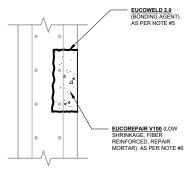


# **EXISTING CONDITION**

## CONCRETE REMOVAL AND SURFACE PREPARATION



## COMPLETED REPAIR

1 VERTICAL REPAIR

# **GENERAL CONCRETE REPAIR NOTES**

## 1. CONCRETE REMOVAL:

EXCEPT WHERE NOTED OTHERWISE, PERFORM CONCRETE REMOVAL IN ACCORDANCE WITH RECOMMENDATIONS OF ICRI GUIDELINE 310.1R "GUIDE FOR SURFACE PREPARATION FOR THE REPAIR OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION."

PROVIDE MINIMUM ½ INCH (12 MM) DEEP SAW CUT AT PERIMETER BOUNDARIES OF REPAIRS. MAKE SAW-CUTS PERPENDICULAR TO CONCRETE SURFACE. SAW-CUT BOUNDARIES ARE TO BE STRAIGHT AND ALIGNED PARALLEL TO OPPOSITE BOUNDARY EDGES. REPAIR CONFIGURATIONS SHOULD BE KEPT SIMPLE, PREFERABLY RECTANGULAR. MINIMIZE REENTRANT CORNERS TO PREVENT CRACKING, DO NOT ALLOW SAW TO COME INTO CONTACT WITH REINFORCING STEEL. REPAIR AREA CONFIGURATION EXAMPLE:



RECTANGULAR BOUNDARIES

EXISTING DETERIORATION

UNSOUND, DELAMINATED, AND CRACKED CONCRETE HAS BEEN REMOVED.

REENTRANT CORNERS NOT RECOMMENDED

REMOVE ALL CONCRETE WITHIN REPAIR BOUNDARY TO A UNIFORM DEPTH. MINIMUM DEPTH IS AS REQUIRED BY REPAIR PRODUCT LIMITATIONS, AND AS REQUIRED TO PROVIDE MINIMUM REQUIRED CLEARANCE AROUND EXPOSED REINFORCING STEEL AND EMBEDDED GALVANIC ANODES WHEN SPECIFIED. CONTINUE REMOVAL UNTIL ALL

WHERE ½ OR MORE OF REINFORCING STEEL'S PERIMETER IS EXPOSED EITHER BY EXISTING CONDITIONS OR CONCRETE REMOVAL PROCEDURES, BOND BETWEEN CONCRETE AND REINFORCING STEEL IS BROKEN, OR CORROSION IS PRESENT, REMOVE CONCRETE AS REQUIRED TO PROVIDE MINIMUM ½ INCH (19 MM) CLEARANCE AROUND ENTIRE PERIMETER OF STEEL OR MINIMUM ½ INCH (6 MM) LARGER THAN COARSE AGGREGATE IN REPAR MATERIAL, WHICH EVER IS GREATEST. REMOVE CONCRETE ALONG ENTIRE EXPOSED LENGTH. EXTEND CONCRETE REMOVALE DOUNDARIES TO BEYOND CORROSION ON REINFORCING BARS.

AFTER CONCRETE REMOVAL HAS BEEN COMPLETED, USE ABRASIVE BLASTING OR HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVE TO REMOVE ANY BRUISED CONCRETE SUBSTRATE WEAKENED BY MICROCRACKING.

CONTACT THE ENGINEER BEFORE REMOVING CONCRETE IN COLUMNS.

## 2. CONCRETE PREPARATION AND CLEANING:

AREAS TO RECEIVE CONCRETE REPAIR ARE TO BE STRUCTURALLY SOUND AND FREE OF LOOSE OR DETERIORATED CONCRETE. DUST. DIRT. PAINT. SEALERS. OIL EFFLORESCENCE, LATTANCE, AND OTHER CONTAMINANTS THAT COULD INTERFREE WITH BOOND. MECHANICALLY ARADE SUBFACTE TO PROVIDE MINIMUM CONCRETE SURFACE PROFILE (CSP) EQUAL TO THAT RECOMMENDED BY REPAIR MORTAR MANUFACTURER AND IN ACCORDANCE WITH RECOMMENDATIONS OF ICAI GUIDELINE 310.2R "SELECTING AND SPECIFYING CONCRETE SURFACE PREPARATION FOR SEALERS, COATINGS, POLYMER OVERLAYS, AND CONCRETE REPAIR."

#### 3. PREPARING REINFORCING STEEL:

CLEAN AND PREPARE EXPOSED REINFORCING STEEL IN ACCORDANCE WITH RECOMMENDATIONS OF ICID GUIDELINE 310.18 'GUIDE FOR SURFACE PREPARATION FOR THE REPAIR OF DETERIORATED CONCRETE RESULTING FROM STEEL CORROSION." TO ENSURE A CLEAN SURFACE FOR ADEQUATE BOND WITH THE REPAIR MATERIAL, REMOVE CONCRETE FRAGMENTS, CORROSION PRODUCTS, MILL SCALE, AND OTHER CONTAMINANTS FROM REINFORCING BARS USING ABRASIVE MEDIA BLASTING (AMB) OR MECHANICAL CLEANING IN ACCORDANCE WITH ICRI 210.58 'GUIDE FOR SURFACE PREPARATION FOR THE REPAIR OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION."

IF REINFORCING STEEL HAS LOST CROSS-SECTIONAL AREA, CONTACT THE ENGINEER BEFORE PROCEEDING.

ENSURE MINIMUM COVER OVER REINFORCING STEEL IN ACCORDANCE WITH ACI 562 'CODE REQUIREMENTS FOR ASSESSMENT, REPAIR, AND REHABILITATION OF EXISTING CONCRETE STRUCTURES." IF MINIMUM COVER CANNOT BE ACHIEVED, CONTACT THE ENGINEER.

REPAIR DAMAGE TO EPOXY-COATED REINFORCEMENT IN ACCORDANCE WITH ASTM D3963 "STANDARD SPECIFICATION FOR EPOXY-COATED REINFORCING STEEL BARS."

#### 4. CORROSION INHIBITING COATING:

MIX EUCLID CHEMICAL DURALPREP A.C. CORROSION-INHIBITING COATING AND APPLY TWO 20 MIL (0.51 MM) COATS TO DRY, PROPERLY PREPARED, STEEL SURFACES IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS AND LIMITATIONS.

## 5. BONDING AGENT:

APPLY EUCLID CHEMICAL EUCOWELD 2.0 BONDING AGENT TO PROPERLY PREPARED SUBSTRATE IN ACCORDANCE WITH MANUFACTURERS PUBLISHED RECOMMENDATIONS AND LIMITATIONS. PROVIDE COMPLETE AND THOROUGH COVERAGE ENSURING THAT BONDING AGENT HAS BEEN FULLY WORKED INTO SURFACE. ALTERNATIVE BONDING METHODSMATERIALS PERMITTED IF RECOMMENDED BY REPARI MORTAR MANUFACTURER AND APPROVED BY ENGINEER.

#### 6. REPAIR MORTAR:

MIX AND APPLY REPAIR MORTAR IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS AND LIMITATIONS, AND WITHIN OPEN TIME OF ANY PRODUCT SCRUB COATS OR BONDING AGENTS.

FULLY CONSOLIDATE REPAIR MORTAR AS REQUIRED TO ENCAPSULATE REINFORCEMENT, FILL ALL VOIDS, AND AVOID HONEYCOMBING. FINISH TO MATCH SURROUNDING SURFACE.

### 7. CURING:

IMMEDIATELY FOLLOWING PLACEMENT AND FINISHING PROCEDURES CURE CEMENTITIOUS REPAIR MORTARS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED RECOMMENDATIONS AND LIMITATIONS.

	EUCLID CHEMICAL CONCRETE RESTORATION SYSTEMS					Note: These paragraphs and details are meant to be incorporated into a project's general structural notes or directly onto the plans. They must be carefully reviewed by a qualified design
	Detail: EUCOREPAIR V100 - VERTICAL CONCRETE REPAIR				File Name:	professional and edited to meet the particular requirements of the project at hand, assure compliance with any governing building codes, and coordinate with other specification sections and drawings. In no case shall these guide specifications be considered to be contract documents or serve as installation instructions for the product being discussed. In any cases of discrepancy.
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