



# Ontario Provincial Standards 101/201 Course Update

**Municipal Engineers Association Conference and AGM  
Friday November 22nd, 2024**

**Presented by Arup Mukherjee, P.Eng.  
OPS 101/201 Course Instructor**

*"The Foundation for Sustainable Infrastructure"*

**MUNICIPAL  
ENGINEERS  
ASSOCIATION**





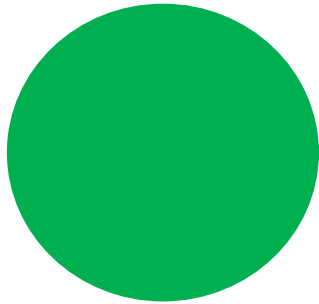
- Inform stakeholders of joint ownership
- Inform stakeholder about the background and depth of information in OPS
- Promote the use of OPS
- Show the benefits of using OPS
- Encourage input on Committees for OPS





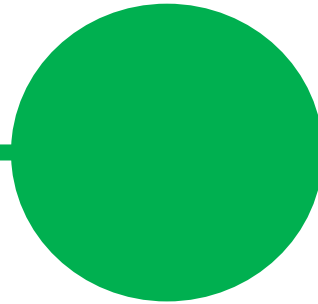
# 101 Course Outline

## Intro



Background  
Structure / Maintenance  
How to get involved  
Claims Management  
Dispute Resolution

## How to Use



Fundamental Elements of  
Contract  
Specification Writing  
Navigating Through OPS  
Case Studies

## Other Contract Components



Amending OPS Documents  
Tender and Contract  
Awarding  
Administration  
Change Orders  
OPS Updates



# What is OPS?

MUNICIPAL  
ENGINEERS  
ASSOCIATION



Involvement and support of many other organizations representing **contractors, consulting engineers, manufacturers,** and their associations



OPS have been in use  
since 1984



Evolved into excellent model of  
construction standards  
development



Standardization can limit the  
unnecessary variety of products  
and components, simplifying  
production procedures

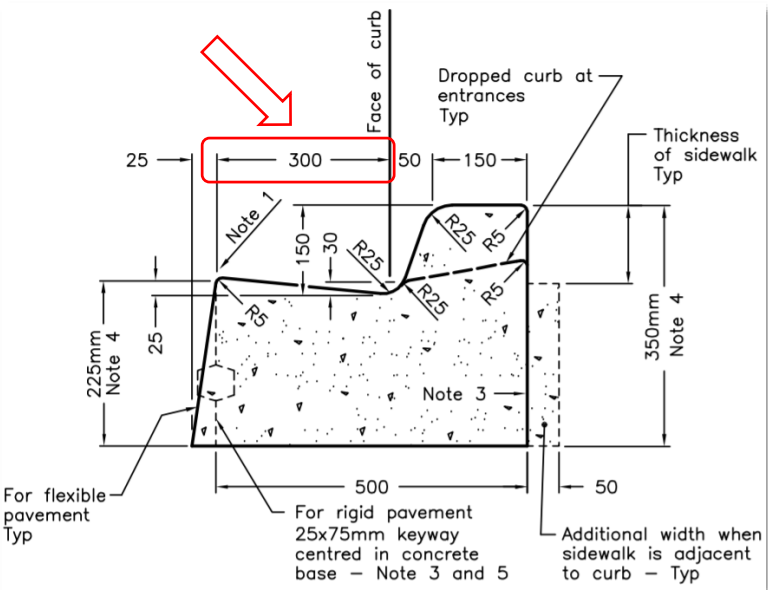


now characterized by consistently  
well built, cost-effective, safe, and  
dependable highways and roads  
in the province



Now that you know how to navigate in OPS, this exercise will test your ability to find some typical information using specs and drawings

## What is the width of the gutter of concrete barrier curb with standard gutter?



Answer: 300mm  
OPSD.600.040



## CONSTRUCTION SPECIFICATION FOR CONCRETE CURB AND GUTTER SYSTEMS

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353.01	SCOPE
353.02	REFERENCES
353.03	DEFINITIONS
353.04	DESIGN AND SUBMISSIONS REQUIREMENTS
353.05	MATERIALS
353.06	EQUIPMENT - Not Used
353.07	CONSTRUCTION
353.08	QUALITY ASSURANCE - Not Used
353.09	MEASUREMENT FOR PAYMENT
353.10	BASIS OF PAYMENT



## **353.07 CONSTRUCTION**

### **353.07.01 General**

The Construction section applies equally to concrete curb and gutter, concrete spillways, and concrete gutter outlets.

### **353.07.02 Foundation and Backfill**

Excavation and embankment construction shall be according to OPSS 206.

Granular base and granular backfill construction shall be according to OPSS 314.

### **353.07.03 Compaction**

Compaction shall be according to OPSS 501.

### **353.07.04 Steel Reinforcement**

Placement of steel reinforcement shall be according to OPSS 905.

### **353.07.05 Formwork**

Formwork shall be according to OPSS 919 and shall be set true to the lines and grades specified in the Contract Documents and in direct contact with the subgrade or granular course.

### **353.07.06 Slipform**

Slipform paving equipment is acceptable for use provided the slipform product meets the specified cross-sectional requirements.

### **353.07.07 Joints**

When concrete curb and gutter is constructed adjacent to concrete pavement, the transverse joint spacing of the curb and gutter shall coincide with that of the concrete pavement. When concrete curb and gutter is



## Joe Accardi, P.Eng

### Guest Speaker

Joe is a professional engineer with over 20 years of industry experience in the civil engineering field and is currently the President of Accardi Schaeffers Consulting. He graduated from the Ryerson University School of Civil Engineering in 1998. Through his career Joe spent over 10 years as the National Specification and Engineering Manager at Royal Pipe and Fittings. Most recently, before starting Accardi Schaeffers Consulting in 2014, he served as the Executive Director of both the Ontario Sewer and Watermain and Great Toronto Sewer and Watermain Construction Associations. Over his years Joe has spent time on many industry boards, from ORCGA One Call Board to OPS Advisory Board.





## Enrico Stradiotto, P.Eng

### Guest Speaker



Enrico Stradiotto is a professional engineer in Ontario, with over 25 years of experience in the concrete pipe and precast industry. Before joining the Ontario Concrete Pipe Association in 2009 (and now CCPPA), he was employed with a precast manufacturer in Ontario, supporting areas in the company with Engineering, Sales and Technical Marketing of proprietary products. Enrico participates in several committees of industry groups. Enrico is a graduate from the University of Waterloo in 1995, with a Bachelor of Science in Civil Engineering.





# 101 COURSE TAKE AWAY



Background of OPS Structure



Exercises to find specifications  
and drawings



Outline how to read  
specifications and extract key  
information

ONTARIO PROVINCIAL STANDARDS  
FOR  
ROADS AND PUBLIC WORKS



OPS USER GUIDE

June 28, 2016



# 201 Course Outline

## Project Planning – Day 1

- Refresher on OPS Specs
- Project Selection
- Identifying the Scope of Work
- Project Budget

## Project Delivery – Day 2

- Building the tender
- Inspection
- Technology
- Managing Progress Payments
- Document Management
- Effective Communication (Tone / Attitude / Working together)
- Dispute Resolution (Preventing / Mitigating)
- Times & Materials
- Contract Closeout



## Things to consider

Estimating – high level, look at other similar projects, apply universal percent increase, good idea where you are headed.

Asset management – pci and related treatments, bci

Culvert assessments

Development needs to cross under road

Utility plans

Traffic signal upgrades – new guidelines, visually impaired, area stakeholders, pxo needs, future signals and underground,

Field visit is mandatory – get a feel for the lay of the land, creek crossings, proximity of homes, hydro lines, railway crossings,

Grades grades grades – for retaining walls from property, low points-identify conveyance of water

Past unit prices

Keeping past bid reviews

York region estimating tool



# Integrating OPS into contracts





# General Conditions – OPS Muni 100



Ontario Provincial Standards for Roads and Public Works

**OPSS MUNI GENERAL CON**

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## GC 3.13.03 Claims Procedure



- Procedure for notice
- Negotiation
- Mediation
- Adjudication
- Arbitration

# 3 case Studies

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- Construction Management Software
- Contract Administration/Inspection
- Time and Material







# 201 Course Take Aways



Planning/Budget



Manage  
Contract

**Change Orders**  
**Claims**  
**Time and**  
**Material**



Contract Close Out

101 Started in November 2020

- Two sessions per year
- 30 – 100 participants
- Range of experience

201 Launch October 15, 2024  
60 participants

## OPS Training



**OPS "101" Course/Webinar:**  
New course dates will be posted soon  
(REGISTRATION IS COLSED!)

The **MEA** is partnering with **OGRA** in offering a course/webinar on Ontario Provincial Standards (OPS). It will be delivered in 2 modules over 2 days at approximately 2:45-hours per day.

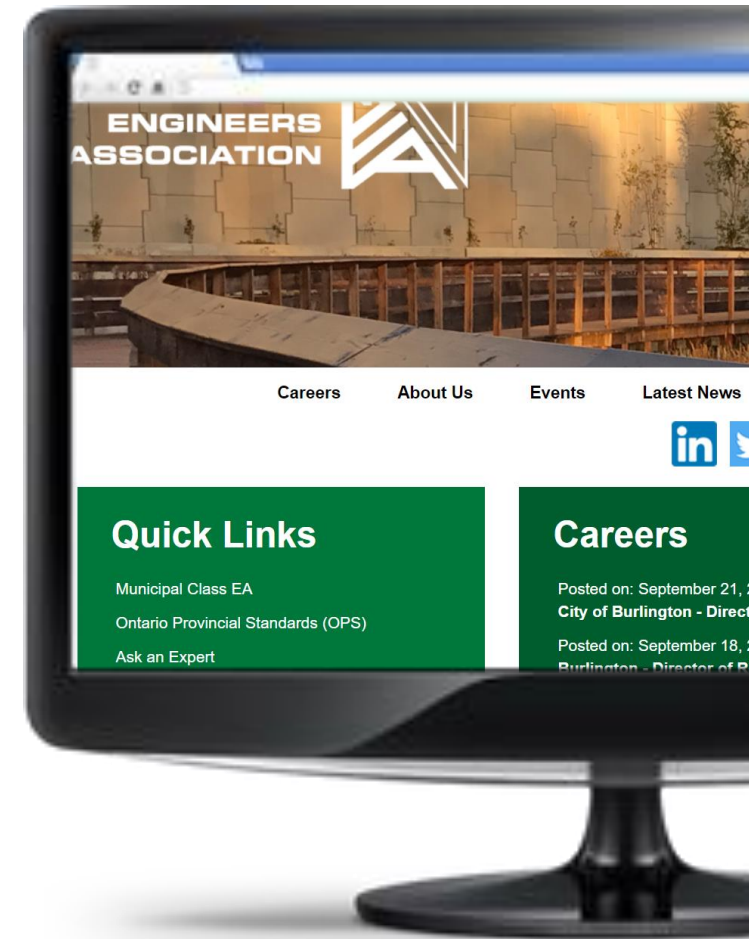
For a detailed Course/Webinar Syllabus,  
**CLICK HERE**

# Next Course Preparation



## OPS General (OPS 101+201) – May 2025 at Guelph Road School

- OPS 101 and basics
- Integrating and using OPS in contracts
- Contract preparation – scope, cost estimate, schedule
- Contract execution – inspection, documentation, claims, time and material, payment
- Contract Close out – substantial performance, warranty, hold backs





Careers

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## Quick Links

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Ontario Provincial Standards (OPS)

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## Careers

Posted on: February 14, 2020

**Project Manager - Development**

Posted on: February 14, 2020

**Project Manager - Environmental**


Posted on: February 12, 2020

## Latest News

Municipal Drinking Water

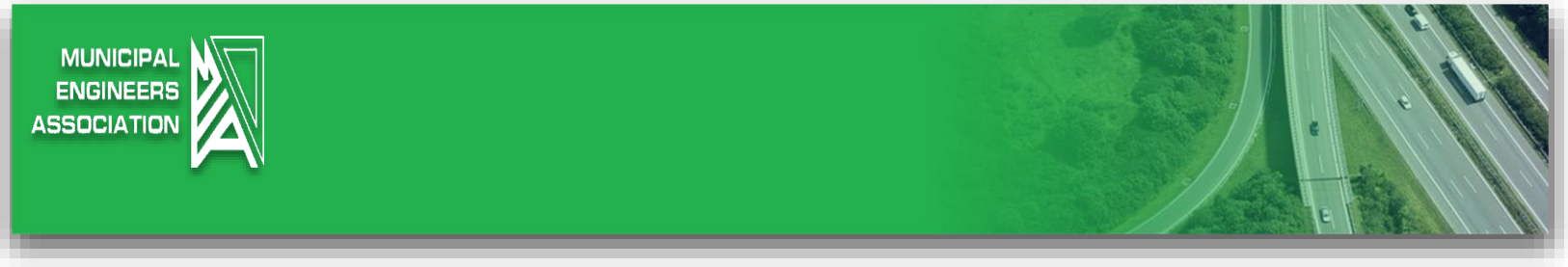
OPS Drainage Committee (Vacancy)

Erosion & Sediment Control Guide



## Why take these course?

- OPS is the industry standard for specs/drawings
- Risk management by using established documents
- Learn the basic elements for municipal contracts
- Get practical knowledge of how OPS is used
- Lessons learned from experienced professionals



Thank You  
Questions?

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