WALKERS CHAPEL WATER TANK

FOR THE

ALLEN COUNTY WATER DISTRICT

330 NEW GALLATIN ROAD

SCOTTSVILLE, KY 42164

Chairman - Wayne Jackson

BOARD MEMBERS

Joe Young

Jeff Powell

Robin York

Darace Tabor

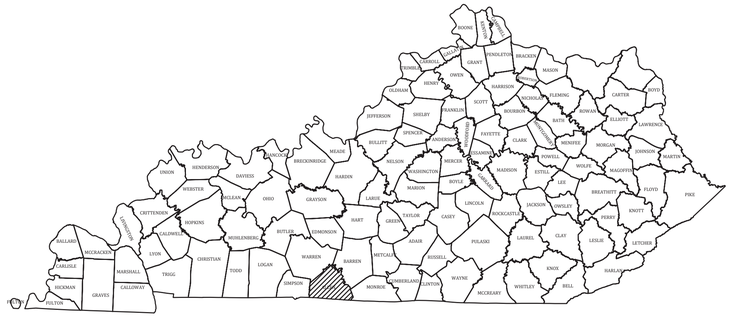
Adam Nunn, General Manager

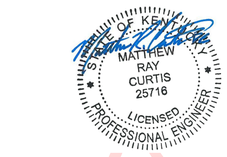
SEPTEMBER 2023

PREPARED BY:

BLUEGRASS ENGINEERING PLLC

222 East Main Street, Ste. 1 • Georgetown, KY 40324





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Matthew Curtis
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PROJECT NO. 22048

DOW SUBMITTAL

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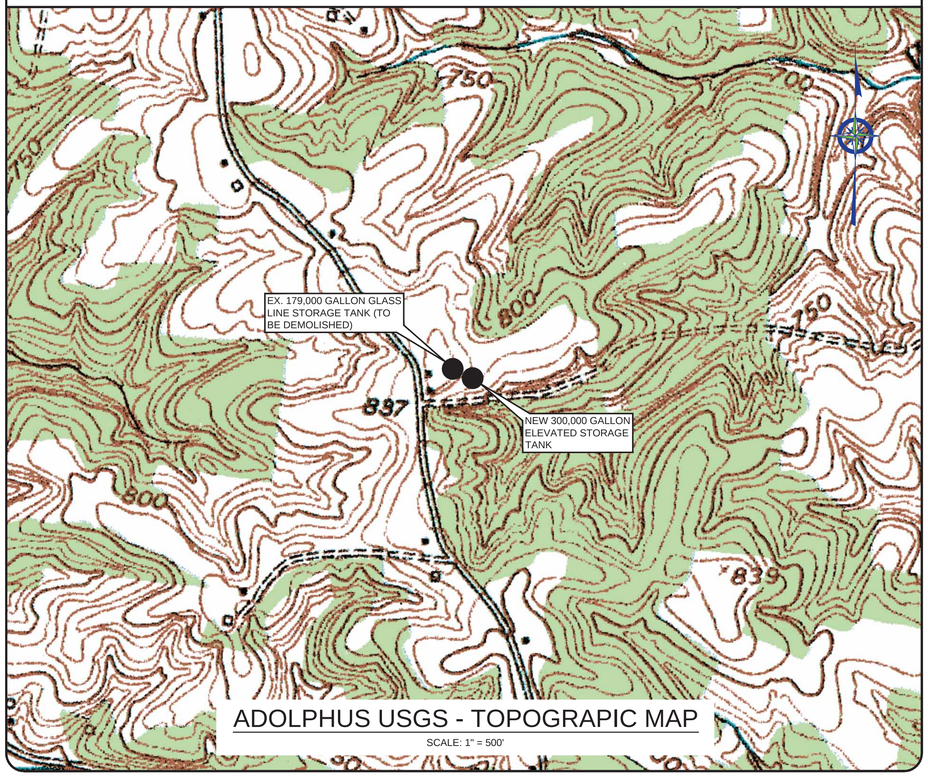
PROJECT MAP



ADOLPHUS USGS - TOPOGRAPIC MAP

SCALE: 1" = 500'

GENERAL NOTES

1. DIMENSIONS OF EXISTING STRUCTURES, EQUIPMENT, ETC. SHALL BE FIELD CONFIRMED BY THE CONTRACTOR. WHERE CRITICAL DIMENSIONS FOR INSTALLATION OF PROPOSED EQUIPMENT ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL CONFIRM THESE DIMENSIONS FOR ACTUAL EQUIPMENT FURNISHED. ALL KNOWN DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
2. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB ANY EXISTING UTILITY WHETHER SHOWN ON PLANS OR NOT. ANY UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING HIS CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
3. THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION ACTIVITY TO THE AREA WITHIN EXISTING EASEMENTS AND CONSTRUCTION LIMITS, UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER.
4. THE CONTRACTOR WILL BE SOLELY LIABLE FOR ANY WORK HE PERFORMS OUTSIDE OF LEGAL EASEMENTS OR CONSTRUCTION LIMITS.
5. THE CONTRACTOR MUST CONTACT ALL UTILITY OWNERS AND HAVE THEM FIELD LOCATE THEIR EXISTING LINES PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. EFFORTS HAVE BEEN MADE TO INDICATE ACCURATE LOCATIONS OF SOME EXISTING STRUCTURES, PIPING AND UTILITIES. HOWEVER THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND OTHER EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN INFORMATION DEPICTED BY THE CONSTRUCTION DRAWINGS AND ACTUAL FIELD CONDITIONS WHICH WOULD SIGNIFICANTLY ALTER THE DESIGN INTENT OF THE CONSTRUCTION DRAWINGS PRIOR TO COMMENCING HIS CONSTRUCTION OPERATIONS. DIMENSIONS OF EXISTING STRUCTURES AND/OR SITE RESTRICTIONS ARE APPROXIMATE, IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN AND CONFIRM ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES AND TOPOGRAPHY IN THE FIELD NECESSARY FOR HIS CONSTRUCTION OPERATION.
7. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE DURING EXCAVATION ON THIS PROJECT SO AS NOT TO DISTURB OR DAMAGE ANY EXISTING UTILITY OR STRUCTURE NOT SCHEDULED FOR DEMOLITION WHETHER DEPICTED OR NOT IN THE CONSTRUCTION DRAWINGS. ANY DAMAGE TO THE AFORE MENTIONED ITEMS CAUSED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO BEING DAMAGED.
8. THE CONTRACTOR SHALL CONTACT AND OBTAIN THE PERMISSION OF EXISTING UTILITY OWNERS 48 HOURS (MIN.) PRIOR TO ANY CONSTRUCTION ACTIVITY INTERRUPTING OPERATION OF SAID UTILITY.
9. UNLESS OTHERWISE NOTED, ALL BURIED PIPES SHALL HAVE 30" (MIN.) COVER AS MEASURED FROM FINISHED GRADE TO THE OUTSIDE SURFACE OF THE PIPE.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WORK ALL APPLICABLE DRAWINGS AND THE APPROPRIATE SPECIFICATIONS AS A UNIT. ANY OMISSIONS, DELETIONS, OR CONFLICT'S ARISING AS A RESULT OF FAILURE TO INCORPORATE ALL DRAWINGS AND SPECIFICATIONS WHICH APPLY SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER.

CONSTRUCTION IN KTC RIGHT-OF-WAY

1. WATER MAIN/SEWER MAINS TO BE CONSTRUCTED WITHIN THE KENTUCKY TRANSPORTATION CABINET RIGHT-OF-WAY:

   TRENCHES SHALL BE OF A DEPTH SUFFICIENT TO PROVIDE A MINIMUM COVER OF 42" FROM THE EXISTING GROUND SURFACE TO THE TOP OF THE PIPE AND BE LOCATED APPROXIMATELY AS SHOWN UNLESS OTHERWISE NOTED. SEE INDIVIDUAL SHEETS FOR DETAILS.
2. ALL BORES UNDER STATE HIGHWAYS RIGHT-OF-WAY:

   SHALL BE A MINIMUM OF 42" DEPTH UNDER BOTTOM OF DITCH LINE TO TOP OF THE PROPOSED BORE AND/OR CASING PIPE ON BOTH SIDES OF THE HIGHWAY.
3. ROCK BLASTING:

   THERE SHALL BE NO BLASTING WITHIN STATE RIGHT-OF-WAY WITHOUT WRITTEN CONSENT FROM THE KENTUCKY TRANSPORTATION CABINET.
4. PROTECTION OF EXISTING PAVING:

   WATER MAINS SHALL BE INSTALLED FIVE (5) FEET FROM THE EDGE OF PAVEMENT WHERE APPLICABLE. CARE SHALL BE TAKEN BY THE CONTRACTOR TO AVOID CRACKING OR BREAKING THE BITUMINOUS PAVING. ALL DAMAGE TO THE EXISTING PAVING CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER. PAVING PROTECTION SHALL BE ACCOMPLISHED BY THE USE OF RUBBER AND STREET PADDED MACHINERY OR OTHER APPROVED EQUIPMENT WELL SUITED FOR THIS TYPE OF CONSTRUCTION.
5. BANK AND DITCH PROTECTION EXCAVATION:

   DURING CONSTRUCTION, ALL EMBANKMENTS, REFILLS AND EXCAVATIONS SHALL BE KEPT SHAPED AND DRAINED BY THE CONTRACTOR. DITCHES AND DRAINS ALONG THE HIGHWAYS SHALL BE MAINTAINED IN SUCH A MANNER AS TO DRAIN EFFECTIVELY AT ALL TIMES. PERMANENT APPURTENANCES (GATE VALVE BOXES, HYDRANTS, ETC.) SHALL NOT BE LOCATED IN DITCH LINES. PERMANENT SURFACE APPURTENANCES SHALL BE LOCATED AT THE BACK OF DITCH (MINIMUM) OR TOE OF SLOPE.
6. PRIVATE ENTRANCE ROAD:

   ALL ROADWAYS AND DRIVEWAYS WITHIN THE WORK LIMITS OF STATE RIGHT-OF-WAYS SHALL BE REFILLED TO THE NATURAL SURFACE OF THE GROUND WITH APPROVED MATERIAL. THE MATERIAL SHALL BE PLACED AND COMPACTED TO A SMOOTHNESS SUITABLE FOR TRAFFIC. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR MAINTAINING THESE ROADWAYS UNTIL THE RESTORATION IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL NOTE THAT ALL PRIVATE BUSINESSES AND RESIDENCES ALONG THE ROUTE OF THE PROPOSED WATER MAIN/SEWER LINE CONSTRUCTION MUST HAVE ACCESS TO THEIR PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
7. PROTECTION OF EXISTING DRAINAGE CULVERTS:

   ALL LOCATIONS WHERE THE PROPOSED WATER MAIN/SEWER LINE IS PARALLEL WITH OR CROSSING AN EXISTING STORM SEWER, THE COST OF RELAYING EXISTING CULVERT PIPES OR THE EXTRA DEPTH REQUIRED TO AVOID THE EXISTING CULVERT IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND IS NOT A PAY ITEM.
8. SOME EXISTING UTILITIES HAVE NOT BEEN SHOWN:

   THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE REPRESENTATIVES OF THE VARIOUS UTILITIES WHEN WORKING NEAR ANY EXISTING UTILITY. NO ADDITIONAL PAYMENT TO THE CONTRACTOR WILL BE MADE FOR EXTRA DEPTH REQUIRED TO AVOID ANY EXISTING UTILITY.

EXISTING UTILITIES

Kentucky 811 — Know what's below. Call before you dig.

NOTE:

IN ACCORDANCE WITH KENTUCKY STATE LAW, ANY ACTIVITY THAT RESULTS IN MOVEMENT, PLACEMENT, BORING, PROBING OR DIGGING IN OR ON THE GROUND SHALL CONTACT THE ONE CALL CENTER FOR UNDERGROUND UTILITY LOCATIONS.

WATER
ALLEN COUNTY WATER DISTRICT
330 New Gallitin Rd.
SCOTTSVILLE, KY 42164
Adam Nunn, General Manager
(270) 622-3040 OFFICE

TELEPHONE & CABLE
NCTC
1630 Bowling Green Rd
PO BOX 96
SCOTTSVILLE, KY 42164
(270) 622-7500

ELECTRIC
Tri-County Electric
620 Veterans Memorial Hwy
SCOTTSVILLE, KY 42164
(270) 237-4418

DRAWING INDEX

LEGEND

- NEW WATER MAIN
- EXISTING WATER MAIN (W)
- EXISTING SANITARY SEWER (SAN)
- EXISTING GAS MAIN (G)
- EXISTING FORCE MAIN (FM)
- NEW STEEL CASING (STL CSG)
- EXISTING CULVERT
- NEW FLUSHING HYDRANT
- EXISTING FLUSHING HYDRANT
- W.M. EXISTING WATER METER
- NEW GATE VALVE & BOX
- EXISTING MANHOLE

NO.	DATE	REVISIONS	BY

WALKERS CHAPEL WATER TANK

PROJECT MAP, EXISTING UTILITIES, LEGEND & DRAWING INDEX

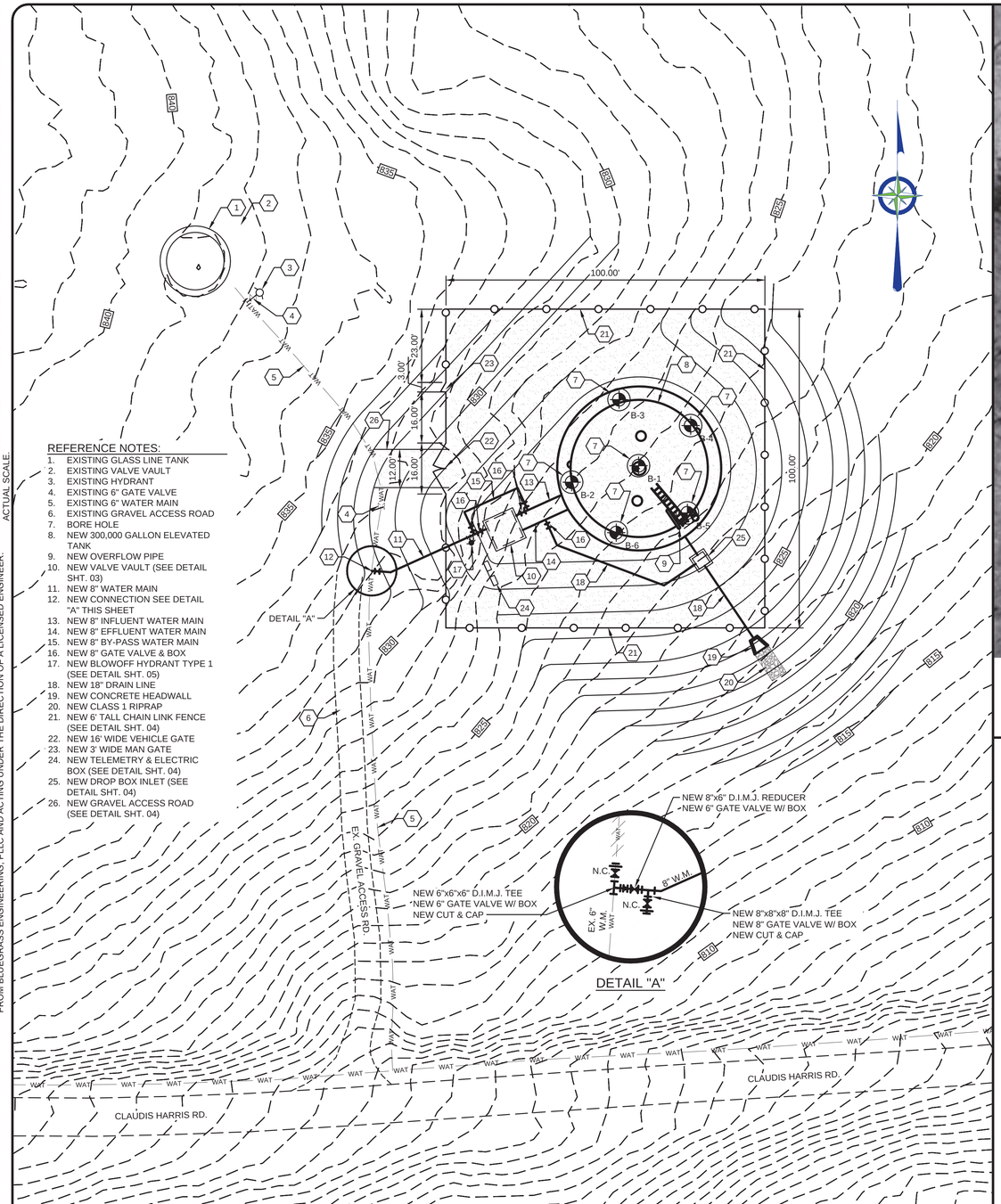
BLUEGRASS ENGINEERING PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	22048
DATE:	SEPT. 2023
PROJECT MGR:	MRC
DRAWN BY:	WJH
CHECKED BY:	PBR

COMMONWEALTH OF KENTUCKY — MATTHEW RAY CURTIS 25718 — LICENSED PROFESSIONAL ENGINEER — 09/20/2023

DOW SUBMITTAL SET

01

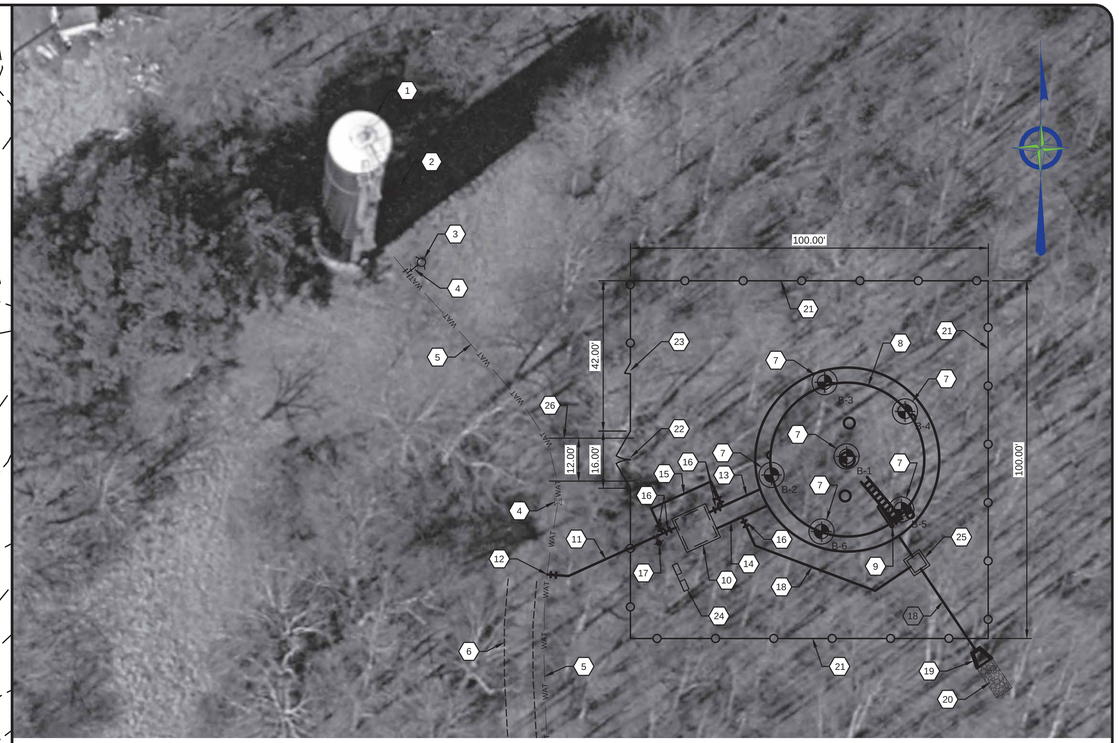


REFERENCE NOTES:

1. EXISTING GLASS LINE TANK
2. EXISTING VALVE VAULT
3. EXISTING HYDRANT
4. EXISTING 6" GATE VALVE
5. EXISTING 6" WATER MAIN
6. EXISTING GRAVEL ACCESS ROAD
7. BORE HOLE
8. NEW 300,000 GALLON ELEVATED TANK
9. NEW OVERFLOW PIPE
10. NEW VALVE VAULT (SEE DETAIL SHT. 03)
11. NEW 8" WATER MAIN
12. NEW CONNECTION SEE DETAIL "A" THIS SHEET
13. NEW 8" INFLUENT WATER MAIN
14. NEW 8" EFFLUENT WATER MAIN
15. NEW 8" BY-PASS WATER MAIN
16. NEW 8" GATE VALVE & BOX
17. NEW BLOWOFF HYDRANT TYPE 1 (SEE DETAIL SHT. 05)
18. NEW 18" DRAIN LINE
19. NEW CONCRETE HEADWALL
20. NEW CLASS 1 RIPRAP
21. NEW 6' TALL CHAIN LINK FENCE (SEE DETAIL SHT. 04)
22. NEW 16' WIDE VEHICLE GATE
23. NEW 3' WIDE MAN GATE
24. NEW TELEMETRY & ELECTRIC BOX (SEE DETAIL SHT. 04)
25. NEW DROP BOX INLET (SEE DETAIL SHT. 04)
26. NEW GRAVEL ACCESS ROAD (SEE DETAIL SHT. 04)

WALKERS CHAPEL ELEVATED TANK
TOPO SITE

SCALE 1" = 20'



WALKERS CHAPEL ELEVATED TANK
AERIAL SITE

SCALE 1" = 20'

ELEVATION VIEW - EXISTING WALKERS CHAPEL STANDPIPE

SCALE 1" = 20'

NOTES:

1. EXISTING 179,000 GALLON GLASS LINED STANDPIPE SHALL BE DEMOLISHED, INCLUDING VALVE VAULT. FOUNDATION SHALL BE REMOVED A MINIMUM 2' BELOW GRADE.
2. CONTRACTOR SHALL GIVE OWNER 72 HOURS PRIOR NOTICE TO COMMENCE DEMOLITION ACTIVITIES. TANK MUST BE DRAINED IN PROPER FASHION AS TO NOT FLOOD PROPERTIES ADJACENT TO TANK SITE PRIOR TO DEMOLITION.
3. NO DEMOLITION ACTIVITIES SHALL BE ALLOWED PRIOR TO THE NEW WALKERS CHAPEL TANK BEING FULLY OPERATIONAL INCLUDING PROPER COMMUNICATION OF SCADA SYSTEM.
4. ALL DEMOLITION METHODS AND DISPOSAL OF MATERIALS SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AT THE EXPENSE OF THE CONTRACTOR.
5. ANY APPURTENANCES, (INCLUDING VALVES, VALVE BOX, RTU, HYDRANT ASSEMBLY, ETC.) SHALL BE RETURNED TO THE OWNER AT NO ADDITIONAL COST.
6. REGRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE AND RESEED AND MULCH WITH STRAW THE ENTIRE SITE IN ACCORDANCE WITH THE SPECIFICATIONS.

NO.	DATE	REVISIONS	BY

WALKERS CHAPEL WATER TANK

NEW WALKERS CHAPEL ELEVATED TANK & WALKERS CHAPEL STANDPIPE TANK DEMOLITION

BLUEGRASS ENGINEERING PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

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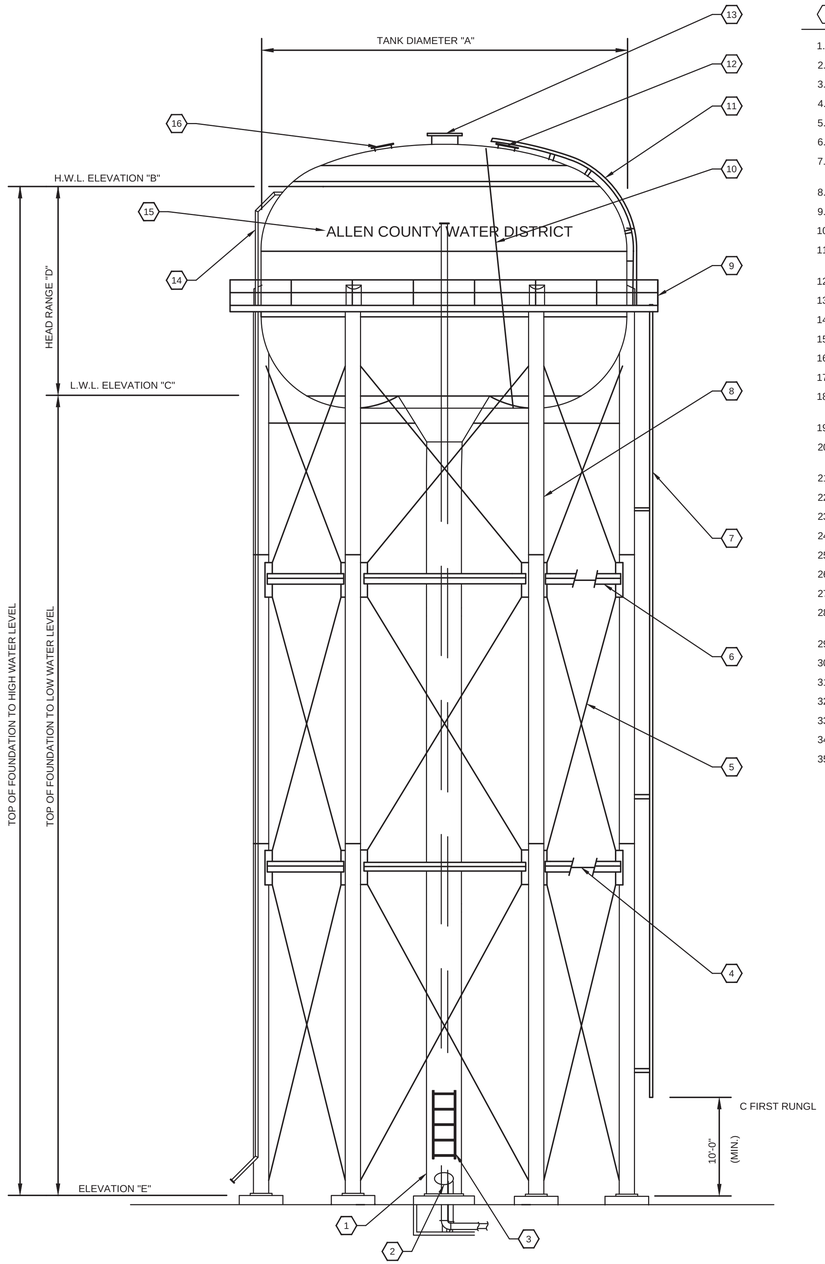
CHECKED BY:	PBR

DOW SUBMITTAL SET

02



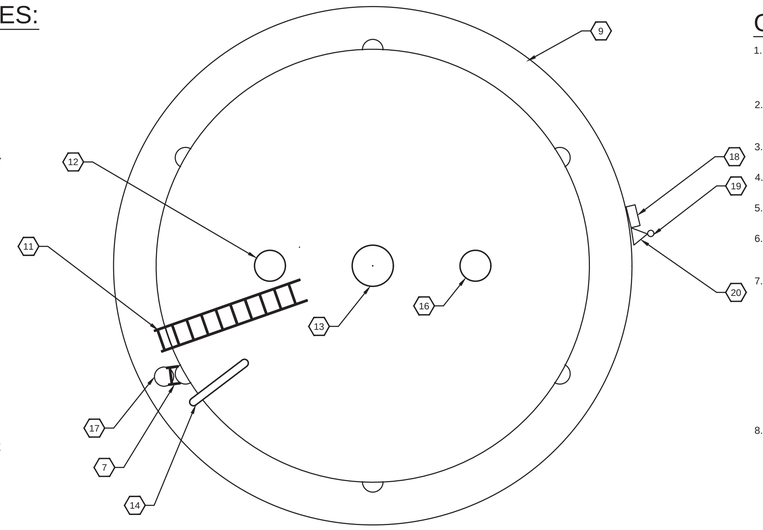
ELEVATED TANK - ELEVATION

NOT TO SCALE

TANK DIMENSIONS		
"X"	DESCRIPTION	MEASUREMENT
A	TANK DIAMETER	43'-0"
B	H.W.L. ELEVATION	940.00
C	L.W.L. ELEVATION	910.00
D	HEAD RANGE	30'-0"
E	FOUNDATION ELEVATION	835.00

REFERENCE NOTES:

1. RISER
2. RISER MANHOLE
3. RISER LADDER, SEE GENERAL NOTES.
4. STAY RODS
5. BRACE RODS
6. STRUTS
7. TOWER LADDER W. OSHA COMPLAINT SAFETY CLIMB DEVICE
8. TOWER LEG, SEE GENERAL NOTES.
9. BALCONY W. HANDRAIL.
10. INSIDE TANK LADDER
11. ROOF LADDER W. OSHA COMPLIANT SAFETY CLIMB DEVICE.
12. ROOF MANHOLE, SEE SHEET 04
13. VENT, SEE SHEET 04
14. OVERFLOW
15. SIGNAGE REQUIRED SEE SPECIFICATION
16. EXHAUST FAN MANHOLE
17. BALCONY MANHOLE
18. NEMA 4X JUNCTION BOX NEXT TO MOUNTING BRACKET FOR TELEMETRY ANTENNA
19. 1 1/4" COUNDUIT FOR TELEMETRY PANEL
20. ANTENNA MOUNTING BRACKET12" D.I.P. P.E. X FLG'D
21. 8" D.I. PIPE FLG'D X P.E.
22. 8" D.I. FLG'D GATE VALVE W. HANDWHEEL
23. 8" D.I. FLG'D SPOOL PIPE
24. 8" D.I. DISMANTLING JOINT DJ400 BY ROMAC
25. 8" D.I. FLG'D CHECK VALVE
26. 8" D.I. FLG'D 90° FITTING
27. 8" D.I. FLG'D TEE
28. PREFORMED OPENING TO BE GROUTED WITH NON-SHRINKING GROUT
29. PRECAST CONCRETE VAULT
30. 36" X 36" ALUM. HATCH W. VAULT LADDER
31. 1 1/2" PVC CONDUIT FOR ELECTRIC
32. 1 1/2" PVC CONDUIT FOR TELEMETRY
33. PRESSURE TRANSDUCER FOR SCADA CONTROLS
34. 6" PVC SDR-35 VAULT DRAIN LINE
35. 1 1/2" PVC PIPING - ROUTE HATCH DRAIN TO VAULT DRAIN

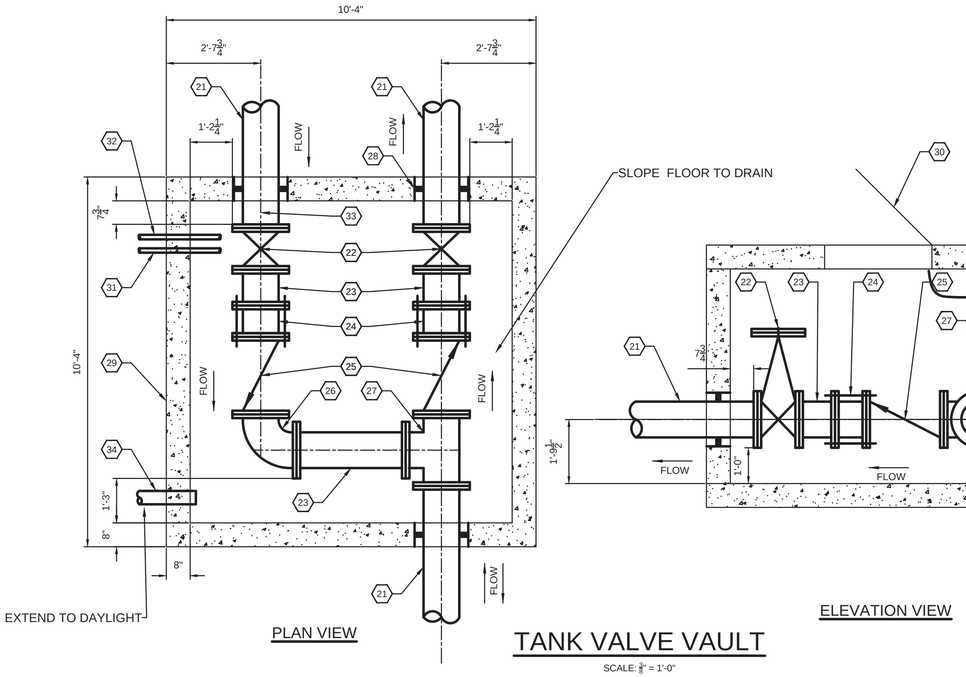


ELEVATED TANK - PLAN

NOT TO SCALE

GENERAL NOTES

1. ACCESSORIES SHOWN, MAY BE ROTATED FOR CLARITY. ALL ACCESSORIES SHALL BE FIELD LOCATED PRIOR TO INSTALLATION & APPROVED BY OWNER & ENGINEER.
2. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS AND SAFETY CLIMB DEVISES SHALL CONFORM WITH THE CURRENT OSHA STANDARDS.
3. SEE SPECIFICATIONS FOR SHOP & FIELD PAINT REQUIREMENTS.
4. STERILIZE TANK PER SPECIFICATIONS & AWWA C652, LATEST EDITION.
5. NUMBER OF TOWER LEGS PER MANUFACTURER'S STANDARD DESIGN.
6. TANK AND TOWER SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH AWWA D100-05 OR CURRENT REVISIONS & SPECIFICATIONS.
7. TANK CONTRACTOR TO SUBMIT FOR APPROVAL BY THE PROJECT ENGINEER, STRUCTURAL DESIGN PLANS AND CALCULATIONS FOR THE TANK AND FOUNDATION. ANY PROPOSED REVISIONS IN THE SITE PLAN SHOULD ALSO BE INCLUDED. STRUCTURAL PLANS TO BE STAMPED AND SIGNED BY A REGISTERED STRUCTURAL ENGINEER, LICENSED IN THE STATE OF THE OWNER. FOUR (4) SETS TO BE SUBMITTED TO THE PROJECT ENGINEER. THIS SHALL INCLUDE THE SITE CLASS COEFFICINT FOR SEISMIC DESIGN PER THE KENTUCKY BUILDING CODE.
8. FOR BIDDING PURPOSES, A GEOTECHNICAL REPORT HAS BEEN PROVIDED TO ALL BIDDERS. THE INFORMATION CONTAINED WITHIN THE REPORT ARE NOT INTENDED AS WARRANTIES BUT ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE RECOMMENDED BEARING CAPACITY PROVIDED IN GEOTECHNICAL REPORT SHALL BE VERIFIED BY THE TANK CONTRACTOR & THEIR GEOTECHNICAL ENGINEER &/OR REPORTS. THE TANK CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE TANK FOUNDATION.
9. TANK CONTRACTOR MAY CONDUCT A SECOND GEOTECHNICAL REPORT FOR THE TANK SITE. IF AN ADDITIONAL REPORT IS CONDUCTED, THEN THE TANK CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF THE REPORT TO THE PROJECT ENGINEER.
10. ANY BORING LOGS & RELATED INFORMATION SHOWN ON THE DRAWINGS OR SPECIFICATIONS DEPICT APPROXIMATE SUBSURFACE CONDITIONS AT THE TIME OF DRILLING. SOIL CONDITIONS AT OTHER LOCATIONS MAY DIFFER FROM CONDITIONS OCCURRING AT THE BORING LOCATIONS. THE PASSAGE OF TIME CAN RESULT A CHANGE IN SOIL CONDITIONS AT BORE HOLES.
11. FOUNDATION CONSTRUCTION SHALL COMPLY WITH AWWA 100-05, LATEST EDITION, ACI 318-95, ACI 301-96 & APPLICABLE SECTION OF SPECIFICATIONS & GEOTECHNICAL REPORT(S).
12. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS. REINFORCEMENT SHALL CONFROM TO ASTM A615 GR 60.
13. THE TOP OF PIERS SHALL BE LEVEL, TRUE & AT SAME ELEVATION , UNLESS OTHERWISE NOTED ON PLANS W/ A MAXIMUM DIFFERENTAL OF +/- 1/4".
14. ANCHOR BOLTS SHALL BE PLACED WITHIN +/- 1/8" OF THE DIMENSIONS SHOWN ON PLANS AT THE TOP OF THE CONCRETE PIER, PLUMB WITHIN $\frac{1}{4}$" IN 12" & EXTEND WITHIN $\frac{1}{2}$" OF THE PROJECTION ABOVE THE TOP OF THE FOUNDATION.
15. TANK CONTRACTOR IS RESPONSIBLE FOR A COMPLETE INSTALLATION INCLUDING ANCHOR BOLTS, ANCHOR BARS, VERTICAL STEEL PIPE, YARD PIPING AS SHOWN OR OTHERWISE ASSUMED.
16. ALL WELDING PER STANDARDS OF A.W.S.
17. TANK CONTRACTOR SHALL INSTALL ALL CONDUIT & SUPPORT BRACKET FOR ANTENNA. TANK CONTRACTOR SHALL ALSO SUPPLY THREE (3) ADDITIONAL SUPPORT BRACKETS FOR FUTURE USE AND INSTALLED AS DETERMINED IN THE FIELD.
18. PIPE SUPPORTS NOT SHOWN. CONTRACTOR TO INSTALL PIPE SUPPORTS UNDER ALL VALVES AND FITTINGS AS NEEDED FOR ADEQUATE SUPPORT.



TANK VALVE VAULT

SCALE: $\frac{3}{4}$" = 1'-0"

NO.	DATE	REVISIONS	BY

WALKERS CHAPEL WATER TANK

ELEVATED WATER TANK

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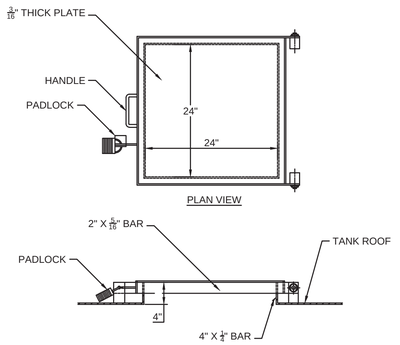
COMMONWEALTH OF KENTUCKY
MATTHEW RAY CURTIS
25718
LICENSED PROFESSIONAL ENGINEER
9/20/2023

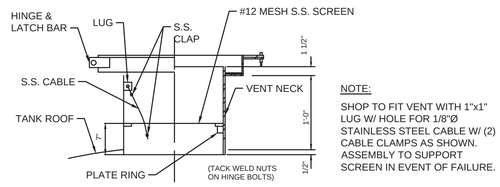
DOW SUBMITTAL SET

03



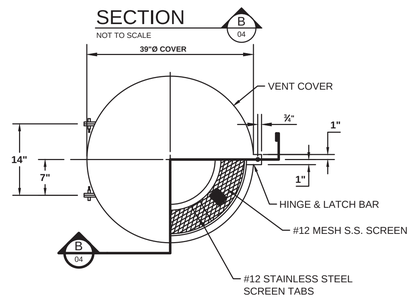
24" ROOF MANHOLE - DETAIL

NOT TO SCALE



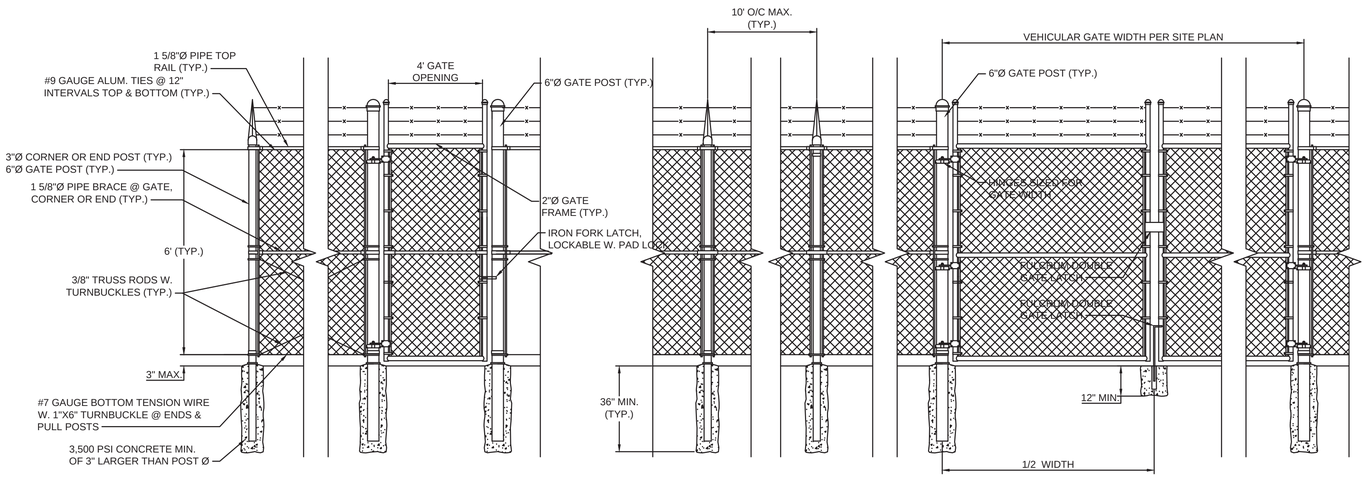
NOTE:

SHOP TO FIT VENT WITH 1"x1" LUG W/ HOLE FOR 1/8"Ø STAINLESS STEEL CABLE W/ (2) CABLE CLAMPS AS SHOWN. ASSEMBLY TO SUPPORT SCREEN IN EVENT OF FAILURE.



24" DIAMETER ROOF VENT - DETAIL

NOT TO SCALE

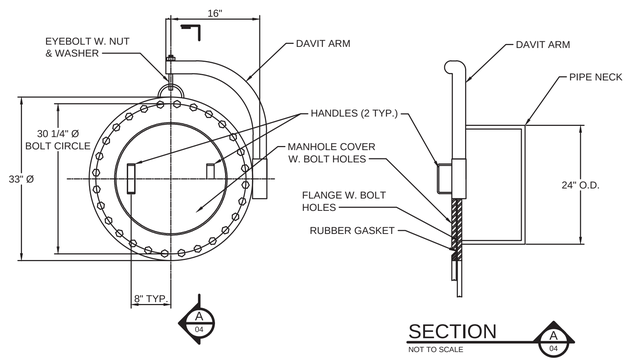


NOTES:

1. MISCELLANEOUS HARDWARE SIMILAR TO THAT USED IN LINE FENCE.
2. SUBMIT SHOP DRAWINGS FOR APPROVAL.

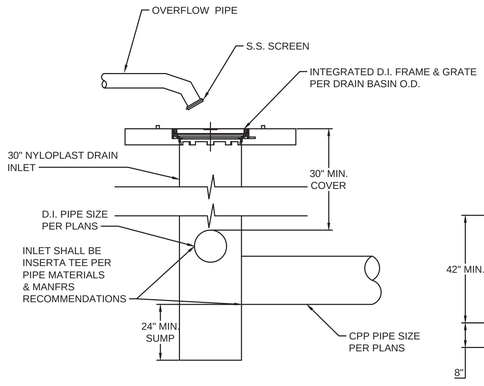
SECURITY FENCE, MAN GATE & VEHICLE GATE - DETAIL

NOT TO SCALE



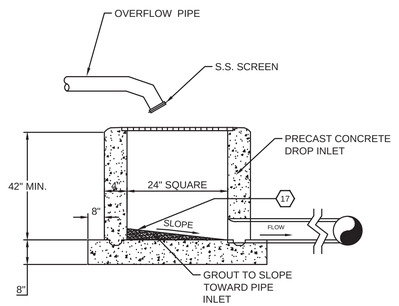
24" ACCESS MANWAY W. DAVIT - DETAIL

NOT TO SCALE



OVERFLOW ADS STYLE CATCH BASIN - DETAILS

NOT TO SCALE

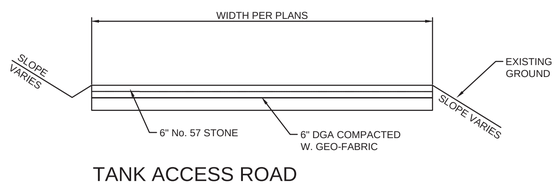


OVERFLOW PRECAST CONCRETE CATCH BASIN - DETAILS

NOT TO SCALE

NOTES:

1. ACCESS ROAD TO BE SLOPED TO DRAIN.
2. REMOVE TOPSOIL TO A MINIMUM DEPTH OF 10".
3. COMPACT EXISTING SUBGRADE TO 95% STD. PROCTOR.
4. CROSS DRAINS SHALL BE INSTALLED AS REQUIRED.



TANK ACCESS ROAD & PARKING AREA - DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	BY

WALKERS CHAPEL WATER TANK

STANDARD DETAILS
ELEVATED WATER STORAGE TANK

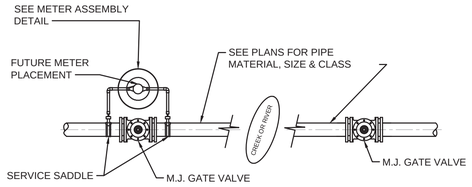
BLUEGRASS ENGINEERING PLLC
222 East Main Street, Ste. 1 • Georgetown, KY 40324

PROJECT #:	22048
DATE:	SEPT. 2023
PROJECT MGR:	MRC
DRAWN BY:	WJH
CHECKED BY:	PBR

COMMONWEALTH OF KENTUCKY
MATTHEW RAY CURTIS
25716
LICENSED PROFESSIONAL ENGINEER
09/20/2023

DOW SUBMITTAL SET

04



LEAK DETECTION ASSEMBLY - DETAIL

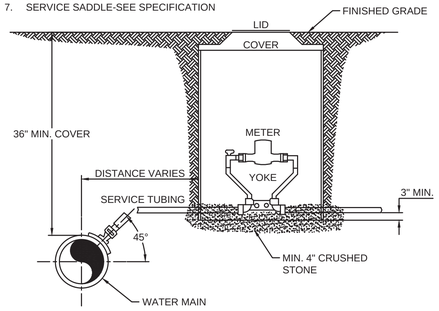
NOT TO SCALE

METER MATERIAL SCHEDULE

1. YOKE-SEE SPECIFICATIONS
2. METER BOX-SEE SPECIFICATIONS
3. COVER-SEE SPECIFICATIONS
4. METER-SEE SPECIFICATIONS
5. INDIVIDUAL PRESSURE REDUCING VALVE (IPRV)-SEE SPECIFICATIONS
6. CORPORATION STOP-SEE SPECIFICATION
7. SERVICE SADDLE-SEE SPECIFICATION

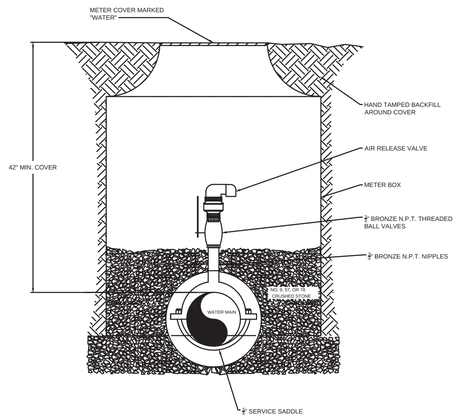
NOTE:

1. CONTRACTOR IS RESPONSIBLE FOR ALL PLUMBING PERMITS & ASSOCIATED COSTS.
2. SEE SPECIFICATIONS REGARDING SPECIFIC MAKE, MODEL, TYPE & STYLE OF FITTINGS, METER, METER BOX, COPPER SETTERS, IPRVs, BOX LID, ETC.
3. INDIVIDUAL PRESSURE REDUCING VALVES REQUIRED ON ALL METERS WHERE PRESSURE EXCEEDS 90 PSI.
4. TRACER WIRE TO BE CONNECTED TO WATER MAIN TRACER WIRE AND RAN ON NEW SERVICE TUBING AND TERMINATING IN THE METER BOX.



METER ASSEMBLY - DETAIL

NOT TO SCALE



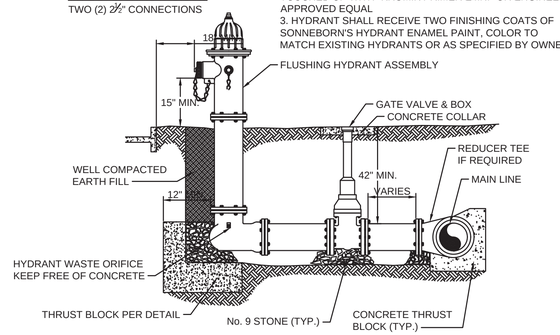
DETAIL - AIR RELIEF VALVE ASSEMBLY

NOT TO SCALE

NOTE:
TYPE 1 FLUSHING HYDRANT
TWO (2) 2½" CONNECTIONS AND ONE (1) 4½" CONNECTION

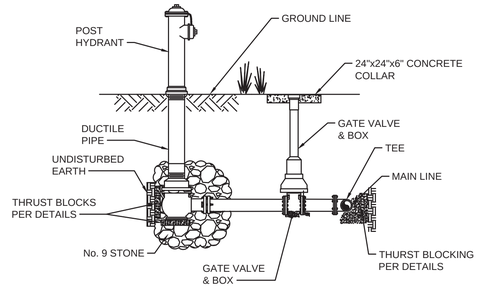
TYPE 2 FLUSHING HYDRANT
TWO (2) 2½" CONNECTIONS

NOTE: BEFORE FINAL INSPECTION
1. ENSURE ADEQUATE VOLUME OF OIL AS SHIPPED BY THE MANUFACTURER
2. HYDRANT SHALL BE CLEANED, WIRE BRUSHED AND TOUCHED UP WITH "KROMIK PRIMER E4INI" OR ENGINEER APPROVED EQUAL
3. HYDRANT SHALL RECEIVE TWO FINISHING COATS OF SONNEBORN'S HYDRANT ENAMEL PAINT, COLOR TO MATCH EXISTING HYDRANTS OR AS SPECIFIED BY OWNER



FLUSHING HYDRANT ASSEMBLY TYPE 1 & 2 - DETAIL

NOT TO SCALE



FLUSHING HYDRANT ASSEMBLY, TYPE 3 - DETAIL

NOT TO SCALE

NO.	DATE	REVISIONS	BY

WALKERS CHAPEL WATER TANK

STANDARD DETAILS - WATER LINES

BLUEGRASS ENGINEERING PLLC
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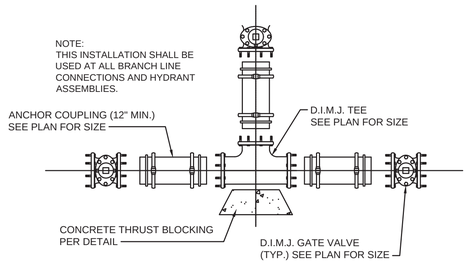
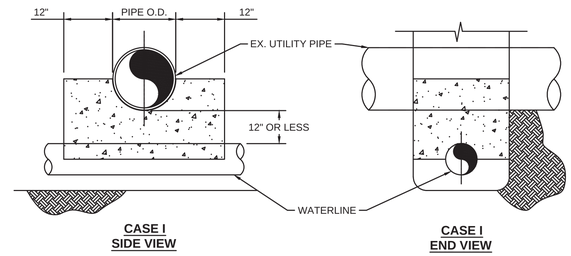


D.I.M.J. TEE ASSEMBLY - DETAIL

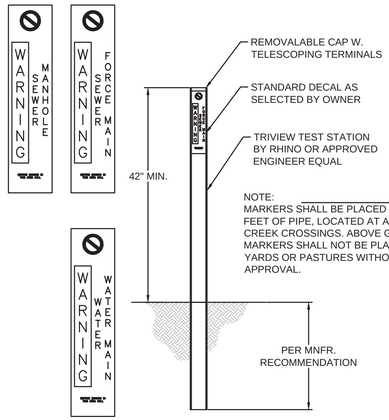
NOT TO SCALE

NOTES:
1. THIS DETAIL IS ONLY FOR NON-CONTAMINATE PIPE/CONDUIT. UTILITY PIPE IS DEFINED AS WATER, NATURAL GAS, TELEPHONE, ELECTRICAL CONDUITS OR STORM SEWER.
2. IF "UTILITY PIPE" IS A SANITARY SEWER PIPE (FORCE MAIN OR GRAVITY) SEE DETAIL FOR POTABLE WATER & FORCE MAIN CROSSING.
3. CONCRETE SEPARATOR SHALL BE USED WHEN CLEARANCE BETWEEN NEW WATERLINE & EXISTING UTILITY PIPE/CONDUIT IS LESS THAN 12".



UTILITY CROSSING CONCRETE ASSEMBLY - DETAIL

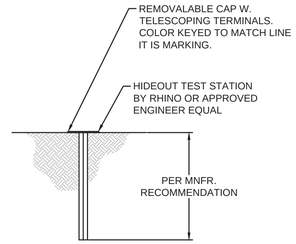
NOT TO SCALE



ABOVE GROUND TEST STATION - DETAIL

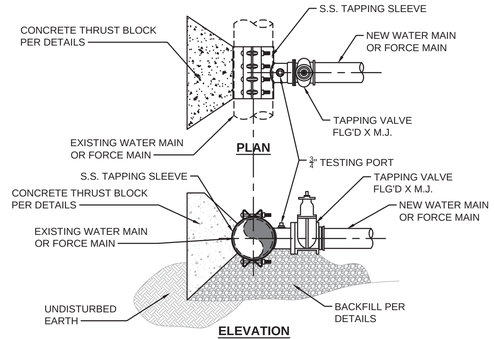
NOT TO SCALE

NOTES:
MARKERS SHALL BE PLACED EVERY 500 FEET OF PIPE, LOCATED AT ALL ROAD OR CREEK CROSSINGS, BELOW GROUND MARKERS SHALL NOT BE PLACED IN TRAFFIC LANES OR DRIVEWAYS.



BELOW GROUND TEST STATION - DETAIL

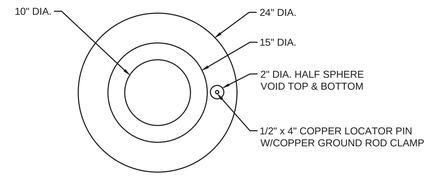
NOT TO SCALE

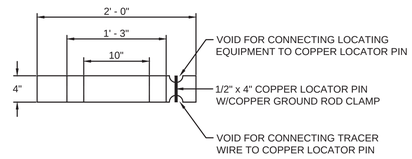


NOTE:
- TAPPING SLEEVE & VALVE TO BE TESTED PER MANUFACTURERS RECOMMENDATIONS
- NO SIZE FOR SIZE TAPPING SLEEVE ALLOWED WITHOUT WRITTEN APPROVAL OF MUPB.

STAINLESS STEEL TAPPING SLEEVE & VALVE ASSEMBLY - DETAIL

NOT TO SCALE



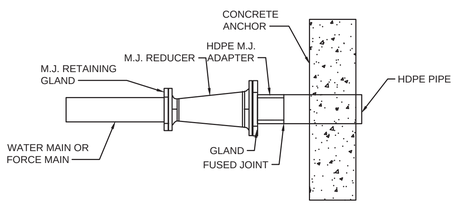


24" DIAMETER CONCRETE VALVE BOX PROTECTOR RING W/COPPER LOCATOR PIN

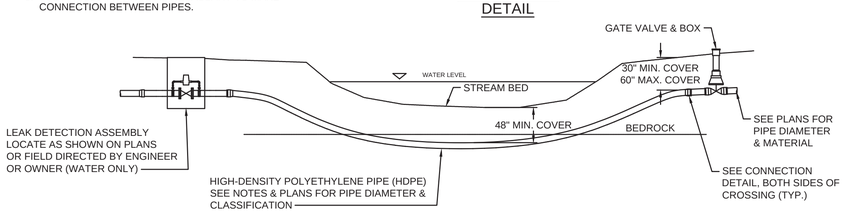
NOT TO SCALE

NOTES:

1. CONNECTION OF THE HDPE TO THE PVC OR DUCTILE IRON WATERLINE SHALL BE NO DEEPER THAN 5 FEET FROM THE GROUND ELEVATION.
2. DIRECTIONAL BORE SHALL BE MADE IN BED ROCK WITH A MIN DEPTH OF 36".
3. WHEN USING HDPE THE PIPE SHALL BE SIZED UP ONE PIPE SIZE TO ALLOW THE I.D. OF THE HDPE TO EQUAL THE I.D. OF THE CONNECTING PIPE.
4. SEE PLANS FOR PIPE LOCATION, MATERIAL & SIZE.
5. USE ANGLED FITTINGS AS NESASSARY TO MAKE CONNECTION BETWEEN PIPES.

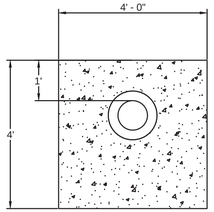


CONNECTION DETAIL

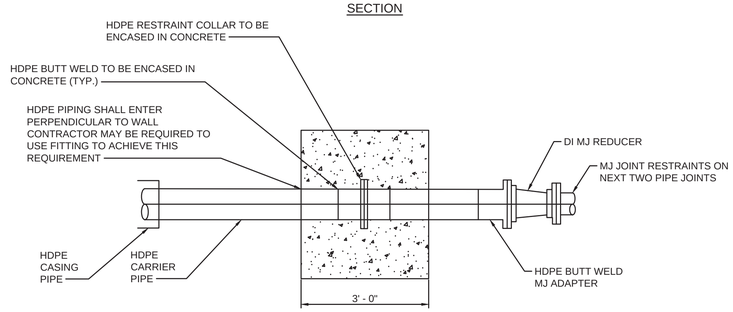


DIRECTIONAL DRILLED CREEK CROSSING - DETAIL

NOT TO SCALE

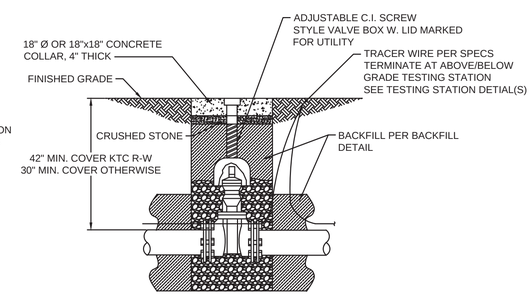


SECTION



HDPE RESTRAINT WALL

NOT TO SCALE



GATE VALVE ASSEMBLY - DETAIL

NOT TO SCALE

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WALKERS CHAPEL WATER TANK

STANDARD DETAILS - ROAD CROSSING

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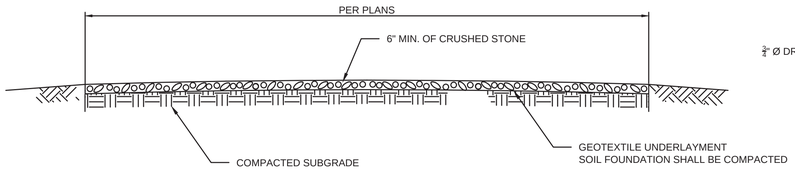
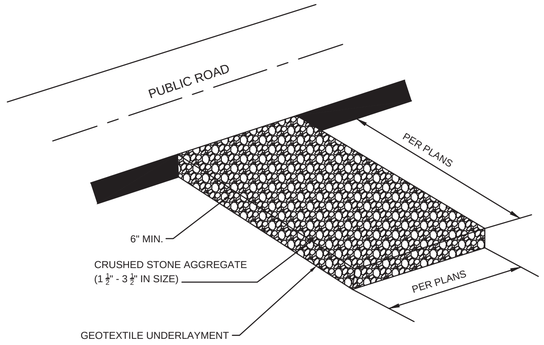


STABILIZED CONSTRUCTION ENTRANCE - SECTION

NOT TO SCALE

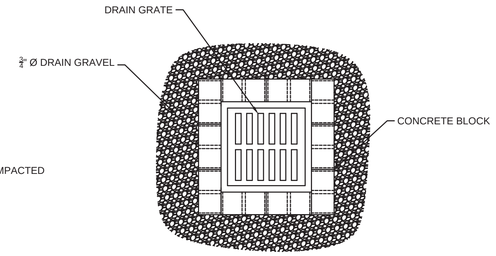


NOTES:

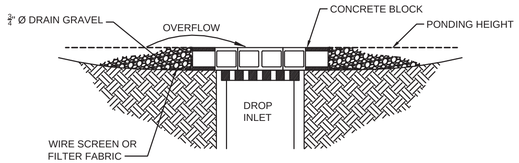
1. A STABILIZED ENTRANCE PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. GEOTEXTILE (KYTC TYPE III) SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
3. TREES, STUMPS, ROOTS, BRUSH, WEEDS, AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED FROM THE WORK AREA.
4. UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ROADBED AND PARKING AREAS.
5. GRADING, SUBGRADE PREPARATION, AND COMPACTION SHALL BE DONE AS NEEDED. FILL MATERIAL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 9 INCHES AND COMPACTED WITH THE CONTROLLED MOVEMENT OF COMPACTING AND EARTH MOVING EQUIPMENT.
6. THE ROADBED SHALL BE GRADED TO THE ELEVATION AS SHOWN. SUBGRADE PREPARATION AND PLACEMENT OF THE SURFACE COURSE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
7. ALL CUT AND FILLS SHALL BE 2:1 OR FLATTER TO THE EXTENT POSSIBLE.
8. WATER BREAKS OR BARS MAY BE USED TO CONTROL SURFACE RUNOFF.

STABILIZED CONSTRUCTION ENTRANCE - DETAIL

NOT TO SCALE



PLAN



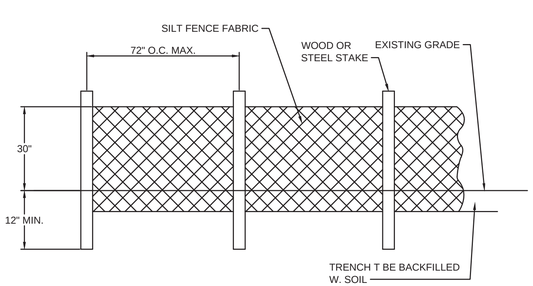
SECTION

NOTES:

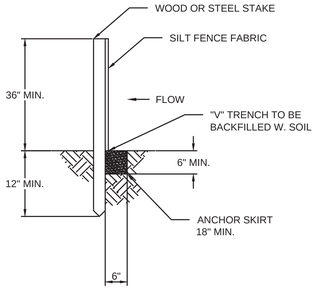
1. DROP INLET PROECTION ARE TO BE USED FOR NEARLY LEVEL DRAINAGE AREAS.
2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

DROP INLET PROTECTION - DETAIL

NOT TO SCALE



ELEVATION VIEW



SECTION VIEW

NOTES:

1. SILT FENCE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE OF THE BARRIER. WHEN JOINTS CANNOT BE AVOID, SILT FENCE FABRIC SHALL BE SPLICED TOGETHER ONLY AT A POST WITH 3 FOOT MIN. OVERLAP, AND SECURELY SEALED.
2. POSTED SHALL BE AT LEAST 5 FEET IN LENGTH.
3. STEEL POSTS SHALL HAVE PROJECTIONS FOR FASTENING WIRE AND FABRIC.
4. WOOD POSTS SHALL BE 2 INCHES BY 2 INCHES OR EQUIVALENT. STEEL POSTS SHALL BE 1/33 LBS PER LINEAR FOOT.
5. IF REQUIRED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH IN LENGTH, WIRE TIES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE
6. TURN SILT FENCE UP SLOPE AT ENDS.

SILT FENCE - DETAIL

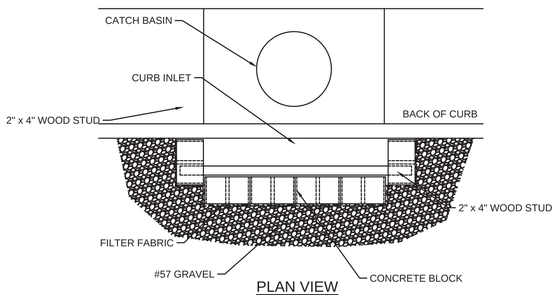
NOT TO SCALE

EROSION CONTROL NOTES:

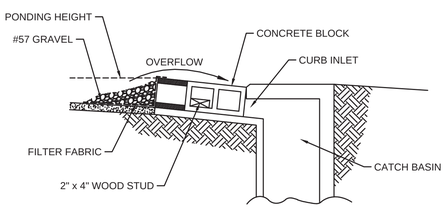
1. A KPDES STORMWATER PERMIT IS REQUIRED. COVERAGE STARTS WHEN THE KY DIVISION OF WATER ACKNOWLEDGES RECEIPT OF A NOTICE OF INTENT FOR COVERAGE.
2. FINAL STABILIZATION SHALL BEGIN WITHIN 14 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR HAVE BEEN SUSPENDED FOR MORE THAN 180 DAYS. WHEN SNOW COVER CAUSES DELAYS, STABILIZATION SHALL BEGIN AS SOON AS POSSIBLE. STABILIZATION PRACTICES INCLUDE SEEDING, MULCHING, PLACING SOD, PLANTING TREES OR SHRUBS, AND USING GEOTEXTILE FABRICS AND OTHER APPROPRIATE MEASURES. SEEDING RATES, DATES, AND MATERIALS MAY BE OBTAINED FROM THE LOCAL NATURAL RESOURCES CONSERVATION SERVICE FIELD OFFICE.
3. FOR ALL CRITICAL AREAS (WITHIN 25' OF A STREAM), SOIL STABILIZATION TECHNIQUES SHALL BE IMPLEMENTED WITHIN 24 HOURS OR AS SOON AS PRACTICAL AFTER COMPLETION OF GRADING OR DISTURBANCE. TEMPORARY STABILIZATION PRACTICES SHALL BE INITIATED WITHIN 14 DAYS OF CESSATION OF CONSTRUCTION ACTIVITIES.
4. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE DEVELOPED AND IMPLEMENTED AS OUTLINED IN THE KPDES STORMWATER PERMIT KYR 10.
5. SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE PROPERLY DESIGNED.
6. SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SEDIMENT TRAPS) SHALL BE INSTALLED DURING THE INITIAL GRADING AT LOCATIONS THAT WILL PROVIDE THE BEST PROTECTION FROM OFF-SITE DAMAGES.
7. ALL SLOPES EXCEEDING 3:1 SHALL HAVE EXTRA SLOPE PROTECTION SUCH AS NETTING.
8. INLET PROTECTION IS REQUIRED TO MINIMIZE DISCHARGE OF SEDIMENT LADEN WATER.
9. SITE PERIMETER CONTROLS ARE REQUIRED AND SHALL BE INSTALLED TO PREVENT THE DEPOSIT OF SOIL AND DEBRIS FROM GRADED SURFACES ONTO PUBLIC STREETS, INTO DRAINAGE CHANNELS OR SEWERS, OR ONTO ADJOINING LAND.
10. EROSION CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIRED, CONTRACTOR SHALL PROVIDE ADDITIONAL CONTROL AND REVISE THE CONTROLS AS NEEDED.

INSPECTIONS AND MAINTENANCE

1. ALL EROSION CONTROL MEASURES, DISCHARGE LOCATIONS, VEHICLE EXITS, DISTURBED AREAS OF THE SITE, AND MATERIALS STORAGE AREAS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. EACH INSPECTION MUST BE DOCUMENTED IN ACCORDANCE WITH THE KPDES GENERAL PERMIT FOR STORMWATER POINT SOURCE DISCHARGES FROM CONSTRUCTION ACTIVITIES (KYR10).
2. SEDIMENT ACCUMULATED AT THE SILT FENCES, INLET PROTECTION AREAS, AND OTHER SILT CHECK DEVICES SHOULD BE REMOVED NO LATER THAN WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES MAXIMUM.
3. SEDIMENT MUST BE REMOVED FROM ANY SEDIMENT BASINS WHEN THE NO MORE THAN 1/3 VOLUME HAS BEEN FILLED WITH COLLECTED SEDIMENT.
4. ALL REQUIRED REPAIRS ARE TO BE MADE IMMEDIATELY.
5. REMOVED SEDIMENT MUST BE SPREAD AND VEGETATED OR OTHERWISE STABILIZED IN A MANNER THAT DOES NOT RESULT IN MUDDY RUNOFF TO NEARBY DITCHES AND WATERBODIES.
6. INSPECT THE CONSTRUCTION ENTRANCE DAILY TO ENSURE NO TRACKING OR DIRT ONTO LOCAL ROADWAYS. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS MUST BE REMOVED IMMEDIATELY. SEE NOTE 3 FOR HANDLING OF REMOVED SEDIMENT.
7. MAINTAIN THE ENTRANCE AS NECESSARY TO PREVENT TRACKING OF DIRT.



PLAN VIEW



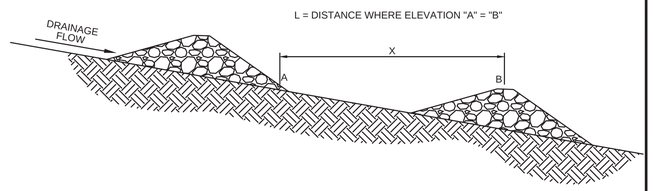
SECTION VIEW

NOTES:

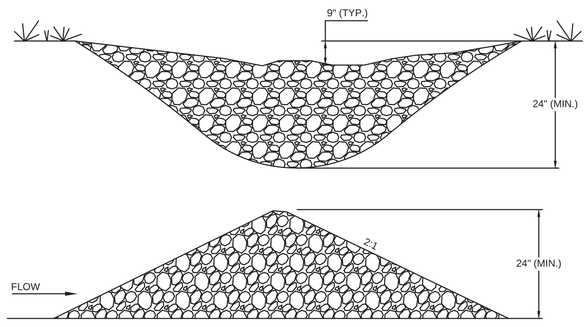
1. USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER - DETAIL

NOT TO SCALE



SECTION



NOTES:

1. ROCK CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED 5 TO 10 INCH STONE. MECHANICAL OR HAND PLACEMENTS SHALL BE REQUIRED TO ENSURE COMPLETE COVERAGE OF THE ENTIRE WIDTH OF DITCH OR SWALE AND THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
2. INSPECT BEHIND RIPRAP CHECKDAM DAILY AND CLEAN WHEN COLLECTED DEBRIS EXCEEDS HALF OF ITS DEPTH.

ROCK CHECK DAM - DETAIL

NOT TO SCALE

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WALKERS CHAPEL WATER TANK

STANDARD DETAILS - SITE GRADING & EROSION CONTROL

BLUEGRASS ENGINEERING PLLC
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