



October 8, 2012

New York City Office of Environmental Remediation
City Brownfield Cleanup Program
c/o Shaminder Chawla
100 Gold Street, 2nd Floor
New York, NY 10038

Re: 13CVCP074K
207 Harrison Avenue, Brooklyn, NY
Remedial Action Work Plan (RAWP) Stipulation List

Dear Mr. Chawla:

EBC hereby submits a Remedial Action Work Plan (RAWP) Stipulation List for the subject site to the New York City Office of Environmental Remediation (NYCOER) on behalf of Webster Avenue Management. This letter serves as an addendum to the RAWP to stipulate additional content, requirements and procedures that will be followed during the site remediation. The contents of this list are added to the RAWP and will supersede the content in the RAWP where there is a conflict in purpose or intent. The additional requirements/procedures include the following:

STIPULATION LIST

1. A pre-construction meeting is required prior to start of remedial excavation work at the site. A pre-construction meeting will be held at the site and will be attended by OER, the developer or developer representative, the consultant, excavation/general contractor, and if applicable, the soil broker.
2. The criterion attached in **Addendum 1** will be utilized if petroleum-containing tanks or vessels are identified during the remedial action or subsequent redevelopment excavation activities. All petroleum spills will be reported to the NYSDEC hotline as required by applicable laws and regulations. This contingency plan is designed for heating oil tanks and other small or moderately sized storage vessels. If larger tanks, such as gasoline storage tanks are identified, OER will be notified before this criterion is utilized.
3. Collection and analysis of end-point samples will be conducted to evaluate the performance of the remedy with respect to attainment of Track 4 SCOs. To evaluate attainment of Track 4 SCOs throughout the site, five base samples will be collected. Endpoint samples will be analyzed for SVOCs, Pesticides, and Metals. A map indicating End Point Soil Sampling Locations is attached as **Addendum 2**.
4. A Preprufe 200 waterproofing membrane as manufactured by W.R. Grace, Co. will be installed beneath the building slab and behind the basement walls of both buildings.



Structural drawings depicting the installation of the waterproofing membrane system, as well as the manufacturer specifications are attached as **Addendum 3**.

5. In the event that hazardous waste is identified during the remedial action at this NYC VCP project, and removal and transportation of hazardous waste becomes necessary, the project may be subject to the New York State Department of Environmental Conservation's Special Assessment Tax (ECL 27-0923) and Hazardous Waste Regulatory Fees (ECL 72-00402). See DEC's website for more information:
<http://www.dec.ny.gov/chemical/9099.html>.
6. A pre-approval letter from all disposal facilities will be provided to OER prior to any soil/fill material removal from the site. Documentation specified in the RAWP - Appendix 3 - Section 1.6 "Materials Disposal Off-Site" will be provided to OER. If a different disposal facility for the soil/fill material is selected, OER will be notified immediately.
7. A CD containing the final RAWP including this approved Stipulation List will be placed in the library that constitutes the primary public repository for project documents.
8. Signage for the project will include a sturdy placard mounted in a publically accessible right of way to building and other permits signage will consist of the NYC VCP Information Sheet (attached **Addendum 4**) announcing the remedial action. The Information sheet will be laminated and permanently affixed to the placard.

Sincerely,

Environmental Business Consultants



Kevin Brussee

cc: W. Wong

Addendum 1

Generic Procedures for Management of Underground Storage Tanks identified under the NYC BCP

Addendum 1
Generic Procedures for Management of Underground Storage Tanks
identified under the NYC BCP

Prior to Tank removal, the following procedures should be followed:

- Remove all fluid to its lowest draw-off point.
- Drain and flush piping into the tank.
- Vacuum out the “tank bottom” consisting of water product and sludge.
- Dig down to the top of the tank and expose the upper half.
- Remove the fill tube and disconnect the fill, gauge, product, vent lines and pumps. Cap and plug open ends of lines.
- Temporarily plug all tank openings, complete the excavation, remove the tank and place it in a secure location.
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank.
- Clean tank or remove to storage yard for cleaning.
- If the tank is to be moved, it must be transported by licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8 inch vent hole located at the top of the tank during transport.
- After cleaning, the tank must be made acceptable for disposal at a scrap yard, cleaning the tanks interior with a high pressure rinse and cutting the tank in several pieces.

During the tank and pipe line removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipe line condition (pitting, holes, staining, leak points, evidence of repairs, etc.).
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with a calibrated photoionization detector (PID).

Impacted Soil Excavation Methods

The excavation of the impacted soil will be performed following the removal of the existing tanks. Soil excavation will be performed in accordance with the procedures described under Section 5.5 of Draft DER-10 as follows:

- A description and photographic documentation of the excavation.
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with calibrated photoionization detector (PID).

Final excavation depth, length, and width will be determined in the field, and will depend on the horizontal and vertical extent of contaminated soils as identified through physical examination (PID response, odor, staining, etc.). Collection of verification samples will be performed to evaluate the success of the removal action as specified in this document.

The following procedure will be used for the excavation of impacted soil (as necessary and appropriate):

- Wear appropriate health and safety equipment as outlined in the Health and Safety Plan.
- Prior to excavation, ensure that the area is clear of utility lines or other obstructions. Lay plastic sheeting on the ground next to the area to be excavated.
- Using a rubber-tired backhoe or track mounted excavator, remove overburden soils and stockpile, or dispose of, separate from the impacted soil.
- If additional UST's are discovered, the NYSDEC will be notified and the best course of action to remove the structure should be determined in the field. This may involve the continued trenching around the perimeter to minimize its disturbance.
- If physically contaminated soil is present (e.g., staining, odors, sheen, PID response, etc.) an attempt will be made to remove it, to the extent not limited by the site boundaries or the bedrock surface. If possible, physically impacted soil will be removed using the backhoe or excavator, segregated from clean soils and overburden, and staged on separated dedicated plastic sheeting or live loaded into trucks from the disposal facility. Removal of the impacted soils will continue until visibly clean material is encountered and monitoring instruments indicate that no contaminants are present.
- Excavated soils which are temporarily stockpiled on-site will be covered with tarp material while disposal options are determined. Tarp will be checked on a daily basis and replaced, repaired or adjusted as needed to provide full coverage. The sheeting will be shaped and secured in such a manner as to drain runoff and direct it toward the interior of the property.

Once the site representative and regulatory personnel are satisfied with the removal effort, verification of confirmatory samples will be collected from the excavation in accordance with DER-10.



ENVIRONMENTAL BUSINESS CONSULTANTS

Addendum 2 End Point Sampling Plan



ENVIRONMENTAL BUSINESS CONSULTANTS

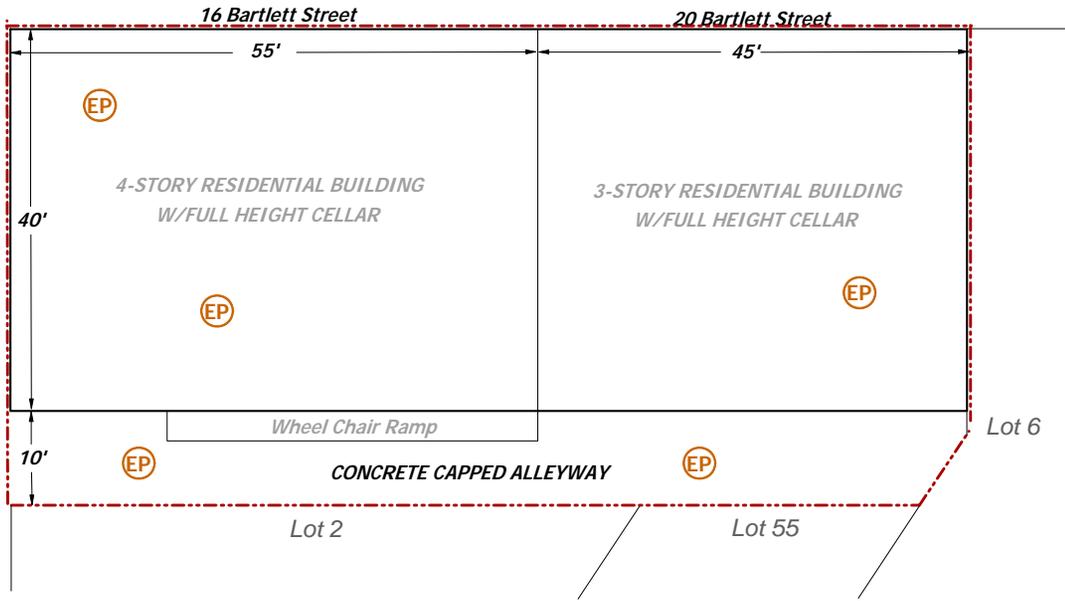
1808 MIDDLE COUNTRY ROAD
RIDGE, NY 11961

PHONE 631.504.6000
FAX 631.924.2870



BARTLETT STREET

HARRISON AVENUE



KEY

Site Boundary

Proposed Endpoint Sampling Location

SCALE

1 inch = 20 feet

<p>ENVIRONMENTAL BUSINESS CONSULTANTS 1808 MIDDLE COUNTRY ROAD, RIDGE, NY 11961</p>	<p>Phone 631.504.6000 Fax 631.924.2780</p>	<p>207 HARRISON AVENUE BROOKLYN, NY 11206</p>
	<p>FIGURE 6 ENDPOINT SOIL SAMPLING PLAN</p>	

Addendum 3
Water Proofing Membrane Plans and
Specifications

Grace Below Grade Waterproofing

PREPRUFE® 200

Fast, simple, pre-applied waterproofing membrane and vapor barrier that bonds to poured concrete for use below slabs or behind basement walls on confined sites

Description

Preprufe® 200 Membrane is a composite sheet comprising a thick HDPE film, an aggressive pressure sensitive adhesive and a weather resistant protective coating.

Using patented Advanced Bond Technology, Preprufe 200 Membrane provides a continuous seal that resists water ingress and migration between the membrane and the structure.

The Preprufe 200 System includes—

- **Preprufe 200 Membrane**—robust membrane for horizontal use below concrete slabs or vertically against soil retention systems.
- **Preprufe CJ Tape LT**—self-adhesive 8 in. (200 mm) wide strip applied to the surface of the membrane along the line of all concrete joints (application temperature range 25°F to 86°F (-4°C to +30°C)).
- **Preprufe CJ Tape HC**—as above for use in hot climates (minimum 50°F (10°C)).
- **Bituthene® Liquid Membrane**—for sealing around penetrations, etc.

Preprufe 200 Membrane is applied either horizontally to smooth prepared concrete, well-rolled and compacted sand, or compacted crushed stone blinding; or vertically to permanent formwork or adjoining structures. Concrete is then cast directly against the adhesive side of the membranes. The specially developed Preprufe adhesive layers work together to form a continuous and integral seal to the poured concrete.

Advantages

- **Prevents water migration**—Preprufe's Advanced Bond Technology™ forms a unique integral seal to concrete poured against it
- **Fast and easy installation**—loose laid, mechanically fastened laps
- **Avoids delays**—unaffected by wet or cold conditions, can even be laid during rain
- **Excellent vapor barrier**—typical MVER 0.11 lb/1000 ft²/24 hr ASTM F1869-98

- **Inherently waterproof, non-reactive system**—
 - Cannot activate prematurely or be washed away
 - Not reliant on confining pressures or hydration
 - Unaffected by freeze/thaw, wet/dry cycling
- **Chemical resistant**—effective in all types of soils and waters, protects structure from salt or sulphate attack
- **Self protecting**—ready for immediate placement of reinforcing steel and concrete without costly protective layers

Applications

Typical applications include garages, plant rooms, utility grade basements, tunnels; vapor barrier for ground bearing floor slabs with moisture sensitive finishes, e.g. schools, hospitals, wood flooring, etc.

For more critical waterproofing applications consider Preprufe 300R. See separate data sheet.

Limitations

Preprufe 200 Membrane is intended for low, medium or intermittent water pressures.

Preprufe 200 Membrane can be returned up the inside face of slab formwork but is not recommended for conventional twin-sided formwork on walls, etc. Use Bituthene self-adhesive membrane or Procor® fluid applied membrane to walls after removal of formwork for a fully-bonded system to all structural surfaces.

Use

Preprufe 200 Membrane is supplied in rolls 4 ft (1.2 m) wide, interwound with a disposable plastic release liner which must be removed before placing reinforcement and concrete.

Substrate Preparation

All surfaces—It is essential to create a sound and solid substrate to eliminate movement during the concrete pour. Substrates must be regular and smooth, with no gaps or voids greater than 0.5 in. (12 mm). Grout around all penetrations such as utility conduits, etc. for stability.

Horizontal—The substrate must be free of loose aggregate and sharp protrusions. An angular profiled blinding is recommended rather than a sloping or rounded substrate. The surface does not need to be dry but standing water must be removed.

Vertical—Use concrete, plywood, insulation or other approved facing to sheet piling to provide support to the membrane. Board systems such as timber lagging must be close butted to provide support and not more than 0.5 in. (12 mm) out of alignment.

Membrane Installation

Preprufe 200 Membrane can be applied at temperatures of 25°F (-4°C) or above. Membrane installation is unaffected by wet weather.

Horizontal substrates—Place the membrane HDPE film side to the substrate with printed coated side up facing towards the concrete pour. End laps should be staggered to avoid a build up of layers.

Accurately position succeeding sheets to overlap the previous sheet 3 in. (75 mm) along the marked lap line. Completely remove the plastic liner to expose the protective coating. Any initial tack will quickly disappear.

Lap fastening—To prevent the membrane from moving and gaps opening, the laps should be fastened together at maximum 39 in. (1.0 m) on-center. Fix through the center of the lap area using 0.5 in. (12 mm) long washer-head self-tapping screws, or similar, allowing the head of the screw to bed into the adhesive compound to self seal. It is not necessary to fix the membrane to the substrate, only to itself. Ensure the membrane lays flat and no openings occur. Additional fastening may be required at corners, details etc.

Galvanized fasteners are suitable for most applications. Stainless steel or other non-corrosive fasteners are recommended for aggressive soil conditions containing chloride or sulphate.

Alternatively, 3 in. (75 mm) strips of Preprufe Tape may be used 39 in. (1.0 m) on center to prevent gaps or movement. Or, Preprufe Tape may be used to seal the entire length of the overlap. Apply tape centrally over lap and roll firmly. Remove plastic liner.

Vertical substrates—Mechanically fasten the membrane vertically using fasteners appropriate to the substrate with the printed coated side facing towards the concrete pour. The membrane may be installed in any convenient length. Secure the top of the membrane using a batten such as a termination bar or similar 2 in. (50 mm) below the top edge. Fastening should be made through the overlap area at 20 in. (0.5 m) maximum on-center so that the membrane lays flat without fishmouths. Immediately remove the plastic release liner.

Roll ends and cut edges—Overlap all roll ends and cut edges by a minimum 3 in. (75 mm) and fasten as above.

Penetrations

Use the following steps to seal around penetrations such as service pipes, piles, lightning conductors, etc.

Grout around the penetration if the penetration is not stable. Fit the membrane tight to the penetration. If the membrane is not within 0.5 in. (12 mm) of the penetration, apply Preprufe Tape to cover the gap.

Wrap the penetration with Preprufe Tape by positioning the tape 0.5 in. (12 mm) above the membrane.

Apply Bituthene Liquid Membrane around the penetrations using a fillet to provide a watertight seal between the Preprufe membrane and Preprufe Tape.

Membrane Repair

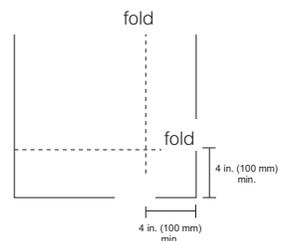
Inspect the membrane before installation of reinforcement steel, formwork and final placement of concrete. The membrane can be easily cleaned by power washing with water if necessary.

Repair damage by placing a patch of Preprufe 200 Membrane over the damaged area ensuring a minimum 3 in. (75 mm) overlap. Secure the patch using screw fasteners as above.

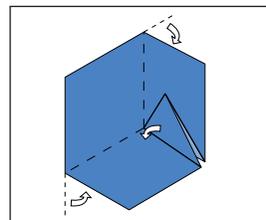
Any areas of damaged adhesive should be covered with Preprufe Tape. Remove printed plastic liner from tape.

Corners

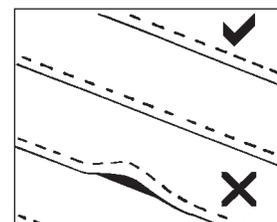
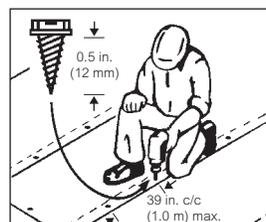
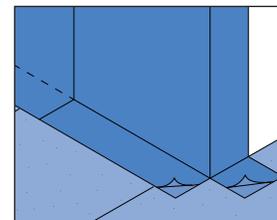
Internal and external corners should be formed as shown in the diagrams returning the membrane a minimum of 4 in. (100 mm). Crease and fold the membrane to ensure a close fit to the substrate profile and avoid gaps. Fasten using screw fasteners.



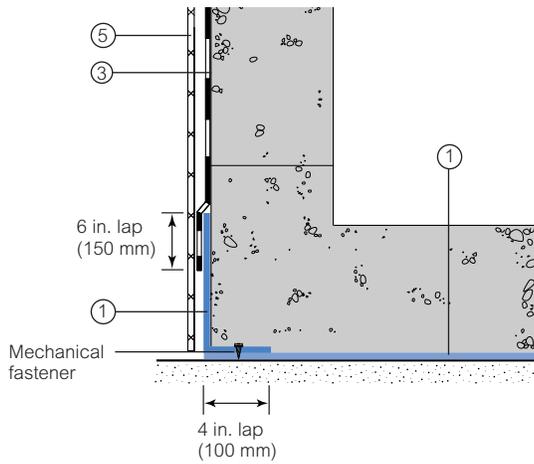
Internal



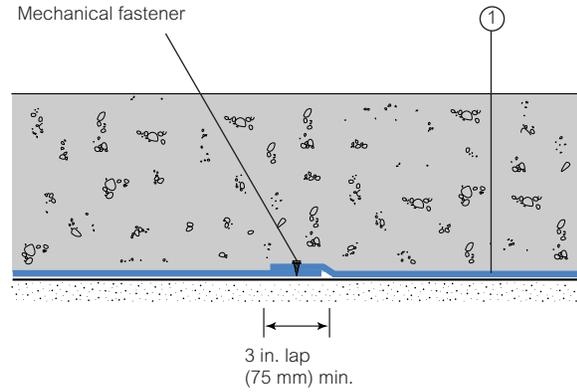
External



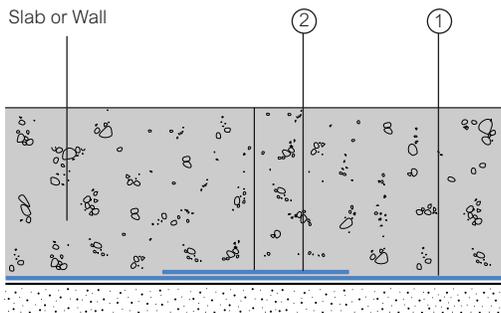
Wall base detail



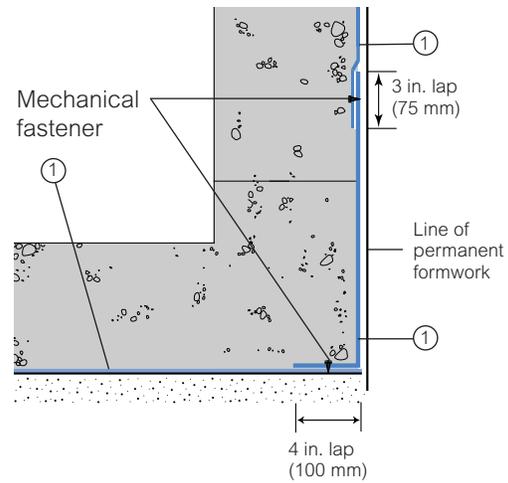
Side/end lap detail



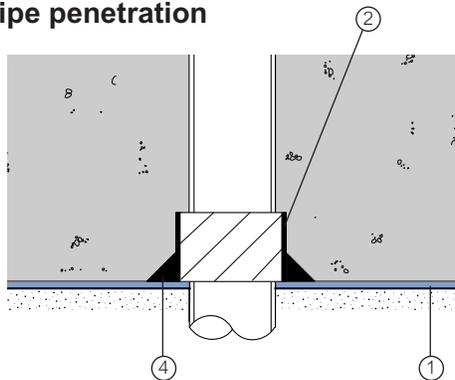
Concrete joint



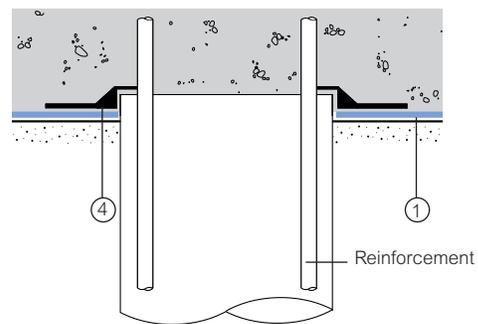
Wall base detail against permanent shutter



Pipe penetration



Pile detail



1 Preprufe 200 Membrane

2 Preprufe CJ Tape

3 Procor® (use Preprufe Tape to tie-in) or Bituthene® 4000

4 Bituthene Liquid Membrane

5 Hydroduct®

Details shown are typical illustrations and not working details. For assistance with detailing and problem solving please contact Grace Technical Department at 866-333-3SBM (3726).

Supply

Dimensions (Nominal)	Preprufe 200 Membrane	Preprufe CJ Tape (LT or HC*)	Preprufe Tape (LT or HC*)
Thickness	0.032 in. (0.8 mm)		
Roll size	4 ft x 115 ft (1.2 m x 35 m)	8 in. x 49 ft (200 mm x 15 m)	4 in. x 49 ft (100 mm x 15 m)
Roll area	460 ft ² (42 m ²)		
Roll weight	92 lbs (42 kg)	8.6 lbs (4 kg)	4.3 lbs (2 kg)
Minimum side/end laps	3 in. (75 mm)	3 in. (75 mm)	3 in. (75 mm)
* LT denotes Low Temperature (between 25°F and 86°F), HC denotes Hot Climate (>50°F)			
Ancillary Products			
Bituthene Liquid Membrane (LM) 1.5 gal (5.7 liter)			
Screw Fasteners (by others)			
Self Tapping Washer Head Screws 0.5 in. (12 mm) long, galvanized or stainless steel as appropriate			

Physical Properties

Property	Typical Value	Test Method
Color	White	
Film thickness (nominal)	0.020 in. (0.5 mm)	ASTM D3767—method A
Low temperature flexibility	Unaffected at -10°F (-23°C)	ASTM D1970
Elongation	300% min.	ASTM D412 modified ¹
Crack cycling at -10°F (-23°C)	Pass	ASTM C836
Tensile strength, film	4000 psi (27.6 MPa) min.	ASTM D412
Peel adhesion to concrete	5.0 lbs/in. (880 N/m) min.	ASTM D903 modified ²
Resistance to hydrostatic head	30 ft (10 m)	ASTM D5385 modified ³
Puncture resistance	135 lbs (600 N) min.	ASTM E154
Permeance	0,01 perms (0.6 ng/m ² Pa)	ASTM E96—method B
Water absorption	0.5% maximum	ASTM D570
Moisture vapor emission rate	0.11 lb/1000 ft ² /24 hr	ASTM F1869-98 modified

Footnotes:

1. Elongation of membrane is run at 2 in. (50 mm) per minute.
2. Concrete is cast against the protective coating surface of the membrane and allowed to properly cure (7 days min.). Peel adhesion of membrane to concrete is measured at a rate of 2 in. (50 mm) per minute at room temperature.
3. Hydrostatic tests are performed by casting concrete against the membrane with a lap across a 0.040 in. (1 mm) formed crack.

Pouring of Concrete

Ensure the plastic release liner is removed from all areas of Preprufe 200 Membrane and Tape.

It is recommended that concrete be poured within 56 days (42 days in hot climates) of application of the membrane. Concrete must be placed and compacted carefully to avoid damage to the membrane. Never use a sharp object to consolidate the concrete.

Removal of Formwork

Preprufe 200 Membrane can be applied to removable formwork, such as slab perimeters, elevator and lift pits, etc. Once the concrete is poured the formwork must remain in place until the concrete has gained sufficient compressive strength to

develop the surface bond. Preprufe 200 Membrane is not recommended for conventional twin-sided wall forming systems.

A minimum concrete compressive strength of 1500 psi (10 N/mm²) is recommended prior to stripping formwork supporting Preprufe 200 Membrane. Premature stripping may result in displacement of the membrane and/or spalling of the concrete.

As a guide, to reach the minimum compressive strength stated above, a structural concrete mix with an ultimate strength of 6000 psi (40 N/mm²) will typically require a cure time of approximately 6 days at an average ambient temperature of 25°F (-4°C), or 2 days at 70°F (21°C).

www.graceconstruction.com

For technical assistance call toll free at 866-333-3SBM (3726)

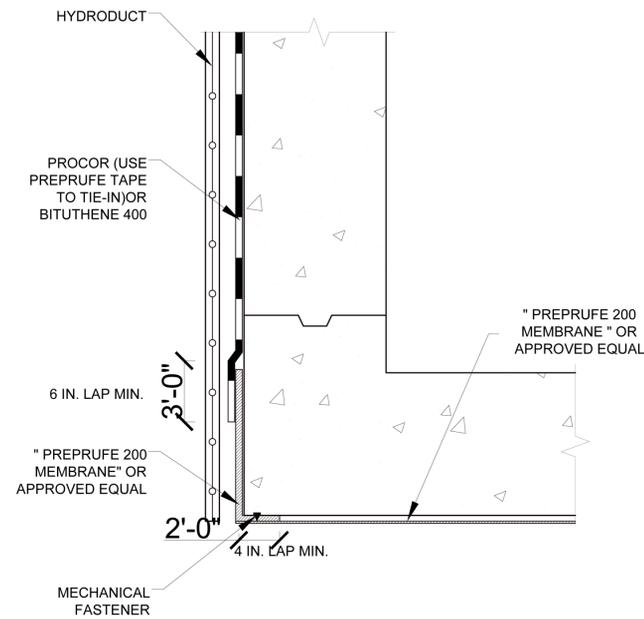
Preprufe, Bituthene and Hydroduct are registered trademarks of W. R. Grace & Co.—Conn. Procor is a U.S. registered trademark of W. R. Grace & Co.—Conn., and is used in Canada under license from PROCOR LIMITED.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the users' consideration, investigation and verification, but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would infringe any patent or copyright. W. R. Grace & Co.—Conn., 62 Whittemore Avenue, Cambridge, MA 02140. In Canada, Grace Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

This product may be covered by patents or patents pending.
PF-155E Printed in U.S.A. 7/07

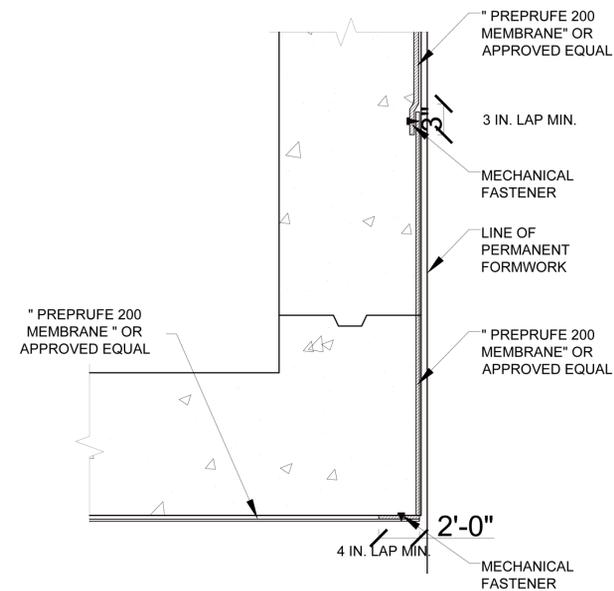
Copyright 2007. W. R. Grace & Co.—Conn.
FA/LI/1M

GRACE



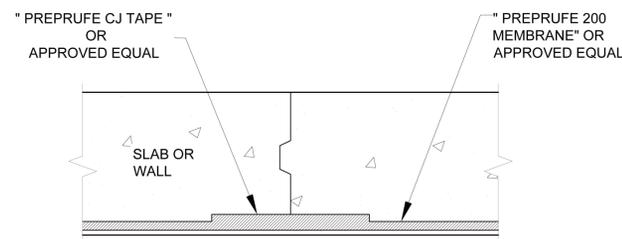
WALL BASE DETAIL

SCALE N.T.S.



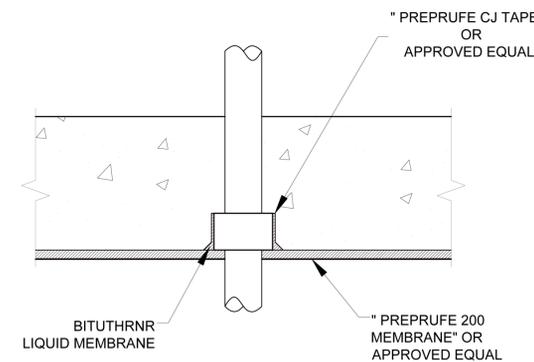
WALL BASE DETAIL
PERMANENT SHUTTER

SCALE N.T.S.



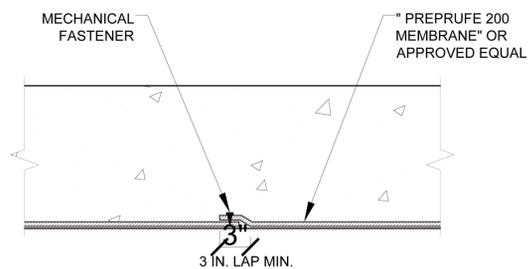
CONCRETE JOINT

SCALE N.T.S.



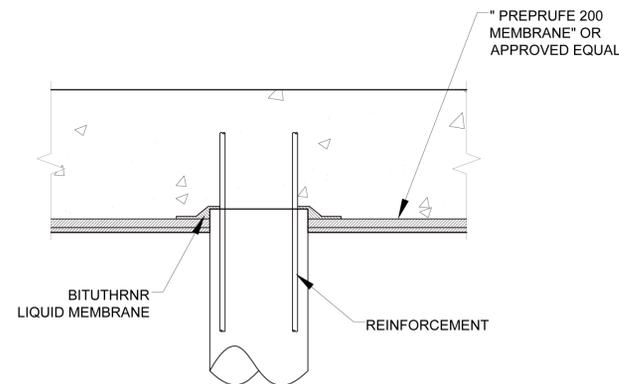
PIPE PENETRATION

SCALE N.T.S.



SIDE/END LAP DETAIL

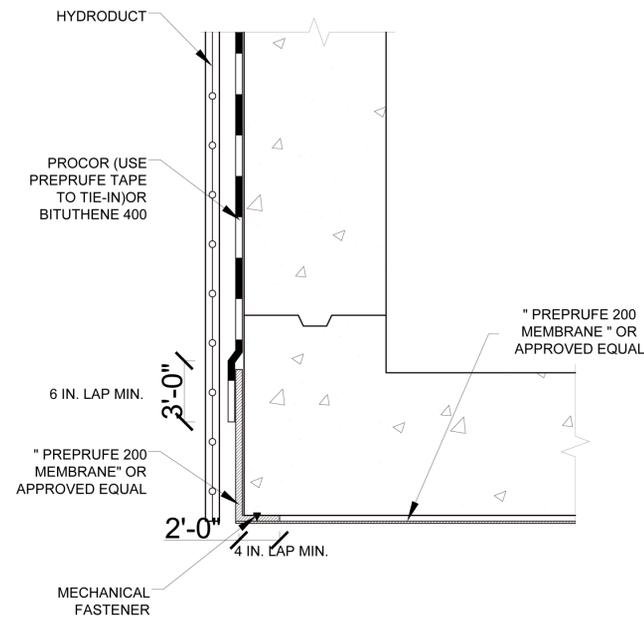
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PILE DETAIL

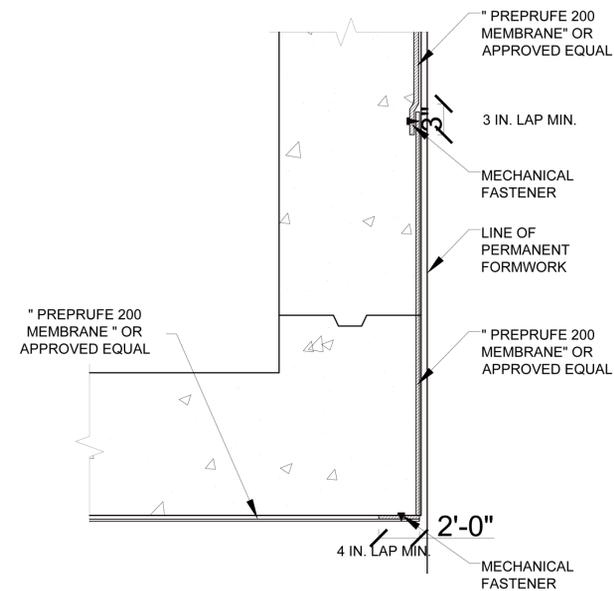
SCALE N.T.S.

DOB JOB NO :	#320449323
ARCHITECT	SHAHRIAR AFSHARI, Ph.D. , P.E. 45 MAIN STREET. , ROSLYN , NY,11576 TEL : (516)-621-2085 FAX : (516)-801-1574
PROJECT	ADDRESS : 16 BARTLETT STREET BROOKLYN , NY 11206
	TITLE : FOUNDATION DETAILS - WATER PROOFING
	BLOCK : 2272 LOTS : 3
SEAL & SIGNATURE :	DATE : 09-12-2012
	PROJECT NO :
	DRAWING BY : T.B.
	CHK BY : S.A.
	DWG NO : FO - 001.00
	CAD FILE NO :



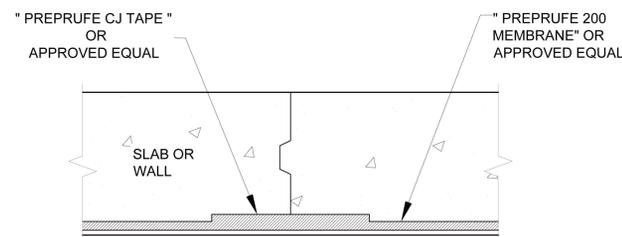
WALL BASE DETAIL

SCALE N.T.S.



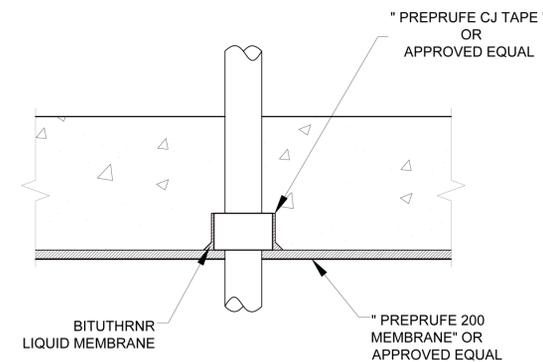
WALL BASE DETAIL
PERMANENT SHUTTER

SCALE N.T.S.



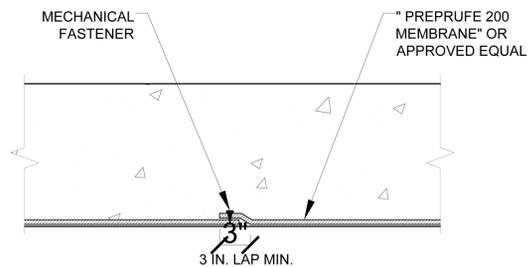
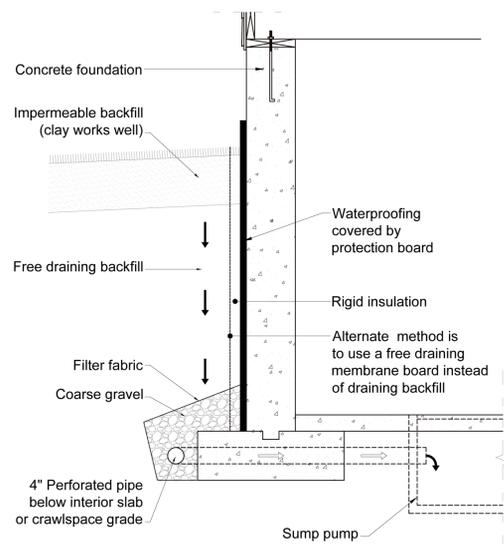
CONCRETE JOINT

SCALE N.T.S.



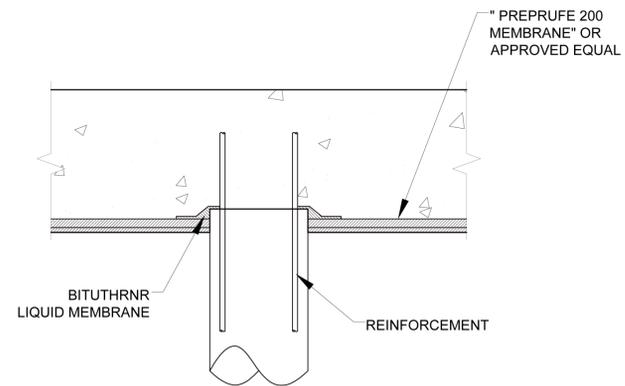
PIPE PENETRATION

SCALE N.T.S.



SIDE/END LAP DETAIL

SCALE N.T.S.



PILE DETAIL

SCALE N.T.S.

DOB JOB NO :	#320449332
ARCHITECT	SHAHRIAR AFSHARI, Ph.D. , P.E. 45 MAIN STREET. , ROSLYN , NY,11576 TEL : (516)-621-2085 FAX : (516)-801-1574
PROJECT	ADDRESS : 20 BARTLETT STREET BROOKLYN , NY 11206 TITLE : FOUNDATION DETAILS - WATER PROOFING
BLOCK : 2272	LOTS : 4
SEAL & SIGNATURE :	DATE : 09-12-2012
	PROJECT NO : DRAWING BY : T.B. CHK BY : S.A. DWG NO : FO - 001.00
	CAD FILE NO : 1 OF 1

Addendum 4
Signage



NYC Voluntary Cleanup Program

This property is enrolled in the New York City Voluntary Cleanup Program for environmental remediation. This is a voluntary program administered by the NYC Office of Environmental Remediation.

For more information, log on to:

www.nyc.gov/oer



If you have questions or would like more information, please contact:

Shaminder Chawla at (212) 788-8841
or email us at brownfields@cityhall.nyc.gov
207 Harrison Avenue
Site #: 13CVCP074K

Addendum 5
Signed and Stamped
RAWP Certification Page