



COASTAL WATER AUTHORITY

**RAW WATER SERVICE CONNECTION GENERAL
REQUIREMENTS**

REVISED DECEMBER 2013
(SUPERSEDES JUNE 2006 REVISION)

Issued by:

Coastal Water Authority
1801 Main Street, Suite 800
Houston, Texas 77002



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1.0 GENERAL

1.1 THE CWA SYSTEM

The following guidelines are general in nature and can be used for initial planning and coordination of raw water service requests. Each water service request should, at a minimum, address these guidelines. The physical water service connection shall meet Coastal Water Authority (CWA) Easement and Right-of-Way Encroachment General Requirements. Connection drawings must accompany each raw water service requests and shall be developed based on the specific conditions and requirements.

The CWA conveyance and distribution system performs an integral function in providing fresh water to the City of Houston (City) and surrounding communities and the continued uninterrupted operation is a vital governmental function. CWA delivers untreated water owned by the City to the City facilities and their municipal, industrial, and agricultural customers. Industrial customers have to enter into a contract for the purchase of untreated water from the City, meet City meter requirements, and meet CWA requirements for connection to the CWA System.

1.2 EASEMENT & RIGHT-OF-WAY GENERAL REQUIREMENTS

CWA has developed specific requirements to help fulfill its obligation to protect the welfare, health and safety of the public's primary water supply. These revised/updated requirements supersede all previous editions and revisions. The requirements identify the rules and guidelines that must be satisfied to encroach upon or cross a CWA right-of-way or easement when making a service connection as well as the procedures to obtain authorization for such activities. These requirements contain the following sections:

- Application Process
- Accessing Water from the CWA System

CWA rights-of-way and/or easements are identified as "CWA Corridors" in this document. Each section addresses the most common procedures and requirements related to the specific section. These requirements may not be all-inclusive depending on specific situations and circumstances. Each *Water Service Application* will be considered on an individual basis and additional information and/or precautions may be required. All *Water Service Application* reviews will focus on the protection of CWA facilities and the ability for CWA to construct, operate, maintain, repair or replace CWA facilities. These guidelines are available on the CWA website at <http://www.coastalwaterauthority.org/public/encroachment.aspx>. The Applicant is responsible for becoming and remaining informed of the General Requirements. **FAILURE TO OBTAIN AN EASEMENT OR CONSENT TO ENCROACH MAY RESULT IN THE REMOVAL OF INSTALLED FACILITIES.**

NOTE: THIS DOCUMENT PROVIDES MINIMUM REQUIREMENTS THAT MAY BE AMENDED FROM TIME TO TIME. CWA RESERVES THE RIGHT TO INCREASE THE STATED REQUIREMENTS BASED ON PROJECT SPECIFIC CIRCUMSTANCES TO PROTECT CWA FACILITIES.



Raw Water Service Connection Requirements – December 2013

The General Requirements delegate to the Executive Director approval authority for certain easements and encroachments. The General Requirements do not limit or restrict the CWA Board's exercise of any powers, duties, or jurisdiction conferred by law. The CWA Board may vote to amend or otherwise alter the General Requirements from time to time.

The references to parts, sections, and other headings in the General Requirements are for reference purposes only and will not affect the meaning or interpretation of the rules. If any one or more of the General Requirements is for any reason held to be invalid or unenforceable in any respect, the other General Requirements shall remain valid and be construed as if the invalid or unenforceable requirement was not included in the General Requirements.



2.0 APPLICATION PROCESS

Applications to cross and/or encroachment any CWA easement or right-of-way should be sent to the address below. Submittals should include the completed *Raw Water Service Connection Application (Attachment A)*, design drawings and the appropriate fee.

Executive Director
Coastal Water Authority
1801 Main Street, Suite 800
Houston, Texas 77002
Attn: Raw Water Service Connection Application

2.1 CONTRACT WATER SERVICE REQUESTS

A. Planning a System Connection

The following guidelines are general in nature and can be used for initial planning and coordination to obtain water service from the Coastal Water Authority. Each water service request should address the conditions described in these guidelines as a minimum. Water service connections shall also meet the applicable requirements of other Sections of this Document. Connection plans shall be developed for each request based on operational criteria, specific site conditions, and installation requirements.

B. Application to City of Houston

To obtain raw water from CWA, the customer request is coordinated through the **City of Houston (City) Public Works and Engineering/Planning and Development Services/Planning and Utility Analysis (P&UA)**. Potential CWA raw water customers should contact **P&UA** and provide the following information in writing:

1. Nature of service: raw; contract or not; treated w/contract.
2. Physical location of point of service: street address where service is required; and Texas coordinates.
3. Demand: million gallons per day (MGD) or gallons per minute, with daily peak, hourly peak, normal daily flows.
4. Term: start date and duration of service.
5. Customer contact: name, address, telephone and fax.

C. Receipt of Draft Contract

Upon receipt of the above information and subject to availability of water, **P&UA** will send a draft contract for review. The applicant will also receive a letter giving instructions to contact CWA regarding tap location and installation requirements and to contact the **City Meter Shop** for meter location and meter type.

D. Coordination of Functions

The City meter requirements can be obtained from **City of Houston Utility Customer Service (UCS)**. City departments provide the following functions:



Raw Water Service Connection Requirements – December 2013

1. **City Meter Shop:** Provides information to the customer regarding appropriate meter(s), engineering drawings (by PE) of meter and tap locations on Texas coordinates, and meter inspection of existing meters, if any.
2. **City Engineer:** Reviews drawings, assists the Meter Shop in evaluation of drawings for tap and meter location. Also determines and advises **P&UA** of the need, if any, for special clauses in the contract. The City determines the water availability and will require an easement for its meter location.
3. **City Drinking Water Operations:** Reviews and approves customer backflow/air gap and conservation plan and advises **P&UA** of the need, if any, for special clauses in the contract.
4. **City Council:** Upon return of signed contracts from the customer, **P&UA** coordinates with **City Council** for approval and arranges support staffing through several City departments. **P&UA** then returns an original signed contract to the customer and advises CWA of final approval.

E. CWA Application

1. Accessing water from the CWA system is described in Section 3.0.
2. After **P&UA** notifies CWA of water availability and intent to sell, the customer may arrange site meeting with CWA representatives where CWA will assist in identifying the connection's location and possible alternatives.
3. Upon request, CWA will provide reference drawing sheet numbers of proposed location and *CWA's Easement and Right-of-Way Encroachment General Requirements*. Customer will be referred to CWA Engineer for pertinent drawing copies and design information needed to prepare engineer drawings.
4. Customers requesting CWA raw water service shall submit *Raw Water Service Connection Application*, Attachment A, to the CWA Executive Director. The applicant shall include electronic plan and profile drawings, specifications along with the completed *Raw Water Service Connection Application*. See CWA Easement and Right-of-way Encroachment General Requirements Section 3.1 for specific design drawing requirements. See Attachments B and C for air valve standard connection and pump station typical intake structure details.
5. CWA Engineer shall review drawings and specifications for approval. The CWA response, whether approved or returned for revision, may include written comments and recommendations. If necessary the drawings and specifications must be revised until CWA approval is obtained.
6. Once the application package is approved, a copy of the signed City of Houston water contract must be provided before the overall process can continue.
7. On return of signed contracts from customer, **P&UA** coordinates staffing through several City departments and City Council approval. **P&UA** provides an original signed contract to customer and advises CWA of final approval. CWA will provide written approval of the application package, which will allow construction to begin in accordance with approved plans and specifications.



Written approval from CWA will include a point of contact and phone number for making notification prior to start of construction.

2.2 NON-CONTRACT WATER SERVICE REQUESTS

A. Planning for Temporary Connection

The following guidelines are general in nature and can be used for requesting the purchase of water from CWA for temporary use such as hydrostatic testing, water for construction purposes, and similar short term usage.

B. Application to City of Houston

To obtain raw water from CWA, the customer request is coordinated through the P&UA. Provide in writing the following information:

1. Nature of temporary service: raw water for _____.
2. Physical location of point of service: street address where service is required; and Texas coordinates.
3. Demand: The amount of water needed in gallons per day.
4. Term: start date and duration of temporary service.
5. Customer contact: name, address, telephone and fax.
6. Applicant will provide a copy of the initial request, the City approval letter and a completed *Raw Water Service Connection Application, Attachment A*.

C. Receipt of Application

Upon receipt of the above information and subject to availability of water, the City will send a letter giving instruction regarding the location and procedure for purchase of temporary water from the CWA system.

2.3 CWA FEES

A. Administrative Fee

There is a non-refundable \$5,000 administrative fee for each connection in a CWA Corridor. The fee must be submitted with the initial application and does not cover costs associated with the grant of an easement, special encroachment consideration, or review requiring specialized knowledge or consideration for which additional fees may be charged.

B. Easement Fee

CWA may charge Applicants requesting an easement a fee based on the appraisal submitted by the Applicant along with other factors identified by CWA in an invoice. This fee is in addition to the Administrative Fee described above.

C. Payment Method

All fees must be paid by corporate or cashier's check made payable to Coastal Water Authority and submitted with the application. Any fees assessed after the initial submittal must be paid within 30 days. **BANK DRAFTS ARE NOT ACCEPTABLE.**



2.4 INDEMNIFICATION

THE PROJECT OWNER AGREES TO AND DOES HEREBY, INDEMNIFY AND DEFEND CWA AND ITS OFFICERS, DIRECTORS, AGENTS, SERVANTS, REPRESENTATIVES, EMPLOYEES, ENGINEERS AND ATTORNEYS (COLLECTIVELY REFERRED TO HEREIN AS THE "INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL SUITS, DEMANDS, OR CLAIMS AND ALL COSTS, LOSSES SETTLEMENTS (VOLUNTARY OR OTHERWISE), LIABILITIES, EXPENSES AND JUDGMENTS INCURRED IN CONNECTION THEREWITH, INCLUDING ATTORNEY'S FEES AND COURT COSTS; WHETHER ARISING IN EQUITY, AT COMMON LAW OR BY STATUTE (INCLUDING THE TEXAS DECEPTIVE TRADE PRACTICE ACT OR OTHER SIMILAR STATUTES), OR UNDER THE LAW OF CONTRACTS, TORTS (INCLUDING WITHOUT LIMITATIONS NEGLIGENCE OR STRICT LIABILITY WITHOUT REGARD TO FAULT) INCLUDING WITHOUT LIMITATION ALL CLAIMS, DEMANDS AND SUITS FOR DAMAGES OR INJURIES, INCLUDING DEATH TO ANY AND ALL PERSONS OR PROPERTY, WHETHER REAL OR ASSERTED, BASED UPON, IN CONNECTION WITH, RESULTING FROM OR ARISING OUT ANY ACTION OR OMISSION WHETHER NEGLIGENT OR OTHERWISE ON THE PART OF THE PROJECT OWNER OR ITS AGENTS, SERVANTS, REPRESENTATIVES, EMPLOYEES AND SUBCONTRACTORS. SUCH INDEMNIFICATION WILL INCLUDE WORKERS' COMPENSATION CLAIMS OF OR BY ANYONE WHOMSOEVER IN ANY WAY BASED UPON, IN CONNECTION WITH, RESULTING FROM OR ARISING OUT OF THE PROJECT OWNER'S WORK, AND OPERATIONS IN CONNECTIONS HEREWITH INCLUDING OPERATIONS OF SUBCONTRACTORS ENGAGED BY PROJECT OWNER, IF ANY.

PROJECT OWNER'S CONTRACTUAL OBLIGATIONS OF INDEMNIFICATION WILL EXTEND TO AND COVER CLAIMS, DEMANDS AND CAUSES OF ACTION ALLEGING ACTS OF NEGLIGENCE, FAULT OR OTHER ACT OR OMISSION BY OR ON THE PART OF THE INDEMNIFIED PARTIES. HOWEVER, IN THE EVENT THAT ONE OR MORE OF THE INDEMNIFIED PARTIES ARE ADJUDICATED AT FAULT WITH RESPECT TO DAMAGE OR INJURY SUSTAINED BY A CLAIMANT, PROJECT OWNER WILL INDEMNIFY THE INDEMNIFIED PARTIES ONLY FOR THAT PORTION OF THE DAMAGE OR INJURY ADJUDICATED TO HAVE BEEN CAUSED BY PROJECT OWNER AND/OR ITS AGENTS, SERVANTS, REPRESENTATIVES, EMPLOYEES AND SUBCONTRACTORS.)



2.5 INSURANCE

A. Required Insurance Periods

For all periods of time the Applicant and subcontractors are working within CWA Corridors, the Applicant and Applicant's contractors and subcontractors must provide insurance, at no cost to CWA, meeting the requirements described in this section.

B. Insurance Requirements

Field activities will not be permitted without proof of insurance on a Texas Department of Insurance (TDI) approved certificate of insurance form (certificate). The certificate must be valid for as long as the consent or easement exists. The Applicant shall obtain endorsement to cover Insurance Requirements not covered by the terms of the Applicant's underlying insurance policy or contract. The certificate shall reference all endorsements applicable to the policy or contract. All policies, except Workers' Compensation coverage, shall name CWA as an additional insured. The Applicant's policy must include a waiver of subrogation in favor of CWA.

C. Insurer Requirements

The Applicant shall obtain coverage from (1) an insurer with a Certificate of Authority from the Texas Department of Insurance to issue policies in Texas or (2) a non-admitted insurer eligible to issue policies in Texas with a current Best's rating of at least B+ and a Best's financial size category of class VI or better.

D. Policies and Minimum Limits of Liability

The Applicant shall provide, at no cost to CWA, minimum coverage during period that the Applicant performs or authorizes work within CWA's rights-of-way or easements as described in Table 1 on the following page.

E. Material or Lack of Coverage

The Applicant will provide CWA with 30 days written notice if any of the Applicant's policies or endorsements are cancelled, materially changed, or non-renewed. If CWA staff determines that Applicant's coverage does not meet the requirements of this section, at the sole discretion of the CWA Executive Director, CWA may (1) purchase the required insurance and invoice Applicant for the full cost; or (2) suspend the Applicant's encroachment or easement approval until CWA staff determines the Applicant's coverage meets the requirements of this section.



Table 1
Policies and Minimum Limits of Liability

<u>Kinds of Insurance</u>	<u>Limits of Liability</u>
(A) Workers Compensation; Texas Operations	Statutory
(B) Employer’s Liability	<ul style="list-style-type: none"> • Accident \$1,000,000 Each Accident • Disease \$1,000,000 Each Employee • Disease \$1,000,000 Policy Limit
(C) Commercial General Liability including, but not limited to: <ol style="list-style-type: none"> 1. premises/operations 2. independent contractors’ protective 3. products and completed operations 4. personal injury liability with employment exclusion deleted 5. contractual 6. owned, non-owned and hired motor vehicles 	<ul style="list-style-type: none"> • \$2,000,000 General Aggregate • \$2,000,000 Products/Completed Operations Aggregate • \$1,000,000 Each Occurrence • \$1,000,000 Personal and Advertising Injury • \$500,000 Fire Damage Liability
(D) Business Automobile Liability including All Owned, Hired and Non-owned Automobiles	\$1,000,000 Combined Single Limit Per Occurrence
(E) Umbrella Liability: Such insurance shall be excess over and be no less broad than all coverages described above and shall include a drop down provision for exhaustion of underlying limits. This policy shall have the same inception and expiration date as the commercial general liability insurance required above.	<ul style="list-style-type: none"> • \$5,000,000 Per Occurrence • \$5,000,000 Aggregate Bodily Injury and Property Damage
(F) Builder’s Risk: An all risk policy form covering, without limitation, perils of fire and extended coverage and physical loss or damage, including theft, earthquake, hurricane, flood, windstorm, tornado, vandalism, malicious mischief, collapse, false work, testing and start-up, temporary buildings and debris removal and covering reasonable compensation for CWA’s and Engineer’s services and reasonable expenses of CWA and Engineer which are required as a result of such loss.	The initial Contract Price and any subsequent modifications thereto for the entire Work and materials stored at the site, stored offsite or being shipped to the site, on a replacement cost basis without voluntary deductibles



3.0 ACCESSING WATER FROM THE CWA SYSTEM

3.1 GENERAL DESIGN REQUIREMENTS

Preference is to use existing unused service valves or an available air/vacuum valve riser, if CWA determines it is appropriate. A hot tap on pre-stressed concrete cylinder pipe (PCCP) will be allowed only when an existing service valve is not accessible to the applicant. A typical detail for connection to an existing air/vacuum valve riser is provided as Attachment B.

A. Design Submittals

In addition to the completed Raw Water Service Connection Application in Attachment A, the owner must submit design drawings to CWA for approval that comply with CWA's Easement and Right-of-Way Encroachment General Requirements. The design must include the following information/requirements and must be shown on the drawings:

1. Peak and average flow rates
2. Pipe sizes
3. A "T" valve and blind flange at the connection point for future customers
4. A manhole to access the service valve
5. The meter located outside CWA easements or rights-of-ways
6. The "Point of Delivery" at the valve connection point to the CWA system (both on the design drawings and in the contract with the City).
7. The "Point of Measurement" at the meter site approved by the City (both on the design drawings and in the contract with the City).
8. Design drawings prepared and sealed by a Licensed Texas Professional Engineer

B. Pipe Alignment

Arrange and adjust connection piping to meet the service valve at its precise angle and elevation. Force shall not be applied to the service valve to align it with connection piping.

C. Service Line Routing

The horizontal alignment and vertical profile of the service line routing across the CWA right-of-way shall not impact future CWA pipeline installations. Service line criteria, such as depths, clearances, etc., are identified in CWA's *Easement of Right-of-Way General Requirements*. The service line's horizontal alignment and vertical profile will be evaluated on a case-by-case basis.

D. Corrosion Protection

An insulating flange gasket shall be provided between the service valve and service line piping if piping material downstream of the hot-tap piping and the



valves are electrically conductive to help to prevent corrosion. If an insulating flange is provided, corrosion monitoring test leads shall be installed on the service line piping on each side of the insulating flange and connected to an above ground mounted test station.

3.2 GUIDELINES FOR HOT TAPS

A. Assurance of Proper Procedures

Procedures and materials for a pre-stressed concrete cylinder pipe (PCCP) hot tap shall meet the standards of **Hanson Concrete Products** (formerly Gifford-Hill American, Inc.). A representative of Hanson Concrete Products, who is experienced with hot-tap procedures, shall make the installation. A CWA representative will also be present to observe the hot tap installation.

B. Location of Hot Tap

The hot tap shall be located a sufficient distance from an existing pipe joint; it is recommended that the tap be located in the middle of the existing pipe length. The hot tap shall be located at the spring line of the pipe to ensure recovery of the coupon.

C. Support of Existing Pipe

A cast-in-place concrete pipe support will be required under each pipe joint to either side of the hot tap location. The PCCP shall be excavated to the top of pipe to locate pipe joints. The joints shall be excavated after being located, allowing minimal excavation for pipe supports, ensuring the pipe bedding remains in place. After excavation of the pipe joints, a pipe support of sufficient size shall be installed under each joint to carry the combined load of the pipe, water, and tapping mechanism. Pipe supports shall span across the pipe joint.

D. Excavation of Pipe

The remainder of the pipe may be excavated after the installation of the pipe supports. Excavation shall be conducted on both sides of the pipe, and may need to be staged to avoid creating an unbalanced loading condition. A one-foot lift of cement stabilized sand may be required in the bottom of the excavation to provide good footing for temporary support of the tapping valve and cast-in-place concrete supports.

E. Control of Ground Water

The hot tap contractor shall provide necessary measures to control ground water from all sources. CWA's bedding and pipe zone backfill is sand, therefore there is a potential for groundwater to migrate along the pipeline into the excavation. The contractor is required to provide necessary measures to control groundwater without loss of pipe bedding material.



F. Valves

1. The tapping/gate valve shall conform to AWWA C500 or C509. The tapping valve shall be provided with a valve support prior to tapping. Gate valve requirements include the following:
 - a. Ductile- iron body
 - b. 125 pound, flat-faced, flanged ends
 - c. Cast-iron double disc gate
 - d. Bronze trim, non-rising stem
 - e. Extension rod
 - f. 2-inch AWWA square operating nut in lieu of an operating wheel
 - g. By-pass valve to equalize the pressure on both sides of the gate valve.
2. Taps less than 24 inches may be provided with only a gate valve with resilient seat, in accordance with AWWA C509.
3. Taps 24 inches and greater require an additional isolation valve. The isolation valve shall be a butterfly valve conforming to AWWA C504. Butterfly valve requirements include the following:
 - a. Ductile-iron body
 - b. Class 150B, short body valve with flanged ends
 - c. Ductile iron disc
 - d. Stainless steel seats and shaft
 - e. Non-rising stem
 - f. Extension rod
 - g. 2-inch AWWA square operating nut in lieu of an operating wheel
4. Bolting for valves shall conform to ASTM A307, Grade B with hexagonal heads.
5. Buried valves shall be provided with a vault and manhole access.
6. Coating on the valves shall be mortar.

G. Pipe Alignment

Arrange and adjust connection piping to meet the tapping valve at its precise angle and elevation. Force shall not be applied to the tapping valve to align with connection piping.

H. Routing of Service Line

Routing of the service line across the CWA right-of-way shall be such that future CWA pipeline installations are not impacted by the horizontal alignment and vertical profile of the service line. Criteria for the service line, such as depths, clearances, etc., are provided in *CWA's Easement and Right-of-Way Encroachment General Requirements*. The service line's horizontal alignment



and vertical profile will be evaluated on a case-by-case basis. CWA prefers a 90° perpendicular alignment to the CWA pipeline.

I. Corrosion Protection

The hot-tap saddle, piping and valves shall be coated in accordance with CWA piping specifications to be consistent with existing corrosion protection. Mortar coating shall be required. Insulating flange gasket to be provided between the hot-tap piping/valves and the service line piping should the service line piping material be downstream of the hot-tap piping and the valves are electrically conductive. This arrangement will help to prevent corrosion. If an insulating flange is provided, two test leads shall be installed on the pipe on each side of the insulating flange and brought to ground surface at a test station mounted above ground.

J. Thrust Restraint

The Owner of the service line with hot tap installation shall provide necessary thrust restraints required by the hot-tap valve and piping arrangement.

3.3 PUMPING DIRECTLY FROM CANALS

A. Canal Pumping Facilities

Pumping facilities shall be located outside of the CWA right-of-way with the intake pipe extending through the canal embankment. Pipe, valves, manholes and appurtenant items cannot be installed aboveground within the CWA right-of-way. A block/gate valve, controlled by CWA, shall be installed inside the CWA right-of-way in the pipe coming from the canal. Installation will provide for CWA access along both canal embankments and a minimum of 30 feet between the pumping facility and the canal water line. Design submittals will include:

1. Pump station plan and profile with details
2. Piping inside the canal embankment
3. A cross-section showing normal operating and maximum canal levels
4. Pipe location within the embankment

A typical detail for a canal pumping station is provided as Attachment C.

C. Valves

The block/gate valve, to conform to AWWA C500 or C509, shall be reviewed and approved by CWA.

D. Headwalls

Intake piping extending into the CWA canal may require protection with a concrete headwall to prevent maintenance activities from damaging pipe ends.

ATTACHMENT A

Coastal Water Authority

Raw Water Service Connection Application

Raw Water Service Connection Application

Coastal Water Authority
1801 Main Street, Suite 800
Houston, TX 77002-8120
Attn: Operations Manager

Phone: (713) 658-9020
<http://www.coastalwaterauthority.org/>

REQUESTOR INFORMATION: *(Print or Type Only)*

Date _____

Individual Name _____ Company Name _____ Phone Number _____

Address _____ City _____ State _____ Zip Code _____

Email Address _____ Site Location/Key Map (attach) _____

LEGAL NAME OF FACILITY OWNER REQUESTING PERMISSION TO ENCROACH:

Company Name _____ If pipeline, product(s) to be transported _____

Address _____ City _____ State _____ Zip Code _____

Authorized Representative: Name & Title _____

State requesting company is incorporated _____

SUBMITTAL REQUIREMENTS

All requestor's must agree to comply with "**CWA Easement or Right-of-way Encroachment General Requirements – Revised October 2013,**" "**CWA Raw Water Service Connection Requirements – Revised October 2013** and as amended periodically. If CWA facility relocation is required due to this request, the relocation(s) cost(s) will be borne by the requesting party and must be paid before the request is granted. The following documents will be issued per CWA property rights:

- Fee ownership: an easement will be prepared and executed by CWA
- An easement: a Consent to Encroach will be issued

It is the requestor's responsibility to secure additional needed rights from parties where CWA's rights are limited or less than a fee simple ownership. The requestor must notify owners of other pipelines, communication lines or other third party facilities located within CWA's grant to requestor.

FEE

The easement or consent to encroach fee is defined in the CWA Water Service Connection Requirements – Revised October 2013. **THE \$5,000.00 NON-REFUNDABLE ADMINISTRATIVE FEE MUST ACCOMPANY THE REQUEST SUBMITTAL.**

INDEMNIFICATION

BY SIGNING THIS APPLICATION, THE FACILITY OWNER REQUESTING WATER SERVICE IS LEGALLY BOUND BY THE INDEMNIFICATION AGREEMENT IN THE CWA EASEMENT OR RIGHT-OF-WAY ENCROACHMENT GENERAL REQUIREMENTS (OCTOBER 2012).

REQUESTS SUBMITTED WITHOUT THE REQUIRED APPLICATION FEE OR THAT DO NOT CONTAIN THE SPECIFIED INFORMATION, WILL NOT BE APPROVED. Deficiencies will be identified and a revised package can be resubmitted.

The undersigned authorizes CWA to contact the Surveying firm that prepared the attachments and **certifies that the information provided is accurate and acknowledges that incomplete information may delay processing or invalidate this application.**

By: _____

Printed Name

Signature: _____

Title: _____

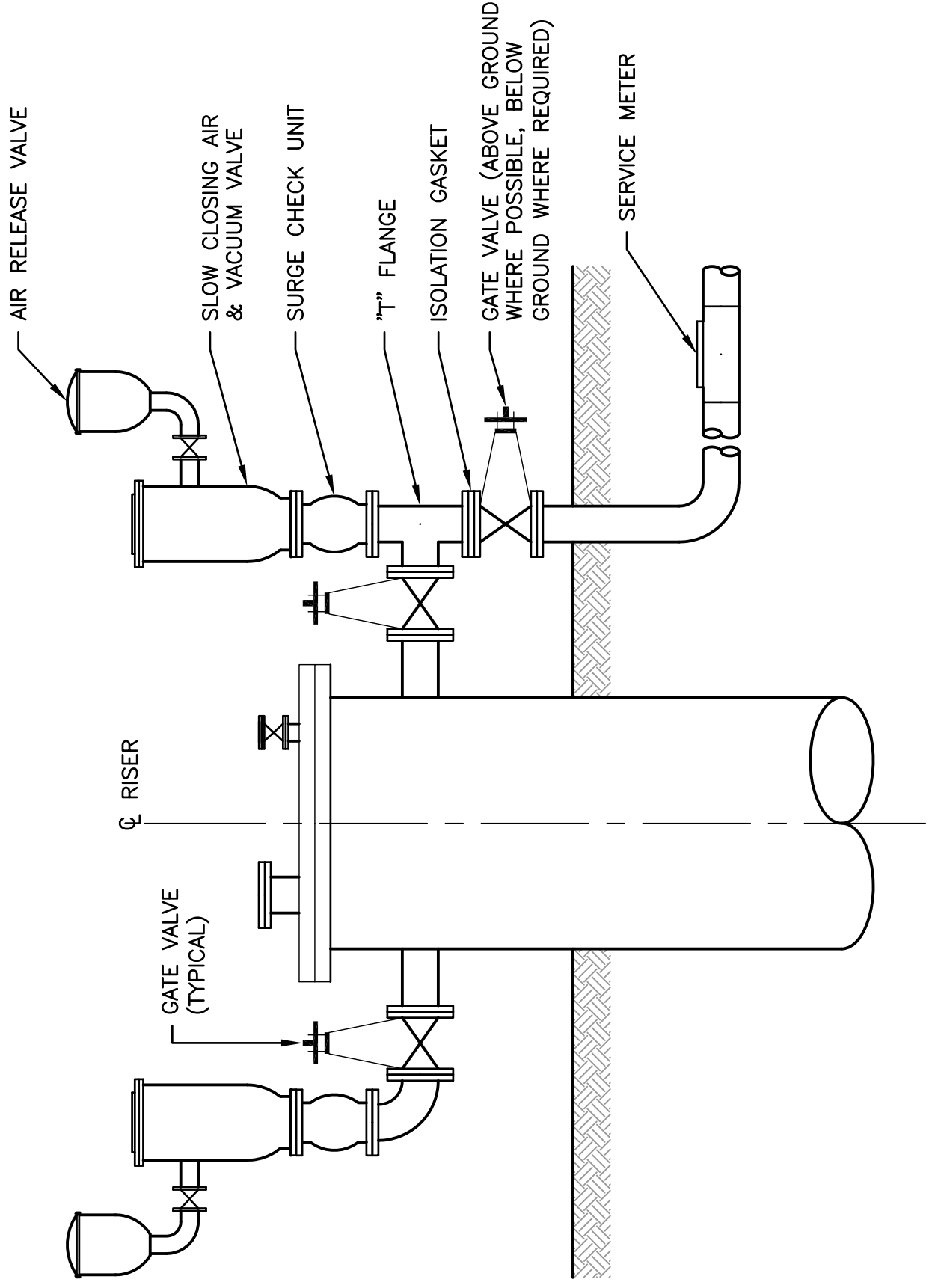


(revised October 2013)

ATTACHMENT B

Coastal Water Authority

Air Valve Standard Connection Detail



IGN
Lockwood, Andrews & Newnam, Inc.
 A LEO A DALY COMPANY
 2925 Briarpark Drive
 Houston, Texas 77042-3720
 Tel 713-266-6900 Fax 713-266-7596

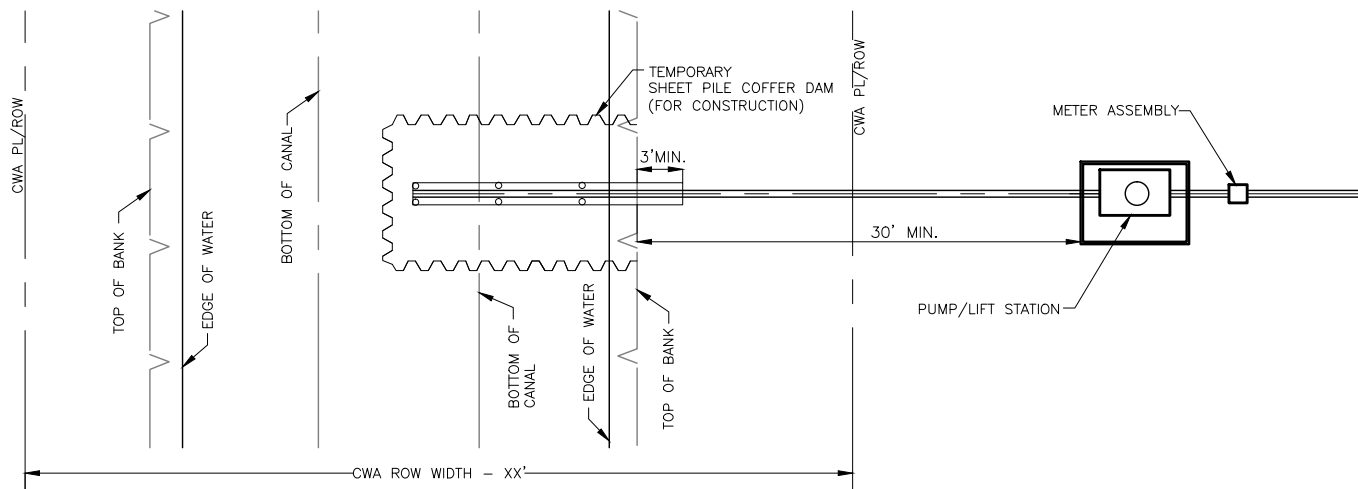
Scale: **N.T.S.**
 Job No. 120-11004-000
 Date February 2013

Title: **Air & Vacuum Valve Station with Service Outlet**
 Exhibit: **1**

ATTACHMENT C

Coastal Water Authority

Typical Pump Station Intake Structure Detail

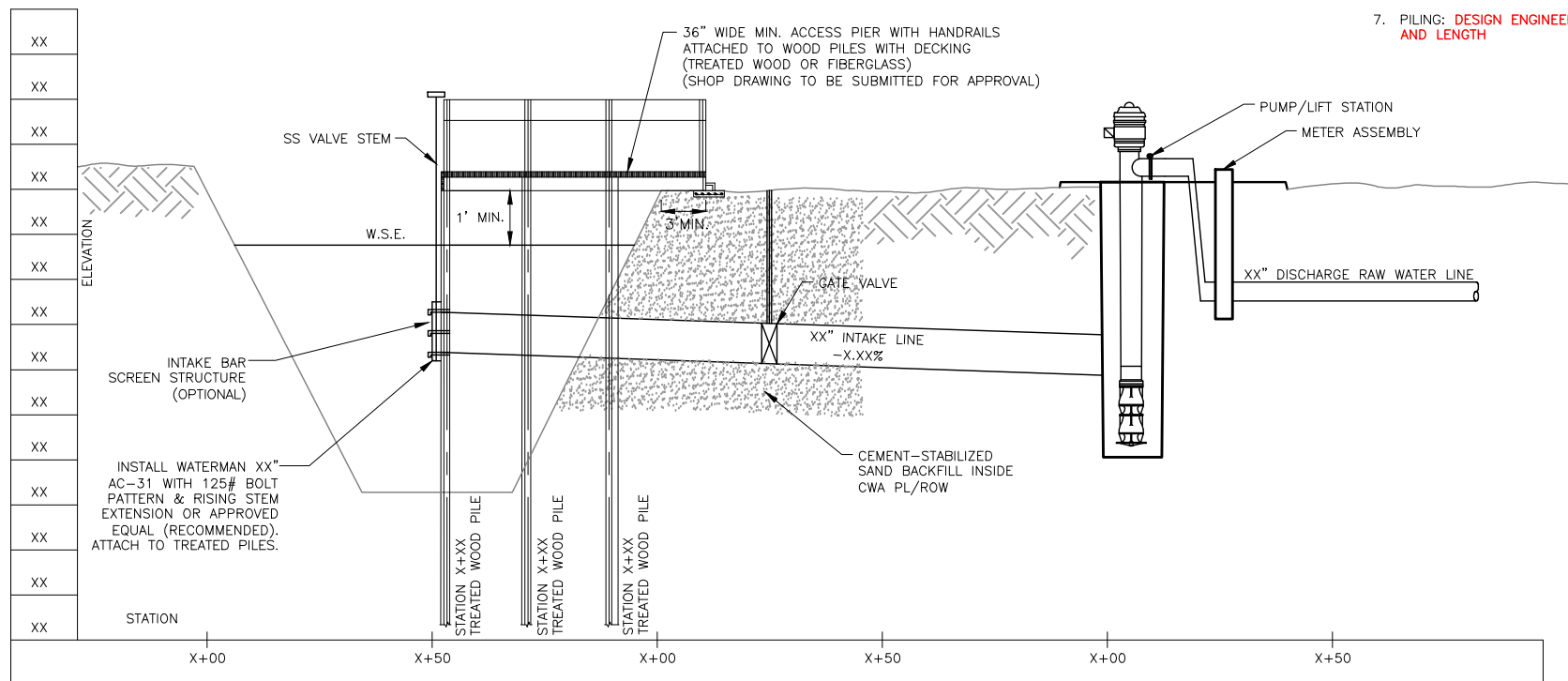


GENERAL NOTES:

1. THIS DETAIL SHOW THE MINIMUM REQUIREMENTS FOR A PUMP STATION INTAKE STRUCTURE AND PROVIDES GENERAL GUIDELINES FOR THE INFORMATION TO BE INCLUDED WITH THE INTAKE APPLICATION.
2. ADD APPLICABLE NOTES FROM CWA EASEMENT AND RIGHT-OF-WAY ENCROACHMENT GENERAL REQUIREMENTS SECTION 3.1.C.2.

DESIGN ENGINEER TO IDENTIFY THE FOLLOWING:

1. PUMP STATION DATA: **DESIGN ENGINEER TO PROVIDE DESCRIPTION**
2. PUMPS: **DESIGN ENGINEER TO IDENTIFY PUMPS**
3. VALVES: **DESIGN ENGINEER TO IDENTIFY VALVES**
4. METER ASSEMBLY: **DESIGN ENGINEER TO PROVIDE METER INFORMATION**
5. CONNECTIONS: **DESIGN ENGINEER TO PROVIDE CONNECTION INFORMATION**
6. PIPE: **DESIGN ENGINEER TO PROVIDE PIPE MATERIAL, DIAMETER AND LENGTH**
7. PILING: **DESIGN ENGINEER TO PROVIDE PILE DIAMETER AND LENGTH**



**COASTAL WATER
AUTHORITY**



L&N Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
2925 Briarpark Drive
Houston, Texas 77042-3720
Tel 713-266-6900 Fax 713-266-7596

Scale: N.T.S.

Job No. 120-11004-000

Date January 2014

Title: Typical Pump Station Intake Structure Detail

Exhibit: 2