CITY OF JOPLIN MISSOURI

ADDENDUM No. 1

Issued to all Bid Document Holders of Record.

Date: April 16th, 2020

Project Name: 4th and Porter Culvert Replacement

Bid opening location:

Due to concerns with meeting sizes and the current limitation of access into City Hall related to Covid-19, the bid opening will be held outdoors, at the North entrance to City Hall along 6th street, under the building awning.

Bid Opening Time and Date:

Bid opening date has been changed from April 23rd at 10 a.m to April 30th at 10:00 a.m. to allow contractors more time to prepare their bid following the issuance of this addendum. **Sealed bids must be submitted before 10:00 a.m. on the 30th day of April 2020.**

Bidder Checklist/Instructions

Modification/Clarification

- For checklist item #1, when submitting the bid by mail the **project name** must also be provided on the outside of the sealed envelope along with the contractor name and address.

Proposal Changes

The following modifications were made to the proposal

Modifications

- Line item # 5 "Replacement Trees" removed and replaced with the line item "Replacement of Maple Tree", location of which is indicated on Sheet 4 of revised plans. Quantity amount has been reduced from 2 to 1.

- In order to better indicate the contractor's option of Pre-cast or Cast in place for the 5' x 10' culvert, Line Item #25 has been removed and replaced with Line Item "Complete installation of 5' x 10' Box Culvert". **Complete installation shall include bedding, cover and trenching**. Should contractor opt to bid 5' x 10' culvert as Cast in Place, contractor to follow **MO-DOT standard No. 703.17 sheet 8 of 14** for the cast in place box and reinforcing and use design fill of 4 feet. **Reinforcing shall be included in the bid item**. A note of the option is indicated on the plans (sheet 5) and the MO-DOT detail has been provided as an attachment to this addendum. The detail can also be found on MO-DOT's website using the link below:

  https://www.modot.org/sites/default/files/documents/Std_Plans_07_01_2019_0.pdf

Additions

- Addition of Line item # 35 "Replacement of River Birch Tree", location of which is indicated on sheet 4 of revised plans.
- Addition of Line item #36 "Concrete Pavement Repair".
- Addition of Line item #37 "MO-DOT Type III Ditch Liner"

Job Special Provisions (JSP) Changes

JSP Modifications

- JSP #10 4th Street Road Closure

To account for potential cast in place elements in the installation of the 5' x 10' culvert, length of closure for 4th street has been increased from 14 calendar days to 28 calendar days. 4th street cannot be closed during holidays. Contractor to provide owner with advance notification of 2 business days for any street closure.

JSP Additions

- Contractor to shall provide shoring for the trench work associated with the installation of the 5' x 10' box culvert as per the City of Joplin specification 1700.3.4.
- Contractor shall provide continued access for residents during project work as well as make arrangements for parking availability for all residents affected by project work.

Changes to Plans (all changes denoted on plans with a cloud bubble)

- Sheet #2 modified to indicate the addition of pavement repair and MO-DOT Type III ditch liner to quantities.
- Sheet #3 modified to show approximate location of gas and fiber optic utility.
- Sheet #4 modified to indicate removal and replacement of 2 trees with 1 Maple tree and 1 River Birch tree.
- Sheet #5 modified to show 4-inch-thick black dirt as per City of Joplin specification for the 4th street repair typical section detail. Also modified with note to contractor indicating cast in place option for 5' x 10' Box culvert.

This addendum forms a part of the contract described above. The original Contract Documents and any prior addenda remain in full force and effect as modified by the following that shall take precedence over any contrary provisions in the prior documents.

David K. Hertzberg, PE
Director of Public Works

4/16/2020
Date

Each bidder shall acknowledge receipt of this addendum by affixing his signature below by noting this addendum on his bid form, and by attaching this addendum to his bid.

ACKNOWLEDGEMENT
The undersigned acknowledges receipt of this addendum and the Bid submitted in accordance with information, instructions and stipulations set forth herein.

Bidder: _____

Signed By: _____

Date: _____

PROPOSAL

THE UNDERSIGNED hereby proposes to furnish the labor and material for:

Project: 4th & Porter Culvert Replacement

in the City of Joplin, Missouri, according to Drawings, Contract Documents and General Specifications for such work on file in the office of the City Engineer and Director of Public Works, together with the terms and conditions to be stipulated in the general contract forms, now adopted by the City of Joplin, as advertised to be let on April 30, 2020 at the following prices to-wit:

4th & Porter Culvert Replacement					
Item No.	**No. of Units**	**Unit**	**Description**	**Unit Price**	**Extended Price**
1	1	LS	Erosion Control, TEMP		
2	1	LS	Seeding, Mulching, & Fertilizing		
3	1	LS	Mobilization (not to exceed 5% of total bid)		
4	1	LS	Removal of Existing Improvements		
5	1	EA	Replacement of Maple Tree		
Traffic Control					
6	15	EA	Type III Barricades		
7	3	EA	R11-2 Signs		
8	4	EA	M4-9L or M4-10L		
9	4	EA	M4-9R or M4-10R		
10	3	EA	W20-1		
11	2	EA	W20-2		
12	3	EA	W20-3		

13	2	EA	Changeable Message Sign (CMS)		
Excavation					
14	300	CY	Common Excavation		
15	750	CY	Compacted Fill		
16	100	CY	Removal and Replacement of unsuitable Material		
17	300	CY	Transportation and Disposal of Contaminated Material		
Concrete Structures					
18	515	LF	Curb & Gutter (Includes 4" stone base)		
19	120	SY	4" x 5' Sidewalk (Includes 2" stone base)		
20	6	SY	4' private sidewalk (Includes 2" stone base		
21	6	SY	3' private sidewalk (Includes 2" stone base)		
22	8	SY	Type "D" ADA Ramps (Includes truncated domes)		
23	52	SY	Residential Concrete Driveway, 6" Thick		
24	1	LS	C.I.P RCBC End section (See Details)		
Storm Sewer Installation					
25	400	LF	Complete Installation of 5' x 10' Box Culvert		
26	12	LF	18" RCP (Includes Bedding)		
27	210	LF	24" RCP (Includes Bedding, Cover, and Trenching)		
28	1	EA	4' x 8' Type "C" Curb Inlet		
29	1	EA	6' x 6' x 6'-8" Junction Box (Includes Bedding)		
30	1	EA	6' x 6' x 7'-6" Junction Box (Includes Bedding)		
Base & Paving					
31	530	SY	8" Stone Base		

32	530	SY	2" MO-DOT Standard Mix BP-2 w/ Anti-Strip ADD		
33	530	SY	4" Black Base		
34	190	GAL	Asphalt Primer		
Addendum 1					
35	1	EA	Replacement of River Birch Tree		
36	60	SY	Concrete Pavement Repair		
37	55	CY	MO-DOT Type III Ditch Liner		
				Total Base Bid	

BIDDER understands that they may be asked to provide a complete and detailed breakdown of bid item prices following opening of the bids but prior to award of contract. BIDDER also hereby certifies that the bid prices for each component of the project will be substantiated by submittal of a detailed cost breakdown of all components of the PROJECT to the ENGINEER prior to release of any payments to the BIDDER for work performed.

BIDDER understands and acknowledges that the bid items shown in this proposal represent a summary of major components of construction required. The bid price for each item shall include the cost of all adjacent or related items that are shown on the plans, are called for in the specifications, or are otherwise necessary to provide completely the improvements.
BIDDER agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) consecutive calendar days after the scheduled closing time for receiving bids.
BIDDER understands that the City has the right to waive any informalities and maintains the right to reject any or all bids.

The undersigned agrees to enter into a contract within seven (7) days from notice of award should this proposal be accepted, and enter into bonds with good and sufficient securities, to complete the work on or before a date to be specified in the Notice to Proceed, and to fully complete the project within 90 consecutive calendar days thereafter. A penalty of $1000.00 per calendar day thereafter shall be instituted, the amount to be deducted from the contract price. In order to pay all labor employed and material used in connection with this work and to adjust all claims or liens that may arise in consequence of said work, to the satisfaction of the Director of Public Works, above said bonds shall also indemnify and save harmless the said City from all damages or injuries to any person or persons, either in the employ of the contractor, his agents, servants or employees. In the event of the failure of the undersigned to enter into such contract within seven (7) days of the award, then the deposit of five percent (5%) of the total bid amount as surety is therefore forfeited to the City of Joplin.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the Contract throughout.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from the any obligation in respect to his BID.

The low BIDDER shall supply the names and addresses of the major material SUPPLIERS AND SUBCONTRACTORS when requested to do so by the OWNER.

Dated_____day of_____, 20___.

Company _____

Address _____

Signature _____

(Print Name) _____

CITY OF JOPLIN

4th and Porter Culvert Replacement

Addendum No. 1

Questions and Answers Received by 4/16/2020

The Following clarifications shall be utilized for preparing bids.

Emailed Questions

1. Would you consider a cast in place box culvert for at least part of this project? Or all of it? It will take a large crane to set the precast boxes they will weigh in excess of 11 ton. All of the precast suppliers say they can't make the boxes to turn the corner anyways.

    a. Contractor to have the option of using Pre-Cast or Cast-in-place for the 5' x 10' box culvert. Cast in place option may be done in part or in full and if done in full, box culvert shall follow MO-DOT standard No. 703.17 sheet 8 of 14. Proposal and plans have been modified with addendum No. 1 to document the option. All reinforcement will be considered incidental to the box culvert should contractor opt for full cast in place, and no line item will be added for the reinforcing. Bedding, cover and trenching will also be considered incidental to the installation of the box culvert regardless of which box culvert option (pre-cast or cast in place) is chosen.

2. Would you consider a double precast box say a 5 x5 in lieu of the 5 X 10 box?

    a. The City will not consider any variation of double precast boxes in lieu of the planned 5' x 10' box. Box culvert shall be a 5' x 10' box culvert, regardless of whether cast in place or pre-cast option is used.

3. Could you add another week for 4th street being closed?

    a. The length of street closure for 4th street has been increased from 14 calendar days to 28 calendar days. 4th street cannot be closed during holidays. Contractor to provide owner with advance notification of 2 business days for any street closure.

4. Can 4th street be opened up with the traffic running on base rock?

    a. The City will allow traffic on 4th street to be opened with traffic running on base rock.

5. Does the curb and gutter quantities include Porter Ave ? Any road repair in front of the curb and gutter? If not could those items be added? With the depth and width of the new box and the fill under the streets in that area being substandard I can see the curb and road falling in the trench.

    a. The curb and gutter quantities includes the curb and gutter work on Porter avenue. Line item # 36 "Concrete Pavement Repair" has been added to the proposal for road repair in front of the curb and gutter.

6. Will this project need Video, or Photo?

    a. This project will require no video or photo post-installation testing/inspection so long as the stormwater pipe material is RCP. Any other material will require video inspection/testing.

7. Is the Contractor responsible to knock down the Contaminated soil they haul to the repository?

    a. No

8. Can you tell me the status of All the utilities on this project?

    a. Liberty has relocated their pole for this project. Cable one has reported no conflicts. There is a gas line below the existing Corrugated metal pipe on the North side of 4th street. Based on depths reported by Spire it should be below the base rock for the new box culvert. AT&T also has a line that will sit above the box culvert on the south side of 4th street. Approximate locations have been indicated on the plans

9. I do not see a bid item for the 40' Ditch Liner show on sheet 3 of 7.

    a. Line item #37 "MO-DOT Type III Ditch Liner" has been added to the proposal via addendum.

10. On sheet #5 on the 4th street repair typical section shows Black dirt at 2" thick. Is this correct?

    a. This is an error and has been corrected via addendum. Black dirt shall be 4" thick as per City of Joplin specifications. Plans have been updated to reflect correction.

11. Can you allow more time on the 4th Street Road closer due to the Cast in place bend for the box will take little more time?

    a. The length of street closure for 4th street has been increased from 14 calendar days to 28 calendar days. 4th street cannot be closed during holidays. Contractor to provide owner with advance notification of 2 business days for any street closure.

12. Is this project 100% City of Joplin Funded?

    a. Yes

13. Can you tell me the top elevation of the 6'x 6' Junction box south of 4th Street?

    a. There is no survey data for the small ditch that is to have the 24" RCP installed and then back filled south of 4th street aside from the flow line of the existing box.

14. On bid item # 14 – Common Excavation can you tell me where this quantity came from, and where your intent is for it to go? I assume it goes to help fill in the south of 4th street ditch. I do not see Common Excavation in the City Standards.

    a. Common excavation is the equivalent of excavation as defined in section 1200.2.2 of the City of Joplin specifications. For the purposes of this project it shall include unclassified excavation, earth excavation, and rock excavation as outlined in section 1200.2.2. This quantity primarily comes from the excavation that will be required with the trenching for the installation of the 5'x 10' box culvert

15. On bid item # 15 – Compacted Fill can you tell me is this is for? I assume it is to fill the ditch up south of 4th street. If the 300 cy from bid item # 1 is Contaminated Material will all the 750 cy needed to fill the ditch have to be Embankment in place, or Contractor Furnished dirt? I did not see Compacted Fill in the City Standards either. I see Imported Fill.

    a. Compacted Fill is the equivalent of embankment as defined in section 1200.2.4 of the City of Joplin specifications. This quantity is primarily the fill needed to fill up the ditch south of 4th street. If the 300 CY from common excavation (bid item # 14) is all contaminated material, contractor will not be able to use the contaminated material as fill for the 750 CY needed to fill the ditch. Contractor will need to furnish the dirt.

16. At the South end of the 24" RCP pipe at the end is an existing box. Can we run a joint of 24" pipe out of it and set a precast Field Inlet? Or do you want us to stop before we get to the existing box? Your Drawing did not show the existing box.

    a. The intent is to have an opening made on the 6' x 6' x 6'-8" field inlet matching the opening of the existing box so that the field inlet may be set adjacent to the box and concrete diaper any voids. The option of running a joint of 24" pipe out of the existing box to the field inlet will be allowed as an alternative.

SPAN (S) = 10 FT HEIGHT (HT) = 5 FT OR 6 FT OR 7 FT

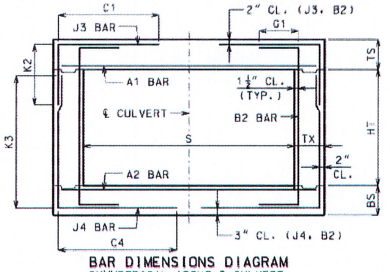
DESIGN FILL	MEMBER THICKNESS			TOP SLAB BARS									BOTTOM SLAB BARS								WALL BARS		
				A1 BARS		J3 BARS			K2			A2 BARS		J4 BARS			K3			B2 BARS		
	TS	BS	TX	SIZE	SPA.	SIZE	SPA.	C1	HT=5'	HT=6'	HT=7'	SIZE	SPA.	SIZE	SPA.	C4	HT=5'	HT=6'	HT=7'	SIZE	SPA.	G1
1 FT	12	9	8	5	6	4	6	75.5	28.1	32.5	37.0	5	6	6	6.5	52.5	65	77	89	5	12	12
2 FT	12	10	8	5	6	5	7.5	76.8	32.4	37.4	42.4	5	6	5	6.5	44.8	66	78	90	5	12	12
4 FT	8	9	8	6	8	7	6.5	44.8	32.4	37.8	43.3	6	7.5	6	7	42.3	65	77	89	5	12	0
6 FT	8	10	8	6	8.5	6	6	42.3	28.5	33.1	37.9	6	7.5	5	6.5	35.9	66	78	90	5	12	0
8 FT	8	10	8	6	7.5	7	6	43.5	28.5	33.1	37.9	6	7	5	6.5	33.3	66	78	90	5	12	0
10 FT	9	10	8	6	7	6	6.5	38.4	29.6	34.4	39.3	6	6.5	6	7	35.9	66	78	90	5	12	0
12 FT	9	10	8	6	7.5	6	6.5	35.9	29.6	34.4	39.3	6	6.5	6	7	34.5	66	78	90	5	12	0
14 FT	9	11	8	6	6.5	7	6	39.6	29.3	33.9	38.6	6	6	5	7	29.5	67	79	91	5	12	0
16 FT	10	12	8	6	6	6	6	34.5	30.0	34.8	39.4	6	6	5	7.5	28.1	68	80	92	5	12	0
18 FT	11	13	8	7	7.5	6	6.5	33.3	31.6	36.4	41.3	7	7.5	5	8	28.1	69	81	93	5	12	0
20 FT	12	14	8	7	7.5	6	7	33.3	32.4	37.3	42.0	7	7.5	5	8.5	26.9	70	82	94	5	12	0
22 FT	13	15	8	7	7	6	7.5	32.0	33.3	38.0	42.8	7	7.5	5	8.5	26.9	71	83	95	5	12	0
24 FT	14	16	8	7	7	6	8	30.8	34.0	38.8	43.6	7	7.5	5	8	26.9	72	84	96	5	12	0
26 FT	15	17	8	7	6.5	6	8	37.1	35.6	40.6	45.5	7	7	5	7	26.9	73	85	97	5	12	0
28 FT	16	18	8	7	6.5	6	8.5	35.9	36.5	41.4	46.4	7	7	5	6.5	26.9	74	86	98	5	12	0
30 FT	17	18	8	7	6.5	5	6	32.0	37.8	42.9	47.9	7	6.5	5	6.5	26.9	74	86	98	5	11.5	0
32 FT	18	19	8	7	6.5	5	6	32.0	38.6	43.6	48.8	7	6.5	5	6.5	26.9	75	87	99	5	10	0
34 FT	18	20	8	7	6	6	7.5	35.9	38.1	43.0	48.0	7	6.5	5	6	26.9	76	88	100	5	9.5	0
36 FT	19	21	8	7	6	6	7.5	35.9	39.9	45.0	50.0	7	6.5	6	7.5	30.8	77	89	101	5	9.5	0
38 FT	20	21	8	7	6	6	7.5	35.9	44.1	49.6	55.3	7	6.5	6	7.5	30.8	77	89	101	5	9.5	0
40 FT	21	22	8	7	6	6	7	35.9	45.1	50.6	56.1	7	6.5	6	7	30.8	78	90	102	5	9	0
42 FT	21	23	9	8	7.5	5	6	33.5	41.6	46.6	51.6	7	6	5	6	28.4	79	91	103	5	8.5	0
44 FT	22	23	9	8	7.5	6	7.5	37.4	42.0	47.0	52.1	7	6	5	6	28.4	79	91	103	5	8.5	0
46 FT	23	24	10	8	7.5	5	6.5	33.8	43.9	49.0	54.1	7	6	5	6.5	28.6	80	92	104	5	8.5	0
48 FT	23	25	10	8	7	5	6	33.8	43.3	48.3	53.4	7	6	5	6	28.6	81	93	105	5	8	0
50 FT	24	25	10	8	7	5	6	33.8	44.8	49.9	55.0	7	6	5	6	28.6	81	93	105	5	8	0

SPAN (S) = 10 FT HEIGHT (HT) = 8 FT OR 9 FT OR 10 FT

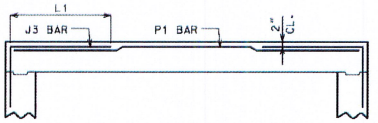
DESIGN FILL	MEMBER THICKNESS			TOP SLAB BARS								BOTTOM SLAB BARS								WALL BARS		
				A1 BARS		J3 BARS			K2			A2 BARS		J4 BARS			K3			B2 BARS		
	TS	BS	TX	SIZE	SPA.	SIZE	SPA.	C1	HT=8'	HT=9'	HT=10'	SIZE	SPA.	SIZE	SPA.	C4	HT=8'	HT=9'	HT=10'	SIZE	SPA.	G1
1 FT	12	11	8	5	6	5	8	76.8	33.0	36.5	40.0	5	6	5	6	76.8	103	115	127	5	12	12
2 FT	12	11	8	6	8	5	7	76.8	33.0	36.5	40.0	6	8	6	7.5	79.4	103	115	127	5	11.5	12
4 FT	8	10	9	6	8	6	6	59.4	28.4	31.5	34.6	6	7.5	6	7	68.4	102	114	126	5	12	0
6 FT	8	10	9	6	8	6	6	51.6	32.8	36.3	39.9	6	7.5	6	6.5	56.8	102	114	126	5	11.5	0
8 FT	9	10	9	6	8	6	7	49.0	33.0	36.6	40.3	6	7	6	6	51.6	102	114	126	5	11.5	0
10 FT	9	11	9	6	7.5	6	6	47.8	30.0	33.3	36.5	6	7	6	6.5	49.0	103	115	127	5	11	0
12 FT	9	11	9	6	7.5	6	6.5	43.9	30.0	33.3	36.5	6	7	6	6.5	43.9	103	115	127	5	12	0
14 FT	10	11	9	6	7	6	6.5	42.6	31.4	34.8	38.1	6	6	6	6	43.9	103	115	127	5	12	0
16 FT	10	12	9	6	6	6	6	42.6	30.5	33.8	37.0	7	8	6	6.5	42.6	104	116	128	5	10.5	0
18 FT	11	13	9	6	6	6	6	42.6	31.0	34.3	37.5	7	7.5	6	6.5	42.6	105	117	129	5	9.5	0
20 FT	12	14	9	7	7.5	6	6.5	41.3	32.8	36.1	39.5	7	7.5	6	6.5	42.6	106	118	130	5	8.5	0
22 FT	13	15	9	7	7.5	6	6	41.3	33.4	36.6	40.0	7	7.5	6	6.5	42.6	107	119	131	5	8.5	0
24 FT	14	16	10	7	7.5	6	7	41.6	35.1	38.6	42.0	7	7.5	6	8	42.9	108	120	132	5	8	0
26 FT	15	17	11	7	7.5	6	7	48.5	35.6	39.1	42.6	7	7.5	5	6	40.6	109	121	133	5	8.5	0
28 FT	16	18	11	7	7	6	7	48.5	36.3	39.8	43.3	7	7.5	5	6	40.6	110	122	134	5	7.5	0
30 FT	17	19	12	7	7	6	7.5	48.9	38.1	41.8	45.3	7	7	5	6	40.9	111	123	135	5	8	0
32 FT	17	19	12	7	6.5	6	7	48.9	38.1	41.8	45.3	7	7	5	6	40.9	111	123	135	5	7.5	0
34 FT	18	20	12	7	6.5	6	7	48.9	38.8	42.3	45.9	7	6.5	6	8.5	43.5	112	124	136	5	7	0
36 FT	19	21	12	7	6.5	6	6	48.9	39.3	42.9	46.5	7	6.5	6	8	43.5	113	125	137	5	7	0
38 FT	19	21	13	7	6	6	6	49.3	39.3	42.9	46.5	7	6.5	6	8	43.9	113	125	137	5	7	0
40 FT	20	22	13	7	6	6	6.5	49.3	41.3	45.0	48.6	7	6.5	6	8	43.9	114	126	138	5	6.5	0
42 FT	21	23	13	7	6	6	6	49.3	41.9	45.6	49.3	7	6.5	6	8	43.9	115	127	139	5	6.5	0
44 FT	21	23	14	7	6	6	6	49.6	41.9	45.6	49.3	7	6	6	7.5	44.3	115	127	139	5	6.5	0
46 FT	22	24	14	7	6	6	6.5	49.6	42.5	46.3	49.9	7	6	6	8	45.5	116	128	140	5	6	0
48 FT	23	25	14	8	7.5	6	6.5	49.6	43.1	46.8	50.5	7	6	6	8	45.5	117	129	141	5	6	0
50 FT	23	25	14	8	7	6	6	49.6	43.1	46.8	50.5	7	6	6	7.5	45.5	117	129	141	5	6	0

SPAN (S) = 10 FT HEIGHT (HT) = 11 FT OR 12 FT OR 13 FT

DESIGN FILL	MEMBER THICKNESS			TOP SLAB BARS									BOTTOM SLAB BARS								WALL BARS		
				A1 BARS		J3 BARS			K2			A2 BARS		J4 BARS			K3			B2 BARS		
	TS	BS	TX	SIZE	SPA.	SIZE	SPA.	C1	HT=11'	HT=12'	HT=13'	SIZE	SPA.	SIZE	SPA.	C4	HT=11'	HT=12'	HT=13'	SIZE	SPA.	G1
1 FT	11	11	9	6	8	6	7.5	80.0	31.3	33.8	36.4	6	7.5	6	6	80.0	139	151	163	5	8.5	12
2 FT	11	11	9	6	7.5	6	7	80.0	35.8	38.6	41.5	6	7.5	6	6	80.0	139	151	163	5	8.5	12
4 FT	9	11	9	6	8	6	6.5	80.0	33.8	36.6	39.4	6	7.5	6	6	80.0	139	151	163	5	8	0
6 FT	9	12	9	5	6	6	6	80.0	31.1	33.6	36.1	6	7.5	6	6	80.0	140	152	164	5	7.5	0
8 FT	9	12	10	5	6	6	6.5	75.4	31.1	33.6	36.1	6	7.5	6	6.5	80.6	140	152	164	5	7.5	0
10 FT	10	12	10	6	8	6	6.5	74.1	32.8	35.4	38.0	6	7	6	6	80.6	140	152	164	5	7	0
12 FT	10	12	10	6	8.5	6	6.5	58.5	32.8	35.4	38.0	6	7.5	6	6	71.5	140	152	164	5	8	0
14 FT	10	13	10	6	7.5	6	6	57.3	31.5	34.0	36.5	6	7	6	6	74.1	141	153	165	5	7	0
16 FT	11	13	11	6	7	6	6.5	56.4	33.3	35.9	38.5	6	6.5	6	6.5	65.5	141	153	165	5	7.5	0
18 FT	12	14	12	6	7	6	7.5	56.8	33.6	36.3	39.0	6	6.5	6	7.5	63.4	142	154	166	5	7	0
20 FT	13	15	12	6	6.5	6	7	56.8	35.6	38.4	41.1	6	6	6	7	64.6	143	155	167	5	7	0
22 FT	13	15	13	6	6	6	7	55.9	35.6	38.4	41.1	7	8	6	7	61.1	143	155	167	5	6.5	0
24 FT	14	16	13	6	6	6	6.5	57.3	36.1	38.9	41.6	7	7.5	6	7	61.1	144	156	168	5	6.5	0
26 FT	15	17	13	7	8	6	6	63.9	36.6	39.4	42.1	7	7.5	6	6	62.5	145	157	169	5	6.5	0
28 FT	16	18	14	7	8	6	6.5	63.0	38.6	41.5	44.4	7	7.5	6	6.5	61.6	146	158	170	5	6	0
30 FT	16	18	14	7	7	6	6	63.0	40.3	43.3	46.3	7	7	6	6	61.6	146	158	170	5	6	0
32 FT	17	19	15	7	7	6	6	63.5	42.4	45.5	48.6	7	7	6	6	60.8	147	159	171	6	8	0
34 FT	18	20	15	7	7	6	6	63.5	42.9	46.0	49.1	7	7	6	6	62.1	148	160	172	6	8	0
36 FT	19	21	16	7	7	6	6	63.9	43.4	46.5	49.6	7	7	6	6	62.5	149	161	173	6	8	0
38 FT	19	21	16	7	6.5	7	7.5	69.4	43.4	46.5	49.6	7	6.5	6	6	61.3	149	161	173	6	8	0
40 FT	20	22	17	7	6.5	6	6	64.4	45.6	48.9	52.1	7	6.5	6	6	61.6	150	162	174	6	7.5	0
42 FT	21	23	17	7	6.5	7	7.5	69.9	46.1	49.4	52.6	7	6.5	6	6	63.0	151	163	175	6	7.5	0
44 FT	21	23	18	7	6.5	6	6	64.9	46.1	49.4	52.6	7	6.5	6	6	62.1	151	163	175	6	7	0
46 FT	22	24	19	7	6.5	6	6	65.4	46.8	50.0	53.3	7	6.5	6	6	62.5	152	164	176	6	6.5	0
48 FT	23	25	19	7	6	6	6	65.4	47.3	50.5	53.8	7	6	6	6	62.5	153	165	177	6	6.5	0
50 FT	23	25	20	7	6	6	6	65.8	47.3	50.5	53.8	7	6	6	6	63.0	153	165	177	6	6.5	0



BAR DIMENSIONS DIAGRAM
SYMMETRICAL ABOUT ℄ CULVERT.



ALTERNATE J3 BAR

AT CONTRACTOR'S OPTION, ALTERNATE J3 BARS MAY BE USED WHEN THE DISTANCE BETWEEN THE ENDS OF J3 BARS IN THE TOP SLAB IS LESS THAN 2'-0". DIMENSION L1 (NOT C1) SHALL BE USED WITH ALTERNATE J3 BARS, WHERE L1 IS EQUAL TO 18", 22" AND 28" FOR #4, #5 AND #6 BARS, RESPECTIVELY. ADDITIONAL P1 BARS ARE REQUIRED WITH ALTERNATE J3 BARS WITH A LENGTH EQUAL TO A1 BARS, AND SIZE AND SPACING EQUAL TO J3 BARS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS SUBSTITUTION.

GENERAL NOTES:

IF DESIGN FILL IS BETWEEN TABULATED DESIGN FILLS, USE THE NEXT GREATER TABULATED DESIGN FILL, EXCEPT FOR DESIGN FILLS BETWEEN 2 FEET AND 4 FEET. FOR DESIGN FILLS BETWEEN 2 FEET AND 4 FEET USE THE GREATER MEMBER THICKNESS, AREA OF REINFORCEMENT AND BAR DIMENSIONS FROM THE 2 FEET AND 4 FEET TABULATED DESIGN FILLS. AREA OF REINFORCEMENT EQUALS BAR AREA PER FOOT SPACING.

SPECIAL DESIGNS ARE REQUIRED WHEN THE DESIGN FILL IS LESS THAN 1 FOOT OR GREATER THAN 50 FEET.

DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

DESIGN FILLS ARE MEASURED FROM THE TOP OF TOP SLAB TO THE TOP OF EARTH FILL OR ROADWAY.

CULVERTS MEET STRENGTH AND SERVICEABILITY REQUIREMENTS FOR THE DESIGN VEHICULAR LIVE LOAD HL-93 MINUS THE LANE LOAD.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI — DENNIS W. HECKMAN — NUMBER PE-27141 — PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE SINGLE BOX CULVERT

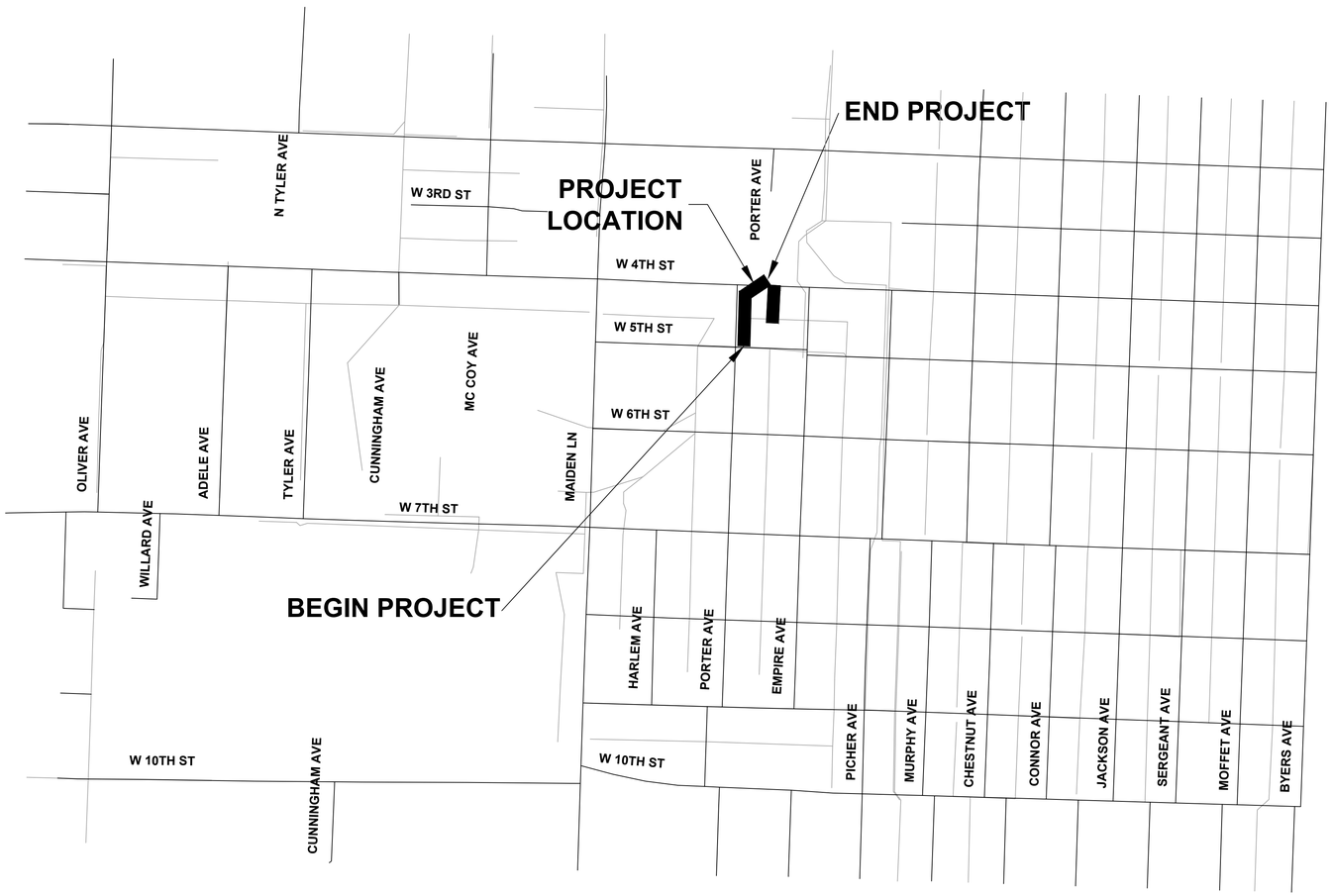
MEMBER THICKNESS BAR SIZE, SPACING & DIMENSIONS

SPAN (S): 10 FEET
HEIGHT (HT): 5 THRU 13 FEET

DATE EFFECTIVE:	04/01/2011	703.17	SHEET NO. 8 OF 14
DATE PREPARED:	4/18/2011		

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

4th AND PORTER
REMOVE AND REPLACE FAILED CMP



INDEX OF SHEETS

DESCRIPTION	DWG NO
COVER SHEET	1
SUMMARY OF QUANTITIES	2
PLAN & PROFILE SHEET	3
DEMO PLAN	4
SECTIONS	5
EROSION CONTROL PLAN	6
TRAFFIC CONTROL PLAN	7

GENERAL NOTES:

1. CONTRACTOR SHALL, AT HIS EXPENSE, SET & MAINTAIN ALL LINE & GRADE STAKES.
2. CONTRACTOR SHALL, AT HIS EXPENSE, REMOVE AND RESET ALL FENCES, POSTS, CULVERTS, STREET SIGNS, MAIL BOXES, & THE LIKE WITHIN THE LIMITS OF THE PROP IMPROVEMENTS.
3. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
4. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
5. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD. SPECS. UNLESS OTHERWISE NOTED.
6. FINISHED TRENCH SHALL BE BKFILLED W/ 6" BLACK DIRT, SEEDED, MULCHED, & FERTILIZED.
7. FINISHED TRENCH AT ALL ASPHALT & CONCRETE DRIVE & STREET CROSSINGS SHALL BE FLOODED, BKFILLED W/ CRUSHED STONE, & REPLACED W/ THE PROPOSED STREET REPAIR.
8. ALL WORK SHALL BE IN ACCORDANCE W/ THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MUTCD & W/ THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
9. ALL PEDESTRIAN FACILITIES SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE ADA.
10. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
11. CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, WHO SHALL BE RESPONSIBLE FOR RESTORING OR RE-ESTABLISHING ANY INCIDENTALLY DAMAGED OR DESTROYED SURVEY MONUMENTS NOT SCHEDULED FOR REMOVAL AS PART OF CONSTRUCTION PROJECT. THE CONTRACTOR SHALL NOTIFY THE CITY OF JOPLIN OF ANY MONUMENTS DAMAGED OR DESTROYED BY ANY OTHER OUTSIDE PARTY.

UTILITY NOTE

UTILITIES ARE LOCATED ON DRAWINGS BASED UPON AVAILABLE INFORMATION. THE NUMBER & LOCATION OF UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL CONTACT ALL UTILITIES & MISSOURI DIG RITE AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION & SHALL BE RESPONSIBLE FOR THE EXACT LOCATION & PRESERVATION OF ALL BURIED OR OVERHEAD UTILITY LINES.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP! CALL BEFORE YOU DIG

4th and Porter Rev.1.dwg

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: SMARTINE@JOPLINMO.ORG

REV DATE:	REVISION:
00/00	PROJECT CHECK

SVYD BY:	OLSSON
PNT FILE:	N/A.TXT
SVY DATE:	10/2019
ENGINEER:	HERTZBERG

ACAD DWG FILE & PATH NAME: CPringle\Storm Sewer\4th and Porter
SCALES: 1" = 20'

DWN BY:	STAFF
CKD BY:	STAFF
APD BY:	JOHNSON
DATE:	3/2020

PROJECT
4th AND PORTER
REMOVE AND REPLACE FAILED CMP

PLAN NO: 8526
SHEET
1 of 7

SUMMARY OF QUANTITIES

EXCAVATION

COMMON EXCAVATION = 300 CY

COMPACTED FILL = 750 CY

REMOVAL OF UNSUITABLE MATERIAL = 100 CY

REPLACEMENT OF UNSUITABLE MATERIAL = 100 CY

TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL = 300 CY

CONCRETE STRUCTURES

CURB & GUTTER (INCLUDES 4" STONE BASE) = 515 LF

1 PAVEMENT REPAIR = 60 SY

4" X 5' SIDEWALK (INCLUDES 2" STONE BASE) = 120 SY

4' (PRIVATE) SIDEWALK (INCLUDES 2" STONE BASE) = 6 SY

3' (PRIVATE) SIDEWALK (INCLUDES 2" STONE BASE) = 6 SY

TYPE 'D' ADA RAMP (INCLUDES TRUNCATED DOME) = 8 SY

RESIDENTIAL DRIVEWAY CONSTRUCTION = 52 SY

C.I.P. RCBC END SECTION = 1 EA

BASE & PAVING

8" STONE BASE = 530 SY

2" MODOT STANDARD MIX BP-2 w/ ANTI-STRIP ADD = 530 SY

4" BLACK BASE = 530 SY

ASPHALT PRIMER = 190 GAL

MOBILIZATION

LUMP SUM = 1 EA (NOT TO EXCEED 5% OF TOTAL ESTIMATE)

EROSION CONTROL

MULCH SOCK OR FABRIC SILT FENCE = 1 LUMP SUM

SEEDING, MULCH, & FERTILIZE = .36 AC

TRAFFIC CONTROL

TYPE III BARRICADES = 15 EA

R11-2 SIGNS = 3 EA

R11-4 SIGNS = 6 EA

M4-9L = 4 EA, M4-9R = 4 EA OR M4-10L = 4 EA, M4-10R = 4 EA

W20-1 SIGNS = 3 EA

W20-2 SIGNS = 2 EA

W20-3 SIGNS = 3 EA

CHANGEABLE MESSAGE BOARD = 2 EA

REMOVAL OF EXISTING IMPROVEMENTS

LUMP SUM = 1 EA

REPLACEMENT TREES

JAPANESE TREE LILAC = 2 EA

STORM SEWER INSTALLATION

60" x 120" RCBC (INCLUDES BEDDING, COVER, AND TRENCHING) =400 LF

18" RCP (INCLUDES BEDDING, TRENCHING) = 12 LF

24" RCP (INCLUDES BEDDING, TRENCHING) = 210 LF

4' X 8' TYPE 'C' CURB INLETS = 1 EA

TRENCHING - 1' TO 2' DEPTH = 210 LF

STONE BACKFILL IN STREET CROSSING = 260 CY

(1) 6' x 6' x 6'-8" JUNCTION BOX (FIELD VERIFY)

(1) 6' x 6' x 7'-6" JUNCTION BOX (FIELD VERIFY)

1 MO-DOT TYPE III DITCH LINER = 55 CY

4th and Porter Rev.1.dwg

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CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S MAIN ST 64801 PH NO: 417-624-0820 EXT 530 FAX NO: 417-625-4738 E-MAIL: SMARTINE@JOPLINMO.ORG	REV DATE: 04/16/20	REVISION: PROJECT CHECK	SVYD BY: OLSSON PNT FILE: N/A.TXT SVY DATE: 10/2019 ENGINEER: HERTZBERG	ACAD DWG FILE & PATH NAME: CPringle\Storm Sewer\4th and Porter SCALES: HORZ: 1" = 20' VERT: 1' = 20'	DWN BY: STAFF CKD BY: STAFF APD BY: JOHNSON DATE: 3/2020	PROJECT 4th AND PORTER REMOVE AND REPLACE FAILED CMP	PLAN NO: 8526 SHEET 2 of 7

TEEL BRANDON L &
JULIE N RAMON ETAL

PORTER AVENUE

EVANS
CLAUDE L & JACKIE A

TROYER GLORIA J

STINES NICOLE D

R E S LAND COMPANY

JASPER COUNTY
TRUSTEE

CARR HOMER LTR

GRAVEL ALLEY

CONCRETE DRIVE

4th STREET

5th STREET

SIDEWALK

GAS LINE

STA 0+00.01
OS 8.00LT
TC 1001.99

BP-0+00.00
N-335145.75
E-2780429.79

PROPOSED RCBC ℄

STA 0+97.16
OS 8.00LT
TC 1002.30

STA 1+19.00
OS 8.00LT
TC 1002.34

STA 1+99.40
OS 8.00LT
TC 1002.57

PI-2+44.50
N-335390.09
E-2780438.76

STA 2+54.50
OS 23.50LT
TC 1003.11

INSTALL TYPE "C"
CURB INLET @
STA 2+46.43
OS 14.95LT
TC 1002.98
18" FL OUT 998.23

INSTALL NEW
CURB AND GUTTER
NORTH OF CONCRETE
DRIVE TO RAMP

CONTROL POINT
N-335289.22
E-2780390.92

PIPE - (12) 10.98' OF
18" RCP @ -12.20%

TELEPHONE MANHOLE

T.B.M. "A"
1004.26

T.B.M. "A" = 1004.26
CHISELED SQUARE IN THE
WEST END CURB RETURN AT
THE SOUTHWEST CORNER OF
4th STREET AND PORTER
AVENUE

CONTROL POINT
N-335473.24
E-2780382.26

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET

1+00

2+00

PROPOSED 244.50 LF 120" x 60" RCBC 0.77%

PROPOSED 154.47 LF 120" x 60" RCBC 0.77%

FOUND CHISELED CROSS 2' OFFSET WEST

CONTROL POINT
N-335127.19
E-2780450.31

EXISTING
UNDERGROUND TELEPHONE

MATCH EXIST. FL 995.68
REMODEL CMU BOX AS REQUIRED
TO FIT NEW RCBC

STORM SEWER MANHOLE TOP 1002.23

EDGE OF CONCRETE

15" RCP

UNDERGROUND
TELEPHONE

CHAIN-LINK FENCE
(DO NOT DISTURB)

SANITARY SEWER MH
RIM 1002.98
8" PIPE OUT EAST FL 997.28

BUSH ROW TO REMAIN

STA 2+19.00
OS 8.20LT
TC 1002.60

131°

10'-0" TEMPORARY
CONSTRUCTION EASEMENT

10'-0" TEMPORARY
CONSTRUCTION EASEMENT
FROM EDGE OF DITCH

BUILDING

BUSINESS SIGN

SINKHOLE

EP-4+08.97
N-335493.79
E-2780566.42

80'-0" PERMANENT
CONSTRUCTION EASEMENT

ADD 40' DITCH LINER
BEYOND TOE WALL PER
DITCH LINER DETAIL

CONCRETE

NEW 6' x 6' x 6'-8"
FIELD INLET w/ GRATE
(FIELD VERIFY HEIGHT)
TOP SHOULD BE 1"
BELOW EXISTING GROUND
FL IN/OUT 994.77

NEW 24" RCP FL
TO MATCH
EXIST. FL 994.77
4'x3' BOX CULVERT
(FIELD VERIFY)

25'-0" PERMANENT
CONSTRUCTION EASEMEN

NEW 6' x 6' x 7'-6"
JUNCTION BOX
INLET ON (3) SIDES
(FIELD VERIFY HEIGHT)
TOP OF BOX TO MATCH
EXIST. / NEW SIDEWALK
FL IN/OUT 993.85

24" RCP FL @
WING WALL 993.31

EXIST. FL 992.55

5+00

6+00

7+00

7+03

4+00

NOTE:
FILL EXISTING TRENCH AND SLOPE
FILL TO NEW AREA INLETS

SANITARY SEWER MH
RIM 1004.10
8" PIPE IN WEST FL 994.86

LEGEND

- FOUND IRON MONUMENT (AS NOTED) FIRE
- HYDRANT
- GM GAS METER
- GAS TEST STATION
- GRATE INLET
- GUY WIRE
- LIGHT POLE
- POWER POLE
- (S) SANITARY MANHOLE
- (D) STORM MANHOLE
- REMOVE AND REPLACE
- CONTROL POINT
- SIGN
- WM WATER METER
- WATER VALVE
- TP TELEPHONE PEDESTAL
- DECIDUOUS TREE
- SS SANITARY SEWER LINE
- SD STORM SEWER LINE
- TEL UNDERGROUND TELEPHONE LINE
- W WATER LINE
- P-OH OVERHEAD POWER LINE
- GAS GAS LINE
- CHAIN-LINK FENCE

RCBC PROFILE

1020
1010
1000
990
980

EXISTING GROUND
APPROXIMATE LOCATION
OF UNDERGROUND TELEPHONE
STATION=0+88.29
APPROXIMATE LOCATION OF WATER METER
& PRIVATE WATER LINE
STATION=1+83.98
TYPE "C" INLET
SEE PLAN
APPROXIMATE LOCATION
FIBER OPTIC
APPROXIMATE LOCATION
WATER LINE
244.50 LF 120" X 60" RCBC @ 0.77%
154.47 LF 120" X 60" RCBC @ 0.77%
END SECTION INCLUDED
APPROXIMATE LOCATION OF WATER METER
& PRIVATE WATER LINE
PROPOSED FLOW LINE
PROPOSED PIPE 18" RCP BEYOND
FL OUT OF INLET 996.88
FL IN TO 120" x 60" RCBC 998.22
APPROXIMATE LOCATION
GAS LINE

-0+20 0+00 1+00 2+00 3+00 4+00 4+30

PROPOSED FLOW LINE ELEV.

-0+20.00	0+00.00	0+25.00	0+50.00	0+75.00	1+00.00	1+25.00	1+50.00	1+75.00	2+00.00	2+25.00	2+50.00	2+75.00	3+00.00	3+25.00	3+50.00	3+75.00	4+00.00	4+08.96	4+25.00	4+30.00
	995.68	995.49	995.30	995.10	994.91	994.72	994.52	994.33	994.13	993.94	993.75	993.55	993.36	993.17	992.97	992.78	992.58	992.52		

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CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: SMARTINE@JOPLINMO.ORG

REV DATE:	REVISION:
04/16/20	PROJECT CHECK

SVYD BY: OLSSON
PNT FILE: N/A.TXT
SVY DATE: 10/2019
ENGINEER: HERTZBERG

ACAD DWG FILE & PATH NAME: CPringle\Storm Sewer\4th and Porter
SCALES: HORZ: 1" = 20' VERT: 1' = 20'

DWN BY: STAFF
CKD BY: STAFF
APD BY: JOHNSON
DATE: 3/2020

PROJECT
4th AND PORTER
REMOVE AND REPLACE FAILED CMP

PLAN NO: 8526
SHEET
3 of 7

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET

PORTER AVENUE
TEEL BRANDON L & JULIE N RAMON ETAL
TROYER GLORIA J
4th STREET
5th STREET
EVANS CLAUDE L & JACKIE A
CARR HOMER LTR
JASPER COUNTY TRUSTEE
R E S LAND COMPANY
STINES NICOLE D

REMOVE AND REPLACE CURB AND GUTTER ALONG EAST SIDE OF PORTER AS REQUIRED
RES. SIDEWALK
REMOVE EXIST. INLET
REMOVE 22" DIA. TREE REPLACE w/ MAPLE
RES. DRIVEWAY
REMOVE AND REPLACE EXIST. RAMP w/ TYPE "D" ADA RAMP
EXISITING ℄ 9'-2 15/16" X 5'-8 15/16" CMP
EXISTING ℄ 9'-2 15/16" X 5'-8 15/16" CMP
RES. DRIVEWAY
RES. SIDEWALK
REMOVE 15" DIA. TREE REPLACE w/ RIVER BIRCH
TELEPHONE PEDESTAL TO BE RELOCATED
REMOVE 36" DIA. TREE
POWER POLE TO BE RELOCATED
SIDEWALK
4TH STREET REMOVE AND REPLACE
SIDEWALK
REMOVE EXIST. 6'x5' ARCH RCP FL 993.01 (DIRT BOTTOM)
REMOVE CONCRETE
REMOVE CONCRETE
REMOVE CONCRETE
REMOVE 6'x5' ARCH RCP FL 992.27 (DIRT BOTTOM)
8.0
16.5
7.0

LEGEND

- FOUND IRON MONUMENT (AS NOTED) FIRE HYDRANT
- GM GAS METER
- GAS TEST STATION
- GRATE INLET
- GUY WIRE
- LIGHT POLE
- POWER POLE
- SANITARY MANHOLE
- STORM MANHOLE
- REMOVE AND REPLACE
- CONTROL POINT
- SIGN
- WM WATER METER
- WATER VALVE
- TP TELEPHONE PEDESTAL
- DECIDUOUS TREE
- SS SANITARY SEWER LINE
- SD STORM SEWER LINE
- TEL UNDERGROUND TELEPHONE LINE
- W WATER LINE
- P-OH OVERHEAD POWER LINE
- GAS GAS LINE
- CHAIN-LINK FENCE

NOTE:
WATER METERS FOR BOTH RESIDENCES WILL NEED TO BE REMOVED AND REPLACED

4th and Porter Rev.1.dwg

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REV DATE:	REVISION:
04/16/20	PROJECT CHECK

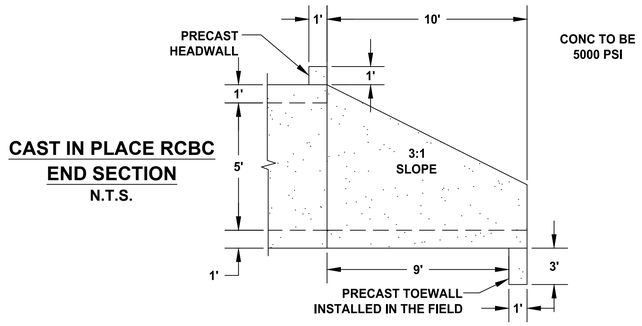
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SCALES: HORZ: 1" = 20' VERT: 1' = 20'

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APD BY: JOHNSON
DATE: 3/2020

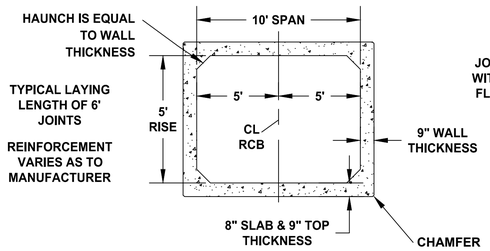
PROJECT
4th AND PORTER
REMOVE AND REPLACE FAILED CMP

PLAN NO: 8526
SHEET
4 of 7



CAST IN PLACE RCBC END SECTION
N.T.S.

PRECAST RCB TYPICAL SECTION
N.T.S.

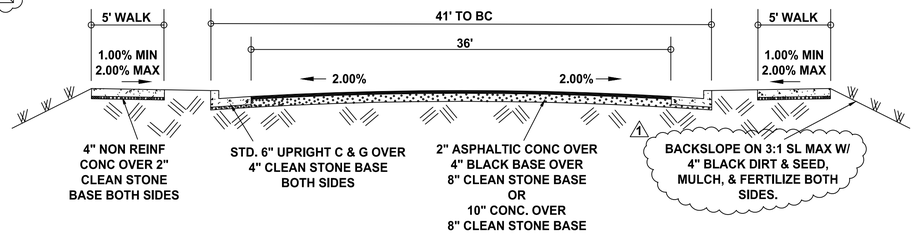


1 NOTE:
CONTRACTOR MAY CAST IN PLACE BOX CULVERT PER MO-DOT STANDARD NO. 703.17 SHT. 8 OF 14 USE DESIGN FILL OF 4 FT

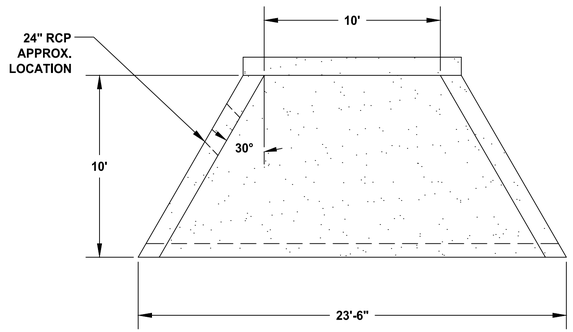
CONC TO BE 5000 PSI

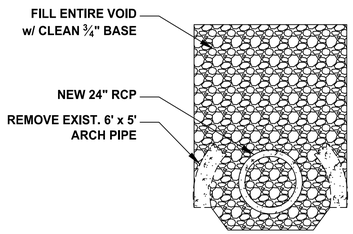
JOINTS SHALL BE SEALED WITH MORTAR, MASTIC, OR FLEXIBLE BUTYL RUBBER SEALANTS.

INSTALLATION & BEDDING AS PER MANUFACTURER'S SPECIFICATIONS.



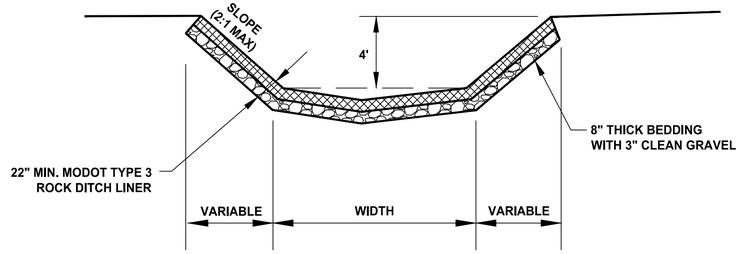
4th STREET REPAIR TYPICAL SECTION
N.T.S.



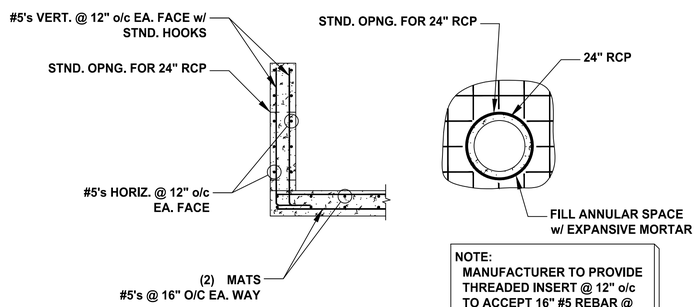


6' x 5' ARCH PIPE TYPICAL SECTION STA 6+27.80 - 6+99.25
N.T.S.

NOTE:
REMOVE 6' x 5' ARCH PIPE IN ORDER TO INSTALL NEW 24" RCP AND CLEAN FILL MATERIAL PER C.O.J. STANDARD DETAILS

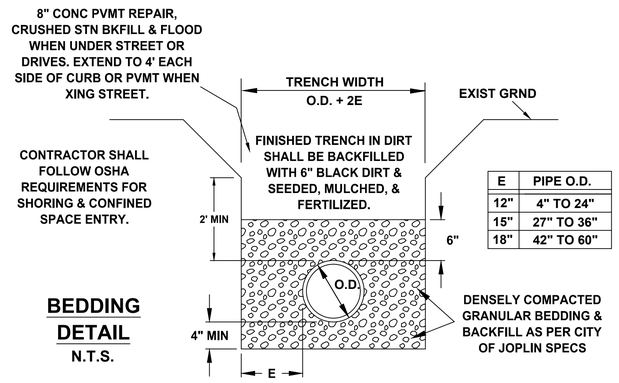


TYPICAL DITCH LINER RIPRAP INSTALLATION
N.T.S.



NOTE:
MANUFACTURER TO PROVIDE THREADED INSERT @ 12" o/c TO ACCEPT 16" #5 REBAR @ WING WALLS AND SLAB FOR CAST IN PLACE END SECTION.

WING WALL , SLAB, AND OPNG. REINFORCEMENT TYPICAL SECTION
N.T.S.



E	PIPE O.D.
12"	4" TO 24"
15"	27" TO 36"
18"	42" TO 60"

BEDDING DETAIL
N.T.S.

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4th and Porter Rev.1.dwg

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: SMARTINE@JOPLINMO.ORG

REV DATE:	REVISION:
04/16/20	PROJECT CHECK

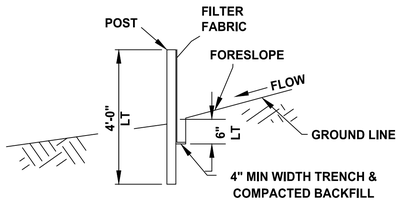
SVYD BY: OLSSON
PNT FILE: N/A.TXT
SVY DATE: 10/2019
ENGINEER: HERTZBERG

ACAD DWG FILE & PATH NAME: CPringle\Storm Sewer\4th and Porter
SCALES: HORZ: 1" = 20' VERT: 1' = 20'

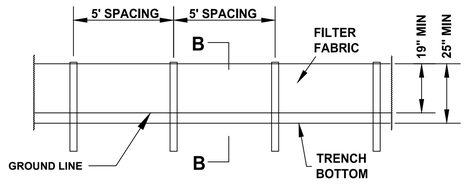
DWN BY: STAFF
CKD BY: STAFF
APD BY: JOHNSON
DATE: 3/2020

PROJECT
4th AND PORTER REMOVE AND REPLACE FAILED CMP

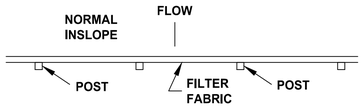
PLAN NO: 8526
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TYPICAL B-B



ELEVATION DETAIL



PLAN VIEW
DETAIL A

SILT FENCE NOTES:

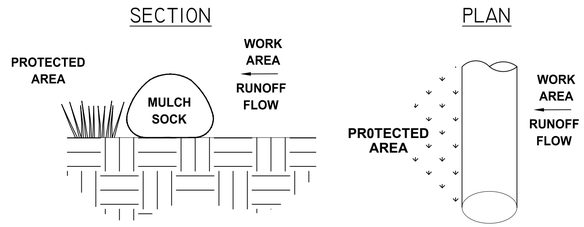
USE SILT FENCE FOR FILL HEIGHTS GREATER OR EQUAL TO 10'. FOR FILLS GREATER THAN 10' HIGH, MID-SLOPE RUNS OF SILT FENCE SHOULD BE CONSIDERED.

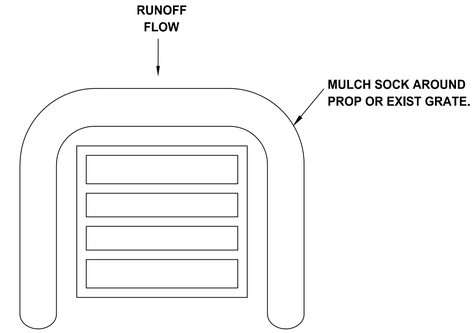
FOR FABRIC SILT FENCE:

MINIMUM LONGITUDINAL SPLICE OVERLAP SHALL BE 2' WITH A POST AT EACH END.
SECURE FABRIC TO POSTS.

FABRIC SILT FENCE

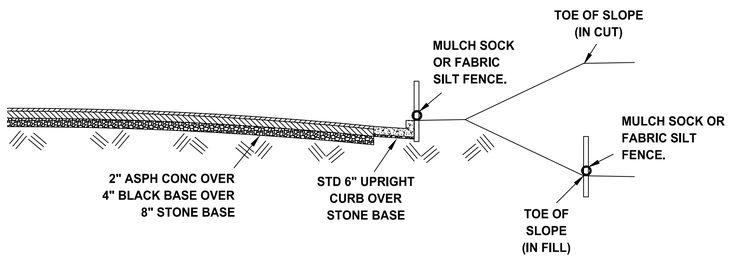
NTS





MULCH SOCK INSTALLATION DETAILS

NTS



EROSION CONTROL DETAIL

NTS

EROSION CONTROL NOTES:

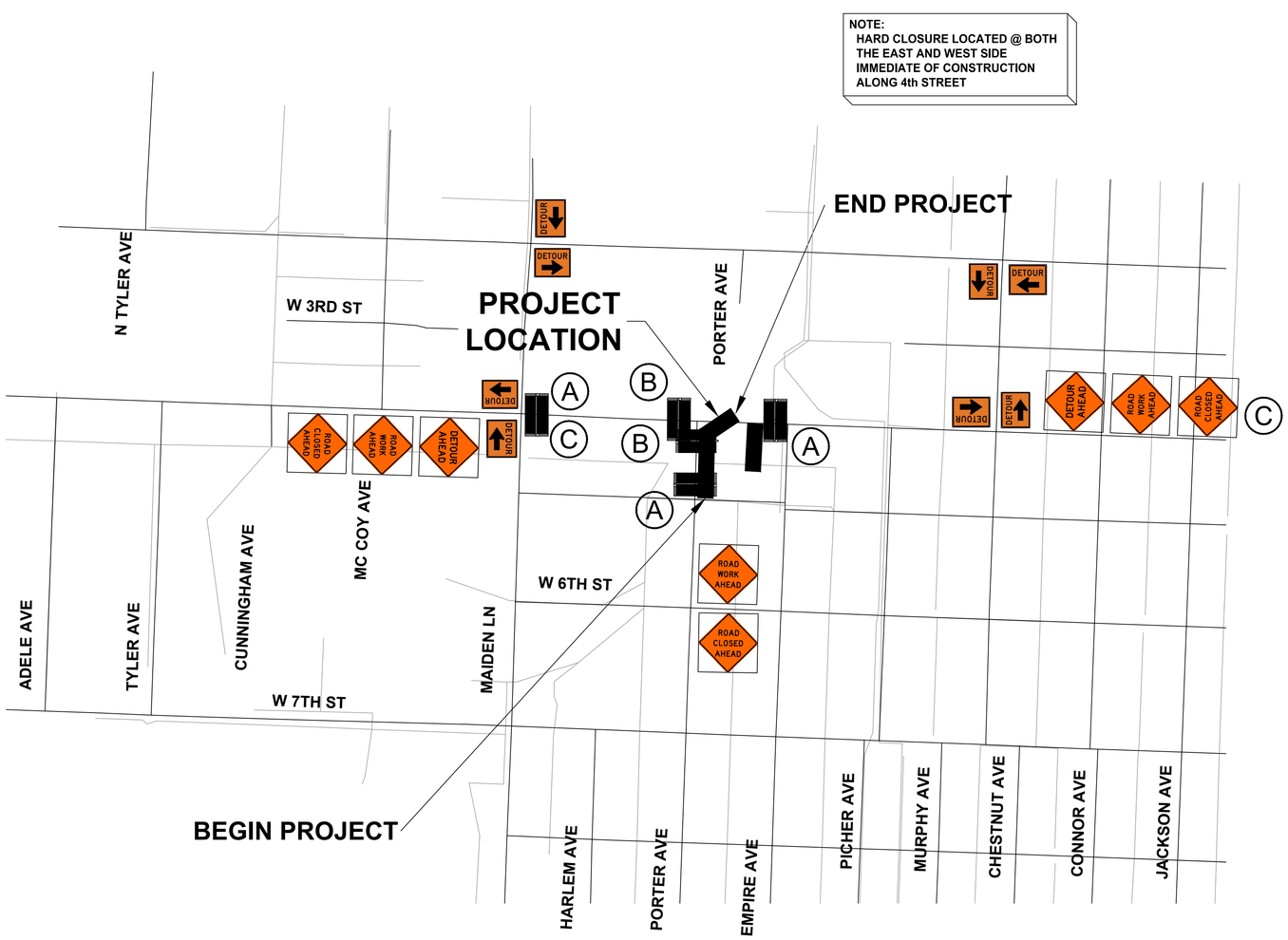
1. TEMPORARY OR FINAL SEEDING SHALL BE DONE IMMEDIATELY UPON COMPLETION OF GRADING.
2. MULCH SOCKS SHALL BE INSTALLED AROUND EACH NEW OR EXISTING CURB INLET.
3. A LINED CONCRETE TRUCK CLEAN OUT AREA IS REQUIRED BY REGULATION.

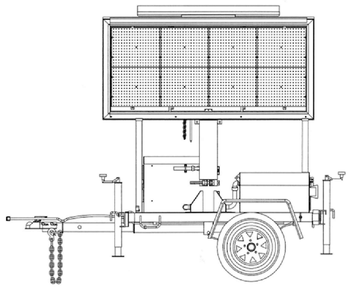
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4th and Porter Rev.1.dwg

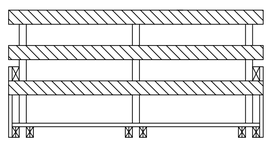
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S MAIN ST 64801 PH NO: 417-624-0820 EXT 530 FAX NO: 417-625-4738 E-MAIL: SMARTINE@JOPLINMO.ORG	REV DATE: 00/00	REVISION: PROJECT CHECK	SVYD BY: OLSSON PNT FILE: N/A.TXT SVY DATE: 10/2019 ENGINEER: HERTZBERG	ACAD DWG FILE & PATH NAME: CPringle\Storm Sewer\4th and Porter SCALES: HORZ: 1" = 20' VERT: 1' = 20'	DWN BY: STAFF CKD BY: STAFF APD BY: JOHNSON DATE: 3/2020	PROJECT EROSION CONTROL FOR 4th AND PORTER REMOVE AND REPLACE FAILED CMP	PLAN NO: 8526 SHEET 6 of 7

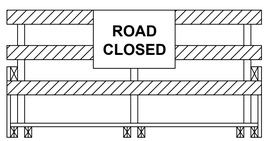
NOTE:
HARD CLOSURE LOCATED @ BOTH THE EAST AND WEST SIDE IMMEDIATE OF CONSTRUCTION ALONG 4th STREET



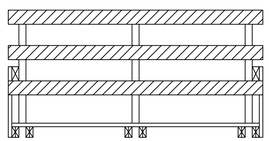


Ⓒ
CHANGEABLE MESSAGE BOARD 'C'





TYPE III BARRICADE
Ⓑ



ROAD HARD CLOSURE DETAIL 'B'



2-R11-2
㉙ *

* MOUNTED BACK TO BACK ON 3 MOVABLE BARRICADES



M4-9L&R
OR M4-10L&R



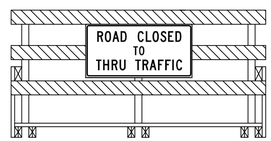
W20-1



W20-2



W20-3







R11-4

Ⓐ
ROAD SOFT CLOSURE DETAIL 'A'

NOTE: OFFSET BARRICADES ENOUGH TO ALLOW FOR LOCAL TRAFFIC.

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4th and Porter Rev.1.dwg

CITY OF JOPLIN, MISSOURI DEPT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S MAIN ST 64801	REV DATE:	REVISION:	SVYD BY: OLSSON	ACAD DWG FILE & PATH NAME:	DWN BY: STAFF	PROJECT TRAFFIC CONTROL FOR 4th AND PORTER REMOVE AND REPLACE FAILED CMP
	PH NO: 417-624-0820 EXT 530	00/00	PROJECT CHECK	PNT FILE: N/A.TXT	CPringle\Storm Sewer\4th and Porter	CKD BY: STAFF	
	FAX NO: 417-625-4738			SVY DATE: 10/2019	SCALES: HORZ: 1" = 20'	APD BY: JOHNSON	
	E-MAIL: SMARTINE@JOPLINMO.ORG			ENGINEER: HERTZBERG	VERT: 1' = 20'	DATE: 3/2020	

PLAN NO: 8526
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