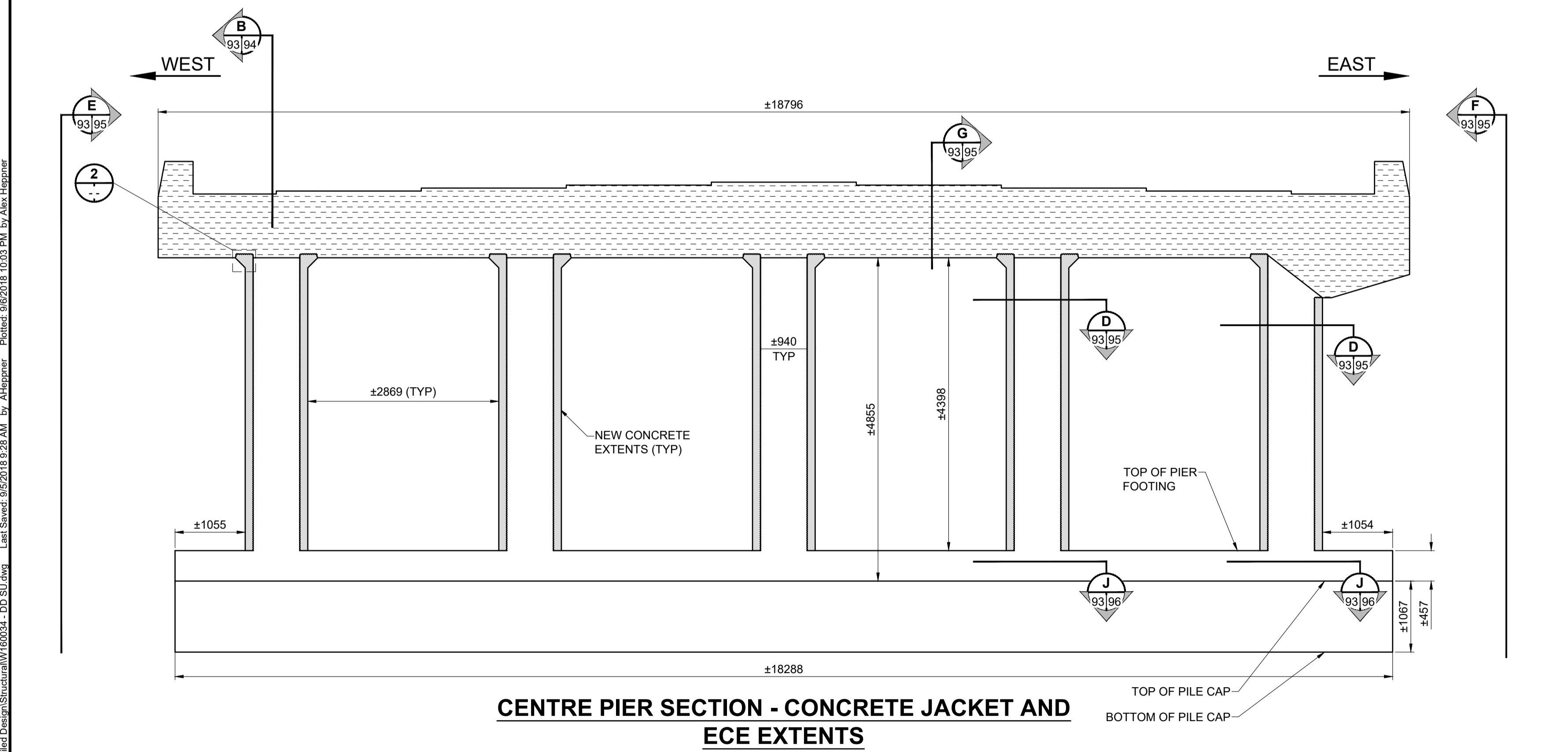


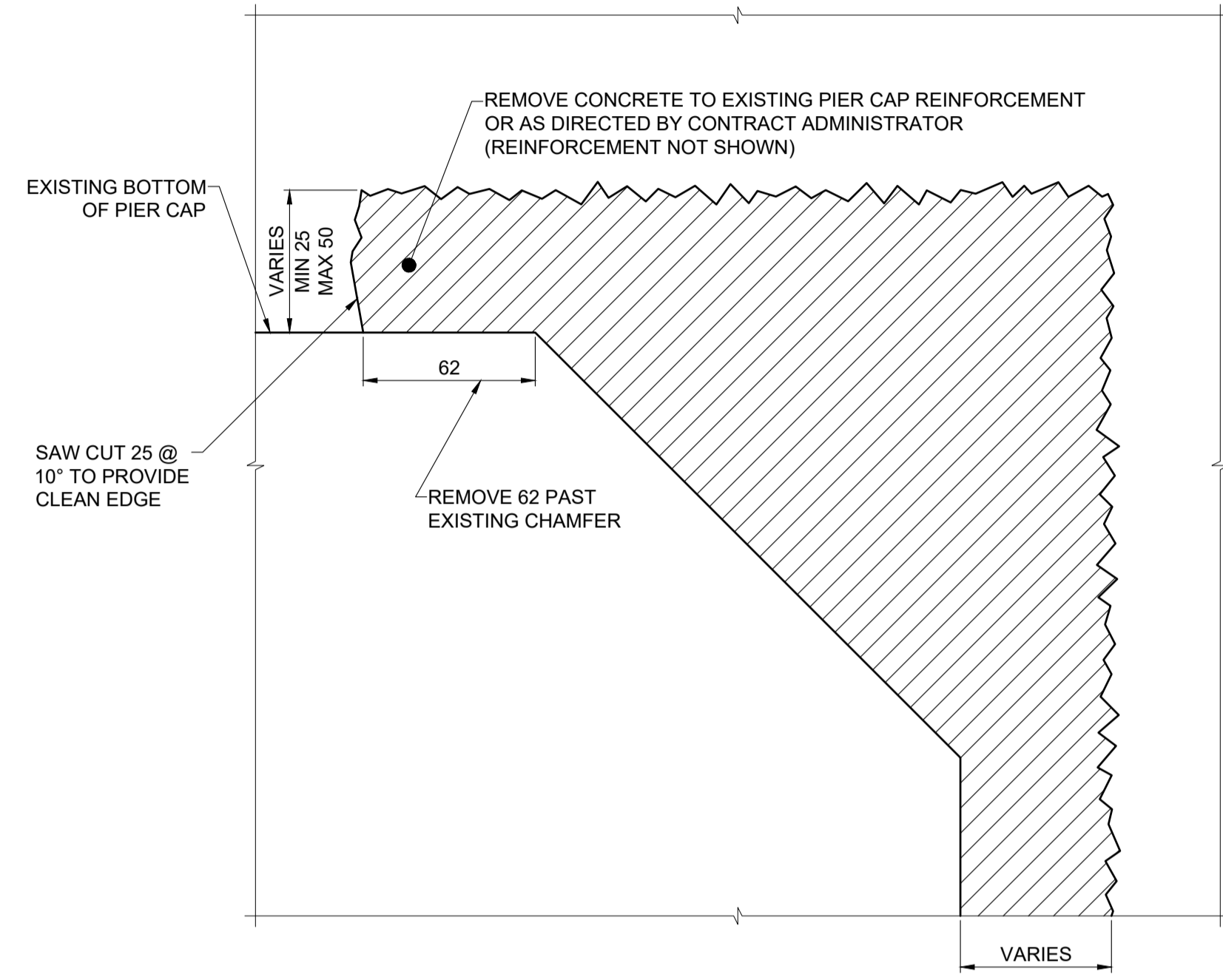
**CENTRE PIER SECTION - DEMOLITION**  
SCALE: 1:50



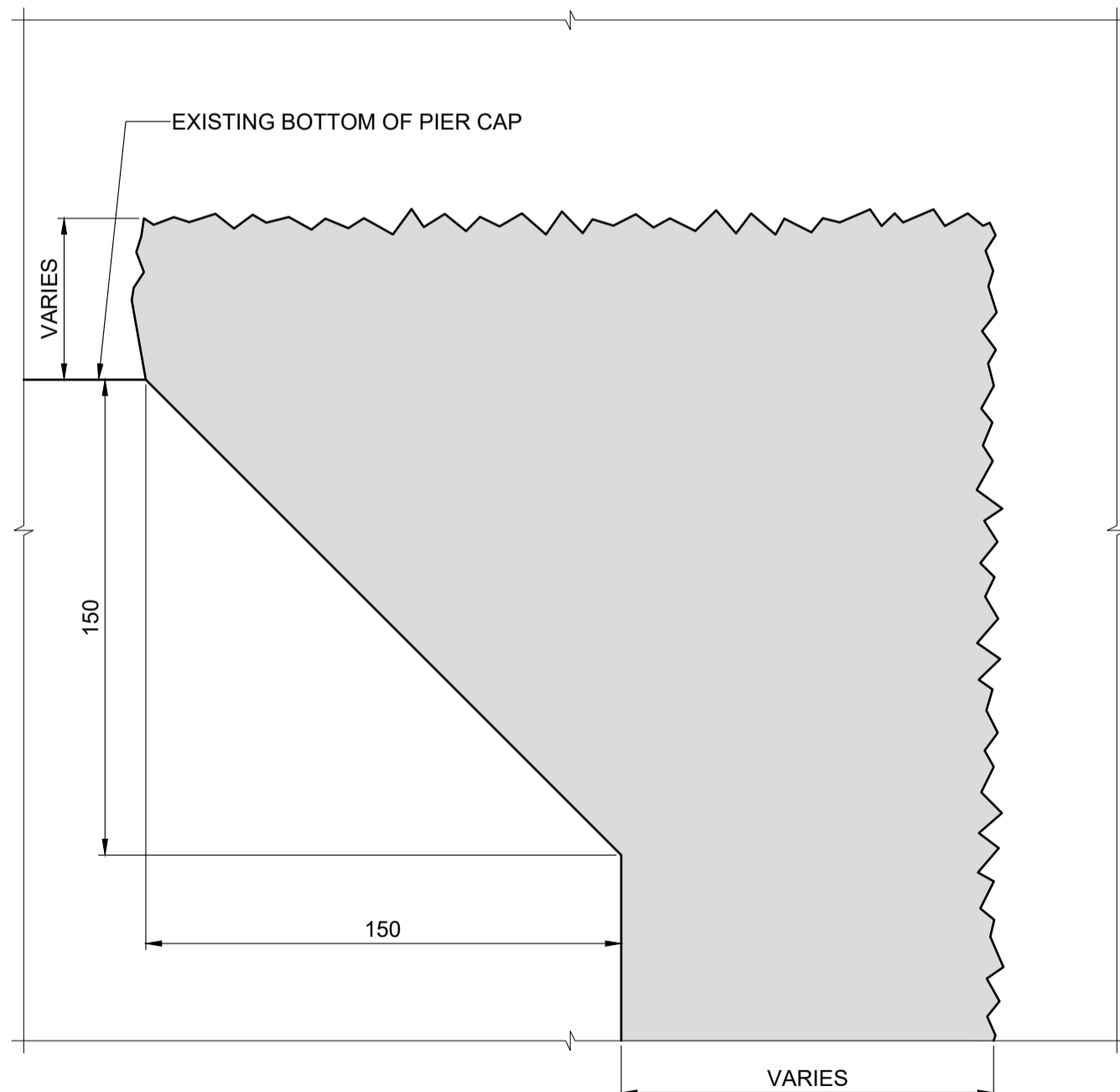
**CENTRE PIER SECTION - CONCRETE JACKET AND ECE EXTENTS**  
SCALE: 1:50

**GENERAL NOTES:**

1. ECE STANDS FOR ELECTROCHEMICAL CHLORIDE EXTRACTION.
2. SUPERSTRUCTURE NOT SHOWN FOR CLARITY.
3. PILES NOT SHOWN FOR CLARITY.
4. PERFORM DEMOLITION ON ONE PIER COLUMN AT A TIME.
5. PERFORM DEMOLITION STARTING AT THE TOP AND MOVING DOWNWARDS.
6. PIER COLUMN DEMOLITION TO BE STAGED SUCH THAT EMP DEMOLITION OCCURS WHEN EMPRESS LANES DIRECTLY ABOVE ARE CLOSED.
7. REMOVE CONCRETE ON PIER COLUMNS TO EXTERIOR FACE OF EXISTING SPIRAL REINFORCEMENT.
8. IF DISCOVERED THAT EXISTING SPIRAL PIER COLUMN REINFORCEMENT IS SEVERELY CORRODED OR BROKEN DURING REMOVALS, IMMEDIATELY PLACE HIGH TENSILE STEEL STRAPPING AROUND DAMAGED SECTION.
9. SANDBLAST REINFORCING STEEL PRIOR TO INSTALLATION OF ANODES AND NEW REINFORCEMENT AS WELL AS NEW CONCRETE PLACEMENT. SEE SHEET 100 FOR INSTALLATION PROCEDURE.
10. REFER TO RESISTANCE TESTING LETTER REPORT DATED JUNE 19, 2018 BR VECTOR CORROSION TECHNOLOGIES TO DETERMINE ECE DESIGN AND DURATION.
11. COMPLETE ALL CONCRETE REPAIRS PRIOR TO INSTALLING AND APPLYING ECE. REFER TO SHEETS 90-96 AND 99 FOR DETAILS.
12. ALL EXPOSED CONCRETE SURFACES TO BE TREATED WITH SILANE SEALER AFTER ALL REPAIRS, INCLUDING ECE TREATMENT, ARE COMPLETE.
13. SANDBLAST PIER PRIOR TO INSTALLING ECE.



**1** **DETAIL - TYPICAL CONCRETE REMOVALS FOR CHAMFER**  
SCALE: 1:2



**2** **DETAIL - TYPICAL NEW CONCRETE CHAMFER**  
SCALE: 1:2

**LEGEND:**

- CONCRETE REMOVALS
- NEW CONCRETE
- ECE EXTENTS

**ENGINEERS & GEOSCIENTISTS**  
Certificate of Authorization  
**MORRISON HERSHFIELD**  
No. 1736

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**LOCATION APPROVED UNDERGROUND STRUCTURES**  
SUPR. U/G STRUCTURES DATE COMMITTEE  
**NOTE:** LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

No.	REVISIONS	DATE	BY
D	ISSUED FOR TENDER	18/09/04	BAP
C	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP
B	ISSUED FOR 50% DESIGN REVIEW REV 1	18/06/28	AG
A	ISSUED FOR 50% DESIGN REVIEW	18/04/03	AF

**MORRISON HERSHFIELD**

DESIGNED BY	AG	CHECKED BY	BAP
DRAWN BY	AH	APPROVED BY	BE
HOR SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	N/A
VERT SCALE	AS SHOWN	DATE	

PROFESSIONAL'S SEAL  
PROVINCE OF MANITOBA  
**A.D.G. GILARSKI**  
Member  
32144  
REGISTERED PROFESSIONAL ENGINEER  
CONSULTANT FILE NAME  
W160034 - DD SU.DWG

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

**EMPRESS STREET PROJECT OVERPASS REHABILITATION WORKS SUBSTRUCTURE CENTRE PIER REHABILITATION 1**

CITY DRAWING NUMBER	P-3494-93
SHEET	93 OF 168
DRAWING No.	93
REV	D

BID OPPORTUNITY No. 602-2018

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