



*Heartland Corridor, Walton Virginia to
Columbus Ohio*

Preliminary Engineering Phase Report



**Hemphill No. 1
Tunnel –
MP N400.15
Hemphill, WV**

October 14, 2005, Rev. 2



Preliminary Engineering Phase Report

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October 14, 2005

Norfolk Southern Railway Heartland Corridor, Walton VA to Columbus OH

Hemphill No. 1 Tunnel – MP N400.15

Statistics: Pocahontas Division
Double-width Tunnel for Main #1 and Main #2
Length = 864'
Concrete lined
Tangent track (per Track Chart)
Superelevation = 0.0” (per Track Chart)

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1. EXISTING CONDITIONS

1.1 Background

Valuation Maps V-13WV/27 & 28 (16283, 16284) for the Hemphill No. 1 Tunnel are dated June 30, 1916. Parcels for the tunnel were acquired in 1903. It is therefore suspected that the tunnel was constructed in 1903 or shortly afterwards.

Drawing Y-1939 dated Jan. 29, 1901 shows a typical section and portal elevation view. This drawing is for the Cooper Tunnel but there is a note that the drawing is used for the two Hemphill Tunnels and that all dimensions are retained but Portland cement concrete is substituted for brick and stone. Drawing Y-1939 shows cord wood packing, dry stone packing, and 10"x12" timbers spaced 4' to 5' apart above the brick; it is not clear if this was utilized at the Hemphill tunnels.

Drawing T-1939-A (4 sheets) dated November 25, 1985 documents repairs made to the east and west portals and the liner. The repairs included shotcrete and pressure injected epoxy adhesive.

Additional information on this tunnel was obtained from various sources such as topographic maps, aerial photos, inspection reports, track charts, and field investigations that were performed on March 21, June 13, and July 13, 2005.

1.2 General Area

The tunnel is located in a lightly populated area of the in the Town of Hemphill near the City of Welch, McDowell County, West Virginia. Nearby land use includes a residential area near the west portal. A staging area is located off Tug River Road near the west portal. Access to the west portal of the tunnel is across a rail bridge 143' west of the portal. A rail bridge is also located 107' east of the east portal. No potential access or staging area was observed in close proximity to the east portal. An overhead highway bridge is located adjacent to the east portal.

1.3 Structural Conditions

The tunnel is 864' long with a concrete lining and a width of approximately 27.5'. It is a double-width tunnel for two tracks. A signals and communications cable is mounted on the south wall. The top of the liner footing is exposed on the both sides for the entire length of the tunnel. There are drainage ditches along each wall and in between the tracks. The liner is typically dry, even at construction joints. There is one open joint at the west end of the tunnel and one in the center of the tunnel with minor spalling and small cracks. Construction joints are spaced at approximately 16'. The concrete liner is in generally very good condition.

Liner cores were taken on July 13, 2005. Cores were drilled into the liner at locations 250' and 750' into the tunnel from the east portal. The cores were taken at the 7, 10 and 12 o'clock positions at each location. A borescope was inserted into the holes to view inside the liner. The

video from the borescope was recorded onto a DVD. The liner probe investigation is summarized in the table below:

Summary of Hemphill No. 1 Tunnel Liner Core Investigation			
Distance from East Portal	Position	Liner Thickness	Notes
250'	7 o'clock	41"	No void behind liner.
250'	10 o'clock	38"	Concrete in poor condition at rock/concrete interface. No void behind liner.
250'	12 o'clock	25"	Large void behind liner with boulders and cobbles.
750'	7 o'clock	40"	Mud behind liner.
750'	10 o'clock	43"	No void behind liner.
750'	12 o'clock	28"	Large void behind liner with boulders and cobbles.

Two samples of concrete from the liner core investigation were saved and tested. The sample from the 250', 12 o'clock position had a compressive strength of 5,667 psi. The sample from the 750', 10 o'clock position, taken from about 3' into the core, had a compressive strength of 6,397 psi.

The bridge outside of the west portal of the tunnel (between Hemphill No. 1 Tunnel and Hemphill No. 2 Tunnel) was investigated on June 13, 2005. It is a 4-span timber deck girder bridge. The girders are built-up steel plate girders with the south pair of girders carrying Main #1 and the north pair carrying Main #2. The girders bear directly on the bridge seats and bents. The bridge spans over a road with only 7'-6" clearance. A bridge with similar bearings is located outside the east portal of the tunnel. The structure types and site geometry, coupled with the proximity of rock below the rail make track lowering a difficult and expensive option.

A small portion of the tunnel invert material was excavated to expose the base of the tunnel liner footing. The footing thickness was found to be 21". The vertical distance from the top of rail to the base of the footing was measured at 39.5".

1.4 Track

The track is continuous welded rail of conventional design with wooden cross ties at approximately 19" on center and a stone ballast section. The ballast is generally clean with no

pumping of fines observed. The rail is typically 141 AB on 15” tie plates and fastened with rail spikes. The track is tangent throughout the tunnel. A 2’x2’ sink hole was noted in the ballast – see photo 6.

1.5 Geotechnical

The tunnels in the east-central part of the Pocahontas Division including Hemphill No. 1 are located in the Appalachian Plateaus Physiographic Province, a region characterized by deeply incised plateaus underlain by flat-lying sedimentary rock. The tunnel itself is lined and no rock was exposed. The description of the site geology at the tunnel is based on our observations of the rockmass at the portals and adjacent cuts and the 1968 West Virginia Geologic Map prepared by the West Virginia Geologic and Economic Survey.

The tunnel was excavated through the medium- to thick-bedded fine-to medium grained sandstone of the New River Formation. The sandstone is locally interbedded with thin-bedded sandstone, siltstone, shale, and coal. Bedding is subhorizontal and gently rolls back and forth towards the northwest and southeast. Beds of thin-bedded sandstone and shale up to five feet thick were infrequently noted within the sandstone. Joints in the rock cuts are typically steeply dipping and widely spaced. Most joints are less than 15 feet in length and are not through-going across the exposure face.

The rock quality designation, Q, at the portals was determined to be 18. A Q rating between 10 and 40 is considered “Good” with 10 bordering on “Fair” and 40 bordering on “Very Good.” A sample of rock was taken from the portal and tested.

The geoprobes indicate that the top of rock is located between 2.0’ to 3.0’ (averaging about 2.4’) below the top of ballast throughout the tunnel for Main #1 and between 1.5’ to 3.0’ (averaging about 2.1’) below the top of ballast throughout the tunnel for Main #2. Top of ballast is typically 0.8’ below top of low rail.

1.6 Clearances

The laser car measurements indicate that the existing tunnel has adequate horizontal clearance, but inadequate vertical clearance for both the “Double Stack” and the “High-Wide Load” portions of the composite clearance envelope. For the “Double Stack” portion of the envelope, encroachment on both sides of the tunnel crown averages about 13”, and varies up to 15”. For the “High-Wide Load”, encroachment on each side of the crown averages about 4” and varies from 0” to 7” at points lower than the Double Stack template throughout the entire tunnel. Cross sections of the tunnel clearance encroachments are shown in the drawings at the end of this report. The maximum vertical encroachments are summarized in the table below:

Distance (ft) from East Portal	Crown Encroachment (radial inches)	
	Left Side	Right Side
0	14	15
100	14	14
201	14	13
300	12	12
401	12	11
501	12	10
601	13	10
701	13	11
801	13	13
850	13	15

2. CLEARANCE IMPROVEMENT ALTERNATIVES

Given the magnitude of the vertical clearance deficiency, there are several general alternatives that can be used to obtain the clearance; replacing the lining, notching the lining or using steel ties to lower the track. Combinations of the general methods may be required to obtain a design that is cost effective and that can be constructed within reasonable track outages. Track lowering by excavating or undercutting does not appear feasible due to the proximity of the top of rock to the surface.

2.1 Liner Replacement

With this method, to obtain the desired clearance the concrete liner at the crown must be demolished, the native rock excavated to the clearance limits plus the new liner thickness, and a new concrete liner installed. However, the magnitude of encroachment does not appear to be enough to warrant liner replacement.

2.2 Notching the Crown

Notching in the upper quadrants of the tunnel would not cut entirely through the liner and would be a more economical alternative to complete liner replacement. Considering that the average vertical encroachment for the “Double Stack” portion of the envelope is currently between 12” and 13”, rock dowels and a deep notching scheme will be necessary. This method is a feasible alternative for encroachments up to 16” and that amount is not exceeded in this tunnel. The deep notching method on its own could solve the clearance problems, or, alternatively, steel ties could be used to reduce the depth of the notch.

2.3 Steel Ties

Substitution of steel ties for the standard wood ties would permit the rails to be lowered about 6 inches. Transition sections would be constructed at the tunnel approaches and into the east portal for the vertical curves and for a gradual transition in track stiffness. A proper drainage system is required to minimize corrosion of the ties.

Steel ties would not be sufficient to fix the entire clearance deficiencies but could be used in conjunction with notching to reduce the depth of the notch. However, with or without steel ties the notch would still be a deep notch, requiring rock dowels, so no benefit is gained by the method changing from deep to minor notching. If steel ties are incorporated to lower the track, the bridges outside the tunnel would need to be lowered as well. The bridge investigation showed that lowering the bridges would require significant structural modifications. Also, lateral shifting of the track is a concern when using steel ties. For these reasons, the small benefit gained by using steel ties would not warrant the additional costs, and this alternative will no longer be considered.

3. PREFERRED ALTERNATIVE

Given the magnitude of the vertical encroachment, installing rock dowels and using the deep notching method is the most feasible and economical solution to provide adequate vertical clearance throughout the tunnel. Drainage improvements are also recommended to help alleviate the ballast-fouling problem.

3.1 Preliminary Design

The preferred scheme for the preliminary design of tunnel improvements is as stated above. However, some modifications to that scheme will be implemented in the preliminary design. Considering the concrete repairs that took place in the mid-1980s, it will be assumed for planning purposes that 25% of the tunnel that is intended for notching will not be suitable for that method and will have to be crown replacement. Additional investigations in the final design phase will assess the ability of the liner to sustain a deep notch. Also, considering the voids encountered above the liner at the 12 o'clock position, the estimate will include an allowance for an additional quantity of grout for above the liner. Therefore, the preliminary design uses deep notching on both sides of the tunnel for 648' of the tunnel. Replacement of the tunnel crown will be done for 216' of the tunnel.

The existing track structure is planned to be flooded with ballast to the top of the rail to provide access into the tunnel for the contractor to work and to protect the track during the construction. The preliminary design also proposes to install a new drainage system and undercut the track to improve drainage.

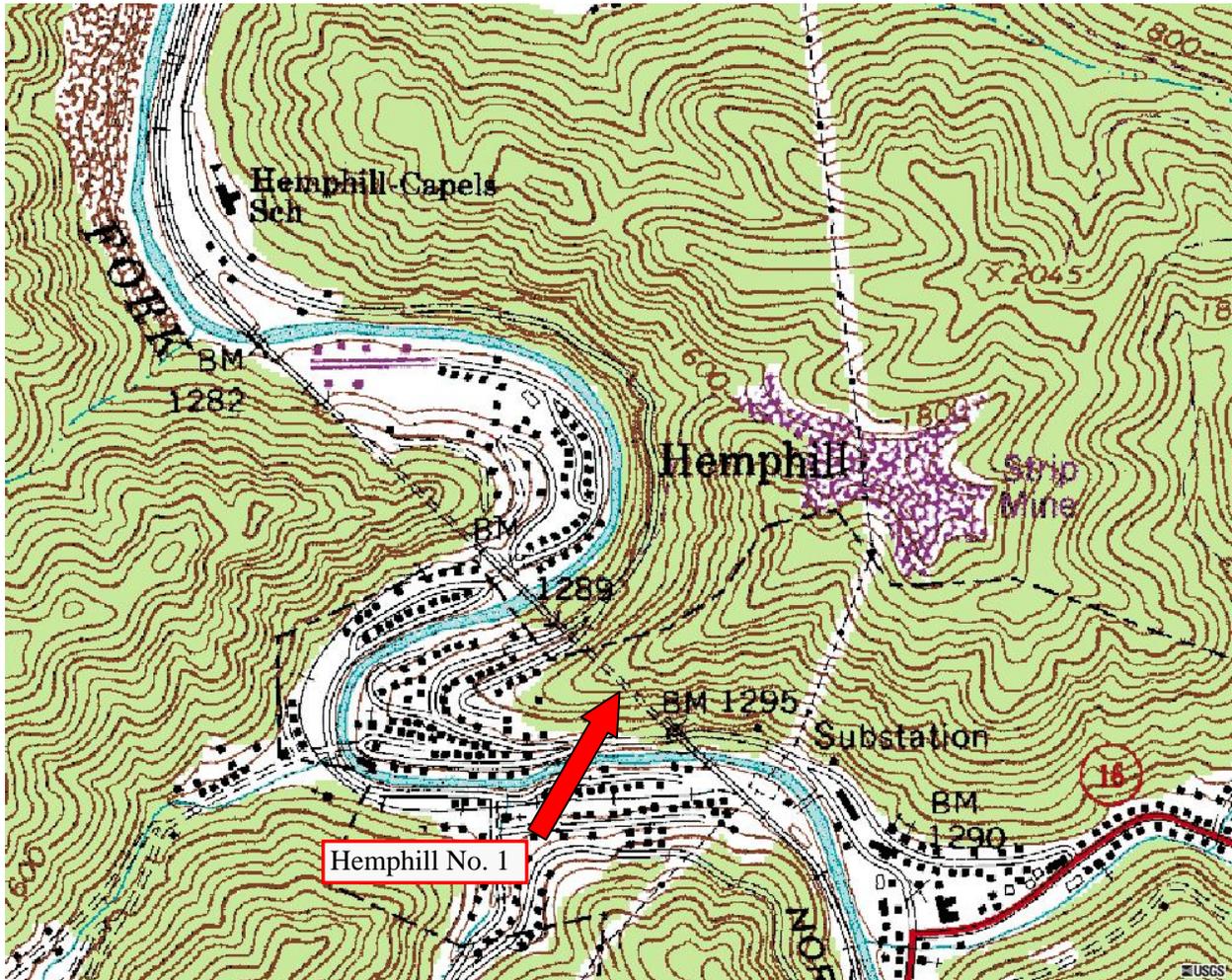
3.2 Schedule

The estimated schedule for completing improvements on this tunnel is twenty (20) weeks from mobilization to demobilization. The schedule assumes that one track is closed at a time, for ten hours, five days a week. The installation of rock dowels at a given location would precede the deep notching, but the two operations could occur within the tunnel at different locations at the same time. An allowance to the schedule will be added due to the potential for crown replacement being required at some locations instead of deep notching. Likewise, drainage improvement operations would also be undertaken at the same time.

3.3 Estimate

The total estimated cost for achieving clearance at this location is \$3.05 million (2005 rates) or \$3,535 per foot of tunnel. The work items include mobilization, surveying, rock dowels, deep notching, rock cut for drainage trench, tunnel drainage system, ballast cleaning, and demobilization. Allowances for grouting the invert void and for grouting above the liner were also included. The total cost is made up of tunnel, track, signal and site work items at \$1.89 million, plus a 30% construction contingency, a 10% engineering allowance, and a 14% construction management allowance.

4. USGS TOPOGRAPHIC MAP



5. AERIAL PHOTO



7. PHOTOS



Photo No. 1 – East Portal



Photo No. 2 – Looking east from east portal

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Photo No. 3 – West Portal



Photo No. 4 – Rock face north side of west portal



Photo No. 5 – Rock face south side west portal



Photo No. 6 – Hole forming in ballast, between tracks 1 & 2

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8. ESTIMATE
Hemphill No. 1

Tunnel Length **864** ft
 Tunnel Width **27.25** ft
 # of Tracks **2**

	Contractor		Railroad	
Work Window	10	hrs	10	hrs
Setup & Demobilization Allowance	2	hrs	2	hrs
Production Time	8	hrs	8	hrs

Tunnel Work Items	UOM	Quantity	Unit Rate	Total
Mobilization	%	5%		\$68,915.12
Surveying	DY	5	\$1,300.00	\$6,500.00
Minor Notching	LF			
Deep Notching	LF	1296	\$213.72	\$276,987.20
Rock Dowels 14' with Chain Link Mesh - Crown	EA	360	\$600.64	\$216,230.40
Rock Dowels 14' with Chain Link Mesh - Wall	EA			
Rock Dowels 16'	EA	648	\$291.45	\$188,858.40
Crown Removal	SF	10179	\$16.08	\$163,670.40
Rock Removal - Crown	CY	377	\$424.60	\$160,070.40
Crown Installation	SF	10179	\$24.34	\$247,797.82
Rock Cut Drainage Trench	LF	964	\$87.29	\$84,144.00
Tunnel Drainage	LF	964	\$18.29	\$17,627.82
Demobilization	DY	5	\$3,283.20	\$16,416.00
Total Tunnel Work Items	LF	864	\$1,675.02	\$1,447,217.57

Trackwork Items	UOM	Quantity	Unit Rate	Total
Mobilization	DY	1	\$3,110.32	\$3,110.32
Surveying	DY	2	\$1,300.00	\$2,600.00
Track Preparation/Restoration	DY	3	\$3,431.32	\$10,293.96
Undercutting	PF	864	\$30.13	\$26,029.72
Saw Cuts	EA	6	\$6,092.96	\$36,557.76
Field Welds	EA	6	\$2,698.37	\$16,190.25
Surfacing & Lining	PF	5184	\$1.99	\$10,304.06
Ballasting Track	TN	1000	\$40.73	\$40,731.32
Equalizing rail	DY	2	\$6,701.14	\$13,402.28
Elastomeric Flangeway Crossing	EA			
Demobilization	DY			
Total Trackwork Items				\$159,219.68

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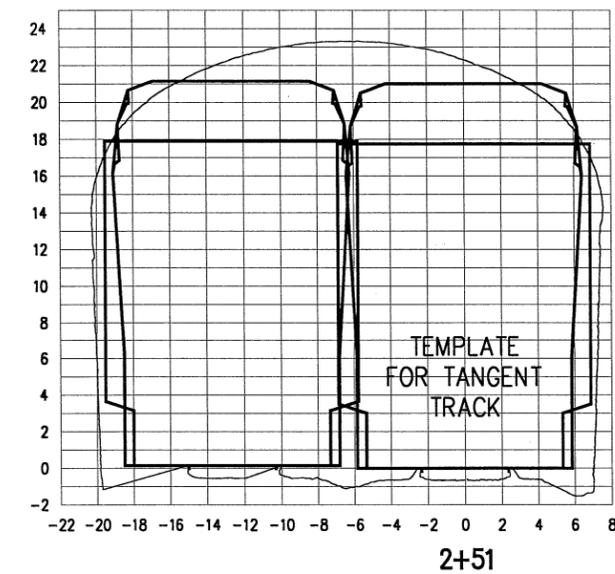
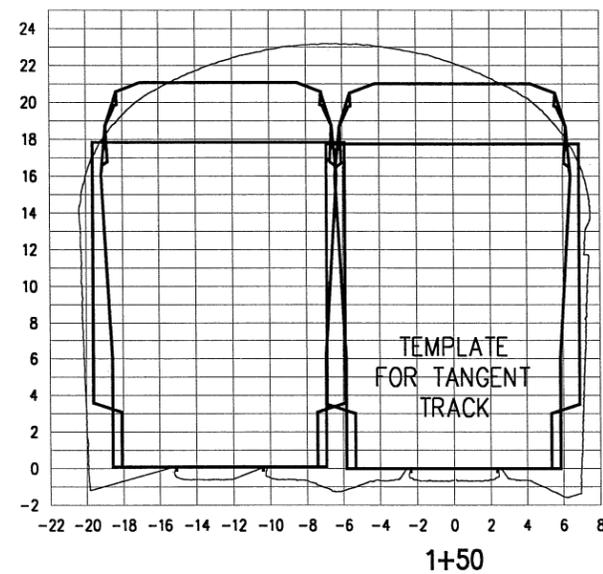
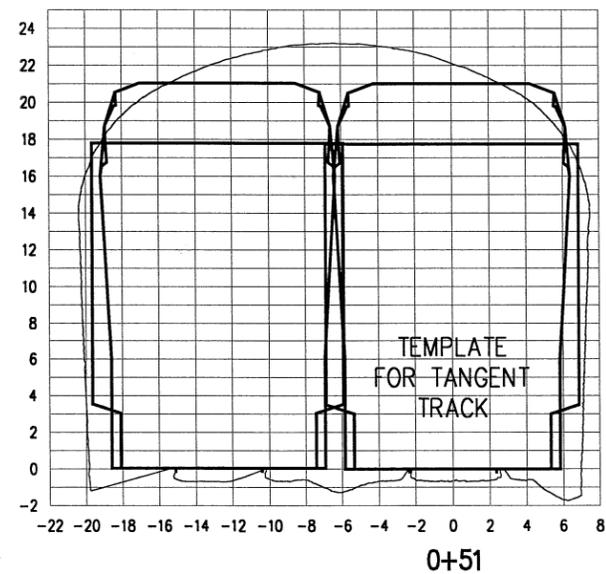
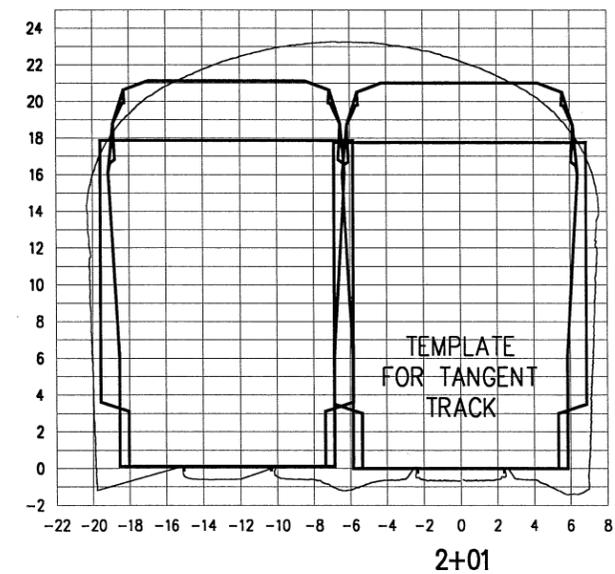
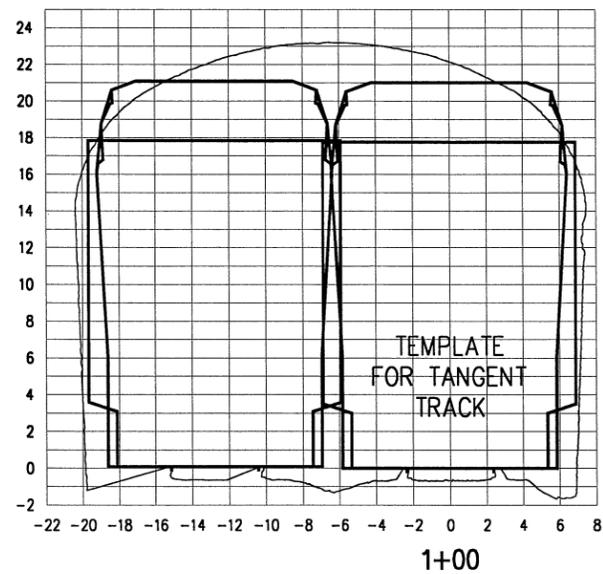
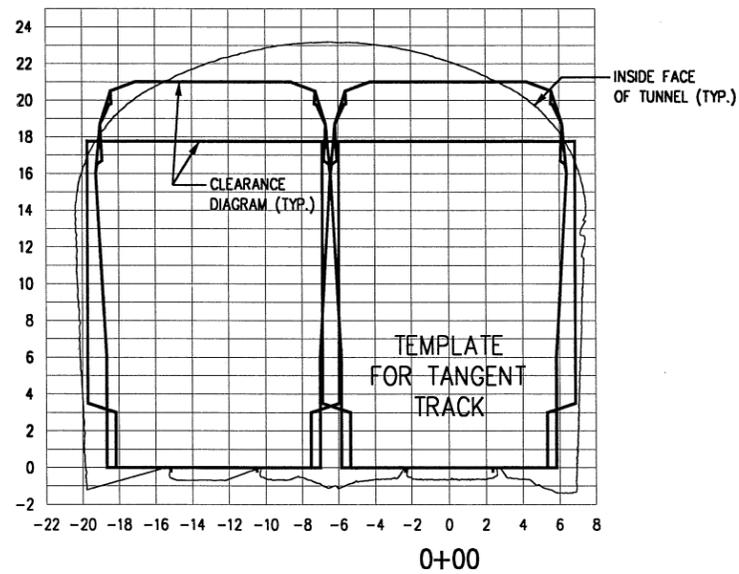
Signal Items	UOM	Quantity	Unit Rate	Total
Mobilization	DY			
Relocate Cables / Track Leads	LF	864	\$11.53	\$9,965.18
Cut-in	EA			
New CP	EA			
Modify CP	EA			
Grade Crossing - Single to Double Track	EA			
Signal Location Modification	EA			
New Cut Section	EA			
Demobilization	DY			
Total Signal Items				\$9,965.18

Site Items	UOM	Quantity	Unit Rate	Total
Mobilization	DY	1	\$2,483.60	\$2,483.60
Erosion & Sedimentation Control	EA	1	\$11,958.80	\$11,958.80
Site Grading	CY			
Rock Excavation	CY			
Sub-Ballast	CY			
Drainage	LF			
Demobilization	DY			
Total Site Items				\$14,442.40

Special Items	UOM	Quantity	Unit Rate	Total
Mobilization	DY			
Flagging	DY	99	\$821.50	\$81,328.50
Flood Track with Ballast for Protection	TN	2000	\$38.48	\$76,963.03
Remove Flooded Ballast	TN	2000	\$8.16	\$16,316.30
Temporary Bridges	EA			
New Railroad Bridges	EA			
New Highway Bridges	EA			
Invert/Crown Void Grouting	DY	20	\$4,448.80	\$88,976.00
Demobilization	DY			
Total Specialty Items				\$263,583.83

Subtotal All Items		\$1,894,428.66
Construction Contingency	30%	\$568,328.60
Engineering Allowance	10%	\$246,275.73
Construction Management Allowance	14%	\$344,786.02
Total		\$3,053,819.01

9. DRAWINGS



NOTES:

1. HORIZONTAL DATUM IS PARALLEL TO TRACK. WHERE TRACK IS SUPERELEVATED, DATUM IS NOT PARALLEL WITH GROUND.
2. CROSS SECTION GIVEN FOR STA. 0+00 IS A COMPOSITE FOR THE TUNNEL FROM STA. 0+00 THROUGH 0+50. ALL OF THE SECTIONS FOLLOW THIS CONVENTION.

NOT FOR CONSTRUCTION

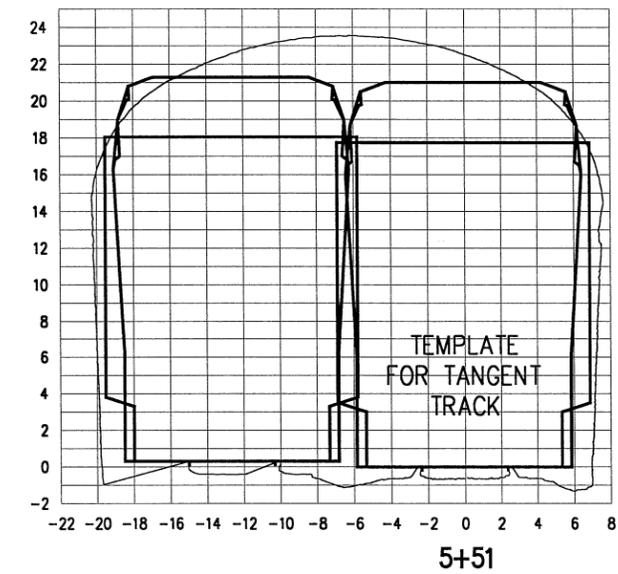
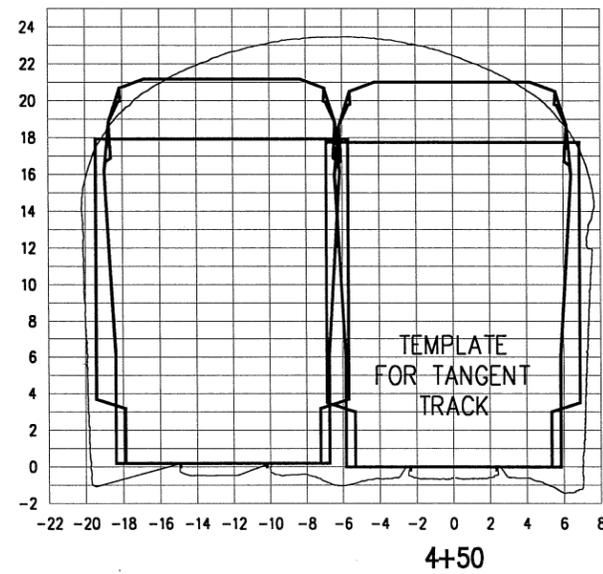
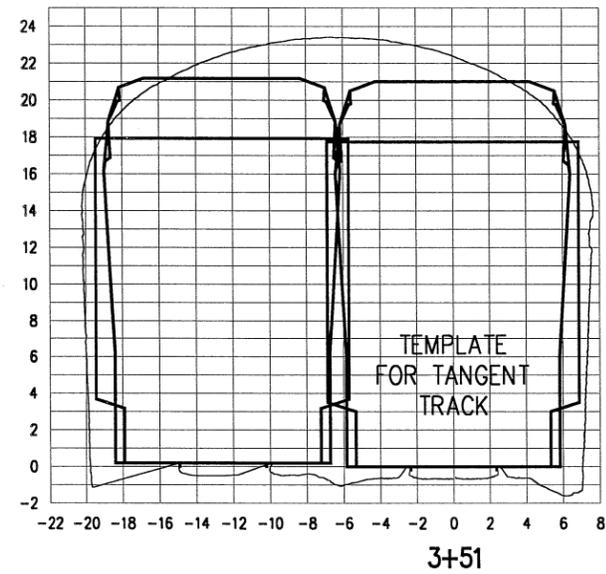
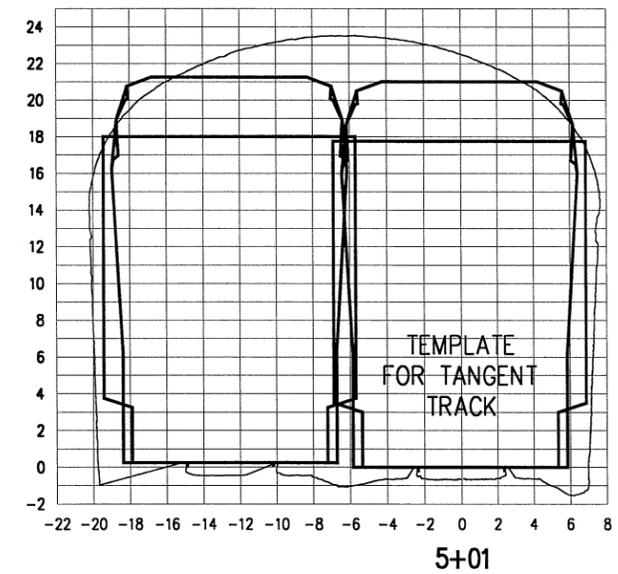
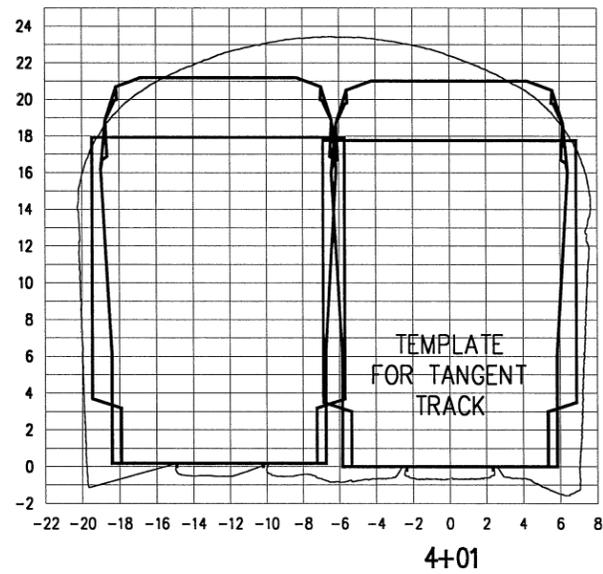
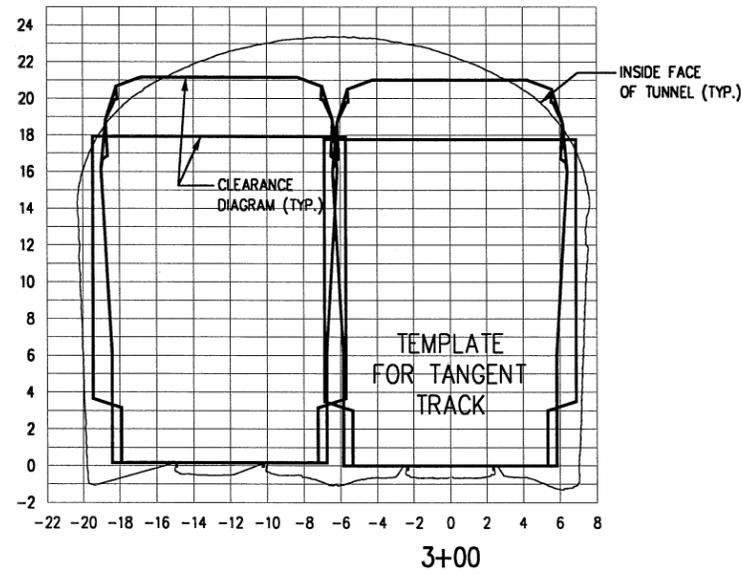


NORFOLK SOUTHERN

OWNING COMPANY
OPERATING DIVISION
POCAHONTAS
OFFICE OF THE CHIEF ENGINEER - DESIGN AND CONSTRUCTION - ATLANTA, GA.

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TITLE	TUNNEL CLEARANCE CROSS SECTIONS - 1 OF 3		
DGN	P10	NO.	16283 & 16284
DRN	FILE	NO.	N-400.15
CHK	DATE	APRIL 15, 2005	

FILE NAME = #FILES
DATE/TIME = #DATE#



NOTES:

1. HORIZONTAL DATUM IS PARALLEL TO TRACK. WHERE TRACK IS SUPERELEVATED, DATUM IS NOT PARALLEL WITH GROUND.
2. CROSS SECTION GIVEN FOR STA. 0+00 IS A COMPOSITE FOR THE TUNNEL FROM STA. 0+00 THROUGH 0+50. ALL OF THE SECTIONS FOLLOW THIS CONVENTION.

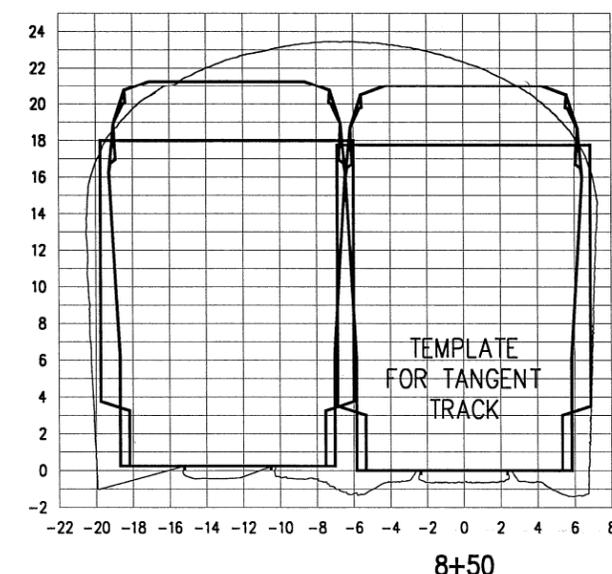
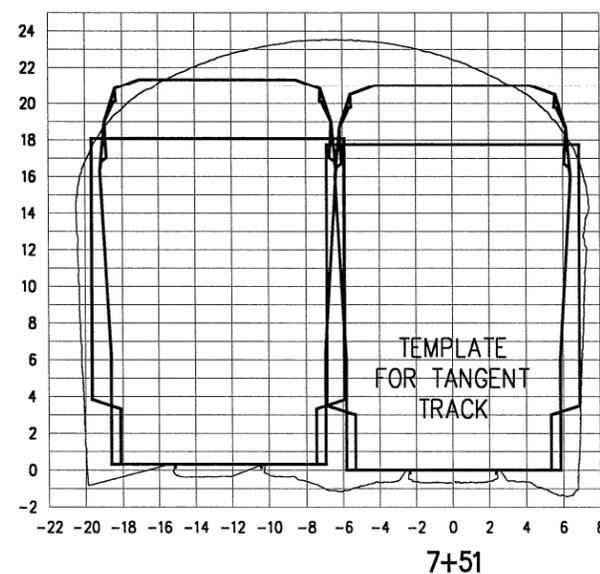
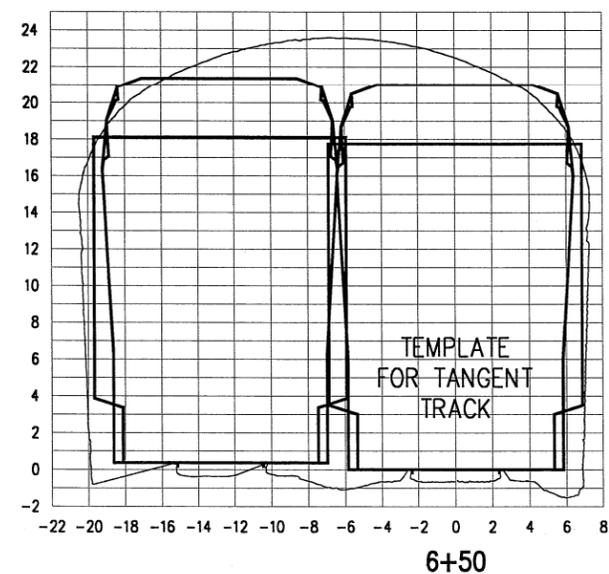
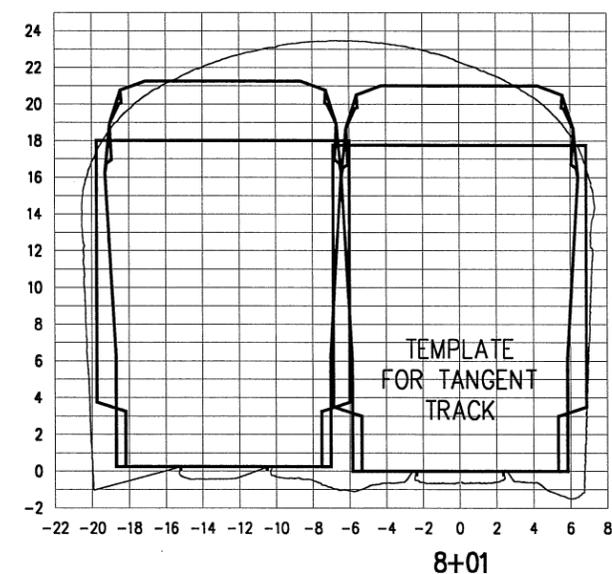
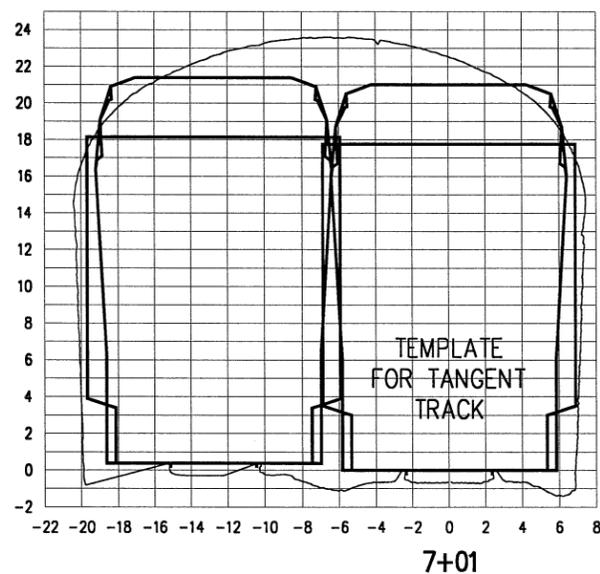
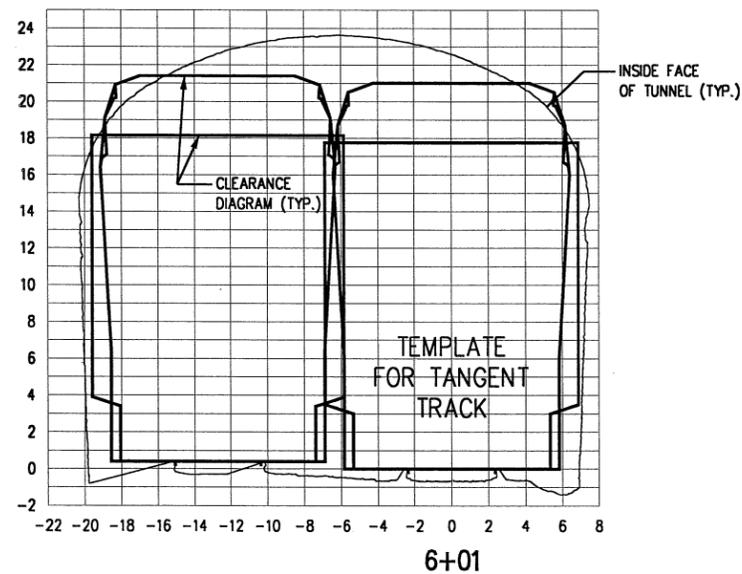
NOT FOR CONSTRUCTION

SCALE: 1" = 100'



PI	DJL	8505	PRELIMINARY ENGINEERING PHASE REPORT
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TITLE			
TUNNEL CLEARANCE CROSS SECTIONS - 2 OF 3			
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DATE	APRIL 15, 2005	FILE POST	N-400.15
CHK	DATE	DRAWING NUMBER	

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- NOTES:
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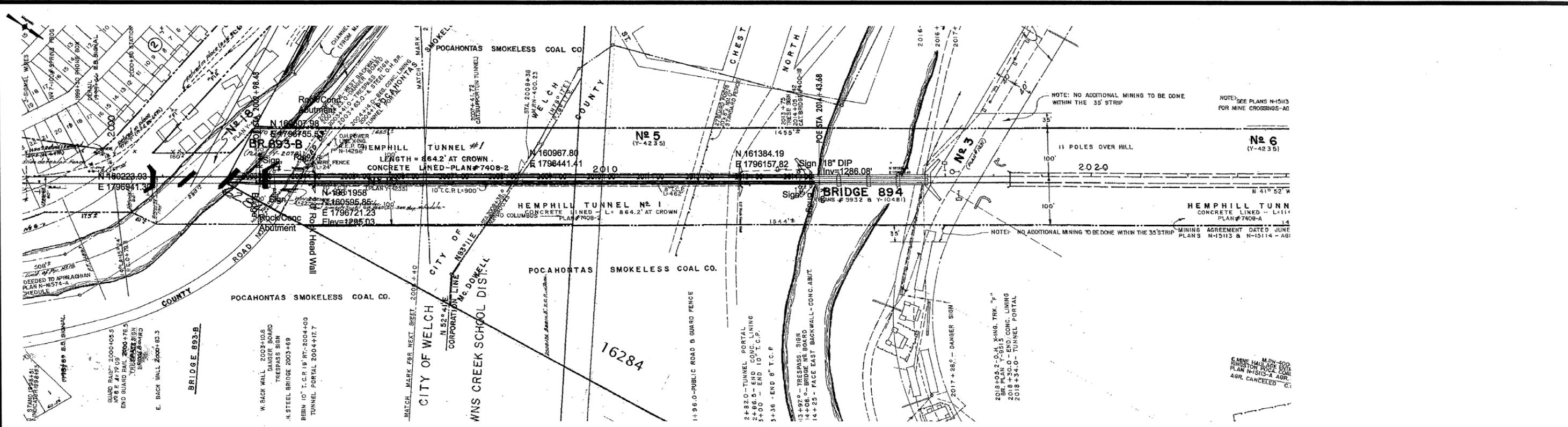


NORFOLK SOUTHERN

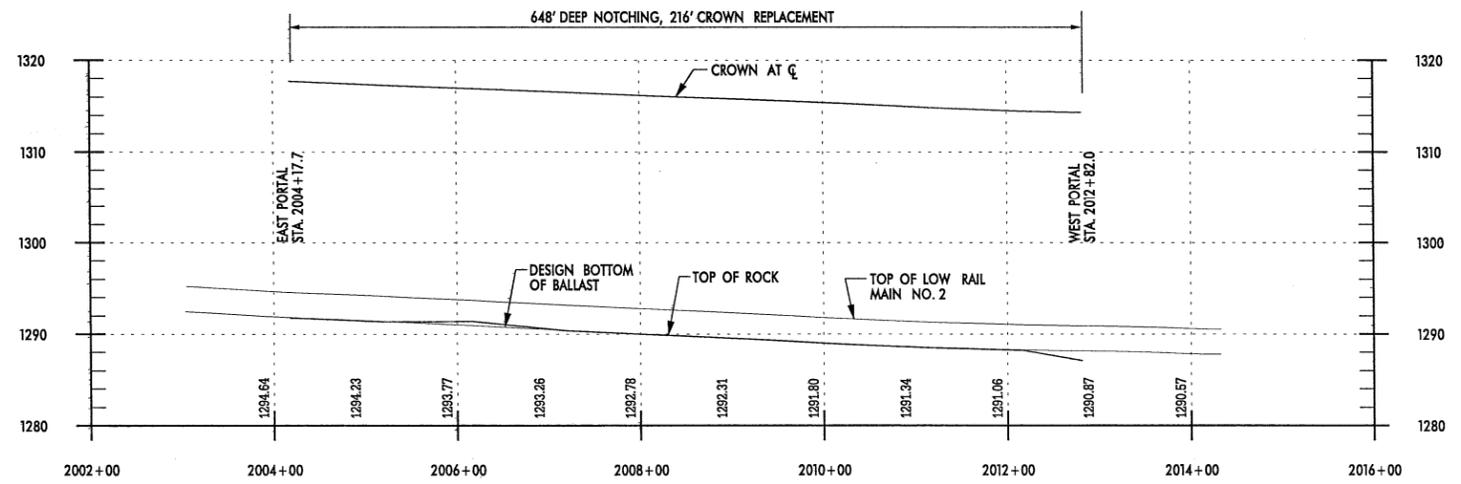
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POCAHONTAS
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DESIGN	FILE NO.	16283 & 16284	MILE POST N-400.15
DATE	APRIL 15, 2005		

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HEMPHILL NO. 1 PLAN
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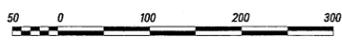


HEMPHILL NO. 1 PROFILE
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1"=10' VERT.

HEMPHILL NO. 1 CENTERLINE DATA

Horizontal Alignment Name: 4
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Style:
Input Factor: 1.0000

STATION	NORTHING	EASTING	
POB (..... 1)	2002+98.43	160495.61	1796779.44
POE (..... 2)	2014+43.68	161441.41	1796133.64
Tangent Direction	325° 40' 28"		
Tangent Length	1145.25		



SCALE: 1"=100'

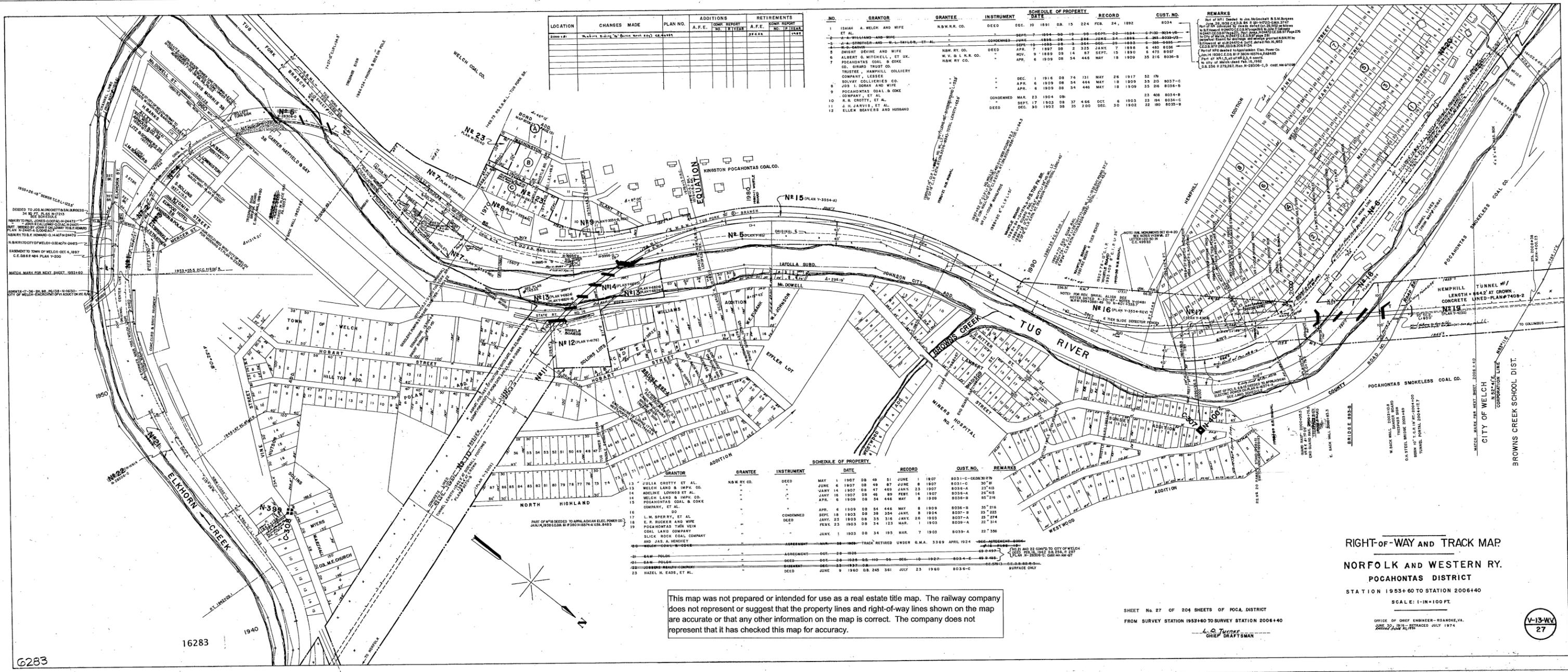
NOT FOR CONSTRUCTION

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DATE		DESCRIPTION	
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TITLE	PLAN AND PROFILE		
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DWN	FILE No.	DRAWING NUMBER	N-400.15
CHK	DATE		APRIL 15, 2005



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DATE/TIME = 10/2/2005 02:42:37 PM



LOCATION	CHANGES MADE	PLAN NO.	ADDITIONS	RETIREMENTS
			A.F.E. NO. 1 YEAR	A.F.E. NO. 2 YEAR
3000 S.P.	W. B. L. K. R. CO. (PLAN Y-200)	CA-4391		

NO.	GRANTOR	GRANTEE	INSTRUMENT	SCHEDULE OF PROPERTY DATE	RECORD	CUST. NO.	REMARKS
1	ISAIAH A. WELCH AND WIFE ET AL.	N.W.K.R. CO.	DEED	DEC. 10 1891	DB. 15 224	FEB. 24, 1892	8034
2	WILLIAM AND WIFE		DEED	SEPT. 3 1894	DB. 19 96	SEPT. 22 1894	6-1100-8034-10
3	W. B. L. K. R. CO.		CONDEMNED	JUNE 1898	DB. 4 286	JUNE 24 1898	6-203-8034-10
4	W. B. L. K. R. CO.		DEED	APR. 7 1897	DB. 2 325	JANU. 7 1898	6-400-8036
5	ALBERT G. MITCHELL, ET UX.	W. V. B. L. K. R. CO.	DEED	NOV. 9 1889	DB. 14 87	SEPT. 13 1890	6-478-8037
6	POCAHONTAS COAL & COKE CO. (GRAND TRUST CO. TRUSTEE, HAMPHILL COLLIERY COMPANY, LESSEE)		DEED	APR. 6 1909	DB. 54 446	MAY 18 1909	35 216 8038-B
7	POCAHONTAS COAL & COKE CO. (GRAND TRUST CO. TRUSTEE, HAMPHILL COLLIERY COMPANY, LESSEE)		DEED	APR. 6 1909	DB. 54 446	MAY 18 1909	35 216 8038-B
8	JOSEPH I. SORAN AND WIFE		DEED	APR. 6 1909	DB. 54 446	MAY 18 1909	35 216 8038-B
9	POCAHONTAS COAL & COKE CO. (GRAND TRUST CO. TRUSTEE, HAMPHILL COLLIERY COMPANY, LESSEE)		DEED	APR. 6 1909	DB. 54 446	MAY 18 1909	35 216 8038-B
10	W. B. L. K. R. CO.		CONDEMNED	MAR. 23 1904	DB.		
11	A. R. JARVIS, ET AL.		DEED	SEPT. 17 1903	DB. 37 466	OCT. 6 1903	23 194 8034-C
12	ELLEN BEAVERS AND HUSBAND		DEED	DEC. 30 1902	DB. 35 200	DEC. 30 1902	28 190 8035-B

REMARKS
 Part of City of Welch, N. W. K. R. Co. & S. M. Rogers
 Plan No. 1953-60, P. 27 of 204 Sheets of Poca. District
 W. B. L. K. R. Co. (Plan Y-200) & S. M. Rogers
 Plan No. 1953-60, P. 27 of 204 Sheets of Poca. District
 Part of City of Welch, N. W. K. R. Co. & S. M. Rogers
 Plan No. 1953-60, P. 27 of 204 Sheets of Poca. District
 Part of City of Welch, N. W. K. R. Co. & S. M. Rogers
 Plan No. 1953-60, P. 27 of 204 Sheets of Poca. District

NO.	GRANTOR	GRANTEE	INSTRUMENT	SCHEDULE OF PROPERTY DATE	RECORD	CUST. NO.	REMARKS
13	JULIA GROTTY ET AL.	N.W.K.R. CO.	DEED	MAY 1 1907	DB. 49 51	JUNE 1 1907	8031-C-CELESTINE
14	WELCH LAND & IMP. CO.		DEED	JUNE 8 1907	DB. 49 87	JUNE 8 1907	8031-C-30' 30"
15	ADOLINE LONNERS ET AL.		DEED	JANU. 14 1907	DB. 47 489	JANU. 23 1907	8036-A-23' 40"
16	WELCH LAND & IMP. CO.		DEED	JANU. 16 1907	DB. 48 80	FEBRU. 14 1907	8036-A-23' 40"
17	POCAHONTAS COAL & COKE COMPANY, ET AL.		DEED	APR. 6 1909	DB. 54 446	MAY 8 1909	8038-B-85' 216"
18	DO		DEED	APR. 6 1909	DB. 54 446	MAY 8 1909	8038-B-35' 216"
19	L. M. SPERRY, ET AL.		CONDEMNED	SEPT. 18 1903	DB. 38 354	JANU. 8 1904	8037-B-35' 223"
20	E. P. ROCKER AND WIFE		DEED	JANU. 23 1903	DB. 34 316	JANU. 26 1903	8037-A-23' 274"
21	POCAHONTAS TIER VEIN COAL LAND COMPANY		DEED	FEBRU. 23 1903	DB. 34 123	MAR. 7 1903	8039-A-22' 314"
22	SLICK ROCK COAL COMPANY AND JAS. A. HENCHY		DEED	JANU. 1 1903	DB. 34 185	MAR. 7 1903	8039-A-22' 356"
23	HAZEL H. EADS, ET AL.		DEED	JUNE 9 1960	DB. 245 361	JULY 23 1960	8036-C SURFACE ONLY

This map was not prepared or intended for use as a real estate title map. The railway company does not represent or suggest that the property lines and right-of-way lines shown on the map are accurate or that any other information on the map is correct. The company does not represent that it has checked this map for accuracy.

RIGHT-OF-WAY AND TRACK MAP
NORFOLK AND WESTERN RY.
POCAHONTAS DISTRICT
 STATION 1953+60 TO STATION 2006+40

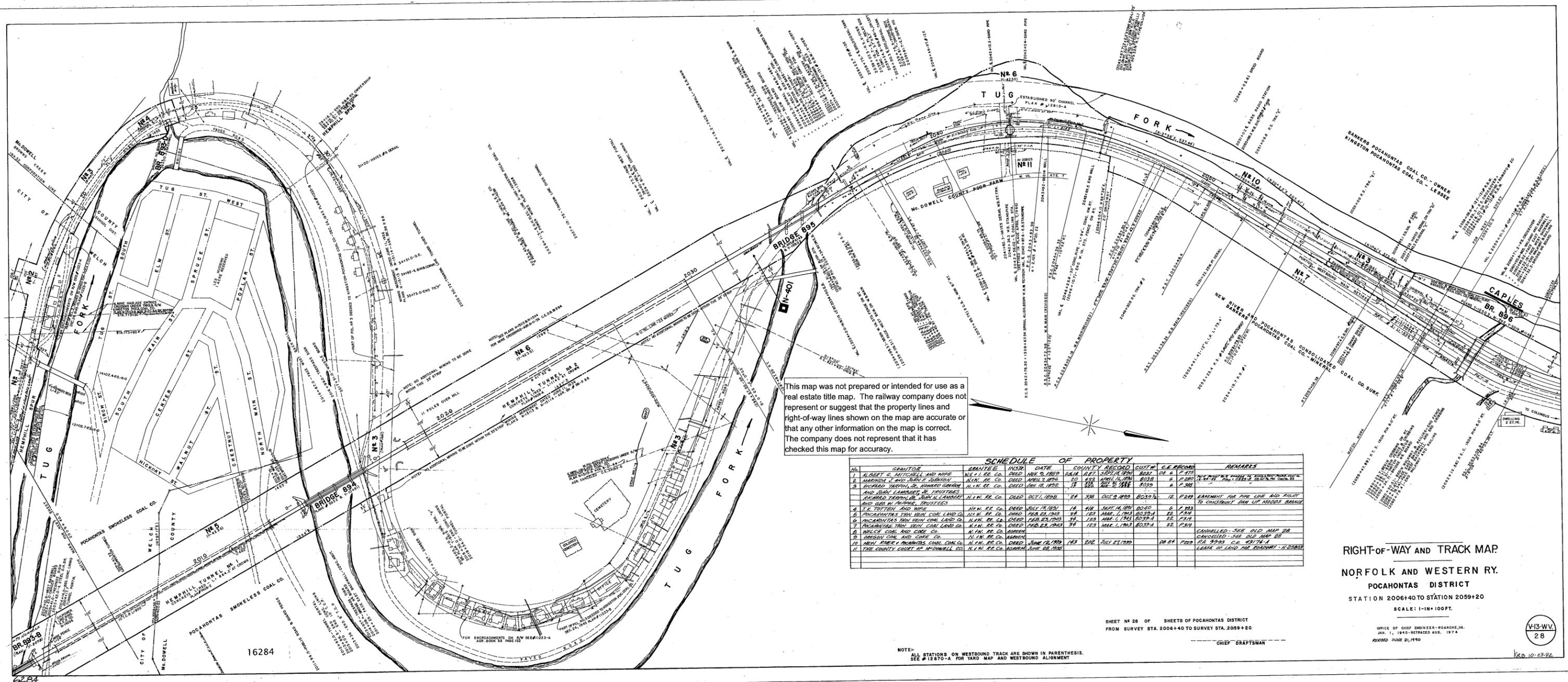
SHEET No. 27 OF 204 SHEETS OF POCA. DISTRICT
 FROM SURVEY STATION 1953+60 TO SURVEY STATION 2006+40
 L. O. JONES
 CHIEF DRAFTSMAN

OFFICE OF CHIEF ENGINEER - ROANOKE, VA.
 JUNE 30, 1915 - RETRACED JULY 1974
 REVISIONS TO DATE 10/15/80



6283

16283



This map was not prepared or intended for use as a real estate title map. The railway company does not represent or suggest that the property lines and right-of-way lines shown on the map are accurate or that any other information on the map is correct. The company does not represent that it has checked this map for accuracy.

SCHEDULE OF PROPERTY										
NO.	GRANTOR	GRANTEE	INSTR.	DATE	COUNTY RECORD	COUNTY	C.A. RECORD	REMARKS		
1	ALBERT G. MITCHELL AND WIFE	W.V. R.R. CO.	DEED	JUN 2 1892	80	187	8032	DE A 1775		
2	MARION L. AND BEN E. JORDAN	W.V. R.R. CO.	DEED	APRIL 1892	80	187	8032	A 1775		
3	RICHARD J. J. HOWARD GRANTOR AND JOHN LAMBERT JR. TRUSTEES	W.V. R.R. CO.	DEED	JAN 18 1892	73	322	8032	A 1775		
4	TR. TOTTEN AND WIFE	W.V. R.R. CO.	DEED	JULY 15 1892	74	416	8032	A 1775		
5	POCAHONTAS TUG FORK COAL LAND CO.	W.V. R.R. CO.	DEED	FEB 23 1903	174	123	8032	EE 1775		
6	POCAHONTAS TUG FORK COAL LAND CO.	W.V. R.R. CO.	DEED	FEB 23 1903	174	123	8032	EE 1775		
7	POCAHONTAS TUG FORK COAL LAND CO.	W.V. R.R. CO.	DEED	FEB 23 1903	174	123	8032	EE 1775		
8	WELCH COAL AND COKE CO.	W.V. R.R. CO.	DEED	FEB 23 1903	174	123	8032	EE 1775		
9	BRADY COAL AND COKE CO.	W.V. R.R. CO.	DEED	JUNE 12 1909	147	802	8032	EE 1775		
10	NEW RIVER POCAHONTAS COAL CO.	W.V. R.R. CO.	DEED	JUNE 12 1909	147	802	8032	EE 1775		
11	THE COUNTY COURT OF MCDOWELL CO.	W.V. R.R. CO.	DEED	JUNE 23 1902						

RIGHT-OF-WAY AND TRACK MAP.
 NORFOLK AND WESTERN RY.
 POCAHONTAS DISTRICT
 STATION 2006+40 TO STATION 2059+20
 SCALE: 1-IN=100FT.

SHEET NO 28 OF SHEETS OF POCAHONTAS DISTRICT
 FROM SURVEY STA. 2006+40 TO SURVEY STA. 2059+20
 CHIEF DRAFTSMAN

OFFICE OF CHIEF ENGINEER - ROANOKE, VA.
 JAN. 1, 1940 - RE-TRACED AUG. 1974
 REVISED JUNE 21, 1980

13-WV
 28

NOTE: ALL STATIONS ON WESTBOUND TRACK ARE SHOWN IN PARENTHESES.
 SEE #12870-A FOR YARD MAP AND WESTBOUND ALIGNMENT

16284