

Ministry of Transportation

Strategic Mega Projects

The Iraqi government is exerting efforts to reform its economy on modern economic basis that secures a whole investment for its resources to supply best services to the Iraqi citizens, hence took steps to promote investment in various sectors and investment law no. 13 in 2006 was legislated to secure guarantees and privileges for Arab and foreign investors.

The Ministry of Transportation which is responsible for the management, planning and policy of the country's transport system (sea ,water ,air and land transportation) gave great attention for this subject and is offering strategic Mega projects for investment (railways-airports-seaports)and other investment opportunities for smaller projects hoping to gain a positive response from the foreign and Arab investment companies and is ready to submit all required details for these projects and provide all facilities secured by the law of investment.

Strategic Mega Projects

Railways

Airports

Railways Mega projects

The ministry aims to expand the railway network with construction of new lines. The detailed design and tender documents for some of these lines were prepared in the 80''s by international engineering firms, for others only preliminary studies were carried out. Recently tenders were called for companies to update detailed designs and tender documents.

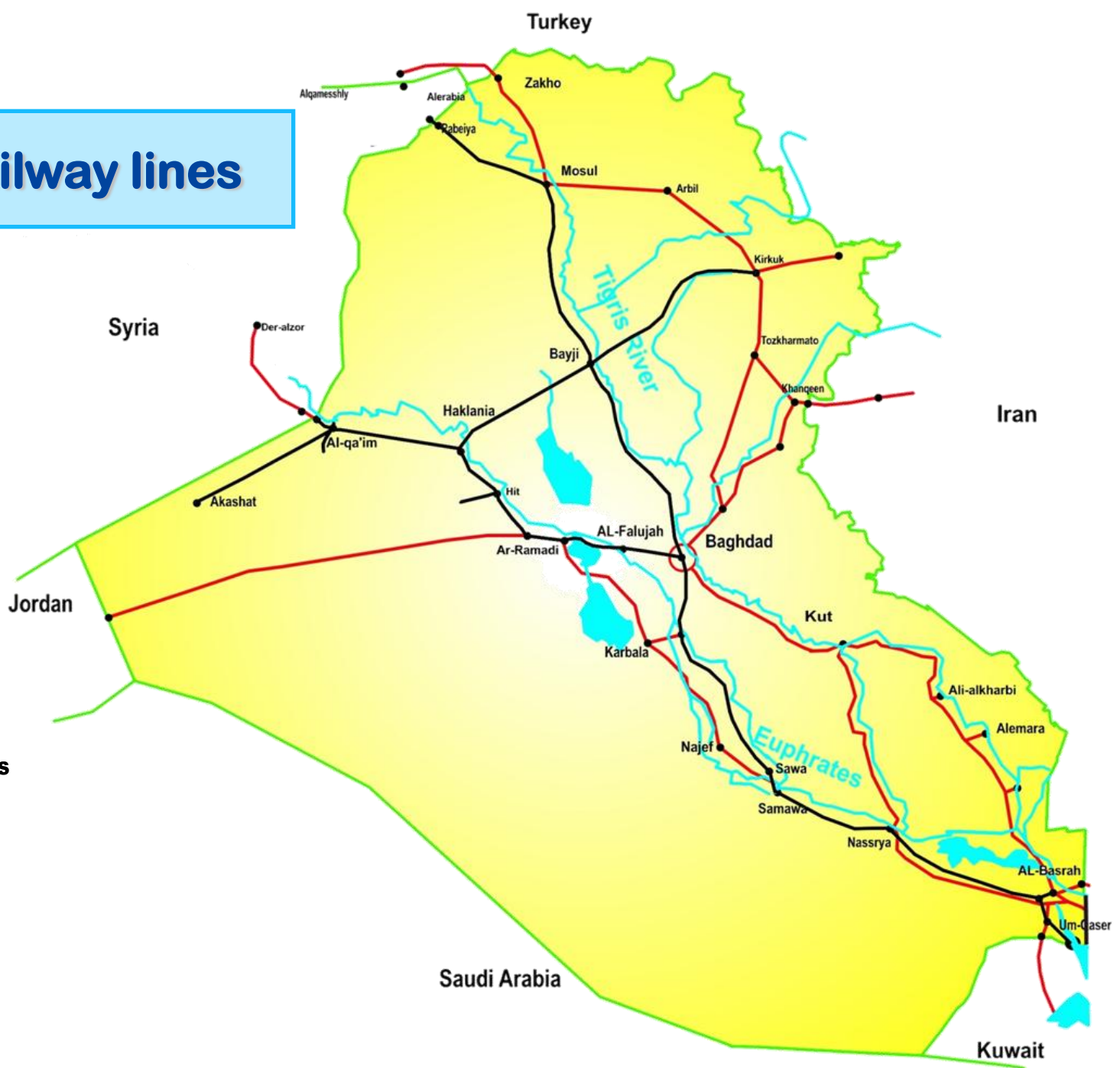
The following are the investment opportunities proposed by the company concerning these projects

IRR Existing lines



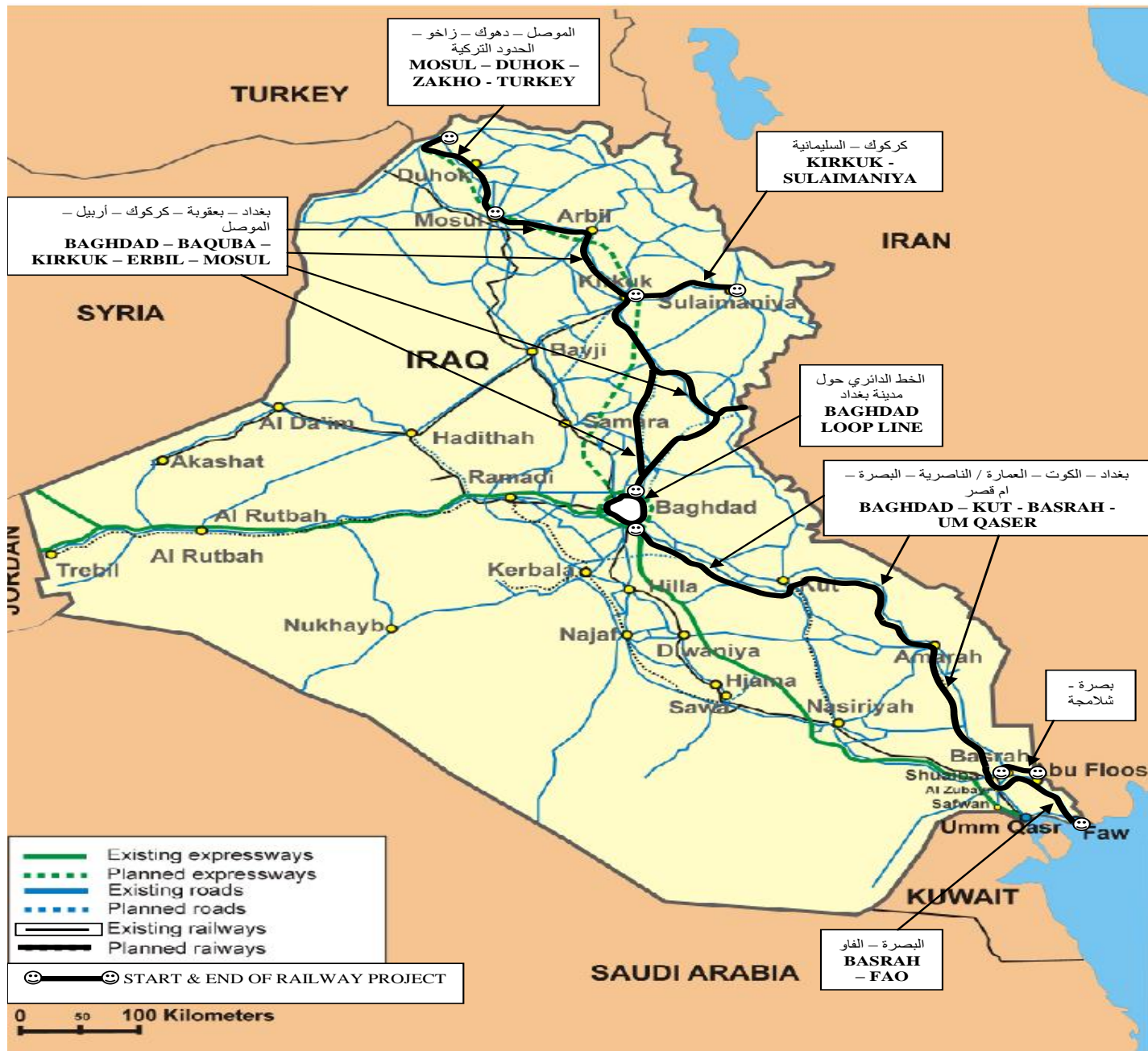
Future railway lines

Future Lines
Existing Lines



EASTERN AXIS Railway Projects

- **(Mosul - Duhok - Zakho - Turkish borders) Railway Project.**
- **(Kirkuk - Suleymaniyah) railway line.**
- **(Baghdad - Ba'aqubah - Kirkuk - Arbil - Mosul) Railway Project.**
- **Loop railway line around Baghdad.**
- **(Baghdad - Kut - Amarras - Basrah) railway project.**
- **(Kut – Nasirya) railway project.**
- **(Kut - Ba'aqubah) railway project.**
- **(Basrah - Faw) Railway Line.**
- **(Basrah - Shlamjah) Iranian borders.**
- **(Shu'aiba – Safwan) Kuwaiti borders.**

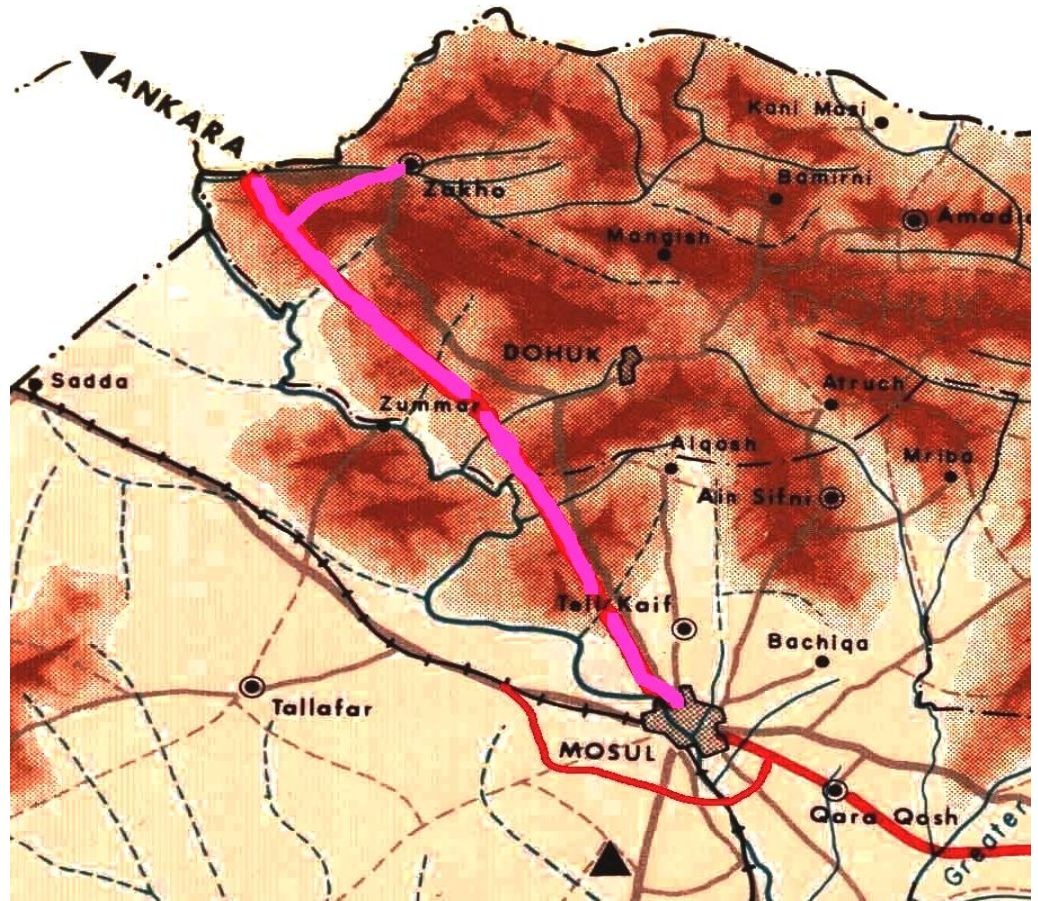


HIGH SPEED RAILWAY PROJECTS IN IRAQ – EASTERN ROUTE

1- Mosul – Duhok – Zakho (Link with Turkey) Railway Project

This line shall constitute in the future the direct international connection between Iraq and Europe through Turkey. The line starts from Ibrahim Al-Khalil boarder point to Mosul passing through Khabur and Zakho.

Detailed design and tender documents of the project were prepared in early eighties, recently a contract was signed with Check company (IKP-CZ corp.) for updating these works.



Project infrastructure

Length of the line : 167Km (double line).

Design Speed : 200 Km/hr for passengers trains (electrified trains).
140 Km/hr for freight trains (electrified trains).

Axle load :25 tons.

Design capacity: 1 million/year (passengers).
55million tons/year (goods).

Main Project items:-

- ★ 320 Km of railways (main line and branches)
- ★ Seven Stations of different sizes
- ★ 30 bridges for trains
- ★ A tunnel of 600 m length
- ★ 13 bridges for vehicles above the main line
- ★ 400 concrete overpasses of different lengths
- ★ 3 workshops for maintaining movable units
- ★ Modern signaling and telecommunication systems
- ★ 187 residential units for workers
- ★ Refrigerated and ordinary sheds and yards for handling goods at khabur station

COST ESTIMATE

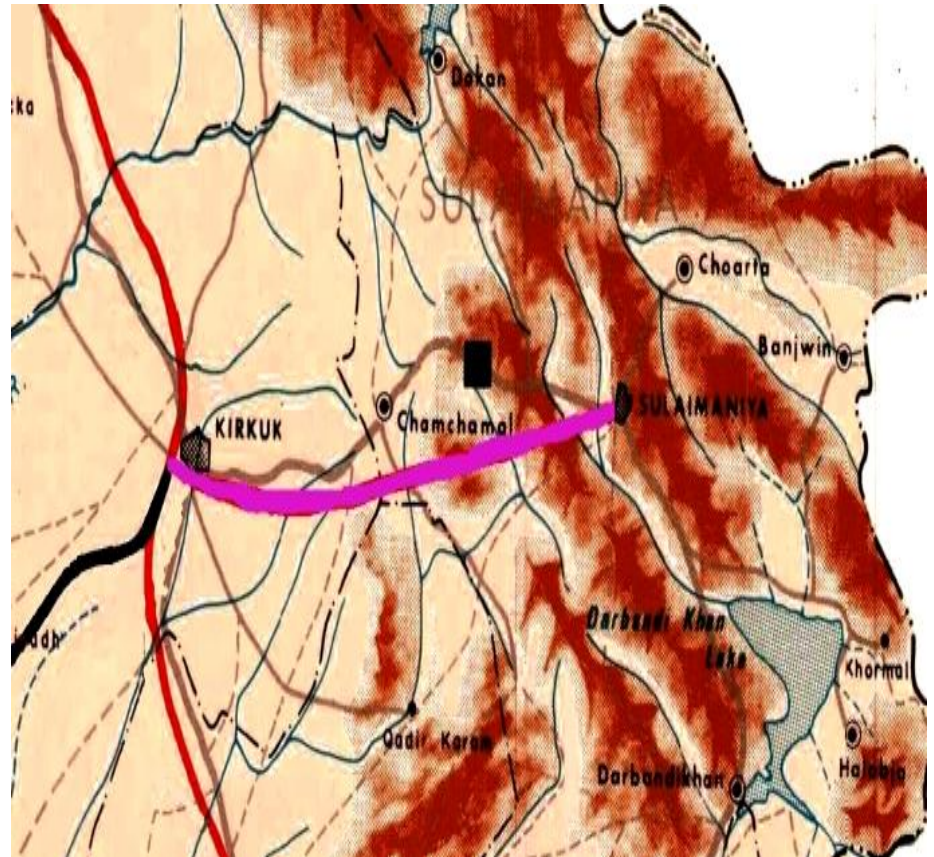
land possession: 450 m\$

Project construction ; 2157 m\$ (considering that average cost of all project items on basis 1Km=12.9 m\$)

2- (Kirkuk – Sulaimaniya) Railway Project

The line starts from Kirkuk station to Chamchamal and Suleymaniyah. Branch railway lines to industrial plants in Kirkuk and Suleymaniyah are considered.

Detailed design and tender documents of the project are now carried on (progress of these works reached 90%).



Project infrastructure

Line length: 118 Km of single track line to be doubled in the future

Design Speed: 200Km/hr for passengers trains using electrified trains.
140Km/hr for freight trains using electrified trains.

Design capacity: 1.25 million/year (passengers).
6 million tons/year (goods).

Axle load: 25 tons

Main Project items:

- ✦ 350 Km single track line
- ✦ 5 stations with necessary yards and buildings
- ✦ Railway bridges of different sizes for trains
- ✦ 3 tunnels of lengths (6033m , 188m , 3302m)
- ✦ Several bridges for vehicles
- ✦ workshop for general overhaul of locomotives at Suleymaniyah
- ✦ residential complex for workers
- ✦ Modern signaling and telecommunication systems

Cost estimate of the project:

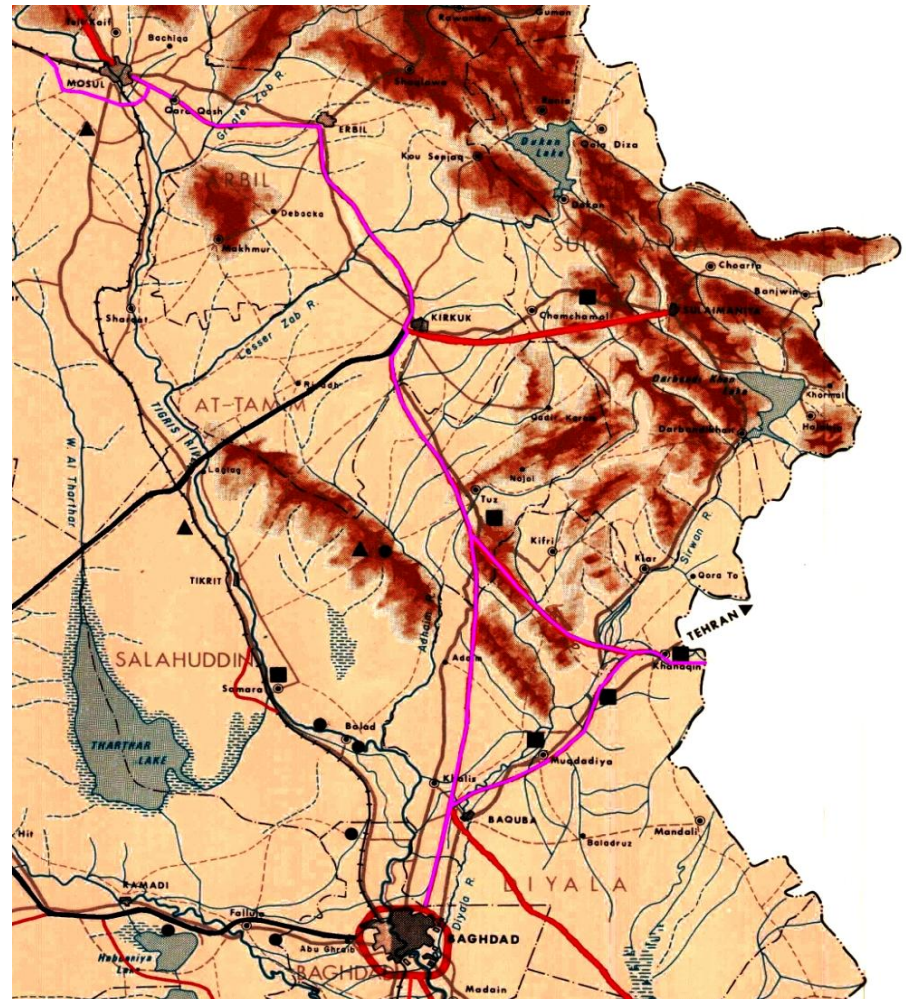
- ✦ With Land possession: 3278 m\$

3- (Baghdad – Ba’quba – Kirkuk – Erbil – Mosul) Railways Project

This line shall be in the future the main connection from Baghdad to northern region, Kirkuk , Mosul , Turkish and Syrian borders.

Detailed design and tender documents of the project were prepared in early eighties , it was commissioned to an international consulting company for the revision and updating of the design and tender documents (progress of these works reached 77%).

The project starts from the circular loop around Baghdad in Rashidiyah and heads north on the eastern side of Tigris river to Ba'aqubah, Kirkuk, Arbil and Mosul.



Project infrastructure

Length of the line is 555 Km (double line)

Design Speed: 250 Km/hr for passengers (electrified trains).

140 Km/hr for freight trains (electrified trains).

Axle load: 25 tons

Design capacity: 6 million /year (passengers).

20 million tons/year (goods)

Main Project items:

✦ 1110 Km of railways (main line and branches)

✦ 44 Stations of different sizes

✦ 144 bridges for trains

✦ 100 bridges for vehicles above the main line

✦ 481 concrete overpasses of different lengths

✦ Main workshop at southern Nineveh station for goods for maintaining movable units, necessary yards for handling goods and refrigerated and ordinary stores.

✦ Modern signaling and telecommunication systems

✦ Workshops for maintaining movable units and necessary yards in different stations at (Ba'aqubah – Arbil & Khanaqin)

✦ residential units for workers

✦ huge passenger complex at the Iraqi – Iranian borders & VIP rest house.

COST ESTIMATE

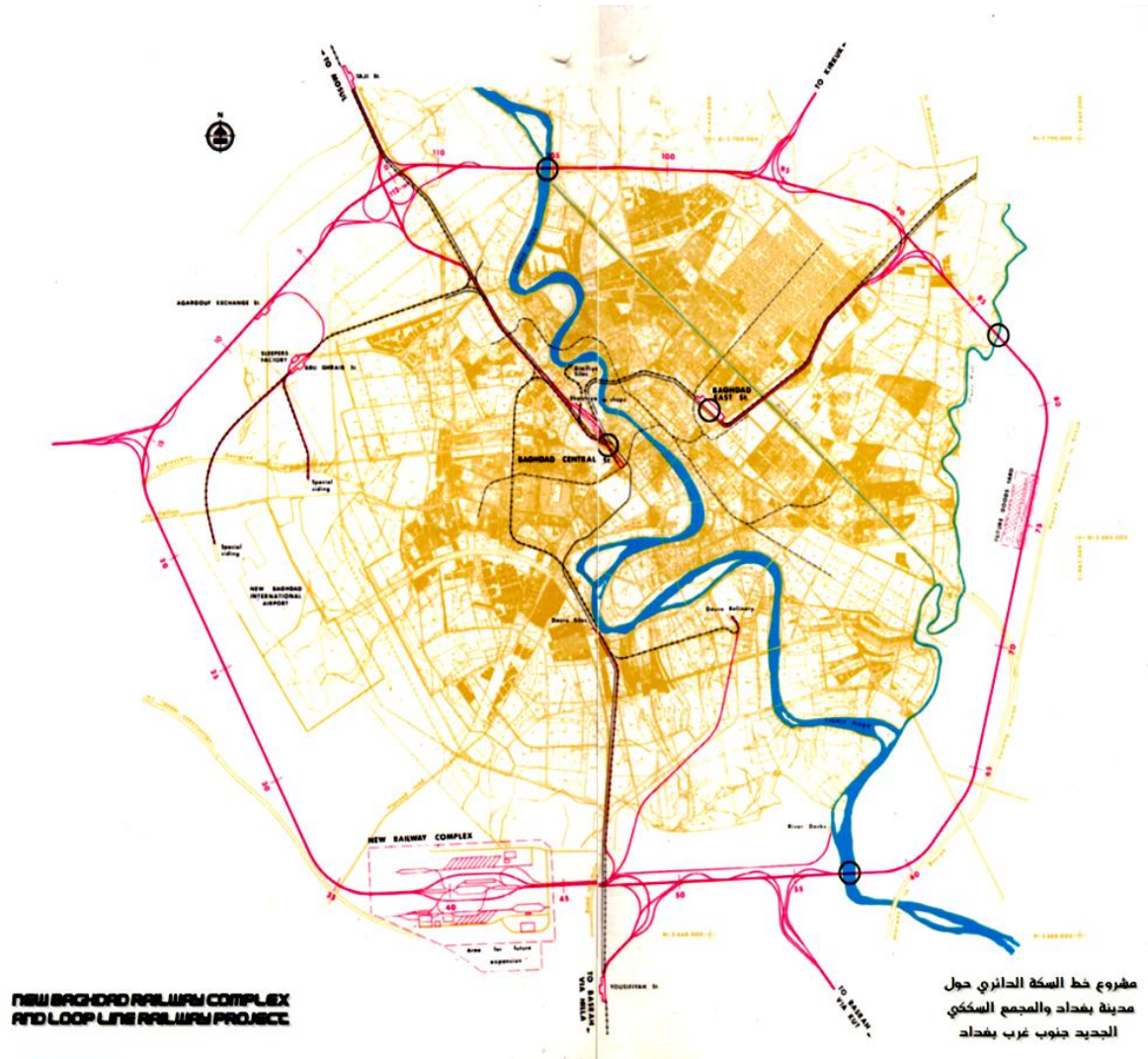
Land possession: 1674 m\$

Project construction ; 7000 m\$

(considering that average cost of all project items on basis 1Km = 12.6 m\$)

4- Railway complex and Loop line around Baghdad.

The first ution of Railpriority shall be the execway complex and Loop line around Baghdad, the implementation of which is considered very strategic for the functionality of the entire network



The project aims to connect all railway lines to and from provinces and neighboring countries to this line, hence forming a central railway communication node for the Iraqi railway network, also preventing freight trains from passing through the city of Baghdad, only passenger trains shall enter the city through Baghdad central station and Baghdad East Station, interventions of trains and vehicles shall be separated by tunnels and bridges.

Detailed design and tender documents of the project were prepared in early eighties, it needs to be updated to the latest state of the art in railway field.

Lengths of the lines:

- 1) Loop line, double track of 140 km
- 2) 4 parallel railway lines connecting Baghdad central station with the loop through a tunnel of 11 Km
- 3) Double railway line connecting Baghdad East Station with the loop of length 10Km

Main Project items

- ✦ 665 Km of railway lines (main line and branches)
- ✦ Two central stations for passengers accommodates 140 trains/day for Baghdad central station and 70 trains/day for Baghdad East Station.
- ✦ 30 bridges for trains
- ✦ A tunnel of 7km length connecting Baghdad central station to the loop consisting of 4 lines.
- ✦ Huge railway complex at Yousifiyah (south-east Baghdad)
- ✦ Several bridges, tunnels and concrete overpasses of different lengths
- ✦ Three bridges ,two over Tigris river and one over Diala river
- ✦ 6 bridged intersections for branch lines
- ✦ Two intermediate stations in (Akarkoof) and (Khan Beni Saad)
- ✦ An institute and residential complex for workers consisting of 4000 units in Yousifiyah.
- ✦ Modern signaling and telecommunication systems

5- (Baghdad – Kut – Amarah – Basrah) Railway Project



Project infrastructure

Length of the line is 504 Km (double line)

Design Speed: 250 Km/hr for passengers trains (electrified trains).
140 Km/hr for freight trains (electrified trains).

Axle load: 25 tons

Design capacity: 9 million /year (passengers).
20 million tons/year (goods).

Main Project items:

- ✦ 970 Km of railways (main line and branches)
- ✦ 27 Stations of different sizes including 3 main stations in Basra, Amarah & Kut.
- ✦ Several bridges for trains
- ✦ several bridges for vehicles above the main line
- ✦ several concrete overpasses of different lengths
- ✦ workshops for maintaining movable units
- ✦ Modern signaling and telecommunication systems
- ✦ Residential units for workers
- ✦ Refrigerated and ordinary sheds and yards for handling goods at khabur station

Cost estimate of the project:

Land possession: 1512 m\$
project construction ; 6100 m\$

6- (Kut – Nasriya) Railway Project

Length of the line is: 173 Km (double line).

**Design Speed: 250 Km/hr for passengers trains (electrified trains).
140 Km/hr for freight trains (electrified trains).**

Axle load:- 25 tons.

**Design capacity: 3 million/year (passengers).
5 million tons/year (goods).**

Cost estimate with land possession of the project:- 2610 Million (\$).

7- (Kut – Ba'aqubah) Railway Project

Length of the line is: 250 Km (double line).

**Design Speed:- 250 Km/hr for passengers trains (electrified trains).
140 Km/hr for freight trains (electrified trains).**

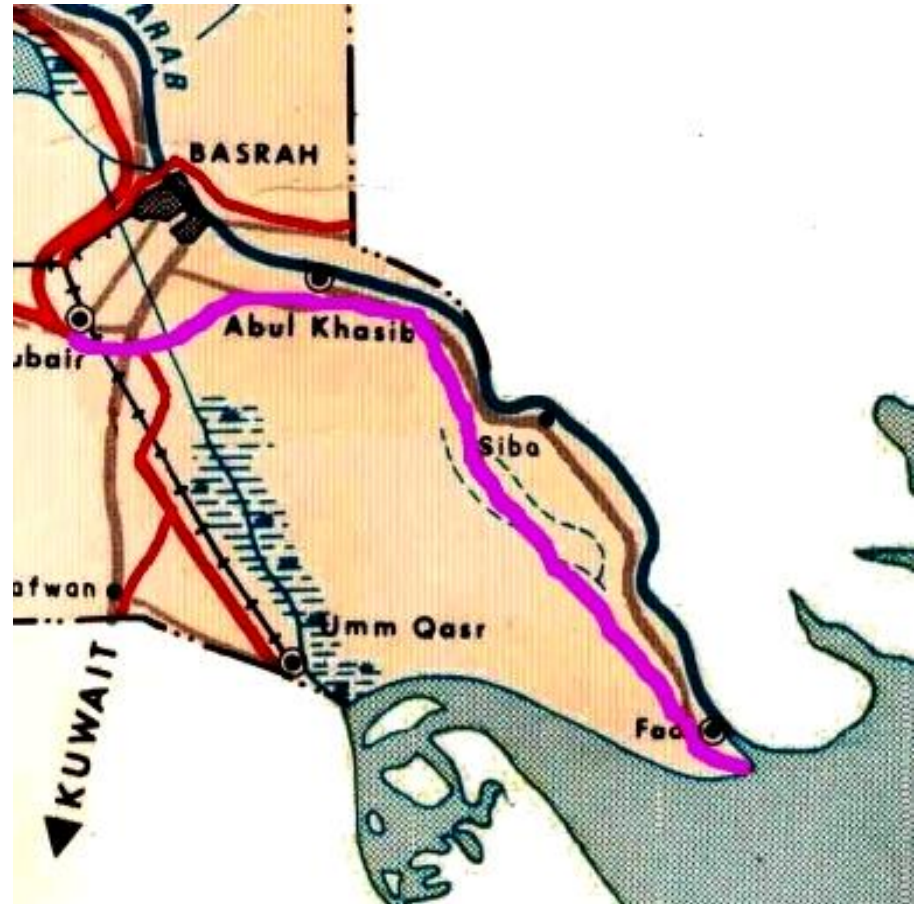
Axle load:- 25 tons.

**Design capacity:- 6 million/year (passengers).
20 million tons/year (goods).**

Cost estimate with land possession of the project:- 3750 Million (\$).

8- (Basra – Faw) Railway Project

The project aims to connect Al-Faw grand port project with the Iraqi railway network , and considered an integral part of the project as it is the sole outlet for goods from and to the port , with high capacities reaching 180 train/day in two directions.



Project infrastructure

The line branches from (Baghdad - kut – Amarrh – Basrah) railway line project at Zubair station and continues southwards to Al-Faw grand port.

Detailed design and tender documents of the project were prepared in early eighties , recently the revision and updating of the design and were commissioned to an international consulting company

Line length: 101 Km double track

Design Speed: 140Km/hr for passengers trains (electrified trains).
100 Km/hr for freight trains (electrified trains).

Design capacity: 1 million /year (passengers).
70 million tons/year (goods)

Axle load: 25 tons

Main Project items:

- ✦ 250 Km of railway lines
- ✦ 7 stations
- ✦ several bridges for trains
- ✦ A tunnel of 4.5 km length under Shatt Al Basrah channel
- ✦ workshops for general overhaul of locomotives , freight yard and stores.
- ✦ Several bridges and concrete overpasses of different lengths
- ✦ residential complex for workers
- ✦ Modern signaling and telecommunication systems

Cost estimate of the project:

with Land possession: 1709 m\$

9- (Basrah – Shalamchah) Iranian borders

- ❖ The line starts from Shuaiba station heading east to Shalamchah at Iraqi – Iranian borders, it aims to connect the Iraqi railway network with the Iranian network taking into consideration that the Iranian side has implemented the connection (the line from Khorramshar to Shalamchah).
- ❖ Detailed design and tender documents of the project were prepared during the years (2004–2005).



Project infrastructure

Line length: 35 Km single track line

Design Speed: 200Km/hr for passengers trains using electrified trains.
140Km/hr for freight trains using electrified trains.

Design capacity: 2 million /year (passengers).
10 million tons/year (goods).

Axle load: 25 tons

Main Project items:

- ★ 50 Km single track line
- ★ 3 stations with necessary yards and buildings
- ★ Railway bidge crossing Shatt al Arab
- ★ several small bridges for trains
- ★ workshop for general overhaul of locomotives at Shalamja
- ★ concrete overpasses of different lengths
- ★ residential complex for workers
- ★ Modern signaling and telecommunication systems

Cost estimate of the project:

- ★ With land possession: 250 m\$

10- (Shu'aiba - Safwan) Kuwaiti borders

Line length:- 52 Km (double line).

Design Speed:- 250 Km/hr for passengers trains (electrified trains).
140 Km/hr for freight trains (electrified trains).

Axle load:- 25 tons.

Design capacity:- 2 million/year (passengers).
20 million tons/year (goods).

Cost estimate with land possession of the project:- 650 Million (\$).

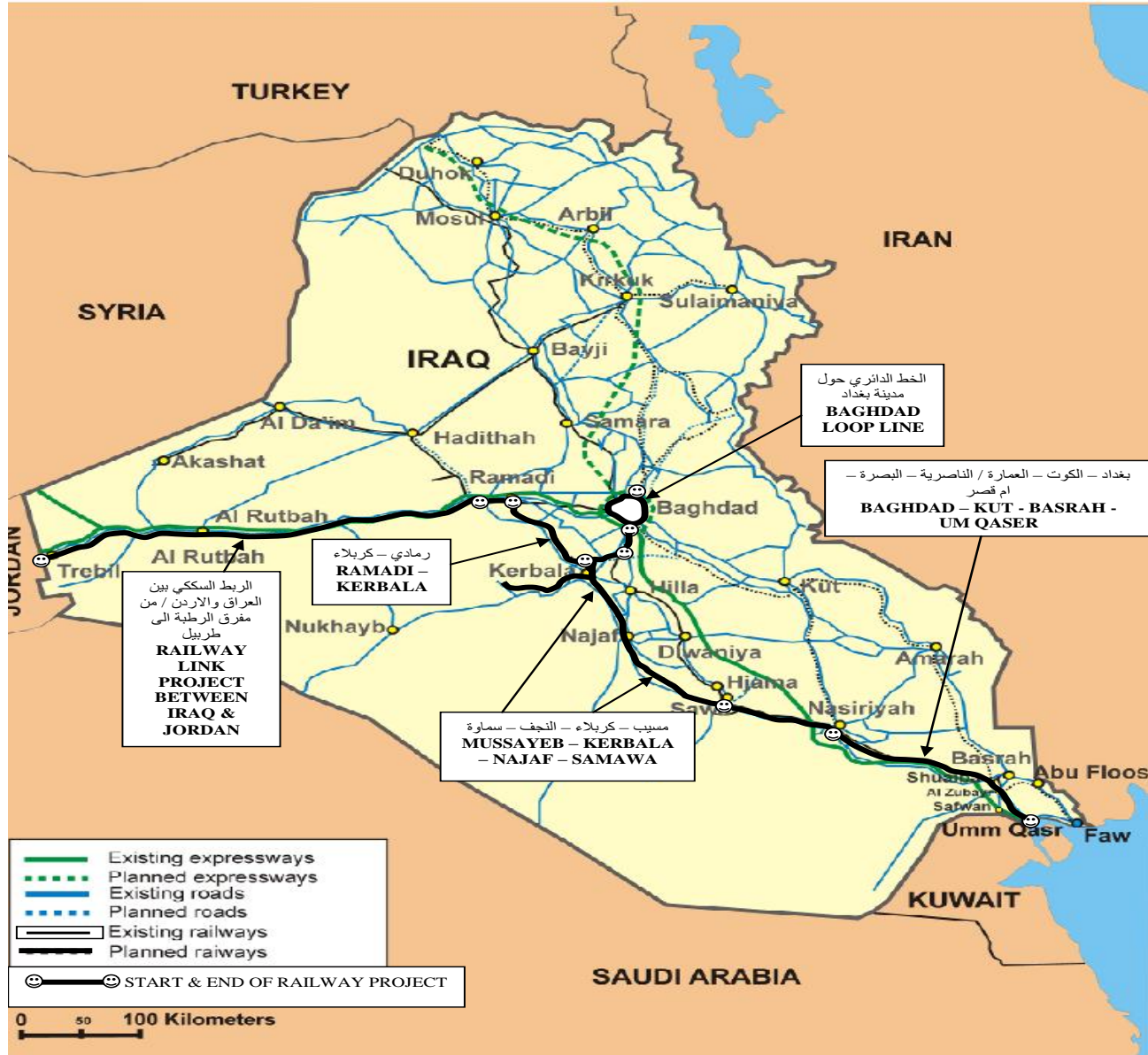
WESTERN AXIS

The length of this axis is 801 Km starting from Basra where lines from and to (Faw, Shalamcha and Safwan) are connected to it, heading north west to Nasiriyah, Samawah, Najaf, Kerbalah and Baghdad, there it joins the Baghdad loop at Yousifiah. A main line branches from Karbala station in the direction of West Ramadi railway station in Anbar Province located at (Baghdad, Ramadi, Qa'im, Akashat) railway line. This line connects Basra, southern and middle cities located at the Euphrates with Syria and Mediterranean ports and Turkey.

This axis consists of the following projects:

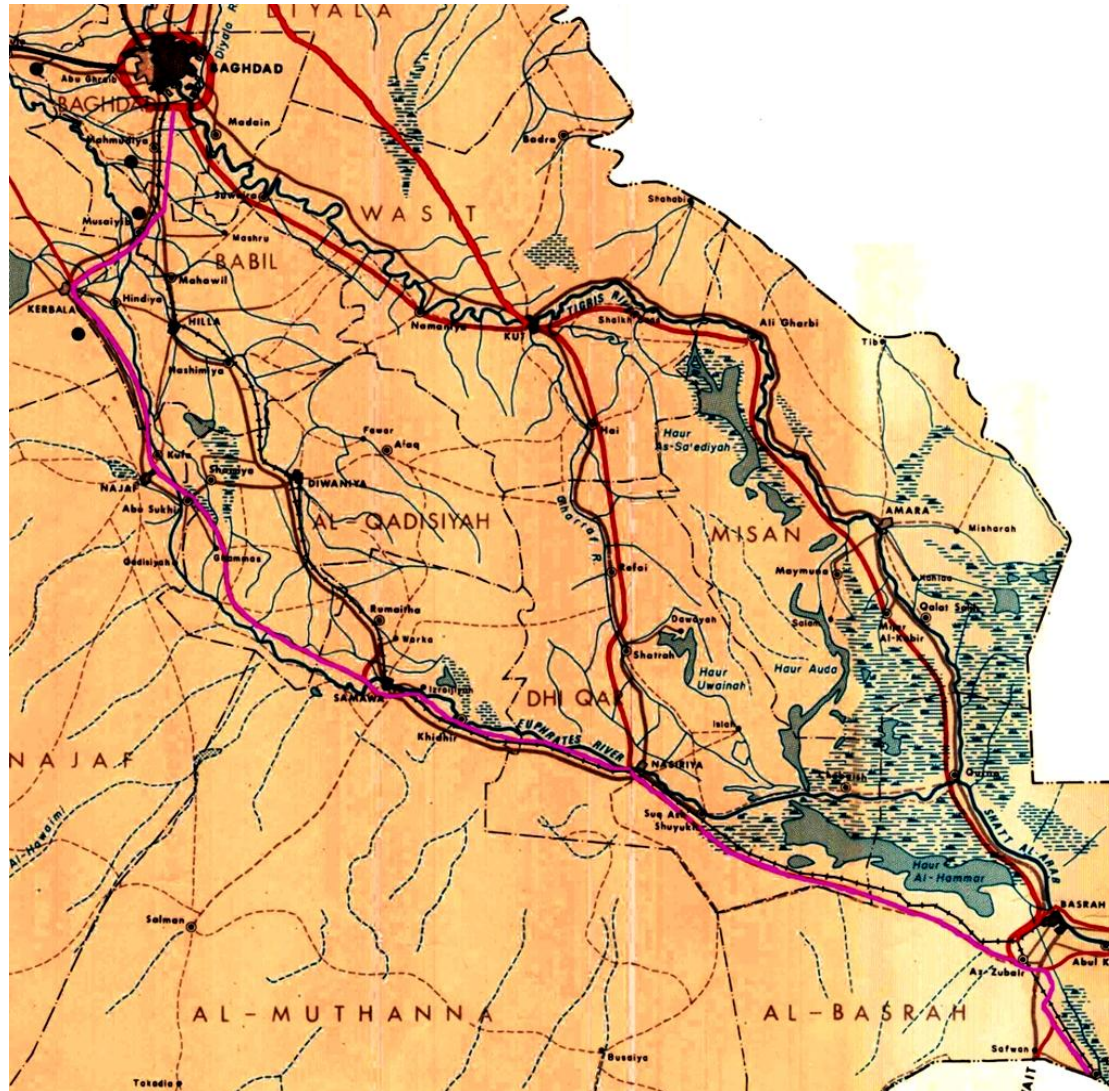
- (Baghdad - Mussayeb - Kerbalah - Najaf - Samawah - Nasiriya - Basra - Um-Qasr) railway project.
- (Ramadi - Kerbalah) railway project.
- (Ramadi – Trebil) Jordanian borders

Western axis railway projects



HIGH SPEED RAILWAY PROJECTS IN IRAQ – WESTERN ROUTE

1- Baghdad - Mussayeb - Kerbalah - Najaf - Samawah - Nasiriya - Basrah - Um Qasr) Railway Project



Project infrastructure

Line length: 680 Km of double track line consist of the following sectors:
Design Speed: 275 Km/hr for passengers trains using electrified trains.

Design capacity: 10 million /year (passengers).

Axle load: 18 tons

Main Project items:

- ★ 1350 Km railway lines (main line and branches)
- ★ 37 stations of different sizes
- ★ Railway bridges of different sizes for trains
- ★ Several bridges for vehicles
- ★ workshop for general overhaul of locomotives at 7 main stations
- ★ residential complexes for workers
- ★ Modern signaling and telecommunication systems

Cost estimate of the project:

Land possession: 1000 m\$

Project construction : 10000 m\$

Detailed design and tender documents

western part of Baghdad loop, prepared in early eighties, needs to be revised and updated.

Yousifiah, Mussayeb sector needs full detailed designs.

Mussayeb, Kerbalah, Najaf, Samawah sector prepared in early eighties, revised and updated by Italian company ITAL FER.

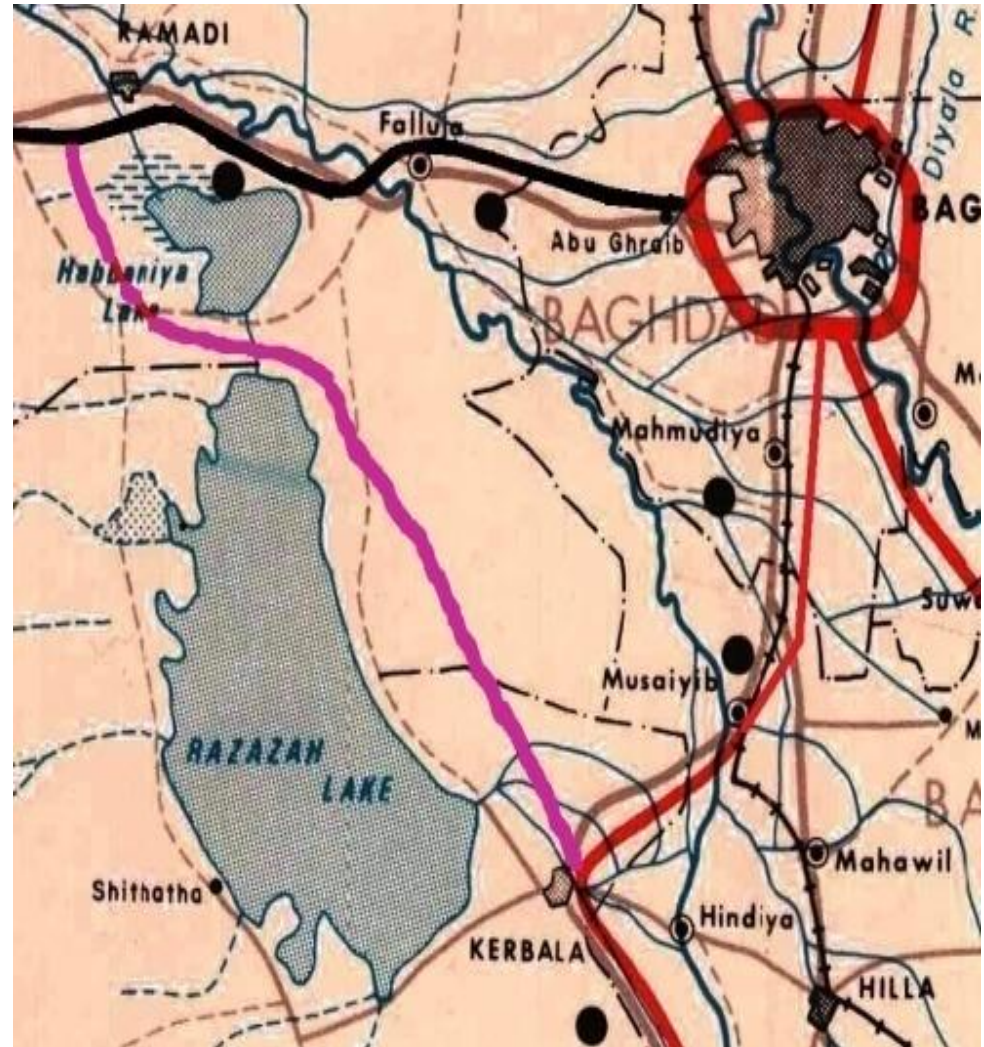
Samawah, Nasiriyah sector needs full detailed designs.

Nasiriyah, Basrah, Um-Qasr prepared in early eighties, needs to be revised and updated.

2- (Kerbala - Ramadi) Railway Project

The line is of great importance as direct connection from south to north west without passing through Baghdad for international traffic from the Arabian Gulf to the Mediterranean sea.

Detailed design and tender documents of the project were prepared in early eighties, recently the revision and updating of the design were commissioned to an international consulting company (progress of these works reached 80%).



Project infrastructure

Line length: 133 Km of double track line

Design Speed: 250 Km/hr for passengers trains (electrified trains),
140 Km/hr for freight trains (electrified trains).

Design capacity: 3 million /year (passengers).
36 million tons/year (goods)

Axle load: 25 tons

Main Project items:

- ✦ 275 Km railway lines (main line and branches)
- ✦ 5 stations of different sizes
- ✦ Railway bridges of different sizes for trains
- ✦ Several bridges for vehicles
- ✦ concrete overpasses of different lengths
- ✦ workshop for general overhaul of locomotives
- ✦ residential complexes for workers
- ✦ Modern signaling and telecommunication systems

Cost estimate of the project:

With land possession: 1890 m\$

3- (Ramadi – Trebil) Jordanian borders

Line length:- 400 Km (double line).

Design Speed:- 200 Km/hr for passengers trains (electrified trains).
120 Km/hr for freight trains (electrified trains).

Axle load:- 25 tons.

Design capacity:- 4,5 million/year (passengers).
12 million tons/year (goods).

Cost estimate with land possession of the project:- 1881 Million (\$).

Airports Mega projects

Middle Euphrates Airport Project (MEIA)..

- ↪ A new airport between the cities of (Karbala, Al-Najaf & Al-Hillah).
- ↪ A gateway for pilgrims to Karbala & Al-Najaf holy shrines.
- ↪ A new economic center also fostering non religious traffic, tourism and bringing non-aeronautical revenues.
- ↪ A contract was signed in 21/10/2009 between this ministry and Aeroport de Paris designers & planning (adpi) for preparation of feasibility study and technical design of the airport.
- ↪ Type of investment (B.O.T).
- ↪ Estimated number of passengers (6) million/year. (first stage).

MEIA Site location



Demand / Capacity Forecast

- **A specific traffic profile:**

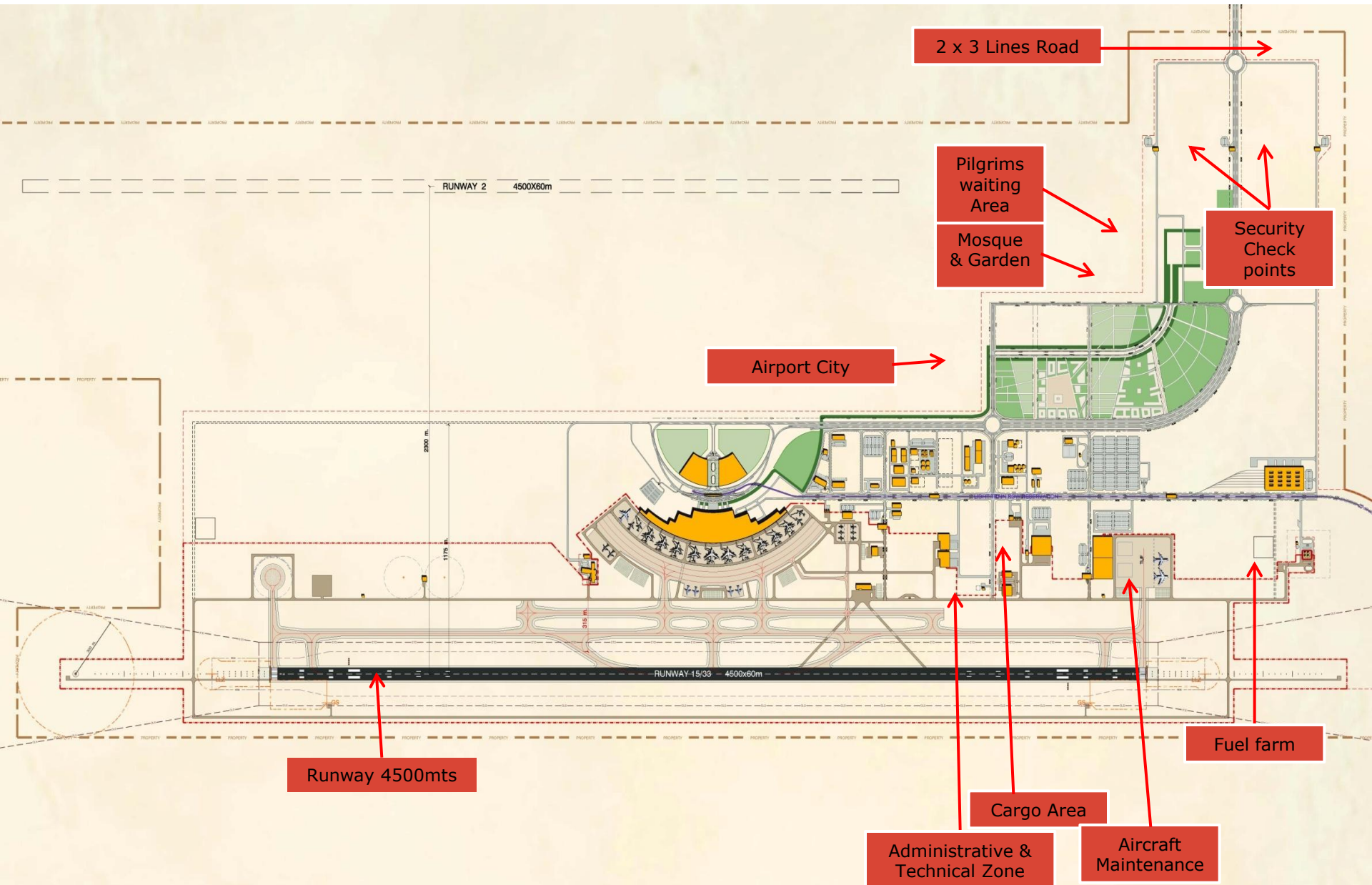
- **Unscheduled pilgrimage traffic, associated with main pilgrimage events and regular pilgrimage traffic during the year**
- **Normal scheduled traffic**

Traffic	Phase 1	Phase 2	Phase 3
Unsch. Pilgrims	3.04 MPax	5.28 MPax	7.33 MPax
Scheduled	2.95 MPax	7 MPax	11.88 MPax
Capacity	6 MPax	12 MPax	20 MPax

Master Plan main features – Phase I (6 M pax)

- ↪ One Passenger Terminal Building for both scheduled and unscheduled traffic**
- ↪ A 4500m runway (wide body aircrafts expected for non scheduled traffic)**
- ↪ 12 contact stands (10 Code E/2C, 2 Code F), 8 remote/long stay stands**
- ↪ A 60m high air traffic control tower**
- ↪ A 50ha airport city, to develop non aeronautical revenues**
- ↪ Cargo Area and Aircraft Maintenance Area**

MEIA -Master Plan Phase 1 Layout (6MiosPax)



MEIA -Master Plan Phase 1 Airport City (6MiosPax)

