



STATE OF MICHIGAN  
**DEPARTMENT OF TRANSPORTATION**  
LANSING

JENNIFER M. GRANHOLM  
GOVERNOR

KIRK T. STEUDLE  
DIRECTOR

October 29, 2009

Mr. J. Leo McGlynn, P.E.  
Director Design & Construction  
Consolidated Rail Corp.  
1000 Howard Blvd  
Mt. Laurel, New Jersey 08054

Dear Mr. McGlynn, P.E.:

RE: MDOT Contract Number: 09-5628  
Control Section: 82073  
Job Number: 105333A

Enclosed is a fully executed copy of the above noted agreement.

Sincerely,

A handwritten signature in black ink that reads 'Vanessa Skym'.

Vanessa Skym  
Contract Processing  
Design Support Area

Enclosure

cc: S. Rapp, Design Division  
Metro  
Project Accounting, Financial Operations Division

DIR

Contract Number	09-5628
Control Section	EBSL 82073
Structure Number	R01 of 82073
Job Number	105333A
Federal Project	EBSL-0982(015)
Federal Item	HH-5763

THIS AGREEMENT, entered into this date of OCT 28 2009, by and between the MICHIGAN DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the DEPARTMENT, and CONSOLIDATED RAIL CORPORATION, a Pennsylvania corporation admitted to do business under the laws of the State of Michigan and other states, hereinafter referred to as the RAILROAD,

WITNESSETH:

WHEREAS, the County of Wayne, Michigan, constructed in 1928 the existing grade separation carrying Fort Street over the RAILROAD located in the City of Detroit, Wayne County, Michigan; and

WHEREAS, an agreement dated May 11, 1928, between The Pennsylvania Railroad Company and the Michigan Central Railroad Company (RAILROAD last successor in interest to both companies), the County of Wayne, the City of Detroit, and the Wabash Railway Company covering the construction and subsequent maintenance of the grade separation specifies the County of Wayne, at its own expense, will maintain, repair, and renew the grade separation structure; and

WHEREAS, in the year 2001, the DEPARTMENT assumed jurisdictional authority of the portion of Fort Street containing the grade separation, and designated Fort Street as State Trunkline Highway M-85; and

WHEREAS, the DEPARTMENT is now the last successor in interest to the County of Wayne and City of Detroit in respect to the aforementioned agreement dated May 11, 1928; and

WHEREAS, the DEPARTMENT now proposes to remove the existing structure and replace it with a new one; and

WHEREAS, the portions of the agreement dated May 11, 1928, addressing the granting by the RAILROAD to the DEPARTMENT of a two hundred four (204) foot wide highway right-of-way across the rights-of-way of the railroads, shall remain in full force and effect; and,

WHEREAS, the parties hereto have reached an understanding with each other with respect to the preparation and approval of plans and specifications, replacement of the grade separation, and

the construction of temporary and incidental works made necessary by such construction, all herein from time to time hereinafter referred to as the PROJECT, the maintenance, repair, replacement and renewal thereof, and the payment of the cost thereof, and desire to set forth their understanding in the form of a written agreement.

NOW, THEREFORE, in consideration of the premises and the performance of the mutual undertakings of the parties hereto, it is hereby agreed:

1. In accordance with the plans, the standard specifications of the DEPARTMENT, and the special provisions and other specifications hereinafter mentioned, the DEPARTMENT will undertake the construction of the PROJECT, pursuant to all of the terms and conditions of this AGREEMENT. For the purposes of the construction work, the DEPARTMENT and its contractors may enter upon and occupy the property of the RAILROAD, subject to the conditions hereinafter stated; provided that, immediately upon completion of the PROJECT, the property of the RAILROAD shall be restored to a condition deemed by the Chief Engineer of the RAILROAD to be suitable for railroad purposes.

2. The general plans for the PROJECT and the estimated cost of the work to be performed by the RAILROAD on a force account basis are shown on the following exhibits which are attached hereto and made a part of this AGREEMENT.

Exhibit A - General Plan of Site (1 sheet), showing present location of the tracks of the RAILROAD and of the highway overpass structure, and the existing 204 foot wide Fort Street right-of-way across the rights-of-way of the RAILROAD as granted to the DEPARTMENT by the railroad companies in the May 11, 1928, agreement.

Exhibit B - General Plan of Structure (5 sheets), showing the general plan, elevation, and deck section of the highway overpass structure, RAILROAD clearances and rights-of-way.

Exhibit C - Railroad Contract Authorization (1 sheet) dated December 29, 2008, for preliminary engineering in amount of \$15,000 and RAILROAD estimate of cost (1 sheet), dated August 26, 2009, of the construction related work to be performed by the RAILROAD in conjunction with said PROJECT on a force account basis, as provided in Section 8 herein, including review of contractor submittals, construction engineering and inspection, and accounting.

3. The DEPARTMENT will prepare, at no expense to the RAILROAD, all designs, detailed plans and specifications for the PROJECT. The designs, detailed plans and specifications shall be subject to the approval of the RAILROAD insofar as they affect the facilities of the RAILROAD before awarding of construction contracts. All of the work shall be designed, detailed and constructed in accordance with the current specifications and standards of the DEPARTMENT.

4. The RAILROAD has prepared and furnished to the DEPARTMENT an estimate of the cost of work to be performed by it on a force account basis, as specified in Section 8 herein. The

DEPARTMENT will reimburse the RAILROAD, as part of the preliminary engineering, for the cost of the preparation of said estimate and for the expense incurred in reviewing the project agreement, plans, and special provisions.

5. The DEPARTMENT will advertise its portion of the work of construction of the PROJECT in accordance with its regulations, considering bids therefor only from contractors prequalified by it for such work, will award the contracts therefor, and will exercise complete supervision and control over the construction. While work is being performed adjacent to, under, or over its tracks, the RAILROAD may place a competent engineer or inspector on the work, together with necessary assistants, at PROJECT expense, to protect its interests. Said engineer or inspector of the RAILROAD, acting through the DEPARTMENT'S engineer, shall have the right to reject any or all work affecting the RAILROAD'S interests which is not executed pursuant to, and in conformity with, the aforesaid plans and specifications.

6. The DEPARTMENT will require its contractor to comply with the Special Provision for Work on Railroad Property and Specific Requirements of Consolidated Rail Corporation for Work on Its Right of Way, both of which are hereby approved by the RAILROAD and the DEPARTMENT, and are attached hereto and made a part hereof.

The RAILROAD agrees to furnish, or cause to be furnished by its parent Norfolk Southern, to the contractor, and the DEPARTMENT shall require the contractor to use, such switchtenders, flagmen, telegraph operators, conductors, pilots, watchmen or other protective services or devices, other than engineering personnel (collectively, FLAGGING), as in the opinion of the RAILROAD are required to insure safety and continuity of railroad traffic during the contractor's operations.

The RAILROAD agrees to bill the contractor the actual cost FLAGGING provided by it including the actual rate of pay, plus the amount paid for overtime, insurance, railroad retirement, vacation allowance, holidays, health and welfare, transportation, deadhead and turn around time, accounting and billing. In the event Norfolk Southern furnishes FLAGGING, the cost thereof shall be billed to the contractor by Norfolk Southern and paid by the contractor to Norfolk Southern.

The DEPARTMENT agrees to reimburse the contractor for said cost of protective services and devices as set forth in this AGREEMENT and the attached Special Provision for Work on Railroad Property.

It is expressly understood that no provisions of this AGREEMENT or approval by the RAILROAD as to construction operations shall relieve the contractor of any responsibility or liability whatsoever.

7. The DEPARTMENT will undertake and perform through contractors:
- A. The removal of the existing bridge.
  - B. The construction of the replacement grade separation.

- C. Placement of a City of Detroit water main beneath the RAILROAD in the vicinity of the grade separation. Any agreements, licenses, etc. covering these facilities shall be separate from this AGREEMENT and will be between the City of Detroit and the RAILROAD.
- D. Wrapping (for safety) and/or temporarily taking out-of-service, removing, and replacing the overhead City of Detroit Public Lighting Department street light wirelines passing over the RAILROAD – to facilitate bridge construction. If temporarily removed, the lines will be replaced in their current overhead locations. Should the City of Detroit Public Lighting Department in the future desire to relocate these wirelines beneath the RAILROAD, any agreements, licenses, etc. covering these facilities shall be separate from this AGREEMENT and will be between the City of Detroit and the RAILROAD.
- E. All work incidental to the foregoing, except the work to be performed by the RAILROAD as stated in Section 8.

8. The RAILROAD will, at PROJECT expense, on a force account basis, using either its own forces and equipment or a subcontractor, perform the work as listed below. The DEPARTMENT will provide formal authorization to the RAILROAD to proceed with its work following execution of this AGREEMENT and obligation of federal funds for the PROJECT by the Federal Highway Administration (FHWA). The use of a subcontractor by the RAILROAD will require prior approval by the DEPARTMENT and the FHWA. All contracts with subcontractors, including amendments, shall be submitted to the DEPARTMENT for review. All subcontracts in excess of one hundred thousand dollars (\$100,000) require formal approval by the DEPARTMENT prior to execution. Any such approval by the DEPARTMENT or the FHWA shall in no way be construed as a warranty of the subcontractor's qualifications, professional standing, ability to perform the work being contracted, or financial integrity. Consent to sublet by the RAILROAD any portion of the PROJECT work shall not be construed to relieve the RAILROAD of any responsibility or obligation under, or for the fulfillment of this AGREEMENT.

The RAILROAD will furnish all materials, labor and equipment to perform the following items:

- A. Perform such preliminary engineering, construction engineering, and inspection as may be necessitated by the PROJECT. The RAILROAD will invoice the DEPARTMENT for these items.
- B. Provision of switchtenders, flagmen, watchmen and other protective services and devices to promote safety and insure continuity of train operations as may be necessary in connection with the work performed. The RAILROAD will invoice the contractor for the daily flagging services performed.

9. Any work necessitated by the PROJECT but not specifically provided for in this agreement which shall involve temporary or permanent changes to any facilities of the RAILROAD shall be performed, at PROJECT expense, by one of the parties hereto as may be mutually agreed upon from time to time during the progress of the work and in conformity with the rules and regulations of the FHWA as then in effect. The RAILROAD will be permitted to work outside its regular working hours, at premium rates, to perform its force account work when such working hours have been approved by the DEPARTMENT'S regional field engineer, provided the arrangement for such work is required to maintain continuity of train movements or to maintain construction schedules and is in the public interest.

10. All work performed or caused to be performed, and materials and equipment furnished or caused to be furnished by the RAILROAD pursuant to this agreement, will be performed on a force account basis, billed by the RAILROAD and reimbursed by the DEPARTMENT, as defined and as provided in the Federal-Aid Policy Guide (FAPG), Part 140, Subpart I, dated December 9, 1991, and amendments thereto, incorporated herein by reference as if the same were repeated in full herein. The DEPARTMENT will pay from PROJECT funds such amounts as are approved for payment by the FHWA in accordance with its regulations.

During the course of the PROJECT, changes, extra work, and/or adjustments to the contract, as well as extensions of time, may be requested by either party to the contract and/or become necessary. If acceptable to the DEPARTMENT, the DEPARTMENT will prepare a Form 1100RR (or similar) document to modify the contract and authorize the RAILROAD to perform the modified work. The RAILROAD hereby consents and agrees to accomplish the modified work in conformance with the requirements of the document and this AGREEMENT. The RAILROAD need not sign the document if the modified work has been previously requested in writing by the RAILROAD, a copy of the RAILROAD'S request is attached to the document, and the RAILROAD'S request has not been changed in any way by the DEPARTMENT. If the contract modification is requested by the DEPARTMENT, or if the DEPARTMENT alters modified work proposed by the RAILROAD, the RAILROAD will be offered the opportunity to sign the document indicating its agreement to carry out the modifications as written.

The RAILROAD will credit to the PROJECT the value of materials recovered from temporary or permanent use on the PROJECT in accordance with the provisions of the Federal-Aid Policy Guide, Part 140, Subpart I, dated December 9, 1991, and amendments thereto.

The RAILROAD shall afford the DEPARTMENT and the FHWA a reasonable opportunity to inspect materials recovered prior to disposal by sale or scrap.

The DEPARTMENT will reimburse the RAILROAD upon completion of authorized work and receipt of progress and final billings therefor, the costs and expenses incurred by it, withholding (if applicable) until after final audit, a retainage as set forth in paragraph 9 of the State of Michigan Administrative Board Resolution of May 1, 1979, as amended, entitled, "Department of Transportation Construction and Maintenance Contracts" attached hereto as Appendix "C". The retainage provision may be waived for those railroad companies the DEPARTMENT has determined

to have had recent, acceptable history of both contract compliance and audit experience with the DEPARTMENT, and where there are no other circumstances indicating a need to maintain the retainage to reasonably protect the public interest. The RAILROAD will bear the full cost of any items for which they are responsible and which are determined to be not properly a part of the PROJECT. The RAILROAD certifies that it is aware of the applicable laws, regulations and terms of the AGREEMENT that apply to reporting of costs incurred and any such costs reported represent only those items which are properly chargeable.

11. The RAILROAD shall:

- A. Establish and maintain accurate records, in accordance with generally accepted accounting principles, of all expenses incurred for which payment is sought or made under this AGREEMENT, said records to be hereinafter referred to as the RECORDS. Separate accounts shall be established and maintained for all costs incurred under this AGREEMENT.
- B. The RAILROAD shall maintain the RECORDS for at least three (3) years from the date of final payment of federal aid made by the DEPARTMENT under this AGREEMENT. In the event of a dispute with regard to the allowable expenses or any other issue under this AGREEMENT, the RAILROAD shall thereafter continue to maintain the RECORDS at least until that dispute has been finally decided and the time for all available challenges or appeals of that decision has expired.
- C. The DEPARTMENT, or its representative, may inspect, copy, or audit the RECORDS at any reasonable time after giving reasonable notice.
- D. If any part of the work is subcontracted, the RAILROAD shall assure compliance with subsections (A), (B), and (C) above for all subcontracted work.

IT IS FURTHER AGREED THAT:

Final settlement of costs shall be made upon completion of all PROJECT work and final audit by the DEPARTMENT. In the event that an audit performed by or on behalf of the DEPARTMENT indicates an adjustment to the costs reported under this AGREEMENT, or questions the allowability of an item of expense, the DEPARTMENT shall promptly submit to the RAILROAD, a Notice of Audit Results and a copy of the audit report which may supplement or modify any tentative findings verbally communicated to the RAILROAD at the completion of an audit.

Within sixty (60) days after the date of the Notice of Audit Results, the RAILROAD shall: (a) respond in writing to the responsible Bureau of the DEPARTMENT indicating whether or not it concurs with the audit report, b) clearly explain the nature and basis for any disagreement as to a

disallowed item of expense and, (c) submit to the DEPARTMENT a written explanation as to any questioned or no opinion expressed item of expense, hereinafter referred to as the RESPONSE. The RESPONSE shall be clearly stated and provide any supporting documentation necessary to resolve any disagreement or questioned or no opinion expressed item of expense. Where the documentation is voluminous, the RAILROAD may supply appropriate excerpts and make alternate arrangements to conveniently and reasonably make that documentation available for review by the DEPARTMENT. The RESPONSE shall refer to and apply the language of the AGREEMENT. The RAILROAD agrees that failure to submit a RESPONSE within the sixty (60) day period constitutes agreement with any disallowance of an item of expense and authorizes the DEPARTMENT to finally disallow any items of questioned or no opinion expressed cost.

The DEPARTMENT shall make its decision with regard to any Notice of Audit Results and RESPONSE within one hundred twenty (120) days after the date of the Notice of Audit Results. If the DEPARTMENT determines that an overpayment has been made to the RAILROAD, the RAILROAD shall repay that amount to the DEPARTMENT or reach agreement with the DEPARTMENT on a repayment schedule within thirty (30) days after the date of an invoice from the DEPARTMENT. If the RAILROAD fails to repay the overpayment or reach agreement with the DEPARTMENT on a repayment schedule within the thirty (30) day period, the RAILROAD agrees that the DEPARTMENT shall deduct all or a portion of the overpayment from any funds then or thereafter payable by the DEPARTMENT to the RAILROAD under this AGREEMENT, or any other agreement. Interest will be assessed on any partial payments or repayment schedules based on the unpaid balance at the end of each month until the balance is paid in full. The assessment of interest will begin thirty (30) days from the date of the invoice. The rate of interest will be based on the Michigan Department of Treasury common cash funds interest earnings. The rate of interest will be reviewed annually by the DEPARTMENT and adjusted as necessary based on the Michigan Department of Treasury common cash funds interest earnings. The RAILROAD expressly consents to this withholding or offsetting of funds under those circumstances, reserving the right to file a lawsuit in the Court of Claims to contest the DEPARTMENT'S decision only as to any item of expense the disallowance of which was disputed by the RAILROAD in a timely filed RESPONSE.

12. The DEPARTMENT shall require its contractor to procure all insurance coverages specified in the DEPARTMENT'S Special Provision for Work on Railroad Property and the RAILROAD'S Specific Requirements of Consolidated Rail Corporation for Work on Its Right of Way and to keep those coverages in effect until work is completed and accepted. All insurance coverages required herein shall be issued by a company authorized to do business in the State of Michigan.

13. Neither the DEPARTMENT nor the RAILROAD shall be liable to the other for its or its employees', agents', contractors' or subcontractors' negligence. The DEPARTMENT shall require its contractor or any subcontractor(s) to defend, indemnify, protect and hold harmless RAILROAD and its officers, agents and employees from and against any and all suits, demands, claims, loss, damage, charges or expense, whether direct or indirect, to which they may be subjected by reason of any damage, loss or injury to persons or property caused by or resulting from any wrongful act or neglect by the DEPARTMENT'S contractor or subcontractor(s) in the performance of any work related to the PROJECT.

14. This is a project for the replacement of the existing structure and is the responsibility of the DEPARTMENT as per the existing agreement dated May 11, 1928. Therefore, the RAILROAD shall not be assigned any liability as to the cost of the PROJECT.

15. If, at any time, without fault of the parties hereto, the work which is hereunder agreed to be done shall cease and not be resumed within sixty (60) days, or such extended period as is mutually agreed upon, the parties hereto, if not then agreed, will agree upon and will perform such work as is reasonably necessary to place the right-of-way, tracks and other facilities of the RAILROAD in a satisfactory, permanent operating condition. The DEPARTMENT shall assume and pay the cost of such work, provided that the aforesaid sixty (60) day limitation shall not apply to the temporary suspension of work under order of any governmental agency or court, in which event the work shall be resumed and completed as soon as possible in accordance with the terms of this AGREEMENT.

16. In the event delays or difficulties occur before the commencement of physical operations hereunder which, in the opinion of the DEPARTMENT, render it impracticable to proceed with the construction of the PROJECT, the DEPARTMENT may serve written notice thereof upon the RAILROAD and this AGREEMENT shall thereupon terminate forthwith, provided however, that the RAILROAD shall be reimbursed for costs and expenses incurred pursuant to Section 4 of this AGREEMENT.

17. When the construction of said PROJECT has been completed, the RAILROAD, at its sole cost and expense, will maintain, repair, replace and renew its tracks, ties, ballast, and other railroad facilities, and will, without cost to the DEPARTMENT, repair, replace or remediate, or cause to be repaired, replaced or remediated, any portion of the highway overpass structure, the roadway surfacing, the roadway retaining walls, slopes, drainage facilities, real property and other facilities of the DEPARTMENT which may be damaged, contaminated or destroyed by accident, or otherwise, resulting solely from railroad traffic. The DEPARTMENT, without cost to the RAILROAD and in accordance with this AGREEMENT, will maintain, repair, replace and renew, or cause same to be done as and when circumstances may require, the highway overpass structure, the roadway surfacing, the roadway retaining walls, slopes, and the highway drainage facilities. The DEPARTMENT, at its sole cost and expense, will also repair, replace or remediate, or cause to be repaired, replaced or remediated, any portion of the tracks, ties, ballast, real property and other facilities of the RAILROAD which may be damaged, contaminated or destroyed by accident, or otherwise, resulting solely from highway traffic or pedestrian use of the grade separation.

18. If at any time in the future, the tracks of the RAILROAD are absolutely discontinued, abandoned, and removed by the RAILROAD, or if at any time in the future, the highway is absolutely discontinued and abandoned, or if, for any other reason, no further need exists for the grade separation, the DEPARTMENT or the governing body having jurisdiction at that time of the portion of the highway including the PROJECT, may, at its sole cost and expense, remove the grade separation structure not including underground drainage facilities. However, it is agreed that such removal shall not be undertaken without full approval by and consent of the RAILROAD insofar as its respective interests are involved. Until the structure is removed, it shall be maintained in accordance with Section 17 of this AGREEMENT.

19. Either the DEPARTMENT or the RAILROAD may now, or at any time hereafter, and from time to time, at its sole cost and expense, construct or provide additional facilities and betterments to this PROJECT, together with the necessary construction and expenditures to adapt the same to the new physical conditions occasioned by such additional facilities and betterments. It is agreed that such construction shall not be undertaken by either the DEPARTMENT or the RAILROAD without full approval by and consent of the other party insofar as its respective interests are involved.

20. It is anticipated that the PROJECT is to be financed in part from funds appropriated by the Federal Government and expended under federal laws and regulations, which laws and regulations are hereby incorporated in and made a part of this AGREEMENT.

21. Any approvals, reviews and inspections of any nature by the DEPARTMENT shall not be construed as a warranty or assumption of liability on the part of the DEPARTMENT. It is expressly understood and agreed that any such approvals are for the sole and exclusive purposes of the DEPARTMENT, which is acting in a governmental function incidental to this AGREEMENT.

Any such approvals, reviews and inspections by the DEPARTMENT will not relieve the RAILROAD of its obligations hereunder, nor are such approvals, reviews and inspections by the DEPARTMENT to be construed as a warranty as to the propriety of the RAILROAD'S performance but are undertaken for the sole use and information of the DEPARTMENT.

22. In connection with the performance of the work under this AGREEMENT, the RAILROAD (hereinafter in Appendix "A" referred to as the "contractor") agrees to comply with the State of Michigan provisions for "Prohibition of Discrimination in State Contracts", as set forth in Appendix "A", dated March, 1998, attached hereto and made a part hereof and will require a similar covenant on the part of any contractor or subcontractor employed in the performance of this AGREEMENT.

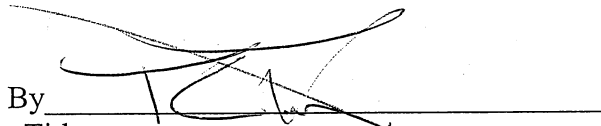
23. During the performance of this AGREEMENT, the RAILROAD for itself, its assigns, and successors in interest (hereinafter in Appendix "B" referred to as the "contractor") agrees to comply with the Civil Rights Act of 1964, being P.L. 88-352, 78 Stat. 241, as amended, being Title 42 U.S.C. Sections 1971, 1975a-1975d, and 2000a-2000h-6 and the Regulations of the Department of Transportation (49 C.F.R. Part 21) issued pursuant to said Act, including Appendix "B", dated March, 1992, as amended, attached hereto and made a part hereof and will require similar covenants on the part of any contractor or subcontractor employed in the performance of this AGREEMENT.

24. The resolution of the State Administrative Board, dated May 1, 1979, as amended, entitled "Department of Transportation Construction and Maintenance Contracts", as set forth in Appendix "C", is attached hereto and made a part hereof.

25. It is specifically understood and agreed that this AGREEMENT shall become and be binding on the parties hereto, their successors and assigns, in full force and effect upon signing thereof by duly authorized representatives of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed by their proper and duly authorized representatives.


CONSOLIDATED RAIL CORPORATION

By   
Title: Vice President / Chief Engineer

MICHIGAN DEPARTMENT OF TRANSPORTATION

By   
Department Director MDOT



9/18/09  


**DIRECTOR  
AGENDA**

10/1/09

MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
  
SPECIAL PROVISION  
FOR  
**WORK ON RAILROAD PROPERTY  
CONRAIL**

DES:SMR

1 of 8

REVISED: 09-11-09  
C&T:APPR:JFS:SJC 09-15-98

The successful bidder, hereinafter referred to as the CONTRACTOR, agrees:

1. To cooperate with public utility, railroad and other organizations having occasion to carry on their usual work within the limits of the Project, or doing work on and in connection with the Project.
2. To conduct the work without damage to the property of and insofar as is possible, without delay to the trains operating on the Consolidated Rail Corporation, hereinafter referred to as the RAILROAD. The CONTRACTOR shall observe such restrictions as the RAILROAD'S Chief Engineer or authorized representative on the project site (acting through the engineer of the Department of Transportation, hereinafter referred to as the DEPARTMENT), may impose for the safety and dispatch of persons and property of and in care of the RAILROAD and for the safe and expeditious operation of its trains. No charge or claims of the CONTRACTOR against either the DEPARTMENT or the RAILROAD will be allowed for hindrance or delay on account of RAILROAD traffic, any work done by the RAILROAD, or other delay incident to or necessary for safe maintenance of RAILROAD traffic or for any delays due to compliance with these Special Provisions.
3. To provide protection from falling debris to the property, track, and rail traffic of the RAILROAD, in accordance with the DEPARTMENT'S specifications. Any such protection shall not be constructed lower than 22 feet vertically from the top of the rail.
4. To obtain written approval from the Consolidated Rail Corporation, attention Mr. J. L. McGlynn, 1000 Howard Blvd., Mt. Laurel, New Jersey 08054, phone (856) 231-2450, at least seven working days before starting work, of the proposed construction and demolition methods, schedule of operations, debris protection and horizontal and vertical clearances over and adjacent to the track of the RAILROAD to be provided during the construction period. Conrail's local representative, Mr. Carl Young, phone (734) 834-6551, shall be contacted to

coordinate approval of a site-specific work plan to be submitted by the CONTRACTOR addressing the above items. Such approval shall not be construed to relieve the CONTRACTOR of any responsibility for the adequacy and safety of the construction. The CONTRACTOR shall be required to submit to the RAILROAD a written safety program prepared by the CONTRACTOR for the education and protection of their employees. This program should address the hazards and safety consideration of working in the vicinity of the RAILROAD'S operations and property.

5. To notify Consolidated Rail Corporation, attention Mr. J. L. McGlynn, 1000 Howard Blvd., Mt. Laurel, New Jersey 08054, in writing a minimum of 30 days before entering upon the property of the RAILROAD or starting any work which may require protection by the RAILROAD. If this requirement is not complied with, the RAILROAD may have the work stopped until arrangements for protection are made. The CONTRACTOR will not be entitled to any additional payment or any other compensation for damages because of work stoppage.
6. To avoid use of railroad property without written permission of the RAILROAD and to leave railroad roadbed and property in a condition acceptable to the Chief Engineer of the RAILROAD. Contact Mr. Bob Dempsey at [bob.dempsey@conrail.com](mailto:bob.dempsey@conrail.com) to request the "Temporary License Permitting Entry on Property". The cost of this, and any other permits required by the RAILROAD, is to be paid by the CONTRACTOR. There will not be a separate pay item for this work, as the cost shall be included in other related items of work.
7. To carry the following insurance, in a form, and with an insurer or insurers, acceptable to the DEPARTMENT and the Consolidated Rail Corporation, 1000 Howard Blvd., Mt. Laurel, New Jersey 08054, Attention: Mr. J. L. McGlynn.

a. Worker's Compensation/Employers' Liability Insurance.

Employers' Liability and Occupational Disease Insurance with limits of \$1,000,000 each accident, \$1,000,000 policy limit and \$1,000,000 each employee. Such policy shall include a waiver of subrogation in favor of Conrail.

b. Contractor's Public Liability and Property Damage Liability Insurance.

The CONTRACTOR shall furnish to the DEPARTMENT and to the RAILROAD copies of policies as evidence that, with respect to CONTRACTOR operations, standard Contractor's Public Liability Insurance is in effect providing for limits of liability of not less than five million dollars (\$5,000,000) for each occurrence with

an aggregate of five million dollars (\$5,000,000) for the term of the policy with respect to bodily injury or death; and standard Contractor's Property Damage Liability Insurance providing for limits of liability of not less than five million dollars (\$5,000,000) for each occurrence with an aggregate of five million dollars (\$5,000,000) for the term of the policy with respect to property damage. Conrail shall be named as an additional insured under this insurance.

If any part of the work is sublet, similar insurance with like amounts of coverage shall be provided by or in behalf of the subcontractors to cover their operations. Contractual Insurance in accordance with the Standard Specifications of the DEPARTMENT shall be provided as a part of this policy.

- c. Contractor's Protective Public Liability and Protective Property Damage Liability Insurance.

The CONTRACTOR shall furnish to the DEPARTMENT and to the RAILROAD copies of policies as evidence that, with respect to the operations performed by subcontractors, the CONTRACTOR carries standard Contractor's Protective Public Liability Insurance and standard Contractor's Protective Property Damage Liability Insurance providing for coverage and limits of liability which are identical with the coverage and limits of liability of insurance required under the Contractor's Public Liability and Property Damage Liability Insurance as set forth in subparagraph "b" above.

- d. Railroad Protective Liability Insurance in behalf of the Consolidated Rail Corporation, 1000 Howard Blvd., Mt. Laurel, New Jersey 08054, Attention: Mr. J. L. McGlynn, as the named insured.

The CONTRACTOR shall furnish copies to the DEPARTMENT and the original policy to the RAILROAD as evidence that, with respect to CONTRACTOR and, if applicable, subcontractor operations, standard Railroad Protective Liability Insurance is carried providing for limits of liability in the amount of two million dollars (\$2,000,000) combined single limit per occurrence for bodily injury, death, and property damage with an aggregate limit of six million dollars (\$6,000,000) applying separately to each annual period. Said Railroad Protective Liability Insurance shall conform to the regulations prescribed therefore in the Federal-Aid Policy Guide, Part 646, Subpart A of the Federal Highway Administration dated December 9, 1991, and amendments thereto.

- e. Contractor's Pollution Legal Liability Insurance.

The CONTRACTOR shall furnish to the DEPARTMENT and to the RAILROAD copies of policies as evidence that, with respect to contractor or subcontractor operations, the CONTRACTOR carries Contractor's Pollution Liability Insurance with limits of not less than \$5,000,000 per occurrence / \$5,000,000 aggregate bodily injury, property damage and cleanup expenses resulting from pollution conditions. Consolidated Rail Corporation shall be named as an additional insured under this insurance.

f. Automobile Liability Insurance.

Automobile Liability Insurance with a limit of not less than \$5,000,000 combined single limit for bodily injury and/or property damage per occurrence. Conrail shall be named as an additional insured under this insurance.

g. General.

The insurance hereinbefore specified shall be with an acceptable insurance company authorized to do business in the State of Michigan and shall be taken out before work is commenced and kept in effect until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the DEPARTMENT. Each policy shall contain the following endorsement:

"It is hereby agreed that 30 days prior written notice of cancellation, expiration, termination, or reduction of coverage provided by this policy will be given to the Michigan Department of Transportation, and the Consolidated Rail Corporation, 1000 Howard Blvd., Mt. Laurel, New Jersey 08054, Attention: Mr. J. L. McGlynn."

If any of the insurance is canceled, the CONTRACTOR and all subcontractors shall cease operations as of the date of cancellation and shall not resume operations until new insurance is in force. The cost of the insurance hereinbefore specified will not be a specific bid item, but will be covered by the various unit prices bid.

8. That no provisions of these Special Provisions, nor approval by the RAILROAD as to construction operations, shall relieve the CONTRACTOR of any responsibility or liability whatsoever.
9. To pay the RAILROAD or owning company for any changes to railroad property, facilities, or to wire and pipe lines, required for the CONTRACTOR'S convenience, other than as shown on the plans for the Project.

10. In the event that the CONTRACTOR shall require a temporary crossing of the railroad track, at least twelve weeks advance notice shall be given to the RAILROAD of such need, but this in no way requires the RAILROAD to approve a temporary crossing. It shall be the responsibility of the CONTRACTOR to determine and comply with the requirements of the RAILROAD covering the location, installation, protection, maintenance, use, and removal of such temporary crossing. The CONTRACTOR shall bear all costs and expenses incidental thereto, including, but not limited to, the cost of installation, protection, maintenance, and removal of such temporary crossing, contractual liability insurance thereon, and incidental work such as drainage facilities and removal, alteration, and replacement of railroad fences.
11. To conduct operations both on and off the RAILROAD right of way so that no earth, mud, silt, or other foreign matter will be allowed to foul railroad track ballast. All disturbed slopes adjacent to or on RAILROAD right-of-way must be protected from erosion. Refer to the RAILROAD'S CE-6 document and "Conrail's Sediment and Erosion Control Notes" for specific requirements. In order to accomplish this, it may be necessary for the CONTRACTOR to construct temporary earth dikes, sheeting, tie cribbing, or take other precautions to prevent the fouling of railroad track ballast. Where, in the opinion of the RAILROAD, work along, over, or across the track will result in the ballast becoming fouled, the CONTRACTOR shall take preventive measures to protect the entire ballast section by nailing canvas, plywood, or similar material to the ties in the entire area likely to be affected. The protective material shall remain in place until there is no further possibility of fouling the ballast and shall then be removed by the CONTRACTOR. These protective measures shall be performed by, and at the expense of, the CONTRACTOR and under the supervision of, and to the satisfaction of, the RAILROAD'S Chief Engineer or authorized representative; but the RAILROAD assumes no responsibility for the adequacy thereof. The costs for protective measures will not be paid for separately, but are included in other related items of work. However, in spite of the aforementioned protective measures, if railroad track ballast does become fouled, the RAILROAD may with its own forces, remove the fouled ballast and replace same with clean ballast. The charges for this work will be billed by the RAILROAD to the CONTRACTOR who shall pay them promptly.
12. To maintain temporary minimum construction clearances of 22 feet vertically from top of rail and 9 feet horizontally from and measured at right angles to the centerline of the active track for the erection of any necessary falsework, bracing, or forms. Note the RAILROAD may require temporary clearances greater than specified above if the specific site conditions permit.

13. To comply with RAILROAD safety rules that require, without exception, hard hat, eye protection, high-visibility reflective vest, and safety shoes be worn while working on structures over or under the tracks of the RAILROAD. This requirement shall also apply to DEPARTMENT personnel.
14. That acceptance of work under this contract involving the Consolidated Rail Corporation by the Michigan Department of Transportation will be conditioned upon approval of the Chief Engineer of the RAILROAD.
15. That in addition to the requirements listed above, the CONTRACTOR shall observe and follow the "Specific Requirements of Consolidated Rail Corporation for Work on It's Right Of Way - CE-6" dated February 1997, supplied by the RAILROAD, and included elsewhere in this proposal. In all instances in CE-6 the word "sponsor" shall be interpreted to mean CONTRACTOR as herein defined, except under the headings CHANGES IN RAILROAD FACILITIES and RAILROAD ENGINEERING AND INSPECTION, in which case "sponsor" shall be interpreted to mean DEPARTMENT as herein defined, and consistent with the requirements contained in the Sections herein.
16. The CONTRACTOR and/or any subcontractor(s) shall defend, indemnify, protect and hold harmless RAILROAD and its officers, agents and employees from and against any and all suits, demands, claims, loss, damage, charges or expense, whether direct or indirect, to which they may be subjected by reason of any damage, loss or injury to persons or property caused by or resulting from any wrongful act or neglect by the CONTRACTOR or subcontractor(s) in the performance of any work related to the Project.
17. To pay to the RAILROAD the cost of daily RAILROAD inspection and flagging services, switchtenders, conductors, pilots, and/or other protective services and devices furnished by the RAILROAD and made necessary in the judgment of the Chief Engineer of the RAILROAD, to ensure inspection and protection of RAILROAD property, safety, and continuity of RAILROAD traffic during the CONTRACTOR'S operations on RAILROAD property, all as more particularly set forth in the following paragraphs:
  - a. Such protection will be required when workers or equipment are working on RAILROAD property or when work is being performed adjacent to, under, or over track in use which may present hazards to track or to train operations, or when equipment is used which does or may infringe on such limits. The CONTRACTOR will not be permitted to operate any equipment on the railroad track, or property, except under proper arrangement with the RAILROAD. Such equipment and

the operation of such equipment or equipment rented from the RAILROAD, shall be arranged for by the CONTRACTOR with the RAILROAD, and the cost for its use, including protection of railroad traffic, shall be borne by the CONTRACTOR.

- b. RAILROAD bills for such protection cost accruing to the CONTRACTOR shall be paid promptly. Before final payment is made by the DEPARTMENT to the CONTRACTOR, satisfactory evidence shall be submitted indicating the cost of the protection services and devices furnished by the RAILROAD has been paid.
- c. Protection cost will be charged to the CONTRACTOR by the RAILROAD in accordance with the working agreements between the RAILROAD and its employees. Such cost will include the actual cost of wages paid, including unemployment, retirement, vacation allowance, payroll taxes, surcharges, overhead, insurance, and other standard and legal costs incidental thereto. The RAILROAD will require an advance deposit from the CONTRACTOR to cover protection (flagging) costs prior to supplying the required protection.
- d. The CONTRACTOR shall consult with the proper operating and engineering representatives of the RAILROAD to determine the type and cost of protection required to insure safety and continuity of railroad traffic incidental to the particular methods and equipment to be used for the work, and shall be satisfied as to the provisions of the several working agreements between the RAILROAD and its employees, insofar as these agreements may affect the cost of protection.
- e. Protection of railroad traffic may include, but not be limited to, the following:
  - (1) Flagging service to protect workers and equipment while work is being performed on RAILROAD property or above or below tracks, while construction equipment or materials are being moved across tracks, and while workers are required to cross continuously back and forth over tracks in the performance of their work.
  - (2) Providing a shanty for RAILROAD personnel, including the installation of dispatcher's telephone.

(3) Installation and maintenance of slow boards.

f. **Measurement and Payment.**-The completed work as measured for **Railroad Inspection and Flagging** will be paid for at the pre-established contract unit price for the following contract item (pay item):

<b>Contract Item (Pay Item)</b>	<b>Pay Unit</b>
Railroad Inspection and Flagging – CR	Dollar

The RAILROAD will bill the CONTRACTOR for inspection and flagging. The CONTRACTOR shall promptly pay to the RAILROAD the full amount of the RAILROAD'S bill for inspection and flagging. The CONTRACTOR shall then submit a copy of the RAILROAD'S bill and proof of payment to the DEPARTMENT'S Engineer for reimbursement. Costs incurred for inspection and flagging due to the failure of the CONTRACTOR to properly notify the RAILROAD 30 days in advance of beginning work which may require a flagger as stated in Section 5, shall be the responsibility of the CONTRACTOR. CONTRACTOR shall inform the RAILROAD in writing when flagging is no longer needed and retain a copy of this written notification. Before final payment is made by the DEPARTMENT to the CONTRACTOR for the project, satisfactory evidence shall be submitted indicating all bills for inspection and flagging services and devices furnished by the RAILROAD have been paid. This pay item covers only inspection and flagging services provided by the RAILROAD. All other costs incurred by the CONTRACTOR in complying with RAILROAD requirements will not be specific pay items, but shall be included in prices bid for other items of the work.

**APPENDIX A  
PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS**

In connection with the performance of work under this contract; the contractor agrees as follows:

1. In accordance with Act No. 453, Public Acts of 1976, the contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or as a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, or marital status. Further, in accordance with Act No. 220, Public Acts of 1976 as amended by Act No. 478, Public Acts of 1980 the contractor hereby agrees not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants shall be regarded as a material breach of this contract.
2. The contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, shall contain a covenant the same as hereinabove set forth in Section 1 of this Appendix.
3. The contractor will take affirmative action to insure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status or a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
4. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.
5. The contractor or his collective bargaining representative will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representative of the contractor's commitments under this appendix.
6. The contractor will comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission which may be in effect prior to the taking of bids for any individual state project.
7. The contractor will furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission, said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor as well as the contractor himself, and said contractor will permit access to his books, records, and accounts by the Michigan Civil Rights Commission and/or its agent, for purposes of investigation to ascertain compliance with this contract and relevant with rules, regulations, and orders of the Michigan Civil Rights Commission.
8. In the event that the Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this agreement, the Civil Rights Commission may, as part of its order based upon such findings, certify said findings to the Administrative Board of the State of Michigan, which Administrative Board may order the cancellation of the contract found to have been violated and/or declare the contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, and including the governing boards of institutions of higher education, until the contractor complies with said order of the Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency shall be notified of such possible remedy and shall be given the option by the Civil Rights Commission to participate in such proceedings.
9. The contractor will include, or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission, and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

March, 1998

(Rev. 03/92)

#### APPENDIX B

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor shall comply with the Regulations relative to nondiscrimination in Federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 27, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or natural origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Michigan Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Michigan Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Michigan Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - (a) Withholding of payments to the contractor under the contract until the contractor complies, and/or
  - (b) Cancellation, termination, or suspension of the contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs 1 through 6 of every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Michigan Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance; provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Michigan Department of Transportation to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

## STATE OF MICHIGAN

ADMINISTRATIVE BOARD RESOLUTION

OF

MAY 1, 1979

(As amended on December 2, 1980, April 7, 1981,  
August 18, 1981, May 15, 1984, April 7, 1987,  
December 15, 1987, January 5, 1988, May 2, 1989 and September 17, 1996)

DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION AND MAINTENANCE CONTRACTS

**WHEREAS**, pursuant to the provisions of Section 2, Act 17, Public Acts of 1925, as amended, all contracts entered into by the Michigan State Transportation Commission or the Michigan Department of Transportation, hereinafter referred to as the "Commission" and the "Department" respectively, require approval of the State Administrative Board, hereinafter referred to as the "Board", except, the Commission or the Department, without the approval of the Board, is authorized to contract for an amount not exceeding \$20,000.00 for each contract, for toilet vault cleaning, use of licensed sanitary landfills, pickup and disposal of refuse, pavement surfacing and patching, rental of equipment for emergency repairs and maintenance operations, curb replacement, maintenance of office equipment, installation of utility services and installation of traffic control devices and without such approval, may authorize Boards of County Road Commissioners, Township Boards, and Municipalities, under contracts for the maintenance of trunkline highways, to subcontract in amounts not to exceed \$20,000.00 for each subcontract;

**WHEREAS**, modification of highway construction and maintenance contracts is sometimes necessary;

**WHEREAS**, extra work is defined as any work which is determined to be essential to the satisfactory completion of the contract but which neither appears therein as a specific item of work nor is included in the price bid for other items in the contract;

**WHEREAS**, it is sometimes necessary in order to avoid delays and increased costs for the Department to authorize extra work by modification of the contract without obtaining specific prior approval of the Board for such modifications;

**THEREFORE, BE IT RESOLVED** by the State Administrative Board of the State of Michigan as follows:

1. Pursuant to applicable Public Acts, the Department, without obtaining the approval of this Board, in connection with any construction or maintenance contract, may contract for extra work or labor, or both, not exceeding \$48,000.00

per contract for contracts having a value of \$800,000.00 or less and not exceeding 6% per contract for contracts having a value over \$800,000.00 under a contract with a private agency authorized by law, and for an amount not exceeding \$800,000.00 under a contract with Boards of County Road Commissioners, Township Boards, and Municipalities of this State, except that each job for extra or additional work or labor, or both, in excess of \$100,000.00 shall require approval of the State Administrative Board.

2. All agreements by the Department to pay for extra work on either a negotiated price or force account basis in excess of the amounts shown in paragraph 1 must be approved by the Board.
3. No extra work which may cause an increase in the contract price in excess of the amount shown in paragraph 1 shall be authorized by the Department prior to Board approval, unless and until the Attorney General has approved the authorization as being in compliance with all legal requirements. Provided, however, that extra work costing not more than \$25,000.00 may be authorized by the Department without prior approval of the Attorney General, if necessary to avoid construction delays or increased costs.
4. Department authorizations for extra work, requiring Board approval, given prior to Board approval shall be presented to the Board for subsequent approval or disapproval as quickly as possible, but in no case more than 60 days after the extra work has been authorized by the Department.
5. The Department shall not pay nor agree to pay any disputed claim for extra compensation for work already commenced or completed without approval of the Board.
6. No payments for extra work requiring Board approval shall be made until such Board approval has been obtained.
7. The Department is authorized to balance budgets for extra work recommendations or authorizations previously approved by the Board, by decreasing, in any amount, or increasing, not in excess of 15 percent, the original estimated amount without additional approval by this Board.
8. No payments for increased contract quantities shall be made by the Department unless and until the Board has given prior approval for such payments, except that payments for overruns may be made without Board approval if such payments do not exceed the following per cent of the original contract price: 10 percent on contracts of \$50,000.00 or more; 15 percent on contracts of \$25,000.00 to \$49,999.99; and 25 percent on contracts of less than \$25,000.00.

9. "The Department shall deduct from payments, and retain 2.5 percent of the total amount earned by a contractor. When the project reaches 90 percent completion, the amount of retainage may be reduced. Local units of government, performing as contractors to the Department, may be excluded from these retainage provisions.

In respect to contracts between the Department and Railroad companies, the 2.5 percent shall be retained until after final audit. The retainage provision may be waived for those Railroad companies the Department has determined to have had recent, acceptable history of both contract compliance and audit experience with the Department, and where there are no other circumstances indicating a need to maintain the retainage to reasonably protect the public interest."

10. The Department shall assess damages against any contractor who fails to have the job open to traffic or completed by the dates specified in the contract unless the contractor has been excused for such failure by the Department. The Department may, without approval of the Board, extend the time for opening to traffic or completion of the contract because of delays from unforeseen causes beyond the control and without the fault or negligence of the contractor, including and restricted to: acts of God; acts of public enemy; acts of Government, acts of the State or any political subdivision thereof; fires; floods; epidemics; strikes; or extraordinary delays in delivery of materials.

No excusal or waiver of damages, except as above provided, shall be final and binding upon the State unless and until approved by the Board, except excusals and waivers granted by the Department prior to the effective date of this Resolution pursuant to applicable specifications and other contract provisions.

11. The foregoing requirements established by the Board shall be made as express part of all construction and maintenance contracts entered into by the Commission, and the Department's standard and supplemental specifications shall be amended to reflect such requirements.
12. Policy Resolution A, approved by the Board on July 17, 1956, and the Resolutions of October 17, 1967, and May 6, 1975 as amended May 4, 1976, are hereby repealed, except that all rights, causes of action, claims, proceedings and suits existing on the effective date of this Policy Resolution shall continue unaffected.
13. Upon approval by the State Administrative Board, this Resolution shall be effective as of September 17, 1996.

CE-6 REV 2-97

**SPECIFIC REQUIREMENTS**  
**OF**  
**CONSOLIDATED RAIL CORPORATION**  
**FOR**  
**WORK ON ITS RIGHT OF WAY**

**APPROVED:**  
**(signed G. A. Thelen)**

**2/1/97**

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**G. A Thelen - Assistant Vice President**  
**Engineering**

## **SCOPE**

It must be clearly understood that Conrail owns and uses its right of way for the primary purpose of operating a railroad. All work shall therefore be done in a manner such that the rail operations and facilities are not interfered with, interrupted or endangered. In addition, any facilities that are a result of the proposed work shall be located to minimize encumbrance to the right of way so that Conrail will have unrestricted use of its property for current and future operations.

The sponsor of the project shall be ultimately responsible for assuring that its agents, consultants, contractors and sub-contractors fully comply with the specifications contained herein. The term 'sponsor' used throughout these specifications shall mean the sponsor, its employees, its agents, consultants, contractors, sub-contractors, etc.

The following terms and conditions shall apply to any project which requires performance of work on the right of way or other property of Conrail.

## **RIGHT OF ENTRY ON CONRAIL PROPERTY**

No entry upon Conrail property shall be permitted without the proper authorization by Conrail to the sponsor in the form of an agreement or a proper permit-to-enter prepared by Conrail. The applicant shall pay the associated fees and execute the permit-to-enter prior to entering Conrail property. The location and design of that portion of the access route to the project site that is on Conrail property shall be shown clearly on any plans for the project and approved by Conrail.

It is to be clearly understood that the issuance of a permit-to-enter does not constitute authority to proceed with any construction work. Construction cannot begin until a formal agreement between Conrail and the sponsor is executed, and the sponsor receives permission from Conrail's representative to proceed with the work.

## **INSURANCE**

In addition to any other forms of insurance or bonds required under the terms of any contract or specifications and except to the extent that any of the requirements of this section are expressly waived or revised in writing by Conrail, prior to the commencement of any work, contractor, at his own cost and expense, shall maintain insurance of the following kinds and amounts and deliver to Conrail satisfactory evidence of such insurance as indicated herein:

### **1. Public Liability Insurance**

Public Liability Insurance, including contractual liability insurance of not less than \$5,000,000 combined single limit for bodily injury and/or property damage for damages arising out of bodily injuries to or death of all persons in any one occurrence and for damage to or destruction of property, including the loss of use thereof, in any one occurrence. Conrail shall be named as an additional insured under this insurance.

### **2. Automobile Liability Insurance**

Automobile Liability Insurance with a limit of not less than \$5,000,000 combined single limit for bodily injury and/or property damage per occurrence. Conrail shall be named as an additional insured under this insurance.

### **3. Workers' Compensation / Employers' Liability Insurance**

Employers' Liability and Occupational Disease Insurance with limits of \$1,000,000 each accident, \$1,000,000 policy limit and \$1,000,000 each employee. Such policy shall include a waiver of subrogation in favor of Conrail.

#### 4. General Contractors Pollution Legal Liability Insurance

General Contractor's Pollution Liability Insurance with limits of not less than \$5,000,000 per occurrence / \$5,000,000 aggregate bodily injury, property damage and cleanup expenses resulting from pollution conditions. Conrail shall be named as an additional insured under this insurance.

#### 5. Railroad Protective Liability Insurance

With respect to the operations performed by it or any of its' subcontractors, contractor shall provide Railroad Protective Liability Insurance (ISO-RIMA FORM) in the name of Consolidated Rail Corporation \*, with a limit of not less than \$2,000,000 per occurrence, combined single limit for bodily injury and/or property damage, for damages arising out of bodily injuries to or death of all persons and for damage to or destruction of property, including the loss of use thereof. Such insurance shall also contain an aggregate of not less than \$6,000,000 for damages arising out of more than one occurrence. \* Conrail shall be the "Named Insured" on this policy.

The insurance specified above shall be carried until the project is satisfactorily completed and formally accepted by Conrail. The above indicated insurance coverages shall be effected under standard form policies issued by insurers of financial responsibility that are rated "A" or better by Best's Insurance Reports, "AA" or better by Standard & Poor's Insurance Rating Service, and "Aa" or better by Moody's Investors Service. Conrail reserves the right to reject as inadequate any insurance coverage provided by an insurance company that is rated less than the ratings above by any of the aforementioned rating services. The above indicated insurance coverages shall be enforceable by any legitimate claimant after the termination or cancellation of the project, whether by expiration of time, by operation of law or otherwise, so long as the basis of the claim against the insurance company occurred during the project and when the insurance was in force. Contractor shall furnish Conrail with certificates of insurance evidencing the insurance coverages required in sections 1, 2, 3, & 4, and shall also furnish the original Railroad Protective Liability Insurance policy referred to in section 5 at least thirty (30) days prior to commencement of the project. All insurance policies shall be endorsed to provide that the insurance company shall give thirty (30) days prior written notice to Conrail if the policies are to be terminated or if any changes are to be made which shall in any way affect the insurance requirements of the project. Certificates, policies or notices should be sent to Manager - Insurance, Consolidated Rail Corporation, 2001 Market Street - 16'th Floor, Philadelphia, PA 19101-1406.

### **CHANGES IN RAILROAD FACILITIES**

Temporary and permanent changes of signal, communication, power transmission lines, trailers, drainage and other railroad facilities required in connection with the project to clear temporary and/or permanent work of the sponsor as shown on the approved construction plans, shall be made or caused to be made by Conrail at the sole cost and expense of the sponsor in accordance with Conrail's force account estimate. Any other changes made or services furnished by Conrail at the request of the sponsor shall be the sole cost and expense of the sponsor.

### **PROTECTION OF RAILROAD OPERATIONS**

The sponsor shall conduct the work in such a manner as to safeguard the operations, facilities, right of way and property of Conrail. All work affecting the above items shall be subject to the approval of Conrail. The sponsor's operations adjacent to, over or under Conrail's tracks, facilities, right of way, and property shall be governed by Conrail's standards and by such other requirements as specified by Conrail's representative so as to insure the safe operation of trains, prevent delay to trains and insure the safety of all concerned, including the sponsor's forces.

An operating track shall be considered obstructed or fouled when any object is brought closer than fifteen (15) feet (4.6 m) horizontally from the centerline of track and projects above the top of tie or as determined by Conrail's representative. A power line shall be considered fouled when any object is brought to a point less than eight (8) feet (2.5 m) therefrom. A signal line shall be considered fouled when any object is brought nearer than six (6) feet (1.8 m) to any wire or cable. Cranes, trucks and other equipment shall be considered as fouling the track, power line or signal line when failure of equipment, whether working or idle, with or without load, will obstruct the track or other Conrail facilities.

Equipment used by the sponsor shall be in first-class condition to preclude any failure that would cause interference with the operation of Conrail trains or damage to its facilities. The sponsor's equipment shall not be placed or put in operation adjacent to the tracks or facilities of Conrail without obtaining clearance from Conrail's representative. All such equipment shall be operated by the sponsor in a manner satisfactory to Conrail. No equipment or material shall be stored on Conrail property.

In general, a hazard occurs and a flagman is necessary in the following circumstances: (1) the driving of sheeting or piles within twenty five (25) feet (7.6 m) of the tracks, (2) the removal or demolition of all or part of an overhead or adjacent structure, (3) the erection of any structural material, or (4) the performance of any other operation that could obstruct or foul (as described above) the tracks or other facilities of Conrail as determined by Conrail's representative.

Minimum overhead and lateral clearances as specified by Conrail, shall be maintained during the performance of all work. Existing overhead and lateral clearances shall be maintained during construction unless a temporary reduction in clearance for construction purposes is approved, in writing, by Conrail. The sponsor shall erect a highly visible construction fence no closer than fifteen (15) feet (4.6 m) from the centerline of the track through the work area to insure that the lateral clearance requirement is being met.

All wire and attachments shall be treated as live unless notified by Conrail's representative that same have been grounded and de-energized. Particular attention shall be given to the use of hand lines containing metal strands which cannot be used when working near or above exposed live wires. When working over wires, tools and materials not in use shall be stored in a manner to prevent them from falling. Tools or materials shall not be thrown to or by men working over the wires. The sponsor shall be responsible for locating and protecting all underground facilities.

Painting and paint removal procedures shall be approved by the Conrail and inspected by Conrail's representative prior to beginning the work over railroad right of way. The sponsor shall protect the track structure and railroad property from any material used in conjunction with performing the work. A flagman shall be required whenever the above described work fouls or is likely to foul the track, as previously defined.

The sponsor shall give notice to Conrail's representative at least fourteen (14) days in advance of the time work is to be commenced. Conrail shall assign, at the sole cost and expense of the sponsor, conductors and/or flagmen, or other similar qualified employees to protect Conrail's trains and facilities when in the opinion of its representative, the construction work will cause or may cause a hazard to Conrail facilities and the safe operation of trains. No operations of the sponsor shall be carried out without all the necessary protection to properly safeguard the work.

The minimum hours per day for railroad employees engaged in flagging service shall be eight (8) hours. The overtime rate will be charged for all time in excess of eight (8) hours. Flagmen are paid from the time they leave headquarters until they arrive back at headquarters. The travel time to and from project site is known as "deadheading" and is paid at full rate of pay, plus travel expenses. No conductor or flagman may remain on duty longer than twelve (12) hours in any twenty-four (24) hour period.

The providing of flagmen or inspectors or the taking of other precautionary measures, shall not, however, relieve the sponsor from liability for payment of damages caused by their operations. The sponsor must obtain permission from the flagman before fouling or obstructing any track.

The sponsor shall be responsible for damage to Conrail facilities or property arising out of the execution of its work. Conrail shall undertake any necessary repair work at the sole cost and expense of the sponsor. Billing for the work shall be in accordance with Conrail's standard billing procedures.

Conrail labor shall be charged to sponsor at actual rate plus amount paid for insurance, railroad retirement, excise tax, vacation allowance, holidays, health and welfare benefits, small tools, 401k payment and overhead in accordance with Conrail's standard billing procedures. Materials shall be charged to the sponsor at actual cost to Conrail plus transportation costs, handling expense and applicable taxes.

#### **RAILROAD ENGINEERING AND INSPECTION**

Conrail, at its sole discretion, may assign an engineer or inspector for the general protection of railroad property and operations during the construction of the project. This inspection service shall be supplied at the sole cost and expense of the sponsor.

#### **PAYMENT OF RAILROAD SERVICES**

It is a requirement that the sponsor shall reimburse Conrail in full for work undertaken by Conrail in accordance with any provision of these special requirements. Final contract payment shall not be made by the sponsor to its contractor, sub-contractor, consultant or agent, until Conrail certifies that all railroad bills against them, if any, have been paid in full.

#### **TEMPORARY GRADE CROSSING**

Under most circumstances, a grade crossing of our track will not be permitted. Should the sponsor demonstrate a necessity for a temporary grade crossing of Conrail's tracks, the sponsor shall be required to apply for and execute the standard private grade crossing agreement for each crossing required. Application for the crossing shall be made to Conrail at least twelve (12) weeks before the crossing is required and addressed to:

Consolidated Rail Corporation  
Real Estate Services for Conrail  
4<sup>th</sup> Floor - Conrail Real Estate  
1000 Howard Boulevard  
Mt. Laurel, NJ 08054-2355  
Telephone: (856) 231-2422

A letter size plan showing the location, size, construction details, and access to the requested crossing should accompany the letter of application. The plan shall be fully detailed and dimensioned with all Conrail facilities shown and referenced. The sponsor shall state the purpose for which the crossing is needed and the expected life of the crossing. All application fees, construction, maintenance, protection and removal costs shall be at the sole cost and expense of the sponsor. The roadbed and all other Conrail facilities will be restored to the original condition subject to the approval of Conrail's designated representative.

#### **SHEETING AND SHORING REQUIREMENTS**

The following items are to be included in the design and construction procedures for all permanent and temporary facilities adjacent to Conrail tracks:

- 1) Footings for all piers, columns, walls or other facilities shall be located and designed so that any temporary sheeting and shoring for support of adjacent track or tracks during construction shall not be closer than ten (10) feet (3.0 m) from the centerline of the nearest track.
- 2) When excavation for construction of the above mentioned facilities is within the theoretical railroad embankment line (see Conrail Drawing SK-1, attached), interlocking steel sheet piling, driven prior to excavation, must be used to protect track stability. The use of trench boxes or similar devices is not acceptable. Soldier piling and lagging will be considered for supporting adjacent track(s) only when its use is approved by Conrail. Consideration for the use of soldier piling and lagging shall be made if the required penetration of steel sheet piling cannot be obtained and when dry, non-running, stable material will be encountered.
- 3) The sheeting shall be designed to support all lateral forces caused by the earth, railroad and other surcharge loads. The railroad loading to be applied is an E-80 loading. This loading consists of 80 Kip (356 KN) axles spaced five (5) feet (1.5 m) on centers. The lateral forces acting on the sheeting shall be computed as follows:
  - (a) The Rankine Theory shall be used to compute the active earth pressure due to the weight of the soil.
  - (b) The Boussinesq analysis shall be used to determine the lateral pressure caused by the railroad loading. The load on the track shall be taken as a strip load with a width equal to the length of the ties (8'-6" or 2.6 m). The vertical surcharge,  $q$  (psf),

caused by each axle, shall be uniform and equal to the axle weight divided by the tie length and the axle spacing (5'-0" or 1.5 m). For an E-80 loading, this results in:  $q = 80,000 / (8.5 \times 5) = 1882$  psf (90.1 KPa).

- (c) The horizontal pressure due to the live load surcharge at any point on the sheet piling wall is  $P_h$  and can be calculated by the following:  $P_h = (2q/\pi)(\beta - \sin \beta \cos 2\alpha)$  (see Conrail Drawing SK-2, attached).
- 4) Deflection design criteria is as follows:
    - (a) 1/2" (1.27 cm) maximum deflection for sheet piling ten (10) feet (3.0 m) from centerline of the nearest track.
    - (b) 1" (2.54 cm) maximum deflection for sheet piling greater than ten (10) (3.0 m) feet from centerline of the nearest track.
    - (c) Use  $K$  (at-rest earth pressure) for design of all braced and tie-back excavations.
  - 5) The allowable stresses for the sheet piling and other steel members (wales, struts, etc.) shall be in accordance with AREA Chapter 15, Part 1. These allowable stresses may be increased ten percent (10%) due to the temporary nature of the installations. A factor of safety of at least 1.5 must be used on temporary sheeting for the embedment length (i.e. multiply calculated embedment depth by 1.5).
  - 6) Where soil or rock anchors are used, all anchors must be tested. Testing shall be in accordance with industry standards with ten percent (10%) of the anchors "Performance Tested" and all others "Proof Tested". All tie-back anchor stresses are to be in accordance with AREA Chapter 8, Part 20.5.7.
  - 7) Exploratory trenches, three (3) feet (0.9 m) deep and fifteen (15) inches (0.4 m) wide in the form of an "H" with outside dimensions matching the outside of sheeting dimensions are to be hand dug, prior to placing and driving steel sheeting, in areas where railroad underground installations are known to exist. These trenches are for exploratory purposes only and are to be backfilled with the backfill compacted immediately. This work must be done in the presence of Conrail's representative.
  - 8) Absolute use of track is required while driving sheeting within fifteen (15) feet (4.6 m) from centerline of a live track. The procedure for arranging the use of track shall be as outlined on pages Three and Four.
  - 9) Cavities adjacent to the sheet piling, created by the driving of sheet piling, shall be filled with sand and any disturbed ballast must be restored and tamped immediately.
  - 10) Sheet piling shall be cut off at the top of tie during construction. After construction and backfilling has been completed, piling within ten (10) feet (3.0 m) from centerline of track, or when bottom of excavation is below a line extending a 1:1 slope from end of tie to point of intersection with sheeting, shall be cut off eighteen (18) inches (0.5 m) below existing ground line and left in place.
  - 11) Any excavation adjacent to track shall be covered and ramped and provided with barricades as required by Conrail. A lighted walkway with a handrail must be provided adjacent to the track for any excavation within ten (10) feet (3.0 m) of the centerline.
  - 12) Final backfilling of excavation shall be as required by project specifications.

- 13) The sponsor is to advise Conrail of the time schedule of each operation and obtain approval of Conrail for all work to be performed adjacent to Conrail tracks so that it may be properly supervised by railroad personnel.
- 14) All drawings for temporary sheeting and shoring shall be prepared and stamped by a Registered Professional Engineer and shall be accompanied by complete design computations when submitted for approval.
- 15) Where physical conditions of design impose insurmountable restrictions requiring the placing of sheeting closer than specified above, the matter must be submitted to Conrail for approval of any modifications.
- 16) Five (5) copies of the submission are to be sent to Conrail's Area Engineer. The sponsor is advised to expect a minimum thirty (30) day review period from the day the submission is received by the Area Engineer.
- 17) Conrail's representative must be present at the site during the entire sheeting and shoring procedure period. The sponsor must notify the railroad representative at least seventy-two (72) hours in advance of the work. No changes will be accepted after that time.

#### **ERECTION, HOISTING AND DEMOLITION REQUIREMENTS**

- 1) A plan showing the locations of cranes, horizontally and vertically, operating radii, with delivery or disposal locations shown. The location of all tracks and other railroad facilities should also be shown.
- 2) Crane rating sheets showing cranes to be adequate for 150% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted.
- 3) Plans and computations showing weight of picks must be submitted. Where beams are being removed over Conrail facilities, the weight shall include the weight of concrete or other material that will be included in each pick. Calculations shall be made from plans of the existing and/or proposed structure showing complete and sufficient details with supporting data for the demolition or erection of the structure.
- 4) If the sponsor can prove to Conrail that plans do not exist and weights must be calculated from field measurements, the field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and he shall include sketches and estimated weight calculations with his procedure. If possible, field measurements shall be taken with a Conrail representative present. Weights shall include the weight of concrete, or other material, that will be included in the lifts.
- 5) If the procedure involves either the cutting of steel or the bolting of joints which would affect Conrail operations, a detailed staging plan with estimated durations will be required.
- 6) A location plan showing all obstructions such as wires, poles, adjacent structures, etc., must be provided to show that the proposed lifts are clear of these obstructions.
- 7) A data sheet shall be prepared listing the type, size and arrangements of slings, shackles, or other connecting equipment. Include copies of a catalog or information sheets for specialized equipment.
- 8) A complete procedure is to be included, indicating the order of lifts and any repositioning or rehoisting of the crane or cranes.

- 9) Demolition shield submittals must include a plan showing the details of the shield, a written installation and removal procedure and design calculations verifying the capacity of the shield. The shield should be designed for a minimum load of fifty (50) pounds/sq.ft (245 kgs./sq.m) plus the weight of the equipment, debris and any other load to be carried.
- 10) Temporary support of any components (overhead or undergrade) or intermediate stages is to be shown and detailed. A guardrail (railroad) will be required to be installed in a track where a temporary bent is located within twelve (12) feet (3.7 m) from the centerline of that track.
- 11) A time schedule of the various stages must be shown as well as a schedule for the entire lifting procedure.
- 12) All bridge erection or demolition procedures submitted will be prepared, signed and sealed by a Registered Professional Engineer.
- 13) Five (5) copies of the lifting procedures are to be sent to Conrail's Area Engineer. The sponsor is to expect a minimum thirty (30) day review period from the day the submission is received by The Area Engineer.
- 14) Conrail's representative must be present at the site during the entire demolition and erection procedure period. The sponsor must notify the railroad representative at least seventy-two (72) hours in advance of the work. No changes will be accepted after that time.
- 15) The name and experience of the employee supervising the operation must be supplied to Conrail.

## **OVERGRADE BRIDGE REQUIREMENTS**

### **CLEARANCES**

- 1) The minimum vertical clearance above the top of the higher rail shall be twenty three (23) feet (7 m) at all times. In areas where the railroad has been electrified with a catenary wire, and areas which are likely to be electrified, the minimum vertical clearance must be twenty four (24) feet, six (6) inches (7.5 m) above the top of the higher rail.
- 2) The minimum horizontal clearance measured from the centerline of track to the near face of the obstruction must be twenty (20) feet (6.1 m) for tangent track and twenty one (21) feet (6.4 m) for curves. See Conrail Standard Plan 48754-B, attached.
- 3) Whenever practicable, bridge structures must have the piers and abutments located outside of the railroad right of way. All piers located less than twenty five (25) feet (7.6 m) from the centerline of track require a crashwall designed in accordance with specifications outlined in the current AREA manual.
- 4) All piers should be located so that they do not interfere with ditches. Where special conditions make this impossible, an explanation of these conditions must be submitted with the drainage plans for review by Conrail.
- 5) The permanent clearances should be correlated with the methods of construction so that temporary construction clearances will not be less than the minimum allowed.
- 6) Bridge structures shall provide sufficient lateral and vertical clearance for anticipated future tracks, changes in track centers and raising of tracks for

maintenance purposes. The locations of these tracks shall be determined by inquiry to Conrail.

- 7) The profile of the top of rail should be examined to determine if the track is in a sag at the location of the bridge. If the track is in a sag, the vertical clearance from the track to the bridge should be increased sufficiently to allow raising the track to remove the sag.
- 8) Plans for bridges must show dimensioned locations of all utilities which might be located on the railroad right of way.
- 9) Vertical and horizontal clearances must be adjusted so that the sight distance to railroad signals is not reduced from what is existing.
- 10) All proposed temporary clearances which are less than those listed above must be submitted to Conrail for review and must be approved by Conrail prior to construction.
- 11) Clearances are subject to the requirements of the state in which the construction takes place and must be approved by the State and Conrail if less than those prescribed by law.

#### DRAINAGE

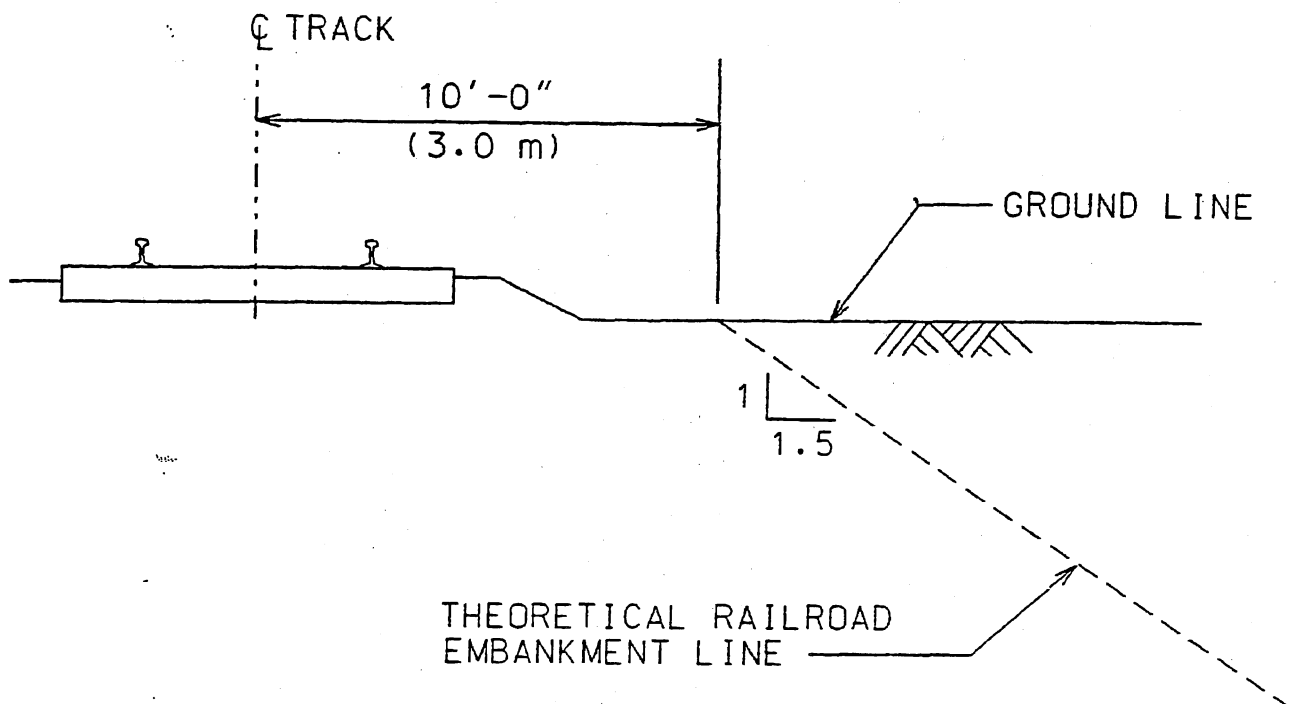
- 1) Maintaining the existing drainage and providing for future drainage improvements is of the utmost importance. Conrail will give special attention to reviewing drainage details.
- 2) Drainage plans must be included with the general plans submitted to Conrail for approval. These plans must include hydrologic and hydraulic studies and computations showing the frequency and duration of the design storm used, as well as the method of analysis such as Soil Conservation Service or the Rational method. Conrail uses storms with a 100-year recurrence interval as the minimum design storm.
- 3) Lateral clearances must provide sufficient space for construction of the required track ditch parallel to the standard roadbed section. If the ditch cannot be provided, or the pier will interfere with the ditch, then a culvert of sufficient size must be provided. See Conrail Standard Plans 48754-B and 48747, attached.
- 4) Ditches and culverts must be sized to accommodate all increased run-off due to the construction and the increased size must continue to the natural outlet of the ditch. Ditches must be designed in accordance with good drainage engineering practices and must meet all local codes and ordinances.
- 5) No scuppers or other deck drains, roadway drainage, catch basins, inlets or outlets are permitted to drain onto Conrail property. Any variation of this policy must have the prior approval of Conrail. If an exception is ultimately granted, maintenance of such should not be Conrail's. Drainage from scuppers and deck drains must be conveyed through pipes, preferably to a point which is off Conrail property. If the drainage must be conveyed into a railroad ditch, calculations must be provided to Conrail which indicate the ability of the ditch to carry the additional run-off.
- 6) Additional drainage may require the installation of a pipe or pipes, new ditch or reprofiling of the existing ditch.

## EROSION CONTROL

- 1) Embankment slopes on Conrail property adjacent to the track must have a slope of 2:1 or less and be paved for a minimum of two (2) feet (0.6 m) beyond the outside edge of the bridge foundation structure. The purpose of the pavement is to minimize erosion of the embankment material and to reduce deterioration of the sub-grade material by drainage water. The pavement shall consist of a prepared sub-base and/or filter fabric with grouted rip-rap on the surface.
- 2) The general plans for the bridge should indicate the proposed methods of erosion control during construction and must specifically address means to prevent silt accumulation in ditches and culverts and to prevent fouling the track ballast and sub-ballast. If the plans do not show erosion control, the contractor must submit a proposed method of erosion control and must have this method approved by Conrail prior to beginning any grading on the site.
- 3) Existing track ditches must be maintained at all times throughout the construction period. After the construction has been completed, all erosion and siltation must be removed and the ditches must be restored.
- 4) Conrail's approval of drainage and erosion control plans will not relieve the sponsor submitting these plans from ultimate responsibility for a satisfactory plan.

## REFERENCES

- 1) In areas where underground utilities may be affected, Conrail's C.E. 8, "Specifications for Pipeline Occupancy" will govern.
- 2) In areas where power or communication lines will be affected, Conrail's C.E. 4, "Specifications for Wire, Conduit and Cable Occupations" will govern.



REQUIREMENTS FOR TEMPORARY SHEET PILING ADJACENT TO TRACK

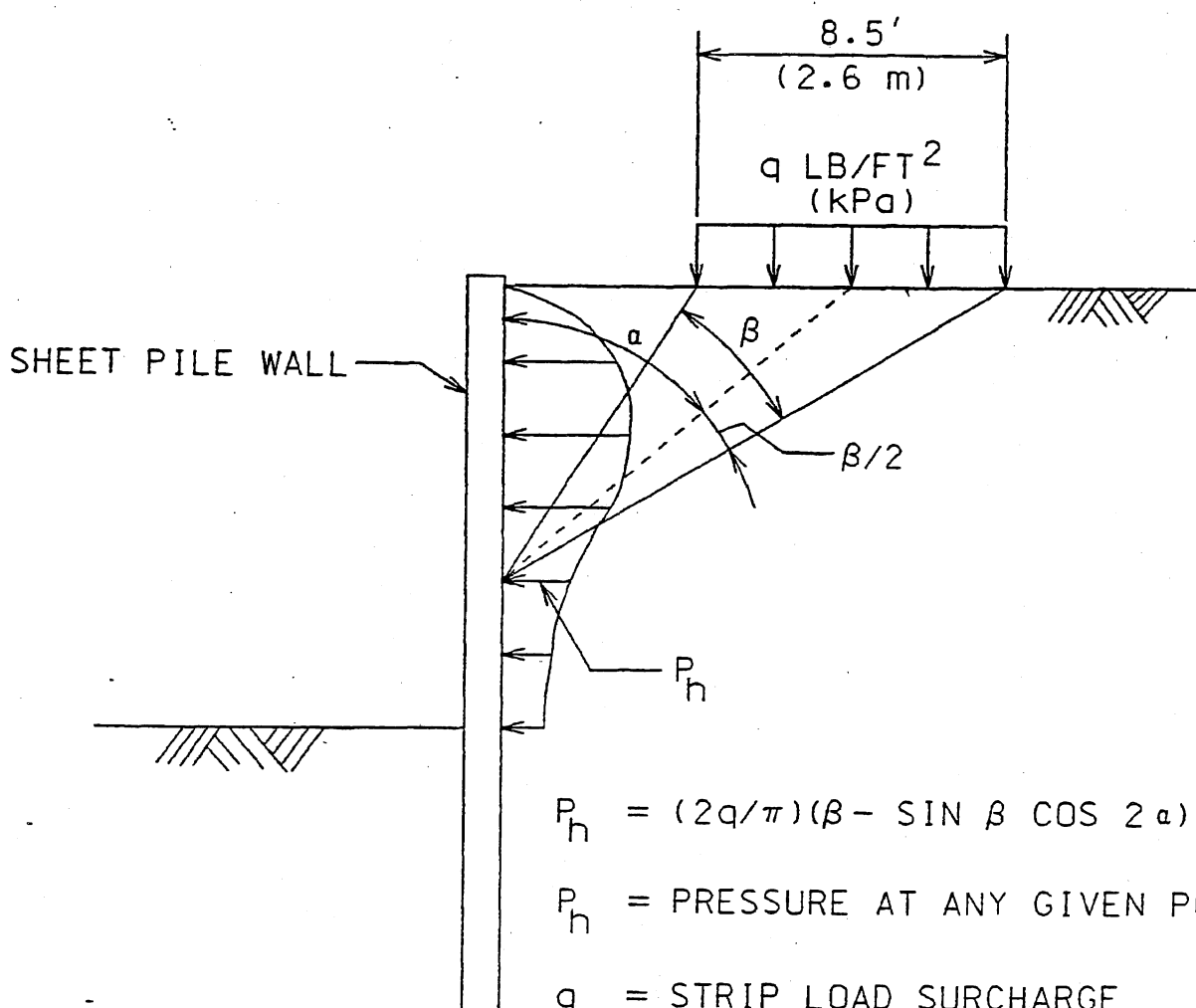
1. STEEL SHEET PILING FOR TRACK SUPPORT IS NOT REQUIRED FOR EXCAVATION OUTSIDE THE THEORETICAL RAILROAD EMBANKMENT LINE. SHORING IN ACCORDANCE WITH OSHA REQUIREMENTS SHALL BE USED IN THIS AREA.
2. STEEL SHEET PILING, DRIVEN PRIOR TO EXCAVATION, IS REQUIRED WHEN EXCAVATION IS WITHIN THE THEORETICAL RAILROAD EMBANKMENT LINE.
3. ALL SHEET PILING IS TO BE DESIGNED FOR AN E-80 LOADING. THE BOUSSINESQ ANALYSIS IS TO BE USED TO DETERMINE THE LATERAL PRESSURE CAUSED BY THE RAILROAD LOADING.

OFFICE OF CHIEF ENGINEER - D & C

FEB 1, 1995

DWG. NO.: SK-1

### LATERAL PRESSURE DIAGRAM



$$P_h = (2q/\pi)(\beta - \sin \beta \cos 2\alpha)$$

$P_h$  = PRESSURE AT ANY GIVEN POINT

$q$  = STRIP LOAD SURCHARGE

$\alpha$  = ANGLE IN DEGREES

$\beta$  = ANGLE IN RADIANS

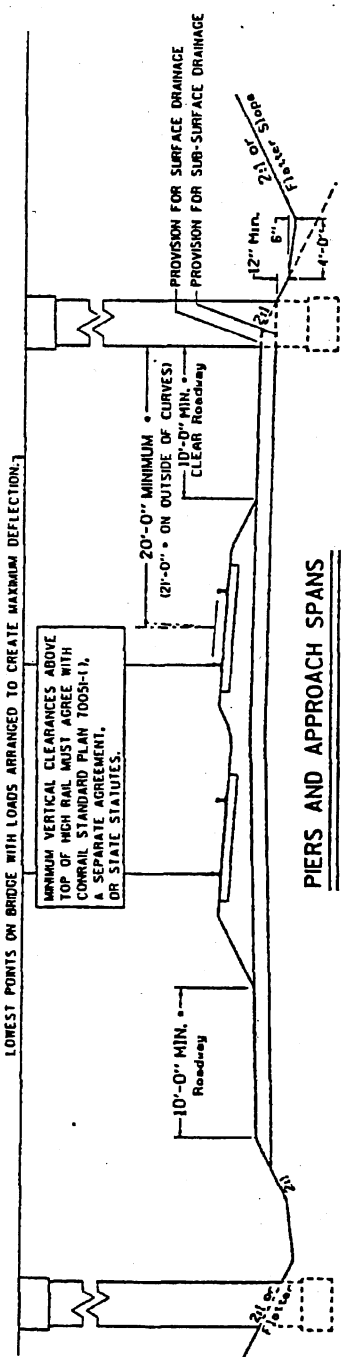
LATERAL PRESSURE DUE TO STRIP LOAD

OFFICE OF CHIEF ENGINEER - D & C

FEB 1, 1995

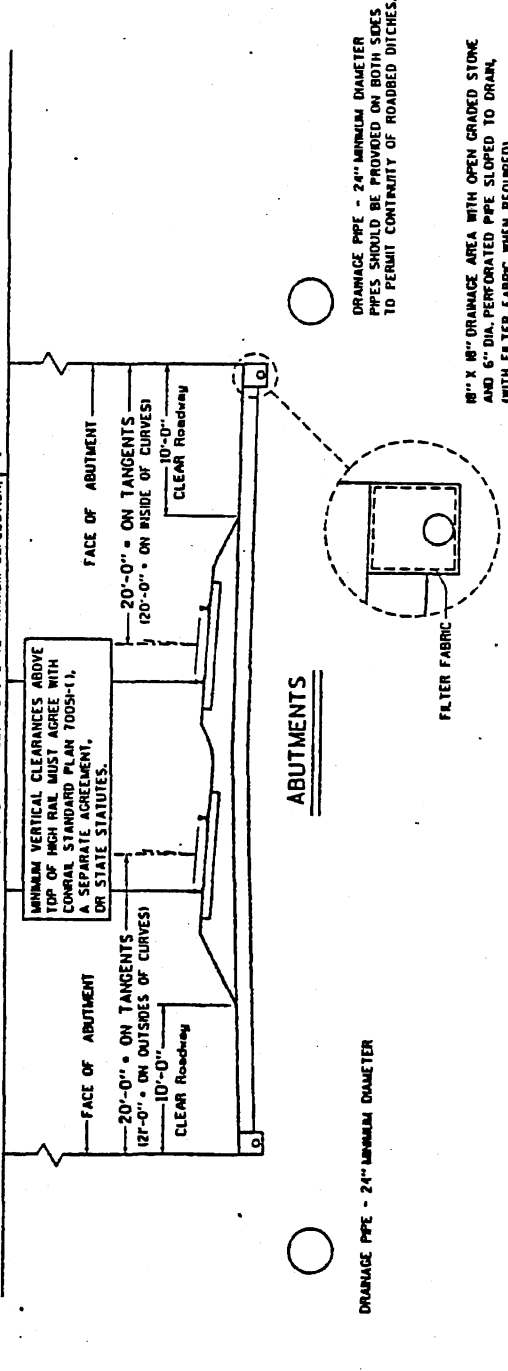
DWG. NO.: SK-2

RAIN WATER RUNOFF MUST NOT BE DEPOSITED ONTO THE RAILROAD RIGHT OF WAY.  
DECK DRAINS AND SCUPPERS ARE PROHIBITED BETWEEN THE TRACK DITCHES.



**PIERS AND APPROACH SPANS**

RAIN WATER RUNOFF MUST NOT BE DEPOSITED ONTO THE RAILROAD RIGHT OF WAY.  
DECK DRAINS AND SCUPPERS ARE PROHIBITED BETWEEN THE TRACK DITCHES.  
LOWEST POINTS ON BRIDGE WITH LOADS ARRANGED TO CREATE MAXIMUM DEFLECTION.



**ABUTMENTS**

DRAINAGE PPE - 24" MINIMUM DIAMETER

ALL SIDE SLOPES THROUGH THE BRIDGE AREA MUST BE COVERED WITH RIP-RAP.

DITCHES AND SLOPES THROUGH THE BRIDGE AREA MUST MEET THE EXISTING DRAINAGE FACILITIES AND MATCH OR EXCEED THEM IN HYDRAULIC CAPACITY.

PIERS LOCATED LESS THAN 25 FEET FROM THE CENTERLINE OF ANY TRACK MUST BE PROTECTED BY CRASH WALLS IN ACCORDANCE WITH THE SPECIFICATIONS IN CHAPTER 8, PART 2.45 OF THE A.R.E.A. MANUAL FOR RAILWAY ENGINEERING.

\* - LATERAL CLEARANCES MARKED "\*" MAY BE REDUCED BY 2 FEET IF A ROADWAY IS NOT REQUIRED.

ADDITIONAL CLEARANCE MAY BE REQUIRED TO ACCOMMODATE COMMUNICATION AND SIGNAL POLE LINES, OR AS OTHER FIELD CONDITIONS REQUIRE.

FLAT BOTTOM DITCHES, AS SHOWN, ARE TO BE USED. "V" BOTTOM DITCHES ARE PERMITTED ONLY IN CONJUNCTION WITH A DRAINAGE PIPE. THE PIPE MUST HAVE AT LEAST 4 FEET OF COVER, OR BE AT AN ELEVATION MEETING THE EXISTING DITCHES, AND MUST BE AT LEAST 24" DIAMETER.

THE DITCH SECTION SHOWN IS THE MINIMUM ACCEPTABLE SECTION. DITCH SIZES MUST BE INCREASED WHEN NECESSARY AS DETERMINED BY HYDROLOGIC AND HYDRAULIC STUDIES, OR IF THE DRAINAGE PATTERN IS ALTERED BY CONSTRUCTION.



48754-E

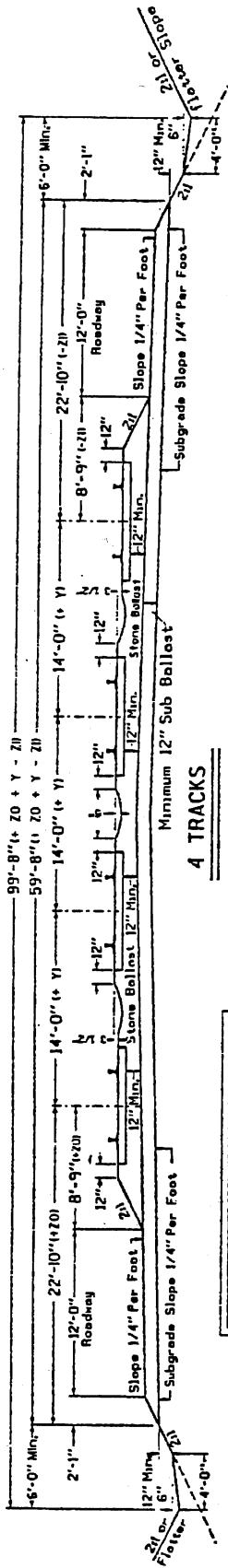
**OVERHEAD BRIDGE**

**MINIMUM**

**CLEARANCE DIAGRAM**

*J.S. Child*  
CHIEF ENGINEER D&E

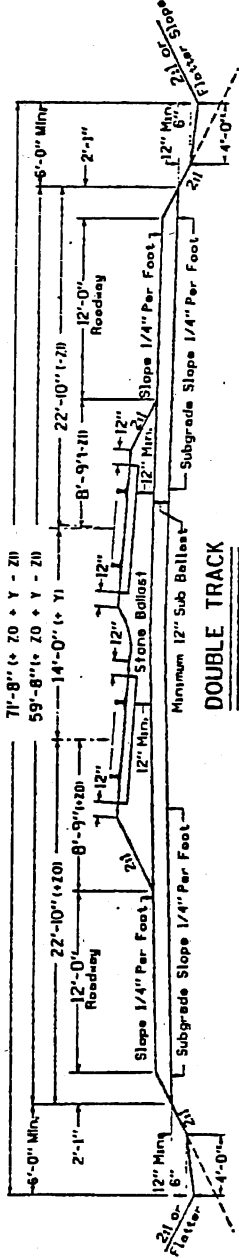
FEBRUARY, 1950



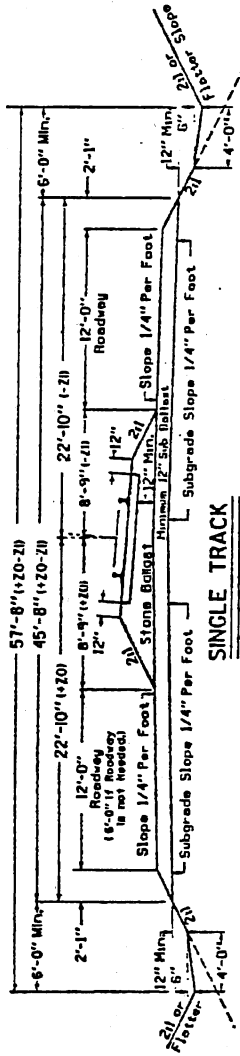
**4 TRACKS**

Note: Z0 and Z1 are indicated for tracks which curve to the right.

**Y DIMENSION**  
On adjacent tracks where the super-elevation to the inside or the outer track has less, Y=2" per degree of curve. Where super-elevation is greater on the outer track, add to 3 1/2 times the amount of difference in super-elevation.



**DOUBLE TRACK**



**SINGLE TRACK**

**Z Dimensions 2 or More Tracks**

Super-Elevation at Curve	Z0 - Outside	Z1 - Inside
0"	0"	0"
1"	4"	1"
2"	7"	5"
3"	10"	6"
4"	1'-1"	7"
5"	1'-4"	8"
6"	1'-7"	10"

**Z Dimensions Single Track**

Super-Elevation at Curve	Z0 - Outside	Z1 - Inside
0"	0"	0"
1"	2"	2"
2"	5"	4"
3"	8"	5"
4"	11"	6"
5"	1'-3"	7"
6"	1'-6"	9"

CONRAIL 48747

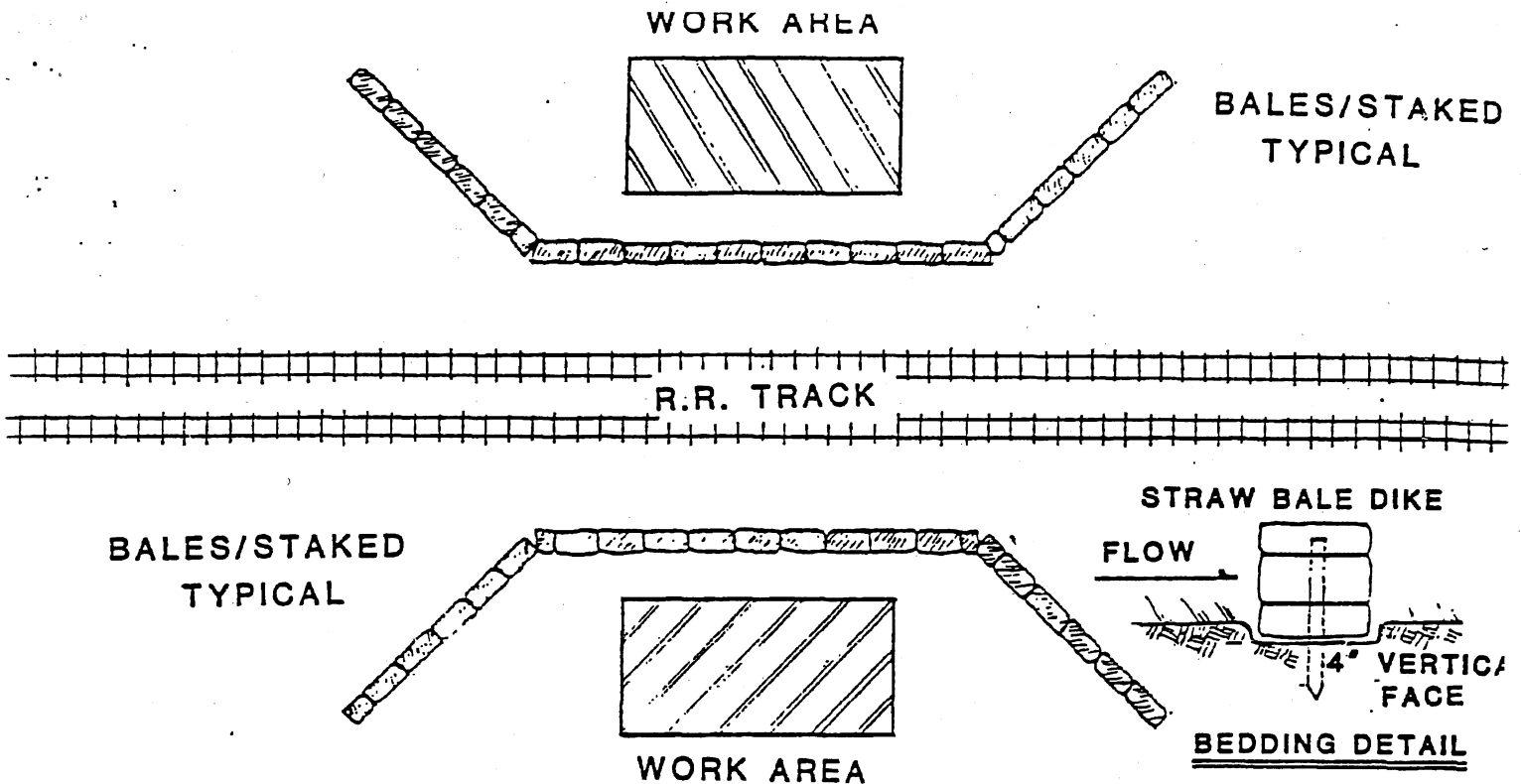
TYPICAL ROADBED AND BALLAST SECTIONS

AUGUST, 1988

CHIEF ENGINEER, INC.

CONRAIL'S SEDIMENT AND EROSION CONTROL NOTES

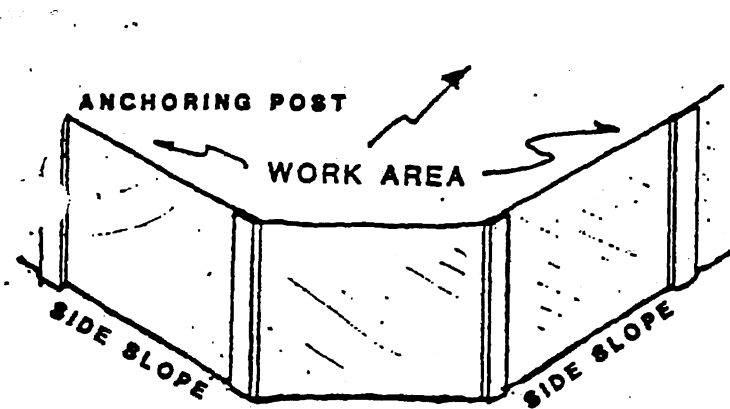
1. ALL WORK SHALL BE AT PROJECT EXPENSE AND NO COST TO CONRAIL.
2. THE CONTRACTOR MUST FILTER RUN-OFF, AND CONTROL SEDIMENT ALL WITHIN THE SITE, AND AS NOTED. CONTROL OF SEDIMENT WILL REQUIRE THE USE OF "LOCATED" TYPE SEDIMENT CONTROL DEVICES SHOWN ON THE PLAN, AS WELL AS "UNLOCATED" TYPE DEVICES (E.G., TEMPORARY SEEDING AREAS, TEMPORARY STOCKPILE SEDIMENT CONTROL, BORROW PIT SEDIMENT CONTROL, ETC.) WHICH MAY NOT BE SPECIFICALLY LOCATED ON THE PLAN. ALL CONTROLS MUST BE PROVIDED AS REQUIRED TO FILTER SEDIMENT AND CONTROL EROSION.
3. LOCATION ADJUSTMENTS SHALL BE MADE AS FIELD CONDITIONS REQUIRE.
4. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL SEDIMENT CONTROL DEVICES ARE FUNCTIONAL ON A DAY-TO-DAY BASIS.
5. TEMPORARY STOCK PILES OF WAY MATERIAL ON CONRAIL PROPERTY WILL NOT BE PERMITTED.
6. SEDIMENTATION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO EXCAVATION AND ADJUSTED AS CONDITIONS REQUIRE.



BALES

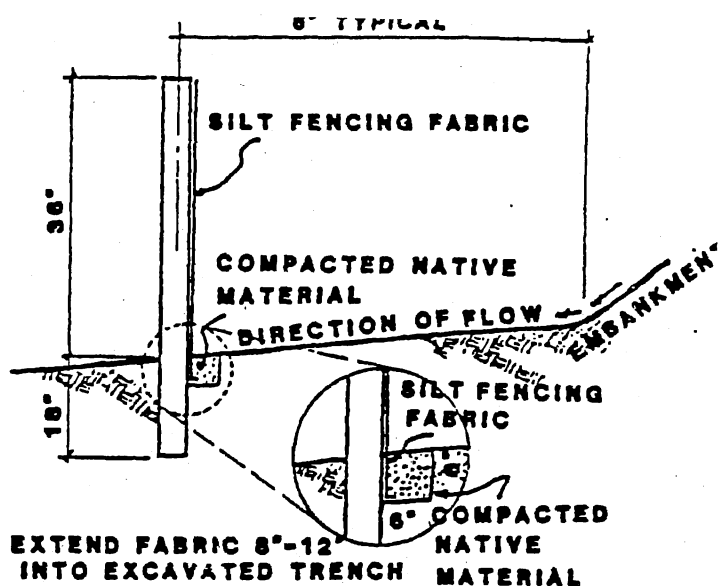
NOTES FOR CONSTRUCTION OF BALES ON CONRAIL PROPERTY

1. BALES SHALL BE PLACED AS SHOWN ON THIS DRAWING AND AS DIRECTED BY CONRAIL PERSONNEL.
2. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
3. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
5. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. BALES SHALL BE REMOVED FROM THE PROJECT SITE WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



BOTTOM OF DITCH OR SWALE ENDS SHALL POINT UP STREAM AND UP SLOPE, FENCE SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW

DITCH OR SWALE CONDITION



EXTEND FABRIC 8"-12" INTO EXCAVATED TRENCH

TOP OF SLOPE CONDITION

SILT FENCE BARRIER

CONSTRUCTION OF SILT FENCE

1. WOVEN WIRE FENCE WITH FILTER CLOTH FASTENED SECURELY TO THE WOVEN WIRE TO BE USED.
2. WOVEN WIRE IS TO BE FASTENED WITH WIRE TIES OR STAPLES EVERY 24 INCHES AT THE TOP, BOTTOM AND MIDSECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 12 INCHES AND FOLDED, WIRE TIED OR STAPLED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND FABRIC REPLACED WHEN NECESSARY.
5. SILT MATERIAL TRAPPED BY FENCE SHALL BE REMOVED FROM THE PROJECT SITE.

## RAILROAD CONTRACT AUTHORIZATION

MDOT 2903 (4-98) CONTRACT NO: 82073 - 105333A

PAGE 1 OF 1

CONTRACTOR CONSOLIDATED RAIL CORP.	CONT. SECTION EBSL 82073
ADDRESS 1000 HOWARD BLVD., MT. LAUREL, NJ 08054-2355	JOB NUMBER 105333A
LOCATION PRELIMINARY ENGINEERING RELATED TO FORT ST. BRIDGE REPLACEMENT - IN DETROIT, MI, OVER CORAIL JUNCTION YARD R.T., OHBR. 0.93 & - LINCOLN R.T., OHBR. 136.37.	FED. PROJ. NO. EBSL-0982(015)
TYPE OF WORK FORCE ACCOUNT PRELIMINARY ENGINEERING, AND ACCOUNTING.	ITEM NO. HH-5763 N.I. NO. N/A STRUCTURE NO. Ro1 of 82073

**PRE. ENG. CHARGES** ARE ELIGIBLE FOR REIMBURSEMENT FOR WORK INCURRED ON OR AFTER APRIL 12, 2007.

**DESCRIPTION OF PROJECT** - Furnish the labor, materials, & equipment necessary to perform the work described below, as detailed in the estimate, and as shown on the project plan:

- PRELIMINARY ENG., AND ACCOUNTING BY CONRAIL AS NEEDED IN CONNECTION WITH THE PROJECT, AS DETAILED IN THE RAILROAD'S ESTIMATE DATED MAY 14, 2007.

<b>SUMMARY OF FUNDING &amp; COST PARTICIPATION</b>	ESTIMATED COST (FORCE ACCOUNT)	\$ 15,000.00
FEDERAL FUNDS - .....	81.85%.....	\$ 12,277.50
ROAD AUTHORITY FUNDS - .....	18.15%.....	\$ 2,722.50
TOTAL ESTIMATED COST - .....		\$ 15,000.00

**RAILROAD PROJECT AGREEMENT** - THE PROJECT, AS DESCRIBED, WILL BE PERFORMED IN ACCORDANCE WITH THE PRELIMINARY ENGINEERING MASTER AGREEMENT DATED NOVEMBER 7, 1989 & AMENDMENTS THERETO BETWEEN CONSOLIDATED RAIL CORP., AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

IN ADDITION, ALL WORK SHALL COMPLY WITH THE PROVISIONS OF ATTACHED APPENDICES A, B, AND C.


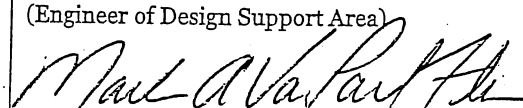
**COORDINATION** - THE RAILROAD, IN COMPLETING THE WORK ON THIS AUTHORIZATION, SHALL COOPERATE WITH PUBLIC & PRIVATE UTILITIES, STATE AND LOCAL AUTHORITIES, AND OTHER ORGANIZATIONS HAVING OCCASION TO CARRY ON THEIR USUAL WORK WITHIN THE LIMITS OF THIS PROJECT OR DOING WORK ON OR IN CONNECTION WITH THIS PROJECT. THE PROJECT ENGINEER SHALL COORDINATE ALL SUCH WORK.

**NOTES:** Final billings must be submitted within one calendar year of completion of work by the railroad company. Extraordinary circumstances with prior concurrence of the Design Division may allow an extension of time.

Prior to excavating in areas where public utilities have not been previously located, please phone MISS DIG (1-800-482-7171) a minimum of three full working days in advance, excluding Saturdays, Sundays and Holidays.

Materials and workmanship for this project are to conform to the American Railway Engineering & Maintenance-of-Way Association's Manual for Railway Engineering.

**ANY INCREASES ABOVE THE ESTIMATED COSTS ON THE RAILROAD AUTHORIZATION MUST HAVE PRIOR WRITTEN APPROVAL FROM MDOT'S RAILROAD COORDINATION STAFF VIA THE FORM 1100 PROCESS. NO EXCEPTIONS GRANTED.**

<b>U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION</b>	<b>MICHIGAN DEPARTMENT OF TRANSPORTATION</b>
APPROVED THE RAILROAD FORCE ACCOUNT EFFECTIVE:  DECEMBER 17, 2008	RECOMMENDED BY : (Supervisor of Gov'tl. & Railroad Coordination)  DATE 12-29-08
APPROVED BY : (For the Division Administrator) DONALD B. BULLOCK	APPROVED BY : (Engineer of Design Support Area)  DATE 12-29-08
DATE 12-17-08	

**CONSOLIDATED RAIL CORPORATION  
OFFICE OF THE CHIEF ENGINEER  
FORCE ACCOUNT ESTIMATE**

## Reconstruction of M-85 (Fort St.) OH Bridge

<b>LC:</b> 50-5231 & 50-5232 <b>MP:</b> 0.93 & 136.37 <b>DOT#:</b>	<b>Line:</b> Junction Yd. Sec. & Lincoln I.T. <b>Division:</b> Detroit District <b>WO#:</b> F10364
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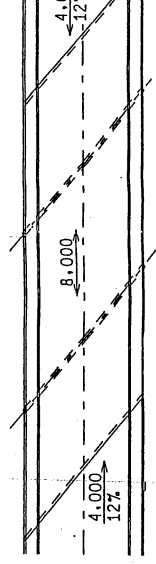
A) Engineering (50 hrs. @ \$100.00/hr.)				\$5,000
(Review of contractor's work plan submittals)				
B) Construction Engineering/Inspection			\$48,336	
(12 hrs. / week for 100 weeks)				
Additives	131.3%		\$63,475	
Expenses Incident		+	\$22,362	\$134,173
C) Signal Work		+		\$0
D) Flagging	0 Days		\$0	
Additives	143.1%	+	\$0	\$0
E) Accounting and Billing				
Additives	1.0% of TOTAL	+		\$1,392

Note: Estimate based on a project duration of 100 weeks.

<b>TOTAL</b>	<b>\$140,565</b>
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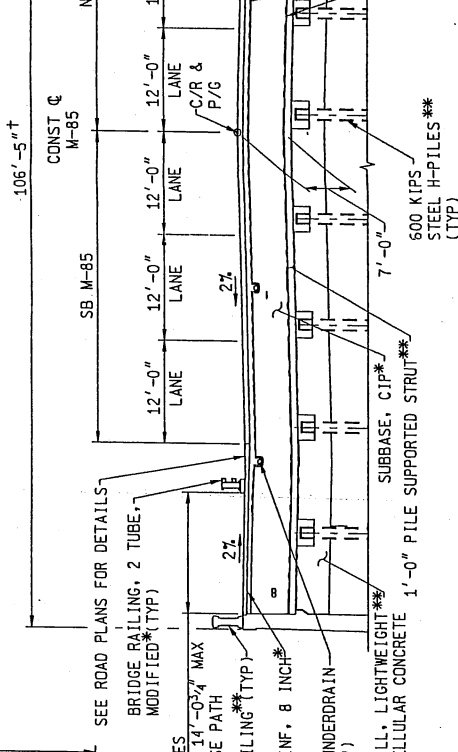
**EXISTING STRUCTURE**

THE EXISTING BRIDGE IS A SEVEN-SPAN STRUCTURE WITH BEAMS ENCASED IN CONCRETE, CONSTRUCTED IN 1928. IT OVERALL LENGTH OF 308'-6" MEASURED ALONG THE M-85 CLEAR ROADWAY WIDTH AND OUT TO OUT DECK WIDTH ARE 8' AND 104'-0", RESPECTIVELY. AN ASPHALT WEARING COURSE IS PRESENT. THE ORIGINAL BRIDGE RAILINGS WERE ROUND SP AND WERE REPLACED WITH SOLID CONC. BLOCKS.



**2028 ESTIMATED TRAFFIC DISTRIBUTION**

0000	AVERAGE DAILY TRAFFIC
%	COMMERCIAL
	DIRECTIONAL TRAFFIC
	TOTAL TRAFFIC
40 MPH	DESIGN SPEED

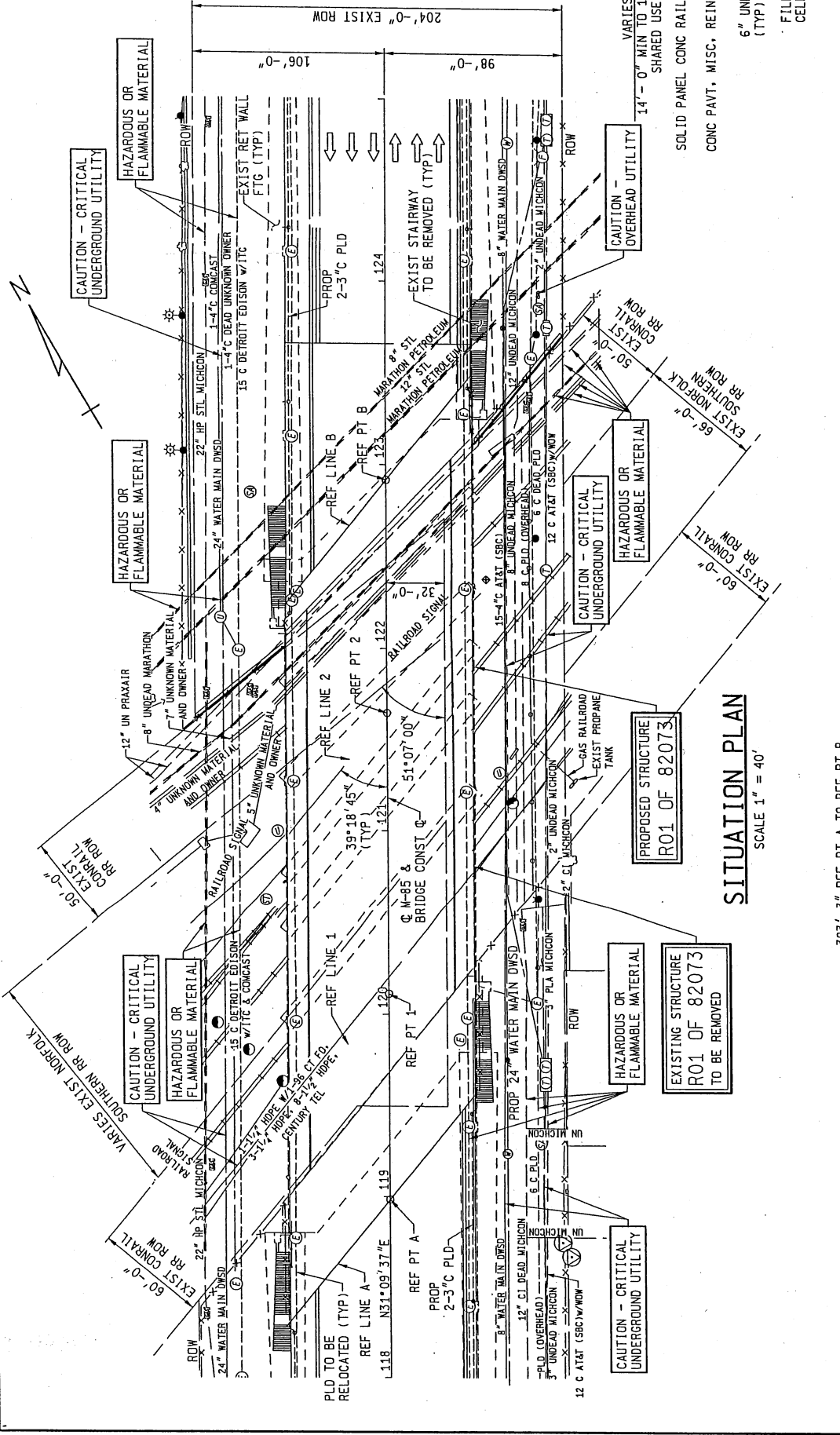


**TYPICAL APPROACH SECTION**

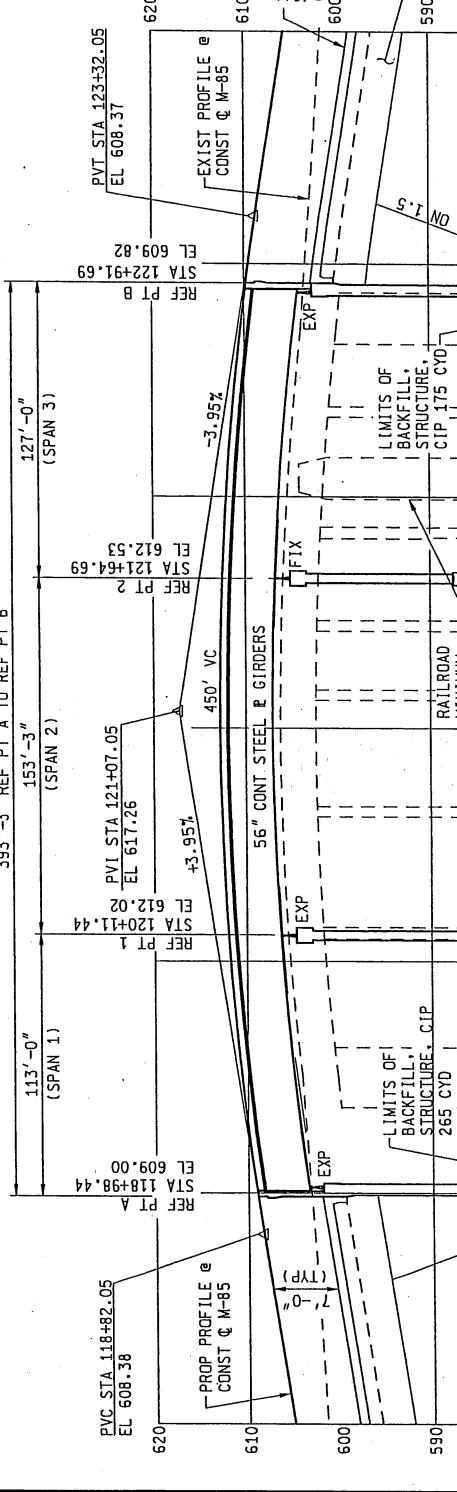
NOT TO SCALE.  
SOUTH APPROACH IS SHOWN.  
VIEWED LOOKING UP STATION.

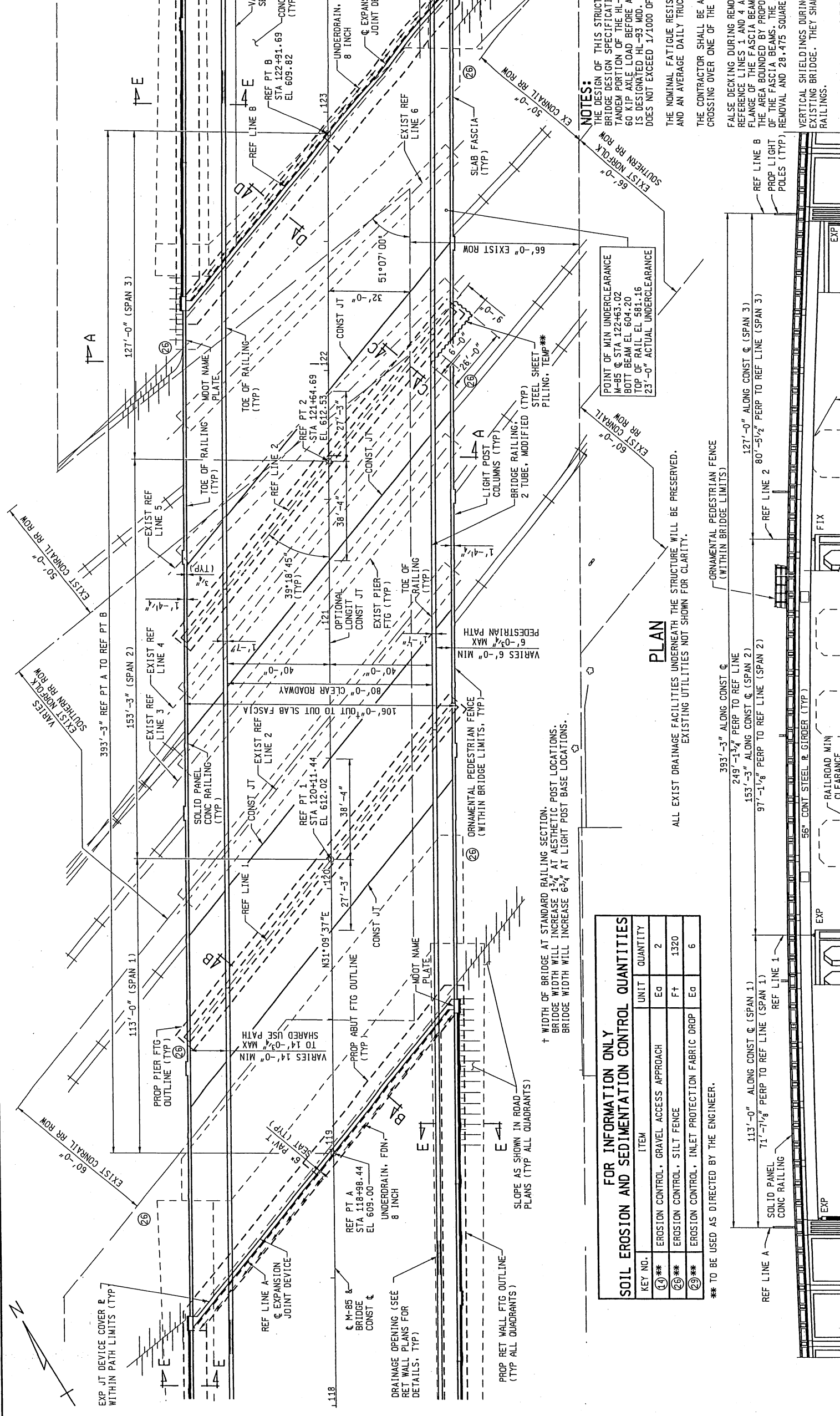
**NOTES:**

- THE WORK COVERED BY THESE PLANS INC AND CONSTRUCTION OF THE PROPOSED BR IN THE ROAD PLANS THAT ARE A PART OF
- THE CONTRACTOR SHALL LOCATE ALL ACT WORK AND SHALL CONDUCT HIS OPERATION UTILITIES NOT REQUIRING RELOCATION
- WITH MODIFICATIONS INDICATED ON THE STRUCTURE SHALL BE GRADED BY THE CON AS DIRECTED BY THE ENGINEER. GRADIN M-85 TRAFFIC IS TO BE DETOURED.



+ WIDTH OF VIADUCT AT STANDARD RAILING SECTION.  
VIADUCT WIDTH WILL INCREASE 2" AT AESTHETIC POST LOCATIONS.  
VIADUCT WIDTH WILL INCREASE 4" AT LIGHT POST BASE LOCATIONS.





**NOTES:**  
 THE DESIGN OF THIS STRUCTURE  
 BRIDGE DESIGN SPECIFICATION  
 TANDUM PORTION OF THE HL-  
 60 KIP AXLE LOAD BEFORE A  
 IS DESIGNATED HL-93 MOD.  
 DOES NOT EXCEED 1/1000 OF  
 THE NOMINAL FATIGUE RESIS  
 AND AN AVERAGE DAILY TRUCK  
 THE CONTRACTOR SHALL BE A  
 CROSSING OVER ONE OF THE  
 FALSE DECKING DURING REMOVAL  
 REFERENCE LINES 1 AND 4 A  
 FLANGE OF THE FASCIA BEAM  
 THE AREA BOUNDED BY PROPO  
 OF THE FASCIA BEAMS, THE  
 REMOVAL AND 28.475 SQUARE  
 VERTICAL SHIELDINGS DURING  
 EXISTING BRIDGE. THEY SHALL  
 RAILINGS.

POINT OF MIN UNDERCLEARANCE  
 M-85 @ STA 122+63.02  
 BOTTL BEAM EL 604.20  
 TOP OF RAIL EL 581.16  
 23'-0" ACTUAL UNDERCLEARANCE

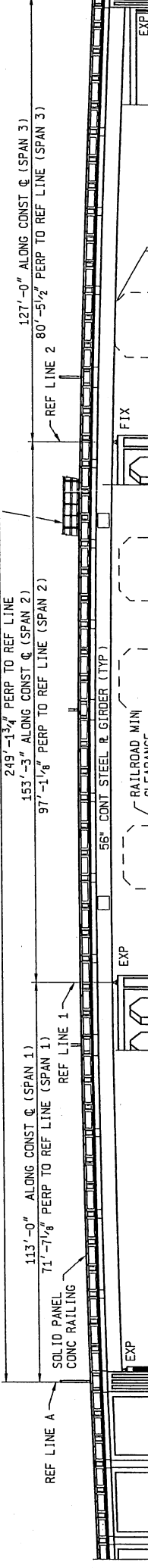
**PLAN**

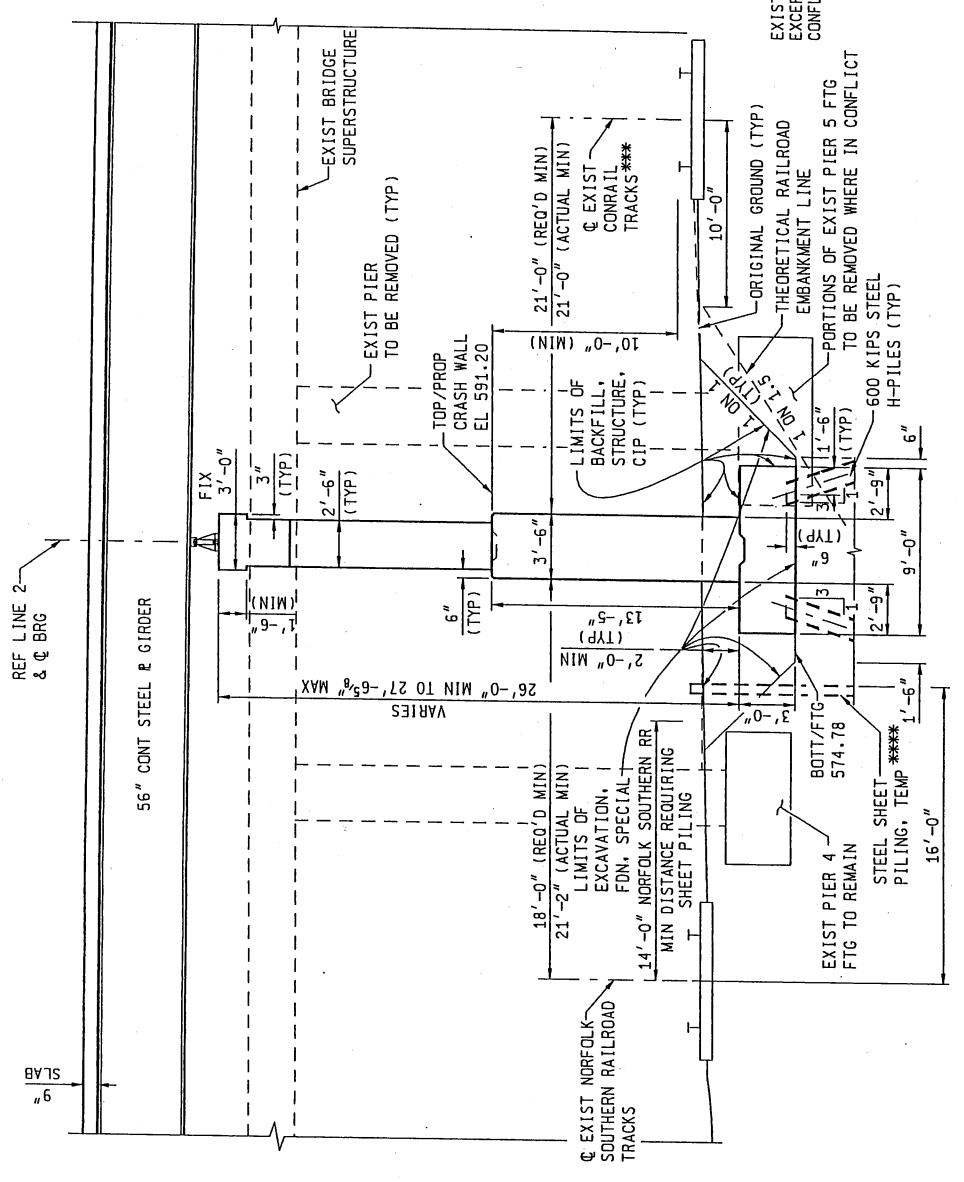
ALL EXIST DRAINAGE FACILITIES UNDERNEATH THE STRUCTURE WILL BE PRESERVED.  
 EXISTING UTILITIES NOT SHOWN FOR CLARITY.

FOR INFORMATION ONLY SOIL EROSION AND SEDIMENTATION CONTROL QUANTITIES		
KEY NO.	ITEM	QUANTITY
14**	EROSION CONTROL, GRAVEL ACCESS APPROACH	Eg 2
25**	EROSION CONTROL, SILT FENCE	F+ 1320
29**	EROSION CONTROL, INLET PROTECTION FABRIC DROP	Eg 6

\*\* TO BE USED AS DIRECTED BY THE ENGINEER.

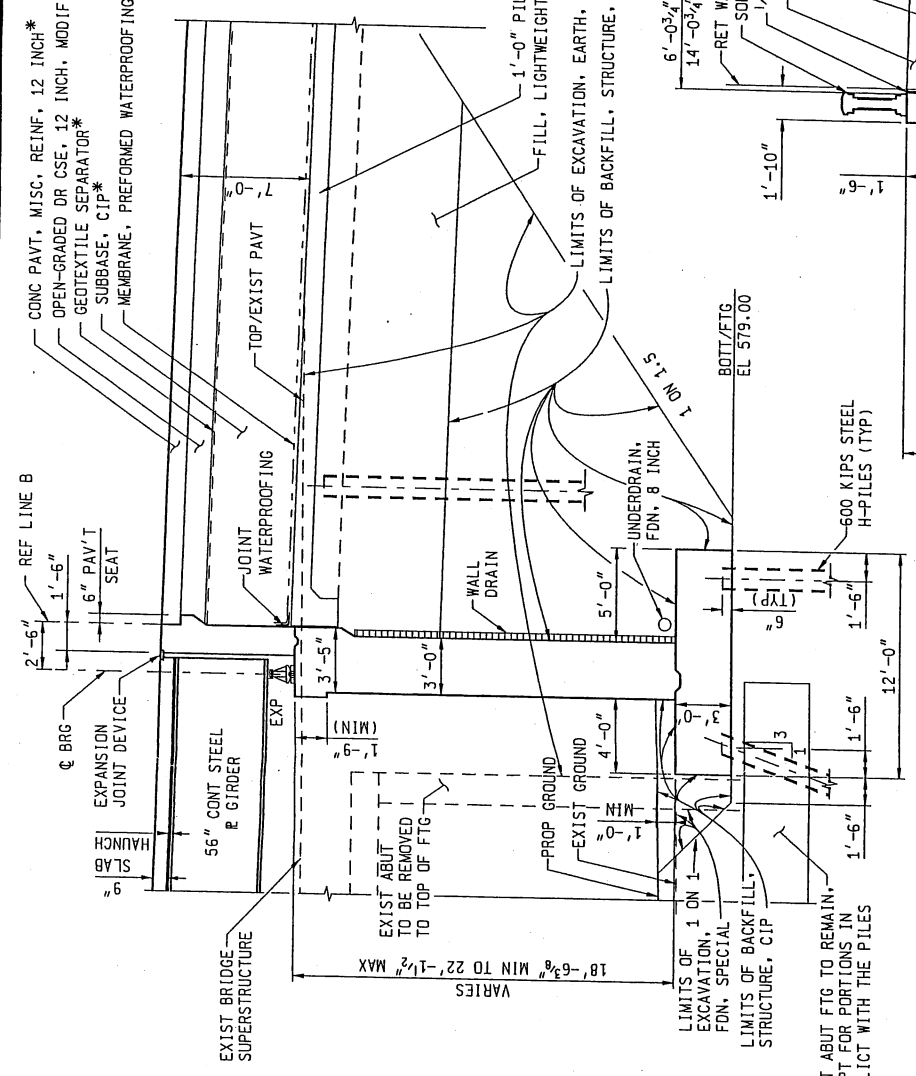
† WIDTH OF BRIDGE AT STANDARD RAILING SECTION.  
 BRIDGE WIDTH WILL INCREASE 13" AT AESTHETIC POST LOCATIONS.  
 BRIDGE WIDTH WILL INCREASE 63" AT LIGHT POST BASE LOCATIONS.





**SECTION C-C**

EXIST UTILITIES NOT SHOWN FOR CLARITY



**SECTION D-D**

