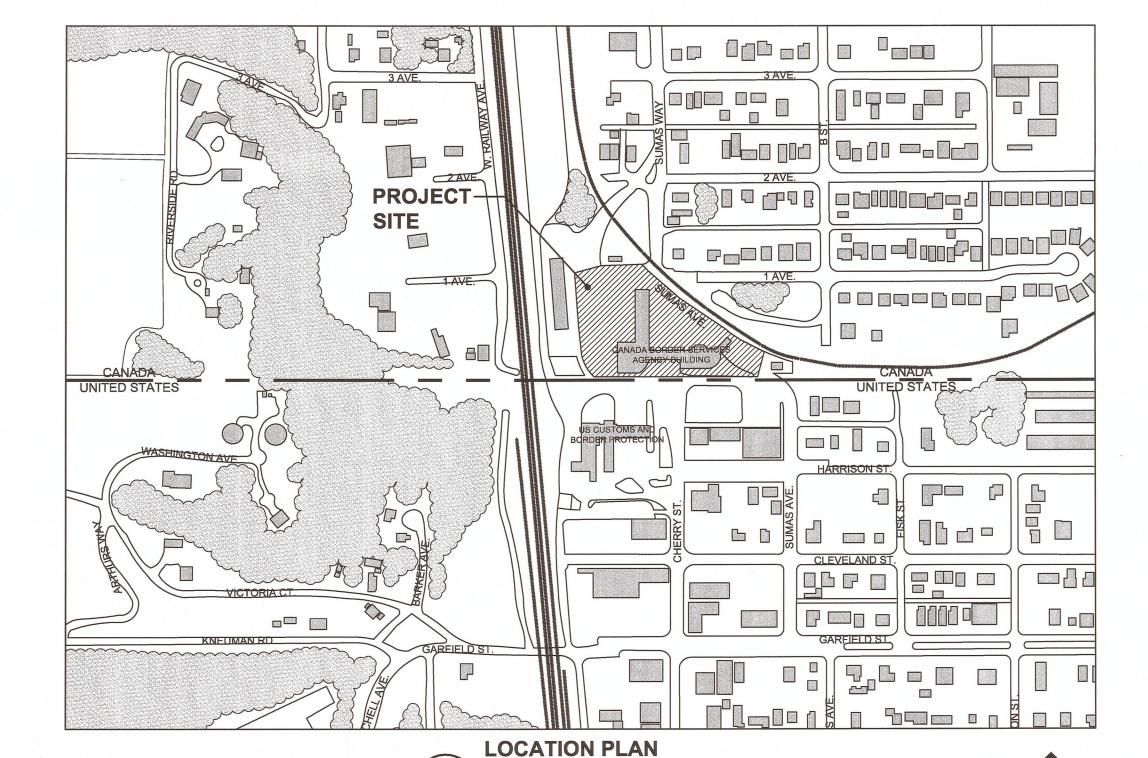
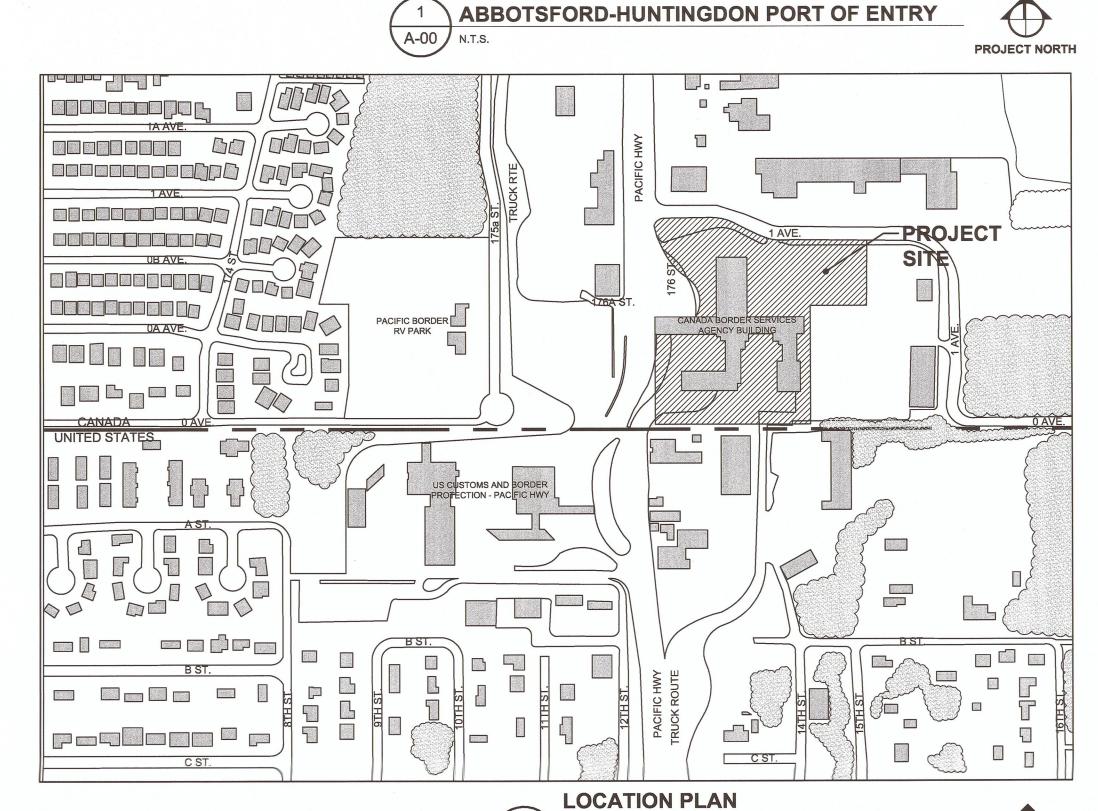
# CANADA BORDER SERVICES AGENCY

PACIFIC HIGHWAY PORT OF ENTRY AND

28 176TH STREET, SURREY, BRITISH COLUMBIA

# ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING 2 SUMAS WAY, HUNTINGDON, BRITISH COLUMBIA





( A-00

PACIFIC HIGHWAY PORT OF ENTRY

CONSULTANT LIST

CANADA BORDER SERVICES AGENCY

PROJECT MANAGER PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

CHERNOFF THOMPSON ARCHITECTS

BINNIE CIVIL ENGINEERING CONSULTANTS

ARCHITECTURAL SYMBOLS

1 DRAWING TITLE SECTION MARKERS

**BUILDING SECTION** DETAIL REFERENCE

NORTH ARROW PROJECT NORTH NEW ELEV. NEW ELEV.

CONSTRUCTION NOTE REFERENCE LIST OF ABBREVIATIONS ARCHITECTURAL CONCRETE

ALUMINUM WINDOW AIR HANDLING UNIT ALUMINUM STOREFRONT WINDOW BOTTOM OF CORNER GUARD CHAIN LINK FENCE

CONCRETE REVEAL, TYPICAL CERAMIC WALL TILE CERAMIC TILE BASE ELECTRICAL PANEL EPOXY RESIN COATING

EXISTING FLOOR DRAIN FACE OF F/O or F.O. FIBREGLASS REINFORCED PANE GYPSUM WALL BOARD, PAINTED HOSE BIB

METAL GRATING FENCE NOT TO SCALE ON CENTER OVERFLOW SCUPPER PLYWD. PLYWOOD RETURN AIR GRILI

RAIN WATER LEADER STEEL COLUMN TOP OF T/O or T.O.

UNLESS NOTED OTHERWISE WOOD WATER PROOFING

LOCATION PLANS AND GENERAL NOTES ABBOTSFORD-HUNTINGDON PORT OF ENTRY SITE PLAN ABBOTSFORD-HUNTINGDON PORT OF ENTRY SITE

PACIFIC HIGHWAY PORT OF ENTRY SITE PLAN PACIFIC HIGHWAY AND ABBOTSFORD-HUNTINGDON

PACIFIC HIGHWAY AND ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING CONCRETE NOTES & DETAILS

SK#5523.00 TOPOGRAPHIC SURVEY PLAN - HUNTINGDON PORT OF ENTRY REPAVING SK#5524.00 TOPOGRAPHIC SURVEY PLAN - PACIFIC CROSSING PARKING AND TRAFFIC LANES REPAVING

**GENERAL NOTES:** 

DEMOLITION

1. DEMOLITION DRAWING ONLY SHOWS THE GENERAL SCOPE OF DEMOLITION, CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING AND CARRYING OUT ALL NECESSARY DEMOLITION NOT SHOWN IN ORDER TO CLEAR UP THE PROJECT SITE READY FOR NEW SITE IMPROVEMENT WORKS.

2. PROTECT EXISTING TREES TO BE RETAINED AS NEEDED DURING DEMOLITION UNTIL COMPLETION OF NEW WORK.

3. ALL DEMOLISHED MATERIAL AND DEBRIS TO BE REMOVED PROMPTLY FROM SITE AND DISPOSED OF IN A LEGAL

4. SELLING OF ANY MATERIAL ON SITE IS NOT PERMITTED.

5. PATCH AND MAKE GOOD DAMAGED AREA AND FIXTURES WHICH ARE TO BE RETAINED AS SHOWN IN DRAWING.

6. CONTRACTOR TO REMOVE ALL EXISTING LANDSCAPE AND PAVING ON SITE BUT NOT LIMITED TO THOSE SHOWN ON DRAWINGS TO PREPARE THE SITE FOR NEW SITE WORK.

7. COMPLY WITH ALL BYLAWS AND ACQUIRE ALL NECESSARY

8. COMPLY WITH ALL WORKER'S COMPENSATION BOARD OF BC. ACCIDENT PREVENTION REGULATIONS.

9. HAND OVER AND STORE THE SPECIFIED SALVAGED MATERIAL (IF ANY) AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE.

CONSTRUCTION

ALL NEW CONCRETE PAVING TO BE LIGHT BROOM FINISH

2. COMPLY WITH ALL BYLAWS AND ACQUIRE ALL NECESSARY CONSTRUCTION PERMITS.

3. ALL TEMPORARILY REMOVED ITEMS REQUIRED FOR CARRYING OUT DEMOLITION AND CONSTRUCTION ARE TO BE REINSTALLED AFTER CONSTRUCTION.

DRAWING LIST

PACIFIC HIGHWAY AND ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING COVER SHEET,

PACIFIC HIGHWAY PORT OF ENTRY SITE PLAN PACIFIC HIGHWAY PORT OF ENTRY SITE PHASING

ABBOTSFORD-HUNTINGDON PORT OF ENTRY SITE PLAN PORT OF ENTRY REPAVING NOTES & DETAILS



Public Works and Government Services Canada Travaux publics et Services gouvernementaux Canada

**REAL PROPERTY SERVICES** Pacific Region **SERVICES IMMOBILIERS** 

Région de Pacifique

CHERNOFF THOMPSON

ARCHITECTS

5		
4		
3		
2	ISSUED FOR TENDER	2016-11-22
1	99% CD REVIEW	2016-03-04
0	50% CD REVIEW	2016-02-03
Revision/ Revision	Description/Description	Date/Date
Client/c	lient	

**CANADA BORDER SERVICES AGENCY** 

Project title/Titre du projet 28 176TH STREET, SURREY, B.C. SUMAS WAY, HUNTINGDON, B.C., V2S 8B7

PACIFIC HIGHWAY PORT OF **ENTRY AND ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING** 

Consultant Signature Only

Designed by/Concept par

Drawn by/Dessine par

**JULIAN HO** 

Regional Manager, Architectural and Engineering Services Gestionnaire régionale, Services d'architectural et de génie, TPSGC PREETIPAL PAUL Drawing title/Titre du dessin

PACIFIC HIGHWAY AND ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING COVER SHEET, LOCATION PLANS AND GENERAL

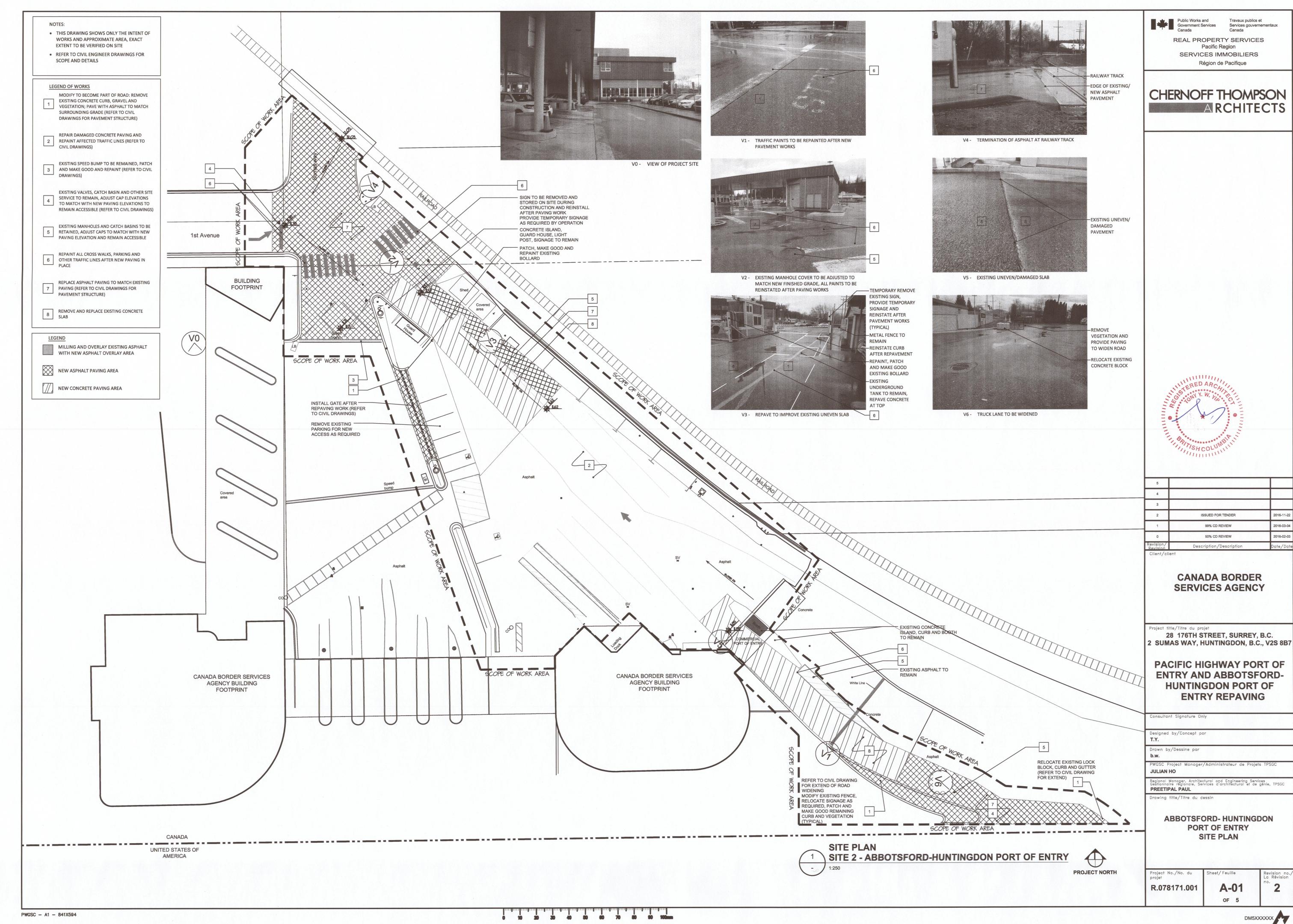
**NOTES** 

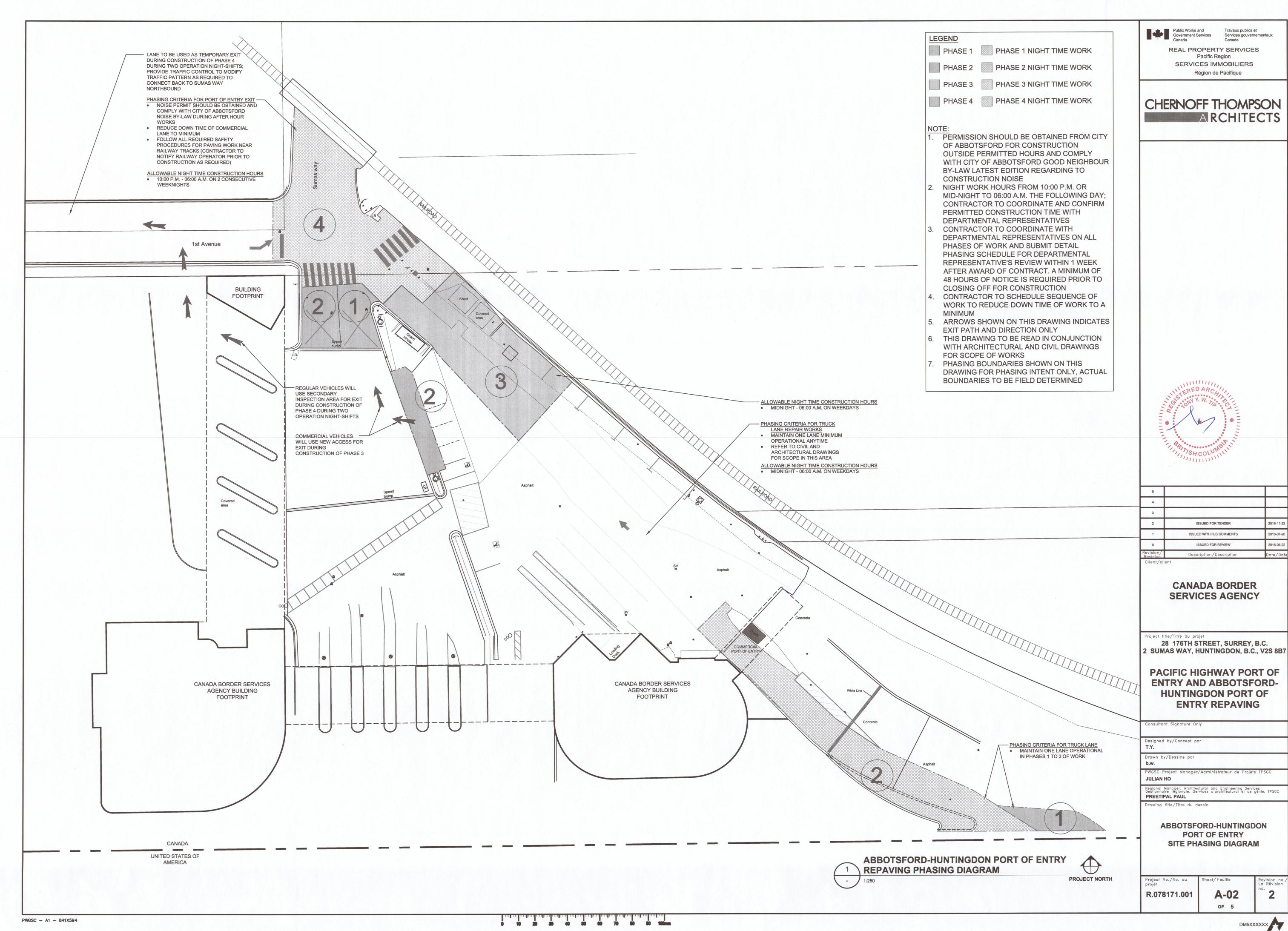
R.078171.001

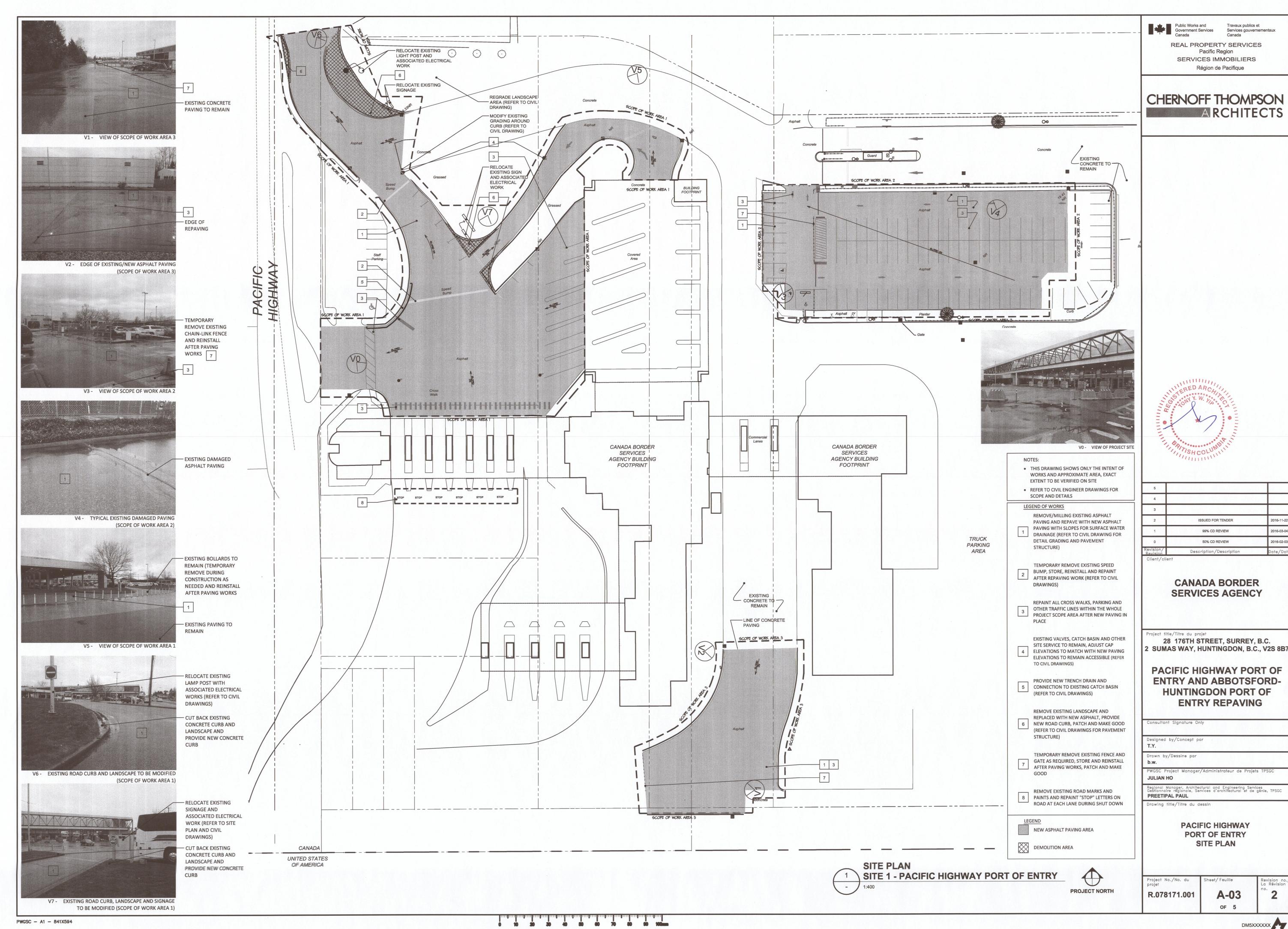
0 10 20 30 40 50 00 70 80 90 100mm

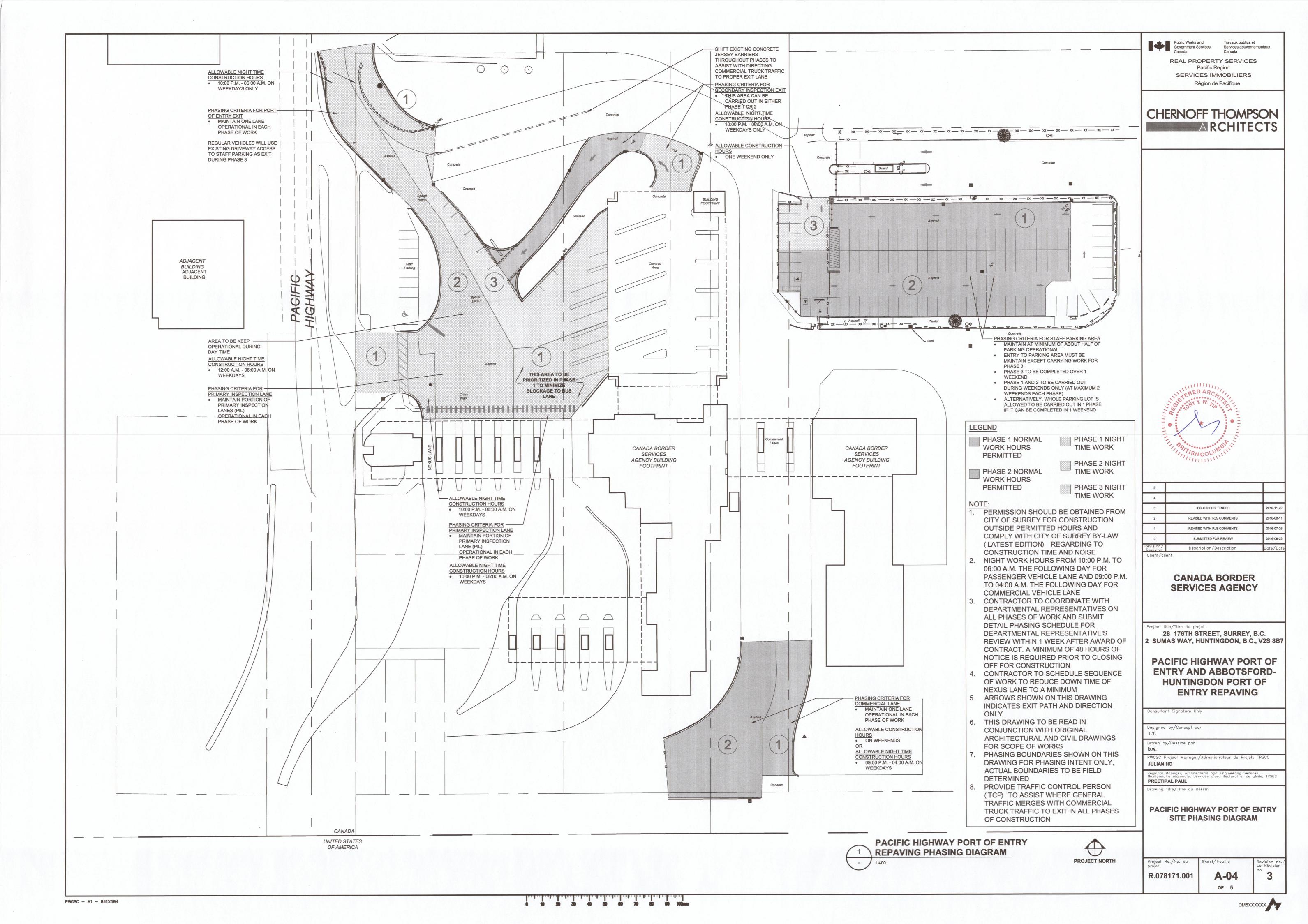
**PROJECT NORTH** 

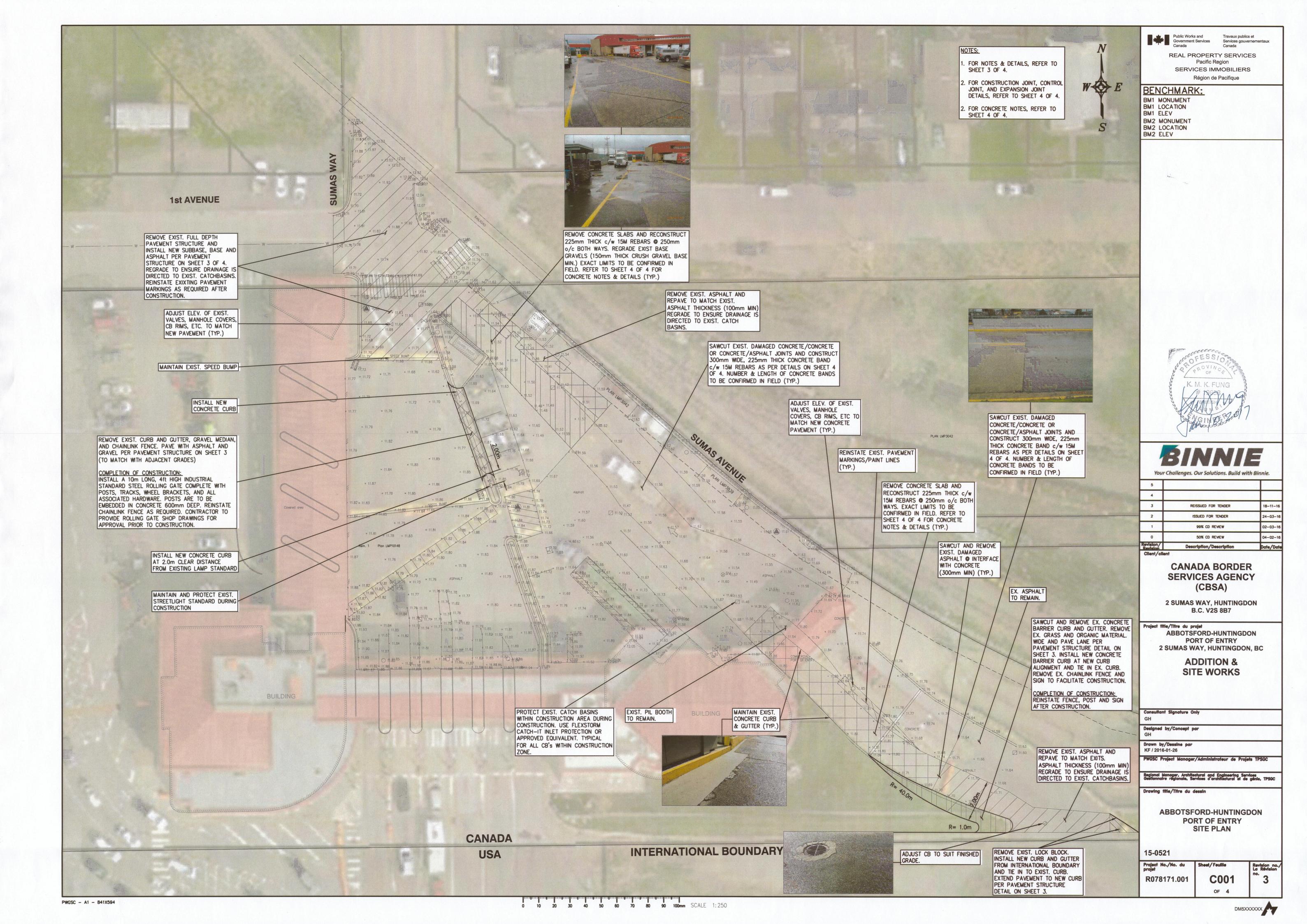
PWGSC - A1 - 841X594

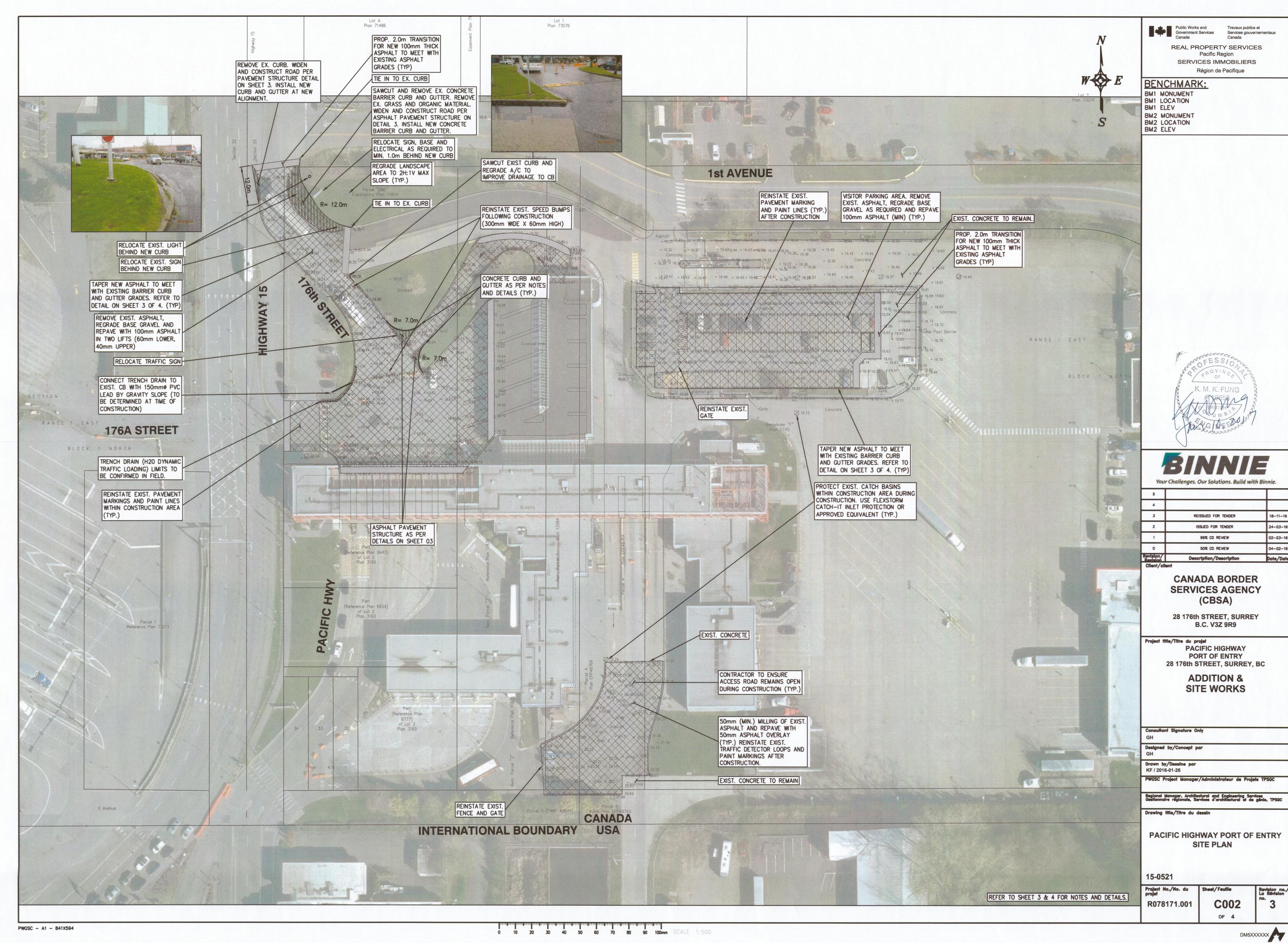












### **GENERAL NOTES:**

1 - THE CONTRACTOR IS TO NOTIFY THE DEPARTMENTAL REPRESENTATIVE 48 HRS. PRIOR TO CONSTRUCTION TO VERIFY THAT THEY HAVE THE LATEST DRAWINGS ISSUED FOR CONSTRUCTION.

2 - THE CONTRACTOR IS TO NOTIFY THE DEPARTMENTAL REPRESENTATIVE AT:

1. DELIVERY OF STORM SEWER MATERIALS TO SITE.

2. INITIAL INSTALLATION OF STORM, SANITARY AND WATER CONSTRUCTION

PRIOR TO BACKFILLING.

3. GRADING OF ROAD SURFACES PRIOR TO PAVING.

3 - THE CONTRACTOR IS TO MAINTAIN A COMPLETE SET OF CIVIL DRAWINGS MARKED UP IN RED TO RECORD THE CONSTRUCTION OF ALL SITE SERVICES ON THIS PROJECT. THIS REDLINED SET IS TO BE AVAILABLE ONSITE FOR THE DEPARTMENTAL REPRESENTATIVE TO REVIEW AT ALL TIMES. AT THE COMPLETION OF THE CIVIL WORKS, THIS MARKED UP SET IS TO BE SUBMITTED TO THE DEPARTMENTAL REPRESENTATIVE FOR THEIR RECORDS.

4 -ALL ON-SITE SERVICES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE 2015, B.C. BUILDING CODE 2012, AND THE B.C. PLUMBING CODE 2012. ANY PIPE WORKS CONSTRUCTED WITHIN THE PROPOSED AND EXISTING MUNICIPAL RIGHTS-OF-WAY ARE TO CONFORM TO THE NATIONAL MASTER SPECIFICATIONS.

5 -ALL SITE WORK, TRENCHING, EXCAVATION, BACKFILL, ROAD WORKS AND CONCRETE WORKS ARE TO BE SUPPLIED AND CONSTRUCTED IN ACCORDANCE WITH THE NATIONAL MASTER SPECIFICATIONS.

6 - THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORK HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. THE CONTRACTOR IS TO CHECK WITH FORTIS GAS, B.C. HYDRO AND TELUS PRIOR TO COMMENCING WORK TO VERIFY THE LOCATIONS AND INVERTS OF THESE SERVICES.

7 - ALL MATERIALS TESTING MUST BE DONE IN ACCORDANCE WITH THE NBC 2015 AND THE N.M.S. STANDARDS AND SPECIFICATIONS; TESTING IS TO BE CARRIED OUT BY A QUALIFIED MATERIALS TESTING FIRM AND PAID FOR BY THE CONTRACTOR. THE DEPARTMENTAL REPRESENTATIVE SHALL RECEIVE COPIES OF ALL TEST RESULTS FROM THE CONTRACTOR.

8-ANY MATERIAL SUBSTITUTION MUST BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE

9-WORKSAFE BC IS TO BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION.

10-THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR REPAIR OF ANY DAMAGE CAUSED TO EXISTING STREET OR SERVICES BY CONSTRUCTION EQUIPMENT AND/OR TRUCKS HAULING MATERIAL TO THE SITE. THIS MAY INCLUDE DAILY CLEANING OR SWEEPING EXISTING ROADS OF DIRT AND DEBRIS CAUSED BY THE CONSTRUCTION ACTIVITY.

11-ALL LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND SERVICES HAVE BEEN DETERMINED FROM AS-CONSTRUCTED DRAWINGS, AND THE DEPARTMENTAL REPRESENTATIVE CANNOT BE HELD RESPONSIBLE FOR THEIR ACCURACY. THE CONTRACTOR IS TO VERIFY THE LOCATIONS OF ALL EXISTING SERVICES AND TIE-IN POINTS PRIOR TO CONSTRUCTION AND TO NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS

12-OPEN TRENCH OPERATIONS IN EXISTING PAVEMENT SHALL BE VERTICAL AND REPLACED WITH HOT MIX ASPHALT AFTER BACKFILL AND COMPACTION WITHIN 48 HOURS OF TRENCH WORK, NO TRENCHES IN EXISTING ROADWAYS SHALL BE LEFT UNCOVERED OVERNIGHT; THEY SHALL BE TEMPORARILY BACKFILLED AND SURFACED WITH COLD MIX ASPHALT, OR STEEL PLATES SHALL BE USED TO COVER THE TRENCHES. ALL PAVEMENT, BOULEVARDS, ETC. ARE TO BE RESTORED TO ORIGINAL CONDITIONS WHERE NO IMPROVEMENT IS PROPOSED UNDER THIS CONTRACT.

13-THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR EXISTING SERVICES AND ANY SERVICES DISTURBED ARE TO BE REPLACED TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE OR OTHER APPROVING AGENCIES.

14-ALL SURVEY MONUMENTS MUST BE PROTECTED AND ANY DAMAGE IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

—150 IN LANDSCAPED AREAS

CURB SHAPE AT LETDOWNS

- ASPHALTIC CONCRETE

- 75mm (TYP.)

40mmx90mm KEY

15-ALL EXISTING IMPROVEMENTS ARE TO BE RESTORED TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE OR OTHER APPROVING AGENCIES.

16-FIGURED DIMENSIONS SHALL GOVERN OVER SCALED DIMENSION

200

150

APPROVAL.

## ABBOTSFORD-HUNTINGDON PORT OF ENTRY ASPHALT PAVEMENT STRUCTURE NORTH OF USA/CANADA

BORDER (WIDENING AREAS)

17-CONTRACTOR TO SUBMIT CONSTRUCTION PHASING/TRAFFIC MANAGEMENT PLAN PRIOR TO CONSTRUCTION FOR REVIEW AND

1.) APPROVED SUBGRADE AND ALL BASE & SUB-BASE MATERIALS TO BE COMPACTED TO 95% MODIFIED PROCTOR

150mm ASPHALT (TWO LIFTS) - 50mm UPPER - 100mm BASE 150mm - 19mm GRANULAR BASE COURSE (AS REQUIRED)

600mm - 75mm GRANULAR SUB-BASE (AS REQUIRED)

APPROVED SUBGRADE

EXTRUDED CONCRETE CURB ON PAVEMENT N.T.S.

CRUSHED GRANULAR BASE

- 100mm (TYP.)

UNTRAVELED AREAS TRAVELED AREAS ASPHALT OR CONCRETE TOPSOIL & SEED PAVEMENT STRUCTURE (SEE DETAIL SHEET C2) APPROVED NATIVE MATERIAL SELECT GRANULAR BACKFILL GRANULAR PIPE BEDDING MIN. 150mm BEDDING UNDER PIPE MAX. D+600mm MIN. D+450mm

ABBOTSFORD-HUNTINGDON PORT OF ENTRY ASPHALT PAVEMENT STRUCTURE AT 1ST AVENUE SUMAS WAY INTERSECTION

1.) APPROVED SUBGRADE AND ALL BASE & SUB-BASE MATERIALS TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

2 - A MINIMUM OF 1,2m COVER IS REQUIRED OVER EXTERIOR STORM PIPING.

3 -ALL STORM SEWER MAIN DEFLECTIONS ARE TO CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.

4 -CATCH BASIN LEADS ARE TO BE 150mm (6") DIAMETER AT 1.0% MINIMUM UNLESS OTHERWISE NOTED.

5 -STORM SEWERS ARE TO BE PVC SDR 28 FOR PIPES UP TO 150mm (6") DIAMETER AND PVC SDR 35 FOR PIPES 4 -CHANGES IN ROAD GRADES ARE TO BE FORMED WITH SMOOTH CURVES. GREATER THAN 150mm (6") DIAMETER UNLESS OTHERWISE NOTED

6 -ALL WYES ARE TO BE MANUFACTURED.

STORM NOTES

7 -STORM SEWERS ARE TO BE CONSTRUCTED WITH SEALED JOINTS UNLESS NOTED OTHERWISE.

100mm ASPHALT (TWO LIFTS) - 50mm UPPER - 50mm BASE 100mm - 19mm GRANULAR BASE COURSE (AS REQUIRED) 500mm - 75mm GRANULAR SUB-BASE (AS REQUIRED)

APPROVED SUBGRADE

## PACIFIC HIGHWAY PORT OF ENTRY ASPHALT PAVEMENT STRUCTURE

1.) APPROVED SUBGRADE AND ALL BASE & SUB-BASE MATERIALS TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.

100mm ASPHALT (TWO LIFTS) - 40mm UPPER 60mm LOWER 150mm - 19mm GRANULAR BASE COURSE

570mm - 75mm GRANULAR SUB-BASE (AS REQUIRED)

APPROVED SUBGRADE

(AS REQUIRED)

### ROADWORKS NOTES

1 -ALL CONSTRUCTION TO BE IN ACCORDANCE WITH NATIONAL BUILDING CODE 2015 UNLESS SPECIFIED ELSEWHERE. 1 - ALL MANHOLE LIDS, VALVE COVERS, CATCH BASIN RIMS AND LIDS OF ANY OTHER STRUCTURES TO BE ADJUSTED TO SUIT FINAL ROAD. SIDEWALK AND LANDSCAPING GRADES.

> 2 - THE SITE SHALL BE CLEARED AND GRUBBED AND ALL EXISTING CONCRETE AND LOOSE AND ORGANIC MATERIAL TO BE EXCAVATED AND REMOVED FROM THE SITE.

3 -ALL SUBGRADES AND GRANULAR BASE MATERIALS SHALL BE COMPACTED TO AT LEAST 95% OF THEIR MODIFIED PROCTOR DENSITY UNLESS OTHERWISE NOTED.

5 -DESIGN GRADES AT CATCH BASINS ARE PROPOSED FINISHED ROAD GRADES. ALL CATCH BASIN RIMS ARE TO BE SET 25mm BELOW PROPOSED FINISHED ROAD GRADES.

6 -ASPHALTIC CONCRETE SHALL BE LAID IN LIFTS AS SHOWN ON THE PAVEMENT SECTION.

7 -48 HOURS PRIOR TO DELIVERY OF ANY GRAVELS TO THE SITE. THE CONTRACTOR WILL SUPPLY THE DEPARTMENTAL REPRESENTATIVE WITH A SIEVE AND GRADATION ANALYSIS OF EACH TYPE OF GRANULAR MATERIAL TO BE USED.

8 -TIE-INS TO EXISTING PAVEMENT SHALL BE MADE BY CUTTING BACK THE EXISTING PAVEMENT TO SOUND MATERIAL AS NECESSARY TO PRODUCE A NEAT, VERTICAL FACE WITH A STRAIGHT EDGE. PRIOR TO PLACING HOTMIX ASPHALTIC CONCRETE, EXPOSED PAVEMENT FACES SHALL BE PAINTED WITH LIQUID ASPHALT AND HEATED TO 65 DEGREES CELSIUS. THE FINISHED PAVEMENT SURFACE SHALL BLEND IN SMOOTHLY WITH EXISTING PAVEMENT, ALL PAVEMENTS, BOULEVARDS, ETC. ARE TO BE RESTORED TO ORIGINAL CONDITIONS WHERE NO IMPROVEMENT IS PROPOSED UNDER THIS CONTRACT.

9 -LOCATIONS OF DRIVEWAYS, WHEELCHAIR RAMPS, ETC. SHALL BE CONFIRMED IN THE FIELD PRIOR TO CONSTRUCTION OF ANY PROPOSED CONCRETE CURB AND GUTTER AND SIDEWALK.

10-THE ROAD BASE SHALL EXTEND A MINIMUM OF 0.3m (1.0ft) BEYOND THE SIDEWALK AND/OR CURB AND GUTTER, WHICHEVER IS GREATER.

11-TESTING BY CONTRACTOR WILL BE REQUIRED TO CONFIRM THE SUITABILITY OF THE ROAD STRUCTURE PRIOR TO PAVING.

### SILTATION CONTROL:

1. THE CONTRACTOR SHALL CONSTRUCT ALL SILTATION CONTROL WORKS TO THE REQUIREMENTS OF THE PROVINCIAL MINISTRY OF ENVIRONMENT AND PARKS, THE FEDERAL MINISTRY OF FISHERIES AND OCEANS, AND OTHER AGENCIES.

2. THE CONTRACTOR SHALL STOCKPILE ON SITE AT VARIOUS STRATEGIC LOCATIONS ADEQUATE SUPPLIES OF ALL MATERIALS REQUIRED TO PROTECT DOWNSTREAM WATERCOURSES FROM SILTATION.

THE CONTRACTOR SHALL SECURE ALL ENVIRONMENTAL APPROVALS IF REQUIRED.

4. THE CONTRACTOR SHALL COVER ANY SOIL STOCKPILES AND EXPOSED EARTH FILL SLOPES WITH 6 MIL POLYETHYLENE.

5. THE CONTRACTOR SHALL PLACE SILT FENCING AROUND SOIL STOCKPILES AND AT THE TOE OF EARTH FILL SLOPES.

6. THE CONTRACTOR SHALL ENSURE RUNOFF FROM SOIL STOCKPILES AND EXPOSED EARTH FILL SLOPES SHALL BE DIRECTED TO THE SILTATION CONTROL FACILITIES.

ALL RUNOFF WITHIN BLDG. EXCAVATIONS IS TO BE PUMPED TO ON SITE SILT TRAPS OR SILTATION POND.

8. THE CONTRACTOR SHALL REPAIR MACHINE TRACKS OR OTHER SURFACE DEFORMATIONS WHICH TEND TO ALTER DRAINAGE PATHS, AND TO CONCENTRATE DRAINAGE IN SUCH A WAY AS TO INCREASE EROSION

9. THE CONTRACTOR SHALL ASSESS AND REVIEW THE EFFECTIVENESS OF TEMPORARY SEDIMENT CONTROL MEASURES AND SHALL DETERMINE THE NEED FOR ADDITIONAL MEASURES ON A CONTINUING BASIS.

10. THE CONTRACTOR SHALL INSPECT AND MAINTAIN SILTATION CONTROL ON A DAILY BASIS.

CONCRETE CURB WITH GUTTER. SEE DETAIL LEFT.

11. THE CONTRACTOR SHALL CORRECT ANY DEFICIENCIES IN EROSION AND SEDIMENTATION CONTROL IMMEDIATELY. IF THE CONTRACTOR FAILS TO CORRECT THESE DEFICIENCIES IN EROSION AND SEDIMENTATION CONTROL, THIS DEFAULT MAY BE CORRECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.

12. THE CONTRACTOR SHALL INSPECT THE SEDIMENT CONTROL TRAP FACILITIES WEEKLY FOR EFFICIENCY OF OPERATION. AFTER EACH SIGNIFICANT RAINFALL, ANY VISIBLE DAMAGE TO THE TRAP STRUCTURE SHALL BE REPAIRED BY CONTRACTOR. THE SEDIMENT CONTROL TRAP SHALL BE CLEANED OUT BEFORE ITS STORAGE DEPTH COMES HALF FULL. WHEN REMOVING SEDIMENT, PLACE SEDIMENT WHERE IT WILL NOT ENTER A STORM DRAIN OR WATER COURSE AND WHERE IT WILL NOT RE ENTER THE

13. IT IS IMPORTANT THAT THE ROADWAYS BE KEPT CLEAN AND FREE OF SEDIMENT FROM TRUCKS LEAVING THE SITE. THE CONTRACTOR SHALL PERFORM STREET SWEEPING TO THE EXTENT NEEDED TO ENSURE THAT THIS AND OTHER ADJACENT ROADS ARE KEPT. CLEAN,

14. THE CONTRACTOR SHALL MAINTAIN ALL ON AND OFF SITE SEDIMENT TRAPS UNTIL PROPOSED CONSTRUCTION IS COMPLETE.

15. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL SILT FROM THE ON SITE STORM MAINS & DREDGE FLOW CONTROL MANHOLE TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.

16. CONTRACTOR TO NOTIFY THE DEPARTMENTAL REPRESENTATIVE IN CASE CONTAMINATED SOILS ARE DISCOVERED DURING EXCAVATION.

K. M. K. FUNG

Travaux publics et Services gouvernementaux

REAL PROPERTY SERVICES

Pacific Region

SERVICES IMMOBILIERS

BENCHMARK:

BM1 MONUMENT

BM2 MONUMENT

BM2 LOCATION

BM1 LOCATION

BM1 ELEV

BM2 ELEV

Région de Pacifique



REISSUED FOR TENDER ISSUED FOR TENDER 99% CD REVIEW 50% CD REVIEW Description/Description

CANADA BORDER **SERVICES AGENCY** (CBSA)

2 SUMAS WAY, HUNTINGDON B.C. V2S 8B7

Project title/Titre du projet ABBOTSFORD-HUNTINGDON **PORT OF ENTRY** 2 SUMAS WAY, HUNTINGDON, BC

> **ADDITION &** SITE WORKS

Consultant Signature Only Designed by/Concept par

TAPER ASPHALT PAVING DOWN

TO MEET WITH EXISTING GUTTER

EXIST. BASE AND SUBBASE

GRAVELS TO BE REGRADED

AND COMPACTED TO SUIT

AND MEET SPECIFICATION.

GRADES.

Drawn by/Dessine par KF / 2016-01-26 PWGSC Project Manager/Administrateur de Projets TPSGC

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

Drawing title/Titre du dessin

**PACIFIC HIGHWAY AND** ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING

**NOTES & DETAILS** 

15-0521

Project No./No. du projet R078171.001

Revision no. La Révision C003 OF 4

300 150 GUTTER TO DRAIN TOWARDS ROAD CENTER, SWALE AS APPLICABLE 44.4 SECTION AT WHEELCHAIR RAMP TYPICAL - HAND FORMED CURB TO DASHED LINE TYPICAL ROAD BASE TO EXTEND A MIN. OF 0.3m BEYOND S/W AND/OR CURB AND GUTTER 2" THICK - 3/4" MINUS CRUSHED GRAVEL

BASE ON APPROVED SUBGRADE

CONCRETE BARRIER CURB WITH GUTTER

ASPHALT PAVING DETAIL AT CURB AT PACIFIC HIGHWAY PORT OF ENTRY N.T.S.

1.0m

VARIES

(2.5% - 3.5%)

TYPICAL TRENCH CROSS SECTION

LESS THAN 0.9m, USE DWV PIPE.

1. A MINIMUM OF 0.9m COVER IS REQUIRED OVER EXTERIOR STORM AND SANITARY PIPING, IF COVER IS

### **CONCRETE**

- 1. CONCRETE, CONCRETE MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CSA A23.1-09 AND A23.3-04. AND PARKING SLABS TO CONFORM TO S413-07.
- 2. CONCRETE TO BE 35MPa AT 28 DAYS, EXPOSURE CLASS C1, AIR CONTENT 5% 8%, MAX. AGGREGATE 20mm AND SLUMP 80; 20.
- 3. FOR AREAS OF CONGESTED REINFORCEMENT, AND THIN CONCRETE SECTIONS, USE A REDUCED AGGREGATE SIZE IN THE CONCRETE MIX AND ADD SUPERPLASTICIZER TO MIX ON SITE TO INCREASE WORKABILITY.
- 4. CONCRETE MIX DESIGNS TO BE SUBMITTED TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW
- PRIOR TO COMMENCING THE WORK. 5. CURING AND PROTECTION OF CONCRETE FOR HOT, COLD, OR DRY WEATHER TO BE IN ACCORDANCE WITH CSA A23.1, SECTION 7.4. PROVIDE MOIST CURE FOR 7 DAYS MINIMUM (ANY ALTERNATIVE METHOD MUST BE REVIEWED BY THE DEPARTMENTAL REPRESENTATIVE).
- 6. LOCATION AND DETAILS OF CONSTRUCTION JOINTS TO BE REVIEWED BY THE DEPARTMENTAL REPRESENTATIVE.
- SEE DETAILS ON THESE DRAWINGS. 7. PROVIDE SAWCUT CONTROL JOINTS IN SLAB-ON-GRADE. MAX PANEL SIZE 20 SQUARE
- METERS (TYP.) 8. CALCIUM CHLORIDE IS NOT PERMITTED IN CONCRETE MIXES.
- 9. CONCRETE COVER TO BE AS PER TABLE ON THESE DRAWINGS. 10. CONCRETE TESTING AND INSPECTION TO BE IN ACCORDANCE WITH CSA A23.1. TESTING TO BE PAID FOR BY CONTRACTOR.

### HOT WEATHER CONCRETE RECOMMENDATIONS FOR FLATWORK

SLABS-ON-GRADE, SUSPENDED SLABS, CONCRETE

- REVIEW CONCRETE REQUIREMENTS WITH SUPPLIER PRIOR TO THE DAY OF THE POUR. DO NOT USE RETARDERS OR ACCELERATORS IN THE CONCRETE MIX, UNLESS
- AUTHORIZED BY THE DEPARTMENTAL REPRESENTATIVE. KEEP SUPERPLASTISIZERS AVAILABLE AT THE SITE TO INCREASE WORKABILITY. DO NOT EXCEED RECOMMENDED STANDARD DOSAGES.

- DO NOT ATTEMPT LARGE CONCRETE PLACEMENTS ON HOT DAYS.
- SCHEDULE CONCRETE PLACEMENTS FOR AN EARLY MORNING START SO THE PLACEMENT IS COMPLETED BEFORE NOON.
- FOR SLABS-ON-GRADE, DAMPEN THE SUB-GRADE THE DAY BEFORE THE PLACEMENT. POLY BENEATH THE SLAB IS SOMETIMES BENEFICIAL IN HOT WEATHER CONCRETE PLACEMENTS. IT SHOULD BE PERFORATED WITH DRAIN HOLES AT 300mm CENTRES
- UNLESS REQUIRED AS A VAPOUR BARRIER ERECT WIND BREAKS TO PREVENT EXCESSIVE AND RAPID MOISTURE LOSS.
- PLACE CONCRETE DIRECTLY FROM TRUCK CHUTE WHERE POSSIBLE.
- 10. ENSURE THERE ARE SUFFICIENT PLACERS AND FINISHERS AVAILABLE ON SITE 11. USE AN EVAPORATION RETARDANT APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. DO NOT ATTEMPT TO PLACE FLATWORK ON SUNNY DAYS WHERE PREDICTED TEMPERATURES EXCEED +30 DEGREES CELSIUS.
- 12. APPLY SURFACE SEALERS AS SOON AS POSSIBLE AFTER THE FINAL TROWEL. 13. WET CURE CONCRETE FOR AT LEAST 7 DAYS. USE CONTINUOUS SPRINKLING OR FLOODING. DO NOT CURE UNDER POLY SHEETING OR WITH WET BURLAP.

### REINFORCING STEEL

- 1. BARS SHOWN THUS: INDICATE TOP REINFORCING STEEL
- INDICATE BOTTOM REINFORCING STEEL. BARS SHOWN THUS: REINFORCING STEEL TO BE DEFORMED BARS CONFORMING TO CSA G30.18-M, GRADE 400
- WELDABLE GRADE TYPICAL. 4. MINIMUM LAPS OF REINFORCEMENT TO BE AS PER TABLE ON THESE DRAWINGS.
- 5. HOOKS AND FABRICATION DETAILS TO CONFORM TO CAN/CSA A23.1
- 6. ALL HOOKS TO BE "STANDARD" IN ACCORDANCE WITH A23.1 UNLESS NOTED OTHERWISE.
- "H.1,E," DENOTES HOOK ONE END AND THE LENGTH NOTED INCLUDES HOOK CLEAR SPACING BETWEEN REINFORCING BARS PLACED IN ONE LAYER OR MINIMUM CLEAR
- SPACING BETWEEN LAYERS OF REINFORCEMENT TO BE AS FOLLOWS: (UNLESS NOTED OTHERWISE)

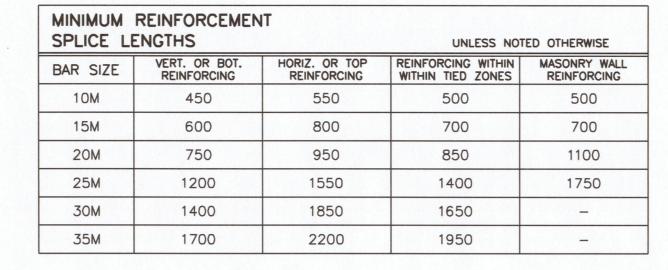
20M - 30mm25M - 35mm 30M - 40mm35M - 50mm

## CHAIRING OF REINFORCEMENT

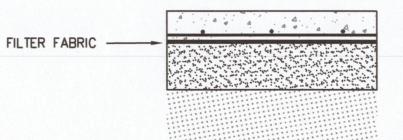
- 1. PROVIDE SPACER BARS FOR BEAMS WITH MULTIPLE LAYERS OF REINFORCEMENT AT MAXIMUM
- 1200 ON CENTRE 2. USE 15M SUPPORT BARS AT 1200 MAXIMUM ON CENTRE AS WELL AS ONE 15M EACH SIDE
- OF SUPPORTING WALL OR BEAMS.
- 3. FLYING ENDS OF TOP BARS NOT TO EXCEED 450 mm. 4. CHAIR SUPPORT BARS AT 1200 ON CENTRE MAXIMUM.
- CHAIR BOTTOM REINFORCING AT 1200 ON CENTRE MAXIMUM EACH WAY.
- CHAIRS AND BOLSTERS TO BE PURPOSE MADE NON-METALLIC.
- 7. POSITION CHAIRS FOR EXPOSED CONCRETE SLAB AND BEAM SOFFITS IN A REGULAR PATTERN CONFORMING WITH FINAL ARCHITECTURAL FINISH.
- 8. PLASTIC TIES OR PLASTIC-COATED WIRES SHALL BE USED FOR TYING EPOXY-COATED
- 9. PROVIDE REBAR CHAIRS FOR TOP BARS IN FOOTINGS.

# EXTRA REINFORCEMENT

- 1. PROVIDE TWO 15M CONTINUOUS AT THE ENDS AND TOPS OF WALLS AND EDGES OF ALL
- SLABS, MINIMUM. 2. PROVIDE ON EACH FACE TWO 15M EXTRA TOP, BOTTOM AND EACH SIDE OF OPENINGS IN WALLS AND SLABS, RUN BARS 650 MINIMUM BEYOND OPENING, PROVIDE ONE 15M x 1200
- DIAGONAL BAR AT EACH CORNER OF THE OPENING ON EACH FACE. 3. FOR OPENINGS UP TO 450 WIDE, FLARE REINFORCEMENT AROUND OPENINGS. FOR OPENINGS OVER 450 WIDE, TERMINATE REINFORCEMENT AT OPENING. PROVIDE BARS, OF EQUAL NUMBER AND AREA TO THAT TERMINATED, ON EACH SIDE OF OPENING IN ADDITION TO THAT
- SPECIFIED ABOVE. RUN ALL EXTRA BARS CONTINUOUS TO THE SUPPORTS. 4. PROVIDE CORNER BARS x 1200 LONG MINIMUM (H1E 600) TO MATCH SIZE AND SPACING OF HORIZONTAL REINFORCEMENT IN WALLS, FOOTINGS & GRADE BEAMS UNLESS NOTED OTHERWISE. REFER TO TYPICAL DETAIL ON THESE DRAWINGS.



CONCRETE COVER (mm)	CONCRETE COVER TO BE MEASURED FROM INSIDE FACE OF REVEALS.		
ELEMENT	FIRE RATING		
	1 HR.	2 HR.	3 HR.
SURFACES CAST AGAINST GROUND	75	75	75
FORMED SURFACES OF BEAMS, COLUMNS AND PILASTERS (TO PRINCIPAL REINFORCEMENT)	40	40	50
FORMED SURFACES OF BEAMS, COLUMNS AND PILASTERS EXPOSED TO GROUND OR WEATHER (TO PRINCIPAL REINFORCEMENT)	50	50	50
WALLS, SLABS AND SLABBANDS -20mm BARS AND SMALLER -25mm BARS -30mm BARS -35mm BARS	20 25 30 35	25 25 30 35	32 32 32 32 35
FORMED SURFACES OF WALLS EXPOSED TO GROUND OR WEATHER -20mm BARS AND SMALLER -25mm BARS AND LARGER	30 50	30 50	32 50
PARKING AREA TOP STEEL	40	40	40
PARKING AREA BOTTOM STEEL	30	30	32



225mm REINFORCED CONCRETE c/w 15M REBARS AT 250mm o/c BOTH WAYS. CONCRETE SLAB TO HAVE 28 DAYS COMPRESSIVE STRENGTH OF 35 MPa. 100mm - 19mm GRANULAR BASE - AS REQUIRED

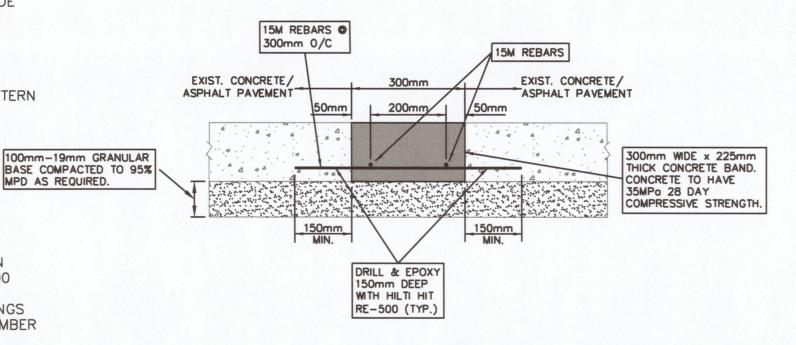
200mm - 75mm GRANULAR BASE - AS REQUIRED

APPROVED SUBGRADE

### CONCRETE PAVEMENT STRUCTURE

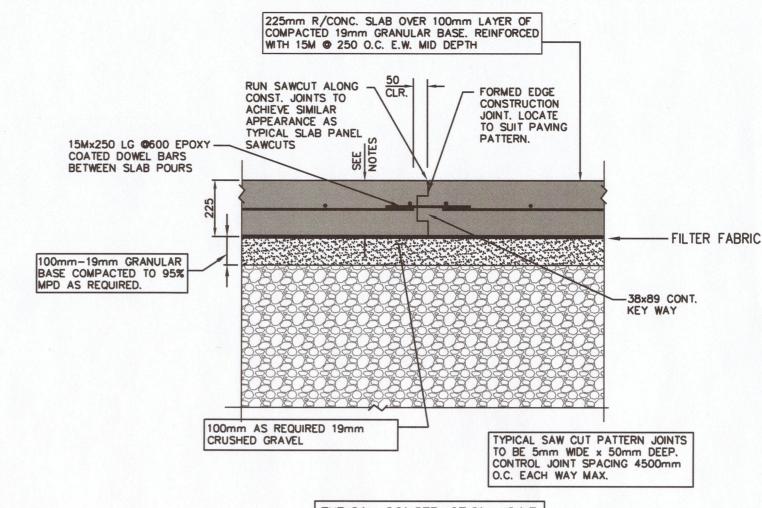
MPD AS REQUIRED.

1.) APPROVED SUBGRADE AND ALL BASE AND SUB-BASE MATERIALS TO BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY



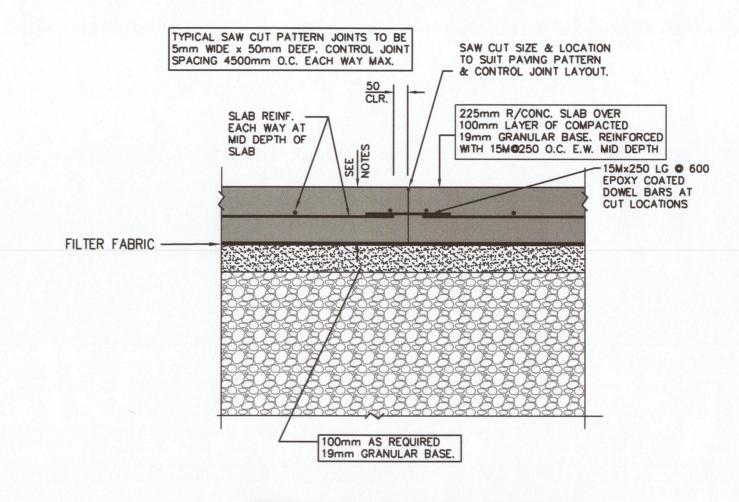
CONCRETE BAND STRUCTURE

N.T.S.



TYPICAL CONSTRUCTION JOINT

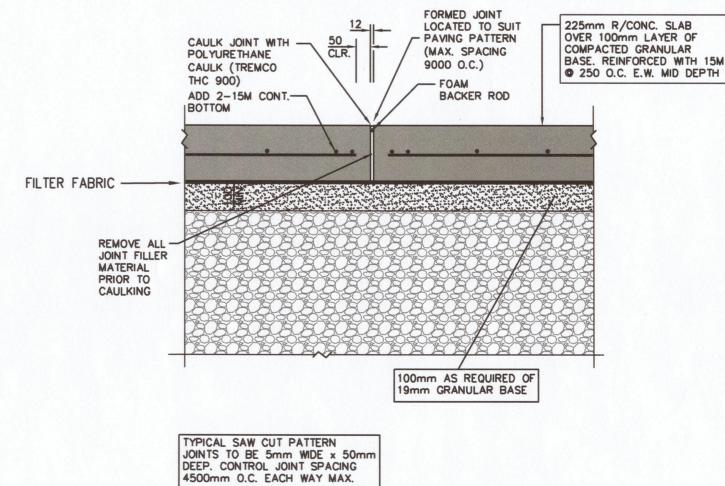
TYPICAL EXTERIOR R/C SLAB ON GRADE DRIVEWAY AND PAVING DETAILS



TYPICAL EXTERIOR R/C SLAB ON GRADE

DRIVEWAY AND PAVING DETAILS

TYPICAL SAWCUT & SAWCUT CONTROL JOINT



TYPICAL EXTERIOR R/C SLAB ON GRADE DRIVEWAY AND PAVING DETAILS

TYPICAL EXPANSION JOINT

Travaux publics et Public Works and Government Services Services gouvernementaux

**REAL PROPERTY SERVICES** Pacific Region SERVICES IMMOBILIERS Région de Pacifique

BENCHMARK: BM1 MONUMENT BM1 LOCATION

BM1 ELEV BM2 MONUMENT BM2 LOCATION BM2 ELEV



Your Challenges, Our Solutions. Build with Binnie REISSUED FOR TENDER ISSUED FOR TENDER 24-03-16 99% CD REVIEW 02-03-16 50% CD REVIEW 04-02-16 Description/Description Date/Date Client/client

> CANADA BORDER **SERVICES AGENCY** (CBSA)

2 SUMAS WAY, HUNTINGDON B.C. V2S 8B7

Project title/Titre du projet ABBOTSFORD-HUNTINGDON PORT OF ENTRY 2 SUMAS WAY, HUNTINGDON, BC

> **ADDITION &** SITE WORKS

Consultant Signature Only Designed by/Concept par Drawn by/Dessine par KF / 2016-01-26 PWGSC Project Manager/Administrateur de Projets TPSGC

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

Drawing title/Titre du dessin

PACIFIC HIGHWAY AND ABBOTSFORD-HUNTINGDON PORT OF ENTRY REPAVING

**CONCRETE NOTES & DETAILS** 

15-0521

Project No./No. du projet R078171.001

OF 4

Sheet/Feuille

DM5XXXXXX

Revision no La Révision

