

CITY OF BETHLEHEM
INTER-DEPARTMENTAL CORRESPONDENCE

SUBJECT: Request for Approval by City Council of Contract Award or Contract Price Increase Pursuant to City Ordinance, Article 121.05 (a)

Project or Contract Reference: Amendment of Consulting and Engineering Services for Structural Evaluations at City Hall, Project No. MS-19-W01

TO: City Council, all members, and Council Solicitor

FROM: Michael Alkhal, PE, Director of Public Works/City Engineer

DATE: January 9, 2020

On behalf of the Administration, pursuant to City Ordinances, Article 121.05, I request City Council's approval of the following recommendation of the referenced contract award or price increase.

- Check Type of Contract or Change:

The contract is for over \$50,000 and required to be bid under the Third Class City Code. We have advertised the above referenced project and received qualified bids. We recommend award of the contract to the bidder identified and for the reasons stated below.

The recommendation is for a price increase of 10% or more for an existing contract over \$50,000 that was previously bid and awarded under the Third Class City Code.

The contract is for the engagement of professional services. Pennoni is currently under contract for the investigation and preparation of specifications for the repair of several structural issues at City Hall. During their investigation additional areas were found that also need further investigation. This amendment is for the additional services.

- Is the contract appropriation or price increase included in this year's budget? yes no

City Hall Garage Structural Concrete Repairs Non-Utility Capital Improvement Program

- Identify contract funding sources (general fund, grants, loans, etc...):

Account #62019-66018 – City Hall Garage Structural Concrete Repairs

- The name and address of the recommended Professional Service Provider are:

Pennoni
2041 Avenue C
Suite 100
Bethlehem, PA 18017
Attn: Keith Weitknecht, P.E.

- Term of contract or estimated completion date, subject to standard extensions:

The contract completion date will be extended to July 1, 2020.

- Description of project or scope of services to be provided:

The consultant analyzed several structural issues at the City Hall Complex. There are three areas included in this evaluation. They are: corrosion of the bases of the steel columns along the perimeter of the Library roof, spalling of a concrete beam in the garage, and deterioration of the concrete floor in the garage. These issues were evaluated and repair procedures are being recommended to address each. Technical specifications and repair details have been prepared. During the evaluation, several additional items were found that require additional investigation. These are: the east basement wall of Library, garage columns, and expansion joints in the plaza. This additional work was not included in the initial scope of work.

- State the actual or estimated price to the City or the proposed Department budget allowance for the initial term; and state payment rate per unit of service if applicable:

\$5,100 increase to \$25,600

- Number of renewal term options and duration of each renewal, if any:

No additional renewals are anticipated.

- Maximum dollar value of all renewals provided for beyond the original term as if all renewals were exercised:

N/A

- Reasons for recommendation of Administration and Council approval of contract:

Pennoni is already under agreement to perform several structural inspections and this amendment will add some additional work that was found during their inspections.

Please approve this recommendation by passing the accompanying resolution. A vote of final approval is requested at the first City Council agenda listing of this matter.

By:  1/9/20

Copies To: Mayor
Director of Administration
Director of Budget and Finance
Deputy Director of Public Works
Law Bureau
Purchasing Bureau
Controller

Attachment: proposed resolution

RESOLUTION NO. _____

Authorization for Contract or Amendment under Article 121.05(a)

BE IT RESOLVED by the Council of the City of Bethlehem that the Mayor and the Controller and/or such other City officials as deemed appropriate by the City Solicitor, are hereby authorized to execute a Contract or Amendment and such other agreements and documents as are deemed by the City Solicitor to be necessary and/or related thereto, with the following named contractor, for the uses and purposes indicated in the supporting Recommendation of Award of Bid or Contract dated January 9, 2020:

1. Name of Contractor: Pennoni

2. Project or Contract Reference: Amendment to Consulting and Engineering Services for Structural Evaluations at City Hall
Project No. MS-19-W01

Sponsored by _____

ADOPTED by Council this _____ day of _____, 20____.

President of Council

ATTEST:

City Clerk



CHANGE TO SCOPE/SCHEDULE/FEE

Date: December 20, 2019

Pennoni Project #: CBETH19001

Scope Change #: 01

Project Title: Structural Evaluations at City Hall Complex

Project Location: 10 E. Church Street, Bethlehem, PA 18018

Client Responsible Party: Mr. Matthew Dornier, Deputy Director of Public Works/ Chief of Engineering

Client Address: 10 E. Church Street, Bethlehem, PA 18018

Client Phone: 610-865-7051 Fax: _____ Email: mdorner@bethlehem-pa.gov

Description of Change(s):

Exploratory Viewports and Additional Repair Items

- Perform two additional site visits to observe four exploratory viewports at the existing plaza level, to review the plaza expansion joint that appears to have failed based on observed water infiltration into the garage below.
 - The viewports will be performed by the City of Bethlehem.
- Provide a letter summarizing the findings from the exploratory viewports for the conditions observed.
- Design and detail additional repair items including the spalling at the bottom of the east wall of library colonnade, garage column spalls, and expansion joint repairs, based on the exploratory viewport findings.
 - The additional items will be added to the construction documents.

Revised Due Date: _____

Original Contract Amount	\$ 20,500.00
Amount of Other Scope Changes	\$ 0.00
Amount of this Scope Change	\$ 5,100.00
New Contract Total	\$ 25,600.00

PAYMENT/FEEES: TIME/MATERIALS UNIT RATE ATTACHED ESTIMATED FEE LUMP SUM

Services will be completed in accordance with the terms and conditions agreed upon in the original contract.

- This document serves as an addendum to the original contract.
- Please sign below and return to us. This will serve as our agreement and becomes effective immediately to proceed with the change(s) described above.

Client Authorized Signature Date

Pennoni Associates Signature Date 12/20/19

Client Name/Title (printed)

Keith W. Weitknecht, PE / Associate Vice President

Pennoni Associates Name/Title (printed)

September 27, 2019

CBETH19001

City of Bethlehem
Department of Public Works
10 E. Church Street
Bethlehem, PA 18018

Attn: Mr. Matthew Dorner, Deputy Director of Public Works/ Chief of Engineering

RE: Bethlehem City Hall Complex
Additional Deficiencies Discovered During Garage Investigation

Dear Mr. Dorner,

Per your request, Pennoni visited the above referenced site on August 15, 2019 and August 22, 2019. While on site, we met with you and other City representatives. The purpose of our visit was to make visual observations and perform tactile evaluations of the existing conditions of the parking garage slab and plaza beam in accordance with our contract for professional services dated May 24, 2019. We observed additional deficiencies outside of the scope of our current services. This letter is based on limited observations made while on site and a review of available existing drawings. It represents no guarantee, either written or implied, that all conditions were observed.

The additional deficient items noted are as follows (Reference SK-1 and SK-2 for locations):

1. An approximate 65' long section of concrete wall was observed to have severe concrete spalling and damage to the bottom of the wall (Reference Photos 1-3 and SK-1). The wall is located directly under the library's main entrance steps and directly above the damaged plaza beam that is currently included in the scope of our repairs. From our review of the existing drawings, this wall appears to be an extension of the east wall of the library colonnade. The wall supports the granite benches and vertical panels around the perimeter of the library plaza/colonnade. It is our opinion that expanding the current scope of repair work to include the plaza wall will likely be the most cost-effective option.

From review of the existing drawings, it appears that a 1-1/2" wide expansion joint is located adjacent to the exterior face of the plaza wall. Based on the observed damage to the concrete plaza wall and plaza beam, this expansion joint has likely failed and is allowing water to infiltrate. We recommend that exploratory viewports be opened in order to examine the condition of the expansion joint and confirm the cause of the damage to the wall and beam below. The viewports would involve the removal of brick pavers adjacent to the library steps at several locations (Reference SK-1 and Photo 3). We recommend addressing this issue prior to repairing the concrete plaza beam to allow the beam repairs to be done concurrently and to reduce costs. If the water infiltration is not addressed, the lifespan of the current repairs will likely be reduced due to further damage.

2. An approximate 40' section of the 1-1/2" expansion joint located at the center of the plaza, near the southeast corner of the library colonnade (Reference Photos 4-6 and SK-2). The failure has resulted in significant water infiltrating the garage area below the joint location. The water infiltration appears to have contributed to the parking garage slab deterioration below this area. We recommend that exploratory viewports be opened in order to investigate the condition of the expansion joint and determine possible repairs. The viewport would likely involve the removal of brick pavers at several locations (Reference Sk-2 and Photo 5).
3. Multiple concrete columns located in the garage were observed to have areas of concrete spalling primarily located at the base of the columns (Reference Photos 6-7 and SK-2). Expanding the current scope of repairs to include the columns with the parking garage slab repairs will likely be the most cost-effective option.
4. Severe spalling was observed at one of the concrete panel ribs located directly adjacent to the plaza beam (Reference Photo 8 and SK-2). Expanding the current scope of repairs to include the panel rib along with the plaza beam repairs will likely be the most cost-effective option.

We recommend further investigation for items 1 and 2 in order to determine the condition of the concealed expansion joints. We recommend a minimum of two (2) exploratory viewports at each expansion joint for a total of four (4) viewports at the plaza level. This will allow for a better analysis of the source of water infiltration and the development of appropriate repair details. Pennoni can provide a proposal for observation of exploratory viewports and to develop repair designs for the expansion joints based on observations at the viewports.


It is our recommendation that items 1, 3, and 4 be included in the current repairs by expanding the current scope. If you like to expand the scope of work, we can provide a scope change for these services.


Based on the investigation to date, it appears there are several areas where the joints and/or water proofing at the plaza level have failed. The water infiltration has resulted in deterioration of the structure. We recommend the City of Bethlehem authorize a complete investigation of the plaza structure, water proofing, and joints to determine if the waterproofing is adequate or if removal and replacement is recommended.


If you have any questions, or would like to discuss any of the above, please do not hesitate to contact us.

Sincerely,

PENNONI ASSOCIATES INC.


Joseph Ingaglio, EIT
Graduate Engineer


Keith W. Weitknecht, PE, SECB
Structural Division Manager



Attachment(s): Sketches 1-2, (2) Pages
Photographs 1-8, (6) Pages

cc: file

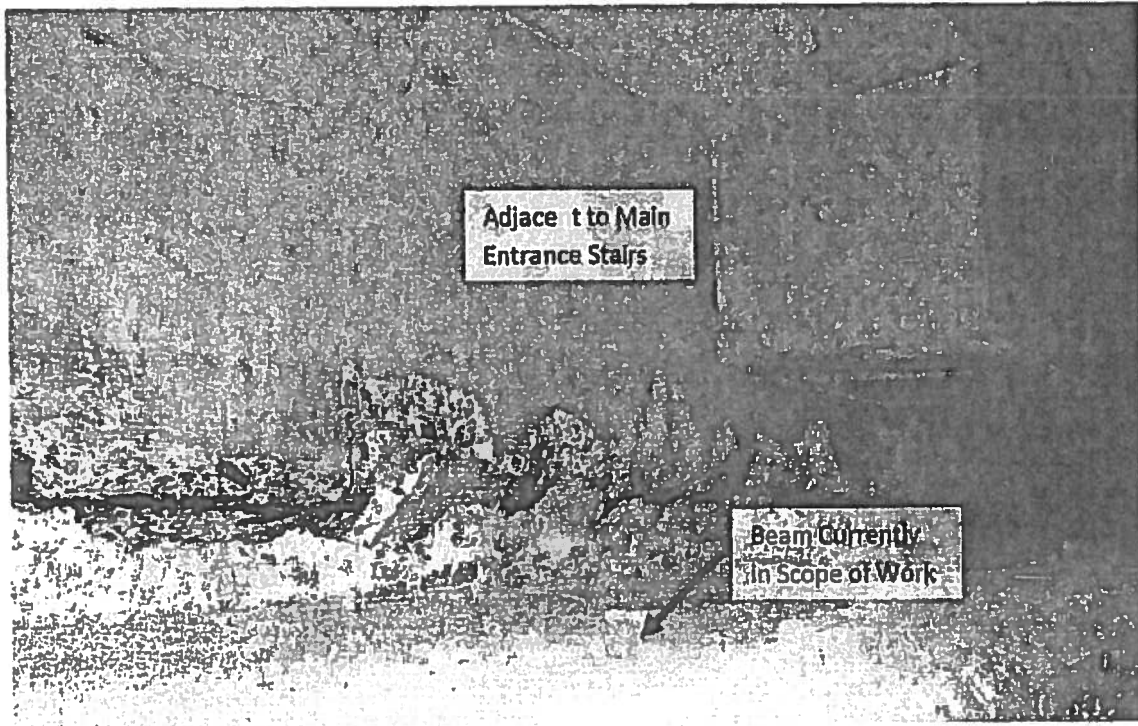


Photo 1: Item #1- Bottom of Library Wall spall damage located under Library Main Entrance Stairs

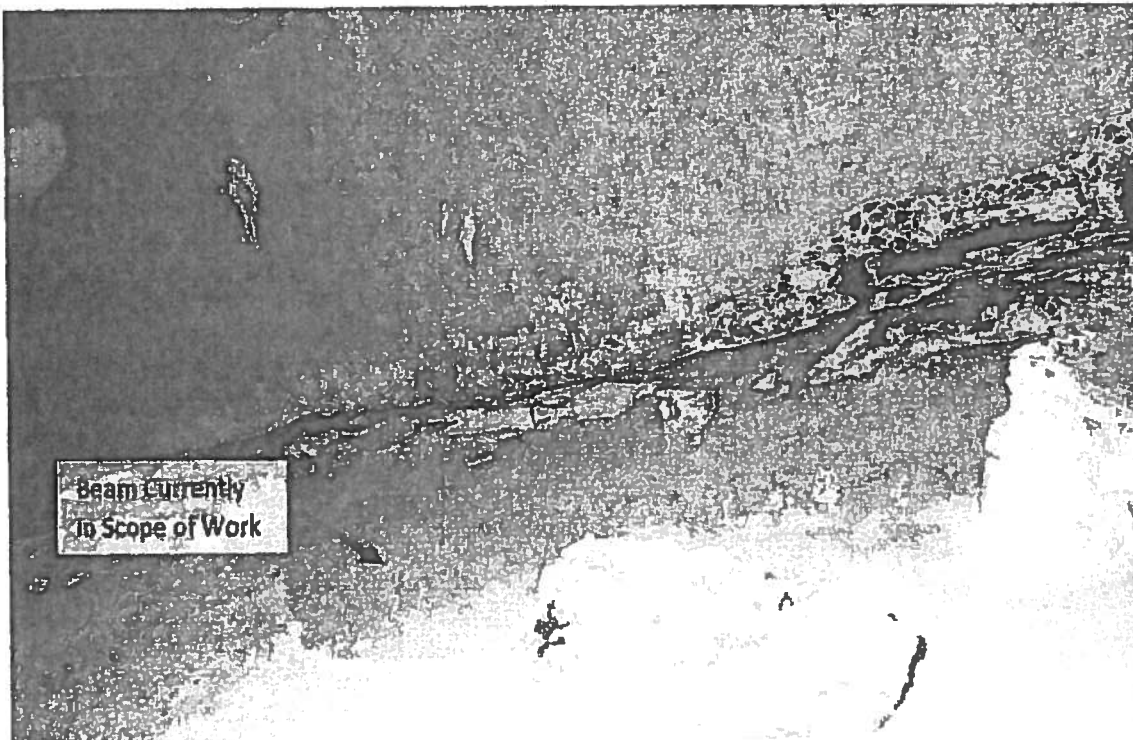


Photo 2: Item #1- Bottom of Library Wall spall damage located West of the Library Main Entrance Stairs

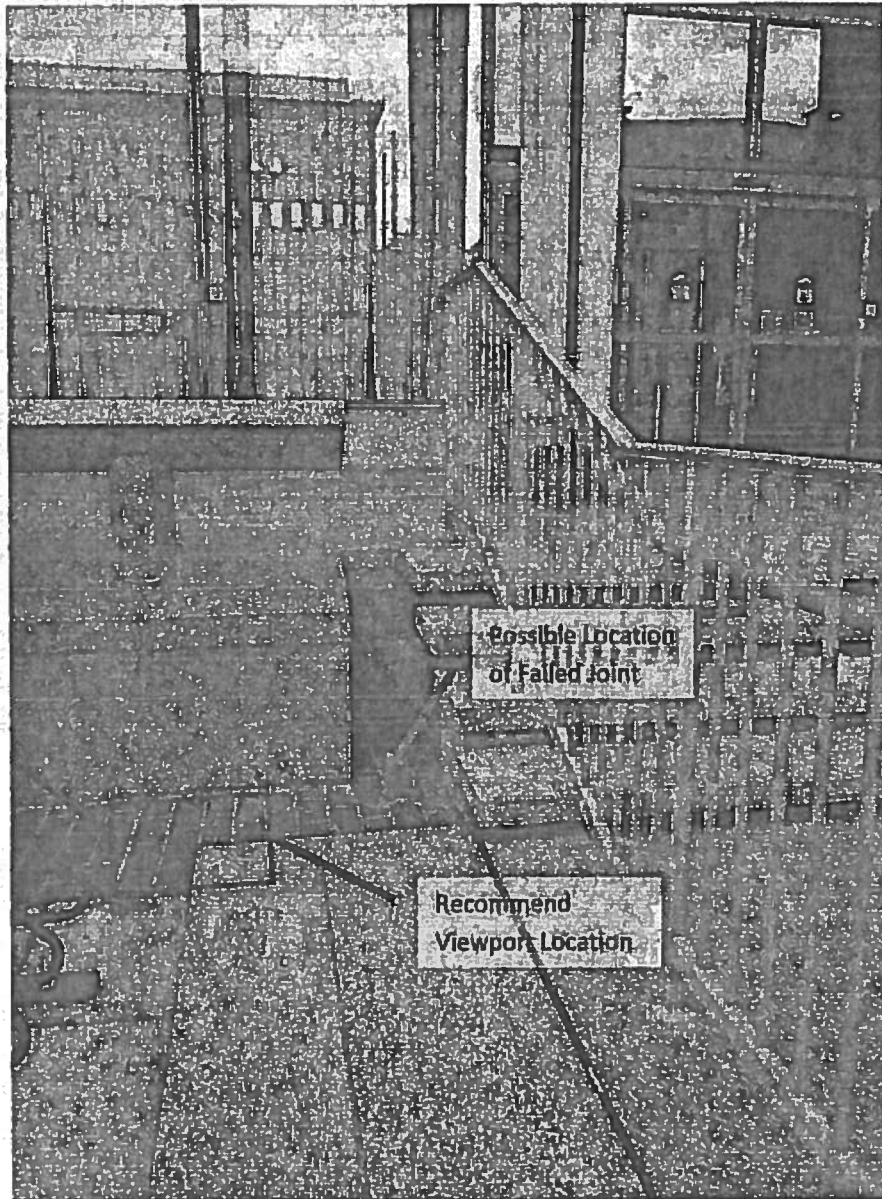


Photo 3: Item #2- Failed Expansion Joint at Library Colonnade Wall



Photo 4: Item #2- Water infiltration due to failed expansion joint near the center of the plaza

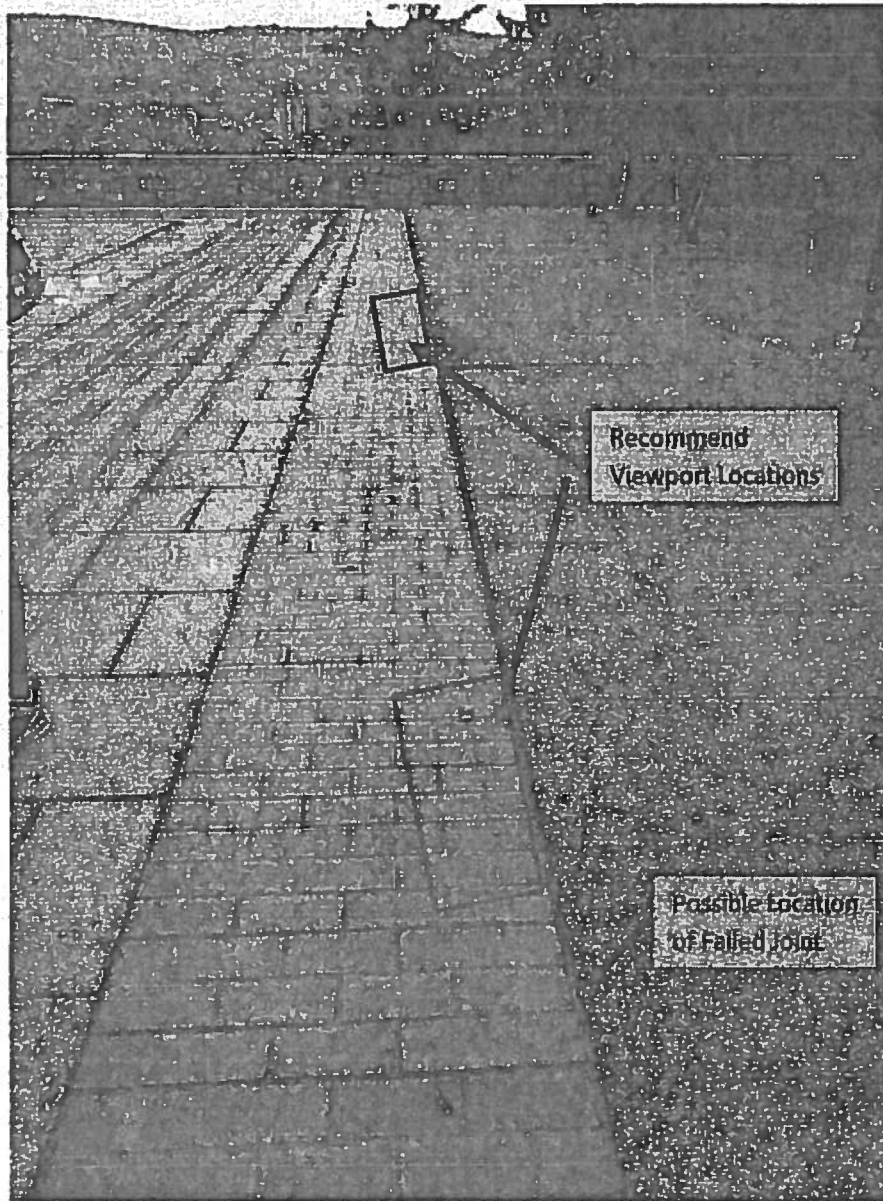


Photo 5: Item #2-Failed Expansion Joint - Approximate Location

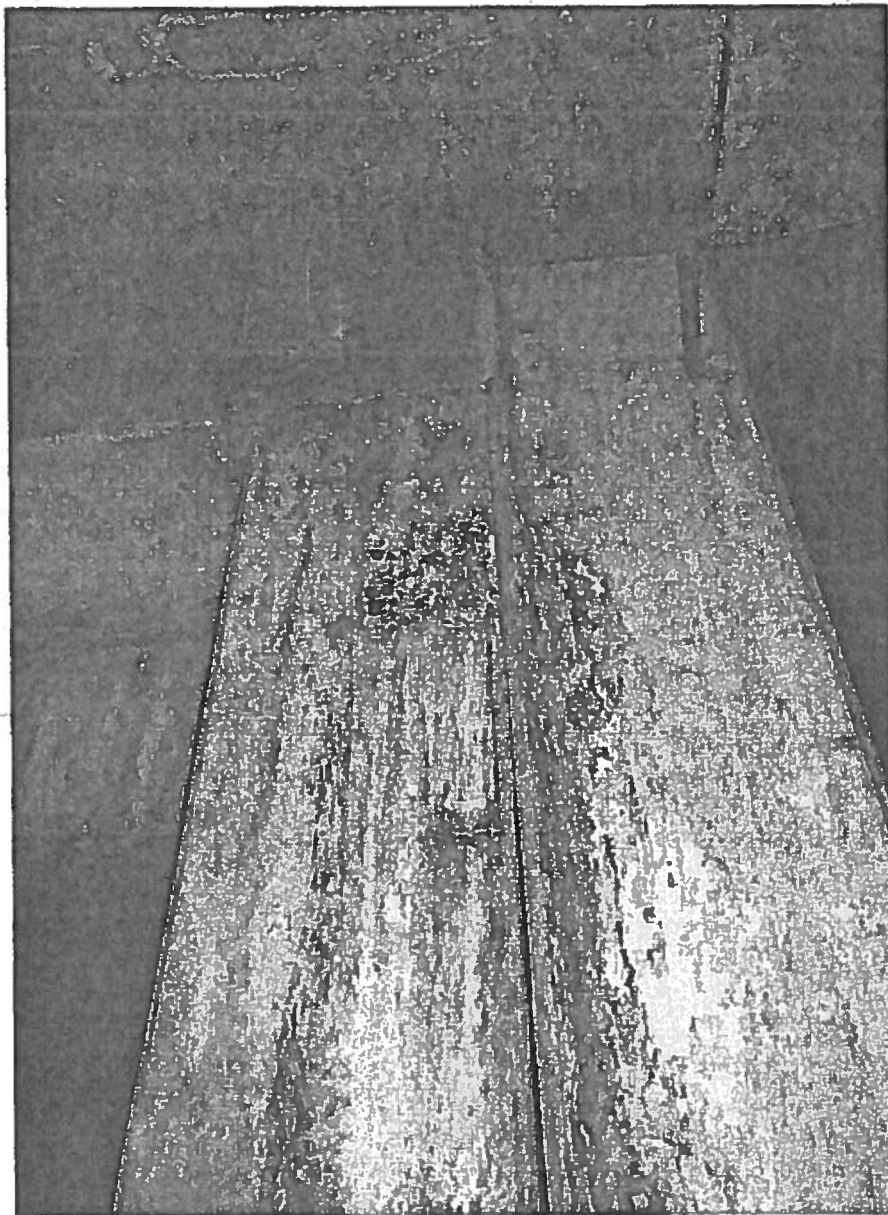


Photo 6: Item #2-Water infiltration due to failed expansion joint at columns/spalled concrete

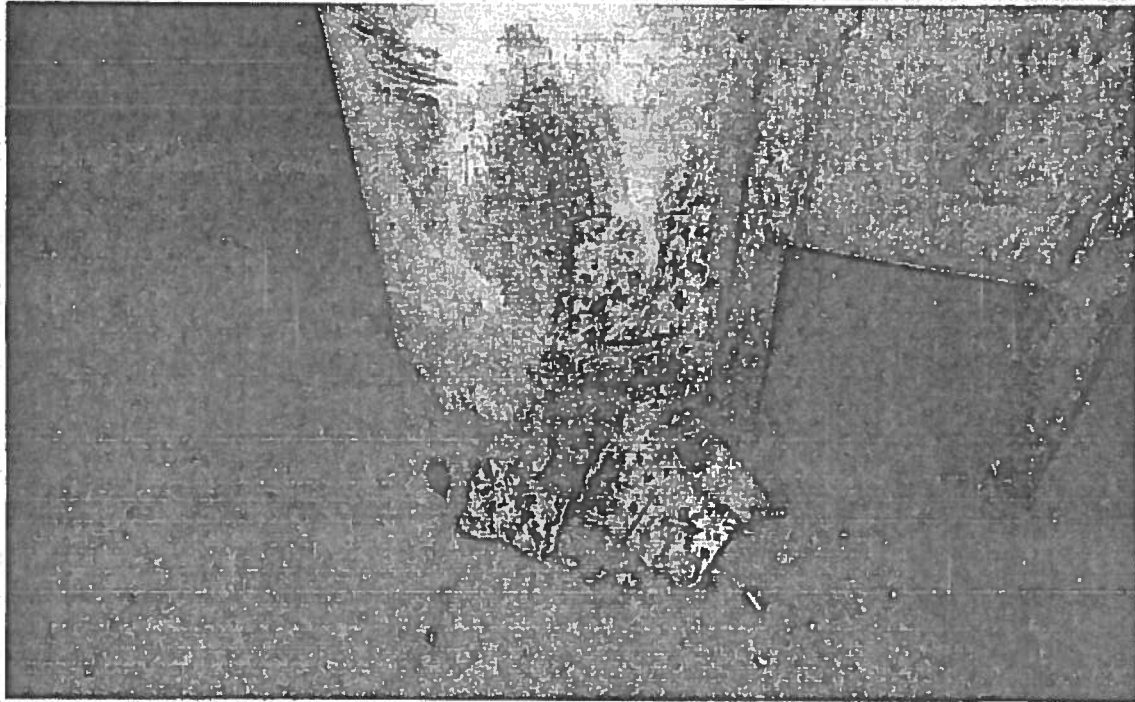


Photo 7: Item #3-Typical Column Spall at Base

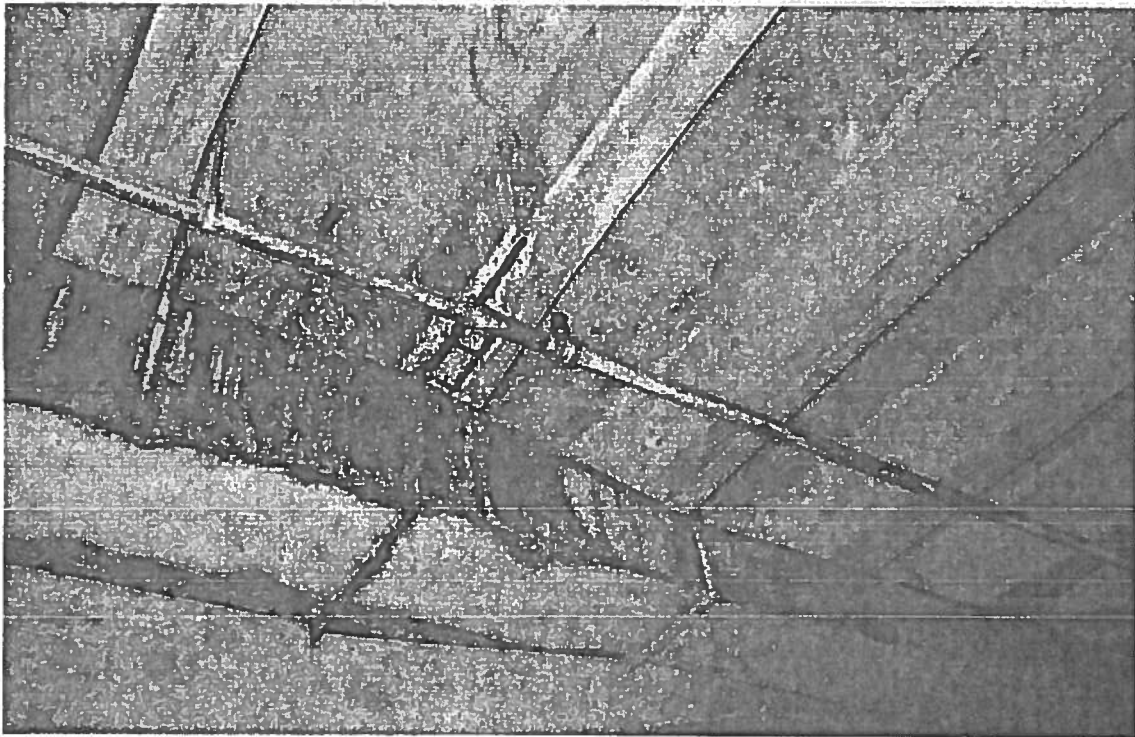


Photo 8: Item #5-Spall Damage at Panel Rib