

January 1, 2020

STANDARD CONSTRUCTION DRAWINGS

PAUL A. HAMMERSMITH, P.E.
DIRECTOR OF ENGINEERING/CITY ENGINEER



STANDARD CONSTRUCTION DRAWINGS

NUMBER	TITLE	PGS	DATE		
MD - MISCELLANEOUS DETAILS					
MD-01	PLAN SIGNATURES EXAMPLE	1	1/1/2020		
MD-02	RESIDENTIAL DRIVEWAY SLOPE	1	1/1/2020		
MD-03	MONUMENT BOX DETAIL	1	1/1/2020		
MD-04	PLAT SIGNATURE EXAMPLE	2	1/1/2020		
MD-05	RESIDENTIAL ROOF DRAIN CONNECTION	1	1/1/2020		
MD-06	DECORATIVE FENCING	2	1/1/2020		
PD - PEDESTRIAN DETAILS					
PD-01	PREFERRED TYPICAL LOCATION PLAN FOR SIDEWALK CURB RAMPS	1	1/1/2020		
PD-02	CURB RAMP GENERAL NOTES	2	1/1/2020		
PD-03	DETECTABLE WARNINGS	1	1/1/2020		
PD-04	CURB RAMP TYPE A DIAGONAL IN TREE LAWN	1	1/1/2020		
PD-05	CURB RAMP TYPE B DIAGONAL WITH FLARES	1	1/1/2020		
PD-06	CURB RAMP TYPE C IN TREE LAWN	1	1/1/2020		
PD-07	CURB RAMP TYPE D OBSTRUCTED ONE SIDE	1	1/1/2020		
PD-08	CURB RAMP TYPE E ALLEYS AND DRIVEWAYS	1	1/1/2020		
PD-09	CURB RAMP TYPE F ALLEYS AND DRIVEWAYS	1	1/1/2020		
PD-10	CURB RAMP TYPE G PARALLEL LANDING, 2 RAMPS	1	1/1/2020		
PD-11	CURB RAMP TYPE H MEDIAN RAMP WITH LANDING	1	1/1/2020		
PD-12	CURB RAMP TYPE I PERPENDICULAR AND PARALLEL	1	1/1/2020		
	RD - ROADWAY				
RD-01	TYPICAL STREET SECTION	1	1/1/2020		
RD-02	COMBINATION CONCRETE CURB AND GUTTER	1	1/1/2020		
RD-03	TYPICAL GUTTER SECTION TRANSITIONS	1	1/1/2020		
RD-04	TYPICAL PAVEMENT SECTION FOR PRIVATE STREETS	1	1/1/2020		
RD-05	CONCRETE SIDEWALK AND SHARED USE PATH	1	1/1/2020		
RD-06	SHARED USE PATH: STANDARD AND HEAVY DUTY	1	1/1/2020		
RD-07	RESIDENTIAL AND COMMERCIAL DRIVEWAYS	9	1/1/2020		
RD-08	CUL-DE-SAC: 300' - 1000'	1	1/1/2020		
RD-09	CUL-DE-SAC LESS THAN 300'	1	1/1/2020		
RD-10	TYPICAL STREET SIGNS	6	1/1/2020		
RD-11	STRAIGHT 18" CONCRETE CURB	1	1/1/2020		
RD-12	BRICK PAVER SIDEWALK	1	1/1/2020		



STANDARD CONSTRUCTION DRAWINGS

RD-13	ROUNDABOUT TRUCK APRON DETAIL				
		1	1/1/2020		
RD-14	BRICK PAVER MEDIAN DETAIL	1	1/1/2020		
RD-15	CONCRETE COLLAR FOR MANHOLES IN PAVEMENT	1	1/1/2020		
SA - SANITARY SEWER					
SA-01	SANITARY MANHOLE DETAILS	1	1/1/2020		
SA-02	SANITARY MANHOLE LID	1	1/1/2020		
SA-03	TYPICAL SANITARY RISER DETAIL	1	1/1/2020		
SA-04	CONCRETE COLLAR FOR MANHOLES IN PAVEMENT	1	1/1/2020		
SL - STREET LIGHTING					
SL-01	LUMINAIRE	1	1/1/2020		
SL-02	TRANSFORMER BASE	2	1/1/2020		
SL-03	LIGHT POLE	1	1/1/2020		
SL-04	POLE FOUNDATION	2	1/1/2020		
SL-05	TRENCHES	3	1/1/2020		
SL-06	QUICK DISCONNECT	1	1/1/2020		
SL-07	SAMPLE LIGHTING QUANTITIES SCHEDULE	1	1/1/2020		
SL-08	STREET LIGHT LOCATION	1	1/1/2020		
SL-09	DECORATIVE LUMINAIRE	1	1/1/2020		
SL-10	DECORATIVE LIGHT POLE - SINGLE HEAD	1	1/1/2020		
SL-11	DECORATIVE LIGHT POLE - 12' DOUBLE HEAD	1	1/1/2020		
SL-12	DECORATIVE LIGHT POLE FOUNDATION	1	1/1/2020		
SL-13	LIGHTING CONTROLLER	4	1/1/2020		
	ST - STORM SEWER				
ST-01	STONE VENEER FOR CONCRETE STRUCTURES	1	1/1/2020		
ST-02	SAFETY GRATE	1	1/1/2020		
ST-03	STORM SEWER MANHOLE	1	1/1/2020		
ST-04	DRAINS TO RIVER CURB INLET	1	1/1/2020		
ST-05	ROCK CHANNEL PROTECTION DETAIL	1	1/1/2020		
ST-06	STORM SEWER WITH "O" RINGS RUBBER GASKET JOINTS	1	1/1/2020		
WA - WATER					
WA-01	FIRE HYDRANT	1	1/1/2020		

LOCATION OF THE PRO	GNIFY ONLY CONCURRENCE WITH THE GENERAL PURPO JECT AND DOES NOT CONSTITUTE ASSURANCE TO OPE S REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL	RATE AS INTENDED.
APPROVED:		
DIRECTOR OF ENGINEERING/C CITY OF DUBLIN, OHIO PAUL A. HAMMERSMITH, P.E.	ITY ENGINEER	DATE
* DIRECTOR OF PLANNING * CITY OF DUBLIN, OHIO		DATE
PROVISIONS OF	THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSU, THE SEWER (AND/OR WATER) SERVICE AGREEMENT V IO DATED APRIL 13, 1993. UBLIC UTILITIES	
	SEWERAGE AND DRAINAGE (AND/OR WATER)	DATE
* FOR COMMERCIAL PERMITS (DNLY	
Date: 01/01/2020		
*	STANDARD DRAW PLAN SIGNAT	
City of Dublin	EXAMPLE	
ENGINEERING	SHEET 1 OF 1	DRAWING NO. MD-01

TYPICAL FRONT LOAD GARAGE

- A = ELEVATION OF THE GARAGE FLOOR
- C = ELEVATION AT THE BACK EDGE OF THE PEDESTRIAN PATH

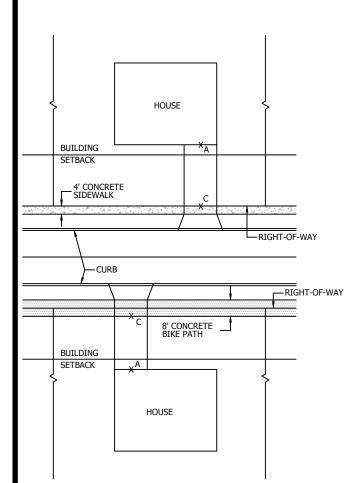
SLOPE = $\frac{A - C}{DISTANCE BETWEEN A \& C} X 100\% \le 8.00\%$

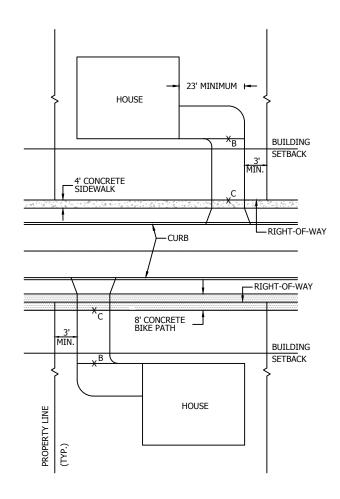
TYPICAL SIDE LOAD GARAGE

B = ELEVATION OF THE DRIVEWAY

C = ELEVATION AT THE BACK EDGE OF THE PEDESTRIAN PATH

SLOPE = $\frac{B - C}{DISTANCE BETWEEN B \& C}$ X 100% $\leq 8.00\%$





NOTES:

- 1. ELEVATION 'B' SHALL TYPICALLY REFLECT A 2% SLOPE FROM THE GARAGE FLOOR.
- 2. THESE ARE TYPICAL DRIVEWAY ARRANGEMENTS. OTHER CONFIGURATIONS CAN OCCUR AND WILL BE REVIEWED ON A CASE BY CASE BASIS.

Date: 01/01/2020



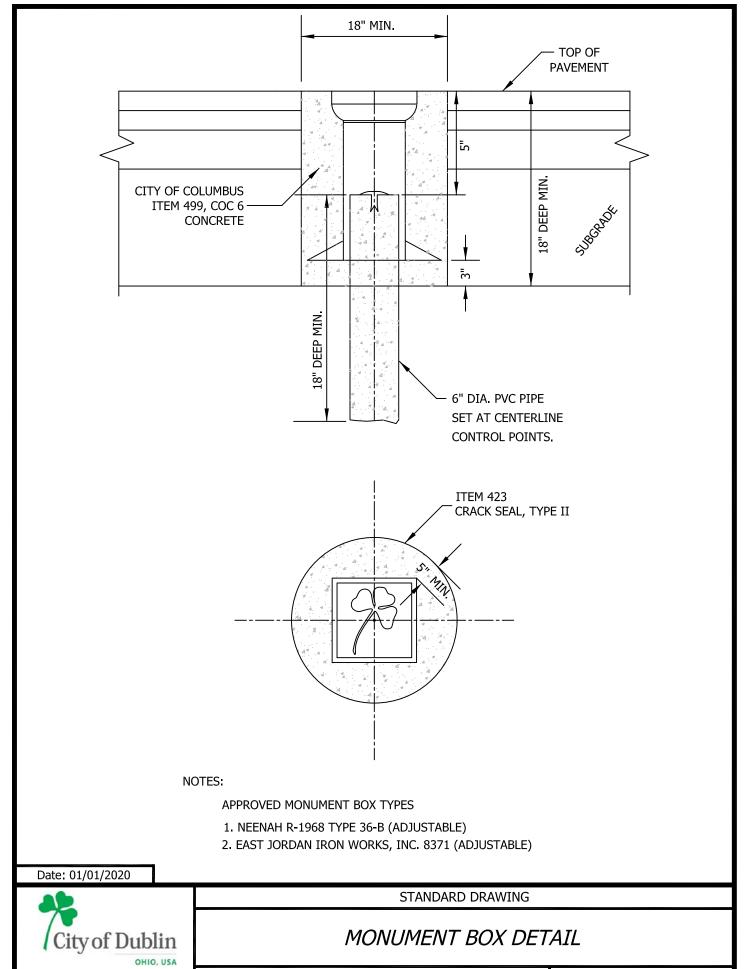
STANDARD DRAWING

RESIDENTIAL DRIVEWAY SLOPE

SHEET 1 OF 1

DRAWING NO.

MD-02



ENGINEERING SHEET 1 OF 1

DRAWING NO. **MD-03**

SITUATED IN THE STATE OF OR NO. 2542 AND BEING ALL OF A BY DEED OF RECORD IN INSTR	ACRES OF LAND, MOR	E OR LESS, CONVEYED TO		
EASEMENTS ARE RESERVED WE MAINTENANCE OF ALL PUBLIC ABENEATH THE SURFACE OF THE MAINTENANCE OF SERVICE COL	AND PRIVATE UTILITIES AND E GROUND AND WHERE NECES	THE CABLE TELEVISION IND SSARY ARE FOR THE CONSTR	USTRY BOTH ABOVE AND RUCTION OPERATION AND	
THE UNDERSIGNED, (COMPANY NAME), BY (PERSONS NAME), (TITLE), OWNER OF THE LANDS PLATTED HEREIN, DULY AUTHORIZED IN THE PREMISES, DOES HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS ITS "STREET & EASEMENTS DEDICATION PLAT", A PLAT DEDICATING ACRES OF LAND TO THE CITY OF DUBLIN, OHIO, DOES HEREBY ACCEPT THIS PLAT OF SAME AND DOES HEREBY DEDICATE TO PUBLIC USE AS SUCH ALL OR PARTS OF THE STREET SHOWN HEREON AND NOT DEDICATED HERETOFORE.				
IN WITNESS THEREOF,				
HAS HEREUNTO SET HER HAND	THISDAY OF	, 20		
SIGNED AND ACKNOWLEDGED IN THE PRESENCE OF:		(COMPANY NAME)	
SIGN: PRINT:	BY: _	(PERSONS NAM	E)	
SIGN: PRINT:				
STATE OF OHIO S.S.				
BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED (PERSONS NAME & TITLE) FOREGOING INSTRUMENT TO BE HER FREE AND VOLUNTARY ACT AND DEED AND THE FREE AND VOLUNTARY ACT AND OF DEVELOPMENT, (COMPANY NAME) WHO ACKNOWLEDGED THE SIGNING OF THE DEED OF (COMPANY NAME) FOR THE USE AND PURPOSES THEREIN EXPRESSED.				
IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL				
SEAL THISDAY OF , 20				
MY COMMISSION EXPIRES: NOTARY PUBLIC, STATE OF OHIO				
Date: 01/01/2020		NUTART PUBLIC,	STATE OF ORIO	
Date: 01/01/2020		STANDARD DRAWING		
70 07 11	D/ 4	T CICALATURE EV	44DL =	
City of Dublin PLAT SIGNATURE EXAMPLE				
ENGINEERING	SHEET	1 OF 2	DRAWING NO. MD-04	

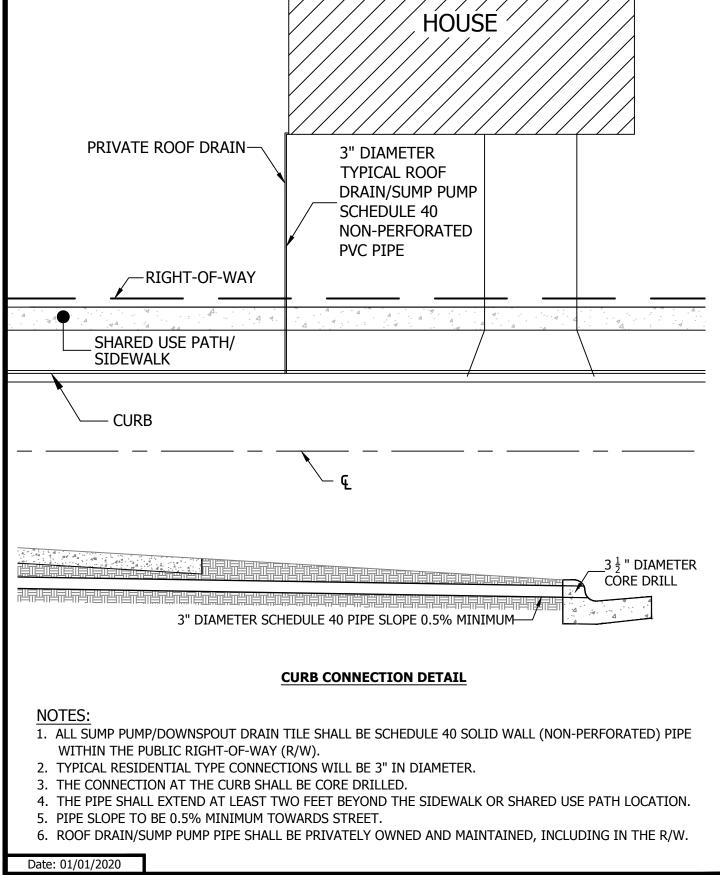
FILED FOR RECORD THIS DAY OF	FILED FOR RECORD THIS DAY OF , 20 AT M. FEE \$ FILE NO. RECORDED THIS DAY OF , 20				
FILED FOR RECORD THIS DAY OF	AUDITOR,			DEPUTT RECURDER,	COUNTY, OHI
AUDITOR,	AUDITOR,	PLAT BOOK PAGES		DENITY DECORDED	COUNTY OU
AUDITOR,COUNTY FILED FOR RECORD THIS DAY OF, 20 AT M. FEE \$ FILE NO	AUDITOR,			KECUKDEK,	COUNTY, OH.
FILED FOR RECORD THIS DAY OF	FILED FOR RECORD THIS DAY OF	FILE NO.		PECCEPTED	COLINETY OU
AUDITOR, COUNTY	AUDITOR, COUNTY, C			DEPUTY AUDITOR,	COUNTY, OHI
		ETIED FOR RECORD THE DAY OF			
		TRANSFERRED THIS DAY OF	, 20	AUDITOR,	COUNTY, OHI
CLERK OF COUNCIL, DUBLIN	CLERK OF COUNCIL, DUBLIN, C			CLEAN OF COUNCIL,	DODLIN, OHI
IN WITNESS THEREOF I HAVE HEREUNTO SET MY HAND AND AFFIXED MY SEAL THIS DAY OF	SET MY HAND AND AFFIXED MY SEAL THISDAY OF	SET MY HAND AND AFFIXED MY SEAL THIS		CLEDY OF COUNCIL	DUBLIN, OHI

SHEET 2 OF 2

OHIO, USA

ENGINEERING

DRAWING NO. **MD-04**



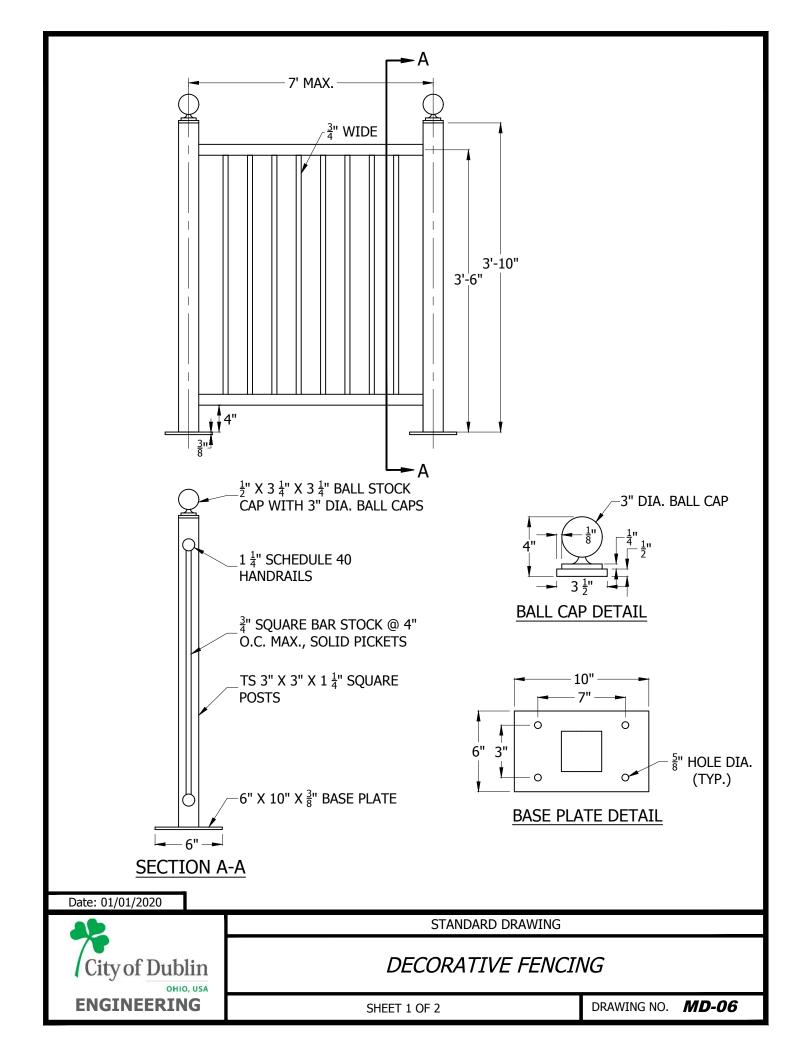
City of Dublin
OHIO, USA

ENGINEERING

STANDARD DRAWING

RESIDENTIAL ROOF DRAIN CONNECTION

DRAWING NO. MD-05



DECORATIVE FENCING NOTES:

- 1. ALL METAL FENCE COMPONENTS TO BE GALVANIZED, SHOT BLASTED, THEN POWDER COATED. ALL FENCING TO BE INTERNALLY AND EXTERNALLY VENTED AND THEN HOT-DIP GALVANIZED AFTER FABRICATION.
- 2. POWDER COAT ALL METAL SURFACES SEMI-GLOSS BLACK (3-5 MILS THICK). RAILING AND FINIALS (BALL CAPS) TO BE POWDER COATED WITH 3-5 MILS OF SEMI-GLOSS BLACK POLYESTER FEDERAL COLOR #: 27038
- 3. FENCE PICKETS SPACED AT 4" 0/C.
- 4. FASTEN POST/BASE PLATE WITH ½" X 4" LONG STAINLESS STEEL HILTI QUICK BOLTS OR APPROVED EQUAL.
- 5. WELDING SHALL BE IN ACCORDANCE WITH ANSI/AWS DI.1 STRUCTURAL WELDING CODE. ALL EXPOSED WELDS TO HAVE A NOMMA NO. 2 FINISH. WELDS TO BE GOOD QUALITY, UNIFORM, UNDRESSED, WITH MINIMAL SPATTER.
- 6. HOT-DIP GALVANIZE PER A123
- 7. SHOP DRAWING SHALL BE SUBMITTED FOR APPROVAL BEFORE FABRICATION BEGINS.
- 8. RAILING MAY BE FABRICATED IN PANELS AND ASSEMBLED IN THE FIELD. ENGINEER SHALL APPROVE PROPOSED FABRICATION METHODS.
- 9. WELDED RAISED LETTER OR NUMBERS SHALL NOT BE PERMITTED ON VISUAL SIDE AND INCONSPICUOUS AS POSSIBLE.

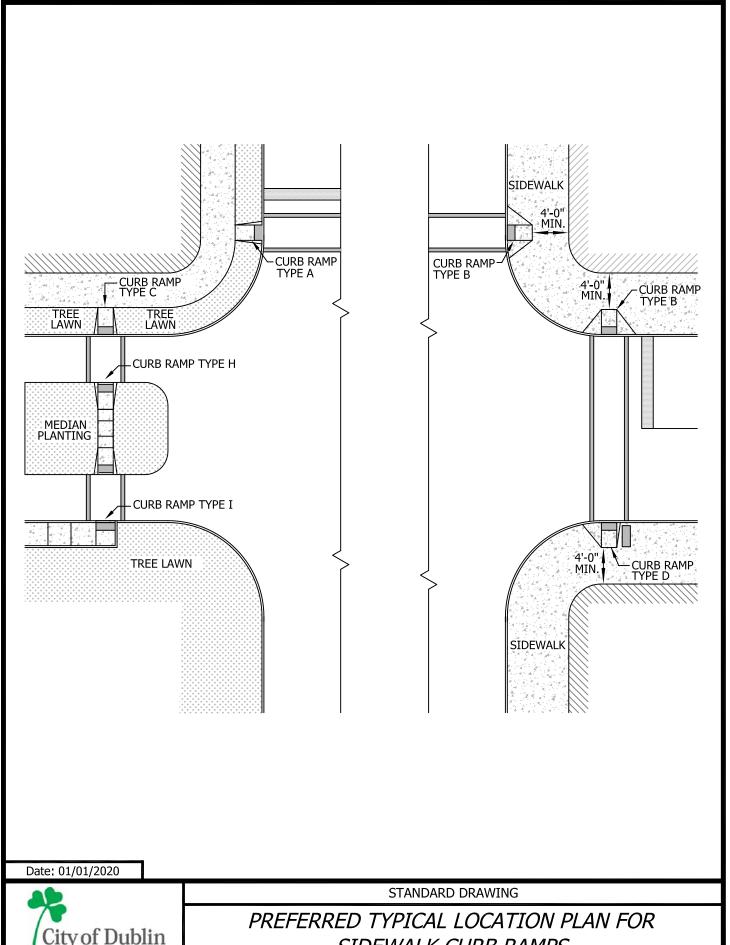
Date: 01/01/2020



STANDARD DRAWING

DECORATIVE FENCING

SHEET 2 OF 2 DRAWING NO. **MD-06**





SIDEWALK CURB RAMPS

SHEET 1 OF 1

DRAWING NO. PD-01

GENERAL NOTES, SIDEWALK CURB RAMPS

- CURB RAMP COMPONENTS ASSEMBLY THE CURB RAMP INCLUDES THE RAMPS, FLARED SIDES, LANDINGS AND ROLLED EDGES.
- 2. CURB RAMP TYPE CURB RAMPS SHALL BE SPECIFIED BY THE APPROPRIATE TYPE AND SHALL BE PERPENDICULAR TO THE CURB EXCEPT TYPES E & F.
 - TYPE A DIAGONAL RAMP WITH FLARES IN TREE LAWN.
 - TYPE B DIAGONAL RAMP WITH FLARES.
 - TYPE C PERPENDICULAR RAMP IN TREE LAWN.
 - TYPE D PERPENDICULAR RAMP OBSTRUCTED ON ONE SIDE (WITH PRIOR WRITTEN CITY APPROVAL ONLY)
 - TYPE E RAMP WITH RECESSED LOWER LANDING FOR ALLEYS AND DRIVEWAYS (WITH TREE LAWN).
 - TYPE F RAMP WITH RECESSED LOWER LANDING FOR ALLEYS AND DRIVEWAYS (NO TREE LAWN).
 - TYPE G PARALLEL (OFF-STREET LANDING) WITH 2 TRANSITION RAMPS (WITH PRIOR WRITTEN CITY APPROVAL ONLY).
 - TYPE H MEDIAN RAMP WITH CENTER LANDING.
 - TYPE I COMBINED PERPENDICULAR AND PARALLEL RAMP ONE DIRECTION.
- 3. RAMP RUNNING SLOPE THE RAMP RUNNING SLOPE SHALL BE 5% (1:20) TO 7.7% (1:13).
- 4. RAMP CROSS SLOPE THE MAXIMUM CROSS SLOPE SHALL BE 1.56% (1:64, 3/16 INCH PER FOOT).
- 5. PERPENDICULAR RAMP WIDTH THE MINIMUM WIDTH OF A SIDEWALK RAMP SHALL BE 4-FEET AND OF A BIKE PATH RAMP SHALL BE 8-FEET. THE WIDTH MAY BE REDUCED TO A MINIMUM OF 3-FEET WITH PRIOR WRITTEN CITY APPROVAL IF CLEARANCE RESTRICTIONS EXIST.
- PARALLEL RAMP WIDTH TYPE H RAMP SHALL BE A MINIMUM OF 4-FEET BY 5-FEET & 5-FEET BY 5-FEET RESPECTIVELY, PER STANDARD DRAWINGS.
- 7. ALL JOINTS BETWEEN NEW AND EXISTING MATERIALS SHALL BE FLUSH.
- FLARES THE LENGTH OF THE FLARE AT THE FACE OF CURB SHALL BE A MAXIMUM OF 10% OR 10 TIMES THE CURB HEIGHT, WHICHEVER IS LESS.
- 9. LANDINGS LANDINGS SHALL BE A MINIMUM OF 4-FEET BY 4-FEET WITH A 1.56% (1:64) CROSS SLOPE FOR ALL CURB RAMP TYPES EXCEPT PARALLEL CURB RAMPS. OFF STREET LANDINGS FOR PARALLEL CURB RAMPS SHALL BE A MINIMUM OF 4-FEET BY 5-FEET AS INDICATED IN THE STANDARD DRAWINGS. LANDINGS ARE REQUIRED AS FOLLOWS:
 - A. TOP LANDING CURB RAMP TYPES A, B, C AND G SHALL HAVE LANDINGS AT THE TOP OF THE RAMP.
 - B. LOWER RECESSED LANDING CURB RAMP TYPE E AND F SHALL HAVE A RECESSED LANDING AT THE BOTTOM OF THE RAMP WHERE IT INTERSECTS THE CURB LINE.
 - C. LANDING AT INTERSECTING SIDEWALKS WHEREVER SIDEWALKS INTERSECT THERE SHALL BE A LANDING MEETING THE ABOVE REQUIREMENTS.

(GENERAL NOTES CONTINUED ON SHEET 2)



Date: 01/01/2020

CURB RAMP GENERAL NOTES

STANDARD DRAWING

DRAWING NO. **PD-02**

GENERAL NOTES, SIDEWALK CURB RAMPS (CONTINUED)

- 10. STREET COUNTER SLOPE THE COUNTER SLOPE AT THE BASE OF THE RAMP SHALL BE A MAXIMUM OF 1:20 OR 5% FOR A MINIMUM OF 2-FEET.
- 11. MAXIMUM DIFFERENTIAL BETWEEN RAMP RUNNING SLOPE AND GUTTER PAN SHALL BE 13 %, THE PREFERRED DIFFERENTIAL IS 11%..
- 12. SURFACES RAMP AND FLARE SURFACES MUST BE STABLE AND SLIP RESISTANT. RAMPS SHALL BE MEDIUM BROOMED TRANSVERSE TO THE DIRECTION OF TRAVEL. GRATINGS, VALVE BOXES, AND UTILITY BOXES SHALL NOT BE LOCATED IN THE RAMP, LANDING, OR TRANSITION AREAS.
- 13. DETECTABLE WARNINGS SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF DUBLIN STANDARD DRAWING PD-03. DETECTABLE WARNINGS SHALL BE PROVIDED WHEREVER A CURB RAMP CROSSES A PUBLIC VEHICULAR WAY.
- 14. THE PEDESTRIAN WALKWAY WITHIN THE STREET PAVEMENT, AT LEAST 7-FEET WIDE, BETWEEN OPPOSING RAMPS SHALL HAVE A CROSS-SLOPE (THE LONGITUDINAL STREET SLOPE) OF NO GREATER THAN 2% (UNLESS APPROVED BY THE CITY). VERTICAL STREET CURVES SHALL BE INSTALLED AS NEEDED.
- 15. GRAVEL BEDDING SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHOULD NOT EXCEED A DEPTH OF 6 INCHES.

Date: 01/01/2020

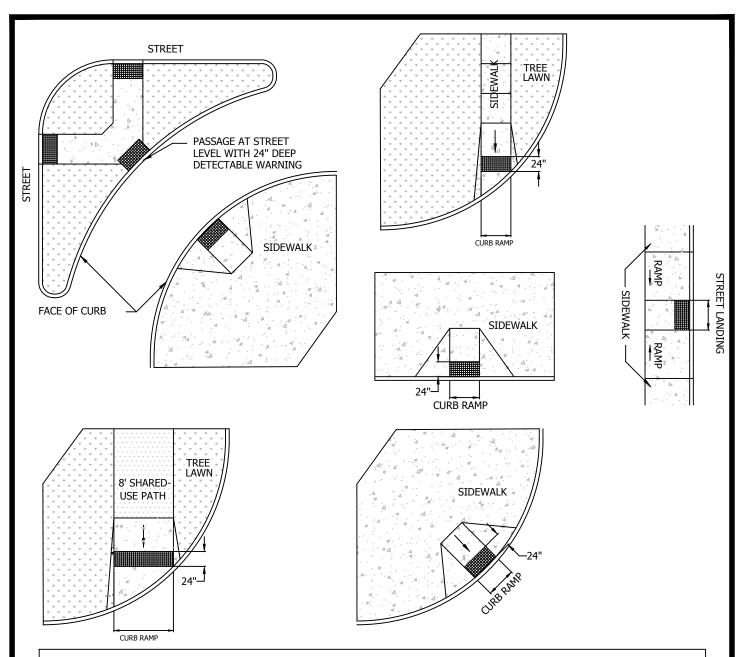


STANDARD DRAWING

CURB RAMP GENERAL NOTES

SHEET 2 OF 2

DRAWING NO. **PD-02**



NOTES:

Date: 01/01/2020

- 1. DETECTABLE WARNINGS SHALL BE PROVIDED WHEREVER A CURB RAMP CROSSES A VEHICULAR WAY EXCLUDING UNSIGNALIZED DRIVEWAY CROSSINGS.
- 2. DETECTABLE WARNINGS SHALL BE PROVIDED 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED ADJACENT TO THE CURB LINE.
- 3. DETECTABLE WARNINGS SHALL BE PLACED 3-4" MIN. BEHIND THE BACK OF CURB.
- 4. DETECTABLE WARNINGS SHALL BE EAST JORDAN, CAST IN PLACE REPLACEABLE TILE OR APPROVED EQUAL. BRICK RED IN COLOR FOR USE ON CONCRETE RAMPS AND BLACK IN COLOR FOR USE ON BRICK PAVER RAMPS.

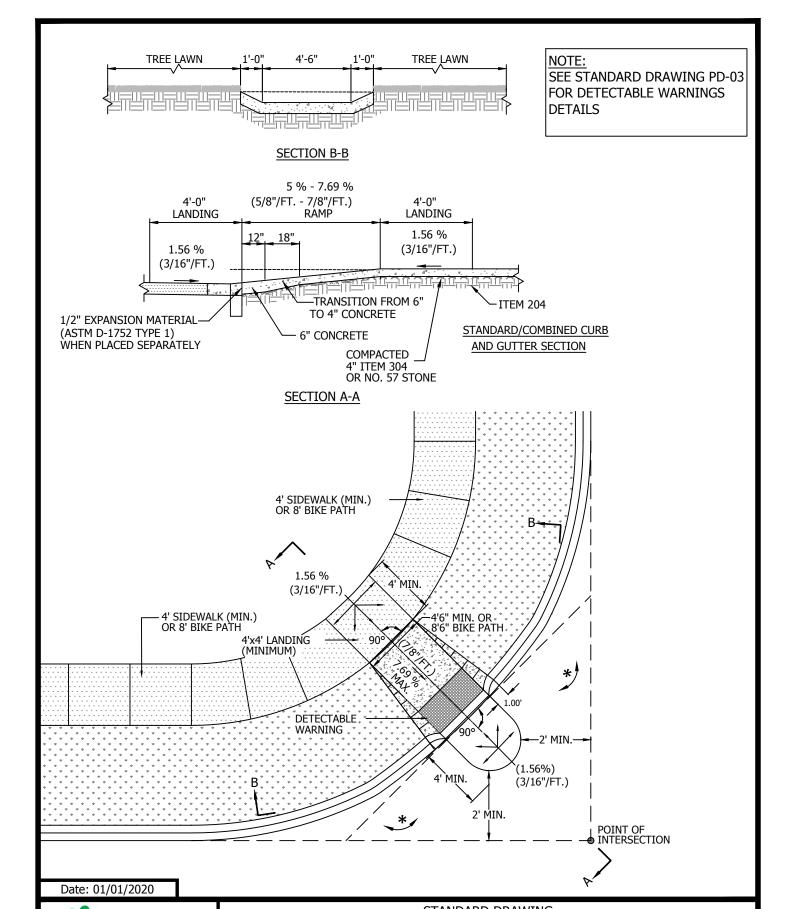
City of Dublin
OHIO, USA
ENGINEERING

STANDARD DRAWING

DETECTABLE WARNINGS

SHEET 1 OF 1

DRAWING NO. PD-03



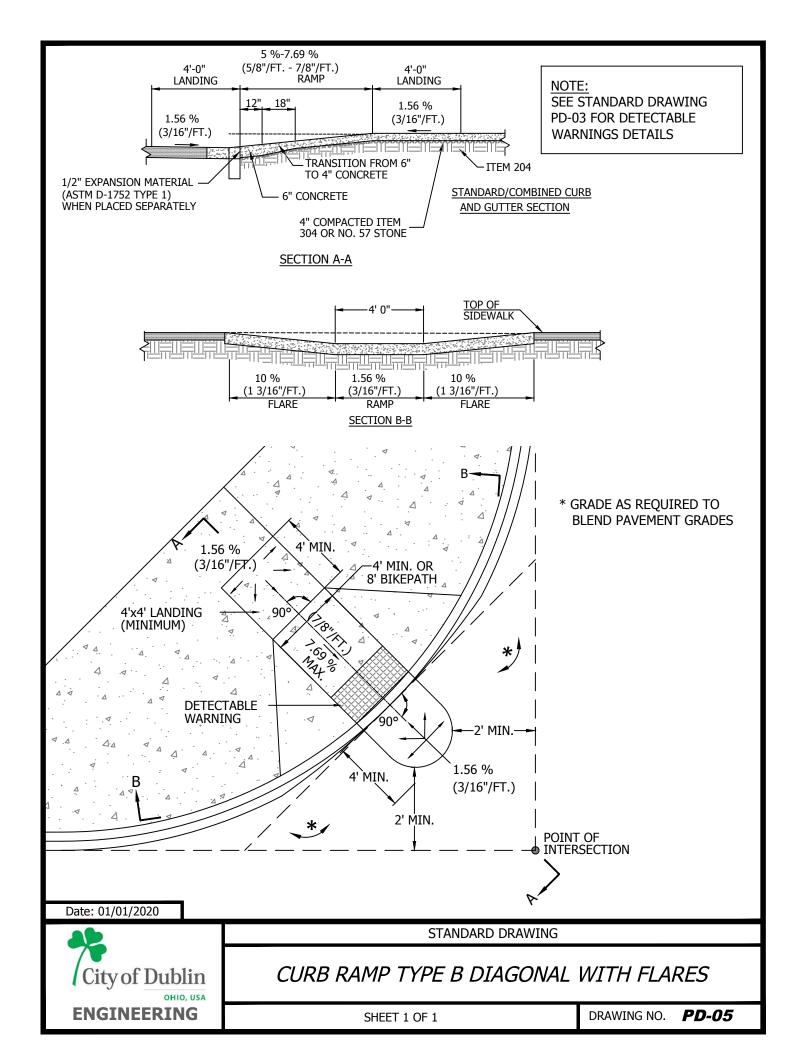


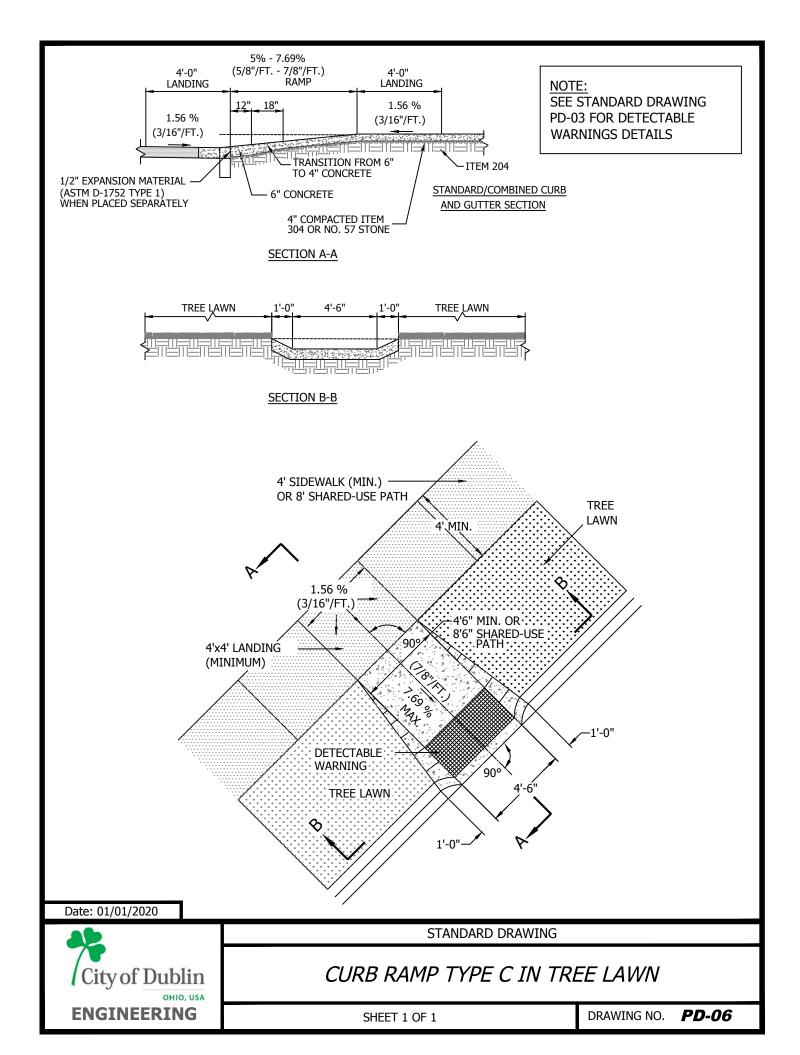
STANDARD DRAWING

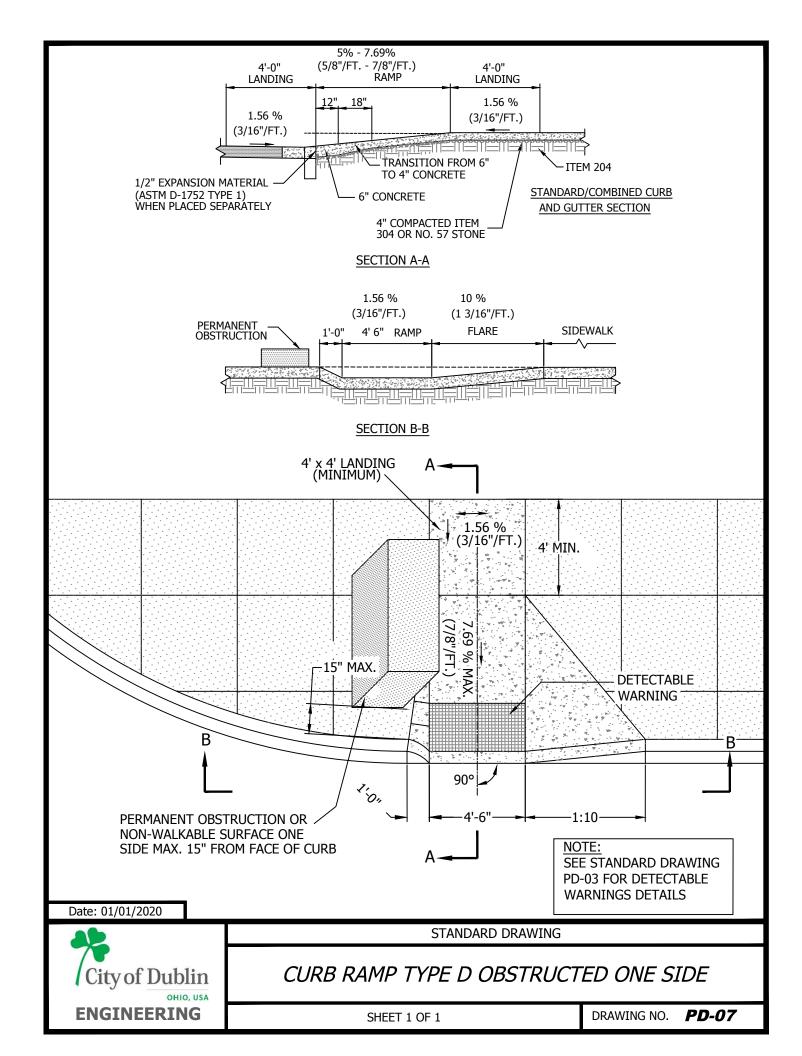
CURB RAMP TYPE A DIAGONAL IN TREE LAWN

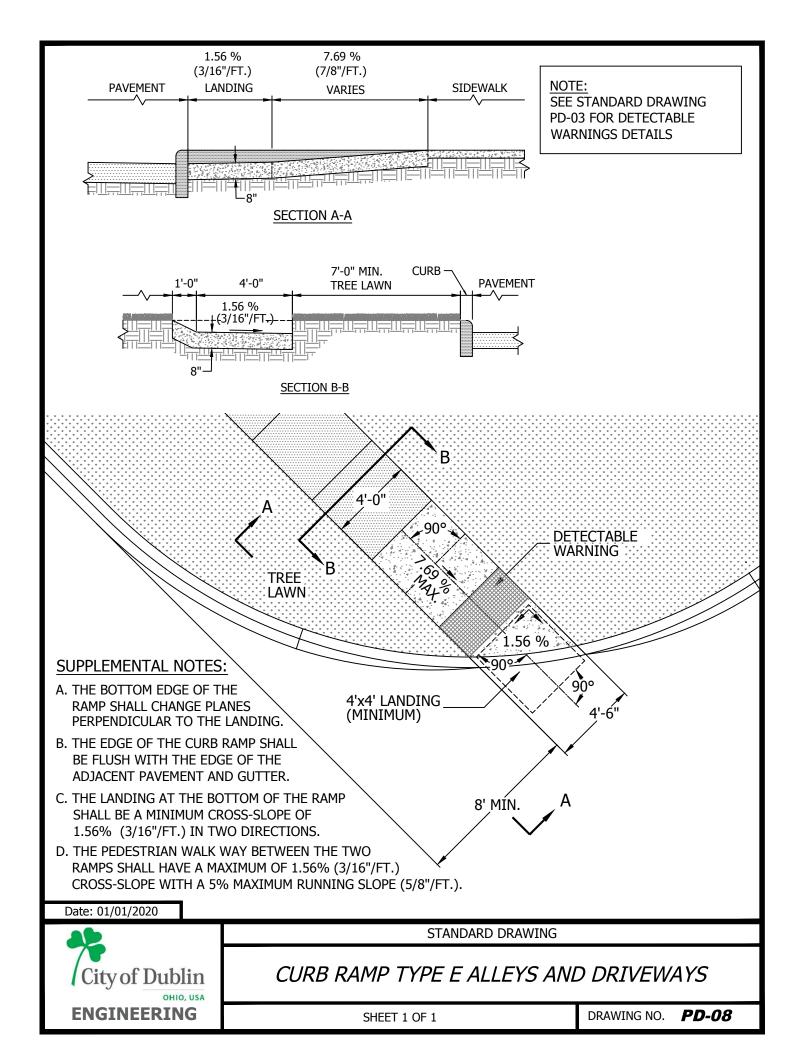
SHEET 1 OF 1 DRAWING NO.

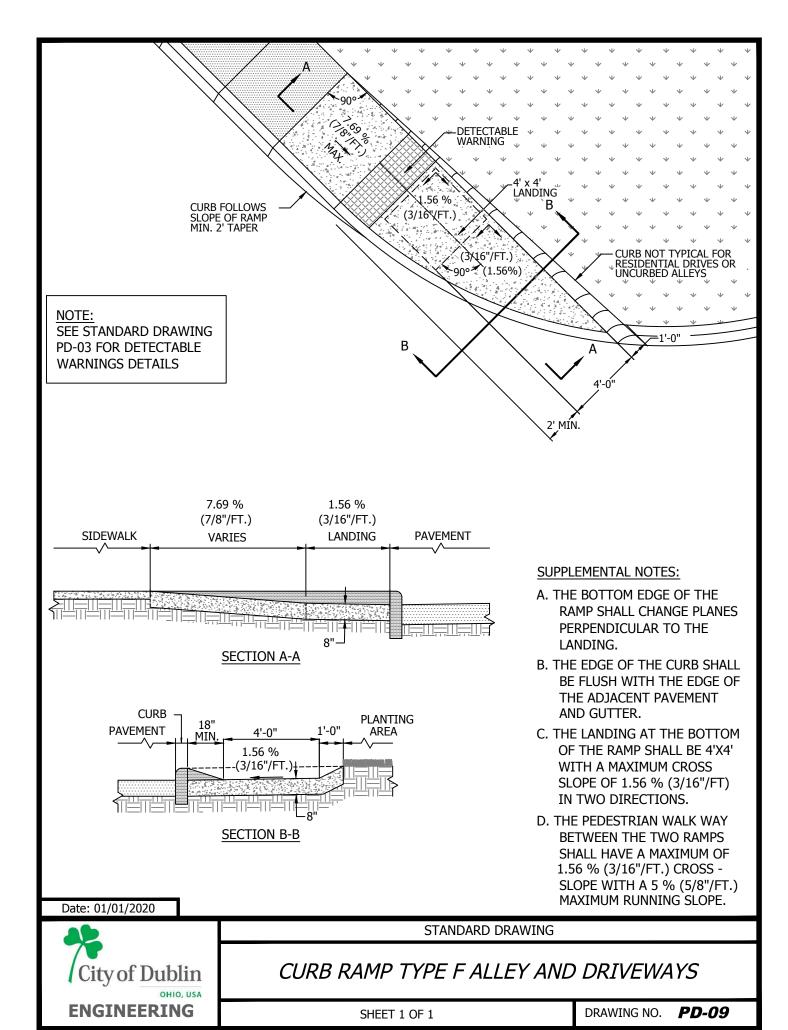
PD-04

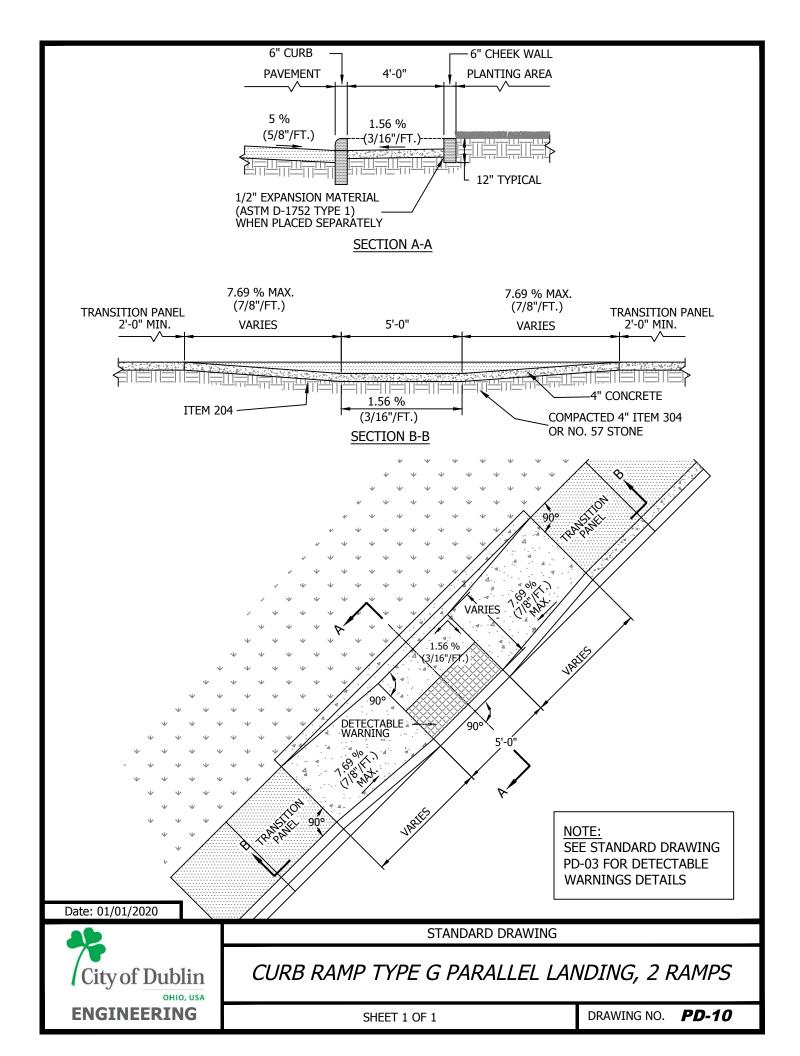


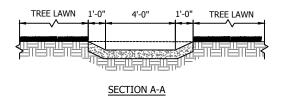




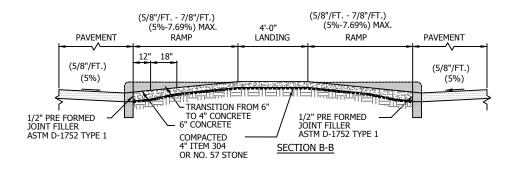


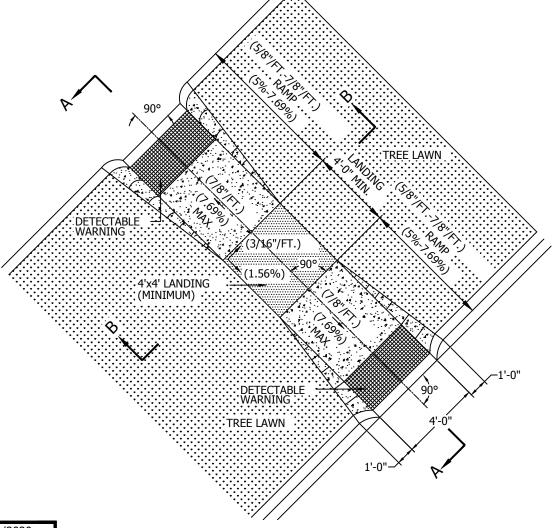






NOTE: SEE STANDARD DRAWING PD-03 FOR DETECTABLE WARNINGS DETAILS





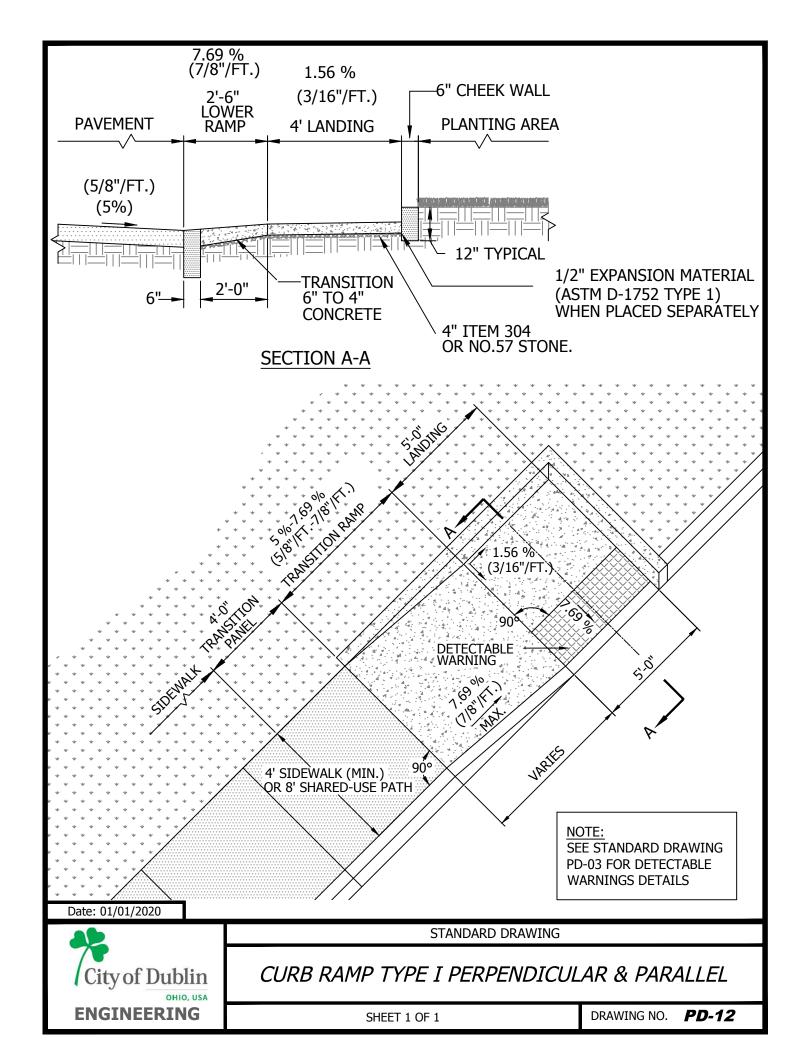
Date: 01/01/2020

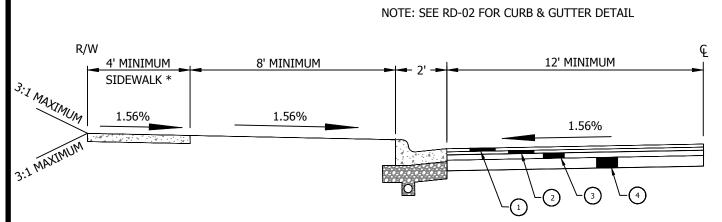


STANDARD DRAWING

CURB RAMP TYPE H MEDIAN RAMP WITH LANDING

SHEET 1 OF 1 DRAWING NO. **PD-11**





* 5'-0" SIDEWALK (WHERE REQUIRED) 8'-0" SHARED-USE PATH (WHERE REQUIRED)

MINOR AND LOCAL STREETS	(MINIMUM PAVEMENT DEPTH*)	ALTERNATIVE ***
ITEM 441 ASPHALT CONCRETE SURFACE COURSE TYP PG. 64-22 MEDIUM TRAFFIC	PE 1 1 1/4"	1 1/4"
2 ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURS PG. 64-22 MEDIUM TRAFFIC	SE TYPE 2 1 3/4"	1 3/4"
(TWO COURSES OF 3")	3"	6"
4 ITEM 304 AGGREGATE BASE	6"	N/A

* NOTE: MINIMUM PAVEMENT DEPTH ARE TYPICAL FOR RESIDENTIAL APPLICATIONS. ROADWAYS IN INDUSTRIAL AND COMMERCIAL AREAS MAY BE REQUIRED TO HAVE DEPTHS DESIGNED FOR ACTUAL TRAFFIC LOADINGS USING AASHTO METHODS AS DIRECTED BY THE CITY ENGINEER.

COLLECTO	OR AND ARTERIAL STREETS **	(MINIMUM PAVEMENT DEPTH*)	ALTERNATIVE ***
1	ITEM 441 ASPHALT CONCRETE SURFACE COURSE TYPE 1 PG. 64-22 MEDIUM TRAFFIC	1 1/4"	1 1/4"
2	ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE TO PG. 64-22 MEDIUM TRAFFIC	/PE 2 1 3/4"	1 3/4"
3	ITEM 301 BITUMINOUS AGGREGATE BASE (TWO COURSES OF 3")	6"	9"
4	ITEM 304 AGGREGATE BASE	6"	N/A

** NOTE: COLLECTOR AND ARTERIAL STREET PAVEMENT DEPTHS SHALL BE DESIGNED TO ACTUAL TRAFFIC LOADINGS USING THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES. SHOULD CALCULATED DEPTHS BE LESS THAN THE MINIMUM DEPTHS, THE MINIMUM DEPTHS SHALL BE USED.

*** NOTE: ALTERNATIVE PAVEMENT SECTION REQUIRES CITY ENGINEER'S APPROVAL PRIOR TO INSTALLATION.

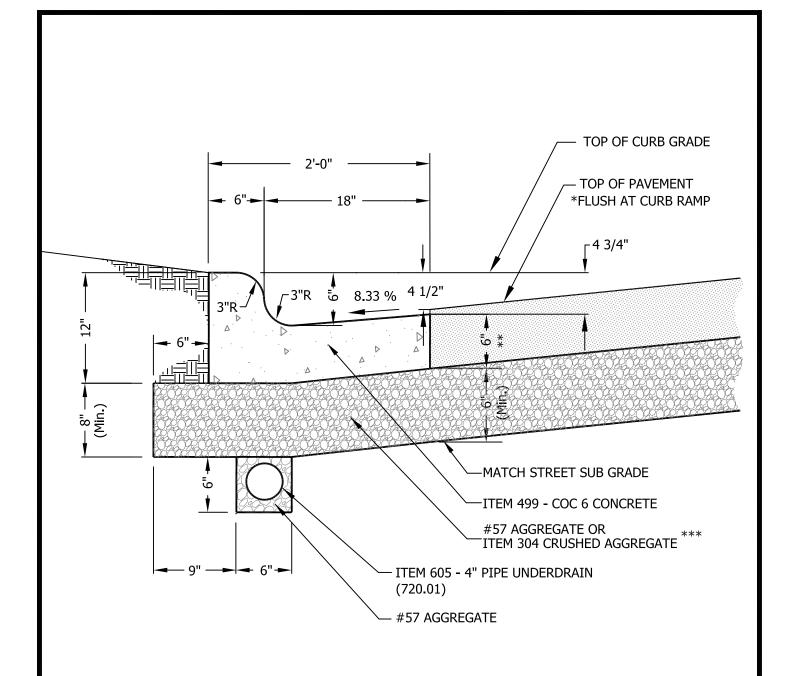
Date: 01/01/2020



STANDARD DRAWING

TYPICAL STREET SECTIONS

SHEET 1 OF 1 DRAWING NO. **RD-01**



- * SEE DRAWING RD-03 FOR GUTTER TRANSITION AT CURB RAMP.
- ** 10" MINIMUM AT COMMERCIAL DRIVE ENTRANCES/HEAVY DUTY CURB AND GUTTER
- *** FOR NEW ROAD CONSTRUCTION, ITEM 304 AGGREGATE BASE SHALL BE USED UNDER THE CURB SECTION AND PLACED AT THE SAME TIME AND LIFT THICKNESS AS THE 304 AGGREGATE BASE UNDER THE PAVEMENT SECTION.

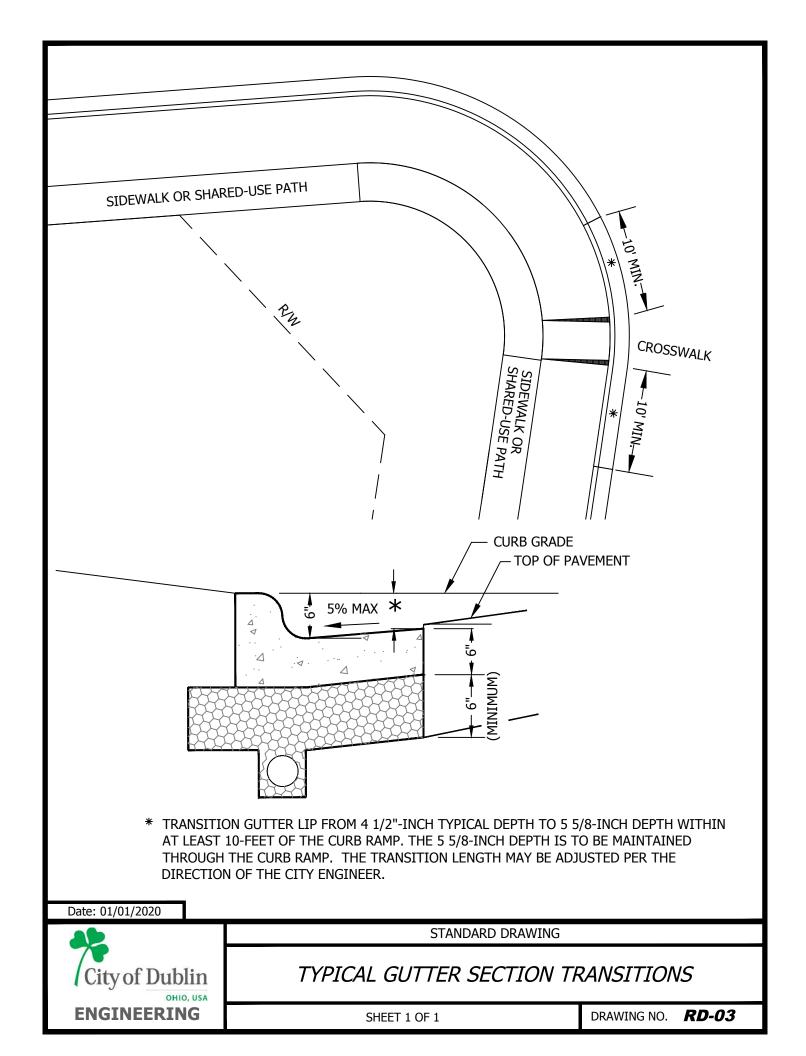
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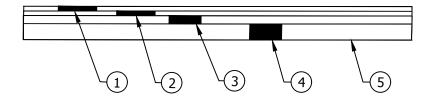


STANDARD DRAWING

COMBINATION CONCRETE CURB AND GUTTER

SHEET 1 OF 1 DRAWING NO. **RD-02**





• PRIVATE STREET OR ALLEY (MINIMUM PAVEMENT DEPTH) OPTION 1

- (1) ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE TYPE 1 PG. 64-22 MEDIUM TRAFFIC
- (2) ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 PG. 64-22 MEDIUM TRAFFIC
- (3) ITEM 301 3"BITUMINOUS AGGREGATE BASE
- (4) ITEM 304 6"AGGREGATE BASE
- (5) ITEM 204 SUBGRADE COMPACTION

PRIVATE PARKING LOT (MINIMUM PAVEMENT DEPTH) OPTION 1

- (1) ITEM 441 1 1/4" ASPHALT CONCRETE SURFACE COURSE TYPE 1 PG. 64-22 MEDIUM TRAFFIC
- 2 ITEM 441 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 PG. 64-22 MEDIUM TRAFFIC
- (4) ITEM 304 6"AGGREGATE BASE
- (5) ITEM 204 SUBGRADE COMPACTION

ROADWAYS IN INDUSTRIAL AND COMMERCIAL AREAS MAY BE REQUIRED TO HAVE DEPTHS DESIGNED FOR PROJECTED TRAFFIC LOADINGS USING AASHTO METHODS AS DIRECTED BY THE CITY ENGINEER.

• NOTE: MINIMUM PAVEMENT WIDTH FOR PRIVATE STREETS SHALL BE 22'.

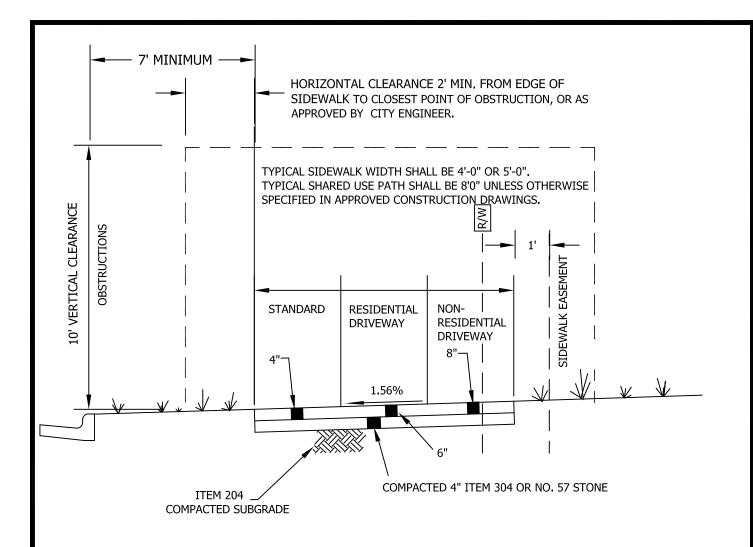
Date: 01/01/2020



STANDARD DRAWING

TYPICAL PAVEMENT SECTION FOR PRIVATE STREETS

SHEET 1 OF 1 DRAWING NO. **RD-04**



- 1. ALL WALKWAYS SHALL BE CONSTRUCTED PER CCMS ITEM 608 OR AS DIRECTED BY CITY ENGINEER.
- 2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. SEED MIXTURE SHALL BE APPROVED BY THE CITY ENGINEER.
- 3. CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY OTHER SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED.
- 4. SIDEWALKS/BIKE PATHS CROSSING RESIDENTIAL DRIVEWAYS SHALL BE 6" COC 6 CONCRETE ITEM 499. SIDEWALKS/SHARED USE PATHS CROSSING NON-RESIDENTIAL DRIVEWAY APPROACHES SHALL BE MINIMUM 8" COC 6 CONCRETE,ITEM 499 UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 5. ALL COMMERCIAL DRIVES SHALL HAVE 6" OF ITEM 304.
- 6. INSPECTION SCHEDULING SHALL BE MADE WITH THE BUILDING DIVISION WHEN CONCRETE FORMS ARE READY FOR INSPECTION, AT LEAST 48 HOURS BEFORE CONCRETE IS TO BE PLACED AT (614) 410 4680.
- 7. ALL SHARED USE PATH JOINTS ARE TO BE SAWCUT.
- 8. SIDEWALKS/FLATWORK SHALL BE TOOL CUT & RETRACED.
- FULL DEPTH EXPANSION MATERIAL (1/2" THICK) SHALL BE PLACED ADJOINING ALL EXISTING CONCRETE CONFORMING TO ASTM D-1752 TYPE 1.

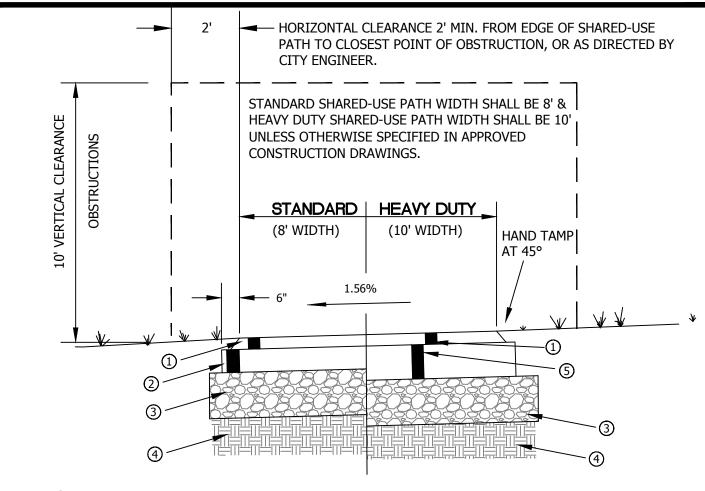
City of Dublin
OHIO, USA
ENGINEERING

Date: 01/01/2020

STANDARD DRAWING

CONCRETE SIDEWALK AND SHARED-USE PATH

DRAWING NO. **RD-05**

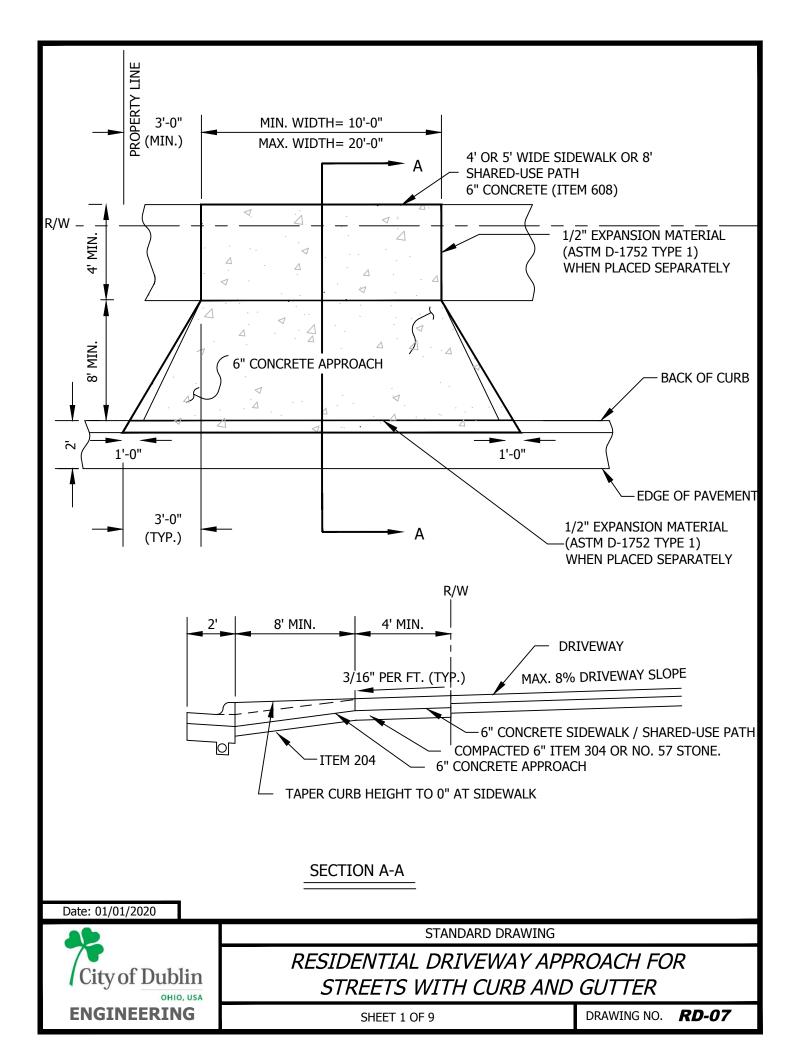


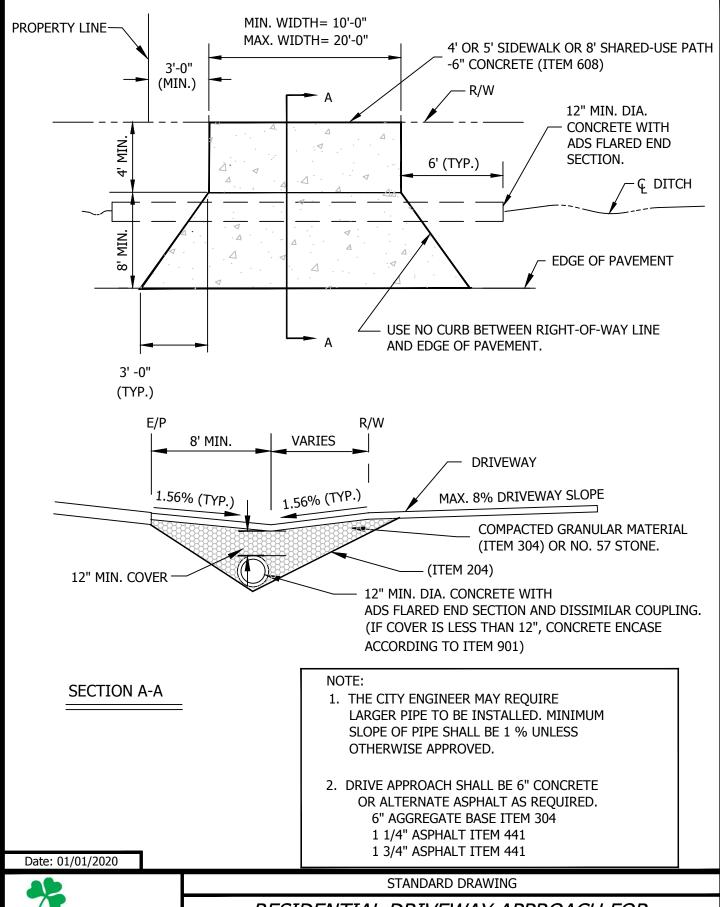
- (1) ITEM 441 1-1/2" ASPHALT CONCRETE, SURFACE COURSE TYPE 1 (MEDIUM TRAFFIC), PG. 64-22
- (2) ITEM 301 3" ASPHALT CONCRETE BASE
- (3) ITEM 304 6" AGGREGATE BASE
- (4) ITEM 204 SUBGRADE COMPACTION
- (5) ITEM 301 4 1/2" ASPHALT CONCRETE BASE
- 1. ALL TOPSOIL SHALL BE REMOVED FROM SUB GRADE AREAS. ITEM 204 SHALL BE COMPACTED TO NO LESS THAN 98% OF MAX. DRY DENSITY. EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE.
- 2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. SEED MIXTURE REQUIRES THE APPROVAL OF THE CITY ENGINEER.
- 3. PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO OHIO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 4. SHARED-USE PATHS CROSSING CONCRETE RESIDENTIAL DRIVEWAY APPROACHES SHALL BE 6" PC CONCRETE ACROSS THE WIDTH OF THE DRIVEWAY APPROACH, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. SHARED-USE PATHS CROSSING RESIDENTIAL DRIVEWAY APPROACHES SHALL MATCH THE THICKNESS AND CROSS-SECTION OF THE DRIVEWAY APPROACH OR 8" PC CONCRETE, WHICHEVER IS GREATER, AS APPROVED BY THE CITY ENGINEER.
- 5. FOR GEOMETRIC STANDARDS FOR CURB RAMP REFER TO DUBLIN STD. DWG. PD-01.



STANDARD DRAWING

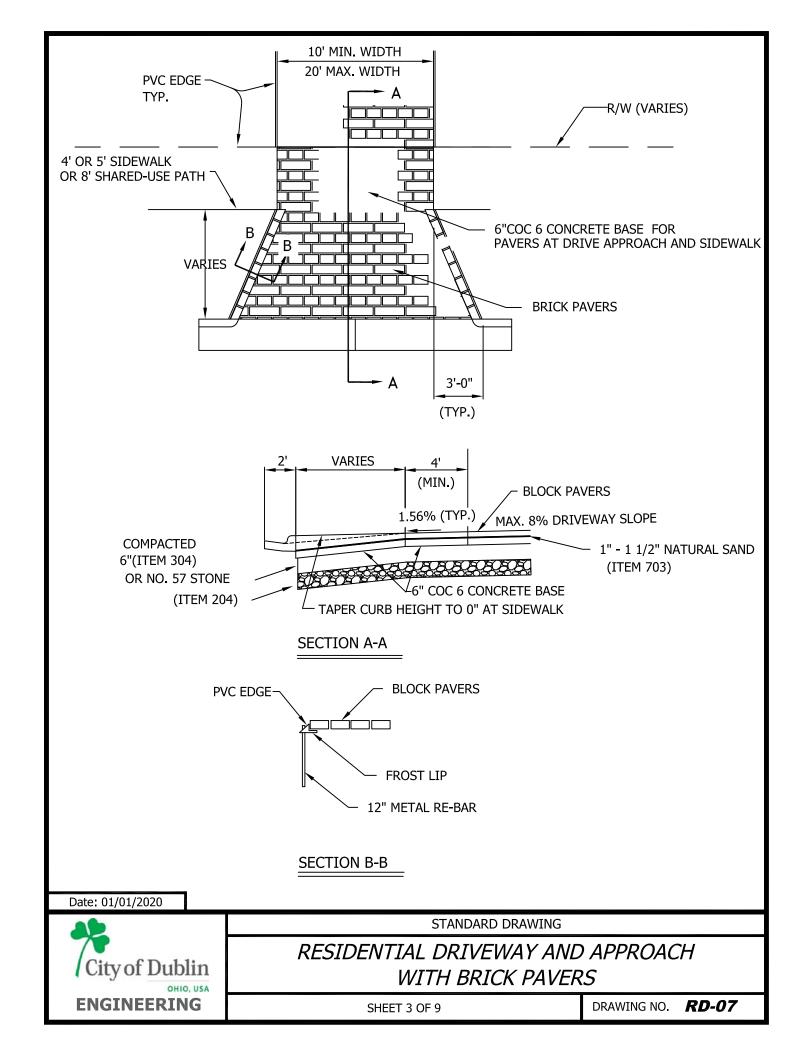
SHARED-USE PATH: STANDARD AND HEAVY DUTY

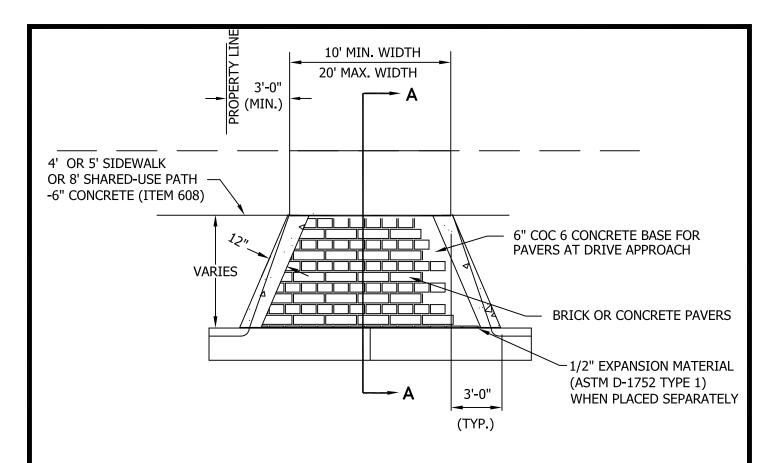




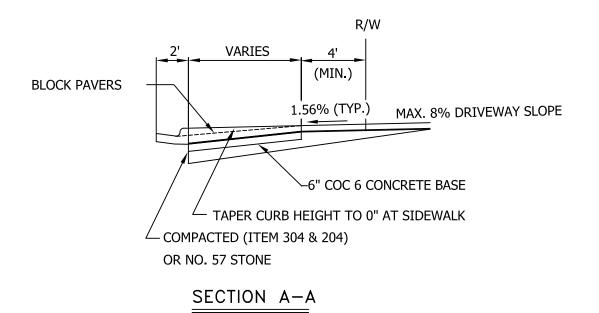
City of Dublin
OHIO, USA
ENGINEERING

RESIDENTIAL DRIVEWAY APPROACH FOR STREETS WITHOUT CURB AND GUTTER





SEE SHEET 5 OF 9 OF CITY OF DUBLIN STANDARD DRAWING RD-07 FOR ADDITIONAL REQUIREMENTS FOR BRICK PAVERS.



Date: 01/01/2020



STANDARD DRAWING

RESIDENTIAL DRIVEWAY APPROACH FOR COMBINATION CONCRETE AND BRICK PAVERS

SHEET 4 OF 9

DRAWING NO. **RD-07**

- 1. THE FOLLOWING ARE SPECIFICATIONS WHICH APPLY TO THE SUBSTITUTION OF APPROVED BRICK PAVERS FOR CONCRETE DRIVEWAYS AND DRIVEWAY APPROACHES.
- 2. PAGES 3 AND 4 OF 9 OF CITY OF DUBLIN STANDARD DRAWING RD-07 DETAIL THE APPROVED PLACEMENT OF BRICK PAVERS.
- 3. THE WORK SHALL BE INSPECTED PRIOR TO PLACEMENT BY CITY OF DUBLIN CITY ENGINEER OR DESIGNEE(S).
- 4. THE BRICK PAVERS ON THE GRANULAR BASE SHALL HAVE A PVC FROST LIP/EDGE OR APPROVED EQUIVALENT TO SERVE AS A FORM FOR THE PAVERS.
- 5. THE COC 6 CONCRETE BASE SHALL BE PROVIDED ACCORDING TO CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CCMS).
- 6. THE GRANULAR BASE SHALL BE PLACED ACCORDING TO CCMS. PAVING SHALL BE PROVIDED ONLY WITH ACCEPTABLE BASE CONDITIONS, AS DETERMINED BY THE CITY OF DUBLIN CITY ENGINEER OR DESIGNEE(S). THIS INCLUDES, BUT IS NOT LIMITED TO, SOFT, WATER SATURATED, FROZEN OR FROST-AFFECTED MATERIAL. UNACCEPTABLE MATERIAL SHALL BE STABILIZED OR REMOVED PRIOR TO PAVING.
- 7. THE FOLLOWING PAVING MATERIALS HAVE BEEN ACCEPTED FOR USE AS SUBSTITUTES FOR CONCRETE DRIVEWAYS AND DRIVEWAY APPROACHES. ACCEPTANCE IS SUBJECT TO A REVIEW OF MANUFACTURER'S SPECIFICATIONS AND FIELD PERFORMANCE BY THE CITY ENGINEER. ACCEPTANCE OF ALTERNATE MATERIALS IS SUBJECT TO CONTINUAL REVIEW AND MAY BE WITHDRAWN AT THE DISCRETION OF THE CITY ENGINEER.

ACCEPTED MATERIALS:

UNI-STONE PAVING STONES INTER PAVE CORPORATION 8479 BROADWELL ROAD CINCINNATI, OHIO 43224 (513) 474-3783

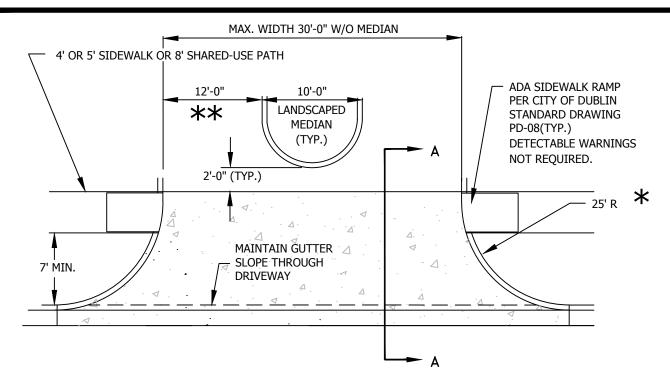
Date: 01/01/2020



STANDARD DRAWING

RESIDENTIAL BRICK PAVER SIDEWALK, DRIVEWAY,
AND DRIVEWAY APPROACH

SHEET 5 OF 9 DRAWING NO. **RD-07**

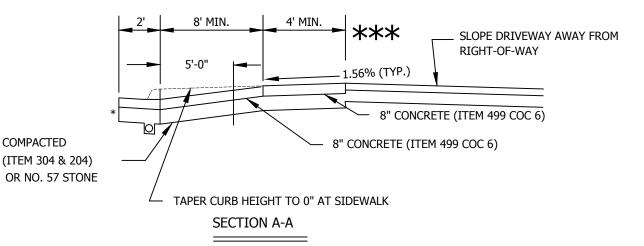


** MINIMUM RADIUS IS 25 FEET AT BACK OF CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

** MINIMUM LANE WIDTH SHALL BE 12'-0".

NUMBER OF LANES REQUIRES APPROVAL BY THE CITY ENGINEER.

*** MAX GRADE CHANGE OF 13%. UNLESS OTHERWISE APPROVED.



DRIVEWAY APPROACH SHALL BE 8" PORTLAND CEMENT CONCRETE OR STRUCTURAL EQUIVALENT AS APPROVED BY THE CITY ENGINEER.

EXISTING CURB AND GUTTER TO BE REMOVED WITHIN THE LIMITS OF DRIVEWAY. APPROACH AND GUTTER TO BE POURED INTEGRAL. MAINTAIN GUTTER SLOPE AND UNDER DRAIN THROUGH THE DRIVEWAY.

* SEE DRAWING RD-02 FOR COMBINATION CONCRETE CURB & GUTTER.

Date: 01/01/2020

City of Dublin

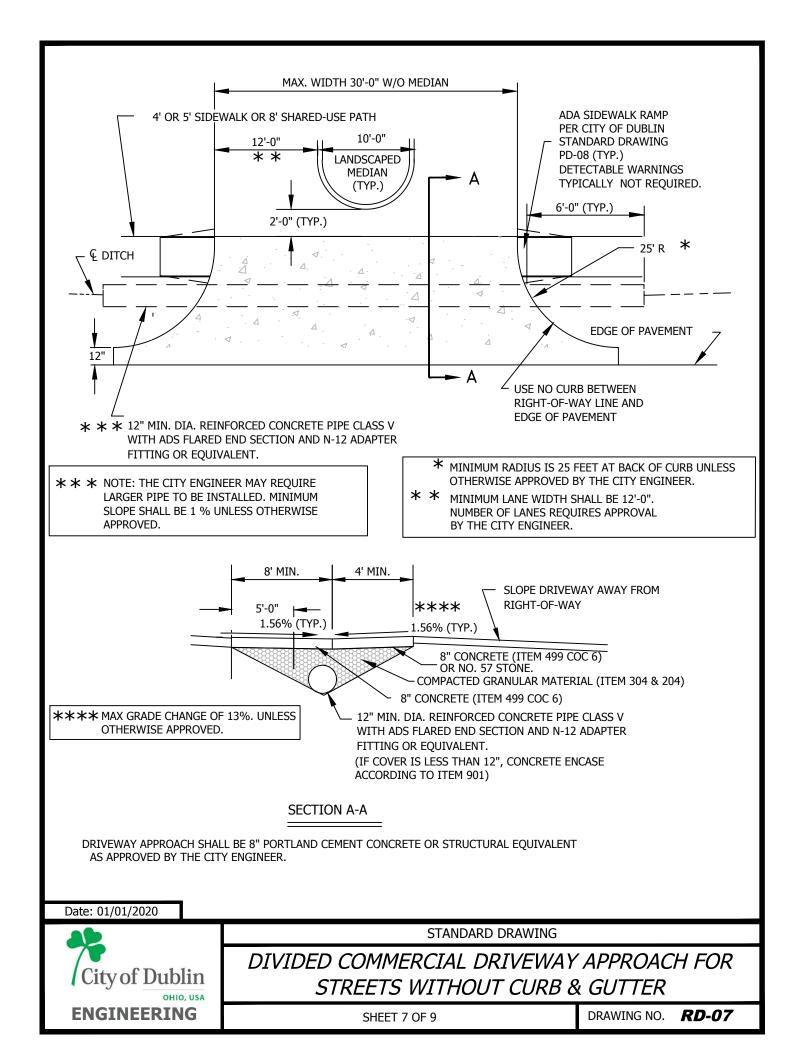
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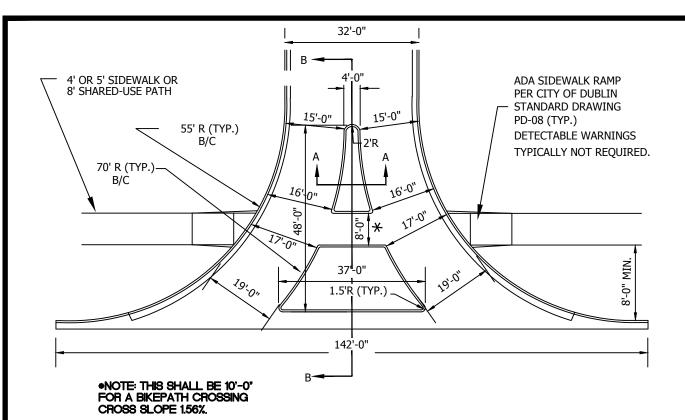
STANDARD DRAWING

COMMERCIAL DRIVEWAY APPROACH FOR STREETS WITH CURB & GUTTER

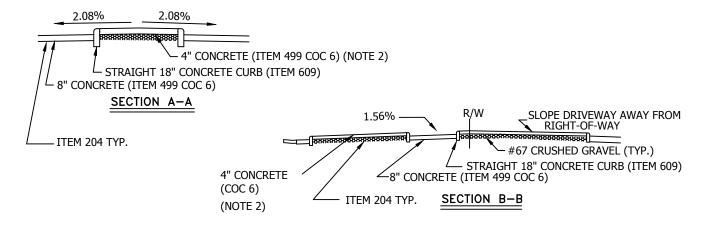
SHEET 6 OF 9

DRAWING NO. **RD-07**





THIS DESIGN ACCOMMODATES WB-40 VEHICLES, AS PRESCRIBED BY AASHTO. IF A LARGER VEHICLE NEEDS ACCOMMODATED A SPECIFIC DESIGN WILL BE REQUIRED.



- 1. DRIVEWAY APPROACH SHALL BE 8" PC CONCRETE OR STRUCTURAL EQUIVALENT AS APPROVED BY THE CITY ENGINEER.
- 2. ISLAND SURFACE IN DRIVEWAY APPROACH MAY BE EITHER 4" PC CONCRETE OR LANDSCAPING VEGETATION WITH A HEIGHT NO GREATER THAN 3 FEET ABOVE THE TOP OF CURB. LANDSCAPING MATERIALS SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE CITY OF DUBLIN DIVISION OF PLANNING. MAINTENANCE OF LANDSCAPING SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
- 3. EXISTING CURB AND GUTTER TO BE REMOVED WITHIN THE LIMITS OF DRIVEWAY. APPROACH AND GUTTER TO BE POURED INTEGRAL. MAINTAIN GUTTER SLOPE AND UNDER DRAIN THROUGH DRIVEWAY.

* SEE DRAWING RD-02 FOR COMBINATION CONCRETE CURB & GUTTER.

Date: 01/01/2020

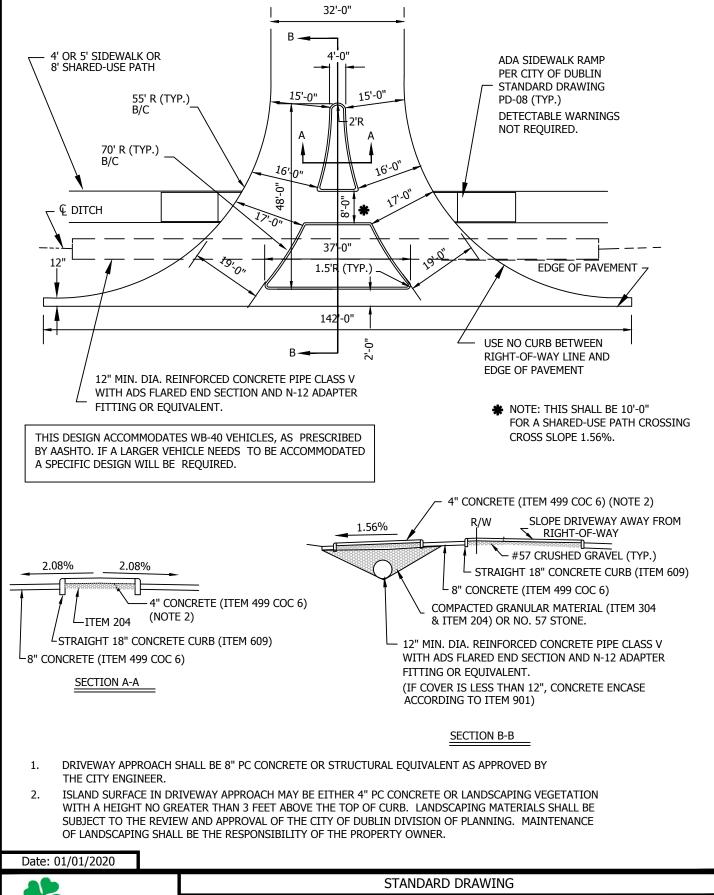


STANDARD DRAWING

RIGHT IN, RIGHT OUT COMMERCIAL APPROACH

SHEET 8 OF 9

DRAWING NO. RD-07

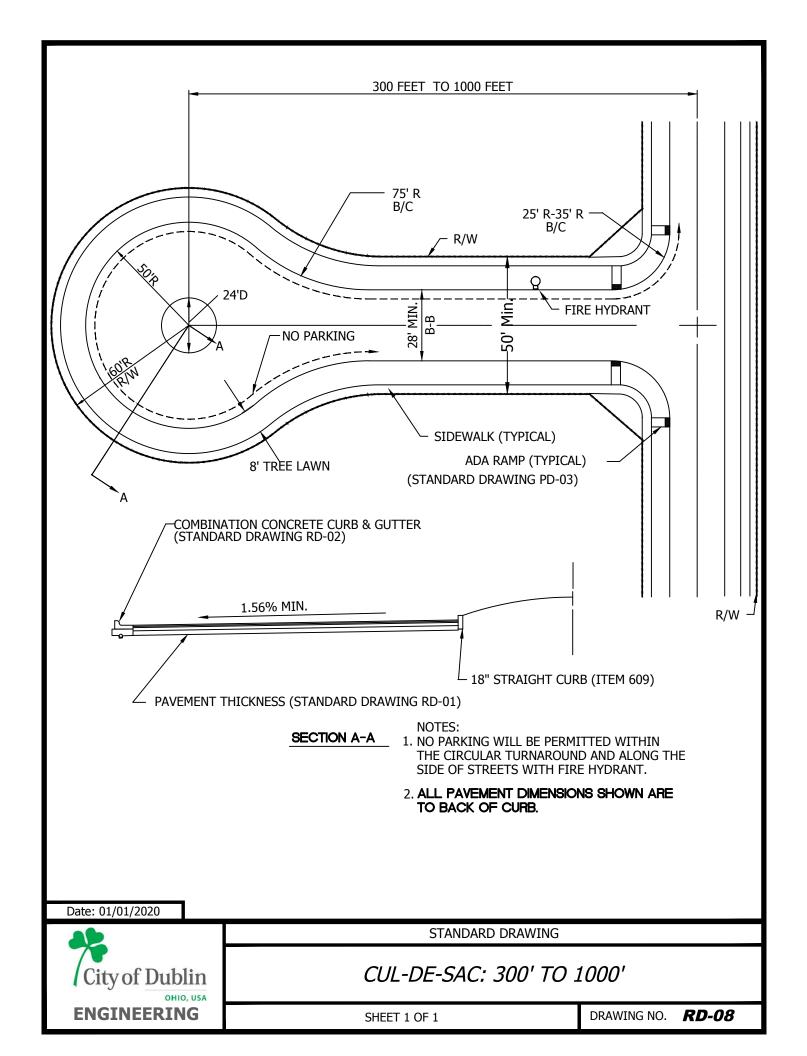


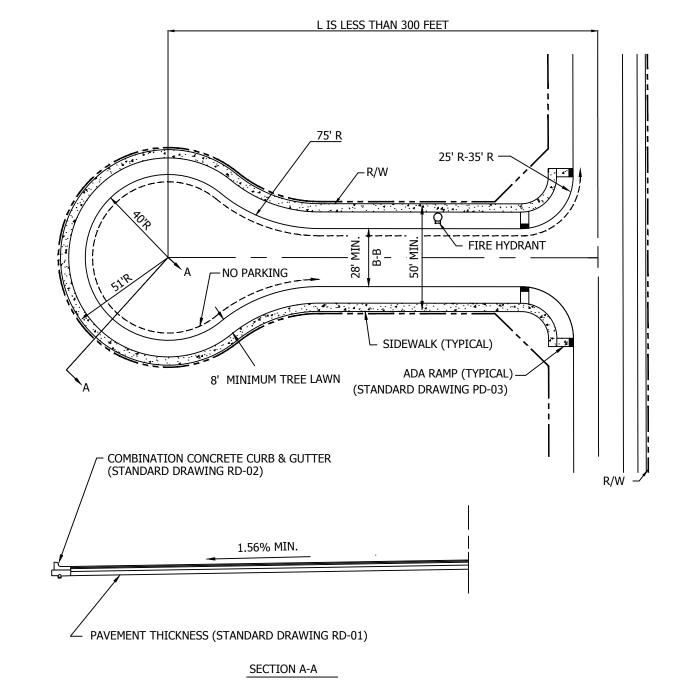
City of Dublin
OHIO, USA
ENGINEERING

RIGHT IN, RIGHT OUT COMMERCIAL APPROACH WITHOUT CURB & GUTTER

SHEET 9 OF 9

DRAWING NO. **RD-07**





NOTES:

- **1.** ALL PAVEMENT DIMENSIONS SHOWN ARE TO BACK OF CURB.
- **2.** NO PARKING WILL BE PERMITTED WITHIN THE CIRCULAR TURNAROUND AND ALONG THE SIDE OF STREETS WITH FIRE HYDRANTS.

Date: 01/01/2020



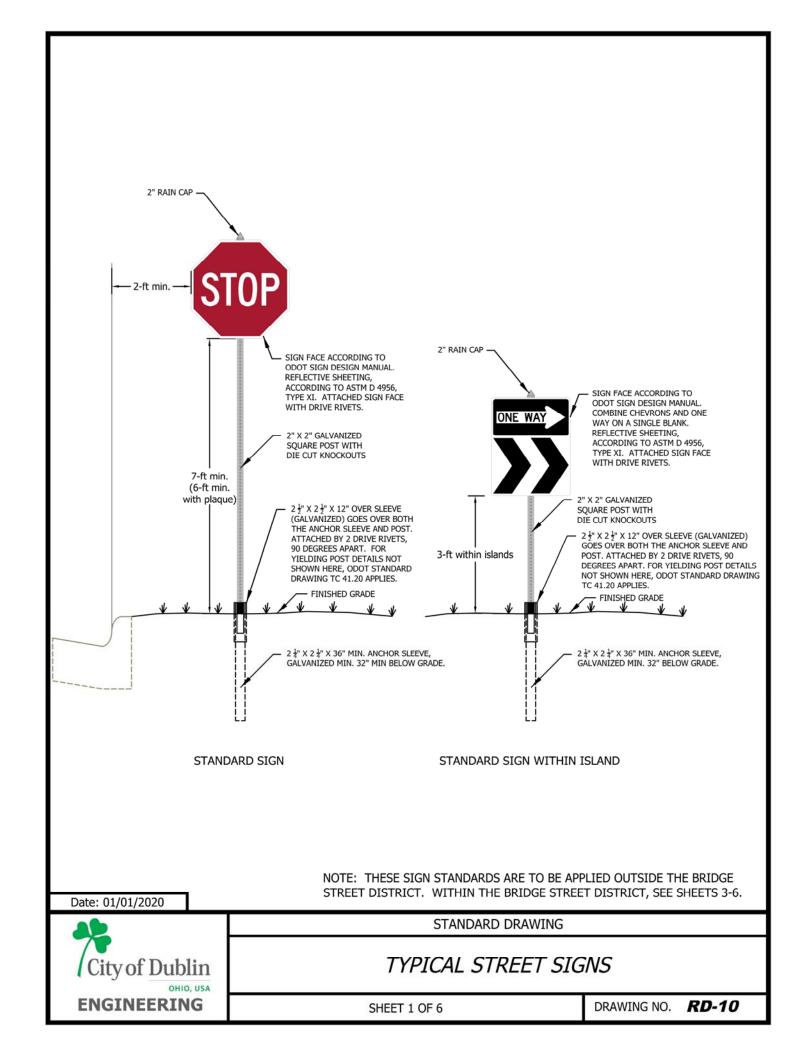
STANDARD DRAWING

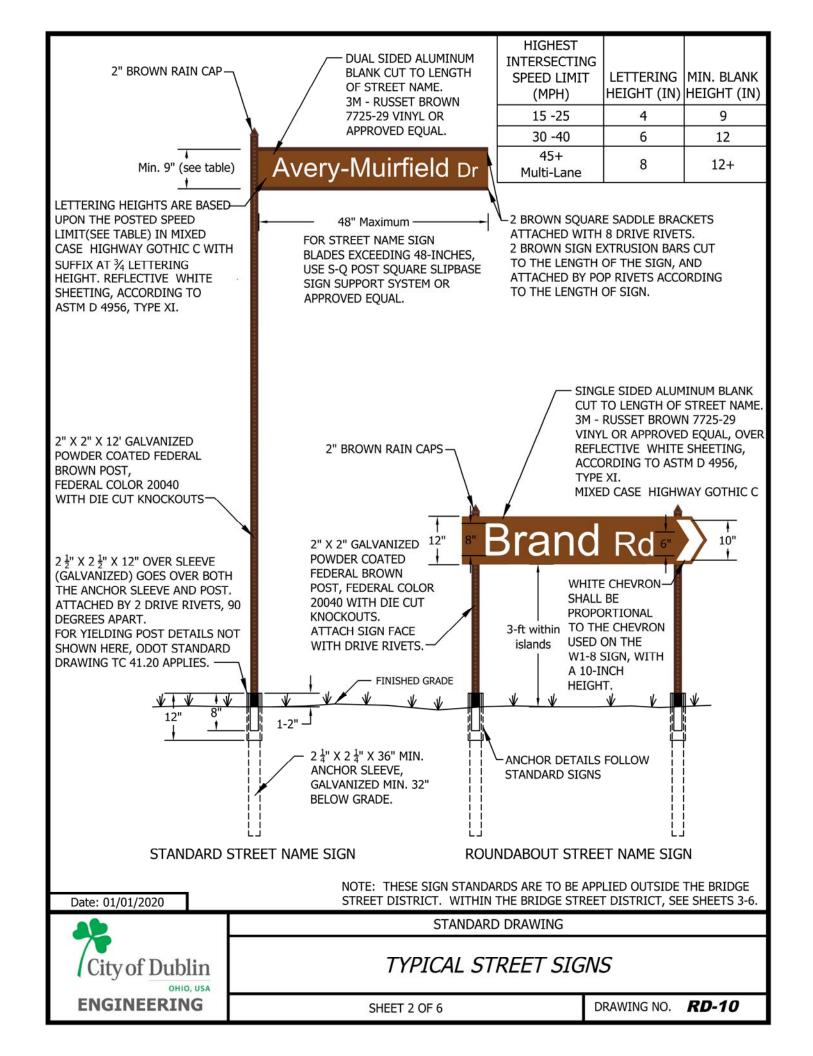
CUL-DE-SAC LESS THAN 300'

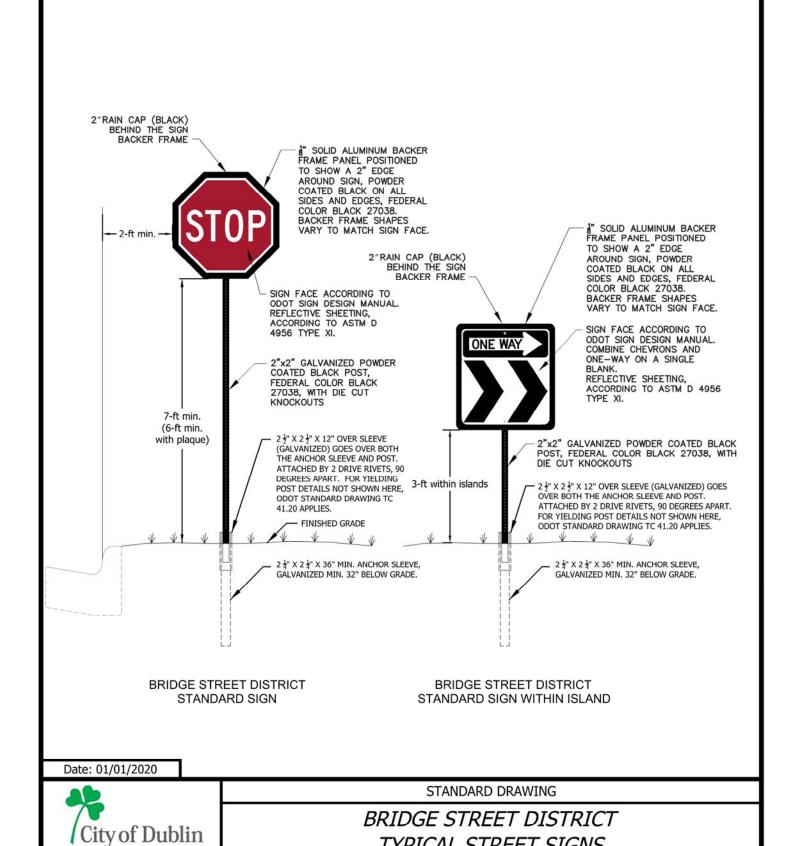
SHEET 1 OF 1

DRAWING NO.

RD-09







SHEET 3 OF 6

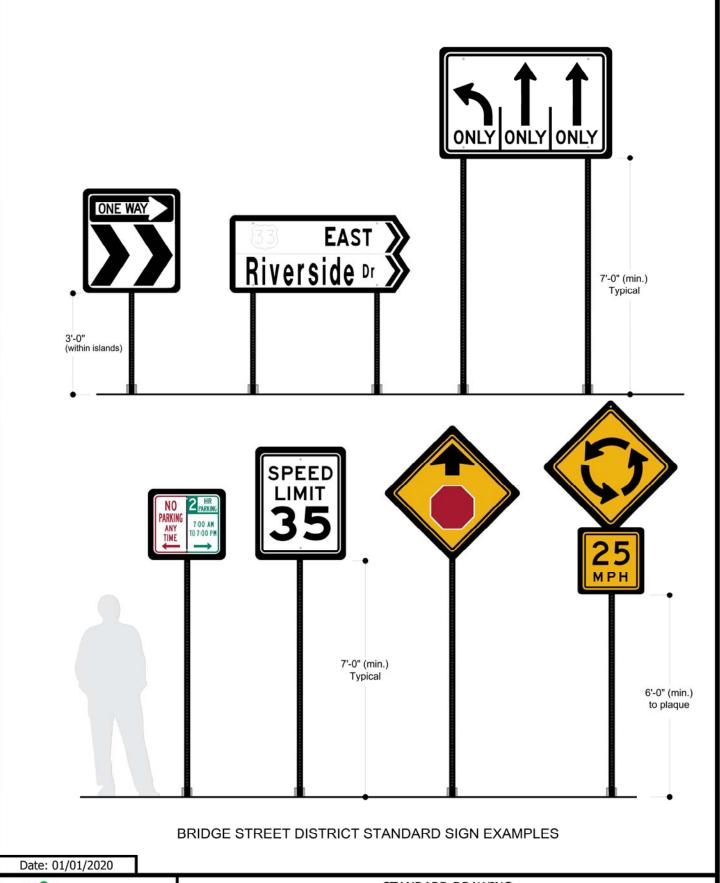
OHIO, USA

ENGINEERING

TYPICAL STREET SIGNS

RD-10

DRAWING NO.



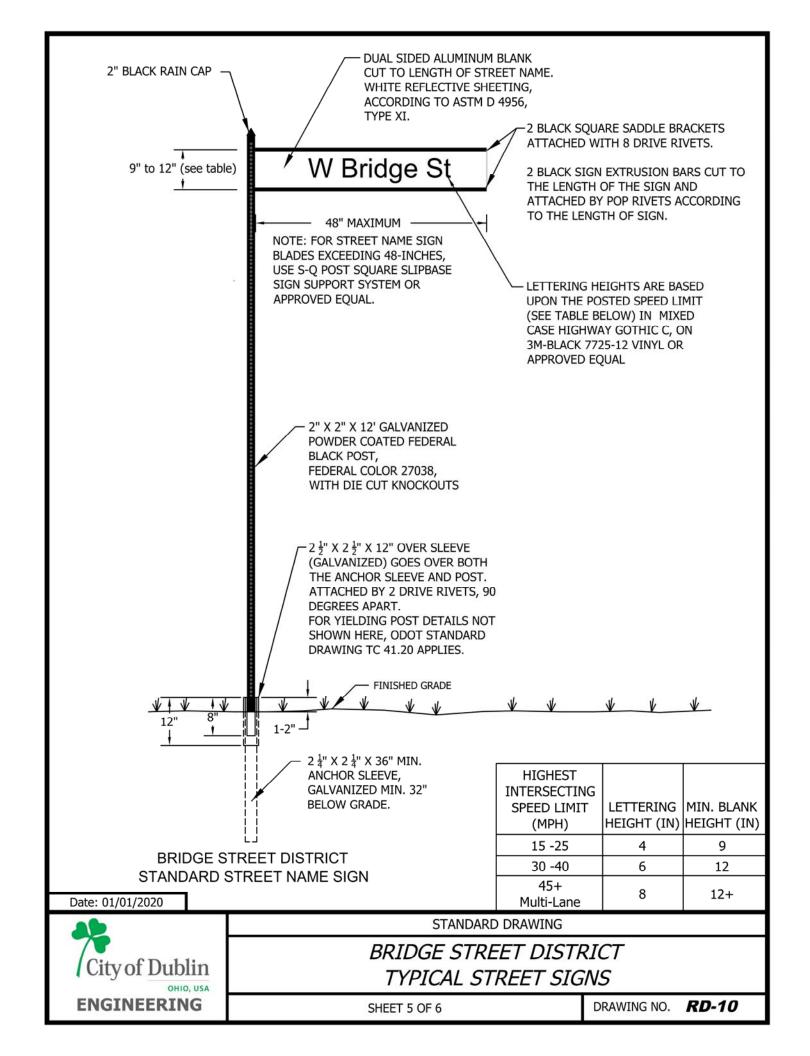


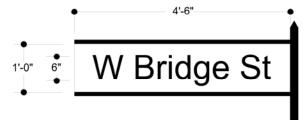
STANDARD DRAWING

BRIDGE STREET DISTRICT
TYPICAL STREET SIGNS

SHEET 4 OF 6

DRAWING NO. RD-10





(USED FOR SPEED LIMIT OF 30-40 MPH)



Tuller Ridge Dr

Bridge Park Ave

John Shields Pkwy

8'-0"

(USED FOR SPEED LIMIT OF 45+ MPH)

BRIDGE STREET DISTRICT STREET NAME SIGN EXAMPLES

Date: 01/01/2020



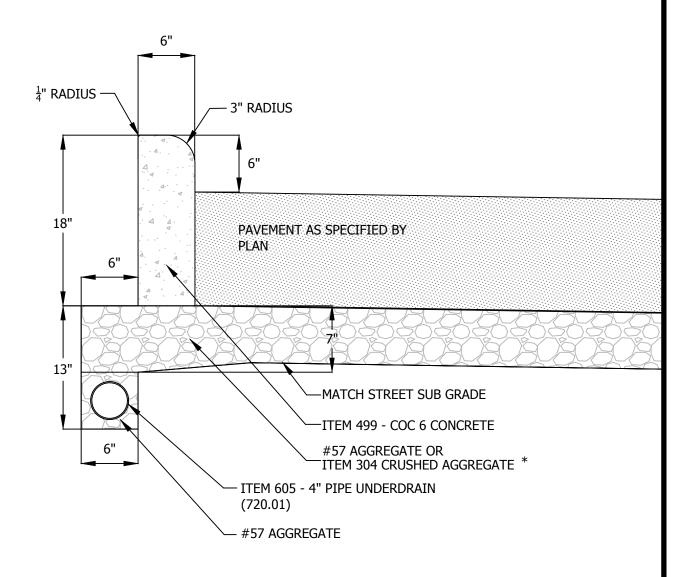
STANDARD DRAWING

BRIDGE STREET DISTRICT
TYPICAL STREET SIGNS

SHEET 6 OF 6

DRAWING NO.

RD-10



* FOR NEW ROAD CONSTRUCTION, ITEM 304 AGGREGATE BASE SHALL BE USED UNDER THE CURB SECTION AND PLACED AT THE SAME TIME AND LIFT THICKNESS AS THE 304 AGGREGATE BASE UNDER THE PAVEMENT SECTION.

Date: 01/01/2020

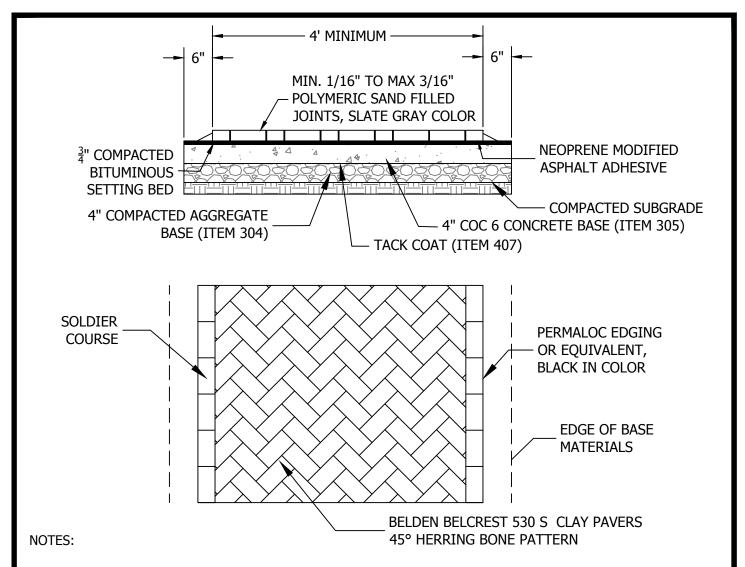


STANDARD DRAWING

STRAIGHT 18" CONCRETE CURB

SHEET 1 OF 1

DRAWING NO. RD-11



- 1.) THE PAVERS SHALL BE BELDEN BELCREST 530 S CLAY PAVERS, 2 1/4" x 3 5/8" x 7 5/8", MADE BY BELDEN BRICK COMPANY, CANTON, OHIO, LAID IN A 45 ° HERRINGBONE PATTERN.
- 2.) ALL JOINTS SHALL BE FILLED WITH A POLYMERIC SAND. SAND SHALL BE ALLIANCE GATOR MAXX POLYMERIC SAND FOR OVERLAYS AND SLATE GRAY IN COLOR OR AN APPROVED EQUAL.
- 3.) FURNISH NEOPRENE MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2% GRADE WM1 NEOPRENE, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTENING POINT (77 PENETRATION), AND 10% LONG-FIBERED INERT MATERIAL, AS SUPPLIED BY SEIDEL COMPANY, INC., NEWBURYPORT, MA, (617) 649-6740; HASTINGS PAVEMENT COMPANY, INC., LAKE SUCCESS, NY, (516) 379-3500; OR APPROVED EQUAL.
- 4.) FURNISH ASPHALT CEMENT CONFORMING TO ASTM D 3381, PG64-22. FINE AGGREGATE SHALL BE NATURAL SAND AND/OR STONE SAND COMPOSED OF HARD, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL, OR OTHER DELETERIOUS SUBSTANCES. ALL SAND SHALL BE UNIFORMLY GRADED AND PASS A NO. 4 SIEVE, MEETING THE REQUIREMENTS OF ASTM C 136. THE DRIED FINE AGGREGATE SHALL BE MIXED WITH HOT ASPHALT CEMENT AT THE PLANT AND HEATED TO APPROXIMATELY 300 DEGREES (F). APPROXIMATE MATERIAL PROPORTIONS SHALL BE 7% ASPHALT CEMENT AND 93% FINE AGGREGATE; OR 140 LBS ASPHALT TO 1,860 LBS FINE AGGREGATE PER TON.

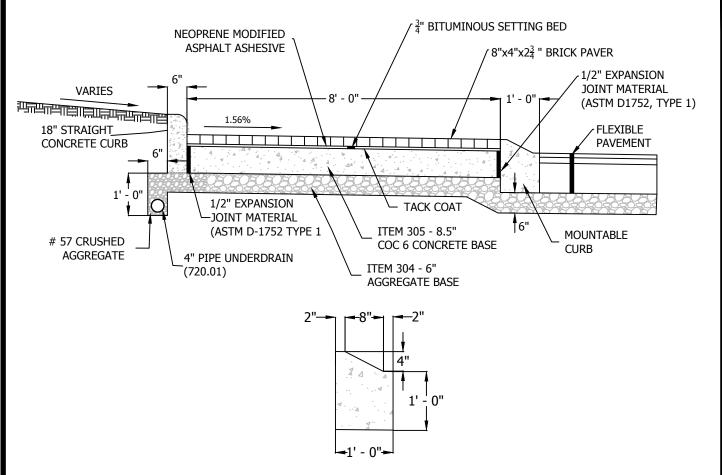
City of Dublin
OHIO, USA

ENGINEERING

Date: 01/01/2020

STANDARD DRAWING

HISTORIC DISTRICT BRICK PAVER SIDEWALK



MOUNTABLE CURB DETAIL

NOTES:

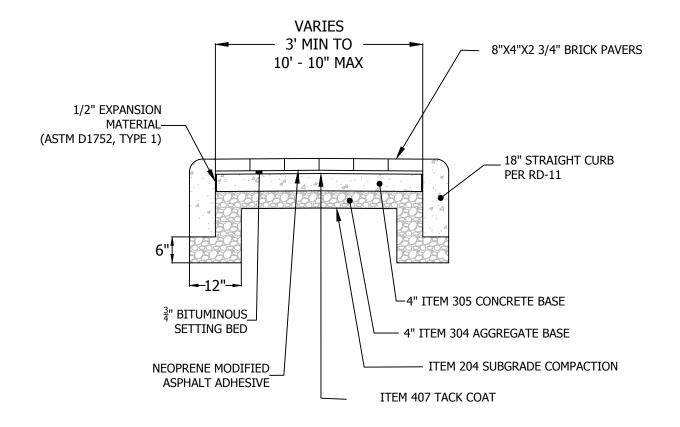
- 1.) THE PAVERS SHALL BE REGIMENTAL FULL RANGE WITH A CHAMFERED EDGE AND SPACER LUGS, 8" x 4" x 2 3/4", MADE BY BELDEN BRICK COMPANY, CANTON, OHIO, LAID IN A RUNNING BOND PATTERN. SPACER LUGS SHALL TOUCH BRICK WHEN INSTALLED.
- 2.) ALL JOINTS SHALL BE FILLED WITH A POLYMERIC SAND. SAND SHALL BE ALLIANCE GATOR MAXX POLYMERIC SAND FOR OVERLAYS AND SLATE GREY IN COLOR OR AN APPROVED EQUAL.
- 3.) FURNISH NEOPRENE MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2% GRADE WM1 NEOPRENE, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTENING POINT (77 PENETRATION), AND 10% LONG-FIBERED INERT MATERIAL, AS SUPPLIED BY SEIDEL COMPANY, INC., NEWBURYPORT, MA, (617) 649-6740; HASTINGS PAVEMENT COMPANY, INC., LAKE SUCCESS, NY, (516) 379-3500; OR APPROVED EQUAL.
- 4.) FURNISH ASPHALT CEMENT CONFORMING TO ASTM D 3381, PG64-22. FINE AGGREGATE SHALL BE NATURAL SAND AND/OR STONE SAND COMPOSED OF HARD, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL, OR OTHER DELETERIOUS SUBSTANCES. ALL SAND SHALL BE UNIFORMLY GRADED AND PASS A NO. 4 SIEVE, MEETING THE REQUIREMENTS OF ASTM C 136. THE DRIED FINE AGGREGATE SHALL BE MIXED WITH HOT ASPHALT CEMENT AT THE PLANT AND HEATED TO APPROXIMATELY 300 DEGREES (F). APPROXIMATE MATERIAL PROPORTIONS SHALL BE 7% ASPHALT CEMENT AND 93% FINE AGGREGATE; OR 140 LBS ASPHALT TO 1,860 LBS FINE AGGREGATE PER TON.

STANDARD DRAWING

ROUNDABOUT TRUCK APRON DETAIL

SHEET 1 OF 1

DRAWING NO. RD-13



NOTES:

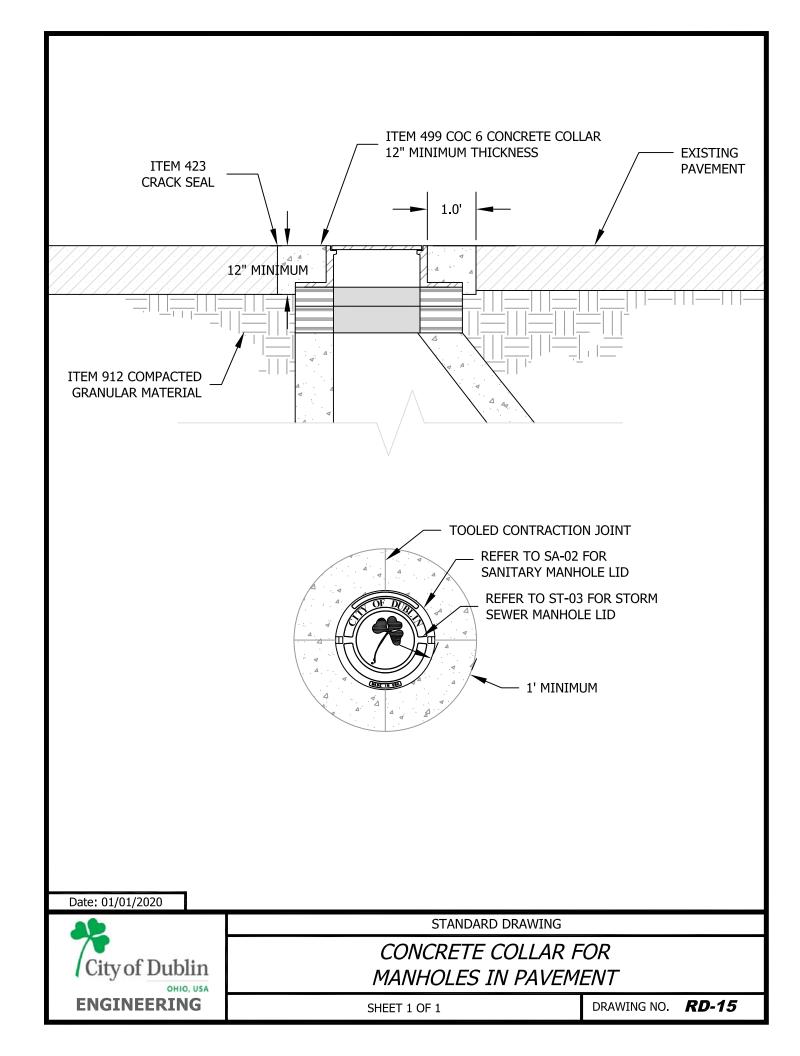
- 1.) THE PAVERS SHALL BE REGIMENTAL FULL RANGE WITH A CHAMFERED EDGE AND SPACER LUGS, 8" x 4" x 2 3/4", MADE BY BELDEN BRICK COMPANY, CANTON, OHIO, LAID IN A RUNNING BOND PATTERN. SPACER LUGS SHALL TOUCH ADJACENT BRICK WHEN INSTALLED.
- 2.) ALL JOINTS SHALL BE FILLED WITH A POLYMERIC SAND. SAND SHALL BE ALLIANCE GATOR MAXX POLYMERIC SAND FOR OVERLAYS AND SLATE GREY IN COLOR OR AN APPROVED EQUAL.
- 3.) FURNISH NEOPRENE MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2% GRADE WM1 NEOPRENE, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTENING POINT (77 PENETRATION), AND 10% LONG-FIBERED INERT MATERIAL, AS SUPPLIED BY SEIDEL COMPANY, INC., NEWBURYPORT, MA, (617) 649-6740; HASTINGS PAVEMENT COMPANY, INC., LAKE SUCCESS, NY, (516) 379-3500; OR APPROVED EQUAL.
- 4.) FURNISH ASPHALT CEMENT CONFORMING TO ASTM D 3381, PG64-22. FINE AGGREGATE SHALL BE NATURAL SAND AND/OR STONE SAND COMPOSED OF HARD, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL, OR OTHER DELETERIOUS SUBSTANCES. ALL SAND SHALL BE UNIFORMLY GRADED AND PASS A NO. 4 SIEVE, MEETING THE REQUIREMENTS OF ASTM C 136. THE DRIED FINE AGGREGATE SHALL BE MIXED WITH HOT ASPHALT CEMENT AT THE PLANT AND HEATED TO APPROXIMATELY 300 DEGREES (F). APPROXIMATE MATERIAL PROPORTIONS SHALL BE 7% ASPHALT CEMENT AND 93% FINE AGGREGATE; OR 140 LBS ASPHALT TO 1,860 LBS FINE AGGREGATE PER TON.

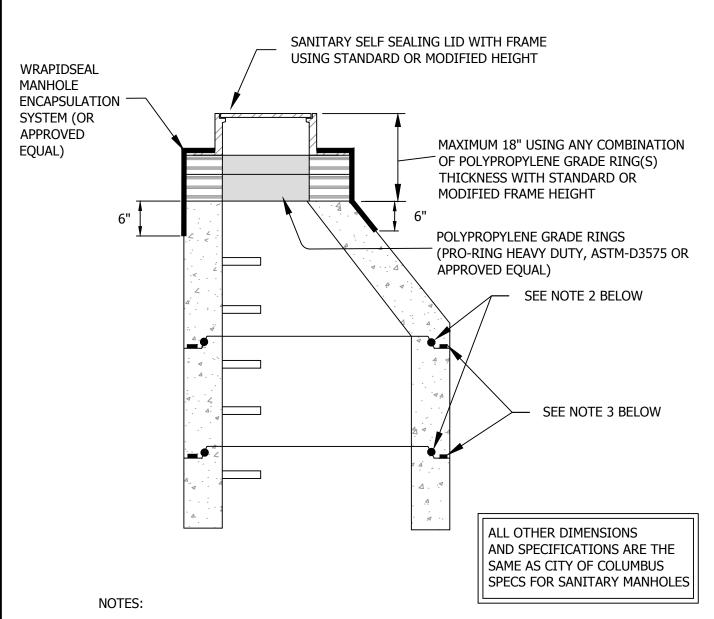
STANDARD DRAWING

City of Dublin
OHIO, USA
ENGINEERING

SHEET 1 OF 1

DRAWING NO. RD-14





- CLEAN EACH SURFACE BY WIRE BRUSHING ALL LOOSE CONCRETE DUST AND DIRT. PLACE SEALANT IN A CIRCULAR CONFIGURATION ON EACH CONCRETE SURFACE AND OVERLAP A MINIMUM OF 1/4" AND KNEAD ENDS.
- 2. CLEAN BELL AND SPIGOT JOINT, APPLY APPROVED LUBRICATION TO JOINT SURFACE AND TO "O" RING; THEN EQUALIZE GASKET TO GROOVE.
- 3. PLACE 1/2" DIAMETER SEALANT AS MANUFACTURED BY CONCRETE SEALANTS INC., "CONSEAL" OR APPROVED EQUAL ON RISER TOP LEDGE.

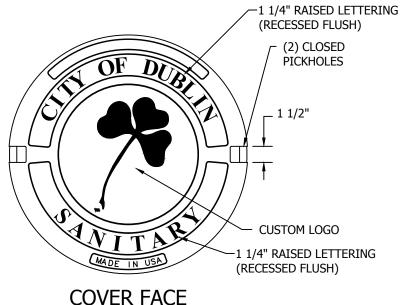
City of Dublin

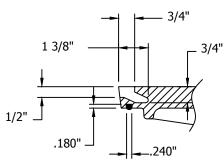
ENGINEERING

Date: 01/01/2020

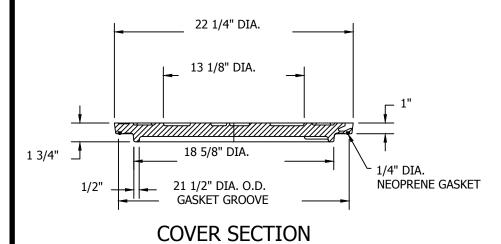
STANDARD DRAWING

SANITARY MANHOLE DETAILS





PICK SLOT DETAIL



Date: 01/01/2020

City of Dublin
OHIO, USA
ENGINEERING

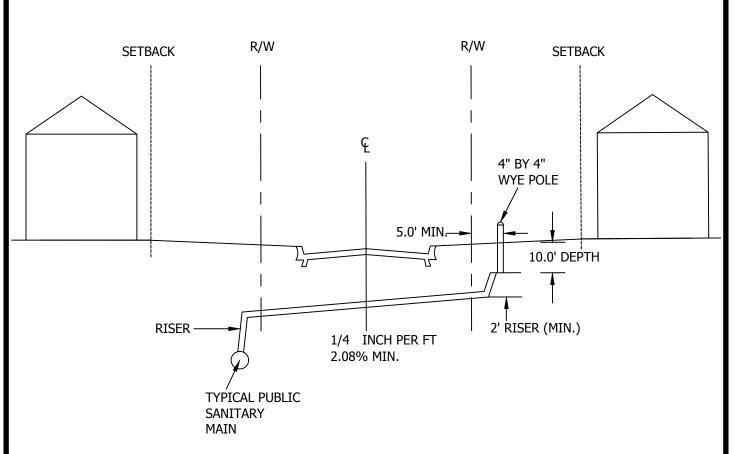
STANDARD DRAWING

SANITARY MANHOLE LID

SHEET 1 OF 1

DRAWING NO.

SA-02



NOTES:

- 1. FOR LONG SERVICE LATERALS THAT HAVE 4 FEET OF RISER OR GREATER.
- 2. LATERAL TO BE DESIGNED TO SERVE BASEMENT/FIRST FLOOR.

Date: 01/01/2020



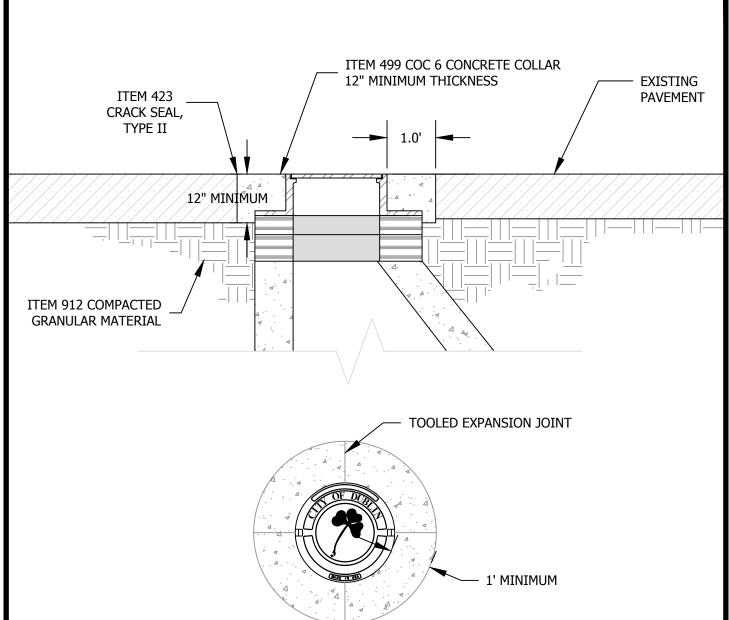
STANDARD DRAWING

TYPICAL SANITARY RISER DETAIL

SHEET 1 OF 1

DRAWING NO.

SA-03



NOTES:

- 1. THE CASTING SHALL BE SET TO THE FINAL ELEVATION AFTER THE ASPHALT PAVING HAS BEEN COMPLETED.
- 2. THE CASTING OR TEMPORARY COVER FOR THE MANHOLE SHALL NOT INTERFERE WITH THE TRUCKING OR PAVING OPERATION.
- 3. THE PAVER SCREED SHALL BE ABLE TO PLACE THE SURFACE COURSE UNINTERRUPTED BY THE CASTING.
- 4. ALL CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 451.10 (CMSC) UTILIZING VOCOMP-20 WATER-BASED, ACRYLIC CONCRETE CURING AND SEALING COMPOUND, BY W.R. MEADOWS, INC.

Date: 01/01/2020



STANDARD DRAWING

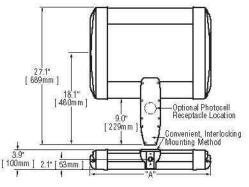
CONCRETE COLLAR FOR MANHOLES IN PAVEMENT

SHEET 1 OF 1

DRAWING NO.

SA-04





# of LEDs	Dim. "A"
20	12.06"
40	12.06"
60	14.06"
80	16.06"
100	18.06"
120	20.06"
140	22.06"
160	24.06"
180	26.06"
200	28.06"
220	30.06"
240	32.06"

LIGHTING DESIGN CRITERIA

MIN = 0.4 fc AVG/MIN RATIO = 3:1 MAX/MIN RATIO = 6:1 CROSSWALK AREA = 1.1-1.3 fc

GENERAL DESCRIPTION - LIGHT EMITTING DIODE (LED), TYPE II, III, IV OR V CUTOFF (AS SPECIFIED ON THE CONSTRUCTION DRAWINGS), ONE-PIECE EXTRUDED ARM. OPERATING VOLTAGE SHALL BE ** VOLTS, SINGLE PHASE.

** VOLTAGE REQUIREMENTS ARE TO BE SPECIFIED ON PLANS.

APPROVED MANUFACTURER - Cree LED: ARE-EDG-2M-DA-##-E-**-BZ-525-40K

- Cree LED: ARE-EDG-3M-DA-##-E-**-BZ-525-40K - Cree LED: ARE-EDG-4M-DA-##-E-**-BZ-525-40K

- Cree LED: ARE-EDG-5M-DA-##-E-**-BZ-525-40K

NUMBER OF LED'S TO BE SPECIFIED ON PLANS.

** VOLTAGE REQUIREMENTS ARE TO BE SPECIFIED ON PLANS.

CABLE – PROVIDE #12 THHN, STRANDED COPPER 600V, 90 DEGREES CELSIUS CONDUCTORS. WIRE TO LUMINAIRE. SECURE TO LUMINAIRE ARM WITH CABLE GRIP PROVIDED WITH LUMINAIRE. PROVIDE ADEQUATE LENGTH TO EXTEND MIN. 2 FEET OUT OF HAND HOLE.

EXECUTION — ALL LUMINAIRES SHALL BE PLUMB AND LEVEL. ALL LAMPS SHALL BE OPERATIONAL PRIOR TO INSPECTION. ALL SURFACES SHALL BE CLEANED OF DIRT, DEBRIS, ETC. FREE OF SCRATCHES, DENTS, ETC.

METHOD OF MEASUREMENT - SEE ODOT SPECIFICATIONS SECTION 625.

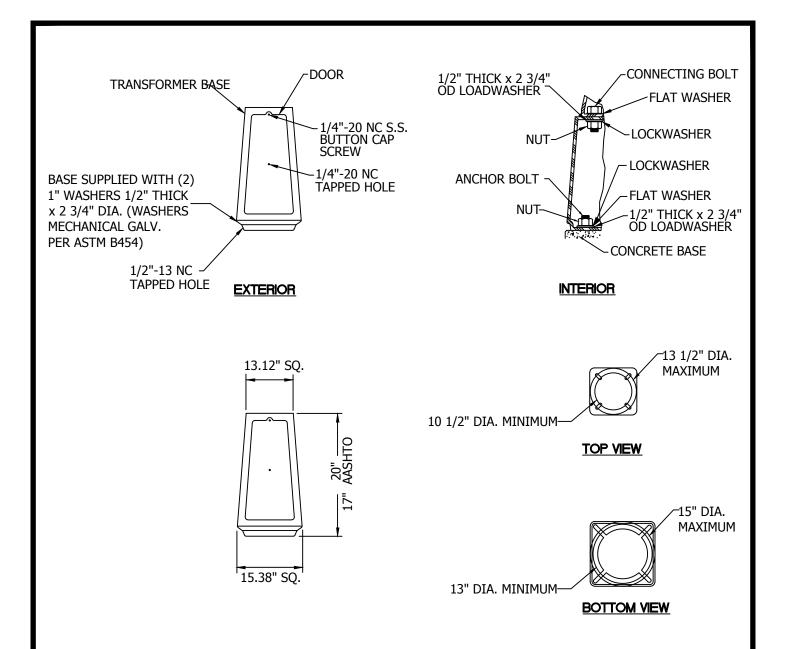
BASIS OF PAYMENT – SEE ODOT SPECIFICATIONS SECTION 625.

Date: 01/01/2020

ENGINEERING

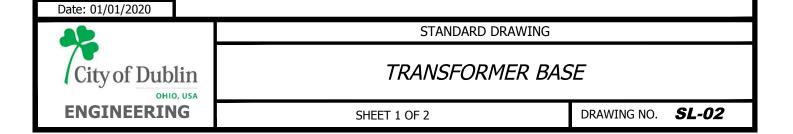
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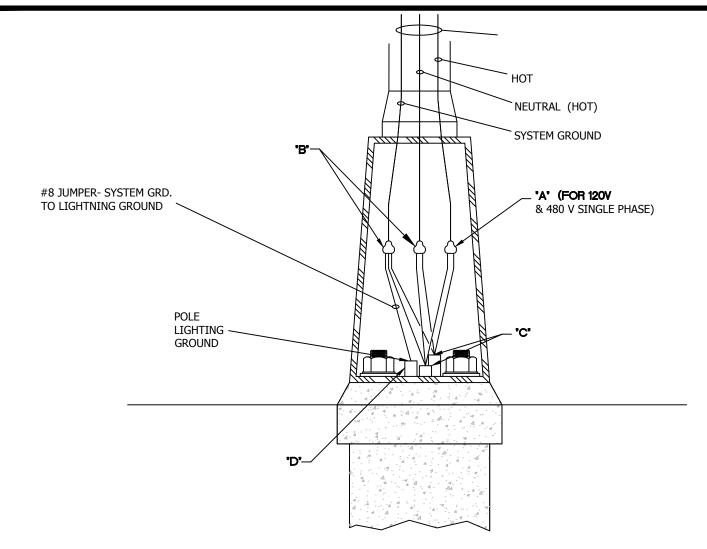
City of Dublin LUMINAIRE



TRANSFORMER BASE - PROVIDE A ONE-PIECE CAST ALUMINUM ALLOY 356 BREAKAWAY TRANSFORMER BASE. MINIMUM 17" HIGH WITH A REMOVABLE MATCHING ACCESS DOOR HELD IN PLACE WITH STAINLESS STEEL SCREWS. THE DOOR SHALL BE A MINIMUM OF 13" HIGH, 8" WIDE AT TOP AND 9" AT BOTTOM. DOOR SHALL BE FIELD POSITIONED ON SIDE AWAY FROM ROADWAY. THE BASE SHALL BE DESIGNED TO BE ATTACHED WITH ANCHOR BOLTS PROVIDED WITH A TEMPLATE FOR MOUNTING IN A CONCRETE BASE. PROVIDE A GALVANIZED STEEL HEX-HEAD MACHINE BOLT WITH NUTS AND LOCKWASHERS TO ATTACH POLE BASE FLANGE TO TRANSFORMER BASE. PROVIDE LOAD DISTRIBUTION NON-CORROSIVE WASHERS TO EQUALIZE BOLT FORCES AT FLANGE MATING SURFACES.

 ${\bf GROUNDING}~$ - EACH TRANSFORMER BASE SHALL CONTAIN AN INTERNAL LUG WITH DRILLED HOLE FOR ATTACHING A GROUND CONDUCTOR.





CONNECTIONS

- "A" FUSED INLINE Y CONNECTOR KIT TYPE II WITH WATERPROOF BOOTS AND BREAKAWAY RECEPTACLE. FUSE AT 5 AMPS, ELASTIMOLD STYLE 82 SERIES OR HOMAC FY SERIES, BUSS KTK-R FUSE. (SINGLE PHASE = 1, DOUBLE PHASE = 2 PER POLE)
- "B" UNFUSED-INLINE 7 CONNECTOR KIT TYPE III WITH WATERPROOF BOOTS AND

 BREAKAWAY RECEPTACLE, ELASTIMOLD 83 SERIES OR HOMAC DY SERIES. (SINGLE PHASE = 1 PER POLE)
- "C" PROVIDE MOLDED PLASTIC OR RUBBER CAPPING DEVICE THAT ONLY PERMITS WIRE PASS THROUGH WHILE PREVENTING DIRT, WATER, ETC. ENTRY.
- "D" POLE LIGHTNING GROUND LUG UNINSULATED COPPER COMPRESSION TERMINAL UL LISTED FOR 600V. SIZE FOR WIRE SPECIFIED. DRILL, TAP, AND BOLT TO TRANSFORMER BASE BURNDY YA SERIES. BOND SYSTEM GROUND TO LIGHTNING ROD GROUND.

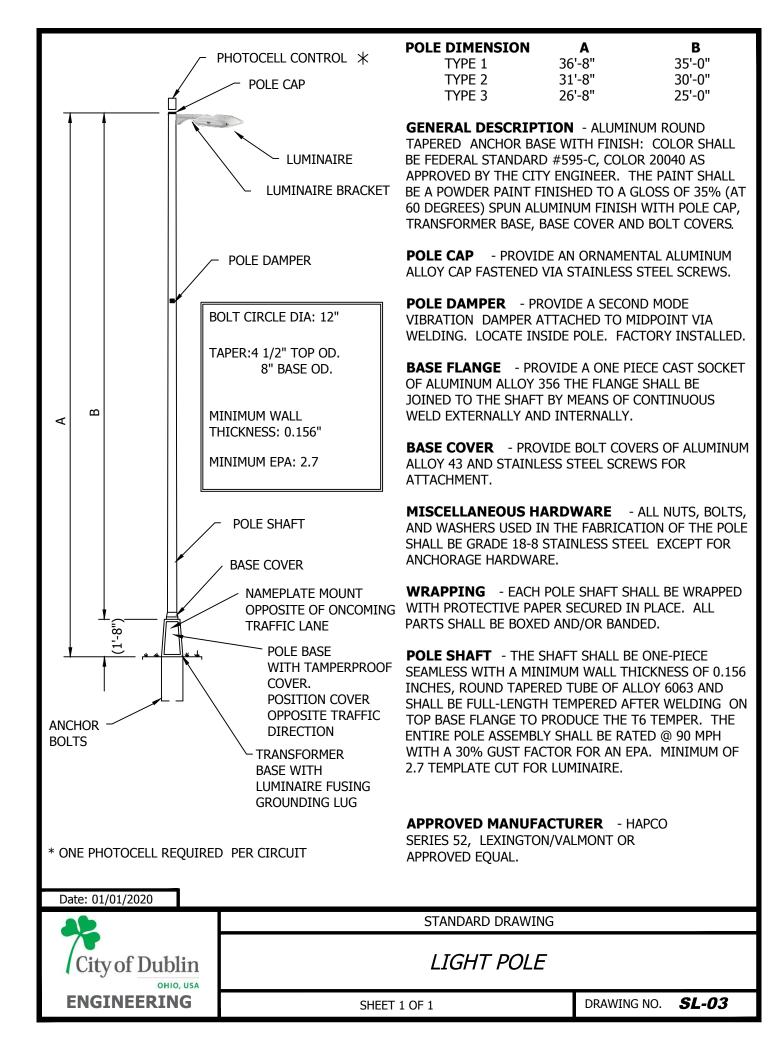
PROVIDE 2' SLACK IN ALL WIRING TO BRING CONNECTORS AND FUSE HOLDERS OUT THRU HANDHOLE.

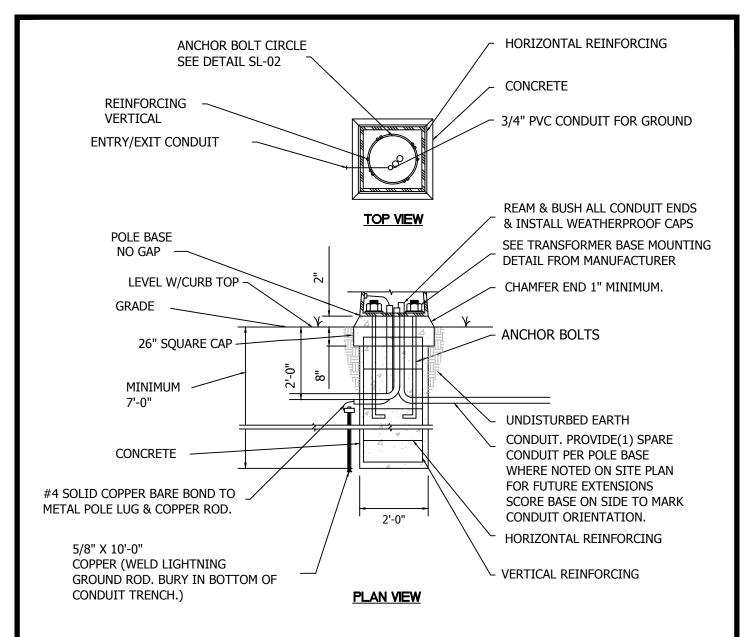
City of Dublin
OHIO, USA
ENGINEERING

Date: 01/01/2020

STANDARD DRAWING

TRANSFORMER BASE





CONCRETE - COC 6 PER ITEM 499. FILL ALL EXPOSED SURFACE VOIDS. CHAMFER ALL EDGES, SLOPE TOP 1/4" WITH GROUT TO DRAIN WATER (FILL VOID BETWEEN BASE PLATE & POLE BASE SOLID, AFTER PLUMBING POLE), ADJUST SO TRANSFORMER BASE HAS NO GAP TO GROUTED SURFACE. HOT OR COLD WEATHER - FOLLOW ODOT CONSTRUCTION & MATERIAL SPECIFICATIONS SECTION 625.

CONCRETE FINISH - REMOVE ALL FORM MARKS, HAND RUB EXPOSED TOP AND SIDES.

REINFORCING - ASTM A-615 GRADE 60, TYPE S DEFORMED BILLET: #6 VERTICALS, (6 TOTAL), #4 HORIZONTALS 12" O.C., CIRCULAR FORMED. WIRE TIE ALL CONNECTIONS, MAINTAIN 3" MINIMUM CONCRETE COVER.

GROUNDING - PROVIDE 5/8" X 10'-0" COPPER WELD ONE-PIECE GROUND ROD. DRIVE A MINIMUM OF 2'-0" BELOW GRADE. RUN #4 AWG SOLID COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" PVC CONDUIT FROM ROD TO ENCLOSURE GROUND BAR. "CAD" WELD WIRE CONNECTION AT ROD.

STANDARD DRAWING

City of Dublin
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ENGINEERING

SHEET 1 OF 2

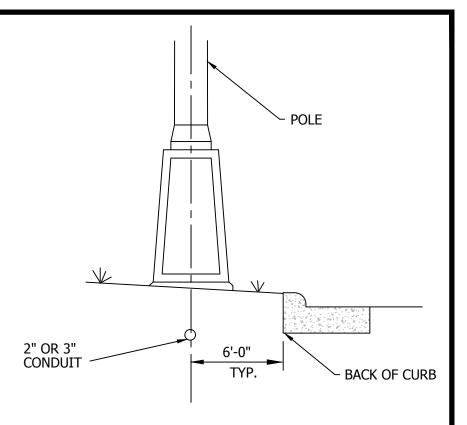
DRAWING NO. SL-04

LUMINAIRE FUSING - REFER TO TRANSFORMER BASE DETAIL SL-02

GROUNDING LEG - REFER TO TRANSFORMER BASE DETAIL SL-02

ANCHORAGE - PROVIDE A SET OF FOUR-50,000 PSI-MIN YIELD STEEL STRENGTH ANCHOR BOLTS, THREADED, HOT-DIPPED GALVANIZED AT THE THREADED END FOR AT LEAST 10". THREADING MUST BE A MINIMUM OF 6" LONG. THE BOLTS SHALL BE 36" LONG AND INCLUDE A 4" MINIMUM RIGHT ANGLE HOOK AT THE UNTHREADED END. PROVIDE GALVANIZED NUT, LOCKWASHERS AND FLATWASHERS FOR FACH BOLT.

GROUT - 10,000 PSI, HIGH STRENGTH, NON-SHRINK, NON-METALLIC, COMPLY WITH CRD-C-621, PROVIDE SAND COAT FINISH (PROVIDE SONNOGROUT OR APPROVED EQUAL).



TYPICAL FOUNDATION LOCATION

FIELD CONDITIONS - CONSULT ENGINEER FOR ABNORMAL SOIL CONDITIONS SILTS AND CLAY WITH WATER LIMITS GREATER THAN 50%, HIGH ORGANIC SOILS, SHALLOW BEDROCK, ETC.

CONDUIT - SHALL BE 2" OR 3". RIGID NON-METALLIC SCHEDULE 40 PVC FOR USE ABOVE & BELOW GROUND OR CONCRETE ENCASED. RATED FOR 90 DEGREES CELSIUS CONDUCTORS AND USE IN DIRECT SUNLIGHT. MATERIAL SHALL BE UL LISTED AND COMPLY WITH NEMA TC2-1978 AND F.S. #WC-1094A. PROVIDE IN 10 FOOT SECTIONS. SEAL ALL JOINTS WATERTIGHT. GLUE JOINTS WITH PVC CEMENT. BUSH ALL ENDS. ALL BENDS SHALL USE LONG RADIUS PREFORMED ELBOWS. EXTEND CONDUIT TO MINIMUM 2'-0" BELOW GRADE. LOCATION TO BE COORDINATED WITH LANDSCAPING AND UTILITIES.

IF UNIT TYPE DUCT CABLE IS UTILIZED IN TRENCHES IN LIEU OF PVC CONDUIT, AT POLE FOUNDATIONS RETAIN THE PVC CONDUIT SPECIFIED ABOVE IT SHALL FUNCTION AS A SLEEVE FOR THE DUCT CABLE. OVERSIZE PVC CONDUIT EITHER 2 1/2" OR 3" AS REQUIRED BASED ON DUCT CABLE OUTSIDE DIAMETER.

CONDUIT CAPS - TERMINAL POINTS OF ALL CONDUIT AND DUCT CABLE SHALL BE SEALED PROMPTLY AFTER INSTALLATION BY MEANS OF A MOLDED PLASTIC OR RUBBER CAPPING DEVICE THAT ONLY PERMITS WIRE PASS THROUGH.

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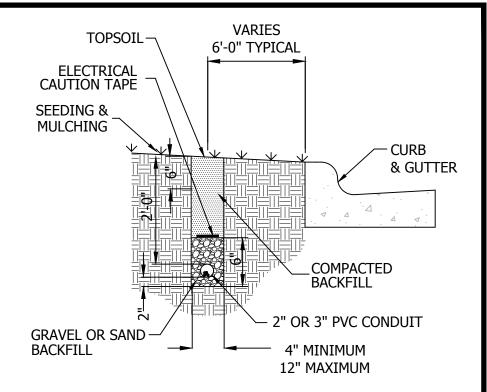
ENGINEERING

SHEET 2 OF 2

DRAWING NO. SL-04

* NO SPLICING OF DISTRIBUTION CABLE LESS THAN 500 FEET IN LENGTH.

TRENCHING - CONDUIT TRENCHES SHALL HAVE VERTICAL WALLS AND BE EXCAVATED TO A DEPTH THAT PERMITS CONDUIT TO BE LAID AT 2'-0" BELOW FINISH GRADE WITH A GRAVEL COVER, ABOVE AND BELOW. BACKFILL GRAVEL TO TOPSOIL LIMIT. TRENCHES SHALL BE LOCATED ADJACENT TO AND PARALLEL WITH CURBS OR PAVEMENTS AND SHALL NOT DEVIATE MORE THAN 6" FROM THE LINES DESIGNATED. TRENCHES SHALL NOT EXCEED 12" IN WIDTH. REMOVE EXCESS SOIL AFTER BACKFILLING.



GRAVEL - SHALL BE UNCRUSHED WASHED GRAVEL AND PASS A 1/2" SIEVE. POUR IN PLACE AND COMPACT TO 95% STANDARD PROCTOR IN LAYERS NOT EXCEEDING 6" EACH.

TOPSOIL - FOR BACKFILLING SHALL BE CLEAN, LOOSE FRIABLE, LOAMY TOPSOIL FREE OF SUBSOIL OR REFUSE. TOPSOIL MAY BE FROM THE SITE OR IMPORTED. TOPSOIL SHALL BE PLACED AND SPREAD OVER THE AREAS DESIGNATED TO A DEPTH SUFFICIENTLY GREATER THAN THAT SHOWN SO THAT AFTER NATURAL SETTLEMENT THE COMPLETED WORK WILL CONFORM TO THE ELEVATIONS SHOWN.

CONDUIT - SHALL BE HEAVY WALL RIGID NON-METALLIC SCHEDULE 40 PVC FOR USE ABOVE AND BELOW GROUND OR CONCRETE ENCASED. RATED FOR 90 DEGREES CELSIUS CONDUCTORS AND USE IN DIRECT SUNLIGHT. MATERIAL SHALL BE UL LISTED AND COMPLY WITH NEMA TC2-1978 AND F.S. #WC-1094A. PROVIDE IN 10 FOOT SECTIONS. SEAL ALL JOINTS WATERTIGHT. GLUE JOINTS WITH PVC CEMENT. BUSH ALL ENDS. ALL BENDS SHALL USE LONG RADIUS PREFORMED ELBOWS.

CONDUIT CAPS - PROVIDE MOLDED PLASTIC OR RUBBER CAPPING DEVICE THAT ONLY PERMITS WIRE TO PASS THROUGH WHILE PREVENTING DIRT, WATER, ETC. FROM ENTERING.

PULL WIRE - ALL EMPTY CONDUIT INSTALLED FOR FUTURE LIGHTING SHALL CONTAIN A NO. 10 AWG COPPER-CLAD OR ALUMINUM-CLAD PULL WIRE.

WIRING - DISTRIBUTION CABLE SHALL BE #4 AWG XHHW (WET RATED) STRANDED COPPER 600V, 90 DEGREES CELSIUS CONDUCTORS. SYSTEM GROUND CABLE SHALL BE #4 AWG FOR POLE TO POLE APPLICATIONS.

METALIZED CAUTION TAPE - 3" (79mm) WIDE RED PLASTIC TAPE WITH BLACK LETTERS READING "CAUTION BURIED ELECTRIC LINE BELOW". BURY ABOVE CONDUIT 6" (158mm) MAX. BELOW GRADE. RUN CONTINUOUS IN ALL TRENCHES NOT COVERED BY PAVEMENT.

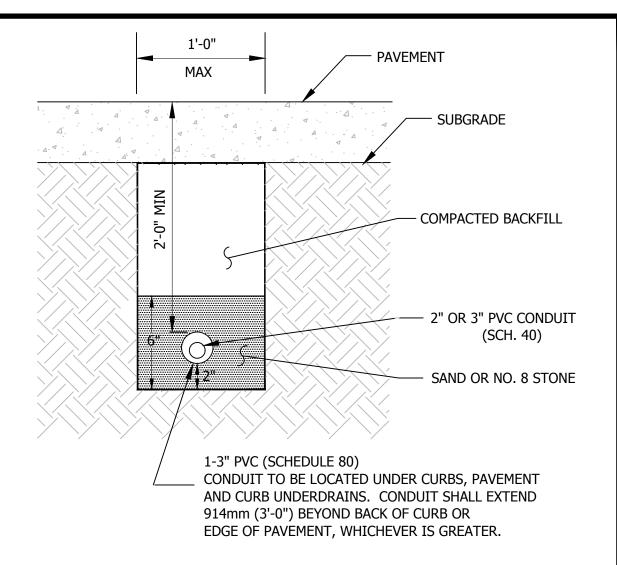
STANDARD DRAWING

City of Dublin
OHIO, USA

ENGINEERING

SHEET 1 OF 3

DRAWING NO. SL-05



CONDUIT SLEEVE CROSSING PROPOSED PUBLIC ROADWAYS AND COMMERCIAL DRIVEWAYS

GENERAL - CONDUIT SLEEVES SHALL BE PROVIDED WHERE STREET LIGHTING CABLES CROSS ROADWAYS. CONDUIT SLEEVES SHALL ALSO BE PROVIDED UNDER ALL PROPOSED COMMERCIAL DRIVEWAYS.

TRENCHING - TRENCHES SHALL HAVE VERTICAL WALLS AND BE EXCAVATED TO A DEPTH THAT PERMITS CONDUIT SLEEVE TO BE PLACED 2'-0" (610mm) BELOW FINISH GRADE. TRENCH SHALL BE LOCATED PERPENDICULAR TO THE CENTERLINE OF ROADWAYS AND COMMERCIAL DRIVEWAYS UNLESS OTHERWISE SPECIFICALLY NOTED. MAINTAIN INLINE WITH CONDUIT SETBACK DIMENSIONS AT INTERSECTIONS AND CURB CUTS.

BACKFILL - SHALL COMPLY WITH CITY OF COLUMBUS, OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 613, TYPE 2 OR ITEM 912 COMPACTED GRANULAR BACKFILL.

MATERIALS - SHALL COMPLY WITH ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 725.

Date: 01/01/2020

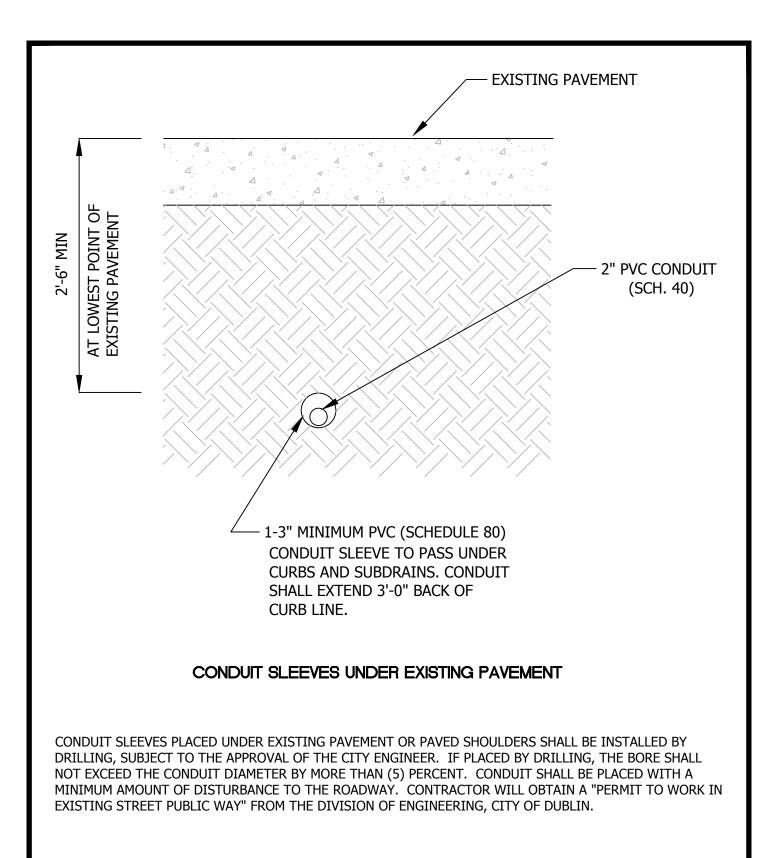
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TRENCHES

ENGINEERING

SHEET 2 OF 3

DRAWING NO. SL-05



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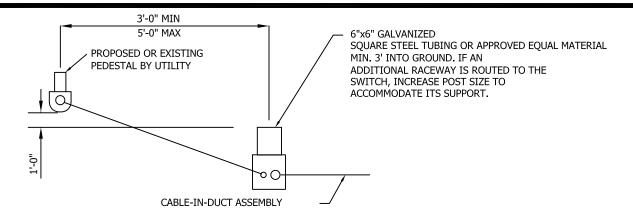
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TRENCHES

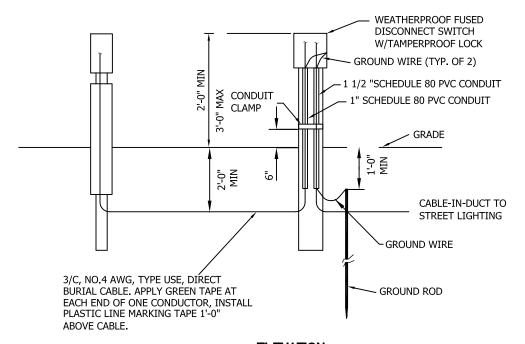
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SHEET 3 OF 3

DRAWING NO. SL-05



PLAN



ELEVATION

THE CIRCUIT DISCONNECT SHALL BE A GENERAL DUTY, FUSIBLE TYPE SWITCH IN A NEMA NO. 4/4X ENCLOSURE.

A. MANUFACTURER: THE SWITCH SHALL BE GENERAL ELECTRIC NO. TH3221SS.

B. SWITCH RATING: THE SWITCH SHALL BE RATED AT 30 AMPS, 240 VOLTS, 3 POLE.

C. FUSES: FUSES SHALL BE UL CLASS RK-1, REJECTION TYPE.

D. LOCKS: EACH SWITCH SHALL BE LOCKABLE AND SHALL BE PROVIDED WITH A FARGO NO. GM-303 TAMPERPROOF LOCK WITH SHEAR OFF LOCKING SCREW.

NOTES:

- 1. ATTACH NO.4 CONDUCTORS TO LOAD TERMINALS VIA SHORT LENGTHS OF NO.8 CONDUCTORS & APPROPRIATE COMPRESSION CABLE JOINT.
- 2. NO MORE THAN 2 NO.4 CONDUCTORS SHALL BE CONNECTED TO EACH NO.8 CONDUCTOR.

Date: 01/01/2020



STANDARD DRAWING

QUICK DISCONNECT

DRAWING NO. **SL-06**

SAMPLE SCHEDULE

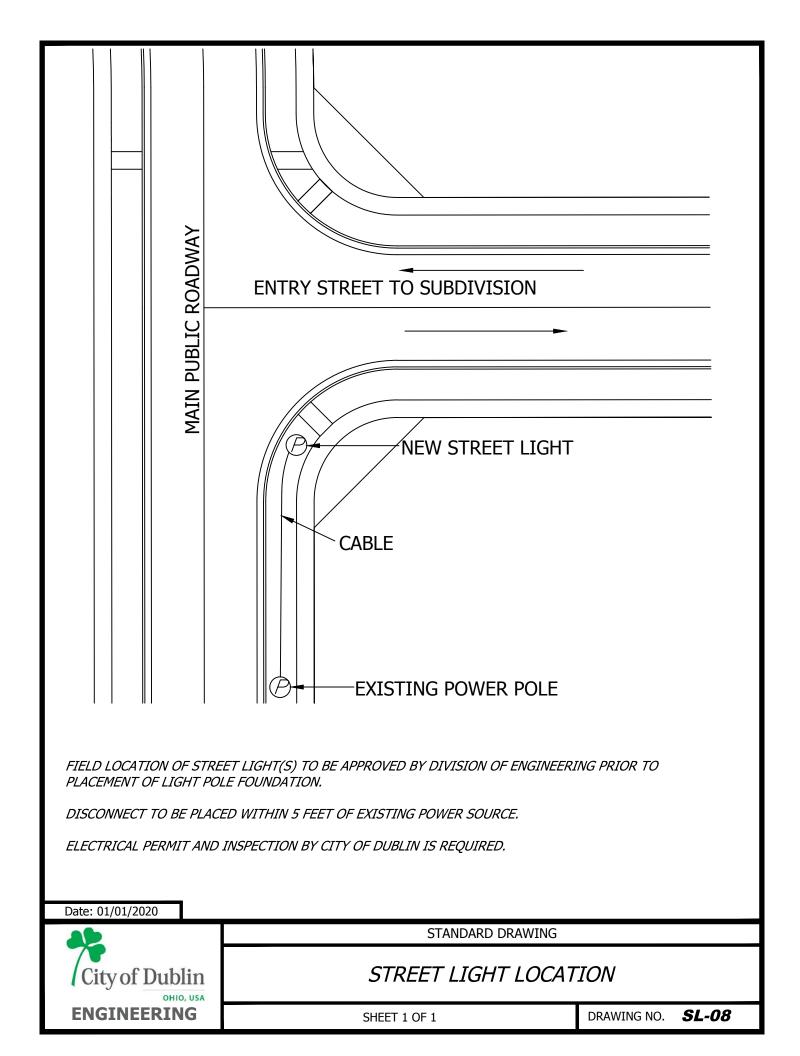
ITEM	DESCRIPTION	TOTAL	UNIT
625	CONNECTOR KIT, TYPE II, FUSED (1 PER POLE)		EA
625	CONNECTOR KIT, TYPE III, UNFUSED (2 PER POLE)		EA
625	TRANSFORMER BASE		EA
625	LIGHT POLE, 35'-0", GENERAL STREET LIGHT		EA
625	LIGHT POLE FOUNDATION, 24"x7', A.P.P.		EA
625	POLE AND BRACKET CABLE (#12 AWG, 600V)		LF
625	DISTRIBUTION CABLE (#4 AWG, 600V)		LF
625	GROUND CONDUCTOR (#4 AWG, SOLID, CU, XHHW)		LF
625	CONDUIT, 2" PVC, 725.05 (PVC SCH.40)		LF
625	CONDUIT SLEEVE UNDER PAVEMENT, 3" SLEEVE,		LF
	725.05 (SCH 80)		
625	LUMINAIRE: 100 LED, TYPE III MEDIUM, 480 V		EA
625	TRENCH		LF
625	PULL BOX, 725.06 (18"x11"x18")		EA
625	GROUND ROD		EA
625	PLASTIC, METALIZED CAUTION TAPE		LF
625	HIGH VOLTAGE TEST, APP		LUMP

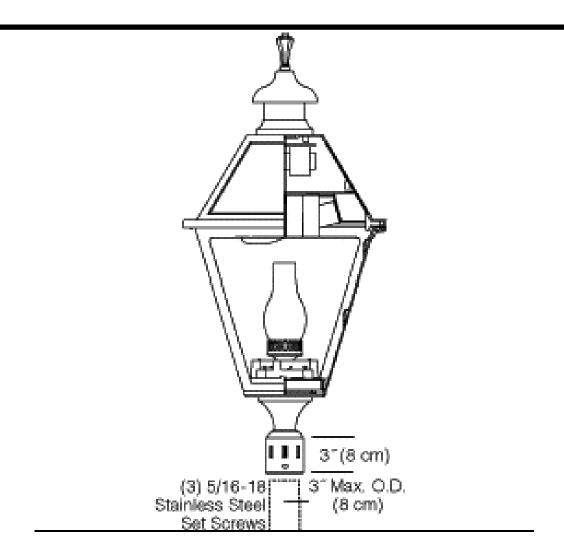
Date: 01/01/2020



STANDARD DRAWING

SAMPLE LIGHTING QUANTITIES SCHEDULE





GENERAL DESCRIPTION - 66 WATT LED ARRAY, 4500K COLOR TEMPERATURE, IES, HINGED ROOF WITH SOLID SEALED PANELS.

HOUSING - 356 LOW COPPER- DIE CAST ALUMINUM ALLOY. THE PAINT SHALL BE A POWDER COAT BLACK FINISH APPROVED BY THE CITY ENGINEER. TOOL-LESS LAMP ACCESS AND HINGED ROOF WITH STAINLESS STEEL SPRING LATCH. THE PHOTO CONTROL EYE IS LOCATED IN VENT CAP. SLIP FITTER DIMENSIONS: 3" ID X 3" DEEP.

OPTICAL ASSEMBLY - TYPE III CUTOFF PRECISION FORMED, SEGMENTED SPECULAR ALUMINUM INTERNAL CUTOFF REFLECTOR WITH HORIZONTAL LAMP MOUNTING. DECORATIVE FROSTED GLASS CHIMNEY. INJECTED MOLDED CLEAR ACRYLIC PANELS WITH TOOL-LESS REMOVAL.

LABELING - UL LISTED FOR WET LOCATION AND CSA CERTIFIED.

APPROVED MANUFACTURER - STERNBERG 1843 LEDTF/4ARC45T3/ML/OSFG11W35KLED/CSA/BK STERNBERG 1843 LEDTF/4ARC45T5/ML/OSFG11W35KLED/CSA/BK

NOTE - THIS LUMINAIRE TO BE USED ONLY IN APPROVED LOCATIONS.

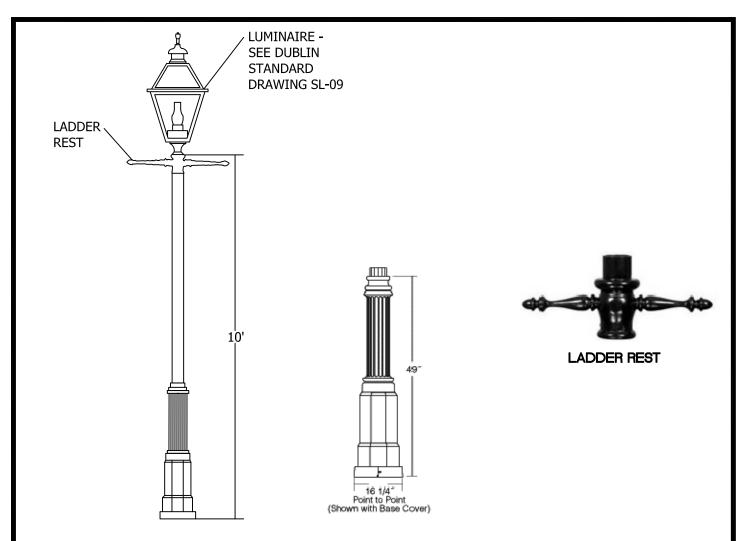
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SHEET 1 OF 1

DRAWING NO. SL-09



TYPE A- SINGLE HEAD LUMINAIRE WITH LADDER REST

GENERAL DESCRIPTION- ALUMINUM ROUND TAPERED WITH BASE COVER BLACK FINISH APPROVED BY THE CITY ENGINEER.

BASE- SHALL BE LOW COPPER CAST ALUMINUM 356 HM HIGH STRENGTH ALLOY. BASE WILL INCLUDE AN ACCESS DOOR WITH SAFETY CHAIN AND TEMPER PROOF SCREWS AND GFI RECEPTACLE.

POLE SHAFT-THE SHAFT SHALL BE ONE PIECE SEAMLESS WITH A MINIMUM WALL THICKNESS OF 0.125 INCHES, ROUND 4" TO 3" TAPERED TUBE OF LOW COPPER 6063 ALUMINUM ALLOY. POLE ASSEMBLY SHALL HAVE AN EPA VALUE OF 8.54 FOR WINDSPEED OF 80 MPH.

WRAPPING- EACH POLE SHAFT SHALL BE WRAPPED WITH PROTECTIVE PAPER SECURED IN PLACE. ALL PARTS SHALL BE BOXED AND/OR BANDED.

LADDER REST- SHALL BE LOW COPPER CAST ALUMINUM 356 HM HIGH STRENGTH ALLOY WITH POWDERCOAT BLACK FINISH.

POLE APPROVED MANUFACTURER- HADCO P1761-10A OR APPROVED EQUAL

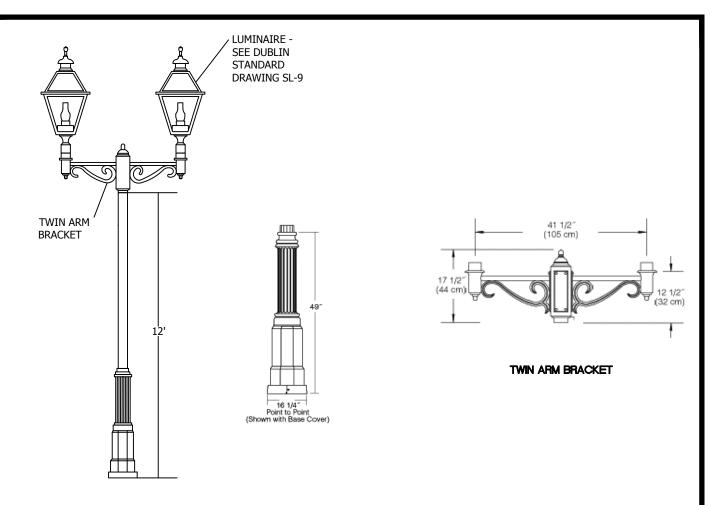
LADDER REST APPROVED MANUFACTURER- STERNBERG 2347-2348/BK LIGHTING OR APPROVED EQUAL

Date: 01/01/2020



STANDARD DRAWING

DECORATIVE LIGHT POLE - SINGLE HEAD



TYPE B- TWIN HEAD LUMINAIRE

GENERAL DESCRIPTION- ALUMINUM ROUND TAPERED WITH BASE COVER BLACK FINISH APPROVED BY THE CITY ENGINEER.

BASE- SHALL BE LOW COPPER CAST ALUMINUM 356 HM HIGH STRENGTH ALLOY. BASE WILL INCLUDE AN ACCESS DOOR WITH SAFETY CHAIN AND TEMPER PROOF SCREWS AND GFI RECEPTACLE.

POLE SHAFT-THE SHAFT SHALL BE ONE PIECE SEAMLESS WITH A MINIMUM WALL THICKNESS OF 0.125 INCHES, ROUND 4" TO 3" TAPERED TUBE OF LOW COPPER 6063 ALUMINUM ALLOY. POLE ASSEMBLY SHALL HAVE AN EPA VALUE OF 8.54 FOR WINDSPEED OF 80 MPH.

WRAPPING- EACH POLE SHAFT SHALL BE WRAPPED WITH PROTECTIVE PAPER SECURED IN PLACE. ALL PARTS SHALL BE BOXED AND/OR BANDED.

TWIN ARM BRACKET- SHALL BE LOW COPPER CAST ALUMINUM 356 HM HIGH STRENGTH ALLOY WITH CENTER HUB TO ACCOMMODATE 3" POLE TOP.

POLE APPROVED MANUFACTURER- HADCO P1761-12A OR APPROVED EQUAL.

TWIN ARM APPROVED MANUFACTURER- HADCO PTH2120-P3A OR APPROVED EQUAL.

NOTE - TO BE USED ONLY IN APPROVED LOCATIONS.

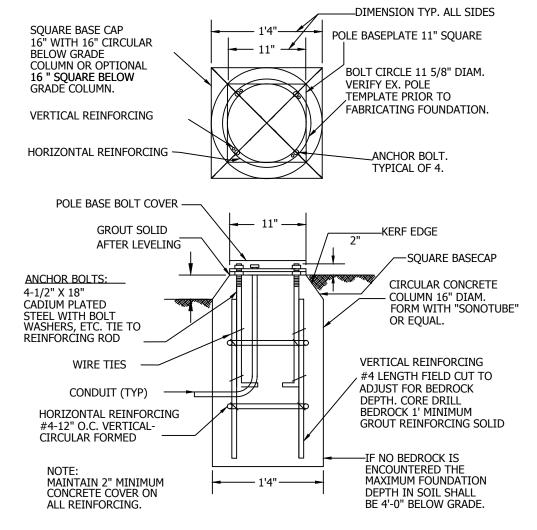
Date: 01/01/2020

City of Dublin

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STANDARD DRAWING

DECORATIVE LIGHT POLE - 12' DOUBLE HEAD



CONCRETE- COC 6, 4,000 PSI, 5-7% AIR ENTRAINED. FILL ALL EXPOSED SURFACE VOIDS. CHAMFER ALL EDGES, SLOPE TO ¼" WITH GROUT TO DRAIN WATER (FILL VOID BETWEEN BASE PLATE & POLE BASE SOLID, AFTER PLUMBING POLE), ADJUST SO BASE HAS NO GAP TO GROUTED SURFACE. HOT OR COLD WEATHER-FOLLOW ODOT CONSTRUCTION & MATERIAL SPECIFICATIONS SECTION 625.

CONCRETE FINISH- REMOVE ALL FORM MARKS, HAND RUB EXPOSED TOP AND SIDES WITH CARBIDE STONE.

REINFORCINNG- ASTM A-615 GRADE 60 , TYPE S DEFORMED BILLET: #4 VERTICALS, 4 TOTAL, #4 HORIZONTALS 12" O.C., CIRCULAR FORMED. WIRE TIE ALL CONNECTIONS, MAINTAIN 2" MINIMUM CONCRETE COVER.

WEATHERPROOFING- PROVIDE PENETRATING SURFACE APPLIED, 1 COAT CONCRETE WATERPROOFING AGENT. MATERIAL SHALL BE CLEAR PENETRATING, WATER BASED, ALKYLALKOXYSILANE AND AND CONTAIN A MINIMUM OF 40% BY WEIGHT SOLIDS AND BE APPLIED PER MANUFACTURER'S DIRECTIONS. APPLY 1 COAT TO ALL CONCRETE SURFACES ABOVE GRADE TO 12" BELOW GRADE PRIOR TO BACKFILLING.

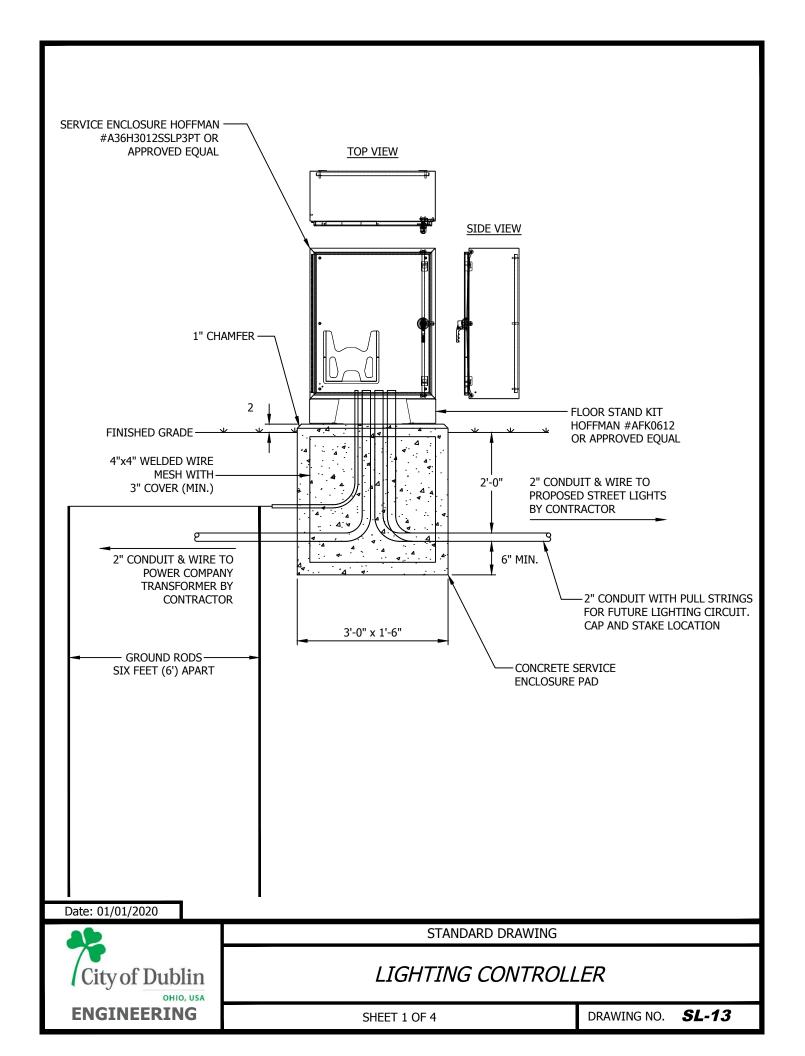
GROUNDING- PROVIDE $\frac{5}{8}$ " X 10' COPPER WELD ONE-PIECE GROUND ROD. DRIVE A MINIMUM OF 2' BELOW GRADE. RUN #4 AWG SOLID COPPER GROUNDING ELECTRODE CONDUTOR IN $\frac{3}{4}$ " PVC CONDUIT FROM ROD TO ENCLOSURE GROUND BAR. "CAD" WELD WIRE CONNECTION AT ROD.

Date: 01/01/2020



STANDARD DRAWING

DECORATIVE LIGHT POLE FOUNDATION



COORDINATION - COORDINATE LOCATION OF TRANSFORMER AND PAD GRADING WITH AEP AND THE CITY ENGINEER.

SERVICE TRANSFORMER - PROVIDED, INSTALLED AND WIRED BY AEP.

TRANSFORMER PAD GRADING - INSTALL PER AEP REQUIREMENTS FOR SIZE AND LOCATION. REFER TO SERVICE ENCLOSURE PAD FOR MATERIAL SPECIFICATIONS.

SERVICE ENCLOSURE PAD - STRUCTURE SHALL BE SET CLOSE TO THE AEP POWER COMPANY TRANSFORMER PAD. LOCATION OF THE TRANSFORMER PAD IN RELATIONSHIP TO THE ENCLOSURE PAD SHALL BE COORDINATED WITH THE CITY ENGINEER. CONCRETE SHALL BE COC 6. FILL ALL EXPOSED SURFACE VOIDS. CHAMFER ALL EDGES 3/4-INCH OR 1-INCH. SLOPE TOP 1/4" TO DRAIN WATER. FINISH - REMOVE ALL FORM MARKS, PROVIDE FLOATED AND STEEL TROWELED FINISH.

SERVICE ENCLOSURE - PROVIDE A NEMA WATERTIGHT STAINLESS STEEL ENCLOSURE. SIZE - 36"H X 30"W X 12"D; HAVING A SINGLE CONTINUOUS HINGED LOCKING DOOR, INTERIOR MOUNTING PANEL WITH A 6" MINIMUM STAINLESS STEEL MATCHING FLOOR STAND. CONCRETE AND OR BOLT TYPE ANCHOR AND LEVEL TO PAD VIA STAINLESS STEEL MACHINE BOLT, NUTS & LOCK WASHERS. DRILL BOTTOM OF ENCLOSURE WITH 6MM (1/4") WEEP HOLE AT LOW POINT. CONCRETE PAD SHALL NOT EXTEND ABOVE PROPOSED GRADE MORE THAN 2-INCHES.

SERVICE ENCLOSURE FINISH - A DARK BRONZE APPROVED BY THE CITY ENGINEER. THE PAINT SHALL BE A POWDER PAINT FINISHED TO A GLOSS OF 35% (AT 60 DEGREES).

SERVICE ENCLOSURE LOCK - THREE POINT MECHANISM WITH LOCKABLE HANDLE. PADLOCK PROVIDED BY THE CITY.

PHOTOCELL CONTROLLER - PROVIDE AN ON-OFF PHOTO INITIATED CONTROLLER WITH SEALED CADMIUM SULFIDE PHOTOCELL TO OPERATE IN -40 DEGREES F TO +140 DEGREES F TEMPERATURES, THERMAL INERTIA OF 30 SECONDS MINIMUM, THREADED PIPE NIPPLE, RATED 16 AMPS 2000 WATTS AT 120V, AND SINGLE POLE SINGLE THROW SWITCH. LIGHT SHALL BE IN THE RANGE OF 1-5 FOOT CANDLES FOR TURN ON AND IN THE RANGE OF 3-10 FOOT CANDLES FOR TURN OFF. PROVIDE IN WEATHERPROOF ENCLOSURE. LOAD SHALL REMAIN "ON" IN CASE OF CELL FAILURE. MOUNT ON THE SERVICE ENCLOSURE - PREFERRED LOCATION IS ON THE NORTH SIDE OF THE ENCLOSURE - IF THE DOOR IS ON THE NORTH SIDE, MOUNT THE PHOTOCELL ON THE LEFT SIDE OF THE ENCLOSURE FROM THE DOOR.

APPROVED MANUFACTURER - TORK PHOTOCONTROLS MODEL 300

GROUNDING - PROVIDE TWO (2) 5/8" X 10' COPPER WELD ONE PIECE GROUND RODS. DRIVE A MINIMUM OF 2'-0" BELOW GRADE. PROVIDE #8 AWG SOLID COPPER GROUNDING ELECTRODE CONDUCTOR IN 3/4" PVC CONDUIT FROM ROD TO ENCLOSURE GROUND BAR. CADWELD WIRE CONNECTION TO ROD. INSTALL SECOND GROUND ROD A MINIMUM OF SIX FEET (6') FROM THE FIRST GROUND ROD AND RUN #8 AWG SOLID COPPER GROUNDING ELECTRODE CONDUCTOR BETWEEN THE GROUND RODS & CADWELD AT BOTH ENDS.

FUSING - SERVICE ENTRANCE - PROVIDE DUAL ELEMENT, TIME DELAY FUSES, UL CLASS RK-1, 600 V, REJECTION TYPE.

APPROVED MANUFACTURER - BUSS #LP-RK

STANDARD DRAWING

City of Dublin
OHIO, USA
ENGINEERING

STANDARD DRAWING

LIGHTING CONTROLLER

SHEET 2 OF 4

DRAWING NO. SL-13

CONTROL CIRCUIT - PROVIDE SINGLE ELEMENT, FAST ACTING TYPE FUSE, UL CLASS CC, 120 V, REJECTION TYPE.

APPROVED MANUFACTURER - BUSS #KTK-R

CONDUIT - SHALL BE HEAVY WALL 2" OR 3/4" PER GRAPHIC. RIGID NON METALLIC SCHEDULE 40 PVC FOR USE ABOVE AND BELOW GROUND OR CONCRETE ENCASE. RATED FOR 90 DEGREES CELSIUS CONDUCTORS AND USE IN DIRECT SUNLIGHT. MATERIAL SHALL BE UL LISTED AND COMPLY WITH NEMA TC2-1978 AND F.S. #WC-1094A. PROVIDE IN 10' SECTIONS. SEAL ALL JOINTS WATERTIGHT. GLUE JOINTS WITH PVC CEMENT AND BUSH ALL ENDS. ALL BENDS SHALL USE LONG RADIUS PRE FORMED ELBOWS. EXTEND CONDUIT TO MINIMUM 2'-0" BELOW GRADE. LOCATION TO BE COORDINATED WITH LANDSCAPING AND UTILITIES.

IF UNIT TYPE DUCT CABLE IS UTILIZED IN TRENCHES IN LIEU OF PVC CONDUIT, AT POLE FOUNDATIONS RETAIN THE PVC CONDUIT SPECIFIED ABOVE IT SHALL FUNCTION AS A SLEEVE FOR THE DUCT CABLE. OVERSIZE PVC CONDUIT EITHER 2 1/2" OR 3" AS REQUIRED BASED ON DUCT CABLE OUTSIDE DIAMETER.

WIRING - REFER TO GENERAL SPECIFICATIONS.

LIGHTING CONTROLLER - A CLASS R FUSIBLE COMBINATION LIGHTING CONTACTOR TYPE CONTROLLER ASSEMBLY RATED 600V, 60A-2P, 60HZ WITH SOLID NEUTRAL, ELECTRICALLY HELD WITH CONTROL FUSE, 120V CONTROL VOLTAGE 3 POSITION HAND - OFF - AUTO SELECTOR SWITCH AND PHOTOCELL CONTROL. MOUNT ALL DEVICES IN A SERVICE ENCLOSURE LESS PHOTO CONTROL.

APPROVED MANUFACTURER - SQUARE "D" NIGHT-MASTER SPC-61 (OR APPROVED EQUAL).

480V SYSTEM

CLASS 8903 NIGHTMASTER LIGHTING CONTACTOR 8903SPC61V81CFF4G102TY1

CONTACTOR RATING - 60 AMPS

FUSED COMBINATION STARTER WITH CLASS R FUSE CLIPS (FUSES NOT INCLUDED)

3 POLE DEVICE

TYPE 3R ENCLOSURE SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

SPECIFIED FOR 480 VOLTS, 60 HZ POWER SYSTEM

FUSED CONTROL TRANSFORMER SELECTED WITH 120V, 60 HZ COIL

T - STANDARD CAPACITY

480 VOLT PRIMARY

120 VOLT SECONDARY

FUSING

F4 - 2 PRIMARY CONTROL FUSES

F - 1 SECONDARY CONTROL FUSE

CONTROL UNITS SUPPLIED

C - HAND-OFF-AUTO SELECTOR SWITCH

G102 - WIRED FOR REMOTE PHOTOCELL

N - ADDITION OF SOLID NEUTRAL

Y1 - UL PANEL LABEL

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STANDARD DRAWING

LIGHTING CONTROLLER

ENGINEERING

SHEET 3 OF 4

DRAWING NO. SL-13

277V SYSTEM

CLASS 8903 NIGHTMASTER LIGHTING CONTACTOR 8903SPC61V85CFF4G102TY1 CONTACTOR RATING - 60 AMPS

FUSED COMBINATION STARTER WITH CLASS R FUSE CLIPS (FUSES NOT INCLUDED) 3 POLE DEVICE

TYPE 3R ENCLOSURE SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

SPECIFIED FOR 277 VOLTS, 60 HZ POWER SYSTEM

FUSED CONTROL TRANSFORMER SELECTED WITH 120V, 60 HZ COIL

T - STANDARD CAPACITY

277 VOLT PRIMARY

120 VOLT SECONDARY

FUSING

F4 - 2 PRIMARY CONTROL FUSES

F - 1 SECONDARY CONTROL FUSE

CONTROL UNITS SUPPLIED

C - HAND-OFF-AUTO SELECTOR SWITCH

G102 - WIRED FOR REMOTE PHOTOCELL

N - ADDITION OF SOLID NEUTRAL

Y1 - UL PANEL LABEL

240V SYSTEM

CLASS 8903 NIGHTMASTER LIGHTING CONTACTOR 8903SPC62V80CFF4G102TY1 CONTACTOR RATING - 60 AMPS

FUSED COMBINATION STARTER WITH CLASS R FUSE CLIPS (FUSES NOT INCLUDED) 3 POLE DEVICE

TYPE 3R ENCLOSURE SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

SPECIFIED FOR 240 VOLTS, 60 HZ POWER SYSTEM

FUSED CONTROL TRANSFORMER SELECTED WITH 120V, 60 HZ COIL

T - STANDARD CAPACITY

240 VOLT PRIMARY

120 VOLT SECONDARY

FUSING

F4 - 2 PRIMARY CONTROL FUSES

F - 1 SECONDARY CONTROL FUSE

CONTROL UNITS SUPPLIED

C - HAND-OFF-AUTO SELECTOR SWITCH

G102 - WIRED FOR REMOTE PHOTOCELL

N - ADDITION OF SOLID NEUTRAL

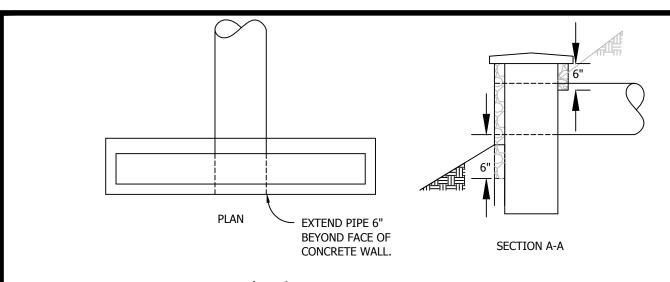
Y1 - UL PANEL LABEL

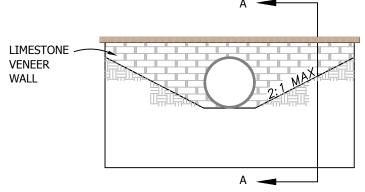
Date: 01/01/2020



STANDARD DRAWING

LIGHTING CONTROLLER





ELEVATION

STONE VENEER

NO SCALE

NOTES:

1.STONE VENEER:

MANUFACTURED SYNTHETIC STONE VENEER SHALL BE GREAT LAKE LIMESTONE AS MANUFACTURED BY DUTCH QUALITY STONE, INC. (1-330-359-7866) OR AN APPROVED ALTERNATIVE. MORTAR COLOR SHALL APPROXIMATE THE STONE COLOR. MORTAR AND GROUTING TYPE S PER MANUFACTURES INSTRUCTIONS. STONE SHALL BE PLACED IN A RANDOM PATTERN SIMILAR TO AVERY/MUIRFIELD BRIDGE OVER US 33/SR 161.

2.ALL EXPOSED CONCRETE STRUCTURES SHALL COMPLY WITH THE STONE VENEER AS SHOWN ON THIS DETAIL.



16 " WALL CAP

(OTHER SIZES MAY BE USED AS DIRECTED BY THE CITY) THE TOP OF ALL HEADWALLS THAT ARE TO BE STONE FACED SHALL HAVE A STONE WALL CAP.

THE WALL CAP SHALL BE 16" IN WIDTH AND TAN IN COLOR AS MANUFACTURED BY DUTCH QUALITY STONE OR APPROVED EQUAL.

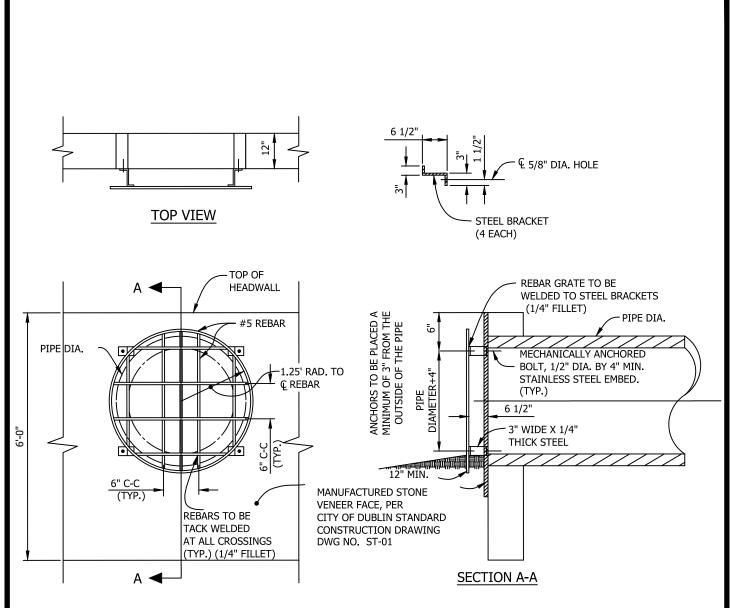
MORTAR AND GROUTING TYPE SHALL BE PER THE MAUFACTURER'S SPECIFICATIONS.

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STANDARD DRAWING

STONE VENEER AND WALL CAP FOR HEADWALLS



END SECTION

NOTES:

- 1. GRATES AND BRACKETS SHALL BE GALVANIZED IN ACCORDANCE WITH CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS 711.02.
- 2. TO BE USED ON 21" AND LARGER DIAMETER PIPES

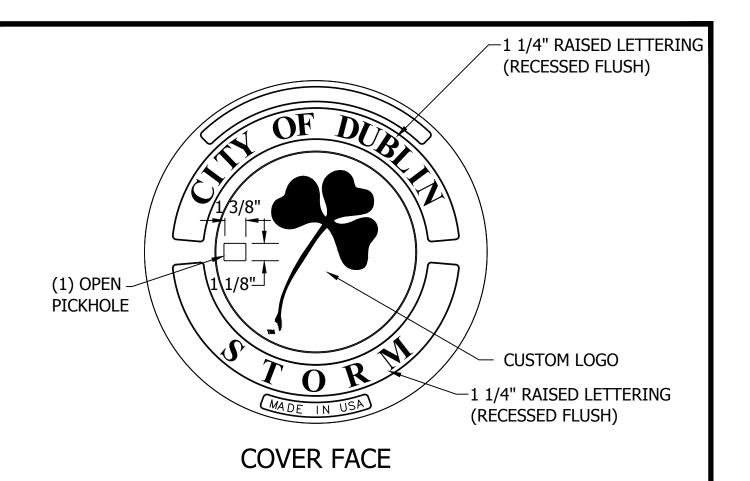
3. ONLY TO BE PLACED ON STORMWATER FACILITY OUTLETS

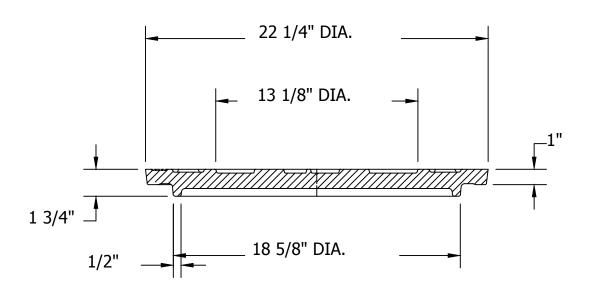
City of Dublin
OHIO, USA
ENGINEERING

Date: 01/01/2020

STANDARD DRAWING

SAFETY GRATE





COVER SECTION

City of Dublin

Date: 01/01/2020

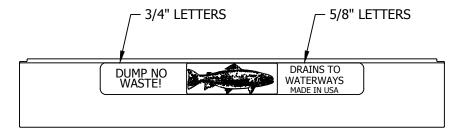
STANDARD DRAWING

STORM SEWER MANHOLE LID

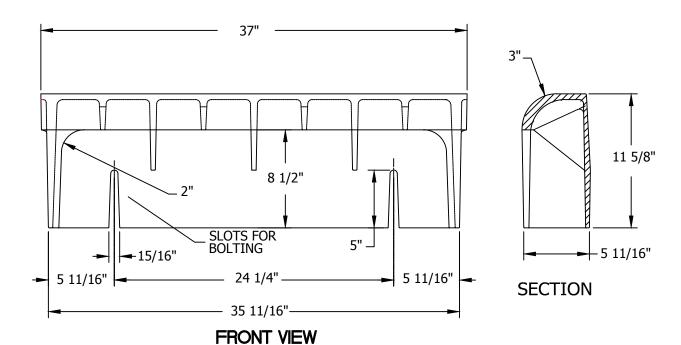
SHEET 1 OF 1

DRAWING NO. **S**

ST-03



TOP VIEW



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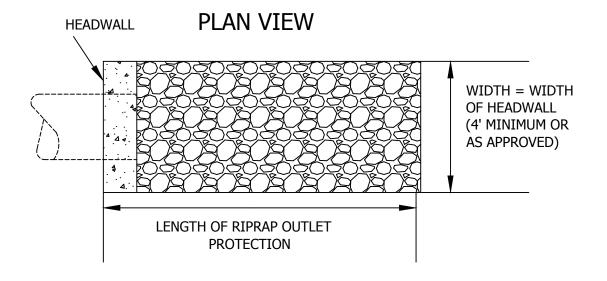
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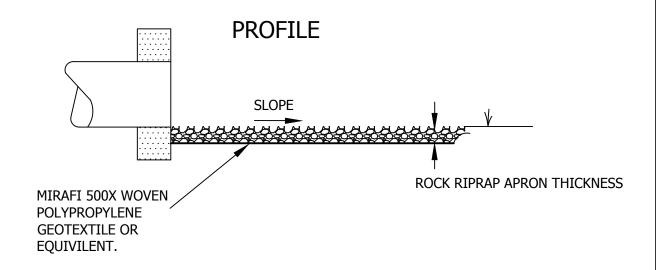
DRAINS TO RIVER CURB INLET

SHEET 1 OF 1

DRAWING NO.

ST-04





NOTES:

- 1. MINIMUM LENGTH TO BE 8 FEET, 5 FEET IF PIPE IS SUBMERGED.
- 2. MINIMUM THICKNESS OF 18 INCHES.
- 3. RIP-RAP SIZE TO BE DETERMINED BY OUTLET FLOW VELOCITY

STANDARD DRAWING

City of Dublin
OHIO, USA

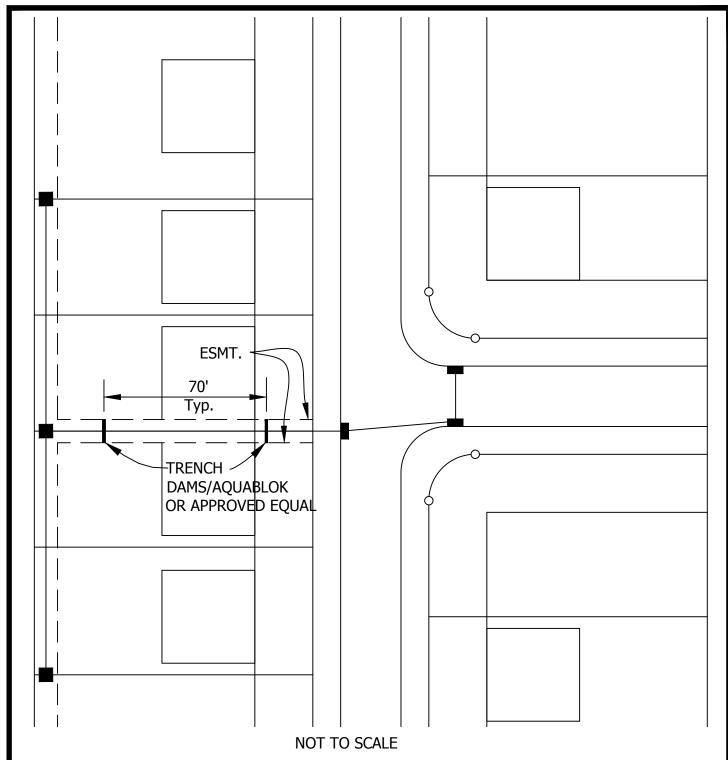
ENGINEERING

STANDARD DRAWING

ROCK CHANNEL PROTECTION DETAIL

SHEET 1 OF 1

DRAWING NO. ST-05



NOTE:

FOR ALL STORM SEWER PIPE ALONG THE SIDE YARD OF A LOT, CONTRACTOR SHALL USE REINFORCED CONCRETE PIPE (ASTM C-76) WITH "O" RING RUBBER GASKET JOINTS (ASTM C-136) WITH NO AGGREGATE BACKFILL OR HP STORM PIPE WITH GASKETED INTEGRAL BELL & SPIGOT JOINT (ASTM F2881) WITH STANDARD BEDDING AND BACKFILL.

Date: 01/01/2020



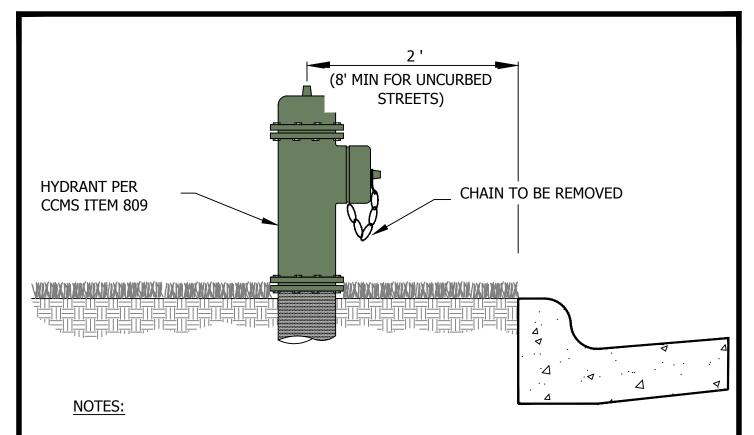
STANDARD DRAWING

STORM SEWER WITH "O" RING RUBBER GASKET JOINTS

SHEET 1 OF 1

DRAWING NO.

ST-06



PAINT AND PRIMER TO BE SHOP APPLIED.

PAINT: SHERWIN WILLIAMS - POLANE SP POLYURETHANE ENAMEL, OR APPROVED EQUAL

PAINT COLOR: VISTA GREEN NO. 80-105 (RGB#: 106,127,96), OR APPROVED EQUAL

PRIMER: AS SPECIFIED BY THE MANUFACTURER

PRIVATE HYDRANTS SHALL BE WHITE NO. D876967-31-1 OR 80-1 WITH VISTA GREEN TOP AND CAP

ALL HYDRANTS WILL COME EQUIPPED WITH A STORZ NOZZLE.

MANUFACTURER PRODUCT NO. COMMENTS

AMERICAN FLOW CONTROL MARK 73 SERIES "NO DRAIN" ONLY

CLOW CORPORATION EDDY "F2641"

MUELLER CO. SUPER CENTURION 200

KENNEDY K-81A AMERICAN AVK NO. 2760

Date: 01/01/2020



STANDARD DRAWING

FIRE HYDRANT