AGREEMENT BETWEEN THE BOARD OF COUNTY COMMISSIONERS OF JOHNSON COUNTY, KANSAS, AND THE CITY OF OLATHE, KANSAS FOR THE CONSTRUCTION OF SANITARY SEWER LINE IMPROVEMENTS

THIS AGREEMENT, made and entered into this_____ day of _____, 2021, by and between the Board of County Commissioners of Johnson County, Kansas, as the governing body of the Consolidated Main Sewer District of Johnson County, Kansas, and Johnson County Wastewater (the "County"), and the City of Olathe, Kansas (the "City") for the purpose of relocation and construction of sanitary sewer line improvements (the "Sewer Improvements") as part of the reconstruction and improvements to **119th and I-35 Sanitary Relocation Project,** Olathe, Kansas, pursuant to K.S.A. 12-2908, and amendments thereto.

WHEREAS, the project will relocate existing sanitary sewer to avoid conflict with 119th and I-35 street and storm improvements. The sewer is required to be relocated to avoid conflict with new storm sewer infrastructure, as well as new traffic control lights for the modified intersection at 119th and Renner Road. The project includes over 500 Feet of relocated 8" PVC pipe, 4 new precast concrete manholes, and the removal of 4 existing manholes and 460 Feet of existing 8" pipe. This work is to be completed with the City of Olathe/KDOT project within the City (the "City Project); and

WHEREAS, the County operates and maintains sanitary sewer lines within the Project area; and it was necessary to adjust or relocate the County sewer lines as part of the City Project; and

WHEREAS, the County sewer lines will be adjusted and relocated as part of the City Project; and WHEREAS, the City hired the design team of HNTB Corporation, (the "City Engineer") to design the Project; and

WHEREAS, the County requested the City Engineer to design the Sewer Improvements as a part of the City Project as detailed in Exhibit A attached hereto and incorporated by reference; and

WHEREAS, the parties have by their governing bodies determined it was in the public interest to consolidate the projects into one bid set awarded and managed by the City; and

WHEREAS, the governing body of the City did approve and authorize its mayor to execute this Agreement by official vote of the City Council on _____ day of _____, 2021; and

WHEREAS, the governing body of the County did approve and authorize its board chairman to execute this Agreement by official vote of the Board of County Commissioners on ____ day of _____, 2021.

NOW THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and County agree as follows:

1. The City shall award the Project to the winning contractor in accordance with City contracting requirements. Construction of the Sewer Improvements shall be completed in accordance with the plans prepared by City Engineer and approved by the County. The City Engineer shall inspect the Sewer Improvements in accordance with Kansas Department of Health and Environment Regulation 28-16-55 and enforce the JCW sewer standards and specifications provided by the County contained in the Technical Specifications, during the construction phase of the Sanitary Sewer Improvements.

2. The parties acknowledge that the City will incur certain construction costs as part of the Project, including the sanitary sewer line improvement construction costs. The County agrees to reimburse the City for the actual cost of construction of the Sewer Improvements within Project area, which will include the following costs:

A. Labor and material used in constructing the Sewer Improvements; and

B. Such other expenses which are necessary in constructing the Sewer Improvements. These costs include but are not limited to design engineering, project administration, construction inspection, material testing, utility relocations, as-built drawings and other items incidental to constructing the Sewer Improvements.

3. After completion of the Project, the City will certify to County that the City has accepted the same, as constructed. Within thirty (30) days from certification of final completion and acceptance of the Project, the City shall submit to the County a final accounting of all Project construction costs. The County agrees to reimburse the City no later than sixty (60) days following receipt of the final accounting and invoice for the actual cost of construction of the Sewer Improvements. The cost of construction of the Sewer Improvements within the Project Area to be reimbursed by the County is not to exceed $71,357.52 as detailed in Exhibit A and B attached hereto and incorporated herein by reference.

4. The City agrees to act as the Administrator of the consolidated Project to be built in accordance with the proposed plans. As Administrator for the Project, the City agrees to assume and perform the following duties:

A. Obtain costs for and enter into a contract for completion of the Project in the manner required by law and require the contractor to comply with all applicable laws and regulations governing public contracts, including all non-discrimination laws and regulations.

B. Require indemnity covenants and evidence of insurance from contractor for loss or

damage to life or property arising out of the contractors' negligent acts or omissions in an amount not less than $2,000,000.00 for any contractor.

C. Require a three-year maintenance bond from the contractor payable to the County in the amount of twenty-five percent (25%) of the total construction cost of the Sewer Improvement Project effective from the date of acceptance of such facilities by the County.

D. Include in contracts for construction a requirement that the contractor defend, indemnify and save City and County harmless from and against all liability for damages, costs, and expenses arising out of any claim, suit or action for injuries or damages sustained to persons or property by reason of the act or omissions of the contractor and the performance of his or her contract. As Administrator, City is required to ensure that all insurance certificates provided by the contractor pursuant to the contract documents name the City and County as additional insureds.

E. The City is required to acquire any and all necessary easements for the Project, but is not responsible for acquiring any additional easements or other interests in land necessary solely for the construction of the Sewer Improvements which remained the responsibility of the County.

F. The City contractor is required to coordinate utility relocations for the Project.

G. Subject to the obligations of the City under the Fairness in Public Construction Contract Act, KSA 16-1901 et seq, the City shall not make final payment to the contractor until such time as the County has accepted the Sewer Improvements as complying with the contract specifications. In the event the County fails to grant acceptance and final payment is not made by the City on that basis, the County shall indemnify and hold the City harmless for any loss or claim made against the City, including the defense thereof, arising from or related to the failure of the County to grant acceptance.

5. The County has provided approved plans for the construction of the Sewer Improvements. Additionally, the County has provided the following:

A. The County has provided plans and specifications for the Sewer Improvements to the City in the manner set forth earlier in this Agreement.

B. The County has provided a maintenance bond form to the City for the City to provide to the contractor to meet the requirement set forth in Paragraph 4 of this Agreement.

C. The County shall provide written certification that the Sewer Improvements

complied with the contract specifications to the City within ten (10) business days of final inspection and approval of the Sewer Improvements.

D. The County and City agree to work together to resolve any conflicts related to the construction of the Project.

6. For purposes of this Agreement, any required notices are deemed sufficiently given on the third business day following deposit in the U.S. mail, certified, return receipt requested, postage prepaid, and addressed as follows:

If to the City:
City of Olathe
Therese M. Vink, P.E.
Senior Project Manager
1385 S Robinson Drive
Olathe, KS 66061

If to the County:
Johnson County Wastewater
Aaron A. Witt, P.E.
Chief Engineer
11811 S. Sunset Dr., Suite 2500
Olathe, Kansas 66061-7061

Notice shall also be deemed sufficiently given upon actual delivery by reliable courier service or other method.

7. This Agreement cannot be modified or changed by any verbal statement, promise or agreement, and no modification, change nor amendment binding on the parties unless it shall have been agreed to in writing and signed by both parties.

8. This Agreement shall be construed according to the laws of the State of Kansas and may be enforced in any court of competent jurisdiction.

9. The attorneys for the parties shall cause sufficient copies of this Agreement to be executed so as to provide each party with duly executed copies and any copy duly executed by both parties shall be deemed an original for all purposes.

10. This Agreement may be terminated only by mutual consent of the parties. This Agreement shall continue until the construction as described herein is complete and until such time as all financial obligations of the parties have been met.

IN WITNESS WHEREOF, the above and foregoing Agreement has been executed by the parties hereto and made effective as of the date and year first above written.

BOARD OF COUNTY COMMISIONERS
OF JOHNSON COUNTY, KANSAS

By:_____
Ed Eilert, Chairman

ATTESTED BY:

_____
Lynda Sader, Deputy County Clerk

APPROVED AS TO FORM:

By:_____
Ryan P. Haga, Assistant County Counselor

CITY OF OLATHE, KANSAS

By:_____
John Bacon, Mayor

ATTESTED BY:

_____
Brenda Long, City Clerk

APPROVED AS TO FORM:

By:_____
Ron Shaver, City Attorney

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	35-46 N-0687-01	2020	371	699

I-35 AND 119TH STREET

SANITARY SEWER RELOCATION AND REMOVAL AND IN-PLACE ABANDONMENT

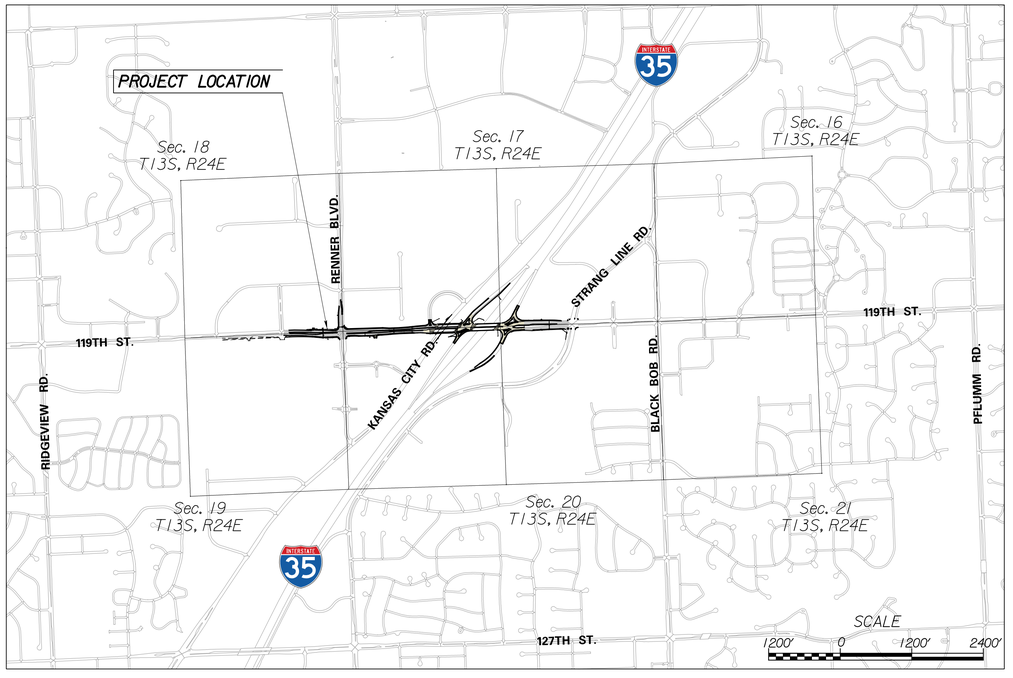
MC 2, JSD 1, Line 1 – 2020 RELOCATION

EXHIBIT A

BUILD GRANT NO. B19HC020
KDOT PROJECT NO. 35-46 N-0687-01
CITY OF OLATHE PROJECT NO. 3-C-026-16

GRADING & SURFACING
ASPHALT PAVEMENT
CONCRETE PAVEMENT
BRIDGES
SEEDING
LIGHTING
TRAFFIC SIGNALIZATION
SIGNING AND PAVEMENT MARKING
DETOURS

INDEX OF SHEETS



CONSTRUCTION NOTES:

1. The specifications for this project shall be "Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction", "City of Olathe Technical Specifications" and "Johnson County Wastewater (JCW) Construction and Material Specifications for Sanitary Sewers - KDHE Permit No. 31278". Should discrepancies between the specifications exist, the more stringent specification shall be followed, unless directed otherwise by the Engineer. The Contractor shall have one (1) signed copy of the plans and one (1) copy of each of the specifications at the job site at all times.
2. Existing utilities have been indicated to the greatest extent available to the Engineer. The contractor is responsible for obtaining the field location of the utilities.
3. Certification of the proper placement of the flowable backfill or select backfill meeting the requirements of City of Olathe Technical Specification Section 4000 within street right-of-way, as required by the City of Olathe, is required in lieu of soil compaction reports. Soil compaction reporting requirements for areas beyond street right-of-way remain in effect.
   a. For pipe located in areas other than street or alley right-of-way, from the top of the pipe embedment to finish grade, the backfill material shall be compacted to no less than 90% of maximum dry density at a moisture content within 2% of the optimum moisture as determined by ASTM D698. Compaction tests representative of each three (3) foot of trench depth shall be taken at one-thousand (1,000) foot intervals along the pipe. Compaction tests shall be taken at each pavement crossing. Compaction tests shall be ordered at random times, depths and locations as determined by the Engineer.
   b. The Engineer shall confirm that all compaction tests meet the specifications during the construction. All backfill which does not pass the compaction requirement shall be removed, compacted and tested until the required compaction is achieved.
   c. Copies of all compaction testing reports, and as applicable, special backfill placement certifications shall be provided to the Engineer and to JCW during construction. Test results showing passing compaction at all test locations are required for project acceptance.
4. For construction of city streets refer to project general notes and Olathe Technical Specifications.
5. All site disturbance permits as required by the City of Olathe and the Kansas Department of Health and Environment (NPDES Phase II Storm Water permit) shall be obtained prior to construction. See project erosion control plans.
6. All testing shall be done in accordance with JCW Construction and Material Specifications for Sanitary Sewers after the backfill and compaction operations have been completed. All sanitary sewer mains, stubs, and cleanouts installed on the project shall be air-tested. All mains shall be mandrel tested. All manholes shall be vacuum tested. Any other special testing requirements shall be as noted on the drawings or in the specifications. All tests shall be witnessed by the Engineer and, as required, by JCW. Copies of all test records shall be provided to JCW for project acceptance.
7. Hours of operation shall be as required by the City of Olathe. The contractor shall not be allowed to work Saturdays, Sundays or Holidays unless written permission from the JCW Senior Inspector and the City of Olathe has been provided
8. Ten feet (10') of horizontal separation shall be provided between water lines and the sewer mains or service lines when they parallel each other.
9. Flow in existing mains and service lines shall be maintained at all times and shall not be discharged to the environment. Flow shall not be transferred to the relocated main until JCW has inspected and accepted the relocated main.
10. The Contractor shall post a 3-year maintenance bond in an amount equal to 50% of the contract amount for the sanitary sewer work. The JCW maintenance bond form shall be used.
11. All existing sanitary sewer pipes to be ababandoned shall be filled with Fly Ash Slurry Grout (Low Strength) (Subsidiary to "Removal of Existing Structures").

PREPARED & SUBMITTED BY:

HNTB

OVERLAND PARK, KANSAS

ZACHARY AARON JARCHOW LICENSED 25715 KANSAS PROFESSIONAL ENGINEER

ZACH JARCHOW, P.E.
SHEET NO. 371-376

7-31-20
DATE

APPROVED BY

JOHNSON COUNTY, KANSAS

Aaron Witt
2020.08.03 16:12:54-05'00'

AARON WITT, P.E.
CHIEF ENGINEER OF JOHNSON COUNTY WASTEWATER

DATE

AUTHORIZATION TO BEGIN CONSTRUCTION EXPIRES ONE YEAR FROM SIGNATURE DATE

RELOCATION - KDHE PERMIT NOT REQUIRED
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

ONE CALL KANSAS
1-800-DIG-SAFE

NOTE:
The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for contacting all utility companies for field location of all underground utility lines prior to any excavation and for making his own verification as to the type and location of underground utilities as may be necessary to avoid damage thereto.

[THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.]

Plotted on: 29-JUL-2020 11:36 AM
By: zjarchow Plot Scale: 1x200
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	35-46 N-0687-01	2020	372	699

SE 1/4 SEC 18-13-24

(2) KARBANK HOLDINGS, LLC
Lot 5

(3) KARBANK HOLDINGS, LLC
Lot 6

SW 1/4 SEC 17-13-24

(4) TDF, INC.
Por. Lot 9

Barney Blvd.

Abandon-in-Place
168 LF of 8" VCP
of Existing Line 1
of MCRI between
MH MCRI (44) (007)
at Sta. 7+38.00 to
Sta. 9+06.00

10' KCPL Esmt.

A-01
Construct 4' Dia Manhole
Place Lid Out of Sidewalk
N: 227394.13
E: 2228110.40

15' S/E

10' U/E

Remove Existing Manhole
MCRI (44) 008
N: 227388.20
E: 2228394.09

Install 32 LF
Reinforced Concrete
Encasement

A-02
Construct 4' Dia Manhole
Connect to Existing 6" PVC (N)
N: 227403.53
E: 2228393.90

A-03
MCRI (044) (009)
Construct 8' Dia Manhole
Around Existing 4' Manhole
Rebuild Manhole Lid Behind Curb
See Detail Sheet No. 376
N: 227395.76, E: 2228570.32

MCRI (044) (010)
Adjust Top Elevation to Proposed Grade
Existing = 1045.85
Proposed = 1045.39
N: 227402.91
E: 2228688.45

89°21'08.7"
90°38'54.8"
93°46'12.7"
174°00'58.1"
89°09'21.9"
86°25'30.6"

Exist. R/W
Prop. T.C.E.
Prop. R/W
Prop. U.E.
Prop. S.E.

89 90+00 91 92 93 94 95+00 96 97 98 99 100+00 101 102 103 104

℄ 119th St.
℄ Renner Blvd.

48
49
51

Remove Existing Manhole
MCRI (44) 007
N: 227377.62
E: 2228110.80

Existing 8" VCP
Remove 19 LF

(14) MAEGRACE LLC
Por. NE 1/4 Sec. 19-13-24

NE 1/4 SEC 19-13-24

Existing 8" VCP
Remove 112 LF
Abandon 168 LF
with 3 CY of
Fly Ash Slurry
Grout (Low Strength)

Existing 8" VCP
Remove 173 LF

JCW Relocation Line "B"
See Sheet No. 373

(15) MAEGRACE II, LLC
Lot 3

N

SCALE
50' 0 50' 100'

i. In-place abandonment of a segment of Existing Line 1 of MCRI from Sta. 7+38.00 to Sta. 9+06.00 has been requested by the City of Olathe and recommended by HNTB Corporation.
ii. Line 1 shall be abandoned-in-place by filling completely with Fly Ash Slurry Grout (Low Strength) from Sta. 7+38.00 to Sta. 9+06.00. 3 Cubic yards of Fly Ash Slurry Grout (Low Strength) are required to completely fill the abandoned main.
iii. Full time inspection by HNTB Corporation of the placement of the Fly Ash Slurry Grout and a report of the inspection, including the amount of Fly Ash Slurry Grout (Low Strength) placed and the delivery tickets for the the Fly Ash Slurry Grout (Low Strength) placed, shall be provided to JCW by HNTB Corporation for project final acceptance by JCW.
iv. Stand Pipe Inspection Ports shall be provided at the midpoint of each line segment between manholes to be abandoned-in-place. The stand pipes hall be of adequate diameter to visually verify the installation of the Fly Ash Slurry Grout (Low Strength).
v. The City of Olathe has provided a signed letter for in-place abandonment of a sanitary sewer pertaining to the in-place abandonment of the existing sanitary sewer main shown in this plan set.

The in-place abandonment is just West of the intersection of 119th Street and Renner Boulevard, on the north side of 119th Street.

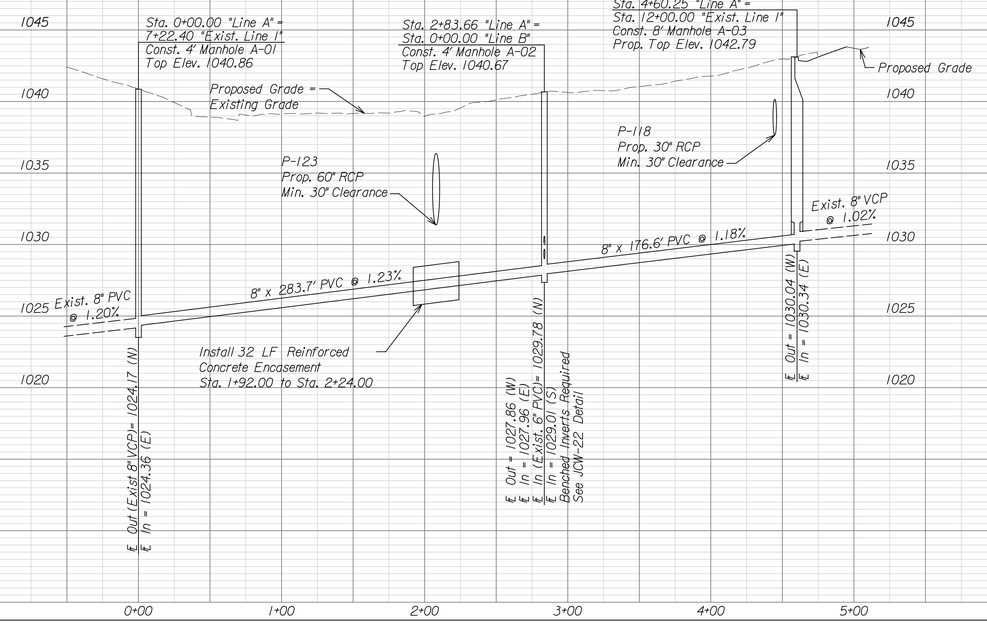
Owner of Right-of-Way above which abandoned in-place main runs:

City Contact:

Therese Vink, PE.
Senior Project Manager

City of Olathe
1385 S Robinson St.
Olathe, KS 66061
Tel: (913) 917-9032

The flow from the existing main MCRI Line 1 shall not be diverted to the relocated main until JCW has inspected and provided written acceptance for the relocated main. Flow shall be maintained at all times and shall not be discharged to the environment.



KANSAS DEPARTMENT OF TRANSPORTATION
SANITARY SEWER RELOCATION
LINE A
PLAN & PROFILE

372

Plotted on: 29-JUL-2020 11:36 AM
zjarchaw Plot Scale: 1:50
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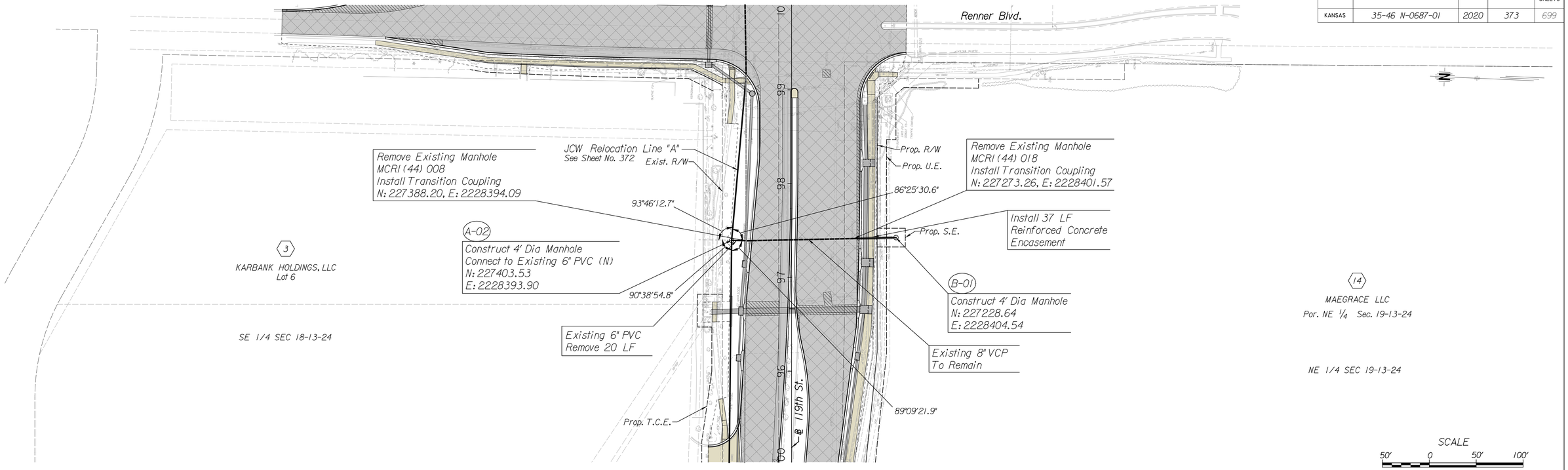
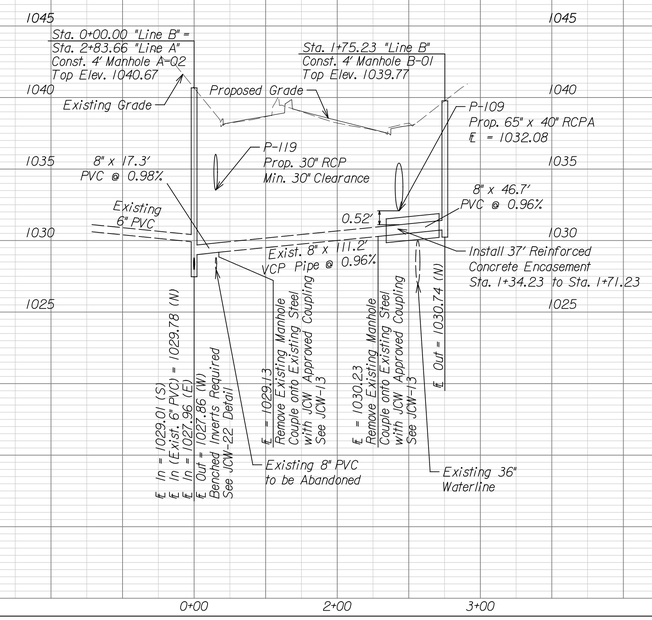
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	35-46 N-0687-01	2020	373	699





KANSAS DEPARTMENT OF TRANSPORTATION

SANITARY SEWER RELOCATION
LINE B
PLAN & PROFILE

Plotted on: 29-JUL-2020 12:31PM
zjarchow Plot Scale: 1:50
jn\6686\Production\Prin\Plot\22x34pen
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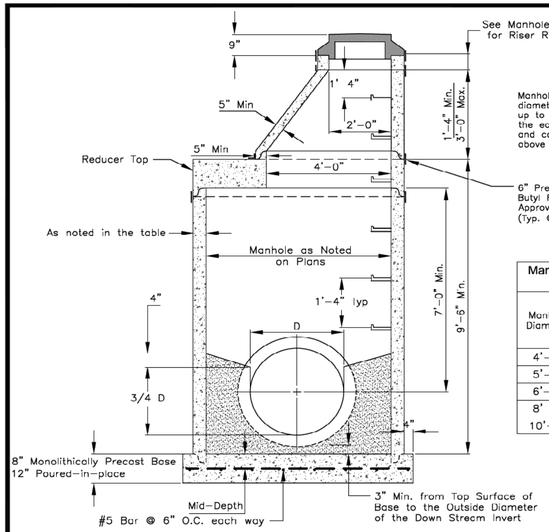
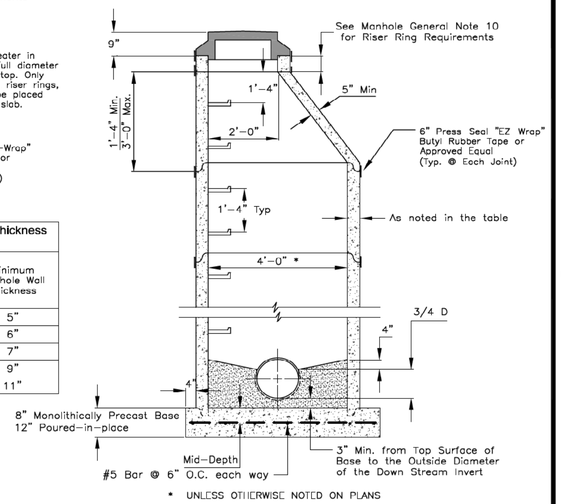


Manhole 5' and greater in diameter shall be full diameter up to the reducer top. Only the eccentric cone, riser rings, and casting shall be placed above the reducer slab.

Manhole Wall Thickness Table	
Manhole Diameter	Minimum Manhole Wall Thickness
4'-0"	5"
5'-0"	6"
6'-0"	7"
8' 0"	9"
10'-0"	11"

5' AND GREATER STANDARD PRECAST MANHOLE (ECCENTRIC CONE)

No Scale



* UNLESS OTHERWISE NOTED ON PLANS

4' DIA. STANDARD PRECAST MANHOLE (ECCENTRIC CONE)

No Scale

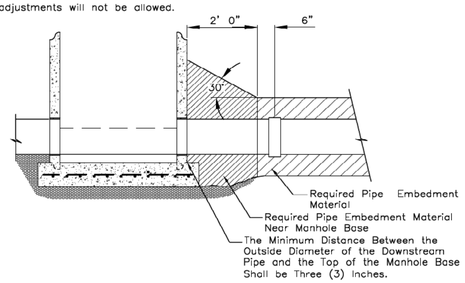
MANHOLE GENERAL NOTES:

1. All manhole rings shall be set in a minimum of two (2) rows of 3/4 to 1 inch pre-formed butyl joint sealer.
2. All manhole rings to be placed in pavement or in areas to be subsequently paved shall have "Machined Horizontal Bearing Surfaces" and shall comply with Class #25 as established in ASTM A-48.
3. The inside diameter of the manhole shall be 4'-0" for pipe diameters from 8" thru 24" and shall be 5'-0" for pipe diameters from 27" thru 36". In addition, the inside diameter (ID) of manholes up to 20 feet deep shall be 4'-0". ID shall be 5'-0" for depths up to 25 feet and ID shall be 6'-0" for depths exceeding 25 feet unless otherwise noted on the plans.
4. All manhole bases (pre-cast or poured-in-place) shallhave No. 5 reinforcing bars placed on 6" centers both ways.
5. All standard manhole rings and covers to be Deeter 1315-jcs, Neenah NF-15360009/B (frame) gnd NF-15360010/B (cover), or approved equal. All manhole rings and covers shown in plans to be "bolt- down" to be Clay & Bailey Manufacturing Co. No. 20140R, Neenah R-1915-F2 or approved equal. An extra payment for furnishing "bolt-down" ring and cover as shown in plans will not be made, but shall be considered as subsidiary to the item, "Standard Manhole".
6. Standard manhole steps to be steel core, plastic coated steps (M.A. Ind., Inc. No. PS1- Pf, PS2-Pf, or approved equal).
7. Maximum grade adjustment allowable is 8". Minimum allowable thickness for precast concrete grade adjustment ring is 4".
8. Reinforcement in all precast sections shall equal or exceed A.S.T.M. C-478 specifications.
9. Butyl material to be used at all precast sections joints. O Rings may be used for joints below the cone section, but the cone section itself shall not have O-ring joints.
10. Riser Rings:

A. Manholes in Pavement: The thickness of the recycled rubber riser rings shall not be less than one (1) inch nor greater than four (4) inches. If the required thickness of riser rings exceeds 4 inches, a 4-inch or 6-inch precast concrete riser ring maybe installed between the rubber riser ring and the cone. Riser rings may be used up to a maximum of 12 inches. The minimum number of riser rings required to achieve the necessary adjustment shall be used. The rubber riser rings shall be tapered to match the slope of the existing or proposed pavement at the manhole. The joints between the cone, rubber riser rings, and casting shall be sealed with the manufacturer-supplied sealant.

B. Manholes Not in Pavement: All manholes shall be provided with riser ring(s) underneath the casting as shown on Drawings. A minimum of one (1) 4-inch riser ring shall be installed on top of the cone section. If a greater depth of adjustment rings is necessary, a combination of 4 inch and 6 inch riser rings may be used up to a maximum of 12 inches of riser rings. The minimum number of riser rings required to achieve the necessary adjustment shall be used. If precast concrete riser rings are used, the joints between the cone, riser rings, and casting shall be sealed with a double bead of preformed butyl rubber sealant. If recycled rubber riser rings are used, the joints between the cone, rubber riser rings, and casting shall be sealed with the manufacturer-supplied sealant.

C. Brick and mortar adjustments will not be allowed.

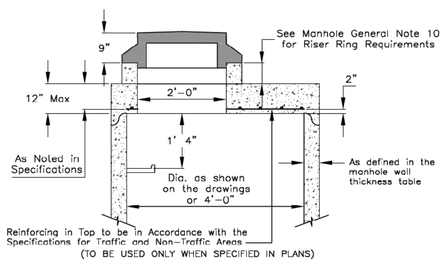


Notes:

1. First joint of RCP or VCP pipe shall be embedded in concrete to within 6" of the first joint.
2. If flexible or semi-flexible pipe is used, flexible wall connector must be used.
3. If a flexible wall connection is used in conjunction with PVC or Ductile Iron pipe, a standard flexible embedment shall be used.
4. Flexible wall connections shall be press A-LOK X-CEL, Z-LOK, Press-Seal (PSX Boot-Type Gasket) or approved equal.

MANHOLE BASE SECTION

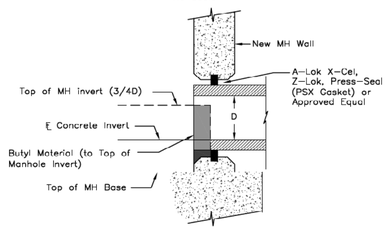
No Scale



(TO BE USED ONLY WHEN SPECIFIED IN PLANS)

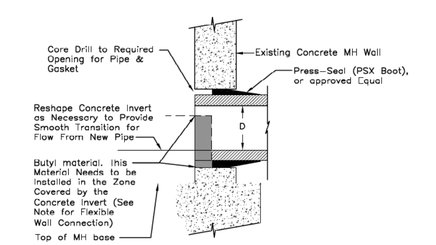
STANDARD PRECAST MANHOLE (SHALLOW TYPE)

No Scale



FLEXIBLE WALL CONNECTION DETAIL

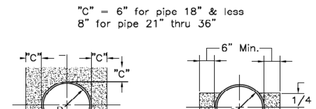
No Scale



Note: Connections to Existing Brick or Block Manholes shall be as Directed by JCW.

EXISTING WALL CONNECTION DETAIL

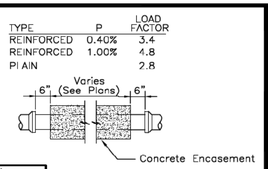
No Scale



Class "A" Embedment Standard Reinforced Concrete (Encasement)

Class "A" Embedment Standard Reinforced Concrete (Cradle Encasement)

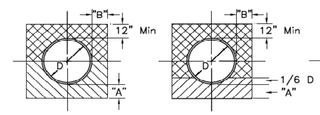
TYPE	P	LOAD FACTOR
REINFORCED	0.40%	3.4
REINFORCED	1.00%	4.8
PLAIN		2.8



The Engineer's seal on this drawing applies only for the reinforcing steel design on the Standard Reinforced Concrete Encasement.

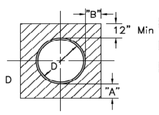
NOTE: Contractor shall provide documentation supporting the selected strength class of the pipe based on earth loadings and the chosen pipe bedding.

Table of Bedding Depths and Side Clearances				
	Flexible		Rigid	
D	A	B	A	B
4"-27"	6"	9"	9"	16"
> 27"	6"	9"	9"	18"



Class "B" Embedment (Pipe: RCP Optional)

Class "C" Embedment (Rigid Pipe)



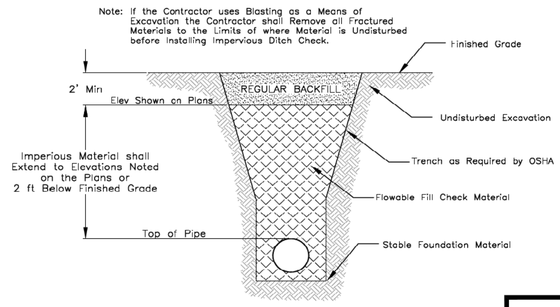
Flexible Pipe Embedment (Pipe: PVC, DIP, Fiberglass, HDPE)

Hand Placed & Hand Tamped Select Earth Backfill
Granular Embedment
Concrete

D Nominal Pipe Size
A Fill Below Pipe (See Table)
B Side Clearances (See Table)
P Area Transverse Steel Expressed as A% of Area of Concrete at Crown

STANDARD EMBEDMENTS

No Scale

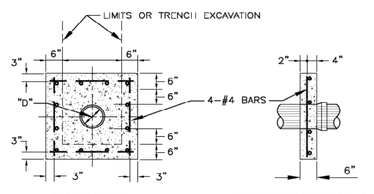


Notes:

1. Impervious ditch checks shall be placed where shown on the plans. Length shall be a minimum of 5 L.F.. Flowable fill shall be used and consist of a Portland cement grout having a minimum 28 day comprehensive strength of five hundred pounds per square inch (500 psi).
2. Regular backfill (above ditch check) shall be Top Soil.
3. Top of impervious material shall be a minimum of 2'-0" below finished grade.

IMPERVIOUS DITCH CHECK DETAIL

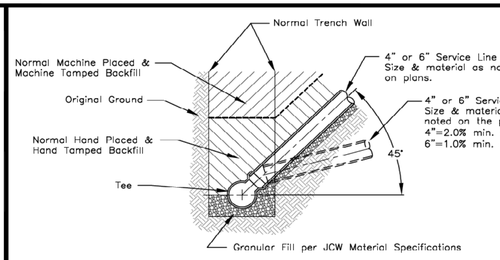
No Scale



NOTE: See Section 2536 for Concrete Anchor Placement Spacing Requirements.

CONCRETE ANCHOR DETAIL

No Scale

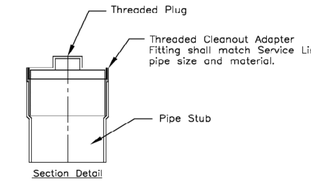


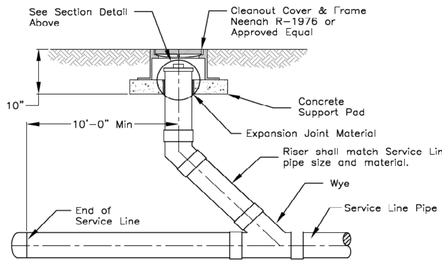
TEE ORIENTATION AND RISER DETAIL

No Scale

Note:

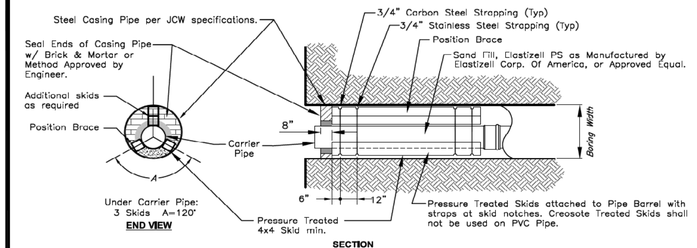
1. Concrete anchors will be required where the service line is installed at a grade of 30° or greater. See Section 2536 of the Specifications and detail on this sheet.
2. No service line shall be installed with a grade greater than 45°.





CLEANOUT DETAIL

No Scale



Note: In lieu of wood skids with brick and mortar end seals, the Contractor may install casing spacers and fabricated end seals per Section 2445 of the Standard Specifications. A minimum of three (3) spacers shall be installed on each pipe segment. Casing Spacers shall be approved by the Engineer then JCW Prior to Installation.

GRAVITY SEWER CASING PIPE AND END SEAL DETAIL

No Scale

SANITARY SEWER STANDARD DETAILS

JOHNSON COUNTY KANSAS
Wastewater
11811 S. Sunset Drive, Suite 2500
Olathe, Kansas 66061
Phone (913) 715-8500 | Fax (913) 715-8501
www.jocogov.org | @jocogov | F/jocogov

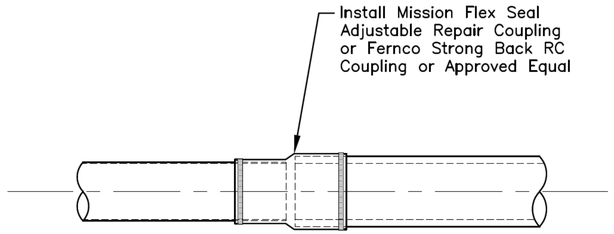
Drawing No.: JCW-00

Chief Engineer: Aaron A. Witt, P.E.

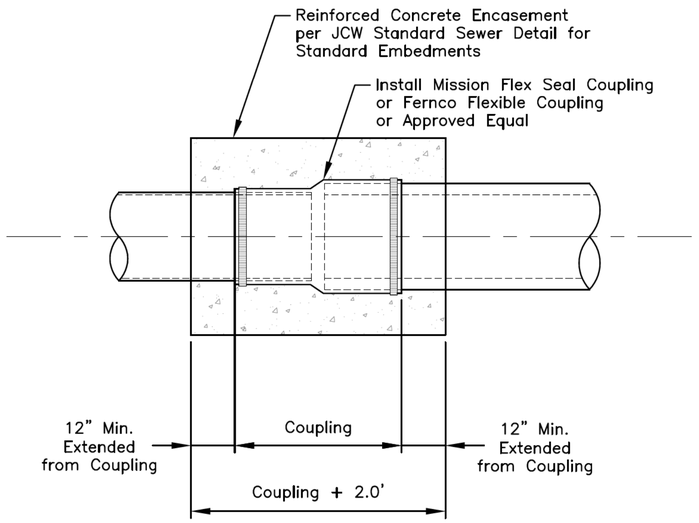
Scale: N.T.S.

Date: 03/07/2019

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	35-46 N-0687-01	2020	375	699



PIPE DIAMETERS 27" AND SMALLER

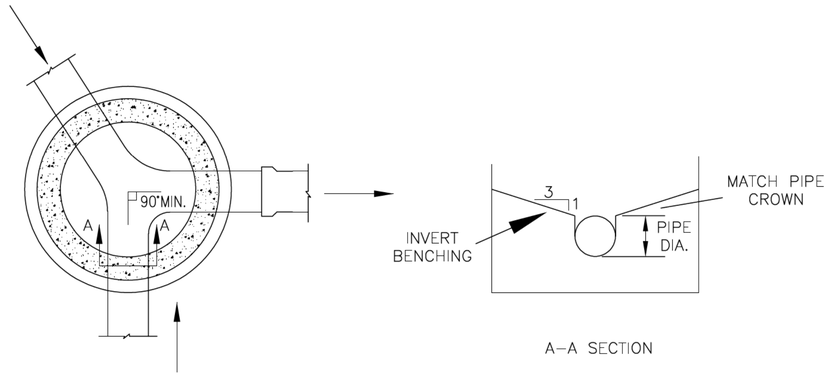


PIPE DIAMETERS 30" AND LARGER

TRANSITION COUPLING DETAIL

JOHNSON COUNTY KANSAS
Wastewater
11811 S. Sunset Drive, Suite 2500
Olathe, Kansas 66061
Phone (913) 715-8500 | Fax (913) 715-8501
www.jocogov.org | @jocogov | F/jocogov

Drawing No.: JCW-13
Chief Engineer: Aaron A. Witt, P.E.
Scale: N.T.S.
Date: 03/07/2019



SPECIAL PLAN
SECTION

Manhole

BENCHED INVERT DETAIL

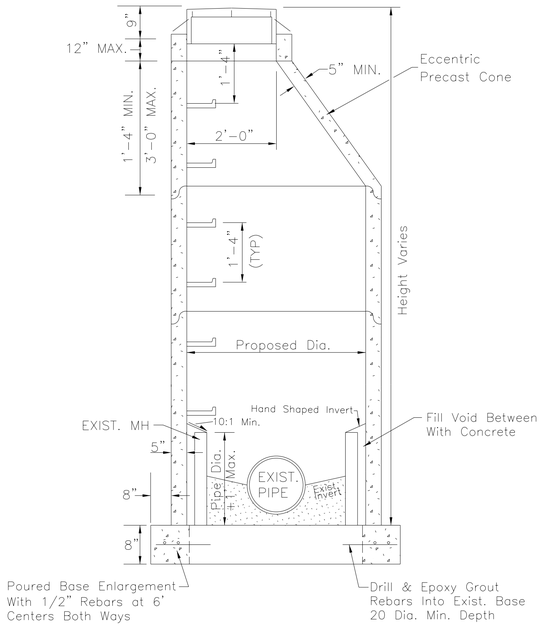
JOHNSON COUNTY KANSAS
Wastewater
11811 S. Sunset Drive, Suite 2500
Olathe, Kansas 66061
Phone (913) 715-8500 | Fax (913) 715-8501
www.jocogov.org | @jocogov | F/jocogov

Drawing No.: JCW-22
Chief Engineer: Aaron A. Witt, P.E.
Scale: N.T.S.
Date: 03/07/2019

KANSAS DEPARTMENT OF TRANSPORTATION

JCW
SANITARY SEWER DETAILS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	35-46 N-0687-01	2020	376	699



EXIST. MANHOLE RECONSTRUCTION (ECCENTRIC CONE)

MCRI (044) (009)
N.T.S.

JCW SANITARY SEWER QUANTITIES

MANHOLE NUMBER	MANHOLE INFORMATION		ADJUSTMENT OF MANHOLE	SANITARY SEWER 8" (PVC)	CONCRETE ENCASEMENT
	4' DIA.	8' DIA.	EA.	(LF)	(LF)
MCRI(44)010			1		
A-01	1				
A-02	1			284	32
A-03		1		177	
B-01	1			47	37
-				18	
Total	3	1	1	526	69

KANSAS DEPARTMENT OF TRANSPORTATION

SANITARY SEWER RELOCATION
SUMMARY AND
SPECIAL DETAILS

EXHIBIT B (COST ESTIMATE)

Vendor **Miles Excavating Inc.**

Item Code	Item Name	Item Description	Qty	Unit	Unit Price	Total Price
221	4' Dia. Sanitary Manhole	Johnson County Wastewater	3	each	$4,967.07	$14,901.21
222	8' Dia. Sanitary Manhole	Johnson County Wastewater	1	each	$15,502.27	$15,502.27
223	Sanitary Sewer (Adjustment of Manhole)	Johnson County Wastewater	1	each	$5,690.10	$5,690.10
224	Sanitary Sewer (8") (PVC)	Johnson County Wastewater	526	Lin. Ft.	$48.11	$25,305.86
225	Install Concrete Encasement	Johnson County Wastewater	69	Lin. Ft.	$93.42	$6,445.98
						$67,845.42
	Project redesign	Johnson County Wastewater	1	each	$3,512.10	$3,512.10
					Total =	$71,357.52