



TOWNSHIP OF WELLINGTON NORTH 7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO N0G 2E0

TOWNSHIP OF WELLINGTON NORTH

STRUCTURE 40 & 2040 REHABILITATIONS

CONTRACT No. 300056822

Burnside Project No. 300056822

ISSUED FOR CONSTRUCTION - 07/07/2023



R.J. Burnside & Associates Limited 3 Ronell Crescent, Collingwood, Ontario, L9Y 4J6 telephone 1-800-265-9662 web www.rjburnside.com

BURNSIDE

40 & 2040 REHAI

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INGTON NORTH

WELL

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IOWNSHIP

LEGEND

EXISTING

		Ø
SIB	STD IRON BAR	ø ABUT.
IB	IRON BAR	В
RIB	ROUND IRON BAR	BLL
HP	HYDRO POLE	BLN BUL
THP	HYDRO POLE WITH TRANSFORMER	BVCE
HPLS	UTILITY POLE WITH LIGHT STD	BVCE
^O THPLS	UTILITY POLE WITH LIGHT STD AND TRANSFORMER	BVCS
\boxtimes	BELL PED	BVCS
BHP	BELL/HYDRO POLE	C.S.P. C/L
CLS	LIGHT STD	CJ
\mathbb{W}		DWY
-¢-	WATER SERVICE (CURB STOP)	EF
FH	FIRE HYD.	EL. E.J.
_	STREET SIGN	EVCE
C	CABLE PED	EVCS
GV	GAS VALVE	EW
400mm		EX. EXP.
	DECIDUOUS TREE	FF
		FTG.
300mm		H H.W.L.
	CONIFEROUS TREE	INV.L.
GB	GARBAGE BOX	K
MB		LG
EX TL	MAIL BOX	MIN. N.T.S.
\bigcirc	TRAFFIC SIGNAL LIGHT	N.W.L.
xxxxx	FENCE	NF
— GAS— GAS— GAS— GAS— GAS—		OBV. P.O.C.
———— B ———— B ————	U/G BELL	P.0.0. PR.
ROG ROG		R
		R.S.S
	SAN SEWER & MH	RW S/W
— SAN — SAN — SAN — SAN — SAN — C		SC
- STM		SHLD
216.10	GROUND ELEVATION	SKTS STA.
		SWK
NEW CONSTRUCTION		Т
		T.C.B. T/A
		T/R
	RIGHT-OF-WAY PROPERTY LINE	TLL
	LIMIT OF GRADING	TUL
		TWSLT TYP
	STEEL BEAM GUIDE RAIL (SBGR)	U.N.O.
· · · · · · ·	LEFT DITCH PROFILE	UHPC
	RIGHT DITCH PROFILE	V VCP
		W.L. W
XXXX	HIGHWAY FENCE	W.P.
0	HEAVY-DUTY SILT FENCE (OPSD 219.130)	
	RIP-RAP	
	SMOOTH RUN RIVER STONE	
	CONCRETE	
[
▲	BOREHOLE	
Ψ		
	TEMPORARY FIBRE ROLL FLOW CHECK	
16FR		
	TEMPORARY ROCK CHECK DAM	

Notes 1. This drawing is the exclusive property of R. J. Burnside & Associates Limited. The reproduction of any part without prior written consent of this office is strictly prohibited.	No.	Issue / Revision	Date	Auth.	ROFESSIONAL
 The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to this office prior to construction. 	1	ISSUED CONSTUCTION	07/07/2023	MB	A Matt Brooks Cz
 This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project. 					M. O. BROOKS 9
					JULY 7, 2023
FOR CONSTRUCTION					VWCE OF ON 05682

ABBREVIATIONS

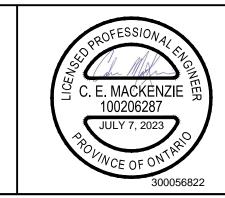
DIAMETER ABUT. ABUTMENT BOTTOM BLL BOTTOM LOWER LAYER BLN BIKE LANE BUL BOTTOM UPPER LAYER BVCE BEGINNING OF VERTICAL CURVE ELEVATION BVCE BEGINNING OF VERTICAL CURVE ELEVATION BVCS BEGINNING OF VERTICAL CURVE STATION BVCS BEGINNING OF VERTICAL CURVE STATION C.S.P. CORRUGATED STEEL PIPE CENTRELINE CONSTRUCTION JOINT DWY DRIVEWAY EACH FACE ELEVATION EXPANSION JOINT EVCE END OF VERTICAL CURVE ELEVATION EVCS END OF VERTICAL CURVE STATION EACH WAY EXISTING EXPANSION FAR FACE FTG. FOOTING HORIZONTAL H.W.L. HIGH WATER LEVEL INVERT VERTICAL CURVE PARAMETER LONG MIN. MINIMUM N.T.S. NOT TO SCALE N.W.L. NORMAL WATER LEVEL NF NEAR FACE OBV. OBVERT P.O.C. POINT ON CURVE PR. PROPOSED RADIUS R.S.S RETAINED SOIL SYSTEM RETAINING WALL S/W SIDEWALK SIDE CLEARANCE SHLD SHOULDER SKTS SEQUENTIAL KINKING TERMINAL SYSTEM STATION SWK SIDEWALK TOP T.C.B. TEMPORARY CONCRETE BARRIER TOP OF ASPHALT T/R TOP OF RAIL TLL TOP LOWER LAYER TUL TOP UPPER LAYER TWSLT TWO-WAY SHARED LEFT TURN TYP TYPICAL U.N.O. UNLESS NOTED OTHERWISE UHPC ULTRA HIGH PERFORMANCE CONCRETE V VERTICAL VCP VERTICAL CURVE PARAMETER

W.L. WATER LEVEL W.P. WORKING POINT

APPLICABLE OPSD

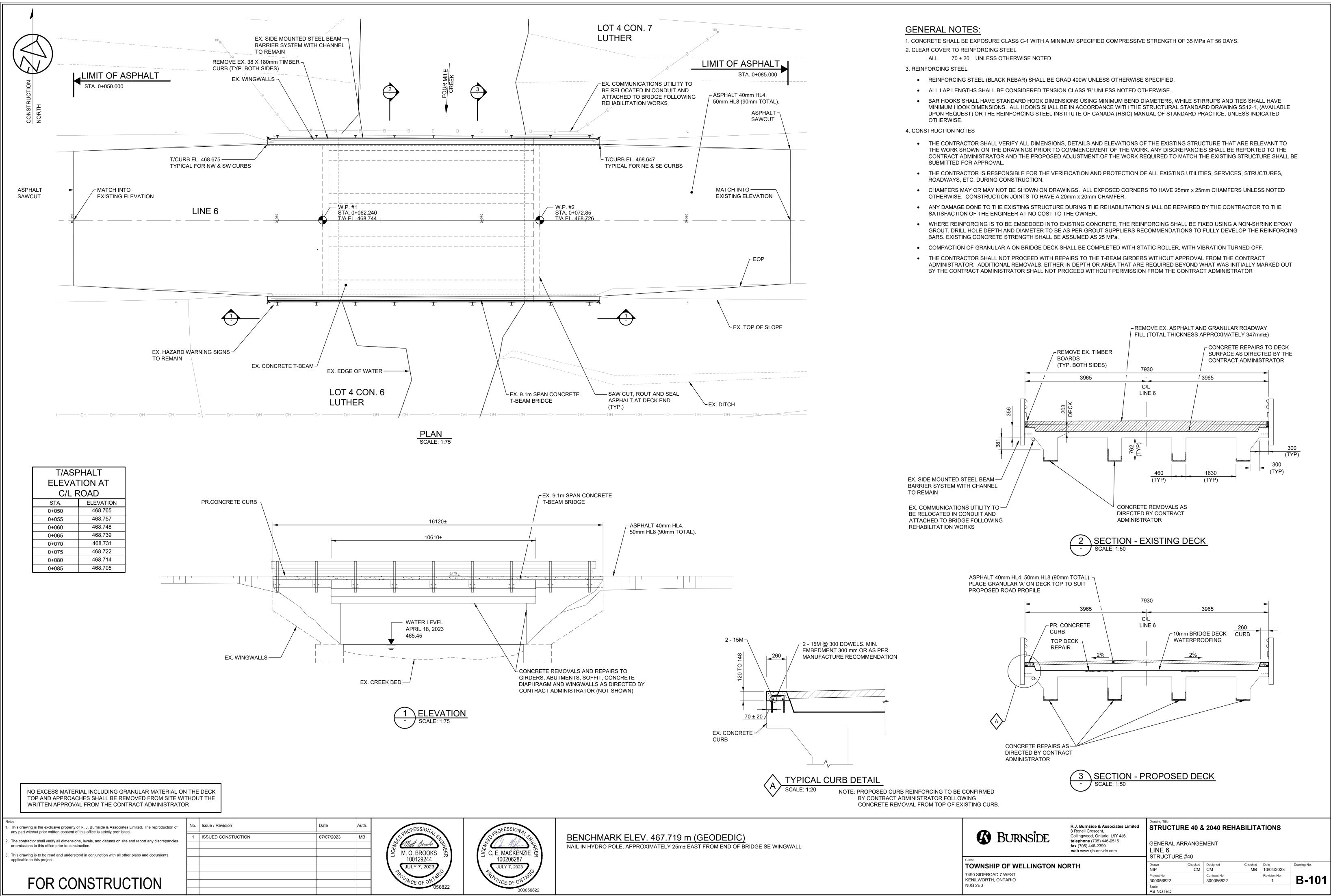
200.010	- EARTH/SHALE GRADING, UNDIVIDED RURAL
219.130	- HEAVY-DUTY SILT FENCE BARRIER
3370.100	- DECK, WATERPROOFING, HOT APPLIED ASPHA
3370.101	- DECK, WATERPROOFING, HOT APPLIED ASPHA

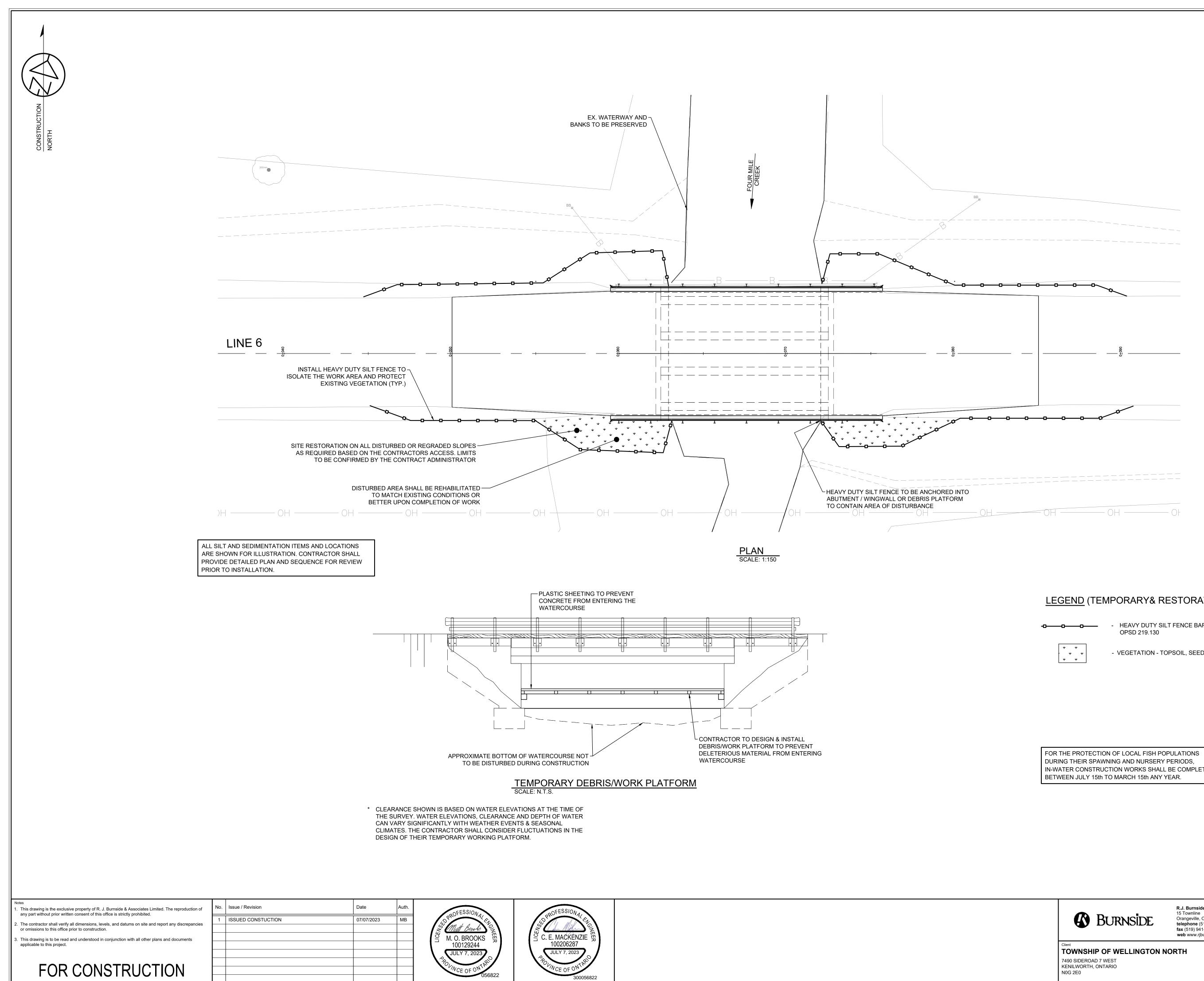
Sheet List Table					
Sheet Number Sheet Title					
TITLE					
B-000	INDEX & NOTES				
	STRUCTURE # 40				
B-101 GENERAL ARRANGEMENT					
B-102 EROSION AND SEDIMENT CONTROL PLAN					
STRUCTURE # 2040					
B-201	GENERAL ARRANGEMENT				
B-202	DETAILS				
B-203	EROSION & SEDIMENT CONTROL PLAN				
TYPICAL DETAILS					
B-301	TYPICAL REPAIR DETAILS				
B-302	EROSION AND SEDIMENT CONTROL DETAILS				



HALT MEMBRANE WITH PROTECTION BOARD HALT MEMBRANE AT ACTIVE CRACK

		R.J. Burnside & Associates Limited 15 Townline	Drawing Title STRUCTURE 40 & 2040 REHABILITATIONS					
	BURNSIDE	Orangeville, Ontario, L9W 3R4 telephone (519) 941-5331 fax (519) 941-8120 web www.rjburnside.com	INDEX & NOTES LINE 6 AND SIDEROAD 13					
	Client TOWNSHIP OF WELLINGTON NORTH 7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO N0G 2E0		Drawn	Checked	Designed	Checked	Date	Drawing No.
			NIP	CM	СМ	MB	10/04/2023	-
			Project No. 300056822		Contract No. 300056822		Revision No. 1	B-000
			^{Scale} AS NOTED					





LEGEND (TEMPORARY& RESTORATION WORK)

- HEAVY DUTY SILT FENCE BARRIER AS PER

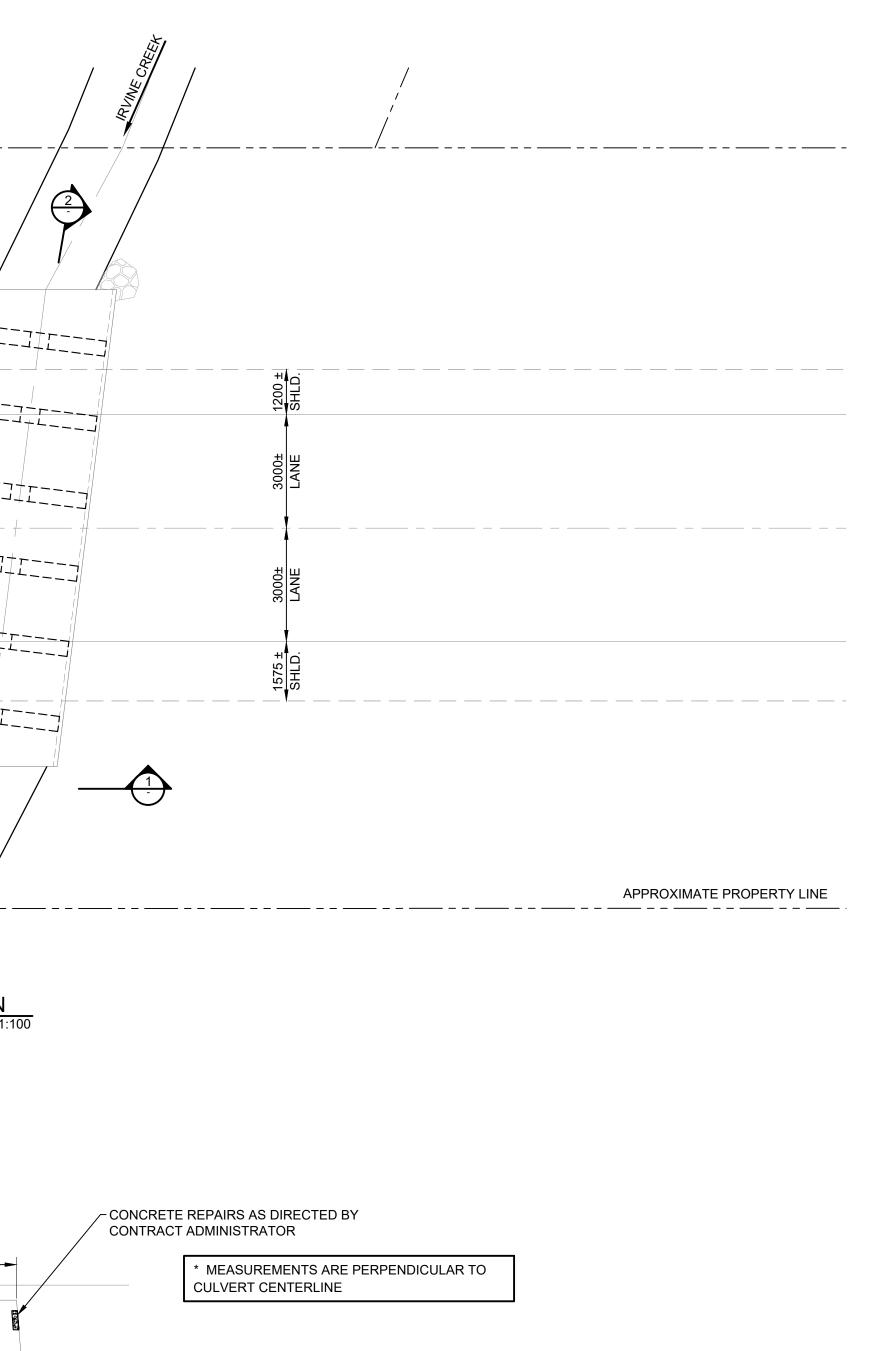
- VEGETATION - TOPSOIL, SEED AND COVER

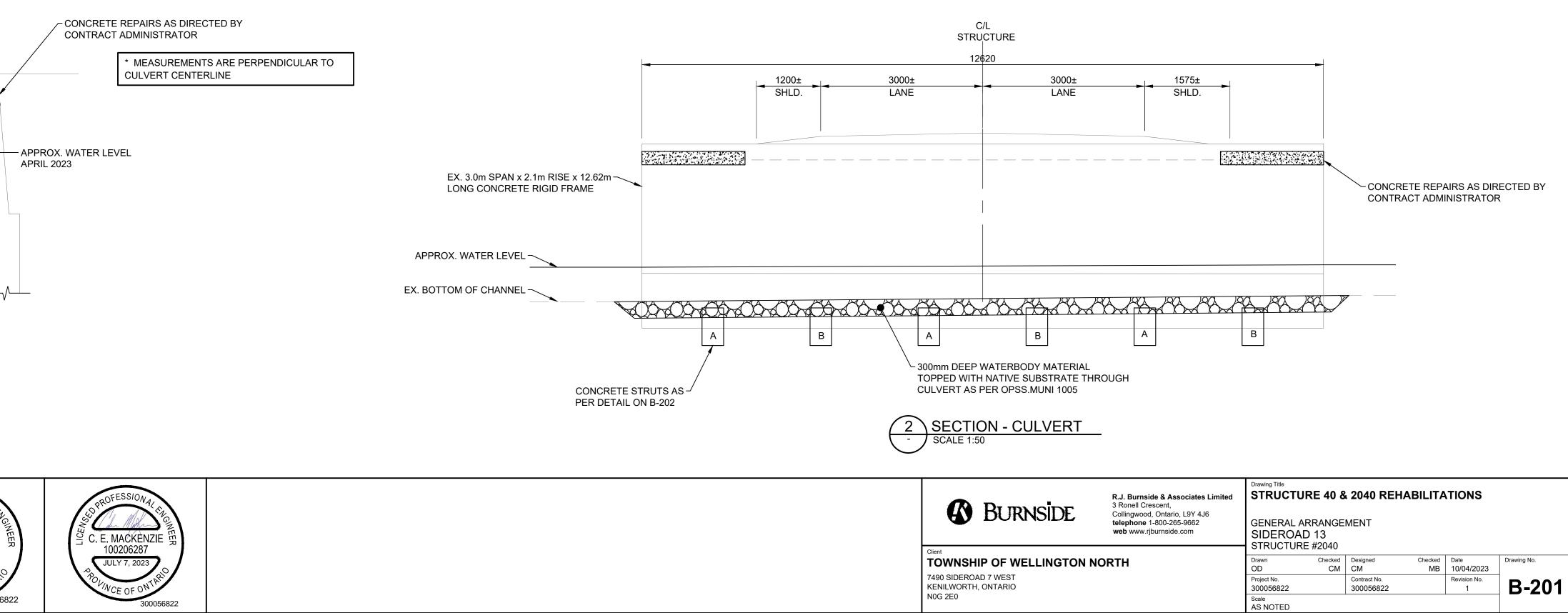
DURING THEIR SPAWNING AND NURSERY PERIODS, IN-WATER CONSTRUCTION WORKS SHALL BE COMPLETED

	R.J. Burnside & Associates Limited 15 Townline Orangeville, Ontario, L9W 3R4	Drawing Title STRUCTURE 40 & 2040 REHABILITATIONS					
BURNSIDE	telephone (519) 941-5331 fax (519) 941-8120 web www.rjburnside.com	EROSION AND SEDIMENT CONTROL PLAN LINE 6 STRUCTURE #40					
TOWNSHIP OF WELLINGTON N	IORTH	Drawn NIP	Checked CM	Designed CM	Checked MB	Date 10/04/2023	Drawing No.
7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO		Project No. 300056822	0	Contract No. 300056822		Revision No.	B-102
NOG 2E0		Scale AS NOTED		1			

	<u>APPROXIMATE PROPERTY LINE</u>	
		CONCRETE STRUTS AS PER DETAIL ON B-202
	EX. CENTERLINE OF GRANULAR ROAD	EX. 3.0m SPAN x 2.1m RISE x 12.62m
	EX. EDGE OF GRANULAR MATERIAL	
	\	
	EX.SHOULDER -	
		/ / / <u>PLAN</u>
		SCALE 1:10
	EX. C/L OF ROA	D –
		3600*
		3000*
		EX. BOTTOM OF CHANNEL
	CON PER	ICRETE STRUTS AS DETAIL ON B-202
		- SCALE 1:50
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or omissions to this office prior to construction. 3. This drawing is to be read and understood in conjunction with all other plans applicable to this project.		M. O. BROOKS 100129244 JULY 7, 2023

FOR CONSTRUCT	τιον
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POVINCE OF ON

GENERAL NOTES:

1. CONCRETE SHALL BE EXPOSURE CLASS C-1 WITH A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 35MPa AT 56 DAYS. 2. CLEAR COVER TO REINFORCING STEEL

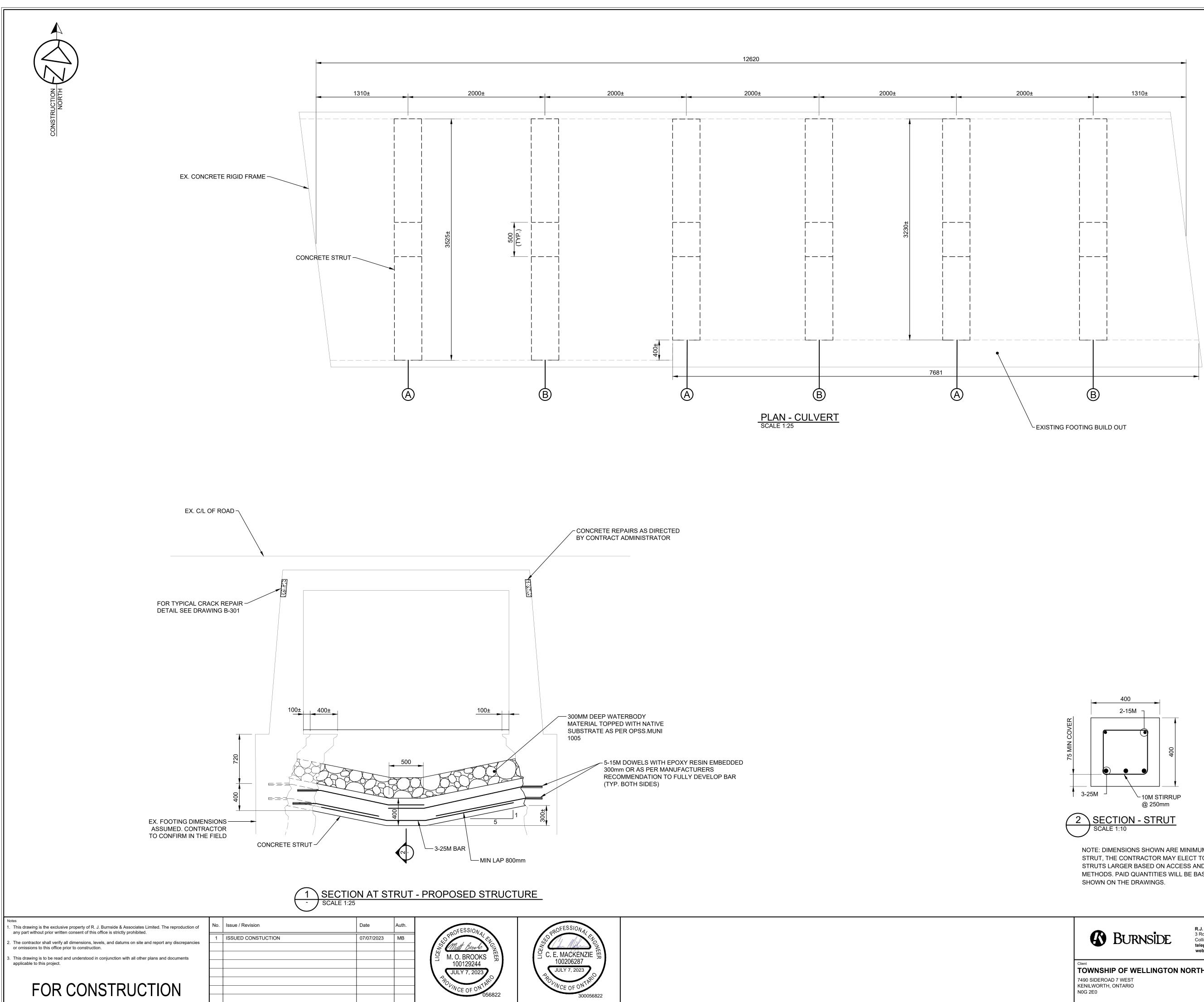
CONCRETE CAST AGAINST EARTH	100 ± 20m
STRUTS	70 ± 20mr
REMAINDER	70 ± 20mr

3. REINFORCING STEEL:

- REINFORCING STEEL (BLACK REBAR) SHALL BE GRADE 400W UNLESS OTHERWISE SPECIFIED. • ALL LAP LENGTHS SHALL BE CONSIDERED TENSION CLASS 'B' UNLESS NOTED OTHERWISE.
- BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD DRAWINGS SS12-1 (AVAILABLE UPON REQUEST) OR THE REINFORCED STEEL INSTITUTE OF CANADA (RSIC), UNLESS INDICATED OTHERWISE.
- 4. CONSTRUCTION NOTES
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS AND ELEVATIONS OF THE EXISTING STRUCTURE THAT ARE RELEVANT TO THE WORK SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE CONTRACT ADMINISTRATOR AND THE PROPOSED ADJUSTMENT OF THE WORK REQUIRED TO MATCH THE EXISTING STRUCTURE SHALL BE SUBMITTED FOR APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION AND PROTECTION OF ALL EXISTING UTILITIES, SERVICES, STRUCTURES, ROADWAYS, ETC. DURING CONSTRUCTION.
- ALL DISTURBED AREAS WITHIN THE CULVERT TO BE REINSTATED WITH WATERBODY MATERIAL TOPPED WITH NATIVE MATERIAL AS PER OPSS.MUNI 1005.
- ALL DISTURBED AREAS REQUIRED TO ACCESS THE WORK TO BE REINSTATED TO EQUAL OF BETTER CONDITION. • WHEN REINFORCING DOWELS ARE TO BE EMBEDDED INTO EXISTING CONCRETE, THE DOWELS SHALL BE FIXED USING A NON-SHRINK EPOXY GROUT, THE EMBEDMENT DEPTH AND HOLE DIAMETER TO BE AS PER THE GROUT SUPPLIER'S RECOMMENDATIONS TO FULLY DEVELOP THE DOWEL AS PER OPSS MUNI 904 TABLE 1 FOR EMBEDMENT DEPTH 300mm OR GREATER U.N.O. THE EXISTING CONCRETE STRENGTH SHALL BE ASSUMED TO BE 25MPa.
- CHAMFERS MAY OR MAY NOT BE SHOWN ON DRAWINGS. ALL EXPOSED CORNERS TO HAVE 25mm X 25mm CHAMFERS U.N.O.
- CONSTRUCTION JOINTS TO HAVE A 20mm X 20mm CHAMFER. ANY DAMAGE DONE TO THE EXISTING STRUCTURE DURING THE REHABILITATION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER.

STRUCTURAL NOTES:

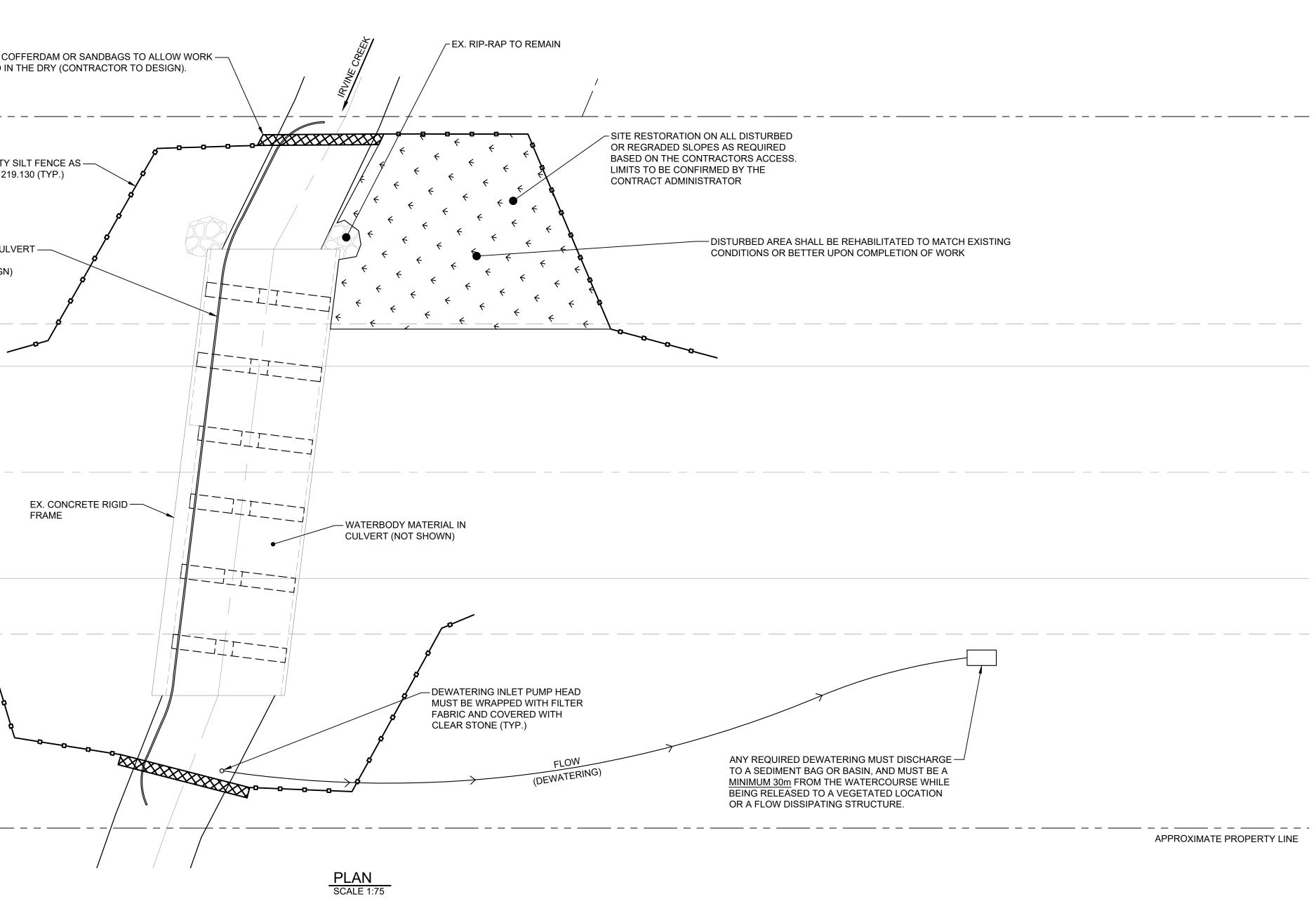
- 1. TOTAL OF 6 STRUTS, FIRST AT 1.30m FROM EACH END, AND THEN SPACED OUT EVENLY THROUGH THE CULVERT, APPROXIMATELY AT 2.0m c/c.
- 2. LOCAL EXCAVATION FOR STRUTS IS NOT TO EXCEED A 1:1 SIDE SLOPE. IF SOIL CONDITIONS REQUIRE LARGER EXCAVATIONS, CONTACT ENGINEER TO CONFIRM THAT THE REMAINING SOIL IS CAPABLE OF SUPPORTING THE CULVERT DURING STRUT INSTALLATION. LOWERING OF DRAIN NOT TO OCCUR UNTIL ALL STRUTS HAVE BEEN PLACED, AND CONCRETE IN STRUTS HAS REACHED 0.75 fc.
- 3. STRUT STAGING PLAN SHALL PROCEED AS DETAILED ON THE PLAN CULVERT DRAWING. STRUTS LABELLED 'A' SHALL BE EXCAVATED AND CONSTRUCTED AT THE SAME TIME. ONCE STRUTS 'A' HAVE REACHED 75% CONCRETE STRENGTH, THE CONTRACTOR MAY PROCEEDED WITH THE EXCAVATION AND CONSTRUCTION OF STRUTS LABELLED 'B'.
- 4. IF THE CONTRACTOR IS UNABLE TO EXCAVATE FOR THE STRUTS AS SHOWN ON THE STAGING/SEQUENCING PLAN BASED ON FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR TO DISCUSS POSSIBLE ALTERNATIVE STAGING.
- 5. AT NO TIME SHALL TWO ADJACENT STRUTS BE EXCAVATED TOGETHER.

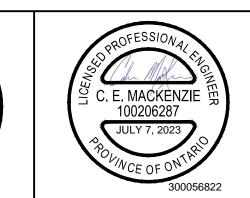


NOTE: DIMENSIONS SHOWN ARE MINIMUM REQUIRED FOR THE STRUT, THE CONTRACTOR MAY ELECT TO CONSTRUCT THE STRUTS LARGER BASED ON ACCESS AND CONSTRUCTION METHODS. PAID QUANTITIES WILL BE BASED ON DIMENSIONS

	BURNSIDE	R.J. Burnside & Associates Limited 3 Ronell Crescent, Collingwood, Ontario, L9Y 4J6 telephone 1-800-265-9662 web www.rjburnside.com	Drawing Title STRUCTURE 40 & 2040 REHABILITATIONS DETAILS SIDEROAD 13 STRUCTURE #2040						
Client TOWNSHIP OF WELLINGTON NORTH		Drawn OD	Checked CM	Designed CM	Checked MB	Date 10/04/2023	Drawing No.		
	7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO N0G 2E0		Project No. 300056822		Contract No. 300056822	2	Revision No.	B-202	
			Scale AS NOTED						

							CONSTRUCTI NOR
TEMPORARY COI TO PROCEED IN							
				T <u>E PROPERTY</u> L <u>IN</u>	APPROXIMA		
HEAVY DUTY S PER OPSD 219							
TEMPORARY BY-PASS CULV							
OR BY-PASS PUMPING (CONTRACTOR TO DESIGN)							
	13 _	SIDEROAD					
T P							
POFESSIONA	Auth. MB	Date 07/07/2023	TION	No. Issue / Revision		exclusive property of R. J. Burnside & Associa or written consent of this office is strictly prohib verify all dimensions, levels, and datums on s office prior to construction.	2. The contractor shall v
						e read and understood in conjunction with all c oject.	 This drawing is to be a applicable to this projection
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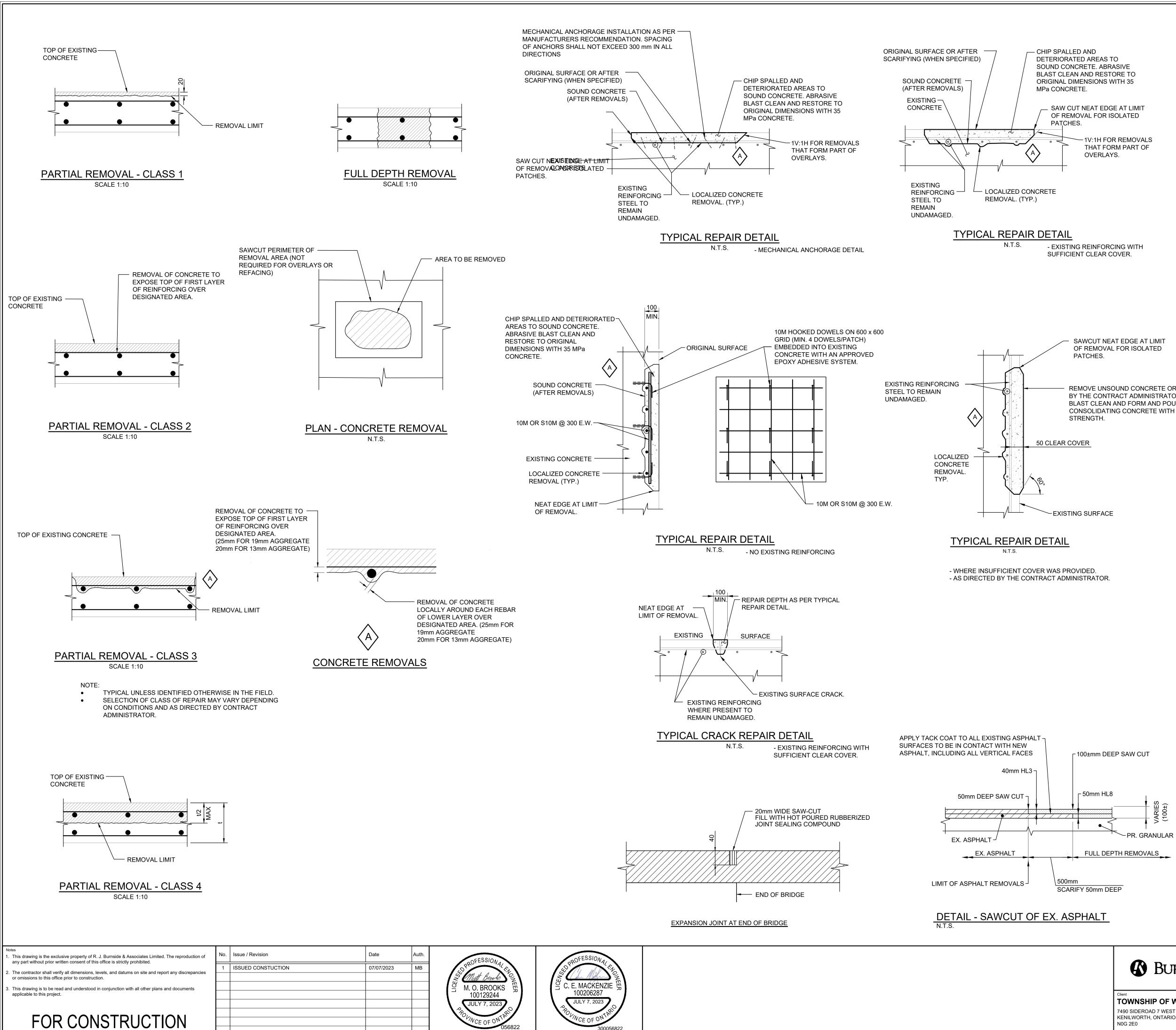




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TERING MUST DI				
R BASIN, AND MU HE WATERCOURS VEGETATED LO NG STRUCTURE.	SE WHILE			
			APPROXIMATE I	PROPERTY LINE
			POPULATI NURSERY WORKS SH	PROTECTION OF LOCAL FISH ONS DURING THEIR SPAWNING AND PERIODS, IN-WATER CONSTRUCTION HALL BE COMPLETED BETWEEN JULY ARCH 15TH OF ANY YEAR.
			ALL SILT A	ND SEDIMENTATION ITEMS AND
			CONTRAC	S ARE SHOWN FOR ILLUSTRATION. FOR SHALL PROVIDE DETAILED PLAN ENCE FOR REVIEW.
			LEGEND	(TEMPORARY WORK)
			oo	- HEAVY DUTY SILT FENCE BARRIER AS PER OPSD 219.130.
			R.J. Burnside & Associates Limited	Drawing Title STRUCTURE 40 & 2040 REHABILITATIONS
		BURNSIDE	3 Ronell Crescent, Collingwood, Ontario, L9Y 4J6 telephone 1-800-265-9662 web www.rjburnside.com	EROSION & SEDIMENT CONTROL PLAN SIDEROAD 13 STRUCTURE #2040

Client **TOWNSHIP OF WELLINGTON NORTH** 7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO N0G 2E0

Drawn Checked		Designed Checked		Date	Drawing No.		
OD	CM	СМ	MB	10/04/2023			
Project No. 300056822	,		Contract No. 300056822		B-203		
^{Scale} AS NOTED							



REMOVE UNSOUND CONCRETE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR. ABRASIVE BLAST CLEAN AND FORM AND POUR USING SELF CONSOLIDATING CONCRETE WITH A 35MPa MIN.

GENERAL CONCRETE REPAIR NOTES:

1. CONCRETE REPAIRS AND PATCHES AS PER OPSS MUNI 928 & 930 UNLESS NOTED OTHERWISE.

- 2. ANY VOIDS REMAINING AFTER PLACEMENT OF CONCRETE PATCH SHALL BE FILLED WITH AN APPROVED PROPRIETARY PATCHING MATERIAL.
- 3. WHERE REPAIRS COINCIDE WITH EXISTING CONSTRUCTION JOINTS, SAWCUT A GROOVE 3mm WIDE x 12mm DEEP ON A LINE WITH EXISTING JOINT AFTER REPAIR MATERIAL HAS REACHED A STRENGTH OF 20MPa.
- 4. FORM AND POUR/PUMP FOR VERTICAL AND SOFFIT REPAIRS.
- 5. ALL REMOVAL CLASSES CAN APPLY IN ANY ORIENTATION: HORIZONTAL, VERTICAL AND OVERHEAD.
- 6. SAWCUT 20mm (CLASS 1) OR 25mm (ALL OTHER REMOVALS) IN DEPTH OR TO FIRST LAYER OF REINFORCING STEEL (WHICHEVER IS LESS) AROUND AREA OF CONCRETE TO BE REMOVED. (EXCEPT WHERE REMOVALS ARE MADE IN CONJUNCTION WITH OVERLAYS).
- 7. REMOVE TO SOUND CONCRETE OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
- 8. BLAST CLEAN RECESSED AREA AND REINFORCING STEEL.
- 9. AIR BLAST RECESSED AREA.
- 10. APPLY BONDING AGENT.
- 11. REPAIR USING SPECIFIED CONCRETE.

AT ACTIVE CRACKS GREATER THAT 2mm WIDE AND

OPSD-3370.101 DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE

WITH PROTECTION BOARD

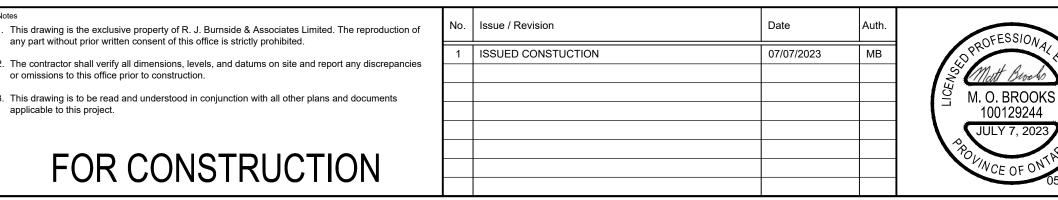
DECK, WATERPROOFING HOT APPLIED ASPHALT MEMBRANE

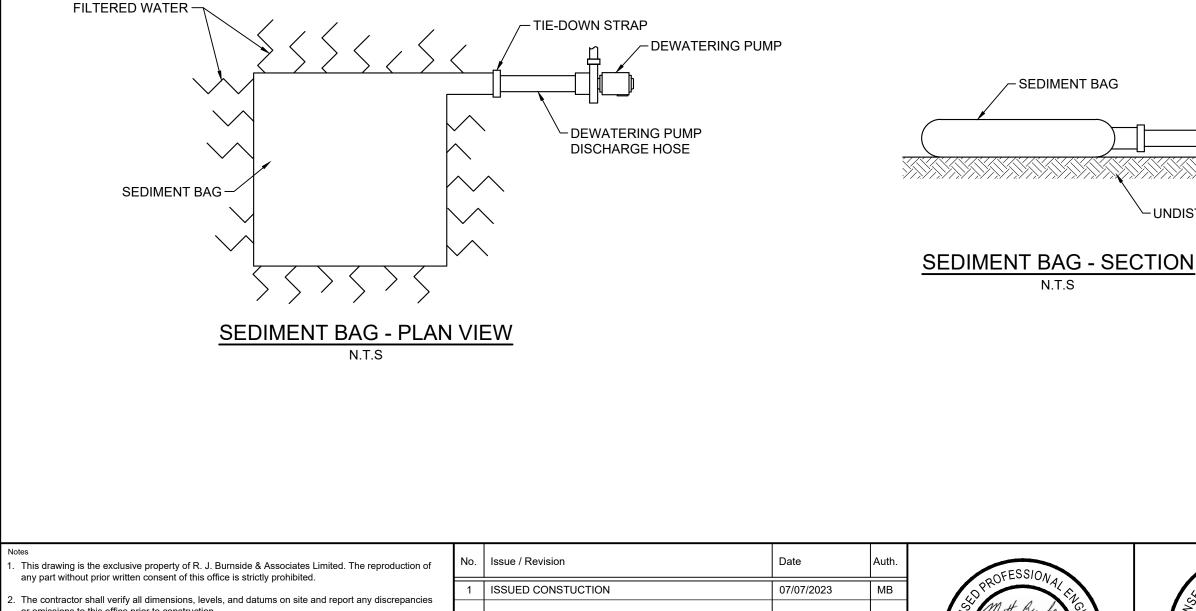
TO ENSURE STRUCTURAL INTEGRITY, ALL REMOVALS SHALL BE DELINEATED BY THE ENGINEER. AT NO TIME SHALL CONCRETE REMOVALS EXTEND BEYOND THAT DESIGNATED FOR REMOVAL UNLESS APPROVED BY THE ENGINEER.

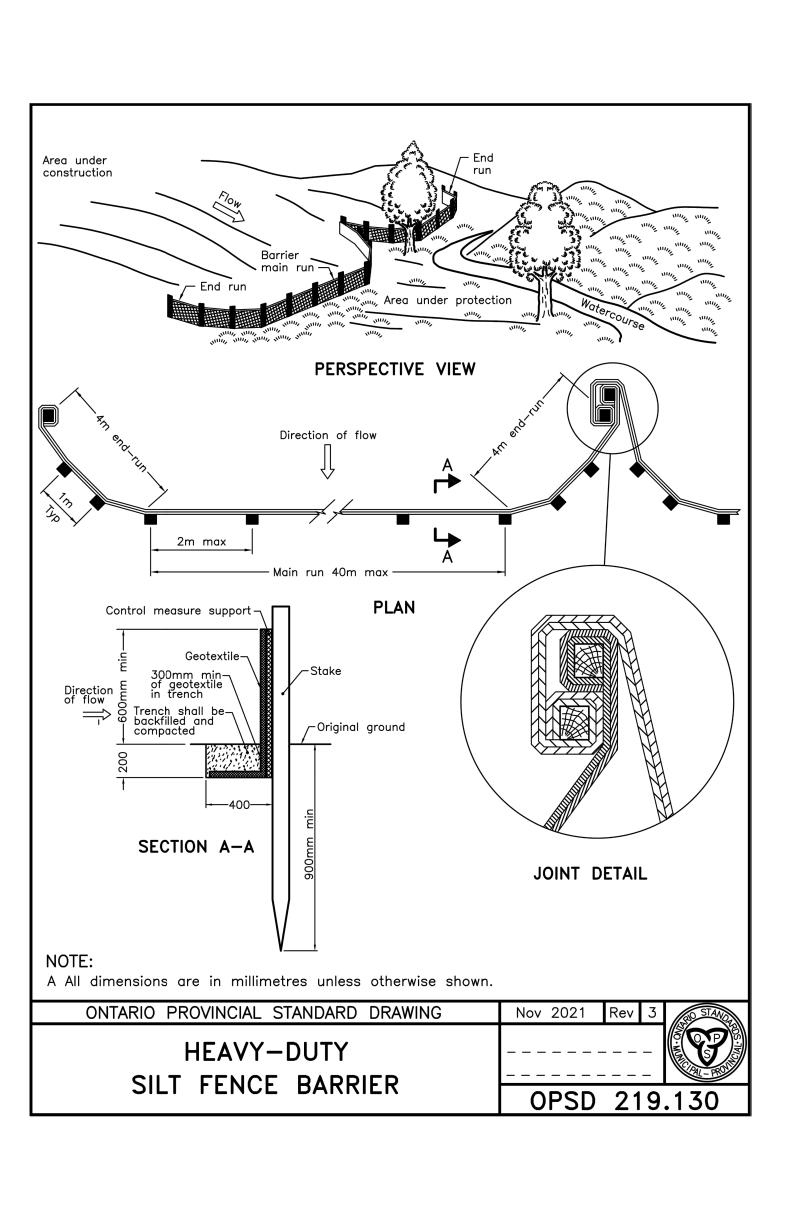
APPLICABLE STANDARD DRAWINGS

BURNSIDE	R.J. Burnside & Associates Limited 15 Townline Orangeville, Ontario, L9W 3R4 telephone (519) 941-5331 fax (519) 941-8120 web www.rjburnside.com	Drawing Title STRUCTU REHABILI TYPICAL RE LINE 6 AN						
Client TOWNSHIP OF WELLINGTON	Client TOWNSHIP OF WELLINGTON NORTH		Checked CM	Designed CM	Checked MB	Date 10/04/2023	Drawing No.	
7490 SIDEROAD 7 WEST KENILWORTH, ONTARIO		Project No. 300056822		Contract No. 300056822		Revision No. 1	B-301	
NOG 2E0		Scale AS NOTED		•		*		

OPSD-3370.100







EROSION & SEDIMENTATION NOTES:

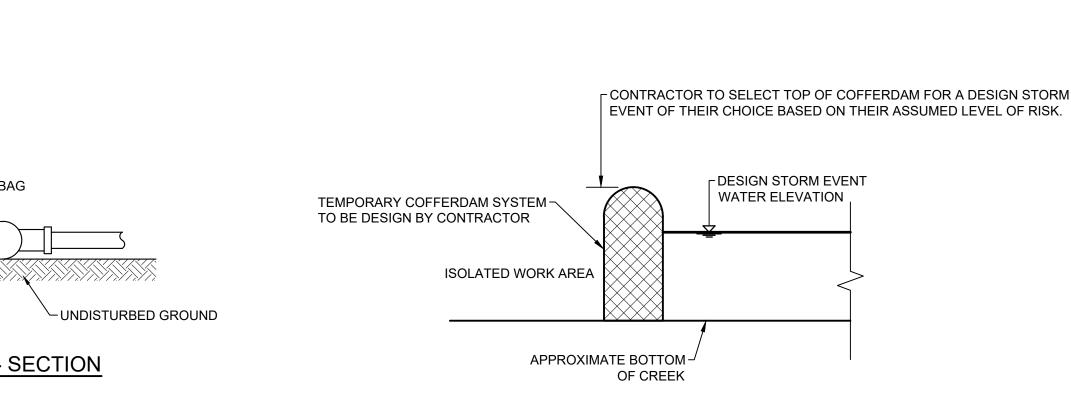
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GENERAL CONSTRUCTION NOTES:

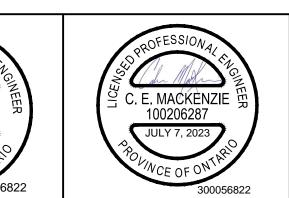
1.	CONTRACTOR REHABILITATIO
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4.	THE ESC PLAN SITE. ANY DEV CONSTRUCTIO
5.	ALL SILT AND

6.

7.



SECTION - TEMPORARY COFFERDAM N.T.S



NTATION CONTROLS TO BE INSTALLED PRIOR TO EXECUTING ANY WORK.

NTATION CONTROLS TO BE INSPECTED DAILY AND REPAIRED/REPLACED AS NECESSARY.

ARY EROSION & SEDIMENTATION CONTROLS SHALL REMAIN IN PLACE UNTIL SUCH TIME AS RE-VEGETATIVE MEASURES HAVE GERMINATED AND

OR TO ISOLATE WORK AREA(S) WHERE REQUIRED TO ALLOW CONCRETE REPAIRS TO BE COMPLETED IN THE DRY.

RDAMS SHALL BE CONSTRUCTED OF CLEAN, NON-ERODIBLE MATERIALS SUCH AS, BUT NOT LIMITED TO; PEA GRAVEL BAGS, CLEAN GRAVEL AND EETING, PRECAST BARRIERS AND PLASTIC SHEETING, OR OTHER CLEAN MATERIAL APPROVED BY THE GRCA.

ACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A PROJECT-SPECIFIC SPILL CONTINGENCY PLAN (SCP) TO THE CONTRACT ADMINISTRATOR, L INCLUDE CONTACT INFORMATION FOR THOSE TO BE CONTACTED IN THE EVENT OF A SPILL. IN THE EVENT OF A SPILL OF DELETERIOUS , THE CONTRACTOR SHALL IMMEDIATELY CONTAIN THE SPILL AND SHALL NOTIFY THE MOECC SPILLS ACTION CENTRE AND THE LOCAL MOECC FICE (GUELPH), AS WELL AS THE GRCA AND ANY OTHER APPLICABLE AGENCY AS PER ONTARIO REGULATION 675/98 UNDER THE ENVIRONMENTAL ACT. IMMEDIATE NOTIFICATION OF THE CONTRACT ADMINISTRATOR AND COUNTY IS ALSO REQUIRED.

SPILLS ACTION CENTRE: 1-800-265-8658 (TOLL FREE)

NOECC DISTRICT OFFICE (GUELPH): 1-519-826-4256

F CREEK BASE FLOWS AND STORM EVENT RUNOFF DURING CONSTRUCTION SHALL BE THE CONTRACTORS RESPONSIBILITY. CREEK BASE FLOW INTAINED DOWNSTREAM AT ALL TIMES THROUGHOUT CONSTRUCTION.

AL STREAM COURSE SHALL BE PRESERVED AND REMAIN OPEN THROUGHOUT CONSTRUCTION, ONLY APPLICABLE TO STRUCTURE 40 TION.

ARY SOIL OR DIRT STOCKPILES ARE TO BE PROVIDED WITH THE NECESSARY SEDIMENT AND EROSION CONTROL FEATURES, INCLUDING SEEDING ED TO BE STORED MORE THAN ONE MONTH. STOCKPILED MATERIAL SHALL BE WRAPPED IN TWO LAYERS OF HEAVY DUTY SILT FENCE. MUST NOT BE LOCATED IN AREAS OF CONCENTRATED FLOW AND A MINIMUM OF 5m FROM TOP OF BANK.

ACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ANY CULVERT, PUMPS, CHANNELS OR ANY OTHER TEMPORARY MEASURES REQUIRED TO HE FLOW. THE CONTRACTOR SHALL ASSESS THE RISK OF FLOODS, STORMS AND EVENTS THAT MAY AFFECT CONSTRUCTION AND DETERMINE LEVEL OF RISK ASSOCIATED WITH ANY TEMPORARY WORK.

TIONS AND SUBSEQUENT WORK SHALL BE UNDERTAKEN IN THE DRY. GROUNDWATER FLOW AND SURFACE FLOW ENTERING ANY EXCAVATION EMOVED.

RING/UNWATERING SHALL BE DISCHARGED INTO A FILTERED SUMP, SOCK OR SOAK PIT, LOCATED AT LEAST 30m FROM THE WATER COURSE. ILT FENCE BARRIER LOCATIONS ARE SHOWN. PROVIDE SILT FENCE BARRIERS WHERE REQUIRED AND AS MAY BE DIRECTED BY THE ENGINEER. 14. WATERBODY MATERIAL SHALL CONSIST OF A 70% MIXTURE OF WB-200 AS PER OPSS.MUNI 1005 WITH A D50 = 140mm AND 30% MIXTURE OF NATIVE SUBSTRATE. THE WATERBODY MATERIAL AND NATIVE SUBSTRATE SHALL BE MIXED ONSITE PRIOR TO BEING PLACED.

> TO ISOLATE WORK AREA(S) AND ALLOW CONCRETE REPAIRS TO BE COMPLETED IN THE DRY, ONLY APPLICABLE TO STRUCTURE 2040 ION.

G PUMP OUTLET MUST DISCHARGE MINIMUM 30m FROM WATERCOURSE INTO SEDIMENT BAG OR BASIN.

MONITOR PUMP OUTLET AREA AND STABILIZE IF REQUIRED.

AN IS A DYNAMIC DOCUMENT, WHICH MAY BE SUBJECT TO CHANGE OR MODIFICATION AS A RESULT OF SITE DEVELOPMENTS OR CHANGES ON VIATION FROM APPROVED PLANS MUST BE DESIGNED BY A QUALIFIED PROFESSIONAL. IT IS EVERYONE'S RESPONSIBILITY TO PREVENT ION RELATED SEDIMENT FROM IMPACTING AQUATIC RESOURCES AND OTHER NATURAL FEATURES.

) SEDIMENTATION ITEMS AND LOCATIONS ARE SHOWN FOR ILLUSTRATION. CONTRACTOR SHALL PROVIDE DETAILED PLAN AND SEQUENCE FOR ENGINEER & GRCA REVIEW.

ANY FISH OR AQUATIC LIFE SHALL BE REMOVED FROM THE CONSTRUCTION AREA BY A BURNSIDE QUALIFIED ENVIRONMENTAL PROFESSIONAL. A "LICENCE TO COLLECT FISH" SHALL BE OBTAINED FROM THE MINISTRY OF NATURAL RESOURCES AND FORESTS (MNRF) FOR AQUATIC LIFE SALVAGE PRIOR TO IN-WATER WORKS. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE PRIOR TO REQUIRING FISH REMOVAL. IN THE EVENT OF FLOODING THAT REQUIRES ADDITIONAL REMOVAL OF FISH, THE CONTRACTOR WILL BE REQUIRED TO PAY FOR PROVIDING REMOVAL BY A QUALIFIED PROFESSIONAL. THE CONTRACTOR SHOULD SIZE THEIR WATERWAY CONTROL ACCORDINGLY.

NO TREE OR SHRUB REMOVAL IS ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACT ADMINISTRATOR SHALL BE NOTIFIED PRIOR TO ANY VEGETATION REMOVAL IF THE CONTRACTOR DETERMINES AN EXISTING TREE TO BE IN CONFLICT WITH THE WORK.

SEEDING NOTES:

- ALL DISTURBED SLOPES ARE TO BE SEEDED USING 'RURAL ONTARIO ROADSIDE NATIVE SEED MIXTURE 8145' APPLIED 1. AT A RATE OF 25KG PER HECTARE.
- SEED APPLICATION IS TO FOLLOW DIRECTLY AFTER TOPSOIL PLACEMENT IN ORDER TO ESTABLISH VEGETATIVE 2. COVER QUICKLY FOR STABILIZATION OF TOPSOIL.
- SEED IS TO BE APPLIED USING TERRASEED OR APPROVED EQUIVALENT APPLIED BY PNEUMATIC BLOWER 3. THROUGHOUT EXPOSED SLOPES AND DISTURBED AREA.
- 4. THE FOLLOWING SLOPES WILL DETERMINE THE UNIFORM MINIMUM DEPTH OF COMPOSTED TOPSOIL INSTALLED AS TERRASEED:
 - 0-5% SLOPE: 10-15 mm DEPTH 5-10% SLOPE: 15-20 mm DEPTH 10-25% SLOPE: (4:1) 20-25 mm DEPTH 25-35% SLOPE: (3:1) 25-40 mm DEPTH 35-45% SLOPE: 40-50 mm DEPTH
- RURAL ONTARIO ROADSIDE NATIVE SEED MIXTURE (OSC SEED MIX 8145), CONTAINING: BLACK EYED SUSAN, BLUE 5. VERVAIN, BONESET, CANADA WILD RYE, DENSE BLAZING STAR, FOXGLOVE/BEARDTONGUE, INDIANGRASS, LITTLE BLUESTEM, NEW ENGLAND ASTER, SHOWY TICK TREFOIL, VIRGINIA WILD RYE, WILD BERGAMOT,

ONTARIO SEED COMPANY 77 WELLINGTON STREET SOUTH KITCHENER, ON N2G 2E6 PHONE: 519-886-0557 EMAIL: INFO@OSCSEEDS.COM

		R.J. Burnside & Associates Limited 15 Townline Orangeville, Ontario, L9W 3R4 telephone (519) 941-5331 fax (519) 941-8120 web www.rjburnside.com	Drawing Title STRUCTURE 40 & 2040 REHABILITATIONS						
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