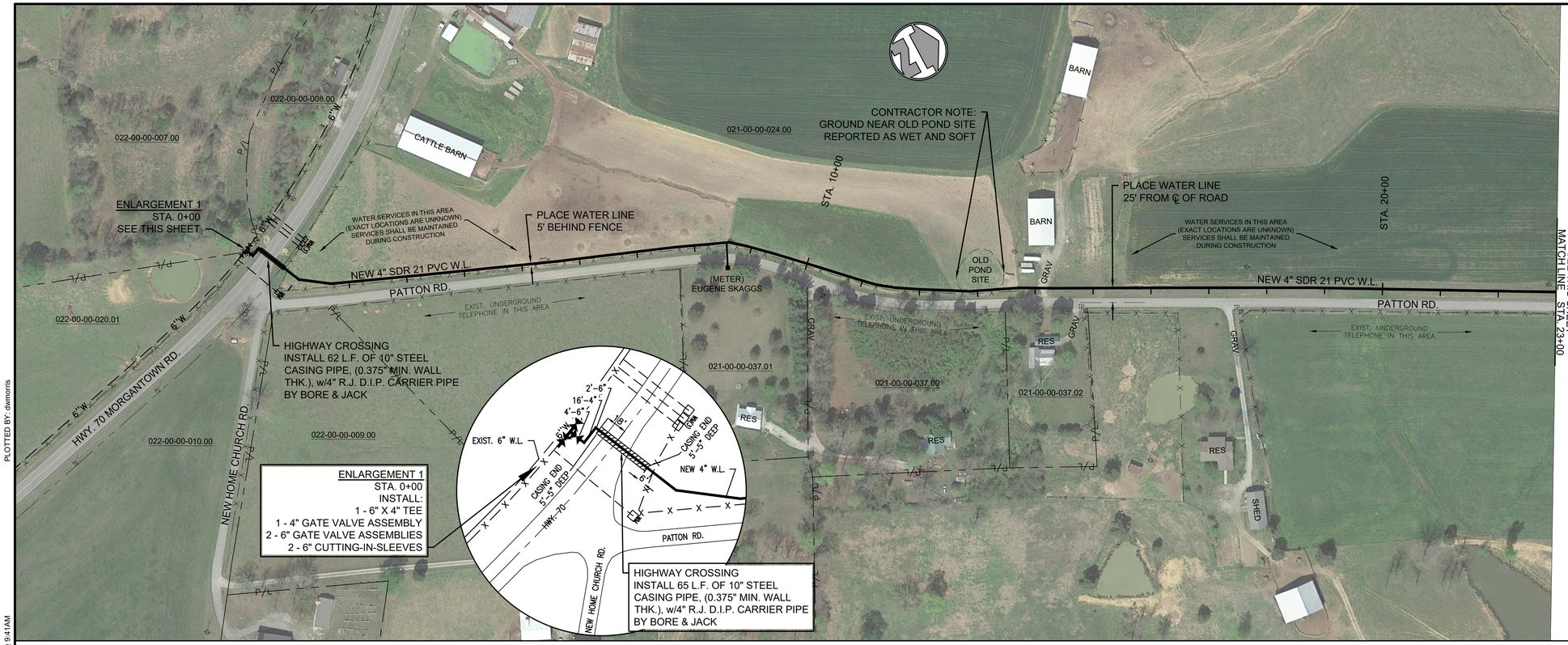
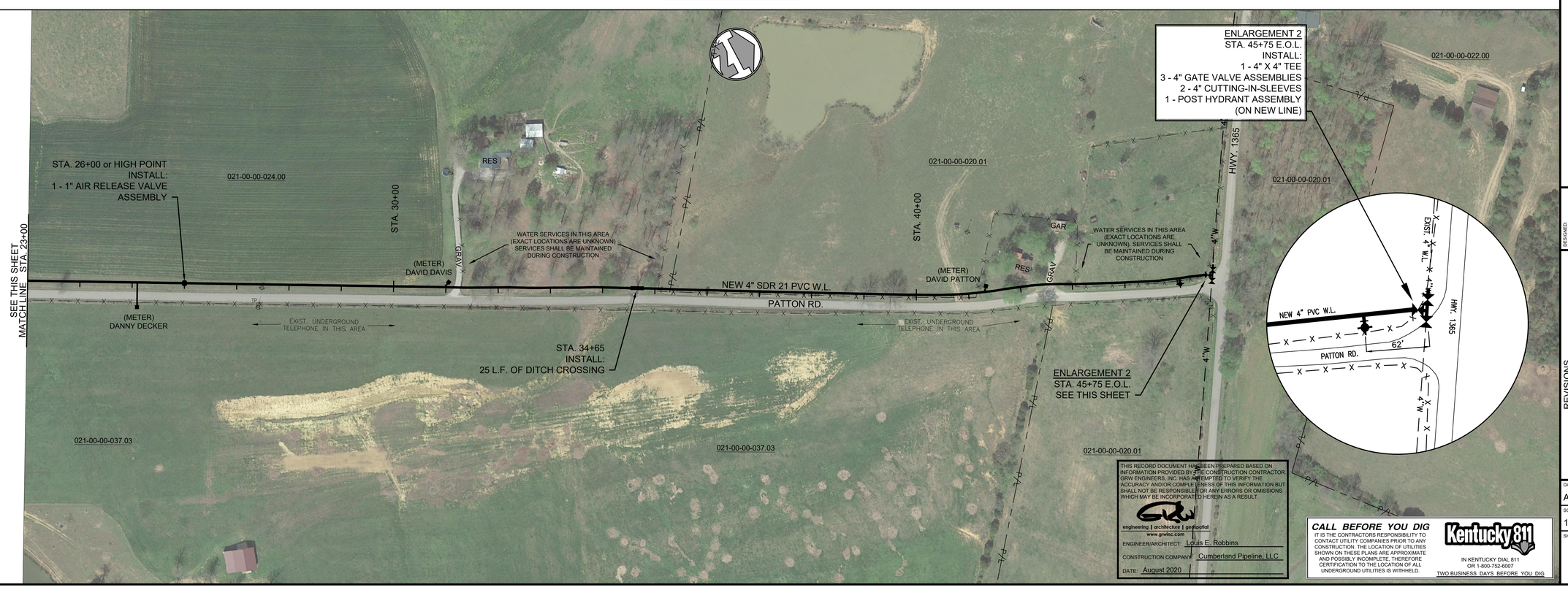


GRAPHIC SCALE: 1 inch = 100 feet
0 50 100 200



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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

CALL BEFORE YOU DIG

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IN KENTUCKY DIAL 811
OR 1-800-752-6007
TWO BUSINESS DAYS BEFORE YOU DIG

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CONTRACT DOCUMENTS

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PATTON RD.
STA. 0+00 TO STA. 45+75 E.O.L.
2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED:	LER
DRAWN:	DM
REVIEWED:	LER
APPROVED:	LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: 1" = 100'

SHEET NO. C-08

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:41AM

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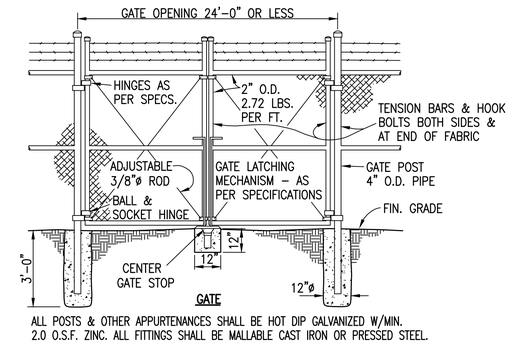
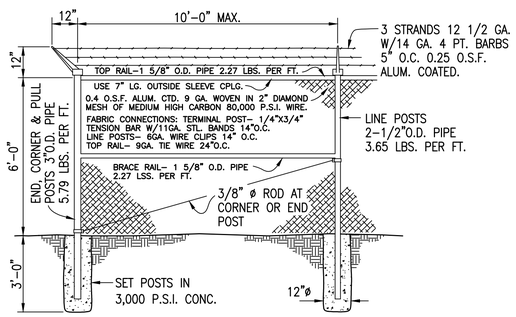
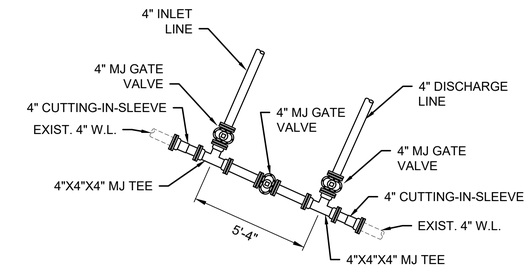


ALL POSTS & OTHER APPURTENANCES SHALL BE HOT DIP GALVANIZED W/MIN. 2.0 O.S.F. ZINC. ALL FITTINGS SHALL BE MALLABLE CAST IRON OR PRESSED STEEL.



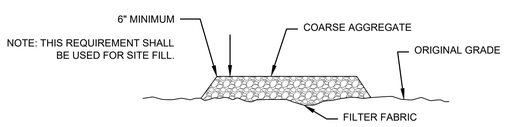
CHAIN-LINK FENCE DETAIL

NOT TO SCALE

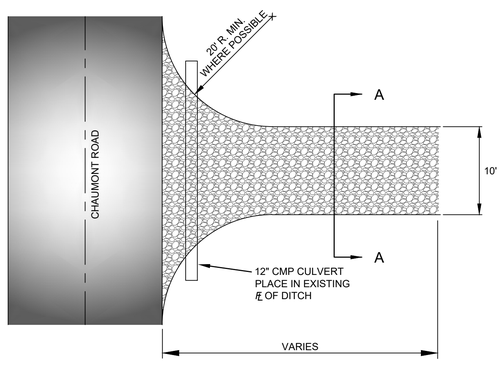


CONNECTION DETAIL

NOT TO SCALE

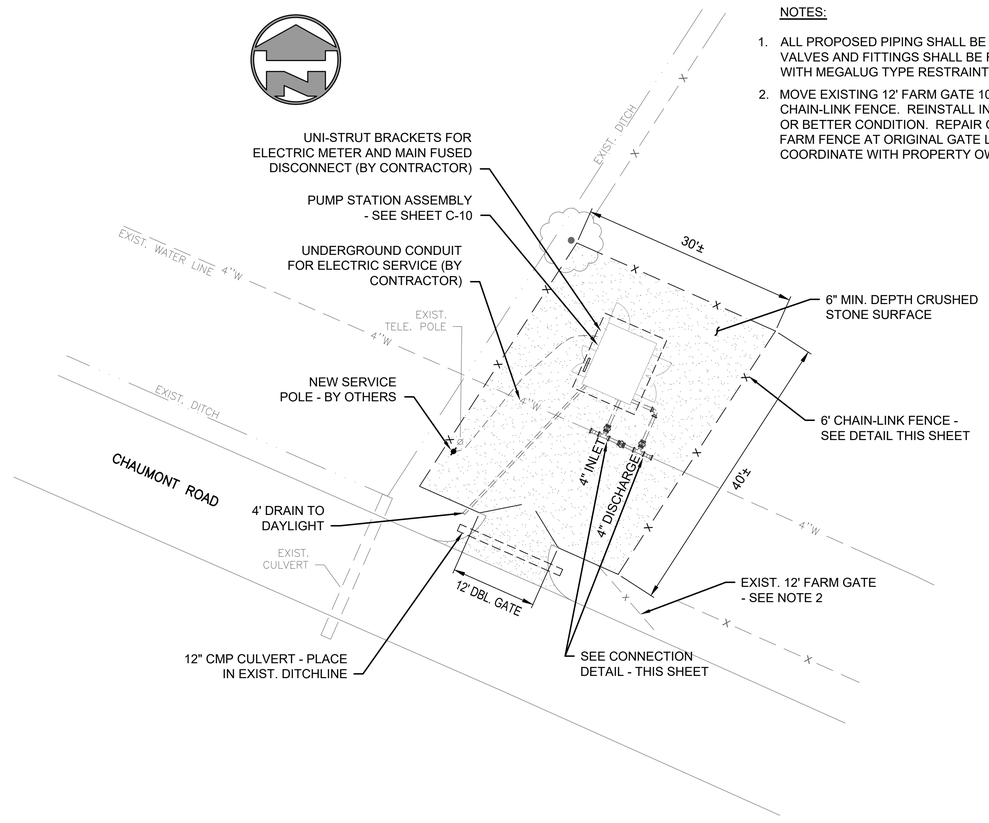


SECTION A-A



PUMP STATION ACCESS ENTRANCE PLAN VIEW

NOT TO SCALE



NOTES:

1. ALL PROPOSED PIPING SHALL BE RJ DIP. ALL VALVES AND FITTINGS SHALL BE RESTRAINED WITH MEGALUG TYPE RESTRAINTS.
2. MOVE EXISTING 12' FARM GATE 10' FROM NEW CHAIN-LINK FENCE. REINSTALL IN AN AS GOOD OR BETTER CONDITION. REPAIR OPENING IN FARM FENCE AT ORIGINAL GATE LOCATION. COORDINATE WITH PROPERTY OWNER.

CEDAR HILL BOOSTER PUMP STATION SITE PLAN

SCALE: 1"=10'-0"

0 10' 20'

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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CEDAR HILL BOOSTER PUMP STATION SITE PLAN & DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED:	LER
DRAWN:	DM
REVIEWED:	LER
APPROVED:	LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: AS NOTED

SHEET NO. C-09

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:41AM

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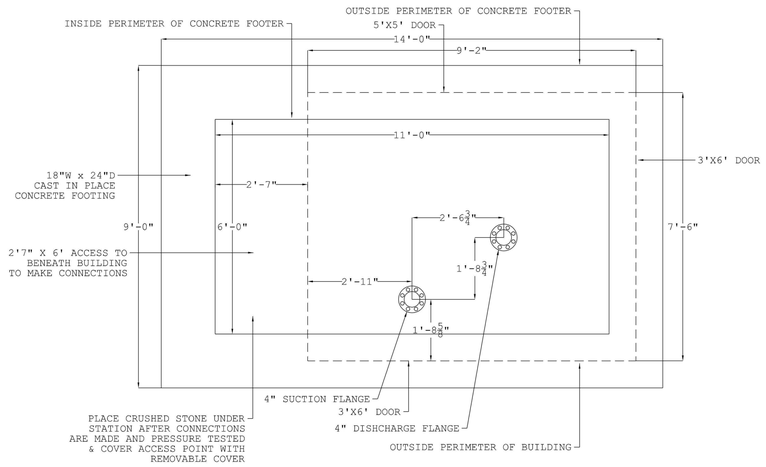
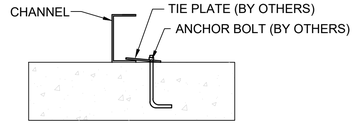


PUMP STATION FOUNDATION PLAN (AS CONSTRUCTED)

NOT TO SCALE



ANCHOR SYSTEM

FOUNDATION DETAILS

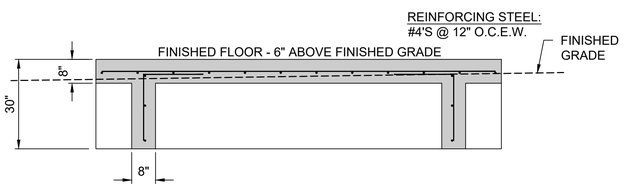
SCALE: 1/2"=1'-0"

NOTES:

1. 2 - 12" SQ. OPENINGS IN CONCRETE SLAB CENTERED ON SUCTION AND DISCHARGE THROUGH-SLAB LINES. SEE SHOP DRAWINGS TO CONFIRM LINE LOCATIONS BEFORE CONSTRUCTION. SEAL OPENINGS WITH GROUT AFTER CONSTRUCTION.
2. VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION

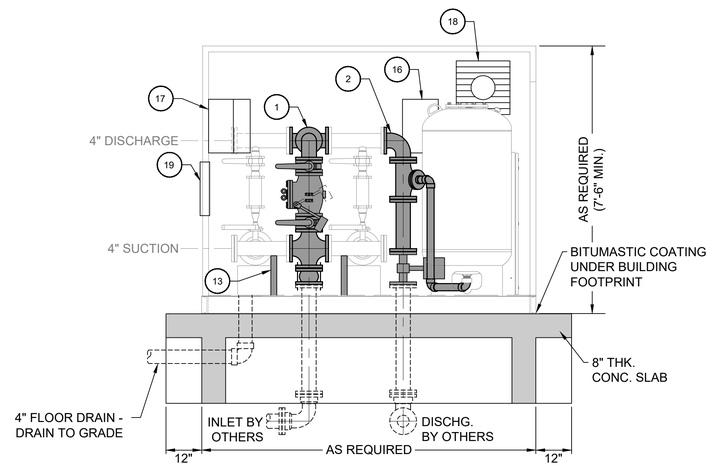
KEYNOTES

1. SUCTION LINE BYPASS ASSEMBLY
2. DISCHARGE LINE ASSEMBLY
3. 4" WAFER BUTTERFLY VALVE
4. 4" SWING CHECK VALVE
5. 4" FLANGED FLEXIBLE COUPLING w/RESTRAINING RODS
6. 4" X 4" CROSS FITTING
7. 4" 90° ELBOW
8. 4" SPOOL PIECE (FIELD VERIFY LENGTH)
9. 4" X 4" X4" TEE
10. 2" PVC PIPING (ROUTE AS NECESSARY)
11. 4" MAGMETER
12. 2" VALVE
13. PIPE SUPPORTS AS REQUIRED TYP.)
14. PUMP
15. NEOPRENE FLOOR MATS
16. DEHUMIDIFIER
17. HEATER
18. LOUVERED VENT FAN
19. 18" X 18" LOUVERED VENT



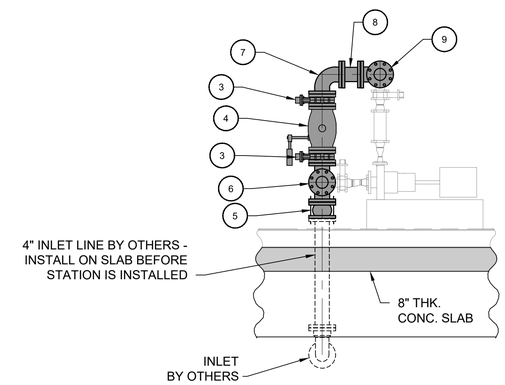
4 SECTION

SCALE: 1/2"=1'-0"



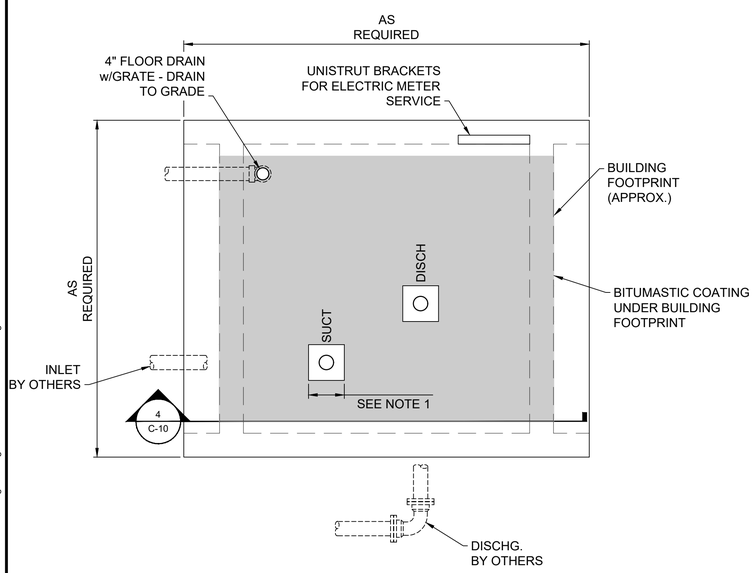
1 SECTION (FRONT VIEW)

SCALE: 1/2"=1'-0"



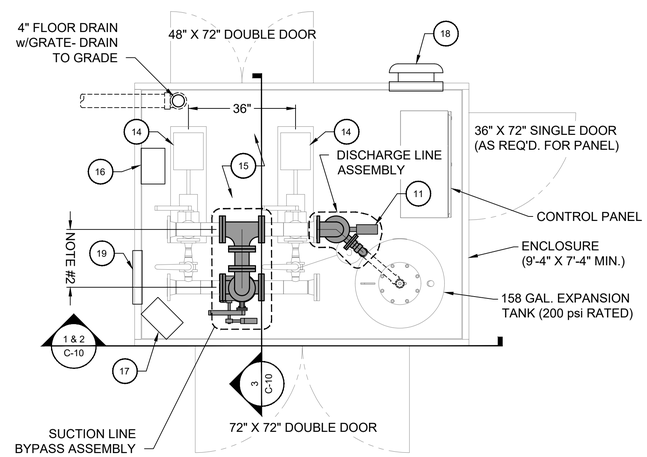
3 SUCTION BYPASS ASSEMBLY DETAIL (SIDE VIEW)

SCALE: 1/2"=1'-0"



PUMP STATION FOUNDATION - PLAN

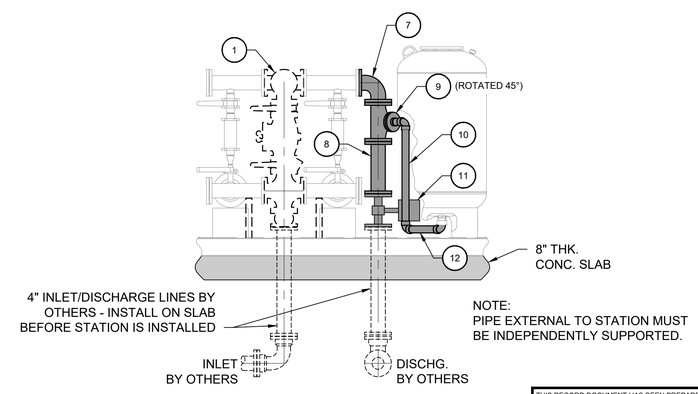
SCALE: 1/2"=1'-0"



CEDAR HILL BOOSTER PUMP STATION - PLAN

SCALE: 1/2"=1'-0"

PLAN NORTH



NOTE:
PIPE EXTERNAL TO STATION MUST BE INDEPENDENTLY SUPPORTED.

2 DISCHARGE ASSEMBLY DETAIL (FRONT VIEW)

SCALE: 1/2"=1'-0"

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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CEDAR HILL BOOSTER PUMP STATION PLAN, SECTIONS & DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED:	DRAWN:	REVIEWED:	APPROVED:
LER	DM	LER	LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED
SCALE CHECK

DATE: APRIL 2019

SCALE: AS NOTED

SHEET NO. C-10

PLOTTED BY: dwmorris

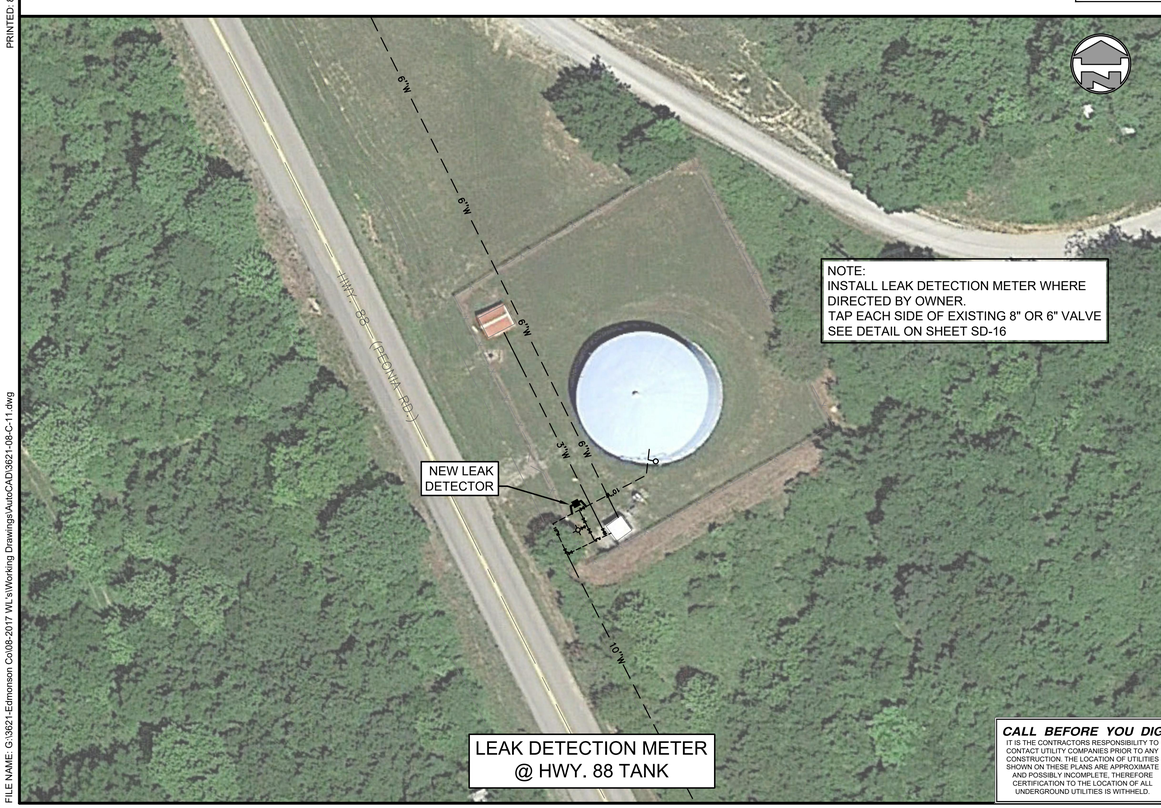
PRINTED: 9/16/2020 @ 1:30PM

FILE NAME: G:\3821-Edmonson Co\08-2017 WL's\Working Drawings\AutoCAD\3821-08-C-10.dwg

LEAK DETECTION METER @ LINDSEYVILLE TANK

LEAK DETECTION METER @ CUB RUN TANK

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60



LEAK DETECTION METER @ HWY. 88 TANK

LEAK DETECTION METER @ KESSINGER TANK

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ENGINEER/ARCHITECT: Louis E. Robbins
CONSTRUCTION COMPANY: Cumberland Pipeline, LLC
DATE: August 2020

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LEAK DETECTOR METERS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED
SCALE CHECK:

DATE: APRIL 2019
SCALE: 1" = 30'
SHEET NO. C-11

PLOTTED BY: dwmorris
PRINTED: 8/27/2020 @ 9:42AM
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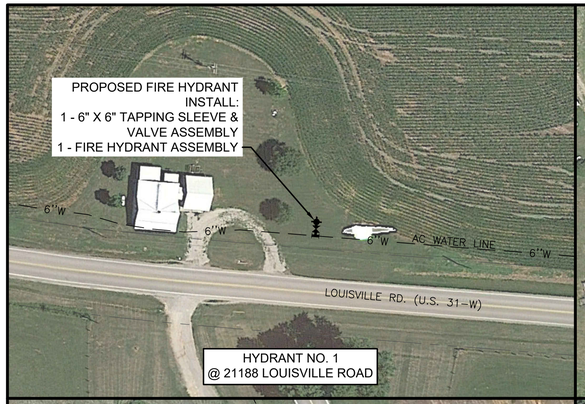
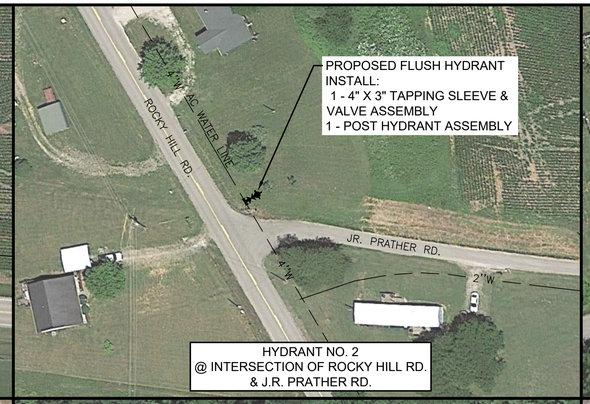


HYDRANT NO. 1
@ 21188 LOUISVILLE ROAD



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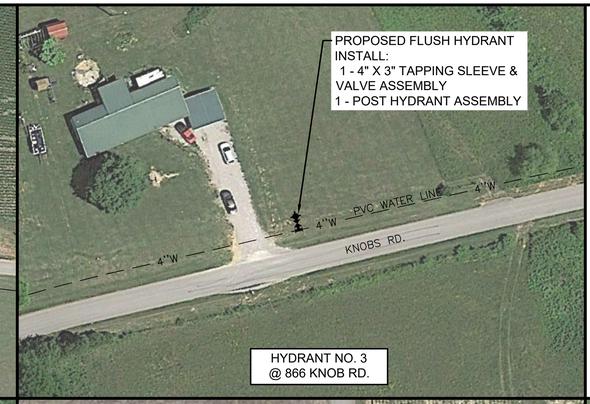
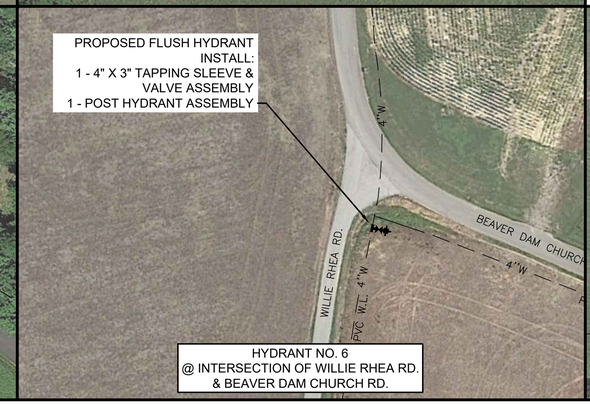
& J.R. PRATHER RD.



HYDRANT NO. 3
@ 866 KNOB RD.

HYDRANT NO. 4
@ 2306 MAMMOTH CAVE RD.

HYDRANT NO. 5
@ 1341 DENHAM RD.



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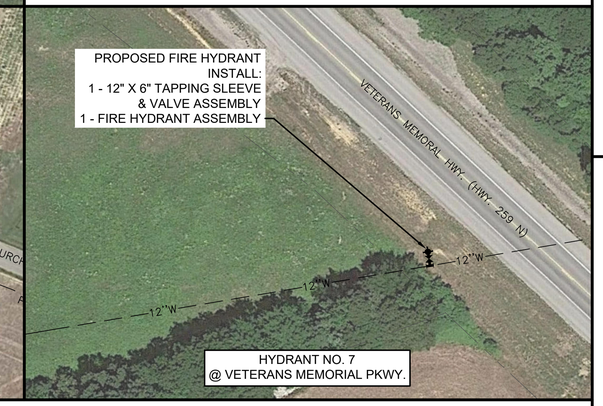
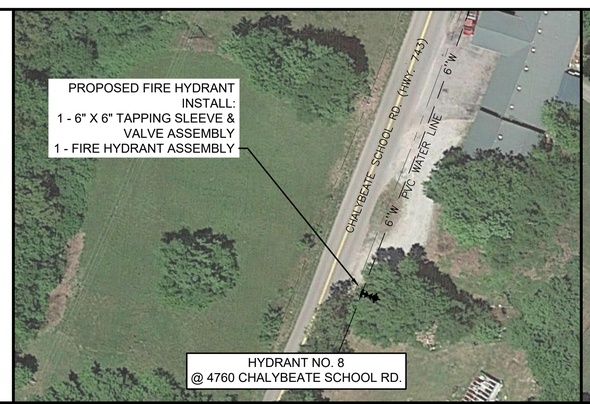
& BEAVER DAM CHURCH RD.



HYDRANT NO. 7
@ VETERANS MEMORIAL PKWY.

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60

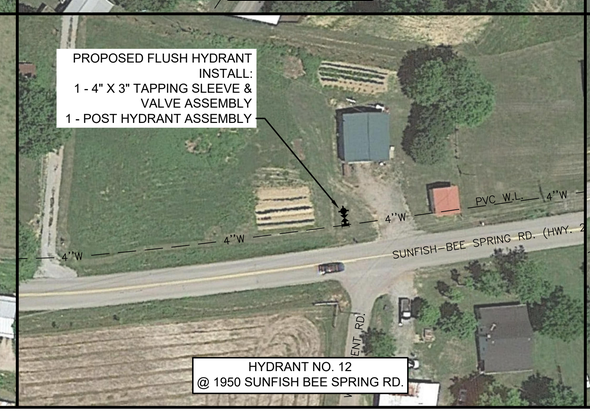


HYDRANT NO. 8
@ 4760 CHALYBEATE SCHOOL RD.

HYDRANT NO.9
@ 933 ELLIS COLE RD.

HYDRANT NO. 10
@ 568 LITTLE HENRY MEREDITH RD.

HYDRANT NO. 11
@ 2450 MOUNT ZION RD.



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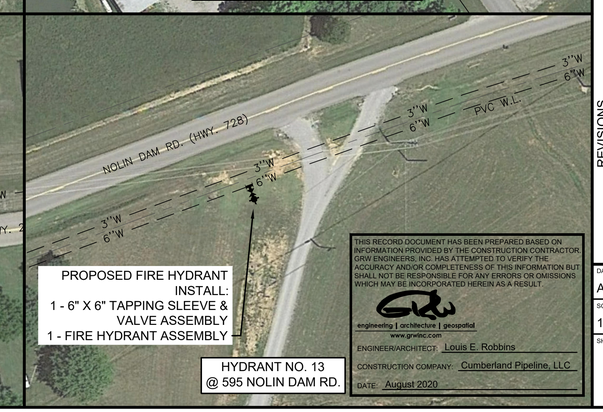
@ 1950 SUNFISH BEE SPRING RD.



HYDRANT NO. 13
@ 595 NOLIN DAM RD.

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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HYDRANT LOCATIONS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: 1" = 50'

SHEET NO. C-12

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:42AM

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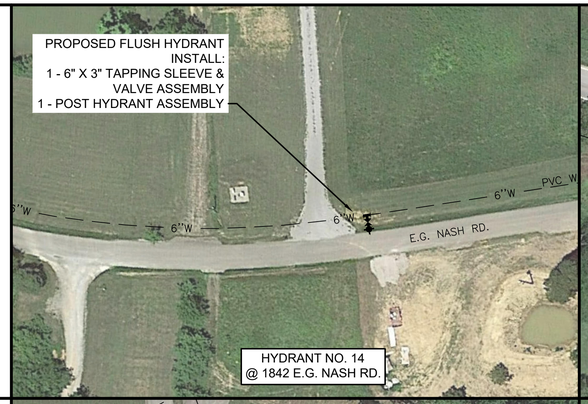

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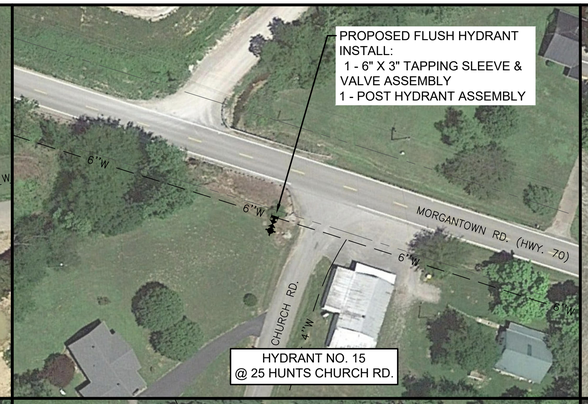

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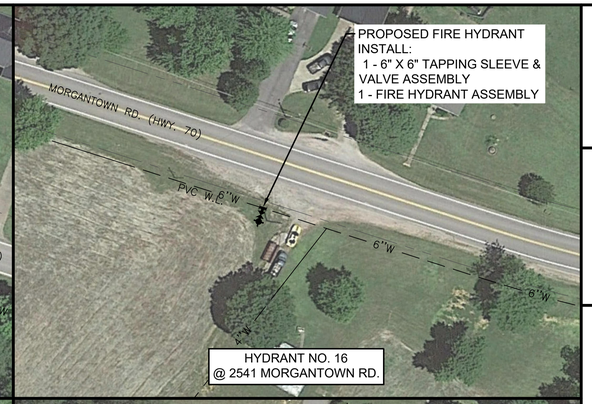
@ 25 HUNTS CHURCH RD.



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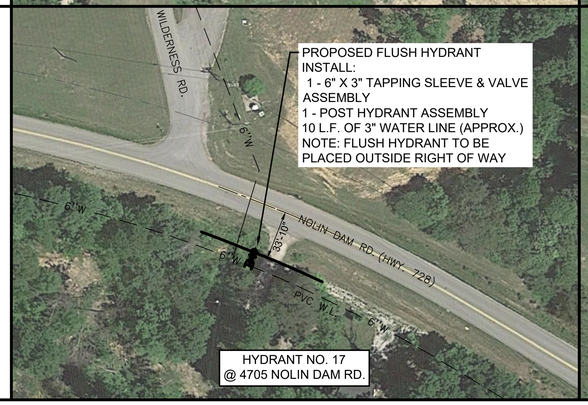
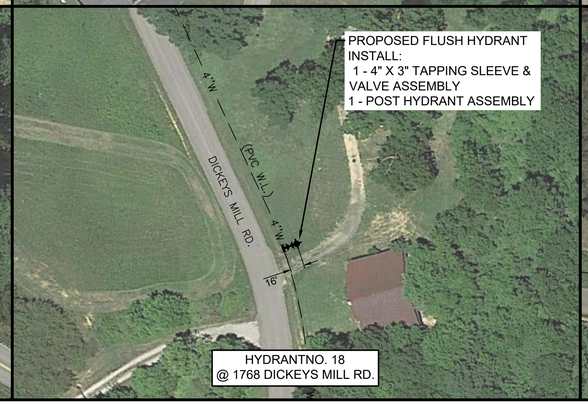
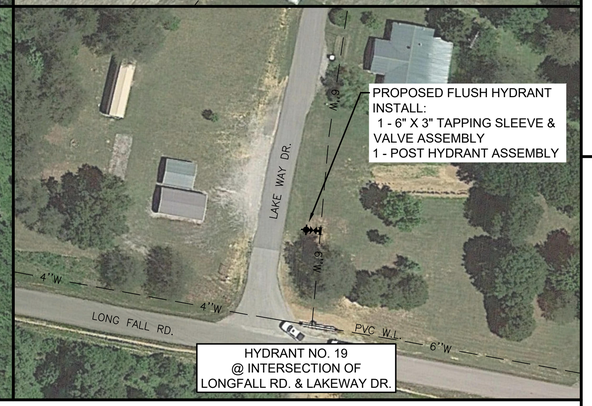
@ 2541 MORGANTOWN RD.



HYDRANT NO. 17
@ 4705 NOLIN DAM RD.

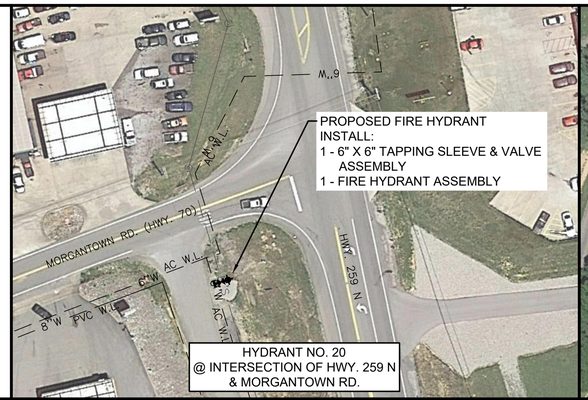


HYDRANTNO. 18
@ 1768 DICKEYS MILL RD.

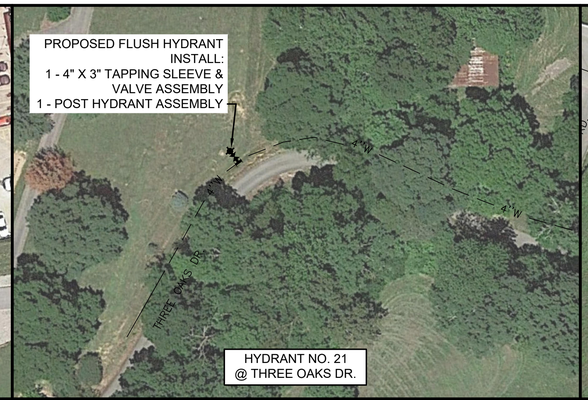


HYDRANT NO. 19
@ INTERSECTION OF
LONGFALL RD. & LAKEWAY DR.

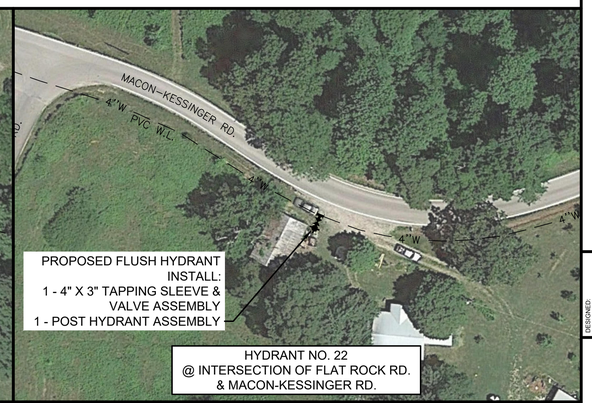
GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60



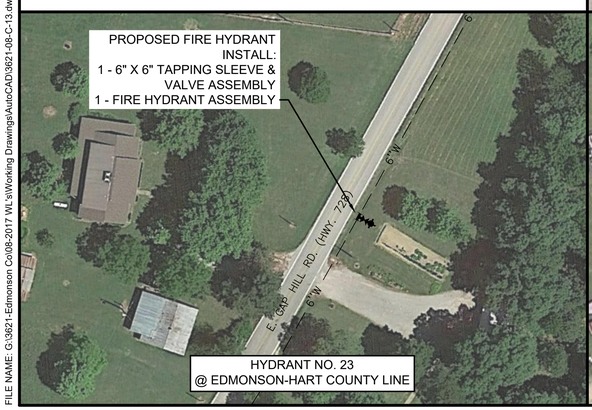
HYDRANT NO. 20
@ INTERSECTION OF HWY. 259 N
& MORGANTOWN RD.



HYDRANT NO. 21
@ THREE OAKS DR.

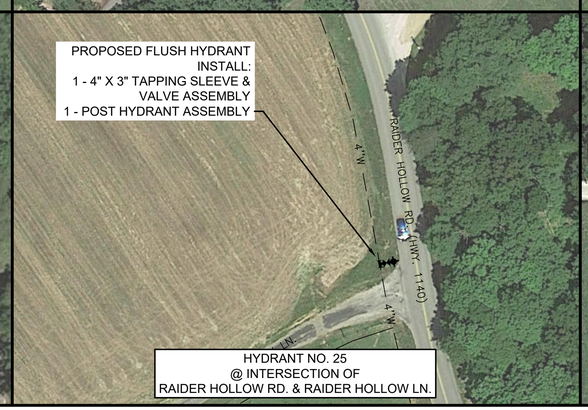


HYDRANT NO. 22
@ INTERSECTION OF FLAT ROCK RD.
& MACON-KESSINGER RD.

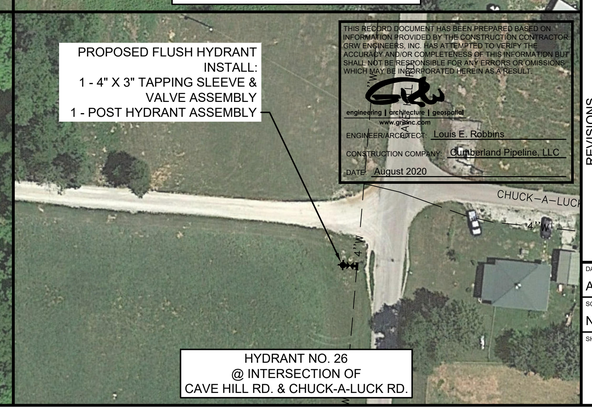


HYDRANT NO. 23
@ EDMONSON-HART COUNTY LINE

HYDRANT NO. 24
@ 17503 CUB RUN HWY.



HYDRANT NO. 25
@ INTERSECTION OF
RAIDER HOLLOW RD. & RAIDER HOLLOW LN.



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ENGINEER/ARCHITECT: Louis E. Robbins
CONSTRUCTION COMPANY: Cumberland Pipeline, LLC
DATE: August 2020

HYDRANT NO. 26
@ INTERSECTION OF
CAVE HILL RD. & CHUCK-A-LUCK RD.

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GRW PROJECT NO. 3821-08

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CONTRACT DOCUMENTS

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HYDRANT LOCATIONS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

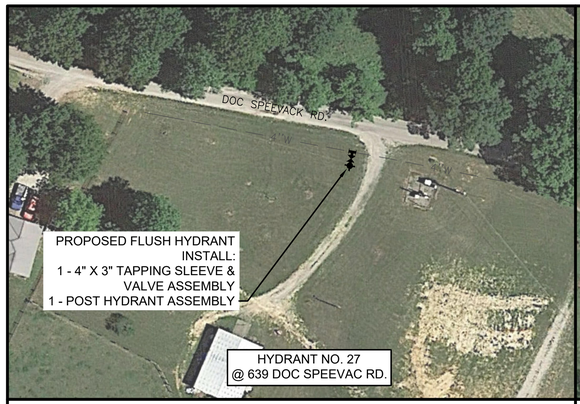
REVISIONS

NO.	DESCRIPTION	DATE	BY

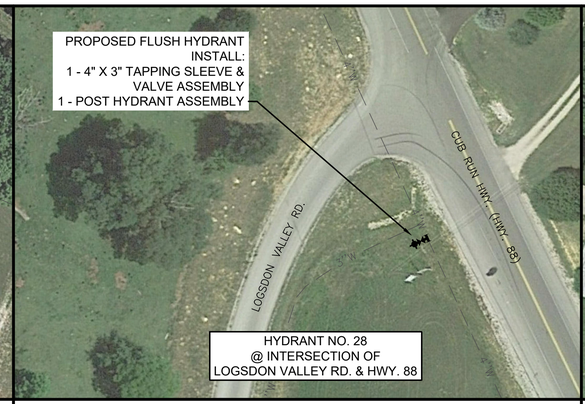
SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019
SCALE: NOT TO SCALE
SHEET NO. C-13

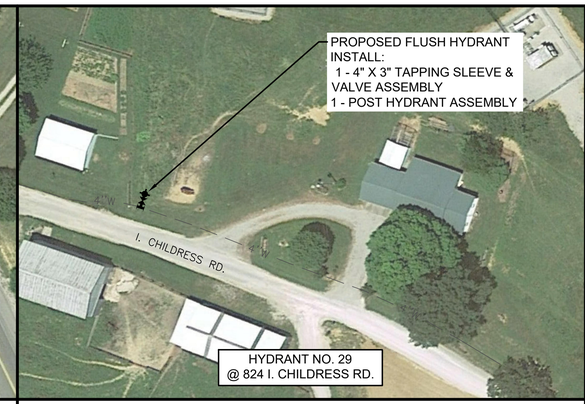
PLOTTED BY: dwmorris
PRINTED: 8/27/2020 @ 9:43AM
FILE NAME: G:\3821-Edmonson Co\09-2017 WLs\Working Drawings\AutoCAD\3821-08-C-13.dwg



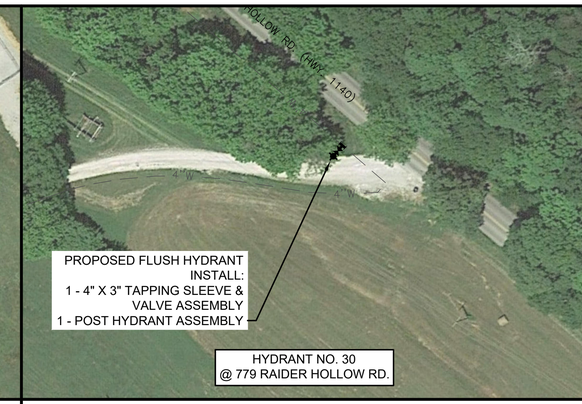
HYDRANT NO. 27
@ 639 DOC SPEEVAC RD.



HYDRANT NO. 28
@ INTERSECTION OF
LOGSDON VALLEY RD. & HWY. 88



HYDRANT NO. 29
@ 824 I. CHILDRESS RD.



HYDRANT NO. 30
@ 779 RAIDER HOLLOW RD.

GRAPHIC SCALE: 1 inch = 30 feet
0 15 30 60

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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HYDRANT LOCATIONS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: 1" = 50'

SHEET NO. C-14

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:43AM

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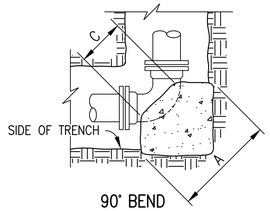
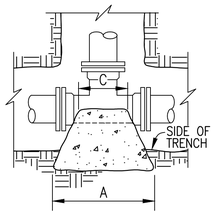


90° BEND



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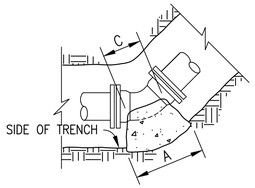
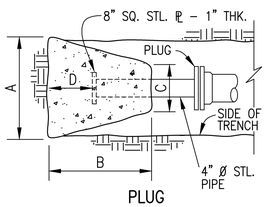


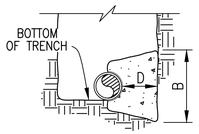
45° – 22 1/2° – 11 1/4° BEND

NOTES:

1. THRUST BLOCKS DESIGNED FOR 200 PSI PRESSURE AND 2000 PSF SOIL BEARING. FOR GREATER PRESSURE OR LESS SOIL BEARING, QUANTITIES WILL HAVE TO BE RECALCULATED.
2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
4. THRUST BLOCKING TO BE POURED IN PLACE CLASS C CONC.



PLUG



TYPICAL SECTION

90° BEND						
SIZE	16"	12"	10"	8"	6"	4"	2"
A	84	60	51	42	32	24	18
B	72	60	51	42	32	24	18
C	30	18	16	12	12	9	9
D	34	30	24	17	13	9	9

45° BEND						
SIZE	16"	12"	10"	8"	6"	4"	2"
A	58	43	38	32	24	18	12
B	58	43	38	32	24	18	12
C	24	16	14	12	12	8	8
D	24	18	15	12	9	6	6

22 1/2° BEND						
SIZE	16"	12"	10"	8"	6"	4"	2"
A	42	32	27	24	18	12	9
B	42	32	27	24	18	12	9
C	18	16	14	12	10	8	8
D	18	13	11	9	6	4	4

11 1/4° BEND						
SIZE	16"	12"	10"	8"	6"	4"	2"
A	30	24	21	17	12	9	9
B	30	24	21	17	12	9	9
C	18	16	14	12	10	8	8
D	12	9	8	6	5	4	4

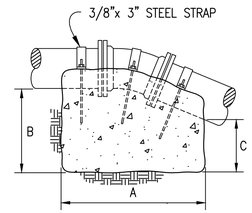
PLUG						
SIZE	16"	12"	10"	8"	6"	4"	2"
A	66	52	43	34	27	20	18
B	66	52	43	34	27	20	18
C	12	12	12	12	12	12	12
D	44	32	22	15	11	11	11

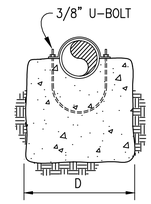
TEE							
SIZE	MAIN	16"	12"	12"	12"	8"-10"	8"-12"	2"-6"
	BRANCH	16"	12"	8"-10"	2"-8"	8"-10"	2"-6"	2"-6"
A		66	52	43	34	43	26	26
B		66	52	43	34	43	26	26
C		30	12	12	12	12	12	12
D		30	26	21	14	21	13	13

DIMENSIONS ARE IN INCHES

THRUST BLOCKING DETAIL

NOT TO SCALE





90° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	85	67	60	54	42	34	30
B	85	67	60	54	42	34	18
C	80	63	56	50	38	30	16
D	76	66	60	48	48	36	24

45° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	72	60	50	46	35	30	24
B	72	60	50	46	35	28	24
C	68	56	46	42	30	24	18
D	72	60	60	48	48	36	24

22 1/2° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	58	50	42	38	30	24	18
B	58	48	42	38	30	24	18
C	54	44	38	34	26	20	14
D	60	48	48	36	36	30	24

11 1/4° BEND							
SIZE	16"	12"	10"	8"	6"	4"	2"
A	42	36	30	29	24	20	18
B	42	36	30	29	24	20	18
C	38	32	26	24	20	16	14
D	60	48	48	36	30	24	24

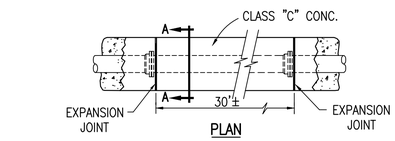
DIMENSIONS ARE IN INCHES

NOTES:

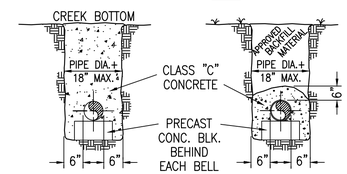
1. THRUST BLOCKS DESIGNED FOR 150 PSI PRESSURE. FOR GREATER PRESSURE QUANITIES WILL HAVE TO BE RECALCULATED.
2. THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
3. IF EXACT SIZE PIPE BLOCKING IS NOT SHOWN, USE NEXT LARGER SIZE.
4. THRUST BLOCKING TO BE POURED IN PLACE – CLASS "C" CONCRETE.

VERTICAL CONCRETE ANCHOR

NOT TO SCALE



PLAN



SECTION A–A

(ENCASEMENT WITH CONCRETE BACKFILL)

SECTION A–A

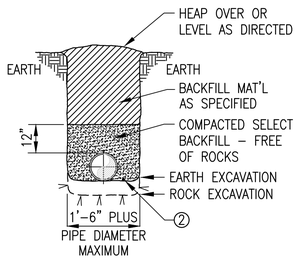
(ENCASEMENT WITH APPROVED BACKFILL)

NOTE:
FOR ENCASEMENT OVER 30' LONG PLACE 3/4" FIBERBOARD EXPANSION JOINT AT PIPE JOINTS BETWEEN POURS APPROX. EVERY 30'

STANDARD CONCRETE ENCASEMENT

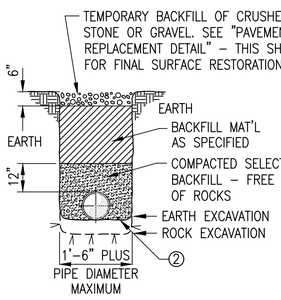
NOT TO SCALE

NOTE:
① SEE SPECIFICATIONS FOR DEPTH REQUIREMENT OF PIPE.
② LOCATOR WIRE, IF REQUIRED. SEE "DETECTABLE WIRE DETAIL" FOR CORRECT PLACEMENT.



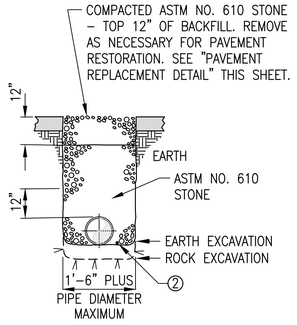
METHOD "A"

(IN OPEN TERRAIN)



METHOD "B"

(UNDER DIRT ENTRANCES)



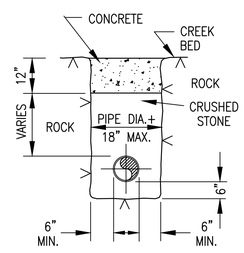
METHOD "C"

(UNDER STREETS, ROADS & DRIVEWAYS)

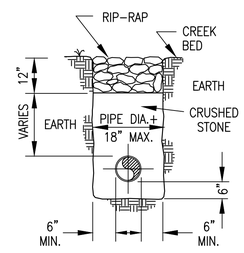
EDMONSON COUNTY WATER DISTRICT

PRESSURE PIPE BEDDING & BACKFILLING DETAILS

NOT TO SCALE



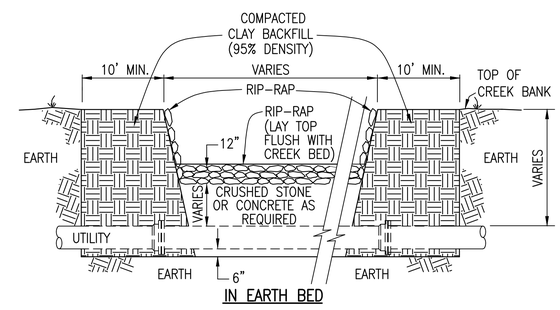
IN ROCK BED



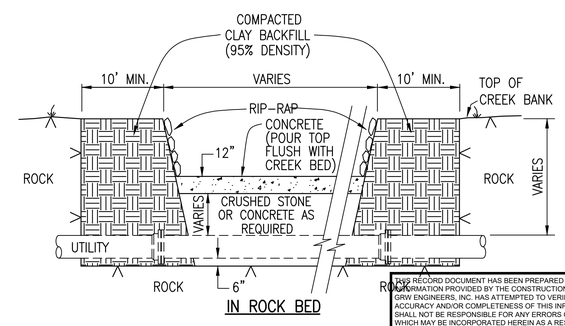
IN EARTH BED

DITCH CROSSING DETAIL

NOT TO SCALE



IN EARTH BED



IN ROCK BED

CREEK CROSSING EMBANKMENT DETAIL

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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WATER LINE STANDARD DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: NONE

SHEET NO. SD-15

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:43AM

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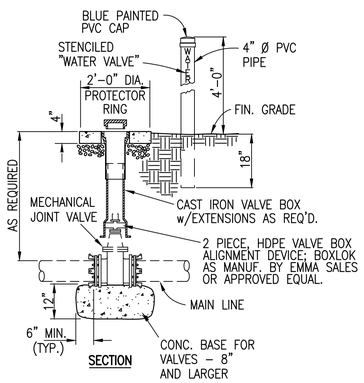

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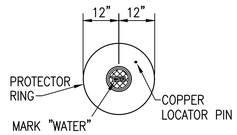


PLAN

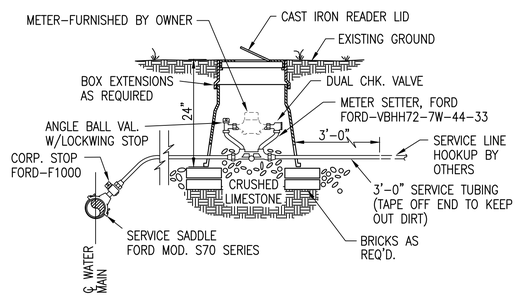
NOTES:
1. USE PRECAST CONC. PROTECTOR RING w/INTEGRAL COPPER LOCATOR PIN, AS MANUF. BY ROSS CONSTRUCTION OR APPROVED EQUAL, FOR VALVES OUTSIDE PAVED AREAS.
2. PLACE GROUT IN SPACE BETWEEN CONCRETE PAD AND VALVE BOX.
3. VALVES IN ROADWAY DO NOT REQUIRE A CONCRETE PAD OR MARKER.
4. VALVES SHALL BE RESTRAINED WITH MEGALUG TYPE RESTRAINT SYSTEM.

EDMONSON COUNTY WATER DISTRICT

VALVE SETTING DETAIL

NOT TO SCALE

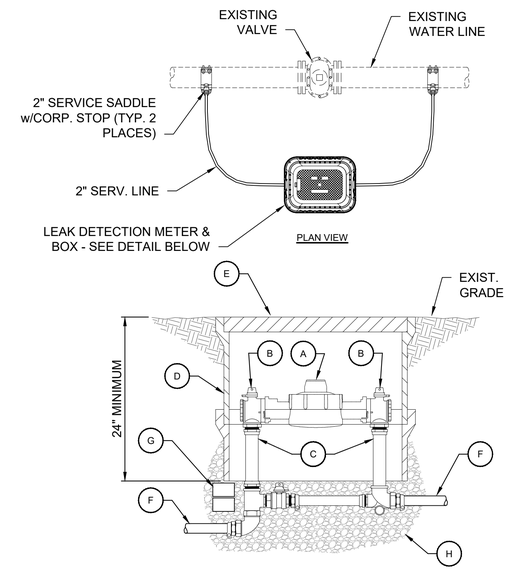
NOTES:
1. STANDARD RECTANGULAR PLASTIC METER BOX – AS MANUF. BY POLY PLASTIC WATER METER BOXES – OR APPROVED EQUAL.
2. METER BOX SHALL BE 24" MINIMUM DEPTH.
3. WHERE PRESSURE REGULATOR IS REQUIRED USE FORD TANDEM SETTER WITH METER BOX SIZED TO FIT. AS MANUF. BY POLY PLASTIC WATER METER BOX CO. – OR APPROVED EQUAL.



EDMONSON CO. WATER DIST.

WATER METER INSTALLATION AND SERVICE LINE CONNECTION

NOT TO SCALE



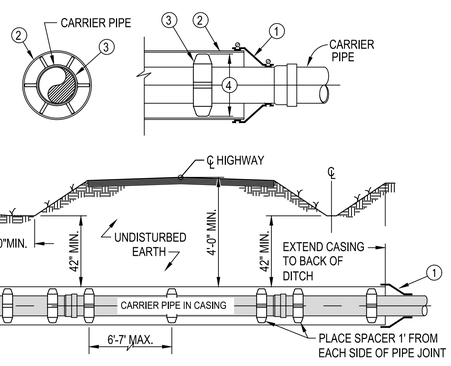
LEAK DETECTION METER ASSEMBLY

A. 2" WATER METER - TO BE FURNISHED BY OWNER.
B. ANGLE BALL VALVE W/LOCKWING STOP.
C. 2" COPPERSETTER - FORD VBB77-15B-44-77-NL
D. 17" X 30" POLY METER BOX - MODEL 1730 AS MANUF. BY CARSON PRODUCTS OR APPROVED EQUAL. USE METER BOX EXTENSIONS AS REQUIRED
E. METER BOX LID w/CAST IRON READER DOOR.
F. 2" COPPER SERVICE LINE. END CONNECTION TO MATCH COPPERSETTER CONNECTION.
G. BRICKS AS REQUIRED TO LEVEL AND SUPPORT BOX.
H. CRUSHED STONE BACKFILL.

EDMONSON CO. WATER DISTRICT

2" LEAK DETECTION METER ASSEMBLY DETAIL

NOT TO SCALE



1. USE WATERTIGHT WRAP AROUND END SEALS WITH STAINLESS STEEL BANDS.
2. SMOOTH WALL STEEL CASING PIPE WITH BITUMINOUS COATING OUTSIDE.
3. CASING SPACERS SHALL BE INSTALLED IN A CENTERED/RESTRAINED CONFIGURATION. CASING SPACER MODELS AS PER SPECIFICATIONS.
4. SPACER RISERS/RUNNERS SHALL BE SIZED AND TRIMMED TO MAINTAIN 1/2" *MAXIMUM* CLEARANCE BETWEEN RUNNER AND CASING PIPE.

NOTE: CARRIER PIPE IN ALL CASING OVER 60 FEET IN LENGTH SHALL BE DUCTILE IRON WITH LOCKING GASKETS.

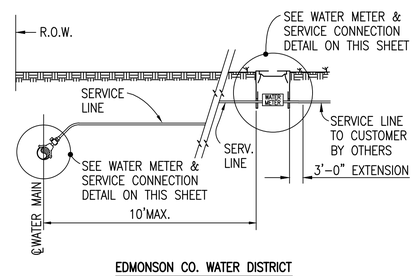
EDMONSON CO. WATER DISTRICT

ROADWAY CROSSING INSTALLATION

NOT TO SCALE

(STEEL CASING w/D.I. OR PVC CARRIER PIPE)

SERVICE CONNECTION NOT UNDER ROADWAY LUMP SUM BID ITEM INCLUDES:
1. METER BOX INSTALLATION AND APPURTENANCES
2. WATER MAIN CONNECTION AND APPURTENANCES

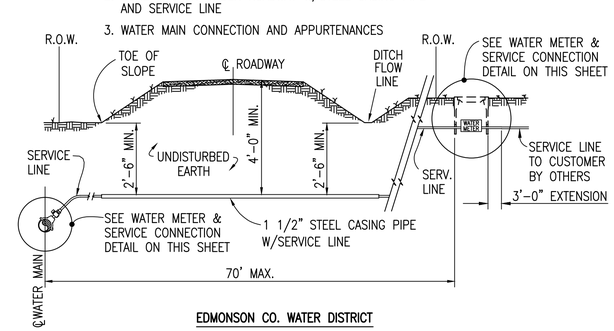


EDMONSON CO. WATER DISTRICT

TYPE "A" SERVICE CONNECTION NOT UNDER ROADWAY

NOT TO SCALE

SERVICE CONNECTION UNDER ROADWAY LUMP SUM BID ITEM INCLUDES:
1. METER BOX INSTALLATION AND APPURTENANCES
2. BORE & JACK UNDER ROADWAY W/STEEL CASING PIPE AND SERVICE LINE
3. WATER MAIN CONNECTION AND APPURTENANCES



EDMONSON CO. WATER DISTRICT

TYPE "B" SERVICE CONNECTION UNDER ROADWAY

NOT TO SCALE

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ENGINEER/ARCHITECT: Louis E. Robbins
CONSTRUCTION COMPANY: Cumberland Pipeline, LLC
DATE: August 2020

This document, originally issued, sealed, and signed by Louis E. Robbins, Kentucky Professional Engineer, No. 12662, on 4-4-19, shall not be used in lieu of a certified document.

GRW PROJECT NO. 3621-08

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WATER LINE STANDARD DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED:	DRAWN:	REVIEWED:	APPROVED:
LER	DM	LER	LER

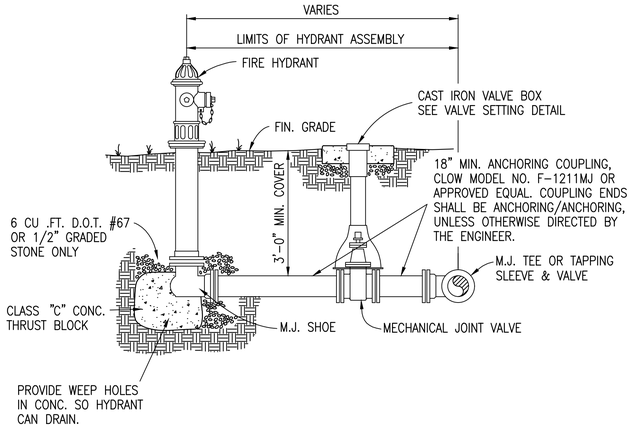
REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019
SCALE: NONE
SHEET NO. SD-16

PLOTTED BY: dwmorris
PRINTED: 8/27/2020 @ 9:43AM
FILE NAME: G:\3621-Edmonson Co\09-2017 WL's\Working Drawings\AutoCAD\3621-08-SD-16.dwg

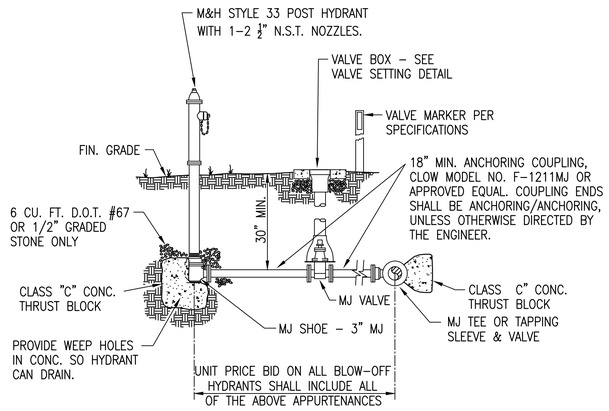


EDMONSON COUNTY WATER DISTRICT

FIRE HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

NOTES:
1. SET HYDRANT 12' TO 15' OFF EDGE OF PAVEMENT (MIN.).
2. CAP AND BLOCK TEE FOR END OF LINE APPLICATIONS.

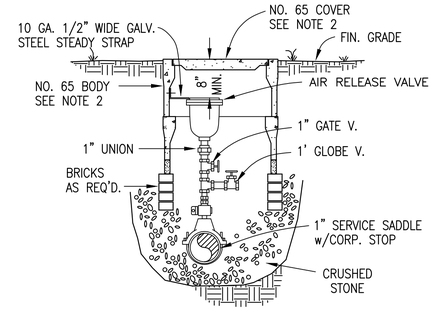


EDMONSON COUNTY WATER DISTRICT

POST HYDRANT DETAIL

NOT TO SCALE

NOTES:
1. THE CONTRACTOR SHALL MAKE PROVISIONS TO GIVE ADEQUATE SPACE FOR AIR RELEASE APPURTENANCES (SEE SHOP DRAWINGS).
2. 17"x28" CONC. METER BOX - AS MANUF. BY BROOKS PRODUCTS, INC. MEMPHIS, TN - OR APPROVED EQUAL.
3. SEAL SLOTS IN METER BOX W/NON-SHRINK GROUT.
4. ALL ACCESSORY VALVES AND PIPING SHALL BE BRASS.

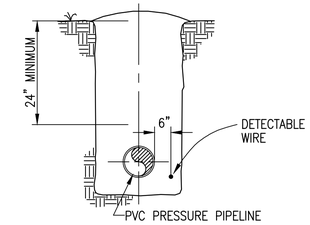


EDMONSON COUNTY WATER DISTRICT

AIR RELEASE VALVE

NOT TO SCALE

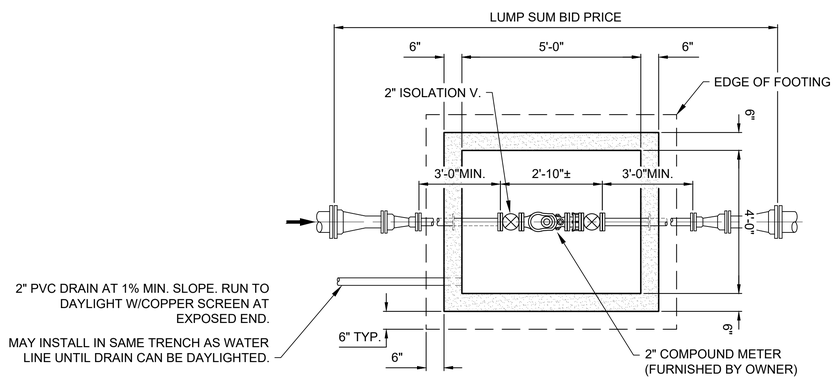
NOTES:
1. CONNECT WIRE TO METAL VALVE BOXES.
2. WIRE SHALL NOT TOUCH PRESSURE PIPE.



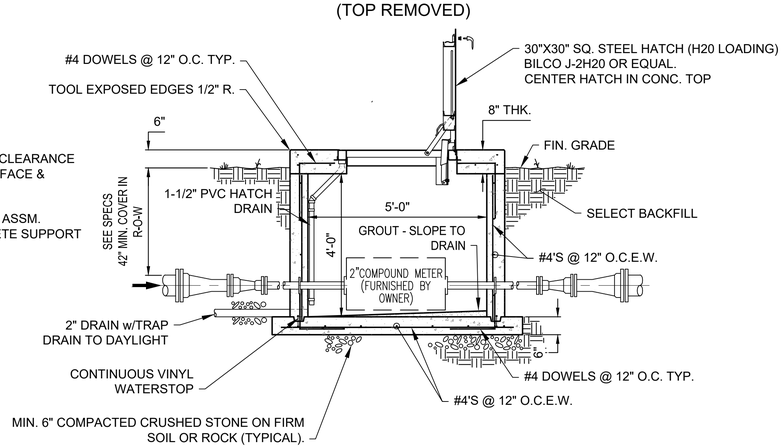
EDMONSON COUNTY WATER DISTRICT

DETECABLE WIRE DETAIL

NOT TO SCALE

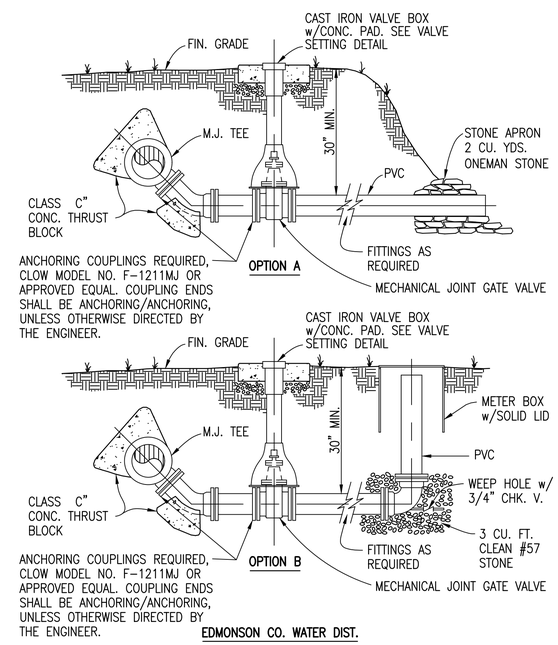


PLAN
(TOP REMOVED)



2" MASTER METER VAULT

SCALE: 1/4"=1'-0" 0 2' 4' 8'



EDMONSON CO. WATER DIST.

BLOW-OFF DETAIL

NOT TO SCALE

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

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CONTRACT DOCUMENTS

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WATER LINE STANDARD DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: NONE

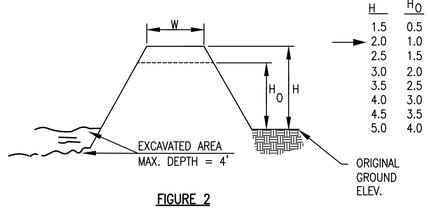
SHEET NO. SD-17

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:43AM

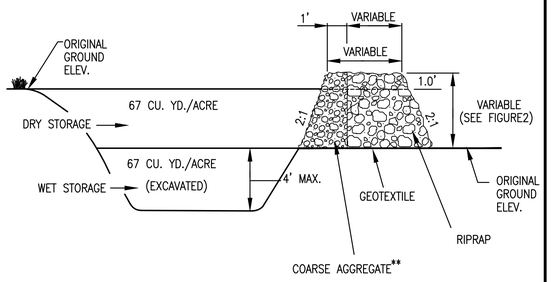
FILE NAME: G:\3621-Edmonson Co\08-2017 WL's\Working Drawings\AutoCAD\3621-08-SD-17.dwg

MINIMUM TOP WIDTH (W) REQUIRED FOR SEDIMENT TRAP EMBANKMENTS ACCORDING TO HEIGHT OF EMBANKMENT (FEET)



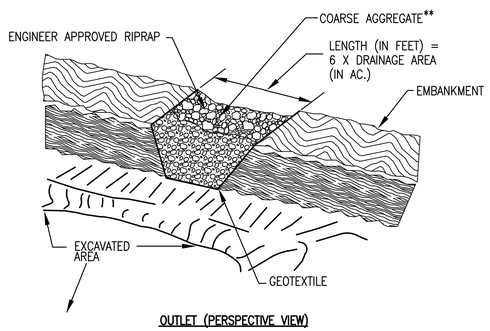
H	H_O	W
1.5	0.5	2.0
2.0	1.0	2.0
2.5	1.5	2.5
3.0	2.0	2.5
3.5	2.5	3.0
4.0	3.0	3.0
4.5	3.5	4.0
5.0	4.0	4.5

FIGURE 2



**COARSE AGGREGATE SHOULD BE ENGINEER APPROVED

CROSS SECTION OF OUTLET

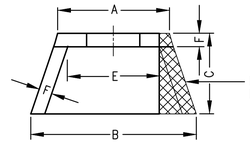


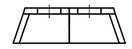
OUTLET (PERSPECTIVE VIEW)

SEDIMENT TRAP DETAIL

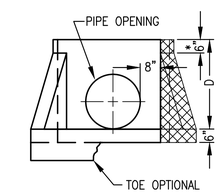
SCALE: NTS

ONCE THE WALLS ARE INSTALLED IN THE FIELD THEY ARE ATTACHED WITH 2 – 1/2" THICK BOLT PLATES (20"x6") IN THE BACK W/HILTI WEDGE BOLTS





BLOCKED OUT WING FOR DOUBLE WINGED HEADWALL

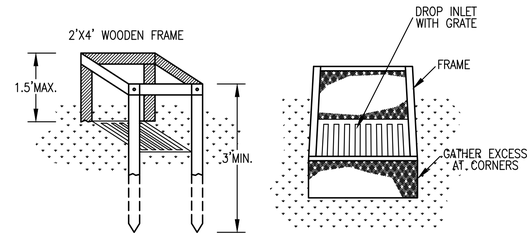


SIZE	4'	6'	8'	10'
A	32"	48"	72"	96"
B	48"	72"	96"	120"
C	30"	44"	50"	56"
D	25"	36"	52"	66"
E	24"	36"	59"	83"
F	5"	8"	8"	8"
MAX. CMP	18"	30"	42"	54"
MAX. RCP	15"	24"	36"	60"
WT./#	1090	3130	5625	8575

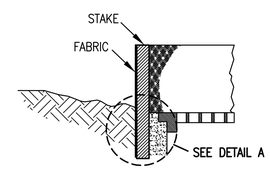
* 10' WW HAS MAX. D DIMENSION = 84"

WINGED HEADWALL DETAIL

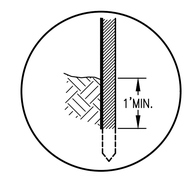
SCALE: NTS



PERSPECTIVE VIEW



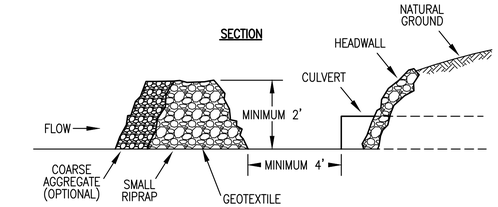
ELEVATION OF STAKE AND SILT FENCE ORIENTATION



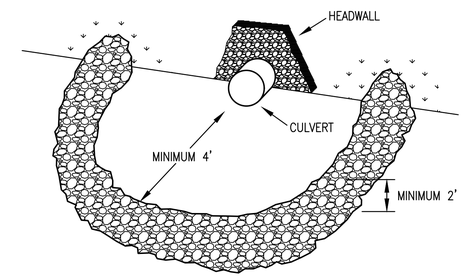
DETAIL A

SILT FENCE INLET PROTECTION IP–SF

SCALE: NTS

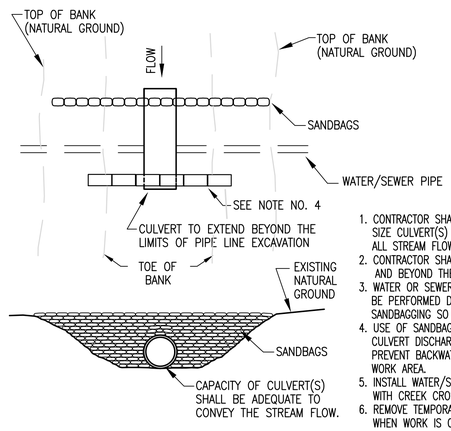


PERSPECTIVE VIEW



STONE FILTER RING

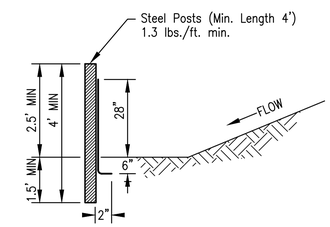
SCALE: NTS



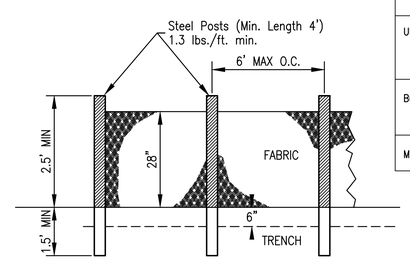
1. CONTRACTOR SHALL INSTALL APPROPRIATE SIZE CULVERT(S) IN THE STREAM TO CARRY ALL STREAM FLOW.
2. CONTRACTOR SHALL SANDBAG AROUND CULVERTS AND BEYOND THE TOP OF STREAM BANKS.
3. WATER OR SEWER LINE CONSTRUCTION SHALL BE PERFORMED DOWNSTREAM OF TEMPORARY SANDBAGGING SO ALL WORK IS IN A DRY AREA.
4. USE OF SANDBAGS OR STRAW BALES AT THE CULVERT DISCHARGE MAY BE NECESSARY TO PREVENT BACKWATER FROM COMING INTO THE WORK AREA.
5. INSTALL WATER/SEWER LINE IN ACCORDANCE WITH CREEK CROSSING DETAIL.
6. REMOVE TEMPORARY CULVERT AND SANDBAGS WHEN WORK IS COMPLETE.

TEMPORARY STREAM DIVERSION WATER/SEWER LINE CONSTRUCTION

NOT TO SCALE



SIDE VIEW



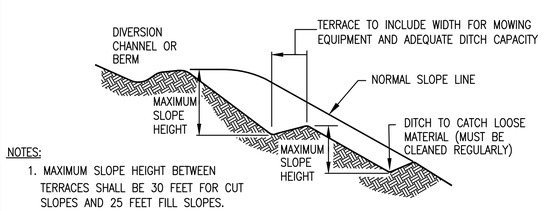
FRONT VIEW

SILT FENCE – TYPE A

SCALE: NTS

SILT FENCE SPECIFICATIONS

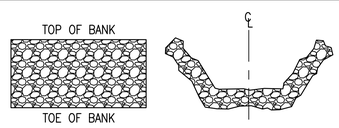
TYPE FENCE	A	B	C
Tensile Strength (Lbs. Min.)(1) (ASTM D–4632)	Warp – 120 Fill – 100	Warp – 120 Fill – 100	Warp – 260 Fill – 180
Elongation (% Max.) (ASTM D–4632)	40	40	40
AOS (Apparent Opening Size) (Max. Sieve Size)(ASTM D–4751)	#30	#30	#30
Flow Rate (Gal/Min/Sq.Ft.) (GDT–87)	25	25	70
Ultraviolet Stability (2) (ASTM D–4632 after 300 hours weathering in accordance with ASTM D–4355)	80	80	80
Bursting Strength (PSI Min.) (ASTM D–3786 Diaphragm Bursting Strength Tester)	175	175	175
Minimum Fabric Width (Inches)	36	22	36



NOTES:
1. MAXIMUM SLOPE HEIGHT BETWEEN TERRACES SHALL BE 30 FEET FOR CUT SLOPES AND 25 FEET FILL SLOPES.
2. TERRACE WIDTH(S) SHOULD BE AT LEAST 6 FEET WIDE. DESIGN TERRACE DITCHES TO DRAIN AT NON–EROSIVE VELOCITIES.
3. TERRACED SLOPES SHOULD BE DESIGNED BY A PROFESSIONAL, BASED UPON ACTURAL SITE CONDITIONS.

TERRACED SLOPE DETAIL

SCALE: NTS



PLAN VIEW SECTION VIEW

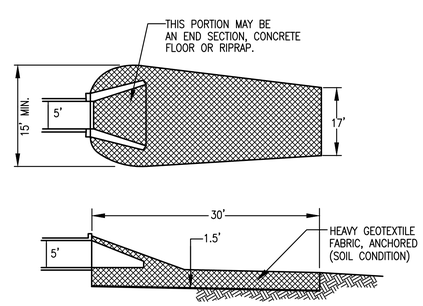
NOTE:
FACE OF RIP–RAP IS TO BE FLUSH WITH SIDES AND BOTTOM OF DRAIN

RIP–RAP STABILIZATION WHERE NOTED WILL CONSIST OF HAND–PLACED NATIVE LIMESTONE, HAVING A MAXIMUM LENGTH/WIDTH DIMENSION OF 12" IN EITHER DIRECTION AND A MAXIMUM THICKNESS OF 6". TREATMENT WILL BE PLACED IN TWO INTERLOCKING (NESTING) LAYERS. RIP–RAP SHALL BE PLACED FOR THE FULL WIDTH OF AREA DISTURBED BY PIPE LAYING OPERATIONS. LIMIT OF WIDTH FOR PAYMENT OF RIP–RAP SHALL BE AS FOLLOWS:

PIPE DIAMETER	RIP–RAP WIDTH
8"	5'
10"	5.5'
12"	6'
15–16"	8'
18"	8.5'
21"	9'
24"	10'

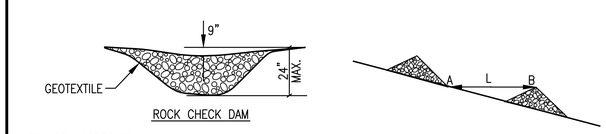
RIP–RAP DETAIL

SCALE: NTS



RIPRAP OUTLET PROTECTION DETAIL

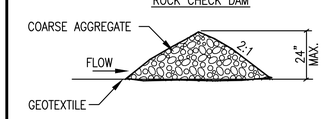
SCALE: NTS



ROCK CHECK DAM

L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

SPACING BETWEEN CHECK DAMS



CHECK DAM DETAIL

SCALE: NTS

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ENGINEER/ARCHITECT: Louis E. Robbins

CONSTRUCTION COMPANY: Cumberland Pipeline, LLC

DATE: August 2020

This document, originally issued, sealed, and signed by Louis E. Robbins, Kentucky Professional Engineer, No. 12662, on 4-4-19, shall not be used in lieu of a certified document.

GRW PROJECT NO. 3621-08

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CONTRACT DOCUMENTS

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EROSION CONTROL STANDARD DETAILS

2017 EDMONSON/HART WATER LINE PROJECT
EDMONSON COUNTY WATER DISTRICT

DESIGNED: LER
DRAWN: DM
REVIEWED: LER
APPROVED: LER

REVISIONS

NO.	DESCRIPTION	DATE	BY

SCALE CHECK: THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

DATE: APRIL 2019

SCALE: NONE

SHEET NO. EC-18

PLOTTED BY: dwmorris

PRINTED: 8/27/2020 @ 9:43AM

FILE NAME: G:\3621-Edmonson Co\08-2017 WL's\Working Drawings\AutoCAD\3621-08-EC-18.dwg