PREMAC
LABORATORIO PROVE E SPERIMENTAZIONI SU MATERIALI DA COSTRUZIONE
AUTORIZZATO CON D.M. LL. PP. N° 37616 DEL 29-09-1993 - LEGGE 1086/71 E SUCCESSIVA CONCESSIONE

COPIA

Settore Prove di carico in sito e controllo fabbricati

Rapporto di prova N°: 0727-3/10 Feroleto Antico, 14/06/10

Verbale di accettazione del 13/05/10

Richiedente ..... : GEOM. PAPARAZZO LUCIANO in qualità di R.U.P.

Int. Fattura ..... : **AMMINISTRAZIONE COMUNALE DI CATANZARO**
VIA JANNONI GIOVANNI, 1 – 88100 CATANZARO (CZ)

Dati dichiarati:

Opera ..... :MANUTENZIONE STRAORDINARIA E RISANAMENTO STRUTTURALE SCUOLA ELEMENTARE E MATERNA "PASSO DI SALTO".

In ..... : LOC. PASSO DI SALTO di CATANZARO (CZ)

Proprietà..... : AMMINISTRAZIONE COMUNALE DI CATANZARO

Impresa..... : ND

Direzione Lavori..... : **Ing. GRAZIANO ANTONIO**

Strutture in esame .... : Strutture portanti in c.a.

Prove richieste..... : Rilievi strutturali nelle strutture

Norme di riferimento : Metodo di prova interno

-INDICE-

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2. DESCRIZIONE DELL'ATTREZZATURA UTILIZZATA 2
3. DESCRIZIONE DELLA PROVA 2

-ALLEGATI-

Schema ubicazione prove
Elaborati grafici
Documentazione fotografica

Note: Richiesta di prova firmata dalla DD.LL.: **no**

Lo Sperimentatore	Il Responsabile	Il Direttore del Laboratorio
(Geom. Angelo GALLO)	(Dr. Ing. Gianpiero NOTARIANNI)	(Dr. Ing. Giuseppe MASCARO)

Il presente rapporto di prova è costituito da n° 2 pagine + 11 allegati

1. PREMESSA

La seguente relazione si riferisce all'indagine relativa alla struttura in oggetto, avente come obiettivo quello di fornire dati conoscitivi sullo stato di fatto e sulle tipologie strutturali preesistenti.

A tale proposito è stato chiesto di verificare sui vari elementi in calcestruzzo armato la quantità e la disposizione delle armature

2. DESCRIZIONE DELL'ATTREZZATURA UTILIZZATA

La determinazione della posizione delle barre d'armatura presenti in parti di strutture in c.a. è stata eseguita mediante l'ausilio del pacometro P331 Serie TH prodotto dalla PROTOVALE costituito da:

- Unità centrale dotata di display digitale, pulsanti di comando per l'impostazione del diametro presunto e per l'impostazione della funzione prescelta;
- Cavo di collegamento tra unità centrale e sonda;
- Sonda per il rilievo delle posizioni prescelte;

Lo strumento è dotato di diverse funzioni, in grado di rilevare la direzione, copriferro e diametro della barra e il potenziale di corrosione delle armature.Oltre alla visualizzazione della risposta del segnale sul display digitale lo strumento emette un segnale acustico variabile con l'intensità del segnale ricevuto.

La precisione dello strumento per quanto riguarda la misura del copriferro è pari a ±3 mm mentre per il diametro è pari a ±2 mm, salvo l'influenza delle barre vicine.

3. DESCRIZIONE DELLA PROVA

Per il rilievo delle barre, la prova consiste nel far passare la sonda sulla superficie da indagare lungo due direzioni ortogonali tra loro e registrare le posizioni delle barre, inoltre per la verifica dei diametri sono state eseguite alcune scalpellature mediante martello demolitore e misurate le armature presenti con calibro a nonio.

Per il rilievo della configurazione geometrica del solaio è stata eseguita una scalpellatura mediante martello demolitore e misurate le dimensioni e le armature presenti con calibro a nonio.

Per il rilievo delle armature delle fondazioni sono stati eseguiti scavi a tergo della stessa e successiva scalpellatura mediante martello demolitore e misurate le armature presenti con calibro a nonio.

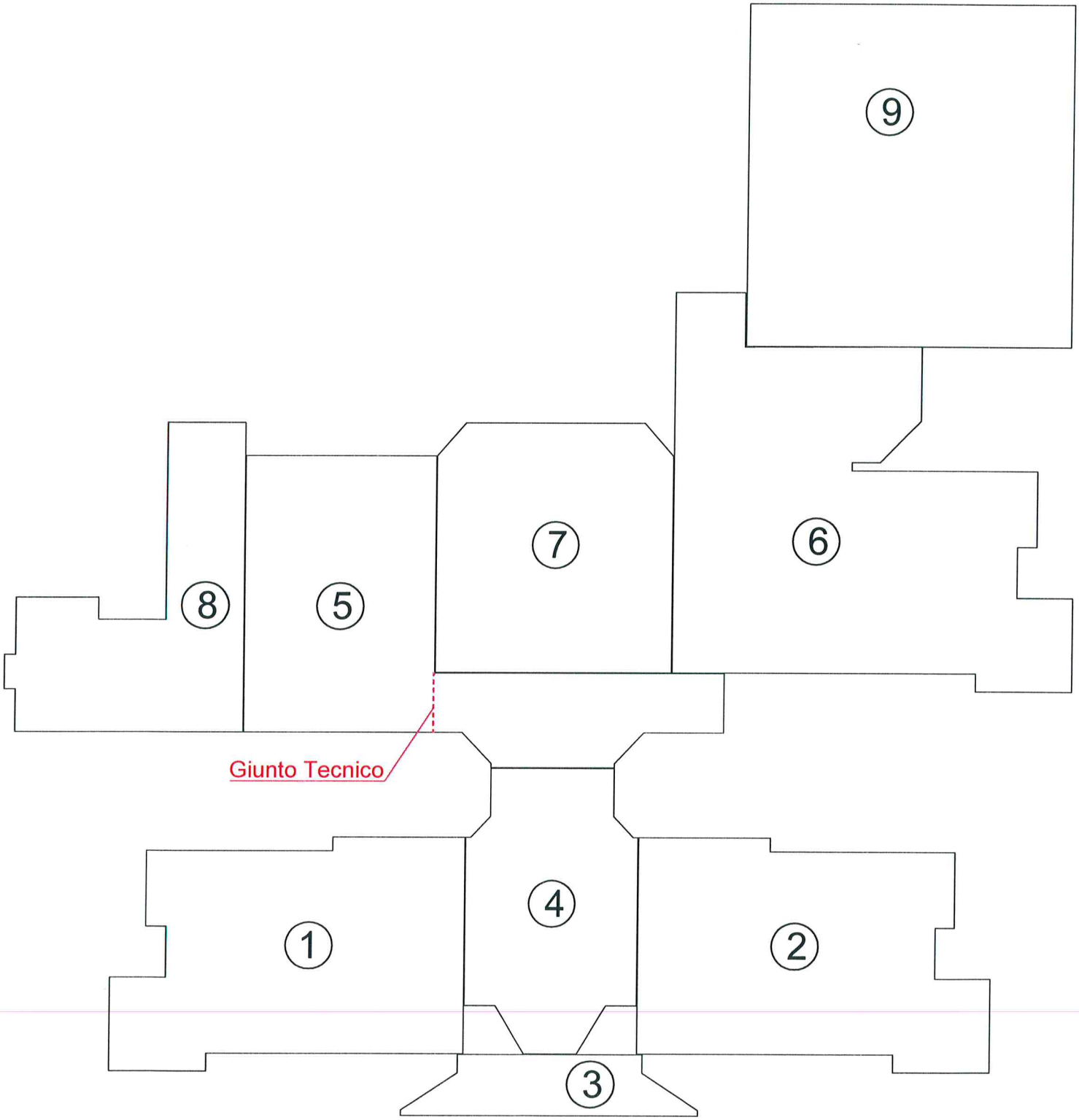
Nelle seguenti pagine sono riepilogati i risultati di prova ottenuti in cantiere.

La società si assume la responsabilità per la precisione delle misurazioni effettuate. L'elaborazione dei dati invece rappresenta solamente un sussidio da verificare ed approvare dalla Direzione Lavori e/o dal Collaudatore.

Lo Sperimentatore	Il Responsabile	Il Direttore del Laboratorio
(Geom. Angelo GALLO)	(Dr. Ing. Gianpiero NOTARIANNI)	(Dr. Ing. Giuseppe MASCARO)

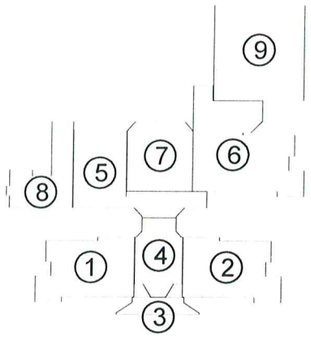
Allegato al Rapporto di Prova n° 0727/10

Schema Ubicazione Corpi di Fabbrica



Allegato al Rapporto di Prova n° 0727-3/10

Ubicazione saggio fondazione Punto saggio fondazione



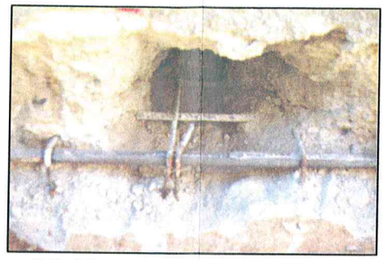
Piano Terra



SF 01



SF 02



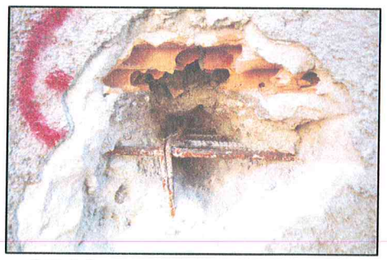
SF 03



SF 04



SF 05



SF 06



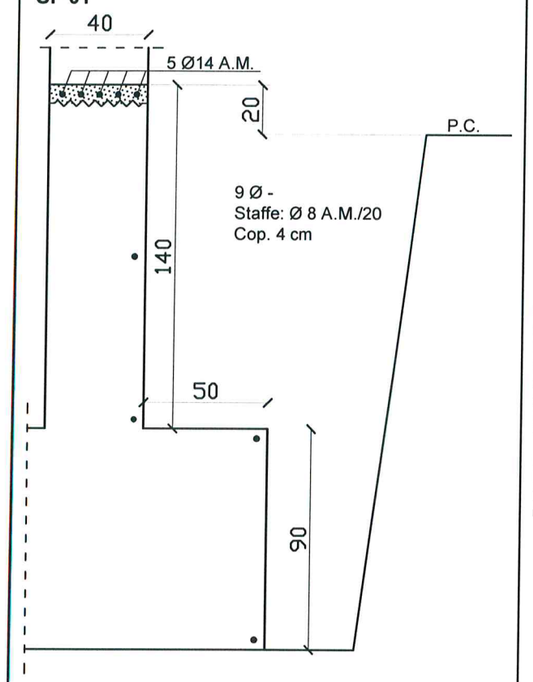
SF 07

Allegato al Rapporto di Prova n° 0727-3/10

Geometria e tipologia fondazione
Documentazione fotografica

RILIEVO FONDAZIONE Zona Scarificata

SF 01



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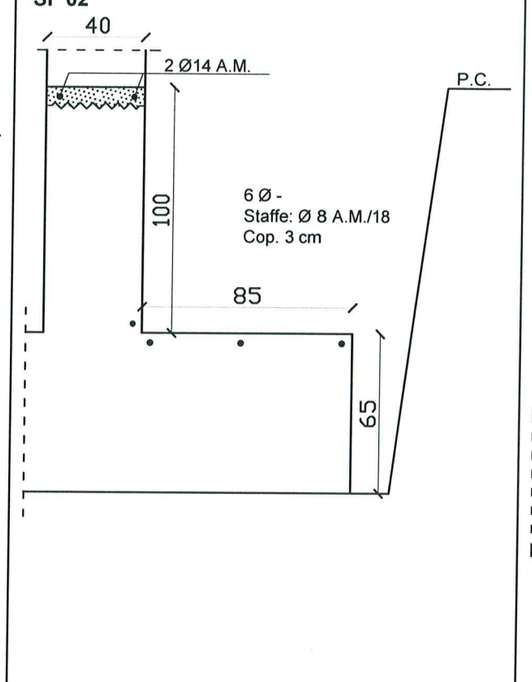
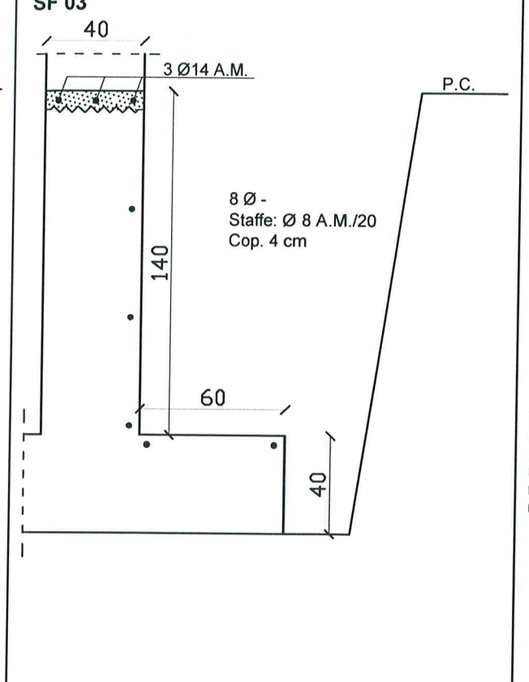
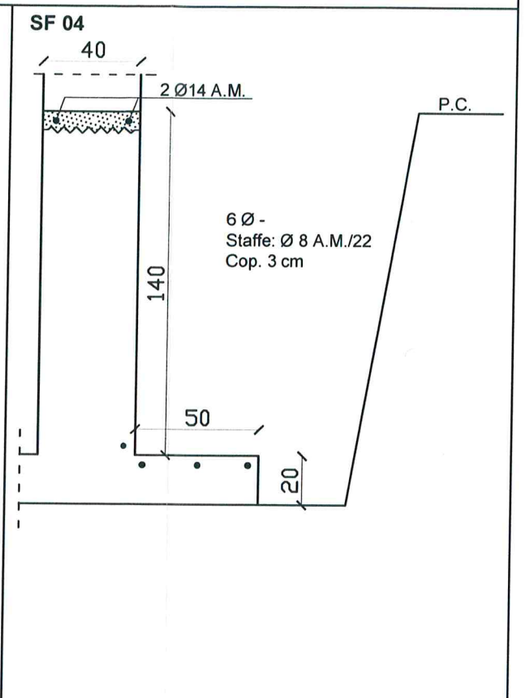


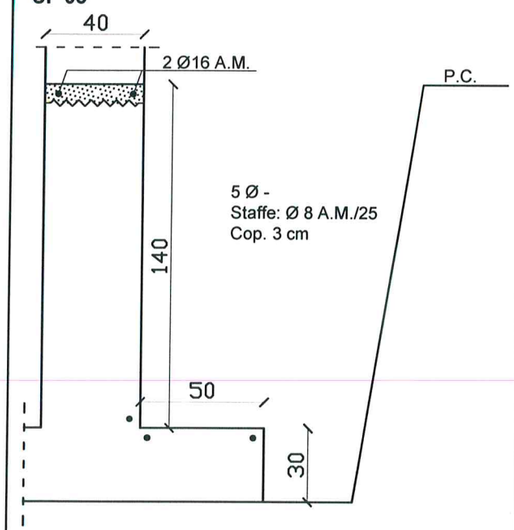
SF 03



SF 04



SF 05



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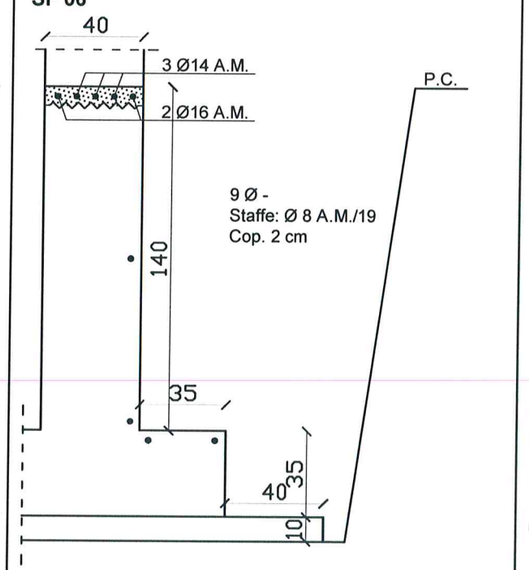

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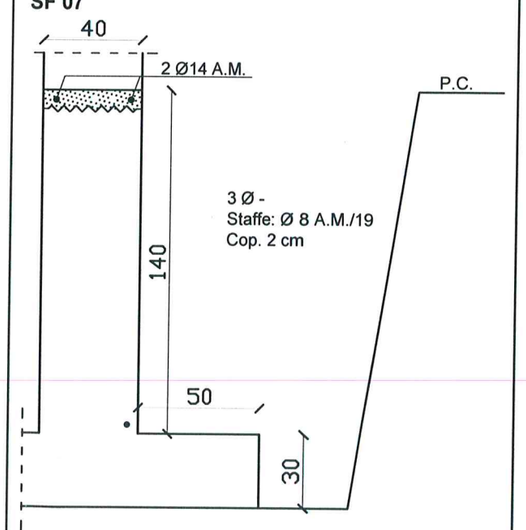




SF 04



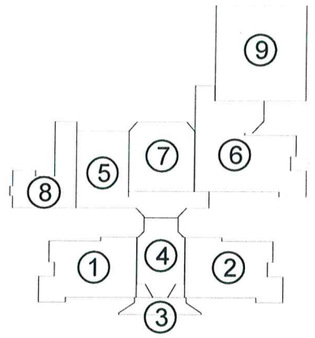
SF 05

Allegato al Rapporto di Prova n° 0727-3/10

Schema Ubicazione Prove
Geometria e tipologia solaio
Documentazione fotografica

Verifica orditura solai

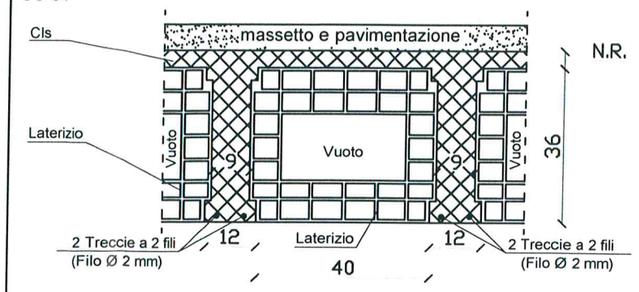
Punto saggio solaio



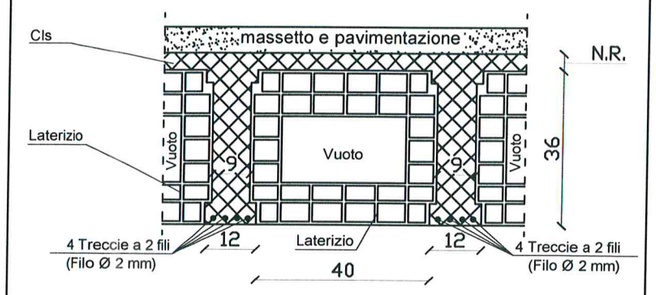
Piano Terra

RILIEVI SOLAI 1° LIVELLO

SS-01

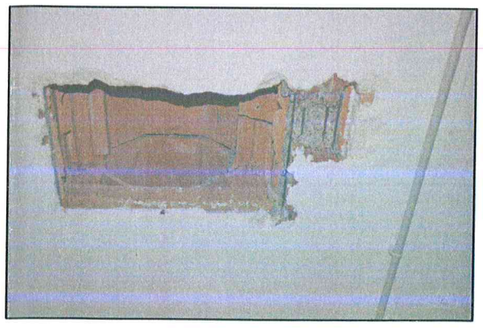


SS-02





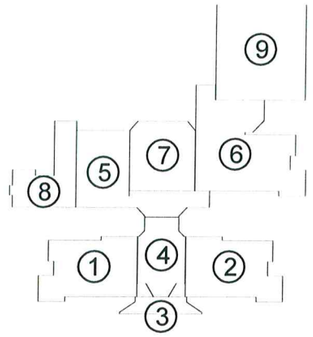
SS01 - Particolare travetto



SS02 - Intradosso

Allegato al Rapporto di Prova n° 0727-3/10

Schema Ubicazione Prove ⟷ Verifica orditura solai



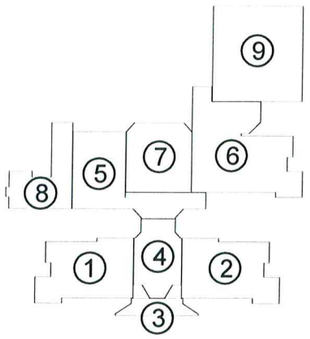
Piano Primo

Allegato al Rapporto di Prova n° 0727-3/10

Schema Ubicazione Prove

PAC (pacometrica)

PAS (pacometrica + saggio diretto)



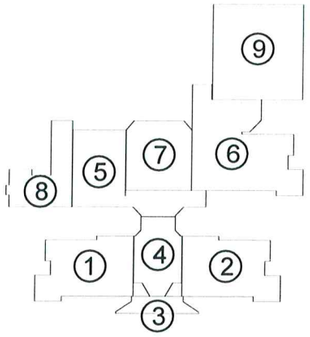
Piano Terra

Allegato al Rapporto di Prova n° 0727-3/10

Schema Ubicazione Prove

PAC (pacometrica)

PAS (pacometrica + saggio diretto)



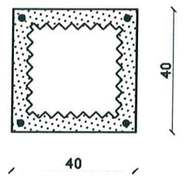
Piano Primo

Allegato al Rapporto di Prova n° 0727-3/10

RILIEVI ARMATURA PILASTRI

Zona Scarificata

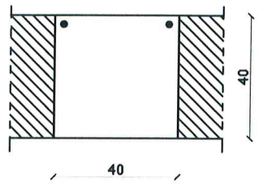
PAS1P-4 - PAS1P-5



Long. 4 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./20
Copriferro 1 cm

Note:

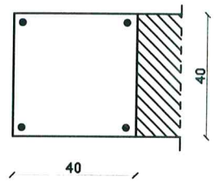
PAC1P-2



Long. 2 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

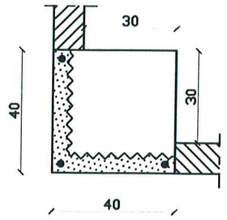
PAC1P-3



Long. 4 Ø -
Staffe Mezz. Ø - /20
Copriferro - cm

Note:

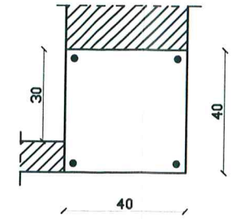
PAS1P-7 - PAS0P-27



Long. 3 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./21
Copriferro 3 cm

Note:

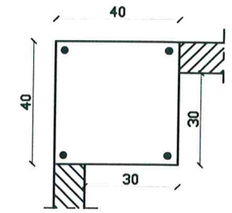
PAC1P-7



Long. 4 Ø -
Staffe Mezz. Ø - /23
Copriferro - cm

Note:

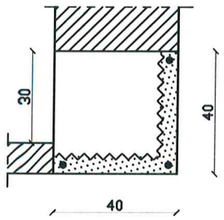
PAC1P-8 - PAC1P-16



Long. 4 Ø -
Staffe Mezz. Ø - /22
Copriferro - cm

Note:

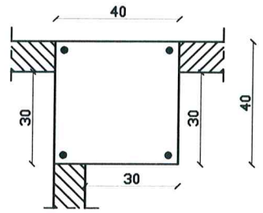
PAS1P-11 - PAS0P-19



Long. 3 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./20
Copriferro 2 cm

Note:

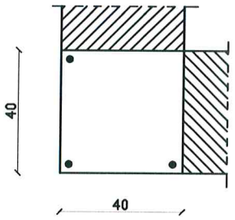
PAC1P-9



Long. 4 Ø -
Staffe Mezz. Ø - /22
Copriferro - cm

Note:

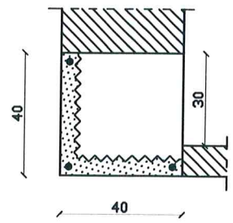
PAC1P-10



Long. 3 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

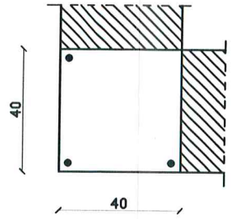
PAS1P-12



Long. 3 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./22
Copriferro 2 cm

Note:

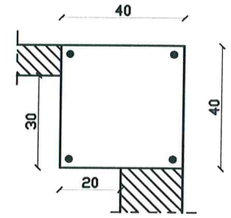
PAC1P-13



Long. 3 Ø -
Staffe Mezz. Ø - /20
Copriferro - cm

Note:

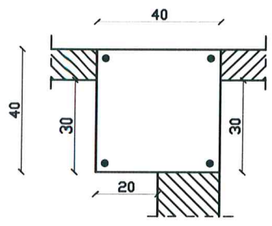
PAC1P-14



Long. 4 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

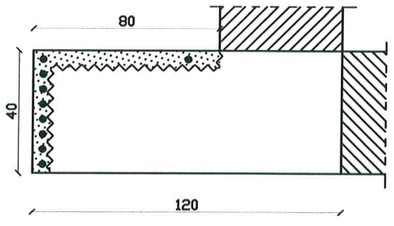
PAC1P-15



Long. 4 Ø -
Staffe Mezz. Ø - /20
Copriferro - cm

Note:

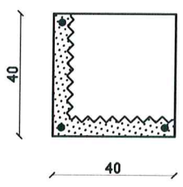
PAS2P-14



Long. 9 Ø 16 A.M.
Staffe Mezz. Ø 8 A.M./20
Copriferro 4 cm

Note:

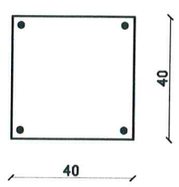
PAS0P-15 - PAS0P-21



Long. 3 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./22
Copriferro 4 cm

Note:

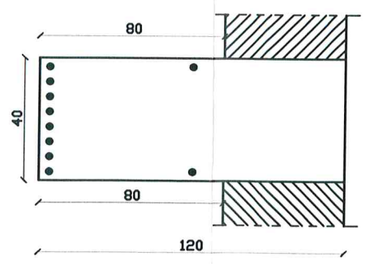
PAC0P-23 - PAC0P-39 - PAC0P-40



Long. 4 Ø -
Staffe Mezz. Ø - /22
Copriferro - cm

Note:

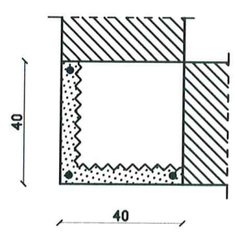
PAC1P-21 - PAC1P-22



Long. 10 Ø -
Staffe Mezz. Ø - /22
Copriferro - cm

Note:

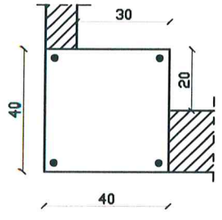
PAS0P-17



Long. 3 Ø 16 A.M.
Staffe Mezz. Ø 8 A.M./24
Copriferro 3 cm

Note:

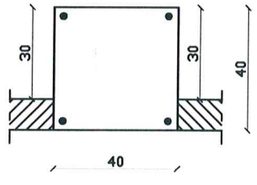
PAC0P-26



Long. 4 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

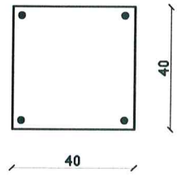
PAC0P-27



Long. 4 Ø -
Staffe Mezz. Ø - /20
Copriferro - cm

Note:

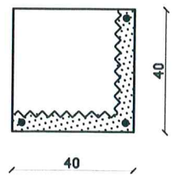
PAC0P-29



Long. 4 Ø -
Staffe Mezz. Ø - /13
Copriferro - cm

Note:

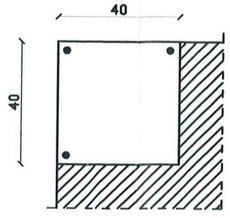
PAS0P-23 - PAS0P-32 - PAS0P-31



Long. 3 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./21
Copriferro 1,5 cm

Note:

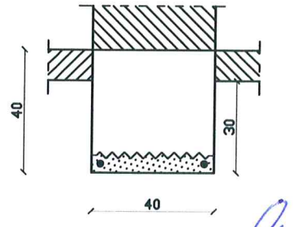
PAC0P-31



Long. 3 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

PAS0P-25



Long. 2 Ø 14 A.M.
Staffe Mezz. Ø 8 A.M./25
Copriferro 2 cm

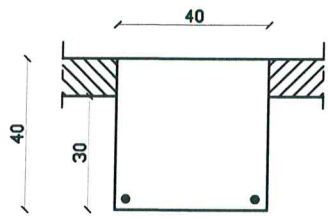
Note:

Allegato al Rapporto di Prova n° 0727-3/10

RILIEVI ARMATURA PILASTRI

Zona Scarificata

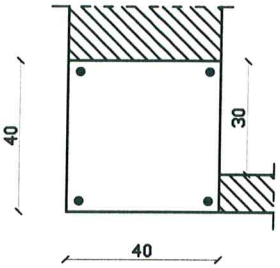
PAC0P-33



Long. 2 Ø -
Staffe Mezz. Ø - /21
Copriferro - cm

Note:

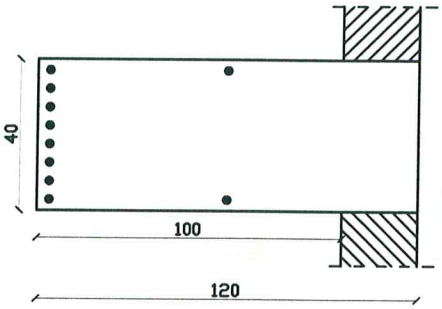
PAC0P-36



Long. 4 Ø -
Staffe Mezz. Ø - /23
Copriferro - cm

Note:

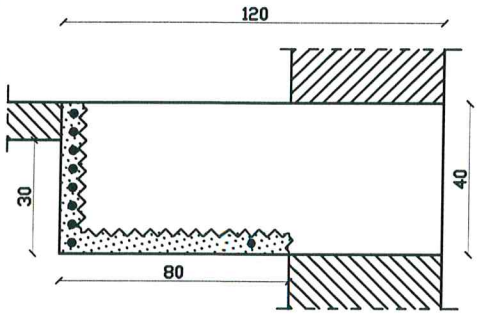
PAC0P-37



Long. 10 Ø -
Staffe Mezz. Ø - /20
Copriferro - cm

Note:

PAS0P-29

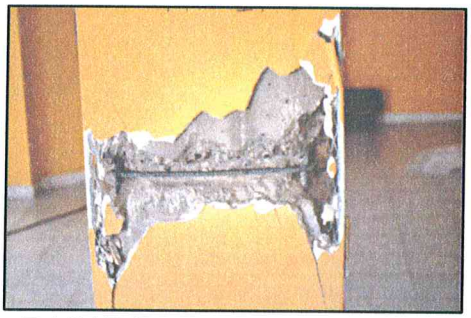


Long. 9 Ø 16 A.M.
Staffe Mezz. Ø 8 A.M./23
Copriferro 2,5 cm

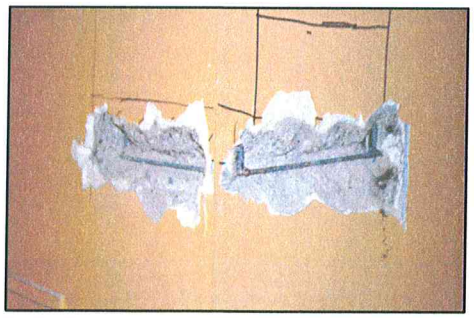
Note:



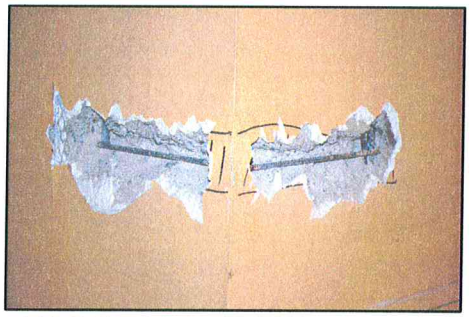
PAS1P-4



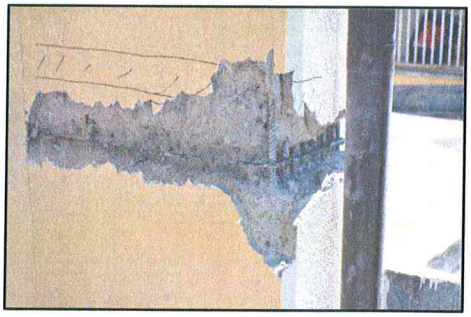
PAS1P-5



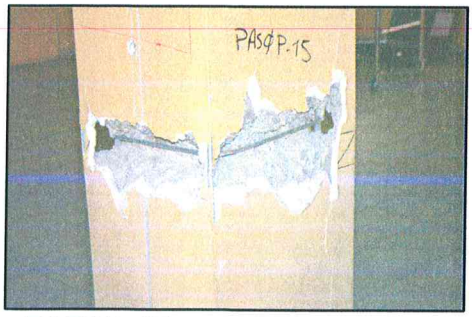
PAS1P-7



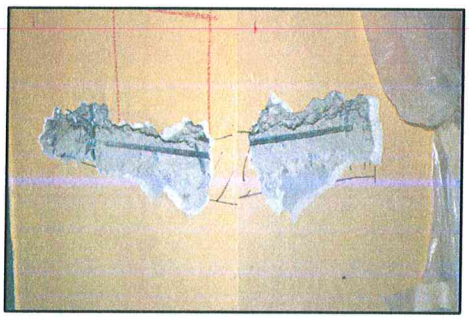
PAS1P-11



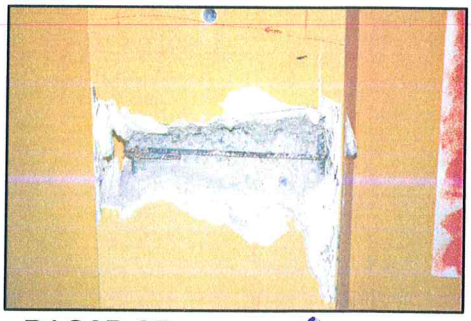
PAS2P-14



PAS0P-15



PAS0P-19



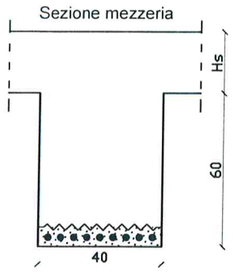
PAS0P-25

Allegato al Rapporto di Prova n° 0727-3/10

RILIEVI ARMATURA TRAVI

Zona Scarificata

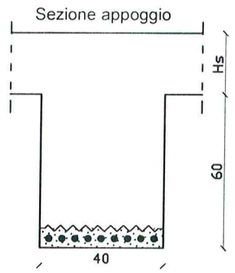
PAS1T-1



Long. 9 Ø 16 A.M.
Staffe Ø 8 A.M./15
Copriferro 1 cm

Note:

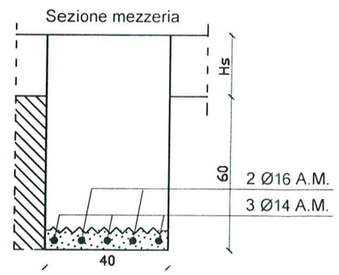
PAS1T-2



Long. 9 Ø 16 A.M.
Staffe Ø 8 A.M./14
Copriferro 6 cm

Note:

PAS2T-3



Long. 5 Ø -
Staffe Ø 8 A.M./25
Copriferro 1 cm

Note:

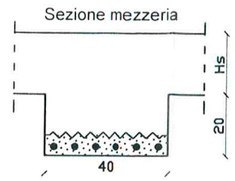
PAC2T-1



Long. 3 Ø -
Staffe Ø - /13
Copriferro - cm

Note:

PAS2T-6



Long. 6 Ø 14 A.M.
Staffe Ø 8 A.M./21
Copriferro 1,5 cm

Note:

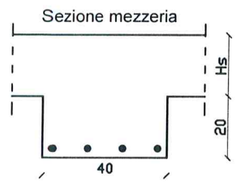
PAS2T-9



Long. 2 Ø 14 A.M.
Staffe Ø 8 A.M./16
Copriferro 2 cm

Note:

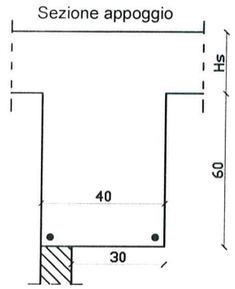
PAC2T-4



Long. 4 Ø -
Staffe Ø - /15
Copriferro - cm

Note:

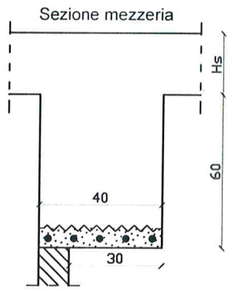
PAC2T-6



Long. 2 Ø -
Staffe Ø - /16
Copriferro - cm

Note:

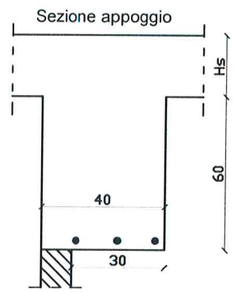
PAS2T-8



Long. 5 Ø 16 A.M.
Staffe Ø 8 A.M./19
Copriferro 2 cm

Note:

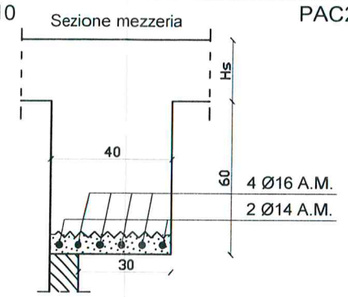
PAC2T-5



Long. 3 Ø -
Staffe Ø - /16
Copriferro - cm

Note:

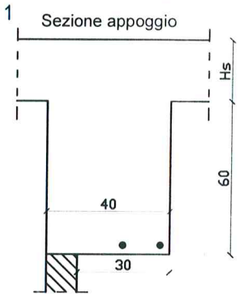
PAS2T-10



Long. 6 Ø -
Staffe Ø 8 A.M./22
Copriferro 3 cm

Note:

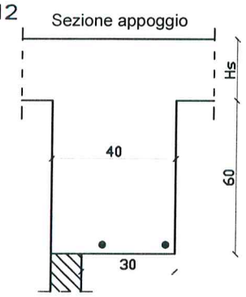
PAC2T-11



Long. 2 Ø -
Staffe Ø - /14
Copriferro - cm

Note:

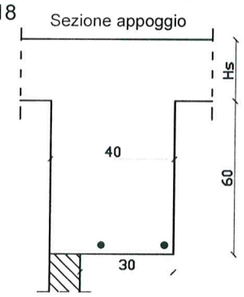
PAC2T-12



Long. 2 Ø –
Staffe Ø - /15
Copriferro – cm

Note:

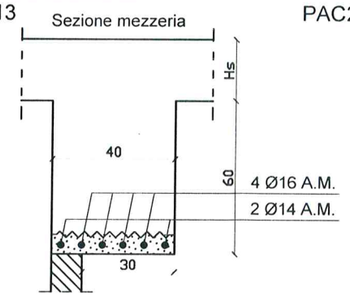
PAC2T-18



Long. 2 Ø -
Staffe Ø - /16
Copriferro - cm

Note:

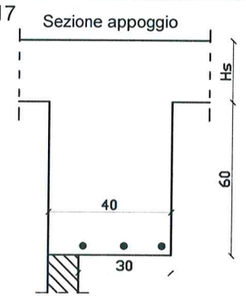
PAS2T-13



Long. 6 Ø -
Staffe Ø 8 A.M./15
Copriferro 1 cm

Note:

PAC2T-17



Long. 3 Ø -
Staffe Ø - /15
Copriferro - cm

Note:

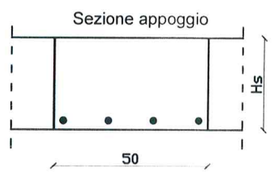
PAC2T-19



Long. 4 Ø -
Staffe Ø - /18
Copriferro - cm

Note:

PAC2T-20



Long. 4 Ø -
Staffe Ø - /15
Copriferro - cm

Note:

PAS1T-16



Long. 6 Ø 16 A.M.
Staffe Ø 8 A.M./19
Copriferro 1 cm

Note:

PAC1T-24



Long. 3 Ø -
Staffe Ø - /15
Copriferro - cm

Note:

PAS1T-18



Long. 2 Ø 14 A.M.
Staffe Ø 8 A.M./20
Copriferro 2 cm

Note:

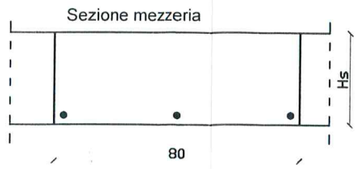
PAS1T-20 - PAS1T-28



Long. 2 Ø 14 A.M.
Staffe Ø 8 A.M./25
Copriferro 1 cm

Note:

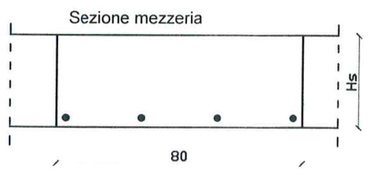
PAC1T-25



Long. 3 Ø -
Staffe Ø - /18
Copriferro - cm

Note:

PAC1T-28



Long. 4 Ø -
Staffe Ø - /20
Copriferro - cm

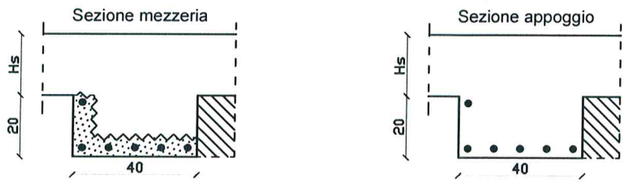
Note:

Allegato al Rapporto di Prova n° 0727-3/10

RILIEVI ARMATURA TRAVI

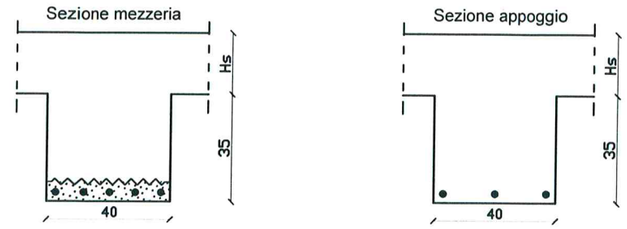
Zona Scarificata

PAS1T-22 / PAC1T-30



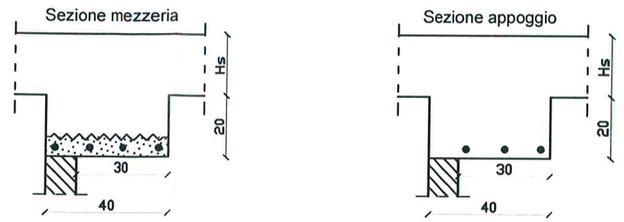
Long. 6 Ø 14 A.M. Staffe Ø 8 A.M./18 Copriferro 1 cm	Note:
Long. 6 Ø - Staffe Ø - /14 Copriferro - cm	Note:

PAS1T-24 / PAC1T-32



Long. 5 Ø 16 A.M. Staffe Ø 6 A.M./18 Copriferro 1,5 cm	Note:
Long. 3 Ø - Staffe Ø - /20 Copriferro - cm	Note:

PAS1T-26 / PAC1T-34



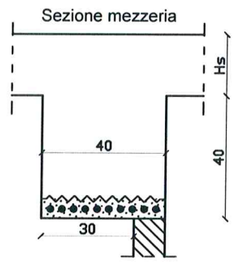
Long. 4 Ø 16 A.M. Staffe Ø 8 A.M./23 Copriferro 1,5 cm	Note:
Long. 3 Ø - Staffe Ø - /14 Copriferro - cm	Note:

PAC1T-35



Long. 5 Ø - Staffe Ø - /21 Copriferro - cm	Note:

PAS1T-30



Long. 10 Ø 14 A.M. Staffe Ø 8 A.M./19 Copriferro 1,5 cm	Note:

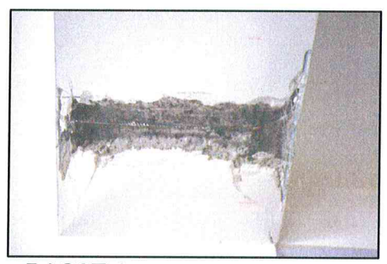
PAC1T-38



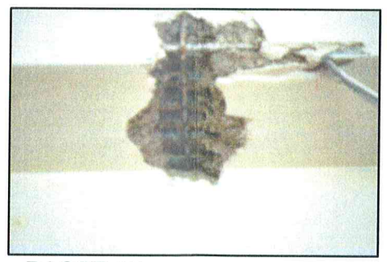
Long. 8 Ø - Staffe Ø - /20 Copriferro - cm	Note:



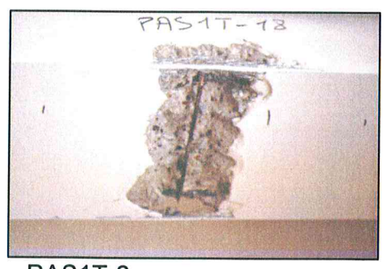
PAS2T-6



PAS2T-9



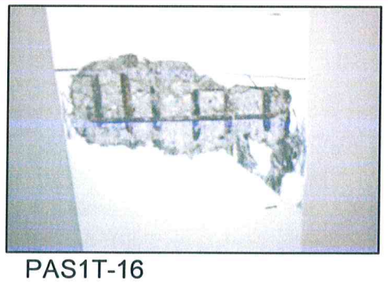
PAS2T-10



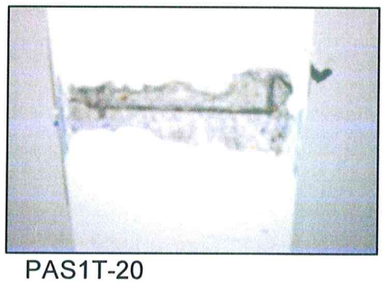
PAS1T-8



PAS2T-13



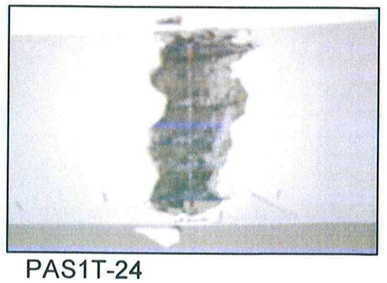
PAS1T-16



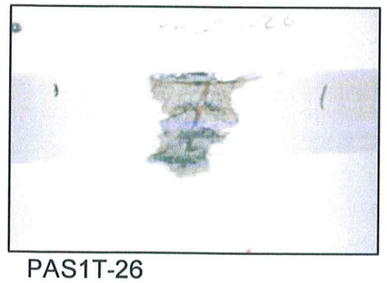
PAS1T-20



PAS1T-22



PAS1T-24



PAS1T-26