

- **Electricity** - Water and Electricity Department (WED)
- **Irrigation** - Abu Dhabi Municipality Agriculture Section
- **Sewer** - Abu Dhabi Municipality Sewerage Projects Committee.
- **Gas Line** - Abu Dhabi National Oil Company.

The Utilities Section will provide details on the agency or department responsible for special services such as oil and gas pipelines, 132 KV and national defense systems.

Information on existing utilities shall be obtained from the Town Planning Utilities Section, the individual Service (Utility) Departments and/or the designated Consultant at the beginning of design work. This data will include:

- Current Service Reservation Locations
- Distribution of Services
- As-built Drawings
- Proposed Facility Plans

This information shall be compiled and analyzed to ascertain the status of each individual utility. Utility data should be supplemented by field investigation of the existing facilities including surveys to record structure locations and pipe invert elevations. Manual (by hand) excavation to locate services that are critical to the design should be performed as necessary. The Consultant will arrange coordination meetings with the Service Departments to identify utilities to be protected, relocated to the service reservations and new service requirements. The service authority may also have plans or projects for utility improvements in progress within the project limits.

Once the scope of the utility works has been defined, the Consultant will prepare separate cost estimates of the utility works that are *required due to conflict with proposed works* and *new facilities* that are proposed for inclusion in the project by the utility agencies. It is important to make a clear distinction between required works and facility upgrades, since this information will be used to determine the extent of the utility works to be included in the project and cost sharing responsibilities. The Department will

review and give final approval of the project utility scope of works. The utility planning process is depicted on Figure 800.01.

### 803 SERVICE RESERVATIONS

The Department's objective is to locate all utility services in designated utility corridors or Service Reservations. This policy applies to all projects including new construction and roadway widening. Service reserves are located for ease of construction and maintenance and to minimize disruption or damage to permanent works caused by future utility installations or maintenance operations. The reserves are generally located outside the roadway pavement in parking or pedestrian areas that are surfaced with removable materials including interlocking tiles and precast tile blocks, and asphalt pavements of reduced thickness. Roadway crossings are perpendicular to the centerline and primarily concentrated at intersection locations. The design standards require construction of ducts for all existing, proposed and future services that cross roadway pavement. The utility corridors are defined in close coordination with the project geometrics and the Town Planning Department. The reserves are established within geometric criteria that is suited to the installation of pipelines and conduits. Alignments are as straight as possible and angle points limited in severity with the degree of deflection ideally corresponding to pipeline fittings (22-1/2, 45 degrees).

The Standard Drawings show several different distributions of standard service reservations. Special reserves for any utilities other than those shown on the standard drawings (CCTV, 132 KV, gas, oil.) shall be provided in each project with specific approval from the Town Planning Department. Project design drawings should show a section view of these special service reserves similar to that shown on standard drawings. Deviations from the standard distribution may be warranted to:

- Accommodate existing utilities that would not otherwise require relocation.
- Suit the project geometrics.
- Allow for constructability and/or maintenance of service facilities with excessive width, diameter or depth.