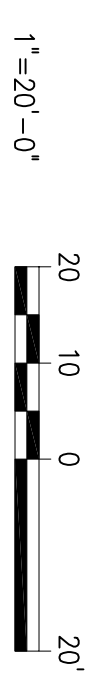


PIPELINE CROSSING
PLAN VIEW



LETTER	DESCRIPTION
1650'	DISTANCE FROM CROSSING TO NEAREST ACTUAL MILEPOST (FEET FROM MP 204).
100'	WIDTH OF CSX R/W
50'	DISTANCE FROM CENTERLINE OF TRACK TO R/W
102.3'	TOTAL LENGTH OF PIPE ON CSX R/W
55'	DISTANCE FROM CENTERLINE OF NEAREST TRACK TO FACE OF PITS OR POLES AT A 90 DEGREE ANGLE TO THE TRACK(S)
77'	ANGLE OF CROSSING
N/A	CONTENTS UNDER PRESSURE
20'x40'	WIDTH OF LAUNCHING
20'x20'	LENGTH OF RECEIVING PIT

MP 000-203.70
Sta. 3371+10

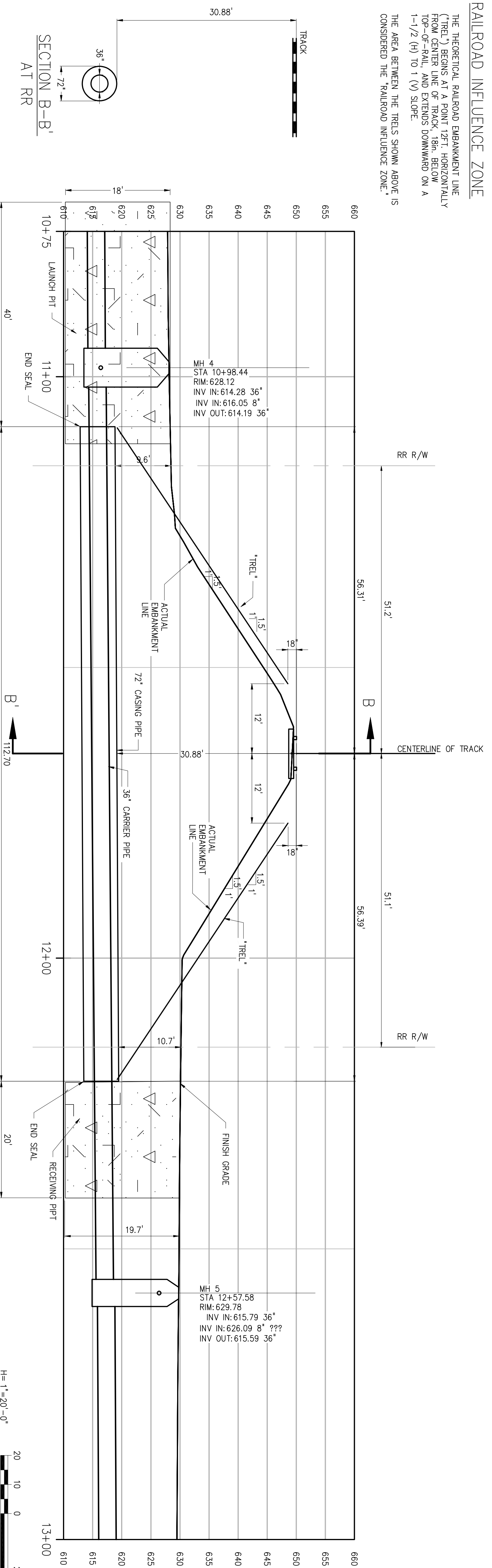
CSX PROPERTY SERVICES REVIEW
 No exceptions or exceptions noted
 design specifications only. Sole responsibility for all
 design and construction remains with the owner. The reviewer does not constitute approval of
 construction. All work shall conform to all applicable codes and standards. All work shall be in
 accordance with the approved plans and specifications. All work shall be in accordance with the
 approved plans and specifications. All work shall be in accordance with the approved plans and
 specifications. All work shall be in accordance with the approved plans and specifications.
 By: *[Signature]*

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 227 FRENCH LANDING DRIVE, SUITE 420
 NASHVILLE, TN 37228

LOCATION: FRANKLIN, TN
 LATITUDE: N. 35. 56: 32
 LONGITUDE: W. 86: 51: 15
 DRAWING No.: CSX-1 SHEET 1 OF 2
 DRAWING DATE: 1/21/2015
 DRAWING SCALE: 1 INCHES= 20 FEET
 SHEET WILL PRINT TO SCALE ON 22"x34" SHEET

RAILROAD INFLUENCE ZONE

THE THEORETICAL RAILROAD EMBANKMENT LINE (TREL) BEGINS AT A POINT 12FT. HORIZONTALLY FROM CENTER LINE OF TRACK, 18ft. BELOW TOP-OF-RAIL AND EXTENDS DOWNWARD ON A 1-1/2 (H) TO 1 (V) SLOPE. THE AREA BETWEEN THE TRELS SHOWN ABOVE IS CONSIDERED THE "RAILROAD INFLUENCE ZONE."



- NOTES:**
1. THE FRONT OF THE CASING PIPE SHALL BE PROVIDED WITH MECHANICAL ARRANGEMENTS OR DEVICES THAT WILL POSITIVELY PREVENT THE AUGER FROM LEADING THE PIPE SO THAT NO UNSUPPORTED EXCAVATION IS AHEAD OF THE PIPE. CSXT PIPELINES SPECS PAGE 23. A), ii) (c).
 2. LOCATE CSXT'S SIGNAL FACILITIES AND /OR WARNING DEVICES AT PROPOSED FACILITY CROSSING LOCATION, I.E. CANTILEVERS, FLASHERS, GATES AND SHOW CLEARANCES.
 3. CASING PIPE ENDS MUST BE SEALED. CSXT PIPELINES SPECS PAGE 19, E).

**SECTION A-A'
PROFILE ALONG
SEWER ALIGNMENT**

LEGEND

DESCRIPTION	REFERENCE
DISTANCE FROM CENTERLINE OF TRACK TO CSX RW	
50'	
DISTANCE FROM BASE-OF-RAIL TO TOP-OF-CASING [SEE CSXT PIPELINE SPEC. PAGE 6.(c)]	
30.88'	
DISTANCE FROM BASE-OF-DITCH TO TOP-OF-CASING [SEE CSXT PIPELINE SPEC. PAGE 6.(c)]	
9.6'	
TOTAL LENGTH OF PIPE ON CSX R/W [SEE CSXT PIPELINE SPEC. PAGE 13.(c), i) (f)]	
112.70'	
DISTANCE FROM CENTERLINE OF NEAREST TRACK TO FACE OF PITS AT A 90 DEGREE ANGLE TO THE TRACK(S)	
56.39'	
DISTANCE FROM TOP-OF-VENT PIPE TO GROUND SURFACE (4' MINIMUM REQUIRED) [SEE CSXT PIPELINE SPEC. PAGE 13.(c), i) (f)]	
N/A	
DISTANCE FROM CENTERLINE OF TRACK TO VENT PIPE AT 90 DEGREE ANGLE TO THE TRACK(S) [SEE CSXT PIPELINE SPEC. PAGE 20.(f)]	
N/A	
THEORETICAL EMBANKMENT LINE STARTS 12' FROM CENTERLINE OF TRACK AND EXTENDS AWAY FROM TRACK AT A SLOPE OF 1.5' OVER 1' DOWN [SEE CSXT PIPELINE SPEC. PAGE 14, (c)]	
NOTED	
36" CARRIER PIPE DIAMETER	
72" CASING PIPE DIAMETER	
18" DEPTH OF LAUNCHING/RECEIVING PIT	

PIPELINE CONTENT DETAILS

COMMODITY DESCRIPTION	RAW SEWAGE	ATMOSPHERIC
MAXIMUM OPERATING PRESSURE IS COMMODITY FLAMMABLE	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
CARRIER/CASING PIPE DETAILS		
CARRIER PIPE	DUCTILE IRON	STEEL
PIPE MATERIAL	ANSI A21.51/AWWA C151	ASTM A252 / GRADE 2
SPECIFIED MINIMUM YIELD STRENGTH	42,000 psi	35,000 psi
NOMINAL SIZE OUTSIDE DIAMETER (INCHES)	36.30"	72"
WALL THICKNESS (INCHES)	0.47	1.0"
TYPE OF SEAM	-	WELDED
TYPE OF JOINTS	FLEX RING RESTRAINED	CIRCUMFERENTIAL WELD
TUNNEL LINER PLATES REQUIRED	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
CATHODIC PROTECTION	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
PROTECTION COATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
TEMP. TRACK SUPPORT OR RIBRAY REQ	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
MUST DESCRIBE & SHOW DWG.		

Hazen and Sawyer
Environmental Engineers & Scientists
227 FRENCH LANDING DRIVE, SUITE 420
NASHVILLE, TN 37228

LOCATION: FRANKLIN, TN
LATITUDE: N. 35: 56: 32
LONGITUDE: W. 86: 51: 15
DRAWING No.: CSX-2 SHEET 2 OF 2
DRAWING DATE: 1/21/2015
DRAWING SCALE: 1 INCHES= 20 FEET
SHEET WILL PRINT TO SCALE ON 22"x34" SHEET

CSX PROJECT SERVICES REVIEW
I have reviewed the design and construction documents for this project and find them to be in accordance with the design specifications and standards. I am not responsible for any errors or omissions in the design or construction of this project. This review does not constitute approval to construction requirements as of CSX's safety and health requirements.
By: [Signature]