

AI REEF VILLAS - INFRASTRUCTURE AND ROAD CONSTRUCTION PACKAGE

Infrastructure



AL NASR SCOPE OF WORKS:

Construct a road network consisting of:

- 2.60 km dual carriage ways (asphaltic concrete), 40 meters wide associated with
- 27,000 m² of parking areas (interlocking pavers) and sidewalks
- 12 km of local roads (interlocking Pavers), 15 m wide with sidewalks (pavements?) and parking spaces for villas
- 3 km of internal roads, 6m wide with sidewalk (pavement?) and parking spaces for Down Town buildings
- 85 km of different types of curbstones.
- Road markings, traffic and road signs

Supply and lay water supply network consisting of:

- 18.85 km of 180 – 500mm diameter HDPE/DI pipes with reinforced concrete protection slabs
- 44.50 km of 20 – 50mm diameter MPDE pipes for house connections.
- 688 m of non-disruptive road crossing (NDRC) by means of thrust boring / micro tunneling

Construction of reinforced concrete valve chambers:

- 197 line valves
- 17 washout valves
- 23 air release valves
- 4 control valves
- 3 flow meters
- 107 fire hydrants
- 2 sector measuring points
- 4 bulk consumers points

Client: Manazel

Contractor: Fibrex / Al Nasr J.V

Contract Period: 03/02/2008 - 30/04/2012

Value: AED 431,000,000

PROJECT STATISTICS

Peak manpower	825
Man- hours accident free	3,985,500
Total lost time through incidents	Zero
Equipment hours accident free	382,250
Total constructed road	100 km
Total pipe laid	130 Km
Total cable laid	567,574kg
Total concrete poured	17,250 Cum



Civil work construction for telecommunication network consisting of:

- 36 km of 100 mm diameter uPVC telecom duct bank
- 20 km of 2x100 mm diameter uPVC telecom duct bank
- 7.60 km of 4x100 mm diameter telecom duct bank
- 550 JRC-14 chambers
- 43 JRC-12 chambers
- 1650 telephone entry box
- 2 km of 2x100 mm diameter duct bank
- 77 of 900x600 mm hand hole

Construction of irrigation water reservoir consisting of:

- 600 m³ reinforced concrete irrigation water reservoir
- 15 L/S 3@ 55m head pumps for irrigation pumping station
- Construction of chilled water network consisting of:
- C.S Pre-insulated pipes and fittings total: 5250 m
- 1100 m of 600 mm (24") diameter
- 1700 m of 400 mm (16") diameter
- 100 m of 350 mm (14") diameter
- 750 m of 300 mm (12") diameter
- 1100 m of 250 mm (10") diameter
- 200 of 200 mm (8") diameter
- 300 of 150 mm (6") diameter

Valves

- 104 isolation valve chambers
- 30 automatic air valves
- 48 drain valves
- 16 building control valve chambers
- Testing, flushing and chemical treatment of external distribution network Instruments
- Supply and installation of instrumentation, RTU and controls

- 2,436 house connection valves with chambers for villas and buildings, with digital electronic water meters
- 900 - 1,000 mm water lines tie-in connection to existing ADDC and Transco

Supply, lay and construction of sewage collection network consisting of:

- 2500 m³ of sewage holding tank and a sewer lifting station
- 31.60 km of 200 – 500 mm diameter uPVC / GRP pipes with concrete surround for house connection lines.
- 316 of 1.5 m diameter GRP manholes
- 33 collection chambers
- 1,947 inspection chambers

Supply and lay storm water drainage network consisting of:

- 4,000 m³ soak away and storm water retention tank
- 17.50 km of 300 – 1200 mm diameter uPVC / GRP pipes with geotextile and granular surround.
- 240 of 1.50 m diameter manholes
- 86 of 2.00 m diameter manholes
- 7 of 3.20 m diameter manholes
- 15 catch basins
- 610 Inlet chambers with connection pipes

Construct irrigation network to serve the various landscape areas consisting of:

- 19 km of 63 – 200 mm diameter HDPE pipes
- 76 line valve chambers
- 8 washout valve chambers
- 100 isolation valves in valve box
- 16 km of 110 mm diameter uPVC sleeves
- 260 pull boxes

Supply and installation of power, low/medium voltage and street lighting networks consisting of:

- 28.5 km of 4c x 16 – 70 mm² cables
- 113.50 km of 4cx16 – 300 mm² cables
- 41.60 km of 3cx300 mm² cables
- 41.60 km of fiber optic cable including 110 mm diameter uPVC sleeves
- 568 of 10 m light poles including concrete foundation
- 78 of 14 m light poles with foundations
- 15 street lighting control cubicles (SLCC)
- 521 feeder pillars
- 37 outdoor 500 KVA package substations
- 66 outdoor 1000 KVA package substations
- 2 temporary 10 MVA package units
- 207 pull boxes