J.C. Hollingsworth Co.
STRUCTURAL ENGINEERS

FIELD REPORT
Atalaya Structural Concrete Repairs

JCH JOB NUMBER 21-351
WATKINS SERVICES

REPORTED BY:	Chris Hollingsworth
ATTENDEES:	Chris Hollingsworth (JCH Co.), Tom Sobieski (Watkins), Joe Trincheria (Atalaya), Juan de Alba (Watkins)
DATE:	12-01-2023
REPORT No.:	1
ARRIVAL TIME:	10:15 AM
DEPARTURE TIME:	12:30 PM

OBSERVATIONS

- Media blasting of reinforcing steel was in progress using dry ice.
    - The results from the blasting of one beam were observed, and determined to be approximately 90% complete at the time of the observation.
    - The reinforcing steel was observed to be free of loose material, contaminants, and scale. While staining remained present on the steel in isolated locations, it could not be transferred when wiped, and interpreted as consistent with the manufacturer's requirements for cleaning and preparation.
- Multiple ground-level reinforced concrete columns and beams were in the process of having spalls repaired.
    - The areas being repaired did not require temporary supplemental support or scaffolding.
    - The repair locations were generally observed to have approximately 90% of the concrete removed in preparation for media blasting of the reinforcing steel.
    - The exposed reinforcing steel generally exhibited little to no sectional loss from corrosion.
    - The repairs observed can be repaired in general accordance with both the material manufacturer's and ICRI recommended procedures.
    - We identified isolated locations where removal of additional material was necessary.
- The entire work area was kept clean, with the swimming pool observed to be well protected.
- Horizontal joint along exterior side of pool wall where gypsum board meets concrete needs to be cut, sealed, and coated.

DISCUSSION

- While on site, we discussed general procedures for the preparation and repair for the "typical" condition observed. We also discussed several variations applicable to unique circumstances.
- General Procedure applicable to this specific job:
    - Media blast (dry ice)
    - High pressure rinse
    - Blow dry immediately after rinse
    - Apply 2 coats of Armatec 110 Epocem per manufacturer's instructions
    - Make 2 applications of Ferrogard 903
    - Rinse after 2nd coat of Ferrogard 903 has had time to fully penetrate. This rinse will serve as SSD for patch application.
    - Apply repair material selected (form/pour, trowel, hybrid, etc.)
- Miscellaneous procedures discussed for non-typical conditions:

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- Stainless steel (min.) #10 x 1 ¾" screws will be used in a discretionary fashion for pinning repair veneers and overlays, especially where there is no existing fully exposed rebar to provide anchorage.
- Areas with voids and honeycombing were observed within several concrete beams. We agreed that "chasing" the voids is not necessary, but when encountered, should be filled to the greatest degree possible using an injectable 2-part epoxy. A gravity-fed type super low viscosity will not work for this application. Some moderate level of viscosity will be required for the epoxy to remain where placed.
- We agreed that a "two-stage" repair may be best practice in some locations. This will consist of trowel placement on beam bottoms (123 Plus) (with use of from board as-required) combined with form/pour placement on beam sides (FNP or 211 SCC Plus).
- We agreed that "build-out type" form/pour would be implemented as required to provide a minimum of 1" cover for reinforcing steel.
- We agreed to simplified perimeter cut shapes at several locations.

END OF REPORT

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