



**BRITISH
COLUMBIA**

PROJECT No. 11313-0001

MINISTRY OF TRANSPORTATION

MISSION—ABBOTSFORD
HIGHWAY No. 11

SUMAS WAY TO CLAYBURN ROAD

TRACY COOPER, REGIONAL DIRECTOR

RECEIVED

3 - APR 2006

PROJECT MANAGEMENT
SOUTH COAST REGION

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION

PROJECT No. 11313

MISSION-ABBOTSFORD
HIGHWAY No. 11

SUMAS WAY
TO
CLAYBURN ROAD

STA 6+05.100 TO STA 31+20.000 (2.5 km)

LANDMARK KILOMETRE INVENTORY
SEGMENT 2744
km -0.20 to km 2.3

LEGEND

TELEPHONE POLES		FIRE HYDRANT	
POWER POLES		GAS VALVE	
POWER POLE WITH TRANSFORMER		WATER VALVE	
JUNCTION BOX		WATER METER	
POWER POLE AND TELEPHONE COMBINED		CATCH BASIN - EXISTING	
GUY WIRE AND ANCHOR		CATCH BASIN - PROPOSED	
LAMP STANDARD		MANHOLE - EXISTING	
GREATER VANCOUVER WATER OR REGIONAL DISTRICT		MANHOLE - PROPOSED	
EXISTING SPOT ELEVATIONS	3.56	TRAFFIC SIGNAL	
IRON PIN		TRAFFIC SIGNAL CONTROL BOX	
MONUMENT		ROAD SIGN - EXISTING	
TEST HOLES		PROPOSED ROAD SIGN & POST	
PROPOSED PAVEMENT REMOVAL		PROPOSED ROAD SIGN (NO POST)	
PROPOSED PAVEMENT MILLING		ROADWAY DELINEATORS	
PROPOSED SURCHARGE		KIOSK	
PROPOSED CUT AND FILL		BUILDINGS	
PROPOSED RETAINING WALL		TRAVERSE HUB	
PROPOSED SAWCUT LINE		STREET LIGHT POST TOP	
DRAIN GRATE		POWER POLE WITH LIGHT FIXTURE	
FLAG POLE		POWER POLE U/GROUND ELECT	
REFERENCE POINT		SERVICE POLE	
MAIL BOX		GATE POST	
BREATHER / VENT PIPE		TREES	
LAWN BASIN		AIR VALVE	
CLEAN OUT		BLOW-OFF ASSEMBLY	
CHECK VALVE			
GATE VALVE			

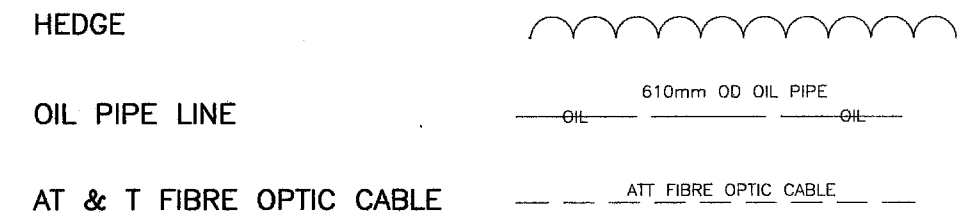
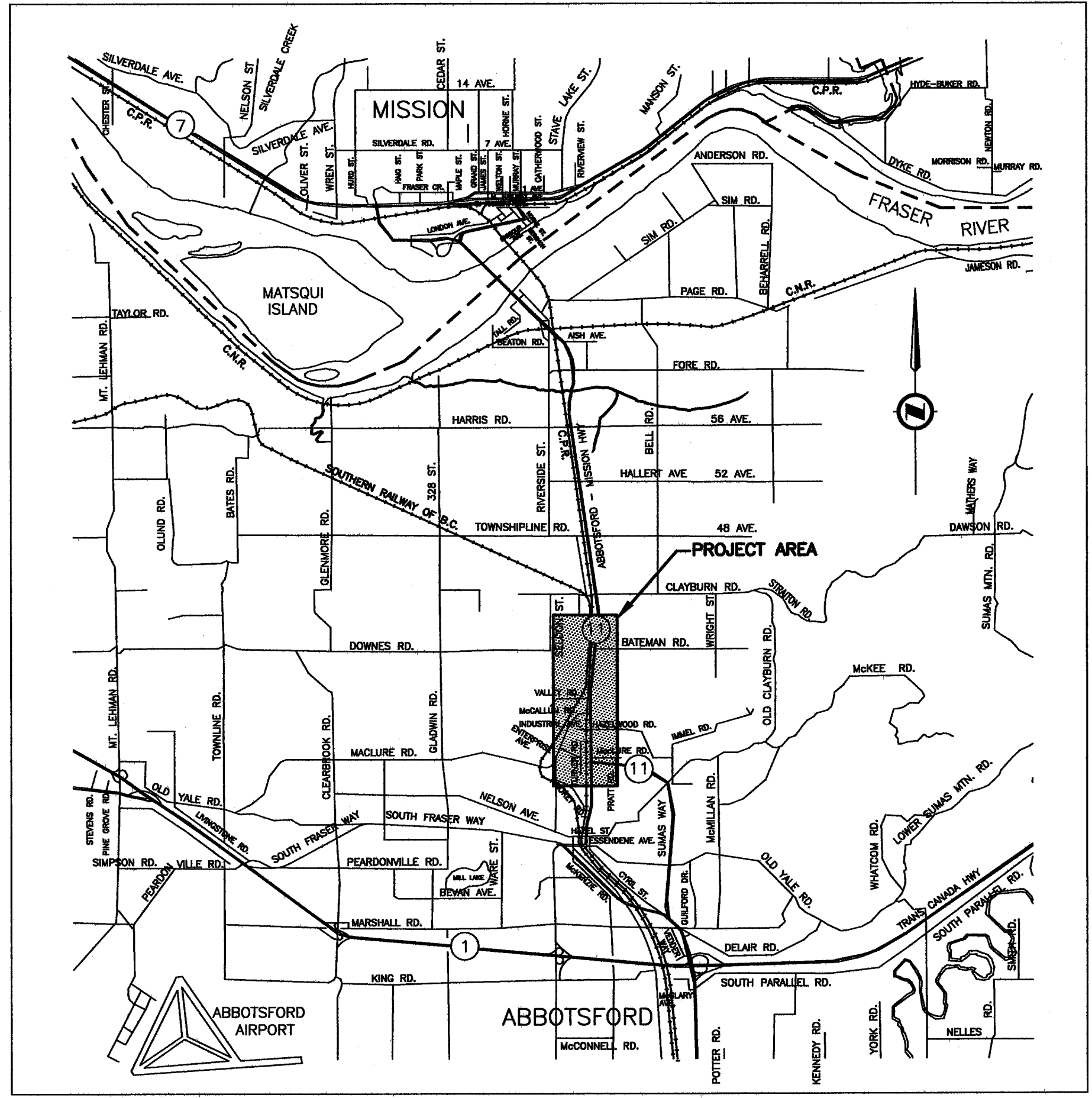
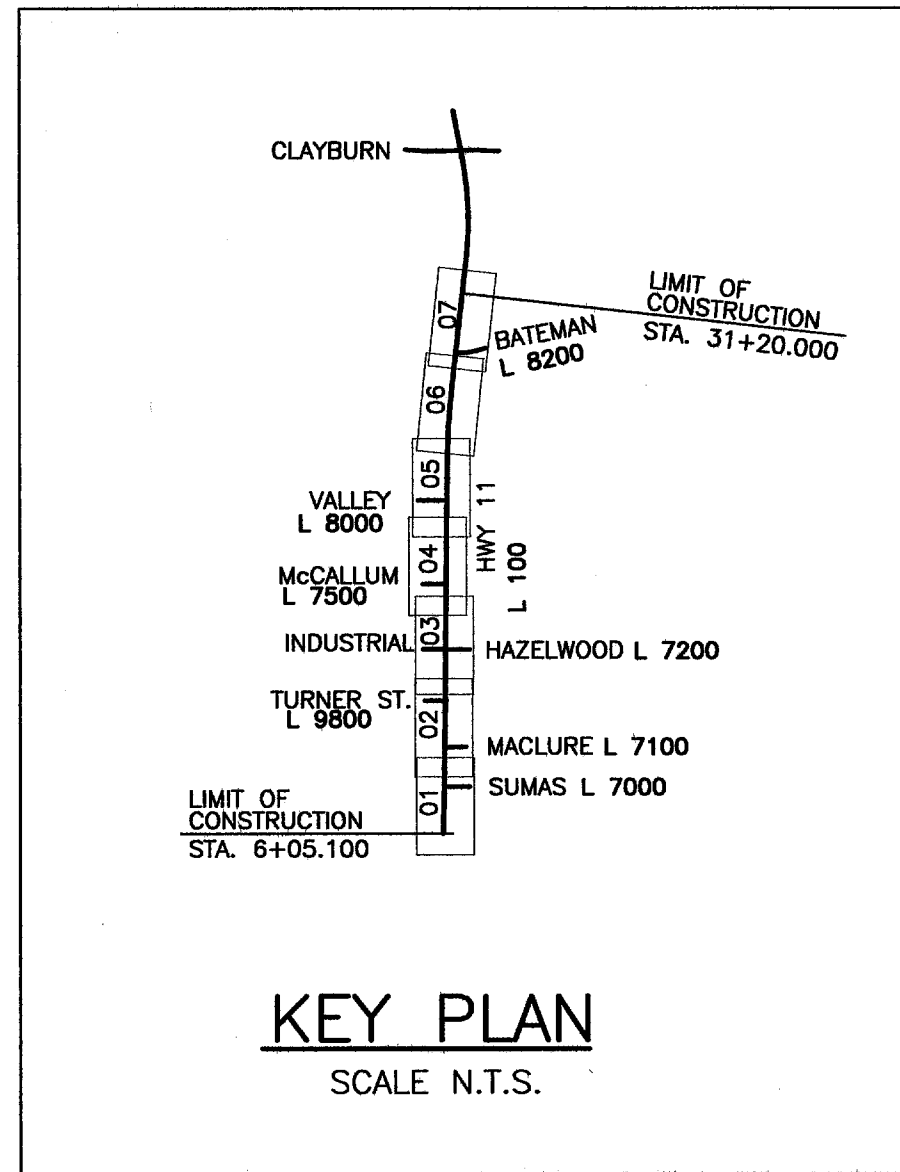
SECTION LINES & DISTRICT LOT BDY.	
EASEMENT	
COVENANT	
QUARTER SECTION LINE	
OLD ROAD R/W (SURVEYED)	
SUBDIVISION BOUNDARY	
PROPOSED HIGHWAY R/W	
PROPOSED EASEMENT	

EXISTING	PROPOSED
E/P (EDGE OF PAVEMENT)	EDGE OF PAVEMENT
W/L (WHITE LINE)	EDGE OF PAVEMENT
Y/L (YELLOW LINE)	EDGE OF PAVEMENT
W/L (WHITE LINE)	EDGE OF PAVEMENT
E/P (EDGE OF PAVEMENT)	EDGE OF PAVEMENT

PAVED ROAD	
GRAVEL ROAD	
CONTROL LINES	
STORM DRAINS AND SEWERS	
SANITARY SEWER	
CULVERT (WITH ENDWALL)	
WATER MAIN	
GAS MAIN	
SIDEWALK	
CURBS	
PAINTED MEDIAN	
NO-POST CONCRETE BARRIER	
FENCE	
DRAINAGE DITCH	
DRAINAGE SWALE	

NORTHING	EASTING	ELEVATION	MON #	LOCATION
38816.176	2214.217	7.644	H4362	CLAYBURN RD. W. OF HWY 11
38834.649	1934.167	12.858	H4369	CLAYBURN RD. W. OF HWY 11

NORTHING	EASTING	ELEVATION	MON #	LOCATION	STATION
36394.385	2281.026	14.278	MON H0563	INTERSECTION OF HWY 11 & ENTERPRISE AVE.	11+60
36793.804	2293.169	9.191	MON73H0545	INTERSECTION OF INDUSTRIAL AVE. & BC HYDRO R/W	15+60
37134.345	2337.236	4.446	MON73H0544	ON HWY 11, BETWEEN REM 47, PL 2173 & LOT 26, PL 24476	19+00
37598.899	2341.888	4.569	MON73H0543	ON HWY 11, 80M NORTH OF WILBAND CREEK CROSSING	23+60
38018.663	2382.078	5.067	MON73H0502	INTERSECTION OF HWY 11 & BATEMAN RD.	27+80



DRAWING INDEX

COVER	DWG. No. R1-491-001
KEY PLAN, INDEX AND LEGEND	DWG. No. R1-491-101 to R1-491-108
DRAINAGE AND CONSTRUCTION DETAILS	DWG. No. R1-491-201 to R1-491-205
PROFILES	DWG. No. R1-491-301 to R1-491-303
TYPICAL SECTIONS & DETAILS	DWG. No. R1-491-306 to R1-491-307
TYPICAL SECTIONS & DETAILS	DWG. No. R1-491-308 to R1-491-309
WILLBAND CREEK CULVERT	DWG. No. R1-491-401 to R1-491-408
GEOMETRICS AND LANING	DWG. No. R1-491-501 to R1-491-508
SIGNING AND PAVEMENT MARKINGS	DWG. No. R1-491-701 to R1-491-703
SPOT ELEVATIONS	DWG. No. R1-491-750 to R1-491-757
SUGGESTED DETOURS AND STAGING	
REFERENCE	
SECTIONS (REFERENCE ONLY)	DWG. No. R1-491-MX01 to R1-491-MX15
ELECTRICAL	
SIGNAL AND LIGHTING INSTALLATION (SUMAS WAY/GLADYS AVE)	DWG. No. TE-04001-1 to TE-04001-3
LIGHTING INSTALLATION (TURNER ROAD/INDUSTRIAL AVE)	DWG. No. TE-04002-1 to TE-04002-2
SIGNAL AND LIGHTING INSTALLATION (McCALLUM ROAD)	DWG. No. TE-89111-1 to TE-89111-3
SIGNAL AND LIGHTING INSTALLATION (VALLEY ROAD)	DWG. No. TE-04003-1 to TE-04003-3
SIGNAL AND LIGHTING INSTALLATION (BATEMAN ROAD)	DWG. No. TE-04004-1 to TE-04004-3
SIGNAL AND LIGHTING INSTALLATION (CLAYBURN ROAD)	DWG. No. TE-02020-1 to TE-02020-3
WATERMAIN	
COVER SHEET	DWG. No. 80074-000
KEY PLAN, INDEX & LEGEND	DWG. No. 80074-100
PLAN & PROFILE	DWG. No. 80074-101 to 80074-109
TYPICAL TRENCH SECTION & DETAIL	DWG. No. 80074-110

LOCATION PLAN

SCALE 1:75000±

GENERAL NOTES

- THE SIZE, DEPTH AND LOCATION OF THE EXISTING OVERHEAD AND UNDERGROUND UTILITIES AND RESPECTIVE STRUCTURES SHOWN ARE APPROXIMATE AND ARE FOR GUIDANCE ONLY. THE COMPLETENESS OR ACCURACY OF THIS INFORMATION IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY THE LOCATION OF THE UTILITIES PRIOR TO COMMENCING WORK, AND ADVISE THE MINISTRY REPRESENTATIVE OF ANY POTENTIAL CONFLICTS.
- PAVEMENT EXCAVATION OUTSIDE OF THE NEW EDGES OF PAVEMENT: REMOVE ALL ASPHALT MATERIALS AND SUFFICIENT GRAVELS TO ALLOW FOR LANDSCAPING.
- THE CONTRACTOR SHALL CONFIRM THE LOCATION OF THE CUTLINE (POINT OF EXCAVATION) WITH THE MINISTRY REPRESENTATIVE BEFORE PROCEEDING.
- BASE MAPPING SURVEYED 1998
- CONTRACTOR SHALL COORDINATE WITH UTILITY REPRESENTATIVE AT TIME OF CONSTRUCTION FOR UTILITY RELOCATION.
- THE CONTRACTOR SHALL CONFORM TO FISHERIES AND OCEANS CANADA (DFO) AUTHORIZATION No: 04 HPAC PA2 000 000237 (SIGNED AND DATED MARCH 6, 2005) AND AMENDMENT TO DFO AUTHORIZATION No: 04 HPAC PA2 000 000237 (SIGNED AND DATED; OCTOBER 3, 2005). IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THEIR ENVIRONMENTAL MONITOR TO ENSURE INSTREAM WORKS AND CONSTRUCTION OF THE HIGHWAY, INCLUDING FISH SALVAGES, WATERCOURSE DIVERSIONS/ISOLATION; AND, EROSION AND SEDIMENT CONTROL MEASURES ARE CARRIED OUT IN ACCORDANCE TO THE AFOREMENTIONED DFO AUTHORIZATIONS.

Province of British Columbia
MINISTRY OF TRANSPORTATION
SOUTH COAST REGION

HIGHWAY DESIGN AND SURVEY ENGINEERING
KEY PLAN, INDEX AND LEGEND
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD

REGIONAL MANAGER:

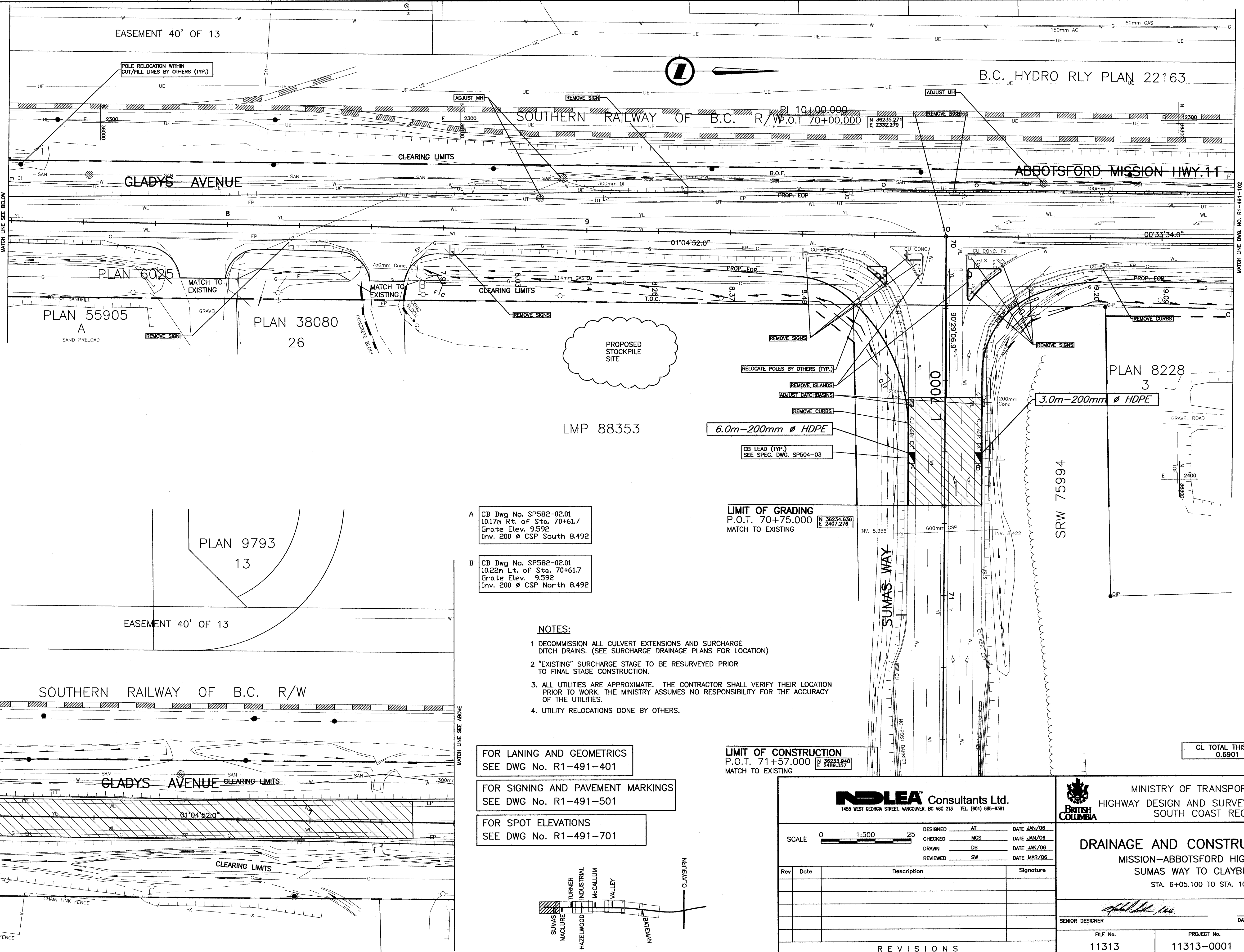
REGIONAL DIRECTOR:

DATE: 06/05/09

DATE: April 11, 2006

FILE No. 11313	PROJECT No. 11313-0001	REG. 1	DRAWING No. R1-491-001
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CANCEL PRINTS BEARING PREVIOUS LETTER



EASEMENT 40' OF 13

B.C. HYDRO RLY PLAN 22163

SOUTHERN RAILWAY OF B.C. R/W P.O.T. 70+00.000

GLADYS AVENUE

ABBOTSFORD MISSION HWY. 11

PLAN 6025

PLAN 55905 A

PLAN 38080

LMP 88353

PLAN 8228

PLAN 9793

EASEMENT 40' OF 13

SOUTHERN RAILWAY OF B.C. R/W

GLADYS AVENUE

SUMAS WAY

SRW 75994

A CB Dwg No. SP582-02.01
10.17m Rt. of Sta. 70+61.7
Grate Elev. 9.592
Inv. 200 ϕ CSP South 8.492

B CB Dwg No. SP582-02.01
10.22m Lt. of Sta. 70+61.7
Grate Elev. 9.592
Inv. 200 ϕ CSP North 8.492

LIMIT OF GRADING
P.O.T. 70+75.000
MATCH TO EXISTING

NOTES:

- 1 DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
- 2 "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION.
3. ALL UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO WORK. THE MINISTRY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES.
4. UTILITY RELOCATIONS DONE BY OTHERS.

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-401

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-501

FOR SPOT ELEVATIONS
SEE DWG No. R1-491-701

LIMIT OF CONSTRUCTION
P.O.T. 71+57.000
MATCH TO EXISTING

CL TOTAL THIS SHEET
0.6901 ha

LIMIT OF CONSTRUCTION
P.O.T. 6+05.100

NDLA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

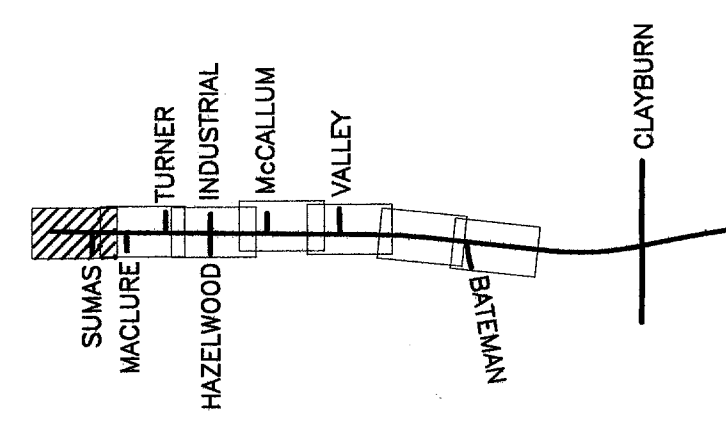
DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 6+05.100 TO STA. 10+80.000

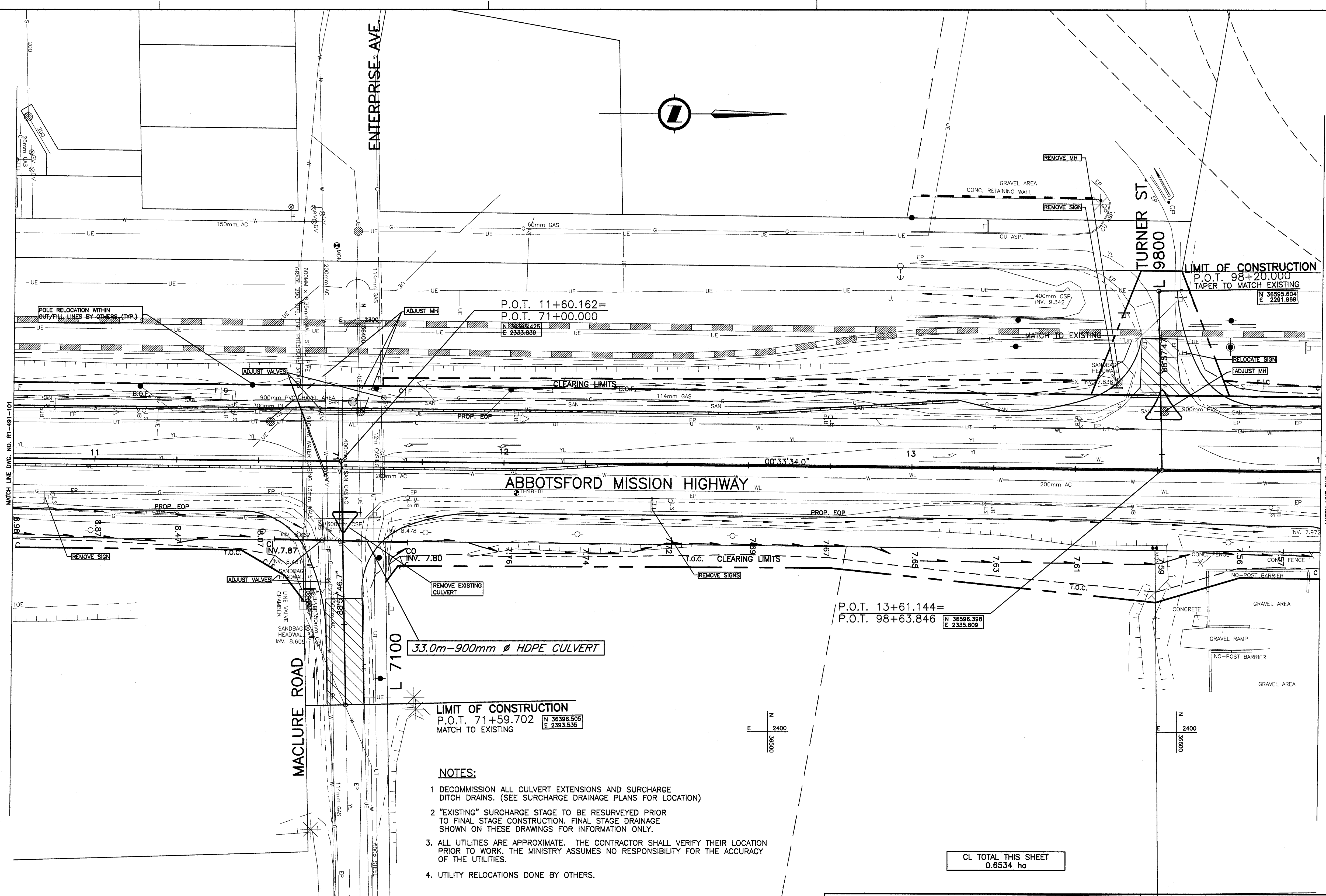
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CHECKED	MCS	DATE	JAN/06
DRAWN	DS	DATE	JAN/06
REVIEWED	SW	DATE	MAR/06
Rev	Date	Description	Signature

SENIOR DESIGNER	DATE	MAR. 10 2006
FILE No.	PROJECT No.	REG.
11313	11313-0001	1
DRAWING No.	R1-491-101	

REVISIONS

CANCEL PRINTS BEARING PREVIOUS LETTER





P.O.T. 11+60.162=
P.O.T. 71+00.000

ABBOTSFORD MISSION HIGHWAY

33.0m-900mm Ø HDPE CULVERT

LIMIT OF CONSTRUCTION
P.O.T. 71+59.702
MATCH TO EXISTING

NOTES:

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4. UTILITY RELOCATIONS DONE BY OTHERS.

CL TOTAL THIS SHEET
0.6534 ha

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-402

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-502

FOR SPOT ELEVATIONS
SEE DWG No. R1-491-701

NDLEA Consultants Ltd.
1485 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL (604) 685-9391

SCALE 0 1:500 25

DESIGNED	AT	DATE	JAN/06
CHECKED	MCS	DATE	JAN/06
DRAWN	DS	DATE	JAN/06
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

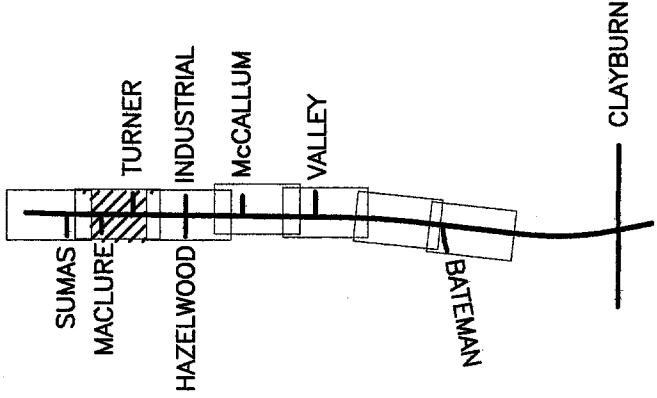
DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 10+80.000 TO STA. 14+00.000

SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

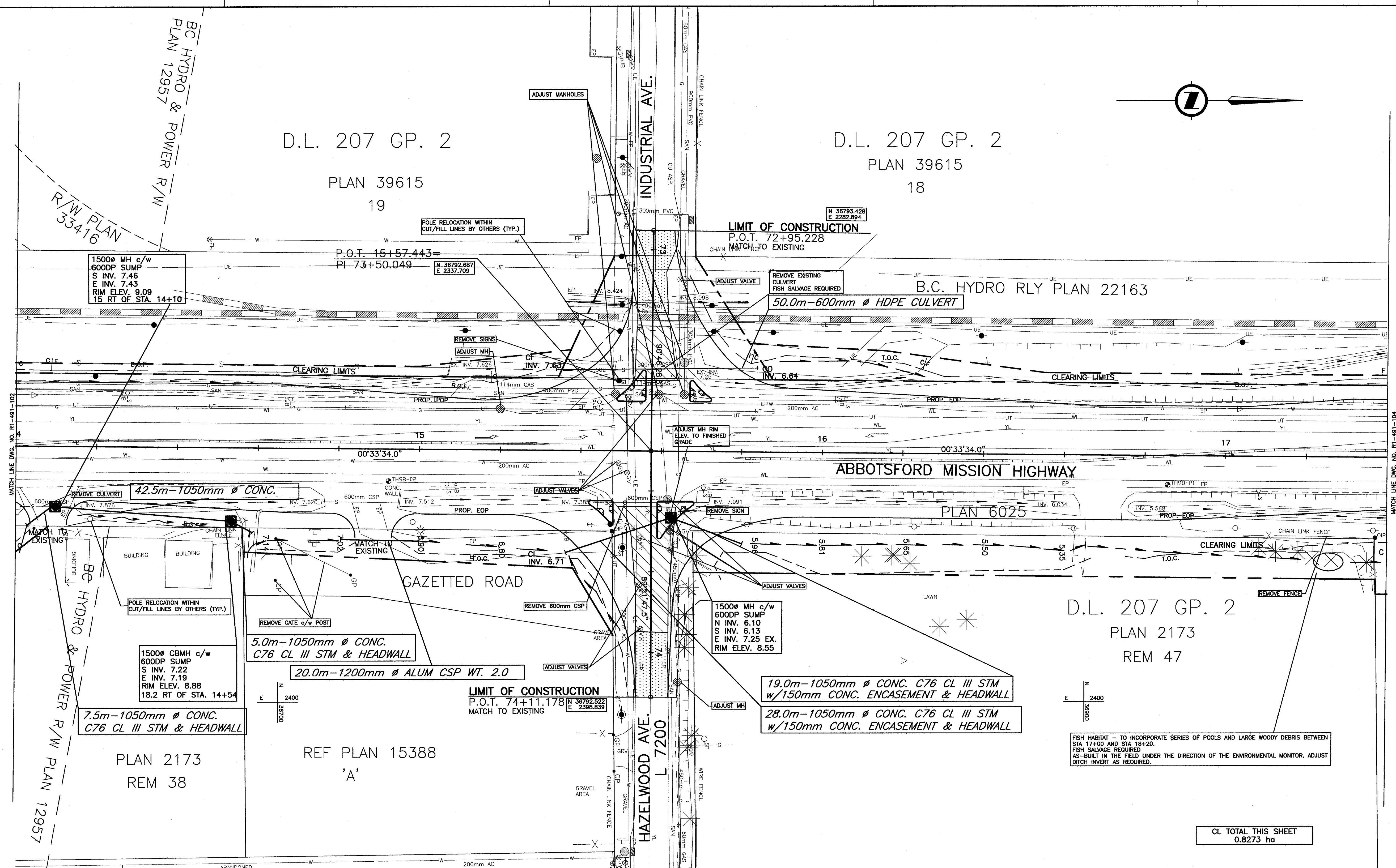
FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-102

CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1.437M102



UPDATE: MAR 10, 2006



NOTES:

- DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
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- UTILITY RELOCATIONS DONE BY OTHERS.

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-403

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-503

FOR SPOT ELEVATIONS
SEE DWG No. R1-491-702

CL TOTAL THIS SHEET
0.8273 ha

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE 0 1:500 25

DESIGNED	AT	DATE JAN/06
CHECKED	MCS	DATE JAN/06
DRAWN	DS	DATE JAN/06
REVIEWED	SW	DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

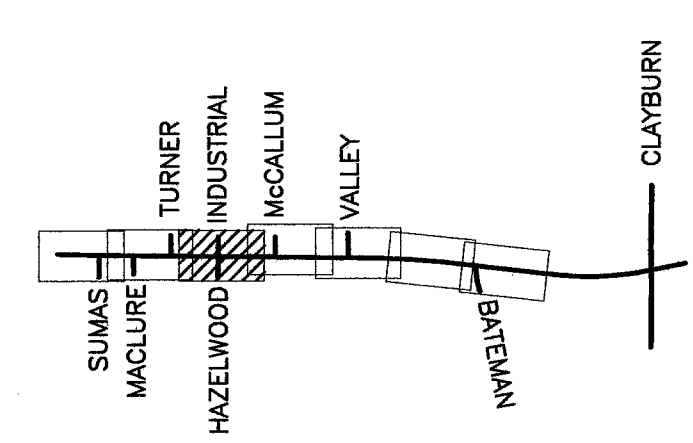
DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 14+00.00 TO STA. 17+40.00

SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

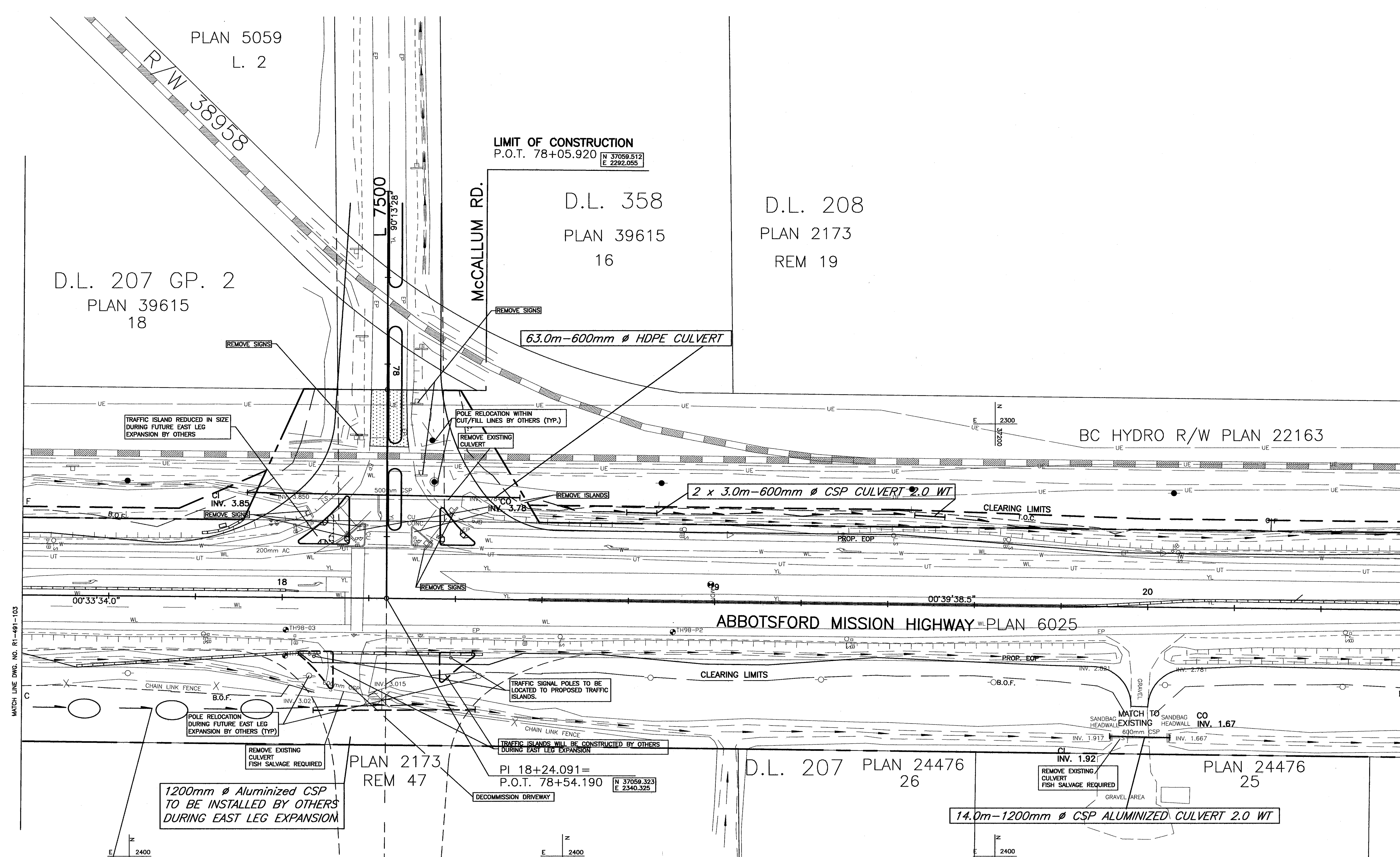
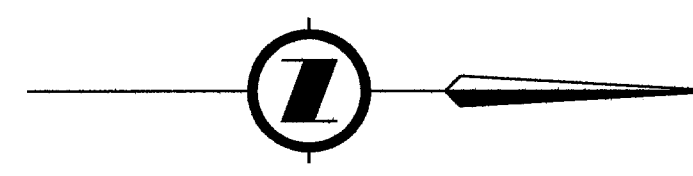
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11313	11313-0001	1	R1-491-103

UPDATE: MAR 10, 2006

CANCEL PRINTS BEARING PREVIOUS LETTER



FILE: 1437M103



MATCH LINE DWG. NO. R1-491-103

MATCH LINE DWG. NO. R1-491-105

FISH HABITAT - TO INCORPORATE SERIES OF POOLS AND LARGE WOODY DEBRIS BETWEEN STA 17+00 AND STA 18+20.
AS-BUILT IN THE FIELD UNDER THE DIRECTION OF THE ENVIRONMENTAL MONITOR, ADJUST DITCH INVERT AS REQUIRED.

NOTES:

1. DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
2. "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION. FINAL STAGE DRAINAGE SHOWN ON THESE DRAWINGS FOR INFORMATION ONLY.
3. ALL UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO WORK. THE MINISTRY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES.
4. UTILITY RELOCATIONS DONE BY OTHERS.

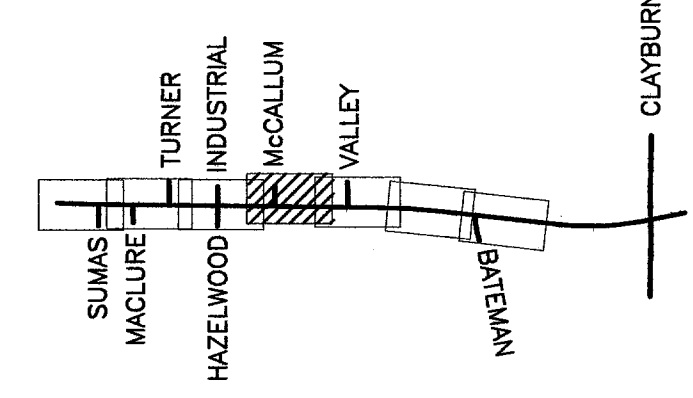
FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-404

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-504

FOR SPOT ELEVATIONS
SEE DWG No. R1-491-702

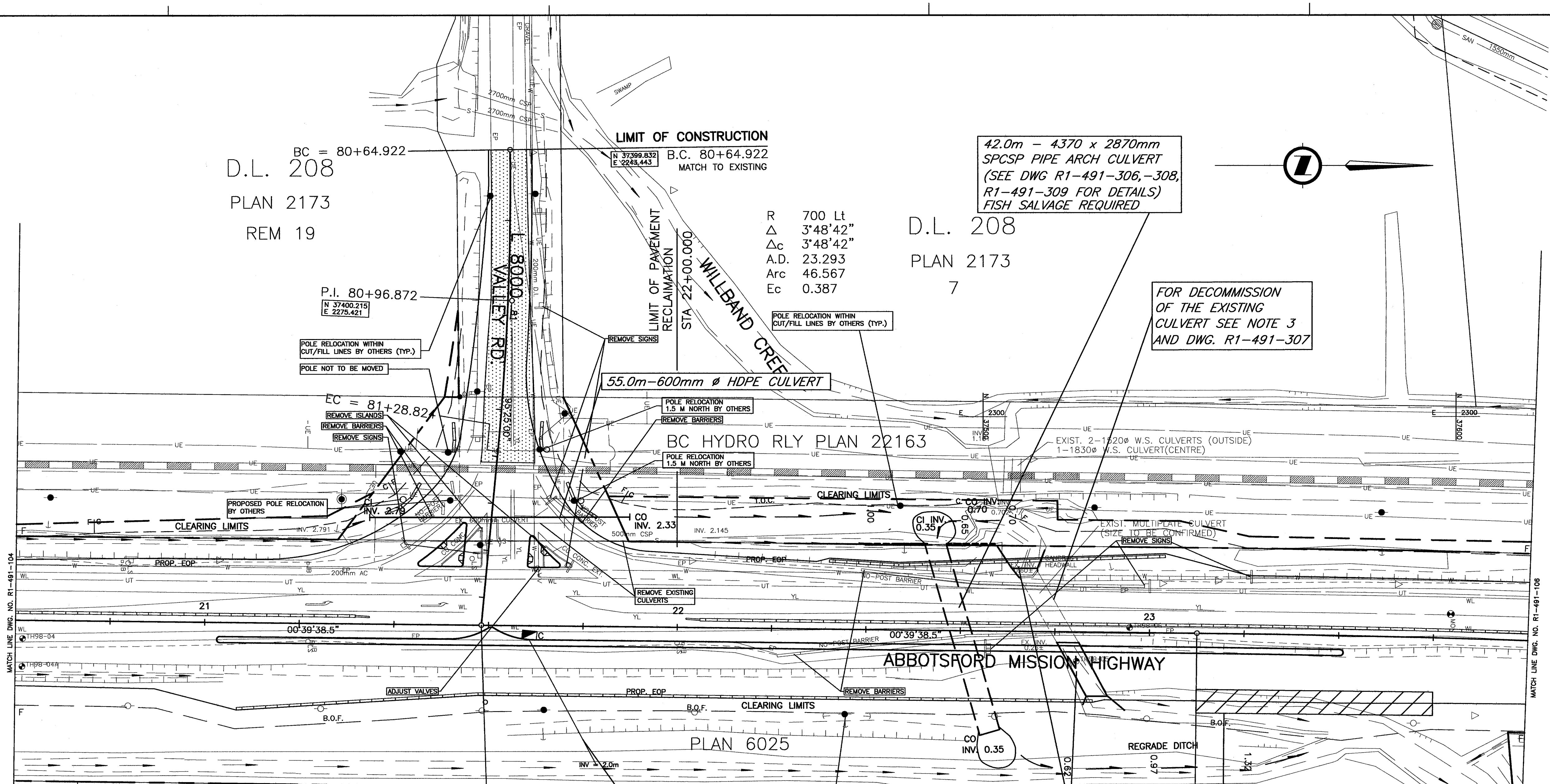
CL TOTAL THIS SHEET
0.5758 ha

FILE: 1437M104



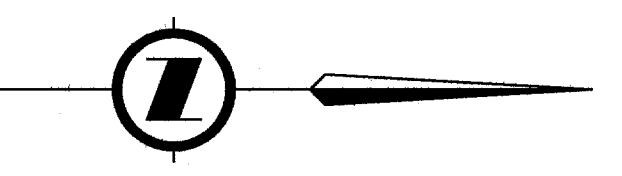
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381		 MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION	
SCALE 0 1:500 25		DESIGNED AT DATE JAN/06 CHECKED MCS DATE JAN/06 DRAWN DS DATE JAN/06 REVIEWED SW DATE MAR/06	
Rev Date Description Signature		DRAINAGE AND CONSTRUCTION DETAILS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD STA. 17+40.00 TO STA. 20+60.000	
SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006		FILE No. 11313 PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-104	
REVISIONS		CANCEL PRINTS BEARING PREVIOUS LETTER	

UPDATE: MAR, 10 2006



D.L. 208
 PLAN 2173
 REM 19

D.L. 208
 PLAN 2173
 7



FOR DECOMMISSION
 OF THE EXISTING
 CULVERT SEE NOTE 3
 AND DWG. R1-491-307

42.0m - 4370 x 2870mm
 SPCSP PIPE ARCH CULVERT
 (SEE DWG R1-491-306, -308,
 R1-491-309 FOR DETAILS)
 FISH SALVAGE REQUIRED

LIMIT OF CONSTRUCTION
 N 37399.832 E 2245.443 B.C. 80+64.922
 MATCH TO EXISTING

R 700 Lt
 Δ 3'48'42"
 Δc 3'48'42"
 A.D. 23.293
 Arc 46.567
 Ec 0.387

P.I. 80+96.872
 N 37400.215 E 2275.421

55.0m-600mm Ø HDPE CULVERT

BC HYDRO RLY PLAN 22163

ABBOTSFORD MISSION HIGHWAY

PLAN 6025

PLAN 2173
 REM 20

D.L. 208
 PLAN 2173
 REM 6

P.O.T. 21+58.486=
 P.O.T. 81+65.911
 N 37393.699 E 2344.181

27.0m-200mm Ø HDPE DR 25

INSTALL EXPANDED POLYSTYRENE
 FILL (EPS) AFTER SURCHARGE
 STAGE SEE DWG. R1-396-307

10m x 50m x 2m EPS FILL
 (1m COVER ON TOP & SIDES)

CL TOTAL THIS SHEET
 0.8553 ha

CITY OF
 ABBOTSFORD

NOTES:

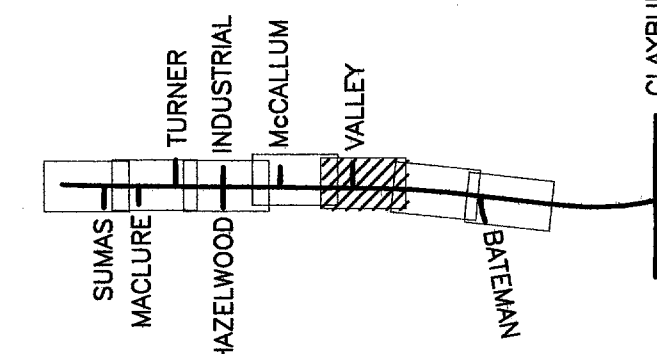
- 1 DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
- 2 "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION. FINAL STAGE DRAINAGE SHOWN ON THESE DRAWINGS FOR INFORMATION ONLY.
- 3 EXISTING CULVERT TO BE DECOMMISSIONED AFTER INSTALLATION OF THE NEW SPCSP PIPE ARCH CULVERT AS FOLLOWS:
 - (a) FORM SUFFICIENTLY WATERTIGHT BULKHEADS AT THE INLET AND OUTLET ENDS TO FACILITATE DEWATERING OF THE CULVERT.
 - (b) EXPOSE LOCALLY TOP OF THE CULVERT IN TWO AREAS AS DIRECTED BY THE MINISTRY REP. AND CUT TWO 150mm DIA. HOLES IN CROWN OF THE EXISTING CULVERT.
 - (c) DEWATER CULVERT TO THE SILT DEPOSIT ELEVATION.
 - (d) FILL THE CAVITY ABOVE SILT LEVEL WITH AN APPROVED CELLULAR CONCRETE COMPLYING TO THE FOLLOWING SPECIFICATIONS; UNIT WEIGHT 30 - 45 PCF, MINIMUM COMPRESSIVE STRENGTH 100 PSI @ 24 hrs. AND 300 PSI @ 28 DAYS.
 - (e) REMOVE BULKHEADS AND COVER THE FILL HOLES AT THE CROWN AFTER THE STRENGTH OF THE CELLULAR CONCRETE HAS REACHED 150 PSI.
4. ALL UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO WORK. THE MINISTRY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES.
5. UTILITY RELOCATIONS DONE BY OTHERS.

FOR LANING AND GEOMETRICS
 SEE DWG No. R1-491-405

FOR SIGNING AND PAVEMENT MARKINGS
 SEE DWG No. R1-491-505

FOR SPOT ELEVATIONS
 SEE DWG No. R1-491-703

C CB Dwg No. SP582-02
 2.95m Rt. of Sta. 21+69
 Grate Elev. 4.920
 Inv. 200 Ø CSP South 3.42



NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6C 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

SCALE	0 1:500 25	DESIGNED	AT	DATE	JAN/06
		CHECKED	MCS	DATE	JAN/06
		DRAWN	DS	DATE	JAN/06
		REVIEWED	SW	DATE	MAR/06
Rev	Date	Description	Signature		

DRAINAGE AND CONSTRUCTION DETAILS
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 20+60.00 TO STA. 23+80.000

SENIOR DESIGNER: *[Signature]* DATE: MARCH 31, 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-105



PLAN 5059
2

CANADIAN PACIFIC RAILWAY R/W PL 777

41.5m-1000mm Ø CSP ALUMINIZED CULVERT 2.0 WT

6m-600mm Ø CSP TEMP. EXTENSION

BC HYDRO RLY PLAN 22163

CLEARING LIMITS

MATCH TO EXISTING GROUND

REMOVE EXISTING CULVERT

MATCH LINE DWG. NO. R1-491-105

MATCH LINE DWG. NO. R1-491-807

WILBAND CREEK

R 3000 Rt
Δ 5'44"52"
Δc 5'44"52"
A.D. 150.6
Arc 300.947
Ec 3.778

D.L. 208 GP. 2
PLAN 5059
L1

PLAN 6025

16m-850mm Ø CSP TEMP. EXTENSION

100mm RPVC PRE DUCT CONDUIT (TELUS)

DETENTION POND

CL TOTAL THIS SHEET
0.8787 ha

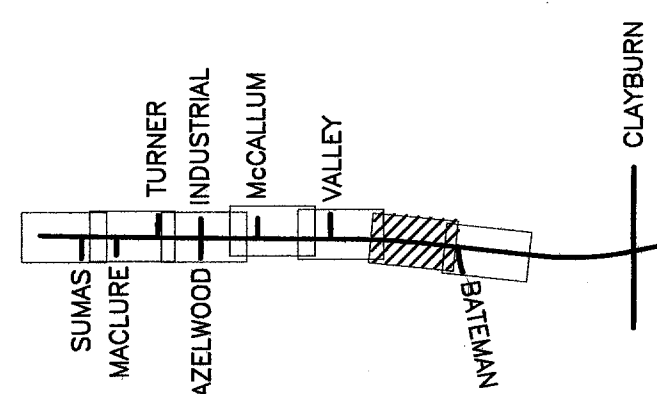
NOTES:

- 1 DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
- 2 "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION. FINAL STAGE DRAINAGE SHOWN ON THESE DRAWINGS FOR INFORMATION ONLY.
- 3 ALL UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THEIR LOCATION PRIOR TO WORK. THE MINISTRY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES.
4. UTILITY RELOCATIONS DONE BY OTHERS.

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-406

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-506

FILE: 1437M106



NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SCALE	0	1:500	25	DESIGNED	AT	DATE	JAN/06
				CHECKED	MCS	DATE	JAN/06
				DRAWN	DS	DATE	JAN/06
				REVIEWED	SW	DATE	MAR/06

DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 23+80.00 TO STA. 27+20.000

Rev	Date	Description	Signature

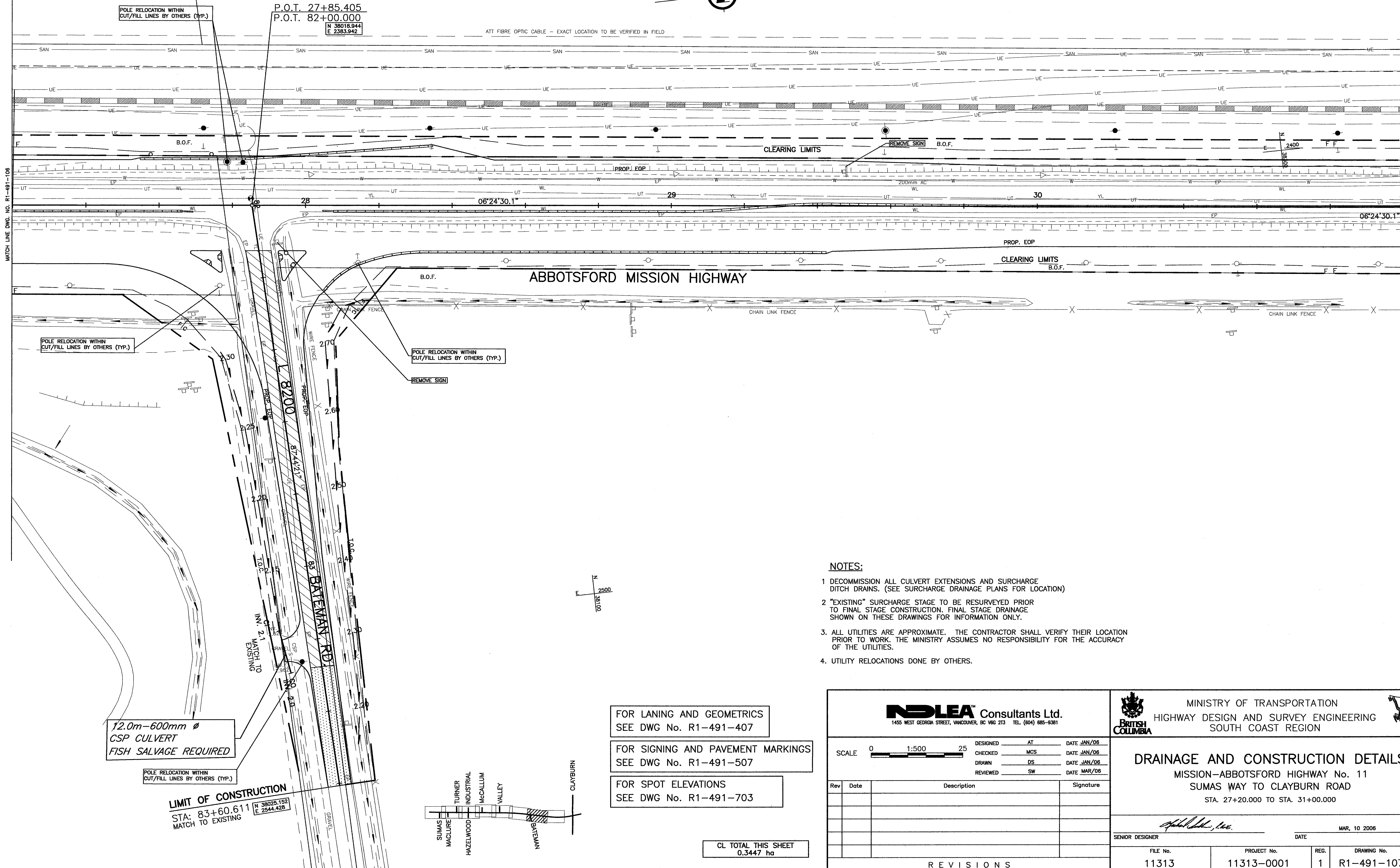
SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

REVISIONS

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-106

CANCEL PRINTS BEARING PREVIOUS LETTER

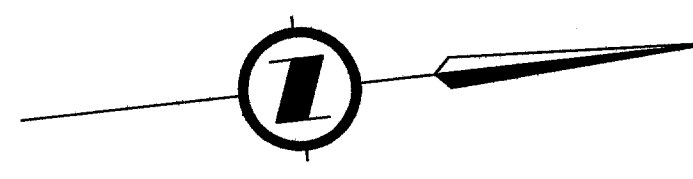
UPDATE: MAR 10, 2006



POLE RELOCATION WITHIN CUT/FILL LINES BY OTHERS (TYP.)

P.O.T. 27+85.405
P.O.T. 82+00.000
N 38018.944
E 2383.942

ATT FIBRE OPTIC CABLE - EXACT LOCATION TO BE VERIFIED IN FIELD



MATCH LINE DWG. NO. R1-491-108

MATCH LINE DWG. NO. R1-491-08

POLE RELOCATION WITHIN CUT/FILL LINES BY OTHERS (TYP.)

POLE RELOCATION WITHIN CUT/FILL LINES BY OTHERS (TYP.)

12.0m-600mm ϕ
CSP CULVERT
FISH SALVAGE REQUIRED

POLE RELOCATION WITHIN CUT/FILL LINES BY OTHERS (TYP.)

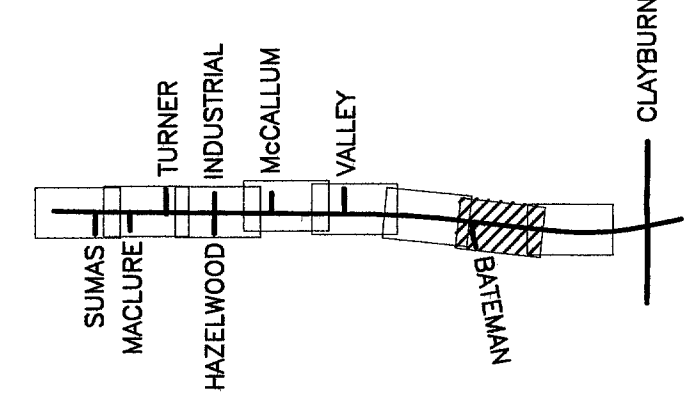
LIMIT OF CONSTRUCTION
STA: 83+60.611
MATCH TO EXISTING
N 38025.152
E 2544.428

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-407

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-507

FOR SPOT ELEVATIONS
SEE DWG No. R1-491-703

CL TOTAL THIS SHEET
0.3447 ha



NOTES:

1. DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
2. "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION. FINAL STAGE DRAINAGE SHOWN ON THESE DRAWINGS FOR INFORMATION ONLY.
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4. UTILITY RELOCATIONS DONE BY OTHERS.

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE 0 1:500 25

DESIGNED	AT	DATE	JAN/06
CHECKED	MCS	DATE	JAN/06
DRAWN	DS	DATE	JAN/06
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 27+20.000 TO STA. 31+00.000

SENIOR DESIGNER

DATE: MAR. 10 2006

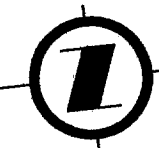
FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-107

CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437M107

UPDATE: MAR 10, 2006

PLAN 4298
1



CANADIAN PACIFIC RAILWAY R/W PL 777

CANADIAN PACIFIC RAILWAY R/W
SOUTHERN RAILWAY OF B.C. R/W
RIVERSIDE STREET PARCEL
RIVERSIDE RIVERSIDE

6.0m-800mm Ø CSP TEMP. EXTENSION

PLAN 22163

SOUTHERN RAILWAY OF B.C. R/W

PLAN 6586

33.5m-900mm Ø HDPE CULVERT

PLAN 6566

8.0m-1200mm Ø CSP TEMP. EXTENSION

D.L. 202
PLAN 4298
REM 5

358
RESERVE

R 1370 Lt
17°31'16"
Δc 15°25'48"
A.D. 236.133
Arc 368.947
Es 16.249

LIMIT OF OVERLAY
STA. 33+54.741

LIMIT OF PAVEMENT RECLAIMATION
STA 32+25.000

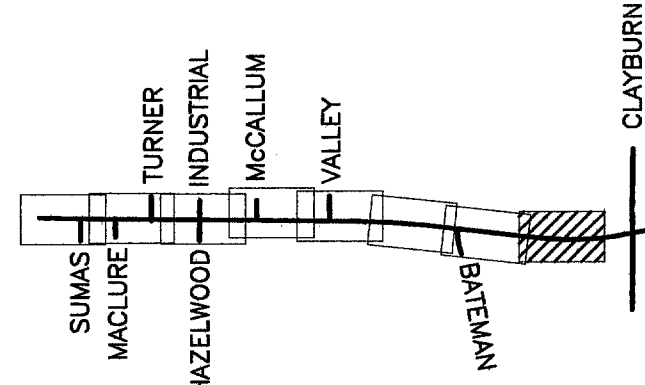
PL 33+59.151
13655.000
E L 2447.802

NOTES:

1. DECOMMISSION ALL CULVERT EXTENSIONS AND SURCHARGE DITCH DRAINS. (SEE SURCHARGE DRAINAGE PLANS FOR LOCATION)
2. "EXISTING" SURCHARGE STAGE TO BE RESURVEYED PRIOR TO FINAL STAGE CONSTRUCTION. FINAL STAGE DRAINAGE SHOWN ON THESE DRAWINGS FOR INFORMATION ONLY.
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4. UTILITY RELOCATIONS DONE BY OTHERS.

FOR LANING AND GEOMETRICS
SEE DWG No. R1-491-408

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-509



CL TOTAL THIS SHEET
1.136 ha

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE 0 1:500 25

DESIGNED	AT	DATE	JAN/06
CHECKED	MCS	DATE	JAN/06
DRAWN	DS	DATE	JAN/06
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

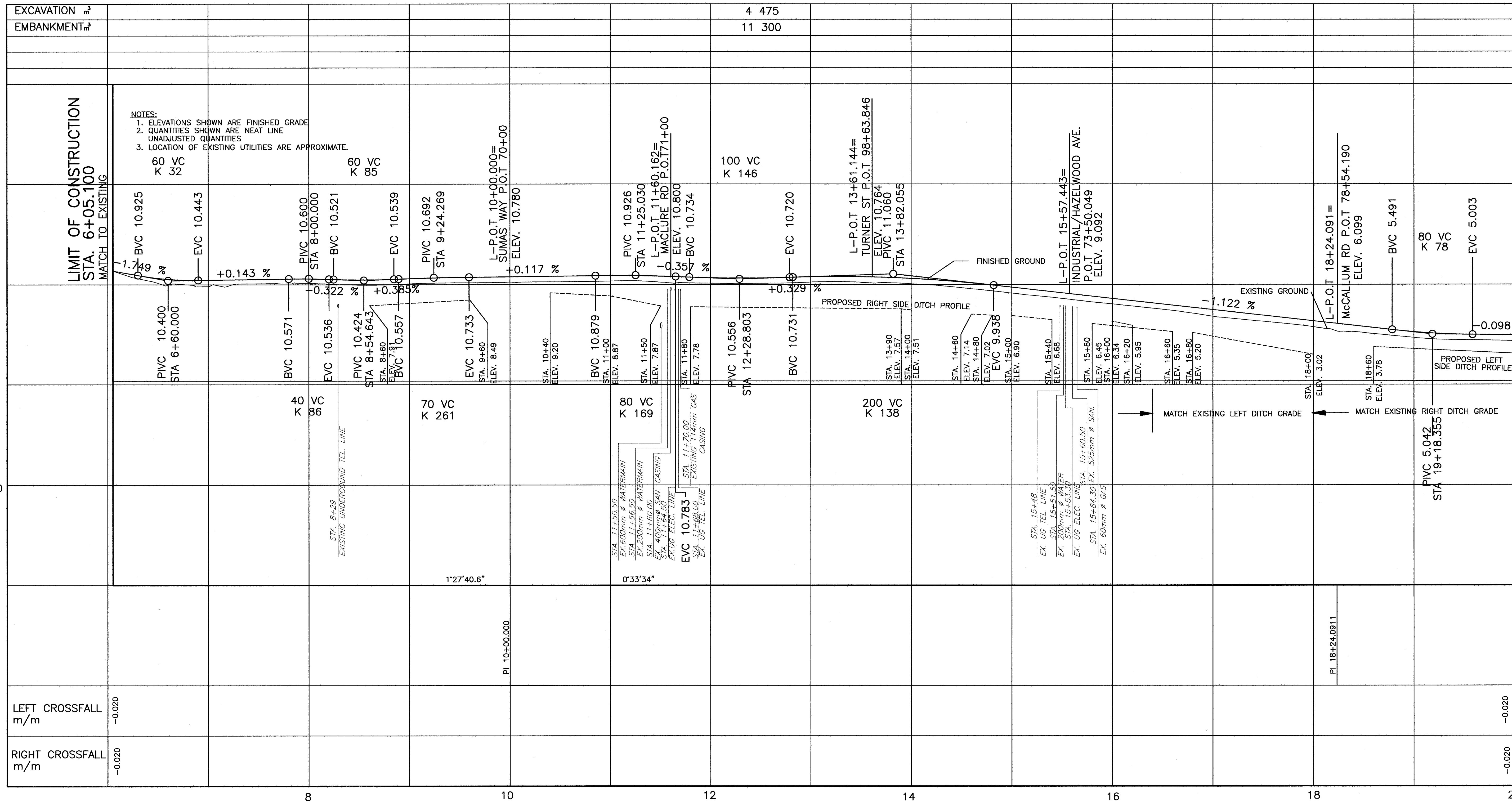
REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

DRAINAGE AND CONSTRUCTION DETAILS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 31+00.000 TO STA. 33+54.741

SENIOR DESIGNER: *[Signature]* DATE: MAR, 31 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-108



FILE: 1437M201

NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

SCALE
 0 100
 HORZ. 1:2000
 0 10
 VER. 1:200

DESIGNED AT/DL DATE JAN/06
 CHECKED MCS DATE JAN/06
 DRAWN DS DATE JAN/06
 REVIEWED SW DATE MAR/06

PROFILE
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 6+05.100 TO STA. 20+00.000

Rev	Date	Description	Signature

SENIOR DESIGNER: *[Signature]* DATE: MAR. 31 2006

REVISIONS

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-201

CANCEL PRINTS BEARING PREVIOUS LETTER

UPDATE: MAR 31, 2006

L7000-LINE PROFILE (SUMAS WAY)				L7100-LINE PROFILE (MACLURE ROAD)				L9800-LINE PROFILE (TURNER ST.)			
STATION	FINISHED GRADE	EXISTING GROUND	CROSSFALL	STATION	FINISHED GRADE	EXISTING GROUND	CROSSFALL	STATION	FINISHED GRADE	EXISTING GROUND	CROSSFALL
70+00	-2.000%		0.001	71+00	-2.00%		0.004	98+00	-2.226%		MATCH
70+25			-0.005	71+25	-4.0%		-0.020	98+25	0.192%		MATCH
70+50			-0.020	71+50	-4.29%		-0.020	98+50	4.25%		-0.004
70+75			-0.020	71+75			-0.020	98+75			-0.001
70+80			MATCH	71+80			MATCH	98+80			MATCH
70+85			MATCH	71+85			MATCH	98+85			MATCH
70+90			MATCH	71+90			MATCH	98+90			MATCH
70+95			MATCH	71+95			MATCH	98+95			MATCH
71+00			MATCH	71+00			MATCH	98+100			MATCH
71+05			MATCH	71+05			MATCH	98+105			MATCH
71+10			MATCH	71+10			MATCH	98+110			MATCH
71+15			MATCH	71+15			MATCH	98+115			MATCH
71+20			MATCH	71+20			MATCH	98+120			MATCH
71+25			MATCH	71+25			MATCH	98+125			MATCH
71+30			MATCH	71+30			MATCH	98+130			MATCH
71+35			MATCH	71+35			MATCH	98+135			MATCH
71+40			MATCH	71+40			MATCH	98+140			MATCH
71+45			MATCH	71+45			MATCH	98+145			MATCH
71+50			MATCH	71+50			MATCH	98+150			MATCH
71+55			MATCH	71+55			MATCH	98+155			MATCH
71+60			MATCH	71+60			MATCH	98+160			MATCH
71+65			MATCH	71+65			MATCH	98+165			MATCH
71+70			MATCH	71+70			MATCH	98+170			MATCH
71+75			MATCH	71+75			MATCH	98+175			MATCH
71+80			MATCH	71+80			MATCH	98+180			MATCH
71+85			MATCH	71+85			MATCH	98+185			MATCH
71+90			MATCH	71+90			MATCH	98+190			MATCH
71+95			MATCH	71+95			MATCH	98+195			MATCH
72+00			MATCH	72+00			MATCH	98+200			MATCH

NOTES:
 1. ELEVATIONS SHOWN ARE FINISHED GRADE
 2. QUANTITIES SHOWN ARE NEAT LINE UNADJUSTED QUANTITIES
 3. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE.

DESIGN SPEED 50 km/h

L7000-LINE PROFILE (SUMAS WAY)

L7100-LINE PROFILE (MACLURE ROAD)

L9800-LINE PROFILE (TURNER ST.)

NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE: 0 20
 HORZ. 1:500
 VER. 1:50

DESIGNED: AT DATE JAN/08
 CHECKED: MCS DATE JAN/08
 DRAWN: SM DATE JAN/08
 REVIEWED: SW DATE MAR/08

Rev	Date	Description	Signature

REVISIONS

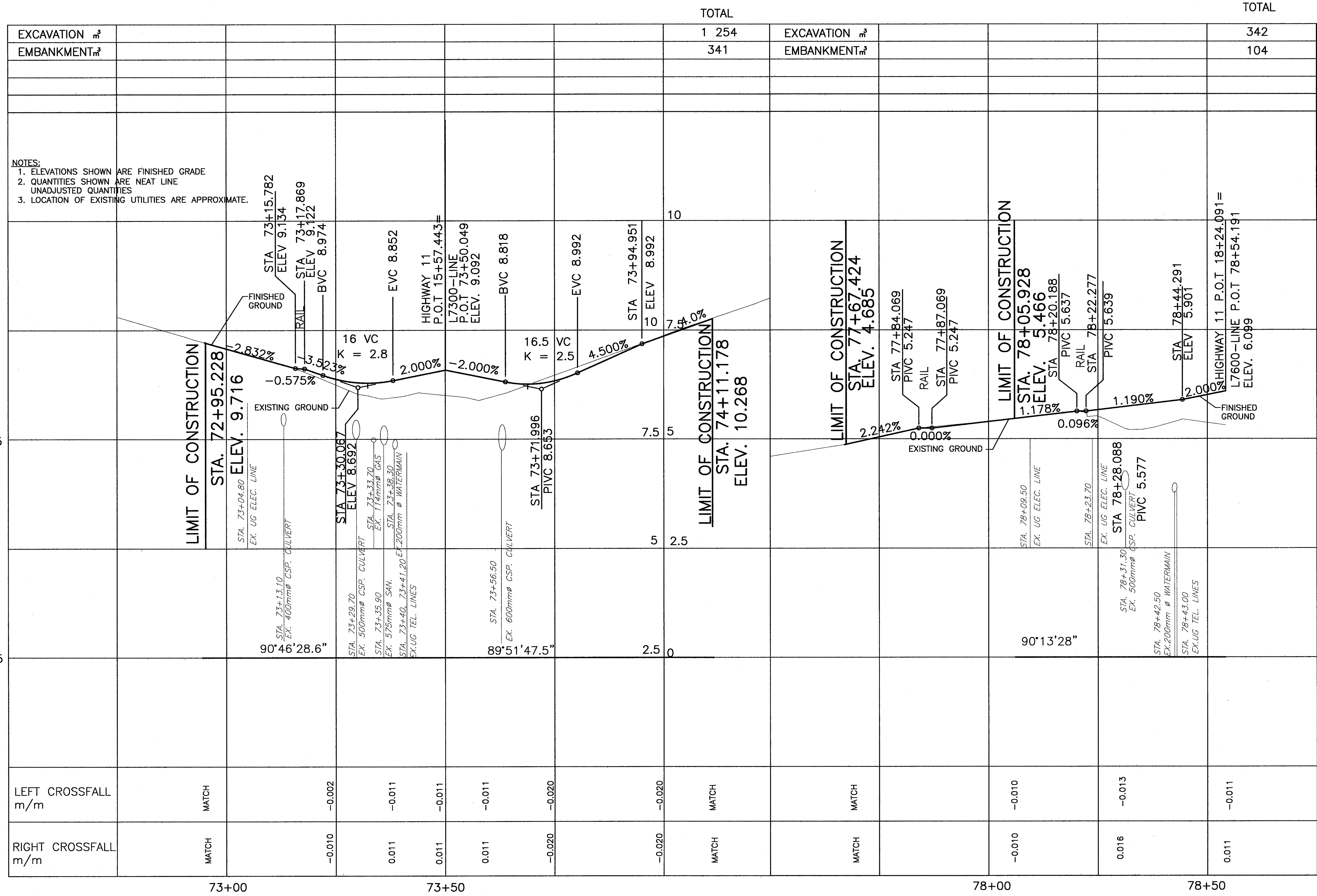
MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

PROFILE
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 SUMAS WAY, MACLURE AND TURNER ST.

SENIOR DESIGNER: *[Signature]* DATE: MAR 31 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-203

CANCEL PRINTS BEARING PREVIOUS LETTER



		TOTAL				TOTAL	
EXCAVATION m ³					1 254	EXCAVATION m ³	342
EMBANKMENT m ³					341	EMBANKMENT m ³	104

STATION	LEFT CROSSFALL m/m	RIGHT CROSSFALL m/m
73+00	MATCH	MATCH
73+05	-0.002	-0.010
73+10	-0.011	0.011
73+15	-0.011	0.011
73+20	-0.020	-0.020
73+25	-0.020	-0.020
73+30	MATCH	MATCH
78+00	MATCH	MATCH
78+05	-0.010	-0.010
78+10	-0.013	0.016
78+15	-0.011	0.011

NOTES:
 1. ELEVATIONS SHOWN ARE FINISHED GRADE
 2. QUANTITIES SHOWN ARE NEAT LINE UNADJUSTED QUANTITIES
 3. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE.

L7200-LINE PROFILE (INDUSTRIAL AVE./HAZELWOOD AVE.)

L7600-LINE PROFILE (McCALLUM ROAD)

DESIGN SPEED 50 km/h

1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 686-9381

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

PROFILE
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 INDUSTRIAL AVE./HAZELWOOD AVE. AND McCALLUM ROAD

SCALE: 0 20
 HORZ. 1:500 20
 VER. 1:50 2

DESIGNED: AT DATE JAN/06
 CHECKED: MCS DATE JAN/06
 DRAWN: SM DATE JAN/06
 REVIEWED: SW DATE MAR/06

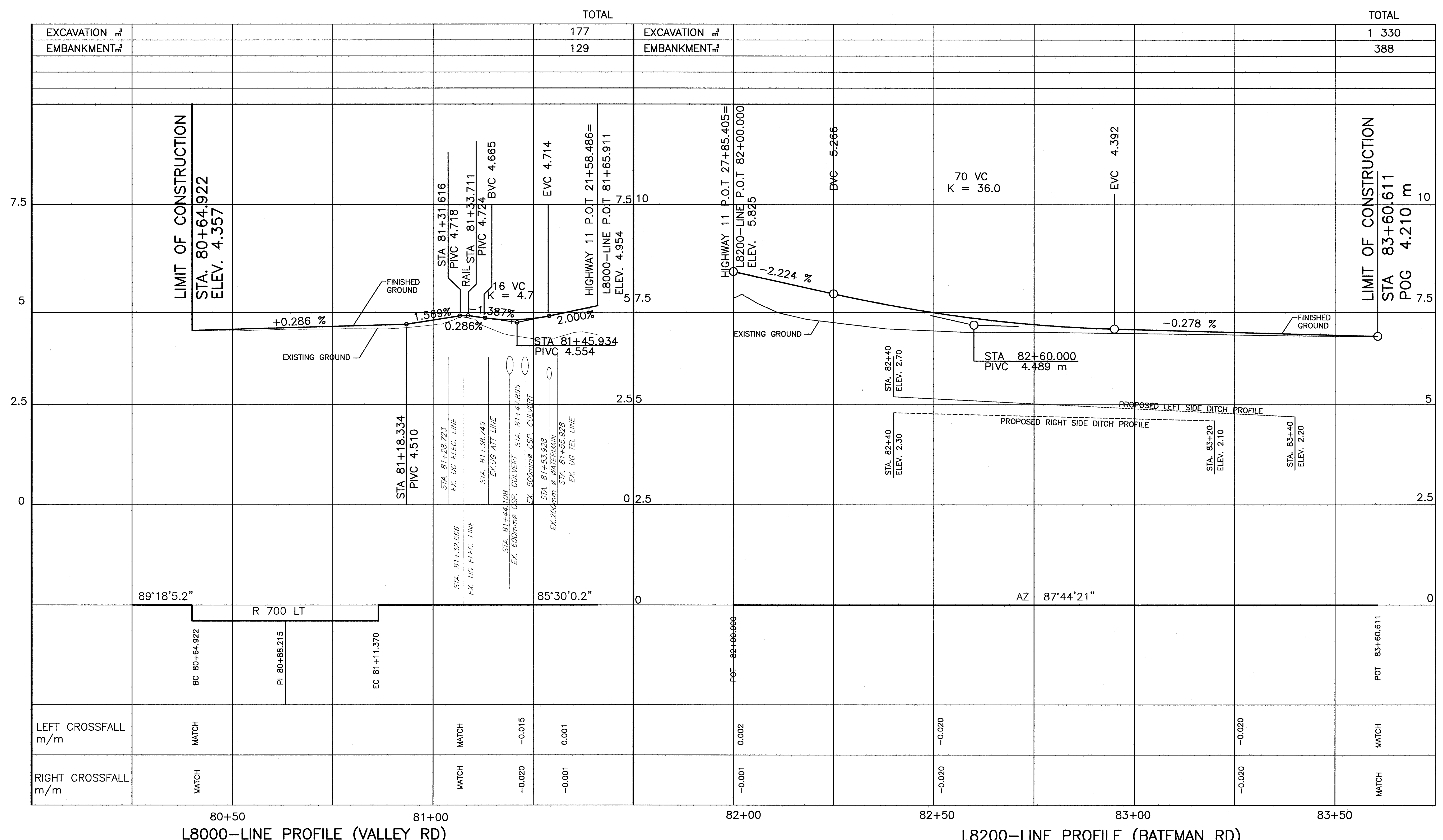
SENIOR DESIGNER: *[Signature]* DATE: MAR 31 2006

Rev	Date	Description	Signature

REVISIONS

FILE No. 11313 PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-204

UPDATE : MAR 31, 2006
 CANCEL PRINTS BEARING PREVIOUS LETTER



L8000-LINE PROFILE (VALLEY RD)					L8200-LINE PROFILE (BATEMAN RD)				
EXCAVATION m³				177	EXCAVATION m³				1 330
EMBANKMENT m³				129	EMBANKMENT m³				388
LEFT CROSSFALL m/m	MATCH			MATCH	-0.015	0.001	0.002	-0.020	MATCH
RIGHT CROSSFALL m/m	MATCH			MATCH	-0.020	-0.001	-0.001	-0.020	MATCH

DESIGN SPEED 50 km/h

- NOTES:
- ELEVATIONS SHOWN ARE FINISHED GRADE
 - QUANTITIES SHOWN ARE NEAT LINE
 - LOCATION OF EXISTING UTILITIES ARE APPROXIMATE.

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

PROFILE
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
VALLEY RD AND BATEMAN RD

SCALE: 0 20
HORIZ. 1:500
VER. 1:50

DESIGNED: AT DATE: JAN/06
CHECKED: MCS/SW DATE: JAN/06
DRAWN: DS DATE: JAN/06
REVIEWED: SW DATE: MAR/06

SENIOR DESIGNER: *[Signature]* DATE: MAR. 31 2006

Rev	Date	Description	Signature

REVISIONS

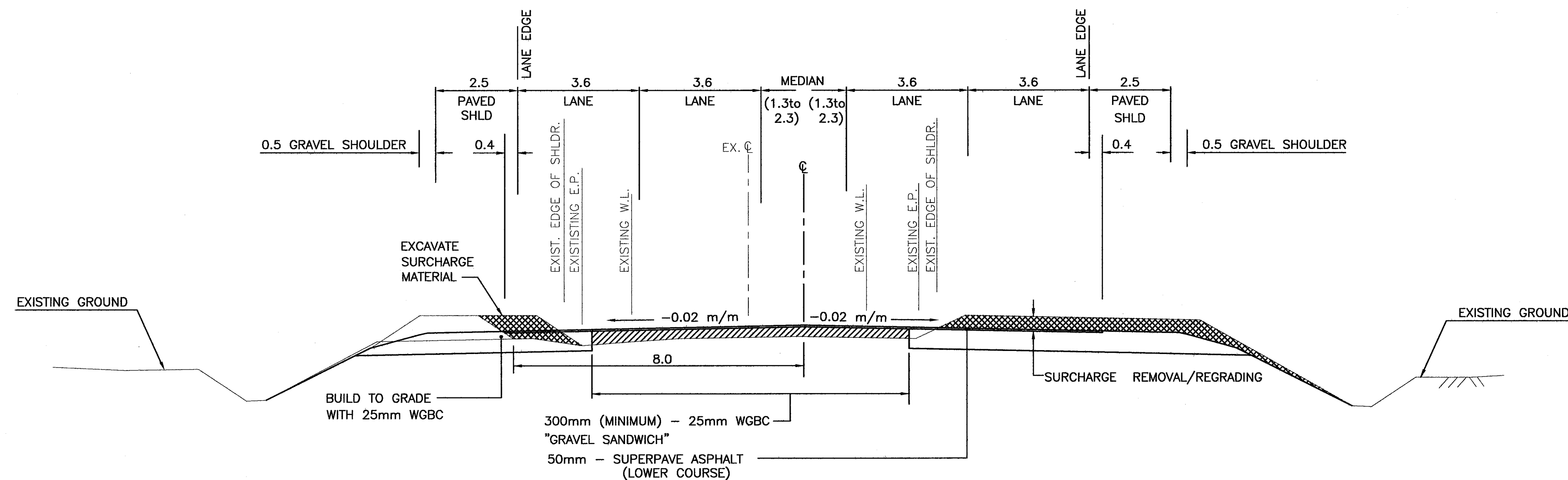
FILE No. 11313

PROJECT No. 11313-0001
REG. 1
DRAWING No. R1-491-205

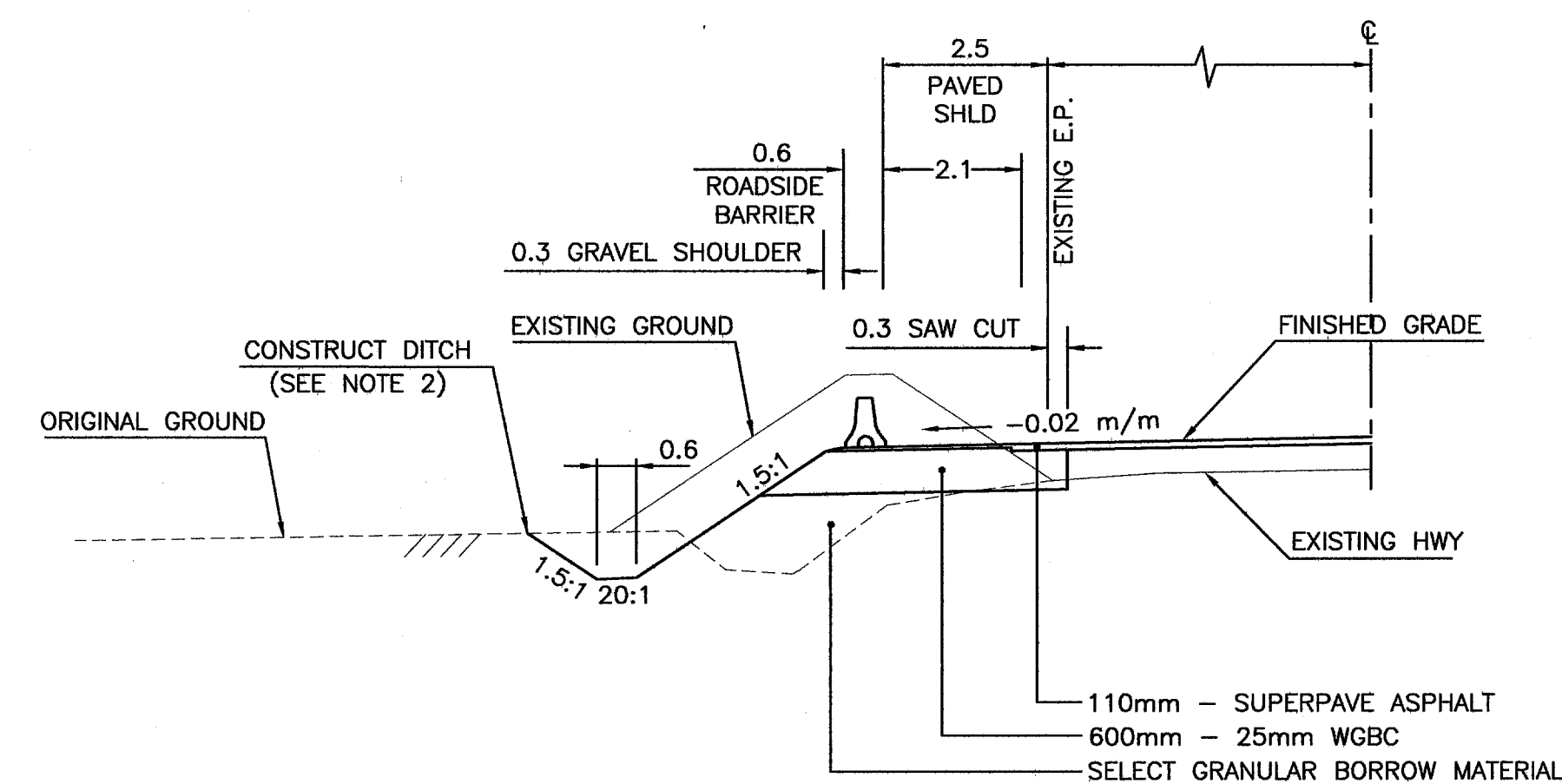
CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437M205

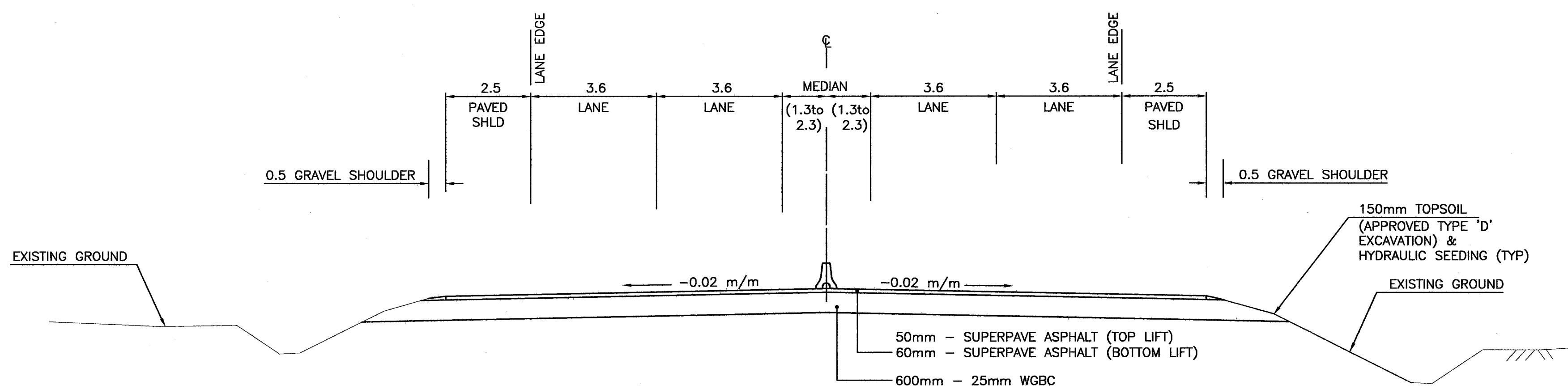
UPDATE: MAR 31, 2006



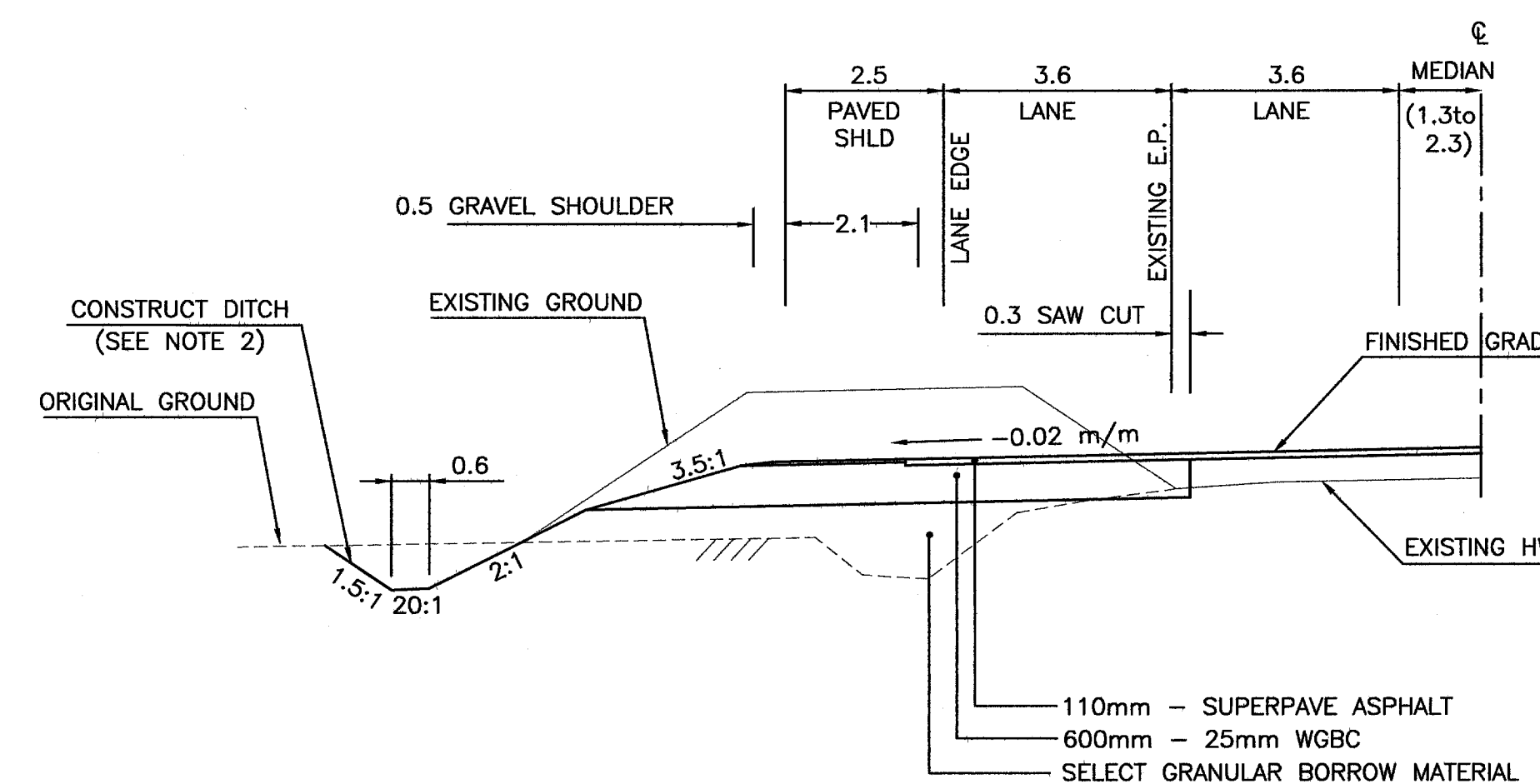
**SUGGESTED INTERMEDIATE STAGE
TYPICAL SECTION - HIGHWAY 11**
STA 28+00 - 32+00



**WIDENING SECTION - NO SURCHARGE - WITH BARRIER
TYPICAL SECTION - HIGHWAY 11**



**FINAL STAGE
TYPICAL SECTION - HIGHWAY 11**
STA 6+05 - 22+00

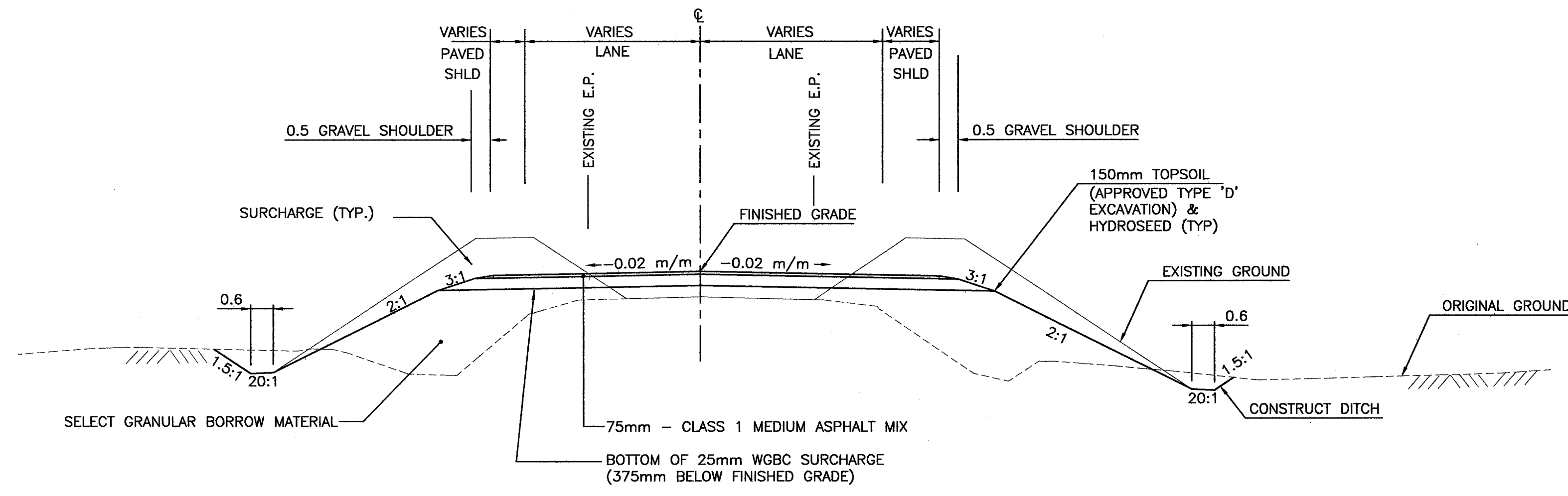


**WIDENING SECTION
TYPICAL SECTION - HIGHWAY 11**

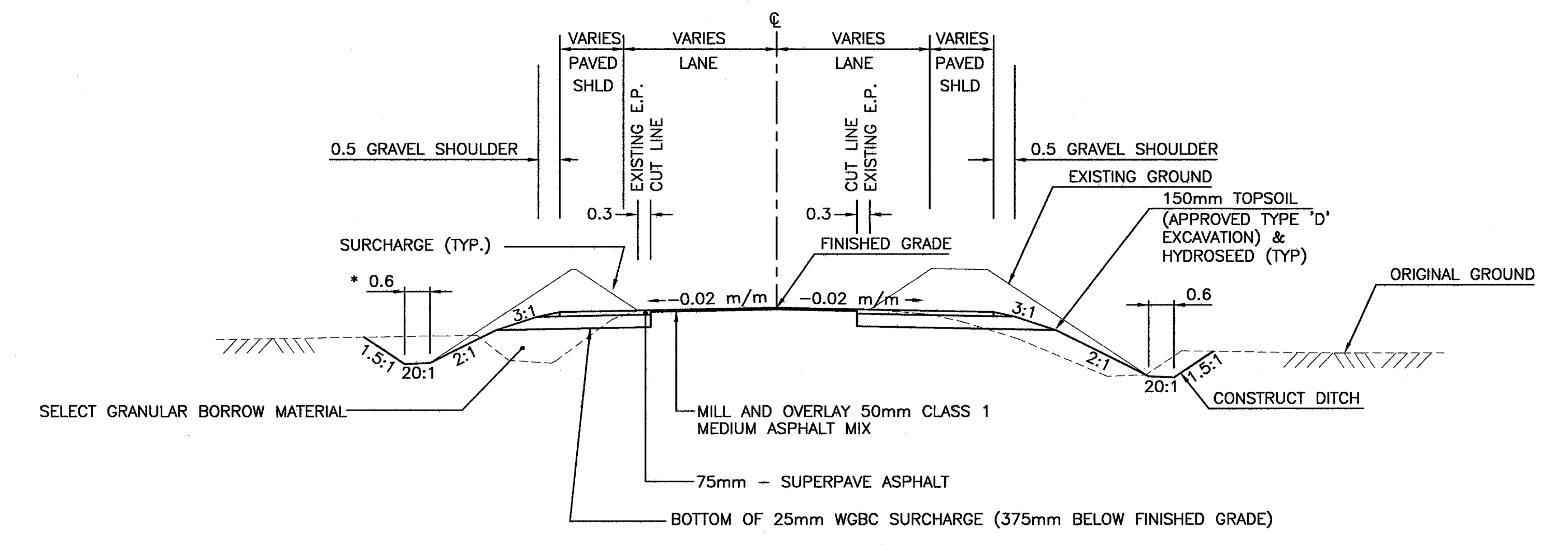
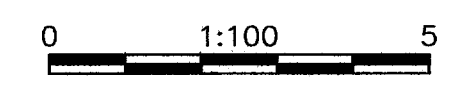
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL: (604) 685-9381		MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION	
SCALE 0 1:100 5		TYPICAL SECTIONS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD	
DESIGNED	AT	DATE	JAN/06
CHECKED	MCS	DATE	JAN/06
DRAWN	DS/WL	DATE	JAN/06
REVIEWED	SW	DATE	MAR/06
Rev	Date	Description	Signature
SENIOR DESIGNER		DATE MAR, 31 2006	
FILE No.	11313	PROJECT No.	11313-0001
REG.	1	DRAWING No.	R1-491-301
REVISIONS			
CANCEL PRINTS BEARING PREVIOUS LETTER			

FILE: 1437M301

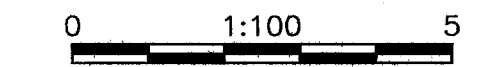
UPDATE: MAR 31, 2006



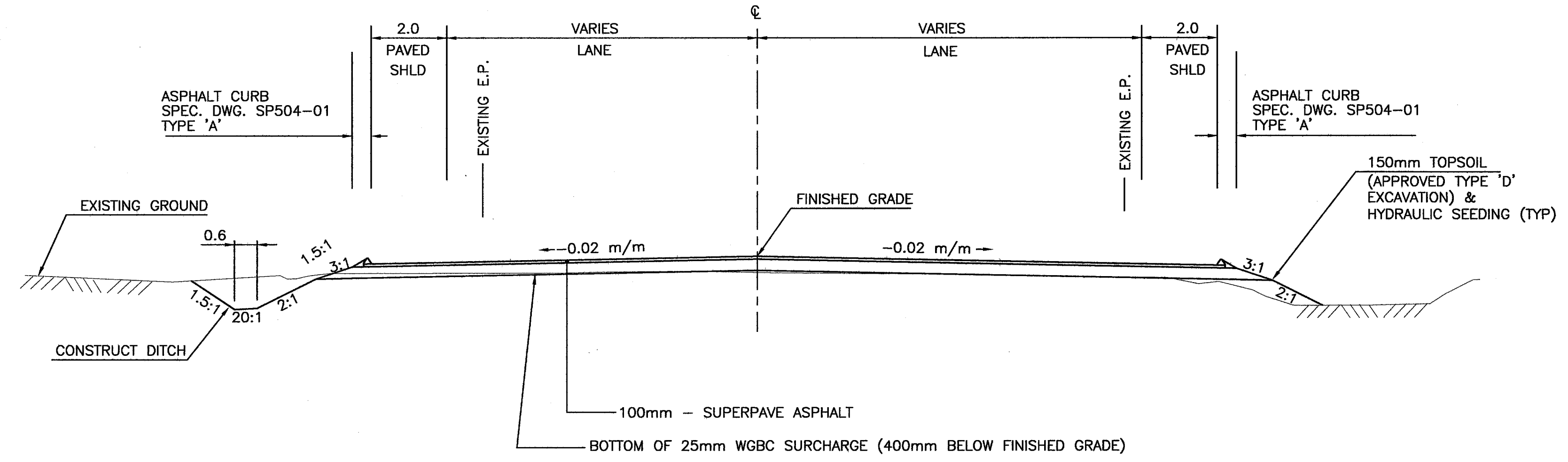
**TYPICAL OPEN SHOULDER SECTION
MINOR ROADS**



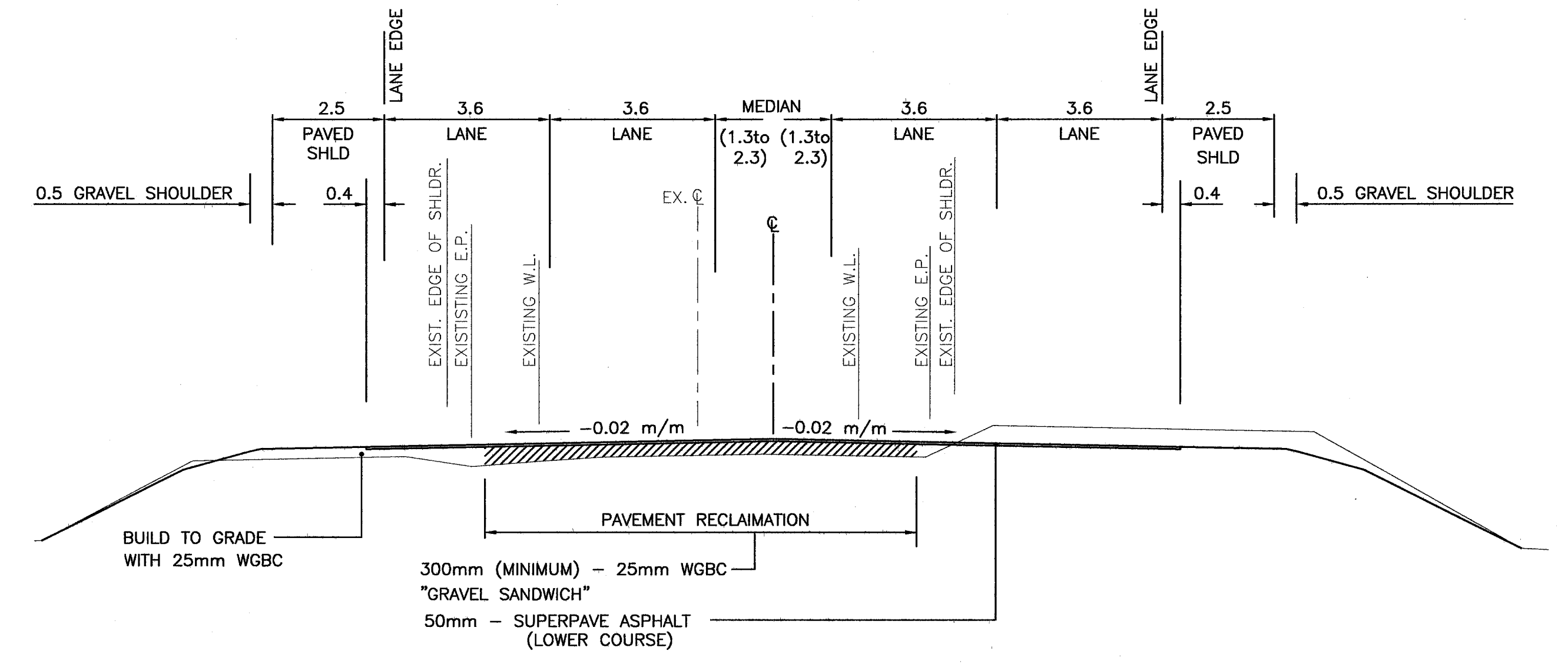
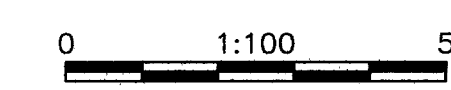
**TYPICAL OPEN SHOULDER SECTION
WITH PAVEMENT OVERLAY
MINOR ROADS**



* DITCH WIDTH FOR BATEMAN - 1.0m (TYP.)
LEFT SIDE ONLY
STA. 82+40 2.5m
STA. 82+60 2.5m
STA. 82+80 2.0m
STA. 83+00 1.5m



**TYPICAL ASPHALT CURB SECTION
SUMAS WAY**



**PAVEMENT RECLAMATION SECTION
STA 22+00 - 32+25**

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-8381

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SCALE 0 1:100 5

DESIGNED	DL	DATE JAN/06
CHECKED	MCS	DATE JAN/06
DRAWN	DS/WL	DATE JAN/06
REVIEWED	SW	DATE MAR/06

TYPICAL SECTIONS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD

Rev	Date	Description	Signature

SENIOR DESIGNER *[Signature]* DATE MAR, 31 2006

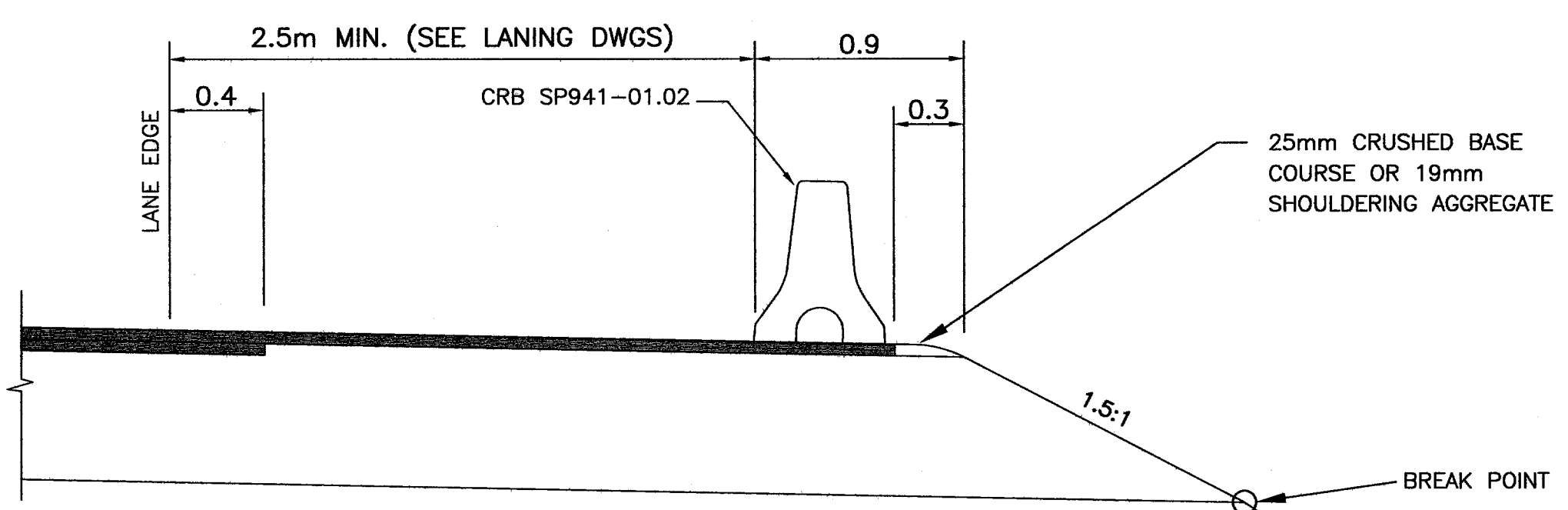
REVISIONS

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-302

CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 81573M302

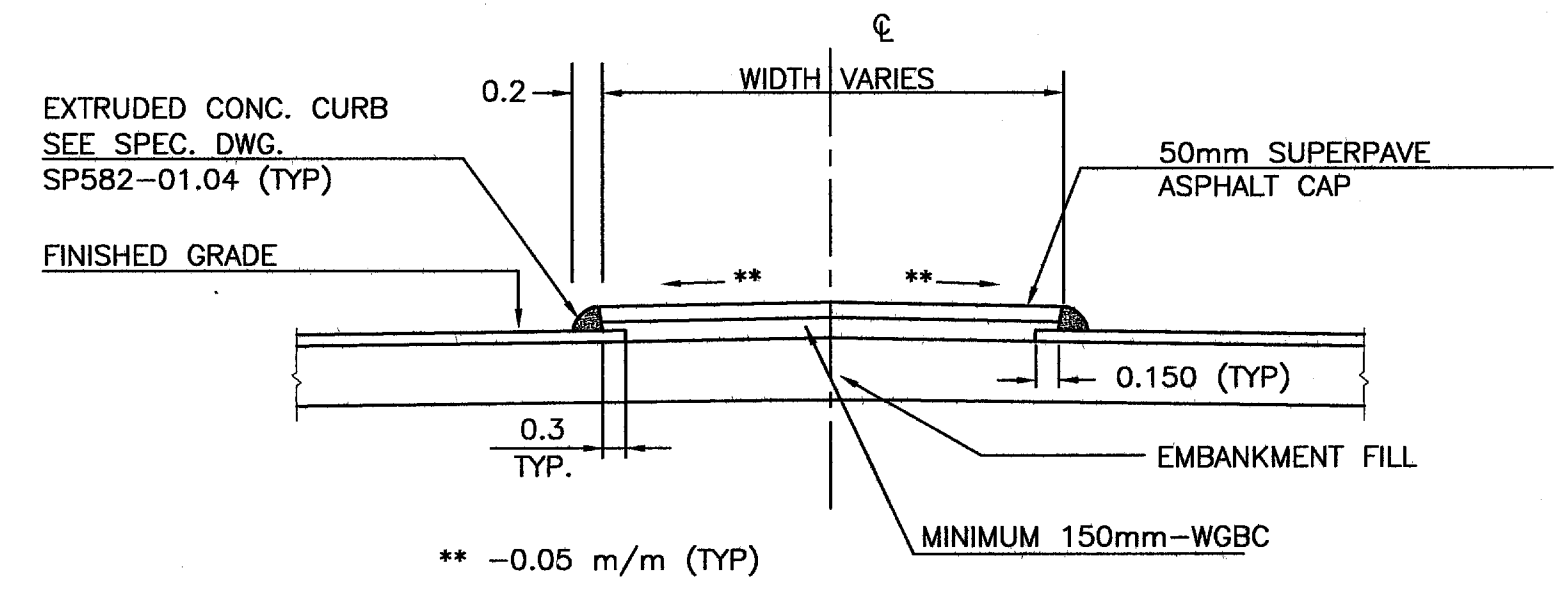
UPDATE: MAR 31, 2006



ROADSIDE BARRIER DETAIL

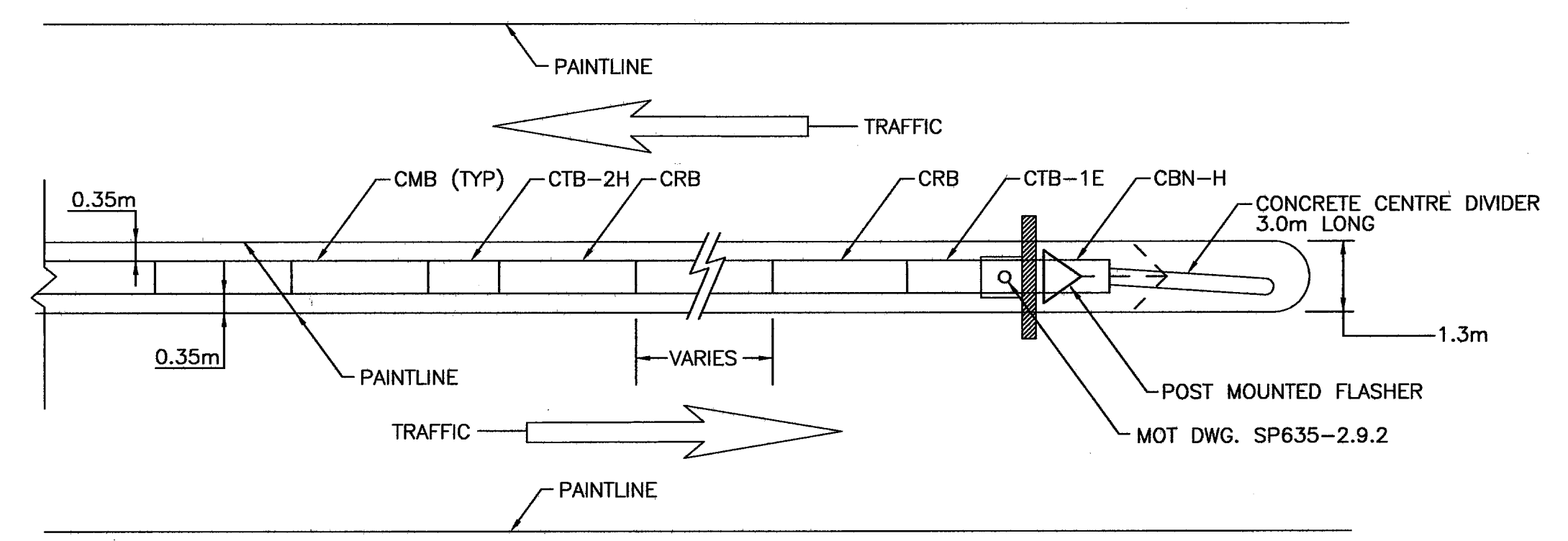
1:25

* SIDE SLOPE 2:1 EXCEPT
STA. 27+85 to STA. 29+43.803 SIDE SLOPE 1.5:1 Rt.



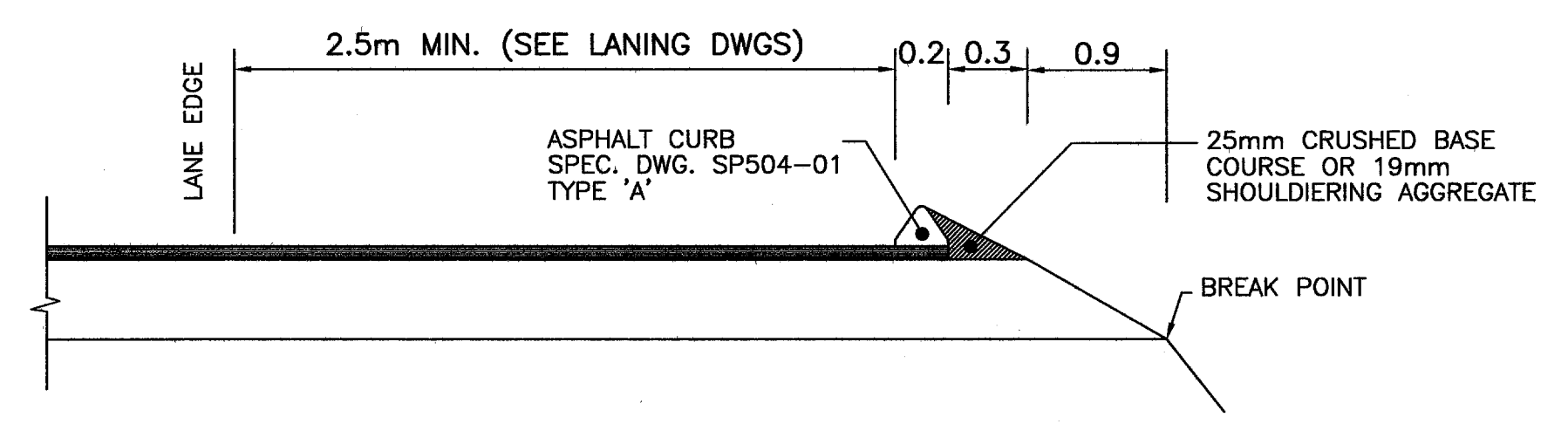
RAISED MEDIAN / PAVED ISLAND DETAIL

0 1:50 2



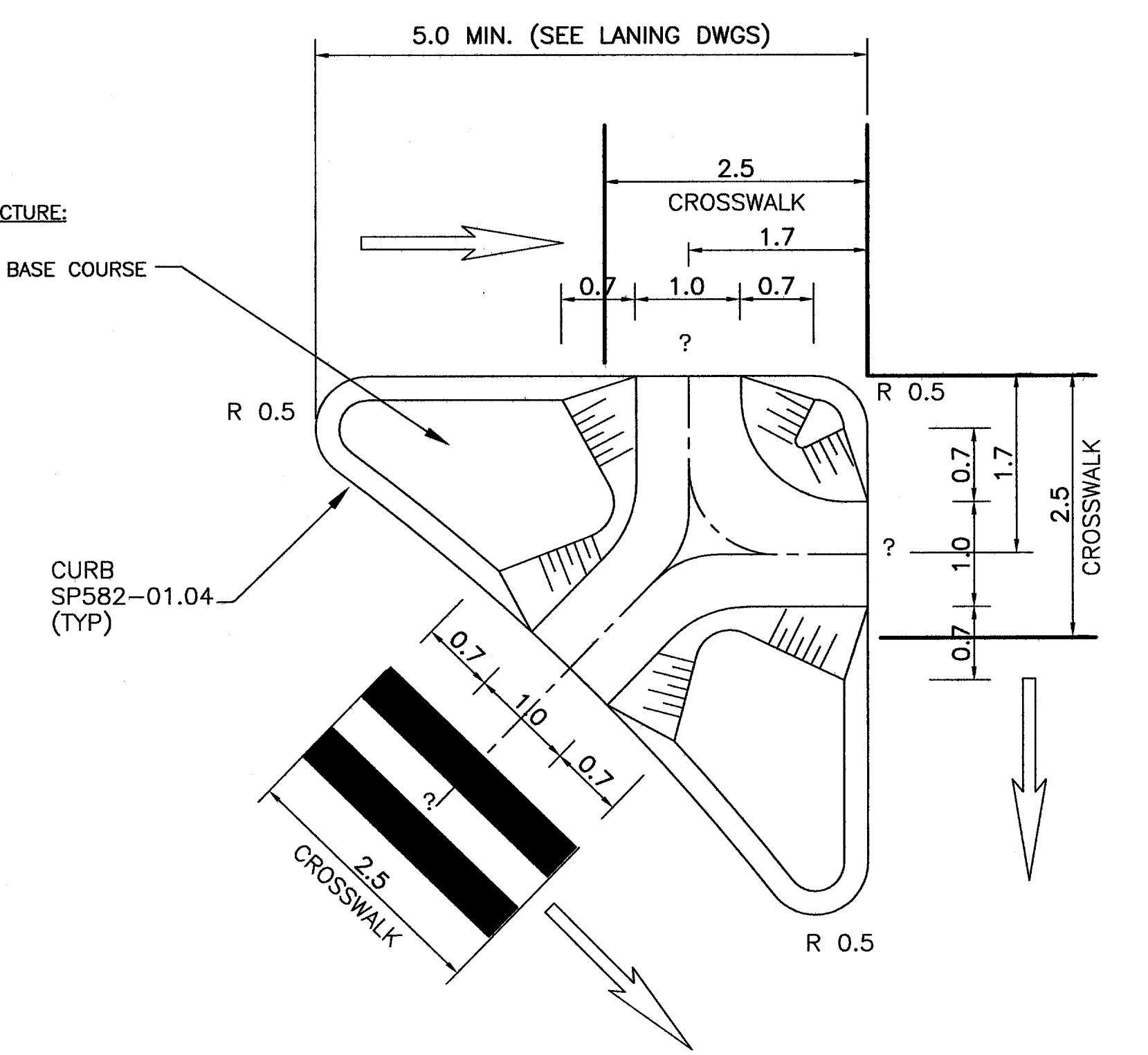
CONCRETE MEDIAN END DETAILS (TYP)

NTS



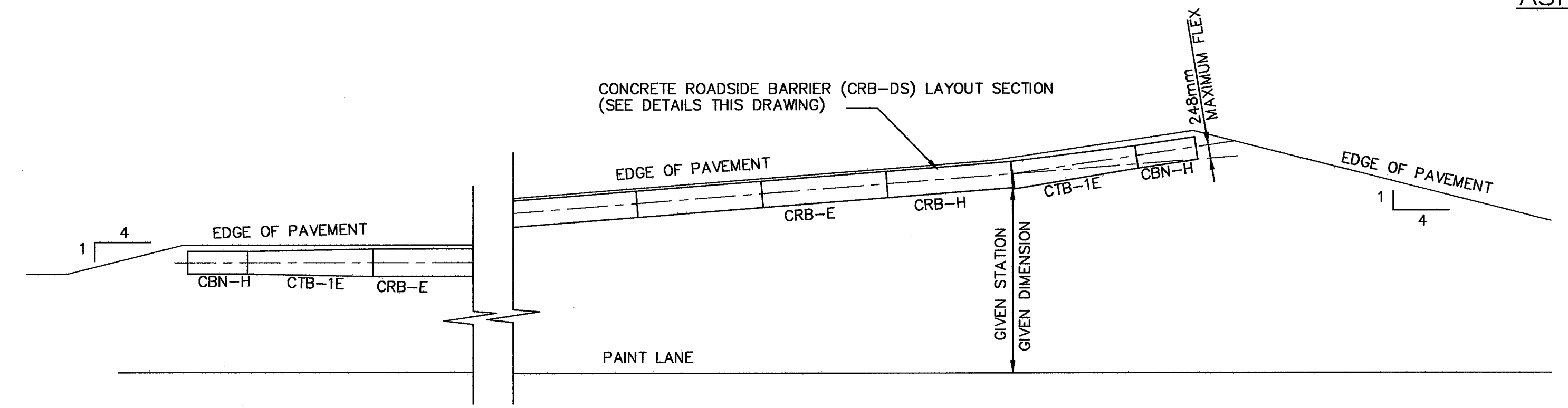
ASPHALT CURB DETAIL

1:25



ISLAND DETAIL

(FOR MORE INFORMATION SEE SPEC. DWG. SP582-07.03)
NTS



TYPICAL FLARE BARRIER LAYOUT DETAILS

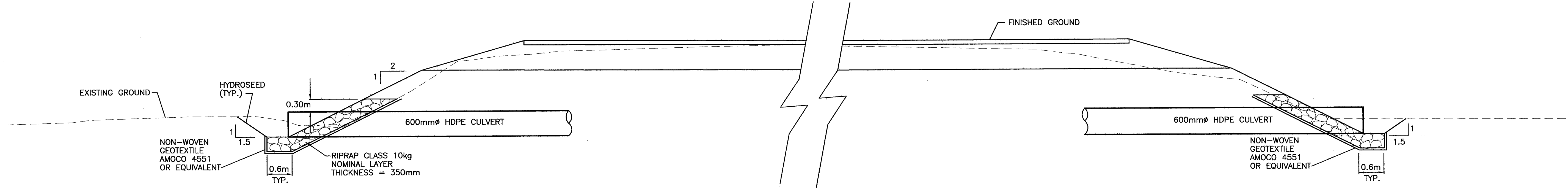
NTS

NOTE
SEE LANING AND GEOMETRICS DRAWING
FOR FLARE AND CONCRETE ROADSIDE BARRIER
LAYOUT STATION AND OFFSET

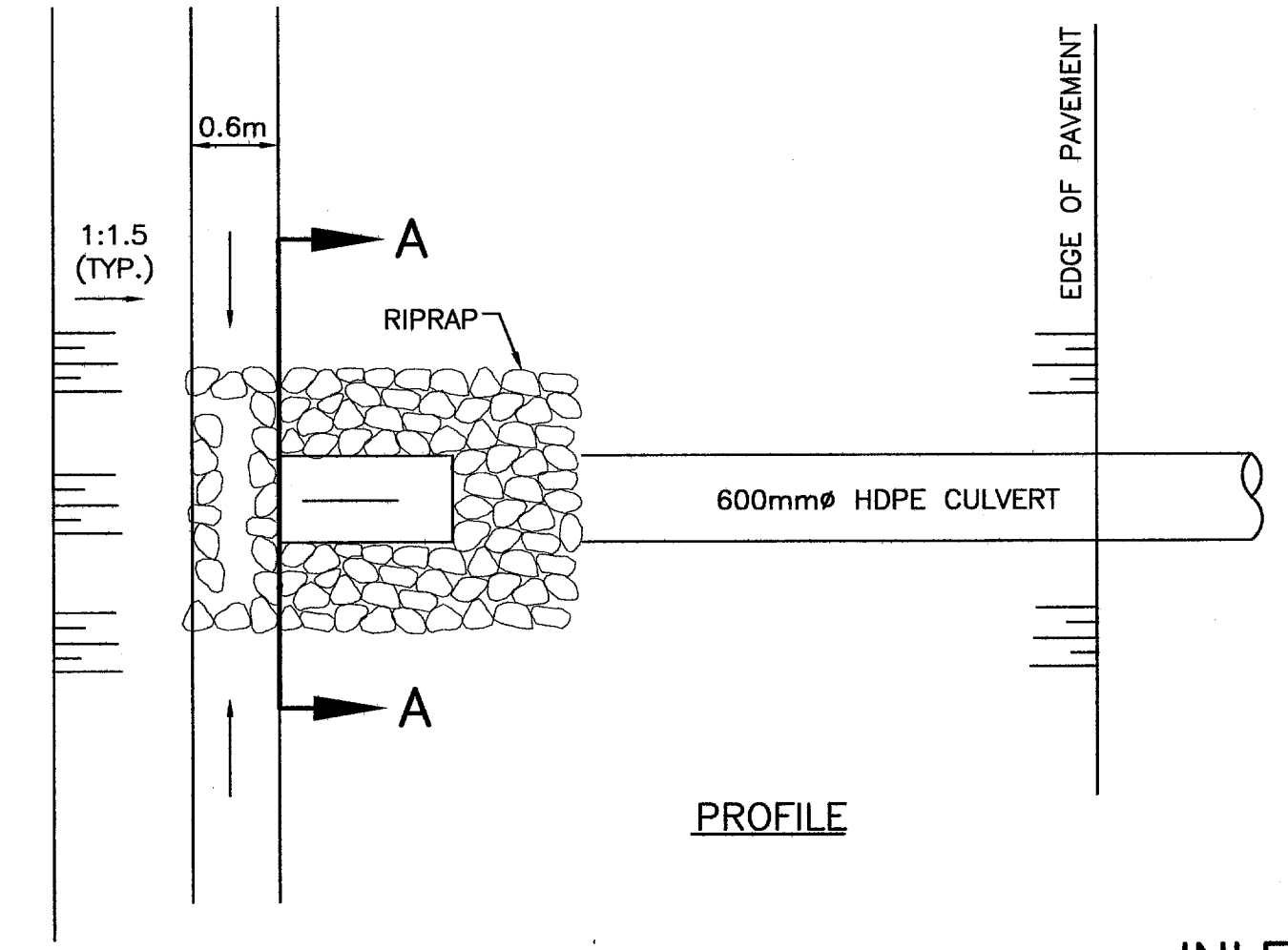
<p>NDLEA Consultants Ltd. 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>	
<p>SCALE AS SHOWN</p>		<p>DESIGNED AT DATE JAN/06 CHECKED MCS DATE JAN/06 DRAWN DS/WL DATE JAN/06 REVIEWED SW DATE MAR/06</p>	
<p>Rev Date Description Signature</p>		<p>TYPICAL SECTIONS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD</p>	
<p>REVISIONS</p>		<p>SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006</p>	
<p>FILE No. 11313</p>		<p>PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-303</p>	
<p>CANCEL PRINTS BEARING PREVIOUS LETTER</p>			

FILE: 81573M303

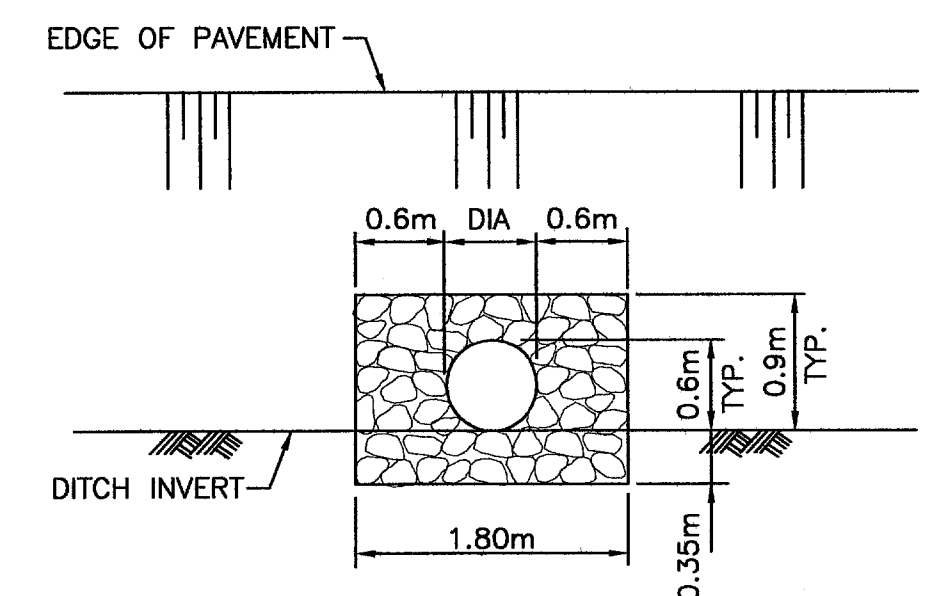
UPDATE: MAR 10, 2006



PLAN

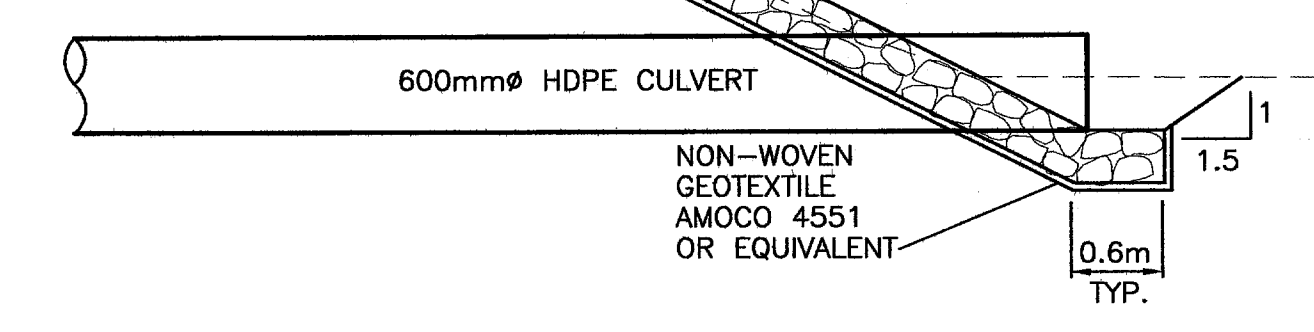


PROFILE

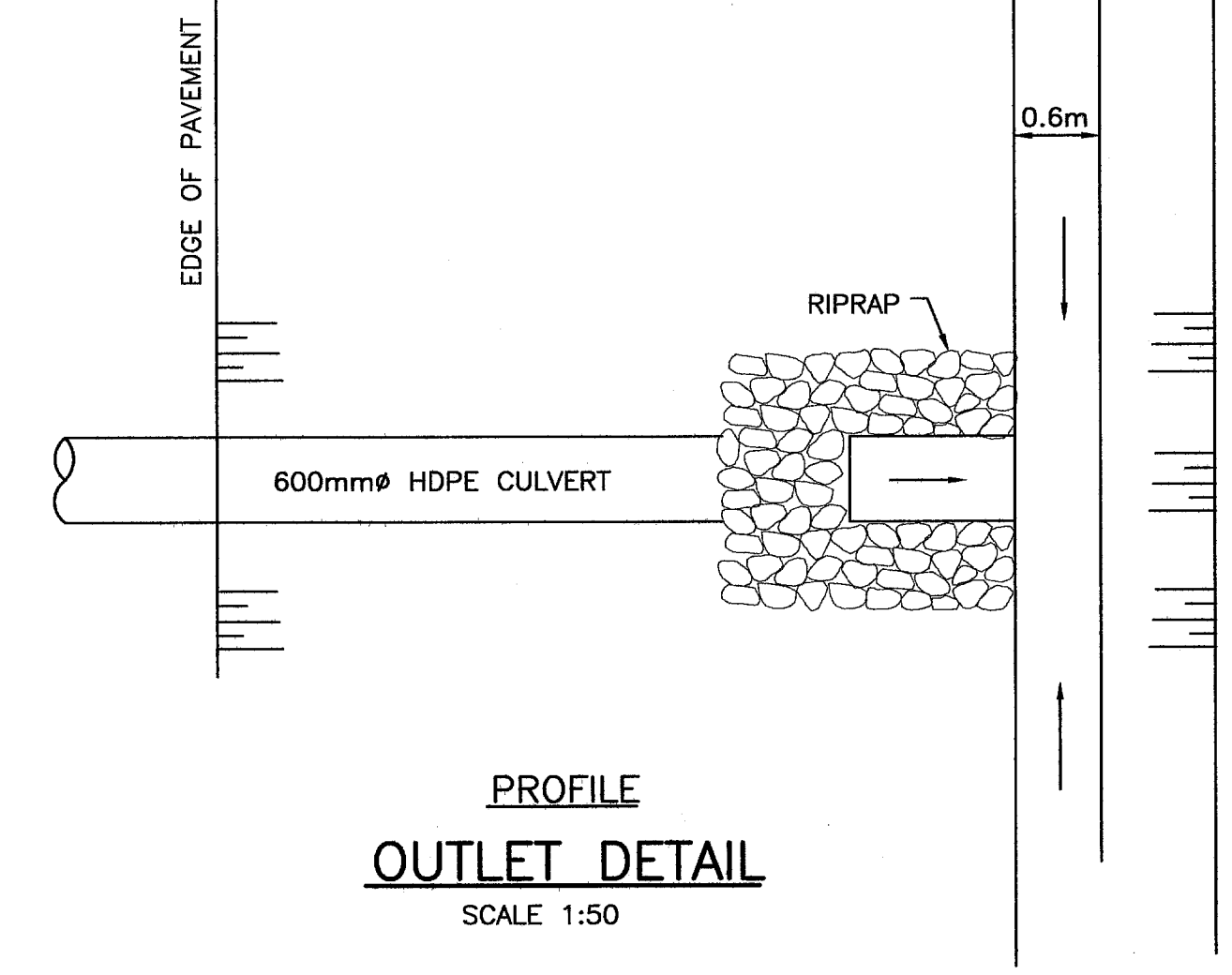


SECTION A-A

INLET DETAIL
SCALE 1:50

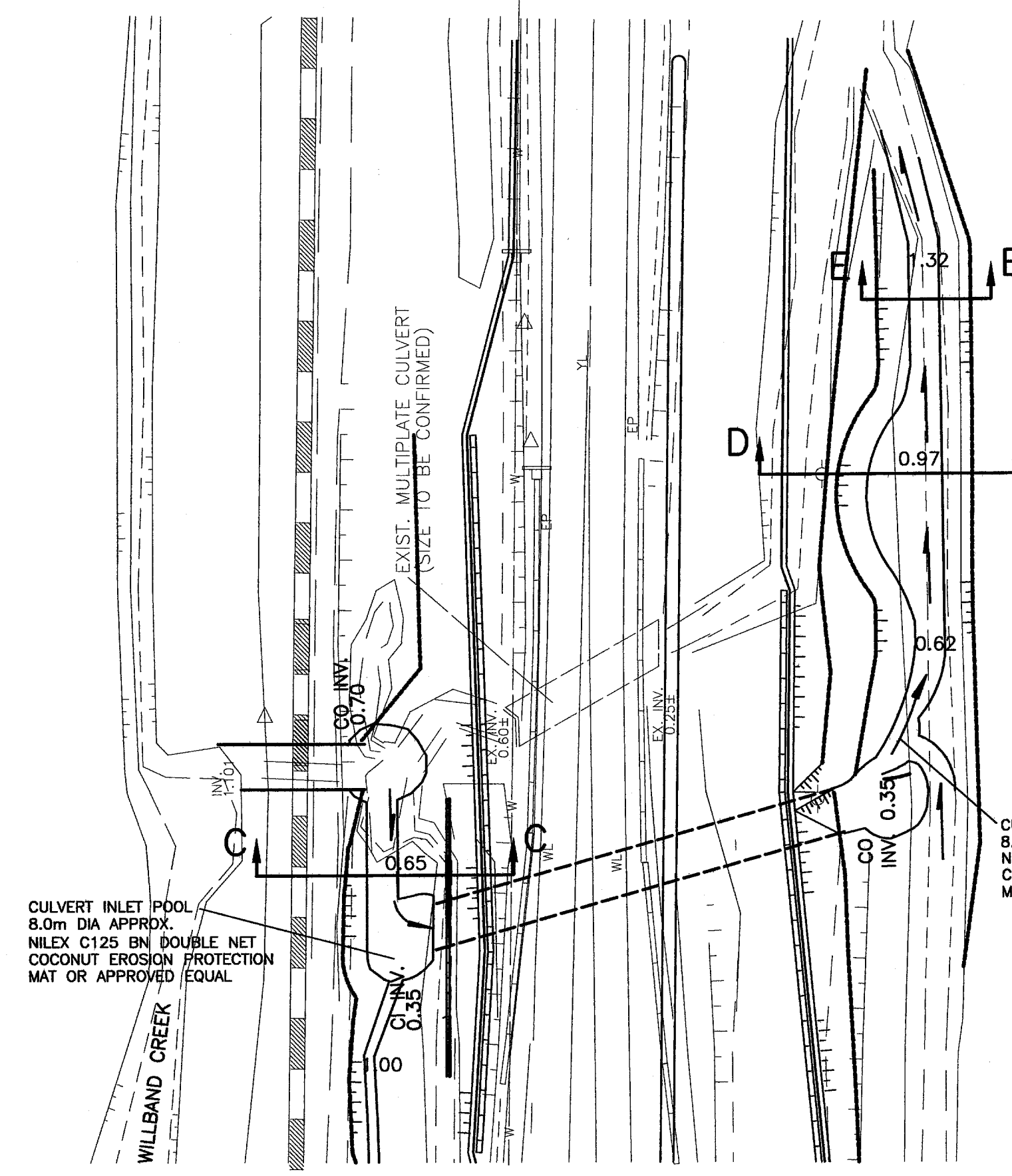


PLAN



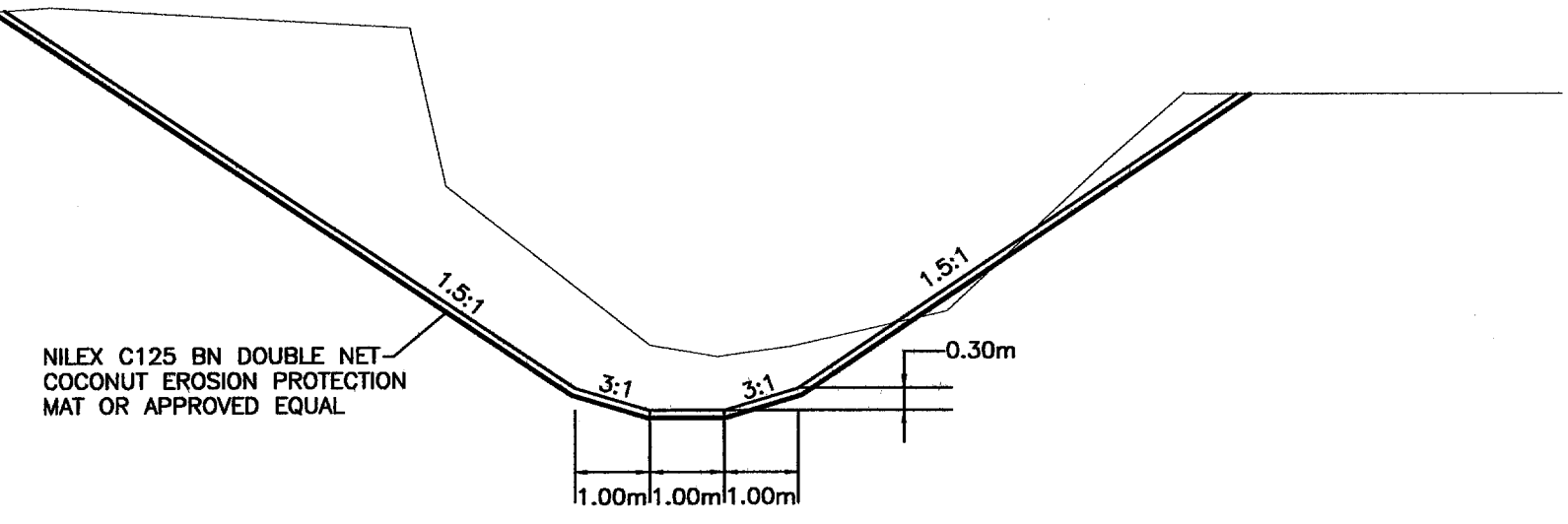
PROFILE
OUTLET DETAIL
SCALE 1:50

NOTES:
1) ALL RIPRAP IS CLASS 10kg WITH A NOMINAL LAYER THICKNESS OF 350mm. UNLESS OTHERWISE STATED THE RIPRAP CLASS NO. IS THE MASS (kg) OF THE 50% ROCK SIZE (ie AT LEAST HALF OF THE RIPRAP MUST BE HEAVIER THAN IT'S CLASS MASS.)

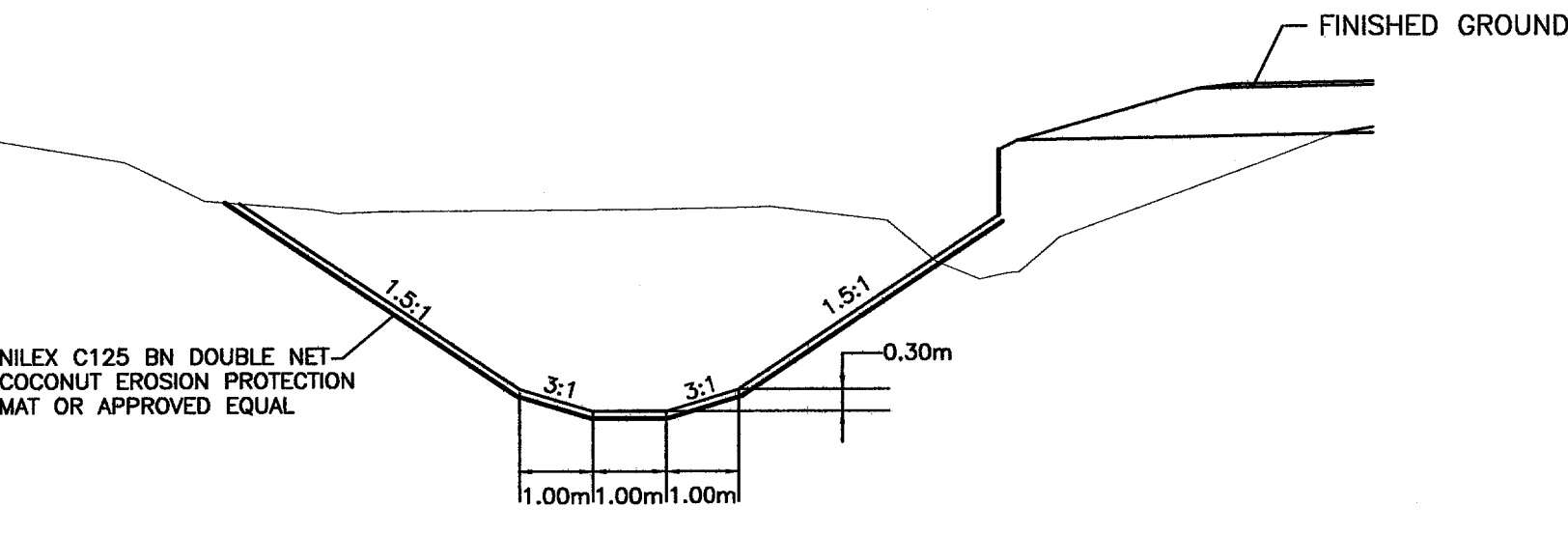


PLAN
SCALE 1:500

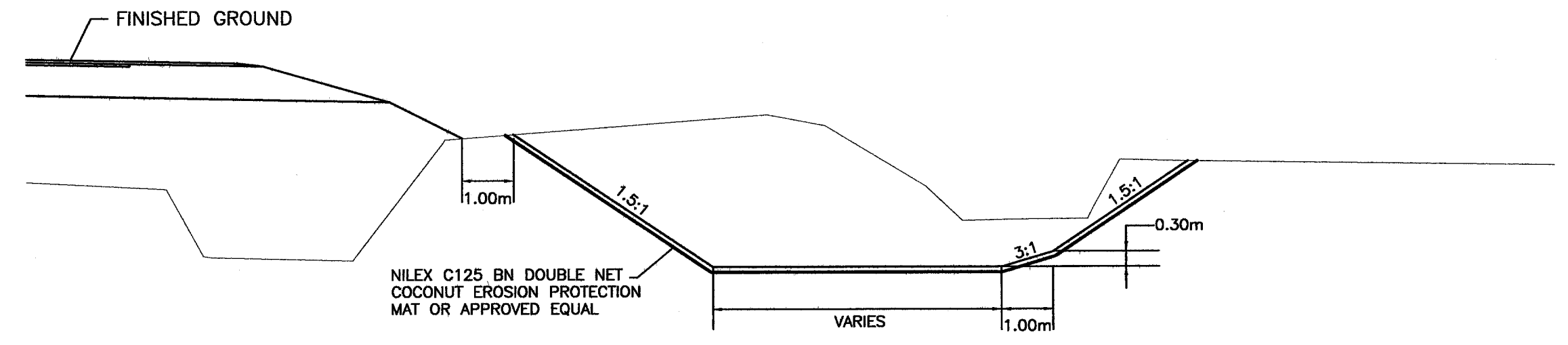
NOTE:
CONTRACTOR SHALL MAKE ALL ATTEMPTS TO SALVAGE EXISTING RIPARIAN VEGETATION PRIOR TO STARTING CONSTRUCTION WORKS AND REPLANT AS SOON AS ALL WORKS ARE COMPLETED WITHIN AREA.



SECTION E-E
SCALE 1:100



SECTION C-C
SCALE 1:100

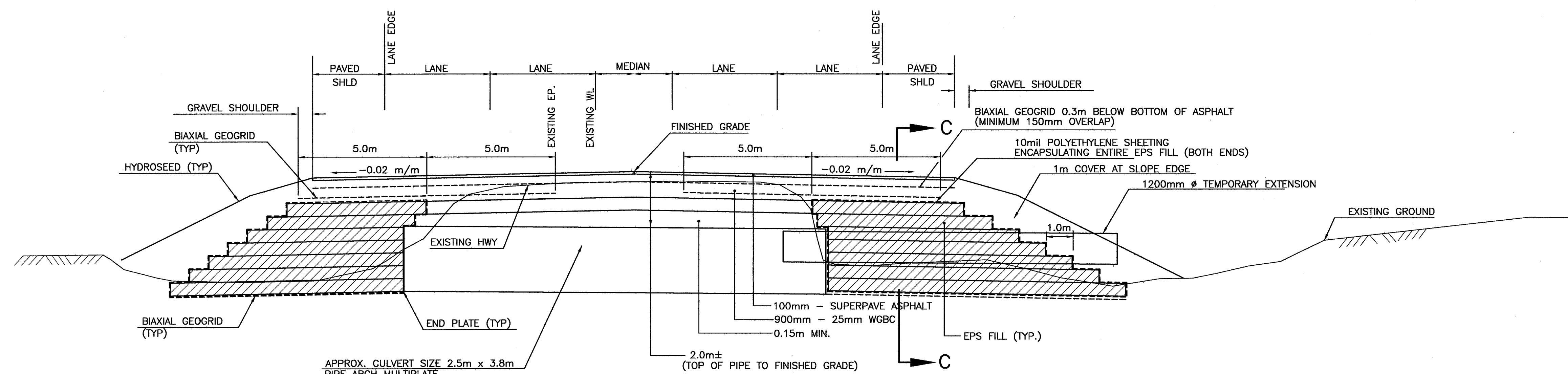


SECTION D-D
SCALE 1:100

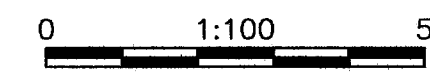
<p>1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>	
<p>SCALE AS SHOWN</p>		<p>DESIGNED MCS DATE FEB/05 CHECKED MCS DATE FEB/05 DRAWN DS/WL DATE FEB/05 REVIEWED SW DATE MAR/08</p>	
<p>REVISIONS</p>		<p>TYPICAL CULVERT DETAILS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD</p>	
<p>Rev Date Description Signature</p>		<p>SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006</p>	
<p>FILE No. 11313</p>		<p>PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-306</p>	
<p>CANCEL PRINTS BEARING PREVIOUS LETTER</p>			

FILE: 81573M306

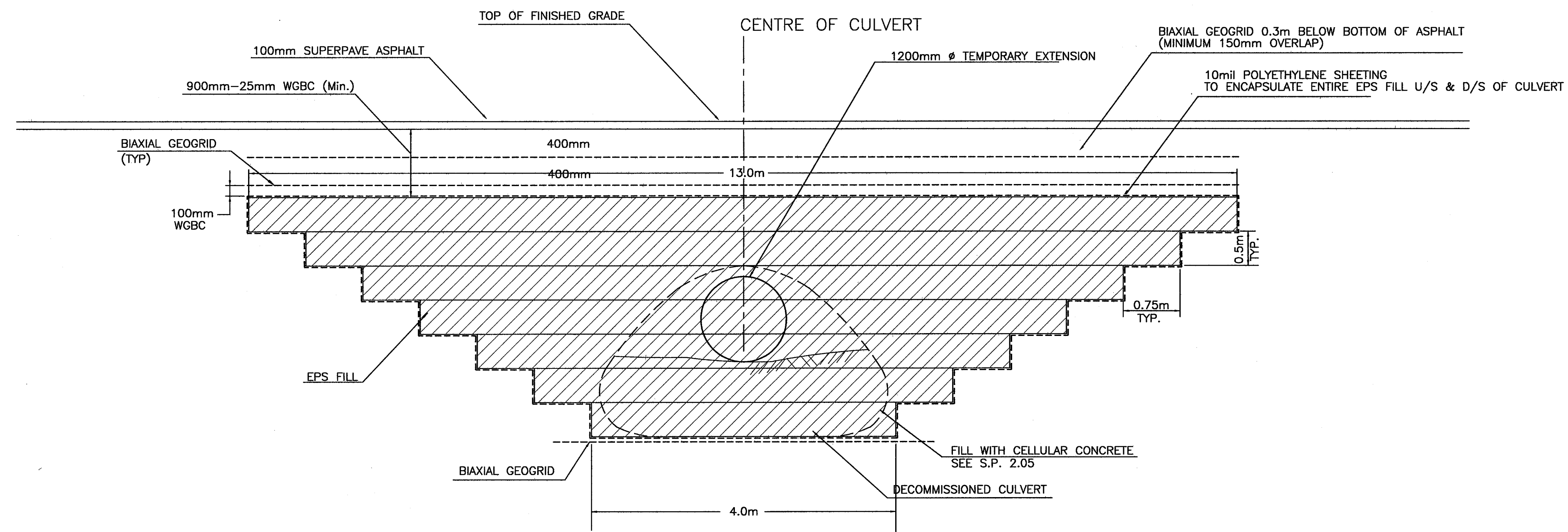
UPDATE: MAR 10, 2006



SECTION A-A
SECTION ALONG CULVERT



NOTE:
REFER TO WESTMAR REPORT
FOR FURTHER DETAILS ON
EXISTING CULVERT.



SECTION C-C
TYPICAL SECTION ACROSS CULVERT
NTS

<p>1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>	
<p>SCALE AS SHOWN</p>		<p>DESIGNED AT DATE JAN/06 CHECKED MCS DATE JAN/06 DRAWN DS DATE JAN/06 REVIEWED SW DATE MAR/06</p>	
<p>Rev Date Description Signature</p>		<p>DECOMMISSIONED WILLBAND CREEK CULVERT MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD</p>	
<p>REVISIONS</p>		<p>SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006</p>	
<p>FILE No. 11313</p>		<p>PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-307</p>	

FILE: 81573M307

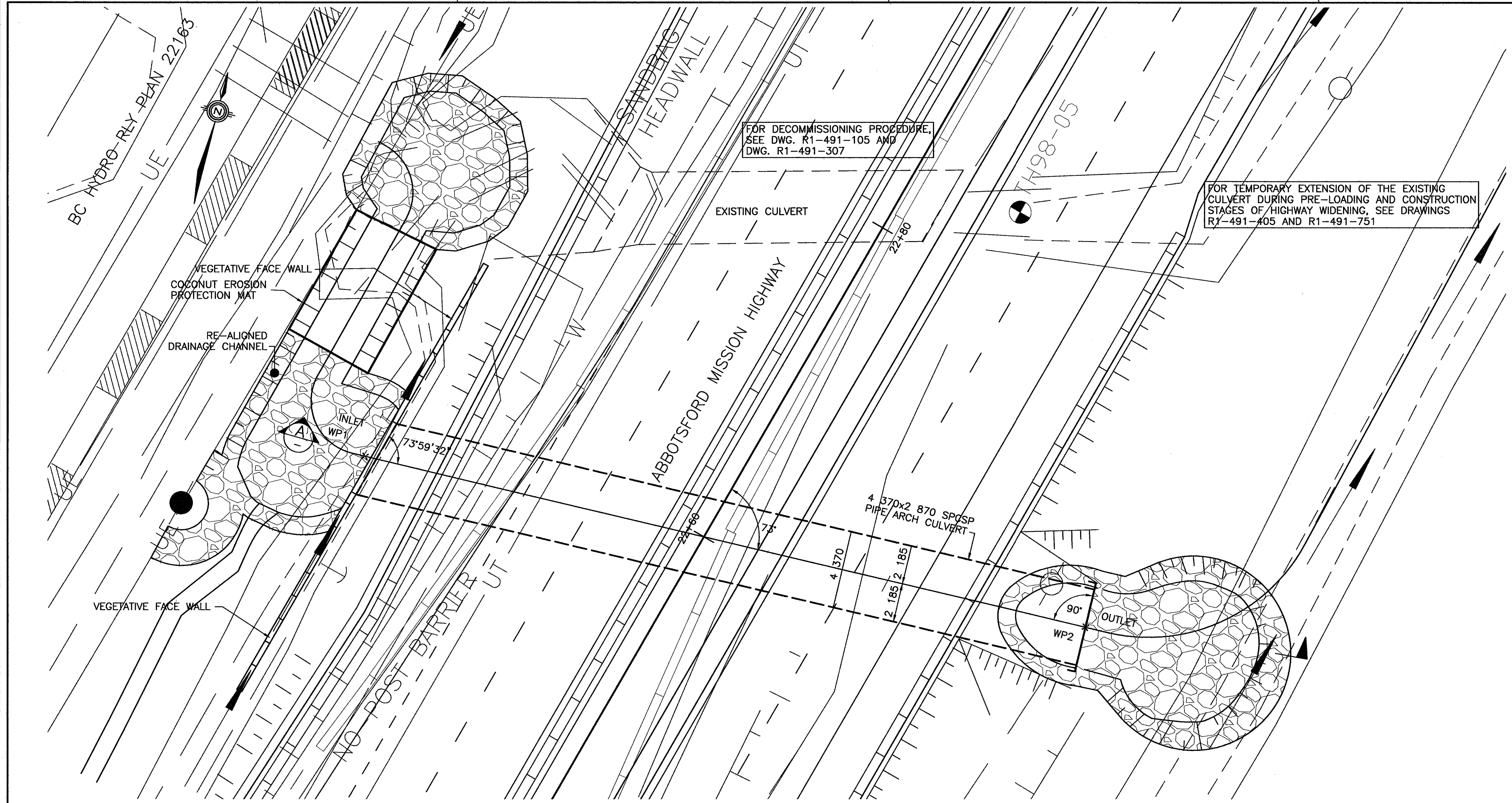
UPDATE: MAR 10, 2006

CANCEL PRINTS BEARING PREVIOUS LETTER

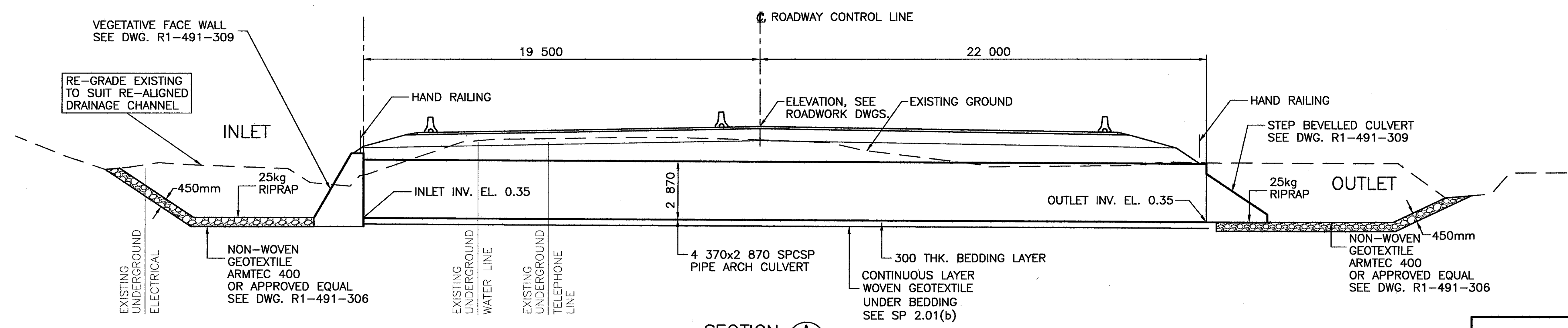
GENERAL ARRANGEMENT DRAWINGS

NOTES

- NEW CULVERT SHALL BE A PIPE-ARCH SHAPE OF APPROXIMATELY 4370mm SPAN AND 2870mm RISE OF STRUCTURAL PLATE CORRUGATED STEEL PIPE (SPCSP) COMPOSITION WITH BOLTED SEAMS.
- THE PIPE ARCH CULVERT SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CSA-S6-00 DESIGN CODE USING THE FOLLOWING DESIGN DATA:
 - LIVE LOAD CL625
 - ACCELERATION RELATED SEISMIC ZONE $Z_a = 4$
 IT IS EXPECTED THAT THE CONTRACTOR SHALL MAKE USE OF A PROPRIETARY PIPE-ARCH CULVERT MANUFACTURED BY RECOGNIZED FABRICATOR TO ACHIEVE THE DESIGN LIFE SPAN USING THE APPROPRIATE CORROSION RATES AS SPECIFIED BY THE MINISTRY. DESIGN LIFE TO BE 100 YEARS.
- THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND DRAWINGS FOR THE PIPE-ARCH CULVERT IDENTIFIED IN ITEMS 1 & 2 ABOVE, INCLUDING THE VEGETATIVE WIRE FACE WALL, HAND RAILINGS AT THE INLET AND OUTLET, EPS FILL AND ANY ASSOCIATED EROSION CONTROL WORKS INCLUDING RIPRAP DETAILS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN B.C. TO THE CONTRACT ADMINISTRATOR FOR REVIEW AT LEAST 20 DAYS PRIOR TO START OF FABRICATION. THE CALCULATIONS AND DRAWINGS SHALL TAKE INTO ACCOUNT THE GEOTECHNICAL CONSIDERATIONS AS WELL AS THE SEISMIC REQUIREMENTS OF THIS BURIED STRUCTURE.
- THE NEW PIPE-ARCH CULVERT SHALL BE CONSTRUCTED IN STAGES TO SUIT THE PRE-LOADING SCHEME, THE EPS FILL AND THE LAYOUT OF THE STAGED CONSTRUCTION OF THE HIGHWAY AS SHOWN ON THE ROADWAY DRAWINGS. THE LAYOUT OF THE EPS FILL SHALL ACCOMMODATE THE VEGETATED WIRE FACE WALL AND ASSOCIATED EROSION CONTROL MEASURES. PLACEMENT OF RIPRAP TO BE APPROVED BY THE MINISTRY REPRESENTATIVE.
- FOUNDATIONS BELOW THE HAUNCHES OF THE PIPE ARCHES SHALL BE REINFORCED AS DESCRIBED IN CLAUSE 7.6.3.2 OF THE ABOVE MENTIONED CAN/CSA-S6-00 DESIGN CODE.
- MEASURES AIMED AT THE PROTECTION OF ENVIRONMENT DURING ALL STAGES OF CONSTRUCTION MUST BE EMPLOYED IN A MANNER THAT WILL PREVENT THE RELEASE OF SEDIMENT OR SEDIMENT LADEN WATER INTO WILLBAND CREEK WATERCOURSE. CARE MUST BE TAKEN TO MINIMIZE DISTURBANCE TO EXISTING VEGETATION.
- A FISH SALVAGE IS REQUIRED PRIOR TO ANY INSTREAM WORKS. THE FLOW OF WILLBAND CREEK WILL BE ISOLATED FROM INSTREAM WORKS. THIS MAY REQUIRE A TEMPORARY FLOW DIVERSION BY PUMPS. IN THE EVENT OF PUMP FAILURE, EXTRA PUMPS SUFFICIENT TO HANDLE THE WATERCOURSE'S FLOW CAPACITY MUST BE ONSITE THROUGHOUT THE FLOW DIVERSION.
- ALL WORK INVOLVING THE USE OF CONCRETE, ASPHALT, CEMENT, MORTARS AND OTHER PORTLAND CEMENT OR LIME-CONTAINING CONSTRUCTION MATERIALS WILL BE CONDUCTED SO AS TO ENSURE THAT SEDIMENTS, CONCRETE AND CONCRETE FINES ARE NOT DEPOSITED, EITHER DIRECTLY OR INDIRECTLY INTO ANY WATERCOURSE OR STORMWATER COLLECTION SYSTEM. ANY WATER CONTAINING UNCURED OR PARTLY CURED CONCRETE OR PORTLAND CEMENT OR LIME-CONTAINING CONSTRUCTION MATERIALS, SUCH AS THE WATER THAT MAY BE USED FOR EXPOSED AGGREGATE WASH-OFF, WET CURING, EQUIPMENT WASHING, ETC., SHALL BE PREVENTED FROM ENTERING, DIRECTLY OR INDIRECTLY INTO THE WATERCOURSE OR STORMWATER COLLECTION SYSTEM.
- CONCRETE LEACHATE IS ALKALINE AND HIGHLY TOXIC TO FISH AND AQUATIC LIFE AND MEASUREMENTS AND DISPERSAL EQUIPMENT MUST BE ONSITE DURING ALL CONCRETE WORK AND BE READY FOR IMMEDIATE DEPLOYMENT SHOULD A CONCRETE SPILL OCCUR. TO ENSURE THAT NO CONCRETE OR CONCRETE LEACHATE IMPACTS DOWNSTREAM FISH OR FISH HABITAT, THE DOWNSTREAM pH IS RECORDED (i.e. pH BELOW 5.0 OR ABOVE 9.0), THEN EMERGENCY MEASURES MUST BE IMPLEMENTED TO NEUTRALIZE pH LEVELS. IN ADDITION, ANY CONCRETE THAT DOES ESCAPE MUST BE CLEARED OUT OF ANY INSTREAM AREA IMMEDIATELY.
- ALL CONCRETE AND ASPHALT WORK, MUST BE UNDERTAKEN DURING PERIODS WHEN THE RISK OF PRECIPITATION IS LOW. SHOULD A PRECIPITATION EVENT OCCUR DURING ANY INSTREAM CONCRETE WORK, OPERATIONS SHOULD BE IMMEDIATELY CEASED AND MEASURES MUST BE TAKEN TO ENSURE THAT CONCRETE LEACHATE DOES NOT ENTER THE FISHERY SENSITIVE WATERCOURSE.
- FOR ANY INSTREAM OR NEAR STREAM CONCRETE/ASPHALT WORK, A MINIMUM OF 72 HOURS CURING TIME IS REQUIRED WITH COMPLETE ISOLATION OF THE CONCRETE FROM ANY DITCH, WATERCOURSE, SURFACE WATER DRAINAGE OR STORM SEWER SYSTEM.



PLAN
SCALE: 1:150



SECTION A
SCALE: 1:150

NDLEA Consultants Ltd. 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381		DESIGNED: JJK DATE: FEB./05 CHECKED: JJK DATE: FEB./05 DRAWN: EEE DATE: MAR./06 REVIEWED: SW DATE: MAR./06		
		SCALE: AS SHOWN	SENIOR DESIGNER: <i>[Signature]</i> DATE: MAR. 10 2006	
REVISIONS	FILE No. 11313	PROJECT No. 11313-0001	REG. 1	DRAWING No. R1-491-308

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

WILLBAND CREEK CULVERT RELOCATION
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 GENERAL ARRANGEMENT

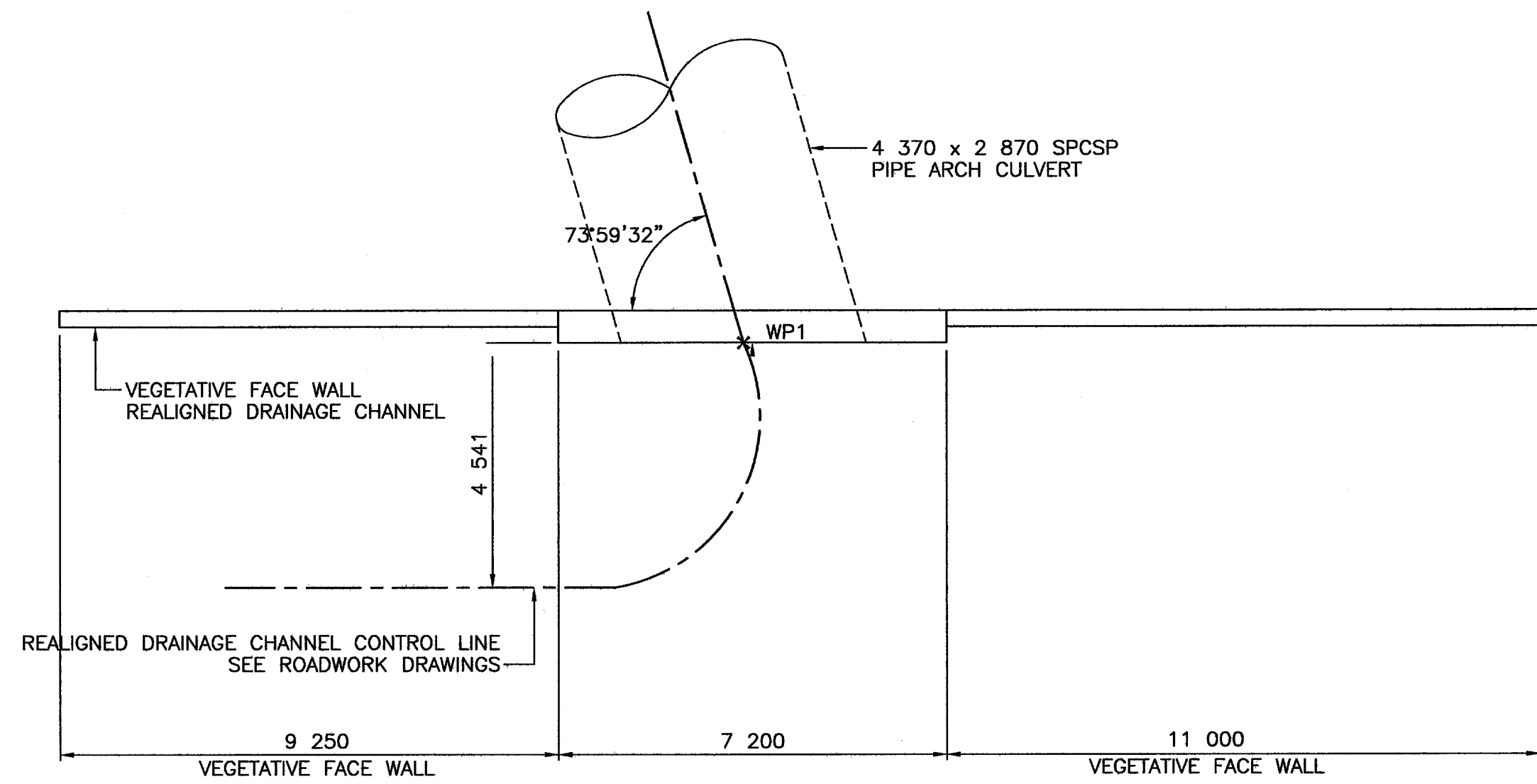
SENIOR DESIGNER: *[Signature]* DATE: MAR. 10 2006

FILE No. 11313 PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-308

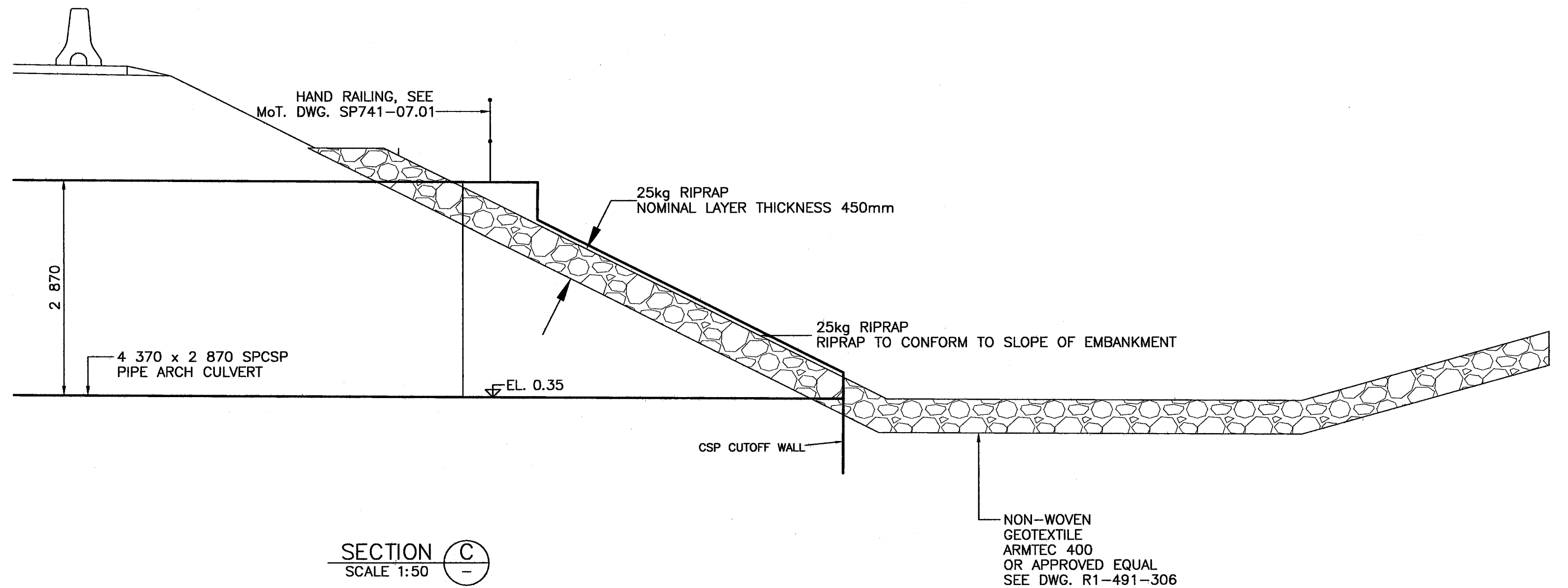
CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437M308

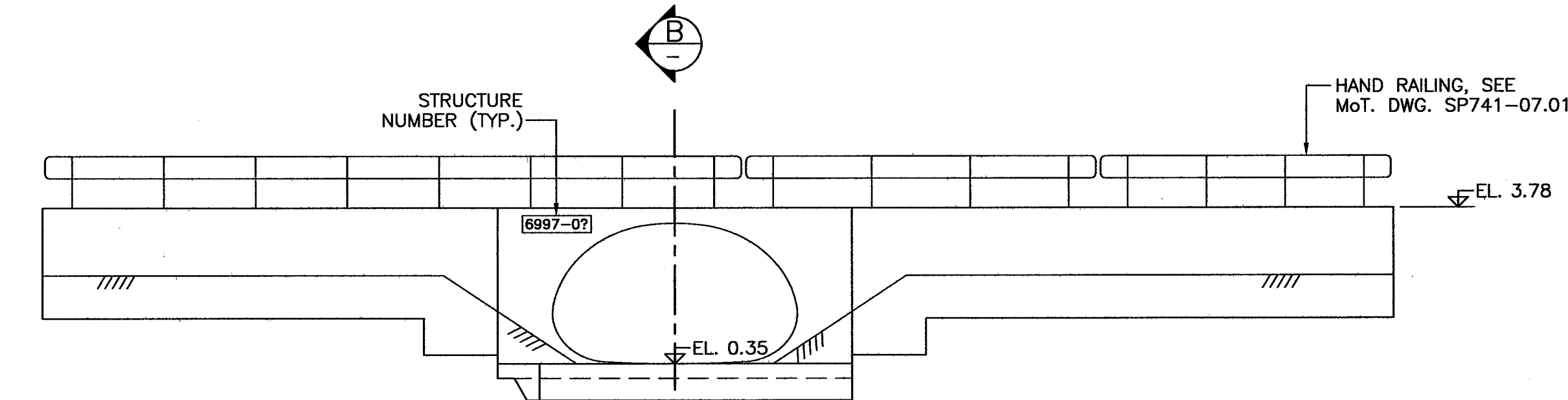
UPDATE: Mar 10, 2006



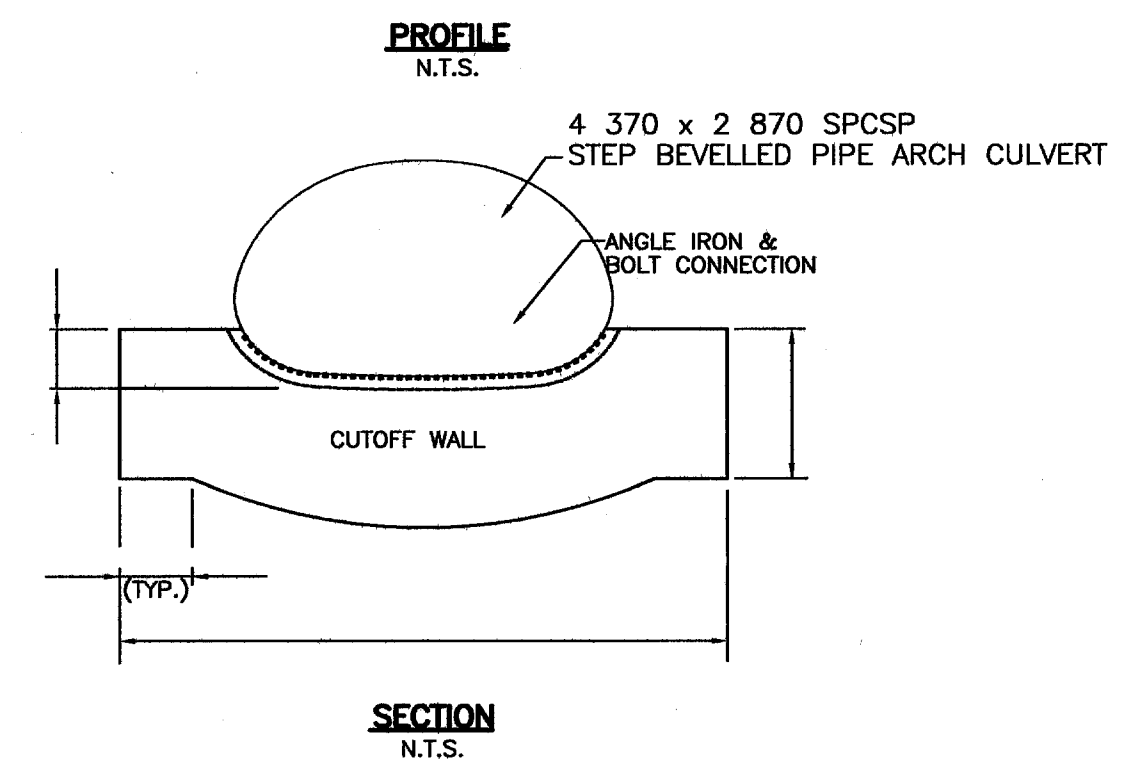
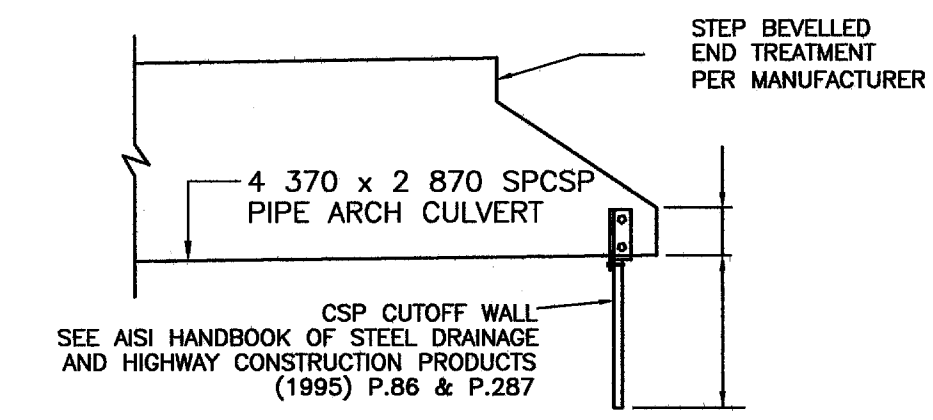
PLAN
NOTE : DIMENSIONS FOR PRICING ONLY.



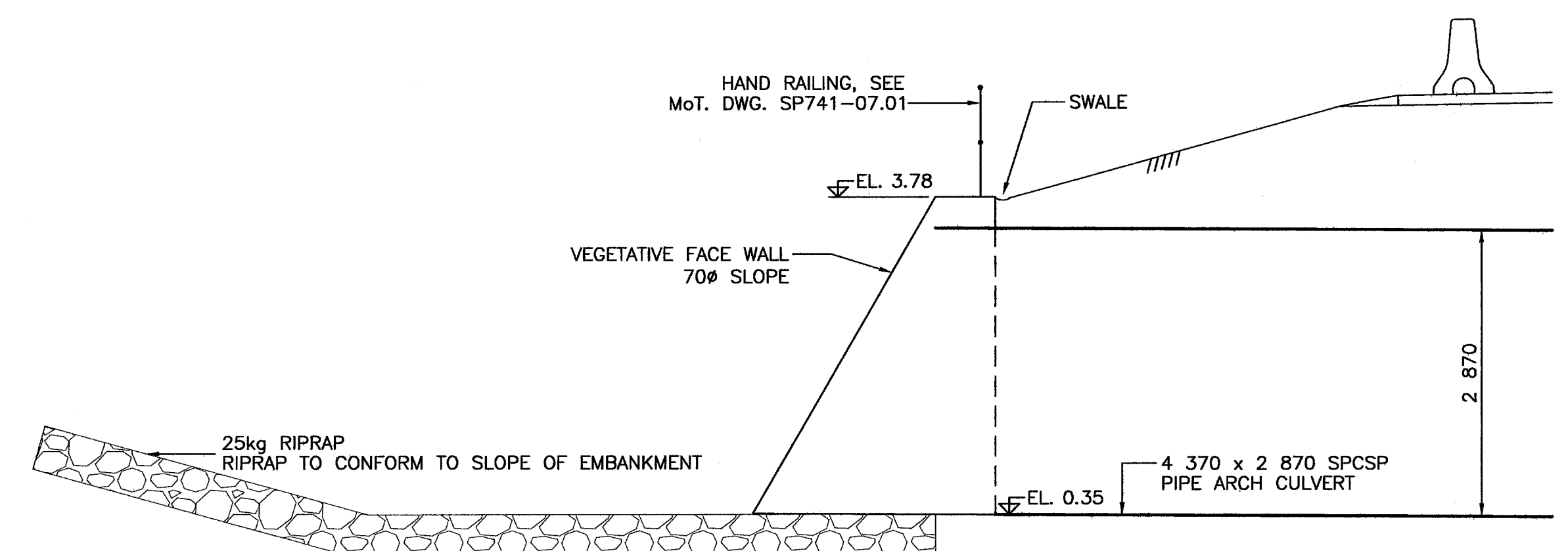
SECTION C
SCALE 1:50



ELEVATION
INLET STRUCTURE
SCALE: 1:100



PROFILE
N.T.S.
SECTION
N.T.S.
CUTOFF WALL DETAIL



SECTION B
SCALE 1:50

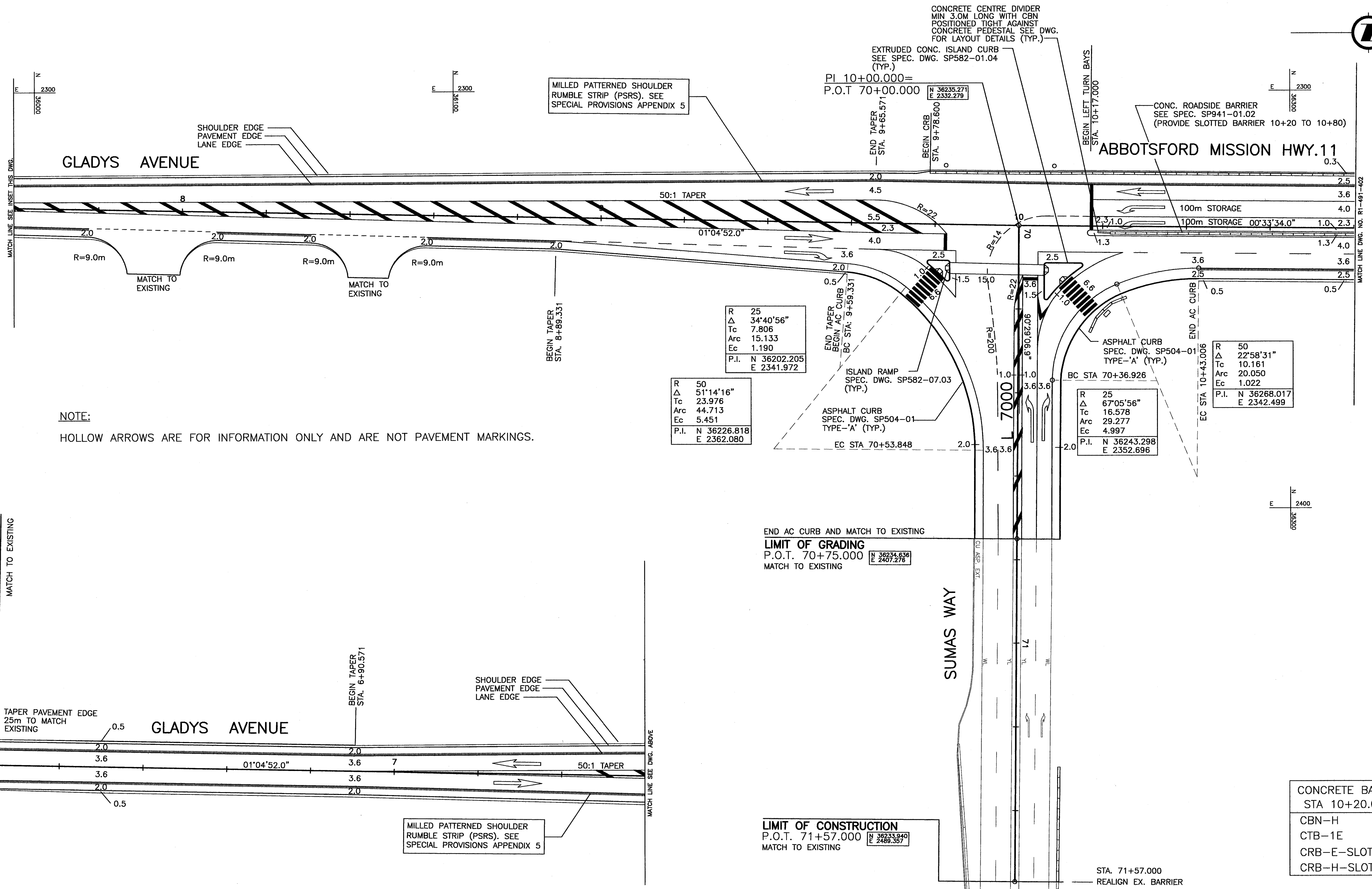
- NOTES**
1. FOR GENERAL NOTES, SEE DWG. R1-491-308

 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381		 MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION	
SCALE AS SHOWN DESIGNED: JK DATE FEB./05 CHECKED: JK DATE FEB./05 DRAWN: EEE DATE MAR./06 REVIEWED: SW DATE MAR./06		WILLBAND CREEK CULVERT RELOCATION MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD INLET AND OUTLET STRUCTURE DETAIL	
Rev Date Description Signature		SENIOR DESIGNER: <i>[Signature]</i> DATE: MAR 10, 2006	
REVISIONS		FILE No. 11313	PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-309

FILE: 1437M681

UPDATE: MAR 10, 2006

CANCEL PRINTS BEARING PREVIOUS LETTER



LIMIT OF CONSTRUCTION
 P.O.T. 6+05.100

LIMIT OF GRADING
 P.O.T. 70+75.000

LIMIT OF CONSTRUCTION
 P.O.T. 71+57.000

HIGHWAY 11 DESIGN SPEED 80 km/h

SUMAS WAY DESIGN SPEED 50 km/h

- ALL MOVEMENTS TS7
- FOR DRAINAGE & CONSTRUCTION DETAILS SEE DWG No. R1-491-101
- FOR SIGNING AND PAVEMENT MARKINGS SEE DWG No. R1-491-501
- FOR SURCHARGE DRAINAGE PLAN SEE DWG No. R1-491-601

NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

DESIGNED AT DATE FEB/05
 CHECKED MCS DATE FEB/05
 DRAWN SM/WL DATE FEB/05
 REVIEWED SW DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

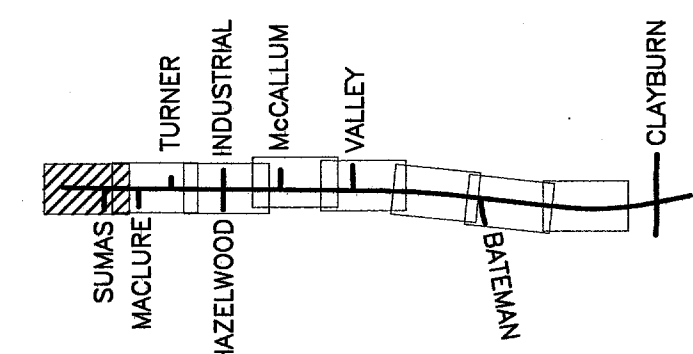
MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

GEOMETRICS AND LANING
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 6+05.100 TO STA. 10+80.000

SENIOR DESIGNER: *[Signature]* DATE: MAR. 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-401

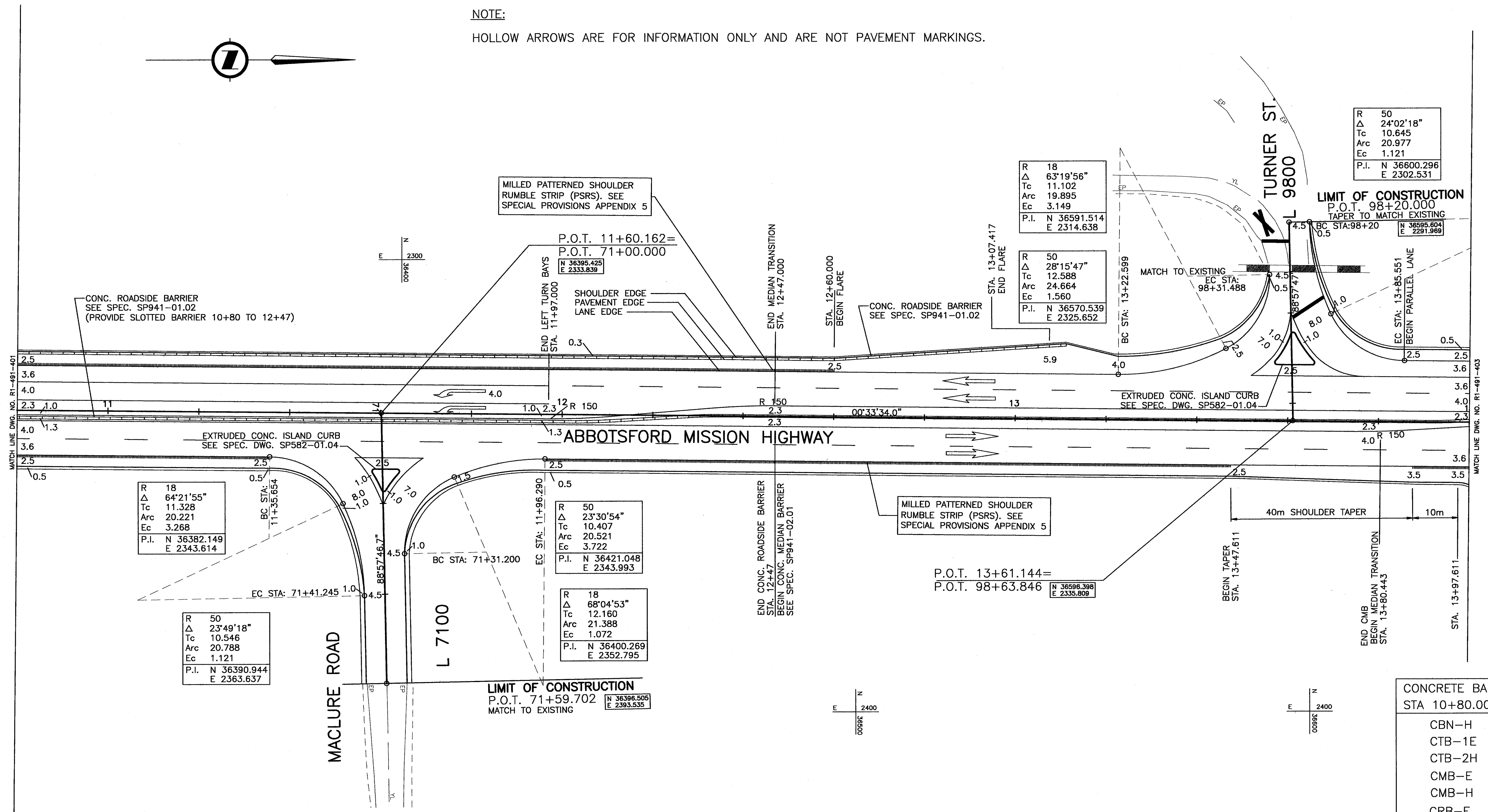
CANCEL PRINTS BEARING PREVIOUS LETTER



FILE: 1437M401

UPDATE: MAR 10, 2006

NOTE:
HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



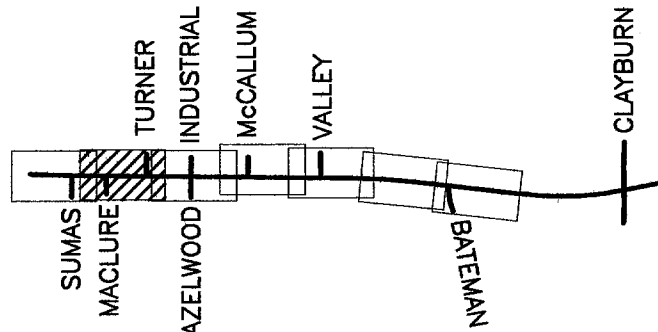
HIGHWAY 11 DESIGN SPEED 80 km/h
 MACLURE ROAD DESIGN SPEED 50 km/h

ALL MOVEMENTS TS7
 FOR DRAINAGE & CONSTRUCTION DETAILS
 SEE DWG No. R1-491-102
 FOR SIGNING AND PAVEMENT MARKINGS
 SEE DWG No. R1-491-502
 FOR SURCHARGE DRAINAGE PLAN
 SEE DWG No. R1-491-602

CONCRETE BARRIER COMPONENTS
 STA 10+80.000 TO 14+00.000

CBN-H	2 SECTION(S)
CTB-1E	2 SECTION(S)
CTB-2H	2 SECTION(S)
CMB-E	27 SECTION(S)
CMB-H	26 SECTION(S)
CRB-E	48 SECTION(S)
CRB-H	50 SECTION(S)
CRB-E-SLOTTED	33 SECTION(S)
CRB-H-SLOTTED	33 SECTION(S)

FILE: 1437M0402



NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T5 TEL. (604) 685-9381

DESIGNED AT DATE FEB/05
 CHECKED MCS DATE FEB/05
 DRAWN SM/WL DATE FEB/05
 REVIEWED SW DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

GEOMETRICS AND LANING
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 10+80.000 TO STA. 14+00.000

SENIOR DESIGNER: [Signature] DATE: MAR 10, 2006

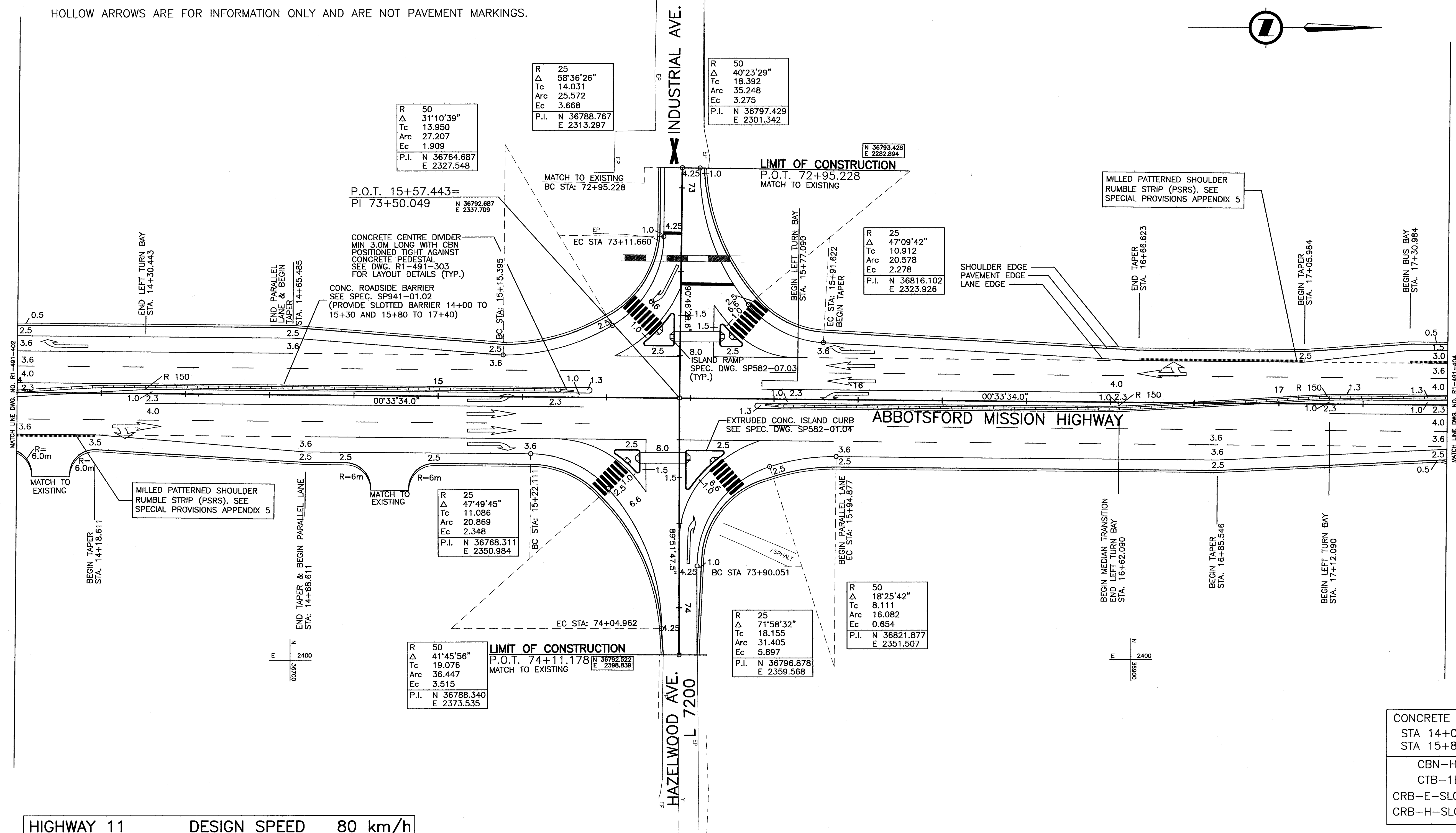
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CANCEL PRINTS BEARING PREVIOUS LETTER

UPDATE: MAR 10, 2006

NOTE:

HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



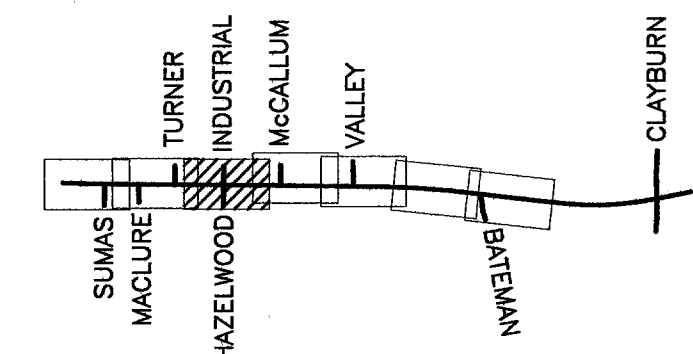
HIGHWAY 11 DESIGN SPEED 80 km/h

HAZELWOOD/INDUSTRIAL AVE. DESIGN SPEED 50 km/h

CONCRETE BARRIER COMPONENTS
 STA 14+00.000 TO 15+30.000
 STA 15+80.000 TO 17+40.000
 CBN-H 2 SECTION(S)
 CTB-1E 2 SECTION(S)
 CRB-E-SLOTTED 56 SECTION(S)
 CRB-H-SLOTTED 56 SECTION(S)

- ALL MOVEMENTS TS7
- FOR DRAINAGE & CONSTRUCTION DETAILS
SEE DWG No. R1-491-103
- FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-503
- FOR SURCHARGE DRAINAGE PLAN
SEE DWG No. R1-491-603

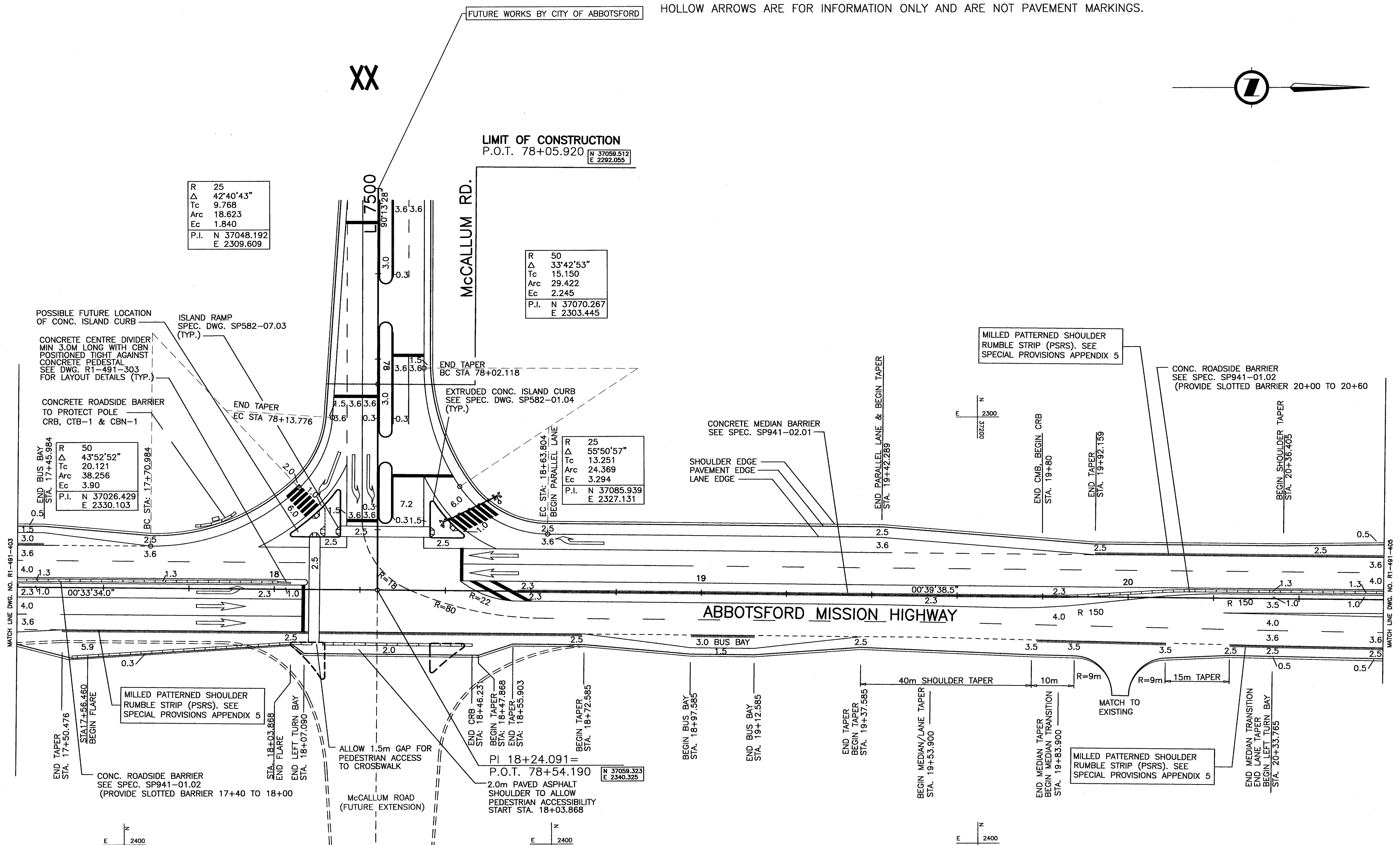
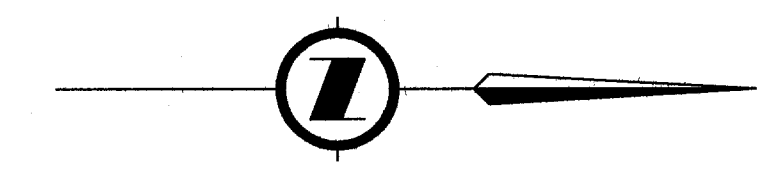
FILE: 1437M0403



<p>1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>	
<p>SCALE 0 1:500 25</p>		<p>DESIGNED AT DATE FEB/05 CHECKED MCS DATE FEB/05 DRAWN SM/WL DATE FEB/05 REVIEWED SW DATE MAR/06</p>	
<p>Rev Date Description Signature</p>		<p>GEOMETRICS AND LANING MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD STA. 14+00.000 TO STA. 17+40.000</p>	
<p>REVISIONS</p>		<p>SENIOR DESIGNER DATE MAR, 10 2006</p>	
<p>FILE No. 11313</p>		<p>PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-403</p>	
<p>CANCEL PRINTS BEARING PREVIOUS LETTER</p>			

UPDATE: MAR 10, 2006

NOTE:
HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



R	25
Δ	42°40'43"
Tc	9.768
Arc	18.623
Ec	1.840
P.I.	N 37048.192 E 2309.609

R	50
Δ	33°42'53"
Tc	15.150
Arc	29.422
Ec	2.245
P.I.	N 37070.267 E 2303.445

R	50
Δ	43°52'52"
Tc	20.121
Arc	38.256
Ec	3.90
P.I.	N 37026.429 E 2330.103

R	25
Δ	55°50'57"
Tc	13.251
Arc	24.369
Ec	3.294
P.I.	N 37085.939 E 2327.131

CONCRETE BARRIER COMPONENTS	
STA 17+40.000 TO 18+00.000	
STA 18+57.000 TO 20+60.000	
CBN-H	4 SECTION(S)
CTB-1E	4 SECTION(S)
CTB-2H	2 SECTION(S)
CMB-E	23 SECTION(S)
CMB-H	23 SECTION(S)
CRB-E	4 SECTION(S)
CRB-H	4 SECTION(S)
CRB-E-SLOTTED	23 SECTION(S)
CRB-H-SLOTTED	24 SECTION(S)

HIGHWAY 11 DESIGN SPEED 80 km/h

McCALLUM RD. DESIGN SPEED 50 km/h

- ALL MOVEMENTS TS7
- FOR DRAINAGE & CONSTRUCTION DETAILS
SEE DWG No. R1-491-104
- FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-504
- FOR SURCHARGE DRAINAGE PLAN
SEE DWG No. R1-491-604

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE 0 1:500 25

DESIGNED	AT	DATE FEB/05
CHECKED	MCS	DATE AUG/05
DRAWN	SM/WL	DATE FEB/05
REVIEWED	SW	DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

BRITISH COLUMBIA

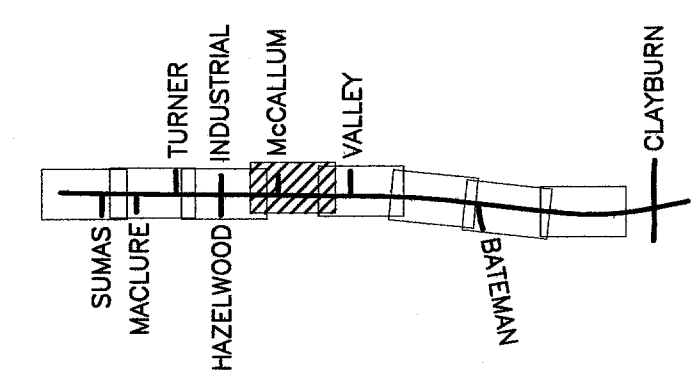
GEOMETRICS AND LANING
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 17+40.000 TO STA. 20+60.000

SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-404

UPDATE: MAR 10, 2006

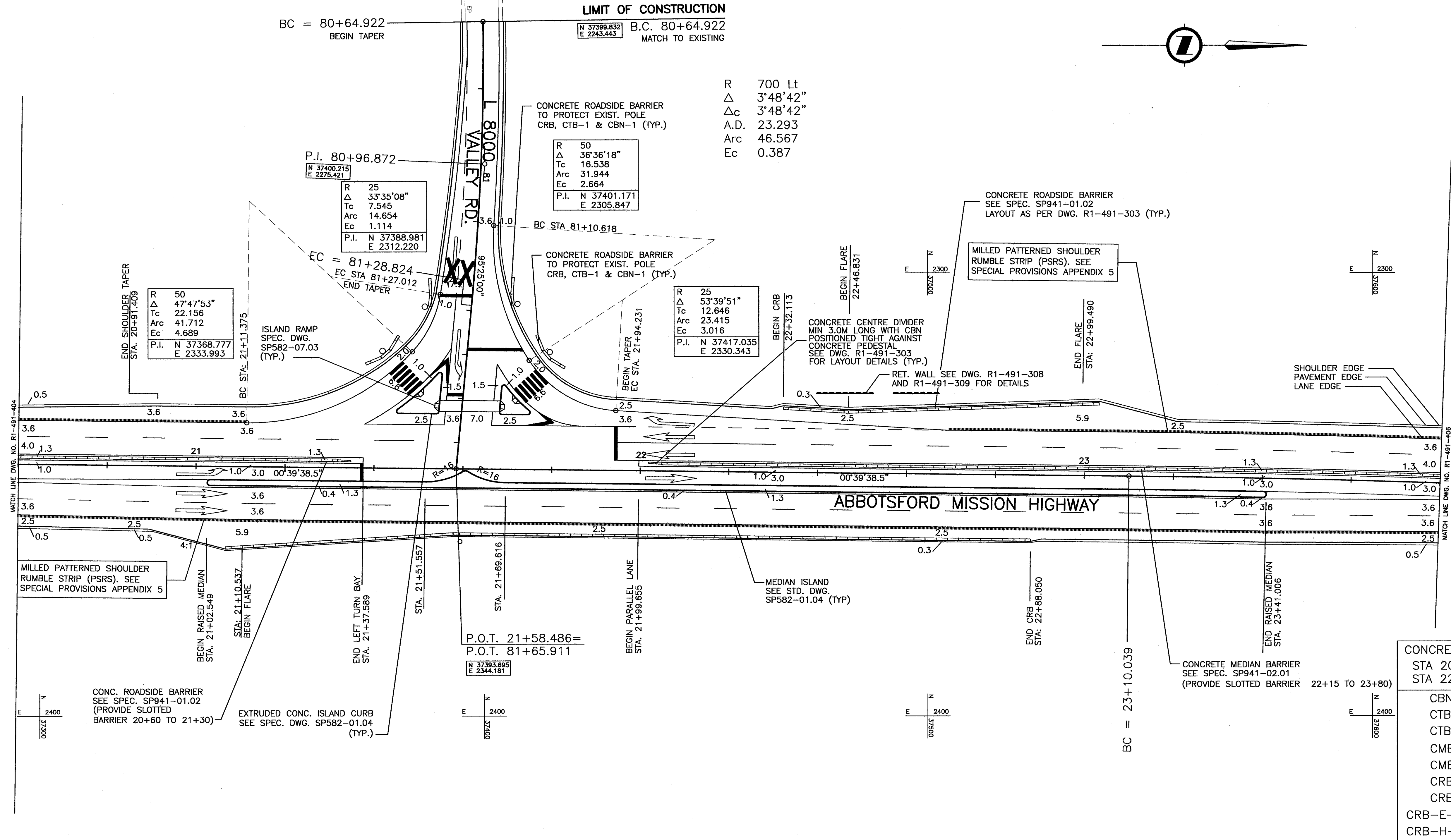
CANCEL PRINTS BEARING PREVIOUS LETTER



FILE: 1437MC404

NOTE:

HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



CONCRETE BARRIER COMPONENTS	
STA 20+60.000 TO 21+40.000	
STA 22+15.000 TO 23+80.000	
CBN-H	10 SECTION(S)
CTB-1E	10 SECTION(S)
CTB-2H	1 SECTION(S)
CMB-E	32 SECTION(S)
CMB-H	32 SECTION(S)
CRB-E	45 SECTION(S)
CRB-H	48 SECTION(S)
CRB-E-SLOTTED	15 SECTION(S)
CRB-H-SLOTTED	16 SECTION(S)

HIGHWAY 11 DESIGN SPEED 80 km/h

VALLEY ROAD DESIGN SPEED 50 km/h

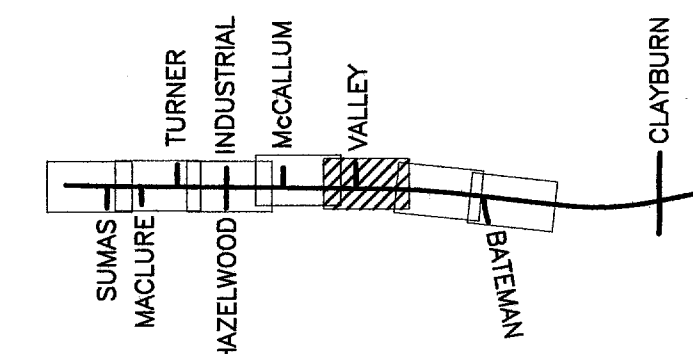
ALL MOVEMENTS TS7

FOR DRAINAGE & CONSTRUCTION DETAILS
SEE DWG No. R1-491-105

FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-505

FOR SURCHARGE DRAINAGE PLAN
SEE DWG No. R1-491-605

FILE: 1437M0405



NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6C 2T3 TEL. (604) 685-9381

DESIGNED: AT DATE: FEB/05
CHECKED: MCS DATE: AUG/05
DRAWN: SM/WL DATE: FEB/05
REVIEWED: SW DATE: MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

GEOMETRICS AND LANING
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 20+60.000 TO STA. 23+80.000

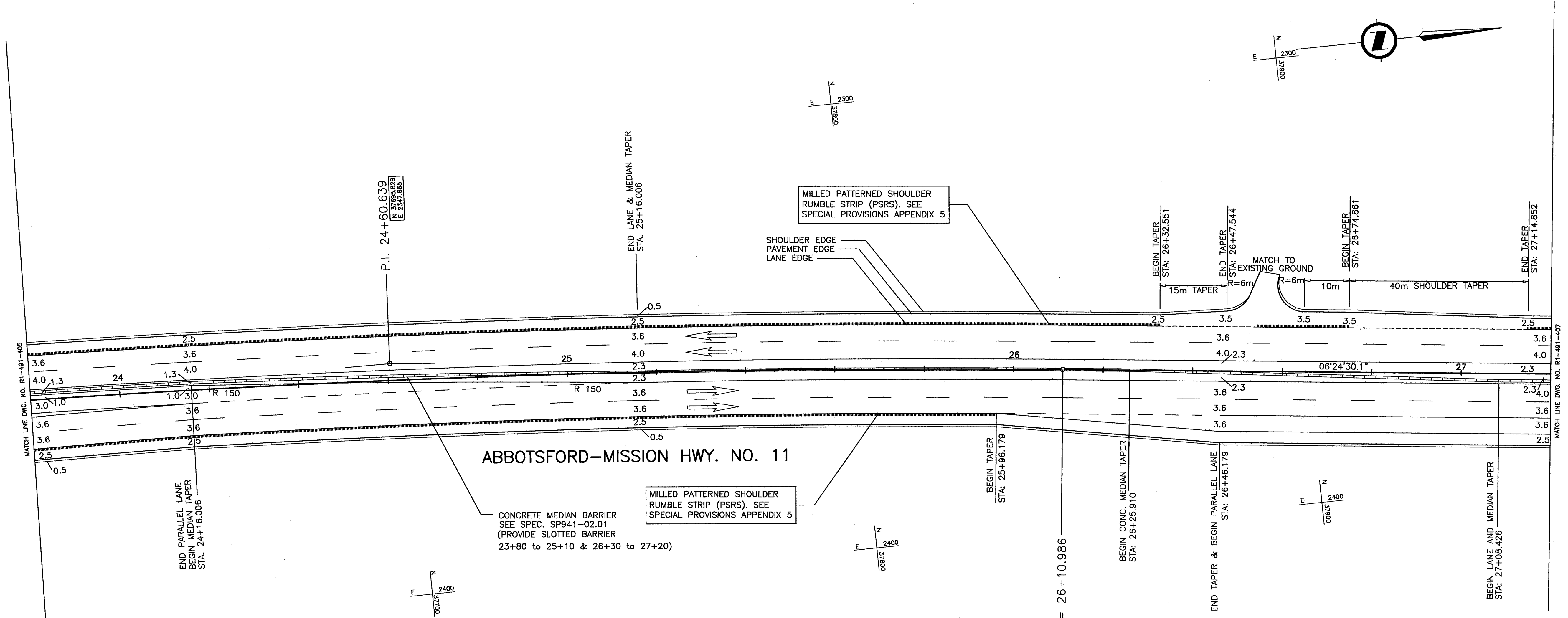
SENIOR DESIGNER: [Signature] DATE: MAR. 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-405

CANCEL PRINTS BEARING PREVIOUS LETTER

UPDATE: MAR 10, 2006

NOTE:
HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



R 3000 Rt
 Δ 5'44'52"
 Δ_c 5'44'52"
 A.D. 150.6
 Arc 300.947
 Ec 3.778

DESIGN SPEED 80km/h

ABBOTSFORD-MISSION HWY. NO. 11

CONCRETE MEDIAN BARRIER
 SEE SPEC. SP941-02.01
 (PROVIDE SLOTTED BARRIER
 23+80 TO 25+10 & 26+30 TO 27+20)

MILLED PATTERNED SHOULDER
 RUMBLE STRIP (PSRS). SEE
 SPECIAL PROVISIONS APPENDIX 5

MILLED PATTERNED SHOULDER
 RUMBLE STRIP (PSRS). SEE
 SPECIAL PROVISIONS APPENDIX 5

CONCRETE BARRIER COMPONENTS STA 23+80.000 TO 27+20.000	
CMB-E 24	SECTION(S)
CMB-H 24	SECTION(S)
CMB-E-SLOTTED 44	SECTION(S)
CMB-H-SLOTTED 44	SECTION(S)

- ALL MOVEMENTS TS7
- FOR DRAINAGE & CONSTRUCTION DETAILS
SEE DWG No. R1-491-106
- FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-506
- FOR SURCHARGE DRAINAGE PLAN
SEE DWG No. R1-491-606

NOLEA Consultants Ltd.
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SCALE 0 1:500 25

DESIGNED	AT	DATE FEB/05
CHECKED	MCS	DATE SEPT/05
DRAWN	SM/WL	DATE FEB/05
REVIEWED	SW	DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

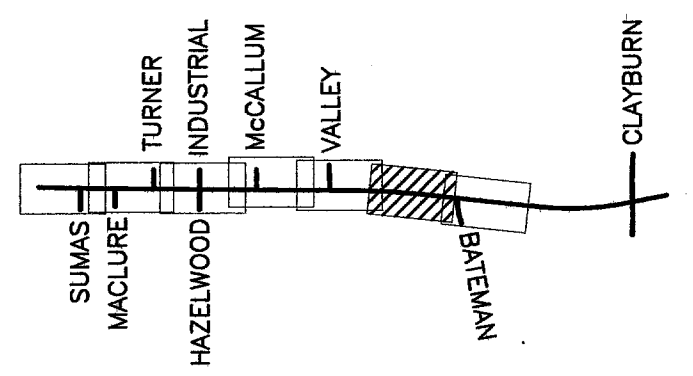
MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

GEOMETRICS AND LANING
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 23+80.000 TO STA. 27+20.000

SENIOR DESIGNER: *Michael...* DATE: MAR, 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-406

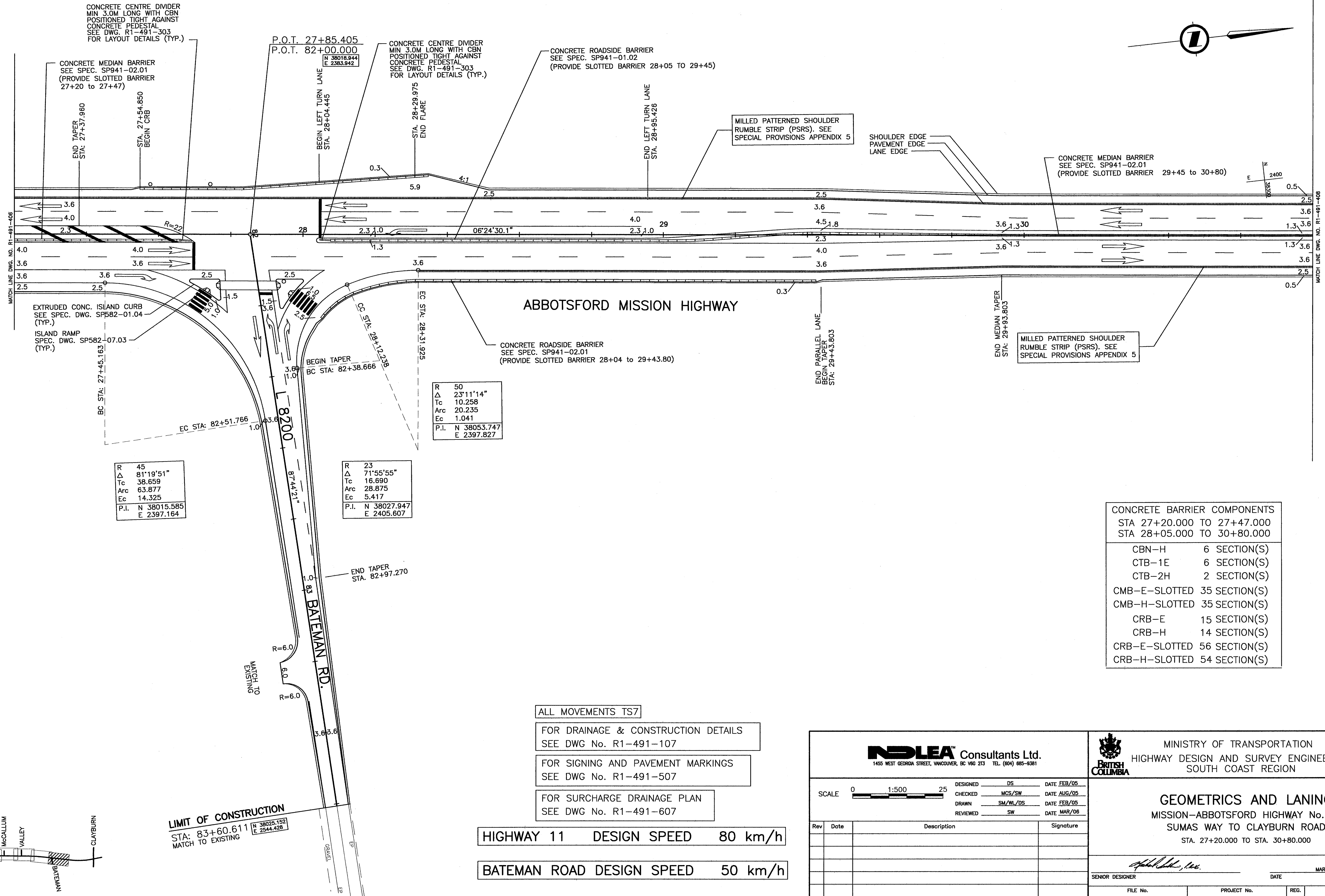
CANCEL PRINTS BEARING PREVIOUS LETTER



FILE: 1437MP406

UPDATE: MAR 10, 2006

NOTE: HOLLOW ARROWS ARE FOR INFORMATION ONLY AND ARE NOT PAVEMENT MARKINGS.



CONCRETE CENTRE DIVIDER
MIN 3.0M LONG WITH CBN
POSITIONED TIGHT AGAINST
CONCRETE PEDESTAL
SEE DWG. R1-491-303
FOR LAYOUT DETAILS (TYP.)

CONCRETE MEDIAN BARRIER
SEE SPEC. SP941-02.01
(PROVIDE SLOTTED BARRIER
27+20 to 27+47)

P.O.T. 27+85.405
P.O.T. 82+00.000

CONCRETE CENTRE DIVIDER
MIN 3.0M LONG WITH CBN
POSITIONED TIGHT AGAINST
CONCRETE PEDESTAL
SEE DWG. R1-491-303
FOR LAYOUT DETAILS (TYP.)

CONCRETE ROADSIDE BARRIER
SEE SPEC. SP941-01.02
(PROVIDE SLOTTED BARRIER 28+05 TO 29+45)

MILLED PATTERNED SHOULDER
RUMBLE STRIP (PSRS). SEE
SPECIAL PROVISIONS APPENDIX 5

SHOULDER EDGE
PAVEMENT EDGE
LANE EDGE

CONCRETE MEDIAN BARRIER
SEE SPEC. SP941-02.01
(PROVIDE SLOTTED BARRIER 29+45 to 30+80)

EXTRUDED CONC. ISLAND CURB
SEE SPEC. DWG. SP582-01.04
(TYP.)

ISLAND RAMP
SPEC. DWG. SP582-07.03
(TYP.)

ABBOTSFORD MISSION HIGHWAY

CONCRETE ROADSIDE BARRIER
SEE SPEC. SP941-02.01
(PROVIDE SLOTTED BARRIER 28+04 to 29+43.80)

MILLED PATTERNED SHOULDER
RUMBLE STRIP (PSRS). SEE
SPECIAL PROVISIONS APPENDIX 5

R 50
Δ 23°11'14"
Tc 10.258
Arc 20.235
Ec 1.041
P.I. N 38053.747
E 2397.827

R 45
Δ 81°19'51"
Tc 38.659
Arc 63.877
Ec 14.325
P.I. N 38015.585
E 2397.164

R 23
Δ 71°55'55"
Tc 16.690
Arc 28.875
Ec 5.417
P.I. N 38027.947
E 2405.607

CONCRETE BARRIER COMPONENTS	
STA 27+20.000 TO 27+47.000	
STA 28+05.000 TO 30+80.000	
CBN-H	6 SECTION(S)
CTB-1E	6 SECTION(S)
CTB-2H	2 SECTION(S)
CMB-E-SLOTTED	35 SECTION(S)
CMB-H-SLOTTED	35 SECTION(S)
CRB-E	15 SECTION(S)
CRB-H	14 SECTION(S)
CRB-E-SLOTTED	56 SECTION(S)
CRB-H-SLOTTED	54 SECTION(S)

ALL MOVEMENTS TS7

FOR DRAINAGE & CONSTRUCTION DETAILS
SEE DWG No. R1-491-107

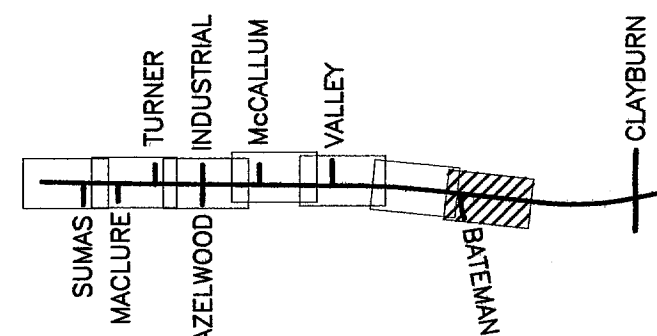
FOR SIGNING AND PAVEMENT MARKINGS
SEE DWG No. R1-491-507

FOR SURCHARGE DRAINAGE PLAN
SEE DWG No. R1-491-607

HIGHWAY 11 DESIGN SPEED 80 km/h

BATEMAN ROAD DESIGN SPEED 50 km/h

LIMIT OF CONSTRUCTION
STA: 83+60.611
MATCH TO EXISTING



NDLEA Consultants Ltd.
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CHECKED MCS/SW	DATE AUG/05
DRAWN SM/WL/DOS	DATE FEB/05
REVIEWED SW	DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

GEOMETRICS AND LANING
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 27+20.000 TO STA. 30+80.000

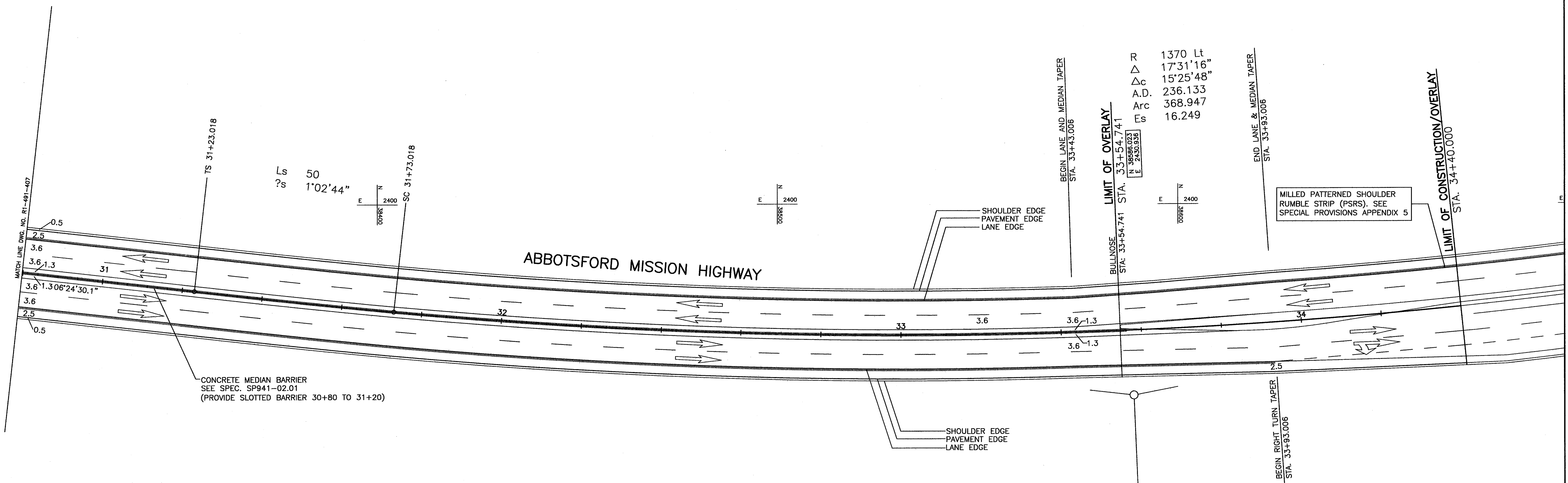
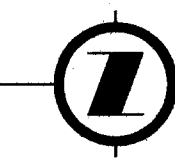
SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-407

CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437M0407

UPDATE: MAR 10, 2006



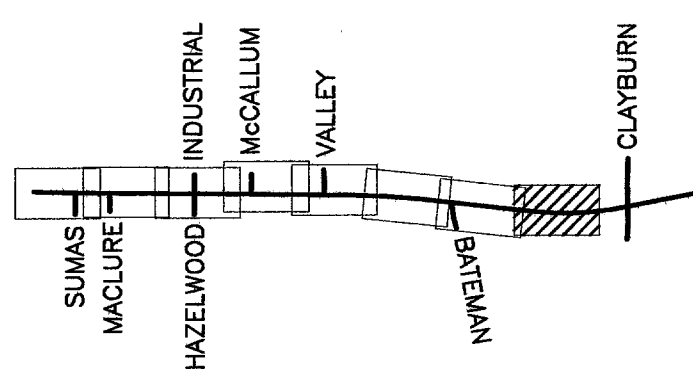
CONCRETE BARRIER COMPONENTS STA 30+80.000 TO 31+20.000	
CRB-E-SLOTTED	8 SECTION(S)
CRB-H-SLOTTED	8 SECTION(S)

DESIGN SPEED 80 km/h

ALL MOVEMENTS TS7

FOR PLAN
SEE DWG. No. R1-491-108

FOR PROFILE
SEE DWG. No. R1-491-



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SCALE 0 1:500 25

DESIGNED	AT	DATE	FEB/05
CHECKED	MCS	DATE	FEB/05
DRAWN	DS	DATE	FEB/05
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

BRITISH COLUMBIA

GEOMETRICS AND LANING
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 30+80.000 TO STA. 31+40.000

SENIOR DESIGNER: *[Signature]* DATE: MAR, 10 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-408

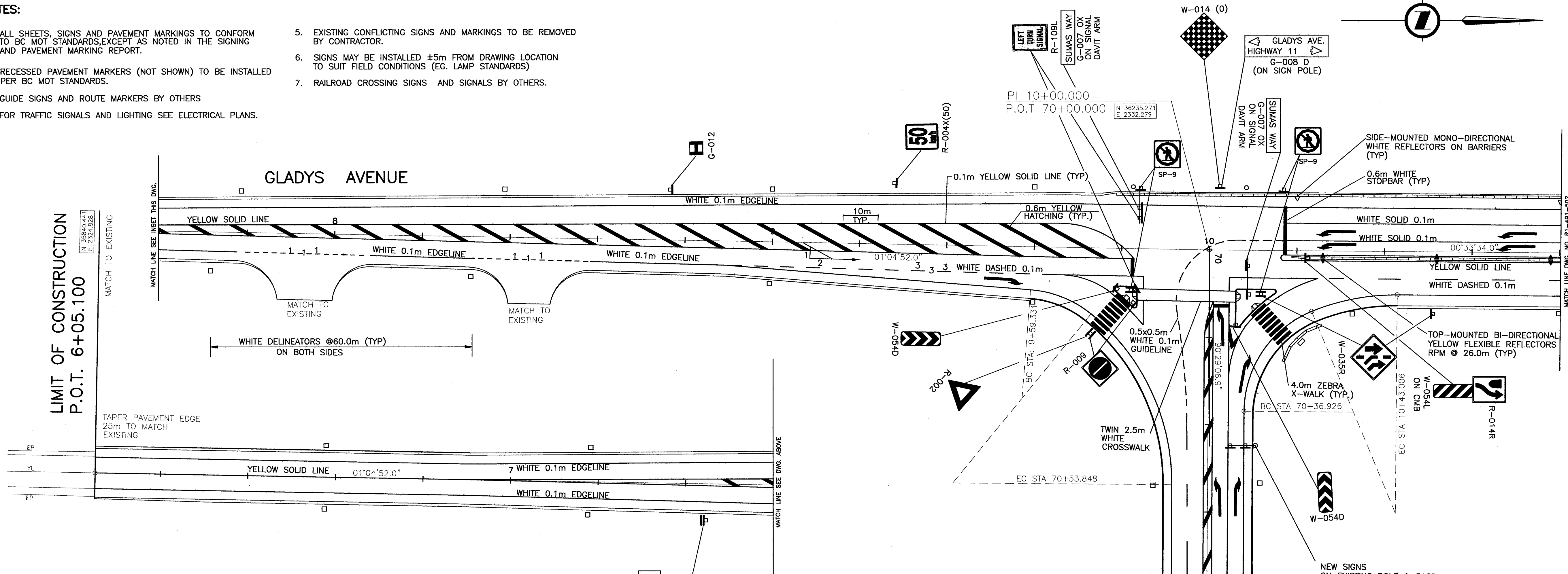
CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437/MC408

UPDATE: MAR 10, 2006

NOTES:

1. ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
2. RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
3. GUIDE SIGNS AND ROUTE MARKERS BY OTHERS.
4. FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
5. EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
6. SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS).
7. RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.



LIMIT OF CONSTRUCTION
P.O.T. 6+05.100

MATCH TO EXISTING

MATCH LINE SEE INSET THIS DWG.

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

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MATCH TO EXISTING

MATCH TO EXISTING

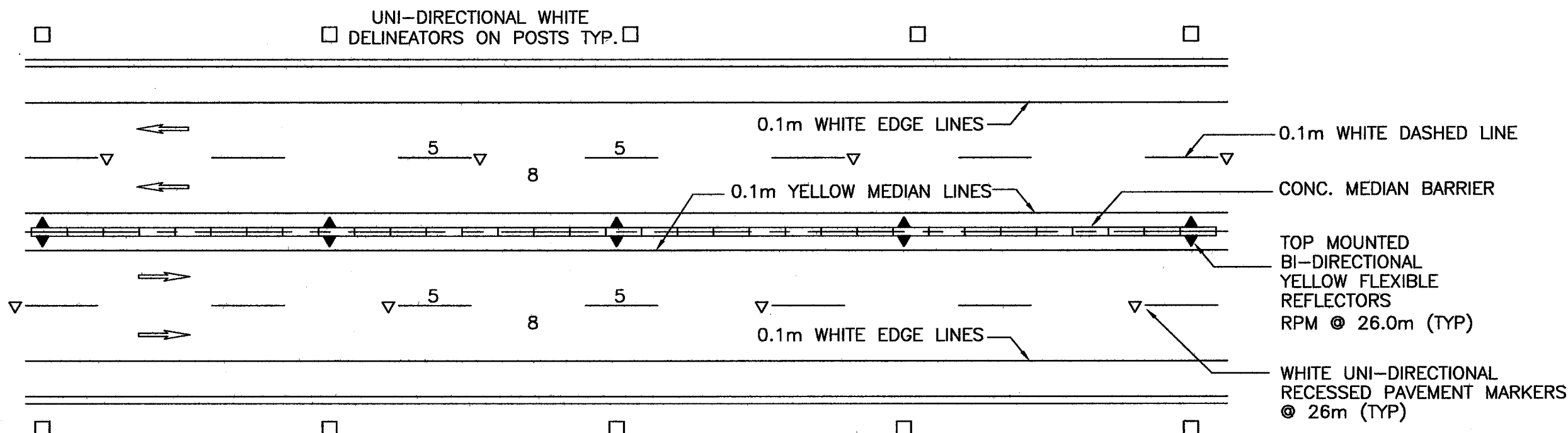
MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING

MATCH TO EXISTING



LANING DETAIL
SCALE : NTS

LIMIT OF GRADING
P.O.T. 70+75.000
MATCH TO EXISTING

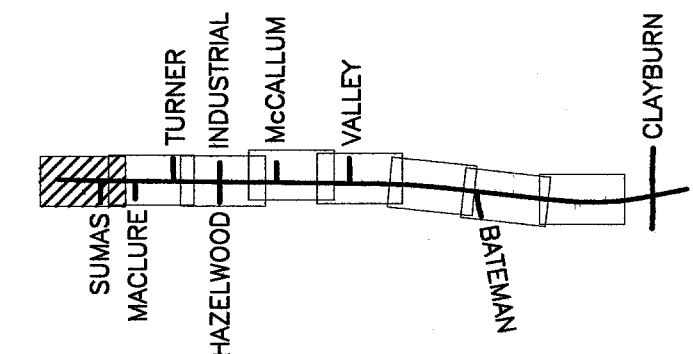
LIMIT OF CONSTRUCTION
P.O.T. 71+57.000
MATCH TO EXISTING

NEW SIGNS ON EXISTING POLE & BASE
STA. 70+45.000
SEE DWG. R1-491-508

GUIDE SIGN 15-11-0058
ON EXISTING POLE & BASE
STA. 70+93.000
SEE DWG. R1-491-508

Sign Code	Description	No. Required
R-002	Yield	1
R-004	Speed Limit (50km/h)	1
R-009	Do Not Enter	2
R-014R	Keep Right	1
R-109L	Left Turn Signal	2
R-082L	Lane Designation - Left	1
R-082R	Lane Designation - Right	1
W-007R	Side Road Right	1
W-014(0)	Checkerboard - Oversize	1
W-035	Added Lane Sign	2
W-054L	Object Marker - Left	1
W-054D	Object Marker - Double	2
W-055	Delineators - White	16
	Top Mounted Yellow Flexible Reflectors	3
	Side Mounted white reflectors on Barriers	2
	Recessed Pavement Markers	36
G-007 OX	Street Name - Large	2
G-008	Street Name Ahead	1
G-008D	Street Name Double	1
G-012	Information - Hospital	1
SP-009	No Pedestrian x-ing	4

FILE: 1437M601



ALL MOVEMENTS TS7

FOR PLAN
SEE DWG. No. R1-491-101

FOR SPOT ELEVATION
SEE DWG. No. R1-491-701

HIGHWAY 11 DESIGN SPEED 80 km/h

SUMAS WAY DESIGN SPEED 50 km/h

GLADYS AVE DESIGN SPEED 50 km/h

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SCALE 0 1:500 25

DESIGNED: JW DATE FEB/05
CHECKED: FSA DATE OCT/05
DRAWN: EA DATE FEB/05
REVIEWED: SW DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

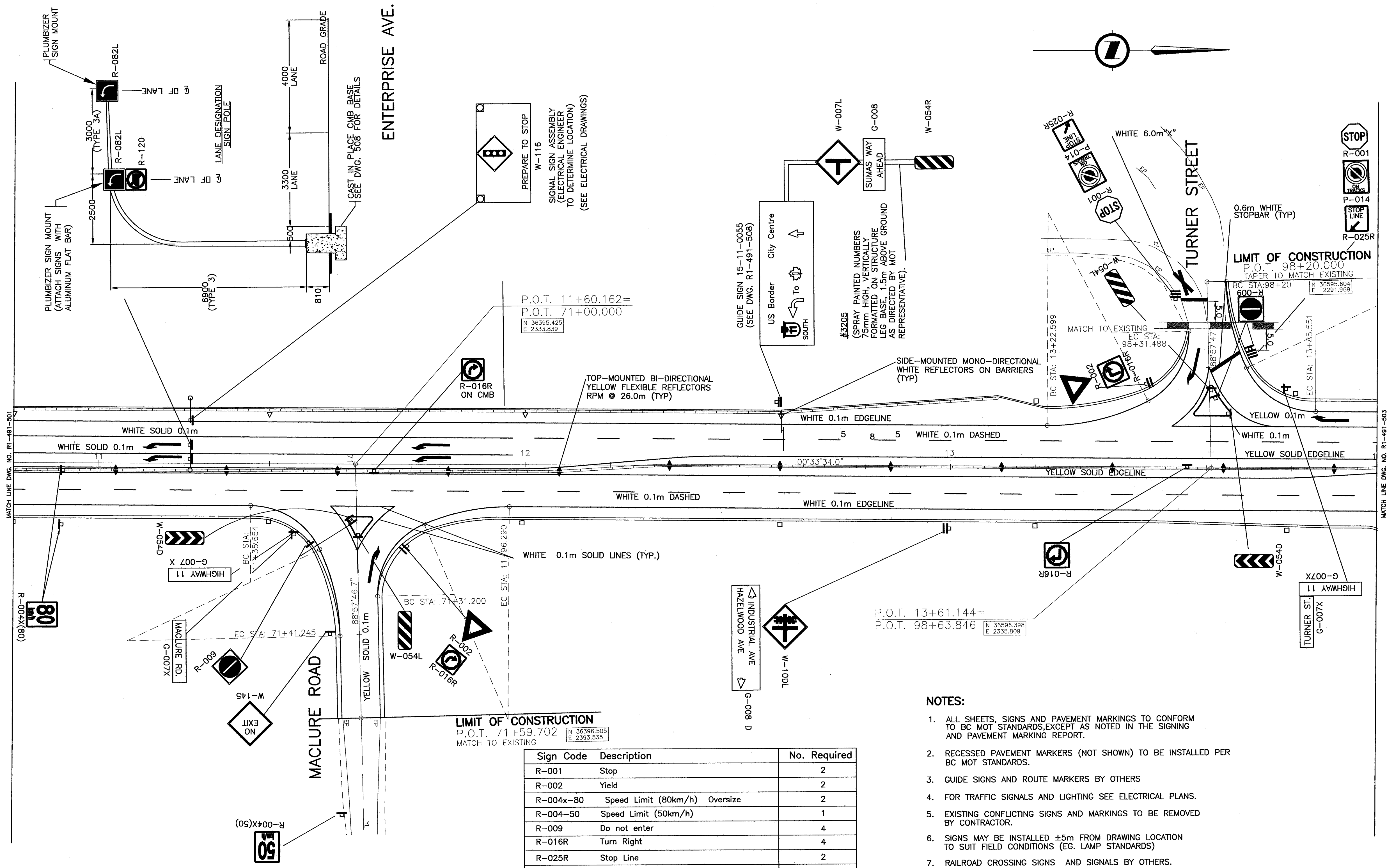
SIGNING AND PAVEMENT MARKINGS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 6+05.100 TO STA. 10+80.000

DATE: MAR, 31 2006

FILE No. 11313 PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-501

CANCEL PRINTS BEARING PREVIOUS LETTER

UPDATE : MAR 31, 2006



- NOTES:**
- ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
 - RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
 - GUIDE SIGNS AND ROUTE MARKERS BY OTHERS
 - FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
 - EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
 - SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS)
 - RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.

HIGHWAY 11	DESIGN SPEED	80 km/h
MACLURE ROAD	DESIGN SPEED	50 km/h

ALL MOVEMENTS TS7

FOR PLAN
SEE DWG. No. R1-491-102

FOR SPOT ELEVATION
SEE DWG. No. R1-491-701

Sign Code	Description	No. Required
R-001	Stop	2
R-002	Yield	2
R-004x-80	Speed Limit (80km/h) Oversize	2
R-004-50	Speed Limit (50km/h)	1
R-009	Do not enter	4
R-016R	Turn Right	4
R-025R	Stop Line	2
R-120	Trucks Prohibited	1
R-082L	Lane Designation - Left	2
W-007L	Side Road - Left	1
W-010DL	Railway Crossing Ahead - Side Road Left	1
W-116*	Prepare to Stop - (* See Electr. Dwg's)	1
W-054D	Object Marker - Double	2
W-054L	Object Marker - Left	2
W-054R	Object Marker - Right	1
W-055	Delineators - White	7
W-145	No Exit	1
	Top Mounted Yellow Flexible Reflectors	12
	Side Mounted White Reflectors on Barriers Reflectors	3
	Recessed Pavement Markers	30
P-104	No Stopping on Tracks	1
G-007X	Street Name - Large	4
G-008 (D)	Street Name - (Double)	1
G-008	Street Name - Ahead	1

NSLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2J3 TEL. (604) 685-9381

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DESIGNED	JW	DATE	FEB/05
CHECKED	FSA	DATE	FEB/05
DRAWN	EA	DATE	FEB/05
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

REVISIONS

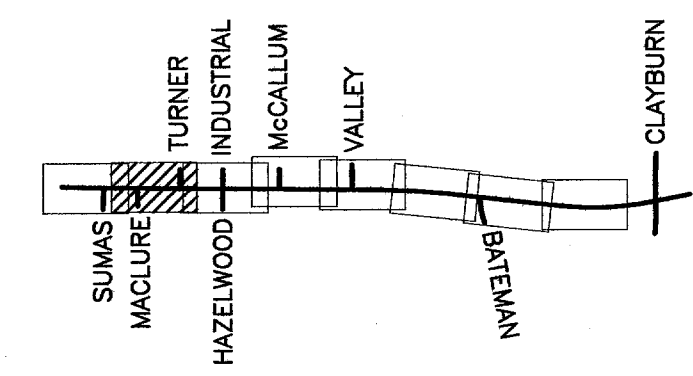
MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SIGNING AND PAVEMENT MARKINGS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 10+80.000 TO STA. 14+00.000

SENIOR DESIGNER: *July 21* DATE: MAR 31 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-502

CANCEL PRINTS BEARING PREVIOUS LETTER

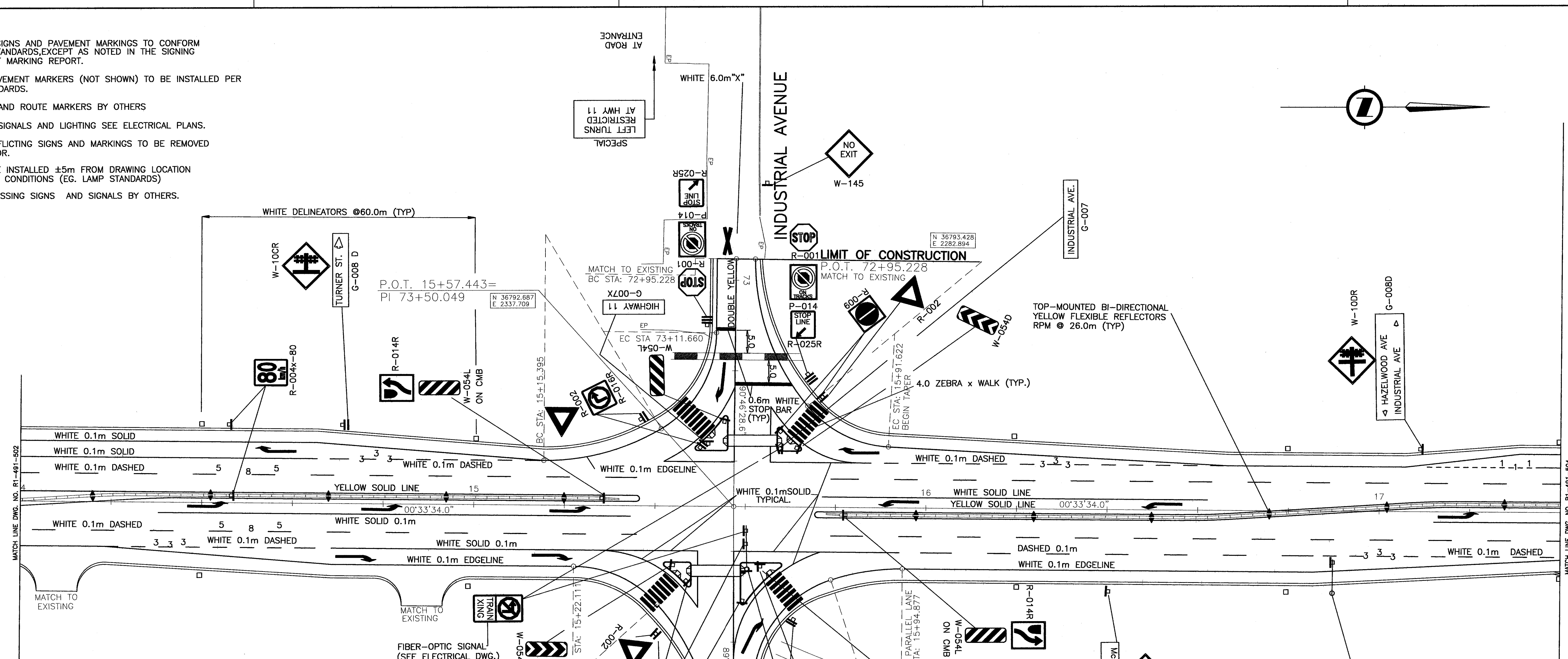


FILE: 1437M0502

UPDATE: MAR 31, 2006

NOTES:

1. ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
2. RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
3. GUIDE SIGNS AND ROUTE MARKERS BY OTHERS
4. FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
5. EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
6. SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS)
7. RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.



Sign Code	Description	No. Required
R-001	Stop	2
R-002	Yield	5
R-004(50)	Speed Limit (50km/h)	1
R-004(80)	Speed Limit (80km/h) Oversized	2
R-009	Do Not Enter	4
R-014R	Keep Right	2
R-016R	Turn Right	4
R-025R	Stop Line	2
R-106	Do Not Block Intersection	1
W-010CL	Railway Crossing - Side Road Left	1
W-010CR	Railway Crossing - Side Road Right	1
W-010DR	Railway Crossing - Side Road Ahead Right	1
W-054D	Object Marker - Double	2
W-054L	Object Marker - Left	4
W-055	Delineators - White	10
	Top Mounted Yellow Flexible Reflectors	11
	Recessed Pavement Markers	43
W-116*	Prepare to Stop - (* See Electr. Dwg's)	1
W-145	No Exit	1
P-104	No Stopping on Tracks	2
G-007X	Street Name - Large	3
G-008	Street Name - Ahead	2
G-008 (D)	Street Name - Double	1
	Railway Crossing - LED No Left Turn	2
	Special	2

HIGHWAY 11 DESIGN SPEED 80 km/h
 HAZELWOOD/INDUSTRIAL AVE. DESIGN SPEED 50 km/h

ALL MOVEMENTS TS7
 FOR PLAN SEE DWG. No. R1-491-103
 FOR SPOT ELEVATION SEE DWG. No. R1-491-702

NDLEA Consultants Ltd.
 1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

SCALE 0 1:500 25

DESIGNED	JW	DATE	FEB/05
CHECKED	FSA	DATE	FEB/05
DRAWN	EA	DATE	FEB/05
REVIEWED	SW	DATE	MAR/06

Rev	Date	Description	Signature

REVISIONS

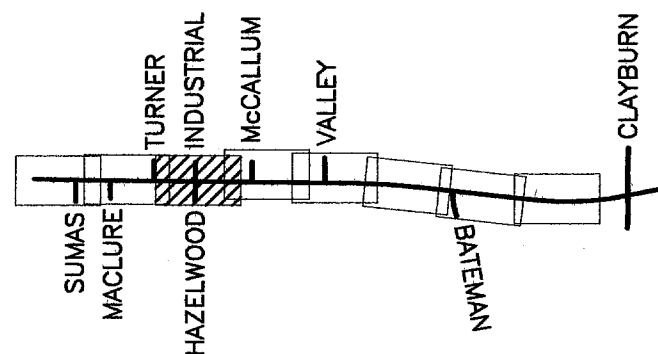
MINISTRY OF TRANSPORTATION
 HIGHWAY DESIGN AND SURVEY ENGINEERING
 SOUTH COAST REGION

SIGNING AND PAVEMENT MARKINGS
 MISSION-ABBOTSFORD HIGHWAY No. 11
 SUMAS WAY TO CLAYBURN ROAD
 STA. 14+00.000 TO STA. 17+40.000

SENIOR DESIGNER: *[Signature]* DATE: MAR. 31 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-503

CANCEL PRINTS BEARING PREVIOUS LETTER

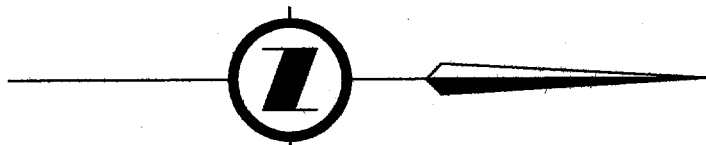


FILE: 1437M0503

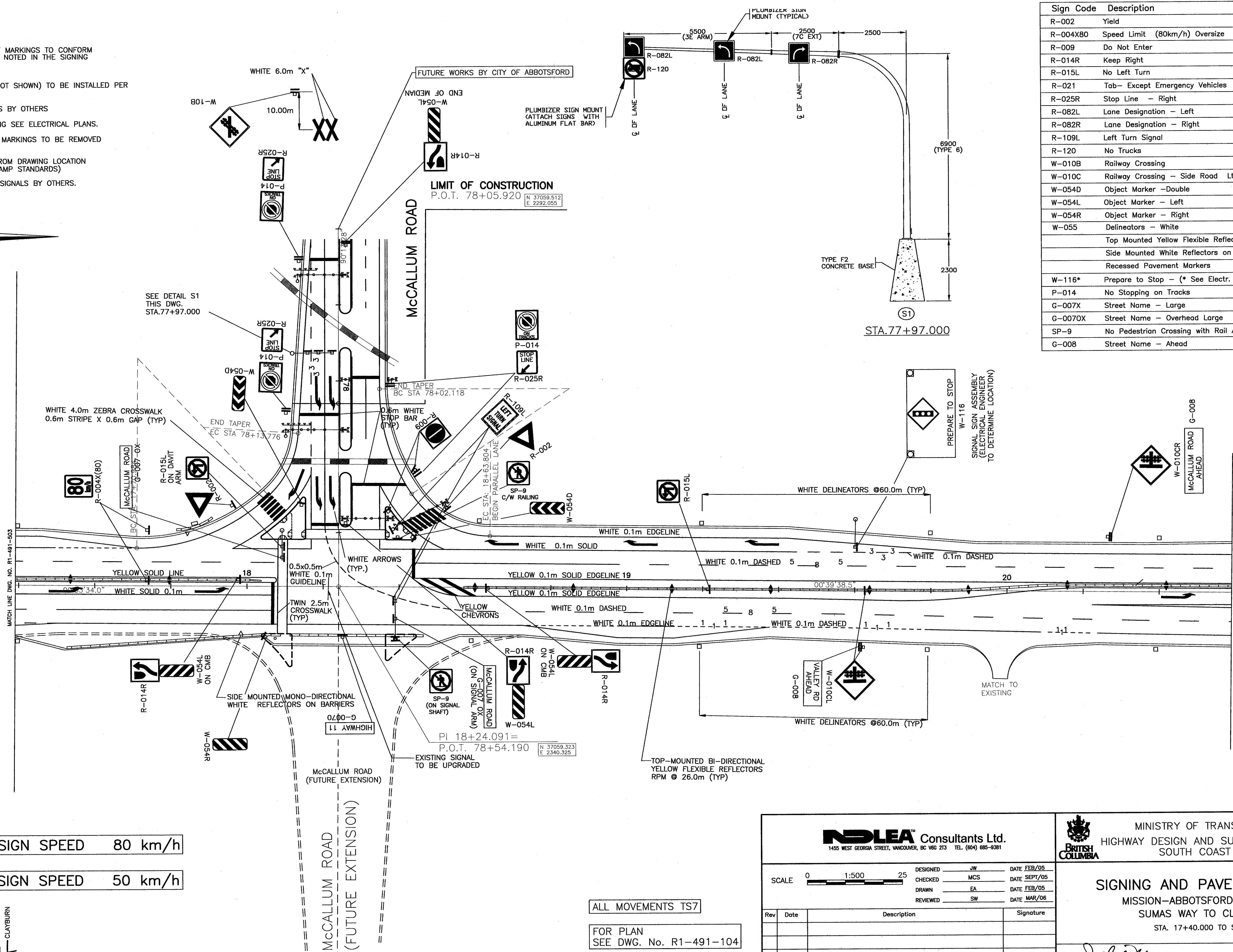
UPDATE: MAR 31, 2006

NOTES:

1. ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
2. RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
3. GUIDE SIGNS AND ROUTE MARKERS BY OTHERS
4. FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
5. EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
6. SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS)
7. RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.

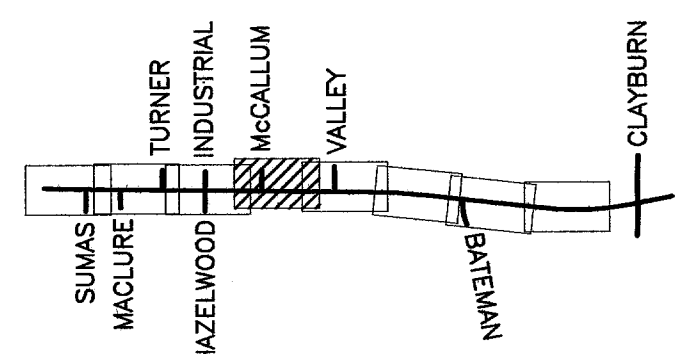


Sign Code	Description	No. Required
R-002	Yield	2
R-004X80	Speed Limit (80km/h) Oversize	2
R-009	Do Not Enter	2
R-014R	Keep Right	4
R-015L	No Left Turn	2
R-021	Tab - Except Emergency Vehicles	1
R-025R	Stop Line - Right	4
R-082L	Lane Designation - Left	2
R-082R	Lane Designation - Right	1
R-109L	Left Turn Signal	2
R-120	No Trucks	1
W-010B	Railway Crossing	1
W-010C	Railway Crossing - Side Road Lt & Rt	2
W-054D	Object Marker - Double	2
W-054L	Object Marker - Left	3
W-054R	Object Marker - Right	1
W-055	Delineators - White	8
	Top Mounted Yellow Flexible Reflectors	10
	Side Mounted White Reflectors on Barriers	2
	Recessed Pavement Markers	45
W-116*	Prepare to Stop - (* See Electr. Dwg's)	1
P-014	No Stopping on Tracks	3
G-007X	Street Name - Large	1
G-0070X	Street Name - Overhead Large	2
SP-9	No Pedestrian Crossing with Rail Assembly	2
G-008	Street Name - Ahead	2



HIGHWAY 11 DESIGN SPEED 80 km/h

McCALLUM RD. DESIGN SPEED 50 km/h



NOLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-4381

SCALE 0 1:500 25

DESIGNED: JW DATE: FEB/05
 CHECKED: MCS DATE: SEPT/05
 DRAWN: EA DATE: FEB/05
 REVIEWED: SW DATE: MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SIGNING AND PAVEMENT MARKINGS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 17+40.000 TO STA. 20+60.000

DATE: MAR. 31 2006

SENIOR DESIGNER: *[Signature]*

FILE No. 11313	PROJECT No. 11313-0001	REG. 1	DRAWING No. R1-491-504
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CANCEL PRINTS BEARING PREVIOUS LETTER

ALL MOVEMENTS TS7

FOR PLAN SEE DWG. No. R1-491-104

FOR SPOT ELEVATION SEE DWG. No. R1-491-702

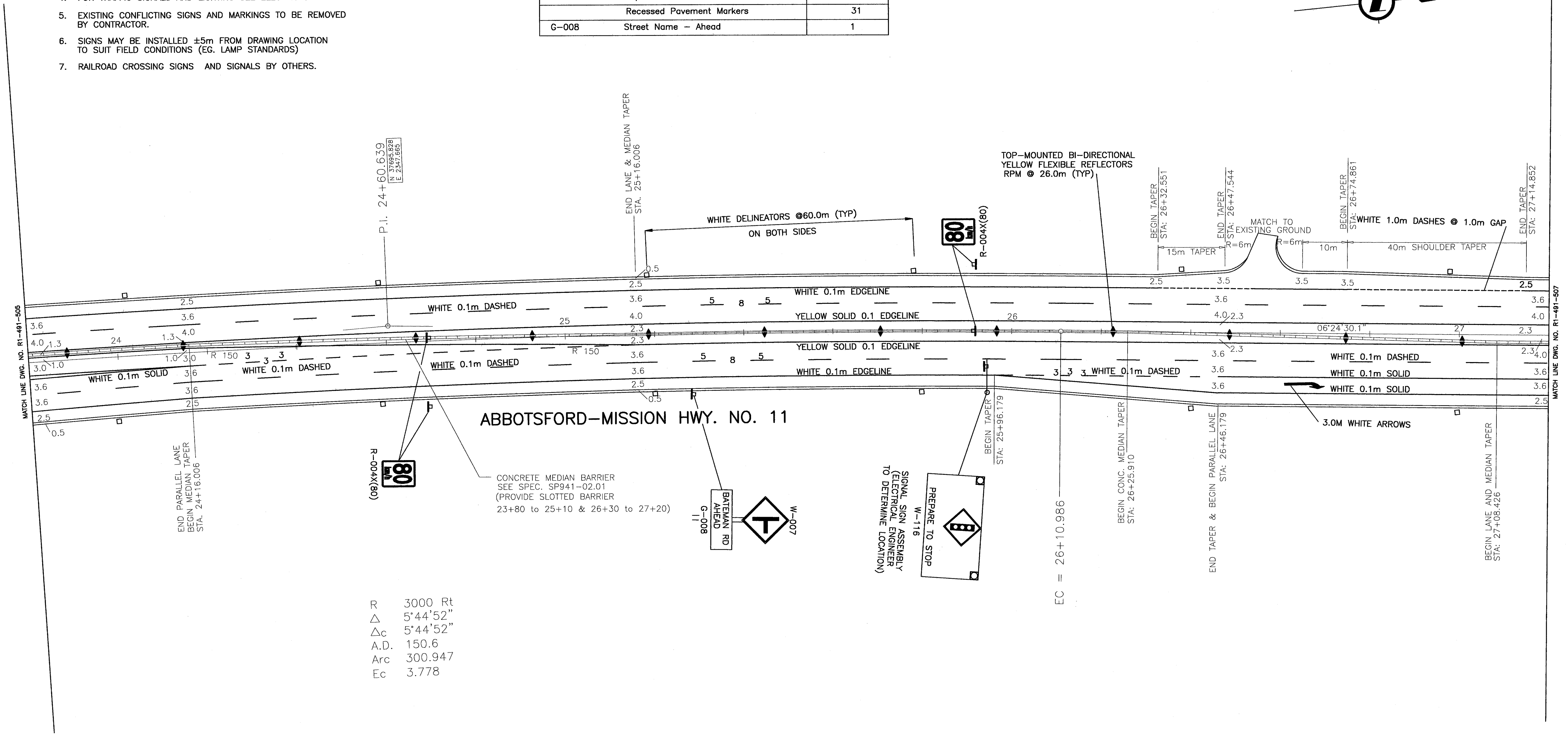
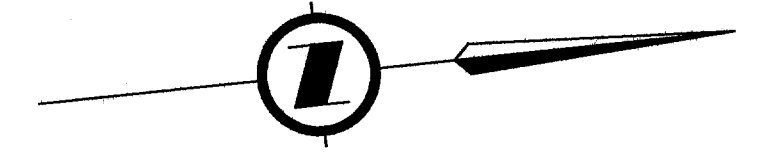
FILE: 1437M0504

UPDATE: MAR 31, 2006

NOTES:

1. ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
2. RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
3. GUIDE SIGNS AND ROUTE MARKERS BY OTHERS
4. FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
5. EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
6. SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS)
7. RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.

Sign Code	Description	No. Required
R-004X(80)	Speed Limit (80 km/h)	4
W-007	Side Road	1
W-116*	Prepare to Stop - Signal Ahead	1
W-055	Delineators - White	12
	Top Mounted Yellow Flexible Reflectors	13
	Recessed Pavement Markers	31
G-008	Street Name - Ahead	1



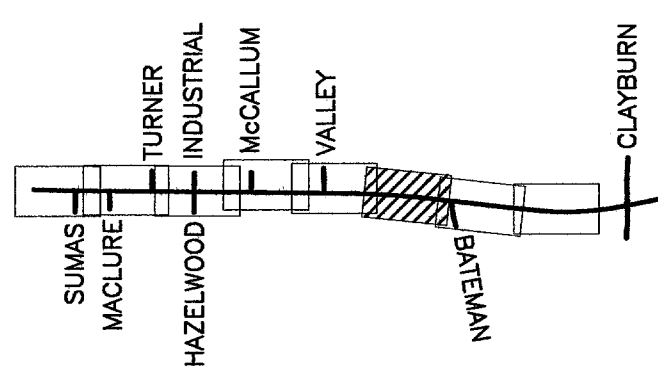
R 3000 Rt
 Δ 5°44'52"
 Δ_c 5°44'52"
 A.D. 150.6
 Arc 300.947
 Ec 3.778

DESIGN SPEED 80 km/h

ALL MOVEMENTS TS7

FOR PLAN
 SEE DWG. No. R1-491-106

FOR SPOT ELEVATION
 SEE DWG. No. R1-491-703

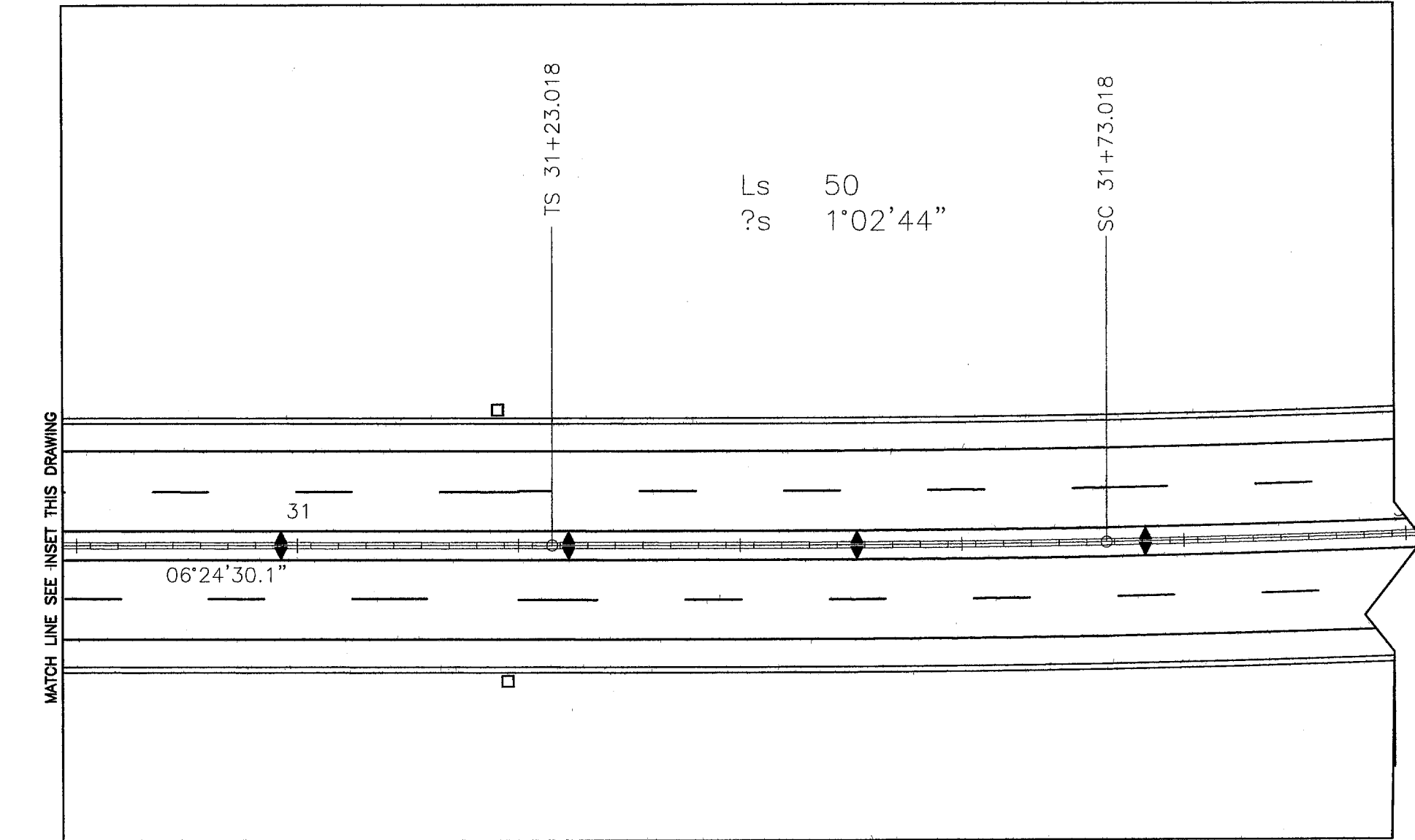
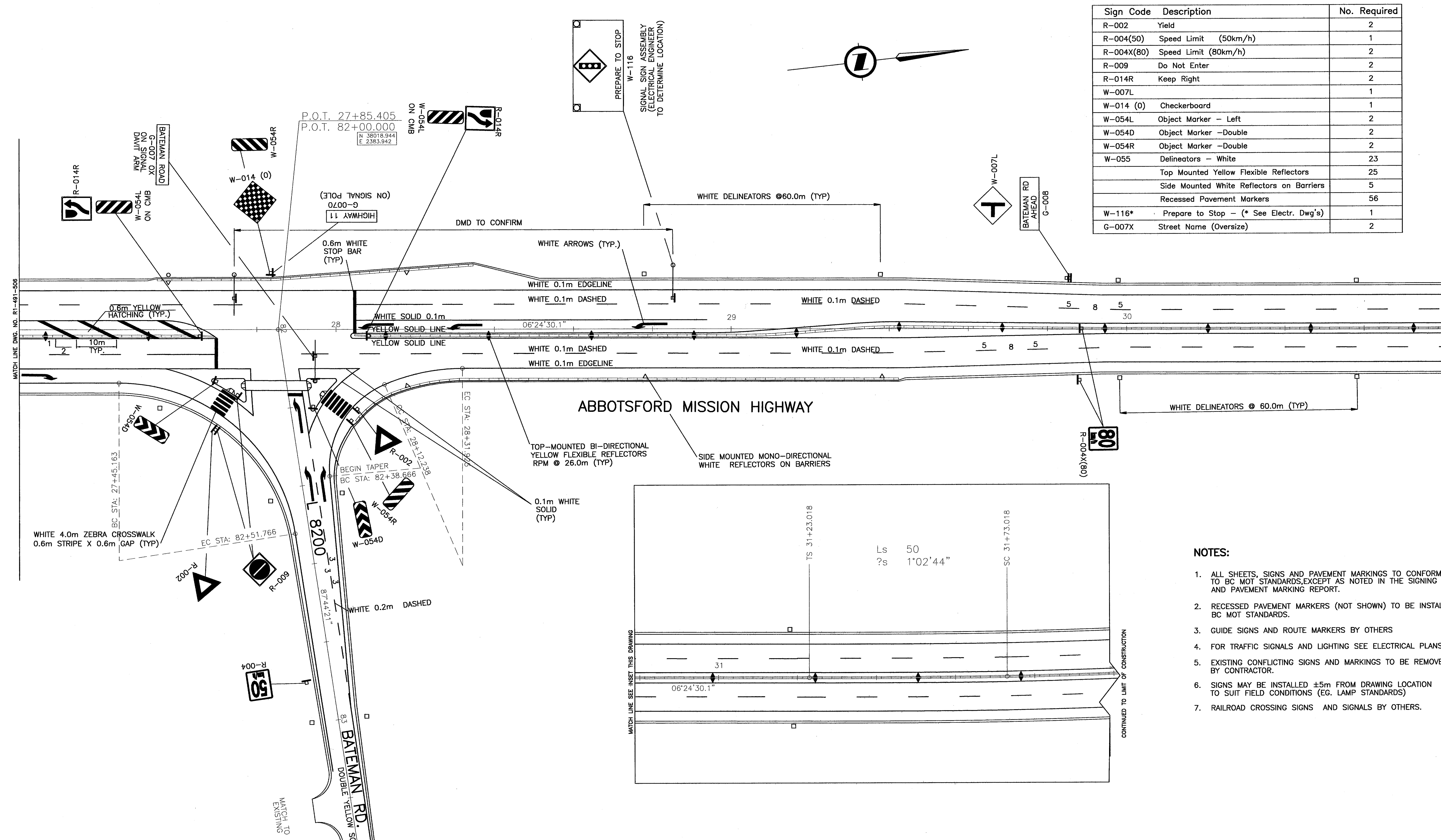


1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381		MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION	
SIGNING AND PAVEMENT MARKINGS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD STA. 23+80.000 TO STA. 27+20.000			
SCALE 0 1:500 25		DESIGNED: JW DATE FEB/05 CHECKED: FSA DATE FEB/05 DRAWN: EA DATE FEB/05 REVIEWED: SW DATE MAR/08	
REVISIONS		SENIOR DESIGNER: <i>Julian M</i> DATE: MAR. 31 2006	
FILE No. 11313	PROJECT No. 11313-0001	REG. 1	DRAWING No. R1-491-506
CANCEL PRINTS BEARING PREVIOUS LETTER			

FILE: 1437M0506

UPDATE: MAR 31, 2006

Sign Code	Description	No. Required
R-002	Yield	2
R-004(50)	Speed Limit (50km/h)	1
R-004X(80)	Speed Limit (80km/h)	2
R-009	Do Not Enter	2
R-014R	Keep Right	2
W-007L		1
W-014 (0)	Checkerboard	1
W-054L	Object Marker - Left	2
W-054D	Object Marker -Double	2
W-054R	Object Marker -Double	2
W-055	Delineators - White	23
	Top Mounted Yellow Flexible Reflectors	25
	Side Mounted White Reflectors on Barriers	5
	Recessed Pavement Markers	56
W-116*	Prepare to Stop - (* See Electr. Dwg's)	1
G-007X	Street Name (Oversize)	2



- NOTES:**
- ALL SHEETS, SIGNS AND PAVEMENT MARKINGS TO CONFORM TO BC MOT STANDARDS, EXCEPT AS NOTED IN THE SIGNING AND PAVEMENT MARKING REPORT.
 - RECESSED PAVEMENT MARKERS (NOT SHOWN) TO BE INSTALLED PER BC MOT STANDARDS.
 - GUIDE SIGNS AND ROUTE MARKERS BY OTHERS
 - FOR TRAFFIC SIGNALS AND LIGHTING SEE ELECTRICAL PLANS.
 - EXISTING CONFLICTING SIGNS AND MARKINGS TO BE REMOVED BY CONTRACTOR.
 - SIGNS MAY BE INSTALLED ±5m FROM DRAWING LOCATION TO SUIT FIELD CONDITIONS (EG. LAMP STANDARDS)
 - RAILROAD CROSSING SIGNS AND SIGNALS BY OTHERS.

HIGHWAY 11 DESIGN SPEED 80 km/h

BATEMAN ROAD DESIGN SPEED 50 km/h

ALL MOVEMENTS TS7

FOR PLAN SEE DWG. No. R1-491-107

FOR SPOT ELEVATION SEE DWG. No. R1-491-703

1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SIGNING AND PAVEMENT MARKINGS

MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
STA. 27+20.000 TO STA. 31+20.000

DESIGNED: JW DATE: DEC/03

CHECKED: MCS/SW DATE: OCT/05

DRAWN: DS DATE: DEC/03

REVIEWED: SW DATE: MAR/06

DATE: MAR 31 2006

FILE No. 11313

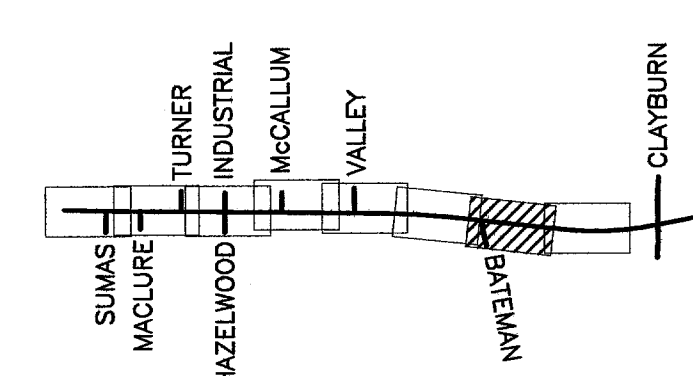
PROJECT No. 11313-0001

REG. 1

DRAWING No. R1-491-507

Rev	Date	Description	Signature

REVISIONS



LIMIT OF CONSTRUCTION

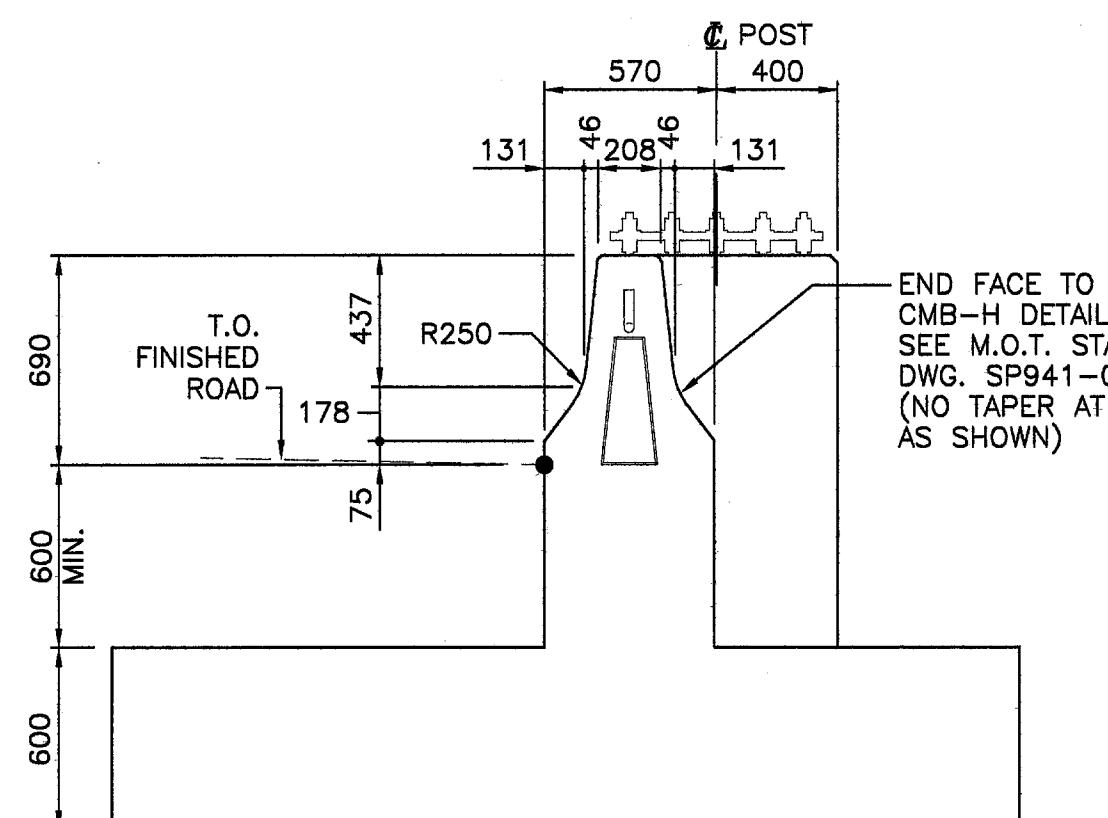
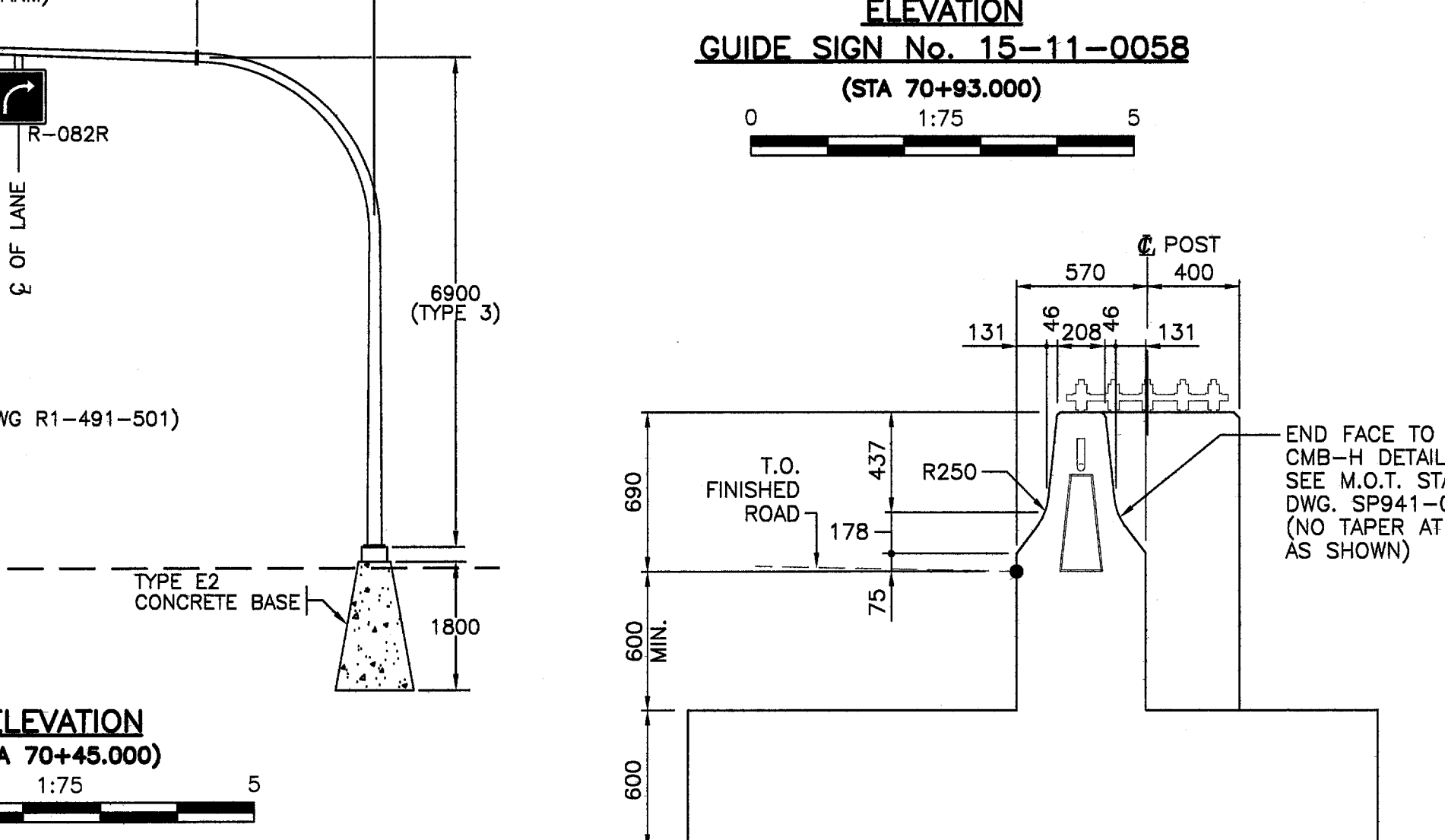
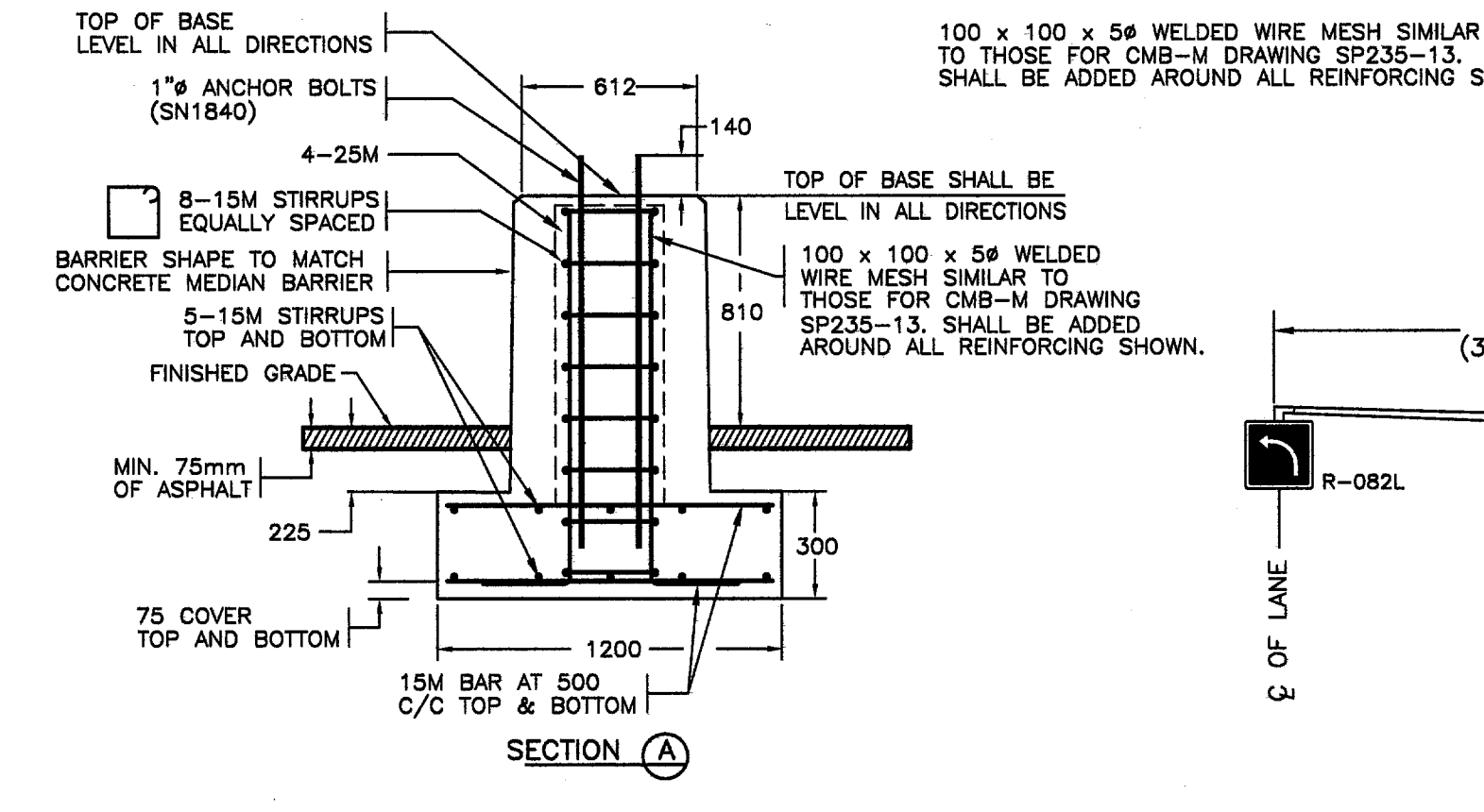
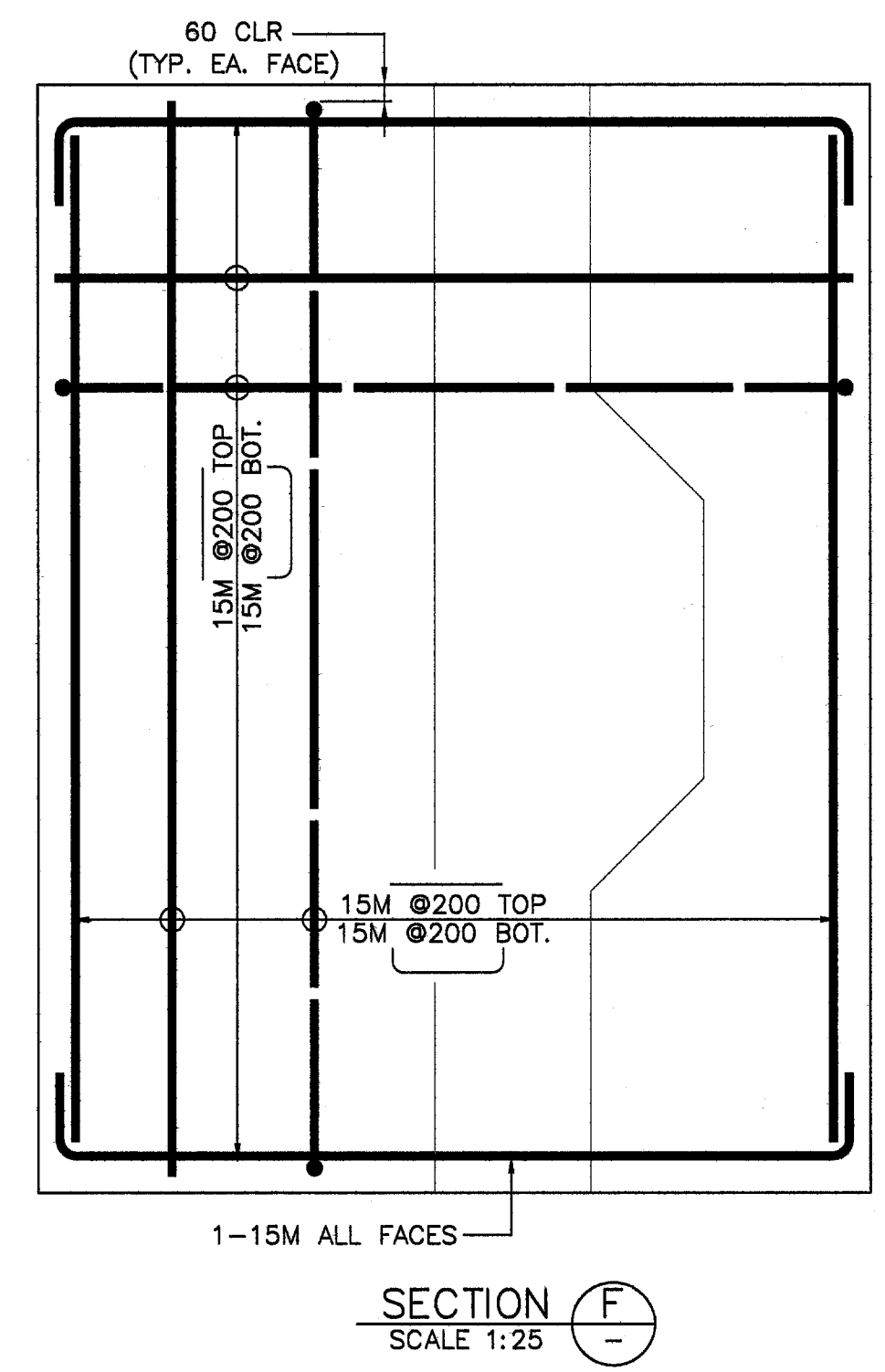
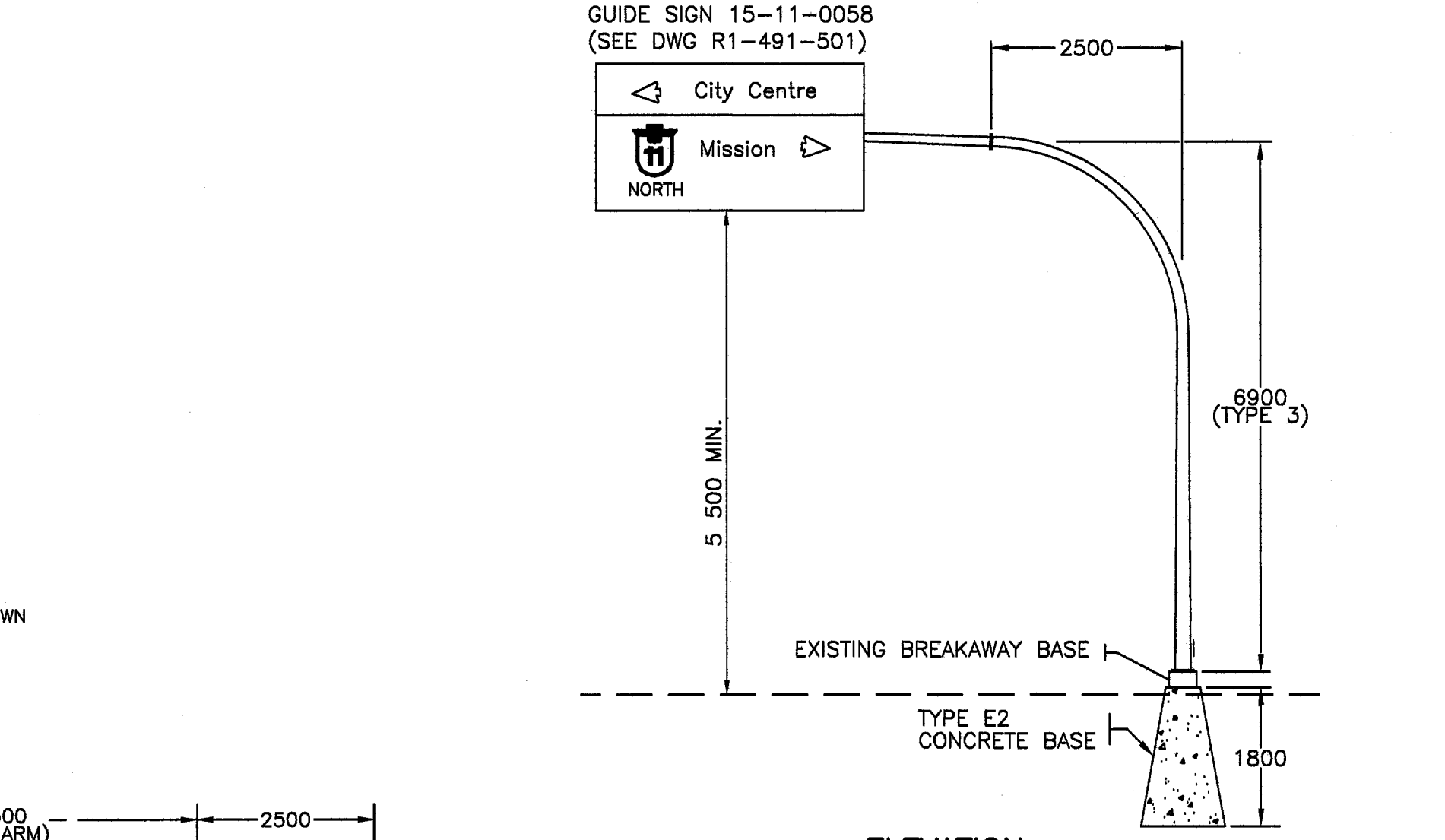
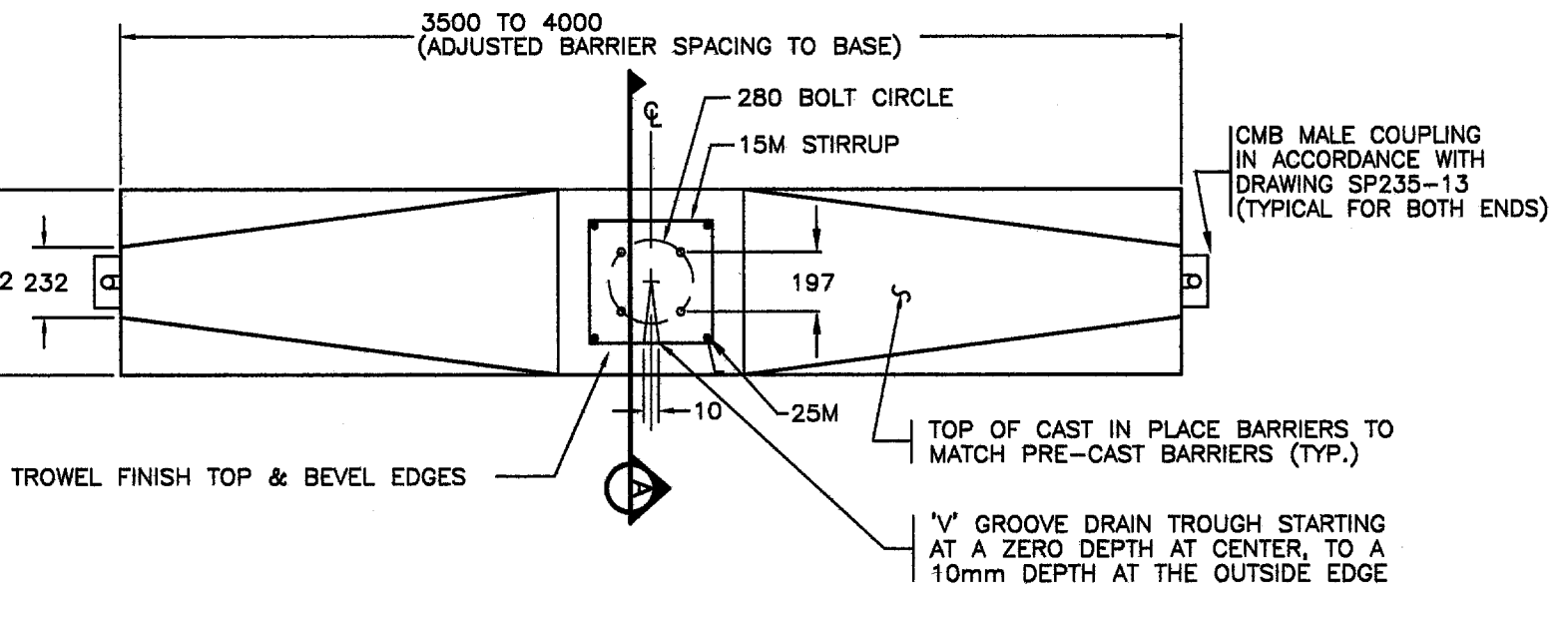
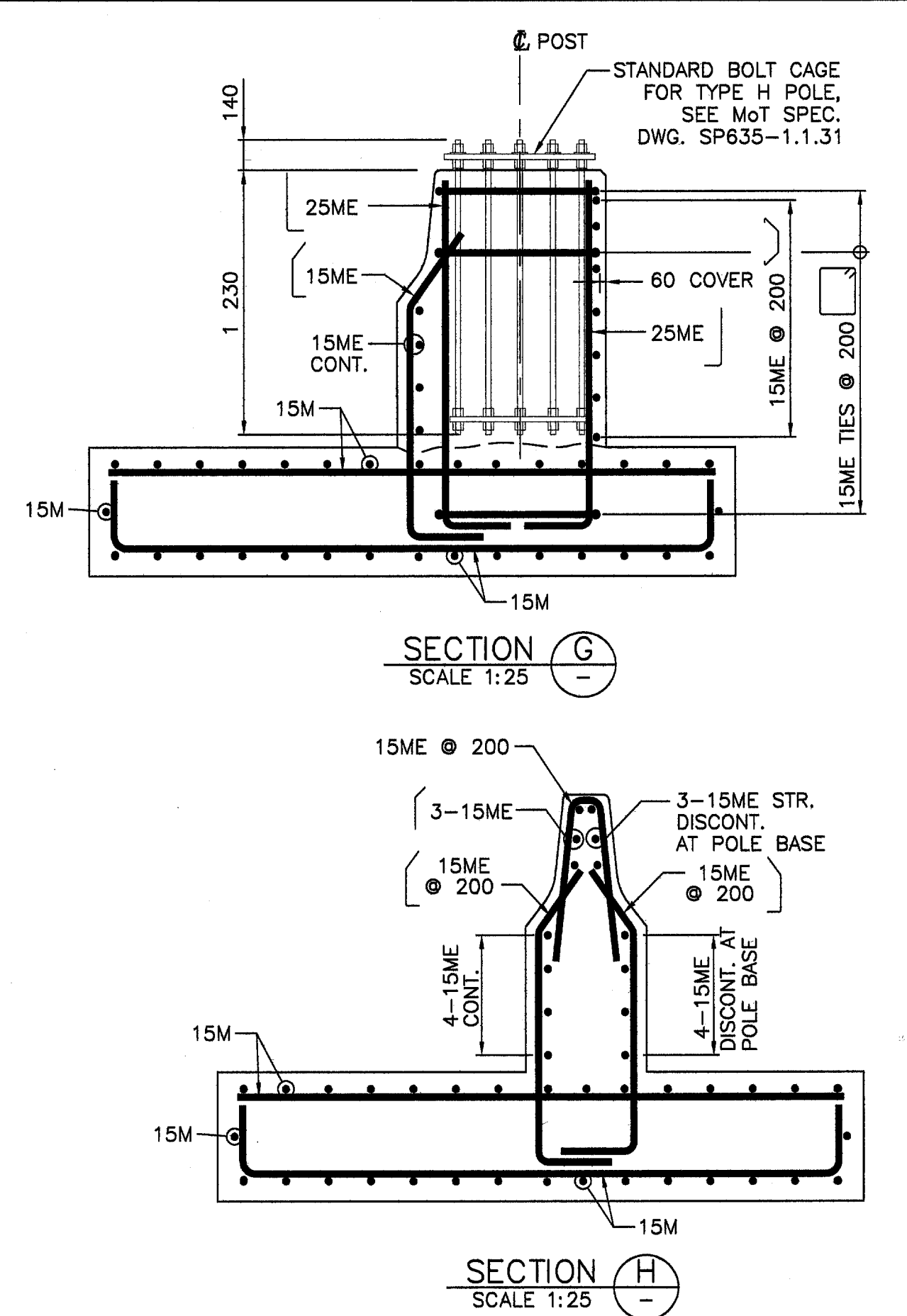
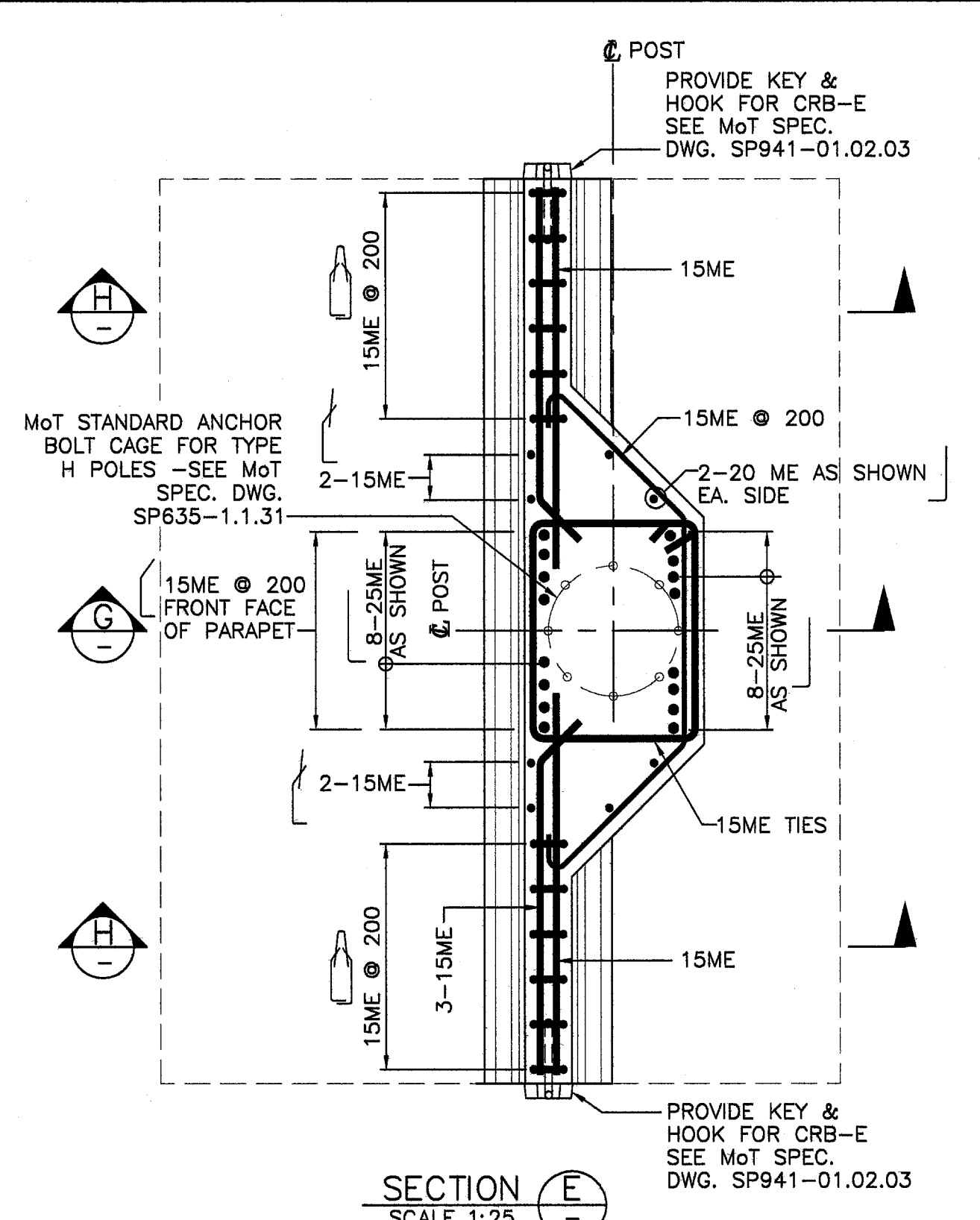
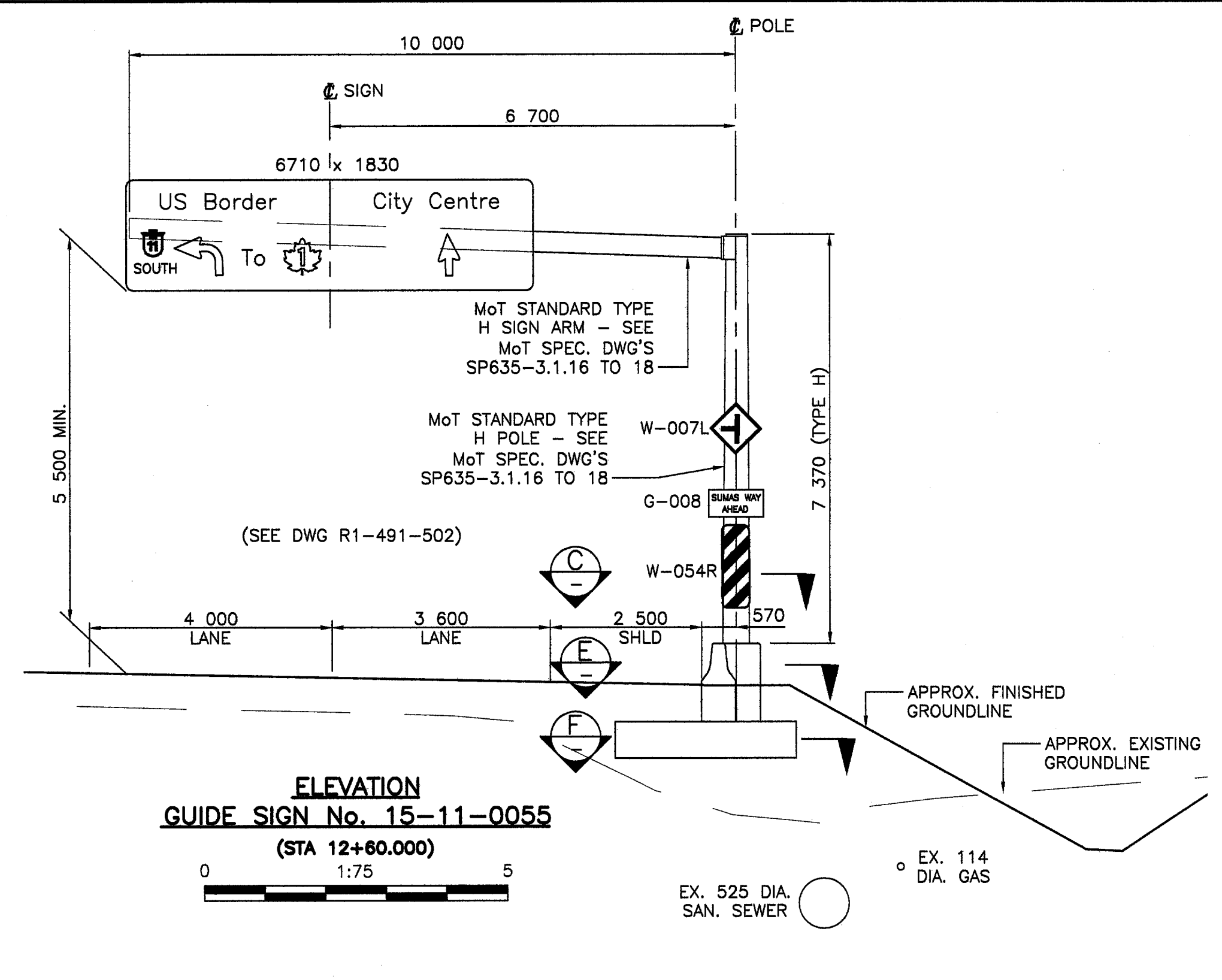
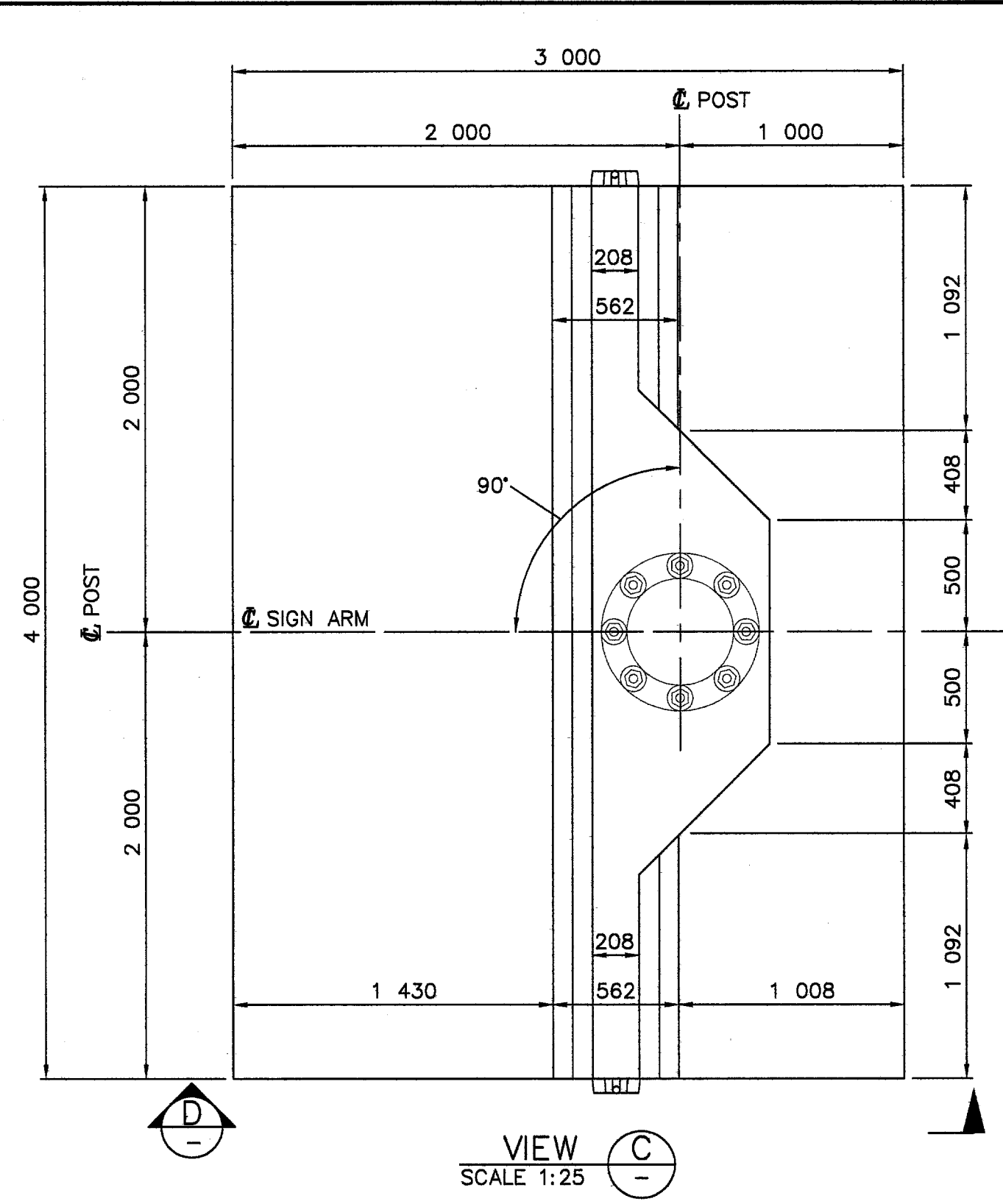
STA: 83+60.611 N 38025.752 E 2544.428

MATCH TO EXISTING

FILE: 1437M0507

UPDATE : MAR 31, 2006

CANCEL PRINTS BEARING PREVIOUS LETTER



- NOTES:**
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30 MPa @ 28 DAYS, ATTAINED PRIOR TO POLE INSTALLATION.
 - REINFORCING STEEL SHALL CONFORM TO CAN/CSA-G30.18-M92 GRADE 400R.
 - CONCRETE COVERS TO REINFORCING STEEL IN CAST-IN-PLACE CONCRETE AND TOLERANCES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
- | | CONCRETE COVER (mm) | TOLERANCE (mm) |
|---|---------------------|----------------|
| CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH | 100 | ±25 |
| EXPOSED TO EARTH OR FRESH WATER | 70 | ±20 |
| NOT EXPOSED TO EARTH OR FRESH WATER | 60 | ±10 |
- CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
 - FOOTINGS ARE DESIGNED FOR SOILS WITH A MINIMUM ALLOWABLE BEARING.
 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 - ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2004 ISSUE) UNLESS OTHERWISE NOTED ON THESE DRAWINGS OR IN THE SPECIAL PROVISIONS.
 - BACKFILL SHALL BE S.G.S.B. IN ACCORDANCE WITH CLAUSE 202.06 OF MOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NO MORE THAN 150mm THICK TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698)
 - THE PREPARED FOUNDATION SUBGRADE SHALL BE INSPECTED BY THE DESIGN ENGINEER AND GIVEN HIS APPROVAL PRIOR TO COMMENCING FOUNDATION CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE ALL MEANS NECESSARY TO ENSURE THAT EXCAVATIONS SHALL REMAIN DRY DURING CONSTRUCTION.
 - ALL EXPOSED EDGES SHALL BE CHAMFERED 20 x 20 UNLESS NOTED OTHERWISE.
 - APPLY LUBRICANT OR OTHER SUITABLE GREASE TO THE EXPOSED PORTION OF THE ANCHOR BOLTS.
 - SIGN MOUNTING HARDWARE NOT SHOWN - DETAILS AS PER MOT STANDARD SPECIFICATIONS DWG. SP635-3.3.1.1 TO 3.3.1.17.
 - GROUT UNDER BASE PLATE AFTER POLE INSTALLATION.

CAST IN PLACE CMB BASE DETAIL AT STA. 11+22
1:25

NOTE:
TO BE STRUCTURALLY CHECKED FOR TENDER SUBMISSION

NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381

DESIGNED: MDK DATE FEB/05
CHECKED: JK DATE FEB/05
DRAWN: WL/SZ DATE FEB/05
REVIEWED: SW DATE MAR/05

SCALE: 1:75

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

SIGNING AND PAVEMENT MARKINGS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
DETAILS

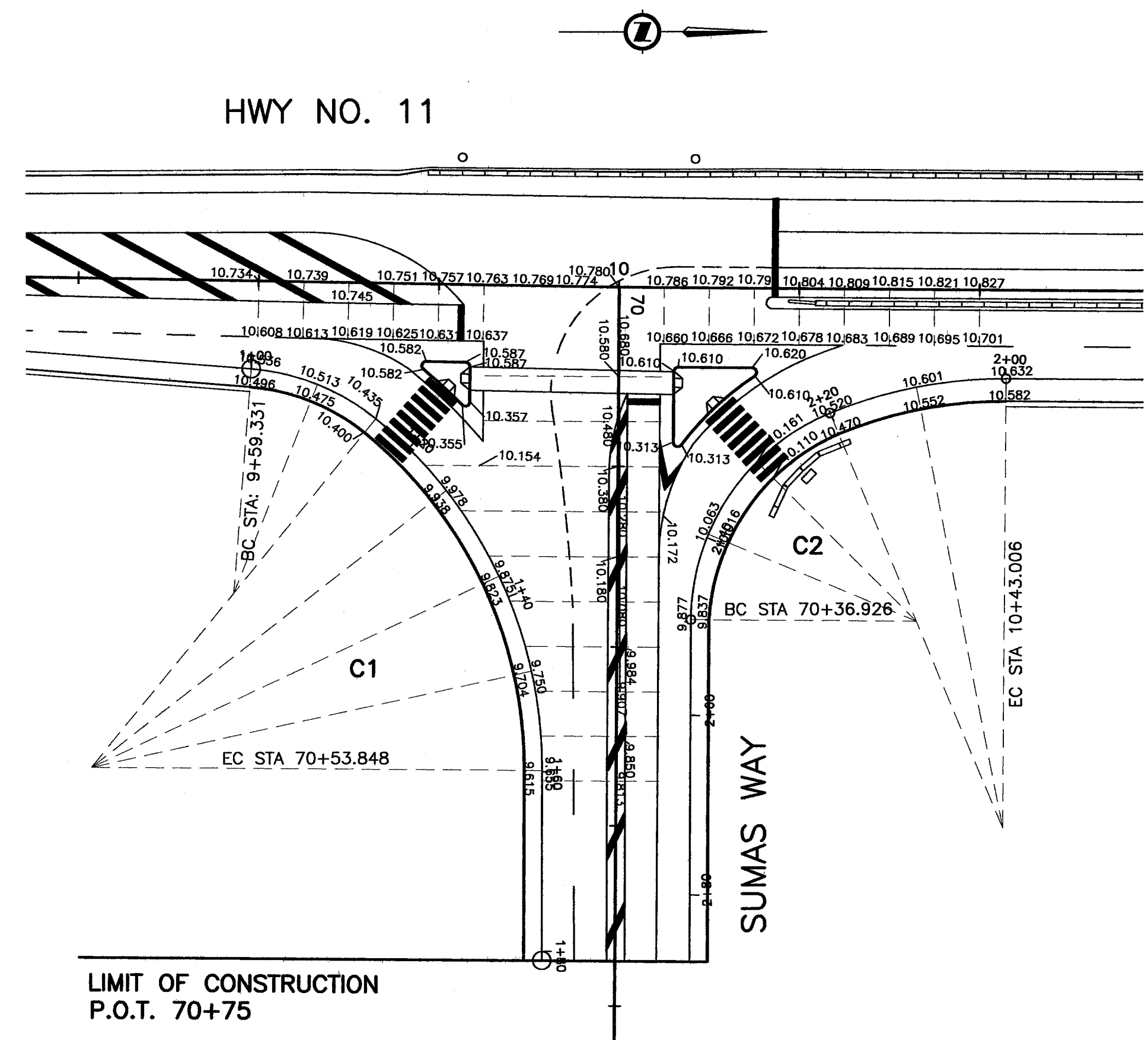
SENIOR DESIGNER: [Signature] DATE: MAR. 31 2006

FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-508

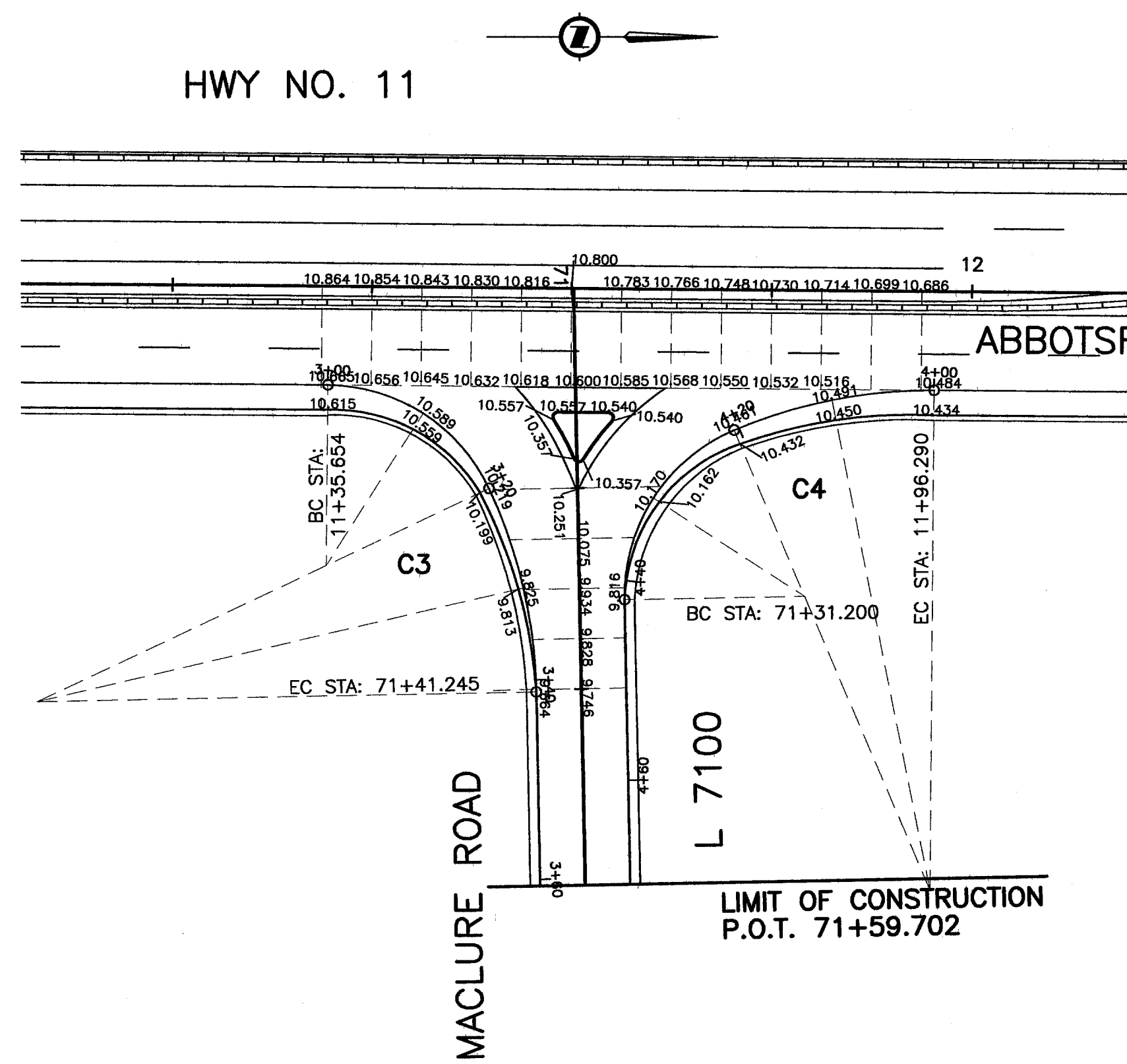
CANCEL PRINTS BEARING PREVIOUS LETTER

FILE: 1437M508

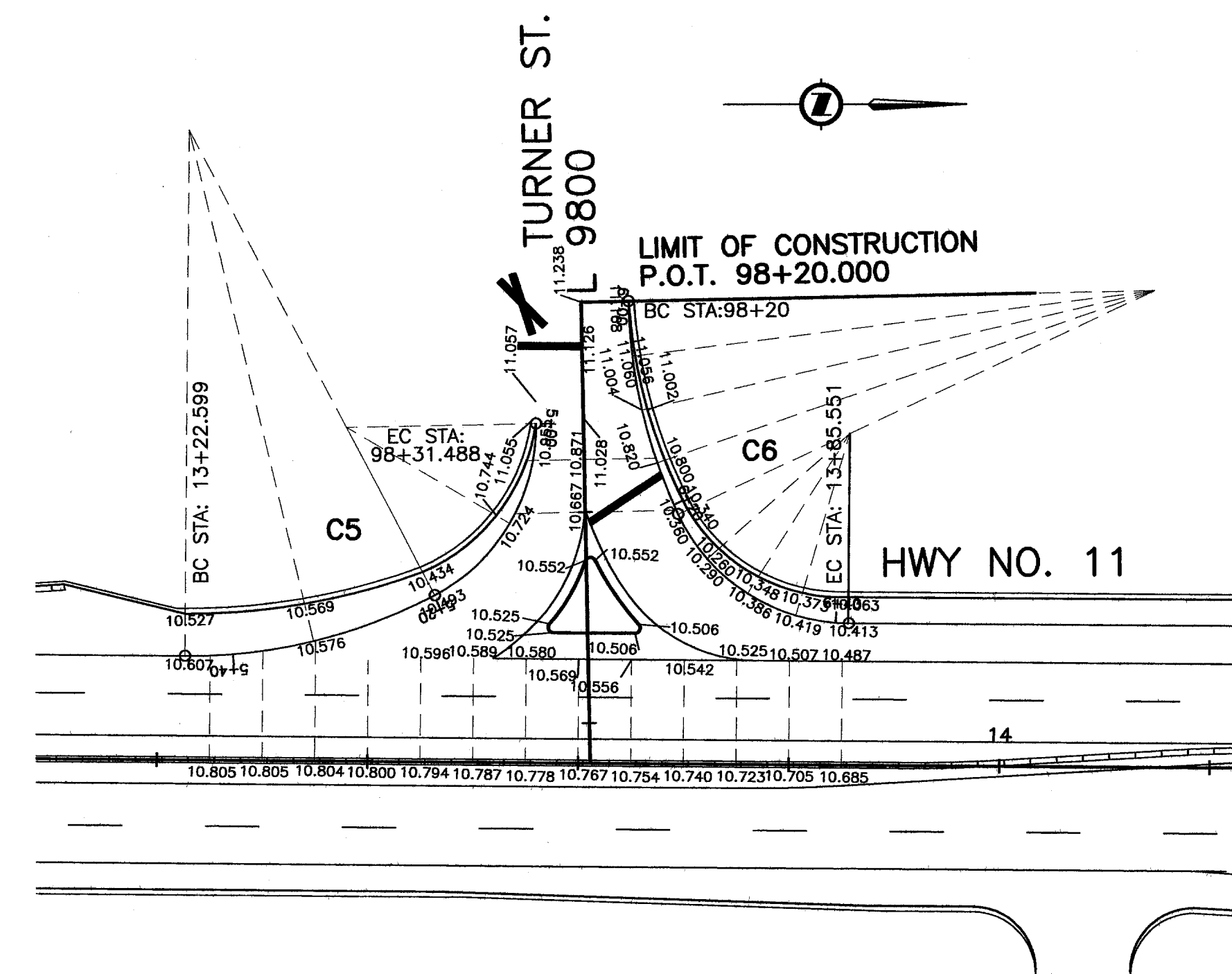
UPDATE: MAR 31, 2006



HWY No. 11/ SUMAS WAY INTERSECTION

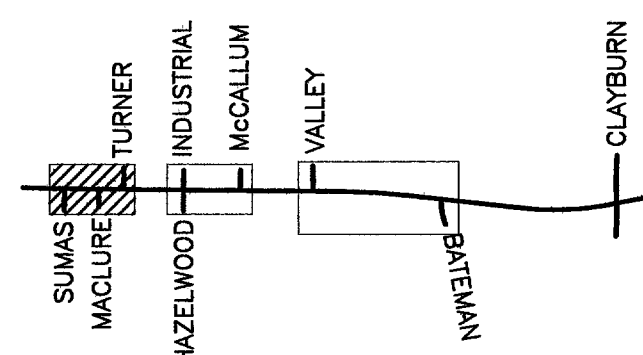


HWY No. 11/ MACLURE RD. INTERSECTION



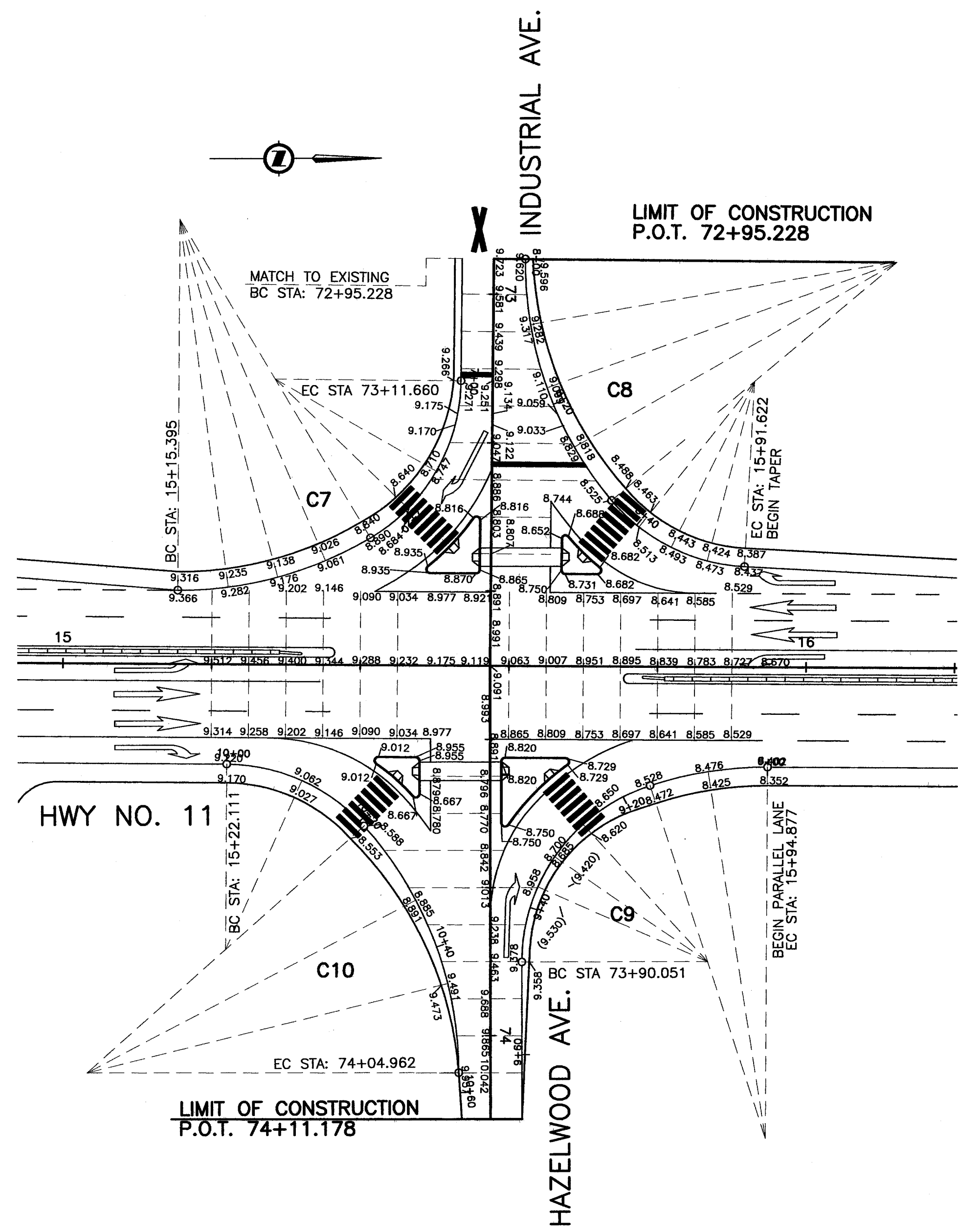
HWY No. 11/ TURNER ST. INTERSECTION

FILE: 1437M701

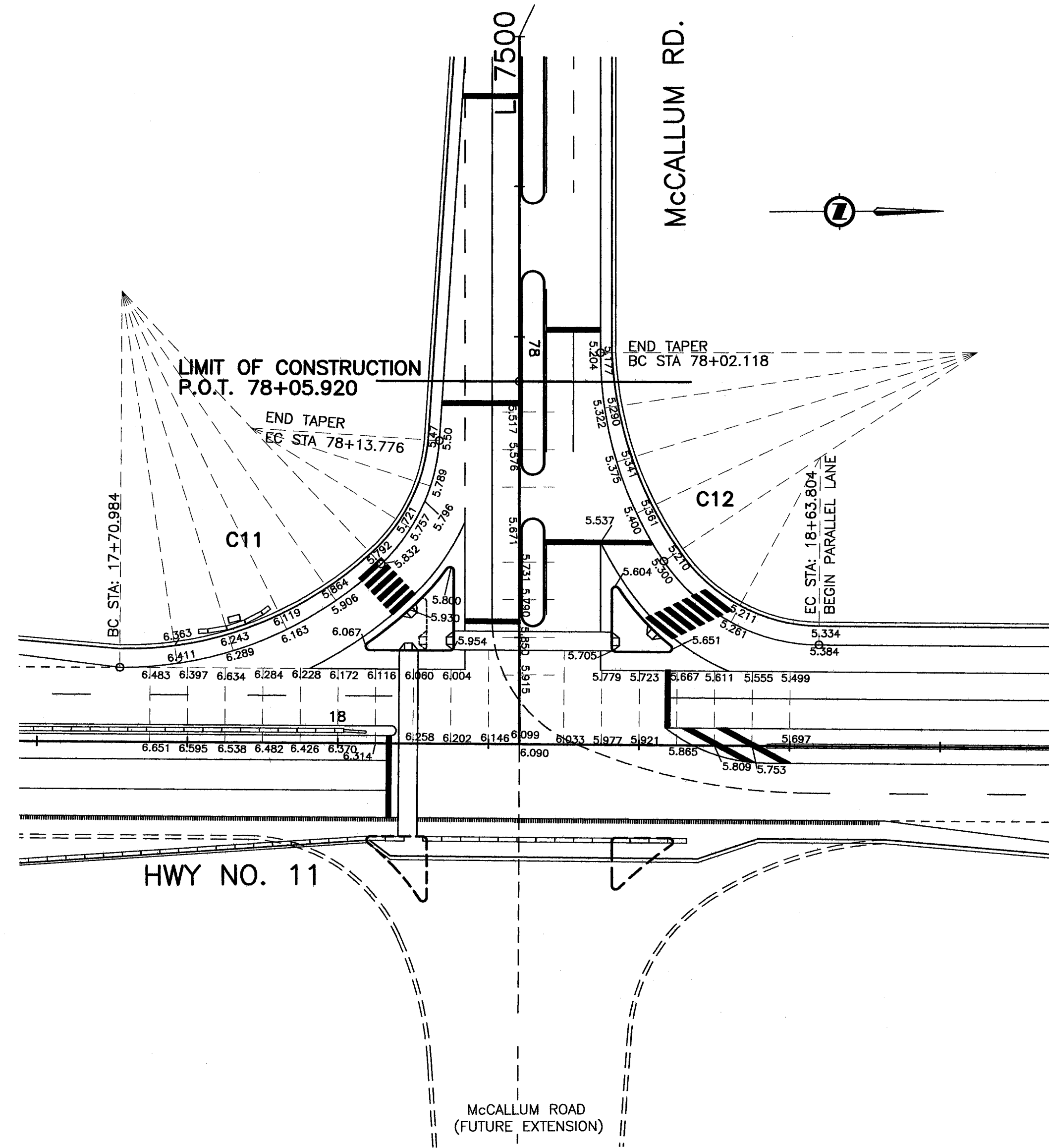


<p>1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>																					
<p>SCALE 0 1:500 25</p>		<p>DESIGNED EA DATE FEB/05 CHECKED FSA DATE AUG/05 DRAWN SM DATE FEB/05 REVIEWED SW DATE MAR/06</p>																					
<table border="1"> <thead> <tr> <th>Rev</th> <th>Date</th> <th>Description</th> <th>Signature</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		Rev	Date	Description	Signature																	<p>SPOT ELEVATIONS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD SUMAS WAY, MACLURE RD AND TURNER ST</p>	
Rev	Date	Description	Signature																				
<p>REVISIONS</p>		<p>SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006</p>																					
<p>FILE No. 11313</p>		<p>PROJECT No. 11313-0001 REG. 1 DRAWING No. R1-491-701</p>																					
<p>CANCEL PRINTS BEARING PREVIOUS LETTER</p>																							

UPDATE : MAR 10, 2006

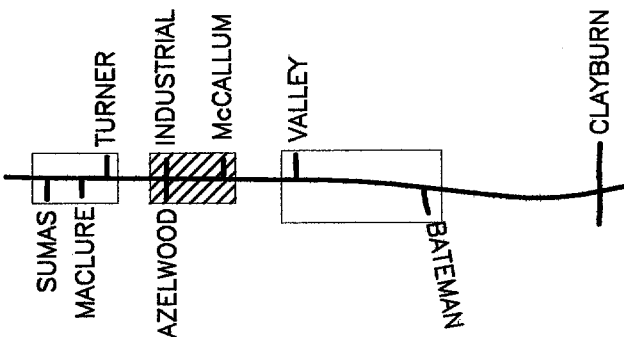


HWY No. 11/ HAZELWOOD AVE./INDUSTRIAL AVE. INTERSECTION



HWY No. 11/ McCALLUM RD. INTERSECTION

FILE: 1437M702



NDLEA Consultants Ltd.
1455 WEST GEORGIA STREET, VANCOUVER, BC V6G 2J3 TEL: (604) 685-9381

SCALE 0 1:500 25

DESIGNED EA DATE FEB/05
CHECKED MCS DATE AUG/05
DRAWN SM DATE FEB/05
REVIEWED SW DATE MAR/06

Rev	Date	Description	Signature

REVISIONS

MINISTRY OF TRANSPORTATION
HIGHWAY DESIGN AND SURVEY ENGINEERING
SOUTH COAST REGION

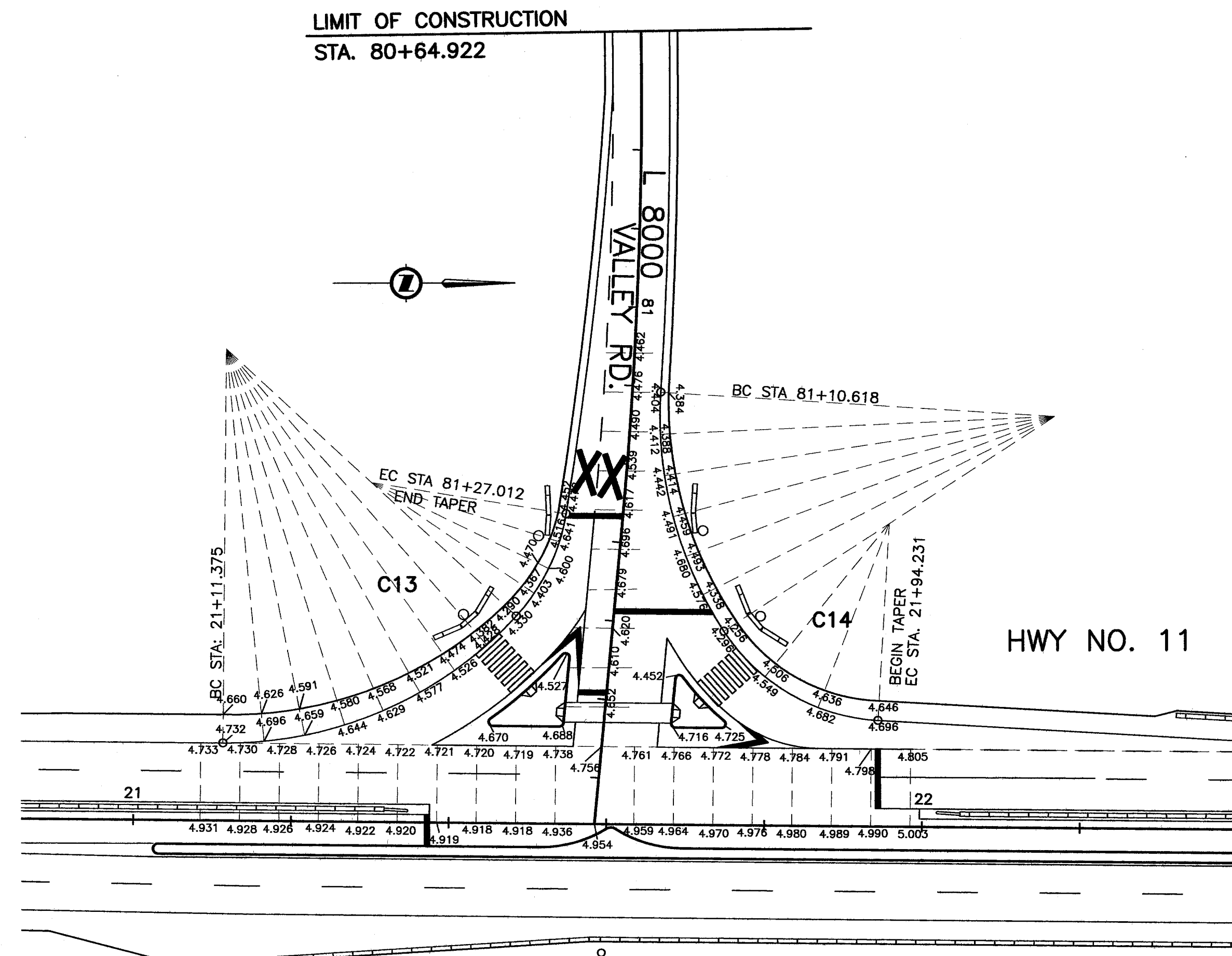
SPOT ELEVATIONS
MISSION-ABBOTSFORD HIGHWAY No. 11
SUMAS WAY TO CLAYBURN ROAD
HAZELWOOD AVE., INDUSTRIAL AVE. AND McCALLUM RD

Senior Designer: *[Signature]* DATE: MAR, 10 2006

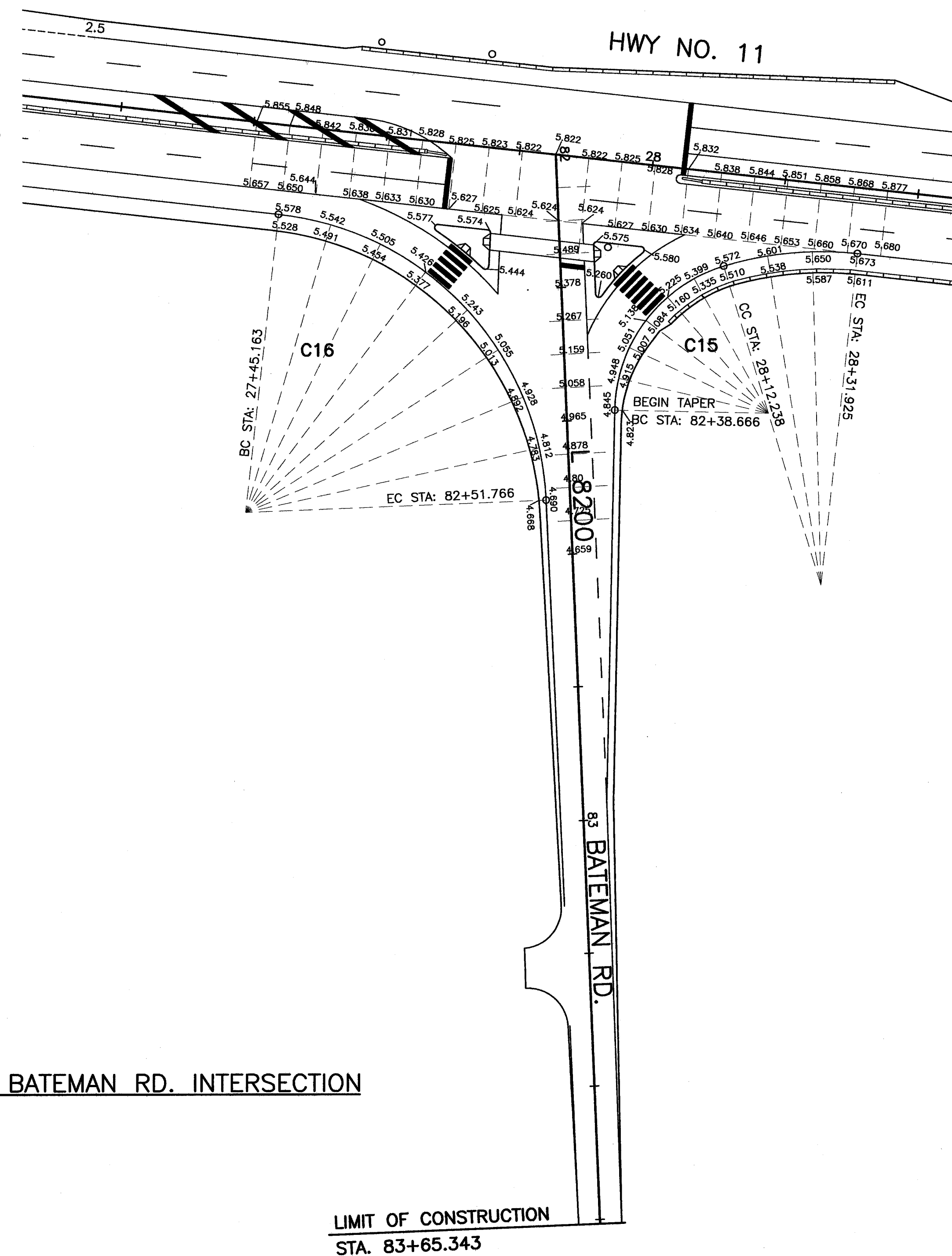
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CANCEL PRINTS BEARING PREVIOUS LETTER

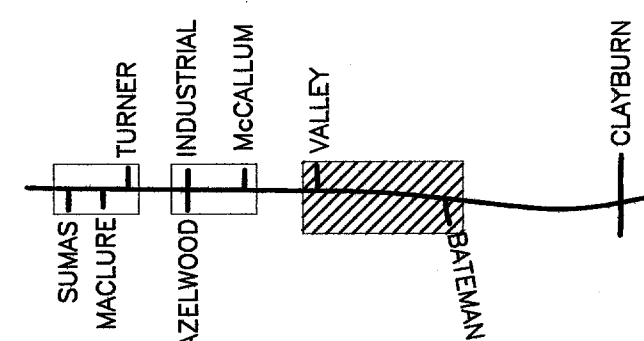
UPDATE: MAR 10, 2006



HWY No. 11/ VALLEY RD. INTERSECTION



HWY No. 11/ BATEMAN RD. INTERSECTION



<p>1455 WEST GEORGIA STREET, VANCOUVER, BC V6C 2T3 TEL. (604) 685-9381</p>		<p>MINISTRY OF TRANSPORTATION HIGHWAY DESIGN AND SURVEY ENGINEERING SOUTH COAST REGION</p>	
<p>SCALE 0 1:500 25</p>		<p>DESIGNED EA DATE FEB/05 CHECKED MCS DATE AUG/05 DRAWN SM DATE FEB/05 REVIEWED SW DATE MAR/06</p>	
<p>Rev Date Description Signature</p>		<p>SPOT ELEVATIONS MISSION-ABBOTSFORD HIGHWAY No. 11 SUMAS WAY TO CLAYBURN ROAD VALLEY RD. AND BATEMAN RD.</p>	
<p>REVISIONS</p>		<p>SENIOR DESIGNER <i>[Signature]</i> DATE MAR, 10 2006</p>	
FILE No.	PROJECT No.	REG.	DRAWING No.
11313	11313-0001	1	R1-491-703

CANCEL PRINTS BEARING PREVIOUS LETTER

UPDATE : MAR 10, 2006