



**REQUEST FOR QUOTATION 18-20**  
**BIG ROCK BOAT RAMP DOCK SUPPLY**

**March 19<sup>th</sup>, 2018**

The City of Campbell River invites quotations from qualified proponents for the supply and delivery of a floating dock system.

Work under this contract includes, but is not limited to, all supervision, construction, equipment, labour, material, permits and related items required for the fabrication and delivery of floating dock units and associated components. Also included is the requirement to provide sufficient notice to coordinate the Owner's inspection requirements.

**This RFQ is available electronically by downloading it from the City's website at [www.campbellriver.ca/city\\_services/purchasing/request\\_for\\_proposal.asp](http://www.campbellriver.ca/city_services/purchasing/request_for_proposal.asp)**

This is not a tender. This is a non-binding Request For Quotations. The City reserves the absolute right to negotiate with one or more Proponents as it sees fit. Nothing in this RFQ shall obligate the City to enter into a contract with any person.

This RFQ is scheduled to close at:

**RFQ Closing Time: 3:00 p.m. local time**

**RFQ Closing Date: Thursday April 5<sup>th</sup>, 2018**

**Delivered to:** City of Campbell River City Hall  
301 St. Ann's Road  
1<sup>st</sup> Floor Reception Desk  
Campbell River, BC V9W 4C7  
**ATTN: Clinton Crook – Senior Buyer**

**RFQ Enquiries:** Clinton J. Crook, SCMP, CPSM, Senior Buyer  
Telephone: 250.286.5766, Facsimile: 250.286.5741  
[clinton.crook@campbellriver.ca](mailto:clinton.crook@campbellriver.ca)

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**Supply Management**

301 St. Ann's Road, Campbell River, B.C. V9W 4C7  
Telephone: 250.286.5766; Fax: 250.286.5741  
[clinton.crook@campbellriver.ca](mailto:clinton.crook@campbellriver.ca)



**REQUEST FOR QUOTATION 18-20**  
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**RECEIPT CONFIRMATION FORM**

As receipt of this document, and to directly receive any further information, addendums, etc. regarding this competition, please return this form to:

Clinton J. Crook, SCMP, CPSM,  
Senior Buyer  
Email: [clinton.crook@campbellriver.ca](mailto:clinton.crook@campbellriver.ca)  
Fax: 250.286.5741

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Province/State: \_\_\_\_\_ Postal/Zip Code: \_\_\_\_\_

Telephone No: \_\_\_\_\_ Fax No: \_\_\_\_\_

Primary Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Email: \_\_\_\_\_

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**1.0 Submission Requirements**

- 1.1 Quotations may be submitted via email or in a sealed envelope and addressed to:

City of Campbell River City Hall  
301 St. Ann's Road  
1<sup>st</sup> Floor Reception Desk  
Campbell River, BC  
V9W 4C7

**ATTN: Clinton Crook – Senior Buyer**

Ensure that the RFQ name, number, company name, and return address is labelled on the outside envelope.

- 1.2 Quotations should be received no later than **3:00 p.m., Thursday April 5<sup>th</sup>, 2018**. Quotations will NOT be opened in public.
- 1.3 Quotations received and not conforming to Item 1.2 above, may at the City's discretion, be returned (unopened) to the *Proponent(s)* without consideration.
- 1.4 Quotations submitted via email are to be sent to [clinton.crook@campbellriver.ca](mailto:clinton.crook@campbellriver.ca) **Ensure to state the RFQ name, number and "Submission" in the Subject Line**. Email submissions should be consolidated into one (1) Adobe .PDF virus free file and no larger than 10 MB's.
- 1.5 Quotations submitted to City Hall should include one (1) identical copy preferably in a bound 8½-inch x 11-inch format along with one (1) identical copy on a virus free data storage device (i.e. USB flash drive) in Adobe PDF format. No three-ring binders.
- 1.6 *Proponents* assume the entire risk when submitting a Quotation via email. The *City* will not be liable for any delay or rejection for any reason including but not limited to technological delays or issues caused by any network or email program, rejected as suspected spam, virus, malware, or email not identified in the Subject Line as a submission and being missed. The *City* will not be liable for any damages associated with Quotations not being received or missed.
- 1.7 *Proponents* may choose to provide a completed Receipt Confirmation Form to the Senior Buyer, if they wish to receive any further information, addendums, etc. regarding this Request For Quotation.
- 1.8 *Proponents* are solely responsible for any costs or expenses related to the preparation, submission, and presentation of quotations.
- 1.9 After the closing time and date, all documents received by the *City* become the property of the *City*. The successful *Proponent* will be required to assign any copyright to the *City*. The *City* will have the exclusive rights to copy, edit, and publish the material.

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- 1.10 This quotation is subject to the terms and conditions of the Agreement for Internal Trade, Mash Annex 502.4 and the New West Partnership Trade Agreement between the provinces of B.C., Alberta and Saskatchewan.
- 1.11 Under no circumstances may the *Work* or any part thereof be subcontracted, transferred, or assigned to another firm, person, or company without the prior written authorization of the *City*.
- 1.12 The awarding of a contract as a result of this Request for Quotation will not permit the successful *Proponent* to advertise the relationship with the *City* without the *City's* prior authorization.
- 1.13 If any director, officer or employee agent or other representative of a *Proponent* makes any representation or solicitation to any Councillor, officer or employee of the *City* of Campbell River with respect to the Quotation, whether before or after the submission of the Quotation, the *City* shall be entitled to reject or not accept the Quotation.
- 1.14 All submissions should include Appendix 1, as attached, to clearly show the complete company name, address, telephone number, e-mail address, and name of the primary contact person(s).

**2.0 Definitions**

- 2.1 “*City*” or “*Owner*” means The *City* of Campbell River.
- 2.2 “*Supplier*” means the successful “*Proponent*”.
- 2.3 “*Proponent*” means the entity submitting a quotation.
- 2.4 “*Work*” means and includes anything and everything required to be done for the fulfilment and completion of this agreement.

**3.0 Confidentiality and Freedom of Information**

- 3.1 Your quotation should clearly identify any information that is considered to be of a confidential or proprietary nature (the “Confidential Information”). However, the *City* is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. As a result, while Section 21 of the Act does offer some protection for third party business interests, the *City* cannot guarantee that any Confidential Information provided to the *City* will remain confidential if a request for access in respect of your quotation is made under the *Freedom of Information and Protection of Privacy Act*.

**4.0 Pricing & Payment**

- 4.1 The items listed in the attached Terms of Reference are minimum features to be provided. *Proponents* may also provide separate pricing on additional elements they feel would benefit the *City* in meeting its goal.

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- 4.2 All invoices paid as a result of this Request for Quotation will be paid as per the *City's* standard payment terms "current month's invoices will be paid net 30 days".

**5.0 Cancellation**

- 5.1 The *City* reserves the right to cancel this Request for Quotation at any time and for any reason, and will not be responsible for any loss, damage, cost or expense incurred or suffered by any *Proponent* as a result of that cancellation.
- 5.2 The *City* reserves the right to terminate the Contract, at its sole and absolute discretion, on giving 30 days' written notice to the *Supplier* of such termination and the *Supplier* will have no rights or claims against the *City* with respect to such termination. Cancellation would not, in any manner whatsoever, limit the *City's* right to bring action against the *Supplier* for damages for breach of contract.

**6.0 Accuracy of Information**

- 6.1 The *City* makes no representation or warranty; either expressed or implied, with respect to the accuracy or completeness of any information contained or referred to in this RFQ.

**7.0 Responsibility of Proponent**

- 7.1 Each *Proponent* is responsible for informing themselves as to the contents and requirements of this RFQ. Each *Proponent* is solely responsible to ensure that they have obtained and considered all information necessary to understand the requirements of the RFQ and to prepare and submit their quotation.
- 7.2 The *City* will not be responsible for any loss, damage or expense incurred by a *Proponent* as a result of any inaccuracy or incompleteness in this RFQ, or as a result of any misunderstanding or misinterpretation of the terms of this RFQ on the part of any *Proponent*.
- 7.3 The *City* of Campbell River may at any time prior to the closing date and time issue additional information, clarifications, or modifications to the RFQ by written addenda via the *City* of Campbell River website. Information provided in the addenda shall supersede all previous information provided.
- 7.4 The *City* of Campbell River will endeavour to notify all *Proponents* of any such addenda as may be issued but it is the *Proponent's* sole responsibility to ensure they have reviewed the *City's* website for any addenda issued. By submitting a quotation, the *Proponent* is deemed to have accepted and to abide by all addenda issued.
- 7.5 If a *Proponent* is in doubt as to the true meaning of any part of this Request for Quotation, or finds omissions, discrepancies or ambiguities, a request for interpretation or correction should be submitted to the Senior Buyer, in writing.

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- 7.6 Only the written Request for Quotation and any addenda issued by the Senior Buyer should be relied upon by *Proponents* when preparing and submitting their quotations.
- 7.7 By submitting a quotation, the *Proponent* represents that it has the expertise, qualifications, resources, and relevant experience to perform the *Work*.
- 7.8 *Proponents* should not rely on any dimensions or scales shown on any attached drawings. *Proponents* are responsible for all measurements and to examine the place of work prior to submission.
- 7.9 A site meeting will not be conducted. *Proponents* are responsible to examine the place of work prior to submission. By submitting a quotation, the *Proponent* represents that they have examined the place of work, or specifically elected not to.

**8.0 Enquiries**

- 8.1 All questions and enquiries should be submitted in writing no later than three (3) working days prior to the closing date of the RFQ.
- 8.2 Any questions regarding the submission of quotations should be directed to *Clinton J. Crook, SCMP, CPSM, Senior Buyer* at 250.286.5766 or [clinton.crook@campbellriver.ca](mailto:clinton.crook@campbellriver.ca)

**9.0 References**

- 9.1 Your quotation should identify other projects for which your company has provided similar services. Please provide references stating organization name, contact name, e-mail, phone number, and fax number to support this.
- 9.2 The *City* shall have the right, but not the obligation, to contact any references.

**10.0 Indemnification**

- 10.1 The successful *Supplier* hereby releases and shall indemnify and save harmless the *City*, its officers, employees, officials, agents, *Suppliers* and representatives from and against any and all claims, costs, damages, actions, causes of action, losses, demands, payments, suits and expenses, legal fees or liability arising from:
  - a. errors, omissions or negligent acts of the *Supplier*, its officers, agents, members, employees, *Suppliers* or subcontractors, or any other person for whom the *Supplier* is in law responsible in the performances of the Services;
  - b. the breach, violation or non-performance of this Agreement by the *Supplier*, its officers, agents, members, employees, *Suppliers* or

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subcontractors, or any other person for whom the *Supplier* is in law responsible in the performance of the Services; or

- c. personal injury including death, property damage and loss arising out of, suffered or experienced by any person in connection with or during the provision of the Services under this Agreement, including without limitation WorkSafeBC claims and assessments.

10.2 The release and indemnity contained in section 10.1 shall apply except to the extent that the claims, costs, damages, actions, causes of action, losses, demands, payments, suits, expenses or legal fees or liability arise from the negligence of the *City*, its officers, employees, officials, agents, *Suppliers*, or representatives.

10.3 The *Supplier* is solely responsible for and shall promptly pay all WorkSafeBC premiums and assessments relating to the performance of the Services under this Agreement, whether by the *Supplier*, its officers, agents, members, employees, *Suppliers* or subcontractors, or any other person for whom the *Supplier* is in law responsible.

10.4 The release and indemnity contained in section 10.1 shall survive the termination of this Agreement.

**11.0 Insurance**

11.1 The *Supplier* shall provide and pay for all necessary insurances, licenses, and permits required for the performance of the *Work* and is responsible for any deductible amounts under the policies.

11.2 All insurances, licenses, and permits must remain valid for the term of the *Work*.

**12.0 Declarations**

12.1 In submitting a quotation, the *Proponent* declares that:

- I (we) do not (or any related company) have any family, ownership, and operating relationships with the *City*, or any elected official, staff or other officials holding public office in the *City* and agree that the *City* reserves the right to reject any quotation that may be perceived to be in a conflict of interest.
- I (we) am (are) not or have not:
  - a. an individual who has; or
  - b. an individual who was a shareholder or officer of a company that has; or
  - c. a company that has; or
  - d. a company with a shareholder or officer who has; or
  - e. a company that is, or was a shareholder of a company that is, or was a shareholder of a company that has; or

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- f. a company that has a shareholder or officer who is also a shareholder or officer of another company that has;
- g. had a bid bond retained, or
- h. had all or part of a performance bond retained, or breached a contract with the *City*, or failed to complete its obligations under any prior contract with the *City* (or any other publicly funded jurisdiction or organization in British Columbia), or has been charged or convicted of an offence in respect of a *City* (or any other publicly funded jurisdiction or organization in British Columbia) contract.

**13.0 Timing**

- 13.1 Time is of the essence in carrying out the *Work*. The goods are to be ready for delivery to the site within seventy-five (75) working days of receipt of a Notice to Proceed. The *Supplier* must commence the services in a timely manner and carry out the services in accordance with the completion dates set out in the work plan, or as mutually amended in writing by the *Supplier* and the *City* from time to time.

**14.0 Regulations of Authorities Having Jurisdiction**

- 14.1 All *Work* provided must be in accordance with all laws and regulations pertaining to the *Work*. The laws of the Province of B.C. shall govern this quotation and any subsequent contract resulting from this quotation.
- 14.2 The *Supplier* will be required to enter into an Agreement with the *City*, refer to the attached Draft Agreement.

**15.0 Acceptance**

- 15.1 The *City* will be entitled to conduct such acceptance tests as it considers necessary to verify that the product and service (the *Work*) meets the Specifications. If the product and service meets the Specifications after acceptance testing, the *City* will accept it in writing. If the product and service does not meet the Specifications, the *City* may: reject the *Work*; or accept the *Work*. The *City* will not reject the product and service without first notifying the *Supplier* and giving the *Supplier* a reasonable opportunity to correct any failure of the equipment to meet the Specifications. If the product and service meets the Specifications except that some items of product and service have not yet been delivered, the *City* may accept the product and service but withhold that portion of the purchase price attributable to the product and service not yet delivered.

**16.0 Resolution of Disputes**

- 16.1 If requested in writing by either the *City* or the *Supplier*, the *City* and the *Supplier* shall attempt to resolve any dispute between them arising out of or in connection with this agreement by first entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, if mutually agreed, the



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dispute shall be referred to the arbitration of a single arbitrator, or to three arbitrators failing such an agreement, in which case each party shall appoint one arbitrator, and the first two named shall choose the third arbitrator. Any arbitration shall be conducted in accordance with the Commercial Arbitration Act (British Columbia). The award and determination shall be binding upon the parties hereto and their successors and assigns.

16.2 The cost of arbitration will be borne equally by the parties.

**17.0 Evaluation Criteria Process**

- 17.1 An evaluation committee made up of *City* staff will be reviewing quotation submissions. The evaluation criteria will be applied to all submissions fairly and without bias to any *Proponent* or quotation and the same criteria will be applied to all submissions.
- 17.2 No assumptions should be made that information regarding the *Proponent* or its participants, their experience, expertise and performance on non-*City* projects is known, other than the documentation and responses submitted by the *Proponent* and any relevant documentation between the *City* and the *Proponent* on previous *City* projects.
- 17.3 The *City* reserves the right to conduct pre-selection meetings with *Proponents*. *Proponents* may be requested, as part of the evaluation process, to provide a presentation, which may include a demonstration of their products.
- 17.4 The *City* reserves the right to conduct pre-selection meetings in order to correct, change or adapt the selected quotation to the wishes of the selection committee.
- 17.5 Award of any contract resulting from this RFQ may be subject to available funding, *City* of Campbell River Council approval, and other budget considerations.
- 17.6 *The City* is entitled to accept for consideration any or none of the quotations submitted and will evaluate Quotations based on the “best value” and not necessarily the lowest cost.

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TERMS OF REFERENCE**

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**1. INTRODUCTION**

The *City* of Campbell River invites quotations from qualified proponents for the supply and delivery of a floating dock system.

**2. SCOPE OF WORK**

*Work* under this contract includes, but is not limited to, all supervision, construction, equipment, labour, material, permits and related items required for the fabrication and delivery of floating dock units and associated components. Also included is the requirement to provide sufficient notice to coordinate the *Owner's* inspection requirements.

Substantial performance of this contract is to be achieved within 75 working days from the issuance of the Notice to Proceed.

**3. DEFINITIONS**

**“Contract Administrator”** means the person, firm, or corporation appointed by the *Owner* and identified by the *Owner* in writing to the *Supplier*. The Contract Administrator may be the *Owner's* engineer, other employee, or officer, or may be an outside consultant.

**“First Article Inspection”** means a design verification and design history file and a formal method of providing a reported measurement for a given manufacturing process. Both the *Supplier* and *Owner* perform the First Article Inspection on the ordered product. The evaluation method consists of comparing *Supplier* and *Owner* results from measuring the properties and geometry of an initial sample item against the Contract Documents.

**Part 1 General**

- .1 Section 05 50 00 refers to those portions of the work that are unique to the fabrication, inspection and delivery of floating dock structures. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the works described herein.

**1.1 RELATED REQUIREMENTS**

- .1 None

**1.2 REFERENCE STANDARDS**

- .1 As shown on Contract Drawings

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 – Project Record Documents.
- .2 Canadian Welding Bureau (CWB) Certification
  - .1 Provide proof of certification for the welding shop and for all welders who will undertake the Work.
- .3 Fabrication Schedule
  - .1 Provide a detailed Fabrication Schedule within 5 Days of receiving Notice to Proceed.
  - .2 The Fabrication Schedule is to indicate the planned start and completion dates of the major activities of the Work, and shall indicate completion of the Work in compliance with the terms of the Contract Documents.
  - .3 At a minimum, the Fabrication Schedule is to show:
    - .1 Lead times for material order and delivery;
    - .2 Major work activities;
    - .3 All Owner required inspections as specified in Paragraph 1.4.2 of this Section; and
    - .4 Final delivery date to the location specified in Paragraph 3.2.1 of this Section.
  - .4 If the Supplier submits a Fabrication Schedule indicating that one or more milestone dates will not be met, submission of such Fabrication Schedule will not relieve the Supplier if its obligation to meet the Milestone Dates.
- .4 Shop Drawings:
  - .1 Sealed shop drawings are included in the Contract Documents. The Supplier is not required to submit shop drawings.

**1.4 QUALITY ASSURANCE**

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.

- .1 Certifications: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements. for the following materials:
  - .1 Steel
  - .2 Aluminum
  - .3 HDPE Pipe
- .2 Provide 72hrs notice to Contract Administrator when the following Engineering Inspections are to be undertaken by the Owner's representative:
  - .1 First Article Inspection (welded frame only)
  - .2 Pre-Galvanizing Inspection
  - .3 Post-Galvanizing Inspection (before materials leave the galvanizing shop)
  - .4 Pre-shipping Inspection
  - .5 Post-shipping Inspection

## **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with this Section.
- .2 Delivery and Acceptance Requirements:
  - .1 Deliver materials to site in accordance with paragraph 3.2 TRANSPORTATION & DELIVERY.
  - .2 Items will only be accepted upon completion of all deficiencies identified as part of the post-delivery inspection by the Owner's representative.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground on dunnage. Maximum stacking allowed is 3 units tall.
  - .2 Replace defective or damaged materials with new.

## **1.6 PAYMENT**

- .1 Payment for Floats includes all work and materials necessary to fabricate and deliver the floats as specified on the Contract Drawings and within this Section. Payment will be made in accordance with Paragraph 2.0 of the Agreement.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Steel sections and plates: as shown on Contract Drawings.
- .2 Steel shapes: as shown on Contract Drawings
- .3 Steel pipe: as shown on Contract Drawings.
- .4 Welding materials: as shown on Contract Drawings.
- .5 Welding electrodes: as shown on Contract Drawings.
- .6 Bolts and anchor bolts: as shown on Contract Drawings.

- .7 HDPE pipe: as shown on Contract Drawings
- .8 UHMW Polyethylene: as shown on Contract Drawings
- .9 Timber: as shown on Contract Drawings

## **2.2 FABRICATION**

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Fit and shop assemble work, ready for installation by others.

## **2.3 FINISHES**

- .1 Galvanizing: as shown on Contract Drawings.

## **Part 3 Execution**

### **3.1 ERECTION - GENERAL**

- .1 Not Used. Items to be installed by others under a separate contract.

### **3.2 TRANSPORTATION & DELIVERY**

- .1 Items are to be delivered to **883 South Island Highway**, Campbell River, BC by 5 Days prior to the date of Substantial Performance.
  - .1 Pile guides, transition ramp and end float feet to be shipped loose complete with all components (bolts, pins etc), in boxes / packaging clearly identifying the number and type of components, as well as the associated float (if applicable).
  - .2 Floats to be shipped fully assembled with the exception of the items in paragraph 3.2.1.
- .2 Protect products and components from damage during transportation and delivery.
- .3 Repair damage to products and components caused by transportation and delivery.

**END OF SECTION 05 50 00**

## 1.0 GENERAL

### 1.1 Categories of Submittals

- .1 General requirements and detailed Specifications require various submissions to demonstrate that materials, equipment, methods, and work comply with the provisions and intent of the Contract Documents. Submittals fall into two general categories:
  - a) Submittals for Review.
  - b) Submittals for Information Only.
- .2 Provide submittals in accordance with this section and as specified in the various technical sections contained throughout the Specifications and Supplemental Specifications.
- .3 The *CONTRACT ADMINISTRATOR* may require additional submittals from the SUPPLIER when, in the opinion of the *CONTRACT ADMINISTRATOR*, such additional submittals are warranted.

### 1.2 Administration

- .1 Submittals covered by these requirements include manufacturers' information and data sheets, descriptive data, certificates, product data, shop drawings, test procedures, test results, samples, requests for substitutions, all mechanical, electrical and electronic equipment and systems, fabricated items, piping and miscellaneous work-related submittals.
- .2 Adjustments made on shop drawings or other submittals by the *CONTRACT ADMINISTRATOR* are not intended to change the Contract Price. If adjustments affect the value of work, state such in writing to the *CONTRACT ADMINISTRATOR* prior to proceeding with the work.
- .3 Provide to *CONTRACT ADMINISTRATOR* for review the submittals specified. Submit all information promptly and in an orderly sequence so as to not cause delay in the Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract time and no claim for extension by reason of such default will be allowed.
- .4 Include the projected dates for Submissions of Submittals for Review in the Construction Schedule specified in Supplementary Specification 01 31 00
- .5 Do not proceed with work affected by any submittal until review is complete. Normally, submittals for review and comment will be returned to the SUPPLIER within 15 days, 30 days for substitution, exclusive of any time awaiting clarification or further information; however, the time for returns will necessarily vary and may exceed 15 days depending upon the complexity of the submittal, the number of submittals, and the express needs of the SUPPLIER.
- .6 Review submittals prior to submission to the *CONTRACT ADMINISTRATOR*. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with the requirements of the Work and the Contract Documents. Submittals not stamped,

- signed, dated and identified by the SUPPLIER will be returned without being examined and will be considered rejected.
- .7 Clearly edit submittal documents to indicate only those items, models, or series of equipment, which are being submitted for review. Cross out or otherwise obliterate all extraneous materials.
  - .8 Ensure that there is no conflict with other submittals.
  - .9 Coordinate submittals among subcontractors and suppliers.
  - .10 Coordinate submittals with the Work so that work will not be delayed and schedule different categories of submittals, so that one will not be delayed for lack of coordination with another.
  - .11 The SUPPLIER is responsible for the accuracy and completeness of information submitted. Notify *CONTRACT ADMINISTRATOR* in writing of materials, equipment or methods of work which deviate from the Contract Documents. Notification in writing, to accompany submittal transmittal and noted under deviations.
  - .12 The SUPPLIER's responsibility for errors, omissions and deviations in submission is not relieved by the *CONTRACT ADMINISTRATOR*'s review of submittals.
  - .13 Keep one reviewed copy of each submission on site.
  - .14 Detail all shop drawings and data sheets using the metric system. Prepare to a drafting standard equivalent to the Contract Drawings.
  - .15 Shop drawings and data sheets indicating modified design requirements or design requirements not included in the Contract Documents require the seal of a qualified Professional Engineer, registered in the Province of British Columbia.

### 1.3 Transmittal Procedure

- .1 Accompany all submittals with transmittal form 01 33 00-A attached.
- .2 Use a separate form for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required. Identify Contract Document, equipment numbers, equipment descriptors, drawing numbers, and Specification Sections for each submittal and item in each submittal.
- .3 Identify submittal documents common to more than one piece of equipment with all the appropriate equipment numbers.
- .4 Use a single form for submittals for various items when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.
- .5 Note a unique number, sequentially assigned, on the transmittal form accompanying each item submitted. Submittals will be classified according to categories agreed to by the SUPPLIER and *CONTRACT ADMINISTRATOR*. Use the following format by category for submittal numbers: "XXX", where "XXX" is the sequential number assigned by the SUPPLIER. Resubmittals will have the following format: "XXX-Y", where "XXX" is the originally assigned submittal number and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd, and 3rd resubmittals, respectively. Submittal 25B, for example, is the second resubmittal of submittal 25.

#### 1.4 Submittals for Review

- .1 All submittals, except where specified to be submitted for information only, to be submitted by the SUPPLIER to the *CONTRACT ADMINISTRATOR* for review. Provide submittals for review for all equipment and material substitutions, alternatives or deviations from that specified.
- .2 Submittals which do not have all the information required to be submitted, including notation of all deviations from the Contract requirements, are not acceptable and will be returned without review.
- .3 Review by the *CONTRACT ADMINISTRATOR* is for the sole purpose of ascertaining conformance with the general design concept in accordance with the Specifications. This review does not mean that the *CONTRACT ADMINISTRATOR* approves the detail design inherent in the submittals, shop drawings and data sheets, responsibility for which remains with the SUPPLIER, and such review does not relieve the SUPPLIER of responsibility for errors or omissions in the shop drawings and data sheets or of responsibility for meeting all requirements of the Contract Documents. The SUPPLIER is responsible for dimensions to be confirmed and correlated at the job-site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.
- .4 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of the section under which the adjacent items will be supplied and installed. Indicate cross references to Contract Drawings and Specifications.
- .5 Submit 3 copies of submittals, except where other quantities are specified, including shop drawings for each requirement requested in Specification sections and as the *CONTRACT ADMINISTRATOR* may reasonably request. Electronic submissions are acceptable in a PDF format as long as they are accompanied by the required transmittal form.
- .6 Submittals for review will be returned to the SUPPLIER with one of the four following notations:
  - a) If the review indicates that the material, or equipment complies with the Contract Documents, submittal copies will be marked "Reviewed". In this event, the SUPPLIER may begin to implement the work method or incorporate the material or equipment covered by the submittal.
  - b) If the review indicates limited modifications are required, copies will be marked "Reviewed as Modified". The SUPPLIER may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in operation and maintenance data, provide a corrected copy.



- c) If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "Revise and Resubmit". Do not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "Reviewed" or "Reviewed as Modified".
  - d) If the review indicates that the material, equipment, or work method does not comply with the Contract Documents, copies of the submittal will be marked "Rejected - See Remarks". Submittals with deviations which have not been identified clearly may be rejected. Do not undertake the work covered by such submittals until a new submittal is made and returned marked either "Reviewed" or "Reviewed as Modified".
- .7 After submittals are stamped "Reviewed" or "Reviewed as Modified", no further revisions are permitted unless re-submitted to the *CONTRACT ADMINISTRATOR* for further review.
  - .8 If upon review by the *CONTRACT ADMINISTRATOR*, no errors or omissions are discovered or if only minor corrections are made, 1 copy will be returned and fabrication and installation of work may proceed. If shop drawings and data sheets are rejected, noted copy and 1 unmarked copy will be returned and resubmission of corrected shop drawings and data sheets, through the same procedure indicated above, to be performed before fabrication and installation of work may proceed.
  - .9 The *OWNER* may deduct, from payments due to *SUPPLIER*, costs of additional Engineering reviews incurred if shop drawings and data sheets are not corrected after one (1) review by *CONTRACT ADMINISTRATOR*.

### 1.5 Submittals for Information Only

- .1 Where specified, furnish submittals to the *CONTRACT ADMINISTRATOR* for information only at least 30 days prior to commencement of the work covered by the submittal. Submittals for information only will be used by the *CONTRACT ADMINISTRATOR* for general information and filed without comment. The *CONTRACT ADMINISTRATOR* retains the right to return submittals for information only if the submittal does not comply with the Contract Documents and general design criteria.
- .2 Submittals for information only are not subject to review procedures. They are to be provided as part of the Work under the Contract and their acceptability determined under normal inspection procedures.
- .3 Submit 3 copies of information only submittals including product data, manufacturer's standard data sheets or brochures for requirements requested in Specification Sections and as the *CONTRACT ADMINISTRATOR* may reasonably request where shop drawings will not be prepared due to standardized manufacture of product.
- .4 Where specified submit engineering calculations sealed by a qualified Professional Engineer, for information only.

### 1.6 Request for Substitution

- .1 Make requests for substitution by written application accompanied with sufficient information to permit the *CONTRACT ADMINISTRATOR* to identify the nature and scope of the request.
- .2 Follow submittal procedures and submit 3 copies of all information for each substitution request.
- .3 Upon receipt of written application for substitution from the SUPPLIER, including the specific information specified, the *CONTRACT ADMINISTRATOR* will estimate the cost and time requirement of evaluating the request and present the estimates to the SUPPLIER. The SUPPLIER is advised that the estimates are based upon the best information available to the *CONTRACT ADMINISTRATOR* at the time; however, the actual cost, based on time and expense, will be documented and applied in the final analysis of the substitution request.
- .4 If the SUPPLIER wishes the *CONTRACT ADMINISTRATOR* to continue the review of the request, advise the *CONTRACT ADMINISTRATOR* in writing and submit sufficient additional information as may be requested by the *CONTRACT ADMINISTRATOR*. No evaluation will take place until such time as the SUPPLIER has agreed to the estimate in writing and has authorized the *CONTRACT ADMINISTRATOR* to deduct the cost of the evaluation from monthly progress payments due the SUPPLIER.

## 2.0 PRODUCTS

- .1 Not Used

## 3.0 EXECUTION

- .1 Not Used

**01 33 00-A SUBMITTAL TRANSMITTAL FORM:**

Submittal Description: \_\_\_\_\_ Submittal No:<sup>1</sup> \_\_\_\_\_

Spec Section: \_\_\_\_\_

TO: ATTN:	Routing	Sent	Received
OWNER:	Supplier/CM		
PROJECT:	CM/DECS		
	DECS/CM		
SUPPLIER:	CM/Supplier		

- We are sending you
- Attached
  - Under separate cover via
  - Submittals for Review (RVU)
  - Submittals for information only (INF)
  - Substitution (SUB)
  - Operation & Maintenance Information (O&M)

Remarks: \_\_\_\_\_

Item	Copies	Date	Section No.	Description	Review action <sup>a</sup>	Reviewer initials	Review comments attached

<sup>a</sup> Attach additional sheets if necessary. REV= Reviewed; RAM= Reviewed as Modified; RAR= Revise and Resubmit; REJ= Rejected

**Supplier**

Certify either A or B:

- A. We have verified that the material or equipment contained in this submittal meets all the requirements, including coordination with all related work, specified (no exceptions).
- B. We have verified that the material or equipment contained in this submittal meets all the requirements specified except for the attached deviations.

No.

Deviation

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Certified by:

\_\_\_\_\_  
 Supplier's Signature

<sup>1</sup>See Clause 01 30 00-1.3, Transmittal Procedure.





**CITY OF CAMPBELL RIVER  
 REQUEST FOR QUOTATION 18-20  
 BIG ROCK BOAT RAMP DOCK SUPPLY  
 OFFER FORM**

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**APPENDIX 1  
 OFFER FORM**

The *Proponent* offers to perform all of the *Work* in accordance with the terms and conditions of this RFQ and accept payment at the rates as specified in this Offer Form. The *Proponent* declares that all information, which is provided or will be provided to the *City of Campbell River* is true and understands and agrees to be bound by the contract documents.

**Offer prices shall be in Canadian dollars (CAD) and shall include all duties and taxes, including provincial sales taxes, with the exception of GST which shall be shown separately.**

<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Price</u>
Boat Ramp Dock Supply	1	Lump Sum	\$
Sub-Total:			\$
GST:			\$
<b>Grand Total:</b>			<b>\$</b>

**The Proponent is to include any proposed terms of payment in the section listed below. These proposed terms of payment should be valued and sensibly aligned with the fabrication, delivery and installation steps of this Supply Agreement and are subject to negotiation with the Owner.**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
OFFER FORM**

---

Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Province/State: \_\_\_\_\_ Postal/Zip Code: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ Fax No: \_\_\_\_\_

Primary Contact: \_\_\_\_\_

Title: \_\_\_\_\_

Email: \_\_\_\_\_

Signature: \_\_\_\_\_





**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
OFFER FORM**

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**APPENDIX 3**

**CURRENT PROJECTS UNDERWAY**

<b>PROJECT</b>	<b>OWNER/ CONTRACT NAME</b>	<b>PHONE NUMBER</b>	<b>WORK DESCRIPTION</b>	<b>VALUE (\$)</b>	<b>% COMPLETE</b>

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

---

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2018

**REFERENCE: RFQ 18-20**

**CONTRACT: BIG ROCK BOAT RAMP DOCK SUPPLY**

**BETWEEN:**

**City of Campbell River**

301 St. Ann's Road  
Campbell River, B.C.  
V9W 4C7

(the "City")

**AND:**

**TBD**

(the "Supplier")

- A. The City requires the professional services of the Supplier and desires to engage the Supplier to perform the services set out in this Agreement.
- B. The Supplier has agreed to perform the services in accordance with the terms and conditions of this Agreement.

In consideration of the terms, covenants and conditions of this Agreement, the City and the Supplier agree as follows:

**1.0 SUPPLIER'S SERVICES TO THE CITY**

- 1.1 The Supplier must provide and is responsible for the Services outlined in a work plan submitted to the City by the Supplier in response to the Request for Quotation (the "Quotation") attached hereto as Schedule "A" and forming an integral part of this Agreement in the amount of \$XXXXXXX, excluding GST.
- 1.2 If there is any inconsistency or conflict between the provisions of the contract documents then the contract documents shall govern and take precedence in the following order with the Agreement taking precedence over all other contract documents:
  - a. The Agreement between the City and Supplier;
  - b. The Supplier's submitted quotation and pricing;
  - c. The City's Request For Quotation and all addenda's;
  - d. All other contract documents.
- 1.3 The Supplier may engage professional sub-contractors for the performance of specific tasks forming part of the Services, as approved in writing by the City. The sub-contractors may not be replaced without the prior written consent of the City.

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

---

- 1.4 The Supplier must administer, coordinate, and manage all Services of sub-contractors, and is responsible for all work performed by the sub-contractors in relation to the Services and will pay all fees and disbursements of all sub-contractors.
- 1.5 The Supplier must perform the Services:
- a) with that degree of care, skill and diligence normally applied in the performance of services of a similar nature; and
  - b) in accordance with current professional practices with all applicable trade associations and organizations; and
  - c) in conformance with the latest design standards and codes applicable at the time of design.
- 1.6 The Supplier must furnish all personnel required to perform the services, and all personnel must be competent and qualified to perform the Services.
- 1.7 Where specific personnel have been proposed by the Supplier for the performance of the Services, and have been accepted by the City, the personnel may not be replaced without the prior written consent of the City.
- 1.8 The Supplier must commence the services in a timely manner and work in a continuous manner until all works are completed and carry out the Services in accordance with the completion dates set out in the work plan, or as mutually amended in writing by the Supplier and the City from time to time.
- 2.0 BASIS OF PAYMENT TO THE SUPPLIER**
- 2.1 In consideration of the Services performed by the Supplier to the satisfaction of the City, the City will pay the Supplier the fees and reimbursable expenses as prescribed in this agreement.
- 2.2 Payment to the Supplier will be mutually agreed and as specified on the submitted Appendix 1 Offer Form and shall not exceed the budget without prior written authorization from the City.
- 2.3 The City may holdback **ten percent (10%)** of the contract value to be paid to the Supplier upon the City's acceptance of the satisfactory completion of the Work and contract requirements.
- 2.4 The limit on the fees to be paid by the City to the Supplier does not diminish the duties and obligations of the Supplier to provide the Services.
- 2.5 All other expenses not listed above are considered to be included in the Supplier's fees.
- 2.6 The Supplier shall submit invoices to the City representative or delegate as per the Payment Terms in Appendix 1.

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

---

2.7 If the City approves the amount of an invoice, the City will cause the invoice to be paid on or before the 15th day of the month following receipt and approval of the invoice.

**3.0 CHANGES TO SCOPE OF SERVICES**

3.1 The City may at any time vary the scope of work to be provided by the Supplier.

3.2 If the Supplier considers that any request or instruction from the City constitutes a change in the scope of the Services, the Supplier must advise the City within ten (10) days in writing.

3.3 Without written advice within the time period specified, the City is not obligated to make any payments for additional fees to the Supplier.

**4.0 INDEMNIFICATION**

4.1 The successful Supplier hereby releases and shall indemnify and save harmless the City, its officers, employees, officials, agents, contractors and representatives from and against any and all claims, costs, damages, actions, causes of action, losses, demands, payments, suits and expenses, legal fees or liability arising from:

- a. errors, omissions or negligent acts of the Supplier, its officers, agents, members, employees, contractors or subcontractors, or any other person for whom the Supplier is in law responsible in the performances of the Services;
- b. the breach, violation or non-performance of this Agreement by the Supplier, its officers, agents, members, employees, contractors or subcontractors, or any other person for whom the Supplier is in law responsible in the performance of the Services; or
- c. personal injury including death, property damage and loss arising out of, suffered or experienced by any person in connection with or during the provision of the Services under this Agreement, including without limitation WorkSafeBC claims and assessments.

4.2 The release and indemnity contained in the previous section shall apply except to the extent that the claims, costs, damages, actions, causes of action, losses, demands, payments, suits, expenses or legal fees or liability arise from the negligence of the City, its officers, employees, officials, agents, contractors, or representatives.

4.3 The Supplier is solely responsible for and shall promptly pay all WorkSafeBC premiums and assessments relating to the performance of the Services under this Agreement, whether by the Supplier, its officers, agents, members, employees, contractors or subcontractors, or any other person for whom the Supplier is in law responsible.

4.4 The release and indemnity contained in this section shall survive the termination of this Agreement.

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

---

**5.0 INSURANCE & DOCUMENTATION**

5.1 The Supplier shall provide and pay for all necessary insurances, licenses, and permits required for the performance of the Work and is responsible for any deductible amounts under the policies.

5.2 All insurances, licenses, and permits must remain valid for the term of the Work.

**6.0 CITY APPROVALS**

6.1 No reviews, approvals or inspections carried out or information supplied by the City or its employees derogate from the duties and obligations of the Supplier, with respect to the services, and all responsibility for the services is to the Supplier.

**7.0 TERMINATION**

7.1 At any time, in its sole judgment, the City may terminate the services of the Supplier in whole or part by giving 30 days written notice to the Supplier.

7.2 If termination is not for cause, the Supplier shall be paid at the rate prescribed for all services properly performed to the date of the delivery of the notice according to the terms of this Agreement, plus necessary and reasonable wind up costs incurred, if any, in closing out the Services or the part terminated.

7.3 At any time, in its sole judgment, the City may instruct the Supplier to terminate the services of any sub-contractor appointed a role under the Services Agreement, in whole or part by giving 30 days written notice to the Supplier. In this case, the Supplier will implement a suitable replacement, to the approval of the Owner, in the same 30 days.

**8.0 CONFIDENTIALITY**

8.1 The Supplier acknowledges that in performing the Services required under this Agreement, it will acquire information about certain matters which is confidential to the City, and the information is the exclusive property of the City.

8.2 The Supplier undertakes to treat as confidential all information received by reason of its position as Supplier, and agrees not to disclose it to any third party either during performance of the Services or after the Services have been rendered under this Agreement.

**9.0 TIMING**

9.1 Time is of the essence in carrying out the Work. The goods are to be delivered to the site within 75 working days of receipts of a Notice to Proceed. The Supplier must commence the services in a timely manner and carry out the services in accordance with the completion dates set out in the work plan, or as mutually amended in writing by the Supplier and the City from time to time.

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

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**10.0 CONSTRUCTION ASSOCIATION POLICIES**

- 10.1 The City is not a member of the Public Construction Council of British Columbia, the British Columbia Construction Association or any other construction association.
- 10.2 The City does not adopt or agree to be bound by “The Procedures and Guidelines Recommended For Use on Publicly Funded Construction Projects” produced by the Public Construction Council of British Columbia, September 1989 or any other procedure/guideline recommended, adopted or produced by any construction association in the competition process and award of the Contract of this project.

**11.0 REGULATIONS OF AUTHORITIES HAVING JURISDICTION**

- 11.1 All Work provided must be in accordance with all laws and regulations pertaining to the Work. The laws of the Province of B.C. shall govern this quotation and any subsequent contract resulting from this quotation.

**12.0 ACCEPTANCE**

- 12.1 The City will be entitled to conduct such acceptance tests as it considers necessary to verify that the product and service (the Work) meets the Specifications. If the product and service meets the Specifications after acceptance testing, the City will accept it in writing. If the product and service does not meet the specifications the City may: reject the Work; or accept the Work. The City will not reject the product and service without first notifying the Supplier and giving the Supplier a reasonable opportunity to correct any failure of the equipment to meet the Specifications. If the product and service meets the Specifications except that some items of product and service have not yet been delivered, the City may accept the product and service but withhold that portion of the purchase price attributable to the product and service not yet delivered.

**13.0 RESOLUTION OF DISPUTES**

- 13.1 This Agreement shall be governed by the laws of the Province of British Columbia.
- 13.2 If requested in writing by either the City or the Supplier, the City and the Supplier shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by first entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, if mutually agreed, the dispute shall be referred to the arbitration of a single arbitrator, or to three arbitrators failing such an agreement, in which case each party shall appoint one arbitrator, and the first two named shall choose the third arbitrator. Any arbitration shall be conducted in accordance with the Commercial Arbitration Act (British Columbia). The award and determination shall be binding upon the parties hereto and their successors and assigns.
- 13.3 The cost of arbitration will be borne equally by the parties.

**CITY OF CAMPBELL RIVER  
REQUEST FOR QUOTATION 18-20  
BIG ROCK BOAT RAMP DOCK SUPPLY  
DRAFT AGREEMENT**

---

**14.0 NOTICES**

14.1 Communications among the *Owner* and the *Consultant*, including all written notices required by the agreement, may be delivered by hand, e-mail, fax, or by pre-paid registered mail to the addresses as set out below:

The *Owner*:                      City of Campbell River  
   301 St. Ann's Road  
   Campbell River, BC V9W 4C7  
**Attention:** Jason Hartley, P.Eng., Capital Works Manager  
**E-mail:** [jason.hartley@campbellriver.ca](mailto:jason.hartley@campbellriver.ca)

The *Supplier*: TBD

**The City of Campbell River**

\_\_\_\_\_  
AUTHORIZED SIGNATORY

\_\_\_\_\_  
WITNESS

**Supplier**

\_\_\_\_\_  
AUTHORIZED SIGNATORY

\_\_\_\_\_  
WITNESS

**SCHEDULE 2**

**List of Contract Drawings**

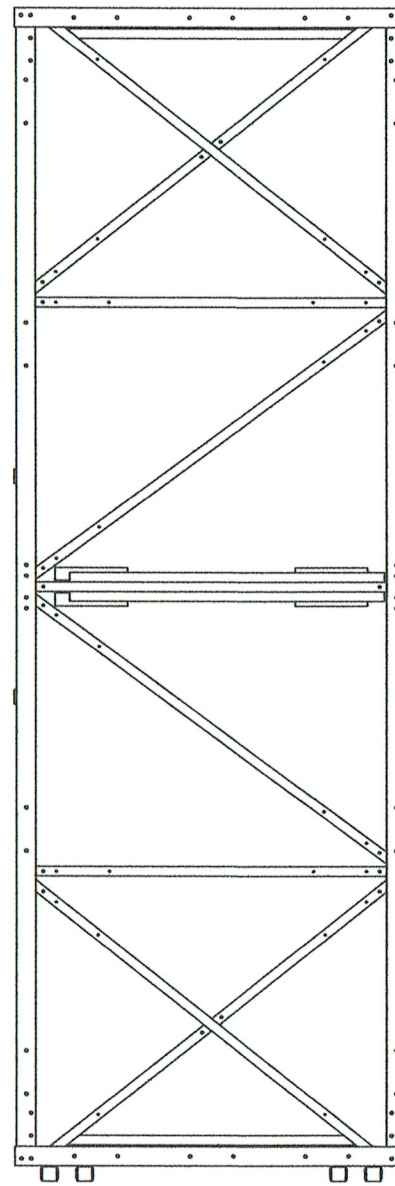
**Complete listing of all drawings, plans and sketches which are to form a part of this Contract,  
other than Standard Detail Drawings and Supplementary Standard Detail Drawings**

<b>TITLE</b>	<b>DRAWING NO.</b>	<b>SHEET NO.</b>	<b>DATE</b>	<b>REVISION DATE</b>	<b>REVISION</b>
As listed per sheet	395-300	1-11	2/03/2018		A
As listed per sheet	395-400	1-26	2/03/2018		A
As listed per sheet	395-1000	1-4	2/03/2018		A

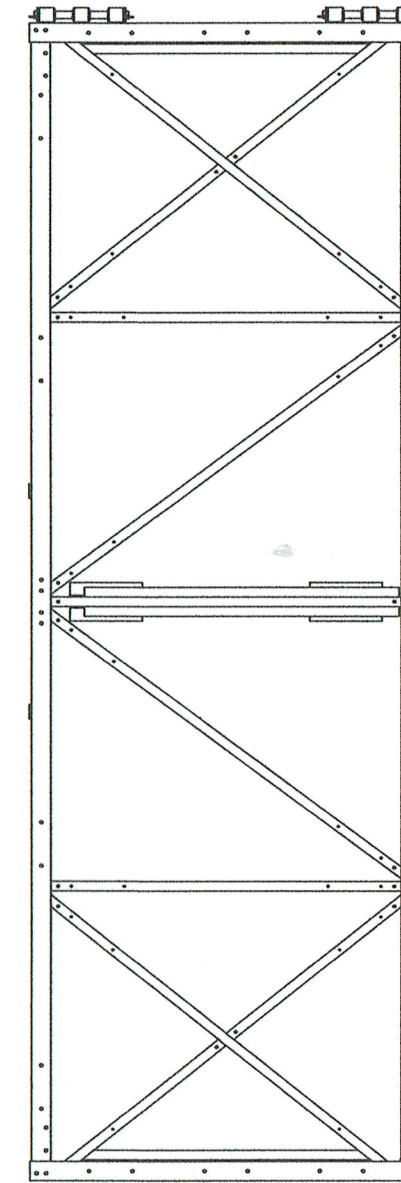


GENERAL NOTES AND SPECIFICATIONS

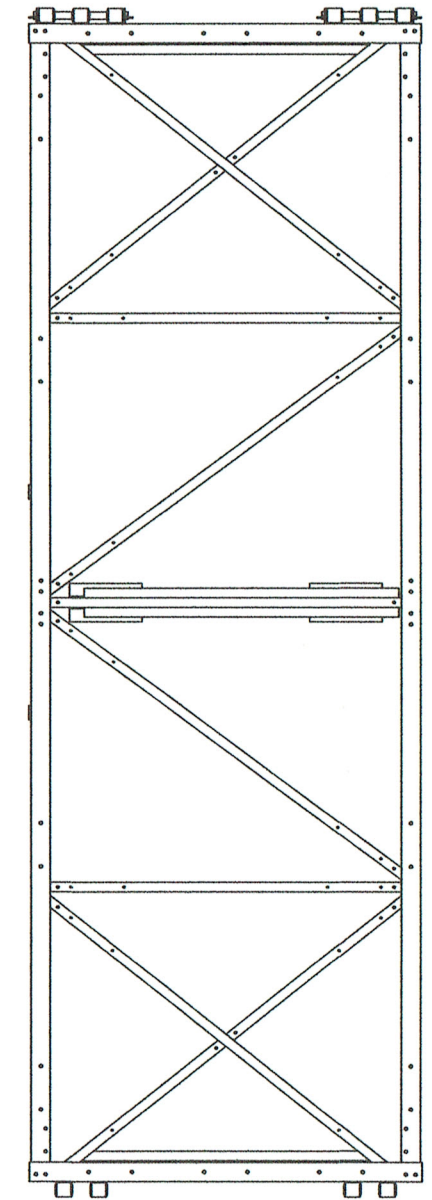
1. ALL STEEL PLATE 44W/300W AND STEEL SHAPES 50W/350W UNLESS NOTED (CSA G40.20/G40.21).
2. HOT DIP GALVANIZED (ASTM A123).
3. REFER TO AMERICAN GALVANIZERS ASSOCIATION "DESIGN GUIDE" FOR VENTING HOLES LOCATION AND SIZE
4. WELDING SHALL ONLY BE UNDERTAKEN BY A COMPANY CERTIFIED BY THE CANADIAN WELDING BUREAU (CWB) TO THE REQUIREMENTS OF CSA 47.1 (LATEST EDITION) IN DIVISION 1 OR 2. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AND MEET THE QUALITY REQUIREMENTS OF CSA W59 (LATEST EDITION).  
ALL WELDERS EMPLOYED BY THE COMPANY SHALL HOLD VALID QUALIFICATIONS ISSUED BY THE CWB.  
ALL WELDING SHALL BE DONE IN ACCORDANCE WITH WELDING PROCEDURES APPROVED BY THE CWB
5. FRAMES ARE IDENTICAL EXCEPT FOR HINGE CONFIGURATIONS



FRAME 1  
SCALE 1:40



FRAME 2  
SCALE 1:40



FRAME 3  
SCALE 1:40

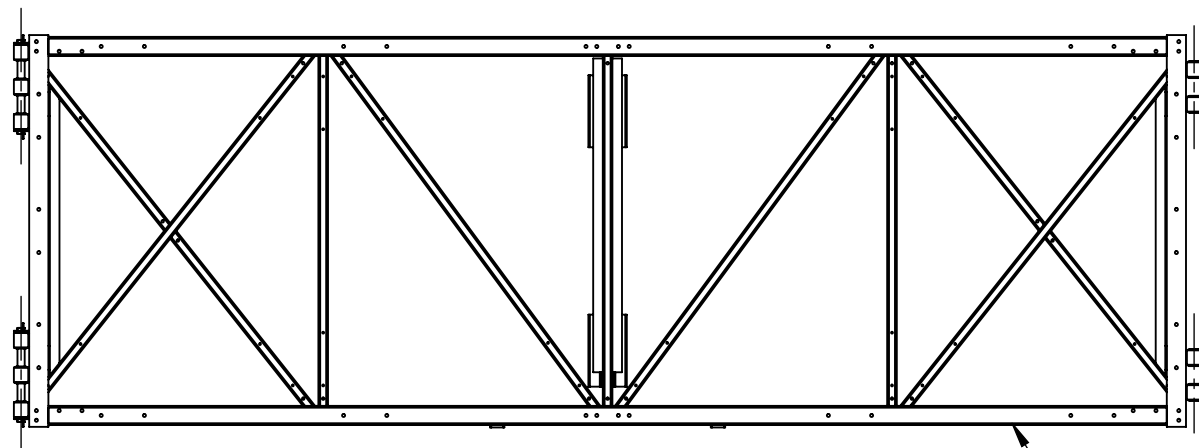


A	ISSUED FOR TENDER	2/03/2018	JK
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			
DIMENSIONS IN INCHES	SHEET SIZE B (11x17)	DRAWN BY J KING	DATE (dd/mm/yyyy) 26/02/2018

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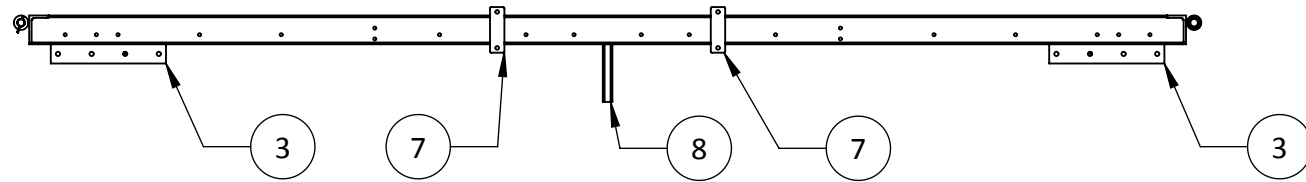
CLIENT	CITY OF CAMPBELL RIVER		CR Engineering Inc.	
PROJECT	BIG ROCK BOAT RAMP		TITLE: FRAME WELDMENT CONFIGURATIONS	
	PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
	395	395-300	1 OF 11	A

ITEM No.	PART No.	DESCRIPTION	FRAME 1/QTY.	FRAME 2/QTY.	FRAME 3/QTY.	MATERIAL
1	395-131	FRAME WELDMENT	1	1	1	50W/350W
2	395-138	MOUNTING PLATE INNER	3	4	4	44W/300W
3	395-136	MOUNTING PLATE OUTER	4	4	4	44W/300W
4	395-54	HINGE TWO - ANGLE END	2	-	2	A513 DOM
5	395-59	HINGE THREE - ANGLE END	-	2	2	A513 DOM
6	395-241	PIPE END STOP	4	4	4	44W/300W
7	395-168	PILE HOOP MOUNT PLATE	2	2	2	44W/300W
8	395-242	PIPE MID-SUPPORT	2	2	2	50W/350W

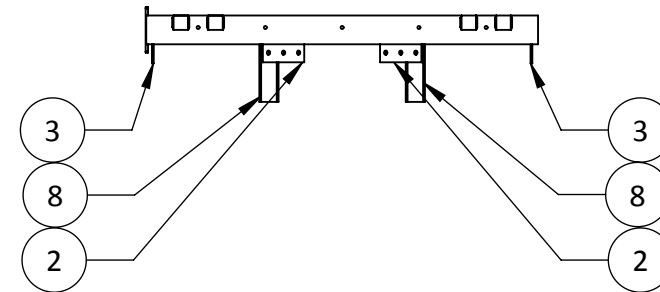


FRAME WELDMENT TOP VIEW  
SCALE 1:40

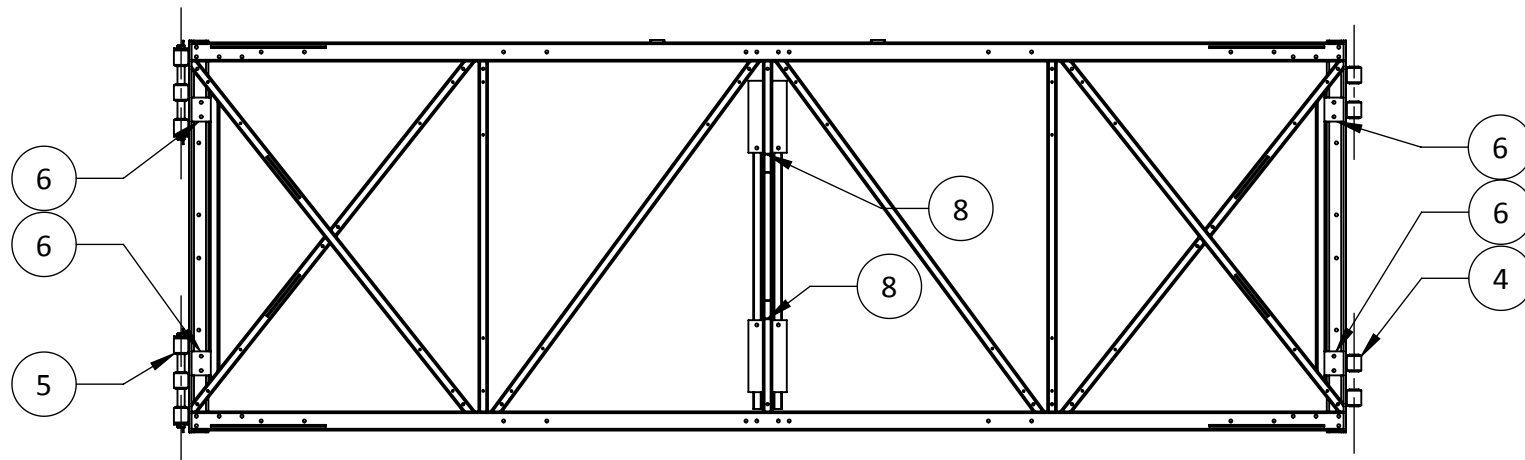
1



FRAME WELDMENT SIDE VIEW  
SCALE 1:40



FRAME WELDMENT END VIEW  
SCALE 1:40



FRAME WELDMENT BOTTOM VIEW  
SCALE 1:40

DIMENSIONS ASME Y14.5M  
 X/X = ± 1/8"  
 .X = ± 0.1"  
 .XX = ± 0.01"  
 .XXX = ± 0.001"  
 ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 26/02/2018

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CLIENT  
**CITY OF CAMPBELL RIVER**

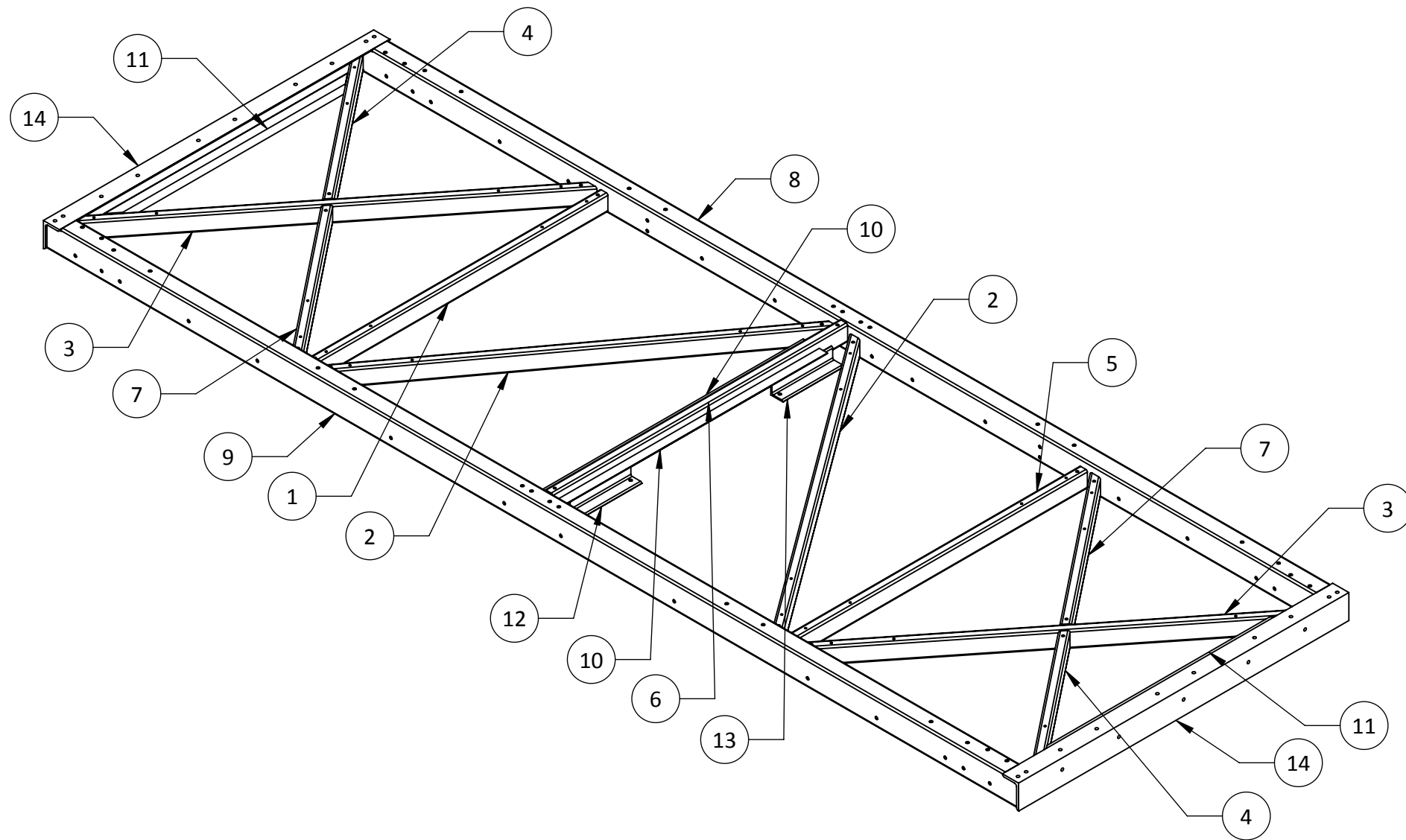
PROJECT  
**BIG ROCK BOAT RAMP**

**CR Engineering Inc.**

TITLE:  
**FRAME WELDMENT CONFIGURATIONS BOM**

PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-300	2 OF 11	A

NOTE - SEAL WELDS 1/4" FILLET TYPICAL



ITEM No.	QTY.	LENGTH	Description	TOTAL LENGTH
1	1	72 7/8"	HSS 4 x 2 x 3/16	774 5/8"
2	2	92"	HSS 4 x 2 x 3/16	774 5/8"
3	2	93 13/16"	HSS 4 x 2 x 3/16	774 5/8"
4	2	45 11/16"	HSS 4 x 2 x 3/16	774 5/8"
5	1	72 7/8"	HSS 4 x 2 x 3/16	774 5/8"
6	1	72 7/8"	HSS 4 x 2 x 3/16	774 5/8"
7	2	46 1/2"	HSS 4 x 2 x 3/16	774 5/8"
8	1	240"	HSS 6 x 4 x 3/16"	480"
9	1	240"	HSS 6 x 4 x 3/16"	480"
10	2	65 3/8"	L 2 x 2 x 1/4	250 13/16"
11	2	60 1/16"	L 2 x 2 x 1/4	250 13/16"
12	2	15"	L3x3 x 5/16"	60"
13	2	15"	L3x3 x 5/16"	60"
14	2	81 5/8"	L6x4 x 1/2	163 1/4"

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH    DRAWN BY J KING    DATE 26/02/2018

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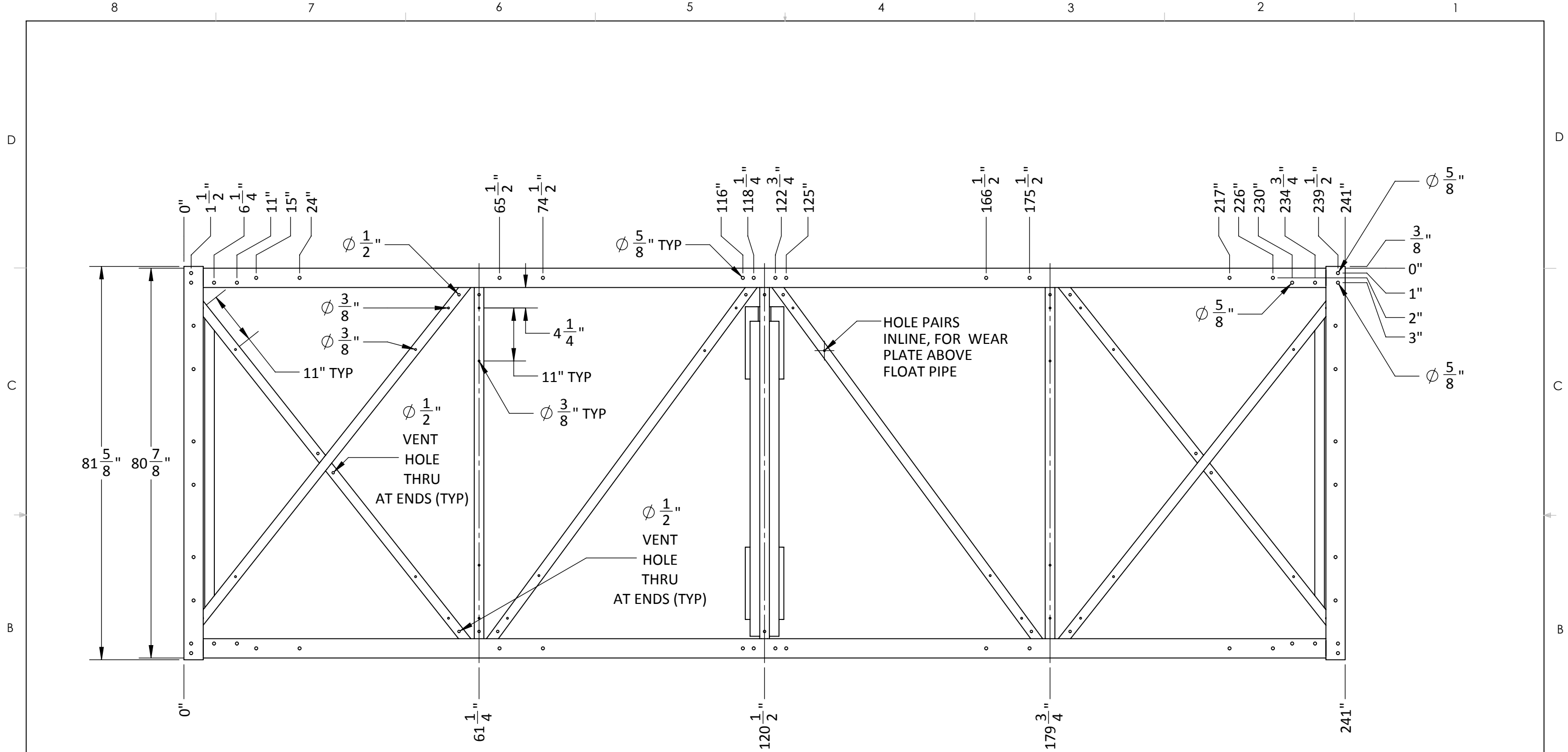
CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP**

CR Engineering Inc.

TITLE:  
**FRAME CUT LIST**

PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-300	3 OF 11	A



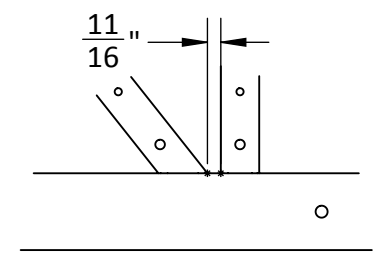
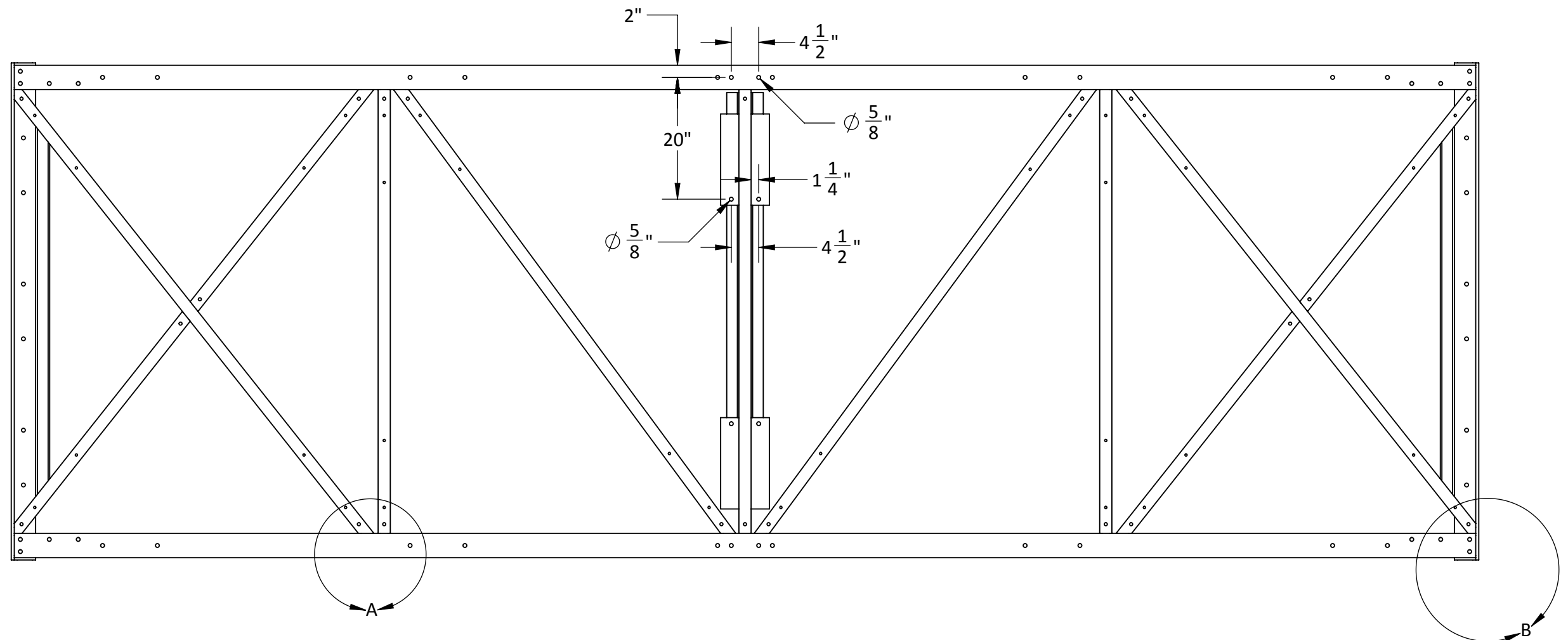
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		
DIMENSIONS - INCH	DRAWN BY J KING	DATE 26/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP</b>

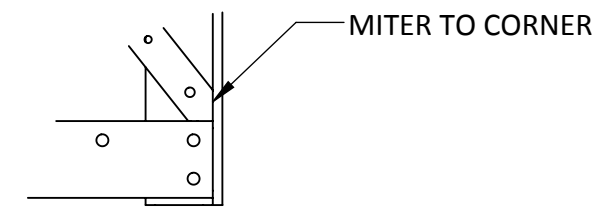
<b>CR Engineering Inc.</b>			
TITLE: <b>FRAME TOP VIEW</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-300	SHEET 4 OF 11	REV A

8 7 6 5 4 3 2 1

D  
C  
B  
A



DETAIL A  
SCALE 1 : 10



DETAIL B  
SCALE 1 : 10

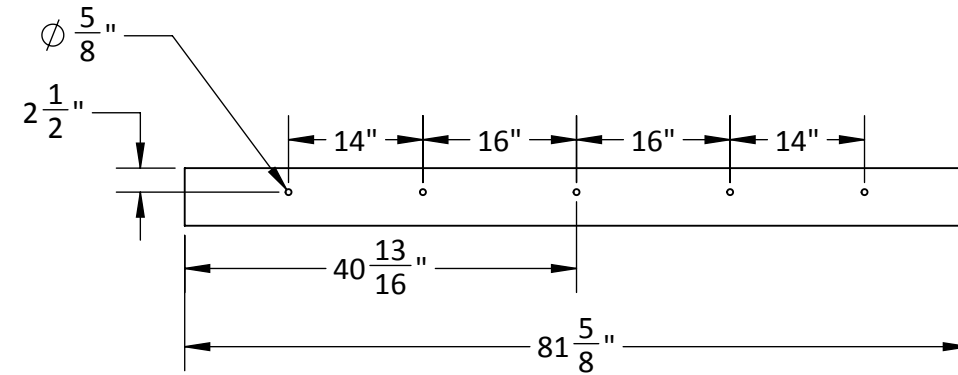
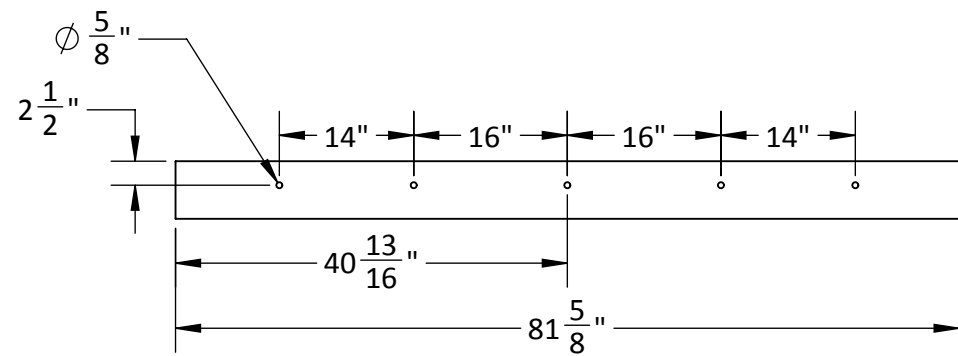
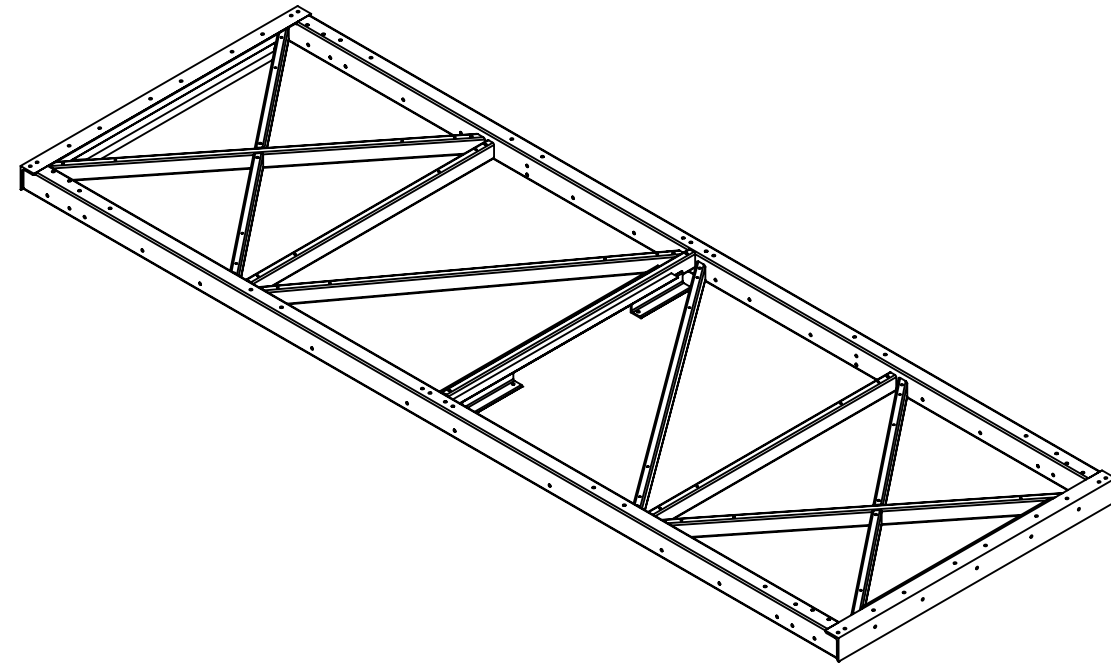
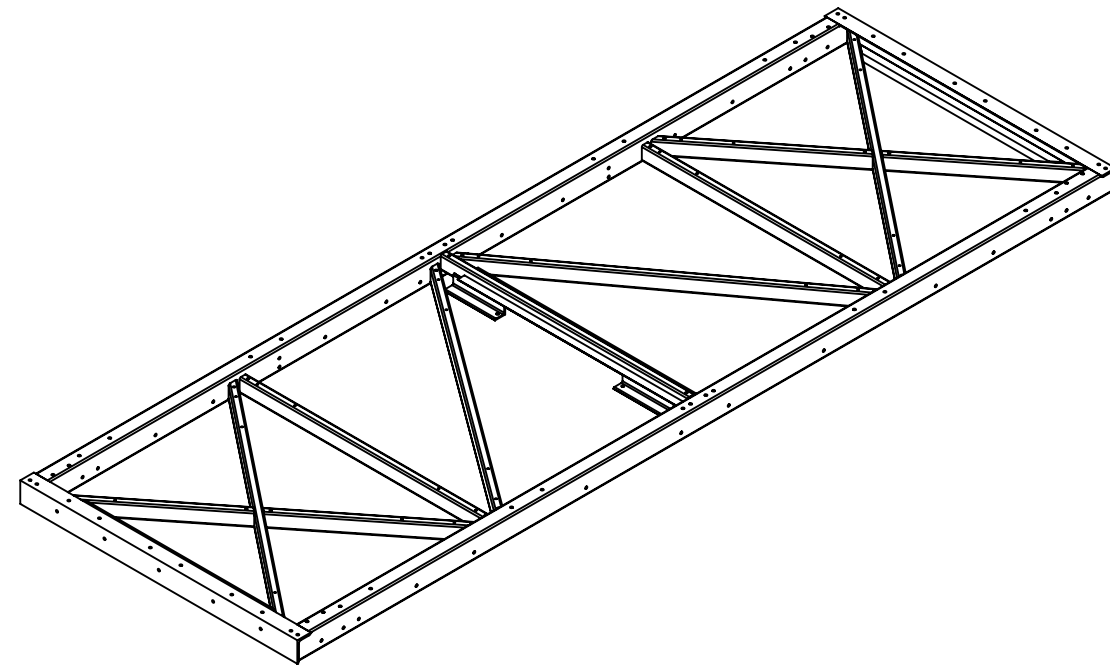
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT	CITY OF CAMPBELL RIVER		
	PROJECT	BIG ROCK BOAT RAMP		
DIMENSIONS - INCH DRAWN BY J KING DATE 26/02/2018	CR Engineering Inc. TITLE: FRAME BOTTOM VIEW			
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	395	395-300	5 OF 11	A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

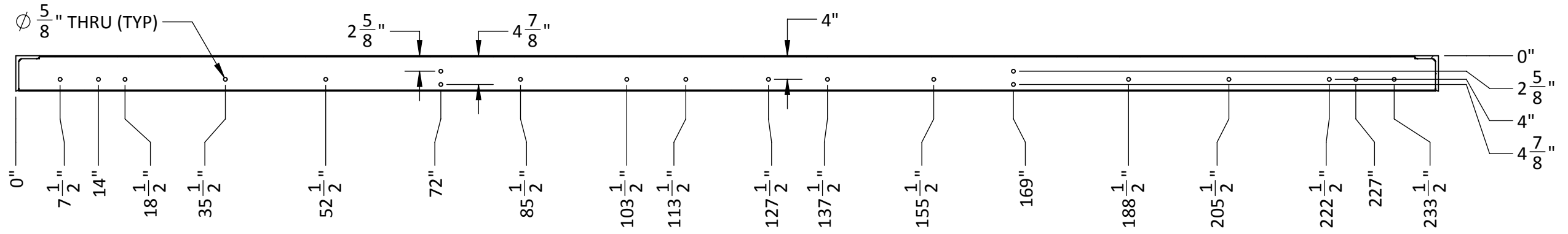
D  
C  
B  
A

D  
C  
B  
A

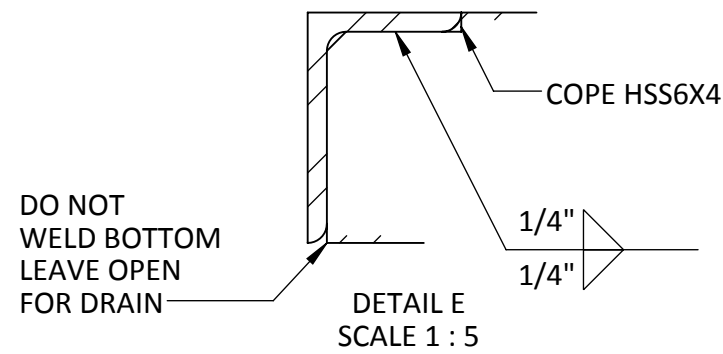


DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		CR Engineering Inc.	
	PROJECT <b>BIG ROCK BOAT RAMP</b>		TITLE: <b>FRAME END VIEWS</b>	
DIMENSIONS - INCH	DRAWN BY J KING	DATE 26/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-300
This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.			SHEET 6 OF 11	REV A

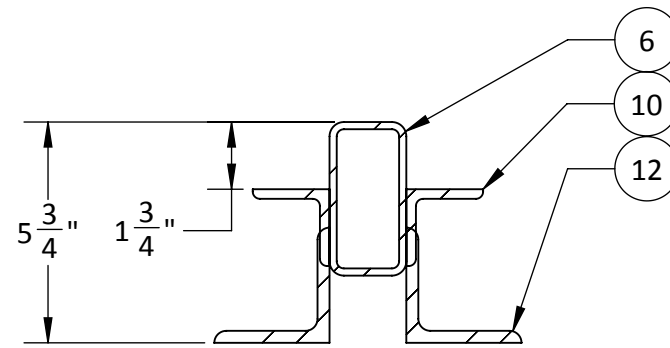
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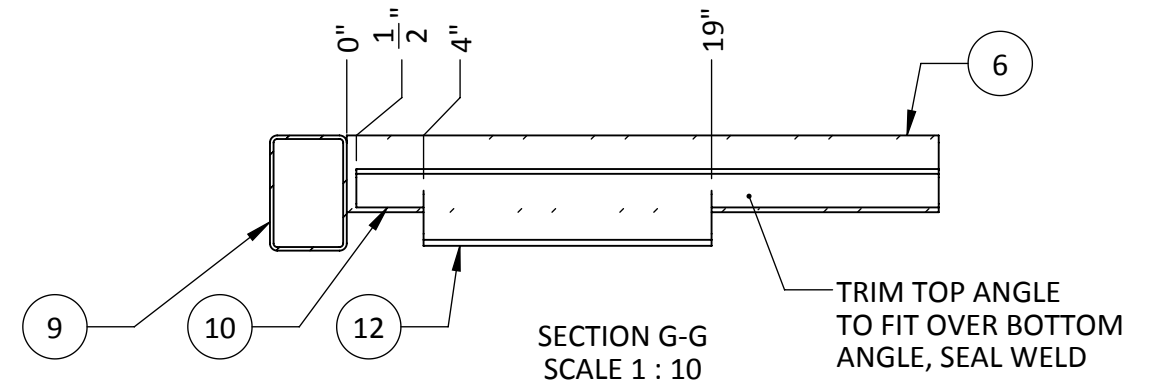
SECTION C-C  
SCALE 1 : 20



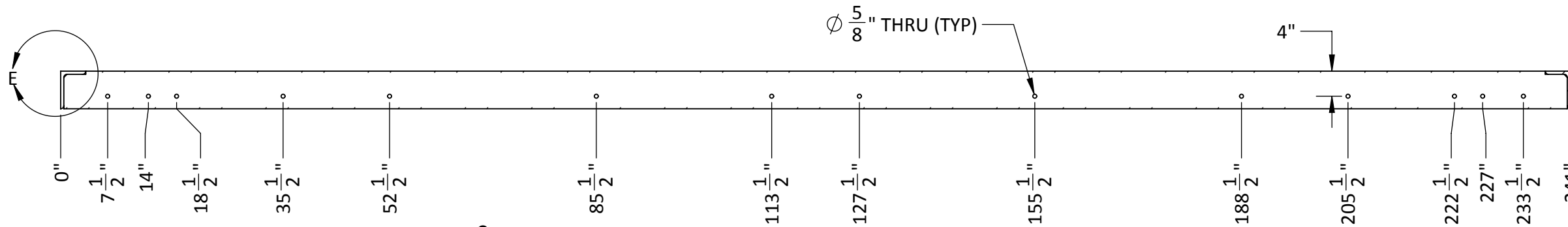
DETAIL E  
SCALE 1 : 5



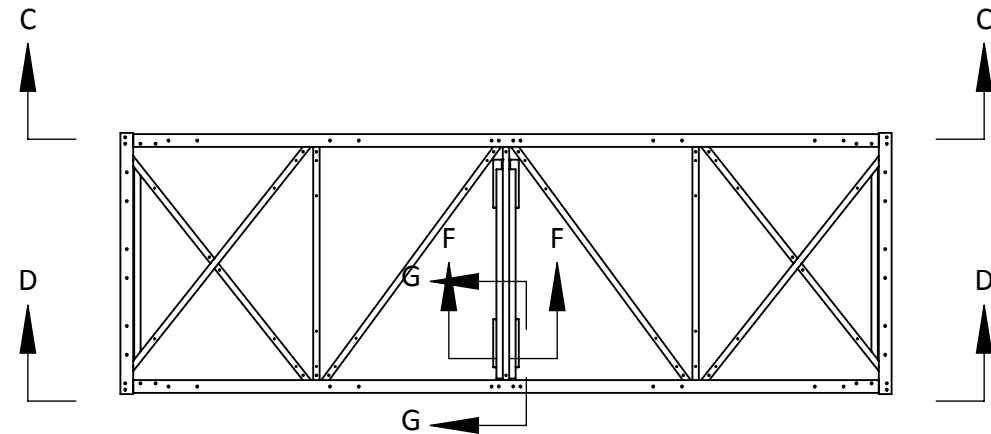
SECTION F-F  
SCALE 1 : 5



SECTION G-G  
SCALE 1 : 10



SECTION D-D  
SCALE 1 : 20



DIMENSIONS ASME Y14.5M  
 X/X = ± 1/8"  
 .X = ± 0.1"  
 .XX = ± 0.01"  
 .XXX = ± 0.001"  
 ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 26/02/2018

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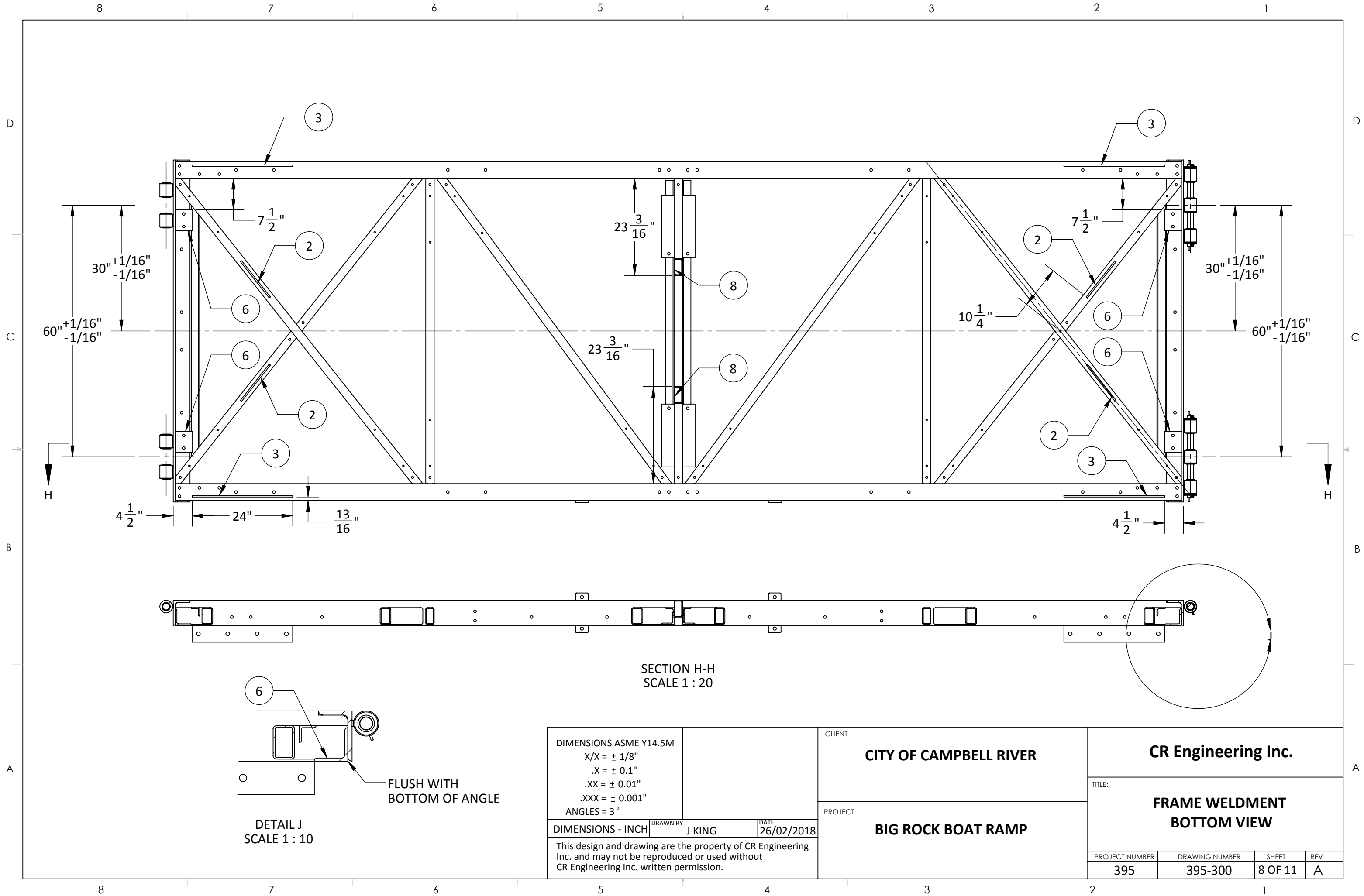
CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP**

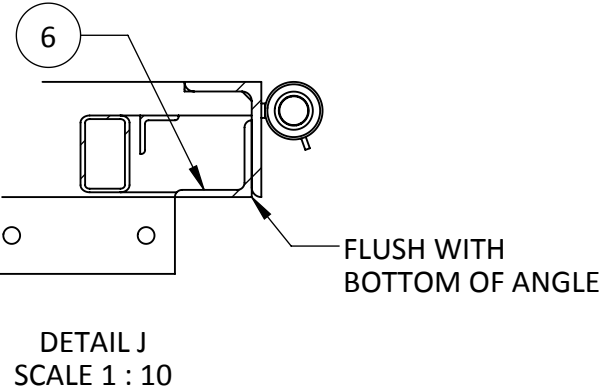
**CR Engineering Inc.**

TITLE:  
**FRAME SIDE VIEWS**

PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-300	7 OF 11	A



SECTION H-H  
SCALE 1 : 20



DIMENSIONS ASME Y14.5M		CLIENT	
X/X = ± 1/8"		CITY OF CAMPBELL RIVER	
.X = ± 0.1"		PROJECT	
.XX = ± 0.01"		BIG ROCK BOAT RAMP	
.XXX = ± 0.001"		DRAWN BY J KING	
ANGLES = 3°		DATE 26/02/2018	
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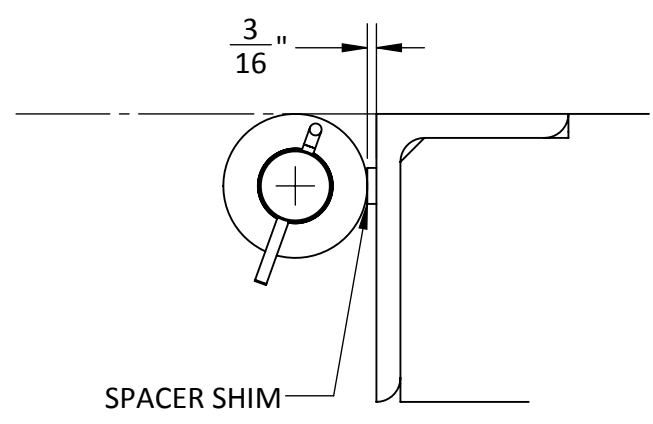
CLIENT			
CITY OF CAMPBELL RIVER			
PROJECT			
BIG ROCK BOAT RAMP			

CR Engineering Inc.			
TITLE:			
FRAME WELDMENT BOTTOM VIEW			
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-300	8 OF 11	A



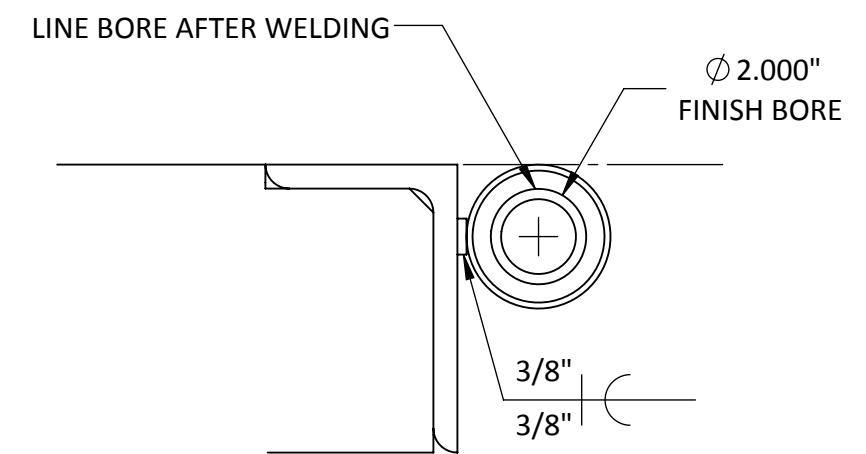
8 7 6 5 4 3 2 1

D  
C  
B  
A

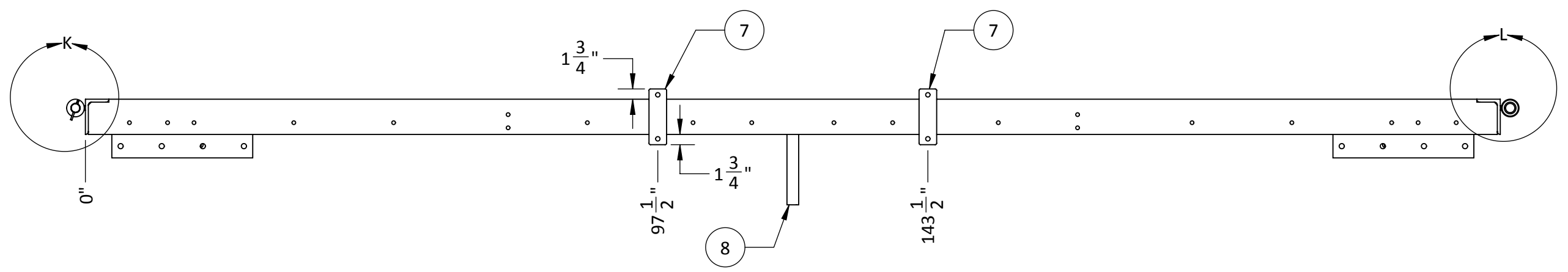


SPACER SHIM

DETAIL K  
SCALE 1 : 4



DETAIL L  
SCALE 1 : 4



DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		CLIENT <b>CITY OF CAMPBELL RIVER</b>
DIMENSIONS - INCH	DRAWN BY J KING	DATE 26/02/2018
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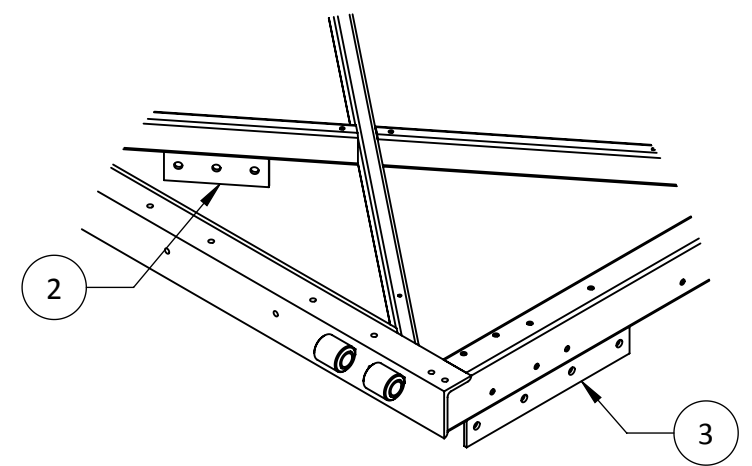
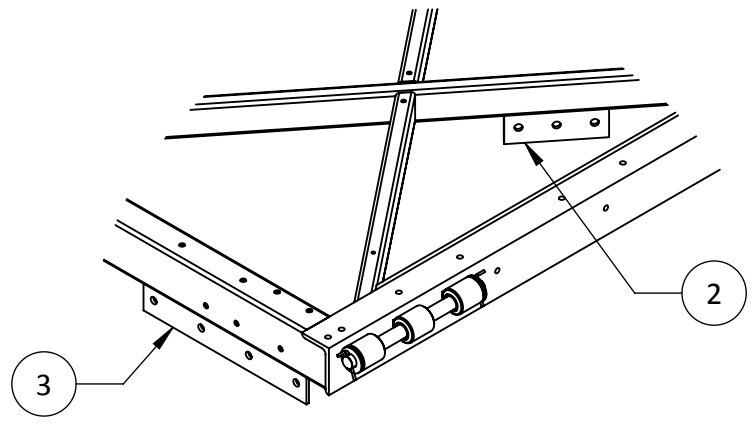
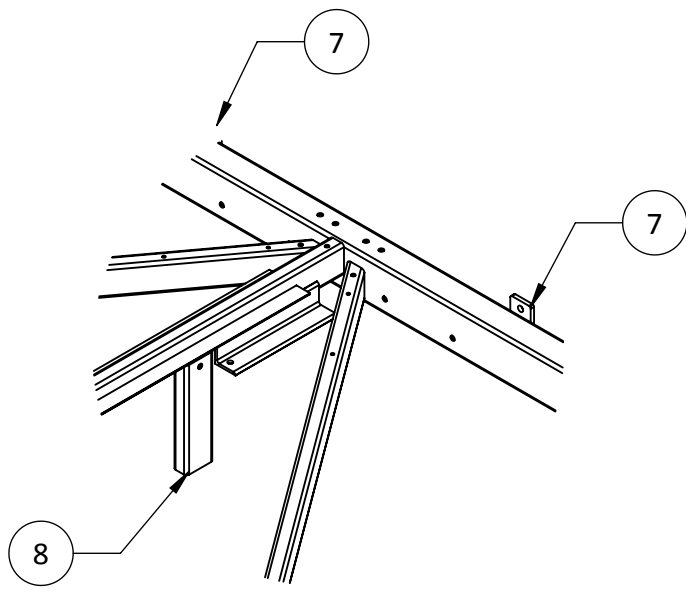
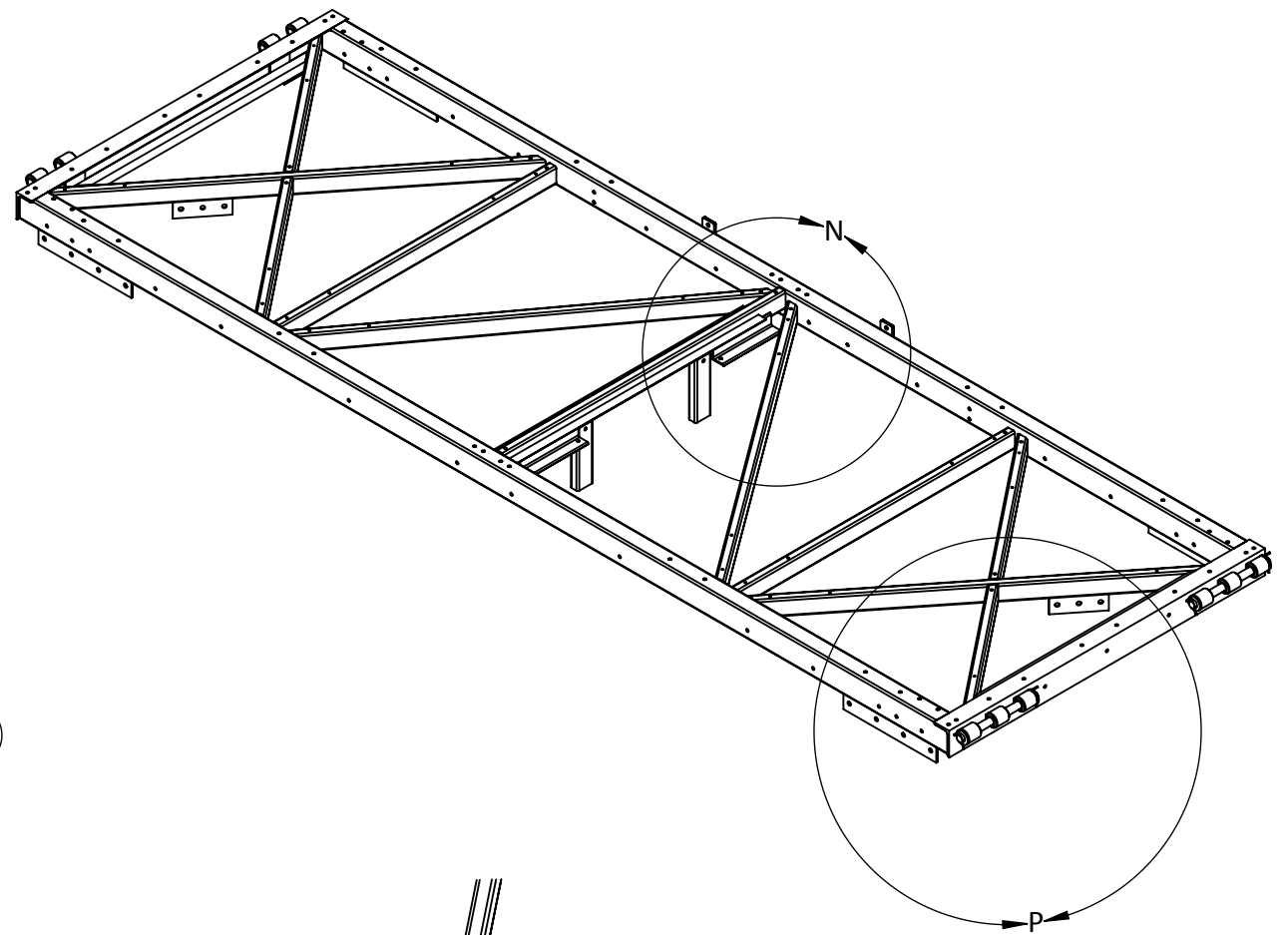
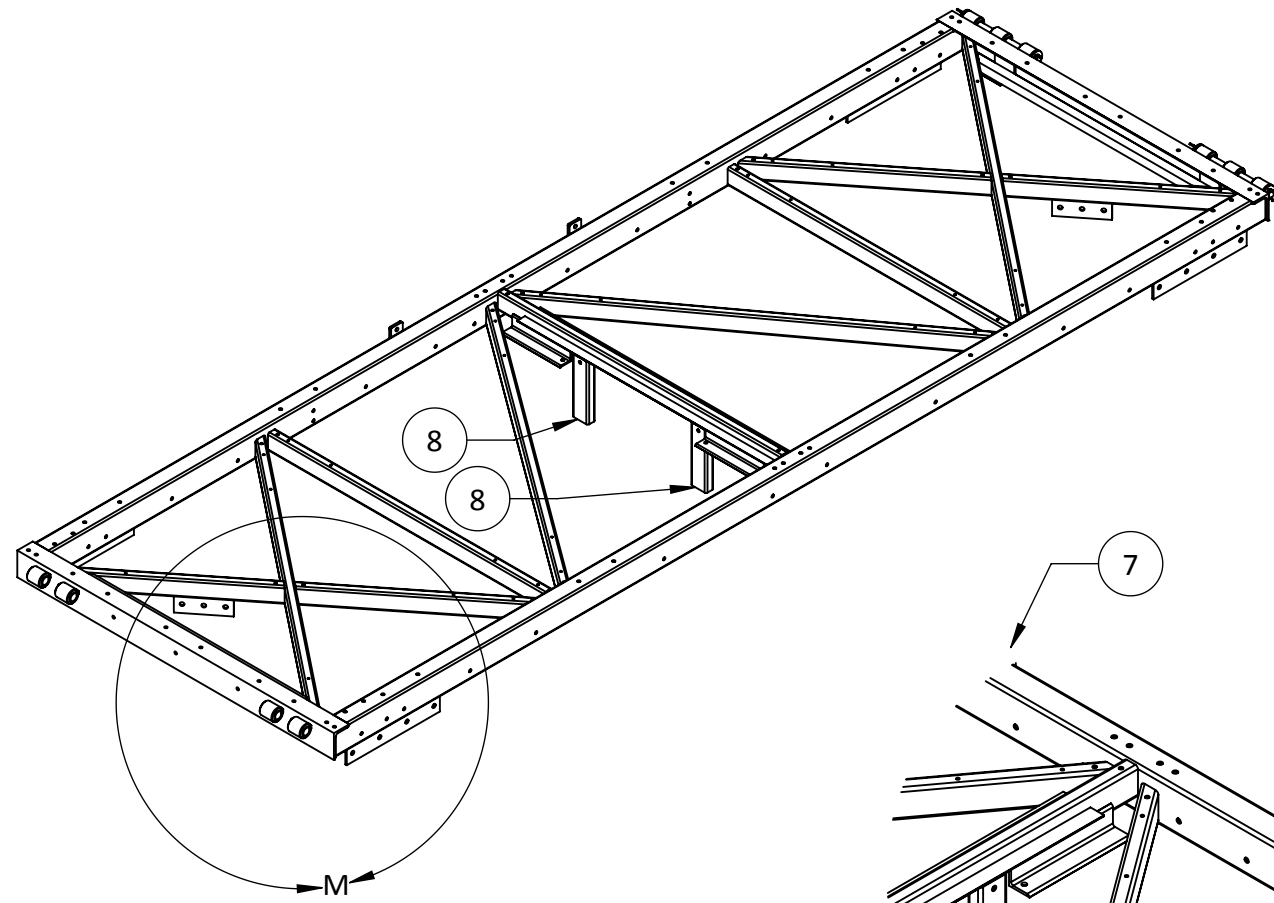
CR Engineering Inc.			
TITLE: <b>FRAME WELDMENT SIDE VIEW</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-300	SHEET 9 OF 11	REV A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A



DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		DRAWN BY J KING	DATE 26/02/2018
DIMENSIONS - INCH		This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.	

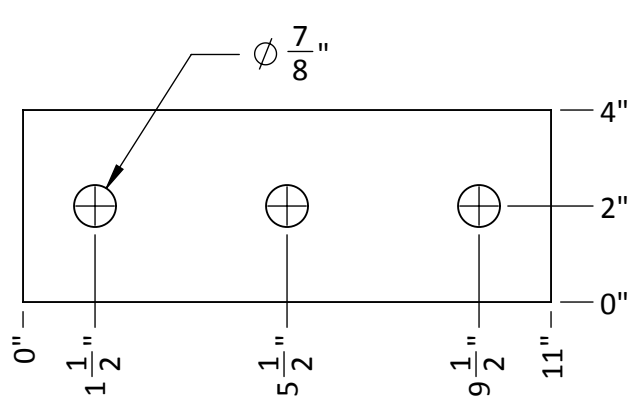
CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP</b>

CR Engineering Inc.			
TITLE: <b>FRAME WELDMENT ISOMETRIC VIEWS</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-300	SHEET 10 OF 11	REV A

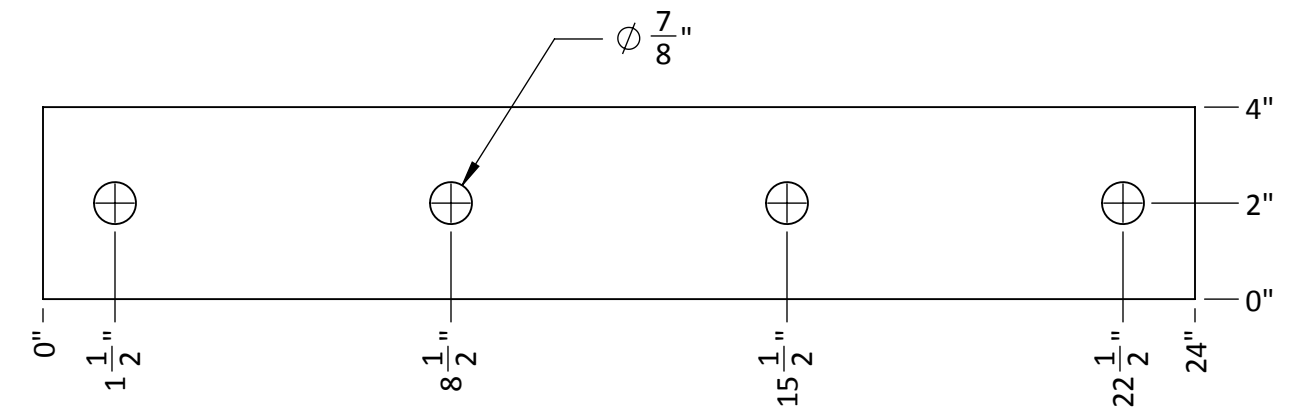
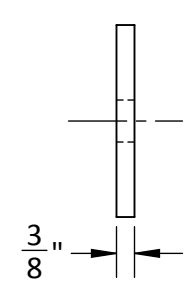
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

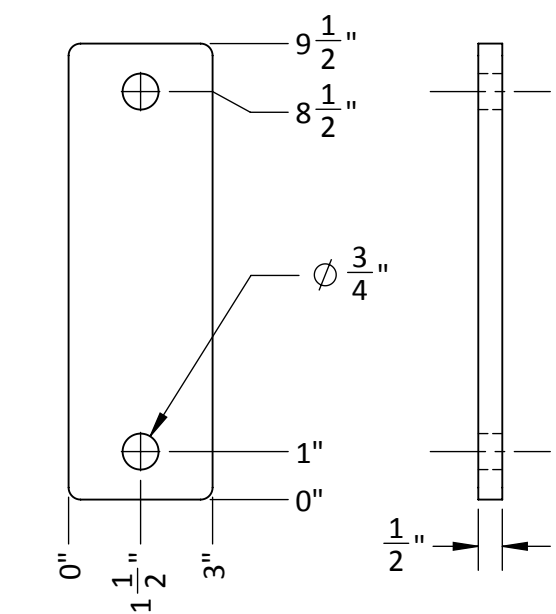
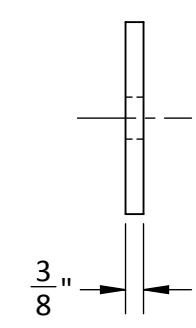
D  
C  
B  
A



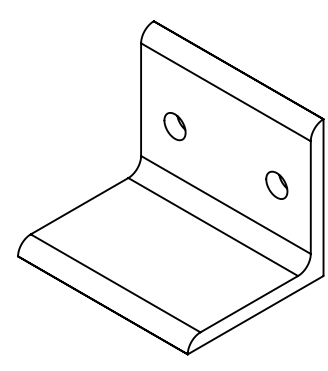
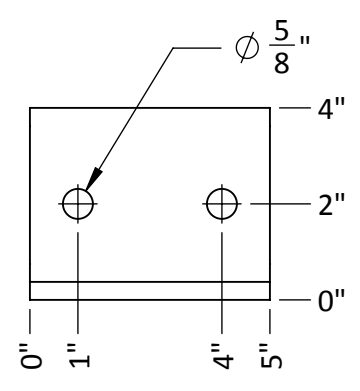
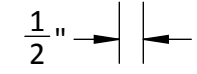
**MOUNTING PLATE INNER**  
P/N 395-138  
SCALE: 1:4



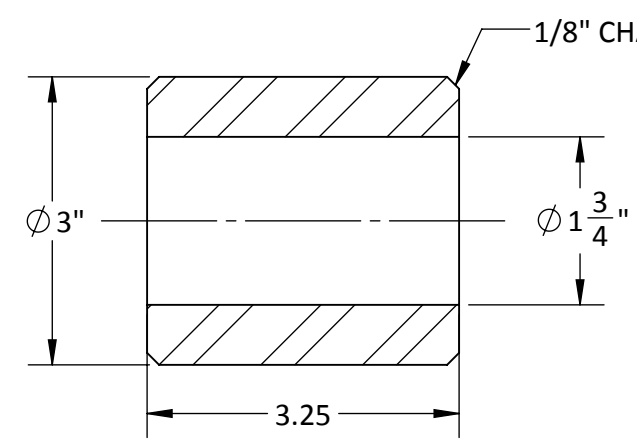
**MOUNTING PLATE OUTER**  
P/N 395-136  
SCALE: 1:4



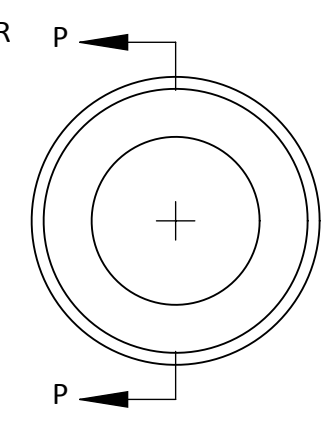
**PILE HOOP MOUNT PLATE**  
P/N 395-168  
SCALE: 1:4



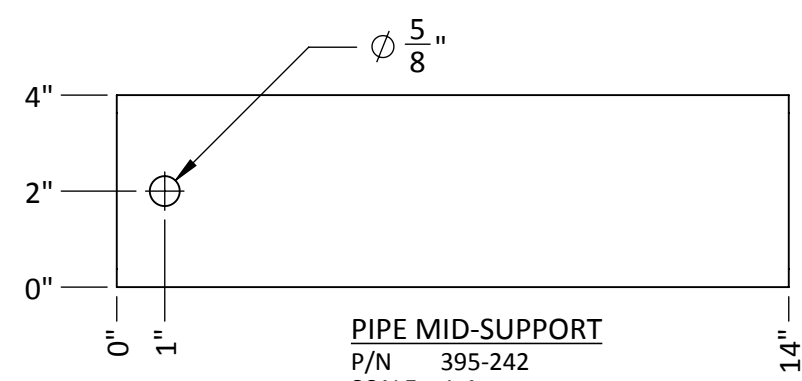
**PIPE END STOP**  
P/N 395-241  
SCALE: 1:4



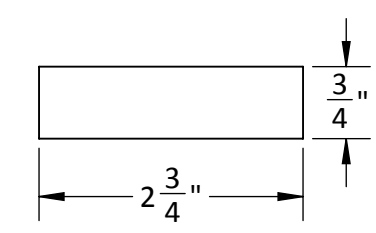
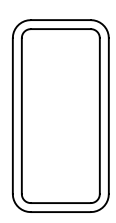
**SECTION P-P**  
ROUGH CUT BORE (DOM 513)  
LINE BORE TO  $\phi$  2.000"  
AFTER WELDING



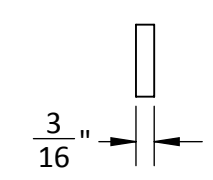
**HINGE BODY**  
P/N 395-56  
SCALE: 1:2



**PIPE MID-SUPPORT**  
P/N 395-242  
SCALE: 1:4



**HINGE SPACER SHIM**  
P/N 395-58  
SCALE: 1:2



LENGTH	Description
14"	HSS 4 x 2 x 3/16

DIMENSIONS ASME Y14.5M  
X/X =  $\pm$  1/8"  
.X =  $\pm$  0.1"  
.XX =  $\pm$  0.01"  
.XXX =  $\pm$  0.001"  
ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 26/02/2018

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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP**

**CR Engineering Inc.**

TITLE:  
**DETAILS**

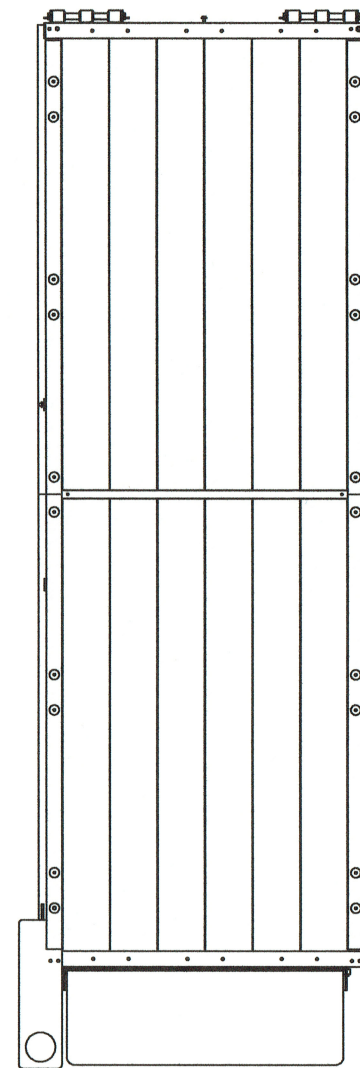
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-300	11 OF 11	A

8 7 6 5 4 3 2 1

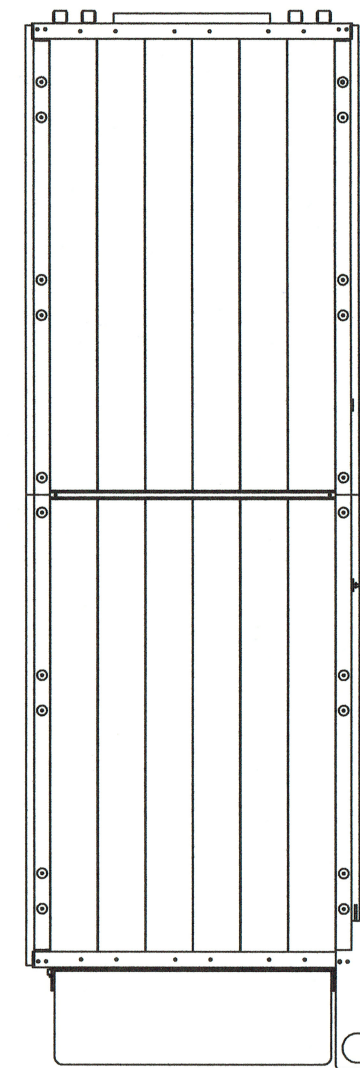
**GENERAL NOTES AND SPECIFICATIONS**

1. ALL STEEL PLATE 44W/300W AND STEEL SHAPES 50W/350W UNLESS NOTED (CSA G40.20/G40.21).
2. HOT DIP GALVANIZED (ASTM A123).
3. REFER TO AMERICAN GALVANIZERS ASSOCIATION "DESIGN GUIDE" FOR VENTING HOLES LOCATION AND SIZE
4. ALUMINUM PLATE 5052-H32 (ASTM B209-10), SHAPES 6061-T6 (ASTM B308).
5. UHMW - RECYCLED UV STABILIZED BLACK
6. WOOD - DOUGLAS FIR #1 GRADE, ROUGH CUT
8. HDPE PIPE - MANUFACTURED IN ACCORDANCE WITH ASTM F714 PE4710 RESIN
9. HDPE PIPE WELDING - END CAPS TO BE BUTT FUSED BY A McElroy CERTIFIED WELDER TO ASTM F2620
10. HDPE PIPE FOAM - 22" DIAMETER ROUND BILLET EPS 15 KOROLITE EPS GEOFOAM ASTM D6817 (NO MORE THAN 1" ANNULAR SPACE ACCEPTED)
11. WELDING SHALL ONLY BE UNDERTAKEN BY A COMPANY CERTIFIED BY THE CANADIAN WELDING BUREAU (CWB) TO THE REQUIREMENTS OF CSA 47.1 AND CSA 47.2(LATEST EDITION) IN DIVISION 1 OR 2. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AND MEET THE QUALITY REQUIREMENTS OF CSA W59 AND 59.2 (LATEST EDITION). ALL WELDERS EMPLOYED BY THE COMPANY SHALL HOLD VALID QUALIFICATIONS ISSUED BY THE CWB. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH WELDING PROCEDURES APPROVED BY THE CWB
12. FRAMES ARE IDENTICAL EXCEPT FOR HINGE CONFIGURATIONS

ESTIMATED STEEL WEIGHT WITH GRATING PER FLOAT 2650 POUNDS (1200 KG)



SCALE 1:48  
SHORE END LEFT



SCALE 1:48  
SHORE END RIGHT



A	ISSUED FOR TENDER	2/03/2018	JK
REV.	DESCRIPTION	DATE	APPROVED
REVISIONS			
	DIMENSIONS IN INCHES	SHEET SIZE B (11x17)	DRAWN BY J KING
			DATE (dd/mm/yyyy) 27/02/2018

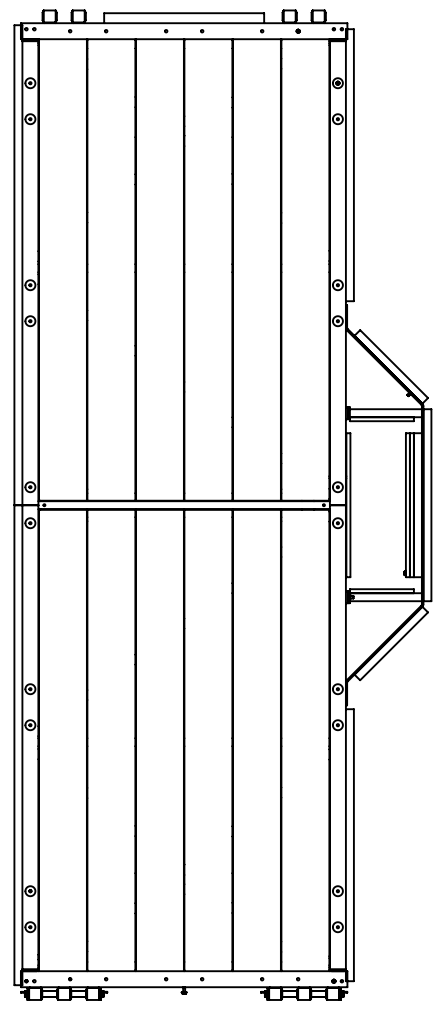
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CLIENT <b>CITY OF CAMPBELL RIVER</b>		CR Engineering Inc.	
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>GENERAL ARRANGEMENT FLOAT CONFIGURATIONS</b>	
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 1 OF 26	REV A

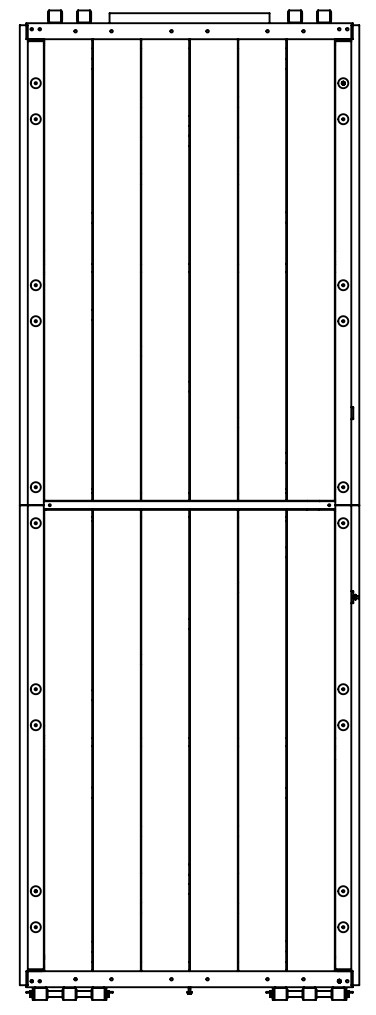
8 7 6 5 4 3 2 1

D  
C  
B  
A

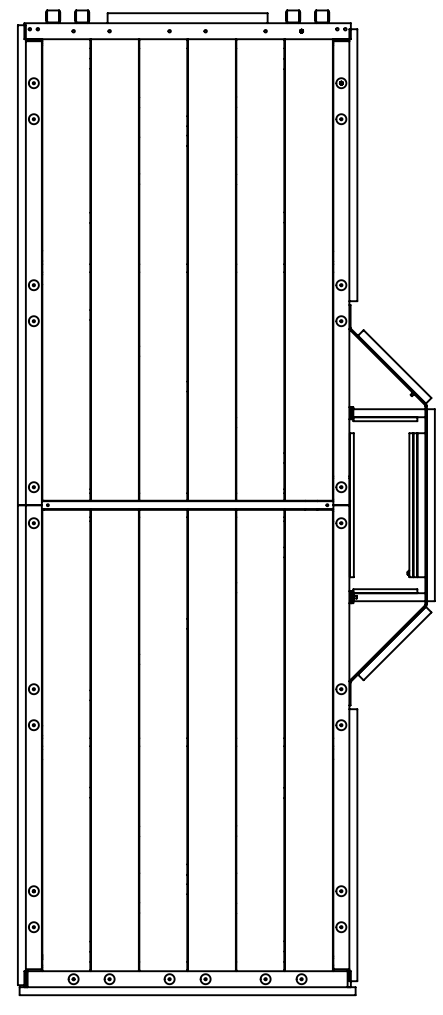
D  
C  
B  
A



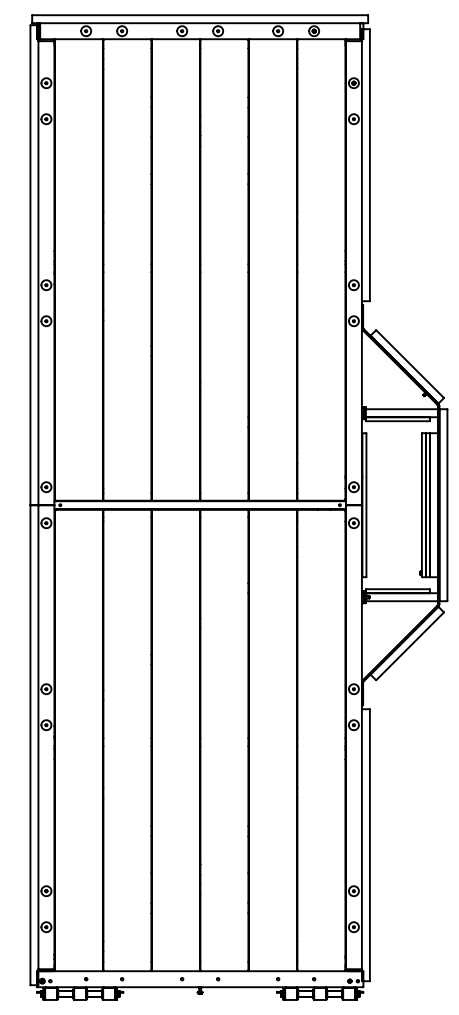
SCALE 1:48  
MID FLOAT



SCALE 1:48  
MID FLOAT NO HOOP



SCALE 1:48  
OUTSIDE END LEFT



SCALE 1:48  
OUTSIDE END RIGHT

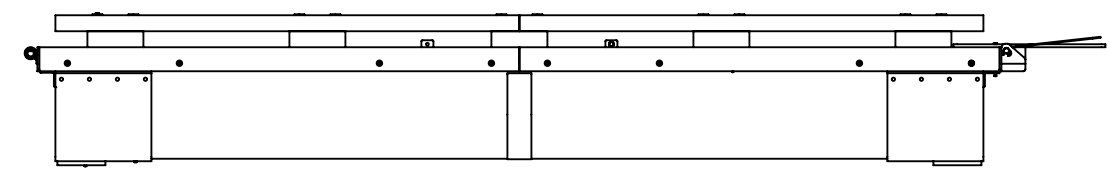
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>  TITLE: <b>GENERAL ARRANGEMENT          FLOAT CONFIGURATIONS</b>		
	DIMENSIONS - INCH This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.				PROJECT <b>BIG ROCK BOAT RAMP          GALVANIZED STEEL DOCKS</b>
DRAWN BY <b>J KING</b>	DATE <b>27/02/2018</b>	PROJECT NUMBER <b>395</b>	DRAWING NUMBER <b>395-400</b>	SHEET <b>2 OF 26</b>	REV <b>A</b>

8 7 6 5 4 3 2 1

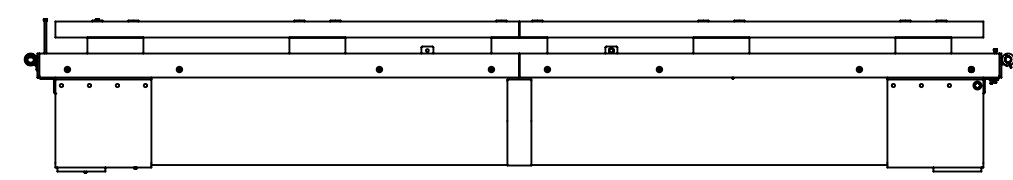
8 7 6 5 4 3 2 1

D  
C  
B  
A

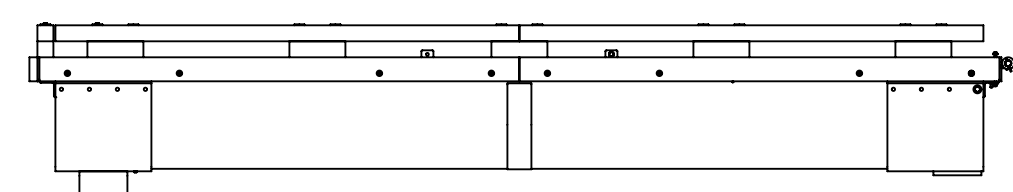
D  
C  
B  
A



SHORE FLOAT

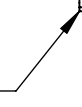


MID FLOAT



OUTSIDE FLOAT

BOLT ON FOOT



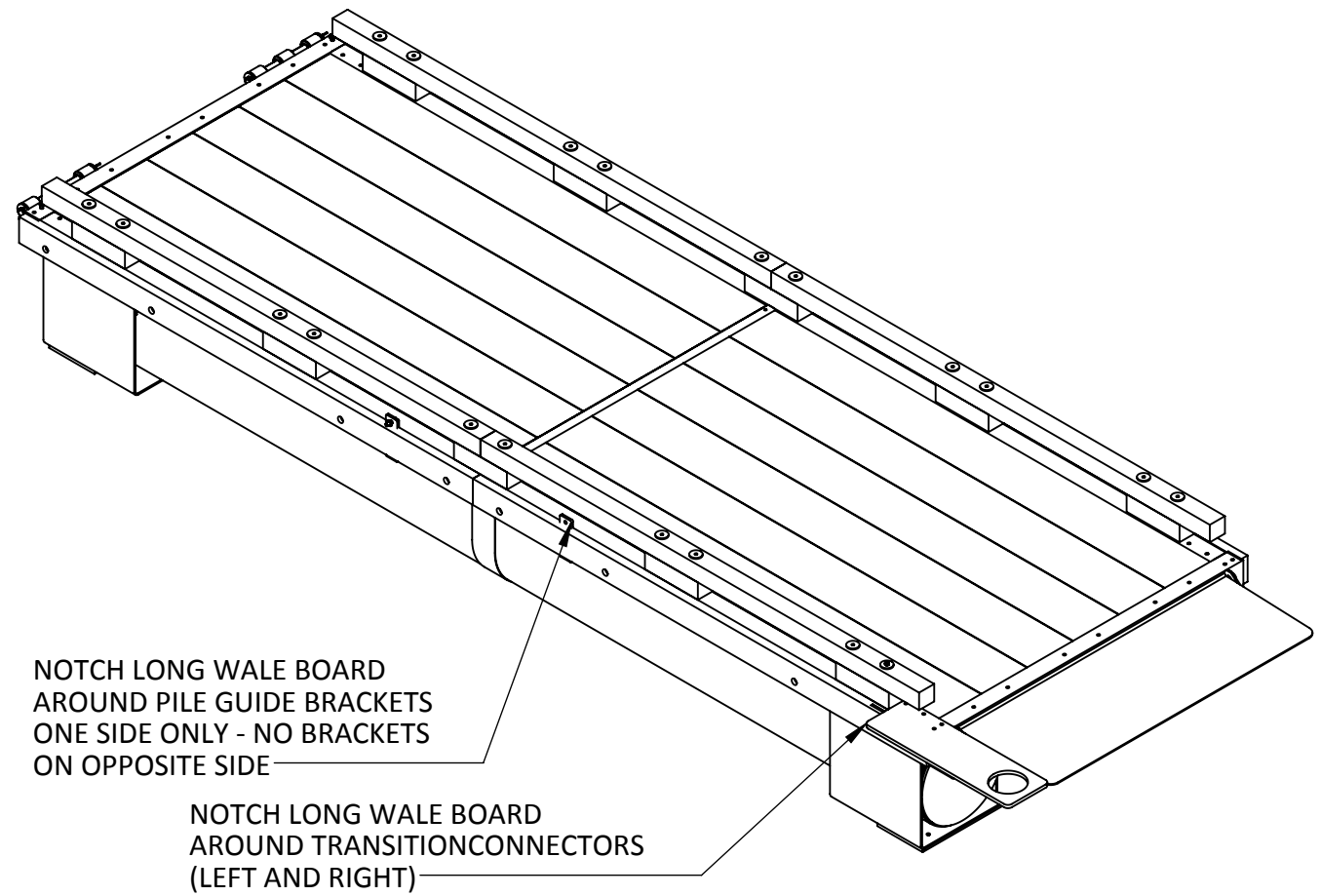
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
	DIMENSIONS - INCH This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.		PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>	
DRAWN BY J KING	DATE 27/02/2018	TITLE: <b>GENERAL ARRANGEMENT FLOAT CONFIGURATIONS</b>		
		PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 3 OF 26
			REV A	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A



NOTCH LONG WALE BOARD  
AROUND PILE GUIDE BRACKETS  
ONE SIDE ONLY - NO BRACKETS  
ON OPPOSITE SIDE

NOTCH LONG WALE BOARD  
AROUND TRANSITION CONNECTORS  
(LEFT AND RIGHT)

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

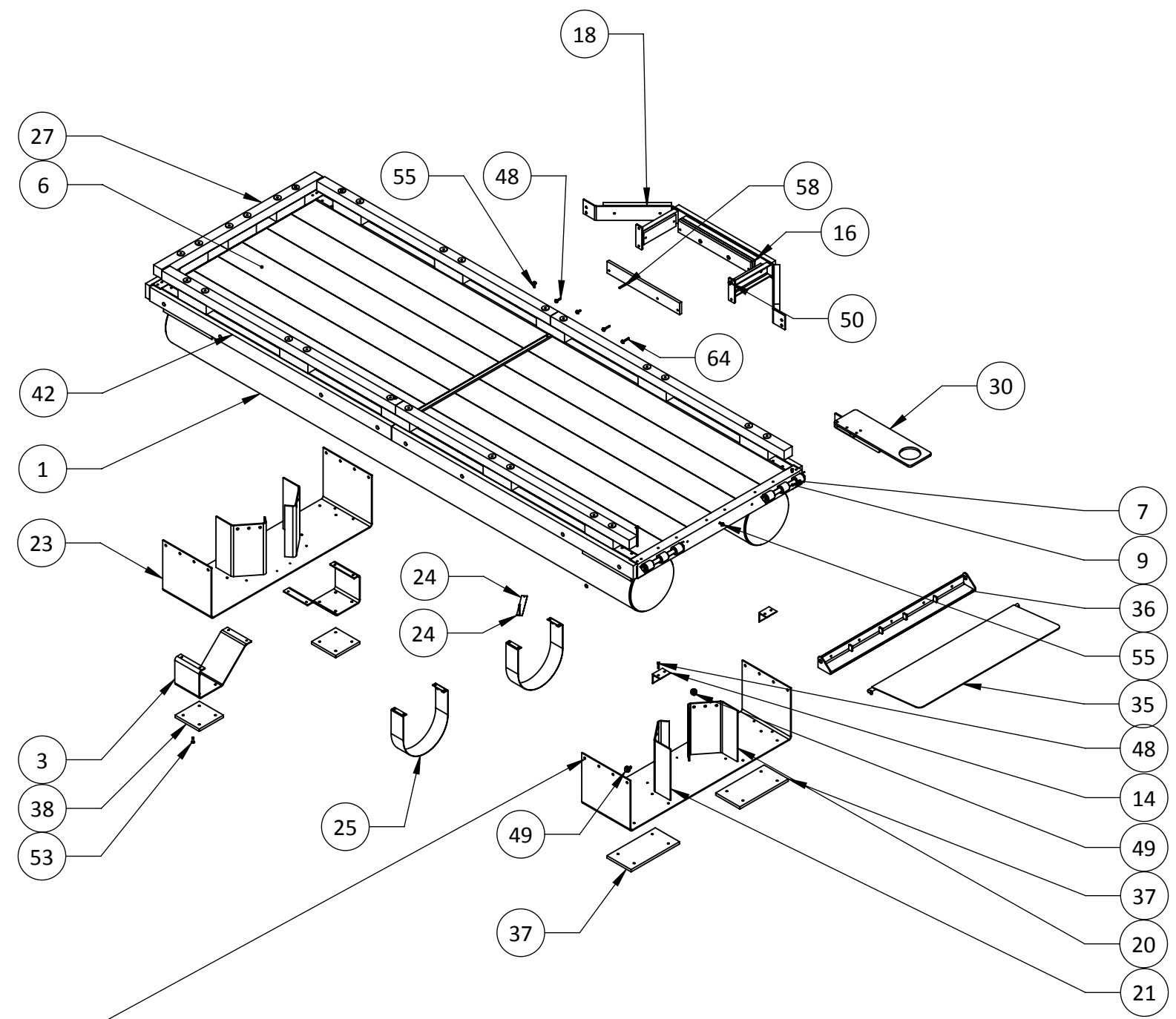
CR Engineering Inc.			
TITLE: <b>GENERAL ARRANGEMENT FLOAT</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 4 OF 26	REV A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

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NOTE - ASSEMBLE WITH ONE STAINLESS FLAT WASHER BETWEEN ALUMINUM AND GALVANIZED BRACKET, ONE WASHER ON EACH SIDE, TOTAL STAINLESS WASHERS IS THREE

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		CR Engineering Inc.	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>EXPLODED VIEW</b>	
DIMENSIONS - INCH This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-400
			SHEET 5 OF 26	REV A

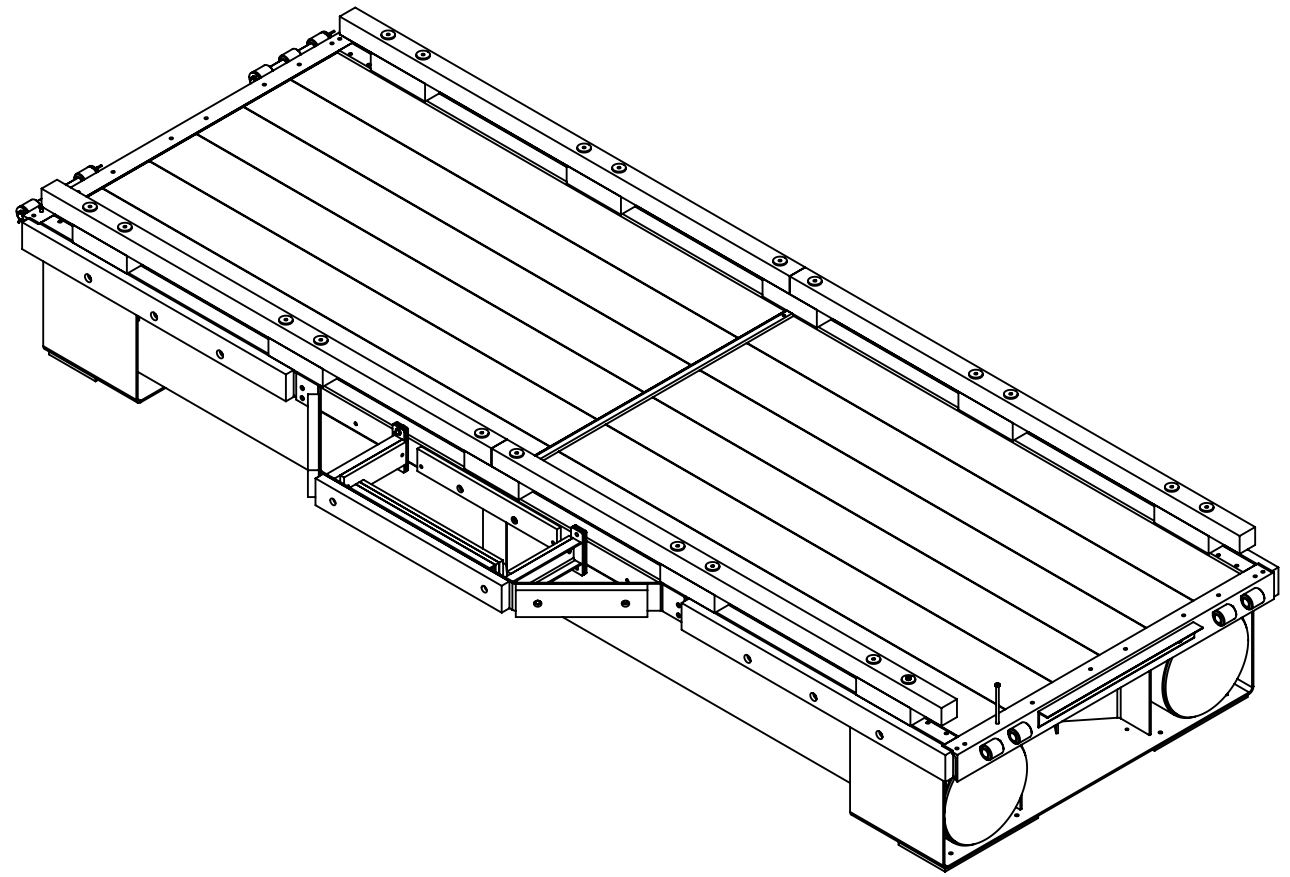
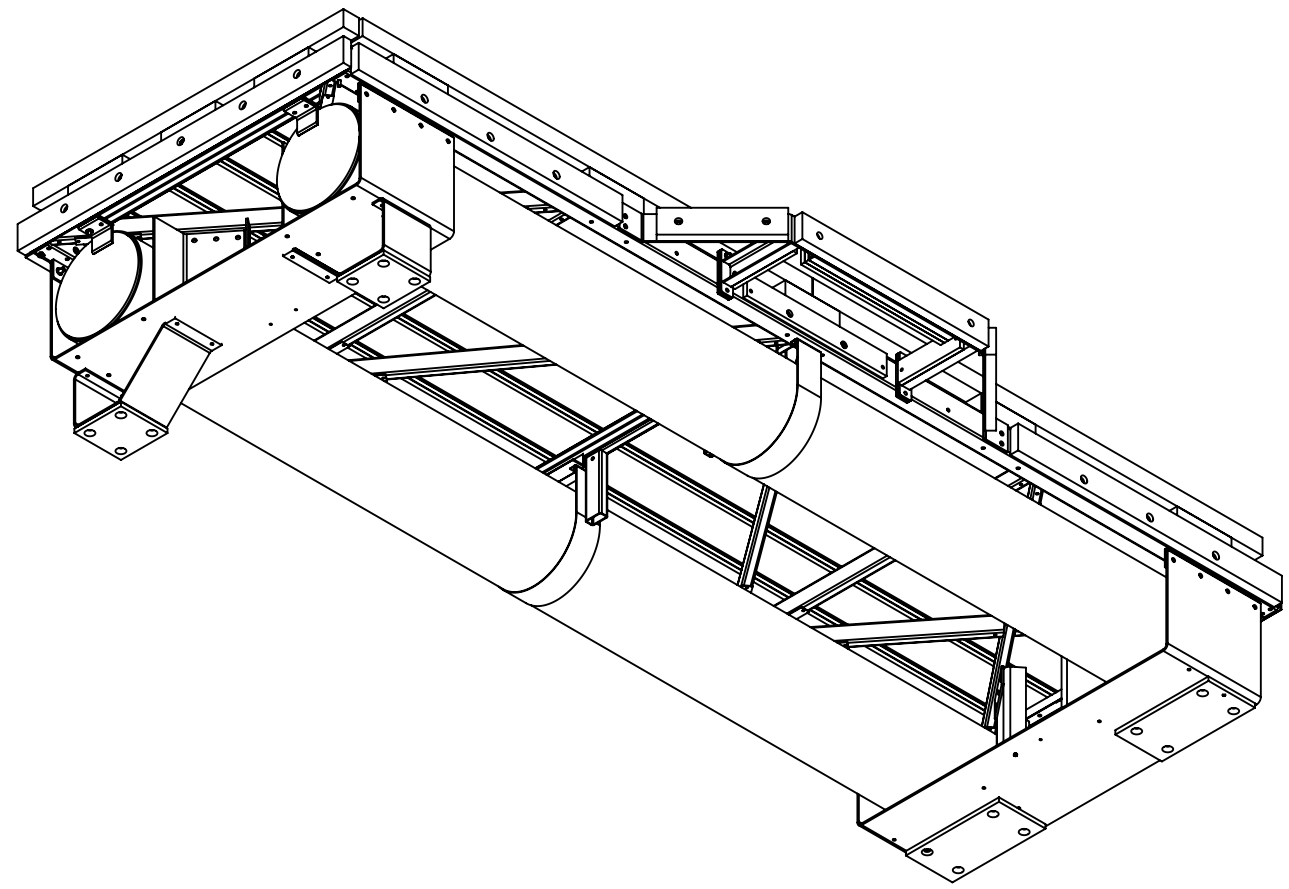
8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

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DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
DIMENSIONS - INCH		DRAWN BY <b>J KING</b>		DATE <b>27/02/2018</b>	
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PROJECT NUMBER	DRAWING NUMBER	SHEET	REV		
395	395-400	6 OF 26	A		

8 7 6 5 4 3 2 1

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D  
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B  
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PART No.	DESCRIPTION	SHORE END LEFT/QTY.	SHORE END RIGHT/QTY.	MID FLOAT/QTY.	MID FLOAT NO HOOP/QTY.	OUTSIDE END LEFT/QTY.	OUTSIDE END RIGHT/QTY.	TOTAL	MATERIAL
395-06	22" (559mm), HDPE DR 32.5, BUTT FUSED END CAPS, FILLED WITH ROUND TYPE 2 KOROFLOAT FOAM	2	2	2	2	2	2		HDPE
395-244	CONNECTOR BACKING PLATE	1	1	-	-	-	-		44W/300W
395-275	CONNECTOR LEFT	1	-	-	-	-	-		44W/300W
395-270	CONNECTOR RIGHT	-	1	-	-	-	-		44W/300W
395-206	END FLOAT FOOT	-	-	-	-	2	2		5052-H32
395-145	FLOAT GAP FILLER ANGLE	-	1	1	1	1	-		44W/300W
395-300	FRAME 1 WELDMENT	-	1	-	-	1	-		300W/350W
395-300	FRAME 2 WELDMENT	1	-	-	-	-	1		300W/350W
395-300	FRAME 3 WELDMENT	-	-	1	1	-	-		300W/350W
395-42	GRATING - ROUND HOLE 12" x 1-1/2", 13 GA	12	12	12	12	12	12		STEEL
395-52	HINGE PIN	2	-	2	2	-	2		316 SS
395-65	PILE GUIDE	-	-	1	-	1	1		44W/300W
395-241	PIPE END STOP	4	4	4	4	4	4		44W/300W
395-180	PIPE SUPPORT	2	2	2	2	2	2		5052-H32
395-141	STAINLESS WEAR PLATE	16	16	16	16	16	16		304 SS
395-43	STRAP	2	2	2	2	2	2		316 SS
395-253	TIE UP RAIL BLOCK	10	10	10	10	13	13		ROUGH CUT FIR
395-254	TIE UP RAIL END	-	-	-	-	1	1		ROUGH CUT FIR
395-252	TIE UP RAIL SIDE	4	4	4	4	4	4		ROUGH CUT FIR
395-281	TRANSITION PLATE SUPPORT ANGLE	1	1	-	-	-	-		44W/300W
395-155	TRANSITION RAMP	1	1	-	-	-	-		44W/300W
395-44	UHMW BOTTOM SHOE	4	4	4	4	2	2		BLACK UHMW
395-207	UHMW END FOOT SHOE	-	-	-	-	2	2		BLACK UHMW
395-146	WALE BOARD END	-	-	-	-	1	1		ROUGH CUT FIR
395-151	WALE BOARD LONG SIDE	4	4	2	4	2	2		ROUGH CUT FIR
395-147	WALE BOARD SHORT SIDE	-	-	2	-	2	2		ROUGH CUT FIR
395-208	TIMBER WASHER 1/2"	20	20	20	20	26	26		GALVANIZED
395-245	ZINC ANODE 3LB	2	2	2	2	2	2		MARTYR CM706 OR EQUIVALENT

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		CR Engineering Inc.	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>PARTS AND ASSEMBLIES BILL OF MATERIALS</b>	
	DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395
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PART No.	DESCRIPTION	SHORE END LEFT/QTY.	SHORE END RIGHT/QTY.	MID FLOAT/QTY.	MID FLOAT NO HOOP/QTY.	OUTSIDE END LEFT/QTY.	OUTSIDE END RIGHT/QTY.	TOTAL	MATERIAL
HFBOLT 0.25-20x4.5x0.75-N	BOLT 1/4 x 4-1/2 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	32	32	32	32	32	32	448	GALVANIZED
HFBOLT 0.375-16x1.25x1-N	BOLT 3/8 x 1-1/4 WITH NYLOCK NUT AND TWO FLAT WASHERS	4	4	4	4	4	4	56	18-8 STAINLESS
HFBOLT 0.5-13x1.5x1.25-N	BOLT 1/2 x 1-1/2 WITH NYLOCK NUT AND TWO FLAT WASHERS	4	4	4	4	4	4	56	18-8 STAINLESS
HFBOLT 0.5-13x1.75x1.25-N	BOLT 1/2 x 1-3/4 WITH NYLOCK NUT AND TWO FLAT WASHERS	-	-	-	-	8	8	16	18-8 STAINLESS
HFBOLT 0.5-13x2x1.25-N	BOLT 1/2 x 2 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	-	3	3	3	3	-	36	GALVANIZED
HFBOLT 0.5-13x2.5x1.25-N	BOLT 1/2 x 2-1/2 WITH NUT AND TWO FLAT WASHERS, RED LOCK TITE NUT	5	5	12	-	17	17	56	GALVANIZED
HFBOLT 0.5-13x3x1.25-N	BOLT 1/2 x 3 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	-	-	2	-	2	2		GALVANIZED
HFBOLT 0.5-13x5.5x1.25-N	BOLT 1/2 x 5-1/2 WITH NUT AND TWO FLAT WASHERS, RED LOCK TITE NUT	-	-	8	-	8	8	64	GALVANIZED
HFBOLT 0.5-13x6x1.25-N	BOLT 1/2 x 6 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	2	2	-	-	-	-	4	GALVANIZED
HFBOLT 0.5-13x6.5x1.25-N	BOLT 1/2 x 6-1/2 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	16	16	16	16	16	16	224	GALVANIZED
HFBOLT 0.5-13x8x1.25-N	BOLT 1/2 x 8 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	4	4	-	-	-	-	8	GALVANIZED
HFBOLT 0.5-20x10x1.25-N	BOLT 1/2 x 10 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	-	-	-	-	6	6	12	GALVANIZED
HFBOLT 0.5-20x12x1.25-N	BOLT 1/2" x 15" (OR 16"), GRADE 5, WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	20	20	20	20	20	20	280	GALVANIZED
HHSBOLT 0.6250-11x2x1.25-N	BOLT 5/8 x 2 GRADE A307 WITH NUT AND TWO FLAT WASHERS, RED LOCKTITE NUT	4	4	4	4	4	4	56	GALVANIZED
HHSBOLT 0.7500-10x2x1.375-N	BOLT GRADE A307 3/4 x 2 WITH NUT AND THREE STAINLESS FLAT WASHERS, RED LOCKTITE NUT	28	28	28	28	28	28	392	GALVANIZED
SCHCSCREW 0.625-11x2x2-HX-N	SCREW COUNTERSUNK 5/8 x 2, WITH NYLOCK NUT AND ONE FLATWASHER	16	16	16	16	16	16	224	18-8 STAINLESS

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>SINGLE FLOAT FASTENERS BILL OF MATERIALS (BEST ESTIMATE)</b>	
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-400
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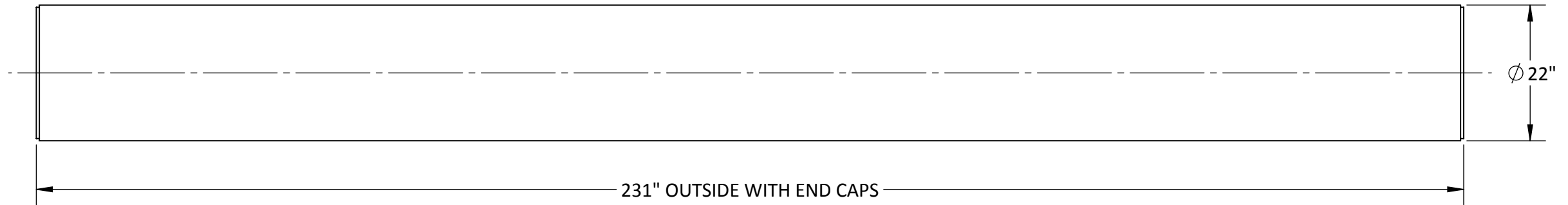
ITEM No.	PART No.	DESCRIPTION	QTY.	MATERIAL
1	395-06	22" (559mm), HDPE DR 32.5, BUTT FUSED END CAPS, FILLED WITH ROUND TYPE 2 KOROFLOAT FOAM	28	HDPE
2	395-244	CONNECTOR BACKING PLATE	2	44W/300W
3	395-206	END FLOAT FOOT	4	5052-H32
4	395-145	FLOAT GAP FILLER ANGLE	12	44W/300W
5	395-131	FRAME WELDMENT	14	50W/350W
6	395-42	GRATING - ROUND HOLE 12" x 1-1/2", 13 GA	168	STEEL
7	395-56	HINGE BODY	120	A513 1026 DOM (3" x 1.75") OR EQUIVALENT
8	395-57	HINGE BUSHING	120	MD FILLED NYLON 2" x 1-1/2"
9	395-52	HINGE PIN	48	316 SS
10	395-58	HINGE SPACER SHIM	120	44W/300W
11	281-95	KEEPER PIN	48	304 SS
12	395-138	MOUNTING PLATE INNER	54	44W/300W
13	395-136	MOUNTING PLATE OUTER	56	44W/300W
14	395-241	PIPE END STOP	112	44W/300W
15	395-62	PILE GUARD CHANNEL	16	44W/300W
16	395-63	PILE GUARD MOUNTING CHANNEL	8	44W/300W
17	395-164	PILE GUARD MOUNTING PLATE	16	44W/300W
18	395-61	PILE GUIDE GUARD	8	44W/300W
19	395-168	PILE HOOP MOUNT PLATE	28	44W/300W
20	395-142	PIPE INNER BRACKET LEFT	28	5052-H32
21	395-142	PIPE INNER BRACKET RIGHT	28	5052-H32
22	395-242	PIPE MID-SUPPORT	28	50W/350W
23	395-137	PIPE SUPPORT	28	5052-H32
24	395-141	STAINLESS WEAR PLATE	224	304 SS
25	395-43	STRAP	28	316 SS

ITEM No.	PART No.	DESCRIPTION	QTY.	MATERIAL
26	395-253	TIE UP RAIL BLOCK	146	ROUGH CUT FIR
27	395-254	TIE UP RAIL END	2	ROUGH CUT FIR
28	395-252	TIE UP RAIL SIDE	56	ROUGH CUT FIR
29	395-208	TIMBER WASHER 1/2"	292	GALVANIZED
30	395-144	TRANSITION CONNECTOR PLATE	2	44W/300W
31	395-272	TRANSITION CONNECTOR SPACER BLOCK	2	44W/300W
32	395-271	TRANSITION CONNECTOR STIFFENER	2	44W/300W
33	395-152	TRANSITION HINGE SHAFT	2	44W/300W
34	395-163	TRANSITION KEEPER PIN	4	304 SS
35	395-153	TRANSITION PLATE	2	44W/300W
36	395-281	TRANSITION PLATE SUPPORT ANGLE	2	44W/300W
37	395-44	UHMW BOTTOM SHOE	52	BLACK UHMW
38	395-207	UHMW END FOOT SHOE	4	BLACK UHMW
39	395-66	UHMW WEAR PLATE SIDE	16	BLACK UHMW
40	395-67	UHMW WEAR PLATE OUTER	24	BLACK UHMW
41	395-146	WALE BOARD END	2	ROUGH CUT FIR
42	395-151	WALE BOARD LONG SIDE	40	ROUGH CUT FIR
43	395-147	WALE BOARD SHORT SIDE	16	ROUGH CUT FIR
44	395-148	WALE BOARD HOOP OUTSIDE	8	ROUGH CUT FIR
45	395-149	WALE BOARD HOOP SIDE	16	ROUGH CUT FIR
46	395-245	ZINC ANODE 3LB	28	MARTYR CM706 OR EQUIVALENT

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>  TITLE: <b>PARTS BILL OF MATERIALS FOR ALL 14 FLOATS</b>			
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>					
	DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 9 OF 26

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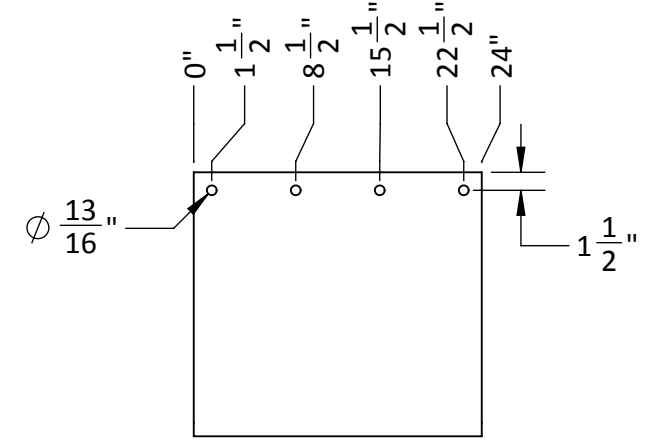
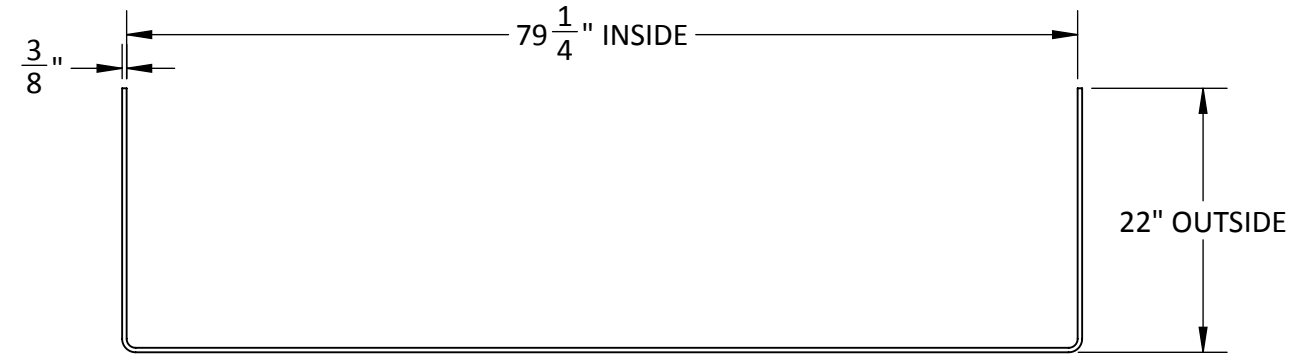
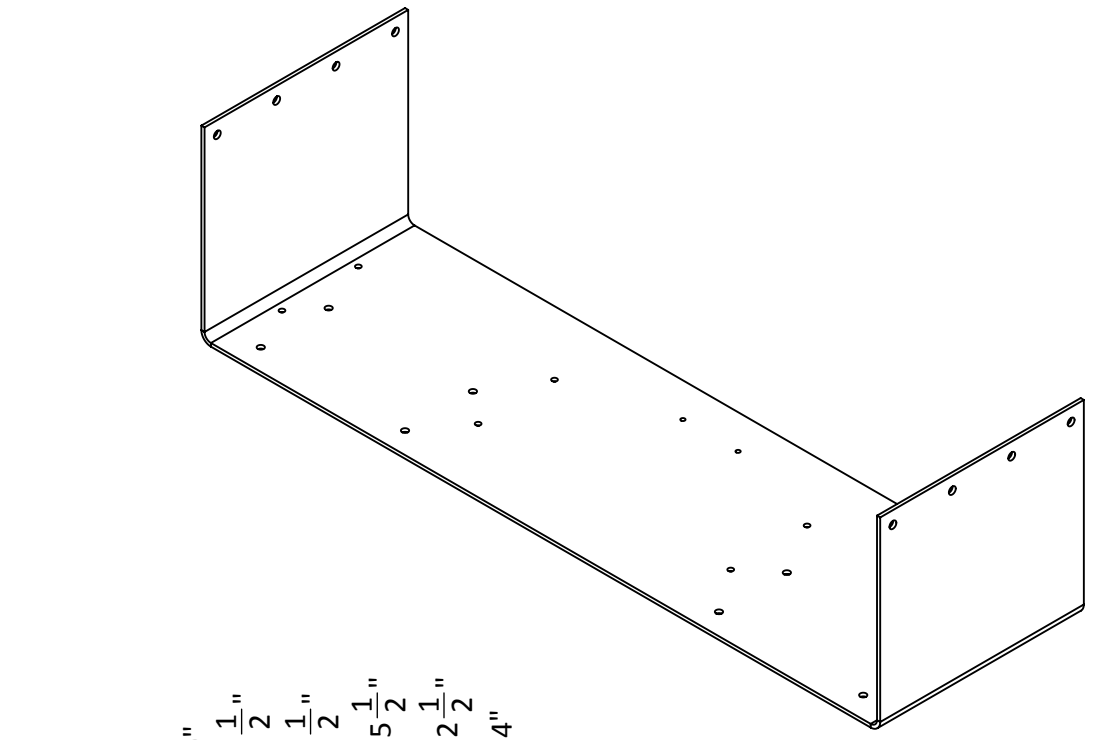
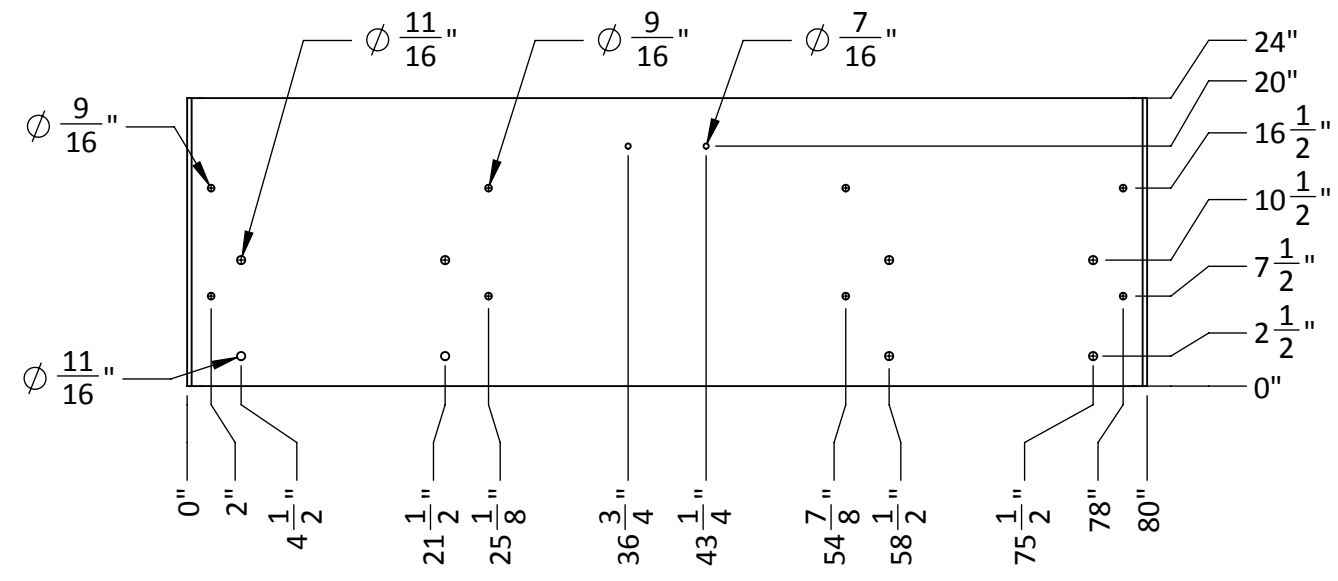
22" (559mm), HDPE DR 32.5, BUTT FUSED END CAPS, FILLED WITH ROUND TYPE 2 KOROFLOAT FOAM  
 SUPPLIER - SANDALE UTILILITY PRODUCTS, SURREY, BC



DIMENSIONS ASME Y14.5M X/X = $\pm 1/8"$ .X = $\pm 0.1"$ .XX = $\pm 0.01"$ .XXX = $\pm 0.001"$ ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
	PROJECT <b>BIG ROCK BOAT RAMP          GALVANIZED STEEL DOCKS</b>		TITLE: <b>FLOAT PIPE</b>	
	DIMENSIONS - INCH	DRAWN BY <b>J KING</b>	DATE <b>27/02/2018</b>	PROJECT NUMBER <b>395</b>
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8 7 6 5 4 3 2 1

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A



**PIPE SUPPORT**  
P/N 395-137  
SCALE: 1:16

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

<b>CR Engineering Inc.</b>			
TITLE: <b>PIPE SUPPORT</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 11 OF 26	REV A

8 7 6 5 4 3 2 1

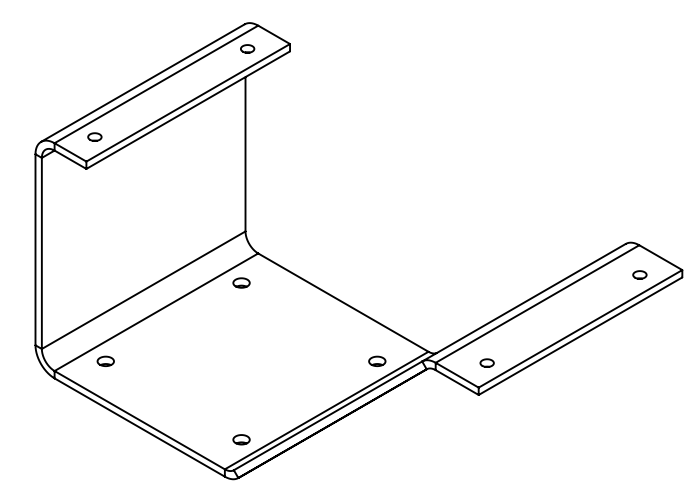
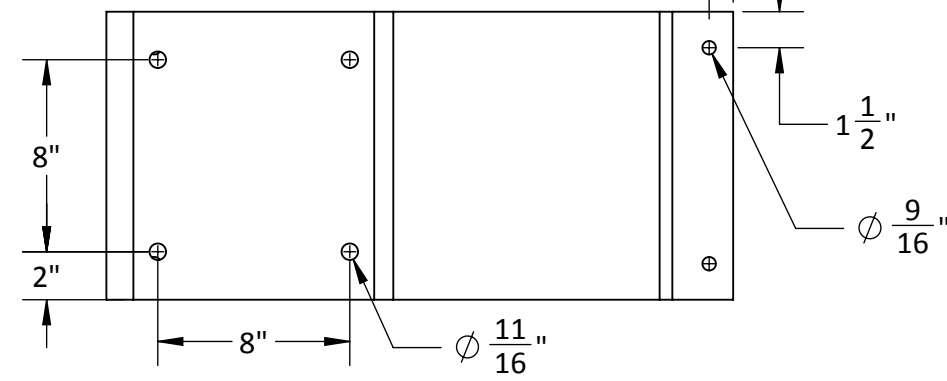
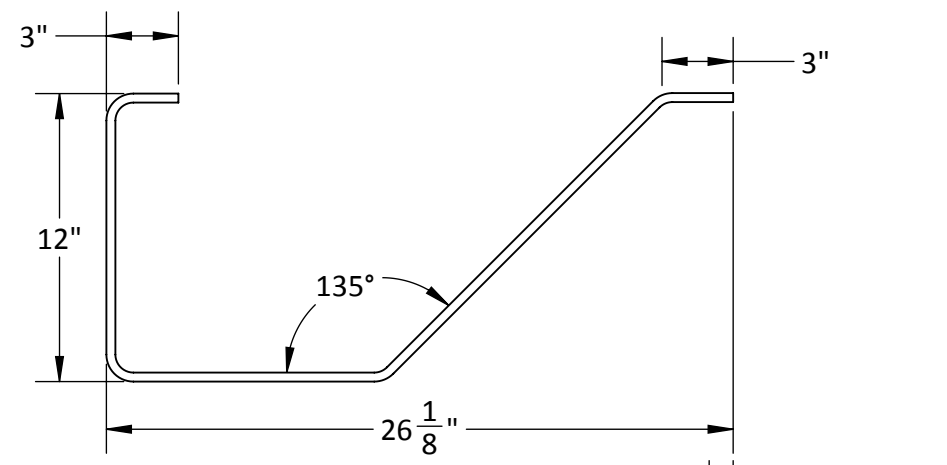
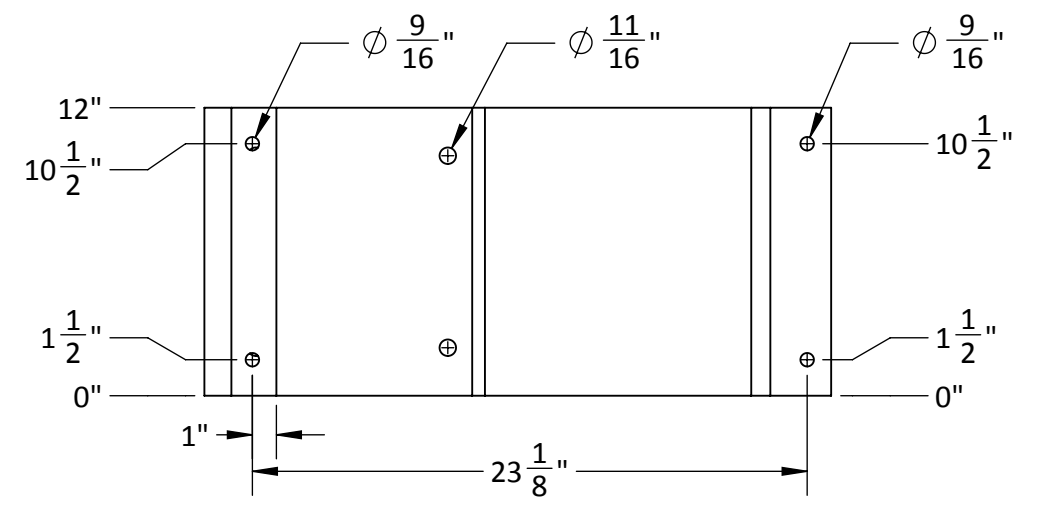
8 7 6 5 4 3 2 1

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**END FLOAT FOOT**  
P/N 395-206  
SCALE: 1:8

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 27/02/2018

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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP  
GALVANIZED STEEL DOCKS**

**CR Engineering Inc.**

TITLE:  
**END FLOAT FOOT**

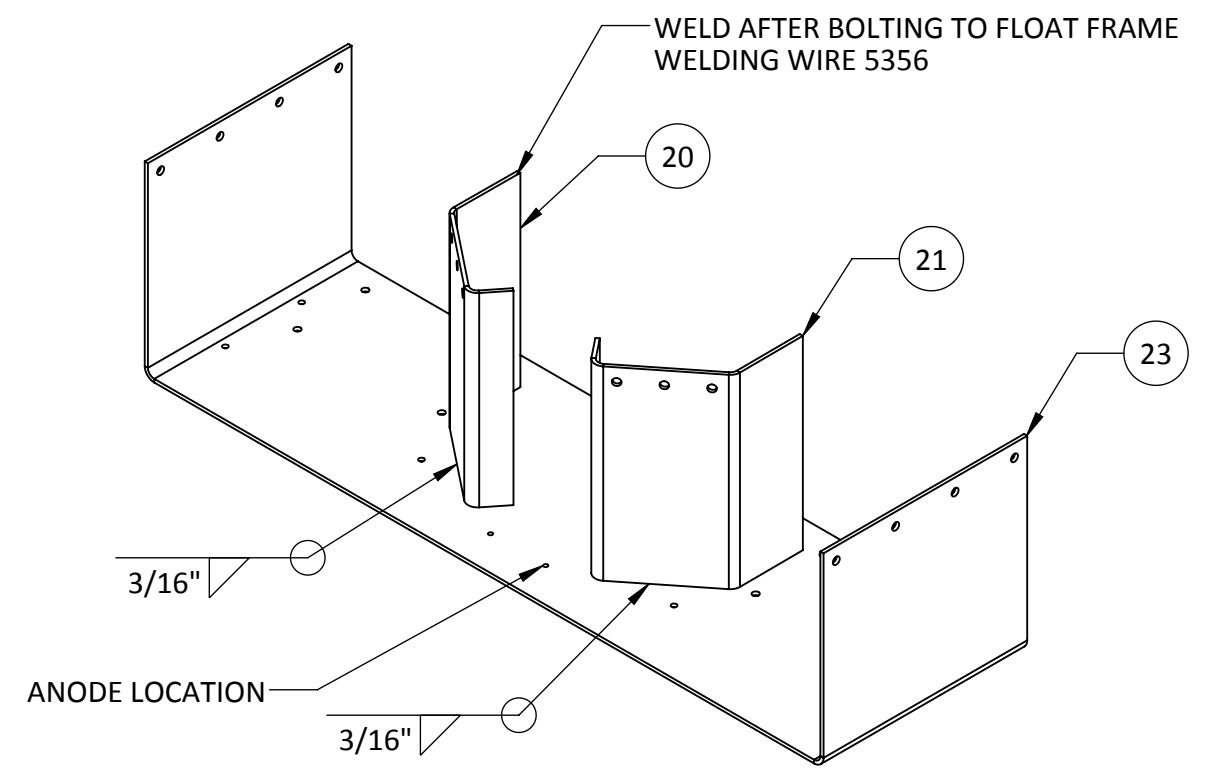
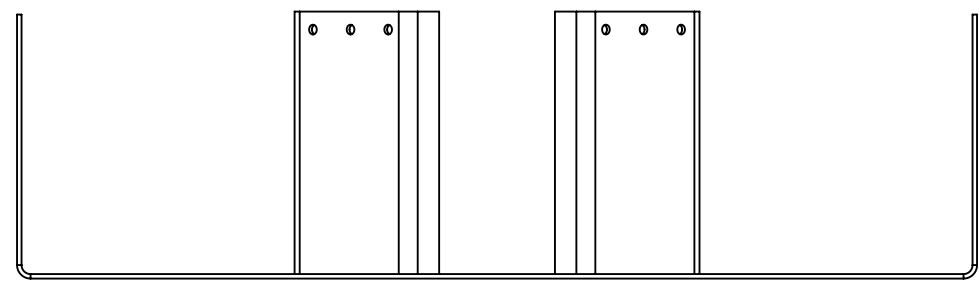
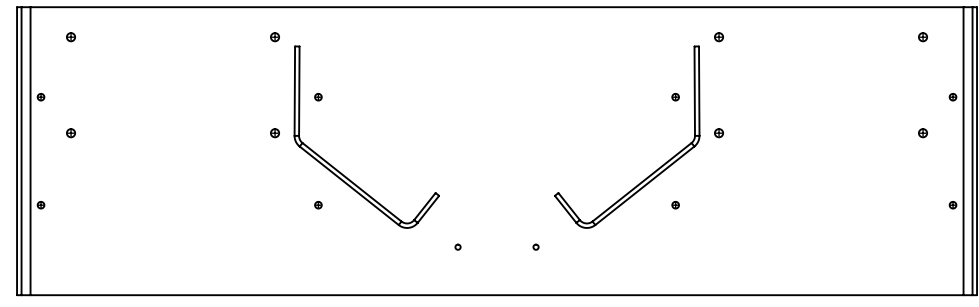
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	12 OF 26	A

8 7 6 5 4 3 2 1

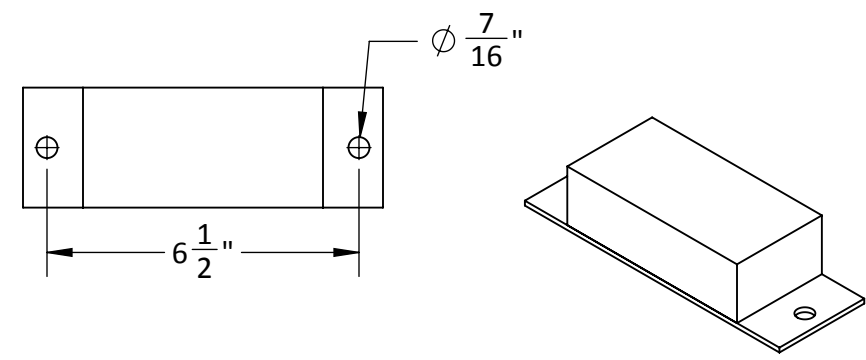
8 7 6 5 4 3 2 1

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PIPE SUPPORT  
P/N 395-180  
SCALE: 1:16



**ZINC ANODE 3LB**  
P/N 395-245  
SCALE: 1:4  
MARTYR CM706 OR EQUIVALENT

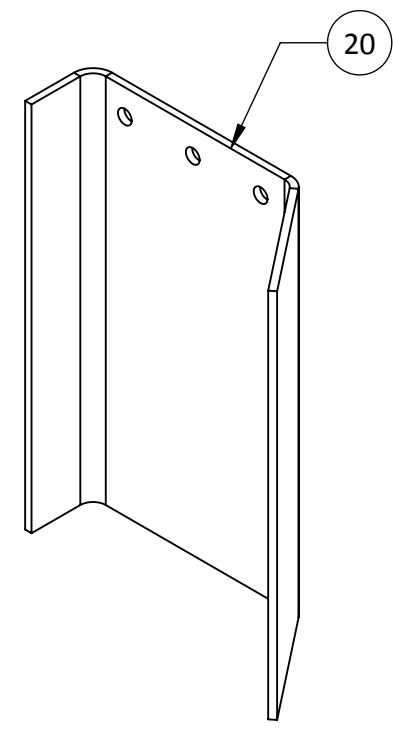
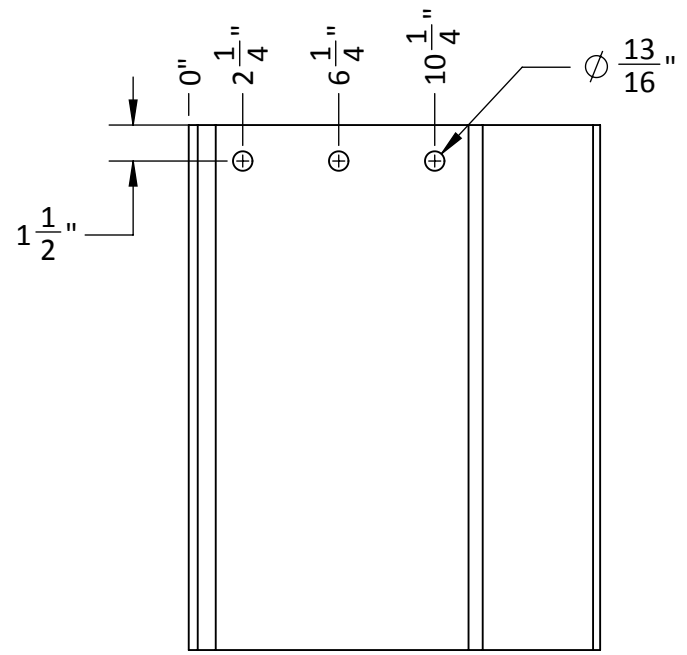
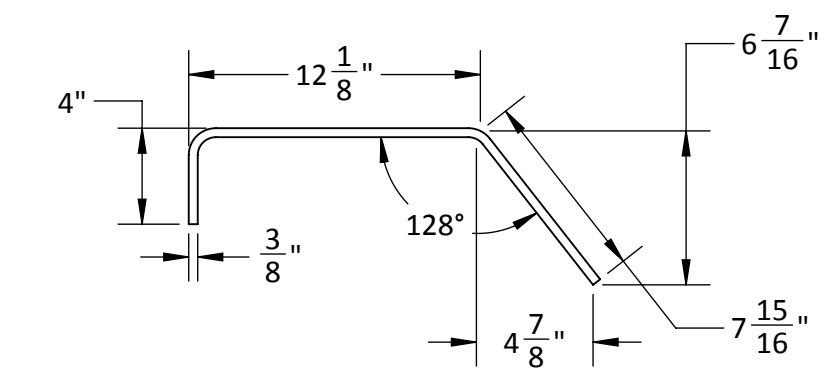
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		DRAWN BY J KING	DATE 27/02/2018
DIMENSIONS - INCH		This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.	

CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

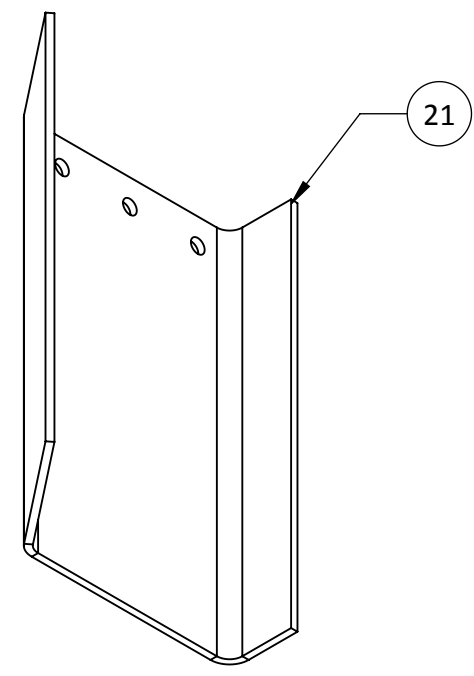
CR Engineering Inc.			
TITLE: <b>PIPE SUPPORT ASSEMBLY</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 13 OF 26	REV A

8 7 6 5 4 3 2 1



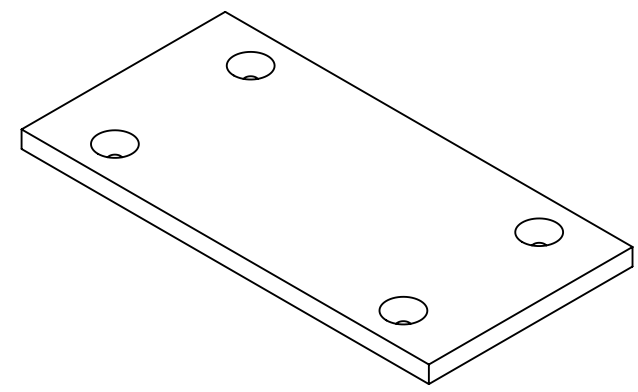
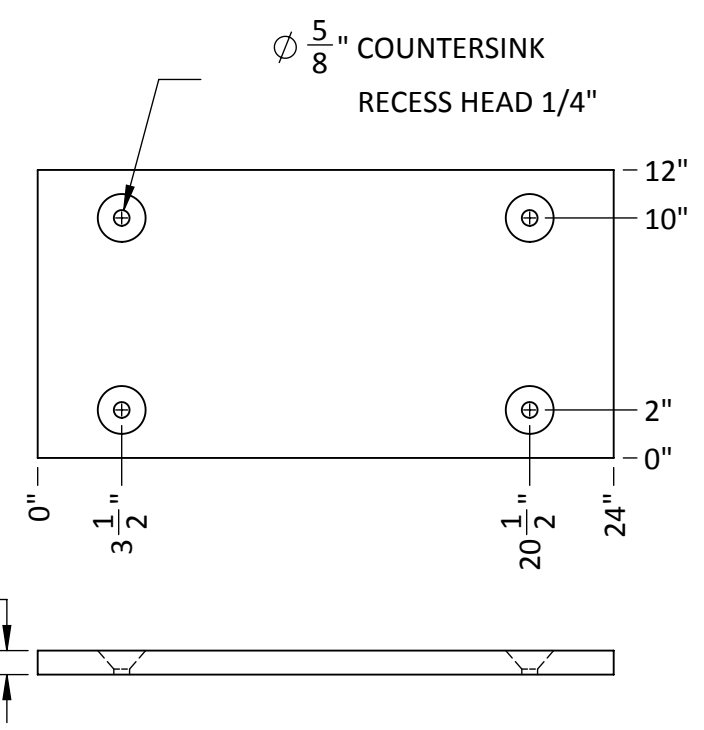


**PIPE INNER BRACKET LEFT**  
P/N 395-142  
SCALE: 1:8

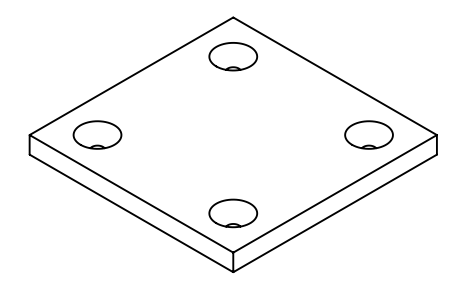
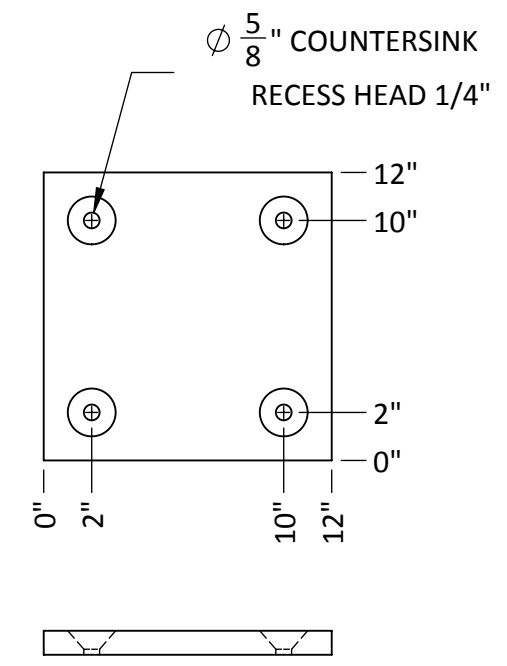


**PIPE INNER BRACKET RIGHT**  
P/N 395-142  
SCALE: 1:8

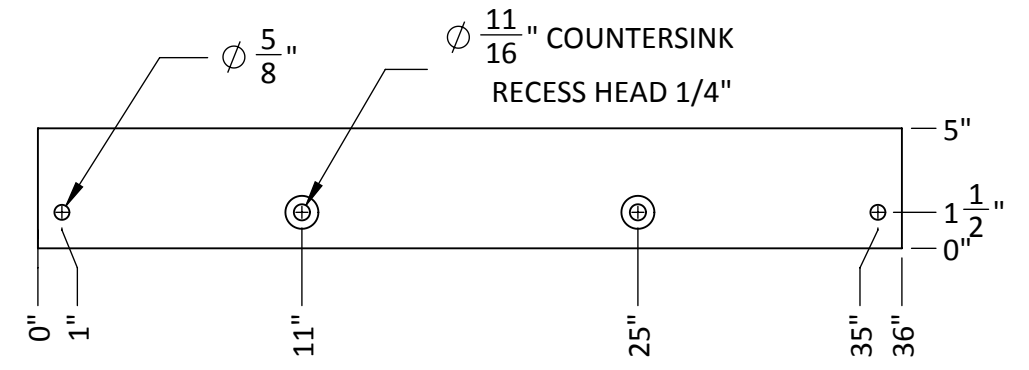
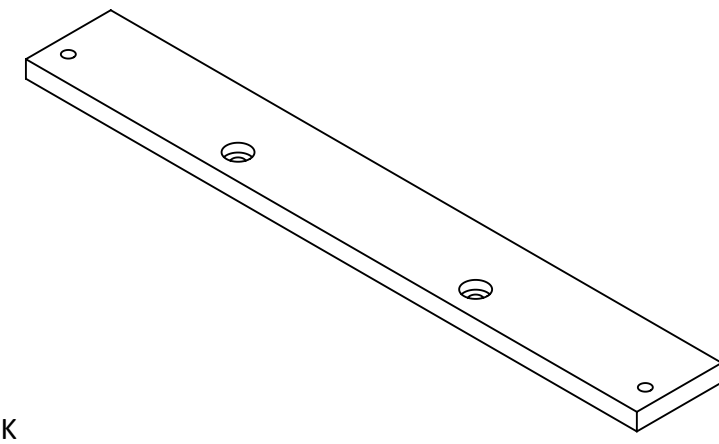
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>PIPE INNER BRACKET</b>	
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-400
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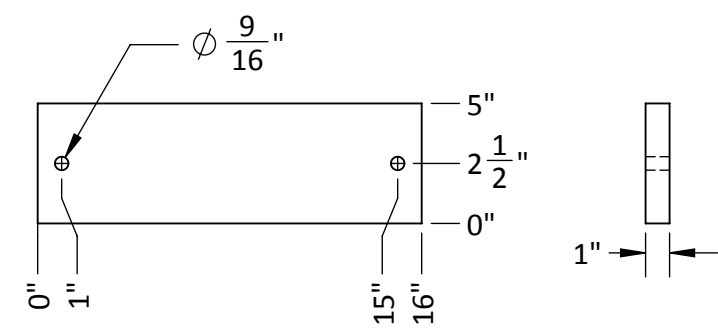
**UHMW BOTTOM SHOE**  
P/N 395-44  
SCALE: 1:8



**UHMW END FOOT SHOE**  
P/N 395-207  
SCALE: 1:8



**UHMW WEAR PLATE OUTER**  
P/N 395-67  
SCALE: 1:8

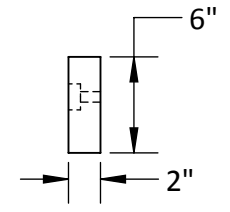
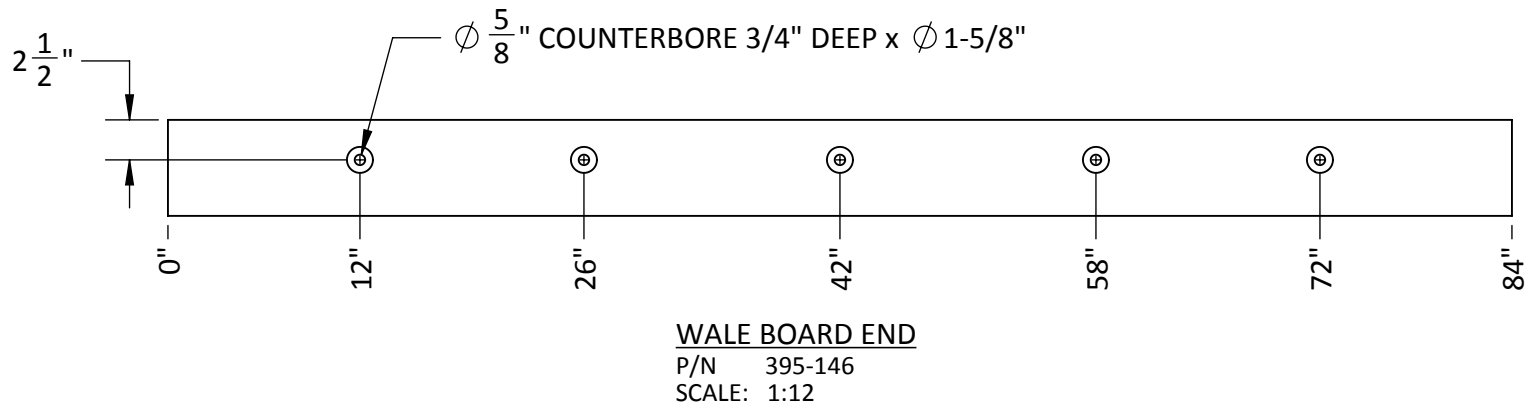
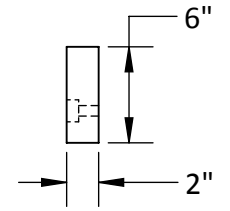
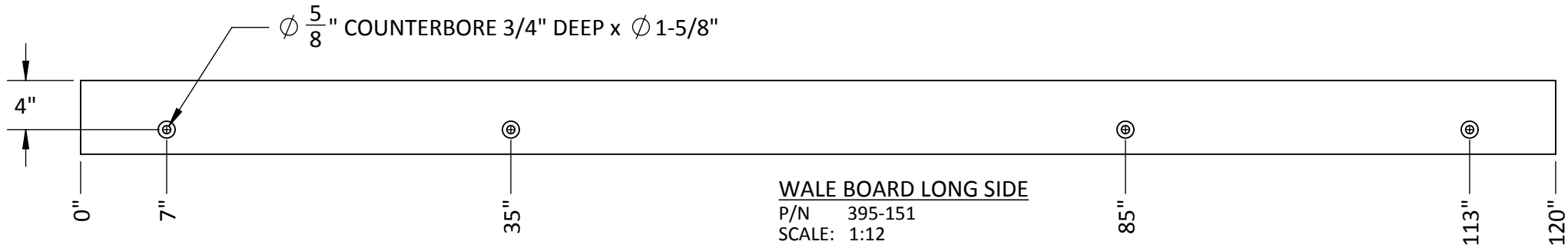
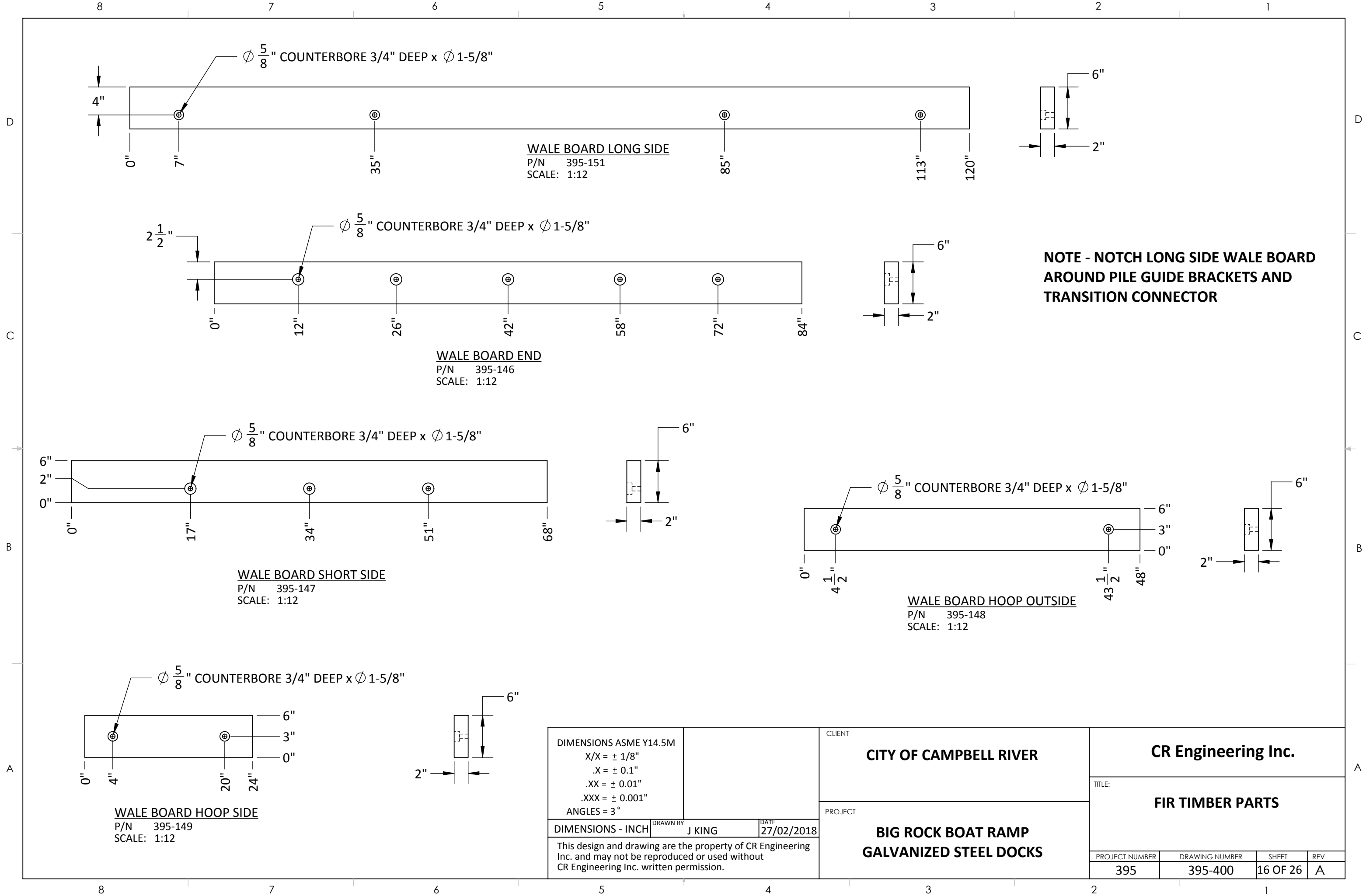


**UHMW WEAR PLATE SIDE**  
P/N 395-66  
SCALE: 1:8

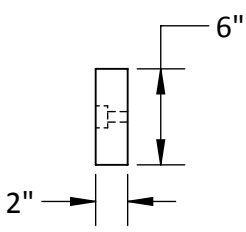
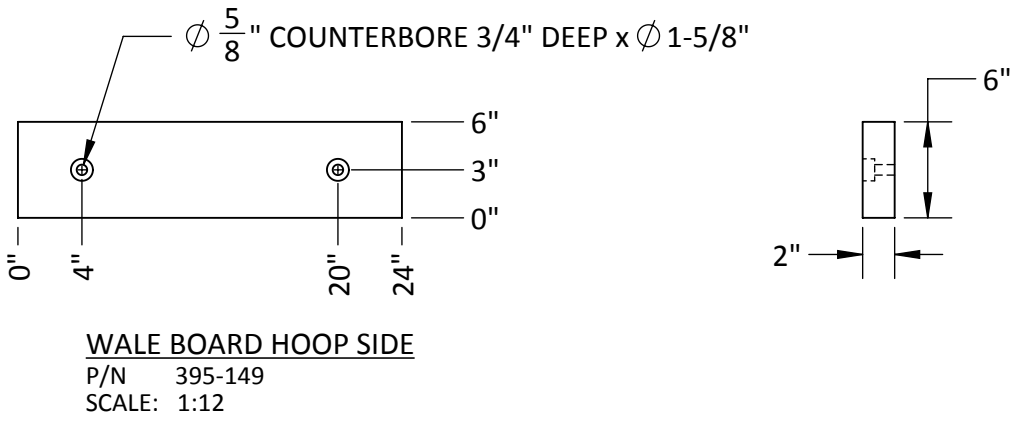
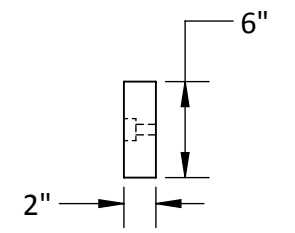
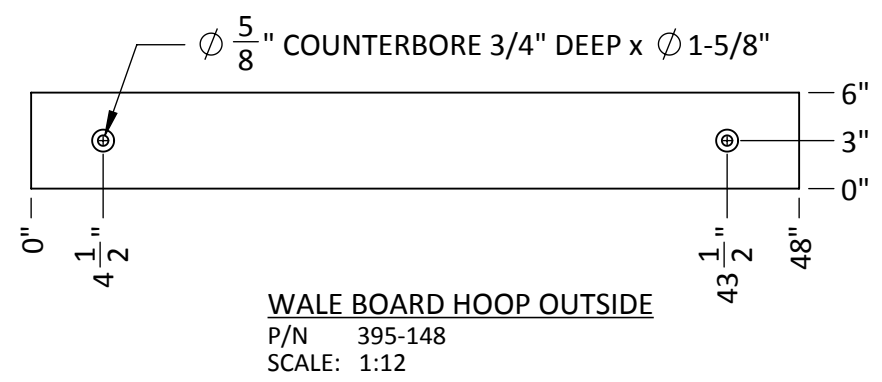
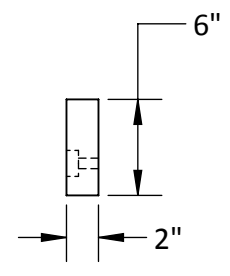
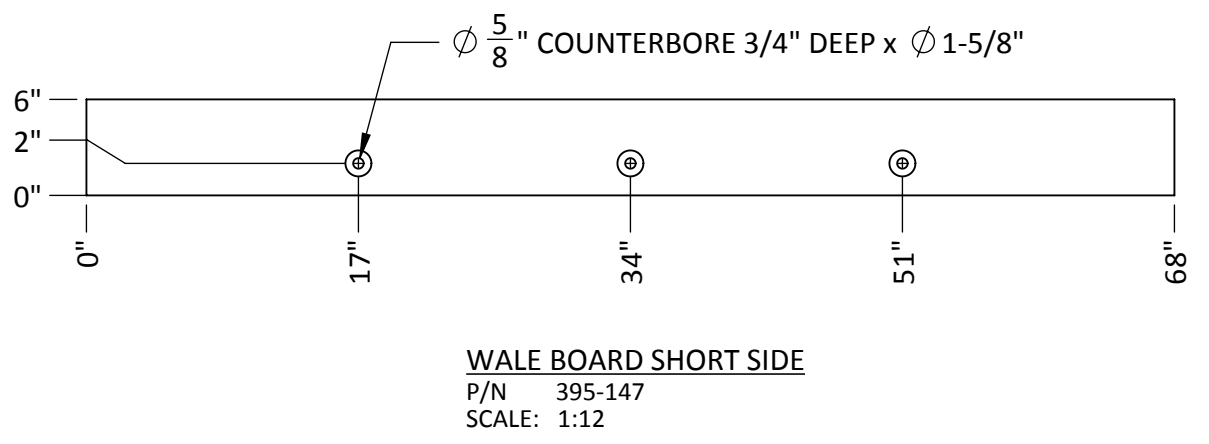
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	
DIMENSIONS - INCH	DRAWN BY J KING DATE 27/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

CR Engineering Inc.			
TITLE: <b>BLACK UHMW PARTS</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 15 OF 26	REV A



**NOTE - NOTCH LONG SIDE WALE BOARD AROUND PILE GUIDE BRACKETS AND TRANSITION CONNECTOR**



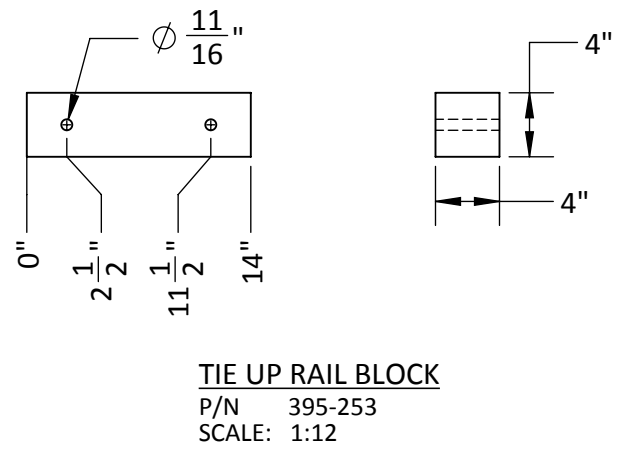
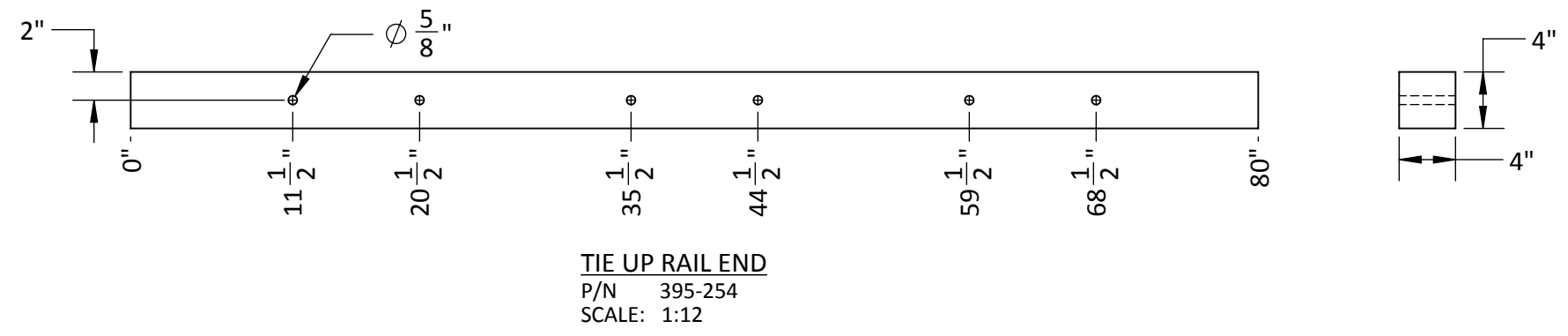
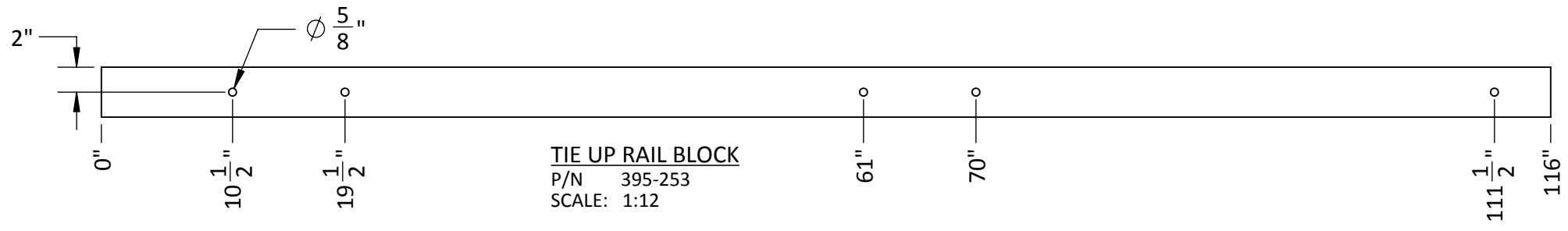
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		DRAWN BY J KING		DATE 27/02/2018	
DIMENSIONS - INCH		This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.			

CLIENT	<b>CITY OF CAMPBELL RIVER</b>	
PROJECT	<b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>	

CR Engineering Inc.			
TITLE: <b>FIR TIMBER PARTS</b>			
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	16 OF 26	A

8 7 6 5 4 3 2 1

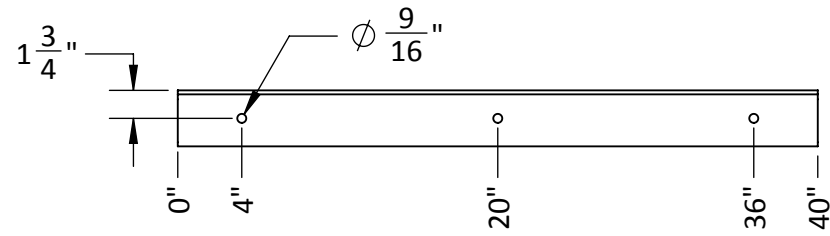
D  
C  
B  
A



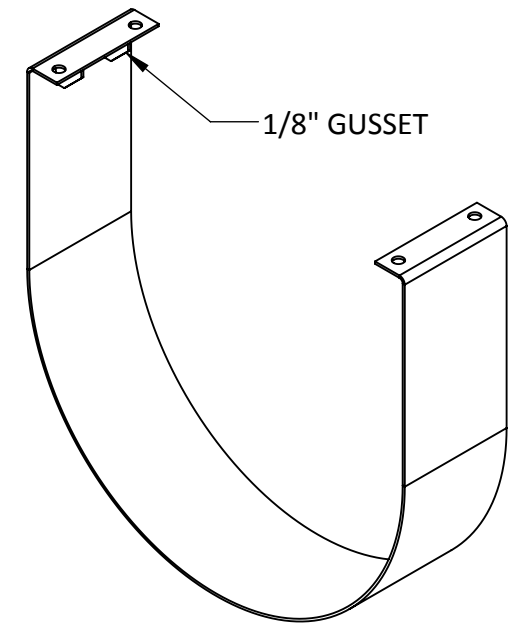
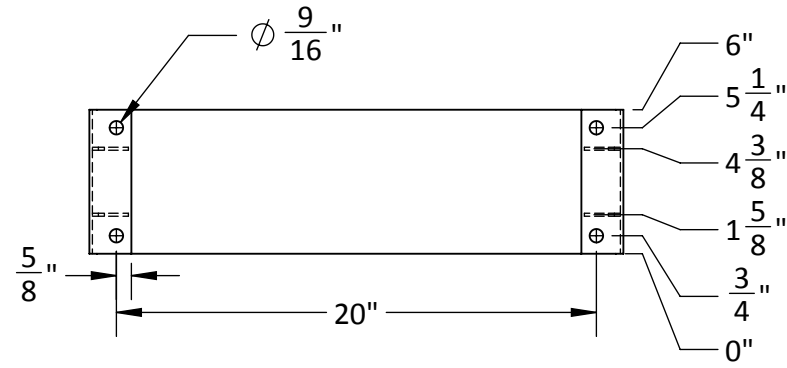
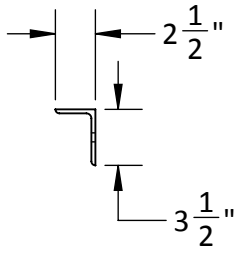
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		CR Engineering Inc.	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>FIR TIMBER PARTS</b>	
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395	DRAWING NUMBER 395-400
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8 7 6 5 4 3 2 1

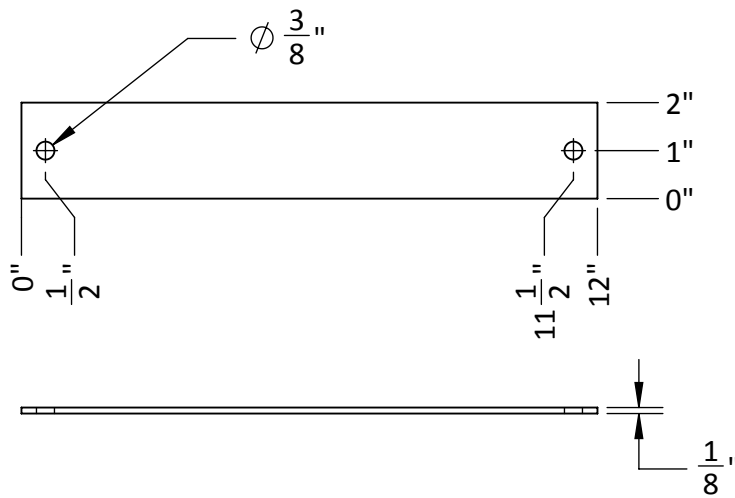
LENGTH	Description
40"	L3.5x2.5x0.25



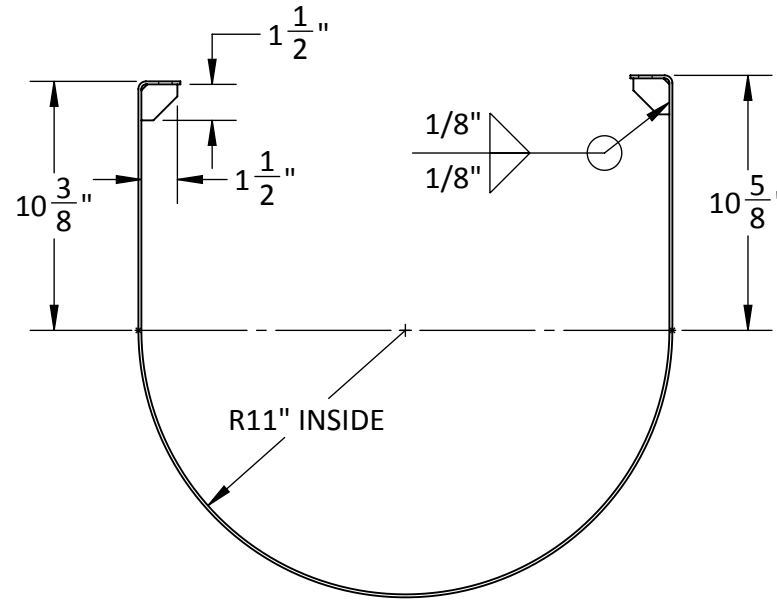
**FLOAT GAP FILLER ANGLE**  
P/N 395-145  
SCALE: 1:12



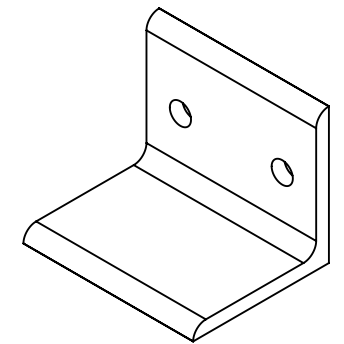
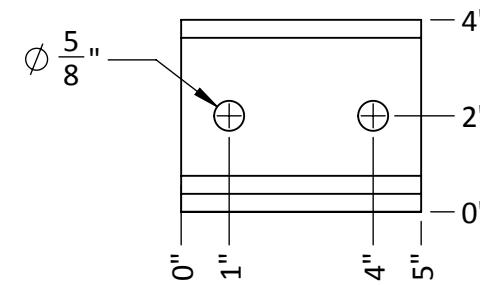
**STRAP**  
P/N 395-43  
SCALE: 1:8



**STAINLESS WEAR PLATE**  
P/N 395-141  
SCALE: 1:4



LENGTH	Description
5"	L 4" x 4" x 3/8"



**PIPE END STOP**  
P/N 395-241  
SCALE: 1:4

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 27/02/2018

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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP  
GALVANIZED STEEL DOCKS**

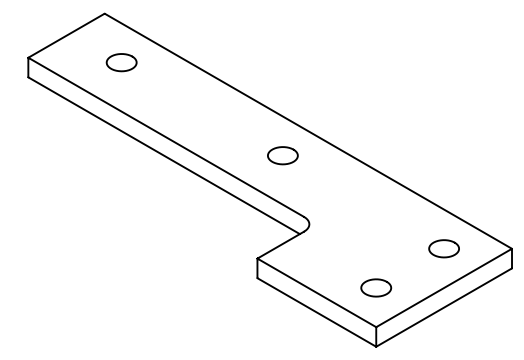
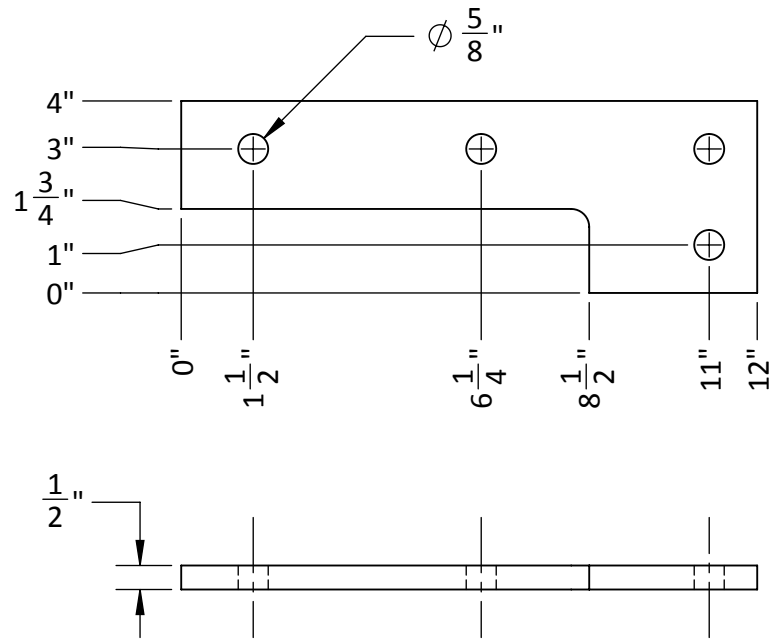
**CR Engineering Inc.**

TITLE:  
**DETAILS**

PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	18 OF 26	A

8 7 6 5 4 3 2 1

D  
C  
B  
A



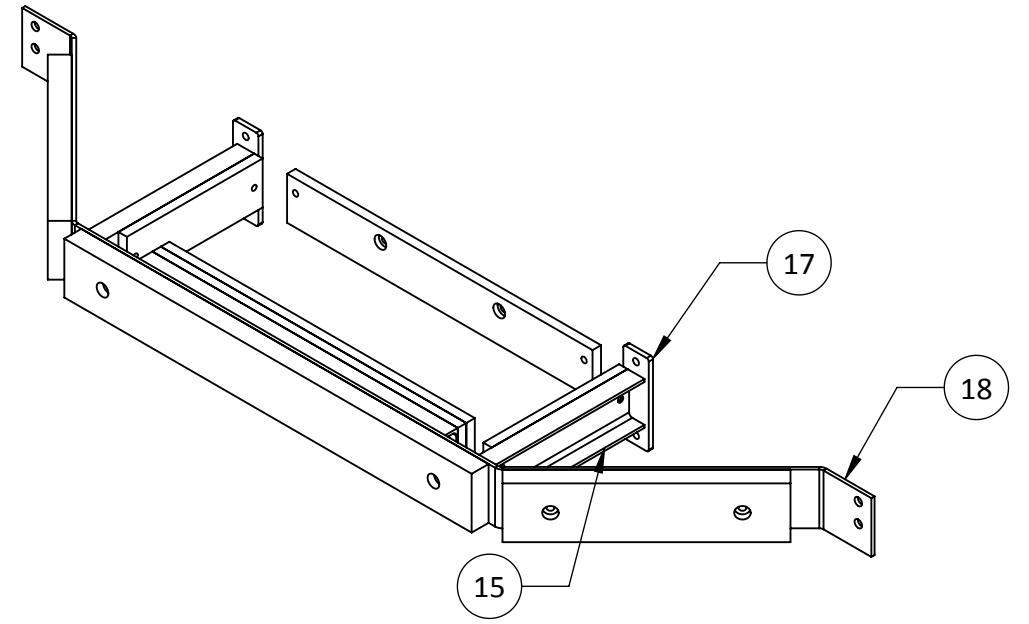
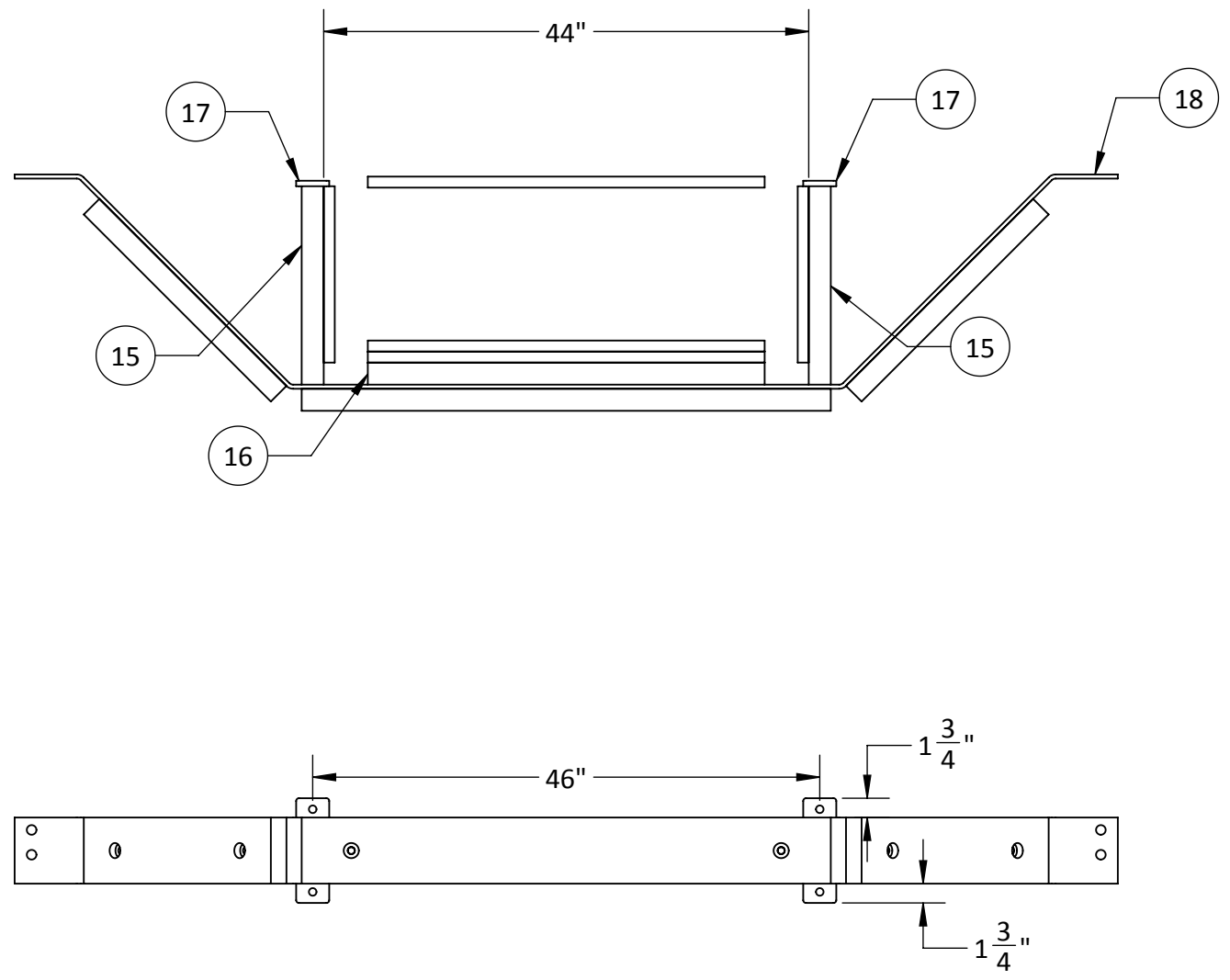
**CONNECTOR BACKING PLATE**  
P/N 395-244  
SCALE: 1:4

DIMENSIONS ASME Y14.5M X/X = $\pm 1/8$ " .X = $\pm 0.1$ " .XX = $\pm 0.01$ " .XXX = $\pm 0.001$ " ANGLES = 3°	DRAWN BY <b>J KING</b>	DATE <b>27/02/2018</b>	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
			PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>TRANSITION PILE CONNECTOR BACKINGP PLATE</b>	
DIMENSIONS - INCH			PROJECT NUMBER <b>395</b>	DRAWING NUMBER <b>395-400</b>	SHEET <b>19 OF 26</b>	REV <b>A</b>
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8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A



**PILE GUIDE**  
P/N 395-65  
SCALE: 1:16

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP  
GALVANIZED STEEL DOCKS**

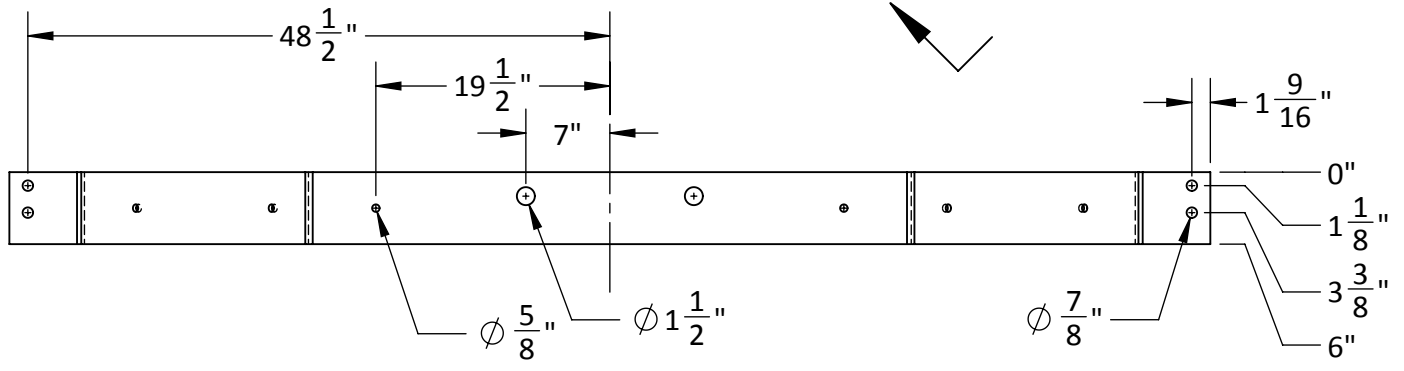
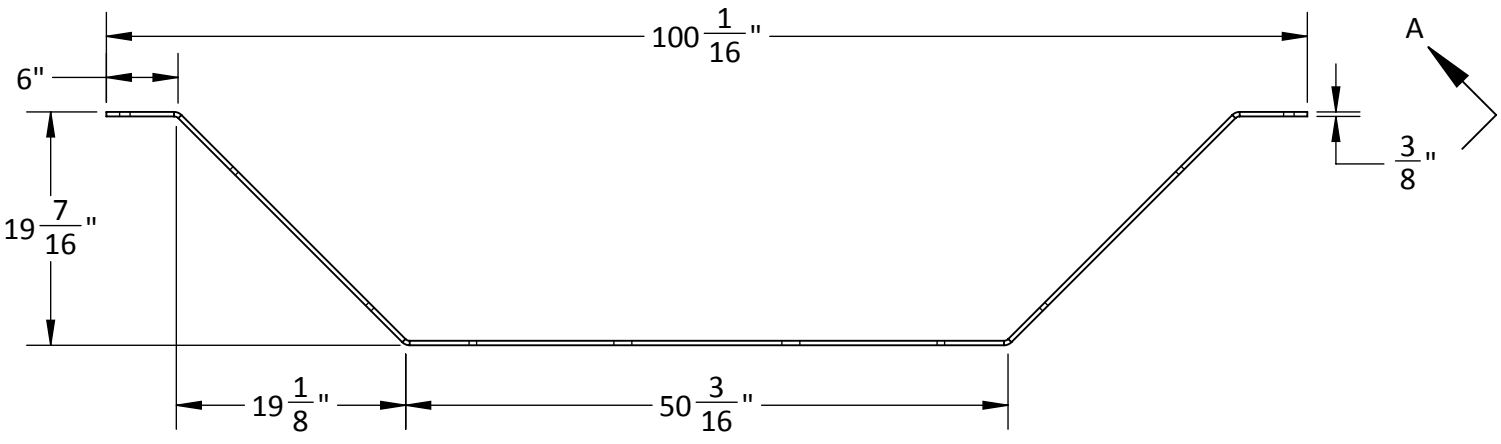
**CR Engineering Inc.**

TITLE:  
**PILE GUIDE ASSEMBLY  
GALVANIZED**

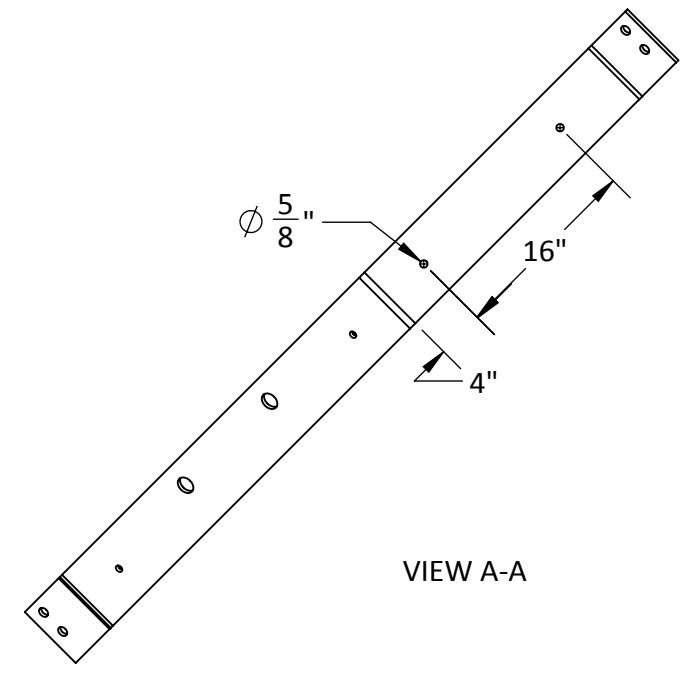
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	20 OF 26	A

8 7 6 5 4 3 2 1

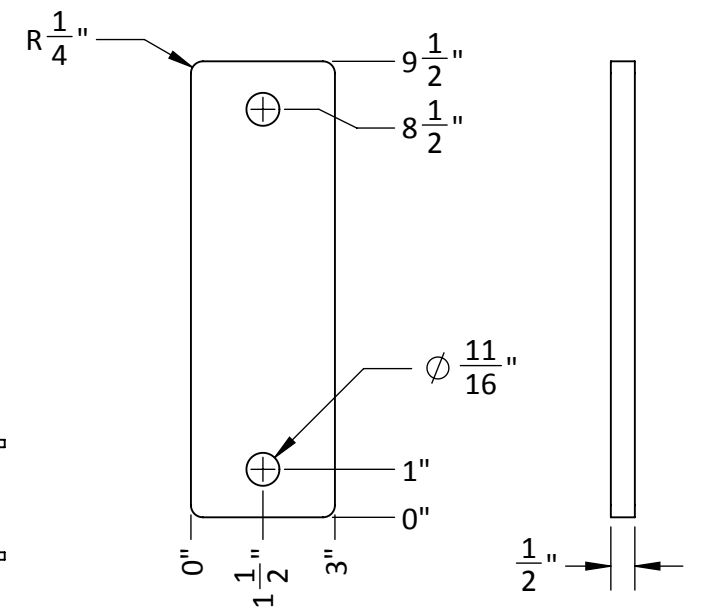
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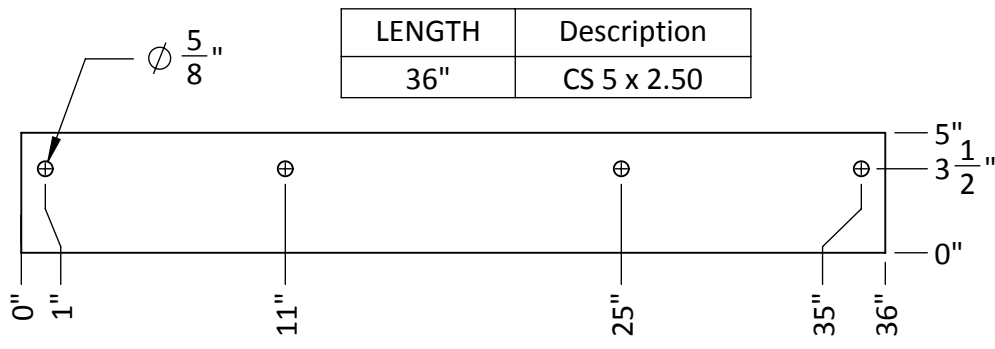
**PILE GUIDE GUARD**  
P/N 395-61  
SCALE: 1:16



VIEW A-A

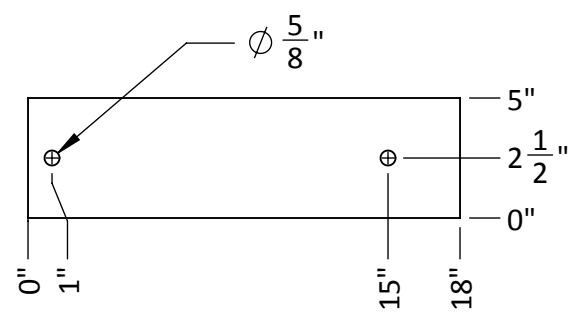


**PILE GUIDE MOUNTING PLATE**  
P/N 395-164  
SCALE: 1:4



**PILE GUIDE MOUNTING CHANNEL**  
P/N 395-63  
SCALE: 1:8

LENGTH	Description
18"	CS 5 x 2.50



**PILE GUIDE CHANNEL**  
P/N 395-62  
SCALE: 1:8

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS**

**CR Engineering Inc.**

TITLE:  
**PILE GUIDE DETAILS**

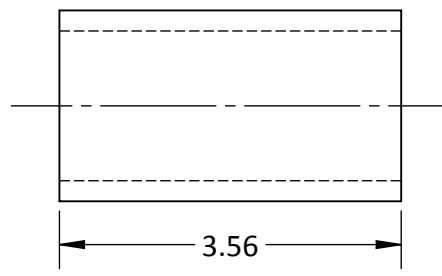
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	21 OF 26	A

8 7 6 5 4 3 2 1



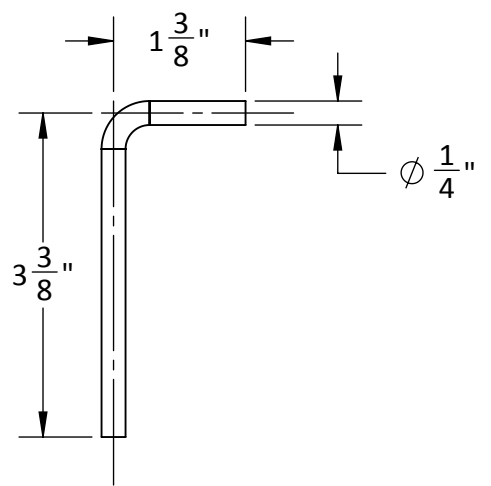
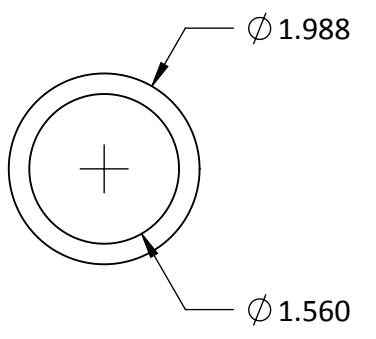
8 7 6 5 4 3 2 1

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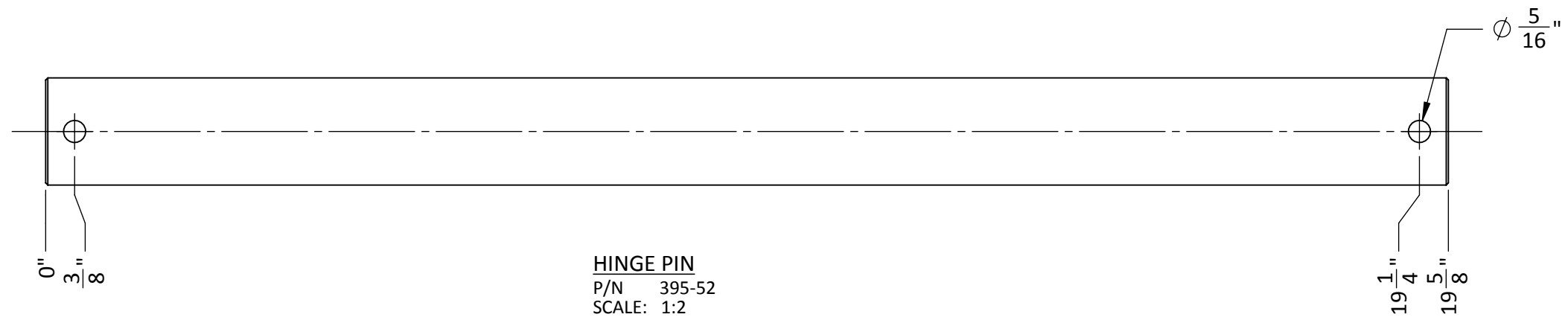


**HINGE BUSHING**  
P/N 395-57  
SCALE: 1:2

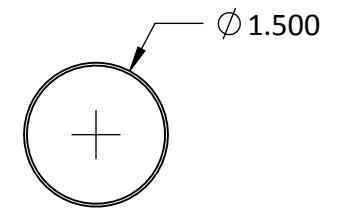
MD FILLED NYLON 2"  $\phi$  x 1-1/2"  $\phi$  ROUGH STOCK



**KEEPER PIN**  
P/N 281-95  
SCALE: 1:2



**HINGE PIN**  
P/N 395-52  
SCALE: 1:2



DIMENSIONS ASME Y14.5M X/X = $\pm 1/8$ " .X = $\pm 0.1$ " .XX = $\pm 0.01$ " .XXX = $\pm 0.001$ " ANGLES = 3°		
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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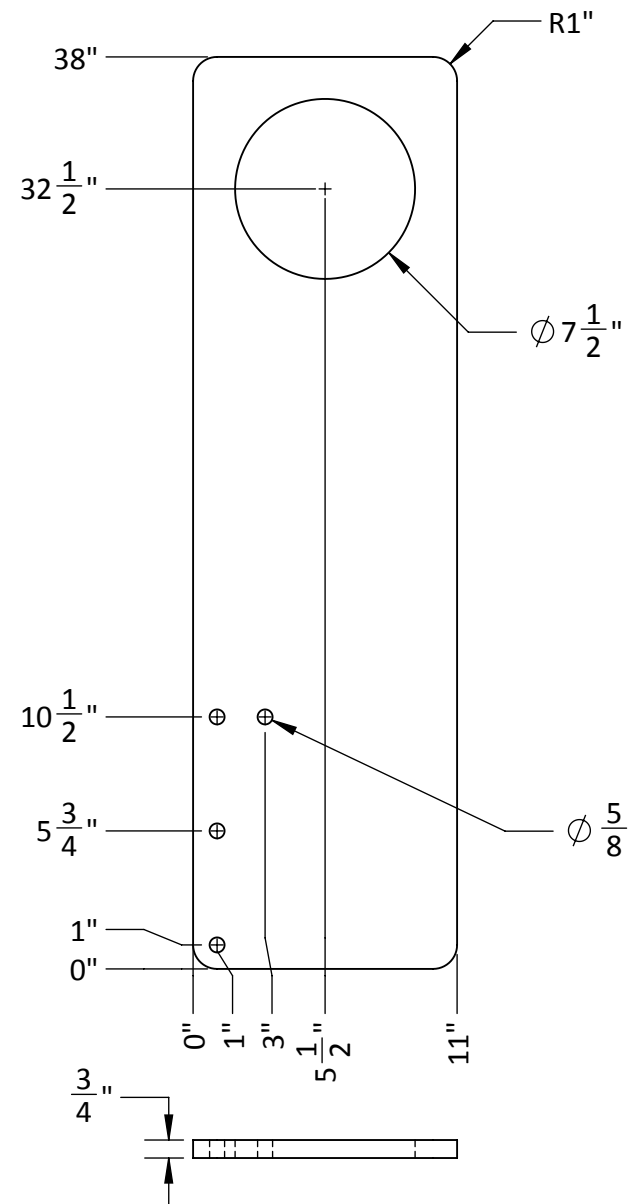
CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

CR Engineering Inc.			
TITLE: <b>HINGE DETAILS</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 22 OF 26	REV A

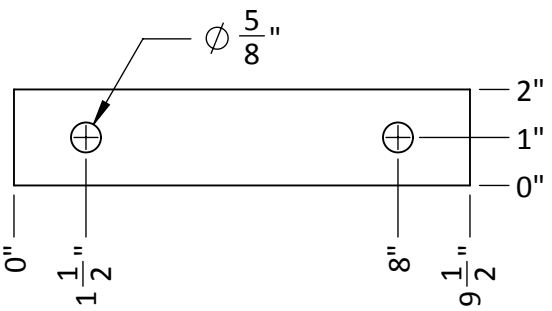
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

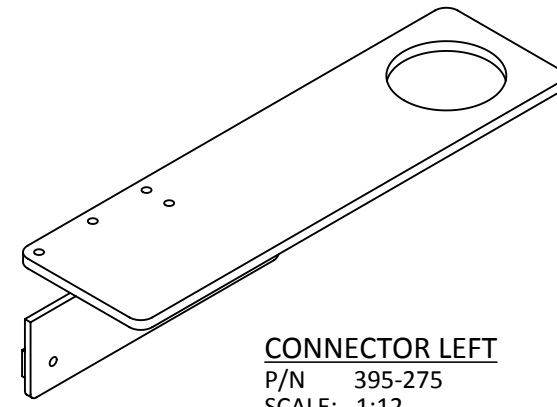
D  
C  
B  
A



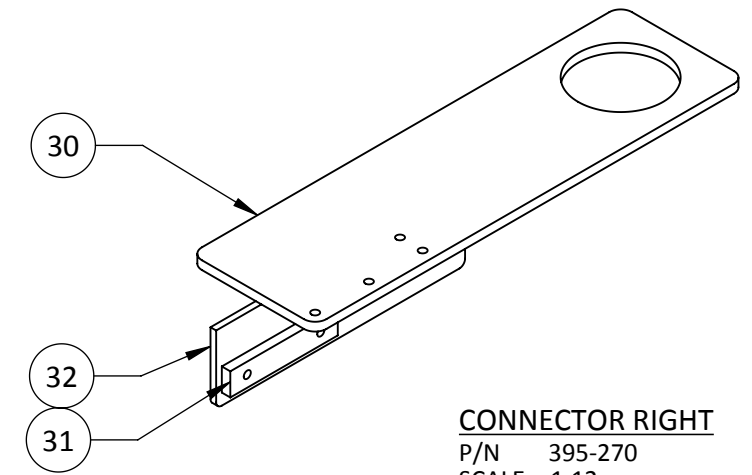
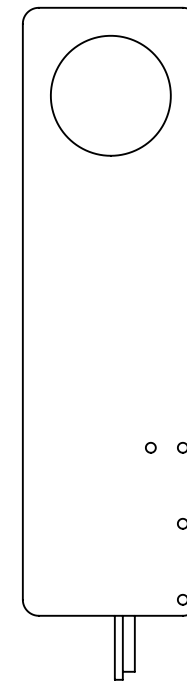
**TRANSITION CONNECTOR SPACER BLOCK**  
P/N 395-272  
SCALE: 1:4



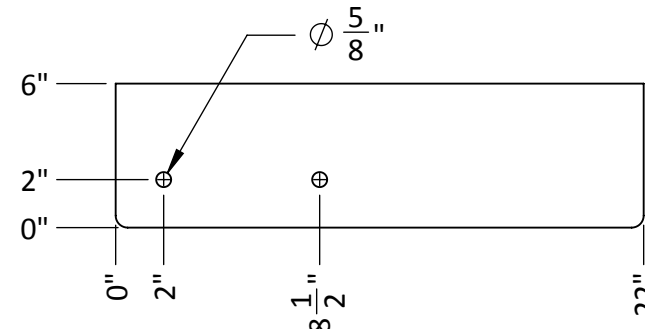
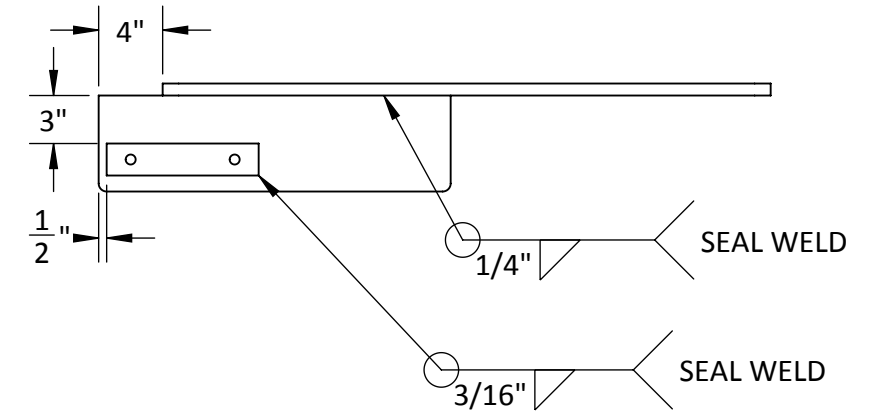
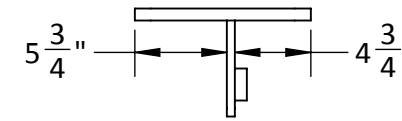
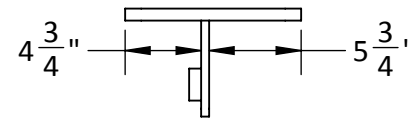
**TRANSITION CONNECTOR SPACER BLOCK**  
P/N 395-272  
SCALE: 1:4



**CONNECTOR LEFT**  
P/N 395-275  
SCALE: 1:12



**CONNECTOR RIGHT**  
P/N 395-270  
SCALE: 1:12



**TRANSITION CONNECTOR STIFFENER**  
P/N 395-271  
SCALE: 1:8

DIMENSIONS ASME Y14.5M  
X/X = ± 1/8"  
.X = ± 0.1"  
.XX = ± 0.01"  
.XXX = ± 0.001"  
ANGLES = 3°

DIMENSIONS - INCH DRAWN BY J KING DATE 27/02/2018

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CLIENT  
**CITY OF CAMPBELL RIVER**

PROJECT  
**BIG ROCK BOAT RAMP  
GALVANIZED STEEL DOCKS**

**CR Engineering Inc.**

TITLE:  
**TRANSITION CONNECTOR  
MAKE LEFT AND RIGHT HANDED**

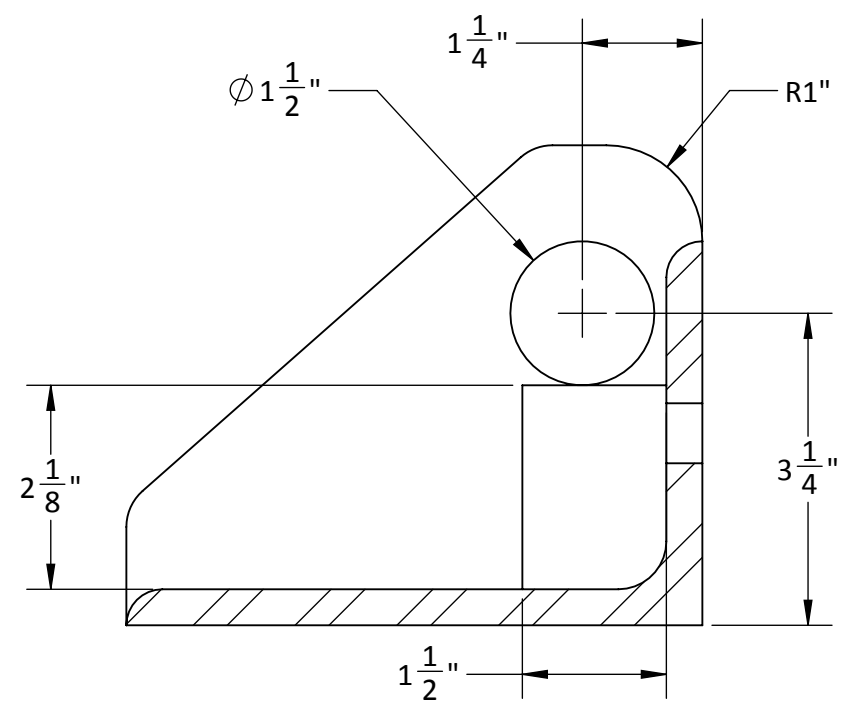
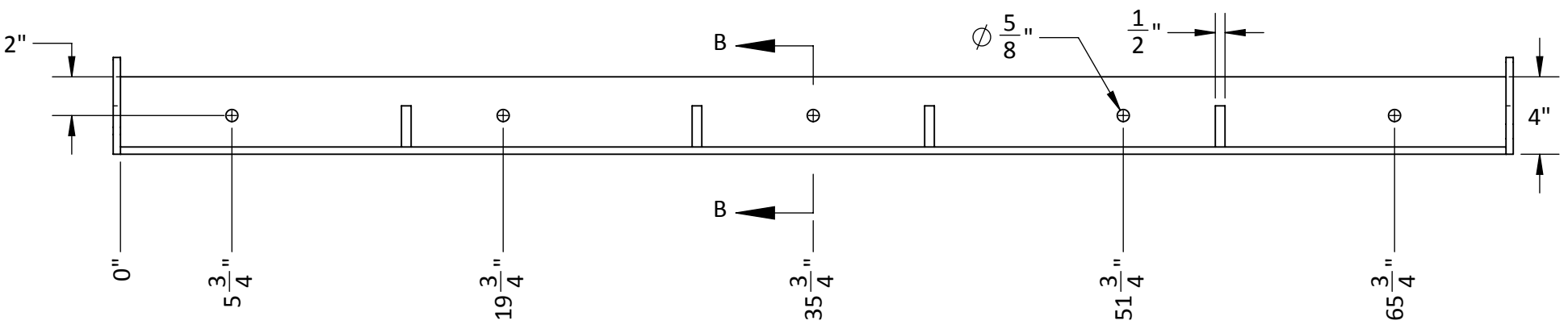
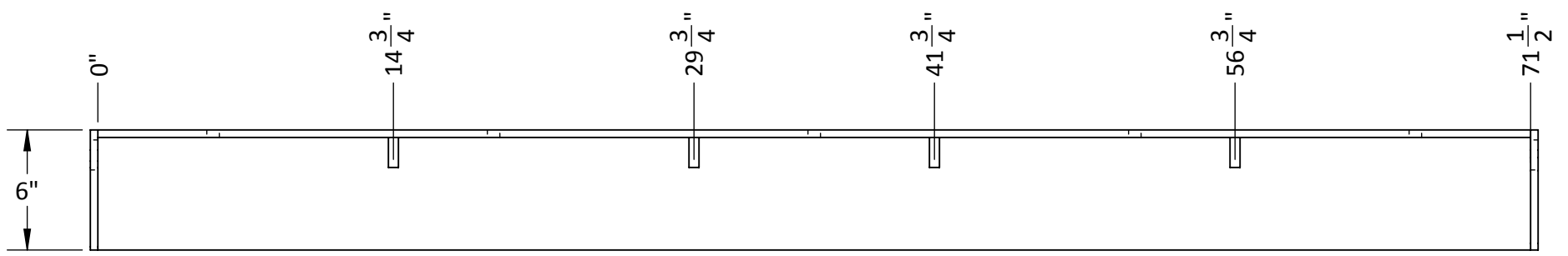
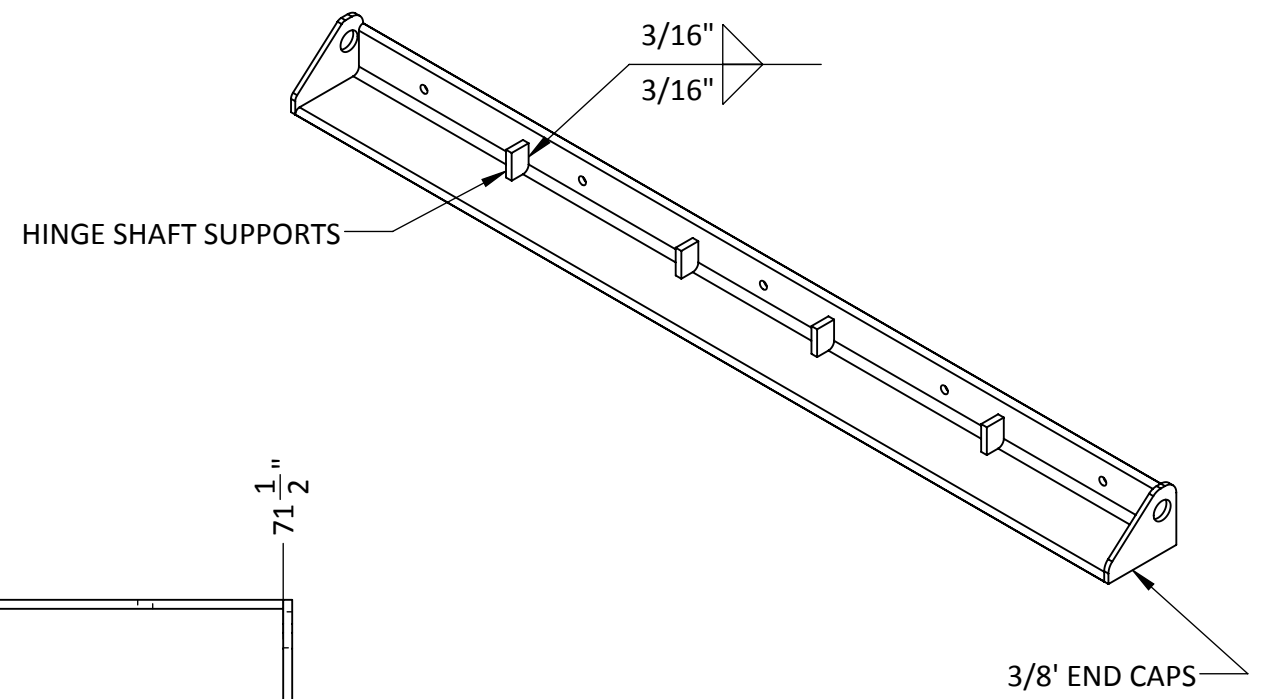
PROJECT NUMBER	DRAWING NUMBER	SHEET	REV
395	395-400	23 OF 26	A

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D  
C  
B  
A

LENGTH	Description
71 1/2"	L6x4x0.375



SECTION B-B  
SCALE 1 : 2

**TRANSITION PLATE SUPPORT ANGLE**  
P/N 395-281  
SCALE: 1:8

DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		
DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018
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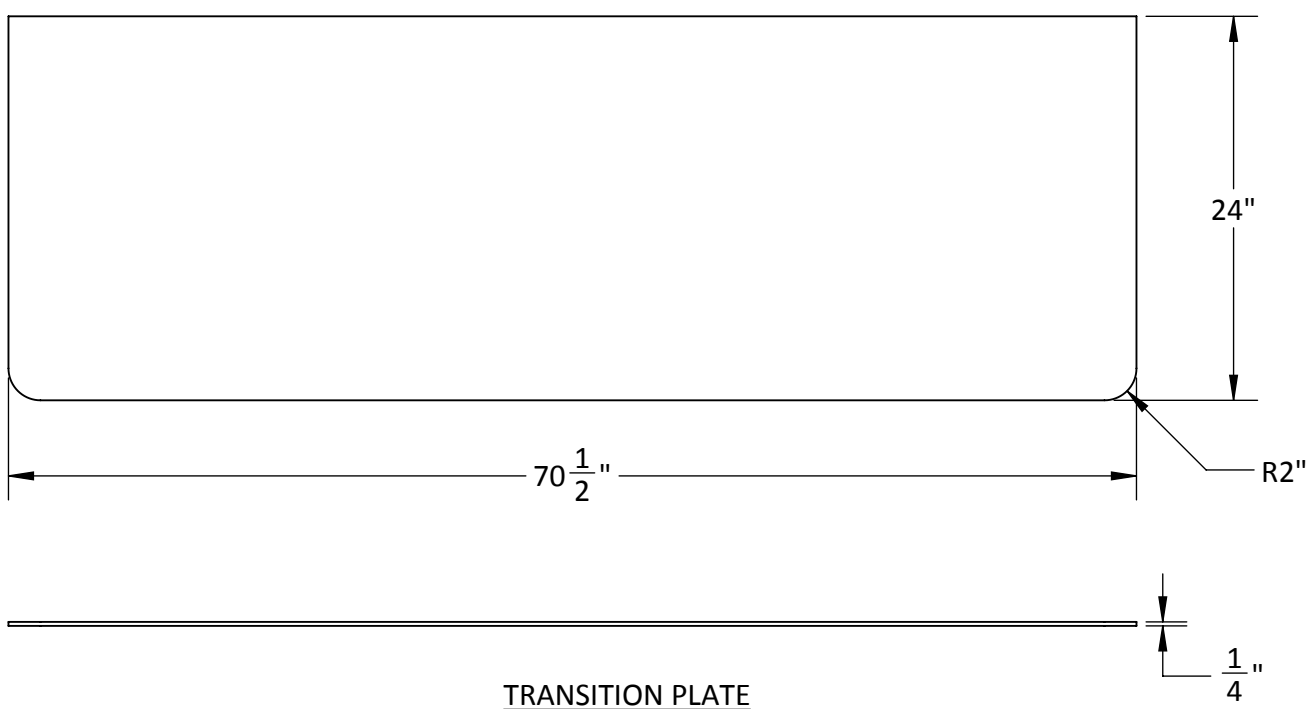
CLIENT <b>CITY OF CAMPBELL RIVER</b>
PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>

<b>CR Engineering Inc.</b>			
TITLE: <b>TRANSITION SHAFT SUPPORT</b>			
PROJECT NUMBER 395	DRAWING NUMBER 395-400	SHEET 24 OF 26	REV A

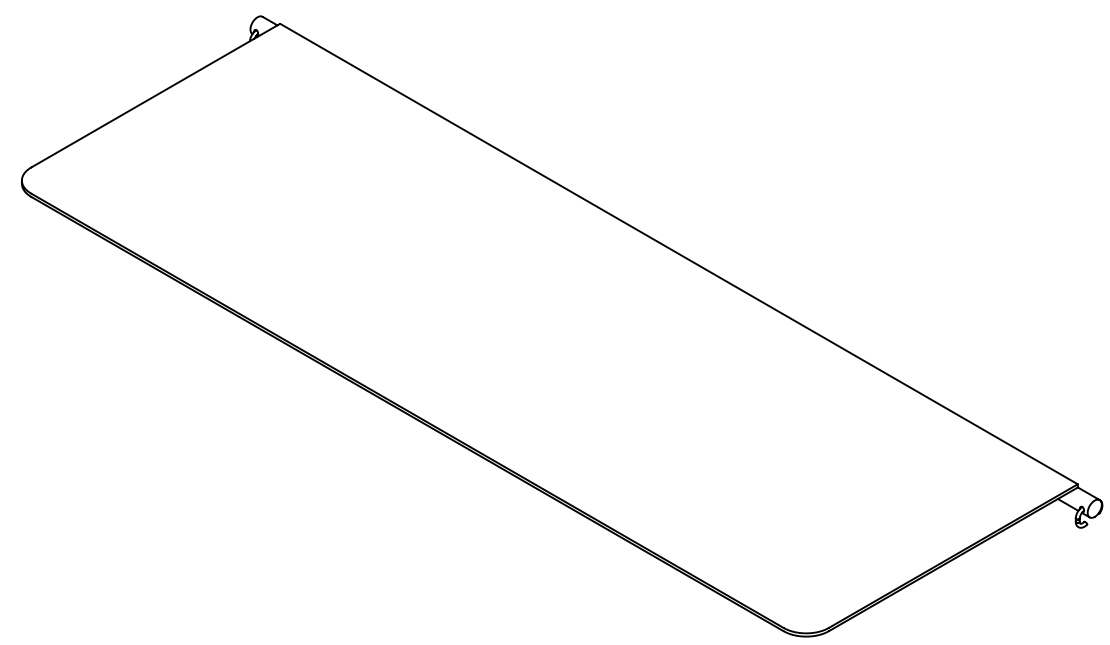
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

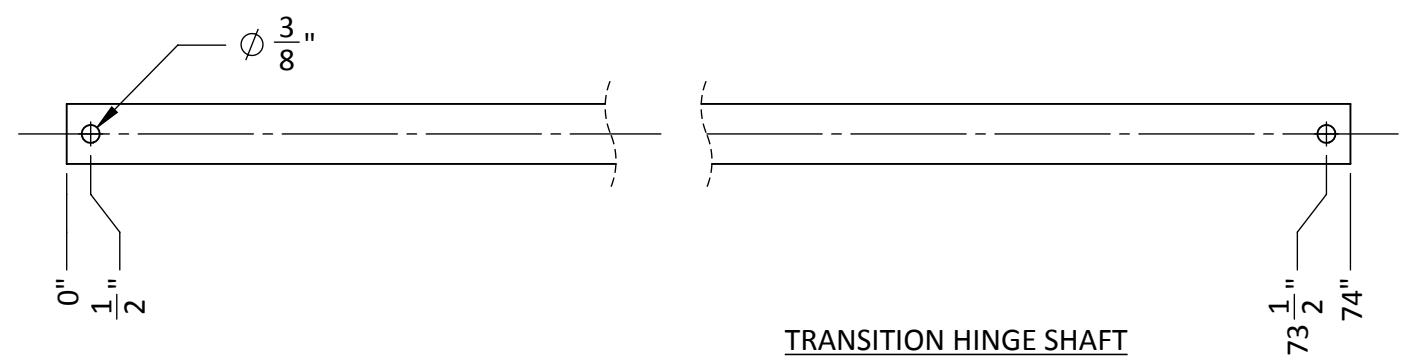
D  
C  
B  
A



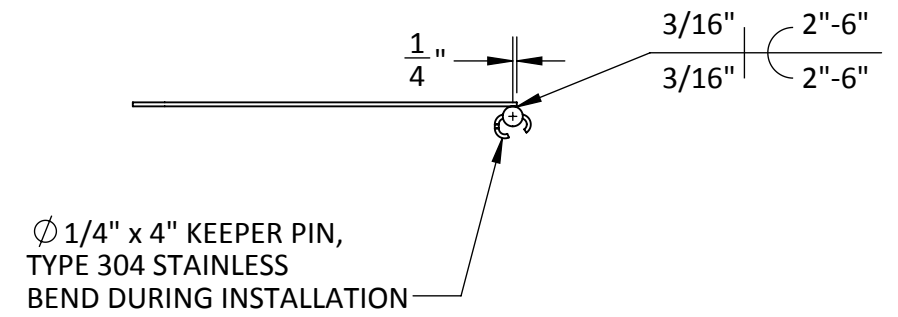
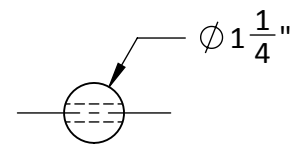
**TRANSITION PLATE**  
P/N 395-153  
SCALE: 1:12  
MATERIAL - 44W



**TRANSITION RAMP**  
P/N 395-155  
SCALE: 1:12



**TRANSITION HINGE SHAFT**  
P/N 395-152  
SCALE: 1:4  
MATERIAL - 44W

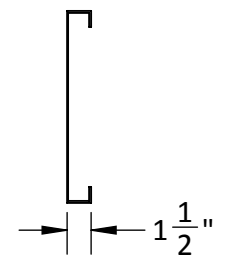
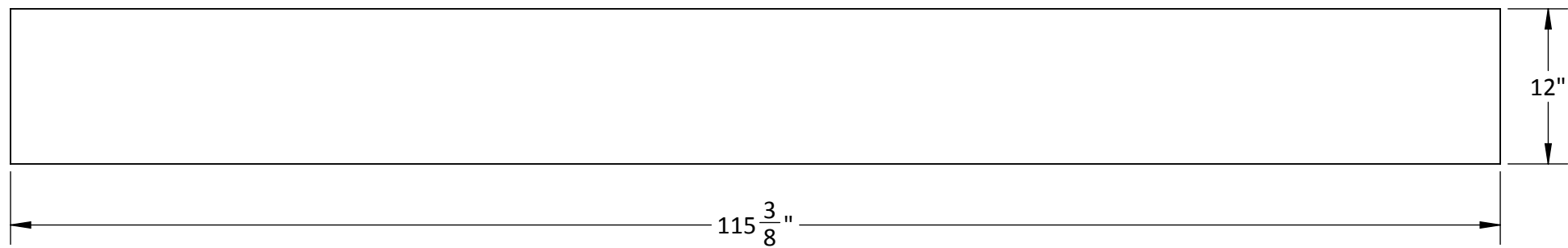


$\phi$  1/4" x 4" KEEPER PIN,  
TYPE 304 STAINLESS  
BEND DURING INSTALLATION

DIMENSIONS ASME Y14.5M X/X = $\pm 1/8$ " .X = $\pm 0.1$ " .XX = $\pm 0.01$ " .XXX = $\pm 0.001$ " ANGLES = 3°	CLIENT <b>CITY OF CAMPBELL RIVER</b>		<b>CR Engineering Inc.</b>	
	PROJECT <b>BIG ROCK BOAT RAMP GALVANIZED STEEL DOCKS</b>		TITLE: <b>TRANSITION RAMP ASSEMBLY</b>	
	DIMENSIONS - INCH	DRAWN BY J KING	DATE 27/02/2018	PROJECT NUMBER 395
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8 7 6 5 4 3 2 1

ROUND HOLE GRATING  
 12" x 1-1/2" x 13 GA  
 RAW STEEL



**GRATING - ROUND HOLE 12" x 1-1/2", 13 GA**  
 P/N 395-42  
 SCALE: 1:12

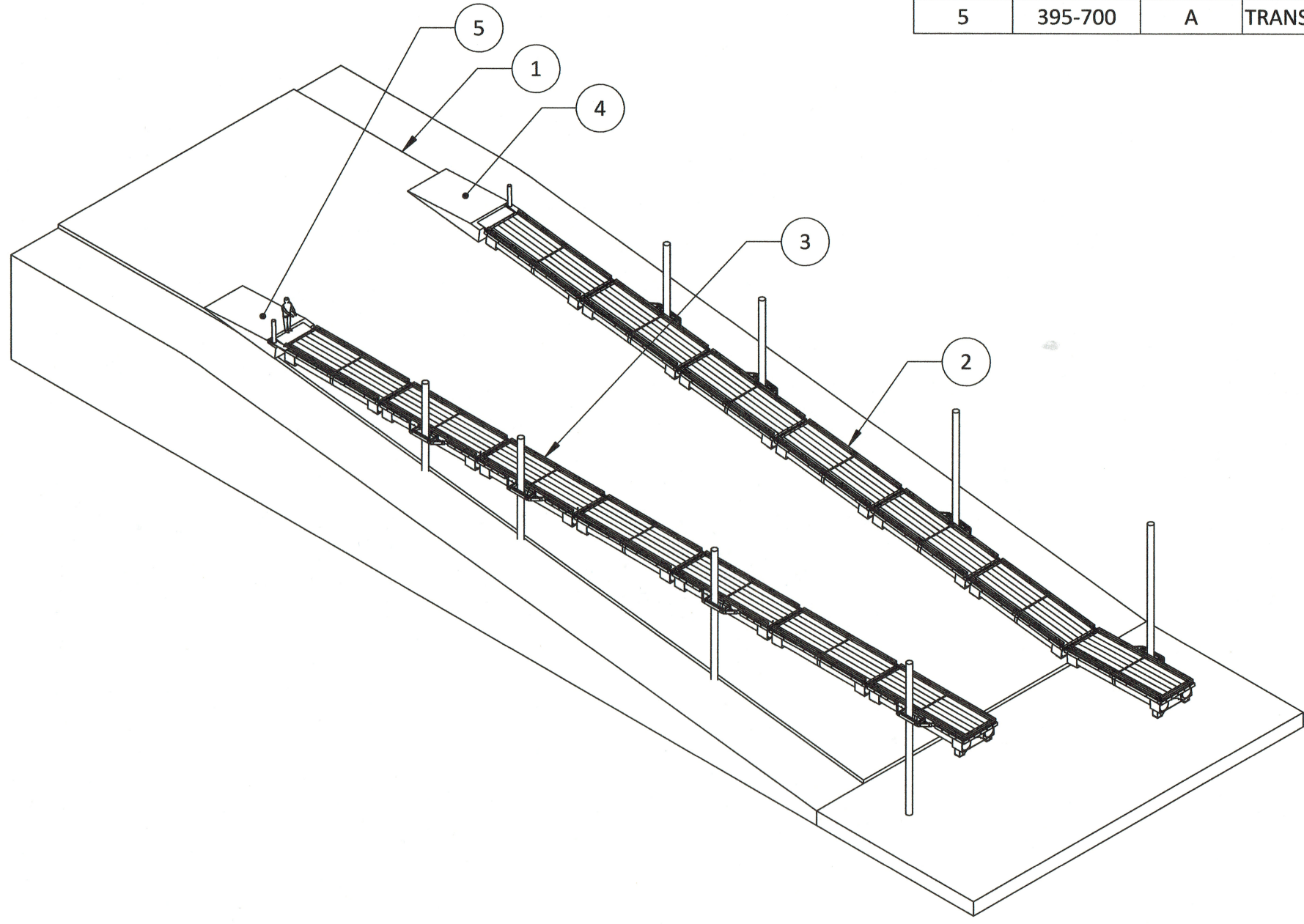
DIMENSIONS ASME Y14.5M X/X = ± 1/8" .X = ± 0.1" .XX = ± 0.01" .XXX = ± 0.001" ANGLES = 3°		DRAWN BY <b>J KING</b>		DATE <b>27/02/2018</b>	
DIMENSIONS - INCH		This design and drawing are the property of CR Engineering Inc. and may not be reproduced or used without CR Engineering Inc. written permission.			

CLIENT <b>CITY OF CAMPBELL RIVER</b>	
PROJECT <b>BIG ROCK BOAT RAMP          GALVANIZED STEEL DOCKS</b>	

CR Engineering Inc.			
TITLE: <b>GRATING</b>			
PROJECT NUMBER <b>395</b>	DRAWING NUMBER <b>395-400</b>	SHEET <b>26 OF 26</b>	REV <b>A</b>

8 7 6 5 4 3 2 1

ITEM No.	PART No.	Revision	DESCRIPTION	QTY.
1	395-05	A	BOAT RAMP	1
2	395-100	A	DOCK ASSEMBLY LEFT SIDE	1
3	395-200	A	DOCK ASSEMBLY RIGHT SIDE	1
4	395-700	A	TRANSITION RAMP ASSEMBLY LEFT	1
5	395-700	A	TRANSITION RAMP ASSEMBLY RIGHT	1



REV.	DESCRIPTION	DATE	APPROVED
A	ISSUED FOR TENDER	2/03/2018	JK

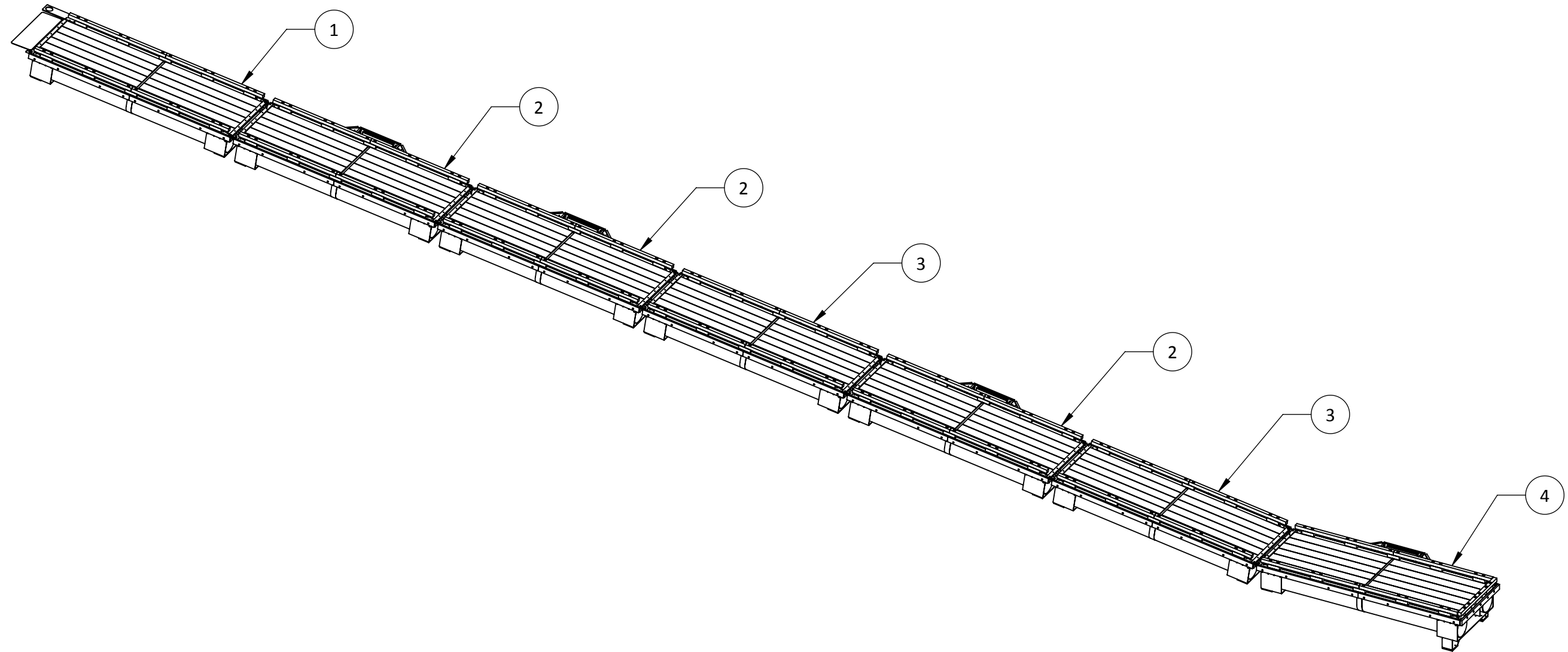
REVISIONS			
DIMENSIONS IN METERS	SHEET SIZE B (11x17)	DRAWN BY J KING	DATE (dd/mm/yyyy) 26/02/2018

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CLIENT <b>CITY OF CAMPBELL RIVER</b>	<b>CR Engineering Inc.</b>			
PROJECT <b>BIG ROCK BOAT RAMP DOCKS</b>	TITLE: <b>GENERAL ARRANGEMENT</b>			
	PROJECT NUMBER 395	DRAWING NUMBER 395-1000	SHEET 1 OF 4	REV A

8 7 6 5 4 3 2 1

ITEM No.	PART No.	Revision	DESCRIPTION	QTY.
1	395-400	A	SHORE FLOAT LEFT	1
2	395-400	A	MID-FLOAT	3
3	395-400	A	MID-FLOAT NO HOOP	2
4	395-400	A	OUTSIDE FLOAT LEFT	1

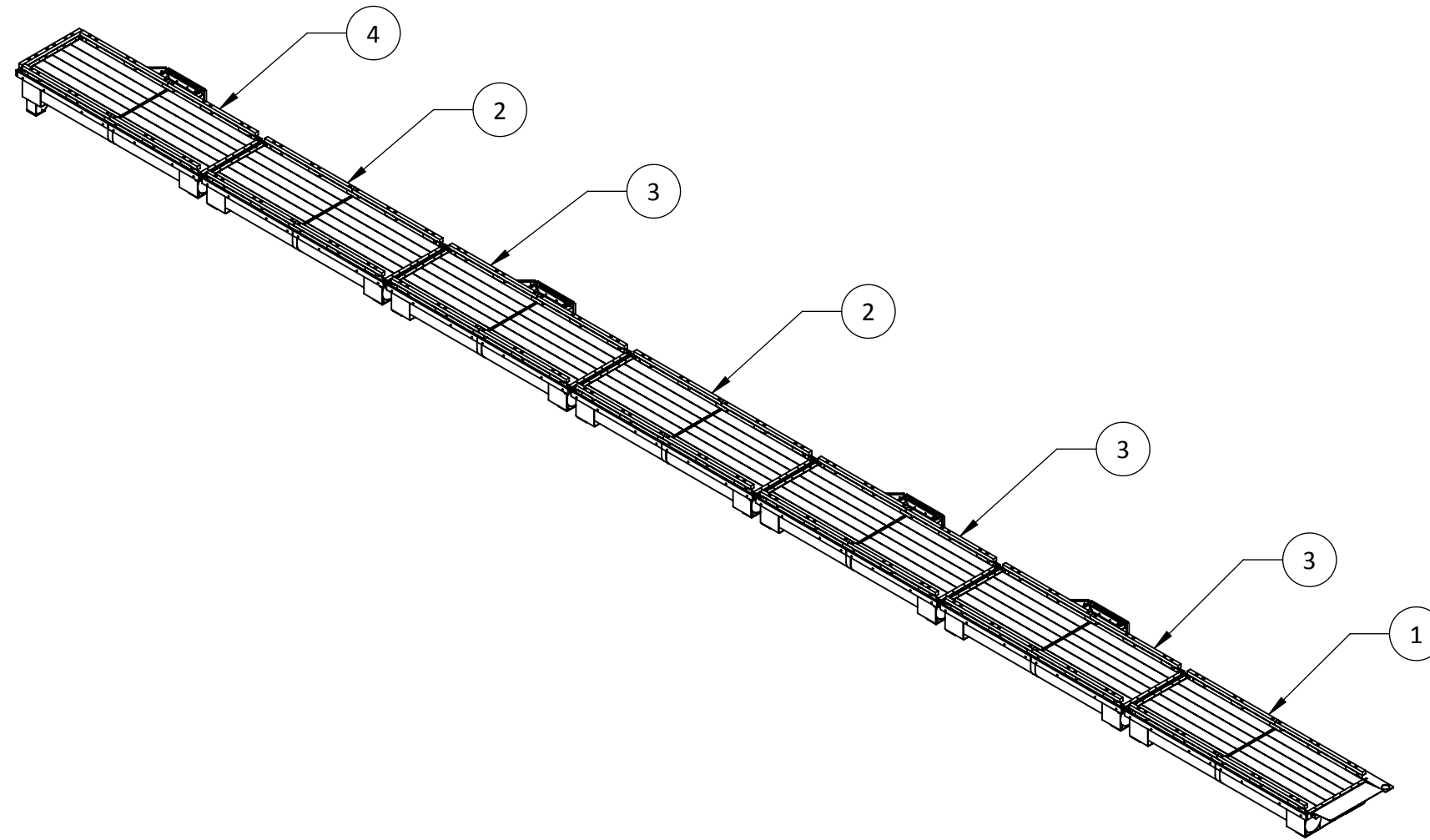


DIMENSIONS IN METERS	SHEET SIZE B (11x17)	DRAWN BY J KING	DATE (dd/mm/yyyy) 26/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>	CR Engineering Inc.		
PROJECT <b>BIG ROCK BOAT RAMP DOCKS</b>	TITLE: <b>DOCK ASSEMBLY LEFT SIDE</b>		
PROJECT NUMBER 395	DRAWING NUMBER 395-1000	SHEET 2 OF 4	REV A

ITEM No.	PART No.	Revision	DESCRIPTION	QTY.
1	395-400	A	SHORE FLOAT RIGHT	1
2	395-400	A	MID-FLOAT NO HOOP	2
3	395-400	A	MID-FLOAT	3
4	395-400	A	OUTSIDE FLOAT RIGHT	1

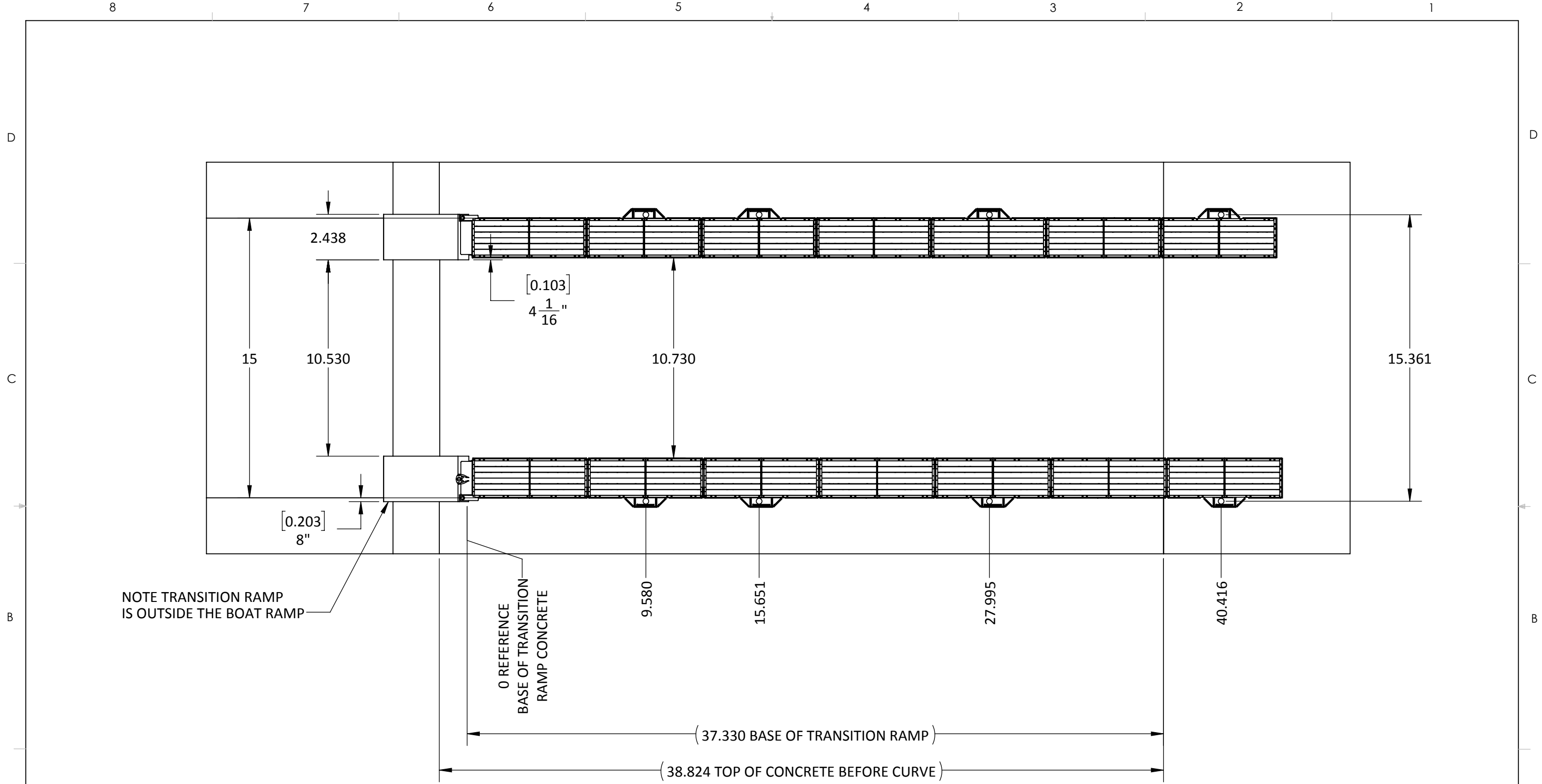


DIMENSIONS IN METERS	SHEET SIZE B (11x17)	DRAWN BY J KING	DATE (dd/mm/yyyy) 26/02/2018
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CLIENT <b>CITY OF CAMPBELL RIVER</b>	CR Engineering Inc.			
PROJECT <b>BIG ROCK BOAT RAMP DOCKS</b>	TITLE: <b>DOCK ASSEMBLY RIGHT SIDE</b>			
	PROJECT NUMBER 395	DRAWING NUMBER 395-1000	SHEET 3 OF 4	REV A





NOTE TRANSITION RAMP IS OUTSIDE THE BOAT RAMP

0 REFERENCE  
BASE OF TRANSITION  
RAMP CONCRETE

(37.330 BASE OF TRANSITION RAMP)

(38.824 TOP OF CONCRETE BEFORE CURVE)

CLIENT  
**CITY OF CAMPBELL RIVER**

**CR Engineering Inc.**

PROJECT  
**BIG ROCK BOAT RAMP DOCKS**

TITLE:  
**PLAN VIEW DOCKS AND PILES**

DIMENSIONS IN METERS	SHEET SIZE B (11x17)	DRAWN BY J KING	DATE (dd/mm/yyyy) 26/02/2018
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PROJECT NUMBER 395	DRAWING NUMBER 395-1000	SHEET 4 OF 4	REV A
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