

City of Columbus Winter School 2019

Tips for a smooth E-plan process

Private Development

March 5th & 7th, 2019



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Presentation Overview

- Part 1: Scope Coordination & Construction Agreements (AGR'S)
- Part 2: STD DWG 1441 update
- Part 3: Common Plan Issues
- Part 4: Items that May Cause Approval Delays
- Part 5: R/W Items

City of Columbus Winter School 2019

Part 1: Scope coordination and Construction Agreements (AGR's)

March 5th & 7th, 2019



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Submitting E-plans Prior to Scope (Don't do it)

1. Please submit a PDF of the scope issued by the Division of Traffic Management with the 1st submittal of the plans.
2. If you submit plans before a scope is issued, they will likely get only a very cursory review.
3. Plans may or may not receive useful comments since the plans may change drastically upon issuing a scope.
4. The next submittal will automatically get another 12 day review if there's no scope.

Construction Agreement (AGR)

- When a project requires E Plans, the Site Compliance Plan and Building permit will not be approved until the E Plan is signed **and** the AGR is signed.
- An exception may be allowed to approve the AGR prior to E plan signature.
- The process of requesting and approving and early AGR has been posted on the website at:

<https://www.columbus.gov/WorkArea/DownloadAsset.aspx?id=2147508788>

Requirements to get an early AGR

- A final scope has been issued.
- All proposed work shown is in the ROW or on property controlled by the developer.
- Future changes will not require un-obtained ROW/easements.
- All remaining comments are not in dispute and are feasible to construct within current standards.
- Plan Quantities are accurate.

Process of getting an early AGR

- Upon submission of a nearly complete E-plan, email Andy Beard to request early approval of the AGR.
- The E-plan reviewer will review the submittal, spending extra time on quantities, and make a recommendation to the DPS Design Section Manager about releasing the AGR for approval.
- The DPS reviewer will recommend a contingency when the quantities are close, but not fully accurate. **This is as long as the plans have little left to resolve.**

Process of getting an early AGR (cont.)

- The DPS Section Manager will notify the Construction Inspection Coordinator (Bill Warner), DPS and BZS staff, and the Developer or Consultant that the AGR can begin processing.
- The developer coordinates with Bill Warner, who circulates the AGR for signatures.
- Plan for 14 days to circulate the AGR once all paperwork has been properly submitted to Bill Warner. It often can take less time.

City of Columbus Winter School 2019

Part 2: STD DWG 1441 Update

March 5th & 7th, 2019



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

New 1441 Standard Drawing released

- 1441 details restoration requirements for utility trenches.
- 1441 is the basis for most required resurfacing in Private plans.
- The requirements of resurfacing are often the trigger for required ADA improvements.
- The Columbus ADA Rules and Regulations were updated last Spring.

Heatwelding/Crack Seal

- Heat welding is no longer a requirement, but an option. Patches can also be crack sealed around the perimeter rather than heat welded.
- It is now more critical that inspection review and determine acceptance of the asphalt work. Make the contractor remove and replace the asphalt when it looks “boney” or unconsolidated. Make sure they followed spec when placing the asphalt.
- In some cases a follow up heat weld may be the corrective action.

Special Pavements, Base, and BMPs

- Language added addressing “Special Pavement, Base, and Stormwater BMPS.
- There has been a rise in the use of non-conventional items in the ROW. Some examples include permeable pavers, structural soil, Silva Cells, various post construction BMPs, etc..
- These special pavements will often not be identified at the issuance of permit, but will be obvious in the field.
- Specific direction for each case is not provided in 1441. When a special situation is encountered it should be brought back through the chain of command for direction on restoration.

Traffic Control

- New language has been added making it clear that removed striping must be replaced immediately with at minimum Class II markings.
- Further language spells out the timeframes for permanent replacement markings.
- Any signs disturbed must be immediately replaced.

Resurfacing requirements

- What triggers full lane width resurfacing, has been adjusted.
 - 100' or more of trench triggers lane resurfacing as before
 - Laterals of spot locations within 100' of each other will trigger full lane width resurfacing.
 - Connecting trenches, like mains going up side streets, are considered part of the same trench and require full lane width resurfacing even if they extend less than 100' off the initial trench.
 - Patches will be rectangular and ones in close proximity will be made into one large patch.

Temporary pavement

- When noted on the permit, the contractor may fill trench repairs from subgrade to the finish elevation with concrete temporarily. (Note K).
- The permanent fix for the repairs can mill and fill of the top 1 ½” with asphalt.
- Cold mix is still allowed as a temporary repair and required complete removal for the permanent repair.

Full depth concrete

- New language requires the concrete panel to be replaced from one edge of the trench to the nearest joint.
- This should result in only one new joint introduced into concrete pavement at the most.
- Full panels must be replaced downtown.

Brick Streets

- New direction on the repair of “new style” brick pavers has been added. This is brick on concrete base and asphalt setting bed.
- Polymeric sand is now to be used as the joint sand for both old and new style pavers.

City of Columbus Winter School 2019 Part 3: Common Plan Issues

March 5th & 7th, 2019

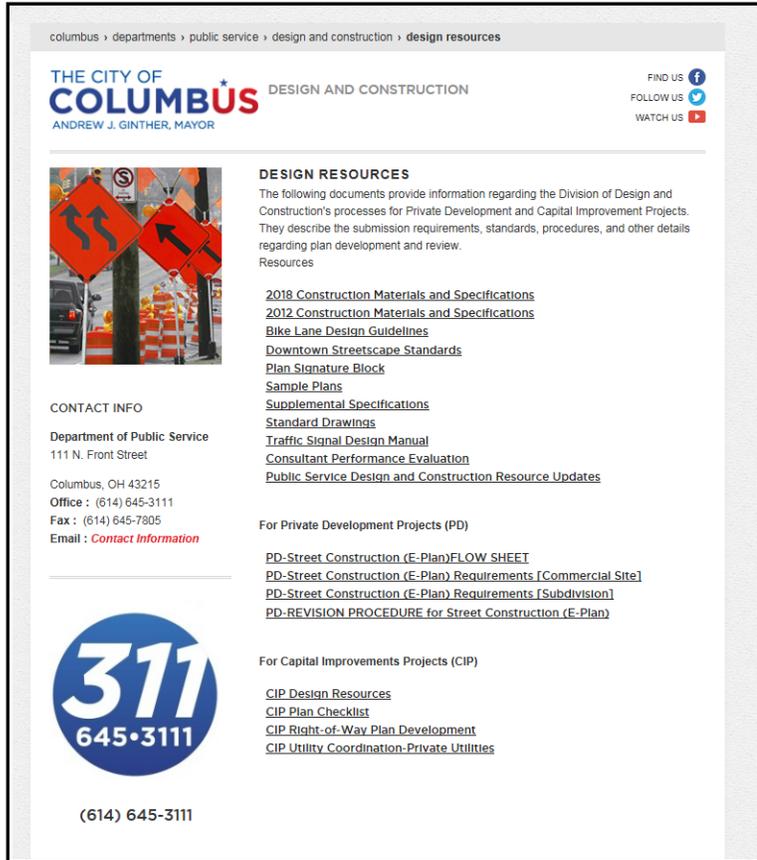


THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Design and Construction Design Resources



The screenshot shows a webpage for the City of Columbus, Department of Public Service, Design and Construction. The page is titled "DESIGN RESOURCES" and provides information about the Division of Design and Construction's processes for Private Development and Capital Improvement Projects. It lists various resources such as "2018 Construction Materials and Specifications", "2012 Construction Materials and Specifications", "Bike Lane Design Guidelines", "Downtown Streetscape Standards", "Plan Signature Block", "Sample Plans", "Supplemental Specifications", "Standard Drawings", "Traffic Signal Design Manual", "Consultant Performance Evaluation", and "Public Service Design and Construction Resource Updates". The page also includes contact information for the Department of Public Service, a 311 logo, and a phone number (614) 645-3111.

columbus > departments > public service > design and construction > design resources

THE CITY OF COLUMBUS DESIGN AND CONSTRUCTION
ANDREW J. GINTHER, MAYOR

FIND US
FOLLOW US
WATCH US

DESIGN RESOURCES
The following documents provide information regarding the Division of Design and Construction's processes for Private Development and Capital Improvement Projects. They describe the submission requirements, standards, procedures, and other details regarding plan development and review.
Resources

[2018 Construction Materials and Specifications](#)
[2012 Construction Materials and Specifications](#)
[Bike Lane Design Guidelines](#)
[Downtown Streetscape Standards](#)
[Plan Signature Block](#)
[Sample Plans](#)
[Supplemental Specifications](#)
[Standard Drawings](#)
[Traffic Signal Design Manual](#)
[Consultant Performance Evaluation](#)
[Public Service Design and Construction Resource Updates](#)

CONTACT INFO
Department of Public Service
111 N. Front Street
Columbus, OH 43215
Office : (614) 645-3111
Fax : (614) 645-7805
Email : [Contact Information](#)

311
645-3111
(614) 645-3111

For Private Development Projects (PD)
[PD-Street Construction \(E-Plan\)FLOW SHEET](#)
[PD-Street Construction \(E-Plan\) Requirements \[Commercial Site\]](#)
[PD-Street Construction \(E-Plan\) Requirements \[Subdivision\]](#)
[PD-REVISION PROCEDURE for Street Construction \(E-Plan\)](#)

For Capital Improvements Projects (CIP)
[CIP Design Resources](#)
[CIP Plan Checklist](#)
[CIP Right-of-Way Plan Development](#)
[CIP Utility Coordination-Private Utilities](#)

<https://www.columbus.gov/Templates/Detail.aspx?id=64856>

Contains links to almost everything you need to reference for a City of Columbus Design.

1. Sample Plans
2. Requirements for Subdivisions and Commercial Sites
3. Standard Drawings
4. Construction Materials and Specifications (recent 2018 update)
5. Traffic Signal Design Manual
6. Downtown Streetscape Standards
7. Revision Procedures

Title Sheet Requirements



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Title Sheet Requirements

There are 2 different typical title sheets for Private E-plans

- Subdivision
- Commercial Sites

Title Sheet (Subdivision)

INDEX OF SHEETS
(Information and/or sheets in the plan shall be located in order indicated.)

TITLE SHEET _____

TYPICAL SECTIONS _____

ADT _____

GENERAL NOTES _____

ESTIMATE OF QUANTITIES _____

MAINTENANCE OF TRAFFIC (NOTES AND PLAN DETAILS) _____

STORM WATER POLLUTION PREVENTION PLAN _____

PLAN & PROFILE (STREETS) _____

DETAILS _____

MATER GRADING PLAN _____

STORM SEWER PROFILES _____

SURVEY COORDINATE DATA - STORM AND WATER _____

PAVEMENT MARKING AND SIGNING PLAN _____

TRAFFIC SIGNAL & TRAFFIC SIGNAL INTERCONNECT _____

LIGHTING (OPTIONAL) _____

OUTSIDE EDGE OF SHEET

INSIDE BORDER

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF DESIGN AND CONSTRUCTION

IMPROVEMENTS OF
SUBDIVISION NAME

SECTION X, PARTS X & X

PROJECT NAME

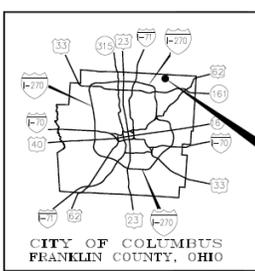
NORTH ARROW LOCATION



PLAN SCALE REFERENCE

1/2"

LOCATION MAP



CITY OF COLUMBUS
FRANKLIN COUNTY, OHIO

2018 SPECIFICATIONS

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMS), 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

CITY OF COLUMBUS APPROVALS

CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION	DATE
ADMINISTRATOR, DIVISION OF POWER	DATE
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE	DATE
ADMINISTRATOR, DIVISION OF WATER	DATE
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS	DATE
FIRE PREVENTION BUREAU, DIVISION OF FIRE	DATE

PROJECT DESCRIPTION
GIVE BRIEF DESCRIPTION OF RIGHT-OF-WAY IMPROVEMENT.

OWNER/DEVELOPER
BUSINESS ENTITY NAME
ADDRESS CONTACT
PHONE EMAIL

BENCH MARKS
Note: a copy of the Bench Cross shall be included with the INITIAL submittal for plan review.

VERTICAL CONTROL
Vertical control is set using inside the County or City certified source monuments(s), based on the North American Vertical Datum of 1988 (NAVD 88). (Provide source data detail and correction factor.)

BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Benchmark	Monument 1 Official Name, Description	#####	#####	#####
+ TBM #		#####	#####	#####
+ TBM #		#####	#####	#####
+ TBM #		#####	#####	#####

HORIZONTAL CONTROL
Horizontal Controls are tied to Franklin County Survey Monuments, based on Ohio State Plane Coordinate System, South Zone, NAD 83 (2007 NSRS Adjustment). (Provide source data detail and correction factor.)

CONTROL POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Monument	Monument 1 Official Name, Description	#####	#####	#####
Source Monument	Monument 2 Official Name, Description	#####	#####	#####
# 1		#####	#####	#####
# 2		#####	#####	#####
# 3		#####	#####	#####

BASIS OF BEARINGS
THE BEARINGS (SHOWN HEREIN) ARE ESTABLISHED ON THE CENTRALLINE OF STREET NAME AS BEING NORTH 00° 00' 00" EAST FROM ADJUSTED MERIDIAN USING THE METHODS ORIGINATED FROM MONUMENT NAME 1 AND MONUMENT NAME 2, BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AND NORTH AMERICAN DATUM 1983 (NSRS 2007).

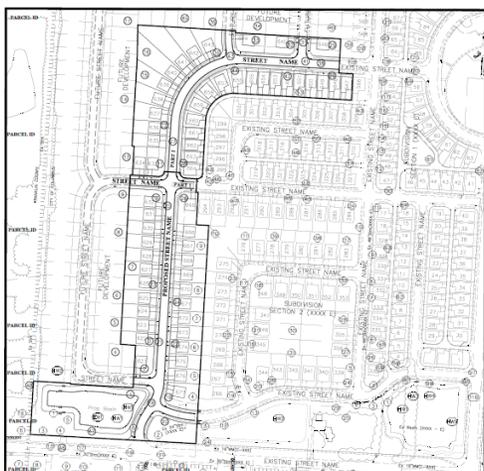
CONSULTING ENGINEER FIRM LOGO

ENGINEER'S SIGNATURE AREA

ENGINEER FIRM NAME ADDRESS CONTACT PHONE EMAIL

TRAFFIC ENGINEER'S SIGNATURE AREA

REGISTERED ENGINEER _____ DATE _____



INDEX MAP
SCALE

ZONING

Development Name: _____ SUBDIVISION NAME _____
Zoning Code Number _____ Zoning _____
Address _____ ADDRESS _____
City Council Ordinance Number: _____ City Council Ordinance Number: _____

ODOT STANDARD CONSTRUCTION DRAWINGS	COLUMBUS STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
10-15-10 1/2"x1/4"	1441 1/2"x1/4"	AS-1102 10-15-101 1/2"x1/4"
10-15-41 1/2"x1/4"	2000 1/2"x1/4"	AS-1107 10-15-1030 1/2"x1/4"
10-15-100 1/2"x1/4"	2200 1/2"x1/4"	AS-1133 2300 1/2"x1/4"
	2319 1/2"x1/4"	AS-1128

FINAL PLAT
CANTONMENT OTHER #XXXX

OUTSIDE EDGE OF SHEET

INSIDE BORDER

1/2"

TITLE SHEET

OUTSIDE EDGE OF SHEET

PROJECT NAME

1
74

XXXX - E

1
74

INSIDE BORDER

OUTSIDE EDGE OF SHEET

E-PLAN (PRIVATE DEVELOPMENT -SUBDIVISION) TITLE SHEET SIZE: 22" x 34"

THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Title Sheet (Commercial)

INDEX OF SHEETS
(Information and/or sheets in the plan shall be located in order indicated.)

TITLE SHEET _____

TYPICAL SECTIONS _____

GENERAL NOTES _____

ESTIMATE OF QUANTITIES _____

MAINTENANCE OF TRAFFIC (NOTES AND PLAN DETAILS) _____

STORM WATER POLLUTION PREVENTION PLAN _____

DEMOLITION PLAN _____

PLANS & PROFILES (STREETS) _____

CROSS SECTIONS (NEW STREETS OR WIDENING EXISTING STREET) _____

DETAILS _____

STORM SEWER PROFILES _____

SURVEY COORDINATE DATA - STORM AND WATER _____

PAVEMENT MARKING AND SIGNING PLAN _____

TRAFFIC SIGNAL & TRAFFIC SIGNAL INTERCONNECT _____

LIGHTING _____

LANDSCAPING _____

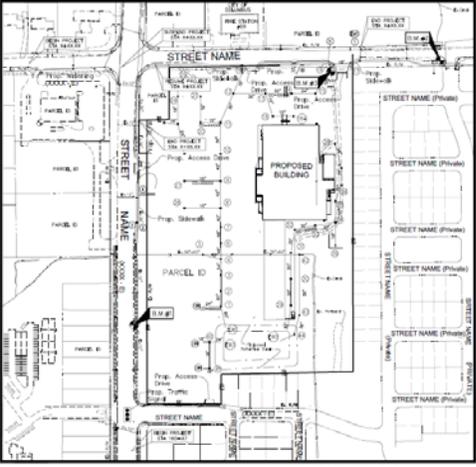
OUTSIDE EDGE OF SHEET

INSIDE BORDER

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF DESIGN AND CONSTRUCTION

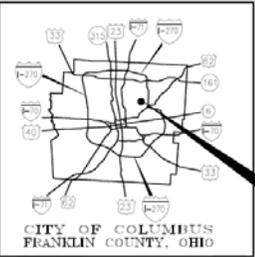
IMPROVEMENTS OF
NAME OF STREET
FROM A POINT XX' EAST OF XXXX RD
TO A POINT XX' WEST OF XXXX RD

PROJECT NAME



INDEX MAP
SCALE

NORTH ARROW
LOCATION



LOCATION MAP
2018 SPECIFICATIONS

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (COMSC), 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

CITY OF COLUMBUS APPROVALS

CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE ONLY CONCURRING WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION	DATE
ADMINISTRATOR, DIVISION OF POWER	DATE
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE	DATE
ADMINISTRATOR, DIVISION OF WATER	DATE
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS	DATE
FIRE PREVENTION BUREAU, DIVISION OF FIRE	DATE

TITLE SHEET

PROJECT DESCRIPTION
GIVE BRIEF DESCRIPTION OF RIGHT-OF-WAY IMPROVEMENT.

OWNER		DEVELOPER	
BUSINESS ENTITY NAME	BUSINESS ENTITY NAME	BUSINESS ENTITY NAME	BUSINESS ENTITY NAME
ADDRESS	ADDRESS	ADDRESS	ADDRESS
PHONE	PHONE	PHONE	PHONE
EMAIL	EMAIL	EMAIL	EMAIL

BENCH MARKS
Note: a copy of the Bench Crest shall be included with the INITIAL submittal for plan review.

VERTICAL CONTROL
Vertical control is set using (note the County or City certified) source monuments, based on the North American Vertical Datum of 1988 (NAVD 88). (Provide source data, detail and correction factor.)

BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Monument	Monument 1 Official Name, Description	#####	#####	#####
TBM #		#####	#####	#####
TBM #		#####	#####	#####
TBM #		#####	#####	#####

HORIZONTAL CONTROL
Horizontal Controls are tied to Franklin County Survey Monuments, based on Ohio State Plane Coordinate System, South Zone, NAD 83 (2011 NGRS Adjustment). (Provide source data, detail and correction factor.)

CONTROL POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
Source Monument	Monument 1 Official Name, Description	#####	#####	#####
Source Monument	Monument 2 Official Name, Description	#####	#####	#####
▲ #1		#####	#####	#####
▲ #2		#####	#####	#####

BASIS OF BEARINGS
THE BEARINGS SHOWN HEREON ARE ESTABLISHED ON THE CENTERLINE OF STREET NAME AS BEING NORTH XX' XX' EAST FROM ADJUSTED FIELD SURVEY QUAD'S MONUMENT (OR TIE) FROM MONUMENT NAME 1, AND MONUMENT NAME 2, BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AND NORTH AMERICAN DATUM 1983 (NAD 83, 2011).

CONSULTING ENGINEER FIRM LOGO	ENGINEER'S SEAL AREA	ENGINEER FIRM NAME ADDRESS CONTACT PHONE EMAIL	ENGINEER'S SEAL AREA
-------------------------------	----------------------	--	----------------------

REQUIRED ENGINEER: _____ DATE: _____

ZONING

Development Name: _____ NAME: _____
 Zoning Code Number: _____ Zoning Address: _____
 City Council Ordinance Number: _____ City Council Ordinance Number: _____

ODOT STANDARD CONSTRUCTION DRAWINGS	COLUMBUS STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
SD-100-10	1000	1000

REVISIONS

REVISION DESCRIPTION	SHEET(S)	INITIAL	DATE

1
74
XXXX - E
74

OUTSIDE EDGE OF SHEET

INSIDE BORDER

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF DESIGN AND CONSTRUCTION

**IMPROVEMENTS OF
NAME OF STREET**
FROM A POINT XX' EAST OF XXXX RD
TO A POINT XX' WEST OF XXXX RD

PROJECT NAME

INDEX OF SHEETS
(Information and/or sheets in the plan shall be located in order indicated.)

TITLE SHEET _____

TYPICAL SECTIONS _____

GENERAL NOTES _____

ESTIMATE OF QUANTITIES _____

MAINTENANCE OF TRAFFIC NOTES AND PLAN DETAILS _____

STORM WATER POLLUTION PREVENTION PLAN _____

DEMOLITION PLAN _____

PLAN & PROFILE (STREETS) _____

CROSS SECTIONS (NEW STREETS OR WIDENING EXISTING STREET) _____

DETAILS _____

STORM SEWER PROFILES _____

SURVEY COORDINATE DATA - STORM AND WATER _____

PAVEMENT MARKING AND SIGNING PLAN _____

TRAFFIC SIGNAL & TRAFFIC SIGNAL INTERCONNECT _____

LIGHTING _____

LANDSCAPING _____

INDEX MAP
SCALE:

LOCATION MAP
2018 SPECIFICATIONS

THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (2018) 2018 EDITION, INCLUDING ALL REVISIONS AND SUPPLEMENTS, IS IN EFFECT AT THE TIME OF SIGNATURE BY THE DIRECTOR OF PUBLIC SERVICE. SMALL COVER ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLANS UNLESS NOTED OTHERWISE.

CITY OF COLUMBUS APPROVALS

CITY OF COLUMBUS SIGNATURES ON THIS PLAN SIGNIFY ONLY CONFORMANCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER/ADMINISTRATOR DIVISION OF DESIGN AND CONSTRUCTION	DATE
ADMINISTRATOR, DIVISION OF POWER	DATE
ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE	DATE
ADMINISTRATOR, DIVISION OF WATER	DATE
DIRECTOR, DEPARTMENT OF RECREATION AND PARKS	DATE
FIRE PREVENTION BUREAU, DIVISION OF FIRE	DATE

PROJECT DESCRIPTION
GIVE BRIEF DESCRIPTION OF RIGHT-OF-WAY IMPROVEMENT.

OWNER
BUSINESS ENTITY NAME _____
ADDRESS _____
PHONE _____

DEVELOPER
BUSINESS ENTITY NAME _____
ADDRESS _____
PHONE _____
CONTACT _____
EMAIL _____

BENCH MARKS
Note: a copy of the Bench Council shall be included with the INITIAL submittal for plan review.

VERTICAL CONTROL
Vertical control is set using (note the County or City certified) source monuments(s), based on the North American Vertical Datum of 1988 (NAVD 88).
(Provide source data detail and operation factor.)

BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM #	Monument 1 Official Name, Description	####.###	####.###	####.###
BM #	Monument 2 Official Name, Description	####.###	####.###	####.###
BM #	Monument 3 Official Name, Description	####.###	####.###	####.###

HORIZONTAL CONTROL
Horizontal Controls are tied to Franklin County Survey Monuments, based on Ohio State Plane Coordinate System, South Zone, NAD 83 (2007 NSRS Adjustment).
(Provide source data detail and operation factor.)

CONTROL POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP #	Monument 1 Official Name, Description	####.###	####.###	####.###
CP #	Monument 2 Official Name, Description	####.###	####.###	####.###
CP #	Monument 3 Official Name, Description	####.###	####.###	####.###

BASIS OF BEARINGS
THE BEARINGS SHOWN HEREIN ARE ESTABLISHED ON THE CENTERLINE OF STREET NAME AT BEING NORTH XX' XX' XX" EAST, FROM ADJUTANT FIELD SURVEY (2002) C.P.S. POINT OPERATED FROM MONUMENT NAME 1 AND MONUMENT NAME 2, BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE AND NORTH AMERICAN DATUM 1983 (2007 NSRS).

ZONING

ODOT STANDARD CONSTRUCTION DRAWINGS	COLUMBUS STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
10-30.41	4/2/76 2200	4/2/76 44-107
10-101.10	4/2/76 2203	4/2/76 44-103
	8/200	4/2/76 44-100
	2/219	4/2/76

ENGINEER
FIRM NAME _____
ADDRESS _____
PHONE _____
EMAIL _____

CONSULTING ENGINEER: FIRM LOGO _____

ENGINEER'S SEAL AREA

ENGINEER'S SEAL AREA

ENGINEER'S SEAL AREA

BMP Water Quality Note

Site Earth Disturbed Area

REVISION DESCRIPTION

REVISION DESCRIPTION	SHEET(S)	INITIAL	DATE

1
74
XXXX - E

Please be sure all contents on the title sheet are located in the same places shown on the sample plan sheets.

Please be sure all sheets follow the order indicated on the index of sheets.

INDEX OF SHEETS

(Information and/or sheets in the plan shall be located in order indicated.)

TITLE SHEET	_____	#
TYPICAL SECTIONS	_____	#
GENERAL NOTES	_____	#
ESTIMATE OF QUANTITIES	_____	#
MAINTENANCE OF TRAFFIC (NOTES AND PLAN DETAILS	_____	#
STORM WATER POLLUTION PREVENTION PLAN	_____	#
DEMOLITION PLAN	_____	#
PLAN & PROFILE (STREETS)	_____	#
CROSS SECTIONS (NEW STREETS OR WIDENING EXISTING STREET)	_____	#
DETAILS	_____	#
STORM SEWER PROFILES	_____	#
SURVEY COORDINATE DATA - STORM AND WATER	_____	#
PAVEMENT MARKING AND SIGNING PLAN	_____	#
TRAFFIC SIGNAL & TRAFFIC SIGNAL INTERCONNECT	_____	#
LIGHTING	_____	#
LANDSCAPING	_____	#

Subdivision Requirements

Refer to the Design and Construction Resource Page for entire document

10/24/14 (dmp)

STREET CONSTRUCTION (E-PLAN) REQUIREMENTS

(*** SUBDIVISION ***)

Requirements for and information on an "E-Plan" for Subdivisions shall contain, but not limited to, the following

1. GENERAL REQUIREMENTS:

- 1.1. **PLAN SIZE:** All plans shall be submitted on standard E-size sheets - 22" high x 34" wide. Each sheet shall have a border of 1/2" from the top, bottom, and right edges and a 2" border from the left edge with the ODOT Title Block. Refer to Ohio Department of Transportation, Location and Design Manual Volume 3.
- 1.2. **PLAN LAYOUT:** Orientation of plan views shall be with the north arrow up to TOP of plan sheet or to the RIGHT.
- 1.3. **GRAPHIC SCALE:** Show on each plan sheet or specific view (plan/detail/section/profile) the numeric scale AND a graphic of the scale.
- 1.4. **PLAN NUMBER ASSIGNMENT:** The street plan number will be assigned by the Accela plan tracking system at the time of submittal for initial review. For initial submittal - use the "X" in each of the 4 positions for the plan sequence number.
- 1.5. **SECTIONS/PARTS:** Each SECTION or PART of a preliminary plat shall have its own unique "E-Plan" with associated Final Plat.
- 1.6. **STREET STATIONING:** Station the centerline of each street. Each street is to have its own stationing. Stationing should progress up from SOUTH-to-NORTH and from WEST-to-EAST. When establishing new stationing, set an even station at the centerline of the nearest street intersection and describe in the (basis of stationing) statement. Provide a "Basis of Stationing" statement explaining the origin and basis of stationing when extending, widening, or connecting onto an existing street. Station equations or negative stationing on the plans will not be accepted.
- 1.7. **REFERENCE TO RELATED DRAWINGS:** Notate on the plans any drawing related to or interfacing with, or adjoining, this project. Examples of drawings to reference are adjoining Parts or Sections of a residential subdivision shown on other plans; CC-plans on private storm sewers that tie-in to a storm sewer on this plan; sanitary sewer plan; street construction plans for other active projects this project interfaces with or ties into; or street construction plans of other projects which extend a street from this project.
- 1.8. **SURVEY HORIZONTAL & VERTICAL CONTROL:**
 - 1.8.1. **Horizontal Control:** The Ohio State Plane Coordinate System and North American Datum of 1983 (2007 NSRS).
 - 1.8.2. **Vertical Control:** North American Vertical Datum 1988 (NAVD 88) shall be used on all projects. All temporary benchmarks and project/site elevations shall be based upon a source bench mark of a third order or better monument system established and maintained by the Franklin County, OH Engineer's office. The 1929 North American Vertical Datum (NAVD) datum should only be used when the 1988 (NAVD) elevations are unavailable and must be approved, in writing, by the City in advance of initial plan submittal.
- 1.9. **PLAN REVIEW FEES:** Fees are based on an hourly rate and are invoiced at the time all review comments have been addressed. Final payment must be received before mylars are routed for signature.
- 1.10. **CITY ADA TRAINING REQUIREMENT:** As a minimum, the Engineering consultant's project manager and design engineers assigned to the project must have had ADA ramp training by the City of Columbus. ADA training sessions are listed on the website <http://pubserv.ci.columbus.oh.us/transportation/ADA/ADATraining.htm>
- 1.11. **TRAFFIC SIGNAL DESIGN:** All traffic signal and interconnect design work shall be performed by an Engineer that has met the ODOT prequalification requirements for Basic Traffic Signal Design and is familiar with the City of Columbus traffic signal systems engineering recommended practices, policies, standards and specifications. The Title Sheet shall be stamped and signed by the Traffic Signal Engineer preparing the traffic signal and interconnect plan sheets.
- 1.12. **PHASED CONSTRUCTION PROJECTS:** For projects constructed in phases, the phase lines shall be clearly shown and labeled through out the plan set, Index Map, and Estimate of Quantities. The private

STREET CONSTRUCTION (E-PLAN) REQUIREMENTS
 (*** Commercial Site ***)

Requirements for and information on the "E-Plan" for R/W improvements related to a commercial site shall contain, but not limited to, the following:

1. GENERAL REQUIREMENTS:
 - 1.1. PLAN SIZE: All plans shall be submitted on standard E-size sheets - 22" high x 34" wide. Each sheet shall have a border of 1/2" from the top, bottom, and right edges and a 2" border from the left edge with the ODOT Title Block. Refer to Ohio Department of Transportation, Location and Design Manual Volume 3.
 - 1.2. PLAN LAYOUT: Orientation of plan views shall be with the north arrow up to TOP of plan sheet or to the RIGHT.
 - 1.3. GRAPHIC SCALE: Show on each plan sheet or specific view (plan/detail/section/profile) the numeric scale AND a graphic of the scale.
 - 1.4. PLAN NUMBER ASSIGNMENT: The street plan number will be assigned by the Accela plan tracking system at the time of submittal for initial review. For initial submittal – use the "X" in each of the 4 positions for the plan sequence number.
 - 1.5. STREET STATIONING: Station the centerline of each street. Each street is to have its own stationing. Stationing should progress up from SOUTH-to-NORTH and from WEST-to-EAST. Provide a "Basis of Stationing" statement explaining the origin and basis of stationing. Whenever possible, use established stationing from previous (project) plans and make reference to the plan number(s) in the statement. When establishing new stationing, set an even station at the centerline of the nearest street intersection and describe in the (basis of stationing) statement. When stationing is newly established, include in the statement that is being set for this project. Station equations or negative stationing on the plans will not be accepted.
 - 1.6. REFERENCE TO RELATED DRAWINGS: Notate on the plans any drawing related to or interfacing with, or adjoining, this project. Examples of drawings to reference are street construction plans of existing roads this project fronts or stationing is based off of, adjoins or ties into; a residential subdivision plan that constructed the existing street fronting this project; CC-plans on private storm sewers that tie-in to a storm sewer on this plan; sanitary sewer plan; Water Service Plan plans, street construction plans on other active projects this project interfaces with; or street construction plans of other projects which extend a street from this project.
 - 1.7. SURVEY HORIZONTAL & VERTICAL CONTROL:
 - 1.7.1. Horizontal Control: The Ohio State Plane Coordinate System and North American Datum of 1983 (2007 NSRS).
 - 1.7.2. Vertical Control: North American Vertical Datum 1988 (NAVD 88) shall be used on all projects. All temporary benchmarks and project/site elevations shall be based upon a source bench mark of a third order or better monument system established and maintained by the Franklin County, OH Engineer's office. The 1929 North American Vertical Datum (NAVD) datum should only be used when the 1988 (NAVD) elevations are unavailable and must be approved, in writing, by the City in advance of initial plan submittal.
 - 1.8. PLAN REVIEW FEES: Fees are based on an hourly rate and are invoiced at the time all review comments have been addressed. Final payment must be received before mylars are routed for signature.
 - 1.9. CITY ADA TRAINING REQUIREMENT: As a minimum, the Engineering consultant's project manager and design engineers assigned to the project must have had ADA ramp training by the City of Columbus. ADA training sessions are listed on the website <http://pubserv.ci.columbus.oh.us/transportation/ADA/ADATraining.htm>
 - 1.10. TRAFFIC SIGNAL DESIGN: All traffic signal and interconnect design work shall be performed by an Engineer that has met the ODOT prequalification requirements for Basic Traffic Signal Design and is familiar with the City of Columbus traffic signal systems engineering recommended practices, policies, standards and specifications. The Title Sheet shall be stamped and signed by the Traffic Signal Engineer preparing the traffic signal and interconnect plan sheets.
 - 1.11. PLAN REVISION: Once E-plans are signed, any change to the plan requires a plan revision. Refer to a separate document titled "Procedure for Revision of E-Plan (Private Development)".

Commercial Site Requirements

Refer to the Design and Construction Resource Page for entire document

Demolition Plan Sheets



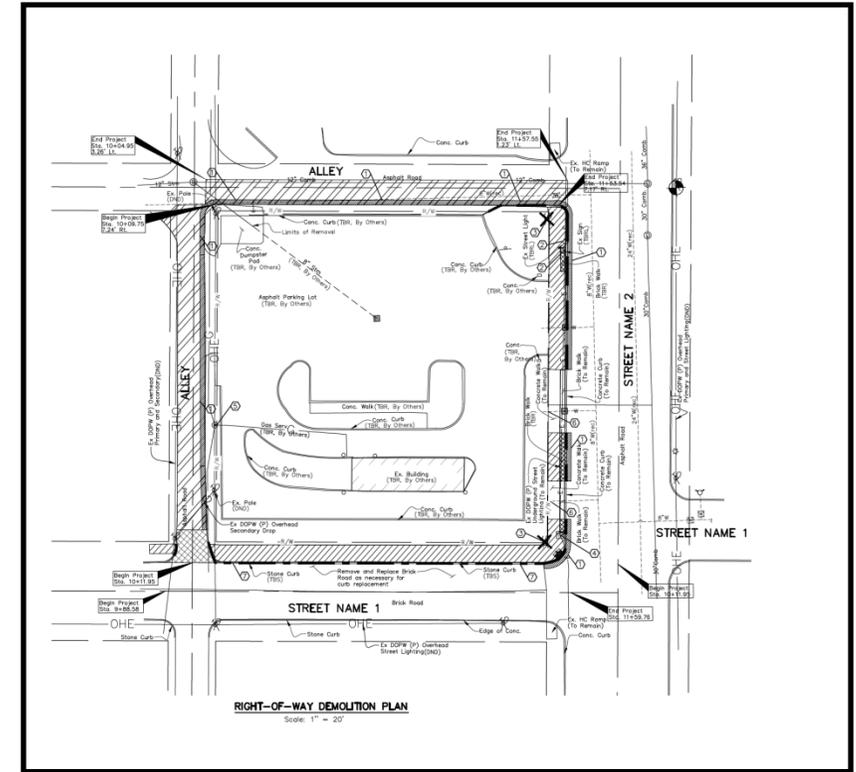
THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Demolition Sheets

- Though not an absolute requirement, we generally prefer to see the demolition work on its own sheet.
- Make sure to pay close attention to detail on this sheet, particularly in commercial redevelopment areas.
- If you remove an existing driveway, (particularly along an open ditch section) remember to also provide final grading details to be sure there will be positive drainage there.



Plan and Profile Sheets (Subdivisions)



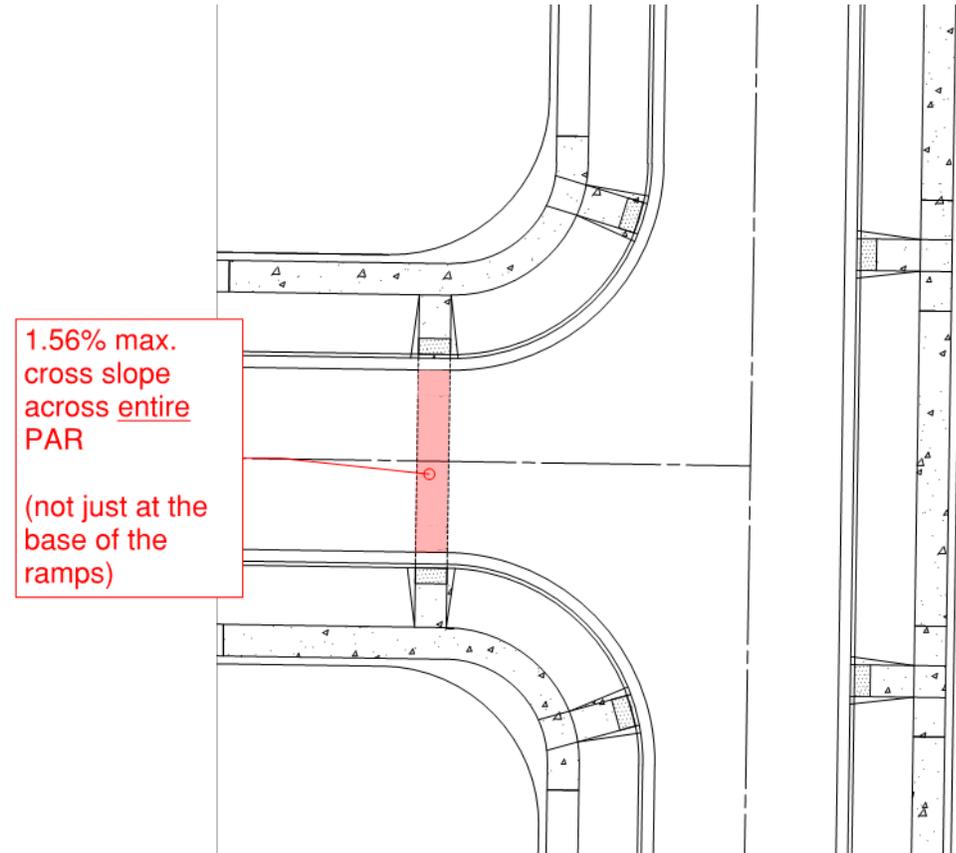
THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Subdivision Plan and Profile Sheets (Continued)

- For **new-build** intersections, remember to bench the street to account for ADA /Pedestrian Access Route (PAR) crossings.
- Maximum 1.56% cross slope must be maintained across the entire PAR, not just at the base of the ramps.



Subdivision Plan and Profile Sheets (Continued)

Vertical Curves

Follow ODOT L&D 203-2E for maximum grade changes without a vertical curve.

MAXIMUM CHANGE IN VERTICAL ALIGNMENT WITHOUT VERTICAL CURVE		203-2 REFERENCE SECTION 203.3.2
DESIGN SPEED (mph)	MAX. GRADE CHANGE ^Δ	
25	1.85%	
30	1.30%	
35	0.95%	
40	0.75%	
45	0.55%	
50	0.45%	
55	0.40%	
60	0.30%	
65	0.30%	
70	0.25%	
75	0.20%	

Based on the AASHTO comfort formula for sag vertical curves:
 $A = 46.5 L / V^3 = 1162.5 / V^3$
 Where:
 A = Maximum Grade Change (%)
 L = Length of Vertical Curve (assume 25')
 V = Design Speed (mph)

^Δ ROUNDED TO NEAREST 0.05%

RELATIONSHIP BETWEEN VERTICAL CURVES AND GRADE BREAKS

* The minimum distance between consecutive deflections is:
 100' where design speed is 50 mph or greater
 50' where design speed is less than 50 mph

** Allowable grade break location.

JULY 2013

Plan and Profile Sheets (Commercial Sites)



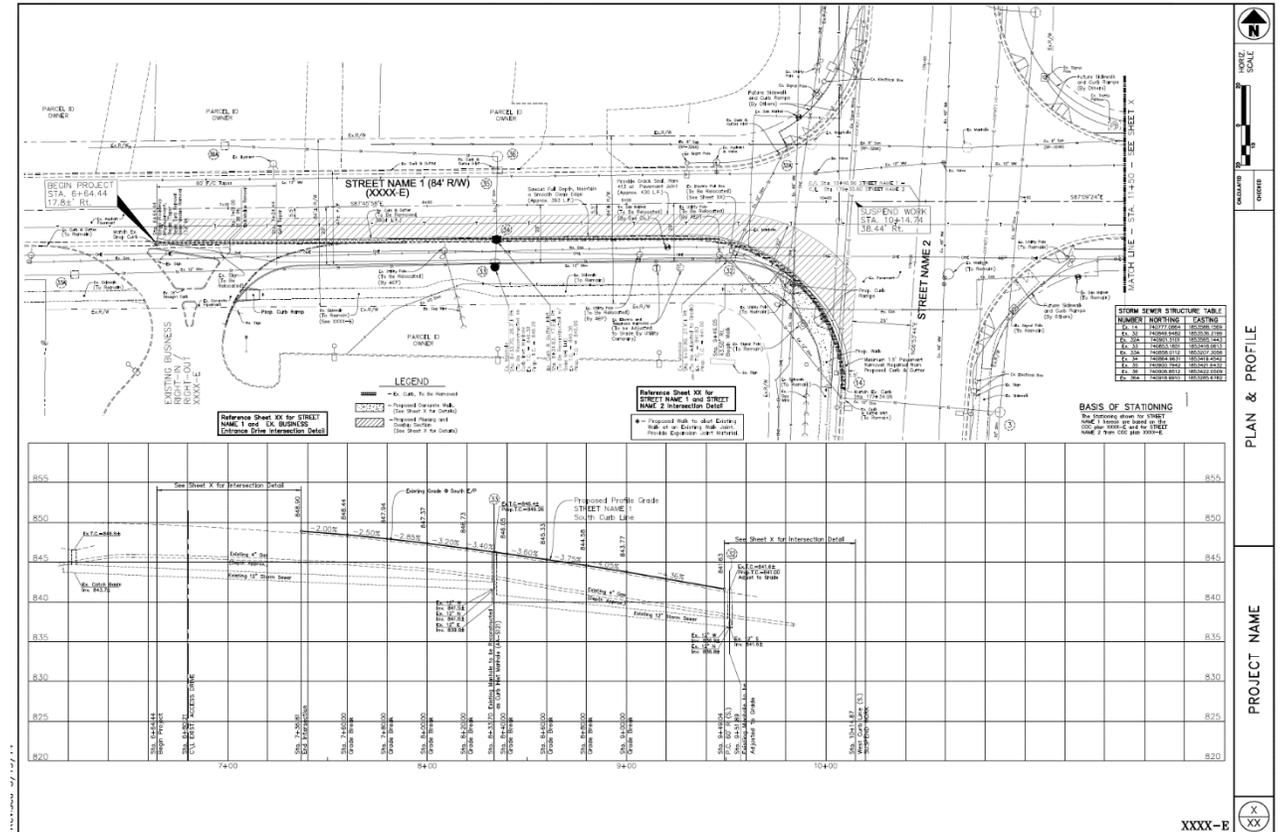
THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Commercial Plan and Profile Sheets

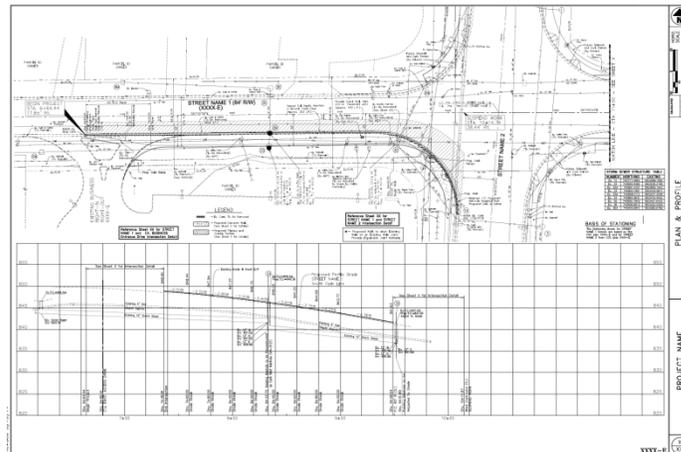
- Follow the requirements for Commercial Developments
 - Section 9 is for existing streets
 - Section 10 is for proposed streets
- Please ensure that commercial plans have a minimum scale of 1"=20' and 1"=5' vertical. (i.e. 1"=50' is not acceptable.)
- 10 scale may also be required for downtown projects or in other dense commercial areas.



Commercial Plan and Profile Sheets (Continued)

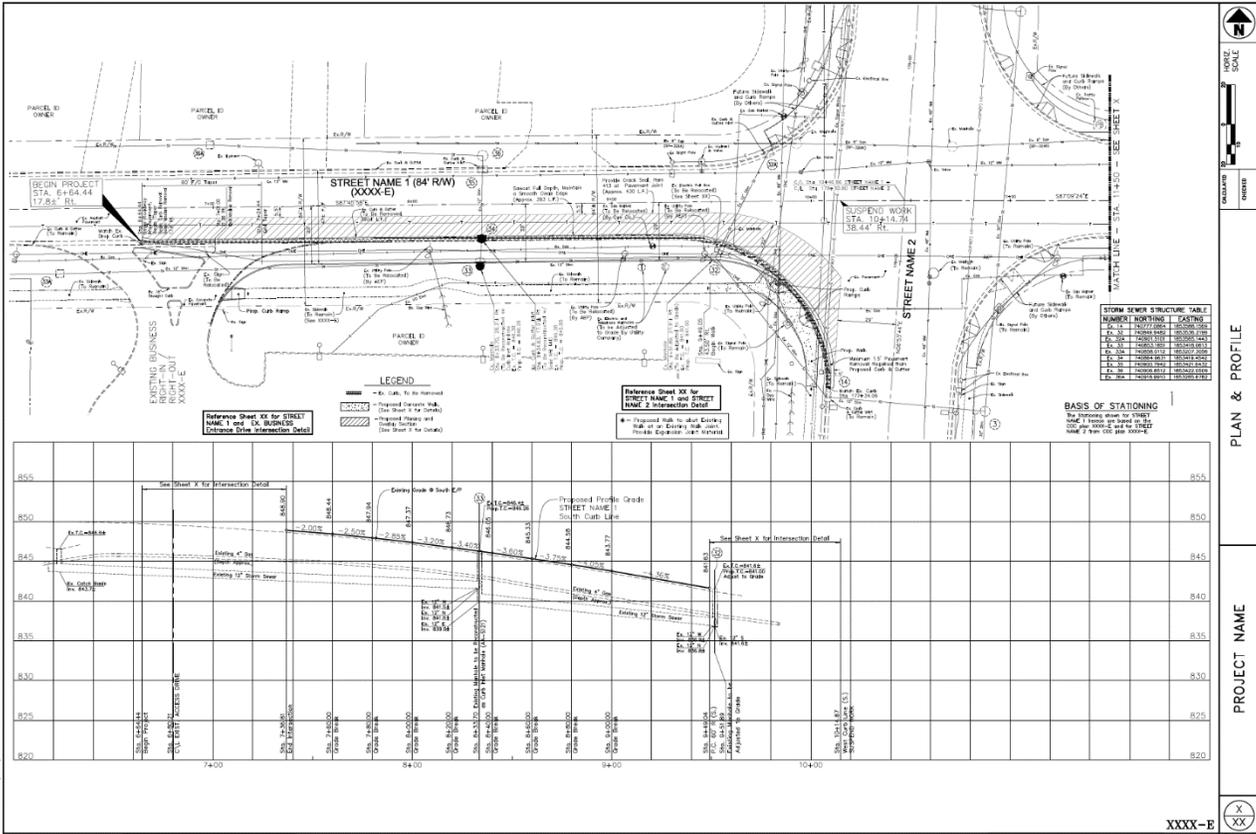
- Be sure to follow Section 9.1 when planning for a project.

9.1. *Provide a separate Plan/Profile to show entire R/W width and length of each street on which the parcel being improved fronts. Show site property line to adjoining neighbor(s). If site fronts an intersection, then include all legs of the intersection, within the entire R/W, to 20 feet beyond the PT. For signalized intersections, it is required that the entire width of street to (minimum) 200 feet beyond the intersection be shown, along with all pavement markings and signs.*



Commercial Plan and Profile Sheets (Continued)

Remember to provide a profile of the existing street.



Cross Section Sheets



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

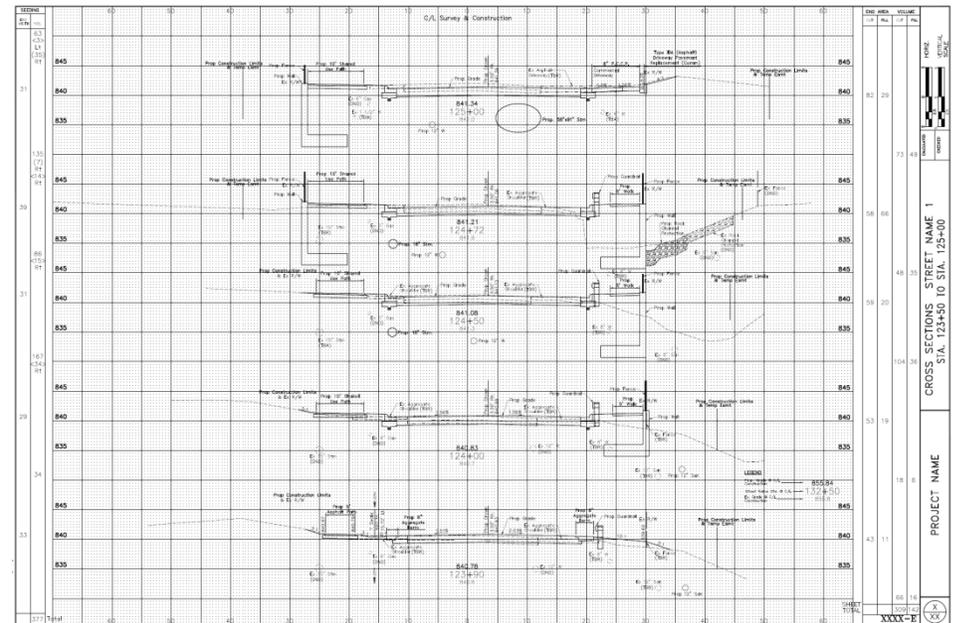
Winter School 2019

Cross Section Sheets

- Be sure to follow the standards for cross sections (Section 11)

11. CROSS SECTIONS: (Required when WIDENING an existing street or installing a NEW STREET).

- 11.1. Plans shall be on 1" grid, dotted ½-foot increment, with 5' foot vertical and 5' horizontal scale.
- 11.2. Intervals between regular sections shall normally be 50LF.
- 11.3. Stationing shall increase from bottom to top of sheet.
- 11.4. Show/label Ex. RW, Proposed RW, easements beyond the R/W and work limits.
- 11.5. Show/label all proposed and existing underground utilities.
- 11.6. Limits of existing pavement shall be shown.
- 11.7. Existing features shall be shown in dashed lines & proposed features shall be solid lines.
- 11.8. Show/label fences, walls, walks, and paths.
- 11.9. Label proposed/ existing T/P (Top of Pavement) elevations.
- 11.10. Labeling of the sections shall follow the Standard Drawing for each area. Label slope grades.
- 11.11. Ditch line elevations & flow arrows.
- 11.12. Drive profiles with % slopes shall be included within the sections, preferably extending out to 25' beyond limit of drive work. Drive profiles not falling on a full section shall be shown on a partial section.



Upcoming 2 hour ADA Class

Date: 3/18/2019

Time: 9:00-11:00

Location: 111 North Front Street
Room 204 (Hearing Room)



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Curb Ramps



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

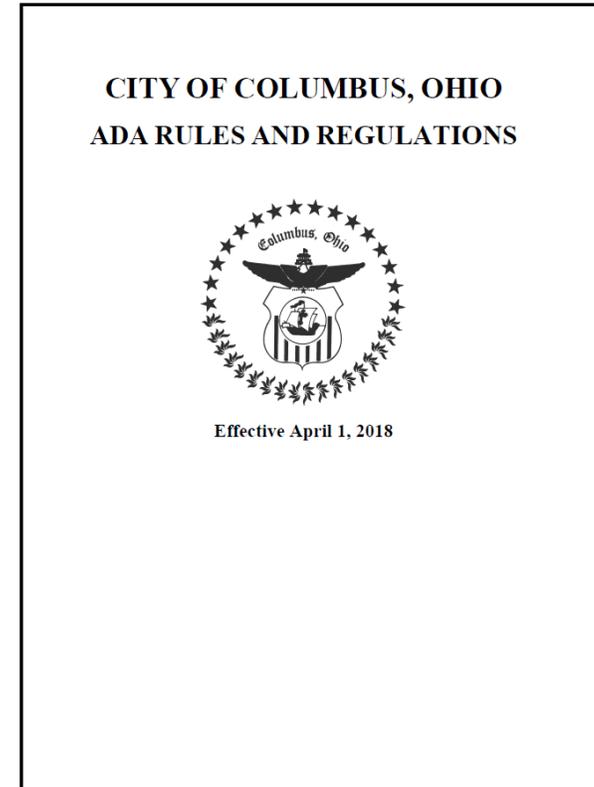
Winter School 2019

ADA Curb Ramps

- Refer City of Columbus ADA requirements at the link below

<https://www.columbus.gov/publicservice/Design-and-Construction/document-library/Curb-Ramp-Construction/>

- Reminder: STD DWG 2319 for curb ramps was updated on 3/30/2018, just before last year's winter school.

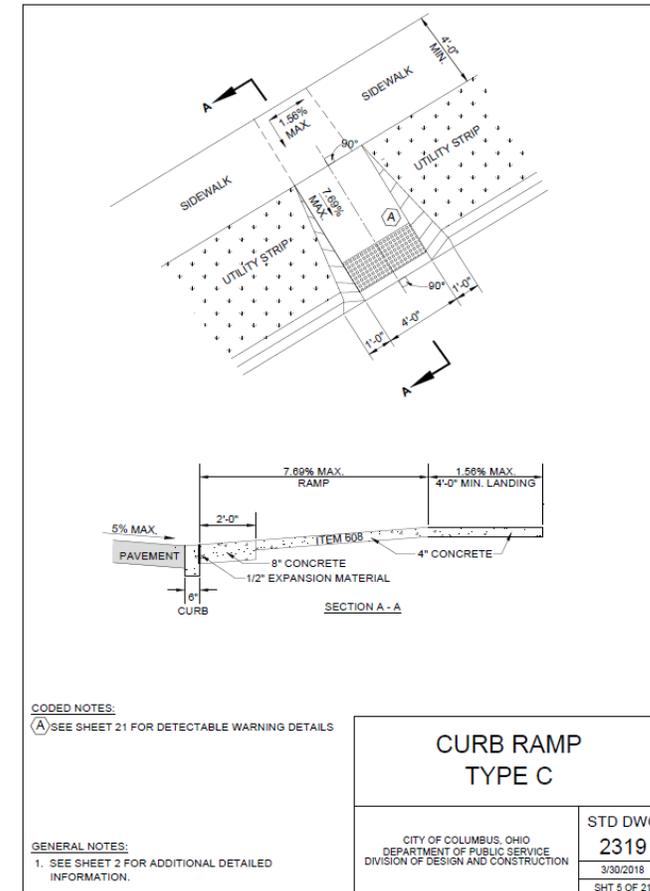


ADA Curb Ramps

Ensure that All Proposed Ramps By Design:

Have a cross slope not exceeding 1.56%

Have a running slope not exceeding 7.69%



Pedestrian Access Route (PAR)



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Pedestrian Access Routes (PARS)

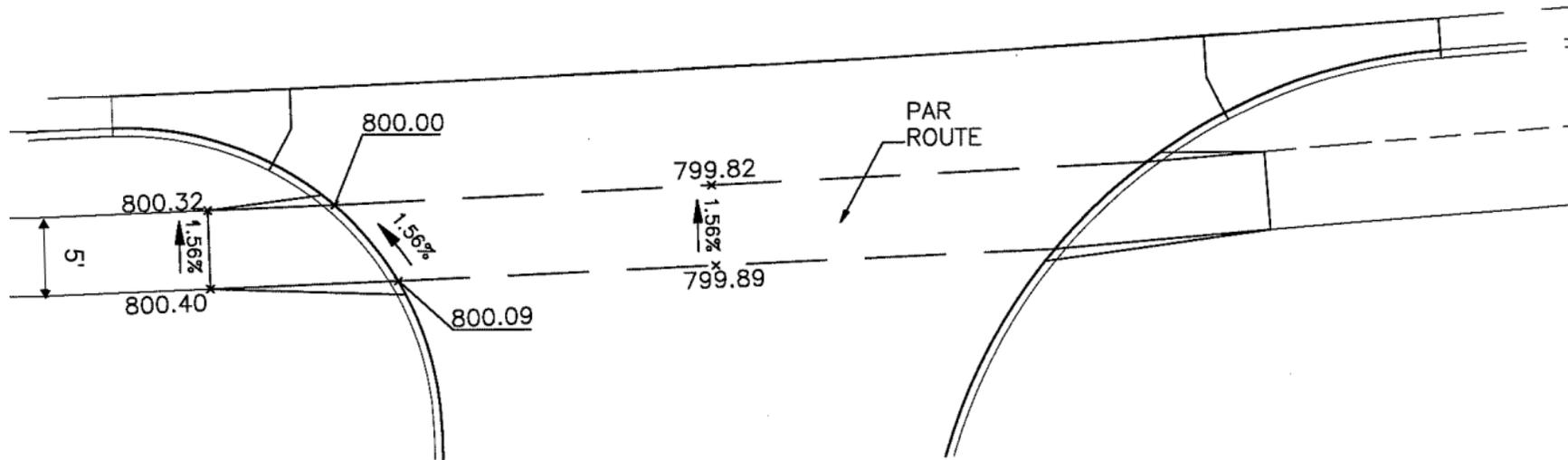
- **1.56%** is the maximum allowable cross slope for a PAR in the City of Columbus
- The PAR must be clearly shown on the plans. A “Phantom” or dashed linetype may be requested on the plans if the intended PAR route is not clear.

Type G and H ramps

- Only permitted at alley crossings and in some cases, private drives. Refer to the ramp hierarchy in STD DWG 2300. Any other use must be pre-approved by the City Engineer or Designee.
- When Type G or Type H ramps are used, pay close attention to the cross slopes at the returns.
- Spot grades are often shown (or not shown) that could result in cross slopes exceeding 1.56%.

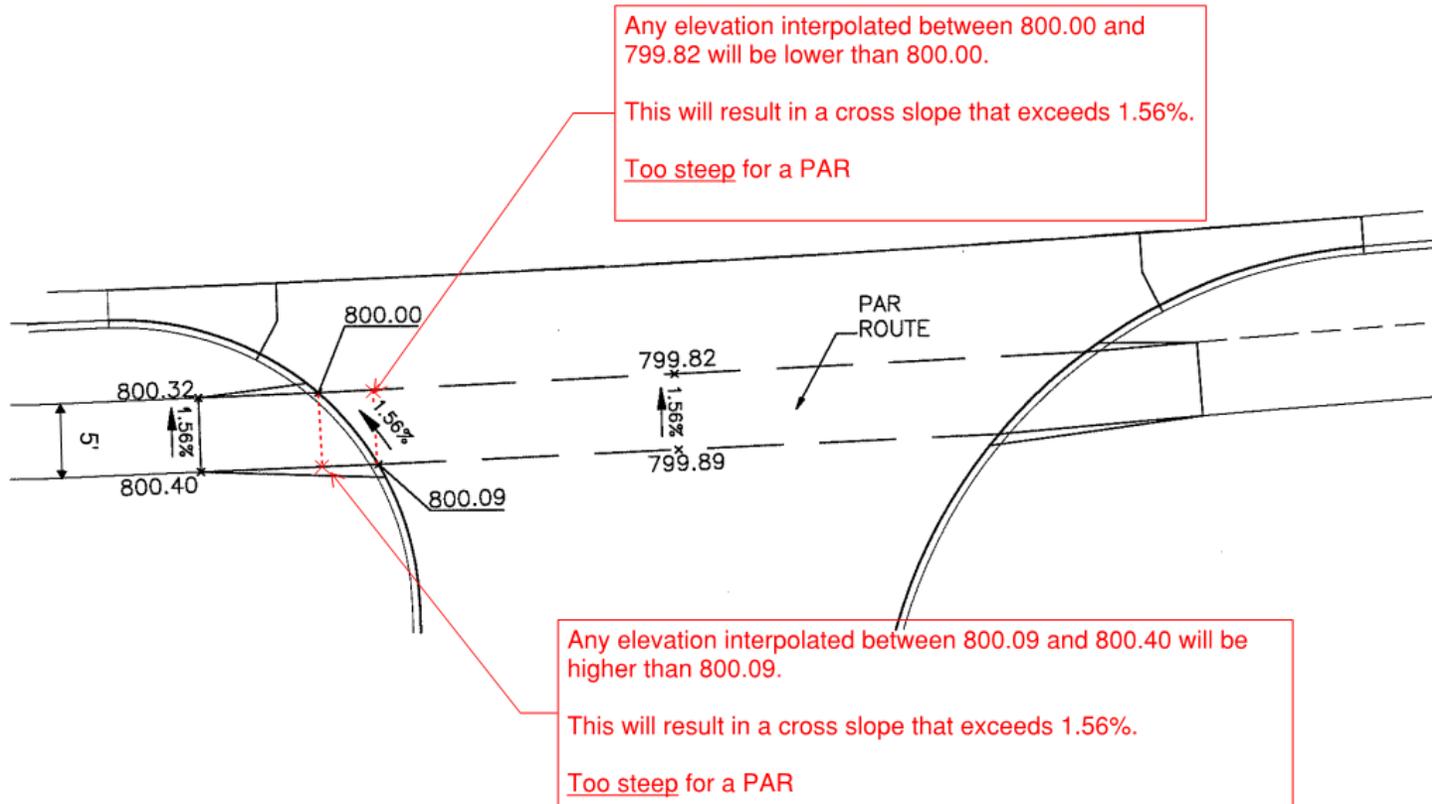
Type G and H ramps

Occasionally, plans are submitted with elevations shown like they are below:



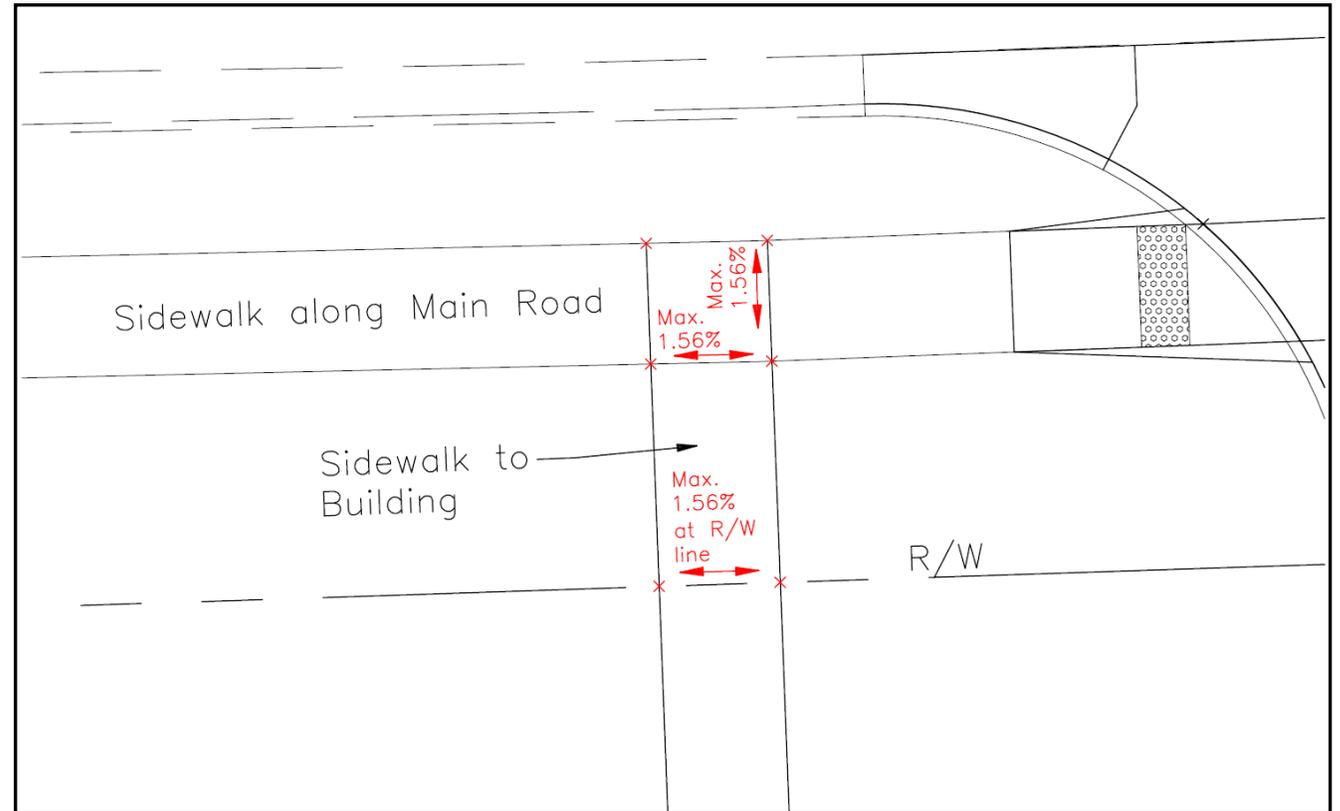
The next slide will show why this is unacceptable

Type G and H ramps



Intersecting Walk Slopes & Slopes at R/W line

- Where sidewalks intersect in the right of way, there must be a landing with cross slopes not exceeding **1.56%**
- Be sure that the walk to the building has a slope not exceeding **1.56%** at the R/W



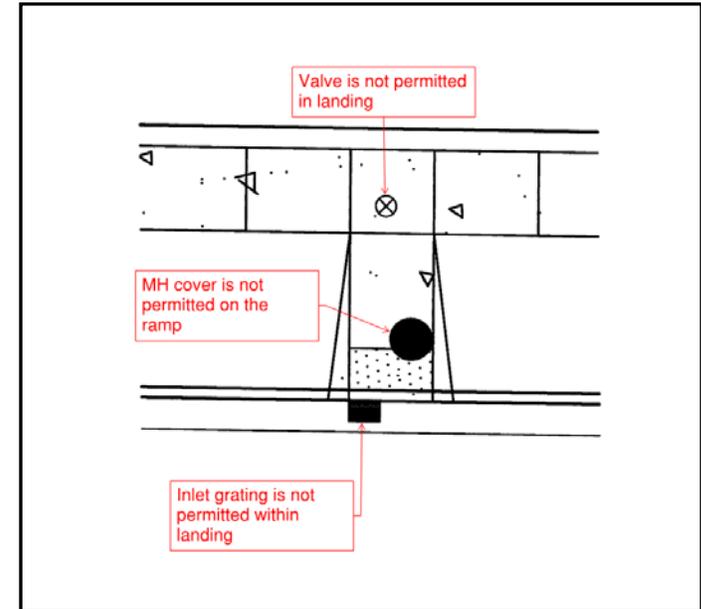
Gratings, Access Covers, and Other Appurtenances

Per Article IX.I of the City of Columbus ADA policy:

Gratings, access covers, and other appurtenances shall not be located on curb ramp landings or slopes, blended transitions, and gutter areas within the Pedestrian Access Route.

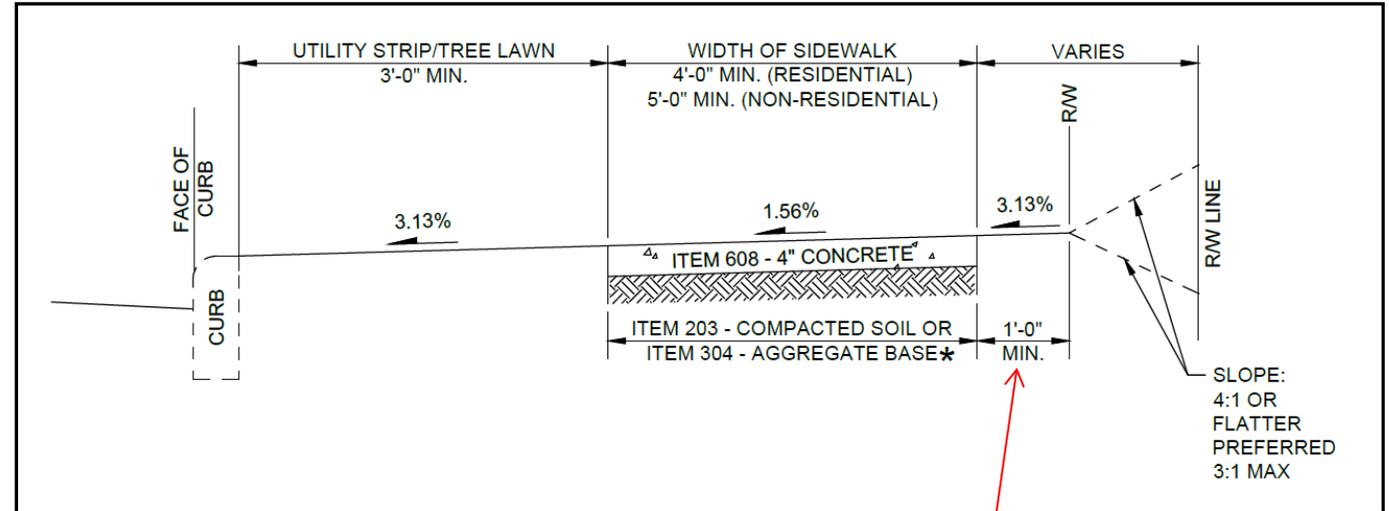
I. Surfaces.

Surfaces of curb ramps, blended transitions, and landings shall comply with DOJ's 2010 Standards for Accessible Design Section 301 thru Section 304. Gratings, access covers, and other appurtenances shall not be located on curb ramp landings or slopes, blended transitions, and gutter areas within the pedestrian access route. However, these items may be allowed within sections of the pedestrian accessible route, including flares, provided they comply with requirements set forth for PAR surfaces, in DOJ's 2010 Standards for Accessible Design, Section 301 thru Section 304, or most current update.



Pedestrian Access Routes (PARS)

- For a sidewalk PAR, a **minimum** of 1' on the backside of the sidewalk (nearest to the R/W) must not have a slope exceeding 3.13%.
- The sidewalk can be farther than 1' away from the R/W if needed, provided space and elevations allow



Minimum

Shared Use Paths (SUPS)



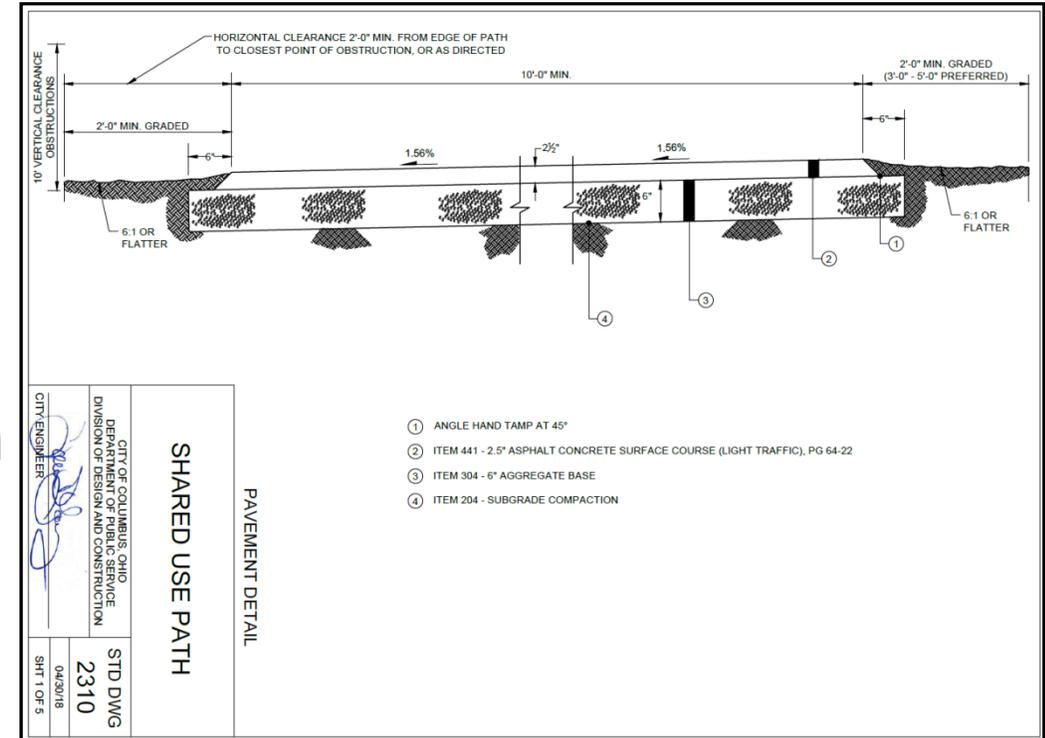
THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Shared Use Paths (SUP)

- Refer to STD DWG 2310 for details.
- A minimum 10' path is required. Max **1.56%** cross slope.
- An additional 2' on either side of the path must have a slope not exceeding 8.33%
- The 14' total width above must be within City of Columbus R/W.



Shared Use Paths (SUP)

- If the path is to be located alongside a main road, the profile grade of the path must generally match the profile grade of the road.
- The review of the quantities tends to go more smoothly if the path items (asphalt, 304, subgrade compaction, etc.) are broken out separately from the road quantities, but this is not an absolute requirement at this time.

Maintenance of Traffic (MOT)



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

MOT Standard Construction Drawings

- Refer to 1550 series. Include STD DWG references to the 1550 Series on the face sheet.
- Most E-plans require a more detailed MOT plan than just referring to the STD DWG's, but there are occasional plans and situations where it makes sense to just refer to the Standard Drawings
- Contact the E-plan reviewer (Matt Lambert) to determine if only referring to the STD DWG's will suffice.

MOT plans

- Allow space for barrels (4' standard), shy distance (1' standard) and work zone on the plans.
- The MOT shown on the E-plan shall be only for the short term work necessary to complete the improvements for the right of way. It is not to be used for the long term work on private property.
- Long term street or sidewalk closures for building construction (Downtown, Short North, etc.) require a separate 903 occupancy permit from the DPS Permit Desk.

Quantities



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Quantities

- Ensure that all quantities have item numbers and descriptions matching the latest CMSC (2018 edition)
- If there are any sub-summaries in the plan, please be sure to include a note in the main summary that refers the reader to the correct sheet.

Curb Replacement Note

Curb Replacement/Installation

Wherever curb replacement and/or installation is proposed along an existing roadway or private drive, the Engineer is required to specify pavement replacement per Item 259. A minimum 2' wide pavement replacement is required except where otherwise directed by the City. The Engineer shall specify the associated limits of the pavement replacement on the plans in all cases.

If the Engineer believes that it may be possible to replace or install the proposed curb without damage to the existing pavement, the Engineer may list Item 259 as a contingency quantity in lieu of a base quantity. Prior to construction, the contractor and city inspector shall evaluate the existing field conditions. If the contractor believes that the work can be performed without damage to the pavement, the inspector may, at his or her discretion, allow the work to proceed without pavement replacement. The City inspector will also perform a post-installation inspection. Any damage to the pavement resulting from the contractor's operations will necessitate the pavement replacement at the inspector's direction.

The Engineer shall also show and list any other required quantities associated with the pavement replacement work (i.e. pavement planing, asphalt overlay, tack coat, replacement striping, removal and replacement of raised pavement markers, etc.) in all cases. Such associated items may also be listed as contingency quantities in lieu of base quantities based on the anticipated need for pavement replacement.



Finished Floor Elevations vs. R/W



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Finished Floor Elevations vs. R/W

- Work should be from the existing R/W grades to the finished floor on the property property and not vice-versa.
- Do not propose changes to existing street grades to set building elevations. Make the needed grading adjustments for the building within the building/private parcel.
- For zero or close setback buildings, show the grades along all rights of way.

Finished Floor Elevations vs. R/W

- **Don't forget about alleys behind the development!**
- We have found that trash room elevations going out to the street are occasionally overlooked in design, causing difficult situations to remedy during construction.
- Series of doors clustered together often cause grading issues as well.

No Private BMP's in the R/W



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

No Private BMP's permitted in the R/W

Please provide infrastructure for all required Detention and Water Quality outside of the right of way.

Standard Drawing Updates



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Standard Drawing Updates

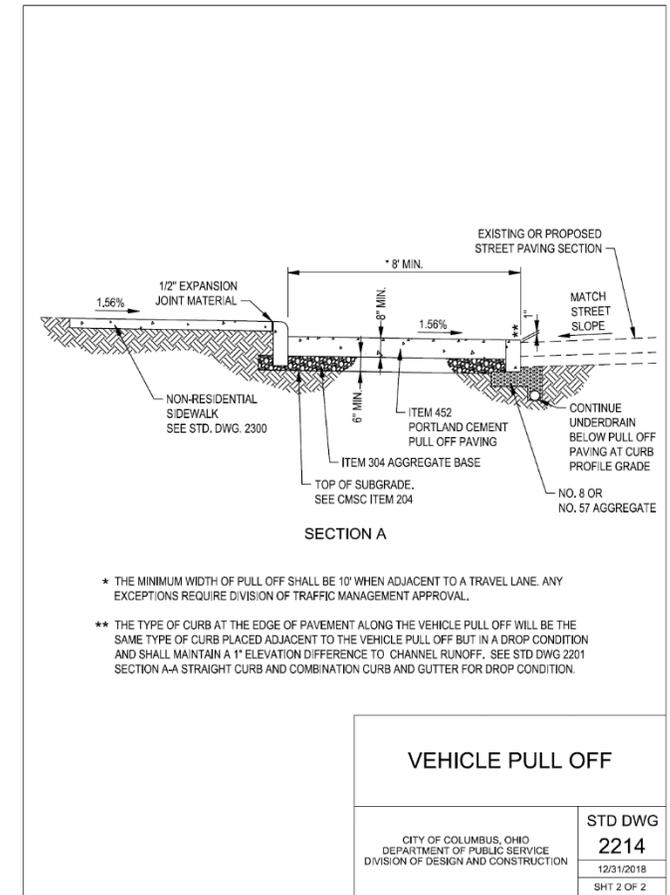
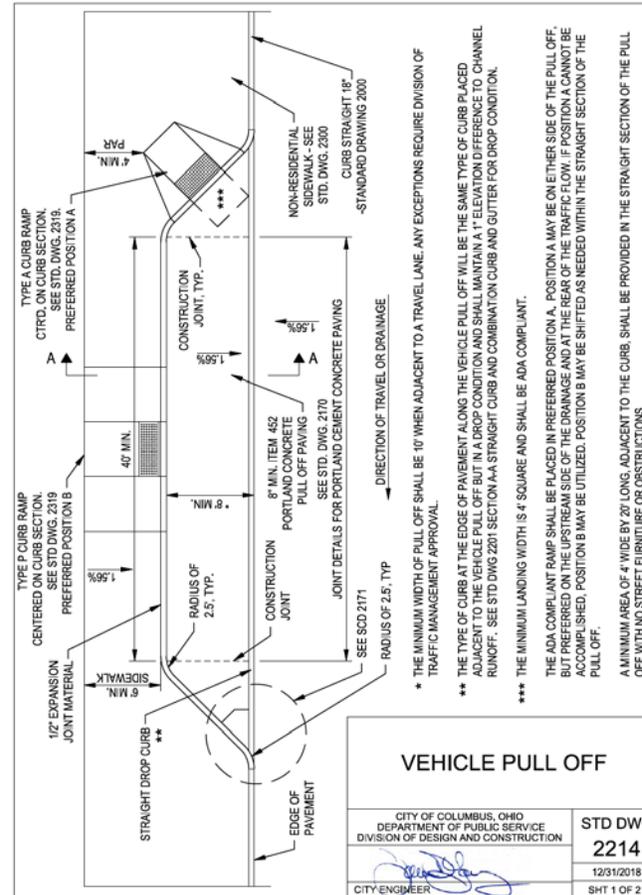
- Most DPS Standard Drawings were updated on 3/30/18, 4/30/18, 12/31/18, or 3/1/19.
- Check the DPS website <https://www.columbus.gov/publicservice/Design-and-Construction/document-library/Standard-Drawings/> for the most current drawings

Driveway Drawings (2200 series)

- Driveway Standard Drawings 2203, 2206, 2207 and 2208 have been retired as of 12/31/18.
- The above drawings have been revised and combined into Standard Drawings 2201 and 2202

New Vehicle Pull-off Drawing (STD DWG 2214)

- Refer to the website for the new Vehicle Pull-Off Drawing (STD DWG 2214)
- Any new pull-off requires an ADA ramp.



Downtown Streetscape Standards



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

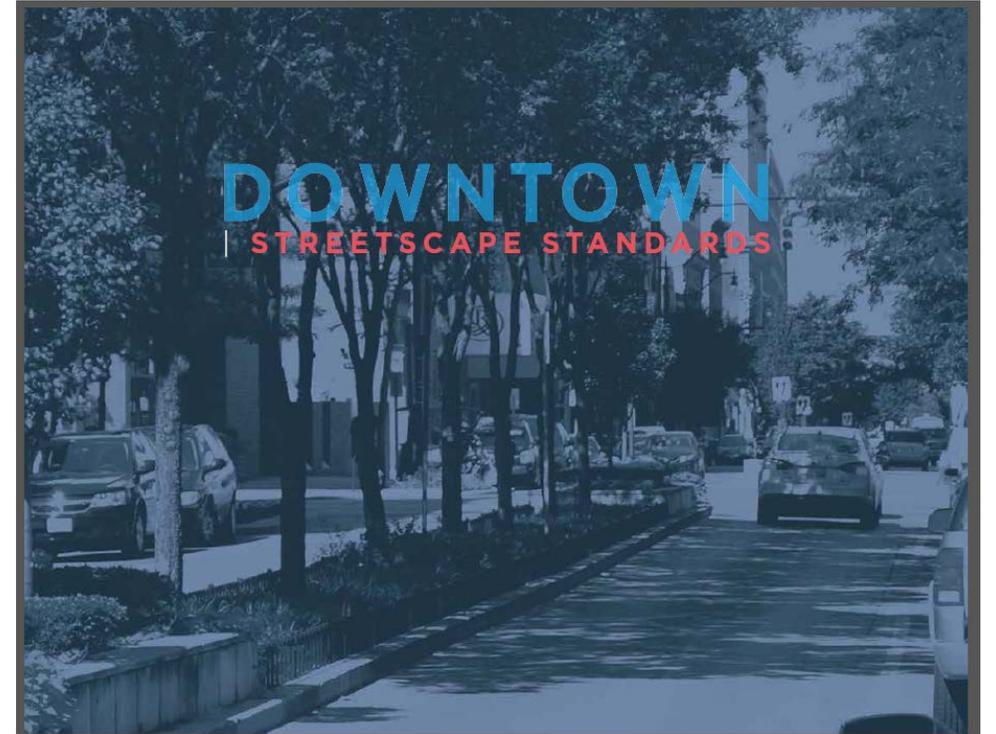
DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Downtown Streetscape Standards

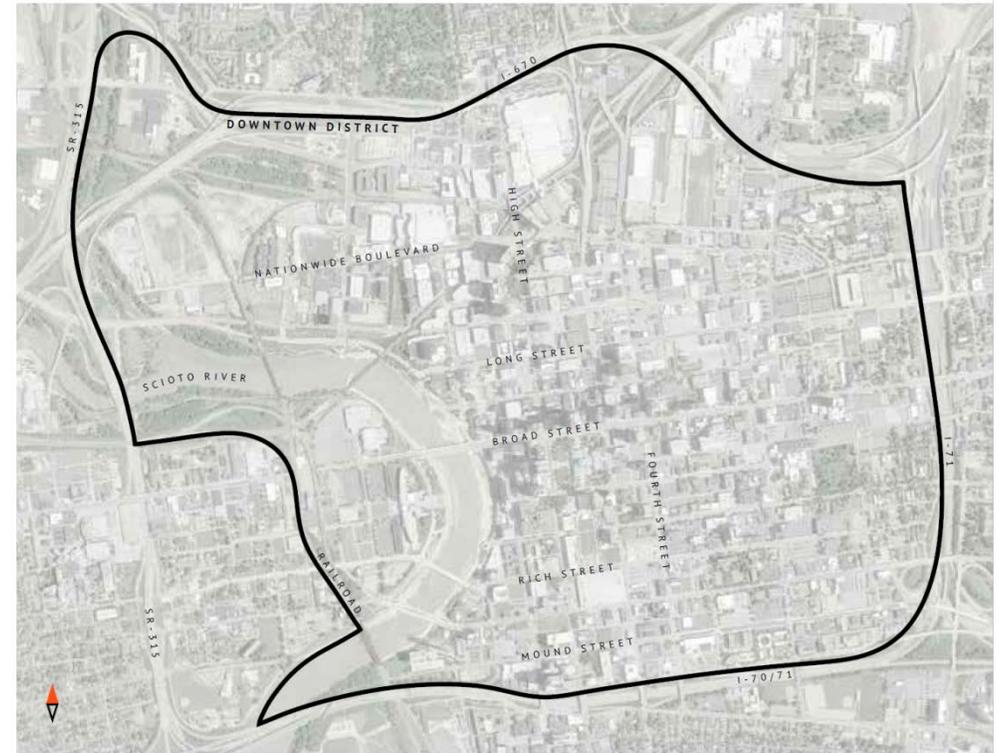
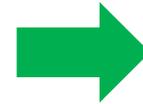
- Refer to the Downtown Streetscape Standards on the DPS website.

<https://www.columbus.gov/publicservice/Design-and-Construction/document-library/Downtown-Streetscape-Standards/>



Downtown Streetscape Standards

- Refer to Chapter 1 to see the boundaries of the Downtown Streetscape requirements



Downtown Streetscape Standards

A few key items:

- Use of granite curb is required in accordance with Section 6.1 of the standards.
- Ensure the tree planters are specified with the same curb type as the adjacent street-typically granite
- Granite curb is not required in alleys, but may be used if desired.

Downtown Streetscape Standards

- Provide cast iron detectable warnings for all downtown curb ramps.
- Provide brick corners where scoped.
- If your project has meters or on-street parking, it is recommended to contact the DPS plan reviewer before submittal to determine ADA requirements.

Downtown Streetscape Standards

- Show the outlines and provide quantities for the soil volumes on the plans. Refer to page 37 of the Streetscape Standards.

Soil

A large root zone for trees is critical to creating a healthy tree canopy in Downtown Columbus. In all streetscape projects, maximizing the size of continuous soil volume should be a priority.

- Planting Soil: Loamy soil free of debris with pH 6.5-7.5 and 4%-6% organic material amended with Comtil produced by the City of Columbus.
- Engineered Soil: Utilize current City of Columbus engineered soil specifications.
- Soil depth shall be 36".
- For two or more trees, provide a minimum soil volume of 750 cubic feet per tree. Connect tree plantings together with engineered soil. Suspended pavement systems may be considered with Department of Public Service approval.
- For a single tree, provide a minimum soil volume of 1,000 cubic feet.
- Soil volume is comprised of a combination of planting soil and engineered soil or suspended pavement.

Irrigation

- Irrigation is not required for plant beds or trees.
- When irrigation is used the following standards apply.
 1. A drip system is required.
 2. A maintenance agreement between the property owner and the City is required.
 3. A backflow preventer and meter are required in an above ground hot box. Paint hot box green.



Traffic Signals and Interconnect



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

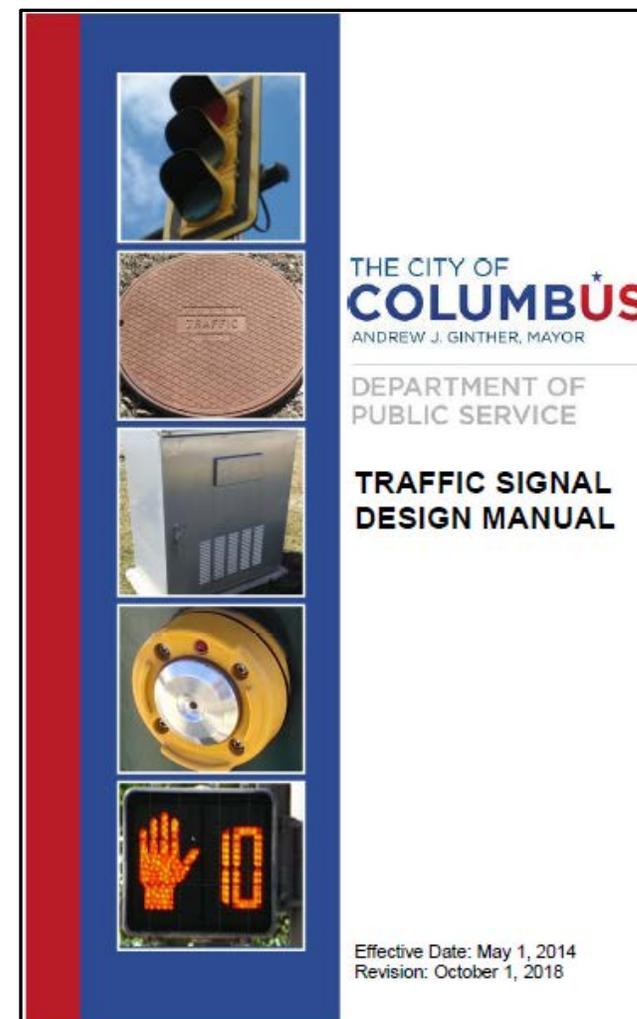
Traffic Signals and Interconnect

- Per City Standards, we require that a Traffic Engineer (P.E.) oversee and perform this work.
- ODOT Traffic Signal & System Pre-Qual
- See Traffic Signal Design Manual and SCD's for all of our requirements.

Traffic Signals and Interconnect

The Engineer in responsible charge for applying the concepts and practices assembled in this Manual is required to hold current registration as a Professional Engineer in the State of Ohio. The Engineer must also be prequalified by the Ohio Department of Transportation (ODOT) for Traffic Signal and/or Signal System design as applicable to the specific design effort.

<https://www.columbus.gov/publicservice/Design-and-Construction/document-library/Traffic-Signal-Design-Manual/>



City of Columbus Winter School 2019 Part 4: Items that may cause approval delays

March 5th & 7th, 2019



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

CC-plan approval is contingent on:

- At least one (1) submittal of Final Site Compliance Plan.
- At least one (1) submittal of the E-plan (when there is an E-plan).



CC-plan approval contingent on E-plan and Site Compliance Plan Submittal

- Any CC-plan that has an accompanying E-plan and/or Final Site Compliance plan will not be signed until the E-plan and the Final Site Compliance plan have been submitted at least once.
- This is required for tracking purposes and can help with coordination issues.

Submitting Plats and Plans together



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Submitting E-plans and plats together

- We strongly recommend submitting the E-plans and plats together. (For certain projects we may require this.)
- The plat will not be signed without a signed E-plan.
- Please make sure information is consistent on both documents

Submitting E-plans and plats together

- A common issue is inconsistent easement terminology.
- An easement is often labeled as “Drainage Easement” on one document, but as “Easement” on another.
- Pay attention to map room requirements regarding street name changes when the road changes direction.

Foundation Plans and Shoring



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Foundation plans and shoring

- For zero setback (or close setback) buildings, submit the foundation plans to BZS/One Stop Shop along with the E-plan review. The E-plan will not be approved until the foundation plan has been submitted.
- If any shoring is proposed to be done in the R/W, the shoring must be further reviewed by the Department of Public Service before approvals may be given.

Pavement Calculations



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Pavement Calculation Submittal

- The pavement calculations should be submitted to the E-plan reviewer prior to the initial submittal of the plans.
- If this is not done, the submittal will not be automatically rejected, but the plan may take longer to get through.

Improvements in Multiple Jurisdictions

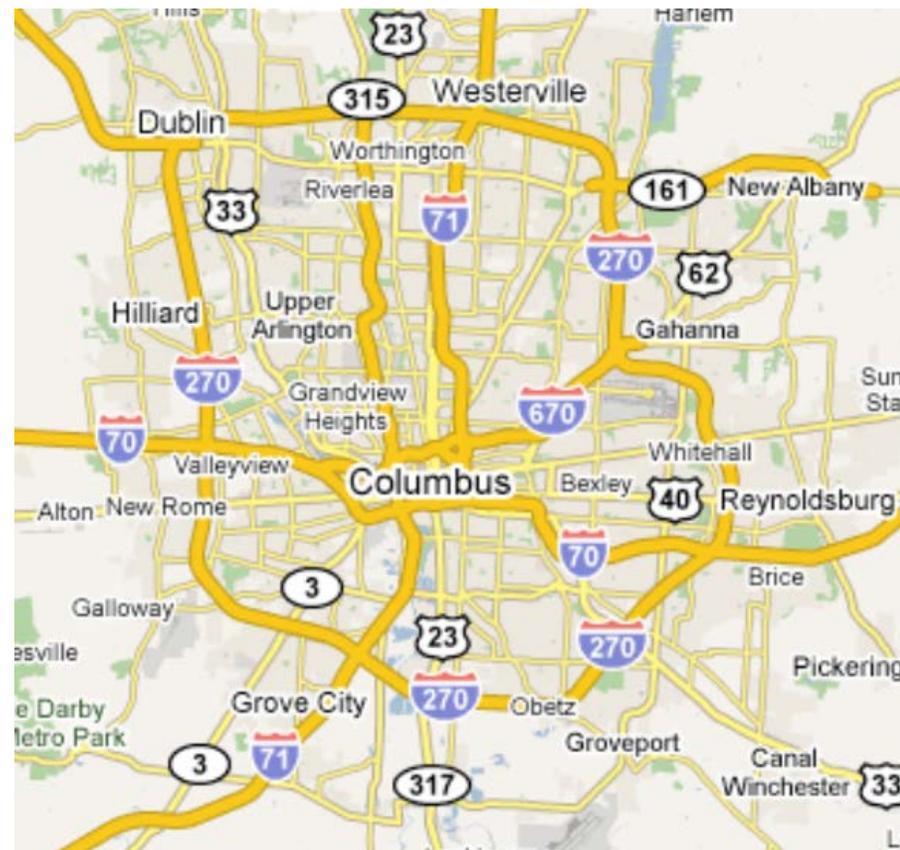


THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Improvements in Multiple Jurisdictions

- It is strongly recommended that plans are submitted concurrently to other government agencies having jurisdiction over the improvements.
- Copies of comments from the other jurisdictions are required to be submitted following the initial review.



Traffic Signal Maintenance Contracts



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Traffic Signal Maintenance Contracts

- Refer to the Traffic Signal Maintenance Contracts Policy, Dated 9/20/2014, on the DPS Website.
- The policy is applicable when a private driveway will be utilizing a signal.
- Contact Tierra Palmer (tlpalmer@Columbus.gov, 614-645-7348) to coordinate the necessary items for the Maintenance Contract.
- It is strongly recommended to contact Tierra at the early stages of the project.

.tif Images on Final CD



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

.tif Images on Final CD

- Please ensure all .tif images are submitted with the following naming convention:

E0XXXX_001, E0XXXX_002, and so on.

XXXX represents the 4-digit
E-plan number

This is the number zero,
not the letter O

.tif Images on Final CD

Please also be sure that the .tifs meet the following resolution and compression requirements:

- Resolution = 300 DPI or 400 DPI.
- Compression = Group 4 (G4) or CCITT T.6. Black and white only

If the above requirements, or the naming convention on the previous page are incorrect, you will be asked to resubmit.

Storm Sewer Easements



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Storm sewer easements

- Be sure to submit all storm sewer easement exhibits and descriptions that are needed on an E-plan to **both** the Division of Sewerage and Drainage (DOSD) and the Division of Design and Construction for review against the plans.
- Once these documents match the plans, prepare a final submittal to DOSD for processing.
- The E-plan reviewer must receive confirmation from the City Attorney's office and/or DOSD that all of the documents have been executed and are in the City's possession for recording before the E-plan will be signed.

Right of Way Dedications & Sidewalk Easements



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Right of Way Dedications and Sidewalk Easements

- Be sure to submit the descriptions and exhibits for all right of way dedications easements with your E-plan submittal to BZS/One Stop Shop for review against the plans.
- Once these documents match the plans, prepare a final submittal to Jerry Ryser for processing.
- The E-plan reviewer must receive an confirmation from Jerry Ryser that the final signed documents have been received before the E-plan will be signed.

Right of Way Dedications and Sidewalk Easements

- The type of conveyance required for Pedestrian Access Routes is to be determined by the Division of Infrastructure Management
- Jerry Ryser will provide more information in Part 5.

City of Columbus Winter School 2019 Part 5: R/W items

March 5th & 7th, 2019



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Right-of-Way Issues/Concerns:

- Right of way dedication is the standard requirement, per the Columbus Thoroughfare plan, new Zoning, Re-Zoning, etc.
- For sidewalks, the City typically requires at least 1' of flatter area adjacent to the PAR to be within the R/W dedication.
- For shared use paths, the City typically requires at least 2' of flatter area adjacent to the PAR to be within the R/W dedication.



Right-of-Way Issues/Concerns:

- There is a process to request granting an easement in lieu of dedicating additional right of way. This will require additional detailed information in writing.
- Contact Jerry Ryser (ME) with the Division of Infrastructure Management (jryser@columbus.gov, 614-645-1584) to determine what type of conveyance will be required.
- Make sure all legal descriptions and exhibits are on 8 ½" X 14" with a **Surveyors closure report**.
- Jerry will then send a final email to the E-plan reviewer confirming all documents have been executed, not just received.



Right-of-Way Issues/Concerns:

Sidewalk within R/W that is less than 4'

- Proposing sidewalk within the R/W that is less than 4' wide will not be permitted, because of ADA concerns/issues.



Contacts

Steve Wasosky, Design Section Manager

sswasosky@columbus.gov

Matt Lambert, E-Plan Reviewer

mjlambert@columbus.gov

Nate Cline, Plan Review Manager

nbcline@columbus.gov

Jerry Ryser, ROW Manager

jlryser@columbus.gov



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019

Questions?



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Winter School 2019