

5.0 Construction Phase

5.1 Business License and Liability Insurance

Contractor and all Subcontractors are required to be properly insured and to obtain a City of Indio Business License.

Contractor shall hold a current license in accordance with the law under the provisions of Division III, Chapter 9, of the Business and Professions Code of the State of California.

5.2 Encroachment Permit

Contractor shall obtain a City of Indio – Encroachment Permit from the Public Works Department to construct, repair, and remove asphalt and concrete within the public right-of-way prior to start of work. In addition, a Traffic Control Plan must be submitted with the Encroachment Permit application, (See Section 4.6 of the Guidelines for requirements of the Traffic Control Plan). It will be necessary to post a deposit with the Public Works Department based on the amount and type of work to be done. All costs associated with permit shall be the responsibility of the contractor.

5.3 Material Submittals

All materials to be used during construction shall be submitted to the IWA Engineering Department for review and approval. The material submittals must be made prior to the pre-construction meeting.

5.4 Pre-Construction Meeting

A pre-construction meeting must be held at least five (5) working days before the start of construction.

The following are the requirements prior to scheduling a pre-construction meeting:

1. Plan check fees and all other relevant fees such as water meter clearance, water inspection, development impact, supplemental water supply, etc., have been paid.
2. Water Improvement Agreement if required, Surety Bonding, and Water Improvement Plans have been approved (signed and dated) by IWA Board and Staff.
3. Engineer's Estimate has been reviewed and approved by IWA.
4. Construction Materials List (Shop Drawings) have been reviewed and approved by IWA.
5. Underground Service Alert (USA) has been contacted by the contractor and the USA DigAlert ticket number has been provided to IWA.

The contractor's job foreman and/or job superintendent, the developer's engineer, and the IWA Inspector must be present. The purpose of this meeting will be to answer any questions regarding IWA specifications and requirements, to obtain the contractor's construction schedule

and emergency phone numbers, and to discuss any circumstances that may affect construction work.

5.5 Notice to Start Construction

Notice shall be given to IWA at least four (4) working days before starting construction. A copy of the signed water plans must be delivered to IWA at least four (4) working days before the contractor will be allowed to start construction.

5.6 Traffic Control

A traffic control plan must be approved by the City of Indio Public Works Department prior to commencement of work per latest edition of the Manual of Uniform Traffic Control Devices (MUTCD).

5.7 Working Conditions

- A. Work shall be scheduled between 7:00 a.m. and 4:30 p.m. unless prior written approval is given by IWA. No work shall be performed on weekends, IWA observed holidays, or when IWA is closed, unless prior written approval is given by IWA.
- B. When inspection services are required during the progress of construction, the contractor shall notify the IWA Inspector at least two (2) working days prior. The IWA Inspector can be reached at IWA's Inspection line (760) 391-4044.
- C. The contractor shall notify USA at (800) 227-2600 and submit the USA dig-alert ticket to usadigalert@indio.org prior to commencement of excavation.
- D. The contractor is required to contact Coachella Valley Water District (CVWD) for compliance with their requirements for crossing irrigation pipelines or other CVWD infrastructure.
- E. Residents in the project area shall be notified in writing 48 hours prior to start of work. The contractor shall ensure that residents can access their properties at all times.
- F. All equipment and/or material shall be removed from the City right-of-way (street and parkway) by the end of each working day unless prior written approval is obtained from IWA and the City of Indio.
- G. The contractor shall protect all substructures during excavation and boring operations. Substructures include, but not limited to, street light and traffic signal conduits, traffic detector loops, storm drain pipes, sewers, and all major utilities. Detector loops damaged as a result of construction shall be replaced in kind to the satisfaction of IWA and the City of Indio.
- H. Every effort shall be made to minimize damage to parkway landscaping. Parkway trees shall be circumvented. Restoration shall be made to the satisfaction of IWA and the City of Indio.
- I. The contractor shall be responsible for alleviating all dust and nuisance conditions resulting from work being performed and be in full compliance with PM-10 program.
- J. Existing infrastructure damaged during construction shall be repaired immediately and to the satisfaction of IWA.

- K. No trenches or potholes shall remain open overnight or left unattended. All trenches and potholes shall be protected safely at all times. Under certain conditions, as determined solely by the IWA, steel traffic plates may be used to temporarily cover construction zones in roadways so that the roadway can continue to be used by motorists when the work area is not active. Traffic plates shall be set flush with the adjoining pavement and be of sufficient structural integrity to support the weight of the steel plate and traffic loads passing over it.
- L. At the end of each working day, the entire trench and/or pothole area and adjacent streets shall be swept and cleaned to the satisfaction of IWA and the City of Indio.
- M. The contractor shall be responsible for obtaining an adequate supply of water for construction and dust control. The contractor shall not use water from any fire hydrant without first submitting a **Fire Hydrant Meter Application (Form D-4)** to IWA Customer Service, providing a deposit, and installing an IWA construction meter. The fire hydrant meter shall be installed and maintained by IWA. Refer to Appendix D for application. The contractor shall be responsible for all costs associated with the fire hydrant meter. The contractor will receive the construction meter from IWA upon making the required deposit to IWA. The contractor shall pay for all water usage and return the construction meter back to IWA after the completion of the project. IWA shall pay back the deposit made by the contractor if the construction meter is in good working condition.
- N. Request for water shutdown shall be coordinated with the IWA Inspector and conducted exclusively by IWA crews. Refer to Section 3.5 for further details.

5.8 Pipeline Requirements

5.8.1 Pressure Testing of New Water Mains

A water pressure test to check for leakage shall be performed on a completed water main prior to final disinfection. Refer to IWA Technical Specifications, Section 15042, Hydrostatic Testing of Pressure Pipelines for testing requirements and procedures.

When leakage exceeds the amount allowed by these specifications, the contractor at his/her expense and no additional costs to IWA, shall locate the leaks and make the necessary repairs or replacements to reduce the leakage to the specified limits. All individually detectable leaks shall be repaired, regardless of the results of the tests.

5.8.2 Disinfection of New and Repaired Water Mains

All new and repaired water mains shall be disinfected and bacteriologically tested before they are placed in service and before making a physical connection to an existing mainline. All water mains taken out of service for inspection, repair, or other activities that might lead to contamination of water shall be disinfected and tested before they are returned to service.

Disinfection and bacteriological testing shall be performed according to AWWA Standard C651 (Refer to IWA Technical Specifications, Section 15041, Chlorination of Water Mains, Wells and Reservoirs for disinfection requirements).

For short reaches of pipe where the continuous feed method is not practical, the contractor may use the calcium hypochlorite tablet method as per AWWA Standard No. C651.

5.9 Construction and Resurfacing Details

Earthwork, trenching, subgrade preparation, preparation of base materials, backfill, densification, compaction, and resurfacing shall be performed according to the latest edition of the “Greenbook”. Also, refer to appropriate sections in the IWA Technical Specifications for detailed requirements. Electronic copies of the IWA Technical specifications may be obtained free of charge by contacting the IWA Engineering Section.

5.9.1 Potholing

Pothole dimensions shall be a minimum of 3’ x 3’ in surface area.

Pavement repair and replacement shall be completed in accordance with IWA Standard Drawing Nos. 715A and/or 715B.

5.10 As-Built Drawings

The contractor is required to submit accurate as-built drawings of work upon completion of the project. The as-built drawings shall reflect all changes made in the specifications and working drawings during the construction process, and show the exact dimensions, geometry, and location of all elements of the work completed under the contract. System valve turns required for complete open/close cycle shall be recorded on the as-built drawings as well. The contractor shall submit redlined plans to both the IWA Engineering Department and the design engineer. The Design Engineer shall update the original design drawings in AutoCAD and resubmit the accurate as-built drawings in DWG and PDF formats to the IWA Engineering Section.