

COMMONWEALTH OF PENNSYLVANIA

DICK ENTERPRISES, INC. : BEFORE THE BOARD OF CLAIMS
VS. :
COMMONWEALTH OF PENNSYLVANIA, :
DEPARTMENT OF TRANSPORTATION : DOCKET NOS. 1527 & 1593

FINDINGS OF FACT

A - THE PARTIES

1. Plaintiff, Dick Enterprises, Inc., (hereinafter “Dick”), is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania with its principal place of business located in Large, Allegheny County, Pennsylvania. (N.T. 6, 11; P-1, para. 1; P-2, para. 1; P-4, para. 1; P-5, para. 1)

2. The Defendant is the Commonwealth of Pennsylvania, Department of Transportation (hereinafter the “Department”). (P-1, para. 2; P-2, para. 2; P-4, para. 2; P-5, para. 2)

3. The Department also engaged the services of Salvucci and Associates, Inc. (hereinafter “SAI”) to provide an inspection staff to monitor the construction activities on the Project in question. (N.T. 618-619)

B - THE CONTRACT AND PROJECT

4. The date upon which bids were received and opened by the Department for the Project (the “letting” date) was February 9, 1989. (D-20, p. 1, DICK0002)

5. On March 13, 1989, the Department and Dick entered into Contract No. 111243 (hereinafter the “Contract”) for certain highway and bridge construction work on State Route 65, Section 4C, and State Route 19, Section 007, in Allegheny County, Pennsylvania. The total Contract price, at the time the parties entered into the Contract, was \$45,971,064.45. (P-1, para. 3-4; P-2, para. 3-4; P-4, para. 3-4; P-5, para. 3-4; P-20, p. DICK-0013)

6. The Department issued the Notice to Proceed to Dick on April 5, 1989, indicating that the Contract work was to commence on April 10, 1989. (N.T. 104-107; P-18)

7. The Contract provided that Dick had 1,195 calendar days calculated from the Notice to Proceed Date of April 10, 1989, within which to complete the Contract or by July 19, 1992. (N.T. 104-107; P-20, p. DICK-0014)

8. The West End Bridge is a major structure that transverses the Ohio River several hundred yards west of downtown Pittsburgh, Pennsylvania, and the confluence of the Monongahela and Allegheny Rivers (also known as "The Point"). The area had many buildings, some of which were demolished by methods unknown, and the Department demolished the remaining buildings prior to this contract. (N.T. 76-91; P-54; P-55)

9. The work under the Contract was significant and required the construction of the West End Circle on the South Side, the complete closure and rehabilitation of the West End Bridge and the construction of the Ohio River Boulevard Extension (Route 65) and the interchanges necessary for access to the West End Bridge on the North Side. (N.T. 4, 76-91, 110-115, 809-810; P-1, para. 4; P-2, para. 4; P-4, para. 4; P-5, para. 4; P-54; P-55)

10. Dick completed the Contract work approximately six (6) months ahead of schedule. (N.T. 107)

11. The Contract consisted of the following documents, plus additional documents incorporated by reference in each of the following:

- a. Form 408-C, the bound document containing, inter-alia, signatures by the parties, schedule of prices, special provisions, addenda and supplemental specifications (hereinafter the "Bound Contract"). (P-20)
- b. Drawings for Construction, containing sheets 1 through 127 of 127 (hereinafter "Plans"). (D-1)
- c. Cross Sections, containing sheets 1 through 91 of 91. (D-2)
- d. The 1987 edition of the Publication 408 Specifications (hereinafter "Publication 408-87"). (P-19)

12. Section 101.03 of Publication 408-87, which was part of the Contract, is captioned "DEFINITIONS" and contains, in part, the following pertinent definitions (P-19, pp. 5-8):

“DISTRICT ENGINEER -- The Engineer in charge of an engineering district of the Department.”

“ENGINEER -- Deputy Secretary for Highway Administration of the Department, acting directly or through an assistant or other representative, authorized by the Secretary or the Deputy Secretary for Highway Administration, with such assistant or other representative acting within the scope of the particular duties assigned or the authority given.”

“INSPECTOR-IN-CHARGE -- The Engineer’s authorized field representative in immediate charge of contract performance and materials furnished.”

“PLANS -- The approved documents or drawings, or exact reproductions of them, for construction of the project. The plans show the location, character, dimensions, approximate quantities, and other details of the prescribed work, including layouts, profiles, and cross sections; plans also include cited Standard Drawings. However, subsurface soil and geological data (e.g. the Soil Survey Report and Profile and Core Borings) are excluded from this definition.”

“SPECIAL PROVISIONS -- Provisions, requirements, or directions applying to the project, as set forth in the proposal, that are not contained in this specification or its supplements.”

“SPECIFICATIONS -- This publication and all publications to which it refers. Also, supplemental specifications, special provisions, and bulletins referred to in, or bound with, the proposal; together with all written agreements made or to be made, pertaining to the method and manner of performing the work, or to the quantities or qualities of material to be furnished under the contract.”

“STANDARD DRAWINGS -- Approved drawings, showing standard details, produced to be used repeatedly on projects.”

“SUPPLEMENTAL SPECIFICATIONS -- Adopted additions and revisions to the standard Department specifications.”

“WORK ORDER -- An order, signed by the Engineer, authorizing the performance of additional or extra work, or extra work on a force-account basis, as specified in Section 110.02 and 110.03.”

13. Section 102.04 of Publication 408-87, which was part of the Contract, states as follows (P-19, pp. 10-11):

“102.04 INTERPRETATION OF APPROXIMATE ESTIMATE OF QUANTITIES -- The estimate of quantities, shown on the proposal forms, and in the contract, is approximate and is shown only as a basis for the calculation upon which the contract award is to be made. The Department does not assume any responsibility that the quantities will actually be required in the project construction, nor will the Contractor be allowed to plead misunderstanding or deception because of the quantity estimates or because of the character of the work, the location, or other conditions. The Department reserves the right to increase, to decrease, or to omit any of the quantities of the work. An increase or decrease of the quantities of the items will not be sufficient grounds for granting an increase in the unit prices bid, except as specified in Section 110.02.”

14. Section 102.05 of Publication 408-87, which was part of the contract, states, in part, as follows (P-19, pg. 11):

“102.05 EXAMINATION OF PROPOSAL FORMS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK -- The Department’s plans and specifications are complete and are prepared so any competent contractor is able to complete the proposed work. The bidder is required to carefully examine the proposal forms, plans, specifications, and project site before submitting a proposal. The submission of a proposal will be considered proof that the bidder has made such examination and understands the conditions to be encountered; the character, quality, and quantities of work to be performed; the material to be furnished; and the requirements of the plans, specifications, and proposal form. The Department will make no allowance or concession for a bidder’s failure to make the required examination.

The proposed slope lines shown on the cross sections are approximate and are subject to revision and change by the Engineer, depending upon the stability of material encountered during construction.”

15. Section 104.02 of Publication 408-87, which was part of the contract, states in part, as follows (P-19, pg. 20):

“104.02 ALTERATION OF DRAWINGS OR WORK -- The Department reserves the right to order, at any time during the progress of the work, increases or decreases in quantities and alterations in the construction drawings or specifications, including alterations in the grade or alignment of the road or structures, as may be necessary or desirable. Any such order will be in writing by the Engineer. Also, should any item contained in the proposal and contract be found unnecessary for the proper completion of the work, a written order will be given to eliminate such item from the contract. Such increases, decreases, eliminations, and/or alterations will not invalidate the contract, nor release the surety.

If the aforementioned changes in quantities or alterations of the construction drawings will significantly increase or decrease the cost of performing the work directly affected, perform such work only when authorized in writing, as specified in Section 110.03(a). Payment for such work will be made under Section 110.03.”

16. Section 105.01 of Publication 408-87 which was part of the Contract, states as follows (P-19, p. 24):

“105.01 AUTHORITY OF THE ENGINEER --

(a) General. The work will be subject at all times to the inspection of the Engineer or the Engineer’s authorized assistants. Do not restrict or hinder this inspection.

To prevent disputes and litigation, the Engineer will:

- determine the quantity of the kinds of work and the quality of material for which payment will be made under the contract;
- determine the answer to questions in relation to the project and its construction; and

- decide differences concerning the performance of the work covered by the contract.

All such determinations, decisions, directions, and explanations required to complete, explain, or make definite any provisions of these specifications and plans will be given promptly, in writing, to the Contractor.

When making a claim for additional compensation because of any ruling of the Engineer, submit notice of intent to claim to the District Engineer, in writing, within 10 days of the ruling, as a condition precedent to such claim.

The District Engineer will respond in writing. Rejection of the claim may be appealed to the Director, Bureau of Construction and Materials, for review by the Construction Claim Review Committee. Give notice of the appeal in writing to the Director within 10 days of the rejection by the District Engineer. The Committee, at its discretion, may conduct a claim review meeting also attended by representatives of the Contractor and the District. The Director will notify the Contractor in writing of the Committee's decision. The "date that the claim accrued", for purposes of filing claims before the Board of Claims, will be the date of the notification by the District Engineer that the claim has been rejected or, in the event of an appeal, the notification by the Director, Bureau of Construction and Materials that the claim has been rejected.

Present such claim(s) to the Board of Claims and to the Secretary of Transportation within 6 months from the date the claim accrued, as provided in 72 P.S. 4651.

17. Pursuant to a Supplemental Specification dated July 15, 1988, revised Section 105.01(a) as follows:

“Section 105.01(a) General. Revise the last sentence in the fifth paragraph to read:

The “date that the claim accrued”, for purposes of filing claims before the Board of Claims, will be the date of the notification by the District Engineer that the claim has been rejected.”

18. Section 105.04 of Publication 408-87, which was part of the Contract, states, in pertinent part, as follows (P-19, pp. 26-27):

“105.04 COORDINATION OF DRAWINGS AND SPECIFICATIONS -- Perform the work in accordance with the intent of the drawings and specifications. Do not take advantage of any error and/or omission in the drawings or discrepancy between the plans and specifications. In the event such an error, omission, or discrepancy is discovered, immediately notify the Department. Failure to notify the Department will constitute a waiver of all claims for misunderstandings, ambiguities, or any other reasons resulting from the errors, omissions, discrepancies. When required, corrections and interpretation necessary for the fulfillment of the drawings and specifications will be made. Do not use scaled measurements where dimensions on the drawings are given or can be computed.

If any special provisions or information on the plans conflict with these specifications, the special provisions or information on the plans will govern. If any conflict exists between any portion of the plans designed specifically for this project and any portion of Standard Drawings, the former will govern.”

19. Section 109.01 of Publication 408-87, which was part of the Contract, states, in pertinent part, as follows (P-19, p. 74):

“109.01 MEASUREMENT -- (a) Units of Measure. Work performed under this contract will be measured in the following units shown in the Measurement and Payment section of the Specifications and in the Schedule of Prices in the proposal, unless otherwise specified.

* * *

- Cubic Yard. Measured by a three-dimensional volume.”

20. Section 110.01 of Publication 408-87, which was part of the Contract, states as follows (P-19, p. 76):

“110.01 GENERAL - Payment for items of work performed under this contract will be made at the contract price per unit of measure, as specified in Section 109.01 for the item complete in place, or portions thereof. Unless otherwise specified, the contract unit price will cover all costs for materials, labor, and equipment:

- specified, described, or identified in each section of the specifications (including the special provisions and plans);
- identified in each section of the specifications (including the special provisions and plans) as “as required” or “as directed”; or
- permitted or allowed under the specifications (including the special provisions and plans) and for which payment is not expressly provided.

In addition to the above, the contract price includes all other costs incurred in performing work on the project (e.g., home office overhead) and all profit. The contract price is accepted as payment in full for all risk, loss, damage, or expense of every kind arising out of the nature of the work or the performance thereof, subject to the provisions of Section 107.20.

Work specified as “incidental” in the Measurement and Payment section of the specification for a contract item is to be considered as an additional obligation to the other work required for the item(s). This incidental work is not payable directly, but is to be considered included in the contract price for the item(s) of work specified.

Removal and replacement of defective work, as specified in Section 105.12, will not be paid by the Department.

No payment will be made for work in excess of that indicated, shown, or specified, unless otherwise accepted in writing by the Secretary.

Removal of material found in excavation areas and accepted for use, as specified in Section 106.04, will be paid for at the contract unit price for the class of excavation in which it is found. Payment will also be made for the contract bid item in which the excavated material is used.

Work, material, or labor specified for an item will not be measured or paid for again under any other indicated pay items. (emphasis added)

(N.T. 8, 11; P-1, para. 9; P-2, para. 9; P-4, para. 8; P-5, para. 8; P-19, p. 76)

21. Section 110.02 of Publication 408-87 which was part of the contract, states as follows (P-19, pp. 76-77):

“110.02 CHANGES IN PLANS OR QUANTITIES -- Payment for work directly affected by changes in quantities or alterations in the contract drawings will be made as follows:

- If such changes do not materially change the cost of performing the work, payment will be made at the same contract price for that work.
- If such changes do not materially change the cost of performing the work, payment will be made under Section 110.03.

When additional work or deletion of work is required due to a change in design, not a normal overrun or underrun in estimated quantities, for lump sum bridge superstructure items, payment will be based upon apparent unit prices derived from the lump sum price and estimated plan quantities.

22. Section 110.03 of Publication 408-87 which was part of the Contract, states, in pertinent parts, as follows (P-19, pp. 77-81):

“110.03 ADDITIONAL WORK, EXTRA WORK, AND EXTRA WORK ON A FORCE ACCOUNT BASIS --

(a) General. Work identified in Sections 104.02 and 104.03 will be paid, if authorized in writing by the District Engineer, as additional work, extra work, or extra work on a force account basis. Compensation will be limited to work authorized in writing and actually performed. Work performed prior to written authorization will be at the Contractor's risk.

A work order identifying the work to be done and the price to be paid therefor will be processed prior to or during the performance of the work. To avoid interrupting the project, written authorization to perform work under this section will be in the form of a letter, telegram, mailgram, or other writing from the District Engineer, or the Inspector-in-Charge, in writing to Contractor when confirming an oral authorization of the District Engineer, issued within a reasonable length of time.

If the work is to be paid as additional work, the District Engineer's writing will refer to the contract price for that work.

If the work is to be paid as extra work and:

- is such that a reasonable price therefore can be negotiated, and
- is such that force account records, if necessary, can be kept by the Department,

the District Engineer's writing will authorize commencement of the work as extra work. Within ten (10) days of such authorization, submit a price for the extra work with back-up data to the District Engineer for transmittal to the Engineer. Pending approval of the price by the Engineer, force account records will be kept as stated below. If the price is accepted by the Engineer, the work will be paid only at the negotiated price, which will not be renegotiated once submitted to the Engineer for his acceptance.

* * *

(b) Additional Work. This includes only the following:

- work of the type already provided by the contract and

- work for which there is a contract price.

Perform all such work only when authorized in writing by the District Engineer, as stated in Section 110.03(a).

All additional work will be paid at the contract price and in the same manner as if it had been included in the original contract.

(c) Extra work. This work includes only the following:

- work arising from changes described in Section 110.02 which result in a significant increase or decrease in the cost of performing that work or
- work, having no quantity and/or price included in the contract, which is determined by the District Engineer to be necessary or desirable to complete the project.

Perform all such work only when authorized in writing by the District Engineer, as stated in Section 110.03(a). All extra work will be paid only as stated in Section 110.03(a).

* * *

(e) Disputes. Notwithstanding the provisions of Section 105.01, in the event of a disagreement with the District Engineer as to whether work is:

- original contract work or additional work,
- original contract work or extra work, or
- additional work or extra work,

notify the Inspector-in-Charge immediately of such disagreement and confirm the disagreement in writing to the District Engineer within ten days. Upon notification to the Inspector-in-Charge of such disagreement, records will be kept daily of all labor, equipment and materials used from that day forward in the disputed work. Keep and maintain such daily records in the field. Claim no extra costs of any

kind for work performed prior to notifying the Inspector-in-Charge of disagreements with the District Engineer's decision. On each Monday, compare records of the previous week's work with those kept by the Department review for accuracy. Report to the District Engineer within ten days of such review all disagreements with such records or to report disagreements with such records. Refusal or repeated failure to meet to review the Department's records or to report disagreements with such records will create an irrebuttable presumption in favor of the Department that its records are accurate.

Disputes concerning all such work will be resolved by the District Engineer and payment will be made on a basis determined by him.

In the event of a disagreement with the decision of the District Engineer, comply with provisions of Section 105.01 concerning due notice in writing of an intent to file a claim and send a copy of the written notice to the District Engineer within the time frame allowed by that section. If written notice is not submitted to the District Engineer within 10 days of receipt of the District Engineer's decision, daily records of labor, equipment and materials will no longer be kept by the Department and no claim for additional compensation of any kind arising from or relating to the disputed work or the decision of the District Engineer can be filed with the Board of Claims.

If due notice in writing is submitted to the District Engineer and Deputy Secretary for Highway Administration within the ten day period, continue to keep and review daily records, as provided above, until completion of the disputed work.

With the exception of those specific daily records or portions thereof on which written disagreements were filed with District Engineer as provided above, any claim for damages filed with the Board of Claims arising out of or relating to the disputed work or the decision of the Secretary can be measured at the hearing solely by the aforementioned daily records kept by the Department."

23. Section 110.06 of Publication 408-87 which was part of the Contract, states as follows (P-19, p. 82):

110.06 CURRENT ESTIMATE PAYMENTS -- Payments exceeding \$10,000 will be processed by the Department at

semimonthly intervals, or more frequently as the work progresses, based upon estimates made by the Department, beginning on the first estimate date established following the Notice to Proceed dating or indicated in the special provisions. Otherwise, estimates will be processed monthly, when the payable amount exceeds \$1,000.00. Partial payments do not bind the Department to the acceptance of any material furnished or work performed.

In the absence of good and sufficient reasons, within 7 calendar days of the receipt of current estimate and final payments from the Department, pay all subcontractors their earned share of the payments.

24. Section 203.1 a & b of Publication 408-87 which was part of the Contract, states, in pertinent parts, as follows (P-19, p. 93):

“(a) Class 1 Excavation.

- Excavation as shown on the Standard Drawings, for roadways, shoulders, ditches, drainage structures, stream channels, grade separation structures, retaining walls, and wingwalls.

* * *

- Excavation, as indicated or directed, for the removal of unsuitable material having a bottom width of 8 feet or more.

(b) Class 1A Excavation.

- Excavation for the removal of unsuitable materials as indicated or directed. Includes backfilling with suitable material.”

25. The Bound Contract contains a list of its contents, captioned “Contract Contents”, on pages 2 through 11. (P-20, DICK0003-DICK0012). The “Contract Contents” are divided into the categories of “Special Provisions,” “Attachments,” and “Supplemental Specifications.” (P-20)

26. The list of “Special Provisions” within the “Contract Contents” portion of the Bound Contract, includes, among others, special provisions designated “Section 203 Class 1,

Class 1A, and Class 1B Excavation” and numerous Contract item numbers concerning mechanically stabilized earth (“hereinafter MSE”) retaining walls (proprietary wall). (P-20, DICK0003-DICK0011)

27. The special provision for “Section 203 Class 1, Class 1A, and Class 1B Excavation on page 140 of the Bound Contract states as follows (P-20, DICK0145):

“SECTION 203 CLASS 1, CLASS 1A, AND CLASS 1B EXCAVATION

Section 203.1(b) Class 1A Excavation. Revise completely to read:

Excavation for the removal of unsuitable material below subgrade having a bottom width of less than 8 feet, as indicated or directed. Includes backfilling in accordance with Section 206.”

28. The special provision for “Item 0203-0001 Class 1 Excavation,” and “Item 0203-0003 Class 1A Excavation” on page 147 of the Bound Contract states as follows (P-20, DICK0152):

**“ITEM 0203-0001 CLASS 1 EXCAVATION
ITEM 0203-0003 CLASS 1A EXCAVATION**

Suitable material excavated as part of this work may be used for embankment providing it meets the requirements of Section 206.”

C - THE CONTRACT ITEMS - CLASS 1A EXCAVATION CLAIM

29. The Contract Unit Price for Class 1 Excavation (Contract Item No. 0203-0001) is \$7.70 per cubic yard (“CY”). (Joint Exhibit 1, para. 9)

30. The estimated quantity of Class 1 Excavation work contained in the Contract Documents is 169,000 cubic yards. The Department paid Dick for 160,134.8 cubic yards at the Class 1 Excavation unit price of \$7.70 per cubic yard for a total payment for this work of \$1,233,038.35, as indicated in the Department’s Final Quantities, Plaintiff’s Exhibit 50. (Joint Exhibit 1, para. 10)

31. The Contract Unit Price for Foreign Borrow Excavation (Contract Item No. 0205-0100) is \$9.00 per cubic yard, and Foreign Borrow material was placed by Dick in all of the undercut areas and in none of the extra depth undercut areas (emphasis added). (Joint Exhibit 1, para. 6)

32. The estimated quantity of Foreign Borrow Excavation work contained in the Contract Documents is 102,000 cubic yards. The Department paid Dick for 102,978.66 cubic yards at the Foreign Borrow Excavation unit price of \$9.00 per cubic yard for a total payment for this work of \$926,807.94, as indicated in the Department's Final Quantities, Plaintiff's Exhibit 50. (Joint Exhibit 1, para. 7)

33. The Contract Unit Price for Class 1A Excavation (Contract Item No. 0203-0003) is \$50.00 per cubic yard. (Joint Exhibit 1, para. 4)

34. The estimated quantity of Class 1A Excavation work contained in the Contract Documents is 1,000 cubic yards. The Department paid Dick for 1.19 cubic yards at the Class 1A Excavation unit price of \$50.00 per cubic yard for a total payment for this work of \$59.50, as indicated in the Department's Final Quantities, Plaintiff's Exhibit 50. (Joint Exhibit 1, para. 5)

35. Dick performed a total of 109,192 cubic yards of undercut and extra depth undercut excavation in the areas shown on Sheets 1 through 63 of the Cross Sections. Of this amount, 86,894 cubic yards were undercut excavation and 22,298 cubic yards were extra depth undercut excavation. (Joint Exhibit 1, para. 1)

36. Of the total undercut and extra depth undercut excavation work performed by Dick, 46,380 cubic yards are the total of the undercut and extra depth undercut excavation volumes which are indicated by the Cross Sections as having a continuous cross sectional area located in whole or in part directly beneath mechanically stabilized earth (hereinafter "MSE") walls. 22,298 cubic yards are extra depth undercut and 24,082 cubic yards are undercut. (Joint Exhibit 1, para. 2 and 3)

37. Of the total undercut and extra depth undercut excavation work performed by Dick, 14,636 cubic yards are the total of the undercut and extra depth undercut excavation volumes indicated by the Cross Sections as being directly below an MSE wall or within one foot horizontally of the limits of the MSE wall, as illustrated on Plaintiff's Exhibit 57. Of the 14,636 cubic yards of undercut excavation and extra depth undercut excavation, 3,237 cubic yards were undercut excavation (emphasis added) and 11,399 cubic yards were extra depth under excavation. (Joint Exhibit 1, para. 11)

38. The 3,237 cubic yards of undercut excavation were backfilled with Foreign Borrow material. (Joint Exhibit 1, para. 12)

39. The 11,399 cubic yards of extra depth undercut excavation were backfilled with No. 57 structural backfill material (stone 1-1/2" or less in diameter) on a force account basis which is equivalent to \$21.06 per cubic yard. (Joint Exhibit 1, para. 13)

40. All of the extra depth undercut areas, and none of the undercut areas, were backfilled with No. 57 structural backfill material (stone 1-½” or less in diameter) for which the Department paid \$469,613.52) on a force account basis, which is equivalent to \$21.06 per cubic yard (22,298 cubic yards divided into \$469,613.52), as indicated in the Department’s Final Quantities, Plaintiff’s Exhibit 50. (Joint Exhibit 1, para. 8)

D - MSE WALLS

41. The Contract required Dick to construct MSE proprietary retaining walls (emphasis added) and/or abutment walls at S.R. 65 section 4C for structure drawings S-16673 and S-16674 as listed below:

S-16673

S-16674

<u>Contract Item Number</u>	<u>Description</u>	<u>Contract Item Number</u>	<u>Description</u>
2000-0106	Retaining Wall E	2000-0113	Retaining Wall M
2000-0107	Retaining Wall F	2000-0114	Retaining Wall N
2000-0108	Retaining Wall G	2000-0115	Retaining Wall P
2000-0109	Retaining Wall H	2000-0116	Retaining Wall Q
2000-0110	Retaining Wall J	2000-0132	Abutment SB1 Wall
2000-0111	Retaining Wall K	2000-0133	Abutment SB7 Wall
2000-0112	Retaining Wall L	2000-0134	Abutment NB1 Wall
2000-0117	Retaining Wall R	2000-0135	Abutment NB2 Wall
2000-0118	Retaining Wall S		
2000-0128	Abutment WE8 Wall		
2000-0129	Abutment F8 Wall		
2000-0130	Abutment B9 Wall		
2000-0131	Abutment D10 Wall		

(N.T. 96; P-20, pp. 197, DICK0202)

42. The special provisions, within the bound contract, required Dick to select one of two proprietary retaining walls (emphasis added) and/or abutment walls states:

“a. Construct one of the following proprietary retaining walls and/or abutment walls at S.R. 65, Section 4C, Structure S-16673

1. Reinforced Earth Wall
2. Retained Earth Wall

b. Construct one of the following proprietary retaining walls and/or abutment walls at S.R. 65, Section 4C, Structure 16674

1. Reinforced Earth Wall
2. Retained Earth Wall

(N.T. 93, 98-99, 352-353)

43. MSE retaining walls transversed much of the project construction site on the north side of the Ohio River. (N.T. 91-94; P-1, para. 16; P-2, para. 16; P-56)

44. MSE retaining walls were generally constructed in pairs along with an abutment as listed below:

S-16673 and S-16674	General Location
MSE Walls E and F and Abutment F8	Ramps F and J
MSE Walls G and H and Abutment WE8	S.R. 65NB
MSE Walls L and K and Abutment B9	Ramp B
MSE Walls R and S and Abutment D10	Ramp D
MSE Wall J and Ramp N to Abutment NB-1	S.R. 65NB
MSE Walls N and P and Abutment NB2 (Wall N Sta. 1033+12 to Sta. 1035+25Lt.)	S.R. 65 NB
MSE Walls Q and Abutment SB7 and Q and P and Existing Abutment wing walls on west side Allegheny Ave. @ 1039+40 and NB; 1040+66± SB	S.R. 65NB & SB
MSE Wall M and Abutment SB-1	S.R. 65SB

(N.T. 94-96; Exhibit D-1, D-2; P-20, pp. 197, DICK0202)

45. The work description, for the MSE retaining wall items, is provided in the special provisions of the Bound Contract documents. (N.T. 96-98; P-1, para. 13; P-2, para. 13; P-20)

46. The special provision for the MSE retaining wall items states, in part on pages 197-200 of the Bound Contract, as follows:

“PART A

DESCRIPTION - This work is designing and constructing retaining walls and/or wing walls (emphasis added) as specified herein and in accordance with the specifications for the retaining wall and/or wing wall selected.

GENERAL - Submit an acceptable preliminary conceptual design within 6 total calendar days from award date to the Department's District Office. . . .

* * *

DESIGN - Comply with the Design Manual Part IV "Structures" the guidelines for the analysis of internally reinforced retaining systems attached to the proposal and as specified, subject to exceptions and/or additions under "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS" (Part B)

* * *

MEASUREMENT AND PAYMENT - Lump sum
The apparent low bidder is to furnish a "Component Item Schedule" to the Department. . . . Tabulate the quantities, unit prices and bid prices for excavation, select granular material, precast wall panels or units, footings or leveling pads No adjustment will be made to the contract lump sum price for retaining walls and/or wing walls for any field adjustments necessary to complete the structure.

* * *

Make the "total" at the end of the "Component Item Schedule" equal the amount of the lump sum shown for the retaining wall and/or abutment and/or wing wall (emphasis added).

* * *

**PART B
SPECIAL DRAWINGS AND SPECIAL DESIGN
REQUIREMENTS -**

Removal and replacement of backfill behind existing walls to permit construction of new walls is incidental to the retaining wall items. Place structure backfill to the limits shown on Standard Drawing RC-12. Furnish new structure backfill as ordered by the Engineer if the existing structure backfill is insufficient or is contaminated during removal.

Excavation for walls is incidental to the retaining wall items, except that undercut as shown on the roadway cross sections is paid for as Class 1A (emphasis added) or Class 1A Special Excavation.”

(N.T. 98-103, 241-242, 355; P-20, DICK0202-DICK0205)

47. The Class 3 Excavation in Dick’s “Component Item Schedules” for the MSE retaining walls is the “incidental” excavation referred to in Part B of the MSE Retaining Wall Special Provisions. (N.T. 101-103, 385; P-20, p. DICK0205)

48. There is no “Class 1A Special Excavation” (emphasis added) item of work or unit price anywhere in the Contract. There is only one reference, in the MSE retaining wall special provision quoted above, that references undercut (emphasis added) as Class 1A Special Excavation in the Bound Contract, Publication 408, the Plans, the Cross Sections, or any other portion of the Contract. (D-1; D-2; P-19; P-20; N.T. 241-242)

49. The undercut excavation referred to in the MSE Retaining Walls Special Provisions as being paid as Class 1A Excavation was not included by Dick in the Component Item Schedules. (N.T. 102-103; P-20, pp. DICK0364 - DICK0386)

50. In August of 1989, the Department issued a statewide change in the design of MSE wall in strike-off letter dated August 11, 1989. This letter caused the Department to issue a “stop work” order for MSE retaining walls until the new designs could be implemented. (N.T. 117-118, 662; Joint Exhibit 1, para. 17)

51. The MSE retaining wall redesign required changing the foundation of the abutments within the MSE walls from a floating slab or footer to a pile supported foundation. (N.T. 117-118, 662; Joint Exhibit 1, para. 17)

52. Selected Borrow Excavation for the back filling of the Extra Depth Undercut, Item 0205-2000, was required to be “constructed of rock backfill.” Michael Beech, an inspector for SAI the Department’s consultant on this project, established that “rock backfill ranged in size from gravel to three-foot diameter rocks.” (N.T. 613-614, 662; P-20, pg. 147, DICK0152)

53. Prior to directing changes in the MSE retaining walls and issuing construction change order, representatives of Dick and the Department entered into negotiations concerning prices for the re-designed MSE wall construction work. Agreement was reached with respect to pile driving unit prices and some of the other work items to be performed. Dick insisted due to the difficulty in placing large rocks around piles, that the Selected Borrow Excavation work of supplying material for and backfilling of the extra depth undercut excavation (emphasis added) areas would be materially more expensive since Dick would have to backfill around driven piles and not in totally

unobstructed areas. As a result, the Department issued work orders deleting the Selected Borrow Excavation work and replacing it with backfilling of these areas with No. 57 structural backfill material on a force account basis. (N.T. 662-667; P-27; P-28)

54. On December 17, 1990, the Department issued Work Order No. 38 and No. 39 for the Force Account work to backfill the extra depth undercut excavation (emphasis added) with the No. 57 structural material, stone approximately ½” in diameter arising out of the redesign of the MSE Walls from the Department’s Strike-Off letter of August 11, 1989, and the work performed between June of 1990 and November 1991 (Work Order #38) and July of 1990 through September of 1990 (Work Order #39). (P-27, pp. 6, 8; P-28, pp. 4-5)

55. The Design Drawings prepared by or on behalf of Dick for the redesign of MSE walls and abutments, were approved on June 12, 1990, and July 5, 1990, respectively. These revised MSE wall drawings contain details for the undercut and extra depth undercut area in section views (such as 3 of 19 in D-7) with the hand-printed notation:

“Section@Sta. . . .views SEE Highway Contract plans S.R. 65
Section 4C for cross-sections”

Also these “Section@Sta. . . .views” show the limits of the granular back fill placed under and over the “soil stabilizing” straps. (N.T. 355-364; D-7; D-8)

56. At no time during the negotiations between Dick and the Department concerning changes to the MSE retaining wall work did anyone from Dick assert that the backfilling of extra depth undercut excavation (emphasis added) work was part of Class 1A Excavation work, as opposed to Selected Borrow Excavation work. (N.T. 666-667)

57. On September 4, 1991, and September 5, 1991, the Department issued Work Orders No. 83 and No. 84 authorizing Dick to accelerate the construction because “the redesign of [MSE Walls] impacted the construction schedule and consequently the project completion dates.” (P-29, p. 4; P-30, p. 3)

E - STANDARD DRAWINGS

58. Sheet 5 of 127 of the contract plans contains a notation and listing of Standard Drawings as follows:

“Details other than those indicated are on the following Standard Drawings: RC-10 Mar. 21, 1986; RC-11 Jan. 29, 1988 2 sheets 066”

59. Standard Drawing RC-10 depicts “Classification of Earthwork” for Class 1 Excavation, Class 2 Excavation, Class 4 Excavation, Common Borrow Excavation and Class 1 or Common Borrow Excavation. (Exhibit D-9)

60. Standard Drawing RC-11 depicts “Classification of Earthwork for Structures” for Class 1 single cross hatch and Class 3 Excavation double cross hatch on Sheet 1 and Class 1 or 4 Excavation single cross hatch and Class 3 Excavation on Sheet 2. (Exhibits D-10; P-58)

61. Standard Drawings RC-10 and RC-11 provide the standard pay limits for excavation work performed on Department projects. (N.T. 762-765)

62. Sheet 1 of RC-11 contains the following note:

“Define special situations, involving excavation not entirely covered by this standard, on the design drawing by sketches and/or describe in the special provisions.”

(N.T. 153; Exhibits D-10; P-58)

63. Michael Beech, on direct, established that Standard Drawing RC-11 “Classification of Earthwork for Structures” contains no reference to or depiction of MSE walls. However, RC-11 depicts wing walls; retaining walls and abutments. Throughout bound contract and other contract documents and the contract pay item listing (P-20, pp. 197) clearly identify MSE walls as “Retaining Wall.” (emphasis added) The Board finds that MSE walls do in fact perform the same function as wing walls, abutments and retaining walls, as proprietary walls, and are retaining walls applicable to RC-11. (N.T. 763; D-10; P-20, pp. 197-201)

F - CROSS SECTIONS AND PLAN MSE UNDERCUT AND EXTRA DEPTH UNDERCUT

64. The Roadway Cross Section, consisting of sheets 1 through 91 of 91, indicate the excavation work that was to be performed for the project. Sheets 1 through 63 of 91 show the excavation work to be performed on the north side portion of the project. The Cross Sections, per Section 101.03, of Publication 408, are part of the plans for the project. (Exhibit D-2; P-19, p. 6; N.T. 239, 742, 814-815)

65. Sheet 28 of 147 of the Contract Plans is captioned “Plan of Undercut and Extra Depth Undercut Excavation Locations and Cross Section Baseline Layout.” This sheet is a plan view (looking down from above) of the north side of the project and shows the locations of the undercut excavation and extra depth undercut excavation work. The undercut areas are shown by single cross hatching (less dense) and the extra depth undercut areas are shown by double cross

hatching (dense). The “legend” on Sheet 28 indicates that for the single hatched areas the “Description” of the work is “Undercut Excavation” (emphasis added) and the “Pay Items” are “Class 1 Excavation and Foreign Borrow Excavation.” The legend also indicates that for the double cross-hatched areas the “Description” of the work is “Extra Depth Undercut Excavation” (emphasis added) and the “Pay Items” are “Class 1 Excavation and Selected Borrow Excavation Rock.” (Exhibit D-1, sheet 28; N.T. 216, 741-742, 810-814)

66. Also, the Roadway Cross Sections show the undercut areas and extra depth undercut areas on the project with cross-hatching. The undercut areas (emphasis added) are shown with single cross hatching, the extra depth undercut areas (emphasis added) are shown with double cross hatching. (Exhibit D-2; N.T. 237-238, 742, 814-815)

67. The Roadway Cross Sections contain, on sheet 2 of 91, a “Legend” which is applicable to all of the Cross Section sheets. The legend indicates that the single cross hatched areas (less dense) are: “Undercut Exc., Class 1 Exc., For. Borrow Exc. (Backfill).” The work in the undercut areas, per the legend is Class 1 Excavation for excavation of the material and Foreign Borrow Excavation for the backfilling of the undercut areas. The legend indicates that the double cross hatched areas (dense) are: “Extra Depth Undercut, Class 1 Exc., Select Borrow Exc. (Backfill).” The work in the extra depth undercut areas, per the legend, is Class 1 Excavation for excavation of the material and Select Borrow Excavation for the backfilling of the extra depth undercut areas. The legend contains no reference to Class 1A Excavation. (Exhibit D-2, sheet 2 of 91; N.T. 237-240, 742)

68. The Roadway Cross Sections contain cross hatching for undercut or extra depth undercut areas on 38 of the 61 sheets for the north side of the project, and most of these sheets contain several cross hatched areas. (Exhibit D-2, sheets 2-19, 23-28, 30-33, 36-37, 47-48, 50-51, 54-55 and 57-59)

69. The Roadway Cross Sections contain only two markings, which Mr. Blum, Dick’s Project Manager, testified indicated Class 1A excavation, are as follows:

- a. On Sheet 16, Section AA, upper right hand corner, which shows the limit of undercut at abutment SB-1 and limit of abutment and wall excavation at the top right corner, contains the notation “CL 1A” in the vicinity of Abutment SB1 in an area that is not in any single or double cross hatched excavated area.

b. On Sheet 17, Section BB, which shows the limit of extra depth undercut at Abutment NB-2 at the lower left corner, contains the notation “CL 1A” in the vicinity of Abutment NB2 in an area that is not in any single or double cross-hatched excavated area. But on cross, Mr. Blum had to admit that the markings “CL 1A” were not in any “dense” (double) cross hatched areas on either Section AA or BB.

(N.T. 157-158, 243-246; Exhibit D-2, Sh. 16 & 17)

70. Sheet 26 of 147 of the Contract plans is titled “MISCELLANEOUS DETAILS” at the right hand corner. The left side of sheet 26 contains sectional views titled “MEDIAN BACKFILL”, “DETAILS OF UNDERCUT FOR WEST END BRIDGE NORTH APPROACH”, “TYPICAL MSE WALL BACKFILL” and “DETAIL OF UNDERCUT AND EXTRA DEPTH UNDERCUT.” These details are typical for roadway excavation, backfill and embankment construction and excavation and backfill at MSE walls. The Class 1 Excavation (undercut) on the details for West End Bridge states (see detail below) which is titled “Detail of Undercut and Extra Depth Undercut.” (N.T. 216-220, 737; Exhibit D-1, sheet 26)

71. The section captioned “DETAIL OF UNDERCUT AND EXTRA DEPTH UNDERCUT” contains “Notes A, B and E” and they are under this typical section. “Note C” and “Note D” are on top of the MSE wall backfill typical section. These sections show the details of the typical limits in relation to MSE walls for “Class 1 Excavation (undercut) Foreign Borrow Excavation”; “Class 1 Excavation Selected Borrow Excavation, Rock with lines and arrows pointing to the limits of the pay items. This section also indicates the typical location “Wet or Unstable Foundation Area” (to the left of a vertical divider) and “Stable Foundation Area” (to the right). This typical section also indicates with lines and arrows the limits of excavation and “Wall Backfill Material” for MSE walls. There is no single or double cross-hatching shown on this typical section, however “Note A” states “For limits of excavation see X-Section.” (N.T. 220, 737, 818; Exhibit D-1, sheet 26)

72. Mr. Miner, an expert in design of highways and bridges and designer on the Project, testified about the “typical” details on Sheet 26 of 127 and “DETAIL OF UNDERCUT AND EXTRA DEPTH UNDERCUT” which contains “Note B”, “Place 6” “Granular Cushion On Class 4 Geotextile At Base Of Undercut On Unstable Or Saturated Material Or As Directed” for only the Extra Depth undercut areas which were backfilled, by Force Account, with No. 57 stone. Mr. Miner established that he directed the preparation of Sheet 26 of 127 and established that the geotextile and borrow excavation rock (No. 57 stone) was required only in the extra depth undercut areas because it was generally a wet area where loss of stability was a concern. He further established that every extra depth undercut area shown on the Contract Plans and Cross Sections was for the support of MSE walls and MSE abutments. (emphasis added) (N.T. 737-738, 804-807, 817-820; Exhibit D-1, sheet 26; Exhibit D-2, sheets 2, 3, 6, 7, 11, 12, 16, 17-19, 24, 25, 30, 50)

73. On cross Mr. Miner admitted that neither Sheet 26 of 127 or Sheet 28 of 127 of the Construction Plans sets forth or identifies all of the work required in connection with the MSE walls on the North Side of the Project, but Mr. Miner established that the roadway cross sections “define the excavation precisely.” (N.T. 842-844; Exhibit D-1, Sheets 26 and 28 of 127)

74. Sheet 34 of 127 (also marked as Summary Sheet 1 of 7) of the Plans provides a delta sign or triangle which instructs Dick to “See Special Provisions” for Item 0203-0001, Class 1 Excavation, and Item 0203-0003, Class 1A Excavation. (N.T. 844-845; Exhibit D-1, sheet 34 of 127)

75. Sheet 37 of 127 (also marked as Summary Sheet 4 of 7) of the Plans provides a delta sign or triangle which instructs Dick to “See Special Provision” for the MSE walls, Items 2000-0106 through 2000-0118 and Items 2000-0128 through 2000-0135. (N.T. 844-845; Exhibit D-1, Sheet 37 of 127)

76. Mr. Beech established that the cross sections clearly indicate the cessation of the undercut excavation at existing streets located on the North Side of the Project. (N.T. 638; Exhibit D-1, Sheet 28 of 127; Exhibit D-2, D-83)

77. Sheet 25 of the roadway cross section contains a section “AA”, in the MSE wall “S” location, indicating that along abutment D-10 there is an “UNDERCUT TRANSITION” from “E.D.U. cut Exc.” TO UNDERCUT EXC. (Exhibit D-2, Sheet 25)

78. Mr. Miner established that there are many undercut areas (emphasis added) shown on the Contract plans and roadway cross sections where no MSE walls were located, such as the undercut work at Station 1019+50 on sheet 5 of 91 of the cross sections. (N.T. 815-816; Exhibit D-2, Sheet 5)

79. There are some areas on the Contract Plans and roadway cross sections where MSE walls were to be constructed, such as MSE Retaining Walls “Q” and part of “P” and abutment SB-7 but no undercut or extra depth undercut excavation was to be performed below the MSE wall. Mr. Miner established that these areas of earthwork were done 20 years earlier and had been properly compacted. (N.T. 263-264, 638, 821; Exhibit D-2, Sheet 21; D-83)

80. Mr. Miner testified that, due to the river being so close to the site and test bores, the designer knew that the existing material would not be a good supporting foundation for the MSE retaining walls. So based on the height of the wall and river water elevation, a determination was made on the extent of extra depth undercut and rock backfill for the MSE wall foundations. (N.T. 813-814)

81. On cross, Mr. Blum testified, that with respect to the legend and indication on Sheet 28 of 127, the single cross hatch Class 1 and Foreign Borrow and double cross hatch Class 1 and selected borrow conflicts with his interpretation concerning undercut and extra depth undercut excavation being Class 1A excavation. Mr. Blum also testified that the legend on Sheet 2 of the cross sections which has single cross hatching Class 1 Excavation undercut foreign borrow excavation and double cross hatching Class 1 Excavation select borrow excavation extra depth undercut conflict with his interpretation of the legend “but not within the Contract.” (N.T. 216, 239-240)

82. Sheets 41, 42 and 43 of the Contract Plans are tabulation sheets for the Roadway quantities and sheets 41 and 42 indicate estimate quantities of Class 1 Excavation work and Selected Borrow Excavation work in the same rows and with the identical stationing on the north side of the project as follows:

<u>Class 1 Exc in CY</u>	<u>Sel. Borrow Exc in CY</u>	<u>Stations</u>	<u>Remarks</u>
81,278	11,819 SB	1015+00 to 1034+16	Class 1 Exc. includes Undercut & Extra Depth Undercut
18,373	8,489	NB 1032+84 to 1040+44	
5,058	1,177	Ramp A	
8,503	1,653	Ramp N	
<u>8,401</u>	<u>1,380</u>	Ramp D	
121,613	24,518		

(D-1, sheets 41-42)

83. On Sheet 41 of the Contract Plans, the tabulation sheet for the Roadway Quantities indicated an estimate quantity of Class 1A Excavation Item 0203-0003 CY as 12,951 SR65 NB stations 1032+84 to 1040+44 and 8489 CY of selected borrow excavation item 0205-0200. (Exhibit D-1, Sheet 41)

84. The stationing on Sheets 41 and 42 for the locations of the Class 1 Excavation correspond very closely to the stationing listed for the north side excavation work shown on the Roadway Cross Sections and listed on sheet 1 of the Cross Sections. The estimated quantities of Class 1 Excavation on Sheets 41 and 42 include undercut and extra depth undercut excavation plus other excavation that does not involve undercutting or extra depth undercutting work. Consequently the total estimated quantity of Class 1 Excavation on Sheets 41 and 42 exceeds the 109,192 CY actual quantity of undercut and extra depth undercut excavation work performed. (Exhibit D-1, sheets 41-42; Joint Exhibit 1, para. 1; N.T. 221-232)

85. Addendum No. 2 to the Contract was issued to all bidders on January 31, 1989, and became part of the Contract. Addendum No. 2, in the Bound Contract, states, in pertinent part, as follows:

“Sheet 41 of 127 - Delete quantity for Item 0203-0003 Class 1A Excavation from the tabulations.”

(P-20, DICK0349)

86. Sheet 43 of the Contract Plans, one of three sheets which tabulate estimated quantities for roadway items for the project, indicates the estimated quantity for Class 1A Excavation, Item 0203-0003, as being 1,000 CY. Under the station column on this sheet, this work is designated to be for the “ENTIRE PROJECT AS DIRECTED.” (Exhibit D-1, sheet 43; N.T. 235-236)

87. The only work performed on the project that the Department paid for a Class 1A Excavation was the removal, below the subgrade, of an existing telephone pole. The excavation in this area down to subgrade was paid for as Class 1 Excavation. The telephone pole was organic material made of wood and the excavation for removal of the telephone pole was less than 8 feet wide. The volume of this excavation performed and paid for as Class 1A Excavation was 1.19 CY. (Exhibit P-50; N.T. 769-770, 974-977, 985-986)

88. Dick supplied the material to backfill the area from which the telephone pole was excavated and was not paid any compensation over and above the Class 1A Excavation price for providing the backfill material. (N.T. 769-770, 974-977, 985-986)

89. Unsuitable material was unexpectedly encountered in the area of Temporary Road Number 4. Since this unsuitable area was wider than 8 feet, the Department paid Dick the Class 1 Excavation unit price for the excavation and the Foreign Borrow unit price for the backfill of this area. (N.T. 768-769)

90. There is nothing in the Contract or Publication 408 that requires a contractor to supply backfill material to backfill unsuitable areas excavated as Class 1 Excavation. Normally a contract provides a separate pay item for backfilling any unsuitable areas excavated as Class 1 Excavation. (Exhibit P-19, P-20; N.T. 208)

G - CLAIM FOR EXTRA DEPTH UNDERCUT CLASS 1A

91. Sheet 2 of the Cross Section has a legend (top right) showing double Cross hatching and a note next to it on the right states: "EXTRA DEPTH UNDERCUT - E.D. U' CUT CLASS 1 EXC. SELECT BORROW EXC. (BKFILL)". (N.T. 238-239; Exhibit D-2)

92. Sheet 28 of the Contract Drawings has a legend, lower right, showing double cross hatching, description: "EXTRA DEPTH UNDERCUT EXCAVATION" and Pay Items "CLASS 1 EXCAVATION & SELECTED BORROW EXCAVATION ROCK". (Exhibit D-1, Sheet 28 of 127)

93. In the Special Requirements for MSE Walls, there is no reference in Part B to Extra Depth Undercut Excavation. (Exhibit P-20, pg. 200, DICK0205)

94. The Board finds that there is no ambiguity in the Contract documents regarding the payment of Extra Depth Undercut Excavation as Class 1 Excavation at \$7.70 per CY.

H - CLAIM FOR UNDERCUT CLASS 1A

95. The Department prepared payment estimates every two weeks during the course of the project to pay for work as it was performed. (N.T. 928-929)

96. The Department prepared payment estimates every two weeks during the course of the project to pay for the work as it was performed. The undercut and extra depth undercut excavation work was paid for on the current estimates as Class 1 Excavation on the basis of survey information prepared and submitted to the Department by Dick. (N.T. 569-576, 928-936; Joint Exhibit 1, para. 10; Exhibit D-37 through D-69; D-88)

97. During the course of the work, the Department, pursuant to the applicable project payment estimates prepared by the Department, paid for the undercut excavation backfill work, which included both the supplying of the backfill material and the performance of the backfilling work, as Foreign Borrow Excavation at the Contract Unit Price of \$9.00 per cubic yard. (N.T. 184; Joint Exhibit 1, para. 15)

98. During the course of the work, the Department, pursuant to the applicable project payment estimates prepared by the Department, paid for the undercut excavation as Class 1 Excavation at the Contract Unit Price of \$7.70 per cubic yard. (N.T. 184; Joint Exhibit 1, para. 14)

99. Dick assigned one of its project engineers, Laura Coch, the duty of checking Dick's survey notes against the Department's current estimates to make sure that the Department was properly paying for the Class 1 Excavation on the current estimates. (N.T. 571)

100. As depicted by Mr. Beech on the plan view of the project, all but 6 areas of the project undercut and extra depth undercut areas were completely excavated by the end of 1989. (Exhibit D-83; N.T. 638, 659-661)

101. All of the undercut and extra depth undercut excavation was completed prior to notice by Dick of the Class 1A Excavation claim which was first given verbally at or about the time of the August 21, 1990 project meeting. (Exhibit D-79, D-80, D-81; N.T. 623, 722-723)

102. Dick did not object to being paid Class 1 Excavation for the undercut and extra depth undercut excavation work performed in 1989 or at any time thereafter until the Class 1A claim was first raised verbally at about the time of the August 21, 1990 project meeting. Dick did not object in 1989 or early 1990. (N.T. 569-572, 928-936)

103. During the course of the Project, the Department and Dick conducted periodic progress meetings and minutes thereof were prepared. (N.T. 979-980; Exhibit P-21, P-23, P-24, P-25, P-26, D-31)

104. The purpose of the Project progress meetings were to coordinate the work, resolve problems, discuss potential claims, investigate claims and resolve claims. (N.T. 979-980)

105. The Department prepared minutes of the weekly Project control meetings (hereinafter "Project meeting") held during the course of the project and regularly forwarded copies of these meeting minutes to Dick. (N.T. 280)

106. When claims were presented to the Department by Dick, the Department would investigate the claims, request additional information and if the Department agreed with Dick's position, the Department would take appropriate action for the payment thereof. (N.T. 979-980)

107. The dispute concerning Class 1A Excavation did not arise until Dick was preparing to begin construction of the MSE walls and representatives of Dick examined the MSE wall special provisions for this work, in August of 1990. (N.T. 587, 622)

108. The first request Dick made for payment of the Class 1A Excavation unit price for any excavation work whatsoever occurred at the July 21, 1990 Project Meeting, under item J. At that meeting, Mr. Blum, Dick's Project Manager, requested payment of the Class 1A Excavation unit price for excavation under MSE Wall P because, he asserted, Plan Sheet 41 showed a tabulation of 12,000 CY of Class 1A Excavation at the Wall P location "while the cross sections at the same specify payment as Class 1 Excavation and Select [or] Foreign Borrow." The Department agreed, at the meeting, to review the matter. (Exhibit P-24, p. 3; N.T. 279-281, 625-626)

109. At the August 7, 1990, Project Progress Meeting the Department stated that the designer had been contacted relative to payment of the Class 1/Foreign Borrow as Class 1A Excavation and that the Department will review and advise. (N.T. 118-121, 131, 278-287; Exhibit D-31, p. 3)

110. The consultant, HDR, informed the Department that this tabulated quantity had been deleted by Addendum No. 2 issued prior to the letting date. This Class 1A Excavation claim (which is different than the instant Class 1A claim) was resolved when Addendum #2 was pointed out to Dick. (N.T. 279-281, 369, 626-628; Exhibit P-20, DICK0349; Exhibit D-1, Sheet 41; Exhibit D-31, p. 3)

111. The first verbal notice Dick gave the Department of the instant Class 1A Excavation claim occurred at or about the time of the August 21, 1990 project meeting. Minutes of that meeting, Section G, state that Mr. Blum reiterated that language in contract entitled Dick to payment for all undercut excavation work as Class 1A Excavation. (N.T. 119-121, 131, 279-285, 623; Exhibit P-25)

112. At the August 28, 1990, Project Progress Meeting, Dick advised the Department that it would resolve the payment of the undercuts as Class 1A excavation by utilizing a one foot (1') measurement from outside the MSE Wall's leveling pad to a distance one foot (1') past the straps of the MSE Wall and for a depth to the bottom of the undercut or extra depth bottom of the undercut or extra depth undercut. The Department indicated it would respond formally once a letter was received from Dick. (N.T. 285-287; P-26, pp. 2-3; P-57)

113. The first written notice that Dick gave the Department of its Class 1A Excavation claim was its letter of October 18, 1990. In its letter, Dick asserted that it was entitled to be paid Class 1A Excavation for the undercut and extra depth undercut excavation and backfill work that was performed directly under MSE walls and within one foot horizontally of the MSE wall leveling pads. Dick stated that the quantity of such alleged Class 1A Excavation work was

15,256 CY. Dick further indicated that the Department was entitled to a credit for the payments the Department has made for the work performed in these areas as Class 1 Excavation, Foreign Borrow, and No. 57 Structural Backfill work performed on a force account basis. Dick computed the net extended value claimed to be \$397,778.63. (emphasis added) (N.T. 133-134, 199-200, 270-271, 936-940; P-31)

114. At all times material hereto, Dick has maintained that it is entitled to be paid for all undercuts, including extra depth undercuts shown on the Cross Section associated with the MSE Wall construction. (N.T. 887-888, 984)

115. The Department denied Dick's payment for the MSE Walls' excavation or Class 1A excavation by letter dated October 25, 1990, based upon Section 110.03(e) of the 408 specs. (N.T. 148-199, 937-940; P-32)

116. By letter dated October 30, 1990, Dick responded to the Department's letter dated October 25, 1990, claiming that pursuant to Section 110.09(c) of the 408 Specs, Dick had until ten (10) days after the Final Settlement Computations in which to request payment for payment as Class 1A Excavation for the MSE Walls' excavation and requested the Department to convene its Construction Review Committee. (N.T. 148-150; P-33)

117. The Department convened its Construction Review committee on February 4, 1991, to consider Dick's claim for payment as Class 1A excavation for the excavation for the MSE Walls. (N.T. 150)

118. By letter dated March 12, 1991, the Department informed Dick that the Department's Construction Review Committee had denied Dick's claim for payment as Class 1A Excavation the excavation for the MSE Walls, and advised Dick that it must file its claim within six (6) months from October 25, 1990. (N.T. 9, 150; P-34; P-47)

119. On April 11, 1991, Dick filed its Complaint with the Board of Claims at Docket No. 1527. In its Complaint, Dick asserted that the "Department breached the Contract by failing to pay Dick the unit price for Class 1A Excavation as required by the Contract Special Provisions" (P-2, para. 21), that the quantity it was entitled to payment for, per the Contract Special Provisions was "46,680 cubic yards" (P-1, para. 20), and that this claimed work is "Class 1A Excavation in and about the retaining walls and abutments." The net amount of the claim was now computed to be \$1,286,015.38. (emphasis added) (P-1, para. 20)

120. The interpretation asserted by Dick at the time it filed its Complaint is that, of the total undercut and extra depth undercut excavation work performed by Dick, 46,680 cubic yards (revised at trial by stipulation to 46,380 cubic yards) were Class 1A Excavation, consisting of the total of the undercut and extra depth undercut excavation volumes which are indicated by the Cross Sections as having a continuous cross sectional area located in whole or in part directly beneath an MSE wall. (N.T. 180-181, 259-264; Joint Exhibit 1, para. 2)

121. In arriving at the 46,680 CY of Class 1A Excavation claimed in the Complaint, Dick examined each cross section in the Contract Cross Sections to determine whether it included an undercut or extra depth undercut area. If it included such an area, Dick then looked to see if it showed an MSE wall to be constructed. If it did, Dick examined the cross section to determine whether any part of the MSE wall was shown as being directly above any portion of the undercut or extra depth undercut area. If so, Dick counted the entire cross sectional area as part of the 46,680 CY Class 1A claim and, via the Complaint, asserted that the Contract called for this entire excavated area to be paid for as Class 1A Excavation. (Joint Exhibit 1, para. 2; N.T. 180-181, 258-264)

122. Dick's 46,680 CY Class 1A Excavation interpretation included, as claimed Class 1A Excavation, entire undercut areas where only a very small portion is under an MSE wall, such as the cross section at station 1032+50, on sheet 16 of the Cross Sections, where the undercut excavation is about 130 feet wide, but the total MSE wall width above is only about 11 feet. (D-2, sheet 16; N.T. 258-262)

123. When Mr. Blum wrote Dick's Class 1A Excavation claim letter of October 18, 1990, Mr. Blum believed that Class 1A Excavation extended one foot horizontally beyond the MSE retaining wall leveling pad based on the Department's Standard Drawings, including Standard Drawing RC-11. (N.T. 270-271; D-10)

124. During the trial, Mr. Blum marked up a copy of RC-11 to demonstrate his interpretation, on October 18, 1990, that the Class 1A Excavation extended one foot horizontally beyond the MSE wall leveling pad. (N.T. 146-148, 271-272; P-57, P-58)

125. RC-11 is a Standard Drawing of the Department, incorporated as part of the Contract by reference on sheet 5 of the Contract Plans. Captioned "Classification of Earthwork for Structures," RC-11 contains no reference to, or depiction of, MSE walls. (D-10; N.T. 763)

126. The Board finds that MSE Walls as required by the contract documents are designated as retaining walls, wing walls or abutments. (Record)

127. As the information on D-88 concerning the Class 1 Excavation estimate payments indicates:

- a. Estimate payments for 103,146.22 CY of Class 1 Excavation were processed prior to the first verbal notice Dick gave of its Class 1A Excavation claim on August 21, 1990.
- b. Estimate payments for 126,635.14 CY of Class 1 Excavation were processed prior to the first written notice Dick gave of its Class 1A Excavation claim on October 18, 1990.
- c. Estimate payments for 74,812.30 CY of Class 1 Excavation in undercut and extra depth undercut areas were processed prior to the first verbal notice Dick gave of its Class 1A Excavation claim on August 21, 1990.
- d. Estimate payments for 86,559.30 CY of Class 1 Excavation in undercut and extra depth undercut areas were processed prior to the first written notice Dick gave of its Class 1A Excavation claim on October 18, 1990.

128. During the course of the project, Dick, in performing Class 1 Excavation work, encountered unanticipated subsurface obstructions in the form of building foundations and footers along relocated Ridge Avenue. (D-20U through D-20Y; N.T. 688-693)

129. As both parties agreed that the excavation in the area of the Ridge Avenue obstructions was likely to be more expensive per cubic yard than the average unit cost of Class 1 Excavation, the Department directed that this work be performed on a force account basis, via Work Order No. 1. (N.T. 688-693, 772-775; D-11)

130. On July 21, 1989, the Department issued Work Order No. 1 for removal of subsurface obstructions on relocated Ridge Avenue and on July 24, 1989, the Department issued Work Order No. 3 for the removal of subsurface obstructions at a concrete plant on Belmont Street. (N.T. 688-690; D-11, D-12)

131. When the excavation in the area of the Ridge Avenue obstructions was completed, the Department processed Work Order No. 41 reflecting the actual force account cost for the work performed. The total quantity excavated was 6,382 cubic yards at a total force account cost of \$38,474.92. Though this work was more expensive than the average unit cost of Class 1 Excavation, the unit force account cost was only \$6.03 per cubic yard (\$38,474.92 total divided by 6,382 cubic yards), which is \$1.67 per cubic yard less than the Class 1 Excavation Contract unit price of \$7.70 per cubic yard. (D-13; N.T. 772-775)

132. After the Ridge Avenue obstruction excavation was completed, Dick sent the Department a letter dated July 28, 1989, in which it indicated that its Class 1 Excavation unit price of \$7.70 per cubic yard was based on the following excavation and estimated cubic yards:

Mass Earth Excavation	144,383 CY
Remove Surcharge Embankments	3,258 CY
Remove Concrete Abutments and Walls	3,400 CY
Excavate Slag Behind Abutments	10,860 CY
Existing Roadway Excavation and Misc. Excavations	<u>7,102</u> CY
TOTAL	169,003 CY

The total, in Dick's letter, of 169,003 CY is the total estimated quantity in the Contract for Class 1 Excavation. Dick pointed out that the final unit price of \$7.70 was a composite of these various types of excavation and that the "Remove Concrete Abutments and Walls" portion of the original estimated quantity was more expensive than the "Mass Earth Excavation" portion of the original estimated quantity. Since the Ridge Avenue obstruction excavation was encountered in an area where only Mass Earth Excavation was anticipated, the letter states: "Dick Enterprises can offer a credit only for the portion of the contract unit price for class 1 excavation that is related to the **mass earth excavation.**" Dick, thus, in the letter, offered a credit of only \$6.24 per cubic yard for the excavation at the Ridge Avenue obstruction location for the work performed there on a force account basis instead of at the Class 1 Excavation unit price. (D-30; N.T. 772-775)

133. Undercut and extra depth undercut excavation, with a total actual quantity of 109,192 CY, were included in the 144,383 CY of "mass earth excavation" category of Class 1 Excavation referred to in Dick's July 28, 1989, there being no other category of Class 1 Excavation with an estimated quantity large enough to encompass this work. The 109,192 CY were stipulated to be 86,894 cubic yards were undercut excavation and 22,298 cubic yards were extra depth undercut excavation. (Joint Exhibit 1, para. 41; D-30)

134. The volume of undercut excavation (emphasis added) indicated by the roadway cross sections as being directly below the MSE retaining walls or within one foot horizontally of the limits of the MSE walls as shown on Exhibit P-5 is 3,237 CY and the Foreign Borrow backfill was 3,237 CY. (Joint Exhibit 1, para. 11)

135. The special requirements for MSE retaining walls directed undercut is paid for as Class 1A excavation. (P-20, DICK0205)

136. Other Contract documents direct payment for Undercut Excavation as Class 1 excavation. (Record)

137. The total value of Class 1A excavation for Undercut Excavation (emphasis added) beneath MSE retaining wall is calculated as follows:

3,237 cubic yards (CY) @ \$50.00 =	\$161,850.00
Less payments made by Department	
3,237 CY Class 1 Exc. @7.70 =	24,924.90
3,237 CF Foreign Borrow @9.90 =	<u>32,046.30</u>
Total Deduction	\$56,971.20
 Total Value	 \$104,878.80

138. The Board finds that there is an ambiguity regarding the payment of undercut excavation only beneath MSE retaining walls and that Dick is entitled to be paid \$104,878.80 (emphasis added) for undercut excavation beneath the MSE retaining walls. (Record)

139. The work for the Class 2 Excavation was set forth under Item 0204-0001 for which Dick submitted and the Department accepted a unit price of \$37.00 per cubic yard. (P-4, para. 10; P-5, para. 10)

140. The Class 2 Excavation work was set forth in Section 204.1 of the 408 Specs which states in part:

Section 204.1 of the 408 Specs states in part:

This work is excavation for ditches, stream channels, culverts, drains, and structures.

The three classes of excavation include the following, as shown on the drawings or the Standard Drawings.

(a) Class 2 Excavation. Excavation for inlet, outlet, and parallel ditches; stream channels; structures removed below the ground surface and not replaced with new structures; spillways; and half-circle pipe.

(N.T. 11; P-4, para. 9; P-5, para. 9)

141. RC-10 is a Standard Drawing of the Department, titled "Classification of Earthwork," which was incorporated as part of the Contract by reference on sheet 5 of the Contract Plans. (D-1, sheet; D-9)

142. On Standard Drawing RC-10, the typical captioned “Roadway Section Showing Class 1 Excavation” indicates that excavation from the original ground line down to the subgrade is Class 1 Excavation. (D-9; N.T. 859-860)

143. On Standard Drawing RC-10, the typical captioned “Excavation **For** Removal of Existing Pipe or Structure Where No Replacement is Required” indicates that excavation **for the removal of an existing pipe or structure** (which is not being replaced by a new pipe or structure) is Class 2 Excavation, and that such Class 2 Excavation extends from the original ground line or subgrade downward to the bottom of the pipe and horizontally to a limit of six inches on each side beyond the outside diameter of the pipe or structure. (emphasis added) (N.T. 859-860, 943-944; D-9)

144. During the course of the project, in areas where Dick was required to excavate from the original ground down to the subgrade, Dick did not perform excavation **for** the removal of the pipe, and did not excavate from the original ground down to the bottom of the pipe to a width which was only six inches wider, on either side, than the outside diameter of the pipe. Rather, Dick simply excavated the entire area at once and either disposed of the pipes encountered or, in the case of concrete pipes, broke them up for use as backfill material. (N.T. 554, 856-860, 943-944; D-9)

145. The Cross Sections did not indicate that the removal of any pipes in undercut or extra depth undercut areas was payable as Class 2 Excavation. All undercut and extra depth undercut excavation, per the legend on Sheet 2 of the Roadway Cross Sections, was designated Class 1 Excavation. (N.T. 858-859, 952-953)

146. During the course of the project, in areas where Dick was required to perform undercut and extra depth undercut excavation, Dick did not perform excavation **for** the removal of the pipes, and did not excavate in undercut and extra depth undercut areas down to the bottom of the pipes to a width which was only six inches wider, on either side, than the outside diameter of the pipe. Rather, Dick simply excavated the entire undercut or extra depth undercut area at once and either disposed of the pipes encountered or broke them up for use as backfill material. (N.T. 554, 856-860, 943-944, 953-954)

147. Class 2 Claim Items 7 through 23 involve the removal of a 36" sewer (Item 7), an 18" sewer (Items 8, 11, 12, 14, 17, 21 and 23), a catch basin (Item 9), a drop inlet (Item 10), manholes (Items 13, 18, 22), a 6" water line (Items 15, 16 and 20) and a 3" gas line (Item 19). (N.T. 467-483; Joint Exhibit 4; P-60; P-60(c); P-60(d))

148. The Department maintained careful records during the course of the project of the location of pipes removed for which Dick was paid the Class 2 Excavation unit price. A set of Contract Plan sheets was marked in colors showing the location of the pipes removed and the dates of the removal for which the Class 2 Excavation unit price was paid. (N.T. 776-779, 853-854; D-86)

149. The Department maintained careful records during the course of the project concerning the actual excavation work performed. A set of Contract Cross Sections was marked showing the actual depth, width and location of the excavation work performed (“As-Built Cross Sections”). (N.T. 853-854; D-85)

150. If Dick had removed existing pipes below undercut or extra depth undercut areas, the removed pipes would have been recorded on the As-Built Plans and the excavation would have been recorded on the As-Built Cross Sections. (N.T. 776-779, 853-854; D-85; D-86)

151. The pipes Dick claims were removed below the undercut and extra depth undercut areas are not shown as being removed on the As-Built Plans, and the alleged excavation below the undercut and extra depth undercut areas is not shown as being performed on the As-Built Cross Sections. (D-85; D-86; N.T. 776-779, 853-854)

152. Some of the pipes shown to be existing on the Contract plans were not in existence when the project work was performed. (D-1; D-86; N.T. 780-783)

153. As indicated on the As-Built Plans, exploratory excavation was performed by Dick to locate certain pipes in existing streets that were marked “To Be removed” on the Contract Plans. Dick was unable to find these pipes, and so they were not removed. (D-1; D-86; N.T. 780-783)

154. Mr. Jeffrey Sciuillo, Dick’s Project Manager, prepared Dick’s “after the fact” Class 2 Excavation claim calculations after the pipes were allegedly removed in the following manner. He gathered the plan view (looking down from above) Contract Plan sheets which indicated where existing pipes were expected to be found. He colored in yellow the areas in which undercut excavation was to be performed and placed darker yellow circles around the areas in which extra depth undercut excavation was to be performed. Finally, he looked at Cross Sections to attempt to ascertain the depth of the pipes. (N.T. 577; P-60)

155. Although Dick maintained as-built cross sections of the excavation during the course of the project, Dick’s as-built cross section, as conceded by Mr. Sciuillo, did not show any excavation performed below the bottom of undercut or extra depth undercut areas. (N.T. 579-580)

156. Mr. Sciullo, on cross, established that Dick's surveyor worked for him, reported the work that was done and the drawing shows it to be done. However, Mr. Sciullo admitted that these records did not indicate whether any particular pipe was or was not removed in areas down to subgrade or from undercut or extra depth undercut areas. (N.T. 526-527)

157. When Mr. Sciullo performed Dick's Class 2 Excavation calculations, he had no records or other documentation to indicate whether any pipes were removed. He simply assumed, "after the fact," that any pipes shown on the Contract Plans as existing were, in fact, encountered and removed from areas excavated down to the subgrade or from undercut or extra depth undercut areas. (N.T. 526-527, 577, 579-580)

158. With respect to this Class 2 Excavation Claim, Mr. Sciullo recalled that there were pipes on the Project that were to be backfilled or plugged with grout and he recalls some grouting, but could not recall whether Dick has records that reflect which pipes were grouted. (N.T. 576)

159. Dick did not keep any records to indicate what, if any, pipes were removed from areas excavated down to the subgrade or from undercut or extra depth undercut areas. (N.T. 526-527, 579-580)

160. Dick did not excavate for or remove any pipes located below undercut or extra depth undercut areas. (N.T. 776-779, 853-854; D-85; D-86)

161. The Contract did not call for undercut or extra depth undercut excavation to be performed where the existing major streets were located on the north side of the project. (D-1, sheet 28; N.T. 810-812, 822-823)

162. The only removal shown on the Contract in the existing major streets on the north side of the project was existing pipes that were 12 inches or greater in diameter, since such pipes could collapse from the weight of traffic or new construction above. (N.T. 810-812, 822-823; D-1, sheet 28)

163. To remove the existing pipes in the existing streets on the north side, Dick excavated to a depth that was six inches beyond the outside diameter of the pipe on each side (for a total width that was one foot greater than the outside diameter of the pipe) straight down to the bottom of the pipe. Dick then removed the pipe and backfilled the trench with suitable material. Dick was paid the Class 2 Excavation unit price for the areas so excavated and backfilled. (N.T. 860, 952-954)

164. For those locations where Dick performed and was paid for Class 2 Excavation, representatives of both Dick and the Department examined the excavated area and measured its length, width and depth after the pipe was removed, and before it was backfilled, in order to arrive at an agreed upon and accurate Class 2 Excavation payment quantity. (N.T. 860, 952-954)

165. Dick is seeking payment at the Class 2 Excavation unit price in this case for 2,015.90 CY for the following three categories of work that were allegedly performed to remove existing pipes and other structures. (Joint Exhibit 2, Joint Exhibit 3, Joint Exhibit 4)

- a. Alleged removal of pipes in undercut and extra depth undercut areas, for which the Department already paid Dick the Class 1 Excavation unit price. Dick claims 411 CY of excavation fit this category, for which it claims that Class 2 Excavation unit price of \$37.00 less the Class 1 Excavation unit price paid of \$7.70 per cubic yard for a net amount of \$12,042.30 (411 CY at \$29.30/CY).
- b. Alleged removal of pipes in areas that were excavated from the original ground down to the new subgrade, for which the Department already paid Dick the Class 1 Excavation unit price. Dick claims 1,443.09 CY of excavation fit this category, for which it claims the Class 2 Excavation unit price of \$37.00 less the Class 1 Excavation unit price paid of \$7.70 per cubic yard for a net amount of \$42,282.54 (1,443.09 CY at \$29.30/CY).
- c. Alleged excavation and alleged removal of pipes below the bottom of undercut and extra depth undercut areas. The Department already paid Dick the Class 1 Excavation unit price for excavation down to the bottom of the undercut and extra depth undercut excavations. Dick claims 111.36 CY of excavation fit this category and fall within the undercut and extra depth undercut areas, for which it claims the Class 2 Excavation unit price of \$37.00 less the Class 1 Excavation unit price paid of \$7.70 per cubic yard for a net amount of \$3,262.85 (111.36 CY at \$29.30/CY). Dick claims that an additional 50.45 CY fit this category and fall below the undercut and extra depth undercut areas, for which it claims the full Class 2 Excavation unit price of \$37.00 for the amount \$1,866.65 (50.45 CY at \$37.00/CY).

166. As enumerated in the previous proposed finding, the total CY for which Dick, in this action, is pursuing both a Class 1A Excavation claim and a Class 2 Excavation claim are 522.36 CY (411 CY plus 111.36 CY).

167. There was no reliable documentation presented at trial to support Dick's claim for additional Class 1A and Class 2 Excavation for alleged removal of pipes and/or drainage structure not replaced.

CONCLUSIONS OF LAW

1. The Board of Claims has jurisdiction over the parties and the subject matter at both docket 1527 and docket 1593.

2. The case at docket 1527 is a claim for payment of Class 1A Excavation which the Department paid under other items. (Class 1A Claim)

3. The case at docket 1593 is a claim for payment of Class 2 Excavation which the Department paid as Class 1 Excavation. (Class 2 Claim)

4. The claims herein have been brought within the time periods prescribed by law.

5. The contract in addition to the bound volume consists of drawings for construction, Roadway Cross-Sections, Publication 408 Specifications, and those documents incorporated by reference.

6. The contract is clear in stating that excavation for walls incidental to retaining wall items are paid for as Class 1 classification and that Undercut Excavation as shown on the Roadway Cross Sections is paid for as Class 1A or Class 1A Special Excavation.

7. There is no ambiguity in the Contract documents regarding the payments of Extra Depth Excavation as Class 1 Excavation at 7.70 per CY and that MSE walls are retaining walls applicable to the standard drawings RC11.

8. Since there is no specific Class 1A Special Excavation item or unit price mentioned in the Contract, an ambiguity does exist.

9. The Roadway Cross Sections of the Contract do contain some markings indicating the recognition of Class 1A Excavation.

10. The ambiguity pertaining to Class 1A Excavation is not apparent on its face and thus the duty of clarifying such ambiguity is not upon the Contractor.

11. All Contract documents must be interpreted so as to give all provisions meaning and effect and not in a manner that will void any provision.

12. The ambiguity pertaining to payment of Class 1A Excavation should be construed against the Department as the writer of the contract.

13. The referencing in the Roadway Cross Section Markings to 1A Excavation indicate an intent by the Department to recognize payment for 1A Excavation pertaining to Undercut Excavation beneath MSE retaining walls.

14. The Contractor is entitled to additional payment for 3,237 cubic yards of Undercut Excavation as Class 1A Excavation less payments made by the Department.

15. The Contractor is entitled to additional payments totaling \$104,878.80 on its claim under docket 1527.

16. In order to be paid for Class 2 Excavation, excavation must be performed for the removal of pipe and must be excavated from limits of other classes of excavation or existing ground down to the bottom of pipes to a width which was only six inches wider, on either side, than the outside diameter of the pipe.

17. The Contractor simply excavated the entire roadway area, undercut and extra depth undercut areas at once and either disposed of pipes encountered or used them as backfill material. This does not constitute excavation for the removal of pipes.

18. The Department records were carefully held and maintained and do not indicate that the Contractor had removed existing pipes below undercut or extra depth undercut areas.

19. The Contractor's failure to keep records indicating what pipes were removed from areas excavated, other alleged pipes to be removed, but nonexistent or from undercut or extra depth undercut areas constitutes a failure to meet the burden of proof to establish their claim for Class 2 Excavation.

20. The Contractor's claim for Class 2 Excavation payment under Docket 1593 must be denied.

OPINION

These cases arise out of construction work performed by the Contractor for extensive highway and bridge construction work on State Route 65 in Allegheny County, Pennsylvania. The amount of the contract was Forty-Five Million Nine Hundred Seventy-One Thousand Sixty-Four Dollars and Forty-Five Cents (\$45,971,064.45) and involved a general rehabilitation of the West End Bridge over the Ohio River and reconstruction and rehabilitation of the West End Circle on the south side of the river surrounding the city of Pittsburgh.

There are two claims involved in this litigation. The claim at Docket 1527 concerning Class 1A Excavation and the Claim at Docket 1593 concerning Class 2 Excavation.

The issue concerning the Class 1A Excavation claim is one of contract interpretation.

(emphasis added)

The contract provision relevant to Contractor's Class 1A excavation claim is set forth in the provision which it is referred to as the MSE Wall Special Provisions. The provision states:

“Excavation for walls is incidental to the retaining wall items except that undercut as shown on the roadway cross sections is paid for as Class 1A or Class 1A Special Excavation.”

The controversy does not arise in the interpretation of this provision, but does arise when we observe the Roadway Cross Sections which are part of the contract and do not clearly show undercut as referred to in the MSE Wall Special Provisions as indicated above. Since this provision refers to “Roadway Cross Sections,” those sections must be examined to justify Contractor's claim.

The Roadway Cross Sections consisting of sheets 1 through 91 indicate the excavation work that was to be performed for this project.

Sheet 28 of 147 of the Contract Plans is captioned “Plan of Undercut and Extra Depth Undercut Excavation Locations and Cross Section Baseline Layout.” This sheet is a plan view (looking down from above) of the north side of the project and shows the locations of the undercut excavation and extra depth undercut excavation work. These legends contain no reference to Class 1A Excavation.

However, a further examination of the Roadway Cross Sections contain two markings indicating Class 1A Excavation. They were as follows:

On Sheet 16, Section AA upper right hand corner, which shows the limit of undercut at abutment SB-7 and limits of abutment and wall excavation at the top right corner, therein, the notation “CL1A” in the vicinity of Abutment SB1 in an area that is not in any single or double cross-hatched excavation area.

On Sheet 17, Section BB, which shows the limit of extra depth undercut at abutment NB-2 at the lower left corner, there is the notation “CL1A” in the vicinity of abutment NB2 in an area that is not in any single or double cross-hatched excavation area.

The above noted markings referring to 1A excavation are inconsistent with the other provisions in the contract plans and legends listing Excavation and Foreign Borrow Excavation as Class 1 pay items thus creating an ambiguity. A contract is ambiguous if it is reasonably susceptible to more than one construction, its meaning is obscure due to indefinite expression, or has a double meaning. Commonwealth of Pennsylvania, Department of Transportation v. Sauders, t/a Odyssey

Contracting Company, 109 Pa. Comm. 505, 531 A2d 817 (1987). These markings when examined with the MSE wall special provisions show an intent that Class 1A payments were anticipated by the parties. An examination of the entire Contract plans, legends and markings, all of which are part of the total contract by definition, create the ambiguity. Commonwealth of Pennsylvania, Department of Transportation v. Cramer Construction Company, 71 Pa. Commw. 481, 454 A.2d 1205 (1983).

The Department contends that the ambiguity is patent and thus it was the Contractor's obligation to resolve it prior to entering into the contract as stated in James D. Morrissey, Inc. for and on behalf of W. P. Dickerson vs. Commonwealth of Pennsylvania, Department of Transportation, Board of Claims, Docket No. 1295, the rule governing ambiguity in government construction contracts distinguishing between latent and patent ambiguities. When such contracts contain an obvious or glaring ambiguity a public contractor is obligated to inquire and attempt to resolve the problem before entering into the contract. Fruin-Colnon Corp. v. U.S. 912 F2 at 1426 (1990).

However, the ambiguity in this case is not patent. It is only apparent as we have herein set forth after careful review of the extensive plans and markings pertinent to the body of the contract itself. Thus, the contractor in this case does not have the burden of proving reliance of his interpretation of the contract at the time of bidding. Froeschle Sons, Inc. v. U.S. 891 F.2d 270 (1989).

Accordingly, since the Department drafted the contract documents, any and all ambiguities therein must be construed against the Department and in favor of the Contractor, Commonwealth of Pennsylvania, Department of Transportation v. Mosites Construction Company, 90 Pa. Commw. 33, 494 A.2d 41 (1985).

It is apparent that the reference in the MSE wall special provisions portion of the contract indicate an intent to recognize Class 1A payment excavation. The marking on the contract drawings further suggest an intent to provide for Class 1A payments concerning Undercut Excavation beneath the MSE walls.

The total cubic yards of Undercut Excavation is 3,237 for which the Contractor is entitled to Class 1A payment.

Contractor further claims payment for Class 2 excavation work at the unit price of \$37.00 per cubic yard. Section 204.1 of the Publication 408 Specification states in part:

“This work is excavation for ditches, stream channels, culverts, drains, and structures.

The three classes of excavation include the following, as shown on the drawings or the Standard Drawings.

(a) Class 2 Excavation. Excavation for inlet, outlet, and parallel ditches; stream channels; structures removed below the ground surface and not replaced with new structures; spillways; and half-circle pipe.”

On Standard Drawing RC-10, the typical captioned “Excavation For Removal of Existing Pipe or Structure Where No Replacement is Required” indicates that excavation for the removal of an existing pipe or structure (which is not being replaced by a new pipe or structure) is

Class 2 Excavation, and that such Class 2 Excavation extends from the original ground line or subgrade downward to the bottom of the pipe and horizontally to a limit of six inches on each side beyond the outside diameter of the pipe or structure.

It is evident from the testimony that the Contractor did not perform any excavation for any of the pipes claimed. Rather, the Contractor simply excavated the entire area at once and either disposed of pipes encountered or, in the case of concrete pipes, broke them up for use as backfill material. There is no indication that the removal of any pipes claimed is to be paid as Class 2 Excavation.

It is clear that the burden of proof to prove that pipes were removed according to the contract provisions to entitle Class 2 payments is upon the Contractor. Nowhere in the evidence has the Contractor established such fact. Therefore, his claim for Class 2 payment must be denied.

ORDER

AND NOW, this day of December, 1997, the Board finds in favor of the Plaintiff, Dick Enterprises, Inc., and against the Defendant, Commonwealth of Pennsylvania, Department of Transportation, in the amount of One Hundred Four Thousand Five Hundred Seventy-Eight Dollars and Eighty Cents (\$104,578.80) on its claim under Docket No. 1527 with six percent (6%) interest from April 11, 1991, the date of commencement of this action as filed with the Board of Claims and in favor of Defendant and against Plaintiff on the claim filed under Docket No. 1593 filed with the Board of Claims

Upon receipt of said award, Plaintiff shall forthwith file with the Board of Claims a Praeceptum that the case be marked settled, discontinued and ended with prejudice.

Each party to bear its own costs and attorneys' fees.

BOARD OF CLAIMS

David C. Clipper
Chief Administrative Judge

Louis G. O'Brien
Engineer Member

Opinion Signed

12/30/97

James Harris
Citizen Member