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TO:	All Proposers
FROM:	Rita Kirkland
DATE:	May 10, 2022
SUBJECT:	Proposal Amendment No. 1
BID#	22-990700
DATE ISSUED:	April 29, 2022
THE PROJECT:	North Underground Parking Garage Level A Repair

INTENT

This addendum is issued to provide a modification/addition to proposal plans and/or specifications.

MODIFICATION / ADDITIONS

This addendum includes:

- meeting minutes from the Pre-proposal walk-through
- answers to 8 contractor questions that were received
- 4 revised drawing sheets (to add full-depth repair quantities)
- new Allowances spec section (to include 25K allowance for unknown electrical work)
- updated Unit Prices spec (to include full-depth repair unit cost)
- revised Pricing Form (to include the full-depth repair unit cost)

I have read and understand the preceding addendum and said changes are reflected in my proposal. The vendor signed addendum should be included with your response packet.

COMPANY:

_____

VENDOR'S SIGNATURE:

_____

TITLE:

_____

(Date)

Mission Statement

The St. Louis Public Library will provide learning resources and information services that support and improve individual, family, and

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ABS Consulting
AN ABS GROUP COMPANY

Addendum #1

PROJECT: St. Louis Public Library North Underground Parking Garage Level A Repair

RFP NUMBER: 22-990700

DATE: 10 May 2022

Item #1: Pre-Proposal Meeting Minutes and Attendance List (see attached)

Item #2: Bidder Questions and Responses

Question 1:	Is the project tax exempt?
Answer:	Yes, see Section 3.10 on page 3 of the sample contract that was included in the Request for Proposal documents.
Question 2:	Would shotcrete repairs using Kings D3 material be acceptable for the underside repairs?
Answer:	Shotcrete repair methods and materials are acceptable for underside repairs. If used, shotcrete repairs shall be performed in accordance with ACI 506R-16 and ACI 506.2-13. If shotcrete repairs are planned, the Contractor shall be able to provide documentation of successful past experience using underside shotcrete repairs at similar cast-in-place pan joist and slab systems, documented personnel skilled in shotcrete placement, and step-by-step shotcrete placement plans for Engineer's review. Mock-ups and/or testing of nozzleman may be required. Specific repair material substitutions will be considered when formally submitted for review by the awarded Contractor (see specification Section 016000 – PRODUCT REQUIREMENTS).
Question 3:	It was mentioned at the walk-through that some of the repairs are expected to become full-depth repairs. How will these repairs be paid?

Answer:	The CONCRETE REPAIR QUANTITIES TABLE FOR BIDDING on Sheets S2.0 through S2.3 has been revised to provide an estimate of the quantity of SLAB DELAMINATION FULL-DEPTH REPAIRS. Note that the quantity of the topside and underside SLAB DELAMINATION PARTIAL-DEPTH REPAIRS was reduced accordingly. See the attached revised Sheets S2.0 through S2.3. The specification Section 012200 – UNIT PRICES has been modified to include a unit price for full-depth repairs. Additionally, the PRICING FORM found in the last three pages of the "Proposal for a Stipulated Sum" document of the Request for Proposal documents has been modified.
Question 4:	Could an allowance for the electrical work be considered, as there is no way to quantify this work at bid time?
Answer:	A $25,000 allowance for the electrical work that may be required related to embedded conduits per Keyed Note #7 on Sheets S2.0 through S2.3 has been added. See the attached specification Section 012100 – ALLOWANCES.
Question 5:	I did not see plumbing/piping specifications for replacement. Asked sub to price using Zurn/Sioux Chief Garage Drains and PVC Piping. Please verify.
Answer:	No plumbing/piping specifications are provided as part of the construction documents. Per Keyed Note #8, Contractor shall design and install new drain and drainpipes per current building code requirements. The awarded Contractor will need to submit proposed installation materials and procedures to Owner and Engineer for review prior to fabrication.
Question 6:	Per Alternate Number 1, will the coating if accepted need to be installed prior to 8/1/22? Or could the coating be phased after 8/1/22? Cure time of concrete will impact install.
Answer:	If Alternate #1 is accepted, the Contractor has the option to install the traffic coating after 8/1/22 if it is specifically coordinated with the Owner. The traffic coating installation could be coordinated over a 2- or 3-day weekend when parking is not in high demand.
Question 7:	Per Alternate Number 2, Phase 1 & 2 would be complete in the Summer of '22. Need to be complete 6/1/22 – 8/1/22.
Answer:	No, if Alternate #2 is accepted, as indicated in the Proposal for a Stipulated Sum document page 2, Project Completion Section A, the Contractor would have 120 days to complete the work which would extend past the start of the 2022-2023 school year.

Question 8:	Instead of having OH/PD, could you add a U.P. for Full Depth? Going to be difficult to not go through between the joists.
Answer:	See answer to Question #3.

Item #3: Revised construction documents for this project are attached, including modifications as noted in the following items:

1. Drawing S2.0, S2.1, S2.2, S2.3 Revision 1:
   a. Added row in the CONCRETE REPAIR QUANTITIES FOR BIDDING table for full-depth slab repairs and modified quantities of topside and underside partial-depth slab repairs accordingly.
2. Specification Section 012100 - ALLOWANCES has been added.
3. Specification Section 012200 – UNIT PRICES, is modified to add Unit Price No. 11 regarding full-depth slab repairs in the SCHEDULE OF UNIT PRICES.

Item #4: Revised proposal documents for this project are attached, including modifications as noted in the following item:

1. Pricing Form (pages 7-9 of the Proposal for a Stipulated Sum) has been modified to include Unit Price No. 11 regarding full-depth slab repairs and the missing "If Quantity Deducted" line for Unit Price No. 10.

ABS Consulting
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Pre-proposal Meeting Minutes

PROJECT:	St. Louis Public Library North Underground Parking Garage Level A Repair
RFP NUMBER:	22-990700
MEETING DATE:	6 May 2022
TIME:	10:00 AM – 11:30 AM, including site walk-through
ISSUE DATE:	9 May 2022
LOCATION:	St. Louis Public Library Administration Building 1415 Olive St, St. Louis, MO 63103
ATTENDEES:	See attached attendee list for specific individuals, including representatives from St. Louis Public Library, ABS Consulting, Vee-Jay Cement Contracting Co., Tarlton Corp., Concrete Strategies LLC, Western Specialty Contractors, C. Rallo Contracting Co., Keeley Restoration, Shield Systems

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Justin Struttmann, Chief Operating Officer, St. Louis Public Library, opened meeting and gave general opening comments.

- Confluence Academy is a partner in the project; however, St. Louis Public Library is solely responsible for contracting for the project.
- Limited parking availability outside of the garage is a consideration as to the schedule and timing of the project.
- It is preferable to complete the project during the summers while Confluence is out of session, but consideration will be given of the cost to perform repairs to that schedule.

Rita Kirkland, Assistant Manager, Business Office, St. Louis Public Library, highlighted important information from the solicitation documents.

- All questions about the project must be submitted in writing.
- All questions need to be submitted by 10 May 2022 at 2:00 PM CDT.
- Bids are due by 13 May 2022 at 2:00 PM CDT. Mailed, electronically submitted, and hand delivered bids are all acceptable.
- Submit bids to bids@slpl.org.
- Awarding of project is anticipated by 21 May 2022.

- Project award will take into consideration pricing, ability to meet the requested schedule, contractor's project experience, and contractor's diversity/minority participation.
- Reviewed the required forms, as contained in the bid documents, to be completed by the contractors as part of the bid process.

Jim Snow of ABS Consulting gave a general review of the scope of work.

- The existing structure is cast-in-place reinforced concrete with one-way pan joists and beams/girders. No prestressing/post-tensioning.
- It was noted that the base bid includes two phases: 6/1/22 to 8/1/22 and 6/1/23 to 8/1/23. Bid Alternate #2 does not contain phasing and allows for full access to the garage for 4 months.
- It was discussed that contractors will not be able to guarantee pricing for Phase 2. Renegotiation of pricing due to material and labor cost changes is acceptable for the Library with proper justification provided.
- Reference documents are available and noted on the construction drawings.
- The areas of the garage currently in the worst condition are included in the Phase 1 work area.
- Contractors are responsible for establishing traffic flow. Traffic patterns included in the construction documents should be considered suggestions.
- Contractors are to verify actual repair extents. Include add/deduct unit prices as part of the bids.
- It was noted that Bid Alternate #1 is for a traffic coating membrane on the Level A topside surface. The traffic coating is to be applied during the respective phases for the base bid.

The meeting was adjourned and continued with a walk-through of the parking garage.

<u>Walk-through Discussions/Notes:</u>

- Restrictions on working hours should not be an issue, as the space is interior and not directly adjacent to other structures/tenets.
- It was noted that full-depth repairs are possible in the 4 1/2" thick slab areas.
- The contractor is responsible for identifying and removing/relocating and live electrical contained in embedded conduits in the work area. The inclusion of an electrical allowance was discussed.
- Water and electrical access within the garage are minimal but available.

- Existing exhaust fans within the garage can be turned on full-time during construction to assist with ventilation. Currently, the fans are only used for carbon monoxide removal during peak exit/entry times.
- It was discussed that, if required, traffic can be further limited during parts of the day based on typical low-traffic times.

END OF MEETING MINUTES AND WALK-THROUGH NOTES

MEETING SIGN-IN SHEET

St. Louis Public Library North Underground Parking Garage Level A Repair

Pre-proposal Walkthrough

Date: 6 May 2022

Location: 1415 Olive St, St. Louis 63103

Time: 10:00 AM

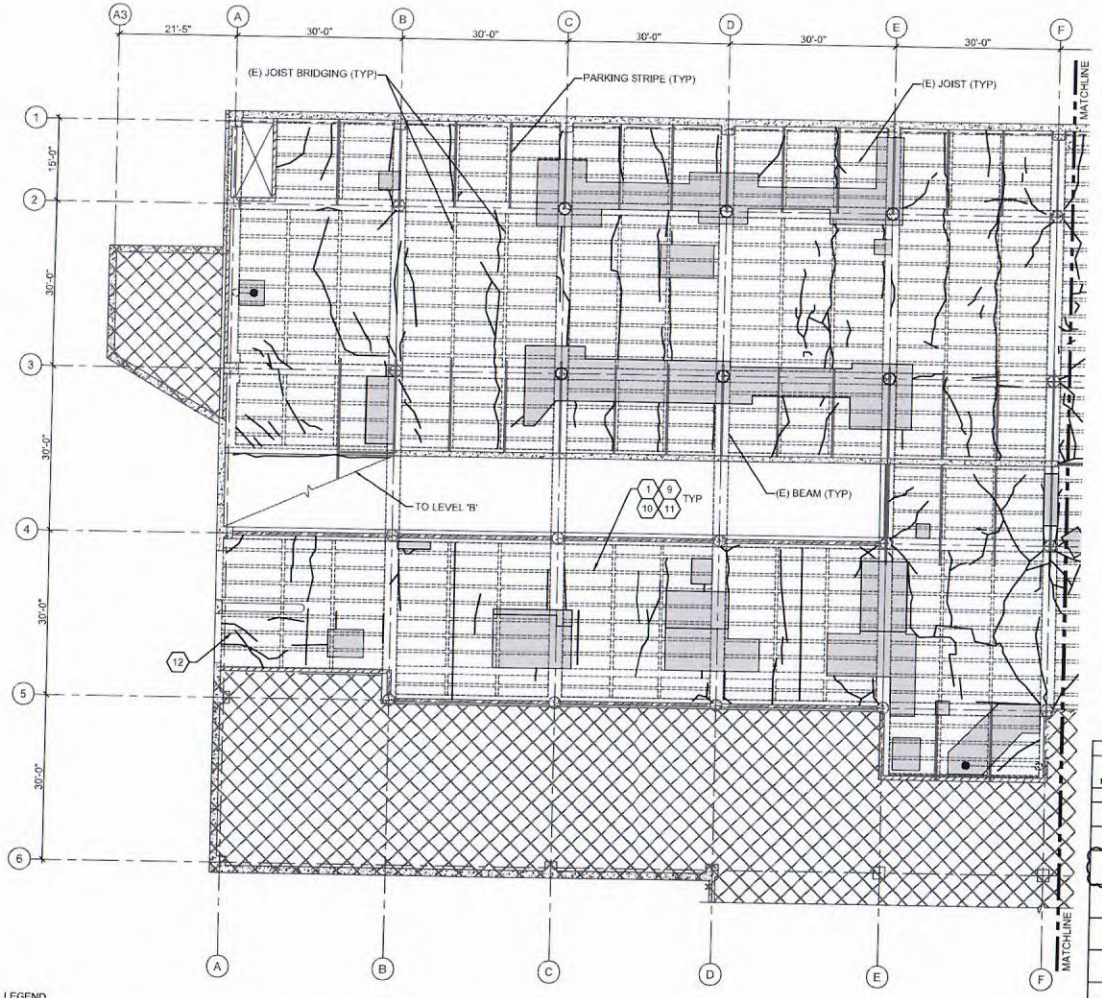
NAME	REPRESENTING	Telephone Number	EMAIL ADDRESS
GREGORY R. HAUSER	VEE JAY	314 581 4021	greghe@veejaycement.com
Kurt Aubuchon	Tarlton	636-288-4605	Ksaubuchon@tarltoncorp.com
NATHAN HART	TARLTON	314 574 6102	NcHart@tarltoncorp.com
JEFF BOYSTER	CONCRETE STRATEGIES	314-410-5675	boysterj@concretestrategies.com
Kyle Burns	Keeley Construction	314-478-7168	Kburns@Keeleyrs.com
MARK HAYNES	C. RALLO CONTR.	314-633-9703	markh@crallo.com

MEETING SIGN-IN SHEET

St. Louis Public Library North Underground Parking Garage Level A Repair
Pre-proposal Walkthrough

Date: 6 May 2022
Location: 1415 Olive St, St. Louis 63103
Time: 10:00 AM

NAME	REPRESENTING	Telephone Number	EMAIL ADDRESS
STEPHANIE SHEPPARD	ABS CONSULTING	314-819-1550	SSHEPPARD@ABSCONSULTING.COM
George Justice	Western	314-312-8098	georgej@westerngroup.com
Jim Snow	ABS consulting	314 819 1550	jsnow@absconsulting.com
Tom Suter	Shield Systems	314-713-2271	tomsuter@shieldsystems.com



LEGEND

- INDICATES APPROXIMATE TOPSIDE SLAB REPAIR AREAS, SEE KEYED NOTE 3
- INDICATES APPROXIMATE TOPSIDE CRACK LOCATIONS, SEE KEYED NOTE 2
- INDICATES FLOOR DRAIN & DRAIN PIPES, SEE KEYED NOTE 8
- INDICATES AREA NOT IN CONTRACT

GARAGE LEVEL 'A' PLAN TOPSIDE REPAIRS - WEST

SCALE: 3/32"=1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND REPORT ANY SIGNIFICANT DISCREPANCIES IN WRITING TO THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL EXTENT AND LOCATIONS OF CONCRETE REPAIR AREAS IN ACCORDANCE WITH THE CONCRETE REPAIR DETAILS AND SPECIFICATIONS. REFER TO CONCRETE REPAIR QUANTITIES TABLE FOR BIDDING.
3. COORDINATE ANY EQUIPMENT RELOCATION OR SHUT-DOWNS, PROTECTION MEASURES, DUST AND WATERPROOFING MEASURES, ETC. WITH OWNER PRIOR TO STARTING WORK.
4. EXISTING FLOOR FRAMING CONSISTS OF 4 1/2" SLAB ON 20" DEEP PAN JOISTS SUPPORTED BY 20" DEEP BEAMS. SEE ORIGINAL REFERENCE DRAWINGS LISTED ON SHEET S1.0 FOR SIZES, SPACING, AND REINFORCING OF ELEMENTS.

KEYED NOTES: #

1. CLEAN, SHOT BLAST, AND POWER WASH THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO BARE CONCRETE AND PREPARE SURFACES FOR CONCRETE REPAIRS AND APPLICATION OF COATINGS.
2. THE APPROXIMATE LOCATIONS AND EXTENT OF THE TOPSIDE CRACKS ARE SHOWN ON THE TOPSIDE PLAN. REMOVE EXISTING SEALANT MATERIAL IN ALL TOPSIDE CRACKS OF THE GARAGE LEVEL 'A' FLOOR SLAB. SEARCH FOR ADDITIONAL TOPSIDE CRACKS AFTER CLEANING HAS BEEN PERFORMED. ROUT AND SEAL ALL CRACKS ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB PER DETAIL 3/S3.0. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
3. THE APPROXIMATE AREAS AND EXTENT OF THE TOPSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE LIGHT GRAY SHADED AREAS SHOWN ON THE TOPSIDE PLAN. THE CONTRACTOR SHALL SOUND THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.0. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W1.5XW3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE TOPSIDE REPAIRS SHOULD BE COORDINATED WITH THE UNDERSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
4. THE APPROXIMATE AREAS AND EXTENT OF THE UNDERSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE DIAGONAL HATCHED AREAS SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5XW3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

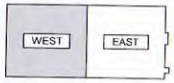
   THE UNDERSIDE REPAIRS SHOULD BE COORDINATED WITH THE TOPSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
5. THE APPROXIMATE LOCATIONS AREAS AND EXTENT OF THE UNDERSIDE CRACKS ARE SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB ALONG THESE CRACKS TO DETERMINE IF THERE ARE ANY DELAMINATIONS SURROUNDING THE CRACKS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES. IF NO DELAMINATIONS ARE FOUND SURROUNDING THE EXISTING UNDERSIDE CRACKS, NO FURTHER WORK IS REQUIRED.
6. AFTER SHORING OF EXISTING BEAM OR JOIST, THE CONTRACTOR SHALL PERFORM SELECTIVE DEMOLITION ON THE BOTTOM, SIDES, AND TOP OF THE BEAM OR JOIST TO DETERMINE EXTENT OF DELAMINATION AND REINFORCING STEEL CORROSION REQUIRING REPAIR. NOTIFY ENGINEER TO CONFIRM REPAIR EXTENTS AND REVIEW CONDITIONS OF BEAM OR JOIST AND REINFORCING BARS PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS AND REPLACE ALL CORRODED REINFORCING BARS WITH NEW EPOXY COATED REINFORCING BARS PER CONCRETE REPAIR DETAILS ON SHEET S3.1 AND S3.2. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
7. WHERE EXISTING EMBEDDED CONDUITS (CORRODED OR NOT) ARE DISCOVERED IN SLAB TOPSIDE OR UNDERSIDE CONCRETE REPAIR AREAS, CONFIRM WHETHER OR NOT THE ENCLOSED CIRCUITS ARE LIVE, ISOLATE AND DEENERGIZE CIRCUITS IF REQUIRED, AND REMOVE ALL EMBEDDED CONDUITS (CORRODED OR NOT) FROM THE CONCRETE REPAIR AREAS. EXTEND EDGE OF CONCRETE REPAIR AREAS IN ORDER TO REMOVE ALL CORRODED CONDUITS. CAP ENDS OF ANY CLEAN ABANDONED CONDUITS THAT EXTEND OUTSIDE OF THE CONCRETE REPAIR AREA.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW SURFACE MOUNTED CONDUITS THAT ARE ELECTRICALLY ISOLATED FROM THE CONCRETE STRUCTURE PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
8. REMOVE AND REPLACE EXISTING FLOOR DRAIN AND ALL DRAIN PIPING DOWN TO IMMEDIATELY ABOVE THE GARAGE LEVEL 'B' FLOOR SLAB-ON-GRADE PENETRATION. PERFORM FULL DEPTH CONCRETE REPAIRS ON THE SURROUNDING GARAGE LEVEL 'A' FLOOR SLAB AS REQUIRED WHEN PLACING NEW DRAINS.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW DRAIN AND DRAIN PIPING PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
9. APPLY A PENETRATING MIGRATING CORROSION INHIBITOR AND SEALER PER SPECIFICATION 03100 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL SURFACE PREPARATIONS ARE FINISHED BUT BEFORE CONCRETE REPAIR MATERIALS ARE APPLIED.
10. AS BID ALTERNATE #1, INSTALL A CEMENTITIOUS-BASED TRAFFIC MEMBRANE COATING PER DETAIL 4/S3.2 AND PER SPECIFICATION 075700 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB. INSTALL TRAFFIC MEMBRANE COATING AFTER ALL SURFACE PREPARATIONS, CRACKS HAVE BEEN ROUTED AND SEALED, AND CONCRETE REPAIRS ARE FINISHED.
11. RESTRIPE PARKING STALLS AND CENTER DIVIDING LINE AT THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL REPAIR AND COATING WORK IS COMPLETED.
12. REMOVE AND REPLACE EXISTING SEALANT MATERIAL IN SAWCUT CREATED FOR ROLL-UP DOOR MAGNETIC SENSOR.

1

CONCRETE REPAIR QUANTITIES FOR BIDDING							
KEYED NOTE NUMBER	BASE BID OR ALTERNATE	LOCATION	DESCRIPTION	DETAIL(S)	BID QUANTITIES BY PHASE		
					PHASE 1	PHASE 2	UNITS
2	BASE	TOPSIDE	SLAB CRACK ROUT AND SEAL	3/S3.0	1,590	1,590	L.F.
3	BASE	TOPSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 2/S3.0	2,000	1,400	S.F.
4	BASE	UNDERSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.1 2/S3.1	200	150	S.F.
3, 4	BASE	TOPSIDE & UNDERSIDE	SLAB DELAMINATION FULL-DEPTH REPAIR (ASSUME 4 1/2" SLAB REPAIR)	1/S3.0 SIM 2/S3.0 SIM 1/S3.1 SIM	300	350	S.F.
3, 4	BASE	TOPSIDE OR UNDERSIDE	SLAB CORRODED WELDED WIRE FABRIC REPLACEMENT (ASSUME 4X4-W3.5XW3.5 MESH)	1/S3.0 2/S3.0 1/S3.1	1,250	900	S.F.
5	BASE	UNDERSIDE	SLAB CRACK SOUNDING FOR DELAMINATIONS	N/A	650	650	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM OR JOIST PARTIAL-DEPTH REPAIRS (ASSUME 4" DEEP REPAIR)	1/S3.2 2/S3.2 3/S3.2	220	120	S.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #7 BARS)	1/S3.2	120	90	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED STIRRUP TIE REINFORCING BAR REPLACEMENT (ASSUME #3 STIRRUP TIES)	2/S3.1	18	12	PAIR
6	BASE	TOPSIDE OR UNDERSIDE	JOIST CORRODED LONGITUDINAL REINFORCING BAR REPLACMENT (ASSUME #5 BARS)	2/S3.2	600	500	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	JOIST BRIDGING CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #4 BARS)	3/S3.2	40	30	L.F.
9	BASE	TOPSIDE	PENETRATING/MIGRATING CORROSION INHIBITOR	N/A	15,000	17,000	S.F.



KEY PLAN

ABS Consulting
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Phone (314) 819-1550
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www.absconsulting.com

MISSOURI STATE CERTIFICATE OF AUTHORITY #2004000080

SEAL

STATE OF MISSOURI JAMES R. SNOW PE-2010038808 PROFESSIONAL ENGINEER 04-29-22

JAMES R. SNOW
Registered Professional Engineer
MO # PE- 2010038808
Expires 12-31-2022

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ST. LOUIS PUBLIC LIBRARY LLC

NORTH UNDERGROUND PARKING GARAGE LEVEL A REPAIR

1415 OLIVE ST.
ST. LOUIS, MO 63103

SHEET NOTES

NO	DESCRIPTION	DATE	BY
1	ADDENDUM #1	05-10-22	JRS
0	ISSUED FOR CONSTRUCTION	04-29-22	JRS

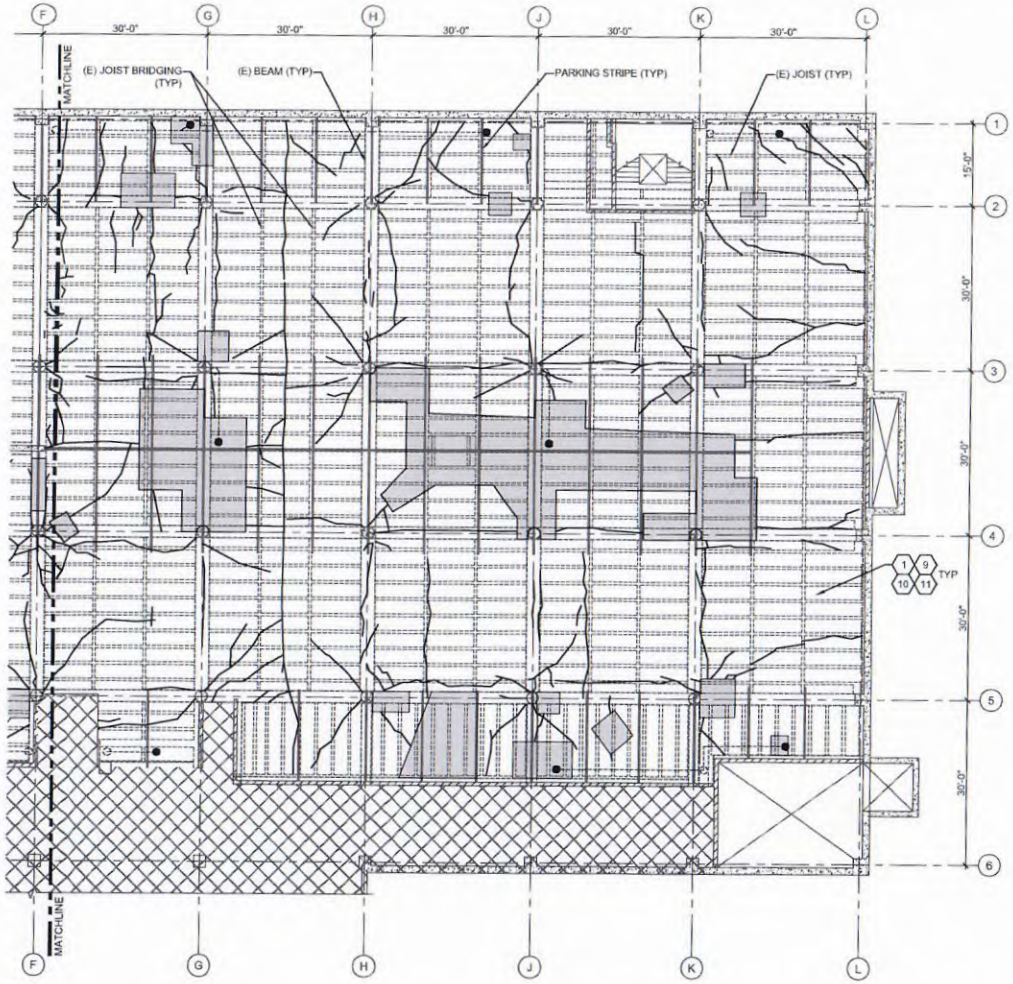
REVISIONS 1

P.M. JRS
P.E. JRS
DRAWN BY: CPG CHECKED BY: JRS
SCALE: AS NOTED
DATE: 04-29-22
JOB NO. 4791-475

SHEET TITLE:
GARAGE LEVEL 'A' PLAN TOPSIDE REPAIRS WEST

SHEET NO.

S2.0



LEGEND

- INDICATES APPROXIMATE TOPSIDE SLAB REPAIR AREAS, SEE KEYED NOTE (3)
- INDICATES APPROXIMATE TOPSIDE CRACK LOCATIONS, SEE KEYED NOTE (2)
- INDICATES FLOOR DRAIN & DRAIN PIPES, SEE KEYED NOTE (8)
- INDICATES AREA NOT IN CONTRACT

GARAGE LEVEL 'A' PLAN TOPSIDE REPAIRS - EAST

SCALE: 3/32"=1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND REPORT ANY SIGNIFICANT DISCREPANCIES IN WRITING TO THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL EXTENT AND LOCATIONS OF CONCRETE REPAIR AREAS IN ACCORDANCE WITH THE CONCRETE REPAIR DETAILS AND SPECIFICATIONS. REFER TO CONCRETE REPAIR QUANTITIES TABLE FOR BIDDING.
3. COORDINATE ANY EQUIPMENT RELOCATION OR SHUT-DOWNS, PROTECTION MEASURES, DUST AND WATERPROOFING MEASURES, ETC. WITH OWNER PRIOR TO STARTING WORK.
4. EXISTING FLOOR FRAMING CONSISTS OF 4 1/2" SLAB ON 20" DEEP PAN JOISTS SUPPORTED BY 20" DEEP BEAMS. SEE ORIGINAL REFERENCE DRAWINGS LISTED ON SHEET S1.0 FOR SIZES, SPACING, AND REINFORCING OF ELEMENTS.

KEYED NOTES (#)

1. CLEAN, SHOT BLAST, AND POWER WASH THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO BARE CONCRETE AND PREPARE SURFACES FOR CONCRETE REPAIRS AND APPLICATION OF COATINGS.
2. THE APPROXIMATE LOCATIONS AND EXTENT OF THE TOPSIDE CRACKS ARE SHOWN ON THE TOPSIDE PLAN. REMOVE EXISTING SEALANT MATERIAL IN ALL TOPSIDE CRACKS OF THE GARAGE LEVEL 'A' FLOOR SLAB. SEARCH FOR ADDITIONAL TOPSIDE CRACKS AFTER CLEANING HAS BEEN PERFORMED. ROUT AND SEAL ALL CRACKS ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB PER DETAIL 3/S3.0. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
3. THE APPROXIMATE AREAS AND EXTENT OF THE TOPSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE LIGHT GRAY SHADED AREAS SHOWN ON THE TOPSIDE PLAN. THE CONTRACTOR SHALL SOUND THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.0. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5XW3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE TOPSIDE REPAIRS SHOULD BE COORDINATED WITH THE UNDERSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
4. THE APPROXIMATE AREAS AND EXTENT OF THE UNDERSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE DIAGONAL HATCHED AREAS SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5XW3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE UNDERSIDE REPAIRS SHOULD BE COORDINATED WITH THE TOPSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
5. THE APPROXIMATE LOCATIONS AREAS AND EXTENT OF THE UNDERSIDE CRACKS ARE SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB ALONG THESE CRACKS TO DETERMINE IF THERE ARE ANY DELAMINATIONS SURROUNDING THE CRACKS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES. IF NO DELAMINATIONS ARE FOUND SURROUNDING THE EXISTING UNDERSIDE CRACKS, NO FURTHER WORK IS REQUIRED.
6. AFTER SHORING OF EXISTING BEAM OR JOIST, THE CONTRACTOR SHALL PERFORM SELECTIVE DEMOLITION ON THE BOTTOM, SIDES, AND TOP OF THE BEAM OR JOIST TO DETERMINE EXTENT OF DELAMINATION AND REINFORCING STEEL CORROSION REQUIRING REPAIR. NOTIFY ENGINEER TO CONFIRM REPAIR EXTENTS AND REVIEW CONDITIONS OF BEAM OR JOIST AND REINFORCING BARS PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS AND REPLACE ALL CORRODED REINFORCING BARS WITH NEW EPOXY COATED REINFORCING BARS PER CONCRETE REPAIR DETAILS ON SHEET S3.1 AND S3.2. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
7. WHERE EXISTING EMBEDDED CONDUITS (CORRODED OR NOT) ARE DISCOVERED IN SLAB TOPSIDE OR UNDERSIDE CONCRETE REPAIR AREAS, CONFIRM WHETHER OR NOT THE ENCLOSED CIRCUITS ARE LIVE. ISOLATE AND DEENERGIZE CIRCUITS IF REQUIRED, AND REMOVE ALL EMBEDDED CONDUITS (CORRODED OR NOT) FROM THE CONCRETE REPAIR AREAS. EXTEND EDGE OF CONCRETE REPAIR AREAS IN ORDER TO REMOVE ALL CORRODED CONDUITS. CAP ENDS OF ANY CLEAN ABANDONED CONDUITS THAT EXTEND OUTSIDE OF THE CONCRETE REPAIR AREA.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW SURFACE MOUNTED CONDUITS THAT ARE ELECTRICALLY ISOLATED FROM THE CONCRETE STRUCTURE PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
8. REMOVE AND REPLACE EXISTING FLOOR DRAIN AND ALL DRAIN PIPING DOWN TO IMMEDIATELY ABOVE THE GARAGE LEVEL 'B' FLOOR SLAB-ON-GRADE. PENETRATION. PERFORM FULL DEPTH CONCRETE REPAIRS ON THE SURROUNDING GARAGE LEVEL 'A' FLOOR SLAB AS REQUIRED WHEN PLACING NEW DRAINS.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW DRAIN AND DRAIN PIPING PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
9. APPLY A PENETRATING/MIGRATING CORROSION INHIBITOR AND SEALER PER SPECIFICATION 039100 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL SURFACE PREPARATIONS ARE FINISHED BUT BEFORE CONCRETE REPAIR MATERIALS ARE APPLIED.
10. AS BID ALTERNATE #1, INSTALL A CEMENTITIOUS-BASED TRAFFIC MEMBRANE COATING PER DETAIL 4/S3.2 AND PER SPECIFICATION 075700 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB. INSTALL TRAFFIC MEMBRANE COATING AFTER ALL SURFACE PREPARATIONS, CRACKS HAVE BEEN ROUTED AND SEALED, AND CONCRETE REPAIRS ARE FINISHED.
11. RESTRIPE PARKING STALLS AND CENTER DIVIDING LINE AT THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL REPAIR AND COATING WORK IS COMPLETED.
12. REMOVE AND REPLACE EXISTING SEALANT MATERIAL IN SAWCUT CREATED FOR ROLL-UP DOOR MAGNETIC SENSOR.

△1

CONCRETE REPAIR QUANTITIES FOR BIDDING

KEYED NOTE NUMBER	BASE BID OR ALTERNATE	LOCATION	DESCRIPTION	DETAIL(S)	BID QUANTITIES BY PHASE		
					PHASE 1	PHASE 2	UNITS
2	BASE	TOPSIDE	SLAB CRACK ROUT AND SEAL	3/S3.0	1,550	1,550	L.F.
3	BASE	TOPSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 2/S3.0	2,000	1,400	S.F.
4	BASE	UNDERSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 1/S3.1	200	150	S.F.
3, 4	BASE	TOPSIDE & UNDERSIDE	SLAB DELAMINATION FULL-DEPTH REPAIR (ASSUME 4 1/2" SLAB REPAIR)	1/S3.0 SIM 2/S3.0 SIM 1/S3.1 SIM	500	350	S.F.
3, 4	BASE	TOPSIDE OR UNDERSIDE	SLAB CORRODED WELDED WIRE FABRIC REPLACEMENT (ASSUME 4X4-W3.5XW3.5 MESH)	1/S3.0 2/S3.0 1/S3.1	1,250	900	S.F.
5	BASE	UNDERSIDE	SLAB CRACK SOUNDING FOR DELAMINATIONS	N/A	650	650	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM OR JOIST PARITIAL-DEPTH REPAIRS (ASSUME 4" DEEP REPAIR)	1/S3.2 2/S3.2 3/S3.2	220	120	S.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #7 BARS)	1/S3.2	120	90	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED STIRRUP TIE REINFORCING BAR REPLACEMENT (ASSUME #3 STIRRUP TIES)	2/S3.1	18	12	PAIR
6	BASE	TOPSIDE OR UNDERSIDE	JOIST CORRODED LONGITUDINAL REINFORCING BAR REPLACMENT (ASSUME #5 BARS)	2/S3.2	600	500	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	JOIST BRIDGING CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #4 BARS)	3/S3.2	40	30	L.F.
9	BASE	TOPSIDE	PENETRATING/MIGRATING CORROSION INHIBITOR	N/A	15,000	17,000	S.F.

KEY PLAN

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MISSOURI STATE CERTIFICATE OF AUTHORITY #2004000080

SEAL

JAMES R. SNOW
Registered Professional Engineer
MO # PE- 2010038808
Expires 12-31-2022

The professional whose signature and personal seal appear hereon, assumes responsibility only for what appears on this page, and disclaims responsibility for all other plans, specifications, estimates, reports and other documents or instruments not sealed by the undersigned professional relating to or intended to be used for any part of parts of the project to which this page refers.

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NORTH UNDERGROUND PARKING GARAGE LEVEL A REPAIR

1415 OLIVE ST.
ST. LOUIS, MO 63103

SHEET NOTES

NO.	DESCRIPTION	DATE	BY
△1	ADDENDUM #1	05-10-22	JRS
0	ISSUED FOR CONSTRUCTION	04-29-22	JRS

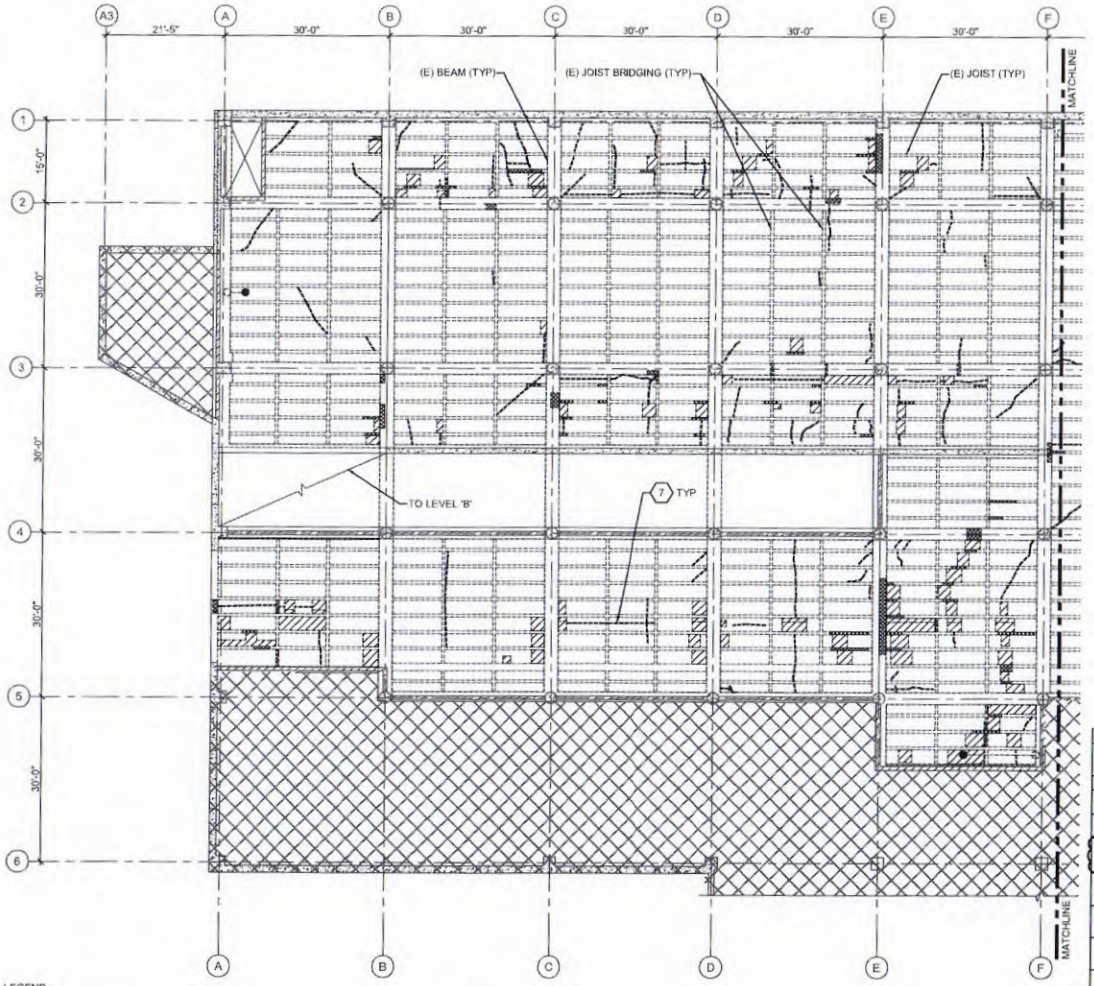
REVISIONS △1

P.M. JRS
P.E. JRS
DRAWN BY: CPG CHECKED BY: JRS
SCALE: AS NOTED
DATE: 04-29-22
JOB NO: 4791475

SHEET TITLE:
GARAGE LEVEL 'A' PLAN TOPSIDE REPAIRS EAST

SHEET NO.

S2.1



LEGEND

- INDICATES APPROXIMATE UNDERSIDE SLAB REPAIR AREAS, SEE KEYED NOTE (4)
- INDICATES APPROXIMATE UNDERSIDE BEAM/JOIST REPAIR AREAS, SEE KEYED NOTE (6)
- INDICATES APPROXIMATE UNDERSIDE CRACK LOCATIONS, SEE KEYED NOTE (5)
- INDICATES FLOOR DRAIN & DRAIN PIPES, SEE KEYED NOTE (8)
- INDICATES AREA NOT IN CONTRACT

GARAGE LEVEL 'A' PLAN REFLECTED CEILING UNDERSIDE REPAIRS - WEST

SCALE: 3/32"=1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND REPORT ANY SIGNIFICANT DISCREPANCIES IN WRITING TO THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL EXTENT AND LOCATIONS OF CONCRETE REPAIR AREAS IN ACCORDANCE WITH THE CONCRETE REPAIR DETAILS AND SPECIFICATIONS. REFER TO CONCRETE REPAIR QUANTITIES TABLE FOR BIDDING.
3. COORDINATE ANY EQUIPMENT RELOCATION OR SHUT-DOWNS, PROTECTION MEASURES, DUST AND WATERPROOFING MEASURES, ETC. WITH OWNER PRIOR TO STARTING WORK.
4. EXISTING FLOOR FRAMING CONSISTS OF 4 1/2" SLAB ON 20" DEEP PAN JOISTS SUPPORTED BY 20" DEEP BEAMS. SEE ORIGINAL REFERENCE DRAWINGS LISTED ON SHEET S1.0 FOR SIZES, SPACING, AND REINFORCING OF ELEMENTS.

KEYED NOTES (#)

1. CLEAN, SHOT BLAST, AND POWER WASH THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO BARE CONCRETE AND PREPARE SURFACES FOR CONCRETE REPAIRS AND APPLICATION OF COATINGS.
2. THE APPROXIMATE LOCATIONS AND EXTENT OF THE TOPSIDE CRACKS ARE SHOWN ON THE TOPSIDE PLAN. REMOVE EXISTING SEALANT MATERIAL IN ALL TOPSIDE CRACKS OF THE GARAGE LEVEL 'A' FLOOR SLAB. SEARCH FOR ADDITIONAL TOPSIDE CRACKS AFTER CLEANING HAS BEEN PERFORMED. ROUT AND SEAL ALL CRACKS ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB PER DETAIL 3/S3.0. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
3. THE APPROXIMATE AREAS AND EXTENT OF THE TOPSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE LIGHT GRAY SHADED AREAS SHOWN ON THE TOPSIDE PLAN. THE CONTRACTOR SHALL SOUND THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5X(W3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE TOPSIDE REPAIRS SHOULD BE COORDINATED WITH THE UNDERSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
4. THE APPROXIMATE AREAS AND EXTENT OF THE UNDERSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE DIAGONAL HATCHED AREAS SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5X(W3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE UNDERSIDE REPAIRS SHOULD BE COORDINATED WITH THE TOPSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
5. THE APPROXIMATE LOCATIONS, AREAS AND EXTENT OF THE UNDERSIDE CRACKS ARE SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB ALONG THESE CRACKS TO DETERMINE IF THERE ARE ANY DELAMINATIONS SURROUNDING THE CRACKS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES. IF NO DELAMINATIONS ARE FOUND SURROUNDING THE EXISTING UNDERSIDE CRACKS, NO FURTHER WORK IS REQUIRED.
6. AFTER SHORING OF EXISTING BEAM OR JOIST, THE CONTRACTOR SHALL PERFORM SELECTIVE DEMOLITION ON THE BOTTOM, SIDES, AND TOP OF THE BEAM OR JOIST TO DETERMINE EXTENT OF DELAMINATION AND REINFORCING STEEL CORROSION REQUIRING REPAIR. NOTIFY ENGINEER TO CONFIRM REPAIR EXTENTS AND REVIEW CONDITIONS OF BEAM OR JOIST AND REINFORCING BARS PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS AND REPLACE ALL CORRODED REINFORCING BARS WITH NEW EPOXY COATED REINFORCING BARS PER CONCRETE REPAIR DETAILS ON SHEET S3.1 AND S3.2. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
7. WHERE EXISTING EMBEDDED CONDUITS (CORRODED OR NOT) ARE DISCOVERED IN SLAB TOPSIDE OR UNDERSIDE CONCRETE REPAIR AREAS, CONFIRM WHETHER OR NOT THE ENCLOSED CIRCUITS ARE LIVE, ISOLATE AND DEENERGIZE CIRCUITS IF REQUIRED, AND REMOVE ALL EMBEDDED CONDUITS (CORRODED OR NOT) FROM THE CONCRETE REPAIR AREAS. EXTEND EDGE OF CONCRETE REPAIR AREAS IN ORDER TO REMOVE ALL CORRODED CONDUITS. CAP ENDS OF ANY CLEAN ABANDONED CONDUITS THAT EXTEND OUTSIDE OF THE CONCRETE REPAIR AREA.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW SURFACE MOUNTED CONDUITS THAT ARE ELECTRICALLY ISOLATED FROM THE CONCRETE STRUCTURE PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
8. REMOVE AND REPLACE EXISTING FLOOR DRAIN AND ALL DRAIN PIPING DOWN TO IMMEDIATELY ABOVE THE GARAGE LEVEL 'B' FLOOR SLAB-ON-GRADE PENETRATION. PERFORM FULL DEPTH CONCRETE REPAIRS ON THE SURROUNDING GARAGE LEVEL 'A' FLOOR SLAB AS REQUIRED WHEN PLACING NEW DRAINS.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW DRAIN AND DRAIN PIPING PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
9. APPLY A PENETRATING MIGRATING CORROSION INHIBITOR AND SEALER PER SPECIFICATION 039100 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL SURFACE PREPARATIONS ARE FINISHED BUT BEFORE CONCRETE REPAIR MATERIALS ARE APPLIED.
10. AS BID ALTERNATE #1, INSTALL A CEMENTITIOUS-BASED TRAFFIC MEMBRANE COATING PER DETAIL 4/S3.2 AND PER SPECIFICATION 073700 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB. INSTALL TRAFFIC MEMBRANE COATING AFTER ALL SURFACE PREPARATIONS, CRACKS HAVE BEEN ROUTED AND SEALED, AND CONCRETE REPAIRS ARE FINISHED.
11. RESTRIPE PARKING STALLS AND CENTER DIVIDING LINE AT THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL REPAIR AND COATING WORK IS COMPLETED.
12. REMOVE AND REPLACE EXISTING SEALANT MATERIAL IN SAWCUT CREATED FOR ROLL-UP DOOR MAGNETIC SENSOR.

CONCRETE REPAIR QUANTITIES FOR BIDDING

KEYED NOTE NUMBER	BASE BID OR ALTERNATE	LOCATION	DESCRIPTION	DETAIL(S)	BID QUANTITIES BY PHASE		UNITS
					PHASE 1	PHASE 2	
2	BASE	TOPSIDE	SLAB CRACK ROUT AND SEAL	3/S3.0	1,550	1,550	L.F.
3	BASE	TOPSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 2/S3.0	2,000	1,400	S.F.
4	BASE	UNDERSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 1/S3.1	200	150	S.F.
3, 4	BASE	TOPSIDE & UNDERSIDE	SLAB DELAMINATION FULL-DEPTH REPAIR (ASSUME 4 1/2" SLAB REPAIR)	1/S3.0 SIM 2/S3.0 SIM 1/S3.1 SIM	500	350	S.F.
3, 4	BASE	TOPSIDE OR UNDERSIDE	SLAB CORRODED WELDED WIRE FABRIC REPLACEMENT (ASSUME 4X4-W3.5X(W3.5 MESH)	1/S3.0 2/S3.0 1/S3.1	1,250	900	S.F.
5	BASE	UNDERSIDE	SLAB CRACK SOUNDING FOR DELAMINATIONS	N/A	650	650	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM OR JOIST PARTIAL-DEPTH REPAIRS (ASSUME 4" DEEP REPAIR)	1/S3.2 2/S3.2 3/S3.2	220	120	S.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #7 BARS)	1/S3.2	120	80	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED STIRRUP TIE REINFORCING BAR REPLACEMENT (ASSUME #3 STIRRUP TIES)	2/S3.1	18	12	PAIR
6	BASE	TOPSIDE OR UNDERSIDE	JOIST CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #5 BARS)	2/S3.2	600	500	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	JOIST BRIDGING CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #4 BARS)	3/S3.2	40	30	L.F.
9	BASE	TOPSIDE	PENETRATING/MIGRATING CORROSION INHIBITOR	N/A	15,000	17,000	S.F.

N

KEY PLAN

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MISSOURI STATE CERTIFICATE OF AUTHORITY #2004000080

SEAL

JAMES R. SNOW
Registered Professional Engineer
MO # PE- 2010038808
Expires 12-31-2022

The professional whose signature and personal seal appear hereon, assumes responsibility only for what appears on this page, and disclaims any responsibility for all other plans, specifications, estimates, reports and other documents or instruments not sealed by the undersigned professional residing in, or intended to be used for any part or parts of the project to which this page refers.

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NORTH UNDERGROUND PARKING GARAGE LEVEL A REPAIR

1415 OLIVE ST.
ST. LOUIS, MO 63103

SHEET NOTES

NO.	DESCRIPTION	DATE	BY
1	ADDENDUM #1	05-10-22	JRS
0	ISSUED FOR CONSTRUCTION	04-29-22	JRS

REVISIONS

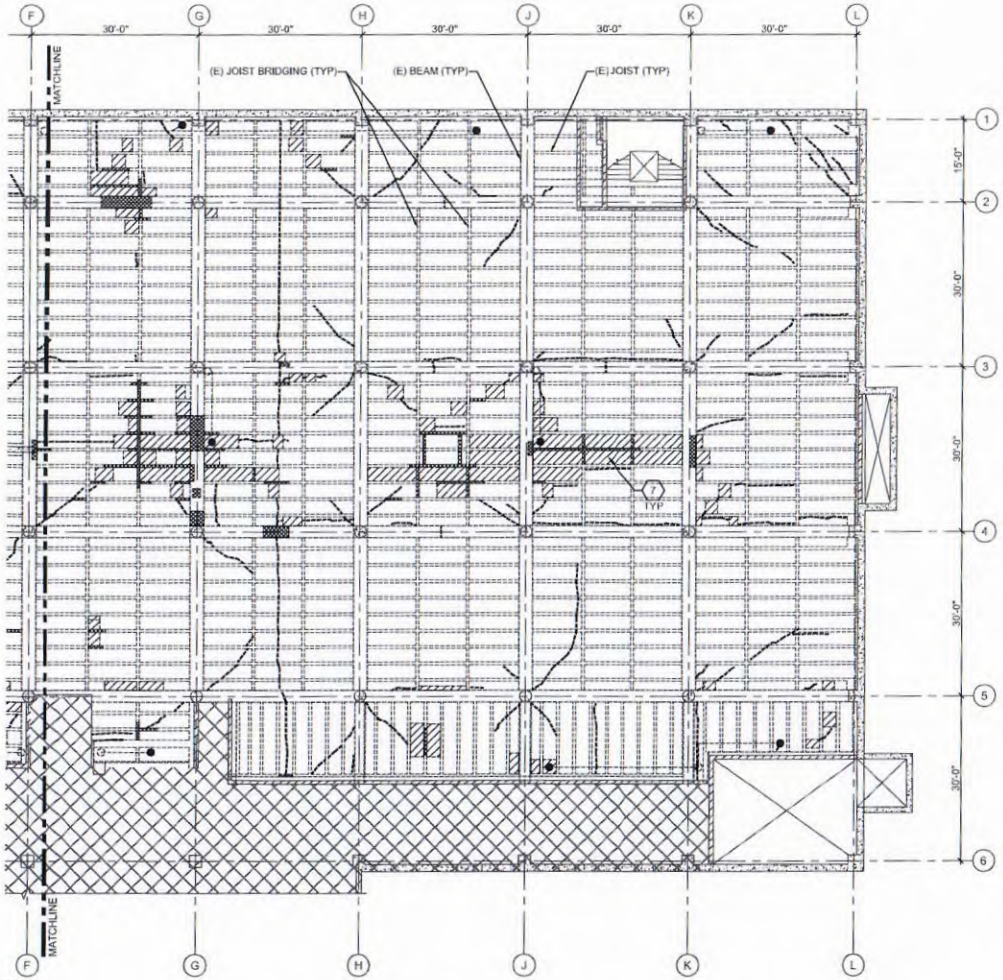
P.M. JRS
P.E. JRS
DRAWN BY CPG CHECKED BY JRS
SCALE: AS NOTED
DATE: 04-29-22
JOB NO: 4791475

SHEET TITLE:

GARAGE LEVEL 'A' PLAN REFLECTED CEILING UNDERSIDE REPAIRS WEST

SHEET NO.

S2.2



LEGEND

- INDICATES APPROXIMATE UNDERSIDE SLAB REPAIR AREAS, SEE KEYED NOTE 4
- INDICATES APPROXIMATE UNDERSIDE BEAM/JOIST REPAIR AREAS, SEE KEYED NOTE 6
- INDICATES APPROXIMATE UNDERSIDE CRACK LOCATIONS, SEE KEYED NOTE 5
- INDICATES FLOOR DRAIN & DRAIN PIPES, SEE KEYED NOTE 8
- INDICATES AREA NOT IN CONTRACT

GARAGE LEVEL 'A' PLAN REFLECTED CEILING UNDERSIDE REPAIRS - EAST

SCALE: 3/32"=1'-0"

PLAN NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK AND REPORT ANY SIGNIFICANT DISCREPANCIES IN WRITING TO THE ENGINEER.
2. CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL EXTENT AND LOCATIONS OF CONCRETE REPAIR AREAS IN ACCORDANCE WITH THE CONCRETE REPAIR DETAILS AND SPECIFICATIONS. REFER TO CONCRETE REPAIR QUANTITIES TABLE FOR BIDDING.
3. COORDINATE ANY EQUIPMENT RELOCATION OR SHUT-DOWNS, PROTECTION MEASURES, DUST AND WATERPROOFING MEASURES. ETC. WITH OWNER PRIOR TO STARTING WORK.
4. EXISTING FLOOR FRAMING CONSISTS OF 4 1/2" SLAB ON 20" DEEP PAN JOISTS SUPPORTED BY 20" DEEP BEAMS. SEE ORIGINAL REFERENCE DRAWINGS LISTED ON SHEET S1.0 FOR SIZES, SPACING, AND REINFORCING OF ELEMENTS.

KEYED NOTES: #

1. CLEAN, SHOT BLAST, AND POWER WASH THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO BARE CONCRETE AND PREPARE SURFACES FOR CONCRETE REPAIRS AND APPLICATION OF COATINGS.
2. THE APPROXIMATE LOCATIONS AND EXTENT OF THE TOPSIDE CRACKS ARE SHOWN ON THE TOPSIDE PLAN. REMOVE EXISTING SEALANT MATERIAL IN ALL TOPSIDE CRACKS OF THE GARAGE LEVEL 'A' FLOOR SLAB. SEARCH FOR ADDITIONAL TOPSIDE CRACKS AFTER CLEANING HAS BEEN PERFORMED. ROUT AND SEAL ALL CRACKS ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB PER DETAIL 3/S3.0. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
3. THE APPROXIMATE AREAS AND EXTENT OF THE TOPSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE LIGHT GRAY SHADED AREAS SHOWN ON THE TOPSIDE PLAN. THE CONTRACTOR SHALL SOUND THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.0. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W1.5XW1.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE TOPSIDE REPAIRS SHOULD BE COORDINATED WITH THE UNDERSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
4. THE APPROXIMATE AREAS AND EXTENT OF THE UNDERSIDE SLAB DELAMINATIONS REQUIRING PARTIAL DEPTH REPAIRS ARE SHOWN AS THE DIAGONAL HATCHED AREAS SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB TO DETERMINE EXACT EXTENT OF DELAMINATIONS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1. REPLACE ALL CORRODED WELDED WIRE FABRIC IN SLAB WITH NEW EPOXY COATED 4X4-W3.5XW3.5 WELDED WIRE FABRIC THAT IS LAPPED AT LEAST 2 WIRE SPACES. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.

   THE UNDERSIDE REPAIRS SHOULD BE COORDINATED WITH THE TOPSIDE REPAIRS IN AREAS WHERE THERE IS DETERIORATION ON BOTH THE TOP AND BOTTOM OF THE SLAB. WHERE REQUIRED FORM AND PLACE FULL-DEPTH SLAB REPAIRS.
5. THE APPROXIMATE LOCATIONS AREAS AND EXTENT OF THE UNDERSIDE CRACKS ARE SHOWN ON THE REFLECTED CEILING UNDERSIDE PLAN. THE CONTRACTOR SHALL SOUND THE UNDERSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB ALONG THESE CRACKS TO DETERMINE IF THERE ARE ANY DELAMINATIONS SURROUNDING THE CRACKS THAT REQUIRE PARTIAL-DEPTH REPAIRS. NOTIFY ENGINEER AFTER EXTENT OF DELAMINATIONS HAVE BEEN DETERMINED FOR ENGINEER TO CONFIRM PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS PER CONCRETE REPAIR DETAILS ON SHEET S3.1 REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES. IF NO DELAMINATIONS ARE FOUND SURROUNDING THE EXISTING UNDERSIDE CRACKS, NO FURTHER WORK IS REQUIRED.
6. AFTER SHORING OF EXISTING BEAM OR JOIST, THE CONTRACTOR SHALL PERFORM SELECTIVE DEMOLITION ON THE BOTTOM, SIDES, AND TOP OF THE BEAM OR JOIST TO DETERMINE EXTENT OF DELAMINATION AND REINFORCING STEEL CORROSION REQUIRING REPAIR. NOTIFY ENGINEER TO CONFIRM REPAIR EXTENTS AND REVIEW CONDITIONS OF BEAM OR JOIST AND REINFORCING BARS PRIOR TO REPAIR MATERIAL PLACEMENT. PERFORM PARTIAL-DEPTH REPAIRS AND REPLACE ALL CORRODED REINFORCING BARS WITH NEW EPOXY COATED REINFORCING BARS PER CONCRETE REPAIR DETAILS ON SHEET S3.1 AND S3.2. REFER TO THE CONCRETE REPAIR QUANTITIES TABLE FOR BID QUANTITIES.
7. WHERE EXISTING EMBEDDED CONDUITS (CORRODED OR NOT) ARE DISCOVERED IN SLAB TOPSIDE OR UNDERSIDE CONCRETE REPAIR AREAS, CONFIRM WHETHER OR NOT THE ENCLOSED CIRCUITS ARE LIVE, ISOLATE AND DEENERGIZE CIRCUITS IF REQUIRED, AND REMOVE ALL EMBEDDED CONDUITS (CORRODED OR NOT) FROM THE CONCRETE REPAIR AREAS. EXTEND EDGE OF CONCRETE REPAIR AREAS IN ORDER TO REMOVE ALL CORRODED CONDUITS. CAP ENDS OF ANY CLEAN ABANDONED CONDUITS THAT EXTEND OUTSIDE OF THE CONCRETE REPAIR AREA.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW SURFACE MOUNTED CONDUITS THAT ARE ELECTRICALLY ISOLATED FROM THE CONCRETE STRUCTURE PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
8. REMOVE AND REPLACE EXISTING FLOOR DRAIN AND ALL DRAIN PIPING DOWN TO IMMEDIATELY ABOVE THE GARAGE LEVEL 'B' FLOOR SLAB-ON-GRADE PENETRATION. PERFORM FULL DEPTH CONCRETE REPAIRS ON THE SURROUNDING GARAGE LEVEL 'A' FLOOR SLAB AS REQUIRED WHEN PLACING NEW DRAINS.

   CONTRACTOR SHALL DESIGN AND INSTALL NEW DRAIN AND DRAIN PIPING PER CURRENT BUILDING CODE REQUIREMENTS. SUBMIT PROPOSED INSTALLATION MATERIALS AND PROCEDURES TO OWNER AND ENGINEER FOR REVIEW PRIOR TO PROCEEDING.
9. APPLY A PENETRATING MIGRATING CORROSION INHIBITOR AND SEALER PER SPECIFICATION 09100 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL SURFACE PREPARATIONS ARE FINISHED BUT BEFORE CONCRETE REPAIR MATERIALS ARE APPLIED.
10. AS BID ALTERNATE #1: INSTALL A CEMENTITIOUS-BASED TRAFFIC MEMBRANE COATING PER DETAIL 4/S3.2 AND PER SPECIFICATION 075700 ON THE TOPSIDE OF THE GARAGE LEVEL 'A' FLOOR SLAB. INSTALL TRAFFIC MEMBRANE COATING AFTER ALL SURFACE PREPARATIONS, CRACKS HAVE BEEN ROUTED AND SEALED, AND CONCRETE REPAIRS ARE FINISHED.
11. RESTRIPE PARKING STALLS AND CENTER DIVIDING LINE AT THE GARAGE LEVEL 'A' FLOOR SLAB AFTER ALL REPAIR AND COATING WORK IS COMPLETED.
12. REMOVE AND REPLACE EXISTING SEALANT MATERIAL IN SAWCUT CREATED FOR ROLL-UP DOOR MAGNETIC SENSOR.

△1

CONCRETE REPAIR QUANTITIES FOR BIDDING							
KEYED NOTE NUMBER	BASE BID OR ALTERNATE	LOCATION	DESCRIPTION	DETAIL(S)	BID QUANTITIES BY PHASE		UNITS
					PHASE 1	PHASE 2	
2	BASE	TOPSIDE	SLAB CRACK ROUT AND SEAL	3/S3.0	1,550	1,550	L.F.
3	BASE	TOPSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 2/S3.0	2,000	1,480	S.F.
4	BASE	UNDERSIDE	SLAB DELAMINATION PARTIAL-DEPTH REPAIR (ASSUME 2 1/2" DEEP REPAIR)	1/S3.0 1/S3.1	230	150	S.F.
3, 4	BASE	TOPSIDE & UNDERSIDE	SLAB DELAMINATION FULL-DEPTH REPAIR (ASSUME 4 1/2" SLAB REPAIR)	1/S3.0 SIM 2/S3.0 SIM 1/S3.1 SIM	500	350	S.F.
3, 4	BASE	TOPSIDE OR UNDERSIDE	SLAB CORRODED WELDED WIRE FABRIC REPLACEMENT (ASSUME 4X4-W3.5XW3.5 MESH)	1/S3.0 2/S3.0 1/S3.1	1,250	900	S.F.
5	BASE	UNDERSIDE	SLAB CRACK SOUNDING FOR DELAMINATIONS	N/A	650	650	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM OR JOIST PARTIAL-DEPTH REPAIRS (ASSUME 4" DEEP REPAIR)	1/S3.2 2/S3.2 3/S3.2	220	120	S.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #7 BARS)	1/S3.2	120	90	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	BEAM CORRODED STIRRUP TIE REINFORCING BAR REPLACEMENT (ASSUME #3 STIRRUP TIES)	2/S3.1	18	12	PAIR
6	BASE	TOPSIDE OR UNDERSIDE	JOIST CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #6 BARS)	2/S3.2	600	500	L.F.
6	BASE	TOPSIDE OR UNDERSIDE	JOIST BRIDGING CORRODED LONGITUDINAL REINFORCING BAR REPLACEMENT (ASSUME #4 BARS)	3/S3.2	40	30	L.F.
9	BASE	TOPSIDE	PENETRATING/MIGRATING CORROSION INHIBITOR	N/A	15,000	17,000	S.F.

KEY PLAN

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MISSOURI STATE CERTIFICATE OF AUTHORITY #2004000080

SEAL

STATE OF MISSOURI JAMES R. SNOW PE-2010038808 PROFESSIONAL ENGINEER 12-29-22

JAMES R. SNOW
Registered Professional Engineer
MO # PE- 2010038808
Expires 12-31-2022

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NORTH UNDERGROUND PARKING GARAGE LEVEL A REPAIR

1415 OLIVE ST.
ST. LOUIS, MO 63103

SHEET NOTES

NO.	DESCRIPTION	DATE	BY
△1	ADDENDUM #1	05-10-22	JRS
0	ISSUED FOR CONSTRUCTION	04-29-22	JRS

REVISIONS △1

P.M. JRS
P.E. JRS
DRAWN BY CPG CHECKED BY JRS
SCALE: AS NOTED
DATE: 04-29-22
JOB NO. 4791475

SHEET TITLE:
GARAGE LEVEL 'A' PLAN REFLECTED CEILING UNDERSIDE REPAIRS EAST

SHEET NO.

S2.3

SECTION 012100 - ALLOWANCES

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Administrative and procedural requirements for allowances associated with the project.

1.2 RELATED SECTIONS

A. Section 011000 – Summary of Work

B. Section 012200 – Unit Prices

1.3 DEFINITIONS

A. Allowance: An amount, established in Article 1.5 of this Section, to be included in the base proposal price by the proposing contractor. The allowance shall be used as a mechanism to pay for costs associated with the work described in the allowance schedule, including those items identified in Section 012200.

1.4 ADMINISTRATIVE AND PROCEDURAL REQUIREMENTS

A. The allowance amount shall be used for payment of costs associated with work included in the allowance schedule. Upon identification of such an item, inform the Owner and Engineer immediately.

B. Request for authorization to proceed with work outside of project scope must be submitted to the Owner for review and approval. Prepare a written summary of the work to be performed, following the procedures established by the Owner. At a minimum, the written summary shall include the following:
   1. If proposed work includes unit price work identified in Section 012200, identify the unit price work to be performed, the measured amount to be included, the cost of the work per measured unit, and the total cost of work. If work to be performed is outside of the items identified in Section 012200, provide a written summary of the proposed work, including material, labor, overhead, profit, and other costs necessary to complete the work.
   2. Identify the amount of project allowance used to date, and the amount of allowance remaining for the project.
   3. Include additional information, if requested by the Owner. Such additional information may include quotes or proposals submitted by subcontractors or material suppliers.

C. Expenditures from the allowance are considered modifications to the original scope of work. The Owner shall determine what changes in the work are paid for using the allowance. Do not begin work outside of project scope prior to receipt of authorization from the Owner.

D. The Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of the allowance, and to have this work measured, at Owner's

expense, by an independent surveyor acceptable to the Contractor.

1.5 SCHEDULE OF ALLOWANCES

A. Allowance No. 1: Contractor shall include in their proposal price an allowance of $25,000.00 (Twenty Five Thousand Dollars) for electrical work required per Keyed Note #7 on Sheets S2.0 through S2.4 related to embedded conduits discovered in the Garage Level A floor slab including but not limited to confirming whether or not the enclosed circuits are live, isolating and deenergizing circuits (if required), removal of all embedded conduits (corroded or not) from the concrete repair areas, and replacement of any live circuits in new surface-mounted conduits that are electrically isolated from the concrete structure per current building code. .

1.6 RETURN OF UNUSED ALLOWANCE

A. Upon completion of project work, the Contract Price shall be adjusted by modification to provide the difference, if any, between the approved amount of authorized expenditures and the original amount of the allowance. The Contractor is not entitled to any portion of the allowance not appropriated or used.

PART 2 – PRODUCTS - NOT USED

PART 3 – EXECUTION - NOT USED

END OF SECTION

SECTION 012200 - UNIT PRICES

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes: Administrative and procedural requirements for submission of unit prices to the Owner with Proposal.

B. Related Documents: The Contract Documents, as defined in Section 011000 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other specification Sections.

1.2 DEFINITIONS

A. Unit price: A unit price is an amount proposed by bidders, stated within the Proposal, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.

B. Extent of Unit Price Work:
   1. Determine the full extent of Work affected by proposed unit prices.
   2. Coordinate related work and modify surrounding work to integrate the Work of each unit price.
      a. Include as part of each unit price, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the unit price.

C. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

D. The Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner expense, by an independent surveyor acceptable to Contractor.

1.4 SUBMISSION REQUIREMENTS

A. Submission Form: Complete Schedule of Unit Prices below and attach to the Proposal.

B. Schedule: A "Schedule of Unit Prices" is included in the following Article. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each unit price.

1.5 SCHEDULE OF UNIT PRICES

NOTE: Refer to CONCRETE REPAIR QUANTITIES FOR BIDDING table on drawing S2.0 through S2.3 for concrete repair quantities to be included in the base bid cost.

A. Unit Price No. 1: Topside slab crack rout and seal as indicated in Keyed Note #2 and shown in Detail 3/S3.0

If Quantity Added:_____dollars (per lineal foot).

If Quantity Deducted:_____dollars (per lineal foot).

B. Unit Price No. 2: Topside slab delamination partial-depth repair as indicated in Keyed Note #3 and shown in Detail 1/S3.0 and 2/S3.0 (assume 2 1/2" deep repair)

If Quantity Added:_____dollars (per square foot).

If Quantity Deducted:_____dollars (per square foot).

C. Unit Price No. 3: Underside slab delamination partial-depth repair as indicated in Keyed Note #4 and shown in Detail 1/S3.0 and 1/S3.1 (assume 2 1/2" deep repair)

If Quantity Added:_____dollars (per square foot).

If Quantity Deducted:_____dollars (per square foot).

D. Unit Price No. 4: Topside or Underside corroded welded wire fabric replacement as indicated in Keyed Note #3 and #4 and shown in Detail 1/S3.0, 2/S3.0, and 1/S3.1 (assume 4x4-W3.5xW3.5 mesh)

If Quantity Added:_____dollars (per square foot).

If Quantity Deducted:_____dollars (per square foot).

E. Unit Price No. 5: Underside slab crack sounding for delaminations along cracks as indicated in Keyed Note #5

If Quantity Added:_____dollars (per lineal foot).

If Quantity Deducted:_____dollars (per lineal foot).

F. Unit Price No. 6: Topside or Underside beam or joist partial-depth repairs as indicated in Keyed Note #6 and shown in Detail 1/S3.2, 2/S3.2, and 3/S3.2

If Quantity Added:_____dollars (per square foot).

If Quantity Deducted:_____dollars (per square foot).

G. Unit Price No. 7: Beam corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 1/S3.2 (assume #7 bars)

If Quantity Added:_____dollars (per lineal foot).

If Quantity Deducted:_____dollars (per lineal foot).

H. Unit Price No. 8: Beam corroded stirrup tie reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 2/S3.1 (assume #3 stirrup dowel ties in pairs)

If Quantity Added:_____dollars (per pair of dowels).

If Quantity Deducted:_____dollars (per pair of dowels).

I. Unit Price No. 9: Joist corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 2/S3.2 (assume #5 bars)

If Quantity Added:_____dollars (per lineal foot).

If Quantity Deducted:_____dollars (per lineal foot).

J. Unit Price No. 10: Joist Bridging corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 3/S3.2 (assume #4 bars)

If Quantity Added:_____dollars (per lineal foot).

If Quantity Deducted:_____dollars (per lineal foot).

K. Unit Price No. 11: Topside and Underside slab delaminations that result in full-depth slab repair as indicated in Keyed Note #3 and #4 and shown in Detail 1/S3.0 SIM, 2/S3.0 SIM, and 1/S3.1 SIM (assume 4 1/2" slab thickness)

If Quantity Added:_____dollars (per square foot).

If Quantity Deducted:_____dollars (per square foot).

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

PRICING FORM

A. Phase 1 Base Proposal Price: State the amount of the Base Proposal Price to perform and complete Phase 1 of the work as shown on Sheets S1.1 and S1.2 during the Summer of 2022.

_____dollars

B. Phase 2 Base Proposal Price: State the amount of the Base Proposal Price to perform and complete Phase 2 of the work as shown on Sheets S1.3 and S1.4 during the Summer of 2023.

_____dollars

C. Alternate Number 1: State the amount to be added to or deducted from the Base Proposal Price to install a cementitious-based traffic membrane coating per Detail 4/S3.2 and per Specification 075700 – Traffic Deck Membrane System on the topside of the Garage Level 'A' Floor Slab after all surface preparations are complete, all cracks have been routed and sealed, and all concrete repairs are finished.

Phase 1 Add_____dollars

Phase 2 Add_____dollars

If Alternate Number 2 is accepted and entire traffic membrane is installed at one time:

Add_____dollars

D. Alternate Number 2: State the amount of the Base Proposal Price to perform and complete all work on the project in a single phase during the Summer of 2022 in lieu of the two phases shown on Sheets S1.1 through S1.4. In this Alternate #2 Scenario, the Contractor would have full access to the entire garage area and there would be no continuous on-going parking requirements during the construction duration.

If all work is combined into 1 single phase, the total Base Proposal price for the work will be:

_____dollars

E. Submission Form: Complete Schedule of Unit Prices below and attach to the Proposal.
   a. Schedule: A "Schedule of Unit Prices" is included below. Specification sections or drawings referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each unit price.
   b. Refer to CONCRETE REPAIR QUANTITIES FOR BIDDING table on drawing S2.0 through S2.3 for concrete repair quantities to be included in the base bid cost.

F. SCHEDULE OF UNIT PRICES:

1. Unit Price No. 1: Topside slab crack rout and seal as indicated in Keyed Note #2 and shown in Detail 3/S3.0

   If Quantity Added: _____dollars (per lineal foot).

   If Quantity Deducted: _____dollars (per lineal foot).

2. Unit Price No. 2: Topside slab delamination partial-depth repair as indicated in Keyed Note #3 and shown in Detail 1/S3.0 and 2/S3.0 (assume 2 1/2" deep repair)

   If Quantity Added: _____ dollars (per square foot).

   If Quantity Deducted: _____dollars (per square foot).

3. Unit Price No. 3: Underside slab delamination partial-depth repair as indicated in Keyed Note #4 and shown in Detail 1/S3.0 and 1/S3.1 (assume 2 1/2" deep repair)

   If Quantity Added: _____dollars (per square foot).

   If Quantity Deducted: _____ dollars (per square foot).

4. Unit Price No. 4: Topside or Underside corroded welded wire fabric replacement as indicated in Keyed Note #3 and #4 and shown in Detail 1/S3.0, 2/S3.0, and 1/S3.1 (assume 4x4-W3.5xW3.5 mesh)

   If Quantity Added: _____dollars (per square foot).

   If Quantity Deducted: _____dollars (per square foot).

5. Unit Price No. 5: Underside slab crack sounding for delaminations along cracks as indicated in Keyed Note #5

   If Quantity Added: _____dollars (per lineal foot).

   If Quantity Deducted: _____dollars (per lineal foot).

6. Unit Price No. 6: Topside or Underside beam or joist partial-depth repairs as indicated in Keyed Note #6 and shown in Detail 1/S3.2, 2/S3.2, and 3/S3.2

   If Quantity Added: _____dollars (per square foot).

   If Quantity Deducted: _____dollars (per square foot).

7. Unit Price No. 7: Beam corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 1/S3.2 (assume #7 bars)

   If Quantity Added: _____dollars (per lineal foot).

   If Quantity Deducted: _____dollars (per lineal foot).

8. Unit Price No. 8: Beam corroded stirrup tie reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 2/S3.1 (assume #3 stirrup dowel ties in pairs)

   If Quantity Added: _____dollars (per pair of dowels).

   If Quantity Deducted: _____dollars (per pair of dowels).

9. Unit Price No. 9: Joist corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 2/S3.2 (assume #5 bars)

   If Quantity Added: _____dollars (per lineal foot).

   If Quantity Deducted: _____dollars (per lineal foot).

10. Unit Price No. 10: Joist Bridging corroded longitudinal reinforcing bar replacement as indicated in Keyed Note #6 and shown in Detail 3/S3.2 (assume #4 bars)

    If Quantity Added: _____dollars (per lineal foot).

    If Quantity Deducted: _____dollars (per lineal foot).

11. Unit Price No. 11: Topside and Underside slab delaminations that result in full-depth slab repair as indicated in Keyed Note #3 and #4 and shown in Detail 1/S3.0 SIM, 2/S3.0 SIM, and 1/S3.1 SIM (assume 4 1/2" slab thickness)

    If Quantity Added: _____dollars (per square foot).

    If Quantity Deducted: _____dollars (per square foot).