



City of Hilliard, Ohio
Divisions of Engineering and Transportation & Mobility
Reference Index of Standard Construction Drawings

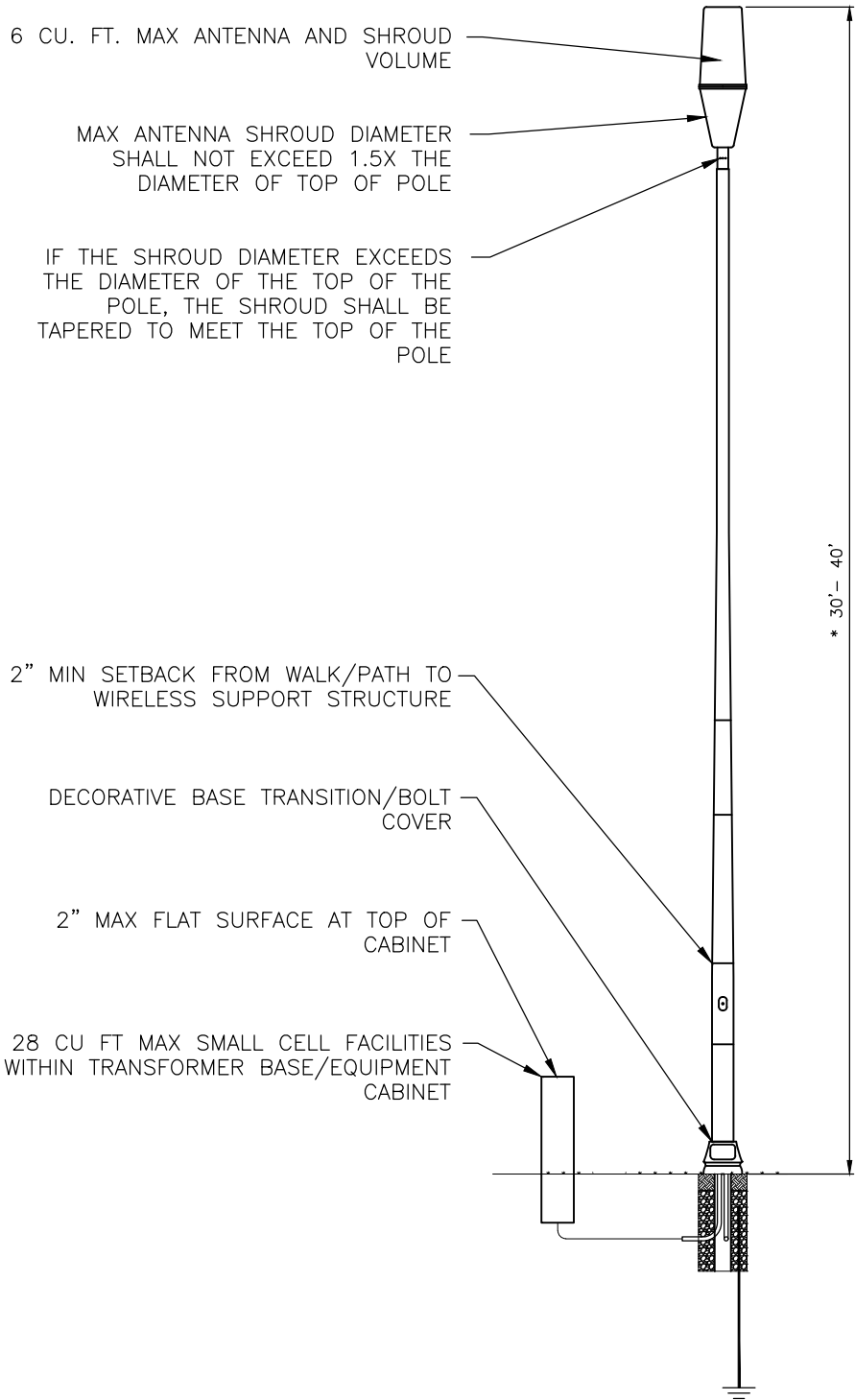
<u>Drawing Number</u>	<u>Drawing Title</u>	<u>Date Effective</u>
AT-1	Small Cell and Antenna (8 Sheets)	
CD-1	Curb Detail – Drop Curb at Drive Entrances	
CG-1	Item 609 – Standard 6” Concrete Combined Curb & Gutter	
CG-2	Item 609 – Special 8” Concrete Combined Curb & Gutter	
CG-R1	Curb & Gutter Repair	
CI-1	Curb & Gutter Inlet (2 Sheets)	
CR-1	Curb Ramp	3/6/2015
CR-2	Curb Ramp Retrofit	3/6/2015
CS-1	Cad Standards – General	
CS-2	Cad Standards – Storm / Sanitary / Water Symbols	
CS-3	Cad Standards – Grading / Erosion Control Symbols	
CS-4	Cad Standards – Traffic Control Symbols	
CS-5	Cad Standards – Street Lighting Symbols	
CS-6	Cad Standards – Linetypes	
DD-1	Driveway Approach Detail – Commercial/Mixed Use	3/6/2023
DD-2	Driveway Approach Detail - Residential	3/6/2023
DR-1	Debris Rack Detail – 12” to 36” Diameter Pipe	
DR-2	Debris Rack Detail – 42” to 84” Diameter Pipe	
DT-1	Direct Tap Detail	
ED-1	Eyebrow Detail (2 Sheets) Joint Spacing and Typical Section A-A	
EV-1	Emergency Vehicle Turning Requirements	
FD-1	Finger Drain Detail	
FDC-1	Remote Fire Department Connection	

GR-1	4"x12" Timber - Guardrail	
GW-1	Hilliard Wayfinding Signage – L1	
GW-2	Hilliard Wayfinding Signage – L2	
GW-3	Hilliard Wayfinding Signage – L3	
GW-4	Hilliard Wayfinding Signage – L4	
GW-4.1	Hilliard Wayfinding Signage – L4.1	
GW-5	Hilliard Wayfinding Signage – L5	
GW-6	Hilliard Wayfinding Signage – L6	
GW-7	Hilliard Wayfinding Signage – L7	
GW-8	Hilliard Wayfinding Signage – L8	
GW-L1	Hilliard Wayfinding Signage – Pole Sign	
GW-L2	Hilliard Wayfinding Signage – Landscape for signs parallel to ROW	
GW-L3	Hilliard Wayfinding Signage – Landscape for signs perpendicular to ROW	
GW-L4	Hilliard Wayfinding Signage – Masonry 6 foot – double	
GW-L5	Hilliard Wayfinding Signage – Masonry 6 foot – single	
GW-L6	Hilliard Wayfinding Signage – Masonry 9 foot – double	
GW-L7	Hilliard Wayfinding Signage – Masonry 9 foot – single	
GW-L8	Hilliard Wayfinding Signage – Masonry 12 foot – double	
GW-L9	Hilliard Wayfinding Signage – Masonry 12 foot – single	
GW-L10	Hilliard Wayfinding Signage – Wood Post 6 foot – double	
GW-L11	Hilliard Wayfinding Signage – Wood Post 6 foot – single	
GW-L12	Hilliard Wayfinding Signage – Wood Post 9 foot – double	
GW-L13	Hilliard Wayfinding Signage – Wood Post 9 foot – single	
GW-L14	Hilliard Wayfinding Signage – Wood Post 12 foot – double	
GW-L15	Hilliard Wayfinding Signage – Wood Post 12 foot – single	
HP-1	Handicap Parking Signage (2 Sheets)	
ID-1	Intersection Detail – Typical Residential 60' R/W & 70' R/W (2 Sheets)	
ID-2	Intersection Detail – Old Hilliard District 66' R/W	
ID-3	Intersection Detail – Local Street at Thoroughfare Plan Street	
JC-1	Jack Casing Detail	
MHA-1	Manhole Adjusted to Grade	
MP-1	Multi-Use Path Details	
PV-1	Pavement Thickness	3/6/2023
PW-1	Pavement Widening Detail w/ Overlay	
PW-2	Pavement Widening Detail w/o Overlay	
RB-1	4" Removable Bollard (2 Sheets)	
RB-2	6" Removable Bollard (3 Sheets)	

ROW-1	Typical Roadway Cross-Sections & Right-Of-Way Widths	
RP-1	Record Plat Guidelines	
RP-2	Record Plat Dedication Text	
SL-1	Thoroughfare Street Pole Base	
SL-2	Thoroughfare Street Transformer Base Wiring Detail	
SL-3	Thoroughfare Street Pole	
SL-4	Thoroughfare Street Luminaire (2 Sheets)	
SL-5	Thoroughfare Street Old Hilliard Service Enclosure (2 Sheets)	
SL-6	Underground Conduit Trench Details (3 Sheets)	
SL-7	Local Street-Residential-Commercial-Mixed Pole Base	
SL-8	Local Street-Residential-Commercial-Mixed Pole and Luminaire	2/9/2022
SL-9	Local Street-Residential Service Enclosure	
SL-10	Local Street-Commercial-Mixed use Service Enclosure (2 Sheets)	
SL-11	Local Street-Residential Pull Box	
SL-12	Conservation District Pole Base	
SL-13	Conservation District Pole (2 Sheets)	
SL-14	Conservation District Luminaire (2 Sheets)	
SL-15	Conservation District Transformer Base Wiring Detail	
SL-16	Old Hilliard Street Pole Base-Pole and Luminaire (2 Sheets)	
SL-17	Conductor Details	
SL-18	Roundabout Lighting Typical Layout	
SL-19	Retrofit of Existing Lighting	
SM-1	Survey Marker – Permanent	
SP-1	Sample Plans – Typical Title Sheet Street Plans	
SP-2	Sample Plans – Typical Title Sheet Sanitary Plans	
SP-3	Sample Plans – General Notes	
SP-4	Sample Plans – General Notes & Estimate of Quantities	
SP-5	Sample Plans – Plan & Profile Sheet	
SS-1	Storm Sewer Bridge Detail	
ST-1	Standard “T” Turn-A-Round	
SW-1	Sidewalk Specifications	3/6/2023
TAB-1	Temporary Access Barricade	
TB-1	Temporary Barricade – Roadway	

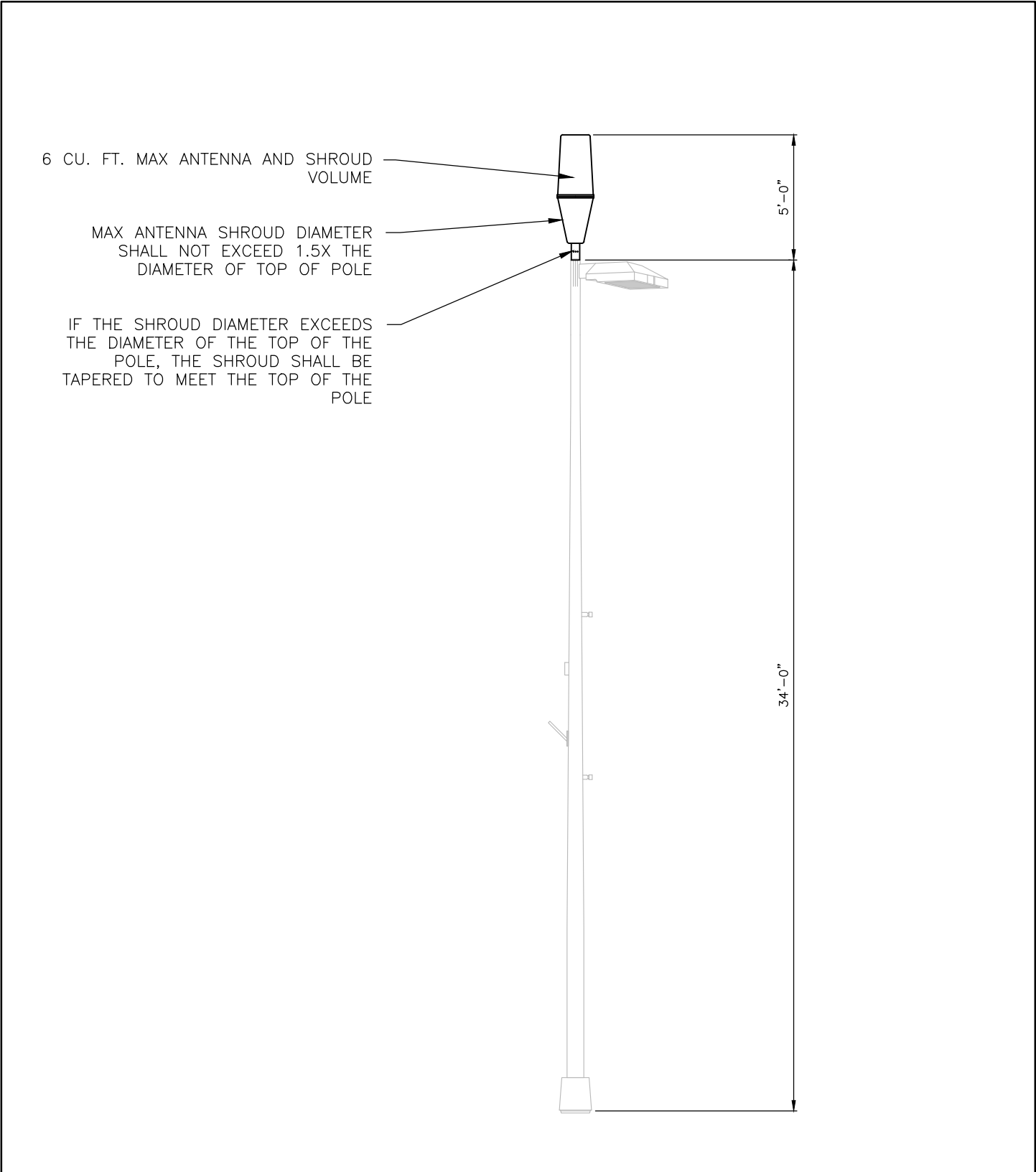
TC-1	Traffic Control Notes and Details – Street Name Signs	9/12/2022
TC-2	Traffic Control Notes & Details – Regulatory, Warning and Guide Signs	7/29/2015
TC-3	UNUSED	
TC-4	Traffic Control Notes and Details - School Zone Flasher Assembly	7/29/2015
TC-5	High Visibility Crosswalk Details	7/14/2016
TC-6	RRFB	6/28/2022
TD-1	Trench Dam Detail	

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:19 AM



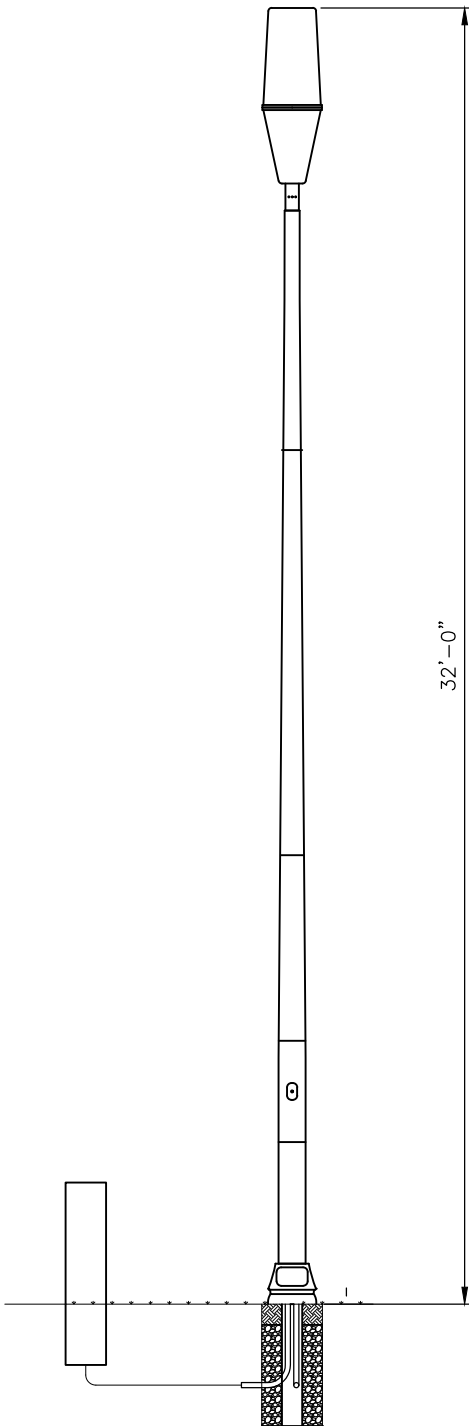
APPROVED		CITY OF HILLIARD, OHIO	
<i>Clark A. Rausch</i> CITY ENGINEER	6-6-18 DATE		
SCALE: NTS		STANDARD CONSTRUCTION DRAWING	
PROPOSED DISTRIBUTED ANTENNA SYSTEMS (DAS) NEW POLE		1/1	AT-1

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:22 AM



APPROVED		PROPOSED ANTENNA	CITY OF HILLIARD, OHIO	
<i>Clark A. Rausch</i>	6-6-18		STANDARD CONSTRUCTION DRAWING	
CITY ENGINEER	DATE	SL-3 THOROUGHFARE STREET POLE, LUMINAIRE	1/1	AT-2
SCALE: NTS				

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:27 AM

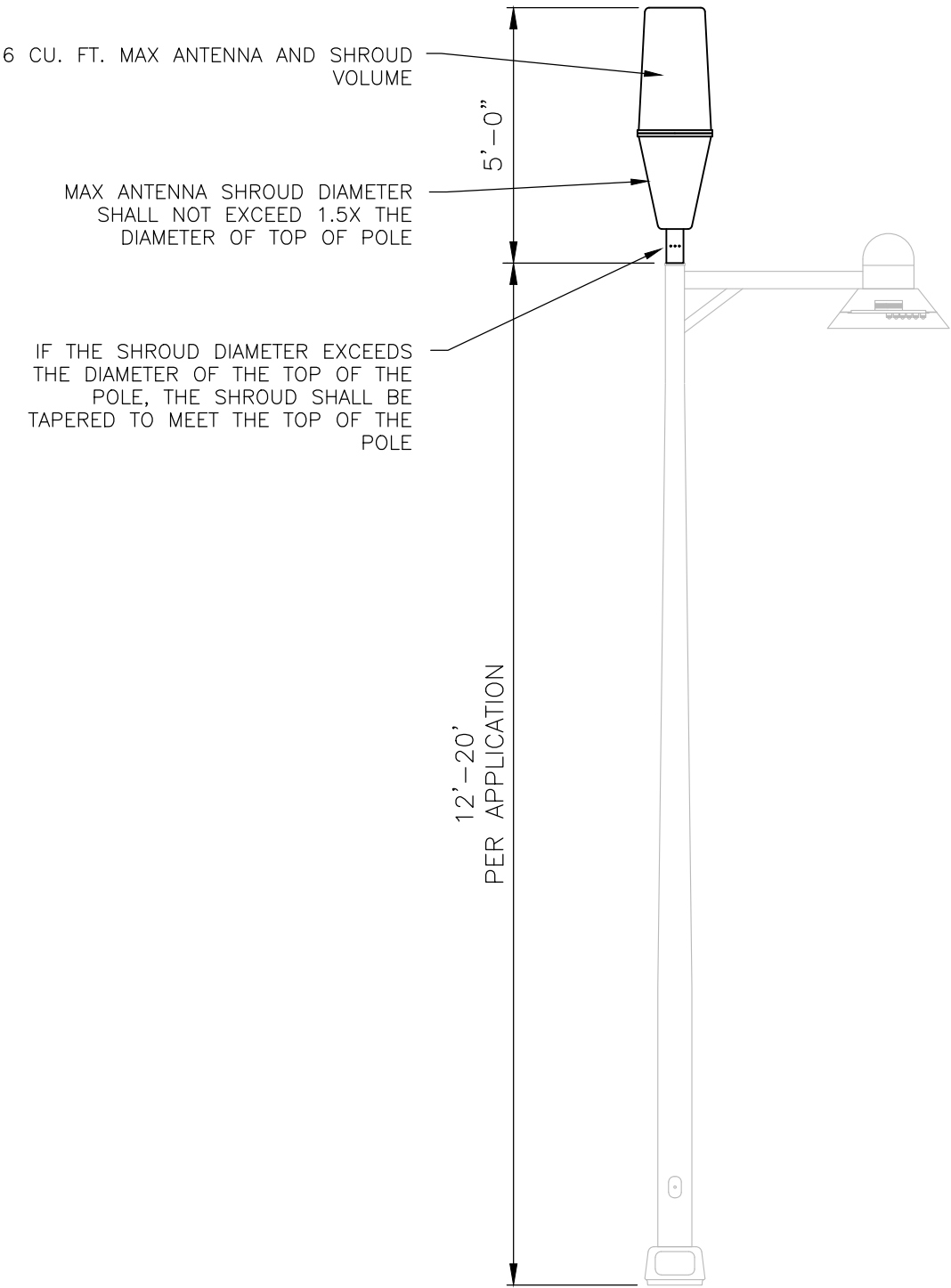


Notes:

1. Existing or proposed A.E.P. Transformer or pedestal. Location of service enclosure and service shall be coordinated with A.E.P. In cases of obstructions or doubt about clearance, location shall be by A.E.P. Engineers.
2. Post shall be pressure treated 4"x6" wood, buried a minimum of 3'-0". It shall be set plumb and the bottom 2'-6" of the hole backfilled against undisturbed or compacted earth, with Item 304 compacted in 6" layers. The top 6" of the hole shall be backfilled with compacted earth. City to inspect upon backfill.
3. Service enclosure, rainproof, nema 3r, 120/240 volt, 60 amp, 1 phase, 3 wire, 2 breaker with 1-1/2" removable hubs, I-T-E, catalog number W0204 ML 1060-2, or an approved interchangeable equal. Install 20 amp circuit breakers. Furnish 2 pedestal locks, Utilco type PEL 2, or Fargo GM-305, or an approved equal. Face enclosure in direction of street.
4. 1-1/2" schedule 40 pvc conduit shall extend 2'-0" minimum below grade and 6" outside of Item 304.
5. 5/8"x8' solid copper ground rod, bond to service enclosure with awg #4 bare solid copper conductor.
6. Lighting circuit, cu, type use, 600 volt, awg #6 phase, awg #8 neutral. Contractor shall bury cable from the service enclosure to A.SEP. Transformer or pedestal and leave 5' minimum leads for connection by A.E.P.
7. Buried cable, cu, type THHN, 600 volt, AWG #10 (black, white, green) with ground, encased in 1-1/2" schedule 40 pvc conduit.
8. Service enclosure shall be staked for location & grade prior to installation.

APPROVED <i>Clark A. Rausch</i> CITY ENGINEER SCALE: NTS	PROPOSED ANTENNA NEW POLE OLD HILLIARD BUSINESS DISTRICT	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		1/1	AT-3

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:33 AM

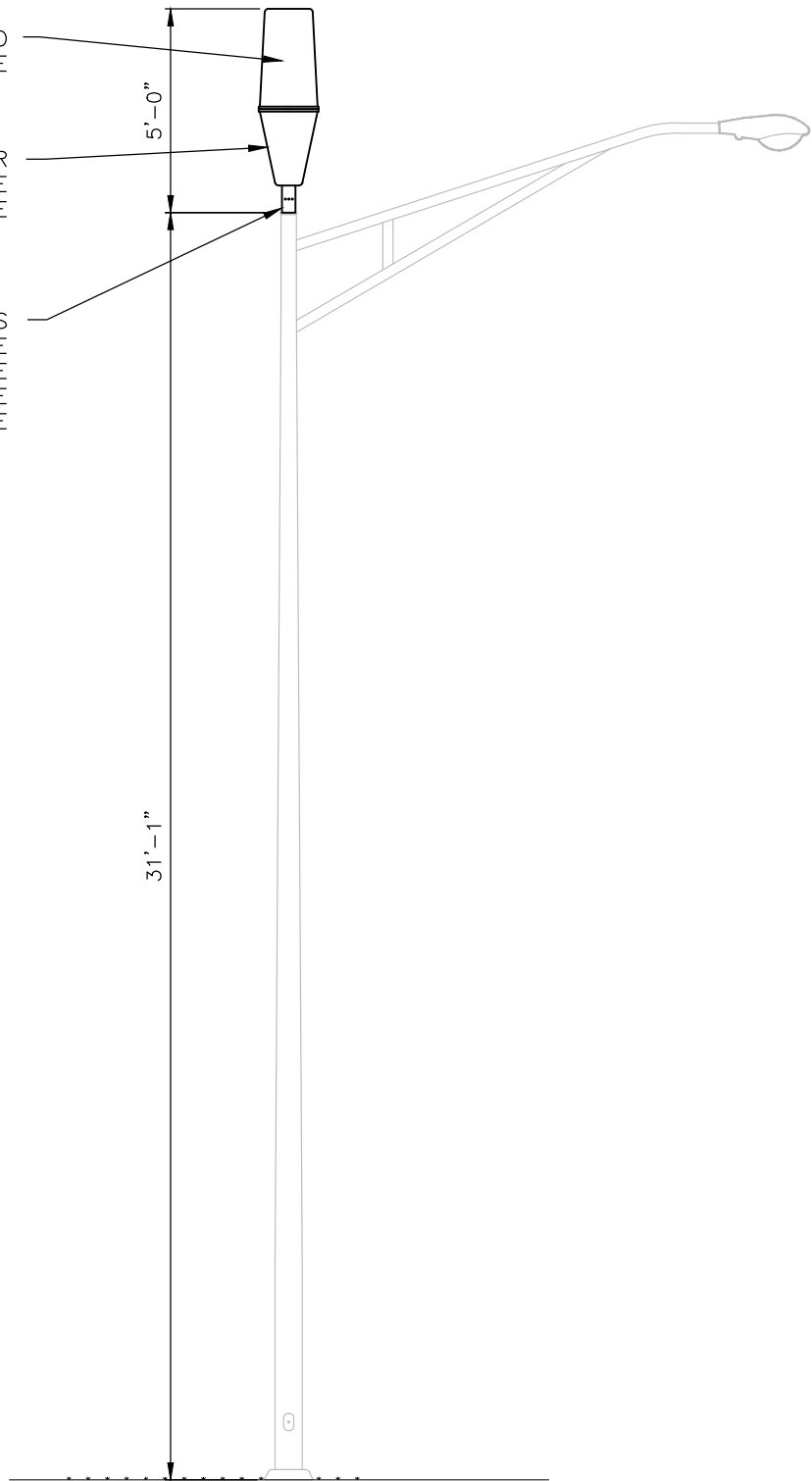


APPROVED		PROPOSED ANTENNA		CITY OF HILLIARD, OHIO	
<i>Clark A. Rausch</i> 6-6-18		SL-13		STANDARD	
CITY ENGINEER DATE		CONSERVATION DISTRICT POLE		CONSTRUCTION DRAWING	
SCALE: NTS				1/1	AT-4

6 CU. FT. MAX ANTENNA AND SHROUD VOLUME

MAX ANTENNA SHROUD DIAMETER SHALL NOT EXCEED 1.5X THE DIAMETER OF TOP OF POLE

IF THE SHROUD DIAMETER EXCEEDS THE DIAMETER OF THE TOP OF THE POLE, THE SHROUD SHALL BE TAPERED TO MEET THE TOP OF THE POLE



APPROVED

Clark A. Rausch
CITY ENGINEER

6-6-18
DATE

PROPOSED
ANTENNA

SL-3 THOROUGHFARE
STREET POLE, COBRAHEAD

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

SCALE: NTS

1/1

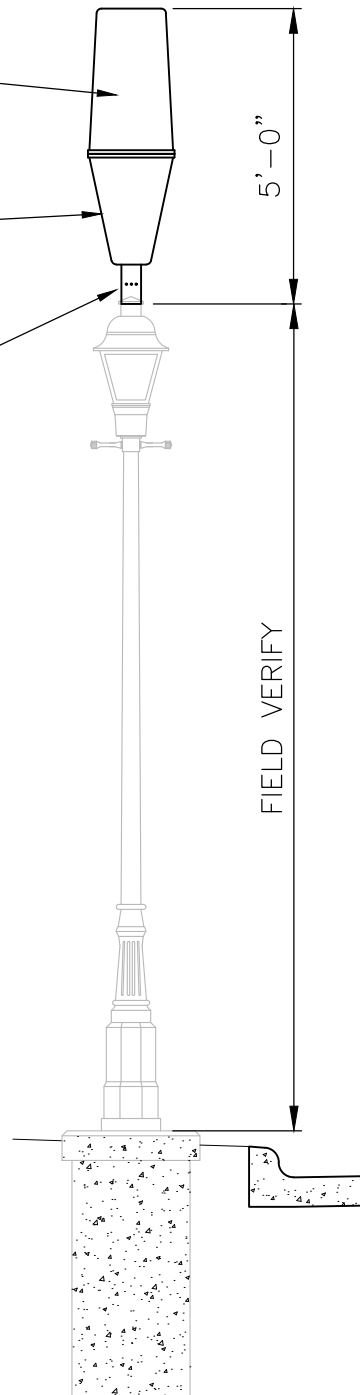
AT-5

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:43 AM

6 CU. FT. MAX ANTENNA AND SHROUD VOLUME

MAX ANTENNA SHROUD DIAMETER SHALL NOT EXCEED 1.5X THE DIAMETER OF TOP OF POLE

IF THE SHROUD DIAMETER EXCEEDS THE DIAMETER OF THE TOP OF THE POLE, THE SHROUD SHALL BE TAPERED TO MEET THE TOP OF THE POLE



APPROVED

Clark A. Rausch
CITY ENGINEER

6-6-18
DATE

SCALE: NTS

PROPOSED
ANTENNA

SL-8 LOCAL STREET
-RESIDENTIAL
-COMMERCIAL/MIXED
STREET BASE, POLE, AND
LUMINAIRE

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

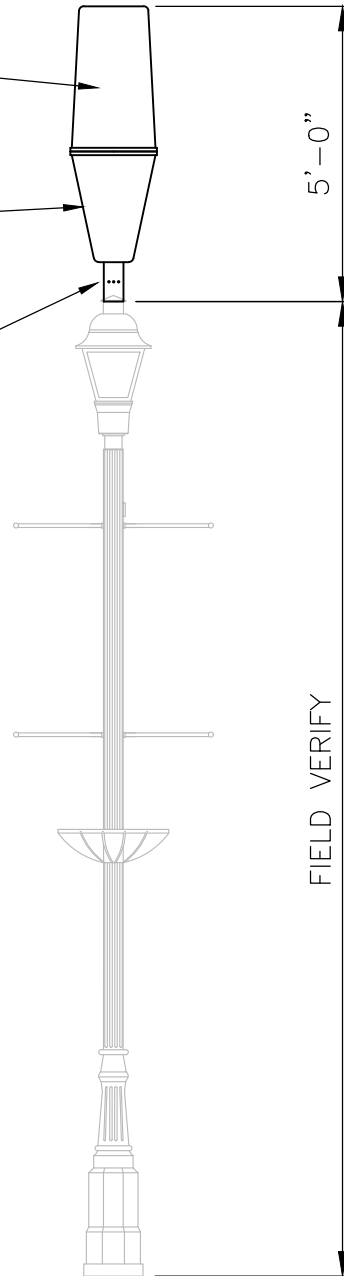
1/1

AT-6-SL-8

6 CU. FT. MAX ANTENNA AND SHROUD VOLUME

MAX ANTENNA SHROUD DIAMETER SHALL NOT EXCEED 1.5X THE DIAMETER OF TOP OF POLE

IF THE SHROUD DIAMETER EXCEEDS THE DIAMETER OF THE TOP OF THE POLE, THE SHROUD SHALL BE TAPERED TO MEET THE TOP OF THE POLE



APPROVED

Clark A. Rausch 6-6-18
CITY ENGINEER DATE

SCALE: NTS

PROPOSED
ANTENNA

SL-16 OLD HILLIARD
STREET BASE, POLE, AND
LUMINAIRE

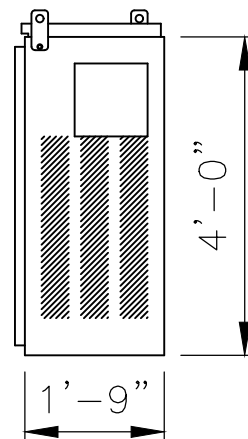
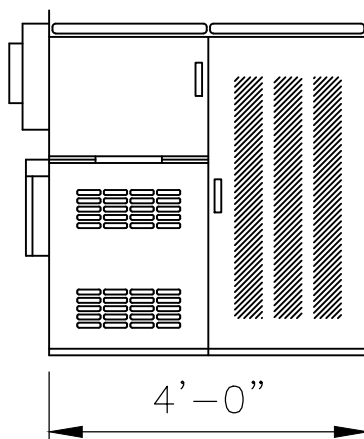
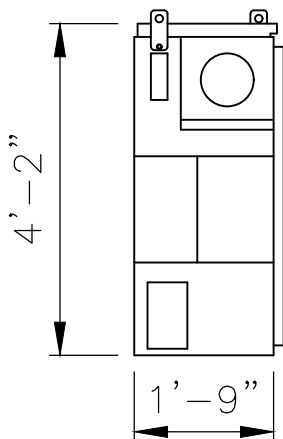
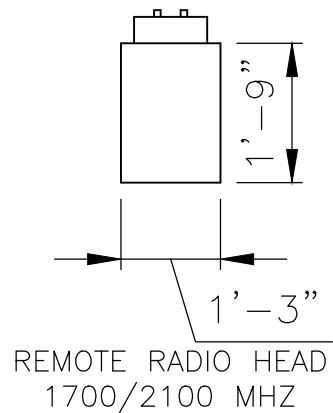
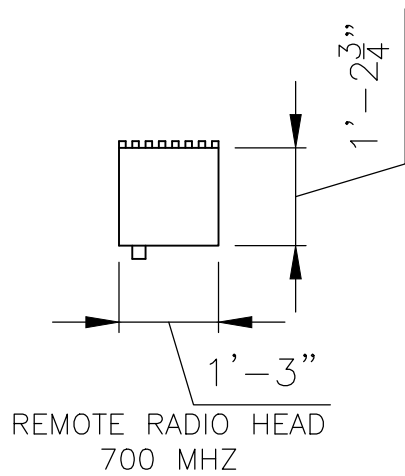
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

AT-7-SL-16

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Cell Tower Poles standards.dwg, 6/12/2018 7:40:53 AM



CABINET

APPROVED

Clark A. Rausch
CITY ENGINEER

6-6-18
DATE

RADIO HEAD AND CABINET
DETAILS

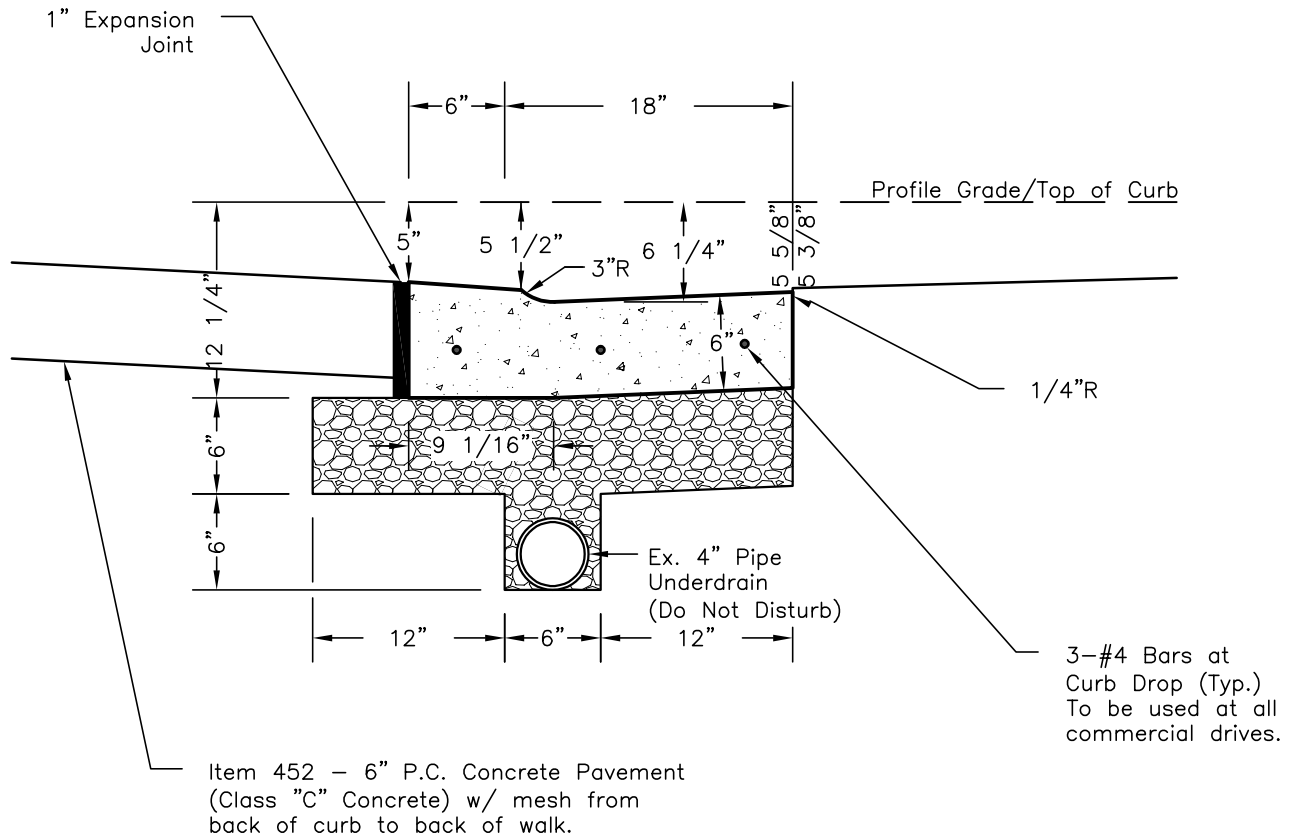
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

SCALE: NTS

1/1

AT-8



APPROVED

CITY ENGINEER DATE

SCALE: 1" = 1'

CURB DETAIL
DROP CURB AT
DRIVE ENTRANCES

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

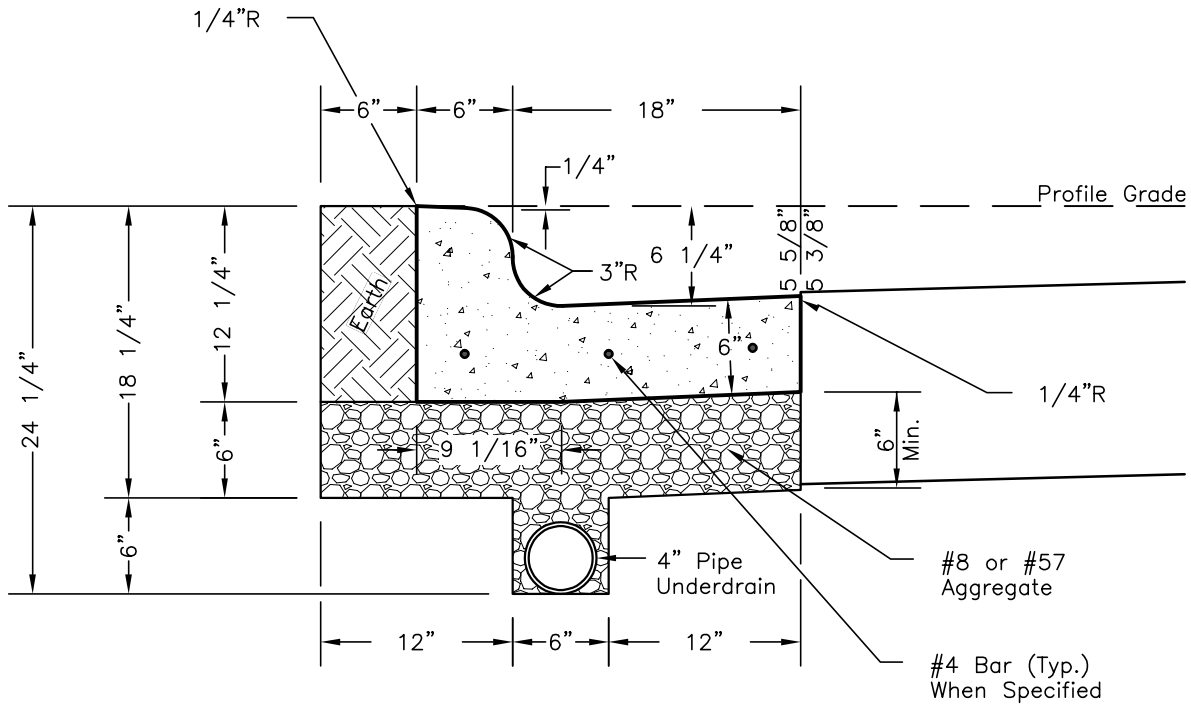
1/1

CD-1

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Curb & Gutter.dwg, 10/21/2020 2:50:42 PM, Microsoft Print to PDF

Notes:

1. Concrete shall be per Section 499 - P.C. Concrete, Class C.
2. 1.25 CF of concrete per LF.
3. All exposed surfaces of concrete curb & gutter shall have a brush finish.
4. When specified, 3-#4 bars spaced at 9" on center shall be used for reinforcement.



APPROVED

CITY ENGINEER DATE

SCALE: 1" = 1'

ITEM 609
STANDARD 6" CONCRETE
COMBINED CURB &
GUTTER

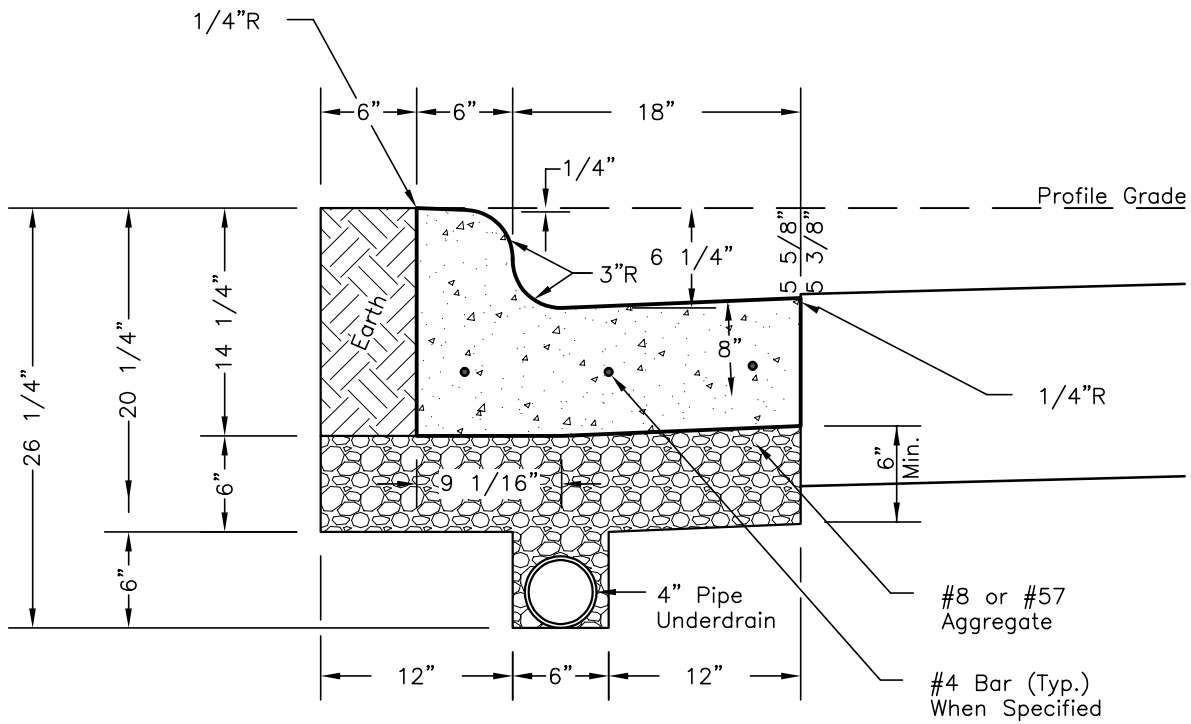
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

CG-1

Notes:

1. Concrete shall be per Section 499 - P.C. Concrete, Class C.
2. 1.59 CF of concrete per LF.
3. All exposed surfaces of concrete curb & gutter shall have a brush finish.
4. When specified, 3-#4 bars spaced at 9" on center shall be used for reinforcement.



APPROVED

CITY ENGINEER _____ DATE _____

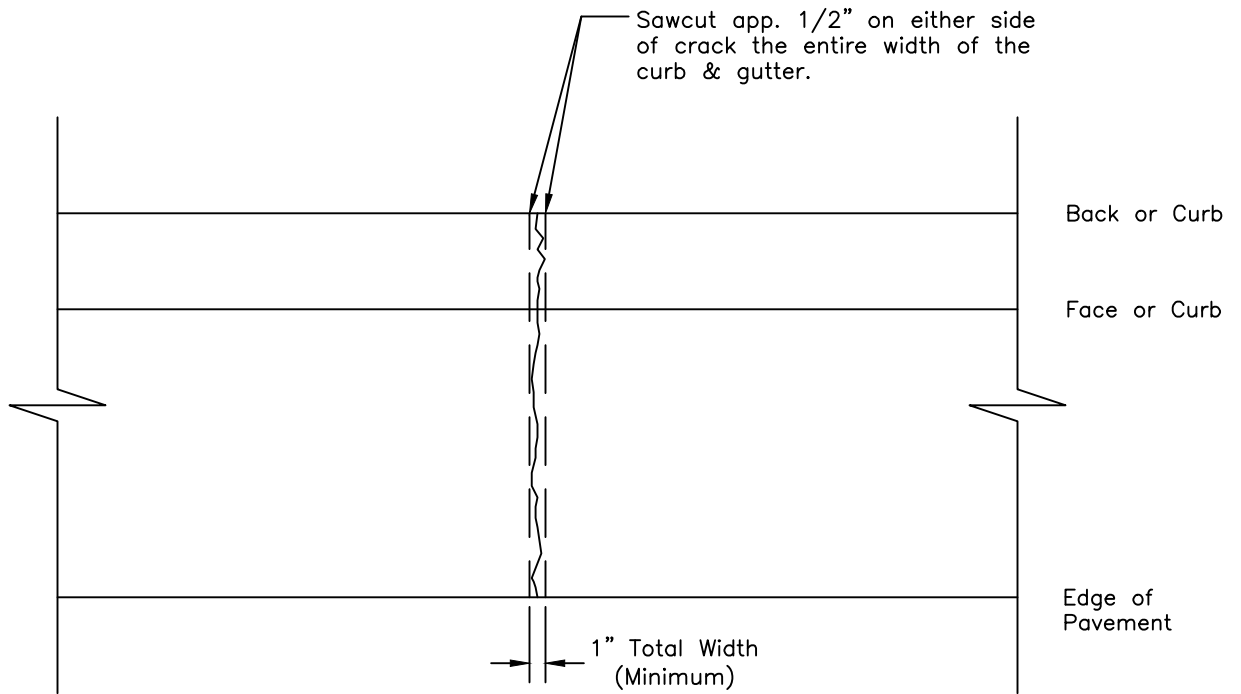
SCALE: 1" = 1'

ITEM 609
SPECIAL 8" CONCRETE
COMBINED CURB &
GUTTER

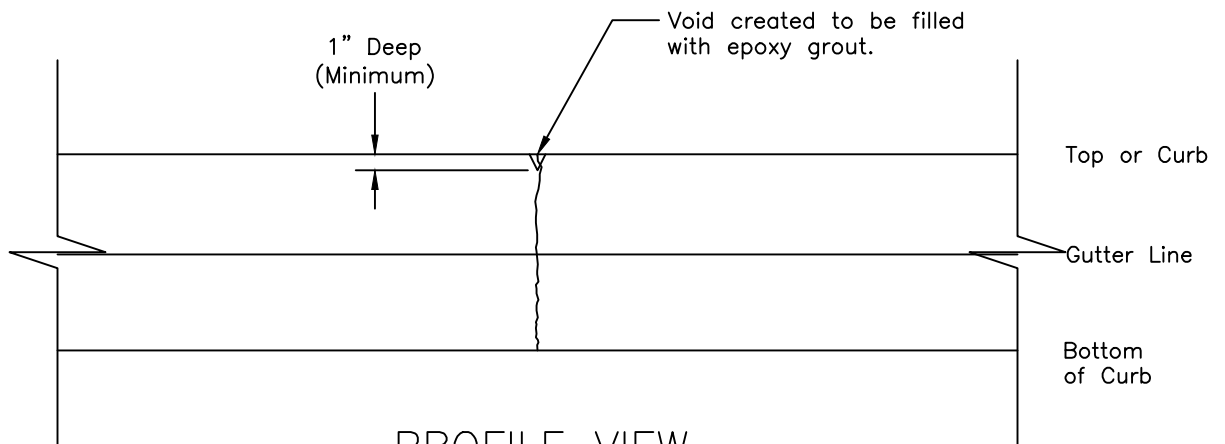
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

CG-2



PLAN VIEW



PROFILE VIEW

APPROVED

CITY ENGINEER DATE

SCALE: 1" = 1'

CURB & GUTTER REPAIR

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

CG-R1

Notes:

1. Precast walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without damage.
2. The inlet bottom shall be shaped to provide slope of 3" to 4" to outlet pipe. The cross sectional form of bottom and longitudinal slope is to be adapted to location of outlet pipe as directed.
3. Outlet pipe may be located in front or back and shall be directed towards the center of the inlet.
4. The existing gutter within the area around the inlet where cut out, shall be replaced with Class "C" Concrete or Asphalt Concrete Paving as ordered.
5. The backfilling within proposed paved areas shall be well tamped in layers not exceeding 4" in thickness, loose measurement, or backfilled with an approved material.
6. Walls may be brick, precast solid concrete blocks, or cast in place concrete, Class "C" or precast concrete.
7. Place 4" underdrain stubs 30" below top of curb or as directed.
8. Maximum pipe diameters are 18" into side walls and 27" into front and back walls for single box inlets.

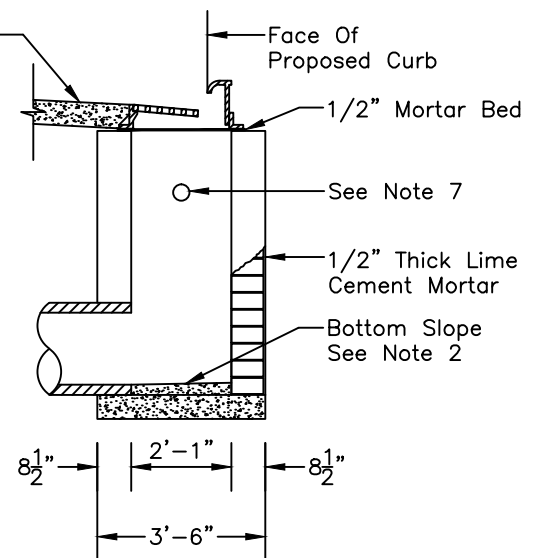
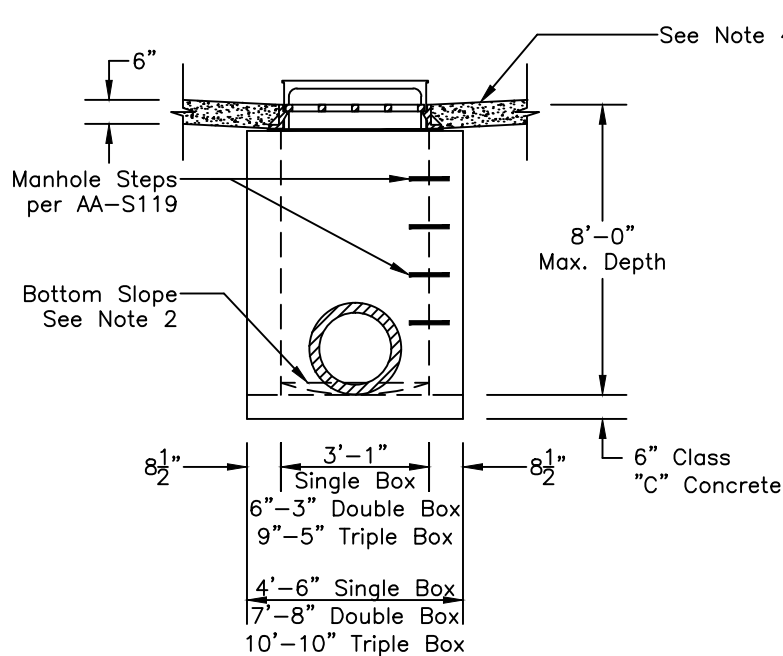
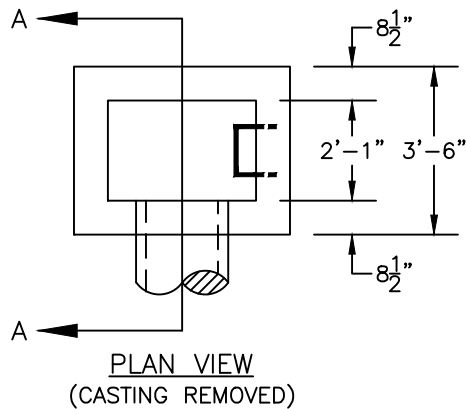
APPROVED	CURB & GUTTER INLET	CITY OF HILLIARD, OHIO	
CITY ENGINEER _____ DATE _____		STANDARD CONSTRUCTION DRAWING	
SCALE: N/A		1/2	CI-1

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Curb & Gutter Inlet.dwg, 4/25/2013 8:22:45 AM

CASTING SPECIFICATIONS

	NEENAH	EAST JORDAN
Single Box Frame	R-3290	7030
Double Box Frame	R-3295-A	7031
Triple Box Frame	R-3295-B	7032
Grate (Sumps)	TYPE C	TYPE M2
Vane Grate (Slopes)	TYPE V	TYPE M4
Driveway Frame & Grate	R-3290-A	7034

All frames, grates & curb boxes for curb & gutter inlets shall meet the above specifications, or shall be approved equals.



APPROVED

CITY ENGINEER DATE

SCALE: 1/4" = 1'

CURB & GUTTER INLET

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

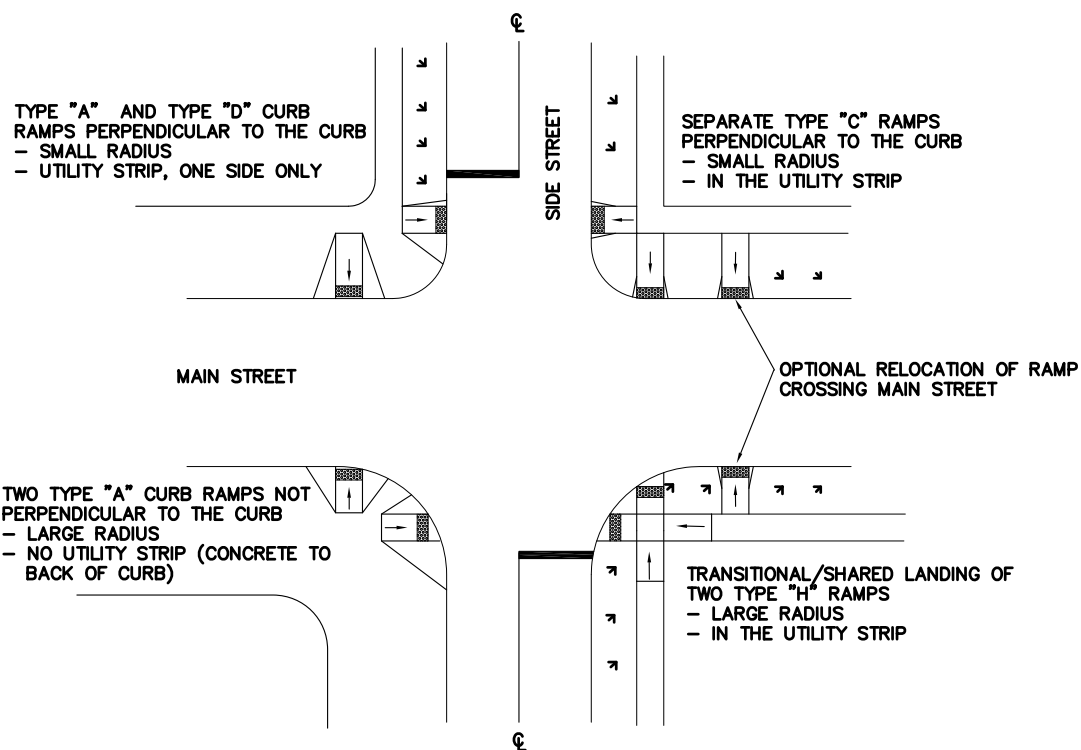
2/2

CI-1

GENERAL NOTES. CURB RAMPS

1. CURB RAMP COMPONENTS: THE CURB RAMP INCLUDES THE RAMP PANEL, FLARED SIDES, AND LANDING WHEN NEEDED.
2. MATERIAL: THE RAMP PANEL AND FLARED SIDES SHALL BE CONCRETE. THE USE OF BRICK OR PAVERS IS NOT PERMITTED.
3. CURB RAMP TYPE: CURB RAMPS SHALL BE SPECIFIED BY THE APPROPRIATE TYPE AND SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET
 - TYPE A – RAMP WITH LONG FLARES
 - TYPE C – RAMP IN UTILITY STRIP
 - TYPE D – RAMP OBSTRUCTED ON ONE SIDE
 - TYPE G – RAMP WITH RECESSED LOWER LANDING.
 - TYPE H – RAMP WITH RECESSED LOWER LANDING IN A UTILITY STRIP
 - TYPE L – MEDIAN RAMP WITH CENTER LANDING
 - TYPE P1 – COMBINED PERPENDICULAR AND PARALLEL RAMP
 - TYPE P2 – COMBINED PERPENDICULAR AND PARALLEL RAMP IN ONE DIRECTION

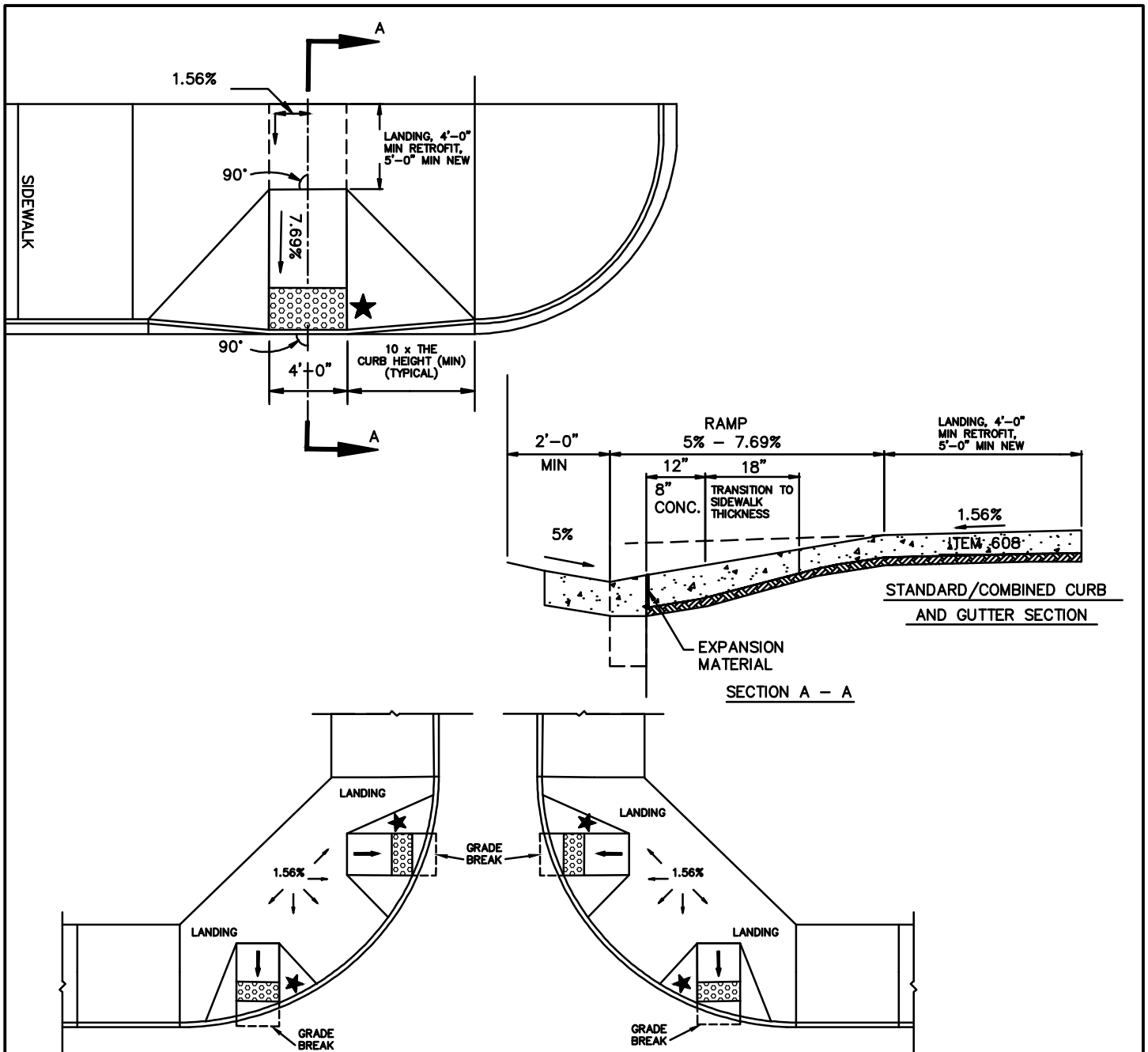
NOTE: CITY OF HILLIARD ORDER OF PREFERENCE IS (1) KEEP RAMPS IN LINE WITH APPROACH WALKS AND (2) KEEP RAMPS IN FRONT OF SIDE STREET STOP SIGNS. RAMPS THAT DIRECT PEDESTRIANS INTO THE MIDDLE OF AN INTERSECTION AT AN ANGLE ARE NOT PERMITTED. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A LANDING RECESSED SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP & THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL. EXAMPLES OF RECOMMENDED CURB RAMP ALIGNMENTS ARE SHOWN BELOW:



		CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		1/12	CR-1
CURB RAMP GENERAL NOTES			

4. CURB RAMPS AT ALLEY AND ARTERIAL CROSSINGS SHALL BE 8" THICK CONCRETE
5. RAMP RUNNING SLOPE: THE RUNNING SLOPE SHALL BE 5% TO 7.7%. THE RUNNING SLOPE MAY BE INCREASED TO 10 % WITH PRIOR WRITTEN CITY APPROVAL.
6. RAMP CROSS SLOPE: THE MAXIMUM CROSS SLOPE SHALL BE 1.56%.
7. FOR NEW CONSTRUCTION, MINIMUM RAMP WIDTH AND LANDING SIZE SHALL BE:
 - SIDEWALKS: 5' RAMP AND 5'X5' LANDING
 - MULTI-USE PATHS: 8' RAMP AND 5'X8' LANDING
 - LANDING AT INTERSECTING SIDEWALKS – WHEREVER SIDEWALKS INTERSECT, THERE SHALL BE A LANDING MEETING THE ABOVE REQUIREMENTS.
10. IN RETROFIT SITUATIONS, THE RAMP WIDTH MAY MATCH THE EXISTING APPROACH SIDEWALK OR MULTI-USE PATH OR 4' MINIMUM, WHICHEVER IS GREATER. THE MINIMUM LANDING SIZE SHALL BE 4' BY THE WIDTH OF THE EXISTING APPROACH WALK OR MULTI-USE PATH.
11. ALL JOINTS BETWEEN NEW AND EXISTING MATERIALS SHALL BE FLUSH.
12. LONG FLARES: THE LENGTH MEASUREMENT OF THE FLARE AT THE FACE OF CURB SHALL BE A MINIMUM OF 10 TIMES THE CURB HEIGHT
13. 1-FT FLARES: THE MEASUREMENT OF THE FLARE AT THE FACE OF CURB SHALL BE A MINIMUM OF 1-FT.
14. STREET COUNTER SLOPE: THE COUNTER SLOPE AT THE BASE OF THE RAMP SHALL BE A MAXIMUM OF 5% FOR A MINIMUM OF 2-FT.
15. RAMPS AT MARKED AND UNMARKED CROSSINGS: AT MARKED CROSSINGS THE RAMP AND STREET LANDING MUST BE FULLY CONTAINED WITHIN THE MARKED CROSSWALK. AT UNMARKED CROSSINGS THE RAMP AND STREET LANDING MUST BE WITHIN THE PEDESTRIAN RIGHT-OF-WAY AS DEFINED BY CITY CODE.
16. SURFACES: RAMP, FLARE, AND LANDING SURFACES MUST BE STABLE AND SLIP RESISTENT. 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.
17. OFFSET INTERSECTIONS: AT OFFSET 'T' INTERSECTIONS RAMPS BETWEEN OFFSET STREETS MAY BE DELETED IF THE CENTERLINES OF OFFSET STREETS ARE NO MORE THAN 200-FT APART.
18. OPPOSING RAMPS SHALL HAVE A PEDESTRIAN WALKWAY ACROSS THE STREET, ATLEAST 7' WIDE, WITH A CROSS SLOPE (LONGITUDINAL STREET SLOPE) OF NO GREATER THAN 1.56%. VERTICAL CURVES SHALL BE INSTALLED AS NEEDED.
19. FOR SIDEWALK OR MULTI-USE PATH CROSSINGS OF PRIVATE DRIVEWAYS:
 - PEDESTRIANS HAVE THE RIGHT OF WAY FOR CROSSINGS OF UNSIGNALIZED PRIVATE DRIVEWAYS (RESIDENTIAL AND COMMERCIAL): THEREFORE, THE SIDEWALK OR PATH SHOULD EXTEND THROUGH THE DRIVEWAY AT GRADE WITH NO CURB RAMP OR DETECTABLE WARNING.
 - IN LOCATIONS WHERE TREE LAWN WIDTHS ARE NARROW MAKING THE DRIVEWAY APPROACH TOO STEEP TO PROVIDE A SAFE TRANSITION FOR VEHICLES BETWEEN THE STREET AND DRIVEWAY, THE SIDEWALK OR PATH MAY DROP IN ELEVATION 10'-15' ON EITHER SIDE OF THE DRIVEWAY. NO CURB RAMP OR DETECTABLE WARNING IS REQUIRED IN THIS CASE. THE MAX CROSS SLOPE SHALL BE 1.56%.
 - AT LARGE COMMERCIAL UNSIGNALIZED DRIVEWAYS, PROVISIONS FOR SIDEWALKS AND PATHS AND THE NEED FOR RAMPS AND DETECTABLE WARNINGS SHALL BE EVALUATED ON A CASE-BY-CASE BASIS.
 - LARGE COMMERCIAL SIGNALIZED DRIVEWAYS SHALL BE TREATED AS PUBLIC STREET INTERSECTIONS WITH RESPECT TO LOCATION AND DESIGN OF ALL SIDEWALKS, MULTI-USE PATHS, CURB RAMPS, AND DETECTABLE WARNINGS.

	CURB RAMP GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		2/12	CR-1

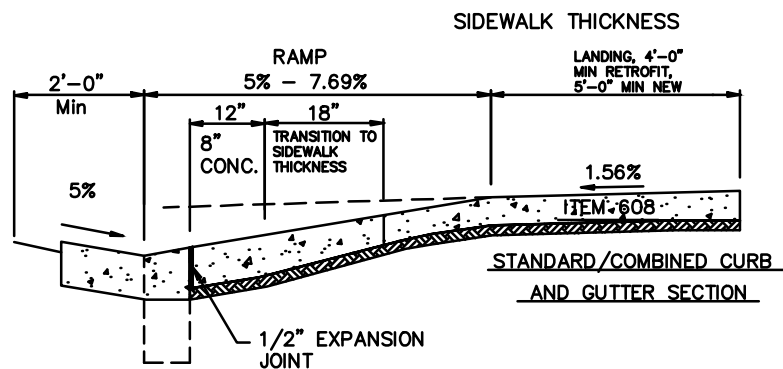
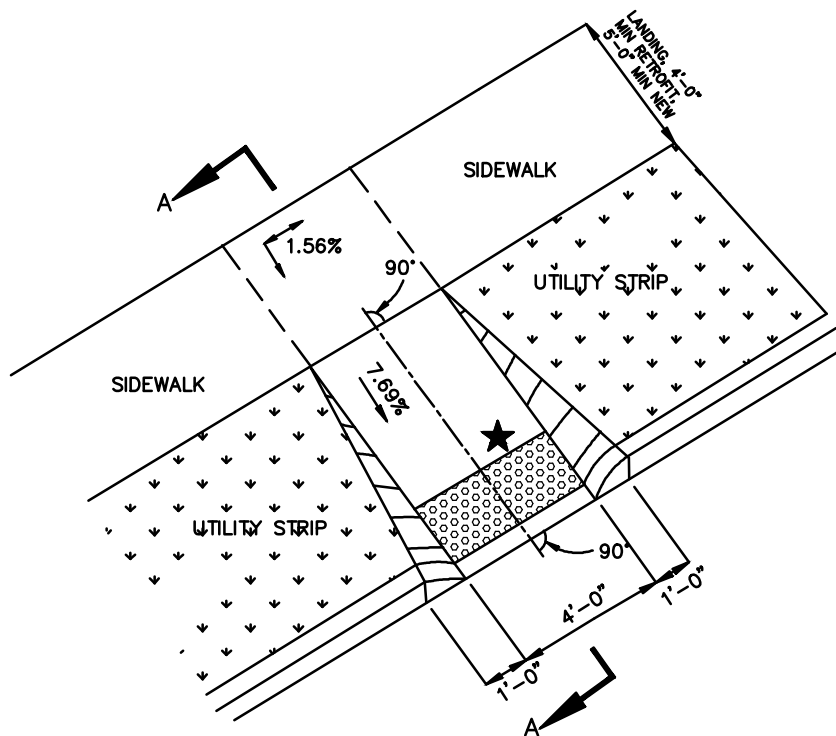


NOTES:

1. RAMP SHALL NOT ORIENT PEDESTRIANS INTO THE CENTER OF AN INTERSECTION. WHEN PLACED WITHIN THE RADIUS, A TYPE A RAMP SHALL BE ORIENTED DIRECTLY ACROSS FROM THE OPPOSING RAMP, PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS
3. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A RECESSED LANDING SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP AND THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE A RAMP WITH LONG FLARES	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		3/12	CR-1



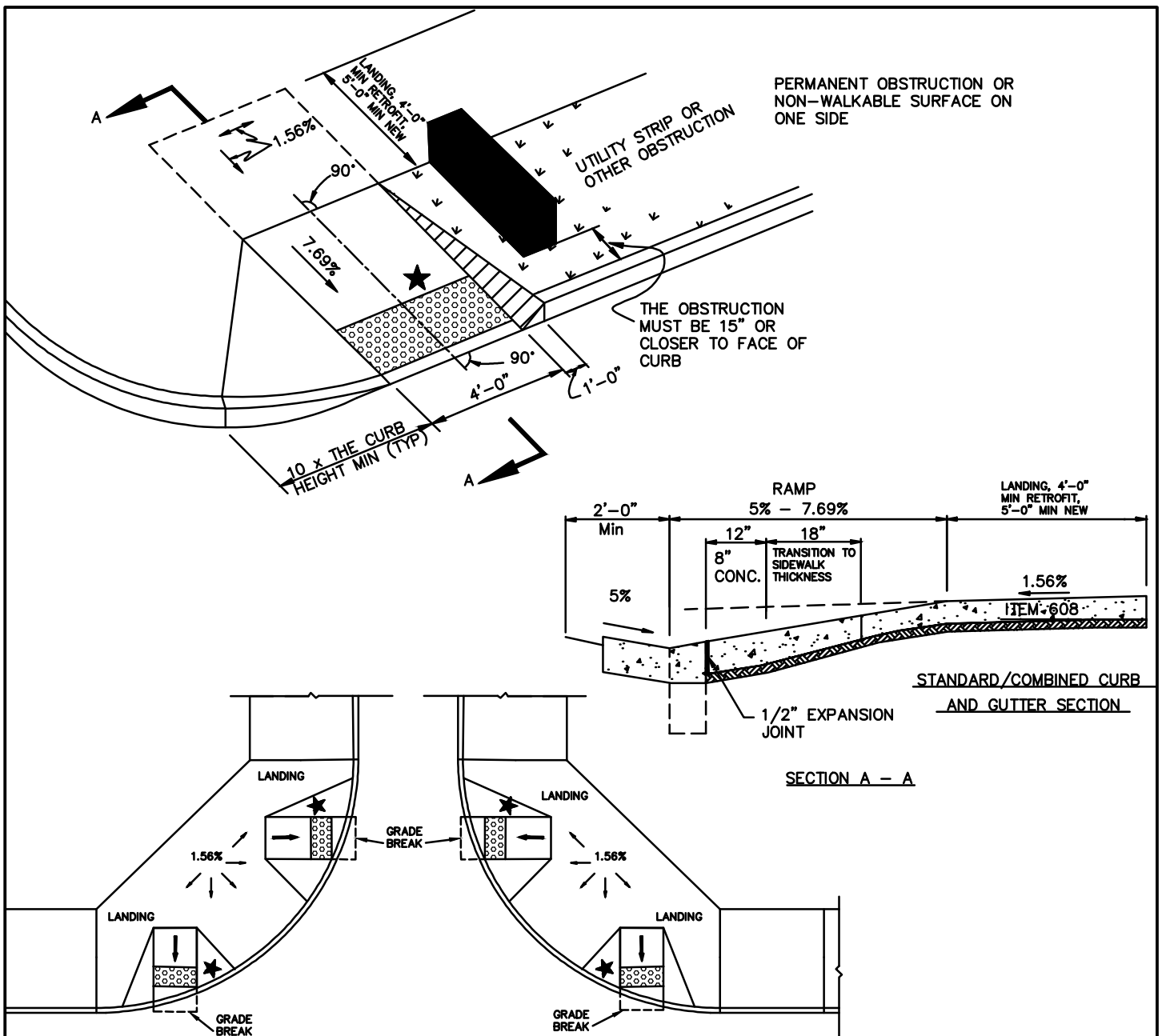
SECTION A - A

NOTES:

1. RAMP SHALL NOT BE PLACED IN FRONT OF A STOP SIGN OR IN FRONT OF THE NORMAL STOPPING LOCATION OF VEHICLES AT A STOP OR SIGNAL CONTROLLED INTERSECTION. A TYPE H RAMP SHOULD BE USED INSTEAD.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE C RAMP IN UTILITY STRIP	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		4/12	CR-1

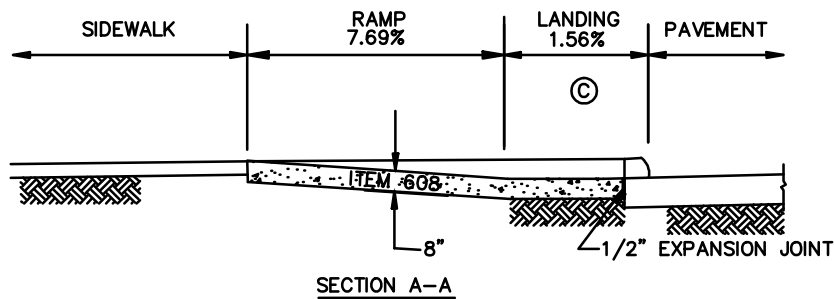
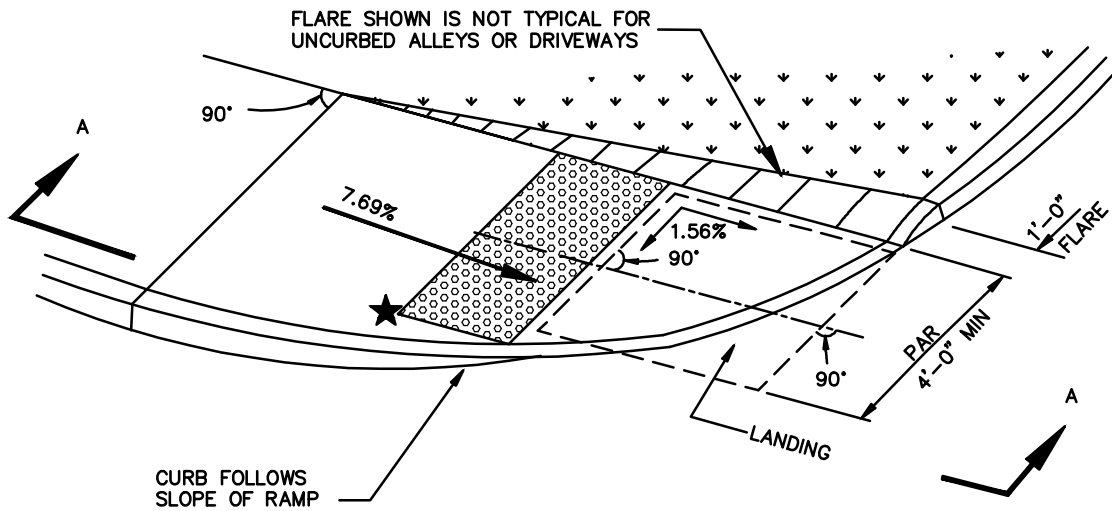


NOTES:

1. RAMP SHALL NOT ORIENT PEDESTRIANS INTO THE CENTER OF AN INTERSECTION. WHEN PLACED WITHIN THE RADIUS, A TYPE "D" RAMP SHALL BE ORIENTED DIRECTLY ACROSS FROM THE OPPOSING RAMP, PERPENDICULAR TO THE CENTERLINE OF THE CROSSING STREET.
2. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS
3. WHEN RAMPS ARE NOT PERPENDICULAR TO THE CURB, A RECESSED LANDING SHALL BE PROVIDED AT THE BOTTOM OF THE RAMP AND THE GRADE BREAK SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE D	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP OBSTRUCTED ON ONE SIDE	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		5/12	CR-1

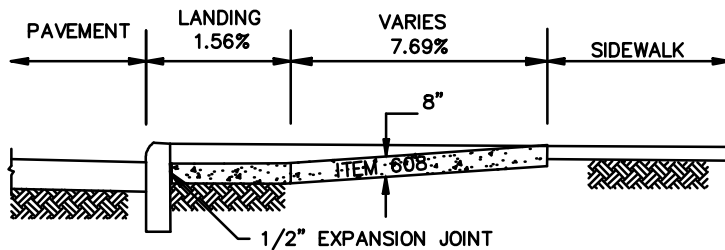
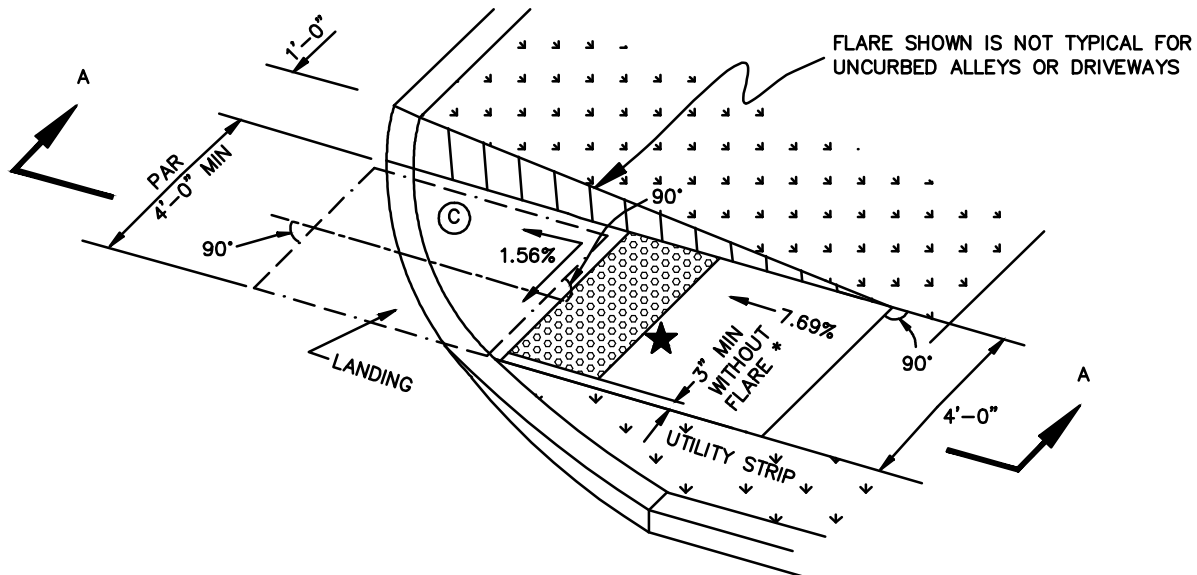


SUPPLEMENTAL NOTES

- A. THE BOTTOM EDGE OF THE RAMP SHALL CHANGE PLANES PERPENDICULAR TO THE LANDING.
- B. THE EDGE OF THE CURB SHALL BE FLUSH WITH THE EDGE OF THE ADJACENT PAVEMENT AND GUTTER.
- C. THE LANDING AT THE BOTTOM OF THE RAMP SHALL BE ≥ 2.5 -FT BY 4-FT WITH A MAXIMUM CROSS SLOPE OF 1.56% IN TWO DIRECTIONS.
- D. THE PEDESTRIAN ACCESS ROUTE (PAR) BETWEEN THE TWO RAMPS SHALL HAVE A MAXIMUM OF 1.56% CROSS SLOPE WITH A 5% MAXIMUM RUNNING SLOPE
- E. THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE G	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP WITH RECESSED LOWER LANDING	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		6/12	CR-1



SECTION A-A

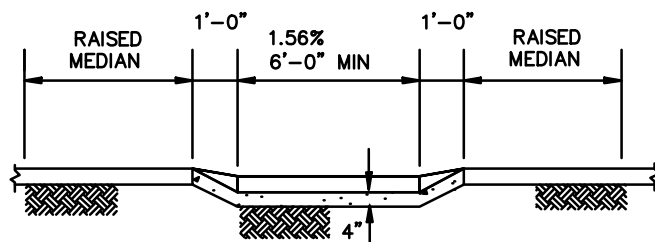
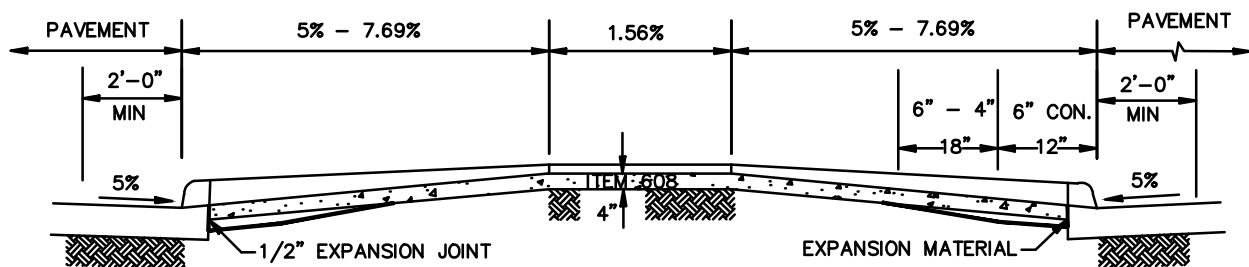
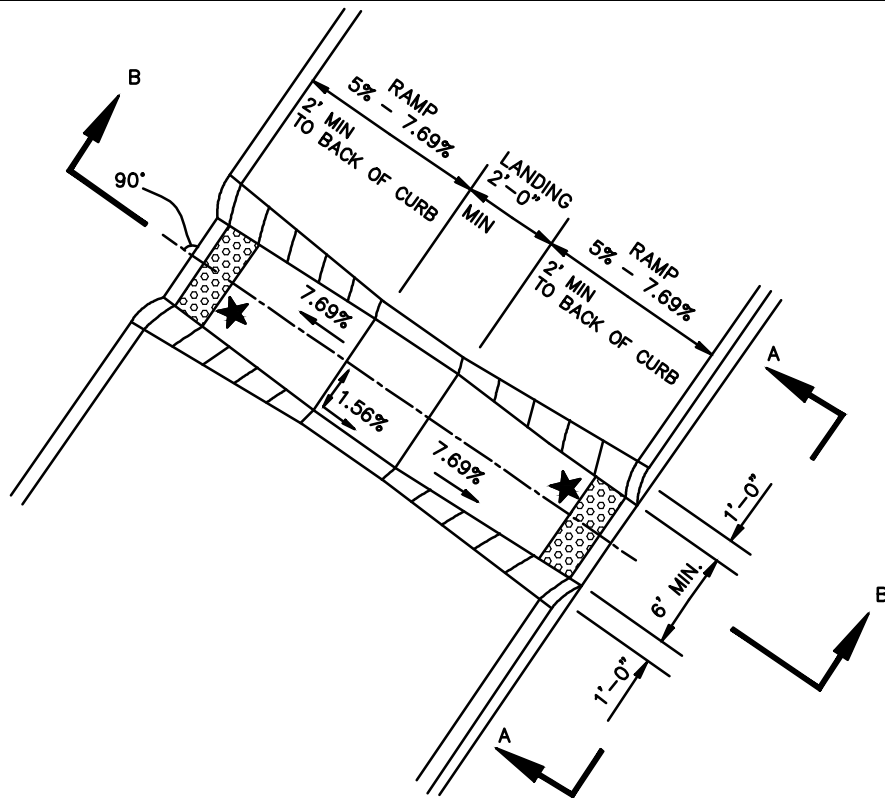
SUPPLEMENTAL NOTES

- THE BOTTOM EDGE OF THE RAMP SHALL CHANGE PLANES PERPENDICULAR TO THE LANDING.
- THE EDGE OF THE CURB SHALL BE FLUSH WITH THE EDGE OF THE ADJACENT PAVEMENT AND GUTTER.
- THE LANDING AT THE BOTTOM OF THE RAMP SHALL BE ≥ 2.5 -FT BY 4-FT WITH A MAXIMUM CROSS SLOPE OF 1.56% IN TWO DIRECTIONS.
- THE PEDESTRIAN ACCESS ROUTE (PAR) BETWEEN THE TWO RAMPS SHALL HAVE A MAXIMUM OF 1.56% CROSS SLOPE WITH A 5% MAXIMUM RUNNING SLOPE
- THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

* THIS IS FOR EMBEDDED (NON-SURFACE APPLIED) DETECTABLE WARNINGS ONLY

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

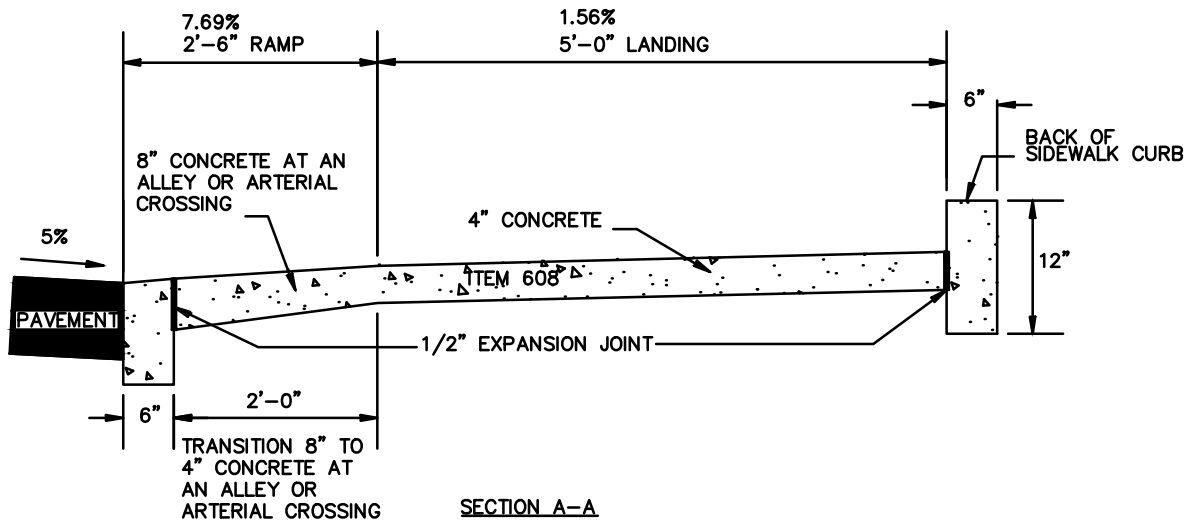
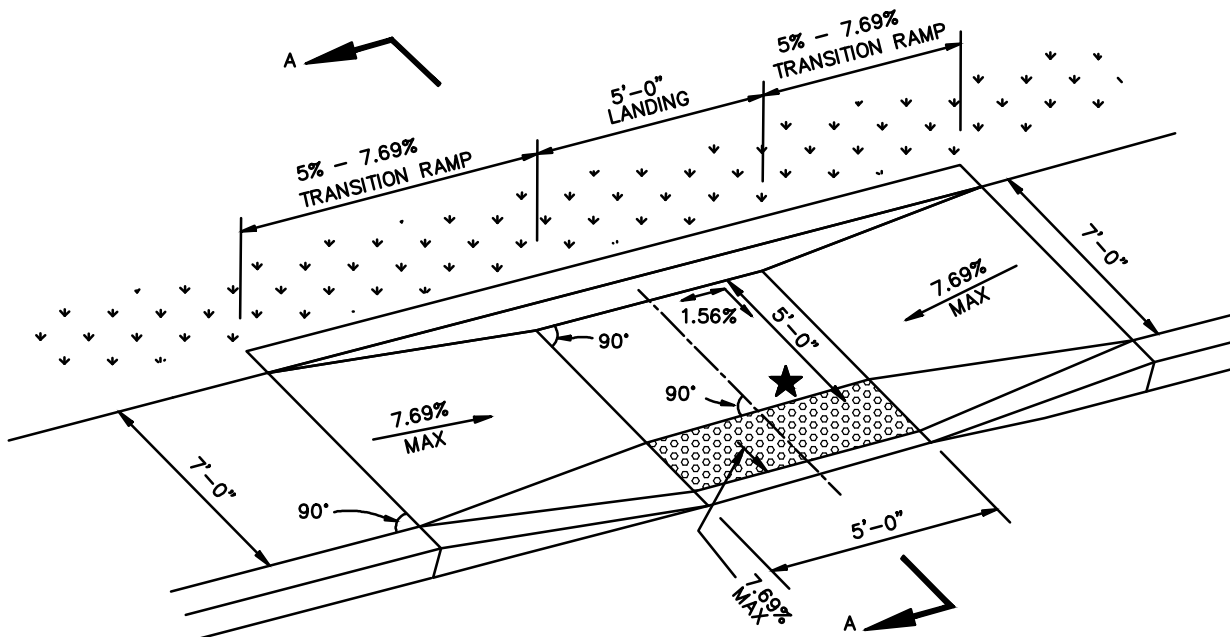
	CURB RAMP TYPE H	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	RAMP WITH RECESSED LOWER LANDING IN UTILITY STRIP	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		7/12	CR-1



RAMPS MAY BE OMITTED IN MEDIANS IF PEDESTRIANS CAN CROSS THROUGH THE MEDIAN AT STREET GRADE

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

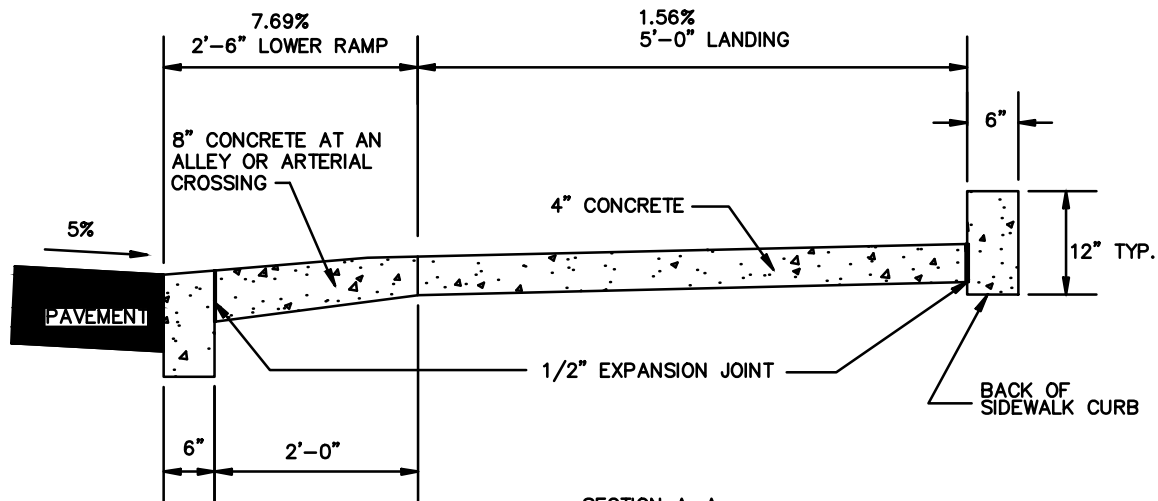
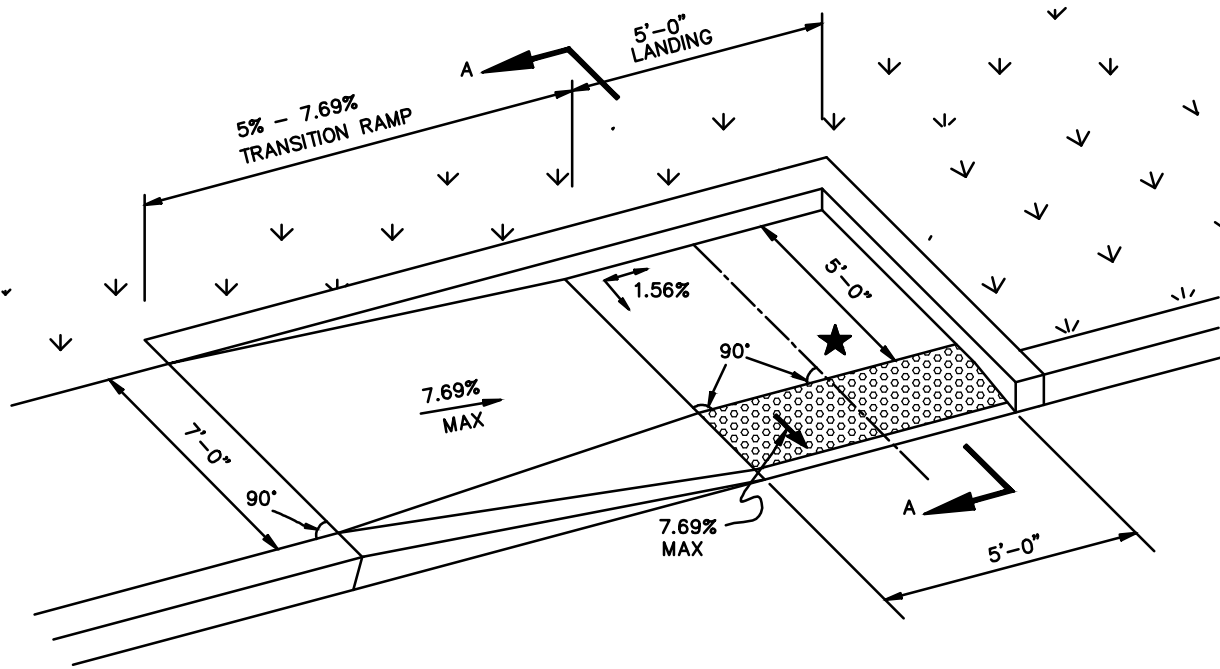
	CURB RAMP TYPE L	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	MEDIAN RAMP WITH CENTER LANDING	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		8/12	CR-1



THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM OF THE RAMP MEETS THE STREET APPLIES TO BOTH STRAIGHT CURB AND CURB AND GUTTER SECTIONS

★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE P1	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	COMBINED PERPENDICULAR & PARALLEL RAMP	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		9/12	CR-1



THE 5% MAXIMUM COUNTERSLOPE WHERE THE BOTTOM
OF THE RAMP MEETS THE STREET APPLIES TO BOTH
STRAIGHT CURB AND CURB AND GUTTER SECTIONS

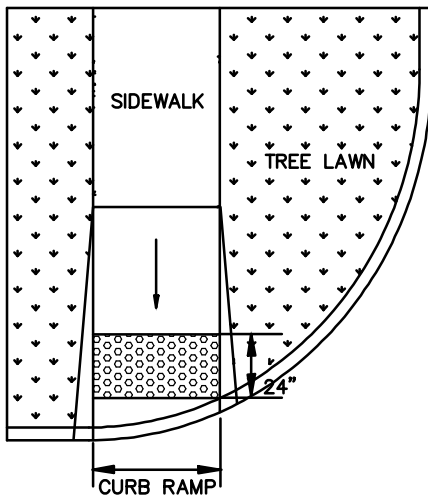
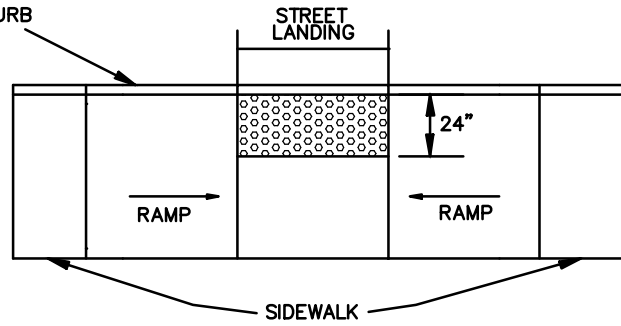
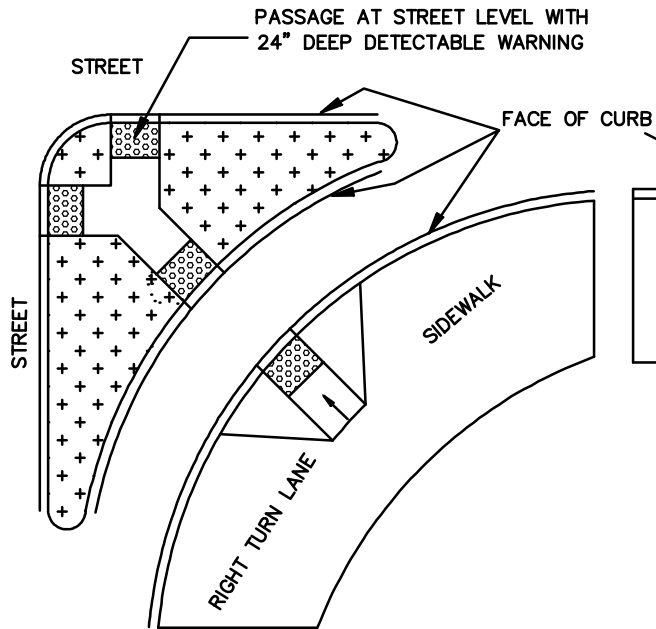
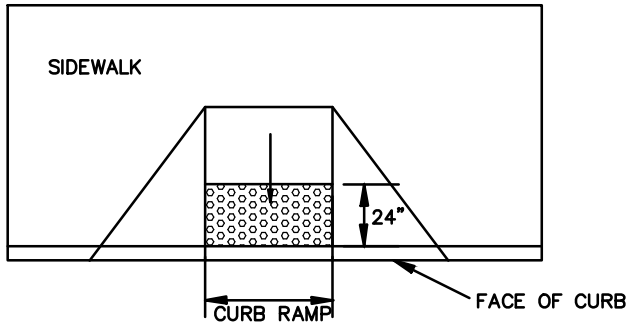
★ SEE SHEET 12/12 FOR DETECTABLE WARNING DETAILS

	CURB RAMP TYPE P2	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015	COMBINED PERPENDICULAR & PARALLEL RAMP IN ONE DIRECTION	STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		10/12	CR-1

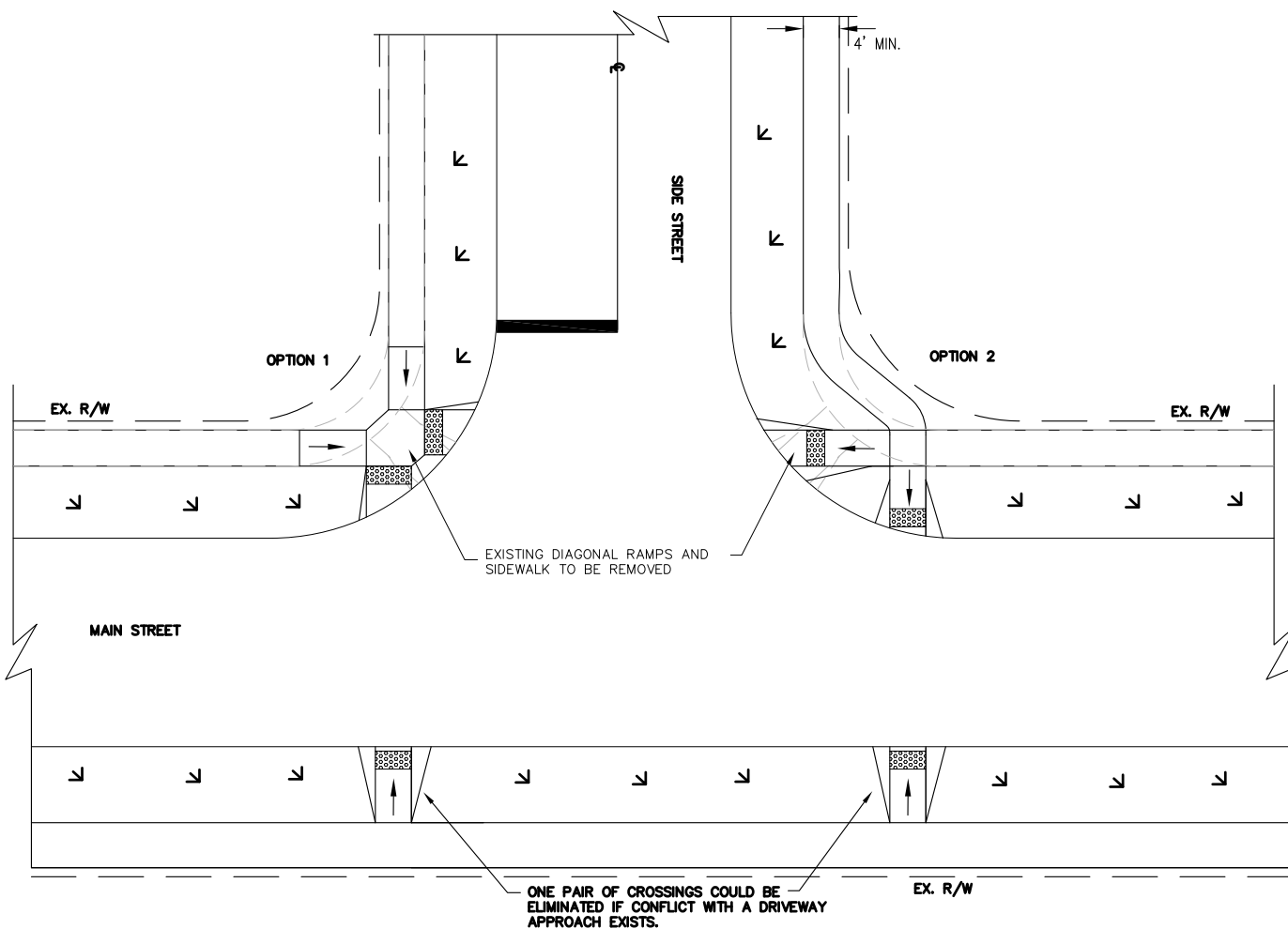
NOTES

1. DETECTABLE WARNINGS SHALL BE PROVIDED WHEREVER A CURB RAMP CROSSES A VEHICULAR WAY, EXCLUDING UNSIGNALIZED DRIVEWAY CROSSINGS. SEE #19 OF GENERAL CURB RAMP NOTES.
2. DETECTABLE WARNINGS SHALL BE PROVIDED 24" 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 6" TO 8" BEHIND THE FACE OF CURB AND BEHIND CURB JOINT
4. CAST IN PLACE OR ANY NON-SURFACE APPLIED DETECTABLE WARNING SHALL HAVE A MIN OF 3" OF CONCRETE ON EACH SIDE OF THE WARNING.
5. MATERIALS SHALL COMPLY WITH C.O.C. SUPPLEMENTAL SPECIFICATION 1551 WITH THE FOLLOWING NOTED EXCEPTIONS:
 - A. BRICK RED IS THE ONLY APPROVED COLOR UNLESS OTHERWISE APPROVED IN ADVANCE IN WRITING BY THE CITY ENGINEER
 - B. TYPE "A", "B" AND "C" DETECTABLE WARNING SURFACES ARE NOT APPROVED
 - C. TYPE "D" THIN TILE AND THIN MOLDED SHEET GOODS ARE APPROVED ON RETROFIT INSTALLATIONS ONLY.
 - THE PRE-APPROVED TYPE "D" MATERIAL IS "ARMOR TILE TACTILE SYSTEMS" FLAT SURFACE APPLIED MAT.
 - OTHER MATERIALS MAY BE SUBSTITUTED FOR THIS PRODUCT IF PRIOR APPROVAL IS GRANTED TO THE CITY ENGINEER
 - D. TYPE "E" PRE-MANUFACTURED WET-SET PROJECTS ARE APPROVED FOR USE ON NEW CONSTRUCTION ONLY. THESE PRODUCTS MUST BE 24" WIDE AND $\frac{1}{2}$ " THICK. ONE PIECE PANELS SHOULD BE USED FOR SIDEWALK INSTALLATIONS. ALL PRODUCTS MUST BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND GUIDELINES. THE TYPE "E" PRODUCTS PRE-APPROVED FOR USE IN THE CITY OF HILLIARD ARE LISTED BELOW.
 - ENGINEERED PLASTICS, INC. – ARMOR-TILE CAST IN PLACE SYSTEMS
 - ADA SOLUTIONS, INC. – COMPOSITE (WET SET) REPLACEABLE TWS UNIT
 - ARMORCAST PRODUCTS COMPANY – CAST IN PLACE DETECTABLE WARNING PANEL
 - OTHER MATERIALS MAY BE SUBSTITUTED FOR THE ABOVE LISTED PRODUCTS IF PRIOR APPROVAL IS GRANTED BY THE CITY ENGINEER.
 - E. DETECTABLE WARNINGS SHALL EXTEND THE ENTIRE WIDTH OF THE CURB RAMP FOR SIDEWALKS AND MULTI-USE PATHS LOCATED PARALLEL TO A PUBLIC STREET (SIDE PATHS).
 - F. DETECTABLE WARNING STRIPS MUST COMPLY WITH ADA SPECIFICATIONS FOR RAMP AREA, INCLUDING RUNNING SLOPE, CROSS-SLOPE, FLATNESS AND SMOOTHNESS CRITERIA AS WELL AS FLUSH TRANSITIONS BETWEEN THE CONCRETE RAMP AND THE DETECTABLE WARNING SURFACE.
 - G. ALL DETECTABLE WARNING STRIP INSTALLATIONS SHALL BE WARRANTED BY THE INSTALLING CONTRACTOR AND MANUFACTURER TO BE FREE OF DEFECTS FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF INSTALLATION. THE DETECTABLE WARNING STRIP SHALL LOSE NO MORE THAN FIVE PERCENT (5.0 %) OF TRUNCATED DOMES DUE TO DELAMINATION BECAUSE OF PRODUCT FAILURE. SURFACE SHALL BE WARRANTED FOR THAT 3-YEAR PERIOD FROM FADING, CHIPPING, CRACKING, PEELING, OR LOSS OF COLOR DUE TO THE EXPOSURE TO WEATHERING, DE-ICING SALTS, AND SUNLIGHT.

	CURB RAMP DETECTABLE WARNING NOTES	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		11/12	CR-1



	CURB RAMP DETECTABLE WARNINGS	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		12/12	CR-1



NOTES:

















- EXISTING DIAGONAL RAMPS AND APPROACH WALK SHALL BE REMOVED IN ORDER TO CONSTRUCT FULLY COMPLIANT ADA RAMPS IN THE MANNER SHOWN IN OPTION 1 OR OPTION 2.
- OPTION 1 PROVIDES A SINGLE SHARED LOWER LANDING AREA AND TWO SEPARATE UPPER LANDING AREAS FOR EACH RAMP.
- OPTION 2 PROVIDES A SINGLE SHARED UPPER LANDING AREA AND TWO SEPARATE LOWER LANDING AREAS FOR EACH RAMP.
- FOR A 4-WAY INTERSECTION, 8 RAMPS SHALL BE PROVIDED. ELIMINATE THE SINGLE RAMP SHOWN ON THE BOTTOM OF THE MAIN STREET AND MIRROR THE CURB RAMP OPTIONS THAT ARE SHOWN ABOVE.
- RAMP AND WALK WIDTH SHALL MATCH EXISTING OR 4' MIN, WHICHEVER IS GREATER.

	CURB RAMP RETROFIT	CITY OF HILLIARD, OHIO	
DATE: March 6, 2015		STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 20'		1/1	CR-2

The following general CAD standards are to be followed on all plan submissions made to the City of Hilliard.

- The standard sheet size is to be 34"x22" with a 1/2" border along the top, bottom and right side of the sheet and a 1 1/2" border along the left side of the sheet. No exceptions.
- Minimum plan scale shall be 1"=50'.
- All text shall be readable from the bottom or right side side of the sheet. No upside down or backward text will be acceptable.
- The minimum acceptable text size for all existing features shall be 0.08" (1/12").
- The minimum acceptable text size for all proposed features shall be 0.10" (1/10").
- Text placement shall be such so as to avoid lines through text when possible.
- All bearings & distances shall be presented in the following manner:
N 38°06'53" E 100.00'
- Bearings & distances for property boundaries shall proceed in a clockwise direction.
- Spot elevations provided on a hard surface (top of pavement, top of curb, top of casting, inverts, etc.) are to be to the nearest 0.01'. Spot elevations provided on soil (ditch bottoms, swales, etc.) are to be to the nearest 0.1'.
- All storm and sanitary lines shall have the direction of flow indicated on the plan view by placing flow arrows at the midpoint of the line.
- Labeling of existing storm sewers, sanitary sewers and water lines shall contain the Hilliard record plan number (HP-XXX) for the plan which constructed the utility.
- Polylines such as existing contours, existing edge of pavement, existing ground profiles etc. shall have the linetype generation enabled for said lines. Also the value for the settings LTSCALE and PSLTSCALE shall be set to 1.

APPROVED	CAD STANDARDS GENERAL	CITY OF HILLIARD, OHIO	
CITY ENGINEER _____ DATE _____		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		1/1	CS-1

	<u>PROPOSED</u>	<u>EXISTING</u>
MANHOLE		
CATCH BASIN		
CURB INLET		
HEADWALL / ENDWALL		
FIRE HYDRANT		
WATER VALVE		
REDUCER		
CLEAN OUT		

APPROVED	CAD STANDARDS STORM/SANITARY/WATER SYMBOLS	CITY OF HILLIARD, OHIO	
CITY ENGINEER		DATE	STANDARD CONSTRUCTION DRAWING
SCALE: NTS		1/1	CS-2

CONSTRUCTION ENTRANCE



INLET PROTECTION



FILTER FABRIC FENCE



MAJOR FLOOD ROUTING



DRAINAGE ARROW
(PROPOSED, EXISTING)



SPOT ELEVATION – SOFT SURFACE
(PROPOSED, EXISTING)

900.0

(900.0)

SPOT ELEVATION – HARD SURFACE
(PROPOSED, EXISTING)

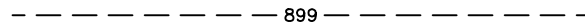
900.00

(900.00)

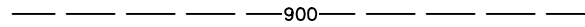
EXISTING DITCH



EXISTING 1' INTERMEDIATE
CONTOURS



EXISTING 5' INDEX CONTOURS



APPROVED

CITY ENGINEER DATE

SCALE: NTS

CAD STANDARDS
GRADING/EROSION
CONTROL SYMBOLS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

CS-3

(DY) – CENTER LINE, 5" DOUBLE YELLOW

PROPOSED SIGN



(CSD) – CENTER LINE, 5" SOLID-DASHED YELLOW

(CD) – CENTER LINE, 5" DASHED YELLOW

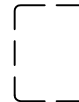
EXISTING SIGN
TO REMAIN



(WE) – EDGE LINE, 5" WHITE

(YE) – EDGE LINE, 5" YELLOW

EXISTING SIGN
TO BE RELOCATED



(TO BE RELOCATED)

(WT) – TRANSVERSE LINE, 20" WHITE

(YT) – TRANSVERSE LINE, 20" YELLOW

EXISTING SIGN
TO BE REMOVED



(LL) – LANE LINE, 5" DASHED WHITE (10' LONG WITH 30' SPACING)

(LS) – LANE LINE, 5" SOLID WHITE

ONE-WAY RAISED
PAVEMENT MARKER



(CH) – CHANNELIZING LINE, 10" WHITE

(SL) – STOP LINE, 20" WHITE

TWO-WAY RAISED
PAVEMENT MARKER



(XW) – CROSSWALK LINE, 10" WHITE @ 10' SPACING

(YIM) – ISLAND MARKING, YELLOW

SIGN POST
SINGLE



(LA) – LANE ARROW, 96" WHITE

(WP) – WORD ON PAVEMENT, 72" WHITE

SIGN POST
DOUBLE



(R) – REMOVAL OF PAVEMENT MARKINGS

(T) – TEMPORARY PAVEMENT MARKINGS

Notes:

- Items 644 and 645 shall be used for all pavement. Item 642 shall be used for all other applications.
- All pavement markings are to be stationed on the plans. Locate turn arrows and words on the pavement according to City of Columbus guidelines, except that 50' tapers shall be used for all turn lanes.

APPROVED

CITY ENGINEER DATE

SCALE: NTS

CAD STANDARDS
TRAFFIC CONTROL
SYMBOLS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

CS-4

STREET LIGHT



TRANSFORMER OR PEDESTAL



PULL BOX



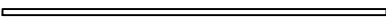
DISCONNECT



1 1/2" CONDUIT



2 1/2" STREET CROSSING CONDUIT



APPROVED

CITY ENGINEER DATE

SCALE: NTS

CAD STANDARDS
STREET LIGHTING
SYMBOLS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

CS-5

BOUNDARIES

Centerline/Baseline Construction, Centerline Survey	1+00 C/L CONST, R/W & SURVEY
Existing Right-of-Way	_____
Proposed Right-of-Way	_____
Easement Line	- - - - -
Building Set-Back Line	_____ 35' B/L _____
Existing Property Line	_____
Existing Lot Line	- - - - -
Property Boundry	_____

UTILITIES

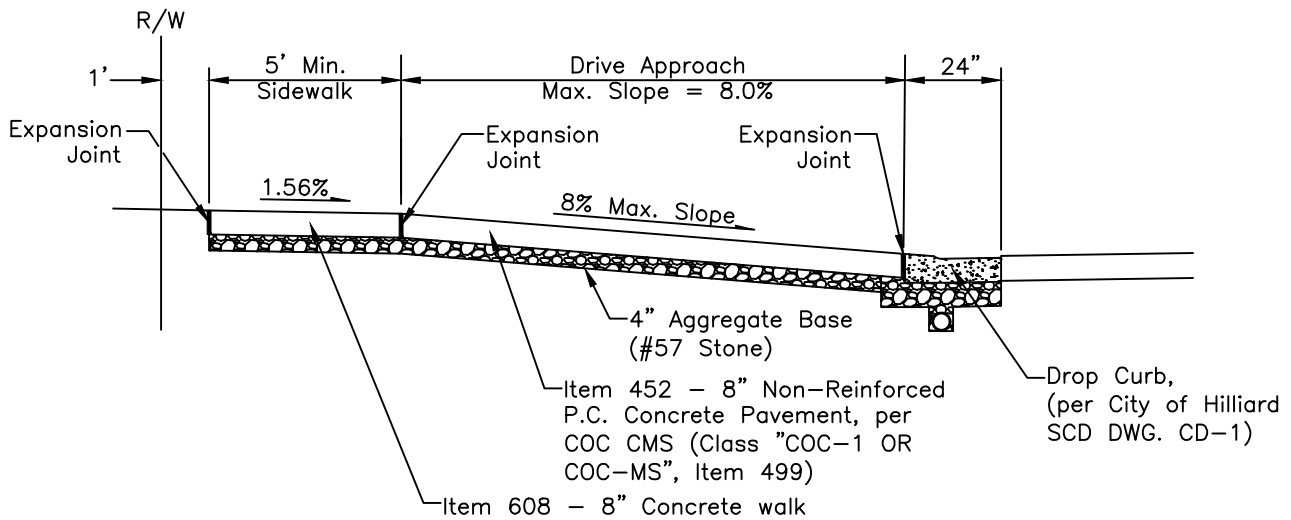
Existing Electric Line	- E - - - E - - - E - - - E - - -
Proposed Electric Line	_____ E _____ E _____
Existing Telecommunication Line	- T - - - T - - - T - - - T - - -
Proposed Telecommunication Line	_____ T _____ T _____
Existing Gas Line	- G - - - G - - - G - - - G - - -
Proposed Gas Line	_____ G _____ G _____
Existing Sanitary Sewer	- SA - - - SA - - - SA - - - SA - - -
Proposed Sanitary Sewer	_____ SA _____ SA _____
Existing Storm Sewer	- ST - - - ST - - - ST - - - ST - - -
Proposed Storm Sewer	_____ ST _____ ST _____
Existing Water Line	- WA - - - WA - - - WA - - - WA - - -
Proposed Water Line	_____ WA _____ WA _____

MISCELLANEOUS

Existing Edge of Pavement	_____
Existing Face/Back of Curb	_____
Existing Walk/Bike Path	- - - - -
Existing Cross-Section or Profile	- - - - -
Proposed Cross-Section or Profile	_____
Existing Fence	_____ x _____ x _____ x _____
Proposed Fence	_____ x _____ x _____ x _____
Existing Ditch
Existing 1' Intermediate Contours	_____ 899 _____
Existing 5' Index Contours	_____ 900 _____
Major Grid Lines	_____
Minor Grid Lines (Dots)

An AutoCAD line file is available from the City of Hilliard upon request.

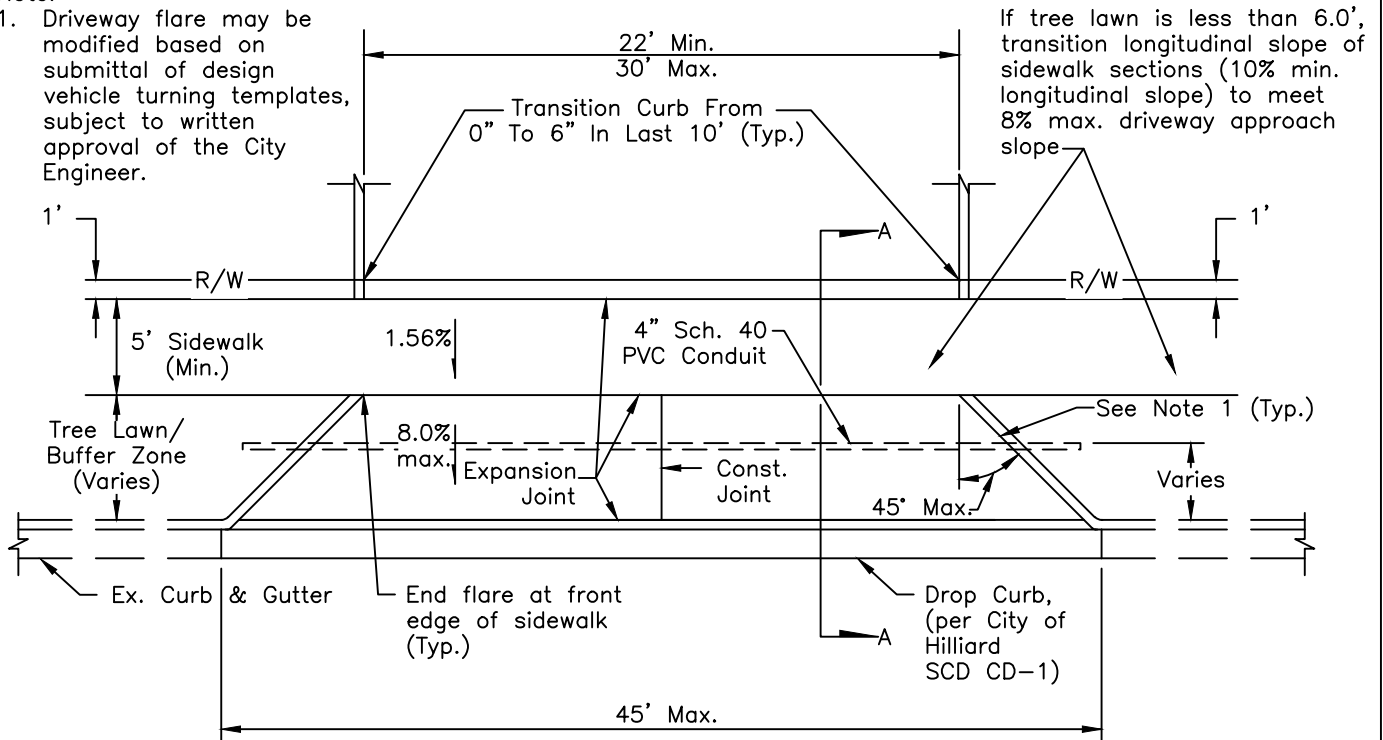
APPROVED	CAD STANDARDS LINETYPES	CITY OF HILLIARD, OHIO	
CITY ENGINEER DATE		STANDARD CONSTRUCTION DRAWING	
SCALE: N/A		1/1	CS-6



SECTION A-A

Note:

1. Driveway flare may be modified based on submittal of design vehicle turning templates, subject to written approval of the City Engineer.



Litty Achauf

DATE: March 06, 2023

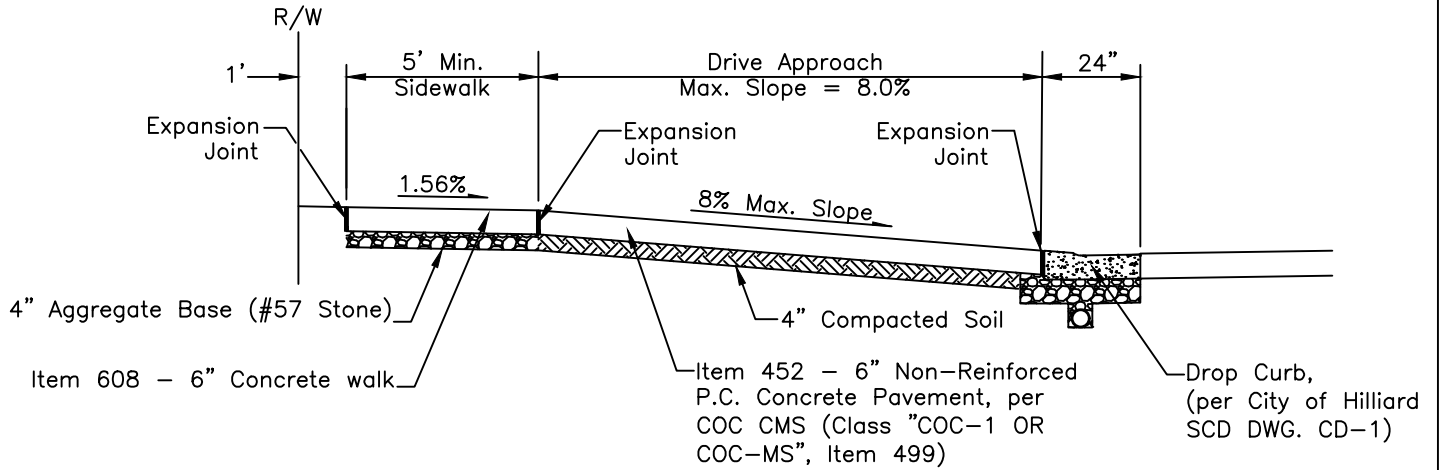
SCALE: NTS

DRIVEWAY APPROACH DETAIL
COMMERCIAL OR MIXED USE
ENTRANCE

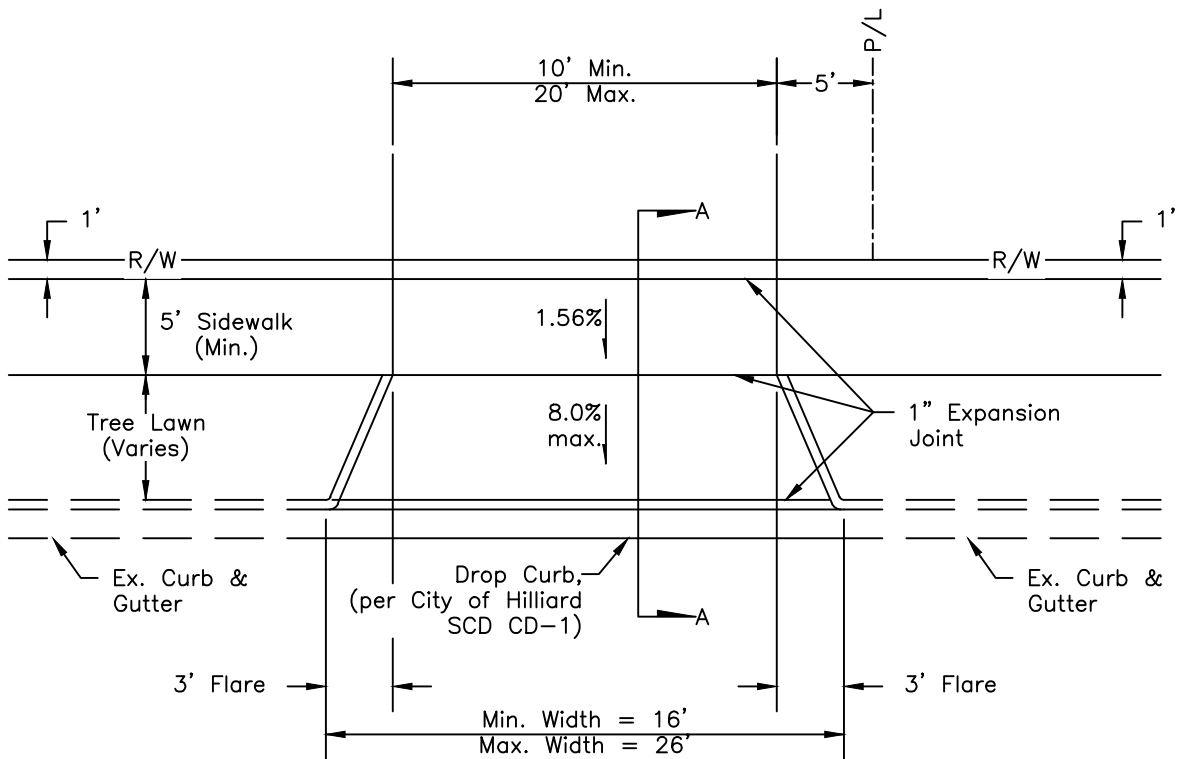
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

DD-1



SECTION A-A



Litty Achaur

DATE: March 06, 2023

SCALE: NTS

DRIVEWAY APPROACH DETAIL
RESIDENTIAL ENTRANCE

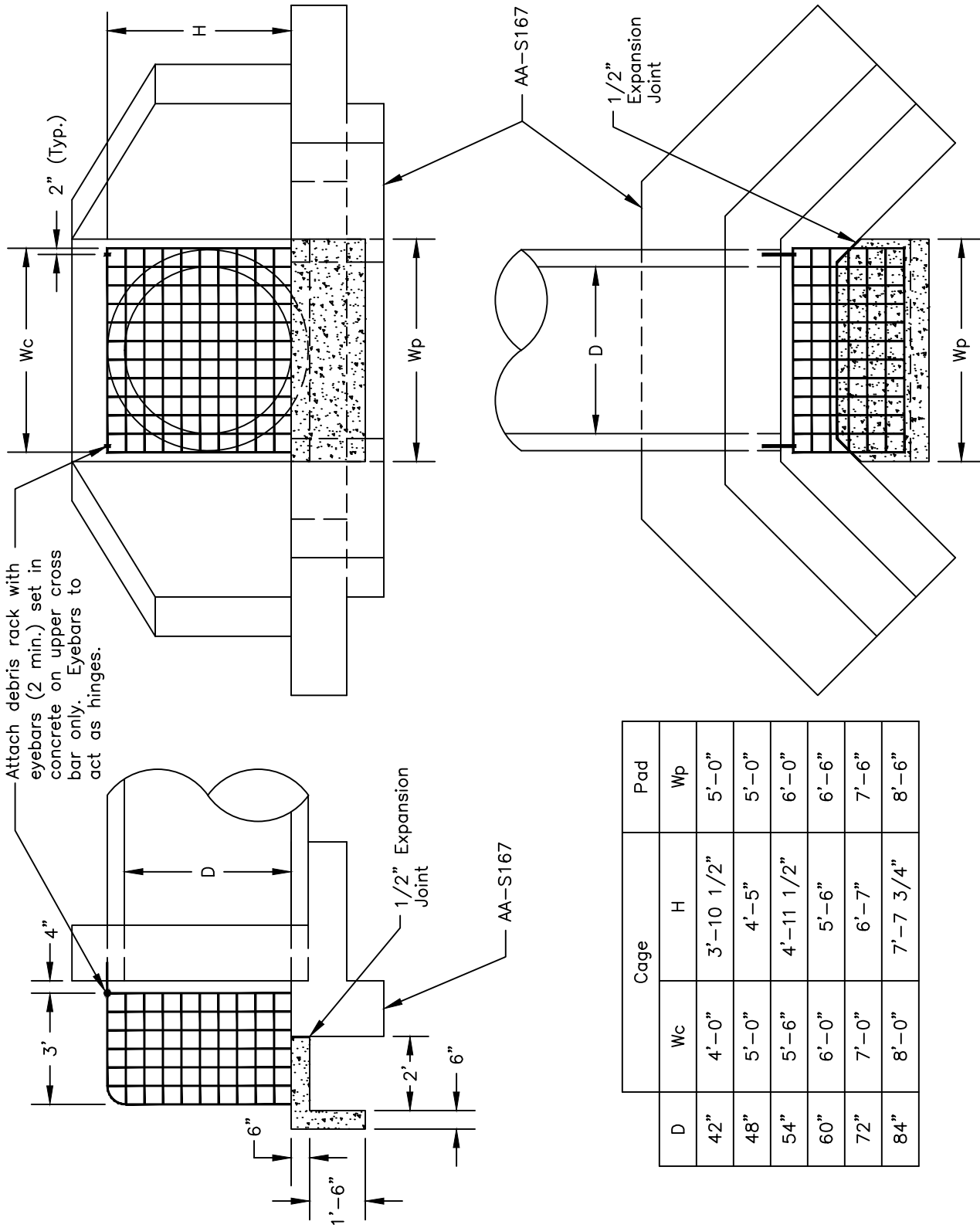
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

DD-2

Notes:

Fabricate debris rack by welding 1/2" steel bars @ 6" c/c to form a 3'HxWc' cage. Include cost of debris rack and concrete pad under price bid for headwall.



	Cage		Pad	
	D	Wc	H	Wp
42"		4'-0"	3'-10 1/2"	5'-0"
48"		5'-0"	4'-5"	5'-0"
54"		5'-6"	4'-11 1/2"	6'-0"
60"		6'-0"	5'-6"	6'-6"
72"		7'-0"	6'-7"	7'-6"
84"		8'-0"	7'-7 3/4"	8'-6"

APPROVED

CITY ENGINEER DATE

SCALE: 1/4" = 1'

DEBRIS RACK DETAIL
42" TO 84" DIAMETER

CITY OF
HILLIARD, OHIO

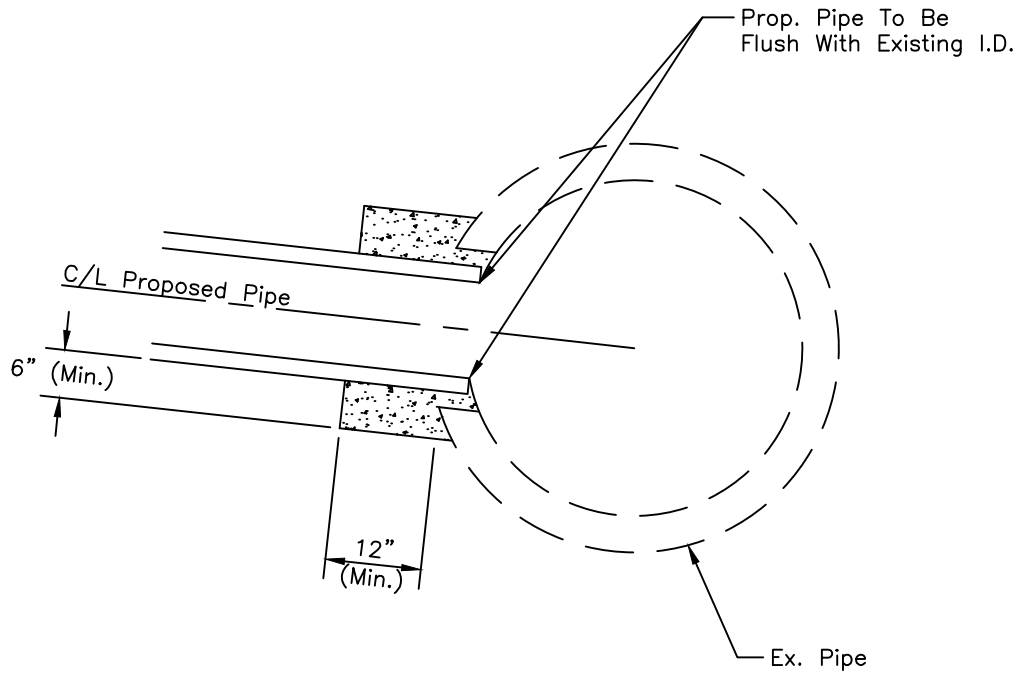
STANDARD
CONSTRUCTION DRAWING

1/1

DR-2

Notes:

The insert hole diameter in the existing pipe shall be a minimum 2" larger than the outside diameter of the proposed pipe. The reinforcing steel in the existing pipe shall be bent into the concrete collar. All cost of the direct tap shall be included in the price bid for storm sewer items. Flow in the existing pipe shall be maintained at all times.



APPROVED

CITY ENGINEER DATE

SCALE: 1/2" = 1'

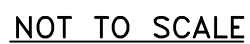
DIRECT TAP DETAIL

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

DT-1



CITY ENGINEER DATE

SCALE: 1" = 30'

EYEBROW DETAIL

JOINT SPACING

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

 $1/2$

ED-1

From edge of pavement to 10' back of gutter line is to be either one pour or the alternate use of A & B with expansion joints between the A & B sections with 2-#4 rebar required in section A.



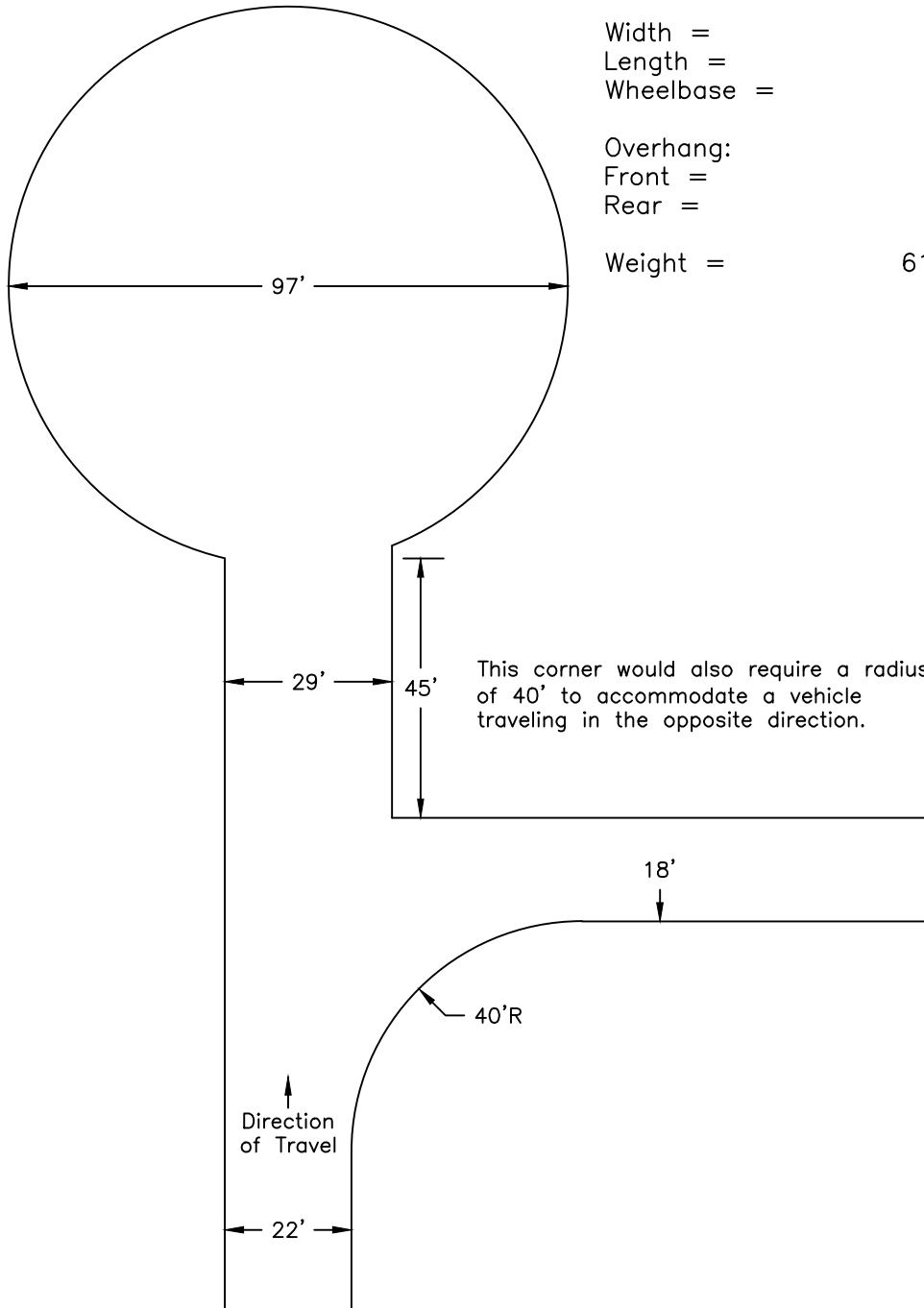
APPROVED	EYEBROW DETAIL TYPICAL SECTION A-A	CITY OF HILLIARD, OHIO	
CITY ENGINEER _____ DATE _____		STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 10'		2/2	ED-1

Ladder 81 Vehicle Characteristics

Width = 8'-6"
Length = 50'-0"
Wheelbase = 25'-0"

Overhang:
Front = 6'-6"
Rear = 20'-0"

Weight = 61,500 lbs.



APPROVED

CITY ENGINEER DATE

SCALE: 1/32" = 1'

EMERGENCY VEHICLE
TURNING REQUIREMENTS

CITY OF
HILLIARD, OHIO

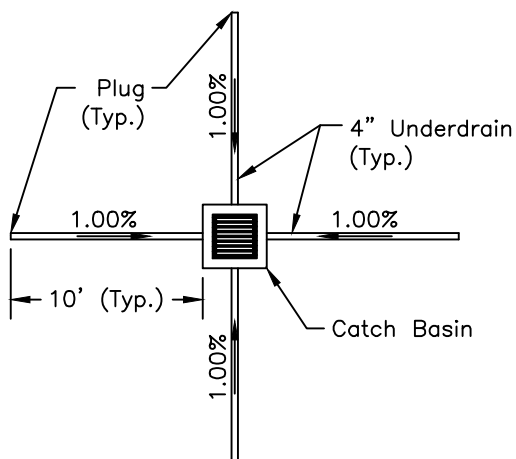
STANDARD
CONSTRUCTION DRAWING

1/1

EV-1

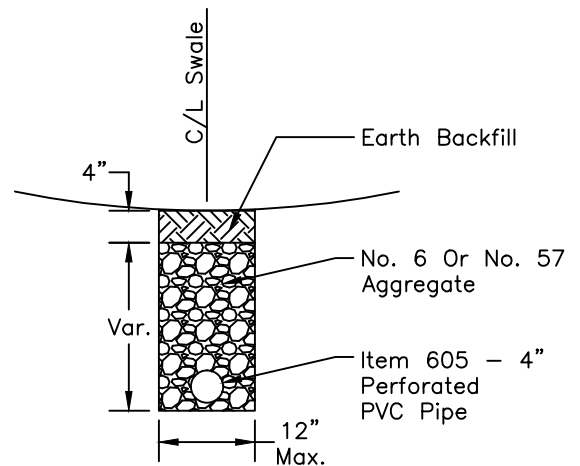
Notes:

1. Install 10 foot lengths of 4" perforated PVC pipe out of the bottom of catch basins at a 1.00% grade. The upstream end shall be plugged. The underdrain shall be protected from construction traffic after installation.
2. Subgrade drains are to be installed at all catch basins.



TYPICAL UNDERDRAIN LAYOUT

SCALE: 1" = 10'



TYPICAL UNDERDRAIN DETAILS

SCALE: 1" = 2'

APPROVED

CITY ENGINEER DATE

SCALE: As Shown

FINGER DRAIN DETAIL

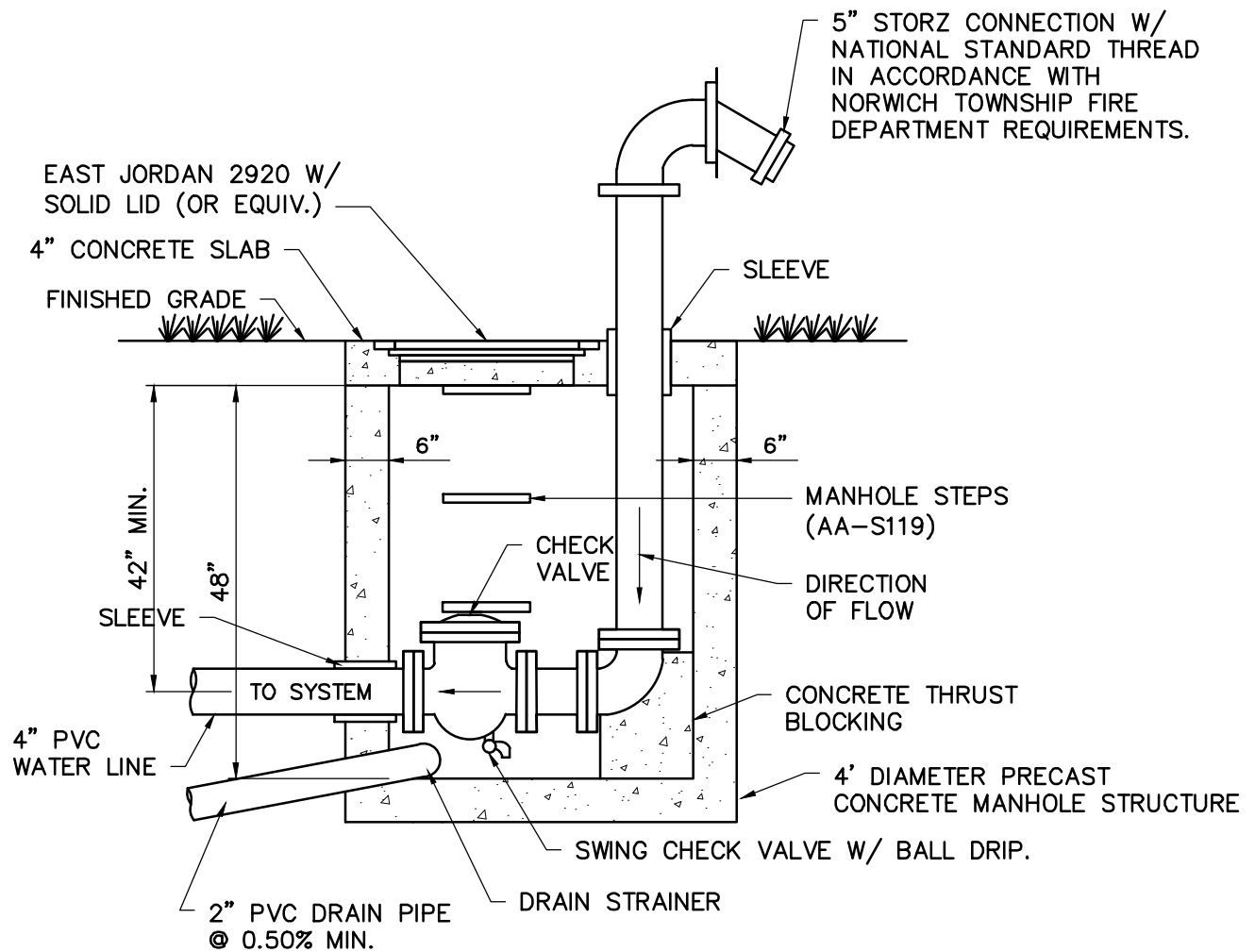
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

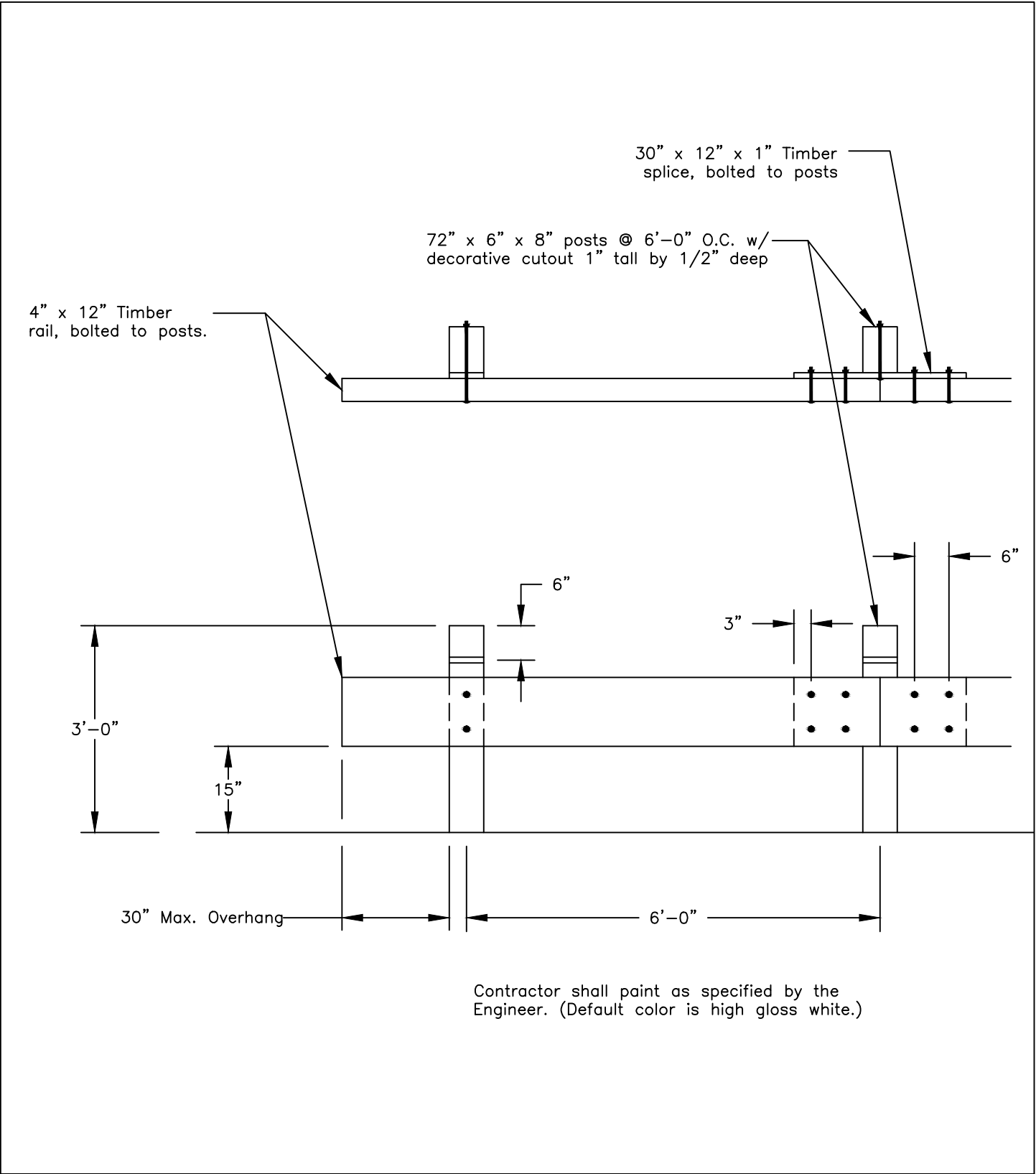
FD-1

CONTRACTOR TO INSTALL STROBE LIGHT & ADDRESS CARD IN ACCORDANCE WITH NORWICH TOWNSHIP FIRE DEPARTMENT STANDARDS. THE ADDRESS CARD WILL IDENTIFY THE BUILDING THAT EACH FDC SERVES.

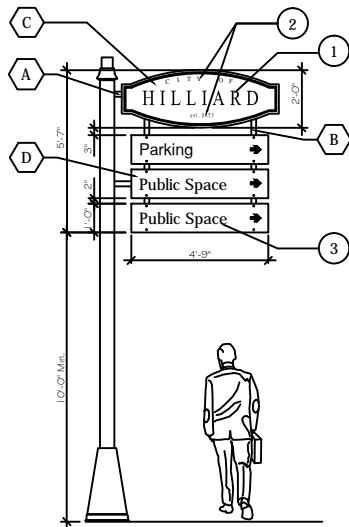


	REMOTE FIRE DEPARTMENT CONNECTION	CITY OF HILLIARD, OHIO	
DATE: September 7, 2016		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		1/1	FDC-1

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Guardrail Detail.dwg, 4/25/2013 8:39:11 AM

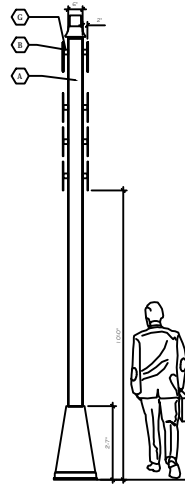


APPROVED		4"x12" TIMBER GUARDRAIL	CITY OF HILLIARD, OHIO	
CITY ENGINEER	DATE		STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 2'			1/1	GR-1



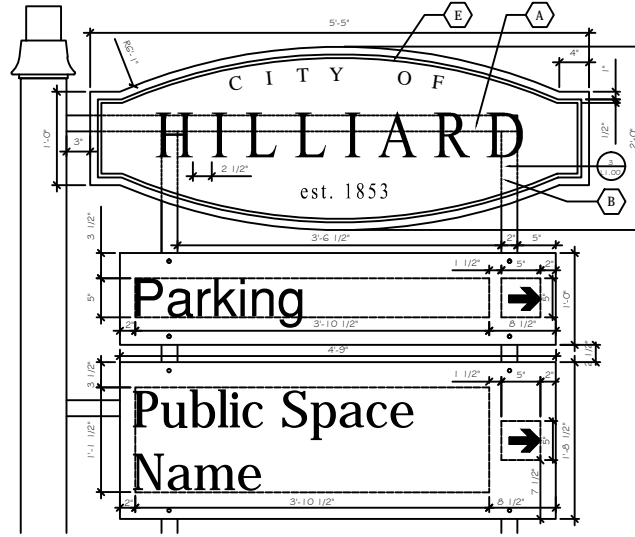
1 POLE MOUNTED SIGNAGE

SCALE: 1"=2'-0"



4 POLE MOUNTED SIGNAGE CROSS SECTION

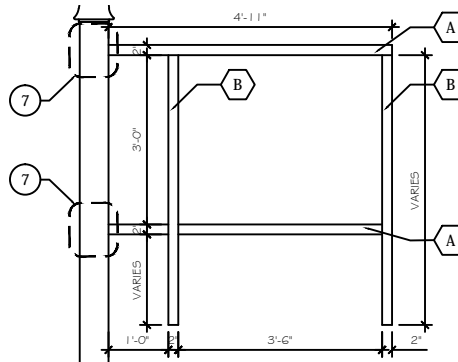
SCALE: 1"=2'-0"



Note: Maximum text height is 5" to allow up to 14 characters and a directional arrow. Panel must increase in size to fit two lines of text when more than 14 characters are necessary.

2 ENLARGEMENT: VEHICULAR PANEL

SCALE: NTS



3 FRAME DETAIL

SCALE: 1"=1'-0"

TEXT CHART				
Label	Distance	Font Size	Font	
1	180"	6"	Times New Roman	ABCDEFGHIH abcdefghijklmnopqrstuvwxyz
2	60"	2"	Times New Roman	ABCDEFGHIH abcdefghijklmnopqrstuvwxyz
3	150"	Max. 5"	SansSerif	ABCDEFGHIH abcdefghijklmnopqrstuvwxyz

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.

MATERIALS

- A** HORIZONTAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE WITH END CAPS ANCHOR TO POLE (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- B** VERTICAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE WITH END CAPS WELD TO HORIZONTAL SUPPORT POSTS EXTENDING FROM POLE (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- C** 1/4" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- D** 1/4" THICK ALUMINUM PANEL POWDER COATED BOLT TO FRAME (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- E** DECORATIVE BAND IMPRESSION
COLOR: WHITE

GENERAL NOTES

- 'City of' can be changed to 'Old' depending on location of signage.
- All text and arrows shall be white.
- There shall be no more than three directional panels, with the bottom panel at 10'-0" from grade.
- Connection vanes per pole material.
- Match color of street signs in Old Hilliard for 'Hilliard Blue'.
- All connections to match specified sign color.
- Attach to pole as recommended by pole manufacturer.

Standard Construction Drawing GW-1

Clyde R. Seale Jr.
Clyde R. Seale Jr.
Director of Public Service
July 18, 2011
Date

HILLIARD
City of Hilliard
4400 Jackson Ave.
Hilliard, Ohio 43026

CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO

V. HICULA / A. FIND

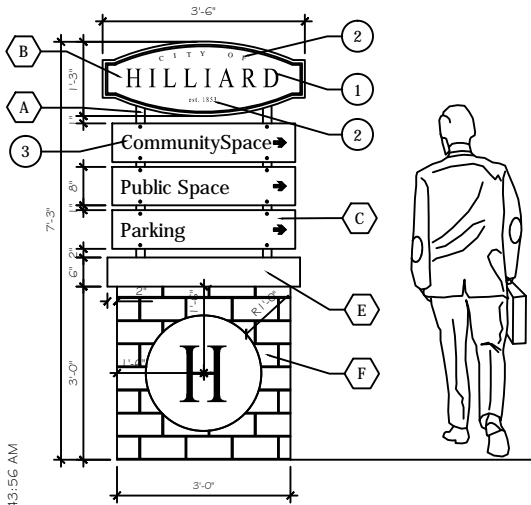
Copyright © 2011 by The City of Hilliard. All rights reserved.

no.	revisions:	by:

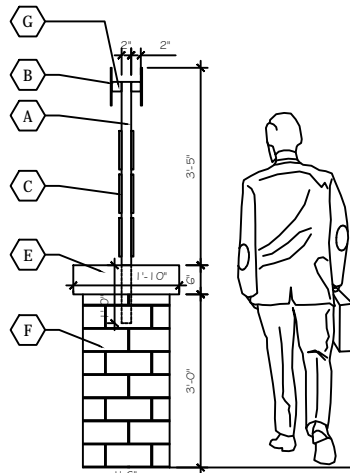
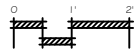
ob no: 00071
date: July 18, 2011
sheet:

L1.00
1 of 1

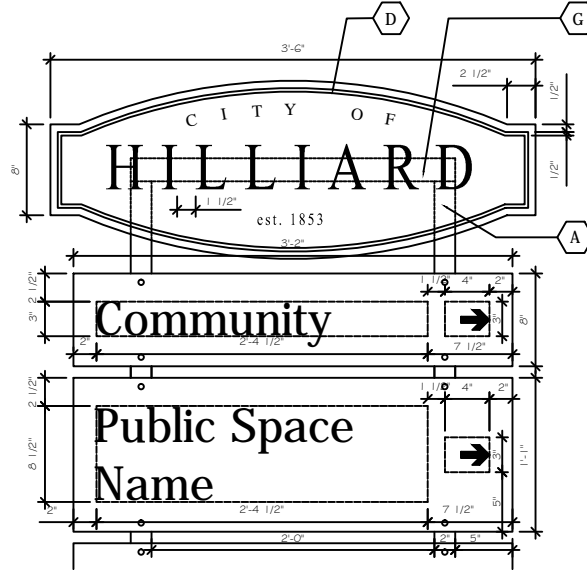
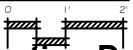
S:\Engineering\Gateway-Wayfinding standards\Signage Submittal_1-20-11.dwg, 4/25/2013 8:43:56 AM



1 PEDESTRIAN SIGNAGE
SCALE: 1"=1'-0"



3 ELEVATION:SIDE VIEW
SCALE: 1"=1'-0"



Note: Maximum text height is 3" to allow up to 15 characters and a directional arrow. Panel must increase in size to fit two lines of text when more than 15 characters are necessary.

2 ENLARGEMENT: PEDESTRIAN PANEL
SCALE: NTS

TOOT CHART				
Label	Distance	Font Size	Font	
1	120'	4"	Times New Roman	ABCDEFGHI abcdefghi
2	30'	1"	Times New Roman	ABCDEFGHI abcdefghi
3	90'	Max. 3"	SansSerif	ABCDEFGHI abcdefghi

MATERIALS

- A VERTICAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE WITH END CAPS
CORE DRILL FRAME INTO WALL BASE
COLOR: 1175 FHWA BLUE
- B 1/4" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- C 1/2" THICK ALUMINUM PANEL POWDER COATED
BOLT TO FRAME, FLUSH WITH FRAME (PROVIDE SHOP DRAWING)
COLOR: 1175 FHWA BLUE
- D DECORATIVE BAND IMPRESSION
COLOR: WHITE
- E LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
3'-4" L x 1'-10" W x 6" H
- F BRICK WALL BASE WITH LIMESTONE MEDALLION, ENGRAVE BLACK LETTER 'H' CENTERED WITHIN MEDALLION
3'-0" L x 1'-6" W x 3'-0" H
Medallion Details: 12" radius, 3.75" thick Indiana Buff light gray limestone Medallion with a 12" engraved letter 'H' (1/2" to 3/4" deep, colored black Lithium, Times New Roman). Center the 'H' in the center of the Medallion. Center the Medallion in the center of the brick wall base. The capstone is not part of the centering area. Medallion has a 1" beveled edge.
- G HORIZONTAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE WITH END CAPS
WELD TO VERTICAL SUPPORT POST (PROVIDE SHOP DRAWING)
COLOR: BLACK

GENERAL NOTES

- 'City of' can be changed to 'Old' depending on location of signage.
- All text and arrows shall be white, except 'H' within the medallion.
- Match color of street signs in Old Hilliard for 'Hilliard Blue'.
- All connections to match specified sign color.

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.

Standard Construction Drawing GW-2

CITY OF HILLIARD

HILLIARD WAYFINDING + SIGNAGE

HILLIARD, OHIO

City of Hilliard

400 Jackson Ave

Hilliard, Ohio 43021

Copyright © 2011 by The City of Hilliard. All rights reserved.

P: D: ST: IAN: A: FIND

no. revisions: by:

ob no: 08071

date: July 18, 2011

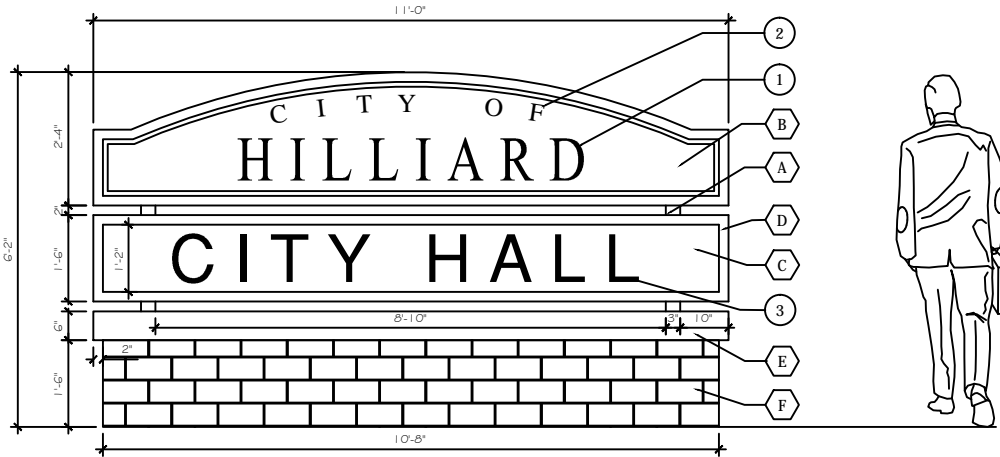
sheet:

L2.00

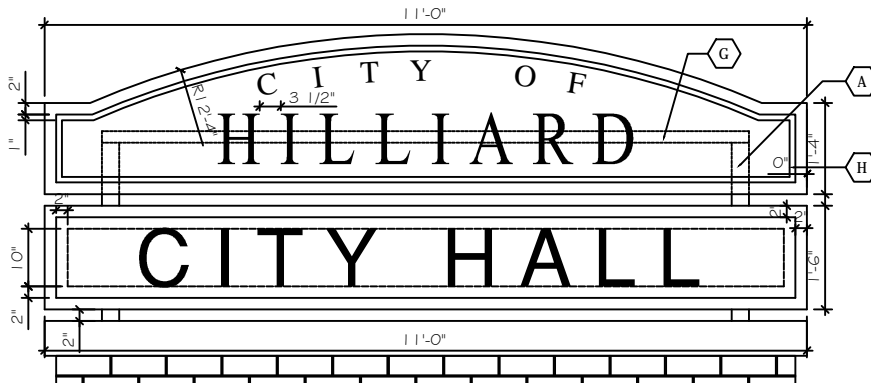
2 of: □

Clyde R. Seale
Clyde R. Seale, Jr.
Director of Public Service
July 18, 2011
Date

S:\Engineering\Gateway-Wayfinding Standards\Signage Submittal_1-20-11.dwg, 4/25/2013 8:44:21 AM



1 MONUMENT SIGNAGE
SCALE: 1"=1'-0"



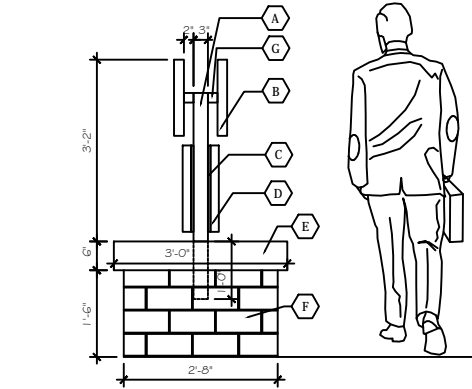
2 ENLARGEMENT: MONUMENT PANEL
SCALE: NTS

GENERAL NOTES

- 'City of' can be changed to 'Old' depending on location of signage.
- All text shall be white.
- Match color of street signs in Old Hilliard for 'Hilliard Blue'.

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.

Standard Construction Drawing GW-3



3 ELEVATION: SIDE VIEW
SCALE: 1"=1'-0"

MATERIALS

- A VERTICAL SUPPORT POST (FRAME) - 3" RECTANGULAR ALUMINUM TUBE WITH END CAPS
CORE DRILL FRAME INTO MONUMENT WALL
COLOR: BLACK
- B 2" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK
- C 1/4" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL
WELD TO FRAME
COLOR: HILLIARD BLUE
- D 2" THICK RECTANGULAR ALUMINUM TUBE FRAME
WELD TO 1/4" THICK ALUMINUM PANEL (PROVIDE SHOP DRAWING)
COLOR: BLACK
- E LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
11'-0" L x 3'-0" W x 6" H
- F BRICK MONUMENT WALL
10'-8" L x 2'-8" W x 1'-6" H
- G HORIZONTAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE WITH END CAPS
WELD TO VERTICAL SUPPORT POST (PROVIDE SHOP DRAWING)
COLOR: BLACK
- H DECORATIVE BAND IMPRESSION
COLOR: WHITE

TOOT CHART				
Label	Distance	Font Size	Font	
1	270'	9"	Times New Roman	ABCDEFGH abcdefghi
2	120'	4"	Times New Roman	ABCDEFGH abcdefghi
3	300'	Max. 10"	SansSerif	ABCDEFGH abcdefghi

Clyde R. Seale
Clyde R. Seale, Jr.
Director of Public Service
July 18, 2011
Date

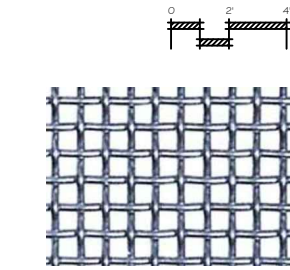
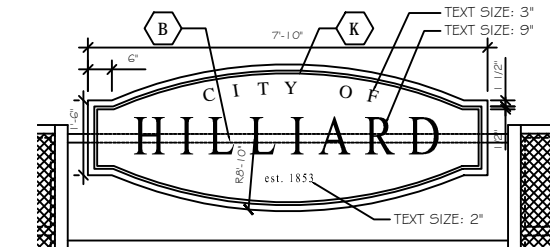
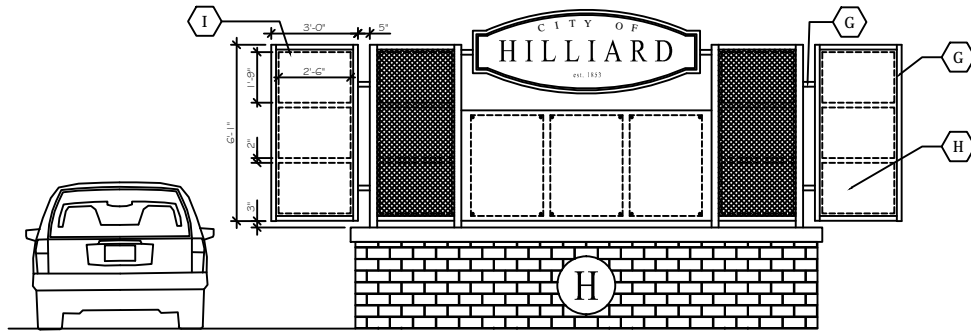
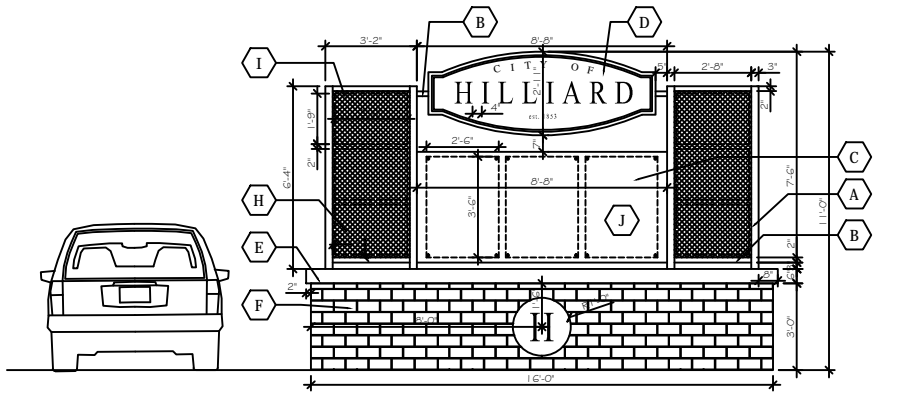


CITY OF HILLIARD
HILLIARD WAYFINDING + SIGNAGE
HILLIARD, OHIO
MONUM. NT - A, FINDING
Copyright © 2011 by The City of Hilliard. All rights reserved.

no.	revisions:	by:

ob no: 08071
date: July 18, 2011
sheet:
L3.00
3 of: ☐

S:\Engineering\Gateway-Wayfinding\Standards\Signage Submittal_1-20-11.dwg, 4/25/2013 8:44:45 AM



MATERIALS

- A** VERTICAL SUPPORT POST (FRAME) - 3" RECTANGULAR ALUMINUM TUBE WITH END CAPS
CORE DRILL FRAME INTO MONUMENT WALL
COLOR: BLACK
- B** HORIZONTAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE
WELD TO VERTICAL SUPPORT POSTS (PROVIDE SHOP DRAWING)
COLOR: BLACK
- C** 1/4" THICK ALUMINUM PANEL POWDER COATED
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK
- D** 1/4" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK, TEXT COLOR: WHITE
- E** LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
16'-4" L x 3'-0" W x 6" H
- F** BRICK MONUMENT WALL WITH LIMESTONE MEDALLION, ENGRAVE BLACK
LETTER 'H' CENTERED WITHIN MEDALLION
16'-0" L x 2'-8" W x 3'-0" H

Medallion Details: 12" radius, 3.75" thick Indiana Buff light gray limestone Medallion with a 12" engraved letter 'H' (1/2" to 3/4" deep, colored black Lithium, Times New Roman). Center the 'H' in the center of the Medallion. Center the Medallion in the center of the brick wall base. The capstone is not part of the centering area. Medallion has a 1" beveled edge.

- G** SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK
- H** WIRE MESH: SQUARE WEAVE, PLAIN WEAVE, PLAIN CRIMP, STAINLESS STEEL
USE McNICHOLS CO. FOR PRODUCT OR EQUIVALENT
ATTACH TO FRAME (PROVIDE SHOP DRAWING)
- I** COMMUNITY SIGN
ATTACH TO WIRE MESH (PROVIDE SHOP DRAWING)
- J** COMMUNITY ADVERTISEMENT/EVENT BOARD
BOLT TO ALUMINUM PANEL (PROVIDE SHOP DRAWING)
SEE SHEET L4.01 FOR VARIOUS BOARD SIZES AND BOLT LOCATIONS
- K** DECORATIVE BAND IMPRESSION
COLOR: WHITE

GENERAL NOTES

1. 'City of' can be changed to 'Old' depending on location of signage.
2. All connections to match specified sign color.

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.



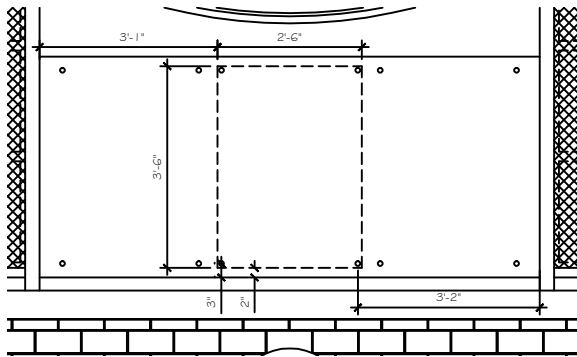
CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO

P:\IMAGING\CONTENT\SIGNAGE
Copyright © 2011 by The City of Hilliard. All rights reserved.

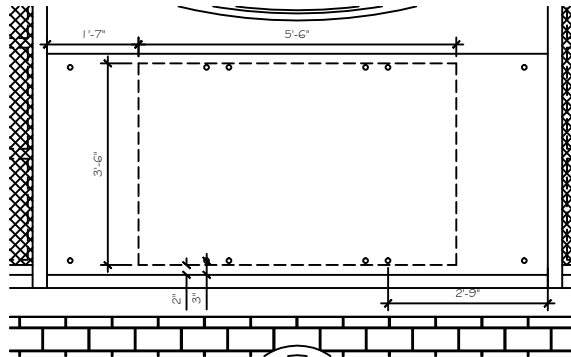
no.	revisions:	by:

ob no: 08071
date: July 18, 2011
sheet:

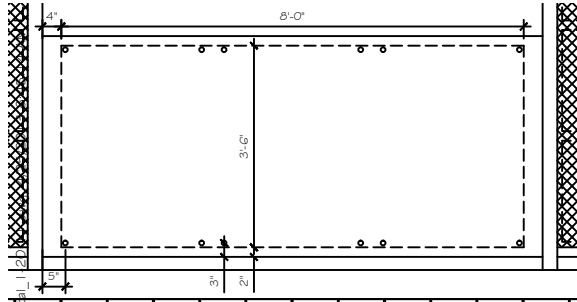
L4.00
4 of 4



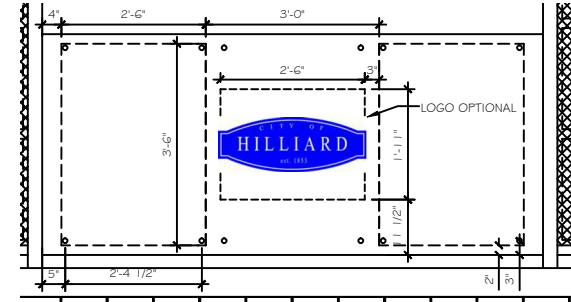
1 SMALL SINGLE BOARD
SCALE: 1"=1'-0"



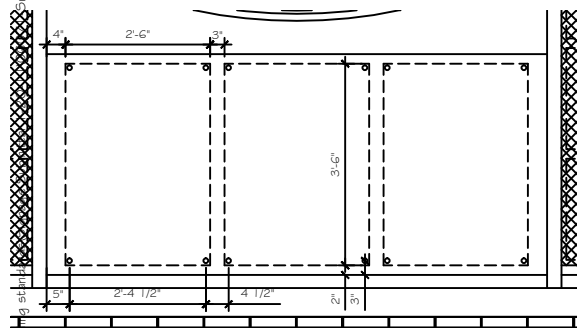
2 MEDIUM SINGLE BOARD
SCALE: 1"=1'-0"



3 LARGE SINGLE BOARD
SCALE: 1"=1'-0"



4 DOUBLE BOARD
SCALE: 1"=1'-0"



5 TRIPLE BOARD
SCALE: 1"=1'-0"

Standard Construction Drawing GW-4.1

GENERAL NOTES

1. The community advertisement/event boards can be configured in different ways to maximize flexibility for various events.
2. Optional Logo: Painted on 1/4" thick aluminum panel. Logo to be in the center of the aluminum panel.

HILLIARD
City of Hilliard
4400 Jackson Ave.
Hilliard, Ohio 43026

Clyde R. Seale
Clyde R. Seale, Jr.
Director of Public Service

July 19, 2011
Date

CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO

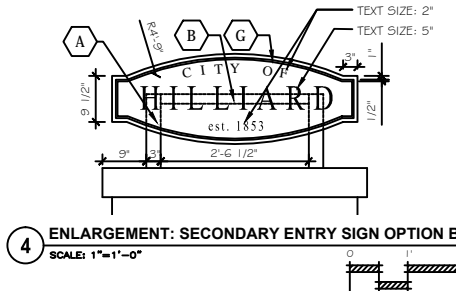
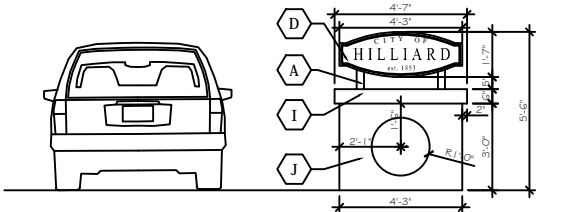
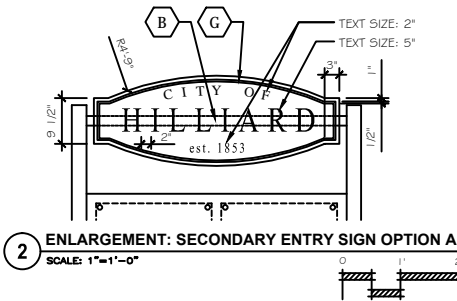
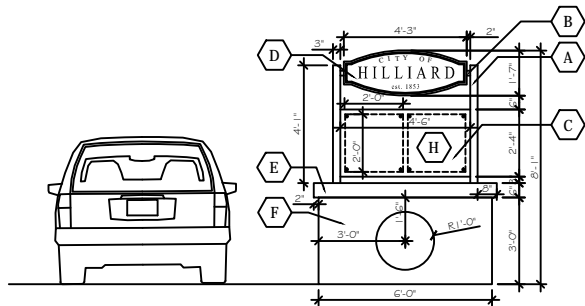
PAN, L. INLA, G. M. NTS
Copyright © 2011 by The City of Hilliard. All rights reserved.

no.	revisions	by:

ob no: 08071
date: July 19, 2011
sheet:

L4.01
5 of: ☐

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.



MATERIALS



- A** VERTICAL SUPPORT POST (FRAME) - 3" RECTANGULAR ALUMINUM TUBE WITH END CAPS
CORE DRILL FRAME INTO MONUMENT WALL
COLOR: BLACK
- B** HORIZONTAL SUPPORT POST (FRAME) - 2" RECTANGULAR ALUMINUM TUBE
WELD TO VERTICAL SUPPORT POSTS (PROVIDE SHOP DRAWING)
COLOR: BLACK
- C** 1/4" THICK ALUMINUM PANEL POWDER COATED
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK
- D** 1/4" THICK ALUMINUM PANEL POWDER COATED, TEXT TO BE CENTERED IN PANEL
WELD TO FRAME (PROVIDE SHOP DRAWING)
COLOR: BLACK, TEXT COLOR: WHITE
- E** LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
6'-4" L x 2'-0" W x 6" H
- F** BRICK MONUMENT WALL WITH LIMESTONE MEDALLION, ENGRAVE
BLACK LETTER 'H' CENTERED WITHIN MEDALLION
6'-0" L x 1'-8" W x 3'-0" H
- Medallion Details: 1 1/2" radius, 3.75" thick Indiana Buff light gray limestone Medallion with a 1 1/2" engraved letter 'H' (1/2" to 3/4" deep, colored black Lithium, Times New Roman). Center the 'H' in the center of the Medallion. Center the Medallion in the center of the brick wall base. The capstone is not part of the centering area. Medallion has a 1" beveled edge.
- G** DECORATIVE BAND IMPRESSION
COLOR: WHITE
- H** COMMUNITY ADVERTISEMENT BOARD
BOLT TO ALUMINUM PANEL (PROVIDE SHOP DRAWING)
- I** LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
4'-7" L x 1'-6" W x 6" H
- J** BRICK MONUMENT WALL WITH LIMESTONE MEDALLION, ENGRAVE
BLACK LETTER 'H' CENTERED WITHIN MEDALLION
4'-3" L x 1'-2" W x 3'-0" H
- Medallion Details: 1 1/2" radius, 3.75" thick Indiana Buff light gray limestone Medallion with a 1 1/2" engraved letter 'H' (1/2" to 3/4" deep, colored black Lithium, Times New Roman). Center the 'H' in the center of the Medallion. Center the Medallion in the center of the brick wall base. The capstone is not part of the centering area. Medallion has a 1" beveled edge.

GENERAL NOTES

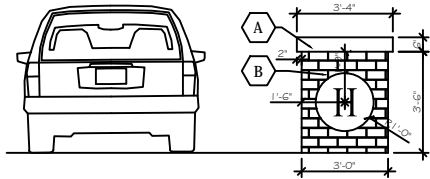
- 'City of' can be changed to 'Old' depending on location of signage.
- All connections to match specified sign color.

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.

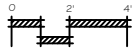
Standard Construction Drawing GW-5

		July 18, 2011
		Date
City of Hilliard 2000 Industrial Pkwy Hilliard, Ohio 43026		
CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO S:\CONDA\INT\SIGNAG\1		
Copyright © 2011 by The City of Hilliard. All rights reserved.		
no. revisions: by:		
ob no: 08071		
date: July 18, 2011		
sheet:		
L5.00		
6 of: <input type="checkbox"/>		

Standard Construction Drawing
GW-6



1 TERTIARY ENTRY SIGN
SCALE: 1"=2'-0"





MATERIALS

- A LIMESTONE CAP, SMOOTH TOP AND BOTTOM, ROCK FACE SIDES
3'-4" L x 1'-6" W x 6" H
- B BRICK COLUMN WITH LIMESTONE MEDALLION, ENGRAVE BLACK
LETTER 'H' CENTERED WITHIN MEDALLION
3'-0" L x 1'-2" W x 3'-6" H

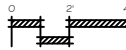
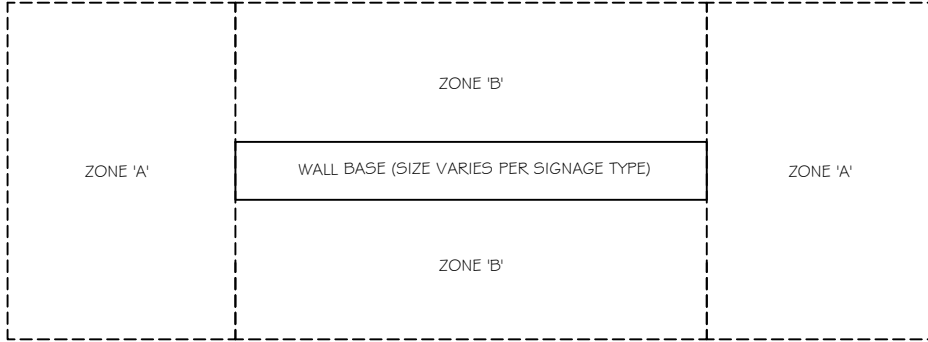
Medallion Details: 1/2" radius, 3/75" thick Indiana Buff light gray limestone Medallion with a 1/2" engraved letter 'H' (1/2" to 3/4" deep, colored black Lithum, Times New Roman). Center the 'H' in the center of the Medallion. Center the Medallion in the center of the brick wall base. The capstone is not part of the centering area. Medallion has a 1" beveled edge.

DESIGN NOTE: The sign manufacturer shall provide alternative materials and associated costs for client approval.

CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO <small>TUESDAY, JULY 11, 2011 10:00 AM Copyright © 2011 by The City of Hilliard, All rights reserved.</small>	 City of Hilliard 400 Jackson Ave. Hilliard, Ohio 43023	 Cyndi R. Benda, Jr. Director of Public Service	July 11, 2011 Date																							
	<table><tr><td>no.</td><td>revisions:</td><td>by:</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>			no.	revisions:	by:																				
no.	revisions:	by:																								
<table><tr><td>ob no:</td><td>08071</td></tr><tr><td>date:</td><td>July 11, 2011</td></tr><tr><td>sheet:</td><td>L6.00</td></tr><tr><td>7 of:</td><td> </td></tr></table>		ob no:	08071	date:	July 11, 2011	sheet:	L6.00	7 of:																		
ob no:	08071																									
date:	July 11, 2011																									
sheet:	L6.00																									
7 of:																										

S:\Engineering\Gateway-Wayfinding standards\Signage Submittal_1-20-11\06071-Signage Submittal_1-20-11.dwg, 4/25/2013 8:44:25 AM



1 LANDSCAPE ZONES
SCALE: 1"=2'-0"

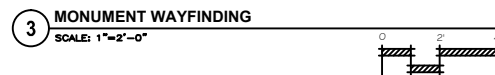
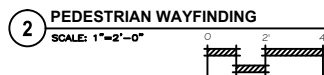
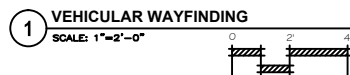


GENERAL NOTES

1. ZONE 'A': Shall include plants that are 3'-4' hgt. at maturity. These could include Maiden Grass or Knockout Rose.
2. Trees shall be located at the outside edge of Zone 'A'.
3. ZONE 'B': Shall include plants that are 12"-2' hgt. at maturity. These could include Junipers, Spirea, or Dwarf Fountain Grass.
4. All lighting to be ground mounted; no internal lit signage allowed per zoning code. There shall be an even wash of light on the sign, with no hot spots. Refer to the Hilliard zoning code to verify the lighting designs comply with code.

Standard Construction Drawing
GW-7

			July 18, 2011 Date
CITY OF HILLIARD HILLIARD WAYFINDING + SIGNAGE HILLIARD, OHIO		Cyndi R. Belski, Jr. Director of Public Service	
SIGNAGE - LANDSCAPE - PLAN		Copyright © 2011 by The City of Hilliard. All rights reserved.	
no.	revisions:	by:	
ob no: 06071		date: July 18, 2011	
sheet:		L7.00	
8 of: <input type="checkbox"/>			

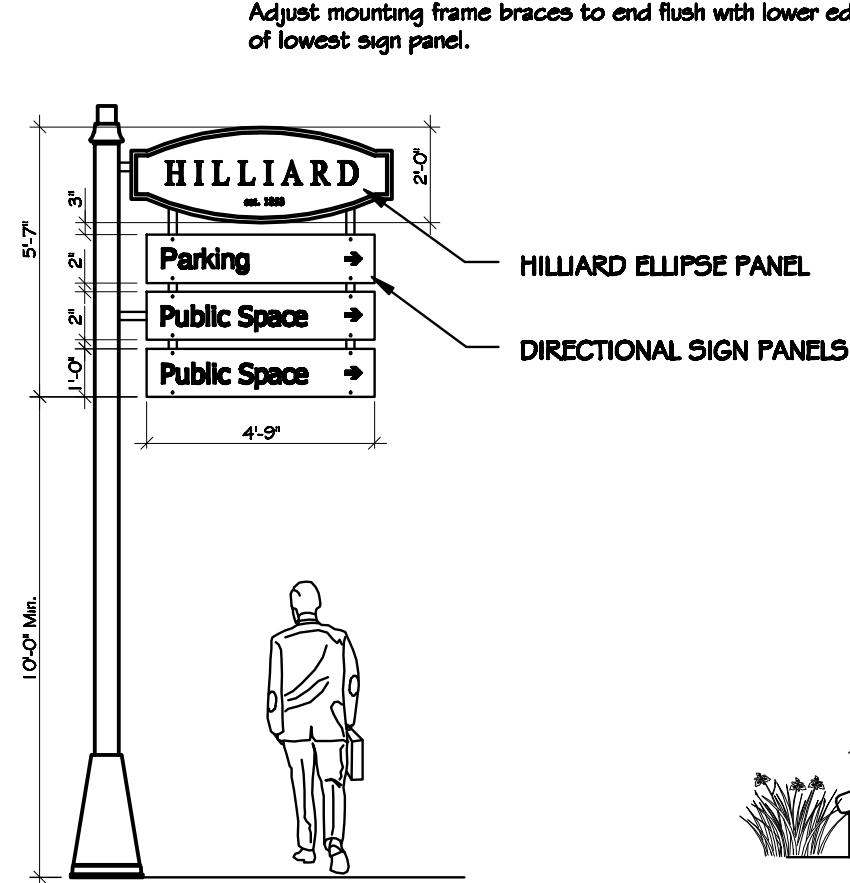
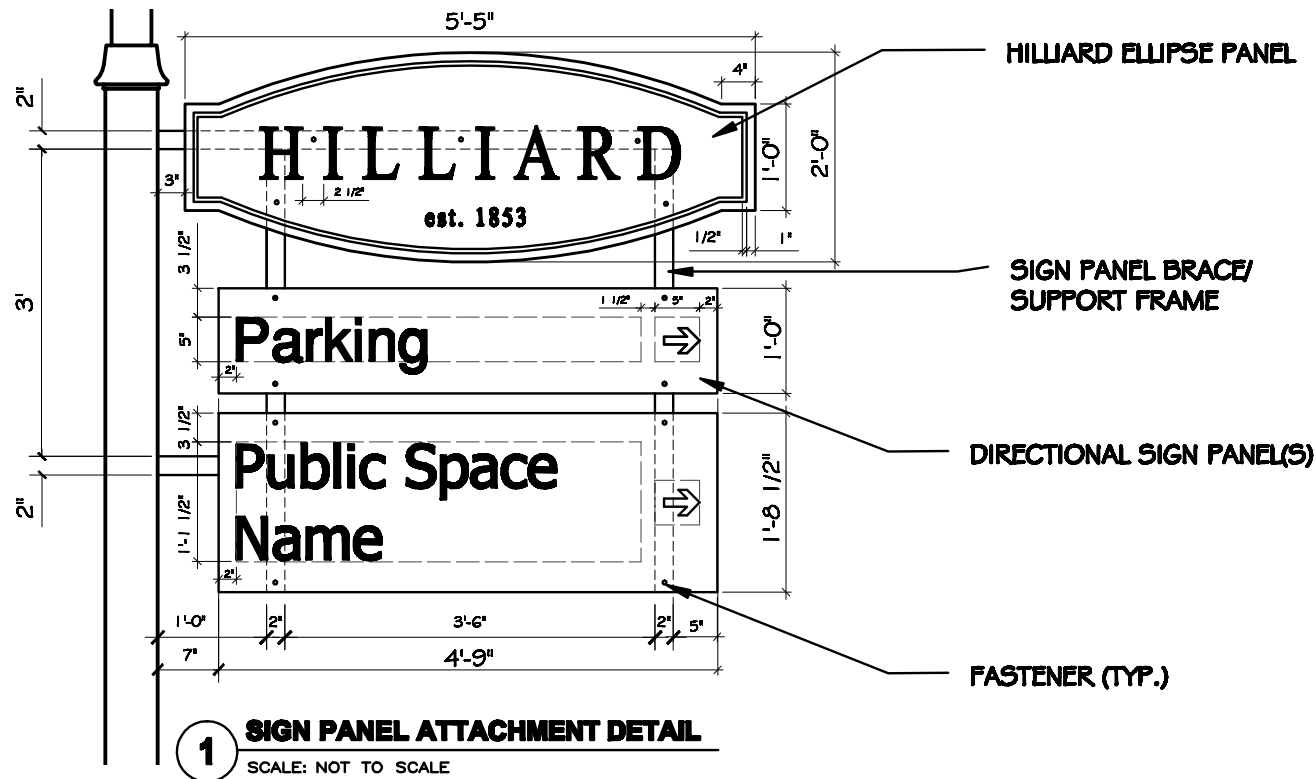


ob no: 08071
date: July 12, 20
sheet: L8.00
☐ of: ☐

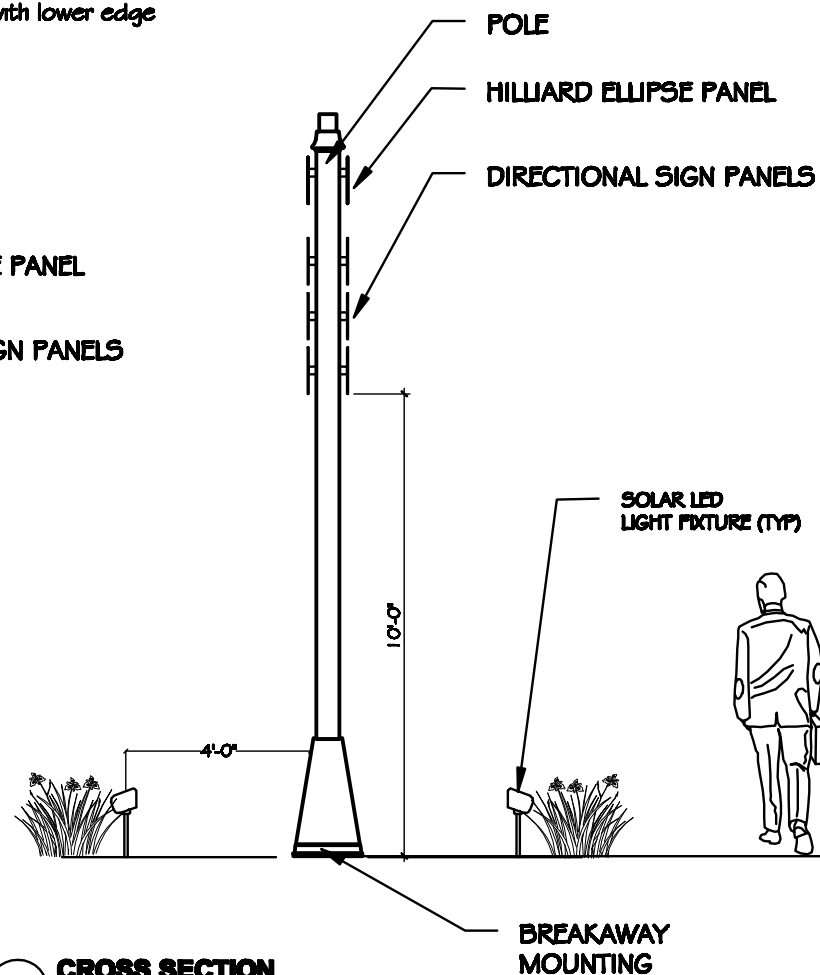
City of Hilliard
2800 Municipal Way
Hilliard, Ohio 43031

Frederic R. Seidel Co

Clyde R. Seide Jr.,
Director of Public Service



1 ELEVATION
SCALE: NOT TO SCALE



1 CROSS SECTION
SCALE: NOT TO SCALE

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POLES SHALL BE PPG MATHEWS BLACK, EITHER PAINTED OR POWDER COATED.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND ARROWS, AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD DIRECTIONAL SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED BLACK OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

ALL SIGN PANELS SHALL BE 1/4" THICK ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANEL BRACES SHALL BE 2" SQUARE ALUMINUM TUBE WITH END CAPS. BRACES SHALL BE WELDED INTO SUPPORT FRAME. SIGN PANELS SHALL BE THROUGH-BOLTED TO BRACES.

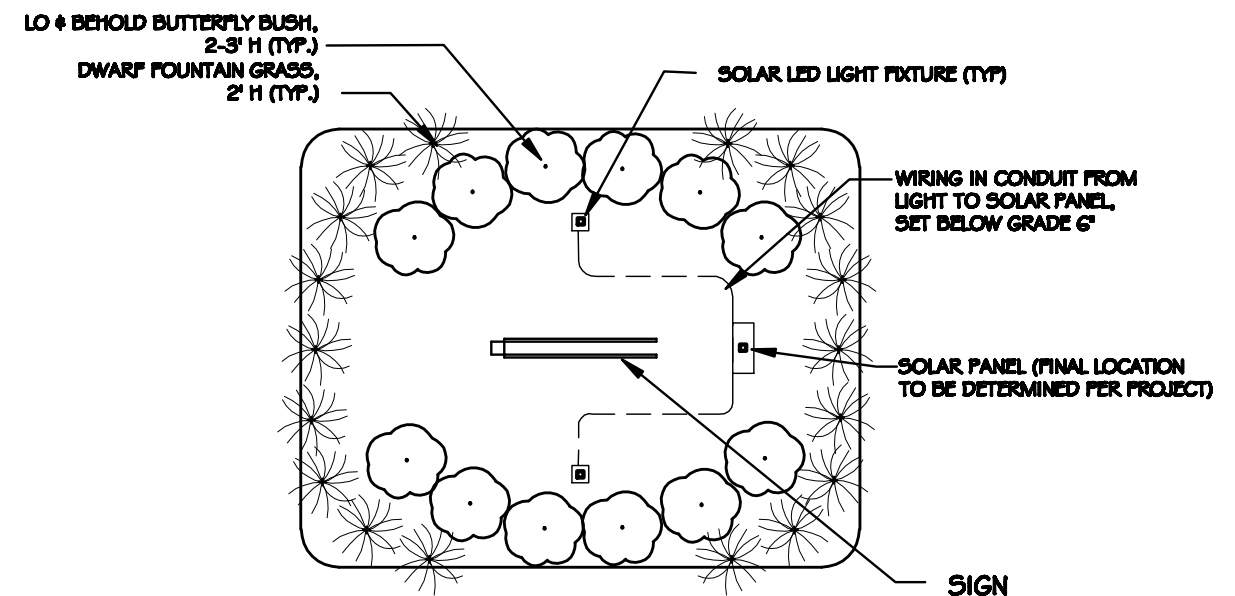
BRACES/SUPPORT FRAME SHALL BE MOUNTED TO POLES WITH BRACKET SYSTEM PER MANUFACTURER'S INSTRUCTIONS.

POLES SHALL BE STERNBERG ALUMINUM #3500 CHARLESTON SERIES (IN OLDE HILLIARD), OR STERNBERG ROUND TAPERED ALUMINUM POLES (CITY OF HILLIARD), OR EQUAL. POLES SHALL HAVE BREAK-AWAY MOUNTS INSTALLED PER MANUFACTURER'S INSTRUCTIONS, AND BE SIZED FOR WIND LOADING.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.



1 PLAN VIEW
SCALE: NOT TO SCALE

NOTE: PLANTINGS MUST COMPLETELY SCREEN ALL LIGHT FIXTURES AT MATURITY.

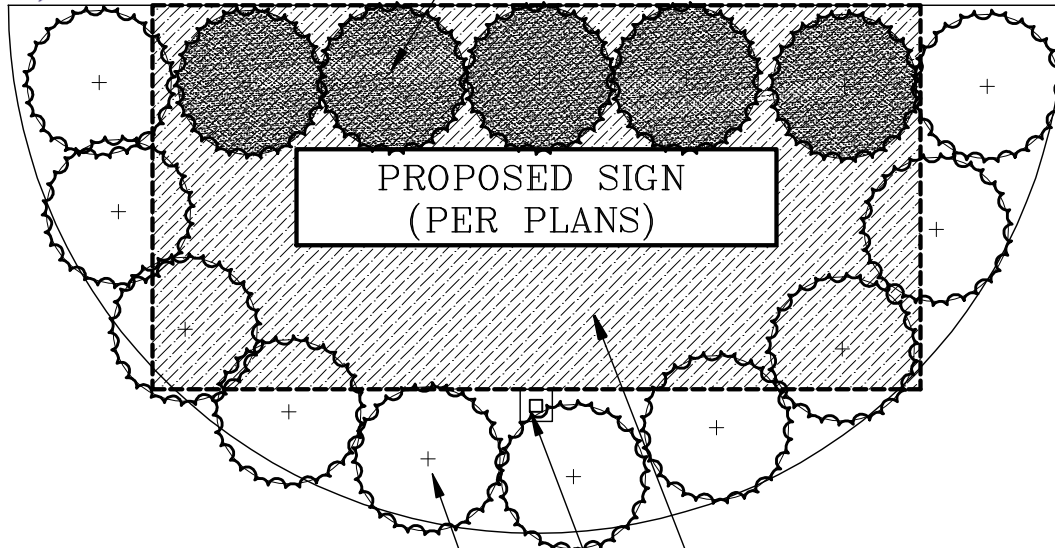
Approved for intent of landscape screening requirements per Hilliard City Code. 8/24/2015.

Clyde R. Seidle, Director of Public Service

Clyde R. Seidle

LANDSCAPE BEDLINE
TO SURROUND PLANTINGS

THESE SHRUBS ONLY MAY EXCEED
3'H AT MATURITY



MINIMUM BED AREA AROUND SIGN:
3' BEYOND SIGN BASE

LIGHT FIXTURE, IF PROPOSED
ALL LIGHT FIXTURES MUST BE
COMPLETELY SCREENED AT PLANT MATURITY

LANDSCAPE PLANTINGS:

- EVERGREEN
- MUST SURROUND SIGN 360DEG
- MUST SCREEN LIGHT FIXTURES
- MIN. 18"H AT PLANTING
- MAX. 3'H AT MATURITY

SCALE: $\frac{1}{4}" = 1'-0"$

PER CITY OF HILLIARD ZONING CODE, SECTION 1129:

"GROUND SIGN BASE SHALL BE:

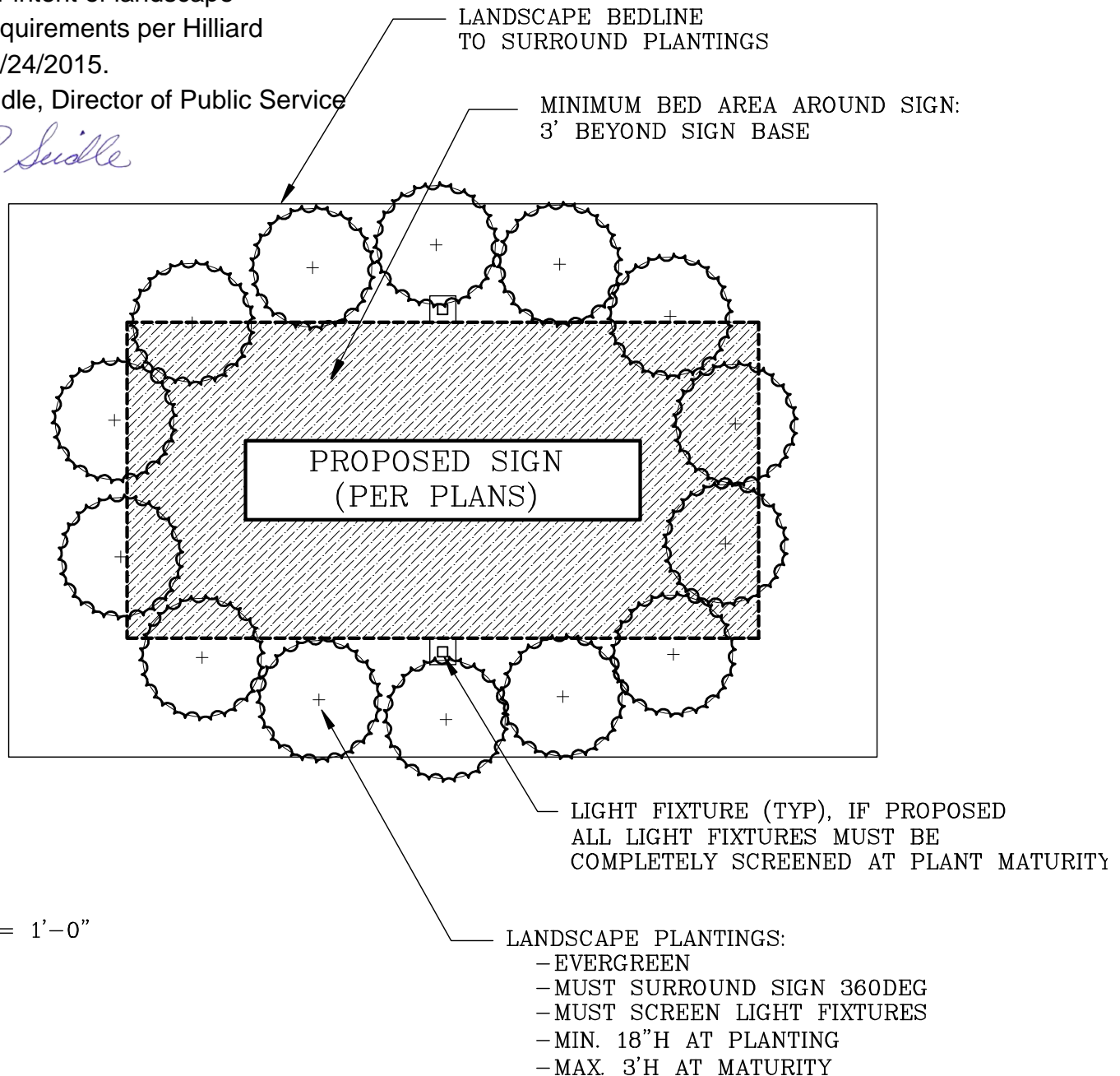
1. CONSTRUCTED OF CONCRETE, BRICK OR STONE AND THERE SHALL BE NO SPACE BETWEEN THE SIGN FACE OR FRAME AND THE TOP OF BASE.
2. FINISHED IN ONLY ONE COLOR WHICH SHALL BE BLACK, WHITE, GRAY, BROWN OR SOME NEUTRAL VARIATION OF BROWN.
3. EFFECTIVELY LANDSCAPED WITH EVERGREEN PLANT MATERIAL AND CONTINUOUSLY MAINTAINED. THE MINIMUM LANDSCAPED AREA SHALL EXTEND AT LEAST THREE FEET BEYOND THE BASE IN ALL DIRECTIONS."

CITY OF HILLIARD – LANDSCAPE STANDARD FOR PRIVATE SIGNAGE
FOR SINGLE-FACED SIGNAGE PARALLEL TO ROW

Approved for intent of landscape screening requirements per Hilliard City Code. 8/24/2015.

Clyde R. Seidle, Director of Public Service

Clyde R. Seidle



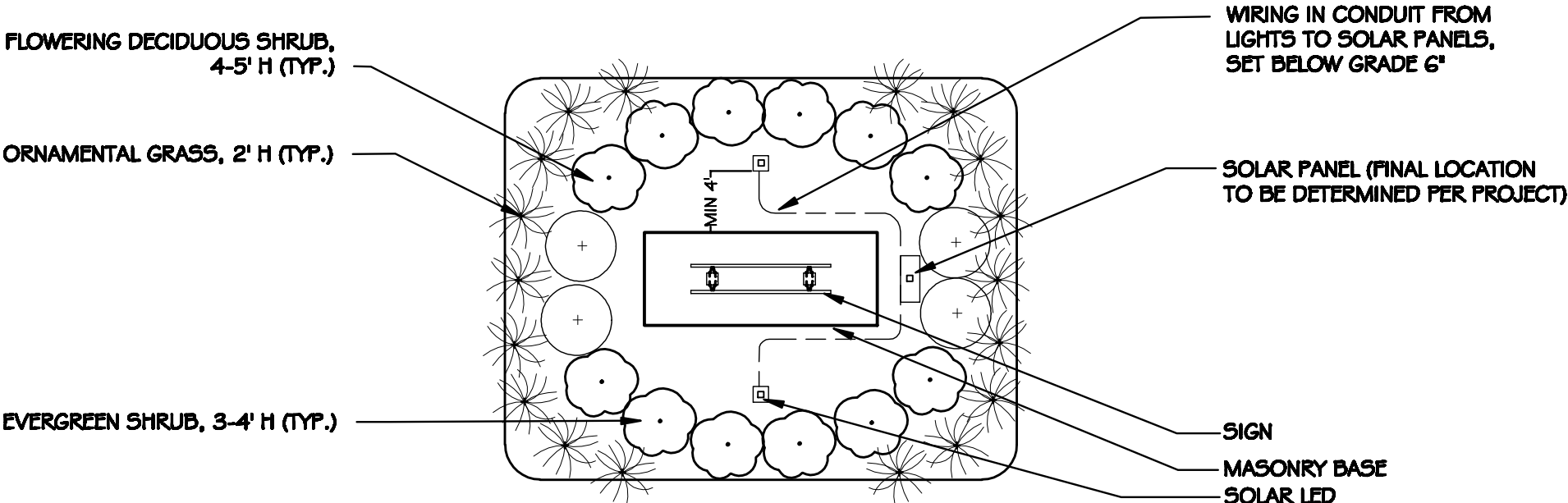
SCALE: $\frac{1}{4}" = 1'-0"$

PER CITY OF HILLIARD ZONING CODE, SECTION 1129:

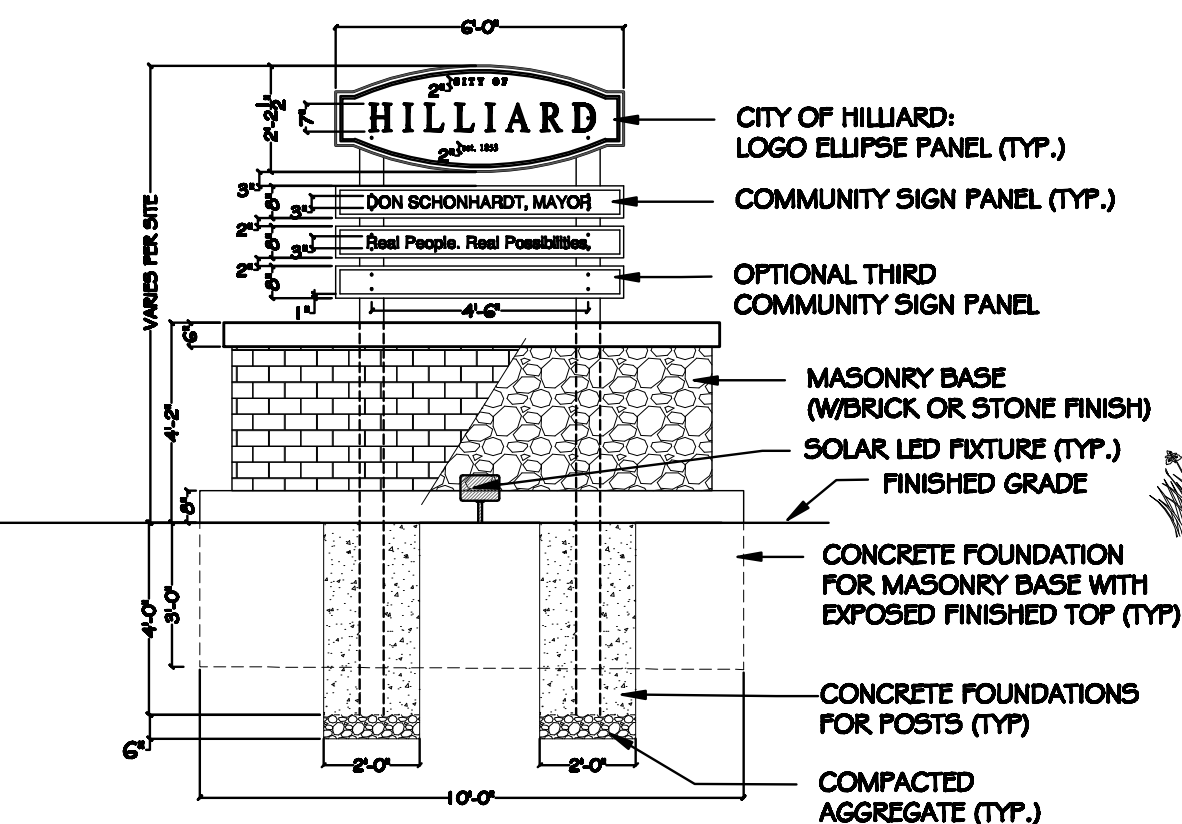
"GROUND SIGN BASE SHALL BE:

1. CONSTRUCTED OF CONCRETE, BRICK OR STONE AND THERE SHALL BE NO SPACE BETWEEN THE SIGN FACE OR FRAME AND THE TOP OF BASE.
2. FINISHED IN ONLY ONE COLOR WHICH SHALL BE BLACK, WHITE, GRAY, BROWN OR SOME NEUTRAL VARIATION OF BROWN.
3. EFFECTIVELY LANDSCAPED WITH EVERGREEN PLANT MATERIAL AND CONTINUOUSLY MAINTAINED. THE MINIMUM LANDSCAPED AREA SHALL EXTEND AT LEAST THREE FEET BEYOND THE BASE IN ALL DIRECTIONS."

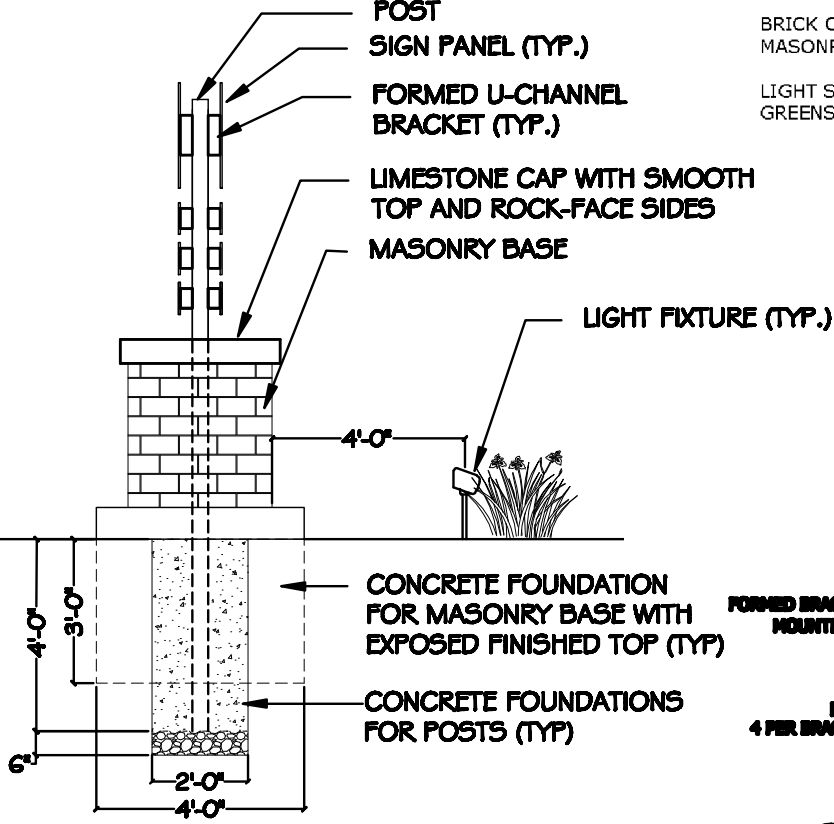
CITY OF HILLIARD – LANDSCAPE STANDARD FOR PRIVATE SIGNAGE
FOR DOUBLE-FACED SIGNAGE PERPENDICULAR TO ROW



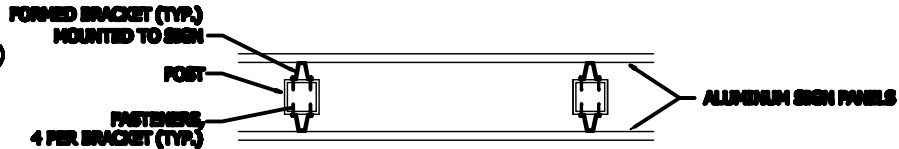
1 PLAN VIEW
SCALE: NOT TO SCALE



1 ELEVATION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION
SCALE: 1/4" = 1'-0"



1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

METAL POSTS SHALL BE ASTM-A-500 TUBULAR STEEL, SIZED FOR WIND LOADING AND HAVE METAL CAPS.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

BRICK OR STONE MASONRY SHALL BE SELECTED TO BE CONSISTENT WITH OTHER MASONRY MATERIALS OF EXISTING NEARBY STRUCTURES.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

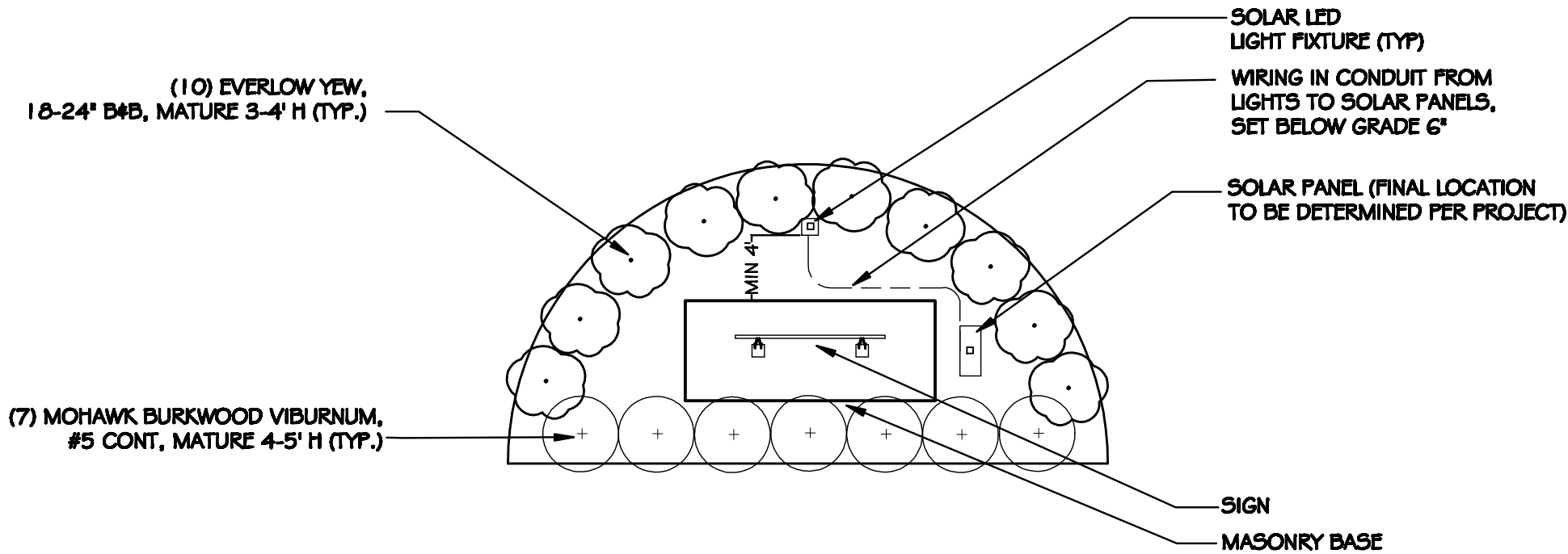
CITY OF HILLIARD
6"W SIGN - DOUBLE FACE - MASONRY BASE
HILLIARD, OHIO

PROJECT SITE NAME
Copyright © 2011 by The City of Hilliard. All Rights Reserved.

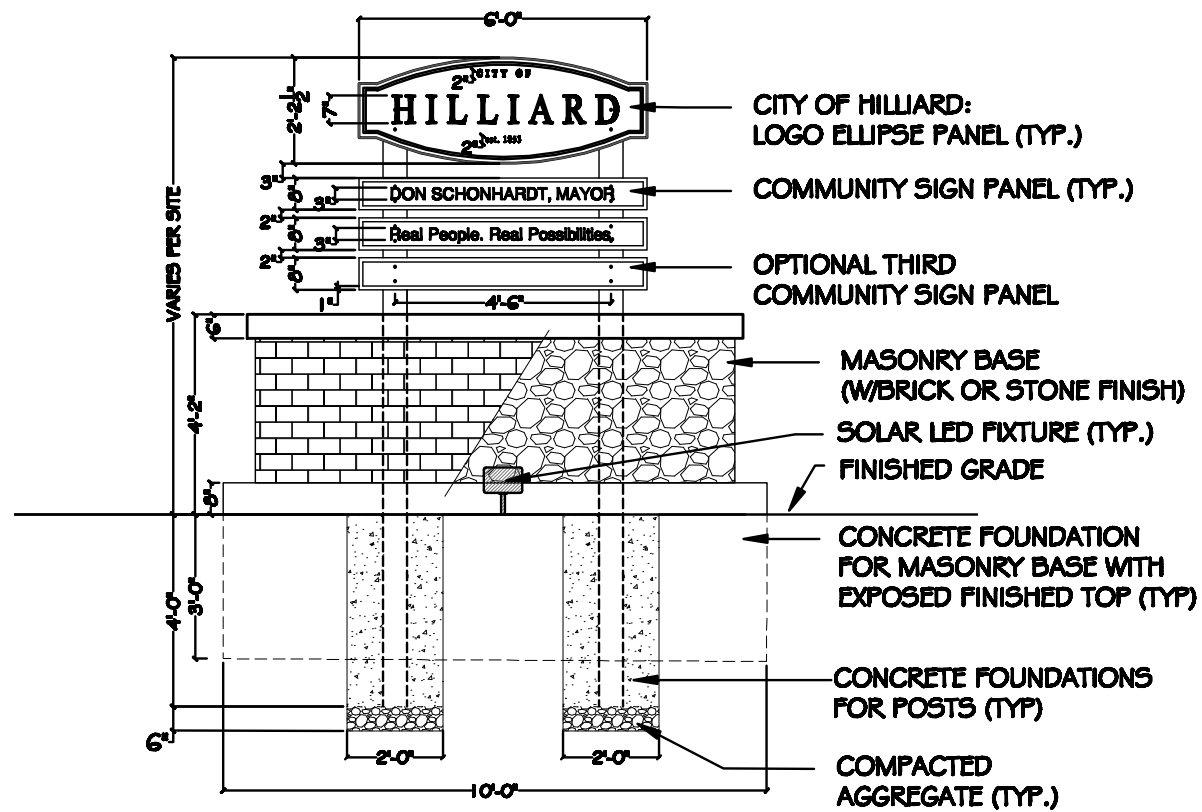
Clyde R. Seide Jr.
Director of Public Service

NO.	REVISIONS	BY

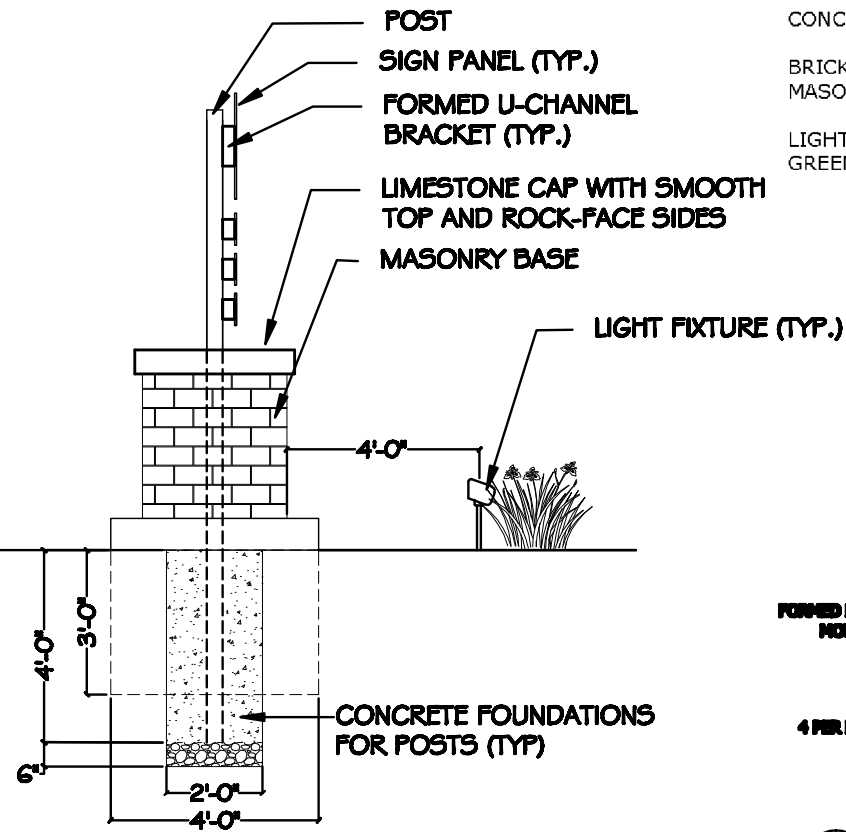
Job no: 20000
date: 08/20/2011
sheet: 1 of 1



1 PLAN VIEW
SCALE: NOT TO SCALE



1 ELEVATION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

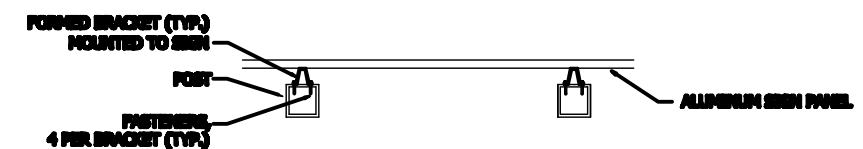
METAL POSTS SHALL BE ASTM-A-500 TUBULAR STEEL, SIZED FOR WIND LOADING AND HAVE METAL CAPS.

STEEL FASTENERS SHALL BE ZINC COATED.

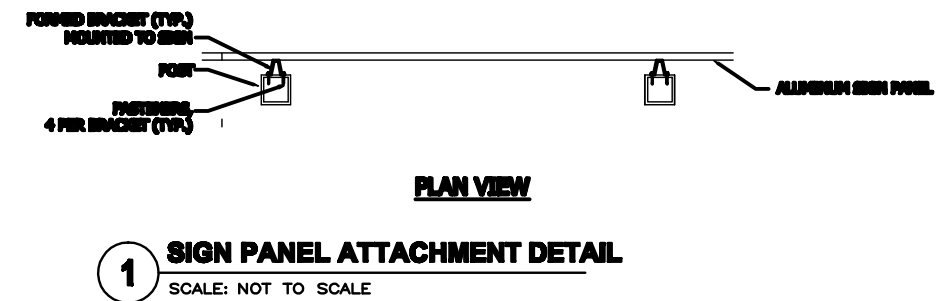
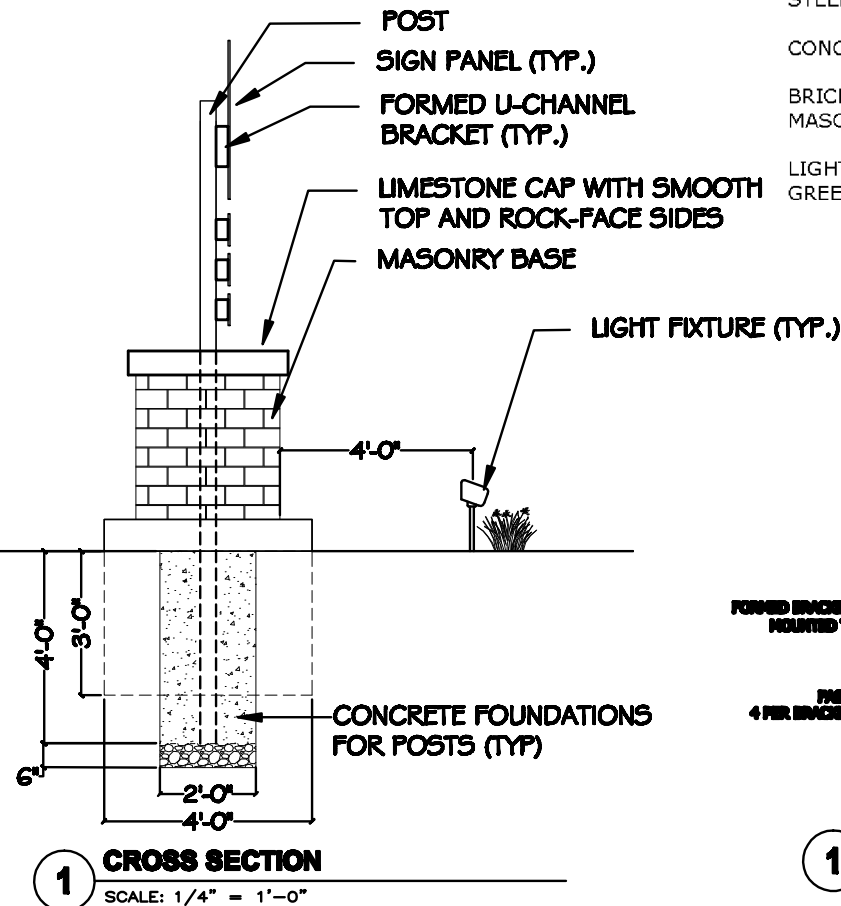
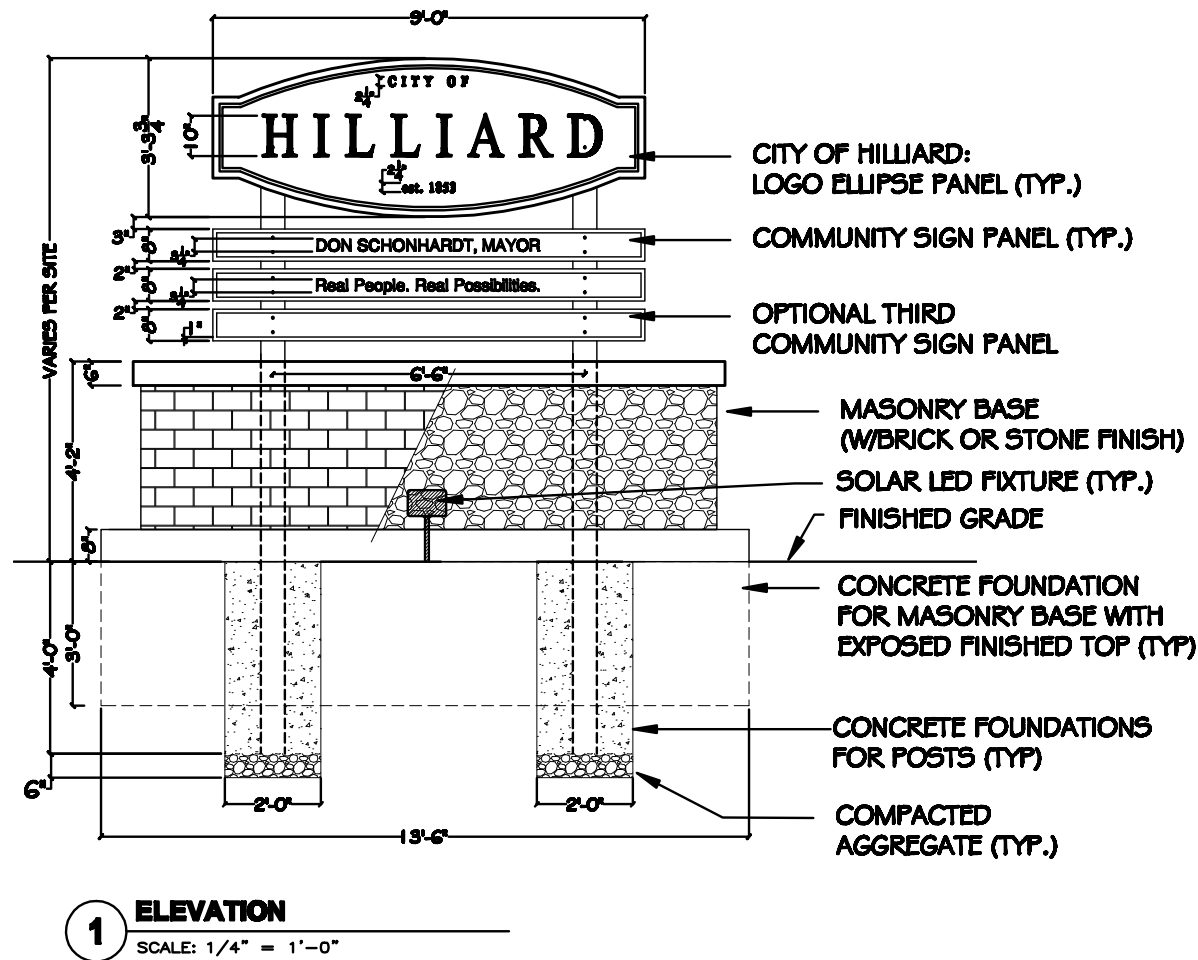
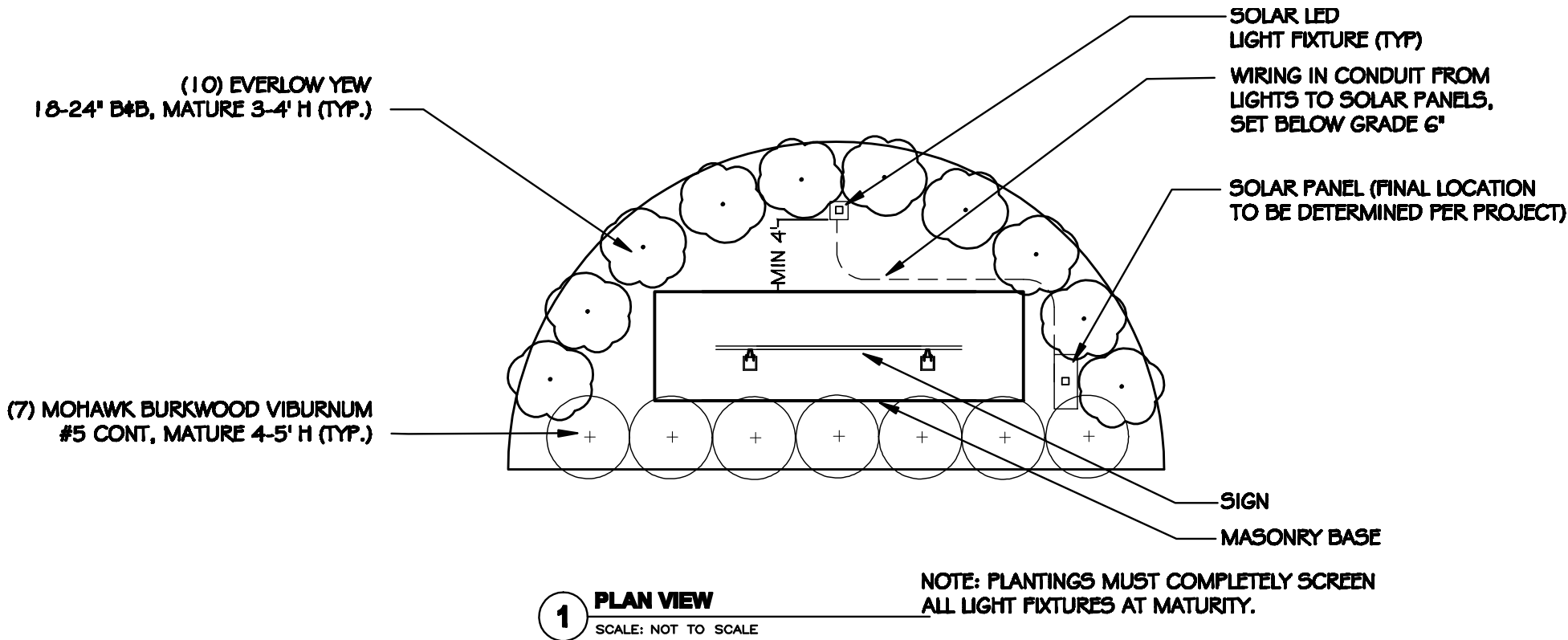
CONCRETE SHALL BE AS PER ODOT ITEM 499.

BRICK OR STONE MASONRY SHALL BE SELECTED TO BE CONSISTENT WITH OTHER MASONRY MATERIALS OF EXISTING NEARBY STRUCTURES.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.



1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE



GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

METAL POSTS SHALL BE ASTM-A-500 TUBULAR STEEL, SIZED FOR WIND LOADING AND HAVE METAL CAPS.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

BRICK OR STONE MASONRY SHALL BE SELECTED TO BE CONSISTENT WITH OTHER MASONRY MATERIALS OF EXISTING NEARBY STRUCTURES.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

CITY OF HILLIARD
9'W SIGN - SINGLE FACE - MASONRY BASE
HILLIARD, OHIO

PROJECT SITE NAME

Copyright © 2011 by The City of Hilliard. All Rights Reserved.

NO.	REVISIONS	BY

Job no: 2000
date: 01/01/2011
sheet:

(18) DWARF FOUNTAIN GRASS,
#2 CONT, MATURE 2' H (TYP.)

(14) EVERLOW YEW,
18-24" B&B, MATURE 3-4' H (TYP.)

**WIRING IN CONDUIT FROM
LIGHTS TO SOLAR PANELS,
SET BELOW GRADE 6"**

SOLAR PANEL (FINAL LOCATION TO BE DETERMINED PER PROJECT)

- SIGN
- MASONRY BASE
- SOLAR LED
LIGHT FIXTURE (TYP)

1 PLAN VIEW
SCALE: NOT TO SCALE

NOTE: PLANTINGS MUST COMPLETELY SCREEN ALL LIGHT FIXTURES AT MATURITY.

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

METAL POSTS SHALL BE ASTM-A-500 TUBULAR STEEL, SIZED FOR WIND LOADING AND HAVE METAL CAPS.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

BRICK OR STONE MASONRY SHALL BE SELECTED TO BE CONSISTENT WITH OTHER MASONRY MATERIALS OF EXISTING NEARBY STRUCTURES.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

VARIES PER SITE

12'-0"

3 1/4" CITY OF
HILLIARD
3 1/4" EST. 1853

4'-5"

1'-2"

3'-0"

2'-0"

2'-0"

8'-6"

6'-0"

4'-2"

6'-0"

5'-0"

4'-0"

3'-0"

2'-0"

16'-0"

2'-0"

2'-0"

CITY OF HILLIARD:
LOGO ELLIPSE PANEL (TYP.)

COMMUNITY SIGN PANEL (TYP.)

OPTIONAL THIRD
COMMUNITY SIGN PANEL

MASONRY BASE
(W/BRICK OR STONE FINISH)

SOLAR LED FIXTURE (TYP.)

FINISHED GRADE

CONCRETE FOUNDATION
FOR MASONRY BASE WITH
EXPOSED FINISHED TOP (TYP.)

COMPACTED
AGGREGATE (TYP.)

1 ELEVATION
SCALE: 1/4" = 1'-0"

SIGN PANEL (TYP.)
 POST
 FORMED U-CHANNEL BRACKET (TYP.)
 LIMESTONE CAP WITH SMOOTH TOP AND ROCK-FACE SIDES
 MASONRY BASE
 LIGHT FIXTURE (TYP.)

4'-0"
 3'-0"
 4'-0"
 2'-0"
 4'-0"
 6"

CONCRETE FOUNDATIONS FOR POSTS (TYP.)

FORMED BRACKET (TYP.)
 FORMED TIE
 4 PER BRACKET (TYP.)

1 CROSS SECTION
SCALE: 1/4" = 1'-0"

Diagram illustrating the connection of a 2x12 beam to a ceiling using 4x4 post brackets. The diagram shows the beam, the brackets, and the fasteners used for attachment. Labels include: 4x4 POST BRACKET (TOP) FASTENED TO CEILING, POST, FASTENERS, 4x4 POST BRACKET (BOTTOM), and ALUMINUM END FOLDS.

PLAN VIEW

1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

**CITY OF HILLIARD
12'W SIGN - DOUBLE FACE - MASONRY BASE
HILLIARD, OHIO**

Copyright © 2011 by The City of Newark, NJ

Copyright © 2011 by The City of Miami. All Rights Reserved.

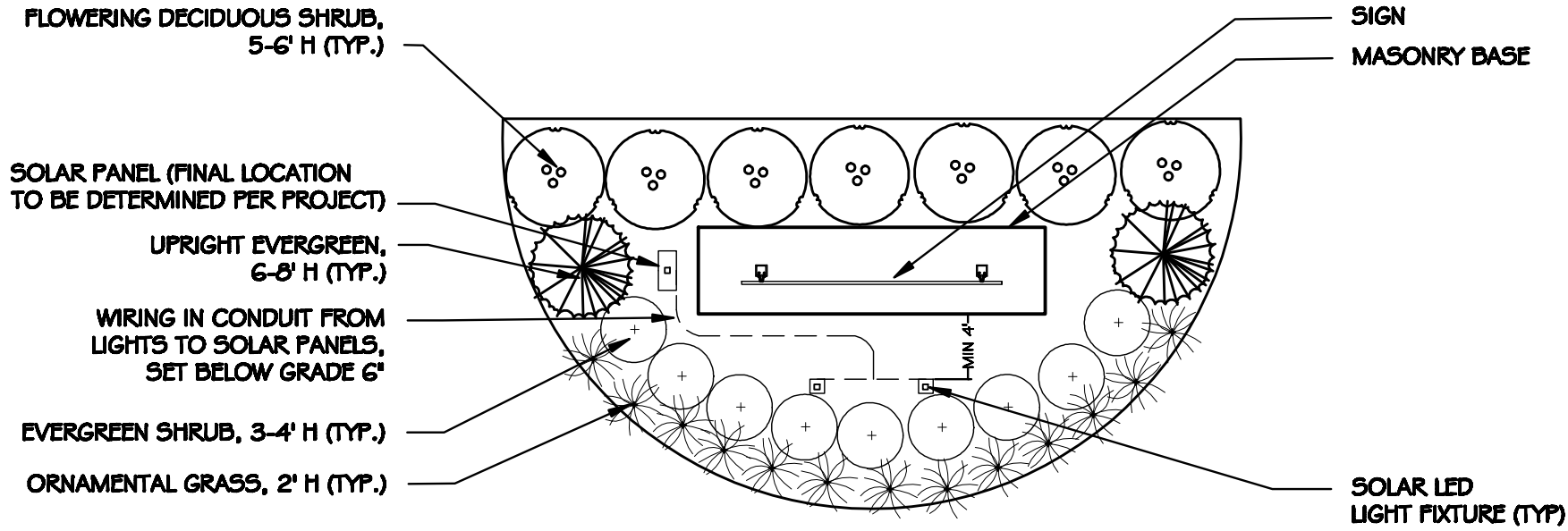
d. revisions: by:

Job no: 222222
Date: 22/2/2022
Host:

of: 1

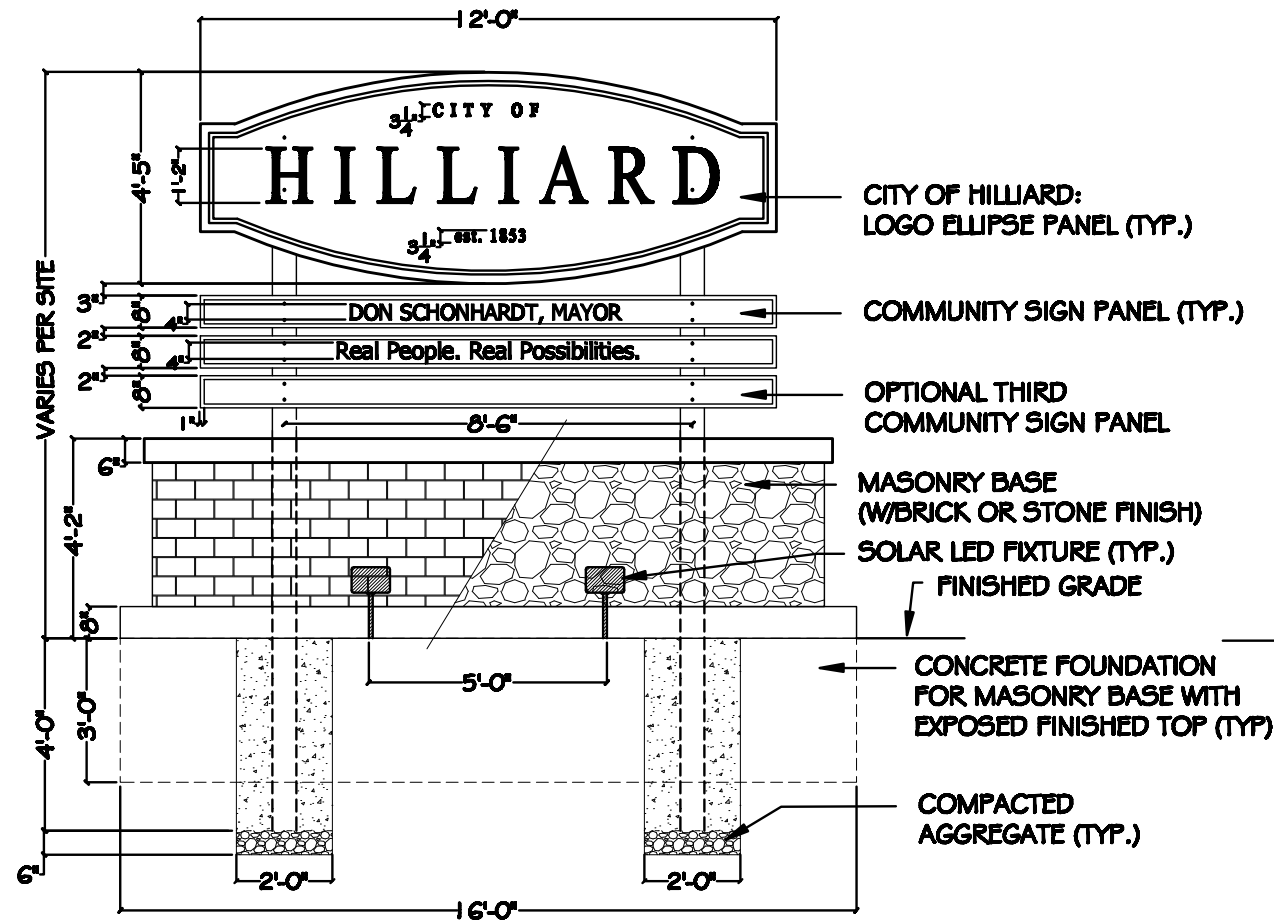
**Clyde R. Seidle Jr.,
Director of Public Service**

**3800 Municipal Way
Hilliard, Ohio 43026**

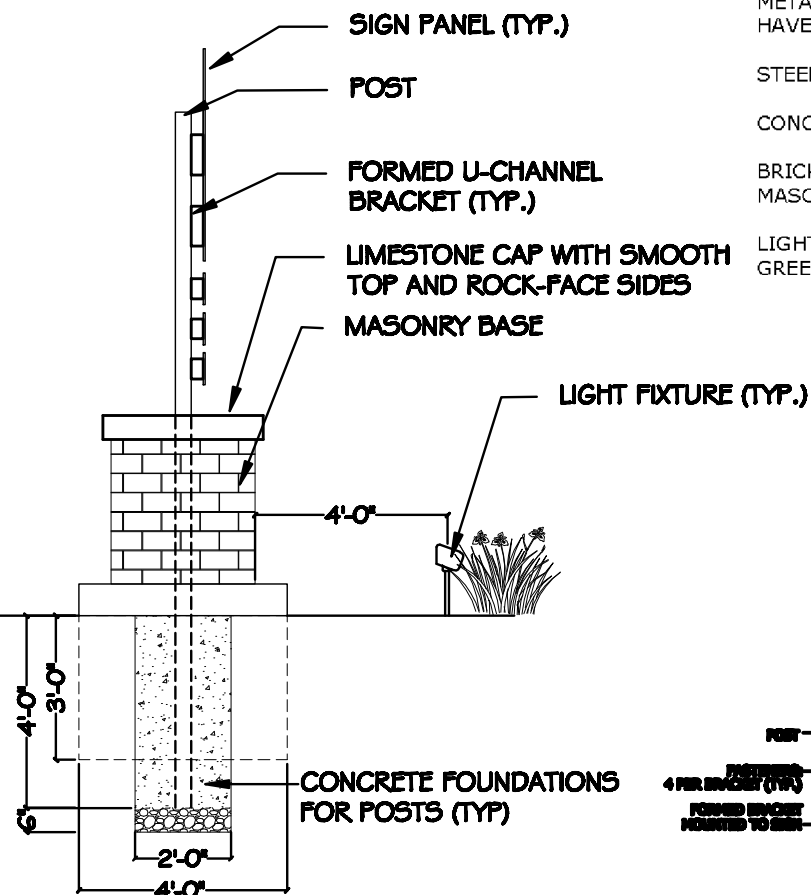


1 PLAN VIEW
SCALE: NOT TO SCALE

NOTE: PLANTINGS MUST COMPLETELY SCREEN ALL LIGHT FIXTURES AT MATURITY.



1 ELEVATION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION
SCALE: 1/4" = 1'-0"



1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

METAL POSTS SHALL BE ASTM-A-500 TUBULAR STEEL, SIZED FOR WIND LOADING AND HAVE METAL CAPS.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

BRICK OR STONE MASONRY SHALL BE SELECTED TO BE CONSISTENT WITH OTHER MASONRY MATERIALS OF EXISTING NEARBY STRUCTURES.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

CITY OF HILLIARD
12'W SIGN - SINGLE FACE - MASONRY BASE
HILLIARD, OHIO

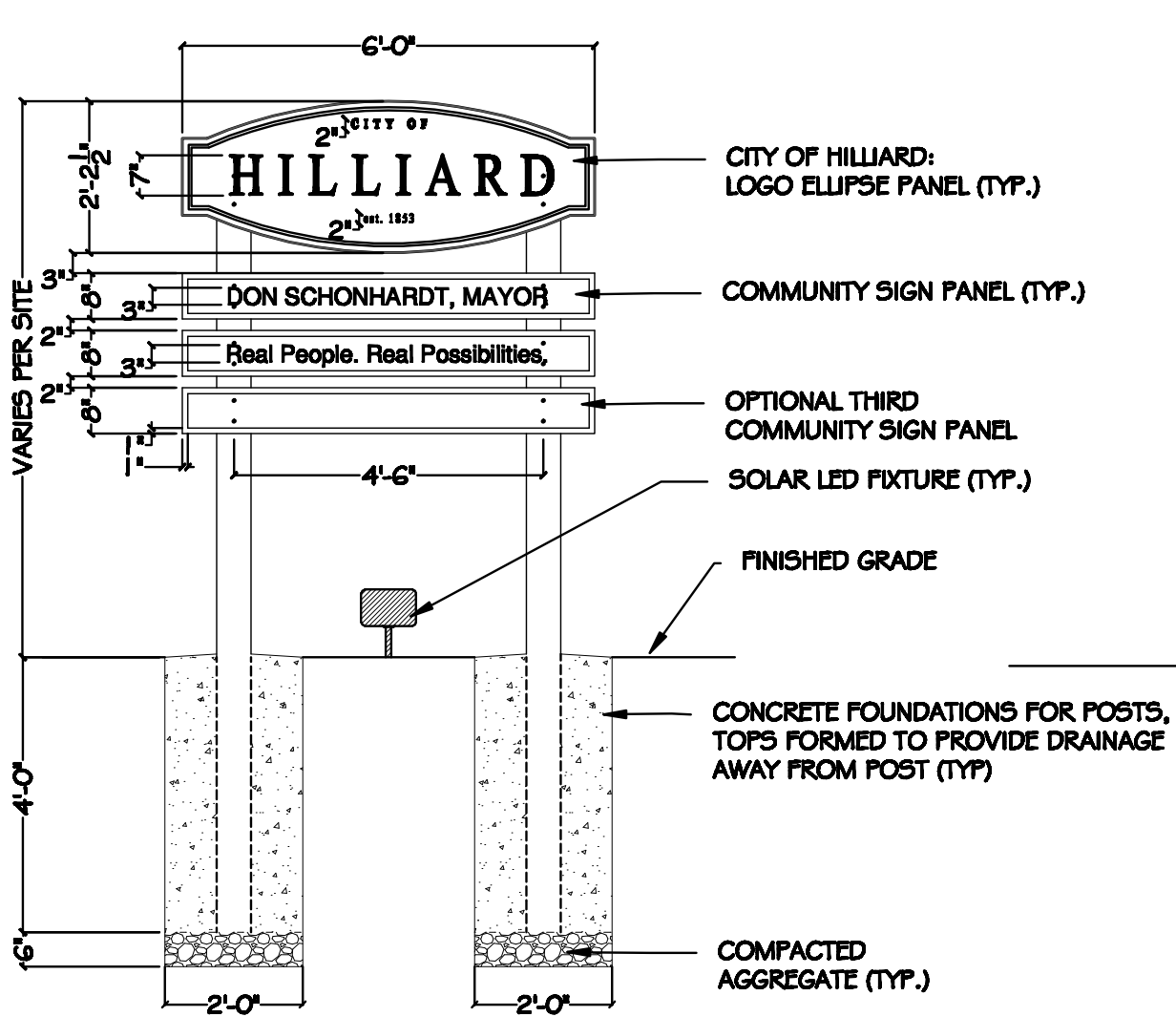
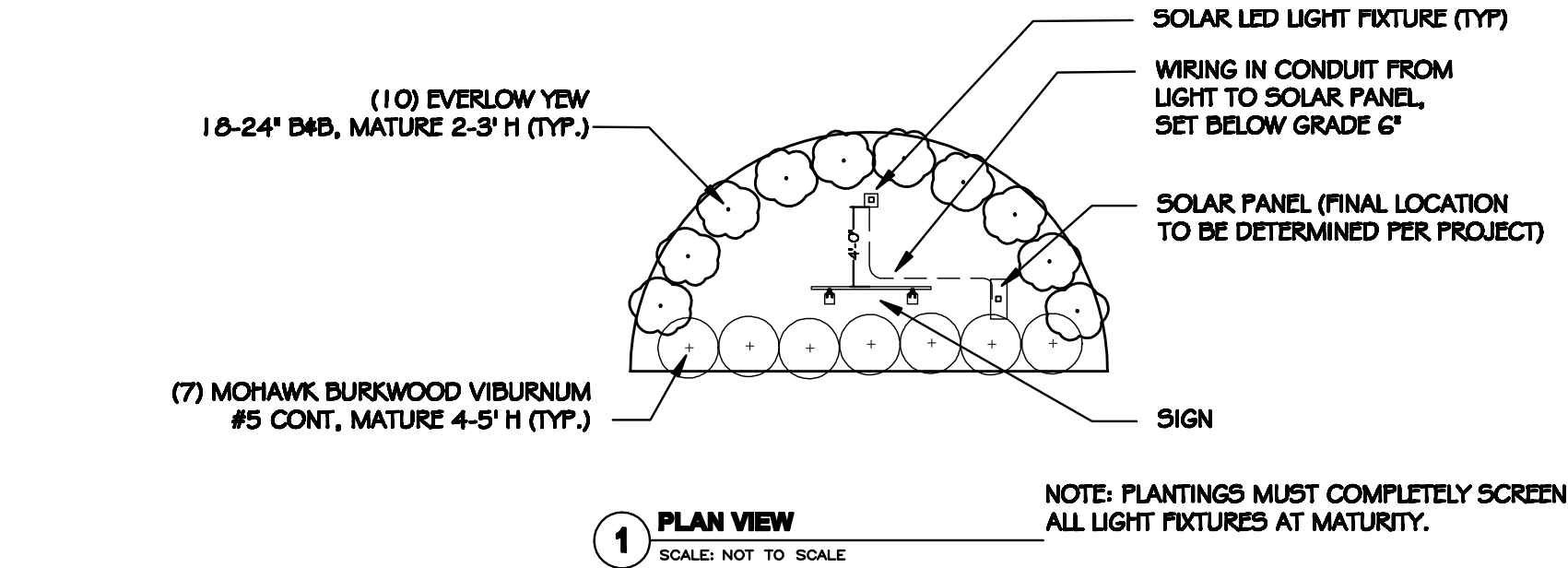
NO.	REVISIONS	BY

Job no: 2020-01
date: 01/11/2021
sheet: 1 of 1

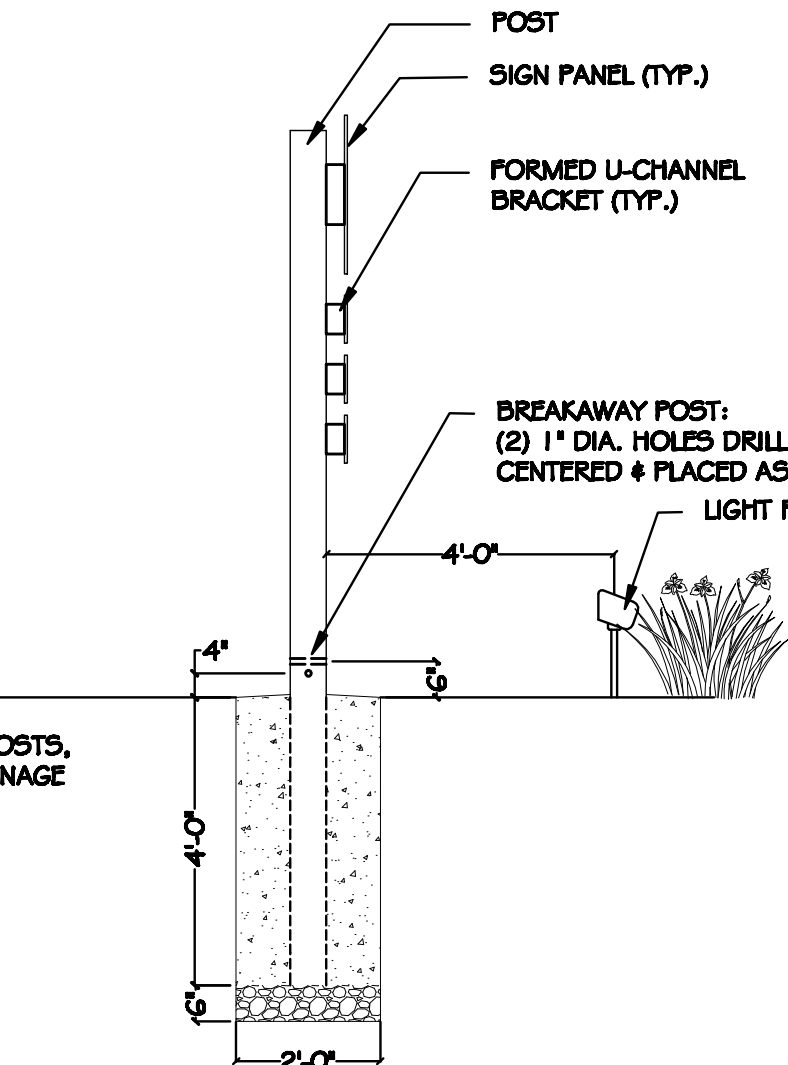
PROJECT SITE NAME
HILLIARD, OHIO
Copyright © 2011 by The City of Hilliard. All Rights Reserved.

Clyde R. Seidle Jr.
Director of Public Service

City of Hilliard
3800 Municipal Way
Hilliard, Ohio 43026



1 ELEVATION
SCALE: 3/8" = 1'-0"



1 CROSS SECTION
SCALE: 3/8" = 1'-0"

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

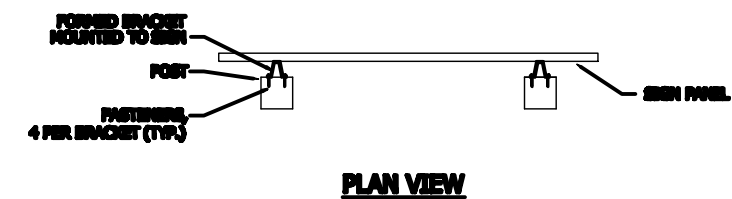
U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

WOOD POSTS SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE. PRESSURE TREATMENT SHALL BE MICRONIZED COPPER AZOLE, CHEMICAL RETENTION OF .015; OR EQUAL. POSTS SHALL BE BREAK-AWAY, AND SIZED FOR WIND LOADING.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.



1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

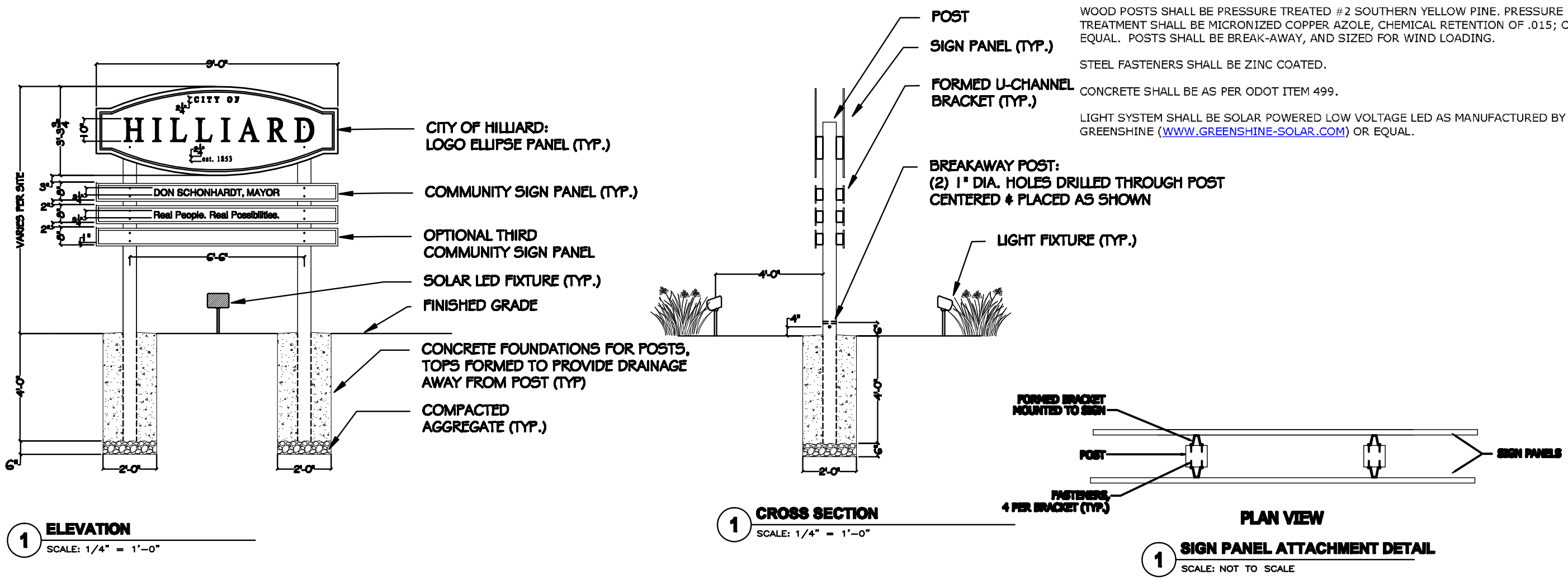
U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

WOOD POSTS SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE. PRESSURE TREATMENT SHALL BE MICRONIZED COPPER AZOLE, CHEMICAL RETENTION OF .015; OR EQUAL. POSTS SHALL BE BREAK-AWAY, AND SIZED FOR WIND LOADING.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.



GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

POST

SIGN PANEL (TYP.)

FORMED U-CHANNEL BRACKET (TYP.)

BREAKAWAY POST:
(2) 1" DIA. HOLES DRILLED THROUGH POST
CENTERED & PLACED AS SHOWN

LIGHT FIXTURE (TYP.)

WOOD POSTS SHALL BE TREATED TO PREVENT ROT. TREATMENT SHALL BE EQUAL TO THAT USED ON FENCE POSTS. POSTS SHALL BE SET IN CONCRETE. STEEL FASTENERS SHALL BE GALVANNEAL. CONCRETE SHALL BE 3000 PSI. LIGHT SYSTEM SHALL BE GREENSHINE ([WWW.GREENSHINE.COM](http://www.greenshine.com))

FORMED BRACKET MOUNTED TO SIGN

POST

FASTENERS, 4 PER BRACKET (TYP.)

4"

4'-0"

4'-0"

2'-0"

6"

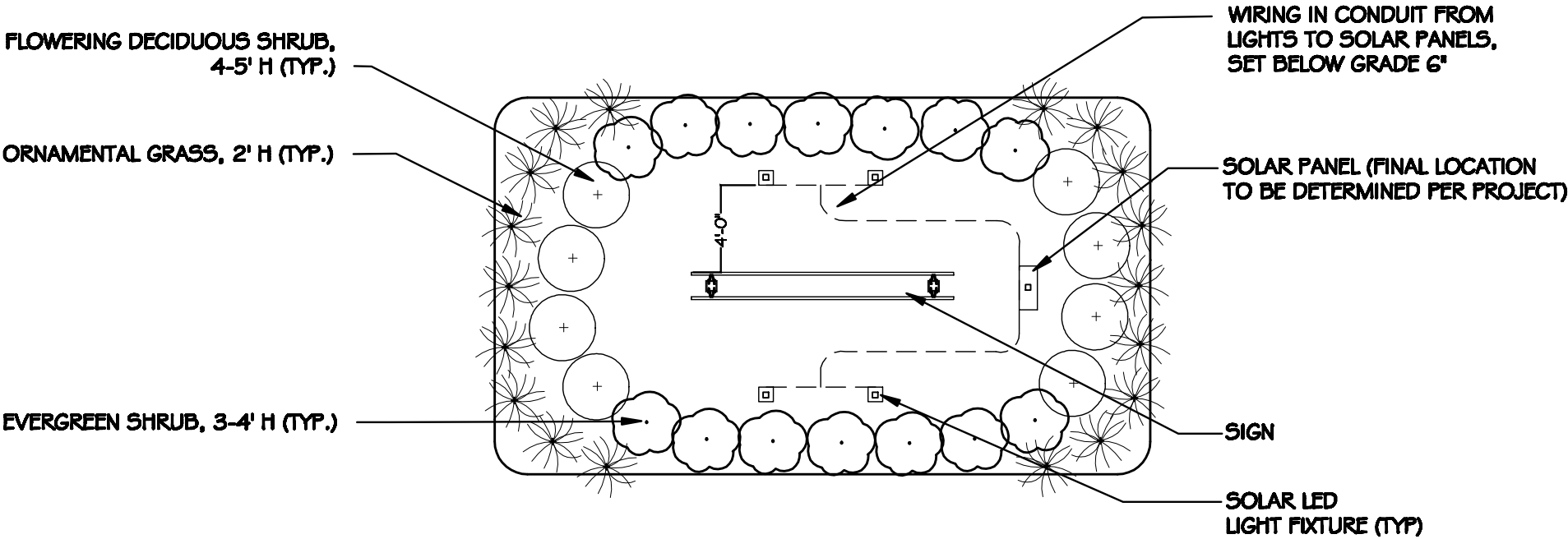
6"

**FORMED BRACKET
MOUNTED TO SIGN**

POST

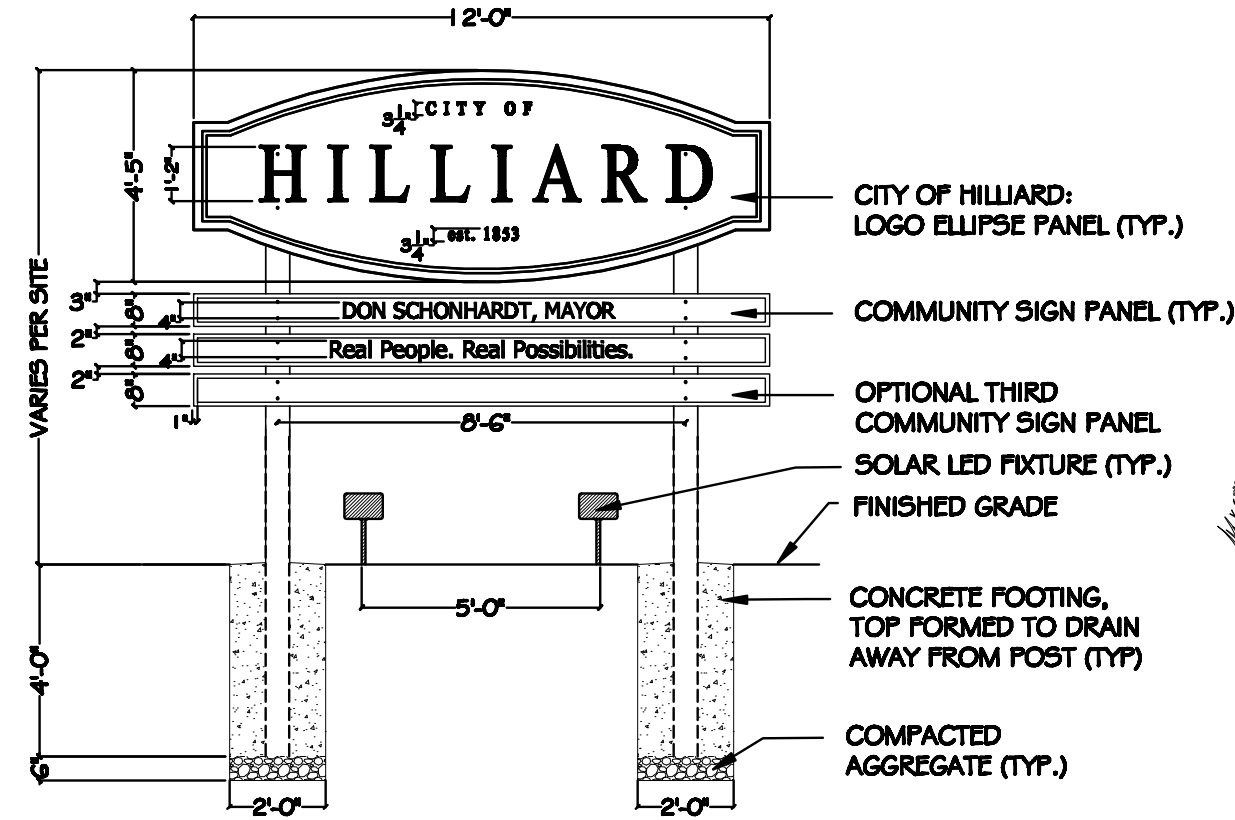
**FASTENERS,
4 PER BRACKET (TYP.)**

SIGN PANEL

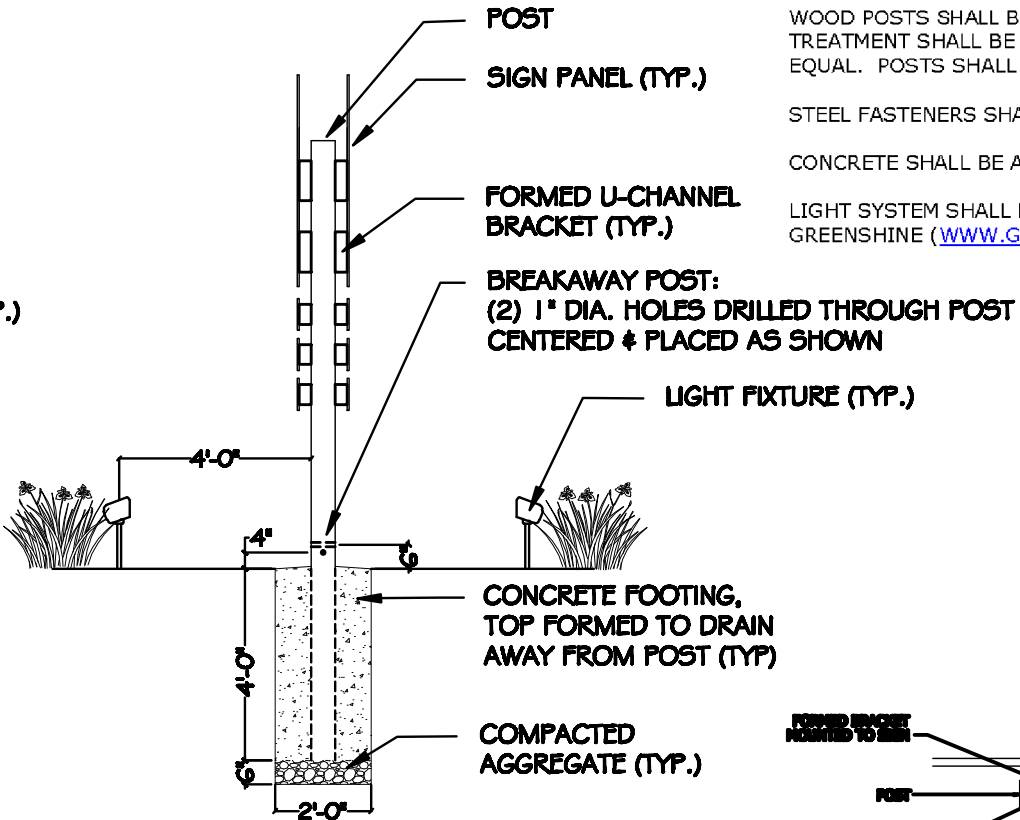


1 PLAN VIEW
SCALE: NOT TO SCALE

NOTE: PLANTINGS MUST COMPLETELY SCREEN ALL LIGHT FIXTURES AT MATURITY.



1 ELEVATION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

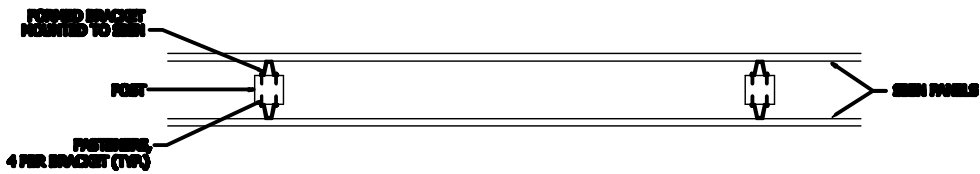
U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

WOOD POSTS SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE. PRESSURE TREATMENT SHALL BE MICRONIZED COPPER AZOLE, CHEMICAL RETENTION OF .015; OR EQUAL. POSTS SHALL BE BREAK-AWAY, AND SIZED FOR WIND LOADING.

STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

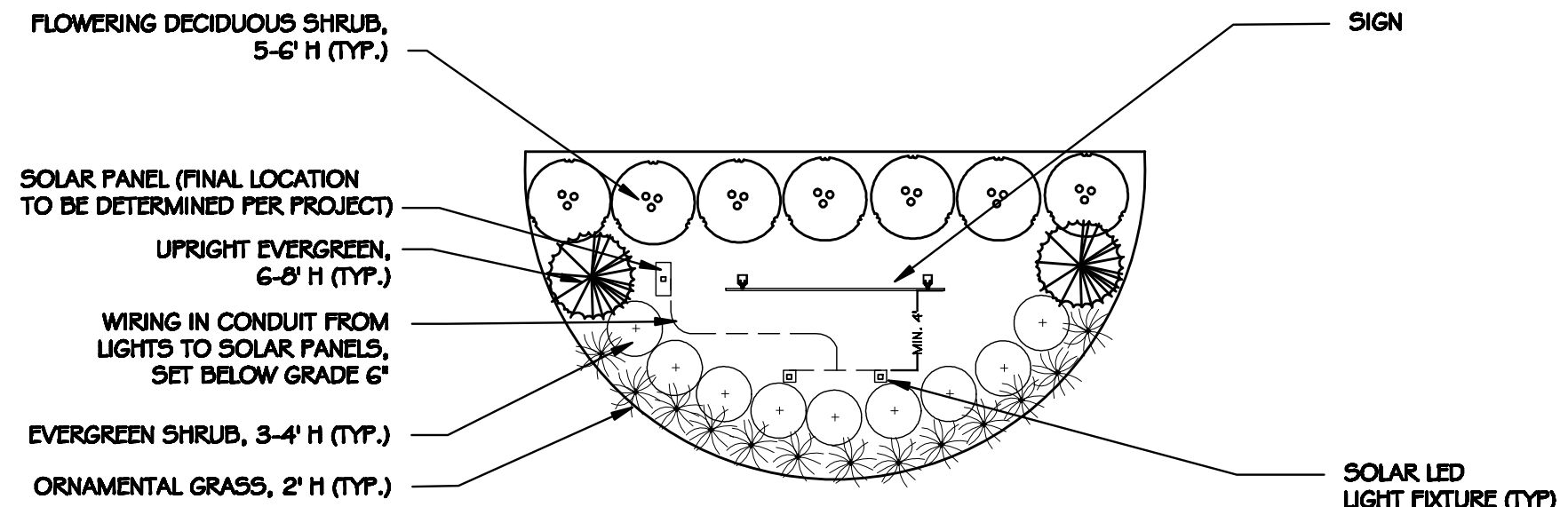


1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

CITY OF HILLIARD
12'W SIGN - DOUBLE FACE - WOOD POSTS
HILLIARD, OHIO

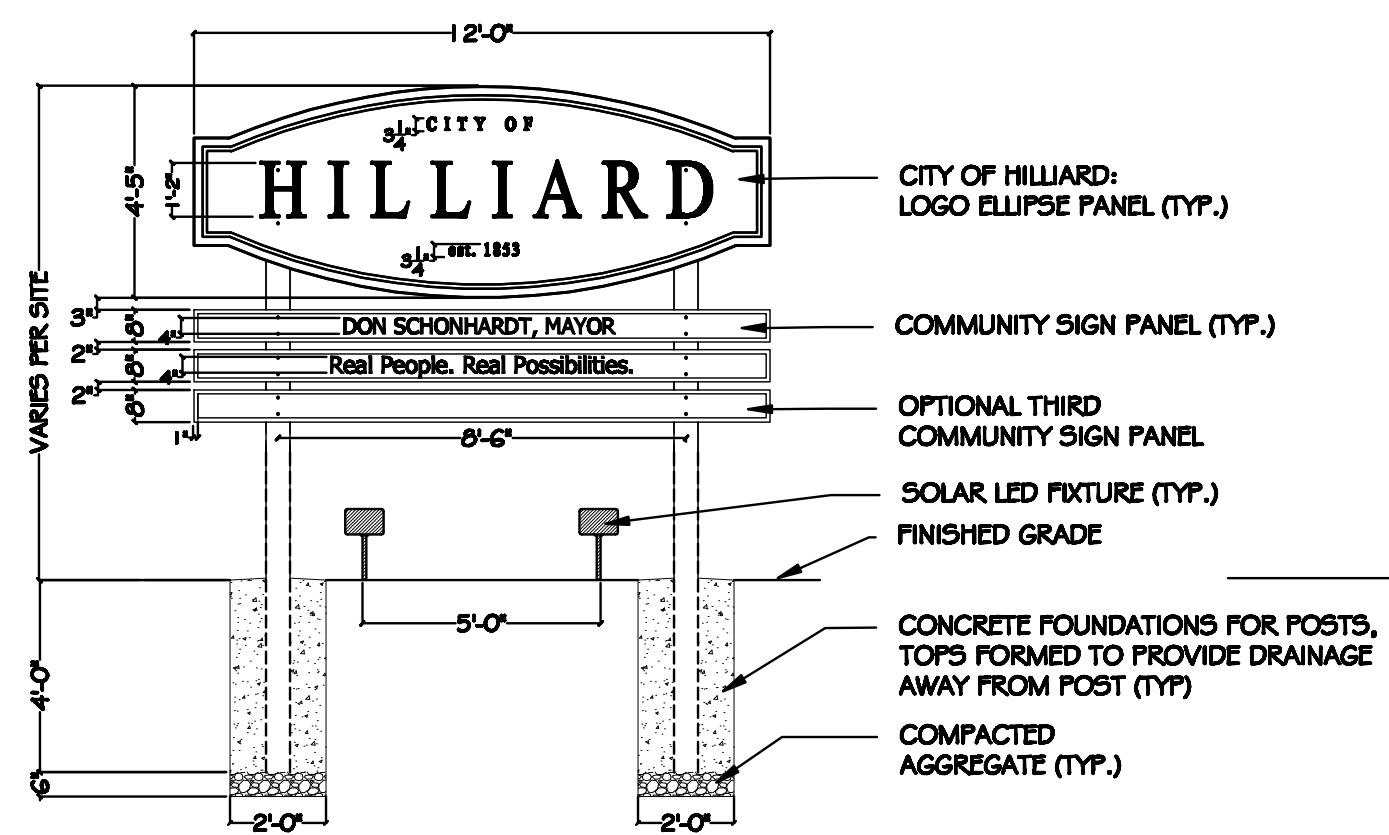
NO.	REVISIONS	BY

Job no: 2000
date: 2/2/2000
sheet:

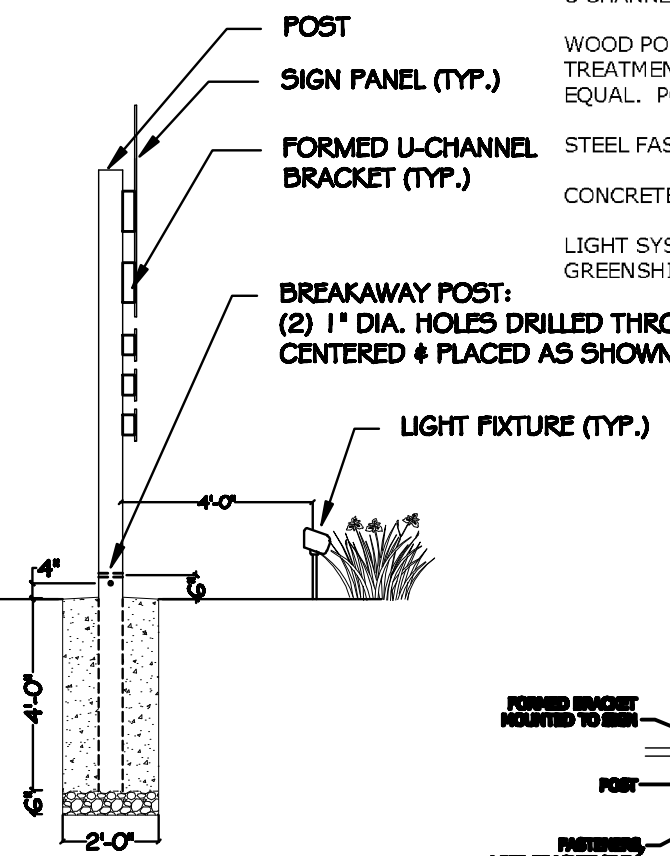


1 PLAN VIEW
SCALE: NOT TO SCALE

NOTE: PLANTINGS MUST COMPLETELY SCREEN ALL LIGHT FIXTURES AT MATURITY.



1 ELEVATION
SCALE: 1/4" = 1'-0"



1 CROSS SECTION
SCALE: 1/4" = 1'-0"



1 SIGN PANEL ATTACHMENT DETAIL
SCALE: NOT TO SCALE

GENERAL NOTES

SIGN PANELS SHALL BE OF HEIGHT AND LENGTH AS SHOWN ON DRAWINGS. THE HEIGHT TO WIDTH RATIO OF THE HILLIARD ELLIPSE SIGN PANEL SHALL BE 1 TO 2.73.

ALL COMPONENTS & SURFACES SHALL BE SPRAY PAINTED WITH POLYURETHANE PRIME COAT FOLLOWED BY POLYURETHANE COLOR COAT, OR POWDER COATED.

SIGN PANELS, PANEL BRACES, AND POSTS SHALL BE PANTONE COLOR 294 BLUE (HILLIARD BLUE) IF PAINTED, OR PAINT CODE 480-G5 IF POWDER COATED. SIGNS LOCATED IN OLD HILLIARD SHALL BE PAINTED OR POWDER COATED PPG MATHEWS BLACK, SUBJECT TO APPROVAL OF CITY ENGINEER.

SIGN PANELS SHALL HAVE WHITE VINYL LETTERS AND WHITE VINYL TRIM BAND. WHITE VINYL SHALL BE REFLECTIVE 3M-PRODUCT 680-10 OR EQUAL.

LETTERING ON THE HILLIARD ELLIPSE SIGNS SHALL BE TIMES NEW ROMAN REGULAR AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

LETTERING ON HILLIARD COMMUNITY SIGN PANELS SHALL BE PURITAN 2.0 AND CENTERED IN THE SIGN. SIZE AS NOTED ON DETAILS.

ALL EXPOSED FASTENERS SHALL BE PAINTED HILLIARD BLUE OR WHITE TO MATCH BACKGROUND COLOR.

PROVIDE SHOP DRAWINGS TO HILLIARD SERVICE DIRECTOR FOR REVIEW AND APPROVAL.

MATERIALS

SIGN PANELS SHALL BE ALUMINUM WITH MAXIMUM .090 FLAT SURFACE VARIATION.

SIGN PANELS BRACES SHALL BE SQUARE ALUMINUM TUBE WELDED TO SIGN PANEL.

U CHANNEL BRACKETS SHALL BE ALUMINUM, OR IF STEEL, ZINC COATED.

WOOD POSTS SHALL BE PRESSURE TREATED #2 SOUTHERN YELLOW PINE. PRESSURE TREATMENT SHALL BE MICRONIZED COPPER AZOLE, CHEMICAL RETENTION OF .015; OR EQUAL. POSTS SHALL BE BREAK-AWAY, AND SIZED FOR WIND LOADING.

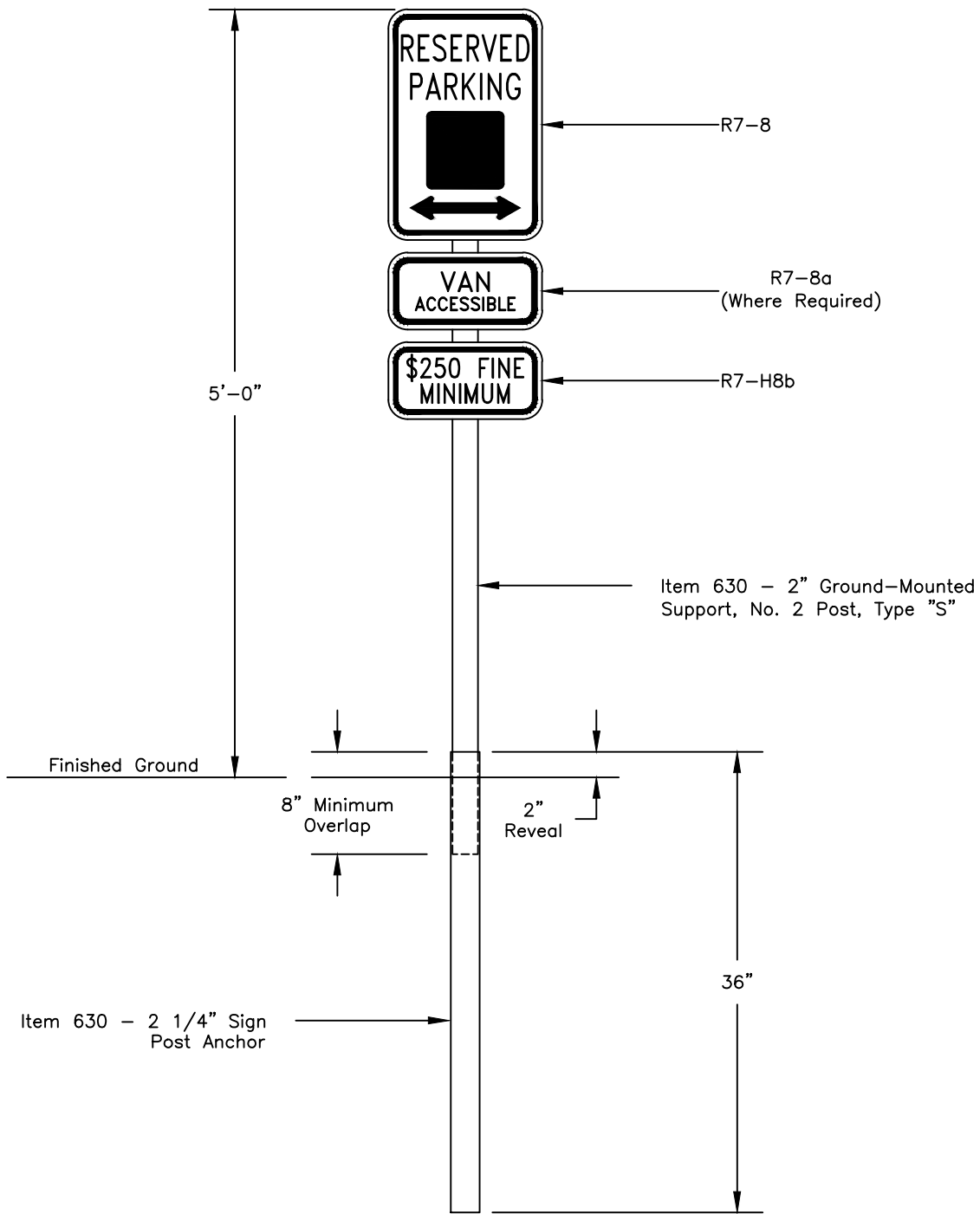
STEEL FASTENERS SHALL BE ZINC COATED.

CONCRETE SHALL BE AS PER ODOT ITEM 499.

LIGHT SYSTEM SHALL BE SOLAR POWERED LOW VOLTAGE LED AS MANUFACTURED BY US GREENSHINE (WWW.GREENSHINE-SOLAR.COM) OR EQUAL.

NO.	REVISIONS	BY

Job no: 20000
date: 08/20/2011
sheet:



APPROVED

HANDICAP PARKING
SIGNAGE

CITY OF
HILLIARD, OHIO

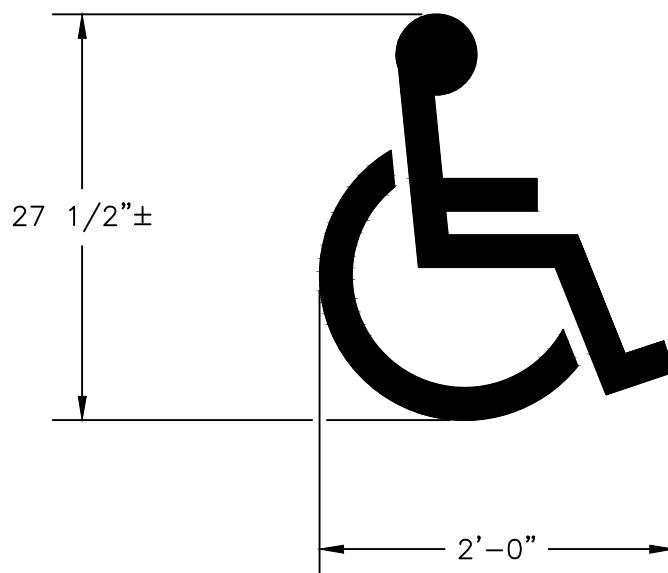
STANDARD
CONSTRUCTION DRAWING

CITY ENGINEER DATE

SCALE: 1" = 1'

1/2

HP-1



<div>APPROVED</div> <div> <div>CITY ENGINEER</div> <div>DATE</div> </div>	<div>HANDICAP PARKING SIGNAGE</div>	<div>CITY OF HILLIARD, OHIO</div>	
		<div>STANDARD CONSTRUCTION DRAWING</div>	
<div>SCALE: 1" = 1'</div>		<div>2/2</div>	<div>HP-1</div>

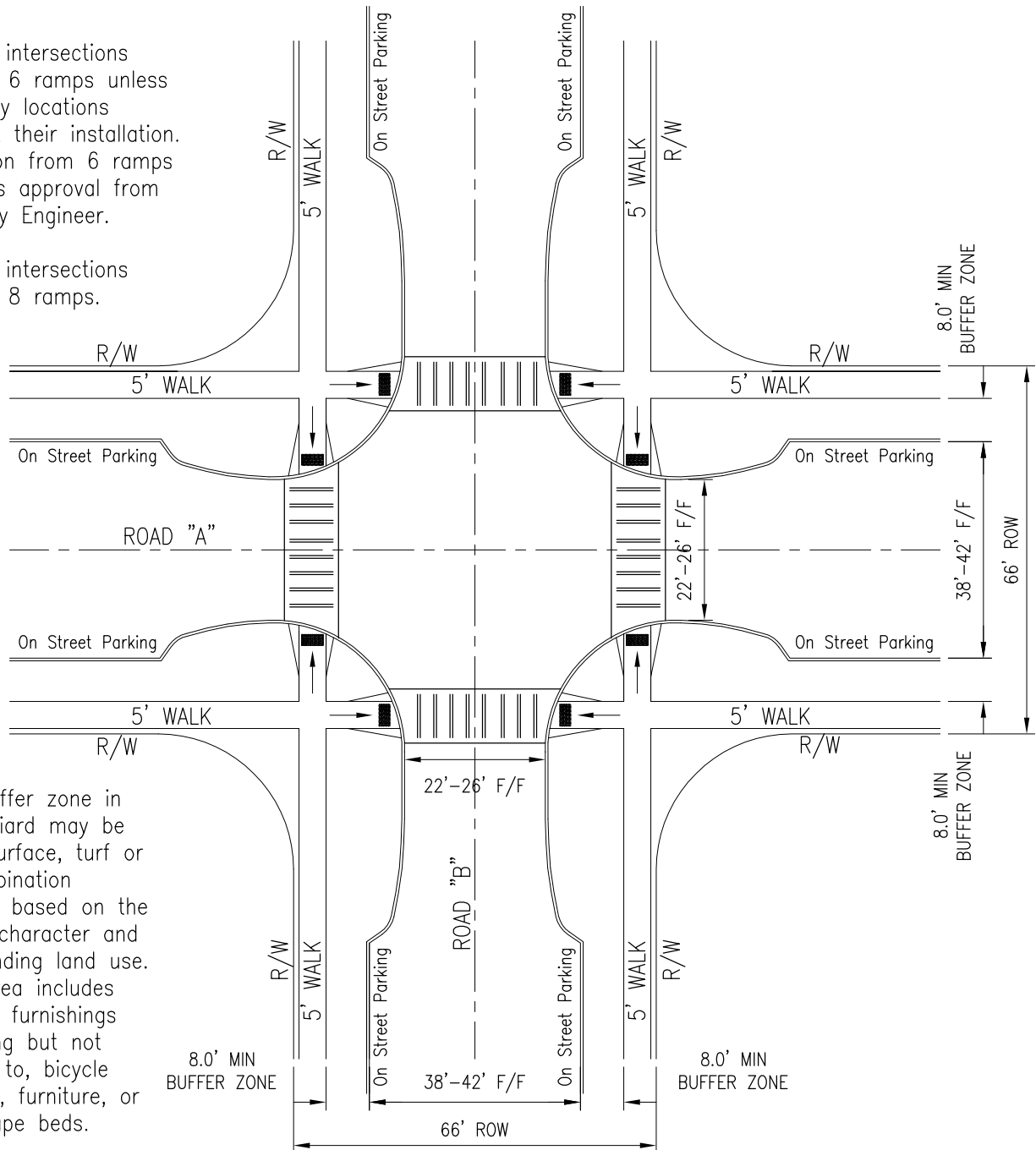
F/C Radius = 25' Max.

R/W Radius = 25' Min.

NOTES:

1. 3-way intersections require 6 ramps unless driveway locations prohibit their installation. Deviation from 6 ramps requires approval from the City Engineer.
2. 4-way intersections require 8 ramps.

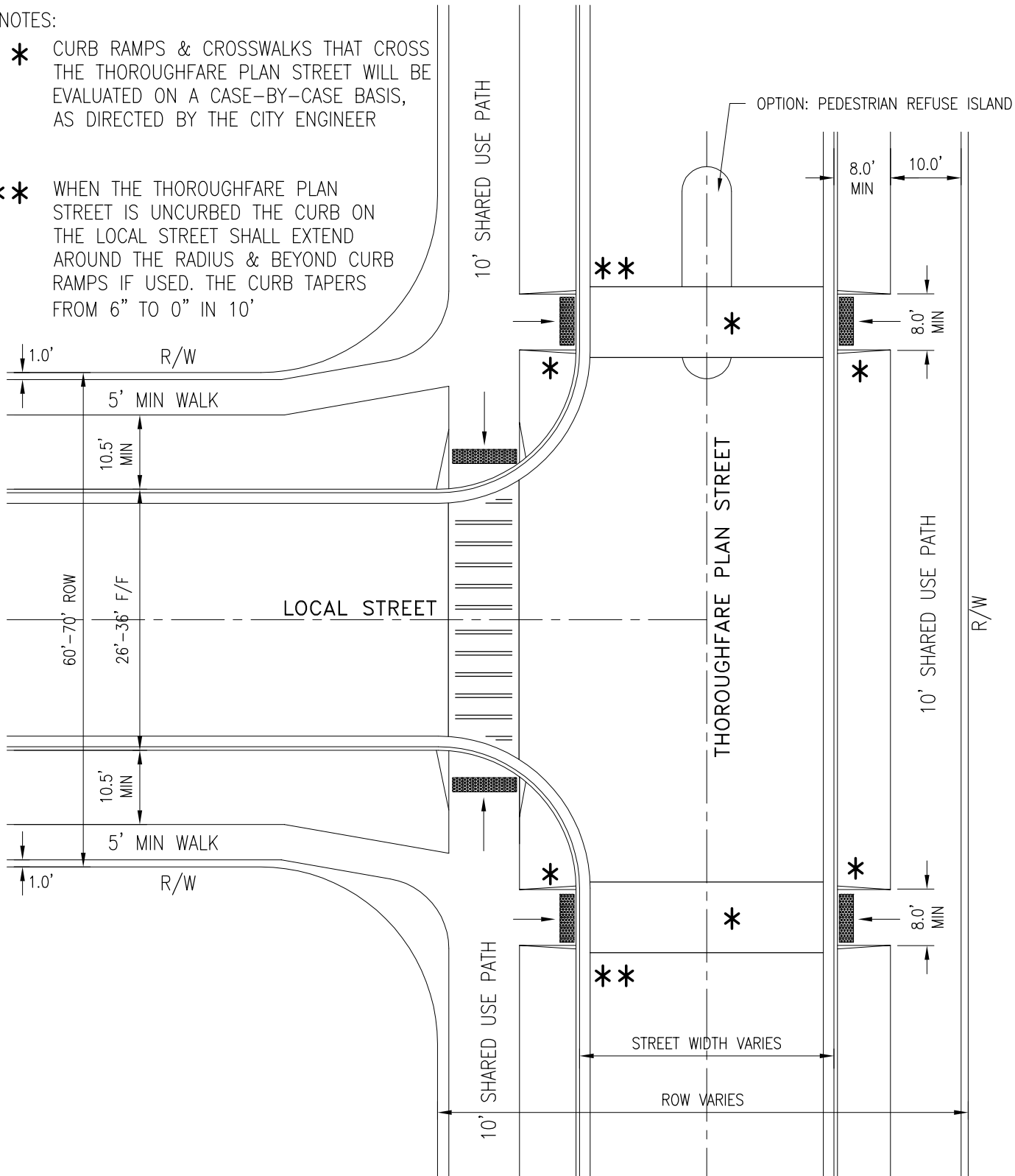
3. The buffer zone in old Hilliard may be hard surface, turf or a combination thereof based on the street character and surrounding land use. This area includes various furnishings including but not limited to, bicycle parking, furniture, or landscape beds.



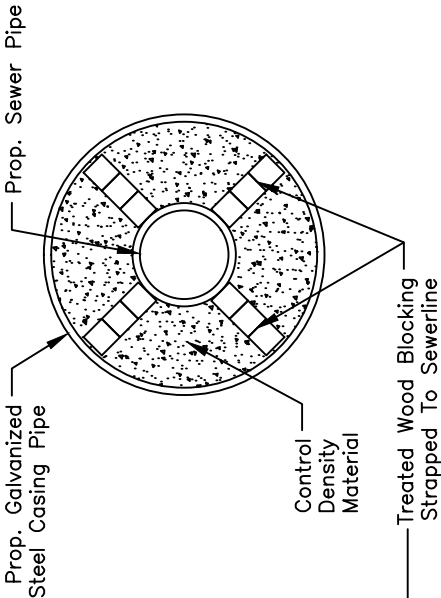
DATE: April 16, 2015		INTERSECTION DETAIL OLD HILLIARD DISTRICT 66' ROW		CITY OF HILLIARD, OHIO	
				STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 30'				1/1	ID-2

NOTES:

- * CURB RAMPS & CROSSWALKS THAT CROSS THE THOROUGHFARE PLAN STREET WILL BE EVALUATED ON A CASE-BY-CASE BASIS, AS DIRECTED BY THE CITY ENGINEER
- ** WHEN THE THOROUGHFARE PLAN STREET IS UNCURBED THE CURB ON THE LOCAL STREET SHALL EXTEND AROUND THE RADIUS & BEYOND CURB RAMPS IF USED. THE CURB TAPERS FROM 6" TO 0" IN 10'

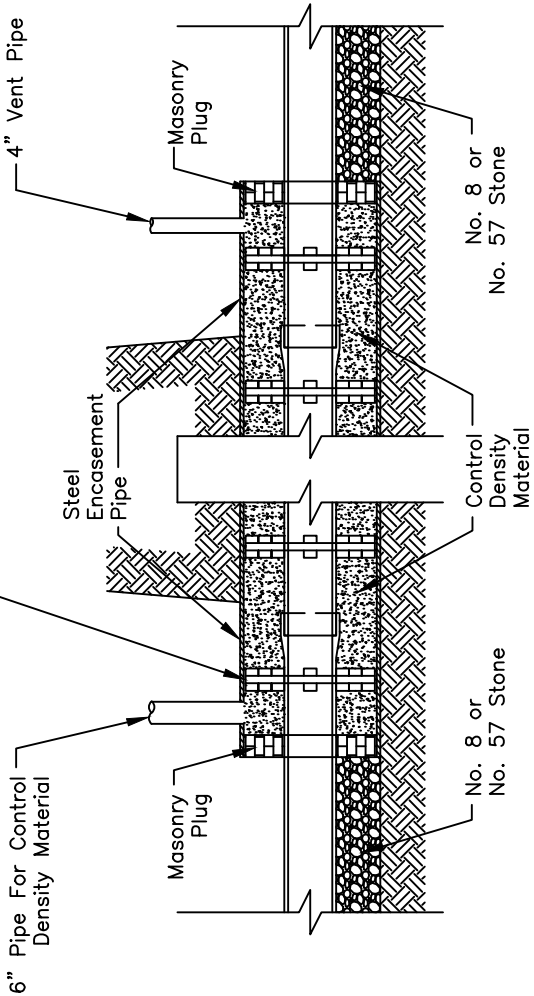


	INTERSECTION DETAIL LOCAL STREET AT THOROUGHFARE PLAN STREET	CITY OF	
DATE: April 16, 2015		HILLIARD, OHIO	
SCALE: 1" = 20'		STANDARD CONSTRUCTION DRAWING	
		1/1	ID-3



- Notes:
1. All steel encasement pipe joints are to be welded.
 2. Treated wood blocking to be 6 inches long banded to each length of pipe, 6'-0" maximum c/c. Allow 1 inch maximum clearance between blocks and casing pipe.

Pipe Size	Casing Size
8	18
10	21
12	24
15	30
18	36
21	42
24	42
27	48
30	48
36	54



APPROVED

CITY ENGINEER

DATE

SCALE: 1/4" = 1'

JACK CASING DETAIL

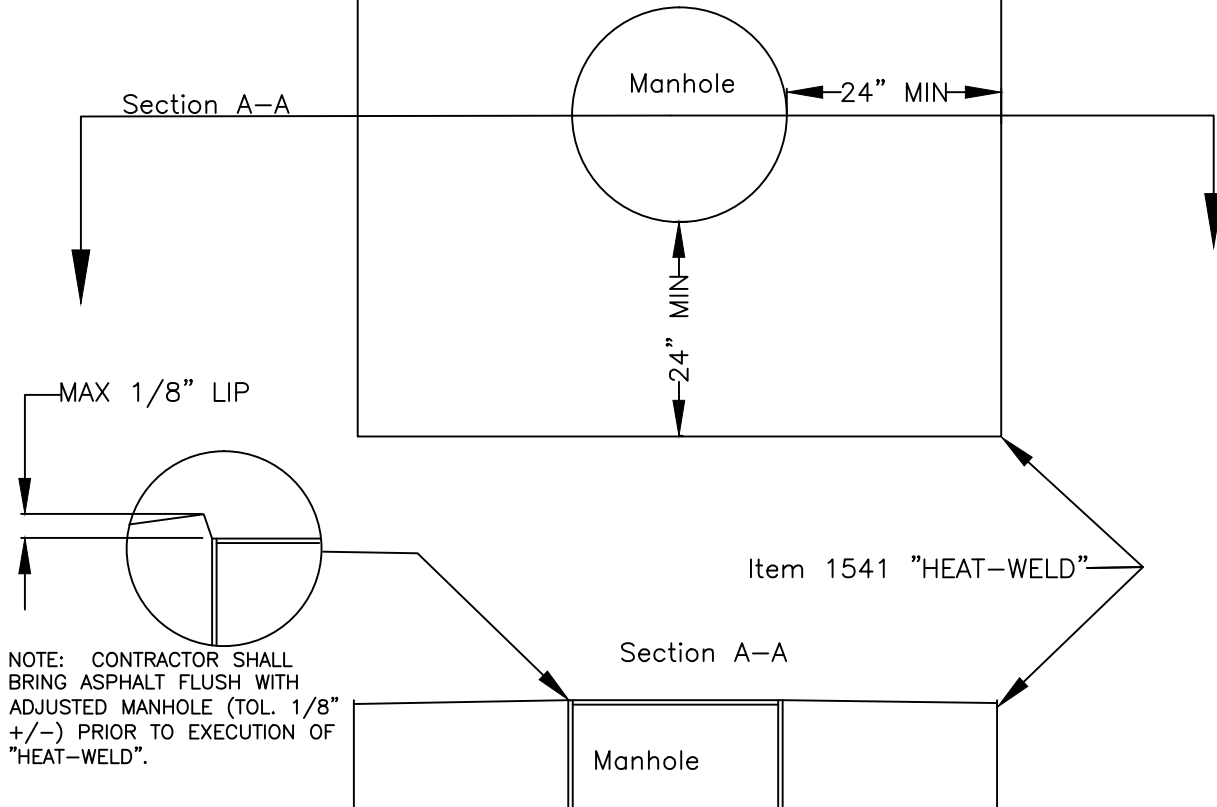
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

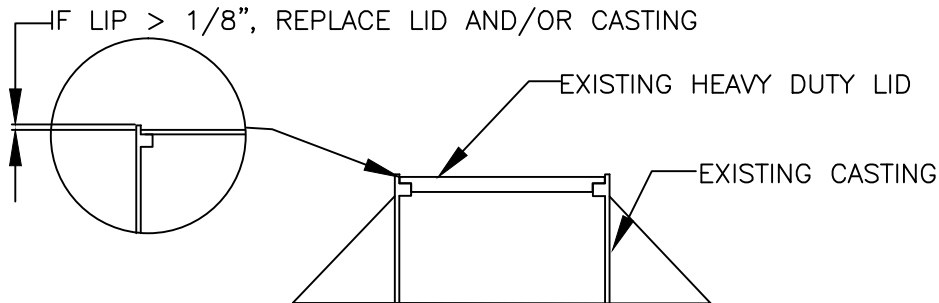
1-1

JC-1

AFTER MANHOLE IS ADJUSTED, AND ASPHALT CONCRETE HAS BEEN BROUGHT TO GRADE, CONTRACTOR SHALL PERFORM A "HEAT-WELD" IN ACCORDANCE WITH COLS SUPPLEMENTAL SPECIFICATION 1541 TO ENSURE A UNIFORM AND FLUSH TRANSITION.



NOTE: IF LID DOES NOT FIT FLUSH (1/8" +/- TOLERANCE), CONTRACTOR SHALL REPLACE CASTING AND/OR LID TO PROVIDE FLUSH FIT (1/16" +/-). REPLACEMENT SHALL FIT SPECIFICATIONS AND PERFORMANCE OF EXISTING STRUCTURE. IF SUITABLE REPLACEMENT DOES NOT EXIST, BOTH CASTING AND LID MUST BE REPLACED.



APPROVED

CITY ENGINEER DATE

NOT TO SCALE

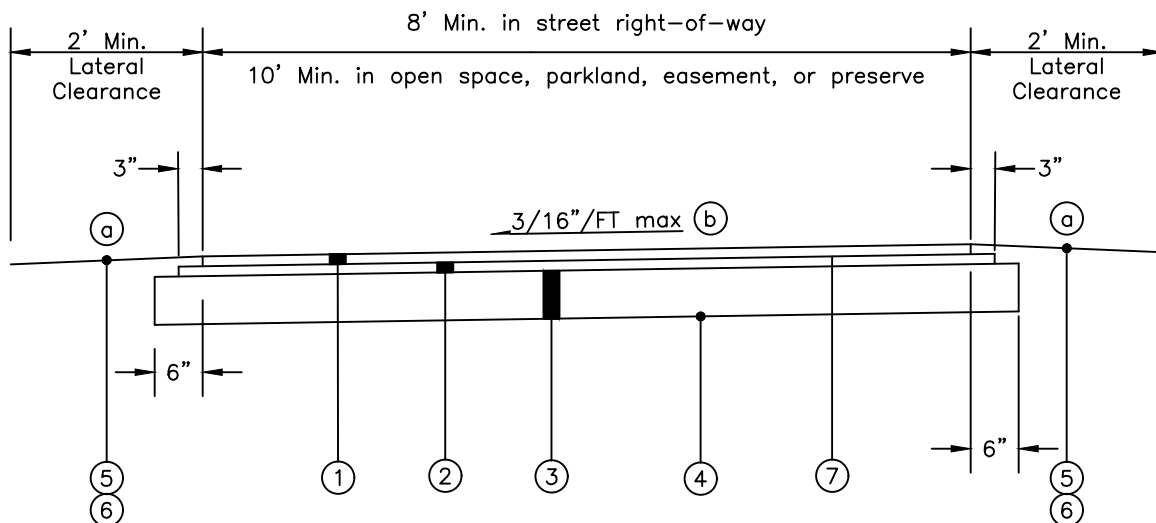
MANHOLE ADJUSTED
TO GRADE

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

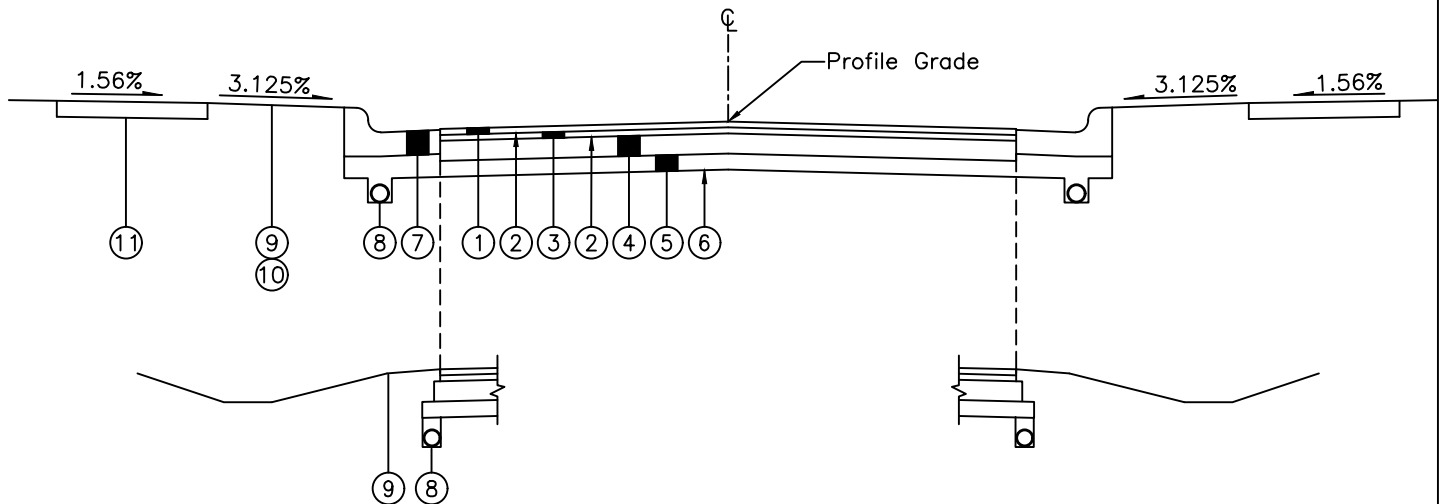
MHA-1



- ① Item 448 – 1 1/2" Asphalt Concrete, Surface Course, Type I, PG64–22, Medium Traffic
 - ② Item 448 – 2 1/2" Asphalt Concrete*, Intermediate Course, Type 2, PG64–22, Medium Traffic
 - ③ Item 304 – 6" Aggregate Base
 - ④ Item 204 – Subgrade Compaction
 - ⑤ Item 659 – Seeding & Mulching, As Per Plan
 - ⑥ Item 653 – 3" Min pulverized topsoil, furnished & placed, As Per Plan or approved equal
 - ⑦ Item 407 – Tack coat, type and rate as directed by the engineer. May be omitted if surface course is applied immediately following intermediate course of asphalt
- Ⓐ – Side slopes per typical section of plan
– All seeding/mulching and topsoil shall be free of weeds to ensure quality growth of grass
 - Ⓑ For multi-use paths, 12' in width or greater, consideration should be given to provide a center crown

* Note: Asphalt concrete intermediate course may be reduced to 1 1/2" min. in locations where utility, maintenance, or construction vehicle use of the path is expected to be minimal. City Engineer approval is required for this reduction.

DATE: September 13, 2018	MULTI-USE PATH DETAILS	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		1/1	MP-1
SCALE: 1" = 2'			



- ① Item 441 – Asphalt Concrete, Surface Course, Type 1, PG64–22 (448)
- ② Item 407 – Non–Tracking Tack Coat
- ③ Item 441 – Asphalt Concrete, Intermediate Course, Type 2, PG64–22 (448)
- ④ Item 301 – Asphalt Concrete Base, PG64–22
- ⑤ Item 304 – Aggregate Base
- ⑥ Item 204 – Subgrade Compaction
- ⑦ Item 609 – Combination Curb and Gutter (Per City of Hilliard STD DWG. CG–1)
- ⑧ Item 605 – 4” Pipe Underdrain
- ⑨ Item 659 – Seeding and Mulching, As Per Plan
- ⑩ Item 652 – 3” Topsoil Furnished and Placed
- ⑪ Item 608 – 4” Concrete Walk (Per City of Hilliard STD DWG. SW–1)

Pavement Thickness (inches)			
Item	Local/ Residential	Network Collector/ Commercial Mixed Use	Major & Minor Arterial
441– Surface	1.5”	1.5”	1.5”
441– Intermediate	2.5”	1.5”	1.5”
301 – Asphalt Base	4”	6”	9”
304 – Aggregate	6”	6”	6”

Litty Achauf

DATE: March 06, 2023

SCALE: $\frac{1}{4}$ " = 1"

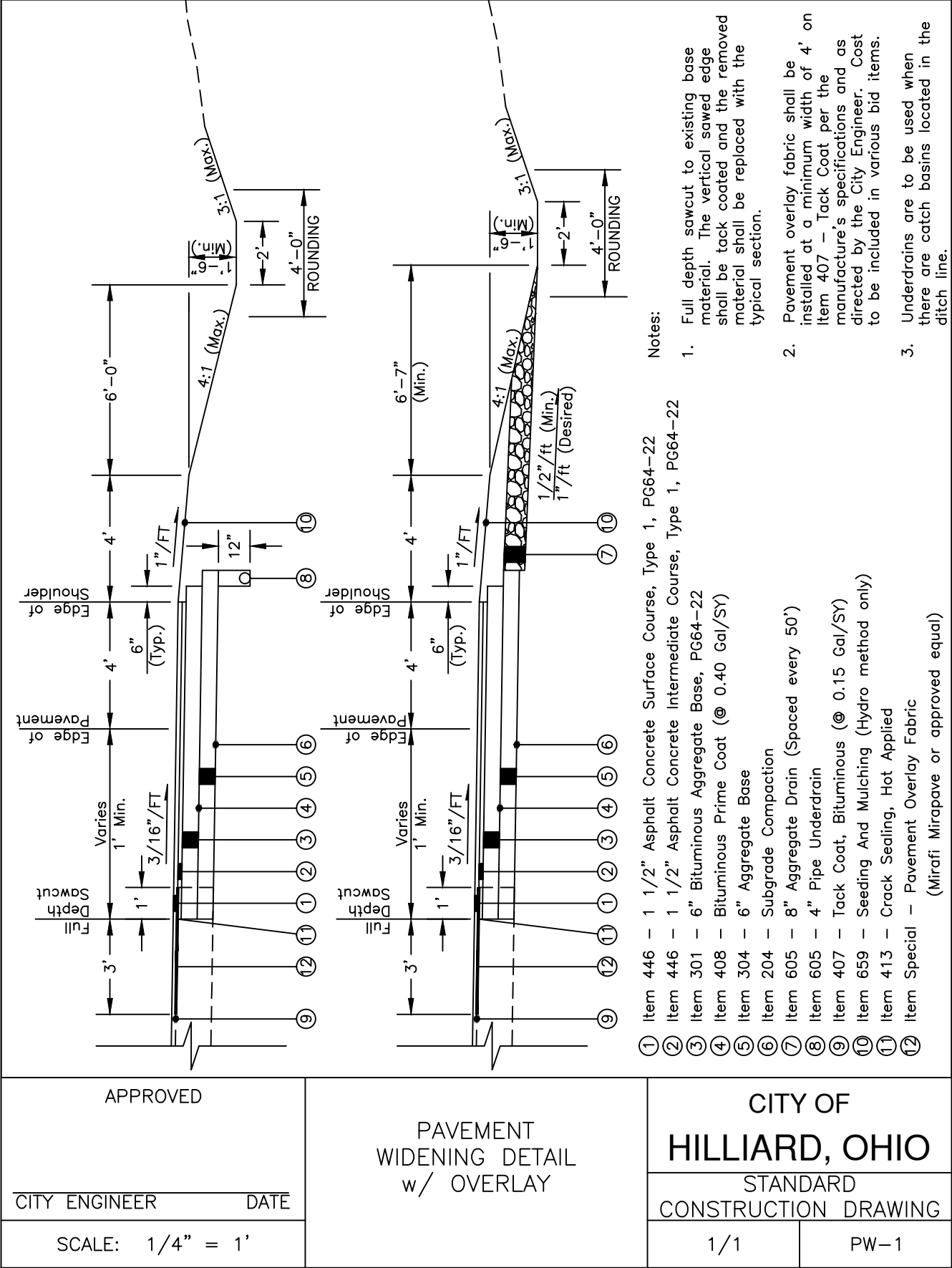
PAVEMENT THICKNESS
CURBED AND UNCURBED
STREETS

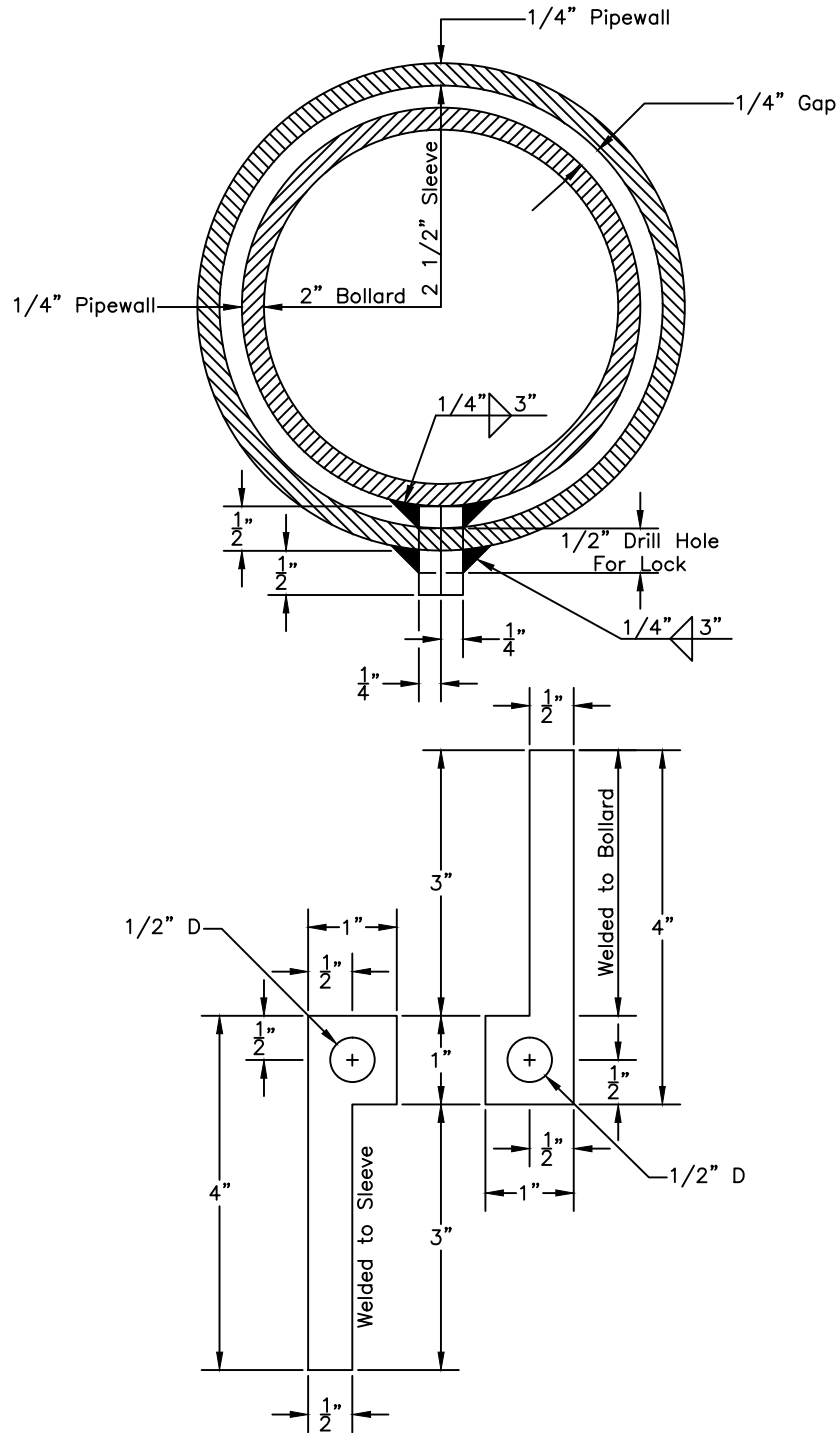
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

PV–1





APPROVED

CITY ENGINEER DATE

SCALE: 6" = 1'

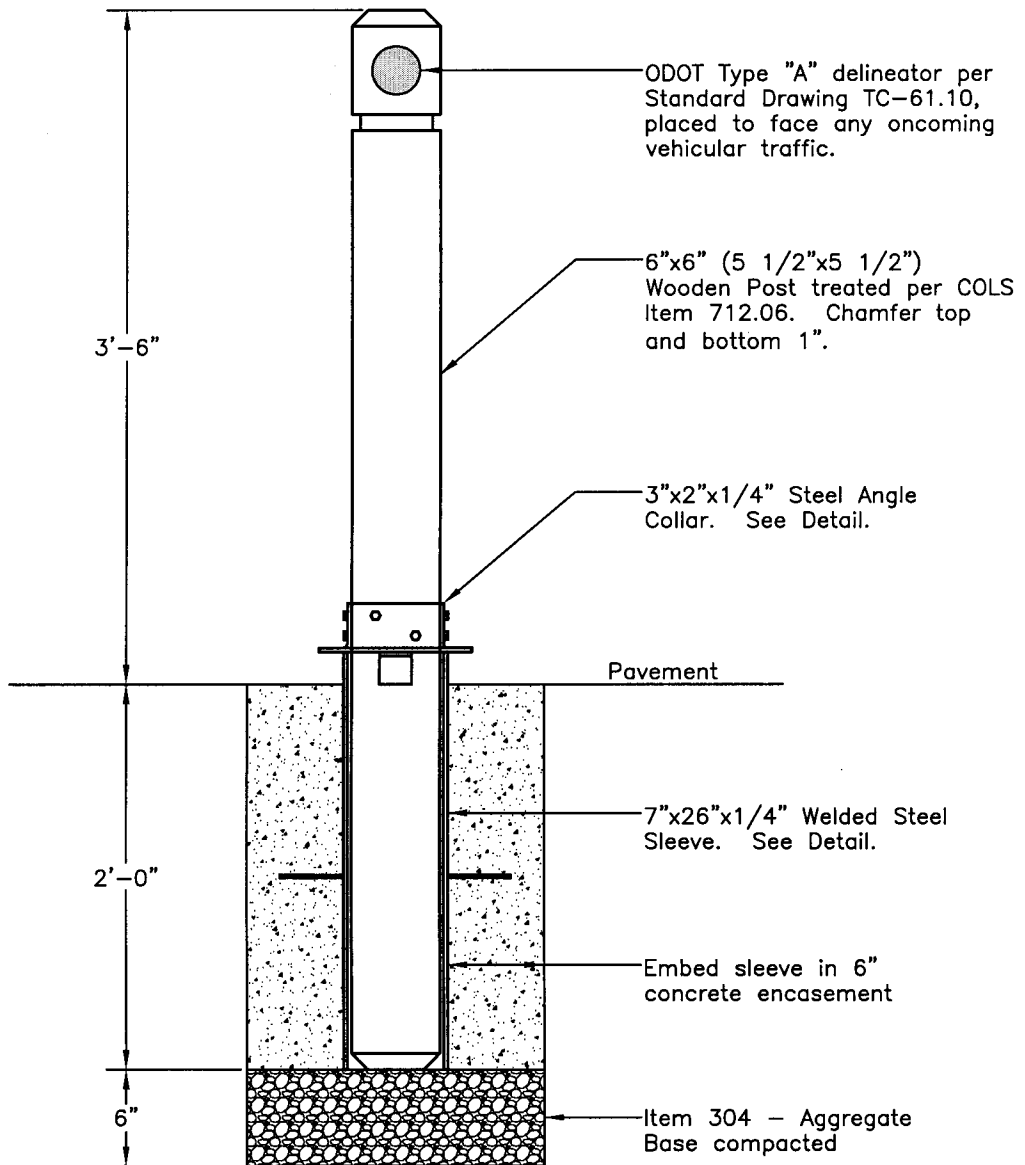
4" REMOVABLE
BOLLARD DETAILS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

2/2

RB-1



Notes:

1. Steel sleeve and collar to be painted with 2 coats of Rust-Oleum No. 769 Damp Proof Red Primer or equal. Collar to be painted with 2 coats of flat black, suitable for metal in an exterior application.
2. The City of Hilliard shall supply all locks.

APPROVED

6" REMOVABLE
BOLLARD

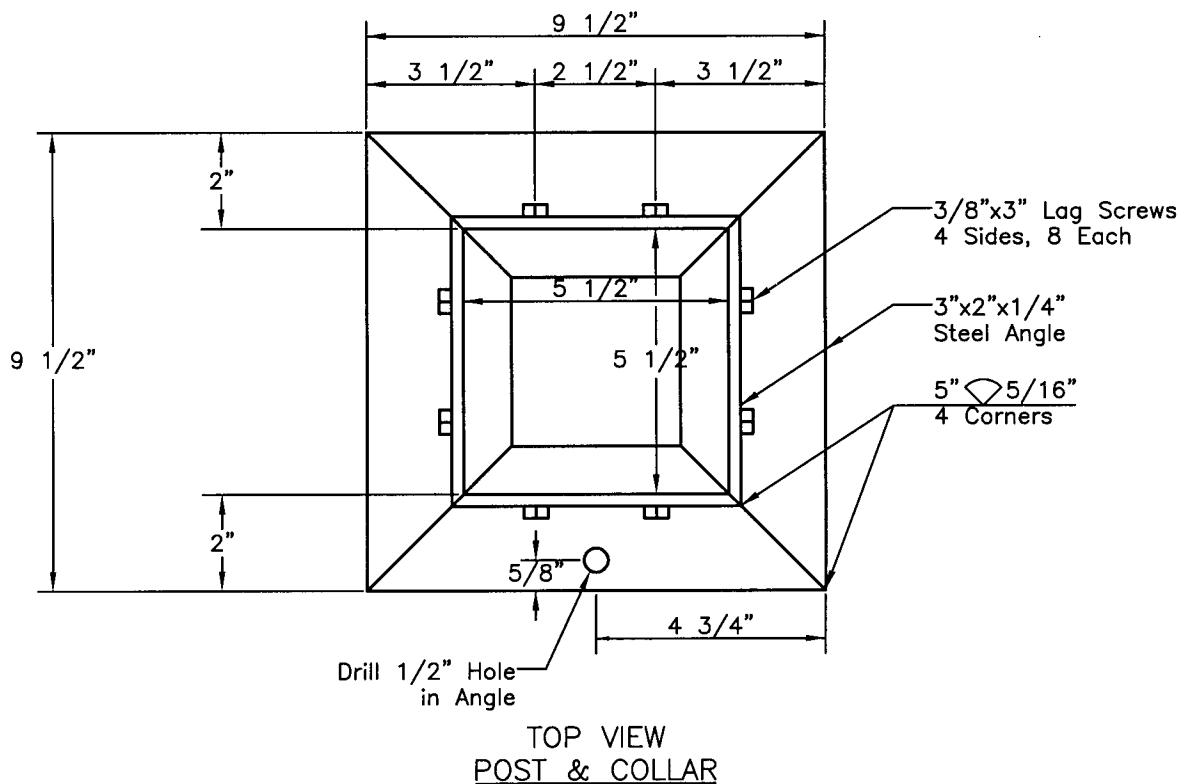
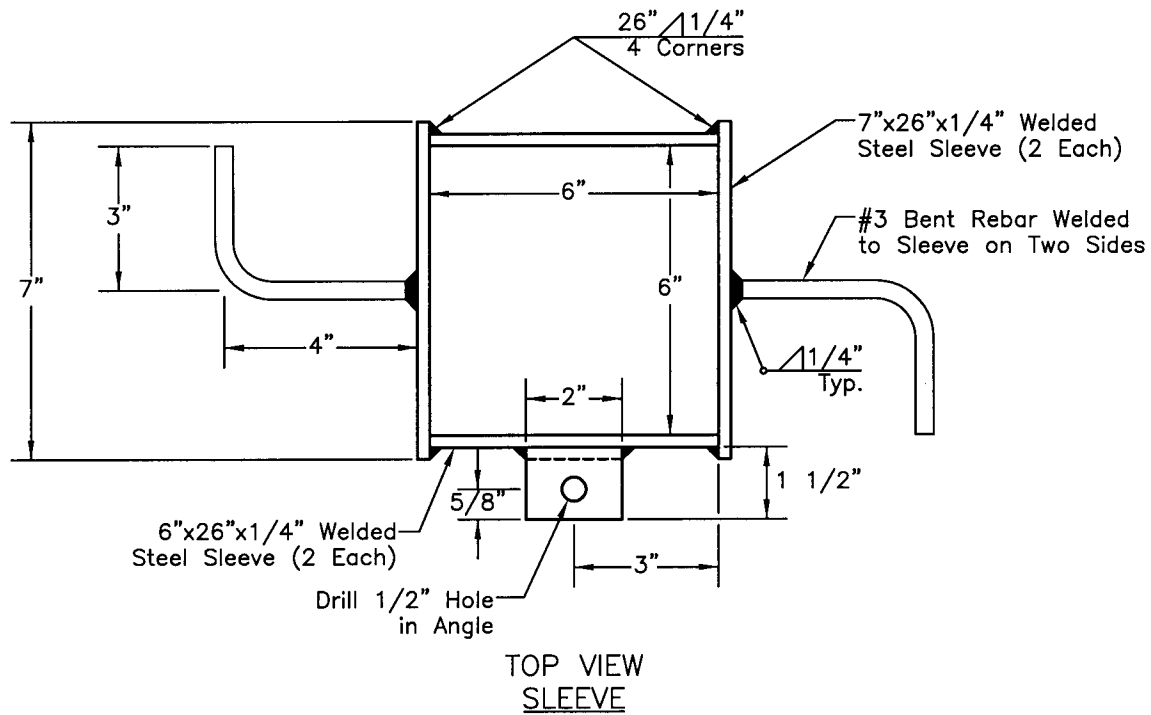
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

SCALE: 1" = 1'

1/3

RB-2



APPROVED

CITY ENGINEER DATE

SCALE: 3" = 1'

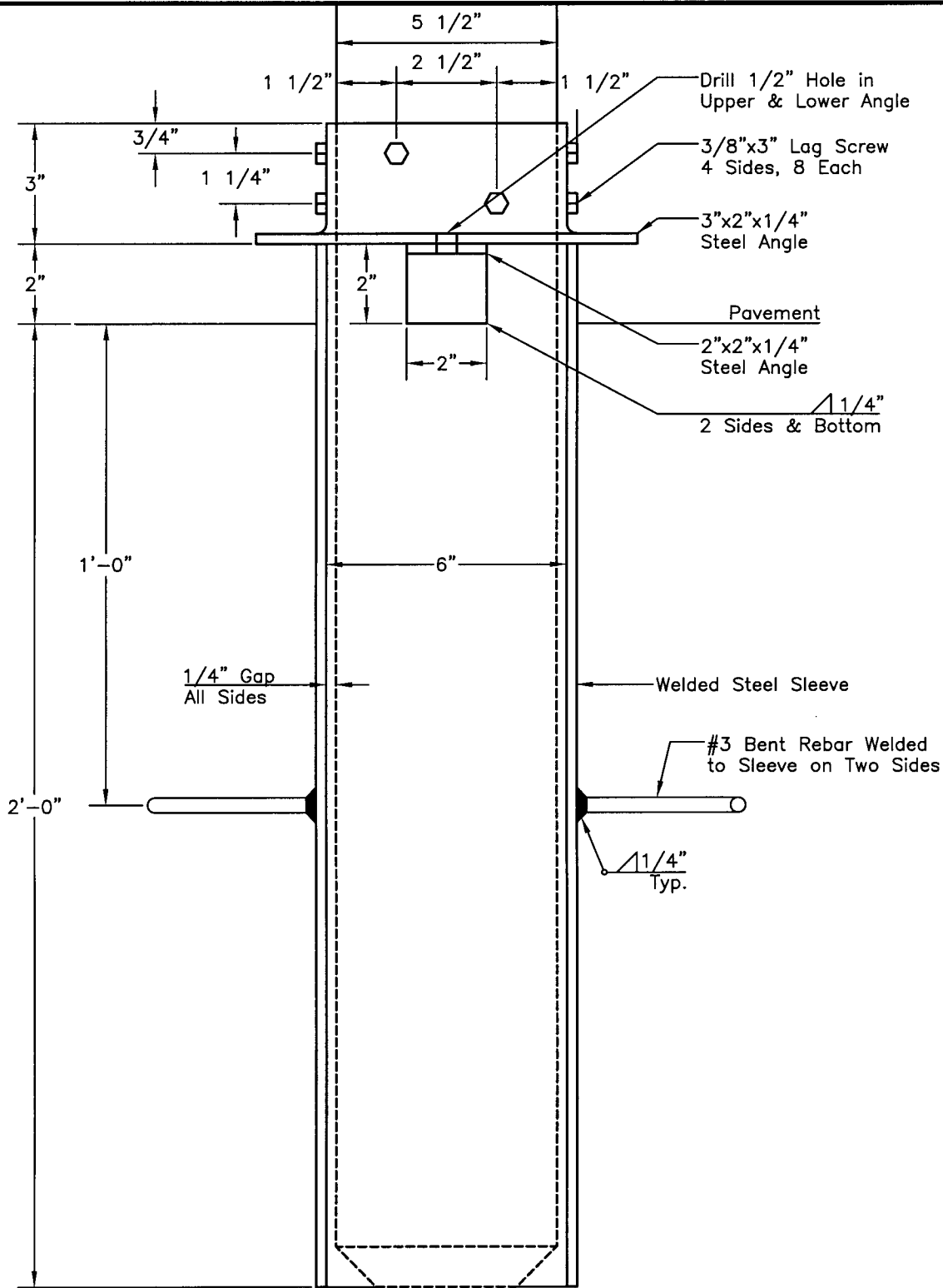
6" REMOVABLE
BOLLARD DETAILS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

2/3

RB-2



SIDE VIEW
SLEEVE, POST & COLLAR

APPROVED

CITY ENGINEER DATE

SCALE: 3" = 1'

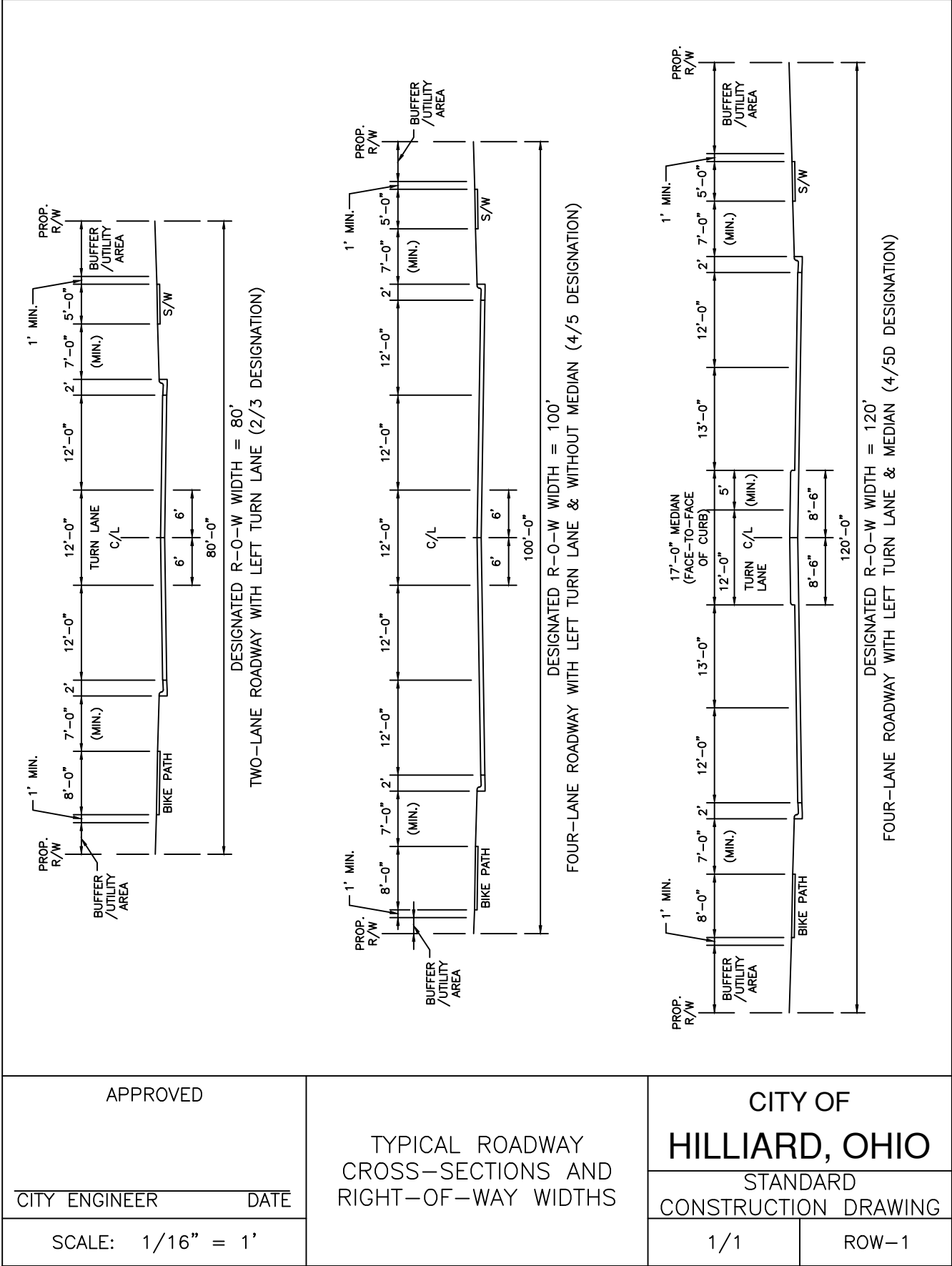
6" REMOVABLE
BOLLARD DETAILS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

3/3

RB-2



1. General. The final plat shall have incorporated all changes or modifications required by the City Planning and Zoning Commission and City Engineer. Otherwise, the final plat shall conform to the preliminary plat, and it may constitute only that portion of the approved preliminary plat which the subdivider proposed to record or develop at the time, provided that such portion conforms with all requirements of these regulations.
2. Preparation. The final plat shall be prepared by a registered surveyor.
3. Form. The final plat shall be clearly and legibly drawn in black ink on mylar or other materials approved by the City Engineer. The size of the plat shall be on one or more sheets twenty-two by thirty-four inches (22"x34"). Scale shall be one inch equals fifty feet (1"=50'). If more than two sheets are required, an index sheet shall be filed showing the entire subdivision on one sheet with all areas shown on other sheets indicated thereon.
4. Plat Contents. The final plat shall contain the following information:
 - A. Name of subdivision, location, date, north point, graphic and numerical scale, background map at a scale of one inch equals two hundred feet (1"=200'), and total acreage. The north point shall be indicated on each sheet of a plat.
 - B. All plat boundaries with bearings in the clockwise direction and length of course in feet and hundredths. Boundary survey shall meet requirements of Ohio Administrative Code, Chapter 4733.37 and the County Engineer.
 - C. Bearings and distances to the nearest established street lines or recognized permanent survey monuments shall be accurately described on the plat.
 - D. Lines of adjoining streets and alleys with their widths and names plus building setback lines.
 - E. The radii, chords and chord bearings, points of tangency, and general angles for all curvilinear streets and radii for rounded corners.
 - F. All easements and right-of-way provided for public services or utilities, and any limitations of such right-of-way or easements.
 - G. All lot numbers and lines, with accurate dimensions in feet and hundredths, and with bearings. The basis of bearings shall be stated on the plat. The acreage of all lots over one (1) acre in size shall be indicated.
 - H. Accurate location and description of all monuments.
 - I. Name of the subdivider and the registered surveyor who prepared the final plat.
 - J. Accurate outlines of any areas to be dedicated or temporarily reserved for public use with the purpose indicated thereon.
 - K. Certification by a registered surveyor to the effect that the plat represents a survey made by him and that all monuments shown thereon actually exist and that their location is correctly shown.
 - L. An acknowledgment by the owner or owners of his/her, or their adoption of the plat, the dedication of streets and other public areas, and granting easements.
 - M. Vicinity map of area within one-half (1/2) mile radius.

APPROVED	RECORD PLAT GUIDLINES	CITY OF HILLIARD, OHIO	
CITY ENGINEER _____ DATE _____		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		1/1	RP-1

SITUATED IN THE STATE OF OHIO, COUNTY OF FRANKLIN, CITY OF HILLIARD, BEING PART OF VIRGINIA MILITARY SURVEY NUMBER _____, CONTAINING _____ ACRES _____.

THE UNDERSIGNED, ABC DEVELOPMENT COMPANY, TRUSTEE, BY JOHN A. DOE, PRESIDENT, DULY AUTHORIZED IN THE PREMISES DOES HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS ITS _____, AND DOES HEREBY ACCEPT THIS PLAT OF SAME AND DEDICATE TO PUBLIC USE, AS SUCH THE _____, _____, AND _____ SHOWN HEREON, AND NOT HERETOFORE DEDICATED.

EASEMENTS ARE GRANTED TO THE CITY OF HILLIARD, ITS SUCCESSORS, AND ASSIGNS WHERE INDICATED ON THE PLAT FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF ALL PUBLIC AND PRIVATE UTILITIES, INCLUDING CABLE TV, ABOVE AND BENEATH THE SURFACE OF THE GROUND, AND WHERE NECESSARY FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF SERVICE CONNECTIONS TO ALL ADJACENT LOTS AND LANDS, AND FOR STORM WATER DRAINAGE. BUILDINGS AND STRUCTURES WITH A FOUNDATION, OR OF A PERMANENT NATURE ARE NOT ALLOWED WITHIN THE EASEMENTS.

THE EASEMENTS SHOWN HEREON OUTSIDE THE PLATTED AREA ARE WITHIN THOSE TRACTS OF LANDS OWNED BY SAID ABC DEVELOPMENT COMPANY, TRUSTEE, AND ARE GRANTED FOR THE USES AND PURPOSES STATED IN THE PRECEDING EASEMENTS PARAGRAPH.

GRANTORS, BEING THE DULY AUTHORIZED REPRESENTATIVES OF THE DEVELOPER DEDICATING THE PROPERTY DESCRIBED IN THIS PLAT, HEREBY AGREE THAT GRANTORS WILL INDEMNIFY THE CITY OF HILLIARD FOR, AND HOLD IT HARMLESS FROM ANY AGRICULTURAL RECOUPMENTS ASSESSED OR LEVIED IN THE FUTURE AGAINST THE PROPERTY DEDICATED HEREIN, WHICH RESULT FROM GRANTORS CONVERSION OF THE PROPERTY FROM AGRICULTURAL USE.

IN WITNESS WHEREOF ABC DEVELOPMENT COMPANY, TRUSTEE, BY JOHN A. DOE, PRESIDENT, HAS EXECUTED THIS PLAT THIS ____ DAY OF _____, 20____.

SIGNED AND ACKNOWLEDGED
IN THE PRESENCE OF:

ABC DEVELOPMENT COMPANY, TRUSTEE

JOHN A. DOE, PRESIDENT

PRINTED: _____

PRINTED: _____

STATE OF OHIO SS

BEFORE ME, A NOTARY PUBLIC IN AND FOR THE SAID STATE, PERSONALLY APPEARED JOHN A. DOE, PRESIDENT, FOR SAID ABC DEVELOPMENT COMPANY, TRUSTEE, WHO ACKNOWLEDGED THE SIGNING OF THE FOREGOING INSTRUMENT TO BE HIS FREE AND VOLUNTARY ACT AND DEED, AND THE FREE AND VOLUNTARY ACT AND DEED OF SAID ABC DEVELOPMENT COMPANY, TRUSTEE, FOR THE USE AND PURPOSE THEREIN EXPRESSED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY OFFICIAL SEAL THIS ____ DAY OF _____, 20____.

MY COMMISSION EXPIRES

NOTARY PUBLIC, STATE OF OHIO

CITY OF HILLIARD

APPROVED THIS ____ DAY OF _____, 20____
BY THE PLANNING AND ZONING COMMISSION

CHAIRMAN, PLANNING AND ZONING COMMISSION, HILLIARD, OHIO

APPROVED THIS ____ DAY OF _____, 20____

CITY ENGINEER, HILLIARD, OHIO

APPROVED AND ACCEPTED THIS ____ DAY OF _____, 20____ BY RESOLUTION NO. _____, WHEREIN THE _____, AS DEDICATED HEREON, AND THE EASEMENTS AS GRANTED HEREON ARE ACCEPTED AS SUCH BY THE COUNCIL OF THE CITY OF HILLIARD, OHIO.

MAYOR, HILLIARD, OHIO

CLERK OF COUNCIL, HILLIARD, OHIO

TRANSFERRED THIS ____ DAY OF _____, 20____.

AUDITOR, FRANKLIN COUNTY, OHIO

FILED FOR RECORD THIS ____ DAY OF _____, 20____ AT ____:____.M.
FEE _____ FILE NO. _____

RECORDER, FRANKLIN COUNTY, OHIO

RECORDED THIS ____ DAY OF _____, 20____. PLAT BOOK ____ PAGE ____.

DEPUTY RECORDER, FRANKLIN COUNTY, OHIO

APPROVED

CITY ENGINEER DATE

SCALE: NTS

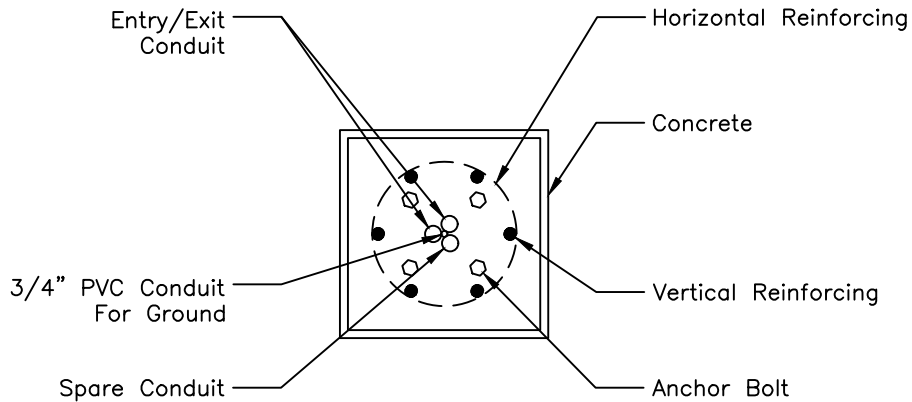
RECORD PLAT
DEDICATION TEXT

CITY OF
HILLIARD, OHIO

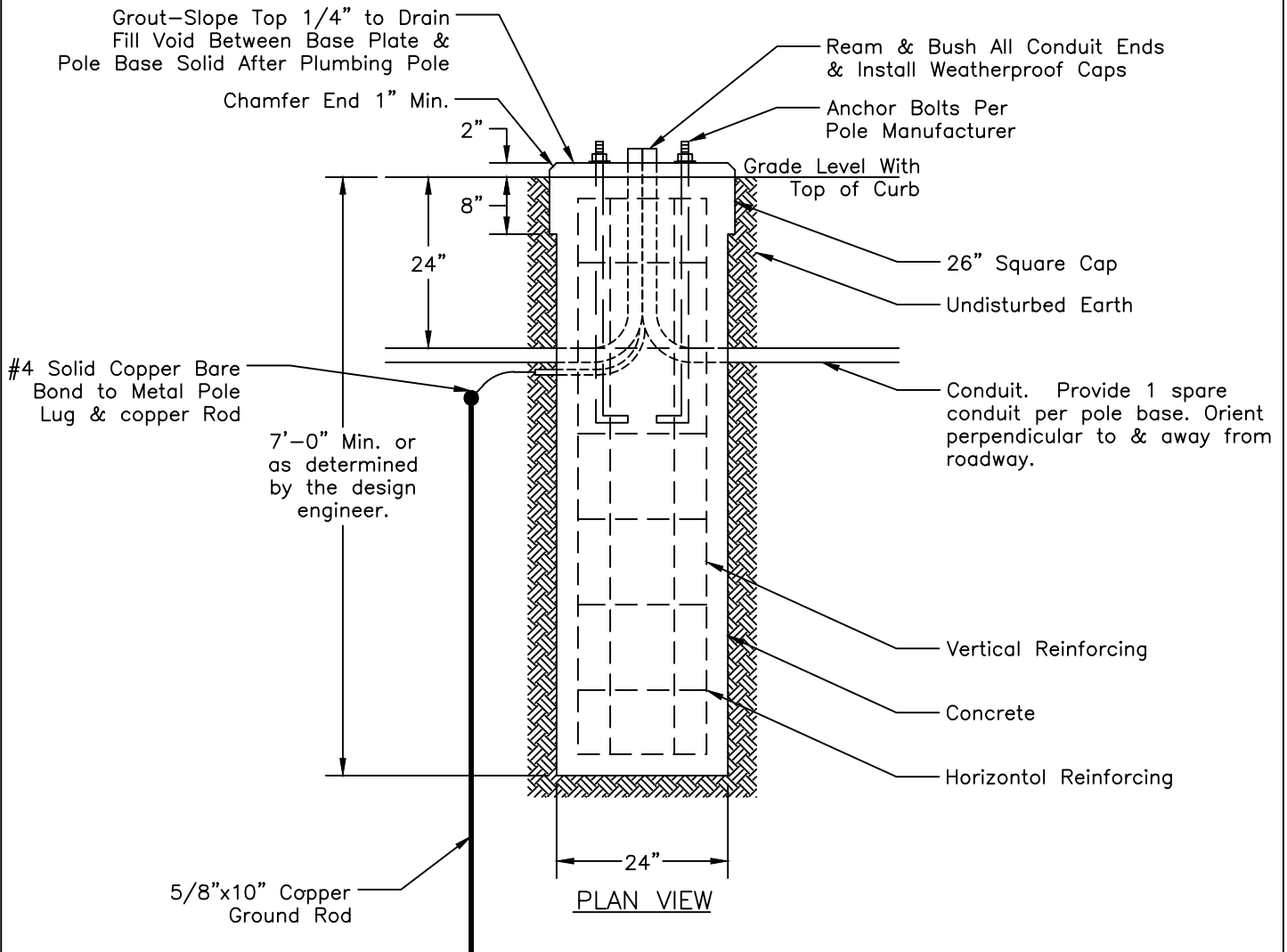
STANDARD
CONSTRUCTION DRAWING

1/1

RP-2



TOP VIEW



APPROVED

Chae R. Seidle
CITY ENGINEER 9-1-15 DATE

SCALE: 1/2" = 1'

THOROUGHFARE STREET
POLE BASE

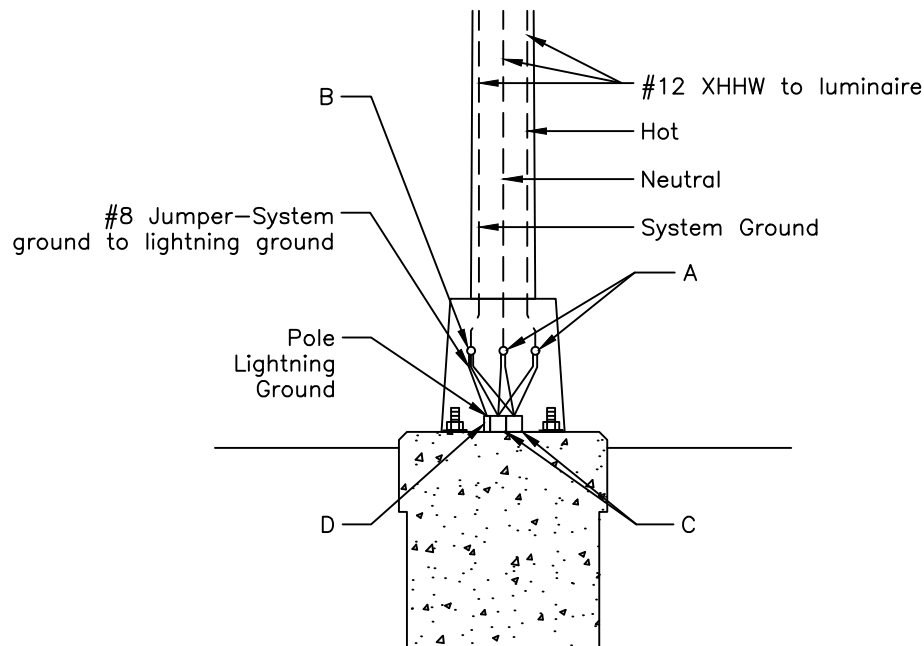
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

SL-1

Notes:

1. Transformer Base: Provide a one-piece cast aluminum alloy
2. Grounding: Each transformer base shall contain an internal lug with drilled hole for attaching a ground conductor.
3. Nameplate: Stainless steel, screw attached, provide permanent weather resistant engraved Lamicoid nameplate 3" square minimum 3/4" helvetica white letters on a dark bronz background with pole number, circuit and station embossed into it per plan schedule. To be installed on the base door.
4. Connections:
 - A. Fused — Inline Y connector kit type II with waterproof boots and breakaway receptable. Fuse at 10 Amps, Homac FYU-M and DYU-M, Buss KTK-10 fuse or approved interchangeable equal.
 - B. Unfused — Inline Y connector kit type III flood seals with waterproof boots and breakaway receptacle, Homac DY series.
 - C. Provide molded plastic or rubber capping device that only permits wire pass through while preventing dirt, water, etc. entry.
 - D. Pole lighting 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.
 - E. Deliver transformer to city.
5. Provide 2' service loop in all wiring to bring connectors and fuse holders out thru handhole.



APPROVED

Chae R. Seidle 9-7-9
CITY ENGINEER DATE

SCALE: 1/2" = 1'

THOROUGHFARE STREET
TRANSFORMER BASE
WIRING DETAIL

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

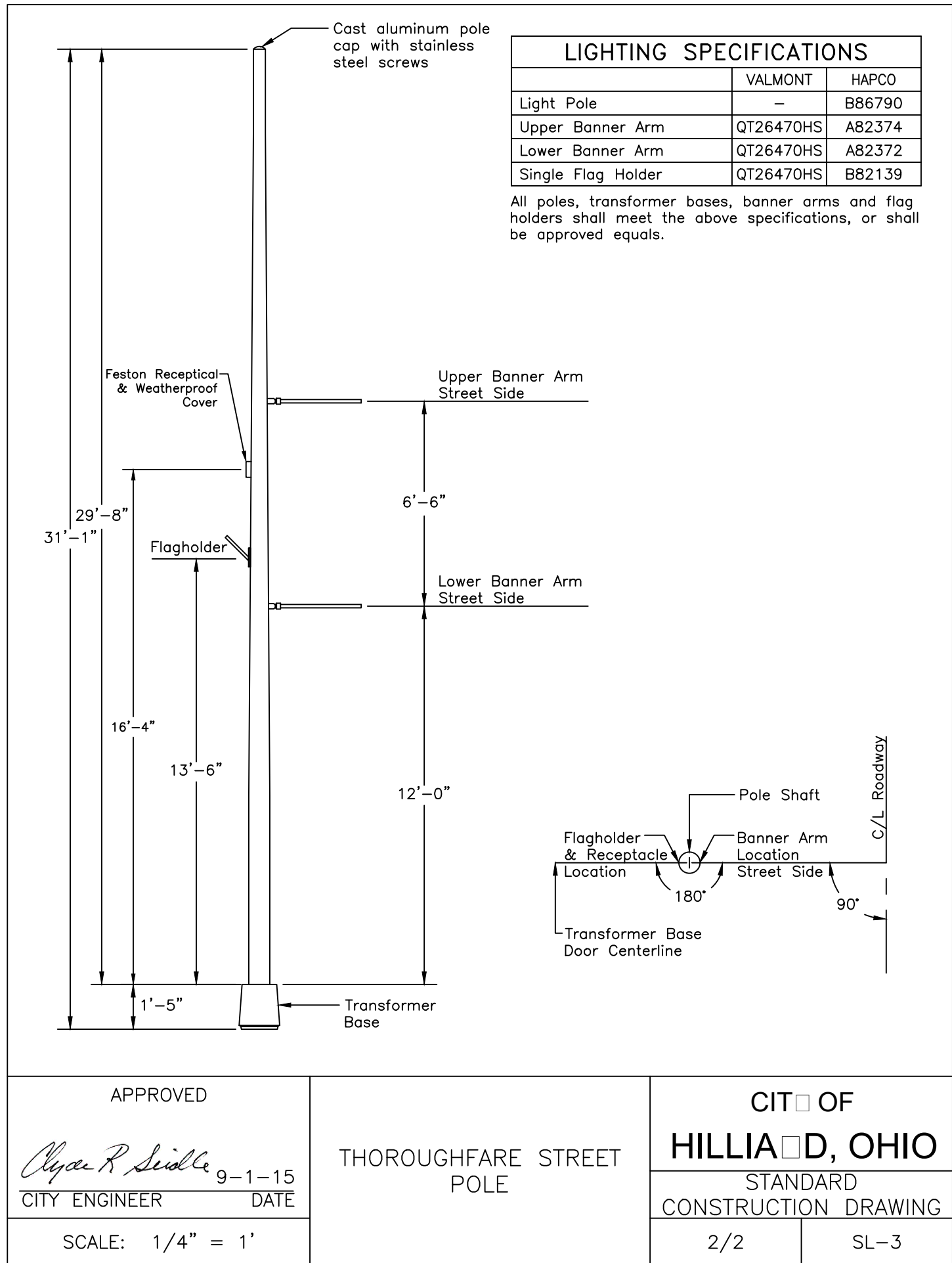
SL-2

Notes:

1. General Description: Aluminum round tapered anchor base with 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) spun aluminum finish with pole cap, transformer base, base cover and bolt covers.
2. Pole Cap: Provide an ornamental aluminum alloy cap fastened via stainless steel screws.
3. Pole Damper: Provide a second mode vibration damper attached to midpoint via welding. Locate inside pole. Factory installed.
4. Base Flange: Provide a one piece cast socket of aluminum alloy 356-T6. The flange shall be joined to the shaft by means of continuous weld externally and internally.
5. Base Cover: Provide bolt covers of aluminum alloy 43 and stainless steel screws for attachment.
6. Miscellaneous Hardware: All nuts, bolts, and washers used in the fabrication of the pole shall be grade 18-8 stainless steel except for anchorage hardware.
7. Wrapping: Each pole shaft shall be wrapped with protective material during shipping & remain wrapped until pole is to be erected. All parts shall be boxed and/or banded.
8. Pole Shaft: The shaft shall be one piece seamless with a minimum wall thickness of 0.156 inches, round tapered tube of alloy 6063-T6 and shall be full-length tempered after welding on top base flange to produce the T6 temper. The entire pole assembly shall be rated @ 80 mph with a 30% gust factor for on EPA. Minimum of 2.7 template cut for luminaire.
9. Hand Hole Placement: The pole shall be orientated so that the hand hole is located on the sidewalk side of the pole away from traffic.
10. Banner Arm Placement: The pole shall be orientated so that the banner arms are located on the curb side of the pole facing traffic.
11. Flag Holder Placement: The pole shall be orientated so that the flag holder is located on the side of the pole away from traffic.
12. Feston receptacle:
 1. Box shall be welded to pole.
 2. Pole shall be wired with 3-#12 THHN wires (green, black & white) from the feston to the transformer base. A 2' service loop shall be provided at transformer base. Service loop shall be coiled and taped.
 3. A 2"x4" blank weatherproof cover shall be installed on the feston.

<p>APPROVED</p> <p><i>Chae R. Seidle</i> 9-1-15</p> <p>CITY ENGINEER DATE</p>	<p>THOROUGHFARE STREET POLE</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>SCALE: N/A</p>		<p>STANDARD CONSTRUCTION DRAWING</p>	
		<p>1/2</p>	<p>SL-3</p>

S:\Public Service - Engineering\Hilland Standards\Drawings\ACAD\Street Lighting 9-1-15.dwg, 9/18/2015 7:11:19 AM

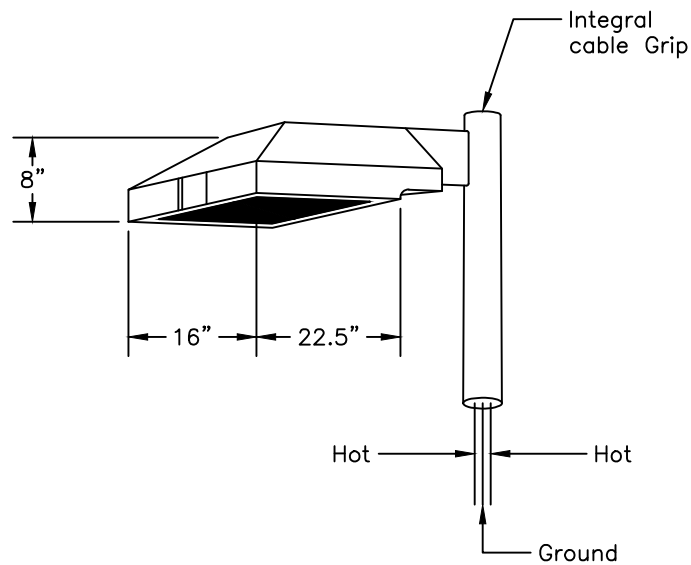


Notes:

1. General Description: LED Roadway Fixture, 4000K color temperature.
2. Housing: One piece die cast aluminum integral heat sink. Meet 2G vibration per ANSI C136.32-2001.
3. Finish: Corrosion resistant polyester powder paint, minimum of 2.0 mil thick. Black or Dark Bronze.
4. Mounting: Slipfitter with ± 5 degree of adjustment for leveling. Adjustable for $1\frac{1}{4}$ "-2" mounting pipe.
5. Labeling: UL listed for wet locations.
6. Distribution: Structured LED array optimized for roadway photometric distribution.
7. Approved Manufacturer: G.E. EANA LED Roadway Light, or approved equal.
*Voltage: 480V
8. Lamp: Rated L75 at 50,000 hours.

APPROVED	THOROUGHFARE STREET LUMINAIRE	CITY OF HILLIARD, OHIO	
 CITY ENGINEER		9-1-15 DATE	STANDARD CONSTRUCTION DRAWING
SCALE: N/A			1/2 SL-4

9. Cable: Provide #12 THWN, stranded copper 600V, 90 degrees Celsius conductors. Wire to luminaire. Secure pole wiring with cable grip provided with luminaire. Provide adequate length to extend minimum 2 feet out of hand hole.
10. Execution: All luminaires shall be plumb and level. Adjust lamp socket assembly to Type II or Type III cutoff. All lamps shall be operational prior to inspection. All surfaces shall be cleaned of dirt, debris, etc. free of scratches, dents, etc.
11. Method of Measurement: See City of Columbus specifications section 1000.19 or ODOT section 625.20.
12. Basis of Payment: See City of Columbus specifications section 1000.20 or ODOT section 625.21.



APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

THOROUGHFARE STREET
LUMINAIRE

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

2/2

SL-4

Notes.

1. Coordination: Coordinate location of transformer and pad with power company.
2. Transformer: Provided, installed and wired by power company.
3. Transformer Pad: Install per power company requirements for size and location. Refer to service enclosure pad for material specifications.
4. Service Enclosure Pad: Structure shall be set not less than 3'-0" nor more than 5'-0" from power company transformer pad. Concrete shall be class "C", 4000 PSI, 5-7% air entrained. Fill all exposed surface voids. Chamfer all edges. Slope top 1/4" to drain water. Hot or cold weather - follow City of Columbus Construction and Material Specifications, Section 1000. Finish - remove all form marks, provide floated and steel troweled finish.
5. Welded Wire Fabric: Provide 6x6-6x6. Mount on all sides and top. Maintain 3" minimum cover.
6. Service Enclosure: Provide a NEMA watertight stainless steel enclosure, 30"H x 18"W x 15"D. Having a single continuous hinged locking door, interior mounting panel. 6" minimum matching floor stand. Concrete and or bolt type anchor and level to pad via stainless steel machine bolt, nuts & lockwashers. Drill bottom of enclosure with 1/4" weep hole at low point.
7. 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).
8. Service Enclosure Lock:
 - A. Internal: Key all locking mechanisms alike to NEMA traffic signal number 2 key.
 - B. External: All pad locks shall be American Lock, Model No. 1207B, Key No. 43737.
9. Lighting Controller: A class R fusible combination lighting contactor type controller assembly rated according to the total ampacity of the lighting phase, 60HZ with solid neutral, electrically held with control fuse, 120 volt 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 SPG-60, or approved equal.
10. Photocell Controller: Provide an on-off photo-initated controller with sealed cadmium sulfide photocell to operate in -30 degrees F to +140 degrees F temperatures, thermal inertia of 15 seconds minimum, threaded pipe nipple, rated 16 Amps, 2000 Watts at 120V, and single pole single throw switch. Turn-ON shall be 1-3 footcandles and Turn-OFF to Turn-ON ratio is 5 maximum. Provide in weatherproof enclosure. Load shall remain "ON" in case of cell failure. Mount atop first pole from service enclosure.

Approved Manufacturer: Tork
11. Grounding: Provide 5/8" x 10'-0" copper weld one piece ground rod. Drive a minimum of 2'-0" below grade. Run #8 AWG solid copper grounding electrode conductor in 3/4" PVC conduit from rod to enclosure ground bar. "Thermo" or "Cad" weld wire connection to rod.
12. Fusing: Service entrance - provide dual element, time delay fuses, UL Class RK-1, 600V, rejection type.

Approved Manufacturer: Buss #LPN-RK.
13. Control Circuit: Provide single element, fast acting-type fuse UL Class CC, 250V, rejector type.

Approved Manufacturer: Buss #KTK-R.

APPROVED


CITY ENGINEER 9-1-15 DATE

SCALE: N/A

THOROUGHFARE STREET/
OLD HILLIARD
SERVICE ENCLOSURE

CITY OF

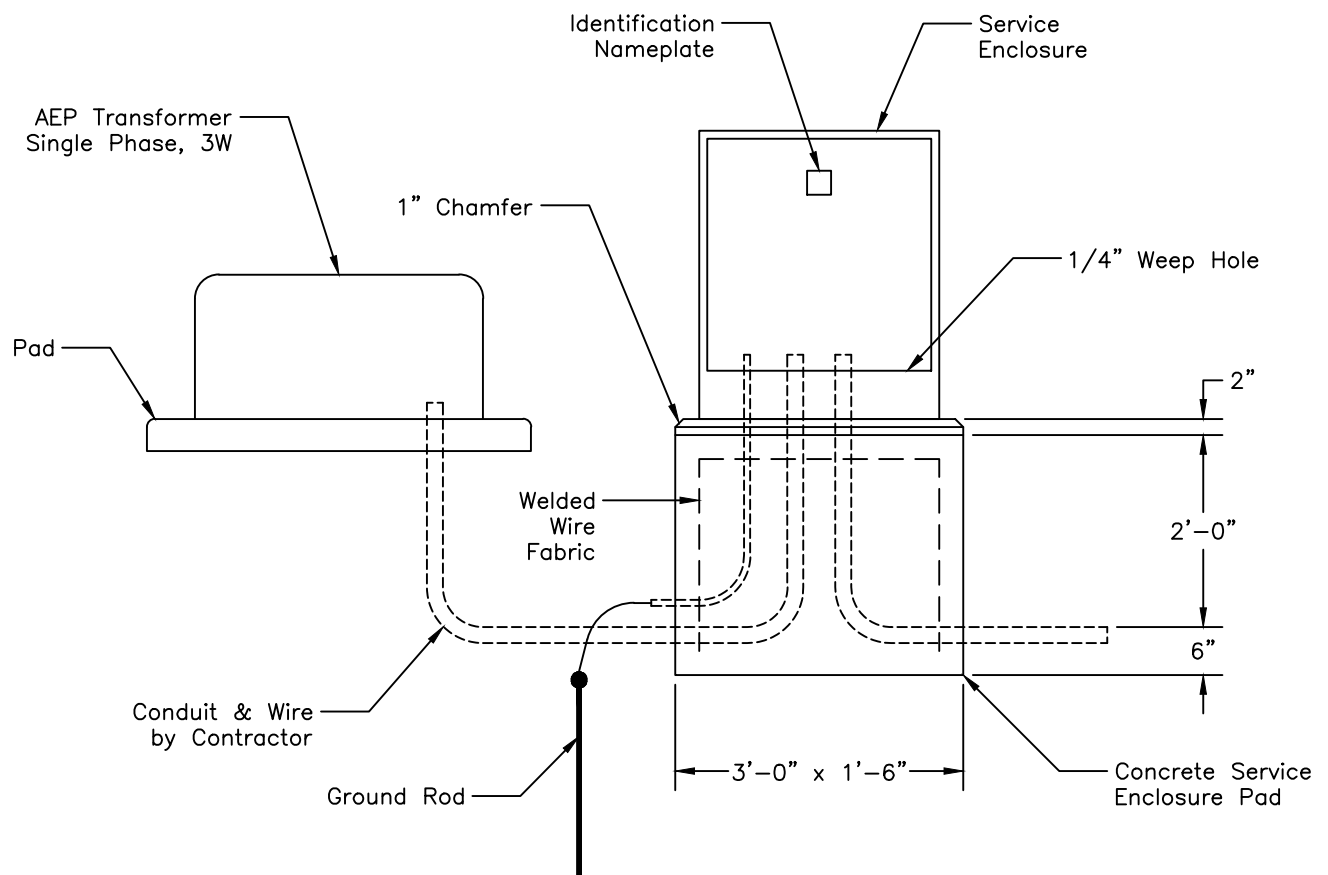
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/2

SL-5

14. Nameplate: Stainless steel screw attached. Provide permanent weather resistant engraved laminoid nameplate 3" square minimum 3/4" helvetica white letters on a dark bronze background with cabinet circuit embossed into it per plan schedule.
15. Conduit: Shall be heavy wall 2". rigid nonmetallic 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. Extend conduit to minimum 2'-0" below grade. Location to be coordinated with landscaping and utilities.
16. Weatherproofing: Provide penetrating surface applied, 1 coat concrete waterproofing agent. Material shall be clear penetrating, water based, alkyalkoxysilane and contain a minimum of 40% by weight solids and be applied per manufacturer's directions. Coverage shall be 150 square feet per gallon (provide Hydrozo Enviroseal 40 or approved equal). Apply 1 coat to all concrete surfaces above grade.
17. Wiring: Refer to general specifications.



APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

THOROUGHFARE STREET/
OLD HILLIARD
SERVICE ENCLOSURE

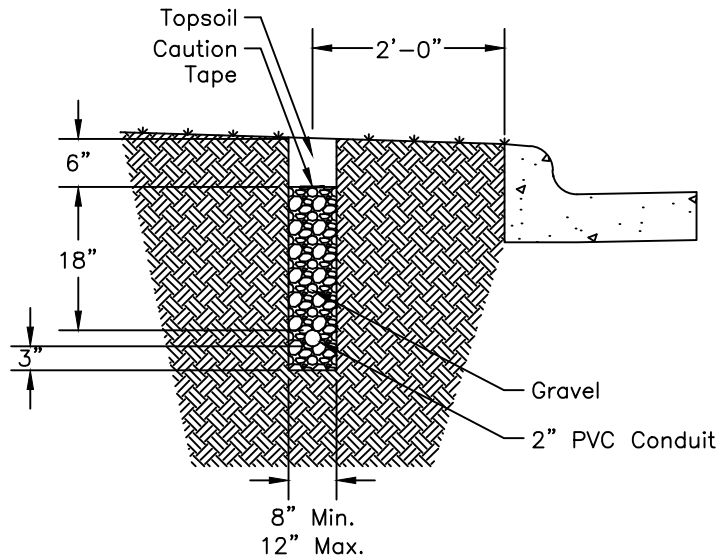
CITY OF

HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

2/2

SL-5



CONDUIT PARALLEL TO BACK OF CURB

Notes:

1. Trenching: Conduit trenches shall have vertical walls and be excavated to a depth that permits conduit to be laid at 2'-0" below finished 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.
2. 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. City to inspect during construction.
3. Topsoil: 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 compacted work will conform to the elevations shown.
4. Conduit: Shall be heavy wall rigid nonmetallic 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' sections. Seal all joints watertight. Glue joints with PVC cement. Bush all ends. All bends shall use long radius preformed elbows.
5. Conduit caps: Provide molded plastic or rubber capping device that only permits wire to pass through while preventing dirt, water, etc. from entering.
6. Pull wire: All empty conduit installed for future lighting shall contain a No. 10 AWG copper-clad pull wire.
7. Caution tape: 3" wide red plastic tape with black letters reading "CAUTION BURIED LINE BELOW". Bury above conduit 6" maximum below grade. Run continuous in all trenches not covered by pavement. City to inspect prior to burying.

APPROVED

Chae R. Seidle
CITY ENGINEER 9-1-15
DATE

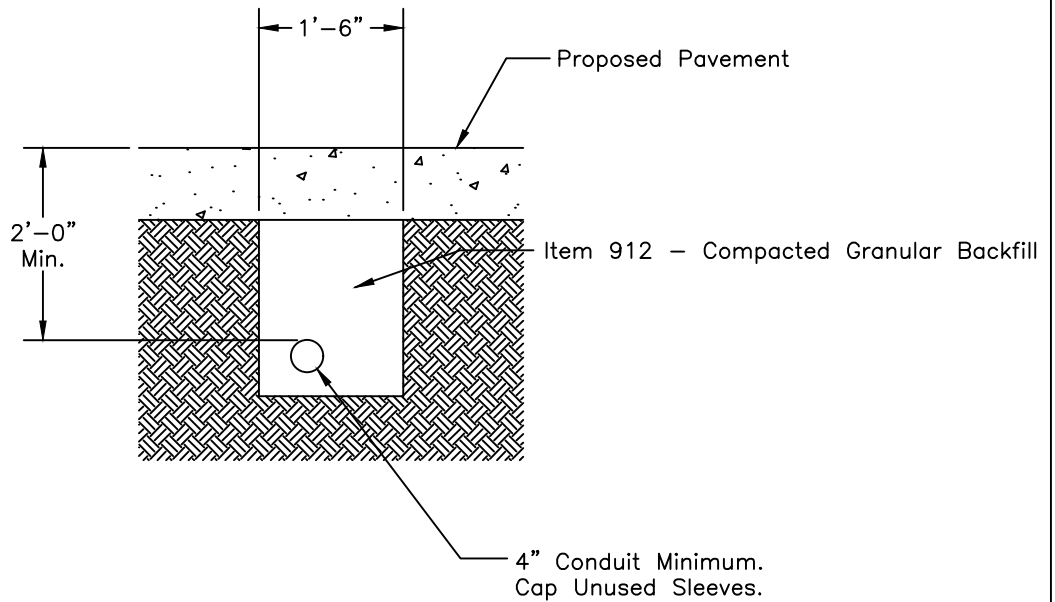
SCALE: 1/2" = 1'

UNDERGROUND
CONDUIT/TRENCH DETAILS

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/3

SL-6



4" CONDUIT UNDER PROPOSED PAVEMENT & UNDER COMMERCIAL DRIVES BY OPEN TRENCH

Notes:

1. Trenching: Sleeve trenches shall have vertical walls and be excavated to a depth that permits sleeves to be laid at 2'-0" below finished grade with 3" concrete encasement around conduit sleeves. Sleeve trenches shall be located perpendicular to the road centerline unless otherwise specifically noted. Maintain inline with conduit setback dimensions at intersections and at curb cuts. gravel cover, above and below.
2. Conduit: Shall be a minimum of 4-inch Schedule 40 PVC conduits and fittings.
3. Conduit caps: Provide molded plastic or rubber capping device that only permits wire to pass through while preventing dirt, water, etc. from entering.
4. Pull wire: All empty conduit installed for future lighting shall contain a No. 10 AWG copper-clad pull wire.

APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

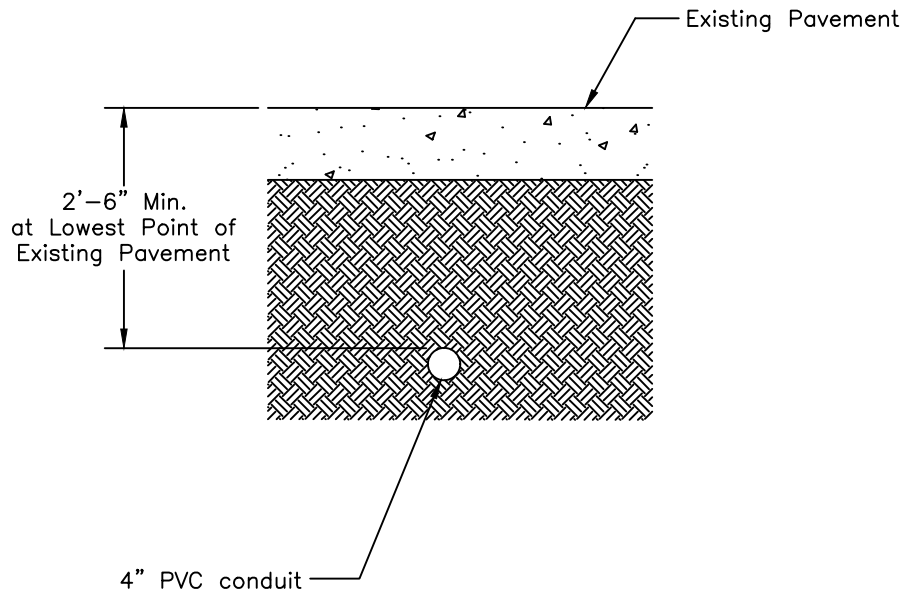
SCALE: 1/2" = 1'

UNDERGROUND
CONDUIT/TRENCH DETAILS

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

2/3

SL-6



**4" CONDUIT UNDER PROPOSED PAVEMENT & UNDER
COMMERCIAL DRIVES BY HORIZONTAL DRILLING**

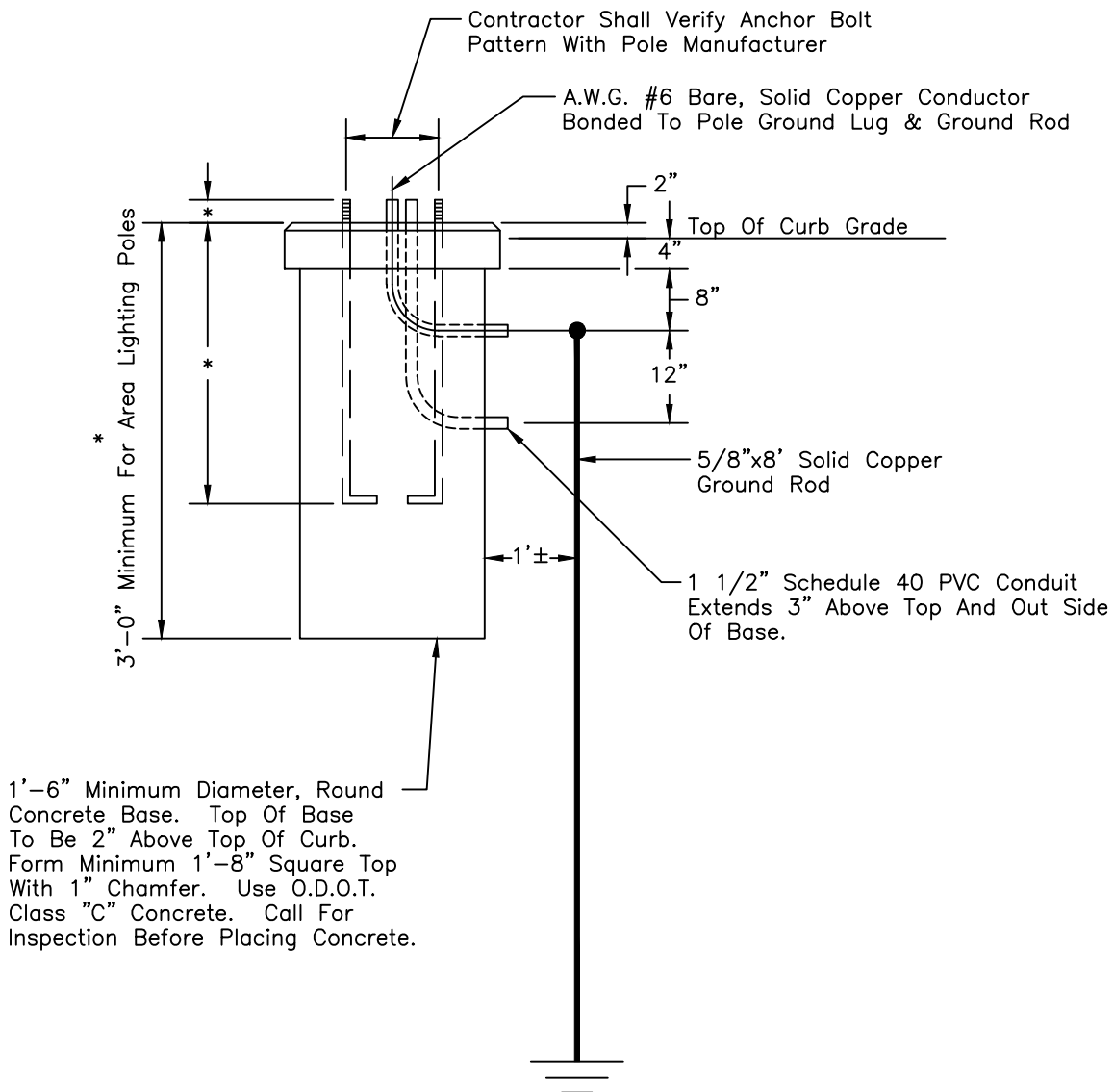
Notes:

1. Conduit sleeves placed under existing pavement or paved shoulders shall be installed by drilling, subject to approval of the City Engineer. If placed by drilling, the bore shall not exceed the conduit diameter by more than 5 percent. Conduit shall be placed with a minimum amount of disturbance to the roadway.
2. Conduit: Shall be heavy wall rigid nonmetallic Schedule 40 PVC (725.05) 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' sections. Seal all joints watertight. Glue joints with PVC cement. Bush all ends. All bends shall use long radius preformed elbows.
3. Conduit caps: Provide molded plastic or rubber capping device that only permits wire to pass through while preventing dirt, water, etc. from entering.
4. Pull wire: All empty conduit installed for future lighting shall contain a No. 10 AWG copper-clad pull wire.

<p align="center">APPROVED</p> <p><i>Chae R. Seidle</i> 9-1-15 CITY ENGINEER DATE</p>	<p align="center">UNDERGROUND CONDUIT/TRENCH DETAILS</p>	<p align="center">CITY OF HILLIARD, OHIO</p>	
<p>SCALE: 1/2" = 1'</p>		<p align="center">STANDARD CONSTRUCTION DRAWING</p>	
		<p align="center">3/3</p>	<p align="center">SL-6</p>

Notes:

- 1.* Design of anchor bolts, concrete base dimensions, soils engineering analysis for wind load on the pole, and meeting other code structural requirements is the responsibility of the contractor.



1'-6" Minimum Diameter, Round Concrete Base. Top Of Base To Be 2" Above Top Of Curb. Form Minimum 1'-8" Square Top With 1" Chamfer. Use O.D.O.T. Class "C" Concrete. Call For Inspection Before Placing Concrete.

APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

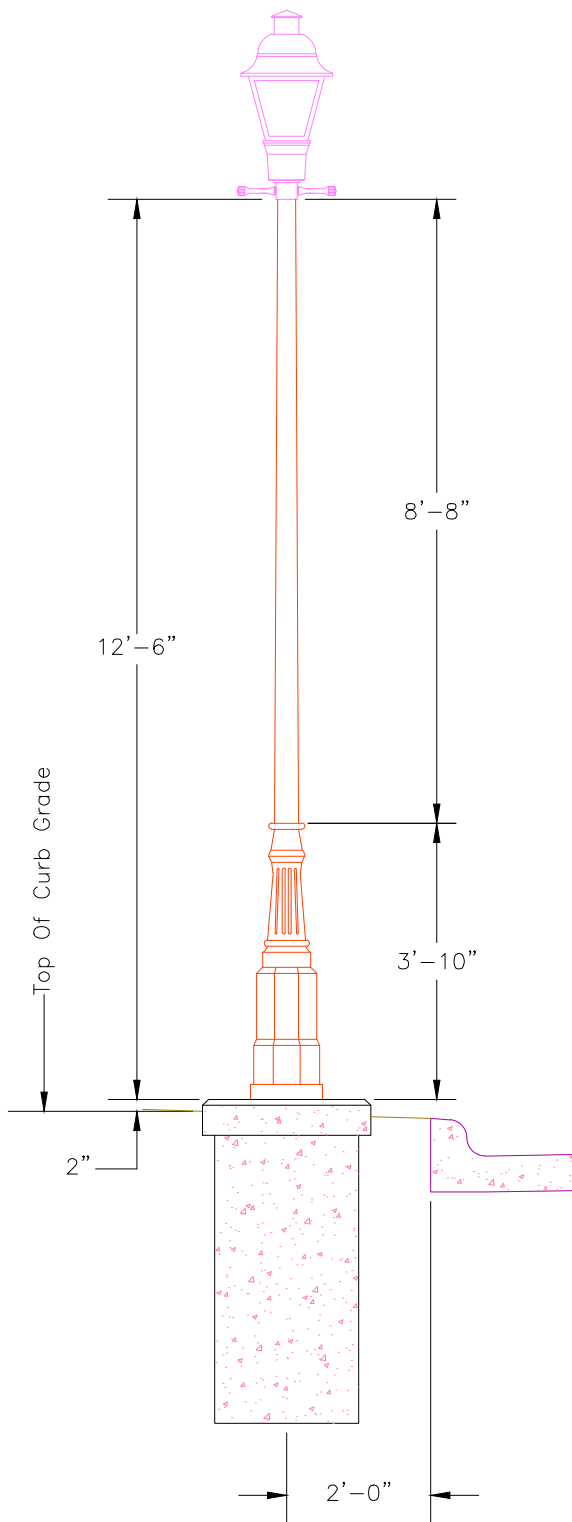
LOCAL STREET
-RESIDENTIAL
-COMMERCIAL/MIXED

POLE BASE

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING
1/1 SL-7

Notes:

1. Luminaire assembly: cast aluminum with stainless steel fasteners. Hinged roof. Slipfitter for 3" O.D. Post. Photoelectric control receptacle. Hadco Independence LED Model VX15148G3AC3WRN740A5NSP1L w/ twist lock receptacle for photocell, 4000K, 120v.
2. Photocell: Tork model number 5021S or approved interchangeable equal.
3. Pole: cast aluminum octagonal base with an 8" x 9 1/2" access door, a tapered, fluted upper casting, and a tapered, non-fluted shaft with a 4" base and 3" top, and a wall thickness of 0.125", aluminum alloy 6063-T6 with satin ground finish, black. Hapco, Abington Post, catalog number ABJ12T3P1, or approved interchangeable equal.
4. Pole base cable connections: install weatherproof in-line fuseholders with 10 amp fuse, Buss KTK-10 fuse or approved interchangeable equal. Buss HEB-AA on the phase conductor and neutral, or approved interchangeable equal. Provide enough slack cable to allow fuseholders to be pulled out of access hole 12".



APPROVED

Clark A. Rausch

CITY ENGINEER

2-9-22

DATE

SCALE: 3/8" = 1'

LOCAL STREET
-RESIDENTIAL
-COMMERCIAL/MIXED

POLE & LUMINAIRE

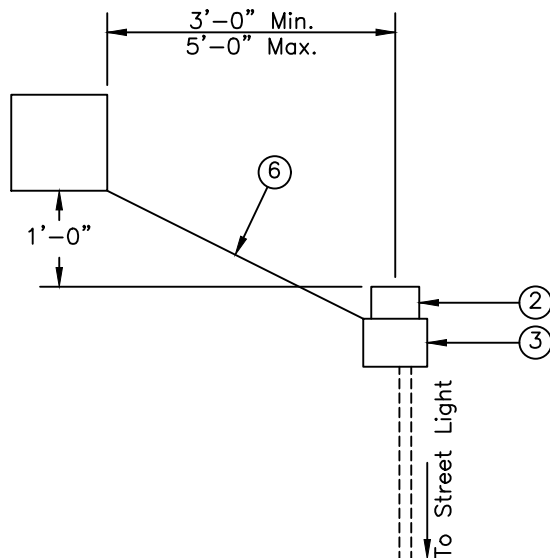
CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

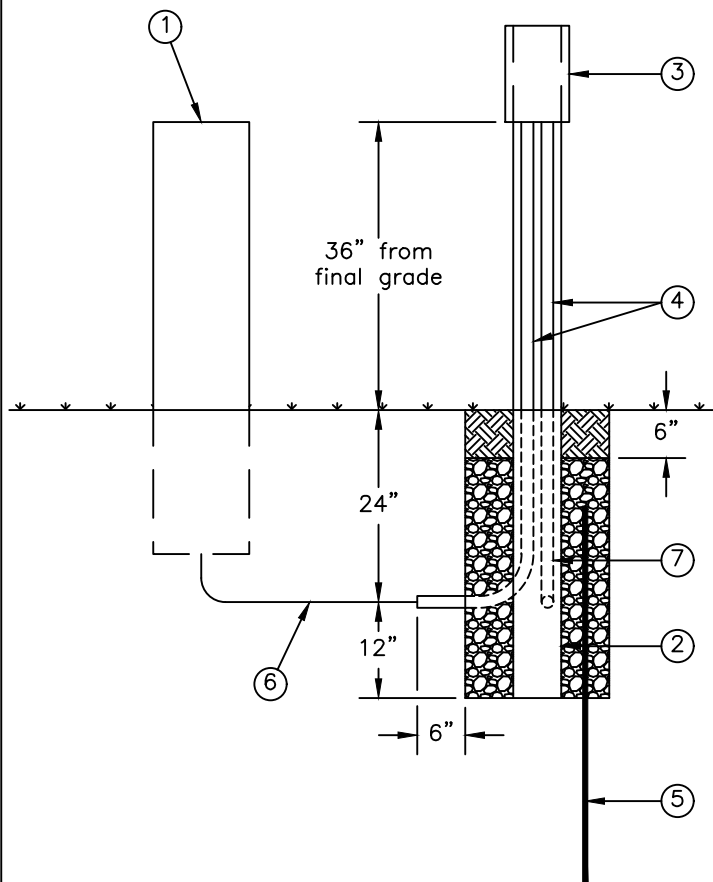
SL-8

S:\Public Service - Engineering\Hilland Standards\Drawings\ACAD\Street Lighting 9-1-15.dwg, 9/18/2015 7:43:21 AM



Notes:

1. Existing or proposed A.E.P. Transformer or pedestal. Location of service enclosure and service shall be coordinated with A.E.P. In cases of obstructions or doubt about clearance, location shall be by A.E.P. Engineers.
2. Post shall be pressure treated 4"x6" wood, buried a minimum of 3'-0". It shall be set plumb and the bottom 2'-6" of the hole backfilled against undisturbed or compacted earth, with Item 304 compacted in 6" layers. The top 6" of the hole shall be backfilled with compacted earth. City to inspect upon backfill.
3. Service enclosure, rainproof, nema 3r, 120/240 volt, 60 amp, 1 phase, 3 wire, 2 breaker with 1-1/2" removable hubs, I-T-E, catalog number W0204 ML 1060-2, or an approved interchangeable equal. Install 20 amp circuit breakers. Furnish 2 pedestal locks, Utilco type PEL 2, or Fargo GM-305, or an approved equal. Face enclosure in direction of street.
4. 1-1/2" schedule 40 pvc conduit shall extend 2'-0" minimum below grade and 6" outside of Item 304.
5. 5/8"x8' solid copper ground rod, bond to service enclosure with awg #4 bare solid copper conductor.
6. Lighting circuit, cu, type use, 600 volt, awg #6 phase, awg #8 neutral. Contractor shall bury cable from the service enclosure to A.SEP. Transformer or pedestal and leave 5' minimum leads for connection by A.E.P.
7. Buried cable, cu, type THHN, 600 volt, AWG #10 (black, white, green) with ground, encased in 1-1/2" schedule 40 pvc conduit.
8. Service enclosure shall be staked for location & grade prior to installation.



APPROVED

Chae R. Seidle
CITY ENGINEER 9-1-15 DATE

SCALE: 1/2" = 1'

LOCAL STREET
-RESIDENTIAL

SERVICE ENCLOSURE

CITY OF
HILLIAND, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

SL-9

Notes.

1. Coordination: Coordinate location of transformer and pad with power company.
2. Transformer: Provided, installed and wired by power company.
3. Transformer Pad: Install per power company requirements for size and location. Refer to service enclosure pad for material specifications.
4. Service Enclosure Pad: Structure shall be set not less than 3'-0" nor more than 5'-0" from power company transformer pad. Concrete shall be class "C", 4000 PSI, 5-7% air entrained. Fill all exposed surface voids. Chamfer all edges. Slope top 1/4" to drain water. Hot or cold weather - follow City of Columbus Construction and Material Specifications, Section 1000. Finish - remove all form marks, provide floated and steel troweled finish.
5. Welded Wire Fabric: Provide 6x6-6x6. Mount on all sides and top. Maintain 3" minimum cover.
6. Service Enclosure: Provide a NEMA watertight stainless steel enclosure, 30"H x 18"W x 15"D. Having a single continuous hinged locking door, interior mounting panel. 6" minimum matching floor stand. Concrete and or bolt type anchor and level to pad via stainless steel machine bolt, nuts & lockwashers. Drill bottom of enclosure with 1/4" weep hole at low point.
7. 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).
8. Service Enclosure Lock:
 - A. Internal: Key all locking mechanisms alike to NEMA traffic signal number 2 key.
 - B. External: All pad locks shall be American Lock, Model No. 1207B, Key No. 43737.
9. Lighting Controller: A class R fusible combination lighting contactor type controller assembly rated according to the total ampacity of the lighting phase, 60HZ with solid neutral, electrically held with control fuse, 120 volt 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 SPG-60, or approved equal.
10. Photocell Controller: Provide an on-off photo-initated controller with sealed cadmium sulfide photocell to operate in -30 degrees F to +140 degrees F temperatures, thermal inertia of 15 seconds minimum, threaded pipe nipple, rated 16 Amps, 2000 Watts at 120V, and single pole single throw switch. Turn-ON shall be 1-3 footcandles and Turn-OFF to Turn-ON ratio is 5 maximum. Provide in weatherproof enclosure. Load shall remain "ON" in case of cell failure. Mount atop first pole from service enclosure.

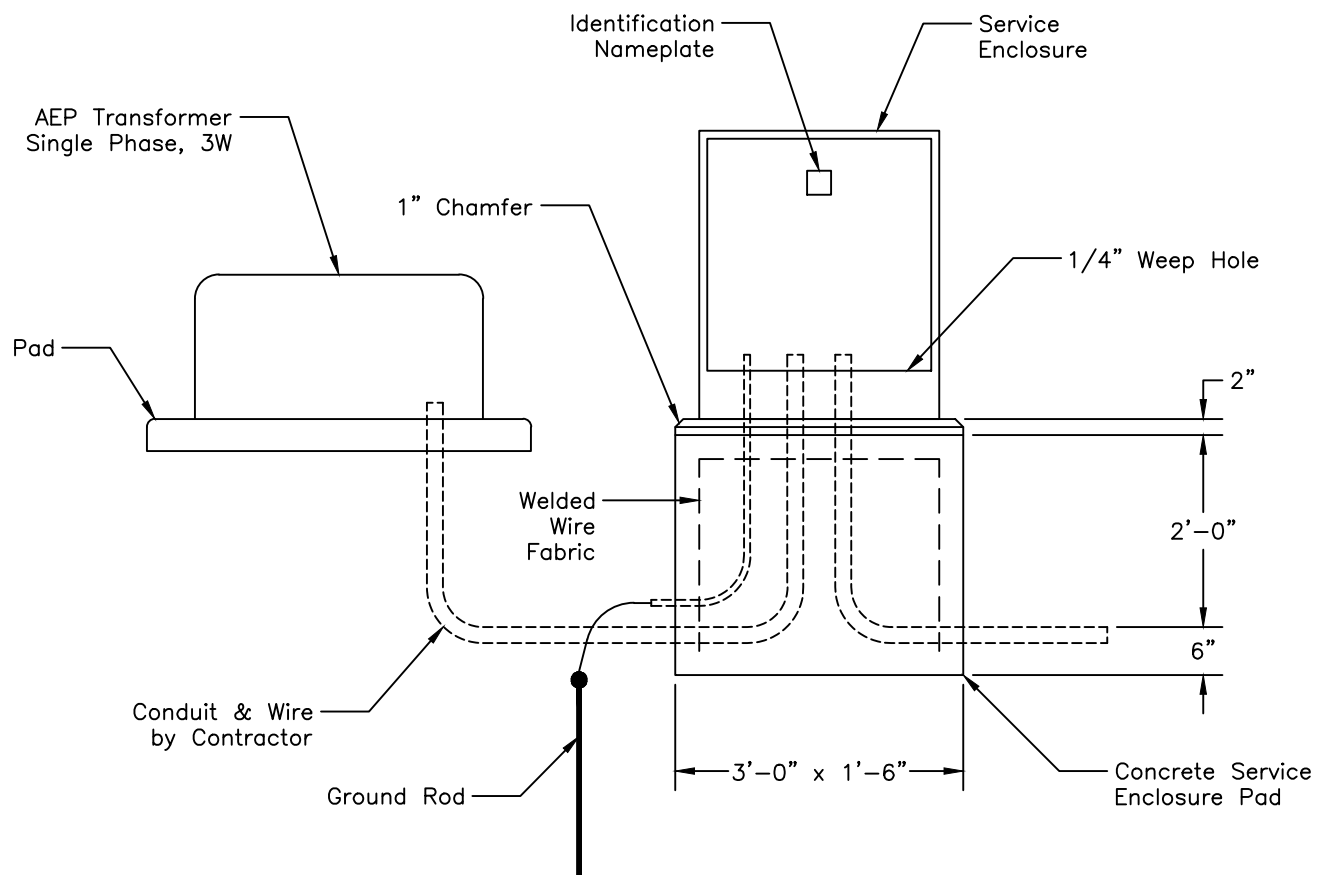
Approved Manufacturer: Tork
11. Grounding: Provide 5/8" x 10'-0" copper weld one piece ground rod. Drive a minimum of 2'-0" below grade. Run #8 AWG solid copper grounding electrode conductor in 3/4" PVC conduit from rod to enclosure ground bar. "Thermo" or "Cad" weld wire connection to rod.
12. Fusing: Service entrance - provide dual element, time delay fuses, UL Class RK-1, 600V, rejection type.

Approved Manufacturer: Buss #LPN-RK.
13. Control Circuit: Provide single element, fast acting-type fuse UL Class CC, 250V, rejector type.

Approved Manufacturer: Buss #KTK-R.

APPROVED  CITY ENGINEER 9-1-15 DATE	LOCAL STREET – COMMERCIAL/MIXED USE SERVICE ENCLOSURE	CITY OF HILLIARD, OHIO	
SCALE: N/A		STANDARD CONSTRUCTION DRAWING	
		1/2	SL-10

14. Nameplate: Stainless steel screw attached. Provide permanent weather resistant engraved laminoid nameplate 3" square minimum 3/4" helvetica white letters on a dark bronze background with cabinet circuit embossed into it per plan schedule.
15. Conduit: Shall be heavy wall 2". rigid nonmetallic 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. Extend conduit to minimum 2'-0" below grade. Location to be coordinated with landscaping and utilities.
16. Weatherproofing: Provide penetrating surface applied, 1 coat concrete waterproofing agent. Material shall be clear penetrating, water based, alkyalkoxysilane and contain a minimum of 40% by weight solids and be applied per manufacturer's directions. Coverage shall be 150 square feet per gallon (provide Hydrozo Enviroseal 40 or approved equal). Apply 1 coat to all concrete surfaces above grade.
17. Wiring: Refer to general specifications.



APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

LOCAL STREET –
COMMERCIAL/MIXED USE
SERVICE ENCLOSURE

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

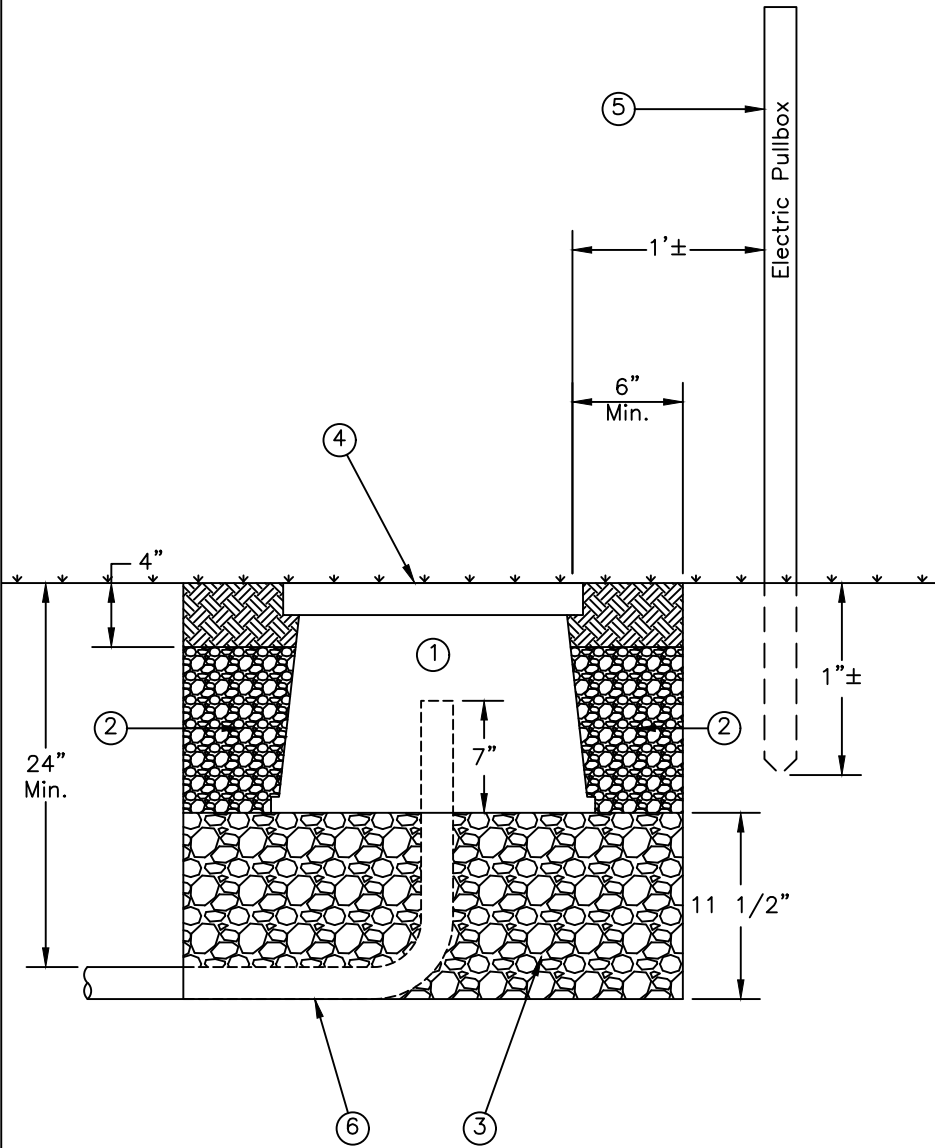
2/2

SL-10

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Street Lighting 9-1-15.dwg, 9/18/2015 7:44:11 AM

Notes:

1. Pull box, green, high density polyethylene, rectangular, minimum dimensions 14" wide, 19" long, 15" deep with polymer concrete top ring and lid. Lid shall be bolt down with stainless steel fittings and embossed with "ELECTRIC" or "E". Carson Industries LLC, Model 1419-12, or an approved interchangeable equal.
2. COLS Item 304 - Aggregate Base on all sides of pull box, compacted in 6" layers, against undisturbed earth, to within 4" of finished grade. Top 4" compacted earth per COLS Item 203.
3. Minimum 11.5" - #57 stone under pull box.
4. Top of pull box to be set at finished grade (1/2" above top of curb along street).
5. 2"x2"x4' wooden stake, labeled electric pullbox, driven 1'± away from pull box. Exposed part of stake to be painted red.
6. 1 1/2" schedule 40 PVC conduit.
7. A 4' minimum service loop shall be provided in all pull boxes.
8. Only waterproof connections shall be allowed in pull boxes. No wire nuts or electric tape allowed.
9. Conduit elbow shall extend 7" up into pullbox.



APPROVED

Clyde R. Seidle
CITY ENGINEER
9-1-15
DATE

SCALE: 1" = 1'

LOCAL STREET
-RESIDENTIAL

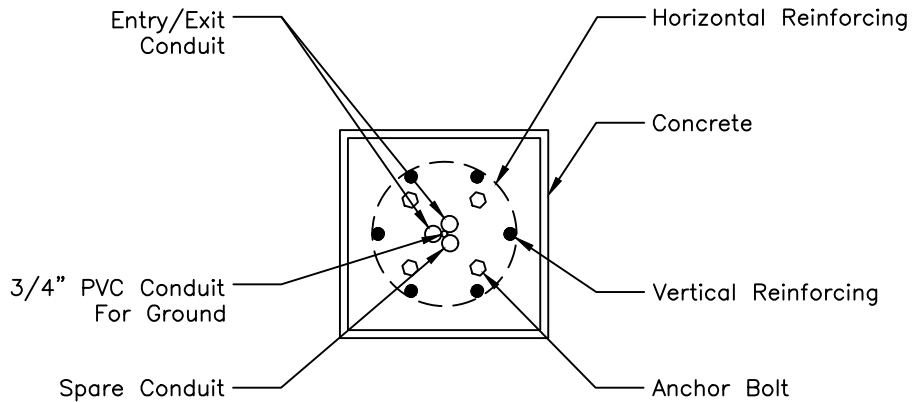
PULL BOX

CITY OF
HILLIARD, OHIO

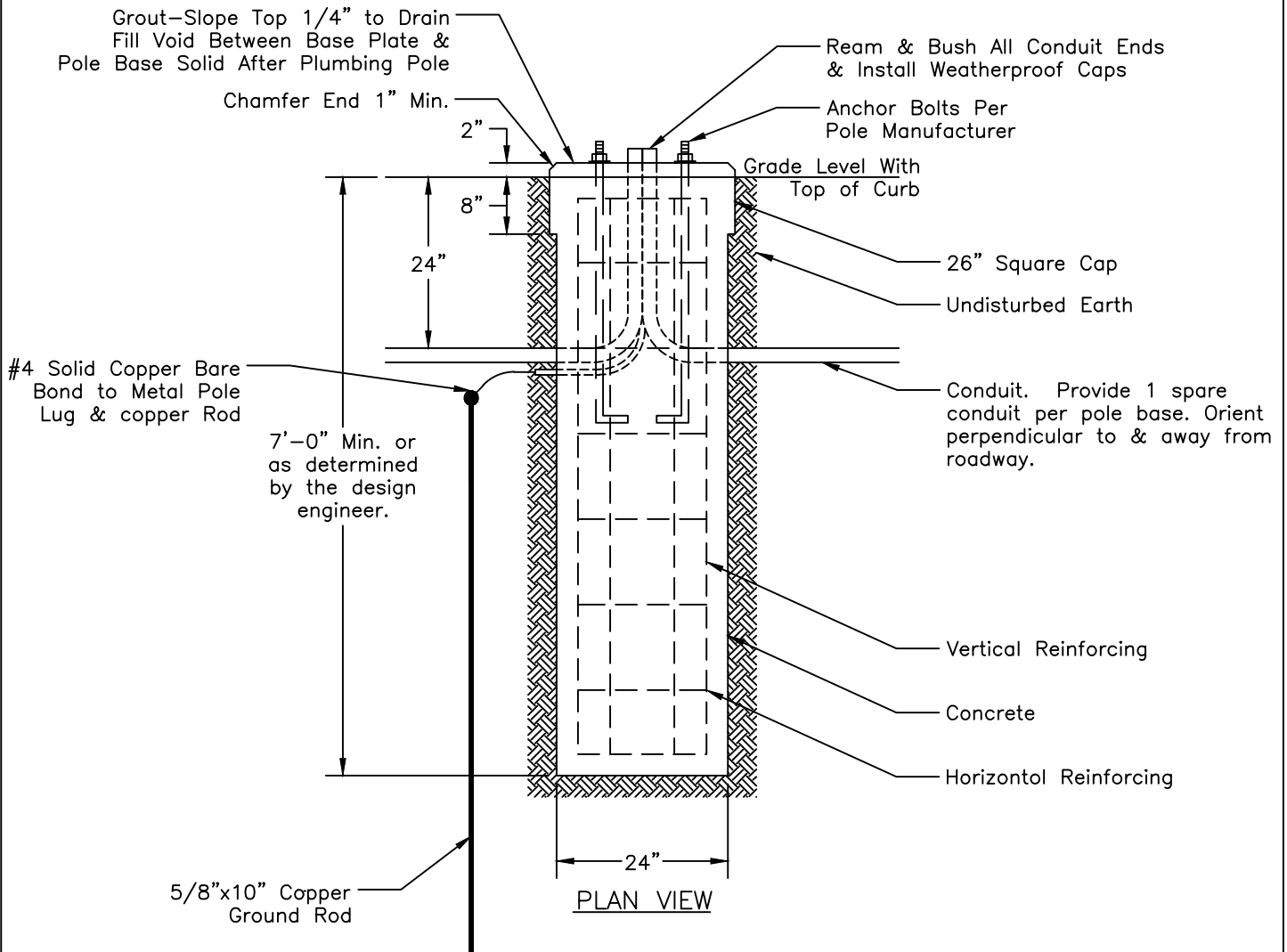
STANDARD
CONSTRUCTION DRAWING

1/1

SL-11



TOP VIEW



APPROVED

Chae R. Seidle
CITY ENGINEER 9-1-15
DATE

SCALE: 1/2" = 1'

CONSERVATION DISTRICT
POLE BASE

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/1

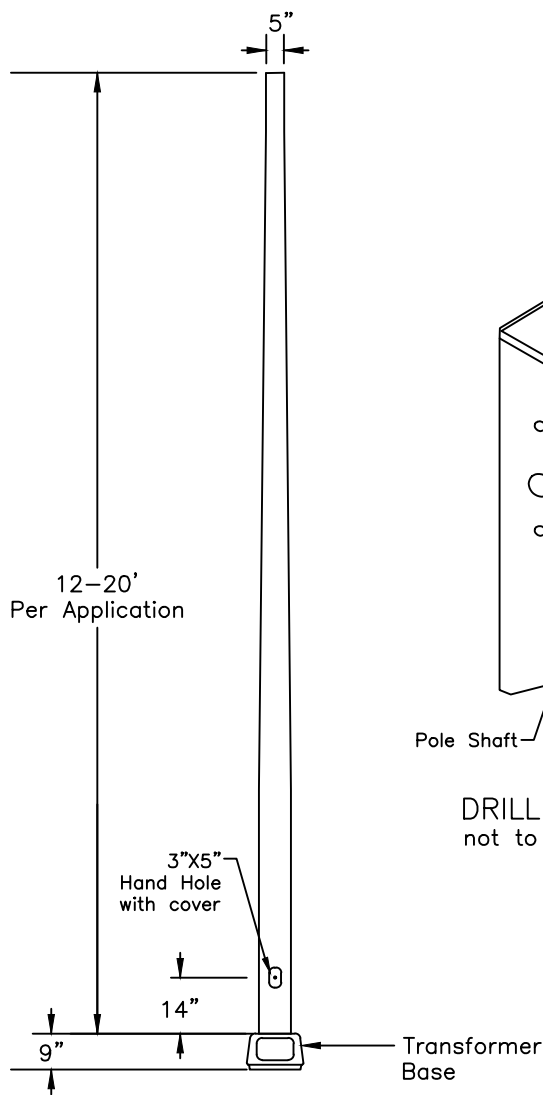
SL-12

Notes:

1. General Description: Aluminum square tapered anchor base with finish: A black approved by the City Engineer. The paint shall be a powder paint finished to a gloss of 35% (at 60 degrees) spun aluminum finish with pole cap, base cover and bolt covers.
2. Pole Cap: Provide an ornamental aluminum alloy cap approved by the city engineer fastened via stainless steel screws.
3. Pole Damper: Provide a second mode vibration damper attached to midpoint via welding. Locate inside pole. Factory installed.
4. Base Flange: Provide a one piece cast socket of aluminum alloy 356-T6. The flange shall be joined to the shaft by means of continuous weld externally and internally.
5. Base Cover: Provide bolt covers of aluminum alloy 43 and stainless steel screws for attachment.
6. Miscellaneous Hardware: All nuts, bolts, and washers used in the fabrication of the pole shall be grade 18-8 stainless steel except for anchorage hardware.
7. Wrapping: Each pole shaft shall be wrapped with protective material during shipping & remain wrapped until pole is to be erected. All parts shall be boxed and/or banded.
8. Pole Shaft: The shaft shall be one piece seamless with a minimum wall thickness of 0.156 inches, 5 inch square tapered tube of alloy 6063-T6 and shall be full-length tempered after welding on top base flange to produce the T6 temper. The entire pole assembly shall be rated @ 90 mph with a 30% gust factor for on EPA minimum of 8.1.
9. Hand Hole Placement: The pole shall be orientated so that the hand hole is located on the sidewalk side of the pole away from traffic.

<p>APPROVED</p> <p><i>Chae R Seidle</i> 9-1-15</p> <p>CITY ENGINEER DATE</p>	<p>CONSERVATION DISTRICT POLE</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>SCALE: N/A</p>		<p>STANDARD CONSTRUCTION DRAWING</p> <p>1/2 SL-13</p>	

S:\Public Service - Engineering\Hilland Standards\Drawings\ACAD\Street Lighting 9-1-15.dwg, 9/18/2015 7:44:50 AM



Drilled per fixture requirements:
D1- Drilled for 1 fixture
D2- Drilled for 2 fixtures at 90° or 180°
D3- Drilled for 3 fixtures
D4- Drilled for 4 fixtures

Pole Shaft

DRILLED MOUNT STYLES
not to scale

<p>APPROVED</p> <p><i>Clyde R. Seidle</i> 9-1-15 CITY ENGINEER DATE</p> <p>SCALE: 1/4" = 1'</p>	<p>CONSERVATION DISTRICT POLE</p>	<p>CITY OF HILLIAND, OHIO</p> <p>STANDARD CONSTRUCTION DRAWING</p> <p>2/2 SL-13</p>	
---	---------------------------------------	---	--

Notes:

1. General Description: LED Roadway Fixture, 4000K color temperature.
2. Housing: One piece cast aluminum.
3. Finish: Corrosion resistant polyester powder paint, black.
4. Mounting: Mounted on a single decorative cross arm, ANP model PA311-1
5. Labeling: IP65 rated.
6. Distribution: Structured LED array optimized for roadway photometric distribution.
7. Approved Manufacturer: ANP Bella Vista Series BVA01, or approved equal.

*Voltage: 120v-277v auto sensing

8. LED: Rated L70 at 50,000 hours. 46W for intersections, 117W for arterials/roundabouts

APPROVED

 9-1-15
CITY ENGINEER DATE

SCALE: N/A

CONSERVATION DISTRICT
LUMINAIRE

CITY OF

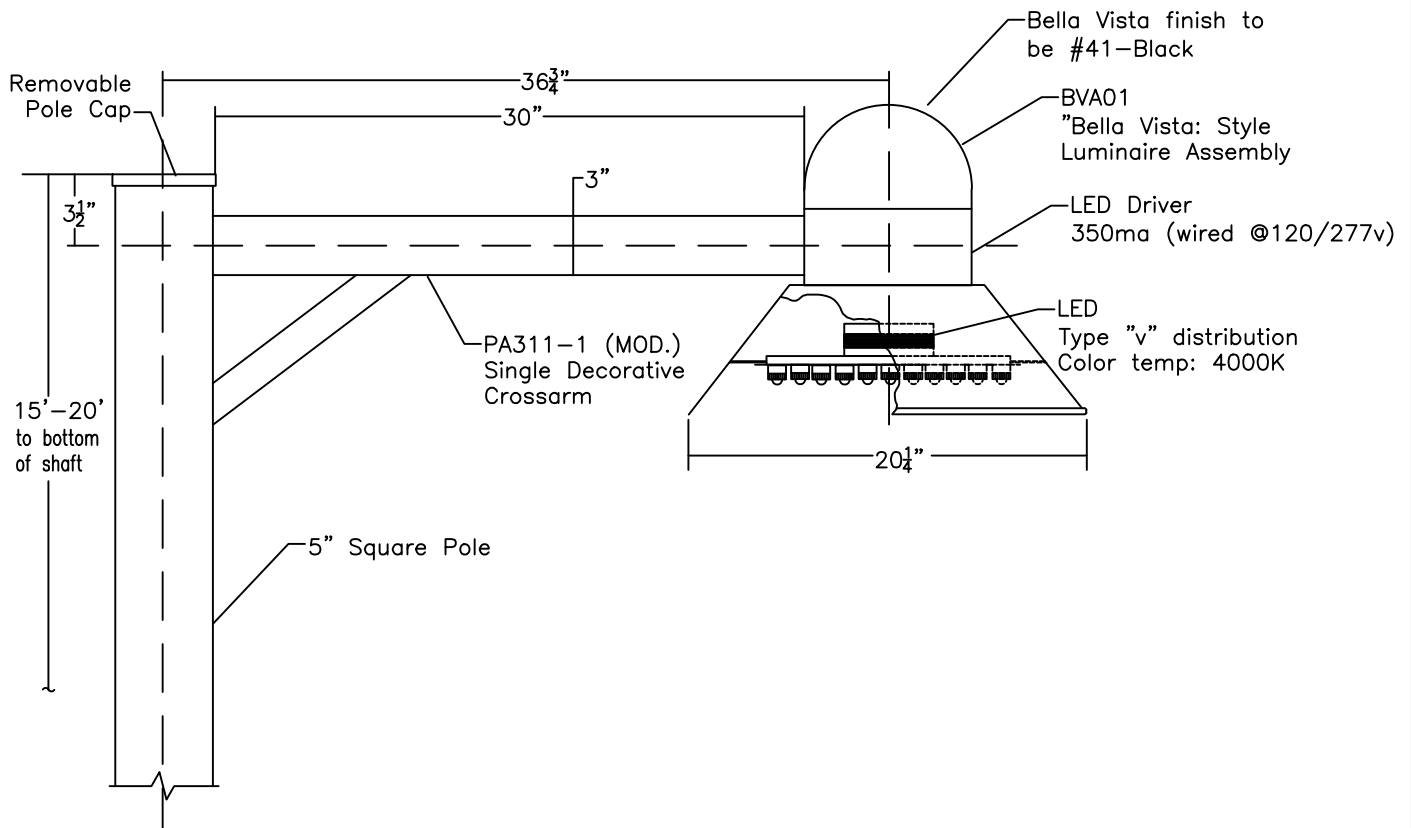
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/2

SL-14

9. Cable: Provide #12 THWN, stranded copper 600V, 90 degrees Celsius conductors. Wire to luminaire. Secure pole wiring with cable grip provided with luminaire. Provide adequate length to extend minimum 2 feet out of hand hole.
10. Execution: All luminaires shall be plumb and level. Adjust lamp socket assembly to Type II or Type III cutoff. All luminaires shall be operational prior to inspection. All surfaces shall be cleaned of dirt, debris, etc. free of scratches, dents, etc.



APPROVED

Clyde R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

CONSERVATION DISTRICT
LUMINAIRE

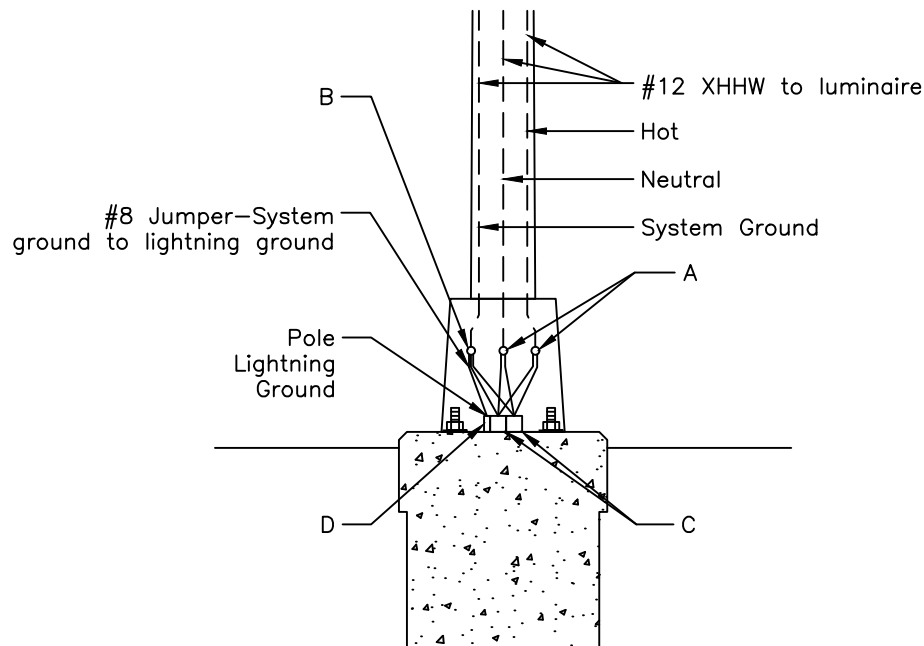
CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

2/2

SL-14

Notes:

1. Transformer Base: Provide a one-piece cast aluminum alloy
2. Grounding: Each transformer base shall contain an internal lug with drilled hole for attaching a ground conductor.
3. Nameplate: Stainless steel, screw attached, provide permanent weather resistant engraved Lamicoid nameplate 3" square minimum 3/4" helvetica white letters on a dark bronz background with pole number, circuit and station embossed into it per plan schedule. To be installed on the base door.
4. Connections:
 - A. Fused — Inline Y connector kit type II with waterproof boots and breakaway receptable. Fuse at 10 Amps, Homac FYU-M and DYU-M, Buss KTK-10 fuse or approved interchangeable equal.
 - B. Unfused — Inline Y connector kit type III flood seals with waterproof boots and breakaway receptacle, Homac DY series.
 - C. Provide molded plastic or rubber capping device that only permits wire pass through while preventing dirt, water, etc. entry.
 - D. Pole lighting 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.
 - E. Deliver transformer to city.
5. Provide 2' service loop in all wiring to bring connectors and fuse holders out thru handhole.



APPROVED

Chae R. Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

CONSERVATION DISTRICT
TRANSFORMER BASE
WIRING DETAIL

CITY OF

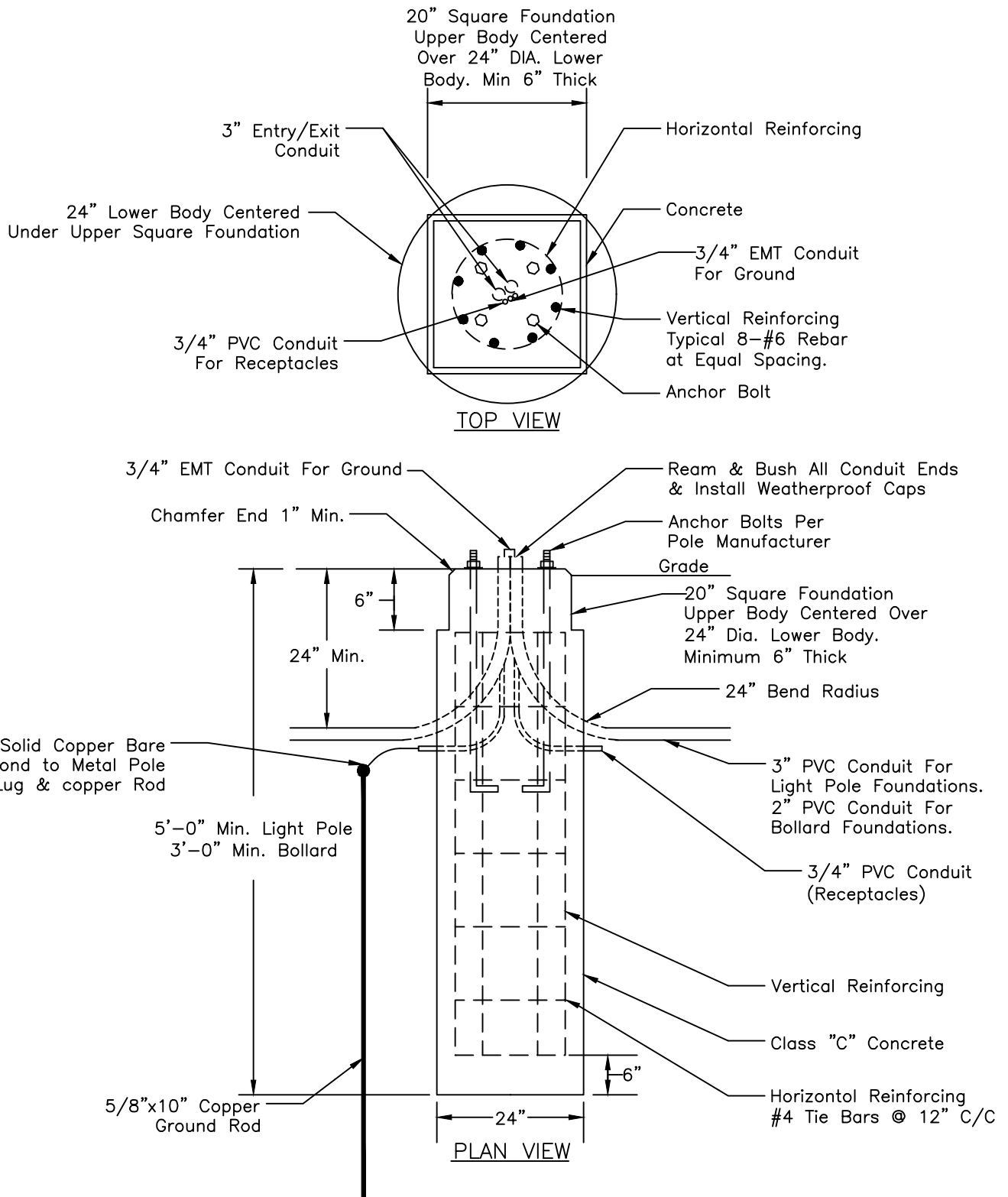
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

SL-15

S:\Public Service - Engineering\Hilliard Standards\Drawings\CAD\Street Lighting 9-1-15.dwg, 9/18/2015 7:45:42 AM



APPROVED

Chae R Seidle 9-1-15
CITY ENGINEER DATE

SCALE: 1/2" = 1'

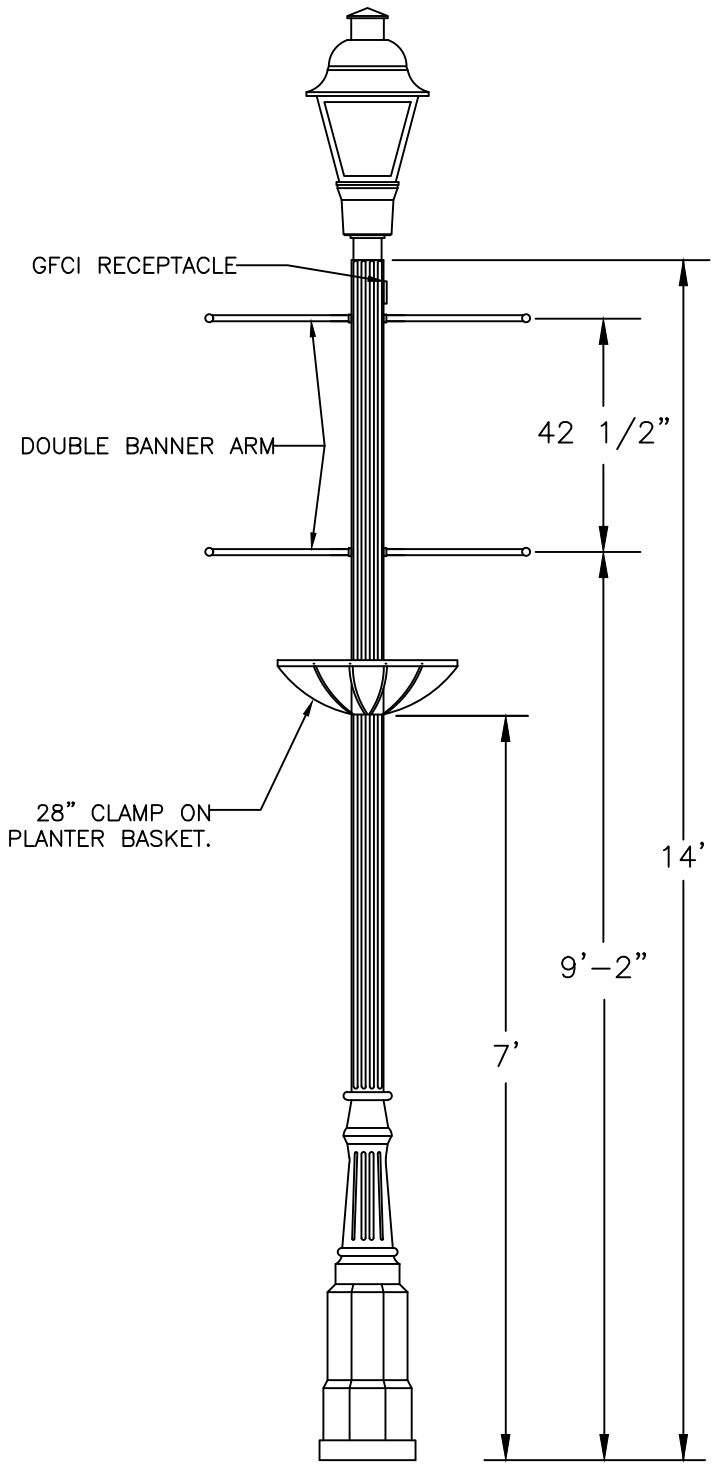
OLD HILLIARD STREET
POLE BASE, POLE &
LUMINAIRE


CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING

1/2

SL-16

- Notes:
1. Luminaire assembly: cast aluminum with stainless steel fasteners. Hinged roof. Slipfitter for 4" O.D. Tenon. Architectural Area Lighting Providence LED Model # PROV T2-32LED 4K 700 BLK HSS.
 2. Pole: cast aluminum octagonal base with an 8" x 9 1/2" access door, a tapered, fluted upper casting, and a straight, 5" fluted shaft and a wall thickness of 0.188", aluminum alloy 6063-T6 with satin ground finish, black. Provide Double Banner Arms and Ground Fault Interrupter Receptacle with Pole. Sternberg Lighting, Virginia Series, catalog number 3714FP5/GFCI DBA/BK, or approved interchangeable equal.
 3. Pole base cable connections: install weatherproof in-line fuseholders with 1 amp fuse, Buss KTK-1 fuse or approved interchangeable equal. Buss HEB-AA on the phase conductor and neutral, or approved interchangeable equal. Provide enough slack cable to allow fuseholders to be pulled out of access hole 12".
 4. Clamp on basket: 28" dia. clamp on planter basket with powder coat paint to match pole. Baskets shall be mounted for easy removal from pole. Basket shall be constructed of 6061 or 6063-T6 aluminum.



APPROVED		CITY OF	
		HILLIARD, OHIO	
CITY ENGINEER		STANDARD	
9-1-15		CONSTRUCTION DRAWING	
DATE			
SCALE: 3/8" = 1'		2/2	SL-16

OLD HILLIARD STREET
POLE BASE, POLE &
LUMINAIRE

1. Wiring to be 600V type THWN Cu per the table below.

THOROUGHFARE							
Cond. Size	Cond. Material	No. of Fixture	Typical Fixt Spacing	Voltage	Watt / Fixt	Voltage Drop	% Drop
#4	Cu	10	90	480	89	1.3	0.3%
		15	90	480	89	2.9	0.6%
		20	90	480	89	5.2	1.1%
#6	Cu	10	90	480	89	2.0	0.4%
		15	90	480	89	4.4	0.9%
		20	90	480	89	7.8	1.6%
#8	Cu	10	90	480	89	3.1	0.6%
		15	90	480	89	6.9	1.4%

OLD HILLIARD							
Cond. Size	Cond. Material	No. of Fixture	Typical Fixt Spacing	Voltage	Watt / Fixt	Voltage Drop	% Drop
#4	Cu	10	90	240	75	2.5	1.0%
		15	90	240	75	5.6	2.3%
#6	Cu	10	90	240	75	2.5	1.0%
		15	90	240	75	5.6	2.3%
#8	Cu	10	90	240	75	2.5	1.0%
		15	90	240	75	5.6	2.3%

RESIDENTIAL							
Cond. Size	Cond. Material	No. of Fixture	Typical Fixt Spacing	Voltage	Watt / Fixt	Voltage Drop	% Drop
#8	Cu	3	150	120	80	0.5	0.4%

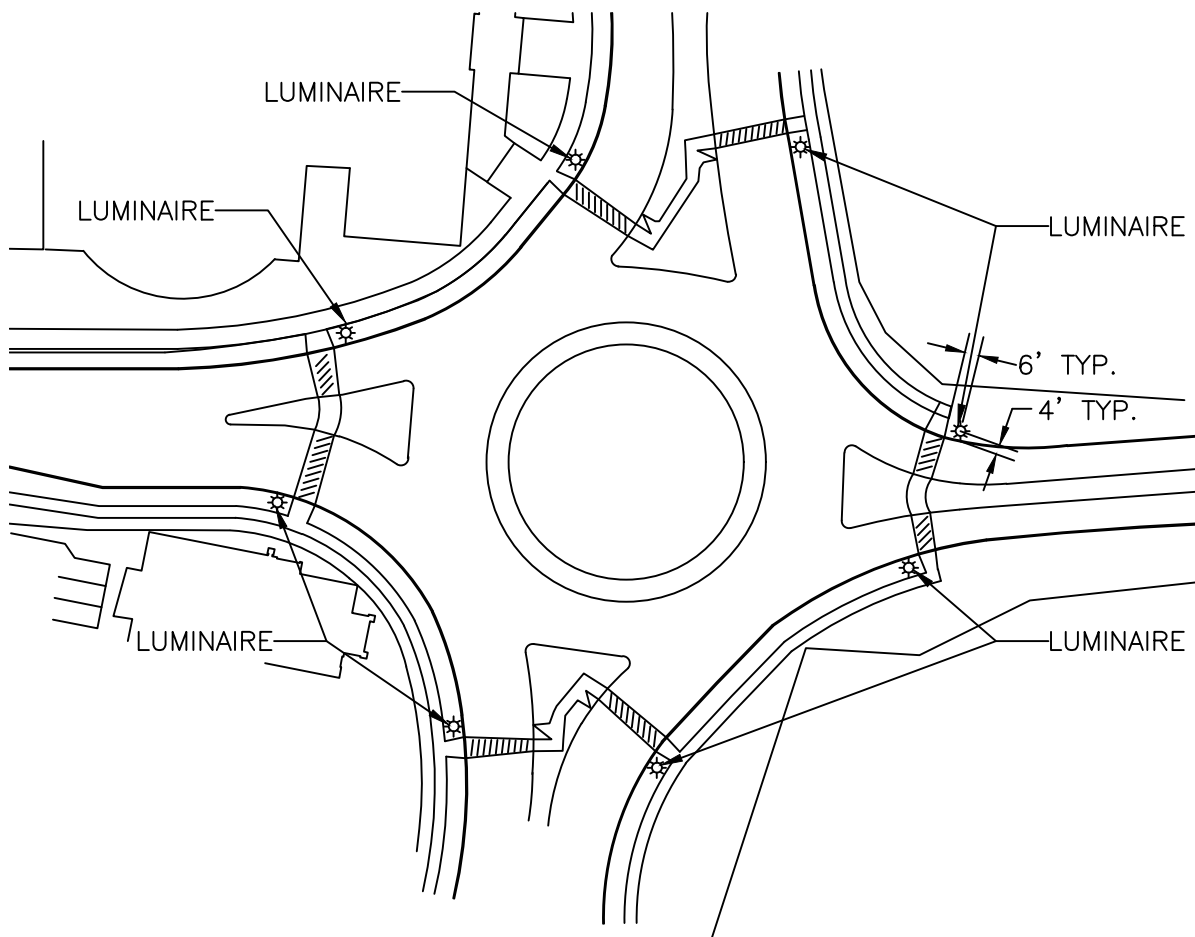
APPROVED

Chae R. Seidle
CITY ENGINEER 9-1-15
DATE

SCALE: N/A

CONDUCTOR DETAILS

CITY OF
HILLIARD, OHIO
STANDARD
CONSTRUCTION DRAWING
1/1 SL-17



APPROVED

Clyde R. Seidle

CITY ENGINEER

9-1-15
DATE

SCALE: 1" = 80'

ROUNDAABOUT LIGHTING
TYPICAL LAYOUT

CITY OF


HILLIARD, OHIO

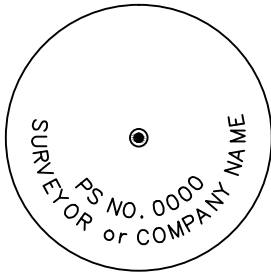
STANDARD
CONSTRUCTION DRAWING

1/1

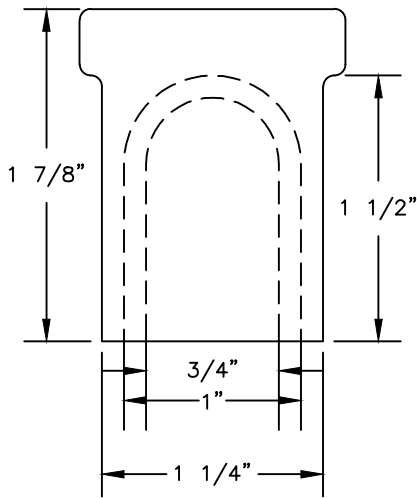
SL-18

HILLIARD CODE FIXTURE REPLACEMENT SCHEDULE										
EXISTING FIXTURE						NEW FIXTURE				
MANUFACTURER	MODEL	DIST	LAMP	WATTS	HEIGHT	MANUFACTURER	MODEL	DIST	LAMP	WATTS
KIM	SHOEBOX	3	HPS	250	30'	GENERAL ELECTRIC	EANA5F45401BCDKBZ	4	LED	148
GENERAL ELECTRIC	GE M-400R2	3	HPS	200 OR 250	30'	ARCHITECTURAL AREA LIGHTING	PROV-T3-32LED-4K-700	3	LED	76
ARCHITECTURAL AREA LIGHTING	PROV-V3	3	HPS	150	14'					
ARCHITECTURAL AREA LIGHTING	PROV-H3	3	HPS	150	12.5'					
HADCO	VS15AB3YUE	3	HPS	150	12.5'	HADCO	VX15148AC3RNA3NSL	3	LED	70

APPROVED  CITY ENGINEER	RETROFIT OF EXISTING LIGHTING	CITY OF	
		HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
SCALE: NONE		1/1	SL-19

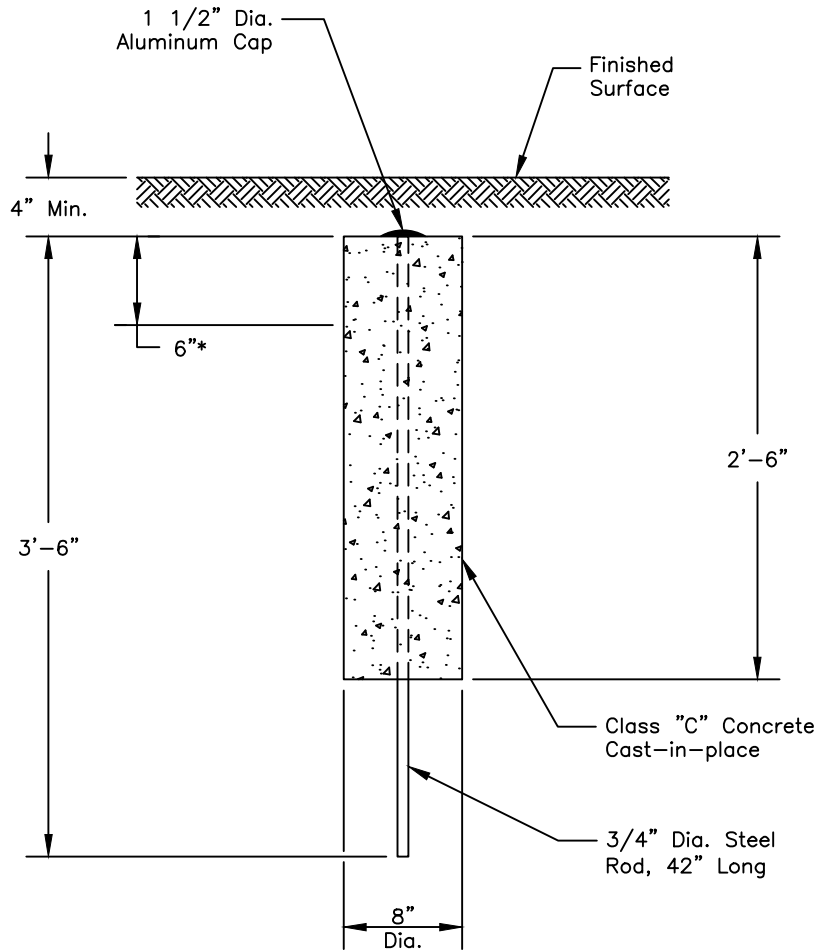


TOP VIEW



SIDE VIEW

* The upper 6" of the 2'-6" cast-in-place monument shall be formed.



Notes:

1. Monuments shall be placed under the direction of a Surveyor, registered in the State of Ohio, in accordance with Chapter 4733-37 of the Ohio Administrative Code. Markers are to be set, as shown, by the subdivider at the time of construction, at the locations indicated on the Record Plat.
2. All aluminum caps used shall have an insulator to eliminate dissimilar metal corrosion.
3. All aluminum caps shall have the company name or the name and number of the surveyor responsible for setting the marker, stamped in the top.

APPROVED

CITY ENGINEER DATE

SCALE: 1" = 1'

SURVEY MARKER –
PERMANENT

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

SM-1

CITY OF HILLIARD, OHIO	
STANDARD CONSTRUCTION DRAWING	
1/1	SP-1

[illegible]

ORIGINALS TO BE 22"x34" MYLARS.

APPROVED		CITY OF HILLIARD, OHIO	
CITY ENGINEER	DATE	STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 4'		1/1	SP-3

GENERAL NOTES

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NAME

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NUMBER

SP-3

GENERAL NOTES

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NAME

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NUMBER

SP-3

GENERAL NOTES

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NAME

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NUMBER

SP-3

GENERAL NOTES

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NAME

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NUMBER

SP-3

GENERAL NOTES

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM

PROJECT NAME

SEWER & WATERLINE IMPROVEMENTS
PUBLIC & WATERLINE STREET, STORM


PROJECT NUMBER

SP-3

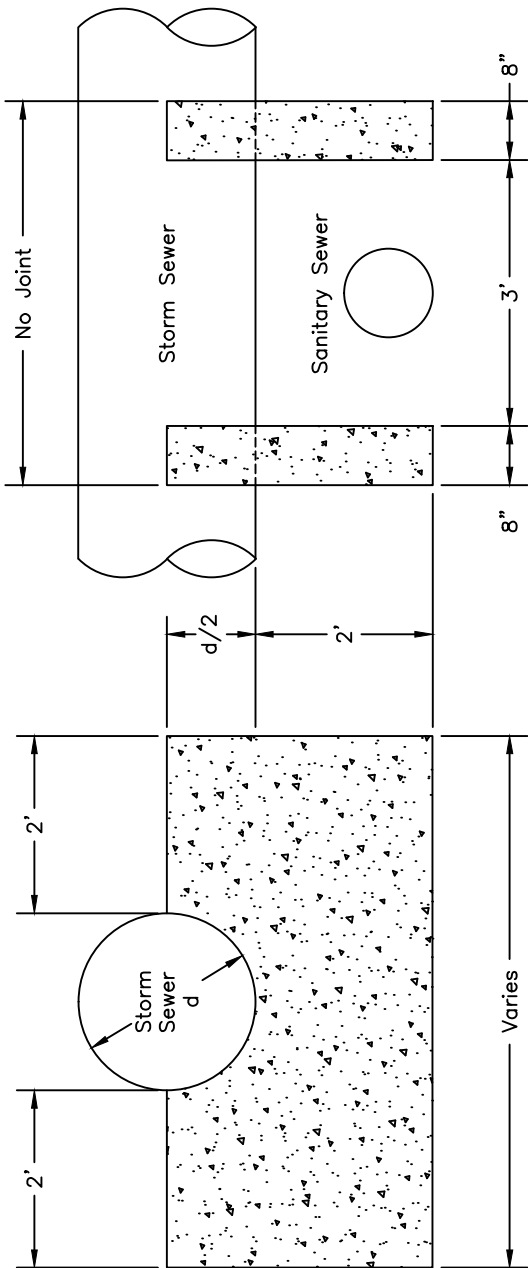
ORIGINALS TO BE 22"x34" MYLARS.

CITY OF HILLIARD, OHIO	
STANDARD CONSTRUCTION DRAWING	
1/1	SP-4

ESTIMATE OF QUANTITIES		
ITEM	QUANTITY	UNIT
DESCRIPTION		
Paving		
Asphalt concrete		
Asphalt concrete, 100 mm thick, for surface		
Asphalt concrete, 150 mm thick, for base		
Gravel, 75 mm maximum size, for base		
Gravel, 150 mm maximum size, for base		
Gravel, 300 mm maximum size, for base		
Gravel, 600 mm maximum size, for base		
Gravel, 1200 mm maximum size, for base		
Gravel, 2400 mm maximum size, for base		
Gravel, 4800 mm maximum size, for base		
Gravel, 9600 mm maximum size, for base		
Gravel, 19200 mm maximum size, for base		
Gravel, 38400 mm maximum size, for base		
Gravel, 76800 mm maximum size, for base		
Gravel, 153600 mm maximum size, for base		
Gravel, 307200 mm maximum size, for base		
Gravel, 614400 mm maximum size, for base		
Gravel, 1228800 mm maximum size, for base		
Gravel, 2457600 mm maximum size, for base		
Gravel, 4915200 mm maximum size, for base		
Gravel, 9830400 mm maximum size, for base		
Gravel, 19660800 mm maximum size, for base		
Gravel, 39321600 mm maximum size, for base		
Gravel, 78643200 mm maximum size, for base		
Gravel, 157286400 mm maximum size, for base		
Gravel, 314572800 mm maximum size, for base		
Gravel, 629145600 mm maximum size, for base		
Gravel, 1258291200 mm maximum size, for base		
Gravel, 2516582400 mm maximum size, for base		
Gravel, 5033164800 mm maximum size, for base		
Gravel, 10066329600 mm maximum size, for base		
Gravel, 20132659200 mm maximum size, for base		
Gravel, 40265318400 mm maximum size, for base		
Gravel, 80530636800 mm maximum size, for base		
Gravel, 161061273600 mm maximum size, for base		
Gravel, 322122547200 mm maximum size, for base		
Gravel, 644245094400 mm maximum size, for base		
Gravel, 1288490188800 mm maximum size, for base		
Gravel, 2576980377600 mm maximum size, for base		
Gravel, 5153960755200 mm maximum size, for base		
Gravel, 10307921510400 mm maximum size, for base		
Gravel, 20615843020800 mm maximum size, for base		
Gravel, 41231686041600 mm maximum size, for base		
Gravel, 82463372083200 mm maximum size, for base		
Gravel, 164926744166400 mm maximum size, for base		
Gravel, 329853488332800 mm maximum size, for base		
Gravel, 659706976665600 mm maximum size, for base		
Gravel, 1319413953331200 mm maximum size, for base		
Gravel, 2638827906662400 mm maximum size, for base		
Gravel, 5277655813324800 mm maximum size, for base		
Gravel, 10555311626649600 mm maximum size, for base		
Gravel, 21110623253299200 mm maximum size, for base		
Gravel, 42221246506598400 mm maximum size, for base		
Gravel, 84442493013196800 mm maximum size, for base		
Gravel, 168884986026393600 mm maximum size, for base		
Gravel, 337769972052787200 mm maximum size, for base		
Gravel, 675539944105574400 mm maximum size, for base		
Gravel, 1351079888211148800 mm maximum size, for base		
Gravel, 2702159776422297600 mm maximum size, for base		
Gravel, 5404319552844595200 mm maximum size, for base		
Gravel, 10808639105689190400 mm maximum size, for base		
Gravel, 21617278211378380800 mm maximum size, for base		
Gravel, 43234556422756761600 mm maximum size, for base		
Gravel, 86469112845513523200 mm maximum size, for base		
Gravel, 172938225691027046400 mm maximum size, for base		
Gravel, 345876451382054092800 mm maximum size, for base		
Gravel, 691752902764108185600 mm maximum size, for base		

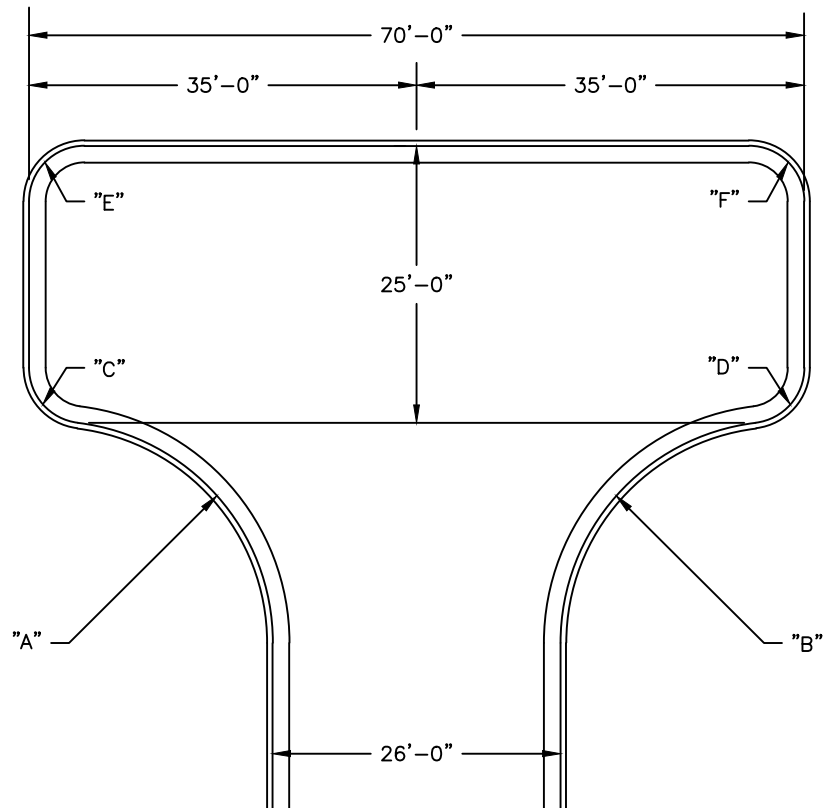
<div>PROJECT NAME SEWER & WATERLINE IMPROVEMENTS PUBLIC/PRIVATE STREET, STORM</div> <div>PLAN & PROFILE</div> <div>SCALE IN FEET 0 10 20 SCALE IN FEET 0 10 20</div> <div></div>		<div>ORIGINALS TO BE 22"x34" MYLARS.</div>			
<div></div>					
<div>APPROVED</div> <div>CITY ENGINEER _____ DATE _____</div> <div>SCALE: 1" = 4'</div>		<div>SAMPLE PLANS PLAN & PROFILE SHEET</div>		<div>CITY OF HILLIARD, OHIO</div>	
				<div>STANDARD CONSTRUCTION DRAWING</div>	
				<div>1/1</div>	<div>SP-5</div>

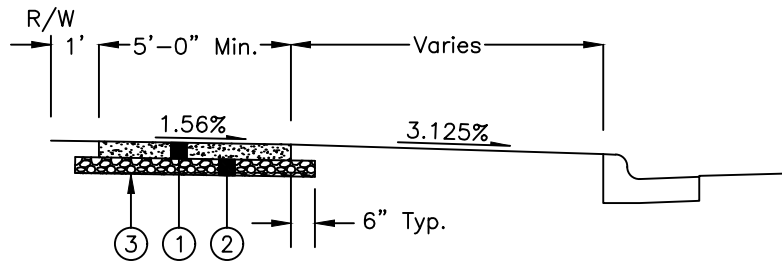
Note: Concrete shall be Class "C". Price to be included in item 901.



APPROVED		STORM SEWER BRIDGE DETAIL	CITY OF HILLIARD, OHIO	
CITY ENGINEER	DATE		STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 2'			1/1	SS-1

Ch L = 26.53'

$$\text{Ch } L = 6.63'$$
$$\text{Ch } L = 7.07'$$


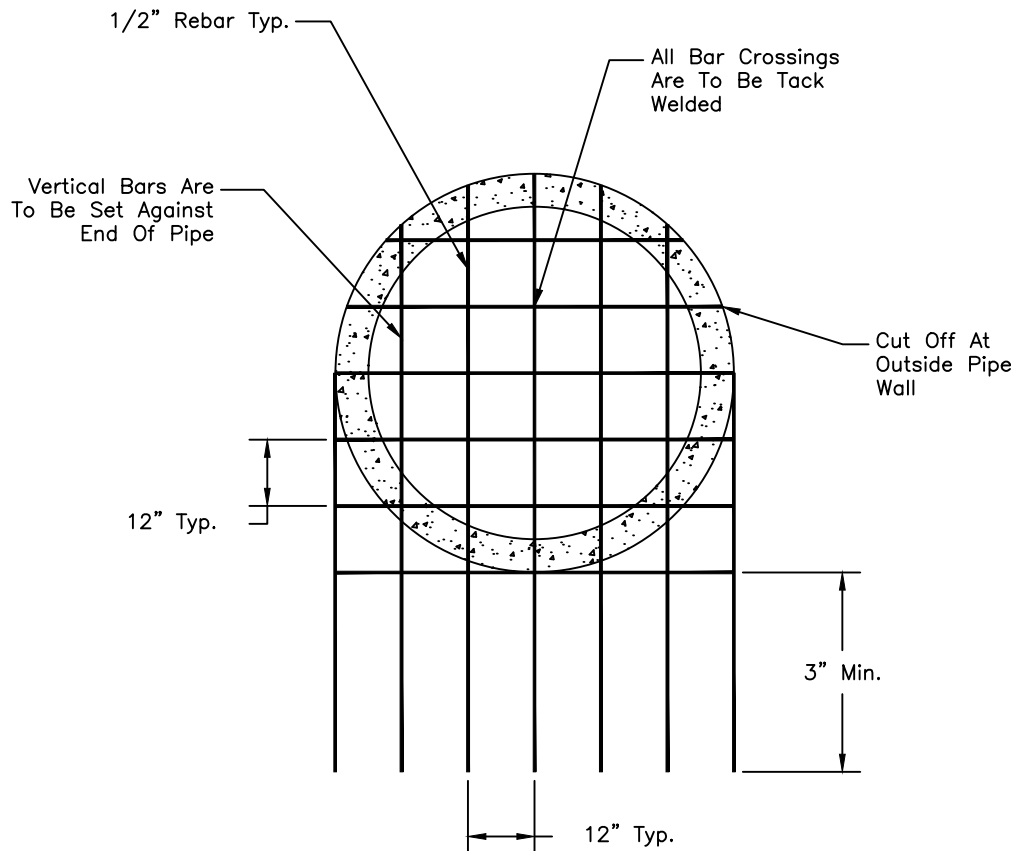


- ① Item 608 – 4" Concrete Walk
- ② Item Special – 4" Aggregate Base (#57 Stone)
- ③ Item 204 – Subgrade Compaction

Notes:

1. Item numbers refer to the City of Columbus, Ohio Standard Construction and Material Specifications, Division of Engineering, current edition and all work shall be done in accordance with these specifications.
2. Sidewalks shall be constructed with COC-6 (Class C, Item 499) or COC-1 which shall contain 5% to 9% entrained air and a 3" maximum slump.
3. Where driveways cross the sidewalk, the concrete shall be 6" thick for residential driveways and 8" thick for commercial driveways. See Hilliard Standard Drawings DD-1 and DD-2.
4. Expansion joints shall be placed wherever new concrete touches existing construction and at intervals of 30' or less.
5. 5.0' min. sidewalk width is required for all new construction or retrofit in commercial mixed use areas. 4.0' min. sidewalk width may be used in retrofit situations in single family residential areas where existing sidewalks are less than 5.0'.
6. Water and gas valve boxes in the sidewalk area shall be adjusted to proper grade.
7. Roof drains shall extend under the sidewalk and through the curb. See Columbus Standard Drawing 2320.
8. Per City of Columbus, Item 451, all concrete shall be placed in one course and finished with an approved tool. Forms shall be made of lumber 2" nominal thickness or of equally rigid metal. Immediately after finishing, concrete shall be cured in an approved manner.
9. Concrete shall be protected from freezing in accordance with Section 451.071 of Item 451 when the air temperature is predicted to be below 35°F at any time during the next 72 hours.
10. Notify the City of Hilliard, Engineering Division at least 24 hours before concrete is to be placed for the inspection of the form work. In no case may concrete be placed without approval of the form work by the City. To schedule an inspection, refer to the contact information on Curb, Driveway Approach and Sidewalk permit.

	SIDEWALK SPECIFICATIONS	CITY OF HILLIARD, OHIO	
DATE: March 06, 2023		STANDARD CONSTRUCTION DRAWING	
SCALE: ¼" = 1"		1/1	SW-1



APPROVED

CITY ENGINEER DATE

SCALE: 3/8" = 1'

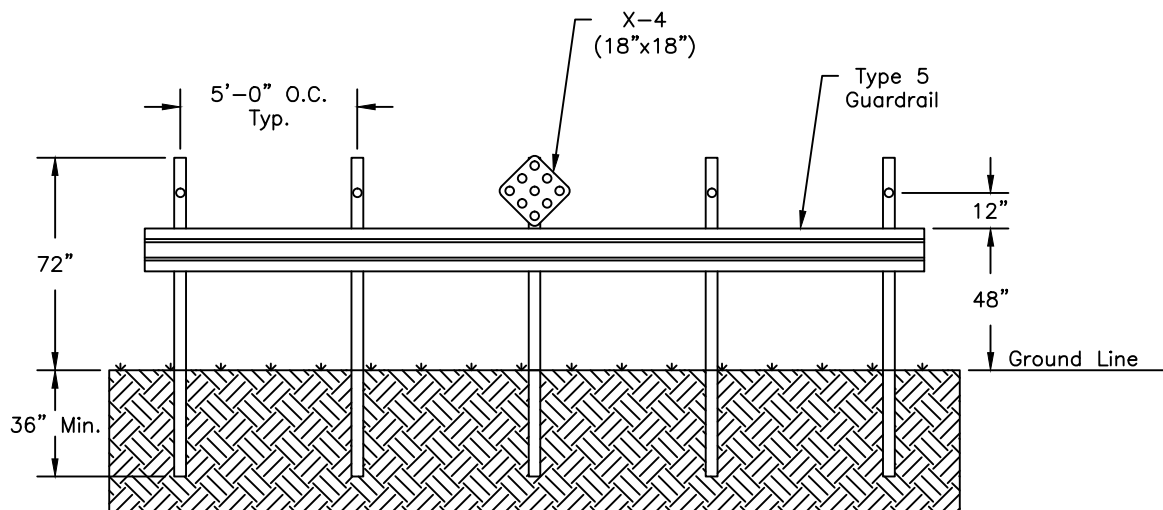
TEMPORARY ACCESS
BARRIER

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

TAB-1



5 - 4"x4" Posts With Reflector

X-4 = 18" Panel With Red High Intensity Reflective Sheeting

(Cost to be included in the unit price bid for the various items.)

APPROVED	TEMPORARY BARRICADE ROADWAY	CITY OF HILLIARD, OHIO	
CITY ENGINEER _____ DATE _____		STANDARD CONSTRUCTION DRAWING	
SCALE: 1" = 5'		1/1	TB-1

City of Hilliard Sign Specifications

Street Name Signs - General Specifications

Plan Designation: Item 630 Street Name Sign, Type (), As Per Plan

Plan Unit: Per Each

Plan Payment: Payment for each street name sign shall include brackets, stiffeners, stickers, and all incidental hardware to mount the street name sign(s) on the designated support type.

Submittals: Sign Fabricator shall submit preliminary layout of street name signs to the City of Hilliard Engineer (lschamp@hilliardohio.gov) or the City of Hilliard sign shop (signshop@hilliardohio.gov) before manufacturing signs. Layout shall be to scale and shall include all dimensions. Failure to submit a scaled layout could result in rejection of the street name sign and replacement will be at the manufacturer's expense.

New Street Name Approval & Submittals: All new street names shall be submitted to the City of Hilliard for pre-approval. For any street name greater than ten (10) characters (including prefix or suffix), a sign layout in accordance with these specifications shall be submitted prior to pre-approval of a new street name to ensure that the street name can adequately fit on the maximum sign blade without modification to font, lettering size, or standard spacing.

The following specifications apply to all street name signs in the City of Hilliard:

- All street name signs shall be made on an aluminum sign blank (0.0080 thickness).
- All street name signs shall use a white retroreflective sheeting made with prisms (ASTM D4956 Type IV or VIII as designated for each sign type provided below) with a blue electrocut film (color: 1175 - FHWA Blue) to create a blue sign with white lettering.
- Street name legends, prefixes, and suffixes shall be printed Federal Highway Administration, Office of Transportation Operations' Clearview Font Type 2-W using standard letter spacing. Legends, prefixes, and suffixes shall be centered horizontally and vertically on the sign face. If a street name contains a drop letter (y, p, j, etc.), the name shall be shifted ½" up on the sign face. Lettering sizes and clear spacing shall conform to the various sign types provided below.
- A modified Clearview Font is only permitted for existing street names in order to fit on the maximum sign blades designated for the various sign types provided below. All new street names shall comply with the standard provisions established herein.



DATE: December 20, 2023

SCALE: N.T.S.

TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS

GENERAL SPECIFICATIONS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/10

TC-1

City of Hilliard Sign Specifications

Street Name Signs - General Specifications (cont.)

- These standards shall apply to all public street intersections and to intersections of a public street with a named private driveway. Non-reflective public or private street name signs within the public right-of-way are prohibited on new installations. Existing street name signs that do not meet these standards shall be upgraded as part of the normal city sign maintenance schedule.
- At locations where a named private driveway intersects a public street, the word "Private" shall be positioned beneath the private street name as shown in the example below.



DATE: December 20, 2023	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
	GENERAL SPECIFICATIONS	2/10	TC-1

City of Hilliard Street Name Sign Reference Table

Type of Intersection	Speed Limit of Major Street	Installation			Post, Anchor & Bracket			Sign Size & Layout				
		Type of Mounting	Number of signs per intersection (min)	Vertical Clearance of Sign from Street	Post Type (galvanized; black in Old Hilliard)	Anchor Type (galvanized)	Bracket Type (galvanized; black in Old Hilliard)	Sign Blade Height	Sign Blade Max Length	Initial Upper Case Letter Height	1/2-inch Rounded Border	Single or Double Sided
Type A - Signalized - Mast Arm (all new City signal installations)	any	Overhead (On Mast Arm)	one per arm	on arm	N/A	N/A	Band or Cable-Mntd	20"	96"	12"	Yes	Single
Type B - Signalized - Strain Pole (existing signals or former FCEO signals)	Any	Side/Corner (On Strain Pole)	2 signs on 2 poles (opposite corners)	15'	N/A	N/A	2 cantilevered brackets & double-tee stiffeners (4 bands per sign)	20"	72"	9"	No	Double
Type C - Roundabout	Any	2 Posts per sign (in splitter islands)	one sign per splitter island	5'	2" square x 14 gauge galvanized w/ rain caps	2-1/4" square x 42" long; 8" min lap	N/A	16"	72"	7"	Yes (& chevron-arrow)	Single
Type D - Unsignalized - Arterial or Collector - high speed (includes subdivision street at Arterial/Collector - e.g. Dublin Rd cross streets)	40+ MPH	Side/Corner & Cantilevered (On Post)	1 sign @ T intersection; 2 signs @ X intersection	12'	2" square x 12 gauge galvanized w/ rain caps	2-1/4" square x 48" long; 18" min lap	2 cantilevered brackets & double-tee stiffeners	16"	72"	8"	No	Double
Type E - Unsignalized - Arterial or Collector - low speed (includes subdivision street at Arterial/Collector - e.g. Cemetery Rd cross streets)	25 - 35 MPH	Side/Corner & Cantilevered (On Post)	1 sign @ T intersection; 2 signs @ X intersection	12'	2" square x 12 gauge galvanized w/ rain caps	2-1/4" square x 48" long; 18" min lap	2 cantilevered brackets & double-tee stiffeners	12"	72"	6"	No	Double
Type F - Unsignalized - Subdivision (e.g. internal subdivision streets - <u>not</u> primary street intersection with arterial or collector)	25 MPH	Side/Corner & Cross-Mounted (On Post)	One (2 if street name changes at cross street)	10'	2" square x 12 gauge galvanized - <u>without</u> rain caps	2-1/4" square x 30" long; 8" min lap	12" square post bracket & 12" cross piece bracket	9"	60"	5"	Yes	Double

Note:

SNS legends, prefixes, and suffixes shall be printed in FHWA **Clearview Font Type 2-W** using standard horizontal letter spacing and edge spacing. Lettering size and space reductions are permitted only on existing street names. New subdivision street names shall comply with all standards.

TRAFFIC CONTROL
NOTES AND DETAILS
STREET NAME SIGNS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

DATE: December 20, 2023

SCALE: N.T.S.

REFERENCE TABLE

3/10

TC-1

Type A Street Name Signs

Type A signs are to be installed at all signalized intersections with mast arms.

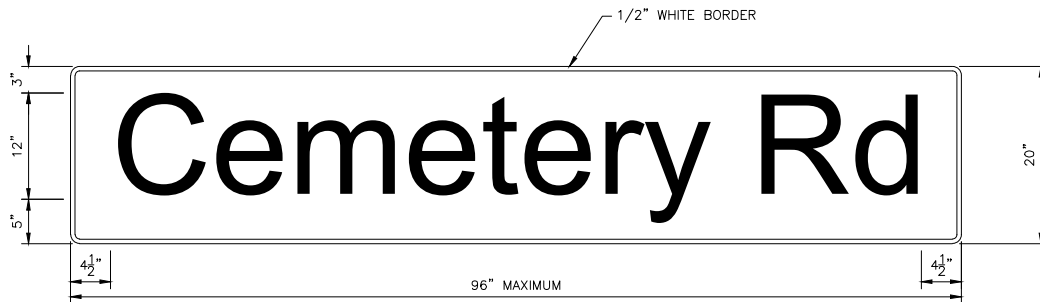
Installation. Signs shall be mounted on the mast arm. The preferred location is centered between signal heads as far left as possible over the oncoming lanes of traffic. One sign per arm.

Brackets. No brackets are required for Type A installations. Each sign shall be mounted to the arm using a band or cable-mounted system (Astro-Brac or approved equal).

Sign Size. The sign blade shall be 20" high. Maximum sign blade length shall be 96".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal).

Sign Layout. The initial upper case letter height shall be 12". Prefixes and suffixes shall be the same size as the legend. A 1/2-inch white border with rounded corners shall be provided. A 4 1/2 -inch clear space shall be provided between the edge of the sign and the edge of the first and last letter (horizontally). The sign shall be single sided with the backs of the signs painted black.



DATE: December 20, 2023 SCALE: N.T.S.	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS TYPE A	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		4/10	TC-1

Type B Street Name Signs

Type B signs are to be installed at all signalized intersections with strain poles.

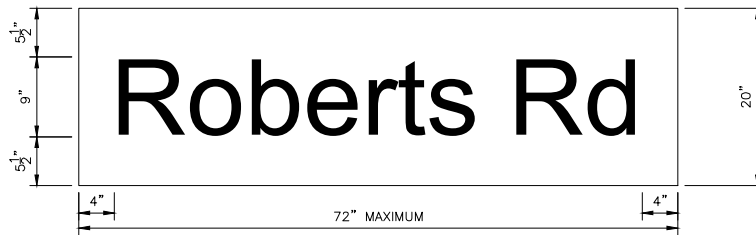
Installation. Signs shall be mounted on opposite corners on the traffic signal strain pole. Judgment may be used in determining the appropriate location based on visibility. Two signs may be installed per pole. The vertical clearance between the adjacent ground and the bottom of the lowest sign shall be 15 feet.

Brackets. Two cantilevered square brackets and double tee stiffeners (Sign-Fix, Xcessories Squared, or approved equal) shall be used. Each sign shall be banded to the vertical pole using four bands.

Sign Size. The sign blade shall be 20" high. Maximum sign blade length shall be 72".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal).

Sign Layout. The initial upper case letter height shall be 9". Prefixes and suffixes shall be the same size as the legend. No border shall be used for signs that use cantilevered brackets for installation. A 4-inch clear space shall be provided between the edge of the sign and the edge of the first and last letter (horizontally). The sign shall be double sided.



DATE: December 20, 2023	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS TYPE B	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		5/10	TC-1

Type C Street Name Signs

Type C signs are to be installed at all roundabout locations.

Installation. Signs shall be mounted in the splitter islands with one sign per island at each leg of the roundabout. The vertical clearance between the adjacent top of curb and the bottom of the sign shall be 5 feet. The horizontal clearance between the edge of the sign and the face of the splitter island curb shall be 2' minimum.

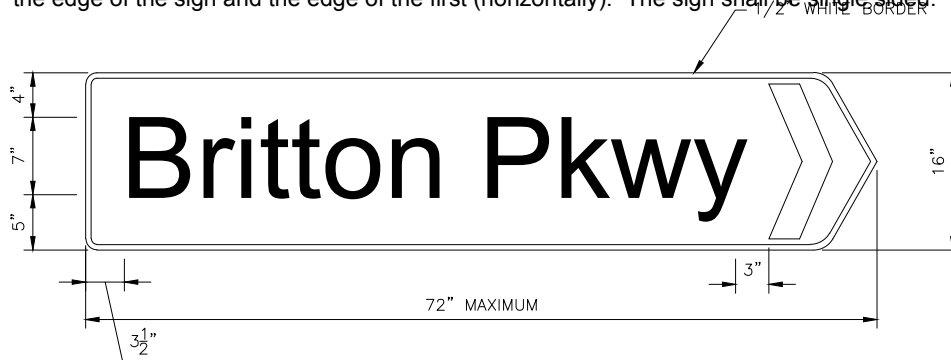
Brackets. No brackets are used for Type C sign installations.

Post/Anchor. Type C street name sign supports shall be two 2-inch square x 14 gauge square galvanized posts with die-cut knock-outs (typical regulatory sign posts). Pyramid rain caps shall be used. A single break-away anchor shall be used for each post. Anchors shall be 2 1/4-inch square, 42 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 8 inches minimum. For all signs installed in concrete or paver islands, a six-inch PVC pipe box out shall be provided for the post anchor. The PVC box out shall be installed prior to pouring concrete or placing pavers. After the sign post anchor is installed, granular material shall be installed between the post anchor and the PVC box out.

Sign Size. The sign blade shall be 16" high. Maximum sign blade length shall be 72".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal).

Sign Layout. The initial upper case letter height shall be 7". Prefixes and suffixes shall be the same size as the legend. A 1/2-inch white border with rounded corners and a chevron-style arrow shall be provided. A 3 1/2 -inch clear space shall be provided between the edge of the sign and the edge of the first (horizontally). The sign shall be single sided.



DATE: December 20, 2023	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS TYPE C	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		6/10	TC-1

Type D Street Name Signs

Type D signs are to be installed at unsignalized intersections along arterial or collector streets with speed limits of 40 mph or greater. This includes intersections of a primary subdivision street and the arterial/collector street. Examples include the intersections of Alton Darby Road/Strider Lane and Dublin Road/River Landings Blvd.

Installation. At four-way intersections, two pairs of signs should be installed, mounted on opposite corners. At three-way (tee) intersections, one pair of signs should be installed. Judgment may be used in determining the appropriate location based on visibility. Two signs should be installed per pole. The vertical clearance between the adjacent ground and the bottom of the lowest sign shall be 12 feet. Signs shall be erected so that one sign does not block visibility of the other sign.

Brackets. Two cantilevered square brackets and double tee stiffeners (Sign-Fix, Xcessories Squared, or approved equal) shall be used.

Post/Anchor. Type D street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps shall be used. A single break-away anchor shall be used. Anchors shall be 2 ¼-inch square, 48 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 18 inches minimum. In addition, an Omni Anchor (manufactured by MD Solutions, Inc.) or approved equal shall be used for all Type D sign installations. Size of anchor shall be per manufacturer's recommendations based on sign loading and soil conditions.

Sign Size. The sign blade shall be 16" high. Maximum sign blade length shall be 72".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal).

Sign Layout. The initial upper case letter height shall be 8". Prefixes and suffixes shall be the same size as the legend. No border shall be used for signs that use cantilevered brackets for installation. A 4-inch clear space shall be provided between the edge of the sign and the edge of the first and last letter (horizontally). The sign shall be double sided.



DATE: December 20, 2023	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS TYPE D	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		7/10	TC-1

Type E Street Name Signs

Type E signs are to be installed at unsignalized intersections along arterial or collector streets with speed limits of 35 mph or less. This includes intersections of a primary subdivision street and the arterial/collector street. Examples include the intersections of Avery Rd/Dixon Dr, Davidson Road/Heather Ridge Dr, and Scioto Darby Rd/Hoffman Farms Dr.

Installation. At four-way intersections, two pairs of signs should be installed, mounted on opposite corners. At three-way (tee) intersections, one pair of signs should be installed. Judgment may be used in determining the appropriate location based on visibility. Two signs should be installed per pole. The vertical clearance between the adjacent ground and the bottom of the lowest sign shall be 12 feet. Signs shall be erected so that one sign does not block visibility of the other sign.

Brackets. Two cantilevered square brackets and double tee stiffeners (Sign-Fix, Xcessories Squared, or approved equal) shall be used.

Post/Anchor. Type E street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps shall be used. A single break-away anchor shall be used. Anchors shall be 2 1/4-inch square, 48 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 18 inches minimum. In addition, an Omni Anchor (manufactured by MD Solutions, Inc.) or approved equal shall be used for all Type D sign installations. Size of anchor shall be per manufacturer's recommendations based on sign loading and soil conditions.

Sign Size. The sign blade shall be 12" high. Maximum sign blade length shall be 72".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal).

Sign Layout. The initial upper case letter height shall be 6". Prefixes and suffixes shall be the same size as the legend. No border shall be used for signs that use cantilevered brackets for installation. A 3-inch clear space shall be provided between the edge of the sign and the edge of the first and last letter (horizontally). The sign shall be double sided.



DATE: December 20, 2023	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
	TYPE E	8/10	TC-1
SCALE: N.T.S.			

Type F Street Name Signs

Type F signs are to be installed at unsignalized intersections within subdivisions with speed limits of 25 mph only. Type F signs apply to internal neighborhood streets, not the intersection of the primary subdivision street and the arterial/collector street.

Installation. One pair of signs should be installed unless the street name changes on either side of a street. Judgment may be used in determining the appropriate location based on visibility. Two signs should be installed per post. The vertical clearance between the adjacent ground and the bottom of the lowest sign shall be 10 feet.

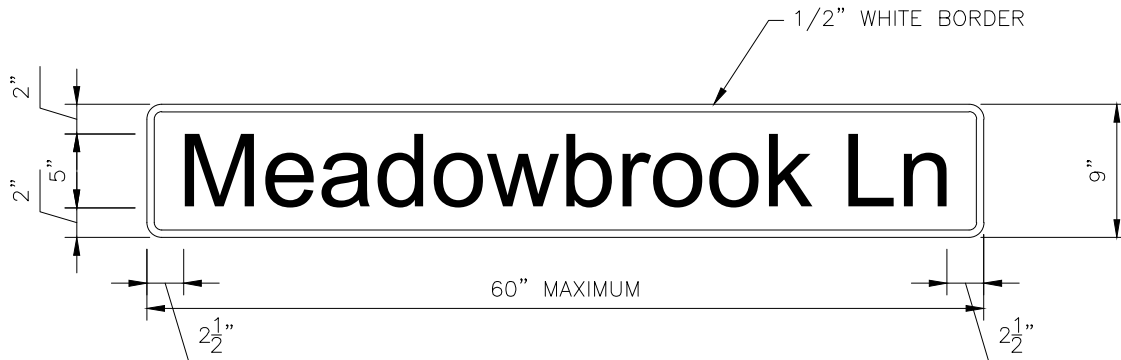
Brackets. One 12-inch square post bracket and one 12-inch cross piece bracket shall be used. Note: Type F signs are mounted using a cross-mounted system, not cantilevered like Type D and Type E street name signs.

Post/Anchor. Type F street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps are not used. A single break-away anchor shall be used. Anchors shall be 2 ¼-inch square, 30 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 8 inches minimum.

Sign Size. The sign blade shall be 9" high. Maximum sign blade length shall be 60".

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type IV (3M High Intensity Prismatic 3930, Avery Dennison High Intensity Prismatic T-6500, or approved equal).

Sign Layout. The initial upper case letter height shall be 5". Prefixes and suffixes shall be the same size as the legend. A ½-inch white border with rounded corners shall be provided. A 2 ½ -inch clear space shall be provided between the edge of the sign and the edge of the first and last letter (horizontally). The sign shall be double sided.



DATE: December 20, 2023 SCALE: N.T.S.	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS TYPE F	CITY OF HILLIARD, OHIO	
		STANDARD CONSTRUCTION DRAWING	
		9/10	TC-1

Street Name Sign Support and Anchor Specifications

Plan Designation: Item 630 Street Name Sign Support and Anchor (Type ____), As Per Plan

Plan Unit: Per Each

Plan Payment: Payment for each street name sign support shall include the appropriate length anchor and the appropriate post length required to obtain the required minimum lap length and the proper vertical clearance for the various street name sign types. Payment for the sign supports shall include the pyramid rain caps, rivets, bolts, nuts, and all incidental hardware needed for a complete installation.

Type A Street Name Sign Supports and Anchors. Type A street name signs are installed on mast arms at signalized intersections. A separate support and anchor are not required.

Type B Street Name Sign Supports and Anchors. Type B street name signs are installed on strain poles at signalized intersections. A separate support and anchor are not required.

Type C Street Name Sign Supports and Anchors. Type C street name sign supports shall be two 2-inch square x 14 gauge square galvanized posts with die-cut knock-outs (typical regulatory sign posts). Pyramid rain caps shall be used. A single break-away anchor shall be used for each post. Anchors shall be 2 ¼-inch square, 42 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 8 inches minimum. For all signs installed in concrete or paver islands, a six-inch PVC pipe box out shall be provided for the post anchor. The PVC box out shall be installed prior to pouring concrete or placing pavers. After the sign post anchor is installed, granular material shall be installed between the post anchor and the PVC box out.

Type D Street Name Sign Supports and Anchors. Type D street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps shall be used. A single break-away anchor shall be used. Anchors shall be 2 ¼-inch square, 48 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 18 inches minimum. An Omni Anchor (manufactured by MD Solutions, Inc.) or approved equal shall be used for all Type D sign installations. Size of anchor shall be per manufacturer's recommendations based on sign loading and soil conditions.

Type E Street Name Sign Supports and Anchors. Type E street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps shall be used. A single break-away anchor shall be used. Anchors shall be 2 ¼-inch square, 48 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 18 inches minimum. An Omni Anchor (manufactured by MD Solutions, Inc.) or approved equal shall be used for all Type D sign installations. Size of anchor shall be per manufacturer's recommendations based on sign loading and soil conditions.

Type F Street Name Sign Supports and Anchors. Type F street name sign supports shall be 2-inch square x 12 gauge square galvanized posts with die-cut knock-outs. Pyramid rain caps are not used. A single break-away anchor shall be used. Anchors shall be 2 ¼-inch square, 30 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 8 inches minimum.

Old Hilliard District. In the Old Hilliard District, the above street name sign support and anchor specification apply except all sign supports and hardware shall be black.

	TRAFFIC CONTROL NOTES AND DETAILS STREET NAME SIGNS SUPPORT & ANCHOR SPECIFICATIONS	CITY OF HILLIARD, OHIO	
DATE: December 20, 2023		STANDARD CONSTRUCTION DRAWING	
SCALE: N.T.S.		10/10	TC-1

Regulatory, Warning, and Guide Signs - General Specifications

Plan Designation: Item 630 Sign, Flat Sheet (ASTM Type ____), As Per Plan

Plan Unit: Per SF

Plan Payment: Payment for Sign, Flat Sheet shall be per square foot and shall include the City of Hilliard identification stickers.

All sign installations shall include a City of Hilliard identification sticker, which provides the month and year that the sign is installed. Stickers shall be obtained from the City of Hilliard sign shop (contact: Dave Dale (614) 334-2355).

Sign Material. Sign sheeting material shall comply with ASTM D4956 Type VIII (3M Diamond Grade LDP 3970, Avery Dennison MVP Prismatic T-7500, or approved equal) for the following types of signs:

- School Zone Speed Limit signs
- School Crossing/Warning signs and placards
- Pedestrian and Bicycle Warning signs
- STOP signs along or intersecting arterial/collector streets
- YIELD signs at roundabouts

Sign sheeting material shall comply with ASTM D4956 Type IV (3M High Intensity Prismatic 3930, Avery Dennison High Intensity Prismatic T-6500, or approved equal) for all other types of signs.

Reflective Strips. 2-inch wide reflective sheeting strips shall be used on all sign posts located in raised medians for emphasis and to increase visibility; these reflective strips may be used on sign posts at other locations as determined by the City of Hilliard.



DATE: December 20, 2023

SCALE: N.T.S.

**TRAFFIC CONTROL
NOTES AND DETAILS**
**REGULATORY, WARNING
& GUIDE SIGNS**
GENERAL SPECIFICATIONS

**CITY OF
HILLIARD, OHIO**

STANDARD
CONSTRUCTION DRAWING

1/2

TC-2

Regulatory, Warning, and Guide Signs - Support and Anchor Specifications

Plan Designation: Item 630 Ground Mounted Sign Support, As Per Plan

Plan Unit: Per Linear Foot

Plan Payment: Payment for each ground mounted sign support shall include the appropriate length post to obtain an 8-inch minimum lap length into the anchor and the proper vertical clearance as indicated below. Payment for the sign supports shall include the anchors, pyramid rain caps, rivets, bolts, nuts, and all incidental hardware needed for a complete installation.

Sign Supports. All sign supports shall be 2-inch by 14 gauge square galvanized posts with die cut knockouts (Telespar quik-punch signposts or approved equal) and a single breakaway anchor. Pyramid rain caps shall be used.

Anchors. Anchors shall be 2 1/4-inch square, 42 inches long, and embedded such that 2 inches of the anchor remains above ground level. The overlap of the post within the anchor sleeve shall be 8 inches minimum. For all signs installed in concrete or paver islands, a six-inch PVC pipe box out shall be provided for the post anchor. The PVC box out shall be installed prior to pouring concrete or placing pavers. After the sign post anchor is installed, granular material shall be installed between the post anchor and the PVC box out.

Vertical Clearance. Signs shall be erected with a 7-foot vertical clearance between the edge of the pavement or top of curb and the bottom of the primary sign, unless otherwise stated in the plans. For signs with more than one sign on a post, the vertical clearance for any secondary sign or placard may be between 5 feet and 7 feet. No signs shall be erected with less than a 5-foot vertical clearance.

Horizontal Clearance. Horizontal clearance for both curb and open ditch street sections shall be per OMUTCD standards.

Old Hilliard District. In the Old Hilliard District, the above sign supports and anchor specifications apply except all sign supports and hardware shall be black.

		TRAFFIC CONTROL NOTES AND DETAILS		CITY OF HILLIARD, OHIO	
DATE: December 20, 2023		REGULATORY, WARNING & GUIDE SIGNS		STANDARD CONSTRUCTION DRAWING	
SCALE: N.T.S.		SUPPORT & ANCHOR SPECS		2/2	TC-2

ITEM 631 SCHOOL SPEED LIMIT SIGN ASSEMBLY, AS PER PLAN

EACH SCHOOL SPEED LIMIT SIGN ASSEMBLY SHALL CONSIST OF TWO (2) 12" LED FLASHING YELLOW BEACONS (GELCORE #DR6YTFB23B OR APPROVED EQUAL), A S5-H1 SIGN, A 50 TO 60 WATT SOLAR PANEL, A GROUND ROD, AND A CABINET CONTAINING AN ELTEC NTC-17E TIME SWITCH #861501 OR APPROVED EQUAL, AN ELTEC F2 FLASHER OR APPROVED EQUAL, A 100 AH SEALED GEL BATTERY OR APPROVED EQUAL, A MORNINGSTAR PROSTAR SOLAR CONTROLLER OR APPROVED EQUAL, AN AUTO-ON/AUTO-OFF SWITCH, A DIMMER CONTROL, AND ALL WIRING AND OTHER EQUIPMENT NECESSARY FOR INSTALLATION AND OPERATION.

THIS ASSEMBLY SHALL BE MOUNTED ON A 15' PEDESTAL WITH A TRANSFORMER BASE AND POLE CAP. THE PEDESTAL, TRANSFORMER BASE, CAP, CABINET, BEACON HOUSINGS, SOLAR PANEL HOUSING, AND ALL MOUNTING HARDWARE SHALL BE DARK BRONZE (FEDERAL COLOR NO. 595-37056). THE PEDESTALS SHALL BE GALVANIZED AND POWDER COATED OR PAINTED USING A FOUR-PART EPOXY PAINT SYSTEM (AMERON'S AMER-LOC PROCESS OR APPROVED EQUAL).

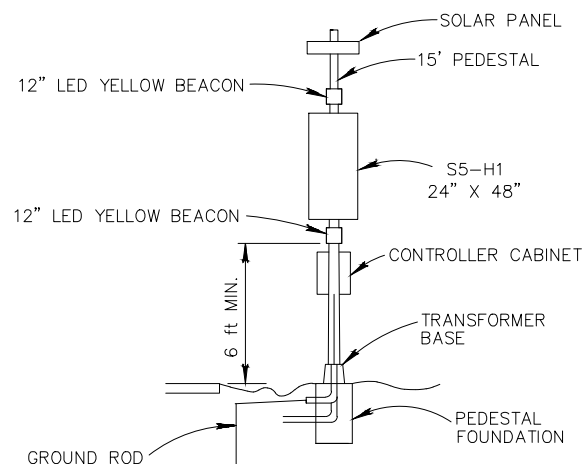
THE S5-H1 SIGN SHALL BE 24" X 48". THE SIGN SHALL READ "SCHOOL SPEED LIMIT 20 DURING RESTRICTED HOURS." THE BACKGROUND FOR THE WORD "SCHOOL" SHALL BE FLOURESCENT YELLOW-GREEN IN COLOR. THE REMAINING ASPECTS OF THE SIGN SHALL BE PER ODOT STANDARDS.

THE SOLAR PANEL SHALL FACE DUE SOUTH AT APPROXIMATELY A 45° ANGLE TO THE SKY. THE SOLAR PANEL SHALL HAVE A CLEAR VIEW OF THE SKY, FREE AND CLEAR OF ANY OBSTRUCTIONS, FOR OPTIMUM PERFORMANCE.

THE FOLLOWING ASSEMBLIES SHALL FLASH _____ A.M. AND _____ P.M. SCHOOL DAYS.

ALL SCHOOL DAY EXCEPTIONS AND LATE START DAYS FOR THE CURRENT SCHOOL YEAR SHALL BE OBTAINED FROM THE ENGINEER AND PROGRAMMED INTO THE TIMER BY THE CONTRACTOR.

PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE FOR EACH "SCHOOL SPEED LIMIT SIGN ASSEMBLY, AS PER PLAN," COMPLETE AND IN PLACE, INCLUDING ALL CONNECTIONS, TESTED AND ACCEPTED.



Litty Achaur

DATE: July 29, 2015

SCALE: N.T.S.

**TRAFFIC CONTROL
NOTES AND DETAILS**

**SCHOOL ZONE FLASHER
ASSEMBLY**

**CITY OF
HILLIARD, OHIO**

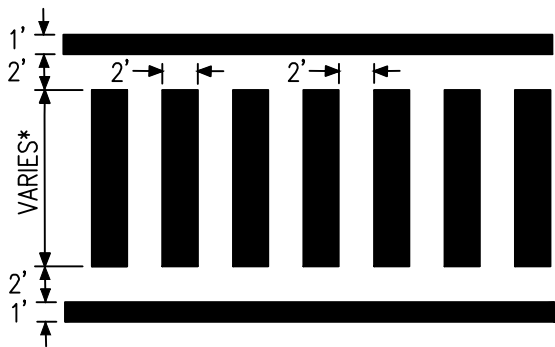
**STANDARD
CONSTRUCTION DRAWING**

1/1

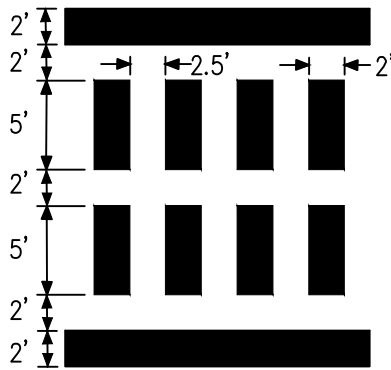
TC-4

S:\Public Service - Engineering\Hilliard Standards\Drawings\ACAD\Crosswalk Details.dwg, 6/14/2016 11:05:34 AM

HIGH-VISIBILITY
CROSSWALK DETAIL



HIGH-VISIBILITY
CROSSWALK DETAIL AT MAJOR
TRAIL CROSSINGS



*LENGTH OF LADDER STRIPE IS
DEPENDENT ON WIDTH OF CROSSING
AND AMOUNT OF PED/BIKE TRAFFIC.
6' MIN. FOR SIDEWALK CROSSINGS.

Letty Achauf

DATE: June 14, 2016

SCALE: N.T.S.

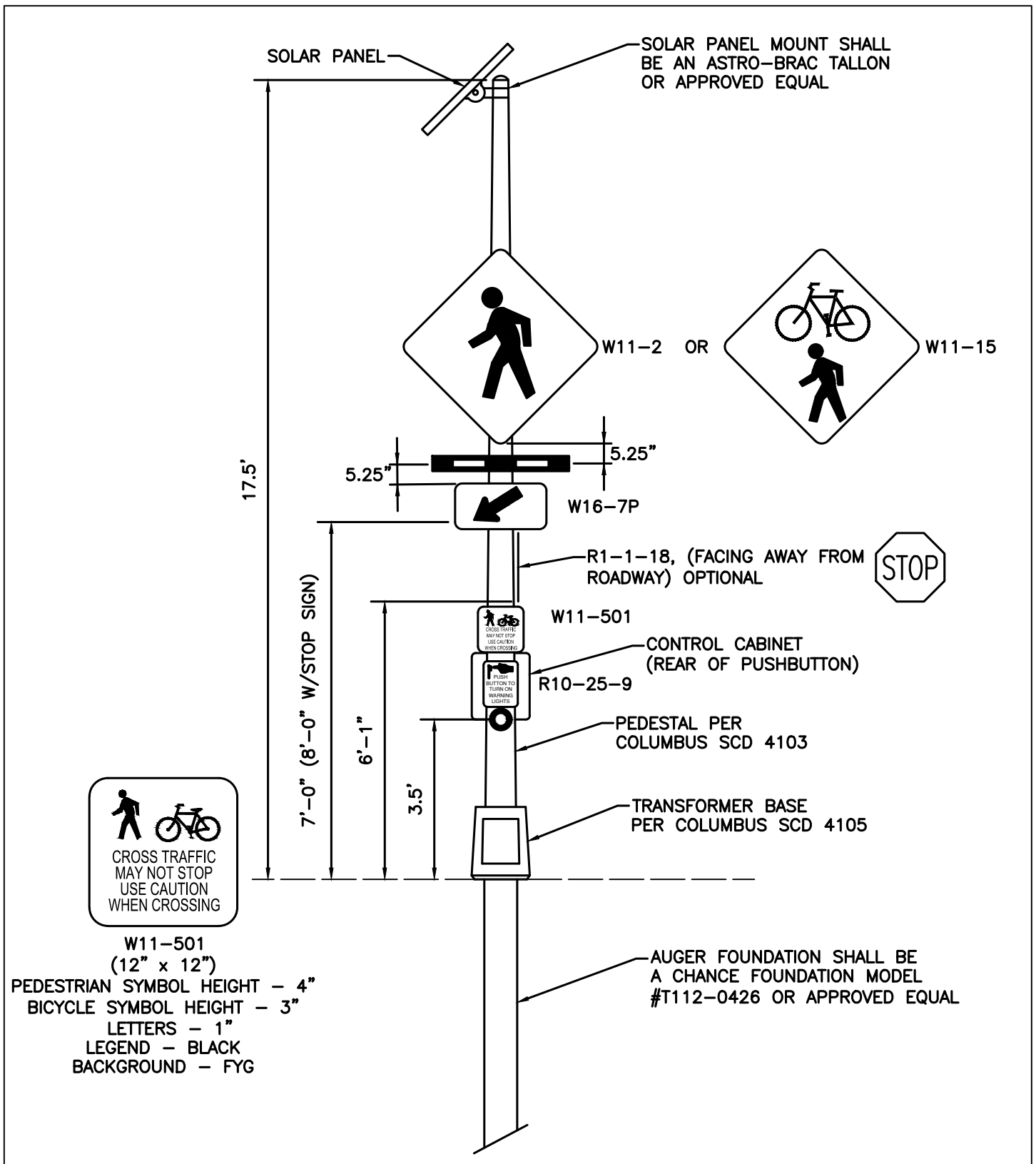
HIGH VISIBILITY
CROSSWALK
DETAILS


CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

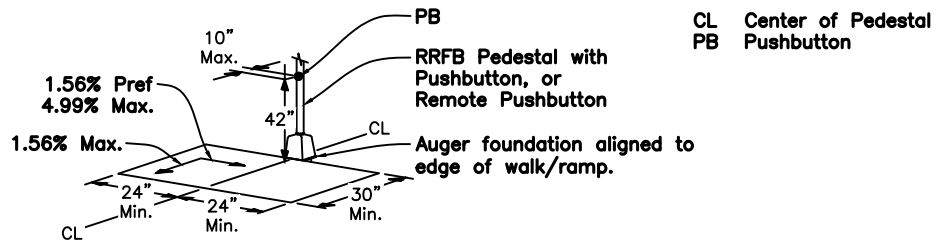
1/1

TC-5

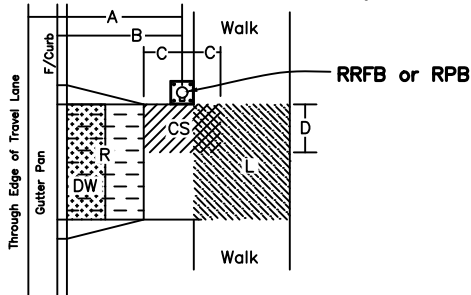


	<p>RECTANGULAR RAPID FLASHING BEACON (RRFB)</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>DATE: DECEMBER 20, 2023</p>		<p>STANDARD CONSTRUCTION DRAWING</p>	
<p>SCALE: NTS</p>		<p>1/6</p>	<p>TC-6</p>

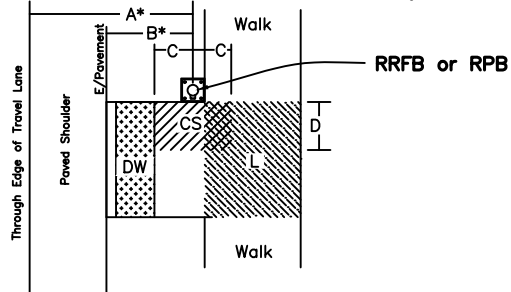
Pushbutton Clear Space Detail



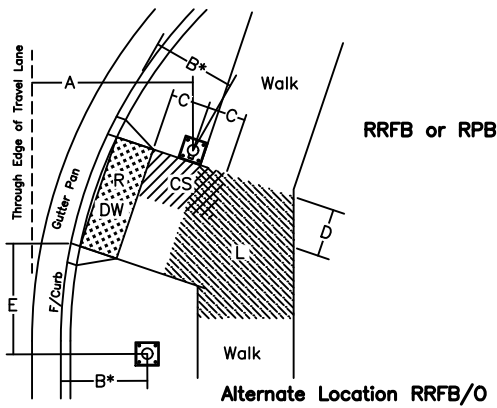
1: Curbed Roadways



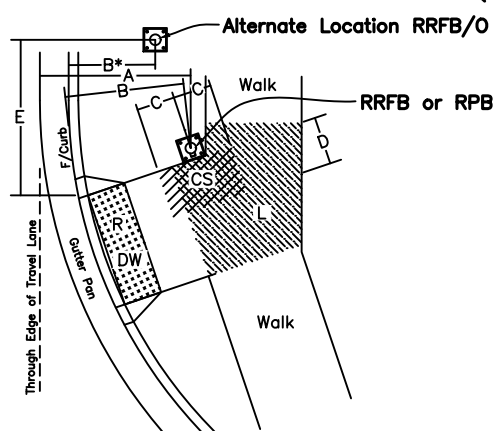
2: Uncurbed Roadways



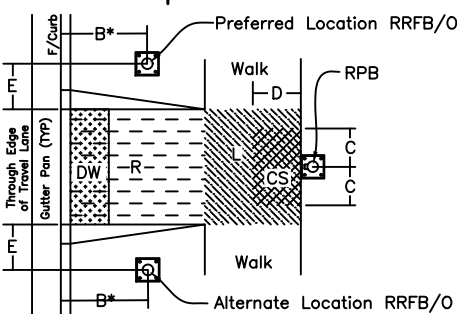
3: Curbed within Radius (1/2)



4: Curbed within Radius (2/2)



5: Ramp Extends to Walk



NOTES:

- Clear Space may overlap landing.
- Where present, width of paved shoulder may vary.
- RRFB beacons and signs not shown for clarity.
- Parallel (not shown) ramps may be required but are not shown.
- Pushbutton locations shall comply with PROWAG X02.5. Pushbutton must be 30" to 10' from the back of curb. Where one ramp is used, pushbuttons must be placed within 24" of the top corner of the ramp. Where two ramps are used with a transition landing, pushbuttons are to be adjacent to the landing.

A	8' Pref, 6' MIN
A*	8.5' Pref, 6.5' MIN
B	4' MIN (6.5' shown)
B*	4' MIN (4.5' shown)
C	2' MIN
C*	2.5' MIN
D	10' Max
E	Clear Space
CS	ADA Landing
L	Ramp
R	Detectable Warning Surface
DW	RRFB Pedestal with Pushbutton
RRFB	RRFB Pedestal without Pushbutton
RRFB/O	Remote Pushbutton Pedestal per SCD 4100 for use with RRFB/O
RPB	

RECTANGULAR RAPID
FLASHING BEACON (RRFB)

PLACEMENT DETAILS

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

DATE: DECEMBER 20, 2023

SCALE: NTS

2/6

TC-6

ITEM 630 SIGNING MISC.: RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE LED AND PEDESTRIAN ACTIVATED. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) EDITION AND REVISION AND FHWA INTERIM APPROVAL FOR RRFBs (IA-21).

GENERAL REQUIREMENTS

EACH RRFB SHALL CONSIST OF TWO RAPIDLY AND ALTERNATELY FLASHING RECTANGULAR YELLOW INDICATIONS HAVING LED ARRAY BASED PULSING LIGHT SOURCES.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO A PEDESTAL, TRANSFORMER BASE AND FOUNDATION, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

ALL FASTENERS USED SHALL BE ANTI-VANDAL.

TIMING OF RRFBs SHALL BE CALCULATED BY THE ENGINEER AND PROGRAMMED BY THE CONTRACTOR AS FOLLOWS:

$T = t + (D/s)$. WHERE,
T = PROGRAMMED RRFB TIME (ROUNDED TO THE NEAREST SECOND)
t = INITIAL REACTION TIME (IN SEC), USUALLY 6-10 SEC, DEPENDING ON APPROACH SPEED
D = DISTANCE TO CROSS (IN FEET), CURB TO CURB, INCLUDING ANY MEDIAN
s = WALKING SPEED (IN FPS), USUALLY 3 FPS

FUNCTIONAL REQUIREMENTS

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).

WHEN ACTIVATED, THE RRFB UNIT INDICATIONS SHALL FLASH IN A PATTERN COMPLIANT WITH THE CURRENT OMUTCD REQUIREMENTS.

ALL RRFB LIGHT INDICATIONS SHALL BE SYNCHRONIZED (ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE).

EACH OF THE RRFB'S INDICATIONS SHALL FLASH AT A RATE COMPLIANT WITH THE CURRENT OMUTCD REQUIREMENTS.

THE UNIT SHALL BE LOW CURRENT/HIGH OUTPUT INCLUDING AUTOMATIC DIMMING CAPABILITIES FOR DAY AND NIGHT VISIBILITY.

MATERIALS

FURNISH A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE RRFB ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

1. RRFB INDICATIONS, HOUSING AND CONTROLS

- A. EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE X 2" HIGH. RRFB HOUSING SHALL BE BLACK.
- B. THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTALLY, WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE SIDE FACING TRAFFIC.
- C. EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL AND STAINLESS STEEL.
- D. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS 1 SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY, 2005.
- E. A SMALL LED CONFIRMATION LIGHT DIRECTED AT AND VISIBLE TO PEDESTRIANS IN THE CROSSWALK SHALL BE INSTALLED INTEGRAL TO THE RRFB OR PUSHBUTTON TO GIVE CONFIRMATION THAT THE RRFB IS IN OPERATION.
- F. ALL RRFB CONTROLS SHALL BE LOCATED IN THE CABINET, MOUNTED TO THE POLE, AS SHOWN ON SHEET 1.
- G. ACCEPTABLE RRFB INDICATIONS SHALL BE THE RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM MANUFACTURED BY ELTEC CORP., OR APPROVED EQUAL.

	RECTANGULAR RAPID FLASHING BEACON (RRFB) GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: DECEMBER 20, 2023		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		3/6	TC-6

2. POLE AND BASE

- A. MOUNT ON A POLE CONFORMING TO COLUMBUS STANDARD CONSTRUCTION DRAWING (SCD) 4103 ATOP A TRANSFORMER BASE CONFORMING TO COLUMBUS SCD 4105. UNLESS SPECIFIED OTHERWISE IN THE PLANS, POLE AND BASE MANUFACTURER SHALL BE LISTED ON COLUMBUS' QUALIFIED PRODUCTS LIST. FOUNDATION TYPE SHALL BE AS INDICATED IN THE PLANS. AUGER FOUNDATIONS SHALL BE CHANCE FOUNDATION MODEL #T112-0426, OR APPROVED EQUAL. POURED CONCRETE FOUNDATIONS SHALL CONFORM TO COLUMBUS SCD 4163.
- B. IF SPECIFIED IN PLANS, ALTERNATE PEDESTALS, TRANSFORMER BASES, AND FOUNDATIONS SHALL BE PROVIDED IN ACCORDANCE WITH ODOT STANDARD CONSTRUCTION DRAWINGS TC-87.10, HL-10.13 AND HL-20.11. UNLESS OTHERWISE SPECIFIED IN THE PLANS, POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.
- C. THE POLE SHALL BE PROVIDED AND FIELD ADJUSTED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS.
- D. POLE SHALL BE POWDER-COATED DARK BRONZE EXCEPT IN OLD HILLIARD WHERE IT SHALL BE POWDER-COATED BLACK.

3. SIGNS

- A. SINGLE-SIDED RRFB UNITS SHALL INCLUDE ONE W11-2 (OR W11-15) SIGN WITH A W16-7P OR OTHER DESIGNATED SUPPLEMENTAL SIGN. DOUBLE-SIDED RRFB UNITS SHALL HAVE TWO SET OF THESE SIGNS MOUNTED BACK-TO-BACK. UNLESS MOUNTED IN THE MEDIAN, REAR-FACING SIGNS SHALL BE ORIENTED WITH A 10° SKEW TO FACE TRAFFIC.
- B. ASSURE SIGNS MEET THE REQUIREMENTS OF C&MS 630. W11-2 (OR W11-15) SIGNS SHALL BE SECURED TO THE POLE WITH THREE (3) BOLTS AND SHALL BE SIZED AS FOLLOWS:
 - i. SINGLE-LANE APPROACH, 25-40 MPH - 30" (2 BOLTS REQUIRED).
 - ii. SINGLE-LANE APPROACH, 45+ MPH - 36" (3 BOLTS REQUIRED).
 - iii. MULTI-LANE APPROACH - 36" (3 BOLTS REQUIRED).
 - iv. THE W16-7P SIGN SHALL BE 24" IN WIDTH.
- C. ALL WARNING SIGNS SHALL HAVE A FLUORESCENT YELLOW-GREEN BACKGROUND.
- D. ALL SIGNS AND RRFB INSTALLATIONS SHALL BE DOUBLE-SIDED UNLESS OTHERWISE CALLED OUT IN THE PLAN.
- E. ALL SIGNS SHALL BE SECURED TO THE POLES USING STAINLESS STEEL BANDING AND BRACKETS. FIELD DRILLING OF POLES IS NOT PERMITTED.

4. CONTROL CIRCUIT

- A. WHEN ACTIVATED, THE TWO YELLOW INDICATIONS IN EACH RRFB SHALL FLASH IN A PATTERN COMPLIANT WITH CURRENT OMUTCD REQUIREMENTS.
- B. THE CONTROL CIRCUIT SHALL HAVE THE CAPABILITY OF INDEPENDENTLY FLASHING UP TO TWO INDEPENDENT OUTPUTS. THE LED LIGHT OUTPUTS AND FLASH PATTERN SHALL BE COMPLETELY PROGRAMMABLE.
- C. THE CONTROL CIRCUIT SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS.
- D. THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURE AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.

5. POWER

- A. SOLAR-POWERED UNITS
 - i. BATTERY UNIT SHALL BE A 12VDC, 40 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO YEAR FULL REPLACEMENT WARRANTY.
 - ii. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 55 WATTS PEAK TOTAL OUTPUT, OR SHOW THAT AN ALTERNATE PEAK TOTAL OUTPUT WORKS AND MEETS THE REMAINDER OF DESIGN REQUIREMENTS.
 - iii. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AT A 45 DEGREE ANGLE (SOUTH FACING) TO PROVIDE MAXIMUM OUTPUT, AND SHALL BE MOUNTED TO THE SIDE OF THE POLE. TOP MOUNTING IS NOT PERMITTED. ALL BRACKETS SHALL BE STAINLESS STEEL.
 - iv. THE UNIT SHALL BE CAPABLE OF RUNNING UP TO 30 DAYS WITHOUT SUNLIGHT.
 - v. EACH REMOTE RRFB UNIT SHALL BE WIRELESSLY ACTIVATED.
 - vi. RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
 - vii. RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
 - viii. THE RADIO SHALL BE SYNCHRONIZED SO ALL OF THE REMOTE RRFB LIGHT INDICATIONS WILL TURN ON WITHIN 120 MSEC OF EACH OTHER AND REMAIN SYNCHRONIZED THROUGH-OUT THE DURATION OF THE FLASHING CYCLE.
 - ix. RADIO SYSTEMS SHALL OPERATE FROM: 3VDC TO 15VDC.

	RECTANGULAR RAPID FLASHING BEACON (RRFB) GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: DECEMBER 20, 2023		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		4/6	TC-6

6. PUSHBUTTON

- A. PEDESTRIAN PUSHBUTTONS SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). ONE ALUMINUM SIGN SHALL BE SUPPLIED WITH EACH PUSHBUTTON. PUSHBUTTONS ARE TO BE MOUNTED 42" ABOVE GROUND LEVEL.
- B. PEDESTRIAN PUSHBUTTONS SHALL BE PRESSURE ACTIVATED WITH A NON-MOVING BUTTON AND PROVIDE BOTH A TWO-TONE AUDIBLE BEEP AND VISIBLE, MOMENTARY LED TO NOTIFY THE USER THAT THE SWITCH WAS ACTIVATED. AN ACCEPTABLE PUSHBUTTON SHALL BE THE BULLDOG III, MANUFACTURED BY POLARA ENGINEERING, INC., OR APPROVED EQUAL. THE OUTER HOUSING COLOR SHALL BE BLACK AND THE BUTTON SHALL BE SILVER. A CLEAR BEAD OF SILICON SEALANT SHALL BE APPLIED TO THE TOP OF THE PUSHBUTTON HOUSING (1 INCH EACH SIDE OF TOP CENTER) AGAINST THE POLE TO PREVENT WATER FROM ENTERING THE BACK OF THE PUSHBUTTON HOUSING.
- C. WHEN A REMOTE PUSHBUTTON IS CALLED FOR IN THE PLANS, THE PUSHBUTTON, R10-25-9 AND W11-501-12 SIGNS SHALL BE INSTALLED ON A 5-FOOT PEDESTAL (PER COLUMBUS SCD 4100, MOUNTED ON A FOUNDATION PER COLUMBUS SCD 4163, POWDER-COATED AS PER MATERIALS SECTION 2 OF THIS SPECIFICATION) IN LIEU OF PLACEMENT ON THE RRFB SUPPORT. A 2-INCH SCHEDULE 80 CONDUIT SHALL BE INSTALLED BETWEEN THE RRFB SUPPORT AND 5-FOOT PEDESTAL, BURIED 24" DEEP. 2-CONDUCTOR #14 AWG WIRE SHALL RUN FROM THE PUSHBUTTON, THROUGH THE PEDESTAL, CONDUIT, AND RRFB SUPPORT AND CONNECTED TO THE CONTROLLER PER THE MANUFACTURER'S RECOMMENDATIONS.

7. RRFB PEDESTAL AND PUSHBUTTON PLACEMENT

- A. MOTORISTS SHALL HAVE AN UNOBSTRUCTED VIEW OF THE RRFB BEACON AND SIGNS, STARTING FROM STOPPING SIGHT DISTANCE (SSD) TO THE LEADING EDGE OF THE CROSSWALK.
- B. IF A R5-1 "YIELD [ARROW] TO PEDESTRIANS" SIGN IS USED, ADJUST ITS HORIZONTAL OFFSET TO NOT BLOCK VIEW OF THE RRFB BEACON AND SIGNS. THE CITY ENGINEER IS TO REVIEW AND APPROVE FIELD-MARKED LOCATIONS OF SIGNS PRIOR TO INSTALLATION.
- C. WHERE OBSTRUCTIONS CANNOT BE REMOVED OR RELOCATED, A REMOTE PUSHBUTTON MAY BE USED IN ITS PLACE. THE RRFB PEDESTAL MAY BE PLACED CLOSER TO THE ROADWAY, UP TO 10 FEET IN ADVANCE OF THE LEADING CROSSWALK LINE OR 5 FEET BEHIND THE TRAILING CROSSWALK LINE.
- D. AT NO POINT SHALL THE EDGE OF A SIGN BE LOCATED LESS THAN TWO FEET FROM THE FACE OF CURB OR EDGE OF PAVED SHOULDER.

CONSTRUCTION

THE RRFB SHALL BE ASSEMBLED AND CONSTRUCTED BY THE CONTRACTOR AS SHOWN AND SPECIFIED ON THE PLANS.

WARRANTY

WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

MEASUREMENT

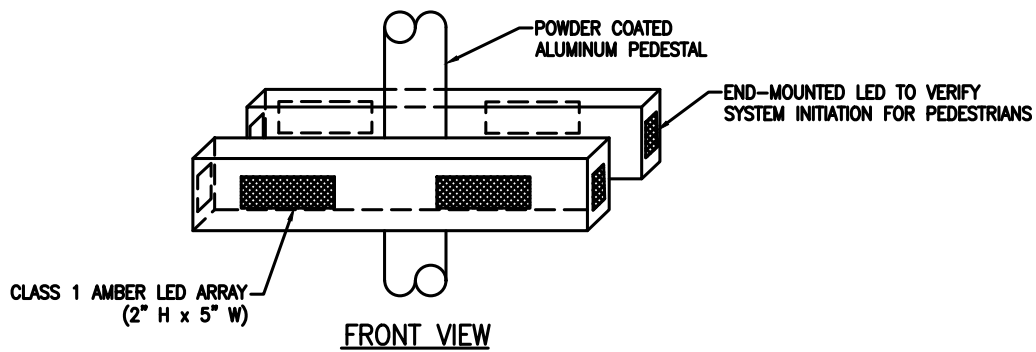
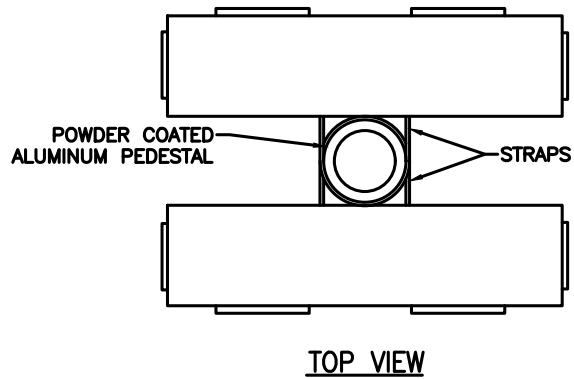
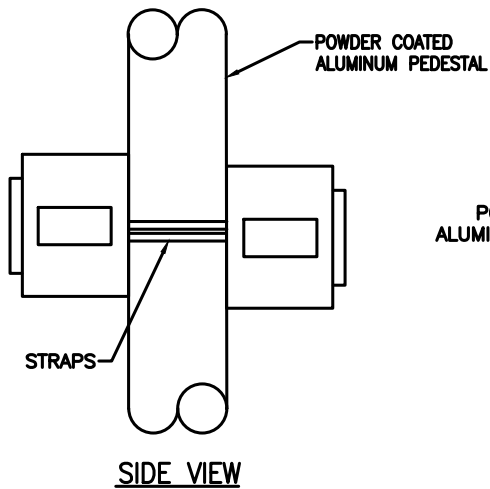
THE CITY WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT. A MINIMUM OF TWO (2) RRFB SIGN ASSEMBLIES ARE REQUIRED FOR EACH CROSSWALK INSTALLATION.

PAYMENT

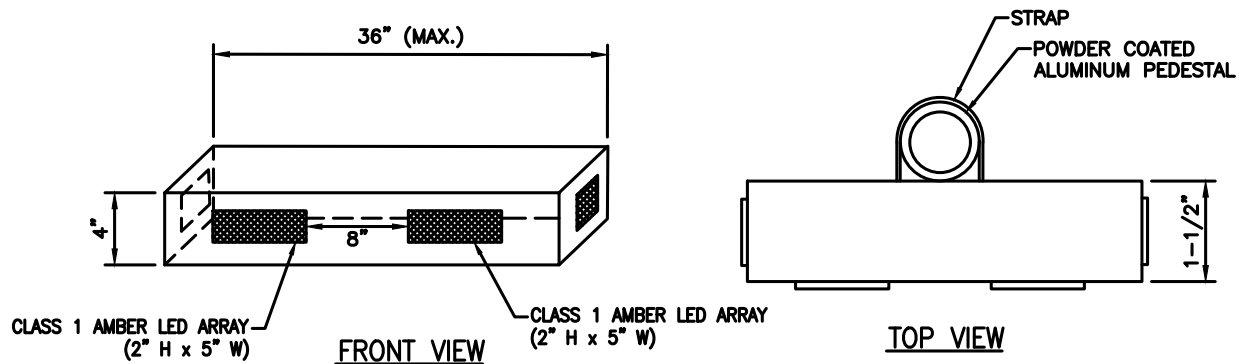
PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY, 2-SIDED (UNLESS OTHERWISE CALLED OUT IN THE PLAN); ITEM 630 SIGNING MISC.: REMOTE WIRED PUSHBUTTON ON PEDESTAL.

UNIT PRICE SHALL INCLUDE ALL LABOR, MATERIALS, AND INCIDENTALS TO FURNISH AND INSTALL THE SPECIFIED UNIT AT THE SPECIFIED LOCATION AND PER THE STANDARD DRAWING.

	RECTANGULAR RAPID FLASHING BEACON (RRFB) GENERAL NOTES	CITY OF HILLIARD, OHIO	
DATE: DECEMBER 20, 2023		STANDARD CONSTRUCTION DRAWING	
SCALE: NTS		5/6	TC-6



TWO-WAY RRFB (8 LED'S)
TWO ONE-WAY MOUNTED BACK-TO-BACK



RRFB DETAILS (4 LED'S)

Notes:

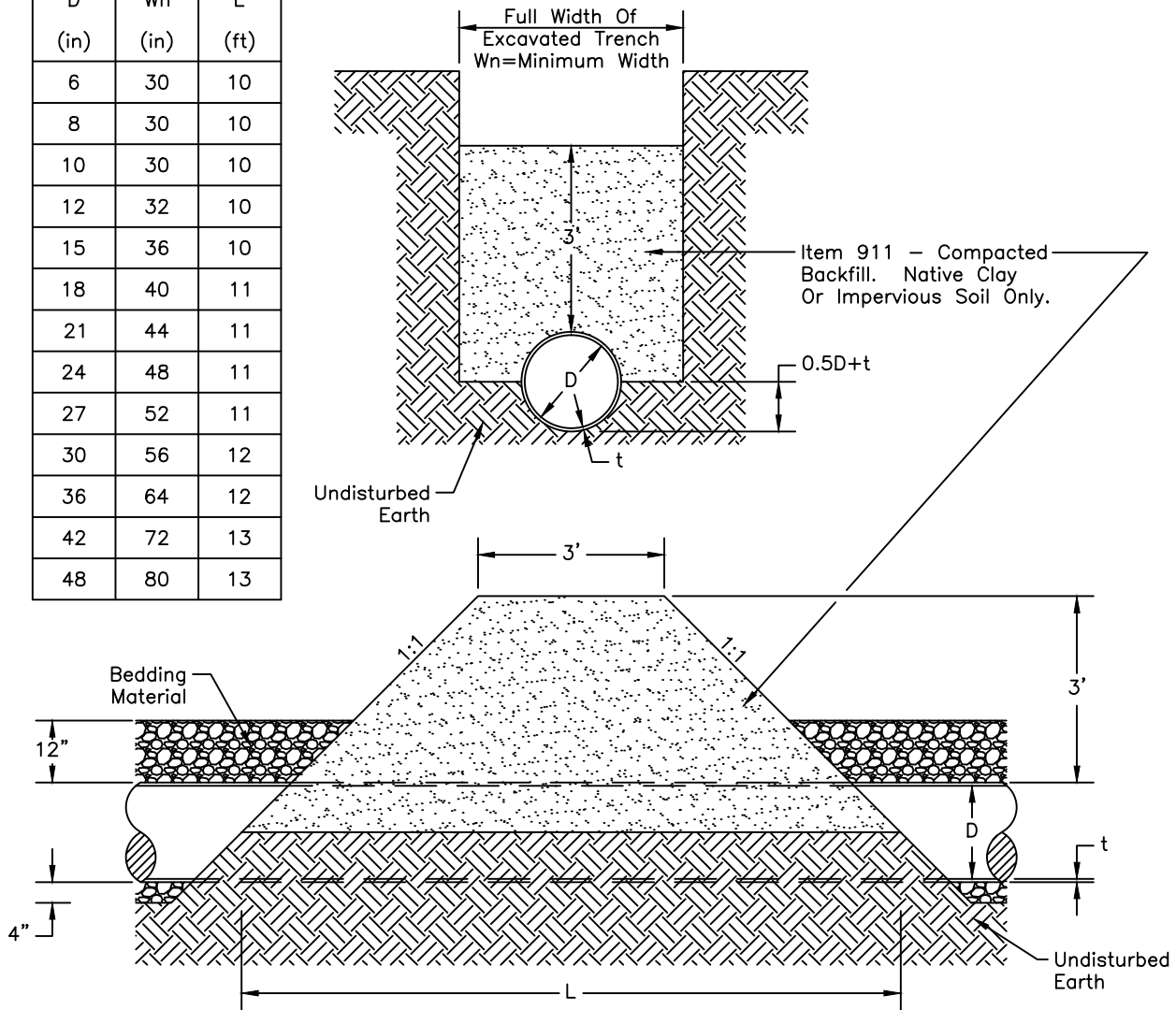
1. All dimensions are approximate.
2. Use manufacturer's recommended mounting brackets, fittings, and connectors.
3. Use AISI 300 series stainless steel hardware.

	<p>RECTANGULAR RAPID FLASHING BEACON (RRFB)</p> <p>DETAILS</p>	<p>CITY OF HILLIARD, OHIO</p>	
<p>DATE: DECEMBER 20, 2023</p>		<p>STANDARD CONSTRUCTION DRAWING</p>	
<p>SCALE: NTS</p>		<p>6/6</p>	<p>TC-6</p>

Notes:

1. The contractor shall place trench dams along the trench at the locations indicated on the plans.
2. For 6" sanitary sewer services, one (1) trench dam is to be placed between the main sewer and the building at a maximum distance of ten (10) feet from the main sewer.
3. Cost for trench dams to be included in the price bid for sewer.

D (in)	Wn (in)	L (ft)
6	30	10
8	30	10
10	30	10
12	32	10
15	36	10
18	40	11
21	44	11
24	48	11
27	52	11
30	56	12
36	64	12
42	72	13
48	80	13



APPROVED

CITY ENGINEER

DATE

SCALE: NTS

TRENCH DAM DETAIL

CITY OF
HILLIARD, OHIO

STANDARD
CONSTRUCTION DRAWING

1/1

TD-1