



US Army Corps
of Engineers®
Little Rock District

JOINT PUBLIC NOTICE

CORPS OF ENGINEERS – STATE OF ARKANSAS

Application Number: 2020-00182

Date: February 3, 2022

Comments Due: February 28, 2022

TO WHOM IT MAY CONCERN: **Comments are invited on the work described below. Please see the Public Involvement section for details on submitting comments.**

Point of Contact. If additional information is desired, please contact the regulator, Marc Fossett, telephone number: (501) 340-1375, mailing address: Little Rock District Corps of Engineers, Regulatory Division, PO Box 867, Little Rock, Arkansas 72203-0867, email address: Marc.R.Fossett@usace.army.mil

Project Information. Pursuant to Section 404 of the Clean Water Act (33 U.S. Code 1344), notice is hereby given that

**Mr. David Hopkins, PE
City of Little Rock, Arkansas
7001 West Markham
Little Rock, Arkansas 72201**

has requested authorization for work, including the placement of dredged and fill material, in waters of the United States associated with drainage improvements of approximately 350 linear feet of existing intermittent stream channel along Senate Drive within Castlewood Subdivision. Impacts of the regulated waters will include widening and concrete-lining parts of the channel. Placement of riprap within the channel for erosion control will also be incorporated. Total impacts to waters of the United States include approximately 350 linear feet (LF) of stream impacts. The proposed project is located approximately 0.2 miles west of the intersection of Senate Drive and Geyer Springs Road in an unnamed tributary to Little Fourche Creek, in section 1, T. 1 S., R. 13 W., Little Rock, Pulaski County, Arkansas.

The project purpose is to aid in the prevention of erosion and flooding of nearby residential housing within the surrounding neighborhood.

The applicant proposes to concrete-line and widen approximately 240 LF of channel (upstream/north of Senate Drive and concrete apron at the culvert outfall) and replace an existing single 84-inch wide by 46-inch tall reinforced concrete box culvert (RCBC) with a triple 75-inch wide by 48-inch tall RCBC (extending approximately 35 LF under Senate Drive). Two areas of rip-rap erosion protection, totaling approximately 20 LF (17 cubic yards (CY)), will be installed below the ordinary highwater mark (OHWM) at the upstream of the proposed channel improvements and just downstream of the proposed culvert installations. In addition to the above improvements, approximately 90 LF (30 CY) of rip-rap lining will be installed above the OHWM of the right descending channel bank, downstream of the proposed culvert replacement.

The existing project area consists of an urban, channelized, intermittent stream channel that flows through an existing residential neighborhood and crosses Senate Drive. The channel has an average width of approximately 4-7 feet with an OHWM height of approximately 5-12 inches above the channel bottom. Channel substrate consists primarily of silt and small gravel. Currently, the channel is highly eroded and out-of-bank flooding and overtopping is an issue within the surrounding residential area. Portions of the channel are already armored with rock and concrete from past attempts to reduce erosion.

Four alternatives were considered for the purposes of improving erosion and flooding issues. The first alternative would include a no action alternative in which the channel would be left in its current state allowing the channel to continue to erode and flood nearby residential structures. The second alternative would include concrete-lining and widening the entire stream reach, until its confluence with the receiving stream (which currently consists of a concrete lined, vertical wall, rectangular channel). The third alternative (preferred alternative) would minimize concrete-lining and armoring to existing eroded areas and providing velocity and energy dissipation at transitions. The fourth alternative would include the construction of an off-site detention basin adjacent to the project area for additional flood storage. This option is non-viable because there are no available properties adjacent to the project area that would allow for the construction of an off-site stormwater management facility, such as a detention basin.

Compensatory mitigation requirements for impacts to the streams would be assessed utilizing the Little Rock Stream Method. The applicant proposes to mitigate for the stream impacts by purchasing stream credits from an approved mitigation bank that services the area.

The location and general plan for the proposed work are shown on the enclosed sheets.

Water Quality Certification. By copy of this public notice, the applicant is requesting water quality certification from the Arkansas Department of Energy and Environment, Division of Environmental Quality in accordance with Section 401(a)(1) of the Clean Water Act. Upon completion of the comment period and a public hearing, if held, a determination relative to water quality certification will be made. Evidence of this water quality certification or waiver of the right to certify must be submitted prior to the issuance of a Corps of Engineers permit.

In accordance with 33 CFR 325.2(b)(1)(ii), the Corps has determined the reasonable period of time for the certifying agency to act upon the certification request is 60 days unless the district engineer determines a shorter or longer period is reasonable for the state to act.

This public notice serves as notification to the Administrator of the U.S. Environmental Protection Agency (USEPA) pursuant to section 401(a)(2) of the Clean Water Act for neighboring jurisdiction review and begins the 30-day clock for USEPA to notify affected states.

Cultural Resources. A Corps staff archeologist will evaluate the proposal for compliance with Section 106 of the National Historic Preservation Act, including identification and evaluation of cultural resources potentially impacted by the proposal's implementation in waters of the United States. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological

societies; and other parties likely to have knowledge of or concerns with historic properties in the area.

Endangered Species. Our preliminary determination is that the proposed activity will not affect listed Endangered Species or their critical habitat. A copy of this notice is being furnished to the U.S. Fish and Wildlife Service and appropriate state agencies and constitutes a request to those agencies for information on whether any listed or proposed-to-be-listed endangered or threatened species may be present in the area which would be affected by the proposed activity.

Floodplain. We are providing copies of this notice to appropriate floodplain officials in accordance with 44 Code of Federal Regulations (CFR) Part 60 (Floodplain Management Regulations Criteria for Land Management and Use) and Executive Order 11988 on Floodplain Management.

Section 404(b)(1) Guidelines. The evaluation of activities to be authorized under this permit, which involves the discharge of dredged or fill material will include application of guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. These guidelines are contained in 40 Code of Federal CFR 230.

Public Involvement. Any interested party is invited to submit to the above-listed POC written comments or objections relative to the proposed work on or before **February 28, 2022**. Substantive comments, both favorable and unfavorable, will be accepted and made a part of the record and will receive full consideration in determining whether this work would be in the public interest. The decision whether to issue a permit will be based on an evaluation of the probable impact 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 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; 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 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 of Engineers 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 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. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed for making a decision.

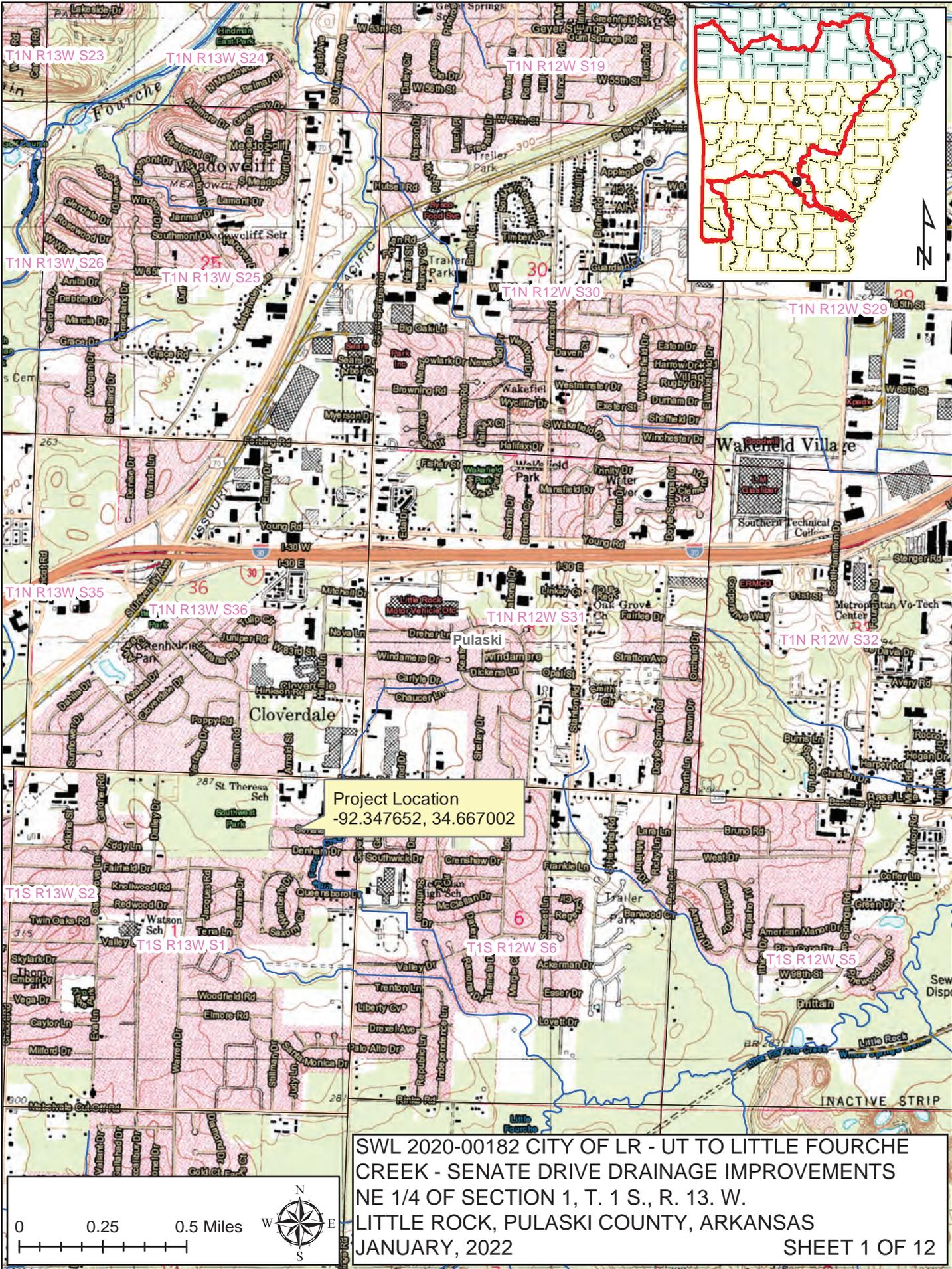
NOTE: The mailing list for this Public Notice is arranged by state and county(s) where the project is located and includes any addressees who have asked to receive copies of all public notices. Please discard notices that are not of interest to you. If you have no need for any of these notices, please advise us so that your name can be removed from the mailing list.

Enclosures

Approximate Coordinates of Project Center

Latitude: **34.667** Longitude: **-92.3476**

UTM Zone: **15N** North: **559773** East: **3836309**



Project Location
 -92.347652, 34.667002

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

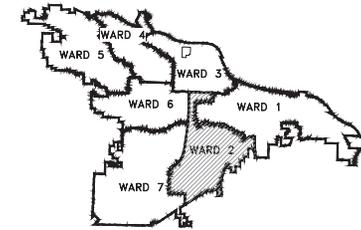
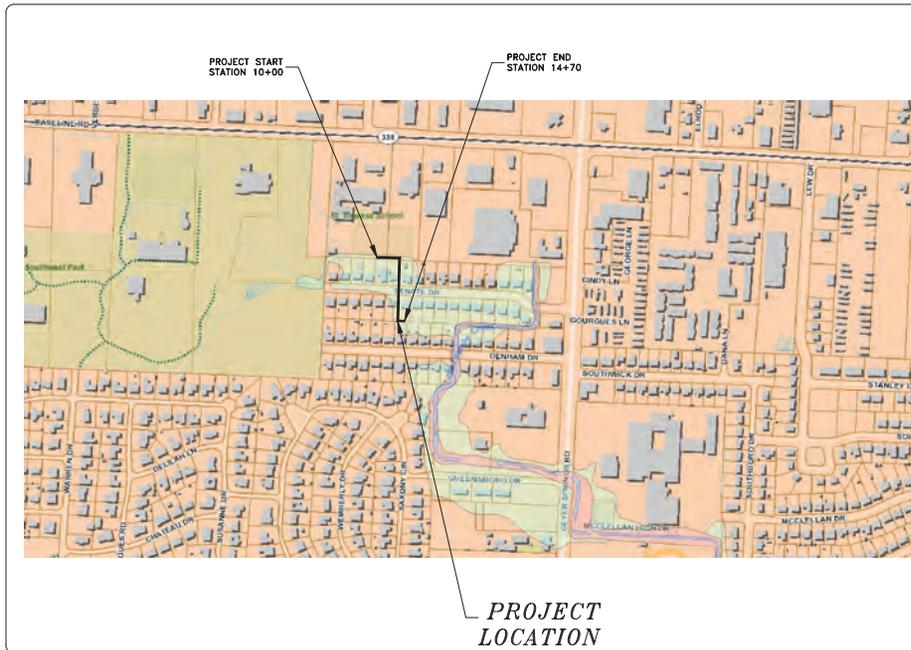


Project Location
 -92.347652, 34.667002

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

Project 02-17-DR-65

SENATE DRIVE DRAINAGE IMPROVEMENTS



PROJECT LOCATION - WARD 2

SHEET NO.	TITLE
C1	COVER SHEET
C2	LEGEND & QUANTITIES
C3	PLAN & PROFILE
C4	TYPICAL SECTION & SPECIAL DETAILS
C5	CULVERT DETAILS
C6	PROPERTY OWNERSHIP AND FIELD TIES / LAYOUT SHEET
C7	EROSION CONTROL PHASE 1
C8	EROSION CONTROL PHASE 2
C9	EROSION CONTROL PHASE 3
C10	MAINTENANCE OF TRAFFIC PLAN

90%
SUBMITTAL



**2019-2021
BOND PROGRAM**

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 WEST MARKHAM STREET
LITTLE ROCK, ARKANSAS 72201

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
LITTLE ROCK, PULASKI COUNTY, ARKANSAS
JANUARY, 2022

SHEET 3 OF 12

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
SENATE DRIVE DRAINAGE IMPROVEMENTS
COVER SHEET

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201

SEAL

DRAWN BY JWM
DESIGNED KLF
CHECKED KLF
DATE 10/29/19
SCALE N.T.S.
PROJECT NO. CLR 02-17-DR-65
SHEET NO. C1

Senate Drive Drainage Improvements
Conceptual Design (90%)
December 4, 2019

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY
Senate Drive Drainage Improvements			
2 01	Site Preparation including Mobilization	LS	1
3 01	Unclassified Excavation	CY	400
3 06	Export Material	CY	35
4 01	Aggregate Base Course (Class 7)	TGN	140
5 01	Tack Coat	GAL	8
6 01	AC-11.5 Surface Course	TGN	24
8 03	Concrete Curb and Gutter (Class 4)	LF	34
9 03	Concrete Form	SF	60
1' 01	Reinforced Concrete Pre-Cast Box Culvert (6'x4')	LF	102
1' 05	Reinforced Concrete Headwall (Wingwall & Flowable Fill between Boxes)	CY	10
1' 10	Reinforced Concrete Channel	CY	08
14 02	Soil Sampling (Special Includes 4' Topsoil)	SY	465
15 01	Maintain Top of Utility	LS	1
18 01	Remove and Replace Fence	LF	454
18 45	Gravel Riprap	CY	77
19 01	Final Cleanup	LS	1
24 05	Rock Dam	CY	12
25 04	Fence Chain Link (4')	LF	212
26 10	Trench and Excavation Safety	LS	1
26 00	Guard Rail	LF	80
26 01	Guard Rail Anchor Posts	EA	8
B16 00	Filter Fabric	SY	800

EXISTING	PROPOSED
IRON ROD	○ IR
PK NAIL	○ PK
R.R. SPIKE	○ RR(S)
CONC. MONUMENT	□ CM
WATER VALVE	⊗ WV
WATER METER	□ WM
FIRE HYDRANT	□ FH
GAS METER	□ GM
GAS VALVE	⊗ GV
CLEAN-OUT	○ CO
GUARD POST (BOLLARD)	* GP
SIGN POST	—
BENCHMARK	⊕
STORM SEWER MANHOLE	⊙
SANITARY SEWER MANHOLE	⊙ S
TELEPHONE MANHOLE	⊙ T
ELECTRIC MANHOLE	⊙ E
TELEPHONE BOX	□ TB
ELECTRIC BOX	□ EB
CABLE BOX	□ CB
UTILITY POLE	⊙ U
GUY WIRE	—
LIGHT POLE	⊙ LP
POST OR POLE (TYPE AS NOTED)	⊙
MAILBOX	⊙ MB
DECIDUOUS TREE	⊙ DT
EVERGREEN/CONIFEROUS TREE	⊙ ET
BUSH	⊙ B
PROPERTY LINE	—
SETBACK LINE	—
EASEMENT LINE	—
CURB	—
FENCE	—
OVERHEAD ELECTRIC	—
OVERHEAD TELEPHONE	—
OVERHEAD CABLE	—
UNDERGROUND TELEPHONE	—
UNDERGROUND ELECTRIC	—
UNDERGROUND CABLE	—
WATER LINE	—
SEWER LINE	—
GAS LINE	—
STORM SEWER/CULVERT	—
EDGE OF WOODS	—
CONTOUR LINE	—
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED SPOT CURB ELEVATION
	STORM SEWER - PIPE
	STORM SEWER - MITERED END SECTION
	STORM SEWER - GRATE INLET
	STORM SEWER - JUNCTION BOX
	STORM SEWER - FLARED END SECTION
	STORM SEWER - HEADWALL
	STORM SEWER - SINGLE WING
	STORM SEWER - DOUBLE WING
	STORM SEWER - AREA INLET
	GRADE BREAK LINE
	HIGH POINT
	LOW POINT
	CUT LINE
	FILL LINE
	SANITARY SEWER PIPE
	SANITARY SEWER MANHOLE
	PROPOSED CURB
	PROPOSED CONCRETE
	CONSTRUCTION - ENTRANCE/EXIT
	CHECK DAM
	DIVERSION BERM
	DOWNDRAIN STRUCTURE - TEMPORARY
	ROCK DAM
	SEDIMENT BARRIER - SILT FENCE
	SEDIMENT BARRIER - GRAVEL RING
	SEDIMENT BARRIER - BLOCK & GRAVEL
	SEDIMENT BARRIER - BLOCK
	TEMPORARY SEDIMENT BASIN
	SILT FENCE - TYPE A
	SILT FENCE - TYPE B
	SILT FENCE - TYPE C
	STORM DRAIN OUTLET PROTECTION
	SURFACE ROUGHENING
	DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION
	DISTURBED AREA STABILIZATION - TEMPORARY GRASSING
	DISTURBED AREA STABILIZATION - PERMANENT GRASSING
	MATTING/BLANKETS

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCREEK
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

SHEET 4 OF 12

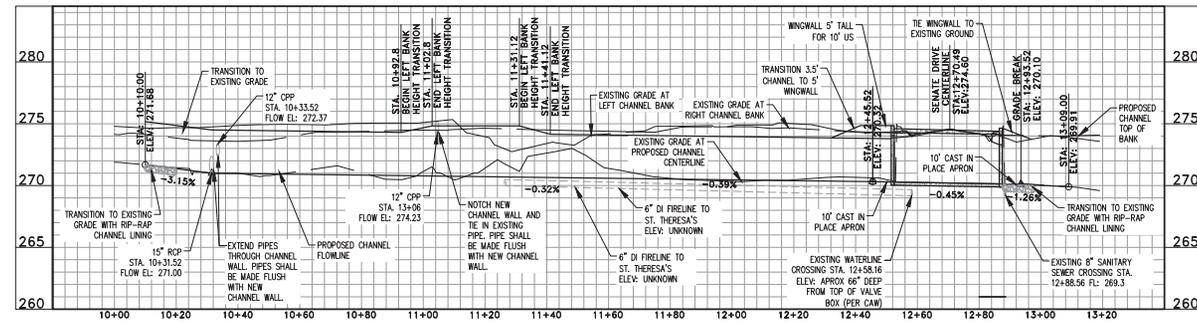
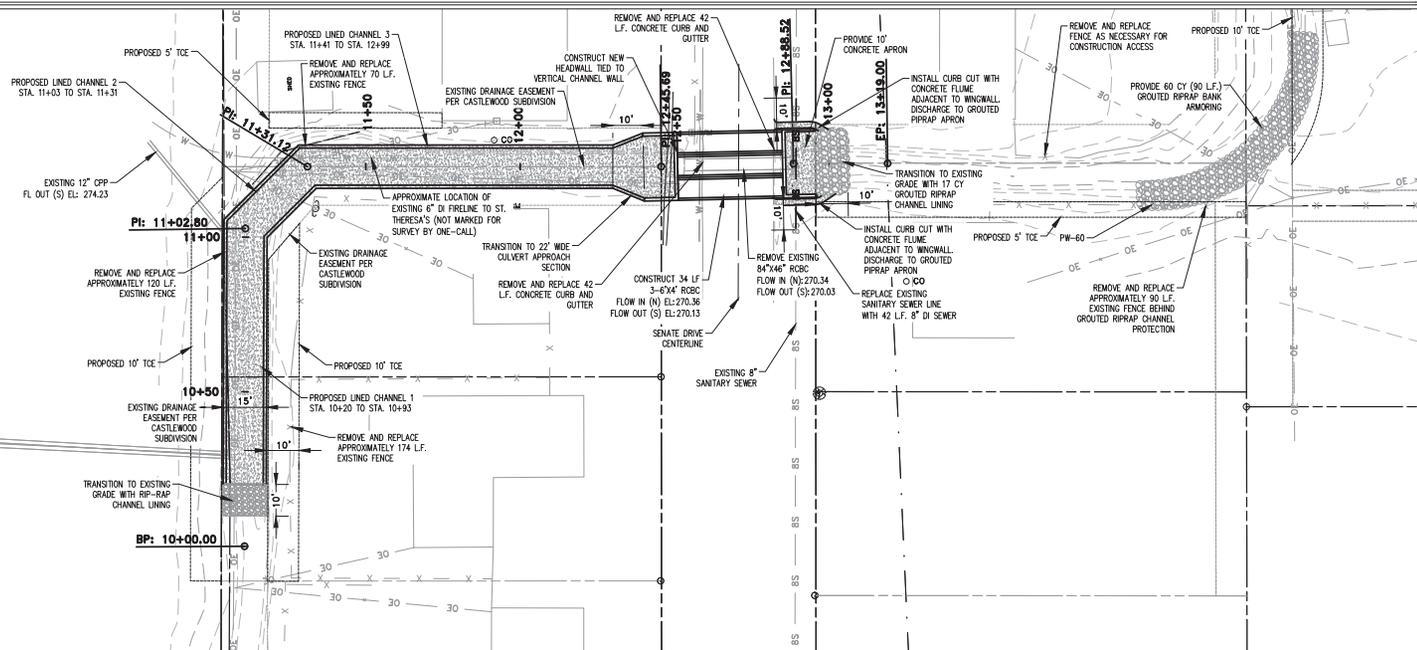
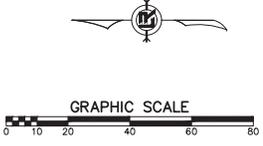
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 LEGEND & QUANTITIES

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

DRAWN BY
 JWM
 DESIGNED
 KLF
 CHECKED
 KLF
 DATE
 10/29/19
 SCALE
 N.T.S.

PROJECT NO.
 CLR #02-17-DR-65
 SHEET NO.
 C2



SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

SHEET 5 OF 12

REVISIONS	DATE

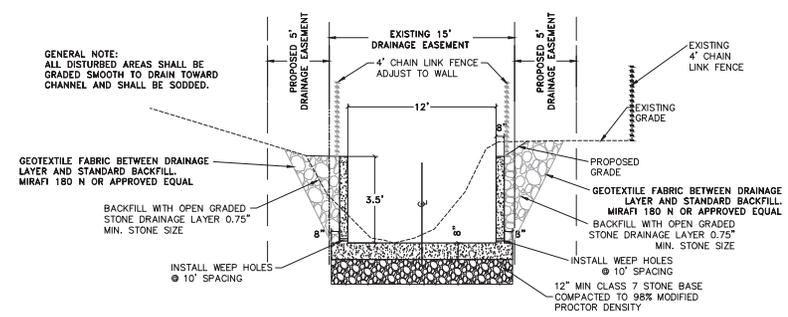
CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 PROPOSED CHANNEL
 PLAN - PROFILE
 STA. 10+00 TO 13+19

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

DRAWN BY
 JWM
 DESIGNED
 KLF
 CHECKED
 KLF

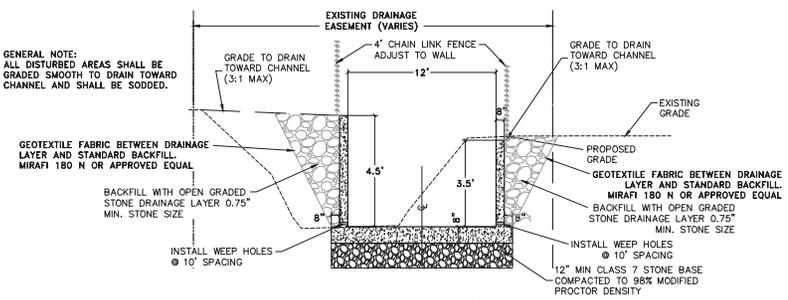
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PROJECT NO.
 CLR #02-17-DR-65
 SHEET NO.
 C3



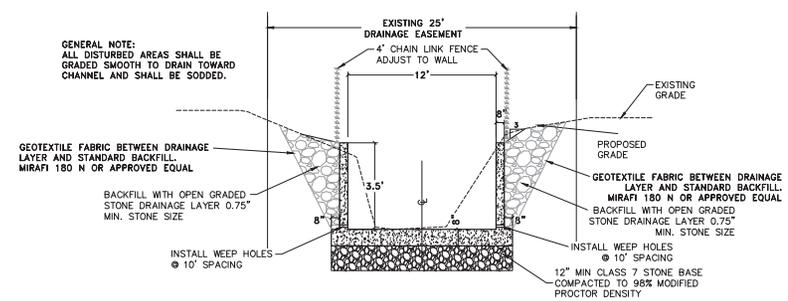
TYPICAL SECTION - PROPOSED LINED CHANNEL 1

Sta 10+20 to 10+93



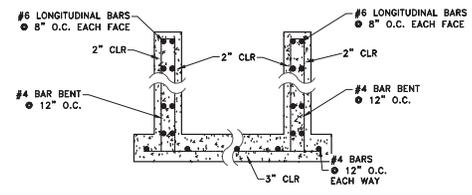
TYPICAL SECTION - PROPOSED LINED CHANNEL 2

Sta 11+03 to 11+31



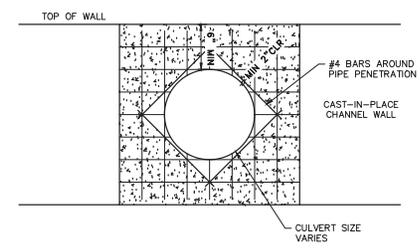
TYPICAL SECTION - PROPOSED LINED CHANNEL 3

Sta 11+41 to 12+99



TYPICAL REINFORCEMENT - CONCRETE CHANNEL

GENERAL NOTE:
ALL DISTURBED AREAS SHALL BE GRADED SMOOTH TO DRAIN TOWARD CHANNEL AND SHALL BE SODDED.



TYPICAL REINFORCEMENT - PIPE PENETRATIONS

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
LITTLE ROCK, PULASKI COUNTY, ARKANSAS
JANUARY, 2022

SHEET 6 OF 12

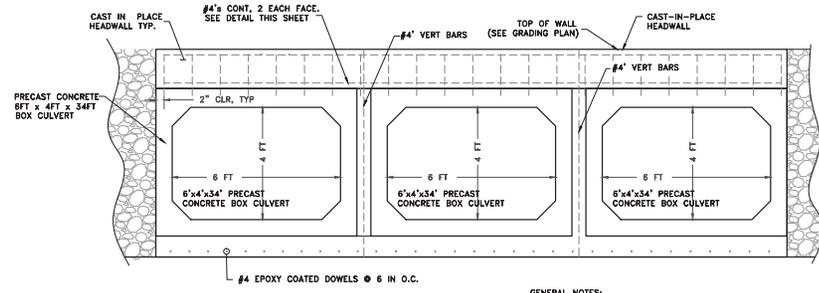
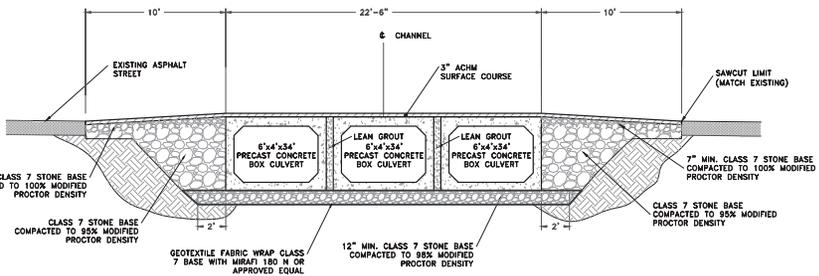
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
SENATE DRIVE DRAINAGE IMPROVEMENTS
TYPICAL SECTIONS & SPECIAL DETAILS

DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEERING
701 W. MARKHAM
LITTLE ROCK, ARKANSAS 72201



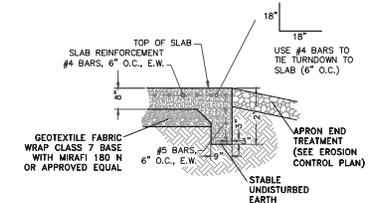
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CHECKED
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AS SHOWN
PROJECT NO.
CLR #02-17-DR-65
SHEET NO.
C4



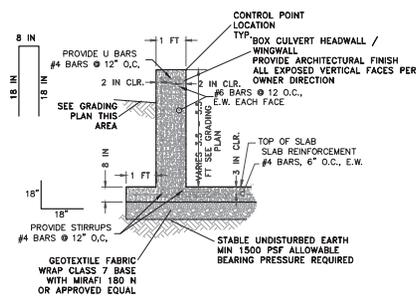
- LEAN GROUT REQUIREMENTS:**
1. PORTLAND CEMENT SHALL BE TYPE 1 AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
 2. SAND SHALL MEET THE REQUIREMENTS OF ASTM C 33 FINE AGGREGATE.
 3. THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
 4. THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENT.
 5. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL VOIDS.

- NOTE:**
1. PRECAST REINFORCED CONCRETE BOX CULVERTS JOINTS SHALL BE INSTALLED WITH PREFORMED FLEXIBLE JOINT SEALANTS. INSTALL PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PLACE THE JOINT SEALER SO THAT NO DIRT OR OTHER DELETERIOUS MATERIALS COME IN CONTACT WITH THE JOINT SEALING MATERIAL. PULL OR PUSH HOME THE CULVERT WITH ENOUGH FORCE TO PROPERLY SEAL THE JOINT. REMOVE ANY JOINT SEALING MATERIAL PUSHED OUT INTO THE INTERIOR OF THE PIPE THAT WOULD TEND TO OBSTRUCT THE FLOW. WHEN THE ATMOSPHERIC TEMPERATURE IS BELOW 60°F, STORE PREFORMED FLEXIBLE JOINT SEALANTS IN AN AREA WARMED TO ABOVE 70°F OR ARTIFICIALLY WARM TO THIS TEMPERATURE IN AN APPROVED MANNER. APPLY FLEXIBLE JOINT SEALANTS TO PIPE JOINTS IMMEDIATELY BEFORE PLACING PIPE IN TRENCH, AND THEN CONNECT PIPE TO PREVIOUSLY LAID PIPE. BACKFILL AFTER THE JOINT HAS BEEN INSPECTED AND APPROVED.

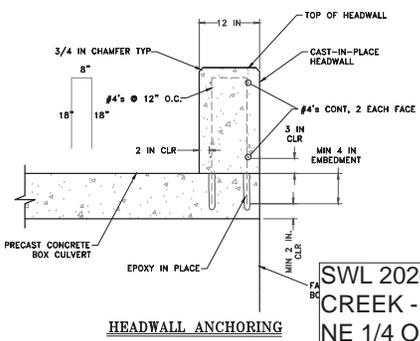
- GENERAL NOTES:**
1. WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY #4 BARS CAST INTO PRECAST BOX CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING.
 2. ALL EXPOSED CORNERS SHALL HAVE 3/4" CHAMFERS.
 3. SEE GENERAL NOTES AND TECHNICAL SPECIFICATIONS FOR CONCRETE AND REINFORCING REQUIREMENTS.
 4. PROVIDE ARCHITECTURAL FINISH ALL EXPOSED VERTICAL FACES OF HEADWALLS AND WINDOW WALLS PER OWNER DIRECTION.



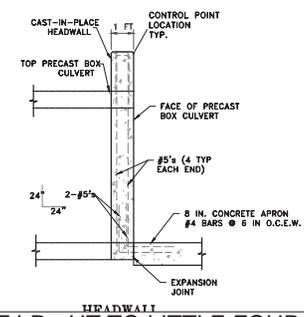
APRON KEY



WINGWALL



HEADWALL ANCHORING



HEADWALL

PRECAST CONCRETE BOX AND HEADWALL

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS NE 1/4 OF SECTION 1, T. 1 S., R. 13. W. LITTLE ROCK, PULASKI COUNTY, ARKANSAS JANUARY, 2022 SHEET 7 OF 12

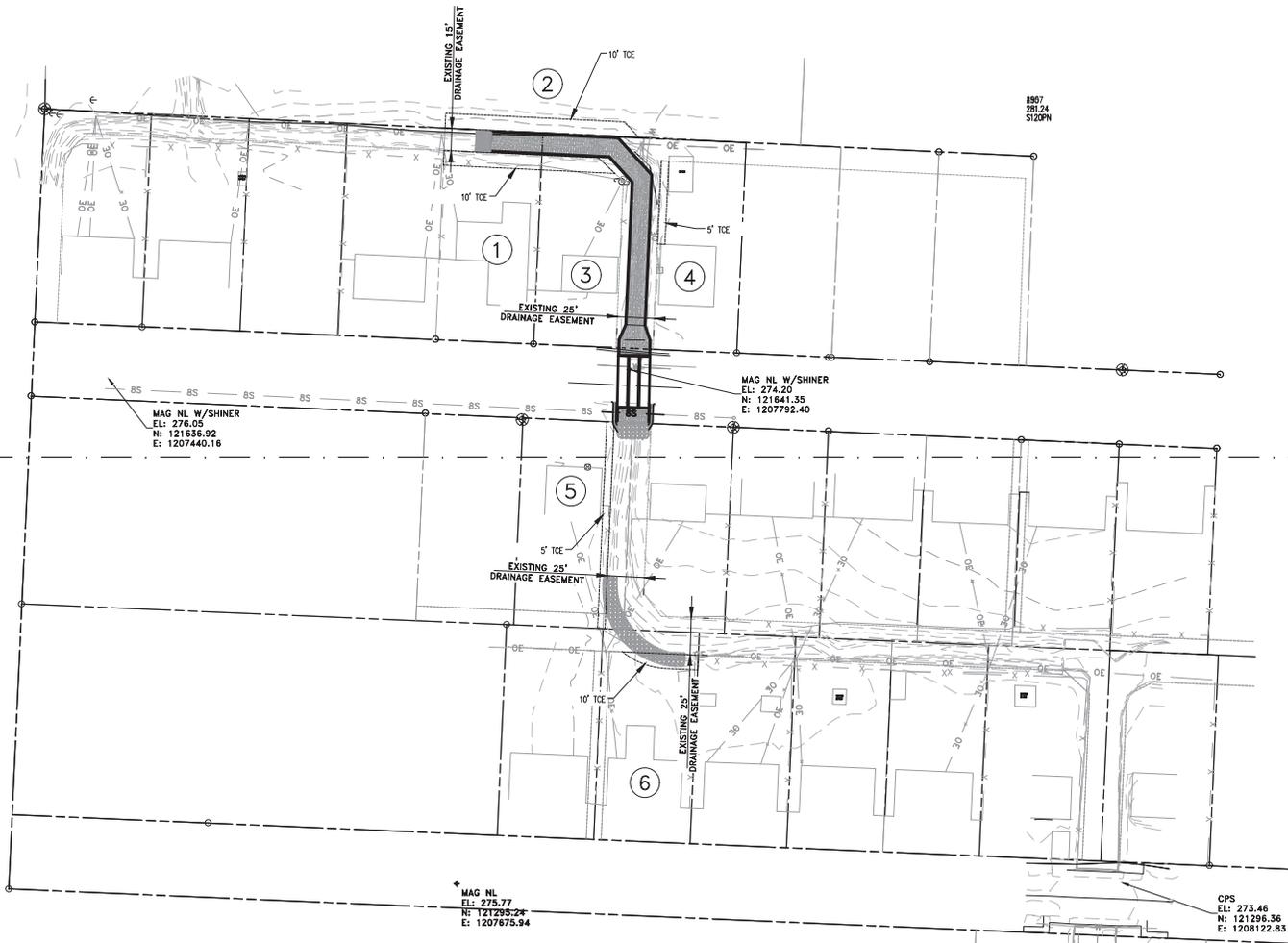
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 TYPICAL SECTIONS & SPECIAL DETAILS

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201



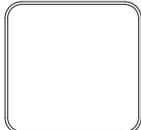
DRAWN BY JWM
 DESIGNED KLF
 CHECKED KLF
 DATE 10/29/19
 SCALE AS SHOWN
 PROJECT NO. CLR #02-17-DR-65
 SHEET NO. C5



REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 PROPERTY OWNERSHIP AND
 FIELD TIES / LAYOUT SHEET

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201



DRAWN BY
 JWM
 DESIGNED
 KLF
 CHECKED
 KLF
 DATE
 10/29/2019
 SCALE
 1"=40'
 PROJECT NO.
 CLR 02-17-DR-65
 SHEET NO.
 C6

OWNERSHIP INFORMATION
 Senate Drive Drainage Improvements
 Conceptual Design (60%)
 August 9, 2019

PARCEL #	NAME	ADDRESS	PARCEL ID
1	BRENDA J & TOMMY L LONG	6303 SENATE DR LITTLE ROCK AR 72209	45_0032001300
2	ST THERESAS CATHOLIC CHURCH	6219 BASELINE RD LITTLE ROCK AR 72203	45_0013000300
3	DAYSWORKAPV LLC	6215 SENATE DR LITTLE ROCK AR 72209	45_0052001200
4	STERLING HARRISON GARRETT	6212 SENATE DR LITTLE ROCK AR 72209	45_0035000100
5	SHARMA HILLIETTI	6217 SENATE DR LITTLE ROCK AR 72209	45_0045002200
6	TAMMIE MASON	6222 DENHAM DRIVE LITTLE ROCK AR 72209	45_0042000100

90%
 SUBMITTAL

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

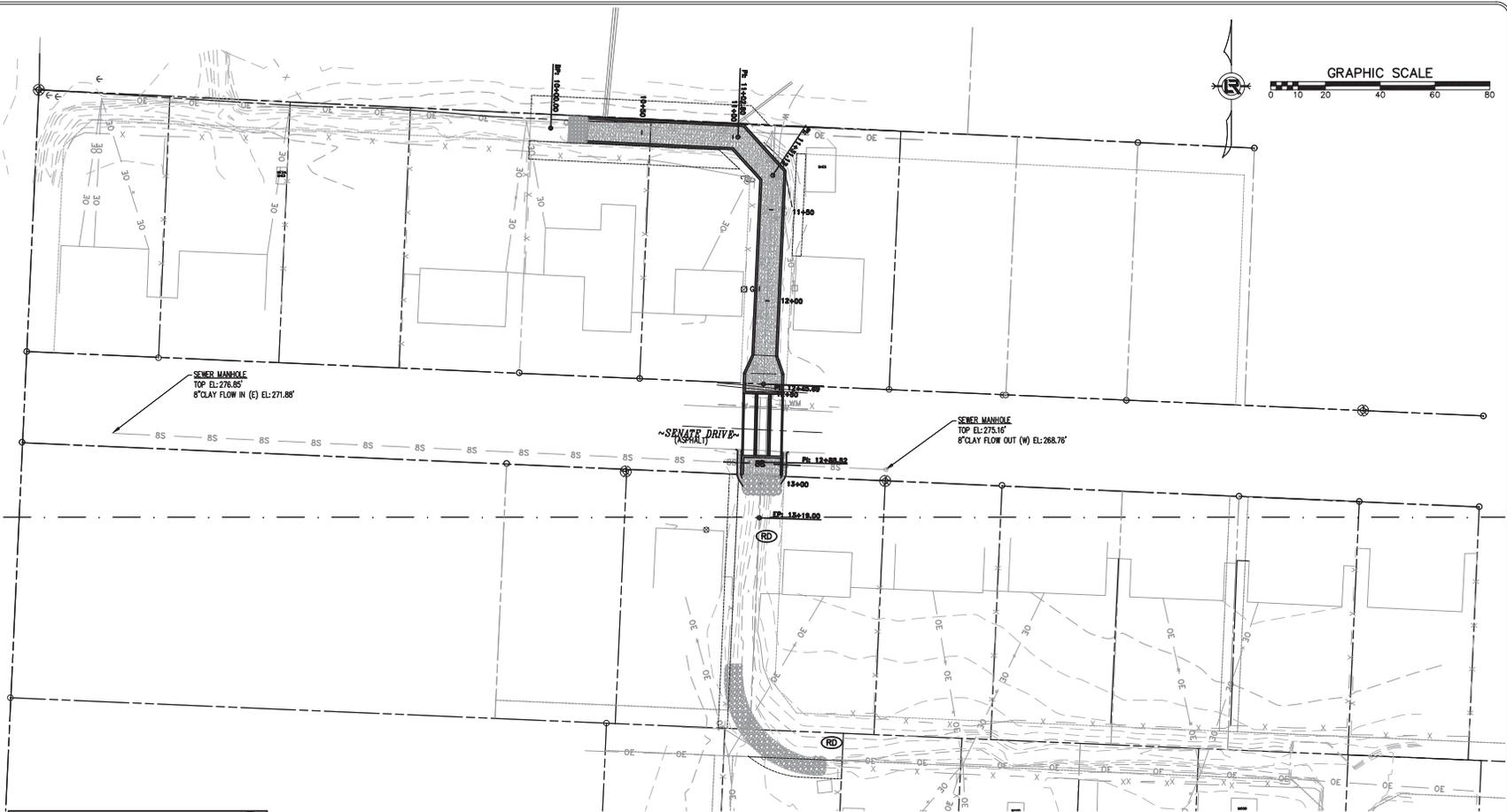
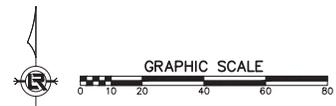
SHEET 8 OF 12

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 EROSION CONTROL PHASE 1

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

DRAWN BY
 JWM
 DESIGNED
 KLF
 CHECKED
 KLF
 DATE
 10/29/19
 SCALE
 1"=20'
 PROJECT NO.
 CLR #02-17-DR-65
 SHEET NO.
 C7



CONSTRUCTION - ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE - TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER - SILT FENCE	(SD1)
SEDIMENT BARRIER - GRAVEL RING	(SD2)
SEDIMENT BARRIER - BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER - BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE - TYPE A	(SFA)
SILT FENCE - TYPE B	(SFB)
SILT FENCE - TYPE C	(SFC)
STORM DRAIN OUTLET PROTECTION	(ST)
SURFACE ROUGHENING	(SU)
DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	(TS1)
DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	(TS2)
DISTURBED AREA STABILIZATION - PERMANENT GRASSING	(TS3)
MATting/BLANKETS	(MB)

**CONSTRUCTION EROSION CONTROL
 BEST MANAGEMENT PRACTICES**

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

PHASE 1

1. INSTALL SWPPP INFORMATION SIGN.
2. INSTALL SILT FENCE(S) ON THE SITE. CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. HALT ALL ACTIVITIES AND CONTACT THE CITY OF LITTLE ROCK TO PERFORM INSPECTION AND ACCEPTANCE OF BMP'S.
5. CONSTRUCT AND STABILIZE SEDIMENT BASIN(S) AND SEDIMENT TRAP(S) WITH APPROPRIATE OUTFALL STRUCTURES. CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL BASINS AND TRAPS.
6. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (DIKES, SWALES, CHECK DAMS, ETC.). CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL HYDRAULIC CONTROL DEVICES.

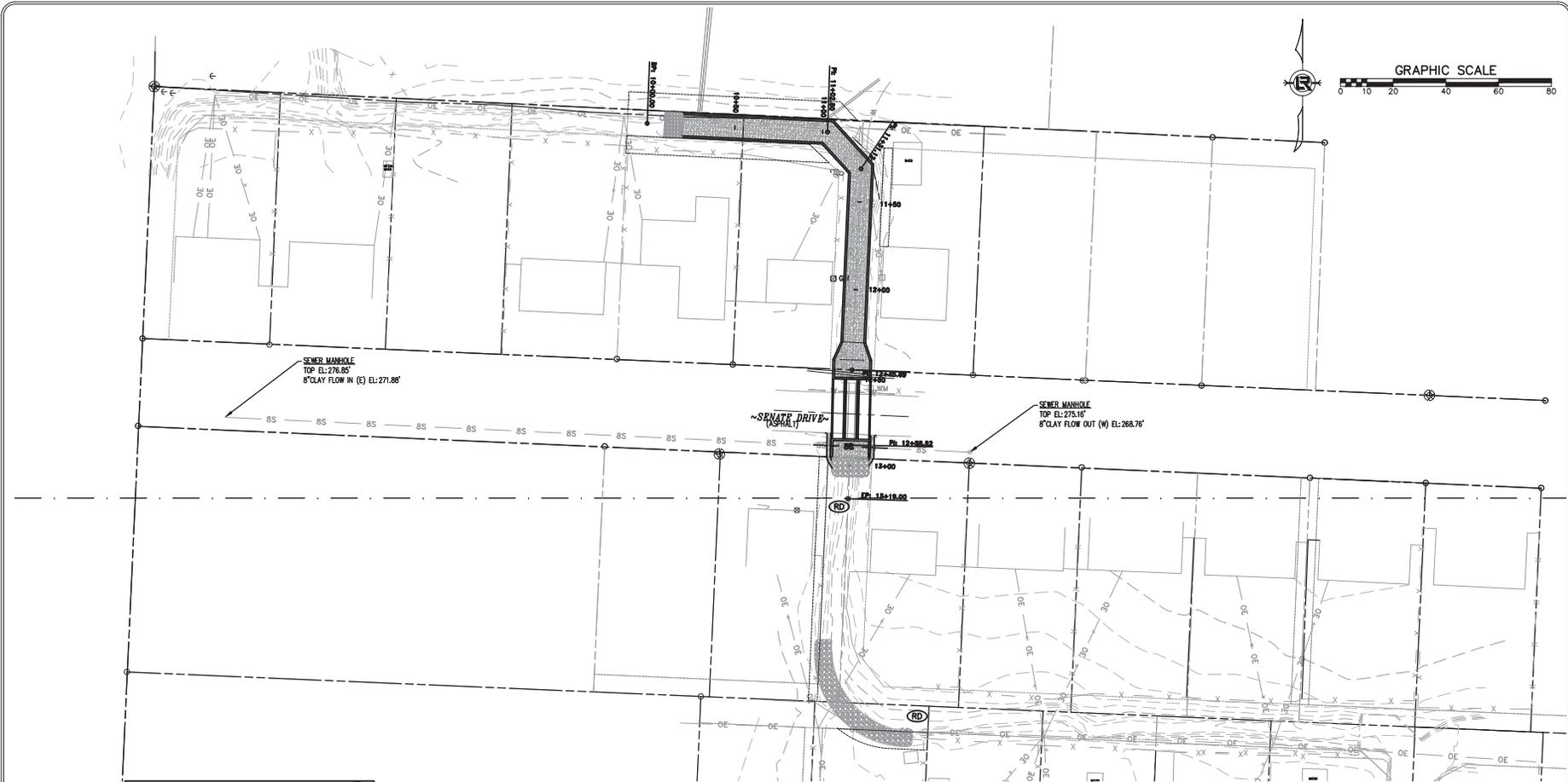
SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022
 SHEET 9 OF 12

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 EROSION CONTROL PHASE 3

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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CONSTRUCTION - ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE - TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER - SILT FENCE	(SD1)
SEDIMENT BARRIER - GRAVEL RING	(SD2)
SEDIMENT BARRIER - BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER - BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE - TYPE A	(SFA)
SILT FENCE - TYPE B	(SFB)
SILT FENCE - TYPE C	(SFC)
STORM DRAIN OUTLET PROTECTION	(ST)
SURFACE ROUGHENING	(SU)
DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	(TS1)
DISTURBED AREA STABILIZATION - TEMPORARY GRASSING	(TS2)
DISTURBED AREA STABILIZATION - PERMANENT GRASSING	(TS3)
MATting/BLANKETS	(MB)

CONSTRUCTION EROSION CONTROL
 BEST MANAGEMENT PRACTICES

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS. IN ADDITION, NOTE ANY OFF-SITE AREA WHERE FILL IS IMPORTED FROM OR SOIL IS EXPORTED TO ON THE SITE MAPS.

PHASE 2

1. BEGIN SITE DEMOLITION, CLEARING AND GRUBBING.
2. CONTINUE GRADING THE SITE.
3. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS & INLETS.
4. PREPARE SUBGRADE, ROAD BASE AND CURBS AND GUTTERS.
5. CONSTRUCT DRIVEWAY TRANSITIONS.
6. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR RAISED AREAS AS WORK PROGRESSES.

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022
 SHEET 10 OF 12

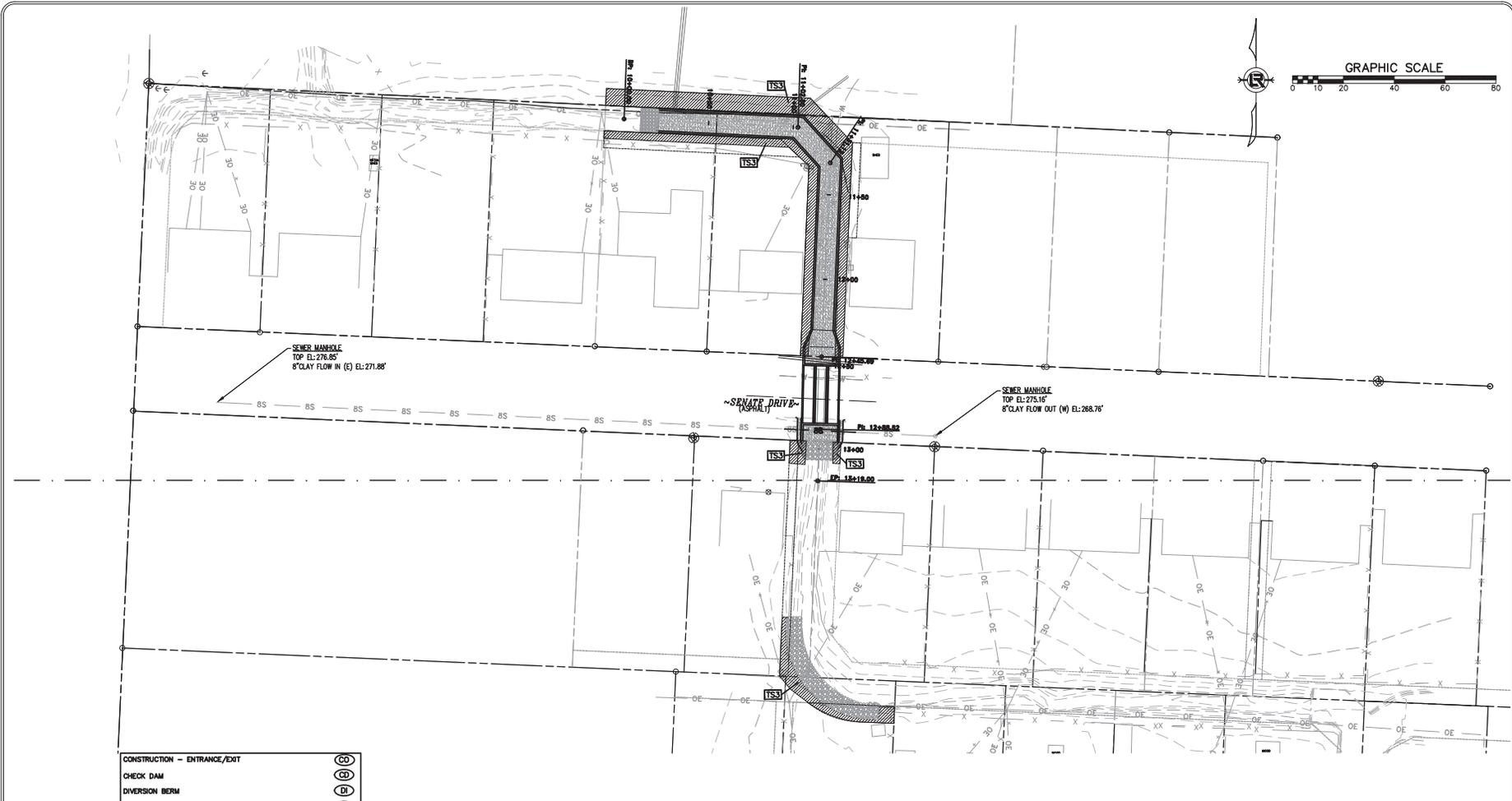
REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 EROSION CONTROL PHASE 3

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201

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PROJECT NO.
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 C9



CONSTRUCTION - ENTRANCE/EXIT	(CO)
CHECK DAM	(CD)
DIVERSION BERM	(DI)
DOWNDRAIN STRUCTURE - TEMPORARY	(DN)
ROCK DAM	(RD)
SEDIMENT BARRIER - SILT FENCE	(SD1)
SEDIMENT BARRIER - GRAVEL RING	(SD2)
SEDIMENT BARRIER - BLOCK & GRAVEL	(SD3)
SEDIMENT BARRIER - BLOCK	(SD4)
TEMPORARY SEDIMENT BASIN	(SB1)
SILT FENCE - TYPE A	(SFA)
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DISTURBED AREA STABILIZATION - TEMPORARY STABILIZATION	(TS1)
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MATting/BLANKETS	(MB)

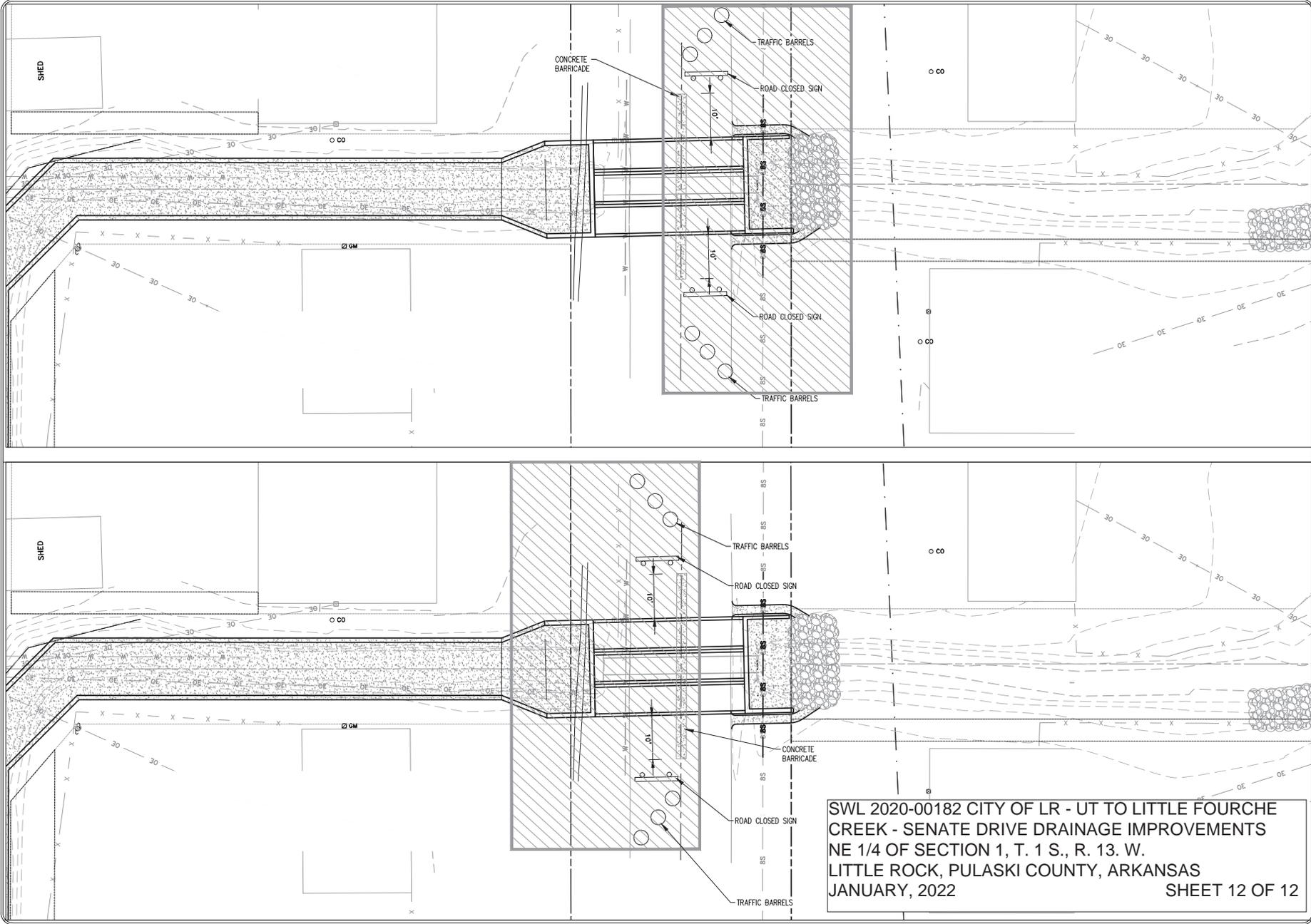
**CONSTRUCTION EROSION CONTROL
 BEST MANAGEMENT PRACTICES**

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PHASE 3

1. FINISH GRADE SIDE SLOPES & PREPARE SUBGRADES FOR SIDEWALKS, ETC.
2. PREPARE SITE FOR PAVING.
3. PAVE WHERE INDICATED ON PLANS. CONSTRUCT SIDEWALKS.
4. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
5. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL NON-PAVED AREAS.

SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE
 CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022 SHEET 11 OF 12



SWL 2020-00182 CITY OF LR - UT TO LITTLE FOURCHE CREEK - SENATE DRIVE DRAINAGE IMPROVEMENTS
 NE 1/4 OF SECTION 1, T. 1 S., R. 13. W.
 LITTLE ROCK, PULASKI COUNTY, ARKANSAS
 JANUARY, 2022

SHEET 12 OF 12

REVISIONS	DATE

CITY OF LITTLE ROCK, ARKANSAS
 SENATE DRIVE DRAINAGE IMPROVEMENTS
 MAINTANANCE OF TRAFFIC PLAN

DEPARTMENT OF PUBLIC WORKS
 CIVIL ENGINEERING
 701 W. MARKHAM
 LITTLE ROCK, ARKANSAS 72201



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