SCOPE OF WORK (Summary only)

- KIEL CENTER PARKING GARAGE
- CUPPLES STATION PARKING GARAGE
- ARGYLE PARKING GARAGE
- APARYLE PARKING GARAGE
- CENTRAL DOWNTOWN PARKING GARAGE

REPLACE DAMAGED STAIRWAY SIGNAGE
REPLACE EXPANSION JOINT SEAL
REPLACE JOINT SEALANTS
ROUT AND SEAL CRACKS
RECOAT EXISTING WATERPROOFING MEMBRANE
REPLACE JOINT SEALANTS
EPOXY INJECT CRACKS
HORIZONTAL CONCRETE REPAIRS
GARAGE RESTRIPING
ASPHALT PARKING LOT REPAIRS
APPLICATION OF A SILANE SEALER
VERTICAL/OVERHEAD CONCRETE REPAIRS
APPLY NEW WATERPROOFING MEMBRANE
APPLY NEW WATERPROOFING MEMBRANE
GARAGE RESTRIPING

GENERAL NOTES

1. All design and construction shall be in accordance with the International Building Code and City of St. Louis local amendments.

2. Do not scale dimensions from drawings.

3. Contractor is responsible to verify all dimensions shown on plans with existing conditions prior to commencing work.

4. Contractor shall report immediately to the Engineer any discrepancies or incorrect information with drawings that are written and on existing conditions. After reporting the discrepancies verbally, a written report should then follow.

5. The Contractor shall provide methods and equipment to protect the building, its materials and personnel from the damage prior to starting work. Methods and equipment which are not approved by the local Fire Department. The Contractor shall submit the methods and equipment to the Engineer and obtain the Owner and approved by the Engineer. All equipment must be approved by the Engineer prior to starting work.

6. The Contractor shall provide all necessary work in the areas outside of the repair area and shoring area for each phase. Prior to the award of the contract, a written report should be submitted to the Engineer for approval.

7. The Contractor shall provide all necessary work in the areas outside of the repair area and shoring area for each phase. Prior to the award of the contract, a written report should be submitted to the Engineer for approval.

8. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer; and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

9. When the plans include information pertaining to surface observation, material testing, and other preliminary investigations, such information represents only the opinion of the Engineer as to the location, character, or quality of the materials encountered and is only included for convenience of the乙方. Neither the Owner nor the Engineer assumes any responsibility whatsoever in respect to any investigations, such information represents only the opinion of the Engineer as to the location, character, or quality of the materials encountered and is only included for convenience of the乙方. Neither the Owner nor the Engineer assume any responsibility for the accuracy or completeness of the information, neither the Owner nor the Engineer guarantee, either expressly or implied, that the conditions indicated by the plans are representative of those existing throughout the work, or that undetected deficiencies exist by the plans. The Contractor shall not be held liable for any defects or omissions in the plans that are caused by the乙方 or the local Fire Department.

10. Any extra work beyond the scheduled quantities requiring additional cost to the Owner shall be approved by the Owner prior to taking such action. Claims for extra work which have not been authorized in writing by the Owner and approved by the Engineer shall not be entitled to payment. The Contractor shall promptly submit the proposal for extra work, in writing, as additional work is discovered.

11. The plans may be supplemented by standard and working drawings as are necessary to adequately describe the work in the event, a change becomes necessary due to circumstances not known by the Engineer until the work is under construction, the Contractor shall be notified by the Owner, and with all most recent applicable laws, provisions and requirements of the Occupational Safety and Health Act of 1970, as amended and/or the Construction Safety Act of 1969, as amended (whichever is applicable) and with all most recent applicable laws, provisions and requirements of the Occupational Safety and Health Act of 1970, as amended (whichever is applicable) and with the work. In the event, a change becomes necessary due to circumstances not known by the Engineer until the work is under construction, the Contractor shall be notified by the Owner, and with the work.

12. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

13. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

14. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

15. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

16. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

17. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

18. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

19. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

20. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.

21. The Contractor shall not attempt to demolish any existing concrete slab of the garage prior to installation of proper shoring members approved by the Engineer. The Contractor shall not attempt to bring any vehicle or equipment into the repair facility prior to installation of proper shoring members approved by the Engineer, and shall not alter the repairs as shown on plans. Any vehicle and/or equipment to be brought into the repair facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and submit them to the Engineer for approval.
NO WORK ANTICIPATED ON THIS LEVEL

1 LOWER LEVEL PLAN

SCALE: NTS

NORTH

ST. LOUIS, MISSOURI

CITY OF ST. LOUIS
FIVE GARAGES

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
NORTH GARAGE
LOWER LEVEL PLAN

R-01
NORTH

REMOVE AND REPLACE EXISTING EXPANSION JOINT SEAL, SEE DETAIL 3/R-32

LEGEND:

- RECOAT EXISTING WATERPROOFING MEMBRANE SYSTEM.
  CONTRACTOR IS TO REMOVE ALL LOOSE/DEBONDED WATERPROOFING MEMBRANE PRIOR TO RECOATING. WATERPROOFING MANUFACTURER TO VERIFY SUITABILITY OF THE EXISTING MEMBRANE FOR RECOAT. SEE DETAIL 4/R-32.

- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.

- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

DRAWING TITLE: R-08

ST. LOUIS, MISSOURI

CITY OF ST. LOUIS FOUR GARAGES

REPAIR AND PREVENTIVE MAINTENANCE

OF THE
LEGEND:
- RECOAT EXISTING WATERPROOFING MEMBRANE SYSTEM. CONTRACTOR IS TO REMOVE ALL LOOSE/DEBONDED WATERPROOFING MEMBRANE PRIOR TO RECOATING. WATERPROOFING MANUFACTURER TO VERIFY SUITABILITY OF THE EXISTING MEMBRANE FOR RECOAT. SEE DETAIL 4/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.
NORTH LEGEND:
- RECOAT EXISTING WATERPROOFING MEMBRANE SYSTEM.
  CONTRACTOR IS TO REMOVE ALL LOOSE/DEBONDED WATERPROOFING MEMBRANE PRIOR TO RECOATING.
  WATERPROOFING MANUFACTURER TO VERIFY SUITABILITY OF THE EXISTING MEMBRANE FOR RECOAT. SEE DETAIL 4/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.

DATE DESCRIPTION NO.
DRAWING TITLE: DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN. CK'D:
ISSUE:
AS NOTED:
MAY, 2019 50-19127
ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE OF THE R-10

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.

LEGEND:
- RECOAT EXISTING WATERPROOFING MEMBRANE SYSTEM.
  CONTRACTOR IS TO REMOVE ALL LOOSE/DEBONDED WATERPROOFING MEMBRANE PRIOR TO RECOATING.
  WATERPROOFING MANUFACTURER TO VERIFY SUITABILITY OF THE EXISTING MEMBRANE FOR RECOAT. SEE DETAIL 4/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.

- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.
NORTH

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-32.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.

DATE DESCRIPTION NO.

DRAWING TITLE:

DRAWING NO.

SCALE:

DATE:

PROJECT NO:

DES. DRWN. CK'D.

ISSUE AS NOTED

MAY, 2019

50-19127

ST. LOUIS, MISSOURI

CITY OF ST. LOUIS FOUR GARAGES

REPAIR AND PREVENTIVE MAINTENANCE OF THE R-12
NORTH LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE: CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.
NORTH

LEGEND:
- APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.

DATE
DESCRIPTION
NO.
DRAWING TITLE:
DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN. CK'D:
ISSUE
AS NOTED
MAY, 2019
50-19127
KKFRKK
ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE OF THE R-14
LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAILS 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.
NORTH

LEGEND:
- APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED PORTIONS OF THIS LEVEL NOT ALREADY PROTECTED (OR SCHEDULED TO BE PROTECTED) BY A WATERPROOFING MEMBRANE. SEE DETAIL 2/R-32.

DATE DESCRIPTION NO.

DRAWING TITLE:

DRAWING NO.

SCALE:

DATE:

PROJECT NO:

DES. DRWN. CK'D.

ISSUE AS NOTED MAY, 2019

ST. LOUIS, MISSOURI

CITY OF ST. LOUIS FOUR GARAGES

REPAIR AND PREVENTIVE MAINTENANCE OF THE R-16
NOTE: CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO SEAL COAT ALL ASPHALT AREAS NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM, SEE DETAIL 2/R-32.
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL EXPOSED CONCRETE PARKING/DRIVING SURFACES WITHIN THE GARAGE FOOTPRINT NOT PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM, SEE DETAIL 2/R-32.

LEGEND:
- REPLACE ASPHALT SURFACE AS SHOWN (DETAILS 1&2/R-33).
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ASPHALT CRACKING, CONTRACTOR TO FILL CRACKS WITH SEALANT ACCORDING TO PROJECT SPECIFICATION SECTION 025000.
- OPEN ASPHALT JOINT, CONTRACTOR TO FILL JOINTS WITH SEALANT ACCORDING TO PROJECT SPECIFICATION SECTION 025000.

DATE DESCRIPTION NO.

DRAWING TITLE:
DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN. CK'D.
ISSUE

ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE OF THE CUPPLES STATION LEVEL 1 PLAN
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 3/R-32.

CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL EXPOSED CONCRETE PARKING/DRIVING SURFACES WITHIN THE GARAGE FOOTPRINT NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.

CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL EXPOSED CONCRETE PARKING/DRIVING SURFACES WITHIN THE GARAGE FOOTPRINT NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32.

DATE DESCRIPTION

DRAWING TITLE:

DRAWING NO.

SCALE:

DATE:

PROJECT NO.

DES. DRWN. CK'D.

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MAY, 2019

50-19127

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ST. LOUIS, MISSOURI

CITY OF ST. LOUIS FOUR GARAGES

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CUPPLES STATION
LEVEL 3 PLAN

SCALE: NTS

PARKING LEVEL 3

NOTE:
CONTRACTOR TO REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.

- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.

CJ

CR

CR

CR

CR

CR

CR

CJ
NOTE:
- Contractor to remove and replace all cove joints on this level, see detail A.6.
- Partial depth concrete repair, see detail B.3.
- Existing waterproofing membrane to remain.

CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CUPPLES STATION
LEVEL 4 PLAN

SCALE: NTS

NOTE:
- Remove and replace control/construction joint sealant, see detail A.6.
- Partial depth concrete repair, see detail B.3.
- Existing waterproofing membrane to remain.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32.
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.

DRAWING TITLE:
DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN.
CK'D.
ISSUE

ST. LOUIS, MISSOURI
MAY, 2019
50-19127
KKFRKK

PARKING LEVEL 4

1 PARKING LEVEL 4
SCALE: NTS

DATE DESCRIPTION NO.
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL CONE JOINTS ON THIS LEVEL. SEE DETAIL 6/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32.
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.

DATE DESCRIPTION NO.

DRAWING TITLE:
DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN. CK'D.
ISSUE

AS NOTED
MAY, 2019
50-19127

ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CUPPLES STATION
LEVEL 6 PLAN
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.

PARKING LEVEL 7

ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE
OF THE CUPPLES STATION
LEVEL 7 (ROOF) PLAN

DRAWING NO.
SCALE:
DATE:
DES. DRWN. CK'D.
ISSUE
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.

DRAWING TITLE:
DRAWING TITLE:
STUDY NUM.
DRAWING TITLE:
DRAWING TITLE:
NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.

NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.

NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.

NOTE:
CONTRACTOR TO REMOVE AND REPLACE ALL COVE JOINTS ON THIS LEVEL, SEE DETAIL 6/R-32.
CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM, SEE DETAIL 5/R-32.

LEGEND:
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- EXISTING WATERPROOFING TO REMAIN.
NOTE: CONTRACTOR TO APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM TO ALL CONCRETE DRIVING SURFACES ON THIS LEVEL. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND REPLACEMENT OF CONTROL AND COVE JOINTS. WORK IS ALSO TO INCLUDE REMOVAL OF ALL DEBONDED EXISTING MEMBRANE PRIOR TO THE INSTALLATION OF A NEW SYSTEM. SEE DETAIL 5/R-32.

SCALE: 1" = 1'-0"

DRAWING TITLE: PARKING LEVEL 8 PARTIAL ROOF

DRAWING NO.: R-24A

SCALE: 1" = 1'-0"

DATE: May, 2019

PROJECT NO.: 50-19127

DES. DRWN. CK'D.: KKFRKK

ST. LOUIS, MISSOURI

CITY OF ST. LOUIS FOUR GARAGES

REPAIR AND PREVENTIVE MAINTENANCE

LEVEL 7 (ROOF)

PLAN
LEGEND:
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- RECOAT EXISTING WATERPROOFING MEMBRANE SYSTEM. CONTRACTOR IS TO REMOVE ALL LOOSE/DEBONDED WATERPROOFING MATERIALS PRIOR TO RECOATING. WATERPROOFING MANUFACTURER TO VERIFY SUITABILITY OF THE EXISTING MEMBRANE FOR RECOAT. SEE DETAIL 4/R-31.

NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED EXPOSED CONCRETE PARKING/DRIVING SURFACES ON THIS LEVEL NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32.
NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED EXPOSED CONCRETE PARKING/DRIVING SURFACES ON THIS LEVEL NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32.

- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1/R-31.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.

BS
BS
CJ
CJ

CONCRETE COLUMN REPAIR, SEE DETAILS 3&5/R-31.
NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED EXPOSED CONCRETE PARKING/DRIVING SURFACES ON THIS LEVEL NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32

LEGEND:
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32
- CONCRETE SOFFIT SPALL REPAIR, SEE DETAIL 3/R-31
- APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.

DATEDESCRIPTIONNO.

DRAWING TITLE:
DRAWING NO.
SCALE:
DATE:
PROJECT NO:
DES. DRWN. CK'D.
ISSUE

ST. LOUIS, MISSOURI
CITY OF ST. LOUIS FOUR GARAGES
REPAIR AND PREVENTIVE MAINTENANCE OF THE KIEL CENTER LEVEL 4 PLAN

PARKING LEVEL 4
SCALE 1:75
NOTE:
CONTRACTOR TO APPLY A CLEAR PENETRATING SILANE SEALER TO ALL STRUCTURALLY SUPPORTED EXPOSED CONCRETE PARKING/DRIVING SURFACES ON THIS LEVEL NOT ALREADY PROTECTED BY A WATERPROOFING MEMBRANE SYSTEM. SEE DETAIL 2/R-32

LEGEND:
- PARTIAL DEPTH CONCRETE REPAIR, SEE DETAILS 1&2/R-31.
- ROUT AND SEAL CONCRETE FLOOR CRACKS, SEE DETAIL 6/R-32.
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-32.
- EXISTING WATERPROOFING MEMBRANE TO REMAIN.
APPLY A TRAFFIC BEARING WATERPROOFING MEMBRANE SYSTEM. WORK IS TO INCLUDE THE ROUTING AND SEALING OF ALL NECESSARY CRACKS AND JOINTS. SEE DETAIL 5/R-32.

EXISTING WATERPROOFING MEMBRANE TO REMAIN.
1. **INSTALL APPROVED SHORING SYSTEM PRIOR TO START OF ANY CONCRETE REMOVAL. REFER TO CONSTRUCTION NOTE 5 ON SHEET R/-31.**

2. **PLACE AND FINISH REPAIR AREAS USING AIR-ENTRAINED, FIBER-REINFORCED CONCRETE (MIN. 2,000 PSI AT 28 DAYS) SO AS TO MATCH EXISTING SLOPES AND ELEVATIONS. FINISHED PATCHES SHALL BE FREE OF PONDING.**

3. **CLEAN AND PREPARE THE CONCRETE SURFACE FOR APPLICATION OF APPROVED REPAIR MATERIAL.**

4. **PLACING BARS WITHIN CONCRETE REPAIR AREAS AS RECOMMENDED BY CONCRETE MANUFACTURER WHEN USE OF A FIBER-REINFORCED CONCRETE IS REQUIRED TO PREVENT SAGGING OR DEFORMATION.**

5. **FRAME, CURE, AND PROTECT UNTIL VERTICAL shrinkage MATURE (80%+).**

6. **RESTORE EXISTING CONTROL JOINTS IN REPAIR AREAS WHERE APPLICABLE.**

7. **AFTER THE REPAIRS ARE COMPLETE, PRIOR TO INSTALLATION AND TEMPORARY REMOVABLE ATTACHMENTS TO RESTORE THE EXISTING CONDITION.**

**REPAIR PROCEDURE:**

1. **INSTALL APPROVED SHORING SYSTEM PRIOR TO START OF ANY CONCRETE REMOVAL. REFER TO CONSTRUCTION NOTE 5 ON SHEET R/-31.**

2. **PLACE AND FINISH REPAIR AREAS USING AIR-ENTRAINED, FIBER-REINFORCED CONCRETE (MIN. 2,000 PSI AT 28 DAYS) SO AS TO MATCH EXISTING SLOPES AND ELEVATIONS. FINISHED PATCHES SHALL BE FREE OF PONDING.**

3. **CLEAN AND PREPARE THE CONCRETE SURFACE FOR APPLICATION OF APPROVED REPAIR MATERIAL.**

4. **PLACING BARS WITHIN CONCRETE REPAIR AREAS AS RECOMMENDED BY CONCRETE MANUFACTURER WHEN USE OF A FIBER-REINFORCED CONCRETE IS REQUIRED TO PREVENT SAGGING OR DEFORMATION.**

5. **FRAME, CURE, AND PROTECT UNTIL VERTICAL shrinkage MATURE (80%+).**

6. **RESTORE EXISTING CONTROL JOINTS IN REPAIR AREAS WHERE APPLICABLE.**

7. **AFTER THE REPAIRS ARE COMPLETE, PRIOR TO INSTALLATION AND TEMPORARY REMOVABLE ATTACHMENTS TO RESTORE THE EXISTING CONDITION.**
1. THE CONTRACTOR SHALL VERIFY THAT CONCRETE SUBSTRATES ARE SOUND.

2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. CONTRACTOR SHALL INSTALL EXPANSION JOINT SEAL MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE SELECTED SEAL.

3. PRIME THE SURFACES AND SEAL WITH APPROVED SEALANT MATERIAL.

4. PROHIBIT VEHICULAR TRAFFIC ON SEALED CRACKS/JOINTS.

5. CONTRACTOR SHALL NOT REPAIR ANY PREVIOUSLY SEALED WATERPROOFING JOINTS.

6. WATERPROOFING JOINTS SHALL BE REPLACED OR REPAIRED ONLY FOR THE FOLLOWING CONDITIONS:
   - CRACKS THROUGH THE CONCRETE SUBSTRATE
   - CRACKS LARGE ENOUGH TO IMPAIR THE BOND OF NEW SEALANT MATERIAL.
   - CRACKS WHICH WOULD INTERFER WITH THE WATERPROOFING SYSTEM PERFORMANCE.

7. AFTER CONCRETE REPAIRS HAVE PROPERLY CURED, SHOTBLAST CLEAN HORIZONTAL AND VERTICAL SURFACES SCHEDULED TO RECEIVE WATERPROOFING MEMBRANE APPLICATION.

8. PRIME THE SURFACES AND SEAL WITH APPROVED SEALANT MATERIAL.

9. COMPLETELY GRIND-OFF THE SEALANT MATERIAL ON THE MEMBER SURFACE SO THAT ONLY THE EDGE MATERIAL EDGE, AIR-BLOWN CLEAN, AND INSTALL THE PRIME OR PROVIDE WATER REPELLENT SEALER.

10. DRIVING LANES AND TURNING AREAS SHALL HAVE A HEAVY DUTY WEAR COURSE INSTALLED AS SPECIFIED IN SYSTEM DESCRIPTIONS.

11. DRAWING LINES AND TURNING AREAS SHALL HAVE A HEAVY DUTY WEAR COURSE INSTALLED AS SPECIFIED IN SYSTEM DESCRIPTIONS.
1. All pavement to follow MODOT standard specifications for road and bridge construction.

2. Contractor shall submit a mix design for engineering review and receive approval prior to paving.

3. All pavement joints shall be square without feathering.

**Surface Course**

**Prime Coat**

**Complete Removal (1 1/2" THK) of the existing surface course**

**Complete Removal (1 1/2" THK) of the existing binder course**

**Existing base course**

**Existing subgrade course**

**Install new (1 1/2" THK) surface course**

**Install new (1 1 2" THK) binder course**

**Existing asphalt pavement/Removal**

**Scale: N.T.S.**
CONSTRUCTION NOTES

1. ALL NEW POST-TENSIONING SYSTEM SHALL BE UNBONDED MONO-STRAND FULLY ENCAPSULATED TENDONS. TENDONS USED IN POST-TENSIONING SHALL BE FRACTIONAL STRESS-STRAIGHTENED AND HAVING A TANGENTIAL STRESS OF 19,000 PSI. TENSIONS SHALL BE STRENGTHENED WITH A GUARANTEED MINIMUM ULTIMATE STRENGTH OF 70,800 PSI.

2. THE POST-TENSIONING TENDONS SHALL BE COATED WITH MINIMUM 300 PSI, MINIMUM 70% OF THE DESIGN COMPRESSIVE STRENGTH. TENSION TESTS SHALL BE PERFORMED IN CONFORMITY WITH ASTM A416, STRESS STANDARDS.

3. THE POST-TENSIONING SYSTEM MANUFACTURER SHALL SUBMIT CALCULATIONS, TENSION TEST CERTIFICATES, ANCHORAGE TEST RESULTS, AS WELL AS WOBBLE AND CURVATURE COEFFICIENT DETERMINATION DATA TO SUBSTANTIATE THE METHOD OF POST-TENSIONING CALCULATIONS. WHEN THE ABOVE DATA IS AVAILABLE, THE CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

4. ALL FRICTION CALCULATIONS AND POST-TENSIONING SHOP DRAWINGS SHALL BE SEALLED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.

5. FOR ALL REPLACED TENDONS, LOCATION OF EACH TENDON, METHOD OF TENDON SUPPORT, DETAILS OF ANCHORAGE ZONE REINFORCING, STRESSING POCKETS, CLOSURES, ETC.

6. ALL NOISE AND DUST PRODUCING OPERATIONS ARE LIMITED TO THE HOURS BETWEEN 8 AM AND 6 PM.

7. THE PRECAST CONCRETE SEQUENCE FOR APPROVAL.

8. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW, DETAILED STRESSING PROCEDURE AND SEQUENCES, AS WELL AS DETAILED INSTRUCTIONS TO SUBSTANTIATE THE ABOVE. ALL PRESTRESSING PROCEDURES AND SEQUENCES, AS WELL AS DETAILED INSTRUCTIONS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

9. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A CONCRETE PLANNING SEQUENCE FOR APPROVAL.

10. ALL SPANS AND OPENINGS MUST BE SHOWN ON THE SHOP DRAWINGS. ANY ADDITIONAL SPANS OR OPENINGS NOT SHOWN ON THE APPROVED SHOP DRAWINGS WILL REQUIRE A WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO CONSTRUCTION.

11. THE TENSION STRESSING LOG CONTAINING REQUIRED AND MEASURED ELONATIONS, AS WELL AS CALIBRATED JACK GAGE READINGS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY REMOVAL OF THE EXCESS TENSION LENGTH. TENSION STRESSING LOGS SHALL BE DATED AND SIGNED BY THE STRESSING OPERATOR. THE TESTING AGENCY AND THE CONTRACTOR SHALL BE NOTIFIED PRIOR TO ANY REMOVAL OF THE EXCESS TENSION LENGTH.

12. AFTER ACCEPTANCE AND APPROVAL OF THE STRESSING RECORDS BY THE ENGINEER, CUT OFF TENDON TAILS ACCORDING TO THE ENGINEER'S DIRECTION.

13. SEALS FOR THIS REPAIR ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.

14. THE CONTRACTOR SHALL MAINTAIN, ON ONE COMPLETE SET OF DRAWINGS (WHITE PRINTS) AND SPECIFICATIONS DELIVERED TO THE OWNER AND ENGINEER AS SOON AS THE WORK IS COMPLETED, A COMPLETED SET OF "AS-BUILT" DRAWINGS, WHICH WILL INCLUDE THE EXACT LOCATION AND AMOUNT OF ALL REPAIR AND PREVENTIVE MAINTENANCE WORK PERFORMED.

15. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW, DETAILED STRESSING PROCEDURE, AS WELL AS DETAILED INSTRUCTIONS TO SUBSTANTIATE THE ABOVE. ALL PRESTRESSING PROCEDURES AND SEQUENCES, AS WELL AS DETAILED INSTRUCTIONS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

16. ALL NEW POST-TENSIONING SYSTEM SHALL BE UNBONDED MONO-STRAND FULLY ENCAPSULATED TENDONS. TENDONS USED IN POST-TENSIONING SHALL BE FRACTIONAL STRESS-STRAIGHTENED AND HAVING A TANGENTIAL STRESS OF 19,000 PSI. TENSIONS SHALL BE STRENGTHENED WITH A GUARANTEED MINIMUM ULTIMATE STRENGTH OF 70,800 PSI.

17. THE POST-TENSIONING TENDONS SHALL BE COATED WITH MINIMUM 300 PSI, MINIMUM 70% OF THE DESIGN COMPRESSIVE STRENGTH. TENSION TESTS SHALL BE PERFORMED IN CONFORMITY WITH ASTM A416, STRESS STANDARDS.

18. ALL FRICTION CALCULATIONS AND POST-TENSIONING SHOP DRAWINGS SHALL BE SEALLED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.

19. FOR ALL REPLACED TENDONS, LOCATION OF EACH TENDON, METHOD OF TENDON SUPPORT, DETAILS OF ANCHORAGE ZONE REINFORCING, STRESSING POCKETS, CLOSURES, ETC.

20. ALL NOISE AND DUST PRODUCING OPERATIONS ARE LIMITED TO THE HOURS BETWEEN 8 AM AND 6 PM.

21. THE PRECAST CONCRETE SEQUENCE FOR APPROVAL.

22. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A CONCRETE PLANNING SEQUENCE FOR APPROVAL.

23. THE TENSION STRESSING LOG CONTAINING REQUIRED AND MEASURED ELONATIONS, AS WELL AS CALIBRATED JACK GAGE READINGS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY REMOVAL OF THE EXCESS TENSION LENGTH. TENSION STRESSING LOGS SHALL BE DATED AND SIGNED BY THE STRESSING OPERATOR. THE TESTING AGENCY AND THE CONTRACTOR SHALL BE NOTIFIED PRIOR TO ANY REMOVAL OF THE EXCESS TENSION LENGTH.

24. AFTER ACCEPTANCE AND APPROVAL OF THE STRESSING RECORDS BY THE ENGINEER, CUT OFF TENDON TAILS ACCORDING TO THE ENGINEER'S DIRECTION.

25. SEALS FOR THIS REPAIR ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.