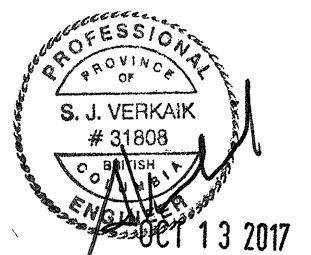


PACIFIC HIGHWAY PORT OF ENTRY LOADING DOCK CONCRETE APRON REGRADING



LIST OF DRAWINGS

SHEET	TITLE
01	COVER SHEET
02	SITE GRADING
03	SECTIONS
04	GENERAL NOTES & CONCRETE SLAB
05	CONCRETE SLAB DETAILS



Revision/Revisions	Description/Description	Date/Date
5		
4		
3	RE-ISSUED FOR TENDER	17/09/22
2	ISSUED FOR TENDER	17/09/12
1	ISSUED FOR 99% DESIGN	17/07/21
0	ISSUED FOR REVIEW	17/05/23

Client/Client
**PUBLIC WORKS AND
GOVERNMENT SERVICES
CANADA (PWGSC)**

Project title/Titre du projet
28, 176TH STREET
SURREY, BC

**PACIFIC HIGHWAY
PORT OF ENTRY -
LOADING DOCK CONCRETE
APRON REGRADING**

Consultant Signature Only

Designed by/Concept par
S. VERKAIK

Drawn by/Dessiné par
T. AMESS

PWGSC Project Manager/Administrateur de Projets TPSGC
JULIAN HO

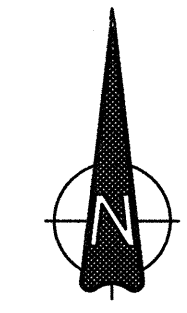
Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architecture et de génie, TPSGC

Drawing title/Titre du dessin

COVER SHEET

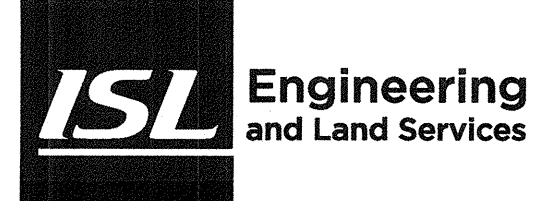
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
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CONTRACTOR IS RESPONSIBLE TO LOCATE ALL EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION



LEGEND

- EX. MANHOLE
- EX. CATCH BASIN
- EX. GRADE
- PR. GRADE
- PR ELEVATION
- EX. ELEVATION
- NEW CONCRETE
- EX. ASPHALT



Revision/	Description/Description	Date/Date
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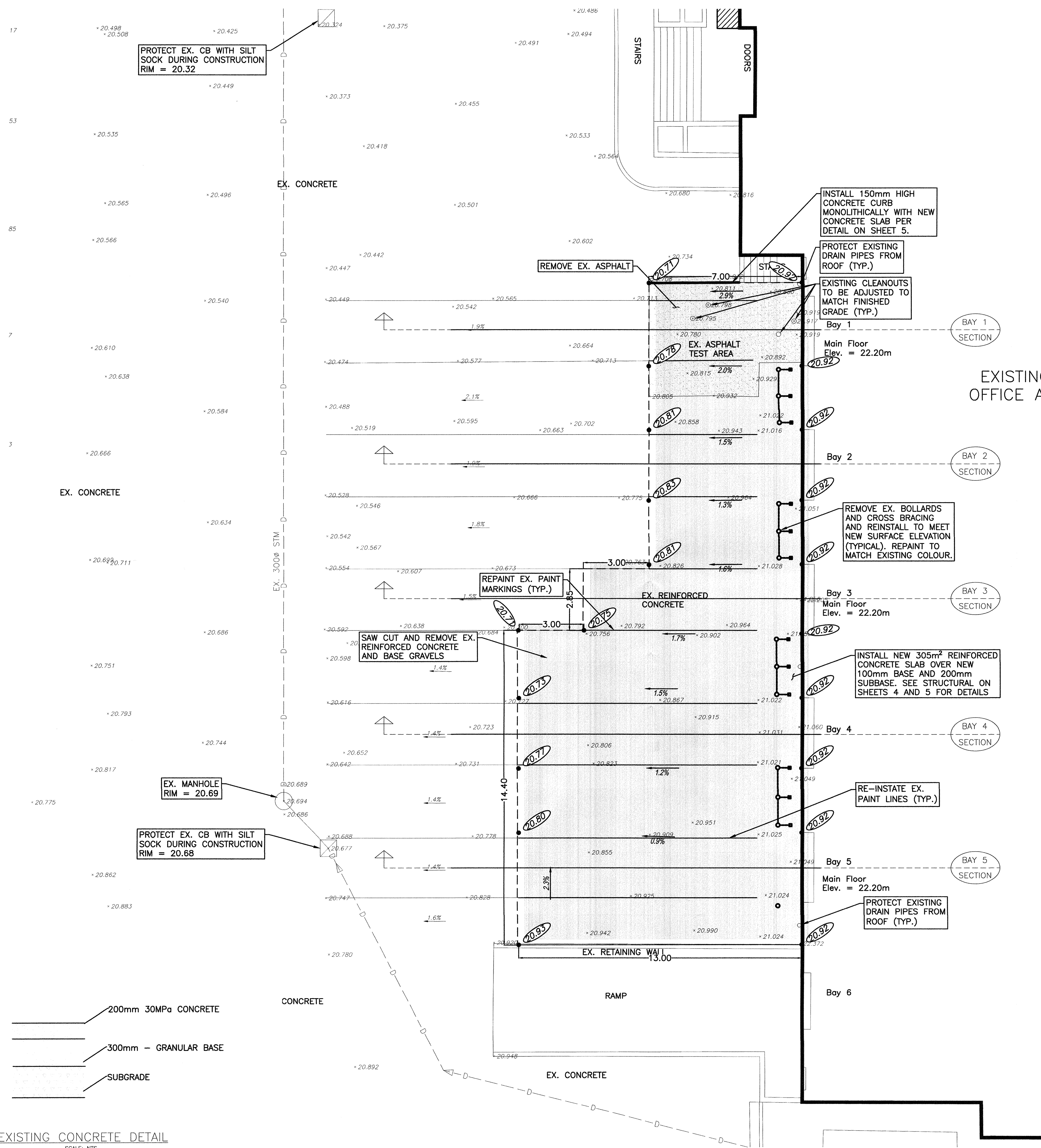
Client/client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA (PWGSC)

Project title/Titre du projet: 28, 176 STREET SURREY, BC
 PACIFIC HIGHWAY PORT OF ENTRY - LOADING DOCK CONCRETE APRON REGRADING

Consultant Signature Only
 Designed by/Concept par: S. VERKAIK
 Drawn by/Dessiné par: T. AMESS
 PWGSC Project Manager/Administrateur de Projets TPSGC: JULIAN HO
 Regional Manager, Architectural and Engineering Services / Gestionnaire régionale, Services d'architecture et de génie, TPSGC

Drawing title/Titre du dessin: SITE GRADING

Project No./No. du projet: R.078170.001
 Sheet/Fauille: 2 OF 5
 Revision no./La Révision no.: 1

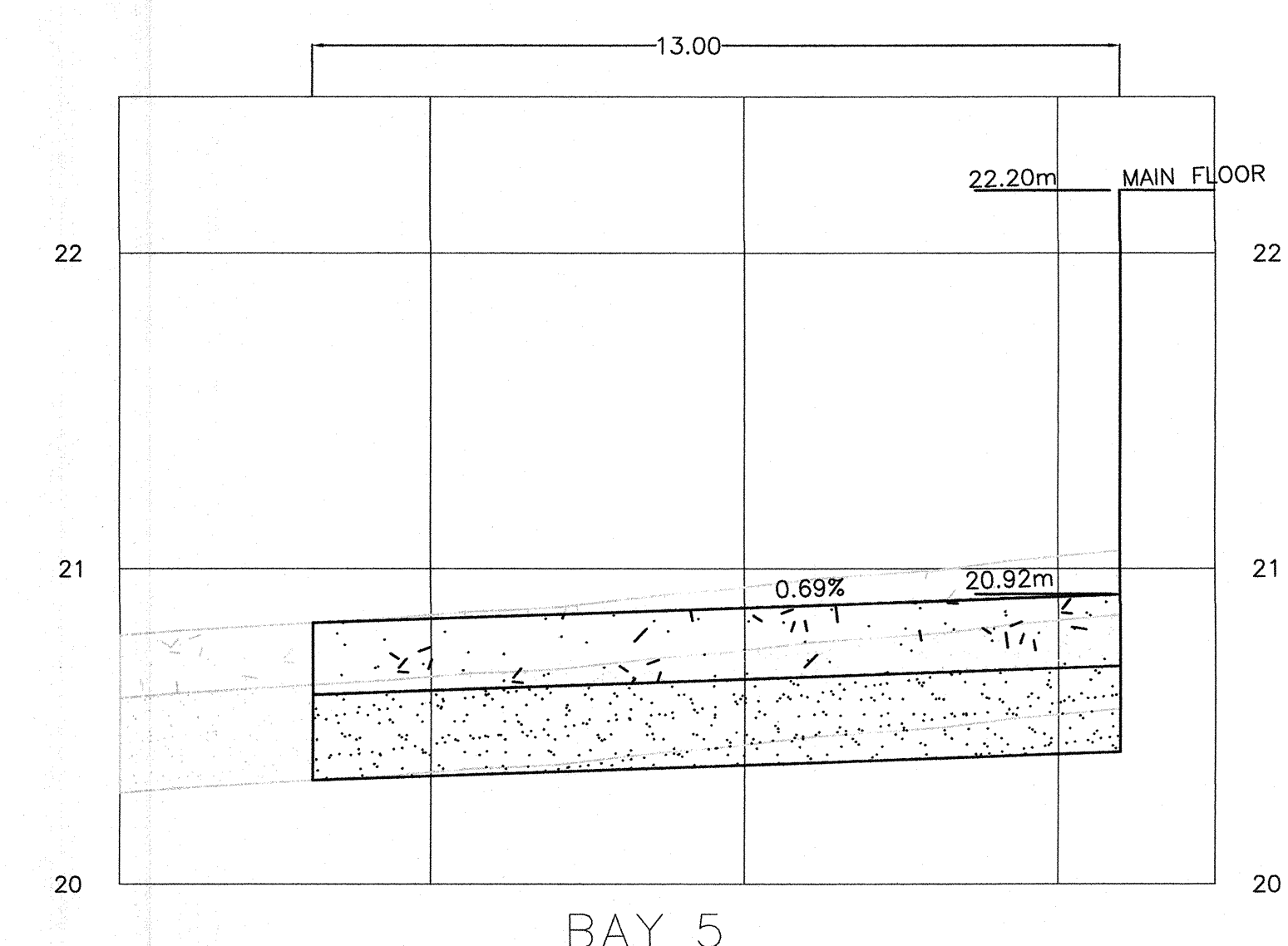
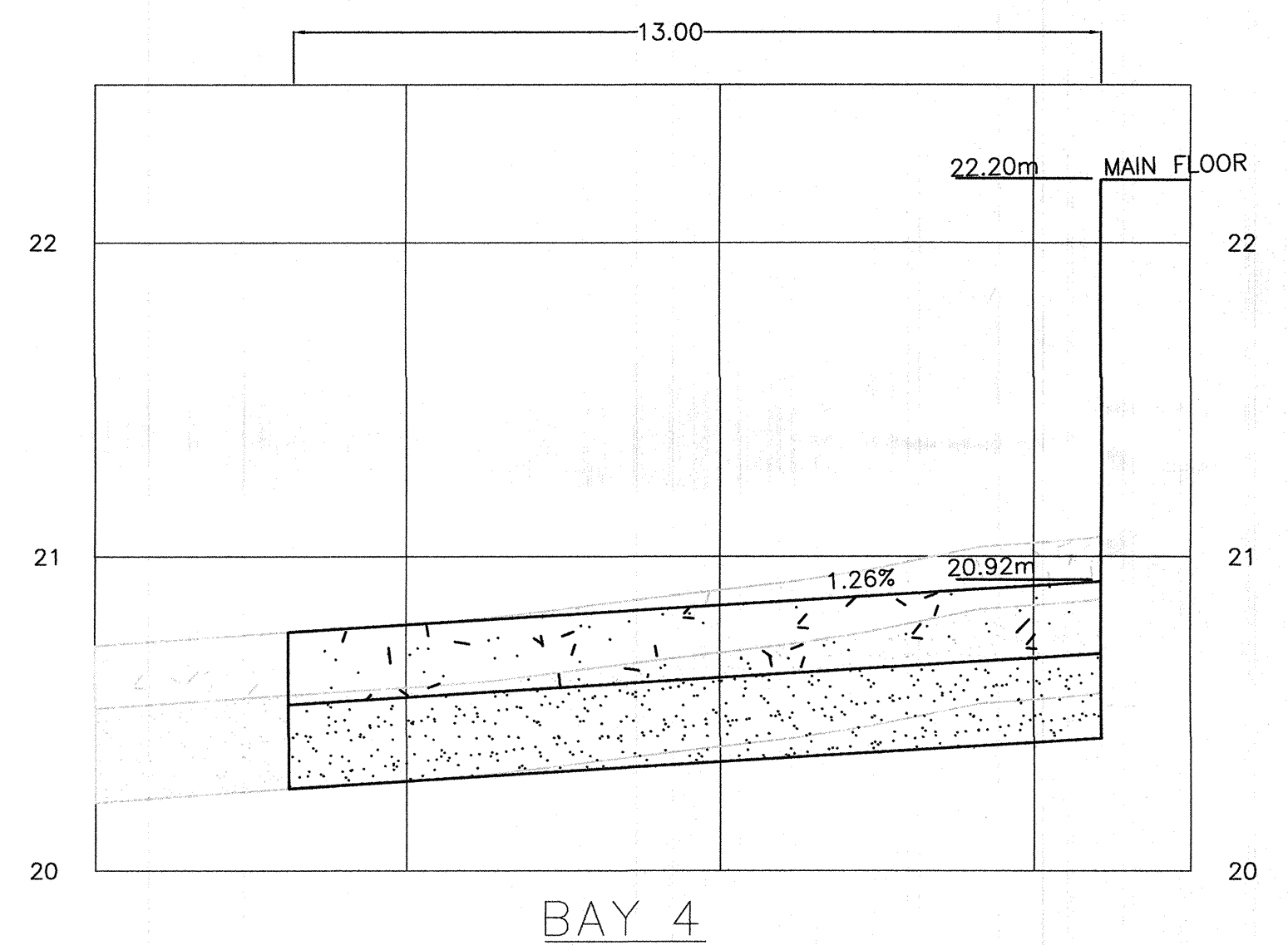
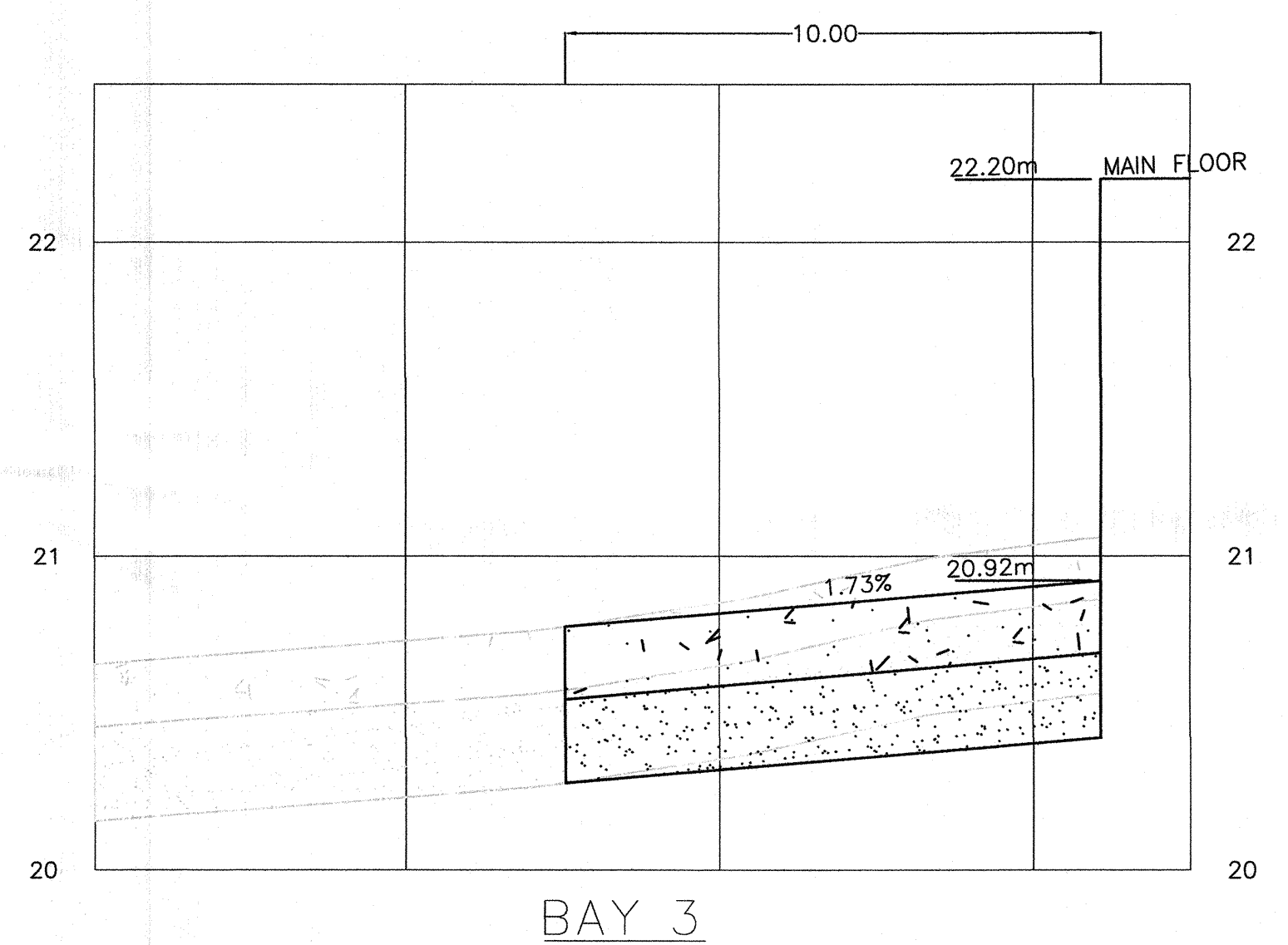
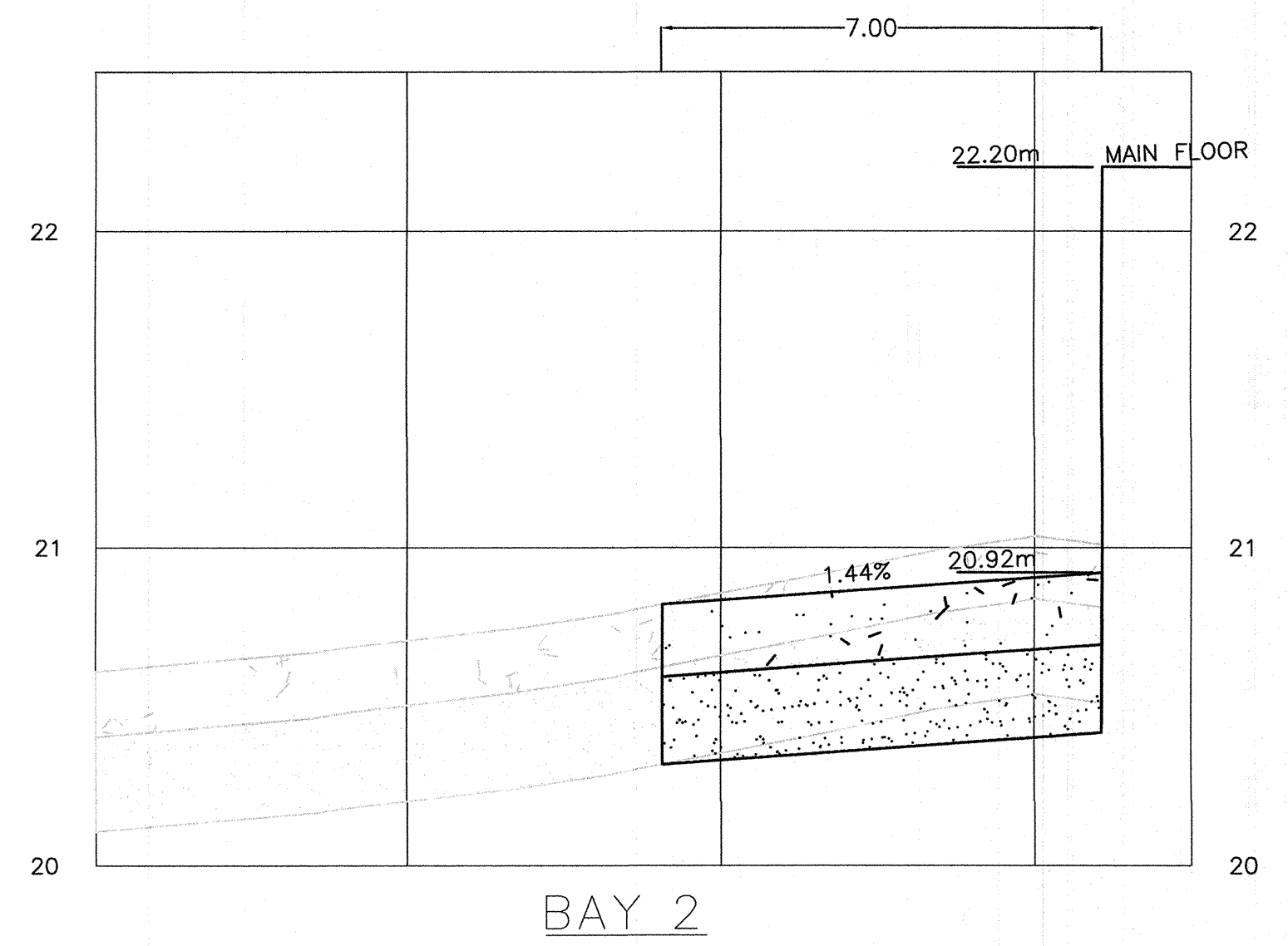
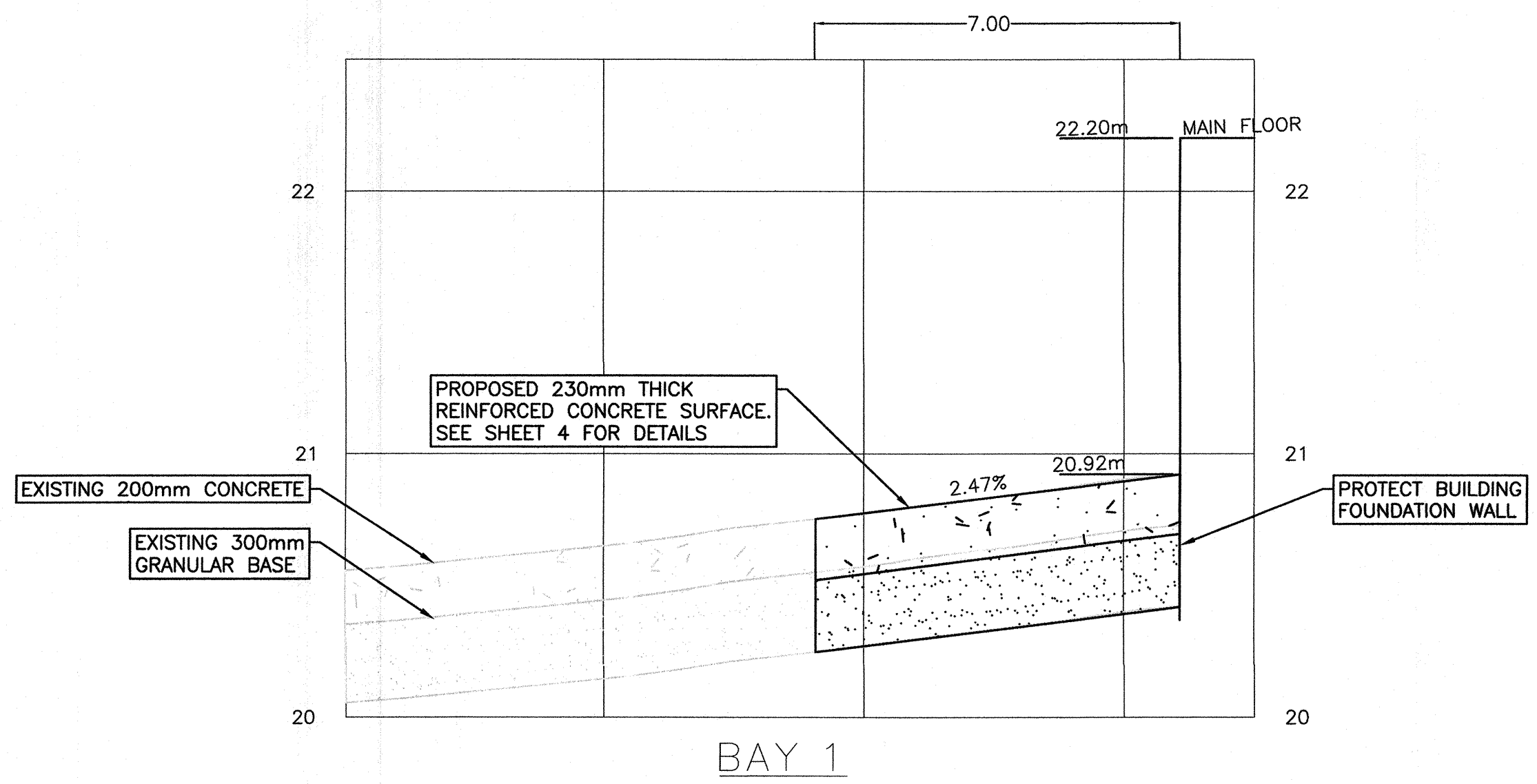


- 200mm 30MPa CONCRETE
- 300mm - GRANULAR BASE
- SUBGRADE

EXISTING CONCRETE DETAIL
 SCALE: NTS

PLAN
 1:100





Revision/Redaction	Description/Description	Date/Date
5		
4		
3	RE-ISSUED FOR TENDER	17/09/22
2	ISSUED FOR TENDER	17/09/12
1	ISSUED FOR 99% DESIGN	17/07/21
0	ISSUED FOR REVIEW	17/06/23

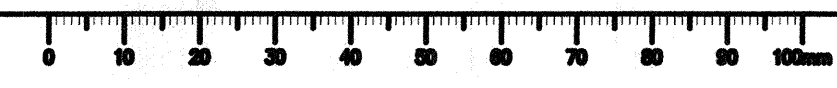
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA (PWGSC)

Project title/Titre du projet
28, 176 STREET
SURREY, BC
PACIFIC HIGHWAY PORT OF ENTRY - LOADING DOCK ENTRY CONCRETE APRON REGRADING

Consultant Signature Only
Designed by/Concept par
S. VERKAJK
Drawn by/Dessiné par
T. AMESS
PWGSC Project Manager/Administrateur de Projets TPSGC
JULIAN HO
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Gestionnaire régionale, Services d'architecture et de génie, TPSGC

Drawing title/Titre du dessin
SECTIONS

Project No./No. du projet R.078170.001	Sheet/Feuille 3 OF 5	Revision no./La Révision no. 1
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GENERAL NOTES

- ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
- ALL ELEVATIONS ARE GIVEN IN METERS (m) UNLESS NOTED OTHERWISE.
- SCALE INDICATED ON DRAWING IS APPROPRIATE SCALE AT FULL SIZE.
- THE CONTRACTOR SHALL EXAMINE ALL CONTRACT DOCUMENTS, CHECK DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE FOR CLARIFICATION PRIOR TO COMMENCING CONSTRUCTION. DISCREPANCIES NOT REPORTED ARE THE RESPONSIBILITY OF THE CONTRACTOR. CHECK AND VERIFY ALL DIMENSIONS BEFORE COMMENCING WITH ANY WORK. NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY ERRORS OR OMISSIONS.
- ALL COMPONENTS, STRUCTURAL OR OTHERWISE, NOT INCLUDED IN THESE DRAWINGS ARE THE RESPONSIBILITIES OF THEIR RESPECTIVE DESIGNER.
- CONTRACTOR TO LOCATE EXISTING UTILITIES PRIOR TO START OF WORK.
- SLAB DESIGNED TO CSA S6-14, CL-625 TRUCK & LANE LOAD.

CAST-IN-PLACE CONCRETE

- CONCRETE MEMBERS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTHS OF 35MPa @ 28 DAYS. MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20mm.
- THE CONTRACTOR SHALL SUBMIT A REPORT OUTLINING THE PROPOSED MIX DESIGN FOR EACH CLASSIFICATION OF CONCRETE TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW AND ACCEPTANCE AT LEAST 2 WEEKS IN ADVANCE OF WHEN CONCRETE PRODUCTION IS SCHEDULED TO COMMENCE. REVIEW AND ACCEPTANCE OF THE MIX DESIGN BY THE DEPARTMENTAL REPRESENTATIVE DOES NOT CONSTITUTE ACCEPTANCE OF THE CONCRETE. ACCEPTANCE OF THE CONCRETE WILL BE BASED SOLELY ON THE TEST RESULTS OF THE CONCRETE PLACED ON THE PROJECT. NO CONCRETE SHALL BE PLACED PRIOR TO RECEIVING DEPARTMENTAL REPRESENTATIVE ACCEPTANCE OF THE MIX DESIGN. EACH MIX DESIGN SUBMITTAL SHALL INCLUDE THE FOLLOWING:
 - NAME OF THE PROPOSED SUPPLIER.
 - PROJECT SPECIFICS
 - DISTANCE AND EXPECTED TRAVEL TIME FROM BATCH PLANT TO PROJECT SITE.
 - EXPECTED METHOD OF BATCHING, TRANSPORTING AND PLACING CONCRETE.
 - SPECIFIED MIX PARAMETER REQUIREMENTS.
 - NAME AND CONTACT INFORMATION OF INDEPENDENT, CERTIFIED QUALITY CONTROL TESTING FIRM AND/OR CERTIFIED TESTING PERSONNEL.

ADDENDUM TO A23.1-04 "CONCRETE MIX PROPORTIONS" SHALL MEET THE REQUIREMENTS GIVEN IN THE FOLLOWING TABLE:

MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (MPa)	NOMINAL SIZE OF COARSE AGGREGATE (mm)	AIR CONTENT (%)	SLUMP (mm)	MAXIMUM W/C RATIO BY MASS	ADMIXTURE AS REQUIRED
35	20	5 ± 1	50 ± 20	0.38	AEA WRA

- THE MAXIMUM PROPORTION OF AGGREGATE PASSING 5mm SCREEN SHALL BE 38% OF THE TOTAL MASS OF AGGREGATE.
- ALL CEMENT SHALL BE TYPE 10 NORMAL PORTLAND CEMENT, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
- FLY ASH OR OTHER POZZOLANS USED AS ADMIXTURES SHALL CONFORM TO ASTM C618-12 "STANDARD SPECIFICATION FOR FLY ASH AND RAW OR CALCINED NATURAL POZZOLAN FOR USE IN CONCRETE".
- AIR ENTRAINMENT ADMIXTURES, AEA, SHALL CONFORM TO ASTM C260/C260M-10a "STANDARD SPECIFICATION FOR AIR-ENTRAINING ADMIXTURES FOR CONCRETE".
- SLUMP TO BE MEASURED BEFORE ADDITION OF WATER REDUCING ADMIXTURES, WRA.
- SUPERPLASTICIZER WILL NOT BE USED.
- DIMENSIONAL TOLERANCES FOR CONCRETE WORK SHALL BE GIVEN IN CAN/CSA A 23.1-09 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION".
- ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH CAN/CSA A23.1-09 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION".
- ALL FORMWORK SHALL BE DESIGNED, SUPPLIED, AND INSTALLED IN ACCORDANCE WITH CAN/CSA-S269.3-M92-(R2013), "CONCRETE FORMWORK".
- CONCRETE SURFACE FINISH - TRANSVERSE TILING.

REINFORCEMENT

- REINFORCING STEEL SHALL CONFORM TO CAN/CSA-G30.18 GRADE 400W, AND SHALL MEET THE REQUIREMENTS OF S5412.
- SPACING OF BARS SHOWN ON THE DRAWINGS IS FROM CENTER-TO-CENTER OF BARS.
- DEVELOPMENT LENGTH AS FOLLOWS:

	UNCOATED VERTICAL BARS	UNCOATED HORIZONTAL BARS	UNCOATED TOP HORIZONTAL BARS *
15M	400mm	500mm	650mm

LAP SPLICES SHALL BE STAGGERED WITH MINIMUM LAP LENGTH AS FOLLOWS:

	UNCOATED	UNCOATED TOP BARS *
15M	500mm	650mm

* TOP BARS DEFINED AS BARS WITH MORE THAN 300MM OF FRESH CONCRETE BELOW THE DEVELOPMENT LENGTH OR SPLICE

- SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF THE REINFORCING IS SPLICED AT ANY ONE LOCATION, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

FOUNDATION

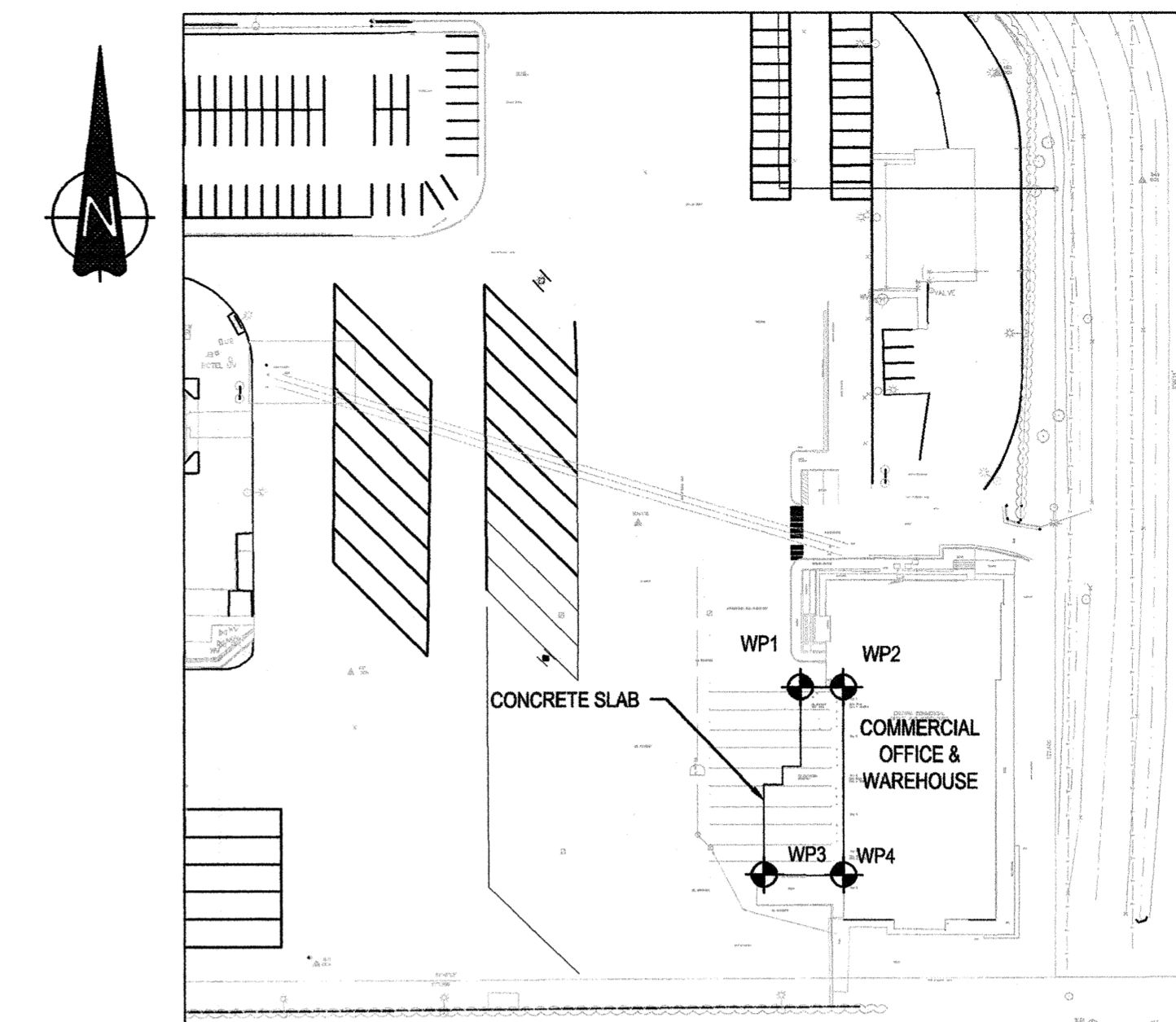
- A MAXIMUM FACTORED BEARING CAPACITY OF 165kPa WAS USED IN DESIGN. GROUND CONDITIONS MAY VARY. CONTRACTOR TO HIRE GEOTECHNICAL ENGINEER TO CONFIRM BEARING PRESSURES.
- PLACE A MINIMUM 200mm SELECT GRANULAR SUB-BASE (SGSB) BENEATH ALL CONCRETE TO SATISFY SECTION 202 FOR THE MOTI STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.
- SUBGRADE TO BE COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY (MPMD). SUB-BASE TO BE COMPACTED TO 95% MPMD. BASE TO BE COMPACTED TO 95% MPMD.

BACKFILL AND COMPACTION

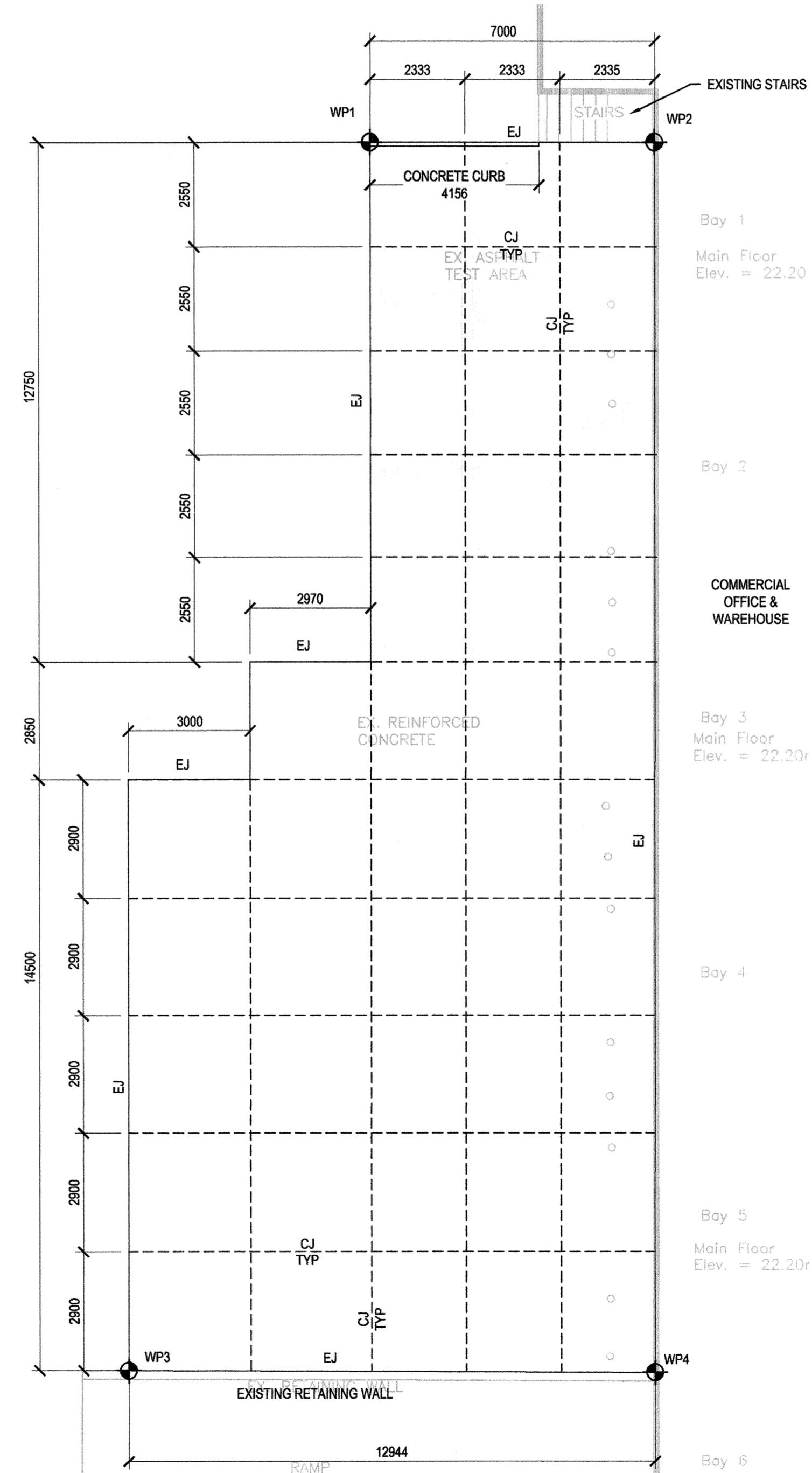
- THE ZONE OF COMPACTION SHALL BE AS SHOWN ON THE DRAWING(S) AND COMPACTED TO 96% MODIFIED PROCTOR MAXIMUM DRY DENSITY. MATERIAL COMPACTION TESTING MAY BE REQUIRED BY THE DEPARTMENTAL REPRESENTATIVE. BASE & SUB-BASE TO BE APPROVED BY GEOTECHNICAL ENGINEER.
- BACKFILLING MATERIAL IS TO BE FREE DRAINING GRANULAR MATERIAL THAT IS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO ALL BACKFILLING OPERATIONS.

QUALITY CONTROL

- QUALITY CONTROL DOCUMENTS SHALL BE PROVIDED TO THE DEPARTMENTAL REPRESENTATIVE. THE DOCUMENTS SHALL INCLUDE, BUT ARE NOT LIMITED TO:
 - STEEL MILL TEST CERTIFICATED (OR EQUIVALENT) FOR EACH COMPONENT.
 - CONCRETE TEST RESULTS FOR EACH COMPONENT.
 - SIEVE ANALYSIS OF GRANULAR MATERIAL.
- REBAR SHOP DRAWINGS SHALL BE PROVIDED TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW AT LEAST FOURTEEN (14) DAYS PRIOR TO CONCRETE POUR. CONCRETE POUR SHALL NOT PROCEED WITHOUT REVIEWED SHOP DRAWINGS.



STRUCTURAL SITE PLAN
SCALE 1:1000



CONCRETE SLAB PLAN
SCALE 1:150
*FOR LOCATION, REFER TO CIVIL DRAWINGS

LEGEND:

- CJ= CONTROL JOINT - - - - -
- EJ= EXPANSION JOINT - - - - -

	NORTHING (m)	EASTING (m)
WP1	5427781.282	519615.859
WP2	5427781.282	519622.857
WP3	5427751.178	519609.889
WP4	5427751.134	519622.833

Revision/Revisions	Description/Description	Date/Date
5		
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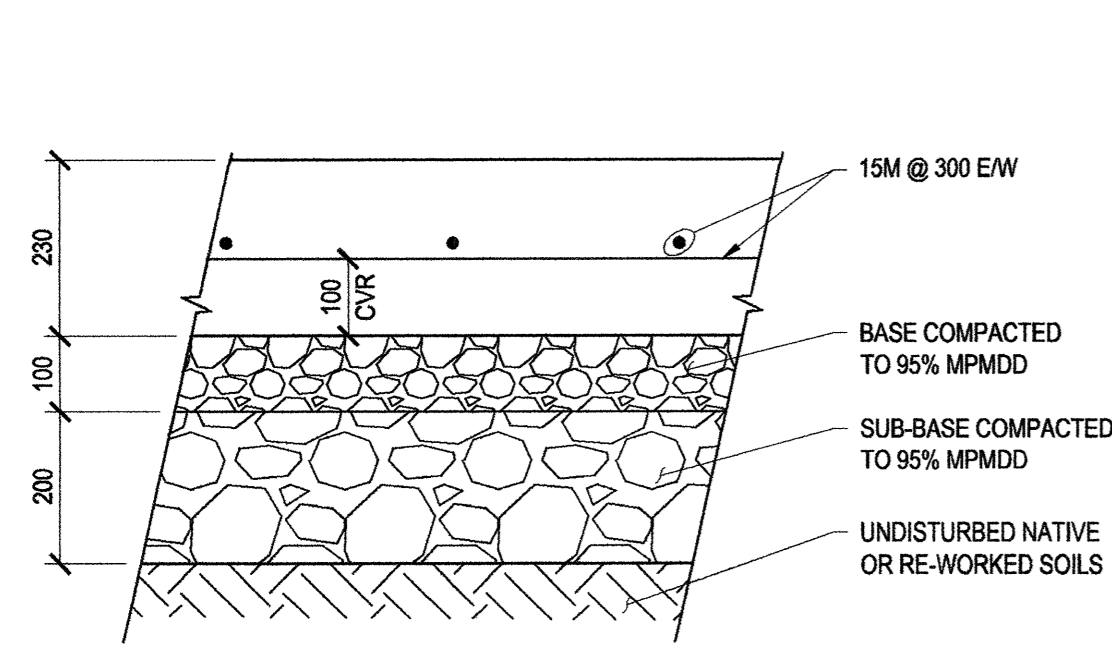
Project title/Titre du projet
28, 176 STREET SURREY, BC
PACIFIC HIGHWAY PORT OF ENTRY - LOADING DOCK CONCRETE APRON REGRADING

Consultant Signature Only
Designed by/Concept par
J. TONG
Drawn by/Dessiné par
C. PHAM
PWGSC Project Manager/Administrateur de Projets TPSGC
JULIAN HO
Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architecture et de génie, TPSGC

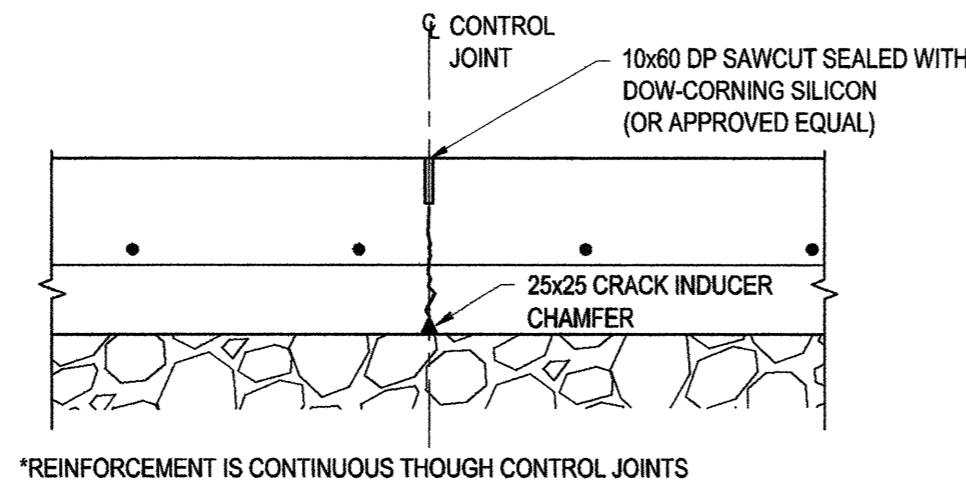
Drawing title/Titre du dessin
GENERAL NOTES & CONCRETE SLAB

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.078170.001	4 OF 5	3

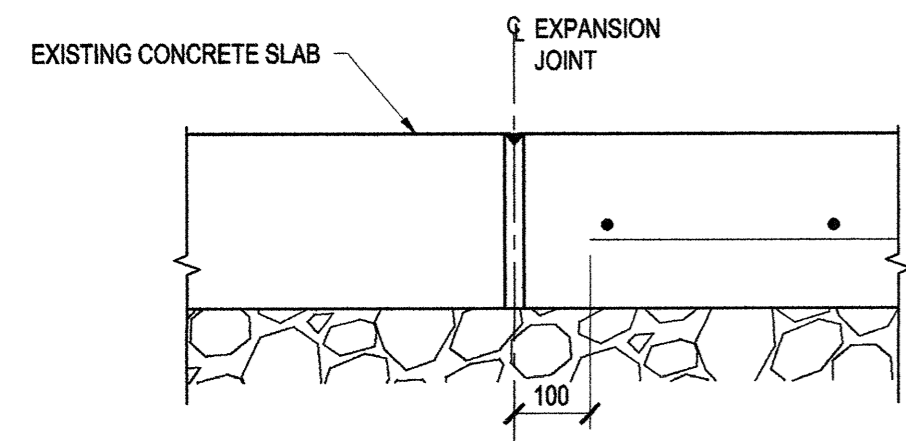
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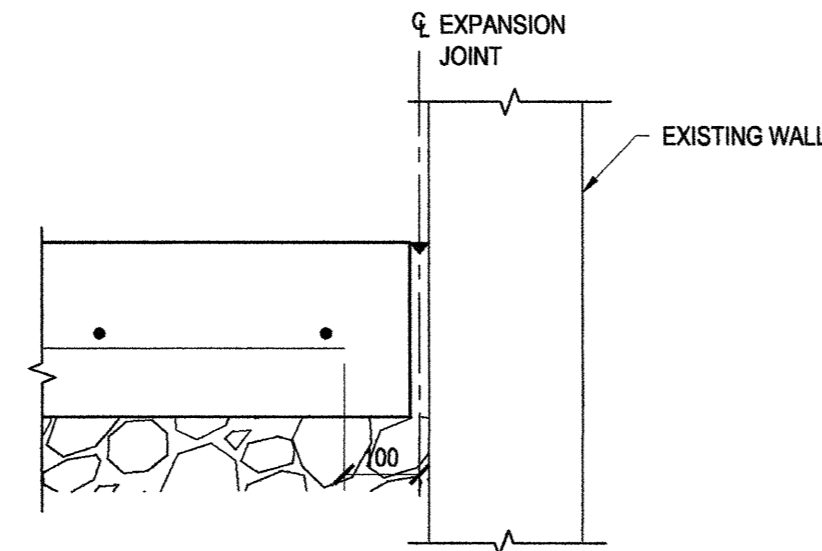
CONCRETE SLAB DETAIL
SCALE 1:10



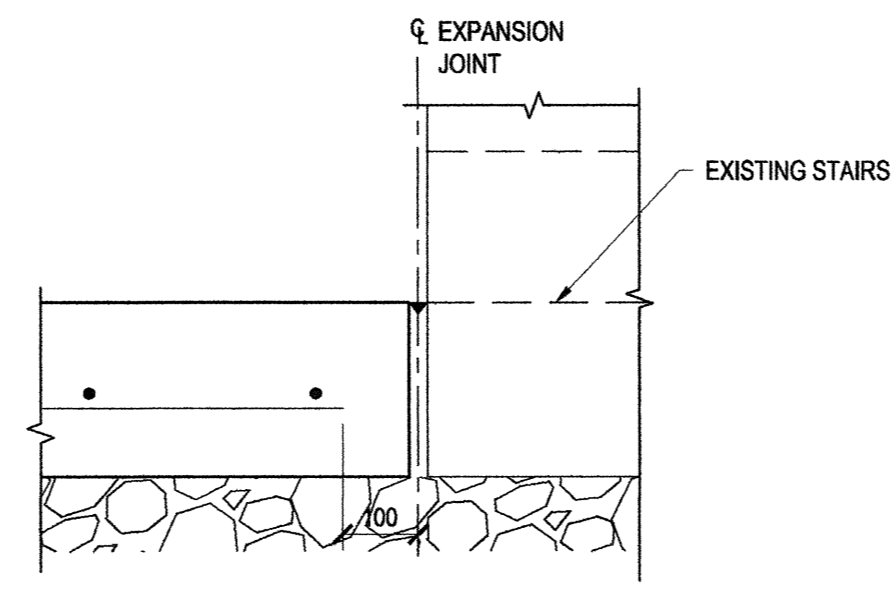
CONTROL JOINT DETAIL
SCALE 1:10



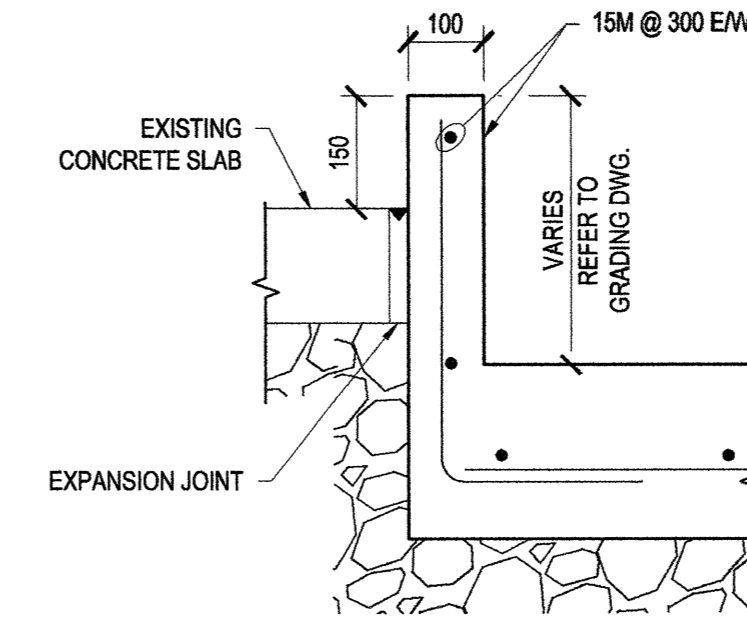
EXPANSION JOINT DETAIL @ EXISTING SLAB
SCALE 1:10



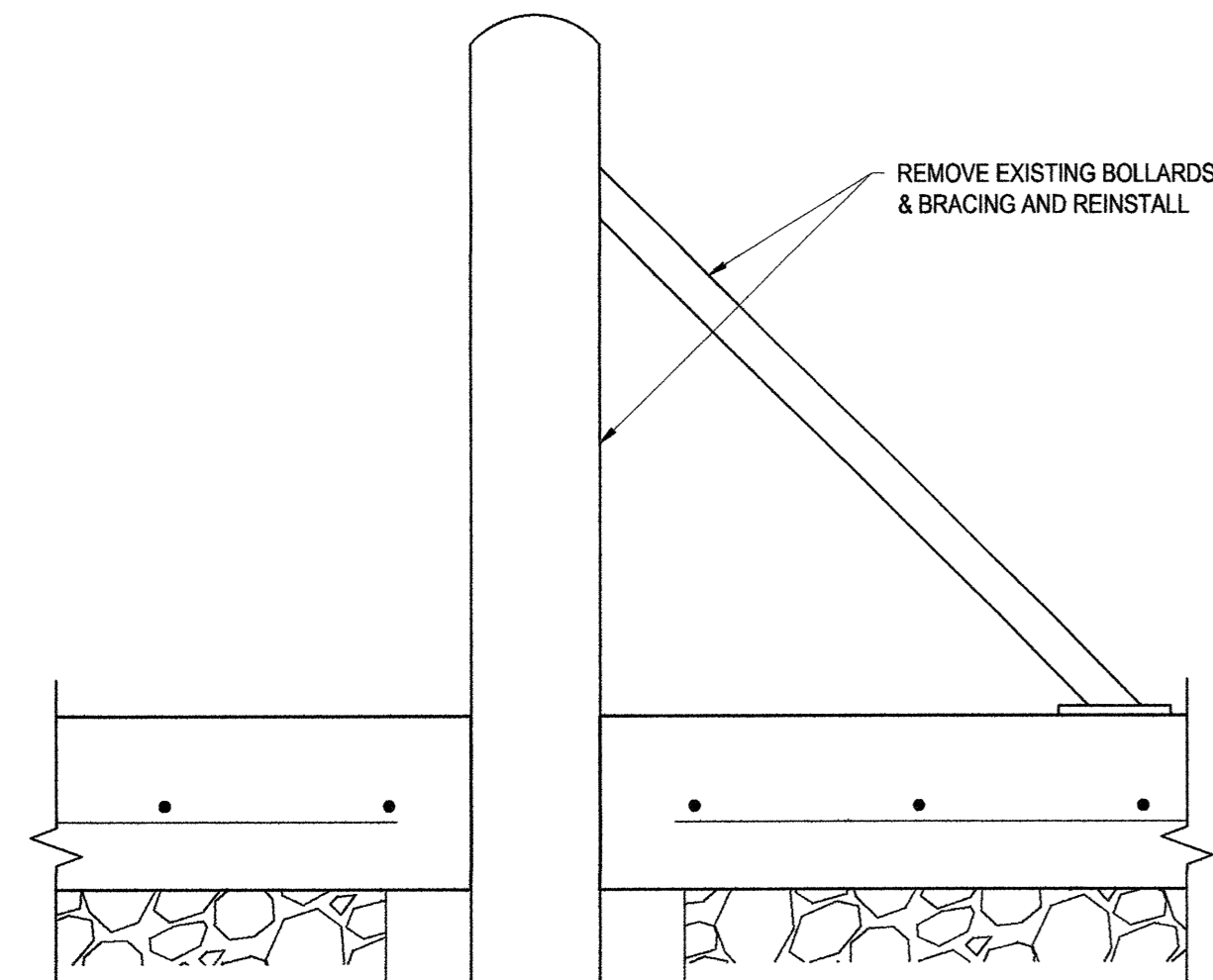
EXPANSION JOINT DETAIL @ WALL
SCALE 1:10



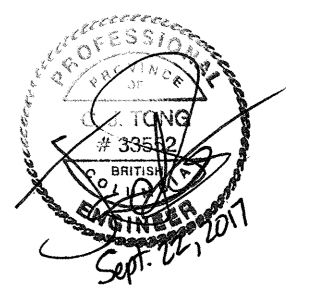
EXPANSION JOINT DETAIL @ STAIRS
SCALE 1:10



CONCRETE CURB DETAIL
SCALE 1:10



BOLLARD DETAIL
SCALE 1:10



Revision/Revision	Description/Description	Date/Date
5		
4		
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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA (PWGSC)

Project title/Titre du projet
28, 176 STREET SURREY, BC

PACIFIC HIGHWAY PORT OF ENTRY - LOADING DOCK CONCRETE APRON REGRADING

Consultant Signature Only

Designed by/Concept par
J. TONG

Drawn by/Dessiné par
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PWGSC Project Manager/Administrateur de Projets TPSGC
JULIAN HO

Regional Manager, Architectural and Engineering Services
Directeur régional, Services d'architecture et de génie, TPSGC

Drawing title/Titre du dessin
CONCRETE SLAB DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./no. de révisión
R.078170.001	5 OF 5	3

NOTE
1. FOR GENERAL NOTES, SEE SHEET 4.

