

cc: DiMartino
Farag
D. Smith
Yee
Hinds
Aggarwal
Suspense
RA:lp

Copy to:
Mr. A.E. Shaw, Jr. P.E.,
Amtrak
National Railroad Passenger
30th Street Station, Suite 330
Philadelphia, PA 19104

U2092
1 2688

January 26, 1988

Yalcin M. Tarhan
Acting Project Manager
Parsons Brinckerhoff Quade & Douglas, Inc.
One Penn Plaza
New York, NY 10119

RE: Westside Connection Project, North Access Tunnel from W. 33rd Street to W. 38th Street, Borough of Manhattan

Dear Mr. Tarhan:

In reply to your letter dated January 6, 1988 with which you submitted three (3) sets of final contract drawings for the above referenced project, please be advised of the following comments of this department:

1. Show details of the pressure relief manhole as per comment No. 1 of our letter dated October 29, 1987.
2. Show the size of the existing sewer at chamber No. 1 on drawing No. C-11. It should match section B on drawing No. S-36.
3. Indicate size, material, etc. of splash blocks as per comment No. 3 of our letter dated October 29, 1987.
4. Submit easement and maintenance agreements as per comment No. 11 of our letter dated October 29, 1987.
5. Refer to item No. 16(b) of your letter. Drawing Nos. S-93 and S-94 are missing.
6. Refer to comment No. 15(b) of your letter. The calculations for R, Δ and T are missing. A review of chamber Nos. 1, 2 and 3 (sections B, D and F) shows that the layout of chambers does not conform to our guidelines. For example, consider section D. The value of d shall be 6.

-cont-

-2-

$$R = d/2 + \left(\frac{a/2}{\sin \Delta/2} \right) = 3 + 4/\sin 45 = 3 + 5.66 = 8.66 \text{ ft.}$$

$$T = R \tan \Delta/2 = R \tan 45 = R = 8.66'$$

$$c = 6''$$

$$b = \frac{a/2}{\sin \Delta/2} - \frac{a/2}{\tan \Delta/2} = 5.66 - 4 = 1.66$$

Thus the guidelines have not been met. Also no a,b or c dimensions are provided. Revise the layout and size of the chamber per our guidelines. Submit computations for R,T & additional structural computations. Show a,b, and c dimensions for flow redirection chambers.

7. We have been advised by our Division of Plant Operations (Wards Island) that the aluminum stop planks as shown on dwg. No. S- 34 are not acceptable. Wooden stop planks should be used. Find enclosed castings for access cleanout/manholes.

Very truly yours,

MAGDI FARAG, P.E., CHIEF
Division of Sewer Regulations &
Control, Bureau of Sewers



January 6, 1988

**Parsons
Brinckerhoff
Quade &
Douglas, Inc.**

**One Penn Plaza
New York, NY 10119
212-613-5000**

**Engineers
Planners**

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**Mr. Magdi Farag, P.E. Chief
Division of Sewer Regulations and Control
BUREAU OF SEWER
40 Worth Street, 9th Floor
New York, NY 10013**

**RE: Amtrak North Access Tunnel
(Westside Connection Project)**

Dear Mr. Farag:

The following are responses to your letter dated 10/29/87. These responses also include the results of the meeting held December 10, 1987 and attended by NYCDEP, NYDOT, Amtrak, and PB personnel. See attached attendance list.

COMMENT

NO.

RESPONSE

RESOLUTION

1. Complied. See note on Dwg. #C-11.
2. Type of proposed catch basins are now shown on the plans. See Dwg. #C-22.
3. Specification indicates all existing facilities impacted by the project to be replaced. Therefore, all existing splash blocks (existing) impacted will be replaced. This will be repeated in the plan.
4. A note stating "all internal manholes shall be maintained by AMTRAK" is added as Note #14 on Dwg. S-32.
5. In a meeting on July 2, 1987 with BOS/ Structural Group, it was agreed with Mr. D. Smith that 15 inch diam. pipe is AMTRAK's property and it is existing. The drain pipe collects general water not directly connected to bridge above and should not be changed. 16 inch diam. new pipe is on the western end of the tunnel and cannot be connected to 3.5'x3.5' concrete box.
6. Not in direct conflict. It is close.

**RECEIVED
D.E.P./BUREAU OF SEWERS**

JAN 11 1988

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However, this is a temporary construction condition. A note is added to Dwg. C-11.

7. Complied. See Section E on Dwg. S-35.
8. The Profile shown on S-32 will show the following information:
 - . Slope
 - . Type of sewer
 - . Will make reference to Civil Dwg for grading
 - . Will refer to Dwg. S-33 for beddingAll other items are shown on S-32.

We are showing all necessary information, our scale is slightly different but presentation is clear, constructable, and well detailed drawings.
9. All expansion joints have been eliminated and water stops from the construction joints have been deleted.
10. Complied. They are shown on Dwg. S-36.
11. AMTRAK Legal Dept. sent a letter to Mr. Frank Schiano, Esq. on December 31, 1987. Both legal departments are working on the required agreement.
12. Complied. See Dwg. C-11.
13.
 - a) It is done. The 1'-0 collar is the integral part of the MH. See Sect. B on Dwg. S-36.
 - b) Exact make up of the sewer not known. If it is not the same as on 34th Street, contractor will identify. A note will be added to ask the contractor to identify and describe it for as built Dwgs. See Dwg. S-36.
 - c) Done. See Sec. E on Dwg. S-35.
14. Calculations have been reviewed and a v at the bottom slab have been provided. See Section A, B, and C on Dwg. S-33.
15.
 - a) Done where necessary. See drawings S-35 and S-36.

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- b) Guide lines for design of chambers is attached to Hydraulic calculations. The selected radius satisfies all of the requirements. See calculations which are stamped by a P.E.
- 16.
- a) Dowels have been provided between the bottom slab and the walls of the 3'-6"x 3'-6" and 6'-0"x4'-0" concrete boxes.
 - b) All necessary information and relevant details and bar placements are shown on Dwgs. S-93 and S-94.
 - c) A new manhole has been provided on the Flow Redirection Chamber.
- 17.
- a) Dwgs. S-33 thru S-36 have more details (sections & plans) than the sample given. There are 26 sections taken to cover 180 feet long siphon which should be adequate.

The selected sectional details are based on the following:

- . Plan
- . Elevation
- . Proper cross sections

Suggested sections do not add anything more. Dwgs. were set up following the example given on Nov. 10, 1986. This sample has no such sections. In addition, there are 45 sectional plans shown on S-60 thru S-65.

- b) The Weir details are shown on Dwg. S-33.
- 18.
- The inverted siphon design and details has been revised to reflect:
- 1) 16" D.I.P. is not carried into the twin 6'-0"x4'-0" combination sewer. Revised clean-out arrangement to provide easy access for maintenance and the location of the weirs.
 - 2) The weir in U/S of the maintenance chamber has been moved to Chamber A.



- 3) Sumps for the twin 16" D.I.P. have been eliminated.
 - 4) Note has been added to define the line where the stop planks will be installed. See Dwg. #S-34, Note No. 5.
19. The orientation of Sections C & F shown on S-34 has been rotated 90 degrees to match chamber A & D shown on Dwg. S-3.
20. It is shown on Dwg. S-35 Sections C & D.
21. Covers are shown on S-34. They are also specified on Dwg. S-33.
22. This project requires the Engineer to bar detail the structures. The bar detailing followed ACI practice and the bar size and spacing were indicated on the plans. See Legend shown on S-68. This legend is repeated on drawing #S-33.

Attached are three (3) complete sets of revised drawings showing the changes noted above and hydraulic computations for the revised monolithic sewers and weir location. We trust this submission will be satisfactory, and look forward to your prompt approval.

Very truly yours,

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.

Yalcin M. Tarhan

YALCIN M. TARHAN
Acting Project Manager

YMT/LM/24:26

Enclosures

cc: A. Shaw - AMTRAK