

NC
FILEPublic Utilities
Commission of Ohio

12-0171-RR-FED

Memo

To: Docketing Division

From: George Martin, Grade Crossing Planner, Rail Division

Re: In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in the City of Toronto, Jefferson County

Date: January 9, 2012

The Ohio Rail Development Commission (ORDC) has secured funding and approved the plan and estimate for a flashing light and roadway gate project located in the City of Toronto, Jefferson County, Spring Ave/CR 47, DOT# 503166V. The crossing was surveyed on March 29, 2011, under the Commission's hazard elimination program, and was found to warrant the upgrade.

This project is actual cost and will be paid for with federal funds. As the plan and estimate have already been submitted and approved, staff requests an Entry with completion of the project in nine months. Construction may commence at once. Staff requests that the following language be incorporated in the Entry:

It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

Any ancillary work to make the warning devices function as designed and visible to the roadway user, and

MUTCD compliance, including minor roadway work if necessary

PUCO Case No. 12-0171 -RR-FED In the matter of the authorization of Norfolk Southern Railway to install an active grade crossing warning device in the City of Toronto, Jefferson County

C: Legal Department

Please serve the following parties of record

• Page 1

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Technician [Signature] Date Processed 01-09-12

RECEIVED-DOCKETING DIV
2012 JAN -9 PM 1:13
PUCO

Ms Susan Kirkland
Ohio Rail Development Commission
1980 West Broad St
Columbus, Oh 43223

Ms. Cayela Wimberly
Norfolk Southern Railway
1200 Peachtree St, NE
Box 123
Atlanta, Ga 30309

Mr James Branagan
Jefferson County Engineer
598 SR 43
Steubenville, Oh 43952

Mayor John F Geddis
416 Clark St
PO Box 189
Toronto, Oh 43964

AEP
One Riverside Plaza
Columbus, Oh 43215

**OHIO RAIL DEVELOPMENT COMMISSION
INTER-OFFICE COMMUNICATION**

TO: Leah Thomas-Dalton, Deputy Chief, PUCO
FROM: Susan Kirkland, Manager, Safety Section, ORDC
BY: Cathy Stout, ORDC *Cathy Stout*
SUBJECT: Jefferson County, Spring Avenue, CR 47,
Norfolk Southern, AAR# 503166V
DATE: January 6, 2012

The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on 3/29/2011. The Ohio Rail Development Commission (ORDC) attended the review. The Diagnostic Team recommended the improvement of warning devices to flashing lights and roadway gates. Copies of the diagnostic review form and the plan and estimate are attached.

PE has already been provided by the railroad. ORDC approves the site plans and estimates as provided. Please issue a construction-only order for the project outlined above. This construction authorization is made with the stipulation and understanding that any field work needs prior approval before the work begins. This authorization is made with the stipulation and understanding that an approved estimate may contain entries for items or activities that may be cited and found to be ineligible for federal participation during the project audit.

It is expected that all work necessary for FHWA acceptance of the warning devices will be completed by the in-service due date and that the railroad will be responsible for this work. This work includes, but is not limited to:

- any ancillary work to make warning devices function as designed and visible to the roadway user, and
- MUTCD compliance – including minor roadway work if necessary.

Thank you for your assistance with these matters.

Attachment: Diagnostic Review
Plan & Estimate

c: George Martin, PUCO
Cayela Wimberly, Norfolk Southern
Mike Fortè, ORDC Project Manager (file)



The Public Utilities
Commission of Ohio

Public Utilities Commission of Ohio
Rail Division
180 East Broad Street
Columbus, OH 43215

Diagnostic Review Team Survey

5/29/11

740-283 8574

Date: 5/29/11

1030 AM

Location Data

Street or Road Name:

SPRING AVE

Route/Road Number (i.e.
Twp., Co., SR or US)

CR 47 (include SLM if State or US route)

AAR-DOT
No.:

503166V

County:

JACKSON

Township:

City: (in
or Near)

TORONTO

Railroad
Name:

NS

Railroad
Division:

PITTSBURGH

Branch/Line
Name:

RIVER LINE

Nearest RR

Timetable Station:

TORONTO

RR Milepost:

7.85

On-Site Review Team

(Include: Name - Organization - Phone Number)

1. GEORGE MARTIN PUCB 614-752-9107
2. MIKE FORTE ORDC 614-374-9287
3. Dan Brenner Jeff Co. Eng 740-283-8574
4. Wayne D. McCauley NS Sign 330-204-9041
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Existing Traffic Control Devices

Type of Warning Devices	Installed?		Quantity/Comments
Advance Warning Signs	☒ Yes	☐ No	2
'Stop' Signs	☐ Yes	☒ No	
'Stop Ahead' Signs	☐ Yes	☒ No	
Pavement Markings	☐ Yes	☒ No	
Crossbucks	☒ Yes	☐ No	2
Number of Tracks Signs	☐ Yes	☒ No	
Inventory Tags	☒ Yes	☐ No	2
Interconnected Highway Traffic Signal	☐ Yes	☒ No	
Mast-Mounted Flashing Lights	☒ Yes	☐ No	2 + SIDE LIGHTS
Cantilever Flashing Lights	☐ Yes	☒ No	Number: Length:
Side Lights	☒ Yes	☐ No	1
Automatic Gates	☐ Yes	☒ No	Number: Length:
Bells	☐ Yes	☒ No	
Sidewalk Gate Arms	☐ Yes	☒ No	
'No Turn' Signs	☐ Yes	☒ No	
Illumination	☒ Yes	☐ No	1
Is crossing flagged by train crew?	☐ Yes	☒ No	
Other	☐ Yes	☐ No	

Safety Data (Obtain crash reports, if possible, prior to review)

	Initial Information (from database)	Revised
Number & dates of crashes in previous 5 years	2 - 6/5/06 8/26/10	
Hazard Ranking	29	Date Run: 2/7/11 29 3/29/11

Railroad Data

Railroad Characteristics	Initial Information (from database)	Revised
Total trains per day	10 12/16/10	No CHANGE
< 1 per day		
Day thru trains	5	
Night thru trains	3	
Daytime switching movements	2	
Nighttime switching movements		
Total number of tracks	1	
Number of main tracks	1	
Number of other tracks		
Maximum train speed	35	
Typical train speed		
Amtrak	NO	✓

If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) ☒ Yes ☐ No

If multiple tracks, can two trains occupy crossing at the same time? ☐ Yes ☒ No NA

Can one train block the motorists' view of another train at crossing? ☐ Yes (Explain below) ☒ No

Are there other track(s) crossing this same roadway within 100 ft of this crossing? ☐ Yes ☒ No

If yes, Crossing DOT # (if different) _____

If yes, distance _____ (take measurement between track centerlines at closest point along roadway)

Roadway Data

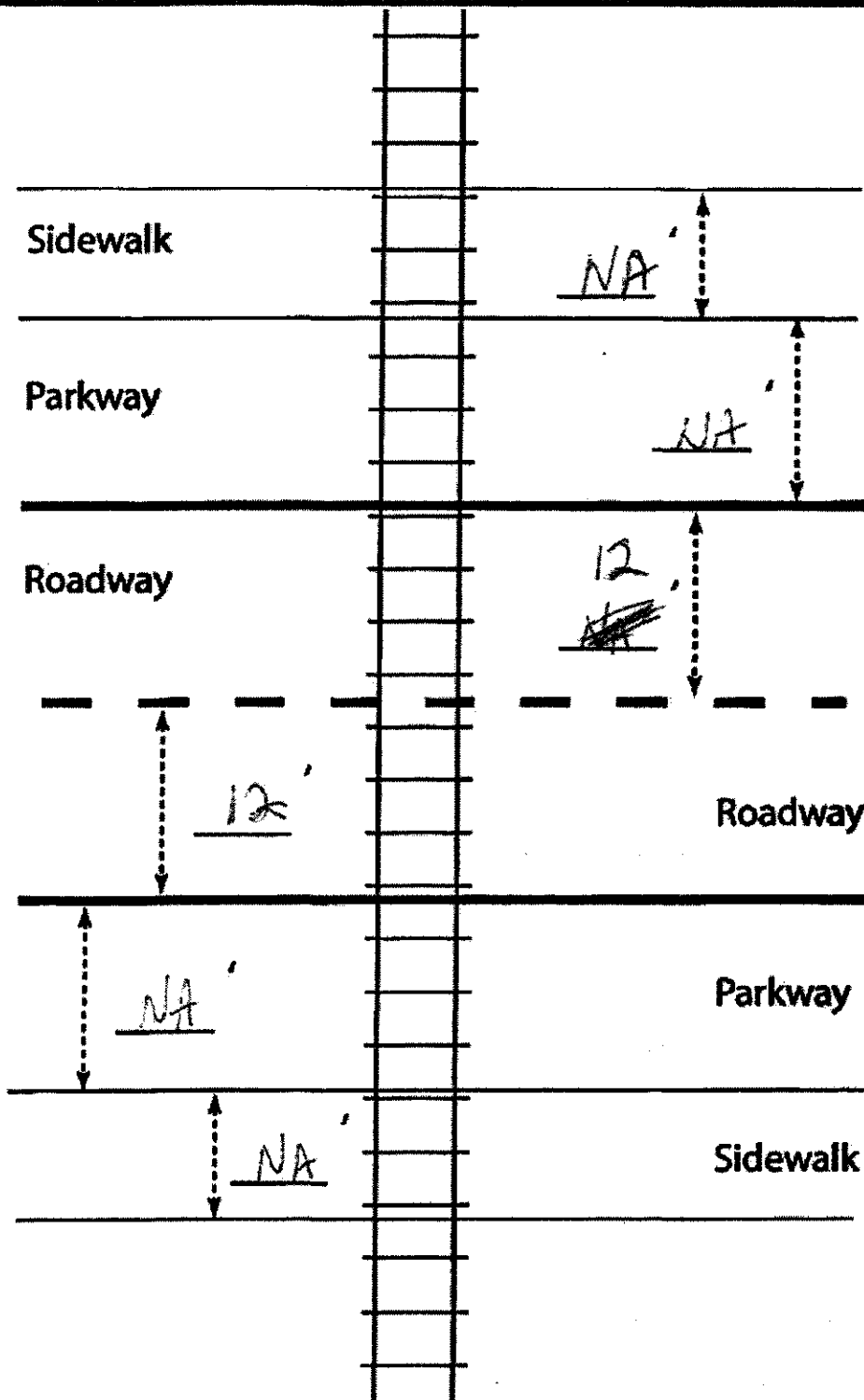
Local Highway Authority:
(Who maintains this roadway?)

JEFFERSON COUNTY / CITY OF TORONTO

Roadway Characteristics	Initial Information (from database)	Revised
Average daily traffic	1543 - UNDATED	SAVED BE CORRECT
Highway paved	☒ Yes ☐ No	☐ Yes ☐ No
Roadway Surface: ☒ Blacktop ☐ Gravel ☐ Concrete ☐ Other _____		
Roadway width: 24 ft.		
Number of highway lanes	2	2
Urban or Rural?	RURAL	RURAL
Vehicle Speed: 35 MPH 55 - 25 MORE REALISTIC		
School Bus Operation: ☐ No ☐ Yes _____ Amount		
Hazardous Materials Trucks: ☒ No ☐ Yes _____ Amount		
Shoulders: ☒ No ☐ Yes		
Is the shoulder surfaced? ☒ No ☐ Yes		
Is there existing guardrail along roadway in crossing vicinity? ☒ No ☐ Yes		
Is stopping site distance adequate? (See Table 2) ☒ Yes ☐ No If no, deficient approach(es) _____		

Quadrant _____ Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None	Quadrant _____ Curb and Gutter: ☐ Functional (Curb height = 4" or more) ☐ Non-functional (Curb height = Less than 4") ☒ None
Pedestrians: ☐ No ☐ Yes	
Is sidewalk present? ☐ No ☐ Yes	
Is there a nearby intersection that could cause queuing over the crossing? ☒ No ☐ Yes If yes, Distance _____ Is this intersection signalized? ☐ No ☐ Yes Are the signals currently interconnected with the existing crossing warning devices? ☒ No ☐ Yes	
Is it the consensus of the Diagnostic Review Team that this is a potential closure project? ☒ No ☐ Yes Explain reasons: _____	
Type of Development	
☒ Open Space ☐ Institutional ☐ Industrial ☐ Commercial ☒ Residential	Location of nearby schools: WITHIN 1 1/2 MILES
Utility Information	
Is commercial power available? ☐ No ☒ Yes Utility Provider (Company Name) <u>AEP</u> Phone Number _____ Nearest Available Power Source <u>AT CROSSING</u> What other utilities are present? <u>UG GAS, CH PHONE & ELECTRIC</u> Is there potential utility conflict(s) ☐ Yes ☐ No ☒ Unknown	
Diagnostic Team Recommendations	
☒ Install/upgrade active devices ☐ Automatic Flashing Lights (AFLS) ☐ AFLS / Cants ☐ AFLS / Gates ☒ AFLS / Gates / Cants ☐ Upgrade circuitry ☐ Sidelights ☐ Guardrail Needed ☐ Install/Replace curb ☐ Other (define) _____	Quadrants Needed CANT FOR LHS APPROACH
Comments: _____	
☐ Install/upgrade traffic signal preemption ☐ No improvements needed ☐ Other (define) _____	

Field Dimensions

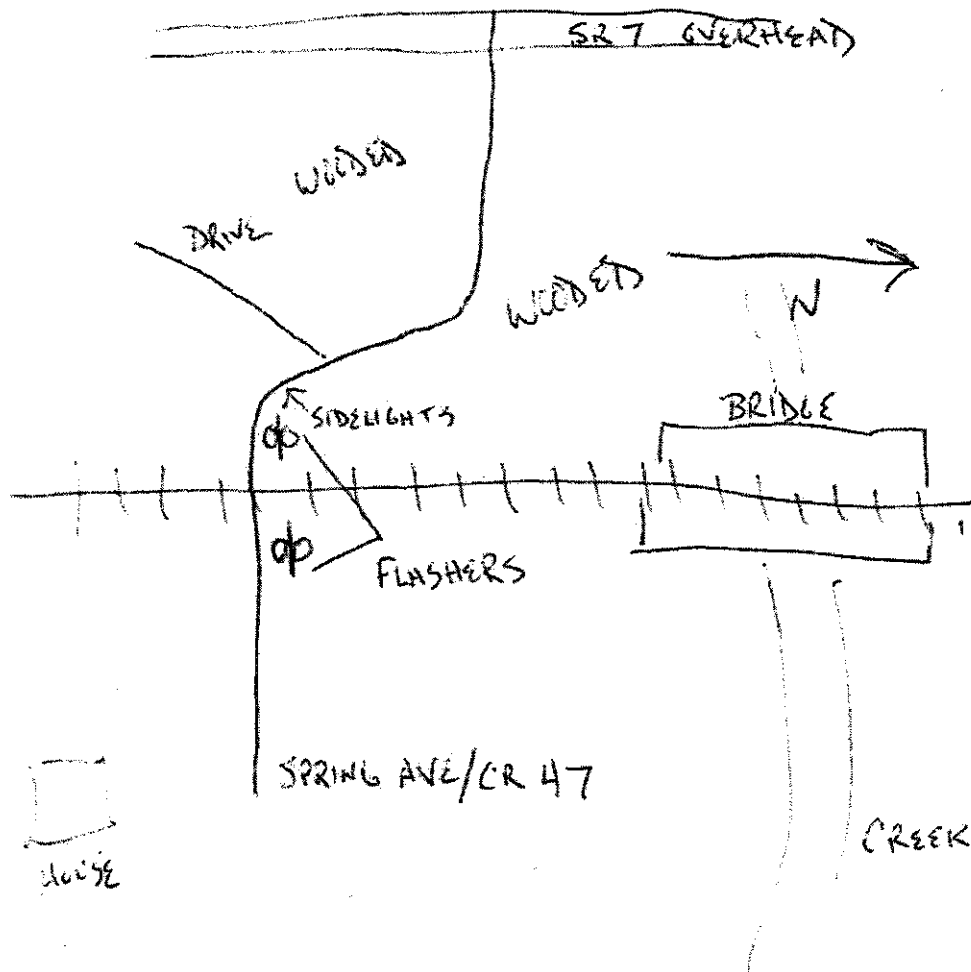


Show North
Direction

Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in NE Quadrant?

Measurements by: _____

Field Sketch



Crossing Angle ☐ 0-29° ☐ 30-59° ☒ 60-90° Measured in N/E Quadrant?

Sketch by: GM

TABLE 1**Clearing Sight Distances**

Maximum Authorized Train Speed	Distance (dT) Along Railroad from Crossing (ft)
1 - 10	240
15	360
20	480
25	600
30	720
35	840
40	960
45	1080
50	1200
55	1320
60	1440
65	1560
70	1680
75	1800
80	1920
85	2040
90	2160

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers and level single track 90 degree crossings; and may need to be adjusted for multiple tracks, skewed crossings or approaches on grades.

Clearing Sight Distance is to be measured in each vehicle travel direction at non-gated crossings as viewed from a point 25 feet from centerline of nearest track in the center of whichever travel lane is nearest the direction along track being measured.

Table 2**Stopping Sight Distances**

Highway Vehicle Speed	Distance (dH) Along Roadway from Crossing (ft)
0	n/a
5	50
10	70
15	105
20	135
25	180
30	225
35	280
40	340
45	410
50	490
55	570
60	660
65	760
70	865

Source: R-H Grade Crossing Handbook Table 36 (pp. 132-133)

Notes:

All calculated distances are rounded up to the next higher 5-foot increment.

Distances indicated are for 65-ft double bottom semi-tractor trailers on dry level pavements.

Stopping Sight Distance is to be measured on each roadway approach to crossing from stop bar.

NS 503166V Jefferson

OH-1 (Rev. 10/99)

TRAFFIC CRASH REPORT

OHIO
PUBLIC
SAFETY



4134060506

CRASH SEVERITY
1 FATAL
2 FATAL
3 INJURY
4 UNKNOWN

PROPERTY
1 NOT REPORTED
2 COLLARED
3 UNCLASSED

PHOTOS TAKEN
X
X
X
X

04100

JEFFERSON COUNTY SHERIFF

02 01

060524006

1545 MON X KNOX 41

CROWN ROAD #472 SPRING AVE 3

CITY OF TOLEDO AND CROSWIT 07

A 0101 BIERI, BRANDON, R
394 Williams Blvd, WILLOWSIDE, OHIO 43153

11271981 24 M 740-283-4578 740-376-335

04 1205048 017 PET 1218 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE

FEDERAL EXPRESS Corp 630 N 37th ST STEUBENVILLE, OHIO 43152

1997 FORD - VEHICMASTER WHITE AEE, American Tail Co CROSWIT TOWNSHIP 1-888-813-6509

4511.62 A-E Driving Across Railroad Road, CROSWIT 13992

B 0210 SARAGO, STEVEN
1231 Crown St, Wellsville, OHIO 43968

01231961 45 M 330-283-4578 330-737-4536

04 1205048 017 PET 1218 1 NONE 4 OTHER 2 EMS 5 UNKNOWN 3 POLICE

HOOPER & SOUTHERN RAILROAD 425 Hilda Dr, Pittsburgh, PA 15200

LOCOMOTIVE Black 412-893-7166

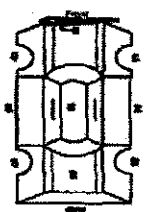
C 0101 Name (Last, First, Middle) Home Phone # Date of Birth Age Sex

Address (Street, City, State, Zip Code) Injured Taken By 1 None 4 Other 2 EMS 5 Unknown 3 Police

D 0101 Name (Last, First, Middle) Home Phone # Date of Birth Age Sex

Address (Street, City, State, Zip Code) Injured Taken By 1 None 4 Other 2 EMS 5 Unknown 3 Police

SEATING POSITION 01 FRONT - LEFT (MC DRIVER) 02 FRONT - MIDDLE 03 FRONT - RIGHT 04 SECOND - LEFT (MC PASS) 05 SECOND - MIDDLE 06 SECOND - RIGHT 07 THIRD - LEFT 08 THIRD - MIDDLE 09 THIRD - RIGHT 10 SEATED IN FRONT OF CAB 11 SEATED IN CAB AREA 12 SEATED IN CAB AREA 13 TRAILING UNIT 14 EXTENDED 15 OTHER 16 NON-REPORTED	SAFETY EQUIPMENT 01 SEATBELT 02 SEATBELT ONLY 03 SEATBELT ONLY 04 CHILD SAFETY SEAT 05 CHILD SAFETY SEAT 06 CHILD SAFETY SEAT 07 CHILD SAFETY SEAT 08 CHILD SAFETY SEAT 09 CHILD SAFETY SEAT 10 CHILD SAFETY SEAT 11 CHILD SAFETY SEAT 12 CHILD SAFETY SEAT 13 CHILD SAFETY SEAT 14 CHILD SAFETY SEAT	AIR BAG 01 NOT DEPLOYED 02 DEPLOYED - FRONT 03 DEPLOYED - SIDE 04 DEPLOYED - BOTH 05 DEPLOYED - BOTH 06 DEPLOYED - BOTH 07 DEPLOYED - BOTH 08 DEPLOYED - BOTH 09 DEPLOYED - BOTH 10 DEPLOYED - BOTH 11 DEPLOYED - BOTH 12 DEPLOYED - BOTH 13 DEPLOYED - BOTH 14 DEPLOYED - BOTH	AIR BAG DEPLOYMENT 01 NOT DEPLOYED 02 DEPLOYED - FRONT 03 DEPLOYED - SIDE 04 DEPLOYED - BOTH 05 DEPLOYED - BOTH 06 DEPLOYED - BOTH 07 DEPLOYED - BOTH 08 DEPLOYED - BOTH 09 DEPLOYED - BOTH 10 DEPLOYED - BOTH 11 DEPLOYED - BOTH 12 DEPLOYED - BOTH 13 DEPLOYED - BOTH 14 DEPLOYED - BOTH	EJECTION 01 NOT EJECTED 02 TOTALLY EJECTED 03 PARTIALLY EJECTED 04 NOT APPLICABLE 05 UNKNOWN	TRAPPED 01 NOT TRAPPED 02 EXPECTED BY MECHANICAL 03 EXPECTED BY MECHANICAL 04 EXPECTED BY MECHANICAL 05 EXPECTED BY MECHANICAL 06 EXPECTED BY MECHANICAL 07 EXPECTED BY MECHANICAL 08 EXPECTED BY MECHANICAL 09 EXPECTED BY MECHANICAL 10 EXPECTED BY MECHANICAL 11 EXPECTED BY MECHANICAL 12 EXPECTED BY MECHANICAL 13 EXPECTED BY MECHANICAL 14 EXPECTED BY MECHANICAL	EXPOSURE 01 NO INJURY 02 POSSIBLE 03 MINOR 04 MODERATE 05 SEVERE 06 FATAL INJURY 07 FATAL INJURY 08 FATAL INJURY 09 FATAL INJURY 10 FATAL INJURY 11 FATAL INJURY 12 FATAL INJURY 13 FATAL INJURY 14 FATAL INJURY
--	---	---	--	---	--	--

UNIT NUMBERS	DAMAGE AREA	PRE-CRASH ACTIONS	SEQUENCE OF EVENTS	POSTED SPEED	DRUG TEST STATUS
06 02		01 01	20 20 16 16	12 08	1 1
NON-MOTORIST LOCATION		MOTORIST 01 MOVEMENTS ESSENTIALLY STRAIGHT AHEAD 02 BACKING 03 CHANGING LANES 04 OVERTAKING/PASSING 05 TURNING RIGHT 06 TURNING LEFT 07 MAKING U-TURN 08 ENTERING TRAFFIC LANE 09 LEAVING TRAFFIC LANE 10 PARKED 11 SLOWING/STOPPED IN TRAFFIC 12 DOWNSLIP 13 OTHER 14 UNKNOWN NON-MOTORIST 15 ENTERING/CROSSING IN SPECIFIED LOCATION 16 WALKING, RUNNING, JOGGING, PLAYING, CYCLING 17 WORKING 18 PARKING VEHICLE 19 APPROACHING/LEAVING VEHICLE 20 PLAYING/WORKING ON VEHICLE 21 STANDING 22 OTHER 23 UNKNOWN	NON-COLLISION 01 OBSTRUCTION/ROLLDOWN 02 FIRE/EXPLOSION 03 INJECTION 04 JACKPOT 05 CANOE/EQUIPMENT LOSS/SHIFT 06 EQUIPMENT FAILURE 07 SEPARATION OF UNITS 08 RUN OFF ROAD RIGHT 09 RUN OFF ROAD LEFT 10 CROSS MEDIAN/CENTRALINE 11 DONOR/REARWARD 12 OTHER NON-COLLISION 13 UNKNOWN NON-COLLISION 14 COLLISION W/ PERSON, VEHICLE, OR OBJECT, NOT FIRED 15 PERSON/VEHICLE 16 RAILWAY VEHICLE 17 ANIMAL - FARM 18 ANIMAL - OTHER 19 ANIMAL - OTHER 20 MOTOR VEHICLE IN TRANSPORT 21 PARKED MOTOR VEHICLE 22 WORK ZONE MAINTENANCE EQUIPMENT 23 OTHER MOVABLE OBJECT 24 UNKNOWN MOVABLE OBJECT COLLISION WITH FIRED OBJECT 25 IMPACT ATTENUATION/CRASH CUSHION 26 BRIDGE OVERHEAD STRUCTURE 27 BRIDGE PIER OR ABUTMENT 28 BRIDGE PAVEMENT 29 BRIDGE RAIL 30 GUARDRAIL FACE 31 GUARDRAIL END 32 MEDIAN BARRIER 33 HIGHWAY TRAFFIC SIGN POST 34 OVERHEAD SIGN POST 35 LIGHTS/ILLUMINATED SUPPORT 36 UTILITY POLE 37 OTHER POST, POLE OR SUPPORT 38 CULVERT 39 GUY 40 DITCH 41 EMBANKMENT 42 FENCE 43 SHALLOWS 44 TREE 45 OTHER FIRED OBJECT 46 WORK ZONE MAINTENANCE EQUIPMENT 47 UNKNOWN FIRED OBJECT 48 OTHER 49 UNKNOWN	TRAFFIC CONTROL 01 NO CONTROLS 02 STOP SIGN 03 YIELD SIGN 04 TRAFFIC SIGNAL 05 TRAFFIC FLASHERS 06 SCHOOL ZONE 07 RAILROAD CROSSINGS 08 RAILROAD FLASHERS 09 RAILROAD GATES 10 CONSTRUCTION BARRICADE 11 POLICE OFFICER 12 PAVEMENT MARKINGS 13 CROSSWALK LINES 14 WALK/DON'T WALK SIGNAL 15 TRAFFIC CONTROL DEVICE INOPERATIVE, MISSING, OBTUSCURED 16 OTHER	DRUG TEST TYPE 1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNUSABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN
TYPE OF UNIT	MOST DAMAGED AREA	CONTRIBUTING CIRCUMSTANCES	DIRECTION	CONNECTION	DRUG TEST 1&2 RESULT
34 29	02 09	21 01	4 3 2 N	7 1	1 1
ESCOLADE 01 BUS-COMPACT 02 COMPACT 03 MID SIZE 04 FULL SIZE 05 MINIVAN 06 SPORT UTILITY VEHICLE 07 PICKUP 08 PANELVAN 09 SINGLE UNIT TRUCK 10 2 AXLES, 6 TIRES 11 SINGLE UNIT TRUCK, 3+ AXLES 12 TRUCK/TRAILER 13 TRUCK TRACTOR (SEMI-TRAILER) 14 TRACTOR/SEMI-TRAILER 15 TRACTOR/DOUBLE SHORT 16 FIFTH WHEEL OR CONVENTION DOLLY 17 TRACTOR/TRIMPLE 18 MOTORCYCLE 19 MOTORIZED BICYCLE 20 SCHOOL BUS 21 CHEROKEE BUS 22 PUBLIC BUS 23 OTHER BUS 24 POLICE VEHICLE 25 FIRE TRUCK 26 AMBULANCE/RESCUE 27 TAXI 28 MOTOR HOME 29 TRAM 30 FARM VEHICLE 31 FARM EQUIPMENT 32 SNOWMOBILE 33 CONSTRUCTION EQUIPMENT 34 ALL OTHERS NON-MOTORIST 35 ANIMAL W/DRIVER 36 ANIMAL W/DRIVER 37 BICYCLE 38 PEDESTRIAN 39 PEDESTRIAN 40 SKATER 41 OTHER-NON MOTORIST 42 UNKNOWN	POINT OF IMPACT 01 NONE 02 CENTER FRONT 03 RIGHT FRONT 04 RIGHT SIDE 05 RIGHT REAR 06 REAR CENTER 07 LEFT REAR 08 LEFT SIDE 09 LEFT FRONT 10 TOP AND WINDOWS 11 UNDERCARRIAGE 12 LOAD/TRAILER 13 TOTAL (ALL AREAS) 14 OTHER 15 UNKNOWN	MOTORIST 01 NONE 02 FAILURE TO YIELD 03 RUN RED LIGHT, OR STOP SIGN 04 EXCEEDED SPEED LIMIT 05 UNLAWFUL SPEED 06 IMPROPER TURN 07 LEFT OF CENTER 08 FOLLOWED TOO CLOSE/HADDA 09 IMPROPER LANE CHANGE 10 DRIVE OFF ROAD 11 IMPROPER PASSING 12 STOPPER ON PARKED LEGALLY 13 OVERTAKING VEHICLE IN ERRATIC, RECKLESS, CARELESS, NEGLECT OR AGGRESSIVE MANNER 14 SHOOTING TO AVOID (E.G. YG WIND, SLUDDY SURFACE, VEHICLE, OBJECT, NON-MOTORIST IN ROADWAY, ETC) 15 FAILURE TO CONTROL 16 VIOLET OBSTRUCTION 17 DRIVER DISTRACTION 18 FATIGUE/ALCOHOL 19 OPERATING DEFECTIVE EQUIPMENT 20 LOAD SHIFTS/FALLING/ROLLING 21 OTHER IMPROPER ACTION 22 UNKNOWN NON-MOTORIST 23 NONE 24 IMPROPER CROSSING 25 DRIVING 26 EXCESS AND/OR ILLEGALLY IN ROADWAY 27 FAILURE TO YIELD RIGHT OF WAY 28 NOT VISIBLE (DARK CLOTHING) 29 INATTENTIVE 30 FAILURE TO OBEY TRAFFIC SIGN, SIGNAL, OR OFFICER 31 WRONG SIDE OF THE ROAD 32 OTHER 33 UNKNOWN	1 NORTH 2 SOUTH 3 EAST 4 WEST 5 NORTHEAST 6 NORTHWEST 7 SOUTHEAST 8 SOUTHWEST 9 UNKNOWN	1 APPARENTLY NORMAL 2 PHYSICAL IMPAIRMENT 3 EMOTIONAL 4 KIDNEY 5 FELL ASLEEP, FORTIFIED, FATTERED, ETC 6 UNDER THE INFLUENCE OF MEDICATION/DRUGS/ALCOHOL 7 OTHER 8 UNKNOWN ALCOHOL/DRUGS SUSPECTED	1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNUSABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN
IN EMERGENCY RESPONSE	ACTION	VEHICLE DIRECT CODE ONLY IF "1" SELECTED ABOVE	FIRST HARMFUL EVENT	ALCOHOL TEST STATUS	OCCURRENCE
1 1	3 4	1 1	1 1	1 1	6
DAMAGE SCALE	SPRINGING VEHICLE: OVERSIDE/ UNDERSIDE	OF THE SEQUENCE OF EVENTS - WHICH ONE IS THE FIRST HARMFUL EVENT (1-4)	OF THE SEQUENCE OF EVENTS - WHICH ONE IS THE MOST HARMFUL EVENT (1-4)	ALCOHOL TEST TYPE	ROAD CONTOUR
4 3	1 1	1 1	1 1	1 1	4
1 NONE 2 NON-FUNCTIONAL DAMAGE 3 FUNCTIONAL DAMAGE 4 DAMAGING DAMAGE 5 SEVERE 6 UNKNOWN	1 NO UNDERSIDE OR OVERSIDE UNDERCARRIAGE, COMPARTMENT 2 UNDERCARRIAGE, COMPARTMENT 3 UNDERCARRIAGE, NO COMPARTMENT 4 UNDERCARRIAGE, COMPARTMENT 5 OVERCARRIAGE, MOTOR VEHICLE IN TRANSPORT 6 OVERCARRIAGE, OTHER VEHICLE 7 UNKNOWN	01 TURN SIGNALS 02 HEAD LAMPS 03 TAIL LAMPS 04 BRAKES 05 STEERING 06 TIRE BLOWOUT 07 WORK ON SUSPENSION 08 TAILOR EQUIPMENT 09 MOTOR TROUBLE 10 DISABLED FROM PRIOR CRASH 11 OTHER DEFECTS	SPEED DETECTED 1 STATED 2 ESTIMATED SPEED 3 30 33	1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNUSABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN	1 STRAIGHT LEVEL 2 STRAIGHT GRADE 3 CURVE LEVEL 4 CURVE GRADE
				ALCOHOL TEST RESULT	ROAD CONDITIONS
				1 1	01 01
				1 NONE 2 BLOOD 3 URINE 4 BREATH 5 OTHER	01 DRY 02 WET 03 SNOW 04 ICE 05 SAND, MUD, DIRT, OIL, GRAVEL 06 WATER (STANDING, MOVING) 07 SLUSH 08 "OTHER" 09 RUT, HOLES, RIMPS, UNEVEN PAVEMENT 10 OTHER 11 UNKNOWN * SECONDARY ROAD CONDITIONS ONLY

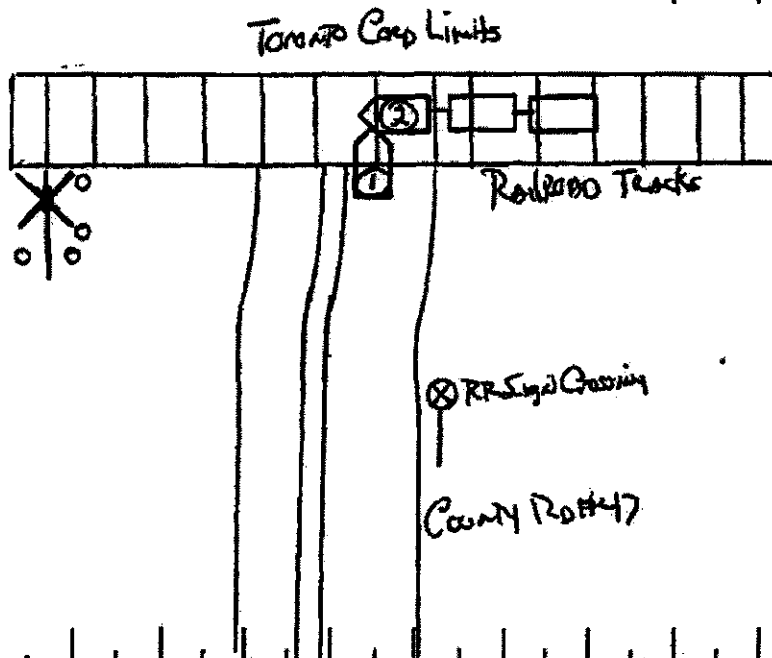
Narrative

Unit #1 Driving East on County Road #47 Entered onto
Rail Road Tracks in the Path of Unit #2 Resulting in a
Crash

Diagram



Write an "N" on the compass diagram to indicate the direction of north.



Manner of Collision or Impact

6

- 1 NOT COLLISION BETWEEN TWO VEHICLES IN TRANSPORT
- 2 REAR-END
- 3 HEAD-ON
- 4 REAR-TO-REAR
- 5 BACKING
- 6 ANGLE
- 7 SIDEWALL, SAME DIRECTION
- 8 SIDEWALL, OPPOSITE DIRECTION
- 9 UNKNOWN

SCHOOL BUS RELATED

1

- 1 No
- 2 YES, DIRECTLY INVOLVED
- 3 YES, INDIRECTLY INVOLVED
- 4 UNKNOWN

WORK ZONE RELATED

1

- 1 No
- 2 Yes
- 3 UNKNOWN

TYPE OF WORK ZONE

1

- 1 Lane Closure
- 2 Lane Shift/Crossover
- 3 Work On Shoulder Or Median
- 4 Interchange/Moving Work
- 5 Other

LOCATION OF CRASH IN WORK ZONE

1

- 1 Before First Work Zone Warning Sign
- 2 Advance Warning Area
- 3 Transition Area
- 4 Activity Area

WORKERS PRESENT

1

- 1 No
- 2 Yes
- 3 UNKNOWN

WEATHER

01

- 01 CLEAR
- 02 CLOUDY
- 03 Fog, Smog, Smoke
- 04 Rain
- 05 Sleet, Hail, Freezing Rain (Drizzle)
- 06 Snow
- 07 Severe Conditions
- 08 Blowing Sand, Dust, Dry Snow
- 09 Other
- 10 UNKNOWN

LIGHT CONDITIONS

1 1

- 1 Daylight
- 2 Dawn
- 3 Dusk
- 4 Dark - Lit Roadway
- 5 Dark - Not Lit Roadway
- 6 Dark - Unknown Lighting
- 7 Clear
- 8 Other
- 9 UNKNOWN

Truck/Bus

Unit #

1

THE CRASH INVOLVED ONE OR MORE OF THE FOLLOWING:
A TRUCK (MOTOR VEHICLE) WITH A GVWR MORE THAN 10,000 POUNDS; OR
A TRUCK (MOTOR VEHICLE) WITH A HAZARDOUS MATERIALS PLACARD; OR
A BUS DESIGNED FOR AT LEAST 8 PERSONS, INCLUDING DRIVER.

A THE CRASH RESULTED IN ONE OR MORE OF THE FOLLOWING:

- A FATALITY; OR
- AN INJURY REQUIRING TRANSPORTATION FOR IMMEDIATE MEDICAL TREATMENT; OR
- AT LEAST ONE VEHICLE WAS TOWED DUE TO SEVERE DAMAGE OR REQUIRED HYDRAULIC ASSISTANCE BEFORE PROCEEDING UNDER ITS OWN POWER.

Company (From Shipping Papers)

Company Phone

Address (Street, City, St., Zip Code)

VS DOT

ICC MC

MUCO

Trailer LP St.

Trailer LP Year

Trailer LP #

Placard #

LOA

Cargo Body Type

- 01 NOT APPLICABLE
- 02 Box (8-15 INCLUDING DRIVER)
- 03 Van/Enclosed Box
- 04 Open/Cover/Dray

- 05 Pole
- 06 Cargo Tank
- 07 Flatbed
- 08 Dump

- 09 Concrete Mixer
- 10 Auto Transporter
- 11 Garbage/Refuse
- 12 Other
- 13 UNKNOWN

Weight (GVWR)

- 1 LESS THAN 10,000
- 2 10,001 - 25,000
- 3 MORE THAN 25,000

CDL Class

- 1 CLASS A
- 2 CLASS B
- 3 CLASS C
- 4 CLASS M
- 5 CLASS P

Hazardous Materials Placard

- 1 NO
- 2 YES
- 3 UNKNOWN

Hazardous Materials Released

- 1 NO
- 2 YES
- 3 NOT APPLICABLE
- 4 UNKNOWN

Police Action

DATE CRASH REPORTED

TIME REC CALL

DISPATCH

ARRIVED

CLEARED

OTHER

TOTAL COUNT

06052006 1549 1549 1559 1805 126

Officer's Name

Badge #

Officer's Name

Date Report Filed

Sgt BGRAL 34 06122006

REPORT TAKEN BY

- 1 POLICE AGENCY
- 2 MOTORIST

REPORT TAKEN AT

- 1 RESIDE
- 2 STATION
- 3 OTHER

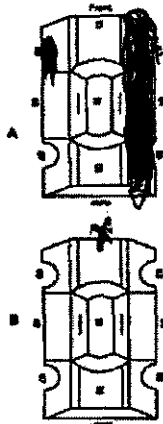
SUPPLEMENT "K" = YES

LOCAL REPORT #

4134060506

CH-1 (Rev. 10-08)

WST091

UNIT NUMBERS 61 02 NON-MOTORIST LOCATION 1 2 3 4 01 MARKED CROSSWALK AT INTERSECTION 02 INTERSECTION NO CROSSWALK 03 NON-INTERSECTION CROSSWALK 04 DRIVEWAY ACCESS CROSSWALK 05 IN ROADWAY 06 NOT IN ROADWAY 07 MEDIAN (BUT NOT SHOULDER) 08 ISLAND 09 SHOULDER 10 SIDEWALK 11 WITHIN 10 FEET OF ROADWAY (NOT SHOULDER, MEDIAN, SIDEWALK, ISLAND) 12 BEYOND 10 FEET OF ROADWAY (WITHIN TRAFFICWAY) 13 OUTSIDE TRAFFICWAY 14 SHARED USE PATHS ON TRAILS 15 UNKNOWN	DAMAGE AREA  MOST DAMAGED AREA 03 01 01 NONE 02 CENTER FRONT 03 RIGHT FRONT 04 RIGHT SIDE 05 RIGHT REAR 06 REAR CENTER 07 LEFT REAR 08 LEFT SIDE 09 LEFT FRONT 10 TOP AND WINDOWS 11 UNDERCARRIAGE 12 LOAD/HAULER 13 TOTAL (ALL AREAS) 14 OTHER 15 UNKNOWN	PRE-CRASH ACTIONS 01 01 NON-MOTORIST 01 MOVEMENTS ESSENTIALLY STRAIGHT AHEAD 02 BACKING 03 CHANGING LANES 04 OVERTAKING/PASSING 05 TURNING RIGHT 06 TURNING LEFT 07 MAKING U-TURN 08 ENTERING TRAFFIC LANE 09 LEAVING TRAFFIC LANE 10 PARKED 11 SLOWING/STOPPED IN TRAFFIC 12 DRIVERLESS 13 OTHER 14 UNKNOWN NON-MOTORIST 15 ENTERING/CROSSING IN SPECIFIED LOCATION 16 WALKING, RUNNING, JOGGING, PLAYING, CYCLING, WORKING 17 PUSHING VEHICLE 18 APPROACHING/LEAVING VEHICLE 19 PLAYING/WORKING ON VEHICLE 21 STANDING 22 OTHER 23 UNKNOWN	SEQUENCE OF EVENTS 08 20 1 2 3 4 NON-COLLISION 01 OVERTURN/ROLL-OVER 02 FIRE/EXPLOSION 03 IMPEDIMENT 04 JACKKNIFE 05 CARGO/EQUIPMENT LOSS/SHIFT 06 EQUIPMENT FAILURE 07 SPILLAGE OF LIQUIDS 08 RAN OFF ROAD RIGHT 09 RAN OFF ROAD LEFT 10 CROSS MEDIAN/COUNTERLANE 11 DOWNGRADE RUMBLEY 12 OTHER NON-COLLISION 13 UNKNOWN NON-COLLISION COLLISION W/ PERSONAL VEHICLE OR OBJECT, NOT FIXED 14 PEDESTRIAN 15 PASSENGER 16 RAILWAY VEHICLE 17 ANIMAL - FARM 18 ANIMAL - OTHER 19 ANIMAL - OTHER 20 MOTOR VEHICLE IN TRANSPORT 21 PARKED MOTOR VEHICLE 22 WORK ZONE MAINTENANCE EQUIPMENT 23 OTHER MOVABLE OBJECT 24 UNKNOWN MOVABLE OBJECT COLLISION W/ FIXED OBJECT 25 IMPACT ATTENUATION CRASH CUSHION 26 BRIDGE OVERHEAD STRUCTURE 27 BRIDGE POLE ON INFRASTRUCTURE 28 BRIDGE PARAPET 29 BRIDGE RAIL 30 BRIDGE FACE 31 GUARDRAIL END 32 MEDIAN BARRIER 33 HIGHWAY TRAFFIC SIGN POST 34 OVERHEAD SIGN POST 35 LIGHT/ILLUMINANCE SUPPORT 36 UTILITY POLE 37 OTHER POST, POLE OR SUPPORT 38 CULVERT 39 CURB 40 DITCH 41 EMBANKMENT 42 FENCE 43 FENCE 44 TREE 45 OTHER FIXED OBJECT 46 WORK ZONE MAINTENANCE EQUIPMENT 47 UNKNOWN FIXED OBJECT 48 OTHER 49 UNKNOWN	POSTED SPEED 25 35 TRAFFIC CONTROL 08 01 01 NO CONTROLS 02 STOP SIGN 03 YIELD SIGN 04 TRAFFIC SIGNAL 05 TRAFFIC FLASHERS 06 SCHOOL ZONE 07 RAILROAD CROSSINGS 08 RAILROAD FLASHERS 09 RAILROAD GATES 10 CONSTRUCTION BARRICADE 11 POLICE OFFICER 12 PARADEMENT BARRIERS 13 CROSSWALK LINES 14 WALK/DON'T WALK SIGNAL 15 TRAFFIC CONTROL DEVICE INOPERATIVE, MISSING, OBLSCURED 16 OTHER	DRINK TEST STATUS 1 1 1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNOBTAINABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN DRINK TEST TYPE 1 1 1 NONE 2 BLOOD 3 URINE 4 OTHER DRINK TEST 1&2 RESULT 0 0 1 NONE 2 WARRIUM 3 COCAINE 4 OPIATES 5 AMPHETAMINES 6 PCP 7 OTHER 8 UNKNOWN AT TIME OF REPORTING
TYPE OF UNIT 04 29 MOTORIST 01 SUB-COMPACT 02 COMPACT 03 MID SIZE 04 FULL SIZE 05 MINIVAN 06 SPORT UTILITY VEHICLE 07 PICKUP 08 PANEL/VAN 09 SINGLE UNIT TRUCK 2 AXLES, 6 TIRES 10 SINGLE UNIT TRUCK 3+ AXLES 11 TRACTOR/SEMI 12 TRUCK TRACTOR (BOSTAL) 13 TRACTOR/SEMI-TRAILER 14 TRACTOR/DOUBLE SHORT 15 TRACTOR/DOUBLE LONG 16 FIFTH WHEEL ON CONVERTER DOLLY 17 TRACTOR/WRAPLES 18 MOTORCYCLE 19 MOTORCYCLE/BICYCLE 20 SCHOOL BUS 21 CHURCH BUS 22 PUBLIC BUS 23 OTHER BUS 24 POLICE VEHICLE 25 FIRE TRUCK 26 AMBULANCE/RESCUE 27 TAXI 28 MOTOR HOME 29 TRAM 30 FARM VEHICLE 31 FARM EQUIPMENT 32 SNOWMOBILE 33 CONSTRUCTION EQUIPMENT 34 ALL OTHERS NON-MOTORIST 35 ANIMAL WALKER 36 ANIMAL W/DRUGGY 37 BICYCLE 38 PEDESTRIAN 39 FISCALCYCLIST 40 SKATER 41 OTHER-NON MOTORIST 42 UNKNOWN	POINT OF IMPACT 03 02 01 NONE 02 CENTER FRONT 03 RIGHT FRONT 04 RIGHT SIDE 05 RIGHT REAR 06 REAR CENTER 07 LEFT REAR 08 LEFT SIDE 09 LEFT FRONT 10 TOP AND WINDOWS 11 UNDERCARRIAGE 12 LOAD/HAULER 13 TOTAL (ALL AREAS) 14 OTHER 15 UNKNOWN	CONTRIBUTING CIRCUMSTANCES 15 01 MOTORIST 01 NONE 02 FAILURE TO YIELD 03 RAN RED LIGHT, OR STOP SIGN 04 EXCEEDED SPEED LIMIT 05 UNSAFE SPEED 06 IMPROPER TURN 07 LEFT OF CENTER 08 FOLLOWED TOO CLOSELY/ACCID 09 IMPROPER LANE CHANGE/ DROVE OFF ROAD 10 IMPROPER PASSING 11 IMPROPER START FROM PARKED POSITION 12 STOPPED ON PARKING ILLEGALLY 13 OPERATING VEHICLE IN IMPAIRED, RECKLESS, CARELESS, NEGLIGENT OR AGGRESSIVE MANNER 14 OBEYING TO AVOID (DUE TO WIND, SLIPPERY SURFACE, VEHICLE, OBJECT, NON-MOTORIST IN ROADWAY, ETC) 15 FAILURE TO CONTROL 16 VISION OBSTRUCTION 17 DRIVER DISTRACTION 18 FATIGUE/ASLEEP 19 OPERATING DEFECTIVE EQUIPMENT 20 LOAD SHIFTS/FALLING/SPILLING 21 OTHER IMPROPER ACTION 22 UNKNOWN NON-MOTORIST 23 NONE 24 IMPROPER CROSSING 25 DRIVING 26 LYING AND/OR ILLEGALLY IN ROADWAY 27 FAILURE TO YIELD RIGHT OF WAY 28 NOT VISIBLE (DARK CLOTHING) 29 INATTENTIVE 30 FAILURE TO OBEY TRAFFIC SIGNS, SIGNALS, OR OFFICER 31 WRONG SIDE OF THE ROAD 32 OTHER 33 UNKNOWN	FACTS HARMFUL EVERY 1 1 OF THE SEQUENCE OF EVENTS - WHICH ONE IS THE MOST HARMFUL EVENT (1-4) MOST HARMFUL EVENT 1 1 OF THE SEQUENCE OF EVENTS - WHICH ONE IS THE MOST HARMFUL EVENT (1-4) SPEED DETECTED 1 1 1 STATED 2 ESTIMATED SPEED SPEED 20	DIRECTION REC. TO 43 21 1 NORTH 2 SOUTH 3 EAST 4 WEST 5 NORTHEAST 6 NORTHWEST 7 SOUTHEAST 8 SOUTHWEST 9 UNKNOWN CONDITION 1 1 1 APPARENTLY NORMAL 2 PHYSICAL IMPAIRMENT 3 EMOTIONAL 4 ILLNESS 5 FULL ASLEEP, FAINTED, KATONER, ETC 6 UNDER THE INFLUENCE OF MEDICATIONS/DRUGS/ALCOHOL 7 OTHER 8 UNKNOWN ALCOHOL/DRUG SUSPECTED 1 1 1 NONE 2 YES - ALCOHOL SUSPECTED 3 YES - HSD NOT IMPAIRED 4 YES - DRUGS SUSPECTED 5 YES - ALCOHOL / DRUGS SUSPECTED 6 UNKNOWN ALCOHOL TEST STATUS 1 1 1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNOBTAINABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN ALCOHOL TEST TYPE 1 1 1 NONE 4 BREATH 3 URINE 5 OTHER ALCOHOL TEST RESULT 1 1	TYPE OF INTERSECTION 1 1 01 NOT AN INTERSECTION 02 FOUR-WAY INTERSECTION 03 T-INTERSECTION 04 Y-INTERSECTION 05 TRAFFIC CIRCLE/ROUNDABOUT 06 FIVE-POINT, OR MORE 07 ON RAMP 08 OFF RAMP 09 CROSSOVER 10 DRIVEWAY/ACCESS 11 RAILWAY GRADE CROSSING 12 SHARED-USE PATHS ON TRAILS 13 UNKNOWN OCCURRENCE 6 1 ON ROADWAY 2 ON SHOULDER 3 IN MEDIAN 4 ON ROADSIDE 5 ON GORE 6 OUTSIDE TRAFFICWAY 7 UNKNOWN ROAD CONTOUR 4 1 STRAIGHT LEVEL 2 STRAIGHT GRADE 3 CURVE LEVEL 4 CURVE GRADE ROAD CONDITIONS 01
IN EMERGENCY RESPONSE 1 1 1 NO 2 YES 3 UNKNOWN DAMAGE SCALE 4 1 1 NONE 2 NON-FUNCTIONAL DAMAGE 3 FUNCTIONAL DAMAGE 4 DESTRUCTIVE DAMAGE 5 SEVERE 6 UNKNOWN	STRIKING VEHICLE: OVERSIDE / UNDERSIDE 1 1 1 NO UNDERSIDE ON OVERSIDE 2 UNDERSIDE, COMPARTMENT INTRUSION 3 UNDERSIDE, NO COMPARTMENT INTRUSION 4 UNDERSIDE, COMPARTMENT INTRUSION UNKNOWN 5 OVERSIDE, MOTOR VEHICLE IN TRANSPORT 6 OVERSIDE, OTHER VEHICLE 7 UNKNOWN	VEHICLE DEFECT CODE ONLY IF "39" SELECTED ABOVE 1 1 1 01 TURN SIGNALS 02 HEAD LAMPS 03 TAIL LAMPS 04 BRAKES 05 STEERING 06 TIRE BLOWOUT 07 WORK ON SAEK TIRES 08 TRAILER EQUIPMENT DEFECTIVE 09 MOTOR TROUBLE 10 DISABLED FROM PRIOR CRASH 11 OTHER DEFECTS	SPD. DETECTED 1 1 1 STATED 2 ESTIMATED SPEED SPEED 20	ALCOHOL TEST TYPE 1 1 1 NONE 4 BREATH 3 URINE 5 OTHER ALCOHOL TEST RESULT 1 1	DRINK TEST STATUS 1 1 1 NONE 2 TEST REFUSED 3 TEST GIVEN, CONTAMINATED SAMPLE/UNOBTAINABLE 4 TEST GIVEN, RESULTS KNOWN 5 TEST GIVEN, RESULTS UNKNOWN 6 UNKNOWN DRINK TEST TYPE 1 1 1 NONE 2 BLOOD 3 URINE 4 OTHER DRINK TEST 1&2 RESULT 0 0 1 NONE 2 WARRIUM 3 COCAINE 4 OPIATES 5 AMPHETAMINES 6 PCP 7 OTHER 8 UNKNOWN AT TIME OF REPORTING
2010-59 2 7 73 2010-59 2 7 73					

Narrative

UNIT #1 WAS TRAVELING FROM THE WEST TO THE EAST ON CTY RD 47. UNIT #1 EXITED THE ROAD TO THE SOUTH. UNIT #1 IMPACTED THE NORFOLK SOUTHERN TRAIN RAIL APPROX. 11 FT SOUTH OF THE CROSSING. UNIT #1 WAS STUCK ON THE RAILS. UNIT #2 WAS APPROACHING THE SPRING ST. CROSSING TRAVELING NORTH. UNIT #2 WAS TRAVELING AT APPROX 20 MPH. UNIT #2 ACTIVATED THE EMERGENCY BRAKE SYSTEM. UNIT #2 STRUCK UNIT #1. UNIT #1 WAS PUSHED BY UNIT #2 APPROX 19 FT FROM THE POINT OF IMPACT. UNIT #2 TRAVELED APPROX 150 FT NORTH BEFORE COMING TO A COMPLETE STOP. DRIVER AND PASSENGERS OF UNIT #1 EXITED BEFORE BEING STRUCK BY UNIT #2.

MANNER OF COLLISION OR IMPACT ☒ 6 1 NOT COLLISION BETWEEN TWO VEHICLES IN TRANSPORT 2 REAR-END 3 HEAD-ON 4 REAR-TO-REAR 5 BACKING 6 AVULE 7 SIDEWIP, SAME DIRECTION 8 SIDEWIP, OPPOSITE DIRECTION 9 UNKNOWN	SCHOOL BUS RELATED ☐ 1 1 NO 2 YES, DIRECTLY INVOLVED 3 YES, INDIRECTLY INVOLVED 4 UNKNOWN	Diagram 	Write an "N" on the compass diagram to indicate the direction of north.	
WEATHER ☒ 01 01 CLEAR 02 CLOUDY 03 FOG, SMOG, SMIRK 04 RAIN 05 SLEET, HAIL (FREEZING RAIN DRIZZLE) 06 SNOW 07 SEVERE CLOUDING 08 RAINING SMOG, SLEET, SNOW 09 OTHER 10 UNKNOWN	WORK ZONE RELATED ☐ 1 1 NO 2 YES 3 UNKNOWN			
TYPE OF WORK ZONE ☐ 1 1 LANE CLOSURE 2 LANE SHIFT/CROSSOVER 3 WORK ON SHOULDER OR MEDIAN 4 INTERMITTENT MOVING WORK 5 OTHER	LOCATION OF CRASH IN WORK ZONE ☐ 1 1 BEFORE FIRST WORK ZONE 2 ADVANCE WARNING AREA 3 TRANSITION AREA 4 ACTIVITY AREA			
WORKERS PRESENT ☐ 1 1 NO 2 YES 3 UNKNOWN				

Truck/Bus 12-14 ☐ 1 ☐ 2	THE CRASH INVOLVED ONE OR MORE OF THE FOLLOWING: A TRUCK (MOTOR VEHICLE) WITH A GVWR MORE THAN 10,000 POUNDS; OR A TRUCK (MOTOR VEHICLE) WITH A HAZARDOUS MATERIALS PLACARD; OR A BUS DESIGNED FOR AT LEAST 9 PERSONS, INCLUDING DRIVER.	THE CRASH RESULTED IN ONE OR MORE OF THE FOLLOWING: A FATALITY; OR AN INJURY REQUIRING TRANSPORTATION FOR IMMEDIATE MEDICAL TREATMENT; OR AT LEAST ONE VEHICLE WAS TOWED DUE TO DISABLING DAMAGE OR ASSIGNED INTERVENING ASSISTANCE BEFORE PROCEEDING UNDER ITS OWN POWER.
COMPANY (FROM SHIPPING PAPERS) ADDRESS (STREET, CITY, ST, ZIP CODE)	COMPANY PHONE	

US DOT ☐ 1 ☐ 2	ICC MC ☐ 1 ☐ 2	PUCC ☐ 1 ☐ 2	TRAILER LP ST ☐ 1 ☐ 2	TRAILER LP YEAR ☐ 1 ☐ 2	TRAILER LP # ☐ 1 ☐ 2
CARGO BODY TYPE ☐ 1 ☐ 2 ☐ 3 ☐ 4	Weight (GVWR) ☐ 1 ☐ 2 ☐ 3	CDL Class ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Hazardous Materials Placard ☐ 1 ☐ 2 ☐ 3	Hazardous Materials Released ☐ 1 ☐ 2 ☐ 3 ☐ 4	

Police Action 08262010 2155 2155 2156 2300 30 95	DISPATCH 08262010	ARRIVED 08262010	CLEARED 08262010	OTHER 08262010
OFFICER'S NAME BAUMAN	BLOCK # 67	CHECKED BY 68	DATE REPORT FILED 08262010	REPORT TAKEN BY 1
REPORT TAKEN AT 1	1 SCENE 2 STATION 3 OTHER	1 SCENE 2 STATION 3 OTHER	1 SCENE 2 STATION 3 OTHER	1 SCENE 2 STATION 3 OTHER



JEFFERSON, NS, 503166V, SPRING AVE, CR 47, TORONTO

TO E TO SR 7 N, EXIT AT 4th ST.

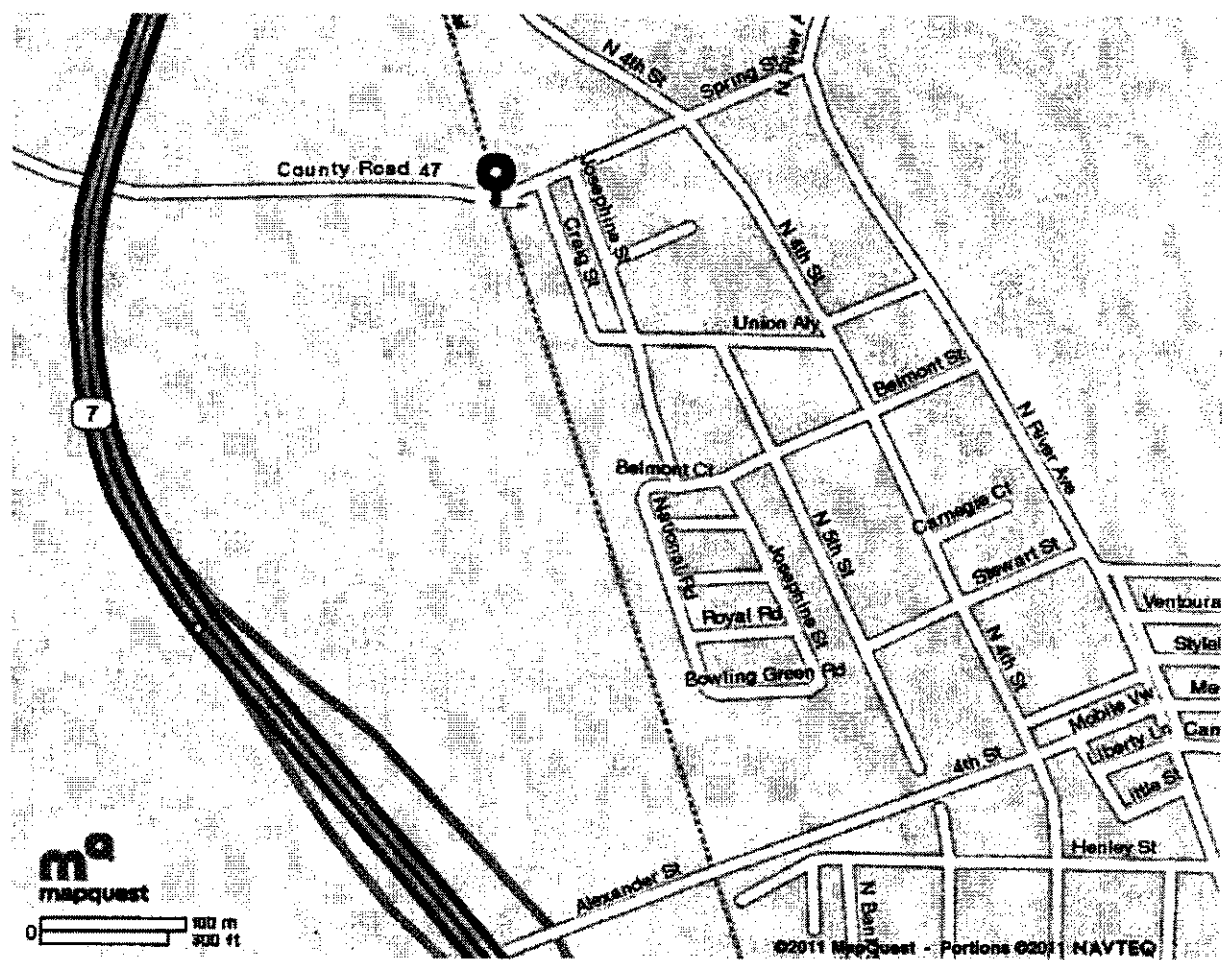
3/3/11

1030 AM



3 HRS

1030 AM





05-Jan-12

Detailed Estimate for Grade Crossing Warning Devices

City/State: TORONTO, OH
MilePost: RO-7.85
State Proj. No.:
S&E Proj. No.: 10.1251
Man Days: 112

Road: SPRING AVE (CR-67)
DOT/AAR: 503166V
County: JEFFERSON
File Number:

Purchases - Others		
Meals and Lodging:	\$15,052.80	
Rental of Equipment:	\$15,680.00	
(2 Trucks, 1 Backhoe w/ Trailer and 1 Pipe-Pusher for 28 Days)		
Construction Supervision Vehicle:	\$2,801.95	
Purchases - Other Total:		\$33,534.75
Material And Additives		
Material Cost:	\$115,549.00	
Sales and Use Tax:	\$0.00	
Material Handling Freight:	\$5,777.43	
Material Total:		\$121,326.43
Labor And Additives		
Labor Cost:	\$31,360.00	
(4 man crew at \$1,120.00 a day for: 28 days)		
Payroll Tax & Overheads:	\$41,658.62	
Preliminary Engineering:	\$12,927.96	
Construction Supervision:	\$8,852.93	
Labor Total:		\$94,799.51
Project Cost:		\$249,660.69
Scrap / Salvage Credit:		\$0.00
Project Total:		\$249,661.00

Estimated on: 05-Jan-12

Estimated by: ndr3j

Estimate valid for 1 year from date of estimate



Norfolk Southern Railway
Highway Crossing Signalization Program - Material List



Do not substitute items without permission from S & E Engineering

City:	TORONTO
Road:	SPRING AVE (CR-67)
Mile Post:	RO-7.85
Drawing Number:	22310077
State Project Number:	
County:	JEFFERSON
A A R Number:	503166V
Project Number:	10.1251
File Number:	
New File Number:	CX0118782
A F E Number:	F33354
Store Number:	09166
Supervisor:	W.D. MCCAULEY
Tax Code:	
Vendor to supply the following copies after pricing: 1 Set - Material Management with original Invoice 2 Sets - with plans shipped in car with material 1 Set - S&E Gen. Supt. Construction w/copy of invoice	

Location: TORONTO

OH

S&E Proj. No.: 10.1251

AFE No.: F33354

Drawing No.: 22310077

Store No.: 09166

P.O.Number:

Date Required:

Date Shipped:

Vendor: Railroad Signal Design

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
							Date Quan.	Date Quan.	Date Quan.		
3	670-360693-4	EA	\$5.52	\$16.56	AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY STRAN.						
1	165-006505-4	EA	\$1,075.23	\$1,075.23	AC SERVICE, COMPLETE LESS METER BASE, ASSEMBLED ON 30' POLE						
13	105-288384-4	EA	\$276.34	\$3,592.42	BATTERY,GNB 368AH MODEL 50G15 SINGLE CELL 2.25 VOLTS, FOR USE WITH CROSSINGS DESIGNED AFTER 09/09						
2	670-980689-4	EA	\$75.48	\$150.96	BRACKET HIGH WIND, (RIGID 3'), WIG- 191036, WALRUS TUSK TYPE						
2	670-561375-4	EA	\$1,208.79	\$2,417.58	BRACKET, GATE SAVER, NEG385102GS, SPRING LOADED SWING AWAY ADAPTER FOR FIBERGLASS/ALUMINUM GATES, USE WITH GATE 38' AND LESS						
1	670-356949-4	EA	\$90.00	\$90.00	CABLE, 10' GENERATOR HOOK UP, SERRMI P/N 40524, FEMALE CONNECTOR						
500	465-939422-4	LF	\$3.17	\$1,585.00	CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL						
350	465-292862-4	LF	\$1.54	\$539.00	CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR						
500	465-292929-4	LF	\$4.64	\$2,320.00	CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL						
350	465-791835-4	FT	\$3.93	\$1,375.50	CABLE, UG AC ENTRANCE 3C#6-7X OKONITE FMPF-L 094-078 TR W/G 1 X 8 7X W010 BRZ TAPE 600V PRODUCT CODE 206-11-6070						
1	670-563176-4	EA	\$2,731.23	\$2,731.23	CANTILEVER, WT/F ARM 12' W/WALKWAY KIT SAFTRAN #071294-12NS1						
80	165-544477-4	FT	\$2.11	\$168.80	CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4						
2	670-664917-4	EA	\$80.28	\$160.56	CONNECTOR KIT, WELDED FAR RAIL, CONSISTING OF RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, 1 SPLICING SLEEVE, 1 REDUCING SLEEVE, 3 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-2X						
2	670-632520-4	EA	\$70.94	\$141.88	CONNECTOR KIT, WELDED NEAR RAIL, CONSISTING OF, RUBBER HOSE PROPERLY DRILLED, BONDSTRAND, SPLICING SLEEVE, 1 REDUCING SLEEVE, 5 CLAMPS, 1 TRACK CLIP, 1 WEB WELDED TRACK CONNECTOR, 1 WELD METAL, SAFETRAN 111359-1X						

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

Location: TORONTO

OH

S&E Proj. No.: 10.1251

AFE No.: F33354

Drawing No.: 22310077

Store No.: 09166

P.O.Number:

Date Required:

Date Shipped:

Vendor: Railroad Signal Design

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed Date Quan.	Date Quan.	Date Quan.	Quantity Returned (Credit)	Special Instructions
1	670-793404-4	EA	\$1,159.00	\$1,159.00	COUNTERWEIGHT PKAGE, 17-24' GATE S'TRAN S- MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS						
1	670-794453-4	EA	\$1,253.03	\$1,253.03	COUNTERWEIGHT PKAGE, 25-31' GATE S'TAN S- MECH ONLY, STAINLESS TO INCLUDE HUB, SUPPORT ARMS						
7	670-760012-4	EA	\$40.40	\$282.80	COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. ===== TO COVER 2 LAMPS =====						
1	670-986650-4	EA	\$341.80	\$341.80	DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER						
3	670-000003-4	EA	\$255.85	\$767.55	FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST						
1	670-744631-4	EA	\$3,158.86	\$3,158.86	FOUNDATION, CFLS FOR SAFETRAN MODEL "WT/F" ARMS 12' TO 30' SINGLE MAST, DIXIE# DP4B-SM12-26-4, 5'10" CR 02-205902						
2	670-015231-4	EA	\$594.49	\$1,188.98	FOUNDATION, DIXIE,S-2 GATE 2'6"x2'6"x5'6" ASSEMBLED						
1	670-257031-4	EA	\$421.88	\$421.88	GATE ARM, FIBERGLASS-ALUMINUM, 17-24 FT, INCLUDES GATE GUARD FOR GATE LIGHT CABLE. HIGH INTENSITY VERTICAL STRIPES. NEG P/N 8003-244NFS/CG, SSC T18115						
1	670-263738-4	EA	\$458.43	\$458.43	GATE ARM, FIBERGLASS-ALUMINUM, 25-31 FT, INCLUDES GATE GUARD FOR GATE LIGHT CABLE. HIGH INTENSITY VERTICAL STRIPES. NEG P/N 8003-324NFS/CG, SSC						
1	670-674402-4	EA	\$30,498.41	\$30,498.41	GCP4000 - 1 TRK (2TC) - REDUNDANT - 40/60 AMP WIRED RACK EQUIP. FOR 6X8 XING SHELTER, (INCL. 2 TRK CHASSIS A80465, 2 TRK MODS. A80418, 2-SSCC A80405, 2 CPU A80403, 1 SEAR A80410, 1 DISPLAY A80407, 1 TRANS MOD. A80468, 1-40 & 1-60 AMP CHARGER) IPN: 003131-						
1	670-011479-4	EA	\$505.99	\$505.99	GUARD, SIGNAL ARMCO LINER PLATE CIRCULAR 8'DIA., 10 GA.GALVANIZED STEEL WITH (6) 5'9" GALVANIZED						
1	670-477991-4	EA	\$410.00	\$410.00	KIT, GROUNDING ASSY FOR AL I/S INCLUDES 8 GRD RDS,200'4WIRE,12 4 WIRE ONE-SHOTS. ERICO SBK206						
1	670-123298-4	EA	\$336.04	\$336.04	KIT, HARDWARE SUPPLIES REQUIRED X'ING P'CKAGES. WEB CONNECTORS FOR SHUNT(8EA) TAPE, AMPS,P'GUM PAINT,SLEEVES,TAGS,GLUE, 100 EA WHITE TAGS,)NE CAN BLUE MARKING PAINT ETC...						

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

Location: TORONTO

OH

S&E Proj. No.: 10.1251

AFE No.: F33354

Drawing No.: 22310077

Store No.: 09166

P.O.Number:

Date Required:

Date Shipped:

Vendor: Railroad Signal Design

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Installed			Quantity Returned (Credit)	Special Instructions
2	670-441677-4	EA	\$676.56	\$1,353.12	LAMP ASSY, 4' JURY ARM TIP & LANE LIGHT, USE WITH WT/F CANT ARM, 1W (BACK) OR 1W (FRONT) IND. 20" BKGRD, FLX-12" W/BULB. ORDER 2 FOR 2W APPLICATION. SAFETRAN P/N 042003-001534						
2	670-724041-4	EA	\$682.65	\$1,365.30	LAMP ASSY, 12' MAST MTG., USE WITH W & WT/F MAST, 1W (BACK)(FRONT ON COMBO) IND. 20" BKGRD. FLX-12 W/BULB OLD S'TRAN# 042003-481XNS						
1	670-745798-4	EA	\$676.56	\$676.56	LAMP ASSY, 4' GRD. MAST MTG. 1W IND. 20" BKGRD, FLX-12 W/BULB S'TRAN #042003-484XNS						
1	670-816589-4	EA	\$683.57	\$683.57	LAMP ASSY, 5' MAST MTG. 1W IND. 20" BKGRD, (BACK) LTS.FLX-12 W/BULB S'TRAN # 042003-001493						
1	670-764166-4	EA	\$1,240.19	\$1,240.19	LAMP ASSY, 5' MAST MTG. 2W IND. 20" BKGRD, FLX-12 W/BULB S'TRAN #042003-487XNS						
1	670-167654-4	EA	\$647.05	\$647.05	LAMP ASSY, FLX 12" LIGHT UNIT, USE WITH W & WT/F MAST, 1W (FRONT) INDICATION FOR WT/F CANTILEVER MAIN MAST, SAFETRAN P/N 042003-489XNS						
6	165-643547-4	EA	\$5.75	\$34.50	LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY SIGNAL UJ-71463 GE						
5	255-590880-4	EA	\$17.57	\$87.85	LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO PRIVATE KEYWAY D456 AND STAMPED "NS SIG"						
1	670-179911-4	EA	\$4,250.00	\$4,250.00	MAST, 12" CANTILEVER, FOR 12'-20' WT/F ARMS, INCL LADDER KIT (IPN: 071271-20NS)						
1	610-165863-4	EA	\$1,400.00	\$1,400.00	MAST, 5" ALUMINUM (0&45) RIGHT FOR LIGHT UNIT & BRACKET @ 45 DEG. RIGHT W/DBL JCT. BOX BASE #070519-43AX-2						
1	670-637778-4	EA	\$1,265.30	\$1,265.30	MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE. S'TRAN P# 070519-11AX.						
1	670-000985-4	EA	\$306.63	\$306.63	MAST, SIDELIGHT BRACKET F/5'MT. HARMON @225834-XXX, SAFETRAN 041442-26X,						
2	670-850933-4	EA	\$3,925.06	\$7,850.12	MECHANISM, GATE MODEL S-60, WITH DEFROSTER AND MINI TRACKSIDE SENSOR S'TRAN # 0740007-X002B3						
14	670-000014-4	EA	\$1,228.08	\$17,193.12	MISC. EXPENSE, CURB WORK (BY ROAD AUTHORITY)						
1	670-000001-4	EA	\$726.23	\$726.23	MISC. EXPENSE, MATERAIL/FILL						
1	000-000000-4	EA	\$5,000.00	\$5,000.00	MISC. EXPENSE, UNDERGROUND BORING						

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

Location: TORONTO

OH

S&E Proj. No.: 10.1251

AFE No.: F33354

Drawing No.: 22310077

Store No.: 09166

P.O.Number:

Date Required:

Date Shipped:

Vendor: Railroad Signal Design

Qty.	Class-Item-CD	UI	Price per Item	Total Price	Item Description	Quantity Shipped	Quantity Date Quan.	Quantity Date Quan.	Quantity Date Quan.	Quantity Returned (Credit)	Special Instructions
2	210-863404-4	EA	\$4.38	\$8.76	NUT, RACO 408-1 SAFETRAN PART NO. 023408-1X INSULATED CR 02-316121						
1	670-001355-4	EA	\$74.00	\$74.00	PACKAGE, HARDWARE SIGN 12 IN. (USE WITHWT/F MAST) MOUNTING, SERRMI A1250-8, HARMON @180004/0007,						
1	670-001347-4	EA	\$57.10	\$57.10	PACKAGE, HARDWARE SIGN 5 IN. MOUNTING, SERRMI A1250-5, HARMON @200965-000, OR						
1	255-646807-4	EA	\$31.19	\$31.19	PADLOCK, SAFETRAN PART NO. 030399-29X SCREW TYPE FOR CIR CONTROLLER AND BTY. BOX						
1	670-514605-4	EA	\$11.11	\$11.11	PINNACLE, W-C SECT 1-11, 4" & 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X						
1	165-902002-4	EA	\$303.43	\$303.43	PROTECTOR, SURGE 120/240VAC, ERICO P/N EPD120/240TDFL						
4	465-002899-4	EA	\$39.71	\$158.84	REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES						
2	435-805560-4	EA	\$2.83	\$5.66	SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER						
1	670-027556-4	EA	\$2,629.77	\$2,629.77	SEARIII, ACCESSORY PACKAGE, W/2-ILOD, 1-E-BELL, 2-GTS, 1-GFT, 1-VHFC, WITHOUT MTSS/SEAR UNIT						
1	670-749325-4	EA	\$226.97	\$226.97	SHELF, FOLDING, FOR LAPTOP USE IN FARADAY 6X8 SHELTER, SAFETRAN 052852-128X						
1	670-755523-4	EA	\$9,383.92	\$9,383.92	SHELTER, 6'X8' ALUMN FARADAY W/CABLE CHUTES BEHIND TERMINAL BOARD, W/1EA EQUIPMENT RACK, W/GEN RECEPTICAL, BREAKER BOX GFI OUTLET FOR LAPTOP SHELF SAFETRAN 058400-68-85						
2	670-586967-4	EA	\$41.70	\$83.40	SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT						
2	670-652773-4	EA	\$460.98	\$921.96	SHUNT, MULTI-FREQ. #62775-1543 SAFETRAN NARROW BAND						
1	670-397239-4	EA	\$40.23	\$40.23	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 12" MAST, SAFETRAN #T17216						
2	670-393331-4	EA	\$37.43	\$74.86	SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215						
2	670-016346-4	EA	\$146.32	\$292.64	SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X						
1	670-330382-4	RL	\$17.81	\$17.81	TAPE, THOR 3' DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"						

APPROVED BY STATE

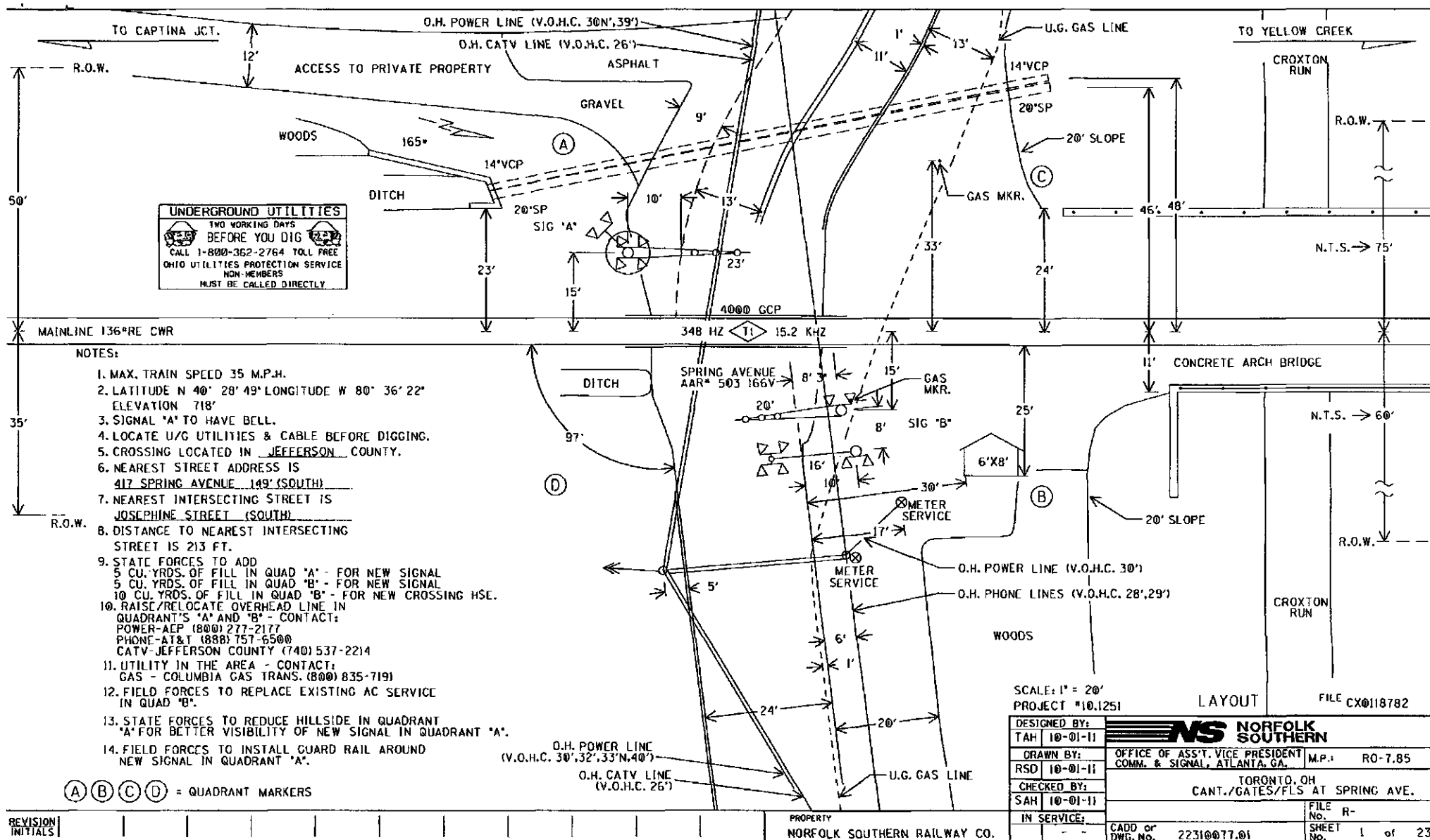
APPROVED BY RAILROAD

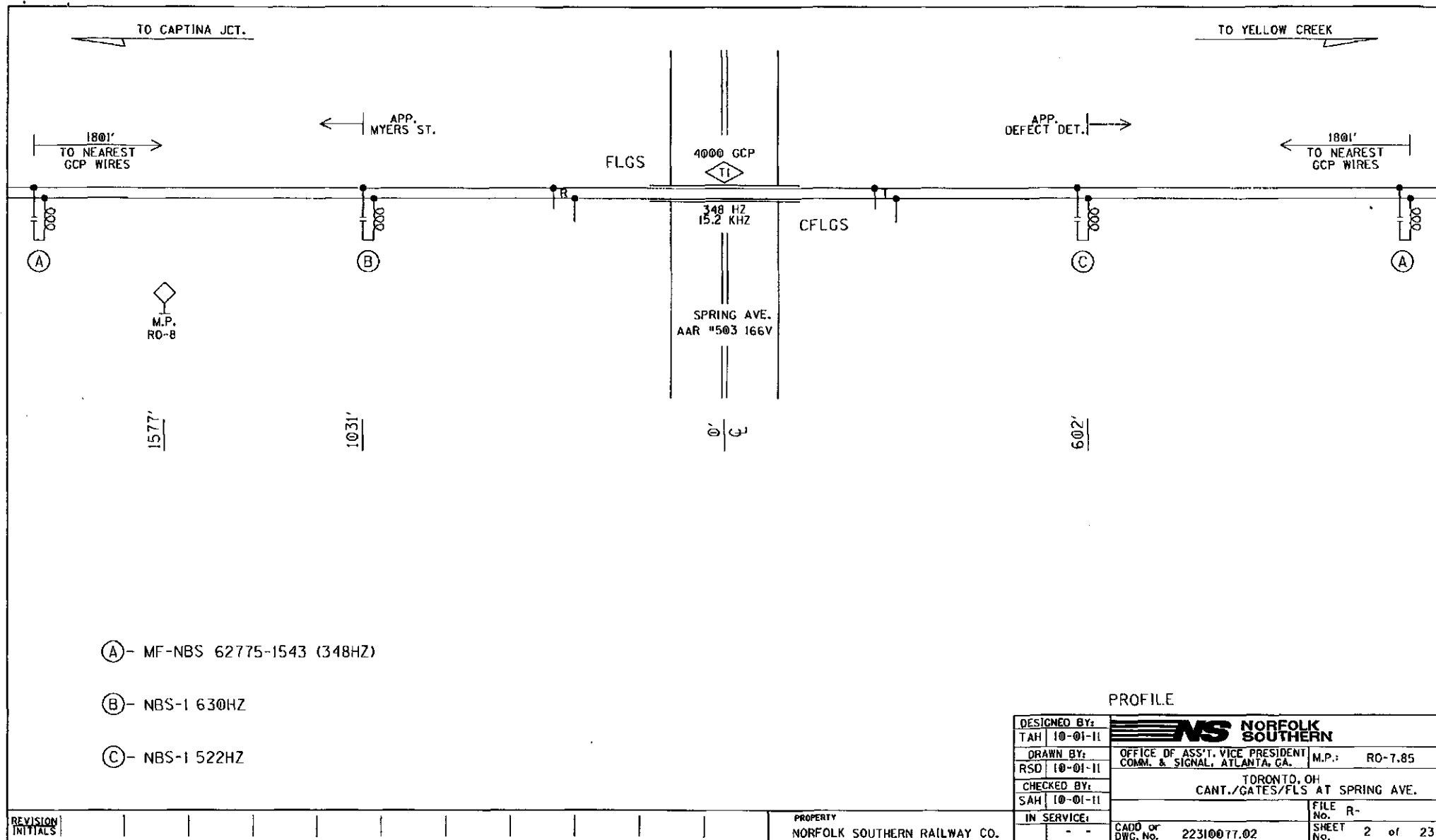
CAR NUMBER

SEAL NUMBER

Total Material: \$115,548.68

APPROVED BY STATE	APPROVED BY RAILROAD	CAR NUMBER	SEAL NUMBER
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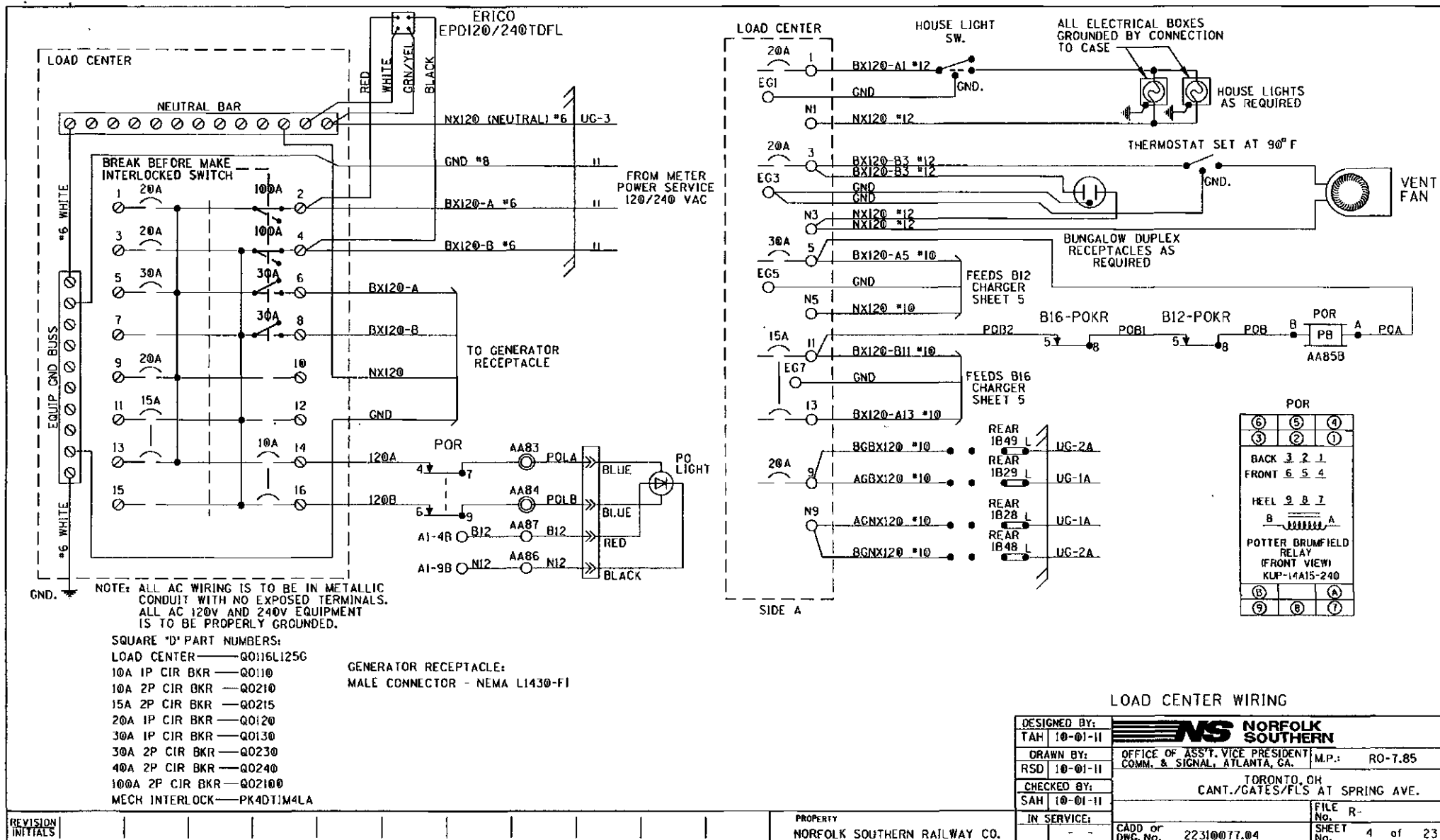


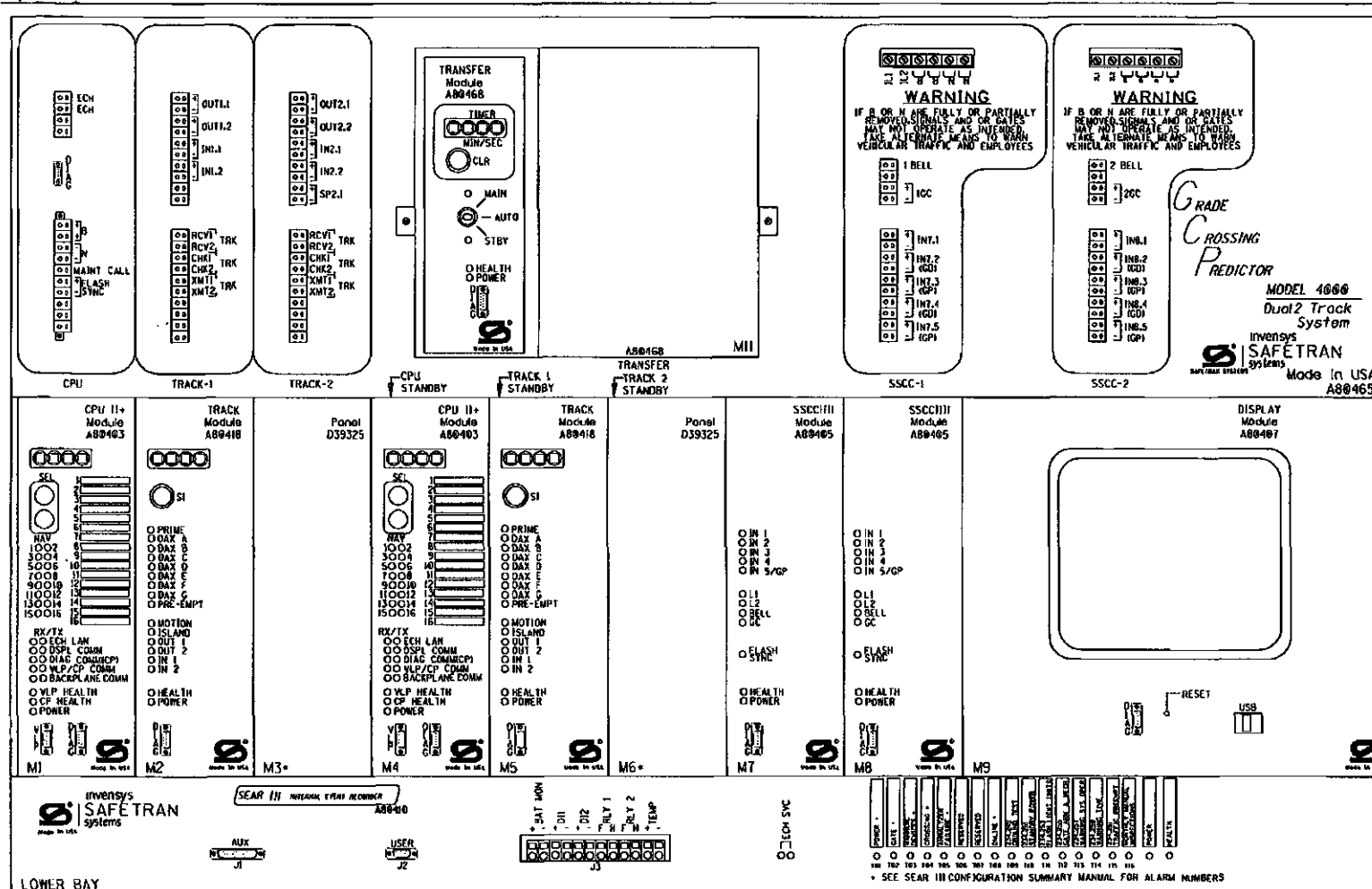


(A) - MF-NBS 62775-1543 (348HZ)

(B) - NBS-1 630HZ

(C) - NBS-1 522HZ





WARNING
REMOVAL OF THE SSSCIII MODULE WILL CAUSE THE GATE(S) TO DROP BUT THE LIGHTS WILL NOT ACTIVATE

CAUTION
ASSURE CORRECT POLARITY OF THE SSSCIII MODULE OR SEVERE DAMAGE WILL OCCUR.

ATTENTION!
ENSURE THE DISPLAY MODULE HEATER IS DISABLED. LEAVING THE DISPLAY HEATER ENABLED WILL REDUCE THE AMOUNT OF BATTERY STANDBY TIME IN THE EVENT OF AN AC POWER FAILURE.

HEATER FUNCTION IS JUMPER SELECTABLE ON THE DISPLAY MODULE BOARD.
THREE OPTIONS ARE AVAILABLE:
NORMAL LCD HTR (DEFAULT)
HI CURRENT
NO JUMPER (HEATER DISABLED)

** MAIN AND STANDBY MAY USE RIO IN TRACK 2 SLOTS (M3 AND M6)

PANEL "A2" 4000 GCP REDUNDANT 2-TK CHASSIS AND MODULE LAYOUT

DESIGNED BY:	TAH 10-01-11	NORFOLK SOUTHERN
DRAWN BY:	RSD 10-01-11	
CHECKED BY:	SAH 10-01-11	
IN SERVICE:		
PROPERTY	NORFOLK SOUTHERN RAILWAY CO.	
OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: RO-7.85	
TORONTO, OH	CANT./GATES/FLS AT SPRING AVE.	
FILE No. R-		
CADD or DWG. No.	22310077.06	SHEET No. 6 of 23

REVISION INITIALS

Location and S/N

SIN: 755048202116

MCF Name: GCP-T6X-02-1.mcf
MCF Revisions: 021
MCF CRC: 6076E435

Template = 1A:6 Trk B1

Office Check No. (DT 4.6.0): 2D1CBF5B
Office Check Number: 2D1CBF5B
Config. Check Number: 4BF84E83
(Based on MCF Revision 021)

BASIC: module configuration

```

Track 1 Slot = Track
Track 2/R10 Slot = Not Used
Track 3 Slot = Not Used
Track 4 Slot = Not Used
Track 5/R10 2 Slot = Not Used
Track 6/R10 3 Slot = Not Used
SSCC-1 Slot = SSCC31
SSCC-2 Slot = SSCC31
SEAR Used = Yes

```

BASIC: MS/GCP operation

Track 1: MS/GCP Operation = Yes

BASIC: island operation

Track 1: Island Used = Internal

BASIC: preemption

Preempt Logic = No

BASIC: radio Dax links

Radio DAX link A Used = No
Radio DAX link B Used = No

BASIC: Vital Comms links

VitalComms link 1 Used = No
VitalComms link 2 Used = No

PREDICTORS: track 1

Track	Prime	Used	=	Yes
Track 1	Dox A	Used	=	No
Track 1	Dox B	Used	=	No
Track 1	Dox C	Used	=	No
Track 1	Dox D	Used	=	No
Track 1	Dox E	Used	=	No
Track 1	Dox F	Used	=	No
Track 1	Dox G	Used	=	No

```

GCP: track 1
Track 1: GCP Freq Category = Standard
Track 1: GCP Frequency = 348 Hz
Track 1: Approach Distance = 1801 ft
Track 1: Uni/Bi/Sim-Bidirnl = Bidirnl
Track 1: GCP Transmit Level = Medium
Track 1: Island Connection = Isl
Track 1: Island Distance = 132 ft
Track 1: Computed Distance = 9999 ft
Track 1: Linearization Steps = 100

```

```
GCP: track 1 enhanced det
Track 1: Inbound PS Sensitivity = Off
Track 1: Speed Limiting Used = Yes
Track 1: Outbound False Act Lvl = Normal
Track 1: Outbound PS Timer = 20 sec
Track 1: Trailing Switch Logic = Off
Track 1: Post Joint Detn Time = 15 sec
Track 1: Adv Appr Predn = No
Track 1: Cancel Pickup Delay = This Isl
```

```
GCP: track 1 prime
Track 1: Prime Warning Time = 30 sec
Track 1: Prime Offset Distance = 0 ft
Track 1: Switch MS EZ Level= 10
Track 1: Prime MS/GCP Mode = Pred
Track 1: Prime Pickup Delay = 15 sec
Track 1: Prime UAX = Not Used
```

```
GCP: track 1 pos start
Track 1: Positive Start = Off
Track 1: Sudden Shnt Det Used = No
Track 1: Low EZ Detection Used = No
```

```
GCP: track 1 MS Control
Track 1: MS/GCP CtrlIP Used = No
Track 1: MS Sensitivity Level = 0
Track 1: Compensation Level = 1300
Track 1: Worn Time-Ballast Comp = High
Track 1: Low EX Adjustment = 39
Track 1: Blindn Dax Passthru = No
Track 1: False Act on Train Stop = No
Track 1: EX Limiting Used = Yes
Track 1: EZ Correction Used = Yes
```

```
ISLAND: track 1
Track 1: |s|Frequency = 15.2 kHz
Track 1: Pickup Delay (2s +) = 0 sec
Track 1: |s|Enable IP Used = No
```

```

AND: track Anding
AND 1 XR Used = Yes
AND 2 Used = No
AND 3 Used = No
AND 4 Used = No
AND 5 Used = No
AND 6 Used = No
AND 7 Used = No
AND 8 Used = No

```

```
AND: AND !XR
AND !XR Track 1 = Prime
AND !Enable Used = Yes
AND !Enable Pickup = 5 sec
AND !Enable Drop = 0 sec
AND !Wrap Used = No
```

ADVANCED: MS restart
MS/GCP Restart Used = No

```
ADVANCED: out of service
00S Control = Display+00S IPs
00S Timeout = Yes
00S Timeout = 1 hrs
```

ADVANCED: out of service 2
T1 00S Control= 00S Input 1

ADVANCED: track wrap circuits
Wrap LOS Timer = 5 sec
Track 1 Wrap Used = No

ADVANCED: trk 1 overrides
Track 1: All Predictors Override Used = No

```

ADVANCED: OR logic
OR 1 Used = No
OR 2 Used = No
OR 3 Used = No
OR 4 Used = No

```

```

ADVANCED: Internal I/O I
Pass Thrus = No
Int.1 Sets = Not Used
Int.1 Set by = Not Used
Int.2 Sets = Not Used
Int.2 Set by = Not Used
Int.3 Sets = Not Used
Int.3 Set by = Not Used
Int.4 Sets = Not Used
Int.4 Set by = Not Used

```

```
ADVANCED: internall/O 2
Int.5 Sets = Not Used
Int.5 Set by = Not Used
Int.6 Sets = Not Used
Int.6 Set by = Not Used
Int.7 Sets = Not Used
Int.7 Set by = Not Used
Int.8 Sets = Not Used
Int.8 Set by = Not Used
```

```
ADVANCED: internal/0 3
int.9 Sets = Not Used
int.9 Set by = Not Used
int.10 Sets = Not Used
int.10 Set by = Not Used
int.11 Sets = Not Used
int.11 Set by = Not Used
int.12 Sets = Not Used
int.12 Set by = Not Used
```

4000 GCP PROGRAMMING SETUP

DESIGNED BY:	 NORFOLK SOUTHERN		
TAH 10-01-11			
DRAWN BY:	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		M.P.: RO-7.85
RSD 10-01-11			
CHECKED BY:	TORONTO, OH		
SAH 10-01-11	CANT./GATES/FLS AT SPRING AVE.		
IN SERVICE:		FILE NO. R-	
- -	CAOD or DWG. No.	22310077.07	SHEET No. 7 of 23

ADVANCED: internal/0.4
 Int.13 Sets = Not Used
 Int.13 Set by = Not Used
 Int.14 Sets = Not Used
 Int.14 Set by = Not Used
 Int.15 Sets = Not Used
 Int.15 Set by = Not Used
 Int.16 Sets = Not Used
 Int.16 Set by = Not Used

ADVANCED: site options
 Daylight Savings = On
 Units = Standard
 Maint Call Rpt IP Used = No
 Emergency Activate IP = No
 EZ/EX Logging = Change
 EZ/EX Point Change = 3

SSCC
 Gates Used = Yes
 SSCC1+2 GPs Coupled = Yes
 Min Activation = 0 sec
 Rmt Activation Cancel = 2 min
 Bell On Gate Rising = No
 Mute Bell On Gate Down = No
 SSCCIV Controller Used = No

SSCC: 1
 SSCC-1 Activation = AND 1 XR
 SSCC-1 Gate Delay = 4 sec
 SSCC-1 Number of GPs = 1
 SSCC-1 Number of GDs = 2
 SSCC 1: Flash Rate = 40
 SSCC 1: Low Battery Detection = No
 SSCC 1: Flash Sync = master
 SSCC 1: Invert Gate Output = No
 SSCC 1: Lomp Neutral Test = On
 Aux-1 Xng Ctrl Used = No

SSCC: 2
 SSCC-2 Activation = AND 1 XR
 SSCC-2 Gate Delay = 4 sec
 SSCC-2 Number of GPs = 0
 SSCC-2 Number of GDs = 0
 SSCC 2: Flash Rate = 40
 SSCC 2: Low Battery Detection = No
 SSCC 2: Flash Sync = slave
 SSCC 2: Invert Gate Output = No
 SSCC 2: Lomp Neutral Test = On
 Aux-2 Xng Ctrl Used = No

OUTPUT: assignment page 1
 OUT 1.1 = Not Used
 OUT 1.2 = Not Used

INPUT: assignment page 1
 IN 1.1 = Not Used
 IN 1.2 = Not Used

IO: assignment SSCC
 OUT GC 1 = Gate Output 1
 OUT GC 2 = Gate Output 2
 IN 7.1 = Not Used
 IN 7.2 = GD 1.2
 IN 7.3 = AND 1 XR Enable
 IN 7.4 = GD 1.1
 IN 7.5 = GP 1.1
 IN 8.1 = Not Used
 IN 8.2 = Out Of Service IP 1
 IN 8.3 = Not Used
 IN 8.4 = Not Used
 IN 8.5 = Not Used

SEAR
 SEAR Subnode = 3
 DI 1 = Gnd Flt Tester 1
 DI 2 = Not Used
 Rly 1 = Ground Fault Test
 Rly 2 = AC Control

SEAR: inputs
 SP 2.1 = POK 1
 SP 3.1 = Not Used
 SP 4.1 = Not Used
 SP 5.1 = Not Used
 SP 6.1 = Not Used

SEAR: slot 1-4 inputs
 IN 1.1 = Not Used
 IN 1.2 = Not Used
 IN 2.1 = Not Used
 IN 2.2 = Not Used
 IN 3.1 = Not Used
 IN 3.2 = Not Used
 IN 4.1 = Not Used
 IN 4.2 = Not Used

SEAR: inputs slot 5
 IN 5.1 = Not Used
 IN 5.2 = Not Used

SEAR: inputs slot 6
 IN 6.1 = Not Used
 IN 6.2 = Not Used

SEAR: slot 7-8 inputs
 IN 7.1 = ISS 1
 IN 8.1 = ISS 2
 IN 8.3 = POK 2
 IN 8.4 = Not Used
 IN 8.5 = Not Used

SITE: programming
 Radio Subnode = 1
 Field Password = Off
 Low Battery Enabled = Off

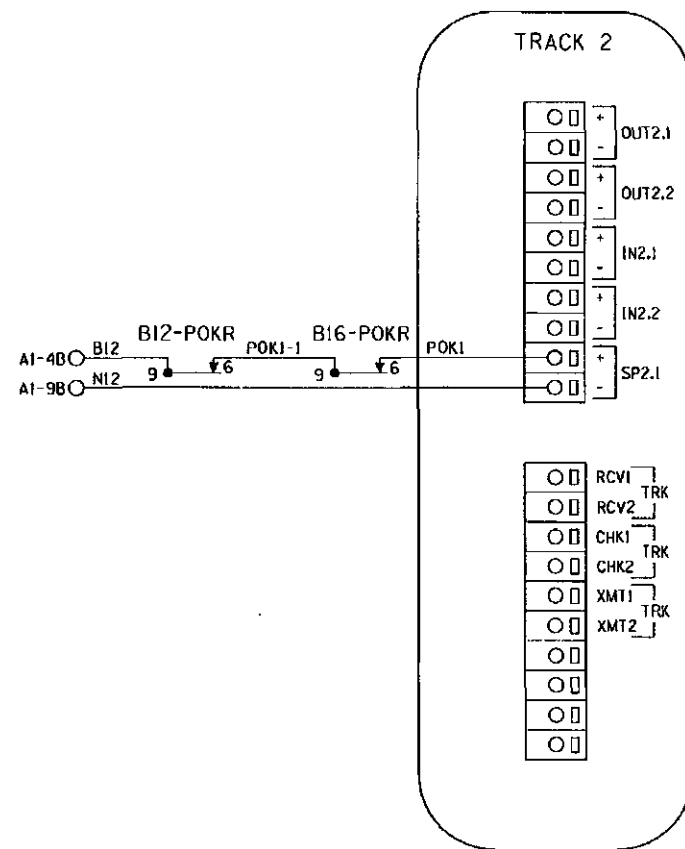
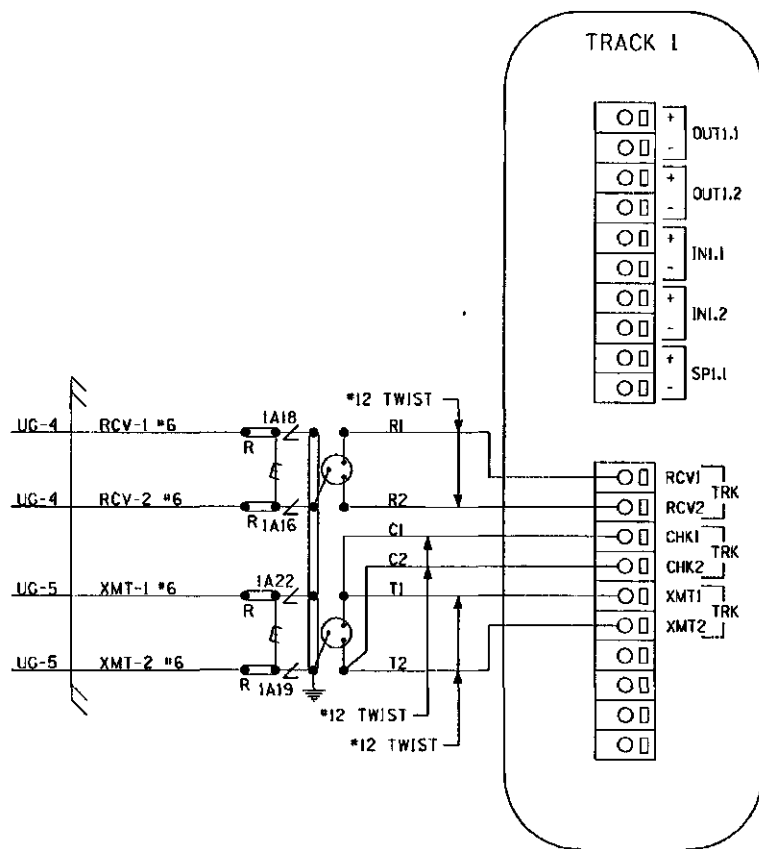
Configuration Package File
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4000 GCP PROGRAMMING SETUP

DESIGNED BY:	NS NORFOLK SOUTHERN		
TAH 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		
DRAWN BY:	M.P.:	RO-7.85	
RSD 10-01-11	TORONTO, OH		
CHECKED BY:	CANT./GATES/FLS AT SPRING AVE.		
SAH 10-01-11			
IN SERVICE:	CADD or DWG. No.	22310077.08	FILE No. R- SHEET No. 8 of 23

REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



PANEL "A2" CONNECTORS FOR MODULES (A80418)

NOTE:
ALL WIRING TO BE #16AWG
UNLESS NOTED OTHERWISE.

DESIGNED BY: TAH 10-01-11	NS NORFOLK SOUTHERN	
DRAWN BY: RSD 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: RO-7.85
CHECKED BY: SAH 10-01-11	TORONTO, OH CANT./GATES/FLS AT SPRING AVE.	
IN SERVICE:	CADD or DWG. No. 22310077.09	FILE No. R- SHEET No. 9 of 23

REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

TO CONFIGURE SEAR III PRESS SITE SETUP KEY.
USE ARROW KEYS TO MAKE SELECTION.
PRESS ENTER AFTER SELECTION HAS BEEN MADE.

SITE SET UP PROCEDURE	
FUNCTION	LED DISPLAY
DATE/TIME	
AUTOMATIC DST ADJUSTMENT	YES
TIME ZONE	EST
SITE NAME	SPRING AVE.
MILEPOST	RO-7.85
DOT #	503166V
TESTER TYPE	CROSSING
DATE FORMAT	MM-DD-YYYY
TEMP FORMAT	FAHRENHEIT
INDICATE HOLD (SEC)	0
INDICATE REFRESH (SEC)	60
SITE ATCS	7.550.482.021.03.01
SITE TYPE	NO COMMUNICATION
*** OFFICE ATCS ADDRESS	2.550.01.9100
*** PRIMARY HOP ADDR	7.RRR.LLL.GGG.XX.XX
*** BACKUP HOP ADDR 1	7.RRR.LLL.GGG.XX.XX
*** BACKUP HOP ADDR 2	7.RRR.LLL.GGG.XX.XX
*** POLL ID	1
*** MODE	GEN/ATCS
*** WAMS XID	DISABLED
*** OFFICE COMM DEVICE	MCM (ECHELON)
*** RADIO ATCS ADDR	7.RRR.LLL.GGG.01.01
*** PHONE #	(OFFICE NUMBER)
*** INIT STRING	
*** FIELD COMM	NONE
**** USER PORT	BAUD 57600, N, 8, 1, NONE
**** AUX PORT	BAUD 9600, N, 8, 1, NONE

VERIFY NUMBER OF BULBS: SENSOR #1	
CURR 1: LAMP SET UP	5 BULBS
CURR 2: LAMP SET UP	5 BULBS

VERIFY NUMBER OF BULBS: SENSOR #2	
CURR 1: LAMP SET UP	6 BULBS
CURR 2: LAMP SET UP	6 BULBS

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS	
THE QUESTION	SELECT FROM MENU OPTION
RESET NAMES AND MODULES?	YES
RAILROAD NUMBER	550
CROSSING CONFIGURATION	NORMAL
AND 1 USED AS XR?	YES
AND 2 USED AS XR?	NO
AND 3 USED AS XR?	NO
AND 4 USED AS XR?	NO
AND 5 USED AS XR?	NO
AND 6 USED AS XR?	NO
AND 7 USED AS XR?	NO
AND 8 USED AS XR?	NO
* XR CONTROLLED BY FOREIGN RR	
ENTRANCE GATES	2
* GATES CONTROLLED BY FOREIGN RR	
GATE POSITION FAIL TIME (SECONDS)	20
BATTERY BANKS	2
BATTERY MON USED	YES
INTERNAL CROSSING CONTROLLERS	2
EXTERNAL CROSSING CONTROLLERS	0
VHF COMMUNICATOR	YES
DTMF ACTIVATION	YES
***** ACTIVATION CODE	166
ACTIVATION TIMEOUT (SECONDS)	60
ILOD MODULES	2
ANY LED BULBS USED	NO
AUTO INSPECTIONS	NO
BELL SENSORS	1
** BELL SENSOR TSS1	YES
** BELL SENSOR TSS2	NO
** BELL SENSOR TSS3	NO
** BELL SENSOR TSS4	NO
** BELL SENSOR TSS5	NO
** BELL SENSOR TSS6	NO
** BELL SENSOR TSS7	NO
** BELL SENSOR TSS8	NO

CONTROL SYSTEM CONFIGURATION MENU QUESTIONS (CONT.)	
BELL ON	GATES LOWERING
GFT'S	YES
BATTERIES ON GFTI	2
GATE TIP SENSORS	YES
RTU	NO
VHF VOICE CHANNEL	2
VHF DATA CHANNEL	2
USE CELL MODEM NON-CRITICAL FEATURE	NO
FULL APPROACH MOVES ALARM	ACTIVATE

PROGRAM MENU QUESTIONS	PROGRAM
EDIT DIGITAL INPUTS	NO
EDIT BATTERIES	NO
EDIT RELAYS	NO
EDIT INDICATOR LEOS	NO
EDIT TEST LEOS	NO
EDIT ILOD SENSORS	NO
EDIT VHF SETTINGS	NO
CCP4K ATCS SUBNODE	16

NOTES:

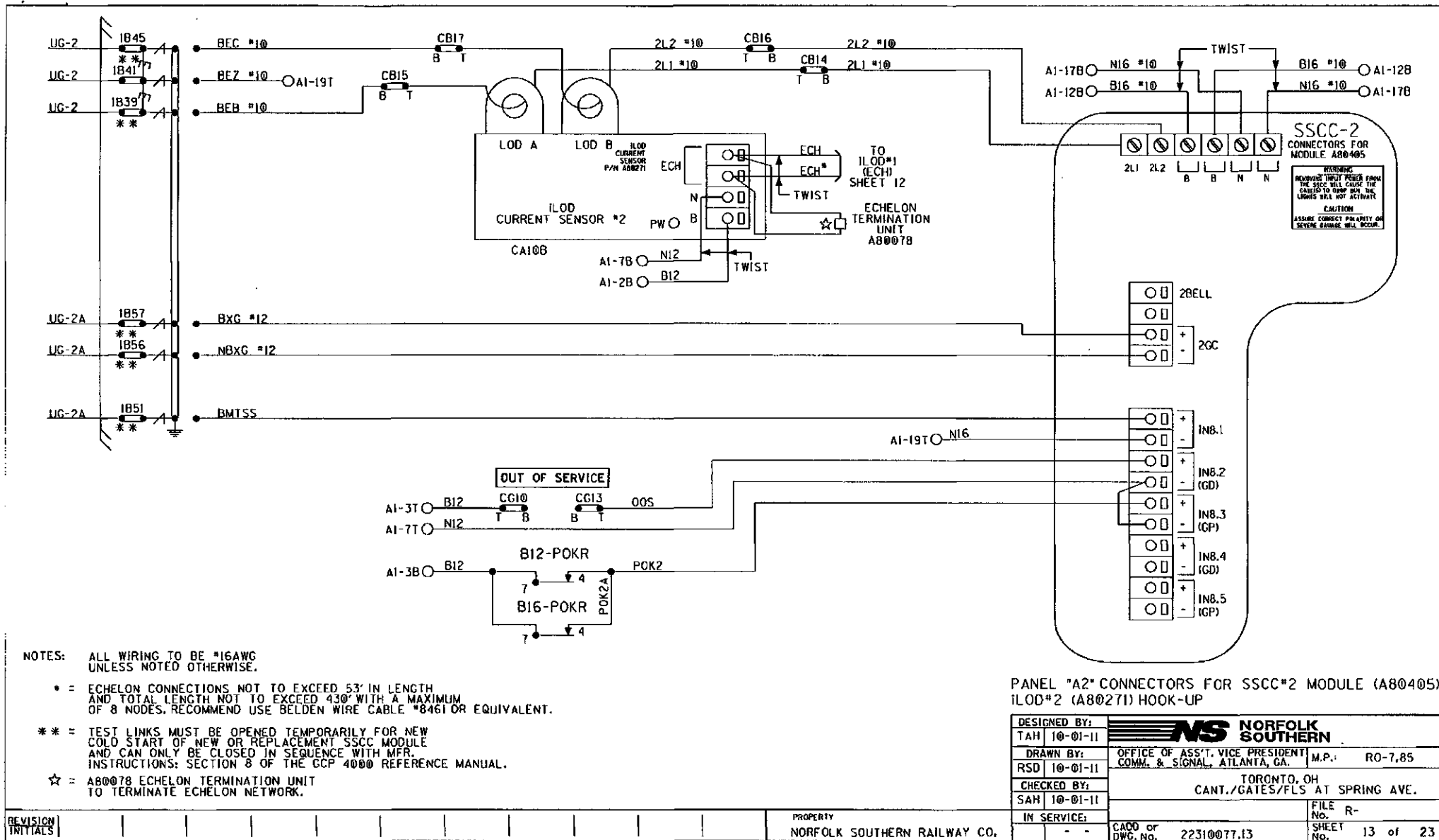
- * = DISPLAYED IF CROSSING CONFIGURATION IS SPLIT GATE
- ** = OPTIONS: IF BELL SENSOR = 0,
THEN BELL FIELDS ARE NOT USED.
- *** = IF SITE TYPE = NO COMMUNICATION,
THEN THESE OPTIONS ARE NOT
DISPLAYED
- **** = THESE SETTINGS SHOULD BE LEFT
AT THE DEFAULT SETTING.
- ***** = USE LAST 3 NUMBERS FROM DOT NUMBER

SEAR III PROGRAMMING SETUP

DESIGNED BY: TAH 10-01-11		
DRAWN BY: RSD 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: RO-7.85
CHECKED BY: SAH 10-01-11	TORONTO, OH CANT./GATES/FLS AT SPRING AVE.	
IN SERVICE:	CADD or DWG. No. 22310@77.11	FILE No. R- SHEET No. 11 of 23

REVISION
INITIALS

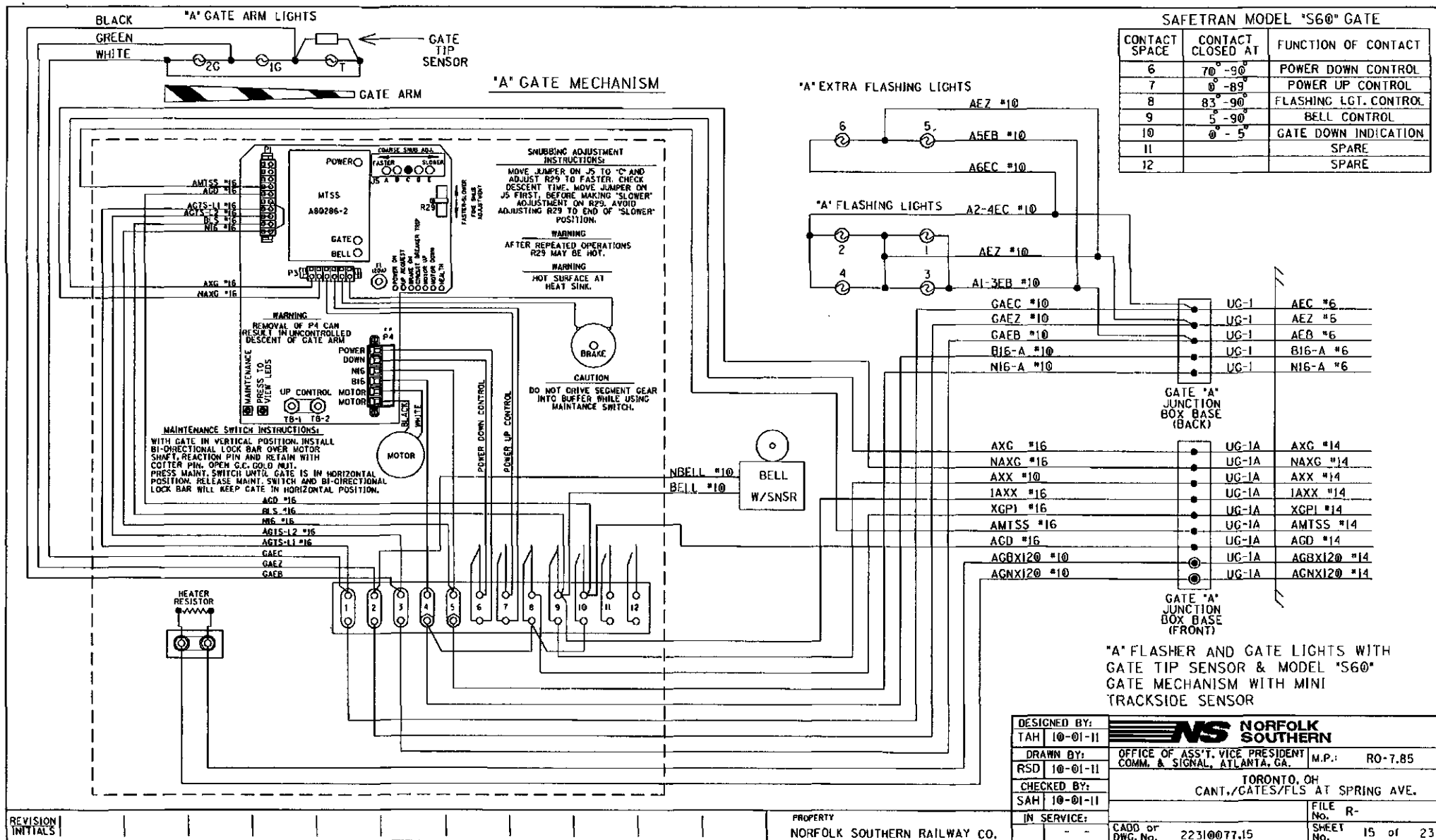
PROPERTY
NORFOLK SOUTHERN RAILWAY CO.



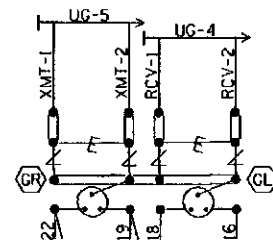
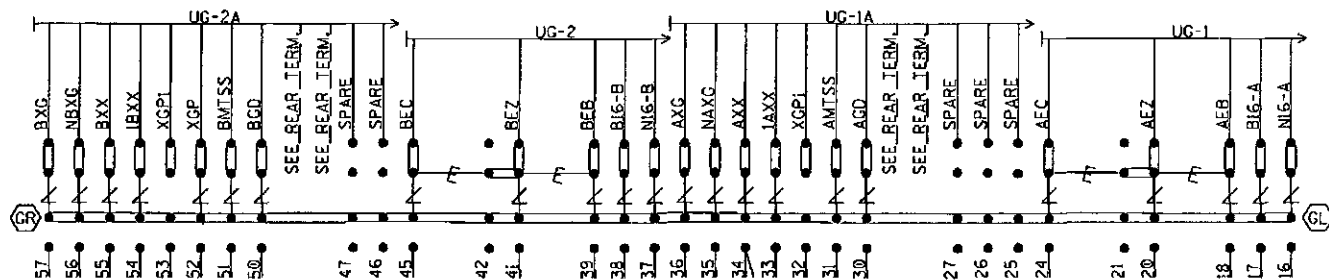


DESIGNED BY:	 NORFOLK SOUTHERN		
TAH 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		M.P.: R0-7.85
DRAWN BY:	TORONTO, OH		
RSD 10-01-11	CANT./GATES/FLS AT SPRING AVE.		
CHECKED BY:			
SAH 10-01-11			
IN SERVICE:			
	CADD or DWG. No.	22310077.14	FILE No. R- SHEET 14 of 23

[illegible]



LEFT TWO ROWS TERMINAL BOARD 1 "1A" "1B"



NOTE: INSTALL TEST LINKS ON ALL TRACK WIRING AND ON ALL LOW VOLTAGE UNDERGROUND CABLE TERMINATIONS.

SEE FARADAY SHIELD DETAILS - 1A & 1B FOR HOW THIS PORTION OF THE FARADAY SHIELD IS PREDRILLED. ONLY INSTALL AND USE THE TERMINALS NEEDED.

⚡ = Heavy Duty Equalizer (022700-1X)

⚡ = Clearview Lightning Arrestor (022585-1X)

⚡ = LPC-10560-51

⚡ = TERMINALS GROUNDED TO SHIELD. 4 POST BLOCKS USE FIFTH - GR - SERMMI PART NO. 61278 GL - SERMMI PART NO. 61278-1.

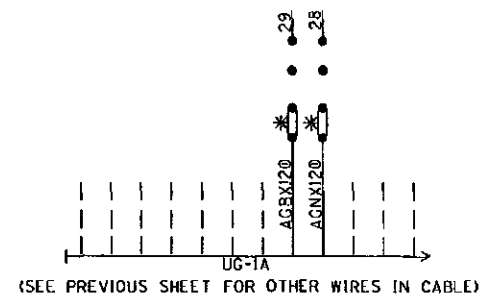
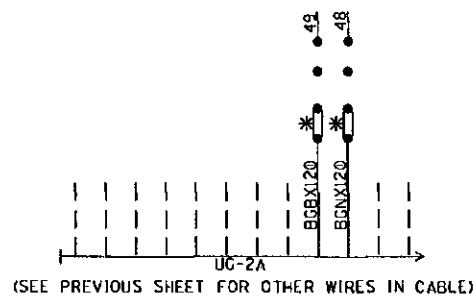
BACKBOARD DETAIL - 1A & 1B

DESIGNED BY:	TAH 10-01-11	NS NORFOLK SOUTHERN	
DRAWN BY:	RSD 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: RO-7.85
CHECKED BY:	SAH 10-01-11	TORONTO, OH CANT./GATES/FLS AT SPRING AVE.	
IN SERVICE:	-	CADD or DWG. No. 22310077.17	FILE No. R- SHEET No. 17 of 23

REVISION INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

REAR VIEW OF LEFT TWO ROWS TERMINAL BOARD I
"IB"
"1A"



NOTE: ALL 120VAC AND ABOVE WILL BE WIRED
TO THE REAR OF FARADAY BACKBOARD.
INSULATED NUTS MUST BE USED ON ALL
TERMINALS.

* = CLOSED DURING WINTER MONTHS

REAR OF FARADAY BACKBOARD
REAR BACKBOARD DETAIL - 1A & 1B

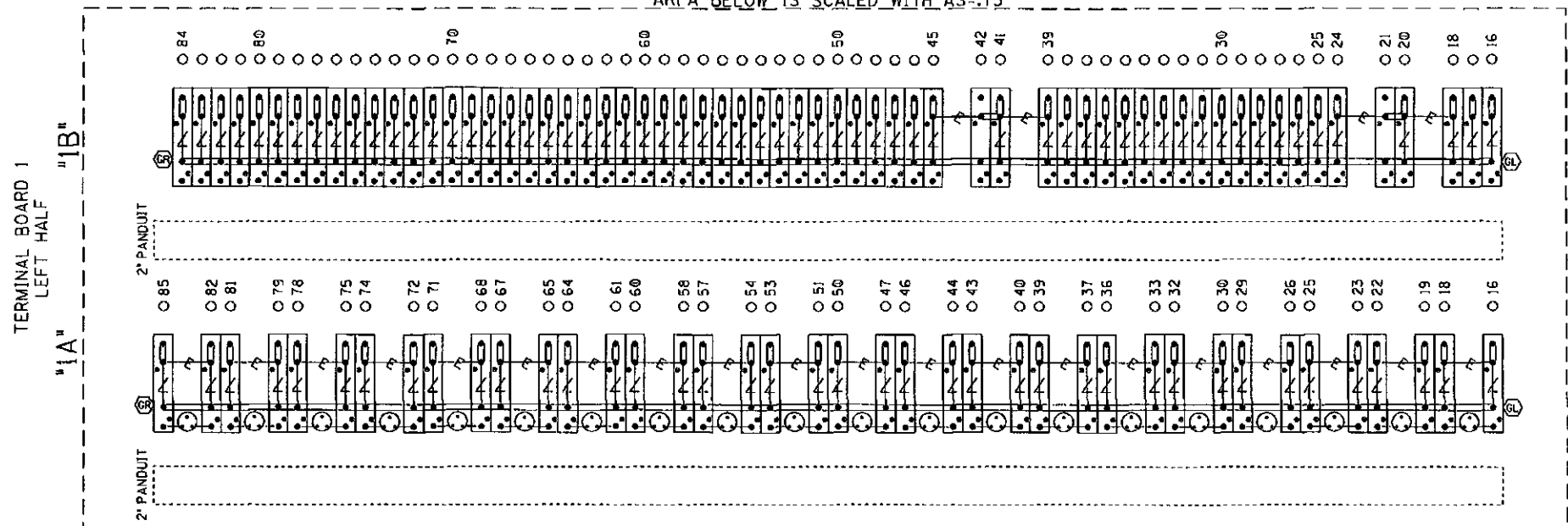
DESIGNED BY:	 NORFOLK SOUTHERN		
TAH 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.		
DRAWN BY:	M.P.: RO-7.85		
RSD 10-01-11	TORONTO, OH		
CHECKED BY:	CANT./GATES/FLS AT SPRING AVE.		
SAH 10-01-11	FILE No. R-		
IN SERVICE:	SHEET No. 18 of 23		
	CADD or DWG. No.	22310077.18	

REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=1.75



⚡ = Heavy Duty Equalizer
(022700-1X)
Clearview
⚡ = Lightning Arrestor
(022585-1X)
⚡ = LPC-10560-51

TERMINAL BOARD 1
LEFT TWO ROWS
FARADAY SHIELD DETAIL - 1A & 1B

⚡ = INDICATES PLACEMENT
OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY,
TO REFLECT HOW THE FARADAY SHIELD
IS PREDRILLED. ONLY INSTALL AND USE
THE TERMINALS NEEDED.

⚡ = TERMINALS GROUNDED TO SHIELD.
4 POST BLOCKS USE EITHER -
GR - SERMMI PART NO. 61278
GL - SERMMI PART NO. 61278-1.

DESIGNED BY:	TAH 10-01-11	NS NORFOLK SOUTHERN	
DRAWN BY:	RSD 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.	M.P.: RO-7.85
CHECKED BY:	SAH 10-01-11	TORONTO, OH CANT./GATES/FLS AT SPRING AVE.	
IN SERVICE:	- -	CADD or DWG. No.	22310077.19
FILE NO.	R-	SHEET No.	19 of 23

REVISION
INITIALS

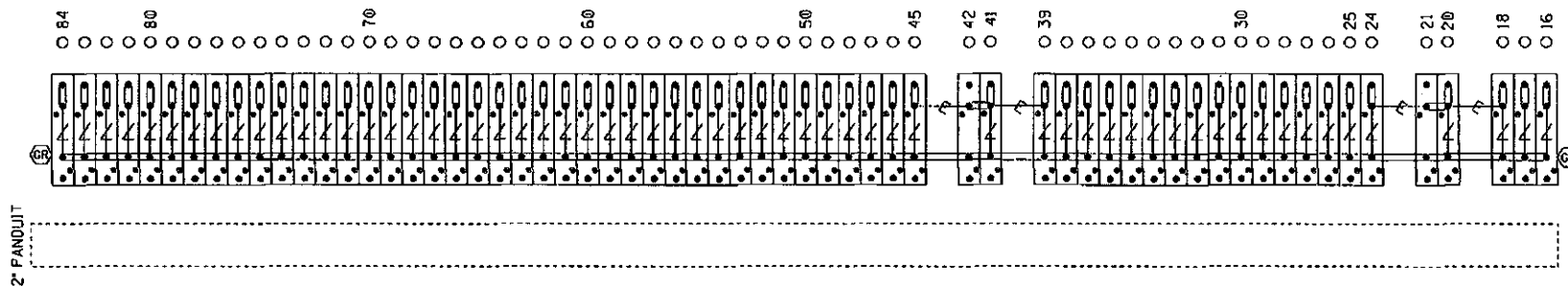
PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

NOTE: IF THE FARADAY SHIELD WOULD EVER NEED TO BE DRILLED IN THE FIELD, PROPER PRECAUTIONS MUST BE TAKEN TO INSURE METAL SHAVINGS DO NOT GET INTO EXISTING TERMINALS/WIRES.

AREA BELOW IS SCALED WITH AS=.75

TERMINAL BOARD 1
RIGHT HALF

"1C"



⚡ = Heavy Duty Equalizer
(022700-1X)

⌄ = Clearview
Lightning Arrester
(022585-1X)

⊗ = LPC-10560-51

TERMINAL BOARD 1
RIGHT ROW
FARADAY SHIELD DETAIL - 1C

= INDICATES PLACEMENT
OF PANDUIT

THIS SHEET IS FOR REFERENCE ONLY,
TO REFLECT HOW THE FARADAY SHIELD
IS PREDRILLED. ONLY INSTALL AND USE
THE TERMINALS NEEDED.

⊗ = TERMINALS GROUNDED TO SHIELD.
4 POST BLOCKS USE EITHER -
GR - SERMMI PART NO. 61278
GL - SERMMI PART NO. 61278-1.

DESIGNED BY:	NS NORFOLK SOUTHERN		
TAH 10-01-11	OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. M.P.: RO-7.85		
DRAWN BY:	TORONTO, OH		
RSD 10-01-11	CANT./GATES/FLS AT SPRING AVE.		
CHECKED BY:	FILE No. R-		
SAH 10-01-11	SHEET No. 20 of 23		
IN SERVICE:	CADD or DWG. No. 22310077.20		

REVISION
INITIALS

PROPERTY
NORFOLK SOUTHERN RAILWAY CO.

