



Public Notice

U.S. Army Corps
of Engineers
Tulsa District

Reply To:

U.S. Army Corps of Engineers
ATTN: Regulatory Office
2488 East 81ST Street
Tulsa, Oklahoma 74137-4290

SWT-2019-00040
Public Notice No.

January 2, 2020
Public Notice Date

February 1, 2020
Expiration Date

PURPOSE

The purpose of this public notice is to inform you of a proposal for work in which you might be interested and to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest.

SECTION 10

The U.S. Army Corps of Engineers is directed by Congress through Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) to regulate all work or structures in or affecting the course, condition, or capacity of navigable waters of the United States. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

SECTION 404

The U.S. Army Corps of Engineers is directed by Congress through Section 404 of the Clean Water Act (33 U.S.C. 1344) to regulate the discharges of dredged and fill material into all waters of the United States. These waters include lakes, rivers, streams, mudflats, sandflats, sloughs, wet meadows, natural ponds, and wetlands adjacent to other waters. The intent of the law is to protect these waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical, and biological integrity.

NOTICE TO PUBLISHERS

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
2488 EAST 81ST STREET
TULSA, OKLAHOMA 74137-4290

Application No. SWT-2019-00040

JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS
AND
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ)
(30-DAY COMMENT PERIOD)

Interested parties are hereby notified that the District Engineer (DE) has received an application for a Department of the Army (DA) permit and water quality certification pursuant to Sections 404 and 401 of the Clean Water Act (CWA). The ODEQ hereby incorporates this public notice and procedure as its own public notice and procedure by reference thereto.

Applicant: Mr. Tom Prag, P.E.
City of Tulsa
2317 S Jackson Avenue, Suite S300B
Tulsa, OK 74107

Agent: Mr. Ryan Blankenship, AWB
Cox|McLain Environmental Consulting, Inc. (CMEC)
320 S Boston Avenue, Suite 1104
Tulsa, OK 74103

Location: The proposed project is in Section 36, Township 19 N, Range 12 E, Tulsa County, Oklahoma. The project site can be found on the Jenks, Oklahoma 7.5 Minute USGS Quadrangle map at North Latitude 36.084981 and West Longitude 95.985214.

Project Description: The City of Tulsa (City), Oklahoma, proposes to add a new 42-inch sanitary sewer pipe (known as the Third River Crossing), a new East Bank Junction Structure, a new West Bank Junction Structure, and diversion facilities to the Southside Wastewater Treatment Plant (SSWWTP) in Tulsa County, Oklahoma. This would be the third sanitary sewer pipe river crossing at the SSWWTP and would be in addition to the two existing 36-inch pipes that cross the Arkansas River. Construction of the sewer pipe would consist of open-cut construction and modifications to the existing east bank of the Arkansas River at Junction Box 782 (JB-782) and west bank (at the SSWWTP) junction structures. The proposed project area is approximately 14.68 acres in size. The project area is located entirely within City-owned property and/or easements.

Purpose: The purpose of the project is to mitigate sanitary sewer overflows (SSOs) from JB-782 as mandated by the Oklahoma Department of Environmental Quality (ODEQ). This would be accomplished by increasing the conveyance capacity of the sanitary sewer system beneath the Arkansas River. Existing infrastructure includes two 36-inch sanitary sewer pipes that carry sewage from the east bank of the river (at JB-782) beneath the river and

connect to the influent structure at the SSWWTP on the west side of the river. The City proposes to connect the junction structures on each bank of the river by adding an additional 42-inch pipe parallel to the existing 36-inch pipes. The crossing capacity would be increased from 73 million gallons per day (MGD) to 83 MGD and would reduce SSO events from JB-782. Additionally, this project would provide the SSWWTP the ability to divert at least 7 MGD from the Influent Lift Station discharge to the Cherry Creek Flow Equalization Basins in the event the Cherry Creek Flow Equalization Facility must be utilized to accommodate flows coming across the river from JB-782. The proposed project would also provide the City a means to isolate and maintain both the new and existing river crossing.

The basic purpose of this work is to install a sanitary sewer pipe across the Arkansas River for the City of Tulsa. The project is not a water dependent activity.

The overall project purpose is to mitigate SSOs from JB-782, as mandated by the ODEQ, via the installation of a 42-inch sanitary sewer pipe across the Arkansas River for the City of Tulsa.

Summary Table of Impacts:

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)
Water 1 (Arkansas River)	Temporary Dredge/Fill	Perennial Stream	Native river bed material	70,000 cys	400 lf 12.13 ac
Water 2 (Unnamed Tributary to the Arkansas River)	Temporary Dredge/Fill	Intermittent Stream	Native stream bed material	765 cys	222 lf 0.15 ac
cubic yards (cys), ordinary high water mark (OHWM), acre (ac), linear feet (lf)					

Description of Work: The proposed project would require temporary impacts to the Arkansas River and an unnamed tributary to the Arkansas River to facilitate the installation of the proposed 42-inch sanitary sewer pipe. Temporary impacts would include construction related disturbance, including temporary sheeting and shoring along the river banks, mechanical clearing, excavation activities, and temporary dewatering activities. The work would be accomplished with equipment including a wheeled loader, dozer, and excavator. According to current plans, approximately 70,000 cubic yards of Arkansas River bed material would be excavated as part of the open-cut process. This material would be used to create temporary earthen berms to dewater sections of the Arkansas River and protect the proposed project during construction. According to geotechnical information, excavated material is anticipated to include previous fill materials (comprised of man-made materials

and other construction debris), alluvial deposits (comprised of silty sand of variable composition and density), and bedrock (comprised of weathered to fresh shale rock). The proposed project would be constructed in phases to facilitate the installation of the sanitary sewer pipe while also maintaining normal downstream flows of the Arkansas River. Construction phasing would include the following: 1) existing river crossings are in service with a capacity of 73 MGD when the Influent Lift Station Wet Well is operating at 10 feet, 2) excavate pits on the east and west banks where the new junction structures are to be located, 3) construction of the new 42-inch river crossing while the existing river crossings are in service, 4) hold back flow via an existing removable concrete slab located over the top of the existing connections from JB-782 to the new East Bank Junction Structure, 5) construct as much as possible of the new east and west bank structures around the existing river crossings encasement, and 6) construct new 42-inch line for subsequent interconnection with the existing 24-inch Mooser Creek and Plant Drain line.

Avoidance and Minimization Information: The applicant provided the following statement with regard to how avoidance and minimization of impacts to aquatic resources was incorporated into the project plan:

Impacts to waters of the U.S. were avoided to the maximum extent practicable. Three build alternatives were considered and documented in a Preliminary Design Report (PDR) (Greeley and Hansen, 2019). The alternatives considered for the proposed project include an open cut alternative, a microtunneling (trenchless) alternative, and a horizontal directional (trenchless) alternative. Four major factors were considered which affected design consideration, including: 1) estimated construction cost, 2) operation and maintenance of the new river crossing, 3) estimated construction schedule, and 4) miscellaneous construction method criteria (including the least environmental damaging practicable alternative). Since each of the three build alternatives met these evaluation criteria, the PDR recommended that each of the three build alternatives be moved forward for design. As design progressed, the horizontal directional drilling alternative was eliminated from consideration and the open-cut alternative was selected as the Base Bid for the project (preferred alternative). Design for the microtunneling alternative also progressed and would be taken forward for bid as a deductive alternate in the case that the open-cut alternative does not come within the final project budget. The open-cut alternative is the preferred alternative since it mitigates SSOs at JB-782 while providing the City the lowest overall operation cost and least long-term maintenance intensive solution. The proposed project includes avoidance of impacts to waters of the U.S. As the proposed project has developed through design, from the PDR to the 90% plan set, the project area has been refined. The preliminary project area (PDR) included acreage (located to the south of the proposed project area footprint) to facilitate construction related access and mobility. The revised project area (90% design) includes avoidance of all construction related temporary or permanent impacts to a shrub/scrub wetland. This shrub/scrub wetland is approximately 0.007 acres in size and is located outside of the limits of the proposed project area. As part of the avoidance and minimization effort for the proposed project, hourly rainfall data was evaluated from October 1987 through March of 2019 and was obtained from the 11th Street United States Geological Survey (USGS) gauge 07164500 (located approximately 4.5 river miles upstream of the proposed project area) (USGS 2018). River elevations were estimated at the proposed project area

using both the gauge data and a Hydrologic Engineering Center's River Analysis System (HEC-RAS) model for determining a maximum river elevation that would be acceptable for the project to be constructed. Work would be performed within the Arkansas River only when river elevations are below an elevation of 605 feet above mean sea level (MSL), as shown on Contract Drawing BC8. This would provide a manageable work environment while eliminating the need for large earthen berm systems which may be washed out under high river levels. The proposed project includes minimization of impacts by use of a series of earthen berms. Laydown yards, staging areas, stockpile sites, and construction related work sites are planned outside of the limits of waters of the U.S. The footprint of construction related activities within waters of the U.S. has been minimized, to the extent practicable, and work areas have been relocated to upland areas. Additionally, the proposed project design includes only temporary impacts to waters of the U.S. The selected contractor would be required to re-establish preconstruction contours after completion of the preferred alternative. In addition, the following Contract Constraints and Best Management Practices (BMPs) are included in the contract specifications to minimize the extent of temporary impacts to waters of the U.S.

Contract Constraints and Best Management Practices:

- A support excavation system would be required on both the east and west banks of the Arkansas River as shown on Contract Drawing BC8 to minimize the level of impact to the unnamed tributary to the Arkansas River and mitigate concern of erosion of sediment into the Arkansas River due to excavation efforts.
- No outside (upland), foreign, or imported materials would be stockpiled, stored, or placed within waters of the U.S. Only native material from the Arkansas River bottom can be used for the earthen berms (as part of the open-cut alternative construction method) while crossing the Arkansas River as shown on Contract Drawing BC8.
- In the case of a flooding event and material washout during construction of the new river crossing the Contractor would be required to go downstream, within the Limits of Construction, to gather available material for reconstructing the earthen berm system.
- Construction would be specified to only take place during the months of September through February (low flow season in the Arkansas River) to avoid high water levels.
- Work within the Arkansas River would only occur when the water surface elevation within the project area is less than 605 feet above MSL to minimize the risk of flooding events and material loss.
- The Contractor would construct the project phases with no more than 500 feet of pipeline constructed at any given time. Construction phasing would be implemented to minimize the risk of substantial material loss due to possible flooding events.
- Geotextile fabric would be used to cover the temporary earthen berm system to minimize erosion and loss of the material downstream.

Mitigation: Furthermore, the applicant proposes the following as compensatory mitigation for the unavoidable impacts to aquatic resources expected from the proposed project:

The proposed project only proposes temporary impacts to all waters of the U.S. occurring within the project area. All placement of fill material and clearing of vegetation would be temporary in nature and all pre-construction contours would be restored prior to

site stabilization. No compensatory mitigation is required or proposed since there would be no net loss of aquatic resources as a result of the proposed project.

This mitigation plan is the applicant's proposal. The Corps has made no determination at this time with regard to the adequacy of the proposed mitigation relative to the federal mitigation rules and guidance, including Tulsa District's Mitigation and Monitoring Guidelines. Compensatory Mitigation for unavoidable impacts may be required to ensure that this activity requiring a Section 404 permit, if issued, complies with the Section 404 (b)(1) Guidelines. The Corps bears the final decision on the need for and extent of mitigation required if the project proposed herein is authorized.

Project Setting: The proposed project area is largely made up of the Arkansas River and the river's banks located within the City's limits in Tulsa County, Oklahoma. Vegetation on the east side of the Arkansas River consists of undeveloped woodland adjacent to a shared-use pedestrian path and greenbelt. The SSWWTP is located on the west side of the river. Four distinct habitat types are located within the project area. These include urban high intensity, urban low intensity, deciduous floodplain woodland vegetation, and shrub/scrub floodplain vegetation. Based upon the delineation completed for this project, two potential waters of the U.S., the Arkansas River and an unnamed tributary to the Arkansas River were identified within the project limits during field investigations. No wetlands were identified within the project limits. A detailed description of the potential waters of the U.S. is included below.

The Arkansas River, flows across the project area from north to south for approximately 400 linear feet (12.13 acres). It is identified by the National Hydrography Database (NHD) as a perennial stream and on National Wetlands Inventory (NWI) maps as a riverine, lower perennial, permanently flooded stream with an unconsolidated bottom (R2UBH). The FEMA-designated 100-year floodplain map shows the river as a regulatory floodway, Zone AE (FEMA 2018). The river has an average ordinary high water mark (OHWM) width of approximately 1,305 feet. Water within the channel was approximately 4.7 feet deep during the January 2019 field investigations (USGS 2018). The bed and banks of the Arkansas River are comprised of mostly sand and fine gravel substrate. The banks are nearly vertical. Dominant vegetation along the banks of the Arkansas River consisted of eastern cottonwood (*Populus deltoides*), American elm (*Ulmus americana*), and sugarberry (*Celtis laevigata*). Dominant herbaceous vegetation consisted of switchgrass (*Panicum virgatum*), lemon beebalm (*Monarda citriodora*), false boneset (*Brickellia eupatorioides*), tapered rosette grass (*Dichanthelium acuminatum*), and green bristlegrass (*Setaria viridis*). Woody vines were limited to frost grape (*Vitis vulpina*).

The unnamed tributary to the Arkansas River is best described as an intermittent stream that conveys flows from north to south within the project area for approximately 222 linear feet (0.15 acres). It is not identified on NHD or NWI maps but is located within the FEMA-designated 100-year floodplain of the Arkansas River. It has an average OHWM of approximately 31 feet wide. Standing water within the channel ranged from 2 to 4 feet deep during the January 2019 field investigations. The tributary continues to the south before converging with the Arkansas River, just outside of the southern limits of the project area. The bed and banks are comprised of mostly sand and fine gravel substrate. The banks are

gently sloping and generally less than 3 feet tall. Vegetation along the banks mainly consists of deciduous floodplain woodland vegetation. The tree stratum is dominated by black willow (*Salix nigra*), American elm, and sugarberry. Dominant herbaceous species include great ragweed (*Ambrosia trifida*), green bristlegrass, Canada goldenrod (*Solidago canadensis*), switchgrass, Johnsongrass (*Sorghum halepense*), perennial ryegrass (*Lolium perenne*), Carolina geranium (*Geranium carolinianum*), and sweet autumn virginsbower (*Clematis terniflora*).

Cultural Resources: The DE is responsible to ensure compliance with the National Historic Preservation Act of 1966 (NHPA) (Public Law 89-665), as amended, and other cultural resources laws and Executive Orders. A preliminary review of the state's records has been completed for the presence of sites included in, or eligible for, inclusion in the National Register of Historic Places, as well as the Oklahoma Landmark Inventory Database. There may be known historic properties, as defined by the NHPA, in or within the vicinity of the proposed permit area.

Threatened and Endangered Species: The following federally listed species are known to occur in the vicinity or are listed for the county in which the proposed action is located: northern long-eared bat (*Myotis septentrionalis*), least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), and American burying beetle (*Nicrophorus americanus*). A copy of this notice is being furnished to the U.S. Fish and Wildlife Service and appropriate state agencies. The IPAC consultation code is 02EKOK00-2019-TA-1787.

We are currently assessing the potential effects of the proposed action on these species and will comply with the Endangered Species Act with regard to any effect of our decision on this permit application.

Evaluation Factors: 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 DE determines that it would be contrary to the public interest.

Plans and Data: Plans showing the location of the proposed activity and other data are enclosed with this notice. If additional information is desired, it may be obtained from

Mr. David Carraway, Tulsa District Corps of Engineers, ATTN: Regulatory Office, 2488 East 81st Street, Tulsa, OK 74137; or telephone 918-669-7400.

Comments: The Corps of Engineers 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 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 proposed activity.

Any comments on this proposal must be submitted to be received by the Corps by the expiration date of this public notice comment period. Comments received after this date will not be considered in our decision. You may submit comments to mailing address Tulsa District Corps of Engineers, ATTN: Regulatory Office, 2488 East 81st Street, Tulsa, OK 74137 or email CESWT-RO@usace.army.mil. Please include the public notice number SWT-2019-00040 in the subject line of your email message.

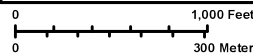
Comments concerning water quality impacts will be forwarded to ODEQ for consideration in issuing a Section 401 Water Quality Certification for the proposed project. Work may **not** commence until decisions have been made on both Sections 401 and 404.

Andrew R. Commer
Chief, Regulatory Office

Enclosures



Figure 1. Project Location (Aerial Base)
 SSWWTP Flow Optimization (ES2015-17 Third River Crossing and Inflow LS Diversion) Project, SWT-2019-00040
 Tulsa County



COX | McLAIN
 Environmental Consulting

Data Sources: OU CSA (2017), NHD (2018)
 Aerial Source: City of Tulsa (2017)

Prepared for: Greeley and Hansen	1 inch = 1,000 feet
Prepared by: TLS	Scale: 1:12,000
	Date: 5/22/2019

G:\Projects\Greeley_and_Hansen\Arkansas_River_SS_Line\PJ_D\Figure 1_Project Location_Aerial_20190506.mxd

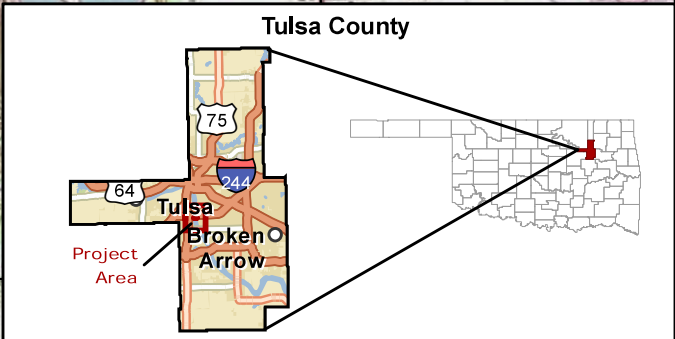
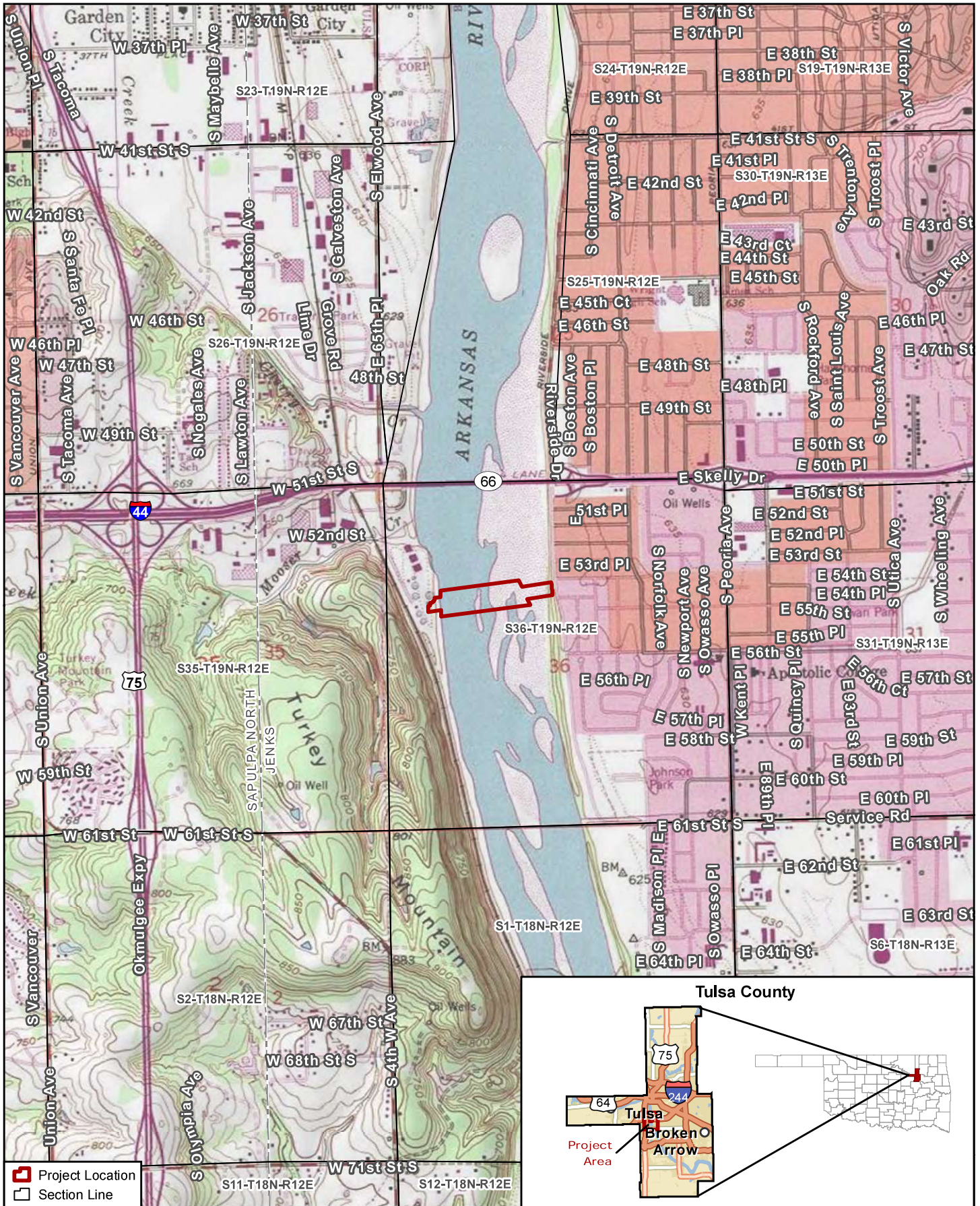


Figure 2. Project Location (Topographic Base)
 SSWWTP Flow Optimization (ES2015-17 Third River Crossing and Inflow LS Diversion) Project, SWT-2019-00040
 Tulsa County

0	2,000 Feet		
0	600 Meters		
Data Sources: OU CSA (2017) Topographic Source: USGS Jenks (1982) and Sapulpa North (1983) 7.5' Quadrangles		Prepared for: Greeley and Hansen	1 inch = 2,000 feet
		Prepared by: TLS	Scale: 1:24,000
			Date: 5/22/2019

G:\Projects\Greeley_and_Hansen\Arkansas_River_SS_Line\JD_Figure 2_Project Location_Topo_20190506.mxd

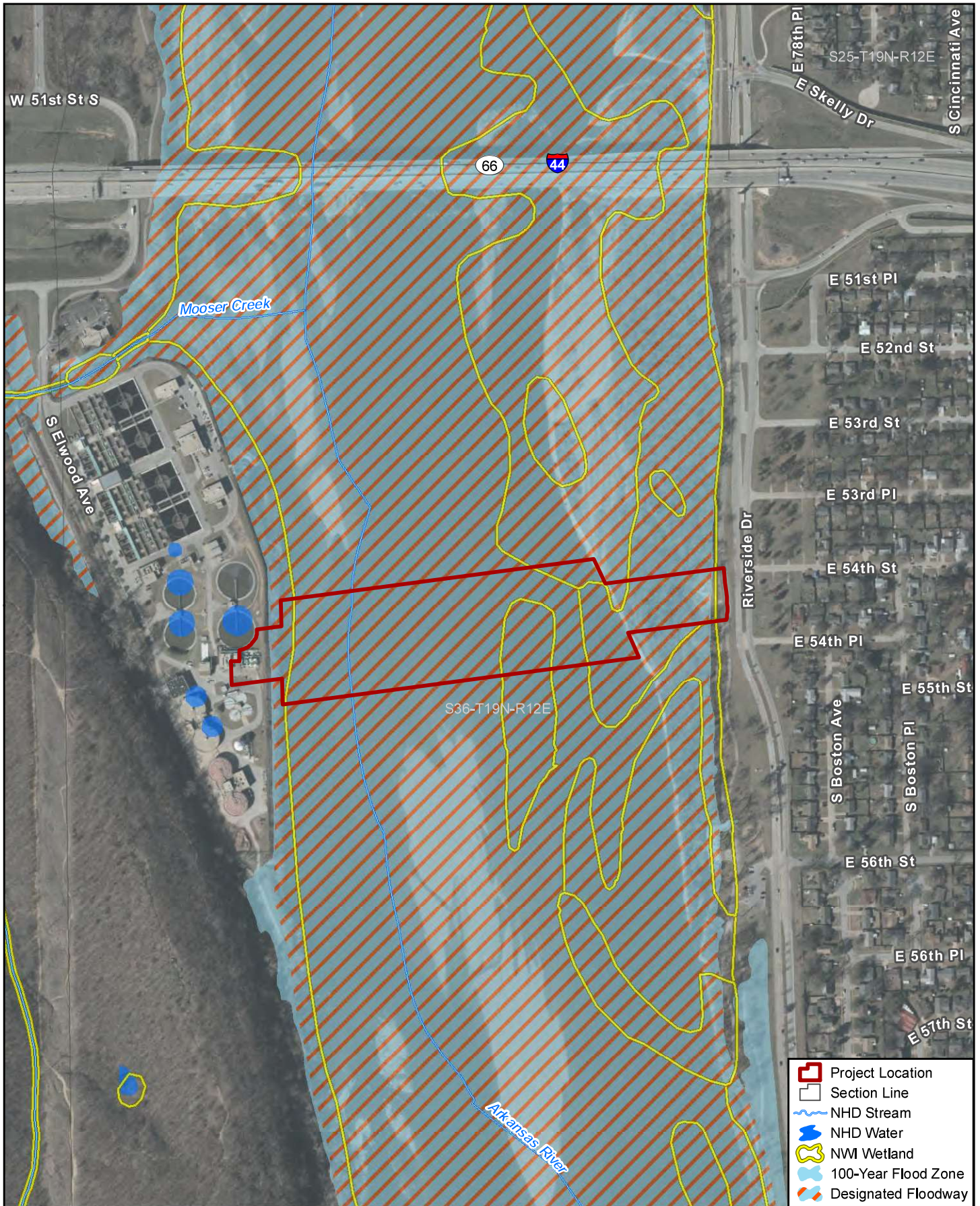
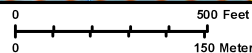


Figure 5. Water Resources
 SSWWTP Flow Optimization (ES2015-17 Third River Crossing and Influent LS Diversion) Project, SWT-2019-00040
 Tulsa County



COX | McLAIN
 Environmental Consulting

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018)	Prepared for: Greeley and Hansen	1 inch = 500 feet
Aerial Source: City of Tulsa (2017)	Prepared by: TLS	Scale: 1:6,000
		Date: 5/22/2019

G:\Projects\Greeley_and_Hansen\Arkansas_River_SS_Line\PJ\JD_Figure 5_Water Resources_20190506.mxd



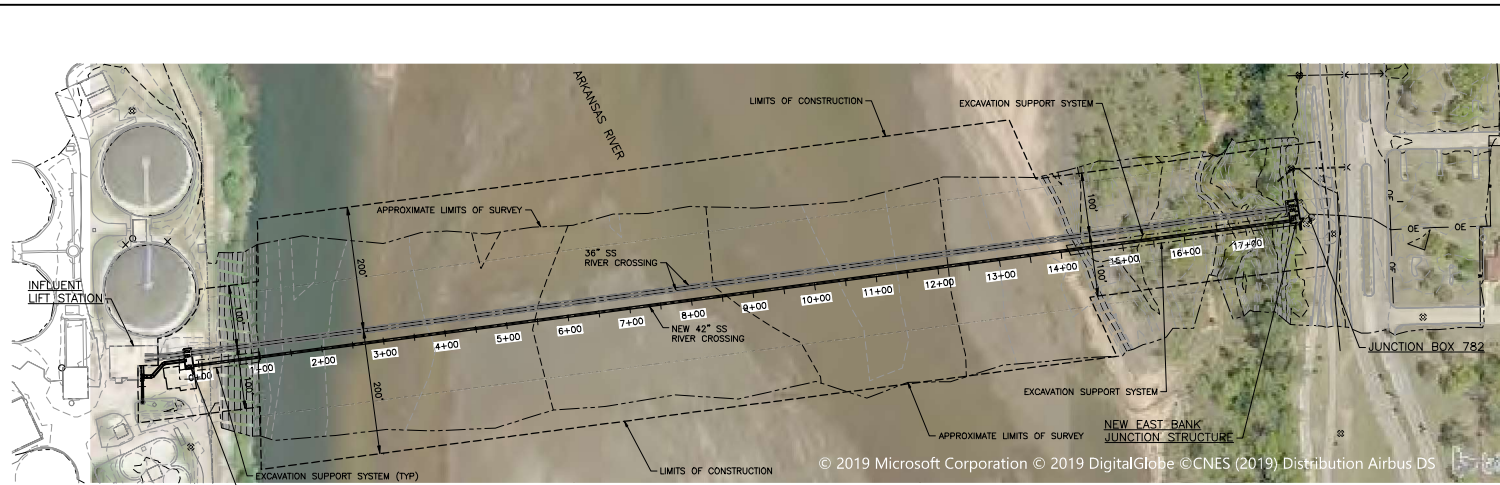
Figure 7. Delineated Waters
 SSWWTP Flow Optimization (ES2015-17 Third River Crossing and Influent LS Diversion) Project, SWT-2019-00040
 Tulsa County

0 250 Feet
 0 80 Meters

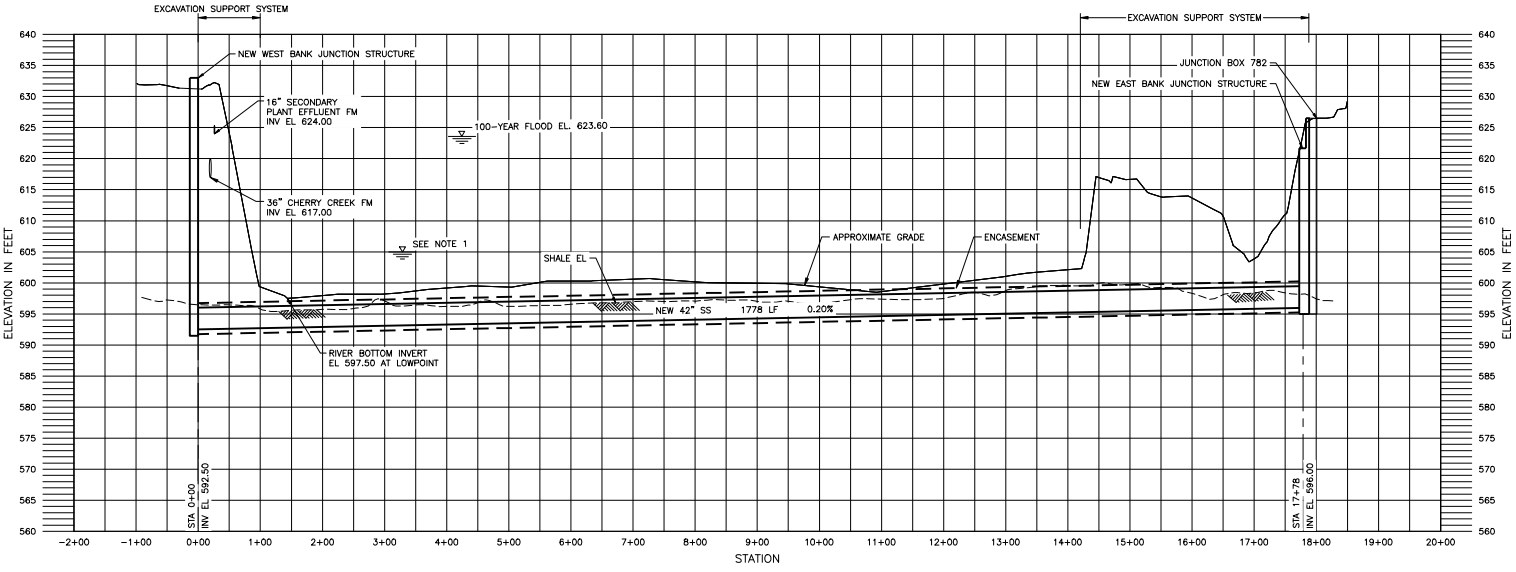
Data Sources: CMEC (2019), OU CSA (2017)
 Aerial Source: City of Tulsa (2017)

		Prepared for: Greeley and Hansen	1 inch = 250 feet
		Prepared by: TLS	Date: 5/22/2019

G:\Projects\Greeley_and_Hansen\Arkansas_River_SS_Line\PJ\Figure 7_Delineated Waters_20190508.mxd



PLAN



PROFILE

NOTES:

1. WHEN THE RIVER WATER SURFACE ELEVATION WITHIN THE LIMITS OF CONSTRUCTION IS ABOVE ELEVATION 605.00, THE RIVER CROSSING WORK LOCATED BETWEEN THE EAST JUNCTION STRUCTURE AND WEST JUNCTION STRUCTURE MAY BE SUSPENDED, AT CONTRACTOR'S OPTION, AFTER TEMPORARILY PLUGGING THE OPEN END OF THE NEW SANITARY SEWER. SUCH DAYS WILL BE CONSIDERED A HIGH RIVER DAY AND, IF SUFFICIENT IN NUMBER, BE ELIGIBLE FOR A CHANGE IN CONTRACT TIME AS SPECIFIED.



THIRD RIVER CROSSING
RIVER CROSSING PLAN AND PROFILE
PROJECT NO. 2015-17, C2
SOUTHSIDE WASTEWATER TREATMENT PLANT
PEAK FLOW OPTIMIZATION: THIRD RIVER
CROSSING AND DIVERSION FACILITIES
CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: **CONLEY BYRNE MANAGEMENT**
100 SOUTH MACOS DRIVE, SUITE 1400
CHICAGO, ILLINOIS 60606-4003

REVISION	BY	DATE	DESIGNED	DATE
			TCO	04/2019
			PROJ. MGR.	TCO
			LEAD ENGR.	BK
			FIELD MGR.	
			RECOMMENDED	
			DESIGN MANAGER	
			CITY ENGINEER	

FILE: D141ERB008 DRAWING: BCR DATE: APRIL 2019
ATLAS PAGE NO: SHEET 25 OF 63

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