



**US Army Corps  
of Engineers®**

# JOINT PUBLIC NOTICE

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Tulsa District

Published: September 29, 2025

Application No. SWT-2021-00460

Expires: October 30, 2025

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**TO WHOM IT MAY CONCERN:** The U.S. Army Corps of Engineers (USACE) and Oklahoma Department of Environmental Quality (ODEQ) jointly announce that the District Engineer has received an application for a Department of the Army (DA) permit and Water Quality Certification pursuant to Sections 10 of the Rivers and Harbor Act (RHA) of 1899 including Sections 404 and 401 of the Clean Water Act. The ODEQ hereby incorporates this public notice and procedure as its own public notice and procedure by reference thereto. This public notice has been provided as a public service and may be reprinted at your discretion. However, any cost incurred as a result of reprinting or further distribution shall not be a basis for claim against the Government. The purpose of this public notice is to solicit comments from the public regarding the work described below:

**APPLICANT:** Mr. Matt Pace

Supervisor, Environmental Program Division  
Oklahoma Department of Transportation (ODOT)  
200 Northeast 21st Street  
Oklahoma City, OK 73105

**AGENT:** Ms. Jennifer Halstead

HNTB  
2001 Bryan Street, Suite 1500  
Dallas, TX 75201

**WATERWAY AND LOCATION:** The project would affect waters of the United States (WOTUS) associated with Lake Texoma, and adjacent wetlands. The project area is located on US-70 in Section 25, Township 6 South, 6 East and Section 30, Township 6 South, Range 7 East at Latitude 34.001391 and Longitude -96.618689; on Lake Texoma (USACE), Bryan and Marshall Counties, Oklahoma.

**EXISTING CONDITIONS:** The existing bridge and causeway have deteriorated and does not meet the current safety standards required by the Federal Highway Administration (FHWA). This reach of US-70 roadway leads to traffic congestion and increased travel times.

**PROJECT PURPOSE:** ODOT, in cooperation with the FHWA, states the purpose of the proposed project would provide a safe crossing along US-70 over Lake Texoma that would address current and future traffic demands.

**BASIC:** This is a new alignment of US-70 over Lake Texoma.

The project is not a water dependent activity.

**OVERALL:** The overall purpose of this work is to bring this reach of US-70 Highway into compliance with the Federal Safety Slope Standards to ensure the proposed improvements correct roadway deficiencies, efficiently accommodate traffic, enhance public safety, and efficient traffic flow.

**PROPOSED WORK:** The applicant requests authorization to construct new alignment to accommodate a bridge structure that is approximately 10,625 linear feet with 72 spans (67 spans within the Ordinary High-Water Mark). The proposed project would place approximately 9,280 cubic yards (cys) of clean earthen fill material, 55,055 cys of concrete fill material consisting of sand, gravel, and concrete. The proposal also requires approximately 6,922 cys of riprap fill materials. The estimated total cys of associated material is 71,257. The total acre of impact to jurisdictional WOTUS are 3.74 acres.

The proposed overall bridge width is approximately 87 feet consisting of four 12-foot travel lanes, 10-foot outside shoulders, a 10-foot side shared use path, and a median barrier to separate the directions of travel. Outside of the proposed bridge limits, US-70 would consist of four 12-foot travel lanes, 10-foot outside shoulders, with a shared use path. Turn lanes would provide intersections, a traffic signal and crosswalk at the State Park Road intersection to accommodate traffic from adjacent development. One existing 36-inch round concrete pipe culvert would be extended approximately 82 feet. One existing 8- by 8-foot concrete box culvert would be extended approximately 119 feet to meet current geometric design standards. US-70 would remain open to traffic during construction.

The construction of the drilled shafts of interior pier bents would be constructed by shaft casing made from large diameter steel pipe in the lake waters. The casing would be set vertically into place using a crane and the bottom tip would be driven to the top surface of the bedrock using a crane-mounted vibratory hammer. Once set, any water would be pumped from the casing. Soil and rock material would then be excavated using a crane-mounted auger. Drilling would continue past the end of the casing into the bedrock to a specified minimum distance necessary for foundation support.

Reinforcing steel and concrete would then be placed into the drilled shaft casings and allowed to cure. Casings would remain permanently as part of the drilled shafts. Columns and cap beams of the pier bents would then be constructed using conventional formwork mounted to the drilled shafts. Materials would be placed in the shafts by a pumper boom truck or crane with a concrete bucket, in most instances from a barge.

After pier bent construction, the contractor would set beams from cranes. Formwork and reinforcing the concrete deck slab driving surface would then be installed from the beams above with assistance from all-terrain equipment and/or cranes. Concrete for the

deck slab driving surface would be conveyed from the existing roadway embankment, barges, or previously completed spans utilizing a boom-style pumper truck. Following deck slab construction, bridge railing would be constructed from the newly completed deck surface.

**Wetlands and Ponds:** The proposed project would result in permanent impact to 0.01 acre of emergent wetland, 0.27 acre of forested wetland, and 2.77 acres of open water.

**Streams:** The proposed project would result in permanent impacts to 0.62 acre of ephemeral streams and 0.21 acre of intermittent streams.

**PROGRESSIVE DESIGN BUILD (PDB):** ODOT would use PDB contracting method for final design and construction, the precise amount of fill material is expected to be modified due to design innovation and would require a permit modification in the future.

**Bridge:** The preferred alternative would consist of a new concrete bridge structure. The impacts were calculated utilizing the normal pool elevation of 617 feet as the ordinary high-water mark (OHWM) for the lake. There are 67 pier locations within the OHWM of OW 3a (Lake Texoma). The impact total for the new bridge consists of the total amount of permanent fill (concrete) below the OHWM. Two design options were evaluated.

- Option 1: This option consists of following the preferred alignment with the shared use path being located on the north side of the road. This option would consist of three 10-foot diameter concrete columns at each pier beginning with Pier 2 and ending at Pier 67. At Pier 68, only two columns would be located within the OHWM. This would result in 201 columns being placed within the OHWM.
- Option 2: This option would follow the preferred alignment but would have the shared use path on the south side of the road. This option would consist of two 14-foot diameter concrete columns at each pier beginning with Pier 2 and ending at Pier 68, resulting in 134 columns being placed within the OHWM.

**Roadway:** The preferred alignment would widen US-70 to four lanes on an offset to the south of the existing highway. The side slopes along the roadway would meet the ODOT 3 to 1 slope design requirements. As there are no detailed design plans at this moment, the exact amount of permanent fill that may be placed in the water and wetland features were calculated in the following manner. An average depth of 3 feet was used in calculating the cubic yards of clean fill/rock riprap and 1.5 feet for culverts. Two existing concrete culverts would be extended. The anticipated size of riprap to be used would be 12 to 18 inches. For the areas where clean earthen fill and rock riprap would be used, it was determined half of the impacts would be earthen fill and half would be rock riprap. Altering the slopes to be flatter than a 3 to 1 slope was not considered viable as it does not match slope design requirements and would result in greater impacts to waters and wetlands. ODOT proposal would remove all existing piers, bridge, roadway, and causeway.

**Table 1:** Summary of impacts to waters of the United States.

| Original Proposal                    |   |                             |                            |                                |                          |
|--------------------------------------|---|-----------------------------|----------------------------|--------------------------------|--------------------------|
| Number or Location                   | Impact Activity                           | Type of Water               | Type of Fill Material      | Qty of Material cys below OHWM | Footprint (ac and/or lf) |
| W-2                                  | Roadway                                   | Scrub-Shrub Wetlands        | Concrete                   | 5                              | 0.002 ac                 |
| W-2                                  | Roadway                                   | Scrub-Shrub Wetlands        | Earthen Fill               | 2,236                          | 0.46 ac                  |
| W-5                                  | Roadway                                   | Scrub-Shrub Wetlands        | Earthen Fill/              | 436                            | 0.09 ac                  |
| W-5                                  | Roadway                                   | Scrub-Shrub Wetlands        | Riprap                     | 436                            | 0.09 ac                  |
| W-6                                  | Roadway                                   | Scrub-Shrub Wetlands        | Earthen Fill               | 581                            | 0.12 ac                  |
| W-6                                  | Roadway                                   | Scrub-Shrub Wetlands        | Riprap                     | 581                            | 0.12 ac                  |
| OW-3a<br>(Lake Texoma)<br>New bridge | Two New Span Bridge;<br>67 Piers in water | Open Water<br>(Lake Texoma) | Concrete and Steel Columns | 54,966                         | 0.36 ac                  |
| OW-3b                                | Roadway                                   | Perennial Stream            | Concrete Culvert           | 5                              | 0.002 ac<br>32 lf        |
| OW-3b                                | Roadway                                   | Perennial Stream            | Earthen Fill               | 97                             | 0.02 ac<br>79 lf         |
| OW-3c                                | Roadway                                   | Lake Texoma                 | Concrete Culvert           | 29                             | 0.01 ac                  |
| OW-3c                                | Riprap                                    | Lake Texoma                 | 20-24 in Riprap            | 2,081                          | 0.43 ac                  |
| OW-3c                                | Roadway                                   | Lake Texoma                 | Concrete Fill              | 2,081                          | 0.43 ac                  |
| OW-3d                                | Roadway                                   | Lake Texoma                 | Concrete Culvert           | 48                             | 0.02 ac                  |
| OW-3d                                | Roadway                                   | Lake Texoma                 | Earthen Fill               | 3,824                          | 0.79 ac                  |
| OW-3d                                | Riprap                                    | Lake Texoma                 | 20-24 in Riprap            | 3,824                          | 0.79 ac                  |

|  |         |                     |              |    |                   |
|--|---------|---------------------|--------------|----|-------------------|
| OW-4a  | Roadway | Ephemeral Stream    | Earthen Fill | 10 | 0.002 ac<br>15 lf |
| OW-4b  | Roadway | Intermittent Stream | Earthen Fill | 10 | 0.002 ac<br>18 lf |
| OW-5   | Roadway | Ephemeral Stream    | Culvert      | 2  | 0.01 ac<br>13 lf  |
| OW-5   | Roadway | Ephemeral Stream    | Earthen Fill | 5  | 0.001 ac<br>13 lf |
| cubic yards (cys), ordinary high-water mark (OHWM), acre (ac), linear feet (lf), inch (in) |         |                     |              |    |                   |
| No fill material and there are no impacts to W-1, W-3, W-4, OW-1 and OW-2.                 |         |                     |              |    |                   |

| Permanent Impacts          | Clean Earthen Fill | Concrete | Rock Rip |  | Acres Impacts | Linear Feet | Cubic Yards |
|----------------------------|--------------------|----------|----------|--|---------------|-------------|-------------|
| Wetland Total Impacts      | 3,253              | 5        | 1,017    |  | 0.882         |             | 4,275       |
| Stream Total Permanent     | 122                | 7        | 0        |  | 0.028         | 170         | 138         |
| Open Water Total Permanent | 5,905              | 55,043   | 5,905    |  | 2.83          |             | 66,853      |
| Total                      | 9,280              | 55,055   | 6,922    |  | 3.74          | 170         | 71,257      |

**AVOIDANCE AND MINIMIZATION:** The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment: Impacts to WOTUS were avoided to the maximum extent practicable through design measures and alignment selection while accounting for safety, maintenance of traffic during construction, eliminating multiple construction phases, avoiding sensitive archeological sites, and minimizing flood storage impacts. The impacts to WOTUS have been minimized to the extent practicable by selecting the most direct alignment, therefore minimizing impacts to Lake Texoma. Additionally, to minimize construction access, barge construction will be utilized. To minimize the potential short-term impacts (such as turbidity and suspended solids) associated with the increased sediment generated by construction activities, Best Management Practices will be implemented to control soil erosion and sedimentation. Excavated soil will not be placed in WOTUS or floodplain areas during construction activities unless required for construction of the project. Measures to locate the preferred alignment outside WOTUS to the extent practicable while accounting for safety and design standards avoided permanent impacts to about 122 linear feet (0.28 acre) of stream, about 0.88 acre of wetlands, and about 2.77 acres of open water within the proposed project area.

**COMPENSATORY MITIGATION:** The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment: ODOT's Compensatory Mitigation Plan (CMP) was developed to address mitigation of adverse impacts to the aquatic ecosystem resulting from the proposed construction

activities on the new alignment of US-70. It is intended to provide information on the avoidance, minimization, and compensatory mitigation measures for impacts to wetlands and other WOTUS. The CMP focuses on impacts regulated by the Corps under Section 404 of the Clean Water Act and has been developed to follow the Corps Final Rule on Compensatory Mitigation for Losses of Aquatic Resources published April 10, 2008.

ODOT proposes to mitigate WOTUS impacts by enhancing lake habitat through the construction of 55 fish habitat structures at the existing bridge pier locations. The fish habitat structures will be constructed by demolition of the existing bridge piers to create rubblized material. If the USACE determines additional mitigation is needed for wetland impacts, ODOT will coordinate with the USACE to determine acceptable mitigation. Since the project is utilizing a progressive design-build approach, a demolition plan detailing the demolition of the existing bridge, creation of the rubblized material from the bridge piers, and verification that no single piece of the rubblized material exceeds 3 feet in any dimension has not been developed. Once a Contractor is selected, the Contractor will provide the demolition plan which will then be submitted to the USACE for approval.

**CULTURAL RESOURCES:** The bridge over the Lake Texoma (**ODOT Structure No. 0706 000 X [NBI 10965]**) is a 250-foot-long Warren truss bridge with curved top chords and 86 concrete approach spans constructed in 1948. The bridge was documented in the 2007 re-evaluation of Spans of Time: Oklahoma Historic Highway Bridges and determined to be eligible for inclusion in the NRHP under Criterion C as a rare example of a vehicular, polygonal, Warren through truss in Oklahoma. On behalf of FHWA, ODOT has consulted with the Oklahoma State Historic Preservation Officer (SHPO) and the Oklahoma Archeological Survey (OAS) regarding the effects of this undertaking on historic properties. ODOT has also consulted with the Caddo Nation, Chickasaw Nation, Choctaw Nation, Delaware Nation, Osage Nation, Quapaw Nation, and Wichita and Affiliated Tribes and determined that no properties of traditional religious or cultural significance will be affected by the undertaking. A Memorandum of Agreement among FHWA, SHPO, OAS, and ODOT regarding adverse effect to the US-70 (Roosevelt Memorial) bridge over Lake Texoma has been completed.

The Corps is evaluating the undertaking for effects to historic properties as required under Section 106 of the National Historic Preservation Act. This public notice serves to inform the public of the proposed undertaking and invites comments including those from local, State, and Federal government Agencies with respect to historic resources. Our final determination relative to historic resource impacts may be subject to additional coordination with the SHPO, federally recognized tribes, and other interested parties.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

**ENDANGERED SPECIES:** The Corps has performed an initial review of the application utilizing the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) to determine if any threatened, endangered, proposed, or candidate species, as well as the proposed and final designated critical habitat may occur in the vicinity of the proposed project. The IPaC consultation number is **IPaC # 02EKOK00-2022-SLI-0399**. Based on this initial review, the Corps has made a preliminary determination that the proposed project will not affect any listed species or critical habitat.

**Table 2:** ESA-listed species and/or critical habitat potentially present in the action area.

| <b>Species Common Name and/or Critical Habitat Name</b> | <b>Scientific Name</b>        | <b>Federal Status</b>  |
|---|-------------------------------|--|
| American Burying Beetle                                 | <i>Nicrophorus americanus</i> | Final Effect Analysis and Determination covered in the BO for the final 4(d) rule  |
| Piping Plover   | <i>Charadrius melodus</i>     | Final critical habitat for this species. The location does not overlap the critical habitat. "May Affect, unlikely to adversely affect"        |
| Rufa Red Knot   | <i>Calidris canutus rufa</i>  | Final critical habitat for this species. The location does not overlap the critical habitat. "May Affect, unlikely to adversely affect"        |
| Whooping Crane  | <i>Grus americana</i>         | Final critical habitat for this species. The location does not overlap the critical habitat. "May Affect, unlikely to adversely affect"        |
| Alligator Snapping Turtle                               | <i>Macrochelys temminckii</i> | Proposed critical habitat for this species. The location does not overlap the critical habitat. "Not likely to jeopardize continued existence" |
| Monarch Butterfly                                       | <i>Danaus plexippus</i>       | Proposed critical habitat for this species. The location does not overlap the critical habitat. "Not likely to jeopardize continued existence" |

Pursuant to Section 7 ESA, any required consultation with the Service(s) will be conducted in accordance with 50 CFR part 402. The FHWA is the lead Federal agency

for ESA consultation for the proposed action. FHWA completed consultation on November 30, 2021, and updated May 23, 2025.

This notice serves as request to the U.S. Fish and Wildlife Service for any additional information on whether any listed or proposed to be listed endangered or threatened species or critical habitat may be present in the area which would be affected by the proposed activity.

**CORPS AREA OF RESPONSIBILITY:** The Corps would address federal government (fee land) property impacts including any ODOT staging area.

**FLOOD STORAGE:** ODOT coordinated with USACE to offset losses to flood storage, using a 3:1 slope is proposed, requiring guardrail to be carried throughout the project. ODOT would ensure the PDB contract requires removing portions of the existing lake causeway or other mitigation to be agreed to with USACE to provide no net loss of flood storage for the Lake Texoma basin.

**NAVIGATION:** The proposed structure or activity is located in the vicinity of the impounded Washita River channel within Lake Texoma and is subject to Section 10 RHA 1899 regulations.

**SECTION 408:** The applicant will not require permission under Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. §408) because the activity, in whole or in part, would not alter, occupy, or use a Corps Civil Works project.

**WATER QUALITY CERTIFICATION:** Water Quality Certification will be required from ODEQ. Comments concerning water quality impacts will be forwarded to ODEQ for consideration in issuing a Section 401 Water Quality Certification for the proposed project. Work may **not** commence until decisions have been made on both Sections 401 and 404.

**NOTE:** This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the Regulatory Program. The geographic extent of aquatic resources within the proposed project area that either are, or are presumed to be, within the Corps jurisdiction has been verified by Corps personnel.

**EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit 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: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion

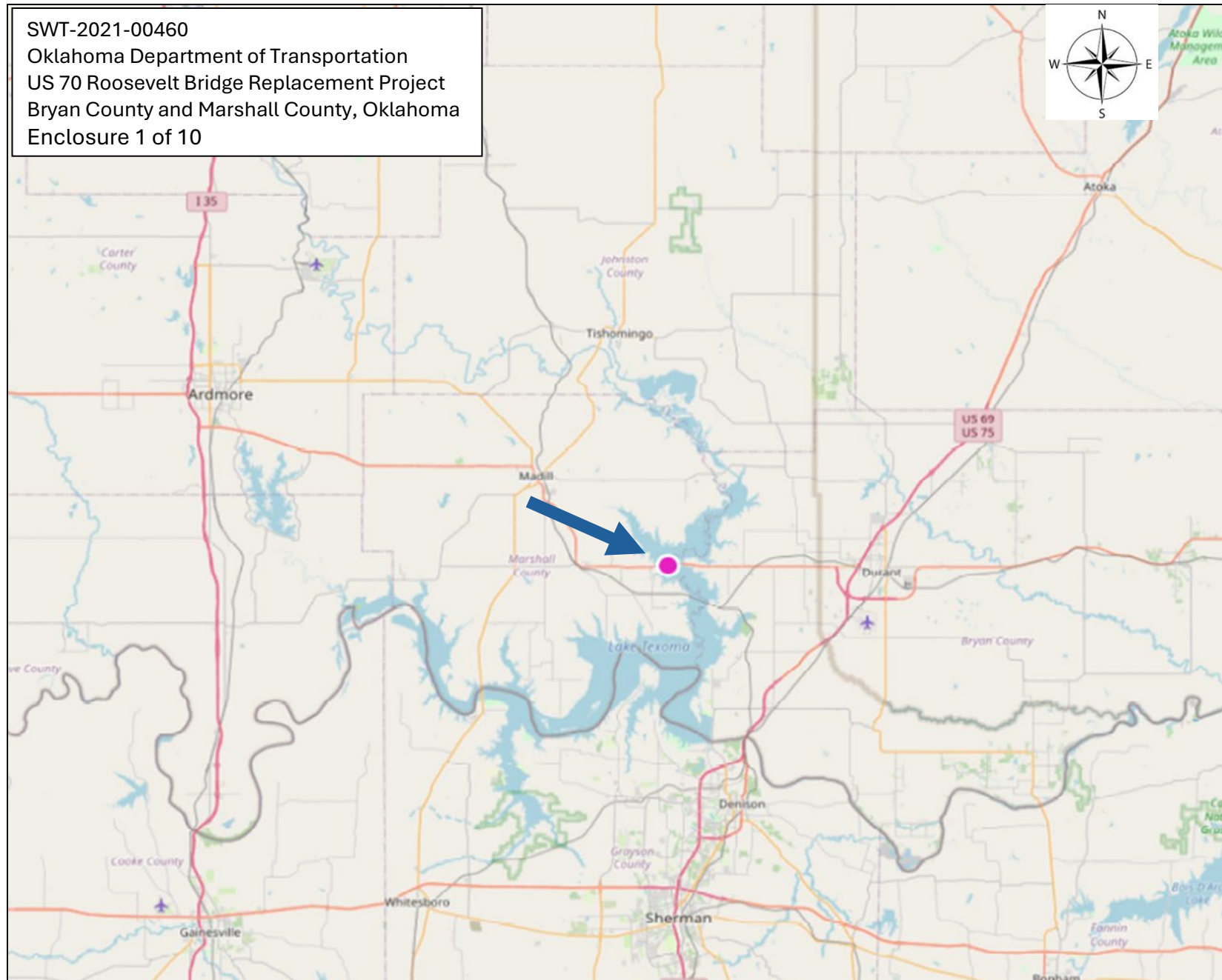
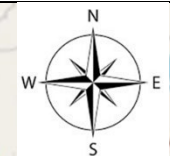
and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownerships, and, in general, the needs and welfare of the people. A permit will be denied if the discharge does not comply with the Environmental Protection Agency's 404(b)(1) Guidelines. Subject to the 404(b)(1) Guidelines and any other applicable guidelines or criteria, a permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

**COMMENTS:** The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to 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 proposed activity.

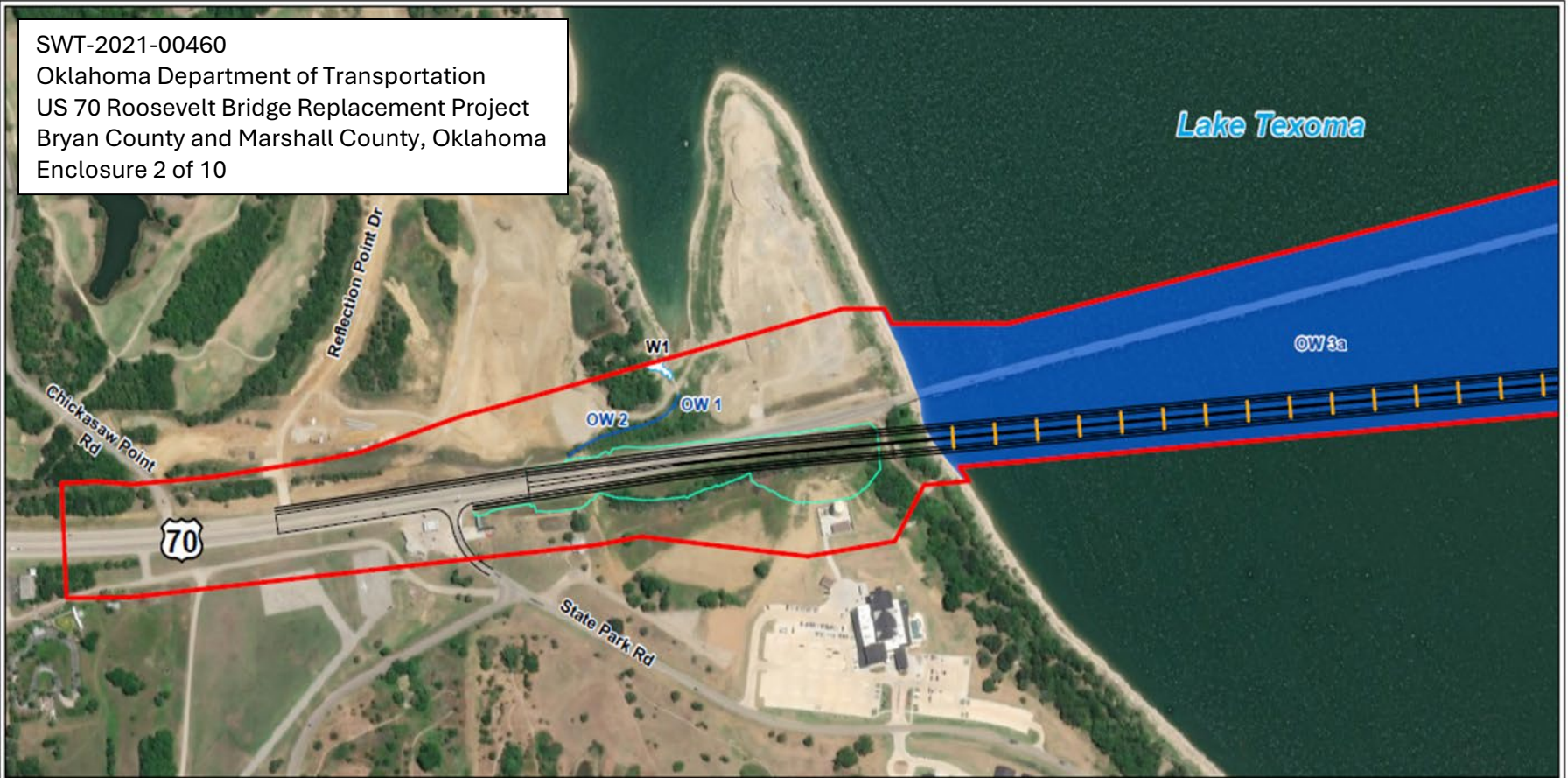
The Tulsa District will receive written comments on this proposal until the expiration date of this public notice. Comments should be submitted electronically via the Regulatory Request System (RRS) at <https://rrs.usace.army.mil/rrs> or to Mr. Marcus Ware at CESWT-RO@usace.army.mil. Please include the public notice number SWT-2021-00460 in the subject line of your email message. Alternatively, you may submit comments to mailing address Tulsa District Corps of Engineers, ATTN: Regulatory Office, 2488 East 81st Street, Tulsa, OK 74137. Please refer to the permit application number in your comments.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing will be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

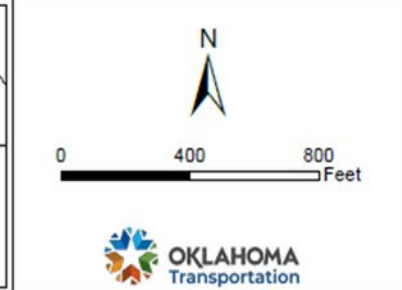
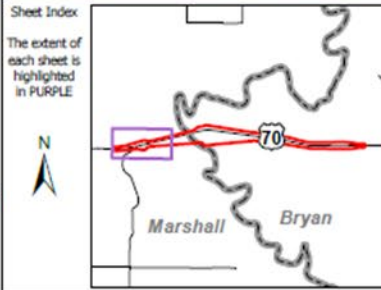
SWT-2021-00460  
Oklahoma Department of Transportation  
US 70 Roosevelt Bridge Replacement Project  
Bryan County and Marshall County, Oklahoma  
Enclosure 1 of 10



SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 2 of 10

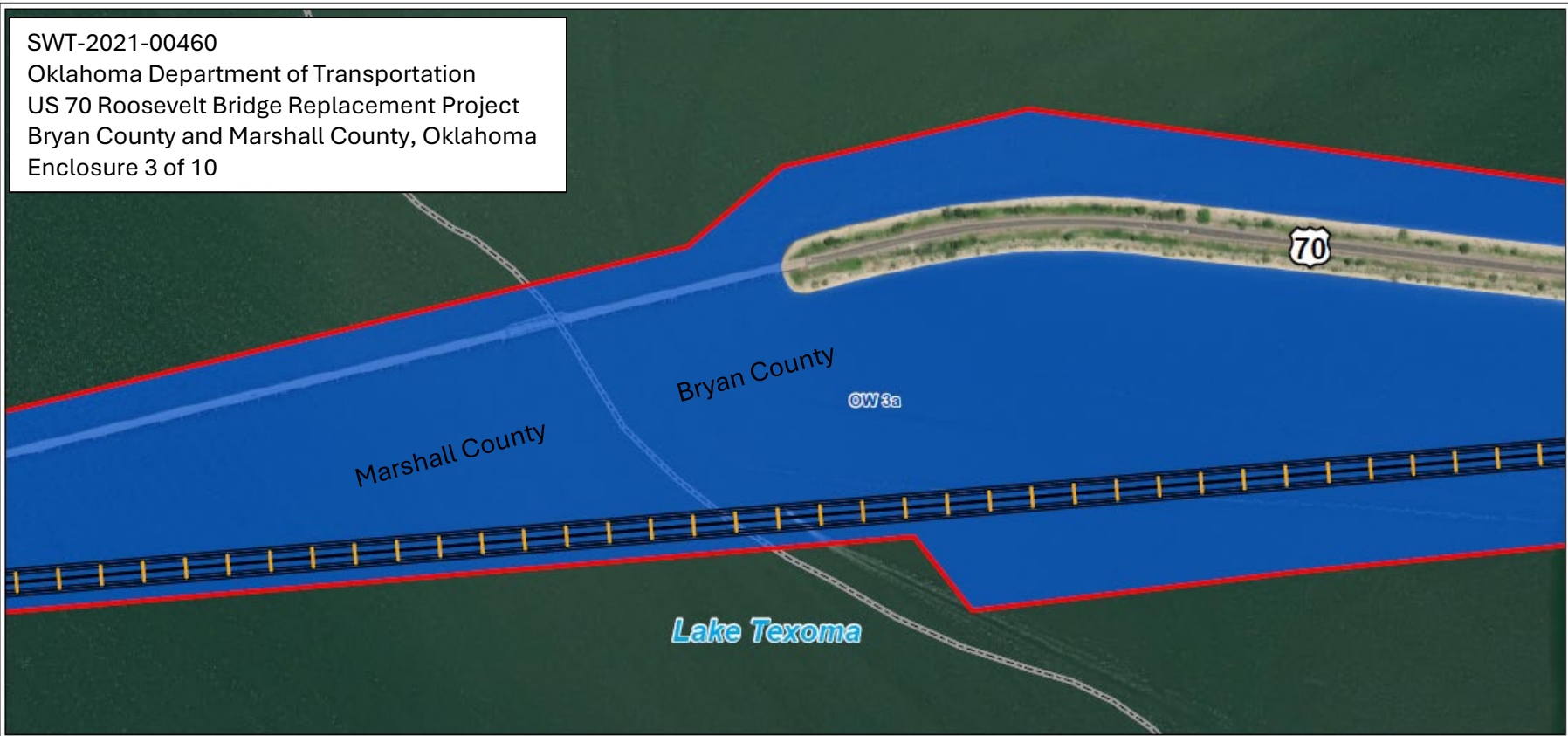


| LEGEND |                                 |
|--------|---------------------------------|
|        | Environmental Study Footprint   |
|        | Construction Limits             |
|        | Proposed Pavement               |
|        | Proposed Pier Locations         |
|        | County Boundary                 |
|        | Water Feature                   |
|        | Wetland Feature                 |
|        | Existing Culvert                |
|        | Culvert Extension (Fill)        |
|        | Clean Earthen Fill              |
|        | Clean Earthen Fill/Rock Rip Rap |



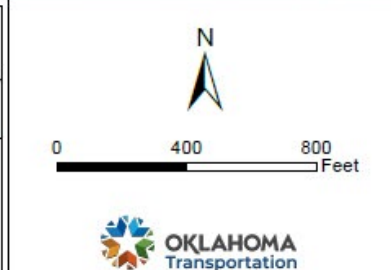
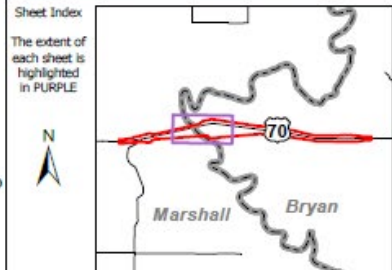
**EXHIBIT 1**  
**PREFERRED ALTERNATIVE SECTION 404 IMPACTS MAP**  
 Sheet 1 of 5  
 US 70 and Approaches over Lake Texoma  
 JP No. 33873(4)  
 Bryan and Marshall Counties, OK

SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 3 of 10



**LEGEND**

|                               |                                 |
|-------------------------------|---------------------------------|
| Environmental Study Footprint | Water Feature                   |
| Construction Limits           | Wetland Feature                 |
| Proposed Pavement             | Existing Culvert                |
| Proposed Pier Locations       | Culvert Extension (Fill)        |
| County Boundary               | Clean Earthen Fill              |
|                               | Clean Earthen Fill/Rock Rip Rap |



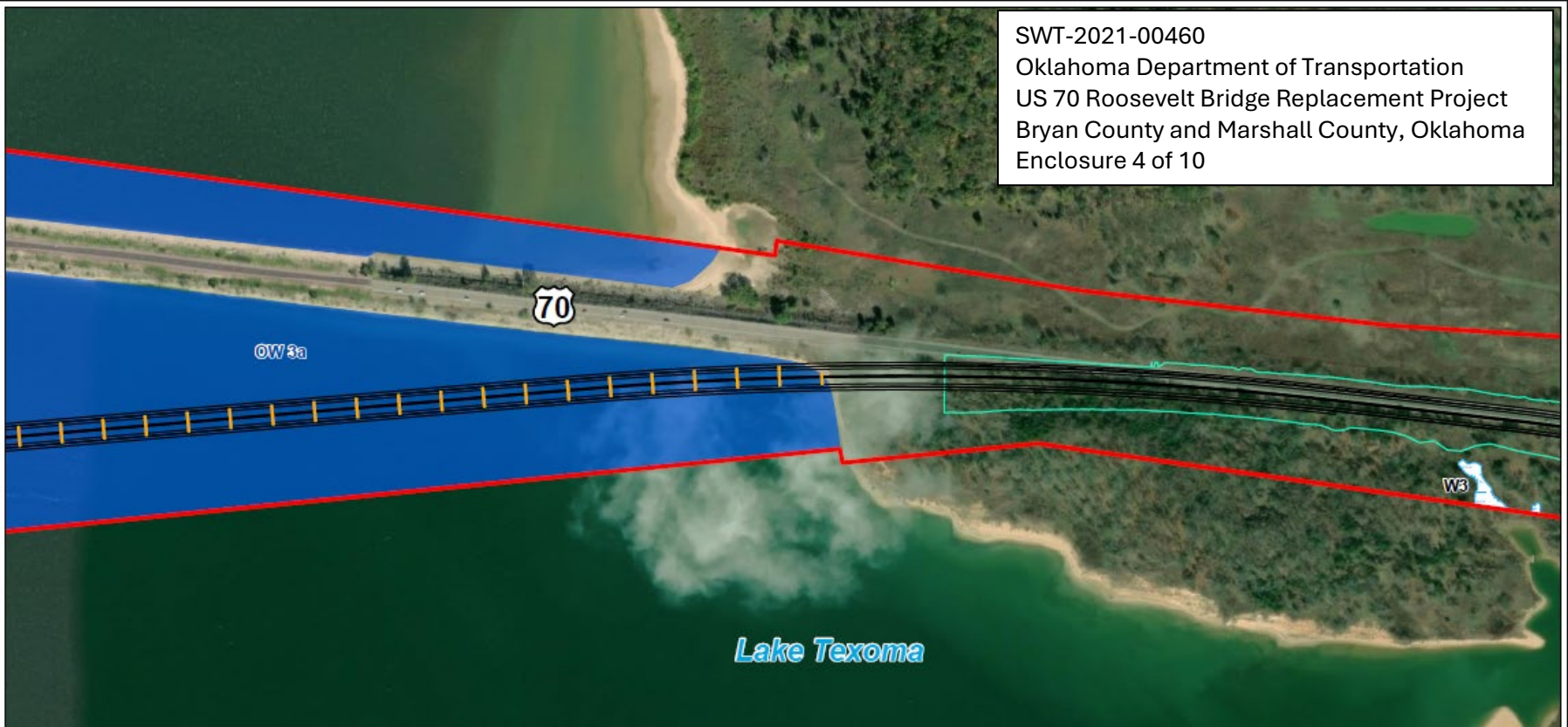
**EXHIBIT 1**

**PREFERRED ALTERNATIVE**  
**SECTION 404 IMPACTS MAP**  
 Sheet 2 of 5

US 70 and Approaches over Lake Texoma  
 JP No. 33873(4)

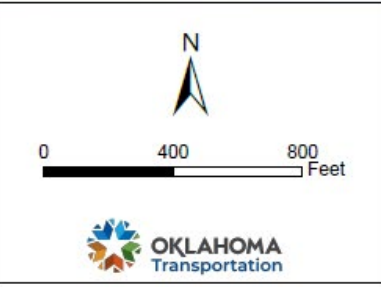
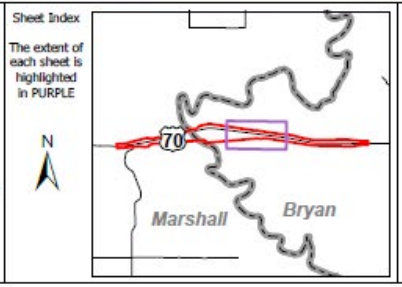
Bryan and Marshall Counties, OK

SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 4 of 10



**LEGEND**

|                               |                                 |
|-------------------------------|---------------------------------|
| Environmental Study Footprint | Water Feature                   |
| Construction Limits           | Wetland Feature                 |
| Proposed Pavement             | Existing Culvert                |
| Proposed Pier Locations       | Culvert Extension (Fill)        |
| County Boundary               | Clean Earthen Fill              |
|                               | Clean Earthen Fill/Rock Rip Rap |



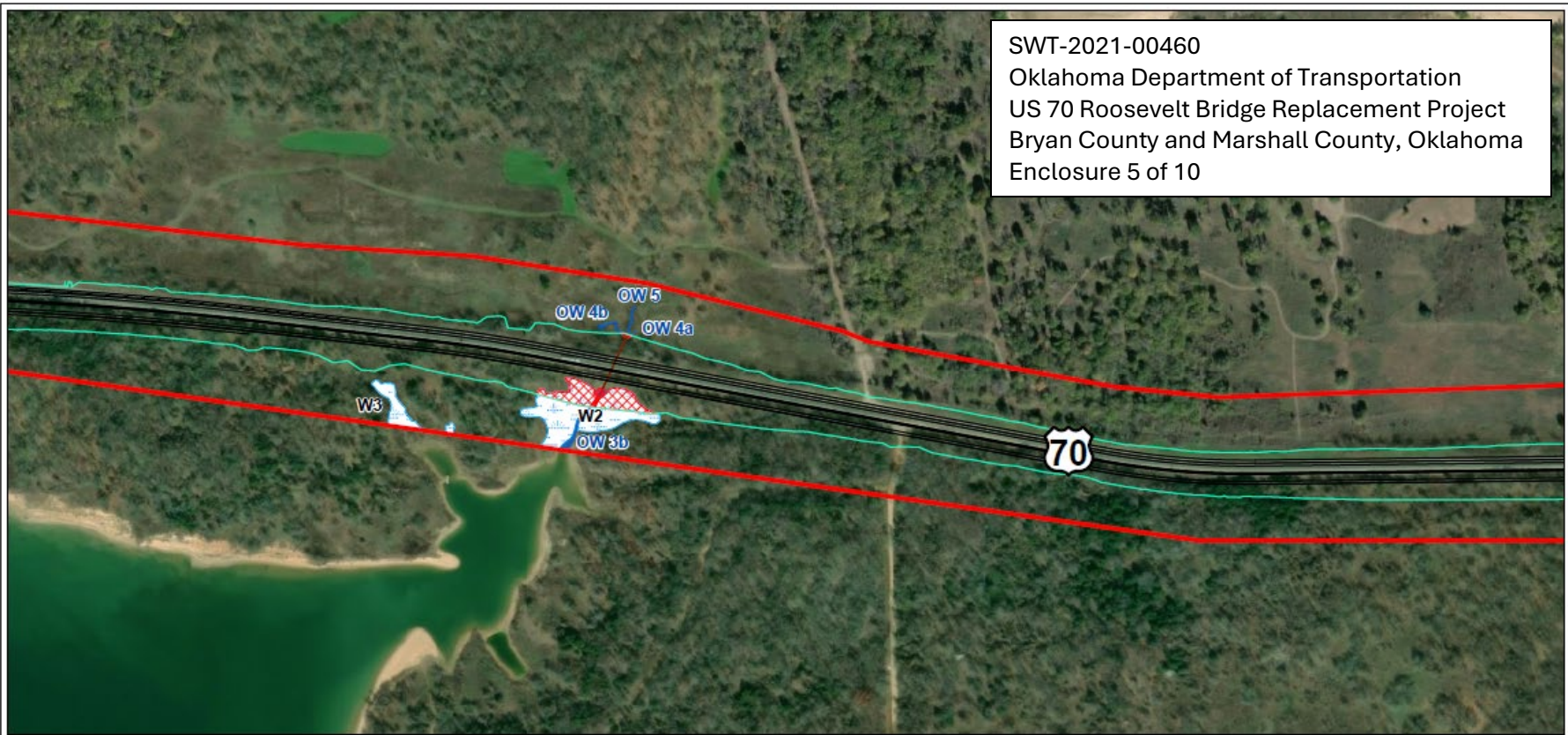
**EXHIBIT 1**

**PREFERRED ALTERNATIVE**  
**SECTION 404 IMPACTS MAP**  
 Sheet 3 of 5

US 70 and Approaches over Lake Texoma  
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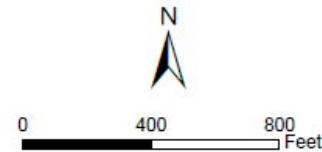
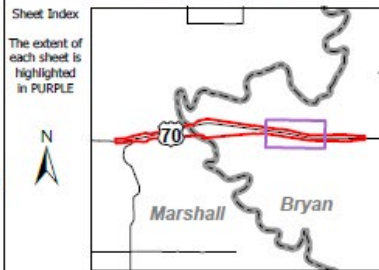
Bryan and Marshall Counties, OK

SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 5 of 10



**LEGEND**

- |                               |                                 |
|-------------------------------|---------------------------------|
| Environmental Study Footprint | Water Feature                   |
| Construction Limits           | Wetland Feature                 |
| Proposed Pavement             | Existing Culvert                |
| Proposed Pier Locations       | Culvert Extension (Fill)        |
| County Boundary               | Clean Earthen Fill              |
|                               | Clean Earthen Fill/Rock Rip Rap |



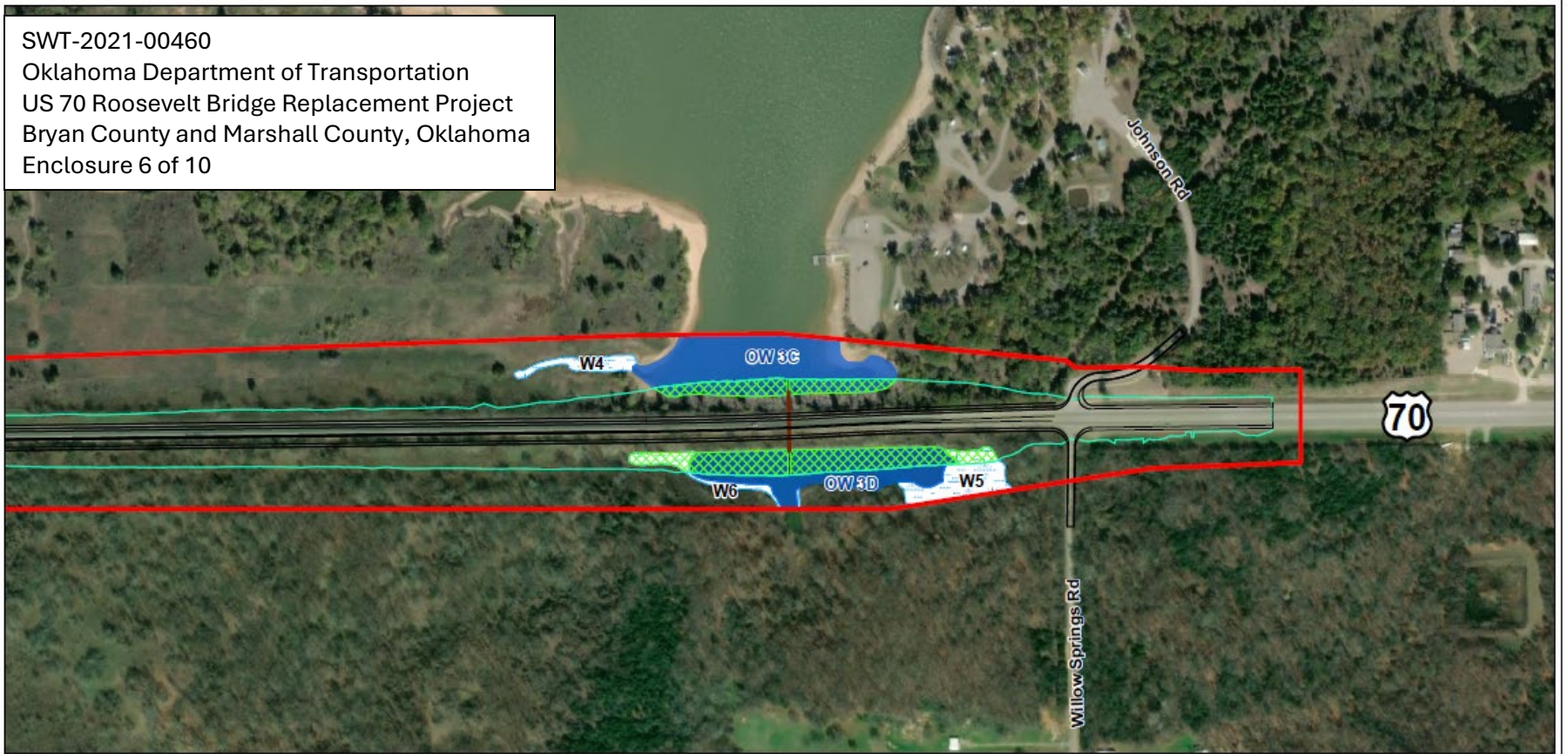
**EXHIBIT 1**

**PREFERRED ALTERNATIVE  
 SECTION 404 IMPACTS MAP**  
 Sheet 4 of 5

US 70 and Approaches over Lake Texoma  
 JP No. 33873(4)

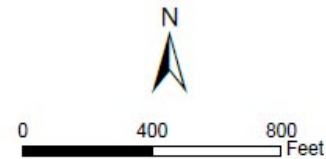
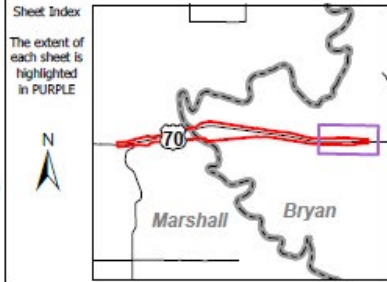
Bryan and Marshall Counties, OK

SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 6 of 10



**LEGEND**

- |                               |                                 |
|-------------------------------|---------------------------------|
| Environmental Study Footprint | Water Feature                   |
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| Proposed Pavement             | Existing Culvert                |
| Proposed Pier Locations       | Culvert Extension (Fill)        |
| County Boundary               | Clean Earthen Fill              |
|                               | Clean Earthen Fill/Rock Rip Rap |

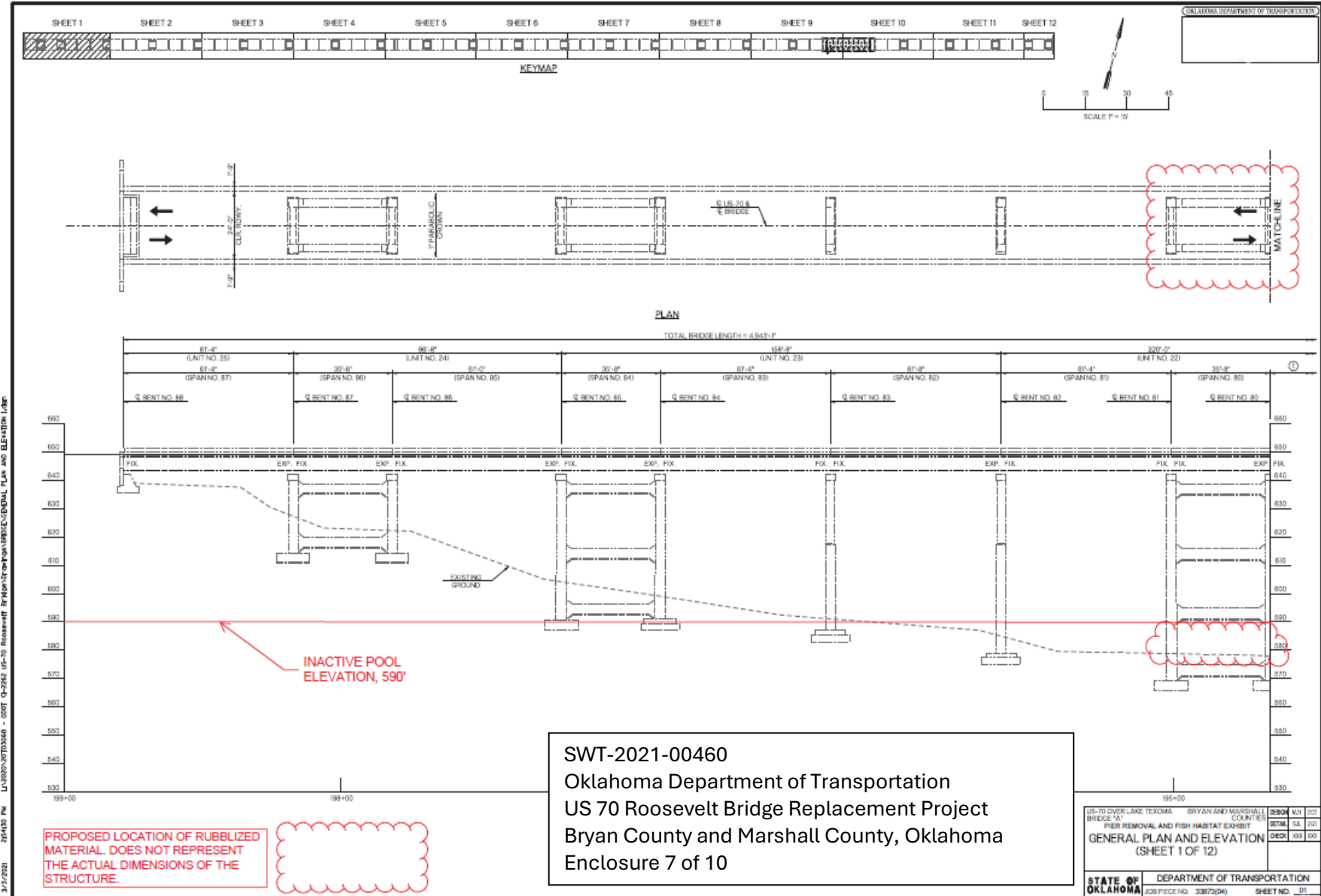


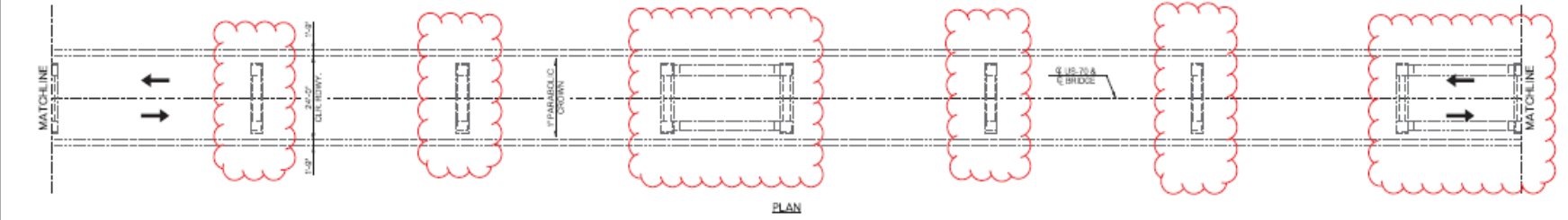
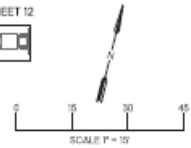
**EXHIBIT 1**

**PREFERRED ALTERNATIVE  
 SECTION 404 IMPACTS MAP**  
 Sheet 5 of 5

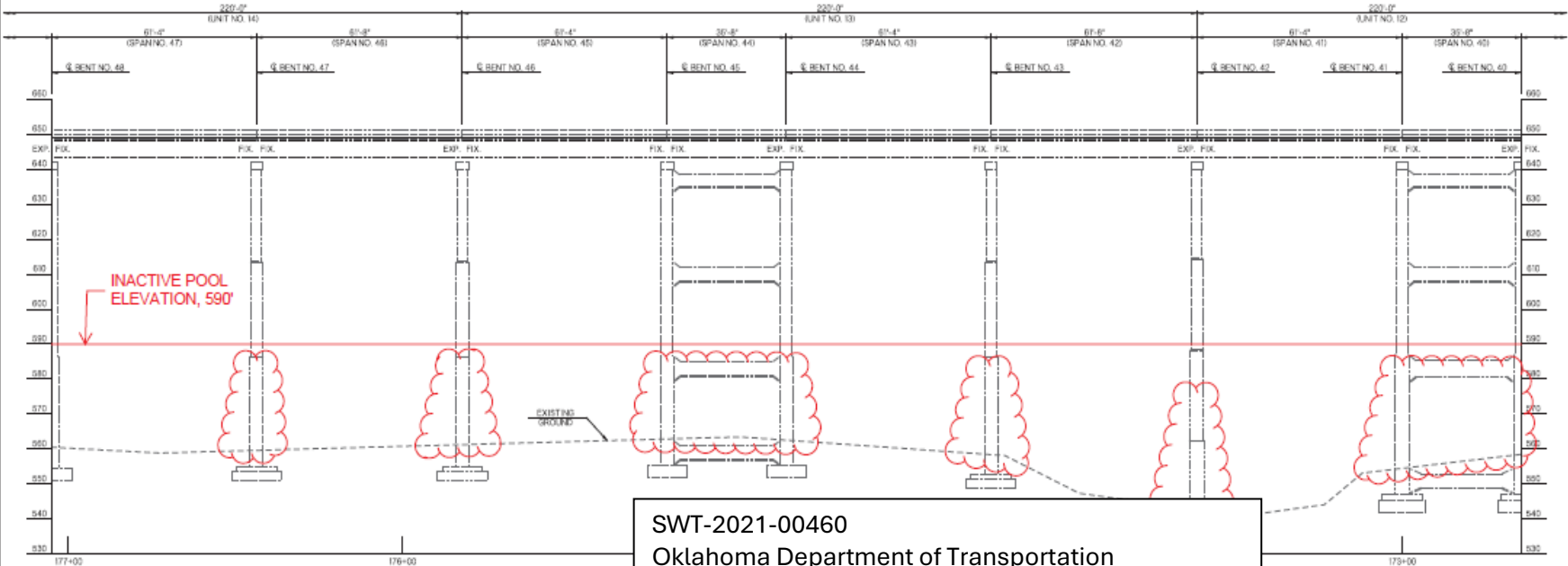
US 70 and Approaches over Lake Texoma  
 JP No. 33873(4)

Bryan and Marshall Counties, OK





TOTAL BRIDGE LENGTH = 4,842'-1"

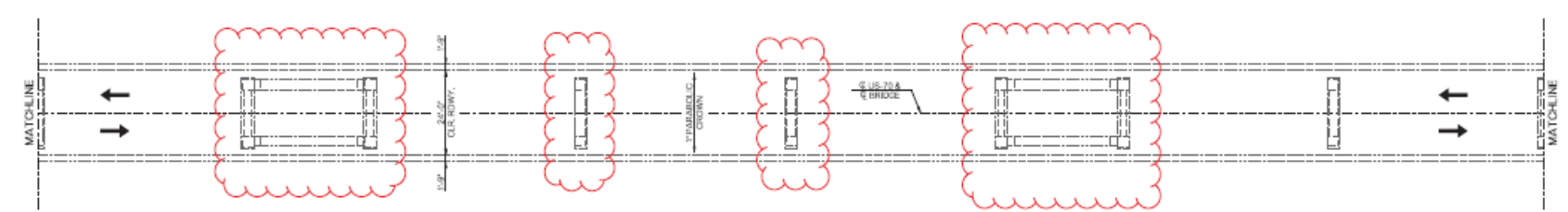
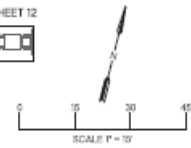


PROPOSED LOCATION OF RUBBLIZED MATERIAL. DOES NOT REPRESENT THE ACTUAL DIMENSIONS OF THE STRUCTURE.



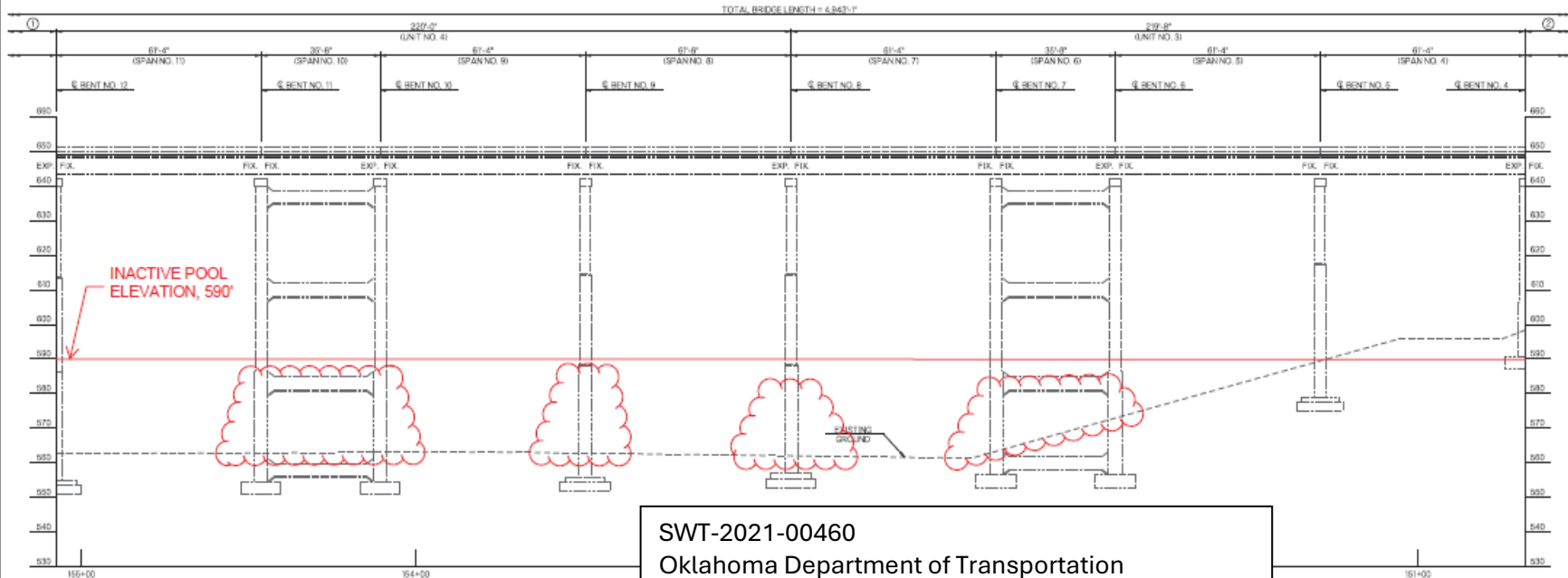
SWT-2021-00460  
Oklahoma Department of Transportation  
US 70 Roosevelt Bridge Replacement Project  
Bryan County and Marshall County, Oklahoma  
Enclosure 8 of 10

|                                       |  |                              |  |                      |         |
|---------------------------------------|--|------------------------------|--|----------------------|---------|
| US-70 OVER LAKE TEXOMA BRIDGE 'A'     |  | BRYAN AND MARSHALL COUNTIES  |  | SCALE                | DATE    |
| PIER REMOVAL AND FISH HABITAT EXHIBIT |  |                              |  | 1/8"                 | 04/2021 |
| GENERAL PLAN AND ELEVATION            |  |                              |  | 000                  | 001     |
| (SHEET 6 OF 12)                       |  |                              |  |                      |         |
| STATE OF OKLAHOMA                     |  | DEPARTMENT OF TRANSPORTATION |  | JOB FILE NO. 3387204 |         |
|                                       |  |                              |  | SHEET NO. 08         |         |



PLAN

TOTAL BRIDGE LENGTH = 6,843'-7"



PROPOSED LOCATION OF RUBBLIZED MATERIAL. DOES NOT REPRESENT THE ACTUAL DIMENSIONS OF THE STRUCTURE.



SWT-2021-00460  
Oklahoma Department of Transportation  
US 70 Roosevelt Bridge Replacement Project  
Bryan County and Marshall County, Oklahoma  
Enclosure 9 of 10

|   |                             |                              |     |     |
|---|-----------------------------|------------------------------|-----|-----|
| US-70 OVER LAKE TEXOMA BRIDGE 'A'           | BRYAN AND MARSHALL COUNTIES | DESIGN                       | N/A | 001 |
|   |                             | DETAIL                       | SA  | 001 |
| PIER REMOVAL AND FISH HABITAT EXHIBIT       |                             | CHECK                        | XXX | 001 |
| GENERAL PLAN AND ELEVATION (SHEET 11 OF 12) |                             |                              |     |     |
| STATE OF OKLAHOMA                           |                             | DEPARTMENT OF TRANSPORTATION |     |     |
| JOB/PROJECT NO. 33873(04)                   |                             | SHEET NO. 11                 |     |     |

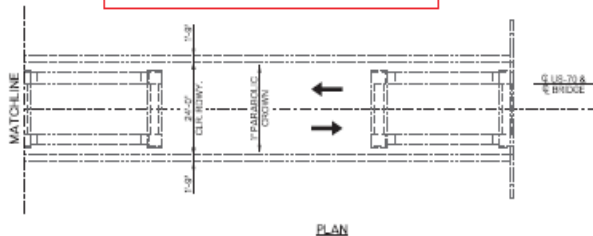
11/1/2021 10:44 PM L:\2020\30703350 - 0007 0-2021 10-10 Roosevelt Bridge Replacement - Pier Removal and Fish Habitat Exhibit - GENERAL PLAN AND ELEVATION 11.dgn

NO MATERIAL FROM EXISTING BRIDGE DECK MAY BE USED TO CONSTRUCT FISH HABITAT STRUCTURES OR ALLOWED TO ENTER LAKE WATERS.

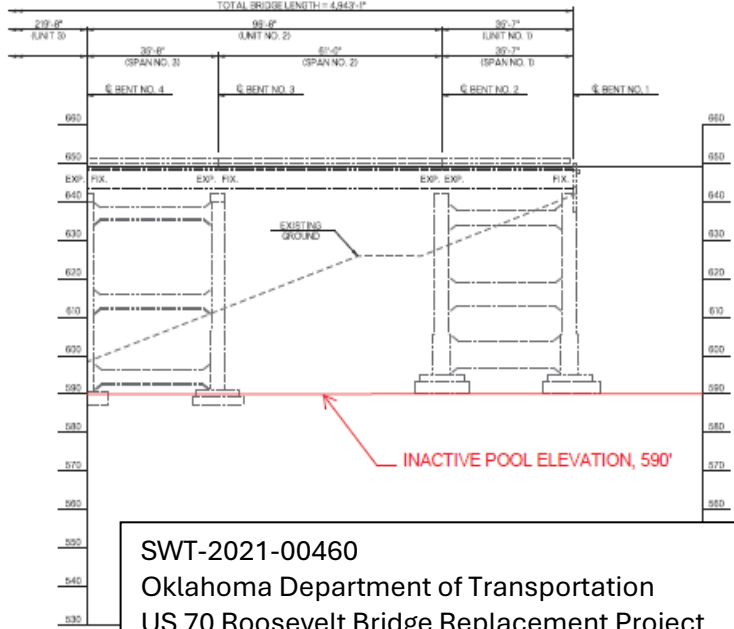
① PIER MATERIAL LEFT IN PLACE WITHIN THE LAKE WATERS MAY NOT EXCEED THE INACTIVE POOL ELEVATION (ELEVATION 590). PIER MATERIAL MAY INCLUDE RUBBLIZED CONCRETE AND REINFORCING STEEL. NO SINGLE PIECE OF MATERIAL MAY EXCEED 3 FEET IN DIMENSION. REDISTRIBUTE PIER MATERIAL AFTER DEMOLITION OPERATIONS IF NECESSARY. VERIFY ALL MATERIAL ELEVATIONS WITH BOTH DIRECT UNDERWATER OBSERVATION AND SONAR. PROVIDE 3 COPIES OF DOCUMENTATION OF THE FINAL DIRECT OBSERVATION AND SONAR RESULTS TO THE ENGINEER TO BE FURNISHED TO THE DEPARTMENT AND THE US ARMY CORP OF ENGINEERS.

② 40 DEG. ANGLE OF REPOSE ASSUMED. ACTUAL ANGLE MAY DIFFER BASED ON DEMOLITION PROCEDURES AND ENVIRONMENTAL FACTORS.

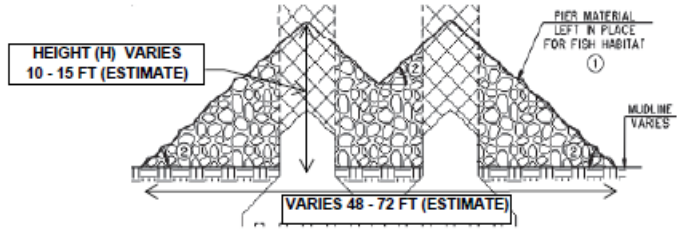
THE DIMENSIONS PROVIDED BELOW ARE BASED ON THE AVERAGE CUBIC YARDS OF MATERIAL AVAILABLE IN EACH EXISTING BENT. AVAILABLE CUBIC YARDS OF MATERIAL VARY DEPENDENT ON THE HEIGHT AND CONFIGURATION AT EACH BENT.



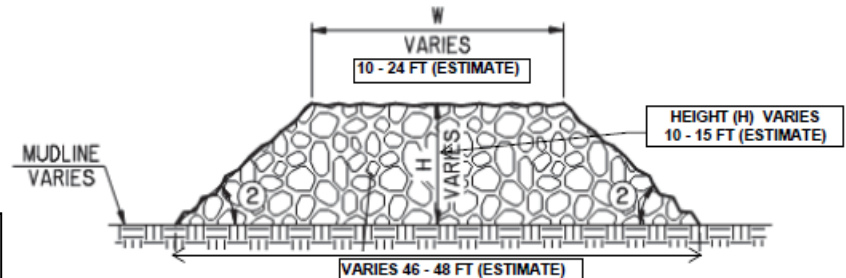
PLAN



ELEVATION



TYPICAL FISH HABITAT MOUND FOR TWO-COLUMN BENT DEMOLITION. BENTS: 8-9, 12-13, 16-19, 22-23, 26-27, 30-31, 34-35, 38-39, 42-43, 46-47, 50-51, 54-55, 58-59, 62-63, 66-67, 70-71, 74-75, 78-79, AND 82.



TYPICAL FISH HABITAT MOUND FOR TOWER BENT DEMOLITION. BENTS: 6-7, 10-11, 14-15, 20-21, 24-25, 28-29, 32-33, 36-37, 40-41, 44-45, 48-49, 52-53, 56-57, 60-61, 64-65, 68-69, 72-73, 76-77, AND 80-81.

SWT-2021-00460  
 Oklahoma Department of Transportation  
 US 70 Roosevelt Bridge Replacement Project  
 Bryan County and Marshall County, Oklahoma  
 Enclosure 10 of 10

NOTE:  
 STATIONS, UNIT, SPAN, TOWER, PER AND BENT NUMBERS INCREASE EAST TO WEST.

|   |                              |              |
|---|------------------------------|--------------|
| US-70 OVER LAKE TEXOMA BRIDGE "A"           | BRYAN AND MARSHALL COUNTIES  | REQD. BY 201 |
| PIER REMOVAL AND FISH HABITAT EXHIBIT       |                              | DATE 1A 201  |
| GENERAL PLAN AND ELEVATION (SHEET 12 OF 12) |                              | DWG. 0A 001  |
| STATE OF OKLAHOMA                           | DEPARTMENT OF TRANSPORTATION |              |
| JOB FILE NO. 33873048                       | SHEET NO. 12                 |              |

3/17/2021 2:01:17 PM L:\33873048\000 - 0007\_04-2021\_05-20\_Review\17\plan\transportation\bridge\GENERAL PLAN AND ELEVATION 10.dwg