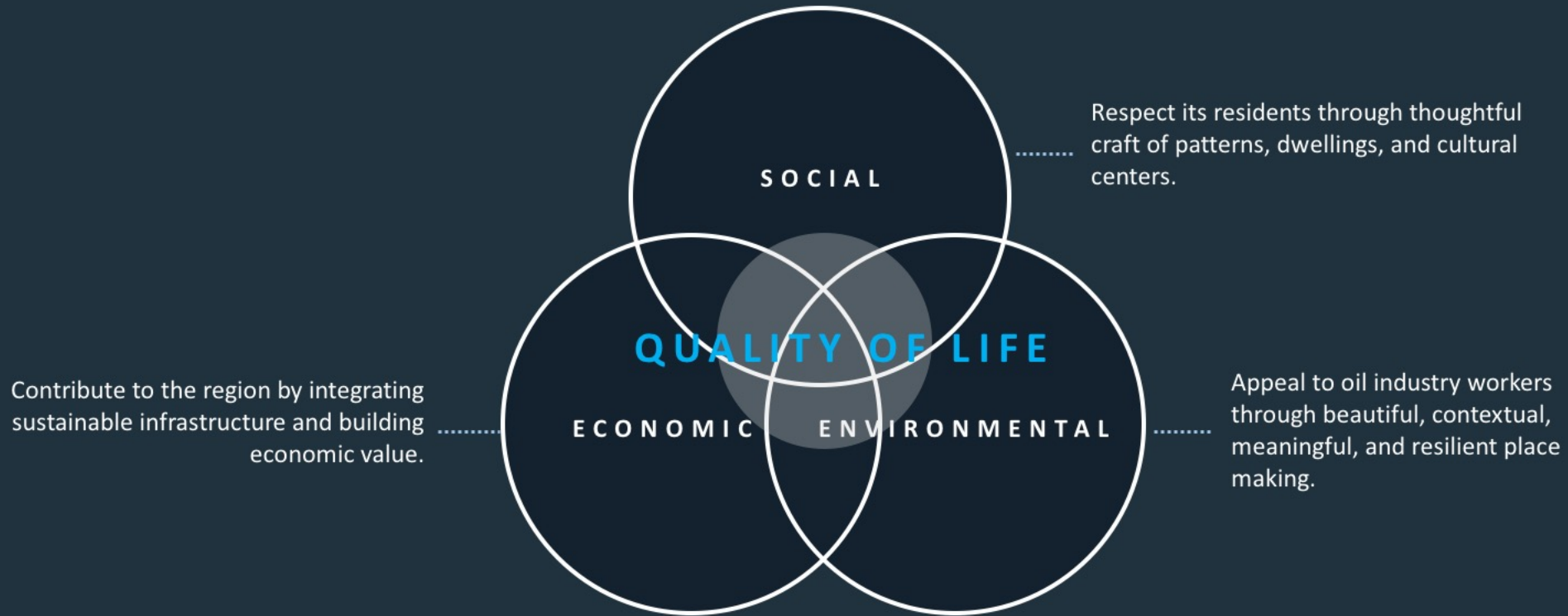
Over the course of two years, the planning team laid out a vision designed to restore peace and prosperity to the people of Iraq.



Concept Design

Mission

“Plan thriving and resilient cities that can support a high quality of life and sustain long-term regional growth.”



Concept Design

Vision

In addition to its abundance of oil, Basrah was once known as "Venice of the East" for its extensive system of canals used for agricultural irrigation and trade. Basrah Modern City™, the first of our Smart City concepts will be designed as a master-planned, modern, car-free, canal and garden city – built with Islamic city-planning qualities.



Concept Design

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Strategic Design

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Logistics

Energy, Water, Waste & Food Systems*

The infrastructure design will enable these cities to renew and reuse resources, resulting in continuous dependable power, clean drinking water, and high-quality fuels. These cities will be models of sustainability and profitability.

* Additional information can be found in supplemental printed materials.





- 1 Secure Entry/ Perimeter
- 2 Parking/ Solar Array
- 3 Market Square
- 4 Park/ Green Space
- 5 Housing
- 6 Commercial Center
- 7 Agricultural Zone

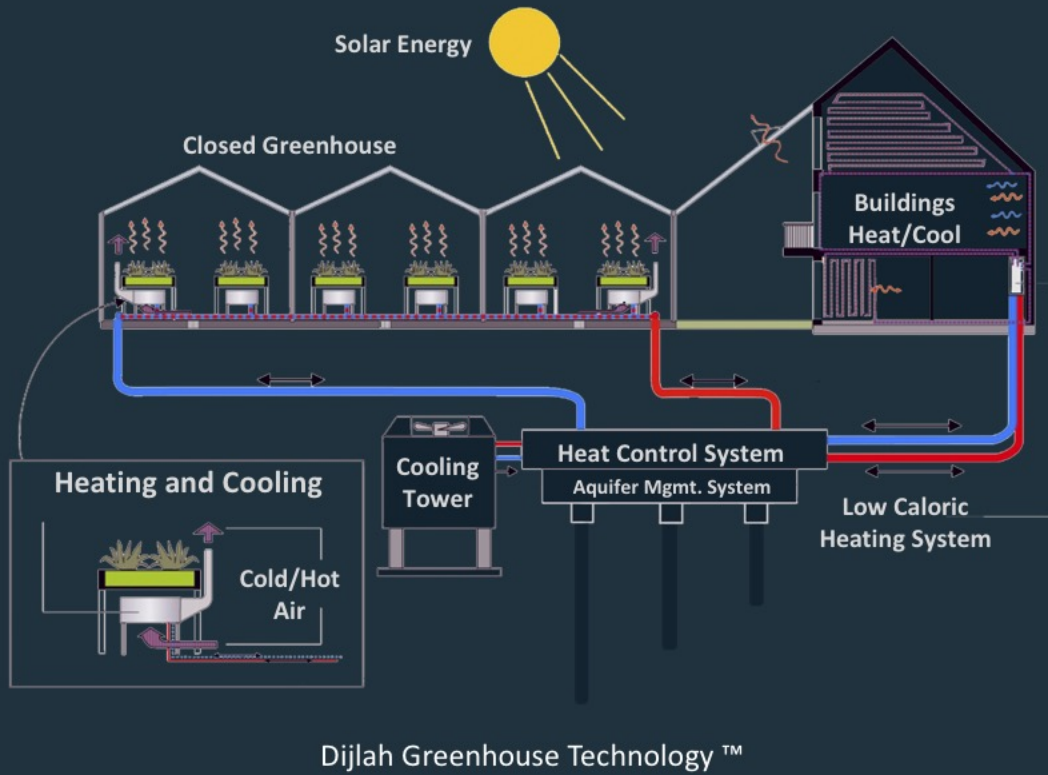
City Center

Refinery

Strategic Design

Agriculture

DijlahAM is partnering with industry leaders in organic and dairy farming to develop new efficient, profitable agricultural land in the southern regions of Iraq.



Strategic Design

Architecture

Within the flexible neighborhood framework , each courtyard building can be designed to accommodate various combinations of unit types and living arrangements.



Lower Level



Upper Level

One nuclear family can occupy a whole house, or a nuclear plus their extended family.

Alternatively, a unit can be subdivided into as many as eight living quarters that can be rented per room - and many combinations in between.

Floorplan A

2 Bedrooms Units
Area: 94m²

Strategic Design

Architecture

Within the flexible neighborhood framework , each courtyard building can be designed to accommodate various combinations of unit types and living arrangements.



Lower Level



Upper Level

One nuclear family can occupy a whole house, or a nuclear plus their extended family.

Alternatively, a unit can be subdivided into as many as eight living quarters that can be rented per room - and many combinations in between.

Floorplan B

2 Bedrooms Units + 1 Studio
Area: 83m² + 26m²



Courtyard House Typology

The area of each dwelling can be maximized by making full use of rooftops and courtyards. Neighborhood shops, cafes and live/ work spaces can be integrated into the ground floor of the houses.

Concept **Visualization**



AGRICULTURAL FIELDS

HOSPITAL

ADMINISTRATION

CITY CENTER PLAZA

PARKING + SOLAR POWER

SCHOOL

HOTEL

SECURITY CHECKPOINT

SHOPPING MALL

MAIN TRANSIT LOOP

CIVIC BUILDINGS

RESTAURANTS AND MARKETS

TRANSIT STOP

COMMUNITY RECREATION FACILITY

COMMUNITY PARK

MOSQUE

COMMUNITY RECREATION FIELDS

GREEN BOULEVARD

HOUSING





GOVERNMENT BUILDING

GOVERNMENT BUILDING

GOVERNMENT BUILDING

MEDICAL
TRAINING
CENTER

WOMEN AND CHILDRENS' HOSPITAL

PEOPLE'S MANSION:
MULTIPLE PURPOSE ACTIVITY CENTER

CAFE

CAFE

LIBRARY

DOCTOR'S CLINICS

COURT HOUSE

GENERAL HOSPITAL

GOVERNOR'S HOUSE

GENERAL HOSPITAL



GOLF COURSE

VILLAS

GOLF CLUBHOUSE

HOTEL

HOTEL ENTRY

VILLAS

CHURCH

COURTYARD HOUSES

NEIGHBORHOOD PLAZA

RECREATIONAL FIELDS





Early Concept Artwork





Energy Production

Energy Production

Statistics

DijlahAM and its partners will build advanced refining and infrastructure facilities in each city to propel Iraq's economy and create a new generation of high-paying jobs.



Oil Refining

Refineries will be the backbone of these Smart Cities. Each city will construct a refinery capable of an output up to 300,000 bpd.



Gas Conversion

Up to 300,000 ebpd gas-to-liquids conversion plants offer a profitable solution to flared natural gas.



Electrical Generation

3000 MW power plants will provide uninterrupted power for these cities and the surrounding regions.



Water Desalination

Each city will include a water desalination plant capable of purifying up to 25 million gallons per day, depending on the city's location.





Our Partners

Our Partners

A World Class Team



Energy Project Manager

Plant Process Equipment, Inc. (PPE) is a privately held engineering, construction, and operating company specializing in projects in the chemical, petrochemical, petroleum refining, biofuel, and green energy industries.

PPE has completed projects ranging from the traditional construction of petroleum refineries and the rebuild/restart of existing refineries to the cutting edge design and construction of biofuel refineries and conversion of animal waste to methanol.

Our Partners

A World Class Team



FLUOR[®]

Oil & Gas Infrastructure

Fluor Corporation is a global engineering, procurement, fabrication, construction and maintenance company that designs, builds and maintains capital-efficient facilities for its Clients on six continents.

Fluor delivers solutions to government and private sector Clients in diverse industries. Fluor understands the complexities of today's competitive markets, and together with our customers, designs optimal solutions to bring their quality capital projects to market safely, on schedule and within budget.

Our Partners

A World Class Team



GE
Lighting

Electrical Power Generation

GE Lighting is the professional division of General Electric specializing in lighting solutions all around the world, employing 17,000 people.

GE Lighting has developed a stream of powerful company-wide initiatives that drives growth and reduces cost; financial strength and controllership that allow it to capitalize on opportunities through numerous cycles; and a set of common values that allows it to face any environment with confidence.

Our Partners

A World Class Team



HALDOR TOPSØE

Natural Gas Conversion

Haldor Topsoe is a world leader in catalysis, committed to helping our customers achieve optimal performance. They enable companies in the chemical and oil & gas industries to get the most out of their processes and products, using the least possible energy and resources.

Topsoe solutions help refineries make the best possible use of crude oil and save energy in the process. They are involved in shaping the solutions and new technologies that customers will base their business on in the future.

Our Partners

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Water Desalinization

SAMCO has installed and serviced thousands of custom-engineered raw water treatment systems.

Leveraging the collective skills of experienced chemical, civil, environmental, electrical, mechanical and process engineers, chemists, and skilled tradesmen, SAMCO blends a culture of teamwork, commitment and passion to help solve unique industrial water treatment needs.

Our Partners

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Fresh Dairy Products

Almarai is the world's largest vertically integrated dairy company with a flawless reputation and a clear vision: to provide quality, nutritious food and beverages that enrich our consumers' lives every day.

They continue to invest intensively in technologically advanced production facilities while recruiting high-caliber people with the skills and experience to optimize their performance.

Our Partners

A World Class Team



Hospitals

Cleveland Clinic is one of the largest and most respected hospitals in the country. Their industry collaborations with medical schools, hospitals and biomedical research institutions are critical to furthering research efforts and accelerating innovative patient care.

They believe medical innovation significantly benefits patient care. At the same time, they recognize that innovation must be managed with extraordinary sensitivity and transparency.

Our Partners

A World Class Team



Healthcare Technology

Mayo Clinic is a nonprofit organization committed to clinical practice, education and research, providing expert, whole-person care to everyone who needs healing.

Mayo Clinic has the latest in diagnostic and treatment technology — from the highest resolution imaging devices to robotic surgery. This supports our ability to give you the best answers and the best treatment.

Our Partners

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Land Proclamation

Texas A&M researchers seek to understand how the Earth functions and how its resources may be used. They develop techniques to improve exploration for petroleum resources, and better understand ancient environments.

The university also tests sediment and sedimentary rock, including conditions of weaker rocks at upper crustal conditions. Geoscientists are leaders in providing solutions to pressing societal problems, including securing a reliable and affordable energy future.

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PBK

Architectural Design

PBK Inc is a multidisciplinary architecture/engineering firm headquartered in Houston, Texas. They construct state-of-the-art education, sports, healthcare, corporate, and civic facilities.

With over 200 employees in 10 offices, PBK is one of the largest architecture and engineering design practices in the southwest United States. The firm specializes in multiple disciplines including architecture, mechanical engineering, electrical engineering, plumbing engineering, civil engineering, structural engineering, technology consulting, interior design and construction administration services.

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PW Power Systems


a group company of  MITSUBISHI HEAVY INDUSTRIES, LTD.

Distributed Power

PW Power Systems delivers power reliably and efficiently throughout the world to post-industry-leading countries and developing nations alike.

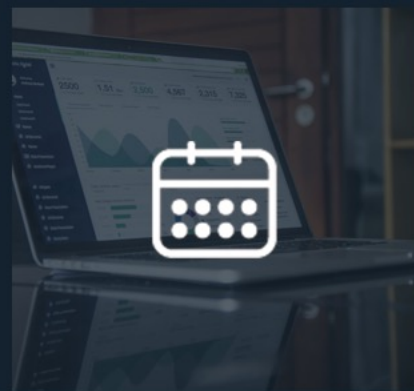
PWPS has over 2,000 gas turbine units installed and has designed and built 300 turnkey systems. PWPS offers both simple and combined-cycle units which have accumulated over 19 million operating hours.



DIJLAHAM  = The Solution

DIJLAHAM = The Solution

DijlahAM and its partners provide a comprehensive solution to the greatest needs of the Iraqi people in the shortest possible time, utilizing Iraq's readily available oil and natural gas resources.



The Future of Energy in Iraq

Iraq needs the private sector to build a world-class, robust refining industry and distribution network: establishing a global brand unmatched anywhere on the planet.

Private Iraqi refineries will sustain thousands of well-paid, highly skilled Iraqi jobs across the country, and Iraq can become a global distributor of refined products for decades to come.

DijlahAM is able to turn the vision for a strong Iraqi refining industry into reality.



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