Joint Public Notice
Application for a Department of the Army Permit and Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA  98124-3755
Telephone:  (206) 316-3822
ATTN:  Andrew Shuckhart,
        Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA  98504-7600
Telephone:  (360) 407-6076
ATTN:  SEA Program,
        Federal Permit Coordinator

Public Notice Date:  July 14, 2020
Expiration Date:  August 13, 2020
Reference No.:  NWS-2020-236-WRD
Name:  Pierce County Public Works
       (Chambers Creek Pier)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) has received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated January 14, 2020.

The Corps will review the work in accordance with Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to the Coastal Zone Management Act.

APPLICANT:  Pierce County Planning & Public Works Sewer Division
Attention:  Carla Vincent
9850 64th Street West
University Place, Washington  98467
Telephone:  (253) 798-2467

LOCATION:  In Puget Sound near University Place, Pierce County, Washington.

WORK:  Installation of piles and prefabricated concrete girders to extend an existing public walkway and pier.

PURPOSE:  The purpose of this project is public water access.

ADDITIONAL INFORMATION:  The proposed project was previously permitted under NWS-2007-1878, issued on April 20, 2009. The project was not completed due to a lapse in funding and the permit expired on April 20, 2012. Under NWS-2007-1878, Pierce County completed a section of pedestrian overpass over the BNSF rail lines as well as compensatory mitigation for the project. The previous permit authorized the construction of the pier and walkway, as well as an additional pile supported float and ramp. Work proposed under this application is to extend the existing walkway, and does not include the float and ramp which may be a part of a future proposal.

Work includes driving three 42-inch diameter hollow steel piles to support three prefabricated 8-foot wide reinforced concrete girders. Each girder would include 2-foot wide grated sections on both sides to allow light penetration into the aquatic environment. The project would extend the existing pier 155 feet (1,240 square feet) waterward into Puget Sound. Steel cable railings would be installed for public safety surrounding the deck of the pier. Piles would be driven with vibratory hammer and may be proofed with impact hammer if required.
MITIGATION: Compensatory mitigation for the impacts of the pier was approved and completed under NWS-2007-1878. Pierce County removed 14,200 square feet of overwater cover from two piers and performed removal of derelict structures and debris along the shoreline. Removed material volume included 25 cubic yards of metal debris (pile casings, sheet metal, railroad materials, etc.), 427 cubic yards of concrete debris (concrete pump house, concrete piles, boat ramps, etc.), and 174 cubic yards of woody debris (piling, piers, etc.) from the shoreline adjacent to the proposed pier.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area. If the U.S. Army Corps of Engineers (Corps) determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps’ final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

CULTURAL RESOURCES: The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. Historic properties are recorded near the proposed project. However, they do not occur in the permit area. The proposed work is of such a limited nature and extent that little likelihood exists for the project to impinge upon an unrecorded historic property. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.
The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

ADDITIONAL EVALUATION: This proposal is the subject of Shorelines Substantial Development Permit No. SSD19-0002/SEP07-0015 issued by the City of University Place on December 19, 2019.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author’s e-mail account and must include on the subject line of the e-mail message the permit applicant’s name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant’s name and reference number, as shown below, and the commenter’s name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

CORPS COMMENTS: All e-mail comments should be sent to andrew.j.shuckhart@usace.army.mil

Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Andrew Shuckhart, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a Coastal Zone Management consistency concurrence may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail: ecyrefedpermits@ecy.wa.gov

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Pierce County Public Works (Chambers Creek Pier) | NWS-2020-236-WRD

Encl: Figures (30)
CHAMBERS BAY PIER EXTENSION
SURVEY CONTROL PLAN

Scale: 1" = 50' 0"

NOTES:

VERTICAL DATUM: NGVD 29

FIELD MEASUREMENTS FOR THIS SURVEY WERE PERFORMED ON MARCH 11, 2017 AND ARE FIGURED WITH TWD 2000.

SHRUBS, TREES, OR ANY OTHER NATURAL OBJECTS SUCH AS ROCKS OR DIRT HILLSIDE SURFACES WERE NOT SURVEYED;

BOUNDARY LINE PER PIERCE COUNTY CHAMBERS BAY PROPERTY RECORD OF SURVEY, WASHINGTON.

100' 50' 0'

1" = 50' 0"

90% SUBMITTAL NOT FOR CONSTRUCTION
GENERAL NOTES CODES AND STANDARDS

1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), LRFD GUEDE SPECIFICATIONS FOR THE DESIGN OF PRECAST CONCRETE STRUCTURES, 2013.
2. AMERICAN STANDARDS FOR CAST IN PLACE CONCRETE DESIGN AND CONSTRUCTION.
5. AMERICAN STANDARDS INSTITUTE (AISI), A300-05, DESIGN BUILDING CODE FOR STEEL CONSTRUCTION 2005.
7. APTA P2 2013, TRAFFIC ENGINEERING BY DESIGN.

GENERAL

1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AS SHOWN IN THE CONTRACT DOCUMENTS PRIOR TO COMMENCEMENT OF WORK.
2. ALL DRAWINGS AND DETAILS ARE TO BE EXAMINED BY THE CONTRACTOR PRIOR TO THE SUBMISSION OF BID PRICES.
3. ALL SHOP DRAWINGS FOR THE CONSTRUCTION OF THE STRUCTURAL STEEL, STRUCTURAL BUILDINGS, AND MISCELLANEOUS CONSTRUCTION SHALL BE REVIEWED AND APPROVED IN ADVANCE BY THE ENGINEER PRIOR TO THE SUBMISSION OF BID PRICES.
4. CONTRACTOR SHALL PROVIDE TO THE ENGINEER A COPY OF ALL DRAWINGS AND DETAILS AS SHOWN IN THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL SUBMIT A COPY OF THE CONTRACT DOCUMENTS TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF WORK.
6. THE CONTRACTOR SHALL SUBMIT A COPY OF THE CONTRACT DOCUMENTS TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF WORK.

STRUCTURAL CONCRETE

1. CAST-IN-PLACE CONCRETE WORK SHALL COMPLY WITH WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
2. ALL CONCRETE MIXTURES USED FOR CAST-IN-PLACE CONCRETE SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
3. ALL CONCRETE MIXTURES USED FOR CAST-IN-PLACE CONCRETE SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
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6. ALL CONCRETE MIXTURES USED FOR CAST-IN-PLACE CONCRETE SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.

STRUCTURAL STEEL

2. ALL STEEL CONSTRUCTION SHALL COMPLY WITH THE WSDOT STANDARD SPECIFICATIONS FOR STEEL BUILDINGS AND BRIDGES 2005.
5. ALL STEEL CONSTRUCTION SHALL COMPLY WITH THE WSDOT STANDARD SPECIFICATIONS FOR STEEL BUILDINGS AND BRIDGES 2005.
1. PRECAST GIRDERS SHALL BE CAST IN PRECAST CONCRETE MANUFACTURING FACILITY (PRECASTER) AND SHIPPED TO SITE. GIRDERS SHALL BE CORRECT IN PRECAST prestressed CONCRETE INSTITUTE QUALITY CONTROL PROGRAM. GIRDERS CONSTRUCTION SHALL MEET ALL REQUIREMENTS NOTED ON DRAWINGS AND SPECIFICATIONS FOR PRECAST CONCRETE.

2. PRECAST GIRDERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 5 OF PCMI 111-59 "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF PRECAST Prestressed CONCRETE PRODUCTS.

3. ERECTION AND PRODUCTION TOLERANCES PER PCMI 135-50 "TOLERANCE MANUAL FOR PRECAST Prestressed CONCRETE CONSTRUCTION".

4. PRECAST GIRDERS SHALL BE RELEASED/CAST AFTER CONCRETE HAS REACHED SPECIFIED COMPREHENSIVE STRENGTH AT RELEASE.

5. GIRDERS ENREOFMENT AND CONNECTIONS SHOWN ON THE DRAWINGS ARE DESIGNED FOR FORCES DUE TO LOADS ACTING ON THE GIRDERS AFTER THE STRUCTURE HAS BEEN COMPLETELY ERECTED. FOR HANDLING AND CONSTRUCTION LOADS THE GIRDERS SHALL BE DESIGNED AND DETAILLED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA. PRECAST CONCRETE INSTITUTE QUALITY CONTROL SPECIFICATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL TO THE PROJECT ENGINEER. THE DESIGN SHALL MEET THE DESIGN CRITERIA USTED IN THE GENERAL NOTES AND ALL REQUIREMENTS BASED ON MATERIALS AND TECHNIQUES EMPLOYED.

6. THE SUBMITTED DRAWINGS SHALL CLEARLY IDENTIFY GIRDERS, STRUCTURES, CONCRETE, AND PRECAST GIRDERS. FINISH, SMOOTHING, EMBLEMATIC PARTS, LITING ANCHORS, CONCRETE NYLON, STRENGTH, HANDLING SPECIFICATIONS, ERECTION DETAILS, ERECTION DETAILS, MATERIALS, AND ALL ITEMS IF REQUIRED TO MEET THE DESIGN CRITERIA AND WITHOUT COMPLAINT. CONCRETE ENGINERING SHALL DETAIL ALL CONCRETE SPECIFIC HANDLING, BASED ON MATERIALS AND TECHNIQUES EMPLOYED.

7. IT SHALL BE THE RESPONSIBILITY OF THE PRECAST CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR GIRDERS EMBLEMS AND BLOCKOUTS AS REQUIRED BY THEM.

8. LOCATIONS OF ALL EMBLEM ITEMS SHALL BE COORDINATED WITH VENDOR'S SHOP DRAWINGS.

9. PROVIDE (2) PQS SCREENED WEEP HOLES AT END OF NON-SLOPING PRECAST GIRDERS AND AT ONE END OF SLOPING PRECAST GIRDERS.

**OBSERVATION & SPECIAL INSPECTIONS:**

1. TESTING & SPECIAL INSPECTIONS REPORTS SHALL BE PREPARED AND SIGNED FORM EACH INSPECTOR IN A MANNER SUCH THAT WHENEVER WORK IS PERFORMED ON THAT ITEM, REPORTS WILL BE ISSUED TO THE CONTRACTOR, BUILDER, AND STRUCTURAL ENGINEER.

2. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNATED REPRESENTATIVE IN ACCORDANCE WITH BCA 303. STRUCTURAL OBSERVATION SHALL BE PERFORMED AS FOLLOWS:

   A. PERIODIC VISUAL OBSERVATIONS OF THE STRUCTURAL SYSTEMS FOR GENERAL COMPLIANCE TO CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS
   B. REVIEW OF TESTING & INSPECTION REPORTS
   C. REPORTS SHALL BE PREPARED FOR EACH INSPECTION AND SHOWN TO BE RECIEVED.

3. CONTRACTOR SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNERS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE THE FOLLOWING:

   A. ACKNOWLEDGMENT OF AWARENESS OF REQUIREMENTS OF QUALITY ASSURANCE PLAN
   B. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMITY WITH THE CONTRACTOR DOCUMENTS APPROVED BY THE BUILDING OFFICIAL
   C. DESCRIPTION OF THE CONTRACTOR'S ORGANIZATION AND THE METHODS AND FREQUENCY OF REPORTING AND DISTRIBUTION
   D. DESCRIPTION OF PERSONS EMERGINGその後 CONTROL AND THEIR POSITIONS IN THE ORGANIZATION

4. ALL WORKS SHALL BE VISUALLY INSPECTED BY PRECAST COUNTY.

**SPECIAL INSPECTION SCHEDULE:**

<table>
<thead>
<tr>
<th>STRUCTURAL SYSTEM</th>
<th>VERIFICATION AND INSPECTION</th>
<th>CONSTRUCTION</th>
<th>INSPECTOR</th>
<th>COMMENTS</th>
<th>APPROVED BY</th>
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**90% SUBMITTAL NOT FOR CONSTRUCTION**
PILE/COLUMN SCHEDULE

NOTES:

1. For piles 100' deep, use 100' stems, see sheets 5.8 and 5.9.

2. Use 9" rebar in piles 1-7, see sheets 5.8 and 5.9.

3. Use 3" rebar in piles 1-7, see sheets 5.8 and 5.9.

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90% SUBMITTAL NOT FOR CONSTRUCTION
NOTES:

6. Each 3" x 2" spiral may be fabricated in a minimum of 3 pieces (22"") each min. length, and a maximum gap of 22" between pieces.

7. Provide 2 turn and weld spiral at top, typ. See #4.

8. Pump waste from pile prior to placing concrete to pile. Verify no water in pile form immediately before casting pour.

9. Pile plug concrete shall have cured for 72 hours before setting beams on pile.
NECK-FIXED PILE REINF - SECTION

Scale: 1" = 1'-0"

NOTE:
Bars may project past end of girder instead of using couplers.

FOR BEAM 6 REINF SEE S-12
FOR BEAM 5 REINF SEE S-13
FOR BEAM 4 REINF SEE S-14

(2) M10 THREADED TO FEMALE COUPLER IN PRECAST GIRDERS

SPACING TO AVOID PILE REINF.

NECK-FIXED PILE - ELEVATION

Scale: 1" = 1'-0"

NECK-FIXED CLOSURE POUR - SECTION

Scale: 1" = 1'-0"

SECTION

Scale: 1" = 1'-0"

90% SUBMITTAL NOT FOR CONSTRUCTION
EXPANSION JOINT - DETAIL

SECTION

SCALE: 1" = 1'-0"

FOR BEARING PAD, SEE 0-243
REAR BEARING PAD AND LOCATE LEVELING PAD, SEE 0-243

EXP. JOINT

PREFAB GROUP MORTARPOINT

BEARING PAD TO BE BONDED WITH RUBBER DUCTIL TOP AND BOTTOM

SLOPE TOP OF CONCRETE 2% TO DRAIN

NOTES:
1. 2-7/8" X 4" THRD ROD
2. FOR BEAM & REINFORCING, SEE 0-51
3. 2" X 7'-4" ROD/THIRD END INSTALL PRIOR TO GIRDERS ERECTION
4. SEE DETAILS 0-243

EXPANSION JOINT - DETAIL

SEISMIC RESTRAINER - DETAIL

SEISMIC RESTRAINER - SECTION

REFLECTIVE SOFFIT - SECTION

90% SUBMITTAL NOT FOR CONSTRUCTION
90% SUBMITTAL NOT FOR CONSTRUCTION
PRECAST GIRDER 5 - PLAN

PRECAST GIRDER 5 - SECTION

NOTE:
GUARDRAIL NOT SHOWN

90% SUBMITTAL NOT FOR CONSTRUCTION
PRECAST GIRDER 4 - PLAN

SHEET 5

6 END STIRRUP SETS @ 6", SEE:

TRANSITION STIRRUP

SETS @ 4", SEE:

TYPICAL STIRRUP

SETS @ 6", SEE:

TRANSITIONAL STIRRUP

NOTE:
GUARDRAIL NOT SHOWN

PRECAST GIRDER 4 - SECTION

SCALE 1/8" = 1'-0"

90% SUBMITTAL NOT FOR CONSTRUCTION
90% SUBMITTAL NOT FOR CONSTRUCTION
PRESTRESSING NOTES:
1. PRETENSIONED STRAND:
   - HORIZONTAL STRANDS 170, LOW RELAXATION, S70 (7 WIRE) STRAND
   - NUMBER: 12 STRANDS, 155/STRAND
   - NOMINAL STEEL AREA: 623.7 mm²
   - ALL PRETENSIONED STRANDS SHALL BE JOINED TO 302.5 KSI.
   - ALL JOINTS SHALL BE IN CONFORMITY WITH THE CONSTRUCTION CONTRACT SPECIFICATIONS.

2. POST-TENSIONING SYSTEM:
   - THE BENDS ARE DETAILED USING 0.066 1/2 "Steel Strand, E260-G700.
   - THE ANCHORS FOR THE POST-TENSIONING ARE: ULT TYPE (25.72 TON)

3. DUCTS:
   - THE BEAMS ARE DETAILLED USING ULT TYPE V/S TYPE PLUS SYSTEM.
   - DUCTS ARE MAINTAINED IN THE FORM OF THE PRECAST CONCRETE AND ARE DESIGNED TO BE 1 3/4 INCHES DIAMETER.
   - THE AREA OF THE DUCT SHALL BE AT LEAST 2.27 TIMES THE NET AREA OF THE PRESTRESSING STEEL IN THE DUCT.

4. GIRDERS:
   - ALL PRETENSIONING AND DUCTS SHALL BE JOINED TOGETHER.
   - THE CONTRACTOR IS RESPONSIBLE FOR JOINING THE DUCTS AND PRESTRESSING STEEL TO THE GIRDERS.
   - THE CONTRACTOR IS RESPONSIBLE FOR JOINING THE DUCTS TO THE PRECAST CONCRETE.

5. PLANTED POST-TENSIONING:
   - ALL POST-TENSIONING IS CURVED BEAMS SHALL BE DONE AFTER CONCRETE HARDENS AND THE BEAMS ARE NOT LESS THAN 30 DAYS OLD.
   - THE BEAMS ARE JOINED TO THE GIRDER IN ACCORDANCE WITH THE CONSTRUCTION CONTRACT SPECIFICATIONS.
   - BOTH WEIGHS OF EACH GIRDER SHALL HAVE AN EQUAL NUMBER OF STRANDS. TENSIOMETERS SHALL BE PLACED AT ONE END.

6. TENSIONING:
   - THE CONTRACTOR SHALL SUBMIT TENSIONING SEQUENCE AND ELABORATORY CALCULATIONS TO THE ENGINEER FOR REVIEW. ALL TENSIONING IS TO BE COMPLETE BEFORE CONCRETE HARDENS AND MORE THAN ONE-HALF OF THE PRESTRESSING FORCE IN ANY WEB MAY BE STRESSED WITHIN 24 HOURS. SNOW REINS.

7. REBAR INTERSECTIONS:
   - REBAR INTERSECTIONS WITH THE PRESTRESSING TENDON ALIGNMENT SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER.

8. PRECAST UNITS:
   - PRECAST UNITS ARE TO BE JOINED TO THE PRECAST CONCRETE.
   - THE JOINTS BETWEEN THE POST-TENSIONING STRANDS AND THE REBAR ARE TO BE JOINED TO THE GIRDERS.
   - JOINTS BETWEEN THE POST-TENSIONING STRANDS AND THE PRECAST CONCRETE ARE TO BE JOINED TO THE GIRDERS.

9. JOINTS:
   - JOINTS BETWEEN THE POST-TENSIONING STRANDS AND THE PRECAST CONCRETE ARE TO BE JOINED TO THE GIRDERS.
   - JOINTS BETWEEN THE POST-TENSIONING STRANDS AND THE PRECAST CONCRETE ARE TO BE JOINED TO THE GIRDERS.

10. SUBMITTAL:
    - THE SUBMITTAL SHALL BE JOINED TO THE PRECAST CONCRETE.
    - THE SUBMITTAL SHALL BE JOINED TO THE PRECAST CONCRETE.

*90% SUBMITTAL NOT FOR CONSTRUCTION*
90% SUBMITTAL NOT FOR CONSTRUCTION
90% SUBMITTAL NOT FOR CONSTRUCTION
EXPANSION JOINT GRATING - DETAIL

EXPANSION JOINT TYP - DETAIL

90% SUBMITTAL NOT FOR CONSTRUCTION
TYPICAL GRATING DETAIL

SCALE: 1" = 1'-0"

GRATING GUARDRAIL - DETAIL

SCALE: 1" = 1'-0"

GRATING GUARDRAIL - SECTION

SCALE: 1" = 1'-0"

90% SUBMITTAL NOT FOR CONSTRUCTION
90% SUBMITTAL NOT FOR CONSTRUCTION