



LAVACA-NAVIDAD RIVER AUTHORITY
EDNA, TEXAS

Stoplog Construction

BID FORM AND SPECIFICATIONS

April 17, 2025, at 11:00 a.m.

LAVACA-NAVIDAD RIVER AUTHORITY
P.O. Box 429
4631 FM 3131
Edna, TX 77957

REQUEST FOR BIDS
for
Stoplog Construction

Instructions to Bidders

The Lavaca-Navidad River Authority is seeking bids for the fabrication of one metal spillway stoplog, LNRA stoplog no. 15, based on original plan sheets as originally designed by the US Bureau of Reclamation with the modifications included herein. The rough dimensions (length, width, and height) of the stoplog is 35'x 2'x 4'. Each stoplog will weigh approximately 15,000 lbs. The weight will be certified by the successful bidder.

1. Sealed bids addressed to the Lavaca-Navidad River Authority (LNRA), P. O. Box 429, Edna, Texas, 77957, and labeled as "Stoplog Construction" will be received at the Lavaca-Navidad River Authority office located at 4631 FM 3131, Jackson County, Texas, until April 17, 2025, at 11:00 a.m. Contract documents are on file and can be obtained at the office of the LNRA or on the LNRA website, www.lnra.org/public-information/current-bids. No late or faxed bids will be considered. LNRA will proceed without unnecessary delay to consider all bids submitted and reserves the right to reject any and/or all bids.
2. Bids shall be submitted on the Bidding Schedule provided or copies thereof and signed. The Bidder must enter a bid for each item on the Bidding Schedule for his bid to be considered acceptable. The total bid submitted shall include all costs associated with the completion of one (1) stoplogs, inclusive of all labor, materials, equipment, and supplies.
3. Bids must be properly sealed, marked as a sealed bid and include the name and address of the bidding party. Withdrawal or modification of bids must occur before the bid opening.
4. Before a bid proposal is considered for award, the bidder may be asked to submit a statement regarding his previous experience in performing comparable work, his organization, financial resources, and equipment available for performing the work.
5. Bidders must submit a Bid Bond in the form of a certified check or bank draft payable to the order of the Lavaca-Navidad River Authority, or a satisfactory Bid Bond by the Bidder and acceptable surety, in an amount equal to five percent (5%) of the total Bid, as a guaranty that the Bidder will enter into a contract with ten (10) days after Notice of Award. Such check or Bid Bond will be returned to all except the west Bidders within three (3) days after the opening of Bids, and the remaining check or Bid Bond promptly after the LNRA and Bidder have executed the Contract, or, if not award has been made withing thirty (30) days after the date of opening of Bids, upon demand of the Bidder at any time thereafter, so long as he has not been notified of the acceptance of his Bid.

6. All bids will be opened at the time stated and at the above address. The results of the bid opening will be available after that time.
7. Bids shall be submitted on the Bidding Schedule provided or copies thereof and signed. The Bidder must enter a bid for each item on the Bidding Schedule for his bid to be considered acceptable. The total bid submitted shall include all costs for the complete conduction of services, inclusive of labor and equipment.
8. The contractor awarded the contract shall begin work at a time designated by the LNRA.
9. **The Successful Bidder should refer to the Texas Code Section 151 and if there are any conflicts or questions, contact the Texas Comptroller's Office. This Contract is issued by an agency which qualifies for exemption pursuant to the provisions of Section 151.309 of the Tax Code of the State of Texas.**
10. The Contractor will be paid for each stoplog, once completed and ready for delivery. All invoices will be paid within 30 days after the invoice arrives at the LNRA office and at the rate specified on the bid sheet attached hereto.
12. The terms "LNRA", "Bidder" and "Contractor" are defined in the contract and specifications as follows:

The LNRA is the Lavaca-Navidad River Authority represented by the General Manager.

The Bidder or Contractor is the party contracting directly with the LNRA to furnish equipment and perform services in accordance with the Contract Documents.

LAVACA-NAVIDAD RIVER AUTHORITY
STOPLOG CONSTRUCTION
BIDDING SCHEDULE

SCOPE OF SERVICES

This Project consists of the fabrication of one (1) spillway stoplog based on original plan sheets as originally designed by the US Bureau of Reclamation as shown under the Drawing Section as D-1 and D-2. As a minor detail, in exhibit D-1, special attention should be paid to Section C-C where the 6"x1/4" Bar stops short of the full length of the stoplog. Exhibits D-3 and D-4 show the bars placed incorrectly, as detailed in the drawing. The 6"x1/4" bars should stop 4" short. During fabrication of the original stoplogs, a modification was made to the stoplog retention spring assembly so, each Bidder shall acknowledge, and include with their Bid, the modification to the stoplog retention spring assembly. The steel used to construct the stoplog shall be ASTM A36 steel fabricated in the United States. No foreign steel will be accepted on this project. Contractor shall provide an invoice or mill report from the USA manufacturer, to LNRA, that certifies the steel was fabricated in the United States. The lines of the stoplog will be plumb, true, and straight. No warpage, twists, bellies, or sags from overheating or mishandling of the steel will be accepted. Non-conformity to the plan dimensions will not be accepted. It is imperative that the stoplogs be constructed plumb, true, and straight for proper function during deployment of the logs in the spillway slots.

During the site visit, please note that after 45 years of service some stoplogs may be out of spec, meaning some dimensions may not be accurate or true. If there are questions about a dimension, please contact Kenneth Fojtik or Scott Hartl. Otherwise, all work and materials shall conform to the details, dimensions, and material requirements as provided for on the plan sheets or as otherwise specified by LNRA.

All welding shall be performed by qualified welders who are certified using LNRA's Welding Procedure, attached hereto as Exhibit D-5. A list of these certified welders shall be provided to LNRA before construction begins. All weld connections shall comply with AWS D1.1 for welding procedure specifications, tolerances, appearance, and quality of welds and for methods used in correcting welding work. Assemble and weld built-up, sections by methods that will maintain true alignment of axes without exceeding tolerances of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for mill material. Welding electrodes shall comply with AWS requirements. Unless otherwise approved, all electrodes used to construct the stoplog shall be E70XX, low hydrogen. If the use of MIG welding is intended, the successful bidder will provide submittal of proposed type of solid wire.

An LNRA representative will periodically inspect the fabrication of the stoplog for conformance to the plans and specifications. Also, a final inspection will be made by a team of LNRA representatives to validate the conformance of the fabrication to the plans and specifications. The stoplogs shall be delivered to LNRA free of slag or buckshot from welds. A LNRA representative will inspect and approve the condition of each stoplog prior to delivery to LNRA's Palmetto Bend Dam.

The Contractor shall have such log weighed prior to delivery and will report this weight to LNRA at delivery.

The bid price shall include shipping of the stoplogs to LNRA's Palmetto Bend Dam west materials laydown area.

The Contractor shall provide all necessary labor, materials, equipment, and supervision as required to complete all items of work.

Contractor

Prior to beginning any work, Contractor shall provide proof of insurance, to include worker's compensation, and shall have Lavaca-Navidad River Authority listed as additional insured on the Contractor's insurance policy. Additionally, Contractor shall provide a copy of their W-9 to LNRA at the address listed above.

A General Services Contract must be signed by both Contractor and LNRA before any work begins. Contractor assumes full responsibility for completing the contract under these conditions.

Equipment

Contractor is required to supply all equipment, labor, materials, and superintendent needed to complete the job.

Bid Form

<u>Item No.</u>	<u>Description</u>	<u>Basis (each)</u>	<u>Total (x2)</u>
1.	Labor, equipment, supplies, and supervision to fabricate one (1) spillway stoplog		
2.	Shipping of stoplog to LNRA's Palmetto Bend Dam.		

The undersigned, as bidder, declares that he has carefully examined the Instructions to Bidders, Bidding Schedule, Contract, Specifications, contract work locations, and General and Special Conditions.

The undersigned certifies that these amounts bid have been carefully checked and are submitted as correct and final.

The undersigned certifies that he has verified the dimensions of the existing stoplogs and understands the modification to the retention spring assembly.

The Lavaca-Navidad River Authority reserves the right to refuse any and/or all bids.

Please mark your sealed bid " Stoplog Construction".

Signature

Date

SPECIFICATIONS

1. Investigation of Site Conditions

Each bidder is required to verify the dimensions of the existing stoplogs. A LNRA employee must accompany Bidders during this visit.

2. Qualifications of Low Bidder

Prior to award of contract, the bidder shall submit such evidence as the LNRA may require to establish the bidder's qualifications to satisfactorily perform the work included in this project. Information that may be required shall include:

- (1) the bidder's current financial statement including amount of funds readily available to commence and carry out the work;
- (2) a list of equipment available for this project;
- (3) a list of projects that have been satisfactorily completed by the bidder within the last five years that are the same general type as included in this contract, together with the names, addresses and phone numbers of persons familiar with this work;
- (4) other information that may be pertinent to the bidder's qualifications;
- (5) a designated Superintendent or contact person; and
- (6) Insurance Agent(s) telephone and address.

Should the bidder fail to promptly produce evidence satisfactory to the Authority on any of the foregoing points he may be disqualified, and the work awarded to the next bidder so qualifying.

3. Award

The LNRA will proceed without unnecessary delay to consider the bidding schedules and reserves the right to reject any or all bids. Date of award is the date of the LNRA decision to award the Contract to the selected bidder. The award of the Contract will be made by the LNRA Board of Directors to the responsible party whose bid is most advantageous to the LNRA.

4. Rejection of Bids

The LNRA reserves the right to reject any bidder if investigation of such bidder fails to satisfy the LNRA that such bidder is properly qualified to carry out the obligations and to complete the work contemplated by Contract Documents. Any or all bids will be rejected if there is reason to believe that collusion exists among the bidders.

5. Failure to Execute Contract

Should the successful bidder fail to execute the Contract and to validate the same within 10 days after award of Contract, the award shall go to the next lowest bidder if approved by the Authority.

6. Contractor's Insurance

- A. The Contractor shall not commence work under the Contract until he has obtained at his expense all insurance required by the Contract Documents and such insurance has been approved by the LNRA. Such insurance shall remain in full force and effect on all phases of the work, until all work under the Contract is completed and has been accepted by the LNRA.
- B. Contractor shall procure and maintain for the term of the Contract insurance that is required by law, including workers compensation, with the following limits:

General Liability	\$1,000,000
Automobile Liability	\$1,000,000
Workers Compensation	\$1,000,000

- C. Before commencement of any work, the Contractor shall submit written evidence that the minimum insurance required by the Contract Documents has been obtained. Such written evidence shall be in the form of a Certificate of Insurance executed by the Contractor's insurance carrier showing such policies in force for the specified period or by furnishing a copy of the actual policy or policies. Each certificate shall contain an endorsement or statement waiving right of cancellation or reduction in coverage unless 30 days prior written notice is given to the LNRA by registered or certified mail, and, in regard to the liability policy, shall specifically state that the LNRA is named as an insured party.

7. Indemnity

To the extent permissible by law, the Contractor shall protect, defend, indemnify, and save harmless the LNRA, and its officers, agents, and employees, from and against suits, actions, claims, losses, liability or damage of any character, and from and against costs and expenses, including attorney fees, incidental to the defense of such suits, actions, claims, losses, damages or liability on account of injury, disease, sickness, including death, to any person, or damage to property.

The Lavaca-Navidad River Authority shall not be held responsible for any damage to vehicles, equipment or other property or for any personal injuries caused by the Contractor. The Contractor will also be responsible for any damage to Contractor's equipment or injuries to Contractor's employees.

8. Payment

After a statement is prepared by the Contractor showing as completely as possible the total value of the work done by the Contractor, the LNRA will review and approve the statement before payment will be made. Each invoice should include hours, price per hour and materials. LNRA will inspect the progress on a random basis to ensure the work is complete and satisfactory. All invoices will be paid within 30 days after the invoice arrives at the LNRA office and at the rate specified on the bid sheet attached hereto.

9. Cancellation

This contract may be cancelled at any time by either party upon giving the other part at least thirty (30) days prior written notice of the intended date of cancellation.

10. Notices

All notices, requests, demands, and other communications shall be sent to:

If to LNRA:

Lavaca-Navidad River Authority
P.O. Box 429
Edna, Texas 77957

If to Contractor:

11. Information

To obtain additional information regarding these specifications, please contact:

Scott Hartl, P.E.
Assistant Manager of Operations
361-782-5229

GENERAL SERVICES CONTRACT

This Contract for Services is made effective as of _____, 2025, by and between Lavaca-Navidad River Authority ("LNRA") and _____ ("Contractor").

1. DESCRIPTION OF SERVICES

Contractor shall provide the following services:

This Project consists of the fabrication of one (1) spillway stoplog based on original plan sheets as originally designed by the US Bureau of Reclamation as shown under the Drawing Section as D-1 and D-2. As a minor detail, in exhibit D-1, special attention should be paid to Section C-C where the 6"x1/4" Bar stops short of the full length of the stoplog. Exhibits D-3 and D-4 show the bars placed incorrectly, as detailed in the drawing. The 6"x1/4" bars should stop 4" short. During fabrication of the original stoplogs, a modification was made to the stoplog retention spring assembly so, each Bidder shall acknowledge, and include with their Bid, the modification to the stoplog retention spring assembly. The steel used to construct the stoplog shall be ASTM A36 steel fabricated in the United States. No foreign steel will be accepted on this project. Contractor shall provide an invoice or mill report from the USA manufacturer, to LNRA, that certifies the steel was fabricated in the United States. The lines of the stoplog will be plumb, true, and straight. No warpage, twists, bellies, or sags from overheating or mishandling of the steel will be accepted. Non-conformity to the plan dimensions will not be accepted. It is imperative that the stoplogs be constructed plumb, true, and straight for proper function during deployment of the logs in the spillway slots.

During the site visit, please note that after 45 years of service some stoplogs may be out of spec, meaning some dimensions may not be accurate or true. If there are questions about a dimension, please contact Kenneth Fojtik or Scott Hartl. Otherwise, all work and materials shall conform to the details, dimensions, and material requirements as provided for on the plan sheets or as otherwise specified by LNRA.

All welding shall be performed by qualified welders who are certified using LNRA's Welding Procedure. A list of these certified welders shall be provided to LNRA before construction begins. All weld connections shall comply with AWS D1.1 for welding procedure specifications, tolerances, appearance, and quality of welds and for methods used in correcting welding work. Assemble and weld built-up sections by methods that will maintain true alignment of axes without exceeding tolerances of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for mill material. Welding electrodes shall comply with AWS requirements. Unless otherwise approved, all electrodes used to construct the stoplog shall be E70XX, low hydrogen. If the use of MIG welding is intended, the successful bidder will provide submittal of proposed type of solid wire.

An LNRA representative will periodically inspect the fabrication of the stoplog for conformance to the plans and specifications. Also, a final inspection will be made by a team of LNRA representatives to validate the conformance of the fabrication to the plans and specifications. The stoplogs shall be delivered to LNRA free of slag or buckshot from welds. A LNRA representative will inspect and approve the condition of each stoplog prior to delivery to LNRA's Palmetto Bend Dam.

The Contractor shall have such log weighed prior to delivery and will report this weight to LNRA at delivery.

The bid price shall include shipping of the stoplogs to LNRA's Palmetto Bend Dam west materials laydown area.

The Contractor shall provide all necessary labor, materials, equipment, and supervision as required to complete all items of work.

2. PAYMENT FOR SERVICES

Payment shall be made to Contractor upon completion of Services by providing a detailed invoice, including equipment, labor, materials, and superintendence. Contractor shall also provide a copy of Form W-9. All invoices will be paid within 45 days of receipt by LNRA, and should be mailed to the address below:

Lavaca-Navidad River Authority
Attn: Accounting
P.O. Box 429
Edna, TX 77957

or electronically at:

accounting@lnra.org

3. TERM

This Contract will terminate automatically upon Contractor's completion of Services required by this Contract.

4. INSURANCE

Contractor shall procure and maintain for the term of the Contract insurance that is required by law, including workers compensation, with the following limits:

- General Liability \$1,000,000
- Automobile Liability \$1,000,000
- Workers Compensation \$1,000,000

No work shall commence under this Contract until Contractor has obtained, at their own expense, all insurance and such insurance has been approved by LNRA. Such insurance shall remain in full force and effect on all phases of the work, until all work under the Contract is completed and has been accepted by LNRA.

5. INDEMNIFICATION

To the extent permissible by law, Contractor shall protect, defend, indemnify, and save harmless LNRA, and its officers, agents, and employees, from and against suits, actions, claims, losses,

liability or damage of any character, and from and against costs and expenses, including attorney fees, incidental to the defense of such suits, actions, claims, losses, damages or liability on account of injury, disease, sickness, including death, to any person, or damage to property.

LNRA shall not be held responsible for any damage to vehicles, equipment or other property or for any personal injuries caused by the Contractor. The Contractor will also be responsible for any damage to Contractor's equipment or injuries to Contractor's employees.

6. AMENDMENT

This Contract may be modified or amended in writing by mutual agreement of both parties.

7. TERMINATION

This Contract may be terminated at any time by either party upon giving the other party at least thirty (30) days prior written notice of the intended date of termination.

8. NOTICES

All notices, requests, demands, and other communications shall be sent to:

If to LNRA:

Lavaca-Navidad River Authority
P.O. Box 429
Edna, TX 77957

If to Contractor:

Attn: _____

9. MISCELLANEOUS:

- a. **CONTRACTOR HAS COMPLETED FORM 1295 INCLUDING OBTAINING THE CERTIFICATION OF FILING NUMBER, AND IT HAS BEEN FILED WITH OWNER, IN COMPLIANCE WITH GOVERNMENT CODE 2252.908 AS PRESCRIBED BY LAW.**
- b. Consistent with Govt. Code Chapter 2270, by signing below, CONTRACTOR hereby verifies that CONTRACTOR does not boycott Israel and will not boycott Israel during the term of this Contract.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed by their duly authorized representative as of the date first written above.

Lavaca-Navidad River Authority
General Manager

Contractor

Printed Name

Printed Name

Date

Date

BID BOND

KNOWN ALL MEN BY THESE PRESENTS: That we the undersigned, _____
as PRINCIPAL, and _____, as SURETY, are held and firmly
bound unto **OWNER NAME**, hereinafter called Owner in the penal sum of
_____ Dollars (\$ _____), lawful money of the United
States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs,
executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that Whereas the Principal has submitted
the Accompanying Bid, dated the ____ day of _____, 2025, which is hereto attached and
made party here of:

STOPLOG CONSTRUCTION

LAVACA NAVIDAD RIVER AUTHORITY

NOW, THEREFORE, if the Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or, if no period be specified, within sixty (60) days after the said opening, and shall within the period specified therefore, or if no period be specified, within ten (10) days after the prescribed forms are presented to him for signature, enter into written Contract with the Owner in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, or in the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such bond within the time specified, if the Principal shall pay the Owner the difference between the amount specified in said Bid and the amount for which the Owner may procure the required work or supplies or both, if the latter be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bound Parties have executed this instrument under their several seals this _____ day of _____, 2025. The name and corporate seal of each corporate party hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

ATTEST:

(Principal) Secretary Principal

(SEAL)

Business Address

Witness as to Principal

Business Address

ATTEST:

(Surety) Secretary Surety

(SEAL)

By: _____
Attorney-in-Fact

Address

Witness as to Surety

Address

Attorney-in-Fact, State _____.

(Power-of-attorney for person signing for Surety Company must be attached to bond.)

COMPLIANCE WITH GOVERNMENT CODE 2252.908

Government Code 2252.908 states that a governmental entity or state agency may not enter into a contract with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency.

The Texas Ethics Commission (Commission) was required to adopt rules necessary to implement the law and prescribe the disclosure of interested parties form. The Certificate of Interested Parties form (Form 1295) is available on the Commission's website. **A business entity must fill out Form 1295 electronically on the Texas Ethics Commission website using the online interactive Form.** A business entity must enter the required information on the online version of Form 1295, finalize ("submit") it, and print a copy of the completed Form, which will then contain a unique certification number generated by the Commission; the Commission retains a copy of the submitted online Form. An authorized agent of the business entity must sign the printed copy of the filled-out Form and the Form must be notarized. The completed and notarized Form 1295 must be filed with the governmental body or state agency with which the business entity is entering into the contract.

The governmental entity or state agency must notify the Commission, using the Commission's certification number, and "acknowledge" the receipt of the filed Form 1295 not later than the 30th day after the date the contract binds all parties to the contract. The Commission will post the acknowledged Form 1295 to its website within seven business days after receiving acknowledgment from the governmental entity or state agency.

Information is available on the Texas Ethics Commission website (www.ethics.state.tx.us) regarding filing Form 1295, logging in for the first time, and short videos with frequently asked questions. You may also contact the Commission with questions at 512-463-5800 or LNRA (Karen Gregory) at 361-782-5229.

I/We, the undersigned, agree to comply with Government Code 2252.908 as prescribed by law.

Signed: _____
(Company Name) (Company Address)

By: _____
(Signature) (Seal if Bidder is a Corporation)

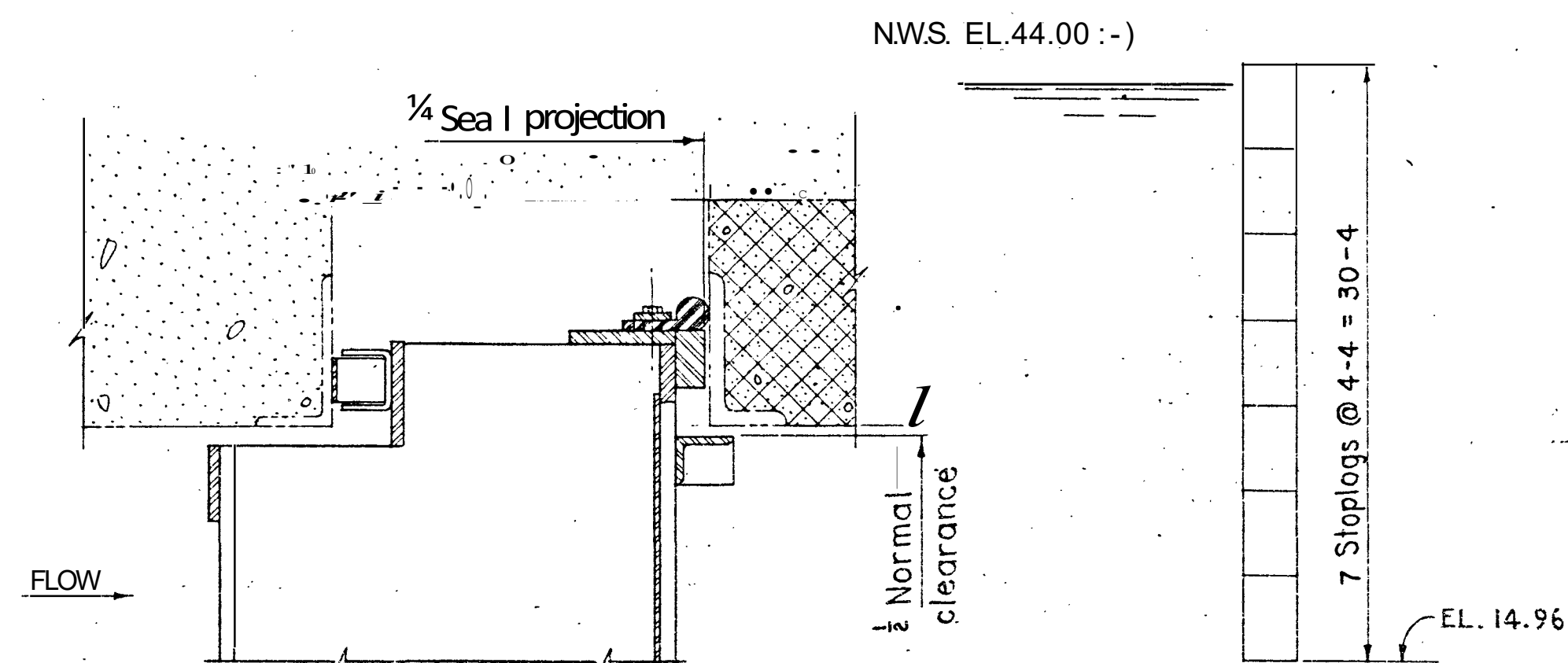
ATTEST: _____

Date: _____



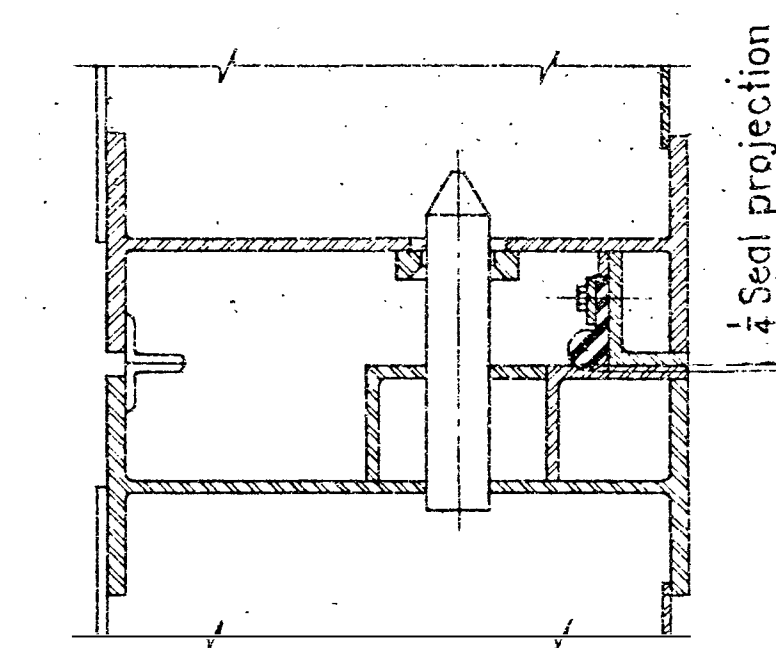
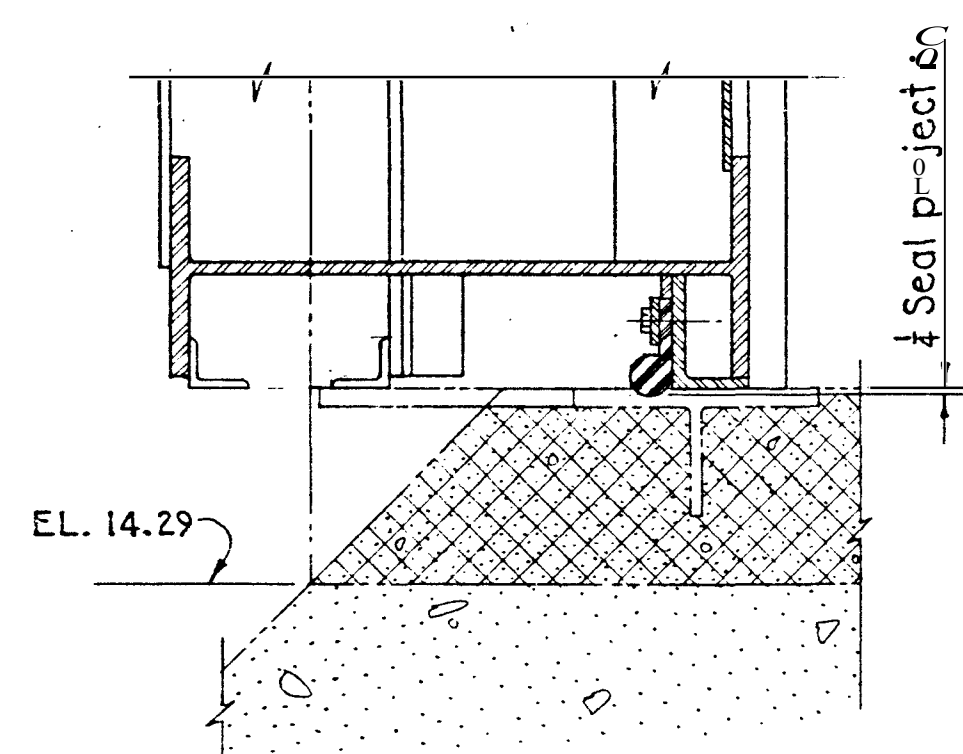
C-49's 7.

Exhibit D-2



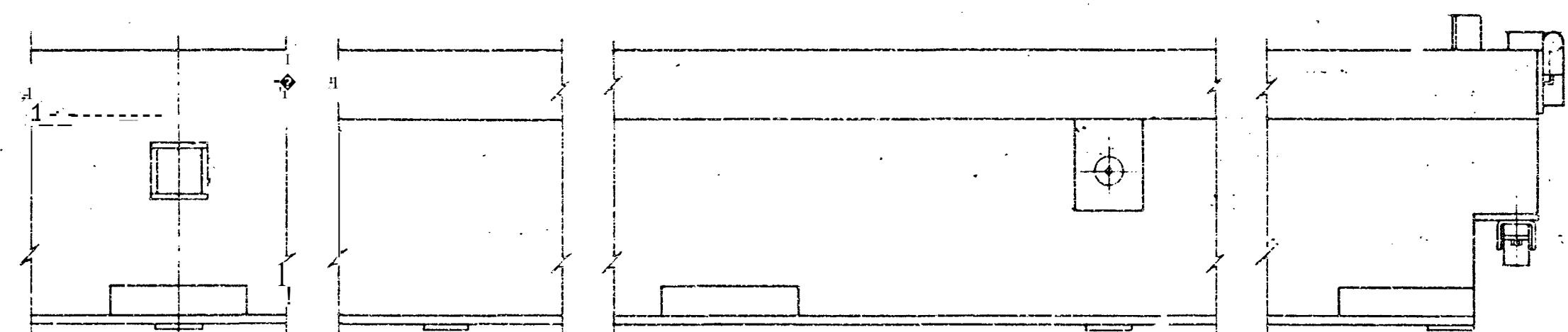
SECTION THROUGH SIDE SEAT

-STACKING DIAGRAM

SECTION THROUGH STOPLOGS
(SHOWING RELATION BETWEEN STOPLOGS)

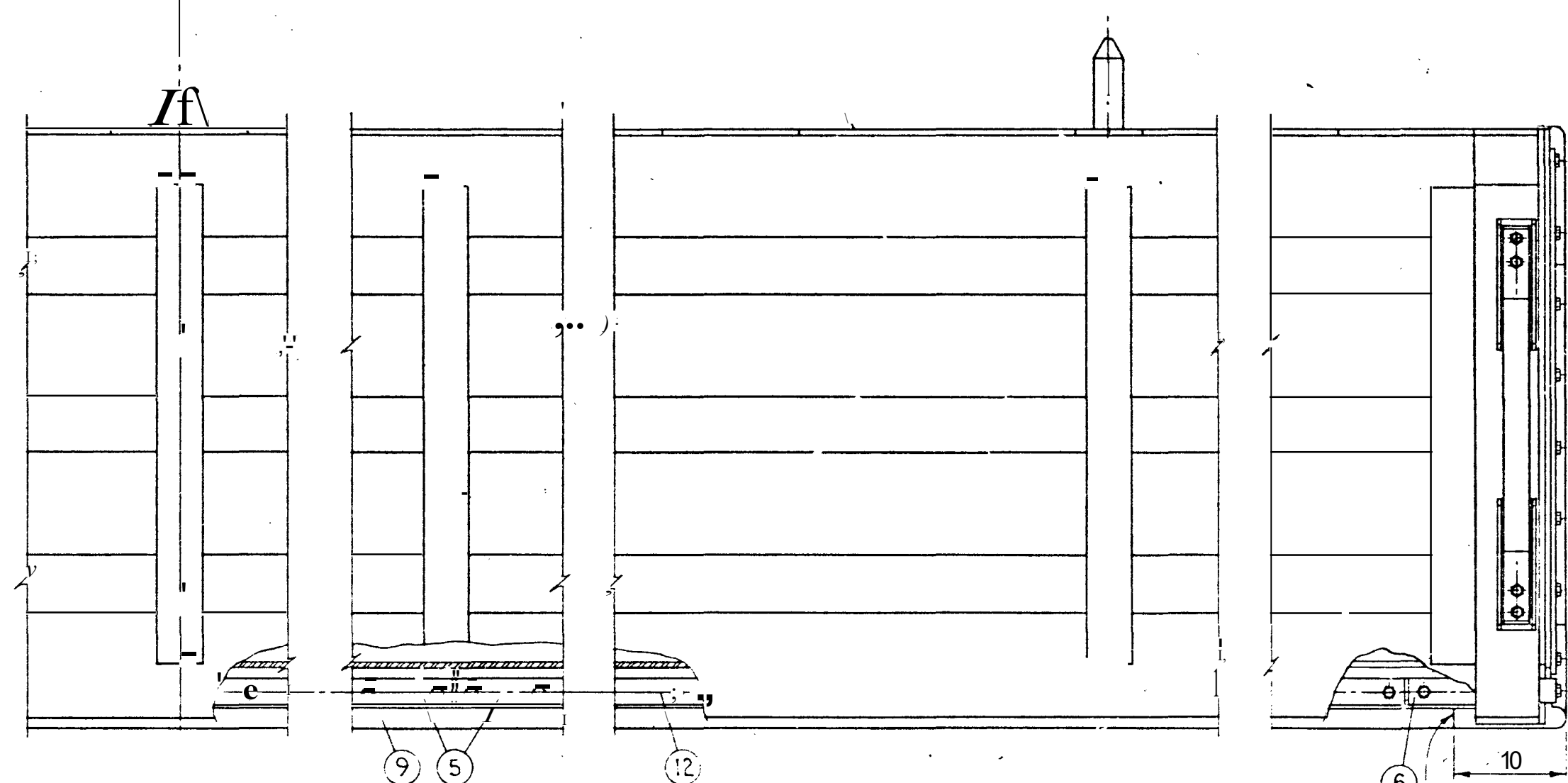
SECTION THROUGH BOTTOM SEAT

INSTALLATION



P L A N

--Symmetrical about G.



UPSTREAM ELEVATION

A S-SE.tv1 BLY

See specifications for requirements
for seal installation.DESIGN CRITERIA
1-Jax,um design head 30ft.

NOTES

Beam shall have ends cut square before assembly.
All joints in neoprene seals shall be carefully fitted and closely butted.
Maintain an uncompressed seal projection of 1/4" all around when installing neoprene seals.

LIST OF DRAWINGS

INSTALLATION-ASSEMBLY-LIST OF PARTS J212-D-110
LOG SECTION-CLAMPS-SPRING-KEEPER J212-D-111

REFERENCE DRAWINGS

STOPLOG SEATS AND GUIDES
INSTALLATION-ANCHOR BOLT SETTING -
LIST OF PARTS J212-D-108
STOPLOG LIFTING BEAM
INSTALLATION-ASSEMBLY-LIST OF PARTS-J212-D-112

EXISTING INSTALLATION

ALWAYS WEAR SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION PALMER TO BEND PROJECT TEXAS PALMER TO BEND DAM SPILLWAY GATE STRUCTURE STOPLOG INSTALLATION-ASSEMBLY-LIST OF PARTS	
DESIGNED: Frank Francisco	SUBMITTED: [Signature]
DRAWN: Frank Francisco	RECOMMENDED: [Signature]
CHECKED: [Signature]	APPROVED: [Signature] CHIEF, MECHANICAL BRANCH

SHE. EL. 10.2

974, 11.12.0-11

D-3

4"



D-4



Company name	Lavaca-Navidad River Authority
Welding process	SMAW
Process type	Manual

Joint design used

Joint type	TC - T or corner joint
Joint design	Fillet weld (12)
Backing	No
Backing material	n/a
Root opening (R)*	(in.) 0, +1/16, -0 (+3/16, -0)
Root face (f)*	(in.) n/a
Groove angle (a)*	(deg.) n/a
Radius (J - U)*	(deg.) n/a
Back gouging	No
Back gouging method	n/a

Base metals

* Datum, As Detailed (As Fit-Up)

Spec., type or grade	AWS D1.1 Table 5.3 Group I&II
Thickness:	
Groove	(in.) n/a
Fillet	(in.) T1: Under 3 T2: Under 3
Diameter (Pipe)	(in.) Unlimited

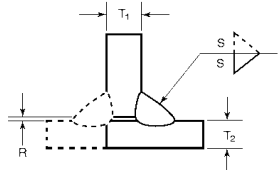
Filler metals

AWS Specification	5.1
AWS Classification	E7018

Shielding

Flux	-
Electrode-flux (class)	-
Gas composition	-
Gas flow rate	(cfh) -
Gas cup size	(in.) -

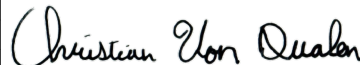
Welding procedure

Layer	Pass	Process	Filler metal class	Filler metal diameter (in.)	Current type / polarity	Amps	Wire feed speed (in./min)	Volts	Travel speed (in./min)	Joint details
All	All	SMAW	E7018	3/32	DCEP	75 - 105	-	21.0 - 31.0	2.5 - 10.0	
All	All	SMAW	E7018	1/8	DCEP	105 - 145	-	21.0 - 31.0	3.0 - 10.0	
All	All	SMAW	E7018	5/32	DCEP	135 - 170	-	21.0 - 31.0	3.5 - 10.0	
										Designation
										TC-F12

Notes

PREHEAT/INTERPASS
For thickness 1/8 to 3/4(in.): 32(°F). Preheat to 70(°F) if the base metal temperature is below 32(°F).
Over 3/4 thru 1-1/2(in.): 50(°F).
Over 1-1/2 thru 2-1/2(in.): 150(°F).
Over 2-1/2(in.): 225(°F).
See additional information page for further limitations

Republic Testing Labs Representative

Name	Signature
Christian Von Qualen	
Date	
2/20/2023	

Lavaca-Navidad River Authority Representative

Name	Signature
Date	

D1.1 Table 5.1 states:

T51-01.1

Maximum SMAW electrode diameter for flat position:

- fillet (except root passes): 5/16 in. (8.0 mm).
- groove (except root passes): 1/4 in. (6.4 mm).
- root passes: 3/16 in. (4.8 mm).

Maximum SMAW electrode diameter for horizontal position:

- fillet: 1/4 in. (6.4 mm).
- groove: 3/16 in. (4.8 mm).

Maximum SMAW electrode diameter for vertical and overhead position:

- all (except EXX14 and low-hydrogen electrodes): 3/16 in. (4.8 mm).
- EXX14 and low-hydrogen electrodes: 5/32 in. (4.0 mm).

T51-02.1

Maximum current shall be within the range of recommended operation by the filler metal manufacturer.

T51-03.1

Maximum root pass thickness:

- 3/8 in. (10 mm) for Flat,
- 5/16 in. (8 mm) for Horizontal,
- 1/2 in. (12 mm) for Vertical,
- 5/16 in. (8 mm) for Overhead position.

T51-04.1

Maximum SMAW fill pass thickness is 3/16 in. (5 mm).

T51-05.1

Maximum SMAW single-pass fillet weld size:

- 3/8 in. (10 mm) for Flat,
- 5/16 in. (8 mm) for Horizontal,
- 1/2 in. (12 mm) for Vertical,
- 5/16 in. (8 mm) for Overhead position.

D1.1 Table 5.1. end of quote.