

City of Portland, Maine – Building or Use Permit Application 389 Congress Street, 04101, Tel: (207) 874-8703, FAX: 874-8716

Location of Construction: 40 Portland Pier		Owner: 40 Portland Pier Associates		Phone: 772-1941		Permit No: 990126	
Owner Address: 40 Portland Pier Ptld 04104		Lessee/Buyer's Name:		Phone:		Business Name:	
Contractor Name: **CRM Construction Services Inc.		Address: P.o. Box 2418 Lewiston ME 04241		Phone: 784-0287		Permit Issued: FEB 19 1999	
Past Use: Condos		Proposed Use: Same		COST OF WORK: \$ 45,000		PERMIT FEE: \$ 245.00	
				FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied		INSPECTION: Use Group: Type:	
				Signature:		Signature: <i>[Signature]</i>	
Proposed Project Description: Repair existing concrete pile caps and beams,				PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)			
				Action: Approved <input type="checkbox"/> Approved with Conditions: <input type="checkbox"/> Denied <input type="checkbox"/>			
				Signature: Date:			
Permit Taken By: SP		Date Applied For: February 12, 1999					

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Zone: *[Signature]* CBL: 030-B-001

Zoning Approval: *[Signature]* 2/19/99

Special Zone or Reviews:

☐ Shoreland *[Signature]*

☐ Wetland

☐ Flood Zone *A Zone*

☐ Subdivision

☐ Site Plan maj ☐ minor ☐ mm ☐

Zoning Appeal

- ☐ Variance
- ☐ Miscellaneous
- ☐ Conditional Use
- ☐ Interpretation
- ☐ Approved
- ☐ Denied

Historic Preservation

- ☒ Not in District or Landmark
- ☐ Does Not Require Review
- ☐ Requires Review

Action:

- ☐ Approved
- ☐ Approved with Conditions
- ☐ Denied

Date: *[Signature]*

PERMIT ISSUED
WITH REQUIREMENTS

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provisions of the code(s) applicable to such permit

SIGNATURE OF APPLICANT ADDRESS: DATE: February 12, 1999 PHONE:

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE PHONE:

White-Permit Desk Green-Assessor's Canary-D.P.W. Pink-Public File Ivory Card-Inspector

Sam
CEO DISTRICT *[Signature]*

12 Mar/99 Work not started &
 6 April/99 work not started &
 23 April/99 work not started &
 21 May 99 work not started &
 23 June 99 Work not started &
 2 July 99 No work &
 7 July 99 - Called Contractor - work is going to be done - &
 23 July 99 - received letter requesting 90 ext. on permit do to more work
 and bank hold off until all parties are ready. &
 10 Aug. 99. No work -
 22 Sept. 99 work will be starting in two weeks. &
 4 Oct. 99 No work. &
 15 Oct 99 No work &
 22 Oct 99 work started but high water nobody there. &
 5 Nov 99 No work &
 12 Nov 99 Work going on - working with tides,
 15 Nov 99 Inspected work - &
 1 Dec. 99 No work today - &
 27 Dec. 99 No work &

12 Jan. 2000 No work & called to get status. work
 will be started in spring - needs min. of 40° - &
 5 April - 2K work not started &
 14 April 2K - work started 3 beams completed. &

Inspection Record		Date
Type		
Foundation:		
Framing:		
Plumbing:		
Final:		
Other:		

Page 1A
Supplemental Sheet

Inspection Date	Type of Inspection	Remarks—prints—page#
19 APRIL 2K	General Insp. No work Today	
25 APRIL 2K	No work High water	
4 MAY 2K	WALKED UNDER PIER WITH SUPT. WORK GOING VERY WELL—	
25 MAY 2K	No work High water	
26 MAY 2K	WORKING ON PILAS, BEAMS ETC. WORK GOING AS PER PLANS	
9 JUNE 2K	WORKING ON BEAMS—PROBLEM WITH SOME PRODUCT—REPLACING WITH NEW—MANUFACTURE AWARE OF MIX.	
16 JUNE 2K	No work Today Tide in—	
7 JULY 2K	SOUTH END COMPLETED MOVING TO NORTH END—	
AUG. 4—2K	No work Today—	
1 SEPT. 2K	WORK ON NORTH END—	
2 SEPT. 2K	No work high water	
2 OCT. 2K	WORKING NORTH END STILL—	
4 OCT 2K	APPROX. 2 WEEK OF WORK LEFT. WORK COMPLETED—	

BUILDING PERMIT REPORT

DATE: 19 February 1999 ADDRESS: 40 Portland Pier CBL 030-B-001
REASON FOR PERMIT: Repair existing concrete piles caps & beams
BUILDING OWNER: 40 PTD. Pier Assoc.
CONTRACTOR: CRM Const. Services Inc.
PERMIT APPLICANT: _____
USE GROUP R-2 BOCA 1996 CONSTRUCTION TYPE 1B

CONDITION(S) OF APPROVAL

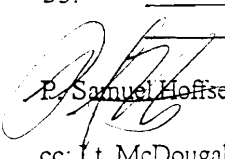
This Permit is being issued with the understanding that the following conditions are met:

Approved with the following conditions: *1, *31

- ☒ 1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection)
- 2.5 Foundation drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. The drain shall extend a minimum of 12 inches beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than 6 inches above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than 2" of gravel or crushed stone, and shall be covered with not less than 6" of the same material. Section 1813.5.2
- 2.6 Foundations anchors shall be a minimum of 1/2" in diameter, 7" into the foundation wall, minimum of 12" from corners of foundation and a maximum 6' o.c. between bolts. (Section 2305.17)
3. Precaution must be taken to protect concrete from freezing. Section 1908.0
4. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
5. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of 1/2 inch gypsum board or the equivalent applied to the garage means of 1/2 inch gypsum board or the equivalent applied to the garage side. (Chapter 4 Section 407.0 of the BOCA/1996)
6. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code. (The BOCA National Mechanical Code/1993). Chapter 12 & NFPA 211
7. Sound transmission control in residential building shall be done in accordance with Chapter 12 section 1214.0 of the city's building code.
8. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42", except Use Group R which is 36". In occupancies in Use Group A, B, H-4, I-1, I-2 M and R and public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect. (Handrails shall be a minimum of 34" but not more than 38". Use Group R-3 shall not be less than 30", but not more than 38".) Handrail grip size shall have a circular cross section with an outside diameter of at least 1 1/4" and not greater than 2". (Sections 1021 & 1022.0) - Handrails shall be on both sides of stairway. (Section 1014.7)
Headroom in habitable space is a minimum of 7'6". (Section 1204.0)
10. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 3/4" maximum rise. All other Use group minimum 11" tread. 7" maximum rise. (Section 1014.0)
11. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6' 8") 1014.4
12. Every sleeping room below the fourth story in buildings of use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special

knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm), and a minimum net clear opening of 5.7 sq. ft. (Section 1018.6)

13. Each apartment shall have access to two (2) separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units. Section 1010.1
14. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closer's. (Over 3 stories in height requirements for fire rating is two (2) hours.) Section 710.0
15. The boiler shall be protected by enclosing with (1) hour fire-rated construction including fire doors and ceiling, or by providing automatic extinguishment. Table 302.1.1
16. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the provisions of the City's Building Code Chapter 9, Section 920.3.2 (BOCA National Building Code/1996), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):
 - In the immediate vicinity of bedrooms
 - In all bedrooms
 - In each story within a dwelling unit, including basementsIn addition to the required AC primary power source, required smoke detectors in occupancies in Use Groups R-2, R-3 and I-1 shall receive power from a battery when the AC primary power source is interrupted. (Interconnection is required) Section 920.3.2
17. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type. Section 921.0
18. The Fire Alarm System shall be maintained to NFPA #72 Standard.
19. The Sprinkler System shall maintained to NFPA #13 Standard.
20. All exit signs, lights, and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023. & 1024. Of the City's building code. (The BOCA National Building Code/1996)
21. Section 25-135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
22. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification to the Division of Inspection Services.
23. Ventilation shall meet the requirements of Chapter 12 Sections 1210. Of the City's Building Code. (crawl spaces & attics)
24. All electrical, plumbing and HVAC permits must be obtained by a Master Licensed holders of their trade. No closing in of walls until all electrical (min. 72 hours notice) and plumbing inspections have been done.
25. All requirements must be met before a final Certificate of Occupancy is issued.
26. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code. (The BOCA National Building Code/1996).
27. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical Code (The BOCA National Mechanical Code/1993). (Chapter M-16)
28. Please read and implement the attached Land Use-Zoning report requirements.
29. Boring, cutting and notching shall be done in accordance with Sections 2305.4.4, 2305.5.1 and 2305.3. of the City's building code.
30. Glass and glazing shall meet the requirements of Chapter 24 of the building code.
31. All proposed work shall be done in accordance the plan submitted.
32. _____
33. _____


P. Samuel Hoffses, Building Inspector

cc: Lt. McDougall, PFD
Marge Schmuckal, Zoning Administrator

**THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE
PERMIT IS ISSUED**

**Building or Use Permit Pre-Application
Attached Single Family Dwellings/Two-Family Dwelling
Multi-Family or Commercial Structures and Additions Thereto**

In the interest of processing your application in the quickest possible manner, please complete the Information below for a Building or Use Permit.

NOTEIf you or the property owner owes real estate or personal property taxes or user charges on ANY PROPERTY within the City, payment arrangements must be made before permits of any kind are accepted.**

Location/Address of Construction (include Portion of Building): 40 Portland Pier		
Total Square Footage of Proposed Structure		Square Footage of Lot 7,600 sq'
Tax Assessor's Chart, Block & Lot Number Chart# 030 Block# B Lot# 1		Owner: 40 Portland Pier Associates Telephone#: 772-1941
Owner's Address: 40 Portland Pier Portland 04104	Lessee/Buyer's Name (If Applicable)	Cost Of Work: \$45,000.00 Fee \$245
Proposed Project Description: (Please be as specific as possible) Repair existing concrete pile caps and beams. Deterioration of concrete		
Contractor's Name, Address & Telephone: 784-0287 * C.R.M. Construction Services Inc. P.O. Box 2418 Rec'd By [Signature]		
Current Use:		Proposed Use: Lewiston 07241

Separate permits are required for Internal & External Plumbing, HVAC and Electrical installation.

- All construction must be conducted in compliance with the 1996 B.O.C.A. Building Code as amended by Section 6-Art II.
- All plumbing must be conducted in compliance with the State of Maine Plumbing Code.
- All Electrical Installation must comply with the 1996 National Electrical Code as amended by Section 6-Art III.
- HVAC (Heating, Ventilation and Air Conditioning) installation must comply with the 1993 B.O.C.A. Mechanical Code.

You must Include the following with you application:

- 1) A Copy of Your Deed or Purchase and Sale Agreement
- 2) A Copy of your Construction Contract, if available
- 3) A Plot Plan/Site Plan

Minor or Major site plan review will be required for the above proposed projects. The attached checklist outlines the minimum standards for a site plan.

4) Building Plans

Unless exempted by State Law, construction documents must be designed by a registered design professional.

A complete set of construction drawings showing all of the following elements of construction:

- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
- Floor Plans & Elevations
- Window and door schedules
- Foundation plans with required drainage and dampproofing
- Electrical and plumbing layout. Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review must be included.

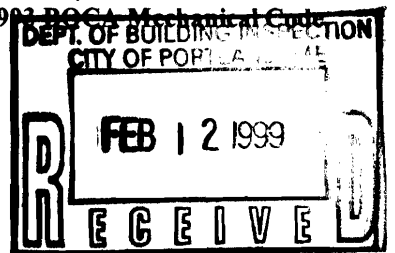
Certification

I hereby certify that I am the Owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: <i>Robert M. M...</i>	Date: 2/12/1999
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Building Permit Fee: \$25.00 for the 1st \$1000.00 cost plus \$5.00 per \$1,000.00 construction cost thereafter.

Additional Site review and related fees are attached on a separate addendum



C. R. M. CONSTRUCTION SERVICES

General Contractor
Robert M. Morin Jr.
Franklin R. Curtis

P. O. Box 2418
Lewiston, Maine 04241
(207) 784-0287



San - 40 Portland Pier

7-19-99

Dear Sirs,

We are requesting a 90 day
extension to Permit # 990126.

Thank you

Robert M. Morin

Robert M. Morin Jr.
576-2266

Please call to let
them know you rec'd.
called 20/July/99

PROJECT MANUAL AND SPECIFICATIONS
FOR
REPAIR OF PILE CAPS AND BEAMS
AT
40 PORTLAND PIER CONDOMINIUM ASSOCIATION

40 PORTLAND PIER
PORTLAND, MAINE

99-0126

30-B-001

ALEXANDER HUTCHEON Associates,
Engineers
519 Congress Street
Portland, Maine 04101
(207) 774-0484

December 4, 1997



INFORMATION FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS

The 40 Portland Pier Condominium Association, hereinafter called "the Owner," invite Bids on the forms attached hereto. All blanks must be appropriately filled in.

Bids will be received until __:__ P.M., prevailing time, _____, 199__.

The envelope containing the Bids must be sealed, and whether mailed or hand delivered, addressed to:

Mrs. Kathi Nickerson; Dirigo Management
One City Center, 4th floor
Portland, Maine 04101

and shall be designated as follows:

"Bid for Repairs to Pile Caps and Beams
40 Portland Pier
Portland, Maine"

Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified will not be considered.

In the event that requirements in this "Information for Bidders" vary from the "Standard General Conditions for the Construction Contract," the "Information for Bidders" document shall govern.

2. PREPARATION OF PROPOSAL

Submit proposals on the Form of Proposal furnished herein. All blank spaces for bid prices must be filled in, in ink, as directed therein.

3. QUALIFICATION OF BIDDERS

The Owner reserves the right to require that any or all prospective Bidders submit a financial statement and experience statement in a form approved by the Owner. This statement will not prevent the Owner from exercising the right to later reject any or all Bids as herein specified. The Owner reserves the right to reject any bid if the evidence submitted, or investigations of such bidder fail to satisfy him that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein. Conditional bids will not be accepted. Bids must be accompanied by 5% of Proposal amount in form of cash, certified check, bank cashier's check, bank money order, postal money order or a bid bond. The bid security will be returned to bidders within a few days after signing the

Contract with the exception that if the successful bidder shall fail to carry out the terms of this proposal, the bid security will be retained by the Owner as liquidated damages.

4. SECURITY FOR FAITHFUL PERFORMANCE

The Owner may require the successful Bidder to furnish a performance Bond and Labor and Material Payment Bond as provided in Article 5 of the General Conditions. If such Bonds are required, the cost will be paid by the Owner.

5. AWARD OR REJECTION OF BIDS

The Owner reserves the right to make award to the Bidder who, in the opinion of the Owner, can complete the work by complying with the conditions of the Contract Documents, provided his bid is reasonable and it is in the interest of the Owner to accept it. The Bidder to whom the award is made will be notified at the earliest possible date. The Owner, however, reserves the right to reject any and all bids and to waive any informality in the bids received whenever such rejection or waiver is in the interest of the Owner.

No Bidder may withdraw his bid for a period of 30 days after the date of opening of bids.

6. OBLIGATION OF BIDDER

At the time of the opening of Bids, each Bidder will be presumed to have inspected the Project site. Each Bidder shall obtain permission from Dirigo Management, One City Center, Portland, Maine, prior to visiting the site. Each Bidder will also be presumed to have read and to be thoroughly familiar with the Contract Documents, including all addenda. The failure or omission of any Bidder to receive or examine any instrument or document shall in no way relieve him from any obligation in respect to his Bid.

Upon notification by the Owner that he is the successful Bidder and that a Contract is ready, the successful Bidder shall sign the Contract within seven (14) days (Sundays excluded).

Any item of equipment or labor not mentioned in these Specifications, but required by the work of the Project must be included in the Bid Price for the Project.

7. USE OF THE SITE

The site is in regular, constant and daily use by the Public. It shall be the Contractor's responsibility to cooperate fully with the Owner and his Lessees at all times in regards to access to their property and the passage of vehicular and pedestrian traffic.

Prior to submitting a Bid, Bidders shall notify the Owner of

any access requirements for which provision has not been made in this Project Manual and Specifications.

In general, the Contractor shall store his equipment and materials in a temporary facility, as specified in Section 01500, Temporary Facilities. With the approval of the Owner, the Contractor may store small amounts of material, and small equipment on the building's ground-level floor.

8. PERMITS

All necessary permits, including, but not limited to, any local, State or Federal environmental or construction permits, approvals or licenses, shall be obtained by the General Contractor unless stated otherwise in applicable Sections of the Specifications.

9. STATE SALES TAX

The Owner is not exempt from State Sales Taxes.

---END OF SECTION---

PROPOSAL FOR
REPAIRS TO PILE CAPS AND BEAMS
40 PORTLAND PIER CONDOMINIUM ASSOCIATION
40 PORTLAND PIER
PORTLAND, MAINE

BIDDER: _____

TO: Mrs. Kathi Nickerson Dirigo Management
One City Center, 4th floor
Portland, Maine 04101-4009

Having carefully examined the Invitation to Bid, Instructions to Bidders, Agreement, General Conditions, Supplemental General Conditions, and Specifications, dated _____, 1997, for REPAIRS TO PILE CAPS AND BEAMS, 40 PORTLAND PIER CONDOMINIUM ASSOCIATION, as well as the premises and conditions affecting the work, we, the undersigned, propose to furnish all labor, equipment and materials for construction and completion of the Project for the amount of:

_____ Dollars (\$_____)

This proposal includes the following Addenda to the Plans and Specifications: Addendum No._____, dated _____
Addendum No._____, dated _____

The undersigned agrees, if this Proposal is accepted, to sign a Contract and deliver it, along with the Bonds and Affidavit of all Insurance specified, within fourteen calendar days of notification of such acceptance, and as a guarantee thereof, herewith submits a Bid Deposit, as required.

The undersigned agrees, if awarded the Contract, to complete the Work on or before _____, 1997.

If required by the Owner, the undersigned will obtain a 100% Performance Bond and a 100% Payment Bond, the cost of which will be assumed by the Owner.

Signed _____
By _____
Address _____

Telephone _____ Date _____

END OF SECTION

This document has important legal consequences: consultation with an attorney is encouraged with respect to its completion or modification.

**STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT**

Prepared by
Engineers' Joint Contract Documents Committee
and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

CONSTRUCTION SPECIFICATIONS INSTITUTE

This document has been approved and endorsed by

The Associated General  Contractors of America

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2, 1983 editions). Their provisions are interrelated and a change in one may necessitate a change in the others. Comments concerning their usage are contained in the Commentary on Agreements for Engineering Services and Contract Documents, No. 1910-9, 1981 edition. For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17, 1983 edition). When bidding is involved, the Standard Form of Instructions to Bidders (No. 1910-12, 1983 edition) may be used.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Contract (No. 1910-8, 1983 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

STANDARD ARTICLES AMENDED BY THE SUPPLEMENTARY CONDITIONS

SC-1: DEFINITIONS

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

ADD at the end of "Change order" definition the following:

"For this project the form of Change Order will be EJC No. 1910-8-B (1983 Edition)."

ADD at the end of "Work directive Change" definition the following:

"For this Project the form of Work Directive Change will be EJCDC No. 1910-8-F (1983 Edition)."

ADD at the end of "OWNER" definition, the following:

"For the purposes of this Project, the 'OWNER' shall be considered to be the 40 Portland Pier Condominium Association

SC-2: REGULAR CONSTRUCTION CONFERENCES

ADD Para. 2.8.1 as follows:

It is the intent to hold a preconstruction conference before the start of work. The Owner, contractor and Engineer will attend this conference. Additional conferences may be held at the request of any of the above interested parties.

SC-5: BONDS AND INSURANCE

ADD to Para. 5.3 the following:

5.3.8 Statutory Workmen's Compensation.

5.3.9 Employer's Liability Insurance with minimum limits of not less than \$500,000.

5.3.10 Comprehensive General Liability Insurance with

minimum bodily injury limits of not less than \$1,000,000 for each person and not less than \$3,000,000 for each accident.

- 5.3.11 Property Damage Insurance with minimum limits of not less than \$1,000,000 for each accident and not less than \$3,000,000 aggregate. The policy shall include Contractor's Protective Liability Insurance with the same limits.
- 5.3.12 Comprehensive Automobile Liability Insurance for all owned, non-owned and hired vehicles with minimum limits for Bodily Injury of not less than \$500,000 for each person and not less than \$500,000 for each accident and Property Damage minimum limits of not less than \$500,000.
- 5.3.13 All insurance must be written by a company licensed to do business in Maine at the time the policy is issued, and must be acceptable to the Owner.

---END OF SUPPLEMENTS---

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we _____
(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and _____
(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of _____
as Surety, hereinafter called the Surety, are held and firmly bound unto _____
(Here insert full name and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of

Dollars (\$ _____),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for _____
(Here insert full name, address and description of project)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____ 19____

_____	{	_____	(Seal)
(Witness)		(Principal)	
_____	{	_____	(Seal)
(Witness)		(Surety)	
		_____	(Title)

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA DOCUMENT
SEPT. 1963 ED.



A311

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that (Here insert name and address or legal title of Contractor)

as Principal, hereinafter called Contractor, and, (Here insert the legal title and address of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto (Name and address or legal title of Owner)

as Obligee, hereinafter called Owner, in the amount of

Dollars (\$),

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Contractor has by written agreement dated 19 , entered into a contract with Owner for

in accordance with drawings and specifications prepared by (Here insert full name, title and address)

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

The Surety hereby waives notice of any alteration or extension of time made by the Owner.

1) Complete the Contract in accordance with its terms and conditions, or

2) Obtain a bid or bids for submission to Owner for completing the Contract in accordance with its terms and conditions, and upon determination by Owner and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Owner, and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of Owner.

A.D. 19

_____ { _____ (Principal) _____ (Seal)
 _____ (Title)

_____ { _____ (Surety) _____ (Bond)
_____ (Title)

THE AMERICAN INSTITUTE OF ARCHITECTS



LABOR AND MATERIAL PAYMENT BOND

THIS BOND IS ISSUED SIMULTANEOUSLY WITH PERFORMANCE BOND IN FAVOR OF THE
OWNER CONDITIONED ON THE FULL AND FAITHFUL PERFORMANCE OF THE CONTRACT

KNOW ALL MEN BY THESE PRESENTS: that (Here insert name and address or legal title of Contractor)

as Principal, hereinafter called Principal, and, (Here insert the legal title and address of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto (Name and address or legal title of Owner)

as Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the
amount of _____ Dollars (\$ _____),

(Here insert a sum equal to at least one-half of the contract price)

for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS,

Principal has by written agreement dated _____ 19____, entered into a contract with Owner for

in accordance with drawings and specifications prepared by (Here insert full name, title and address)

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the Principal or with a subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: The Principal, the Owner, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial

accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

b) After the expiration of one (1) year following the date on which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this

day of

A.D. 19

IN THE PRESENCE OF:

(Principal) (Seal)

(Title)

(Surety) (Seal)

(Title)

OWNER, CONTRACTOR shall pay OWNER _____ dollars (\$) for each day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

Article 4. CONTRACT PRICE.

4.1. OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds as follows:

[here insert a lump sum, unit prices or both, if necessary attach exhibits and list them in Article 8.]

[CONTRACTOR's Bid may be attached as an exhibit to avoid lengthy retyping of unit price schedules, formulae for escalation of prices, information as to alternatives, etc.]

Article 5. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1. *Progress Payments.* OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, on or about the _____ day of each month during construction as provided below. All progress payments will be on the basis of the progress of the Work measured by the schedule of values established in paragraph 2.9 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

5.1.1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.

_____ % of Work completed. If Work has been 50% completed as determined by ENGINEER, and if the character and progress of the Work have been satisfactory to OWNER and ENGINEER, OWNER on recommendation of ENGINEER, may determine that as long as the character and progress of the Work remain satisfactory to them, there will be no additional retainage on account of Work completed in which case the remaining progress payments prior to Substantial Completion will be in an amount equal to 100% of the Work completed.

_____ % of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.2 of the General Conditions).

5.1.2. Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to _____ % of the Contract Price, less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions.

5.2. *Final Payment.* Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

Article 6. INTEREST.

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of _____ per cent per annum.

and consisting of _____ divisions and _____ pages, as listed in table of contents thereof.

8.8. Drawings, consisting of a cover sheet and sheets numbered _____ through _____, inclusive with each sheet bearing the following general title:

[Fill in, and, if a set of Drawings is not attached to each signed counterpart of Agreement, so indicate, in which case OWNER and CONTRACTOR should initial or otherwise appropriately identify all Drawings.]

8.9. Addenda numbers _____ to _____, inclusive.

8.10. CONTRACTOR's Bid (pages _____ to _____, inclusive) marked exhibit _____.

[Attach Bid Form only in special circumstances.]

8.11. Documentation submitted by CONTRACTOR prior to Notice of Award (pages _____ to _____, inclusive).

8.12. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraphs 3.4 and 3.5 of the General Conditions.

8.13. The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.4 and 3.5 of the General Conditions.

Article 9. MISCELLANEOUS.

9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

Article 10. OTHER PROVISIONS.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on _____, 19_____.

OWNER _____ CONTRACTOR _____

By _____ By _____

[CORPORATE SEAL] [CORPORATE SEAL]

Attest _____ Attest _____

Address for giving notices Address for giving notices

(If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Agreement.) License No. _____
Agent for service of process: _____

(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

SECTION 01010
SUMMARY OF WORK

PART 1. GENERAL

1.01 WORK COVERED BY THE CONTRACT DOCUMENTS

- A. A brief description of the work includes, but is not necessarily limited to, the following:
 - a. Hydro-demolition of loose aggregate, rust, and organic material on surfaces to be repaired.
 - b. Corrosion protective treatment of surfaces to be repaired.
 - c. Pneumatically applied patching material on surfaces to be repaired.
 - d. Corrosion inhibitor protective coating on surfaces to be repaired.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Documents affecting work of this Section, include, without limitation, General Conditions, Supplementary Conditions, and all Sections in Division 1.

1.03 SURFACES TO BE REPAIRED

- A. Repair all accessible surfaces of all concrete pile caps and concrete floor beams supporting the ground level floor. Refer to Drawing 1 of 1, dated 12/4/97, for limits of the work, approximate dimensions of the project site, and location of access areas.

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES

PART 1. GENERAL

1.01 GENERAL

- A. The work of this section is the responsibility of the general contractor, unless specifically stated otherwise in this Section.
- B. Work provided under this Section shall comply with all applicable codes, standards, regulations and ordinances, and with all requirements of the General Conditions.

1.02 FIELD OFFICE AND STORAGE FACILITIES

- A. Unless specific permission has been given by the Owner, no section of the first floor of the building may be used for any purpose except access to areas which are to be repaired. Protect existing surfaces from damage, and, if damage occurs, restore existing surfaces to their pre-construction condition.
- B. Provide a portable, weathertight secure storage facility, on a barge at the east side of the property, for the storage of such materials, and remove this facility promptly at the completion of the work. Any such floating storage area shall be of such size and height that it will not interfere with normal use of the navigable space adjacent to the building.

1.03 UTILITIES

- A. The Contractor may not make use of any of the Owner's existing utilities. If any such utility is required for the Contractor's needs, the Contractor is responsible for making his own arrangements for the required temporary services, at his own expense.
- B. Any temporary toilet shall be kept clean at all times, and shall be provided with toilet paper and paper towels by the Contractor.
- C. If temporary heat is required for the execution of the work, it shall be provided by the Contractor, using his own equipment and fuel. The building's heating system or electrical system shall not be

used to maintain required temperatures within the work enclosures. The Contractor shall not use the existing electrical system for operation of the Contractor's heating equipment.

- D. The Contractor shall provide his own telephone service.

1.03 RUBBISH REMOVAL

- A. Remove trash and debris from the building site periodically. Provide trash receptacles and pick up rubbish and debris daily. Do not allow trash or construction debris to accumulate in the building or on the site. Remove such material from the site, and dispose of it in a legal manner.

1.04 FIRE PROTECTION

- A. Provide at least one dry chemical fire extinguisher (4A 60BC) in each area where work is being done. Mount the fire extinguisher on a stand or wall bracket, with an appropriate sign (Fire Extinguisher). Designate one or more employees as being responsible for fire protection and fire prevention.
- B. Where welding, cutting or burning is in progress, one employee shall be designated to watch for sparks, hot slag or burning or smoldering materials. Cover combustible materials in the vicinity of any cutting, burning or welding process with incombustible blankets or coverings. Keep a dry chemical fire extinguisher at the location of any such operations. At the end of each such operation, and at least at the end of each day, check the entire area for fire or smoke, before securing the building.

1.05 PROTECTION OF PUBLIC SIDEWALK AND TEMPORARY ENTRANCE

- A. If the public sidewalk is to be dismantled, temporarily, provide adequate barriers, warning signs and lights, to protect the public from hazards of the work being done. Obtain the necessary sidewalk permits, and obtain City approval of the sidewalk protection.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

DIVISION 2
REPAIRS TO PILE CAPS AND BEAMS

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Furnish all materials, labor, tools, equipment and services necessary for the preparation of the substrate and the application of repairs to surfaces indicated on the drawings and in these specifications, as follows:
 - 1. Hydro-demolition of loose aggregate, rust, and organic material on surfaces to be repaired.
 - 2. Corrosion protective treatment of surfaces to be repaired.
 - 3. Pneumatically applied patching material on surfaces to be repaired.
 - 4. Corrosion inhibitor protective coating on surfaces to be repaired.
- B. Components of this concrete repair and protection system shall be provided by a single manufacturer.

1.02 SUBMITTALS

- A. Submit four copies of manufacturer's spec-data sheets for each product to be used.
- B. Submit certification, from the material manufacturer, that the installing contractor is approved to install the material to be used.

1.03 QUALITY ASSURANCE

- A. The Contractor shall be an Approved Contractor of the manufacturer of the material to be used, and shall have completed a program of instruction in the use of the materials, and be able to provide certification of his Approved Contractor status.
- B. The Contractor shall schedule a site meeting with a representative of the materials manufacturer, prior to commencement of the work, to confirm details of the work, and scheduling of delivery of materials.
- C. The Contractor shall deliver products to the site in original, unopened containers with the manufacturer's name, labels, product identification and batch numbers. Store and condition the products in full compliance with the manufacturer's recommendations.
- D. The Contractor and the manufacturer shall supply a complete warranty for workmanship and materials for a period of five years, commencing with the date of

acceptance of the work.

- E. The Contractor shall remove and properly dispose of all waste and left-over materials and equipment. The site shall be returned to its condition prior to the start of the work. The Contractor shall repair any damage, caused by him, to the site, the building or its utilities

PART 2 PRODUCTS

2.01 MATERIALS AND EXECUTION

A. EQUIPMENT

Hydro-demolition shall be done using a high-pressure (36,000 psi.), hand-held nozzle, delivering between 6 and 10 gallons per minute. The demolition contractor shall make provisions with the Portland Water District for the use of and payment for water from the main service entrance at the building, or shall provide his own water supply. Demolition shall be sufficient to remove loose concrete, tight rust, and organic materials.

B. PREPARATION

Hydro-demolition of loose aggregate, rust, organic material and salt accumulations can occur at any schedule, since the prepared surfaces will be water-blast-cleaned immediately before the initial protection is applied.

C. CORROSION PROTECTION

Water blast areas to be treated with corrosion protection material: SIKA Armatec 110; (See attached Spec-Data Sheet)

Apply as much material as can be cured and given a second coat, within the time permitted by tide levels;

The Armatec 110 can be exposed to immersion by salt water until ready for patching.

D. PATCHING

Water-blast areas to be patched and which have been treated with corrosion protection material; leave surface damp;

Pneumatically apply patching material: SIKA Sikacem 133 cementitious, polymer-modified, microsilica mortar; use with SIKA Sigunite Accelerator, 1 oz. per bag of Sikacem; (See attached Spec-Data Sheet).

E. CORROSION INHIBITOR PROTECTION

Water-blast surfaces to be treated; air-dry, using hot air guns, before applying corrosion inhibitor

Spray-apply, in two-passes, Sika FerroGard 903 penetrating, corrosion-inhibiting impregnation coating on hardened patching mortar. (See attached Spec-Data Sheet).

END OF SECTION



Sika Armatec® 110

Water-based epoxy resin/portland cement bonding agent

DESCRIPTION

Sika Armatec 110 is a 3-component, water-based epoxy resin/portland cement bonding agent.

WHERE TO USE

Bonding agent for fresh, plastic mortar and concrete to hardened concrete and steel.

ADVANTAGES

- ▲ 24-hour open time.
- ▲ Excellent adhesion to concrete and steel.
- ▲ Non-vapor barrier.
- ▲ Can be used exterior on-grade.
- ▲ Factory proportioned units.
- ▲ Easily spray applied.
- ▲ Non-flammable.
- ▲ Free of organic solvents.
- ▲ VOC compliant.
- ▲ Proven to prevent the corrosion of reinforcing steel when tested under the procedure as set forth by the Federal Highway Administration Program.

Report No. FHWA/RD-86 1193. Test was performed by Wiss, Janney, Elstner Associates, Inc.

COVERAGE

80 sq. ft./gal. on smooth concrete.

PACKAGING

3.5 gal. unit. 169.7 fl. oz. epoxy resin binder (Component 'A' and Component 'B') in a carton and a 46.82 lb. Component 'C' in a multi-wall bag.
1.65 gal. unit. 22.7 fl. oz. (Component 'A'); 57.6 fl. oz. (Component 'B'); 4 bags @ 5.5 lbs. ea. (Component 'C').

HOW TO USE

SURFACE PREPARATION

Surface must be clean, sound, and saturated surface dry (SSD) but free of standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles, disintegrated materials.

Preparation Work:

Concrete - Sandblast or use other approved mechanical methods.

Steel - Sandblast to white-metal finish.

MIXING

Shake contents of both Component 'A' and Component 'B'. Empty entire contents of both Component 'A' and Component 'B' into a clean, dry mixing pail. Mix thoroughly for 30 seconds with a Sika paddle on a low-speed (400-600 rpm) drill. Slowly add the entire contents of Component 'C' while continuing to mix for 3 minutes until blend is uniform and free of lumps. Mix only that quantity that can be applied within its pot life.

APPLICATION

As a bonding agent - Apply by stiff-bristle brush or broom. Spray apply with Goldblatt Pattern Pistol or equal equipment. For best results work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities. Place fresh, plastic concrete or mortar while the Sika Armatec 110 is wet or dry, up to 24 hours.

For corrosion protection - Apply by stiff-bristle brush or spray at 160 sq. ft./gal. (10 mils). Take special care to properly coat the underside of the totally exposed steel. Allow coating to dry 2-3 hours @ 73F, then apply a second coat at the same coverage. Allow to dry again before the repair mortar or concrete is applied.

LIMITATIONS

- ▲ Minimum substrate temperature 40F.
- ▲ Maximum substrate temperature 85F.
- ▲ Minimum thickness 20 mils as a bonding agent.
- ▲ Maximum contact time 24 hours.
- ▲ Mix entire unit. Do not proportion.
- ▲ Substrate must be thoroughly saturated prior to application.
- ▲ Do not add water to the mix.
- ▲ For machine-applied applications - allow bonding layer to cure 12 hours minimum prior to shotcreting.

TYPICAL DATA FOR SIKA ARMATEC 110 (Material and curing conditions @ 73F and 50% R.H.)

SHELF LIFE	1 year in original, unopened packaging.
STORAGE CONDITIONS	Store dry at 40-95F. Condition material to 65-80F before using. If Components 'A' and 'B' are frozen, discard.
COLOR	Concrete gray
MIXING RATIO	Mix entire unit.
CONSISTENCY	Slurry mortar.
POT LIFE	Approximately 90 minutes.
CONTACT TIME	24 hours maximum from 40-85F.
FLEXURAL STRENGTH (ASTM C-348)	
28 days	1,250 psi
SPLITTING TENSILE STRENGTH (ASTM C-496)	
28 days	600 psi
COMPRESSIVE STRENGTH (ASTM C-109)	
1 day	900
3 days	5,200
7 days	7,300
28 days	10,200

CAUTION

Component 'A' - Irritant - Contains epoxy resin

Component 'B' - Irritant - Contains amines.

Component 'C' - Irritant - Contains portland cement and silica.

Product is a strong sensitizer. Avoid eye, skin, and respiratory contact. Use of safety goggles, chemically-resistant gloves, and appropriate NIOSH/MSHA approved respirator recommended. Avoid breathing vapors and dust. Use only with adequate ventilation. Remove contaminated clothing.

FIRST AID

In case of eye contact, flush with water for 15 minutes; immediately consult a physician. In case of skin contact, wash with soap and water; consult a physician for irritation.

For respiratory problems, remove person to fresh air and institute artificial respiration if necessary; consult a physician. In case of ingestion, immediately consult a physician. Wash clothing before reuse.

CLEAN-UP

Component 'A' and Component 'B': Ventilate area of spill. Contain and collect with absorbent material. Flush area with water.

Component 'C': Ventilate area of spill. Sweep or vacuum into suitable containers. Flush area with water.

Dispose of in accordance with current, applicable local, state, and federal regulations. Uncured material can be removed with water. Cured material can only be removed mechanically.

Drawer 124. Sika and Armatex are registered trademarks.
Made in USA. Printed in USA. November, 1993.

**KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION**

**KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY**

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

SIKA WARRANTS ITS PRODUCTS TO BE FREE OF MANUFACTURING DEFECTS AND THAT THEY WILL MEET SIKA'S CURRENT PUBLISHED PHYSICAL PROPERTIES WHEN APPLIED IN ACCORDANCE WITH SIKA'S DIRECTIONS AND TESTED IN ACCORDANCE WITH ASTM AND SIKA STANDARDS. THERE ARE NO OTHER WARRANTIES BY SIKA OF ANY NATURE WHATSOEVER, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. SIKA CORPORATION SHALL NOT BE LIABLE FOR DAMAGES OF ANY SORT, INCLUDING REMOTE OR CONSEQUENTIAL DAMAGES, RESULTING FROM ANY CLAIMED BREACH OF ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR FROM ANY OTHER CAUSE WHATSOEVER. SIKA SHALL ALSO NOT BE RESPONSIBLE FOR USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT HELD BY OTHERS.



1-800-933-SIKA NATIONWIDE

Regional Information and Sales Centers

For the location of your nearest Sika sales office, contact your regional center.

Northeast

201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 201-933-8800
Fax: 201-804-1020

Midwest

2190 Gladstone Court
Suite A
Glendale Heights, IL 60139
Phone: 708-924-7900
Fax: 708-924-8508

Southern

3778 La Vista Road
Suite 300
Tucker, GA 30084
Phone: 404-315-0337
Fax: 404-315-0117

Western

12767 East Imperial Hwy
Santa Fe Springs, CA 90670
Phone: 310-941-0231
Fax: 310-941-4762



Sikacem® 133

**Machine-applied, pre-packaged, ready-to-use,
polymer-modified, cementitious, microsilica mortar**

DESCRIPTION

Sikacem 133 is a pre-packaged, ready-to-use, non-accelerated, cementitious, polymer modified, microsilica mortar. It is easily applied and tooled for use on horizontal, vertical, and overhead surfaces. Sikacem 133 is applied with dry process shotcrete equipment.

WHERE TO USE

- ▲ Use on grade, above, and below grade on concrete and mortar.
- ▲ Use on horizontal, vertical, and overhead surfaces.
- ▲ Use a thin shotcrete coat to protect concrete surfaces.
- ▲ Gun as a structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, dams, ramps, etc.

ADVANTAGES

- ▲ Increased density and durability.
- ▲ High early strengths.
- ▲ Gunned pneumatically...no hand application.
- ▲ Simple-to-use, labor-saving system.
- ▲ No batching...just add water.
- ▲ Early set for single-pass, thick applications for overhead and vertical surfaces.
- ▲ Easily applied to clean, sound substrate.
- ▲ High compressive and flexural strength.
- ▲ Not a vapor barrier.
- ▲ Low in rebound.
- ▲ Formulated to minimize dust.
- ▲ Good freeze/thaw resistance.
- ▲ Bond strength insures superior adhesion.

YIELD

Yield in service will vary according to amount of water utilized in the shotcreting process. Average yields for overhead consistencies approximately .42 cu. ft./bag. For vertical consistencies approximately .45 cu. ft./bag. For horizontal consistencies approximately 0.48 cu. ft./bag. Estimating should be based on prior experience or actual field evaluation.

PACKAGING

55-lb. multi-wall bags.

HOW TO USE

SURFACE PREPARATION

Before applying Sikacem 133, remove all deteriorated concrete, dirt, oil, grease, other bond-inhibiting materials from surface. Be sure repair area is not less than 1/4-in. in depth. Preparation work should be done by scabblers or other appropriate mechanical means. Follow this with a high-pressure water blast to remove all loose materials. This will also dampen the surface to give you better adhesion.

MIXING

Set up dry-process shotcrete equipment. Add Sikacem 133 powder directly into gun. Water is to be added at nozzle.

APPLICATION

At time of application, surfaces should be saturated surface dry with no glistening water. Apply Sikacem 133 in accordance with ACI 506-R85, "Guide to Shotcrete". Important factors to observe during

shotcreting are nozzle distance (2-6 ft), angle to substrate (90°), and consistency of mortar. Immediately after application and before set, mortar consistency should be plastic, like a firm jelly.

FINISHING

A natural gun finish may be used. If a gun-finish is too rough, special finishes may be applied. Approximately 5-10 min. after initial set, excess material should be sliced off with a sharp-edged cutting screed. The surface may then be finished to your requirements:

- ▲ broomed for a rough texture.
- ▲ wood-floated for a granular texture.
- ▲ steel-trowelled for a smooth finish.

CURING

Use fine mist spray of water, wet burlap, or a non-solvent based curing compound if ambient conditions might cause premature surface drying. These conditions include high temperatures, low humidity, strong winds, etc.

TYPICAL DATA FOR SIKACEM 133 (Material and curing conditions @ 73F and 50% R.H.)

SHELF LIFE	1 year in original, unopened bags.
STORAGE CONDITIONS	Store dry at 40-95F. Condition material to 65-85F before using.
COLOR	Dark gray.
FLEXURAL STRENGTH (ASTM C-78)	
7 day	1,250 psi
28 day	1,630 psi
TENSILE STRENGTH (ASTM C-496)	
7 day	630 psi
28 day	800 psi
COMPRESSIVE STRENGTH (ASTM C-109) (3 Inch cubes)	
2 day	4,000 psi
7 day	6,000 psi
28 day	8,000 psi

LIMITATIONS

- ▲ Minimum application thickness 1/4-in.
- ▲ Minimum ambient and surface temperatures 45 F and rising at the time of application.
- ▲ Apply only to clean, sound substrate. Surface should be saturated surface dry.
- ▲ Use only in dry-process shotcreting.
- ▲ Color may vary depending on manufacturing location.
- ▲ Protect newly applied mortar from rain. If necessary to prevent freezing, cover with insulating materials.
- ▲ Do not use solvent-based curing compounds.
- ▲ For material pre-dampening recommendations, consult Technical Service.

CAUTION

IRRITANT

Suspect carcinogen - contains portland cement and crystalline silica. Skin and eye irritant. Avoid breathing dust. Use only with adequate ventilation. May cause delayed lung injury (silicosis). IARC lists crystalline silica as having sufficient evidence of carcinogenicity to laboratory animals and limited evidence of carcinogenicity in humans. NTP also lists crystalline silica as a suspect carcinogen. Use of safety goggles and chemical resistant gloves is recommended. In case of high dust concentrations or exceedance of PEL, use an appropriate NIOSH/MSHA approved respirator. Remove contaminated clothing.

FIRST AID

In case of eye contact, flush with water for 15 minutes; contact physician immediately. In case of skin contact, wash with soap and water. For respiratory problems, remove person to fresh air. Wash clothing before re-use.

CLEAN UP

Ventilate area. Vacuum or scoop into appropriate container. Dispose of in accordance with current, applicable local, state, and federal regulations. Uncured material can be removed with water. Cured material can only be removed mechanically.

Drawer 221. Sika and Sikacem are registered trademarks.
Made in USA. Printed in USA. November, 1993.

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FOR INDUSTRIAL USE ONLY**

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ISO 9000



SIKA FERROGARD 903

11/96

Penetrating, corrosion inhibiting, Impregnation coating for hardened concrete

DESCRIPTION

Sika FerroGard 903 is a corrosion inhibiting impregnation coating for hardened concrete surfaces. It is designed to penetrate the surface and then to diffuse in vapor or liquid form to the steel reinforcing bars embedded in the concrete. Sika FerroGard 903 forms a protective layer on the steel surface which inhibits corrosion caused by the presence of chlorides as well as by carbonation of concrete.

HOW IT WORKS

Sika FerroGard 903 is a combination of aminoalcohols, and organic and inorganic inhibitors that protects both the anodic and cathodic parts of the corrosion cell. This dual action effect dramatically delays the initiation of corrosion and greatly reduces the overall corrosion activity.

Sika FerroGard 903 protects the embedded steel by depositing a physical barrier in the form of a protective layer on the surface of the steel reinforcement. This barrier inhibits corrosion of the steel.

WHERE TO USE

Sika FerroGard 903 is recommended for all steel-reinforced, prestressed, precast, post tensioned or marine concrete. Use of Sika FerroGard 903:

- ▲ Steel-reinforced concrete, bridges and highways exposed to corrosive environments (deicing salts, weathering)
- ▲ Building facades and balconies
- ▲ Steel-reinforced concrete in or near a marine environment
- ▲ Parking garages
- ▲ Piers, piles, and concrete dock structures
- ▲ As part of Sika's system approach for buildings and civil engineering structures

ADVANTAGES

Sika FerroGard 903 offers owners, specifiers, port authorities, DOTs, and engineers, a new technology in corrosion inhibition that can easily be applied to the surface of existing concrete to extend the service life of any reinforced concrete structure.

- ▲ Protects against the harmful effects of corrosion by penetrating the surface of even the most dense concrete and diffusing to the steel to inhibit corrosion.
- ▲ Enhances the durability of reinforced concrete.
- ▲ Does not require concrete removal.
- ▲ Environmentally sound.
- ▲ Does not contain calcium nitrite.

TYPICAL DATA FOR SIKA FERROGARD 903 (at 73°F / 23°C)

SHELF LIFE	18 month minimum in original, unopened container
STORAGE CONDITIONS	Store at 40-95°F (4-35°C). Protect from freezing. If frozen, discard
COLOR	Pale Yellow
VISCOSITY	15 cps
FLASH POINT	None (water based)
DENSITY	1.13 (9.4 lbs./gal.)
pH	11 (±1)
APPLICATION RATE	100-150 ft ² /gal. total application rate

SIGNIFICANT PROOF OF PERFORMANCE

Key Criteria	Performance Level	Test Method/ Institute
Corrosion inhibition	FerroGard corrosion inhibitors delay the onset of corrosion and reduce the rate of corrosion by 65% versus control specimen after 1 year.	1
Penetration Rate in hardened concrete	FerroGard 903 penetrates independently of orientation (horizontal, vertical, overhead) at a rate of 1/10 to 4/5 inches (2.5 to 20 mm) per day, depending on the density of the concrete.	2
Depth of Penetration	FerroGard 903 penetrates at least 3 inches (76 mm) in 28 days.	2
Protective layer on steel	FerroGard 903 forms a protective layer on the reinforcing steel of high integrity measured at 100 Å thickness.	3
Displacement of chlorides from steel surface	FerroGard 903 forms a continuous film on the reinforcing steel and displaces chloride ions from the steel surface.	3

Test Method/Institute:

1. Cracked Concrete Beam Test (adapted from ASTM G109).
2. Secondary Neutron Mass Spectroscopy (SNMS) / Institute for Radiochemistry, Karlsruhe (Germany), Prof. Dr. J. Goschneck.
3. X-ray Photon Spectroscopy (XPS) and Secondary Ion Mass Spectroscopy (SIMS) / Brundel and Associates, San Jose, CA and University Heidelberg (Germany), Prof. M. Grunze.

ADVANTAGES - cont.

- ▲ Easily applied by either spray or roller to all existing reinforced concrete.
- ▲ Can be applied to reinforced concrete that already exhibits corrosion.
- ▲ Adds additional benefits when used prior to protective coatings in concrete restoration systems.
- ▲ Water based for easy handling and application.
- ▲ Not a vapor barrier; allows vapor diffusion.
- ▲ FerroGard has been proven effective in both laboratory (ASTM G109/Cracked Beams) and field analysis.

COVERAGE

For normal concrete, application is 200-300 ft²/gal. each coat. A minimum of two coats is always required. For dense concrete, application may exceed 300 ft²/gal. Therefore, more than two coats may be required to achieve the total application rate (100-150 ft²/gal. total).

PACKAGING

5 gallon pails with spout, 55 gallon drums.

HOW TO USE

SURFACE PREPARATION

Before applying Sika FerroGard 903 be sure the surface is clean and sound. Remove all dirt, dust, oil, grease, efflorescence or existing coatings from concrete surface by steam cleaning, waterblasting or slightly sandblasting. Allow concrete surface to dry prior to application of Sika FerroGard 903. The dryer the surface the better the penetration and effectiveness.

APPLICATION

Sika FerroGard 903 is applied by roller, brush or spray on concrete surfaces. When spraying, use a conventional airless spray system or hand-pressure

equipment. **A minimum of two coats is always required.** Dense substrates may require more coats. Waiting time between coats of Sika FerroGard 903 is at least 1 hour.

When Sika FerroGard 903 is used prior to the application of a repair mortar or a concrete overlay, care must be taken to remove any residue from the treatment before the mortar or concrete is applied. This can be achieved by carefully rinsing with water, pressure washing or grit blasting. The use of Sika Armatec 110 EpoCem as a bonding agent prior to the application of repair mortars or concrete overlays is suggested.

If substrates treated with Sika FerroGard 903 are to be overcoated (protective coatings, Sikafloor Systems, etc.), any residue from the treatment must be removed by carefully rinsing with water, pressure washing or grit blasting. After that, allow the substrate to dry before applying coatings. Drying time depends on environmental conditions, absorbency of the substrate and maximum recommended moisture content for the subsequently applied system.

LIMITATIONS

- ▲ Minimum ambient and substrate temperatures 35F.
- ▲ Do not apply when temperature is expected to fall below 35F within 12 hours.
- ▲ Substrate should be as dry as possible prior to the application.
- ▲ Protect glass, wood, brick, and exposed aluminum during the application.
- ▲ Maximum chloride content of concrete structures intended to be treated with Sika FerroGard 903 is 6 lbs./y³ (measured at the level of the reinforcing steel). For levels up to 10 lbs./y³ consult technical service.

CAUTION

Irritant - Skin and eye irritant. Vapors may cause respiratory tract irritation. Use only with adequate ventilation. Use of safety goggles and chemical resistant gloves is recommended. Remove contaminated clothing.

FIRST AID

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician immediately. For respiratory problems, remove person to fresh air. Wash clothing before re-use.

CLEAN UP:

In case of spills or leaks, wear suitable protective equipment, contain spill, collect with absorbent material, and transfer to a suitable container. Ventilate area. Avoid contact. Dispose of in accordance with current, applicable local, state, and federal regulations.

Tad Stoller

*Kevin Smith
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1-888-415-4342*

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**KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION**

**KEEP OUT OF REACH OF CHILDREN
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