

CONCRETE SUPPLIERS APPROVAL GUIDELINES AND APPLICATION

The City of Winnipeg is committed to ensuring that the citizens of Winnipeg are supplied with products which adhere to the highest standards as well as ensuring long-term value. In order to accomplish these goals, the Public Works Department annually approves concrete mix designs in accordance with CW 3310. As such any concrete which is to be used for Surface Works must be listed in the current edition of [Approved Concrete Suppliers](#).

Supplier Approval Process

The Public Works Department, Asset Management Branch is directly responsible for the review and approval of concrete suppliers. In order to be approved as a concrete supplier, applicants must annually submit all of the information and requirements listed in the approved concrete supplier application to the Asset Management Branch, Research and Standards Engineer prior to April 1st. Once the Asset Management Branch has received the necessary information, the application will be reviewed to ensure compliance with the City's specifications.

Approval or Rejection

Following the review, the Research and Standards Engineer or their designate will notify the applicant in writing, outlining their findings and decision.

The City's decision is final; however, applications will be re-assessed if further information is provided or if the reason for rejection has been rectified. If at any time an approved concrete supplier fails to perform as specified, it will be removed from the Approved Concrete Suppliers list and only reinstated once corrective action has been taken which will meet the requirements and approval of the Public Works Department, Asset Management Branch.

All inquiries, questions and/or requests for concrete supplier approval must be made to:

City of Winnipeg, Public Works Department
Engineering Division, Asset Management Branch
Research and Standards Engineer
106-1155 Pacific Avenue
Winnipeg, Manitoba R3E 3P1

ENGINEERING DIVISION

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CONCRETE SUPPLIER APPROVAL APPLICATION

Concrete Supplier Name:					
Date Prepared:					
Address:					
City/Country:		Province:		Postal Code:	
Contact Person:				Title:	
Email:				Telephone Number:	

Sources for Constituent Materials

Material	Product Name		Supplier	Material Source
Water				
Cement				
Supplementary Cementitious Materials (SCMs)	1.			
	2.			
Fine Aggregate (FA)				
Intermediate Aggregate (IA)				
Coarse Aggregate (CA)				
Admixtures	1.			
	2.			
	3.			
Others				

Concrete Mix Design Proportions and Codes

CW3310-R17 - **Clause 6.2:**

Concrete for Pavements, Commercial Approaches, Curb and Gutter Sections, Curbs, Monolithic Curb and Sidewalks, Splash Strips and Bull-noses

Period	Type of Paving	Mix Code	Water/ Binder ratio (w/b)	Cement (kg/m ³)	SCMs (Type) (kg/m ³)	Water (kg/m ³)	Aggregate (kg/m ³)			Admixtures (ml/100 kg cement)		
							CA	IA	FA	1.	2.	3.
Period 1*												
Period 2*					--							
					--							
					--							
					--							
					--							

Concrete for Sidewalks, Residential Approaches, Median Slabs and Other Related Concrete Works

Period 1*												
Period 2*					--							
					--							
					--							

**Period 1: May 16 through September 30, Period 2: October 1 through May 15*

CW3310-R17 - Clause 6.4

Concrete for Early Opening of Pavements (20 MPA in 72 hours)

Period	Type of Paving	Mix Code	Water/ Binder ratio (w/b)	Cement (kg/m ³)	SCMs (Type) (kg/m ³)	Water (kg/m ³)	Aggregate (kg/m ³)			Admixtures (ml/100 kg cement)		
							CA	IA	FA	1.	2.	3.
Period 1*												
Period 2*					--							
					--							

Concrete for Early Opening of Pavements (20 MPA in 24 hours)

Period 1*												
Period 2*					--							
					--							

*Period 1: May 16 through September 30, Period 2: October 1 through May 15

CW3310-R17 - Clause 6.6: Concrete for Temporary Restoration of Utility Pavement Cuts

Period	Type of Paving	Mix Code	Water/ Binder ratio (w/b)	Cement (kg/m ³)	SCMs (Type) (kg/m ³)	Water (kg/m ³)	Aggregate (kg/m ³)			Admixtures (ml/100 kg cement)		
							CA	IA	FA	1.	2.	3.
Period 1*												
Period 2*					--							
					--							

*Period 1: May 16 through September 30, Period 2: October 1 through May 15

Aggregate Properties (CW3310-R17 - Clause 5.3.1)

Physical Properties

Material	Parameter	Test Method	Test Result	Specifications Limit	Test Date	Frequency of Test	Expiry Date
Coarse Aggregate	Petrographic Examination – PN	ASTM C295 MTO LS 609		125 max		1 year	
	LA Abrasion loss	CSA A23.2-16A		35% max		1 year	
	Unconfined freeze-thaw	CSA A23.2 24A		6% max		1 year	
	Micro-Deval	CSA A23.2-29A		17% max		1 year	
	Clay lumps	CSA A23.2-3A		0.25% max		2 years	
	Low density granular material	CSA A23.2-4A		0.5% max		2 years	
	Alkali-silica reactivity	CSA A23.2-25A		0.15% max		2 years	
Intermediate Aggregate	Petrographic Examination – PN	ASTM C295 MTO LS 609		125 max		1 year	
	LA abrasion loss	CSA A23.2-16A		35% max		1 year	
	Unconfined freeze-thaw	CSA A23.2 24A		6% max		1 year	
	Micro-Deval	CSA A23.2-29A		17% max		1 year	
	Clay lumps	CSA A23.2-3A		0.25% max		2 years	
	Low density granular material	CSA A23.2-4A		0.5% max		2 years	
	Alkali-silica reactivity	CSA A23.2-25A		0.15% max		2 years	
Fine Aggregate	Petrographic examination	ASTM C295		see note (1)		1 year	
	Micro-Deval	CSA A23.2-23A		20% max		1 year	
	Clay lumps	CSA A23.2-3A		1% max		2 years	
	Low density granular material	CSA A23.2-4A		0.5% max		2 years	
	Alkali-silica reactivity	CSA A23.2-25A		0.15% max		2 years	
	Organic impurities	CSA A23.2-7A		free from injurious amounts		2 years	

Note (1): The petrographic report shall include a comment on the suitability of the material for use in the production of concrete paving mixtures.

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Combined Aggregate Grading And Coarseness Factor

Type 1: All Portland Cement Concrete, except for Sidewalks

Coarseness Factor :

Sieve Size	Fine Aggregate %	Intermediate Aggregate %	Coarse Aggregate %	Combined Grading	CW 3310 Grading Limits		Job Mix Formula Grading Limits	
					Lower	Upper	Lower	Upper
28 mm					100	100		
20 mm					90	100		
14 mm					75	95		
10 mm					60	75		
5 mm					35	50		
2.5 mm					27	35		
1.25 mm					20	30		
630 µm					10	20		
315 µm					5	10		
160 µm					1	4		
80 µm					0	2		

Type 2: Portland Cement Concrete Sidewalks

Coarseness Factor :

Sieve Size	Fine Aggregate %	Intermediate Aggregate %	Coarse Aggregate %	Combined Grading	CW 3310 Grading Limits		Job Mix Formula Grading Limits	
					Lower	Upper	Lower	Upper
28 mm					100	100		
20 mm					90	100		
14 mm					75	95		
10 mm					60	75		
5 mm					35	55		
2.5 mm					27	40		
1.25 mm					20	35		
630 µm					10	20		
315 µm					5	10		
160 µm					1	4		
80 µm					0	2		

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Air Void System in Hardened Concrete - For Type I "slip form paving and hand placement" with and without fly ash

Identification of the source of the specimens:									
Location from which the specimens were taken:									
Orientation of the surfaces cut from the samples for traversing:									
Method used:									
Mix Code	Date Cast	Date Tested	Length of traverse	Area traversed	Number of stops (if applicable)	Air Content %	Specific Surface (mm ² /mm ³)	Spacing Factor (µm)	Paste content %

Scale Calibration Information

Plant Code	Inspection Date	Expiry Date	Comments

MRMCA Certificate Information

Inspection Date:		Comments:	
Expiry Date:			

The following information shall be attached to this form in order to substantiate, verify or clarify its contents. Attachments shall be numbered as follows:

	Y/NA	Comments
1. Copies of test reports for aggregate (CW3310-R17 in accordance with clause 5.3.1)		
2. Copies of test reports for the cement, SCMs (e.g. fly ash), and water (if it is not City Water)		
3. Copies of test reports for the air-void parameters		
4. Copies of scale calibration reports for the concrete batch plant		
5. Copy of MRMCA certificate for concrete batch plant		
6. Data sheet for the admixtures with letter certifying that the admixtures comply with the relevant ASTM standards		
7. Quality control program for all constituent materials and concrete mix		

FOR OFFICE USE ONLY

Status	Date	Name	Signature
Full Approved			
Temporary Approval			
Reject			
Comments			