

2022 REPAIR AND PREVENTIVE MAINTENANCE OF THE CITY OF ST. LOUIS PARKING GARAGES AND SURFACE LOTS

ST. LOUIS, MISSOURI
AUGUST, 2022

SCOPE OF WORK (Summary only)

NINE NORTH PARKING GARAGE

- NO WORK ANTICIPATED

ARGYLE PARKING GARAGE

- REPLACE CONTROL JOINT SEALANTS
- EXPANSION JOINT REPAIRS
- DRAIN INSTALLATION
- CLEAN AND REPAINT BOLLARDS
- EPOXY CRACK REPAIRS
- CONCRETE REPAIRS WITH MEMBRANE INSTALLATION

CENTRAL DOWNTOWN PARKING GARAGE

- HORIZONTAL CONCRETE REPAIRS
- REPLACE CONTROL JOINT SEALANTS
- REPLACE EXPANSION JOINT SEALS
- CLEAN AND PAINT HANDRAILS, BOLLARDS AND PIPE GUARDS
- REPLACE STAIR/ELEVATOR TOWER GLAZING SEALANT

CUPPLES STATION PARKING GARAGE

- VERTICAL CONCRETE REPAIRS
- STAIR REPAIRS
- REPAINT WEST STAIRS

KIEL CENTER PARKING GARAGE

- HORIZONTAL CONCRETE REPAIRS
- VERTICAL/OVERHEAD CONCRETE REPAIRS
- ROUT AND SEAL CRACKS
- REPLACE JOINT SEALANTS
- CLEAN AND REPAINT INDICATED STAIRWELLS
- INSTALL JOINT FILLERS
- RETENSION BARRIER CABLES
- REPAIR ADA RAMP

JUSTICE CENTER PARKING GARAGE

- HORIZONTAL CONCRETE REPAIRS
- RECOAT WATERPROOFING MEMBRANE
- REPLACE CONTROL JOINT SEALANTS
- EXPANSION JOINT SEAL REPLACEMENT
- REPLACE COVER PLATES AND GUTTER SYSTEM
- APPLICATION OF PENETRATING SILANE SEALER

CITY HALL LOT

- CLEAN AND SEAL ASPHALT SURFACE
- RESTORE EXISTING PAVEMENT MARKINGS
- CLEAN AND SEAL ASPHALT SLAB CRACKS
- REMOVE AND REPLACE BASE COURSE

WILLIAMS LOT

- HORIZONTAL CONCRETE REPAIRS
- WIDE ASPHALT CRACK REPAIRS
- INSTALL BOLLARDS

SHEET INDEX

R-000 COVER SHEET

NINE NORTH PARKING GARAGE

R-101.1 LOWER LEVEL PLAN
R-101.2 GROUND LEVEL PLAN
R-101.3 SECOND LEVEL PLAN

ARGYLE PARKING GARAGE

R-102.1 LEVEL ONE PLAN
R-102.2 LEVEL TWO PLAN
R-102.3 LEVEL THREE PLAN
R-102.4 LEVEL FOUR PLAN

CENTRAL DOWNTOWN PARKING GARAGE

R-103.1 LEVEL ONE PLAN
R-103.2 LEVEL TWO PLAN
R-103.3 LEVEL THREE PLAN
R-103.4 LEVEL FOUR PLAN
R-103.5 LEVEL FIVE PLAN
R-103.6 LEVEL SIX PLAN
R-103.7 LEVEL SEVEN PLAN
R-103.8 LEVEL EIGHT PLAN
R-103.9 LEVEL NINE PLAN
R-103.10 LEVEL TEN PLAN

CUPPLES STATION GARAGE

R-104.1 LEVEL ONE PLAN
R-104.2 LEVEL TWO PLAN
R-104.3 LEVEL THREE PLAN
R-104.4 LEVEL FOUR PLAN
R-104.5 LEVEL FIVE PLAN
R-104.6 LEVEL SIX PLAN
R-104.7 LEVEL SEVEN PLAN
R-104.8 LEVEL EIGHT (PARTIAL ROOF) PLAN

KIEL CENTER GARAGE

R-105.1 LEVEL ONE PLAN
R-105.2 LEVEL TWO PLAN
R-105.3 LEVEL THREE PLAN
R-105.4 LEVEL FOUR PLAN
R-105.5 LEVEL FIVE PLAN
R-105.6 LEVEL SIX PLAN

JUSTICE CENTER GARAGE

R-106.1 LEVEL ONE PLAN
R-106.2 LEVEL TWO PLAN
R-106.3 LEVEL THREE PLAN
R-106.4 LEVEL FOUR PLAN
R-106.5 LEVEL FIVE PLAN
R-106.6 LEVEL SIX PLAN
R-106.7 LEVEL SEVEN PLAN
R-106.8 LEVEL EIGHT PLAN
R-106.9 ROOF LEVEL PLAN

CITY HALL LOT

R-107.1 CITY HALL PARKING LOT PLAN

WILLIAMS LOT

R-108.1 WILLIAMS LOT PLAN

DETAILS

R-501 REPAIR DETAILS
R-502 REPAIR DETAILS
R-503 ASPHALT/PAVING REPAIR DETAILS
R-504 REPAIR DETAILS & NOTES

GARAGE LOCATIONS

NINE NORTH PARKING GARAGE
9N S EUCLID AVENUE, ST. LOUIS, MO 63108

ARGYLE PARKING GARAGE
225 N EUCLID AVENUE, ST. LOUIS, MO 63108

CENTRAL DOWNTOWN PARKING GARAGE
707 PINE STREET, ST. LOUIS, MO 63101

CUPPLES STATION PARKING GARAGE
421S S 10TH STREET, ST. LOUIS, MO 63102

KIEL CENTER PARKING GARAGE
1515 CLARK AVENUE, ST. LOUIS, MO 63103

JUSTICE CENTER PARKING GARAGE
1115 CLARK STREET, ST. LOUIS, MO 63102

CITY HALL PARKING LOT
1201 CLARK AVENUE, ST. LOUIS, MO 63103

WILLIAMS PARKING LOT
317 S 16TH STREET, ST. LOUIS, MO 63102

GENERAL NOTES

The following general notes shall apply unless noted otherwise on plans.

- All design and construction shall be in accordance with 2018 International Building Code and City of St. Louis local amendments.
- Do not scale dimensions from drawings.
- Contractor is responsible to verify all dimension shown on plans with existing conditions prior to commencing work.
- Contractor shall report immediately to the Engineer any discrepancies or incorrect information with drawings based on existing conditions. After reporting the discrepancies verbally, a written report should then follow. Contractor shall be directed by the Engineer regarding the above matter.
- The Contractor shall provide methods and equipment for protecting the building, all materials, and personnel from fire damage prior to starting work. Methods and equipment are subject to approval by the local Fire Department. The Contractor shall submit the methods and equipment in writing and obtain the Owner and Engineer's approval prior to starting work. Fire protection and prevention during the construction period shall be in accordance with all laws and regulations including, but not limited to, the latest N.F.P.A. Regulations, OSHA, State of Missouri, and local requirements.
- The Contractor shall comply with all safety and health laws and regulations including, but not limited to, 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, ordinances, rules, regulations, and orders of any public authority having jurisdiction, and safety of persons or property or to protect them from damage, injury, or loss. He/She shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warning against hazards, promulgating safety regulations, and notifying the Owner and users of adjacent utilities. The Contractor shall employ and ascertain continuing presence on the job of a person competent in issues of safety in construction. This individual shall be recently trained or re-trained (within 12 months of the work commencement on this project) within an OSHA outreach training program and additionally certified in first aid by the American Red Cross.
- The contractor shall provide all shoring, bracing, sheeting required for safety, and proper execution of work.
- 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 parking facility prior to installation of proper shoring members approved by the Engineer, and of which the requirements are shown on Plans. Any vehicle and/or equipment to brought on the parking facility shall be approved by the Engineer. Contractor is solely responsible to prepare shop drawings for the shoring members and to submit them to the Engineer for approval.
- 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 bidder. The neither the Owner nor the Engineer assumes any responsibility whatever in respect to the sufficiency or accuracy of the information. Neither the Owner nor the Engineer guarantee, either expressed or implied, that the conditions indicated are representative of those existing throughout the work, or that unanticipated developments may not occur. The above information shall not be considered by the parties as a basis for the contract award amount.
- 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 will be rejected and the Contractor shall not be entitled to payment. The Contractor shall promptly submit the proposal for extra work, in writing, as additional work is discovered.
- 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 after the bid documents were submitted to the Owner or arising thereafter, the Engineer may alter the plans, as may be necessary and increase or decrease the quantities of work to be performed in accordance with such changes. The Owner shall be informed with a copy of all submittals and correspondence as the changes may occur.
- Execution of the work will involve consideration for allowing the Owner to continue operations in the subject facility in the areas outside of the repair area and shoring area for each phase. Prior to the award of the contract, the construction schedule prepared by the Contractor shall be submitted to the Owner and coordinated with the facility management. Owner's approval of the proposed schedule shall precede the contract amount.
- The Contractor shall review all existing conditions to identify all utilities affected by the repair work, if any. The contractor shall be solely responsible for maintaining the operation of existing services (utilities) to all areas of the subject facility or other areas (not in contract) affected by the work. The Contractor shall submit the methods and schedule of construction for the Owner's approval prior to the commencement of work.
- As the work progresses, the Contractor shall produce "As-Built" drawings for the installation of all repair items under the contract. The Engineer will provide the general contractor with a set of reproducible for this purpose. The Contractor is responsible to maintain the As-Built drawings updated according to the job progress. For each pay-request by the Contractor, the Owner and Engineer shall receive a copy of the updated As-Built drawings.

ISSUE

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

COVER SHEET

DRAWING NO.

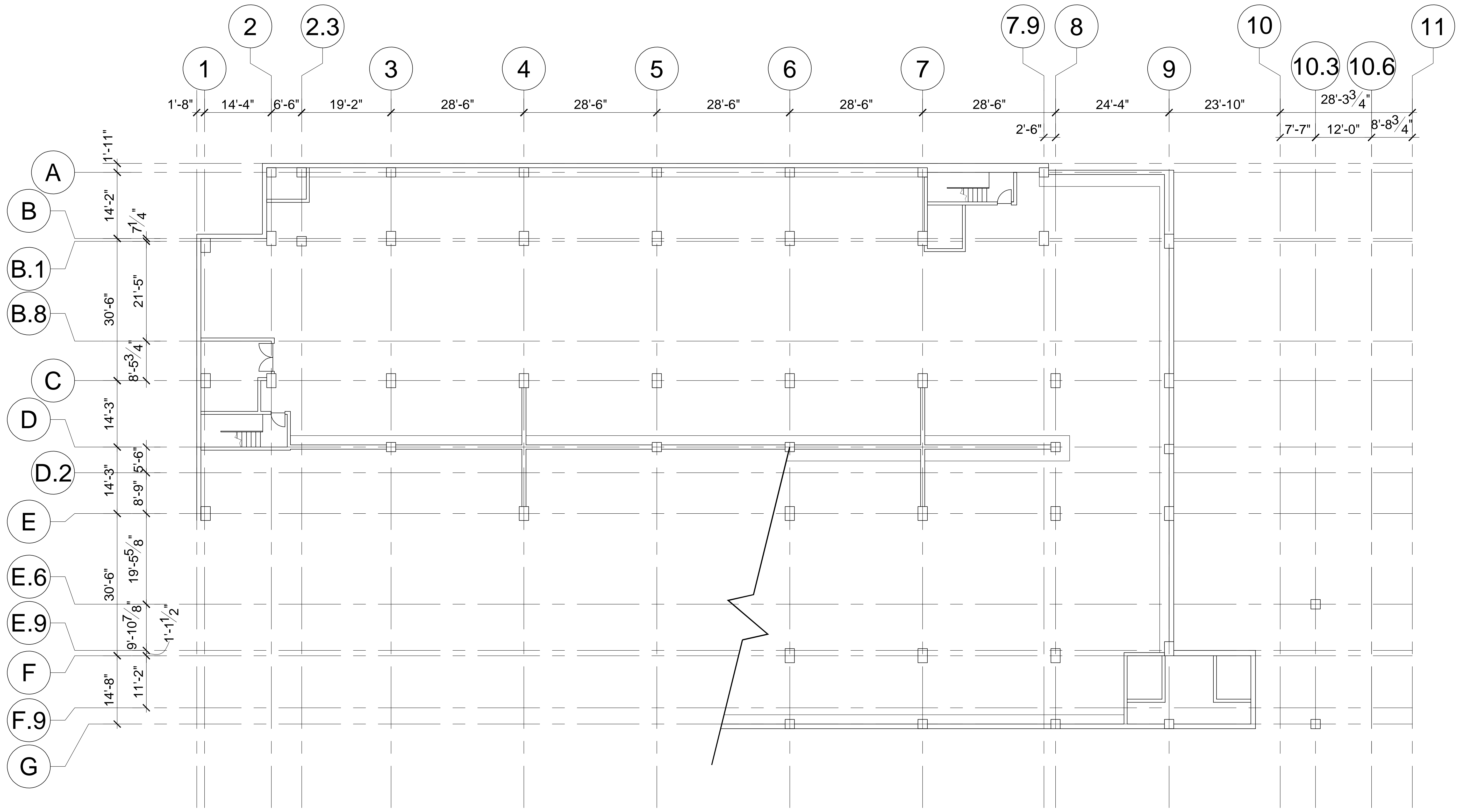
R-000

SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK



NO WORK ANTICIPATED ON THIS LEVEL

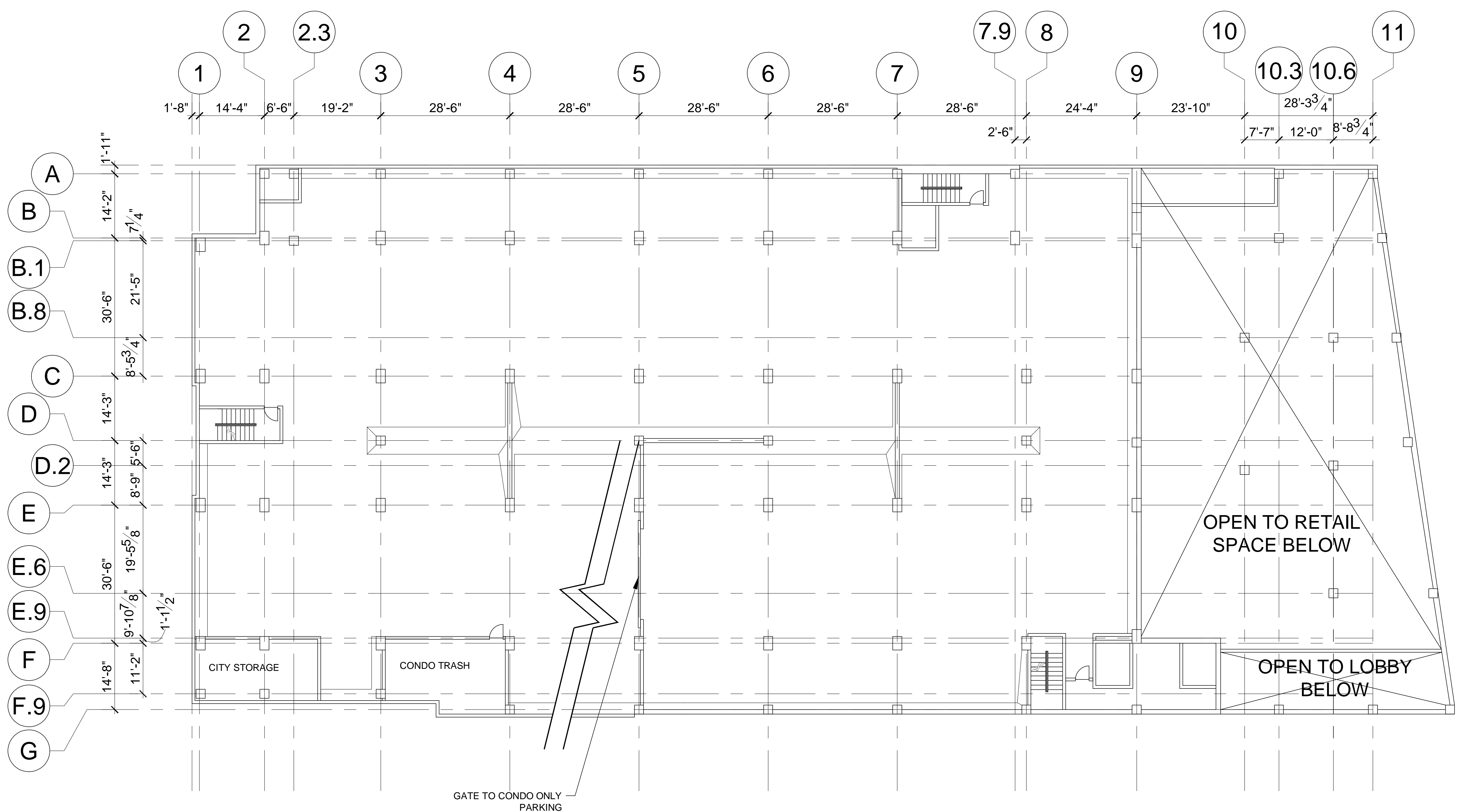
1 LOWER LEVEL PLAN
SCALE: NTS

NORTH

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:		
9 NORTH GARAGE LOWER LEVEL PLAN		
DRAWING NO.		
R-101.1		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



NO WORK ANTICIPATED ON THIS LEVEL

1 SECOND LEVEL PLAN
SCALE: NTS



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
**9 NORTH GARAGE
LEVEL 2 PLAN**

DRAWING NO.
R-101.3

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

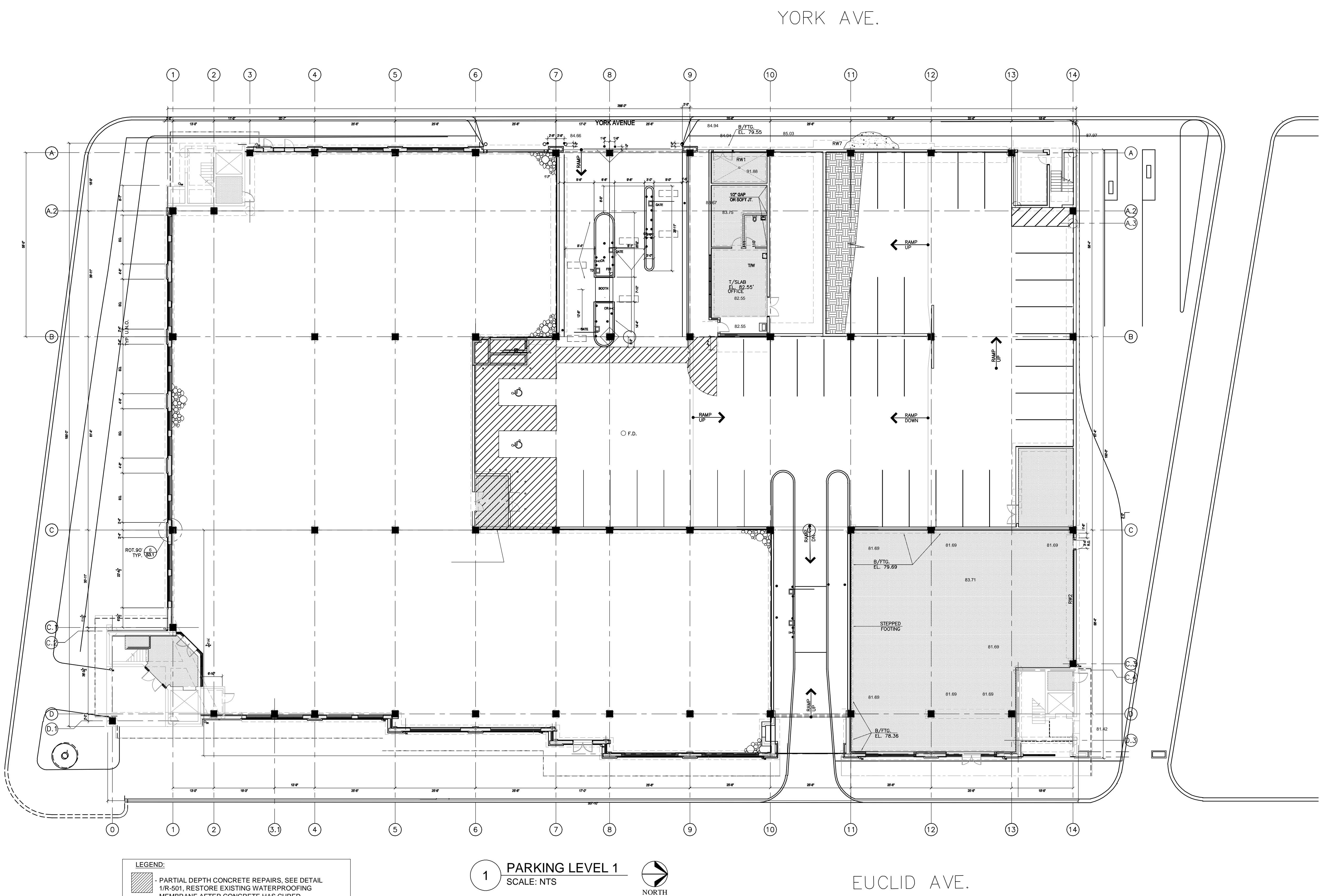
REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI

ISSUE

NO.	DESCRIPTION	DATE

DRAWING NO.	R-102.1	
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2012 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



LEGEND:

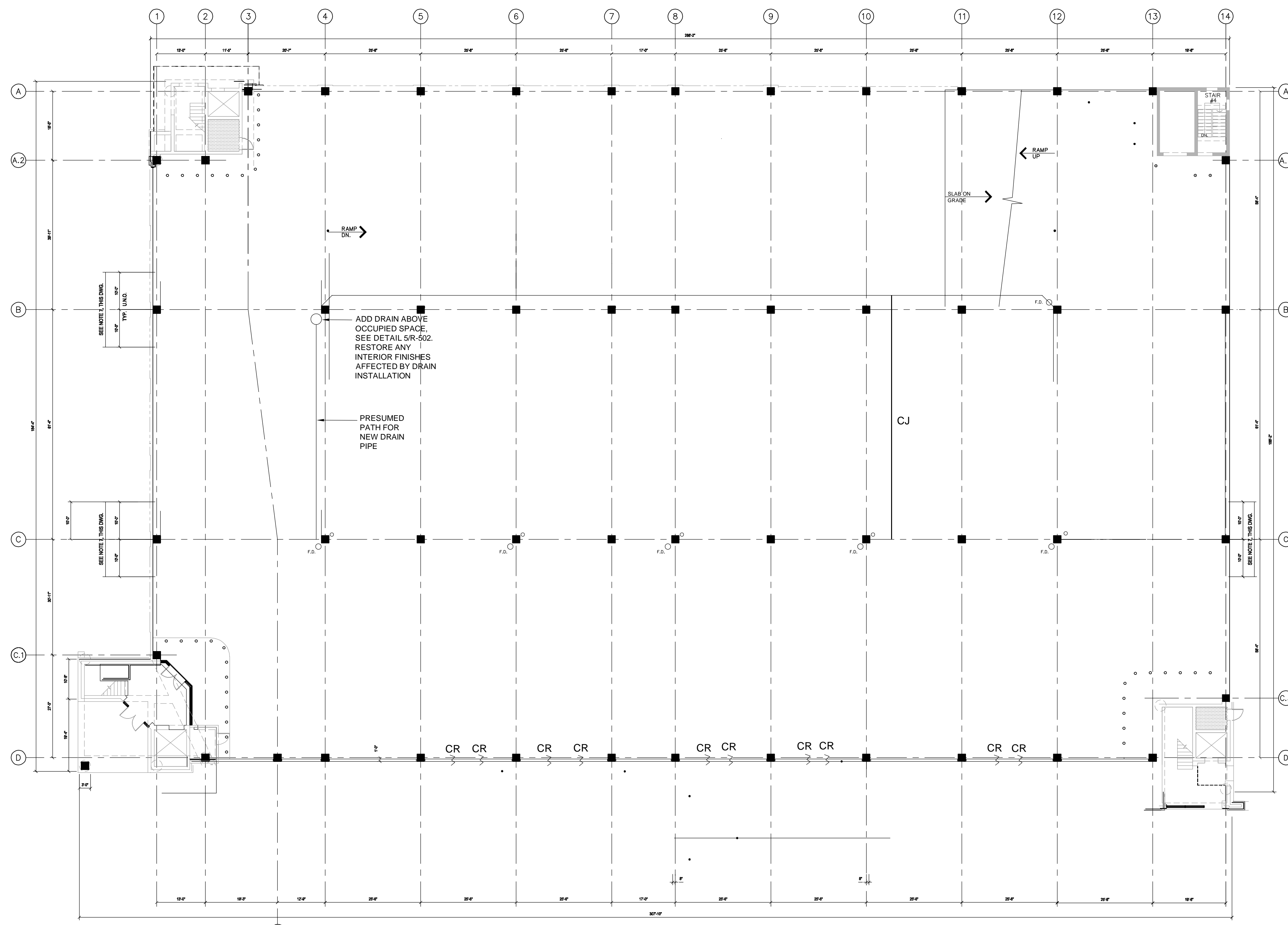
	- PARTIAL DEPTH CONCRETE REPAIRS. SEE DETAIL 1/R-501. RESTORE EXISTING WATERPROOFING MEMBRANE AFTER CONCRETE HAS CURED.
	- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT. SEE DETAIL 6/R-502.
	- EPOXY INJECT OVERHEAD CRACKS. SEE DETAIL 1/R-502.
	- REPLACE EXPANSION JOINT SEAL WITH NEW FOAM EXPANSION JOINT SEAL. SEE DETAIL 8/R-502.

1 PARKING LEVEL 1
SCALE: NTS

NO WORK ANTICIPATED ON THIS LEVEL



REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



- LEGEND:**
- PARTIAL DEPTH CONCRETE REPAIRS, SEE DETAIL 1/R-501, RESTORE EXISTING WATERPROOFING MEMBRANE AFTER CONCRETE HAS CURED.
 - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - EPOXY INJECT OVERHEAD CRACKS, SEE DETAIL 1/R-502.
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM EXPANSION JOINT SEAL, SEE DETAIL 8/R-502.

1 PARKING LEVEL 2
SCALE: NTS



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
ARGYLE GARAGE
LEVEL 2 PLAN

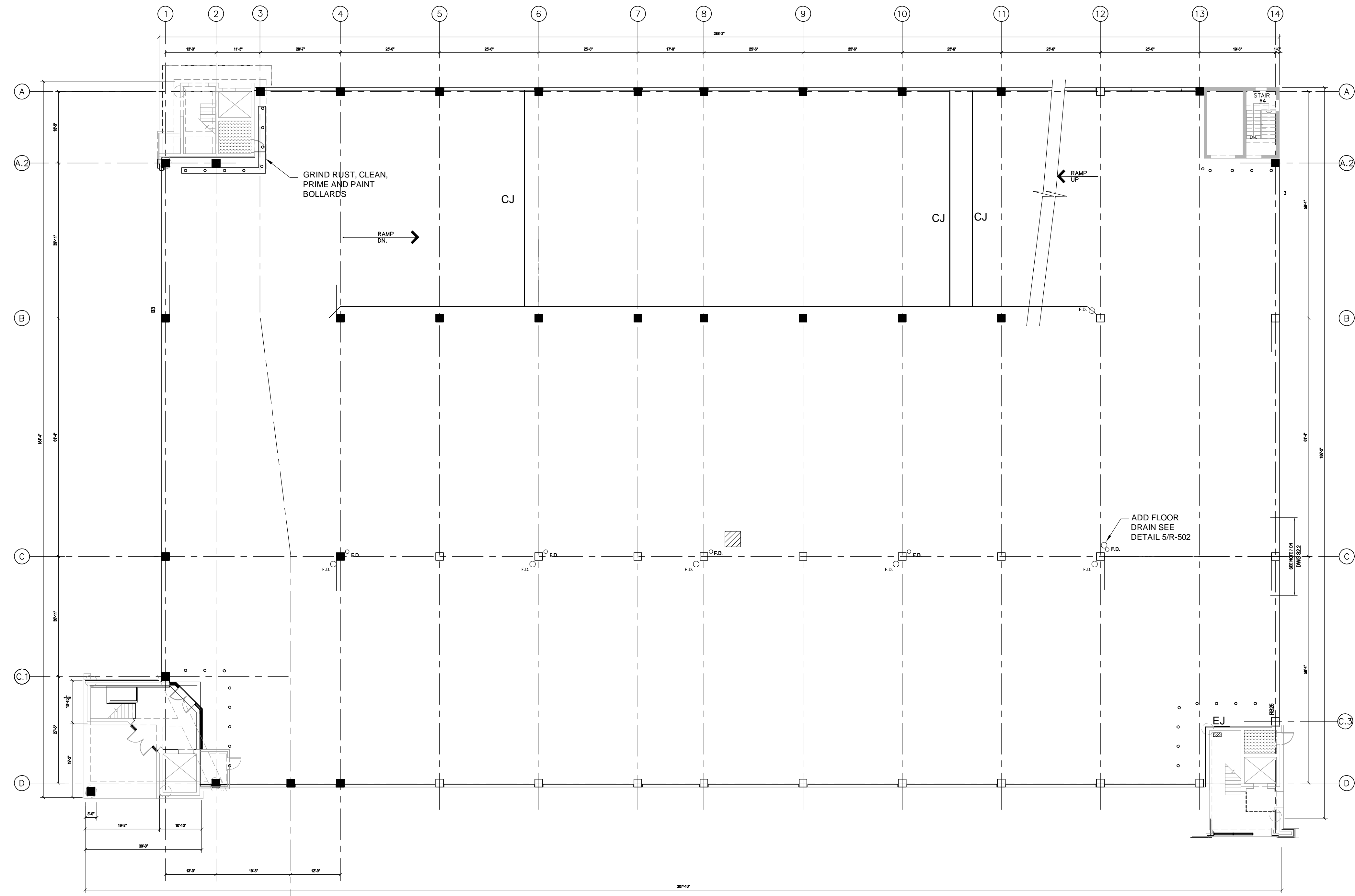
DRAWING NO.
R-102.2

SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



- LEGEND:**
- PARTIAL DEPTH CONCRETE REPAIRS. SEE DETAIL 1/R-501. RESTORE EXISTING WATERPROOFING MEMBRANE AFTER CONCRETE HAS CURED.
 - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT. SEE DETAIL 6/R-502.
 - EPOXY INJECT OVERHEAD CRACKS. SEE DETAIL 1/R-502.
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM EXPANSION JOINT SEAL. SEE DETAIL 8/R-502.

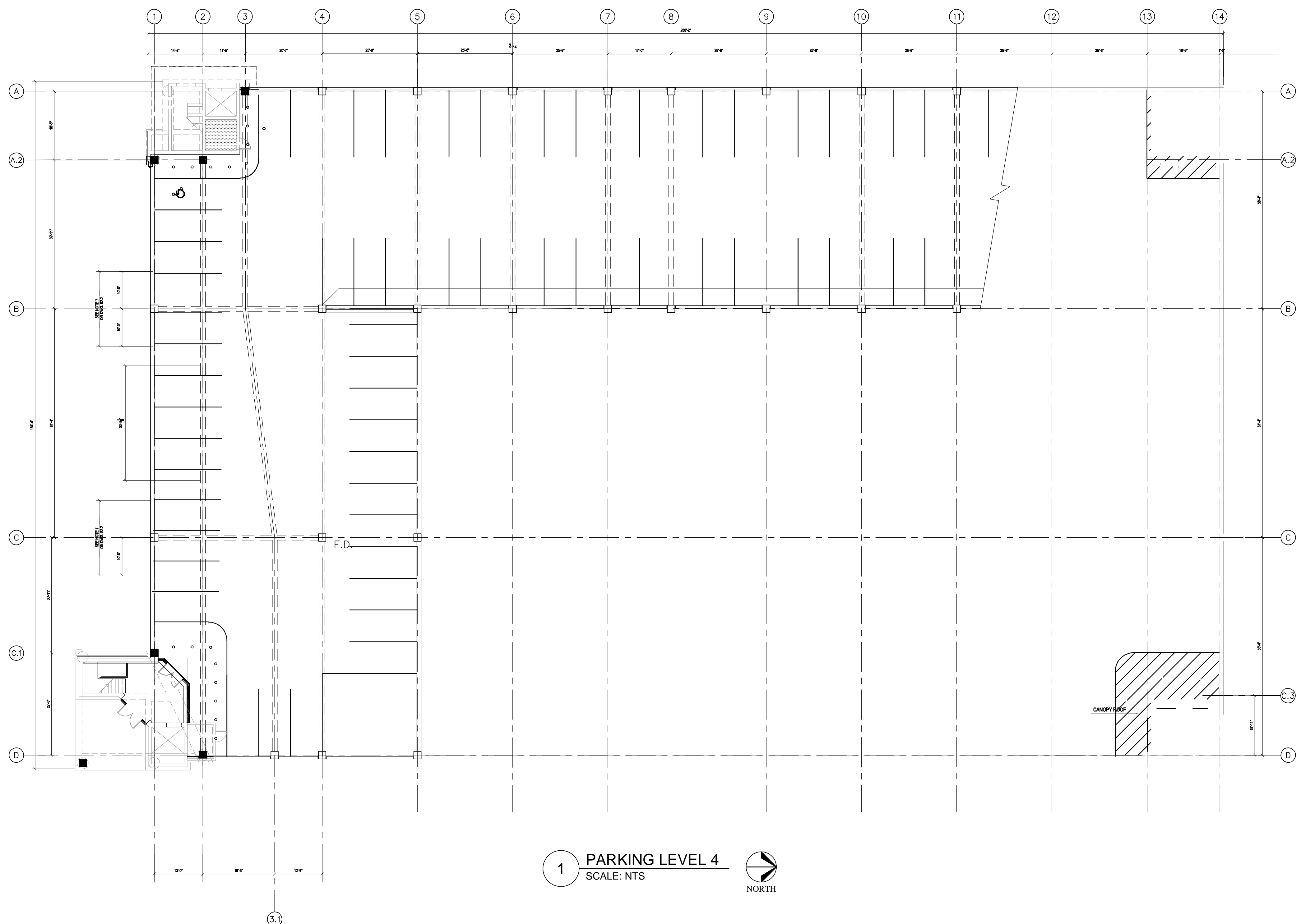
1 **PARKING LEVEL 3**
SCALE: NTS

ISSUE		
NO.	DESCRIPTION	DATE

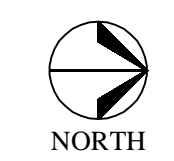
DRAWING TITLE: ARGYLE GARAGE LEVEL 3 PLAN		
DRAWING NO. R-102.3		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2012 Designman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Designman.

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



1 PARKING LEVEL 4
SCALE: NTS



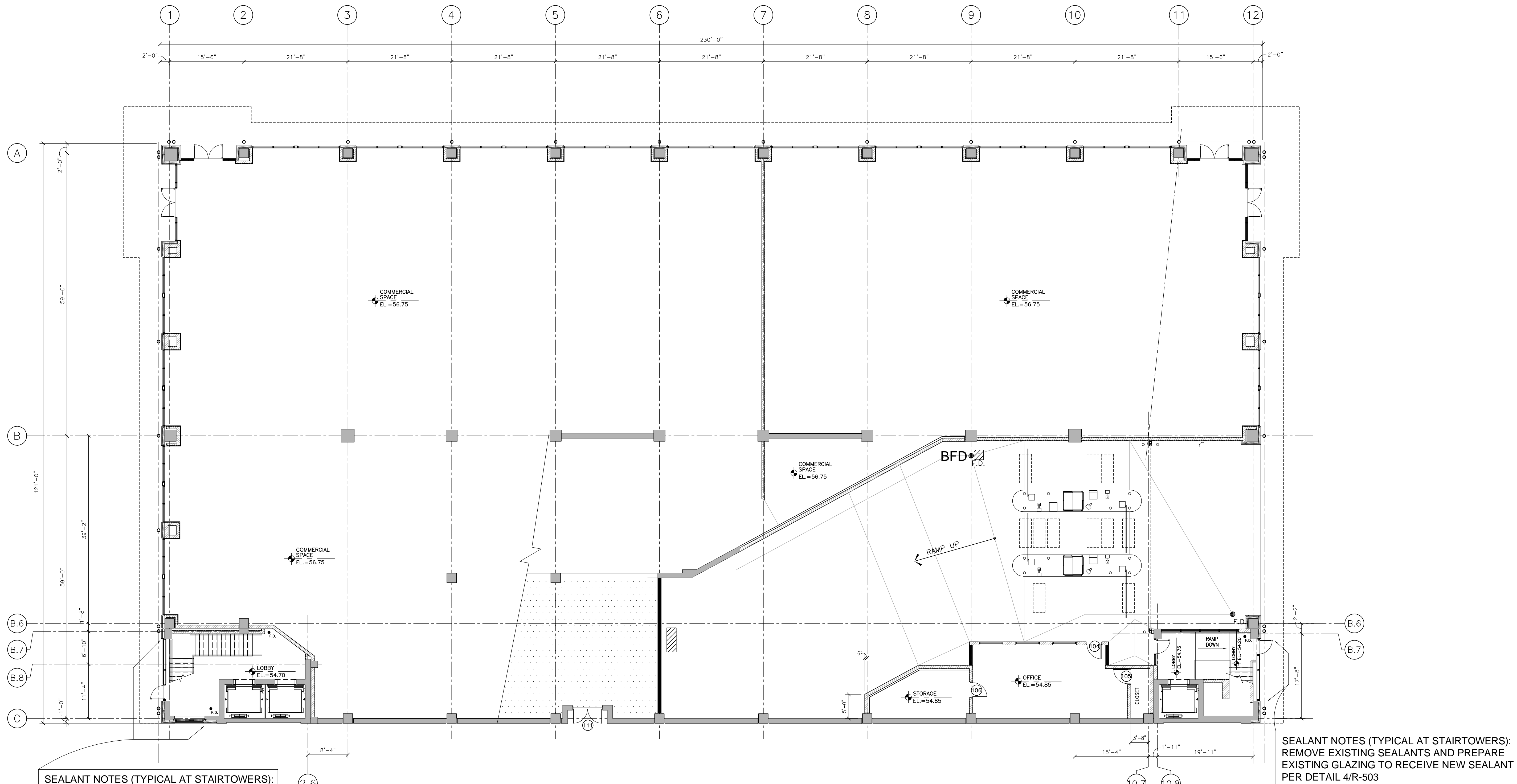
- LEGEND:**
- PARTIAL DEPTH CONCRETE REPAIRS, SEE DETAIL 1/R-501. RESTORE EXISTING WATERPROOFING MEMBRANE AFTER CONCRETE HAS CURED.
 - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - EPOXY INJECT OVERHEAD CRACKS, SEE DETAIL 1/R-502.
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM EXPANSION JOINT SEAL, SEE DETAIL 8/R-502.

NO WORK ANTICIPATED ON THIS LEVEL

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: ARGYLE GARAGE LEVEL 4 PLAN		
DRAWING NO. R-102.4		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.:	DRWN.:	CK'D.:
KK	AC	KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 PARKING LEVEL 1
SCALE: NTS

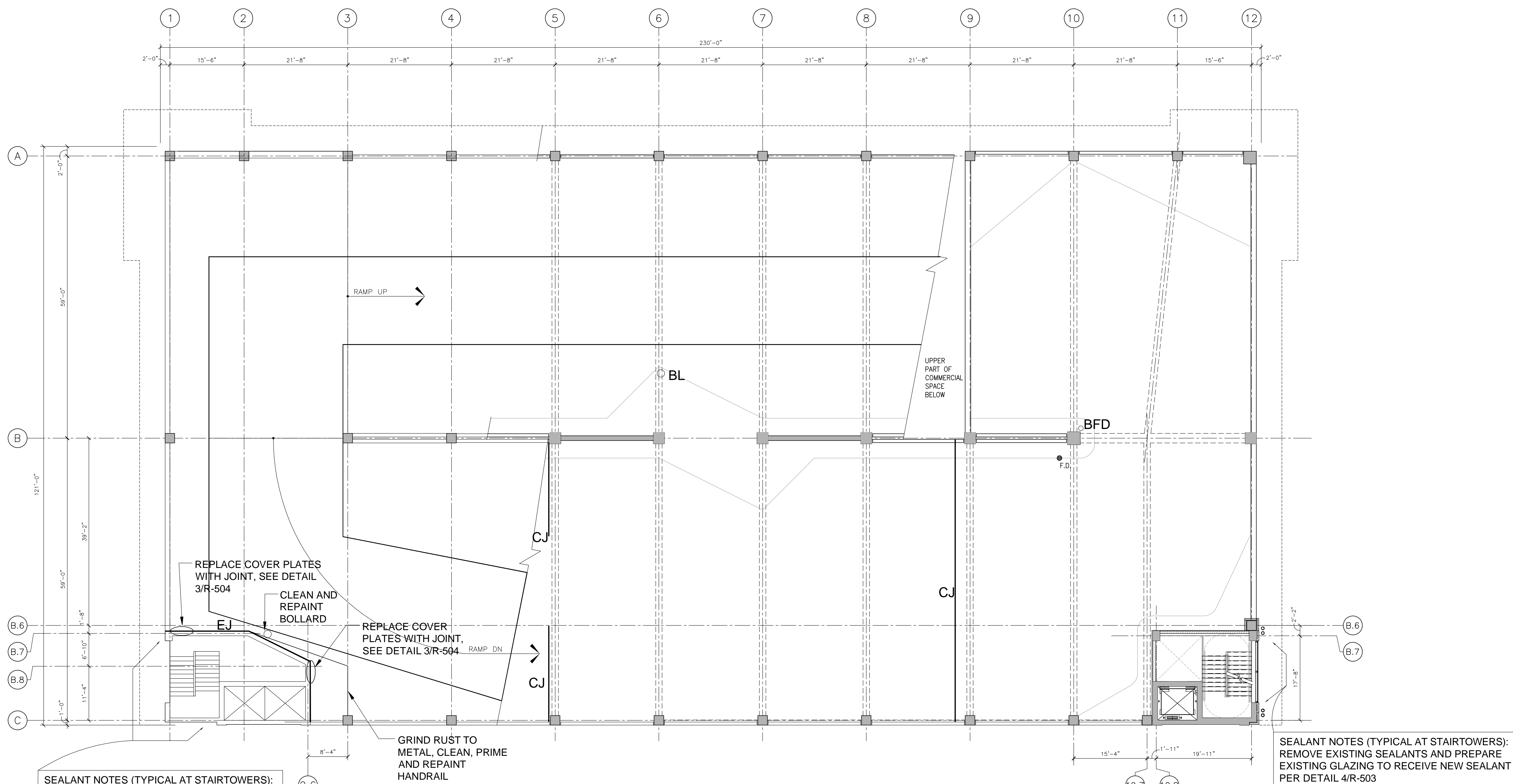


- LEGEND:**
- CJ / - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - ▨ - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL ○ - REINSTALL FLEX POST BOLLARD
 - BFD ○ - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ / - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

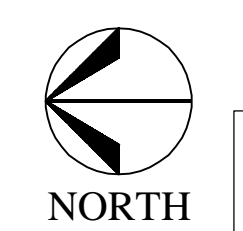
ISSUE		
NO.	DESCRIPTION	DATE
DRAWING TITLE: CENTRAL DOWNTOWN LEVEL 1 PLAN		
DRAWING NO. R-103.1		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2012 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



1 PARKING LEVEL 2
SCALE: NTS



- LEGEND:**
- CJ - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - [Hatched Box] - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL - REINSTALL FLEX POST BOLLARD
 - BFD - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE		
NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:
CENTRAL DOWNTOWN LEVEL 2 PLAN

DRAWING NO.
R-103.2

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2022 Designman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Designman.

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI

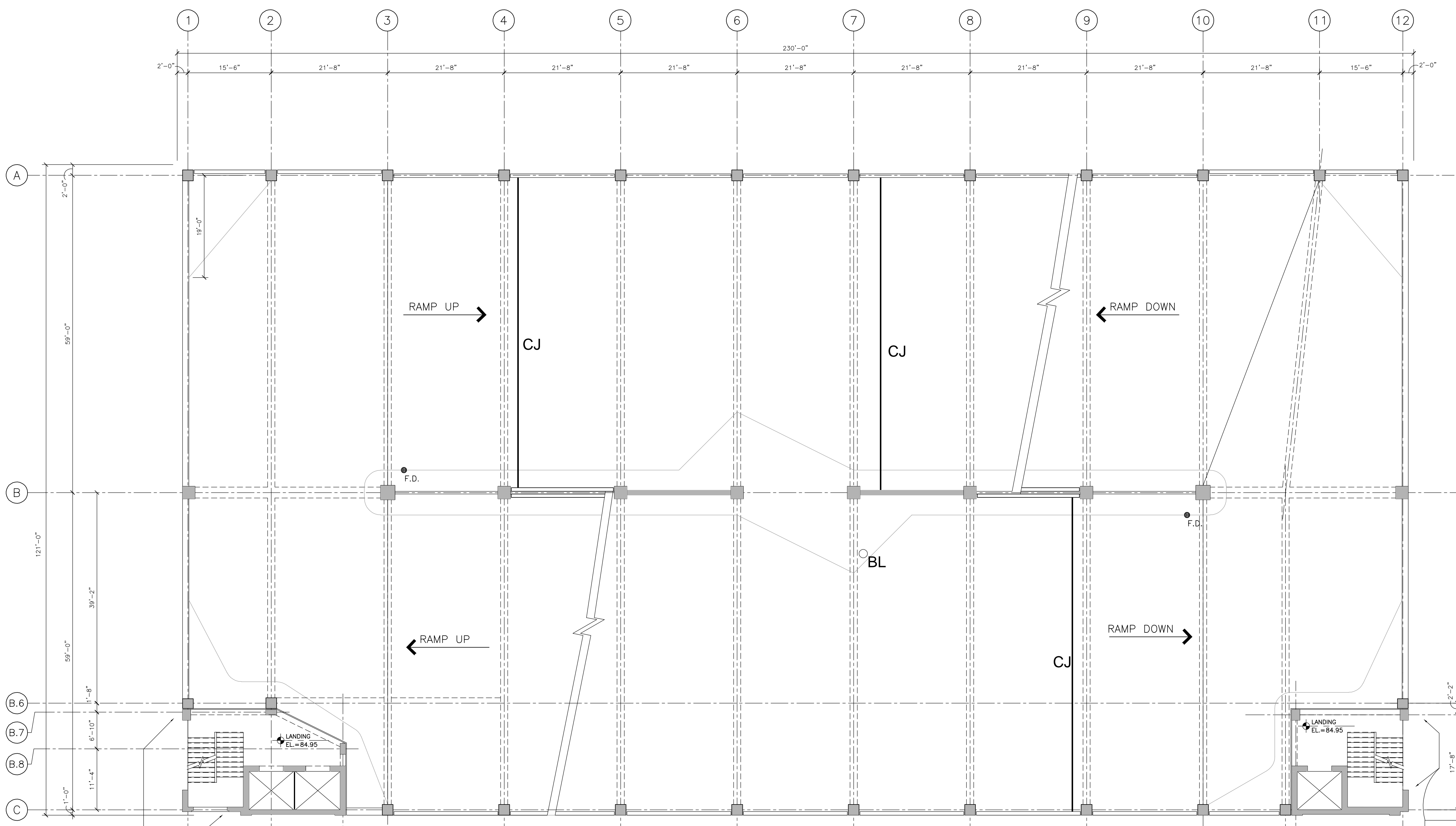
ISSUE

NO.	DESCRIPTION	DATE

DRAWING TITLE:
CENTRAL
DOWNTOWN
LEVEL 3 PLAN

DRAWING NO.
R-103.3

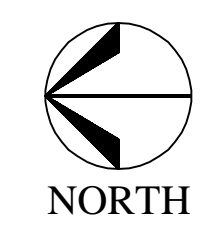
SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO: 50-22139
DES. DRWN. CK'D.
KK AC KK



SEALANT NOTES (TYPICAL AT STAIROTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

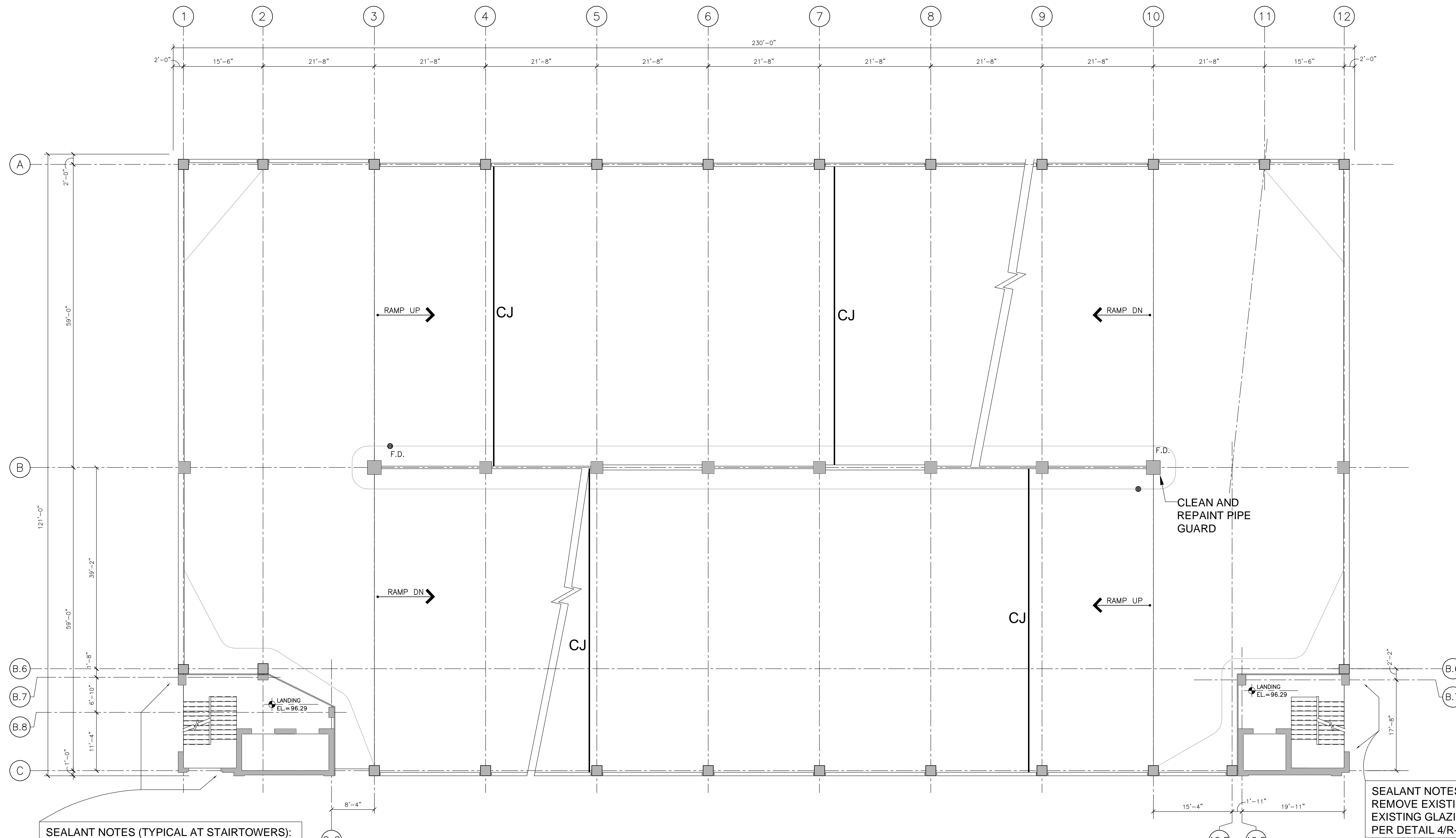
SEALANT NOTES (TYPICAL AT STAIROTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 **PARKING LEVEL 3**
SCALE: NTS



- LEGEND:**
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - REINSTALL FLEX POST BOLLARD
 - REPLACE BROKEN FLOOR DRAIN COVER
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

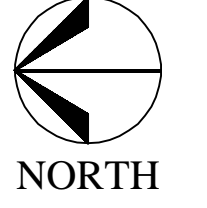
Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 PARKING LEVEL 4
SCALE: NTS



- LEGEND:**
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - REINSTALL FLEX POST BOLLARD
 - REPLACE BROKEN FLOOR DRAIN COVER
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE		
NO.	DESCRIPTION	DATE

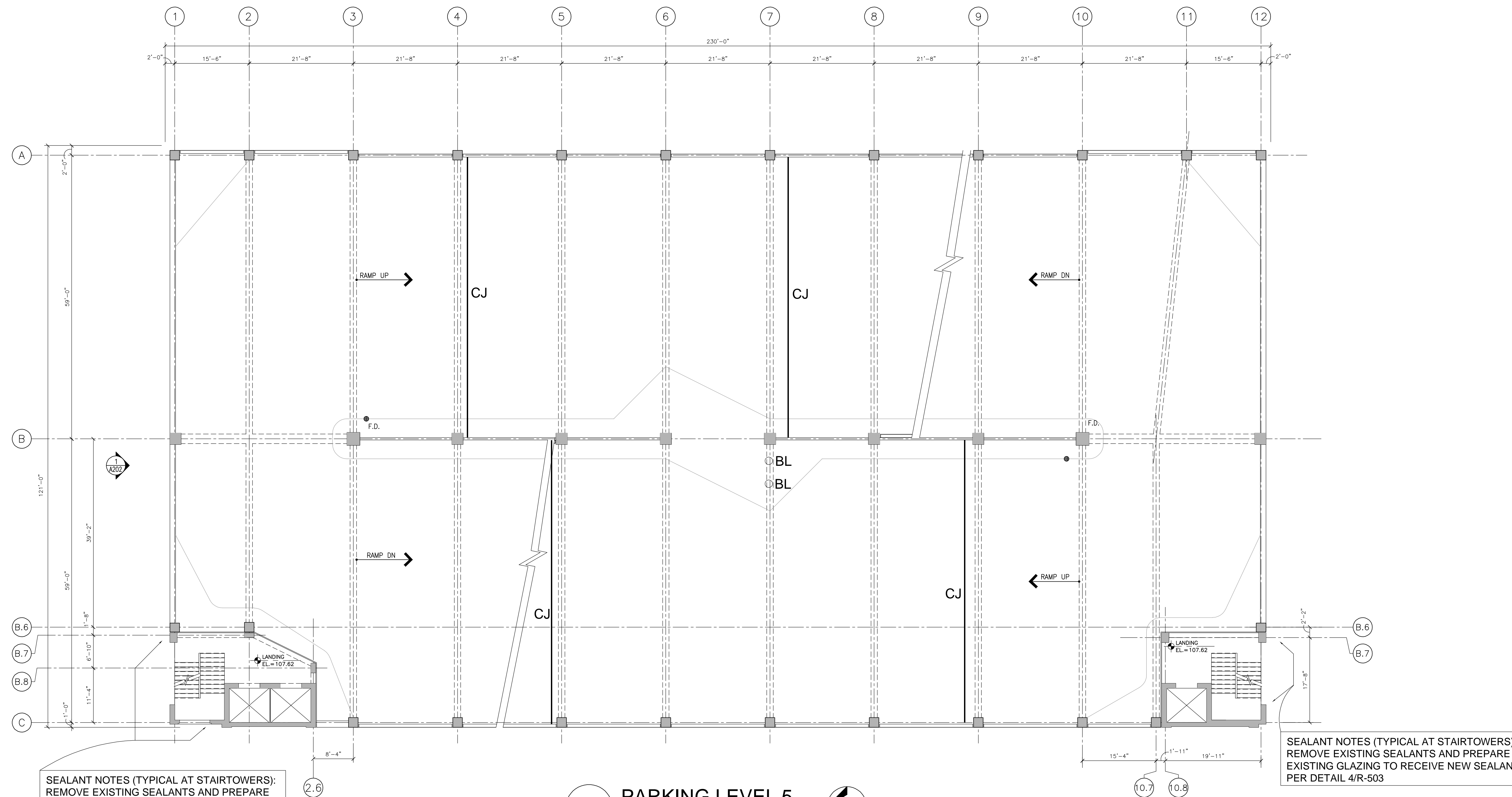
DRAWING TITLE:
CENTRAL
DOWNTOWN
LEVEL 4 PLAN

DRAWING NO.
R-103.4

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 **PARKING LEVEL 5**
SCALE: NTS



LEGEND:

- CJ — - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
- ▨ - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
- BL ○ - REINSTALL FLEX POST BOLLARD
- BFD ○ - REPLACE BROKEN FLOOR DRAIN COVER
- EJ — - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE		
NO.	DESCRIPTION	DATE

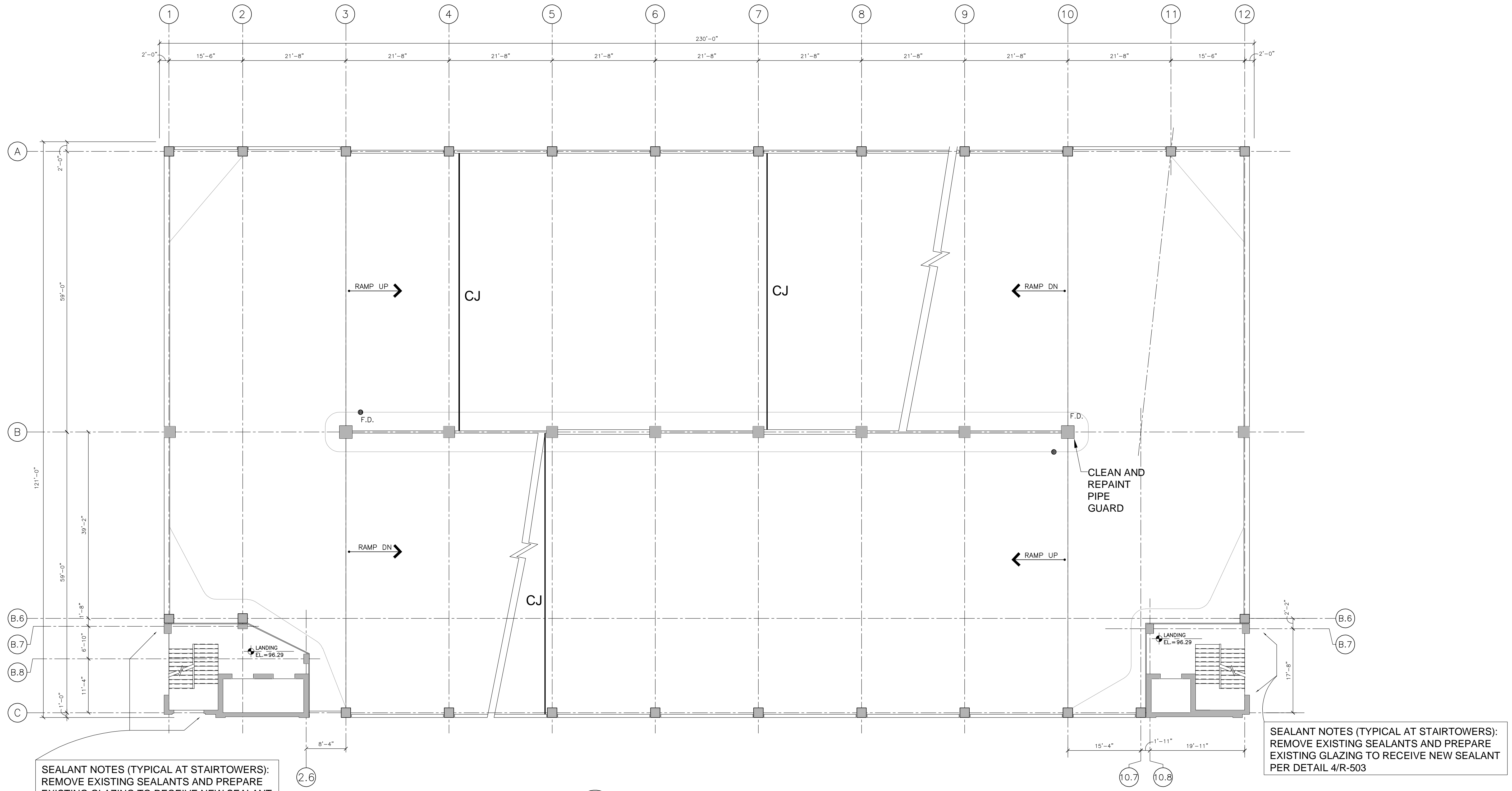
DRAWING TITLE:
CENTRAL DOWNTOWN LEVEL 5 PLAN

DRAWING NO.:
R-103.5

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

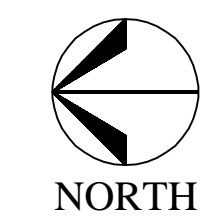
Copyright © 2013 Designman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Designman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 **PARKING LEVEL 6**
SCALE: NTS



- LEGEND:**
- CJ - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - [Hatched Box] - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL ○ - REINSTALL FLEX POST BOLLARD
 - BFD ○ - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE

NO.	DESCRIPTION	DATE

DRAWING TITLE:
**CENTRAL
DOWNTOWN
LEVEL 6 PLAN**

DRAWING NO.
R-103.6

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

ISSUE

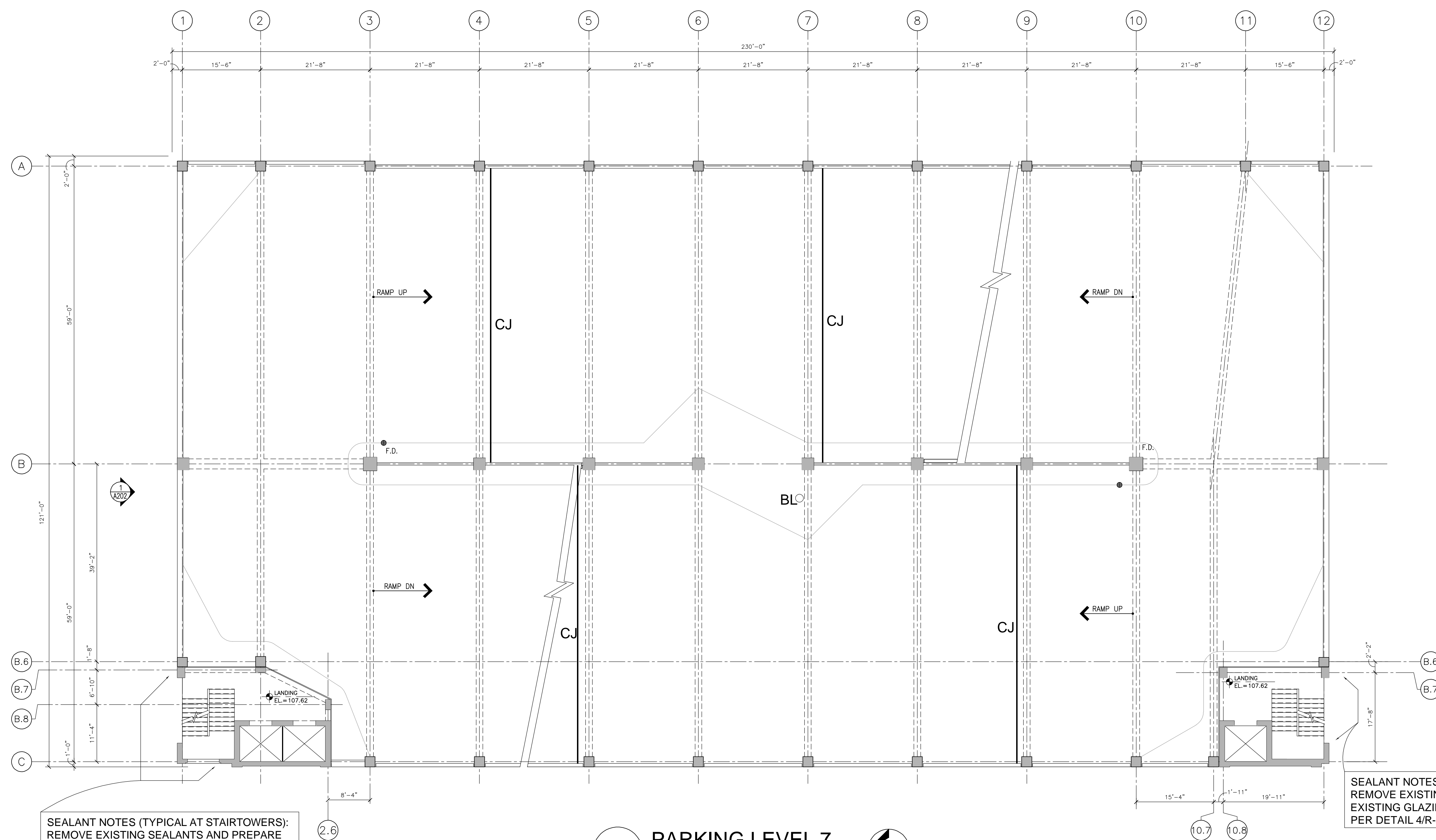
NO.	DESCRIPTION	DATE

DRAWING TITLE:
**CENTRAL
DOWNTOWN
LEVEL 7 PLAN**

DRAWING NO.
R-103.7

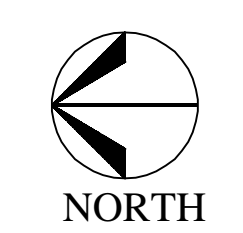
SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO: 50-22139
DES. DRWN. CK'D.
KK AC KK



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

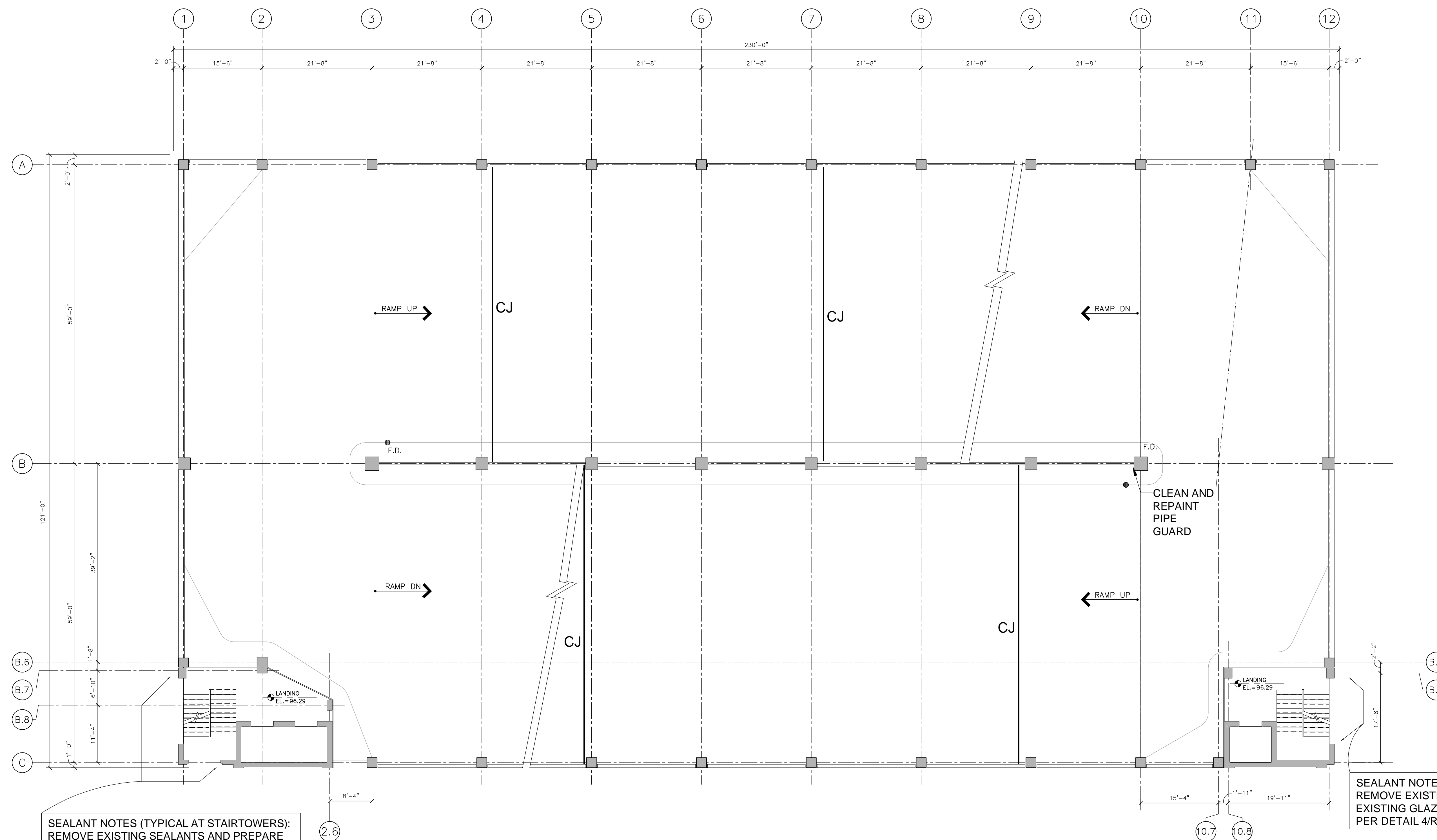
1 **PARKING LEVEL 7**
SCALE: NTS



- LEGEND:**
- CJ** - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL** - REINSTALL FLEX POST BOLLARD
 - BFD** - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ** - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

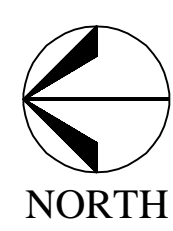
Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 PARKING LEVEL 8
SCALE: NTS



- LEGEND:**
- CJ - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - [Hatched Box] - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL ○ - REINSTALL FLEX POST BOLLARD
 - BFD ○ - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE		
NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE
DRAWING TITLE:
CENTRAL
DOWNTOWN
LEVEL 8 PLAN

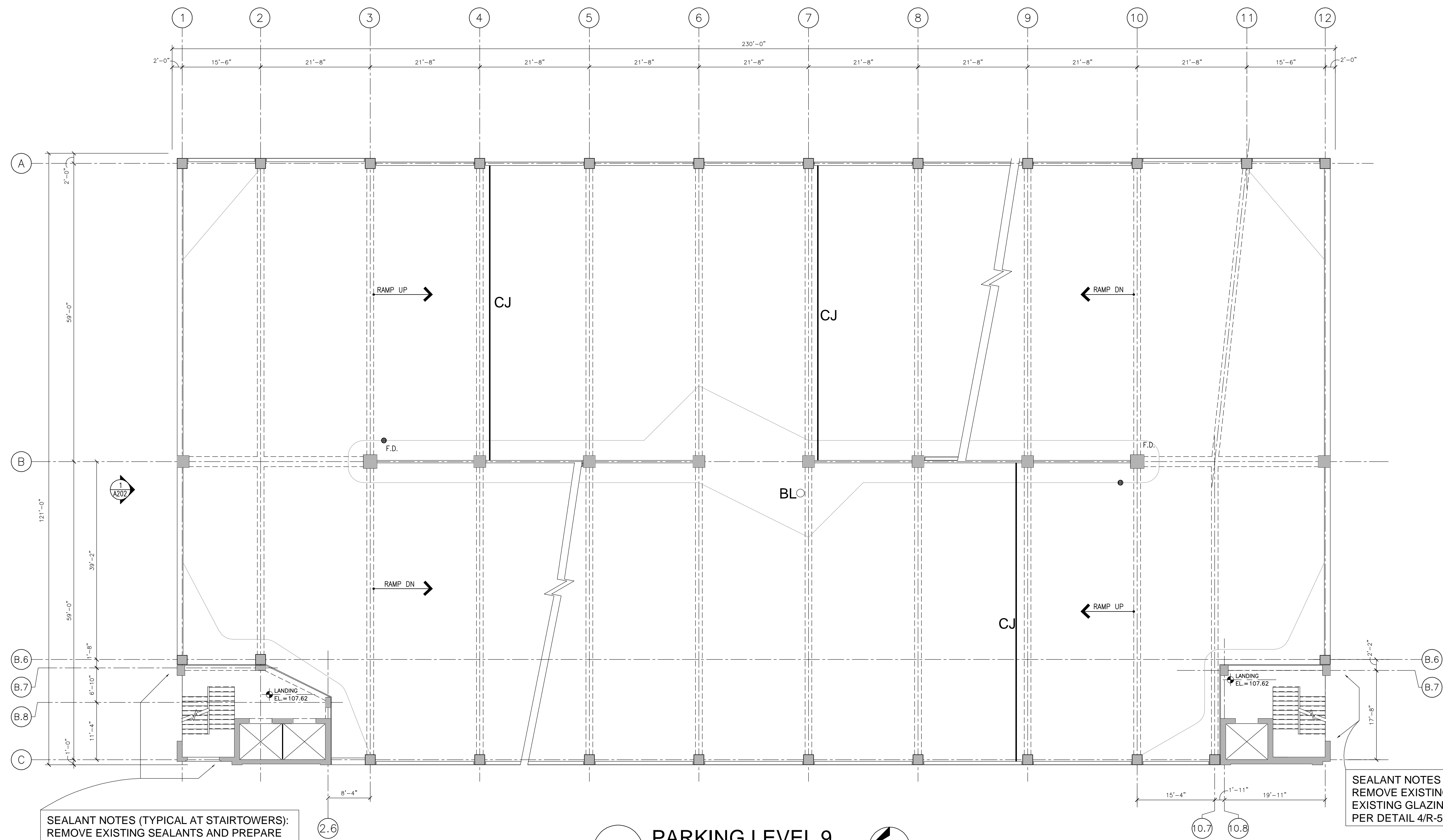
DRAWING NO.
R-103.8

SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 **PARKING LEVEL 9**
SCALE: NTS



- LEGEND:**
- REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - REINSTALL FLEX POST BOLLARD
 - REPLACE BROKEN FLOOR DRAIN COVER
 - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

CENTRAL
DOWNTOWN
LEVEL 9 PLAN

DRAWING NO.

R-103.9

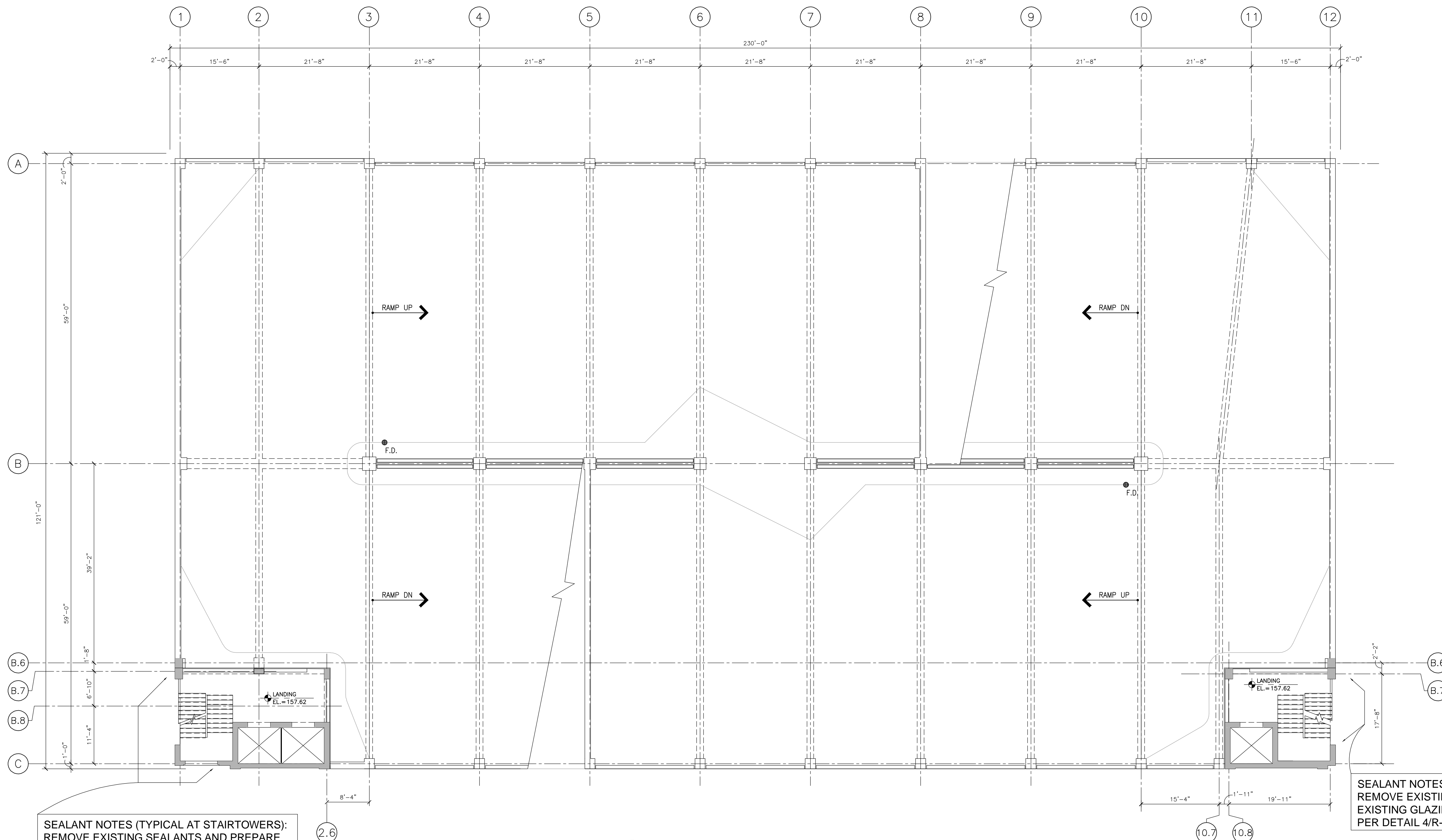
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES. DRWN. CK'D.
KK AC KK

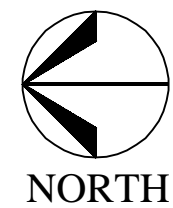
Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

SEALANT NOTES (TYPICAL AT STAIRTOWERS):
REMOVE EXISTING SEALANTS AND PREPARE
EXISTING GLAZING TO RECEIVE NEW SEALANT
PER DETAIL 4/R-503

1 PARKING LEVEL 10 (ROOF)
SCALE: NTS



- LEGEND:**
- CJ - REMOVE AND REPLACE EXISTING CONTROL/CONSTRUCTION JOINT SEALANT, SEE DETAIL 6/R-502.
 - ▨ - PARTIAL DEPTH CONCRETE REPAIR, SEE DETAIL 1/R-501
 - BL ○ - REINSTALL FLEX POST BOLLARD
 - BFD ○ - REPLACE BROKEN FLOOR DRAIN COVER
 - EJ - REPLACE EXPANSION JOINT SEAL WITH NEW FOAM JOINT SEAL, SEE DETAIL 8/R-502.

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: CENTRAL DOWNTOWN LEVEL 10 PLAN		
DRAWING NO. R-103.10		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

ISSUE

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

CUPPLES STATION
LEVEL 1 PLAN

DRAWING NO.

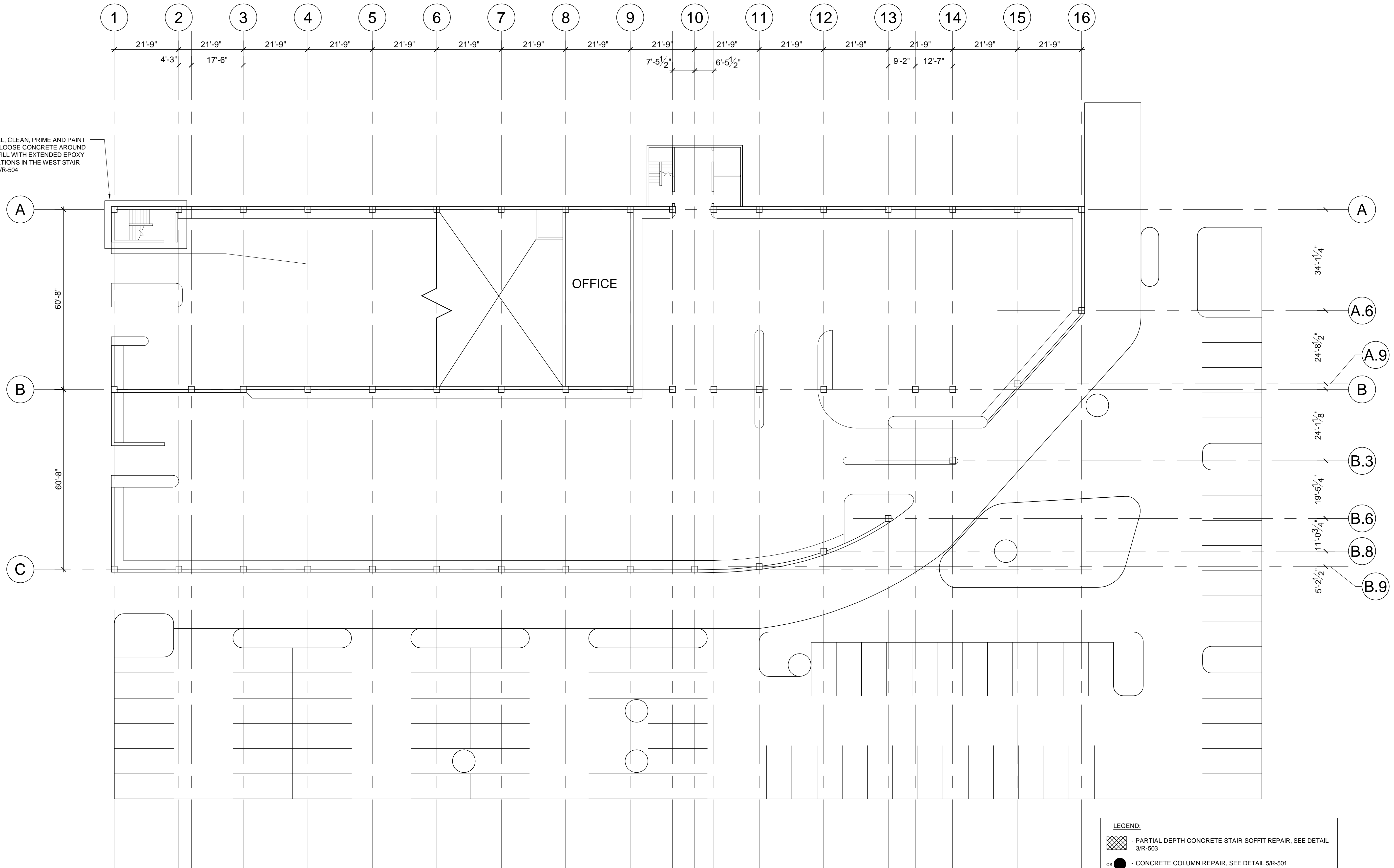
R-104.1

SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK



1 **PARKING LEVEL 1**
SCALE: NTS

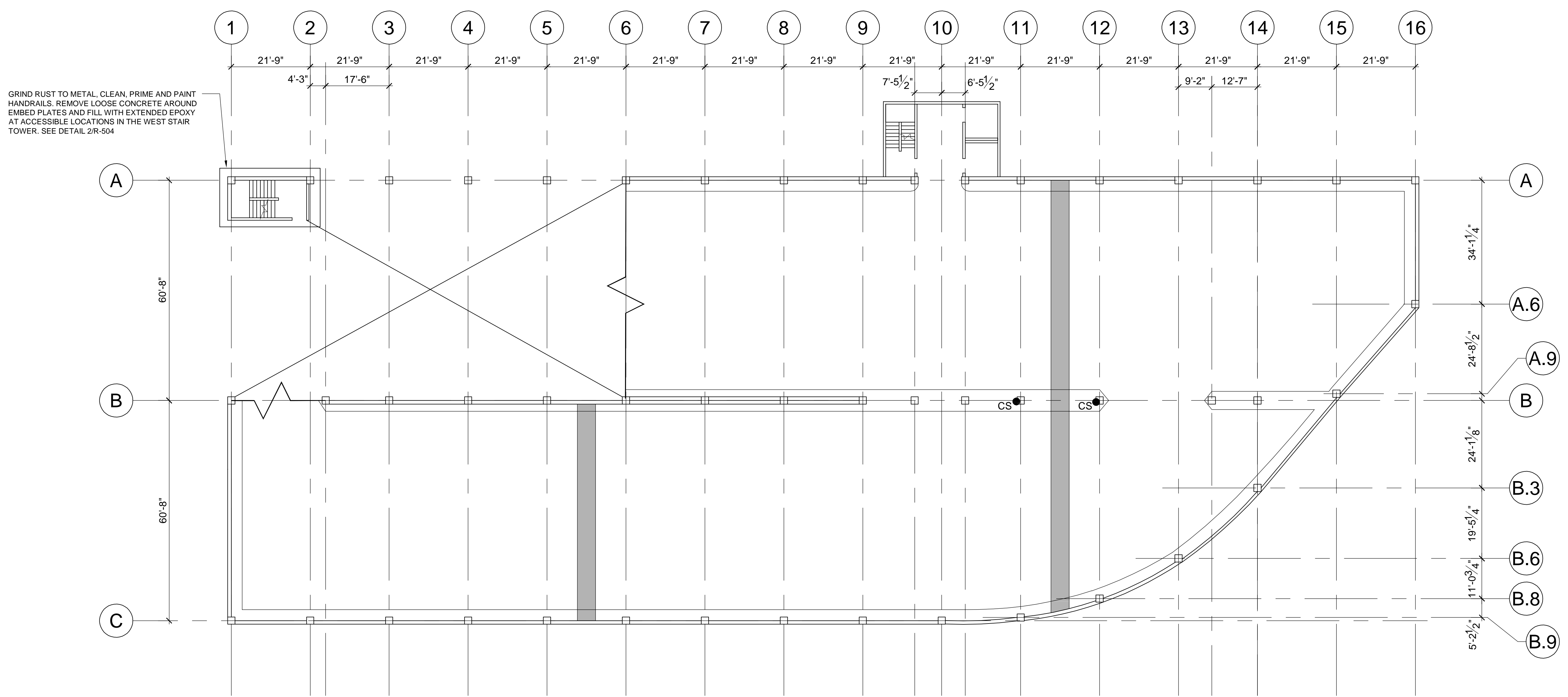


GRIND RUST TO METAL, CLEAN, PRIME AND PAINT HANDRAILS. REMOVE LOOSE CONCRETE AROUND EMBED PLATES AND FILL WITH EXTENDED EPOXY AT ACCESSIBLE LOCATIONS IN THE WEST STAIR TOWER. SEE DETAIL 2/R-504

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:		
CUPPLES STATION LEVEL 2 PLAN		
DRAWING NO.		
R-104.2		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2012 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

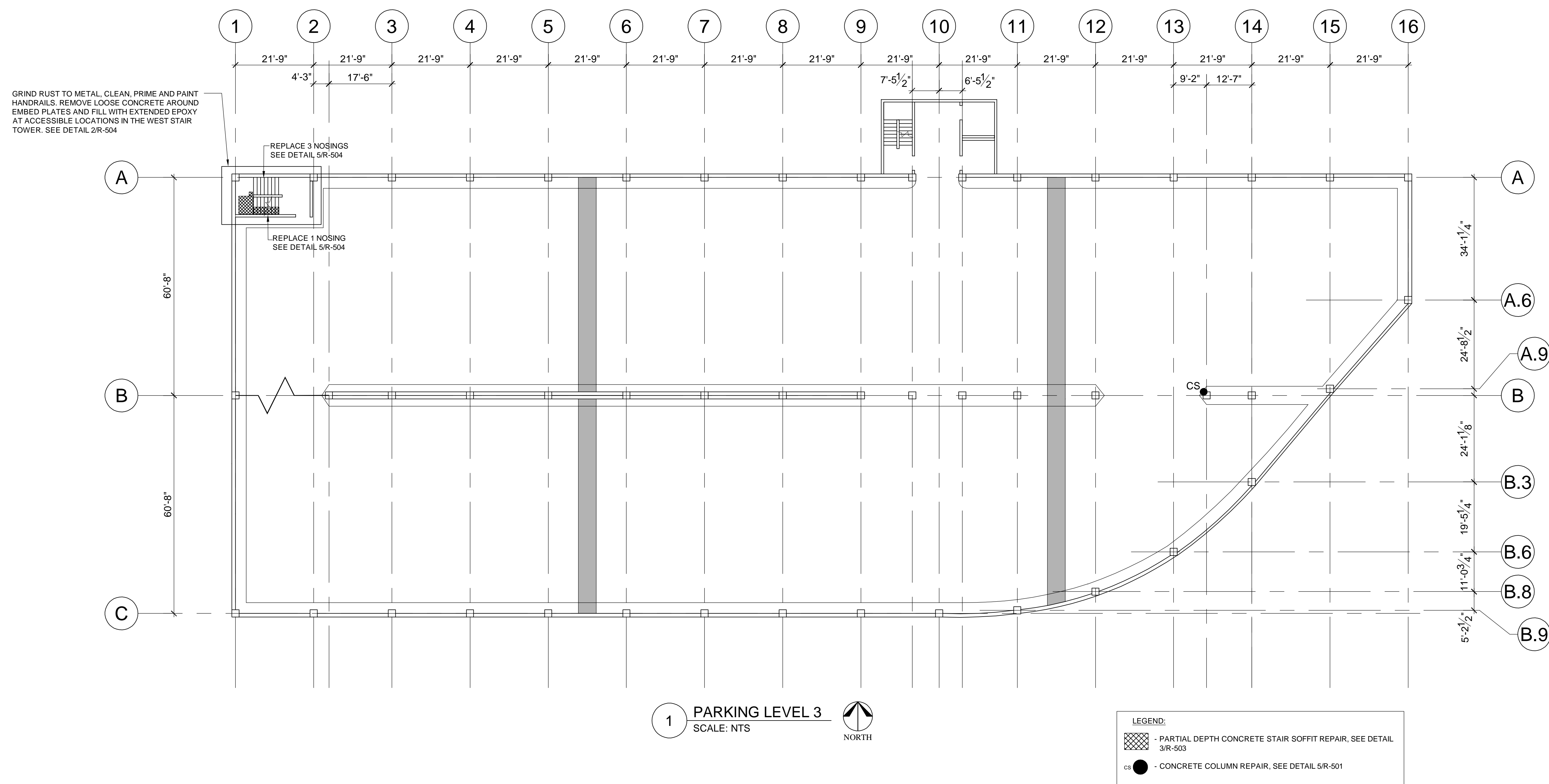


1 PARKING LEVEL 2
SCALE: NTS



LEGEND:
 - PARTIAL DEPTH CONCRETE STAIR SOFFIT REPAIR, SEE DETAIL 3/R-503
 CS ● - CONCRETE COLUMN REPAIR, SEE DETAIL 5/R-501

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



ISSUE

NO.	DESCRIPTION	DATE

DRAWING TITLE:
CUPPLES STATION
LEVEL 3 PLAN

DRAWING NO.

R-104.3

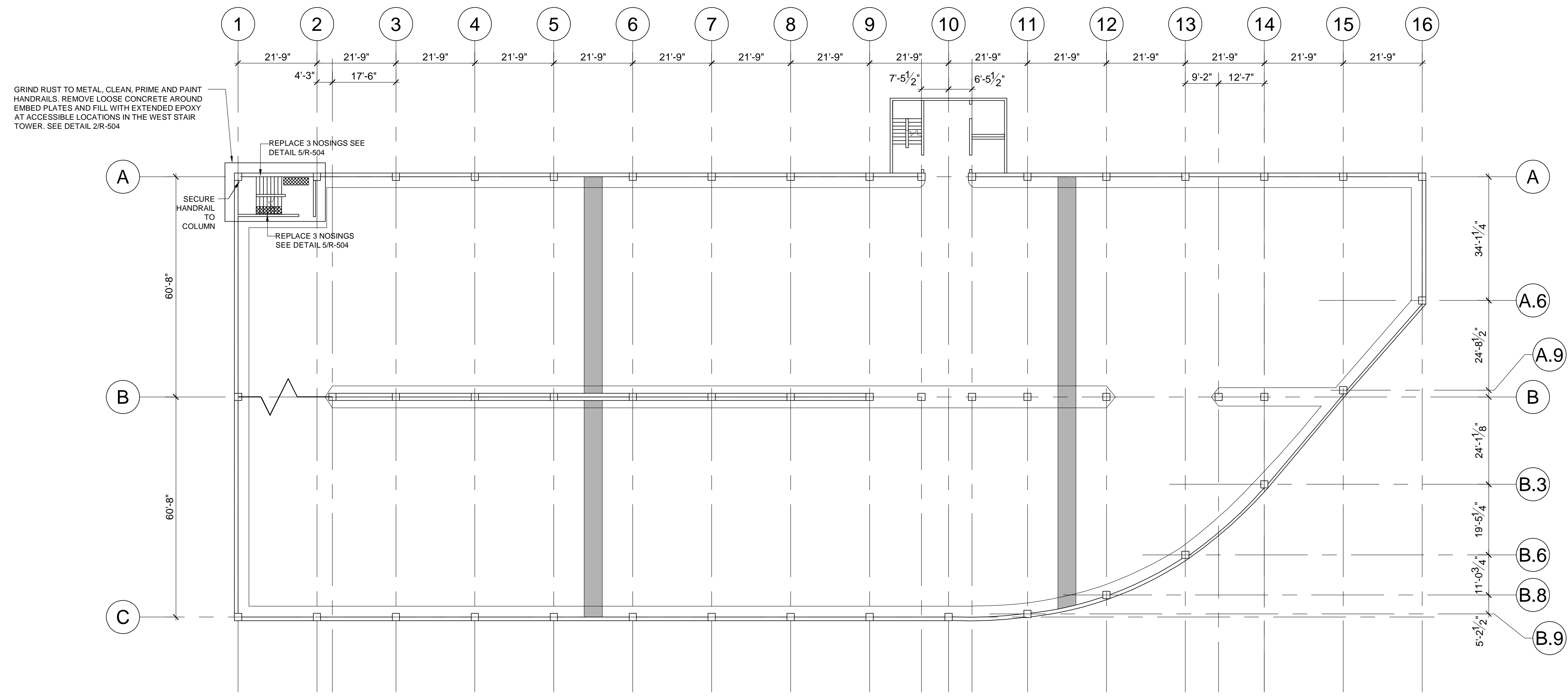
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES. DRWN. CK'D.
KK AC KK

Copyright © 2022 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

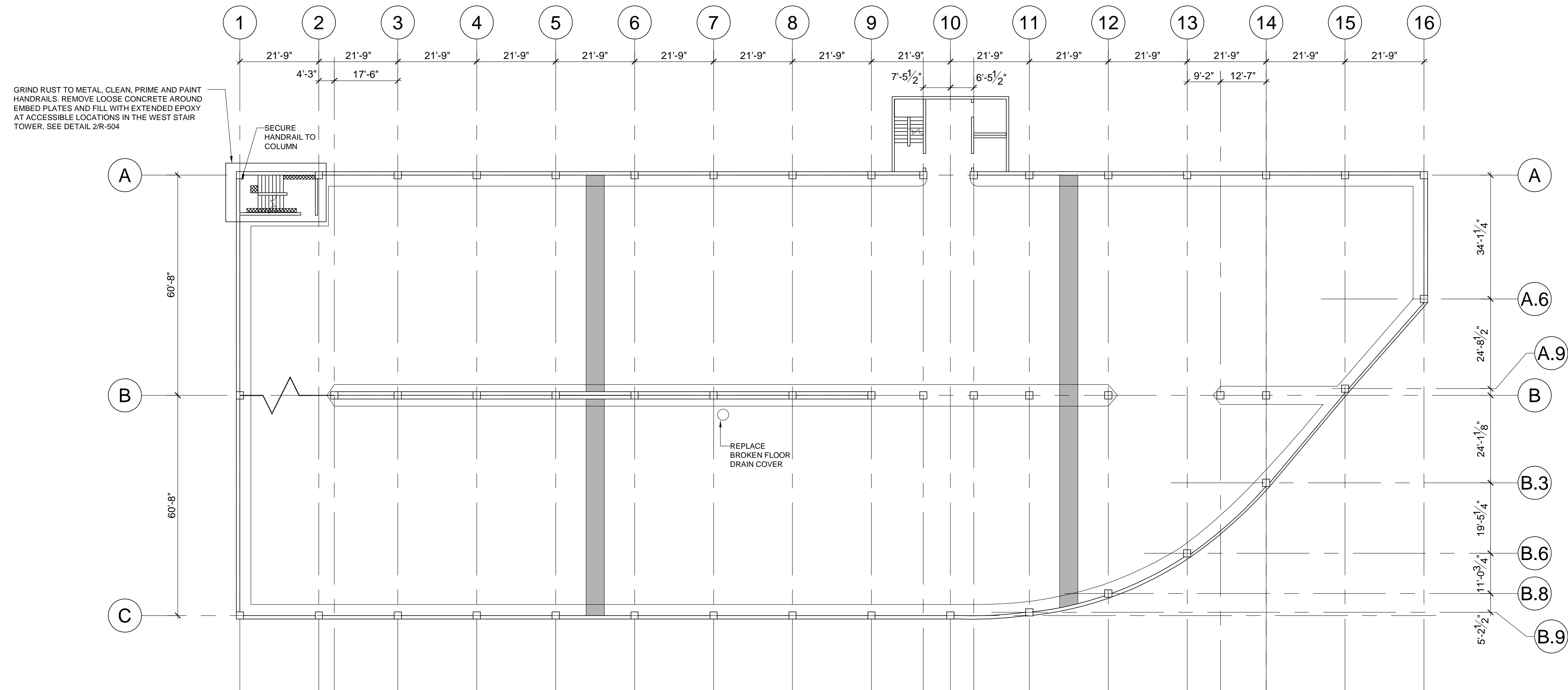


ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:		
CUPPLES STATION LEVEL 4 PLAN		
DRAWING NO.		
R-104.4		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2015 Design Man, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Design Man.

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



1 PARKING LEVEL 5
SCALE: NTS



LEGEND:

- PARTIAL DEPTH CONCRETE STAIR SOFFIT REPAIR, SEE DETAIL 3/R-503
- CONCRETE COLUMN REPAIR, SEE DETAIL 5/R-501

ISSUE

NO.	DESCRIPTION	DATE

DRAWING TITLE:

CUPPLES STATION
LEVEL 5 PLAN

DRAWING NO.

R-104.5

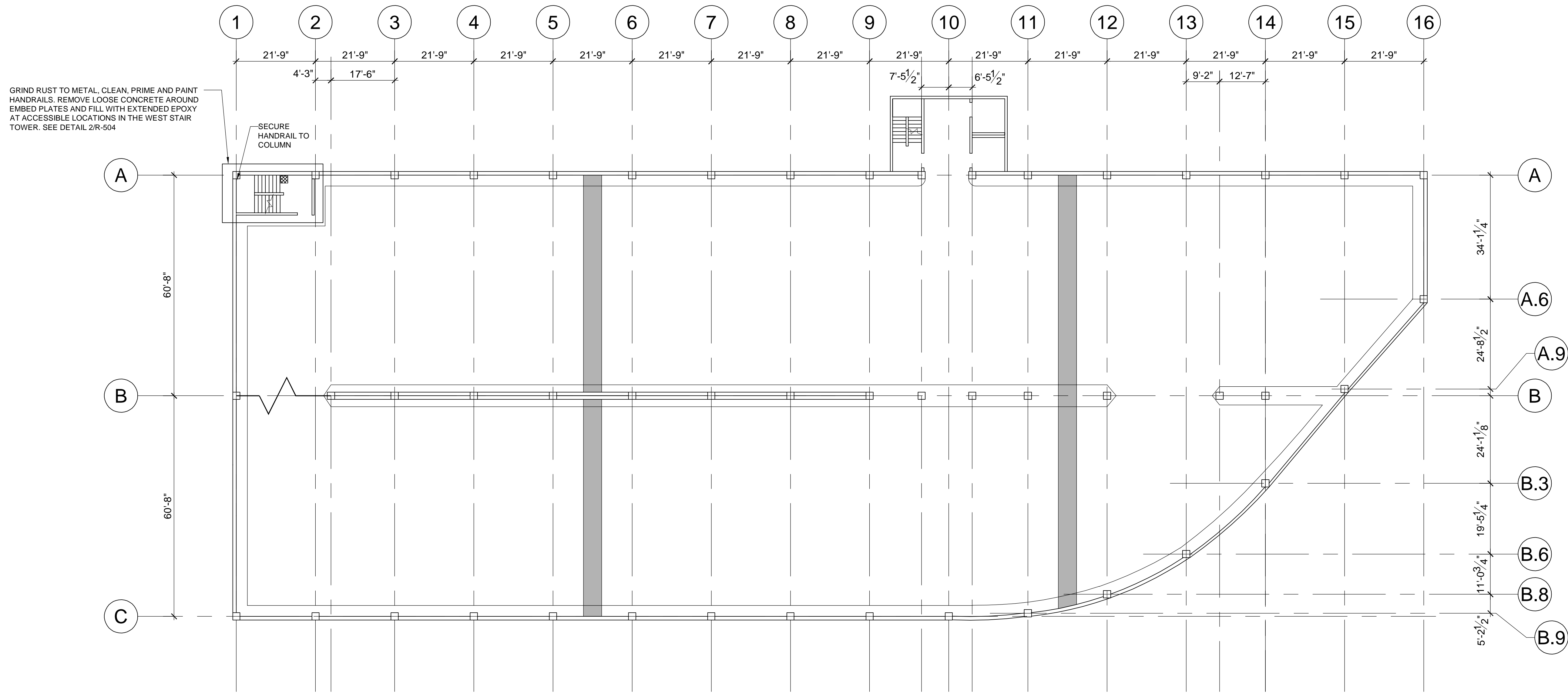
SCALE: AS NOTED

DATE: AUGUST, 2022



PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



1 PARKING LEVEL 6
SCALE: NTS

LEGEND:
 - PARTIAL DEPTH CONCRETE STAIR SOFFIT REPAIR, SEE DETAIL 3/R-503
 - CONCRETE COLUMN REPAIR, SEE DETAIL 5/R-501

ISSUE		
NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:
CUPPLES STATION
LEVEL 6 PLAN

DRAWING NO.
R-104.6

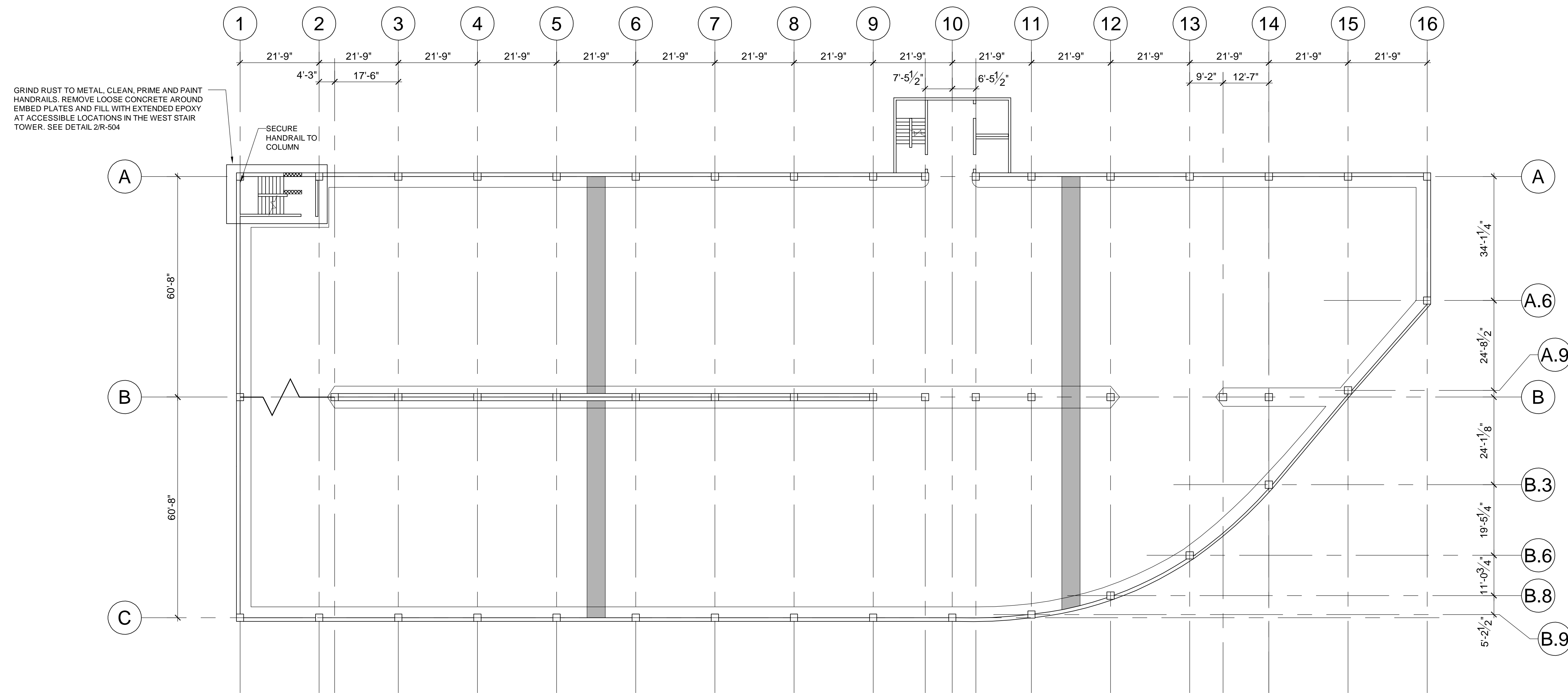
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2022 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



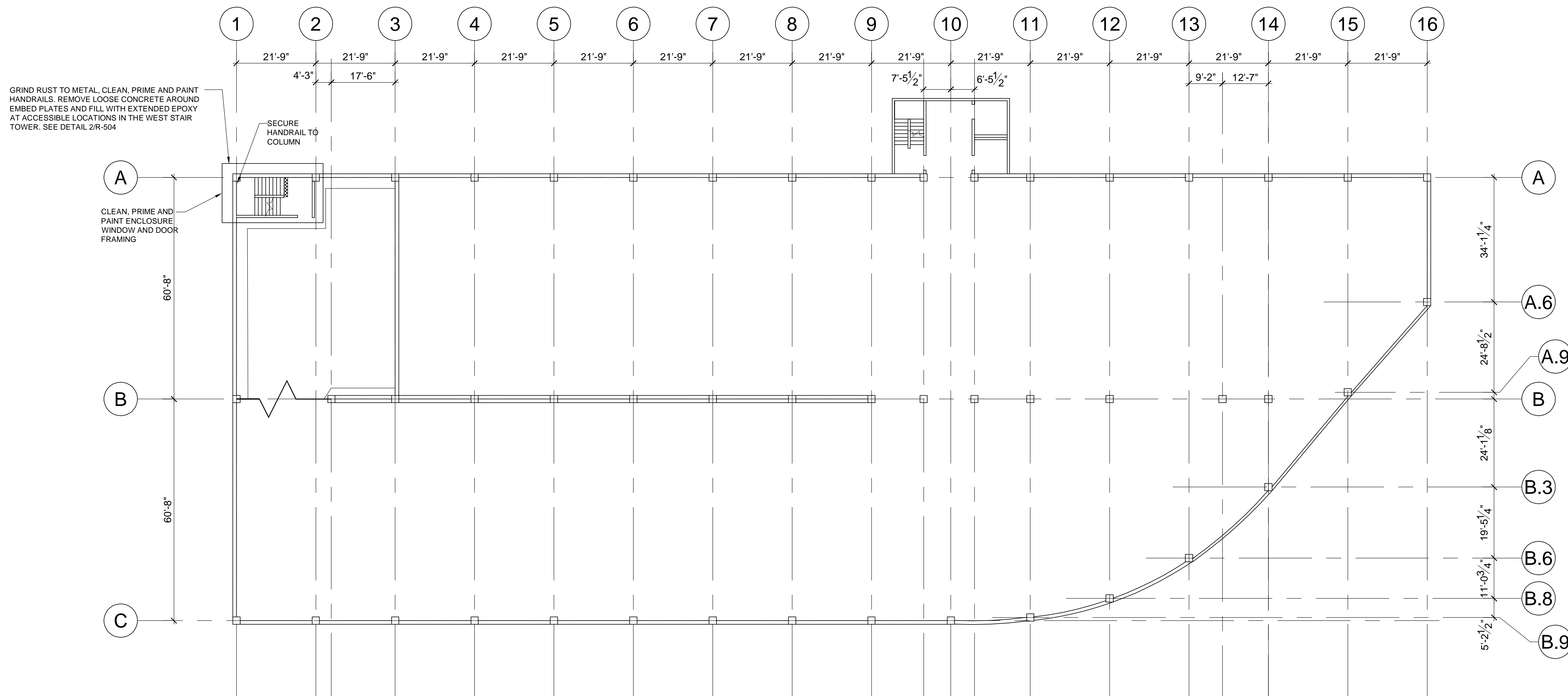
1 **PARKING LEVEL 7**
SCALE: NTS

LEGEND:
 - PARTIAL DEPTH CONCRETE STAIR SOFFIT REPAIR, SEE DETAIL 3/R-503
 - CONCRETE COLUMN REPAIR, SEE DETAIL 5/R-501

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:		
CUPPLES STATION LEVEL 7 (ROOF) PLAN		
DRAWING NO.		
R-104.7		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



1 PARKING LEVEL 8 PARTIAL ROOF
SCALE: NTS

LEGEND:
 - PARTIAL DEPTH CONCRETE STAIR SOFFIT REPAIR, SEE DETAIL 3/R-503
 - CONCRETE COLUMN REPAIR, SEE DETAIL 5/R-501

ISSUE		
NO.	DESCRIPTION	DATE

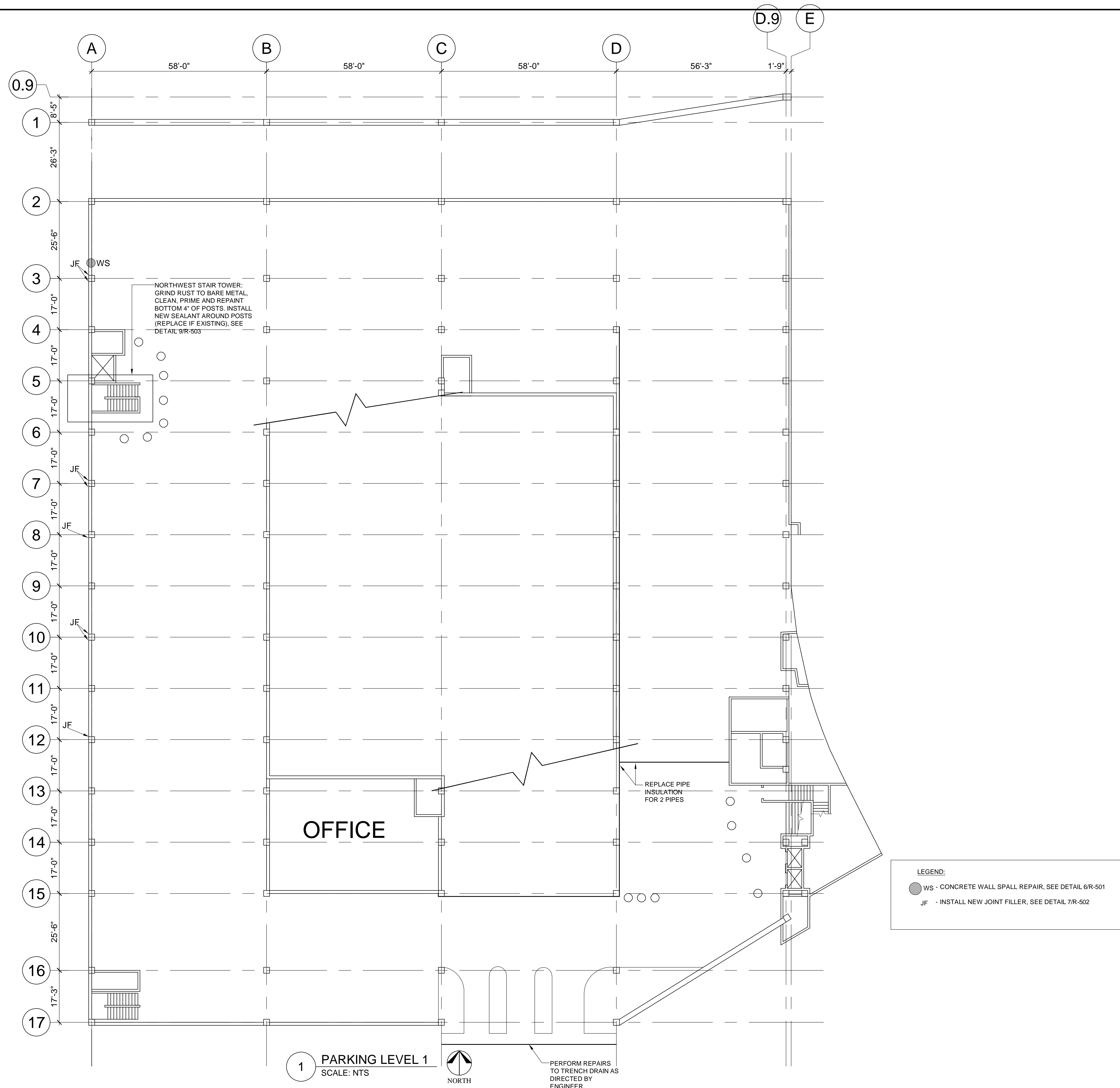
DRAWING TITLE:
CUPPLES STATION
LEVEL 8 PARTIAL ROOF
PLAN

DRAWING NO.
R-104.8

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2022 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
**KIEL CENTER
LEVEL 1 PLAN**

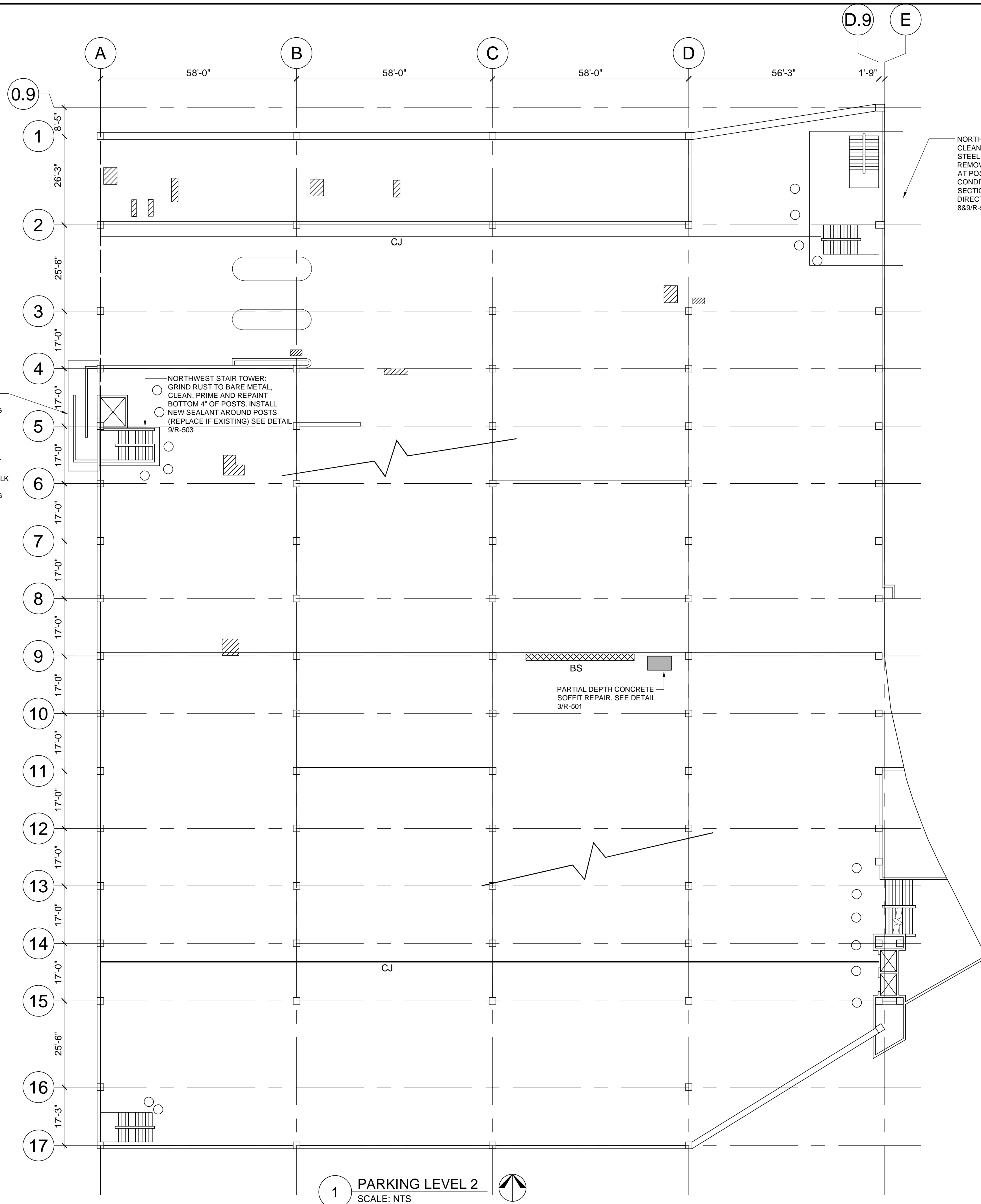
DRAWING NO.
R-105.1

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI



ADA RAMP:
REMOVE AND STORE EXISTING HANDRAIL. REMOVE ALL EXISTING POST ANCHORS. INSTALL NEW ANCHORS, VERTICAL POSTS AND FOUR NEW CONCRETE AROUND ANCHORS. WELD EXISTING HANDRAIL TO NEW VERTICAL POSTS ALL AROUND. GRIND RUST TO METAL. CLEAN, PRIME AND REPAINT HANDRAIL. INSTALL CAULK AROUND NEW VERTICAL POST ANCHORS. CLEAN RUST STAINING FROM CONCRETE. SEE DETAIL 8/R-503.

NORTHWEST STAIR TOWER:
GRIND RUST TO BARE METAL. CLEAN, PRIME AND REPAINT. BOTTOM 4" OF POSTS. INSTALL NEW SEALANT AROUND POSTS (REPLACE IF EXISTING) SEE DETAIL 9/R-503

NORTHEAST STAIR TOWER:
CLEAN ALL RUST SPOTS TO BARE STEEL. CLEAN, PRIME AND REPAINT. REMOVE AND REPLACE ALL SEALANT AT POST BASES AND INSPECT STEEL CONDITION. REPLACE DAMAGED SECTIONS OF PIPE AT EMBEDMENT AS DIRECTED BY ENGINEER. SEE DETAILS 8&9/R-503

BS
PARTIAL DEPTH CONCRETE SOFFIT REPAIR. SEE DETAIL 3/R-501

LEGEND:

- PARTIAL DEPTH CONCRETE REPAIR. SEE DETAILS 1/R-501
- CJ - REPLACE CONTROL JOINT. SEE DETAIL 6/R-502
- BS - BEAM SPALL ON SOFFIT OF LEVEL. SEE DETAIL 3/R-501

1 PARKING LEVEL 2
SCALE: NTS



ISSUE		
NO.	DESCRIPTION	DATE

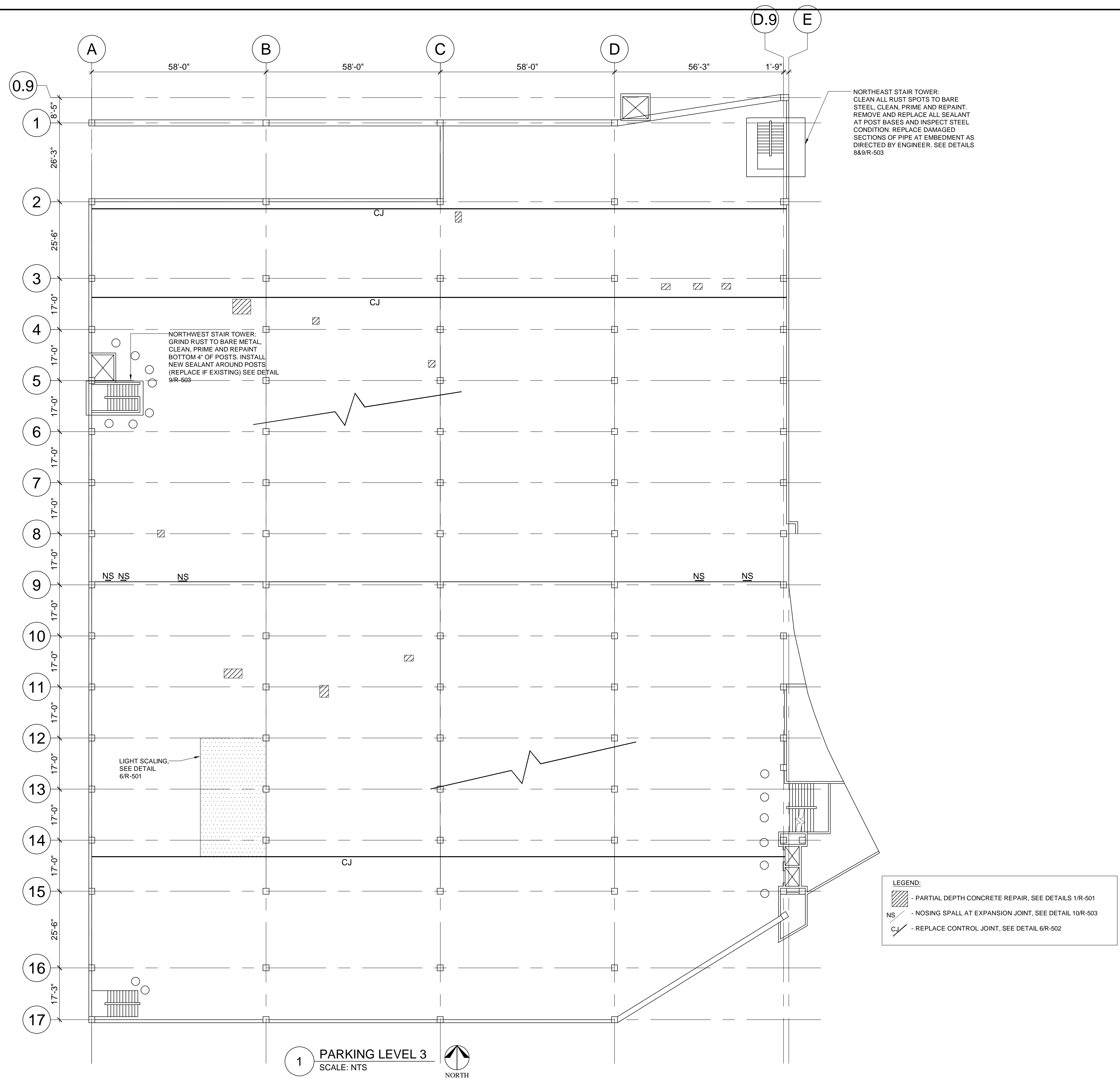
DRAWING TITLE:
KIEL CENTER LEVEL 2 PLAN

DRAWING NO.
R-105.2

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2022 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



ISSUE

NO.	DESCRIPTION	DATE

DRAWING TITLE:
KIEL CENTER
LEVEL 3 PLAN

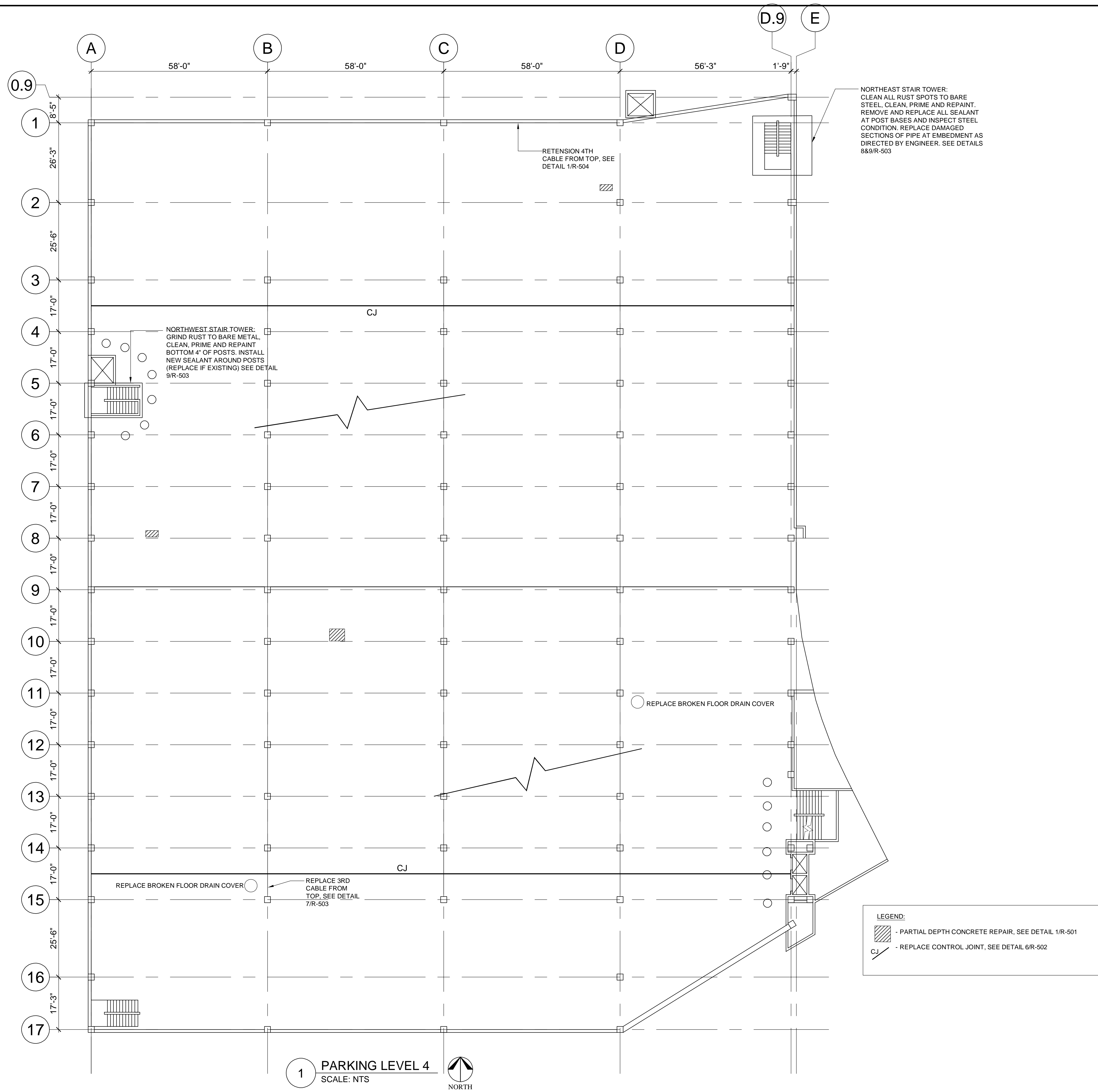
DRAWING NO.
R-105.3

SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

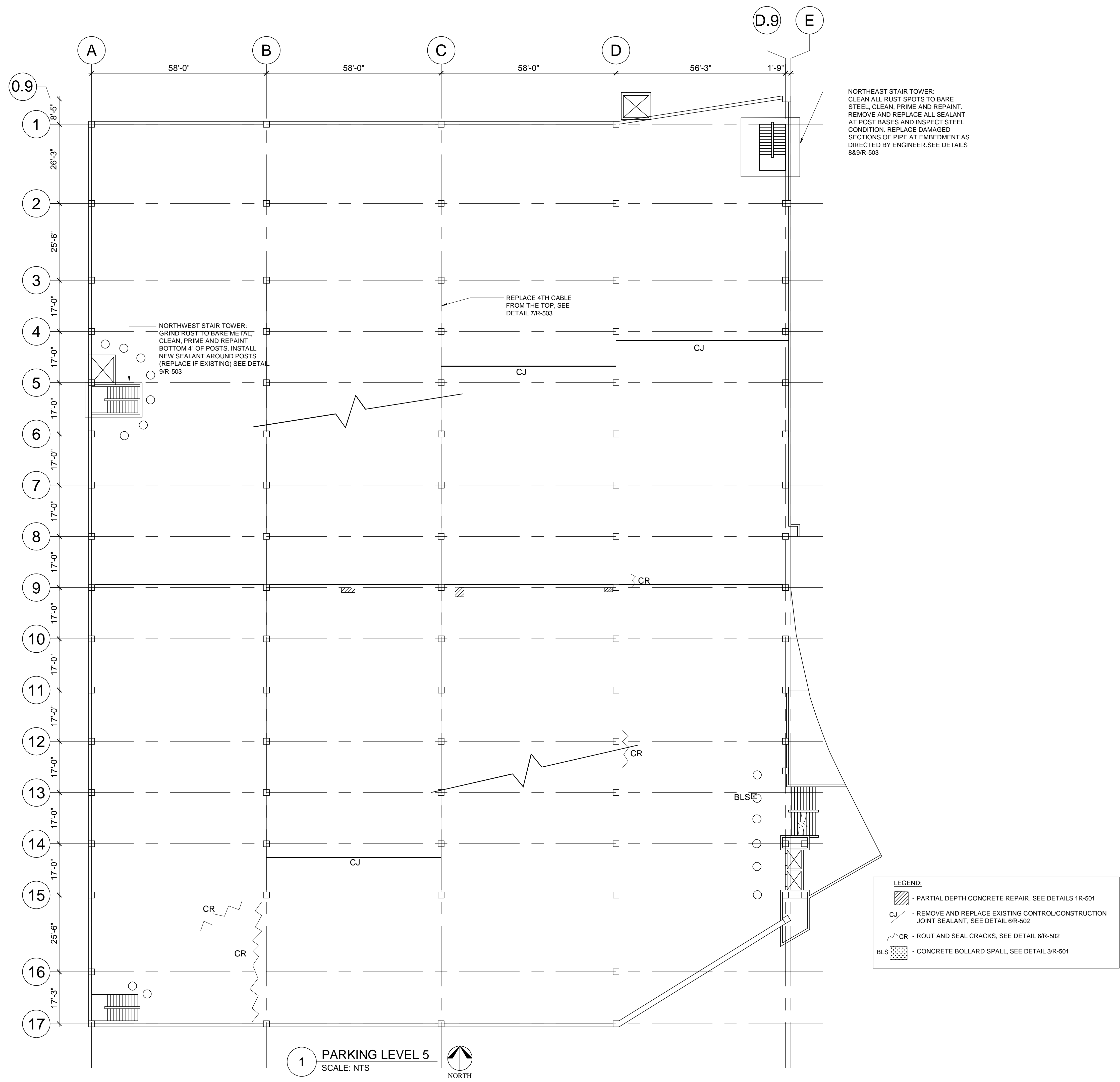
Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: KIEL CENTER LEVEL 4 PLAN		
DRAWING NO. R-105.4		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES. KK	DRWN. AC	CK'D. KK

Copyright © 2018 Designman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Designman.



REPAIR AND PREVENTIVE MAINTENANCE
OF THE
CITY OF ST. LOUIS PARKING GARAGES
ST. LOUIS, MISSOURI

ISSUE		
NO.	DESCRIPTION	DATE

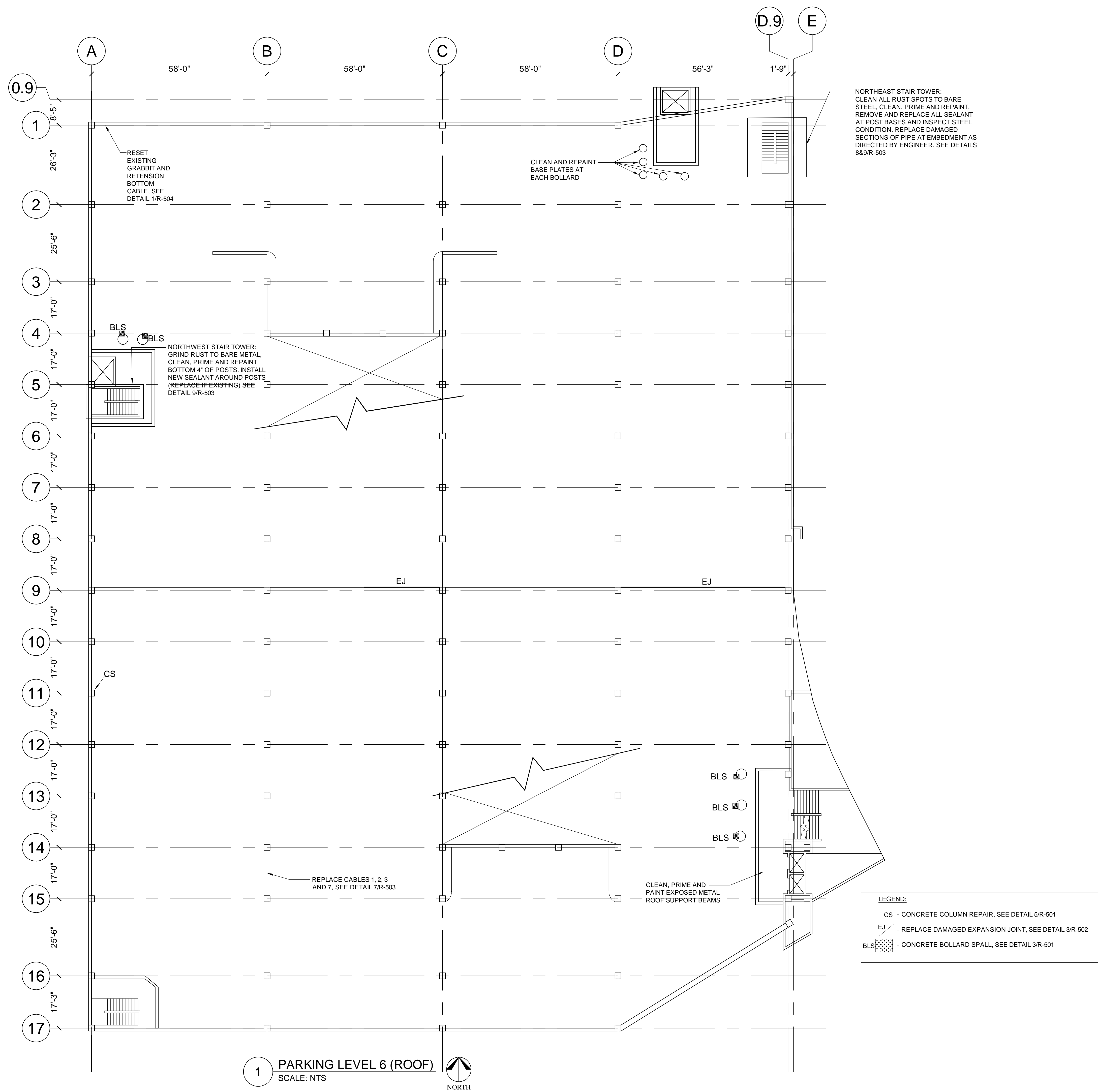
DRAWING TITLE:
**KIEL CENTER
LEVEL 5 PLAN**

DRAWING NO.
R-105.5

SCALE: AS NOTED
DATE: AUGUST, 2022
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2022 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



1 PARKING LEVEL 6 (ROOF)
SCALE: NTS



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
**KIEL CENTER
LEVEL 6 PLAN**

DRAWING NO.
R-105.6

SCALE: AS NOTED
DATE: AUGUST, 2022

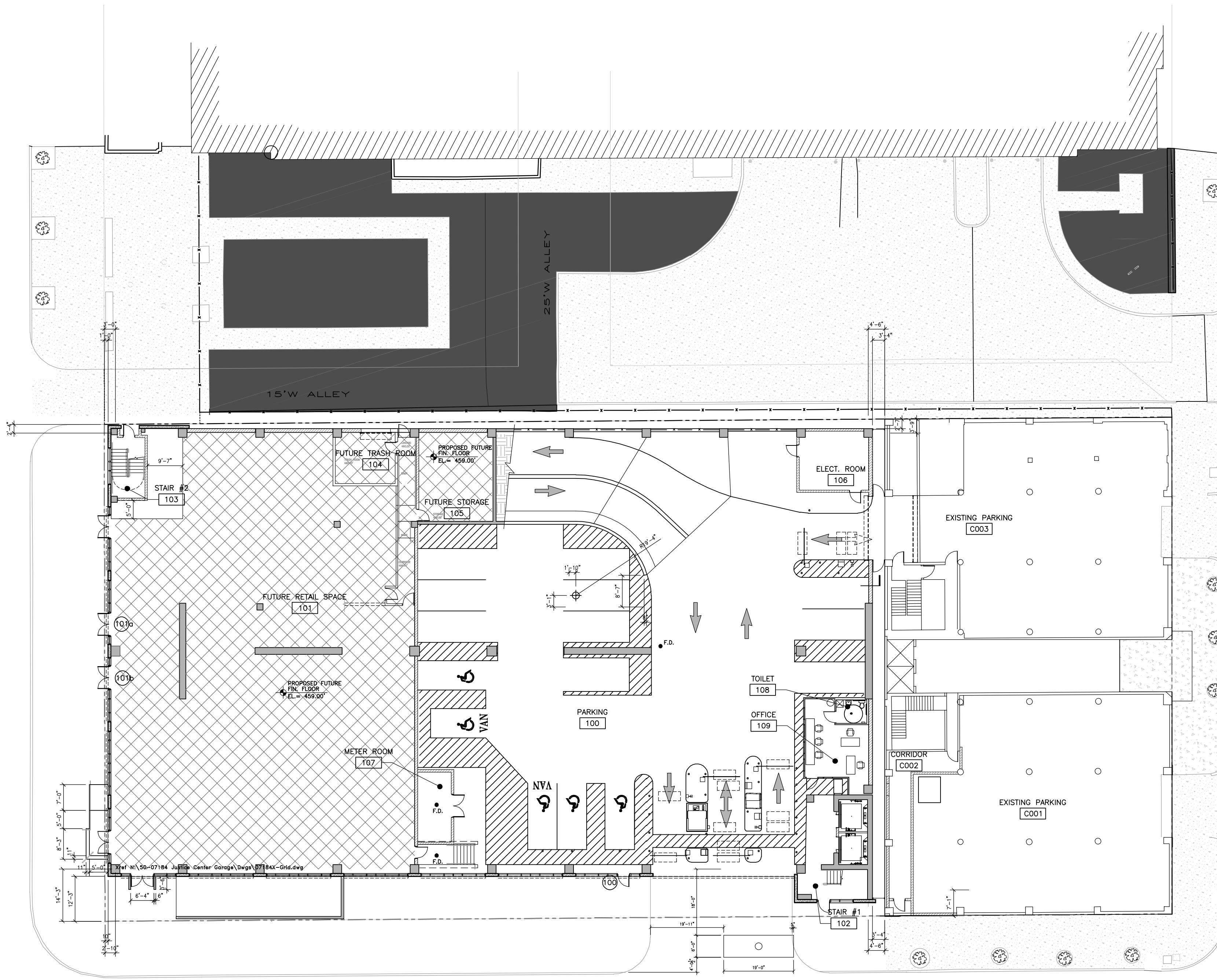
PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

TUCKER BOULEVARD
(150' WIDE)

ELEVENTH STREET
(80' WIDE)



CLARK AVENUE
(80' WIDE)

NO WORK ANTICIPATED ON THIS LEVEL

LEGEND:
 - RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
 GCP - REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
 C/J - REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 LEVEL ONE PLAN
SCALE: 1" = 30'
NORTH

ISSUE		

NO.	DESCRIPTION	DATE

DRAWING TITLE:
**JUSTICE CENTER
LEVEL ONE
PLAN**

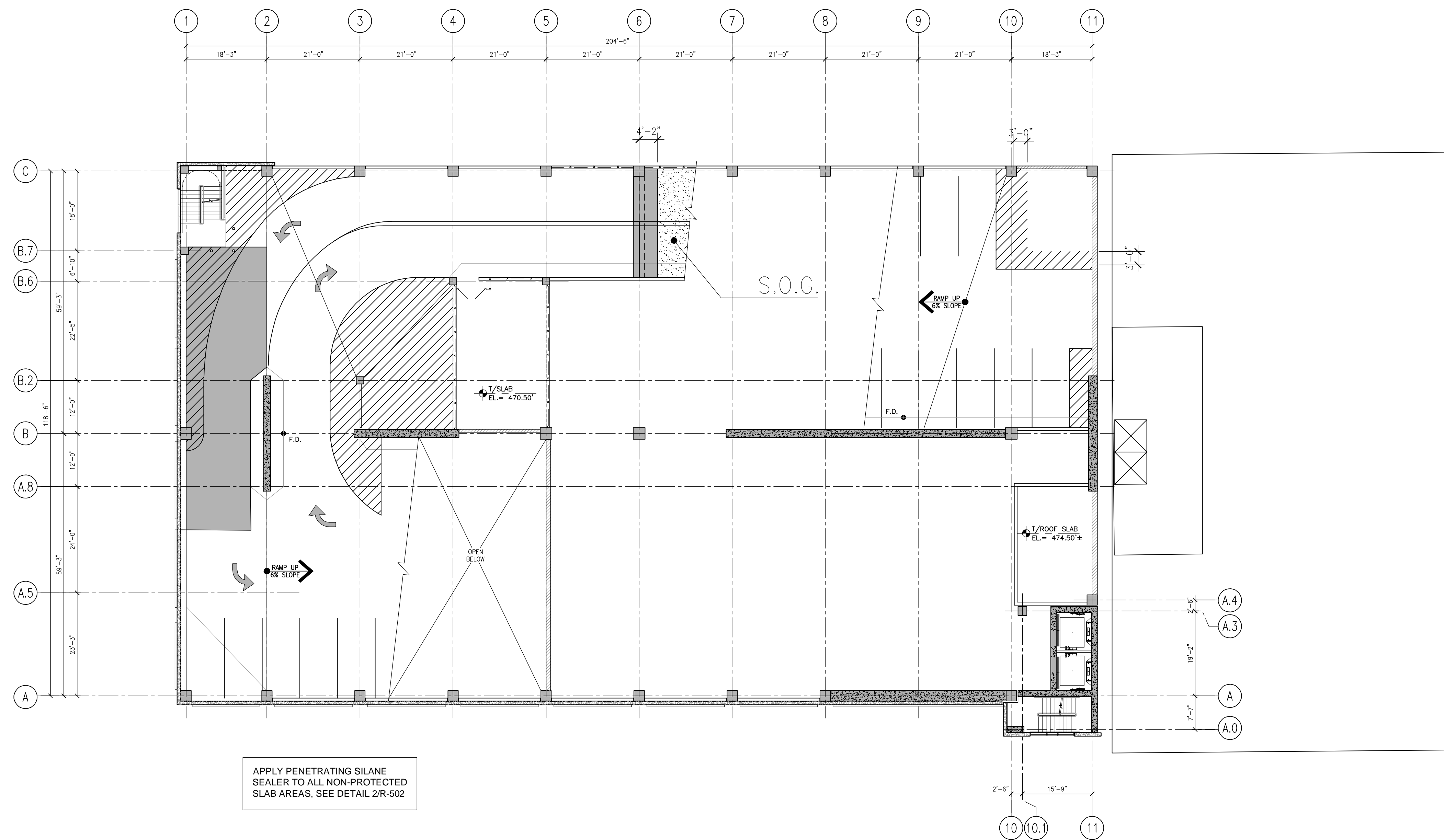
DRAWING NO.
R-106.1

SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman, Inc.



APPLY PENETRATING SILANE SEALER TO ALL NON-PROTECTED SLAB AREAS, SEE DETAIL 2/R-502

LEGEND:

- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 384/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 SECOND LEVEL PLAN
SCALE: 1" = 30'



ISSUE		
NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:
JUSTICE CENTER
LEVEL 2 PLAN

DRAWING NO.

R-106.2

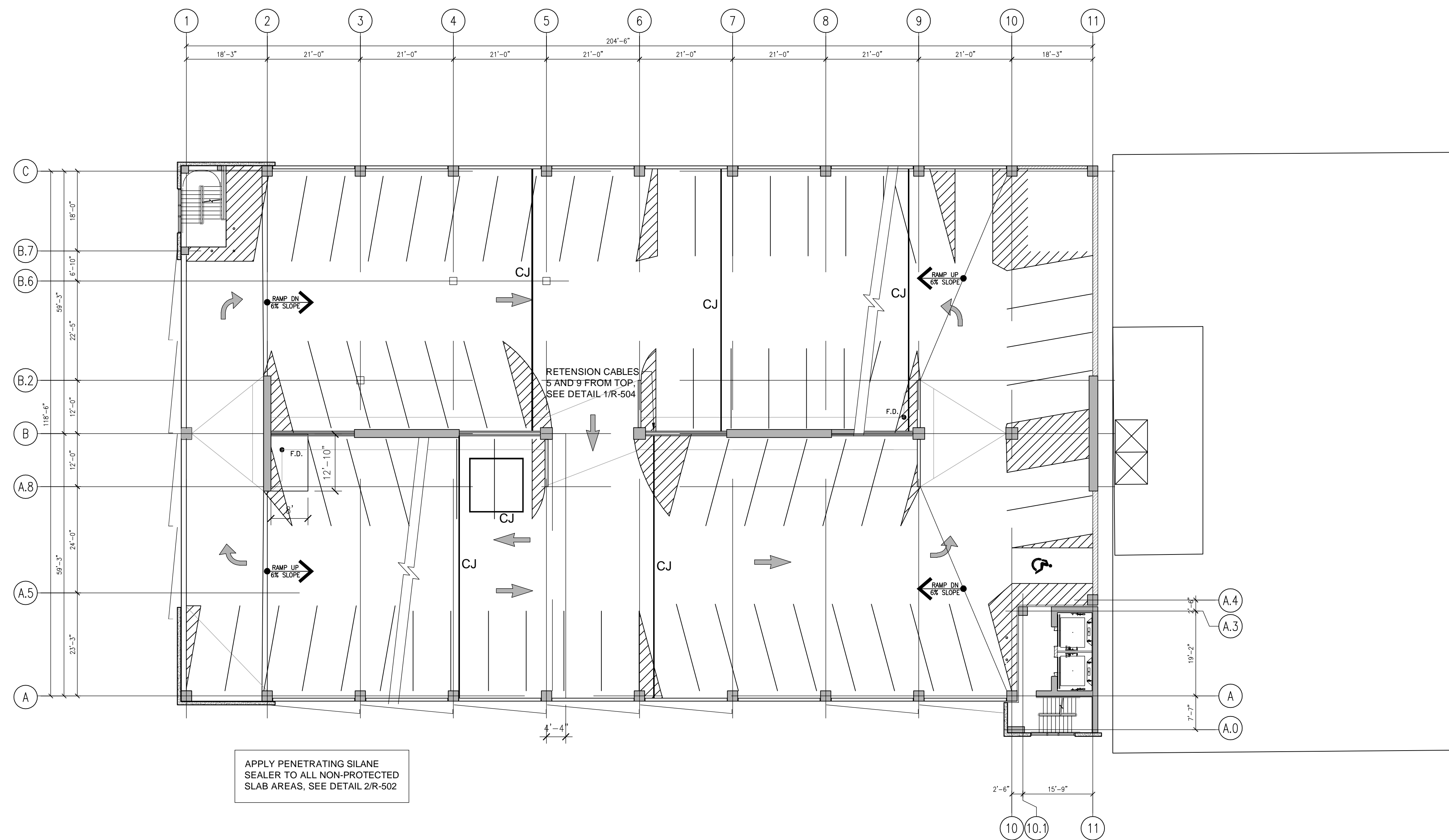
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



APPLY PENETRATING SILANE SEALER TO ALL NON-PROTECTED SLAB AREAS, SEE DETAIL 2/R-502

LEGEND:

- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 384/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 THIRD LEVEL PLAN
SCALE: 1" = 30'



ISSUE		

NO. DESCRIPTION DATE

DRAWING TITLE:

JUSTICE CENTER
LEVEL 3 PLAN

DRAWING NO.

R-106.3

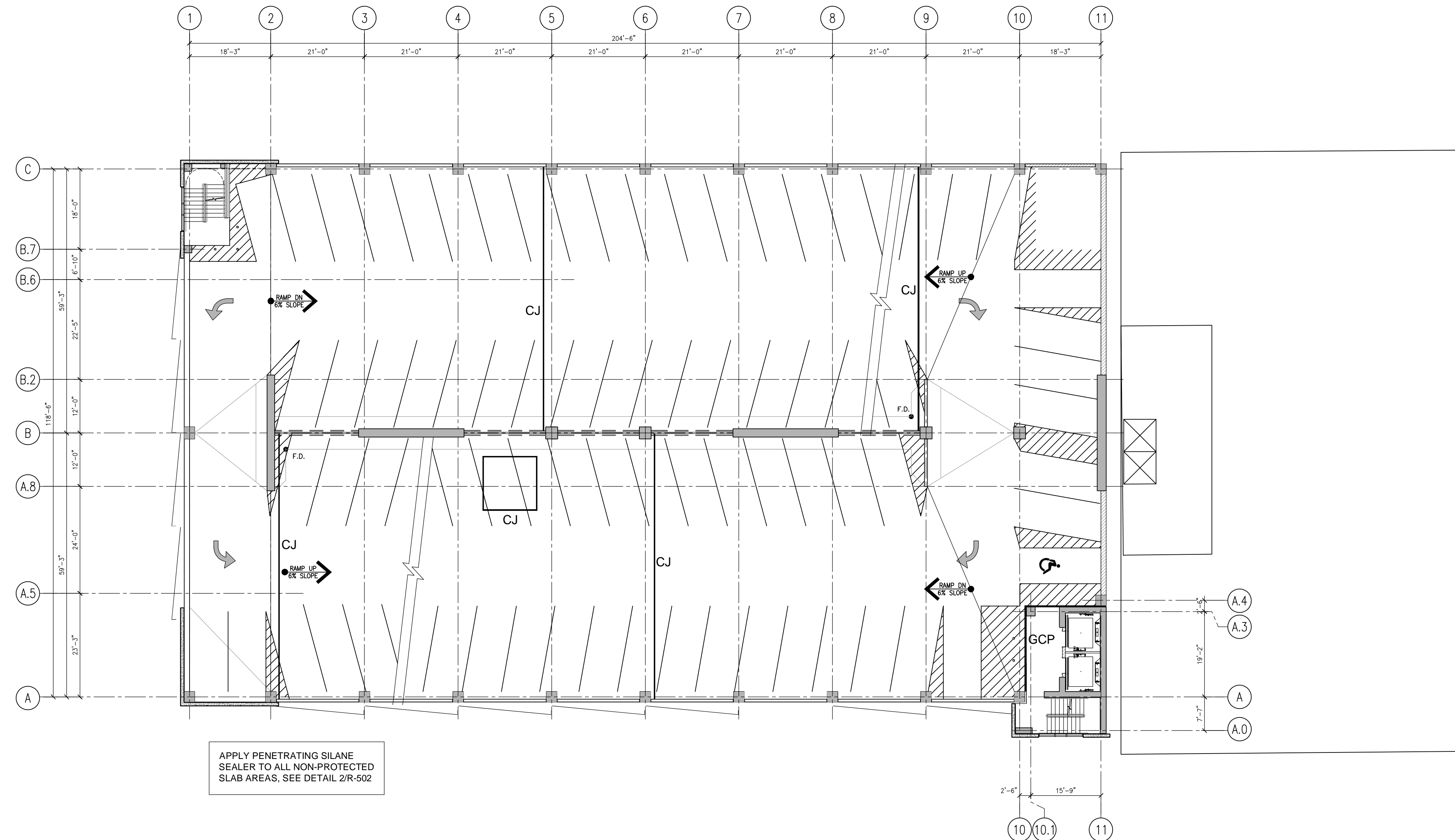
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES. DRWN. CK'D.
KK AC KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



- LEGEND:**
- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
 - GCP - REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
 - CJ - REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 FOURTH LEVEL PLAN
SCALE: 1" = 30'



ISSUE

NO. DESCRIPTION DATE

DRAWING TITLE:

JUSTICE CENTER
LEVEL 4 PLAN

DRAWING NO.

R-106.4

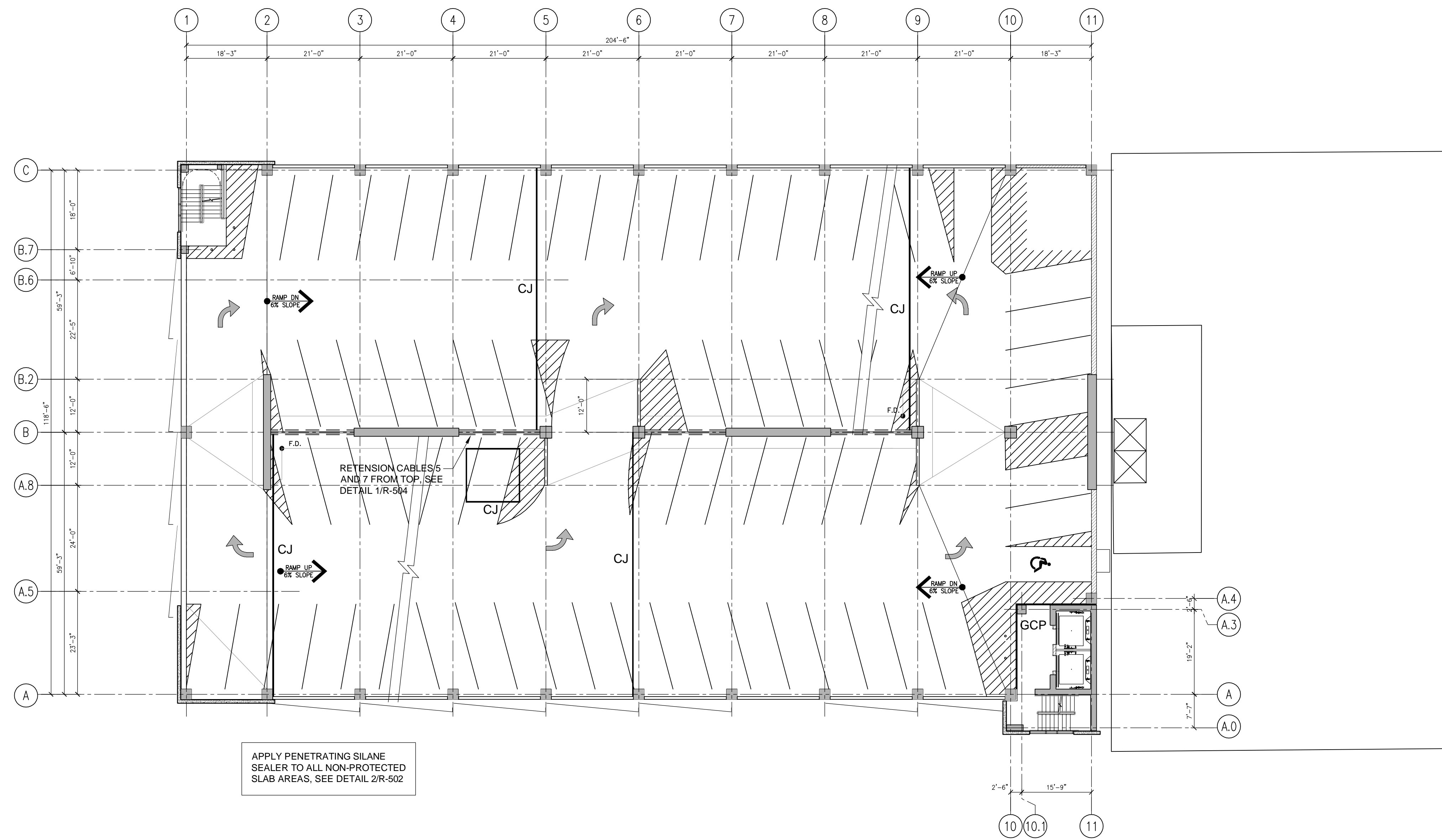
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES. DRWN. CK'D.
KK AC KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



APPLY PENETRATING SILANE SEALER TO ALL NON-PROTECTED SLAB AREAS, SEE DETAIL 2/R-502

LEGEND:
 [Symbol] - RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
 GCP - REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
 CJ - REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

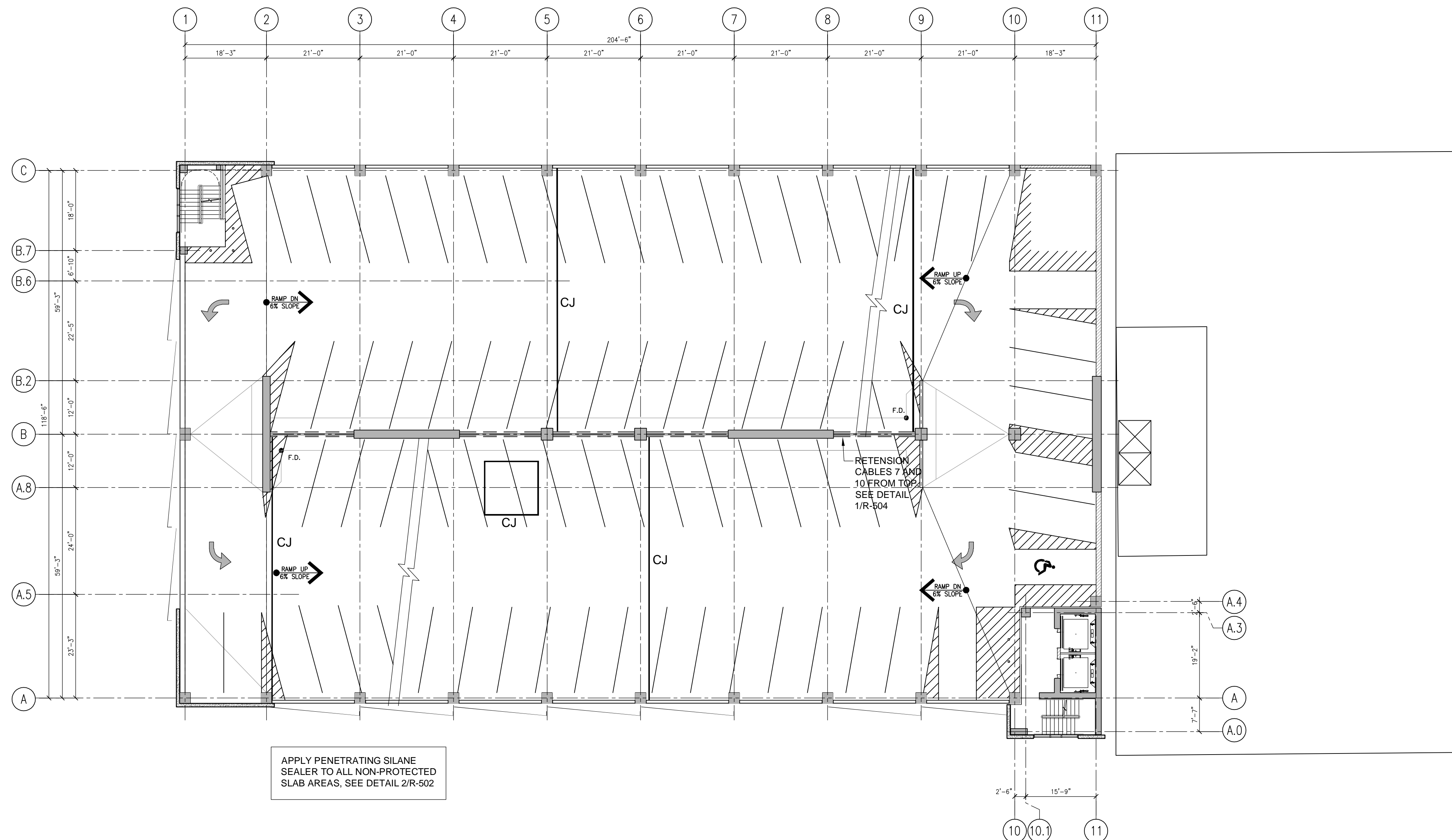
1 FIFTH LEVEL PLAN
SCALE: 1" = 30'



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: JUSTICE CENTER LEVEL 5 PLAN		
DRAWING NO. R-106.5		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



LEGEND:

- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

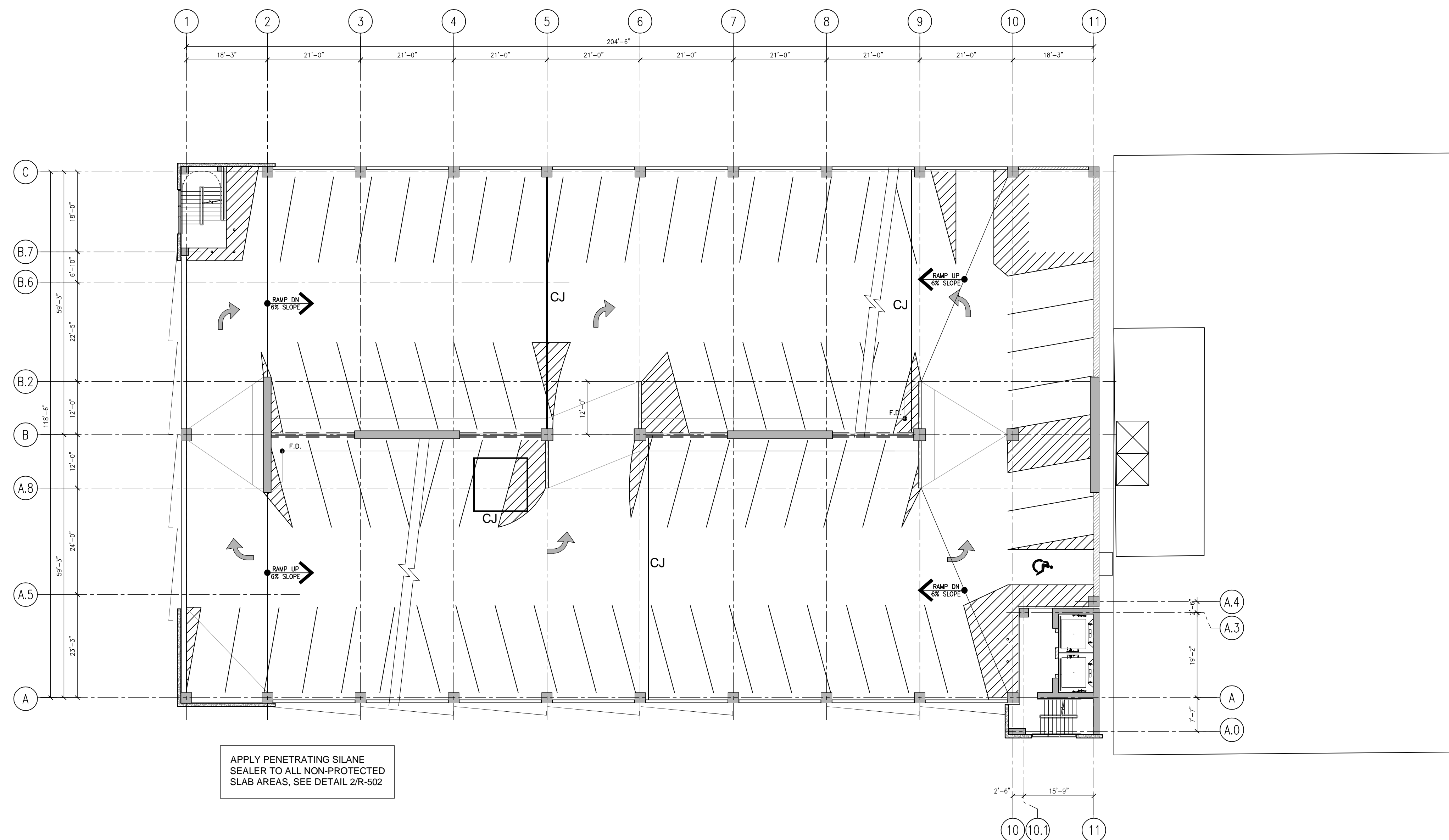
1 SIXTH LEVEL PLAN
SCALE: 1" = 30'



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: JUSTICE CENTER LEVEL 6 PLAN		
DRAWING NO. R-106.6		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Design Management, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Design Management.



APPLY PENETRATING SILANE SEALER TO ALL NON-PROTECTED SLAB AREAS, SEE DETAIL 2/R-502

LEGEND:

- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 SEVENTH LEVEL PLAN
SCALE: 1" = 30'

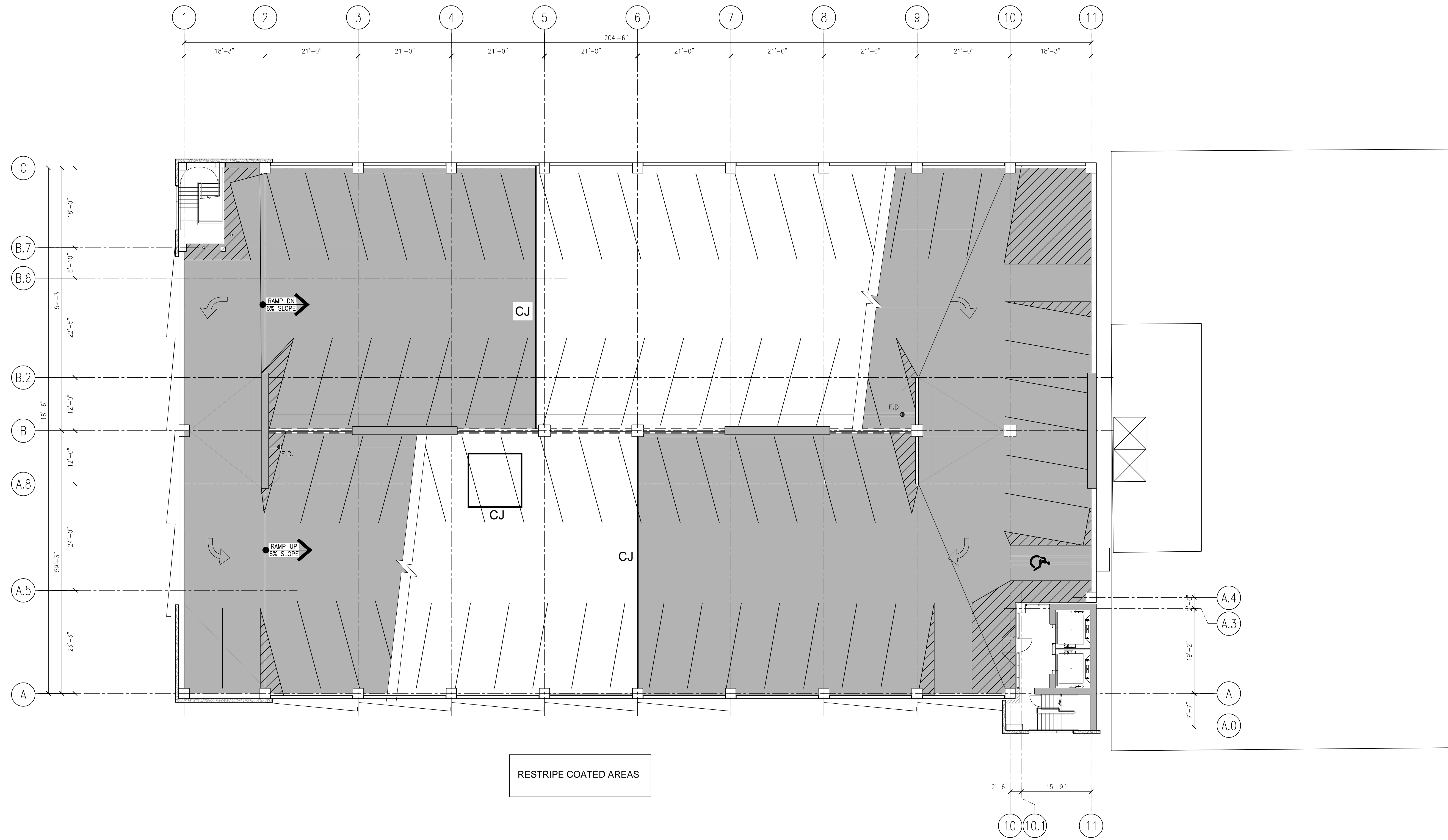


ISSUE

NO.	DESCRIPTION	DATE

NO.	DESCRIPTION	DATE
DRAWING TITLE:		
JUSTICE CENTER LEVEL 7 PLAN		
DRAWING NO.		
R-106.7		
SCALE:		AS NOTED
DATE:		AUGUST, 2022
PROJECT NO.:		50-22139
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Designman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Designman.



RESTRIPE COATED AREAS

LEGEND:

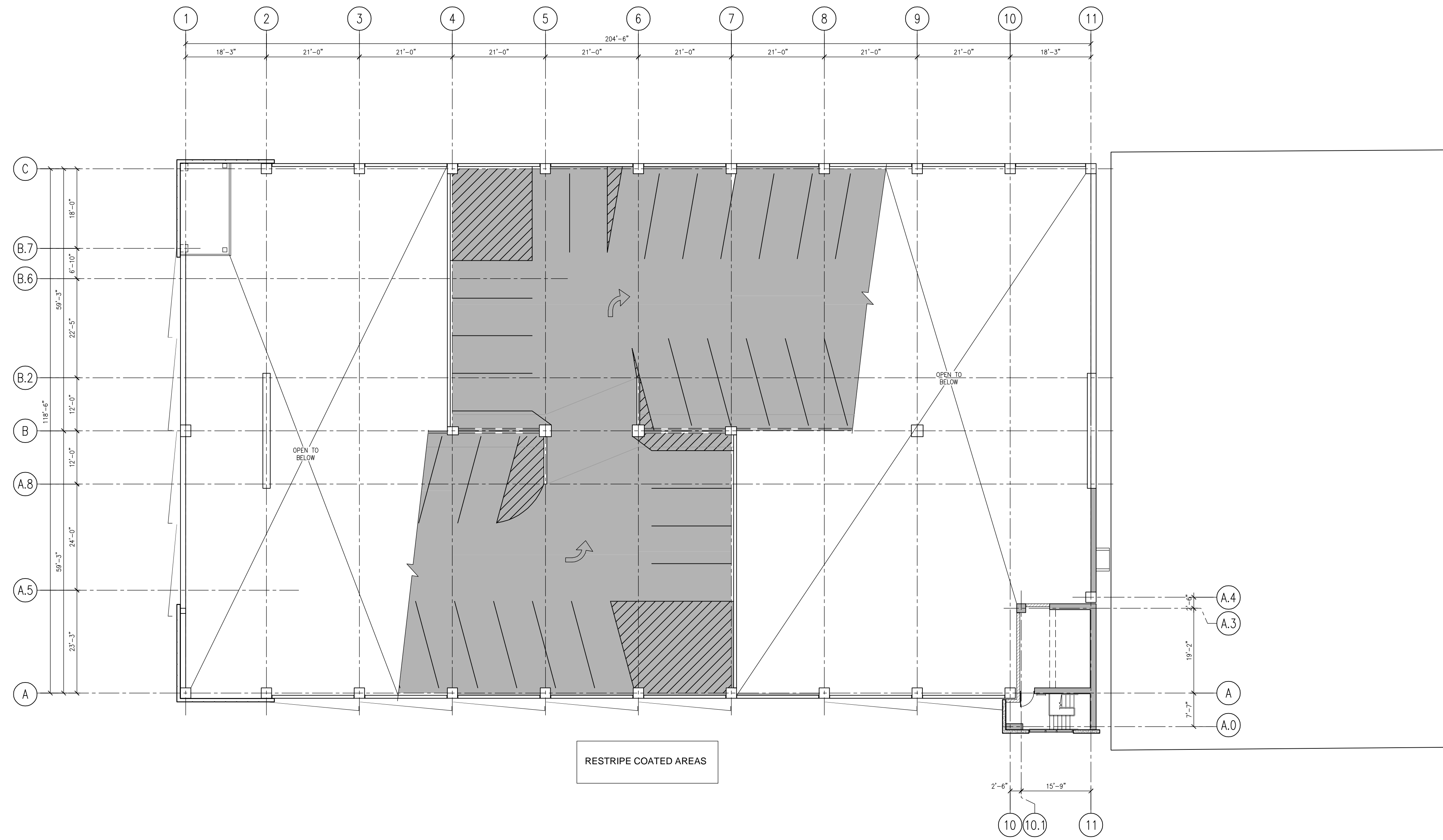
- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 EIGHTH LEVEL PLAN
SCALE: 1" = 30'
NORTH

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: JUSTICE CENTER LEVEL 8 PLAN		
DRAWING NO. R-106.8		
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO:	50-22139	
DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



LEGEND:

- RECOAT WATERPROOFING MEMBRANE, SEE DETAIL 4/R-502
- REMOVE AND REPLACE EXISTING COVER PLATES AND GUTTER SYSTEM, SEE DETAILS 3&4/R-504
- REPLACE CONTROL JOINT, SEE DETAIL 6/R-502

1 NINTH LEVEL PLAN
SCALE: 1" = 30'



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
**JUSTICE CENTER
LEVEL 9 PLAN**

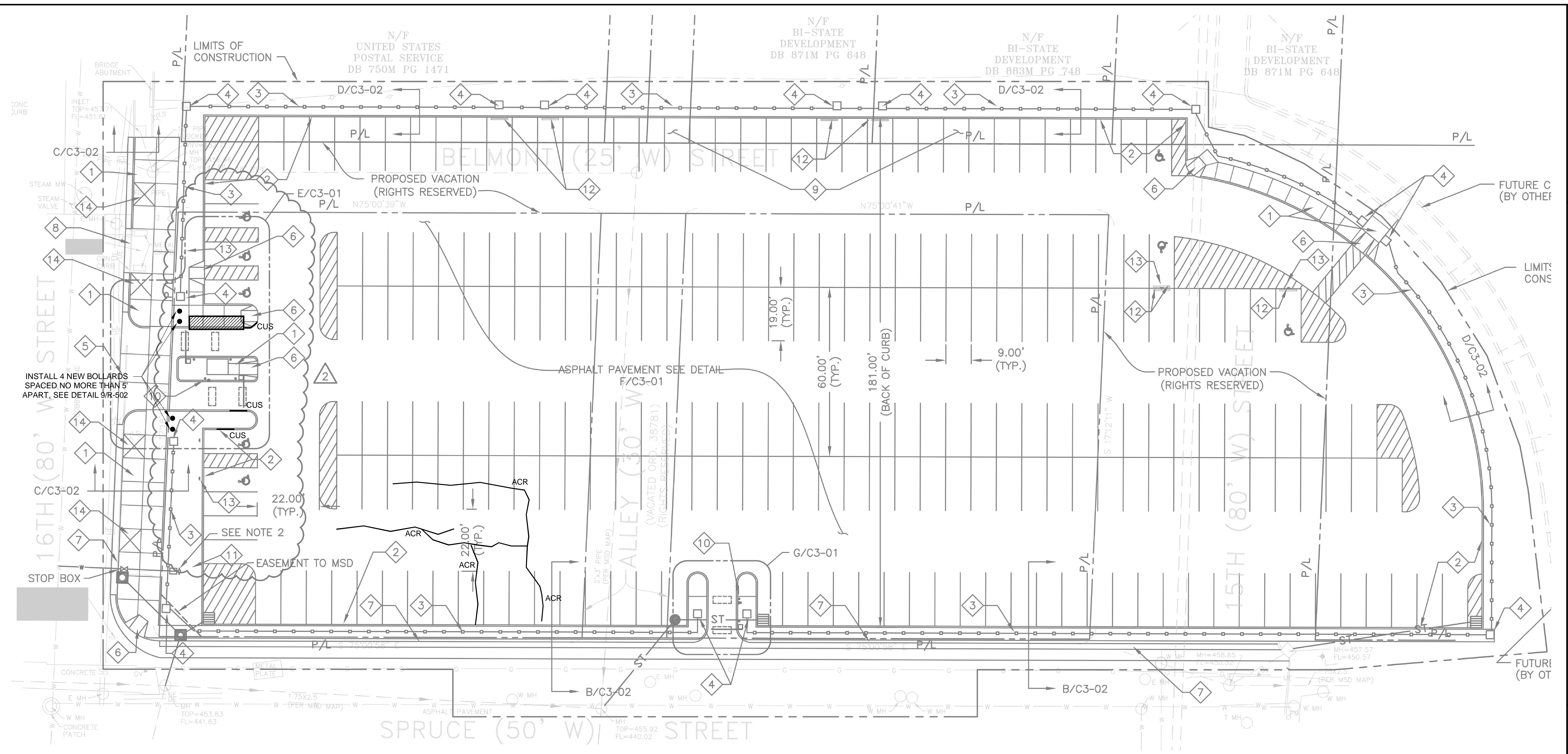
DRAWING NO.
R-106.9

SCALE: AS NOTED
DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.

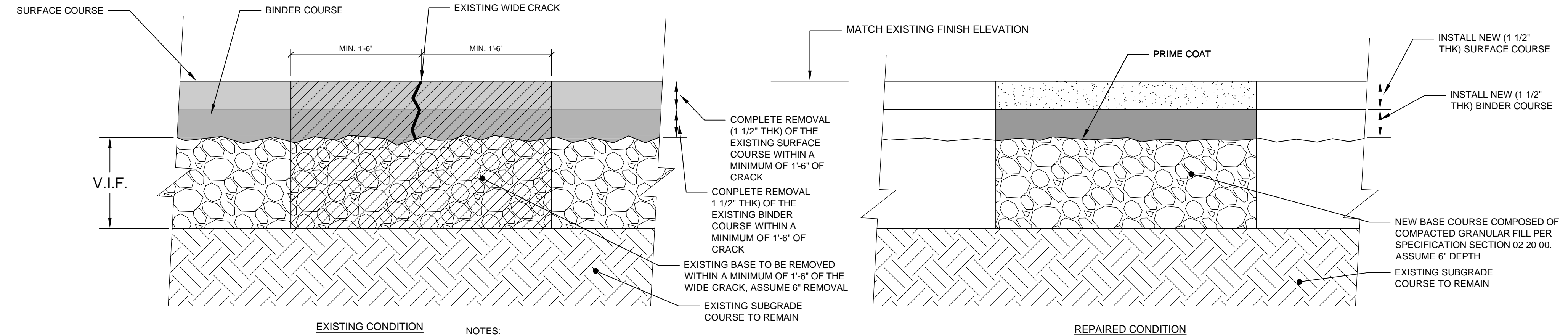


1 WILLIAMS LOT PLAN
SCALE: N.T.S.



LEGEND:

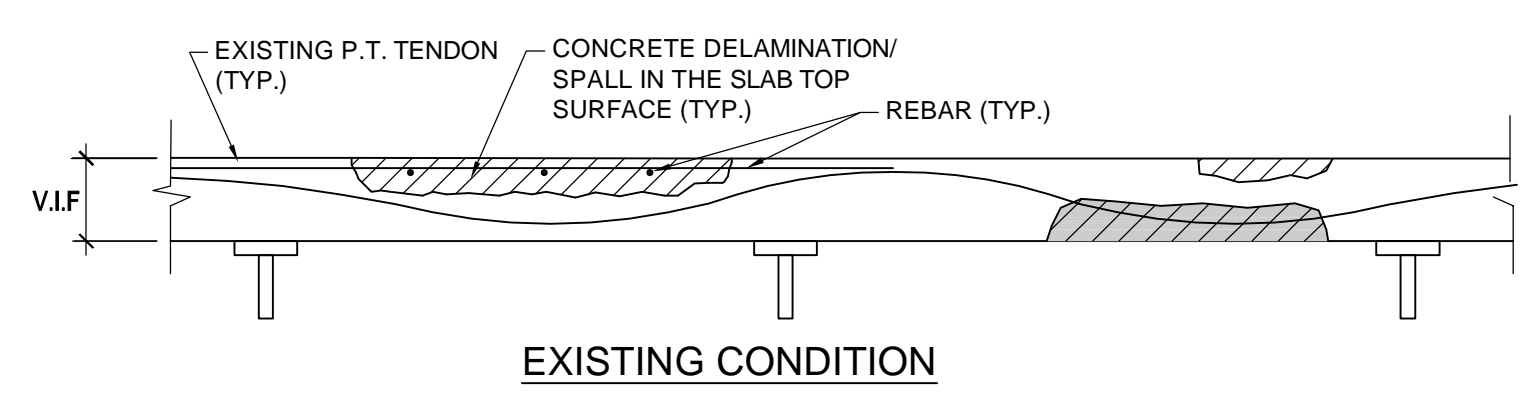
- CUS - CONCRETE CURB SPALL. FOR REPAIR, SEE DETAIL 2/R-501. COLOR AND FINISH OF THE REPAIR IS TO CLOSELY MATCH EXISTING CURB.
- CONCRETE SIDEWALK SPALL. FOR REPAIR, SEE DETAIL 5/R-503. COLOR AND FINISH OF THE REPAIR IS TO CLOSELY MATCH EXISTING SIDEWALK.
- ACR - WIDE ASPHALT SLAB CRACK REPAIR. FOR REPAIR, SEE DETAIL 2 THIS SHEET



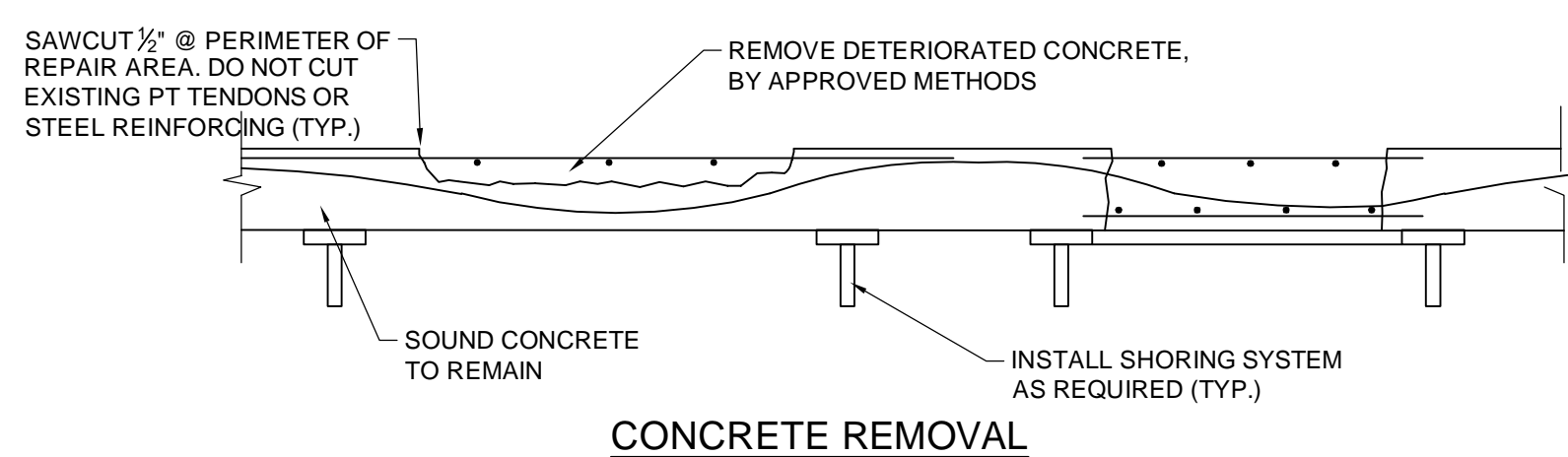
- NOTES:**
- ALL PAVEMENT TO FOLLOW MODOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - CONTRACTOR SHALL SUBMIT A MIX DESIGN FOR ENGINEERING REVIEW AND RECEIVE APPROVAL PRIOR TO PAVING.
 - ALL PAVEMENT JOINTS SHALL BE SQUARE WITHOUT FEATHERING.

2 ASPHALT WIDE CRACK REPAIRS
SCALE: N.T.S.

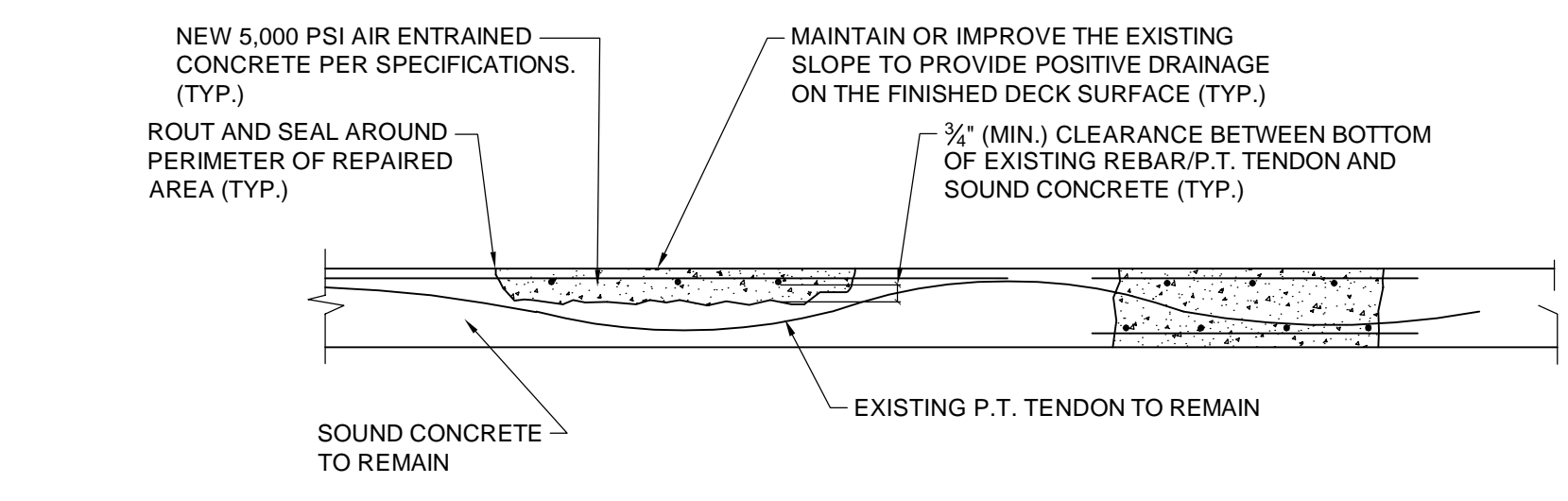
ISSUE		
NO.	DESCRIPTION	DATE
DRAWING TITLE: WILLIAMS LOT PLAN		
DRAWING NO. R-108.1		
SCALE: AS NOTED		
DATE: AUGUST, 2022		
PROJECT NO: 50-22139		
DES. DRWN. CK'D.		
KK AC KK		



EXISTING CONDITION



CONCRETE REMOVAL



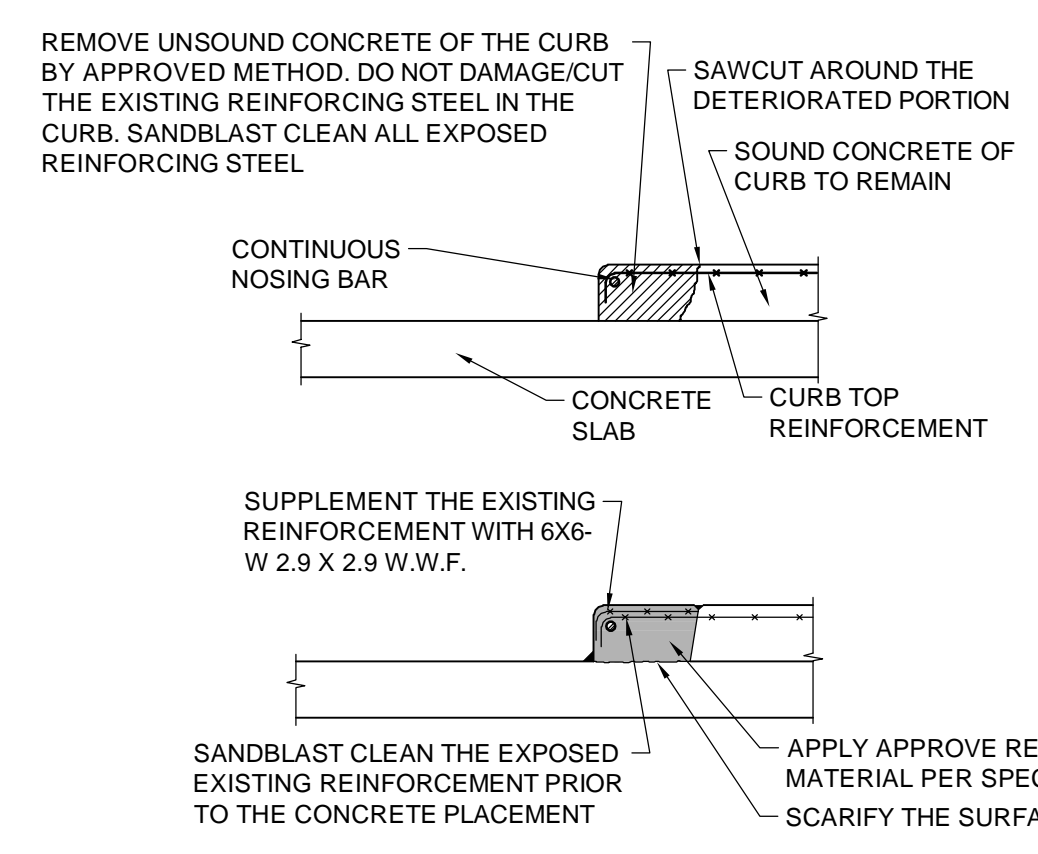
REPAIRED CONDITION

NOTE:
SLAB PROTECTION TREATMENTS (CRACK/CONSTRUCTION JOINT REPAIR MATERIAL, MEMBRANE, ETC.) MAY NOT BE APPLIED UNTIL CONCRETE HAS HAD PROPER CURE TIME MEETING MANUFACTURER'S REQUIREMENTS.

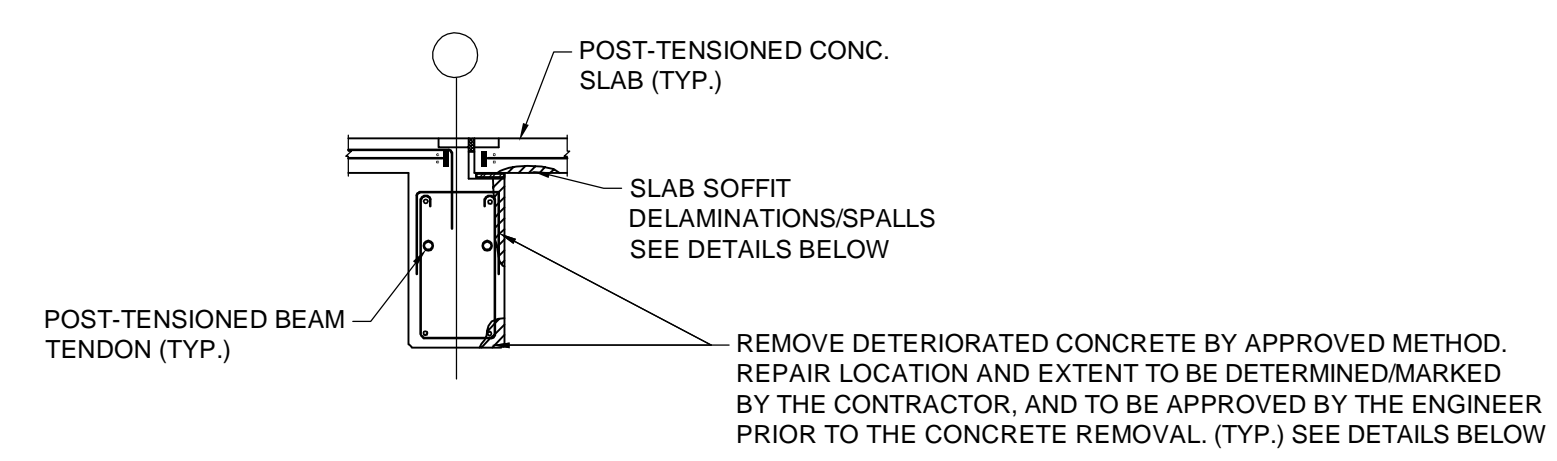
FULL AND PARTIAL DEPTH CONCRETE REPAIR PROCEDURE FOR PT SLABS:

1. THE CONTRACTOR SHALL SOUND AND VERIFY LOCATION AND EXTENT OF ALL REPAIR AREAS. ENGINEER SHALL VERIFY REPAIR LOCATIONS PRIOR TO CONCRETE DEMOLITION.
2. ISOLATE WORK AREA AND AREAS DIRECTLY BELOW FROM THE REMAINING PORTIONS OF THE PARKING STRUCTURE. ERECT APPROPRIATE BARRICADES AND PARTITIONS TO MINIMIZE DUST AND DEBRIS MIGRATION TO ADJACENT AREAS.
3. PROVIDE SHORING DESIGNED FOR DEAD LOAD OF SLAB IN REPAIR AREAS. IF BROKEN OR DETERIORATED PT STRANDS ARE ENCOUNTERED IN REPAIR AREAS, PROVIDE SHORING DESIGNED FOR DEAD AND CONSTRUCTION LIVE LOADS.
4. ONCE THE EXTENT OF CONCRETE REMOVAL AND CONDITION OF EXISTING PT IN THE REPAIR AREA HAS BEEN DETERMINED, CAREFULLY SAWCUT PERIMETER OF REPAIR AREA MIN. 3". DO NOT DAMAGE STEEL REINFORCING OR PT DURING SAWCUTTING OPERATIONS.
5. CAREFULLY REMOVE ALL UNSOUND AND DELAMINATED CONCRETE BY APPROVED METHODS TO A DEPTH OF 3/4" BEHIND STEEL REINFORCING, TAKING CARE NOT TO DAMAGE PT STRANDS OR ANCHORS. NOTIFY THE ENGINEER OF ANY BROKEN, DAMAGED, OR HEAVILY CORRODED TENDONS, ANCHORAGE STEEL REINFORCING, OR PT COMPONENTS REVEALED UPON CONCRETE REMOVAL.
6. SANDBLAST CLEAN ALL EXPOSED STEEL REINFORCING, PT, AND ANCHORS. SUPPLEMENT EXISTING STEEL REINFORCING WHICH HAS LOST MORE THAN 20% OF ITS CROSS-SECTIONAL AREA WITH NEW EPOXY-COATED BARS. NEW REINFORCING BARS SHALL BE PROPERLY LAP SPICED TO EXISTING BARS.
7. PLACE, FINISH, CURE, AND PROTECT CONCRETE/REPAIR MORTAR PER SPECIFICATIONS. MAINTAIN OR IMPROVE THE EXISTING SLOPE TO PROVIDE POSITIVE DRAINAGE ON THE FINISHED DECK SURFACE.
8. AFTER PROPER CURE TIME, PROVIDE CONTROL JOINTS AS SHOWN IN DETAIL 5a/R-12 ALONG THE PERIMETER OF REPAIR AREAS.

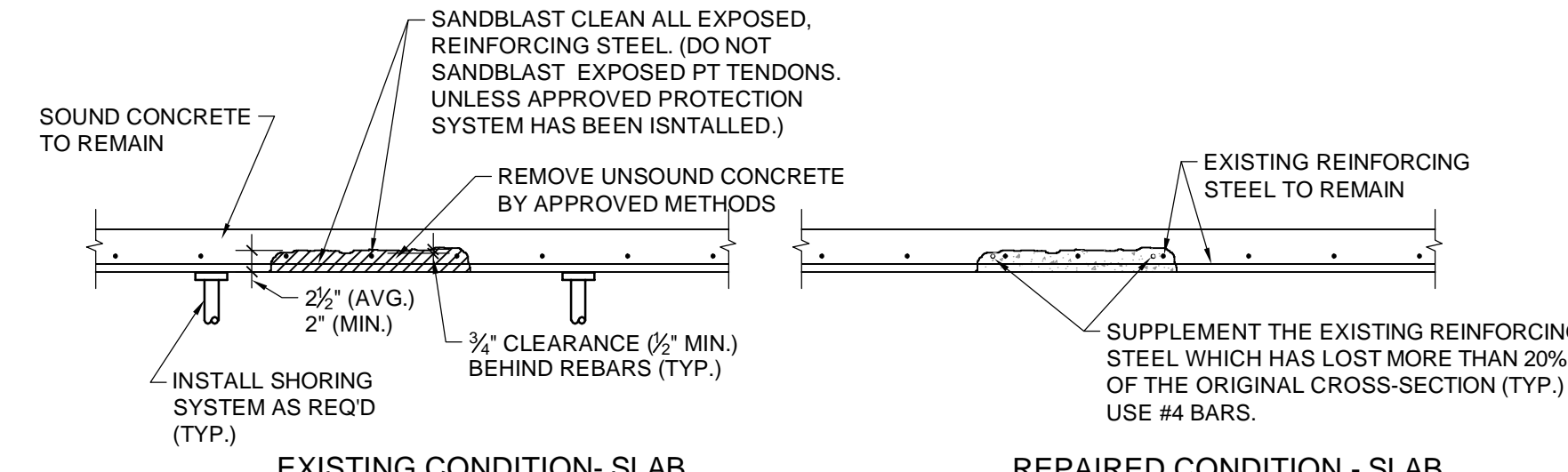
1 SLAB PARTIAL/FULL DEPTH REPAIR DETAIL
SCALE: NONE



2 CURB REPAIR DETAIL
SCALE: N.T.S.

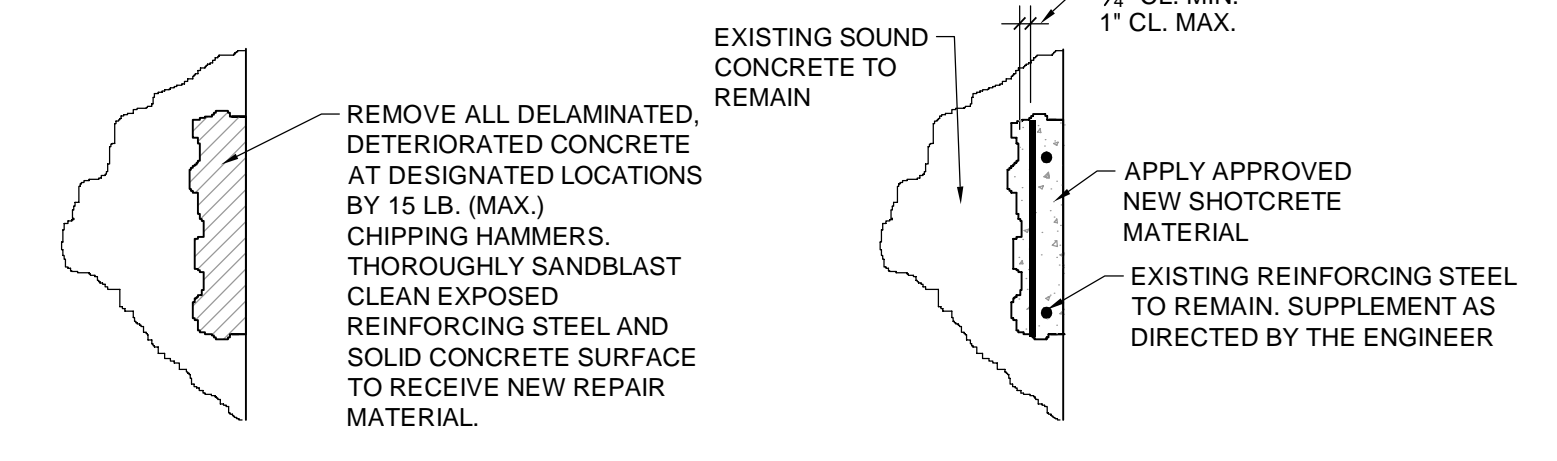


EXISTING CONDITION - BEAM AND SLAB



EXISTING CONDITION - SLAB

REPAIRED CONDITION - SLAB



EXISTING CONDITION - VERTICAL SURFACE

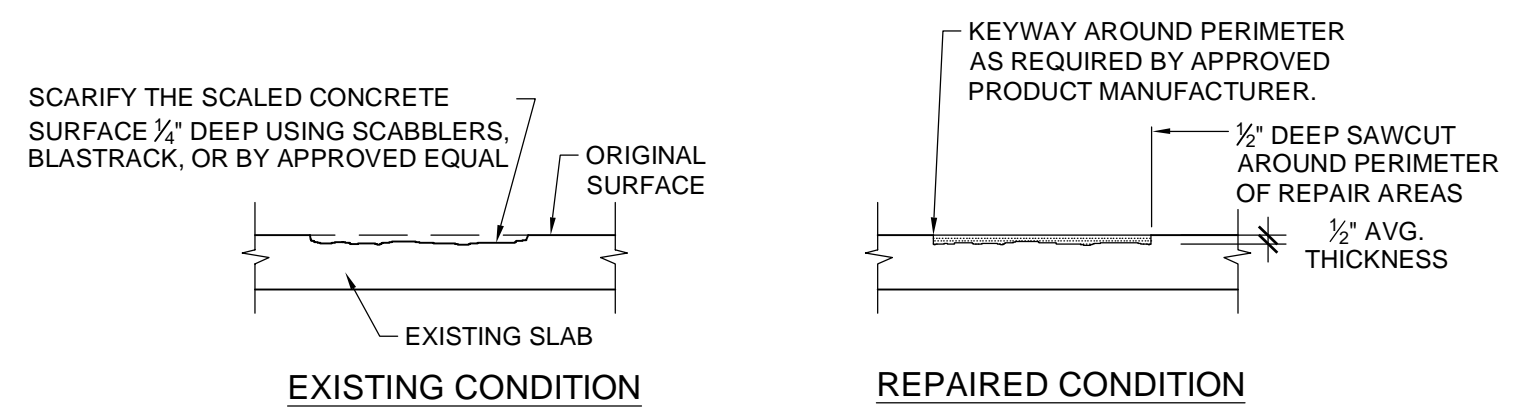
REPAIRED CONDITION - VERTICAL SURFACE

- NOTES:**
1. THE CONTRACTOR SHALL LOCATE AREAS OF SPALLED, LOOSE, AND DELAMINATED CONCRETE USING A SOUNDING HAMMER AS DIRECTED BY THE ENGINEER. THE EXACT LOCATIONS AND BOUNDARIES FOR CONCRETE REMOVAL SHALL BE APPROVED BY THE ENGINEER.
 2. INSTALL SHORING AS DIRECTED BY THE ENGINEER.
 3. CLEAN EXPOSED REINFORCING STEEL BY SANDBLASTING AND COAT THE REINFORCING STEEL USING APPROVED NITROPRIME ZINC RICH PRIMER.
 4. SUPPLEMENT EXISTING BARS WHICH HAVE LOST MORE THAN 20% OF THEIR ORIGINAL CROSS-SECTIONAL AREA, IN ACCORDANCE WITH THE ENGINEER'S DIRECTIONS.

REPAIR PROCEDURES:

1. REMOVE ANY PERMANENT ATTACHMENTS TO THE CONCRETE MEMBERS THAT MAY INTERFERE WITH THE REPAIR PROCESS AND PROVIDE TEMPORARY SUPPORT FOR DRAIN LINES, ETC. IF REQUIRED. STORE THE DISMANTLED ATTACHMENTS, IF ANY, IN A DESIGNATED, SAFE PLACE FOR SUBSEQUENT RE-INSTALLATION.
2. REMOVE ALL LOOSE, BROKEN, AND DELAMINATED CONCRETE FROM THE PRECAST OR CAST-IN-PLACE MEMBERS AS SHOWN ON THE DRAWINGS OR MARKED BY THE ENGINEER BY APPROVED METHODS. AVERAGE DEPTH OF REMOVAL SHALL BE ASSUMED TO BE 2 1/2" INCHES. EXPOSED PORTIONS OF EMBEDDED STRUCTURAL STEEL AND REINFORCEMENT SHALL BE SANDBLASTED CLEAN TO REMOVE ALL PRESENCE OF RUST AND CORROSION. REPORT ANY CONDITION WHERE THE EXISTING REINFORCING STEEL HAS LOST MORE THAN 20% OF ITS CROSS-SECTIONAL AREA DUE TO CORROSION TO THE ENGINEER FOR DISPOSITION.
3. CLEAN AND PREPARE THE CONCRETE SURFACE FOR APPLICATION OF APPROVED REPAIR MATERIAL.
4. PNEUMATICALLY APPLY (SHOTCRETE) MORTAR IN LAYERS. LAYERS SHALL BE LIMITED IN THICKNESS TO PREVENT SAGGING OR FALLOUT. SEE THE SPECIFICATIONS FOR REPAIR MATERIAL.
5. FINISH, CURE, AND PROTECT OVERHEAD/VERTICAL REPAIRS.
6. RESTORE EXISTING CONTROL JOINTS IN REPAIR AREAS WHERE APPLICABLE.
7. AFTER THE REPAIRS ARE COMPLETE, RE-INSTALL ANY TEMPORARILY REMOVED ATTACHMENTS TO RESTORE THE EXISTING CONDITIONS.

3 OVERHEAD/VERTICAL SHOTCRETE REPAIR
SCALE: N.T.S.



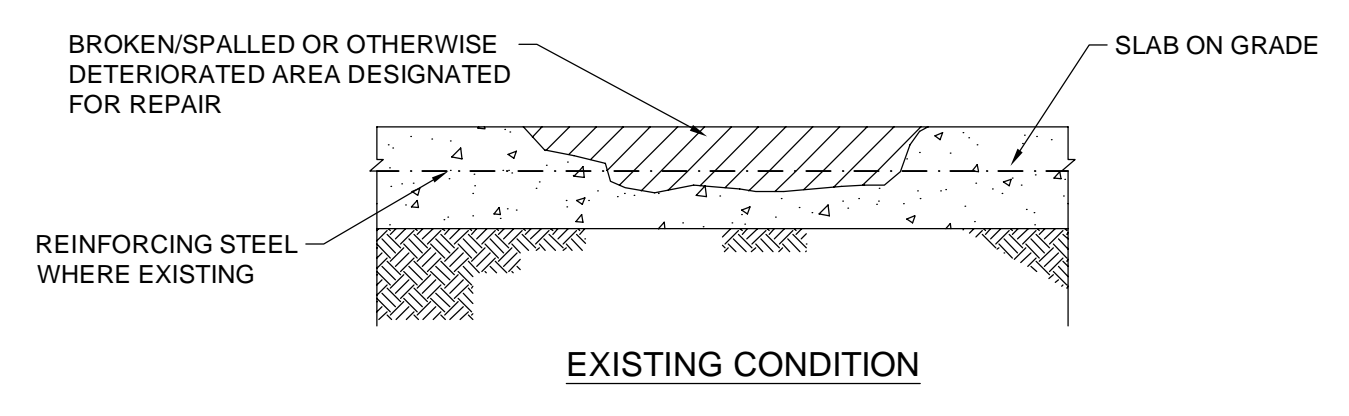
EXISTING CONDITION

REPAIRED CONDITION

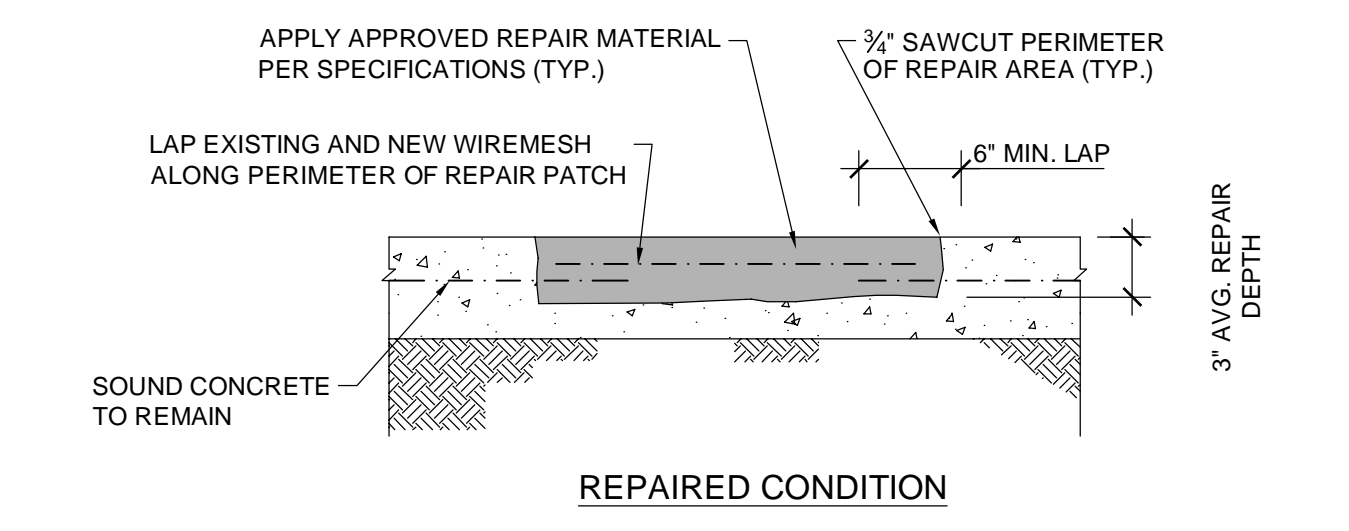
- NOTES:**
1. OUTLINE EXACT LOCATION OF SCALED CONCRETE TO BE REPAIRED AS SHOWN ON THE DRAWINGS AND AS DESIGNATED BY THE ENGINEER.
 2. SCARIFY CONCRETE SURFACE TO AVERAGE DEPTH OF 1/2" USING ABLERS, BLASTTRACKING OR OTHER APPROVED METHODS.
 3. PREPARE THE SURFACE AND IF NEEDED SATURATE IT WITH WATER AS PER MANUFACTURER'S RECOMMENDATIONS.
 4. MIX, PLACE, FINISH AND CURE THE REPAIR MATERIAL IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 5. REPAIR AREAS SHALL BE CLOSED TO TRAFFIC FOR A MINIMUM PERIOD OF 72 HOURS OR A PERIOD SPECIFIED BY MANUFACTURER.

APPROVED PRODUCTS:
SEE SPECIFICATION SECTION 07120 LEVELING MATERIAL.

6 CONCRETE SLAB SCALING REPAIR
SCALE: N.T.S.



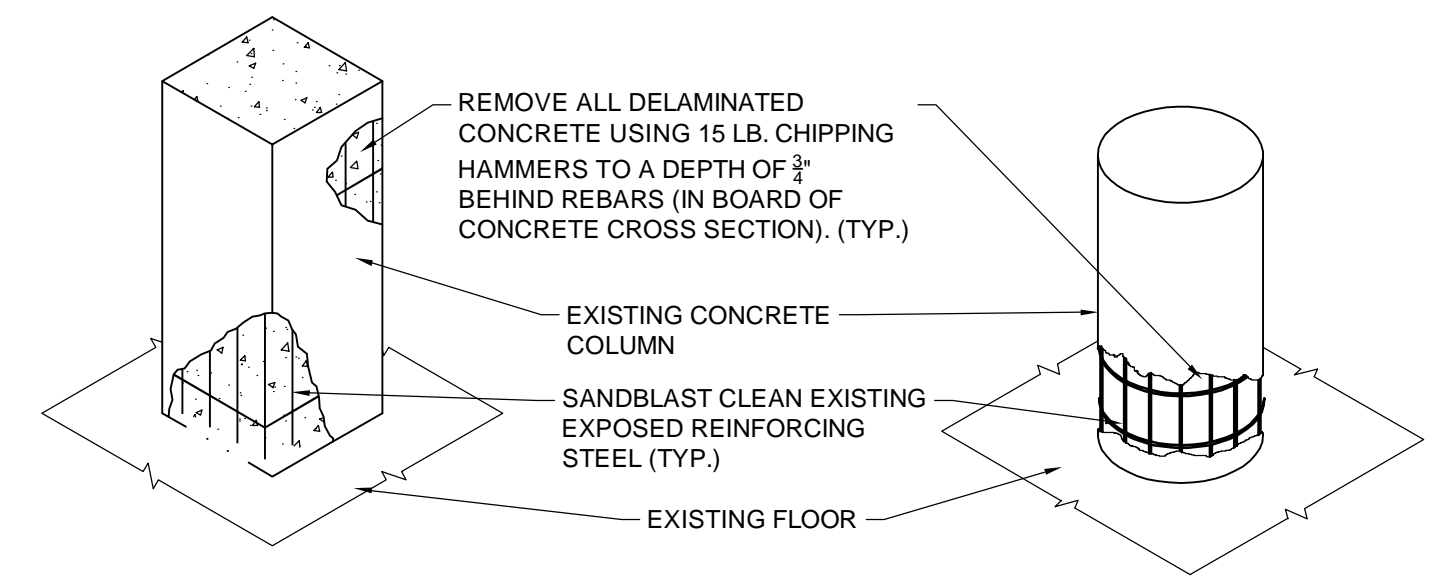
EXISTING CONDITION



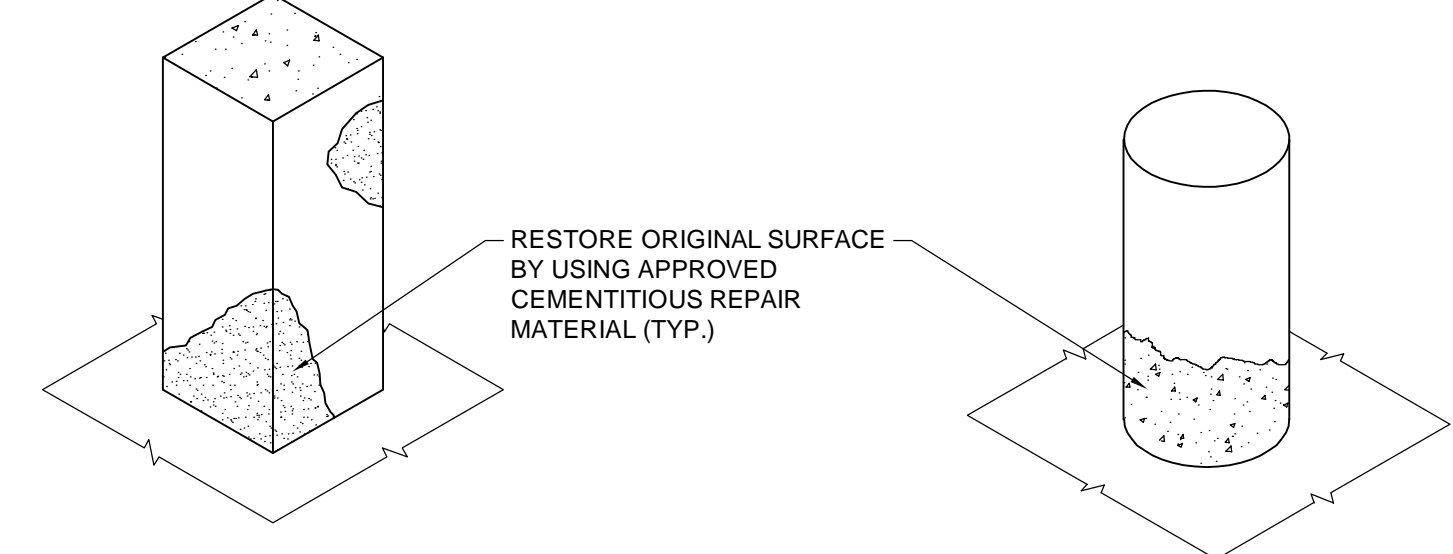
REPAIRED CONDITION

- REPAIR PROCEDURE**
1. SAW-CUT ALONG THE PERIMETER OF REPAIR AREAS AND REMOVE EXISTING GRADE SLAB TO THE EXTENT REQUIRED TO PERMIT LAP SPICING OF EXISTING REINFORCEMENT, IF ANY.
 2. PLACE AND FINISH REPAIR AREAS USING AIR-ENTRAINED, FIBER-REINFORCED CONCRETE (MIN. 4000 PSI AT 28 DAYS) SO AS TO MATCH EXISTING SLOPES AND ELEVATIONS. FINISHED PATCHES SHALL BE FREE OF PONDING.

4 SLAB ON GRADE REPAIR DETAIL
SCALE: N.T.S.



EXISTING AND DEMOLITION CONDITION



REPAIRED CONDITION

- REPAIR PROCEDURE:**
1. INSTALL APPROVED SHORING SYSTEM PRIOR TO START OF ANY CONCRETE REMOVAL. REFER TO CONSTRUCTION NOTE 5 ON SHEET R-34.
 2. CONCRETE REMOVAL SHALL BE PERFORMED IN MULTIPLE PHASES. CROSS-SECTIONAL AREA OF CONCRETE REMOVAL IN EACH PHASE SHALL NOT BE LARGER THAN APPROXIMATELY 6% TO 7% OF THE ORIGINAL COLUMN CROSS-SECTIONAL AREA.
 3. TOTAL CROSS-SECTIONAL AREA OF REPAIR WHICH INCLUDES MULTIPLE STAGES SHALL NOT EXCEED 15% OF THE TOTAL ORIGINAL CROSS-SECTIONAL AREA OF THE COLUMN AT ANY SECTION.
 4. WHEN CONCRETE REMOVAL IS DEEMED NECESSARY TO BE EXTENDED IN BOARD BEYOND THE VERTICAL BARS, SPACE BEHIND MAIN VERTICAL BAR SHALL NOT BE LESS THAN 3/4" NOR GREATER THAN 1".
 5. DO NOT START CONCRETE REMOVAL FOLLOWING COMPLETION OF A REPAIR PHASE UNTIL THAT REPAIR CONCRETE HAS ATTAINED FULL DESIGN STRENGTH. DO NOT START CONCRETE REMOVAL ON A PHASE IMMEDIATELY ADJACENT TO AN EARLIER REPAIRED PHASE UNTIL THAT REPAIR HAS BEEN CURED FOR AT LEAST 14 DAYS.
 6. REMOVE UNSOUND AND SOUND CONCRETE AS DIRECTED BY THE ENGINEER TO A DEPTH INDICATED USING CHIPPING HAMMERS AND SANDBLAST CLEAN EXPOSED STEEL.
 7. SUPPLEMENT EXISTING REINFORCING BARS THAT HAVE LOST MORE THAN 20% OF THEIR ORIGINAL CROSS SECTION WITH NEW EPOXY COATED #3 BARS. NEW REINFORCING SHALL BE PROPERLY LAP SPICED TO EXISTING.
 8. APPLY REPAIR MATERIALS IN LAYERS AS PER MANUFACTURER'S RECOMMENDED REPAIR PROCEDURE. LAYERS SHALL BE LIMITED IN THICKNESS, AS REQUIRED. EXISTING CONCRETE SURFACE SHALL BE PRE-WET PRIOR TO REPAIR MATERIALS APPLICATION.
 9. PROTECT AND CURE FINISHED REPAIR.

5 COLUMN REPAIR DETAIL
SCALE: N.T.S.

ISSUE

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

REPAIR DETAILS

DRAWING NO.

R-501

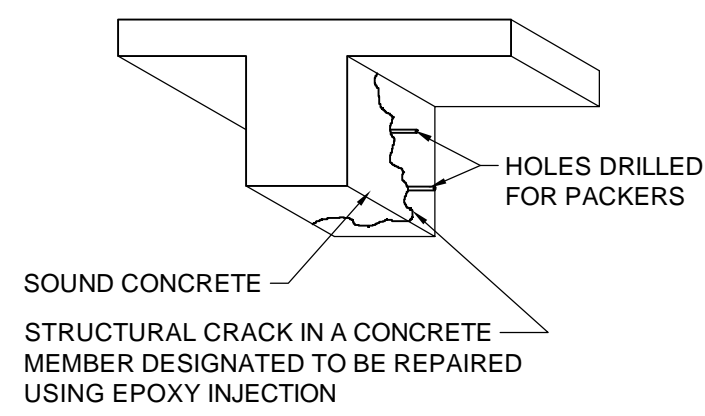
SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO.: 50-22139

DES.	DRWN.	CK'D.
KK	AC	KK

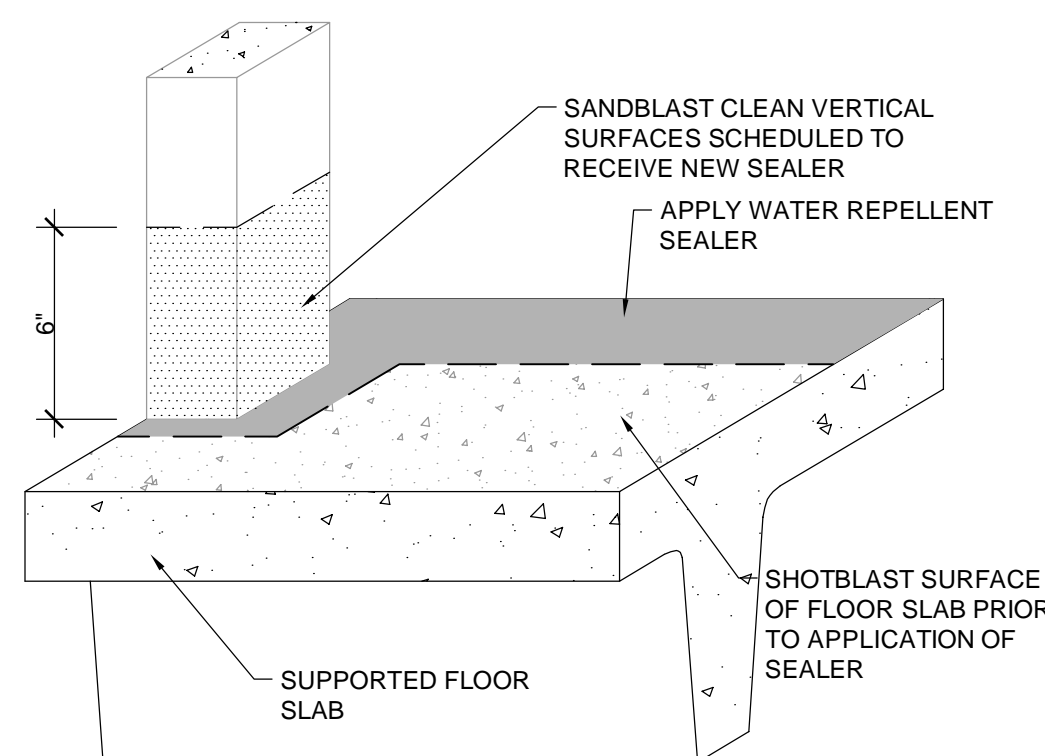
Copyright © 2018 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



REPAIR PROCEDURES:

1. THE SURFACE AREA AROUND THE CRACK SHALL BE EXAMINED BY SOUNDING HAMMERS TO DETECT LOOSE OR UNSOUND AREAS WHICH MAY EXIST. WHERE SUCH DETERIORATED CONCRETE EXISTS, REPAIR AS DIRECTED BY THE ENGINEER.
2. DETERMINE STRATEGIC LOCATIONS OF HOLES TO BE DRILLED INTO THE CONCRETE MEMBER ALONG THE DESIGNATED CRACKS TO INSTALL PACKERS/PORTS.
3. REMOVE ANY PERMANENT ATTACHMENTS TO THE STRUCTURE THAT MAY INTERFERE WITH THE REPAIR PROCESS. MAKE TEMPORARY BYPASS ARRANGEMENTS FOR UNINTERRUPTED EXISTING OPERATIONS. PROVIDE TEMPORARY SUPPORT FOR DRAIN ETC. IF REQUIRED.
4. DRILL PACKER HOLES IN STRICT ACCORDANCE WITH THE WRITTEN INSTRUCTIONS OR RECOMMENDATIONS OF THE APPROVED EPOXY MATERIAL MANUFACTURER AND PLACE THE PACKERS PROPERLY IN THE HOLES. SEAL ENTIRE CRACK ON THE MEMBER SURFACE WITH APPROVED MATERIAL.
5. PRESSURE INJECT THE APPROVED EPOXY MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.
6. COMPLETELY CURE ACCORDING TO THE MANUFACTURER'S GUIDELINES.
7. COMPLETELY GRIND-OFF THE SEALANT MATERIAL ON THE MEMBER SURFACE SO THAT ONLY THE EDGE THICKNESS OF COMPLETED, EPOXY-INJECTED CRACK IS NOTICEABLE. PACKERS SHALL NOT PROJECT BEYOND THE PLANE OF THE SURFACE OF THE EXISTING CONCRETE.
8. RE-INSTALL ANY ATTACHMENTS TEMPORARILY REMOVED. RESTORE ALL ATTACHMENTS TO ORIGINAL CONDITION.
9. SEE SPECIFICATIONS FOR APPROVED EPOXY PRODUCTS.

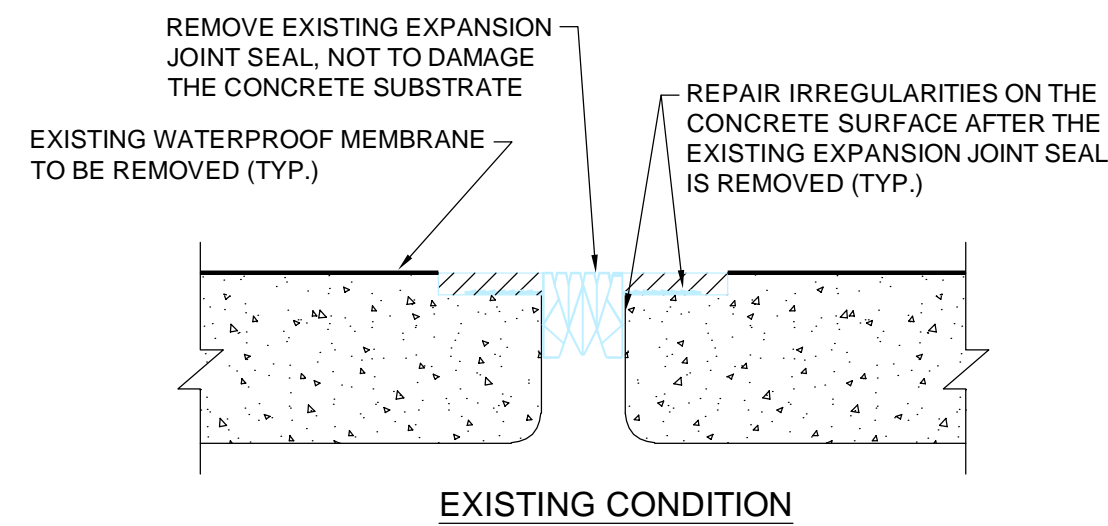
1 STRUCTURAL CRACK REPAIR USING EPOXY INJECTION
SCALE: N.T.S.



REPAIR PROCEDURE:

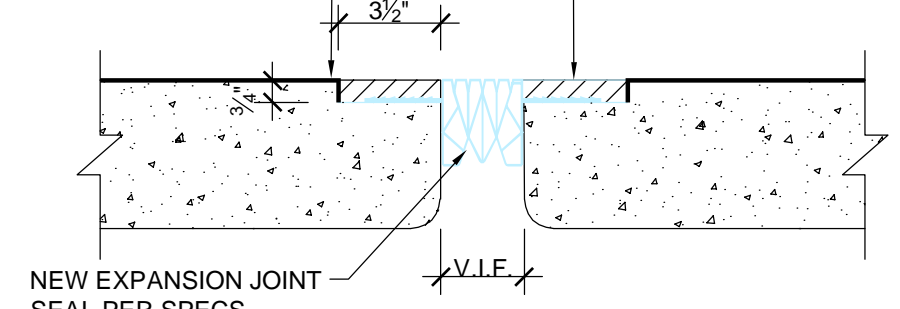
1. THE PRODUCT SHALL BE APPLIED TO A DRY SURFACE. VERTICAL SURFACES SHALL BE PREPARED BY SANDBLASTING AND HORIZONTAL SURFACES SHALL BE REPAIRED BY SHOTBLASTING.
2. RECOMMENDED APPLICATION EQUIPMENT IS A LOW PRESSURE (15 PSI) AIRLESS SPRAYER, HOWEVER A BRUSH OR ROLLER MAY ALSO BE USED. COVER APPROXIMATELY 8" WITH EACH SPRAY PASS, SLIGHTLY OVERLAPPING THE PREVIOUS PASS. WHEN USING A BRUSH, REPEATED APPLICATIONS SHOULD BE MADE UNTIL THE SURFACE REMAINS MOIST FOR SEVERAL MINUTES BEFORE ALL SOLUTION IS ABSORBED.
3. VERTICAL SURFACES SHALL BE TREATED FROM THE BOTTOM UP. PROPER QUANTITIES OF SEALER ARE BEING APPLIED WHEN EXCESS SOLUTION RUNS 6" TO 9" BELOW SPRAY PATTERN BEFORE PENETRATING THE SURFACE. PROPER QUANTITY ON HORIZONTAL SURFACES IS INDICATED WHEN SOLUTION STANDS FOR A FEW SECONDS BEFORE PENETRATING.

2 WATER REPELLENT SURFACE SEALER
SCALE: N.T.S.



EXISTING CONDITION

PRIOR TO THE WATERPROOF MEMBRANE INSTALLATION AND AFTER THE EXPANSION JOINT SEAL NOSING MATERIAL HAS CURED, SAW-CUT A 1/2" VERTICAL (1/4" WIDE) ALONG THE NOSING MATERIAL EDGE, AIR-BLOWN CLEAN, AND INSTALL THE WATERPROOF MEMBRANE BASE COAT MATERIAL (TYP.)



REPAIRED CONDITION

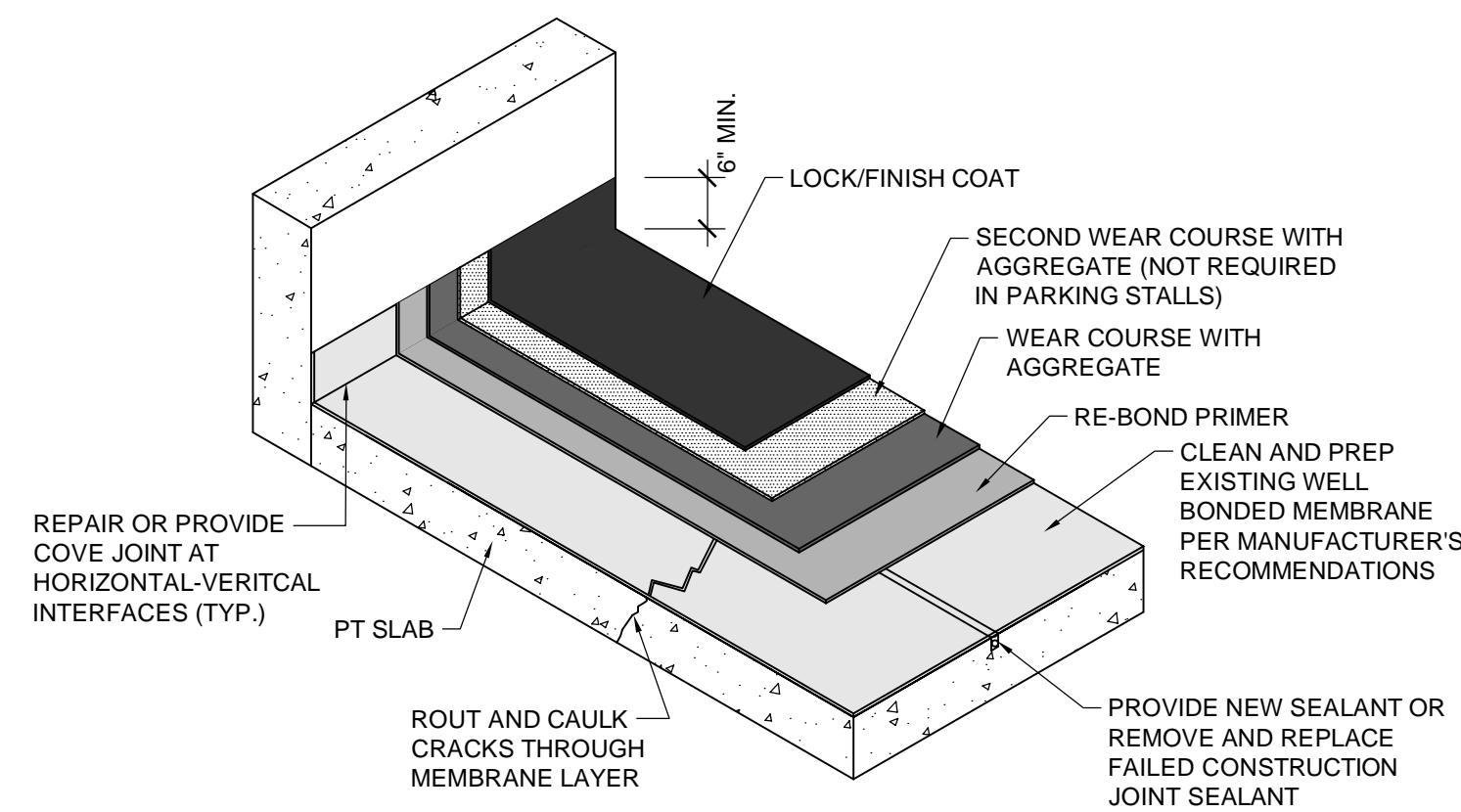
REPAIR PROCEDURE:

1. REMOVE EXISTING EXPANSION JOINT SEAL SYSTEM BY APPROVED METHODS. REPORT ANY UNANTICIPATED CONDITIONS TO THE ENGINEER.
2. THE MANUFACTURER, CONTRACTOR, AND ENGINEER SHALL REVIEW ALL BLOCK-OUT REQUIREMENTS AND TERMINATION DETAILS PRIOR TO PREPARATION OF CONCRETE SURFACES ALONG THE EXPANSION JOINTS. CONTRACTOR IS RESPONSIBLE FOR CREATING THE JOINT OPENING AND BLOCK-OUTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SELECTED SEAL.
3. CLEAN BLOCKOUT BY APPROVED METHOD IMMEDIATELY BEFORE NEW EXPANSION JOINT SEAL SYSTEM INSTALLATION.
4. INSTALL AN APPROVED EXPANSION JOINT SEAL SYSTEM PER SPECIFICATIONS AND MANUFACTURER'S WRITTEN GUIDELINES.

NOTES:

1. BASED UPON THE NEW EXPANSION JOINT SEAL MANUFACTURER'S RECOMMENDATION, ONLY SOME DETERIORATED PORTIONS OF THE EXISTING EXPANSION JOINT SEAL MAY BE REPLACED BY SPLICING THE NEW SEAL TO EXISTING SEAL STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN GUIDELINES.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS. CONTRACTOR SHALL INSTALL EXPANSION JOINT SEAL IN MILD TEMPERATURES PER MANUFACTURER'S RECOMMENDATIONS.

3 EXPANSION JOINT SEAL SYSTEM REPLACEMENT
SCALE: N.T.S.



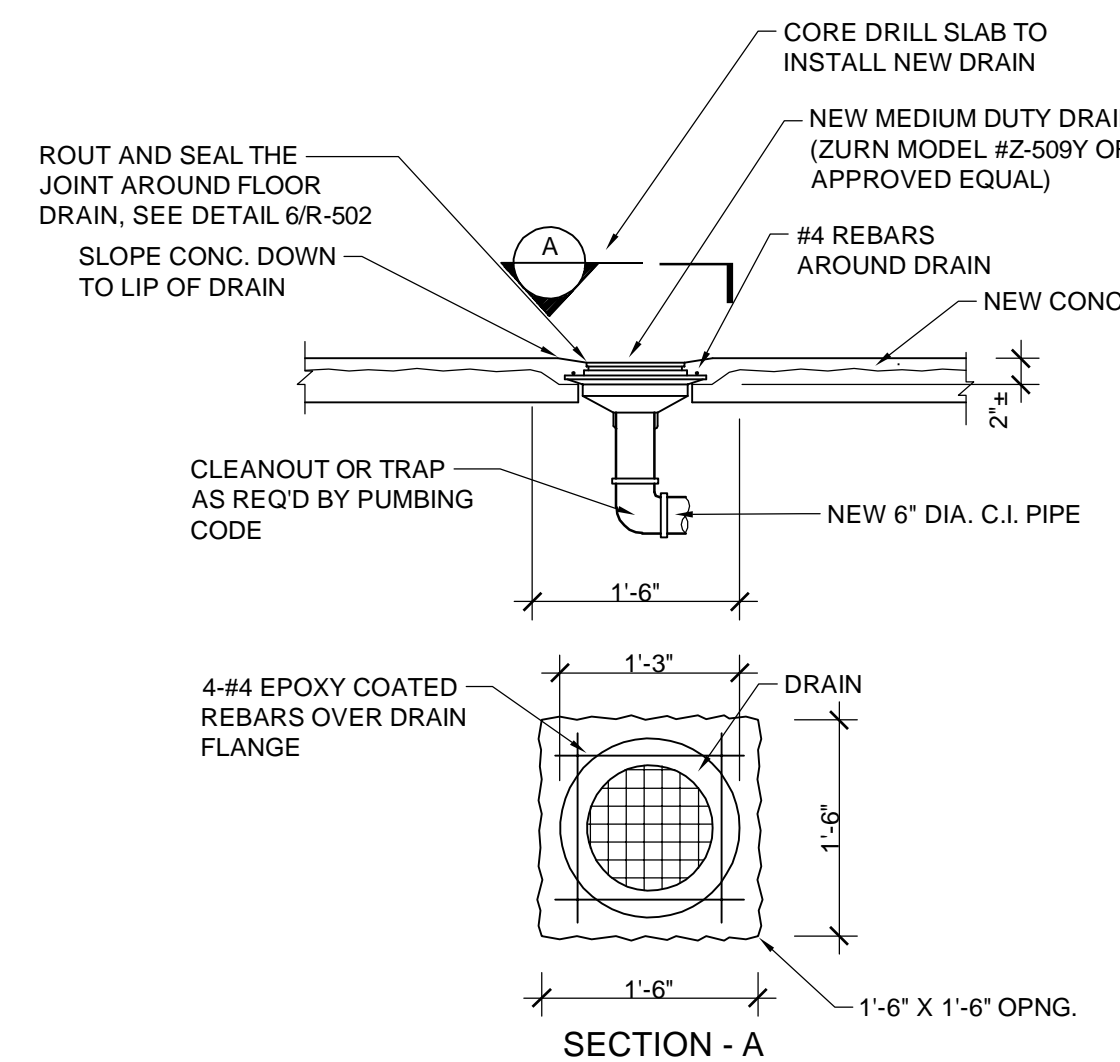
TYPICAL MEMBRANE RE-COAT PROCEDURE:

1. REMOVE LOOSE OR DEBONDED EXISTING MEMBRANE.
2. CLEAN THE EXISTING MEMBRANE, WORN AREAS, AND BARE CONCRETE AREAS PER THE MEMBRANE SYSTEM MANUFACTURER'S RECOMMENDATIONS.
3. REPLACE FAILED/DE-BONDED CRACK AND CONSTRUCTION JOINT SEALANTS.
4. PRIME EXISTING BARE CONCRETE.
5. APPLY MEMBRANE BASE COAT TO BARE CONCRETE AREAS.
6. PRIME EXISTING MEMBRANE SYSTEM TO REMAIN.
7. APPLY INTERMEDIATE AND FINISH COATS.
8. RE-STRIPE ALL AREAS AFFECTED BY THE MEMBRANE RE-COATING.

NOTES:

1. THE CONTRACTOR SHALL VERIFY THAT CONCRETE SUBSTRATES ARE SOUND.
2. PAYMENT TO CONTRACTOR SHALL BE MADE FOR BASED ON HORIZONTAL SURFACE APPLICATION AREAS ONLY. MEMBRANE SHALL BE TURNED UP A MINIMUM OF 6" AT ALL VERTICAL SURFACES ARE CONSIDERED ANCILLARY AND SHALL NOT BE INCLUDED IN PAYMENT APPLICATIONS.
3. FOR THE AREA TO BE RE-COATED, ALL CRACK AND CONSTRUCTION JOINT SEALANT REPLACEMENT, CRACK REPAIRS, AND COVE JOINT INSTALLATION REQUIRED SHALL BE INCLUDED IN THE SCOPE OF WORK FOR THE EXISTING WATERPROOFING MEMBRANE SYSTEM RECOATING.
4. WATERPROOFING MEMBRANE COLOR SHALL BE SELECTED BY OWNER.

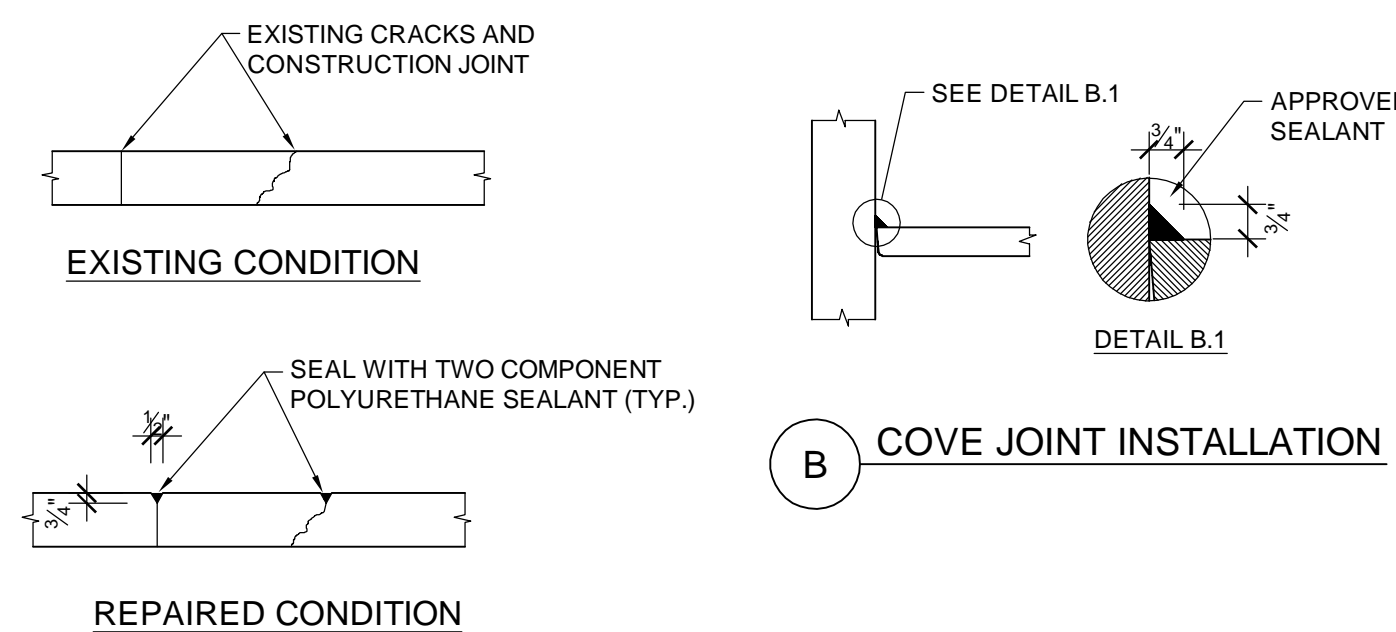
4 WATERPROOFING MEMBRANE RE-COAT DETAIL
SCALE: N.T.S.



INSTALLATION PROCEDURE:

1. AT LOCATION SPECIFIED BY THE ENGINEER, THE CONTRACTOR SHALL USE A PACHOMETER TO DETERMINE THE EXACT LOCATION OF THE DRAIN OPENING ORDER NOT TO INTERFERE WITH THE EXISTING ADJACENT POST TENSIONING TENDONS.
2. CORE DRILL NEW OPENING THROUGH ROOF SLAB AT LOCATION AT DRAIN PRIOR TO START OF HYDRO DEMOLITION.
3. AFTER COMPLETION OF HYDRODEMOLITION, CONTRACTOR SHALL USE CHIPPING HAMMERS TO PROVIDE 1'-6" X 1'-6" PACKET FOR SETTING THE DRAIN AS SHOWN IN THE DETAIL.
4. SET THE DRAIN IN PLACE SO THAT THE TOP OF DRAIN IS 1/2" BELOW TOP OF NEW CONCRETE OVERLAY.
5. PROVIDE NEW EPOXY COATED REINFORCEMENT AS SHOWN.
6. POUR NEW CONCRETE OVERLAY AS SHOWN IN DETAIL.
7. SEAL AROUND EDGE OF DRAIN USING A TWO-PART POLYURETHANE SEALANT.
8. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE ANY MISCELLANEOUS METALS, ETC. REQUIRED TO SUPPORT DRAIN BODY WITHIN SLAB.

5 NEW FLOOR DRAIN INSTALLATION
SCALE: N.T.S.

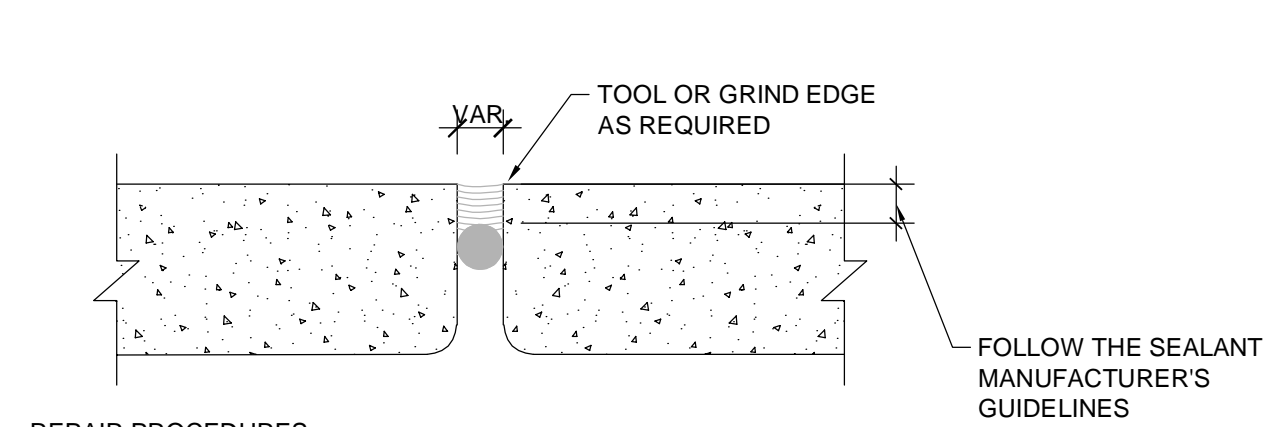


A CRACK/CONSTRUCTION JOINT REPAIR

REPAIR PROCEDURES:

1. PRIOR TO ANY CRACK/JOINT REPAIR WORK, THE EXACT SCOPE OF CRACK/CONSTRUCTION JOINT REPAIRS SHALL BE DETERMINED BY AN INSPECTION ATTENDED BY THE CONTRACTOR AND ENGINEER. THE SURFACE SHALL BE SHOTBLASTED CLEAN FOR INSPECTION.
2. ROUT AND CLEAN ALL CRACKS AND CONSTRUCTION JOINTS IN DESIGNATED AREAS. REMOVE EXISTING DETERIORATED SEALANT MATERIAL, IF ANY, DIRT, DEBRIS, ETC. BY APPROVED METHODS. THE CRACKS/JOINTS SHALL BE ROUTED TO THE SHAPE OF A 1/2" X 1/2" V-GROOVE. CLEAN CONCRETE SURFACES USING COMPRESSED AIR OR OTHER MEANS TO REMOVE DUST OR OTHER EXISTING FOREIGN MATERIAL WHICH WOULD IMPAIR THE BOND OF NEW SEALANT MATERIAL.
3. PRIME THE SURFACES AND SEAL WITH APPROVED SEALANT MATERIAL.
4. PROHIBIT VEHICULAR TRAFFIC ON SEALED CRACKS/JOINTS UNTIL THE MATERIAL HAS CURED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. CONTRACTOR SHALL NOT REPAIR ANY PREVIOUSLY SEALED CRACKS/CONSTRUCTION JOINTS UNLESS DESIGNATED BY THE ENGINEER.

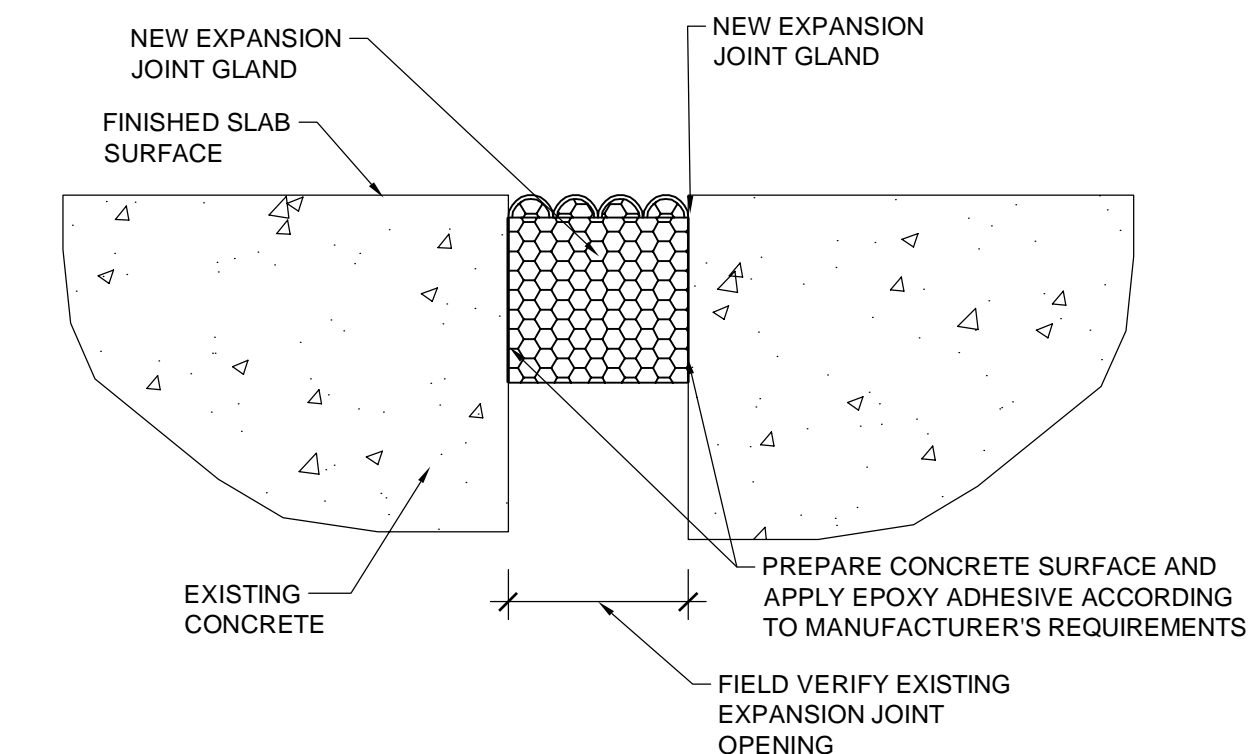
6 CRACK, CONSTRUCTION, AND COVE JOINT SEALANT REPAIR



REPAIR PROCEDURES:

1. REMOVE THE EXISTING DETERIORATED SEALANT BY APPROVED METHOD.
2. PREPARE THE CONCRETE SUBSTRATE BY MANUFACTURER'S WRITTEN GUIDELINES.
3. INSTALL AN APPROVED SEALANT MATERIAL WITH BACKER ROD IN STRICT ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

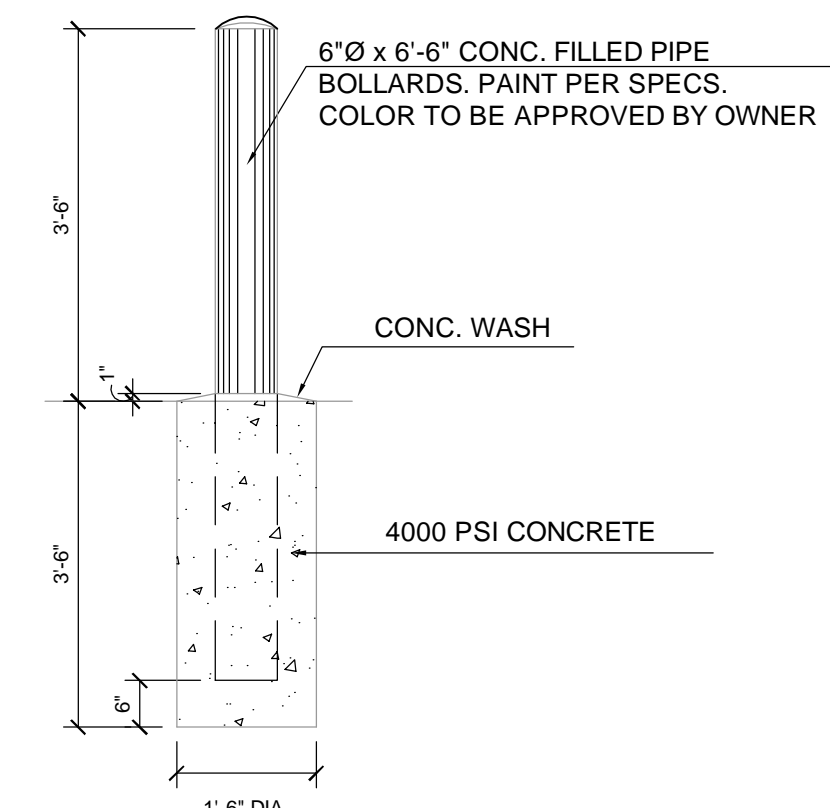
7 CONTROL JOINT SEALANT REPLACEMENT
SCALE: N.T.S.



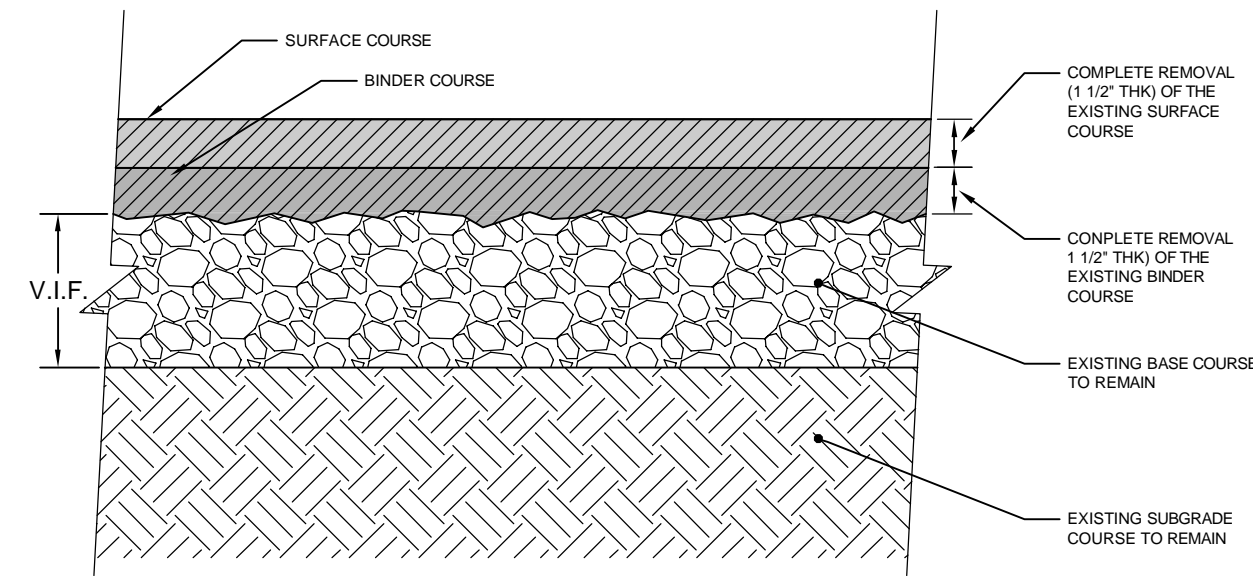
NOTES:

1. THE JOINT SEAL SHALL BE SELECTED BY JOINT MANUFACTURER TO ACCOMMODATE THE JOINT OPENING. THE MANUFACTURER SHALL SUBMIT THE PROPOSED JOINT SEAL DATA ALONG WITH THE TEMPERATURE DATA TO THE ENGINEER FOR REVIEW.
2. JOINT SEAL INSTALLATION SHALL PROCEED IN STRICT ACCORDANCE WITH JOINT SEAL MANUFACTURER'S WRITTEN SPECIFICATIONS.
3. THE CONTRACTOR SHALL NOT ALTER OR MODIFY THE SIZE OF EXISTING JOINT OPENING WITHOUT PRIOR APPROVAL OF THE ENGINEER.
4. SEE PROJECT SPECIFICATIONS FOR APPROVED SYSTEM MANUFACTURERS.

8 TYPICAL FOAM EXPANSION JOINT SYSTEM
SCALE: N.T.S.

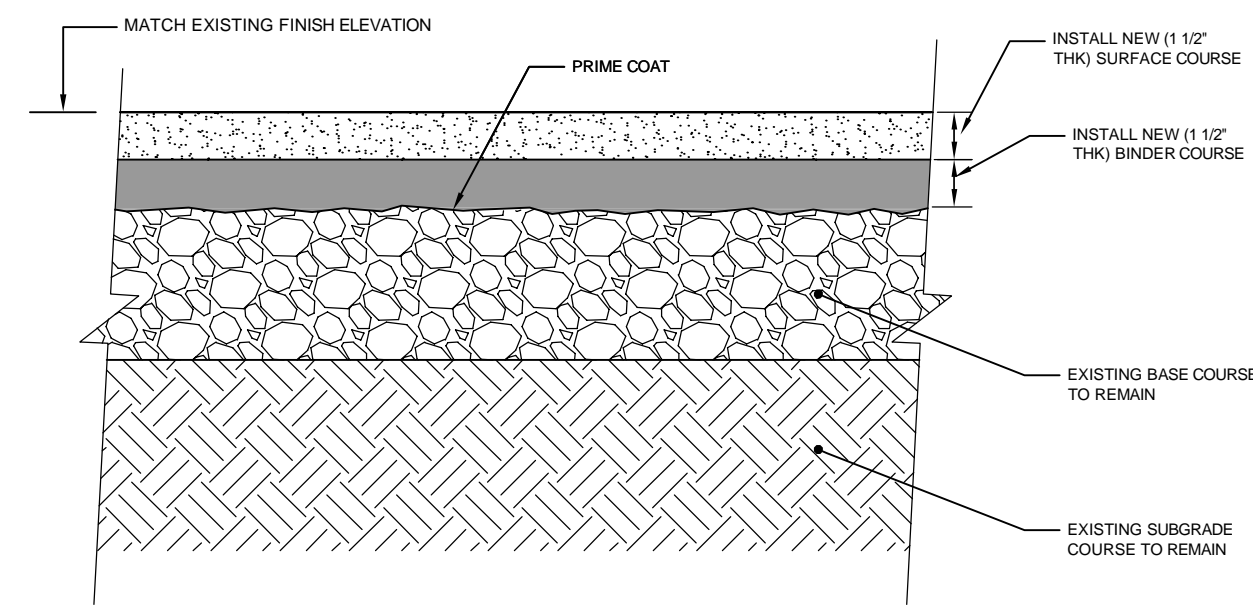


9 SOG BOLLARD DETAIL
SCALE: N.T.S.

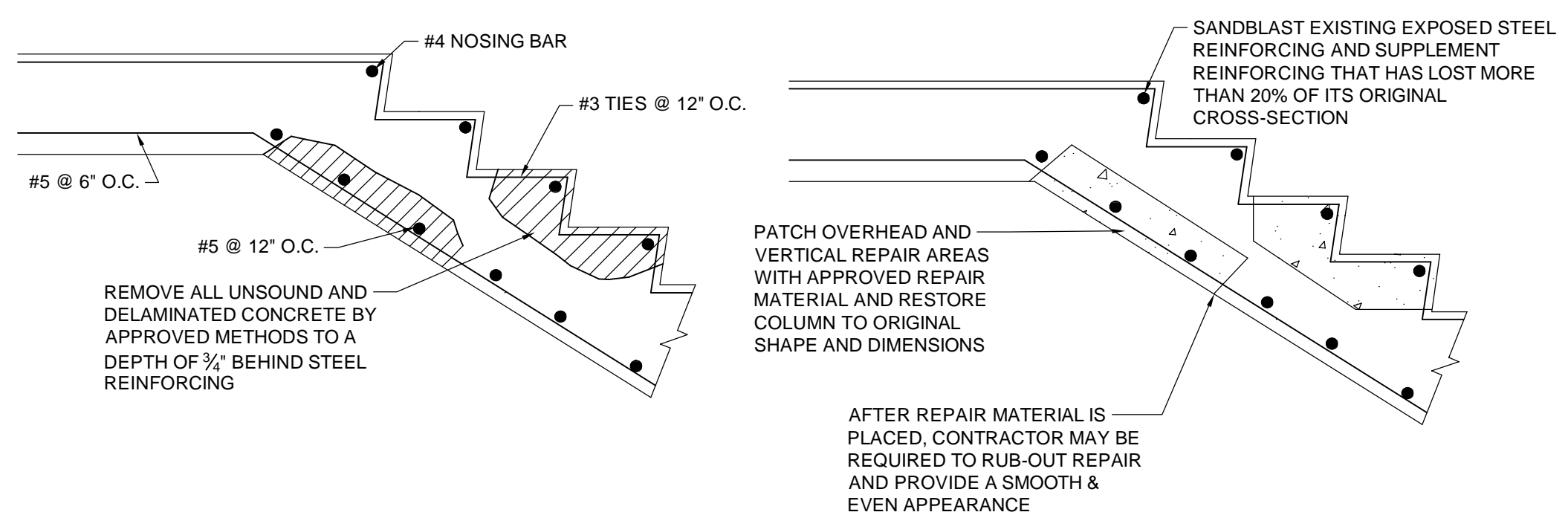


- NOTES:
1. ALL PAVEMENT TO FOLLOW MDT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 2. CONTRACTOR SHALL SUBMIT A MIX DESIGN FOR ENGINEERING REVIEW AND RECEIVE APPROVAL PRIOR TO PAVING.
 3. ALL PAVEMENT JOINTS SHALL BE SQUARE WITHOUT FEATHERING.

1 EXISTING ASPHALT PAVEMENT/REMOVAL
SCALE: N.T.S.

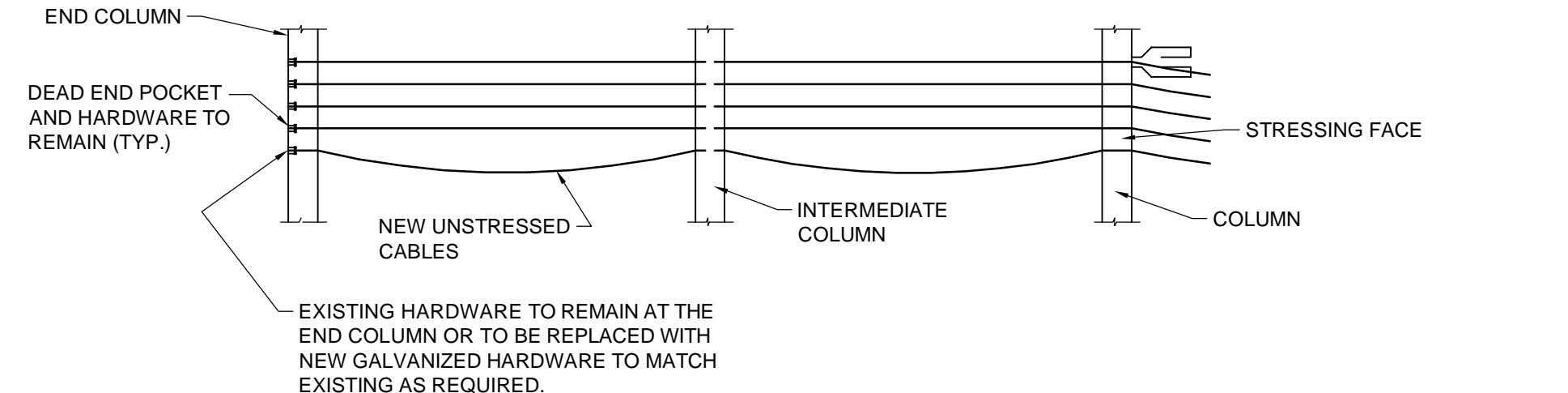
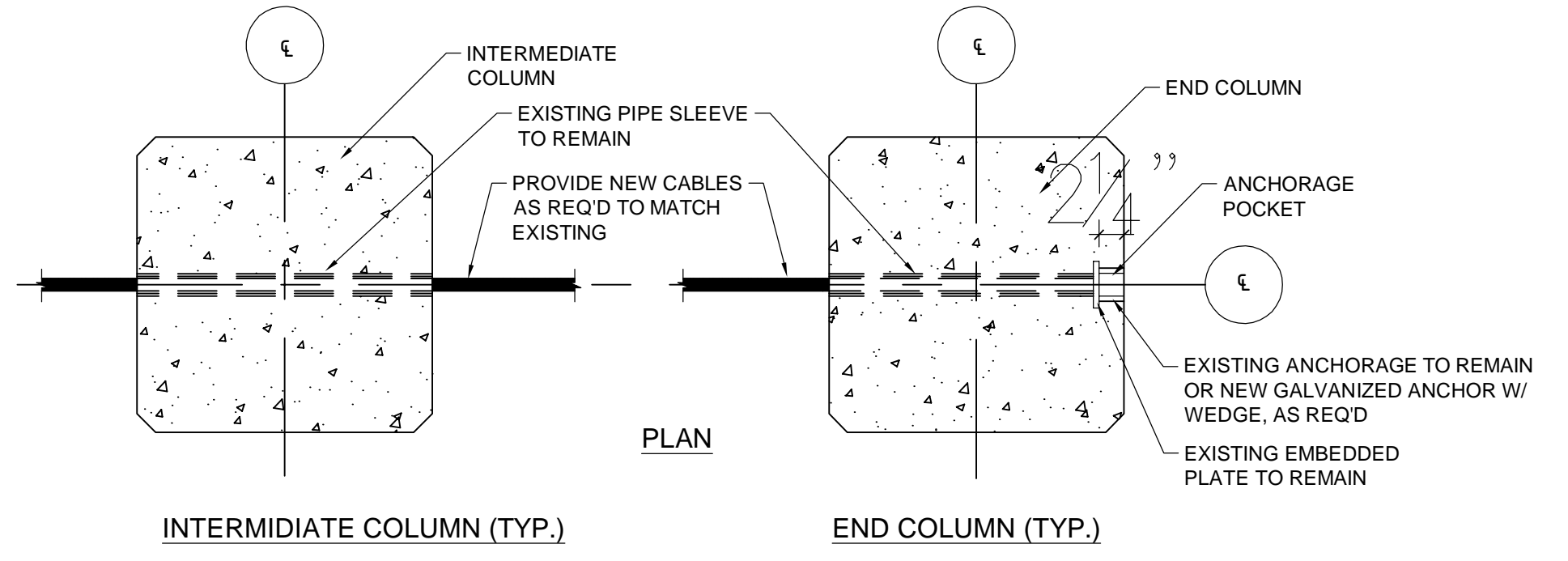


2 REPAIRED ASPHALT PAVEMENT
SCALE: N.T.S.



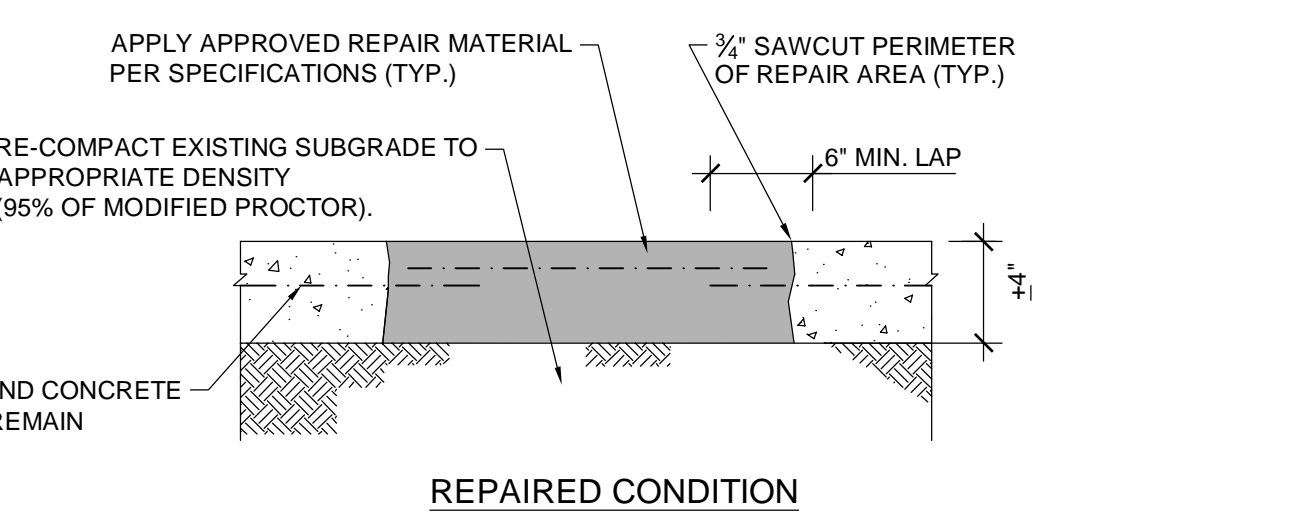
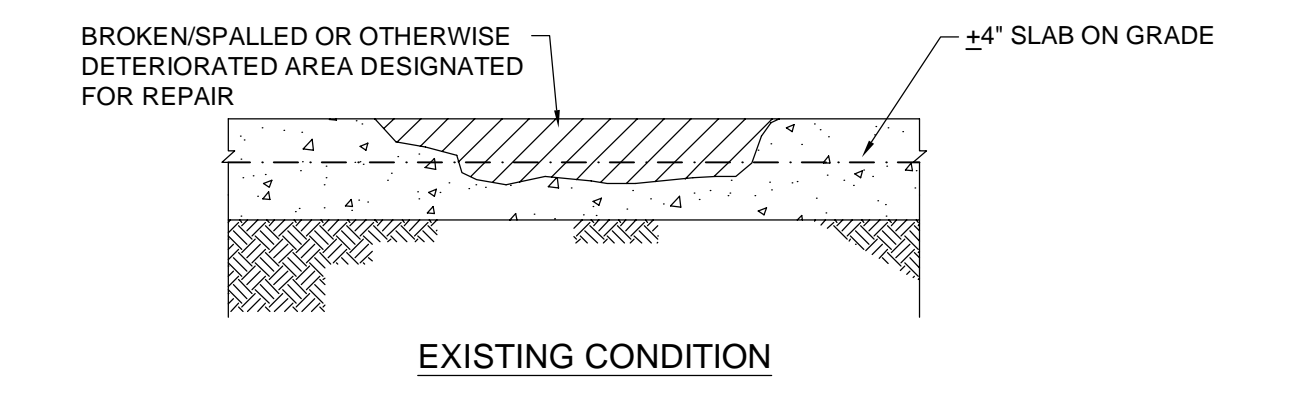
3 STAIR TREAD AND SOFFIT SPALL REPAIR DETAILS
SCALE: N.T.S.

- REPAIR PROCEDURE:
1. REMOVE ALL UNSOUND AND DELAMINATED CONCRETE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER TO A DEPTH OF 3/4" BEHIND EXISTING STEEL REINFORCING BY APPROVED METHODS.
 2. SANDBLAST CLEAN ALL EXPOSED STEEL REINFORCING.
 3. SUPPLEMENT EXISTING STEEL REINFORCING THAT HAS LOST MORE THAN 20% OF ITS ORIGINAL CROSS-SECTION WITH NEW EPOXY-COATED BARS. NEW REINFORCING SHALL BE PROPERLY LAP SPICED TO EXISTING.
 4. FOR STAIR SOFFIT SPALL REPAIRS, APPLY APPROVED PATCHING MATERIAL AS OUTLINED IN THE APPLICABLE SPECIFICATION SECTIONS. FOR STAIR TREAD SPALL REPAIRS, PLACE NEW 5,000 PSI CONCRETE IN REPAIR AREA AS OUTLINED IN SPECIFICATION SECTION 03300.
 5. CURE AND PROTECT FINISHED REPAIR.
 6. RUB-OUT SOFFIT REPAIR AREA IF NECESSARY TO PROVIDE A SMOOTH & EVEN APPEARANCE.
- NOTE:
SEE SPECIFICATION SECTIONS 03340, 03345, AND 03390 FOR A LIST OF APPROVED MATERIALS FOR STAIR SOFFIT REPAIRS.



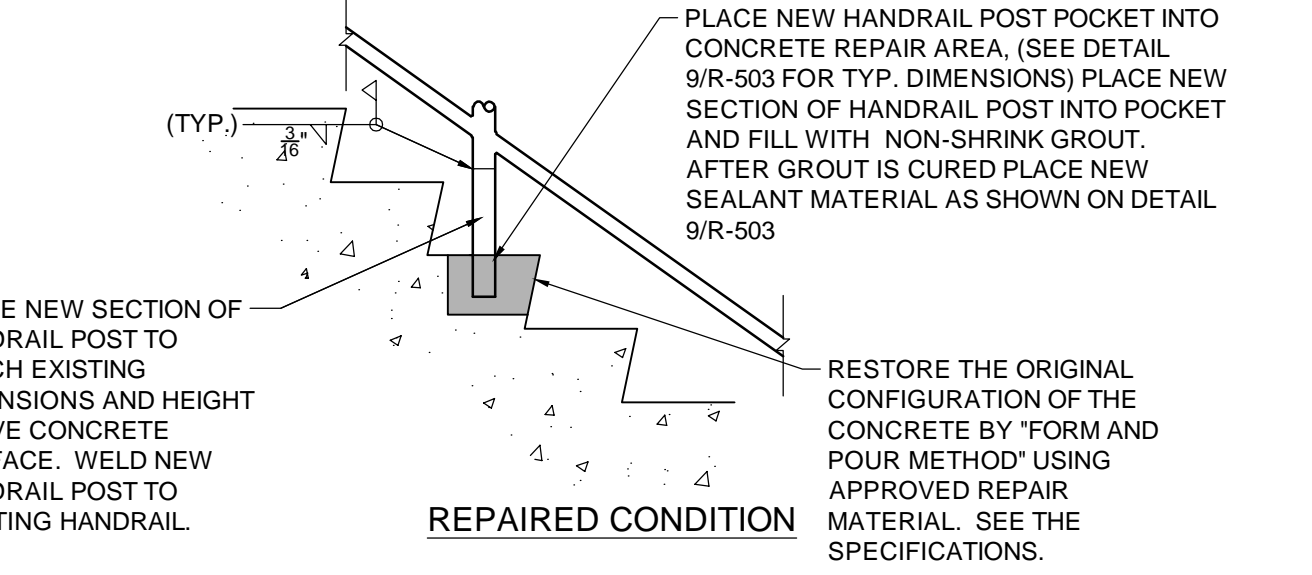
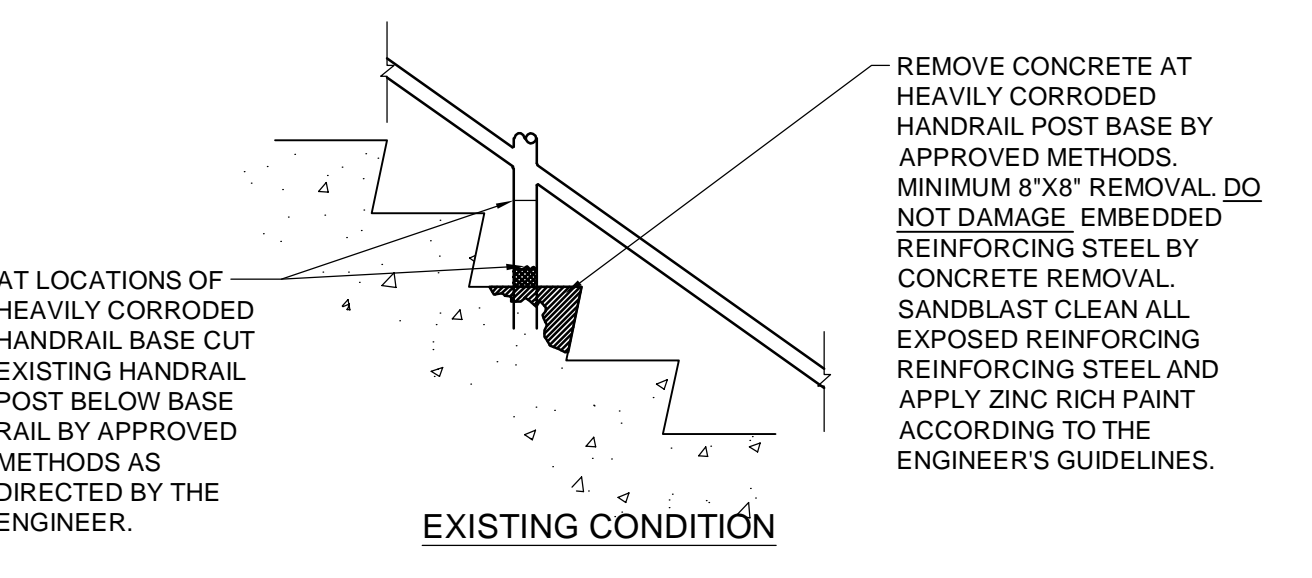
- REPAIR PROCEDURE:
1. DETENSION AND REMOVE ALL EXISTING LOOSE OR PARTIALLY DETENSIONED CABLES.
 2. REMOVE EXISTING GROUT AND HARDWARE AT DESIGNATED PT POCKETS.
 3. CLEAN THE EXISTING POCKET AND PIPE SLEEVES FREE OF ALL LOOSE MATERIAL.
 4. THREAD NEW GALVANIZED CABLE THROUGH TO THE SLEEVE AND SET THE DEAD-END IN EXISTING POCKET USING NEW GALVANIZED HARDWARE.
 5. PLACE CABLE THROUGH THE COLUMNS AND ANCHORS, INSERT WEDGES.
 6. STRESS CABLE FROM STRESSING END TO A TOTAL FORCE OF 6,000 POUNDS AND ANCHOR THE CABLE AT THE STRESSING END. (GAUGE PRESSURE TO BE DETERMINED BY POST-TENSIONING SUPPLIER EQUIVALENT TO 6 KIPS OF FORCE)
 7. FROM OPPOSITE SIDE OF THE STRESSING END AT COLUMN INSTALL HYDRAULIC JACK, STRESS CABLE TO 20 KIPS AND BACK-STRESS.
 8. BACK-STRESS TENDONS. THE BACK-STRESSING PROCEDURE SHALL BE AS FOLLOWS
 - A. STRESS CABLES AS DIRECTED ABOVE.
 - B. STRESS CABLES TO 20 KIPS OF FORCE (GAUGE PRESSURE TO BE DETERMINED BY PT SUPPLIER) ON THE OPPOSITE SIDE OF THE COLUMN. THIS WILL PULL THE WEDGES INTO THE ANCHOR. MAKE SURE THAT THE NOSE OF THE JACK BEARS ON THE SLOTTED STEEL PLATE, NOT ON THE CONCRETE.
 9. SPRAY RAM GRIPPER MARKS AND ANCHOR WEDGE MARKS WITH ZRC, GALVANOX, OR EQUAL.
 10. BURN OFF EXCESS LENGTH OF CABLES AT END ANCHORAGES. APPLY 2 COATS OF GALVANOX, OR EQUAL, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 11. FILL POCKETS IN COLUMNS W/ NON-SHRINK, NON-METALLIC 5,000 PSI GROUT.

7 REPAIR/REPLACEMENT OF EXISTING SAFETY GUARD CABLES
SCALE: N.T.S.



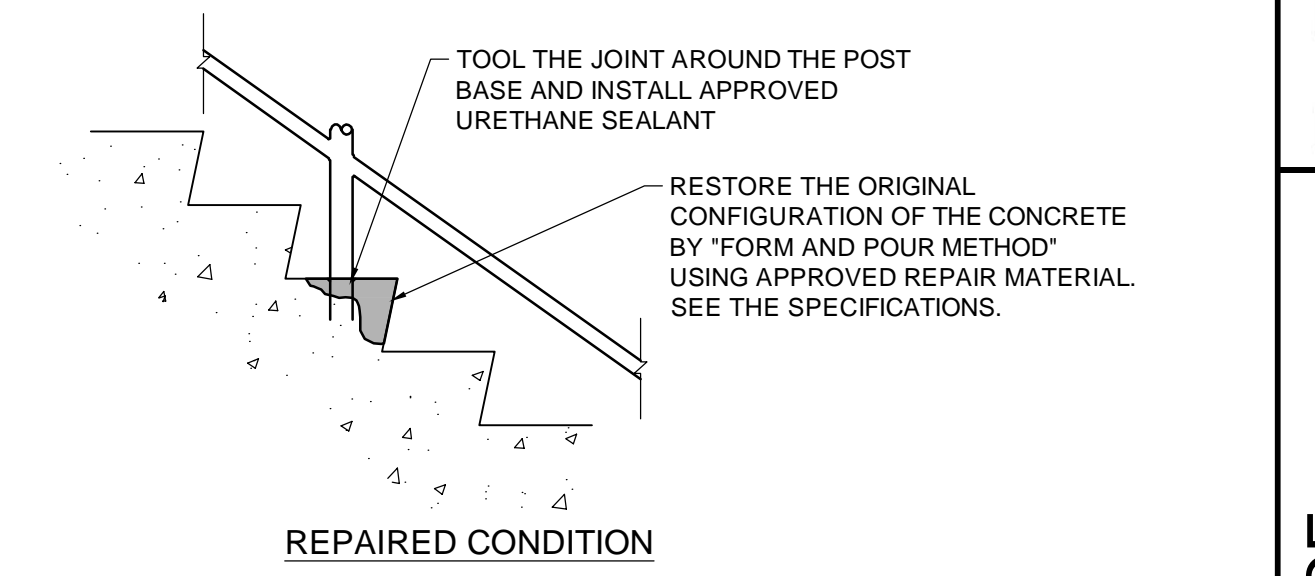
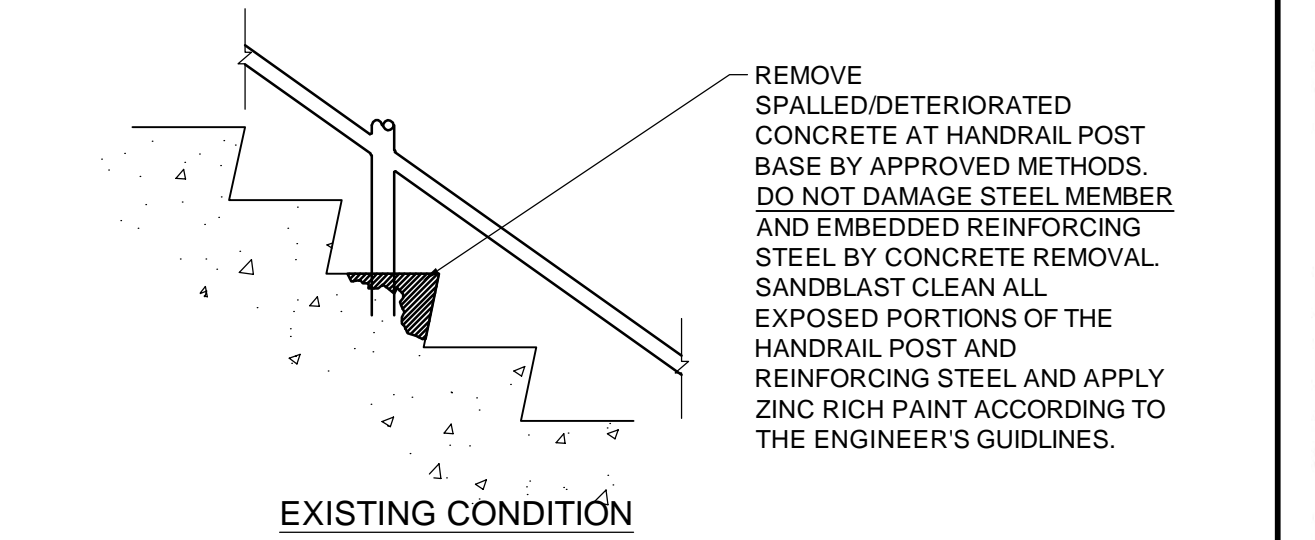
- REPAIR PROCEDURE:
1. SAW-CUT ALONG THE PERIMETER OF REPAIR AREAS AND REMOVE EXISTING GRADE SLAB TO THE EXTENT REQUIRED TO PERMIT LAP SPICING OF EXISTING REINFORCEMENT, IF ANY.
 2. PLACE AND FINISH REPAIR AREAS USING AIR-ENTRAINED, FIBER-REINFORCED CONCRETE (MIN. 4000 PSI AT 28 DAYS) SO AS TO MATCH EXISTING SLOPES AND ELEVATIONS. FINISHED PATCHES SHALL BE FREE OF PONDING.
 3. RESTORE ALL CONTROL/CONSTRUCTION JOINTS TO MATCH EXISTING.

5 SIDEWALK REPAIR DETAIL
SCALE: N.T.S.

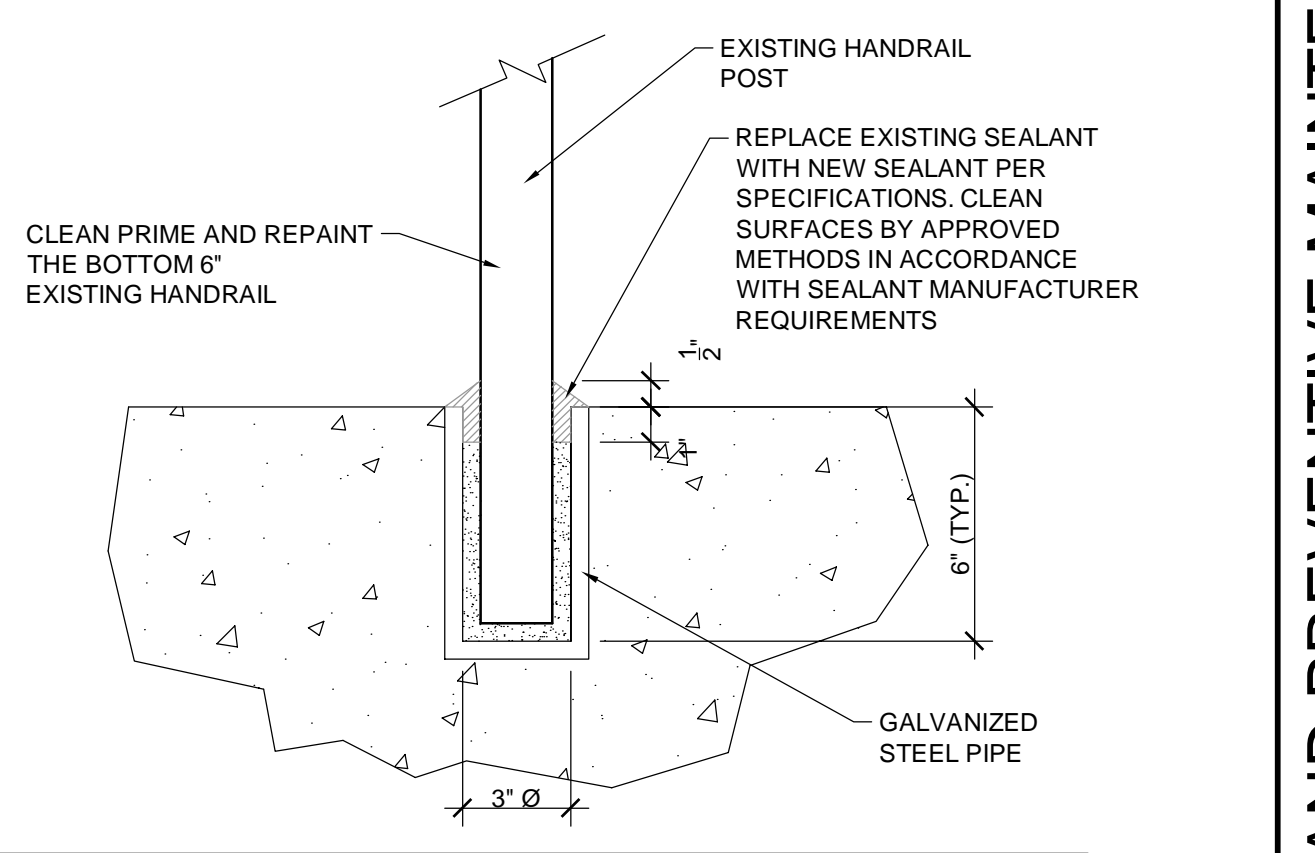


- REPAIR PROCEDURE:
1. AT LOCATIONS IDENTIFIED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER REMOVE CORRODED HANDRAIL POSTS AND ANCHOR POCKETS BY APPROVED METHODS. CONTRACTOR IS TO AVOID DAMAGE TO THE EXISTING HORIZONTAL HANDRAIL AND SURROUNDING CONCRETE.
 2. PLACE NEW HANDRAIL ANCHOR POCKET INTO CONCRETE REPAIR.
 3. INSTALL NEW VERTICAL HANDRAIL POST INTO NEW POCKET AND FILL WITH NON-SHRINK GROUT. WELD NEW POST TO EXISTING HANDRAIL WITH A 3/8" FILLET WELD ALL AROUND AT ALL LOCATIONS.
 4. PLACE NEW SEALANT AROUND POST ACCORDING TO DETAIL 9/R-503.
 5. CLEAN PRIME AND PAINT NEW HANDRAIL POST WITH AN APPROVED PAINT SYSTEM PER SPECIFICATION SECTION 09 00 00. COLOR TO BE APPROVED BY THE OWNER.

8 HANDRAIL POST EMBED REPLACEMENT AT CORRODED HANDRAIL BASE LOCATIONS
SCALE: N.T.S.

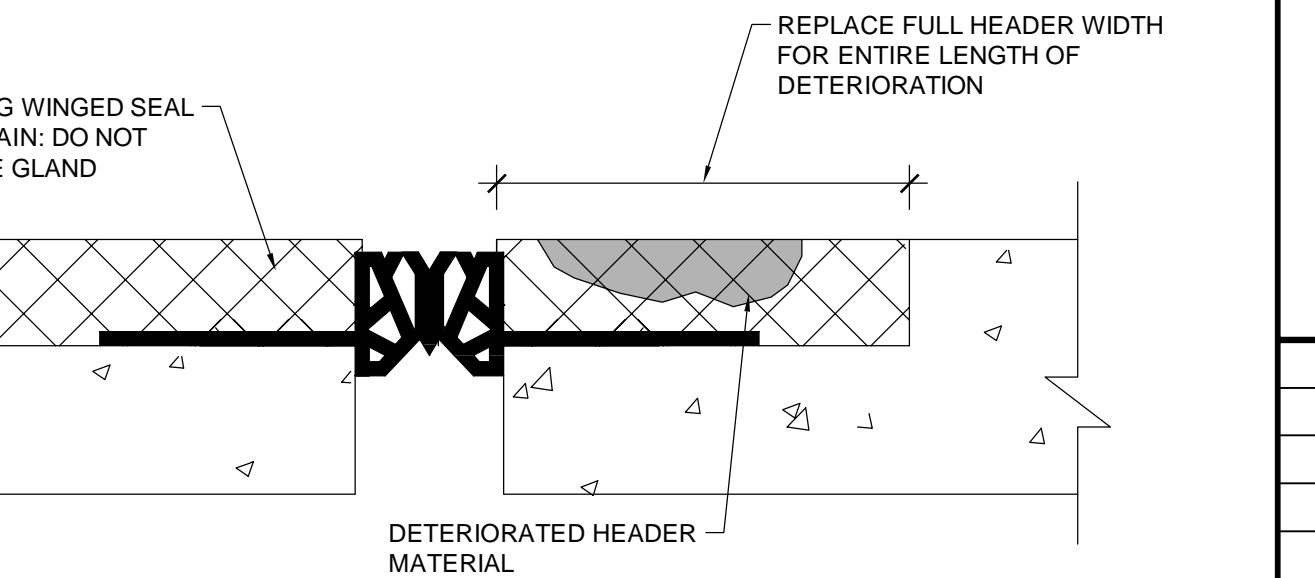


6 CONCRETE REPAIR AT HANDRAIL POST BASE
SCALE: N.T.S.



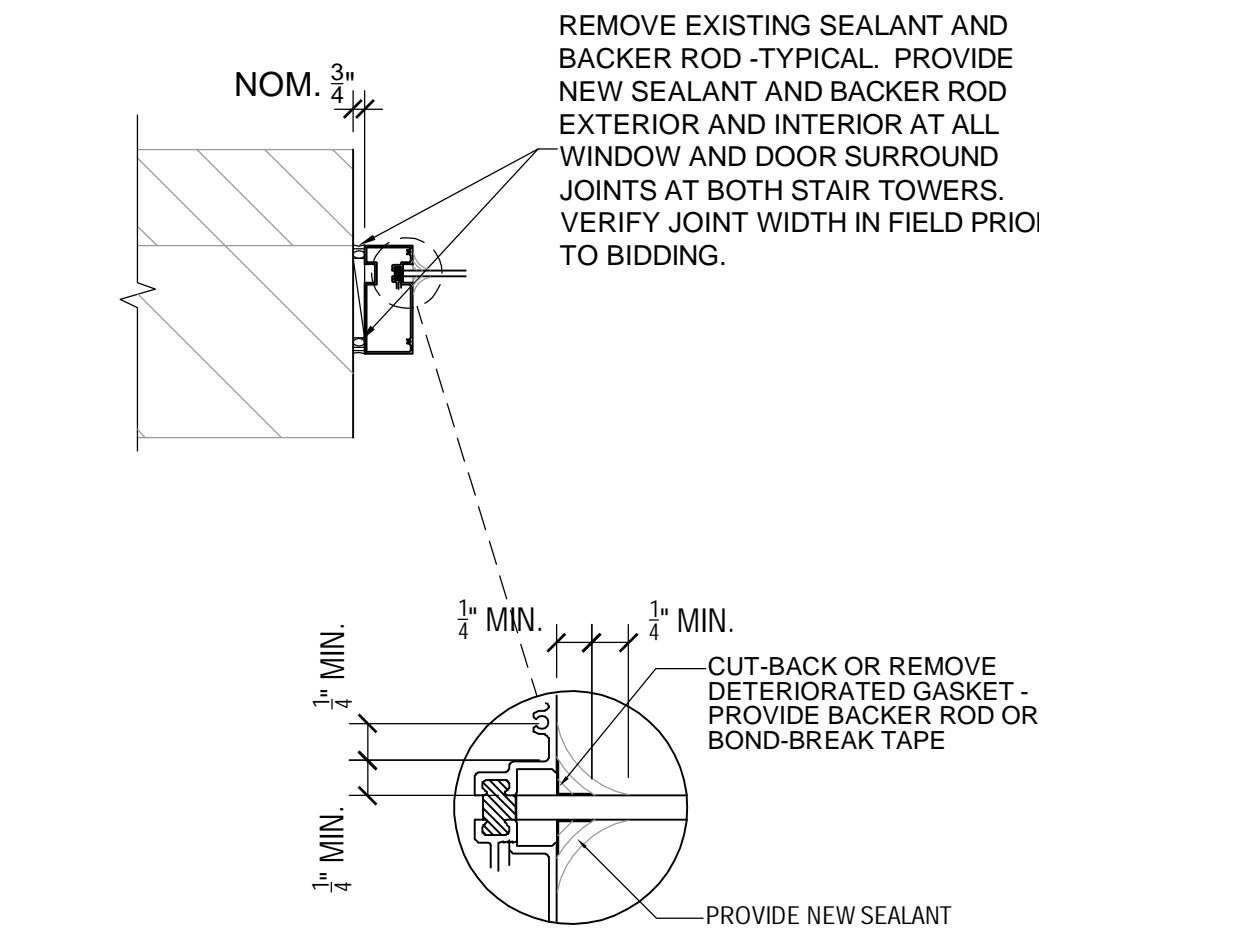
- REPAIR PROCEDURE:
1. REMOVE EXISTING SEALANT MATERIAL AND GROUT FROM THE HANDRAIL BASE.
 2. COMPLETELY CLEAN THE HANDRAIL GROUT POCKET WITH AIR COMPRESSOR.
 3. INSPECT CONDITION OF GROUT IN THE EMBEDDED PIPE. NOTIFY THE ENGINEER IF ANY DETERIORATION IS OBSERVED.
 4. IF NO DETERIORATION OF THE GROUT IS OBSERVED, OR AFTER ENGINEER DIRECTED REPAIRS HAVE BEEN COMPLETED & CURED, PLACE SEALANT MATERIAL AS SHOWN ON THE DETAIL.

9 HANDRAIL GROUT POCKET SEALANT REPAIR
SCALE: N.T.S.



- NOTES:
1. REPAIR LOCATIONS SHALL BE MARKED BY THE CONTRACTOR AND VERIFIED/DESIGNATED IN BY ENGINEER. ANY DETERIORATED CONCRETE OR CORROSION-DAMAGED REINFORCING STEEL ALONG THE EXPANSION JOINTS SHALL BE REPORTED/APPROVED BY THE ENGINEER PRIOR TO REPAIRS.
 2. EXTENT OF REPAIR REQUIRES REPLACEMENT OF NOSING MATERIAL ONLY. THE CONTRACTOR SHALL INSPECT THE PREMISES TO MAKE HIMSELF FAMILIAR WITH THE EXISTING CONDITIONS AND SCOPE OF REPAIRS.
 3. REMOVE LOOSE/DELAMINATED ELASTOMERIC CONCRETE BEING CAREFUL NOT TO DAMAGE EXISTING WINGED SEAL GLAND. MIN. LENGTH OF REMOVAL IN ANY GIVEN LOCATION TO BE 2 LF.
 4. SOLVENT CLEAN ELASTOMERIC CONCRETE HEADER WITH NON PETROLEUM XYLENE CLEANER.
 5. TROWEL APPLY NEW SPECIFIED ELASTOMERIC CONCRETE IN ACCORDANCE WITH MANUFACTURER'S ESTABLISHED PROCEDURES AND SECTION 07910.
 6. REPORT ANY UNANTICIPATED CONDITIONS INCLUDING DAMAGED WING SEAL TO THE ENGINEER.

10 EXPANSION JOINT SEAL NOSING REPAIR DETAIL
SCALE: N.T.S.



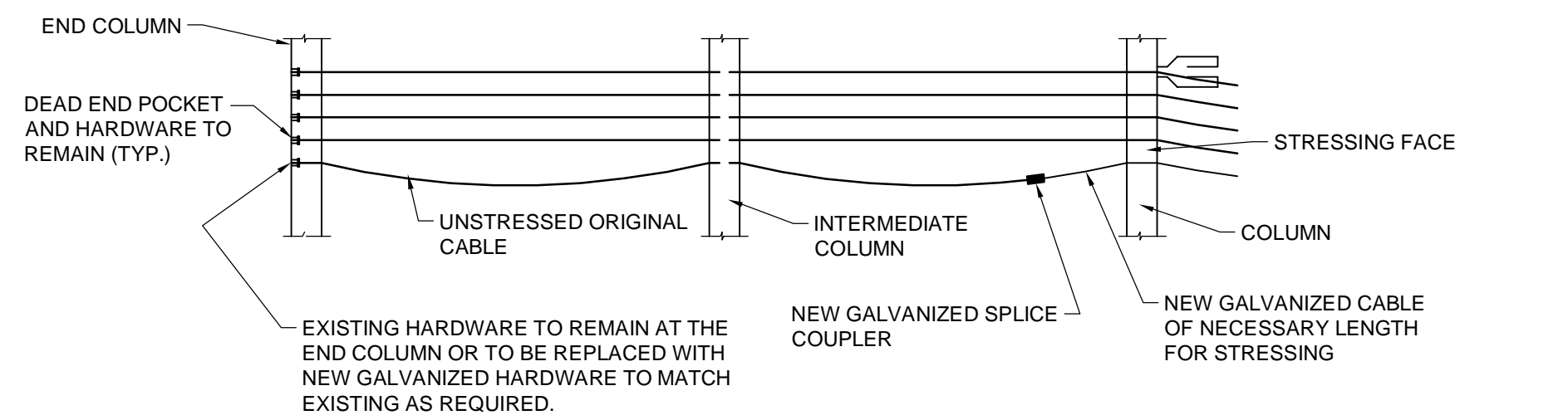
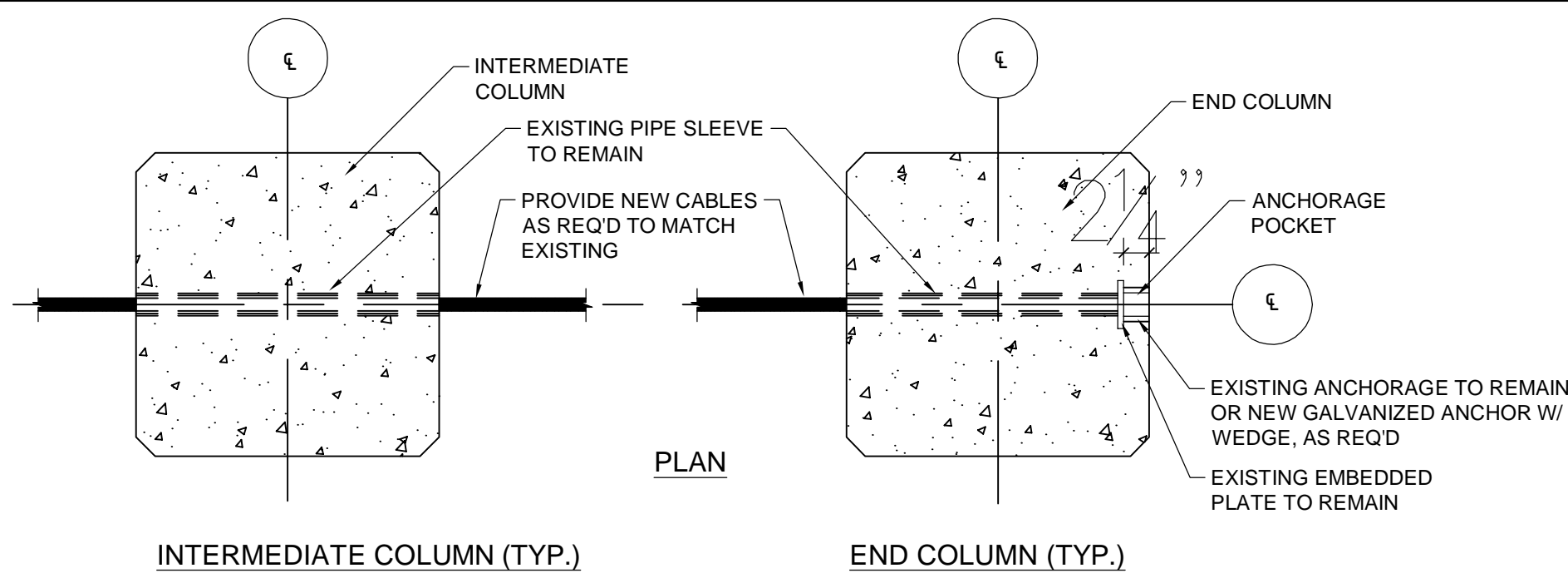
4 GLAZING SEALANT DETAILS
SCALE: N.T.S.

ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE: ASPHALT REPAIR DETAILS		
DRAWING NO. R-503		

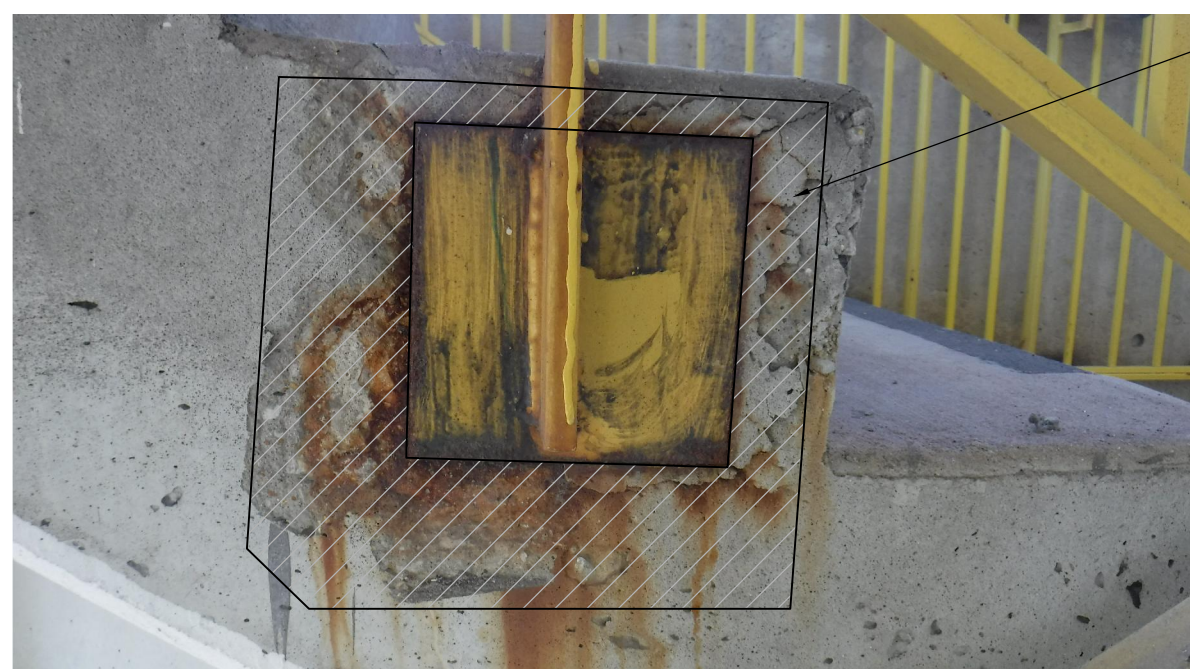
SCALE:	AS NOTED	
DATE:	AUGUST, 2022	
PROJECT NO.:	50-22139	
DES.:	DRWN.:	CK'D.:
KK	AC	KK

Copyright © 2015 Desman, Inc. All rights reserved. No part of these documents may be reproduced in any form or by any means without permission from Desman.



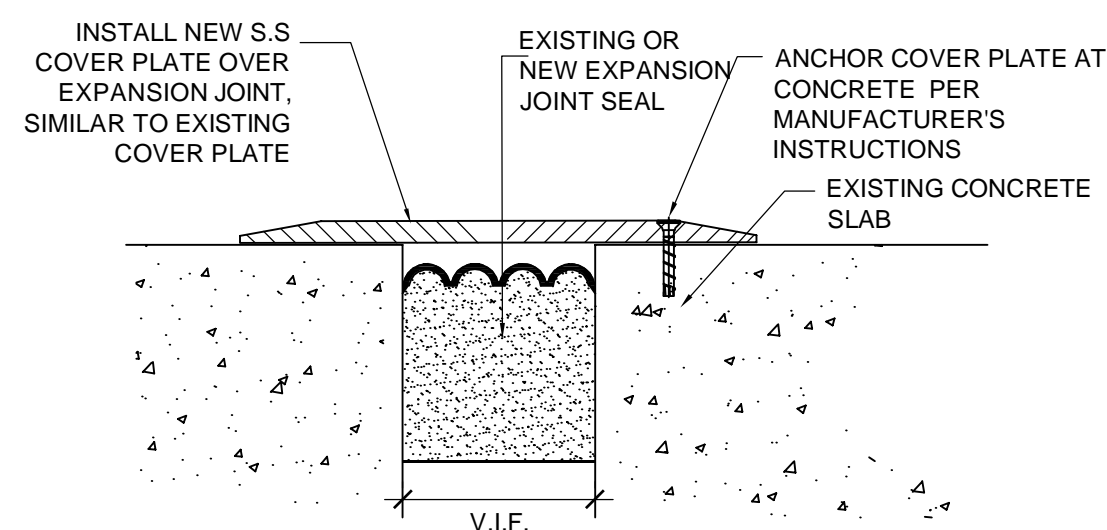
- REPAIR PROCEDURE:**
- DETENSION EXISTING LOOSE OR PARTIALLY DETENSIONED CABLES.
 - REMOVE EXISTING GROUT AND HARDWARE AT DESIGNATED PT POCKETS.
 - CLEAN THE EXISTING POCKET AND PIPE SLEEVES FREE OF ALL LOOSE MATERIAL.
 - CUT EXISTING CABLE NEAR STRESSING END AND INSTALL A NEW GALVANIZED SPLICE COUPLER WITH A LENGTH OF NEW GALVANIZED BARRIER CABLE SUFFICIENT FOR THE STRESSING PROCEDURE.
 - PLACE THE NEW LENGTH OF CABLE THROUGH THE COLUMNS AND ANCHORS, INSERT WEDGES.
 - STRESS CABLE FROM STRESSING END TO A TOTAL FORCE OF 6,000 POUNDS AND ANCHOR THE CABLE AT THE STRESSING END. (GAUGE PRESSURE TO BE DETERMINED BY POST-TENSIONING SUPPLIER EQUIVALENT TO 6 KIPS OF FORCE)
 - BACK-STRESS TENDONS. THE BACK-STRESSING PROCEDURE SHALL BE AS FOLLOWS
 - STRESS CABLES AS DIRECTED ABOVE.
 - STRESS CABLES TO 20 KIPS OF FORCE (GAUGE PRESSURE TO BE DETERMINED BY PT SUPPLIER) ON THE OPPOSITE SIDE OF THE COLUMN. THIS WILL PULL THE WEDGES INTO THE ANCHOR. MAKE SURE THAT THE NOSE OF THE JACK BEARS ON THE SLOTTED STEEL PLATE, NOT ON THE CONCRETE.
 - SPRAY RAM GRIPPER MARKS AND ANCHOR WEDGE MARKS WITH ZRC, GALVANOX, OR EQUAL.
 - BURN OFF EXCESS LENGTH OF CABLES AT END ANCHORAGES. APPLY 2 COATS OF GALVANOX, OR EQUAL, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - FILL POCKETS IN COLUMNS W/ NON-SHRINK, NON-METALLIC 5,000 PSI GROUT.

1 BARRIER CABLE SPLICE AND RE-TENSIONING DETAIL
SCALE: N.T.S.

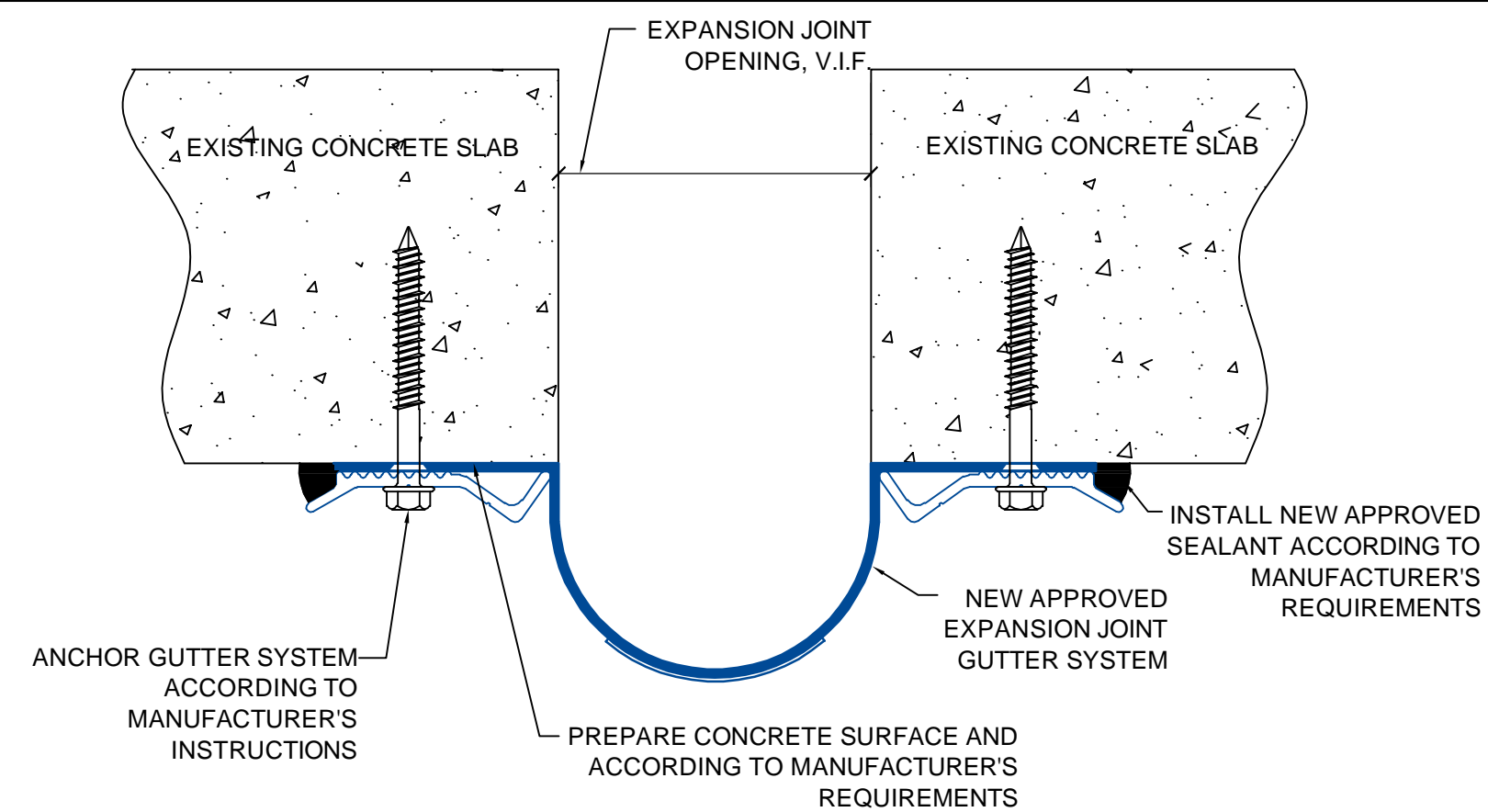


REMOVE LOOSE CONCRETE SURROUNDING EMBED PLATE. GRIND AND CLEAN STEEL FREE OF RUST. AT ACCESSIBLE LOCATIONS FILL AREAS OF REMOVED CONCRETE WITH AGGREGATE EXTENDED EPOXY MATERIALS. UTILIZE APPROVED EPOXY LEVELING COURSE MATERIALS PER SPECIFICATION SECTION 07 18 16

2 CUPPLES STATION STAIR EMBED DETAIL
SCALE: N.T.S.



3 EXPANSION JOINT PEDESTRIAN COVER PLATE
SCALE: N.T.S.



- NOTES:**
- THE JOINT SEAL SHALL BE SELECTED BY JOINT MANUFACTURER TO ACCOMMODATE THE JOINT OPENING. THE MANUFACTURER SHALL SUBMIT THE PROPOSED JOINT SEAL DATA ALONG WITH THE TEMPERATURE CHART TO THE ENGINEER FOR REVIEW
 - JOINT SEAL INSTALLATION SHALL PROCEED IN STRICT ACCORDANCE WITH JOINT SEAL MANUFACTURER'S WRITTEN SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT ALTER OR MODIFY THE SIZE OF EXISTING JOINT OPENING WITHOUT PRIOR APPROVAL OF THE ENGINEER.
 - SEE PROJECT SPECIFICATIONS FOR APPROVED SYSTEM MANUFACTURERS.
 - DRAIN SYSTEM LOCATION SHALL BE DETERMINED IN FIELD

4 EXPANSION JOINT GUTTER SYSTEM
SCALE: N.T.S.



NOTES:

REMOVE AND REPLACE THE DETERIORATED NOSING MATERIAL FROM THE EXISTING FRAMES. CLEAN THE FRAMES, AND INSTALL A NEW APPROVED EPOXY AND SAND MIXTURE. CONTRACTOR IS REMOVE THE EXISTING MATERIAL CAREFULLY IN ORDER TO AVOID DAMAGE TO THE EXISTING NOSING FRAME. UTILIZE APPROVED EPOXY LEVELING COURSE MATERIALS PER SPECIFICATION SECTION 07 18 16

5 CUPPLES STATION STAIR NOSING REPAIRS
SCALE: N.T.S.



REMOVE AND REPLACE EXISTING DETERIORATED CONCRETE CURB. SEE DETAIL 2/R-501

CUT EXISTING HANDRAIL VERTICAL POSTS JUST BELOW BOTTOM RAIL. STORE HANDRAIL, PLACE NEW EMBEDDED HANDRAIL POST ANCHORS INTO NEW CURB (DIMENSIONS & FINISH TO MATCH EXISTING HANDRAIL). WELD EXISTING HANDRAIL TO NEW POSTS. SEE DETAIL 8/R-503

6 CITY HALL LOT HANDRAIL REPAIRS
SCALE: N.T.S.

CONSTRUCTION NOTES

- CODES AND STANDARDS: ALL STRUCTURAL REPAIR WORK SHALL BE PERFORMED WITH PERTINENT PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
 - ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
 - ACI 304R "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE"
 - ACI 305R "HOT WEATHER CONCRETING"
 - ACI 306.1 "STANDARD SPECIFICATIONS FOR COLD WEATHER CONCRETING"
 - ACI 309R "GUIDE FOR CONSOLIDATION OF CONCRETE"
 - ACI 311.1R "ACI MANUAL OF CONCRETE INSPECTION"
 - ACI 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
 - ACI 347 "GUIDE TO FORMWORK FOR CONCRETE"
 - ACI 506.2 "SPECIFICATIONS OF SHOTCRETE"
 - AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
 - AISC "MANUAL OF STEEL CONSTRUCTION"
 - AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS"
 - AWS "STRUCTURAL WELDING CODE - STEEL"
 - ACI 562-16 "CODE REQUIREMENTS FOR EVALUATION, REPAIR, AND REHABILITATION OF CONCRETE BUILDINGS"
- ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL HAVE AUTHORITY TO REJECT WORK WHICH DOES NOT CONFORM TO THE CONTRACT DOCUMENTS. THE ENGINEER AND OWNER WILL HAVE AUTHORITY TO REQUIRE SPECIAL INSPECTION OR TESTING OF THE WORK. HOWEVER, NEITHER THE ENGINEER'S AUTHORITY TO ACT UNDER THIS SUBPARAGRAPH NOR ANY DECISION MADE BY HIM IN GOOD FAITH TO EXERCISE OR NOT TO EXERCISE SUCH AUTHORITY, SHALL GIVE RISE TO ANY DUTY OR RESPONSIBILITY OF THE ENGINEER TO THE CONTRACTOR, ANY SUBCONTRACTOR, ANY OF THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.
- THE CONTRACTOR SHALL MAINTAIN, ON ONE COMPLETE SET OF DRAWINGS (WHITE PRINTS) AND SPECIFICATIONS FURNISHED BY THE OWNER AT THE CONTRACTORS EXPENSE, AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE CONTRACT. THE "AS-BUILT" RECORD SHALL INDICATE THE EXACT LOCATION AND AMOUNT OF ALL REPAIR WORK. THE COMPLETED SET OF "AS-BUILT" DRAWINGS MUST BE DELIVERED TO THE OWNER AND ENGINEER AS SOON AS THE PROJECT IS FINISHED.
- ANY EQUIPMENT GREATER THAN 6,000 LBS SHALL REQUIRE SPECIALIZED SHORING OF THE PARKING DECK. THE ENGINEER SHALL REVIEW AND APPROVE SHORING PRIOR TO STARTING WORK. ALL LOOSE CONCRETE ON THE UNDERSIDE OF THE PARKING DECK SHALL BE REMOVED PRIOR TO STARTING WORK. ALL NOISE AND DUST PRODUCING OPERATIONS ARE LIMITED TO THE OWNER'S SATISFACTION AND THE CITY OF ST. LOUIS CODE REQUIREMENTS.
- THE NEW CONCRETE SHALL BE PLACED, CONSOLIDATED AND FINISHED TO MATCH EXISTING FINISH FLOOR ELEVATIONS. THE REPAIR AREAS MAY BE OPENED TO GARAGE OPERATION AFTER THE NEW CONCRETE HAS ACHIEVED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE SHORING AND FALSEWORK SHALL BE LEFT IN-PLACE UNTIL THE NEW CONCRETE ACHIEVES AT LEAST 70% OF THE DESIGN COMPRESSIVE STRENGTH. THE CONTRACTOR SHALL COOPERATE WITH THE TESTING AGENCY REPRESENTATIVE DURING THE POURING TO INSPECT AND MAKE CYLINDERS OF NEW CONCRETE DELIVERED TO THE SITE.
- CONCRETE TESTING WILL BE PERFORMED BY THE TESTING LABORATORY SELECTED BY THE OWNER IN ACCORDANCE WITH ACI 301 SUBSECTION 1.6. SEE THE SPECIFICATION FOR CONCRETE TEST REQUIREMENTS.

POST-TENSIONED CONCRETE NOTES

- ALL NEW POST-TENSIONING SYSTEM SHALL BE UNBONDED MONO-STRAND FULLY ENCAPSULATED TENDONS. STRANDS USED IN POST-TENSIONING SHALL CONFORM TO ASTM A416, STRESS RELIEVED, LOW RELAXATION, 7-WIRE EXTRA HIGH STRENGTH STRAND WITH A GUARANTEED MINIMUM ULTIMATE STRENGTH OF 270,000 PSI.
- THE POST-TENSIONING TENDONS SHALL BE COATED WITH CORROSION INHIBITIVE COATING AND WRAPPED IN WATERTIGHT EXTRUDED PLASTIC SHEATH. IN-PLACED TENDONS SHALL BE IN SATISFACTORY CONDITION.
- ANCHORAGES FOR POST-TENSIONING TENDONS SHALL BE DESIGNED PER ACI 318 CODE AND COMMENTARY, AND SAMPLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- AT THE ENGINEER'S REQUEST, THE POST-TENSIONING SYSTEM MANUFACTURER SHALL SUBMIT CALCULATIONS, TENDON MILL CERTIFICATES, ANCHORAGES TEST RESULTS, AS WELL AS WOBBLE AND CURVATURE COEFFICIENT DETERMINATION DATA TO SUBSTANTIATE THE METHOD OF TENDON CALCULATIONS. WHEN THE LATTER IS NOT AVAILABLE THE CALCULATIONS SHALL BE BASED ON A WOBBLE FRICTION COEFFICIENT OF $K=0.002$ AND CURVATURE COEFFICIENT OF $m=0.15$.
- THE POST-TENSIONING SYSTEM MANUFACTURER SHALL SUBMIT TO THE ENGINEER FOR APPROVAL ENGINEERED SHOP DRAWINGS SHOWING, AS A MINIMUM, THE FOLLOWING:
 - FOR SLABS, REPAIRED TENDON LAYOUT AND DIMENSIONS LOCATING TENDONS IN PLAN, TENDON CURVATURE AT BLOCKOUTS, ALL OPENINGS, ANCHORAGES, CHAIR HEIGHTS AND LOCATION, ANY PLACEMENT STEEL IF REQUIRED;
 - FOR ALL REPLACED TENDONS, LOCATION OF EACH TENDON, METHOD OF TENDON SUPPORT, DETAILS OF ANCHORAGE ZONE REINFORCEMENT, STRESSING POCKETS, CLOSURES, ETC.
- ALL FRICTION CALCULATIONS AND POST-TENSIONING SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.
- THE POST-TENSIONING SYSTEM MANUFACTURER SHALL SUBMIT TO THE ENGINEER, FOR REVIEW, DETAILED STRESSING PROCEDURES AND SEQUENCES, AS WELL AS DETAILED CALCULATIONS TO SUBSTANTIATE THE ABOVE. ALL PRESTRESSING LOSSES SHALL BE ACCOUNTED FOR IN THE CALCULATIONS. COMPLETE POST-TENSIONING PROCEDURE SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING:
 - JACKING FORCES AND JACKING PRESSURES, INCLUDING BUT NOT LIMITED TO MAXIMUM TEMPORARY JACKING FORCE AND JACKING PRESSURE;
 - CERTIFIED JACK CALIBRATION DATA AND METHOD OF JACK IDENTIFICATION; EACH JACK TO BE USED ON THE JOB SHALL BE CALIBRATED WITHIN ONE (1) MONTH PRIOR TO ITS USE;
 - METHOD OF DETERMINING THE SLACK, IF ANY;
 - REQUIRED ELONGATION OF EACH TENDON AT EACH JACKING POINT;
 - METHOD OF DETERMINING ANCHOR FORCE OR FORCE REMAINING IN A TENDON AFTER ANCHORAGE;
 - METHOD OF REMOVING AN EXCESS TENDON LENGTH AFTER ANCHORAGE;
 - METHOD OF SEALING TENDONS AND CLOSING STRESSING POCKETS;
 - SAMPLE STRESSING RECORDS.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A CONCRETING SEQUENCE FOR APPROVAL.
- TENDONS SHALL BE SECURELY SUPPORTED AT INTERVALS NOT EXCEEDING 36 INCHES ON CENTER.
- ALL OPENINGS AND/OR SLEEVES MUST BE SHOWN ON THE SHOP DRAWINGS, ANY ADDITIONAL OPENINGS, NOT SHOWN ON THE APPROVED SHOP DRAWINGS WILL REQUIRE A WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO CONSTRUCTION.
- TENDON STRESSING LOG CONTAINING REQUIRED AND MEASURED ELONGATIONS, AS WELL AS CALIBRATED JACK GAUGE READINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY REMOVAL OF THE EXCESS TENDON LENGTH. TENDON STRESSING LOGS SHALL BE DATED AND SIGNED BY THE STRESSING OPERATOR, THE TESTING AGENCY AND THE CONTRACTOR.
- AFTER ACCEPTANCE AND APPROVAL OF STRESSING RECORDS BY THE ENGINEER, CUT OFF TENDON TAILS ACCORDING TO THE ENGINEER'S DIRECTION.
- SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS FOR ALL POST-TENSIONED CONCRETE WORK.

ISSUE

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

REPAIR DETAILS AND NOTES

DRAWING NO.

R-504

SCALE: AS NOTED

DATE: AUGUST, 2022

PROJECT NO: 50-22139

DES. DRWN. CKD.

KK AC KK