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PUCO

**Public Utilities  
Commission of Ohio**

# Memo

**To:** Docketing Division  
**From:** George Martin, Grade Crossing Planner, Rail Division  
**Re:** In the matter of the request for a Consolidation Project in the Village of Rocky Ridge, Ottawa County  
**Date:** June 8, 2012

The Ohio Rail Development Commission (ORDC), the Village of Rocky Ridge (Village), Norfolk Southern Railway (NS), and Commission staff entered into a Subsidy Agreement on January 27<sup>th</sup>, 2012, whereby the grade crossing located at West Road, DOT# 509396S, would be permanently closed to vehicular and pedestrian traffic. In exchange, the grade crossing located at Main Street, DOT# 509395K and SR 590, DOT# 509397Y, would be upgraded with new mast-mounted flashing lights, roadway gates, and updated train detection circuitry.

ORDC has now authorized funding for these improvements.

The projects will be paid for with federal funds, and are actual cost. As the plans and estimates have already been submitted and approved, staff requests an Entry with completion of the projects 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.**

A suggested case coding and heading would be:

PUCO Case No. 12- 1781 -RR-FED In the matter of the request for a Consolidation Project in the Village of Rocky Ridge, Ottawa County

C: Legal Department

Please serve the following parties of record

Ms Susan Kirkland  
Ohio Rail Development Commission  
1980 West Broad St, 2<sup>nd</sup> Floor  
Columbus, Oh 43223

Ms Cayela Wimberly  
Norfolk Southern Railway  
1200 Peachtree St NE  
Box 123  
Atlanta, Ga 30309-0036

Honorable Sam Rose, Mayor  
Village of Rocky Ridge  
14571 W 2<sup>nd</sup> St  
PO Box 218  
Rocky Ridge, Oh 43458

Toledo Edison

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

**TO:** Rob Marvin, Director of Transportation, PUCO  
Leah Thomas-Dalton, Deputy Chief, PUCO

**FROM:** Susan Kirkland, Manager, Safety Section, ORDC

**BY:** Tod Darfus, Project Manager, ORDC

**SUBJECT:** Ottawa County, Norfolk Southern  
State Route -590 AAR # 509 397 Y, PID 90717

**DATE:** May 30, 2012

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The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on November 11, 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 plus cantilevers. A copy of the diagnostic review form is 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  
T.Darfus (file)

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

**TO:** Rob Marvin, Director of Transportation, PUCO  
Leah Thomas-Dalton, Deputy Chief, PUCO

**FROM:** Susan Kirkland, Manager, Safety Section, ORDC

**BY:** Tod Darfus, Project Manager, ORDC

**SUBJECT:** Ottawa County, Norfolk Southern  
Main Street-Rocky Ridge AAR # 509 395 K, PID 90717

**DATE:** June 8, 2012

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The Public Utilities Commission of Ohio (PUCO) established a diagnostic survey at the subject location on November 11, 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. A copy of the diagnostic review form is attached.

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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  
T.Darfus (file)

IN THE MATTER OF THE REQUEST FOR  
A CONSOLIDATION PROJECT FOR THE  
INSTALLATION OF WARNING DEVICES  
AND GRADE CROSSING CLOSURE TO  
VEHICLES AND PEDESTRIANS IN VILLAGE  
OF ROCKY RIDGE, OTTAWA COUNTY,  
OHIO

AGREEMENT NO. 17069

### SUBSIDY AGREEMENT

THIS SUBSIDY AGREEMENT is entered into on this 27<sup>th</sup> day of January, <sup>2012</sup>~~2011~~  
by and among the Ohio Rail Development Commission ("ORDC"), Public Utilities Commission of Ohio  
("PUCO"), Norfolk Southern Railway Company ("NS"), and the Village of Rocky Ridge ("VILLAGE"),  
(each a "Party" or collectively "the Parties").

#### WITNESSETH:

WHEREAS, Rule 4901-1-30 of the Ohio Administrative Code provides that any two or more parties to a proceeding may enter into a written or oral stipulation concerning the issues presented in such proceeding;

WHEREAS, ORDC has statutory authority to develop, promote, and support safe, adequate, and efficient rail service throughout the State of Ohio;

WHEREAS, PUCO has statutory authority to regulate and promote the welfare and safety of railroad employees and the traveling public pursuant to Ohio Revised Code § ("ORC") 4905.04;

WHEREAS, PUCO has authority to order closure of public grade crossings to vehicular traffic within governmental limits pursuant to ORC § 4907.474;

WHEREAS, the Federal Aid Highway Safety Act of 1973 and the Transportation Equity Act for the 21<sup>st</sup> Century, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users and subsequent amendments thereto provide funding for the cost of installing warning devices to eliminate hazards at public grade crossings, which funding is administered jointly by PUCO and ORDC pursuant to ORC § 4907.476;

WHEREAS, the Parties hereto propose to facilitate the improvements identified in this Subsidy Agreement in accordance with the Federal Aid Policy Guide ("FAPG") and applicable provisions of Title 23 of the United States Code pursuant to the terms hereof;

WHEREAS, the VILLAGE hereby declares it to be in the public interest that the consent of the VILLAGE be and such consent is hereby given to ORDC/PUCO to facilitate the installation of the grade crossing upgrade described in Section III of this Subsidy Agreement in accordance with plans, specifications and estimates to be approved by ORDC/PUCO; and

WHEREAS, the Parties, intending to be legally bound, further agree that the public grade crossing identified in Section II of this Subsidy Agreement should be permanently closed to vehicular and pedestrian traffic as part of the corridor safety project to be implemented by this Subsidy Agreement.

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the Parties agree as follows:

I. PURPOSE

There are numerous public highway/railroad grade crossings located within the limits of the VILLAGE. The purpose of this Subsidy Agreement is to enhance the safety of the traveling public who are required to regularly travel through these public grade crossings.

II. GRADE CROSSING CLOSURES

The VILLAGE agrees to permanently close, to all vehicular and pedestrian traffic of any kind, NS's grade crossing located on the following street:

Highway ID  
West Street

AAR #  
509396S

The grade crossing closure shall take place within sixty (60) days of the completion due date ordered by PUCO for the improvements outlined in Section III. GRADE CROSSING UPGRADES unless otherwise agreed to by NS and VILLAGE.

The VILLAGE shall install barricades on each side of the tracks at the grade crossing to be closed. The barricades shall be in conformance with the Manual on Uniform Traffic Control Devices ("MUTCD"). Appropriate MUTCD signage shall be installed in conjunction with the guardrails. The barricades will be installed on public property at the NS right-of-way. These costs shall be reimbursed by NS as outlined in Section IV. COST ALLOCATION; BILLING.

The VILLAGE shall remove the advance warning signs and pavement markings from the crossing to be closed.

NS shall remove all pavements from the crossing area within railroad right-of-way and remove all existing warning devices from the crossing to be closed.

Following receipt of public input, the VILLAGE has enacted an Ordinance No. 10-10, dated 12/13/2010, that expresses its commitment to this action, the form and substance of which are acceptable to ORDC and PUCO.

III. GRADE CROSSING UPGRADES

In consideration of the commitment by the VILLAGE to permanently close the grade crossing to all vehicular and pedestrian traffic of any kind as designated in Section II, certain improvements will be accomplished as follows (the "Improvements"):

| <u>Highway ID</u> | <u>AAR #</u> | <u>Improvements</u>                                                           |
|-------------------|--------------|-------------------------------------------------------------------------------|
| Main Street       | 509395K      | Circuitry Upgrades.<br>Replacement of pedestrian sidewalk, utilizing asphalt. |
| SR590-5.36        | 509397Y      | Circuitry Upgrades.                                                           |

The VILLAGE shall furnish advance warning signs and pavement markings as specified in the MUTCD and applicable federal regulations and shall assume all costs to maintain such signage and markings in the future. Existing signs and pavement markings shall be deemed acceptable if those items are in good condition.

NS agrees to facilitate the relocation of any utilities requiring movement as part of the circuitry upgrade improvements. NS further agrees to facilitate any minor roadway work to make the railroad warning devices MUTCD compliant.

In addition, NS will provide the following incentives to the VILLAGE:

1. The incentive funds shall be in the total amount of Twenty-Five Thousand and no/cents U.S. Dollars (\$25,000.00) (the "Incentive Funds").

The \$25,000 payment from NS will be delivered to the VILLAGE following the permanent closure of the West Street grade crossing unless otherwise negotiated between NS and the VILLAGE.

#### IV. COST ALLOCATION; BILLING

The actual costs for the Improvements outlined in Section III for replacement of pedestrian sidewalk shall be borne by NS.

The actual cost of barricades on public property at the NS right-of-way and removal of roadway surface approaching the closed crossing shall be on a reimbursement basis from NS to VILLAGE and is limited to \$5,000. The work may be accomplished by VILLAGE forces or contracted out by the VILLAGE.

As set forth in Section III of this Subsidy Agreement, the cost of the advance warning signs and pavement markings shall be borne one hundred percent (100%) by the VILLAGE.

The actual costs for the Improvements outlined in Section III for circuitry upgrades shall be borne by the ORDC. The total actual costs for the Improvements borne by ORDC shall not be greater than \$465,000.

The costs assigned to ORDC shall be satisfied through the expenditure of Federal funds administered by ORDC and subject to approval by the Federal Highway Administration ("FHWA"). In the event that delays or difficulties arise in securing necessary Federal approvals which, in the opinion of ORDC, render it impracticable to utilize Federal funds for the construction of this project, then at any time before NS is authorized to purchase or furnish the

items included under this Subsidy Agreement, ORDC may serve formal notice of cancellation upon NS and the VILLAGE, and this Subsidy Agreement shall become null and void. ORDC/PUCO shall reimburse NS and the VILLAGE for all costs and expenses reasonably incurred on account of the improvements prior to such cancellation, including costs associated with winding down the project.

NS shall be responsible for initially paying all of its actual costs to install the safety improvements identified in Section II & III. However, ORDC shall be legally bound to reimburse NS for the costs of the Improvements, circuitry upgrades, outlined in Section III, not to exceed \$465,000 upon proper invoices submitted by NS, consistent with the terms of this Subsidy Agreement and in accordance with all applicable Federal regulations.

NS may bill ORDC monthly or periodically for its costs when costs exceed \$1,000.00. NS shall submit two (2) copies of its bill and in accordance with said rules and regulations as they have been issued or as thereafter may be supplemented or revised. A final bill covering actual cost and showing details shall be submitted to ORDC within ninety (90) days after completion of the Improvements. ORDC shall pay all bills within sixty (60) days after receipt thereof, except that ORDC may hold a retainer on all bills not to exceed eight percent (8%) until final payment. Final payment for all amounts due NS shall be made by ORDC within sixty (60) days after a final audit has been performed and approved by ORDC. The audit shall occur within 180 days of submission of NS's final bill. NS agrees to cooperate and assist, as requested, in any such audit.

At any time during normal business hours upon three (3) business days written notice and as often as ORDC/PUCO may deem necessary and in such a manner as not to interfere with the normal business operations, NS shall make available to ORDC, for examination, and to appropriate state agencies or officials, all of its records with respect to matters covered by this Subsidy Agreement including, but not limited to, records of personnel and conditions of employment and shall permit ORDC to audit, examine and make excerpts or transcripts from such records.

In the event of a controversy as to the eligibility for reimbursement of any charges claimed against the improvement as set forth in Section II & III of this Subsidy Agreement, the decision of the ORDC regarding same shall be final. However, NS and/or the VILLAGE may appeal the decision of the ORDC to a court of competent jurisdiction for further review.

All plans, specifications, estimates of costs, acceptance of work, and procedures in general, to facilitate the construction of the safety improvements described above, shall conform in all respects to applicable Federal laws, rules, regulations, orders, and approvals applicable to Federal-Aid projects. ORDC shall reimburse NS in accordance with FAPG 140, Subchapter B. and 23 C.F.R., Part 646, or any subsequent amendments thereto, in such amounts and form as are proper and eligible for payment from Federal-Aid highway funds. NS shall render its billings to ORDC in accordance with said rules and regulations, and NS shall also provide and furnish such itemized records of and substantiating data for such costs as may be required.

No work requiring reimbursement under this Subsidy Agreement shall be commenced by the Parties until all of the following have occurred: (1) this Subsidy Agreement shall have been approved by ORDC/PUCO; (2) all financial obligations of ORDC/PUCO, as provided for in this Subsidy Agreement are subject to the provisions of Section 126.07 of the Ohio Revised Code and shall not be valid and



enforceable unless funds are appropriated by the Ohio General Assembly and encumbered by ORDC; and (3) NS has been notified by ORDC/PUCO to proceed with construction of the improvements. Work on the improvements shall commence within 30 days of the occurrence of events (1), (2) and (3) described herein. Buying and assembling of materials shall be construed as compliance with the foregoing thirty (30) day provision. Said work shall be pursued diligently by NS until completed.

#### V. NOTIFICATION

All notices, consents, demands, requests and other communications which may or are required to be given hereunder shall be in writing and shall be deemed duly given if personally delivered or sent by facsimile and confirmed by telephone or sent by United States mail, registered or certified, return receipt requested, postage prepaid, to the addresses set forth hereunder or to such other address as the other Party hereto may designate in written notice transmitted in accordance with this provision.

|                 |                                                                                                                                                                                                                                                                                      |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If to PUCO:     | Public Utilities Commission of Ohio<br>Railroad Division<br>180 East Broad Street, 14 <sup>th</sup> Floor<br>Columbus, Ohio 43215-3793                                                                                                                                               |
| If to NS:       | Norfolk Southern Railway Company<br>Director, Grade Crossing Safety<br>1200 Peachtree Street, NE, Box 36<br>Atlanta, GA 30309-0036<br>&<br>Norfolk Southern Railway Company<br>Administrator, Grade Crossing Program<br>1200 Peachtree Street, NE, Box 123<br>Atlanta, GA 30309-0036 |
| If to VILLAGE : | Village of Rocky Ridge<br>14571 W. 2 <sup>nd</sup> Street, PO Box 218<br>Rocky Ridge, OH 43458                                                                                                                                                                                       |
| If to ORDC:     | Ohio Rail Development Commission<br>1980 West Broad Street, 2 <sup>nd</sup> Floor<br>Columbus, Ohio 43223                                                                                                                                                                            |

NS shall furnish notification to ORDC, PUCO and the VILLAGE at least five (5) working days prior to the date work is scheduled to start at the project site of the improvements so arrangements can be made for inspection. NS shall also notify ORDC, PUCO and the VILLAGE of any stoppage and resumption of the work activity, and the reasons therefore, and the date the project work on the improvements was completed.

NS shall furnish written or FAX notification to the VILLAGE at least fourteen (14) working days prior to starting any work requiring the establishment of a detour for highway traffic.

NS shall notify ORDC/PUCO of any changes in the scope of work, cost overruns, materials, etc, which are not in the approved plans and estimates and secure approval of same before the work is performed.

## **VII. TERMINATION**

Said Subsidy Agreement shall terminate at the end of the present biennium, June 30, 2013. If obligations specified under this Subsidy Agreement are not completed by that date, it is the expressed intention of the parties to renew this Subsidy Agreement on successive biennium period until such time as all obligations specified under this Subsidy Agreement has been satisfactorily completed. If it appears to ORDC/PUCO that NS or the VILLAGE has failed to perform satisfactorily any requirements of this Subsidy Agreement, or if NS or the VILLAGE is in violation of any provision of this Subsidy Agreement, or upon just cause, ORDC/PUCO may terminate the Subsidy Agreement after providing NS or the VILLAGE with written notice, in accordance with the notice provisions of this Subsidy Agreement, of its failure to perform satisfactorily any requirement of this Subsidy Agreement (the "Notice"), which shall provide NS or the VILLAGE with a thirty (30) day period to cure any and all defaults under this Subsidy Agreement.

During the thirty (30) day cure period, NS or the VILLAGE shall incur only those obligations or expenditures which are necessary to enable NS or the VILLAGE to achieve compliance as set forth in the Notice. If it is determined that NS or the VILLAGE cannot cure its default, NS or the VILLAGE shall immediately cease work under this Subsidy Agreement, take all necessary or appropriate steps to limit disbursements and minimize costs, and the VILLAGE shall provide a report, as of the date of receipt of the Notice, setting forth the status of the work completed, the cost of the work completed and such other information as ORDC shall deem pertinent.

If this Subsidy Agreement is terminated for breach or failure to satisfactorily perform, the breaching party shall reimburse the non-breaching party any of its costs.

It is expressly understood by the parties that none of the rights, duties, and obligations described in this Subsidy Agreement shall be binding on any party until all statutory provisions of the O.R.C., including but not limited to §126.07 and 126.08 have been complied with, and until such time that all necessary funds are made available and forthcoming from the appropriate state agency and such expenditure of funds is approved, if necessary, by the Controlling Board of the State of Ohio pursuant to §127.16 of the O.R.C., or in the event that federal funds are used, until such time that the ORDC gives NS written notice that such funds have been made available to the ORDC by the ORDC's funding source.

## **VIII. REPRESENTATIONS AND WARRANTIES**

A. NS: NS represents and warrants the following:

- (1) NS has the power and authority to enter into this Subsidy Agreement; and
- (2) NS has the authority to carry out its obligations under this Subsidy Agreement; and

(3) No personnel of NS, any subcontractor of NS, public official, employee or member of the governing body of the particular locality where this Subsidy Agreement shall be completed, who exercises any functions or responsibilities in connection with the review or approval of the work completed under this Subsidy Agreement, shall prior to the completion of said work, voluntarily or involuntarily acquire any personal monetary interest, direct or indirect, which is incompatible or in conflict with the discharge or fulfillment of his functions or responsibilities with respect to the completion of the work contemplated under this Subsidy Agreement. Any person who, prior to or after the execution of this Subsidy Agreement, acquires any personal monetary interest, involuntarily or voluntarily, shall immediately disclose his interest to ORDC/PUCO in writing. Thereafter, such person shall not participate in any action affecting the work under this Subsidy Agreement unless the ORDC/PUCO determines that, in light of the personal monetary interest disclosed, his participation in any such action would not be contrary to the public interest.

B. ORDC/PUCO/VILLAGE: ORDC/PUCO/VILLAGE represent and warrant that they have the power and authority to enter into this Subsidy Agreement and to carry out its obligations.

#### IX. OHIO ETHICS LAW REQUIREMENTS

NS affirms that it is not in violation of Ohio Revised Code §102.04, as that section is applicable to this Subsidy Agreement and NS.

#### X. FALSIFICATION OF INFORMATION

NS for itself, and the VILLAGE for itself, affirmatively covenant that neither has made any false statements to ORDC/PUCO in the process of obtaining this grant of funds. If NS or the VILLAGE have knowingly made a false statement to ORDC/PUCO to obtain this grant of funds, the NS and the VILLAGE shall be required to return all funds immediately pursuant to Ohio Revised Code Section 9.66(C) (2) and shall be ineligible for any future economic development assistance from the State, any state agency or a political subdivision pursuant to ORC §9.66(C) (1). Any person who provides a false statement to secure economic development assistance may be guilty of falsification, a misdemeanor of the first degree, pursuant to O.R.C. Section 2921.13(D)(1), which is punishable by a fine of not more than One Thousand Dollars (\$1,000) and/or a term of imprisonment of not more than six (6) months.

#### XI. EQUAL EMPLOYMENT OPPORTUNITY

In performing this Subsidy Agreement, the VILLAGE and NS shall not discriminate against any employee, applicant for employment, or other person because of race, color, religion, gender, national origin (ancestry), military status (past, present or future), disability, age (40 years of age or older), genetic information, or sexual orientation. The VILLAGE and NS will ensure that applicants are hired and that employees are treated during employment without regard to their race, color, religion, gender, national origin (ancestry), military status (past, present or future), disability, age (40 years of age or older), genetic information, or sexual orientation. The VILLAGE and NS shall incorporate the foregoing requirements of this

paragraph in all of its contracts for any of the work prescribed herein (other than subcontracts for standard commercial supplies or raw materials) and will require all of its subcontractors for any part of such work to incorporate such requirements in all such subcontracts.

#### **XII. OHIO ELECTIONS LAW**

NS represents that its participation in this Subsidy Agreement does not violate Section 3517.13 of the Revised Code.

#### **XIII. DRUG FREE WORKPLACE**

In the event that work performed pursuant to the terms of this Subsidy Agreement will be done while on state property, NS hereby certifies that its rules require all of its employees, while working on state property, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

#### **XIV. HOLD HARMLESS PROVISION**

NS covenants and agrees to indemnify and hold the VILLAGE, ORDC/PUCO and their agents and employees harmless from and against any loss, claim, cause of action, damages, liability (including, without limitation, strict or absolute liability in tort or by statute imposed), charge, cost or expense (including, without limitation, counsel fees to the extent permitted by law), predicated on personal injury or death, or loss of or damage to property, and arising from any work performed pursuant to this Subsidy Agreement and caused by NS's negligent, intentional, willful or wanton actions or inactions, or such actions or omissions by any subcontractors that may be hired by NS under this Subsidy Agreement.

In case any action involving any work covered by this Subsidy Agreement is brought by or against any party or parties, said party or parties shall promptly notify the other party or parties of such action.

#### **XV. DUPLICATE COUNTERPARTS**

This Subsidy Agreement may be executed in one or more counterparts, each of which shall be deemed to be a duplicate original, but all of which taken together shall be deemed to constitute a single Subsidy Agreement.

#### **XVI. UNUSUAL CIRCUMSTANCES AFFECTING PERFORMANCE**

In the event that NS or the VILLAGE cannot meet any or all of the obligations placed upon it by the terms of this Subsidy Agreement, (1) NS or the VILLAGE shall immediately notify ORDC/PUCO in writing, and (2) ORDC/PUCO may, at its sole discretion, make reasonable efforts to assist NS or the VILLAGE in meeting its obligations under the Subsidy Agreement. Any revisions to this Subsidy Agreement shall be made in writing and agreed upon by all parties. Any such revision must be approved and adopted by an Order issued by the PUCO.

#### XVII. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS

NS and the VILLAGE agree to comply with all applicable federal, state, and local laws in the conduct of the work hereunder. NS accepts full responsibility for payments of all unemployment compensation, insurance premiums, workers' compensation premiums, all income tax deductions, social security deductions, and any and all other taxes or payroll deductions required for all employees engaged by NS on the performance of the work authorized by this Subsidy Agreement.

#### XVIII. DISPUTE RESOLUTION

In the event NS or the VILLAGE desires clarification or explanation of, or disagrees with, any matter concerning the Subsidy Agreement, or the interpretation or application of any and all federal or state statutes, rules, regulations, laws or ordinances, the matter must be submitted in writing to ORDC/PUCO. If the dispute cannot be resolved, NS or the VILLAGE may file whatever action or take whatever other steps they believe may be necessary to resolve the dispute, per Section V. herein.

#### XIX. NO WAIVER

No delay or omission to exercise any right or option accruing to Grantor upon any breach by NS or the VILLAGE shall impair any such right or option or shall be construed to be a waiver thereof, but any such right or option may be exercised from time to time and as often as may be deemed necessary by ORDC/PUCO. Further, if any term, provision, covenant or condition contained in this Subsidy Agreement is breached by either party and thereafter such breach is waived in writing by the other party, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

#### XX. CONSTRUCTION

This Subsidy Agreement shall be governed by the laws of the State of Ohio as to all matters, including but not limited to, matters of validity, construction, effect and performance.

#### XXI. ENVIRONMENTAL RESPONSIBILITIES

NS and the VILLAGE shall coordinate any road closures necessary for the work to be performed in accordance with Section III. The VILLAGE shall notify local fire, police, emergency services, and local schools prior to beginning actual road closure activities and detours. A media release should occur prior to the start the start of work, roadway closures and detours.

The VILLAGE shall notify NS if a plan note concerning construction noise is required by local ordinance within 30 days of execution of this Subsidy Agreement.

No Indiana bat trees are expected to be removed due to project work. However, the ORDC Environmental Coordinator shall be notified by VILLAGE or NS if its construction activities change to include the cutting of trees with suitable roosting and brood-rearing habitat for the *Indiana bat* (living or standing dead trees or snags with exfoliating, peeling or loose bark, split trunks and/or branches, or cavities).

## **XXII. PRIMARY ROLES AND RESPONSIBILITIES**

The document, "Railroad Construction Contract Administration for Federally Funded Projects, Primary Roles and Responsibilities" is incorporated by reference as if included in this Subsidy Agreement in its entirety.

## **XXIII. BUY AMERICA**

NS and the VILLAGE shall furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21, including furnishing ORDC with proper documents certifying the domestic origin of any steel or iron products that fall under this section. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States.

NS and the VILLAGE shall use its best efforts to purchase goods from other companies doing business in the State of Ohio, for the purpose of performing work under this Agreement. Further, in the performance of the work contemplated under this Subsidy Agreement, the NS and all contractors, subcontractors, material men, or suppliers, shall use only such unmanufactured articles, materials, and supplies as have been mined or produced in the United States, and only such manufactured articles, materials, and supplies as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured, as the case may be, in the United States.

NS and the VILLAGE affirm to have read and understand Executive Order 2011-12K and shall abide by those requirements in the performance of this Subsidy Agreement. Notwithstanding any other terms of this Subsidy Agreement, the ORDC reserves the right to recover any funds paid for services NS or the VILLAGE performs outside the United States for which it did not receive a waiver from the Director of the Ohio Department of Administrative Services.

## **XXIV. FORUM AND VENUE**

All actions brought against the ORDC and/or the PUCO regarding this Subsidy Agreement shall be forumed and venued in a court of competent subject matter jurisdiction in Franklin County, Ohio.

## **XXV. SEVERABILITY**

Whenever possible, each provision of this Subsidy Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Subsidy Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions of this Subsidy Agreement.

**XXVI. ENTIRE SUBSIDY AGREEMENT**

This Subsidy Agreement and its exhibits and any documents referred to herein constitute the complete understanding of the parties and merge and supersede any and all other discussions, Subsidy Agreements and understandings, either oral or written, between the parties with respect to the subject matter hereof.

**XXVII. CAPTIONS**

The captions in this Subsidy Agreement are for the convenience of reference only and in no way define, limit or describe the scope or intent of this Subsidy Agreement or any part hereof and shall not be considered in any construction hereof.

**XXVIII. AMENDMENTS OR MODIFICATIONS**

Any party may at any time during the term of this Subsidy Agreement request amendment or modification. Requests for amendment or modification of this Subsidy Agreement shall be in writing to the other parties and shall specify the requested changes and the justification for such changes. All parties shall then review the request for modification. Should the parties all agree to modification of the Subsidy Agreement, then an amendment shall be drawn, approved, and executed in the same manner as this Subsidy Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Subsidy Agreement to be executed as of the date and year set forth below.

NORFOLK SOUTHERN RAILWAY COMPANY

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF ROCKY RIDGE

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

PUBLIC UTILITIES COMMISSION  
OF OHIO

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

OHIO RAIL DEVELOPMENT COMMISSION

By \_\_\_\_\_

Print Name Matthew R. Dietrich

Title Executive Director \_\_\_\_\_

Date \_\_\_\_\_

APPROVED AS TO FORM WITH REGARD  
TO OHIO RAIL DEVELOPMENT  
COMMISSION ONLY:

\_\_\_\_\_  
Assistant Attorney General Alan H. Klodell

Date \_\_\_\_\_

Agreement OTT Rocky Ridge 12-2011.doc



IN WITNESS WHEREOF, the Parties hereto have caused this Subsidy Agreement to be executed as of the date and year set forth below.

NORFOLK SOUTHERN RAILWAY COMPANY

VILLAGE OF ROCKY RIDGE

By [Signature]

By \_\_\_\_\_

Print Name Jerry W. Hall  
Title General Manager

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date [Signature]

Date \_\_\_\_\_

PUBLIC UTILITIES COMMISSION  
OF OHIO

OHIO RAIL DEVELOPMENT COMMISSION

By \_\_\_\_\_

By \_\_\_\_\_

Print Name \_\_\_\_\_

Print Name Matthew R. Dietrich

Title \_\_\_\_\_

Title Executive Director

Date \_\_\_\_\_

Date \_\_\_\_\_

APPROVED AS TO FORM WITH REGARD  
TO OHIO RAIL DEVELOPMENT  
COMMISSION ONLY:

Assistant Attorney General Alan H. Klodell

Date \_\_\_\_\_

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NORFOLK SOUTHERN RAILWAY COMPANY

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF ROCKY RIDGE

By Samuel C. Rose

Print Name JAM ROSE

Title acting Mayor

Date 12/24/11

PUBLIC UTILITIES COMMISSION  
OF OHIO

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

OHIO RAIL DEVELOPMENT COMMISSION

By \_\_\_\_\_

Print Name Matthew R. Dietrich

Title Executive Director

Date \_\_\_\_\_

APPROVED AS TO FORM WITH REGARD  
TO OHIO RAIL DEVELOPMENT  
COMMISSION ONLY:

Assistant Attorney General Alan H. Kludell

Date \_\_\_\_\_

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NORFOLK SOUTHERN RAILWAY COMPANY

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF ROCKY RIDGE

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

PUBLIC UTILITIES COMMISSION  
OF OHIO

By [Signature]

Print Name ROBERT E. MARVIN

Title DIRECTOR

Date 12/22/11

OHIO RAIL DEVELOPMENT COMMISSION

By \_\_\_\_\_

Print Name Matthew R. Dietrich

Title Executive Director

Date \_\_\_\_\_

APPROVED AS TO FORM WITH REGARD  
TO OHIO RAIL DEVELOPMENT  
COMMISSION ONLY:

Assistant Attorney General Alan H. Klodell

Date \_\_\_\_\_

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NORFOLK SOUTHERN RAILWAY COMPANY

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

VILLAGE OF ROCKY RIDGE

By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

PUBLIC UTILITIES COMMISSION  
OF OHIO

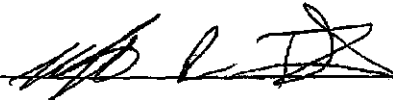
By \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

OHIO RAIL DEVELOPMENT COMMISSION

By  \_\_\_\_\_

Print Name Matthew R. Dietrich

Title Executive Director

Date 1-3-12

APPROVED AS TO FORM WITH REGARD  
TO OHIO RAIL DEVELOPMENT  
COMMISSION ONLY:

  
Assistant Attorney General Alan H. Klodell

Date 12/12/11

Agreement OTT Rocky Ridge 12-2011.doc



# OHIO RAIL DEVELOPMENT COMMISSION

1980 WEST BROAD STREET • COLUMBUS, OH 43223

JOHN R. KASICH, GOVERNOR • JAMES G. BRADLEY, ORDC CHAIRMAN

May 30, 2012

Ms. Cayela J. Wimberly  
Public Projects Engineer  
1200 Peachtree Street, Box 123  
Atlanta, GA. 30309

RE: Ottawa County  
State Route 590 Limestone  
DOT 509 397Y  
PID # 90717

Dear Ms. Wimberly:

The plan and estimate dated May 4, 2012, for the referenced project has been reviewed and is acceptable. Norfolk Southern (NS) may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. This authorization is made with the stipulation and understanding that the 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. Reimbursement of eligible actual cost is limited to \$250,948.00. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon NS accepting the following instructions:

1. NS's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Tod Darfus, ORDC, [tod.darfus@dot.state.oh.us](mailto:tod.darfus@dot.state.oh.us) (email), and to the Public Utilities Commission of Ohio at [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us). NS's project foreman will also notify the same of any stops and re-starts of the work activity and of the date work was completed for the project.
2. NS will arrange for utilities to be located at the project site by the Ohio Utilities Protection Service (OUPS) prior to any construction activities at the site. Utilities that are not participating members of the service must be contacted directly by NS.
3. NS's project foremen will notify Tod Darfus at 614-374-9298 (telephone) or [tod.darfus@dot.state.oh.us](mailto:tod.darfus@dot.state.oh.us) (email) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.

Page – 2

May 30, 2012 – Cayela J. Wimberly

4. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Encumbrance Estimate to reference when billing.
5. NS will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.

Thank you for your assistance with these matters.

Sincerely,

Tod Darfus  
Project Manager

C: Leah Thomas-Dalton, Rail Division Chief, PUCO  
George Martin, PUCO, Grade Crossing Planner  
ORDC (file)



## Diagnostic Review Team Survey

Date: 11-15-11

### Location Data

Street or Road Name:

SR 590

Route/Road Number  
(i.e. Twp., Co., (SR) or US) (Include SLM if State or US route)

AAR-DOT No.: 509 397Y

County: Ottawa

Township:

City:  
(In or Near)

Rocky Ridge

Railroad  
Name: N-S

Railroad  
Division: Dearborn

Branch/Line  
Name: Chicago

Nearest RR  
Timetable Station: Oak Harbor

RR Milepost: 265.6 CD

### On-Site Review Team

(Include: Name - Organization - Phone Number - Email)

1. Keith Wilson PUCO
2. Tommy Williams Jr Norfolk Southern 419-340-2788 william.williams2@nscorp.com
3. Todd Dantus DRDC 614-374-9290
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

### Existing Traffic Control Devices

| Type of Warning Devices               | Installed?                              |                                        | Quantity/Comments    |
|---------------------------------------|-----------------------------------------|----------------------------------------|----------------------|
| Advance Warning Signs (condition?)    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Good 2               |
| 'Stop' Signs                          | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| 'Stop Ahead' Signs                    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Pavement Markings (condition?)        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Good 2               |
| Crossbucks                            | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 2 on mast            |
| Number of Tracks Signs                | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Inventory Tags                        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 2                    |
| Interconnected Highway Traffic Signal | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Mast-Mounted Flashing Lights          | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                      |
| Cantilever Flashing Lights            | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Number: Length:      |
| Side Lights                           | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Automatic Gates                       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Number: 2 Length: 16 |
| Bells                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Number: 1            |
| Sidewalk Gate Arms                    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| 'No Turn' Signs                       | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Illumination                          | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Is crossing flagged by train crew?    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Other                                 | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |

| Safety Data (Obtain crash reports, if possible, prior to review)                                                                                                     |                                                                     |                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
|                                                                                                                                                                      | Initial Information (from database)                                 | Revised                                                             |
| Number & dates of crashes in previous 5 years                                                                                                                        |                                                                     |                                                                     |
| Hazard Ranking                                                                                                                                                       | Date Run:                                                           |                                                                     |
| <b>Railroad Data</b>                                                                                                                                                 |                                                                     |                                                                     |
| Railroad Characteristics                                                                                                                                             | Initial Information (from database)                                 | Revised                                                             |
| Total trains per day                                                                                                                                                 |                                                                     | 75                                                                  |
| < 1 per day                                                                                                                                                          |                                                                     |                                                                     |
| Day thru trains                                                                                                                                                      |                                                                     | 60 - 40 wite                                                        |
| Night thru trains                                                                                                                                                    |                                                                     |                                                                     |
| Daytime switching movements                                                                                                                                          |                                                                     | 0                                                                   |
| Nighttime switching movements                                                                                                                                        |                                                                     | 0                                                                   |
| Total number of tracks                                                                                                                                               |                                                                     | 2                                                                   |
| Number of main tracks                                                                                                                                                |                                                                     | 2                                                                   |
| Number of other tracks                                                                                                                                               |                                                                     | 0                                                                   |
| Maximum train speed                                                                                                                                                  |                                                                     | 79                                                                  |
| Typical train speed                                                                                                                                                  |                                                                     | 60                                                                  |
| Amtrak                                                                                                                                                               |                                                                     | yes                                                                 |
| If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input type="checkbox"/> Yes <input type="checkbox"/> No <i>gated</i>     |                                                                     |                                                                     |
| If multiple tracks, can two trains occupy crossing at the same time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |                                                                     |                                                                     |
| Can one train block the motorists' view of another train at crossing? <input checked="" type="checkbox"/> Yes (Explain below) <input type="checkbox"/> No            |                                                                     |                                                                     |
| Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                       |                                                                     |                                                                     |
| Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No              |                                                                     |                                                                     |
| If yes, Crossing DOT # (if different) _____                                                                                                                          |                                                                     |                                                                     |
| If yes, distance _____ (take measurement between track centerlines at closest point along roadway)                                                                   |                                                                     |                                                                     |
| <b>Roadway Data</b>                                                                                                                                                  |                                                                     |                                                                     |
| Local Highway Authority: <i>ODOT</i>                                                                                                                                 |                                                                     |                                                                     |
| Roadway Characteristics                                                                                                                                              | Initial Information (from database)                                 | Revised                                                             |
| Average daily traffic                                                                                                                                                |                                                                     |                                                                     |
| Highway paved                                                                                                                                                        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ |                                                                     |                                                                     |
| Roadway width: <i>24</i> ft                                                                                                                                          |                                                                     |                                                                     |
| Number of highway lanes                                                                                                                                              | <i>2</i>                                                            | <i>2</i>                                                            |
| Urban or Rural                                                                                                                                                       | <i>rural</i>                                                        | <i>rural</i>                                                        |
| Vehicle Speed: <i>55</i> MPH                                                                                                                                         |                                                                     |                                                                     |
| School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes _____ Amount <i>?</i>                                                      |                                                                     |                                                                     |
| Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <i>?</i> Amount                                                      |                                                                     |                                                                     |
| Shoulders: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                       |                                                                     |                                                                     |
| Is the shoulder surfaced? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                        |                                                                     |                                                                     |
| Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                  |                                                                     |                                                                     |
| Is stopping site distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____            |                                                                     |                                                                     |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quadrant _____ Curb and Gutter:<br><input type="checkbox"/> Functional (Curb height = 4" or more)<br><input type="checkbox"/> Non-functional (Curb height = Less than 4")<br><input checked="" type="checkbox"/> None                                                                                                                                                                                                                                                                                                                                       | Quadrant _____ Curb and Gutter:<br><input type="checkbox"/> Functional (Curb height = 4" or more)<br><input type="checkbox"/> Non-functional (Curb height = Less than 4")<br><input checked="" type="checkbox"/> None |
| Pedestrians: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                       |
| Is sidewalk present? <input type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                       |
| Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>If yes, Distance _____<br>Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes |                                                                                                                                                                                                                       |
| Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>If yes, Improvement type _____ Lead Agency _____ Timeline/completion _____                                                                                                                                                                                                                                 |                                                                                                                                                                                                                       |
| Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Explain reasons:                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                       |
| <b>Type of Development</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                       |
| <input checked="" type="checkbox"/> Open Space<br><input type="checkbox"/> Industrial<br><input type="checkbox"/> Residential                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> Institutional<br><input type="checkbox"/> Commercial<br>Location of nearby schools:<br><div style="text-align: center; font-size: 1.2em; margin-top: 10px;">Dark Harbor</div>                |
| <b>Utility Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                       |
| Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                       |
| Utility Provider (Company Name) _____ Phone Number _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                       |
| Nearest Available Power Source <u>Toledo Edison @ crossing</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                       |
| What other utilities are present? <u>Quest - NS Data - Alta</u><br>(add locations to sketch)                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                       |
| Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                       |
| Comments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |

## Potential Red Flags / Project Challenges

Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):

No

Crossing Consolidation or Closure:

West Closure in Rocky Ridge

Real Estate or ROW:

ROW NS -

Culverts / Drainage / Ballast Conditions:

NO

Roadway and/or Sidewalks:

NO

Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

overlapping

Environmental:

Done on Closure

Other:

## Diagnostic Team Recommendations

|                                                                          | Quadrants Needed |
|--------------------------------------------------------------------------|------------------|
| <input checked="" type="checkbox"/> Install/upgrade active devices       |                  |
| <input type="checkbox"/> Automatic Flashing Lights (AFLS)                |                  |
| <input type="checkbox"/> AFLS / Cants                                    |                  |
| <input checked="" type="checkbox"/> AFLS / Gates                         |                  |
| <input type="checkbox"/> AFLS / Gates / Cants                            |                  |
| <input checked="" type="checkbox"/> Bells / number                       | /                |
| <input checked="" type="checkbox"/> Upgrade circuitry / type             |                  |
| <input type="checkbox"/> Sidelights                                      |                  |
| <input type="checkbox"/> Guardrail Needed                                |                  |
| <input type="checkbox"/> Install/Replace curb                            |                  |
| <input type="checkbox"/> Bungalow placement & offset from rail & highway |                  |
| <input type="checkbox"/> Other (define)                                  |                  |

Comments:

*Bungalow and foundation in ex placement*

|                                                                    |  |
|--------------------------------------------------------------------|--|
| <input type="checkbox"/> Install/upgrade traffic signal preemption |  |
| <input type="checkbox"/> No improvements needed                    |  |
| <input type="checkbox"/> Other (define)                            |  |

Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):

*[Signature]* *[Signature]*

## Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.

See Earth Photo

Crossing Angle ☐ 0-29° ☐ 30-59° ☐ 60-90° Measured in \_\_\_\_\_ Quadrant?

Sketch by: \_\_\_\_\_

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.

| SH. NO. | CONTENTS                                 |
|---------|------------------------------------------|
| NXI     | INDEX SHEET                              |
| 1       | LAYOUT                                   |
| 2       | PROFILE                                  |
| 3       | CABLE PLAN                               |
| 4       | LOAD CENTER                              |
| 5       | RECTIFIER & BATTERY                      |
| 6       | 4000 GCP 2-TK CHASSIS & MODULE LAYOUT    |
| 7       | 4000 GCP PROGRAMMING SETUP               |
| 8       | 4000 GCP PROGRAMMING SETUP               |
| 9       | CONNECTORS FOR TRACK MODULES             |
| 10      | CPU MODULE, SEAR III, GFT & VHF HOOK-UPS |
| 11      | SEAR III PROGRAMMING SETUP               |
| 12      | SSCC#1 MODULE, ILQD#1 HOOK-UP            |
| 13      | SSCC#2 MODULE, ILQD#2 HOOK-UP            |
| 14      | FLASHER AND GATE LIGHTS - A              |
| 15      | FLASHER AND GATE LIGHTS - B              |
| 16      | BACKBOARD 1A & 1B                        |
| 17      | REAR BACKBOARD 1A & 1B                   |
| 18      | FARADAY SHIELD 1A & 1B                   |
| 19      | FARADAY SHIELD 1C                        |
| 20      | HOUSE SIDE C LAYOUT                      |
| 21      | HOUSE SIDE A LAYOUT                      |
| 22      | HOUSE SIDE B & TOP VIEW LAYOUT           |

IN SERVICE \_\_\_\_\_ SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

☐ S&E ENGINEERING COPY

☐ CONSTRUCTION OFFICE COPY

☐ RETURN TO S&E ENG. AFTER COMPLETION

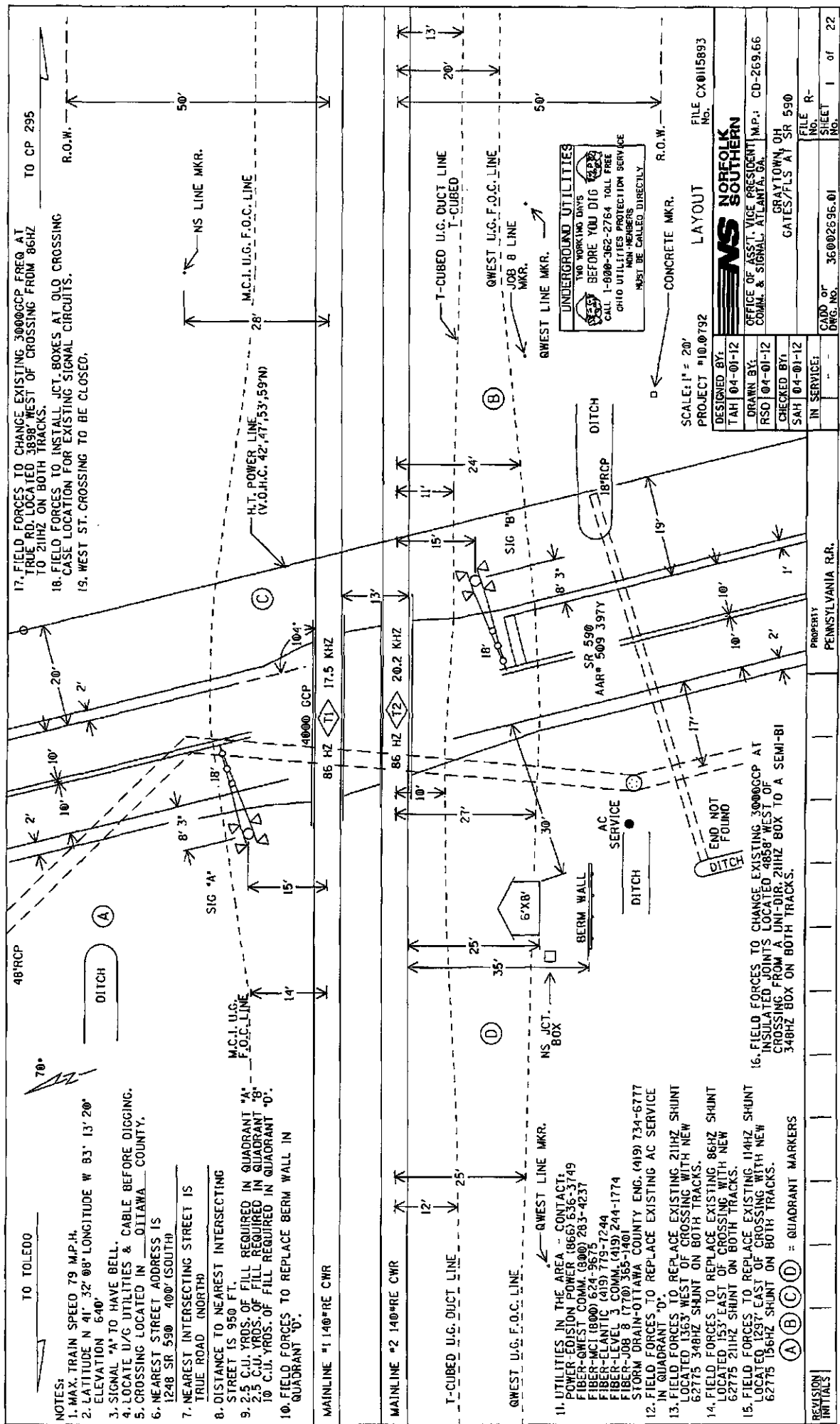
☐ FIELD COPY

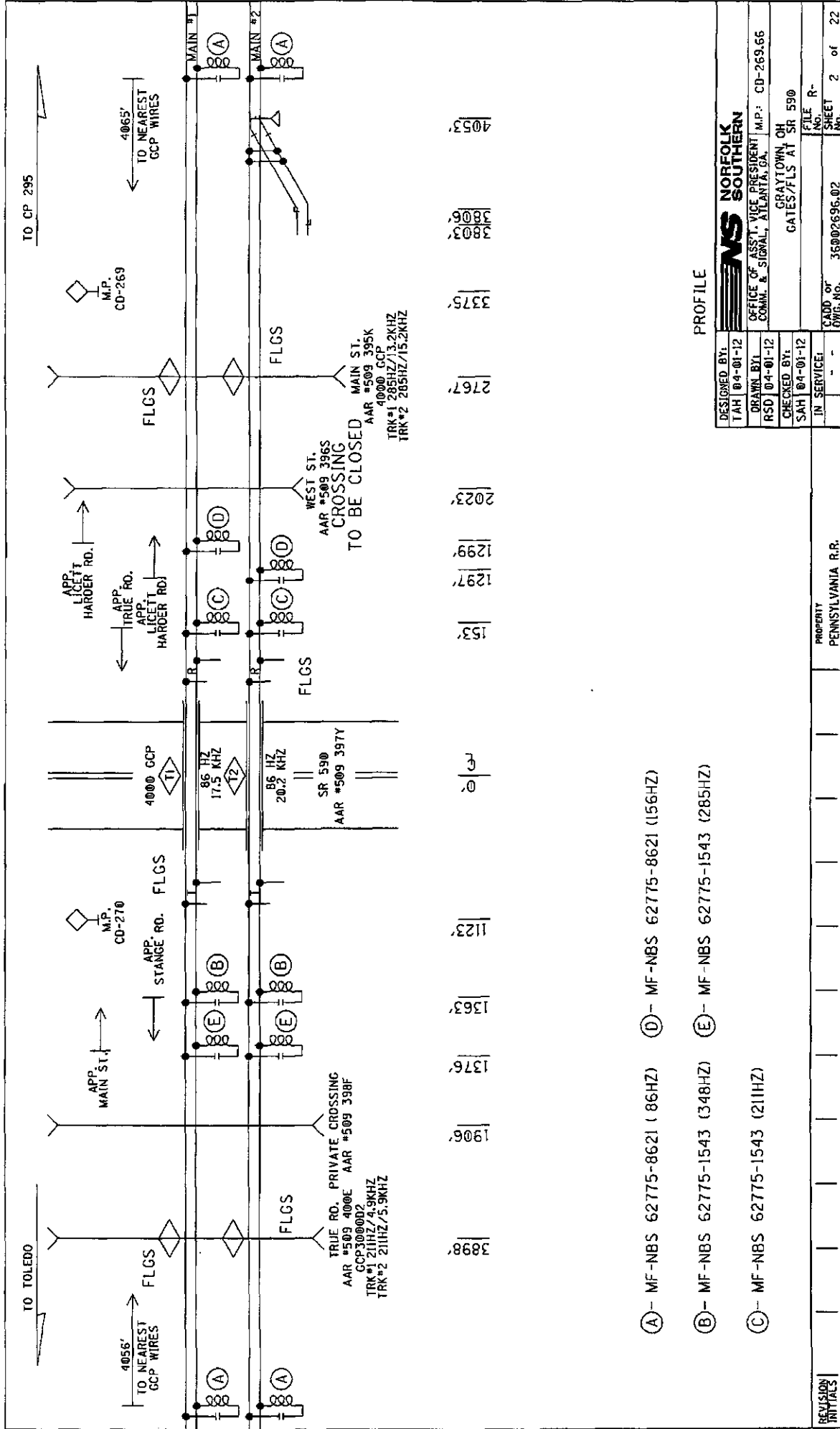
☐ RETURN TO CASE AFTER COMPLETION

☐ PROJECT ENGINEER COPY

# INDEX SHEET 1

|                              |                                                                |
|------------------------------|----------------------------------------------------------------|
| DESIGNED BY:<br>TAH 04-01-12 | <b>NS</b> NORFOLK SOUTHERN                                     |
| DRAWN BY:<br>RSD 04-01-12    | OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. |
| CHECKED BY:<br>SAH 04-01-12  | M.P.: CD-269.66                                                |
| IN SERVICE:                  | GRAYTOWN, OH<br>GATES/FLS AT SR 590                            |
| FILE NO.:                    | FILE NO. R-                                                    |
| CADD OF DRG. NO.:            | CADD OF DRG. NO. 36002636-NXI                                  |
| REVISION INITIALS            | PROPERTY<br>PENNSYLVANIA R.R.                                  |
|                              | 1 of 1                                                         |





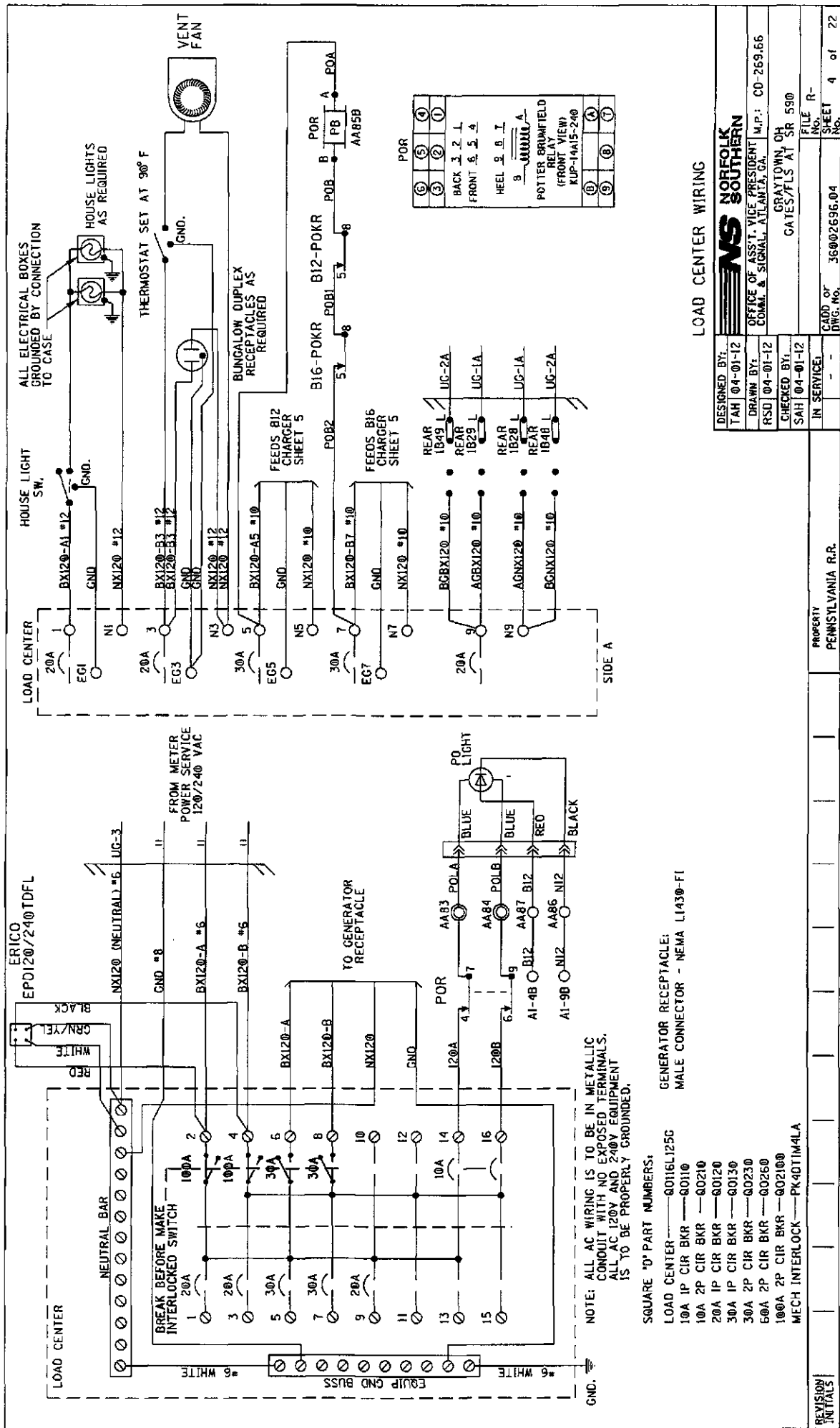
# PROFILE

|              |              |                                                                                                                                  |          |             |
|--------------|--------------|----------------------------------------------------------------------------------------------------------------------------------|----------|-------------|
| DESIGNED BY: | TAH 04-01-12 | <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA.<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 | FILE NO. |             |
| DRAWN BY:    | RSD 04-01-12 |                                                                                                                                  | CADD OR  |             |
| CHECKED BY:  | SAH 04-01-12 |                                                                                                                                  | OWN. No. | 36802696.02 |
| IN SERVICE:  |              |                                                                                                                                  | SHEET    | 2           |

- (A) - MF-NBS 62775-8621 (86HZ) (D) - MF-NBS 62775-8621 (156HZ)
- (B) - MF-NBS 62775-1543 (348HZ) (E) - MF-NBS 62775-1543 (285HZ)
- (C) - MF-NBS 62775-1543 (211HZ)







POR

|                                                            |   |   |
|------------------------------------------------------------|---|---|
| 6                                                          | 5 | 4 |
| 3                                                          | 2 | 1 |
| BACK 3 2 1                                                 |   |   |
| FRONT 5 4                                                  |   |   |
| HEEL 3 2 1                                                 |   |   |
| A                                                          |   |   |
| POTTER BRUMFIELD<br>RELAY<br>(FRONT VIEW)<br>KUP-14A15-240 |   |   |
| 6                                                          | 5 | 4 |
| 3                                                          | 2 | 1 |

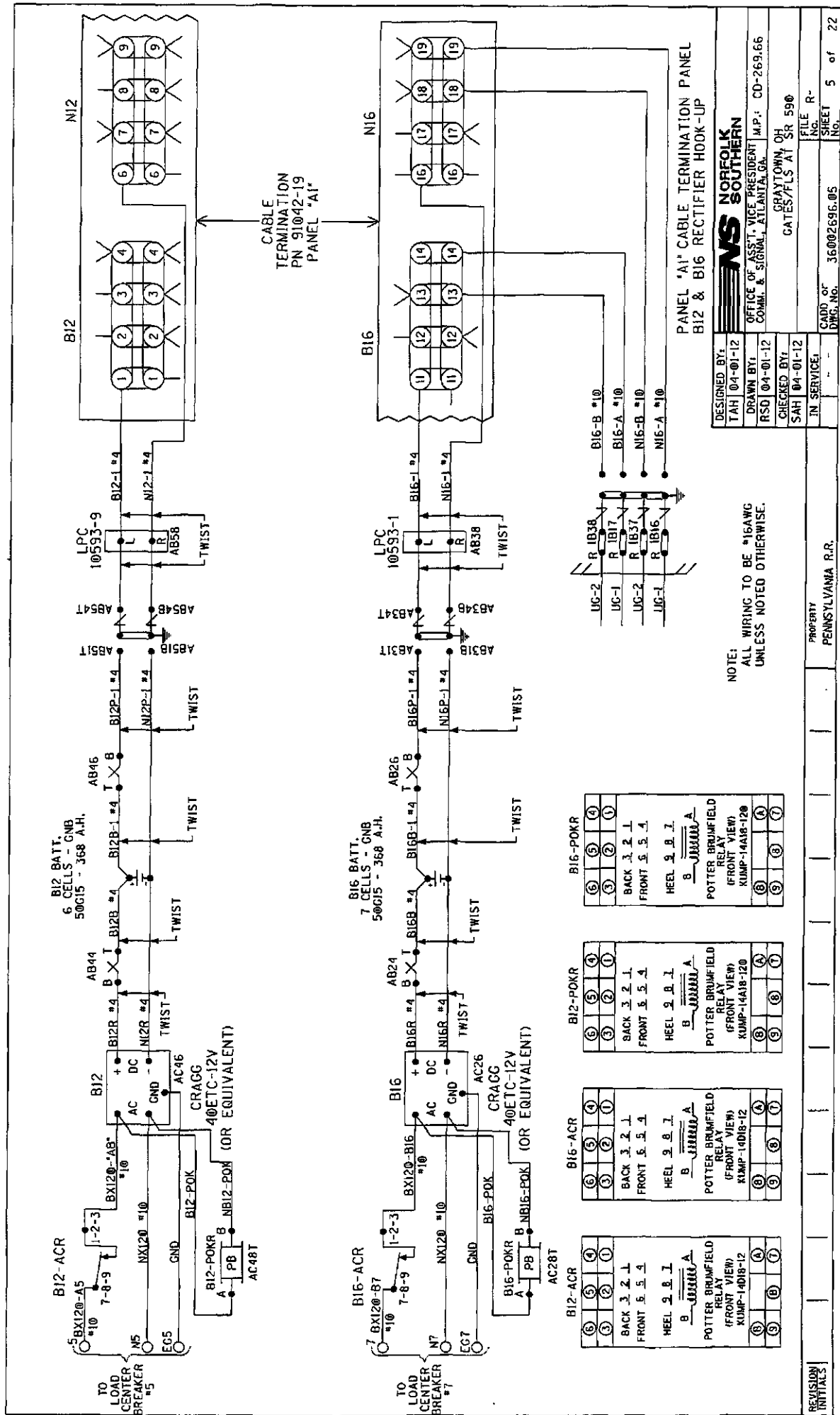
LOAD CENTER WIRING

|                                                                                                                          |             |
|--------------------------------------------------------------------------------------------------------------------------|-------------|
| DESIGNED BY:<br>TAH 04-01-12                                                                                             |             |
| DRAWN BY:<br>RSD 04-01-12                                                                                                |             |
| CHECKED BY:<br>SAH 04-01-12                                                                                              |             |
| IN SERVICE:                                                                                                              |             |
| OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA.<br>M.P.: CD-269,66<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 |             |
| FILE NO.                                                                                                                 | FILE R-     |
| CADD OF<br>DRG. NO.                                                                                                      | 36002696.04 |
| SHEET                                                                                                                    | 4 of 22     |

NOTE: ALL AC WIRING IS TO BE IN METALLIC CONDUIT WITH NO EXPOSED TERMINALS. ALL AC 120V AND 240V EQUIPMENT IS TO BE PROPERLY GROUNDED.

- SQUARE "D" PART NUMBERS:
- LOAD CENTER --- 00116125G
  - 10A 1P CIR BKR --- 00110
  - 10A 2P CIR BKR --- 00210
  - 20A 1P CIR BKR --- 00120
  - 30A 1P CIR BKR --- 00130
  - 30A 2P CIR BKR --- 00230
  - 60A 2P CIR BKR --- 00260
  - 100A 2P CIR BKR --- 002100
  - MECH INTERLOCK --- PK40T1M4LA
- GENERATOR RECEPTACLE:  
MALE CONNECTOR - NEMA L1430-F1

|          |          |          |                   |
|----------|----------|----------|-------------------|
| REVISION | INITIALS | PROPERTY | PENNSYLVANIA R.R. |
|----------|----------|----------|-------------------|



|              |              |
|--------------|--------------|
| DESIGNED BY: | TAH 04-01-12 |
| DRAWN BY:    | RSD 04-01-12 |
| CHECKED BY:  | SAH 04-01-12 |
| IN SERVICE:  |              |
| FILE NO.:    | 36002696.05  |
| SHEET NO.:   | 5            |
| OF:          | 22           |

PROPERTY  
PENNSYLVANIA R.R.

|                                                   |                                                   |                                                   |                                                   |                                                   |
|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| B12-ACR                                           | B12-POKR                                          | B12-POKR                                          | B12-POKR                                          | B12-POKR                                          |
| 6 5 4 3 2 1                                       | 6 5 4 3 2 1                                       | 6 5 4 3 2 1                                       | 6 5 4 3 2 1                                       | 6 5 4 3 2 1                                       |
| BACK 3 2 1                                        | BACK 3 2 1                                        | BACK 3 2 1                                        | BACK 3 2 1                                        | BACK 3 2 1                                        |
| FRONT 5 4 3                                       | FRONT 5 4 3                                       | FRONT 5 4 3                                       | FRONT 5 4 3                                       | FRONT 5 4 3                                       |
| HEEL 2 1 0                                        | HEEL 2 1 0                                        | HEEL 2 1 0                                        | HEEL 2 1 0                                        | HEEL 2 1 0                                        |
| POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14018-12 | POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14018-12 | POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14018-12 | POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14018-12 | POTTER BRUMFIELD RELAY (FRONT VIEW) KUMP-14018-12 |

# WARNING

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

# CAUTION

ASSURE CORRECT POLARITY OF THE SSCGIII 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

**NS NORFOLK SOUTHERN**

OFFICE OF ASS'T. VICE PRESIDENT I.P.: CD-269.66  
COMM. & SIGNAL, ATLANTA, GA.

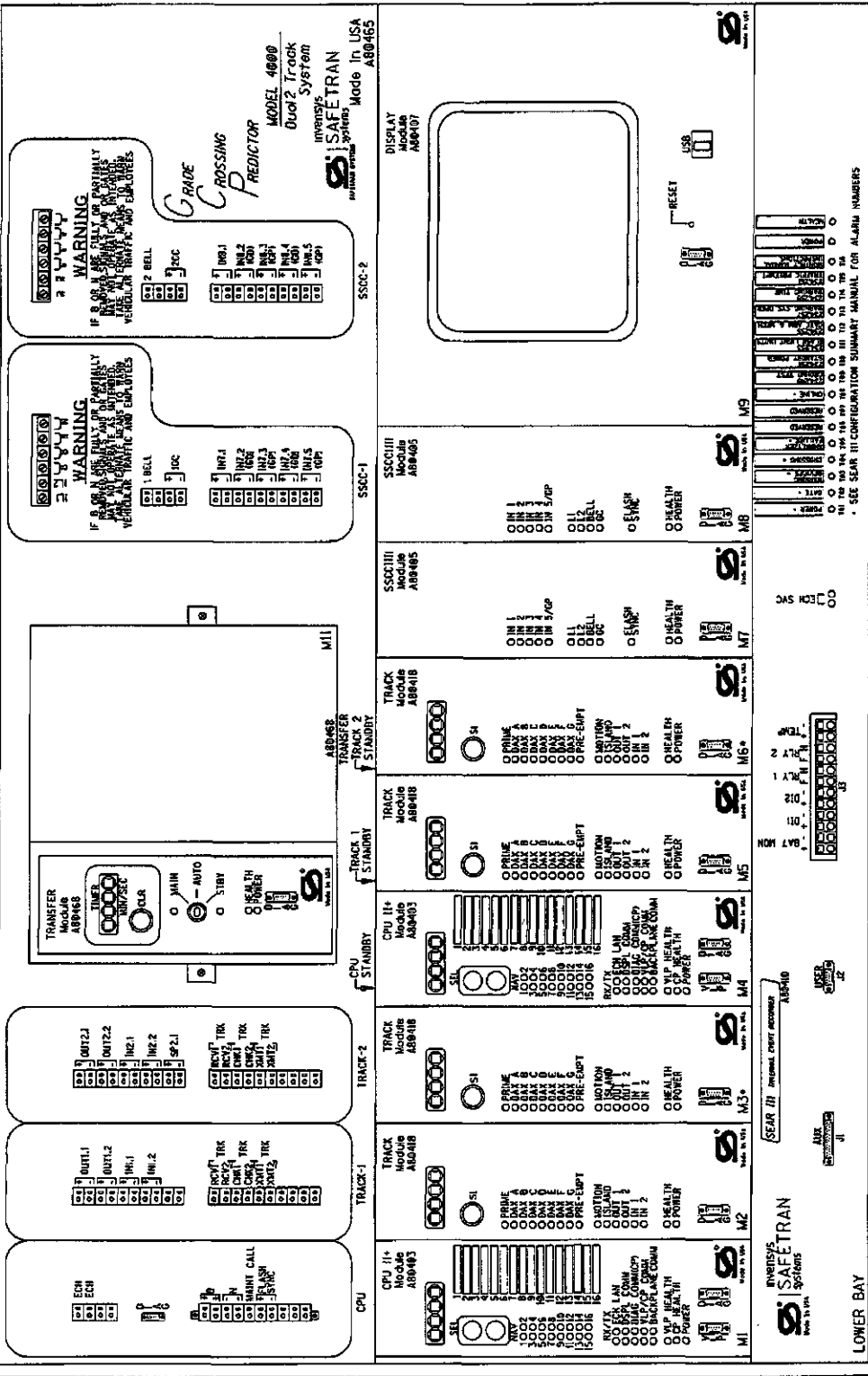
GRAYTOWN, OH

GATES/FLS AT SR 590

FILE NO. R-

CAD OF DWG. NO. 36002696.06

SHEET 6 of 22



|                    |                   |
|--------------------|-------------------|
| DESIGNED BY:       | TAH 04-01-12      |
| DRAWN BY:          | RSD 04-01-12      |
| CHECKED BY:        | SAH 04-01-12      |
| IN SERVICE:        | - - -             |
| PROPERTY:          | PENNSYLVANIA R.R. |
| REVISION/INITIALS: |                   |



```

ADVANCED: out of service 2
T1 00S Control= 00S Input 1
T2 00S Control= 00S Input 1

ADVANCED: track wrap circuits
Wrap LOS timer = 5 sec
Track 1 Wrap Used = No
Track 2 Wrap Used = No

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

ADVANCED: trk 2 overrides
Track 2: All Predictors Override Used = No

```

SCCC  
Gates Used = Yes  
SCC1+2 Grps Coupled = Yes  
Min Activation = 0 sec  
Rmt Activation Cancel= 2 min  
Bell On Gate Rising = No  
Mute Bell On Gate Down = No  
SCC1V Controller Used = No

BellOn Gate Rising = No  
 Mute BellOn Gate Down = No  
 SSCIV Controller Used = No

```

SCC0: | Activation = AND | XR
SCC0: | Gate Delay = 4 sec
SCC0: | Number of GPs = 1
SCC0: | Number of GPs = 2
SCC0: | Flash Rate = 40
SCC0: | Low Battery Detection = NO
SCC0: | Flash Sync = master
SCC0: | Invert Sync Output = No
SCC0: | Lamp Neutralized = On
Aux1: | Xnd CritUsed = No

```

```
SSCC I:Flash Rate = 40
SSCC I:Low Battery Detection = No
SSCC I:Flash Sync = master
SSCC I:Invert Gate Output = No
SSCC I:Lamp Neutral Test = On
Aux1 Xng CtrlUsed = No
```

```
$SCC: 2 Activation = AND 1XR  
$SCC: 2 Gate Delay = 4 sec  
$SCC: 2 Number of GPs = 0  
$SCC: 2 Number of GEs = 0  
$SCC: 2 Flash Rate = 40  
$SCC: 2 Low Battery Detection = No  
$SCC: 2 Flow Sync = Slave  
$SCC: 2 Invert Gate Output = No  
$SCC: 2 Lamp Neutral Test = On
```

```
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 : Lamp Neutral Test = 0n
```

```

SITE: programming
Radio Subnode = 1
Field Password = Off
Low Battery Enabled = Off
Configuration Package File
Filename: 36002696.pac

```

OUTPUT: assignment page 1  
OUT 1.1 = Not Used  
OUT 1.2 = Not Used  
OUT 2.1 = Not Used  
OUT 2.2 = Not Used

INPUT: assignment page 1

```

IO: assignment SCC
OUT CC 1 = Gate Output 1
OUT CC 2 = Gate Output 2
IN 7.1 = Not Used
IN 7.2 = GP 1,2
IN 7.3 = AND 1
IN 7.4 = GP 1,1
IN 7.5 = GP 1,1
IN 8.1 = Not Used
IN 8.2 = Not Used
IN 8.3 = Not Used
IN 8.4 = Not Used
IN 8.5 = Not Used

```

IO: assignment SSCC  
OUT GC 1 = Gate Out  
OUT GC 2 = Gate Out

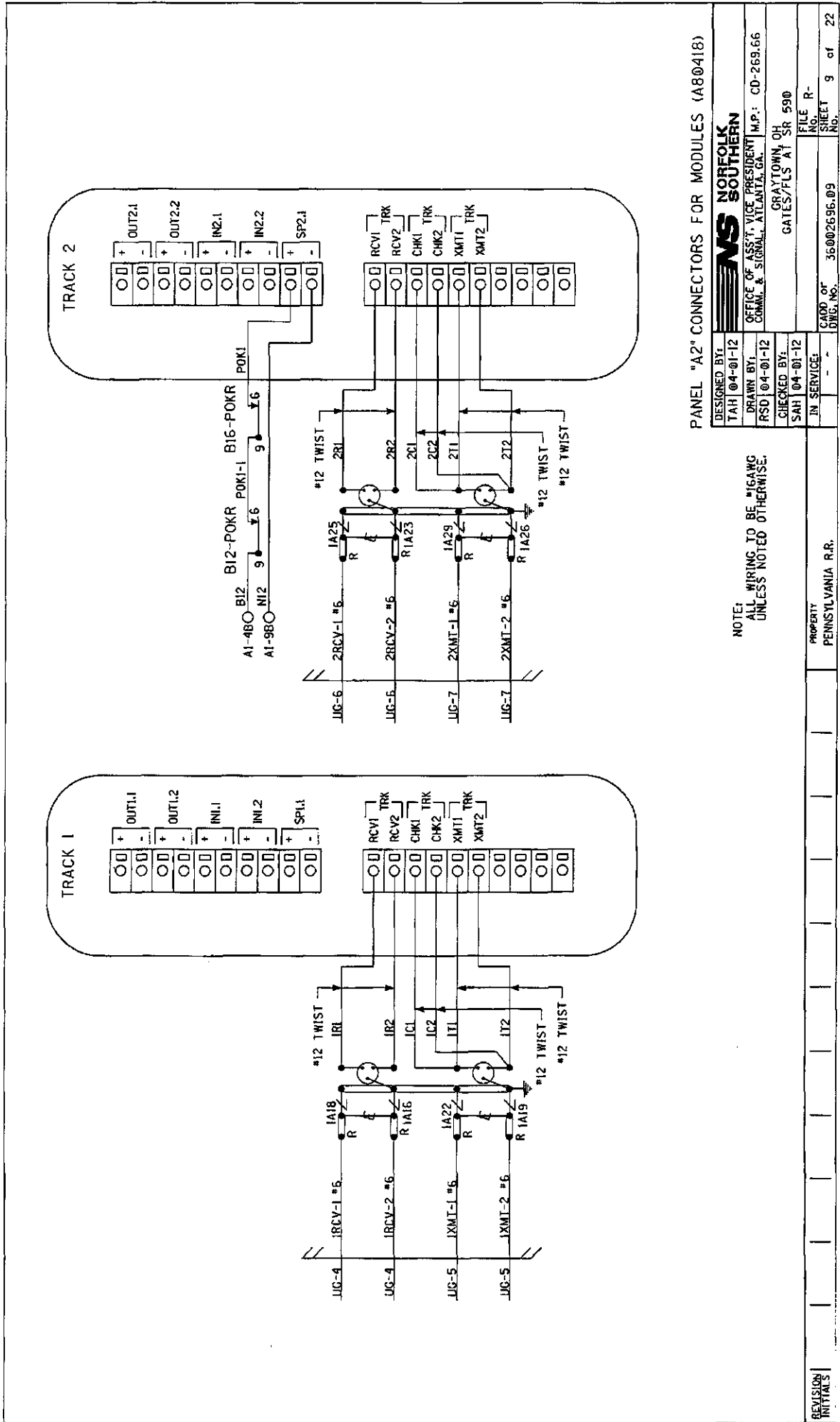
```
IN 7.1 = Not Used
IN 7.2 = GO 1,2
IN 7.3 = AND 1 XR Enable
IN 7.4 = GO 1,1
IN 7.5 = GP 1,1
IN 8.1 = Not Used
IN 8.2 = Not Used
IN 8.3 = Not Used
IN 8.4 = Not Used
IN 8.5 = Not Used
```

## 4000 GCP PROGRAMMING SETUP

|              |                                |             |               |
|--------------|--------------------------------|-------------|---------------|
| DESIGNED BY: | MS NORFOLK SOUTHERN            |             |               |
| TAH 04-01-12 |                                |             |               |
| DRAWN BY:    | OFFICE OF ASST. VICE PRESIDENT |             |               |
| RSD 04-01-12 | COMM. & SIGNAL, ATLANTA, GA.   |             |               |
| CHECKED BY:  | GRAYTOWN, OH                   |             |               |
| SAH 04-01-12 | GATES/HLS AT SR 590            |             |               |
| IN SERVICE:  | FILE NO.                       | R-          |               |
|              | CADD or DWG. No.               | 36002698.08 | SHEET 8 of 22 |

PROPERTY  
PENNSYLVANIA R.R.

|     |               |
|-----|---------------|
| No. | SHEET 8 of 22 |
|-----|---------------|



PANEL "A2" CONNECTORS FOR MODULES (A80418)

|              |              |                                                                                                                                                                                                                                 |                  |             |
|--------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------|
| DESIGNED BY: | TAH 04-01-12 |  <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA.   M.P.: CD-269.66<br>GRAYTOWN, OH<br>GATES/PLS A1 | FILE NO.:        | R-          |
| DRAWN BY:    | RSD 04-01-12 |                                                                                                                                                                                                                                 | CADD OF DWG. NO. | 36002696.09 |
| CHECKED BY:  | SAH 04-01-12 |                                                                                                                                                                                                                                 | SHEET            | 9 of 22     |
| IN SERVICE:  | -            |                                                                                                                                                                                                                                 |                  |             |





TO CONFIGURE SEAR/UPPRESS 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 OST ADJUSTMENT | YES                       |  |
| TIME ZONE                | EST                       |  |
| SITE NAME                | SR 590                    |  |
| MILEPOST                 | CD-269.66                 |  |
| DOT #                    | 509397Y                   |  |
| TESTER TYPE              | CROSSING                  |  |
| DATE FORMAT              | MM-DD-YYYY                |  |
| TEMP FORMAT              | FAHRENHEIT                |  |
| INDICATE HOLD (SEC)      | 0                         |  |
| INDICATE REFRESH (SEC)   | 60                        |  |
| SITE ATCS                | 7.550.186.042.03.01       |  |
| 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 (ECHO/EM)             |  |
| 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               | 4 BULBS |
| CURR 2: LAMP SET UP               | 4 BULBS |
| VERIFY NUMBER OF BULBS: SENSOR #2 |         |
| CURR 1: LAMP SET UP               | 4 BULBS |
| CURR 2: LAMP SET UP               | 4 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                             | 397                     |  |
| ACTIVATION TIMEOUT (SECONDS)                | 60                      |  |
| IL00 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 LEDS    | NO      |
| EDIT TEST LEDS         | NO      |
| EDIT I/O SENSORS       | NO      |
| EDIT VHF SETTINGS      | NO      |
| BCPAK ATCS SUBMODE     | 16      |

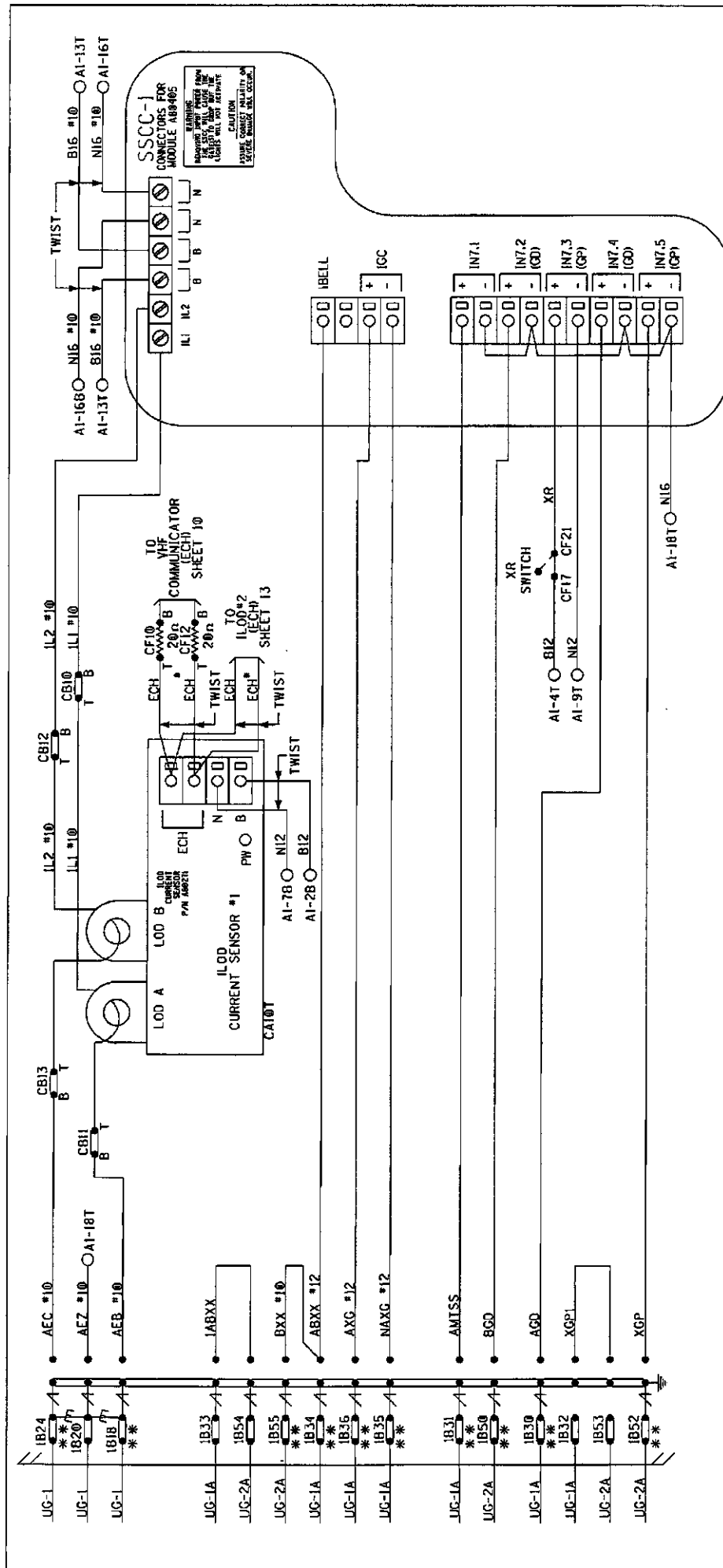
#### NOTES:

- \* = 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 04-01-12 | <br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.66<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 |
| DRAWN BY:    | RSD 04-01-12 |                                                                                                                                                                                                              |
| CHECKED BY:  | SAH 04-01-12 |                                                                                                                                                                                                              |
| IN SERVICE:  | -            |                                                                                                                                                                                                              |
| FILE NO.     | 36002696.11  | SHEET 11 of 22                                                                                                                                                                                               |

PROPERTY  
PENNSYLVANIA R.R.



DESIGNED BY: TAH 04-01-12  
 DRAWN BY: RSD 04-01-12  
 CHECKED BY: SAH 04-01-12  
 IN SERVICE: -

PROPERTY: PENNSYLVANIA R.R.

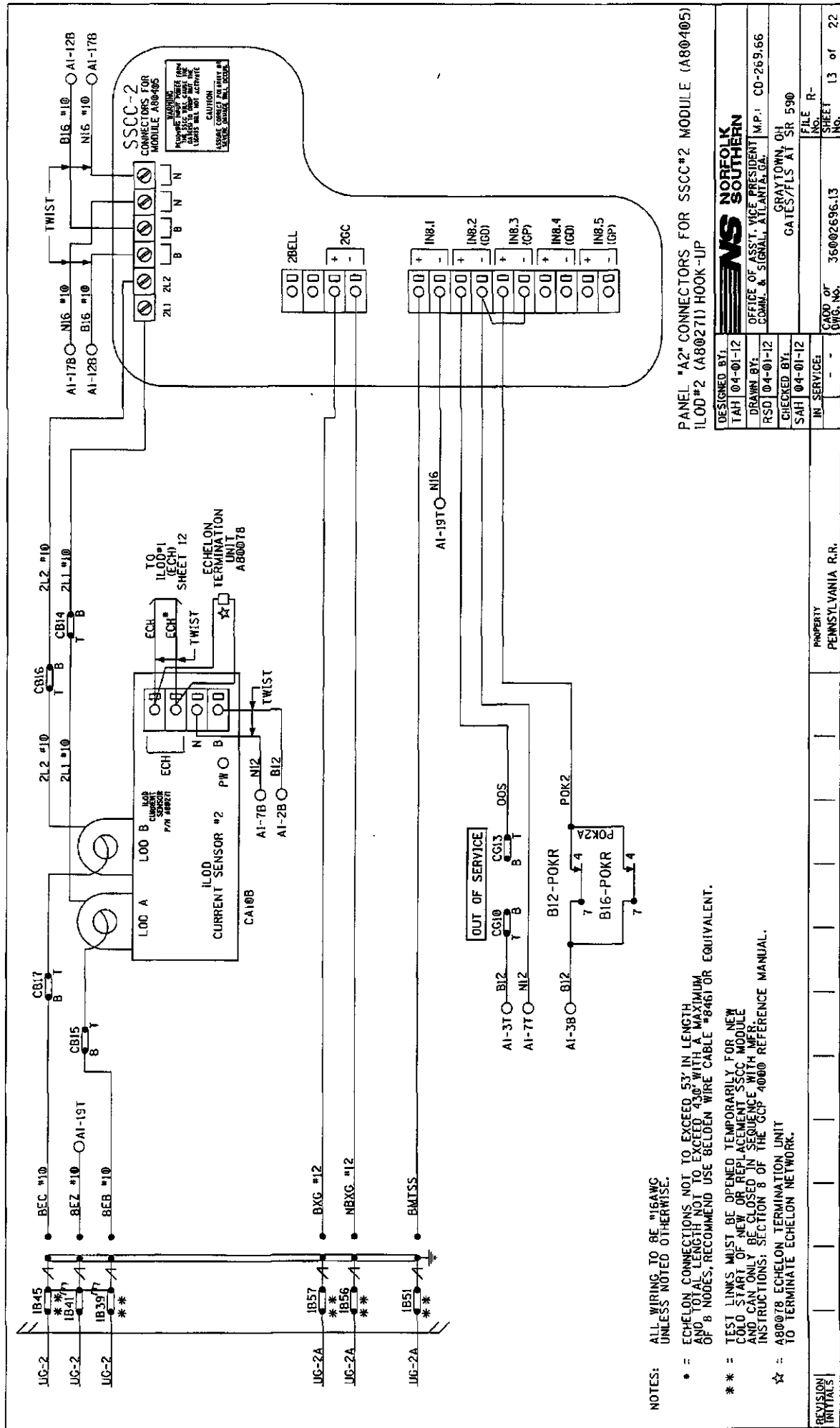
REVISION/INITIALS

NOTES: ALL WIRING TO BE #16AWG UNLESS NOTED OTHERWISE.  
 \* = ECHOLON CONNECTIONS NOT TO EXCEED 53' IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430' WITH A MAXIMUM OF 8 NODES. RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.  
 \*\* = TEST LINKS MUST BE OPENED TEMPORARILY FOR NEW COLD START OF NEW OR REPLACEMENT SSCC MODULE AND CAN ONLY BE CLOSED IN SEQUENCE WITH MFR. INSTRUCTIONS: SECTION 8 OF THE GCP 4000 REFERENCE MANUAL.

PANEL "A2" CONNECTORS FOR SSCC\*1 MODULE (A80405)  
 ILOD\*1 (A80271) HOOK-UP

NS NORFOLK SOUTHERN  
 OFFICE OF ASST. VICE PRESIDENT  
 COMM. & SIGNAL, ATLANTA, GA  
 M.P.: CD-269.66  
 GRAYTOWN, OH  
 GATES/PLS AT SR 590

FILE No. 35002696.12  
 SHEET No. 12 of 22

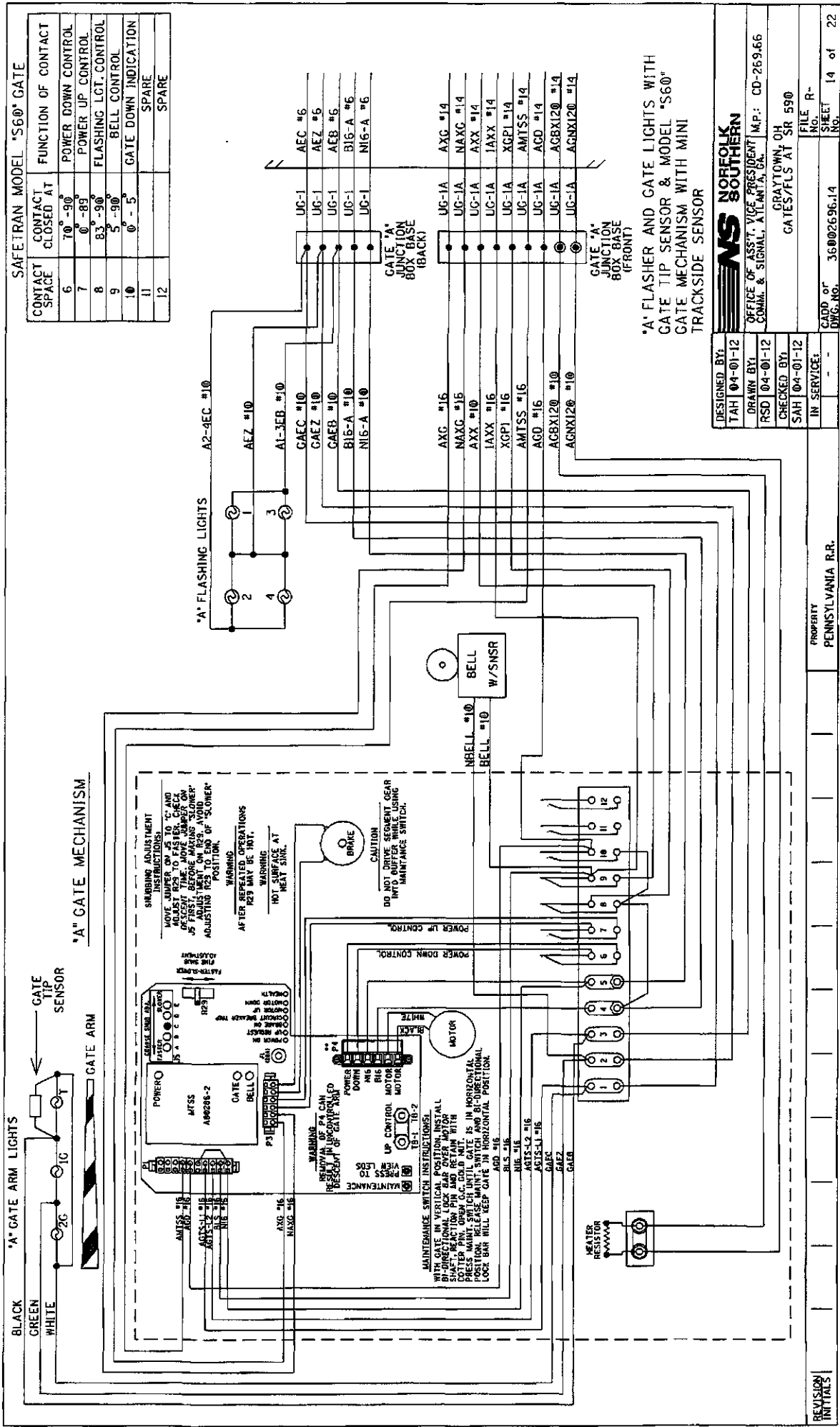


PANEL #A2\* CONNECTORS FOR SSCC#2 MODULE (A80405)  
 ILOD#2 (A80271) HOOK-UP

DESIGNED BY: TAHI 04-01-12  
 DRAWN BY: RSD 04-01-12  
 CHECKED BY: SAH 04-01-12  
 IN SERVICE: - - -

**NORFOLK SOUTHERN**  
 OFFICE OF ASST. VICE PRESIDENT  
 COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.66  
 GRAYTOWN, OH  
 GATES/FLS AT SR 590

FILE R-  
 NO. 36002696.13  
 SHEET 13 of 22



"A" FLASHER AND GATE LIGHTS WITH GATE TIP SENSOR & MODEL "S60" GATE MECHANISM WITH MINI TRACKSIDE SENSOR

|              |              |
|--------------|--------------|
| DESIGNED BY: | TAH 04-01-12 |
| DRAWN BY:    | RSD 04-01-12 |
| CHECKED BY:  | SAH 04-01-12 |
| IN SERVICE:  | - -          |
| FILE NO.:    | 36002696.14  |
| SHEET NO.:   | 14 of 22     |

NS

NORFOLK SOUTHERN

OFFICE OF ASST. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA.

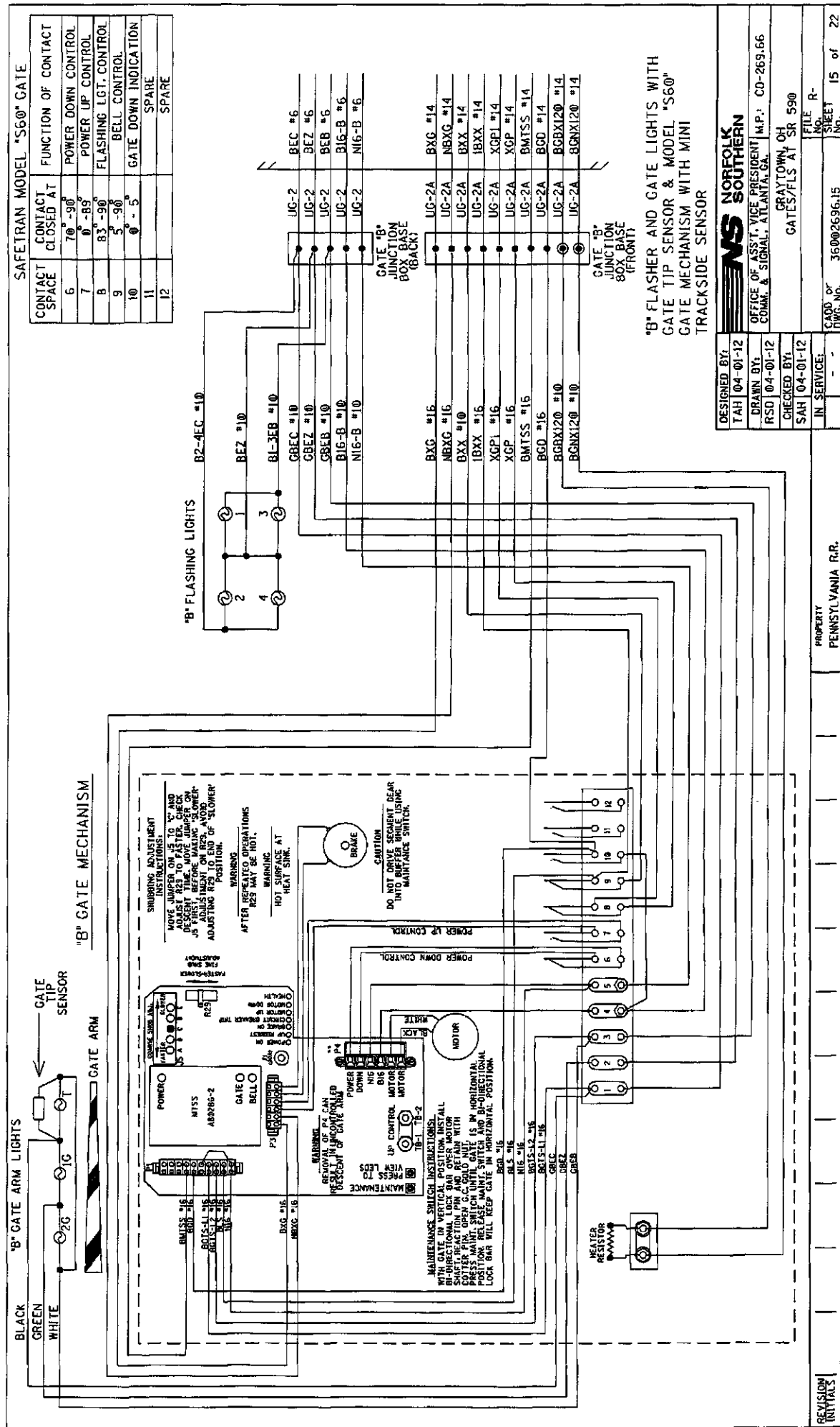
GRAYTOWN, OH

GATES/FLS AT SR 590

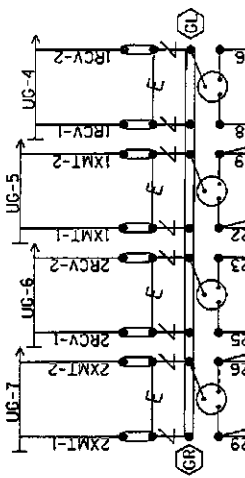
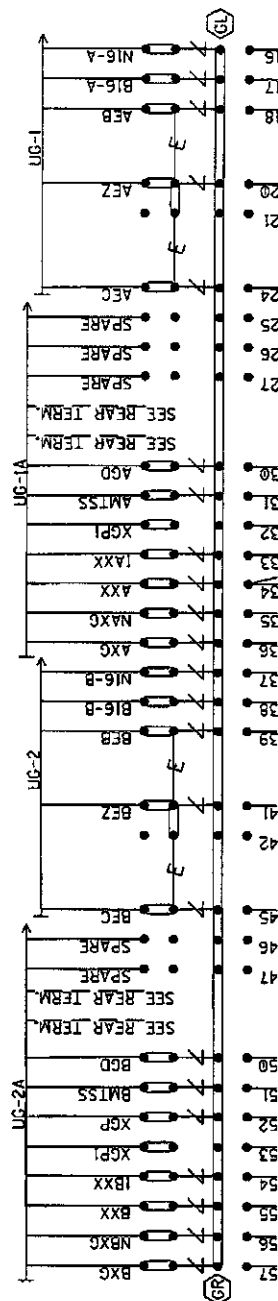
FILE R-

PROPERTY PENNSYLVANIA R.R.

REVISION INITIALS



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



⎓ = Heavy Duty Equalizer  
(022700-1X)  
Clear view  
⌋ = Lightning Arrester  
(022585-1X)  
⊙ = LPC-10560-51

NOTE: INSTALL TEST LINKS ON ALL TRACK  
WIRES 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.

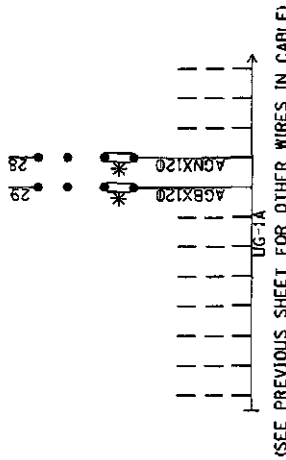
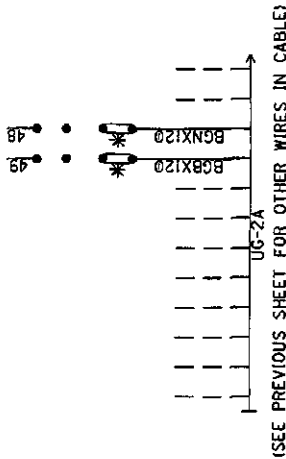
BACKBOARD DETAIL - 1A & 1B

|                               |  |                                                                                                                           |                               |                     |          |
|-------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------|----------|
| DESIGNED BY:<br>TAH 04-01-12  |  | <br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-289.66<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 | FILE NO.<br>R-<br>36002696.16 | CADD OF<br>DWG. NO. | 16 of 22 |
| DRAWN BY:<br>RSD 04-01-12     |  |                                                                                                                           |                               |                     |          |
| CHECKED BY:<br>SAH 04-01-12   |  |                                                                                                                           |                               |                     |          |
| IN SERVICE:<br>-              |  |                                                                                                                           |                               |                     |          |
| PROPERTY<br>PENNSYLVANIA R.R. |  |                                                                                                                           |                               |                     |          |

REAR VIEW OF LEFT TWO ROWS TERMINAL BOARD 1

"1A"

"1B"



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

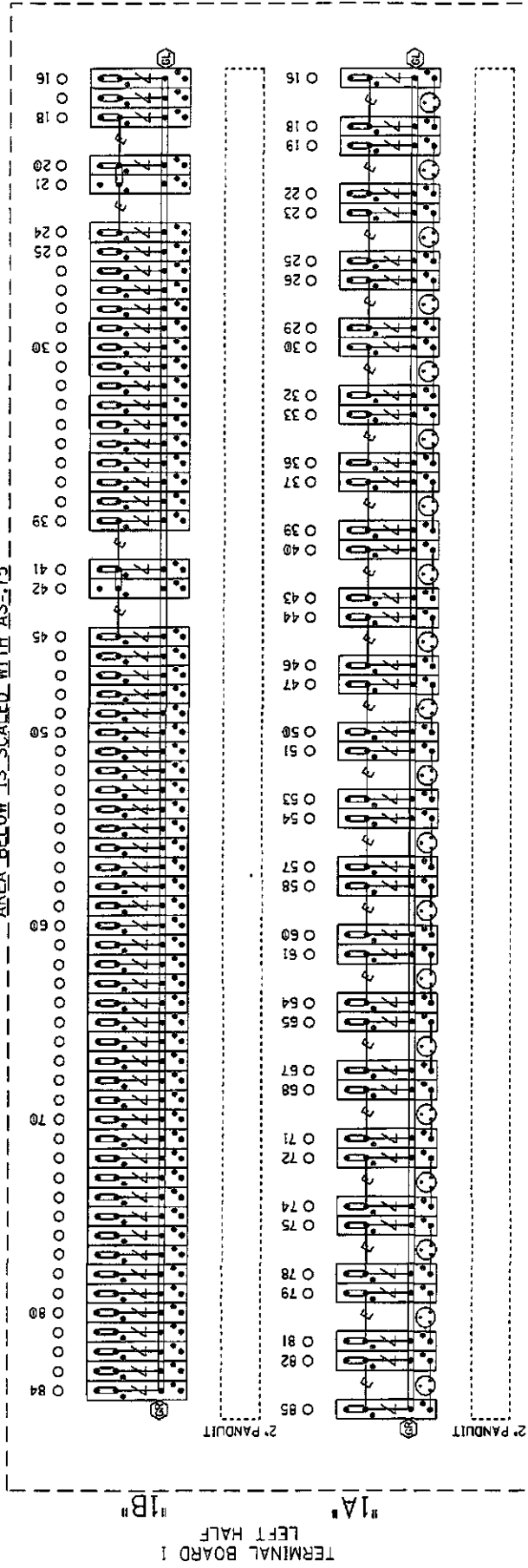
\* = CLOSED DURING WINTER MONTHS

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

|                              |                                                                |
|------------------------------|----------------------------------------------------------------|
| DESIGNED BY:<br>TAH 04-01-12 | <b>NS NORFOLK SOUTHERN</b>                                     |
| DRAWN BY:<br>RSD 04-01-12    | OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. |
| CHECKED BY:<br>SAH 04-01-12  | GRAYTOWN, OH<br>GATES/FLS AT SR 590                            |
| IN SERVICE:<br>- -           | FILE R-<br>36002696.17                                         |
| REVISION<br>INITIALS         | PROPERTY<br>PENNSYLVANIA R.R.                                  |
|                              | SHEET 17 of 22                                                 |

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



-E- = Heavy Duty Equalizer  
(022700-IX)  
Clear-view  
Z = Lightning Arrestor  
(022585-IX)  
CL = LPC-10560-51

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

= INDICATES PLACEMENT OF PANDUIT

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

|              |              |                                                                                                                                                  |
|--------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| DESIGNED BY: | TAH 04-01-12 | <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.66<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 |
| DRAWN BY:    | RSD 04-01-12 |                                                                                                                                                  |
| CHECKED BY:  | SAH 04-01-12 |                                                                                                                                                  |
| IN SERVICE:  | - - -        |                                                                                                                                                  |
| FILE NO.     | 36002696.18  | FILE NO.                                                                                                                                         |
| SHEET NO.    | 18           | SHEET NO.                                                                                                                                        |
| OF           | 18           | OF                                                                                                                                               |
| NO.          | 22           | NO.                                                                                                                                              |

PROPERTY  
PENNSYLVANIA R.R.

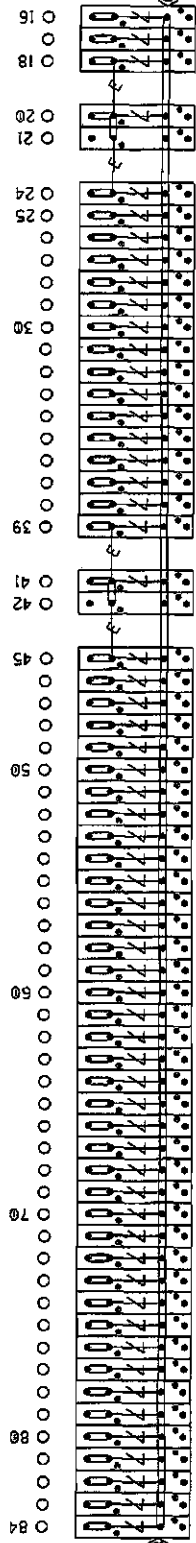
REVISION  
INITIALS



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



2\"/>

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

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

INDICATES PLACEMENT OF PANDUIT

TERMINAL BOARD 1  
 RIGHT ROW  
 FARADAY SHIELD DETAIL - IC

CR = TERMINALS GROUNDED TO SHIELD.  
 4 POST BLOCKS USE EITHER -  
 CR - SERIMI PART NO. 61278  
 GL - SERIMI PART NO. 61278-1.

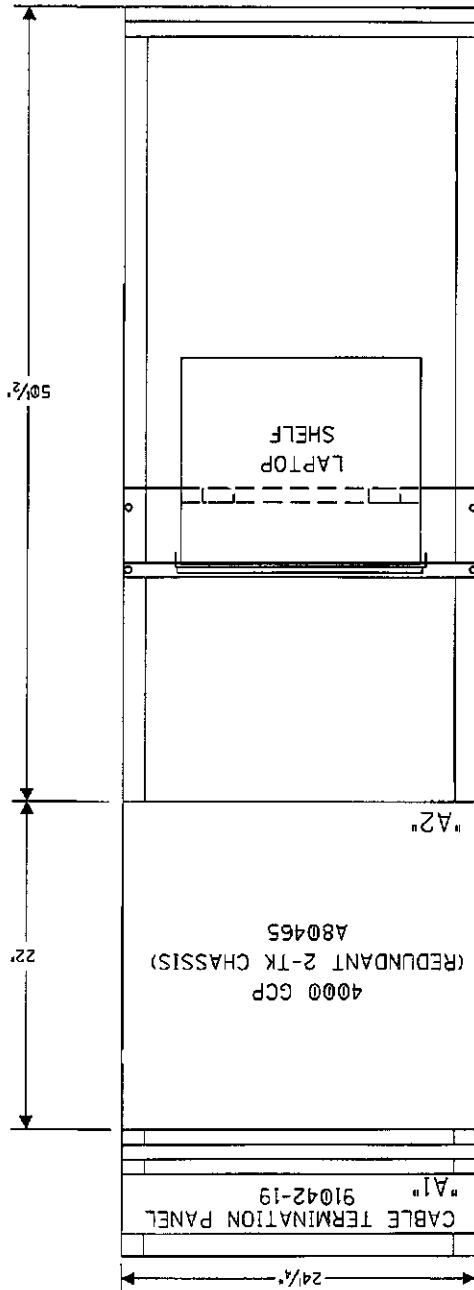
|                                                                |              |
|----------------------------------------------------------------|--------------|
| DESIGNED BY:                                                   | TAH 04-01-12 |
| DRAWN BY:                                                      | RSD 04-01-12 |
| CHECKED BY:                                                    | SAH 04-01-12 |
| IN SERVICE:                                                    |              |
|                                                                |              |
| OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. |              |
| GRAYTOWN, OH<br>GATES/FLS AT SR 590                            |              |
| FILE NO.                                                       | R-           |
| CADD OF DWG. No.                                               | 36002696.19  |
| SHEET No.                                                      | 19 of 22     |

PROPERTY  
PENNSYLVANIA R.R.

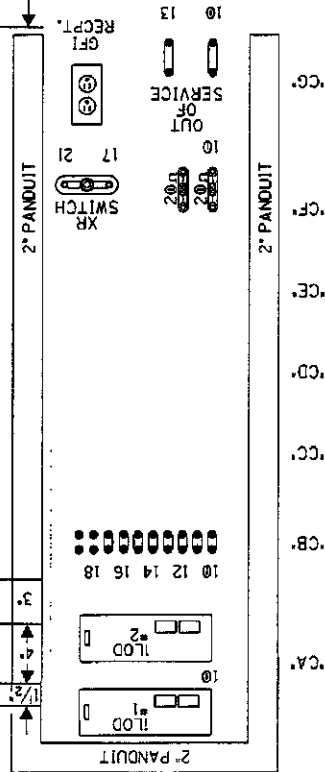
REVISION  
INITIALS

# EQUIPMENT RACK #1

FRONT



SIDE "C"

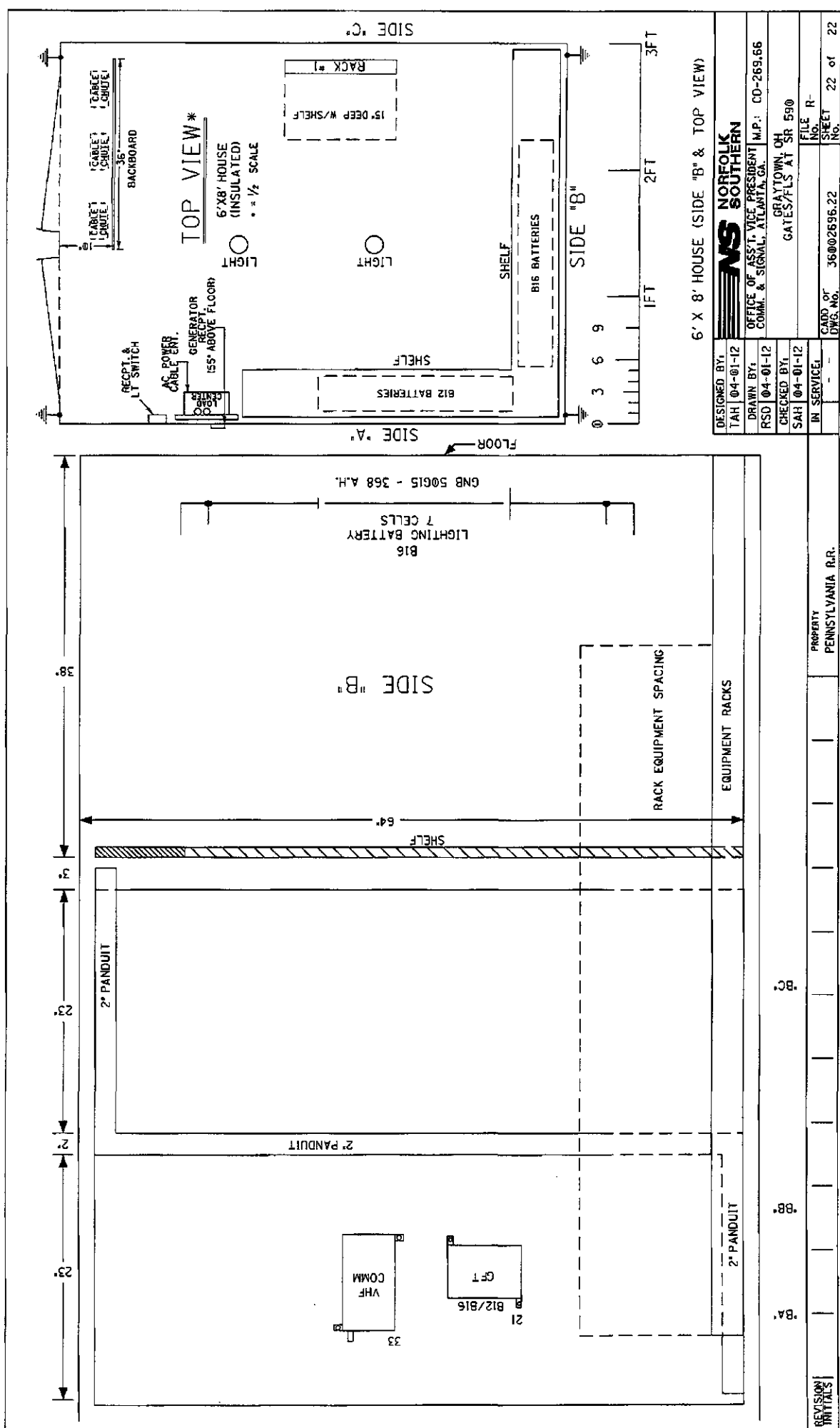


RACK PLACEMENT  
6' X 8' HOUSE - SIDE "C"

|              |              |                                                                                                                                                  |
|--------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| DESIGNED BY: | TAH 04-01-12 | <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.66<br>GRAYTOWN, OH<br>GATES/FLS AT SR 590 |
| DRAWN BY:    | RSD 04-01-12 |                                                                                                                                                  |
| CHECKED BY:  | SAH 04-01-12 |                                                                                                                                                  |
| IN SERVICE:  | - - -        |                                                                                                                                                  |
| FILE NO.     | 35002696.20  | FILE R-                                                                                                                                          |
| SHEET NO.    | 20           | SHEET 20 of 22                                                                                                                                   |

PROPERTY  
PENNSYLVANIA R.R.







04-May-12

**Detailed Estimate for Grade Crossing Warning Devices**

City/State: GRAYTOWN, OH

Road: SR 590 LIMESTONE

MilePost: CD-269.66

DOT/AAR: 509397Y

State Proj. No.:

County: OTTAWA

S&amp;E Proj. No.: 10.0792

File Number: 061-10.788

Man Days: 120

| <b>***Purchases - Others***</b>                                   |              |
|-------------------------------------------------------------------|--------------|
| Meals and Lodging:                                                | \$16,128.00  |
| Rental of Equipment:                                              | \$16,800.00  |
| (2 Trucks, 1 Backhoe w/ Trailer<br>and 1 Pipe-Pusher for 30 Days) |              |
| Construction Supervision Vehicle:                                 | \$3,002.09   |
| Purchases - Other Total:                                          | \$35,930.09  |
| <b>***Material And Additives***</b>                               |              |
| Material Cost:                                                    | \$109,263.00 |
| Sales and Use Tax:                                                | \$0.00       |
| Material Handling Freight:                                        | \$5,463.16   |
| Material Total:                                                   | \$114,726.16 |
| <b>***Labor And Additives***</b>                                  |              |
| Labor Cost:                                                       | \$33,600.00  |
| (4 man crew at \$1,120.00 a day for: 30 days)                     |              |
| Payroll Tax & Overheads:                                          | \$44,634.24  |
| Preliminary Engineering:                                          | \$12,571.97  |
| Construction Supervision:                                         | \$9,485.28   |
| Labor Total:                                                      | \$100,291.49 |
| Project Cost:                                                     | \$250,947.74 |
| Scrap / Salvage Credit:                                           | \$0.00       |
| Project Total:                                                    | \$250,948.00 |

Estimated on: 04-May-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:                                                                                                                                                                                                                  | GRAYTOWN         |
| Road:                                                                                                                                                                                                                  | SR 590 LIMESTONE |
| Mile Post:                                                                                                                                                                                                             | CD-269.66        |
| Drawing Number:                                                                                                                                                                                                        | 3600-2696        |
| State Project Number:                                                                                                                                                                                                  |                  |
| County:                                                                                                                                                                                                                | OTTAWA           |
| A A R Number:                                                                                                                                                                                                          | 509397Y          |
| Project Number:                                                                                                                                                                                                        | 10.0792          |
| File Number:                                                                                                                                                                                                           | 061-10.788       |
| New File Number:                                                                                                                                                                                                       | CX0115893        |
| A F E Number:                                                                                                                                                                                                          | F-00103          |
| Store Number:                                                                                                                                                                                                          |                  |
| Supervisor:                                                                                                                                                                                                            | J.T. WILLIAMS    |
| Tax Code:                                                                                                                                                                                                              | 3500             |
| Vendor to supply the following copies after pricing:<br>1 Set - Material Management with original Invoice<br>2 Sets - with plans shipped in car with material<br>1 Set - S&E Gen. Supt. Construction w/copy of Invoice |                  |

Location: GRAYTOWN

OH

S&amp;E Proj. No.: 10.0792

AFE No.: F-00103

Drawing No.: 3600-2696

Store No.:

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 Installed Date Quan. | Quantity Returned (Credit) | Special Instructions |
|------|---------------|----|----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------|-------------------------------|----------------------------|----------------------|
| 3    | 670-360893-4  | EA | \$5.55         | \$16.65     | 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 | \$277.10       | \$3,602.30  | BATTERY, GNB 368AH MODEL 50G15 SINGLE CELL 2.25 VOLTS, FOR USE WITH CROSSINGS DESIGNED AFTER 09/09                                                                                                                    |                  |                     |                               |                            |                      |
| 1    | 001-000011-4  | EA | \$5,000.00     | \$5,000.00  | BERM WALL                                                                                                                                                                                                             |                  |                     |                               |                            |                      |
| 2    | 670-080490-4  | EA | \$192.72       | \$385.44    | BOX, JUNCTION 8 TERMINALS, WITH PEDESTAL @093463-11 SAFETFRAN 091313-229X                                                                                                                                             |                  |                     |                               |                            |                      |
| 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                                                                                                                                                      |                  |                     |                               |                            |                      |
| 350  | 465-939422-4  | LF | \$3.11         | \$1,088.50  | CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL                                                                                                                                  |                  |                     |                               |                            |                      |
| 700  | 465-292862-4  | LF | \$1.49         | \$1,043.00  | CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR                                                                                                                                                |                  |                     |                               |                            |                      |
| 350  | 465-292929-4  | LF | \$4.55         | \$1,592.50  | CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL                                                                                                                                      |                  |                     |                               |                            |                      |
| 300  | 465-791835-4  | FT | \$3.84         | \$1,152.00  | CABLE, UG AC ENTRANCE 3C#6-7X OKONITE FMP-L 094-078 TR W/G 1 X 8 7X W010 BRZ TAPE 600V PRODUCT CODE 206-11-6070                                                                                                       |                  |                     |                               |                            |                      |
| 100  | 165-544477-4  | FT | \$2.61         | \$261.00    | CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4                                                                                                                          |                  |                     |                               |                            |                      |
| 4    | 670-664917-4  | EA | \$87.64        | \$350.56    | 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, SAFETFRAN 111359-2X |                  |                     |                               |                            |                      |

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CAR NUMBER

SEAL NUMBER

Friday, May 04, 2012 8:43 AM

Page: 2 of 5

Location: GRAYTOWN

OH

S&amp;E Proj. No.: 10.0792

AFE No.: F-00103

Drawing No.: 3600-2696

Store No.:

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 | Quantity Installed Date | Quantity Returned (Credit) | Special Instructions |
|------|---------------|----|----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|-------------------------|----------------------------|----------------------|
| 4    | 670-633520-4  | EA | \$77.63        | \$310.52    | 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                    |                  |               |                         |                            |                      |
| 2    | 670-783404-4  | EA | \$1,159.00     | \$2,318.00  | COUNTERWEIGHT PKAGE, 17-24 GATE STRAN S-MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS                                                                                                                                              |                  |               |                         |                            |                      |
| 2    | 670-372890-4  | EA | \$854.89       | \$1,709.78  | COUPLER, BIDIRECTIONAL SIMULATION STRAN # 82664-348                                                                                                                                                                                     |                  |               |                         |                            |                      |
| 4    | 670-760012-4  | EA | \$44.32        | \$177.28    | COVER, FOR 1 WAY FLASHING LIGHT ASSY, 18 OZ. BLACK VINYL COATED NYLON, TO COVER 2 LAMPS                                                                                                                                                 |                  |               |                         |                            |                      |
| 1    | 670-986650-4  | EA | \$352.82       | \$352.82    | DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER                                                                                                                                                                    |                  |               |                         |                            |                      |
| 1    | 670-000004-4  | EA | \$700.00       | \$700.00    | FCC LICENSE FOR MONITOR/RADIO                                                                                                                                                                                                           |                  |               |                         |                            |                      |
| 4    | 670-000003-4  | EA | \$255.85       | \$1,023.40  | FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST                                                                                                                                                                      |                  |               |                         |                            |                      |
| 2    | 670-015231-4  | EA | \$569.40       | \$1,138.80  | FOUNDATION, DIXIE, S-2 GATE 26'X26'X5'8" ASSEMBLED                                                                                                                                                                                      |                  |               |                         |                            |                      |
| 2    | 670-257031-4  | EA | \$422.36       | \$844.72    | GATE ARM, FIBERGLASS-ALUMINUM, 17-24 FT. INCLUDES GATE GUARD FOR GATE LIGHT CABLE, HIGH INTENSITY VERTICAL STRIPES, NEG P/N 8003-24NFS/CG, SSC T18115                                                                                   |                  |               |                         |                            |                      |
| 1    | 670-696894-4  | EA | \$34,574.48    | \$34,574.48 | GCP4000 - 2 TRK (2TC) - REDUNDANT - 40/40 AMP WIRED RACK EQUIP. FOR 6X8 X'ING SHELTER, (INCL. 2 TRK CHASSIS A80465, 4 TRK MODS, A80418, 2-SSCC A80405, 2 CPU A80403, 1 SEAR A80410, 1 DISPLAY A80407, 2-40 AMP CHARGERS) IPN: 003131-4X |                  |               |                         |                            |                      |
| 2    | 670-037296-4  | EA | \$45.20        | \$90.40     | INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-3200                                                                                                                                                                                           |                  |               |                         |                            |                      |
| 1    | 670-477991-4  | EA | \$410.00       | \$410.00    | KIT, GROUNDING ASSY FOR AL US INCLUDES 8 GRD RDS, 200#4WIRE, 12 4 WIRE ONE-SHOTS, ERICO SBK206                                                                                                                                          |                  |               |                         |                            |                      |
| 1    | 670-123298-4  | EA | \$344.59       | \$344.59    | KIT, HARDWARE SUPPLIES REQUIRED X'ING PKGAGES, WEB CONNECTORS FOR SHUNT(8EA) TAPE, AMPS, PGUM PAINT, SLEEVES, TAGS, GLUE, 100 EA WHITE TAGS, JNE CAN BLUE MARKING PAINT ETC...                                                          |                  |               |                         |                            |                      |
| 2    | 670-764166-4  | EA | \$1,240.19     | \$2,480.38  | LAMP ASSY, 5' MAST MTG. 2W IND. 20" BKGRD, FLX-12 W/BULB STRAN #042003-487XNS                                                                                                                                                           |                  |               |                         |                            |                      |

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Friday, May 04, 2012 8:43 AM

Page: 3 of 5



Location: GRAYTOWN

OH

S&amp;E Proj. No.: 10.0792

AFE No.: F-00103

Drawing No.: 3600-2696

Store No.:

P.O. Number:

Date Required:

Date Shipped:

Vendor: Railroad Signal Design

| Qty. | Class-Item-CD | UI | Price<br>per Item | Total Price | Item Description                                                                                                                                                                  | Quantity<br>Shipped | Quantity<br>Date<br>Quan. | Quantity<br>Installed<br>Date<br>Quan. | Quantity<br>Returned<br>(Credit) | Special<br>Instructions |
|------|---------------|----|-------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------|----------------------------------------|----------------------------------|-------------------------|
| 6    | 165-643547-4  | EA | \$5.92            | \$35.52     | LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY<br>SIGNAL UJ-71463 GE                                                                                                       |                     |                           |                                        |                                  |                         |
| 4    | 255-590880-4  | EA | \$17.52           | \$70.08     | LOCK, AMERICAN LOCK MODEL H-10KA KEYED ALIKE TO<br>PRIVATE KEYWAY D456 AND STAMPED "NS SIG"                                                                                       |                     |                           |                                        |                                  |                         |
| 2    | 670-637778-4  | EA | \$1,317.65        | \$2,635.30  | MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE.<br>STRAN P# 070519-11AX.                                                                                                      |                     |                           |                                        |                                  |                         |
| 2    | 670-850933-4  | EA | \$3,925.01        | \$7,850.02  | MECHANISM, GATE MODEL S-60, WITH DEFROSTER AND MINI<br>TRACKSIDE SENSOR STRAN # 0740007-X002B3                                                                                    |                     |                           |                                        |                                  |                         |
| 1    | 670-000001-4  | EA | \$726.23          | \$726.23    | MISC. EXPENSE, MATERIAL/FIL                                                                                                                                                       |                     |                           |                                        |                                  |                         |
| 1    | 000-000000-4  | EA | \$5,000.00        | \$5,000.00  | MISC. EXPENSE, UNDERGROUND BORING                                                                                                                                                 |                     |                           |                                        |                                  |                         |
| 6    | 670-014225-4  | EA | \$1,535.67        | \$9,214.02  | MODULE, PROCESSOR FOR 3000 GCP SAFETRAN #80214                                                                                                                                    |                     |                           |                                        |                                  |                         |
| 2    | 210-863404-4  | EA | \$4.38            | \$8.76      | NUT, RACO 408-1 SAFETRAN PART NO. 023408-1X INSULATED<br>CR 02-316121                                                                                                             |                     |                           |                                        |                                  |                         |
| 4    | 670-001347-4  | EA | \$57.10           | \$228.40    | PACKAGE, HARDWARE SIGN 5 IN. MOUNTING, SERRMI A1250-5,<br>HARMON @200965-000, OR                                                                                                  |                     |                           |                                        |                                  |                         |
| 1    | 255-646807-4  | EA | \$31.19           | \$31.19     | PADLOCK, SAFETRAN PART NO. 030399-29X SCREW TYPE FOR<br>CIR CONTROLLER AND BTY. BOX                                                                                               |                     |                           |                                        |                                  |                         |
| 1    | 670-514605-4  | EA | \$11.11           | \$11.11     | PINNACLE, W/C SECT 1-11, 4'x 5' REF K1 110-8 OR SAFETRAN<br>NO. @035045-503X                                                                                                      |                     |                           |                                        |                                  |                         |
| 1    | 165-902002-4  | EA | \$303.27          | \$303.27    | PROTECTOR, SURGE 120/240VAC, ERICO P/N EPD120/240TDFL                                                                                                                             |                     |                           |                                        |                                  |                         |
| 4    | 465-002899-4  | EA | \$40.24           | \$160.96    | REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES                                                                                                                               |                     |                           |                                        |                                  |                         |
| 2    | 435-805560-4  | EA | \$2.78            | \$5.56      | SAND, 25LB BAG FOR CABLE ENTRANCE INTO THE SHELTER                                                                                                                                |                     |                           |                                        |                                  |                         |
| 1    | 670-027556-4  | EA | \$2,629.77        | \$2,629.77  | SEARII, ACCESSORY PACKAGE, W/2-ILOD, 1-E-BELL, 2-GTS, 1-<br>GFT, 1-VHFC, WITHOUT MTS/SEAR UNIT                                                                                    |                     |                           |                                        |                                  |                         |
| 1    | 670-749325-4  | EA | \$226.97          | \$226.97    | SHELF, FOLDING, FOR LAPTOP USE IN FARADAY 6X8 SHELTER,<br>SAFETRAN 052852-128X                                                                                                    |                     |                           |                                        |                                  |                         |
| 1    | 670-755523-4  | EA | \$9,333.50        | \$9,333.50  | SHELTER, 6'X8' ALUMN FARADAY W/CABLE CHUTES BEHIND<br>TERMINAL BOARD, W/IEA EQUIPMENT RACK, W/GEN<br>RECEPTICAL, BREAKER BOX GFI OUTLET FOR LAPTOP SHELF<br>SAFETRAN 058400-68-85 |                     |                           |                                        |                                  |                         |
| 10   | 670-586967-4  | EA | \$42.98           | \$429.80    | SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271,<br>ORDER 1 PER SHUNT                                                                                                            |                     |                           |                                        |                                  |                         |

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CAR NUMBER

SEAL NUMBER

Location: GRAYTOWN

OH

S&amp;E Proj. No.: 10.0792

AFE No.: F-00103

Drawing No.: 3600-2696

Store No.:

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. | Installed Date Quan. | Returned Date (Credit) | Special Instructions |
|------|---------------|----|----------------|-------------|----------------------------------------------------------------------------------------|------------------|---------------------|----------------------|------------------------|----------------------|
| 6    | 670-652773-4  | EA | \$460.98       | \$2,765.88  | SHUNT, MULTI-FREQ. #62775-1543 SAFETRAN NARROW BAND                                    |                  |                     |                      |                        |                      |
| 4    | 670-645480-4  | EA | \$575.56       | \$2,302.24  | SHUNT, MULTI-FREQ. #62775-8621 SAFETRAN NARROW BAND                                    |                  |                     |                      |                        |                      |
| 2    | 670-393331-4  | EA | \$37.43        | \$74.86     | SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215                |                  |                     |                      |                        |                      |
| 2    | 670-554843-4  | EA | \$77.05        | \$154.10    | SIGN, 2 TRACK SIGN, HIGH INTENSITY, SAFETRAN #035207-2HX                               |                  |                     |                      |                        |                      |
| 2    | 670-016346-4  | EA | \$143.38       | \$286.76    | SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X |                  |                     |                      |                        |                      |
| 1    | 670-330382-4  | RL | \$18.06        | \$18.06     | TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"                    |                  |                     |                      |                        |                      |

Total Material: \$109,263.25

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CAR NUMBER

SEAL NUMBER

Friday, May 04, 2012 8:43 AM

Page: 5 of 5



# OHIO RAIL DEVELOPMENT COMMISSION

1980 WEST BROAD STREET • COLUMBUS, OH 43223

JOHN R. KASICH, GOVERNOR • JAMES G. BRADLEY, ORDC CHAIRMAN

June 8, 2012

Ms. Cayela J. Wimberly  
Public Projects Engineer  
1200 Peachtree Street, Box 123  
Atlanta, GA. 30309

RE: Ottawa County  
Main Street – Rocky Ridge  
DOT 509 395 K  
PID # 90717

Dear Ms. Wimberly:

The plan and estimate dated May 4, 2012, for the referenced project has been reviewed and is acceptable with the understanding that the Village of Rocky Ridge is not capable to construct the curbs in quadrant A & B as suggested in the plan. Please submit the additional cost for the construction of the curb as required. Norfolk Southern (NS) may proceed with the construction of the proposed grade crossing warning system in accordance with the abbreviated plan. This authorization is made with the stipulation and understanding that the 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. Reimbursement of eligible actual cost is limited to \$399,858.00. Additional costs must be approved in writing by the Ohio Rail Development Commission (ORDC) prior to being incurred. Emergency verbal authorizations by ORDC may be permitted and will be confirmed by ORDC in writing within ten (10) business days of the verbal approval.

This authorization is contingent upon NS accepting the following instructions:

1. NS's project foreman will furnish written notification five (5) working days prior to the date work will start at the project site to Tod Darfus, ORDC, [tod.darfus@dot.state.oh.us](mailto:tod.darfus@dot.state.oh.us) (email), and to the Public Utilities Commission of Ohio at [George.martin@puc.state.oh.us](mailto:George.martin@puc.state.oh.us). NS's project foreman will also notify the same of any stops and re-starts of the work activity and of the date work was completed for the project.
2. NS will arrange for utilities to be located at the project site by the Ohio Utilities Protection Service (OUPS) prior to any construction activities at the site. Utilities that are not participating members of the service must be contacted directly by NS.
3. NS's project foremen will notify Tod Darfus at 614-374-9298 (telephone) or [tod.darfus@dot.state.oh.us](mailto:tod.darfus@dot.state.oh.us) (email) of any changes in the scope of work, cost overruns, material changes, etc. which are not included in the approved plan and estimate and secure approval of same before the work is performed.

Page – 2

June 8, 2012 – Cayela J. Wimberly

4. NS will furnish two (2) copies of each partial bill to ORDC. Please find the enclosed Encumbrance Estimate to reference when billing.
5. NS will furnish two (2) copies of the final all-inclusive bill to ORDC stating the exact dates of starting and completing work, the initial and final dates of construction and location where the accounts may be audited.

Thank you for your assistance with these matters.

Sincerely,

Tod Darfus  
Project Manager

C: Leah Thomas-Dalton, Rail Division Chief, PUCO  
George Martin, PUCO, Grade Crossing Planner  
ORDC (file)



## Diagnostic Review Team Survey

Date: 11-15-11

| Location Data                                   |                             |                        |              |
|-------------------------------------------------|-----------------------------|------------------------|--------------|
| Street or Road Name: Main Street                |                             |                        |              |
| Route/Road Number<br>(i.e. Twp., Co., SR or US) |                             | AAR-DOT No.: 509 395 K |              |
| County: Ottawa                                  | Township:                   | City:<br>(In or Near)  | Rocky Bridge |
| Railroad Name: Norfolk Southern                 | Railroad Division: Dearborn | Branch/Line Name:      |              |
| Nearest RR<br>Timetable Station: Oak Harbor     |                             | RR Milepost: 269.14    |              |

### On-Site Review Team

(Include: Name - Organization - Phone Number - Email)

- Keith Wilson PUCO
- Sam Koro Mayer - 419-898-0141
- Tommy Williams Jr CTS Supervisor Norfolk Southern
- Tom Dantes ORDC 614-
- 
- 
- 
- 
- 

### Existing Traffic Control Devices

| Type of Warning Devices               | Installed?                              |                                        | Quantity/Comments    |
|---------------------------------------|-----------------------------------------|----------------------------------------|----------------------|
| Advance Warning Signs (condition?)    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 2 good               |
| 'Stop' Signs                          | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| 'Stop Ahead' Signs                    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Pavement Markings (condition?)        | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | talk to Ray          |
| Crossbucks                            | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            |                      |
| Number of Tracks Signs                | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | NO                   |
| Inventory Tags                        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 2                    |
| Interconnected Highway Traffic Signal | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 2 SCS                |
| Mast-Mounted Flashing Lights          | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                      |
| Cantilever Flashing Lights            | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Number: Length:      |
| Side Lights                           | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Automatic Gates                       | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | Number: 2 Length: 16 |
| Bells                                 | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | Number:              |
| Sidewalk Gate Arms                    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| 'No Turn' Signs                       | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Illumination                          | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                      |
| Is crossing flagged by train crew?    | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |
| Other                                 | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                      |

| Safety Data (Obtain crash reports, if possible, prior to review)                                                                                                     |                                                                     |                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
|                                                                                                                                                                      | Initial Information (from database)                                 | Revised                                                             |
| Number & dates of crashes in previous 5 years                                                                                                                        | 0                                                                   | 0                                                                   |
| Hazard Ranking                                                                                                                                                       | Date Run:                                                           |                                                                     |
| Railroad Data                                                                                                                                                        |                                                                     |                                                                     |
| Railroad Characteristics                                                                                                                                             | Initial Information (from database)                                 | Revised                                                             |
| Total trains per day                                                                                                                                                 | 46                                                                  | 75 - 80                                                             |
| < 1 per day                                                                                                                                                          |                                                                     |                                                                     |
| Day thru trains                                                                                                                                                      |                                                                     | 60-40 wife                                                          |
| Night thru trains                                                                                                                                                    |                                                                     |                                                                     |
| Daytime switching movements                                                                                                                                          |                                                                     | 0                                                                   |
| Nighttime switching movements                                                                                                                                        |                                                                     | 0                                                                   |
| Total number of tracks                                                                                                                                               |                                                                     | 2                                                                   |
| Number of main tracks                                                                                                                                                |                                                                     | 2                                                                   |
| Number of other tracks                                                                                                                                               |                                                                     | 0                                                                   |
| Maximum train speed                                                                                                                                                  |                                                                     | 79                                                                  |
| Typical train speed                                                                                                                                                  |                                                                     | 80                                                                  |
| Amtrak                                                                                                                                                               |                                                                     | yes                                                                 |
| If non-gated crossing, is clearing sight distance adequate in all quadrants? (See Table 1) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No       |                                                                     |                                                                     |
| If multiple tracks, can two trains occupy crossing at the same time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                             |                                                                     |                                                                     |
| Can one train block the motorists' view of another train at crossing? <input checked="" type="checkbox"/> Yes (Explain below) <input type="checkbox"/> No            |                                                                     |                                                                     |
| Can one or more tracks be eliminated through the crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                       |                                                                     |                                                                     |
| Are there other track(s) crossing this same roadway within 100 ft of this crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: Village of Rocky Ridge                                                                                                                      |                                                                     |                                                                     |
| Roadway Characteristics                                                                                                                                              | Initial Information (from database)                                 | Revised                                                             |
| Average daily traffic                                                                                                                                                | 347 (2007)                                                          | 347                                                                 |
| Highway paved                                                                                                                                                        | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Roadway Surface: <input checked="" type="checkbox"/> Blacktop <input type="checkbox"/> Gravel <input type="checkbox"/> Concrete <input type="checkbox"/> Other _____ |                                                                     |                                                                     |
| Roadway width: 20 ft.                                                                                                                                                |                                                                     |                                                                     |
| Number of highway lanes                                                                                                                                              | 2                                                                   | 2                                                                   |
| Urban or Rural                                                                                                                                                       |                                                                     | Rural Local                                                         |
| Vehicle Speed: 35 MPH                                                                                                                                                |                                                                     |                                                                     |
| School Bus Operation: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Amount 3-5 Benton Carrol                                                   |                                                                     |                                                                     |
| Hazardous Materials Trucks: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes 1 Amount                                                             |                                                                     |                                                                     |
| Shoulders: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                       |                                                                     |                                                                     |
| Is the shoulder surfaced? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                        |                                                                     |                                                                     |
| Is there existing guardrail along roadway in crossing vicinity? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                  |                                                                     |                                                                     |
| Is stopping sight distance adequate? (See Table 2) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, deficient approach(es) _____           |                                                                     |                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quadrant _____ Curb and Gutter:<br><input type="checkbox"/> Functional (Curb height = 4" or more)<br><input type="checkbox"/> Non-functional (Curb height = Less than 4")<br><input checked="" type="checkbox"/> None                                                                                                                                                              | Quadrant _____ Curb and Gutter:<br><input type="checkbox"/> Functional (Curb height = 4" or more)<br><input type="checkbox"/> Non-functional (Curb height = Less than 4")<br><input checked="" type="checkbox"/> None |
| Pedestrians: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |
| Is sidewalk present? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                       |
| Is there a nearby intersection that could cause queuing over the crossing? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>If yes,<br>Distance _____                                                                                                                                                                                                        |                                                                                                                                                                                                                       |
| Is this intersection signalized? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                       |
| Are the signals currently interconnected with the existing crossing warning devices? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                           |                                                                                                                                                                                                                       |
| Is there a 'Do not Stop on Track' sign? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                       |
| Is a roadway improvement project (e.g. widening, turn lanes, nearby new or upgraded traffic signal, sidewalk) planned at or near this location in the foreseeable future? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes<br>If yes,<br>Improvement type _____ Lead Agency <u>PR</u> Timeline/completion <u>next year</u><br><u>yes - adjacent Kania Drive</u> |                                                                                                                                                                                                                       |
| Is it the consensus of the Diagnostic Review Team that this is a potential closure project? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes<br>Explain reasons:                                                                                                                                                                                                |                                                                                                                                                                                                                       |
| Type of Development                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                       |
| <input type="checkbox"/> Open Space<br><input type="checkbox"/> Industrial<br><input checked="" type="checkbox"/> Residential                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Institutional<br><input type="checkbox"/> Commercial<br>Location of nearby schools: <u>Rocky Ridge</u><br><u>Graytown</u><br><u>Oak Harbor -</u>                                  |
| Utility Information                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                       |
| Is commercial power available? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                       |
| Utility Provider (Company Name) <u>Toledo Edison</u> Phone Number _____                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                       |
| Nearest Available Power Source <u>@ crossing</u>                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |
| What other utilities are present? <u>Alta telecom - Quest NS Data</u><br>(add locations to sketch)                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                       |
| Is(are) there potential utility conflict(s) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |
| Comments:<br><div style="font-size: 1.2em; margin-top: 10px;"> <u>New equipment will go into same placement</u> </div>                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                       |

## Potential Red Flags / Project Challenges

Traffic Signal Preemption (include traffic signal intersection name and LHA with jurisdiction over traffic signal, if known):

NO

Crossing Consolidation or Closure:

West St part of agreement

Real Estate or ROW:

NS

Coyala

Rocky Ridge 30 from E ?

Culverts / Drainage / Ballast Conditions:

NO

Roadway and/or Sidewalks:

Complete sidewalk on SW Quad

Circuitry (e.g. reaches out to other crossings, specific needs, etc.):

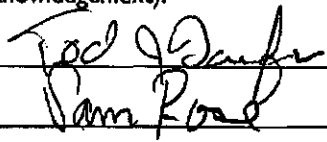
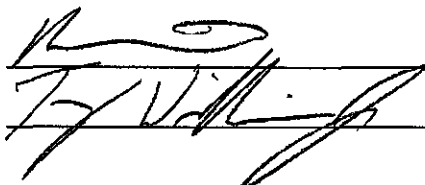
Overlapping in 590

Environmental:

on closure

Other:



| Diagnostic Team Recommendations                                                                                                                                                                                                                                                                             |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                                                                                                                                                                                                                                                                                                             | Quadrants Needed |
| <input checked="" type="checkbox"/> Install/upgrade active devices                                                                                                                                                                                                                                          |                  |
| <input type="checkbox"/> Automatic Flashing Lights (AFLS)                                                                                                                                                                                                                                                   |                  |
| <input type="checkbox"/> AFLS / Cants                                                                                                                                                                                                                                                                       |                  |
| <input checked="" type="checkbox"/> AFLS / Gates                                                                                                                                                                                                                                                            |                  |
| <input type="checkbox"/> AFLS / Gates / Cants                                                                                                                                                                                                                                                               |                  |
| <input checked="" type="checkbox"/> Bells / number                                                                                                                                                                                                                                                          | 2                |
| <input type="checkbox"/> Upgrade circuitry / type                                                                                                                                                                                                                                                           |                  |
| <input type="checkbox"/> Sidelights                                                                                                                                                                                                                                                                         |                  |
| <input type="checkbox"/> Guardrail Needed                                                                                                                                                                                                                                                                   |                  |
| <input checked="" type="checkbox"/> Install/Replace curb                                                                                                                                                                                                                                                    |                  |
| <input type="checkbox"/> Bungalow placement & offset from rail & highway                                                                                                                                                                                                                                    |                  |
| <input type="checkbox"/> Other (define)                                                                                                                                                                                                                                                                     |                  |
| Comments:<br>SE Quad - curb<br>Bungalow in same Quad as existing<br>NW Quad curb to set foundation 4'3<br>Current After                                                                                                                                                                                     |                  |
| <input type="checkbox"/> Install/upgrade traffic signal preemption                                                                                                                                                                                                                                          |                  |
| <input type="checkbox"/> No improvements needed                                                                                                                                                                                                                                                             |                  |
| <input type="checkbox"/> Other (define)                                                                                                                                                                                                                                                                     |                  |
| Acknowledgement of Recommendations (each entity represented at the diagnostic must have at least one signature acknowledgement):<br>  |                  |

# Field Dimensions

The diagram illustrates a street cross-section with a central vertical line and a ladder-like scale. Horizontal lines represent the boundaries of different street areas. On the left side, the areas are labeled from top to bottom: Sidewalk, Parkway, Roadway, and another Roadway. On the right side, the areas are labeled from top to bottom: Roadway, Parkway, and Sidewalk. Dashed vertical lines with arrows indicate measurement points between these boundaries. A box in the top right corner is labeled 'Show North Direction'.

Crossing Angle ☐ 0-29° ☐ 30-59° ☐ 60-90° Measured in \_\_\_\_\_ Quadrant?

Measurements by: \_\_\_\_\_

## Field Sketch

Include utilities as marked by OUPS and LHA; include ROW boundaries as indicated by railroad and LHA.

SEE Earth Photo's

Crossing Angle ☐ 0-29° ☐ 30-59° ☐ 60-90° Measured in \_\_\_\_\_ Quadrant?

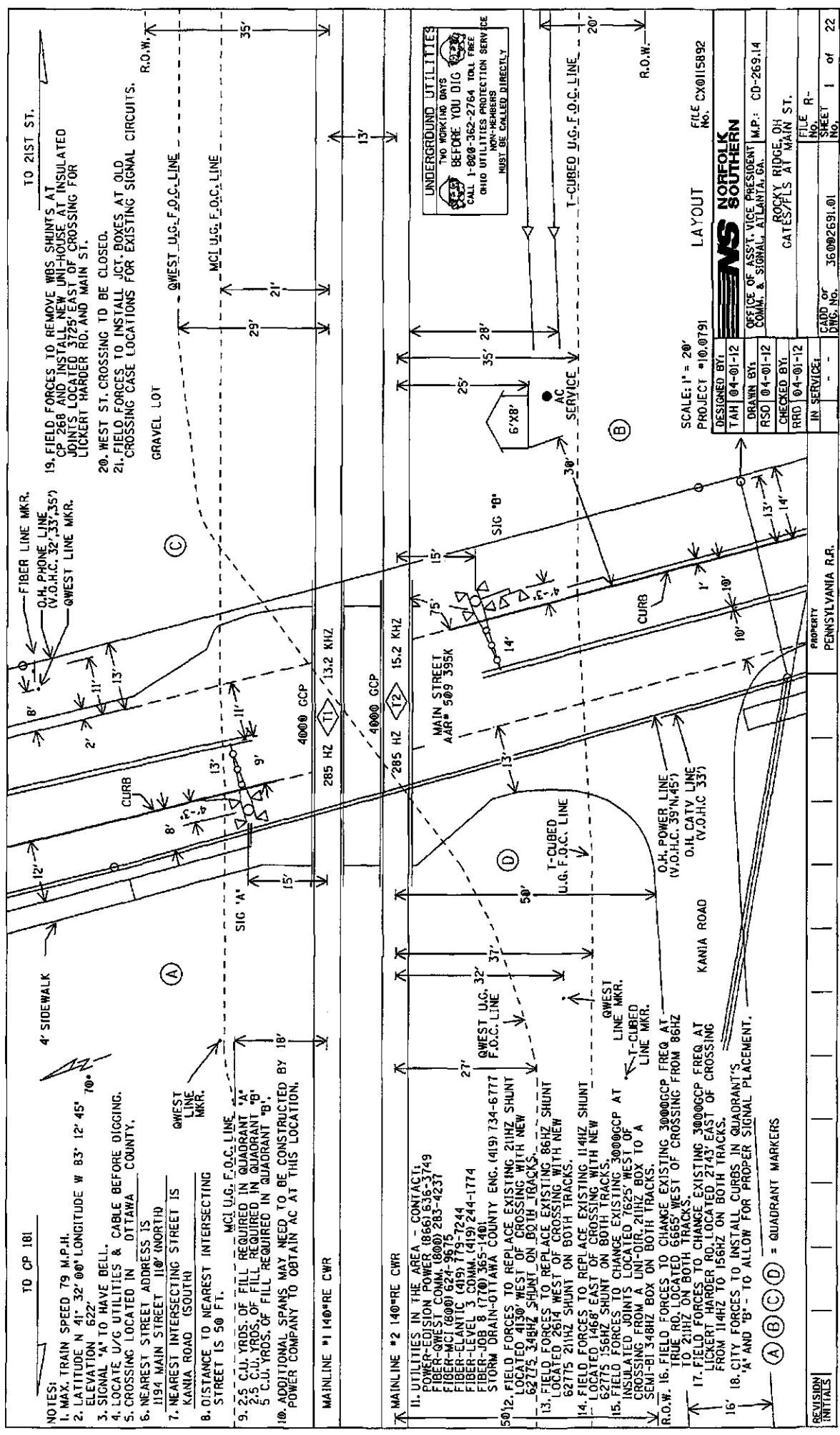
Sketch by: \_\_\_\_\_

| SH. NO. | CONTENTS                                 |
|---------|------------------------------------------|
| NXI     | INDEX SHEET                              |
| 1       | LAYOUT                                   |
| 2       | PROFILE                                  |
| 3       | CABLE PLAN                               |
| 4       | LOAD CENTER                              |
| 5       | RECTIFIER & BATTERY                      |
| 6       | 4000 GCP 2-TK CHASSIS & MODULE LAYOUT    |
| 7       | 4000 GCP PROGRAMMING SETUP               |
| 8       | 4000 GCP PROGRAMMING SETUP               |
| 9       | CONNECTORS FOR TRACK MODULES             |
| 10      | CPU MODULE, SEAR III, GFT & VHF HOOK-UPS |
| 11      | SEAR III PROGRAMMING SETUP               |
| 12      | SSCC*1 MODULE, ILOD*1 HOOK-UP            |
| 13      | SSCC*2 MODULE, ILOD*2 HOOK-UP            |
| 14      | FLASHER AND GATE LIGHTS - A              |
| 15      | FLASHER AND GATE LIGHTS - B              |
| 16      | BACKBOARD 1A & 1B                        |
| 17      | REAR BACKBOARD 1A & 1B                   |
| 18      | FARADAY SHIELD 1A & 1B                   |
| 19      | FARADAY SHIELD 1C                        |
| 20      | HOUSE SIDE C LAYOUT                      |
| 21      | HOUSE SIDE A LAYOUT                      |
| 22      | HOUSE SIDE B & TOP VIEW LAYOUT           |

|                                                              |        |      |
|--------------------------------------------------------------|--------|------|
| IN SERVICE                                                   | SIGNED | DATE |
| <input type="checkbox"/> S&E ENGINEERING COPY                |        |      |
| <input type="checkbox"/> CONSTRUCTION OFFICE COPY            |        |      |
| <input type="checkbox"/> RETURN TO S&E ENG. AFTER COMPLETION |        |      |
| <input type="checkbox"/> FIELD COPY                          |        |      |
| <input type="checkbox"/> RETURN TO CASE AFTER COMPLETION     |        |      |
| <input type="checkbox"/> PROJECT ENGINEER COPY               |        |      |

# INDEX SHEET 1

|                                |                                                                                                                                                                               |                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| DESIGNED BY:<br>TAH 04-01-12   |  <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. | MP: CD-269.14                           |
| DRAWN BY:<br>RSD 04-01-12      |                                                                                                                                                                               |                                         |
| CHECKED BY:<br>RRD 04-01-12    |                                                                                                                                                                               | ROCKY RIDGE OH<br>GATES/PLS AT MAIN ST. |
| IN SERVICE:                    |                                                                                                                                                                               | FILE R-<br>No. 1 of 1                   |
| CAD or<br>DRG. NO. 3600269.LNX |                                                                                                                                                                               |                                         |
| REVISION<br>INITIALS           |                                                                                                                                                                               | PROPERTY<br>PENNSYLVANIA R.R.           |



TO CP 181

TO 21ST ST.

NOTES:  
1. MAX. TRAIN SPEED 79 M.P.H.  
2. LATITUDE N 41° 32' 00" LONGITUDE W 83° 12' 45" ELEVATION 622'  
3. SIGNAL 'A' TO HAVE BELL.  
4. LOCATE U/G UTILITIES & CABLE BEFORE DIGGING.  
5. CROSSING LOCATED IN OTTAWA COUNTY.  
6. NEAREST STREET ADDRESS IS 1194 MAIN STREET 110' INORTHD  
7. NEAREST INTERSECTING STREET IS KANIA ROAD (SOUTH)  
8. DISTANCE TO NEAREST INTERSECTING STREET IS 50 FT.  
9. 2.5 C.U. YRDS. OF FILL REQUIRED IN QUADRANT 'A'.  
2.5 C.U. YRDS. OF FILL REQUIRED IN QUADRANT 'B'.  
5 C.U. YRDS. OF FILL REQUIRED IN QUADRANT 'C'.  
10. ADDITIONAL SPANS MAY NEED TO BE CONSTRUCTED BY 18' POWER COMPANY TO OBTAIN AC AT THIS LOCATION.

19. FIELD FORCES TO REMOVE WBS SHUNTS AT CP 268 AND INSTALL NEW UNI-HOUSE AT INSULATED JOINTS LOCATED 3725' EAST OF CROSSING FOR LICKERT HARDER RD. AND MAIN ST.  
20. WEST ST. CROSSING TO BE CLOSED.  
21. FIELD FORCES TO INSTALL JCT. BOXES AT OLD CROSSING CASE LOCATIONS FOR EXISTING SIGNAL CIRCUITS.

TO 21ST ST.

UNDERGROUND UTILITIES  
TWO WORKING DAYS  
BEFORE YOU DIG  
CALL 1-800-362-2764 TOLL FREE  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

SCALE: 1" = 20'  
PROJECT #10.0791  
DESIGNED BY: TAHI 04-01-12  
DRAWN BY: RSD 04-01-12  
CHECKED BY: RRD 04-01-12  
IN SERVICE: - - -

FILE NO. CX0115892  
FILE NO. 10.0791  
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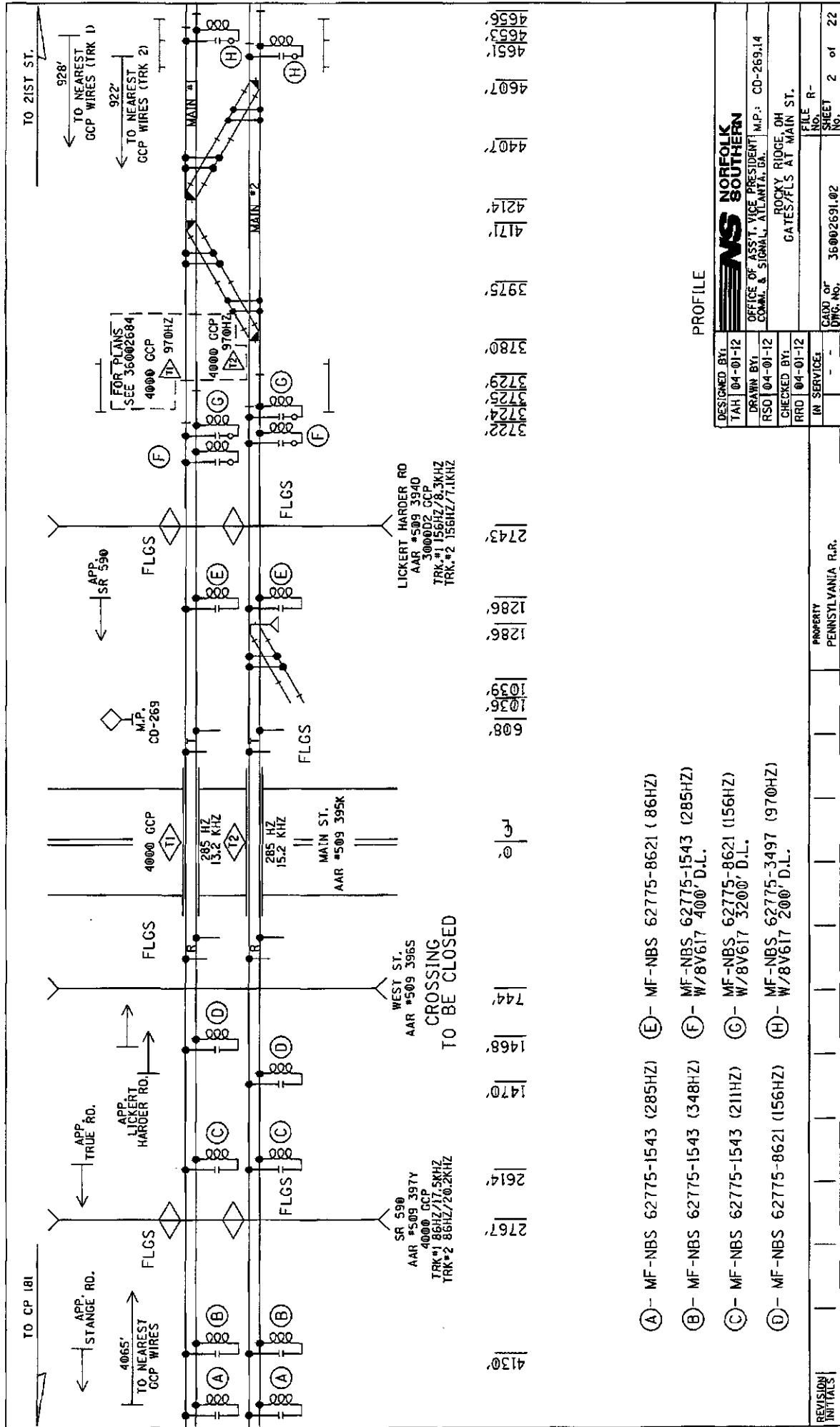
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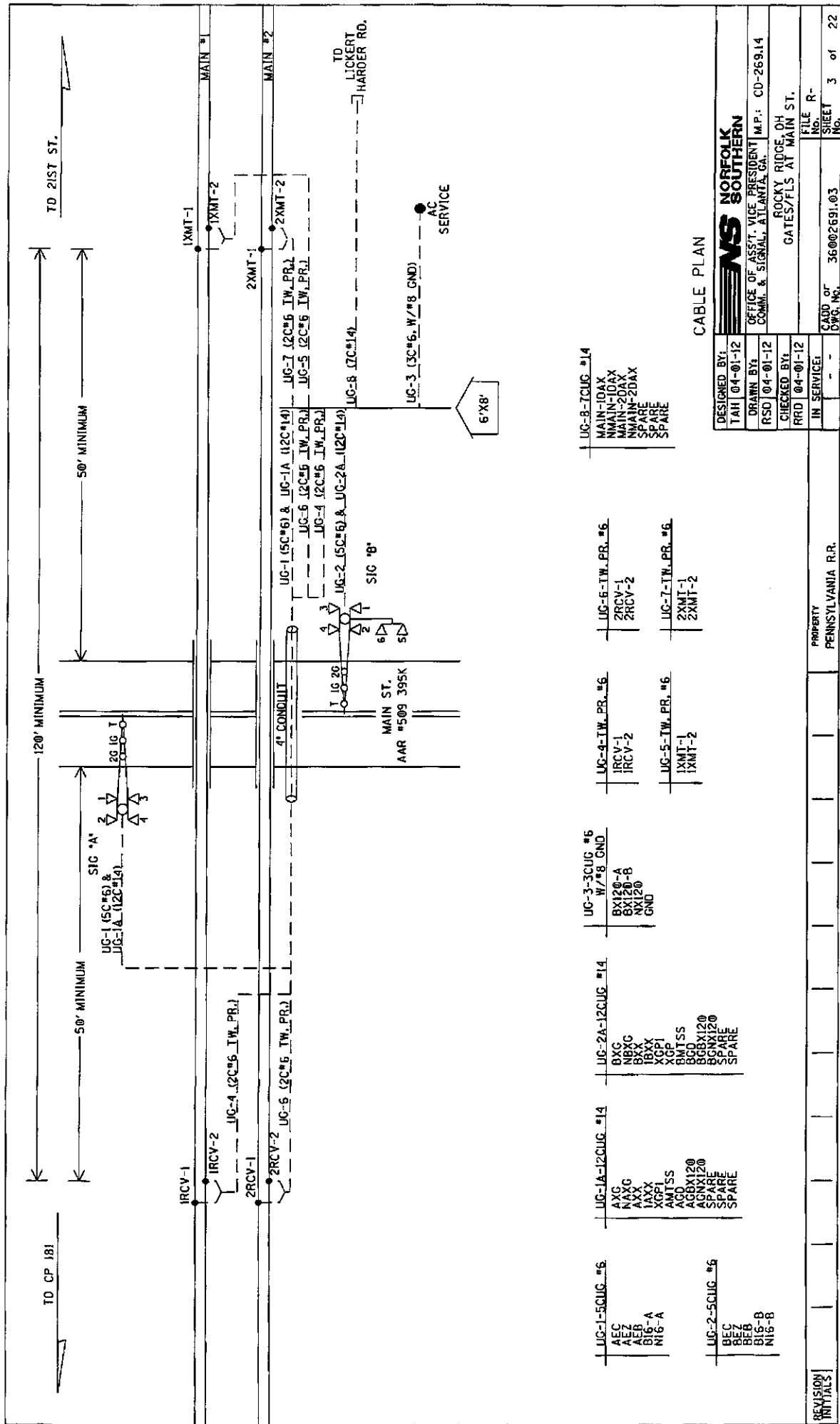


- (A) MF-NBS 62775-1543 (285HZ)
- (B) MF-NBS 62775-1543 (348HZ)
- (C) MF-NBS 62775-1543 (211HZ)
- (D) MF-NBS 62775-8621 (156HZ)
- (E) MF-NBS 62775-8621 (86HZ)
- (F) MF-NBS 62775-1543 (285HZ)
- (G) MF-NBS 62775-8621 (156HZ)
- (H) MF-NBS 62775-3497 (970HZ)

PROFILE

|              |               |
|--------------|---------------|
| DESIGNED BY: | TAH 04-01-12  |
| DRAWN BY:    | RSO 04-01-12  |
| CHECKED BY:  | FRD 04-01-12  |
| IN SERVICE:  | -             |
| FILE NO.     | R-36002691.02 |
| SHEET        | 2 of 22       |

|          |                   |
|----------|-------------------|
| PROPERTY | PENNSYLVANIA R.R. |
| REVISION | INITIALS          |

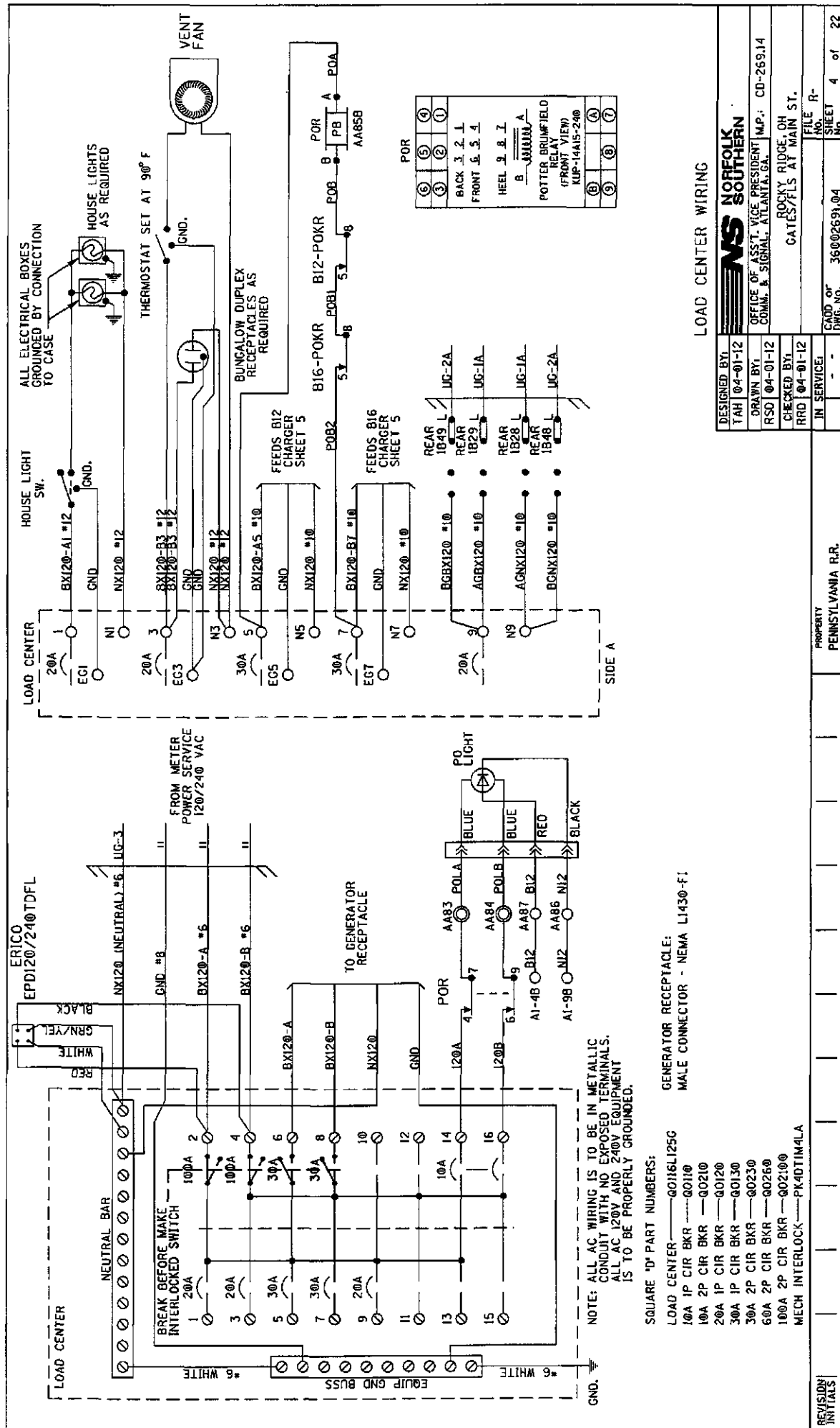


CABLE PLAN

|                   |              |
|-------------------|--------------|
| DESIGNED BY:      | TAH 04-01-12 |
| DRAWN BY:         | DRANN BY     |
| CHECKED BY:       | RSD 04-01-12 |
| IN SERVICE:       | FILE R-      |
| CAND. OF DWA. NO. | 36002691.03  |
| SHEET             | 3 of 22      |

|                                     |                              |                                    |                  |                  |                  |                  |                                                       |
|-------------------------------------|------------------------------|------------------------------------|------------------|------------------|------------------|------------------|-------------------------------------------------------|
| UC-1-5CUG *6                        | UC-2-5CUG *6                 | UC-3-3CUG *6                       | UC-4-TW, PR, *6  | UC-5-TW, PR, *6  | UC-6-TW, PR, *6  | UC-7-TW, PR, *6  | UC-8-12CUG *14                                        |
| AEC<br>AEZ<br>AEB<br>B16-A<br>N16-A | BEC<br>BEZ<br>B16-B<br>N16-B | BX120-A<br>BX120-B<br>NX120<br>GND | 1RCV-1<br>1RCV-2 | 1XMT-1<br>1XMT-2 | 2RCV-1<br>2RCV-2 | 2XMT-1<br>2XMT-2 | MAIN-10AX<br>MAIN-10AX<br>MAIN-20AX<br>SPARE<br>SPARE |

PROPERTY  
PENNSYLVANIA R.R.



# LOAD CENTER WIRING

|              |              |
|--------------|--------------|
| DESIGNED BY: | TAH 04-01-12 |
| DRAWN BY:    | RSD 04-01-12 |
| CHECKED BY:  | RRD 04-01-12 |
| IN SERVICE:  | - -          |
| FILE NO.:    | 36002691.04  |
| SHEET NO.:   | 4 of 22      |

OFFICE OF ASST. VICE PRESIDENT  
COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.14

ROCKY RIDGE, OH  
GATES/FLS AT MAIN ST.

PROPERTY: PENNSYLVANIA R.R.

REVISION/INITIALS

NOTE: ALL AC WIRING IS TO BE IN METALLIC CONDUIT WITH NO EXPOSED TERMINALS. ALL AC 120V AND 240V EQUIPMENT IS TO BE PROPERLY GROUNDED.

SQUARE "D" PART NUMBERS:

LOAD CENTER: Q0116L125G

100A 1P CIR BKR: Q0110

100A 2P CIR BKR: Q0210

200A 1P CIR BKR: Q0120

300A 1P CIR BKR: Q0130

300A 2P CIR BKR: Q0230

600A 2P CIR BKR: Q0260

100A 2P CIR BKR: Q02100

MECH INTERLOCK: PK4DTM4LA

GENERATOR RECEPTACLE:

MALE CONNECTOR - NEMA L1430-F1





**WARNING**  
REMOVAL OF THE SSCCIII MODULE  
WILL CAUSE THE GATES TO  
DROP BUT THE LIGHTS WILL  
NOT ACTIVATE

**CAUTION**  
ASSURE CORRECT POLARITY  
OF THE SSCCIII 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 LCO HTR (DEFAULT)  
HI CURRENT  
NO JUMPER (HEATER DISABLED)

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

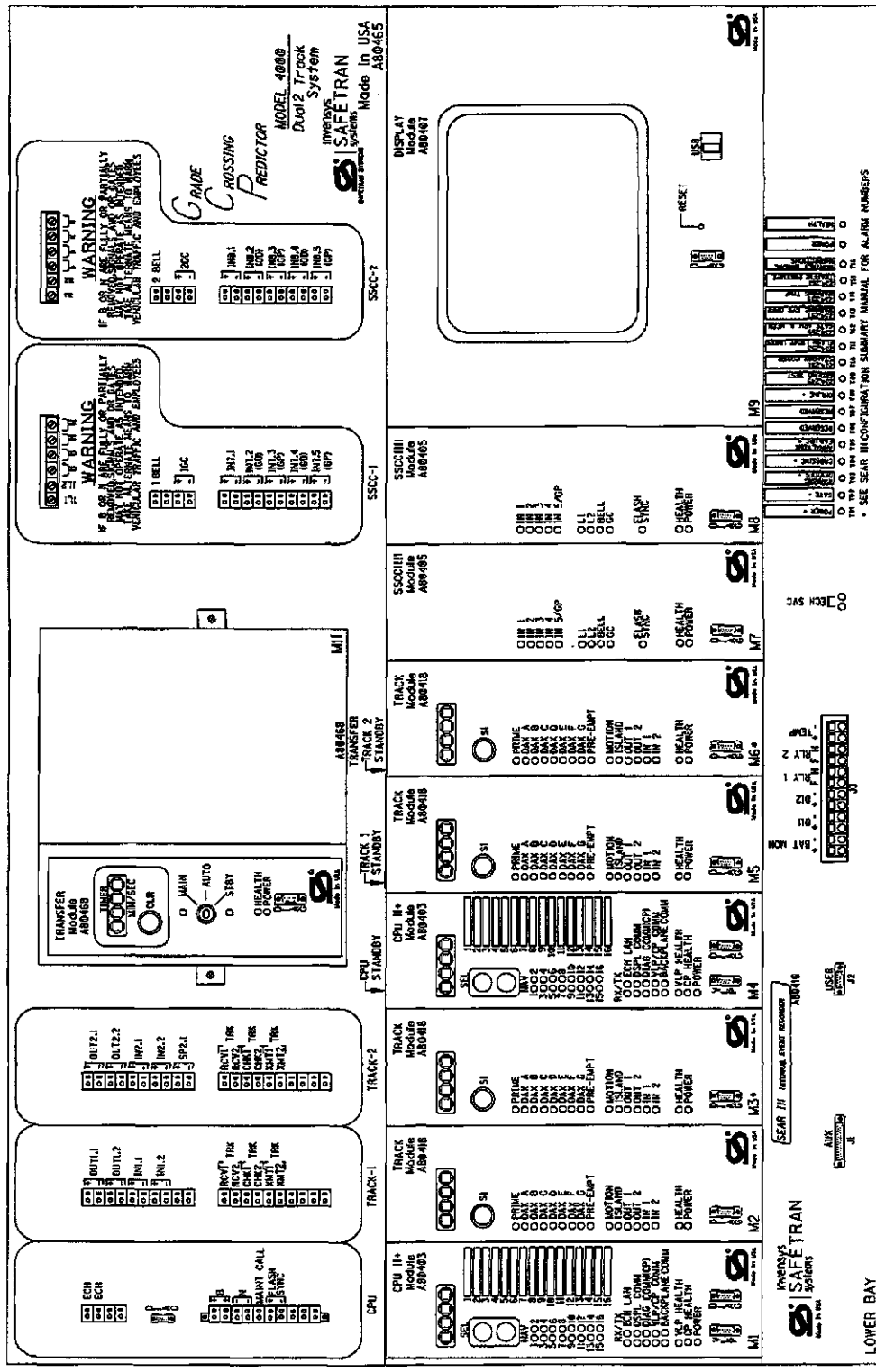
PANEL "A2" 4000 GCP REDUNDANT  
2-TK CHASSIS AND MODULE LAYOUT

**NS NORFOLK SOUTHERN**

OFFICE OF ASST. VICE PRESIDENT  
COMM. & SIGNAL, ATLANTA, GA. M.P.: CD-269.14

ROCKY RIDGE, OH  
GATES/FLS AT MAIN ST.

FILE R-  
NO. 36002691.06  
SHEET 6 of 22  
CAND. OF  
DWB. NO.



|              |                   |
|--------------|-------------------|
| DESIGNED BY: | TAH 04-01-12      |
| DRAWN BY:    | RSO 04-01-12      |
| CHECKED BY:  | RRO 04-01-12      |
| IN SERVICE:  | - -               |
| PROPERTY:    | PENNSYLVANIA R.R. |
| REVISION:    |                   |
| INITIALS:    |                   |
| DATE:        |                   |

# Program Report

Location and SIN

DOT Number: 509395K

Filepost Number: CD-269.14

Site Name: MAIN ST

SIN 755018604116

MCF and Template Selection

MCF Name: GCP-T6X-02-1.mcf

MCF Revision: 021

MCF CRC: 6076E435

Template = 1A:6 Trk B1

Check Numbers

Office Check No. (DT 4,6,0): 3C158348

Office Check Number: 3C158348

Config. Check Number: 20681CEC

(Based on MCF Revision 021)

## Program

BASIC: module configuration

Track 1 Slot = 1 Slot Trk

Track 2 Slot = 1 Slot Trk

Track 3 Slot = Not Used

Track 4 Slot = Not Used

Track 5/8/10 2 Slot = Not Used

SSCC-1 Slot = SSCC31

SSCC-2 Slot = SSCC31

SEAR Used = Yes

BASIC: MS/GCP operation

Track 1: MS/GCP operation = Yes

Track 2: MS/GCP operation = Yes

BASIC: Island operation

Track 1: Island Used = Internal

Track 2: Island Used = Internal

BASIC: preemption

Preempt Log = No

BASIC: radio Dax links

Radio Dax link A Used = No

Radio Dax link B Used = No

BASIC: Vhal Comms links

Vhal Comms link Used = No

Vhal Comms link 2 Used = No

PREDICTORS: track 1

Track 1: Prime Used = Yes

Track 2: Dax A Used = No

Track 3: Dax B Used = No

Track 4: Dax C Used = No

Track 5: Dax D Used = No

Track 6: Dax E Used = No

Track 7: Dax F Used = No

Track 8: Dax G Used = No

## PREDICTORS: track 2

Track 2: Prime Used = Yes

Track 3: Dax A Used = No

Track 4: Dax B Used = No

Track 5: Dax C Used = No

Track 6: Dax D Used = No

Track 7: Dax E Used = No

Track 8: Dax F Used = No

GCP: track 1

Track 1: GCP Frequency = Standard

Track 2: GCP Frequency = 285 Hz

Track 3: Approach Distance = 4065 ft

Track 4: Uni/81/Sim-Bldlrm = Bldlrm

Track 5: GCP Transmitt Level = High

Track 6: Island Connection = Isl

Track 7: Island Distance = 149 ft

Track 8: Computed Distance = 9999 ft

Track 9: Linearization Steps = 100

GCP: track 1 enhanced det

Track 1: Inbound PS Sensitivity = Off

Track 2: Speed Limiting Used = Yes

Track 3: Outbound False Act Lvl = Normal

Track 4: Outbound PS Timer = 20 sec

Track 5: Trailing Switch Logic = Off

Track 6: Post Joint Detn Time = 15 sec

Track 7: Adv Appr Predn = No

Track 8: Cancel Pickup Delay = This Isl

GCP: track 1 prime

Track 1: Prime Warning Time = 30 sec

Track 2: Prime Offset Distance = 0 ft

Track 3: Switch MS EZ Level = 10

Track 4: Prime MS/GCP Mode = Pred

Track 5: Prime Pickup Delay = 15 sec

Track 6: Prime UAX = IP

Track 7: Prime UAX Pickup = 5 sec

GCP: track 1 pos start

Track 1: Positive Start = Off

Track 2: Sudden Shnt Det Used = No

Track 3: Low EZ Detection Used = No

GCP: track 1 MS Control

Track 1: MS/GCP CtrlIP Used = No

Track 2: MS Sensitivity Level = 0

Track 3: Compensation Level = 1300

Track 4: Warm Time-Ballast Comp = High

Track 5: Low EX Adjustment = 39

Track 6: Bldlrm Dax Passthru = No

Track 7: False Act on Train Stop = No

Track 8: EX Limiting Used = Yes

Track 9: EZ Correction Used = Yes

GCP: track 2

Track 2: Freq Category = Standard

Track 3: GCP Frequency = 285 Hz

Track 4: Approach Distance = 4065 ft

Track 5: Uni/81/Sim-Bldlrm = Bldlrm

Track 6: GCP Transmitt Level = High

Track 7: Island Connection = Isl

Track 8: Island Distance = 149 ft

Track 9: Computed Distance = 9999 ft

Track 10: Linearization Steps = 100

GCP: track 2 enhanced det

Track 2: Inbound PS Sensitivity = Off

Track 3: Speed Limiting Used = Yes

Track 4: Outbound False Act Lvl = Normal

Track 5: Outbound PS Timer = 20 sec

Track 6: Trailing Switch Logic = On

Track 7: Post Joint Detn Time = 15 sec

Track 8: Adv Appr Predn = No

Track 9: Cancel Pickup Delay = This Isl

GCP: track 2 prime

Track 2: Prime Warning Time = 30 sec

Track 3: Prime Offset Distance = 0 ft

Track 4: Switch MS EZ Level = 10

Track 5: Prime MS/GCP Mode = Pred

Track 6: Prime Pickup Delay = 15 sec

Track 7: Prime UAX = IP

Track 8: Prime UAX Pickup = 5 sec

GCP: track 2 pos start

Track 2: Positive Start = Off

Track 3: Sudden Shnt Det Used = No

Track 4: Low EZ Detection Used = No

GCP: track 2 MS Control

Track 2: MS/GCP CtrlIP Used = No

Track 3: MS Sensitivity Level = 0

Track 4: Compensation Level = 1300

Track 5: Warm Time-Ballast Comp = High

Track 6: Low EX Adjustment = 39

Track 7: Bldlrm Dax Passthru = No

Track 8: False Act on Train Stop = No

Track 9: EX Limiting Used = Yes

Track 10: EZ Correction Used = Yes

ISLAND: track 1

Track 1: Isl Frequency = 13.2 kHz

Track 2: Pickup Delay (2s +) = 0 sec

Track 3: Isl Enable IP Used = No

ISLAND: track 2

Track 2: Isl Frequency = 15.2 kHz

Track 3: Pickup Delay (2s +) = 0 sec

Track 4: Isl 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 1 XR

AND 1: XR Track 1 = Prime

AND 2: XR Track 2 = Prime

AND 3: Enable Pickup = Yes

AND 4: Enable Pickup = 5 sec

AND 5: Enable Drop = 0 sec

AND 6: W-rap Used = No

ADVANCED: MS restart

MS/GCP Restart Used = No

## 4000 GCP PROGRAMMING SETUP

|                                                                                     |              |
|-------------------------------------------------------------------------------------|--------------|
| DESIGNED BY:                                                                        | TAH 04-01-12 |
| DRAWN BY:                                                                           | RSD 04-01-12 |
| CHECKED BY:                                                                         | RRD 04-01-12 |
| IN SERVICE:                                                                         | FILE R-      |
|  |              |
| OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA.                      |              |
| M.P.: CD-269.14<br>ROCKY RIDGE, OH<br>GATES/PLS AT MAIN ST.                         |              |
| CADD OF                                                                             | 36002691.07  |
| SHEET                                                                               | 7 of 22      |

ADVANCED: out of service  
005 Control = Display+005 IPa  
005 Timeout = Yes  
005 Timeout = 1 hrs

ADVANCED: out of service 2  
T1 005 Control = 005 Input 1  
T2 005 Control = 005 Input 1

ADVANCED: track wrap circuits  
Wrap LOS Timer = 5 sec  
Track 1 Wrap Used = No  
Track 2 Wrap Used = No

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

ADVANCED: trk 2 overrides  
Track 2: All Predators 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 1  
Pass Thru = No  
Int 1 Set by = Not Used  
Int 2 Set by = Not Used  
Int 3 Set by = Not Used  
Int 4 Set by = Not Used

ADVANCED: Internal I/O 2  
Int 5 Set by = Not Used  
Int 6 Set by = Not Used  
Int 7 Set by = Not Used  
Int 8 Set by = Not Used

ADVANCED: Internal I/O 3  
Int 9 Set by = Not Used  
Int 10 Set by = Not Used  
Int 11 Set by = Not Used  
Int 12 Set by = Not Used

ADVANCED: Internal I/O 4  
Int 13 Set by = Not Used  
Int 14 Set by = Not Used  
Int 15 Set by = 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  
SSCC-2 GPS Coupled = Yes  
Min Activation = 0 sec  
Min Activation Cancel = 2 min  
Bell On Gate Rising Down = No  
SSCC-1 Gate Down = No  
SSCC-1 Controller Used = No

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

OUTPUT: assignment page 1  
OUT 1:1 = Not Used  
OUT 1:2 = Not Used  
OUT 2:1 = Not Used  
OUT 2:2 = Not Used

INPUT: assignment page 1  
IN 1:1 = T1 Prime UAX  
IN 1:2 = Not Used  
IN 2:1 = T2 Prime UAX  
IN 2:2 = 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 = CD 1,2  
IN 7:3 = AND 1 XR Enable  
IN 7:4 = CD 1,1  
IN 7:5 = CD 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 Subnode = 3  
SEAR Slot 1 = Not Used  
SEAR Slot 2 = Not Used  
SEAR Slot 3 = Ground Fault Test  
SEAR Slot 4 = 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 1:2 = 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 = TSS 1  
IN 8:1 = TSS 2  
IN 8:2 = POK 2  
IN 8:3 = Not Used  
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  
Filename: 36002691.paa

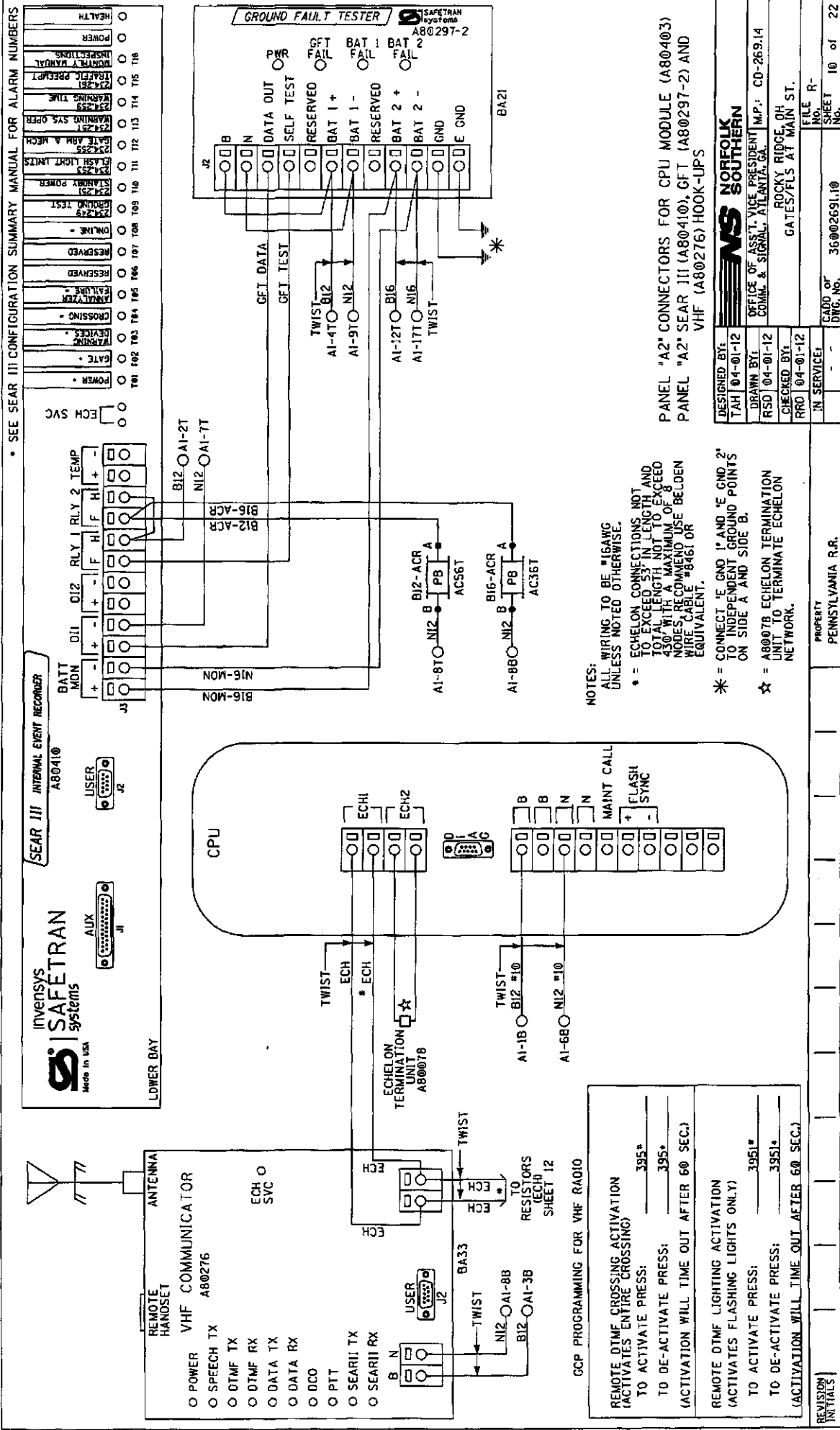
40000 GCP PROGRAMMING SETUP

|              |                                             |
|--------------|---------------------------------------------|
| DESIGNED BY: | TAH 04-01-12                                |
| DRAWN BY:    | RSD 04-01-12                                |
| CHECKED BY:  | RRD 04-01-12                                |
| IN SERVICE:  | FILE R-<br>No. 36002691.08<br>SHEET 8 of 22 |

|                                                                 |  |
|-----------------------------------------------------------------|--|
| NS NORFOLK SOUTHERN                                             |  |
| OFFICE OF ASS'T. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. |  |
| M.P.: CO-2691.4                                                 |  |
| ROCKY RIDGE, OH<br>GATES/FLS AT MAIN ST.                        |  |

PROPERTY  
PENNSYLVANIA R.R.





• SEE SEAR III CONFIGURATION SUMMARY MANUAL FOR ALARM NUMBERS

PANEL "A2" CONNECTORS FOR CPU MODULE (A80403)  
PANEL "A2" SEAR III (A80410), GFT (A80297-2) AND  
VHF (A80276) HOOK-UPS

**NOTES:**  
ALL WIRING TO BE \*16AWG UNLESS NOTED OTHERWISE.  
\* = ECHELON CONNECTIONS NOT TO EXCEED 53" IN LENGTH AND TOTAL LENGTH NOT TO EXCEED 430" WITH A MAXIMUM OF 8 NODES. RECOMMEND USE BELDEN WIRE CABLE #8461 OR EQUIVALENT.  
\* = CONNECT 'E' GND 1" AND 'E' GND 2" TO INDEPENDENT GROUND POINTS ON SIDE A AND SIDE B.  
☆ = A80078 ECHELON TERMINATION UNIT TO TERMINATE ECHELON NETWORK.

**GCP PROGRAMMING FOR VHF RADIO**

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)  
TO ACTIVATE PRESS: 395\*  
TO DE-ACTIVATE PRESS: 395\*  
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)

REMOTE DTMF LIGHTING ACTIVATION (ACTIVATES FLASHING LIGHTS ONLY)  
TO ACTIVATE PRESS: 3951\*  
TO DE-ACTIVATE PRESS: 3951\*  
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)

DESIGNED BY: TAHI 04-01-12  
DRAWN BY: OFFICE OF ASS'T. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA  
RSD 04-01-12  
CHECKED BY: ROCKY RIDGE, OH  
RRD 04-01-12  
GATES/FLS AT MAIN ST.

IN SERVICE: FILE NO. 36002651.10 SHEET 10 of 22

PROPERTY: PENNSYLVANIA R.R.

REVISION: INITIALS

TO CONFIGURE SEARCH/PRESS SITE SETUP KEY.  
USE OF SYSTEM AFTER SELECTION HAS BEEN MADE.  
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                | MAIN ST.                  |
| MILEPOST                 | CD-269.14                 |
| DOT #                    | 509395K                   |
| TESTER TYPE              | CROSSING                  |
| DATE FORMAT              | MM-DD-YYYY                |
| TEMP FORMAT              | FAHRENHEIT                |
| INDICATE HOLD (SEC)      | 0                         |
| INDICATE REFRESH (SEC)   | 60                        |
| SITE ATCS                | 7.550.185.041.03.01       |
| 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 (ECHO)                |
| 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               | 4 BULBS |
| CURR 2: LAMP SET UP               | 4 BULBS |

| VERIFY NUMBER OF BULBS: SENSOR #2 |         |
|-----------------------------------|---------|
| CURR 1: LAMP SET UP               | 5 BULBS |
| CURR 2: LAMP SET UP               | 5 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                             | 395                     |
| 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 GFT1                                   | 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 LEDS    | NO      |
| EDIT TEST LEDS         | NO      |
| EDIT ILOD SENSORS      | NO      |
| EDIT VHF SETTINGS      | NO      |
| GCP# ATCS SURMODE      | 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

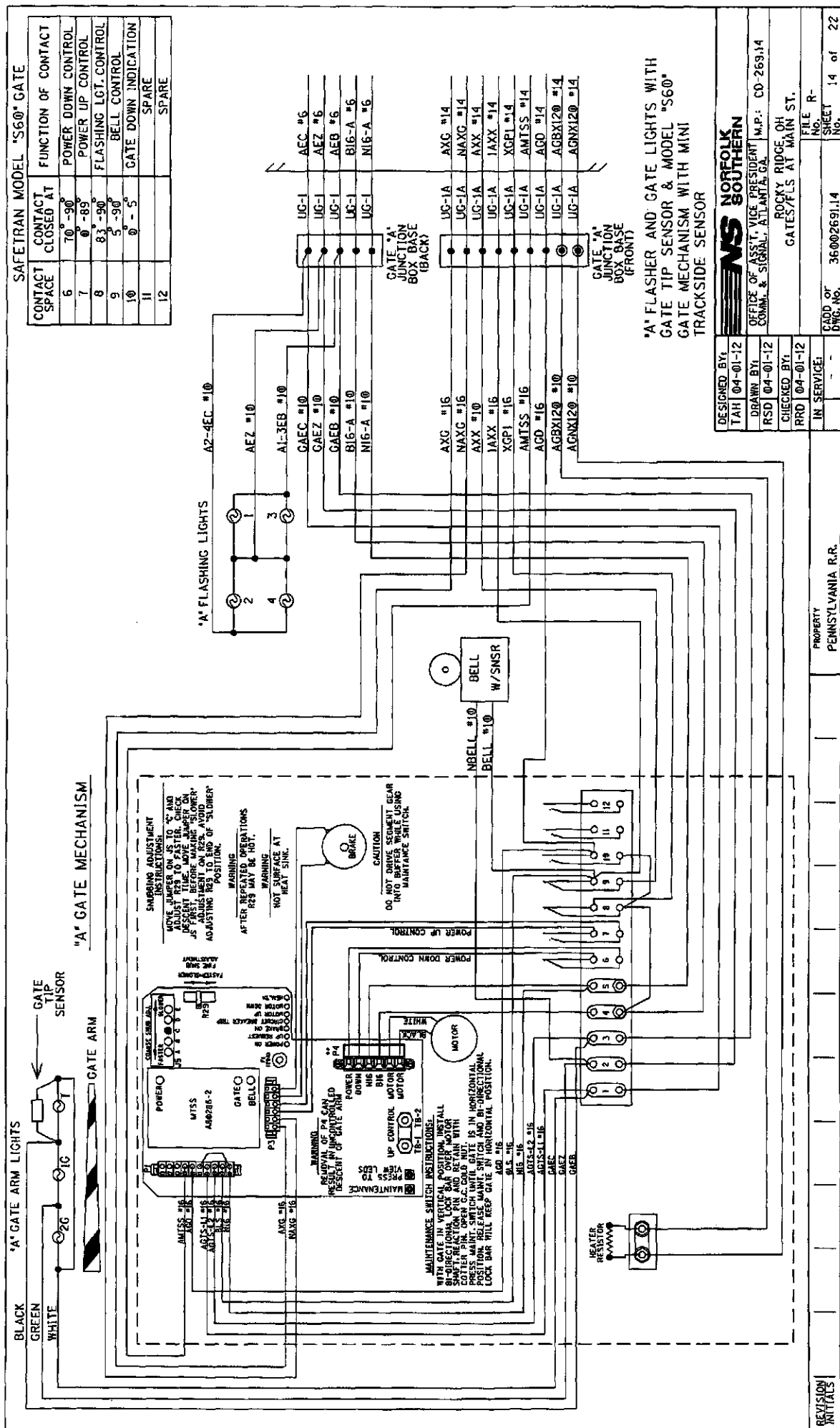
SEAR III PROGRAMMING SETUP

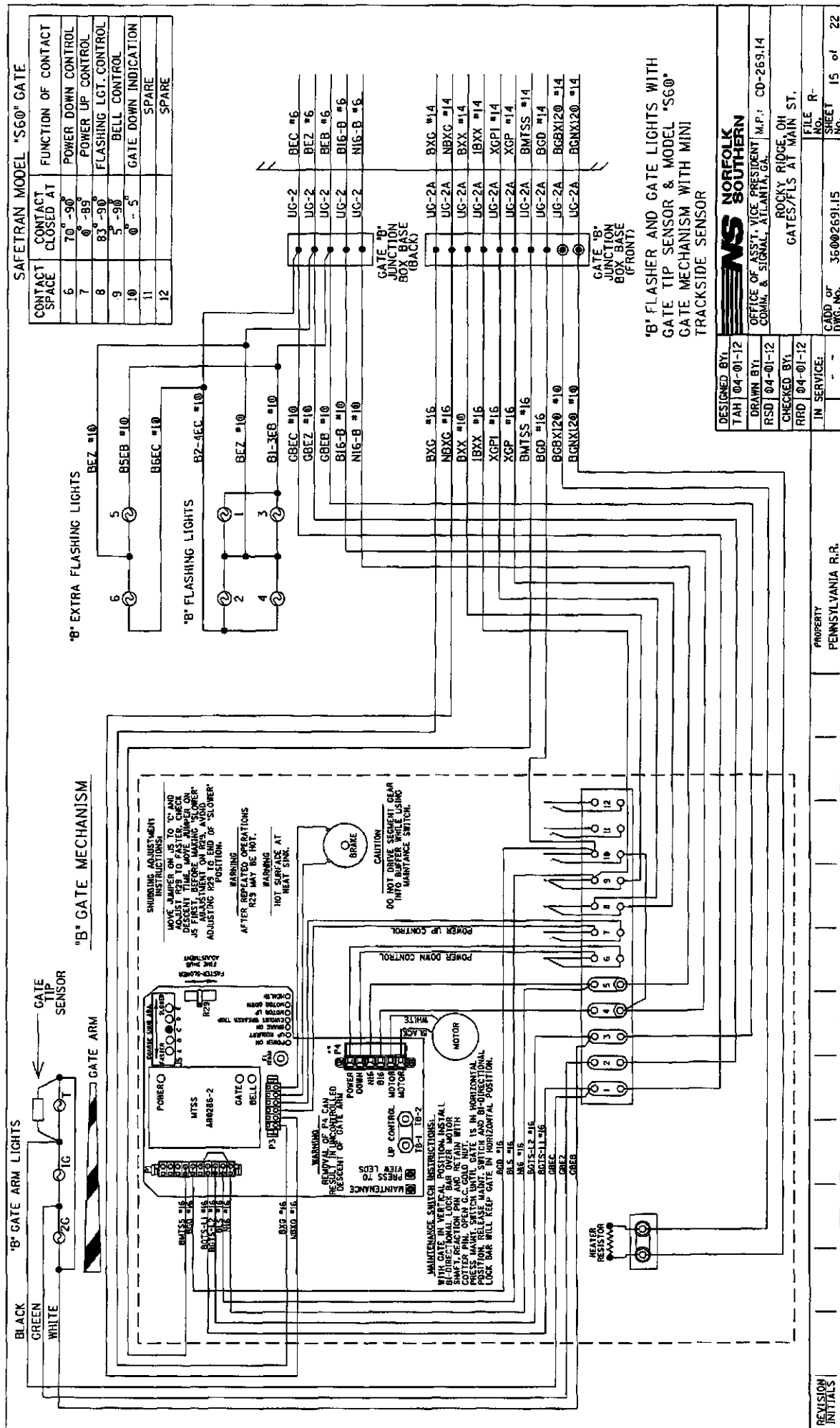
|              |                                                             |                                                                                     |
|--------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------|
| DESIGNED BY: | TAH 04-01-12                                                |  |
| DRAWN BY:    | OFFICE OF ASST. VICE PRESIDENT COMM. & SIGNAL, ATLANTA, GA. |                                                                                     |
| RSD 04-01-12 | M.P.: CD-269.14                                             |                                                                                     |
| CHECKED BY:  | ROCKY RIDGE, OH                                             |                                                                                     |
| RRD 04-01-12 | GATES/FLS AT MAIN ST.                                       |                                                                                     |
| IN SERVICE:  |                                                             | FILE R-                                                                             |
|              |                                                             | CADD or SHEET No. 35002691.11 11 of 22                                              |









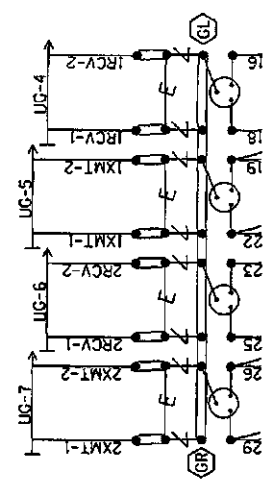


SEE FARADAY SHIELD DETAILS - 1A & 1B  
FOR HOW THIS PORTION OF THE FARADAY  
SHIELD IS PREDRILLED. ONLY INSTALL AND  
USE THE TERMINALS NEEDED.

~~E~~ = Heavy Duty Equalizer (022700-IX)  
 Clearview  
 Z = Lightning Arrester (022585-IX)  
 = LPC-10560-5I



 = TERMINALS GROUNDED TO SHIELD.  
 4 POST BLOCKS USE EITHER -  
 CR - SERMMI PART NO. 61278  
 CL - SERMMI PART NO. 61278-1.



## BACKBOARD DETAIL - 1A &amp; 1B

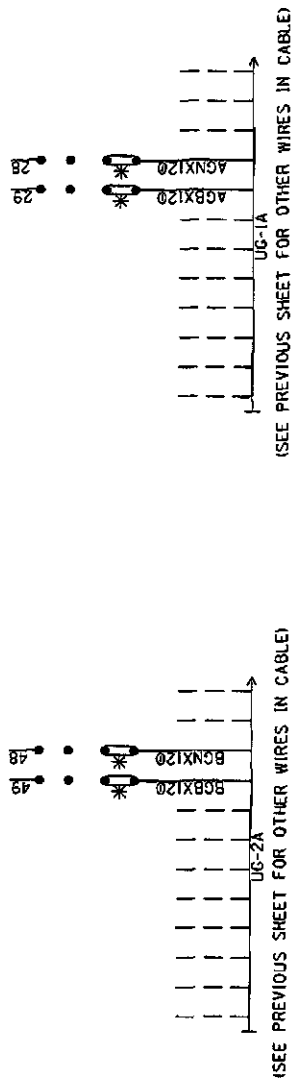
|              |                                |         |          |
|--------------|--------------------------------|---------|----------|
| DESIGNED BY: | <b>MS NORFOLK SOUTHERN</b>     |         |          |
| TAH 04-01-12 |                                |         |          |
| DRAWN BY:    | OFFICE OF ASST. VICE PRESIDENT |         |          |
| RSD 04-01-12 | CONV. & SIGNAL, ATLANTA, GA.   |         |          |
| CHECKED BY:  | M.P.: CD-269,14                |         |          |
| RRD 04-01-12 | ROCKY RIDGE, OH                |         |          |
|              | CATES/PLS AT MAIN ST.          |         |          |
| IN SERVICE:  | FILE NO.                       | FILE R- |          |
| - -          | 36-00269,16                    | SHEET   | 16 of 22 |
|              | CADD or DWG. No.               | No.     |          |

[illegible]

REAR VIEW OF LEFT TWO ROWS TERMINAL BOARD 1

1A

1B



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

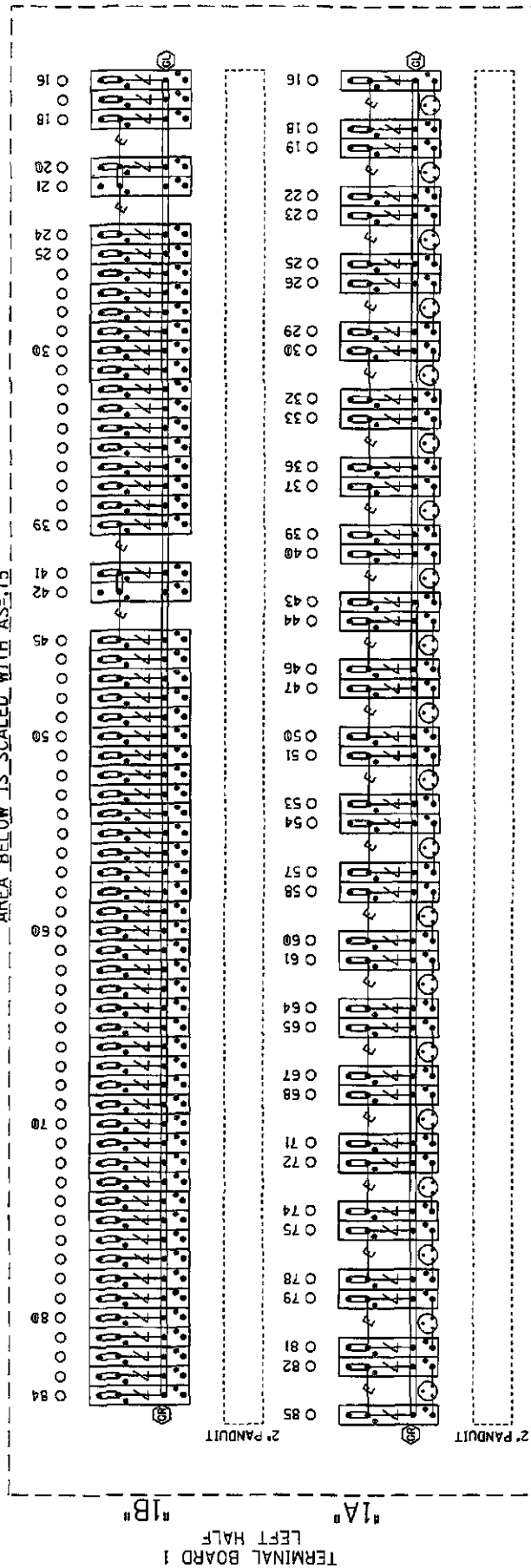
\* = CLOSED DURING WINTER MONTHS

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

|                               |                         |                                                                |                |
|-------------------------------|-------------------------|----------------------------------------------------------------|----------------|
| DESIGNED BY:<br>TAH 04-01-12  | <b>NORFOLK SOUTHERN</b> | FILE NO. R-<br>36002691.17                                     | SHEET 17 of 22 |
| DRAWN BY:<br>RSD 04-01-12     |                         | OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA. |                |
| CHECKED BY:<br>RRD 04-01-12   |                         | ROCKY RIDGE, OH<br>GATES/FLS AT MAIN ST.                       |                |
| IN SERVICE:<br>- -            |                         | CADD OF<br>ORG. No.                                            |                |
| PROPERTY<br>PENNSYLVANIA R.R. |                         |                                                                |                |

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



⊥ = Heavy Duty Equalizer  
(022700-IX)

⊥ = Clear-view  
Lighting Arrestor

⊥ = LPC-10560-51

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

□ INDICATES PLACEMENT OF PANDUIT

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

|              |              |
|--------------|--------------|
| DESIGNED BY: | TAH 04-01-12 |
| DRAWN BY:    | CD-269.14    |
| CHECKED BY:  | CD-269.14    |
| IN SERVICE:  | CD-269.14    |
| FILE NO.:    | CD-269.14    |
| SHEET NO.:   | 18 of 22     |

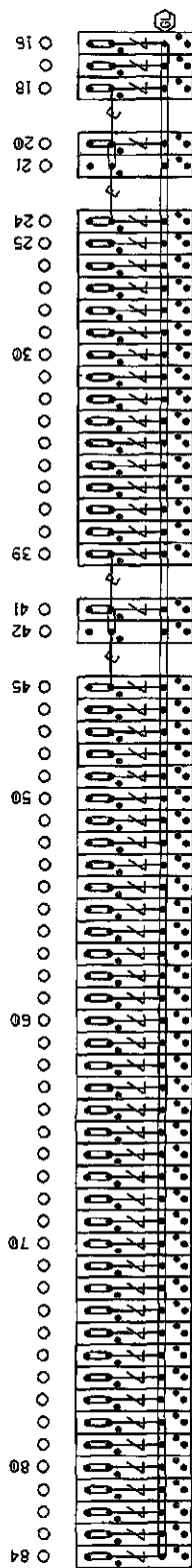
⊥ = TERMINALS GROUNDED TO SHIELD.  
4 POST BLOCKS USE EITHER -  
GR - SERMMI PART NO. 61278  
GL - SERMMI PART NO. 61278-1.

PROPERTY  
PENNSYLVANIA R.R.

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



-E- = Heavy Duty Equalizer  
(022100-1X)  
Clear View  
Z = Lightning Arrestor  
(022585-1X)  
CL = LPC-10560-51

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

INDICATES PLACEMENT  
OF PANDUIT

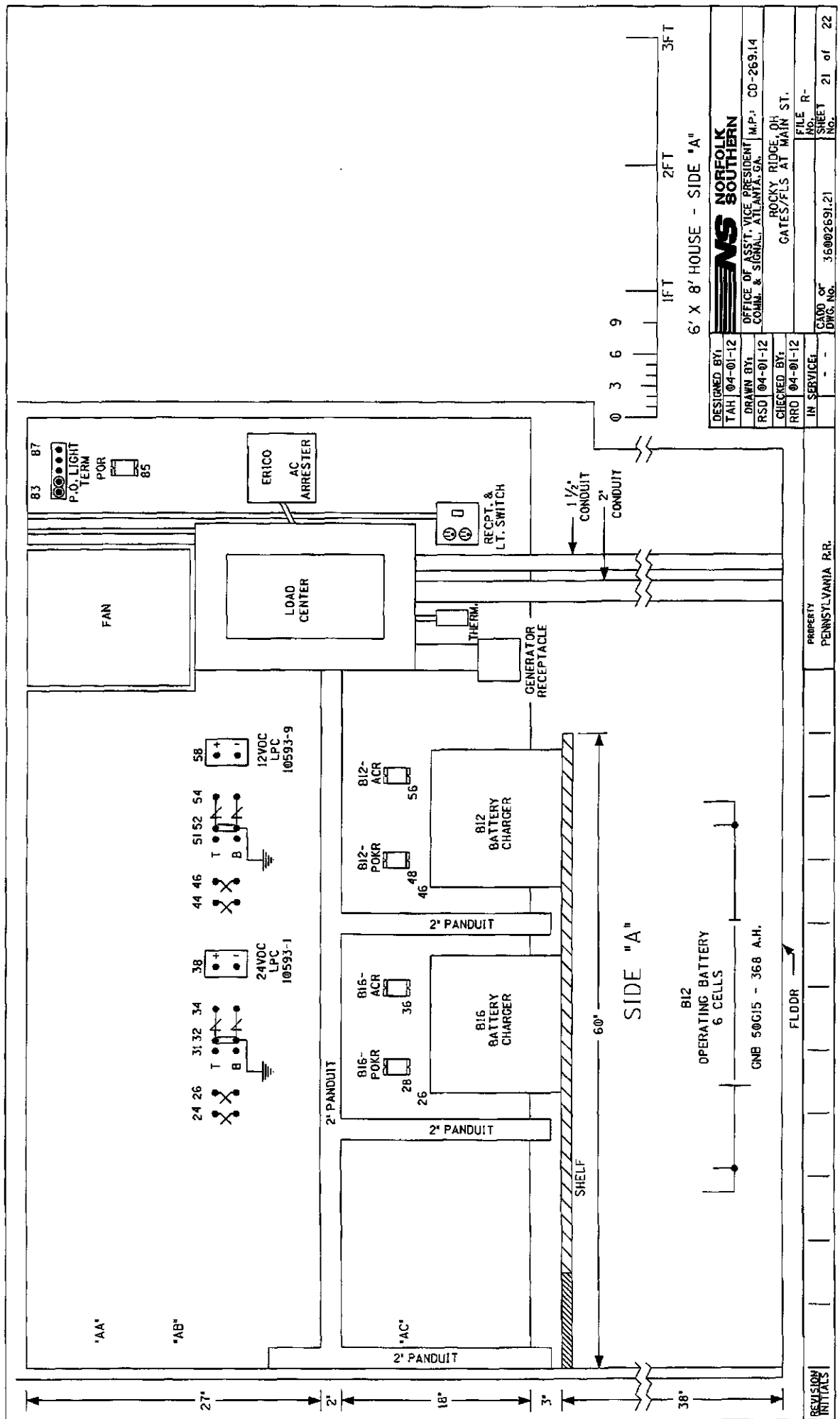
TERMINAL BOARD 1  
RIGHT ROW  
FARADAY SHIELD DETAIL - IC

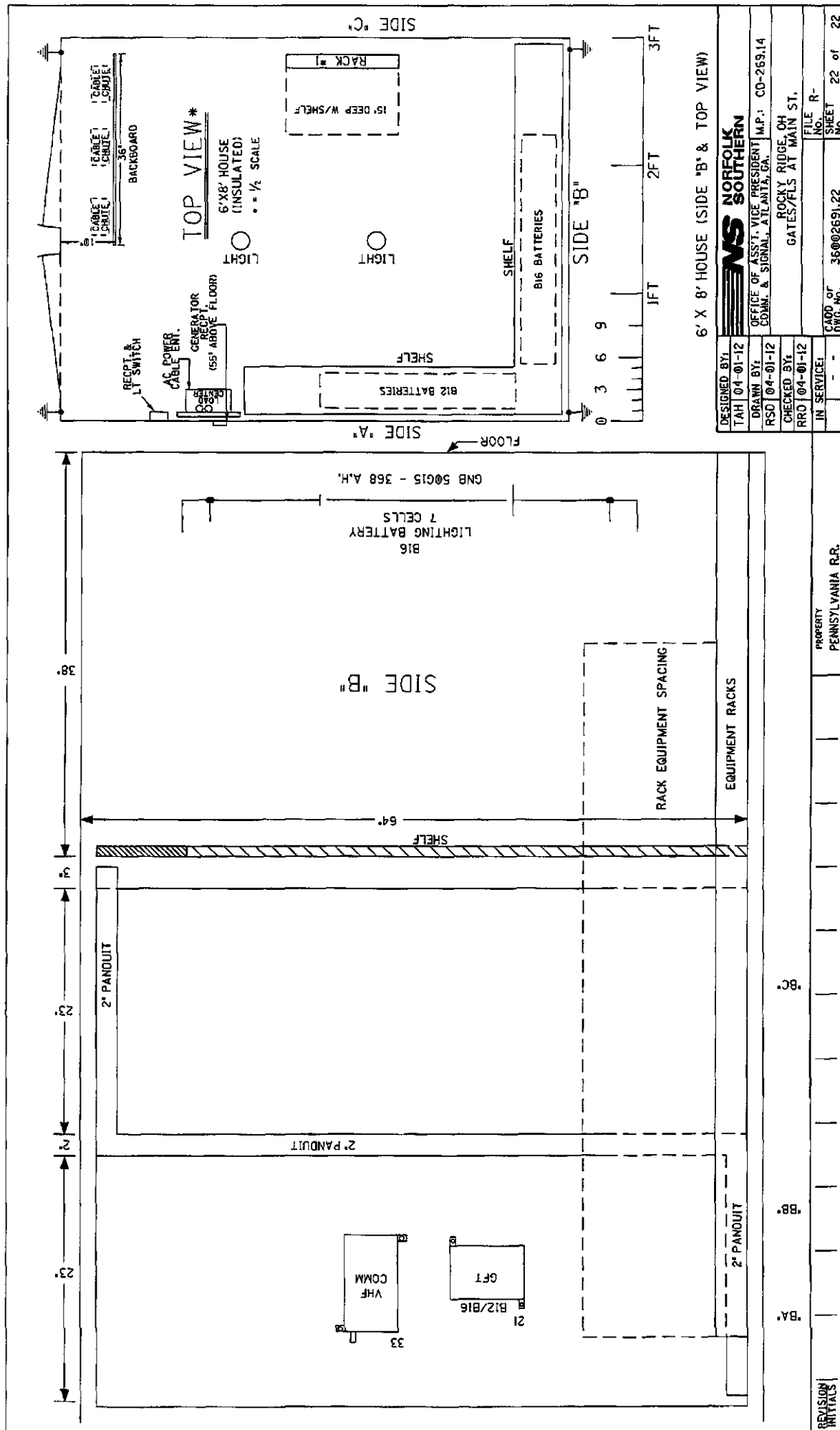
|                              |                                                                                                                                                        |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| DESIGNED BY:<br>TAH 04-01-12 | <b>NORFOLK SOUTHERN</b><br>OFFICE OF ASST. VICE PRESIDENT<br>COMM. & SIGNAL, ATLANTA, GA.<br>MP: CD-269.14<br>ROCKY RIDGE, OH<br>GATES/FLS AT MAIN ST. |
| DRAWN BY:<br>RSD 04-01-12    |                                                                                                                                                        |
| CHECKED BY:<br>RRD 04-01-12  |                                                                                                                                                        |
| IN SERVICE:<br>--            |                                                                                                                                                        |
| FILE NO. R-                  | CADD OR DWG. No. 36002691.19                                                                                                                           |
| SHEET 19                     | OF 22                                                                                                                                                  |

PROPERTY  
PENNSYLVANIA R.R.











04-May-12

**Detailed Estimate for Grade Crossing Warning Devices**

City/State: ROCKY RIDGE, OH  
MilePost: CD-269.14  
State Proj. No.:  
S&E Proj. No.: 10.0791  
Man Days: 200

Road: MAIN ST  
DOT/AAR: 509395K  
County: OTTAWA  
File Number: 061-10.787

| <b>***Purchases - Others***</b>                                   |              |
|-------------------------------------------------------------------|--------------|
| Meals and Lodging:                                                | \$26,880.00  |
| Rental of Equipment:                                              | \$28,000.00  |
| (2 Trucks, 1 Backhoe w/ Trailer<br>and 1 Pipe-Pusher for 50 Days) |              |
| Construction Supervision Vehicle:                                 | \$5,003.49   |
| Purchases - Other Total:                                          | \$59,883.49  |
| <b>***Material And Additives***</b>                               |              |
| Material Cost:                                                    | \$165,947.00 |
| Sales and Use Tax:                                                | \$0.00       |
| Material Handling Freight:                                        | \$8,297.36   |
| Material Total:                                                   | \$174,244.36 |
| <b>***Labor And Additives***</b>                                  |              |
| Labor Cost:                                                       | \$56,000.00  |
| (4 man crew at \$1,120.00 a day for: 50 days)                     |              |
| Payroll Tax & Overheads:                                          | \$74,390.40  |
| Preliminary Engineering:                                          | \$19,531.35  |
| Construction Supervision:                                         | \$15,808.80  |
| Labor Total:                                                      | \$165,730.55 |
| Project Cost:                                                     | \$399,858.40 |
| Scrap / Salvage Credit:                                           | \$0.00       |
| Project Total:                                                    | \$399,858.00 |

Estimated on: 04-May-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:                                                                                                                                                                                                                  | ROCKY RIDGE   |
| Road:                                                                                                                                                                                                                  | MAIN ST       |
| Mile Post:                                                                                                                                                                                                             | CD-269.14     |
| Drawing Number:                                                                                                                                                                                                        | 36002691      |
| State ProjectNumber:                                                                                                                                                                                                   |               |
| County:                                                                                                                                                                                                                | OTTAWA        |
| A A R Number:                                                                                                                                                                                                          | 509395K       |
| Project Number:                                                                                                                                                                                                        | 10.0791       |
| File Number:                                                                                                                                                                                                           | 061-10.787    |
| New File Number:                                                                                                                                                                                                       | CX0115892     |
| A F E Number:                                                                                                                                                                                                          | F-00102       |
| Store Number:                                                                                                                                                                                                          |               |
| Supervisor:                                                                                                                                                                                                            | J.T. WILLIAMS |
| Tax Code:                                                                                                                                                                                                              | 3600          |
| Vendor to supply the following copies after pricing:<br>1 Set - Material Management with original Invoice<br>2 Sets - with plans shipped in car with material<br>1 Set - S&E Gen. Supt. Construction w/copy of invoice |               |

| Qty. | Class-Item-CD | UI | Price per Item | Total Price | Item Description                                                                                                             | Quantity Shipped | Quantity Installed Date | Quantity Returned (Credit) | Special Instructions |
|------|---------------|----|----------------|-------------|------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------|----------------------------|----------------------|
| 3    | 670-360693-4  | EA | \$5.55         | \$16.65     | AAR/DOT NUMBER PLATE/DECAL, ORDER 3 PER PROJECT. 60 DAY LEAD TIME. SUPPLIED BY S'TRAN.                                       |                  |                         |                            |                      |
| 1    | 165-006505-4  | EA | \$1,075.23     | \$1,075.23  | AC SERVICE, COMPLETE LESS METER BASE, ASSEMBLED ON 30' POLE                                                                  |                  |                         |                            |                      |
| 20   | 670-119241-4  | EA | \$25.01        | \$500.20    | ARRESTOR, LIGHTNING HEAVY DUTY CLEAR VIEW SAFETRAN 022585-1X                                                                 |                  |                         |                            |                      |
| 19   | 105-288384-4  | EA | \$277.10       | \$5,264.90  | BATTERY GNB 368AH MODEL 50G15 SINGLE CELL 2.25 VOLTS, FOR USE WITH CROSSINGS DESIGNED AFTER 09/09                            |                  |                         |                            |                      |
| 20   | 670-005125-4  | EA | \$7.24         | \$144.80    | BLOCK, TERMINAL BAKELITE FOR MOUNTING LIGHTING ARRESTOR EQUALIZER OR RESISTANCE UNIT                                         |                  |                         |                            |                      |
| 2    | 670-080490-4  | EA | \$192.72       | \$385.44    | BOX, JUNCTION 8 TERMINALS, WITH PEDESTAL @093463-11 SAFETRAN 091313-229X                                                     |                  |                         |                            |                      |
| 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                                                             |                  |                         |                            |                      |
| 1700 | 465-939422-4  | LF | \$3.11         | \$5,287.00  | CABLE, UG 12 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL                                         |                  |                         |                            |                      |
| 1200 | 465-292862-4  | LF | \$1.49         | \$1,788.00  | CABLE, UG 2-6 TWISTED, S-23 OKONITE 113-12-3933 SOLID TINNED CONDUCTOR                                                       |                  |                         |                            |                      |
| 400  | 465-292929-4  | LF | \$4.55         | \$1,820.00  | CABLE, UG 5 COND. NO. 6 AWG SOLID COPPER CABLE TO MEET NS CORP. SPEC. FOR SIGNAL                                             |                  |                         |                            |                      |
| 300  | 465-292945-4  | LF | \$1.63         | \$489.00    | CABLE, UG 5-14, S-54 OKONITE 206-14-6885                                                                                     |                  |                         |                            |                      |
| 3100 | 465-954727-4  | LF | \$1.96         | \$6,076.00  | CABLE, UG 7 CONDUCTOR NO 14 AWG SOLID EACH CONDUCTOR WITH 5/64 IN INSULATION 10 MIL FLAT                                     |                  |                         |                            |                      |
| 1500 | 465-731835-4  | FT | \$3.84         | \$5,760.00  | CABLE, UG AC ENTRANCE 3C#6-7X OKONITE FMPP-L 084-078 TR W/G 1 X 8 7X W010 BRZ TAPE 600V PRODUCT CODE 206-11-6070             |                  |                         |                            |                      |
| 80   | 165-544477-4  | FT | \$2.61         | \$208.80    | CONDUIT, 4"x10' PVC, SCHEDULE 80 BELL CONNECTOR AT ONE END, 1/2 PT. GLUE IN KIT 670-123298-4                                 |                  |                         |                            |                      |

APPROVED BY STATE APPROVED BY RAILROAD CAR NUMBER SEAL NUMBER

| Location: ROCKY RIDGE |               |    |                | OH           | S&E Proj. No.: 10.0791                                                                                                                                                                                                                 | AFE No.: F-00102 | Drawing No.: 36002691         | Vendor: Railroad Signal Design |                      |  |  |
|-----------------------|---------------|----|----------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------|--------------------------------|----------------------|--|--|
| Store No.:            |               |    |                | P.O. Number: | Date Required:                                                                                                                                                                                                                         | Date Shipped:    |                               |                                |                      |  |  |
| Qty.                  | Class-Item-CD | UI | Price per Item | Total Price  | Item Description                                                                                                                                                                                                                       | Quantity Shipped | Quantity Installed Date Quan. | Quantity Returned (Credit)     | Special Instructions |  |  |
| 8                     | 670-664917-4  | EA | \$87.64        | \$701.12     | 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                   |                  |                               |                                |                      |  |  |
| 8                     | 670-632520-4  | EA | \$77.63        | \$621.04     | 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                    |                  |                               |                                |                      |  |  |
| 2                     | 670-793404-4  | EA | \$1,159.00     | \$2,318.00   | COUNTERWEIGHT PKAGE, 17-24 GATE STRAN S- MECH ONLY, STAINLESS, TO INCLUDE HUB, SUPPORT ARMS                                                                                                                                            |                  |                               |                                |                      |  |  |
| 5                     | 670-760012-4  | EA | \$44.32        | \$221.60     | COVER, FOR 1 WAY FLASHING LIGHT ASSY. 18 OZ. BLACK VINYL COATED NYLON. ==TO COVER 2 LAMPS==                                                                                                                                            |                  |                               |                                |                      |  |  |
| 1                     | 670-986650-4  | EA | \$352.82       | \$352.82     | DISPOSAL, CONSTRUCTION DEBRIS AND CLEANING X'ING EQUIPMENT CONTAINER                                                                                                                                                                   |                  |                               |                                |                      |  |  |
| 2                     | 670-228165-4  | EA | \$12.25        | \$24.50      | EQUALIZER, SAFETRAN 022700-1X LESS BASE, MODERN NO. 700-1 SHUNT ARRESTER TRACK CIRCUITS CR 02-197950                                                                                                                                   |                  |                               |                                |                      |  |  |
| 1                     | 670-000004-4  | EA | \$700.00       | \$700.00     | FCC LICENSE FOR MONITOR/RADIO                                                                                                                                                                                                          |                  |                               |                                |                      |  |  |
| 4                     | 670-000003-4  | EA | \$255.85       | \$1,023.40   | FILL/STONE #57, QUANTITY IS BASED ON TRUCK LOAD PLUS DELIVERY COST                                                                                                                                                                     |                  |                               |                                |                      |  |  |
| 2                     | 670-015231-4  | EA | \$599.40       | \$1,198.80   | FOUNDATION, DIXIE,S-2 GATE 26"x26"x56" ASSEMBLED                                                                                                                                                                                       |                  |                               |                                |                      |  |  |
| 2                     | 670-257031-4  | EA | \$422.36       | \$844.72     | 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                     | 670-661122-4  | EA | \$15,118.25    | \$15,118.25  | GCP4000 - 1 TRK (5TC) - NON-REDUNDANT - 40 AMP WIRED RACK EQUIP. FOR 6X8 REMOTE SHELTER, (INCL. 5 TRK CHASSIS A80440, 1 TRK MOD. A80418, 0 SSCC, 1 CPU A80403, NO SEAR, 1 DISPLAY A80407, 1-40 AMP CHARGER) IPN: 003131-X              |                  |                               |                                |                      |  |  |
| 1                     | 670-696894-4  | EA | \$34,574.48    | \$34,574.48  | GCP4000 - 2 TRK (2TC) - REDUNDANT - 40/40 AMP WIRED RACK EQUIP. FOR 6X8 XING SHELTER, (INCL. 2 TRK CHASSIS A80465, 4 TRK MODS. A80418, 2-SSCC A80405, 2 CPU A80403, 1 SEAR A80410, 1 DISPLAY A80407, 2-40 AMP CHARGERS) IPN: 003131-4X |                  |                               |                                |                      |  |  |

APPROVED BY STATE

APPROVED BY RAILROAD

CAR NUMBER

SEAL NUMBER

| Qty. | Class-Item-CD | UI | Price per Item | Total Price | Item Description                                                                                                                                                             | Quantity Shipped | Quantity Installed Date Quan. | Quantity Returned (Credit) | Special Instructions |
|------|---------------|----|----------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------|----------------------------|----------------------|
| 1    | 670-396564-4  | EA | \$3,430.68     | \$3,430.68  | GCP4000 - MODULE - TRACK MODULE - IPN: A80418                                                                                                                                |                  |                               |                            |                      |
| 2    | 670-921451-4  | EA | \$47.15        | \$94.30     | INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-0200                                                                                                                                |                  |                               |                            |                      |
| 2    | 670-468243-4  | EA | \$45.20        | \$90.40     | INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-0400                                                                                                                                |                  |                               |                            |                      |
| 2    | 670-037296-4  | EA | \$45.20        | \$90.40     | INDUCTOR, SIMULATED TRACK SAFETRAN 8V617-3200                                                                                                                                |                  |                               |                            |                      |
| 2    | 670-477991-4  | EA | \$410.00       | \$820.00    | KIT, GROUNDING ASSY FOR AL VS INCLUDES 8 GRD RDS,200'4WIRE,12 4 WIRE ONE-SHOTS, ERICO SBK206                                                                                 |                  |                               |                            |                      |
| 2    | 670-123298-4  | EA | \$344.59       | \$689.18    | 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, JNE CAN BLUE MARKING PAINT ETC... |                  |                               |                            |                      |
| 1    | 670-745798-4  | EA | \$676.56       | \$676.56    | LAMP ASSY, 4" GRD. MAST MTG. 1W IND. 20" BKGRD, FLX-12 WBULB S'TRAN #042003-484XNS                                                                                           |                  |                               |                            |                      |
| 6    | 670-764166-4  | EA | \$1,240.19     | \$7,441.14  | LAMP ASSY, 5" MAST MTG. 2W IND. 20" BKGRD, FLX-12 WBULB S'TRAN #042003-487XNS                                                                                                |                  |                               |                            |                      |
| 6    | 165-643547-4  | EA | \$5.92         | \$35.52     | LAMP, 18 WATT 10 VOLT S-11 SC BAY 18S11/1SC CLEAR RWY SIGNAL UJ-71463 GE                                                                                                     |                  |                               |                            |                      |
| 48   | 670-440826-4  | EA | \$2.22         | \$106.56    | LINK, SAFETRAN 024620-1X INSL TESTING COMP 1 IN CENTER SIGNAL CIRCUITS CR 02-286662                                                                                          |                  |                               |                            |                      |
| 6    | 255-590880-4  | EA | \$17.52        | \$105.12    | LOCK, AMERICAN LOCK MODEL H-10KA KEYS ALIKE TO PRIVATE KEYWAY D456 AND STAMPED 'NS SIG'                                                                                      |                  |                               |                            |                      |
| 1    | 610-156588-4  | EA | \$1,626.00     | \$1,626.00  | MAST, 5" ALUMINUM (0&0) FOR LIGHT UNIT AND BRACKET WITH DBL. JCT. BOX BASE #070519-203X-2                                                                                    |                  |                               |                            |                      |
| 1    | 670-637778-4  | EA | \$1,317.65     | \$1,317.65  | MAST, 5" ALUMINUM 13'10" WITH DOUBLE JCT. BOX BASE. S'TRAN P# 070519-11AX.                                                                                                   |                  |                               |                            |                      |
| 1    | 670-000985-4  | EA | \$312.09       | \$312.09    | MAST, SIDELIGHT BRACKET F/5' MT. HARMON @ 225834-XXX, SAFETRAN 041442-28X.                                                                                                   |                  |                               |                            |                      |
| 2    | 670-850933-4  | EA | \$3,925.01     | \$7,850.02  | MECHANISM, GATE MODEL S-60, WITH DEFROSTER AND MINI TRACKSIDE SENSOR S'TRAN # 0740007-X002B3                                                                                 |                  |                               |                            |                      |
| 2    | 670-000014-4  | EA | \$1,500.08     | \$3,000.16  | 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: ROCKY RIDGE |               |    | OH             | S&E Proj. No.: 10.0791 | AFE No.: F-00102                                                                                                                                                           | Drawing No.: 36002691 | Vendor: Railroad Signal Design |                            |                      |
|-----------------------|---------------|----|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------|----------------------------|----------------------|
| Store No.:            |               |    |                | P.O. Number:           | Date Required:                                                                                                                                                             | Date Shipped:         |                                |                            |                      |
| Qty.                  | Class-Item-CD | UI | Price per Item | Total Price            | Item Description                                                                                                                                                           | Quantity Shipped      | Quantity Installed Date Quan.  | Quantity Returned (Credit) | Special Instructions |
| 4                     | 670-014225-4  | EA | \$1,535.67     | \$6,142.68             | MODULE, PROCESSOR FOR 3000 GCP SAFETRAN #80214                                                                                                                             |                       |                                |                            |                      |
| 4                     | 210-863404-4  | EA | \$4.38         | \$17.52                | NUT, RACO 408-1 SAFETRAN PART NO. 023408-1X INSULATED CR 02-316121                                                                                                         |                       |                                |                            |                      |
| 4                     | 670-001347-4  | EA | \$57.10        | \$228.40               | 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"x 5" REF K1 110-8 OR SAFETRAN NO. @035045-503X                                                                                                  |                       |                                |                            |                      |
| 8                     | 670-259211-4  | EA | \$47.25        | \$378.00               | PLUG BOARD KIT, TYPE B-1 & VOLTAGE TEST TERMINAL, SAFETRAN 420000-75X                                                                                                      |                       |                                |                            |                      |
| 2                     | 165-103293-4  | EA | \$75.42        | \$150.84               | PROTECTOR, LIGHTNING & SURGE LPC 10560-51, 3 ELECTRODE WITH SPADE TERMINAL                                                                                                 |                       |                                |                            |                      |
| 2                     | 165-902002-4  | EA | \$303.27       | \$606.54               | PROTECTOR, SURGE 120/240VAC, ERICO PN EPD120/240TDFL                                                                                                                       |                       |                                |                            |                      |
| 7                     | 465-002899-4  | EA | \$40.24        | \$281.68               | REEL, CABLE DISPOSABLE FOR CROSSING SIGNAL PACKAGES                                                                                                                        |                       |                                |                            |                      |
| 3                     | 670-742096-4  | EA | \$21.84        | \$65.52                | RELAY INTERFACE PROBE, ULTRATECH PN 16031-00                                                                                                                               |                       |                                |                            |                      |
| 1                     | 670-024861-4  | EA | \$437.35       | \$437.35               | RELAY RACK, SWING, FARADAY SHELTER FOR EIGHT B1 RELAYS, SAFETRAN P/N 057883-1X                                                                                             |                       |                                |                            |                      |
| 2                     | 670-456936-4  | EA | \$145.69       | \$291.38               | RELAY RACK, SWING, FARADAY SHELTER FOR ONE RELAY, SSFETRAN P/N T15331                                                                                                      |                       |                                |                            |                      |
| 8                     | 670-707995-4  | EA | \$510.12       | \$4,080.96             | RELAY, TYPE B1, NEV LINE, 900 OHMS, 008 AMPERES GRS A62-308 OR SAFETRAN @400003                                                                                            |                       |                                |                            |                      |
| 4                     | 435-805560-4  | EA | \$2.78         | \$11.12                | 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                                                                               |                       |                                |                            |                      |
| 2                     | 670-749325-4  | EA | \$226.97       | \$453.94               | SHELF, FOLDING, FOR LAPTOP USE IN FARADAY 6X8 SHELTER, SAFETRAN 052852-128X                                                                                                |                       |                                |                            |                      |
| 1                     | 670-756057-4  | EA | \$9,808.80     | \$9,808.80             | SHELTER, 6'X8' ALUMN FARADAY W/CABLE CHUTES BEHIND TERMINAL BOARD, W/2EA EQUIPMENT RACKS, W/GEN RECEPTICAL, BREAKER BOX, GFI OUTLET FOR LAPTOP SHELF SAFETRAN 058400-68-86 |                       |                                |                            |                      |

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CAR NUMBER

SEAL NUMBER



| Location: ROCKY RIDGE |               |    | OH             | S&E Proj. No.: 10.0791 | AFE No.: F-00102                                                                                                                                                          | Drawing No.: 36002691 | Vendor: Railroad Signal Design      |                               |                      |
|-----------------------|---------------|----|----------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|-------------------------------|----------------------|
| Store No.:            |               |    |                | P.O. Number:           | Date Required:                                                                                                                                                            | Date Shipped:         |                                     |                               |                      |
| Qty.                  | Class-Item-CD | UI | Price per Item | Total Price            | Item Description                                                                                                                                                          | Quantity Shipped      | Quantity Installed<br>Date<br>Quan. | Quantity Returned<br>(Credit) | Special Instructions |
| 1                     | 670-755523-4  | EA | \$9,333.50     | \$9,333.50             | SHELTER, 6'X8' ALUMIN 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 |                       |                                     |                               |                      |
| 10                    | 670-586967-4  | EA | \$42.98        | \$429.80               | SHUNT COVER W/LAG SCREWS, 19"X19", SERRMI #40271, ORDER 1 PER SHUNT                                                                                                       |                       |                                     |                               |                      |
| 4                     | 670-652773-4  | EA | \$460.98       | \$1,843.92             | SHUNT, MULTI-FREQ. #62775-1543 SAFETRAN NARROW BAND                                                                                                                       |                       |                                     |                               |                      |
| 2                     | 670-688850-4  | EA | \$369.89       | \$739.78               | SHUNT, MULTI-FREQ. #62775-3497 SAFETRAN NARROW BAND                                                                                                                       |                       |                                     |                               |                      |
| 4                     | 670-645460-4  | EA | \$575.56       | \$2,302.24             | SHUNT, MULTI-FREQ. #62775-8621 SAFETRAN NARROW BAND                                                                                                                       |                       |                                     |                               |                      |
| 2                     | 670-393331-4  | EA | \$37.43        | \$74.86                | SIGN CROSSING MALFUNCTION ASSEMBLY FOR 4" AND 5" MAST, SAFETRAN #T17215                                                                                                   |                       |                                     |                               |                      |
| 2                     | 670-554843-4  | EA | \$77.05        | \$154.10               | SIGN, 2 TRACK SIGN, HIGH INTENSITY, SAFETRAN #035207-2HX                                                                                                                  |                       |                                     |                               |                      |
| 2                     | 670-016346-4  | EA | \$143.38       | \$286.76               | SIGN, X-BUCK, HI-INTENSIVE REFLECTIVE FRT. & BACK FOR ALL STATES, SAFETRAN# 035200-91X                                                                                    |                       |                                     |                               |                      |
| 4                     | 670-330382-4  | RL | \$18.06        | \$72.24                | TAPE, THOR 3" DURATEC, ORANGE 1000' LENGTHS. "WARNING STOP DIGGING"                                                                                                       |                       |                                     |                               |                      |
| 32                    | 670-478560-4  | EA | \$20.56        | \$657.92               | TERMINAL BLOCK, ERICO 4 POST P/N B2700A2C1WH W/HARDWARE LESS LIGHTNING ARRESTOR                                                                                           |                       |                                     |                               |                      |
| 8                     | 610-065626-4  | EA | \$18.18        | \$145.44               | ULTRA-TECH 15206-01 CONNECTIVITY BLOCK FOR GRS B1 RELAY                                                                                                                   |                       |                                     |                               |                      |
| 12                    | 670-007238-4  | EA | \$117.04       | \$1,404.48             | UNIT, THE INSTALLATION AND WIRING OF A DEVICE WHICH REQUIRE A MINIMUM OF FOUR WIRE CONNECT.                                                                               |                       |                                     |                               |                      |
| 500                   | 465-999111-4  | LF | \$0.38         | \$190.00               | WIRE, NO.10, 1 CONDUCTOR, CASE, FLEXIBLE 37 STRAND, 3/64 IN. INSULATION-ORDER EXT.AMT. NEEDED CR 02-620502                                                                |                       |                                     |                               |                      |
| 500                   | 465-458198-4  | FT | \$0.20         | \$100.00               | WIRE, NO.16, 1 CONDUCTOR, CASE, FLEXIBLE, 19 STRAND, 2/64 IN. INSULATION                                                                                                  |                       |                                     |                               |                      |

Total Material: \$165,947.14

|                   |                      |            |             |
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| APPROVED BY STATE | APPROVED BY RAILROAD | CAR NUMBER | SEAL NUMBER |
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