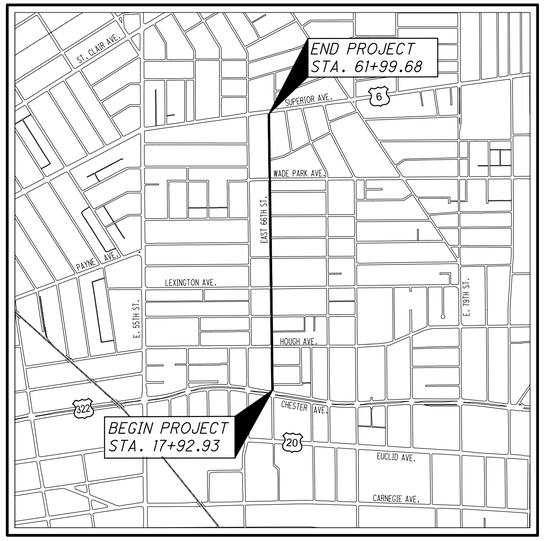


LOCATION MAP

LATITUDE: 41° 30′ 40″ LONGITUDE: 81° 38′ 40″

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-EAST 66TH STREET TLCI

CITY OF CLEVELAND
CUYAHOGA COUNTY

INDEX OF SHEETS:

TITLE SHEET	P.01
SCHEMATIC PLAN	P.02
TYPICAL SECTIONS	P.03-P.05
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MAINTENANCE OF TRAFFIC	P.13-P.19
GENERAL SUMMARY	P.20-P.24
SUBSUMMARIES	P.25-P.30
PLAN AND PROFILE	P.31-P.41
CROSS SECTIONS	P.42-P.61
INTERSECTION DETAILS	P.62-P.75
DRIVEWAY DETAILS AND PROFILES	P.76-P.87
STORM SEWER PROFILES	P.88-P.99
WATER WORK	P.100-P.117
CPP RELOCATION	P.118-P.123
MISCELLANEOUS DETAILS	P.124-P.125
SIGNING AND PAVEMENT MARKING	P.126-P.143
TRAFFIC SIGNAL	P.144-P.159
LIGHTING	P.160-P.177
STREETSCAPING	P.178-P.195

FEDERAL PROJECT NUMBER

E260065

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

ROADWAY REHABILITATION OF APPROXIMATELY 1 MILE OF EAST 66TH STREET FROM CHESTER AVENUE TO SUPERIOR AVENUE ON EXISTING ALIGNMENT AND PROFILE. WORK IS TO INCLUDE PAVEMENT WIDENING, 3" MILL AND FILL, MULTIUSE PATH AND WIDENED SIDEWALK, STREETSCAPE, LIGHTING, ADA CROSSINGS AND SIGNAL UPGRADES.

EARTH DISTURBED AREA

PROJECT EARTH DISTURBED AREA:	N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A ACRES

DRAINS TO COMBINED SEWER - NO NOI REQUIRED

CWD PROJECT NO. 6054

DESIGN DESIGNATION

CURRENT ADT (2025)	776
DESIGN YEAR ADT (2041)	776
DESIGN HOURLY VOLUME (2041)	32
DIRECTIONAL DISTRIBUTION	50%
TRUCKS (24 HOUR B&C)	8%
DESIGN SPEED	25 MPH
LEGAL SPEED	25 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
MAJOR COLLECTOR (LOCAL ROAD APPLICATION FILED JANUARY 2024)
NHS PROJECT ..... NO

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

OSBORN ENGINEERING
1111 Superior Avenue - Suite 2100 | Cleveland, OH 44114
(216) 861-2020 www.osborn-eng.com

ENGINEERS SEAL:
SHEETS P.160 TO P.177

STATE OF OHIO · MARK ROBERT BLOOM · PE-74015 · REGISTERED PROFESSIONAL ENGINEER
01/13/2026

ENGINEERS SEAL:
REMAINING SHEETS

STATE OF OHIO · DONALD R. PHIFER · E-61153 · REGISTERED PROFESSIONAL ENGINEER

STANDARD CONSTRUCTION DRAWINGS

BP-1.1	7/28/00	MT-097.10	7/18/25	TC-81.22	1/16/26				
BP-2.1	1/21/22	MT-097.12	1/16/26	TC-83.20	1/16/26				
BP-2.2	1/16/26	MT-101.60	1/17/25	TC-83.30	1/16/26				
BP-2.5	1/16/26	MT-105.10	1/17/20	TC-85.10	1/16/26				
BP-3.1	4/10/24	MT-110.10	7/19/13	TC-85.20	4/21/23				
BP-5.1	1/16/26			TC-87.10	1/16/26				
BP-7.1	1/16/26	TC-21.21	7/18/25						
		TC-41.20	10/18/13						
RM-3.1	7/20/18	TC-41.30	4/21/23						
CB-2-2B	7/19/24	TC-41.40	1/16/26						
DM-1.1	1/17/25	TC-41.50	10/18/13						
DM-4.3	1/15/16	TC-42.20	10/18/13						
DM-4.4	1/15/16	TC-52.10	10/18/13						
		TC-52.20	1/15/21						
		TC-71.10	1/16/26						
		TC-74.10	1/16/26						

SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
800	1/16/26	
809	1/16/26	
813	7/21/23	
832	7/18/25	

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

JOHN PICURI, P.E., P.S.
DISTRICT 12 DEPUTY DIRECTOR

PAMELA BORATYN
DIRECTOR, DEPARTMENT OF TRANSPORTATION

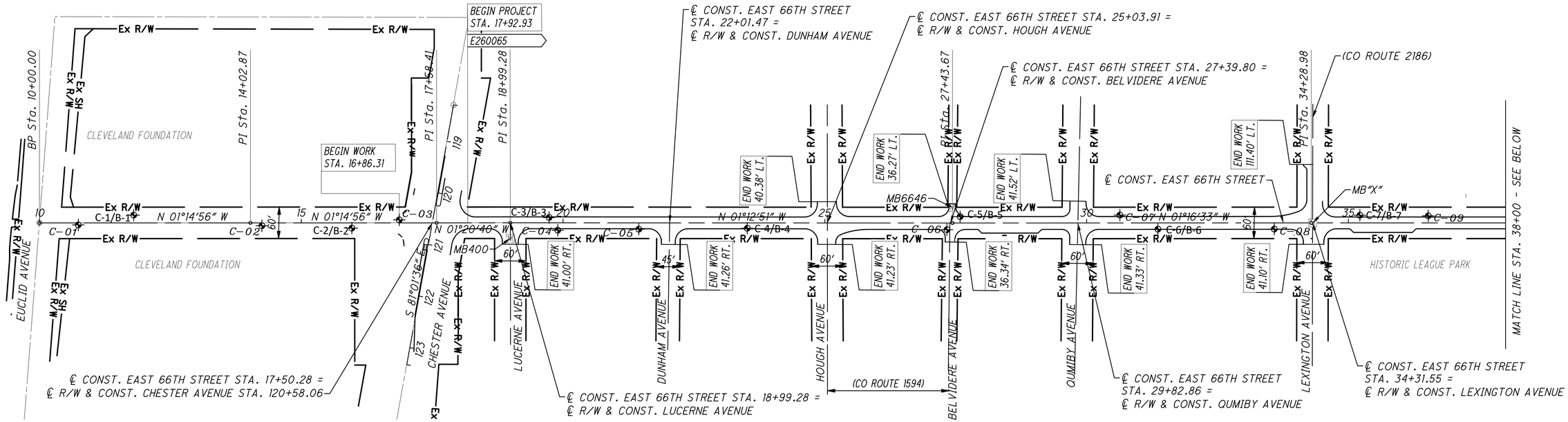
TITLE SHEET

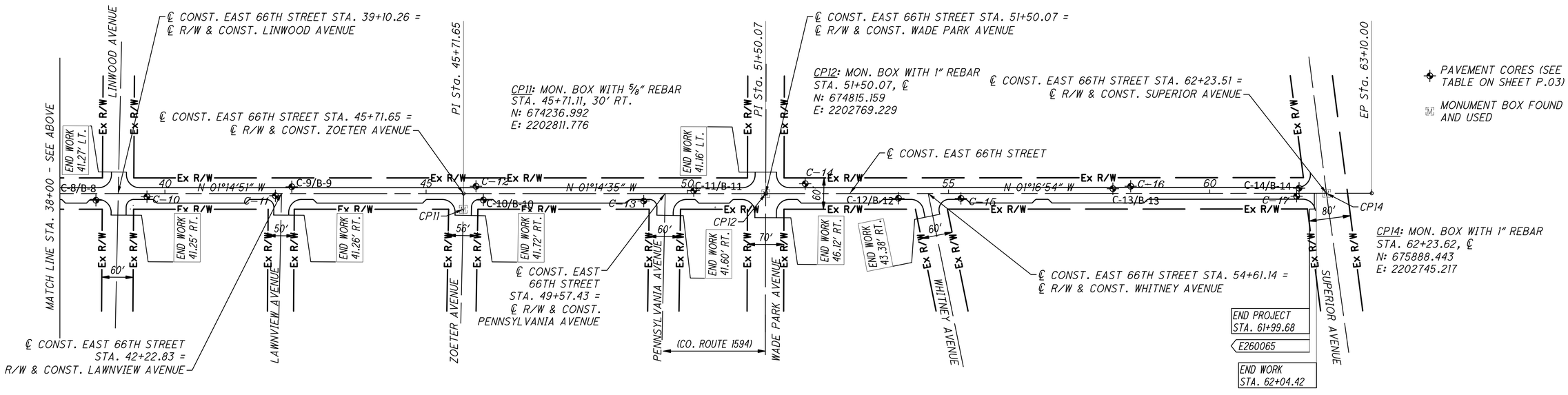
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER CEL 2/2/26
PROJECT ID 122389
SHEET P.01 TOTAL 195

CUY-EAST 66TH STREET TLCI

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PROJECT CONTROL POINTS

CP-1: 1" REBAR IN MONUMENT BOX AT INTERSECTION OF EUCLID AVE. AND E. 66TH ST.
N:670706.1620'
E:2202858.7780'
ELEV: 666.055'

CP-2: CAPPED PIN SET
N:670724.5040'
E:2202888.3690'
ELEV: 667.235'

CP-3: CAPPED PIN SET
N:670839.6790'
E:2202824.2550'
ELEV:667.471'

CP-4: CAPPED PIN SET
N:671069.4870'
E:2202880.8580'
ELEV: 666.513"

CP-5: CAPPED PIN SET
N:671165.4880'
E:2202817.2690'
ELEV: 665.873'

CP-6: CAPPED PIN SET ON SOUTHEAST CORNER OF CHESTER AVE. AND E. 66TH ST.
N:671346.4650'
E:2202877.8160'
ELEV: 665.101'

HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)687-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 12/13/25
PROJECT ID 122389
SHEET P.02 TOTAL 195

EXISTING LEGEND

(A) ASPHALT SURFACE (T=VARIES*))

(B) BRICK (T=VARIES*)

(C) CONCRETE BASE (T-VARIES*)

(D) SAND AND/OR GRAVEL BASE

(E) CONCRETE CURB

(F) 7"(±) CONCRETE

(G) TROLLEY TRACK TIE AND BALLAST (ENCASED IN CONCRETE)

(H) 10" NON-REINFORCED CONCRETE PAVEMENT

(I) CONCRETE OR STONE WALK

* = SEE PAVEMENT CORE TABLE BELOW

NOTES

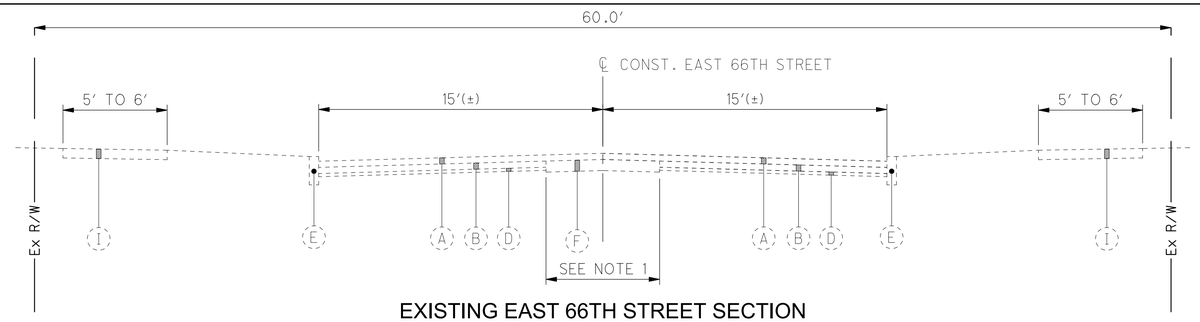
1. VARIOUS WIDTH PAVEMENT REPLACEMENT FOR COMBINATION SEWER TRENCH.

PAVEMENT CORE TABLE

CORE NO.	STATION, OFFSET	THICKNESSES			
		TOTAL CORE	TOTAL ASPHALT	BRICK/ GRANITE	CONCRETE
C-01/B-01	NOT IN PROJECT LIMITS				
C-02/B-02	NOT IN PROJECT LIMITS				
C-03/B-03	STA. 19+73, 10.0' LT.	7-½"	4"	3-½"	---
C-04/B-04	STA. 23+52, 10.2' RT.	8-¼"	4-¼"	4"	---
C-05/B-05	STA. 27+58, 12.2' LT.	9-½"	4-½"	5"	---
C-06/B-06	STA. 31+36, 11.9' RT.	11"	3"	---	8"
C-07/B-07	STA. 35+01, 11.9' LT.	14-½"	3"	---	11-½"
C-08/B-08	STA. 38+68, 12.9' RT.	9"	9"	---	---
C-09/B-09	STA. 42+43, 13.0' LT.	15"	4"	---	11"
C-10/B-10	STA. 46+11, 11.6' RT.	7-½"	2-½"	5"	---
C-11/B-11	STA. 50+03, 12.4' LT.	11-½"	1"	---	10-½"
C-12/B-12	STA. 54+04, 9.0' RT.	7-½"	3"	4-½"	---
C-13/B-13	STA. 58+15, 9.0' LT.	21-½"	6"	---	15-½"
C-14/B-14	STA. 61+71, 9.8' LT.	6-½"	1-½"	5"	---

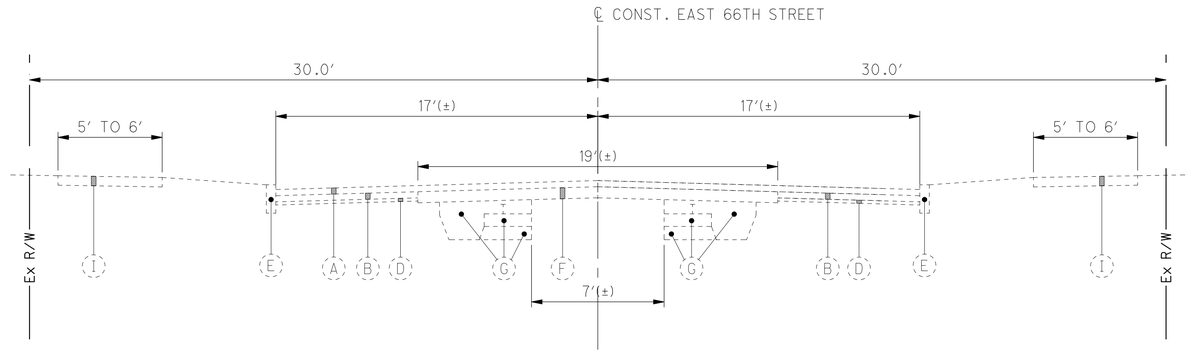
CORE NO.	STATION, OFFSET	THICKNESSES			
		TOTAL CORE	TOTAL ASPHALT	BRICK/ GRANITE	CONCRETE
C-1	NOT IN PROJECT LIMITS				
C-2	NOT IN PROJECT LIMITS				
C-3	STA. 16+87, 5.8' LT.	22"	3-¼"	---	5-¾"*
C-4	STA. 23+52, 10.2' RT.	9-¼"	5-¾"	3-½"	---
C-5	STA. 21+45, 12.2' RT.	7-½"	3-½"	4"	---
C-6	STA. 27+33, 12.6' RT.	8-¾"	2-¼"	---	6-½"
C-7	STA. 30+63, 15.1' LT.	8-¾"	4"	4-¾"	---
C-8	STA. 33+58, 12.0' RT.	8-¾"	4"	4-¾"	---
C-9	STA. 36+54, 13.5' LT.	9-½"	2-½"	---	7"
C-10	STA. 39+66, 6.0' RT.	14-½"	2"	---	12-½"
C-11	STA. 42+11, 4.2' RT.	8"	3"	5"	---
C-12	STA. 45+95, 13.9' LT.	16-¼"	5-¾"	---	10-½"
C-13	STA. 49+17, 14.2' RT.	9"	4-¼"	4-¾"	---
C-14	STA. 52+25, 14.1' LT.	15-¾"	4-¾"	---	11"
C-15	STA. 55+24, 9.4' RT.	9"	4-¼"	4-¾"	---
C-16	STA. 58+49, 13.6' LT.	14-¼"	4-½"	---	9-¾"
C-17	STA. 61+66, 2.0' RT.	9-½"	4-½"	5"	---

*=OLD CONCRETE 13" THICKNESS ENCOUNTERED BELOW CONCRETE SLAB.



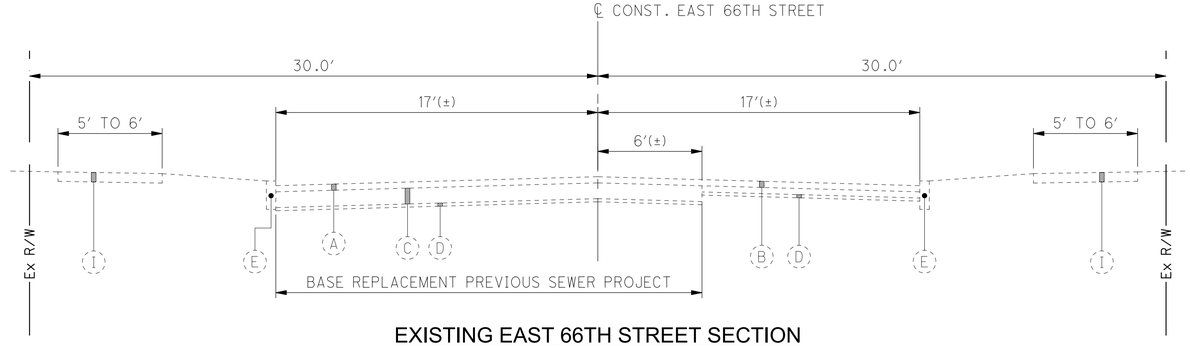
EXISTING EAST 66TH STREET SECTION

CHESTER AVENUE TO HOUGH AVENUE
STA. 17+92.93 TO STA. 25+03.91



EXISTING EAST 66TH STREET SECTION

HOUGH AVENUE TO LEXINGTON AVENUE
STA. 25+03.91 TO STA. 34+31.55



EXISTING EAST 66TH STREET SECTION

LEXINGTON AVENUE TO SUPERIOR AVENUE
STA.34+31.55 TO STA. 62+04.46

EXISTING SIDE STREET PAVEMENT

SIDE STREET	DIR.	PAVEMENT WIDTH	EXISTING PAVEMENT SECTION
LUCERNE AVENUE	E.	30'(±)	ASPHALT OVER BRICK
DUNHAM AVENUE	E.	26'(±)	ASPHALT OVER BRICK
HOUGH AVENUE	W.	36'(±)	ASPHALT OVER 9" CONCRETE
	E.	34'(±)	ASPHALT OVER 9" CONCRETE
BELVIDERE AVENUE	W.	12'(±)	
	E.	18'(±)	ASPHALT OVER BRICK
QUIMBY AVENUE	W. & E.	30'(±)	ASPHALT OVER 5" BRICK
LEXINGTON AVENUE	W.	36'(±)	ASPHALT OVER 4" BRICK OVER 7" CONC.
	E.	39'(±)	ASPHALT OVER BRICK
LINWOOD AVENUE	W. & E.	30'(±)	ASPHALT OVER BRICK
LAWNVIEW AVENUE	E.	28'(±)	ASPHALT OVER BRICK
ZOETER AVENUE	E.	30'(±)	ASPHALT OVER BRICK
PENNSYLVANIA AVENUE	E.	30'(±)	ASPHALT OVER BRICK
WADE PARK AVENUE	W. & E.	30'(±)	ASPHALT 6" CONCRETE
WHITNEY AVENUE	E.	28'(±)	ASPHALT OVER BRICK

CUY-EAST 66TH STREET TLCI

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EXISTING TYPICAL SECTIONS EAST 66TH STREET

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN

REVIEWER CEL 12/16/24

PROJECT ID 122389

SHEET P.03 TOTAL 195

PROPOSED LEGEND

(1) ITEM 254 - PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN (T=VARIABLE, 1" MIN., 3" MAX., SEE NOTE SHEET NO. P.11)

(2) ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG70-22M, AS PER PLAN

(3) ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)

(4) ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (VARIABLE DEPTH, 0" MIN., 3" MAX.)

(5) ITEM 407 - TACK COAT

(6) ITEM 305 - 9" (MIN.) CONCRETE BASE, CLASS QC 1P, AS PER PLAN

(7) ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN

(8) ITEM 204 - SUBGRADE COMPACTION

(9) ITEM 609 - CURB, TYPE 6, AS PER PLAN

(10) ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN

(11) ITEM 608 - 4" CONCRETE WALK, AS PER PLAN

(12) ITEM 659 - SEEDING AND MULCHING. CLASS 1

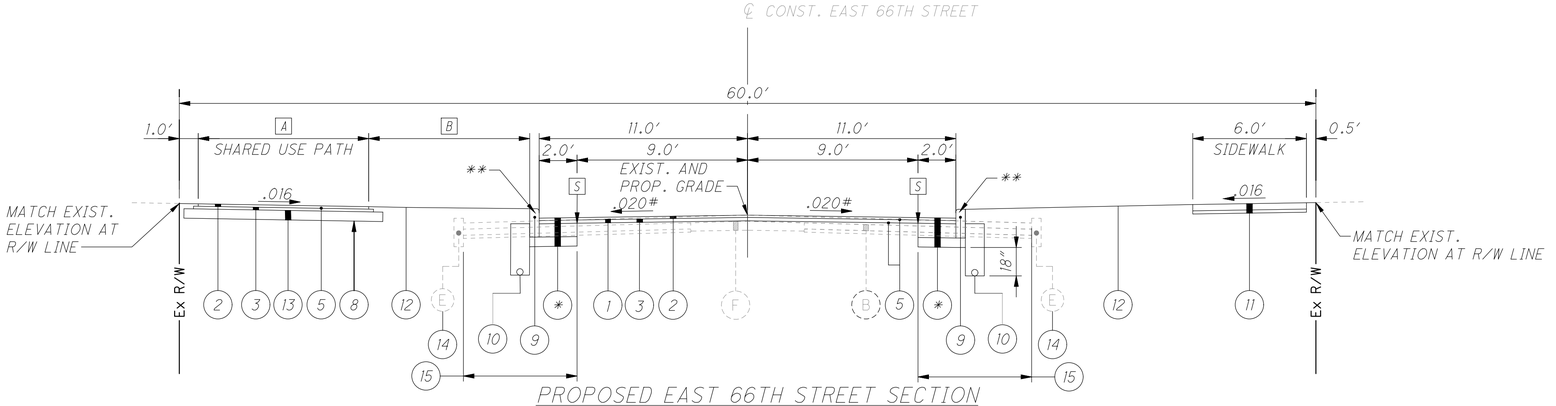
(13) ITEM 304 - 8" AGGREGATE BASE, AS PER PLAN

(14) ITEM 202 - CURB REMOVED

(15) ITEM 202 - PAVEMENT REMOVED

(16) ITEM 451 - REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE INTERSECTION

[S] SAW CUT



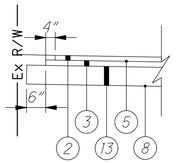
PROPOSED EAST 66TH STREET SECTION

CHESTER AVENUE TO HOUGH AVENUE
STA. 17+92.93 TO STA. 18+03.61
STA. 18+13.77 TO STA. 20+00.00
STA. 23+50.00 TO STA. 25+03.87

* SEE PARKING LANE DETAIL FOR FULL DEPTH REMOVAL AND REPLACEMENT

** 6" CURB REVEAL UNLESS OTHERWISE INDICATED ON CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER

STATION TO STATION	A	B
18+23.15 TO 19+95.00	9.0'	8.5'
19+95.00 TO 20+10.00	9.0' TO 6.0'	8.5' TO 11.5'
20+10.00 TO 21+04.69	6.0'	11.5'
21+04.69 TO 21+19.69	6.0' TO 9.0'	11.5' TO 8.5'
21+19.69 TO 24+63.91	9.0'	8.5'
55+25.00 TO 55+76.00	6.0'	11.5'
55+76.00 TO 55+91.00	6.0' TO 9.0'	11.5' TO 8.5'
55+91.00 TO 56+75.00	9.0'	8.5'



SHARED USE PATH EDGE STEP DETAIL

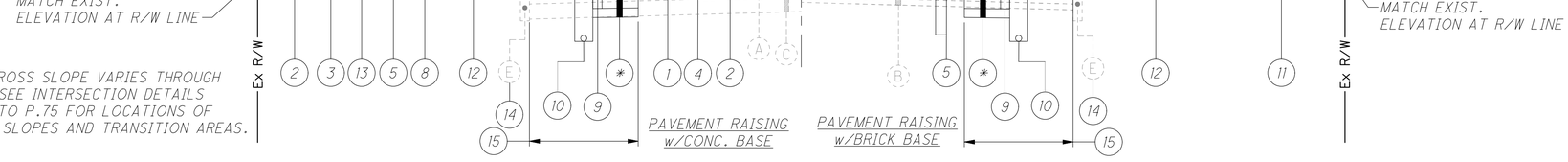
(BOTH SIDES OF PATH)

PARKING LANE BEGIN/END STATIONS (SEE DETAIL SHEET NO. P.124)

BEGIN	END
27+90.59	29+16.13
35+00.76	36+31.05
38+00.64	38+58.92
39+76.20	41+63.54
42+81.97	45+02.25
46+26.03	48+92.31
50+13.03	50+89.31
52+09.18	53+76.14
53+32.25	56+69.00
56+89.00	58+83.07

NOTES

1. VARIOUS WIDTH PAVEMENT REPLACEMENT FOR COMBINATION SEWER TRENCH.
2. SEE SHEET P.03 FOR EXISTING LEGEND.



\# THE PAVEMENT CROSS SLOPE VARIES THROUGH INTERSECTIONS. SEE INTERSECTION DETAILS SHEET NO. P.62 TO P.75 FOR LOCATIONS OF VARIABLE CROSS SLOPES AND TRANSITION AREAS.

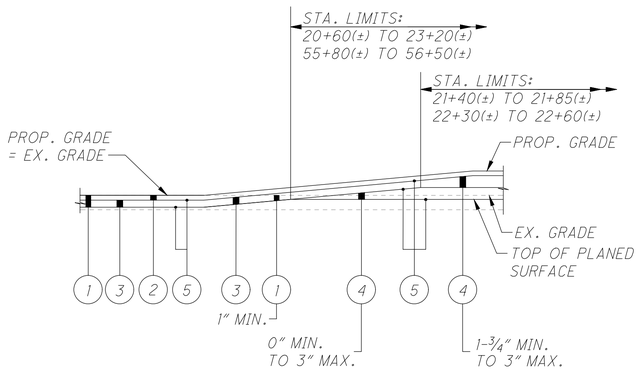
PROPOSED EAST 66TH STREET SECTION-PAVEMENT RAISING

STA. 20+00.00 TO STA. 23+50.00
STA. 55+25.00 TO STA. 56+75.00

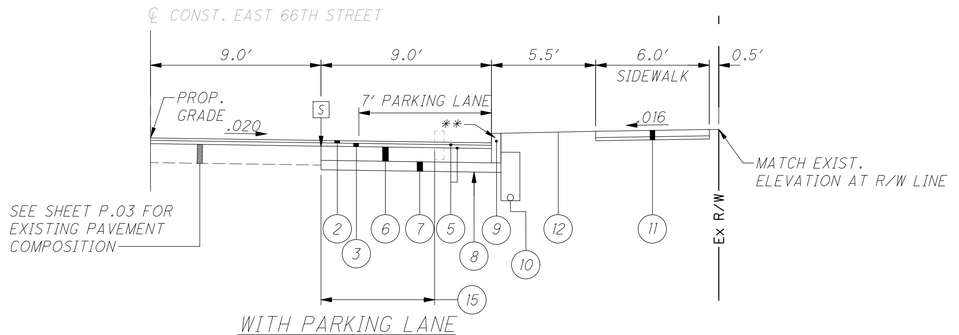
* SEE PARKING LANE DETAIL FOR FULL DEPTH REMOVAL AND REPLACEMENT

** 6" CURB REVEAL UNLESS OTHERWISE INDICATED ON CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER

DECORATIVE CONCRETE CROSSWALK LIMITS
(SE DETAIL SHEET P.124):
STA. 18+03.61 TO STA. 18+13.77



PAVEMENT RAISING ASPHALT TRANSITION DETAIL



WITH PARKING LANE

CHESTER AVENUE TO HOUGH AVENUE
LEXINGTON AVENUE TO SUPERIOR AVENUE

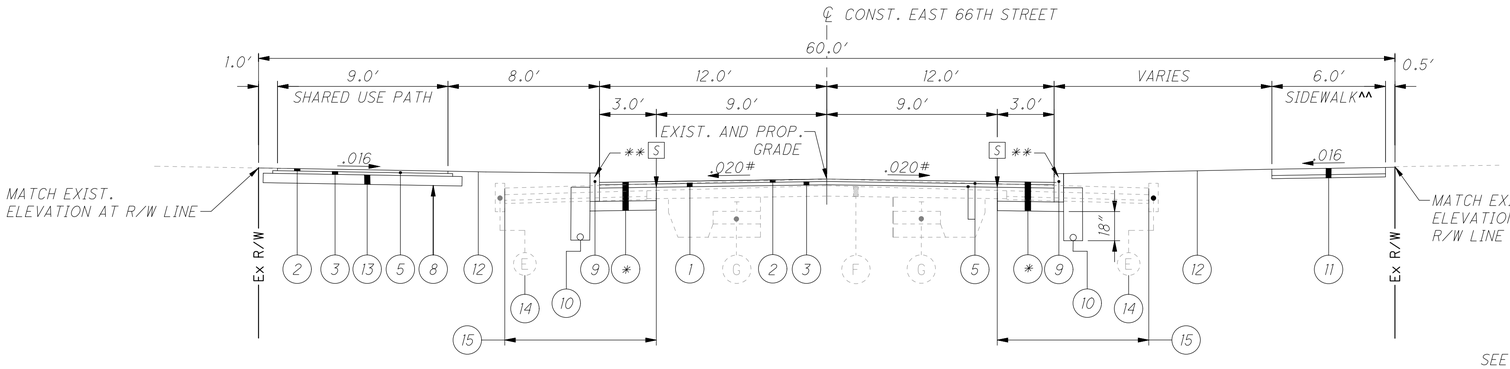
PROPOSED TYPICAL SECTIONS
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 12/16/24
PROJECT ID 122389
SHEET P.04 TOTAL 195



PROPOSED EAST 66TH STREET SECTION

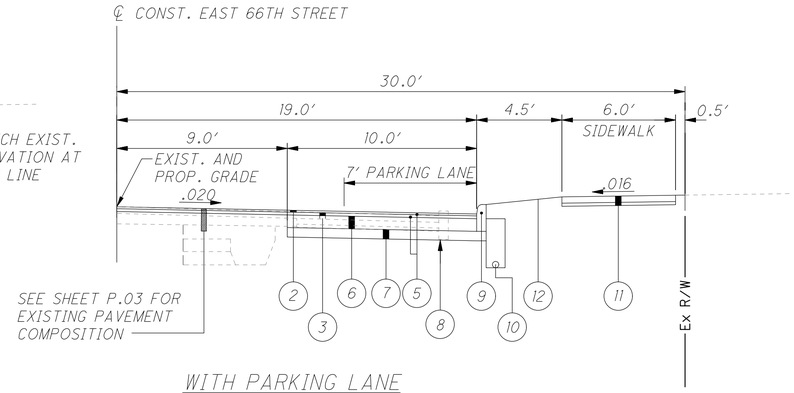
HOUGH AVENUE TO LEXINGTON AVENUE
STA. 25+03.87 TO STA. 29+53.60
STA. 29+60.99 TO STA. 30+05.95
STA. 30+13.95 TO STA. 33+95.31

* SEE PARKING LANE DETAIL THIS SHEET FOR FULL DEPTH REMOVAL AND REPLACEMENT

** 6" CURB REVEAL UNLESS OTHERWISE INDICATED ON CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER

THE PAVEMENT CROSS SLOPE VARIES THROUGH INTERSECTIONS. SEE INTERSECTION DETAILS SHEET NO. P.62 TO P.75 FOR LOCATIONS OF VARIABLE CROSS SLOPES AND TRANSITION AREAS.

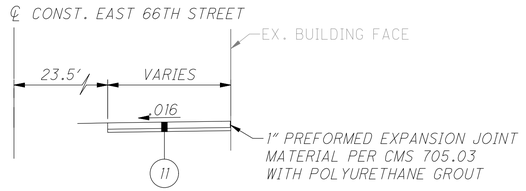
DECORATE CONCRETE CROSSWALK LIMITS
(SEE DETAIL SHEET P.124):
STA. 29+53.60 TO STA. 29+61.60
STA. 30+05.95 TO STA. 30+13.95
STA. 33+95.31 TO STA. 34+03.31



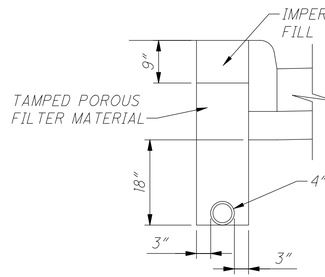
WITH PARKING LANE

HOUGH AVENUE TO LEXINGTON AVENUE

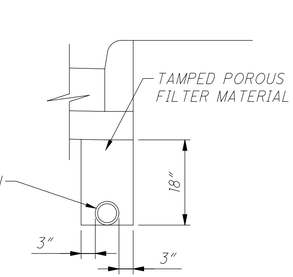
^^ = SIDEWALK NOT TO BE INSTALLED WHERE INDICATED ON THE PLAN SHEETS. SIDEWALK FROM STA. 39+81.41 TO STA. 41+69.62 TO BE INSTALLED BY OTHERS.



CONCRETE WALK ADJACENT TO BUILDING

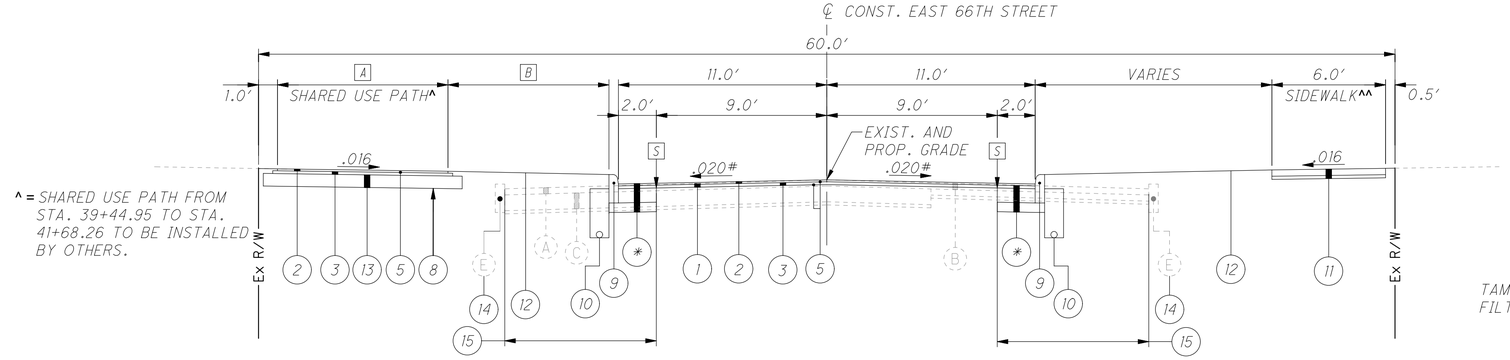


UNDERDRAIN DETAIL



ALTERNATE UNDERDRAIN LOCATION

STA. 27+50.91 TO STA. 29+16.13, RT.
OR AS DIRECTED BY ENGINEER



STATION TO STATION	A	B
34+61.38 TO 38+72.86	9.0′	8.5′
41+68.26 TO 53+69.00	9.0′	8.5′
53+69.00 TO 53+84.00	9.0′ TO 6.0′	8.5′ TO 11.5′
53+84.00 TO 55+25.00	6.0′	11.5′
56+75.00 TO 57+88.00	9.0′	8.5′
57+88.00 TO 58+03.00	9.0′ TO 6.0′	8.5′ TO 11.0′
58+03.00 TO 61+74.39	6.0′	11.5′

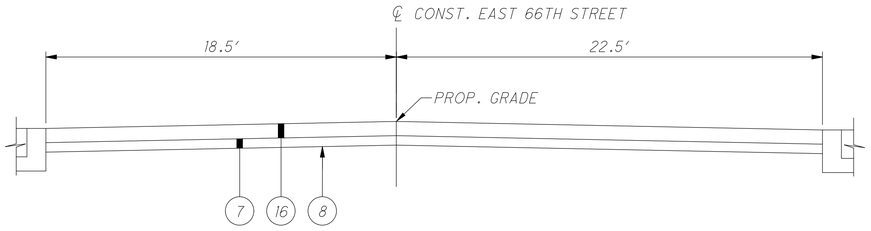
PROPOSED EAST 66TH STREET SECTION

LEXINGTON AVENUE TO SUPERIOR AVENUE
STA. 34+69.69 TO STA. 38+79.73
STA. 38+87.73 TO STA. 39+33.26
STA. 39+41.26 TO STA. 55+25.00
STA. 56+75.00 TO STA. 61+81.92
STA. 61+92.00 TO STA. 61+99.68

* SEE PARKING LANE DETAIL ON SHEET NO. P.04 FOR FULL DEPTH REMOVAL AND REPLACEMENT

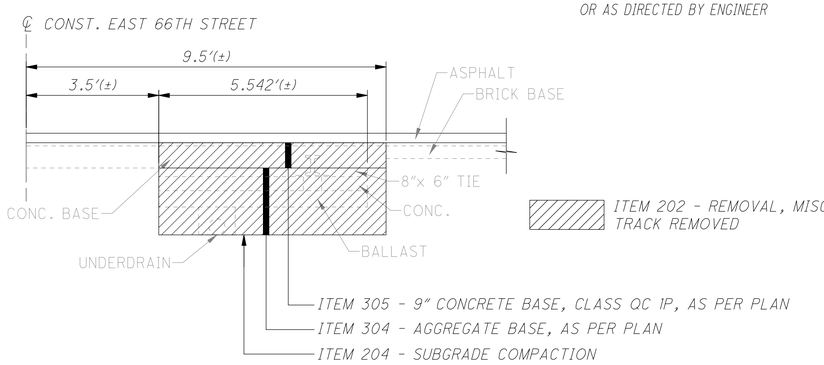
** 6" CURB REVEAL UNLESS OTHERWISE INDICATED ON CROSS SECTIONS OR AS DIRECTED BY THE ENGINEER

DECORATE CONCRETE CROSSWALK LIMITS
(SEE DETAIL SHEET P.124):
STA. 34+61.69 TO STA. 34+69.69
STA. 38+79.73 TO STA. 38+87.73
STA. 61+81.92 TO STA. 61+92.00



PROPOSED EAST 66TH STREET SECTION

LEXINGTON AVENUE INTERSECTION
STA. 34+03.31 TO STA. 34+61.69



TRACK REMOVAL DETAIL (AS DIRECTED)

NOTES

1. VARIOUS WIDTH PAVEMENT REPLACEMENT FOR COMBINATION SEWER TRENCH.
2. SEE SHEET P.03 FOR EXISTING LEGEND.
3. SEE SHEET P.04 FOR PROPOSED LEGEND.

CUY-EAST 66TH STREET TLCI

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PROPOSED TYPICAL SECTIONS
EAST 66TH STREET

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 12/13/25
PROJECT ID 122389
SHEET P.05 TOTAL 195

GENERAL

SCOPE OF WORK

ROADWAY REHABILITATION OF APPROXIMATELY 1 MILE OF E. 66TH STREET FROM CHESTER AVENUE TO SUPERIOR AVENUE ON EXISTING ALIGNMENT AND PROFILE. WORK IS TO INCLUDE PAVEMENT WIDENING, 3" MILL AND FILL, MULTIUSE PATH AND WIDENED SIDEWALK, STREETSCAPE, LIGHTING, TRANSIT WAITING ENVIRONMENTS, ADA CROSSINGS AND SIGNAL UPGRADES.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC
CLEVELAND PUBLIC POWER (CPP)
CHRISTOPHER M. HIRZEL, P.E. P.S.
1300 LAKESIDE AVENUE, ROOM 152
CLEVELAND, OHIO 44114-1135
DIRECT: (216) 563-7212
OFFICE: (216) 664-3922 EXT. 76115
FAX: (216) 664-2972
CHIRZEL@CPP.ORG

CEI FIRST ENERGY
JOHN M. ZASSICK
FIRST ENERGY
6896 MILLER RD, SUITE 101
BRECKSVILLE, OH 44144
OFFICE 440-546-8706
JMZASSICK@FIRSTENERGYCORP.COM

COMMUNICATIONS
AT&T
JAMES JANIS, DESIGN MANAGER
13630 LORAIN AVE. - 2ND FLOOR
CLEVELAND, OHIO 44111
PHONE: (216) 476-6142
FAX: (216) 476-6013
PJ8191@ATT.COM

CHARTER COMMUNICATIONS
EMIL SYMISTER, CONSTRUCTION SUPERVISOR, EAST
7820 DIVISION DRIVE
MENTOR, OH 44060
PHONE: (216) 575-8016, OPT 1 EXT 12165551158
EMAIL: EMIL.SYMISTER@CHARTER.COM

GAS:
ENBRIDGE GAS OHIO
1201 E 55TH STREET
CLEVELAND, OH 44103
PHONE: 1-800-362-7557

SEWER:
ELIE RAMY
CITY OF CLEVELAND
DIVISION OF WATER POLLUTION CONTROL
12302 KIRBY AVENUE
CLEVELAND, OHIO 44108
OFFICE: 216-664-2756
ERAMY@CLEVELANDWPC.COM

WATER:
FRED ROBERTS
CITY OF CLEVELAND DIVISION OF WATER
1201 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
PHONE: 216-664-2444 X75590
FRED_ROBERTS@CLEVELANDWATER.COM

TRAFFIC SIGNALS
CITY OF CLEVELAND
DIVISION OF TRAFFIC ENGINEERING
601 LAKESIDE AVE., RM 25
CLEVELAND, OHIO 44114
ATTN: ROB MAVEC, TRAFFIC ENGINEER
PHONE: (216) 664-3194
FAX: (216) 664-3167

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C. THE CITY DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE UTILITY INFORMATION SHOWN. THE CITY IS NOT LIABLE FOR UTILITIES OR CONNECTIONS NOT SHOWN ON THE PLANS OR ABANDONED UTILITIES OR CONNECTIONS. THE CONTRACTOR SHALL CUT OUT ANY ABANDONED UTILITIES AND ALL COSTS INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE BID ITEM FOR THAT WORK. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

ENBRIDGE - PIPELINE PROTECTION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF ENBRIDGE'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P, (SAFE EXCAVATION & SHORING). EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY ENBRIDGE FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION TEST STATION WIRES & DEVICES, VALVE BOXES, ETC.). ENBRIDGE FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL ENBRIDGE EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE AND IN WORKING ORDER. THE CROSSING OF ENBRIDGE'S PIPELINE(S) WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING ENBRIDGE FACILITY. PLEASE CONTACT ENBRIDGE'S CORROSION DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION AT:
CORROSIONGIS@DOMINIONENERGY.COM.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

CONTRACTOR WORK HOURS

THE DEFAULT CONTRACTOR WORK HOURS SHALL BE AN EIGHT-HOUR DAY, FIVE DAYS A WEEK FOR A MAXIMUM OF 40 HOURS, UNLESS A DIFFERENT WORK SCHEDULE HAS BEEN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CITY. THE CONTRACTOR SHALL RESTRICT HIS WORKING HOURS TO THOSE PERMITTED BY CITY OF CLEVELAND OR OTHER APPLICABLE ORDINANCE, LAWS AND REGULATIONS UNLESS A WRITTEN VARIANCE HAS BEEN ACCEPTED FROM THE APPROPRIATE GOVERNING AUTHORITIES.

LOCAL LAWS, ORDINANCES, AND REGULATIONS

IN ACCORDANCE WITH SECTION 107.01 OF THE GENERAL PROVISIONS, THE CONTRACTOR SHALL STAY FULLY INFORMED OF ALL LOCAL LAWS, ORDINANCES, REGULATIONS, ORDERS, AND DECREES THAT AFFECT THE WORK. IT IS THE CONTRACTORS RESPONSIBILITY TO OBSERVE AND COMPLY WITH ALL SUCH LAWS, ORDINANCES, REGULATIONS, ORDERS, AND DECREES AT NO ADDITIONAL COST TO THE PROJECT/CITY.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION, AND OPERATION (INCLUDING ERECTION, MAINTENANCE AND REMOVAL) OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS, EXCEPT WHERE OTHERWISE NOTED, SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. IT IS ANTICIPATED THAT ALL WORK WILL BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY ALONG EAST 66TH STREET AND ON CITY OWNED LAND, AS SHOWN ON THE PLANS.

VERTICAL DATUM

ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1927 (NGVD29).

HORIZONTAL DATUM

HORIZONTAL DATUM ARE BASED ON THE CUYAHOGA REGIONAL GEODETIC SYSTEM (CRGS)

BASE MAPPING

BASE MAPPING BY ENVIRONMENTAL DESIGN GROUP (EDG) WAS COMPLETED IN SEPTEMBER 2021 AND FROM CHESTER AVENUE TO EUCLID AVENUE BY EUTHENICS IN JANUARY 2025. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ALL EXISTING HORIZONTAL AND VERTICAL DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

EXISTING TYPICAL SECTIONS

EXISTING TYPICAL SECTIONS HAVE BEEN DEVELOPED FROM SITE MEASUREMENTS, PAVEMENT CORES AND RECORD PLANS AND ARE BELIEVED TO REPRESENT THE WIDTH AND COMPOSITION OF THE EXISTING PAVEMENT, BUT THE CITY OF CLEVELAND DOES NOT GUARANTEE THE ACCURACY OF SAME. SIDE ROAD PAVEMENT TYPES MAY DIFFER, BUT ALL PAVEMENT REMOVAL WILL BE PAID FOR AS DETAILED IN THE TYPICAL SECTIONS.

STATIONING AND LOCATIONS

STATIONING AND LOCATIONS INDICATED ON THESE PLANS ARE APPROXIMATE. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD "AS DIRECTED BY THE ENGINEER" AT NO ADDITIONAL COST.

CITY OF CLEVELAND STANDARD DRAWINGS

THE APPLICABLE STANDARD DRAWINGS AND DETAILS OF THE CITY OF CLEVELAND HAVE BEEN INCLUDED IN THE PLAN SET. THESE DRAWINGS AND DETAILS REPRESENT THE MOST CURRENT VERSIONS APPROVED BY THE CITY OF CLEVELAND AND HAVE BEEN INCLUDED TO DEPICT THE INTENT OF THE PARTICULAR CONSTRUCTION FEATURES, HOWEVER THEY HAVE NOT BEEN UPDATED FOR CONFORMANCE WITH THE 2023 ODOT CMS. WHEN REFERENCES TO NON-CURRENT CMS ITEMS ARE ENCOUNTERED WITHIN THE DETAILS (I.E. "ITEM 604" OR "CLASS C CONCRETE") THE CURRENT SECTION OF THE CMS (I.E. "ITEM 611 OR "CLASS QC-1 CONCRETE") SHALL APPLY. INTERPRETATIONS REGARDING THE APPLICABLE SECTIONS OF THE 2023 CMS SHALL BE AT THE DIRECTION OF THE ENGINEER.

REMOVAL OF PRIVATE FENCES IN THE RIGHT OF WAY

PRIOR TO CONSTRUCTION OF THIS PROJECT, THE CITY WILL IDENTIFY ALL FENCES AND GATES THAT ARE WITHIN THE EXISTING R/W THAT WILL NEED TO BE REMOVED TO CONSTRUCT THIS IMPROVEMENT. THE PROPERTY OWNER WILL BE RESPONSIBLE FOR REMOVING THE FENCE AND RE-ERECTING IT IN PRIVATE PROPERTY PRIOR TO THE START OF CONSTRUCTION. ANY FENCES AND/OR GATES REMAINING WITHIN THE RIGHT OF WAY WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. PAYMENT FOR THE REMOVAL AND DISPOSAL OF THE FENCE AND GATE SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 202-FENCE REMOVED. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE MADE AT THE CONTRACT UNIT BID PRICE.

ITEM 202 - FENCE REMOVED	500 FT

WATER SUPPLY

WATER SUPPLY WILL BE SUPPLIED TO THE CONTRACTOR AT THE NEAREST HYDRANT. THE COST OF THE WATER SUPPLY SHALL BE BORNE BY THE CONTRACTOR UNDER THE VARIOUS PAY ITEMS FOR THIS PROJECT, AND NO SEPARATE PAYMENT SHALL BE MADE. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMIT FROM THE CITY OF CLEVELAND DIVISION OF WATER.

THE CONTRACTOR WILL BE REQUIRED TO PROVIDE APPROVED STANDARD TIGHT HOSE AND FITTINGS WITH WHICH TO MAKE CONNECTIONS TO HYDRANTS AND OUTLETS. NO IMPROPER, WASTEFUL OR UNDUE USE OF WATER WILL BE PERMITTED.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING

SIZE	NO. TREES	NO. STUMPS	TOTAL
18"	1	0	1
30"	0	0	0
48"	0	0	0
60"	0	0	0

GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER
IRK

REVIEWER
CEL 12/13/25

PROJECT ID
122389

SHEET P.06 | TOTAL 195

GENERAL (CONTINUED)

CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SEWERS

AT PROJECT LOCATIONS WHERE THE CONTRACTOR IS WORKING ADJACENT TO PROPERTY OR SERVICES OF UTILITY COMPANIES SUCH AS, BUT NOT LIMITED TO, POWER, TELECOMMUNICATIONS, GAS, ETC. WORK SHALL NOT COMMENCE UNTIL ARRANGEMENTS FOR PROPER PROTECTION OF SUCH FACILITIES HAVE BEEN MADE, AS DIRECTED IN SECTION 107 OF THE ODOT CMS.

COOPERATION BETWEEN CONTRACTORS

IT IS ANTICIPATED THAT OTHER CONTRACTORS MAY BE WORKING ON PROJECTS ADJACENT TO OR WITHIN THE LIMITS OF THIS PROJECT, EITHER FOR THE CITY OR FOR OTHER PUBLIC AGENCIES. THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS OPERATIONS, INCLUDING PROVISIONS FOR THE MAINTENANCE OF TRAFFIC, WITH THE CONTRACTORS OF OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THIS CONTRACT INCLUDING BUT NOT LIMITED TO NEORSD, WPC, CWD, DOMINION EAST OHIO GAS COMPANY, CPP, CEI, CHARTER COMMUNICATIONS, AT&T, ETC.

GATEWAY 66 DEVELOPMENT: IT IS EXPECTED THAT DURING THIS PROJECT, THE GATEWAY 66 DEVELOPMENT LOCATED ON BOTH SIDES OF EAST 66TH STREET NORTH OF LINWOOD AVENUE WILL BE ALSO BE UNDER CONSTRUCTION. THE CURRENT SCHEDULE SHOWS CONSTRUCTION OF THE GATEWAY 66 PROJECT TO BEGIN APPROXIMATELY IN SUMMER 2026, AND BE COMPLETE AND OCCUPIED BY THE END OF 2027. IT IS EXPECTED THAT COORDINATION AND COOPERATION BETWEEN THE CONTRACTOR FOR THIS PROJECT AND THE GATEWAY 66 PROJECT WILL BE ESSENTIAL. THE GATEWAY 66 CONTRACTOR WILL BE REQUESTED TO ATTEND THE PRE-CONSTRUCTION MEETING FOR THIS PROJECT, AS WELL AS ALL PROJECT MEETINGS HELD DURING THE TIME THAT BOTH PROJECTS ARE SIMULTANEOUSLY ACTIVE, TO DISCUSS COORDINATION AND EXPECTATIONS BETWEEN THE TWO PROJECTS.

THE GATEWAY EAST SITE WILL COINCIDE WITH EAST 66TH STREET PHASE 1 (EAST SIDE) CONSTRUCTION. THE CONTRACTOR MAY NEED TO STAGE THEIR OPERATIONS TO LIMIT THE AMOUNT OF WORK THAT WILL BE CONSTRUCTED BETWEEN LINWOOD AVENUE AND LAWNVIEW AVENUE AT TIMES. PLAN AND PROFILE SHEET NO. 36 DETAILS THE WORK THAT WILL BE PERFORMED BY THE GATEWAY 66 CONTRACTOR.

THE GATEWAY WEST SITE IS EXPECTED TO COINCIDE WITH EAST 66TH STREET PHASE 2 (WEST SIDE) CONSTRUCTION.

ALL OF THE ABOVE COORDINATION WORK SHALL BE INCIDENTAL TO THE COST OF THE PROJECT.

ADDITIONAL COORDINATION

CITY OF CLEVELAND, DIVISION OF WASTE COLLECTION AND DISPOSAL - AT VARIOUS LOCATIONS ALONG THE CORRIDOR, THE CITY OF CLEVELAND, DIVISION OF WASTE COLLECTION AND DISPOSAL HAS PLACED TRASH RECEPTACLES FOR PUBLIC USE. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY OF CLEVELAND, DIVISION OF WASTE COLLECTION AND DISPOSAL AT 216-664-3711 TO COORDINATE THE REMOVAL OR RELOCATION OF THESE TRASH RECEPTACLES. UPON COMPLETION OF WORK ALONG THE CORRIDOR, THE CONTRACTOR SHALL CONTACT THE CITY OF CLEVELAND, DIVISION OF WASTE COLLECTION AND DISPOSAL, AGAIN TO ADVISE THEM REINSTALLATION CAN BEGIN.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 619, THE CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN — 21 MONTH

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

1. GENERAL
   CONTRACTOR SHALL MAINTAIN AND PROVIDE THE DEPARTMENT AND THE CITY WITH RECORD DRAWINGS AS SPECIFIED HEREIN. RECORD DRAWINGS SHALL INCLUDE COMPLETE DOCUMENTATION OF FIELD REVISIONS TO THE CONTRACT DOCUMENTS.

2. FILING
   a. THE CONTRACTOR SHALL MAINTAIN IN THEIR FIELD OFFICE AND IN CLEAN, DRY, LEGIBLE CONDITION THE FOLLOWING: CONTRACT DRAWINGS, SPECIFICATIONS, ADDENDA, SHOP DRAWINGS, CHANGE ORDERS, OTHER MODIFICATIONS OF CONTRACT, TEST RECORDS, SURVEY DATA AND ALL OTHER DOCUMENTS PERTINENT TO THE CONTRACTOR'S WORK.
   b. THE CONTRACTOR SHALL PROVIDE FILES AND RACKS FOR PROPER STORAGE AND EASY ACCESS FILING SHALL BE ESTABLISHED IN A FORMAT ACCEPTABLE TO THE DEPARTMENT AND THE CITY.
   c. THE CONTRACTOR SHALL MAKE DOCUMENTS AVAILABLE AT ALL TIMES FOR INSPECTION BY THE DEPARTMENT AND THE CITY OR THEIR REPRESENTATIVES
   d. RECORD DRAWINGS SHALL NOT BE USED FOR ANY OTHER PURPOSE AND SHALL NOT BE REMOVED FROM THEIR FILED LOCATION WITHOUT THE DEPARTMENT'S OR THE CITY'S APPROVAL

3. RECORDING
   a. THE CONTRACTOR SHALL KEEP ALL RECORD DRAWINGS CURRENT.
   b. THE CONTRACTOR SHALL NOT PERMANENTLY CONCEAL ANY WORK UNTIL REQUIRED INFORMATION HAS BEEN RECORDED.
   c. CONTRACT DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION INCLUDING:
      I. DEPTHS OF VARIOUS ELEMENTS OF FOUNDATION IN RELATION TO DATUM.
      II. HORIZONTAL AND VERTICAL LOCATIONS OF UNDERGROUND UTILITIES AND APPURTENANCES REFERENCED TO PERMANENT SURFACE IMPROVEMENTS.
      III. FIELD CHANGES OF DIMENSION AND DETAIL.
      IV. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
      V. DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS.
   d. CONTRACT DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION INCLUDING:
      I. MANUFACTURER, TRADE NAME, CATALOG NUMBER AND SUPPLIER OF EACH PRODUCT AND ITEM OF EQUIPMENT ACTUALLY INSTALLED
      II. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER
      III. OTHER MATTERS NOT ORIGINALLY SPECIFIED
      IV. HIGHLIGHT CHANGES WITH CLOUDS ON THE RECORD PLAN SET IN RED INK.

4. MAINTENANCE
   a. THE CONTRACTOR SHALL MAINTAIN THE PROJECT DURING THE COURSE OF THE CONSTRUCTION INCLUDING THE PERIOD OF THE AS-BUILT CERTIFICATION SHALL NOTIFY THE ENGINEER A MINIMUM OF 2 WEEKS PRIOR TO COMPLETION.
   b. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE PROJECT UNTIL FINAL ACCEPTANCE OF THE RECORD DRAWINGS AND A DETERMINATION BY THE ENGINEER THAT NO ERRORS OR OMISSIONS HAVE BEEN MADE BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION.
   c. THE ENGINEER SHALL NOTIFY THE CONTRACTOR AS TO THE ACCEPTABILITY OR REJECTION OF THE CONSTRUCTION OF THE PROJECT.
   d. THE CONTRACTOR SHALL CORRECT ANY ERRORS/ OMISSIONS PRIOR TO FINAL ACCEPTANCE OF THE RECORD DRAWINGS FOR THE PROJECT.
   e. THE CONTRACTOR SHALL MAINTAIN SHOP DRAWINGS AND LEGIBLY ANNOTATE CHANGES MADE AFTER REVIEW.

5. SUBMITTALS
   a. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL DELIVER THE COMPLETE SET OF FIELD MARK-UP DRAWINGS TO THE ENGINEER.
   b. PROVIDE TRANSMITTAL LETTER CONTAINING THE FOLLOWING INFORMATION:
      I. DATE
      II. PROJECT TITLE AND PROJECT NUMBER
      III. CONTRACTOR'S NAME AND ADDRESS
      IV. CERTIFICATION THAT EACH DOCUMENT AS SUBMITTED IS COMPLETE AND ACCURATE.
      V. SIGNATURE OF CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE OF ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS.

ITEM SPECIAL - PRECONSTRUCTION AUDIO VIDEO

THE CONTRACTOR SHALL PERFORM PRE-CONSTRUCTION AUDIO-VIDEO RECORDING OF THE SITE WORK ZONE AND ALL AREAS POTENTIALLY AFFECTED BY THE CONTRACT WORK PRIOR TO THE DELIVERY OF MATERIALS OR SUPPLIES OR THE BEGINNING OF ANY CONSTRUCTION WORK.

THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, RECORDING EXISTING SURFACE CONDITIONS SUCH AS SIDEWALKS, BUILDING FLASH POINTS, UTILITY INFRASTRUCTURE, ADA RAMPS, DRIVEWAYS AND APRONS, AND ALL PROJECT WORK ZONE BOUNDARIES WITH PRIVATE FACILITIES/PROPERTIES.

A MINIMUM OF TWO PASSES IN EACH DIRECTION OF THE WORK IS REQUIRED TO COMPLETE THIS WORK, WITH ONE PASS FOCUSING ON EXISTING RIGHT-OF-WAY CONDITIONS AND THE OTHER ON PRIVATE PROPERTY CONDITIONS.

THE PRECONSTRUCTION VIDEO SHALL BE PERFORMED BY AN INDEPENDENT COMPANY EXPERIENCED IN THE WORK, AND THE COMPANY CREDENTIALS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO THE WORK BEING PERFORMED.

A DVD DISC SHALL BE USED TO RECORD THE TELEVISED INSPECTION IN EITHER APPLE QUICKTIME OR WINDOWS MEDIA FORMAT. TWO COPIES OF THE DVD TO THE CITY AND ONE COPY FOR THE CONTRACTOR'S RECORDS ARE REQUIRED. THE DVD SHALL BE CONSIDERED AN INTEGRAL PART OF THE SERVICE AND SHALL NOT BE DELETED FROM THE CONTRACTOR'S RECORD UNTIL PROJECT CLOSE-OUT.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE OF ITEM SPECIAL - PRECONSTRUCTION AUDIO VIDEO.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT CMS 623, THE LUMP SUM PRICE BID FOR THIS ITEM SHALL ALSO INCLUDE THE FOLLOWING:

A. CONTRACTOR SHALL PLACE LAYOUT STAKES AND PROVIDE SURVEYING TO HELP EVALUATE AND ESTABLISH THE ACCEPTABLE ROADWAY CROWN BASED ON CONDITIONS ENCOUNTERED IN THE FIELD.

B. CONTRACTOR SHALL FURNISH DIMENSIONS, MEASUREMENT, SKETCHES, ETC. NECESSARY TO DETERMINE PAY QUANTITIES. THIS WILL MAINLY APPLY TO CHANGE ORDERS, QUANTITIES TO BE USED AS DIRECTED AND DISPUTED PAYMENT QUANTITIES OR CALCULATIONS.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SURVEYING, CALCULATIONS AND/ OR LAYOUT NOT FURNISHED IN THE BID DOCUMENTS TO COMPLY WITH THE ENGINEER'S DIRECTION. CONTRACTOR SHALL PROVIDE CUT SHEETS, TEMPORARY BENCH MARKS, AND LAYOUT (INCLUDING STATIONING AND HUBS) AS DIRECTED BY THE ENGINEER OR HIS REPRESENTATIVE. ALL STATIONING AND REFERENCE MARKS SHALL BE MAINTAINED AS DIRECTED BY THE ENGINEER OR HIS REPRESENTATIVE.

D. THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT BE DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF OHIO.

E. CONTRACTOR SHALL VERIFY ALL EXISTING HORIZONTAL AND VERTICAL DIMENSIONS INCLUDING BENCHMARKS, HORIZONTAL CONTROL AND MONUMENT BOX THREE POINT REFERENCES PRIOR TO BEGINNING CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

F. CONTRACTOR SHALL VERIFY ALL EXISTING HORIZONTAL AND VERTICAL DIMENSIONS INCLUDING BENCHMARKS, HORIZONTAL CONTROL AND MONUMENT BOX THREE POINT REFERENCES PRIOR TO BEGINNING CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL REFERENCE ALL EXISTING ROADWAY AND RIGHT OF WAY MONUMENTS WITHIN THE CONSTRUCTION LIMITS TO POINTS AND/OR PERMANENT STRUCTURES OUTSIDE OF THE CONSTRUCTION LIMITS, SO AS TO BE ABLE TO RE-ESTABLISH THEIR POSITION AND REPLACE THE POINT. NO LESS THAN THREE SUCH REFERENCES PER MONUMENT ARE TO BE FURNISHED BY A REGISTERED SURVEYOR WHERE THE PLANS DO NOT PROVIDE, OR WHERE THE PLAN TIES ARE MISSING. THE REFERENCES WILL BE DOCUMENTED ON A FIELD BOOK PROVIDED BY THE CITY OF CLEVELAND SURVEY DEPARTMENT. THE DOCUMENTATION AND/OR REPLACEMENT WILL BE MADE UNDER SUPERVISION OR A LICENSED SURVEYOR. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE ABOVE DOCUMENTATION AND CARE OF THE FIELD BOOK

NOTE CONTINUED ON NEXT SHEET

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornengr.com

DESIGNER IRK

REVIEWER CEL 5/15/26

PROJECT ID 122389

SHEET P.07 | TOTAL 195

G. BENCHMARKS PROVIDED ON THE PLAN AND PROFILE SHEETS ARE TO BE USED BY THE CONTRACTOR FOR INITIAL PROJECT CONTROL SET UP ONLY. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SET ADDITIONAL BENCHMARKS THAT WILL NOT BE DISTURBED DURING CONSTRUCTION ACTIVITIES AND THAT WILL SUBSEQUENTLY BE USED FOR SURVEYING AND STAKING ACTIVITIES. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE SETTING OF ADDITIONAL BENCHMARKS.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE OF ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

ROADWAY

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

PRIVATE HOUSE SIDEWALK REMOVAL AND REPLACEMENT

ALL EXISTING HOUSE SIDEWALKS THAT RUN BETWEEN THE EXISTING PAVEMENT AND SIDEWALK WILL BE REMOVED AND NOT REPLACED. THE PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202-REMOVAL, MISC.: WALKS AND DRIVEWAYS REMOVED.

HOUSE SIDEWALKS BEHIND THE EXISTING SIDEWALK (ON THE BUILDING SIDE) WILL BE REPLACED IF NECESSARY TO THE RIGHT OF WAY LINE. WALKS WILL BE REPLACED WITH ITEM 608-4" CONCRETE WALK, AS PER PLAN. THE EXISTING SIDEWALK SHALL BE SAW CUT AT THE REMOVAL LIMIT, AND A ½" EXPANSION JOINT PLACED BETWEEN THE NEW AND EXISTING CONCRETE.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 202 - REMOVAL, MISC.: WALKS AND DRIVEWAYS REMOVED	100 SQ FT
ITEM 608 - 4" CONCRETE WALK, AS PER PLAN	100 SQ FT

ITEM 202 - REMOVAL, MISC.: WALKS AND DRIVEWAYS REMOVED

WORK UNDER THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL EXISTING HARD SURFACES LOCATED BEHIND THE EXISTING CURB. THIS INCLUDES DRIVEWAYS, SIDEWALKS, CURB RAMPS, ETC, IN CONFORMANCE WITH THE PERTINENT SECTIONS OF ITEM 202 AND AS DESCRIBED BELOW:

ITEMS TO BE REMOVED SHALL BE SAW CUT FULL-DEPTH AT THE NEAREST EXISTING JOINT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

EXISTING DETECTABLE WARNINGS LOCATED WITHIN THE CURB RAMPS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

ITEM 202 - REMOVAL, MISC.: TRACK REMOVED

ACCORDING TO RECORDS, SOME OR ALL OF THE OLD STREETCAR TRACKS BURIED UNDER THE EXISTING ASPHALT MAY HAVE BEEN PREVIOUSLY REMOVED. IT IS POSSIBLE THAT SOME OF THE TRACK MAY EXIST, AND PORTIONS OF THE TRACK MAY REQUIRE REMOVAL AS PART OF THIS PROJECT, AS DIRECTED BY THE ENGINEER. THE EXACT LOCATION, LIMITS, AND TYPE OF TRACK IS UNKNOWN, BUT HISTORICAL RECORDS INDICATE THAT THE TRACKS RAN ALONG EAST 66TH STREET FROM HOUGH AVENUE TO SUPERIOR AVENUE, PLUS ALONG HOUGH AVENUE, LEXINGTON AVENUE, WADE PARK AVENUE, AND SUPERIOR AVENUE.

THE UNIT PRICE BID PER SQUARE YARD FOR THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FULL DEPTH OF TRACK INCLUDING THE UNDERDRAIN BELOW THE TRACKS, ANY CONCRETE, AND ANY ADDITIONAL EXCAVATION AND REMOVAL OF EXCAVATED MATERIAL. THE LIMITS OF PAYMENT SHALL BE THE WIDTH OF THE RAILROAD TIE BY THE LENGTH OF UNDERDRAINS, TIES, AND ANGLES OR OTHER HARDWARE, RAIL, BALLAST AND THE BASE, COMPLETE.

IN AREAS WHERE THE TRACK BASE IS BELOW THE PROPOSED ROADWAY SUBGRADE: THE PART OF THE TRACK WHICH IS BELOW THE PROPOSED ROADWAY SUBGRADE SHALL BE REMOVED AND REPLACED WITH ITEM 304 - AGGREGATE BASE, AS PER PLAN, WHICH SHALL INCLUDE ALL EXCAVATION, REMOVAL AND DISPOSAL NECESSARY FOR REMOVAL FROM THE ROADWAY SUBGRADE TO THE BOTTOM OF THE TRACK BASE.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE MADE AT THE CONTRACT UNIT BID PRICE.

ITEM 202 - REMOVAL, MISC.: TRACK REMOVED	250 SY
ITEM 204 - SUBGRADE COMPACTION	250 SY
ITEM 304 - AGGREGATE BASE, AS PER PLAN	50 CY
ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN	250 SY

ITEM 202 - REMOVAL, MISC.: POLE REMOVED

WORK PERFORMED UNDER THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF EXISTING ABANDONED POLES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ALL POLE FOUNDATIONS ENCOUNTERED SHALL BE REMOVED AS A PART OF THE APPLICABLE POLE REMOVAL ITEM. EXISTING POLE FOUNDATIONS SHALL BE REMOVED BELOW THE FINISHED SUBGRADE OR GROUND SURFACE AND THE REMAINING CAVITY BACKFILLED AS REQUIRED.

PAYMENT WILL INCLUDE REMOVAL OF POLE FOUNDATIONS, SWEEPS, BOLTS, BACKFILL, AND ALL APPURTENANCES ASSOCIATED WITH THIS ITEM TO COMPLETE THE REMOVAL OF THIS ITEM.

ITEM 209 - LINEAR GRADING, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED AS PER ODOT ITEM 209, EXCEPT AS MODIFIED HEREIN:

1. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL SO THAT THE GROUND ELEVATION IS ONE QUARTER OF ONE INCH (1/4") BELOW THE ELEVATION OF A THEORETICAL PLAN PROJECTED FROM THE TOP OF THE EXISTING SIDEWALK TO THE TOP OF THE EXISTING CURB.

2. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL SO THAT THE GROUND ELEVATION IS ONE QUARTER OF ONE INCH (1/4") BELOW THE ELEVATION OF A THEORETICAL PLAN PROJECTED FROM THE TOP OF THE EXISTING SIDEWALK FOLLOWING THE NATURAL CONTOUR OF THE EXISTING GROUND.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND INCIDENTAL COST NECESSARY TO COMPLETE THE WORK, INCLUDING THE REMOVAL AND DISPOSAL OF MATERIALS DEEMED UNFIT FOR REUSE BY THE ENGINEER AND ADDITIONAL APPROVED REPLACEMENT TOPSOIL MATERIAL REGARDLESS OF THE SOURCE, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID.

PAYMENT SHALL BE FOR WORK PERFORMED TO THE NEAREST 100 FOOT STATION AS MEASURED ALONG THE LEFT OR RIGHT OF THE CENTERLINE FOR THE STREET. THIS MEASUREMENT WILL CONSTITUTE THE WORK PERFORMED BOTH FOR THE AREA BETWEEN THE CURB AND SIDEWALK AND THE AREA BEHIND THE SIDEWALK WITHIN THE WORK LIMITS.

ITEM 608 - 4" CONCRETE WALK, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 608. THE FOLLOWING SHALL APPLY:

ALL CONCRETE SHALL BE CLASS QC AND MINIMUM OF 4" AS SHOWN ON THE PLAN SHEETS AND HAVE A 2" COMPACTED SCREENING BED WHICH MEETS THE REQUIREMENTS OF 703.10 (LIMITED TO CRUSHED STONE). THE COST OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO EXCAVATE, PLACE AND COMPACT SCREENINGS BED, LAYOUT AND FORM WORK, AND PLACEMENT OF NEW CONCRETE WALK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 608 - 4" CONCRETE WALK, AS PER PLAN.

PER 608.03(C), IT IS REQUIRED THAT 1/2 INCH THICK EXPANSION JOINT MATERIAL (705.03) BE INSTALLED BETWEEN THE WALK AND BACK OF CURB OR ANY OTHER FIXED OBJECT, IN ADDITION TO THE LOCATIONS SPECIFIED UNDER 608.03(C). TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT INTERVALS OF NOT MORE THAN 25 TO 30 FEET UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE EXPANSION JOINT FILLER (705.03) SHALL BE PLACED AT THE TRANSVERSE EXPANSION JOINTS FOR THE FULL DEPTH/WIDTH OF THE CONCRETE WALK AND SHALL BE TRULY NORMAL TO GRADE. THE TOP 1/2 INCH OF THE EXPANSION JOINT PLACED BETWEEN THE WALK AND BACK OF CURB SHALL BE SEALED WITH 705.04 JOINT SEALER.

THE FINAL SURFACE SHALL BE TEXTURED BY USE OF AN ACCEPTED BROOM SO AS TO PRODUCE A UNIFORM, GRITTY, TRANSVERSE TEXTURE, AFTER WHICH, THE CONTRACTOR IS REQUIRED TO RETRACE THE PREVIOUSLY FORMED JOINTS AND OUTSIDE EDGES OF THE WALK. (I.E. PICTURE FRAME).

TOPSOIL, SEEDING AND MULCHING REQUIRED BEHIND THE SIDEWALK CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEEDING MIX SHALL CONFORM TO ODOT CMS 659.08 HIGH QUALITY SEEDS, CLASS 1.

IN THE AREAS WHERE THE EXISTING WALK IS BEING SALVAGED, THE CONTRACTOR SHALL NOT DAMAGE THAT WALK WHILE PERFORMING REMOVAL OR INSTALLATION OPERATIONS ADJACENT TO THE WALK AND SHALL SAWCUT A TRANSVERSE EDGE AT NEAREST JOINT. ANY EXISTING WALK DAMAGED BY THE CONTRACTOR THROUGH THEIR OPERATIONS SHALL BE REMOVED TO THE LIMITS DIRECTED BY THE DISTRICT AND REPLACED AT NO ADDITIONAL COST TO THE PROJECT.

THE COST OF THE MATERIAL AND LABOR ASSOCIATED WITH THE ABOVE WORK IS INCLUDED IN THE CONTRACT UNIT BID PRICE FOR ITEM 608 - 4" CONCRETE WALK, AS PER PLAN.

ITEM 608 - CURB RAMP, AS PER PLAN

UNDER THIS PAY ITEM, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT AND CONSTRUCTING ODOT COMPLIANT CURB RAMPS AND LANDINGS THAT CONFORM TO ODOT SCD BP-7.1, WHICH SHALL BE USED AS A BASE FOR CONSTRUCTION OF THE CURB RAMPS. THE CURB RAMP TYPE IS SUBJECT TO ADJUSTMENT AND/OR CHANGE DUE TO FIELD CONDITIONS, INCLUDING ACTUAL EXISTING ELEVATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING TYPE OF CURB RAMP PROPOSED IN THE PLANS. NO ADDITIONAL PAYMENT SHALL BE MADE IF THE CURB RAMP TYPE IS CHANGED OR FOR FIELD ADJUSTMENTS NECESSARY FOR THE COMPLETE INSTALLATION OF THE RAMP.

ANY NEWLY CONSTRUCTED CURB RAMP NOT MEETING ODOT REQUIREMENTS WILL BE REMOVED AND REPLACED BY THE CONTRACTOR, AT THEIR COST, TO THE SATISFACTION OF THE CITY AND ODOT.

PAYMENT SHALL BE MEASURED IN SQUARE FEET FOR CURB RAMP AREAS AS INDICATED ON ODOT CURB RAMP SCD BP-7.1, AND AS INDICATED ON THE PLAN SHEETS, WITH THE FOLLOWING EXCEPTION:

FOR PERPENDICULAR CURB RAMPS (TYPE A1 OR A2) WHERE THE LANDING IS LOCATED COMPLETELY OR PARTIALLY IN THE ASPHALT SHARED USE PATH, THE LANDING AREA WILL NOT BE INCLUDED IN THE CURB RAMP AREA. THE LANDING SHALL MEET ALL REQUIREMENTS OF SCD BP-7.1.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO CONSTRUCT THE NEW CURB RAMP, COMPLETE IN PLACE. PAYMENT ALSO INCLUDES FORM WORK, PLACEMENT OF SCREENINGS, SIDEWALK (INCLUDING THICKENED EDGE), CURB, AND DETECTABLE WARNINGS WITHIN THE PROPOSED CURB RAMP AREA. ALL SAWCUTTING, APPURTENANCES, AND OTHER WORK FOR THE COMPLETE INSTALLATION IF THE RAMP IS CONSIDERED INCIDENTAL TO THIS ITEM.

REMOVAL OF THE EXISTING SIDEWALK, CURB RAMPS, AND DETECTABLE WARNINGS, ALONG WITH ALL TOPSOIL AND SEEDING AND MULCHING REQUIRED ADJACENT TO THE CURB RAMP, SHALL BE INCLUDED UNDER SEPARATE BID ITEMS FOR PAYMENT.

ITEM 623 - MONUMENT, MISC.: CITY OF CLEVELAND MONUMENT ASSEMBLY

WHERE EXISTING MONUMENT BOXES ARE TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL REMOVE THE EXISTING MONUMENT ASSEMBLY AND REPLACE IT WITH A CITY OF CLEVELAND MONUMENT ASSEMBLY AS DETAILED ON THE CITY OF CLEVELAND STANDARD CONSTRUCTION DRAWING MB-1C (SEE SHEET P.125) AND IN CONFORMANCE WITH ODOT CMS 623, MODIFIED AS FOLLOWS:

CARE AND PROTECTIVE MEASURES SHALL BE EMPLOYED BY THE CONTRACTOR TO AVOID DAMAGE OR DISPLACEMENT OF THE EXISTING MONUMENT DURING THE OPERATIONS IN THE PROXIMITY. WHERE PAVEMENT REMOVAL IS NECESSARY ADJACENT TO A MONUMENT BOX, SAW-CUTTING OF THE ADJACENT PAVEMENT WILL BE REQUIRED TO HELP PRESERVE THE MONUMENT. THOSE EXISTING CLEVELAND REGIONAL GEODETIC SURVEY (C.R.G.S.) MONUMENT ASSEMBLIES DISPLACED OR DAMAGED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPLACED WITH C.R.G.S. MONUMENT ASSEMBLY UNDER THE SUPERVISION A PROFESSIONAL SURVEYOR LICENSED TO PRACTICE IN THE STATE OF OHIO.

THOSE EXISTING CITY OF CLEVELAND ASSEMBLIES DISPLACED OR DAMAGED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPLACED WITH A CITY OF CLEVELAND ASSEMBLY UNDER THE SUPERVISION OF AN OHIO LICENSED SURVEYOR. ALL WORK WILL BE AT THE CONTRACTOR'S EXPENSE. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO REMOVE AND REPLACE EXISTING MONUMENT ASSEMBLIES WHERE DIRECTED BY THE ENGINEER:

ITEM 623 - MONUMENT, MISC.: CITY OF CLEVELAND MONUMENT ASSEMBLY	2 EACH

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK

REVIEWER CEL 12/13/25

PROJECT ID 122389

SHEET P.08 TOTAL 195

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ROADWAY (CONTINUED)

ITEM 623 - MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN

WHERE MONUMENT ASSEMBLIES ARE BOTH SUITABLE FOR RE-USE AND CONFORM TO THE CITY OF CLEVELAND STANDARD DRAWING MB-1C (SEE SHEET P.125), THEY SHALL BE ADJUSTED TO GRADE AS REQUIRED AND SPECIFIED. SUCH ADJUSTMENTS SHALL BE PERFORMED BY THE CONTRACTOR'S USE OF COMPETENT PERSONNEL AND SUITABLE EQUIPMENT WITH SAID WORK DONE UNDER THE SUPERVISION OF A PROFESSIONAL SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF OHIO. WHERE PAVEMENT REMOVAL IS NECESSARY ADJACENT TO A MONUMENT ASSEMBLY, SAW-CUTTING OF THE ADJACENT PAVEMENT WILL BE REQUIRED TO HELP PRESERVE THE MONUMENT.

ALL MONUMENTS EXISTING AND PROPOSED MUST BE REFERENCED PRIOR TO CONSTRUCTION. A MINIMUM OF 3 POINTS OF REFERENCE PER MONUMENT MUST BE USED AND MUST BE LOCATED OUTSIDE OF THE CONSTRUCTION ZONE WORK AREA. ALL MONUMENTS MUST BE REFERENCED PRIOR TO ADJUSTING ASSEMBLY TO GRADE OR REPLACING CASTING, ALL MONUMENTS ADJUSTED OR REPLACED SHALL BE AS PER THE CLEVELAND MONUMENT ASSEMBLY AS DETAILED ON CITY OF CLEVELAND STANDARD DRAWINGS MB-1C, INCLUDED IN THESE DRAWINGS, SET TO PROPER GRADE.

IN ADDITION TO ADJUSTING THE CASTING VERTICALLY THIS PAY ITEM SHALL INCLUDE CENTERING THE CASTING OVER THE EXISTING IRON PIN OR STONE. THE ENTIRE MONUMENT ASSEMBLY CASTING SHALL BE ADJUSTED TO GRADE AND NO INSERTS OR ADJUSTING RINGS WILL BE PERMITTED. IF THE EXITING IRON PIN OR STONE IS EITHER MISSING OR DAMAGED, A NEW MONUMENT ASSEMBLY SHALL BE INSTALLED AND PAID FOR AS ITEM 623 - MONUMENT, MISC.: CITY OF CLEVELAND MONUMENT ASSEMBLY.

CARE AND PROTECTIVE MEASURES SHALL BE EMPLOYED BY THE CONTRACTOR TO AVOID DAMAGE OR DISPLACEMENT OF THE EXISTING MONUMENT DURING THE MONUMENT ASSEMBLY ADJUSTMENT OR REPLACEMENT OPERATIONS AND ALL OTHER OPERATIONS IN THE PROXIMITY.

PRIOR TO BEGINNING OF WORK A COPY OF ALL SURVEY AND REFERENCE NOTES WILL BE SENT TO THE ATTENTION OF THE CHIEF SURVEYOR AT THE CITY OF CLEVELAND, MAYOR'S OFFICE OF CAPITAL PROJECTS, DIVISION OF ENGINEERING AND CONSTRUCTION, PLATS AND SURVEY, ROOM 518, CLEVELAND CITY HALL.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 623 - MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN.

EROSION CONTROL

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE FOR PERMANENT SEEDED AREAS:

ITEM 653 - TOPSOIL FURNISHED AND PLACED	750 CY
ITEM 659 - SEEDING AND MULCHING, CLASS 1	6500 SY
ITEM 659 - COMMERCIAL FERTILIZER	0.9 TON
ITEM 659 - LIME	1.4 ACRE
ITEM 659 - WATER	18 MGAL

APPLY SEEDING AND MULCHING TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 832 - EROSION CONTROL

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED FOR TEMPORARY SEDIMENT AND EROSION CONTROL (TSEC) IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATIONS 832:

ITEM 832 - EROSION CONTROL 100000 EACH

UNLESS OTHERWISE APPROVED BY THE ENGINEER, DAMAGED FILTER FABRIC FENCE SHALL BE REPLACED IN LIEU OF ANY/ALL METHODS OF REPAIR.

DRAINAGE

CONSTRUCTION STANDARDS FOR SEWERS

A. ALL SEWER CONSTRUCTION AND MATERIALS INCLUDED ON THIS PROJECT SHALL BE IN ACCORDANCE TO THE STANDARDS OF THE CITY OF CLEVELAND DIVISION OF WATER POLLUTION CONTROL AND TO ODOT CMS 611.

B. ALL PIPES 18" IN DIAMETER AND SMALLER SHALL BE VCP, C-700 EXTRA STRENGTH WITH PREMIUM JOINTS AS PER ODOT 706.08.

C. ALL PIPES 21" IN DIAMETER AND LARGER SHALL BE RCP. CLASS 3 WITH PREMIUM JOINTS AS PER ODOT 706.02.

D. ALL PIPES WITH LESS THAN 3' OF COVER SHALL BE DUCTILE IRON PIPE ANSI CLASS 52, WITH PUSH ON JOINTS AND FITTING.

E. THE REPAIR OF ALL DISTURBED CITY BRICK SEWERS SHOULD BE COORDINATED WITH WPC ENGINEER.

NO HORIZONTAL BENDS ARE ALLOWED FOR SEWER CONNECTIONS.

CLEVELAND WATER POLLUTION CONTROL NOTES

A. THE CONTRACTOR SHALL NOTIFY THE DIVISION OF WATER POLLUTION CONTROL (WPC) PRIOR TO THE START OF CONSTRUCTION AT 216-664-2756.

B. THE CONTRACTOR IS REQUIRED TO SUBMIT SEWER SHOP DRAWINGS TO WPC PRIOR TO THE SEWER INSTALLATION. THE DRAWINGS SHOULD INCLUDE THE SEWER PIPES, MANHOLES, CATCH BASINS AND OTHER SEWER APPURTENANCES.

C. WPC WILL INSPECT THE CITY SEWER INSTALLATION.

D. THE PROPOSED CITY SEWERS SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY WPC. ANY DEVIATIONS FROM THE APPROVED PLANS OR SPECIFICATIONS REQUIRE A NEW SUBMITTAL REFLECTING THE CHANGES. UPON REVIEW OF THE REVISED ITEMS, WPC WILL REISSUE A NEW APPROVAL. IT IS STRICTLY PROHIBITED TO CONSTRUCT ANY CITY SEWERS UNLESS THEY ARE APPROVED BY WPC.

E. UPON COMPLETION OF THE CITY SEWER INSTALLATION, THE CONTRACTOR IS REQUIRED TO SUBMIT AS-BUILT PLANS AND A VIDEO TAPED COPY OF THE NEW CITY SEWERS. WPC RESERVES THE RIGHT NOT TO APPROVE ANY CITY SEWER THAT DOES NOT MEET THE CITY REQUIREMENTS.

F. ALL EXISTING CITY CATCH BASIN CONNECTIONS SHOULD BE TELEVISED BY THE CONTRACTOR, AND INSPECTED AND APPROVED BY WPC INSPECTOR PRIOR TO THEIR REUSE.

G. THE DIVISION OF WATER POLLUTION CONTROL (WPC) WILL COLLECT ALL CITY SEWER CASTINGS INCLUDING CATCH BASIN FRAMES AND GRATES, AND MANHOLE FRAMES AND COVERS, FOR ALL EXISTING CATCH BASINS THAT NEED TO BE ABANDONED OR REMOVED AND EXISTING MANHOLE COVERS THAT NEEDS TO BE REPLACED. THE CONTRACTOR SHALL DESIGNATE A LOCATION WHERE ALL SEWER CASTINGS ARE TO BE STORED AND SHALL COORDINATE WITH WPC FOR THE COLLECTIONS OF ALL SEWER CASTINGS STORED IN THE DESIGNATED LOCATION.

REVIEW OF DRAINAGE STRUCTURES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE ENGINEER, REPRESENTATIVES OF THE DISTRICT AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE ENGINEER.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE ENGINEER.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

ADDITIONALLY, SOME EXISTING DRAINAGE INFORMATION SHOWN ON THESE PLANS IS FROM RECORD PLAN INFORMATION AND COULD NOT BE FIELD VERIFIED. PRIOR TO THE ORDERING OF ANY PRECAST MATERIALS, THE CONTRACTOR SHALL VERIFY AND RECORD THE DEPTHS OF THE EXISTING DRAINAGE STRUCTURES WHICH ARE BEING REMOVED AND REPLACED WITH NEW.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

CONNECTION TO EXISTING UTILITIES

PRIOR TO THE INSTALLATION OF PROPOSED CONNECTIONS TO EXISTING FACILITIES THE CONTRACTOR SHALL LOCATE AND CONFIRM THE EXISTING LINE AND GRADE AT THE CONNECTION MATCHES THE PROPOSED PLAN ELEVATIONS. ANY DEVIATION FROM PLAN ELEVATIONS OR OTHER PLAN REVISIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONNECTION INSTALLATION.

PRIOR TO THE INSTALLATION OF PROPOSED CONNECTIONS THE CONTRACTOR SHALL CONFIRM CLEARANCES TO THE ADJACENT UNDERGROUND UTILITIES. A CONFLICT REQUIRING A PLAN REVISION SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONNECTION INSTALLATION.

PAYMENT FOR THESE OPERATIONS DESCRIBED IN THESE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE PERTINENT ODOT ITEM 611 CONDUITS.

CROSSING AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ITEM 611 - DRAINAGE STRUCTURE, MISC.: UTILITY TEST HOLE

WHERE PLANS INDICATE OTHER UTILITIES ARE IN CLOSE PROXIMITY OF A NEW CATCH BASIN INSTALLATION, THE ENGINEER MAY DECIDE TO EXCAVATE TO CONFIRM THE CATCH BASIN CAN BE PLACED WITHOUT INTERFERENCE. IF INTERFERENCE IS FOUND, THE CATCH BASIN LOCATION OR TYPE IS TO BE REVISED, AS DIRECTED BY THE ENGINEER.

ONCE THE TEST HOLE IS COMPLETE, THE EXCAVATION SHALL BE BACKFILLED AND SURFACE RESTORED. NO PAYMENT FOR UTILITY TEST HOLE AS PER PLAN WILL BE GIVEN WITHOUT PRIOR APPROVAL FROM THE ENGINEER. PAYMENT FOR ALL LABOR, MATERIALS, EQUIPMENT AND OTHER INCIDENTALS, INCLUDING BACKFILL, COMPACTION AND SURFACE RESTORATION SHALL BE AT THE CONTRACT UNIT PRICE BID FOR ITEM 611 - DRAINAGE STRUCTURE, MISC.: UTILITY TEST HOLE. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE BY THE ENGINEER:

ITEM 611 - DRAINAGE STRUCTURE, MISC.:
UTILITY TEST HOLE 10 EACH

GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER IRK
REVIEWER CEL 12/12/25
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SHEET P.09 TOTAL 195

DRAINAGE (CONTINUED)

ITEM 202 - CATCH BASIN REMOVED, AS PER PLAN

WHERE THE PLANS CALL FOR THE EXISTING CATCH BASIN TO BE REMOVED AND NOT REPLACED, THE REMAINING VOID SHALL BE BACKFILLED WITH LSM. THE COST FOR THE LSM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 - CATCH BASIN REMOVED, AS PER PLAN.

ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN

IN ADDITION TO THE APPLICABLE WORK AND MATERIALS DESCRIBED UNDER ODOT ITEM 605 AND SHOWN ON THE DETAIL ON P.05, THE UNIT PRICE BID FOR THIS ITEM SHALL ALSO INCLUDE THE FOLLOWING:

1. IT IS THE INTENT OF THIS PROJECT TO INSTALL NEW UNDERDRAIN IN AREAS WHERE NEW CURB IS PROPOSED. THE PROPOSED UNDERDRAINS SHALL BE CONSTRUCTED TO MATCH THE LOCATION OF ANY EXISTING UNDERDRAIN TO REMAIN SO AS TO ASSURE CONTINUITY OF FLOW. THIS WORK SHALL INCLUDE REMOVAL OF ANY EXISTING UNDERDRAIN WHICH MAY BE ENCOUNTERED IN THE NORMAL EXCAVATION.
2. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO OUTLET THE UNDERDRAIN INTO THE CATCH BASINS. THE LAST 10 FEET OF UNDERDRAIN TO OUTLET AND CONNECT TO CATCH BASINS SHALL BE NON-PERFORATED CONDUIT, TYPE F, 706.08
3. THE FURNISHING OF UNDERDRAIN SHALL INCLUDE THE FURNISHING AND INSTALLATION OF A FILTER WRAP (SOCK), IN CONFORMANCE WITH ODOT 605.02.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCLUDED IN THE BID CONTRACT UNIT PRICE FOR ODOT ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN.

ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN (OPEN PIPE POLICY) (ALTERNATE 1)

THIS ITEM SHALL CONFORM TO THE CLEVELAND WPC NOTES AND DETAILS IN THE PLANS EXCEPT THE VITRIFIED CLAY PIPE (EXTRA STRENGTH ONLY) PER 706.08 REQUIREMENT FOR THE CONDUIT MATERIAL WILL NOT APPLY.

ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN (706.08 ES) (ALTERNATE 2)

THIS ITEM SHALL CONFORM TO THE CLEVELAND WPC NOTES AND DETAILS IN THE PLANS. THIS ITEM SHALL PROVIDE VITRIFIED CLAY PIPE (EXTRA STRENGTH ONLY) PER 706.08 TO MEET THE REQUIREMENTS OF THE CITY OF CLEVELAND DIVISION OF WATER POLLUTION CONTROL (WPC).

ITEM 611 - CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1

CATCH BASINS FURNISHED AND INSTALLED UNDER THIS ITEM SHALL CONFORM TO THE REQUIREMENTS OF ODOT ITEM 611, CITY OF CLEVELAND SCD CB-1 (SEE SHEETS P.89-P.90), AND THE FOLLOWING:

ROUND CATCH BASINS MAY NOT BE USED. THE BEND TO CONNECT TO THE STORM SEWER SHALL BE INCIDENTAL TO THE COST OF THE CATCH BASIN. ALL OUTLET ELEVATIONS ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING MATERIAL. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ITEM 611. PAYMENT WILL BE BASED ON A PER EACH BASIS OF COMPLETED AND ACCEPTED CATCH BASINS. CATCH BASINS AND CONNECTIONS SHALL BE FREE OF ALL DEBRIS BEFORE FINAL ACCEPTANCE AT NO ADDITIONAL COSTS.

THE CONTRACT BID ITEM COST FOR THE REPLACEMENT OF AN EXISTING CATCH BASIN WITH A NEW CATCH BASIN SHALL INCLUDE THE REMOVAL AND DISPOSAL COST OF SAID EXISTING CATCH BASIN UNLESS A SEPARATE PAY ITEM FOR THE REMOVAL OF THE CATCH BASIN IS INCLUDED IN THE CONTRACT.

IN INSTANCES WHERE A CB-1 BASIN WILL NOT FIT DUE TO CONFLICT WITH OTHER UTILITIES, CITY OF CLEVELAND STANDARD CB-2 SHALL BE INSTALLED (AS PER THE CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2 GENERAL NOTE) AND THE CB-1 ITEM SHALL BE NON-PERFORMED. CONTRACTOR SHALL VERIFY TYPE OF CATCH BASIN REQUIRED PRIOR TO ORDERING. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR INSTANCES WHERE A CB-2 MUST BE PLACED IN LIEU OF A CB-1:

ITEM 611 -	CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2	2 EACH

ITEM 611 - CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2

CATCH BASINS FURNISHED AND INSTALLED UNDER THIS ITEM SHALL CONFORM TO THE REQUIREMENTS OF ODOT ITEM 611 AND CITY OF CLEVELAND SCD CB-1 (SEE SHEETS P.89-P.90).

ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP)

CATCH BASINS FURNISHED AND INSTALLED UNDER THIS ITEM SHALL CONFORM WITH ODOT ITEM 611, ODOT STANDARD CONSTRUCTION DRAWING CB-2-2A, 2B, 2C, MODIFIED AS PER THE DETAIL ON SHEET P.88, AND THE FOLLOWING:

1. THE STRUCTURE SHALL HAVE 2'-0" DEEP SUMP MEASURED FROM THE BOTTOM OF THE OUTLET PIPE TO THE INSIDE BOTTOM.
2. THE GRATES SHALL BE BICYCLE-SAFE. FURNISH NEENAH NO. R-1878-S; EAST JORDAN NO. 5110M3; OR APPROVED EQUAL.

ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP AND TRAP)

CATCH BASINS FURNISHED AND INSTALLED UNDER THIS ITEM SHALL CONFORM WITH ODOT ITEM 611, ODOT STANDARD CONSTRUCTION DRAWING CB-2-2A, 2B, 2C, MODIFIED AS PER THE DETAIL ON SHEET P.88, AND THE FOLLOWING:

1. THE STRUCTURE OUTLET PIPE SHALL HAVE A CATCH BASIN TRAP INSTALLED ON THE WALL OF THE CATCH BASIN AS SHOWN ON CITY SCD CB-1.
2. THE STRUCTURE SHALL HAVE A 2'-0" DEEP SUMP MEASURED FROM THE BOTTOM OF THE TRAP TO THE INSIDE BOTTOM.
3. THE GRATES SHALL BE BICYCLE-SAFE. FURNISH NEENAH NO. R-1878-S; EAST JORDAN NO. 5110M3; OR APPROVED EQUAL.

ITEM SPECIAL - MISCELLANEOUS METAL (WPC)

THIS ITEM SHALL BE USED TO REPLACE MISSING, DAMAGED, OR BROKEN CITY OF CLEVELAND WPC CASTINGS BY THE CONTRACTOR. THE ENGINEER SHALL DETERMINE WHICH OF THE CASTINGS, IF ANY, SHALL BE REPLACED UNDER THIS ITEM PRIOR TO REMOVAL OF SAME. NEW CASTING SHALL BE SET TO LINE AND GRADE AND PAID FOR AS ADJUSTING THE RESPECTIVE CASTING, IN ADDITION TO THE PAYMENT FOR MISCELLANEOUS METAL FURNISHED. LOCATIONS SHALL BE LOGGED ON CONTRACTORS DAILY REPORTS APPROVED BY CITY INSPECTOR AND SUBMITTED WITH INVOICING FOR PAYMENT.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ELIE RAMY AT (216) 664-2756 TO DETERMINE THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL PROVIDED BY THE CONTRACTOR SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL REMOVE, TRANSPORT AND DEPOSIT ALL EXISTING FERROUS METAL INCLUDING BUT NOT LIMITED TO EXISTING CATCH BASIN FRAME AND GRATE, MANHOLE FRAME, MANHOLE COVER, VALVE COVER AND BOXES INTO THE 30 CUBIC YARD CONTAINER AT 2300 EAST 67TH CENTRAL AVENUE, CLEVELAND, OHIO 44104. CONTRACTOR SHALL NOTIFY THE BUREAU OF BRIDGES AND DOCKS AT 216-432-6040 OF DATE OF DELIVERY. STOCKPILED FERROUS METAL SHALL NOT OBSTRUCT PEDESTRIAN OR VEHICULAR ACCESS.

DRAY SLIPS SHALL BE SUBMITTED FOR EACH SEPARATE PART OF EACH CASTING AND SHALL BE USED TO DETERMINE THE ACTUAL WEIGHT OF MISCELLANEOUS METAL TO BE PAID FOR, IN POUNDS (LBS.). ITEMS MEETING THIS SPECIFICATION SHALL BE PAID UNDER ITEM SPECIAL - MISCELLANEOUS METAL.

LOCATIONS SHALL BE LOGGED ON CONTRACTORS DAILY REPORTS, APPROVED BY CITY INSPECTOR, AND SUBMITTED WITH INVOICING FOR PAYMENT. PAYMENT WILL NOT BE PROCESSED FOR MISCELLANEOUS METAL WITHOUT ACCOMPANYING DOCUMENTATION.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL (WPC) 5000 LBS

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

EXISTING WPC RECORD SEWER DRAWINGS:

THE FOLLOWING RECORD DRAWINGS WERE PROVIDED BY WPC AND USED TO DEVELOP THE EXISTING SEWER PLANS AND PROFILES:

1. 36466, EUCLID AVENUE TO HOUGH AVENUE, DATED 1954.
2. 36370, HOUGH AVENUE TO LEXINGTON AVENUE, DATED 1946.
3. A-1051, LEXINGTON AVENUE TO SUPERIOR AVENUE, DATED 1975.

SWALE DRAINAGE AND DISCHARGE

THE DRAWINGS PROVIDE LOCATIONS THAT THE CROSS SECTIONS INDICATE THAT THE TOP OF THE NEW CURB ELEVATION WILL BE ABOVE THE FACE OF WALK OR PATH ELEVATION. AT THESE LOCATIONS, SWALES HAVE BEEN PROVIDED AND THE DRAWINGS HAVE INCLUDED QUANTITIES TO DRAIN THESE SWALES.

DURING CONSTRUCTION OTHER AREAS WHERE THE TOP OF CURB ELEVATION IS ABOVE THE THE FACE OF WALK OR PATH MAY BE DISCOVERED. IN THESE LOCATIONS, AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR MAY EITHER REDUCE THE CURB REVEAL TO AM MINIMUM OF 4 INCHES TO PROVIDE DRAINAGE TO THE PAVEMENT, OR PROVIDE A 2-2B CATCH BASIN AND CONDUIT TO DRAIN THE SWALE. THE CONDUIT SHALL DISCHARGE INTO A NEW OR EXISTING COMBINATION SEWER OR STORM PIPE OR STRUCTURE.

THE FOLLOWING ESTIMATED QUANTITIES SHAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 611 -	12" CONDUIT, TYPE B, 706.08	200 FT
ITEM 611 -	CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP)	2 EACH
ITEM 611 -	CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP AND TRAP)	2 EACH

PAVEMENT

ASPHALT CONCRETE COURSE SEALING REQUIREMENTS

UNLESS OTHERWISE SPECIFIED OR PERMITTED, GUTTERS SHALL BE SEALED WITH THE SAME TYPE OF ASPHALT CEMENT USE IN THE ASPHALT MIXTURE FOR A DISTANCE OF FOUR (4) INCHES FROM THE CURB. THE SEAL SHALL BE APPLIED AT A UNIFORM RATE AND WIDTH BY THE MEANS OF A SQUEEGEE OR DISTRIBUTED IN SUCH A MANNER THAN NO EXCESS MATERIAL WILL BE LEFT ON THE SURFACE. THE ASPHALT GUTTER SEAL SHALL BE APPLIED AT A TEMPERATURE BETWEEN 300 DEGREES FAHRENHEIT AND 350 DEGREES FAHRENHEIT IMMEDIATELY UPON THE COMPLETION OF THE SURFACE COURSE.

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED ON SCD BP-3.1 AND IN 401.08(D), AFTER COMPLETION OF THE SURFACE COURSE, THE CONTRACTOR SHALL SEAL, WITH A CERTIFIED PG BINDER, THE FOLLOWING LOCATIONS:

A. ALL CASTINGS INCLUDING, BUT NOT LIMITED TO, MONUMENTS, MANHOLES, WATER VALVES, AND CATCH BASINS.
B. BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES.
C. FORWARD JOINT FOR DRIVEWAY ASPHALT AND TRAILING JOINT WHEN BUTTING TO EXISTING ASPHALT DRIVE.
D. PERIMETER OF ALL PAVEMENT REPAIRS WHEN PAVEMENT REPAIRS ARE NOT OVERLAID WITH ASPHALT CONCRETE.
E. ALL COLD TRANSVERSE CONSTRUCTION JOINTS PER 401.17.
F. ALL COLD LONGITUDINAL JOINTS BETWEEN PAVED SHOULDERS AND GUARDRAIL ASPHALT.

THE MATERIAL USED SHALL BE HOT APPLIED CERTIFIED 702.01 PG BINDER. THE WIDTH OF SEALER SHALL BE 2 INCHES.

THE COST OF THE JOINT SEAL APPLIED AS HEREIN SPECIFIED SHALL BE INCLUDED IN THE PRICE PER SQUARE YARD FOR SURFACE COURSE BID BY THE CONTRACTOR.

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK

REVIEWER CEL 12/12/25

PROJECT ID 122389

SHEET P.10 TOTAL 195

PAVEMENT (CONTNUED)

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE

AT VARIOUS LOCATIONS ALONG THE CORRIDOR AND TIMES DURING CONSTRUCTION CIRCUMSTANCES MAY REQUIRE THE USE OF CLASS MS CONCRETE. THE USE OF THIS TYPE OF CONCRETE SHALL BE AT THE DISCRETION AND DIRECTION OF THE ENGINEER AND THE SPECIFICATIONS OUTLINED IN THESE NOTES. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, MISC.: SURCHARGE FOR CLASS MS CONCRETE	500 SQ YD

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS, REMOVALS, AND/OR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES, AND INSTALLATION OF ITEM 611 DRAINAGE ITEMS.

ITEM 202 - PAVEMENT REMOVED	200 SQ YD
ITEM 304 - AGGREGATE BASE, AS PER PLAN	25 CU YD
ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN	200 SQ YD
ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (T=1-3/4")	10 CU YD

1

THE ABOVE QUANTITIES ARE BASED ON THE TRENCH WIDTHS INDICATED ON CLEVELAND SCD 146-ME (SHEET NO. 92) AND CLEVELAND WATER DEPARTMENT DRAWING STD-001 (SHEET NO. 115), AND THE PAVEMENT REPLACEMENT WIDTHS AND SECTION INDICATED ON THE DETAIL ON SHEET NO. 124.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

PAVEMENT REPAIR AND BASE REPLACEMENT OPERATIONS

AREAS OF PAVEMENT BASE ALONG THE EAST 66TH STREET CORRIDOR WILL BE REPAIRED OR REPLACED TO REHABILITATE DETERIORATING PAVEMENT BASE CONDITIONS. THE FOLLOWING METHODOLOGY WILL BE USED TO IDENTIFY AREA OF BASE REPAIR.

UPON COMPLETION OF ALL PAVEMENT PLANING OPERATIONS AND CONFIRMATION BY THE ENGINEER THAT THE PROPOSED DESIGN HAS BEEN ESTABLISHED, THE ENGINEER WILL DESIGNATE LOCATIONS AND LIMITS OF PAVEMENT BASE REPAIR AND/OR REPLACEMENT. THE DESCRIPTION OF WORK, DETAILS, AND ESTIMATED QUANTITIES HAVE BEEN INCLUDED ON THIS SHEET.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE FINAL GRADES OF THE PLANED SURFACE ACCORDING TO THE REQUIREMENTS OF THE PLANS, PROFILE, AND TYPICAL SECTIONS. THE REQUIRED DEPTH OF PLANING WILL VARY THROUGH THE PROJECT AND ACROSS THE PAVEMENT SURFACE. WHEREVER THE EXISTING ASPHALT SURFACE IS REMAINING IT SHALL BE PLANED TO A MINIMUM DEPTH OF ONE INCH (1") FROM EXISTING SURFACE. ANY EXCESS ASPHALT MATERIAL REQUIRED DUE TO OVER-PLANING WILL BE AT THE EXPENSE OF THE CONTRACTOR.

WHERE CONCRETE PAVEMENT IS ENCOUNTERED IN AREAS OF UTILITY TRENCHES, PREVIOUS REPAIR AREAS, ETC., THE CONTRACTOR SHALL PLANE THE PORTLAND CEMENT CONCRETE ACCORDING TO ODOT ITEM 254, TO MATCH THE EXISTING SURFACE OF THE SURROUNDING ASPHALT CONCRETE PLANED SURFACE. LOCATIONS FOR THIS WORK ARE NOT SPECIFICALLY IDENTIFIED IN THE PLANS. PLANING OF ANY EXISTING CONCRETE PAVEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN

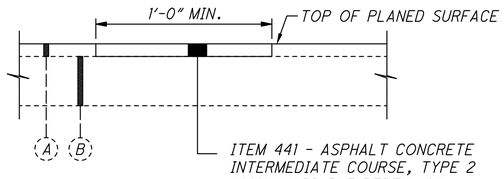
THE ENGINEER SHALL IDENTIFY AREAS REQUIRING PARTIAL DEPTH REPAIR AFTER INITIAL PAVEMENT PLANING IS COMPLETE, ALL APPLICABLE PROVISIONS OF ITEM 251, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY EXCEPT AS MODIFIED HEREIN.

251.02 - REMOVAL OF EXISTING PAVEMENT:
APPROVED REMOVAL METHODS SHALL SATISFACTORILY ESTABLISH A NEAT VERTICAL FACE ALONG THE ENTIRE PERIMETER OF THE REPAIR AREA IN ORDER TO SUBSEQUENTLY PERMIT THE PROPER PLACEMENT AND COMPACTION OF THE ASPHALT CONCRETE PATCHING MATERIAL. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, REMOVAL DEPTHS SHALL VARY FROM A ONE AND A HALF (1-½) INCH MINIMUM TO A THREE *(3) INCH MAXIMUM. THESE DEPTHS ARE IN ADDITION TO THE THICKNESS OF THE EXISTING BRICK REMOVAL.

PARTIALLY EMBEDDED STEEL MESH EXPOSED SHALL BE WIRE-BRUSHED OR OTHERWISE CLEANED TO REMOVE ALL LOOSE RUST. LOOSENED OR TOTALLY EXPOSED WIRE MESH REINFORCING SHALL BE CUT AND REMOVED AS REQUIRED WITHOUT DISPLACEMENT OR DISRUPTION TO THE REINFORCEMENT AND/OR PAVEMENT TO REMAIN. RECORD DRAWINGS AND SOME OF THE PAVEMENT CORES INDICATE A BRICK BASE IS LOCATED UNDER SOME OF THE ASPHALT WEARING COURSE. CONTRACTOR SHALL REFER TO THE PARTIAL-DEPTH PAVEMENT REPAIR DETAIL INCLUDED ON THIS SHEET.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	500 SQ YD



ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN

AFTER THE EXISTING ASPHALT PAVEMENT HAS BEEN REMOVED BY THE PLANING OPERATION, THE ENGINEER WILL INSPECT THE CONDITION OF THE EXISTING BASE. ANY DEFECTIVE AREAS SHALL BE REMOVED AND REPLACED PER THE DETAILS ON THIS SHEET, AT THE DIRECTION OF THE ENGINEER, AFTER THEIR APPROVAL. ALL APPLICABLE PROVISIONS OF ITEM 255 AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY EXCEPT WHERE MODIFIED IN THESE GENERAL NOTES:

255.02 - MATERIALS:
THE CONCRETE USED FOR RIGID REPLACEMENT (255) SHALL BE AS PER THE CMS. AGGREGATE BASE PAID FOR ITEM 255 SHALL MEET THE REQUIREMENTS SET FORTH IN CMS 203 AND 304, AND THE NOTES AND DETAILS FOUND IN THESE PLANS.

255.04 - CORRECTION OF DISTURBED SUBBASE AND SUBGRADE:
SUITABLE SUBBASE DISTURBED IN AREAS WHERE CONCRETE PAVEMENT IS REMOVED SHALL BE SHAPED AND RECOMPACTED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST. UNSUITABLE SUBBASE, AS DETERMINED BY THE ENGINEER, SHALL BE REMOVED AND REPLACED WITH ITEM 304 AGGREGATE BASE, AS PER PLAN TO THE DEPTH OF ADJACENT SUBBASE, FOUR (4) INCHES MINIMUM. WHERE UNSUITABLE SUBGRADE MATERIAL IS ENCOUNTERED, IT SHALL BE REMOVED TO THE DEPTH DETERMINED BY THE ENGINEER, AND REPLACED IN FOUR (4) INCH LIFTS (LOOSE DEPTH). NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.

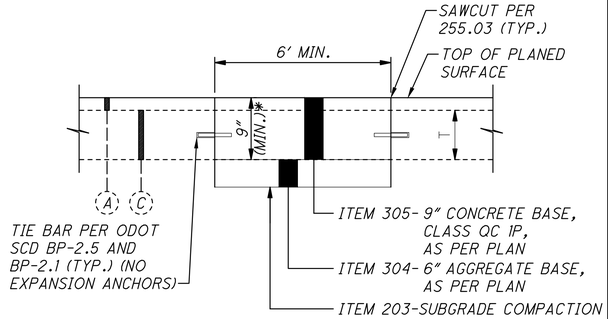
MECHANICALLY COMPACTED LAYERS
SUITABLE EMBANKMENT MATERIAL (204.02) REQUIRED TO REPLACE THE UNDERCUT SUBGRADE SHALL, TO THE EXTENT POSSIBLE, EXHIBIT THE SAME PHYSICAL PROPERTIES AS THE ADJACENT SOUND SUBGRADE MATERIALS. HOWEVER, USE OF GRANULATED SLAG, IN ANY FORM, IS NOT PERMITTED. GRANULAR EMBANKMENT MATERIAL SHALL BE LIMITED TO CRUSHED CARBONATE STONE. ALL EXPOSED OR RECONSTRUCTED SUBGRADE SOILS SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER. REMOVAL AND DISPOSAL OF THE UNSUITABLE SUBBASE OR SUBGRADE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO ITEM 255, AND NO SEPARATE PAYMENT WILL BE MADE.

255.09 - METHOD OR MEASUREMENT:
UNSUITABLE SUBGRADE SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH CMS 204. THE REPLACEMENT MATERIAL FOR UNSUITABLE SUBBASE SHALL BE FURNISHED, IN ACCORDANCE WITH ITEM 304-AGGREGATE BASE, AS PER PLAN. NO ADDITIONAL PAYMENT WILL BE MADE FOR ITEM 304 OR ITEM 204. AND WILL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR ITEM 255.

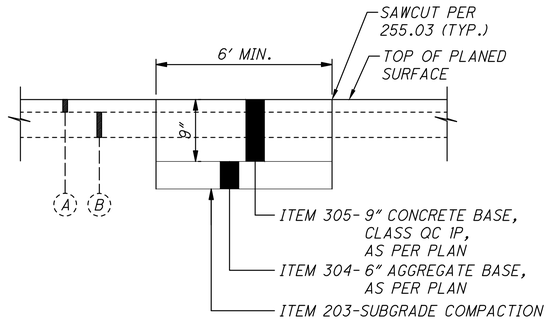
255.10 - BASIS OF PAYMENT:
PAYMENT FOR ITEM 255-FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN IS FULL COMPENSATION FOR FURNISHING ALL MATERIALS AND LABOR PER 255.10 AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO, FULL DEPTH PAVEMENT SAWING, PAVEMENT REMOVAL INCLUDING CONCRETE AND BRICK BASE, SUBBASE/SUBGRADE CORRECTION AND/OR REMOVAL, AS NECESSARY, PLACEMENT OF NEW 304 AGGREGATE BASE, AS NECESSARY, FURNISHING AND PLACING DOWELS, TIE BARS, MESH, AND CONCRETE FOR BOTH ITEM 255 AND ITEM 306 CONCRETE BASE AS REQUIRED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 255 - FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN	500 SQ YD



CONCRETE BASE



BRICK BASE

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN

ITEM 304 - AGGREGATE BASE, AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. CRUSHED CARBONATE STONE, CRUSHED AIR COOLED BLAST FURNACE SLAG, OR GRAVEL SHALL BE USED FOR THIS ITEM INCLUDING UNDERCUTTING. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE. AGGREGATE BASE SHALL BE A MINIMUM OF 6" IN DEPTH, UNLESS OTHERWISE INDICATED ON THE PLANS.

IN ADDITION TO THE FURNISHING, INSTALLATION, AND COMPACTION OF THE ITEM 304 AGGREGATE BASE, THE UNIT PRICE FOR THIS ITEM SHALL INCLUDE ALL EXCAVATION AND DISPOSAL OF THE EXCAVATED MATERIAL FROM THE BOTTOM OF THE EXISTING PAVEMENT TO THE PROPOSED SUBGRADE ELEVATION AT THE BOTTOM OF THE AGGREGATE BASE.

GENERAL NOTES

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER CEL 8/11/26
PROJECT ID 122389
SHEET P.11 TOTAL 195

PAVEMENT (CONT.)

ITEM 305 - 9" CONCRETE, CLASS QC 1P, AS PER PLAN

CONSTRUCT 9" CONCRETE BASE IN ACCORDANCE WITH THE ODOT CMS, EXCEPT AS MODIFIED BY GENERAL NOTE "CONCRETE DESIGN MIX (CLEVELAND 650) AND OTHER GENERAL NOTES WITHIN THE PLAN SET. CONCRETE BASE SHALL BE INSTALLED AT THE SAME THICKNESS AS EXISTING BASE MATERIAL, WITH A MINIMUM DEPTH OF NINE (9) INCHES. JOINTS SHALL BE SAWED TO MATCH THOSE IN ADJACENT PAVEMENT.

ITEM 441 - ASPHALT CONCRETE

RECYCLED MATERIAL SHALL BE LIMITED TO WEARING COURSE MAXIMUM OF 10%, INTERMEDIATE COURSE MAXIMUM OF 20% AND BITUMINOUS BASE COURSE MAXIMUM OF 30%.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG-70-22M, AS PER PLAN

THE COARSE AGGREGATE FOR THIS ITEM SHALL BE A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE. THE USE OF GRAVEL IS PROHIBITED. FOR THIS ITEM, A THIRD ROLLER IS REQUIRED FOR MAINLINE PAVING OPERATIONS. THE ROLLER SHALL CONFORM TO THE REQUIREMENTS OF 401.13.

ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS, AS PER PLAN (BY THICKNESS)

IN ADDITION TO THE REQUIREMENTS OF ODOT 452, THE COST OF EXCAVATING, FURNISHING, AND COMPACTING THE TWO (2) INCH LIMESTONE SCREENING BED SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEMS. ALL CONCRETE FOR APRONS AND DRIVES SHALL HAVE RETRACED FRAME TOOLED EDGE JOINTS.

ITEM 609 - CURB, TYPE 6, AS PER PLAN

CONSTRUCT THIS ITEM TO THE REQUIREMENTS OF ODOT 609 AND ANY OTHER GENERAL NOTES WITHIN THE PLAN SET.

ITEM 451 - REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE CROSSWALK
ITEM 451 - REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE INTERSECTION

IN ADDITION TO THE REQUIREMENTS OF ODOT 451, THIS ITEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING:

THE DECORATIVE CONCRETE CROSSWALK SHALL BE AS PER THE DETAIL ON SHEET NO. 124.

SEE SHEET NO. 178 FOR SPECIFICATIONS REGARDING THE INTEGRALLY COLORED CONCRETE, INCLUDING SUBMITTALS, MATERIALS, INSTALLATION, ETC.

THE SAW CUTTING, REMOVAL, AND DISPOSAL OF THE EXISTING PAVEMENT IN ORDER TO INSTALL THESE ITEMS SHALL BE PAID FOR UNDER ITEM 202, PAVEMENT REMOVED.

ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE CONSTRUCTION OF THE DECORATIVE CONCRETE, INCLUDING THE CONSTRUCTION OF THE MOCK-UP(S) AND REMOVAL AND DISPOSAL OF ALL ADDITIONAL MATERIAL BELOW THE EXISTING PAVEMENT, AS REQUIRED IN THIS NOTE AND SHOWN IN THE PLAN DETAILS, SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 451, REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE (CROSSWALK OR INTERSECTION).

LANDSCAPING

ITEM 661 - MULCH, AS PER PLAN

THIS ITEM IS TO BE USED TO FURNISH AND INSTALL MULCH WITHIN THE TREE PITS AS INDICATED IN SECTION 9 OF THE "TREE PLANTING, WATERING, STAKING, ESTABLISHMENT" NOTE ON SHEET NO. 180. THE MULCH SHALL BE IN CONFORMANCE WITH CMS ITEM 661 EXCEPT AS MODIFIED IN THAT GENERAL NOTE.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR THIS ITEM, INSTALLED AS INDICATED IN THE GENERAL NOTE.

ITEM 661 - MULCH, AS PER PLAN	40	CU YD

ENVIRONMENTAL

CLEVELAND'S HISTORIC LEAGUE PARK AND BASEBALL HERITAGE MUSEUM

ACCESS TO CLEVELAND'S HISTORIC LEAGUE PARK AND BASEBALL HERITAGE MUSEUM SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR THE TIME NEEDED TO TEMPORARILY OCCUPY THE PROPERTY, WHICH SHALL BE LESS THAN THE TIME NEEDED FOR CONSTRUCTION OF THE PROJECT. TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED ALONG PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT THE SECTION 4(F) PROPERTY AND THE PUBLIC. APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT USERS OF CLEVELAND'S HISTORIC LEAGUE PARK AND BASEBALL HERITAGE MUSEUM OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS OR CLOSURES, AND TO DIRECT USERS TO SECONDARY ACCESS POINTS. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT, THE CITY OF CLEVELAND, AND THE BASEBALL HERITAGE MUSEUM DIRECTOR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

PLAN NOTE FOR PETROLEUM CONTAMINATED SOILS

THE REGULATED MATERIALS REVIEW IDENTIFIED PETROLEUM CONTAMINATED SOILS (PCS) ADJACENT TO RMR SITES 001, 012, 022, 024 AND 039. THE REGULATED MATERIALS REVIEW IS AVAILABLE FOR REFERENCE IN THE PROJECT CONSTRUCTION FILE. SEE 122389 REGULATED MATERIAL REVIEW.

THE CONTRACTOR MAY REUSE EXCAVATED PCS ON THE PROJECT IF A SAMPLING ANALYSIS INDICATES THAT THE MATERIAL DOES NOT EXCEED THE RE-USE ACTION LEVELS IDENTIFIED IN OAC 1301: 7-9-16 TABLE 1. HIRE A PREQUALIFIED CONSULTANT TO PERFORM SAMPLING AND TESTING FOR ACCURATE CHARACTERIZATION AS STATED IN 203.03J. DO NOT BID THE WORK ASSUMING EXCAVATED PCS CAN BE REUSED ON THE PROJECT. DISPOSE ALL EXCAVATED PCS THAT CANNOT BE REUSED ON THE PROJECT AT A LICENSED RECYCLE OR DISPOSAL FACILITY. PERFORM ALL SAMPLING AND TESTING REQUIRED BY THE RECYCLING/ DISPOSAL FACILITY. DIRECT LOAD ALL EXCAVATED PCS FOR TRANSPORT AND DISPOSAL WHEN PRACTICAL. THE CONTRACTOR MAY TEMPORARILY STORE THE PCS PURSUANT TO OAC 1301: 7-9-16 IN AN AREA PROVIDED BY THE CONTRACTOR AND ACCEPTED BY THE ENGINEER. PROVIDE TEMPORARY STORAGE IN ONE OF THE FOLLOWING MANNERS CONFORMING TO OAC 1301: 7-9-16 (E) (1):

A. IN PORTABLE CONTAINERS THAT ARE FREE OF HOLES OR OTHER DAMAGES THAT MAY ALLOW A RELEASE OF MATERIAL, ARE SECURED WITH LIDS OR COVERS TO PREVENT INFILTRATION OF RAINWATER AND ARE INDIVIDUALLY LABELED WITH THE DATE OF EXCAVATION AND THE WORDS: "NON-HAZARDOUS SOIL OR BACKFILL. MAY CONTAIN SOIL CONTAMINATED BY PETROLEUM PRODUCTS."

B. IN STOCKPILES PROTECTED BY A SYNTHETIC COVER THAT PREVENTS INFILTRATION FROM RAINWATER OR RUN-OFF OF SOIL AND BY BERMS OR OTHER DEVICES THAT DIVERTS RUN-ON OF STORM WATER. A TWENTY-FOUR HOUR ONCE IN TEN-YEAR RAIN EVENT SHALL BE USED TO DESIGN SUCH CONTROLS.

C. DURING STORAGE, STOCKPILES SHALL BE PLACED ON AN ASPHALT PAD, CONCRETE PAD, COMPATIBLE SYNTHETIC LINER HAVING A MINIMUM THICKNESS OF TEN MIL, OR ANOTHER MATERIAL SPECIFICALLY APPROVED BY THE STATE FIRE MARSHAL THAT PREVENTS THE LEACHING OF CHEMICALS OF CONCERN. SYNTHETIC LINERS SHALL BE INSTALLED WITH OVERLAPS OF NOT LESS THAN TWELVE INCHES AND SHALL BE FREE OF RIPS, TEARS, OR OTHER DAMAGE. EXCAVATED SOIL SHALL BE PLACED ON THE LINER IN A MANNER THAT INSURES LINER INTEGRITY. A TEMPORARY FENCE, BARRIER, OR OTHER DEVICE SHALL BE USED TO PREVENT UNAUTHORIZED ENTRY TO STORAGE AREAS.

D. ALL STORAGE TECHNIQUES SHALL BE CONSTRUCTED AND MAINTAINED TO MINIMIZE THE RELEASE OF PETROLEUM VAPORS AND ODORS.

PROVIDE COMPLETED LOG FORMS AND BILL OF LADING/ MANIFESTS FOR TRANSPORT AND DISPOSAL TO THE ENGINEER.

REMOVE AND DISPOSE OF USTS PER CMS 202.08.

IF THE EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, DEWATER, CONTAINERIZE AND DISPOSE OF THE LIQUID WASTE IN A LICENSED DISPOSAL FACILITY. OBTAIN ALL NECESSARY PERMITS AND CONDUCT ALL TESTING NEEDED TO STORE, TRANSPORT, AND DISPOSE OF THE LIQUID WASTE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. PROVIDE COMPLETED LOG FORMS AND BILL OF LADING/MANIFESTS FOR TRANSPORT AND DISPOSAL TO THE ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES, LIENS, OR BOTH ASSESSED BY REGULATORY AGENCIES THAT HAVE JURISDICTION OVER THE TRANSPORT AND DISPOSAL OF THE PCS. FILL OUT AND SIGN ALL WASTE DISPOSAL FACILITY FORMS REQUIRED BY THE DISPOSAL FACILITY INCLUDING, BUT NOT LIMITED TO, MATERIAL PROFILES, DATA SHEETS, AND MATERIAL CERTIFICATIONS. PROVIDE A COPY OF ALL COMPLETED DISPOSAL FACILITY FORMS TO THE ENGINEER.

BACKFILL ALL EXCAVATED AREAS WITH SUITABLE MATERIAL IN ACCORDANCE WITH PROJECT PLANS AND APPLICABLE ODOT SPECIFICATIONS. PROVIDE ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY HANDLE, TEMPORARILY STORE, TEST FOR CHARACTERIZATION, TRANSPORT, AND DISPOSE OF THE REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS OR FEES. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS. THE BASIS FOR CONVERSION FROM TONS TO CUBIC YARDS IS 1.5 TON/CUBIC YARD. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY.

ITEM SPECIAL - WORK INVOLVING NON-REGULATED MATERIALS	15	TON
ITEM SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOILS	150	TON
ITEM SPECIAL - WORK INVOLVING NON-REGULATED WATER	15000	GALLON
ITEM SPECIAL - WORK INVOLVING REGULATED WATER	5000	GALLON

GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornengr.com

DESIGNER IRK
REVIEWER CEL 8/10/26
PROJECT ID 122389
SHEET P.12 TOTAL 195

ITEM 614 - MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR WHERE INDICATED ON THESE PLANS WHEN SOUTHBOUND TRAFFIC SHALL BE MAINTAINED ON THE THE EXISTING AND/OR COMPLETED PAVEMENT AND NORTHBOUND THROUGH TRAFFIC DETOURED ONTO EAST 65TH STREET AS SHOWN ON SHEET NO. 18.

INSTALLATION AND SUBSEQUENT REMOVAL OF ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE SHALL OCCUR ONLY BETWEEN THE HOURS OF 8:00 AM AND 3:00 PM.

PRIOR TO OPENING FOR TRAFFIC, EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. BECAUSE OF THE REQUIREMENT TO PLACE THE ASPHALT SURFACE COURSE OVER THE ENTIRE ROADWAY DURING THE LAST PHASE, IT MAY BE NECESSARY FOR THE CONTRACTOR TO PROVIDE TEMPORARY RAMPING OF OBSTRUCTIONS (SUCH AS MANHOLE, VALVES, CATCH BASINS, ETC.) IN THE PATH OF VEHICULAR TRAFFIC. ASPHALT WEDGES SHALL ALSO BE PROVIDED FOR UNEVEN TRANSVERSE AND LONGITUDINAL JOINTS. SUFFICIENT TEMPORARY ASPHALT SHALL BE PLACED SO AS TO PROVIDE A SMOOTH TRANSITION FOR THE TRAVELING PUBLIC. PRIOR TO PLACING THE SURFACE COURSE, ALL TEMPORARY RAMPING AND WEDGE MATERIAL SHALL BE REMOVED IN A NEAT MANNER AND SHALL BE INCLUDED IN THE COST OF THIS ITEM.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SAFE VEHICULAR AND PEDESTRIAN TRAFFIC AT ALL TIMES THROUGHOUT THE PROJECT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MATERIALS, AND LABOR NEEDED TO ADEQUATELY MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY. THE CONTRACTOR SHALL MAINTAIN ADEQUATE PEDESTRIAN WALKS AT ALL INTERSECTIONS, INCLUDING ASPHALT CONCRETE WALKS, WHERE DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, FLASHING ARROW BOARDS, AND TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614, MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

EXISTING TRAFFIC CONTROL DEVICES (SIGNS AND/OR TRAFFIC SIGNALS), LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

THE LENGTH AND DURATION OF TRAFFIC RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. THE INTENT IS TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ADVANCE TRAFFIC SIGNING AND SUPPORTS, INCLUDING CONSTRUCTION WORK ZONE APPROACH SIGNING, BARRICADES, AND SIGNS ON BARRICADES SHOWN ON THE PLANS BEYOND THE WORK LIMITS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

SEQUENCE OF CONSTRUCTION

CONSTRUCTION OF ANY IMPROVEMENTS MAY NOT BEGIN PRIOR TO APRIL 1, 2027, WITHOUT THE APPROVAL OF THE ENGINEER.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND PLACE "ROAD WORK AHEAD" (W20-1) SIGNS ON NORTHBOUND EAST 66TH STREET SOUTH OF CHESTER AVENUE, AND ON ALL SIDE STREET APPROACHES; AND "END ROAD WORK" (G20-2) SIGNS ON SOUTHBOUND EAST 66TH STREET SOUTH OF CHESTER AVENUE, AND ALL SIDES STREETS PAST EAST 66 STREET.

PRE-PHASE WORK: PRIOR TO IMPLEMENTING ANY DETOURS OR SHIFTING VEHICULAR TRAFFIC, THE CONTRACTOR SHALL INSTALL ALL DRAINAGE STRUCTURES AND IMPROVEMENTS ALONG EAST 66TH STREET. ANY NEW CATCH BASINS THAT WILL BE LOCATED WITHIN THE TRAVEL LANE DURING ANY PHASE OF CONSTRUCTION SHALL HAVE ONLY THE CONCRETE STRUCTURE REMOVED - THE OPENING SHALL BE COVERED WITH A STEEL PLATE AND THE EXCAVATED AREA BACKFILLED WITH GRAVEL TO THE PAVEMENT SURFACE.

DURING THIS PRE-PHASE, TWO-WAY TRAFFIC SHALL BE MAINTAINED USING STANDARD CONSTRUCTION DRAWING MT-97.10 OR MT-97.11. AT THE CONCLUSION OF THE WORK DAY, ANY OPEN TRENCH SHALL BE PLATED OR BACKFILLED WITH GRAVEL TO THE PAVEMENT SURFACE.

ALL TRENCHES SHALL BE BACKFILLED TO THE BOTTOM OF THE EXISTING BRICK OR CONCRETE BASE USING CLEVELAND LSM. THE REMAINDER OF THE TRENCH WILL BE BACKFILLED TO THE EXISTING ASPHALT SURFACE USING CLEVELAND LSM OR ITEM 410, TEMPORARY COMPACTED SURFACE. THE COST OF THE TRENCH BACKFILL UP TO THE PAVEMENT SURFACE SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE CONDUIT BEING INSTALLED.

DURING THE PRE-PHASE, THE CONTRACTOR SHALL PERFORM THE WORK NECESSARY TO LAYOUT THE SIGNAL SUPPORT FOUNDATIONS AS PER THE "ITEM 632, SIGNAL SUPPORT FOUNDATION, AS PER PLAN" NOTE ON P.145.

PRIOR TO PHASE 1 WORK:

- SET UP PHASE 1 OF THE MAINTENANCE OF TRAFFIC (MAINTAINING SOUTHBOUND TRAFFIC ONLY ON THE WEST SIDE OF EAST 66TH STREET), INCLUDING TRAFFIC SIGNAL MODIFICATIONS.
- SET UP THE NORTHBOUND TRAFFIC DETOUR AS INDICATED ON SHEET P.18.

PHASE 1 WORK: CONSTRUCT PHASE 1 WORK ON THE EAST SIDE OF EAST 66TH STREET, CONSISTING OF THE FOLLOWING:

- PLANE THE EXISTING EAST SIDE OF THE PAVEMENT AS NECESSARY.
- SAW CUT AND REMOVE THE EXISTING PAVEMENT AND INSTALL NEW CURB AND PAVEMENT UP TO THE TOP OF THE INTERMEDIATE COURSE.
- INSTALL SIDEWALK, CURB RAMPS, AND APRONS ON THE EAST SIDE OF EAST 66TH STREET.
- PROVIDE GRADING FROM THE EXISTING EAST R/W LINE TO THE NEW BACK OF CURB.
- INSTALL TRAFFIC SIGNAL AND LIGHTING PULL BOXES AND CONDUITS ON THE EAST SIDE, AS WELL AS ANY NECESSARY ON THE OPPOSITE SIDE OF THE STREET.
- ALL UTILITY CASTINGS (INCLUDING, BUT NOT LIMITED TO, MANHOLES, WATER VALVES, ETC.) THAT WILL BE LOCATED WITHIN ANY TRAVEL OR PARKING LANES DURING THE WINTER MONTHS SHALL BE ADJUSTED TO THE TOP OF THE INTERMEDIATE COURSE SO THAT THEY ARE NOT IMPACTED BY SNOW PLOWING. ALL LABOR AND MATERIALS NECESSARY TO ADJUST THE CASTINGS FOR THE WINTER MONTHS SHALL BE INCIDENTAL TO THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

DURING PHASE 1, PARKING WILL BE PROHIBITED ALONG THE SOUTHBOUND TRAVEL LANE. CONTRACTOR SHALL KEEP IN PLACE ALL EXISTING R7-1 SIGNS IN THE SOUTHBOUND LANE AND FURNISH AND INSTALL NEW R7-1 SIGNS ON POSTS SO THAT THEY ARE PLACED AT MAXIMUM 300 FOOT SPACING

AT THE CONCLUSION OF PHASE 1/START OF PHASE 2:

- REMOVE THE PHASE 1 MAINTENANCE OF TRAFFIC AND SET UP PHASE 2 OF THE MAINTENANCE OF TRAFFIC (MAINTAINING SOUTHBOUND TRAFFIC ONLY ON THE EAST SIDE OF EAST 66TH STREET), INCLUDING TRAFFIC SIGNAL MODIFICATIONS. THE NORTHBOUND TRAFFIC DETOUR AS INDICATED ON SHEET P.18 WILL REMAIN.
- REMOVE ALL CONFLICTING WORK ZONE STOP LINES INSTALLED AT THE END OF PHASE 1 AND INSTALL WORK ZONE STOP LINES ON THE APPROACHES TO THE TEMPORARY SOUTHBOUND SIGNALIZED AND STOP-CONTROLLED INTERSECTIONS. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 614 - WORK ZONE STOP LINE, CLASS 1, 642 PAINT 60 FEET

PHASE 2 WORK: CONSTRUCT PHASE 2 WORK ON THE WEST SIDE OF EAST 66TH STREET, CONSISTING OF THE FOLLOWING:

- PLANE THE EXISTING WEST SIDE OF THE PAVEMENT AS NECESSARY.
- SAW CUT AND REMOVE THE EXISTING PAVEMENT AND INSTALL NEW CURB AND PAVEMENT UP TO THE TOP OF THE INTERMEDIATE COURSE.
- INSTALL ASPHALT PATH, CURB RAMPS, AND APRONS ON THE WEST SIDE OF EAST 66TH STREET.
- ALL UTILITY CASTINGS (INCLUDING, BUT NOT LIMITED TO, MANHOLES, WATER VALVES, ETC.) THAT WILL BE LOCATED WITHIN ANY TRAVEL OR PARKING LANES DURING THE WINTER MONTHS SHALL BE ADJUSTED TO THE TOP OF THE INTERMEDIATE COURSE SO THAT THEY ARE NOT IMPACTED BY SNOW PLOWING. ALL LABOR AND MATERIALS NECESSARY TO ADJUST THE CASTINGS FOR THE WINTER MONTHS SHALL BE INCIDENTAL TO THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

DURING PHASE 2, PARKING WILL BE ALLOWED ONLY WITHIN THE NEW EAST SIDE BUMPOUTS THAT WERE INSTALLED WITH PHASE 1. CONTRACTOR SHALL FURNISH AND INSTALL NEW R7-1 SIGNS ON POSTS ALONG THE CURB OUTSIDE OF THE BUMPOUTS AT A MAXIMUM 300 FOOT SPACING

PHASE 2 WORK MUST BE COMPLETED AND BOTH DIRECTIONS OF EAST 66TH STREET OPEN WITH TRAFFIC ON THE INTERMEDIATE COURSE NO LATER THAN NOVEMBER 15, 2027.

AT THE CONCLUSION OF PHASE 2:

- REMOVE THE PHASE 2 MAINTENANCE OF TRAFFIC AND OPEN EAST 66TH STREET TO TWO-WAY TRAFFIC.
- INSTALL WORK ZONE DOUBLE YELLOW CENTER LINES AND STOP LINES ON THE INTERMEDIATE COURSE.
- RETURN ALL EXISTING TRAFFIC SIGNALS TO THEIR PRE-CONSTRUCTION CONDITION.
- COVER OR REMOVE ALL DETOUR SIGNS.
- PLACE WORK ZONE CENTER LINES AND STOP LINES ON TOP OF THE INTERMEDIATE COURSE ON THE APPROACHES TO ALL SIGNALIZED AND STOP-CONTROLLED INTERSECTIONS IN BOTH DIRECTIONS. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 614 - WORK ZONE CENTER LINE, CLASS 1, 642 PAINT 2.00 MILE
ITEM 614 - WORK ZONE STOP LINE, CLASS 1, 642 PAINT 120 FEET

QUANTITIES PROVIDED ASSUME TWO APPLICATIONS OF EACH LINE SHOULD THEY NEED TO BE RE-PAINTED OVER THE WINTERS SEASON.

WINTER 2027-2028: THE CONTRACTOR MAY PERFORM WORK OVER THE WINTER MONTHS, AT THE APPROVAL OF THE CITY, PROVIDED THAT FULL TRAFFIC PATTERNS ARE RESTORED AT THE END OF EACH WORK DAY.

PHASE 3 WORK: PHASE 3 WORK SHALL CONSIST OF THE FOLLOWING. TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES USING ODOT STANDARD CONSTRUCTION DRAWINGS MT-97.10 OR MT-97.11, UNLESS OTHERWISE DIRECTED BY THE CITY, OR AS FOLLOWS:

- INSTALL THE DECORATIVE CROSSWALKS AND INTERSECTION. DURING THE TIME REQUIRED TO CONSTRUCT THIS WORK AND FOR THE CONCRETE TO CURE, PORTIONS OR ALL OF THE INTERSECTION MAY BE CLOSED TO VEHICULAR TRAFFIC AS SHOWN ON SHEET P.19, AND DETOURED AS SHOWN ON SHEET P.18. DECORATIVE CONCRETE WORK MAY ONLY BE PERFORMED ON ONE INTERSECTION AT A TIME.
- COMPLETE AND ACTIVATE THE NEW TRAFFIC SIGNALS AND REMOVE THE EXISTING SIGNALS.
- INSTALL THE ASPHALT SURFACE COURSE OVER THE ENTIRE ROADWAY WIDTH.
- ADJUST ALL CASTINGS IN THE ASPHALT AND DECORATIVE CONCRETE PAVEMENT TO FINAL GRADE.
- INSTALL ALL FINAL PAVEMENT MARKINGS AND SIGNING.
- PLANT ALL TREES AND PERFORM ANY OTHER MISCELLANEOUS LANDSCAPING/STREETSCAPING ITEMS.

IMMEDIATELY AFTER PLACING THE ASPHALT CONCRETE SURFACE COURSE, PLACE A WORK ZONE CLASS II CENTER LINE AT THE LOCATION OF THE PERMANENT CENTER LINE. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

ITEM 614 - WORK ZONE CENTER LINE, CLASS II 1.0 MILE

PHASE 3 WORK MUST BE COMPLETED NO LATER THAN SEPTEMBER 30, 2028.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB
REVIEWER CEL 5/14/26
PROJECT ID 122389
SHEET P.13 TOTAL 195

CUY-EAST 66TH STREET TLCI

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ALTERNATE MAINTENANCE OF TRAFFIC PLAN

IF THE CONTRACTOR ELECTS, THEY MAY SUBMIT PLANS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THESE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THERE FROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL THE ENGINEER HAS REVIEWED AND APPROVED THE PLANS.

PEDESTRIAN ACCESS

DURING THE TIME THAT SIDEWALKS ARE NOT ACCESSIBLE (INCLUDING TIME FOR REMOVAL AND INSTALLATION) THE CONTRACTOR SHALL PROVIDE A PEDESTRIAN DETOUR TO THE OTHER SIDE OF THE STREET IN ACCORDANCE WITH OMUTCD TYPICAL APPLICATIONS TA-28 AND TA-29, AND ODOT STANDARD CONSTRUCTION DRAWING MT-110.10. ALL OF THE PEDESTRIAN DETOUR SHALL BE IN COMPLIANCE WITH CURRENT ADA AND ODOT ACCESSIBILITY STANDARDS. THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

DURING THE TIME BETWEEN WALK REMOVAL AND REPLACEMENT, THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND SUBSEQUENTLY REMOVE A TEMPORARY ASPHALT CONCRETE WALK. THE WALK SHALL BE A MINIMUM OF 4 FEET WIDE AND 2 INCHES THICK.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 608 -	TEMPORARY ASPHALT CONCRETE WALK	5000 SQ FT

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR DUST CONTROL PURPOSES:

ITEM 616 -	WATER	10 M GAL
ITEM 616 -	CALCIUM CHLORIDE	1 TON

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE CITY OF CLEVELAND.

SIDE STREET CLOSURE LIMITATION

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE FOLLOWING STREET:

CHESTER AVENUE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE REMAINING SIDE STREETS, WITH THE FOLLOWING EXCEPTIONS:

THE FOLLOWING SIDE STREETS CAN BE CLOSED TO TRAFFIC ONLY WHILE THE CONTRACTOR IS WORKING IN THE INTERSECTION DURING RESURFACING WORK. AT THE END OF THE WORKING DAY, THE INTERSECTION MUST BE RE-OPENED TO TWO-WAY TRAFFIC.

PHASE 1 (EAST SIDE OF EAST 66TH STREET)

- DUNHAM AVENUE
- BELVIDERE AVENUE (EAST)
- WHITNEY AVENUE

PHASE 2 (WEST SIDE OF EAST 66TH STREET):

- BELVIDERE AVENUE (WEST)

ON THE FOLLOWING ONE-WAY STREETS, THE CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES, USING FLAGGERS AS NECESSARY WHEN CONSTRUCTION IS OCCURRING WITHIN THE INTERSECTION AND TRAFFIC WILL BE OBSTRUCTED:

PHASE 1 (EAST SIDE OF EAST 66TH STREET)

- QUIMBY AVENUE (EAST)
- LINWOOD AVENUE (EAST)
- LAWNVIEW AVENUE
- ZOETER AVENUE
- PENNSYLVANIA AVENUE

PHASE 2 (WEST SIDE OF EAST 66TH STREET):

- QUIMBY AVENUE (WEST)

ON ALL ASPHALT SIDE STREETS, DURING THE TIME NEEDED TO PLANE, SAWCUT AND EXCAVATE THE EXISTING PAVEMENT, AND INSTALL NEW PAVEMENT, THE CONTRACTOR SHALL MAINTAIN TWO-WAY, ONE-LANE TRAFFIC USING FLAGGERS AND/OR LEOS WHERE NECESSARY. ANY EXCAVATED AREAS THAT ARE OPEN AT THE CONCLUSION OF THE WORK DAY SHALL BE BACKFILLED OR PLATED PRIOR TO NORMAL TRAFFIC RESUMING.

LEXINGTON AVENUE: TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON LEXINGTON AVENUE, EXCEPT THAT DURING PHASE 2 THE INTERSECTION MAY BE CLOSED AND LEXINGTON AVENUE VEHICULAR TRAFFIC DETOURED WHILE THE DECORATIVE CONCRETE CROSSWALKS AND INTERSECTION ARE BEING EXCAVATED, INSTALLED, AND CURED, IN STAGES, AS FOLLOWS:

- STAGE A WILL CONSIST OF THE INSTALLATION OF THE NEW CONCRETE ON THE WEST SIDE OF THE INTERSECTION. DURING THIS TIME SOUTHBOUND TRAFFIC ON EAST 66TH STREET SHALL BE MAINTAINED ON THE EAST SIDE OF THE PAVEMENT.
- STAGE B WILL CONSIST OF THE INSTALLATION OF THE NEW CONCRETE ON THE EAST SIDE OF THE INTERSECTION. DURING THIS TIME SOUTHBOUND TRAFFIC ON EAST 66TH STREET WILL BE SHIFTED OVER ONTO THE COMPLETED ASPHALT AND CONCRETE PAVEMENT ON THE WEST SIDE, AS SHOWN ON THE DETAIL ON SHEET NO. 19.
- DURING BOTH STAGES, EASTBOUND LEXINGTON AVENUE WILL BE DETOURED ONTO EAST 65TH STREET, QUIMBY AVENUE, AND EAST 70TH STREET; AND WESTBOUND LEXINGTON AVENUE WILL BE DETOURED ONTO EAST 70TH STREET, LINWOOD AVENUE, AND EAST 65TH STREET.

CLOSURE OF LEXINGTON AVENUE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

- THE MAXIMUM TIME ALLOWED FOR EACH STAGE OF CONSTRUCTION SHALL BE SEVEN (7) CONSECUTIVE CALENDAR DAYS.
- THE SCHEDULED CLOSURE DATES SHALL BE COORDINATED AND APPROVED BY THE CITY AND IN CONSIDERATION OF THE SCHEDULES OF EVENTS AT THE FATIMA CENTER AND LEAGUE PARK.

MAINTAINING DRIVEWAY ACCESS

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE CITY FOR APPROVAL THAT OUTLINES THEIR STRATEGY FOR THE MAINTENANCE OF SAFE ACCESS TO ALL PROPERTIES AND/OR ALLOWING RESIDENTS TO PARK SAFELY WITHIN OR ADJACENT TO THE PROJECT LIMITS WHEN NOT POSSIBLE. THE COST TO DEVELOP AND IMPLEMENT THIS PLAN, INCLUDING ALL NECESSARY COORDINATION WITH PROPERTY OWNERS AND/OR TENANTS, IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

COMMERCIAL AND HANDICAPPED PROPERTIES AND APARTMENT BUILDINGS: ACCESS TO THESE PROPERTIES SHALL BE MAINTAINED AT ALL TIMES AS FOLLOWS:

FOR PROPERTIES WITH MULTIPLE DRIVEWAYS: DRIVEWAY CONSTRUCTION WILL BE SCHEDULED SO THAT AT LEAST ONE ACCESS DRIVEWAY IS OPEN AND CLEAR WHILE THE OTHER DRIVEWAY(S) ARE BEING CONSTRUCTED.

FOR PROPERTIES WITH ONLY ONE ACCESS: THE CONTRACTOR SHALL CONTACT THE PROPERTY OWNER AND/OR THE TENANT TO DETERMINE IF THE DRIVEWAY CAN BE WITHOUT ACCESS TEMPORARILY (SUCH AS OUTSIDE OF NORMAL BUSINESS HOURS OR OVER THE WEEKEND).

IF THE OWNER AND/OR TENANT CANNOT BE WITHOUT ACCESS TEMPORARILY, THE DRIVEWAY SHALL BE CONSTRUCTED AND ACCESS MAINTAINED AS FOLLOWS:

- THE PAVEMENT IN FRONT OF THE DRIVEWAY SHALL BE REMOVED AND ITEM 410, TRAFFIC COMPACTED SURFACE OR A BRIDGE INSTALLED TO THE PAVEMENT SURFACE. THIS WORK SHALL BE PERFORMED IN ONE OPERATION SO THAT THE DISRUPTION TO THE PROPERTY IS KEPT AT A ABSOLUTE MINIMUM. THE CONTRACTOR SHALL MAINTAIN THE TEMPORARY ACCESS AND REPLACE MATERIAL AS NECESSARY.
- IF THE DRIVEWAY IS GREATER THAN 20 FEET WIDE, THE INSTALLATION OF THE PROPOSED DRIVEWAY, CURB, AND CONCRETE PAVEMENT IN FRONT OF THE DRIVEWAY MAY BE PERFORMED IN TWO PHASES, WITH ONE HALF OF THE DRIVE REMAINING OPEN WHILE THE OTHER HALF IS CLOSED AND BEING CONSTRUCTED. FOR DRIVEWAYS LESS THAN 20 FEET WIDE, THE INSTALLATION OF THE PROPOSED DRIVEWAY, CURB, AND DRIVEWAY SHALL BE PERFORMED AS ONE OPERATION, USING CLASS FS OR CLASS MS CONCRETE, AS DIRECTED BY THE ENGINEER.

IN LOCATIONS WHERE A DRIVEWAY TO A PARKING LOT IS CLOSED TO TRAFFIC, THE DRIVE SHALL HAVE PROPER PROTECTION, SUCH AS SIGNS, FENCING, BARRICADES, AND/OR DRUMS PLACED AND MAINTAINED AROUND IT.

RESIDENTIAL PROPERTIES: ACCESS TO THESE PROPERTIES SHALL BE MAINTAINED AS FOLLOWS:

- THE PAVEMENT IN FRONT OF THE DRIVEWAY SHALL BE PLANED AND SAWCUT/REMOVED AND ITEM 410, TRAFFIC COMPACTED SURFACE OR A BRIDGE INSTALLED TO THE PAVEMENT SURFACE. THIS WORK SHALL BE PERFORMED IN ONE OPERATION SO THAT THE DISRUPTION TO THE PROPERTY IS KEPT AT AN ABSOLUTE MINIMUM. THE CONTRACTOR SHALL MAINTAIN THE TEMPORARY ACCESS AND REPLACE MATERIAL AS NECESSARY.
- WHILE THE PROPOSED PAVEMENT, CURB, AND DRIVE IS BEING INSTALLED AND CURING, THE CONTRACTOR SHALL PROVIDE PARKING AREAS ALONG ADJACENT SIDE STREETS. DURING THIS TIME, THE EXISTING SIDEWALKS SHALL REMAIN IN SERVICE, OR TEMPORARY SIDEWALKS PLACED, FOR ACCESS FROM THE PARKING AREA TO THE PROPERTY. THE MAXIMUM OUT OF SERVICE TIME FOR ANY RESIDENTIAL DRIVEWAY SHALL BE SEVEN (7) DAYS.

ESTIMATED QUANTITIES FOR MAINTAINING TRAFFIC

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC:

ITEM 410 -	TRAFFIC COMPACTED SURFACE, TYPE A OR B	500 CU YD
ITEM 614 -	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	50 CU YD
ITEM 616 -	WATER	10 M GAL

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

HOLIDAY TRAFFIC LIMITATION

NO WORK SHALL BE PERFORMED, AND ALL EXISTING LANES WHICH ARE NOT INSIDE A DESIGNATED WORK ZONE SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

NEW YEARS DAY (JANUARY 1)
MARTIN LUTHER KING DAY (THIRD MONDAY IN JANUARY)
EASTER SUNDAY (DATE VARIES)
MEMORIAL DAY (LAST MONDAY IN MAY)
INDEPENDENCE DAY (JULY 4)
LABOR DAY (FIRST MONDAY IN SEPTEMBER)
THANKSGIVING (FOURTH THURSDAY IN NOVEMBER)
CHRISTMAS DAY (DECEMBER 25)

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07.

WINTER TRAFFIC LIMITATION

UNLESS OTHERWISE APPROVED BY THE ENGINEER, ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 15. NOVEMBER 15 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE, AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH ODOT CMS 108.07 FOR EACH CALENDAR DAY BEYOND NOVEMBER 15 OR PRIOR TO APRIL 15 THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC. DAYTIME UTILITY WORK USING MOVING OPERATIONS ZONES WILL BE ACCEPTABLE BETWEEN NOVEMBER 15 AND APRIL 15.

INSTALLATION OF WORK ZONE PAVEMENT MARKINGS AND SIGNS

ALL WORK ZONE PAVEMENT MARKINGS AND SIGNS REQUIRED FOR A PARTICULAR LANE CLOSURE OR TRAFFIC PATTERN, AS DETAILED ON THE PLANS, SHALL BE IMPLEMENTED IMMEDIATELY. IN ADDITION, THE REQUIREMENTS OF 614.11(G) SHALL APPLY. THE CONTRACTOR SHALL BE RESPONSIBLE, WITH THE ASSISTANCE OF THE ENGINEER AND RECORDS OF THE DIVISION OF TRAFFIC ENGINEERING, FOR THE ENTIRE LAYOUT AND LOCATIONS OF THE REQUIRED PAVEMENT MARKINGS.

MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornaeng.com

DESIGN AGENCY	
DESIGNER	JMB
REVIEWER	CEL 10/28/25
PROJECT ID	122389
SHEET	P.14
TOTAL	195

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MAINTENANCE OF TRAFFIC GENERAL NOTES

COORDINATION

BUSINESS OWNERS (INCLUDING CHURCHES):
THE CONTRACTOR SHALL WORK WITH THE LOCAL BUSINESS OWNERS TO ENSURE ACCESS TO ALL PROPERTIES AT ALL TIMES. HOWEVER, SOME INCONVENIENCES WILL OCCUR. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COORDINATION OR PROVIDING ACCESS TO OWNERS.

CLEVELAND FIRE STATION 17:
THE CONTRACTOR SHALL ENSURE THAT EMERGENCY VEHICLES ENTERING AND EXITING FROM AND TO FIRE STATION 17 (1918 EAST 66TH STREET) IS MAINTAINED AT ALL TIMES. EMERGENCY VEHICLES EXITING THE FIRE STATION MUST BE ABLE TO AT ALL TIMES TURN RIGHT ONTO SOUTHBOUND EAST 66TH STREET AND PROCEED STRAIGHT DOWN EASTBOUND LUCERNE AVENUE.

GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY (GCRTA):
CONTRACTOR IS TO MAINTAIN ACCESS TO EXISTING BUS STOP LOCATIONS. IF NECESSARY, THE CONTRACTOR SHALL WORK WITH GCRTA TO ESTABLISH AN APPROVED TEMPORARY BUS STOP LOCATION. GCRTA WILL PROVIDE AND POST THE APPROPRIATE TEMPORARY BUS STOP SIGNAGE.

CONTRACTOR MAY NOT REMOVE ANY BUS STOP SIGNS WITHOUT PRIOR AUTHORIZATION FROM GCRTA.

THE CONTRACTOR SHALL NOTIFY GCRTA AT LEAST FIVE (5) BUSINESS DAYS IN ADVANCE OF CONSTRUCTION COMPLETION SO THAT PERMANENT BUS STOP SIGNS CAN BE RE-INSTALLED BY GCRTA.

THE FOLLOWING IS A LIST OF CONTACT INFORMATION FOR GCRTA NOTIFICATIONS:

- CENTRAL COMMUNICATIONS, 216-566-5135, MONITORED 24/7.
- TONY RICHARDSON, SENIOR MANAGER, SERVICE QUALITY
  arichardson@gcrta.org
- HOWARD WESLEY, BUS MANAGER, SERVICE QUALITY
  hwesley@gcrta.org
- AVERY ROGERS, BUS MANAGER, SERVICE QUALITY
  arogers@gcrta.org
- PETER COMINGS, SERVICE QUALITY COMMUNICATION SPECIALIST
  peter.comings@gcrta. org
- MARK RODRIGUEZ, OPERATIONS SUPPORT SUPERVISOR, SERVICE QUALITY
  mark.rodriguez@gcrta.org
- JOEL FREILICH, SERVICE MANAGEMENT
  Jfreilich@gcrat.org
- JEFFREY MACKO, SERVICE MANAGEMENT
  jmacko@gcrta.org

COORDINATION WITH OTHER CONTRACTORS

THE CONTRACTOR SHALL NOTE THE FOLLOWING ADJACENT PROJECTS MAY BE IN PROCESS DURING THIS PROJECT AND COULD REQUIRE ADDITIONAL COORDINATION DURING CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR THIS WORK:

CUY-WADE PARK AVE RESURFACING (PID 122338): THE LIMITS OF THIS PROJECT WILL BE EAST OF EAST 66TH STREET. ACCORDING TO ODOT ELLIS, CONSTRUCTION OF THIS PROJECT IS SCHEDULED BETWEEN MAY 2027 AND JUNE 2028.

PRIVATE DEVELOPMENT: IT IS POSSIBLE THAT PRIVATE DEVELOPMENT IMPROVEMENTS MAY BE TAKING PLACE ALONG THE EAST 66TH STREET CORRIDOR. THE CITY WILL PROVIDE ALL KNOWN TO DETAILS TO THE CONTRACTOR REGARDING PLANS, CONTACT INFORMATION, ETC. AT THE TIME OF THE PRE-CONSTRUCTION MEETING, AND WILL PROVIDE ADDITIONAL INFORMATION DURING THE PROJECT PROGRESS MEETINGS AS INFORMATION BECOMES AVAILABLE.

CONTRACTOR'S VEHICLES AND EQUIPMENT

ALL VEHICLES AND EQUIPMENT BELONGING TO THE CONTRACTOR OR THE CONTRACTOR'S WORKERS MUST BE PARKED IN ACCORDANCE WITH CITY REGULATIONS. VEHICLES AND EQUIPMENT MAY NOT BE PARKED IN PRIVATE PARKING LOTS OR OTHER PRIVATE PARKING LOTS OR OTHER PRIVATE PROPERTY UNLESS WRITTEN APPROVAL OF THE OWNER AND THE ENGINEER HAS BEEN GRANTED. THE CONTRACTOR OR CONTRACTOR'S WORKERS MAY NOT PARK VEHICLES OR EQUIPMENT OR STORE MATERIALS WHERE IT IS DEEMED BY THE ENGINEER TO BE A SAFETY HAZARD; NOR IN A MANNER WHICH OBSTRUCTS SIGNS, BARRIERS, BARRICADES, OR OTHER TRAFFIC CONTROL DEVICES OR INTERFERES WITH ACCESS TO ABUTTING PROPERTIES.

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST TWO (2) WEEKS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST SEVEN (7) CALENDAR DAYS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET TO TRAFFIC:

CITY OF CLEVELAND:

DIVISION OF ENGINEERING AND CONSTRUCTION	216-664-2381
DIVISION OF STREETS	216-664-2150
DIVISION OF TRAFFIC ENGINEERING	216-664-3194

CITY OF CLEVELAND DEPARTMENT OF PUBLIC SAFETY:

DIVISION OF EMERGENCY MEDICAL SERVICES	216-664-2066
DIVISION OF FIRE	216-664-6813
DIVISION OF POLICE	216-664-1234

CUYAHOGA COUNTY:

DEPARTMENT OF PUBLIC WORKS, PUBLIC INFORMATION OFFICE	216-348-3800
BOARD OF DEVELOPMENTAL DISABILITIES	216-736-2656
CLEVELAND METROPOLITAN SCHOOL DISTRICT	216-574-8000
GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY (GCRTA)	216-566-5100
UNITED STATES POSTAL SERVICE	216-443-4573

CONSTRUCTION WARNING SIGNS

IMMEDIATELY PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION WARNING SIGNS SHOWN.

AS A MINIMUM, G20-1 SIGNS FACING TRAFFIC ENTERING THE PROJECT, AND G20-2 SIGNS FACING TRAFFIC LEAVING THE PROJECT, SHALL BE PLACED AS SHOWN IN THE MANUAL. ADDITIONAL G20-1 SIGNS SHALL BE PLACED AFTER EACH MAJOR INTERSECTION, IN BOTH DIRECTIONS, AND AFTER EACH SUSPENSION AND RESUMPTION OF WORK.

ADDITIONALLY, A W20-1 SIGN SHALL BE PLACED AT EACH INTERSECTING STREET A MINIMUM OF 200 FEET IN ADVANCE OF THE PROJECT, AND ON THE APPROACHES TO THE PROJECT A MINIMUM OF 500 FEET IN ADVANCE OF THE WORK LIMITS. G20-2 SIGNS SHALL ALSO BE INSTALLED ON EACH MAJOR INTERSECTING STREET, FACING TRAFFIC LEAVING THE PROJECT, A MINIMUM OF 200 FEET FROM THE PROJECT.

THE TRAFFIC CONTROL DEVICES SHOWN ON MT-97.11, MT-95.31, AND MT-95.32 SHALL BE IN ADDITION TO THOSE INDICATED ABOVE. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL ALSO INSTALL W8-11 "UNEVEN LANES", W8-7 "LOOSE GRAVEL", AND/OR W21-2 "FRESH OIL/TAR" SIGNS.

FLUORESCENT ORANGE TYPE G SHEETING SHALL BE USED FOR ALL DETOUR AND CONSTRUCTION WARNING SIGNS. SIGNS SHALL NOT HAVE WORDING OR SYMBOLS ON THE BACK OF THEM THAT ARE VISIBLE TO TRAFFIC.

REPLACEMENT SIGNS

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

REPLACEMENT DRUMS

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO (2) CHANGEABLE MESSAGE SIGNS. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE CITY TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE CITY DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614 -	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	32 SNMT

ASSUMING 2 PCMS SIGNS FOR 16 MONTHS.

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornaeng.com

DESIGNER JMB
REVIEWER CEL 12/5/25
PROJECT ID 122389
SHEET P.15 TOTAL 195

ITEM 614 - BUSINESS ENTRANCE (M4-H15) SIGN, AS PER PLAN

THE BUSINESS ENTRANCE (M4-H15) SIGN SHOULD BE PROVIDED AT EACH TEMPORARILY RELOCATED COMMERCIAL DRIVEWAY FOR WHICH THE RELOCATION IS NOT OBVIOUS TO THE MOTORIST. THE PROJECT ENGINEER SHALL DETERMINE WHETHER OR NOT THE DRIVEWAY RELOCATION IS, OR IS NOT, OBVIOUS AND WHETHER OR NOT A SIGN SHOULD BE PROVIDED. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 36 INCH X 48 INCH IN SIZE WITH TYPE G OR TYPE H ORANGE RETROREFLECTIVE SHEETING. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK).

THE SIGN SHALL HAVE THE STANDARD M4-H15 LEGEND WITH THE WORD "BUSINESS" ON THE TOP LINE, EXCEPT UNDER UNUSUAL CIRCUMSTANCES WHERE IT MAY NOT BE INTUITIVE THAT A DRIVEWAY SERVES A SPECIFIC BUSINESS. IN SUCH UNUSUAL CASES, THE ACTUAL BUSINESS NAME MAY BE SUBSTITUTED FOR THE WORD "BUSINESS".

THE SIGN SHALL BE MOUNTED ON TWO #3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90° TO THE DIRECTION OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 614 - BUSINESS ENTRANCE SIGN 5 EACH

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS THE CITY OF CLEVELAND FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 3 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00 AM TO 9:00 AM AND/OR 4:00 PM TO 7:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY CITY OF CLEVELAND POLICE, HIRED BY THE CONTRACTOR:

1. CHESTER AVENUE

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE CONSTRUCTION VEHICLE, THE LEO WILL NOT BE REQUIRED.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOUR

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

TEMPORARY RAMPING OF VERTICAL SURFACES

IN ORDER TO PROVIDE FOR LOCAL ACCESS, LONGITUDINAL VERTICAL FACES ABUTTING DRIVES SHALL BE TEMPORARILY RAMPED. TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM OF TEN (10) FEET IN LENGTH AND TRAFFIC SHALL BE WARNED WITH W8-1 "BUMP" SIGNS IN ADVANCE OF THE RAMPED AREAS.

ALL CASTINGS ENCOUNTERED SHALL BE SET TO GRADE AND PAID FOR UNDER VARIOUS ITEMS DESCRIBED ELSEWHERE IN THE GENERAL NOTES OR SPECIFICATIONS. THE CASTING ELEVATION DIFFERENCE SHALL NOT BE GREATER THAN ONE (1) INCH WHEN EXPOSED TO TRAFFIC.

ALL TEMPORARY RAMPING SHALL BE INSTALLED, AT THE DISCRETION OF THE ENGINEER, USING ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

TRAFFIC SIGNAL REMOVAL

THE TRAFFIC SIGNALS TO BE REMOVED, AND NOT REPLACED, ARE TO BE PLACED IN FLASH MODE AT LEAST 30 DAYS PRIOR TO REMOVAL.

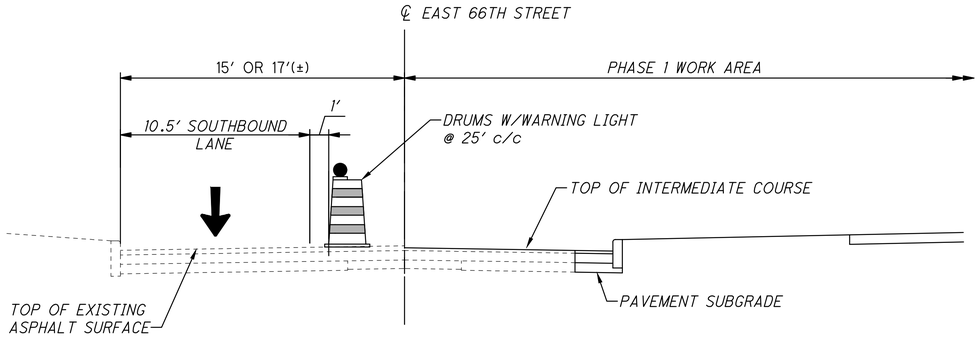
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornneng.com

DESIGNER JMB

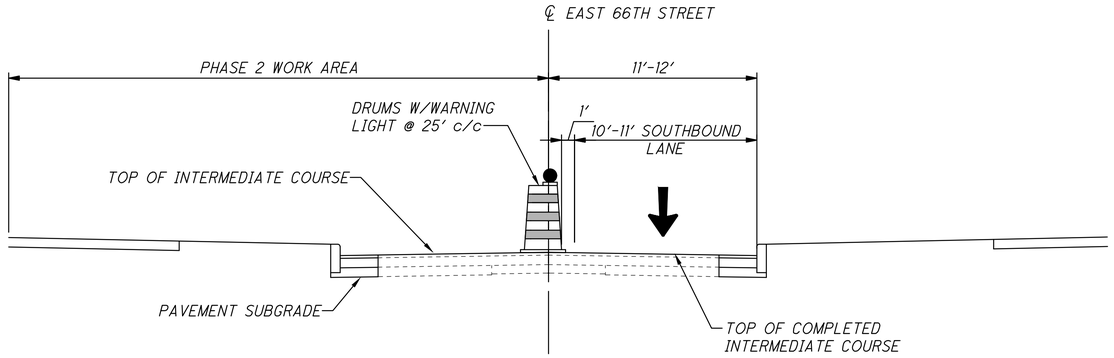
REVIEWER CEL 10/22/25

PROJECT ID 122389

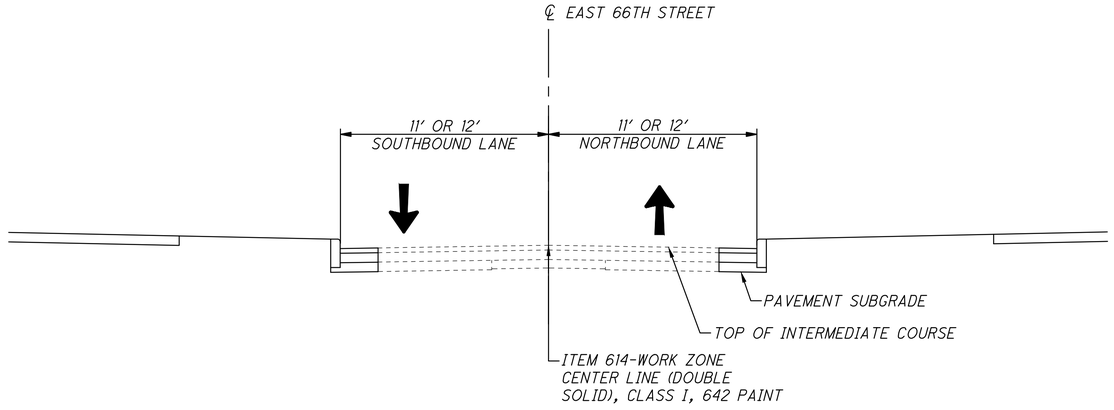
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PHASE 1



PHASE 2



OVER WINTER MONTHS

CUY-EAST 66TH STREET TLCI

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MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

DESIGN AGENCY

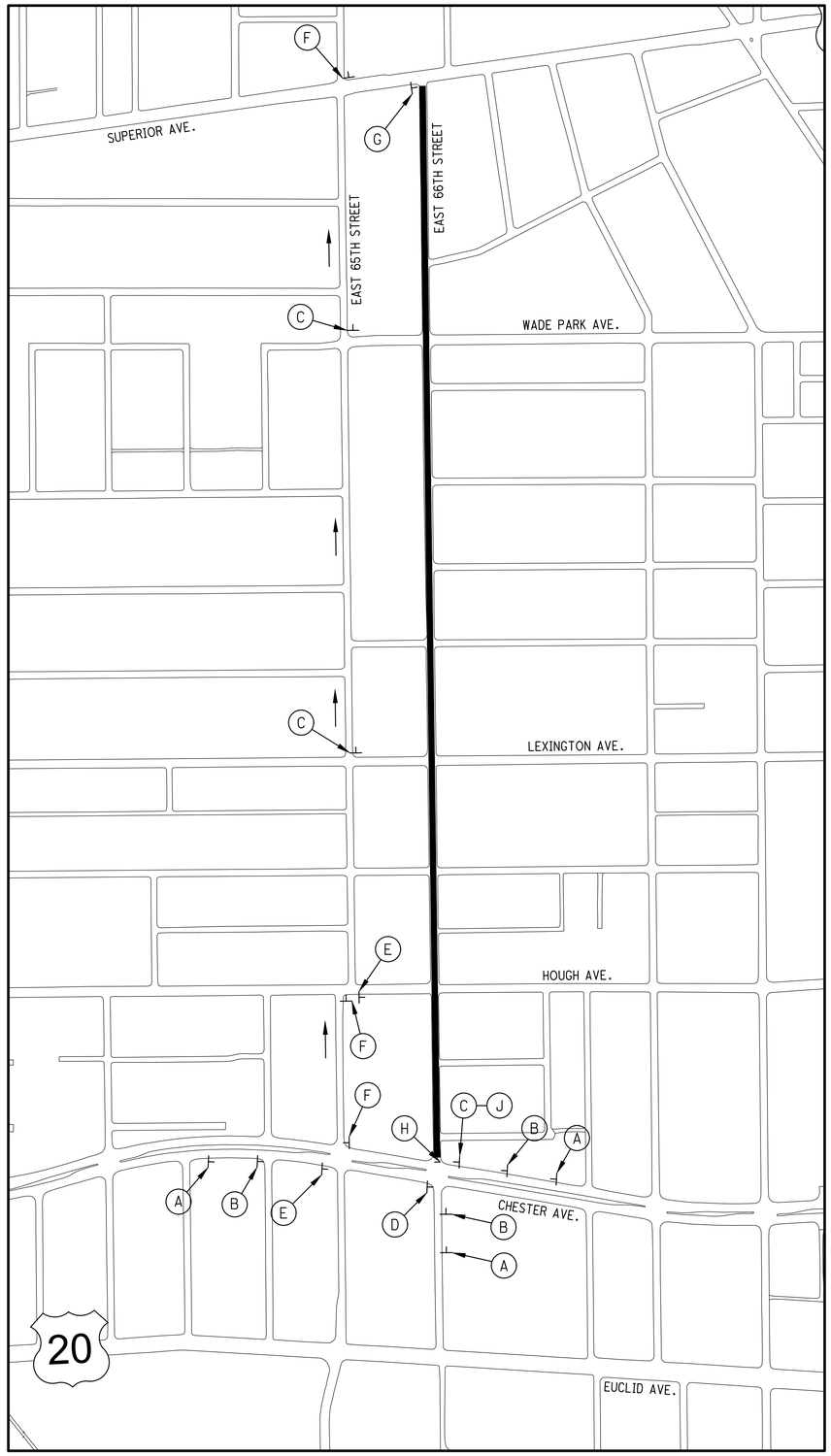
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DESIGNER JMB

REVIEWER CEL 5/14/26

PROJECT ID 122389

SHEET P.17 TOTAL 195



DETOUR MAP
NOT TO SCALE



M3-1
D3-1
W20-3
A



M3-1
D3-1
W20-2
B



M3-1
D3-1
M4-9T
C



R3-2
D

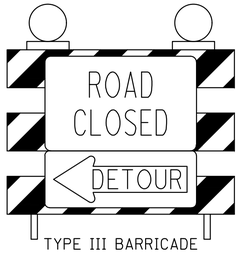


M3-1
D3-1
M4-9L
E

M3-1
D3-1
M4-9R
F



D3-1
M4-8a
G



R11-3b
(60"x 30")
M4-10L
TYPE III BARRICADE
H

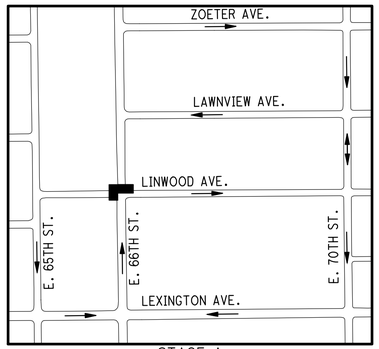


R3-1
J

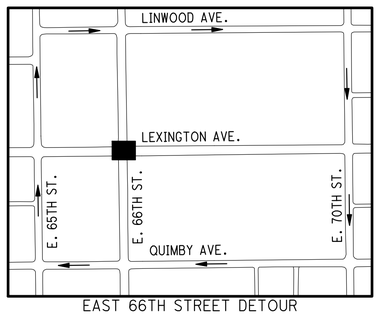
LEGEND

DETOUR ROUTE

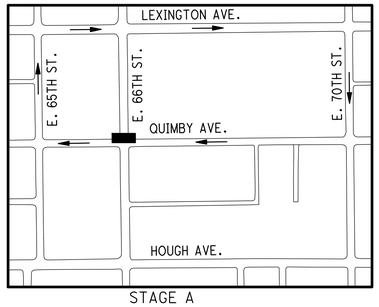
PROJECT LOCATION



EAST 66TH STREET AT LINWOOD AVENUE
INTERSECTION DETOUR MAP



EAST 66TH STREET AT LEXINGTON AVENUE
INTERSECTION DETOUR MAP



EAST 66TH STREET AT QUIMBY AVENUE
INTERSECTION DETOUR MAP

HORIZONTAL SCALE IN FEET
0 150 300 600

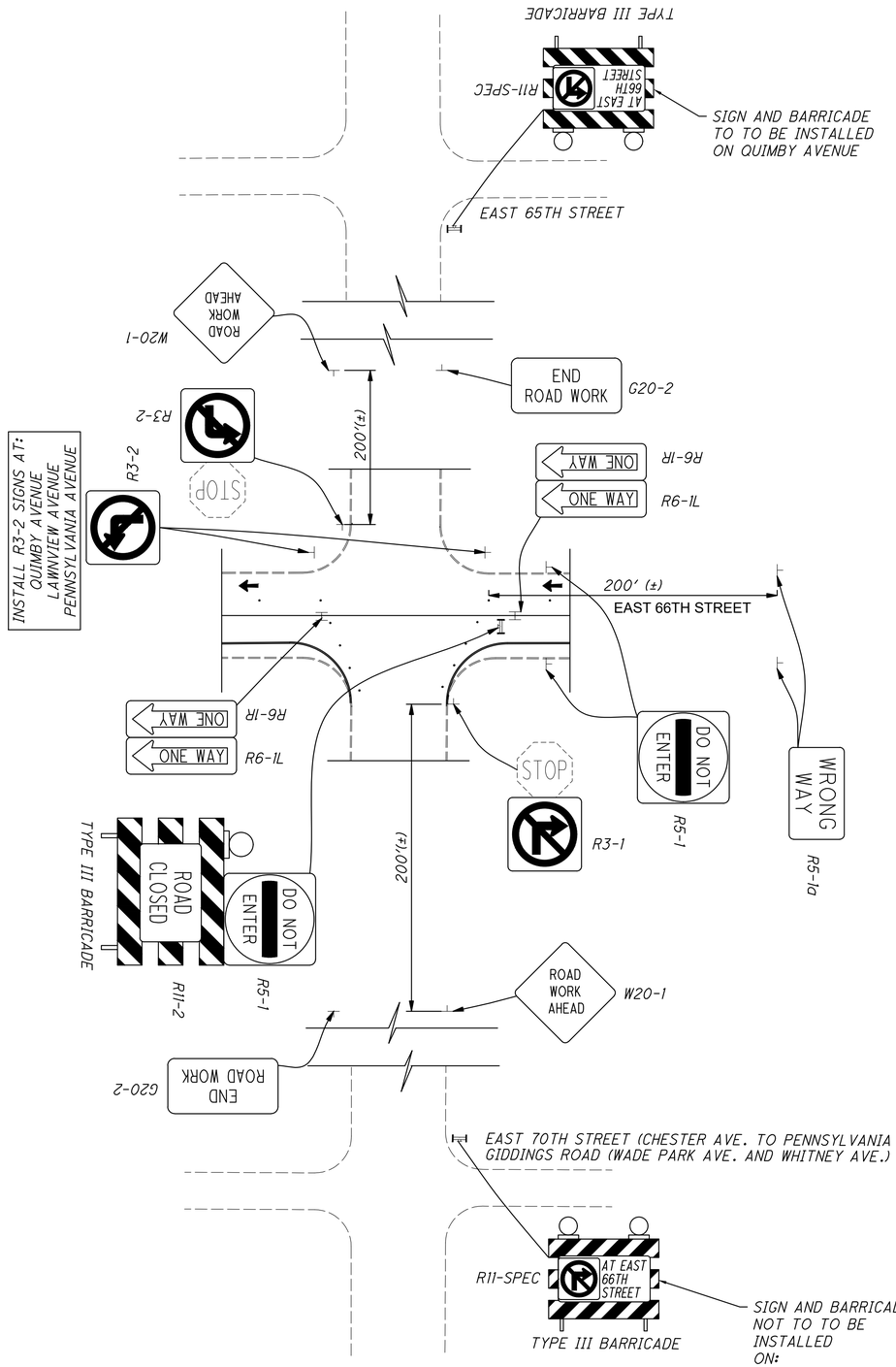
MAINTENANCE OF TRAFFIC DETOUR PLAN
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

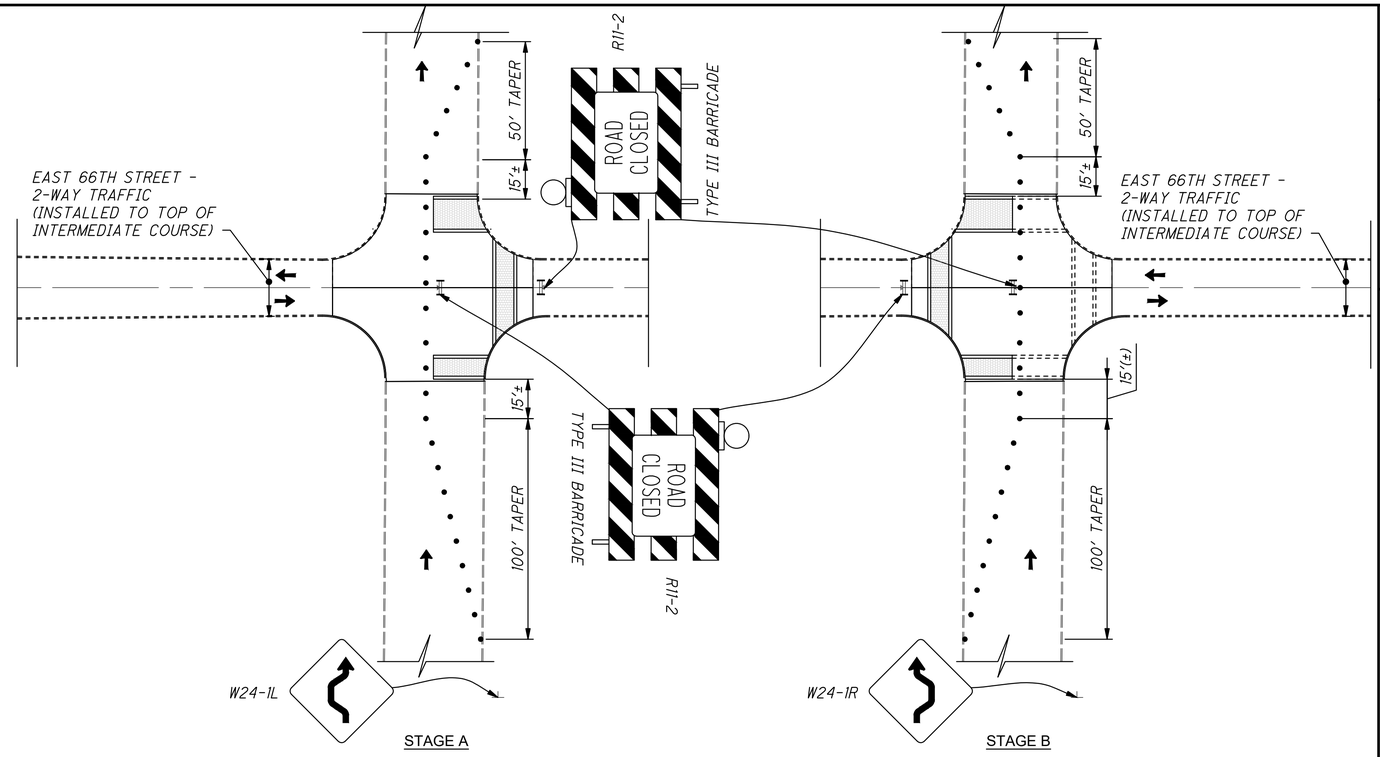
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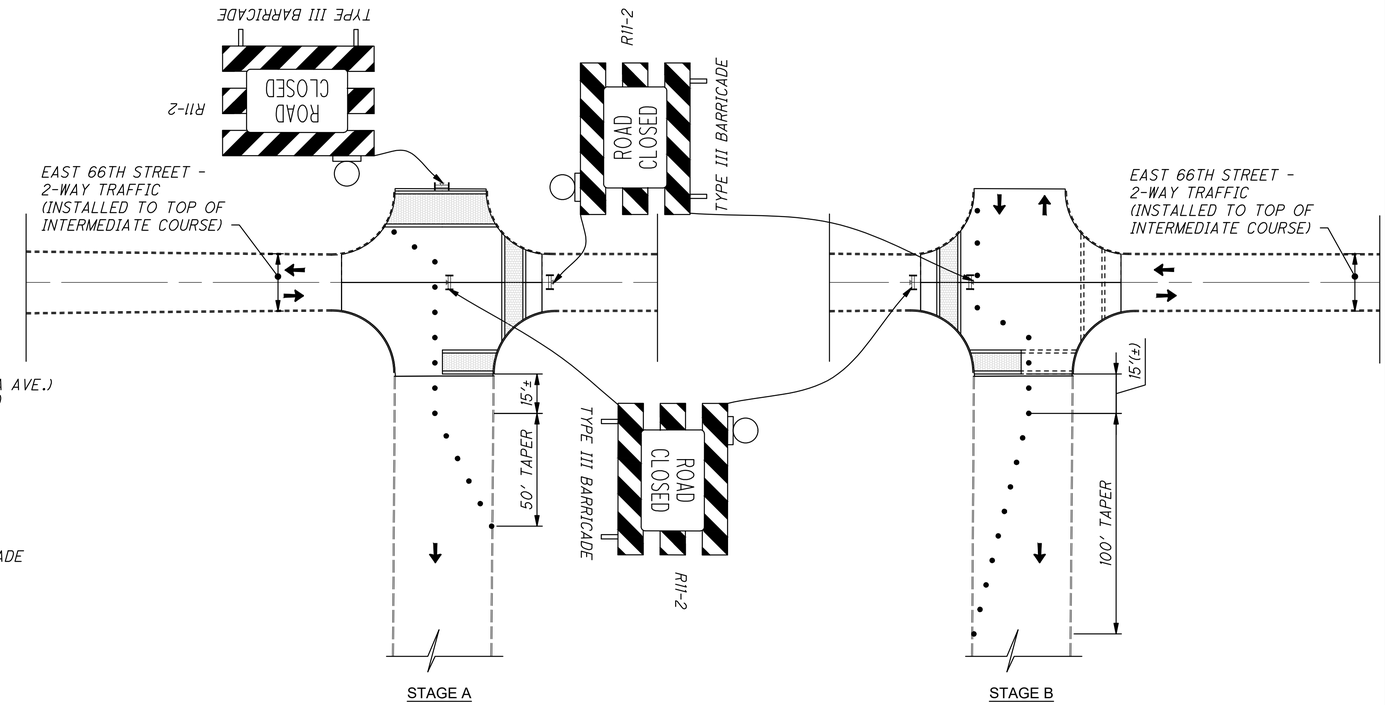
DESIGNER DRP
REVIEWER CEL 5/14/26
PROJECT ID 122389
SHEET P.18 TOTAL 195



SIDE STREET MOT
(PHASE 1 SHOWN, USE THE SAME FOR PHASE 2



QUIMBY AVENUE INTERSECTION
DECORATIVE CROSSWALK MOT



LINWOOD AVENUE (EAST) INTERSECTION
DECORATIVE CROSSWALK MOT

HORIZONTAL SCALE IN FEET
0 150 300 600

MAINTENANCE OF TRAFFIC PLAN
SIDE STREET DETAILS

CUY-EAST 66TH STREET TLCI

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DESIGNER DRP
REVIEWER CEL 5/14/26
PROJECT ID 122389
SHEET P.19 TOTAL 195

SHEET NUMBER															PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	06-12	13-16	28	30	43-58	77	100-104	117	118	128	132	144	177	193	01/MPO	02/NFP							
																						ROADWAY	
	LUMP														LUMP			201	11000	LUMP		CLEARING AND GRUBBING	
7529	200														7729			202	23000	7729	SY	PAVEMENT REMOVED	
52															52			202	30600	52	SY	CONCRETE MEDIAN REMOVED	
9360															9360			202	32000	9360	FT	CURB REMOVED	
			803												803			202	35100	803	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
				144											144			202	38000	144	FT	GUARDRAIL REMOVED	
			2												2			202	58000	2	EACH	MANHOLE REMOVED	
			50												50			202	58101	50	EACH	CATCH BASIN REMOVED, AS PER PLAN	10
	500														500			202	75000	500	FT	FENCE REMOVED	
								4							4			202	75601	4	EACH	METER VAULT REMOVED, AS PER PLAN	103
								5							5			202	75611	5	EACH	VALVE BOX REMOVED, AS PER PLAN	103
								83							83			202	98100	83	EACH	REMOVAL MISC.: WATER SERVICE STOP BOX	103
				8					25						33			202	98100	33	EACH	REMOVAL MISC.: POLE REMOVED	08
	250															250		202	98300	250	SY	REMOVAL MISC.: TRACK REMOVED	08
53336	100														53436			202	98400	53436	SF	REMOVAL MISC.: WALKS AND DRIVEWAYS REMOVED	08
9209	250														9209	250		204	10000	9459	SY	SUBGRADE COMPACTION	
46															46			209	60201	46	STA	LINEAR GRADING, AS PER PLAN	08
	100			20166											20266			608	10001	20266	SF	4" CONCRETE WALK, AS PER PLAN	08
				8502											8502			608	52001	8502	SF	CURB RAMP, AS PER PLAN	08
684															684			608	98000	684	SF	WALKWAY. MISC.: COLORED CONCRETE BANDS	124
				5											5			623	39501	5	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN	09
	2														2			623	40900	2	EACH	MONUMENT, MISC.: CITY OF CLEVELAND MONUMENT ASSEMBLY	08
																						EROSION CONTROL	
	750														750			653	10000	750	CY	TOPSOIL FURNISHED AND PLACED	
	6500														6500			659	00500	6500	SY	SEEDING AND MULCHING, CLASS 1	
	0.9														0.9			659	20000	0.9	TON	COMMERCIAL FERTILIZER	
	1.4														1.4			659	31000	1.4	ACRE	LIME	
	18														18			659	35000	18	MGAL	WATER	
	100000														100000			832	30000	100000	EACH	EROSION CONTROL	
																						ENVIRONMENTAL / REMEDIATION	
	15														15			SPECIAL	69065000	15	TON	WORK INVOLVING NON-REGULATED MATERIALS	12
	150														150			SPECIAL	69065016	150	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	12
	15000														15000			SPECIAL	69065022	15000	GAL	WORK INVOLVING NON-REGULATED WATER	12
	5000														5000			SPECIAL	69065024	5000	GAL	WORK INVOLVING REGULATED WATER	12
																						DRAINAGE	
9158															9158			605	05201	9158	FT	4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN	10
	2		6												8			611	98471	8	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP)	10
	2		3												5			611	98471	5	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN (W/SUMP AND TRAP)	10
			53												53			611	98690	53	EACH	CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1	10
	2		3												5			611	98690	5	EACH	CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2	10

GENERAL SUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

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DESIGNER	IRK
REVIEWER	DRP 6/19/25
PROJECT ID	122389
SHEET	P.20
TOTAL	195

SHEET NUMBER															PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	06-12	13-16	28	30	43-58	77	100-104	117	118	128	132	144	177	193	01/MPO	02/NFP							
																						DRAINAGE (CONTINUED)	
			32												32			611	99654	32	EACH	MANHOLE ADJUSTED TO GRADE	
	5000														5000			SPECIAL	61199820	5000	LB	SPECIAL - MISCELLANEOUS METAL (WPC)	10
	10														10			611	99900	10	EACH	DRAINAGE STRUCTURE, MISC.: UTILITY TEST HOLE	09
																						DRAINAGE ALTERNATIVES	
	200		1053												1253		X	611	04401	1253	FT	12" CONDUIT, TYPE B, AS PER PLAN (OPEN PIPE POLICY) (ALTERNATE 1)	10
	200		1053												1253		X	611	04401	1253	FT	12" CONDUIT, TYPE B, AS PER PLAN (706.08 ES) (ALTERNATE 2)	10
																						PAVEMENT	
	500															500		251	01001	500	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	11
10488																10488		254	01001	10488	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=VARIES, 1" TO 3")	11
	500															500		255	12001	500	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 2, CLASS QC1, AS PER PLAN	11
1679	75					2									1706	50		304	20001	1756	CY	AGGREGATE BASE, AS PER PLAN	11
3763	450														3963	250		305	13011	4213	SY	9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN	12
2277						2									666	1613		407	10000	2279	GAL	TACK COAT	
620						2									257	365		441	70101	622	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG70-22M (T-1-1/4")	12
870	10					1									378	503		441	70300	881	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (T=1-3/4")	
					29											29		441	70300	29	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) (T=VARIES 0" TO 3")	
				526											526			451	20000	526	SY	REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE CROSSWALK	12
261															261			451	20000	261	SY	REINFORCED CONCRETE PAVEMENT, MISC.: DECORATIVE CONCRETE INTERSECTION	12
						488									488			452	10051	488	SY	6" NON-REINFORCED CONCRETE, CLASS QC MS, AS PER PLAN	12
						424									424			452	12051	424	SY	8" NON-REINFORCED CONCRETE, CLASS QC MS, AS PER PLAN	12
	500														500			452	19200	500	SY	NON-REINFORCED CONCRETE, MISC.: SURCHARGE FOR CLASS MS CONCRETE	11
9539															9539			609	26001	9539	FT	CURB, TYPE 6, AS PER PLAN	12
				189											189			609	71000	189	SF	CONCRETE MEDIAN	
																						WATER WORK	
							1000									1000		SPECIAL	61199820	1000	LB	SPECIAL-MISCELLANEOUS METAL (WATER)	103
								7							7			638	10700	7	EACH	FIRE HYDRANT REMOVED AND DISPOSED OF	
								42							42			SPECIAL	63820500	42	EACH	SPECIAL-VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	103
								32							32			SPECIAL	63820792	32	FT	SPECIAL-SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	104
								72							72			SPECIAL	63820802	72	FT	SPECIAL-EXTEND 3/4" COPPER WATER SERVICE CONNECTION (CLEVELAND)	104
								35							35			SPECIAL	63820902	35	EACH	SPECIAL-SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	103
								6							6			SPECIAL	63821400	6	EACH	SPECIAL-FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	104
								8							8			638	98000	8	EACH	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE	104
								12							12			638	98000	12	EACH	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	103
								8							8			638	98000	8	EACH	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	104
							2	14								16		638	98000	16	EACH	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)	104
							2	7								9		638	98000	9	EACH	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)	104
							3									3		638	98000	3	EACH	WATER WORK, MISC.: REPLACEMENT OF OWNER SIDE LEAD WATER CONNECTION	104

1 1

GENERAL SUMMARY

CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
(216)861-2020 www.osbornweng.com

DESIGNER IRK
REVIEWER DRP 6/19/25
PROJECT ID 122389
SHEET P.21 TOTAL 195

SHEET NUMBER															PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	06-12	13-16	28	30	43-58	77	100-104	117	118	128	132	144	177	193	01/MPO	02/NFP							
																						LIGHTING	
													180		180			625	00450	180	EACH	CONNECTION, FUSED PULL APART	
													270		270			625	00480	270	EACH	CONNECTION, UNFUSED PERMANENT	
													90		90			625	10500	90	EACH	LIGHT POLE, MISC.: PEDESTRIAN	161
													90		90			625	14501	90	EACH	LIGHT POLE FOUNDATION, AS PER PLAN	161
													7022		7022			625	22990	7022	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
													1350		1350			625	23400	1350	FT	NO. 10 AWG POLE AND BRACKET CABLE	
													7022		7022			625	25409	7022	FT	CONDUIT, 2", 725.051, AS PER PLAN	161
													90		90			625	27403	90	EACH	LUMINAIRE, POST TOP, SOLID STATE (LED), TYPE II, SLP4, 120/277V, AS PER PLAN	161
													90		90			625	32000	90	EACH	GROUND ROD	
													12		12			625	34001	12	EACH	POWER SERVICE, AS PER PLAN	161
													115		115			625	98000	115	EACH	LIGHTING, MISC.: PULL BOX, 725.08, CPP	161
																						ELECTRICAL	
									25						25			632	89300	25	EACH	WOOD POLE (35' CLASS III)	
																						TRAFFIC CONTROL	
											59.4				59.4			630	02100	59.4	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
											240				240			630	03100	240	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
											84.8				84.8			630	04100	84.8	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
											37.7				37.7			630	08004	37.7	FT	ONE WAY SUPPORT, NO. 3 POST	
											163.5				163.5			630	08510	163.5	FT	STREET NAME SIGN SUPPORT, NO. 2 POST	
											11				11			630	08600	11	EACH	SIGN POST REFLECTOR	
												12			12			630	79101	12	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	148
											218.3				218.3			630	80100	218.3	SF	SIGN, FLAT SHEET	
											26				26			630	80500	26	EACH	SIGN, DOUBLE FACED, STREET NAME	
												12			12			630	80511	12	EACH	SIGN, STREET NAME, AS PER PLAN	147
											16				16			630	84900	16	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
											9				9			630	86002	9	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
											94				94			630	87500	94	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
											4				4			630	97700	4	EACH	SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY	149
										0.68					0.68			644	00300	0.68	MILE	CENTER LINE	
										130					130			644	00404	130	FT	CHANNELIZING LINE, 12"	
										497					497			644	00500	497	FT	STOP LINE	
										2567					2567			644	00620	2567	FT	CROSSWALK LINE, 12"	
										620					620			644	00630	620	FT	CROSSWALK LINE, 24"	
										3					3			644	01300	3	EACH	LANE ARROW	
										22					22			644	20800	22	FT	YIELD LINE	
										604					604			644	30000	604	FT	REMOVAL OF PAVEMENT MARKING	
										4					4			644	30020	4	EACH	REMOVAL OF PAVEMENT MARKING	
										1					1			644	50010	1	EACH	PAVEMENT MARKING, MISC.: DO NOT BLOCK INTERSECTION MARKINGS	133

GENERAL SUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK

REVIEWER DRP 6/19/25

PROJECT ID 122389

SHEET NUMBER															PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	06-12	13-16	28	30	43-58	77	100-104	117	118	128	132	144	177	193	01/MPO	02/NFP							
																						TRAFFIC SIGNALS	
												156			156			625	25408	156	FT	CONDUIT, 2", 725.051	
												454			454			625	25504	454	FT	CONDUIT, 3", 725.051	
												115			115			625	25604	115	FT	CONDUIT, 4", 725.051	
												74			74			625	25712	74	FT	CONDUIT, 6", 725.051	
												496			496			625	25906	496	FT	CONDUIT, JACKED OR DRILLED, 725.051: 4"	
												385			385			625	29000	385	FT	TRENCH	
												10			10			625	31600	10	EACH	PULL BOX, MISC.: 13" X 24"	148
												14			14			625	31600	14	EACH	PULL BOX, MISC.: 17" X 30"	148
												4			4			625	31600	4	EACH	PULL BOX, MISC.: 24" X 36"	148
												25			25			625	32000	25	EACH	GROUND ROD	
												26			26			632	05007	26	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	149
												28			28			632	20731	28	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	147
												14			14			632	20750	14	EACH	ACCESSIBLE PEDESTRIAN PUSHBUTTON	
												12			12			632	25001	12	EACH	COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN	146
												4			4			632	25010	4	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
												2151			2151			632	40200	2151	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	
												3246			3246			632	40500	3246	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
												2395			2395			632	40700	2395	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
												276			276			632	62810	276	FT	INTERCONNECT CABLE, MISC.: EXISTING INTERCONNECT REPLACEMENT	145
												12			12			632	64011	12	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	145
												12			12			632	64020	12	EACH	PEDESTAL FOUNDATION	
												24			24			632	64950	24	EACH	TEST HOLE PERFORMED	
												36			36			632	68200	36	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
												173			173			632	68300	173	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
												10			10			632	72111	10	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	148
												2			2			632	72131	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	148
												12			12			632	89901	12	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	148
												4			4			632	90101	4	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	145
												3			3			633	67100	3	EACH	CABINET FOUNDATION	
												3			3			633	67200	3	EACH	CONTROLLER WORK PAD	
												3			3			633	75001	3	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	146
												3			3			633	99000	3	EACH	CONTROLLER ITEM, MISC.: CONTROLLER UNIT TYPE TS2/A2, WITH CABINET, TYPE TS2	147
												8			8			809	69101	8	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	149
																						LANDSCAPING	
														1774	1774			609	98000	1774	FT	CURB, MISC.: ROLLED CONCRETE CURB	194
	40														40			661	00501	40	CY	MULCH, AS PER PLAN	12
														27	27			661	14000	27	EACH	PERENNIALS, AS PER PLAN: CHASMANTHIUM LATIFOLIUM 'NORTHERN SEA OATS'	179
														459	459			661	14000	459	EACH	PERENNIALS, AS PER PLAN: RUDBECKIA F.V.S. 'GOLDSTRUM BLACK-EYED SUSAN'	179
														464	464			661	14000	464	EACH	PERENNIALS, AS PER PLAN: HERERO 'LITTLE BUSINESS DAYLILY'	179

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GENERAL SUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

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DESIGNER IRK

REVIEWER DRP 6/19/25

PROJECT ID 122389

SHEET P.23 TOTAL 195

SHEET NUMBER															PARTICIPATION		ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	06-12	13-16	28	30	43-58	77	100-104	117	118	128	132	144	177	193	01/MPO	02/NFP							
																						LANDSCAPING (CONTINUED)	
														7	7			661	40081	7	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN QUERCUS X CRIMSCHMIDT SPIRE 'CRIMSON SPIRE HYBRID OAK'	179
														42	42			661	40081	42	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN TILIA CORDATA CORZAM CORINTHIAN 'CORINTHIAN LITTLELEAF LINDEN'	179
														17	17			661	40081	17	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN CORNUS X 'CELESTIAL SHADOW' 'CELESTIAL SHADOW HYBRID DOGWOOD'	179
														41	41			661	40081	41	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN NYSSA SYLVATICA 'RED SPLYNDOR BLACK GUM'	179
														20	20			661	40081	20	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN PARROTIA PERSICA 'RUBY VASE PERSIAN IRONWOOD'	179
														41	41			661	40081	41	EACH	DECIDUOUS TREE, 2" CALIPER, AS PER PLAN CARPINUS BETULUS 'EMERALD AVENUE HORNBEAM'	179
														28	28			661	99900	28	EACH	PLANTING, MISC.: TREE CARE	179
														15	15			661	99900	15	EACH	PLANTING, MISC.: TREE REPLACEMENT	179
														4814	4814			661	99950	4814	FT	PLANTING, MISC.: ROOT BARRIER	179
														45	45			SPECIAL	68014550	45	EACH	SPECIAL - TRASH RECEPTACLE	178
														12	12			SPECIAL	69050560	12	EACH	SPECIAL - BICYCLE RACK	178
														13	13			SPECIAL	69098000	13	EACH	SPECIAL - METAL BENCH	178
														6	6			SPECIAL	69098000	6	EACH	SPECIAL - WOOD BENCH	178
														3	3			SPECIAL	69098000	3	EACH	SPECIAL - TABLE AND WOOD BENCH	178
														90	90			SPECIAL	69098000	90	EACH	SPECIAL - METAL BANNERS	194
														56	56			SPECIAL	69098000	56	EACH	SPECIAL - UTILITY POLE WRAPS/PAINT	193
														2357		2357		SPECIAL	69098200	2357	SF	SPECIAL - ARTISTIC CROSSWALKS	193
																						MAINTENANCE OF TRAFFIC	
		500													500			410	12000	500	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
		5000													5000			608	21200	5000	SF	TEMPORARY ASPHALT CONCRETE WALK	
		100													100			614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR WITH ASSISTANCE	
		50													50			614	13000	50	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		32													32			614	18601	32	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	15
		2.00													2.00			614	21100	2.00	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
		1.00													1.00			614	21400	1.00	MILE	WORK ZONE CENTER LINE, CLASS II	
		180													180			614	26200	180	FT	WORK ZONE STOP LINE, CLASS I. 642 PAINT	
		5													5			614	40051	5	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	16
		20													20			616	10000	20	MGAL	WATER	
		1													1			616	20000	1	TON	CALCIUM CHLORIDE	
																						INCIDENTALS	
															LUMP	LUMP		614	11000	LUMP		MAINTAINING TRAFFIC	
	21														21			619	16011	21	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	07
	LUMP														LUMP	LUMP		623	10001	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	07
															LUMP	LUMP		624	10000	LUMP		MOBILIZATION	
	LUMP														LUMP	LUMP		SPECIAL	69091000	LUMP		SPECIAL-AS-BUILT CONSTRUCTION PLANS	07
	LUMP														LUMP	LUMP		SPECIAL	69098400	LUMP		SPECIAL-PRECONSTRUCTION AUDIO VIDEO	07

GENERAL SUMMARY

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(216)861-2020 www.osborn-eng.com

DESIGNER
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REVIEWER
DRP 6/19/25

PROJECT ID
122389

SHEET P.24 TOTAL 195

CUY-EAST 66TH STREET TLCI

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REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, 24" DIAMETER AND UNDER		202 CATCH BASIN REMOVED, AS PER PLAN	202 MANHOLE REMOVED	611 12" CONDUIT, TYPE B		611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1		611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP)	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP AND TRAP)	611 MANHOLE ADJUSTED TO GRADE					
					FT		EACH	EACH	FT		EACH		EACH	EACH	EACH					
D-1	P.31	18+84		RT					17		1									
D-2	P.31	19+14		RT					15		1									
DJ-1	P.31	18+00		LT											1					
DJ-2	P.31	18+99		RT											1					
DJ-3	P.31	19+05		LT											1					
DR-1	P.31	18+76		RT	15		1													
DR-2	P.31	18+81		LT	4		1													
DR-3	P.31	18+83		LT	12			1												
DR-4	P.31	19+15		RT	15		1													
D-3	P.32	21+61		RT					17		1									
D-5	P.32	21+75		LT					10		1									
D-6	P.32	21+88		RT					13		1									
D-7	P.32	22+14		RT					12		1									
D-8	P.32	24+40		LT					18				1							
DJ-4	P.32	22+02		RT											1					
DJ-5	P.32	22+09		CL											1					
DR-6	P.32	21+69		RT	20		1													
DR-7	P.32	21+74		LT	17		1													
DR-8	P.32	21+88		RT	14		1													
DR-9	P.32	22+15		RT	13		1													
D-9	P.33	24+57		LT					12		1									
D-10	P.33	24+57		RT					13		1									
D-11	P.33	24+87		RT					6		1									
D-12	P.33	25+20		RT					6		1									
D-13	P.33	27+10		RT					19		1									
D-14	P.33	27+30		LT					34		1									
D-15	P.33	27+48		RT					10		1									
DJ-6	P.33	24+63		LT											1					
DJ-7	P.33	25+09		RT											1					
DJ-8	P.33	25+04		RT											1					
DJ-9	P.33	27+38		RT											1					
DJ-10	P.33	27+42		LT											1					
DR-10	P.33	24+67		LT	16		1													
DR-11	P.33	25+21		RT	7		1													
DR-12	P.33	27+19		RT	16		1													
DR-13	P.33	27+36		LT	16		1													
DR-14	P.33	27+50		RT	12		1													
D-16	P.34	29+03		RT					19		1									
D-17	P.34	29+20		LT					30					1						
D-18	P.34	29+50		LT					16		1									
D-19	P.34	29+68		RT					15		1									
D-20	P.34	29+98		RT					17		1									
SUBTOTALS CARRIED TO SHEET P.28					177		12	1	299		17		1	1	10					

CUY-EAST 66TH STREET TLCI

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DRAINAGE SUBSUMMARY

DESIGN AGENCY

OSBORN ENGINEERING

1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornerng.com

DESIGNER JMB

REVIEWER DRP 1/7/26

PROJECT ID 122389

SHEET P.25 TOTAL 195

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, 24" DIAMETER AND UNDER		202 CATCH BASIN REMOVED, AS PER PLAN	202 MANHOLE REMOVED	611 12" CONDUIT, TYPE B		611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1	611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP)	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP AND TRAP)	611 MANHOLE ADJUSTED TO GRADE					
					FT		EACH	EACH	FT		EACH	EACH	EACH	EACH	EACH					
D-21	P.34	33+10		RT					7					1						
DJ-11	P.34	29+82		RT											1					
DJ-12	P.34	29+94		RT											1					
DJ-13	P.34	32+12		CL											1					
DR-15	P.34	29+45		RT	29		1													
DR-16	P.34	29+51		LT	18		1													
DR-17	P.34	29+67		RT	16		1													
DR-18	P.34	29+99		RT	17		1													
D-22	P.35	33+52		LT					39				1							
D-23	P.35	33+85		RT					36		1									
D-24	P.35	33+91		LT					32		1									
D-25	P.35	34+14		RT					16		1									
D-26	P.35	34+52		RT					23		1									
D-27	P.35	36+18		RT					26		1									
D-28	P.35	36+85		LT					9		1									
D-29	P.35	38+46		RT					6		1									
DJ-14	P.35	34+19		CL											1					
DJ-15	P.35	34+30		RT											1					
DJ-16	P.35	34+48		LT											1					
DJ-17	P.35	36+88		LT											1					
DR-19	P.35	33+94		RT	21		1													
DR-20	P.35	33+94		LT	23		1													
DR-21	P.35	34+14		RT	17		1													
DR-22	P.35	34+52		RT	15		1													
DR-23	P.35	34+60		RT	26			1												
DR-24	P.35	36+83		LT	13		1													
DR-25	P.35	36+84		RT	19		1													
D-30	P.36	38+59		LT					14			1								
D-31	P.36	39+25		RT					16		1									
D-32	P.36	39+26		LT					14		1									
D-33	P.36	38+98		RT					15		1									
D-34	P.36	38+98		LT																
D-35	P.36	39+45		LT					11			1								
D-36	P.36	41+50		RT					25		1									
D-37	P.36	42+09		RT					14		1									
D-38	P.36	42+27		LT					13		1									
D-39	P.36	42+27		LT					5				1							
D-40	P.36	42+65		RT					30		1									
DJ-18	P.36	39+10		RT											1					
DJ-19	P.36	39+11		LT											1					
DJ-20	P.36	39+35		LT											1					
DJ-21	P.36	42+22		RT											1					
DJ-22	P.36	42+40		LT											1					
SUBTOTALS CARRIED TO SHEET P.28					214		10	1	351		14	2	2	1	12					

DRAINAGE SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

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DESIGNER JMB

REVIEWER DRP 1/7/26

PROJECT ID 122389

SHEET P.26 TOTAL 195

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, 24" DIAMETER AND UNDER		202 CATCH BASIN REMOVED, AS PER PLAN		611 12" CONDUIT, TYPE B		611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1	611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP)	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP AND TRAP)	611 MANHOLE ADJUSTED TO GRADE					
					FT		EACH		FT		EACH	EACH	EACH	EACH	EACH					
DR-26	P.36	38+77		RT	14		1													
DR-27	P.36	38+77		LT	24		1													
DR-28	P.36	38+97		RT	16		1													
DR-29	P.36	38+97		LT	14		1													
DR-30	P.36	39+26		RT	17		1													
DR-31	P.36	39+26		LT	15		1													
DR-32	P.36	41+95		RT	25		1													
DR-33	P.36	42+28		LT	17		1													
D-41	P.37	44+01		LT					13					1						
D-42	P.37	44+90		RT					23		1									
D-43	P.37	45+56		RT					6		1									
D-44	P.37	45+86		RT					6		1									
D-45	P.37	45+84		LT					10		1									
DJ-23	P.37	45+70		LT											1					
DJ-24	P.37	45+91		LT											1					
DR-34	P.37	43+95		LT	13		1													
DR-35	P.37	45+24		LT	10		1													
DR-36	P.37	45+41		RT	23		1													
DR-37	P.37	45+56		RT	7		1													
DR-38	P.37	45+87		RT	7		1													
D-46	P.38	48+41		LT					13			1								
D-47	P.38	48+79		RT					21		1									
D-48	P.38	48+93		RT					14				1							
D-49	P.38	49+42		RT					6		1									
D-50	P.38	49+72		RT					6		1									
D-51	P.38	50+76		RT					19		1									
D-52	P.38	50+80		LT					22				1							
D-53	P.38	50+83		RT					8				1							
D-54	P.38	51+01		LT					12		1									
D-55	P.38	51+30		RT					21		1									
D-56	P.38	51+30		LT					6		1									
D-57	P.38	51+70		RT					19		1									
D-58	P.38	51+70		LT					6		1									
DJ-25	P.38	49+57		RT											1					
DJ-26	P.38	49+92		LT											1					
DJ-27	P.38	51+51		RT											1					
DJ-28	P.38	51+51		LT											1					
DJ-29	P.38	51+52		LT											1					
DR-39	P.38	49+24		RT	23		1													
DR-40	P.38	49+42		RT	7		1													
DR-41	P.38	49+73		RT	7		1													
DR-42	P.38	51+04		RT	32		1													
DR-43	P.38	51+11		LT	26		1													
SUBTOTALS CARRIED TO SHEET P.28					297		18		231		13	1	3	1	7					

DRAINAGE SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornerng.com

DESIGNER JMB

REVIEWER DRP 1/7/26

PROJECT ID 122389

SHEET P.27 TOTAL 195

REF. NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	202 PIPE REMOVED, 24" DIAMETER AND UNDER		202 CATCH BASIN REMOVED, AS PER PLAN	202 MANHOLE REMOVED	611 12" CONDUIT, TYPE B		611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-1	611 CATCH BASIN, MISC.: CITY OF CLEVELAND CB-2	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP)	611 CATCH BASIN, NO. 2-2B, AS PER PLAN (W/ SUMP AND TRAP)	611 MANHOLE ADJUSTED TO GRADE					
					FT		EACH	EACH	FT		EACH	EACH	EACH	EACH	EACH					
DR-44	P.38	51+29		RT	21		1													
DR-45	P.38	51+30		LT	7		1													
DR-46	P.38	51+69		RT	19		1													
DR-47	P.38	51+71		LT	7		1													
D-59	P.39	53+63		RT					26		1									
D-60	P.39	54+47		RT					6		1									
D-61	P.39	54+54		LT					10		1									
D-62	P.39	54+83		RT					6		1									
D-63	P.39	56+57		RT					19		1									
D-64	P.39	57+65		LT					9		1									
DJ-30	P.39	54+58		LT											1					
DJ-31	P.39	57+65		LT											1					
DR-48	P.39	54+47		RT	5		1													
DR-49	P.39	54+65		LT	14		1													
DR-50	P.39	54+83		RT	6		1													
D-65	P.40	58+71		RT					26		1									
D-66	P.40	61+99		LT					34		1									
D-67	P.40	61+99		RT					36		1									
DJ-32	P.40	61+76		LT											1					
DR-51	P.40	58+36		LT			1													
DR-52	P.40	58+36		RT			1													
DR-53	P.40	62+00		RT	36		1													
SUBTOTALS THIS SHEET					115		10	0	172		9	0	0	0	3					
SUBTOTALS SHEET P.25					177		12	1	299		17	0	1	1	10					
SUBTOTALS SHEET P.26					214		10	1	351		14	2	2	1	12					
SUBTOTALS SHEET P.27					297		18	0	231		13	1	3	1	7					
TOTALS CARRIED TO GENERAL SUMMARY					803		50	2	1053		53	3	6	3	32					

DRAINAGE SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

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CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB

REVIEWER DRP 1/7/26

PROJECT ID 122389

SHEET P.28 | TOTAL 195

SHEET NO.	REF. NO.	STATION FROM	STATION TO	SIDE	202 REMOVAL, MISC.: POLE REMOVED EACH	202 GUARDRAIL REMOVED FT	451 REINFORCED CONCRETE, MISC.: DECORATIVE CROSSWALK SQ YD	608 4" CONCRETE WALK, AS PER PLAN SQ FT	608 CURB RAMP, AS PER PLAN SQ FT	609 CONCRETE MEDIAN SQ FT	623 MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN EACH
P.31	CR-1, CR-2	16+77.35	16+95.92	RT					285		
	SW-1	16+88.02	17+05.58	LT				79			
	CR-3			LT					62		
	CR-4			LT					169		
	CR-5	17+32.01	17+41.66	RT					80		
	CR-6	17+59.66	17+69.42	LT					80		
	SW-2	17+84.38	18+83.00	RT				702			
	CR-7			LT					168		
	CR-8			LT					88		
	SW-3	18+04.50	18+23.15	LT				280			
	CR-9			LT					115		
	CR-10			LT					110		
	CR-11			RT					118		
	CR-12			RT					86		
	SW-3	19+15.37	19+80.46	RT				595			
	XW-1	16+84.86	17+02.89	LT/RT			50				
	XW-2	18+00.22	18+16.64	LT/RT			39				
	MJ-1	18+99.21		RT							1
	CM-1	17+33.78	17+43.02	RT						87	
	CM-2	17+57.89	17+67.54	LT						102	
P.32	SW-5	20+10.46	21+86.90	RT				1116			
	CR-13			RT					276		
	CR-14	22+13.17	22+24.23	LT				14	55		
	CR-15			RT					221		
	SW-6	22+15.19	22+69.03	RT				304			
	SW-7	22+29.03	23+84.45	RT				633			
P.32-P.33	SW-8	24+03.45	24+85.46	RT				488			
P.32-P.33	GR-1	23+79	24+75	LT		113					
P.33	SW-9	24+63.91	24+84.61	LT				86			
	CR-16			LT					277		
	CR-17, CR-18			RT					301		
	CR-19			LT					157		
	CR-20			RT					250		
	SW-10	25+23.47	25+74.71	LT				409			
	SW-11	25+21.02	26+24.40	RT				721			
	SW-12	26+42.40	27+29.62	RT				535			
	SW-13	26+78.70	26+99.71	LT				139			
	CR-21			LT					46		
	CR-22			LT					65		
	CR-23			RT					258		
	CR-24			LT					51		
	CR-25			RT					70		
	SW-14	27+11.71	27+36.96	LT				83			
	SW-15	27+48.73	28+33.17	RT				682			
P.33-P.34	SW-16	28+47.17	29+67.41	RT				1248			
P.33	MJ-2	27+43.70		LT							1
TOTALS CARRIED TO RIGHT TABLE THIS SHEET					0	113	89	8114	3388	189	2

SHEET NO.	REF. NO.	STATION FROM	STATION TO	SIDE	202 REMOVAL, MISC.: POLE REMOVED EACH	202 GUARDRAIL REMOVED FT	451 REINFORCED CONCRETE, MISC.: DECORATIVE CROSSWALK SQ YD	608 4" CONCRETE WALK, AS PER PLAN SQ FT	608 CURB RAMP, AS PER PLAN SQ FT	609 CONCRETE MEDIAN SQ FT	623 MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN EACH
P.34	SW-17	29+42.24	29+67.83	LT				159			
	CR-26, CR-27			LT					217		
	CR-28, CR-29			RT					149		
	CR-30			LT					241		
	CR-31, CR-32			RT					250		
	SW-18	29+99.47	20+29.87	RT				252			
	SW-19	30+00.04	30+51.30	LT				175			
P.34-P.35	SW-20	33+20.66	34+13.53	RT				826			
P.34	XW-3	29+52.99	29+60.99	LT/RT			23				
	XW-4	29+65.66	30+06.11	LT			46				
	XW-5	29+67.29	30+02.72	RT			29				
	XW-6	30+06.11	30+12.83	LT/RT			29				
	PR-1	32+15		LT	1						
P.35	SW-21	33+68.68	34+14.48	LT				128			
	SW-22	34+07.56	34+20.35	LT				318			
	CR-33			LT					224		
	CR-34, CR-35			RT					182		
	CR-36			LT					85		
	CR-37			LT					44		
	CR-38, CR-39			RT					141		
	MJ-3	34+31.55		CL							1
	SW-23	34+50.62	34+87.98	LT				301			
	SW-24	34+53.19	35+23.98	RT				595			
	SW-25	35+53.97	37+79.64	RT				988			
P.35	XW-7	33+95.31	34+03.31	LT/RT			30				
	XW-8	34+02.31	34+57.24	LT			59				
	XW-9	34+09.42	34+56.75	RT			39				
	XW-10	34+61.54	34+69.81	LT/RT			24				
P.36	SW-26	38+54.98	38+96.15	RT				390			
	SW-27	38+71.98	38+96.60	LT				46			
	CR-40			LT					340		
	CR-41, CR-42			RT					168		
	CR-43			LT					220		
	CR-44, CR-45			RT					181		
	SW-28	39+26.05	39+81.41	RT				631			
	SW-29	39+27.61	39+59.62	LT				140			
	SW-30	41+69.62	42+08.22	RT				497			
	CR-46	41+96.73	42+03.73	LT					52		
	CR-47, CR-48			RT					138		
	CR-49	42+41.41	42+48.41	LT				15	52		
	CR-50			RT					138		
	SW-31	42+37.89	42+79.40	RT				404			
	PR-2	38+83		LT	1						
P.36	XW-11	38+79.73	38+87.73	LT/RT			25				
	XW-12	38+90.71	39+33.23	LT			46				
	XW-13	38+93.32	39+25.99	RT			27				
	XW-14	39+33.26	39+41.26	LT/RT			24				
TOTALS - THIS TABLE					2	0	401	5865	2822	0	1
TOTALS CARRIED FROM LEFT TABLE THIS SHEET					0	113	89	8114	3388	189	2
TOTALS CARRIED TO SHEET NO. 30					2	113	490	13979	6210	189	3

SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 1/12/26
PROJECT ID 122389
SHEET P.29 TOTAL 195

SHEET NO.	REF. NO.	STATION FROM	STATION TO	SIDE	202 REMOVAL, MISC.: POLE REMOVED EACH	202 GUARDRAIL REMOVED FT	451 REINFORCED CONCRETE, MISC.: DECORATIVE CROSSWALK SQ YD	608 4" CONCRETE WALK, AS PER PLAN SQ FT	608 CURB RAMP, AS PER PLAN SQ FT	609 CONCRETE MEDIAN SQ FT	623 MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN EACH
P.37	SW-32	45+15.40	45+54.58	RT				360			
	CR-51			RT					172		
	CR-52	45+92.65	46+03.65	LT				15	53		
	CR-53, CR-54			RT					156		
	SW-33	45+86.95	46+49.19	RT				632			
	MJ-3	45+71.11		RT							1
P.38	SW-34	48+97.93	49+41.45	RT				505			
	CR-55	49+21.93	49+32.95	LT				15	53		
	CR-56, CR-57			RT					165		
	CR-58	49+82.56	49+93.56	LT				15	52		
	CR-59, CR-60			RT					145		
	SW-35	49+73.90	51+29.06	RT				1542			
	SW-36	50+15.07	50+20.28	LT				32			
	SW-37	50+99.08	51+29.61	LT				296			
	CR-61			LT					136		
	CR-62, CR-63			RT					122		
	CR-64			LT					299		
	CR-65, CR-66			RT					162		
	SW-49	51+70.65	52+19.47	RT				668			
	SW-50	51+71.13	52+03.45	LT				199			
	MJ-4	51+50.07		CL							1
	GR-2	49+60	50+04	LT		31					
	PR-3	48+09		LT	1						
	PR-4	49+55		LT	1						
	PR-5	51+05		LT	1						
	PR-6	52+71		LT	1						
P.39	SW-40	54+06.85	54+51.73	RT				488			
	CR-67	54+30.85	54+41.85	LT				15	68		
	CR-68, CR-69			RT					167		
	CR-70	54+86.96	54+97.81	LT				15	68		
	CR-71, CR-72			RT					193		
	SW-41	54+82.00	55+82.43	RT				736			
	SW-42	54+92.43	54+97.43	RT				29			
P.40	SW-43	61+17.85	61+22.85	RT				30			
	SW-44	61+42.85	61+95.03	RT				573			
	SW-45	61+74.45	61+87.97	LT				22			
	CR-73			LT					155		
	CR-74			RT					126		
	XW-15	61+80.11	61+94.22	LT/RT			36				
	PR-7	60+60		LT	1						
	PR-8	61+74		LT	1						
TOTALS - THIS TABLE					6	31	36	6187	2292	0	2
TOTALS CARRIED FROM SHEET NO. 29					2	113	490	13979	6210	189	3
TOTALS CARRIED TO GENERAL SUMMARY					8	144	526	20166	8502	189	5

SHEET NO.	REF. NO.	STATION FROM	STATION TO	SIDE	202 REMOVAL, MISC.: POLE REMOVED	202 GUARDRAIL REMOVED	451 REINFORCED CONCRETE, MISC.: DECORATIVE CROSSWALK	608 4" CONCRETE WALK, AS PER PLAN	608 CURB RAMP, AS PER PLAN	609 CONCRETE MEDIAN	623 MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN

SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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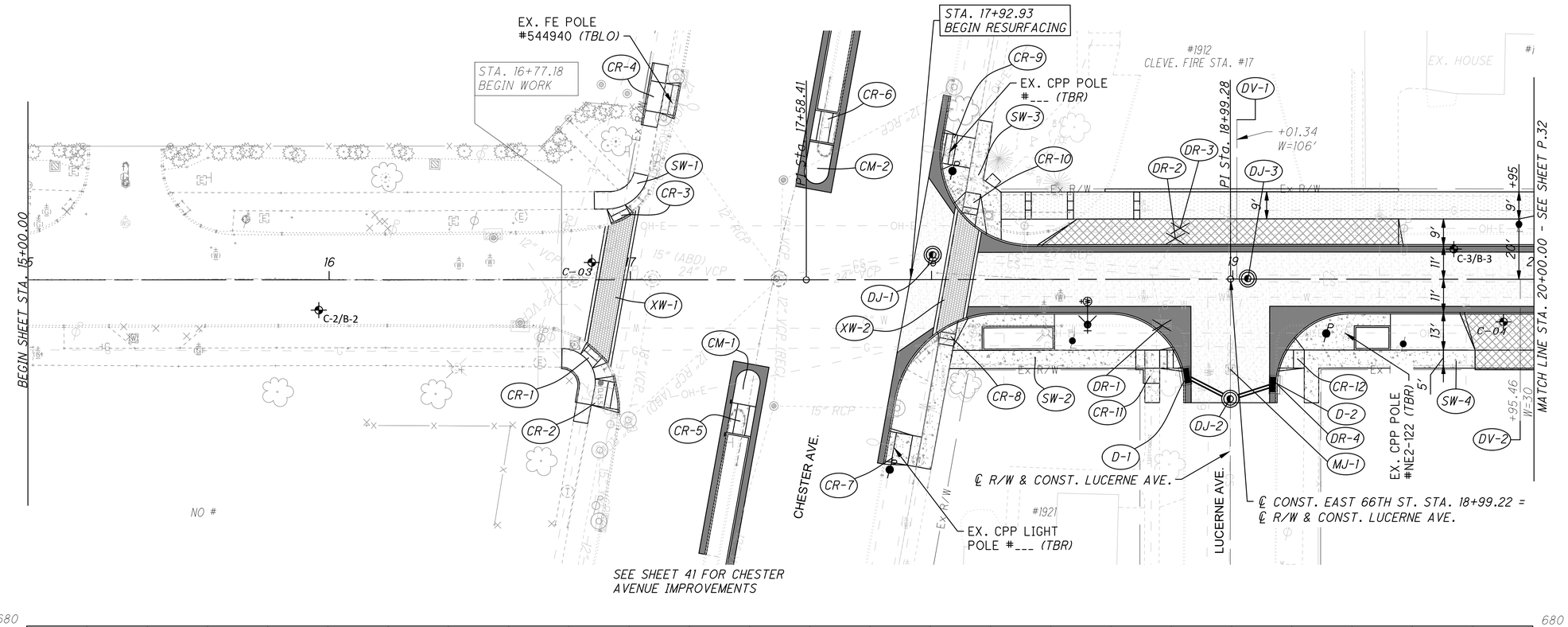
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornweg.com

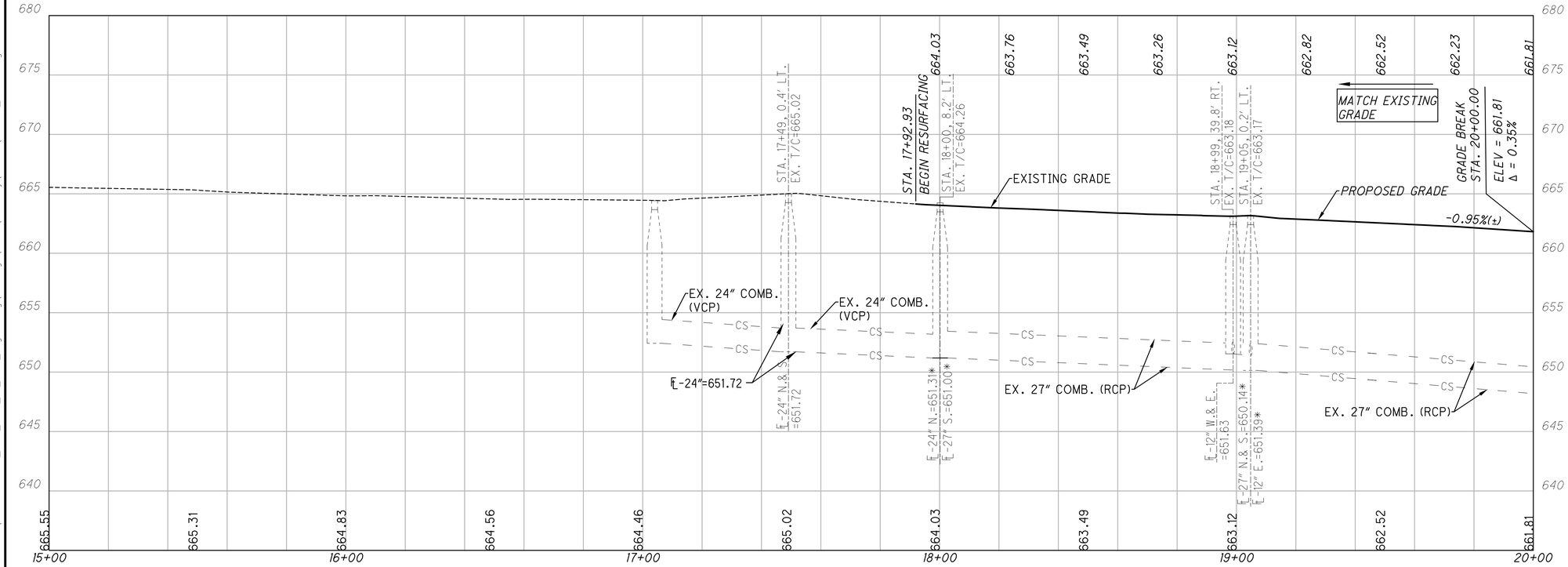
DESIGNER IRK

REVIEWER DRP 1/12/26

PROJECT ID 122389

SHEET P.30 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- DECORATIVE CONCRETE CROSSWALK
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.25
DRAINAGE DETAILS	P.93
TRAFFIC SIGNAL PLANS	P.150
WATERWORK PLAN	P.105 & P.106
INTERSECTION DETAILS	P.62 & P.63
CPP PLANS	P.119
LIGHTING PLAN	P.168
STREETSCAPE PLANS	P.178 - P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

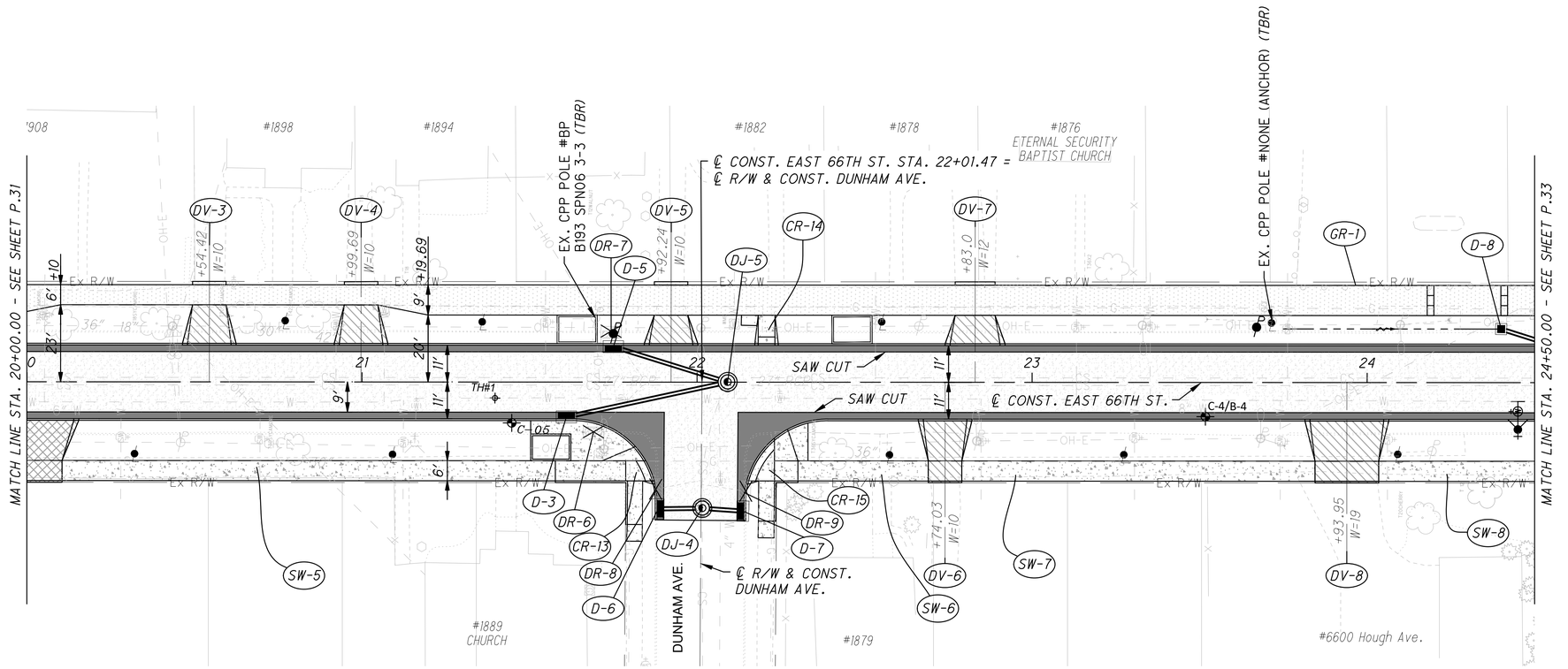
PLAN AND PROFILE - EAST 66TH STREET STA. 15+00.00 TO STA. 20+00.00

CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 12/20/25
PROJECT ID 122389
SHEET P.31 TOTAL 195

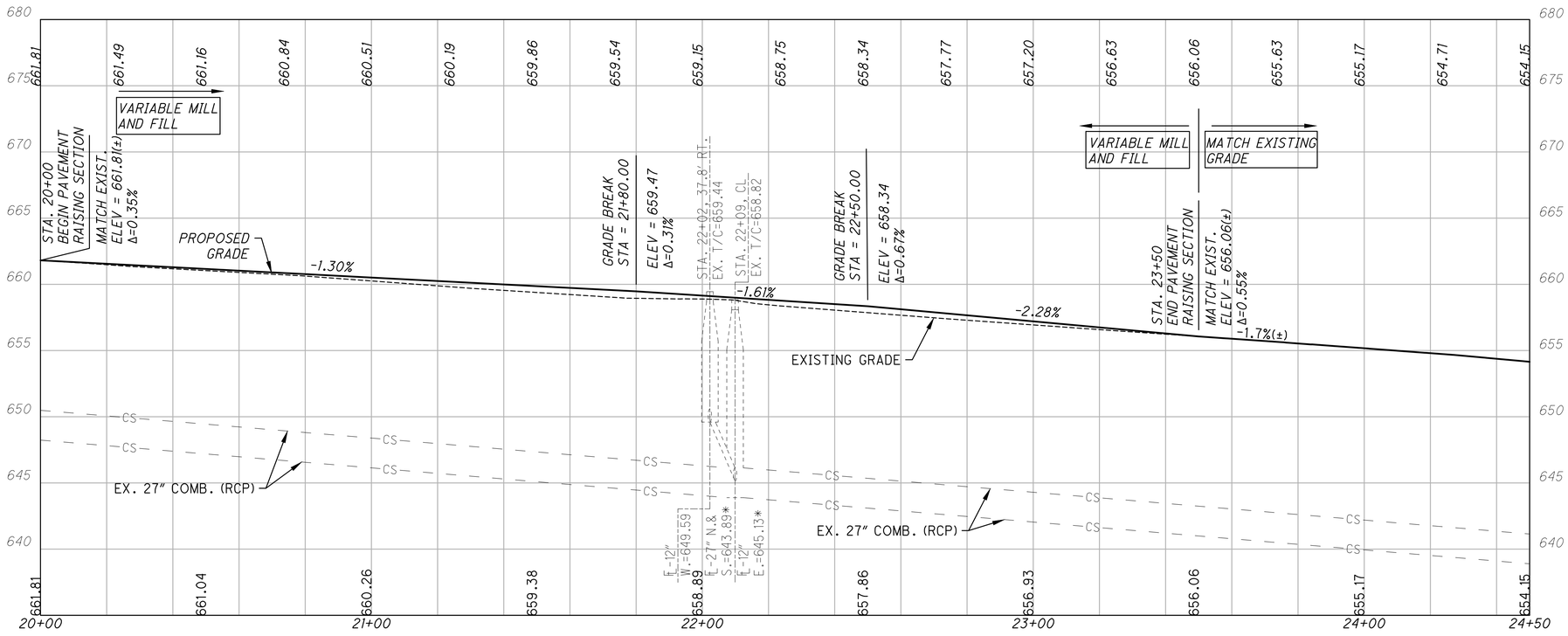


HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT
- ADJUSTED TO GRADE (ATG)
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

NOTES

1. DR-5 AND D-4 NOT USED



SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.25
DRAINAGE DETAILS	P.93
WATERWORK PLAN	P.106
INTERSECTION DETAILS	P.64
CPP PLANS	P.119
LIGHTING PLAN	P.168
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

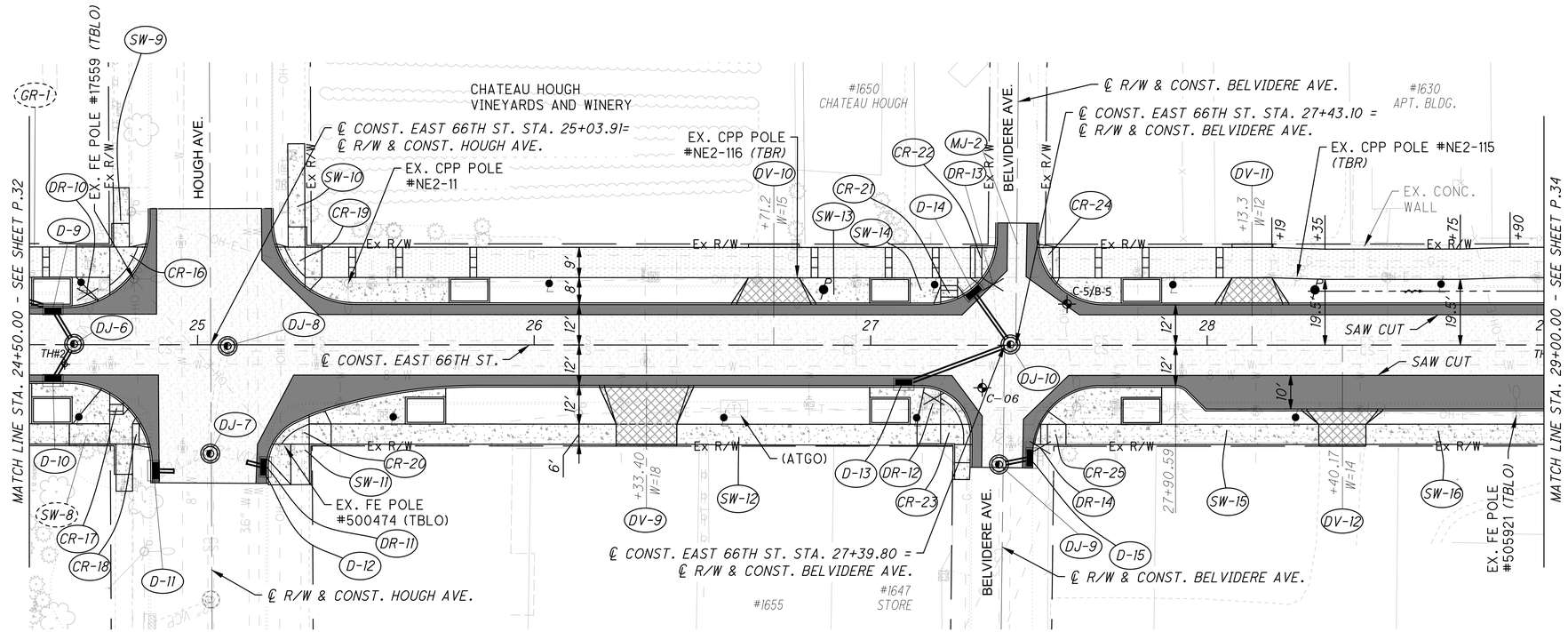
PLAN AND PROFILE - EAST 66TH STREET
STA. 20+00.00 TO STA. 24+50.00

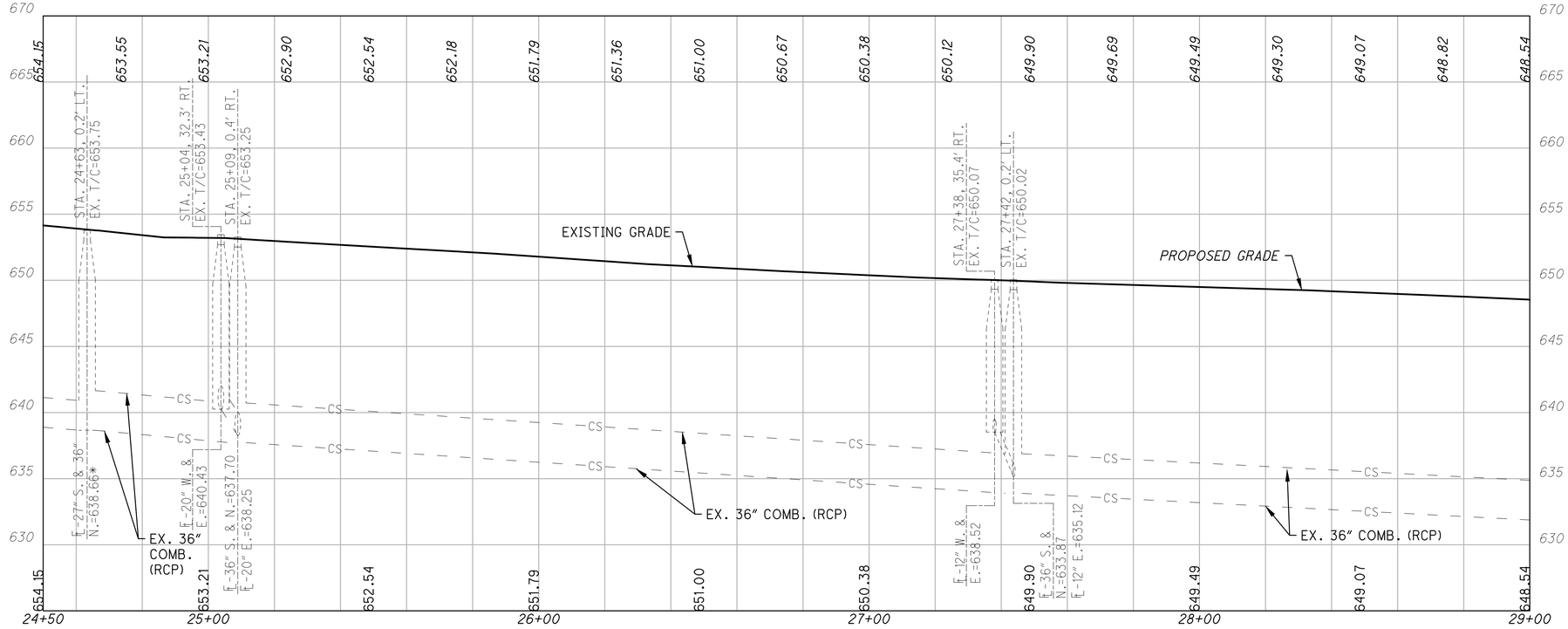
CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
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DESIGNER MVN
REVIEWER CEL 12/11/25
PROJECT ID 122389
SHEET 32 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (ATGO) ADJUSTED TO GRADE BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.25
DRAINAGE DETAILS	P.93 AND P.94
TRAFFIC SIGNAL PLANS	P.153
WATERWORK PLAN	P.107
INTERSECTION DETAILS	P.65 AND P.66
CPP PLANS	P.120
LIGHTING PLANS	P.168 AND P.169
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

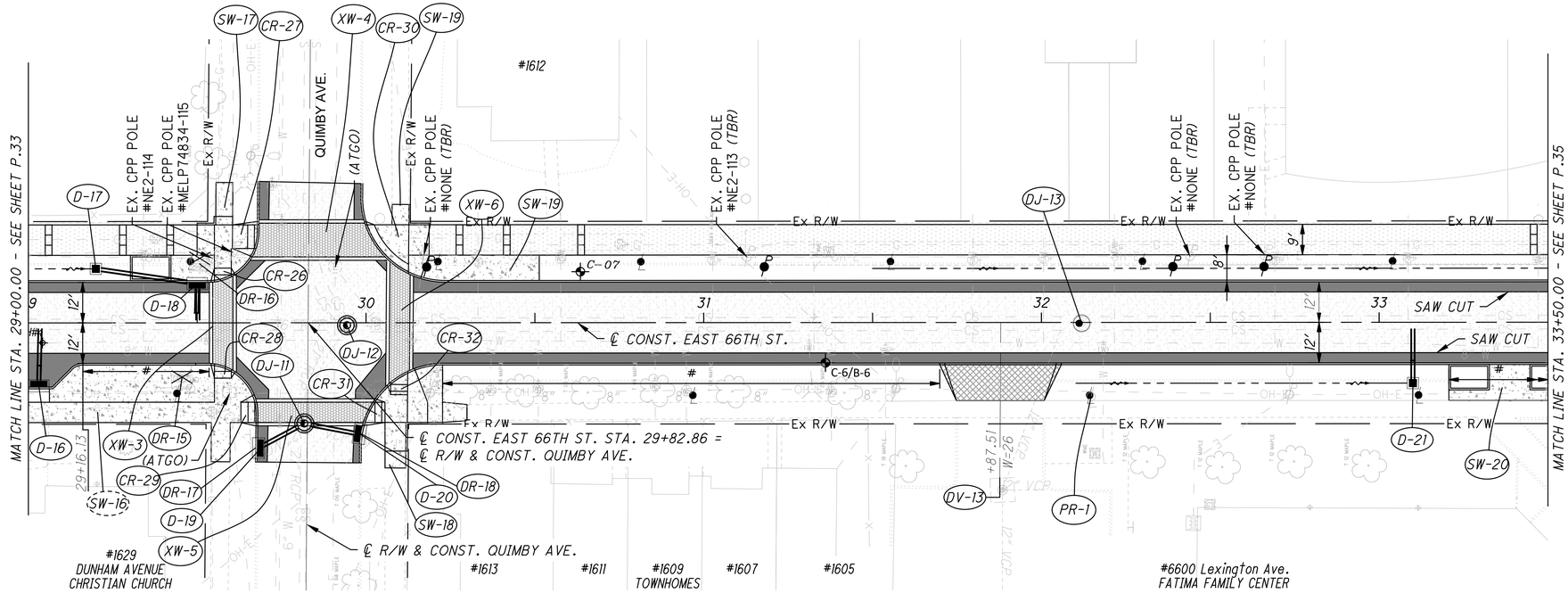
PLAN AND PROFILE - EAST 66TH STREET
STA. 24+50.00 TO STA. 29+00.00

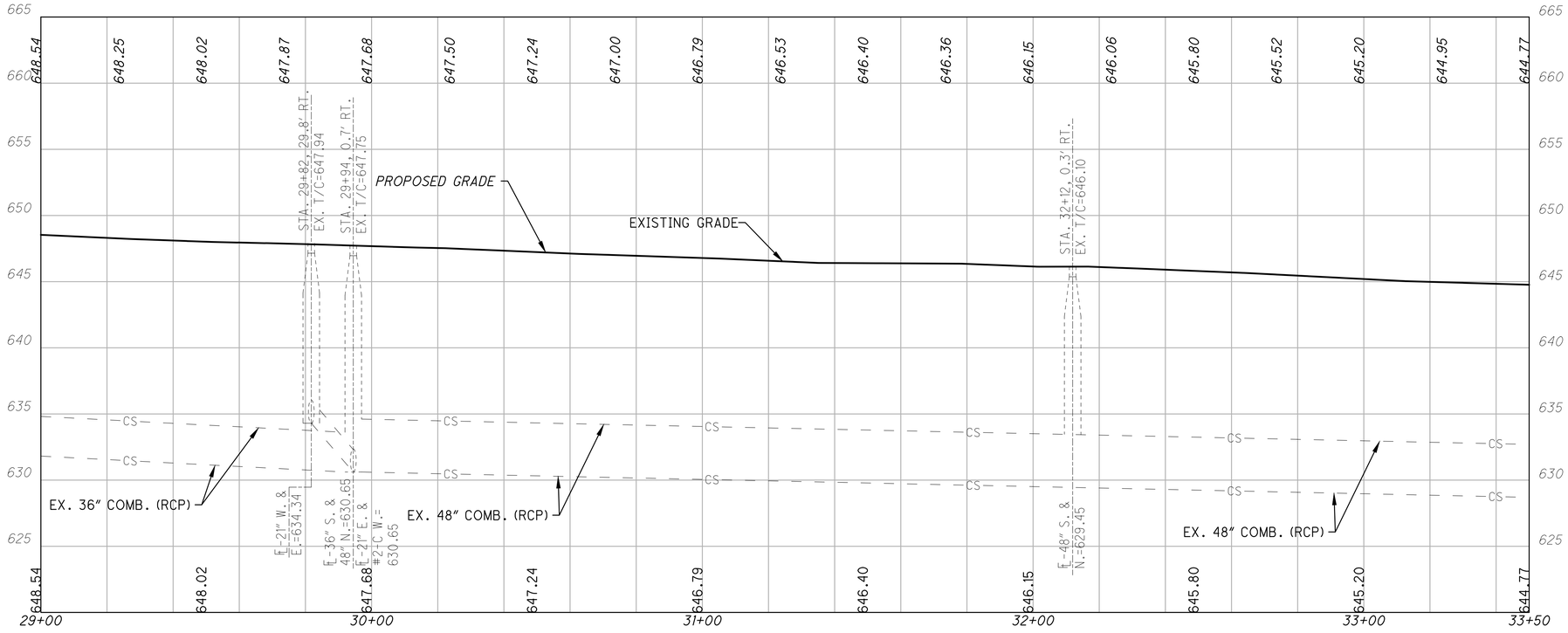
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DESIGNER MVN
REVIEWER CEL 12/12/25
PROJECT ID 122389
SHEET P.33 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- DECORATIVE CONCRETE CROSSWALK
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (ATGO) ADJUSTED TO GRADE BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.25 AND P.26
DRAINAGE DETAILS	P.94
WATERWORK PLAN	P.108
INTERSECTION DETAILS	P.67
CPP PLANS	P.120
LIGHTING PLANS	P.169
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

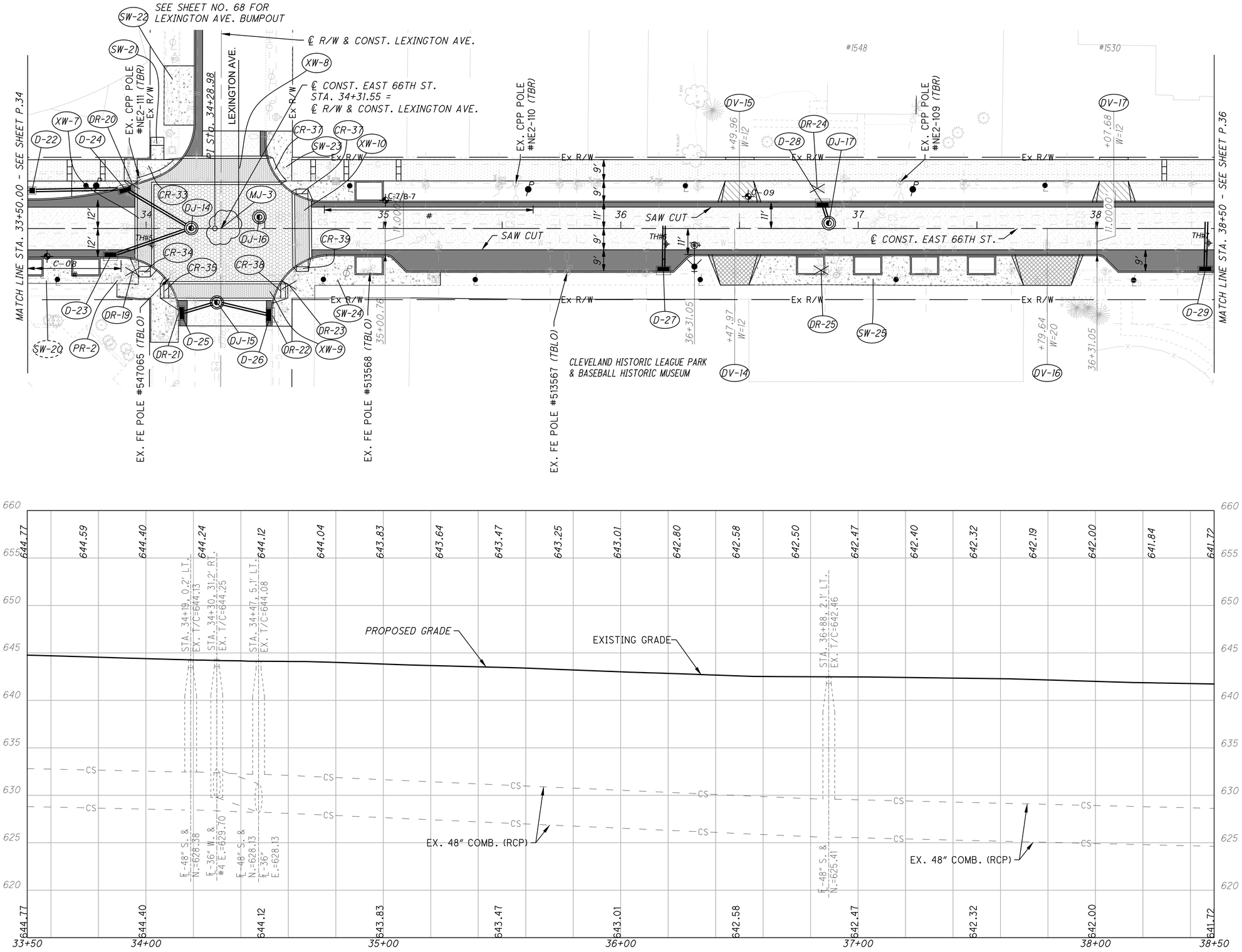
PLAN AND PROFILE - EAST 66TH STREET STA. 29+00.00 TO STA. 33+50.00

CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 1/9/26
PROJECT ID 122389
SHEET P.34 TOTAL 195



HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- DECORATIVE CONCRETE CROSSWALK
- DECORATIVE CONCRETE INTERSECTION
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

HORIZONTAL SCALE IN FEET
0 10 20 40

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.26
DRAINAGE DETAILS	P.95
TRAFFIC SIGNAL PLANS	P.156
WATERWORK PLAN	P.109
INTERSECTION DETAILS	P.68
CPP PLANS	P.121
LIGHTING PLANS	P.170
STREETSCAPE PLANS	P.178-P.195

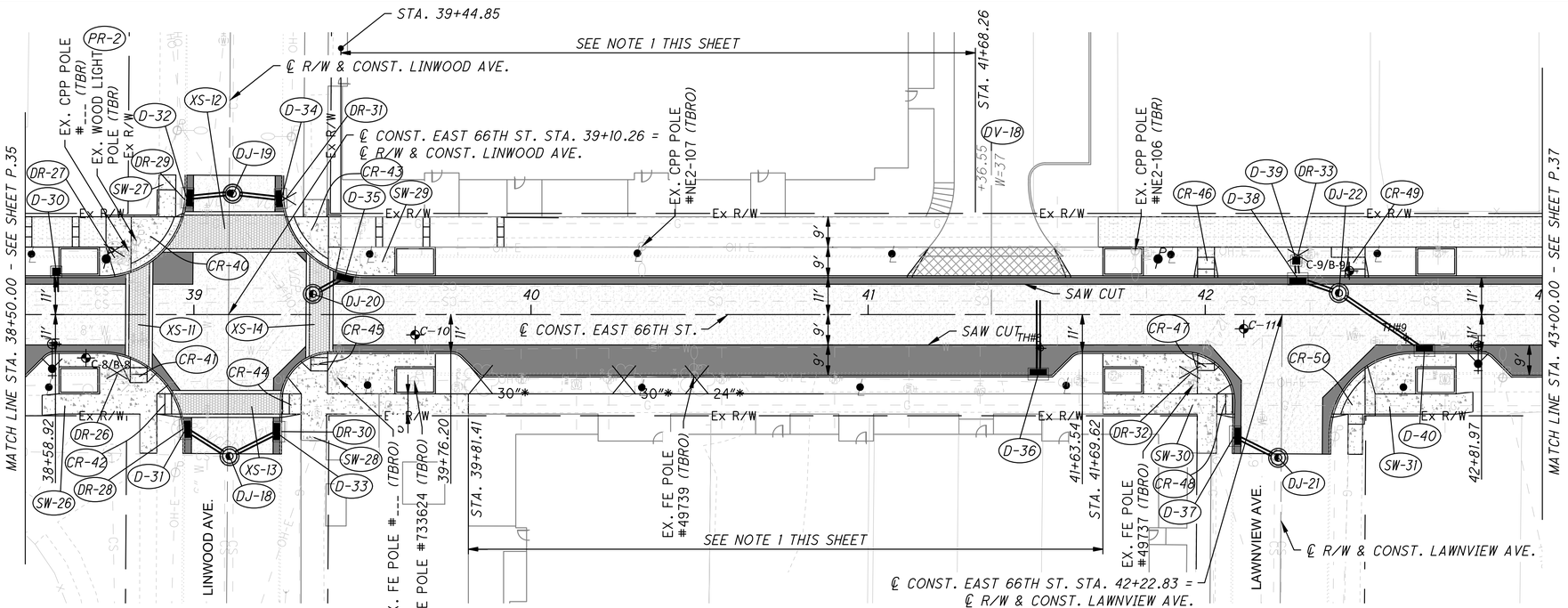
PLAN AND PROFILE - EAST 66TH STREET
STA. 33+50.00 TO STA. 38+50.00

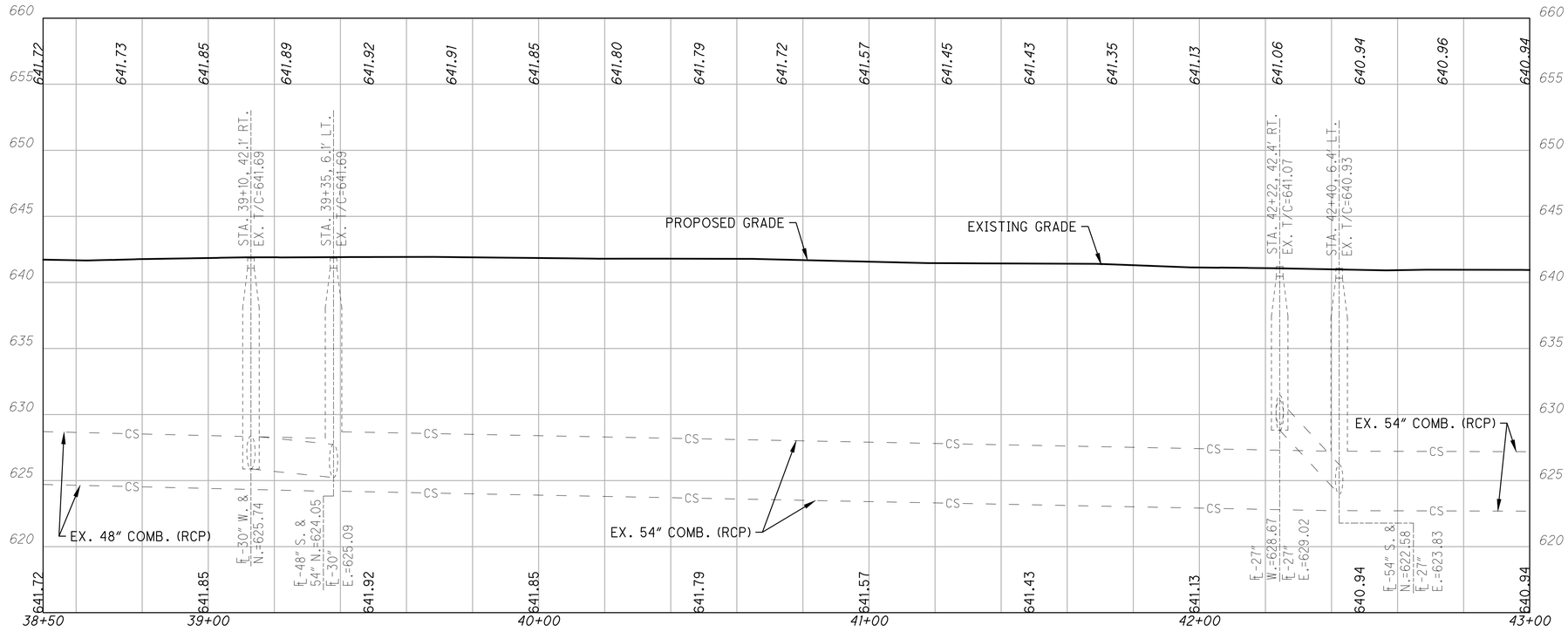
CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 1/7/26
PROJECT ID 122389
SHEET P.35 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- DECORATIVE CONCRETE CROSSWALK
- CONCRETE BASE

- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBRO) TO BE REMOVED BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- * TREE TO BE REMOVED BY OTHERS PRIOR TO CONSTRUCTION OF THIS PROJECT
- P RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.26 AND P.27
DRAINAGE DETAILS	P.95 AND P.96
WATERWORK PLAN	P.110
INTERSECTION DETAILS	P.69 AND P.70
CPP PLANS	P.121
LIGHTING PLANS	P.170
STREETSCAPE PLANS	P.178-P.195

NOTES

1. SIDEWALK AND SHARED USE PATH WITHIN THESE STATIONS IS TO BE INSTALLED BY THE GATEWAY 66 DEVELOPER. SEE GENERAL NOTE ON P.07 FOR FURTHER DETAIL.

HORIZONTAL SCALE IN FEET
0 10 20 40

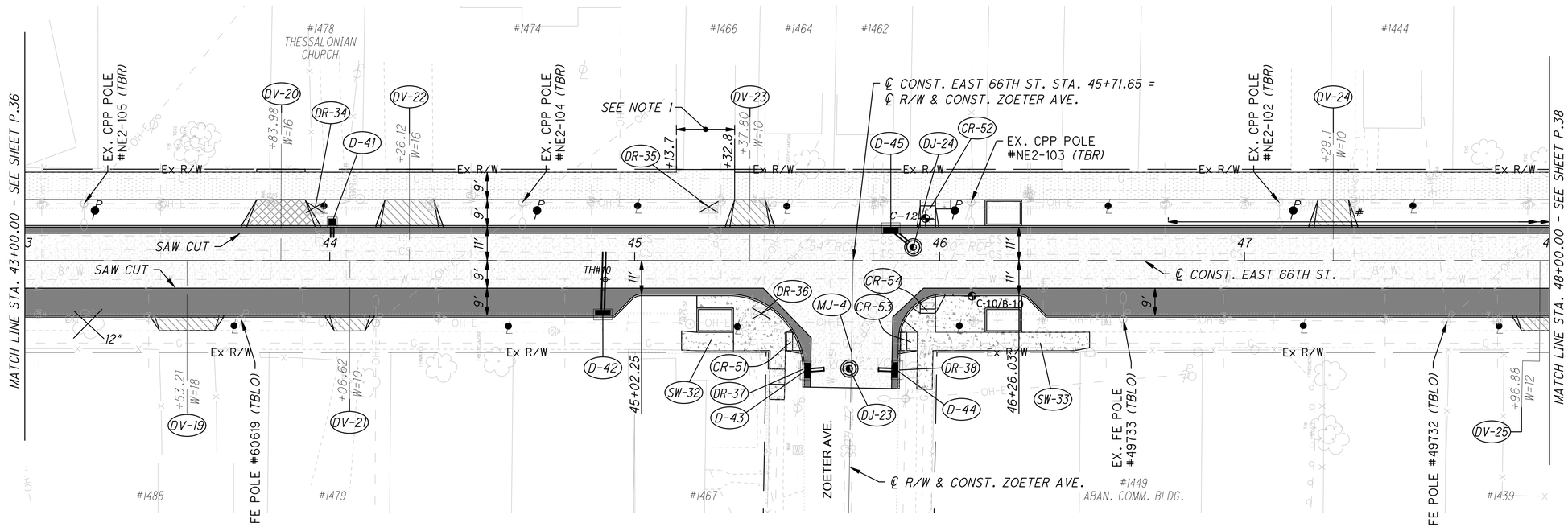
PLAN AND PROFILE - EAST 66TH STREET
STA. 38+50.00 TO STA. 43+00.00

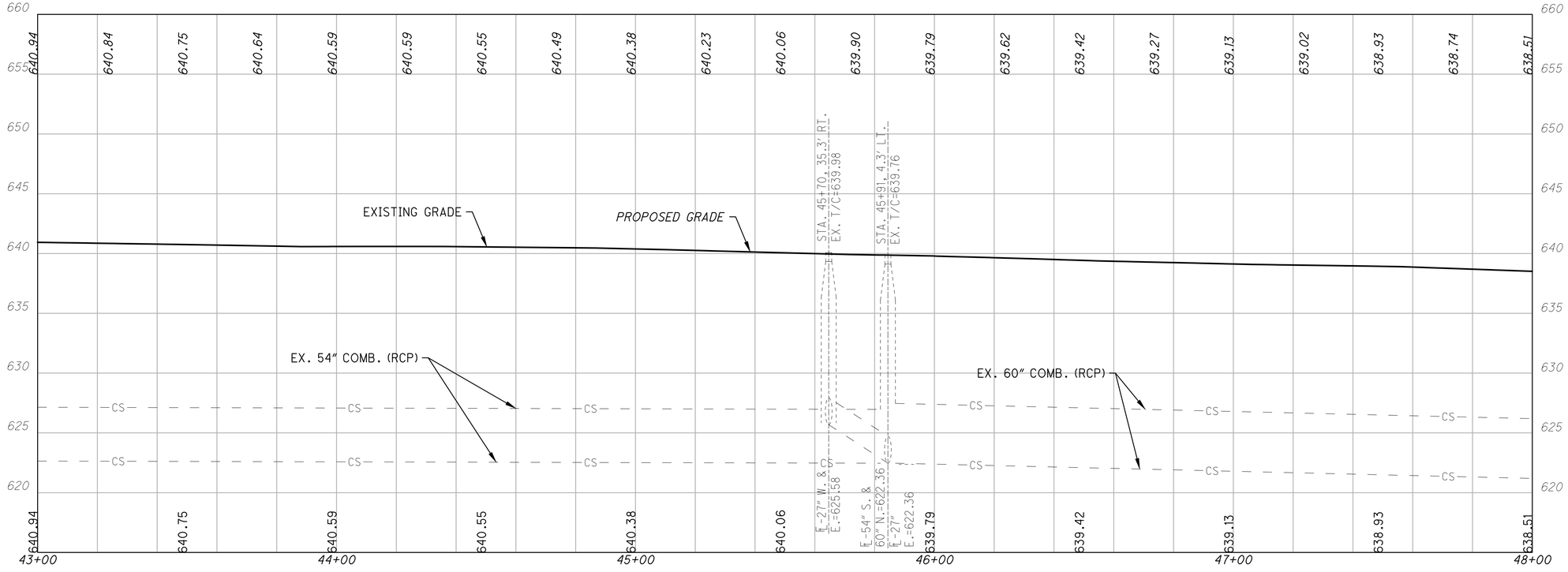
CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 12/10/25
PROJECT ID 122389
SHEET P.36 TOTAL 195





NOTES

1. PLACE EDGE OF ASPHALT PATH ALONG THE FACE OF THE EXISTING BUILDING.

HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.27
DRAINAGE DETAILS	P.96
WATERWORK PLAN	P.111
INTERSECTION DETAILS	P.71
CPP PLAN	P.122
LIGHTING PLAN	P.171
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

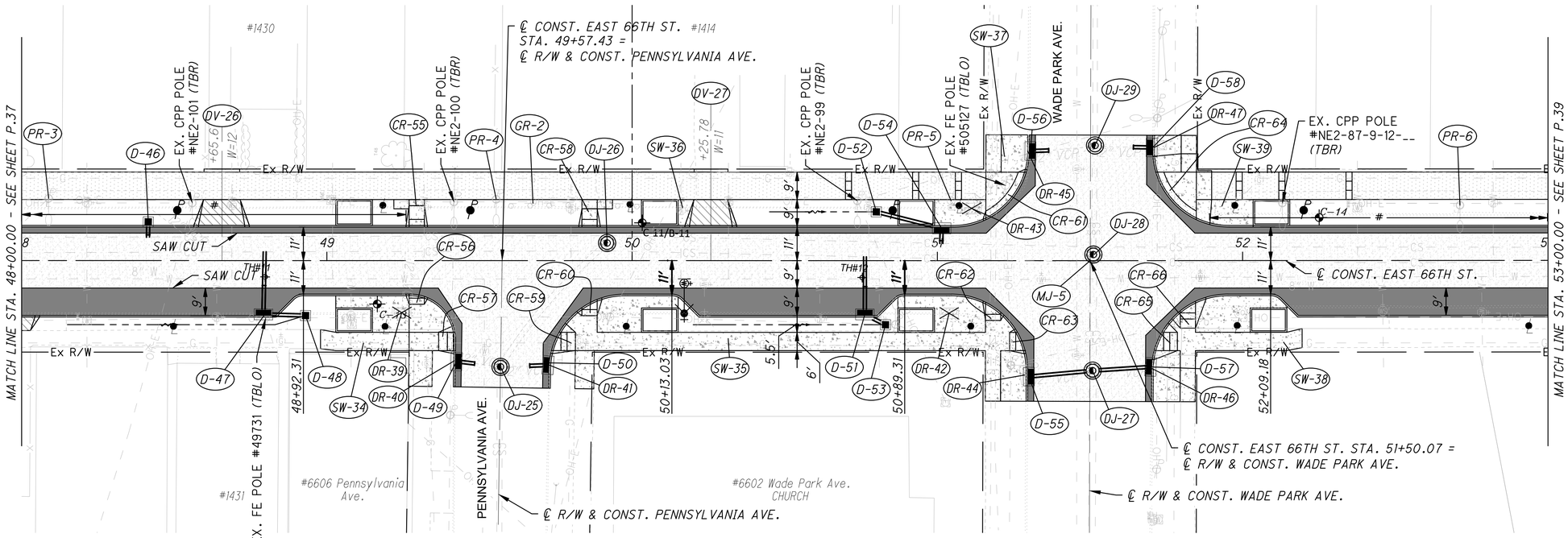
PLAN AND PROFILE - EAST 66TH STREET STA. 43+00.00 TO STA. 48+00.00

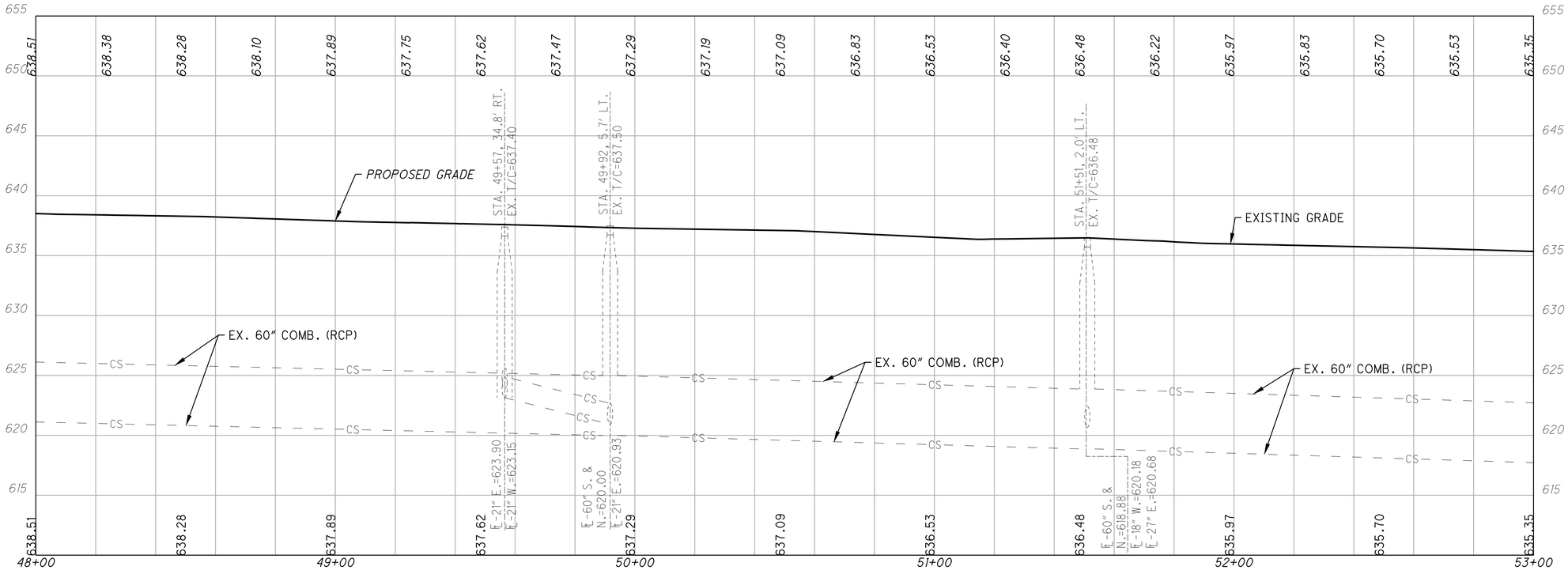
CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 1/7/26
PROJECT ID 122389
SHEET P.37 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BAND (SEE DETAIL, SHEET NO. P.124)
- # 4" CURB REVEAL
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

HORIZONTAL SCALE IN FEET
0 10 20 40

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.27 AND P.28
DRAINAGE DETAILS	P.97
WATERWORK PLAN	P.112
INTERSECTION DETAILS	P.72 AND P.73
CPP PLANS	P.122
LIGHTING PLANS	P.171
STREETSCAPE PLANS	P.178-P.195

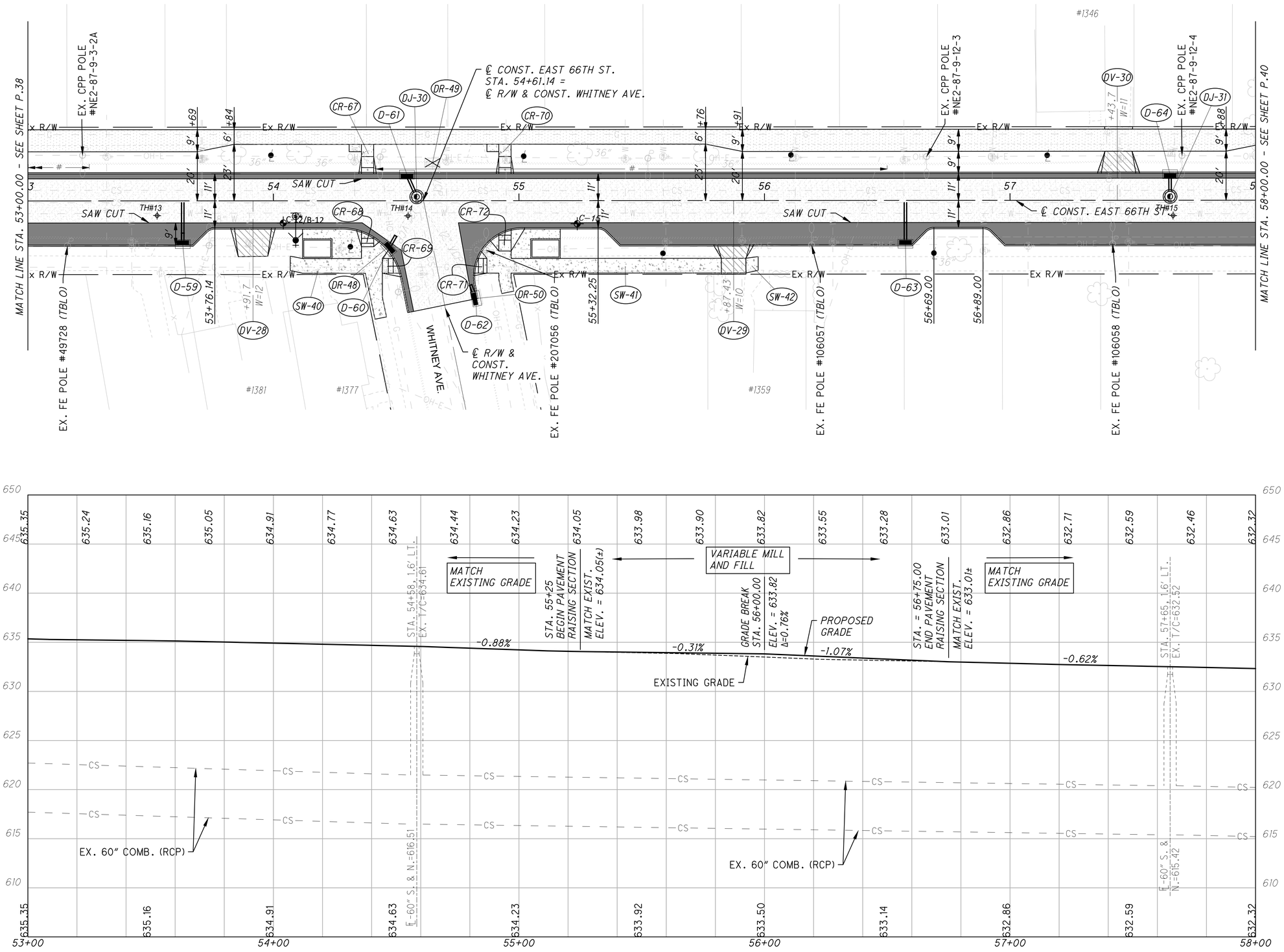
PLAN AND PROFILE - EAST 66TH STREET
STA. 48+00.00 TO STA. 53+00.00

CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 12/10/25
PROJECT ID 122389
SHEET P.38 TOTAL 195



HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- # 4" CURB REVEAL
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.28
DRAINAGE DETAILS	P.98
WATERWORK PLAN	P.113
INTERSECTION DETAILS	P.74
CPP PLANS	P.123
LIGHTING PLANS	P.172
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

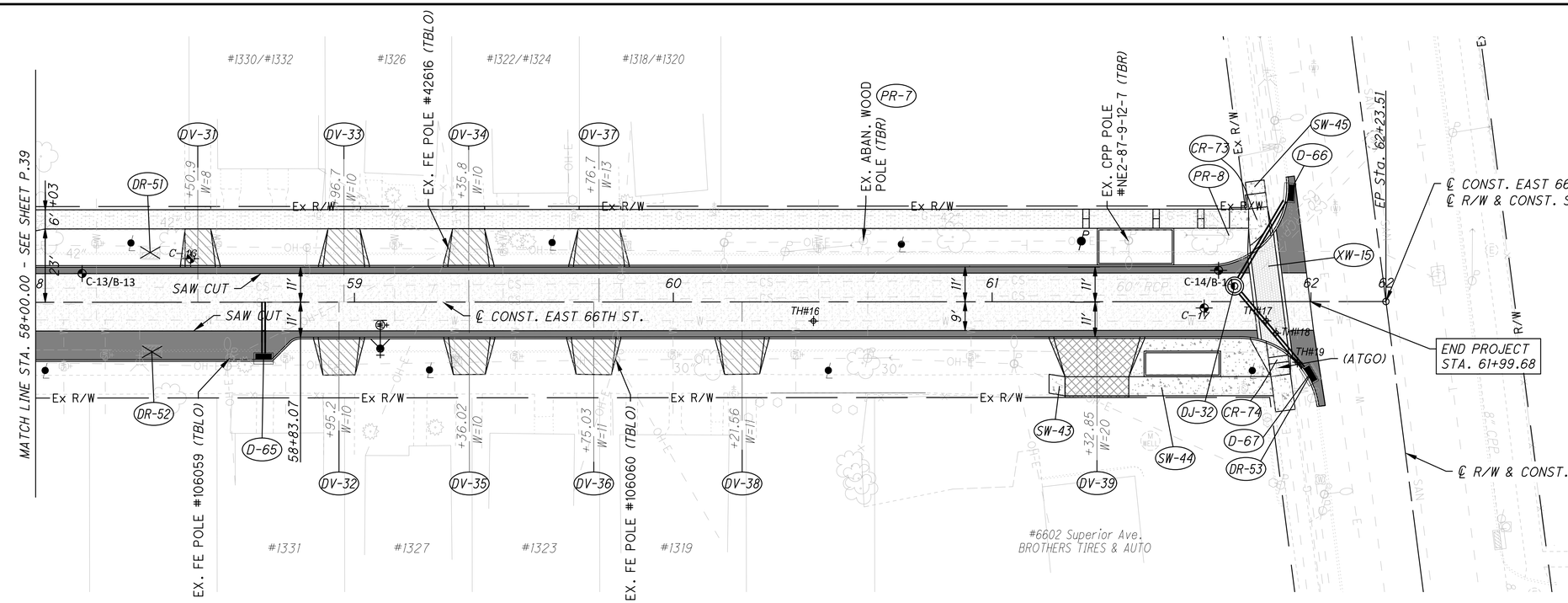
PLAN AND PROFILE - EAST 66TH STREET STA. 53+00.00 TO STA. 58+00.00

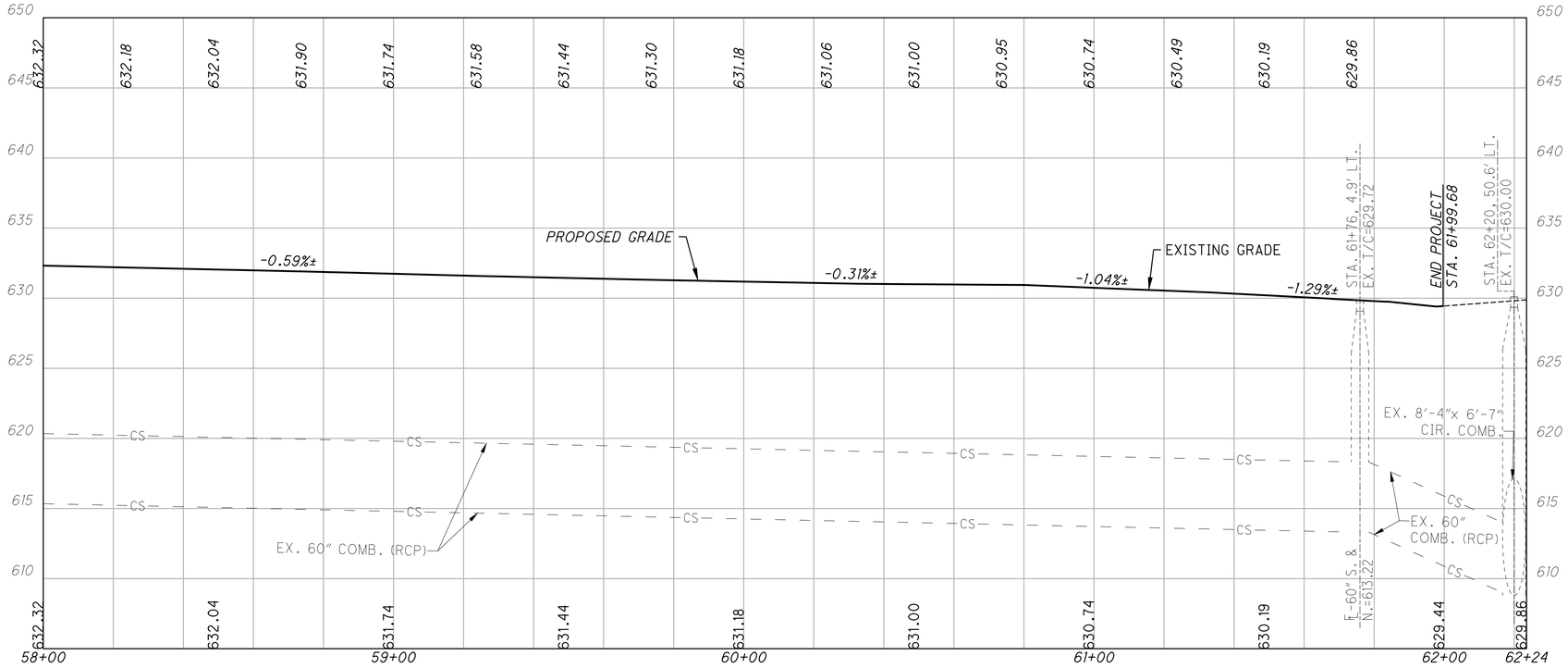
CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 10/21/25
PROJECT ID 122389
SHEET P.39 TOTAL 195





HATCH LEGEND

- ASPHALT SHARED USE PATH
- CONCRETE SIDEWALK OR CURB RAMP
- COMMERCIAL CONCRETE DRIVEWAY
- RESIDENTIAL CONCRETE DRIVEWAY
- RESURFACING PAVEMENT
- DECORATIVE CONCRETE CROSSWALK
- CONCRETE BASE
- ADJUSTED TO GRADE (ATG)
- (TBLO) TO BE RELOCATED BY OTHERS
- (TBR) TO BE REMOVED
- COLORED CONCRETE BANDS (SEE DETAIL, SHEET NO. P.124)
- RELOCATED CPP POLE
- DECORATIVE LIGHT POLE

SHEET REFERENCES	
DESCRIPTION	SHEET NO
DRIVE SUBSUMMARY	P.77
DRAINAGE QUANTITIES	P.28
DRAINAGE DETAILS	P.98 AND P.99
WATERWORK PLAN	P.114
INTERSECTION DETAILS	P.75
CPP PLANS	P.123
LIGHTING PLANS	P.172
STREETSCAPE PLANS	P.178-P.195

HORIZONTAL SCALE IN FEET
0 10 20 40

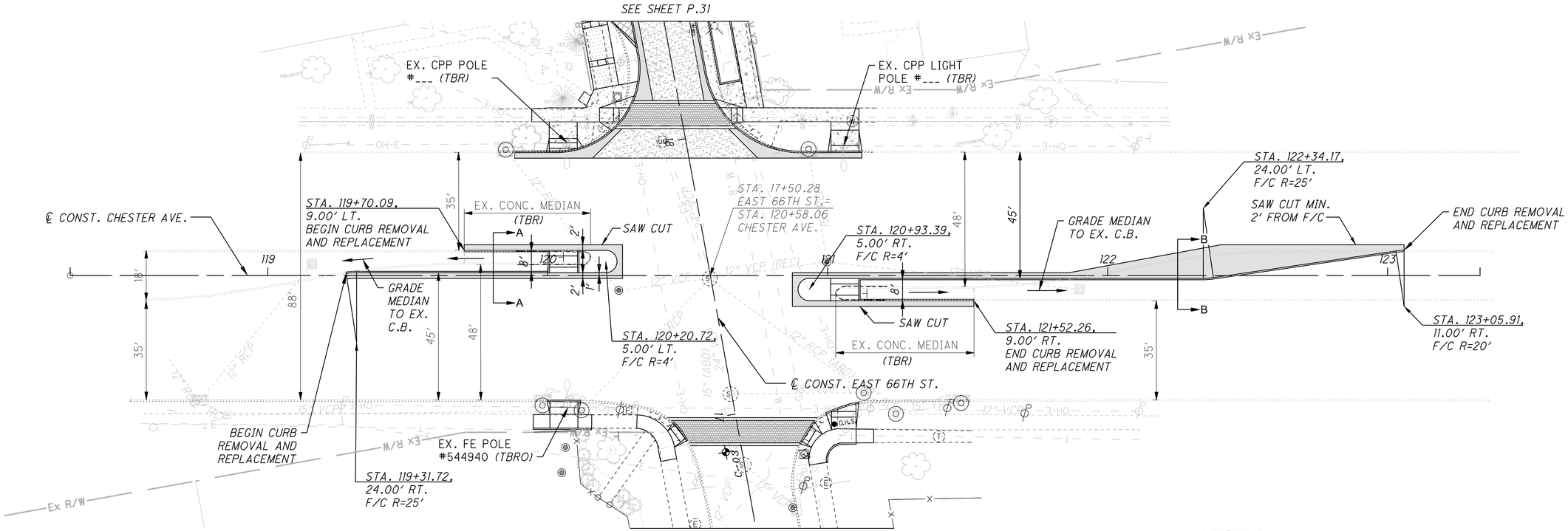
PLAN AND PROFILE - EAST 66TH STREET
STA. 58+00.00 TO STA. 62+30.00

CUY-EAST 66TH STREET TLCI

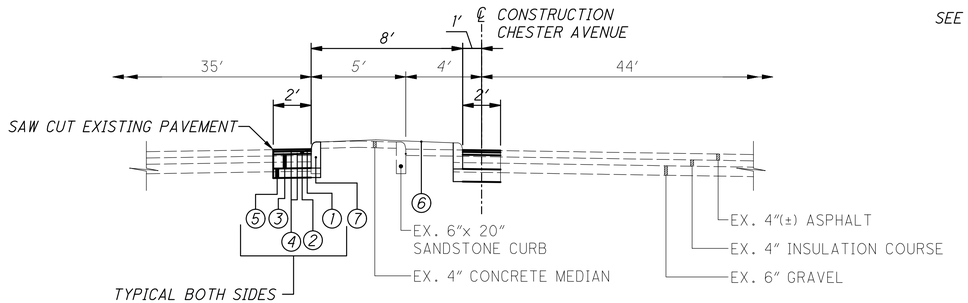
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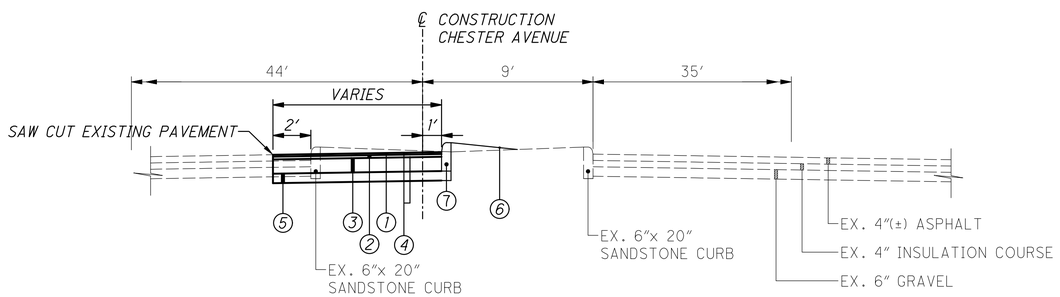
DESIGNER MVN
REVIEWER CEL 12/11/25
PROJECT ID 122389
SHEET P.40 TOTAL 195



SEE SHEET P.62 FOR INTERSECTION DETAILS



SECTION A-A



SECTION B-B

LEGEND

1. ITEM 441 - 1 ¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), PG70-22M, AS PER PLAN
2. ITEM 441 - 1 ¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), AS PER PLAN
3. ITEM 305 - 9″ CONCRETE BASE, CLASS QC 1P, AS PER PLAN
4. ITEM 407 - TACK COAT
5. ITEM 304 - 6″ AGGREGATE BASE, AS PER PLAN
6. ITEM 659 - SEEDING AND MULCHING
7. ITEM 609 - CURB, TYPE 6

F/C = FACE OF CURB

HATCH LEGEND

- RESURFACING PAVEMENT
- COLORED, TEXTURED CONCRETE PAVEMENT 1
- CONCRETE BASE

(TBR) TO BE REMOVED

(TBRO) TO BE REMOVED BY OTHERS

COLORED CONCRETE BANDS (SEE DETAIL, SHEET P.124)

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND DETAILS CHESTER AVENUE STA. 119+31.72 TO STA. 123+05.91

CUY-EAST 66TH STREET TLCI

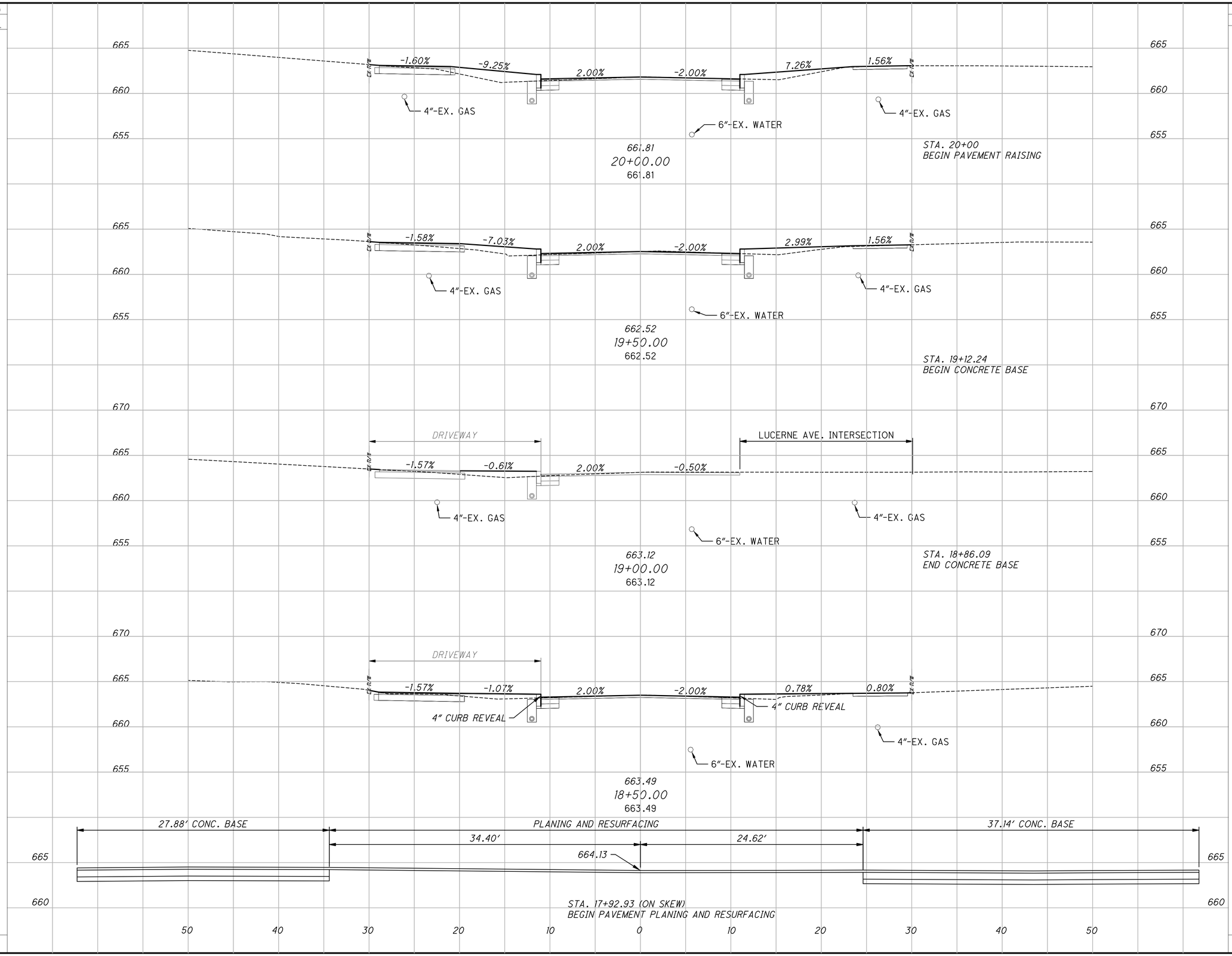
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DESIGNER MVN
REVIEWER CEL 12/16/25
PROJECT ID 122389
SHEET P.41 TOTAL 195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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CROSS SECTIONS - EAST 66TH STREET
STA. 18+50 TO STA. 20+00

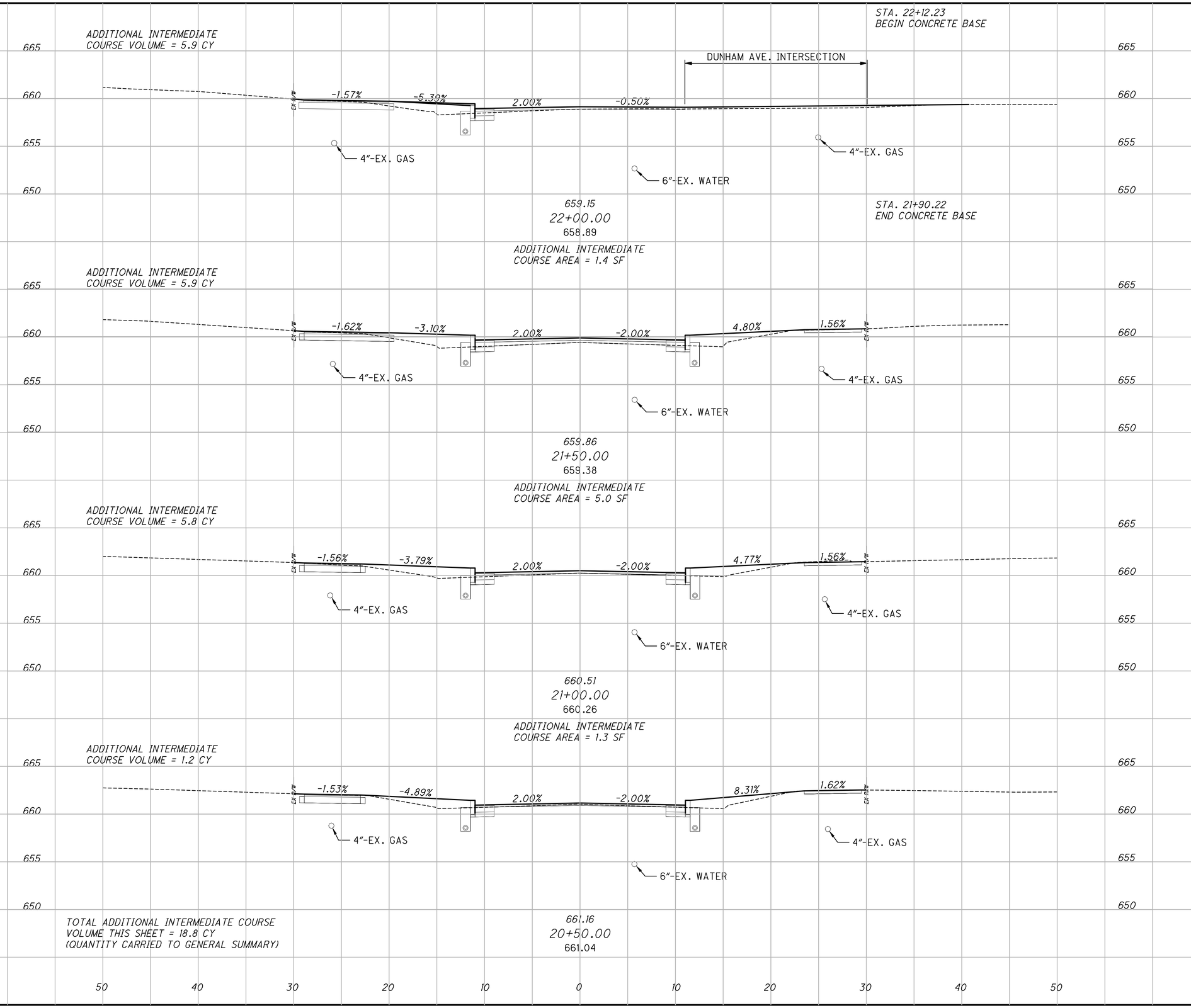
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DESIGNER	IRK
REVIEWER	DRP 12/17/2025
PROJECT ID	122389
SHEET	P.42
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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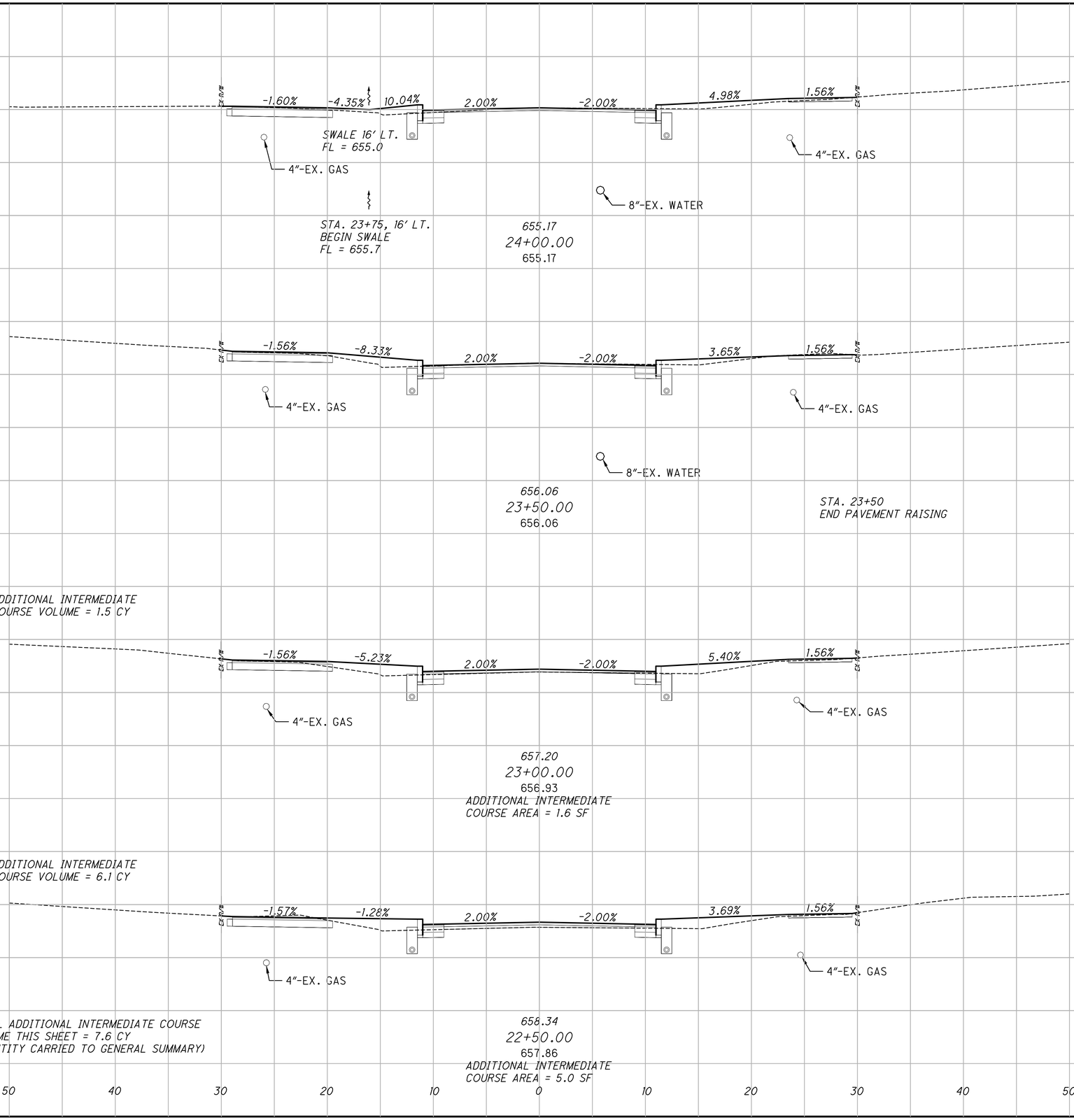
CROSS SECTIONS - EAST 66TH STREET
STA. 20+50 TO STA. 22+00

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DESIGNER	IRK
REVIEWER	DRP 10/22/25
PROJECT ID	122389
SHEET	P.43
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 22+50 TO STA. 24+00

CUY-EAST 66TH STREET TLCI

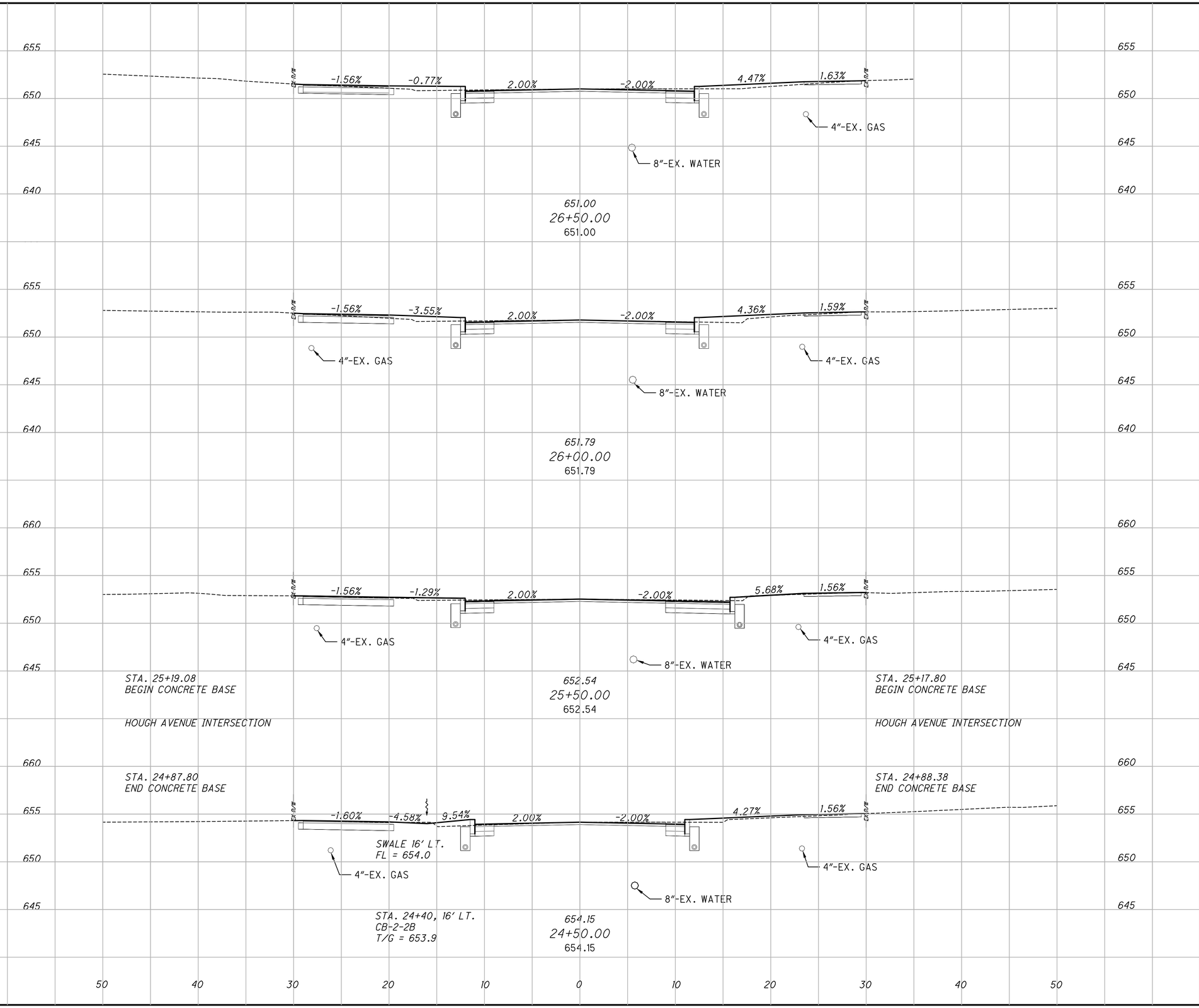
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DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.44
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 24+50 TO STA. 26+50

CUY-EAST 66TH STREET TLCI

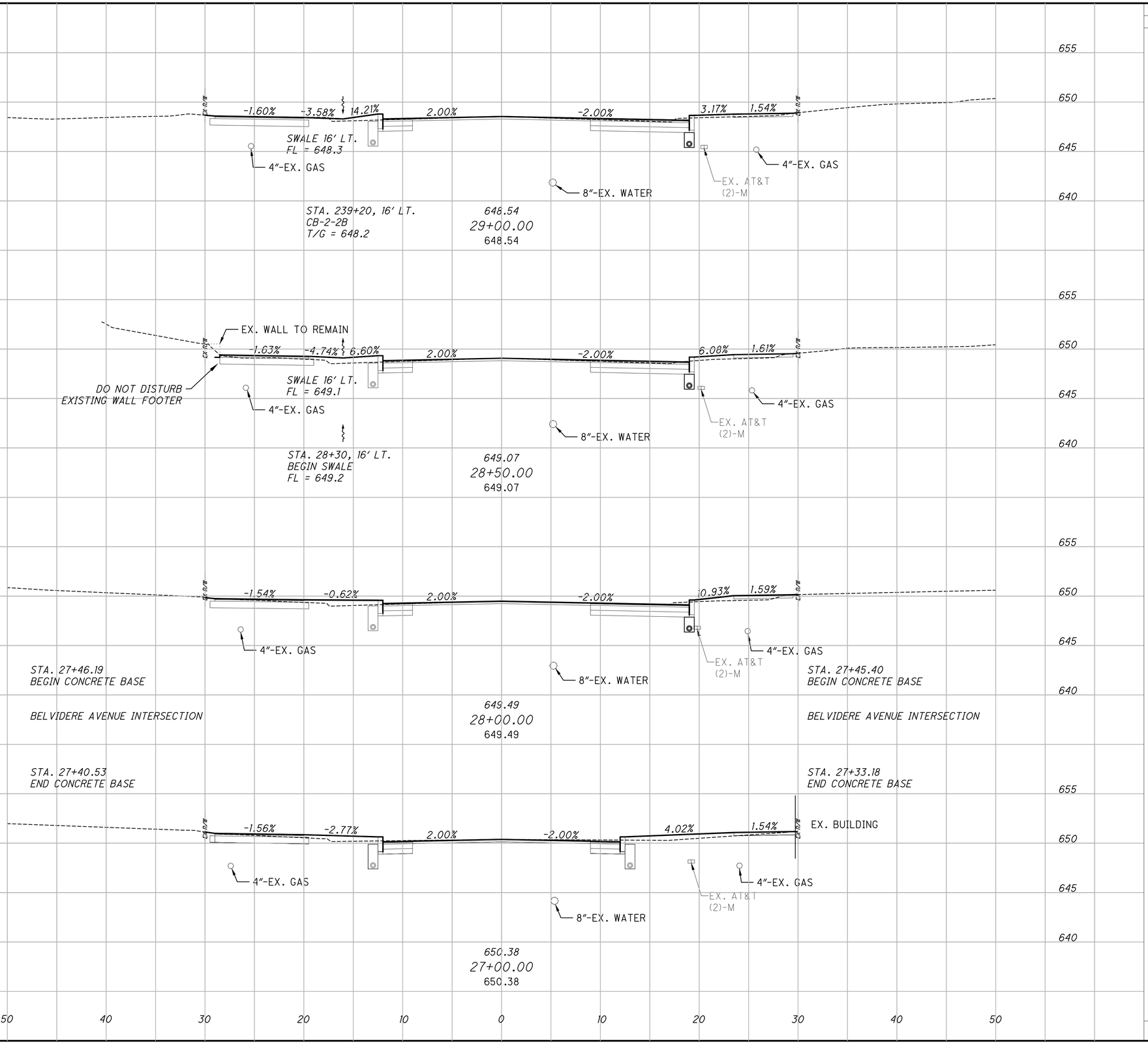
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DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.45
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 27+00 TO STA. 29+00

CUY-EAST 66TH STREET TLCI

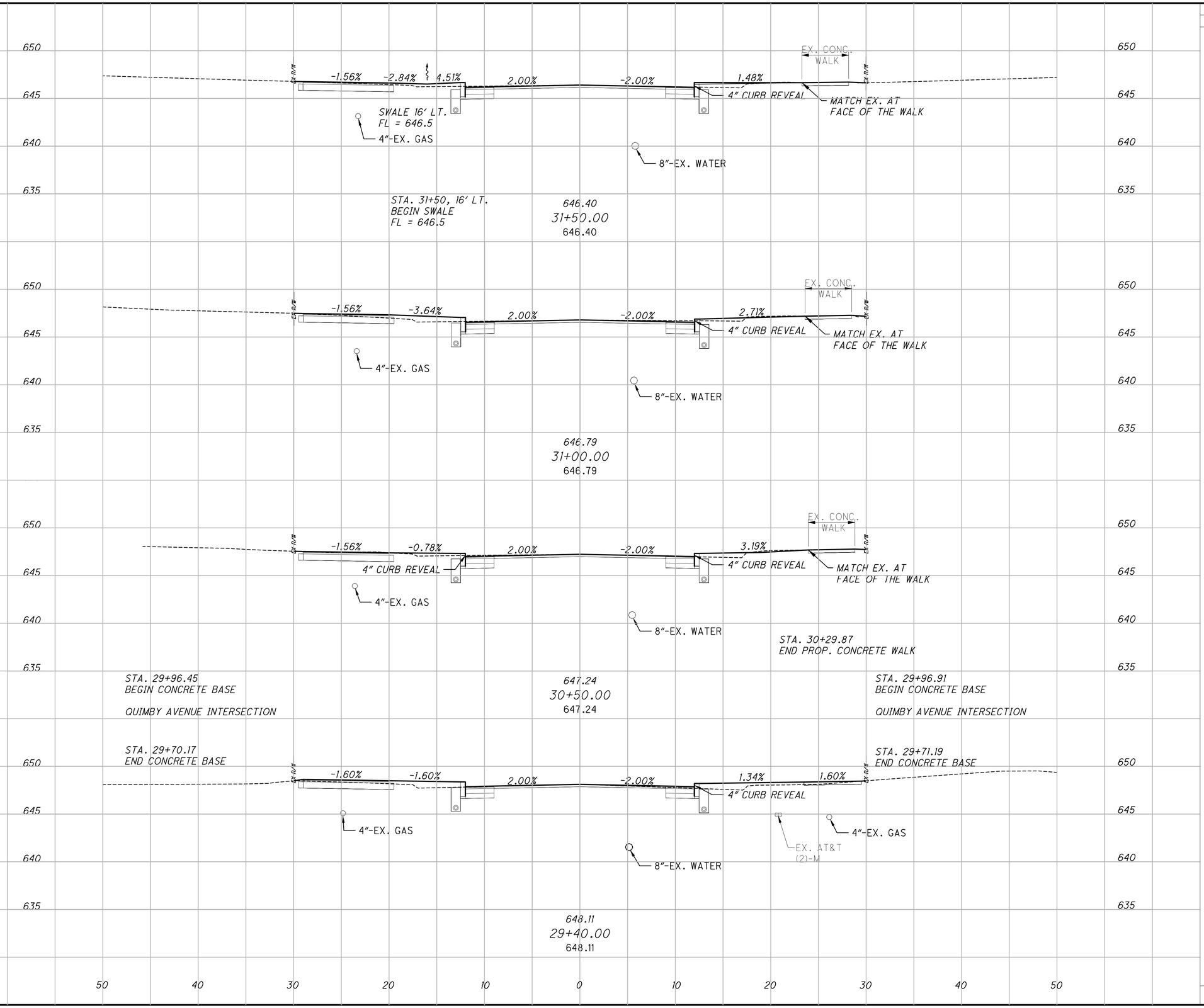
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DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.46
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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CROSS SECTIONS - EAST 66TH STREET
STA. 29+50 TO STA. 31+50

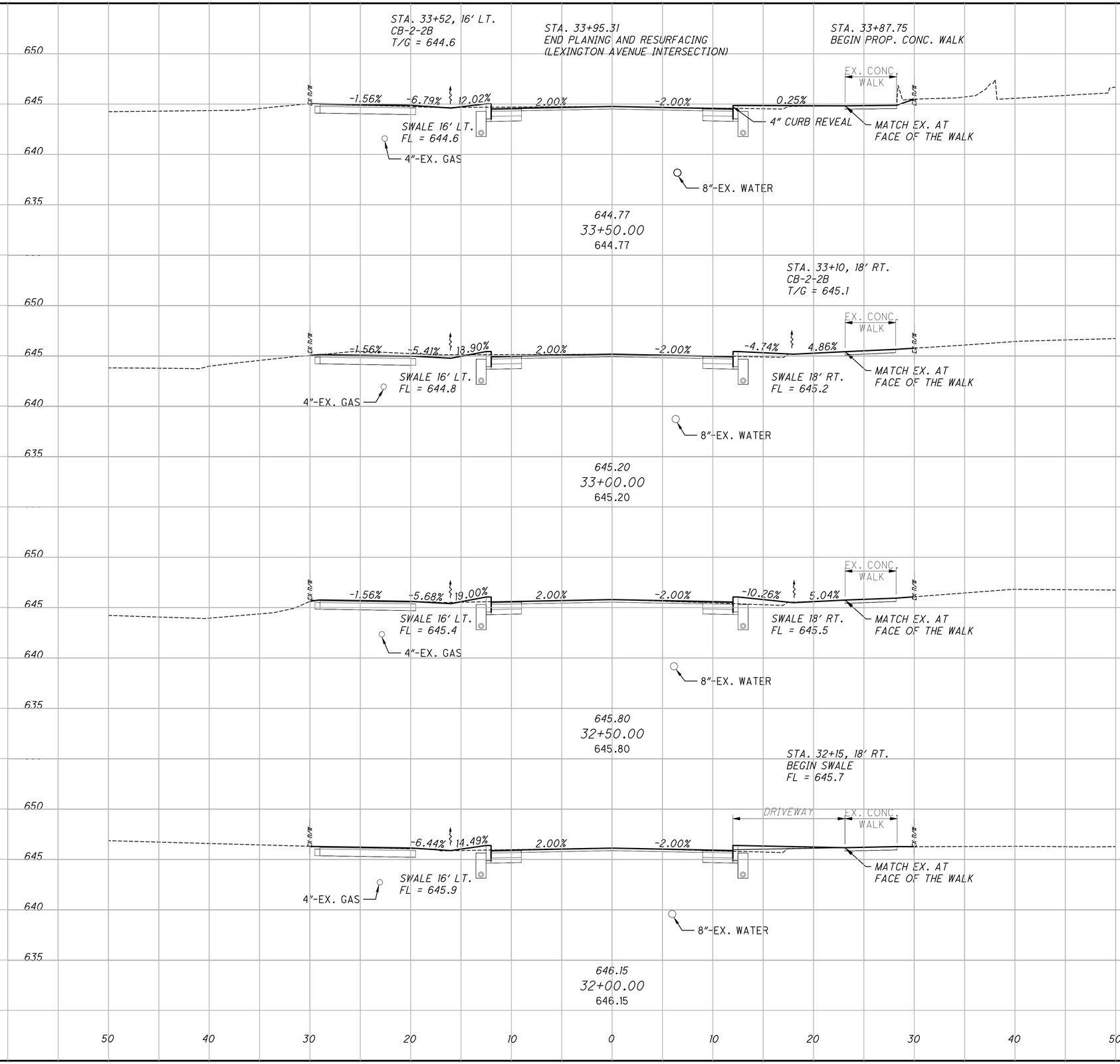
DESIGN AGENCY

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DESIGNER	
IRK	
REVIEWER	
DRP	10/28/25
PROJECT ID	
122389	
SHEET	TOTAL
P.47	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 32+00 TO STA. 33+50

CUY-EAST 66TH STREET TLCI

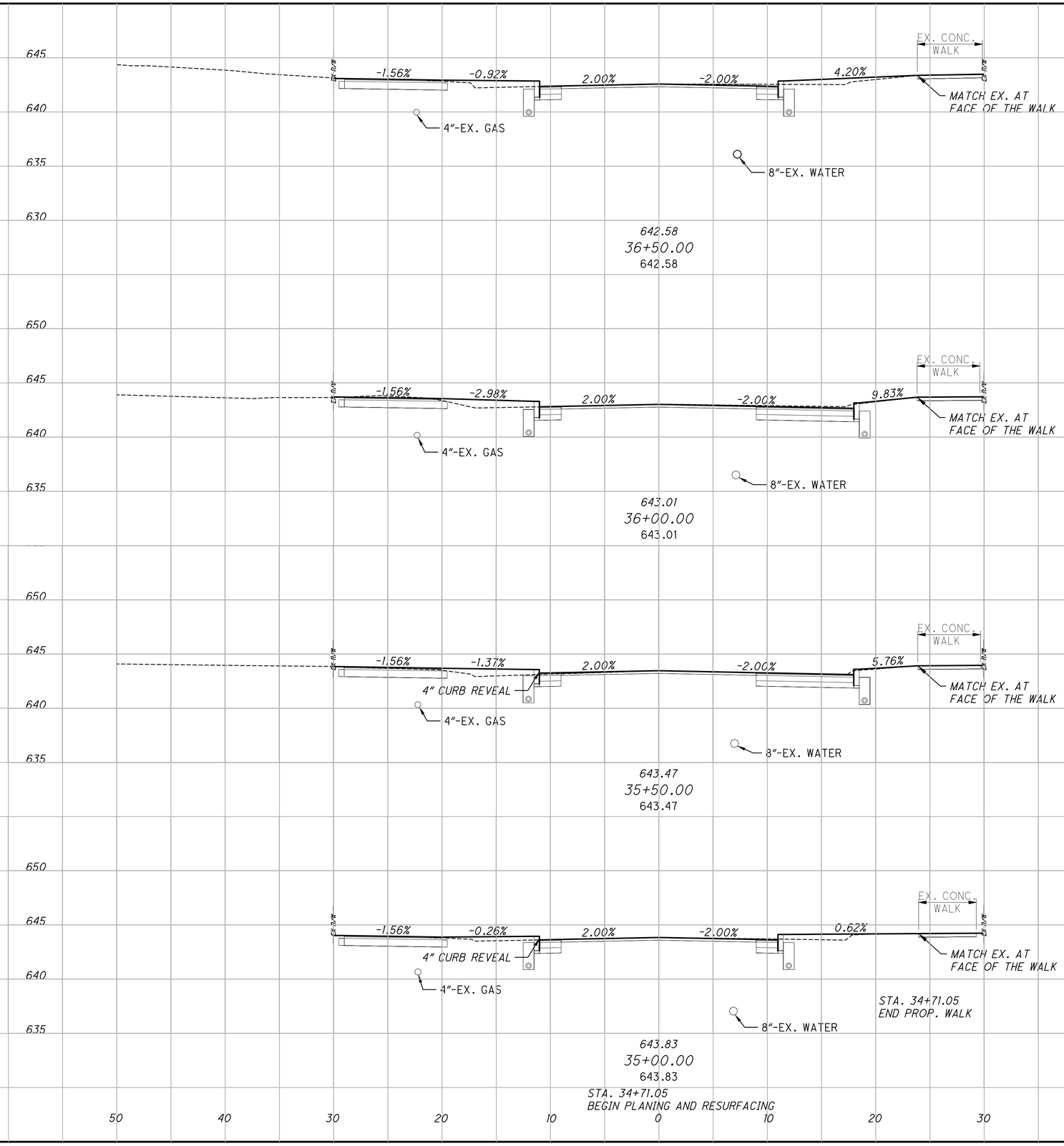
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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	5/13/25
PROJECT ID	
122389	
SHEET	TOTAL
P.48	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\y2022\01116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_XS008.dwg

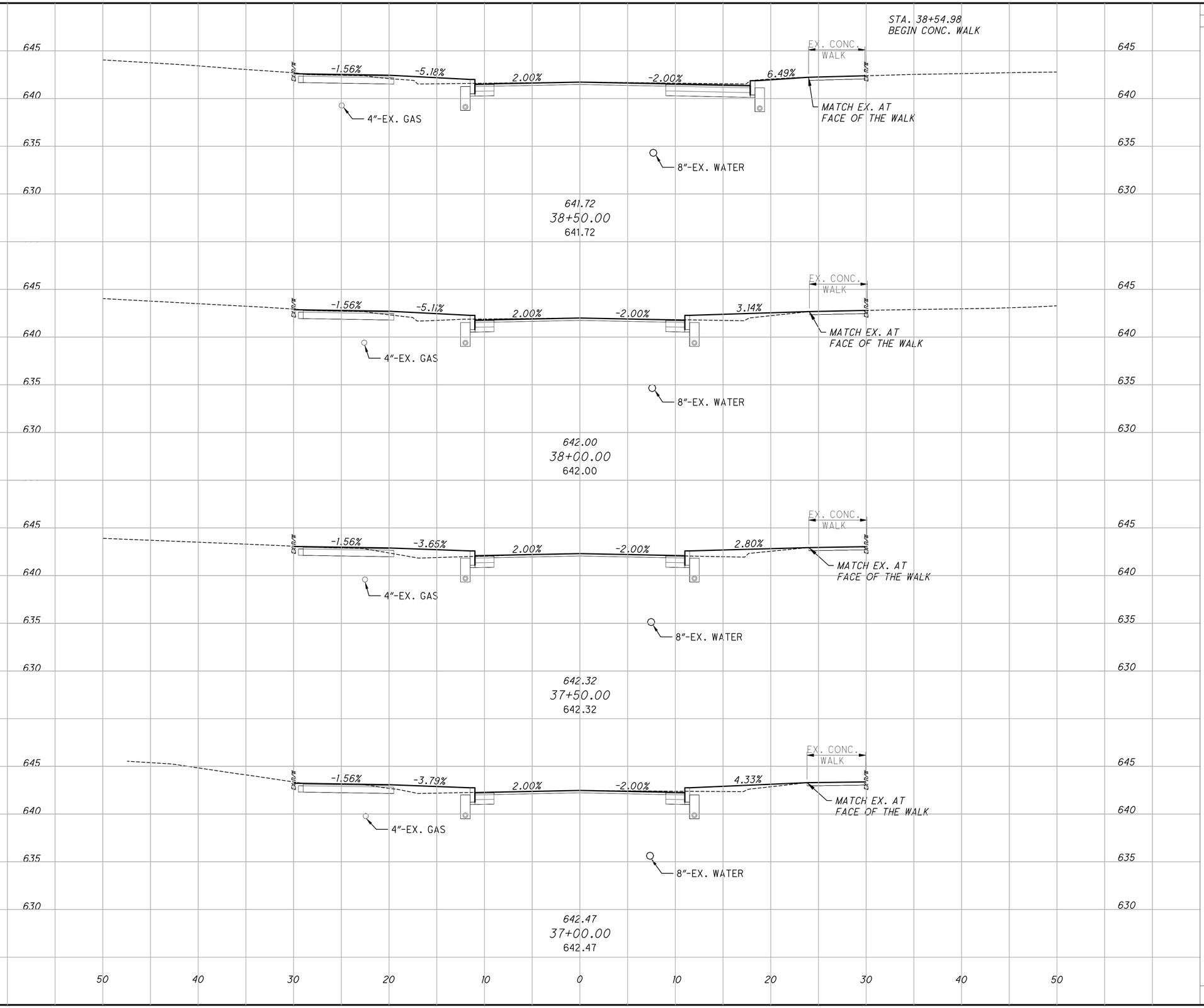
CROSS SECTIONS - EAST 66TH STREET
STA. 35+00 TO STA. 36+50

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 7/26/25
PROJECT ID	122389
SHEET	P.49
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 37+00 TO STA. 38+50

CUY-EAST 66TH STREET TLCI

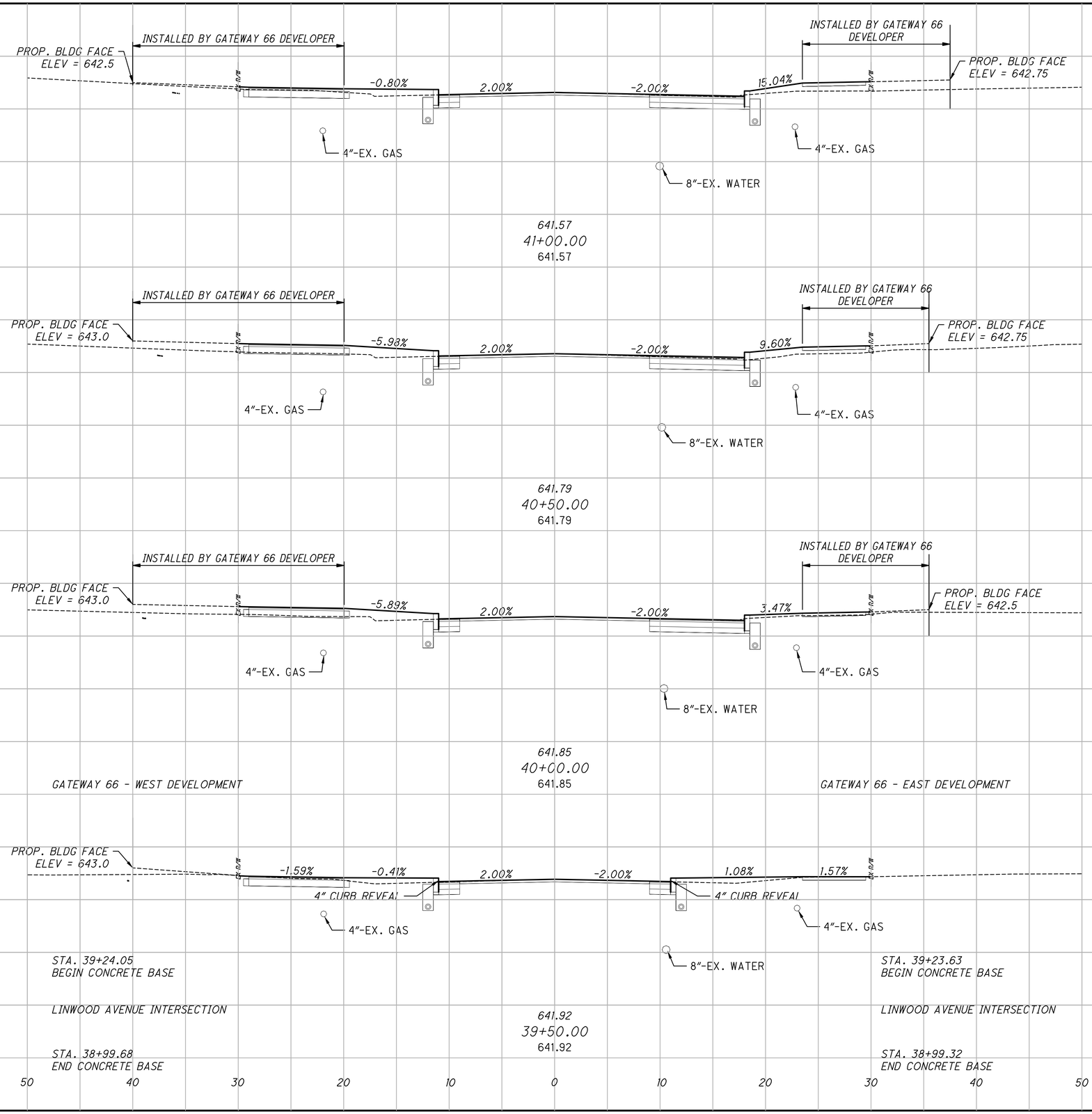
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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.50
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011\6.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_XS010.dwg

CROSS SECTIONS - EAST 66TH STREET
STA. 39+50 TO STA. 41+00

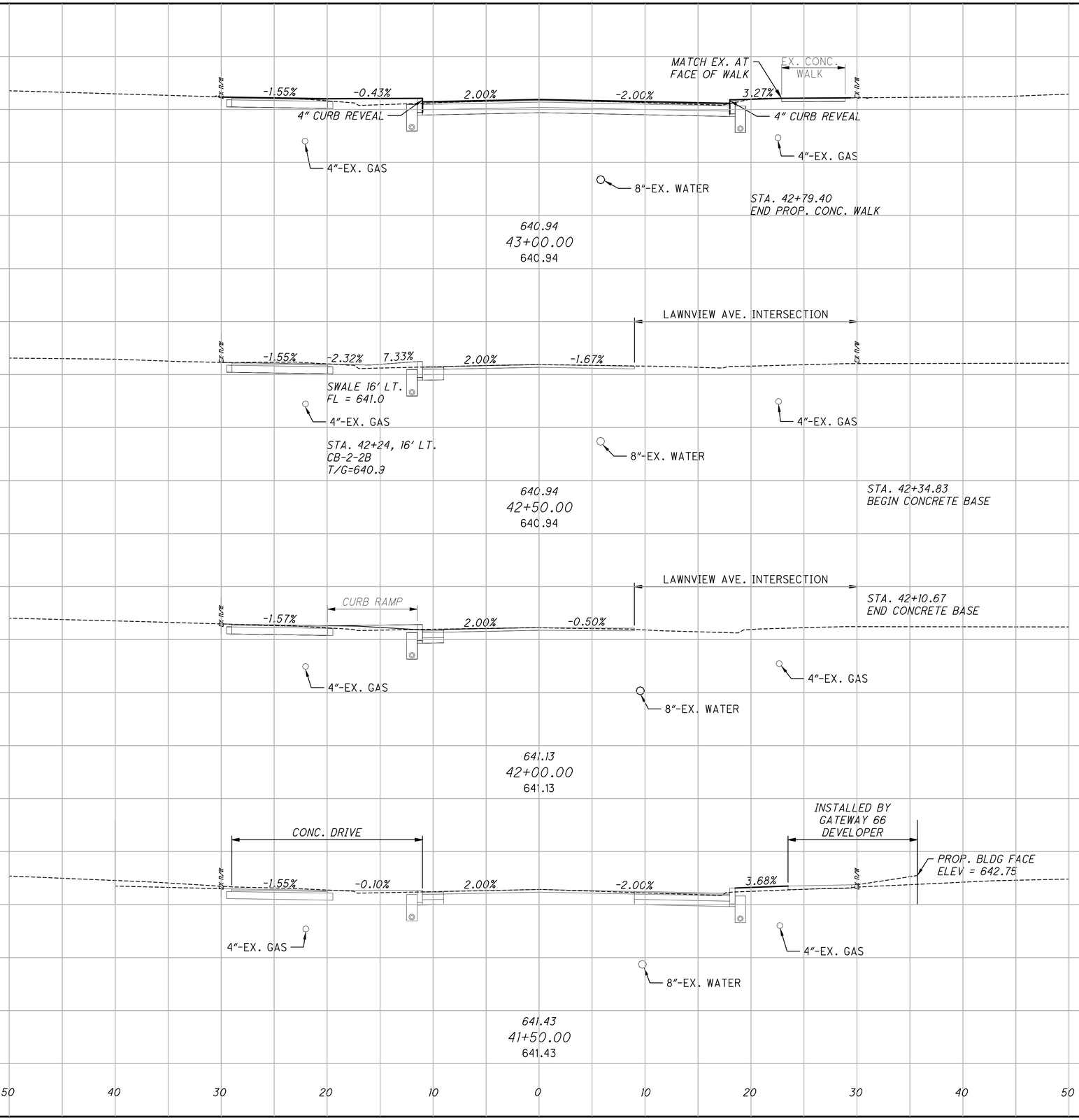
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 10/22/25
PROJECT ID	122389
SHEET	P.51
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 41+50 TO STA. 43+00

CUY-EAST 66TH STREET TLCI

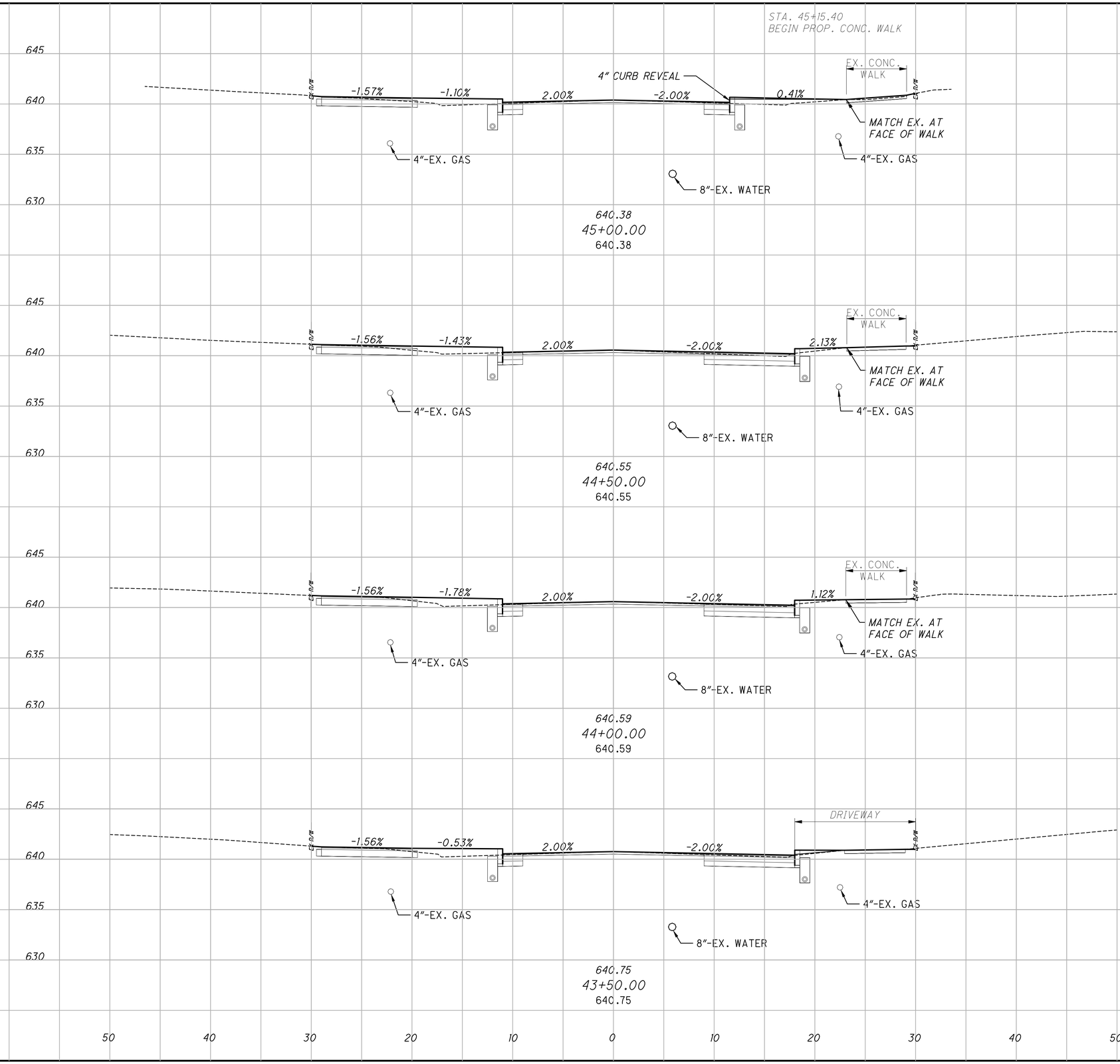
P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\VS011.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.52
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 43+50 TO STA. 45+00

CUY-EAST 66TH STREET TLCI

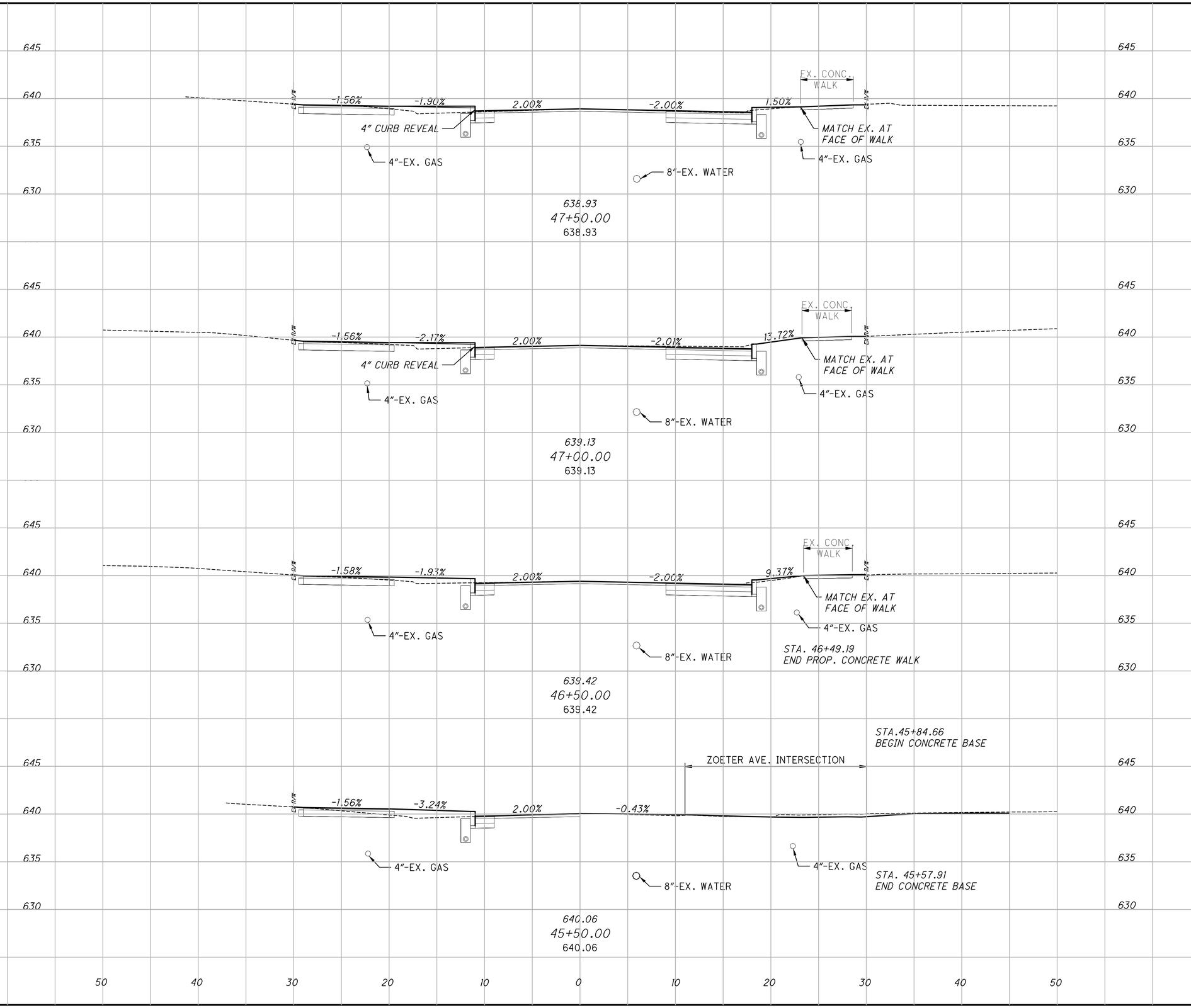
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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	10/22/25
PROJECT ID	
122389	
SHEET	TOTAL
P.53	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\VSD14.dwg

CROSS SECTIONS - EAST 66TH STREET
STA. 45+50 TO STA. 47+50

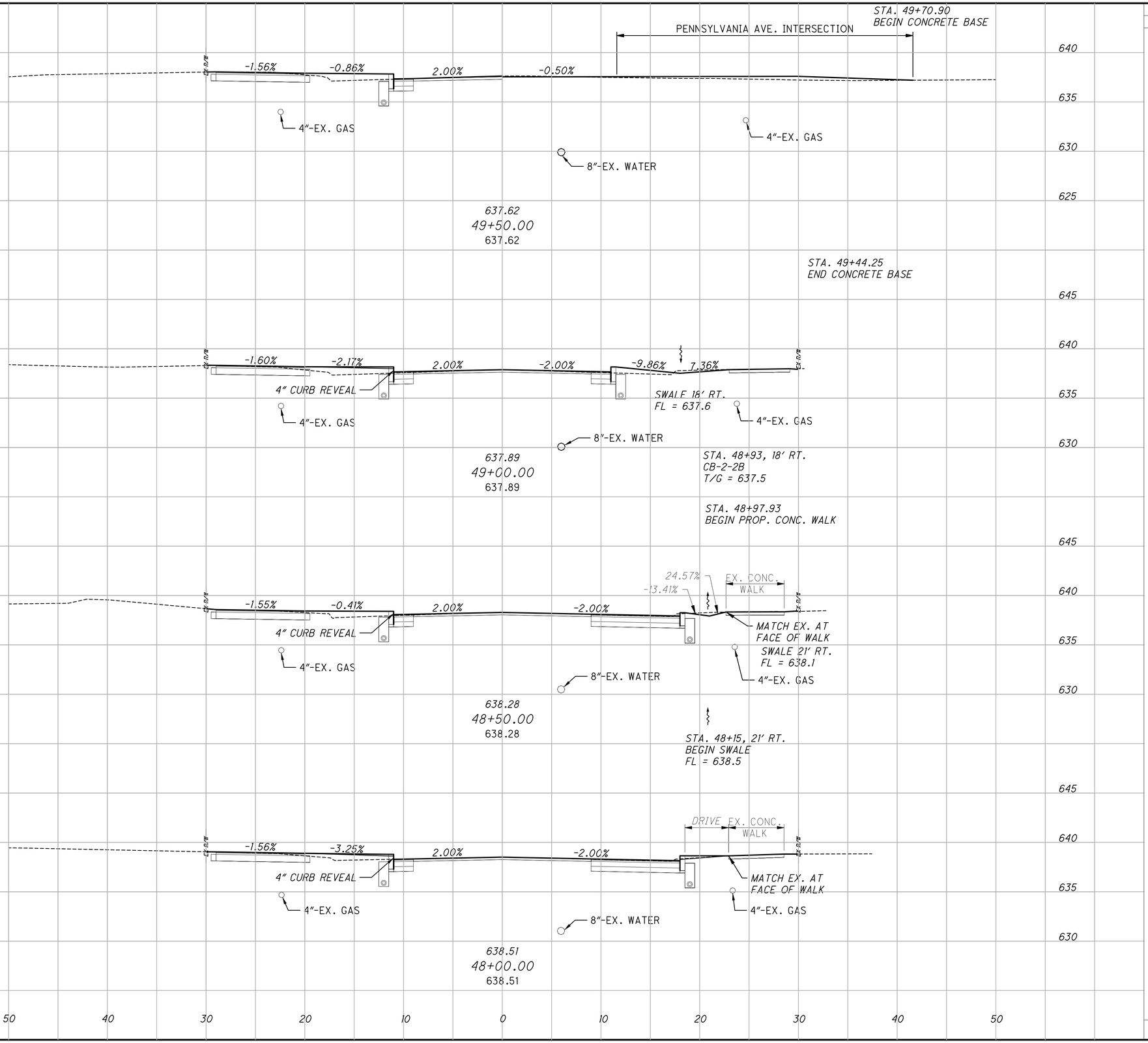
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 9/19/25
PROJECT ID	122389
SHEET	P.54
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 48+00 TO STA. 49+50

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\VS0115.dwg

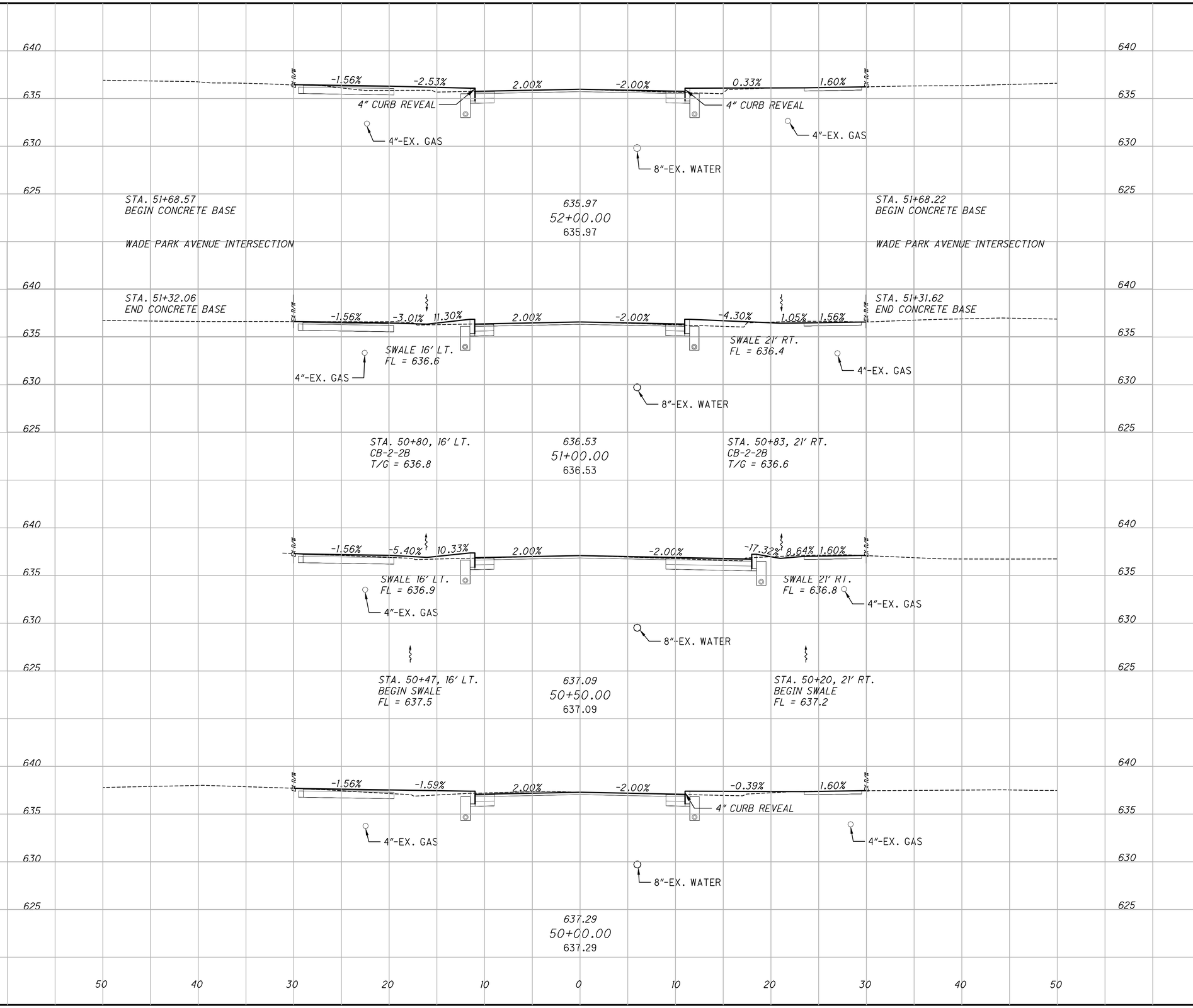
DESIGN AGENCY

OSBORN
ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	12/17/25
PROJECT ID	
122389	
SHEET	TOTAL
P.55	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022\01116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\XS016.dwg

CROSS SECTIONS - EAST 66TH STREET
STA. 50+00 TO STA. 52+00

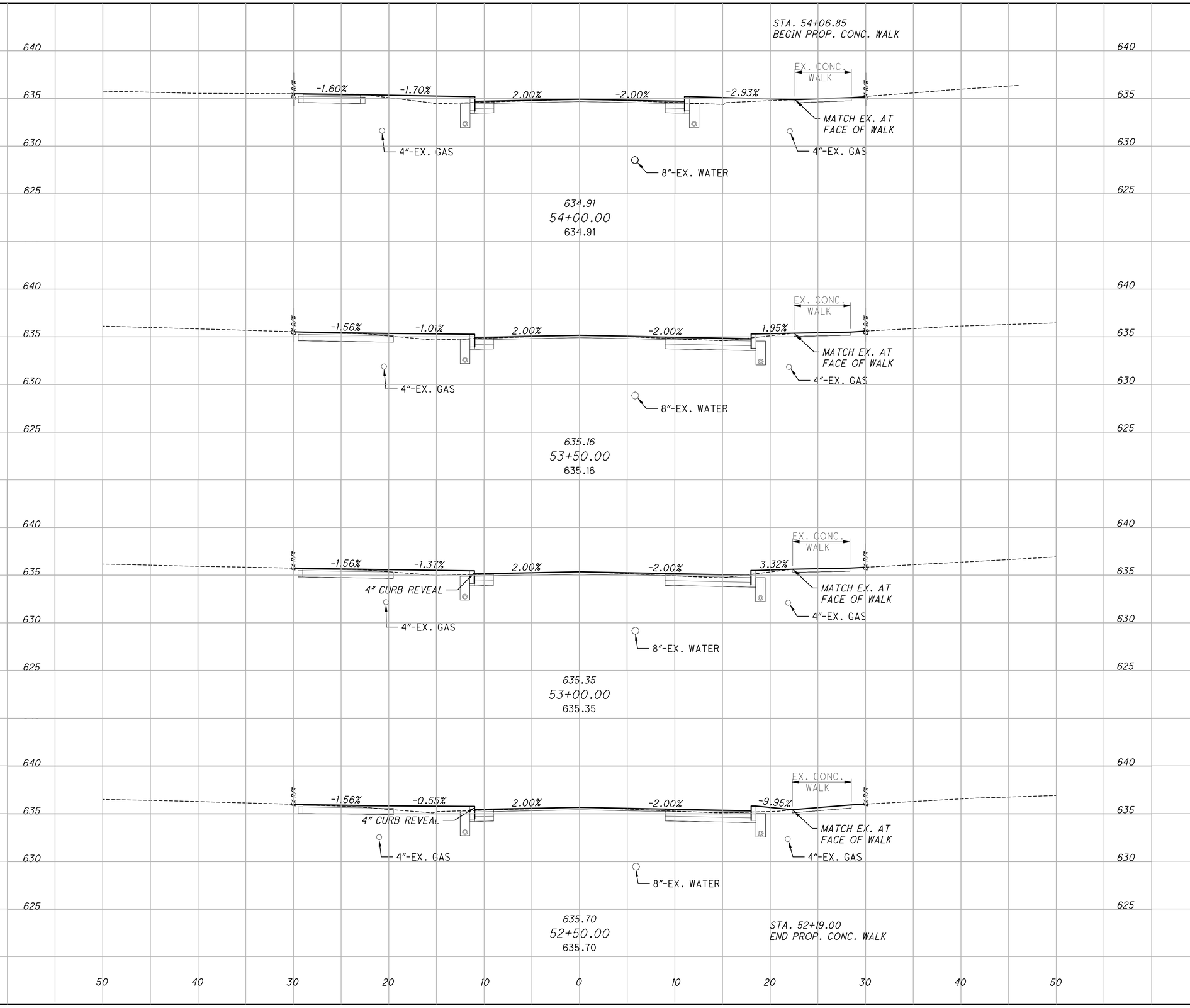
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 10/22/25
PROJECT ID	122389
SHEET	P.56
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland_20220116.100_East_66th_St_Find_Engineering\Drawings\Trans\Roadway\Sheets\VS017.dwg

CROSS SECTIONS - EAST 66TH STREET
STA. 52+50 TO STA. 54+00

DESIGN AGENCY

OSBORN ENGINEERING

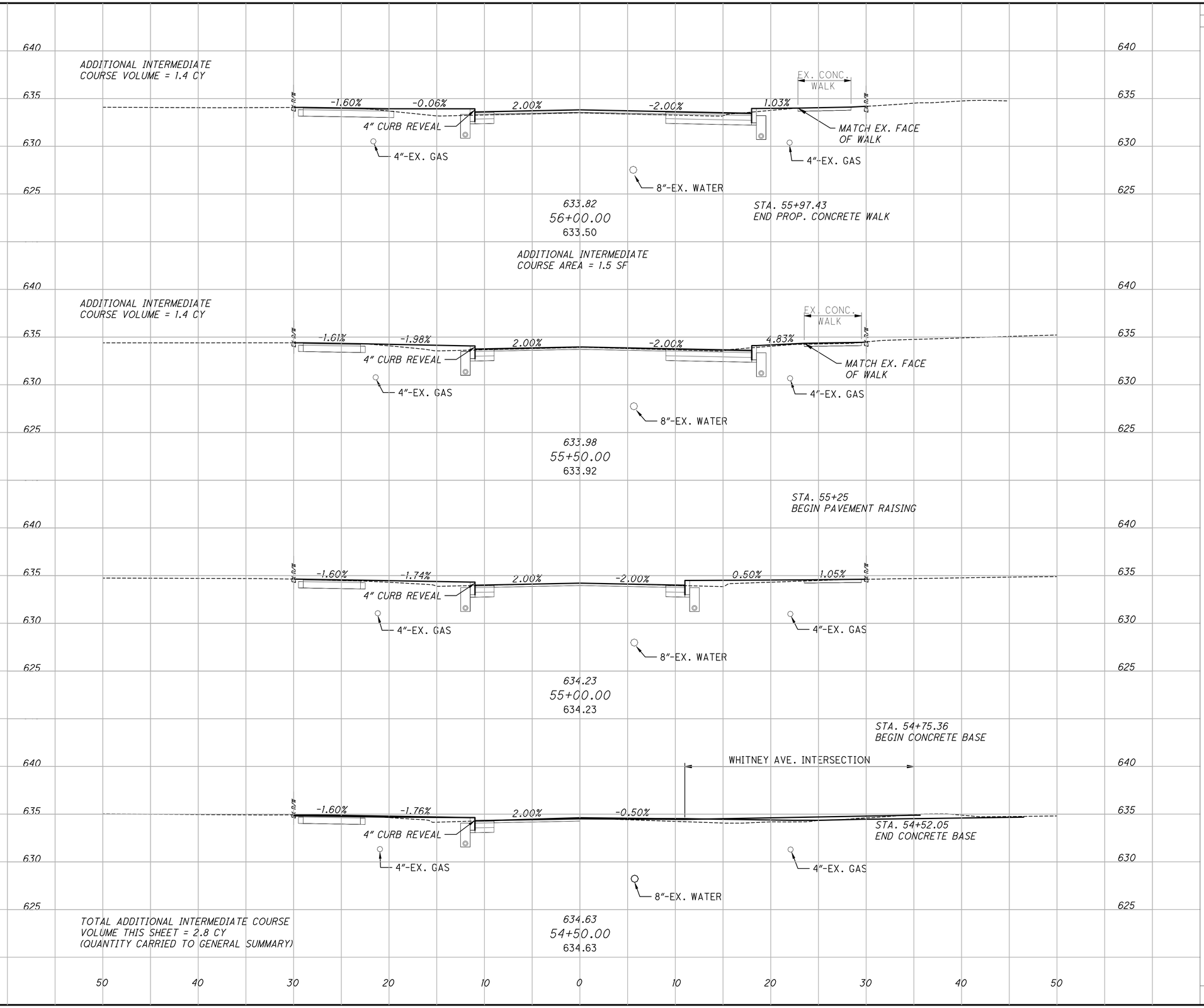
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114

(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	7/26/25
PROJECT ID	
122389	
SHEET	TOTAL
P.57	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\VS0116.dwg

CROSS SECTIONS - EAST 66TH STREET
STA. 54+50 TO STA. 56+00

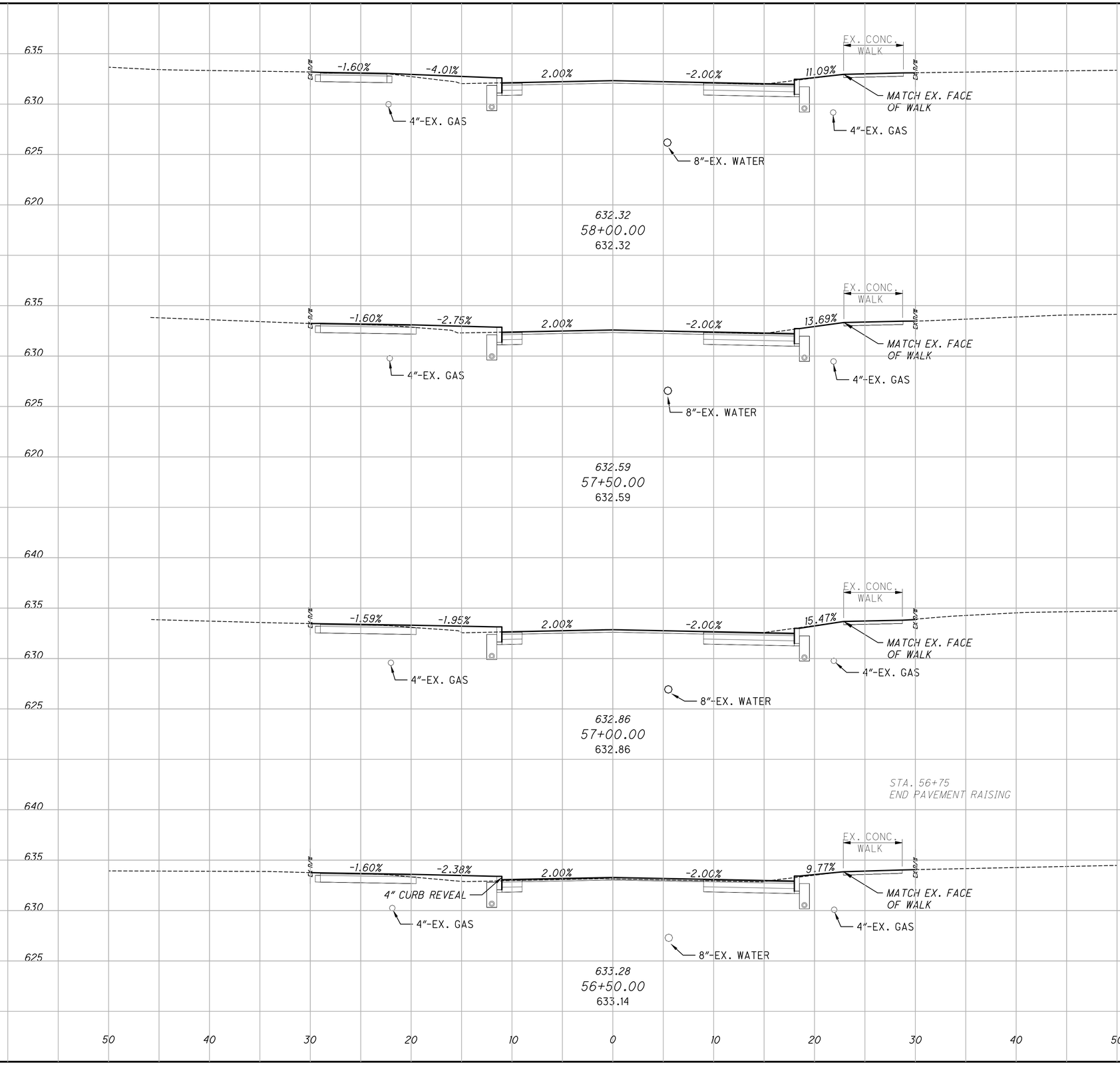
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	10/22/25
PROJECT ID	
122389	
SHEET	TOTAL
P.58	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\y2022\01116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\XS016.dwg

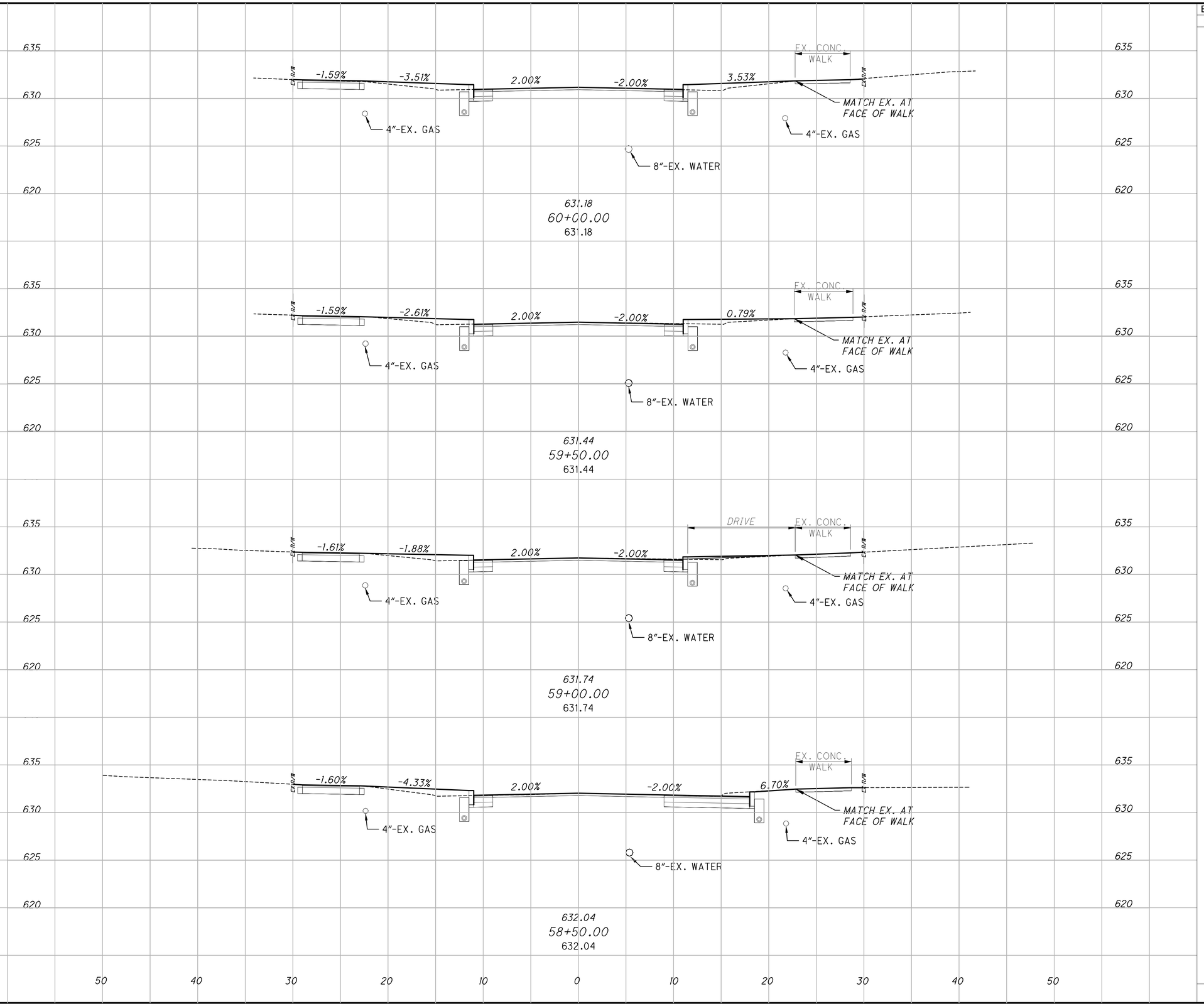
CROSS SECTIONS - EAST 66TH STREET
STA. 56+50 TO STA. 58+00

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	6/6/25
PROJECT ID	
122389	
SHEET	TOTAL
P.59	195

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CROSS SECTIONS - EAST 66TH STREET
STA. 58+50 TO STA. 60+00

CUY-EAST 66TH STREET TLCI

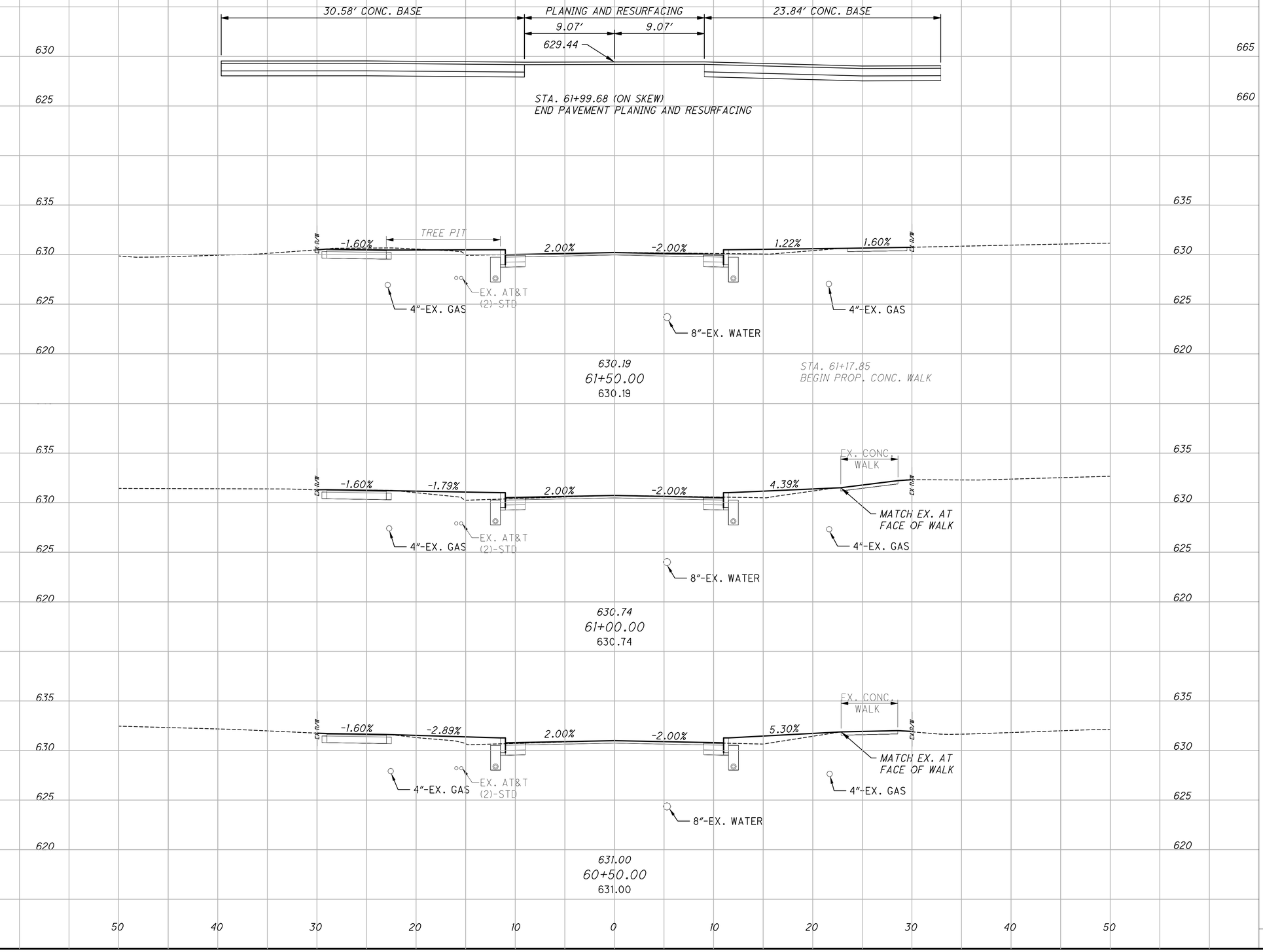
P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_XS020.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	9/19/25
PROJECT ID	
122389	
SHEET	TOTAL
P.60	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - EAST 66TH STREET
STA. 60+50 TO STA. 61+50

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_XS021.dwg

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 10/30/25
PROJECT ID	122389
SHEET	P.61
TOTAL	195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

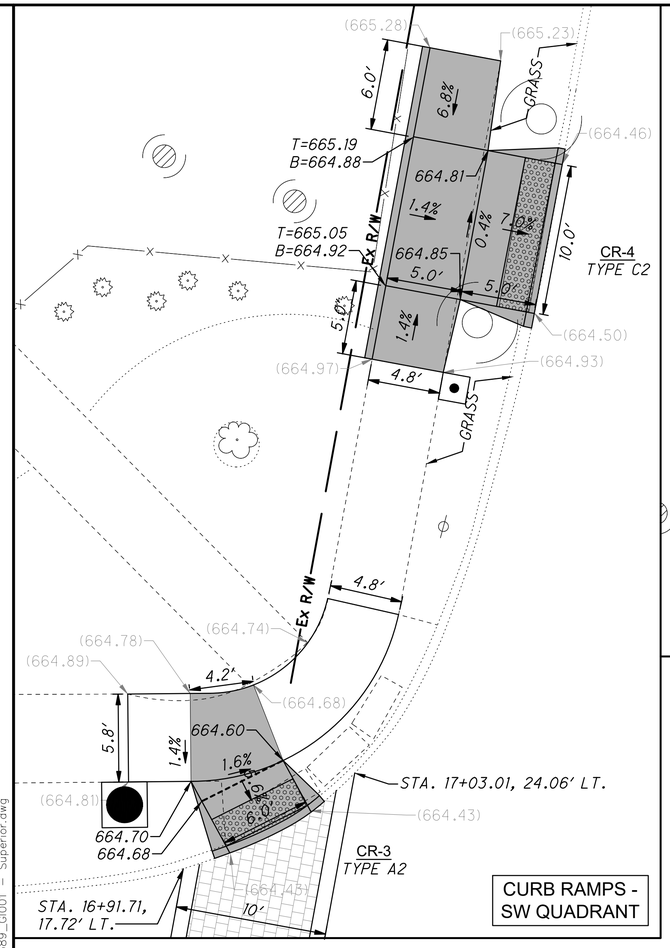
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

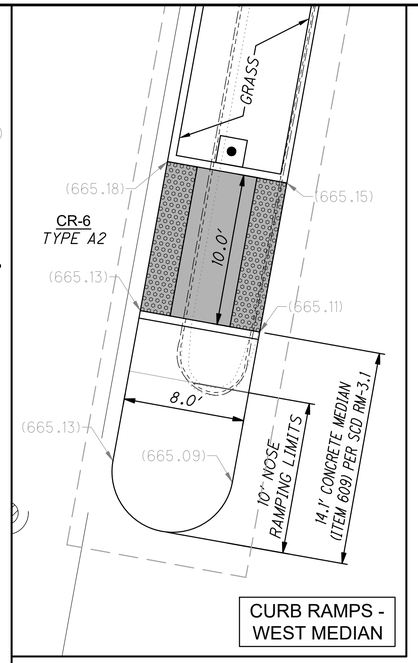
ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.





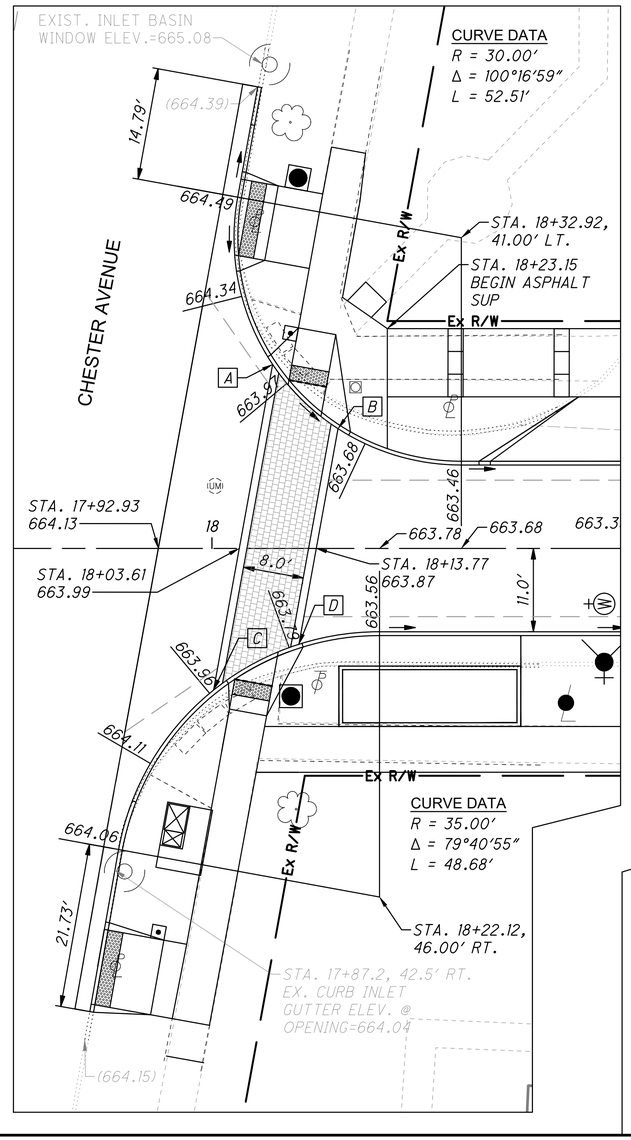
DECORATIVE CROSSWALK

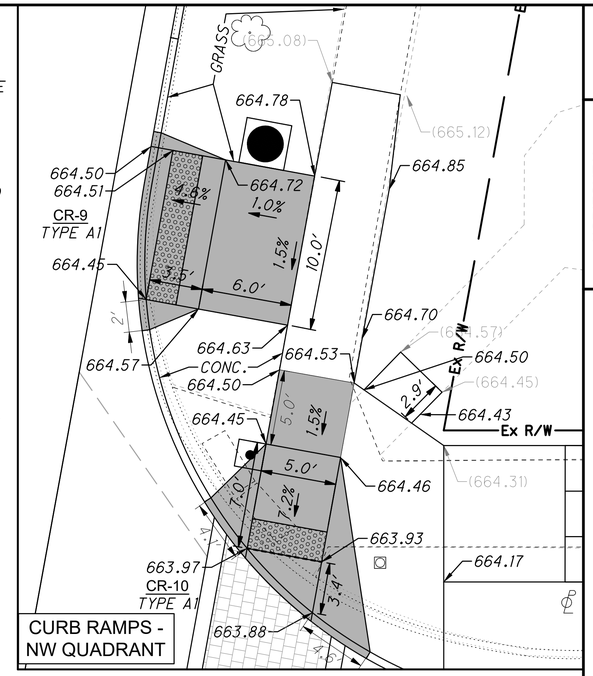
A STA. 18+08.01, 24.27' LT.

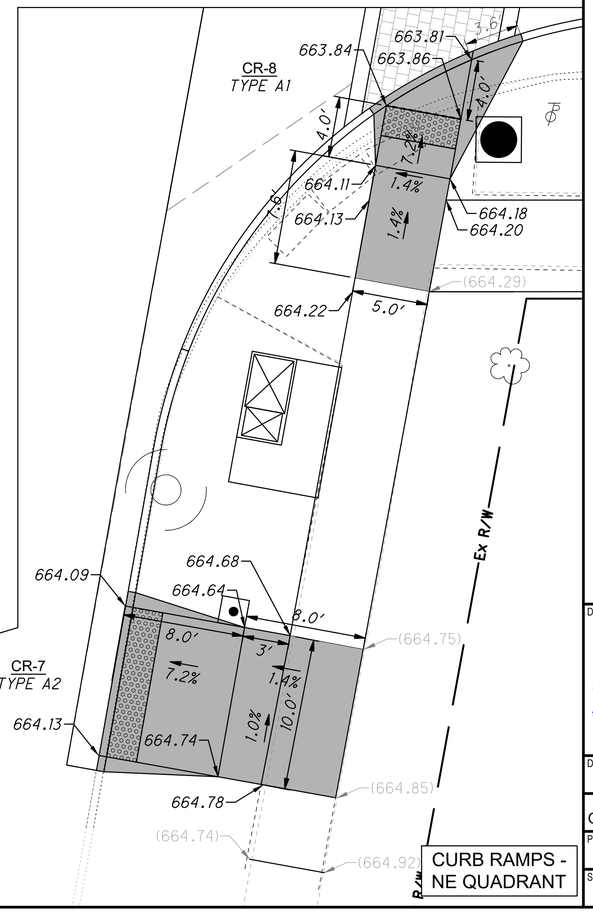
B STA. 18+16.64, 15.80' LT.

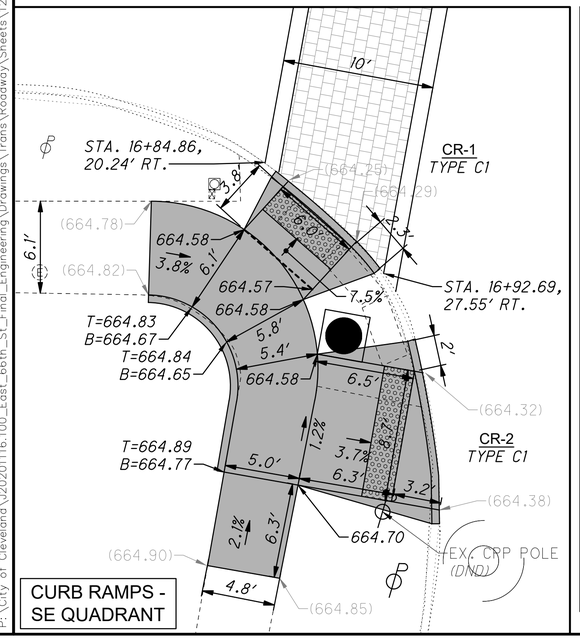
C STA. 18+00.22, 18.70' RT.

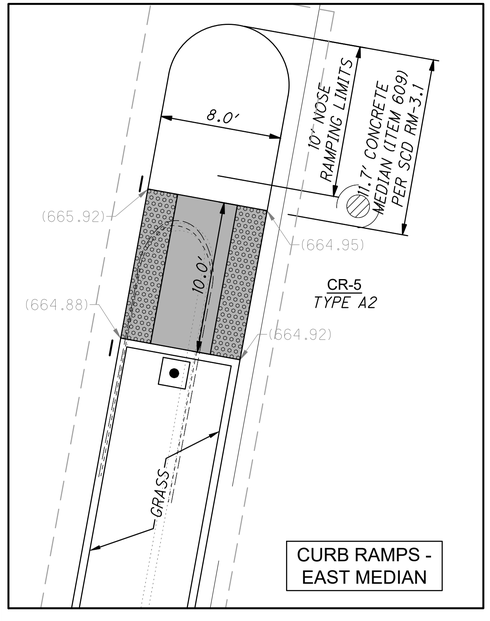
D STA. 18+11.48, 12.66' RT.











HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND CHESTER AVENUE

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_GI001 - Superior.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN

REVIEWER CEL 1/13/26

PROJECT ID 122389

SHEET P.62 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

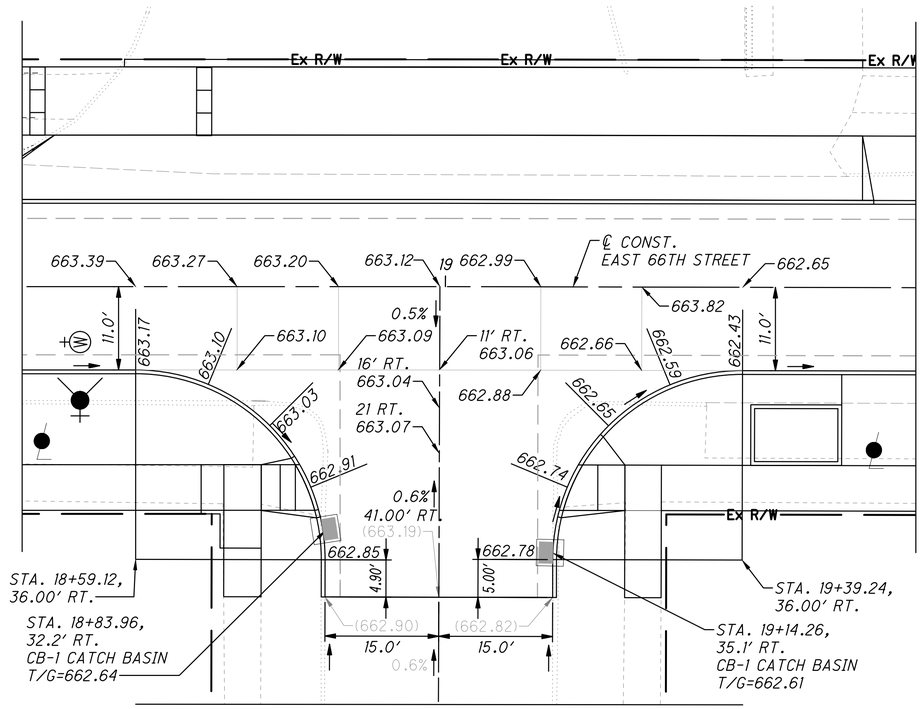
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

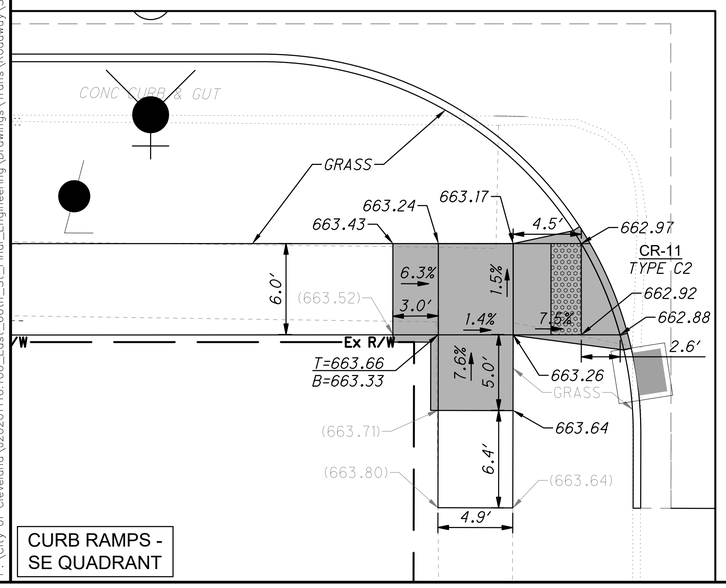
FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

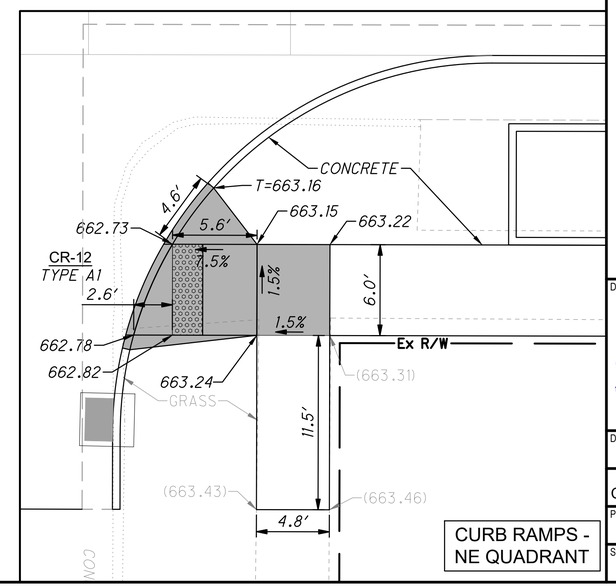


CURVE DATA
R = 25.00'
Δ = 90°08'04"
L = 39.33'

CURVE DATA
R = 25.00'
Δ = 89°59'45"
L = 39.27'



CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND LUCERNE AVENUE

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\V2020l116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_GI001 - Superior.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.63 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

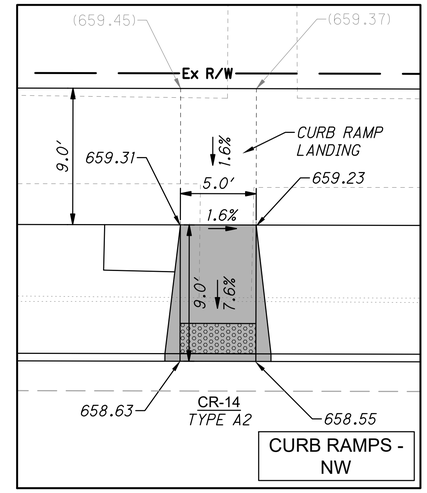
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

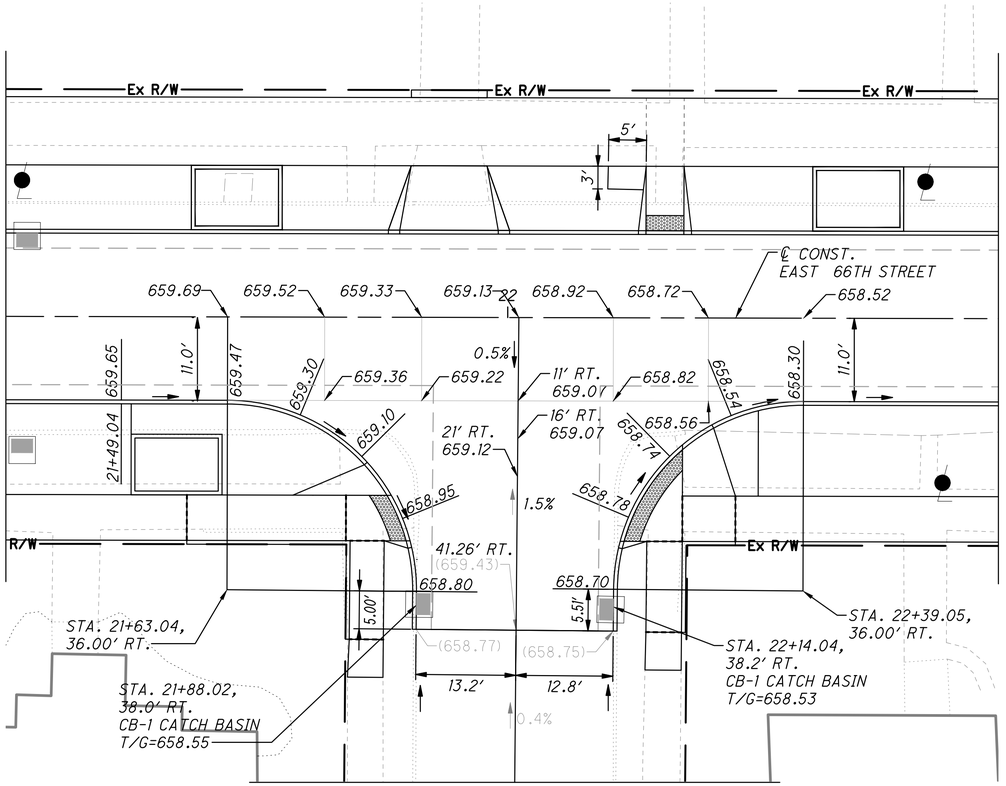
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

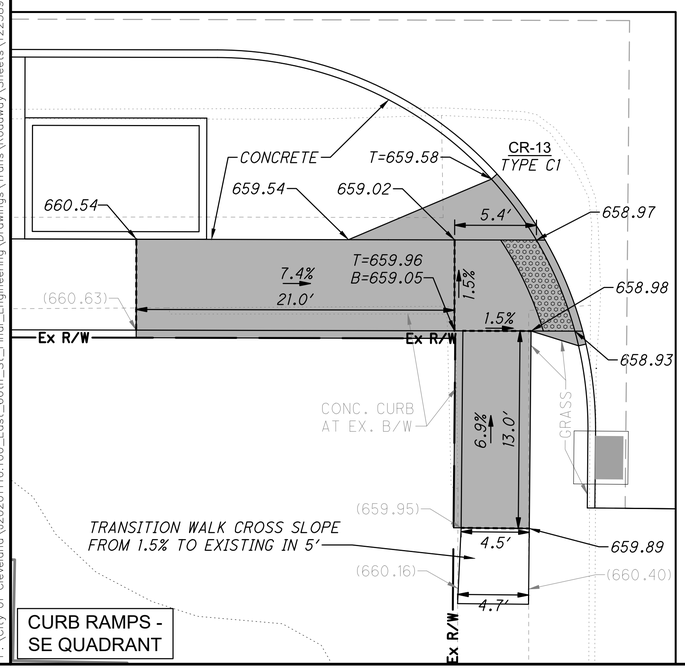
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.



CURB RAMPS - NW

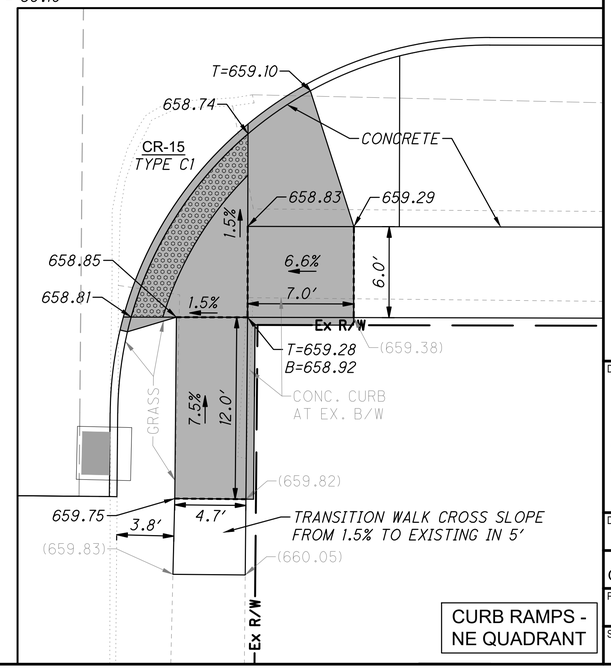


CURVE DATA
R = 25.00'
Δ = 90°23'16"
L = 39.44'



CURB RAMPS - SE QUADRANT

CURVE DATA
R = 25.00'
Δ = 89°36'44"
L = 39.10'



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND DUNHAM AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.64 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

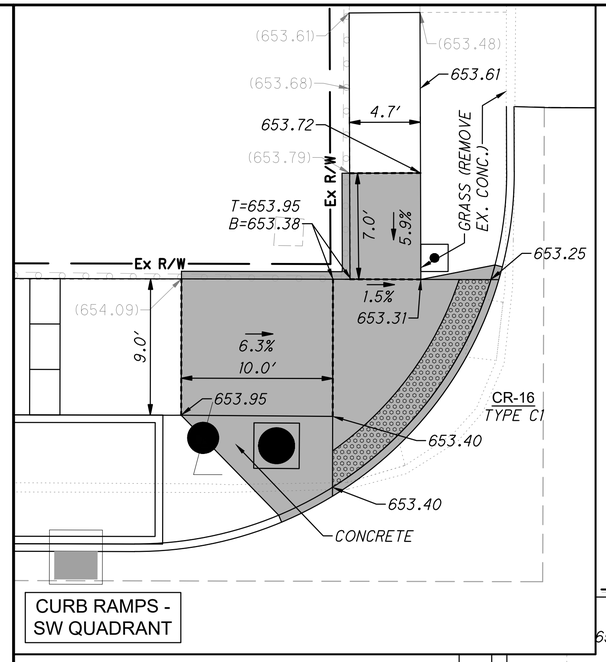
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

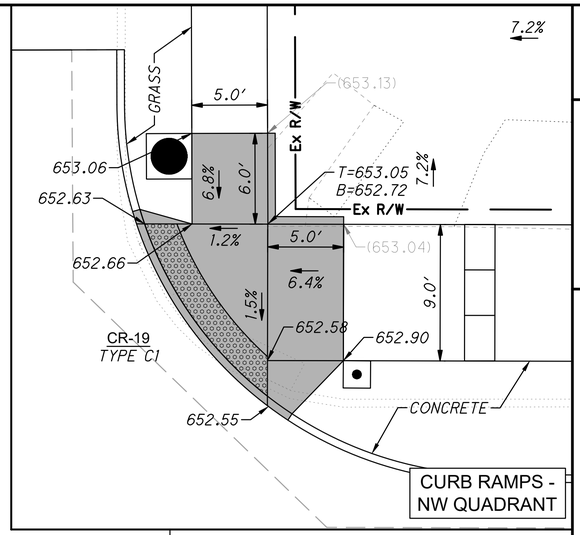
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

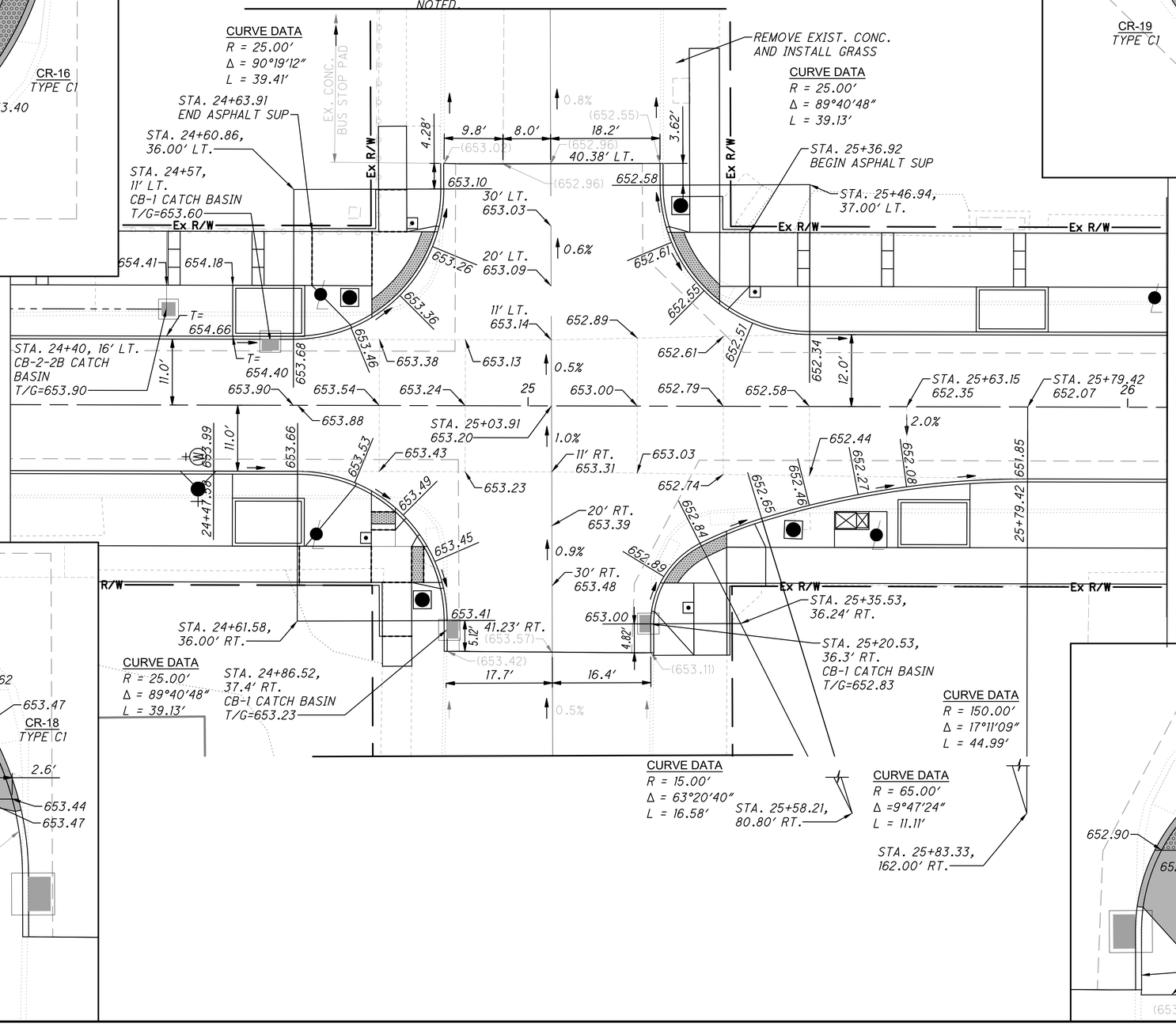
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

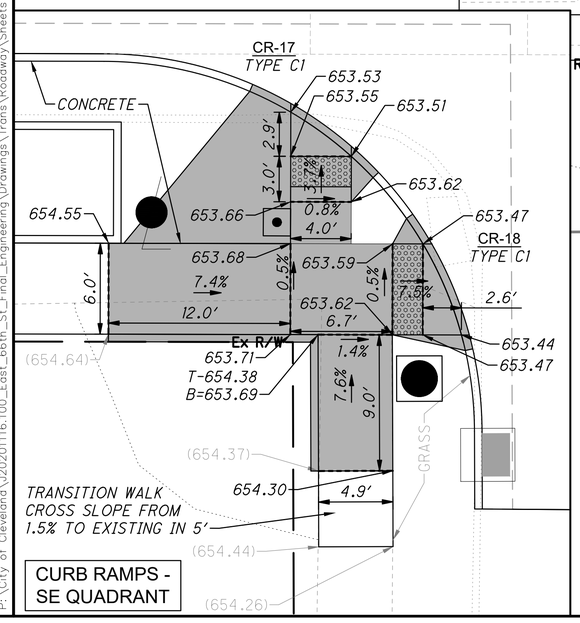


CURB RAMPS - SW QUADRANT

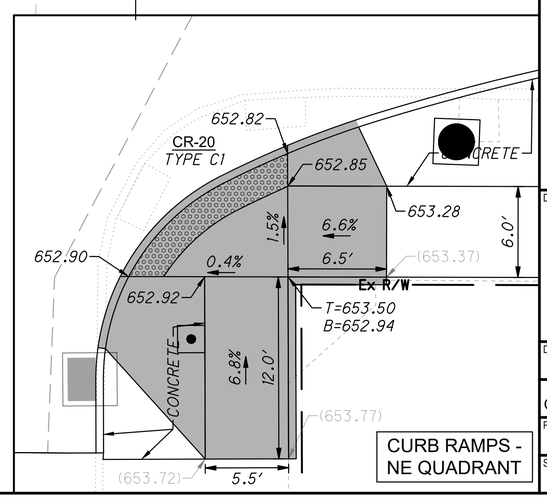


CURB RAMPS - NW QUADRANT





CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND HOUGH AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER	MVN
REVIEWER	CEL 1/13/26
PROJECT ID	122389
SHEET	P.65
TOTAL	195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

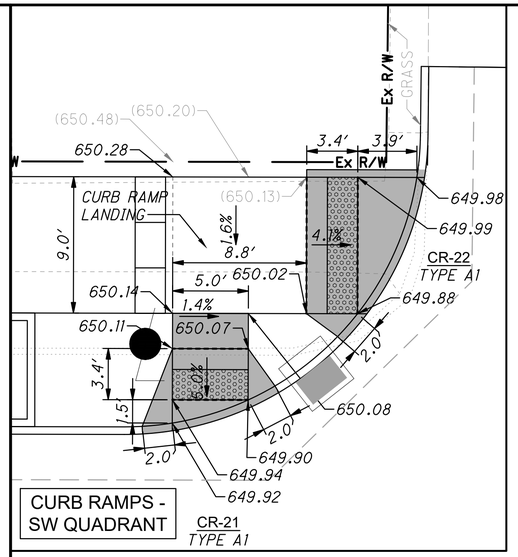
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

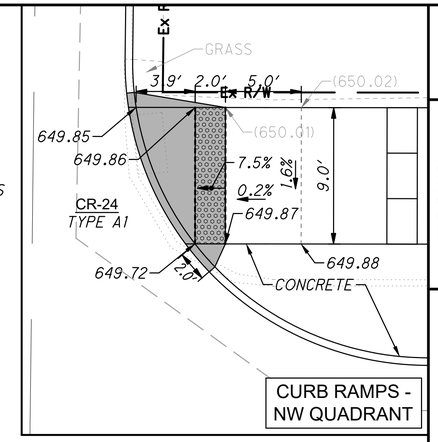
ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ½ SPACING UNLESS OTHERWISE NOTED.

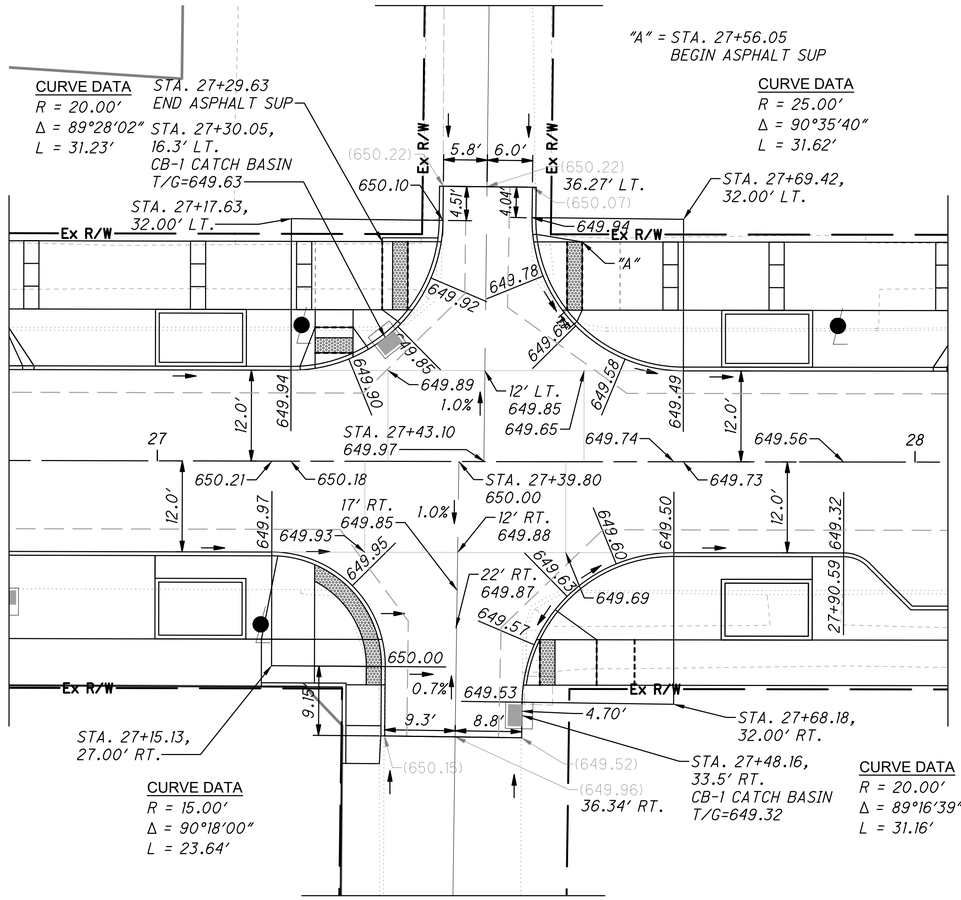
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

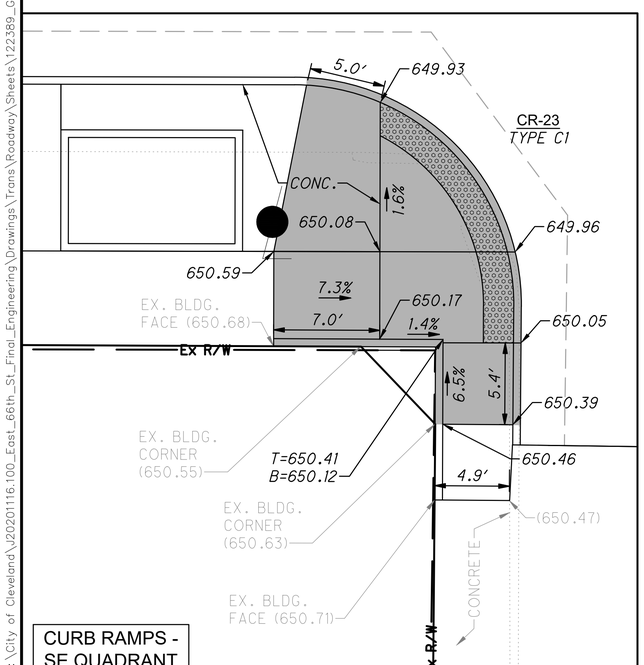
FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

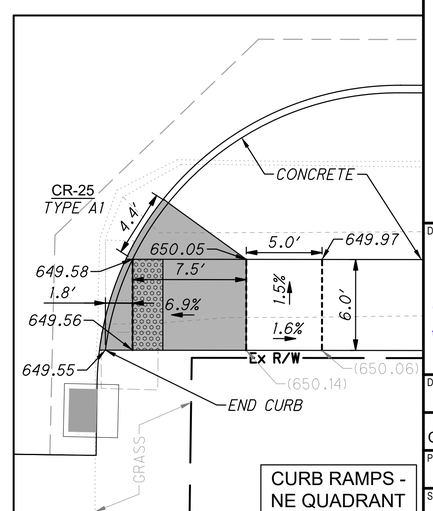
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.











HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND BELVIDERE AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.66 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

EXIST. CPP POLE TO REMAIN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

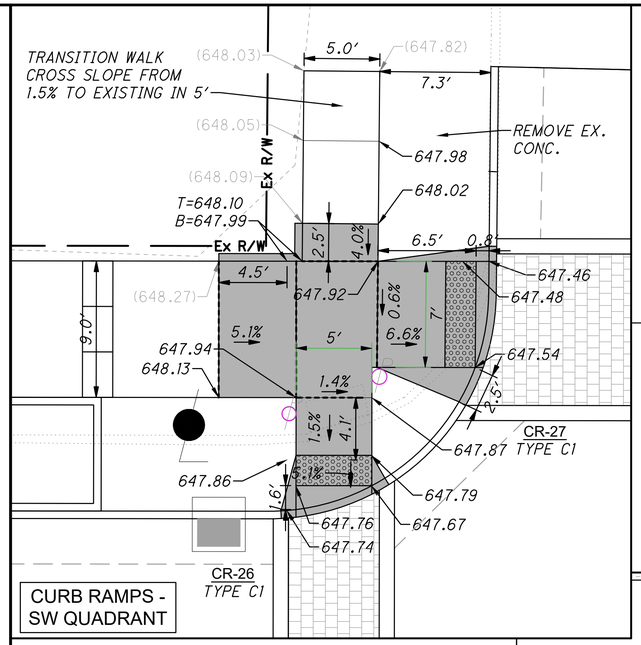
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

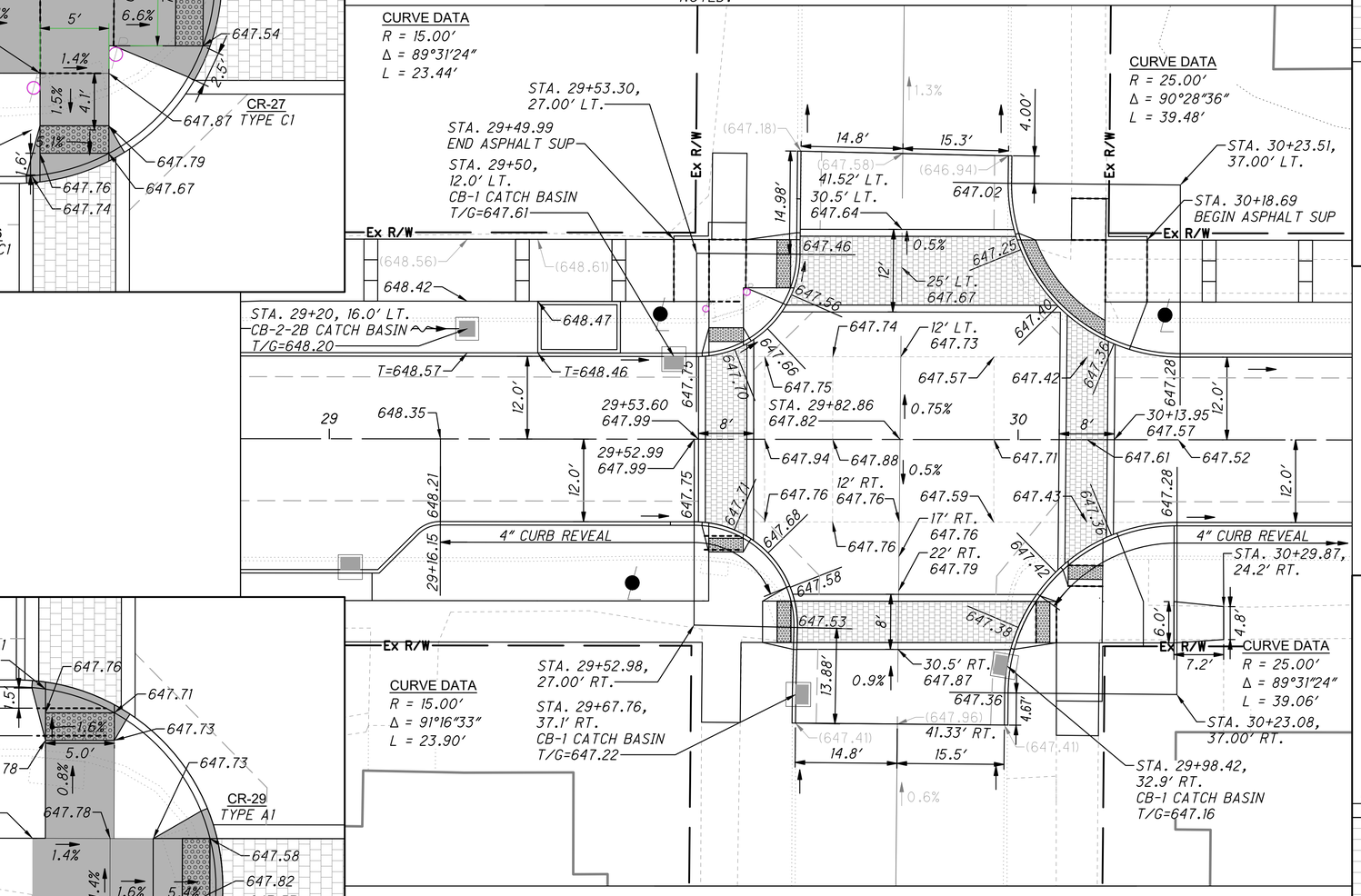
ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

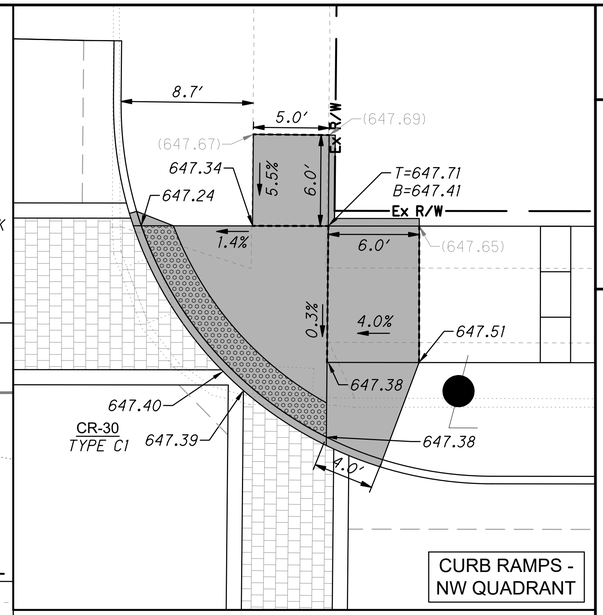
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

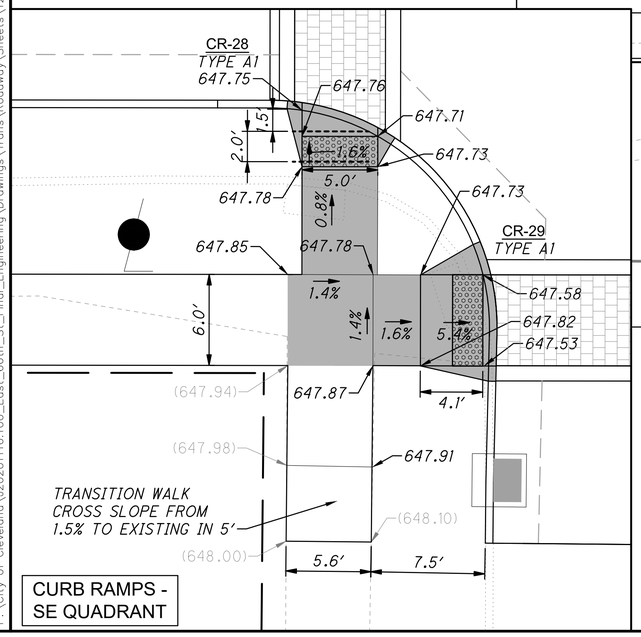
FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

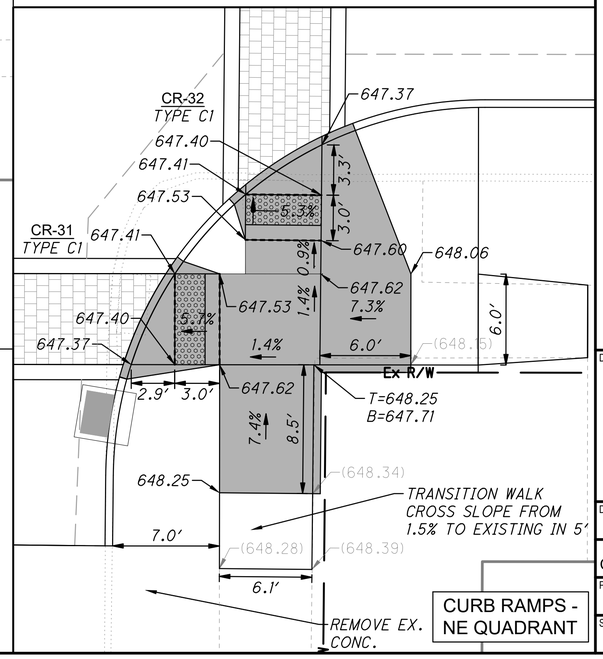
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.











HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND QUIMBY AVENUE

CUY-EAST 66TH STREET TLCI

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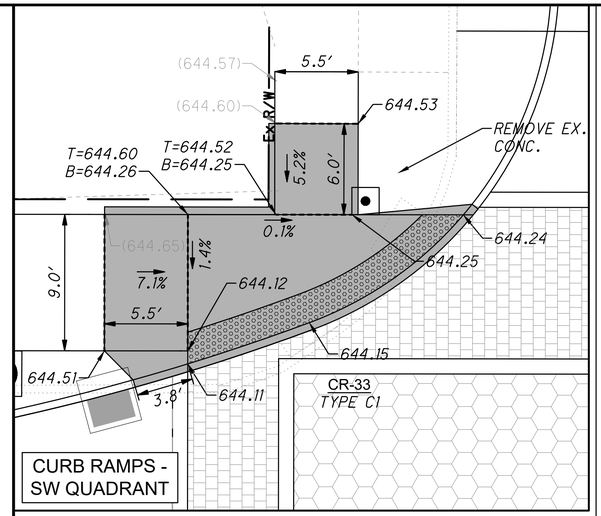
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)687-2020 www.osborneng.com

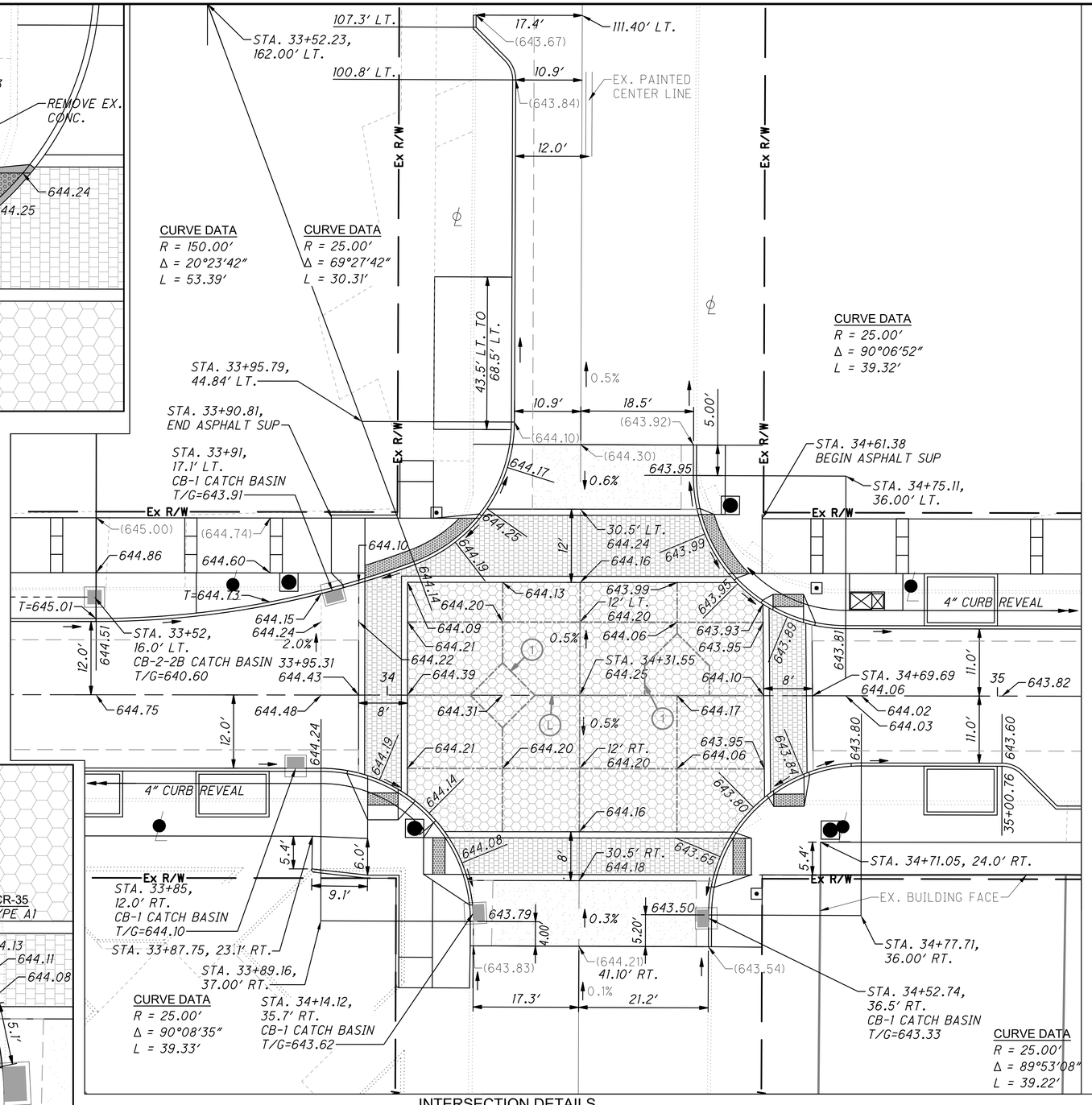
DESIGNER MVN

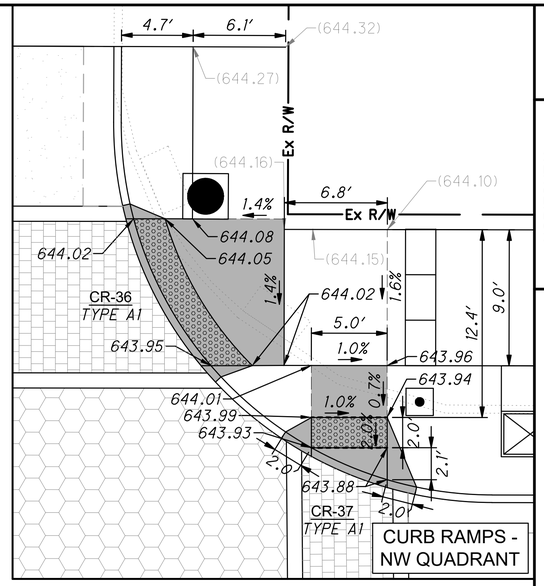
REVIEWER CEL 1/13/26

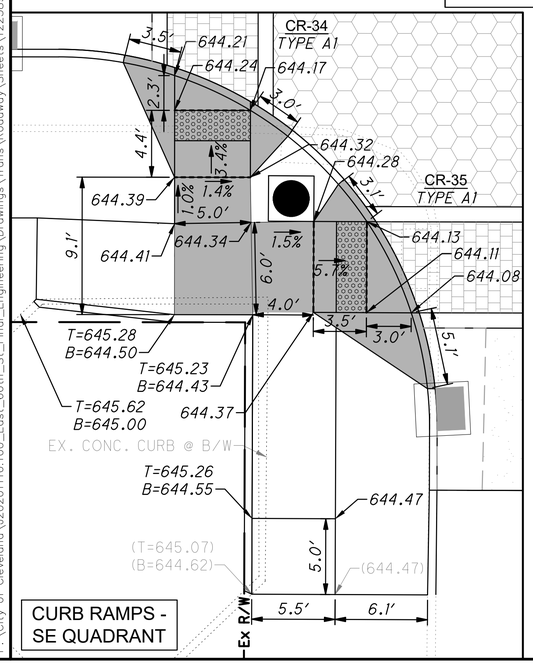
PROJECT ID 122389

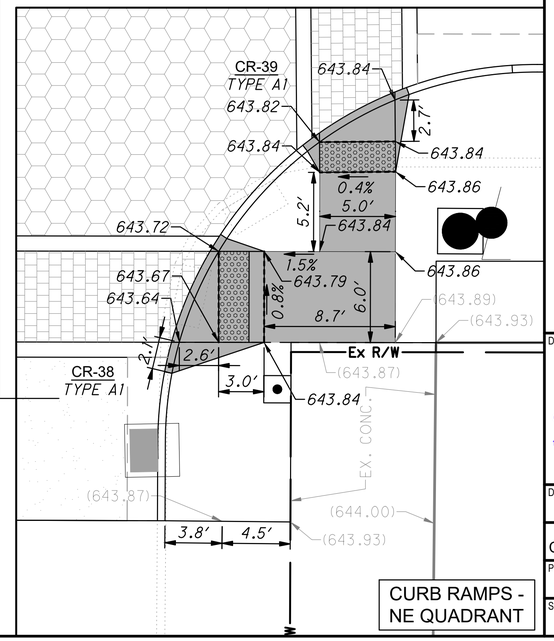
SHEET P.67 TOTAL 195











PAVEMENT JOINT LEGEND

ALL PAVEMENT JOINTS ARE TO BE AS PER ODOT SCD BP-2.1 AND BP-2.2 UNLESS OTHERWISE NOTED.

(L) LONGITUDINAL JOINT

(1) MANHOLE BOXOUT

ALL OTHER JOINTS ARE TO BE CONTRACTION JOINTS.

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION

B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND LEXINGTON AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.68 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

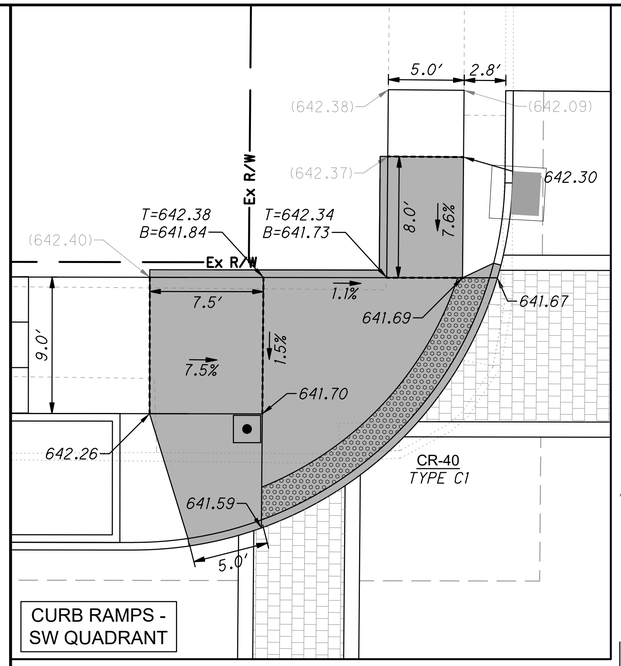
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

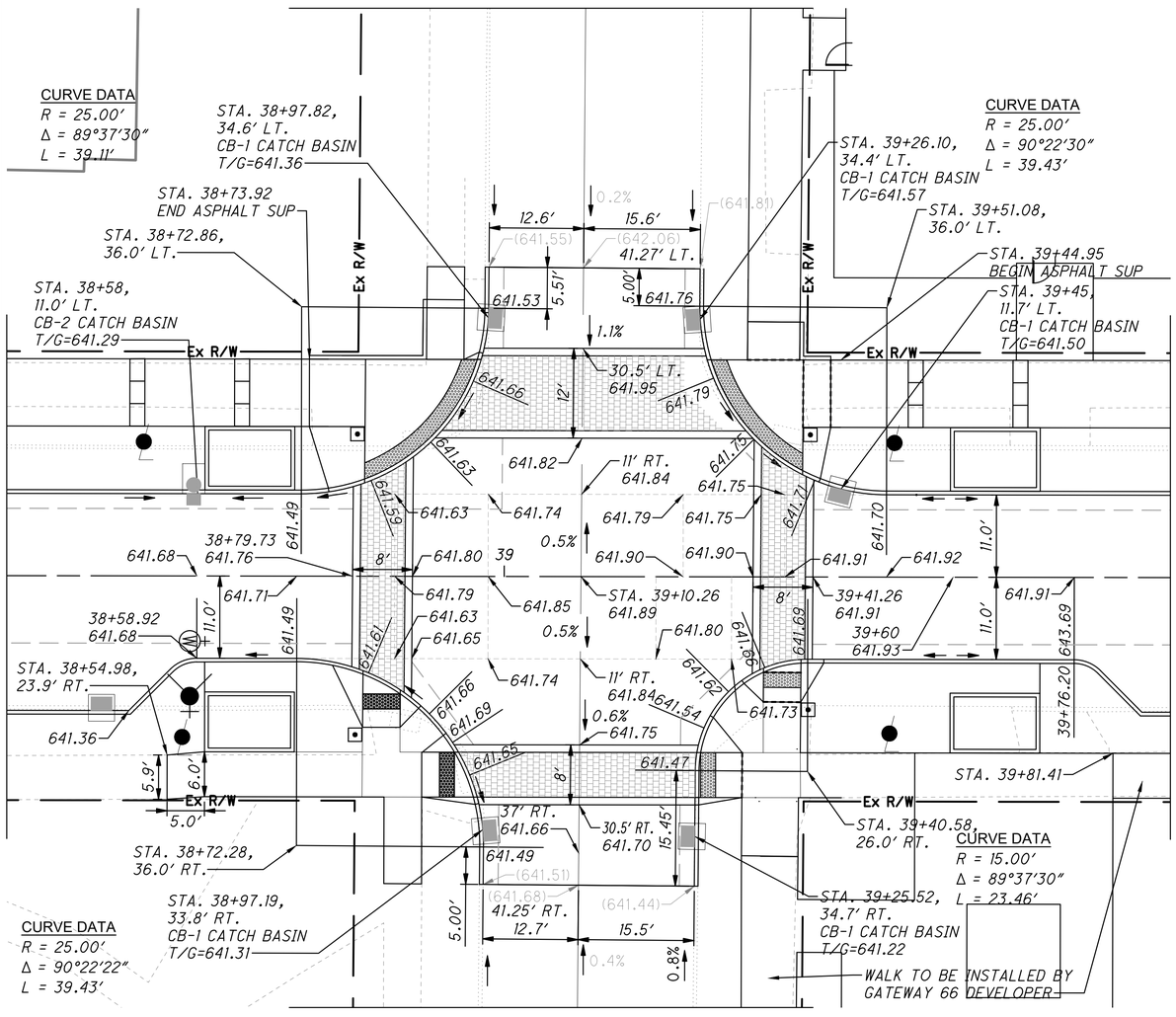
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

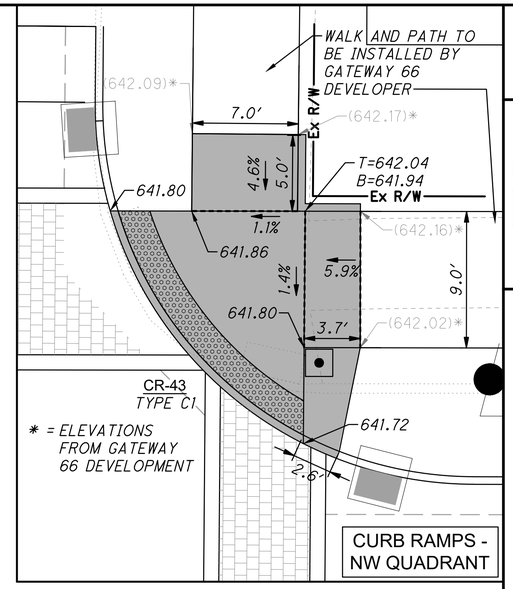
FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

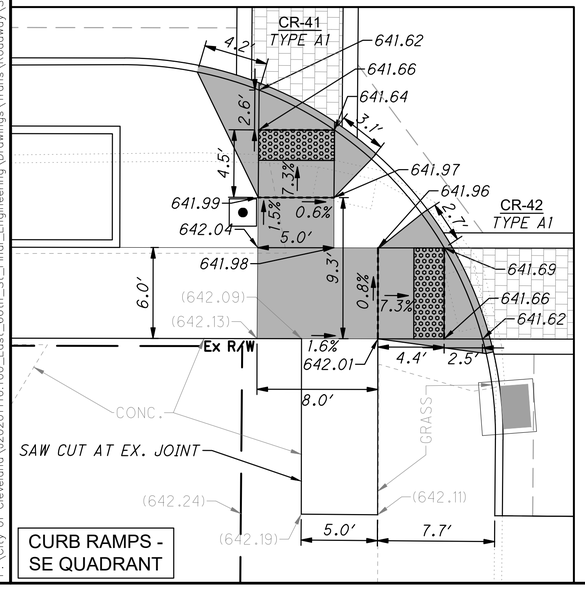


CURB RAMPS - SW QUADRANT

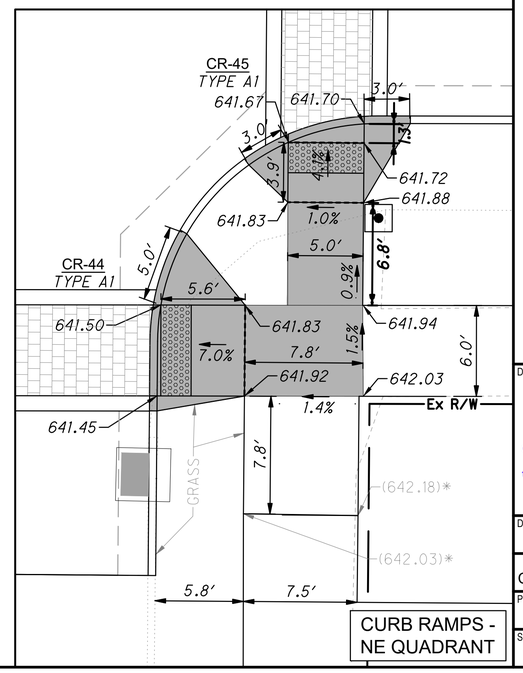




CURB RAMPS - NW QUADRANT



CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND LINWOOD AVENUE

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.69 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

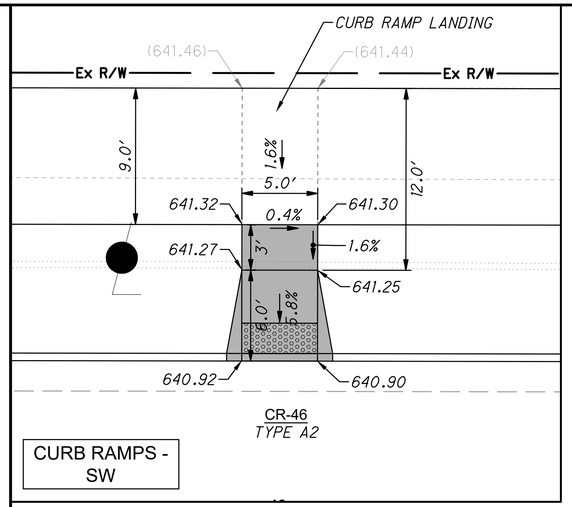
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT ⅓ SPACING UNLESS OTHERWISE NOTED.

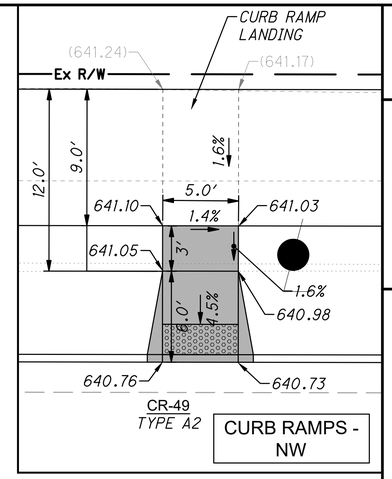
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

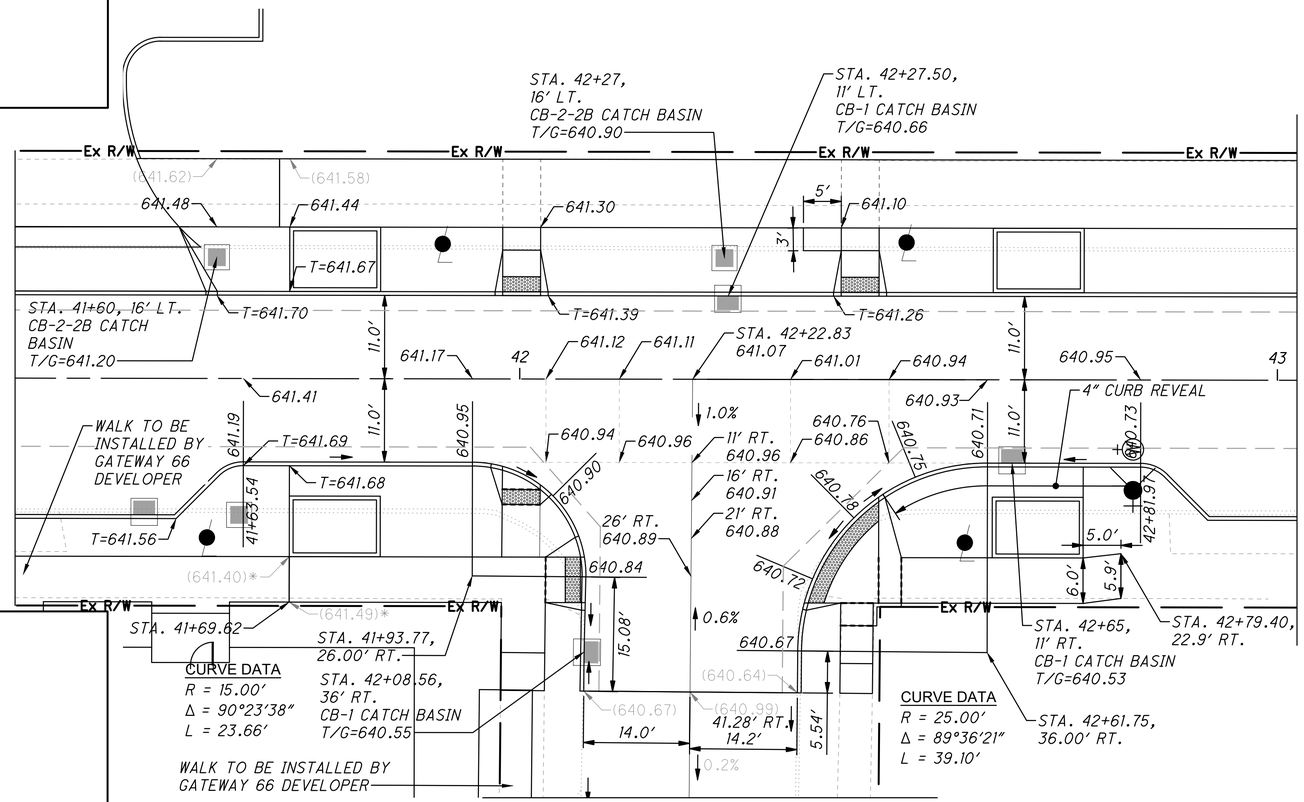
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

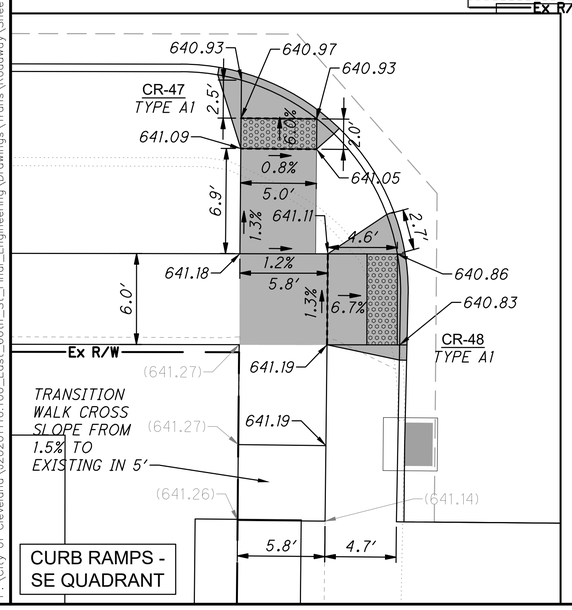


CURB RAMPS - SW

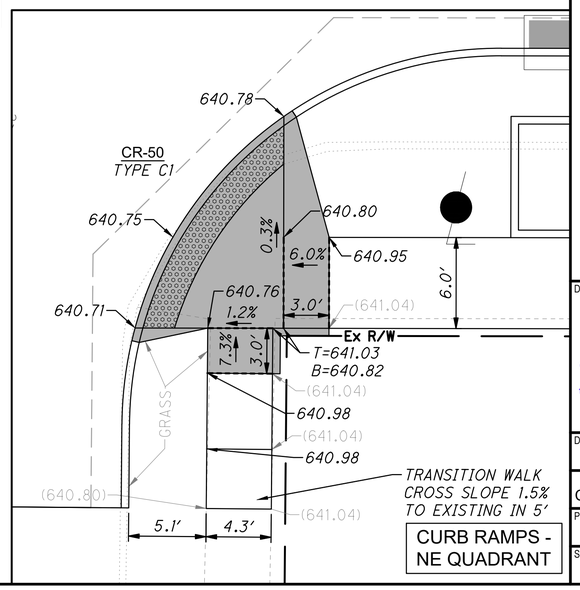


CURB RAMPS - NW





CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND LAWNVIEW AVENUE

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
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DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.70 TOTAL 195

CUY-EAST 66TH STREET TLCI

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INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT 1/4 INCREMENTS UNLESS OTHERWISE NOTED.

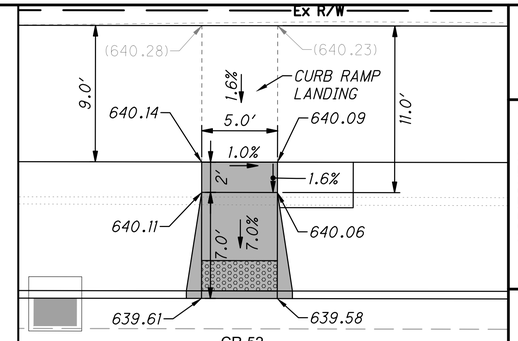
TRANSITION PAVEMENT CROSS SLOPE FROM 2.0% TO SLOPE INDICATED BETWEEN THE CURB PC/PT STATION AND THE CROSS STREET CENTER LINE.

ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT 1/3 SPACING UNLESS OTHERWISE NOTED.

NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

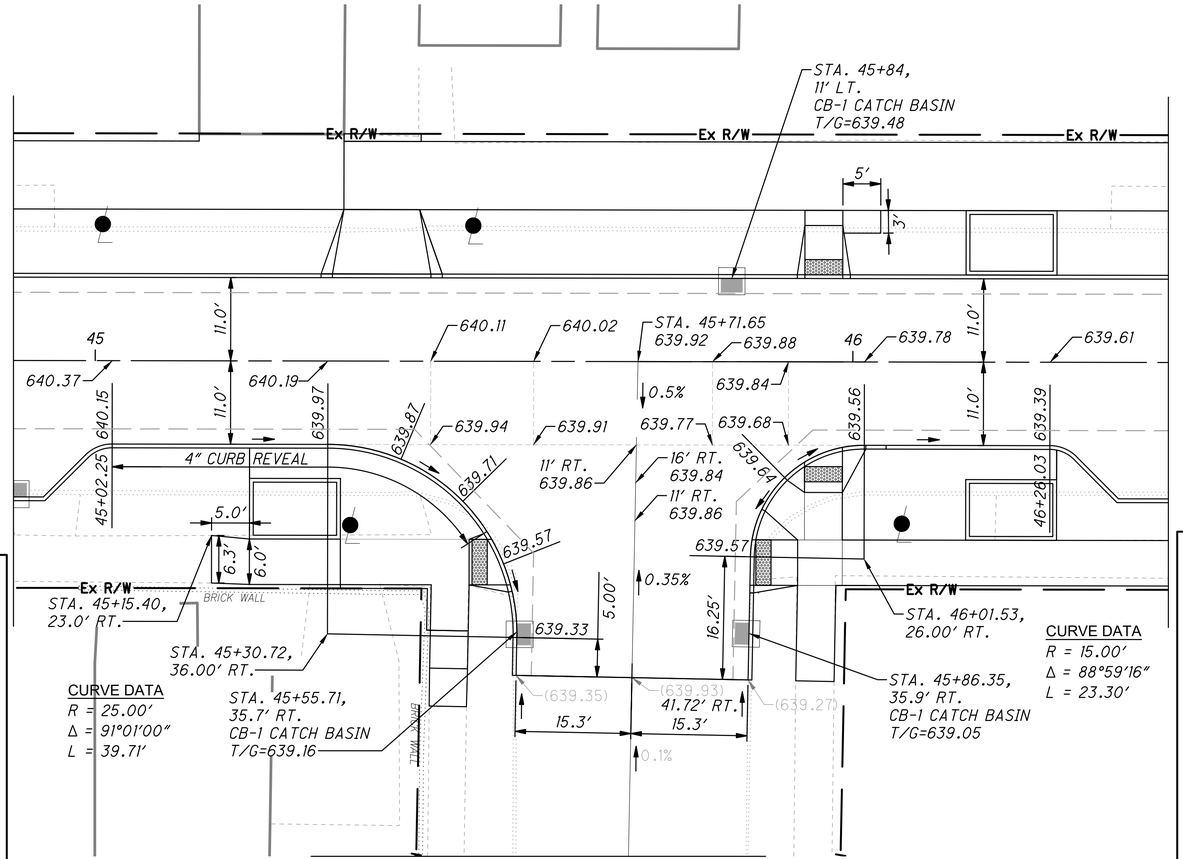
FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

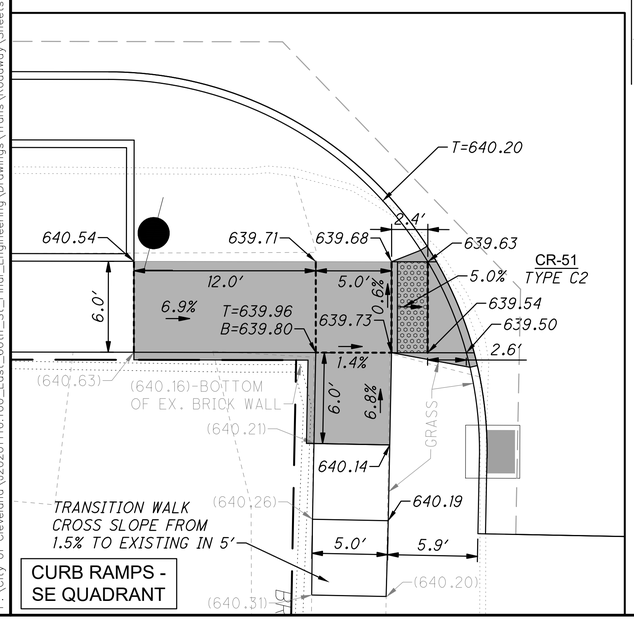
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.



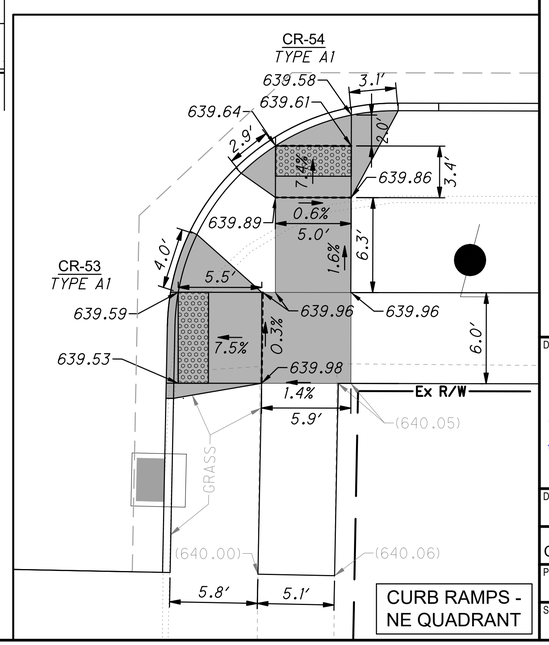
CR-52
TYPE A2

CURB RAMPS - NW





CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND ZOETER AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)687-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.71 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

ELEVATIONS ALONG CURB TURNOUTS ARE AT 1/4 INCREMENTS UNLESS OTHERWISE NOTED.

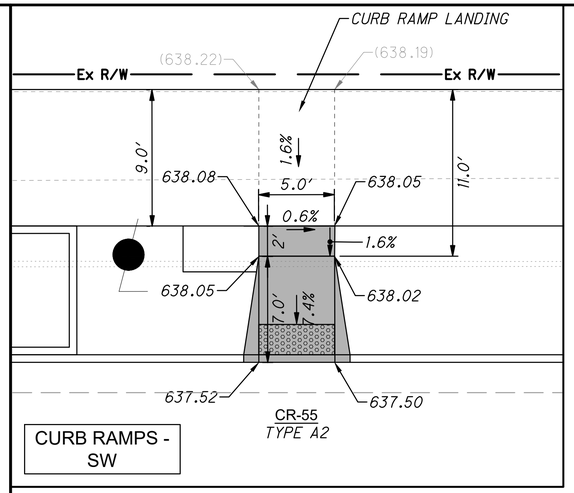
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ELEVATIONS WITHIN THE CROSS SLOPE TRANSITION ARE AT 1/3 SPACING UNLESS OTHERWISE NOTED.

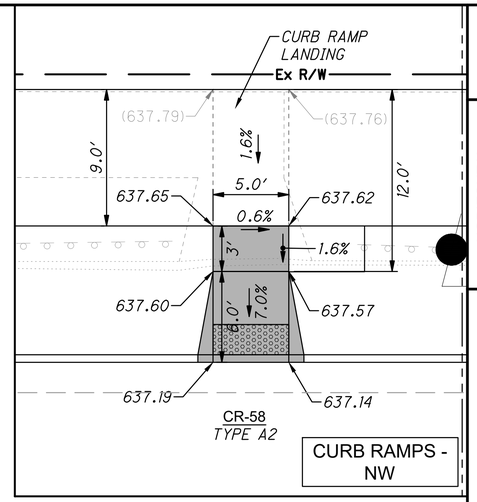
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FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

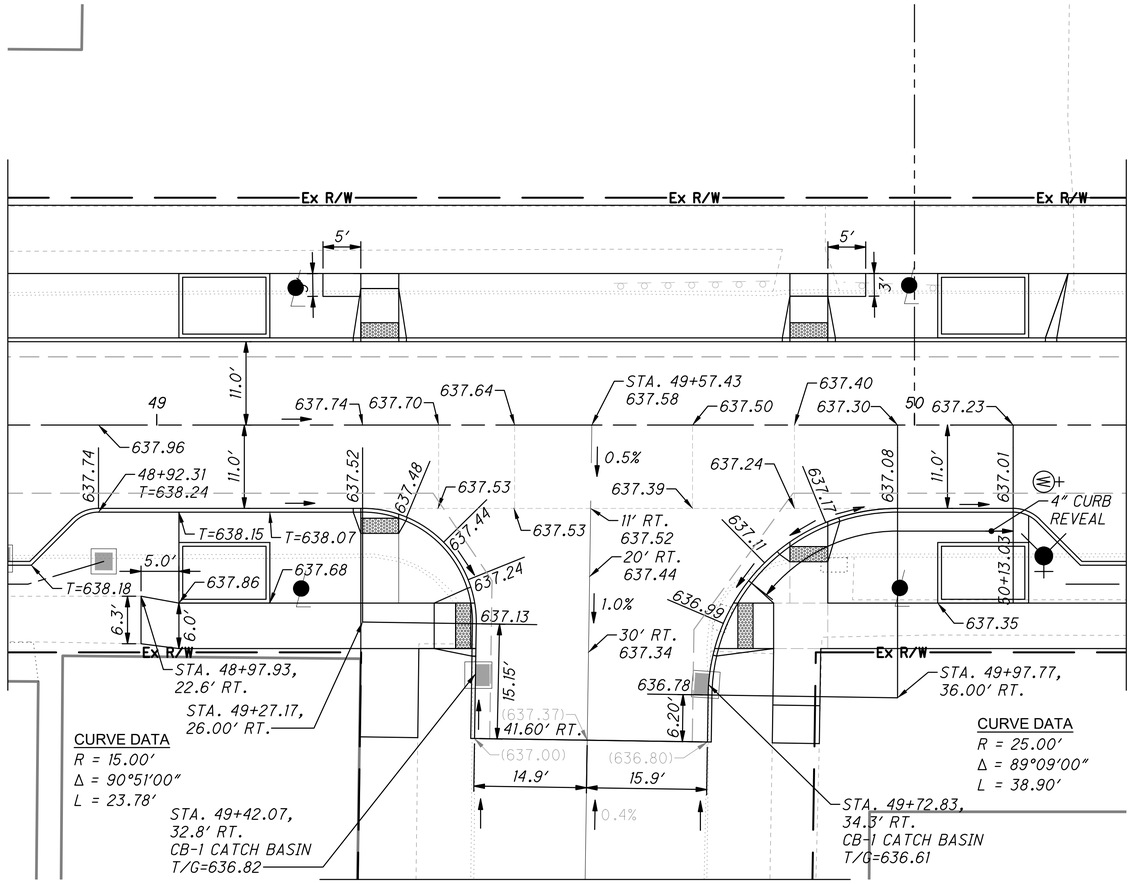
ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.

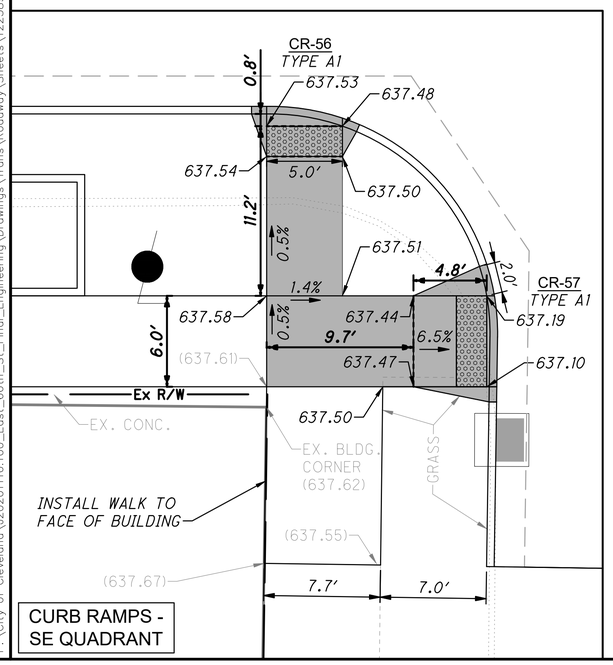


CURB RAMPS - SW

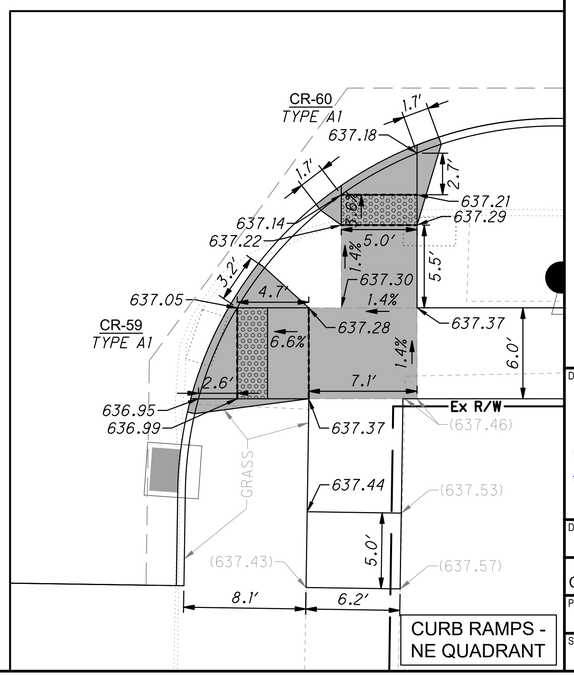


CURB RAMPS - NW





CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND PENNSYLVANIA AVENUE

CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
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DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.72 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION
XXX.XX EXISTING SPOT ELEVATION
DETECTABLE WARNING
CURB RAMP GRADE BREAK
AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

T=TOP OF CURB ELEVATION
B=BOTTOM OF CURB ELEVATION

ALL ELEVATIONS ARE AT THE BOTTOM OF CURB (GUTTER) UNLESS NOTED.

ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED.

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

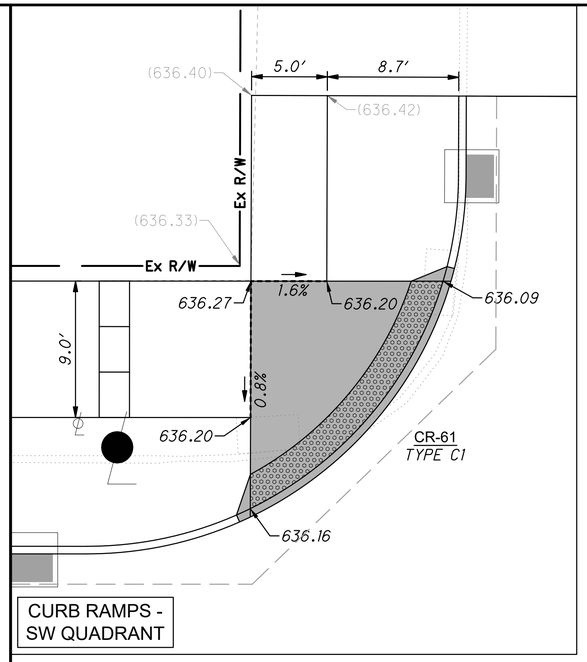
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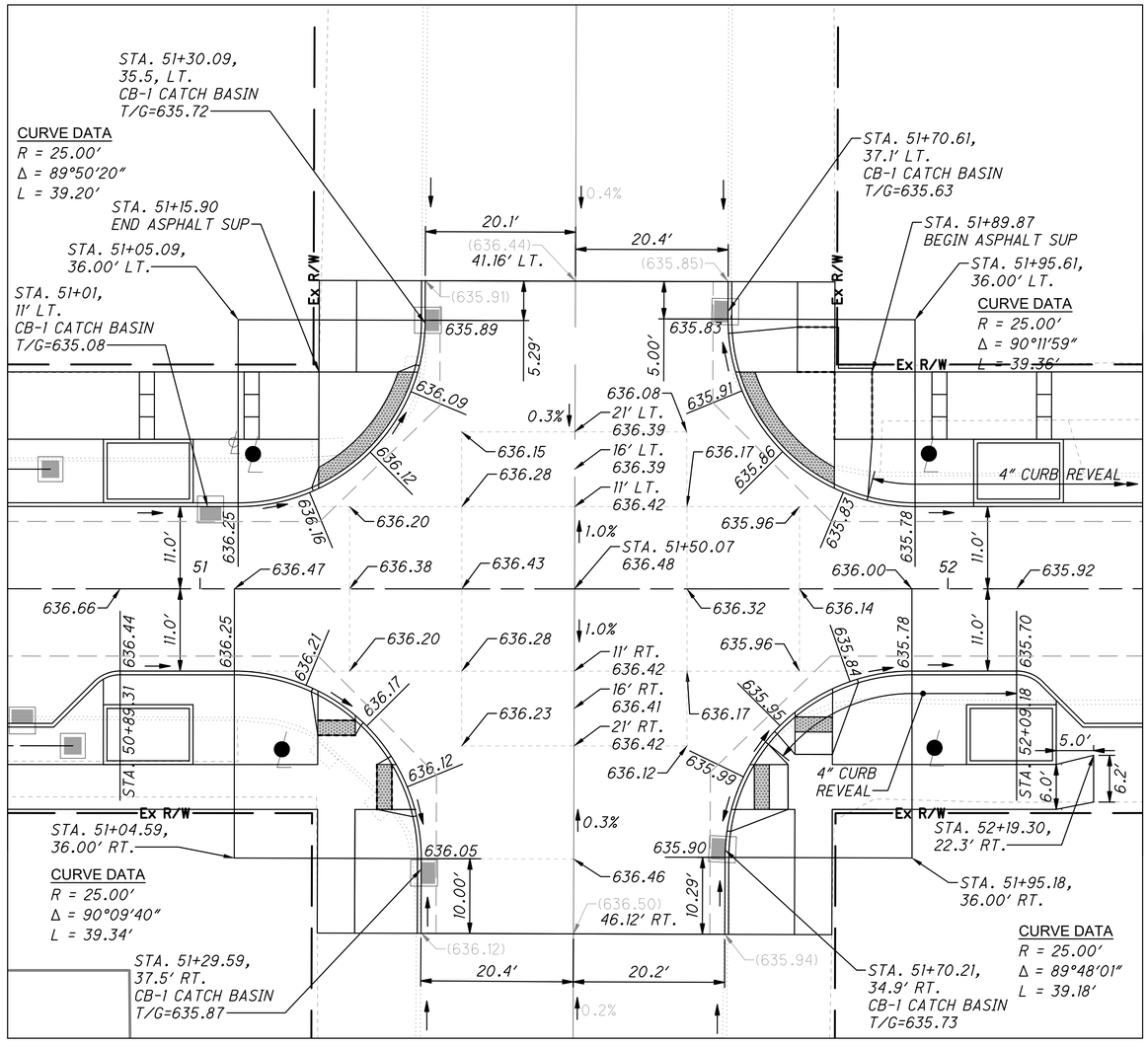
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

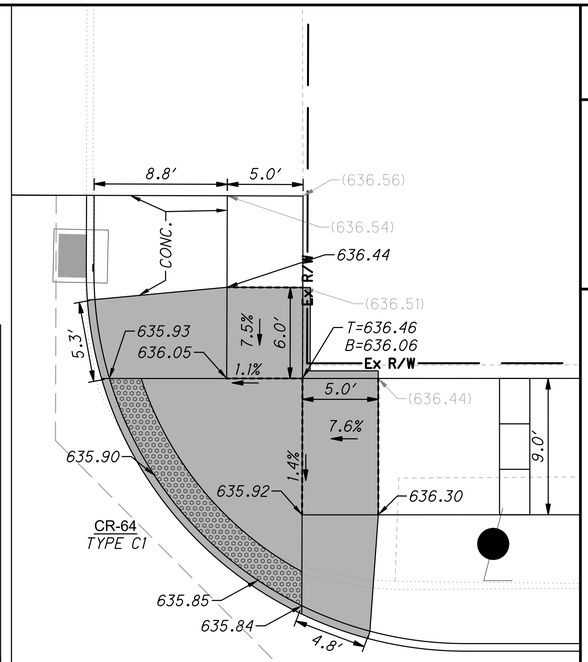
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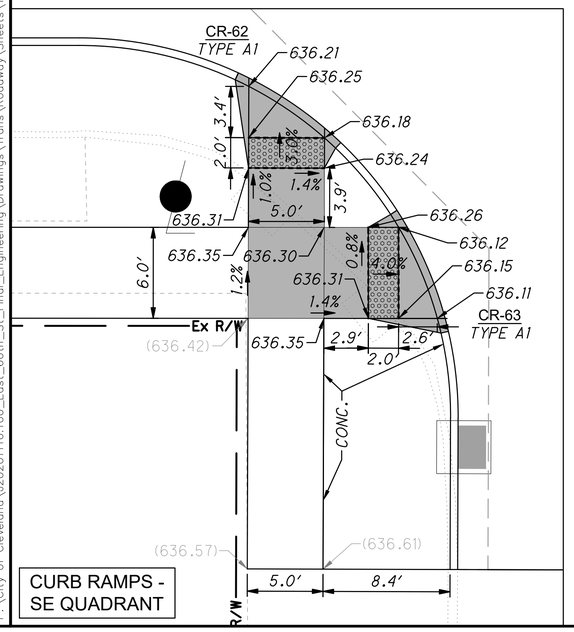


CURB RAMPS - SW QUADRANT

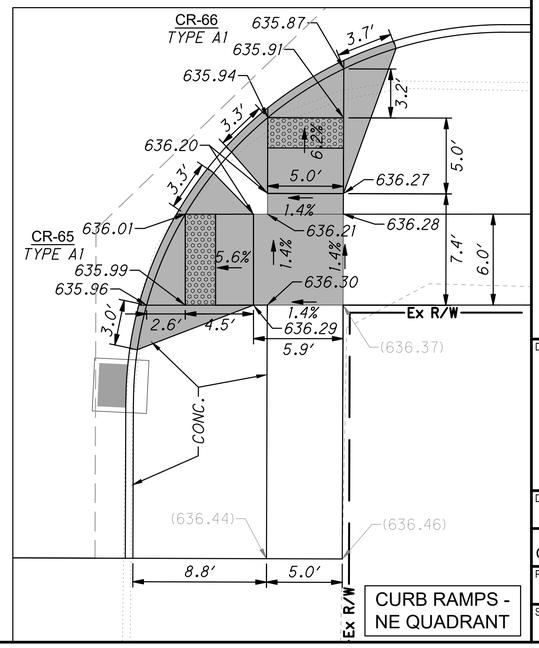




CURB RAMPS - NW QUADRANT



CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND WADE PARK AVENUE

CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.73 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

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B=BOTTOM OF CURB ELEVATION

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CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

ELEVATIONS ALONG CURB TURNOUTS ARE AT ¼ INCREMENTS UNLESS OTHERWISE NOTED.

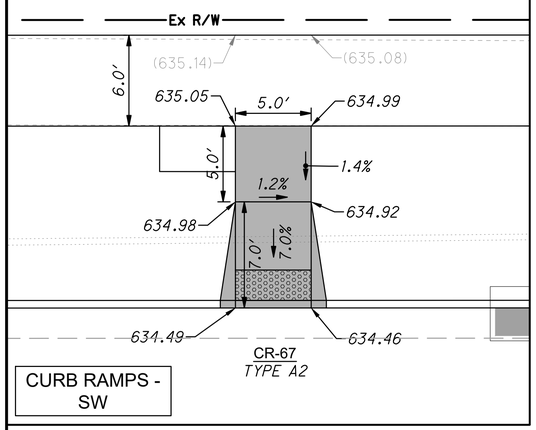
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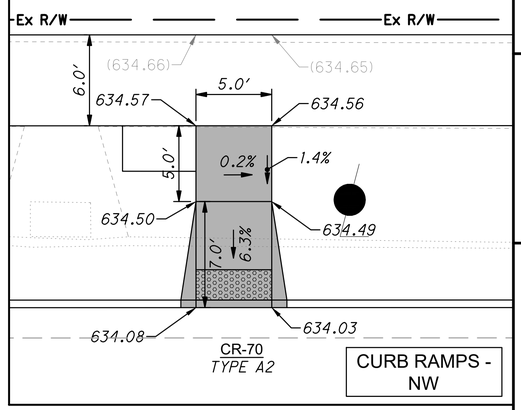
NO ADA WAIVERS REQUIRED FOR CURB RAMPS ON THIS SHEET.

FLARE LENGTHS NOT SHOWN ON THE DETAIL ARE 1.0 FT.

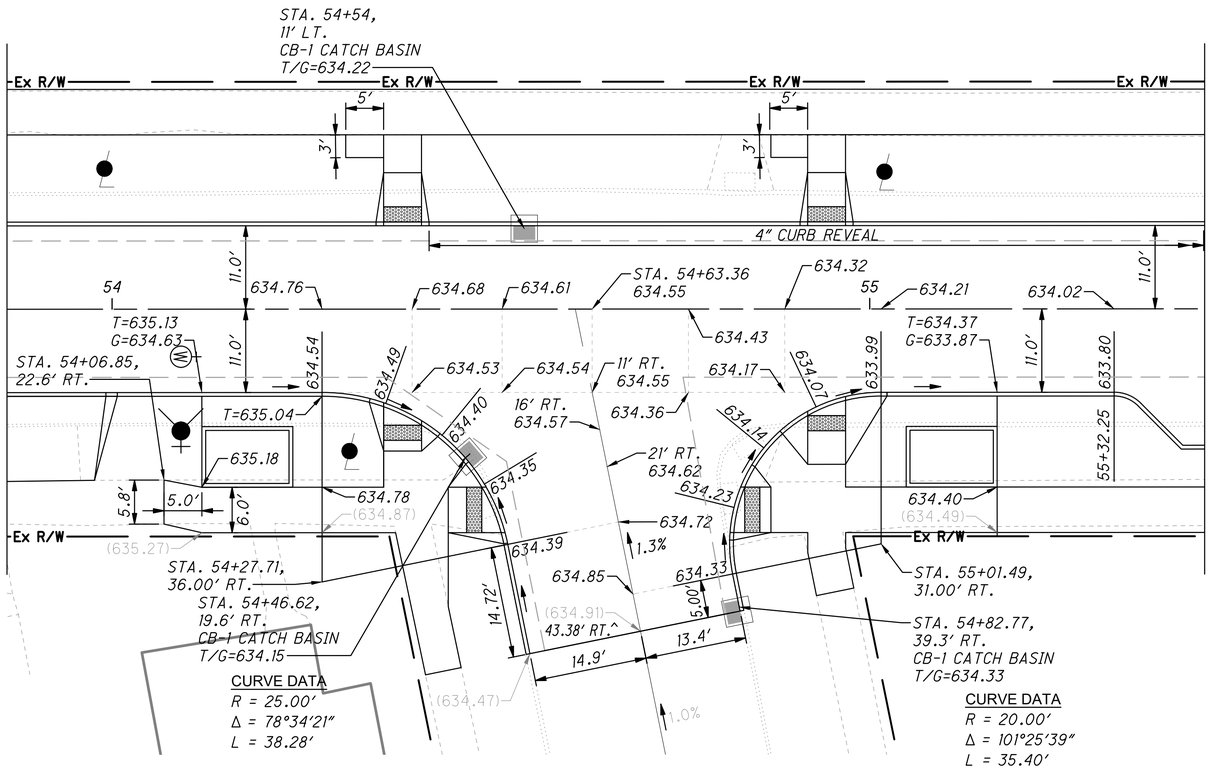
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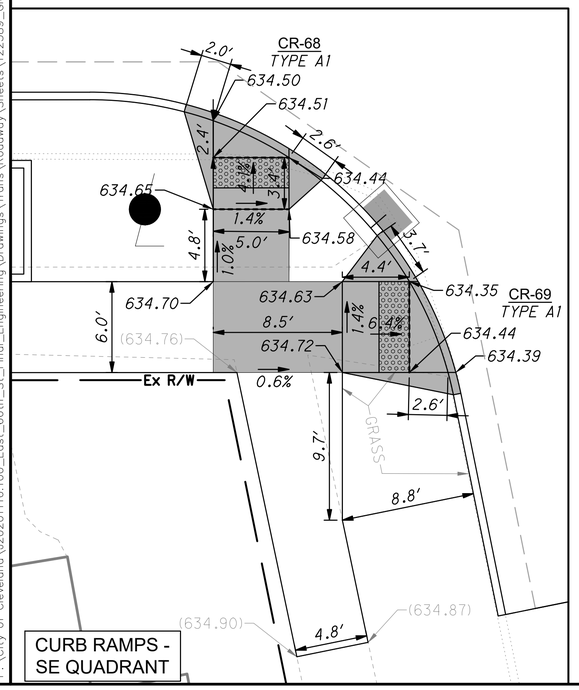


CURB RAMPS - SW

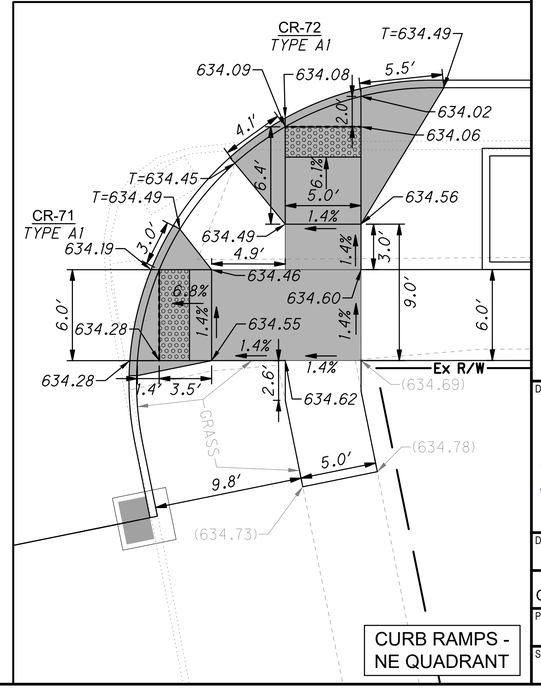


CURB RAMPS - NW





CURB RAMPS - SE QUADRANT



CURB RAMPS - NE QUADRANT

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL
EAST 66TH STREET AND WHITNEY AVENUE

CUY-EAST 66TH STREET TLCI

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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.74 TOTAL 195

INTERSECTION DETAILS
LEGEND AND NOTES

XXX.XX PROPOSED SPOT ELEVATION

XXX.XX EXISTING SPOT ELEVATION

DETECTABLE WARNING

CURB RAMP GRADE BREAK

AREA OF ITEM 608 - CURB RAMP, AS PER PLAN

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B=BOTTOM OF CURB ELEVATION

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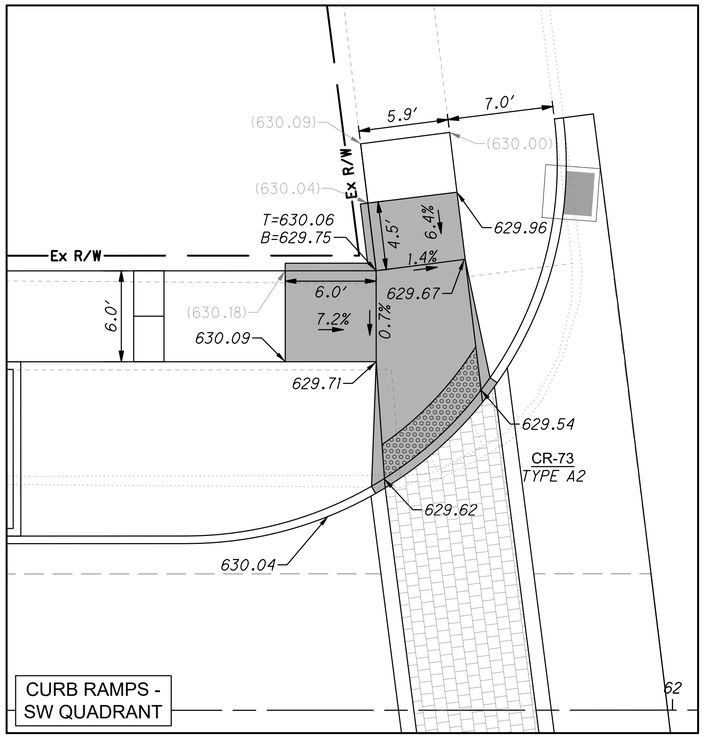
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ALL CURBS AT THE BACK OF WALKS ARE 6" WIDE UNLESS OTHERWISE NOTED.



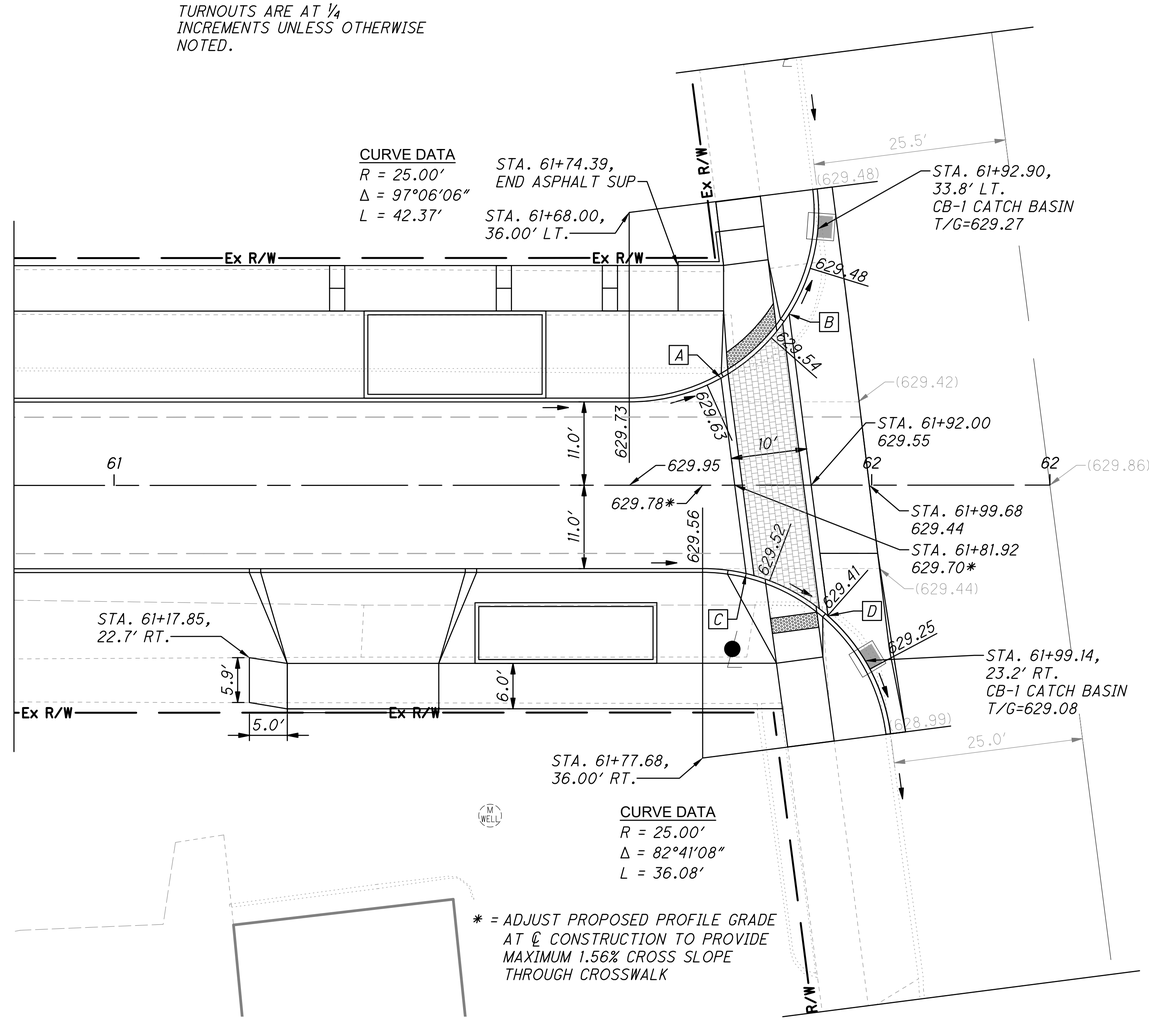
DECORATIVE CROSSWALK

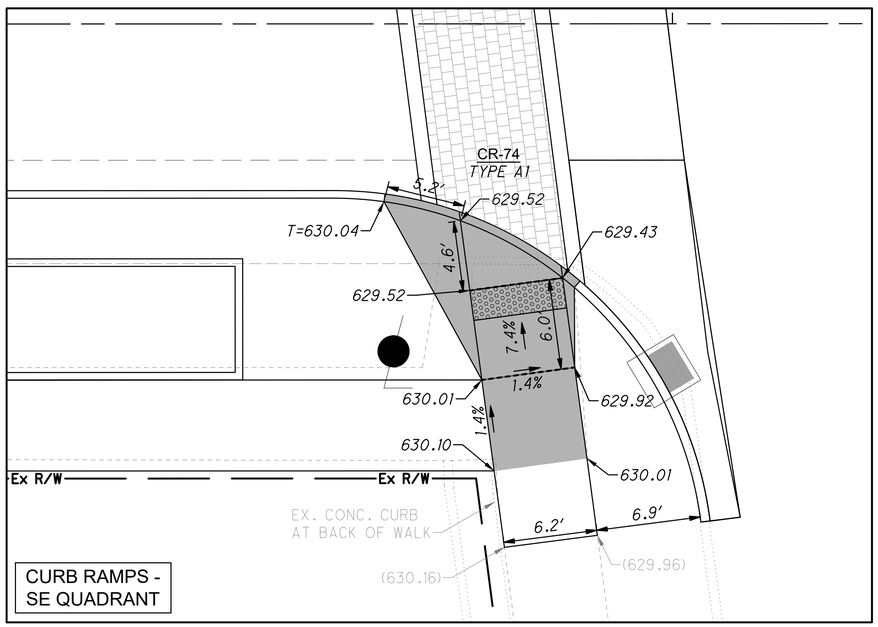
A STA. 61+80.11, 14.13' LT.

B STA. 61+89.10, 22.60' LT.

C STA. 61+83.42, 11.67' RT.

D STA. 61+94.22, 17.25' RT.





HORIZONTAL SCALE IN FEET
0 5 10 20

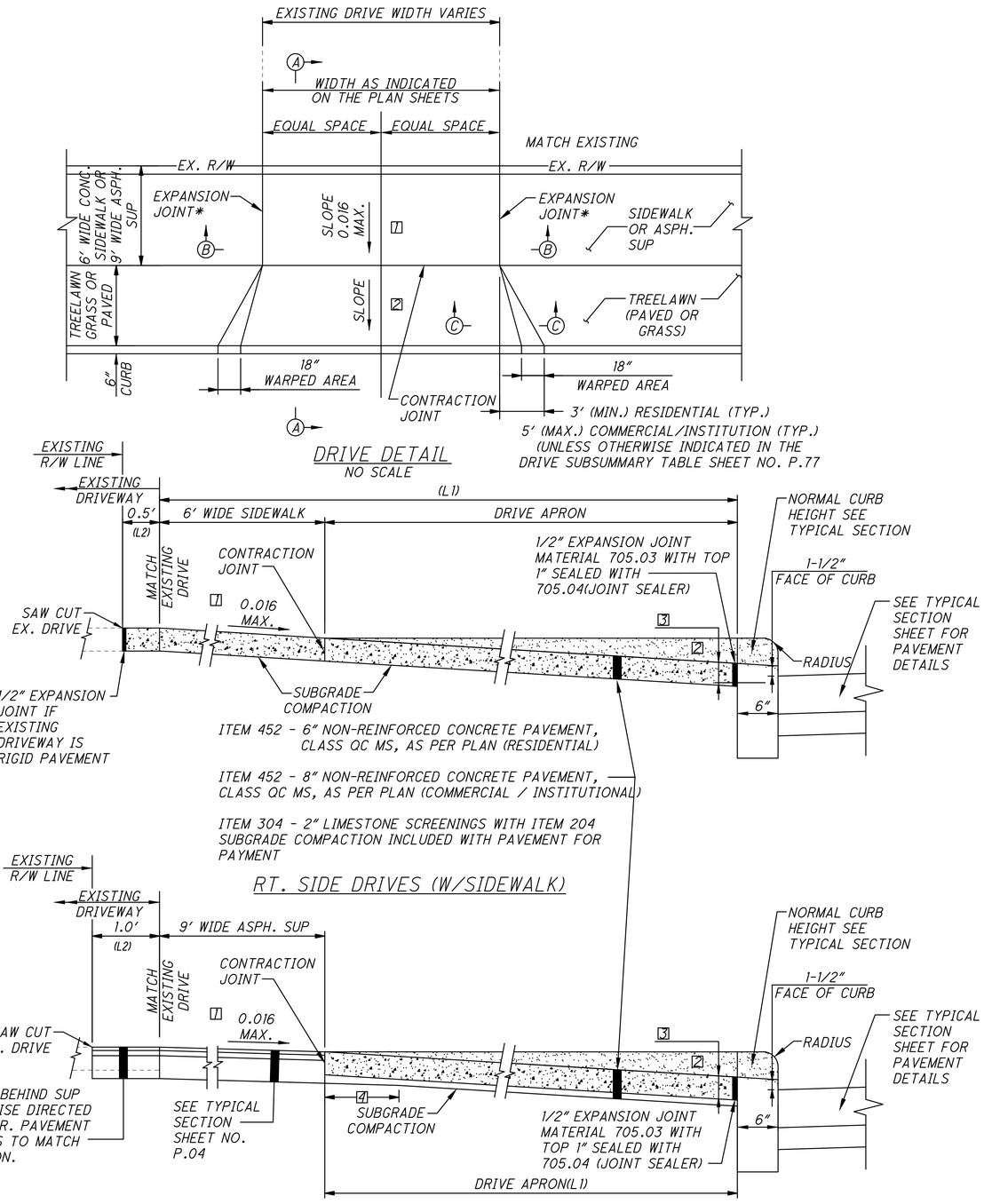
INTERSECTION DETAIL
EAST 66TH STREET AND SUPERIOR AVENUE

CUY-EAST 66TH STREET TLCI

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CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 1/13/26
PROJECT ID 122389
SHEET P.75 TOTAL 195

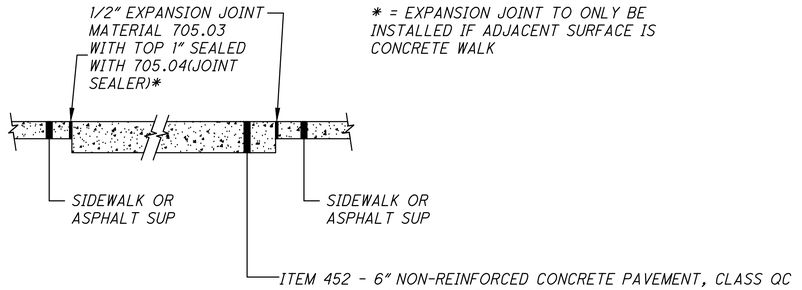


DRIVE DETAIL
NO SCALE

RT. SIDE DRIVES (W/SIDEWALK)

LT. SIDE DRIVES (W/SIDEWALK)

SECTION A - A
NO SCALE



SECTION B - B (W/CONCRETE SIDEWALK)
NO SCALE

SECTION C - C
NO SCALE

JOINTING: CONCRETE PAVEMENT		
1. UNTIED - NONREINFORCED P.C. CONCRETE PAVEMENT SLABS		
2. SPACING FOR SAWED OR IMPRESSED CONTRACTION AND/OR CONSTRUCTION JOINTS		
CONCRETE THICKNESS	RECOMMENDED SLAB SIZE	MAXIMUM SLAB SIZE
4"	5' x 5'	6' x 6'
6"	8' x 8'	9' x 9'
8"	10' x 10'	12' x 12'
JOINTS SHALL BE 1/4 THE DEPTH OF THE SLAB		

NOTES:

1. SIDEWALKS AT DRIVE APRONS SLOPE AT 0.016 MAXIMUM.
2. DRIVEWAY APRONS SLOPE VARIES FROM FACE OF CURB TO FACE OF SIDEWALK.
3. WHERE SLOPE IS LESS THAN 1.0% CURB CUT CAN BE REDUCED TO LESS THAN 1-1/2" AS REQUIRED TO PROVIDE FOR POSITIVE DRAINAGE TO THE STREET GUTTER
4. TRANSITION THICKNESS OF DRIVE APRON BASE IN 4'(±) TO MATCH THE SUP SUBGRADE

SIDEWALK, DRIVEWAY AND APRON SHALL BE PLACED ON COMPACTED 2" THICK BASE OF SAND OR GRAVEL. COST IS INCLUDED IN THE UNIT PRICE BID FOR ITEM 452.

SEE SHEETS NO. P.78 TO P.87 FOR DRIVEWAY PROFILES.

DRIVEWAY DETAILS
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

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DESIGNER MVN
REVIEWER CEL 6/2/25
PROJECT ID 122389
SHEET P.76 TOTAL 195

SHEET NO.	REFERENCE NO.	STATION	SIDE	DRIVE TYPE	APRON LENGTH "L1"	DRIVEWAY LENGTH "L2"	WIDTH "W"	FLARE WIDTH AT CURB (IF WIDTH DOES NOT MEET STANDARD)		CADD GENERATED SURFACE AREA - DRIVEWAY APRON "L1"	CADD GENERATED SURFACE AREA - DRIVEWAY "L2"	EXISTING DRIVE MATERIAL		304	407	441	441	452	452								DRIVE PROFILE SEE SHEET NO.
				RES./ COMM.				LT	RT					AGGREGATE BASE, AS PER PLAN	TACK COAT (USING 0.06 GAL/S.YD)	ASPHALT CONCRETE SURFACE COURSE TYPE 1 (448), OG70-22M, AS PER PLAN	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS MS, AS PER PLAN	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS MS, AS PER PLAN								
					FT.	FT.	FT.			SQ. FT.	SQ. FT.			CU YD	GAL	CU YD	CU YD	SQ YD	SQ YD								
P.31	DV-1	19+01.34	LT	COMM.	8.50	1.00	106.60	13	0	976.00	97.40	CONCRETE		0.52	0.65	0.38	0.23		108.44								P.78
P.31	DV-2	19+95.46	RT	COMM.	18.00	0.50	30.00			600.00	15.00	CONCRETE							68.33								P.78
P.32	DV-3	20+54.42	LT	RES.	11.50	1.00	10.00			149.50	10.00	CONCRETE		0.05	0.07	0.04	0.02	16.61									P.78
P.32	DV-4	20+99.69	LT	RES.	11.50	1.00	10.00			149.50	10.00	CONCRETE		0.05	0.07	0.04	0.02	16.61									P.78
P.32	DV-5	21+92.24	LT	RES.	8.50	1.00	10.00			110.50	10.00	CONCRETE		0.05	0.07	0.04	0.02	12.28									P.79
P.32	DV-6	22+74.03	RT	RES.	18.00	0.50	10.00			216.00	5.00	ASPHALT						24.56									P.79
P.32	DV-7	22+82.99	LT	RES.	8.50	1.00	12.00			126.60	12.00	BRICK/ASPHALT		0.06	0.08	0.05	0.03	14.07									P.79
P.32	DV-8	23+93.95	RT	RES.	18.00	0.50	19.00			378.00	9.50	CONCRETE						42.00									P.79
P.33	DV-9	26+33.40	RT	COMM.	17.00	0.50	18.00			361.00	9.00	ASPHALT							41.11								P.80
P.33	DV-10	26+71.20	LT	COMM.	7.50	1.00	15.00			150.00	15.00	GRAVEL		0.07	0.10	0.06	0.03		18.33								P.80
P.33	DV-11	28+13.31	LT	COMM.	7.50	1.00	12.00			126.20	12.00	ASPHALT		0.06	0.08	0.05	0.03		14.02								P.80
P.33	DV-12	28+40.17	RT	COMM.	10.00	0.50	14.00			160.00	7.00	ASPHALT							18.56								P.80
P.34	DV-13	31+87.51	RT	COMM.	10.60		26.00			330.00		ASPHALT							36.67								P.81
P.35	DV-14	36+47.97	RT	COMM.	12.30		12.00			210.00		CONCRETE		0.06	0.00	0.00	0.03		23.33								P.81
P.35	DV-15	36+49.96	LT	RES.	8.50	1.00	12.00			127.50	12.00	CONCRETE		0.06	0.08	0.05	0.03	23.33									P.81
P.35	DV-16	37+79.64	RT	COMM.	12.50		20.00			313.00		CONCRETE							34.78								P.81
P.35	DV-17	38+07.68	LT	RES.	8.50	1.00	12.00			128.00	12.00	CONCRETE		0.06	0.08	0.05	0.03	14.22									P.82
P.36	DV-18	41+36.55	LT	COMM.	8.50		37.00			362.00									40.22								P.82
P.37	DV-19	43+53.21	RT	RES.	4.40		18.00			93.00		CONCRETE						10.33									P.82
P.37	DV-20	43+83.98	LT	COMM.	8.50	1.00	16.00			177.50	16.00	CONCRETE		0.08	0.11	0.06	0.03		19.72								P.82
P.37	DV-21	44+06.62	RT	RES.	4.60		10.00			59.00		GRAVEL						6.56									P.83
P.37	DV-22	44+26.12	LT	RES.	8.50	1.00	16.00			161.50	16.00	CONCRETE		0.08	0.11	0.06	0.03	17.94									P.83
P.37	DV-23	45+37.80	LT	RES.	8.50	1.00	10.00			110.50	10.00	CONCRETE		0.05	0.07	0.04	0.02	12.28									P.83
P.37	DV-24	47+29.1	LT	RES.	8.50	1.00	10.00			110.50	10.00	ASPHALT		0.05	0.07	0.04	0.02	12.28									P.83
P.37	DV-25	47+96.88	RT	RES.	4.40		12.00			66.00		GRAVEL						7.33									P.84
P.38	DV-26	48+65.65	LT	RES.	8.50	1.00	12.00			128.00	12.00	ASPHALT		0.06	0.08	0.05	0.03	14.22									P.84
P.38	DV-27	50+25.78	LT	RES.	8.50	1.00	11.00			119.00	11.00	BRICK/ASPHALT		0.05	0.07	0.04	0.02	13.22									P.84
P.39	DV-28	53+91.69	RT	RES.	11.20	0.50	12.00			167.30	6.00	CONCRETE						19.26									P.84
P.39	DV-29	55+87.43	RT	RES.	11.00	0.50	9.40			125.00	5.00	CONCRETE						14.44									P.85
P.39	DV-30	57+43.73	LT	RES.	8.50	1.00	11.00			119.00	11.00	ASPHALT		0.05	0.07	0.04	0.02	13.22									P.85
P.40	DV-31	58+50.88	LT	RES.	11.50	1.00	8.00	1.5		118.00	8.00	BRICK		0.04	0.05	0.03	0.02	13.11									P.85
P.40	DV-32	58+95.16	RT	RES.	11.30		10.00			147.60		CONCRETE						16.40									P.85
P.40	DV-33	58+96.72	LT	RES.	11.50	1.00	10.00			149.00	10.00	CONCRETE		0.05	0.07	0.04	0.02	16.56									P.86
P.40	DV-34	59+35.83	LT	RES.	11.30	1.00	10.00			149.50	10.00	ASPHALT		0.05	0.07	0.04	0.02	16.61									P.86
P.40	DV-35	59+36.02	RT	RES.	11.20		10.00			145.50		ASPHALT						16.17									P.86
P.40	DV-36	59+75.03	RT	RES.	11.20		11.00			157.00		ASPHALT						17.44									P.86
P.40	DV-37	59+76.71	RT	RES.	11.50	0.50	13.00			184.00	6.50	ASPHALT						21.17									P.87
P.40	DV-38	60+21.56	RT	RES.	11.20		11.00			156.00		ASPHALT						17.33									P.87
P.40	DV-39	61+32.85	RT	RES.	18.00	0.50	20.00			420.00	10.00	CONCRETE						47.78									P.87
SUBTOTALS														1.6	2.0	1.2	0.7	487.3	423.5								
TOTALS CARRIED TO GENERAL SUMMARY														2	2	2	1	488	424								

DRIVEWAY SUBSUMMARY
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\122389_GD101.dwg

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER: IRK

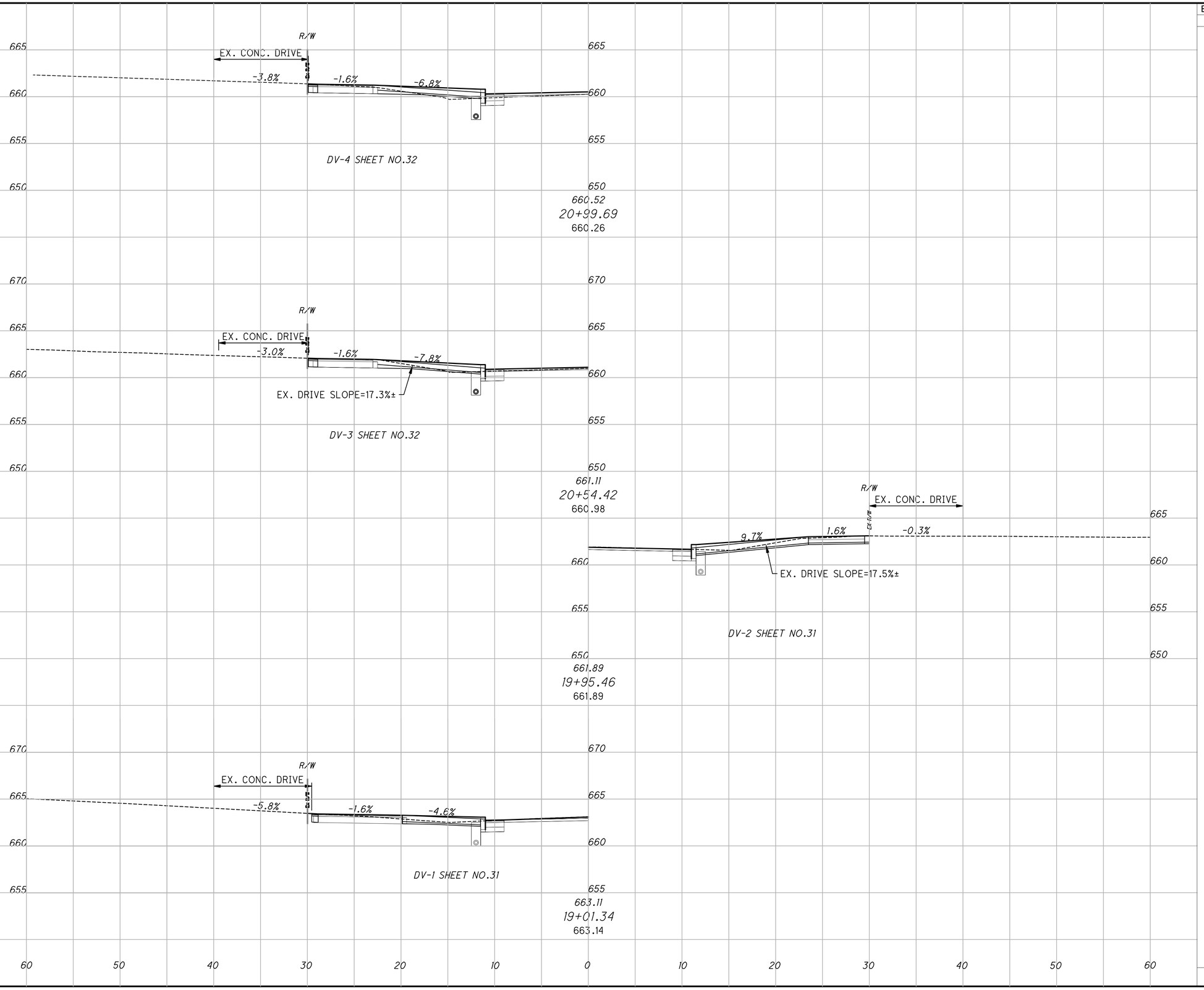
REVIEWER: DRP 6/19/25

PROJECT ID: 122389

SHEET: P.77 TOTAL: 195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DRIVEWAY PROFILES - EAST 66TH STREET STA. 19+06.28 TO STA. 20+99.69

CUY-EAST 66TH STREET TLCI

P:\City Of Cleveland_20220116.100_East_66th_St_Find_Engineering\Drawings\Trans\Roadway\Sheets\GD001.dwg

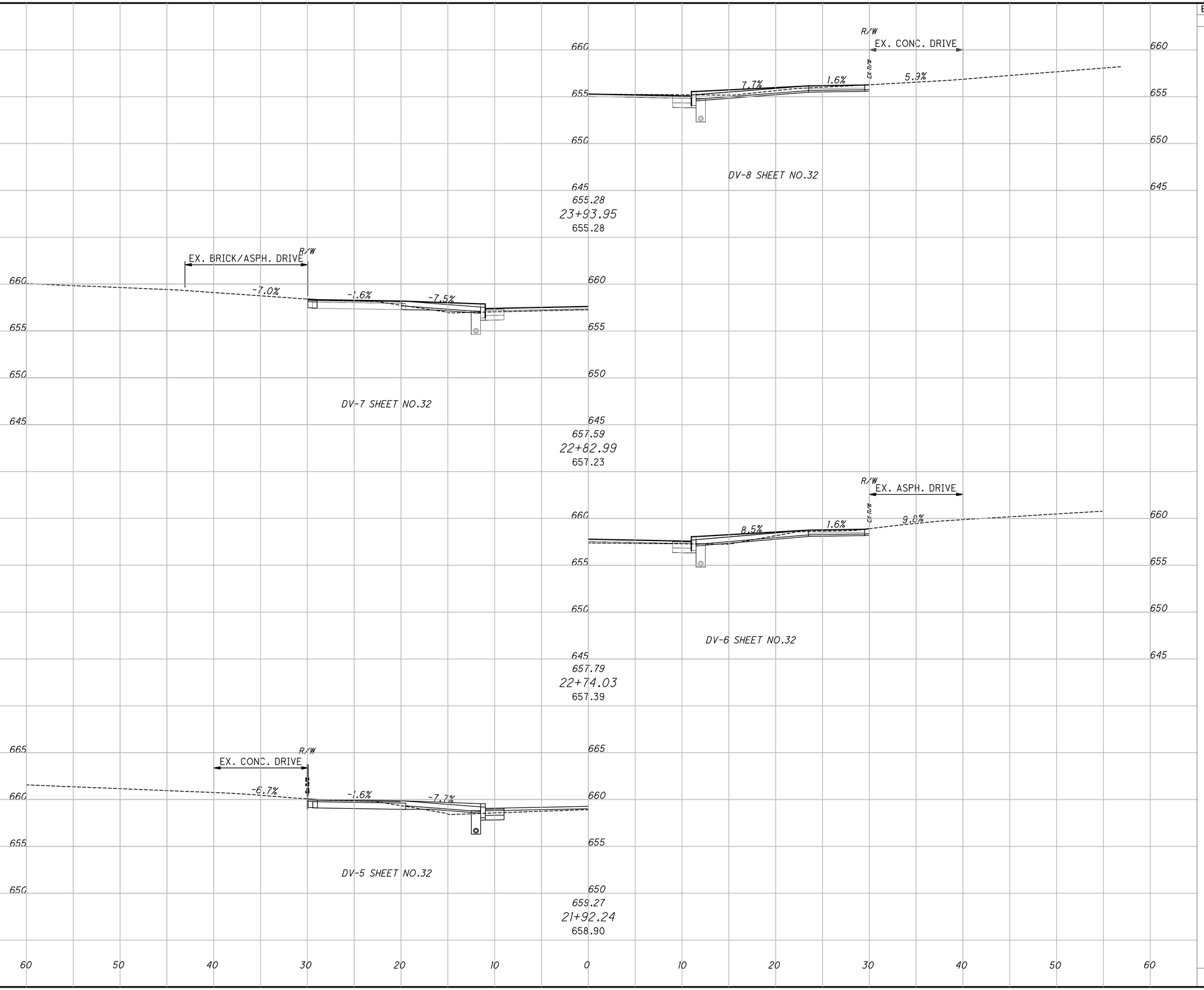
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER	
IRK	
REVIEWER	
DRP	5/28/25
PROJECT ID	
122389	
SHEET	TOTAL
P.78	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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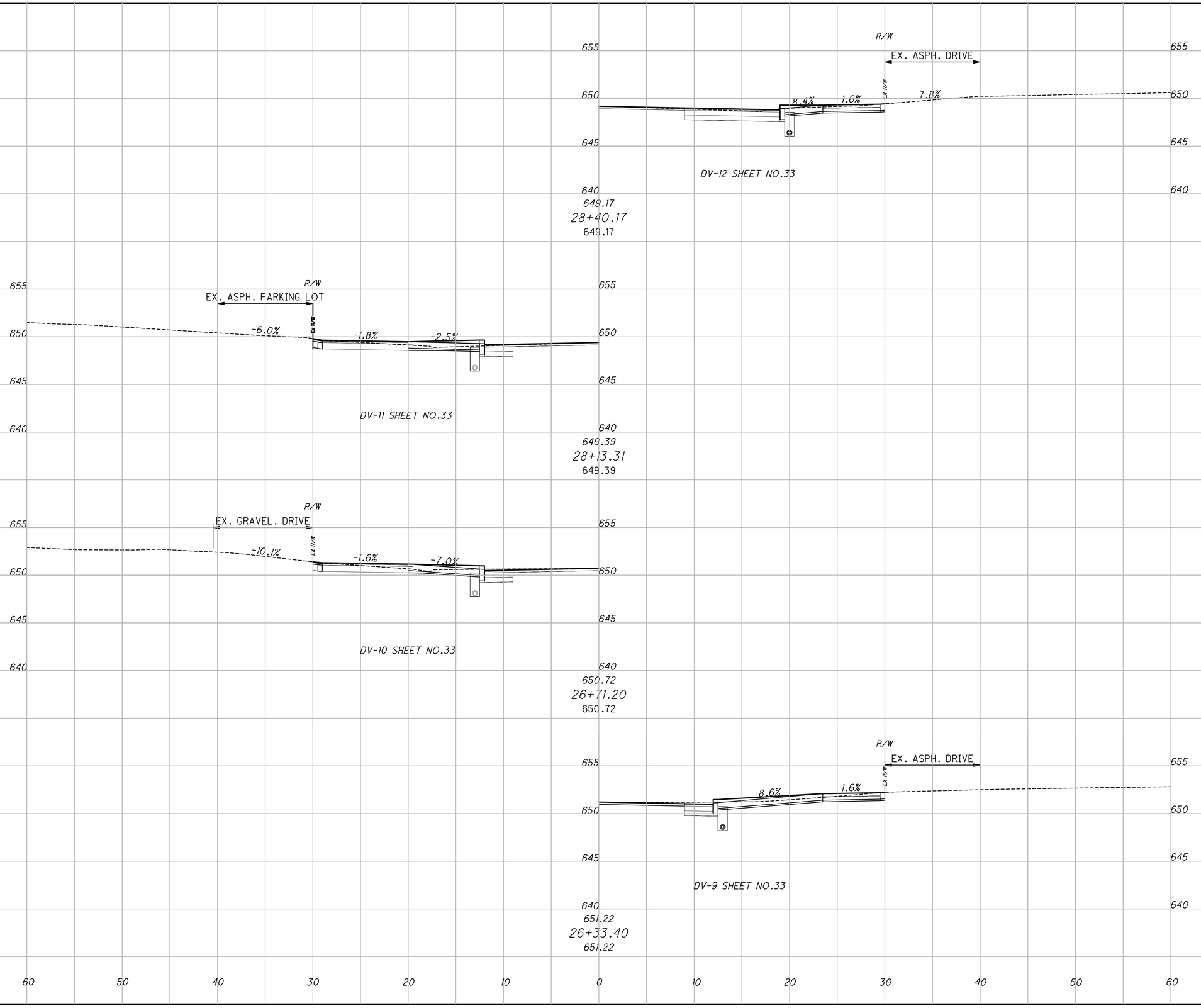
DRIVEWAY PROFILES - EAST 66TH STREET
STA. 21+92.24 TO STA. 23+93.95

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OSBORN ENGINEERING
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DESIGNER	IRK
REVIEWER	DRP 12/17/25
PROJECT ID	122389
SHEET	P.79
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DRIVEWAY PROFILES - EAST 66TH STREET
STA. 26+33.40 TO STA. 28+40.17

CUY-EAST 66TH STREET TLCI

P:\City Of Cleveland\v20201116.100_East_66th_St_Final_Engineering\Drawings\Transe\Roadway\Sheets\d00003.dwg

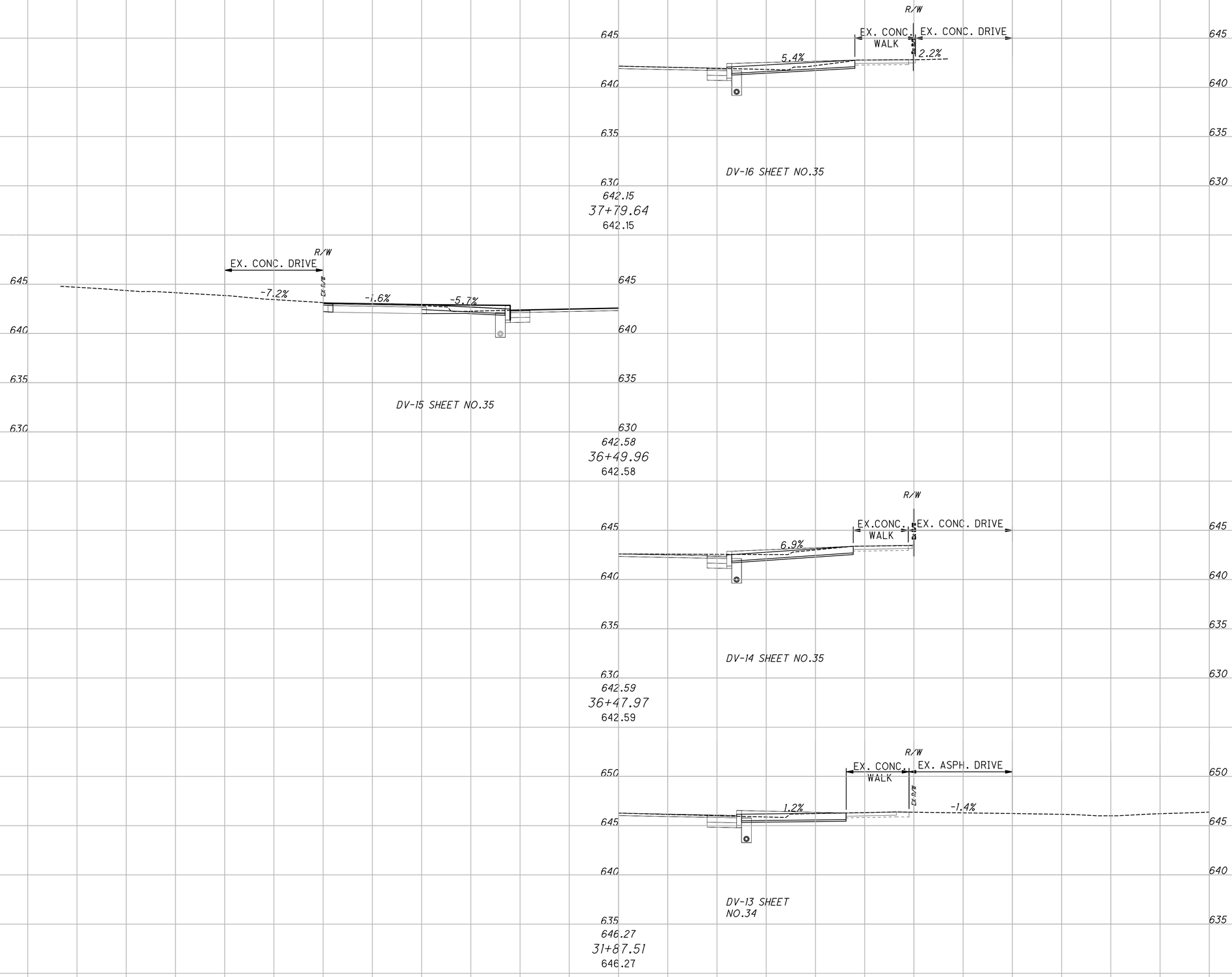
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 8/1/25
PROJECT ID	122389
SHEET	P.80
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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DRIVEWAY PROFILES - EAST 66TH STREET
STA. 31+87.51 TO STA. 37+79.64

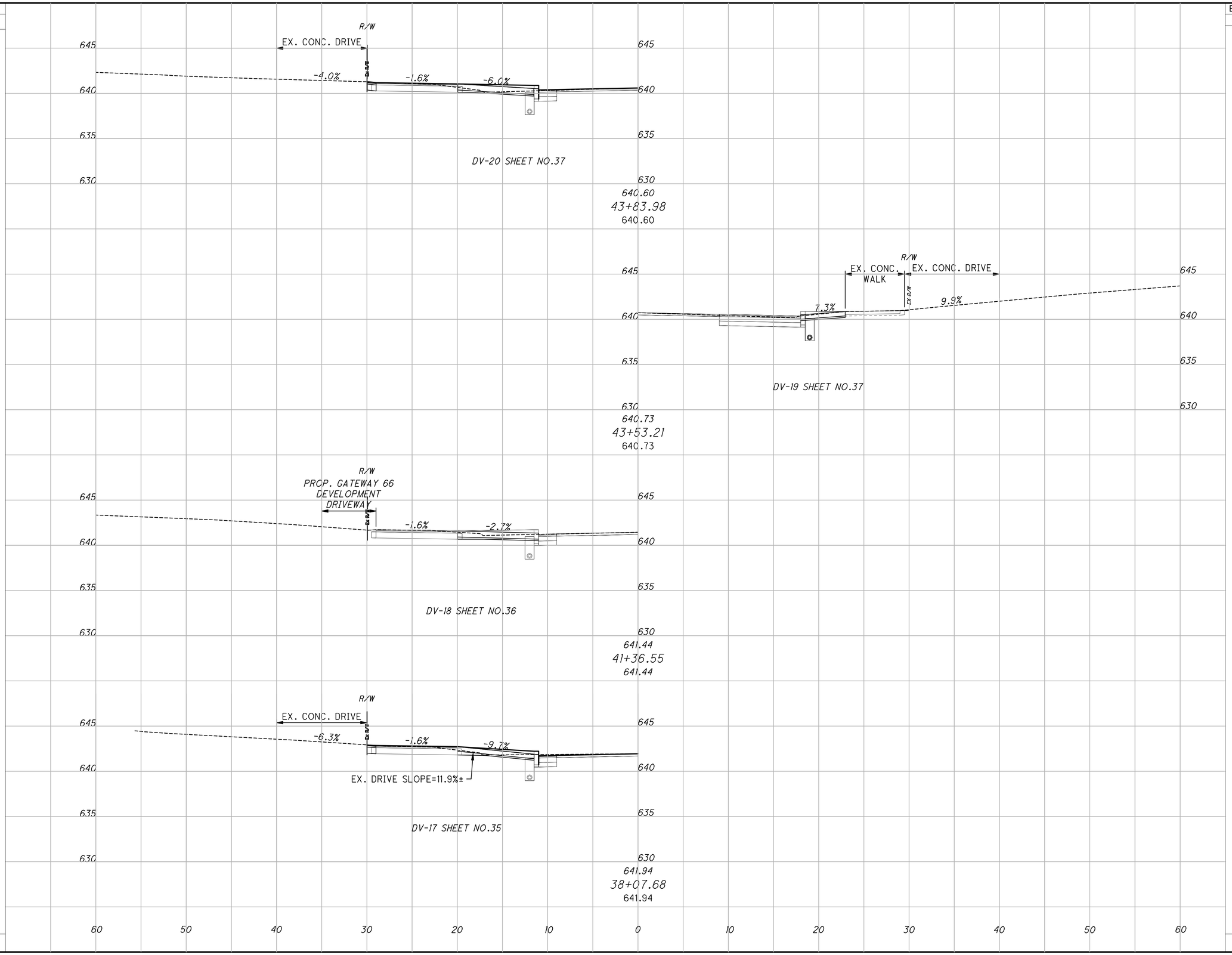
DESIGN AGENCY

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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 5/28/25
PROJECT ID	122389
SHEET	P.81
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

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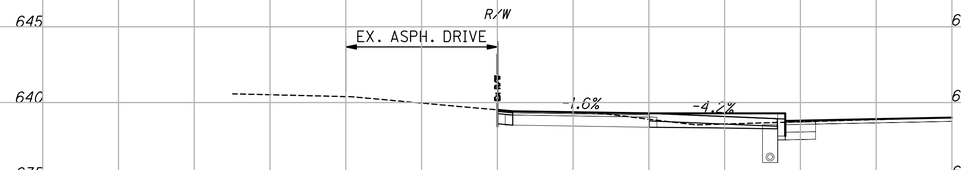
DRIVEWAY PROFILES - EAST 66TH STREET
STA. 38+07.68 TO STA. 43+83.98

DESIGN AGENCY
OSBORN ENGINEERING
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CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	5/28/25
PROJECT ID	
122389	
SHEET	TOTAL
P.82	195

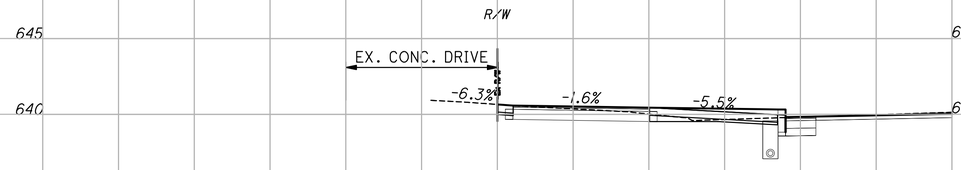
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



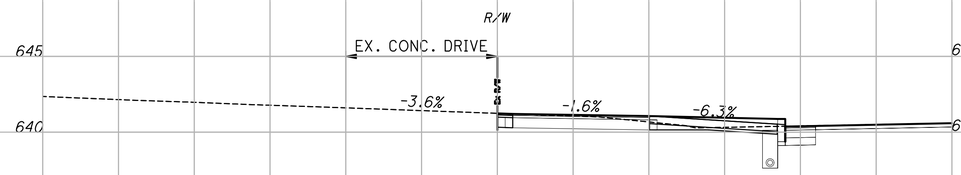
DV-24 SHEET NO.37

639.01
47+29.10
639.01



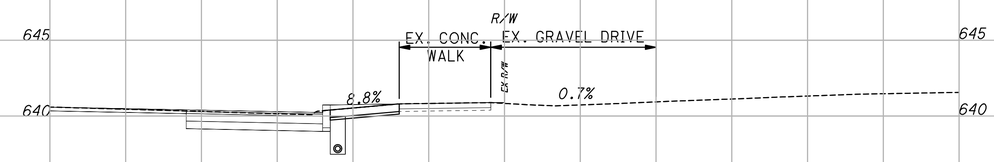
DV-23 SHEET NO.37

640.04
45+37.80
640.14



DV-22 SHEET NO.37

640.59
44+26.12
640.59



DV-21 SHEET NO.37

640.59
44+06.62
640.59

60 50 40 30 20 10 0 10 20 30 40 50 60

CUY-EAST 66TH STREET TLCI

P:\City Of Cleveland\J2020116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\SD006.dwg

DRIVEWAY PROFILES - EAST 66TH STREET
STA. 44+06.62 TO STA. 47+29.10

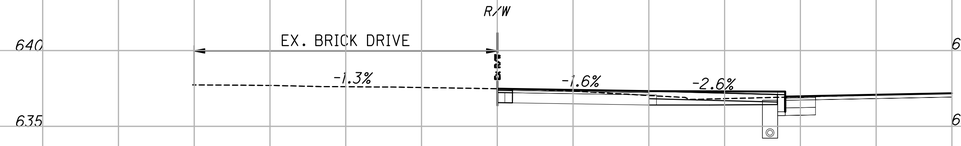
DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

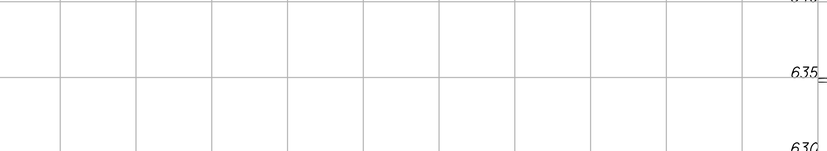
DESIGNER	IRK
REVIEWER	DRP 10/21/25
PROJECT ID	122389
SHEET	P.83
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

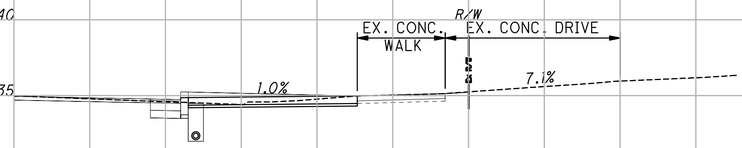
END AREA		VOLUME	
CUT	FILL	CUT	FILL



DV-27 SHEET NO.38



DV-26 SHEET NO.38



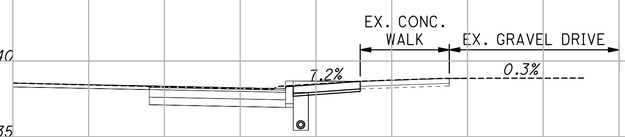
DV-28 SHEET NO.39

634.96
53+91.69
634.96

637.19
50+25.78
637.19

638.18
48+65.65
638.18

638.54
47+96.88
638.54



DV-25 SHEET NO.37

60 50 40 30 20 10 0 10 20 30 40 50 60

DRIVEWAY PROFILES - EAST 66TH STREET
STA. 47+96.88 TO STA. 53+91.69

CUY-EAST 66TH STREET TLCI

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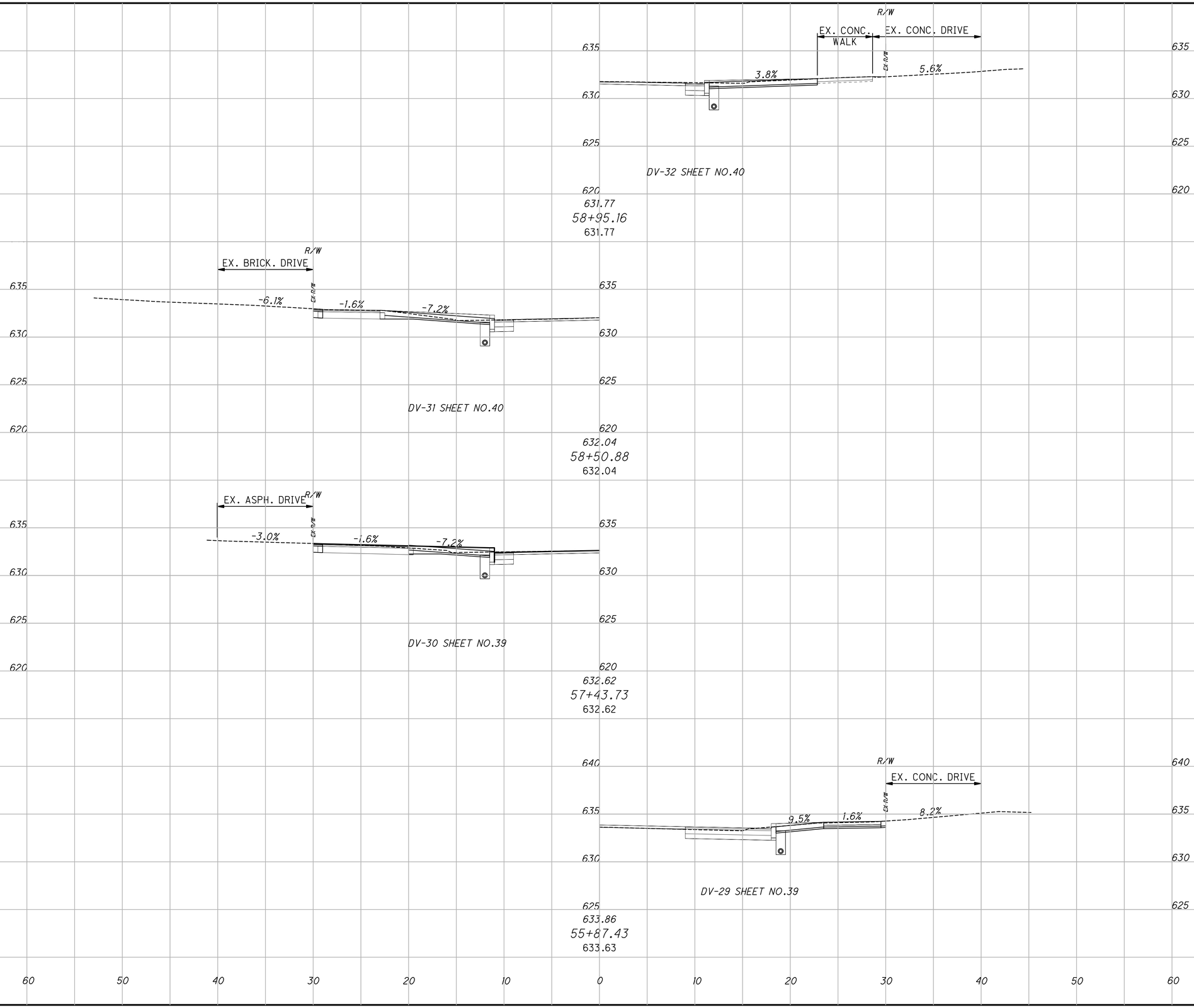
DESIGN AGENCY

OSBORN
ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	10/21/25
PROJECT ID	
122389	
SHEET	TOTAL
P.84	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CUY-EAST 66TH STREET TLCI

P:\City Of Cleveland\J2020116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\SD0008.dwg

DRIVEWAY PROFILES - EAST 66TH STREET
STA. 55+87.43 TO STA. 58+95.16

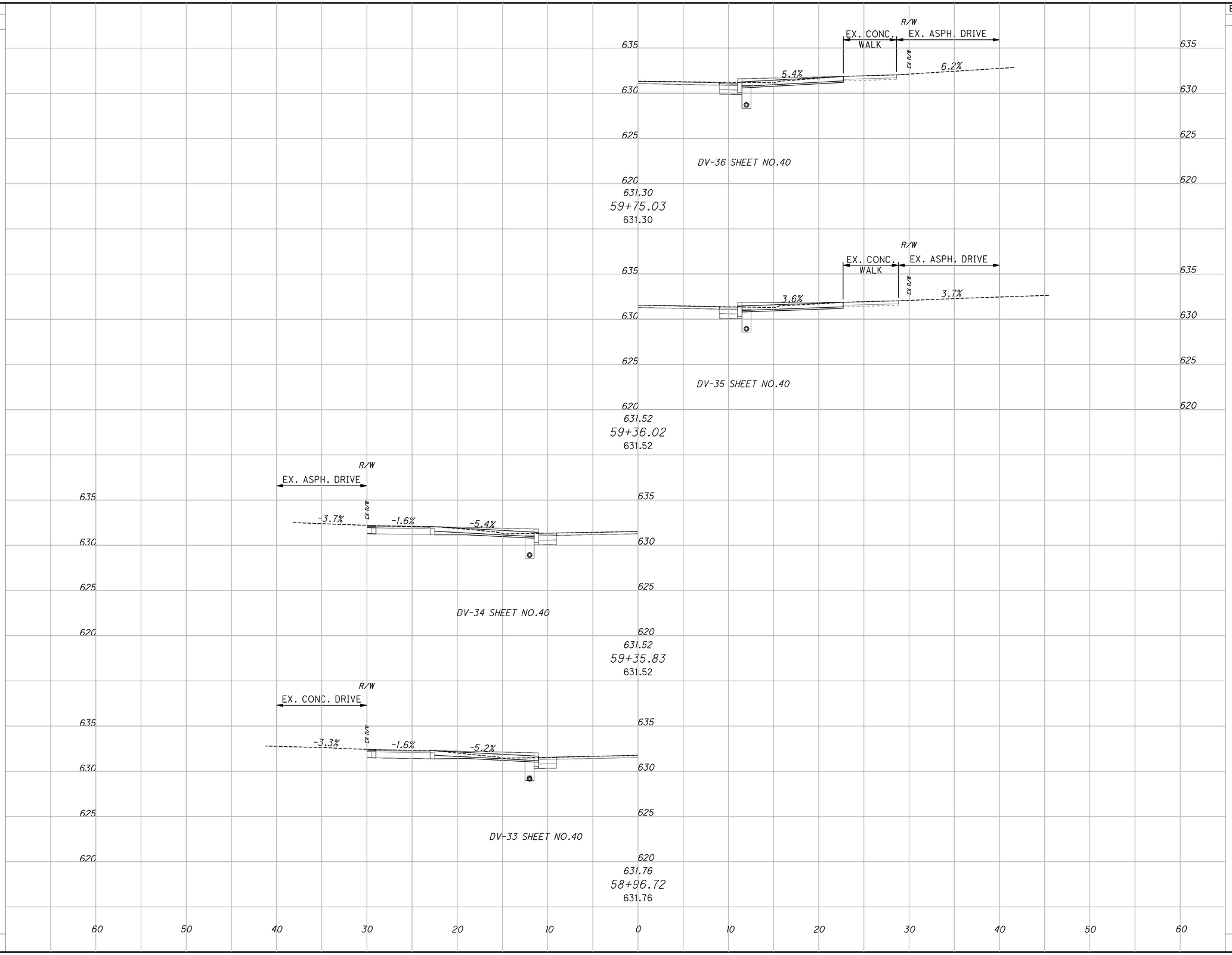
DESIGN AGENCY

OSBORN
ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 10/23/25
PROJECT ID	122389
SHEET	P.85
TOTAL	195

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DRIVEWAY PROFILES - EAST 66TH STREET
STA. 58+96.72 TO STA. 59+75.03

CUY-EAST 66TH STREET TLCI

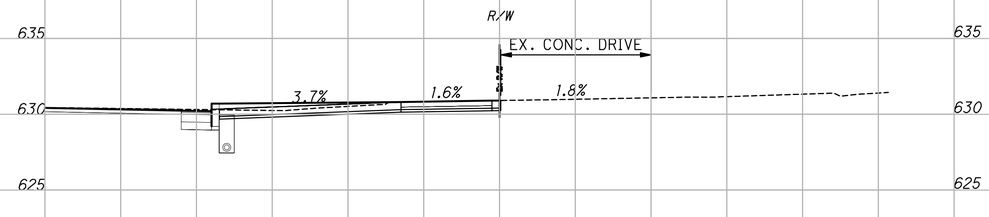
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DESIGN AGENCY
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	
IRK	
REVIEWER	
DRP	10/23/25
PROJECT ID	
122389	
SHEET	TOTAL
P.86	195

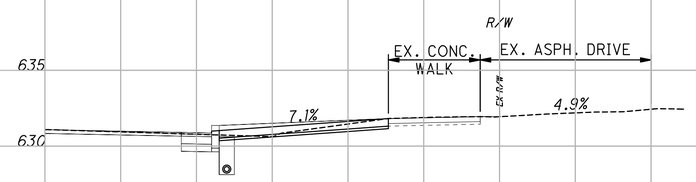
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



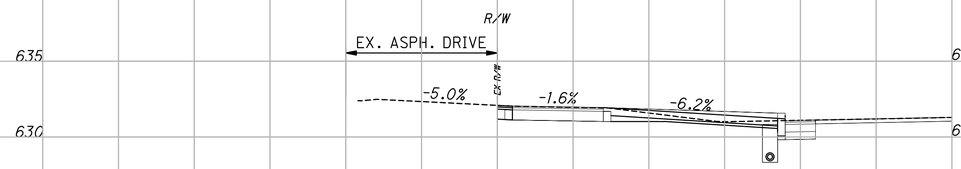
DV-39 SHEET NO.40

630.41
61+32.85
630.41



DV-38 SHEET NO.40

631.08
60+21.56
631.08



DV-37 SHEET NO.40

631.29
59+76.71
631.29

60 50 40 30 20 10 0 10 20 30 40 50 60

CUY-EAST 66TH STREET TLCI

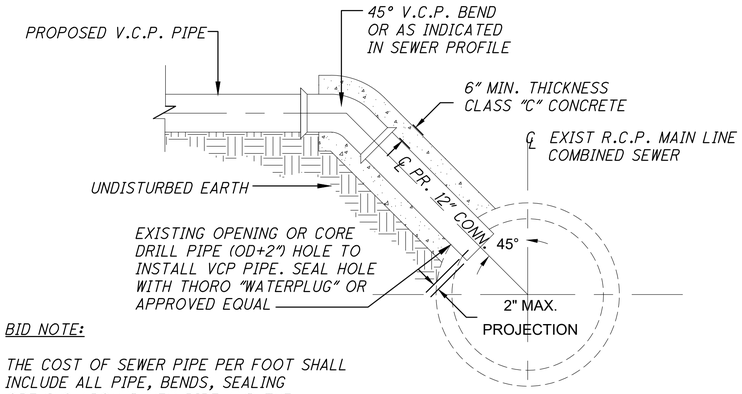
P:\City Of Cleveland\2020\116.100_East_66th_St_Find_Engineering\Drawings\Trans\Roadway\Sheets\SD010.dwg

DRIVEWAY PROFILES - EAST 66TH STREET
STA. 59+76.71 TO STA. 61+32.85

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 9/18/25
PROJECT ID	122389
SHEET	P.87
TOTAL	195

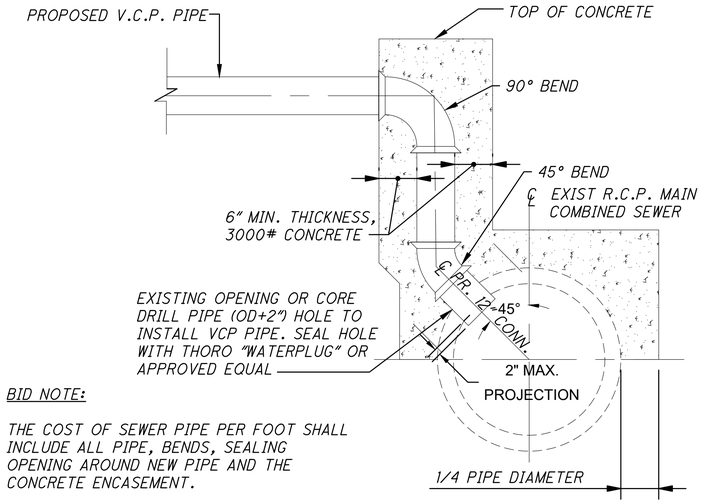


BID NOTE:

THE COST OF SEWER PIPE PER FOOT SHALL INCLUDE ALL PIPE, BENDS, SEALING OPENING AROUND NEW PIPE AND THE CONCRETE COLLAR.

NOTE:
PER THE DIVISION OF WATER POLLUTION CONTROL STANDARDS, A SADDLE IS USED IN ORDER TO CONNECT THE NEW V.C.P. CONNECTION TO THE EXISTING R.C.P. SEWER.

STORM CONNECTION TO R.C.P. PIPE ("A")
NO SCALE

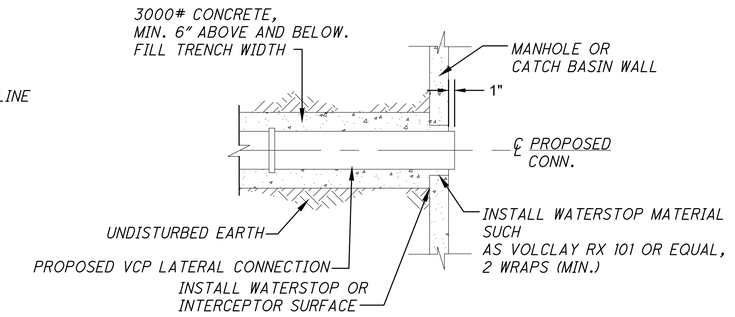


BID NOTE:

THE COST OF SEWER PIPE PER FOOT SHALL INCLUDE ALL PIPE, BENDS, SEALING OPENING AROUND NEW PIPE AND THE CONCRETE ENCASEMENT.

NOTE:
PER THE DIVISION OF WATER POLLUTION CONTROL STANDARDS, A SADDLE IS USED IN ORDER TO CONNECT THE NEW V.C.P. CONNECTION TO THE EXISTING R.C.P. SEWER.

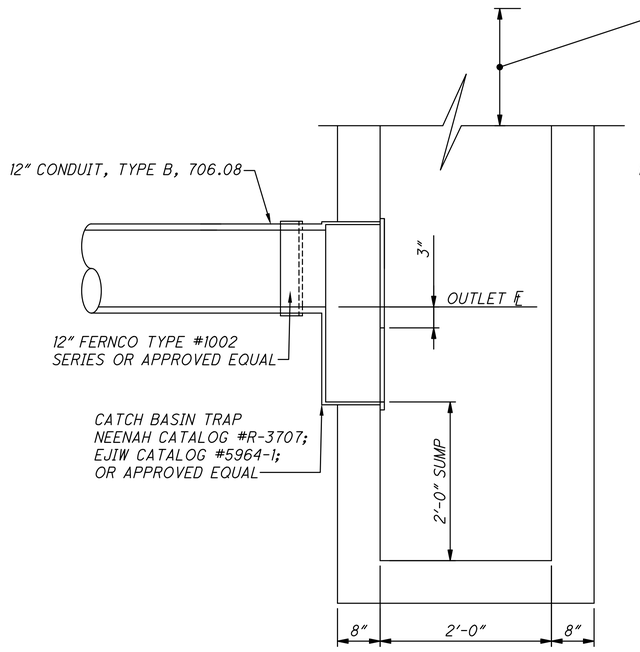
STORM CONNECTION TO R.C.P. PIPE ("B")
NO SCALE



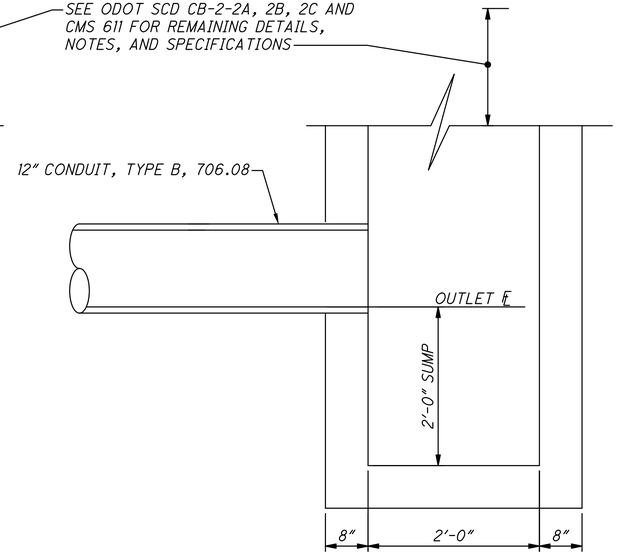
STORM CONNECTION TO EXISTING MANHOLE OR CATCH BASIN
NO SCALE

BID NOTE:

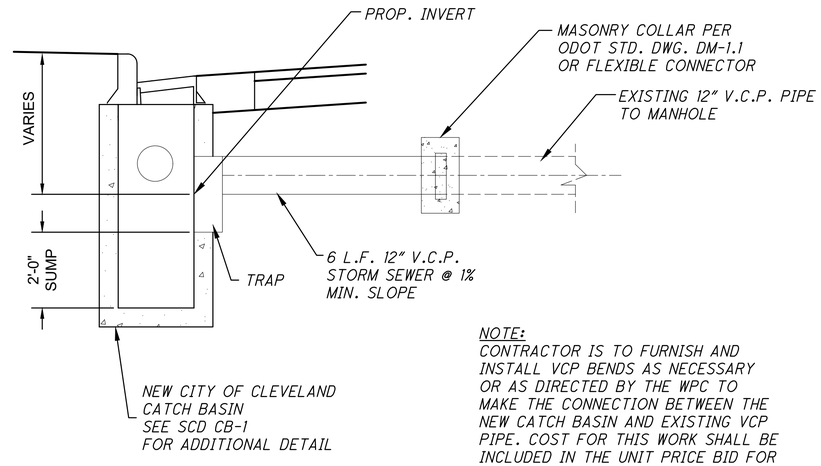
THE COST OF SEWER PIPE PER FOOT SHALL INCLUDE ALL ITEMS TO MAKE THE STORM CONNECTION TO THE EXISTING DRAINAGE STRUCTURE.



ITEM 611, CATCH BASIN, NO. 2-2B,
AS PER PLAN (A)
(WITH SUMP AND TRAP)



ITEM 611, CATCH BASIN, NO. 2-2B,
AS PER PLAN (B)
(WITH SUMP)



NOTE:
CONTRACTOR IS TO FURNISH AND INSTALL VCP BENDS AS NECESSARY OR AS DIRECTED BY THE WPC TO MAKE THE CONNECTION BETWEEN THE NEW CATCH BASIN AND EXISTING VCP PIPE. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 12" CONDUIT.

NEW CATCH BASIN CONNECTION TO EXISTING VCP PIPE
NO SCALE

DRAINAGE DETAILS
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland_20220116.100_East_66th_St_Find_Engineering\Drawings\Trans\Drainage\Sheets\D0001.dwg

DESIGN AGENCY
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

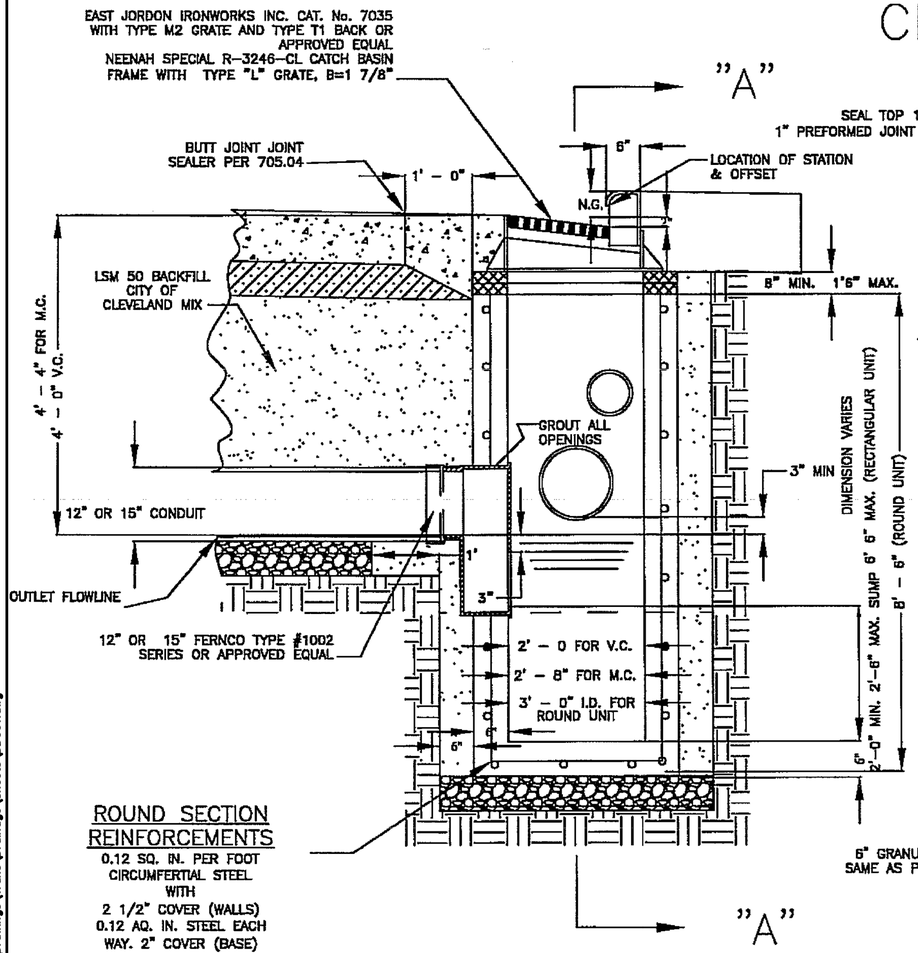
DESIGNER
IRK

REVIEWER
DRP 12/8/25

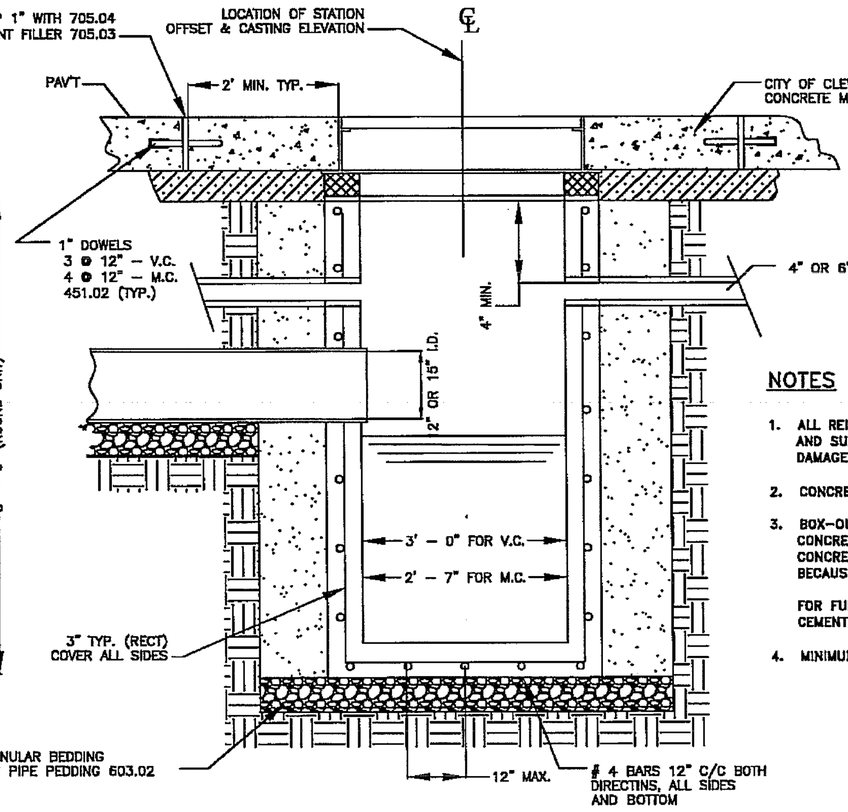
PROJECT ID
122389

SHEET P.88 | TOTAL 195

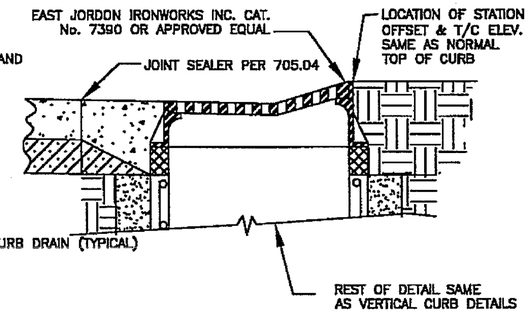
CB–1 CATCH BASIN



VERTICAL CURB



"A" – "A"



MOUNTABLE CURB

ROUND SECTION REINFORCEMENTS

0.12 SQ. IN. PER FOOT CIRCUMFERTIAL STEEL WITH 2 1/2" COVER (WALLS) 0.12 AQ. IN. STEEL EACH WAY. 2" COVER (BASE)

ALTERNATE BASIN SHAPE

A ROUND PRECAST CONCRETE UNIT MAY BE USED IN LIEU OF RECTANGULAR UNIT. THE ROUND SECTION SHALL BE 36" I.D. UNIT WITH INTEGRAL BASE AND PRECAST TOP TRANSITION SECTION (ROUND TO RECTANGULAR) TO FIT CASTING BEING USED. THE TRANSITION UNIT REQUIRES A # 5 REBAR AT CORNERS OF THE RECTANGULAR SHAPED SECTION AND 3 X 8 W6 X W5 WELDED WIRE FABRIC IN VERTICAL SECTION. ALSO, IF APPROVED BY THE ENGINEER, 8" THICK MASONRY WALL MAY BE USED IN LIEU OF PRECAST UNITS.

NOTE: IF PRECAST CATCH BASIN IS CONSTRUCTED IN TWO PIECES THE JOINT BETWEEN UNITS MUST BE A PERMIUM JOINT,PER 706.11.

NOTES

1. ALL REINFORCING SHALL BE # 4 DEFORMED BARS, AS PER ODOT 709, AND SUFFICIENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE TO DECTANGULAR SHAPE.
2. CONCRETE SHALL BE ODOT 499 CLASS "C" 4000 PSI IN 28 DAYS.
3. BOX–OUT SHALL BE PAID FOR AS PAVEMENT IN PORTLAND CEMENT CONCRETE PAVEMENT AND AS PART OF THE CATCH BASIN IN ASPHALTIC CONCRETE PAVEMENT WITH NO REDUCTION IN PAVEMENT OR CURB QUANTITY BECAUSE OF CASTING.

   FOR FULL WIDTH ASPHALTIC CONCRET PAVEMENT CONSTRUCT A PORTLAND CEMENT CONCRET APRON.
4. MINIMUM WALL THICKNESS 8" CAST IN PLACE AND 6" FOR PRECAST.

LEGEND

V.C. = VERTICAL CURB
M.C. = MOUNTABLE CURB
T/C = TOP OF CASTING
N.G. = NORMAL GUTTER

CITY OF CLEVELAND
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK–DIRECTOR OF PUBLIC SERVICE
STANDARD CONSTRUCTION DRAWING
STANDARD DETAIL FOR RECTANGULAR CATCH BASIN
NOT TO SCALE

REVISED BY: R. PLIODZINSKAS DATE: 4/8/08

SUBMITTED BY: W. MCLAUGHLIN DATE: 4/8/08

APPROVED: [signature] DATE: 7-8-08
COMMISSIONER OF ENGINEERING & CONSTRUCTION

FILE NO. CB–1 | SHEET 1/7 | 26

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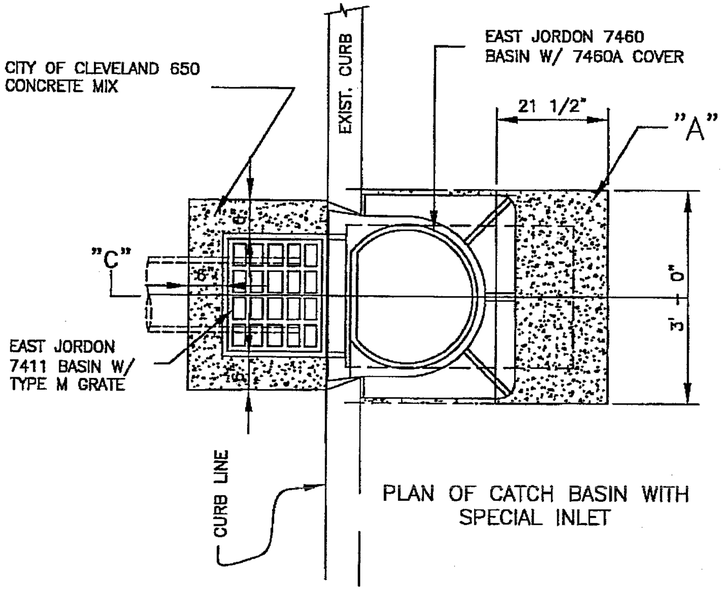
DESIGNER IRK
REVIEWER DRP 12/8/25
PROJECT ID 122389
SHEET P.89 TOTAL 195

DRAINAGE DETAILS
EAST 66TH STREET

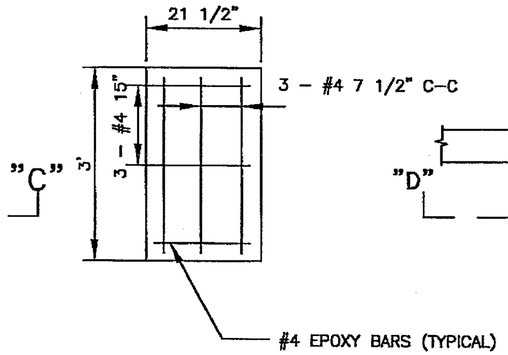
CUY-EAST 66TH STREET TLCI

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SETTING METHOD "A"

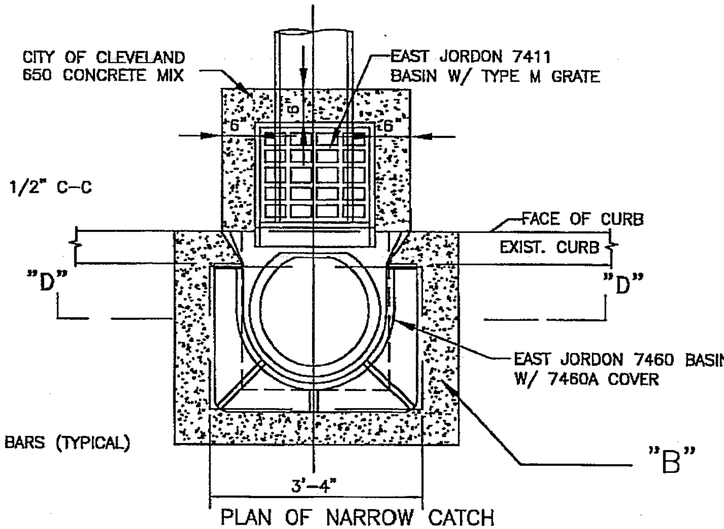


PLAN OF CATCH BASIN WITH SPECIAL INLET

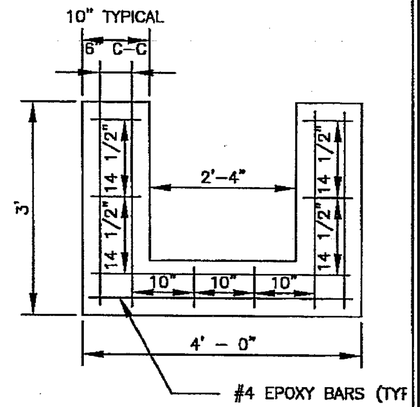


"A" DETAIL OF 6" CONCRETE SLAB

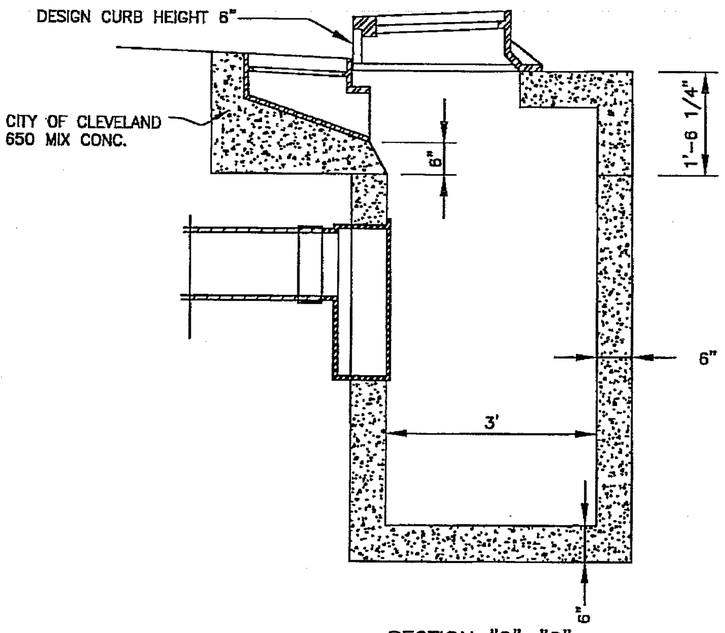
SETTING METHOD "B"



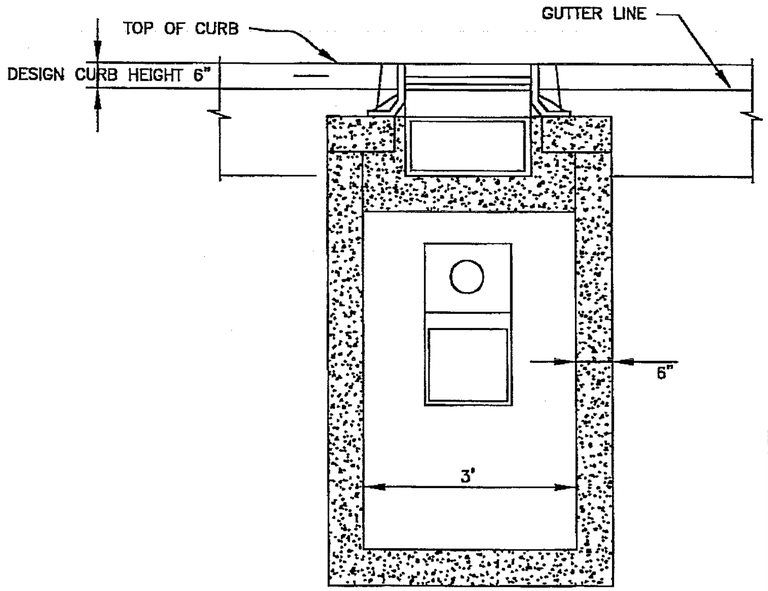
PLAN OF NARROW CATCH BASIN WITH SPECIAL INLET



"B" DETAIL OF 6" CONCRETE SLAB



SECTION "C"–"C"



SECTION "D"–"D"

NOTE:

THIS CATCH BASIN TO BE USED FOR CONSTRUCTION AT LOCATIONS WHICH PREVENT THE INSTALLATION OF A CB–1 IN THE ROADWAY, AS DIRECTED BY THE ENGINEER.

CATCH BASIN BASE DIMENSIONS ON DRAWING CB–1, ONLY RECTANGULAR BASIN SHALL BE ALLOWED.

THIS DETAIL FOR STREETS WITH VERTICAL CURB ONLY

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK–DIRECTOR OF PUBLIC SERVICE
STANDARD CONSTRUCTION DRAWING
PLAN FOR CATCH BASIN 2
NOT TO SCALE

REVISED BY: R. PLIODZINSKAS DATE: 4/8/08
SUBMITTED BY: W. MCLAUGHLIN DATE: 4/8/08

APPROVED: _____ DATE: 1-8-08

COMMISSIONER OF ENGINEERING & COSNTRUCTION

FILE NO. CB–1	SHEET 6/7	32

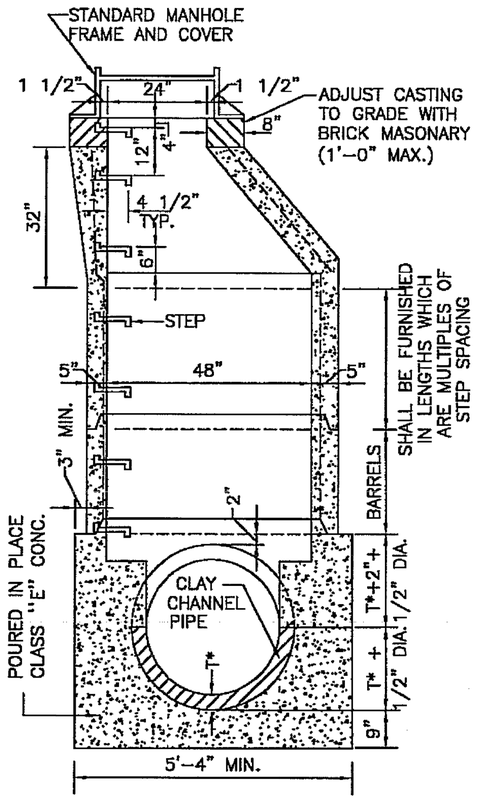
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornneng.com

DESIGNER IRK
REVIEWER DRP 12/8/25
PROJECT ID 122389
SHEET P.90 TOTAL 195

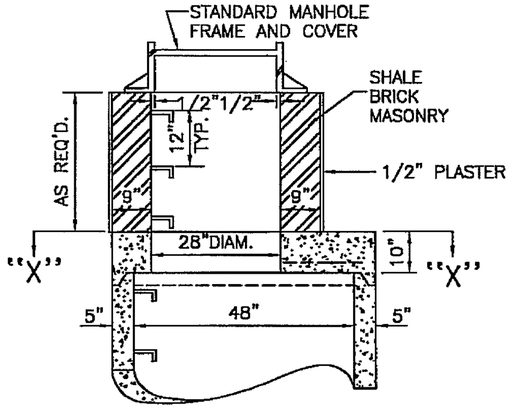
DRAINAGE DETAILS
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

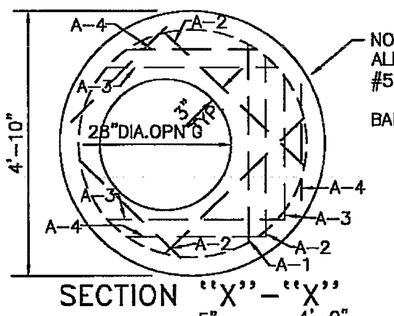
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SEWERS 42" AND UNDER



ALTERNATE DOME

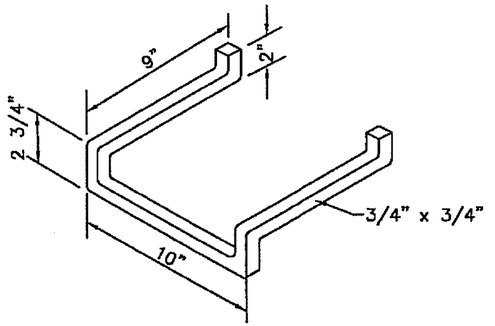


NOTE:
ALL REINFORCING STEEL #5 BARS @ 4" C.C.

BAR LENGTHS
A-1 - 3'-10"
A-2 - 3'-7"
A-3 - 3'-0"
A-4 - 2'-2"

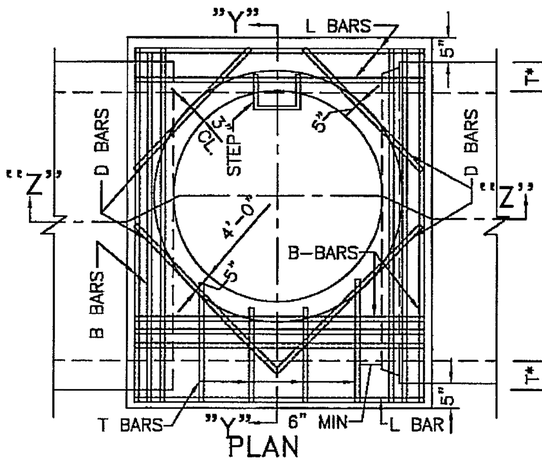
T*-REPRESENTS THICKNESS OF PIPE

SECTION "X"-"X"

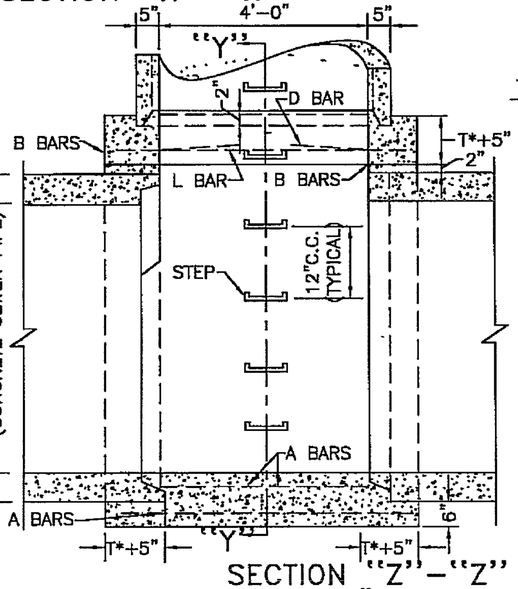


STEP DETAIL

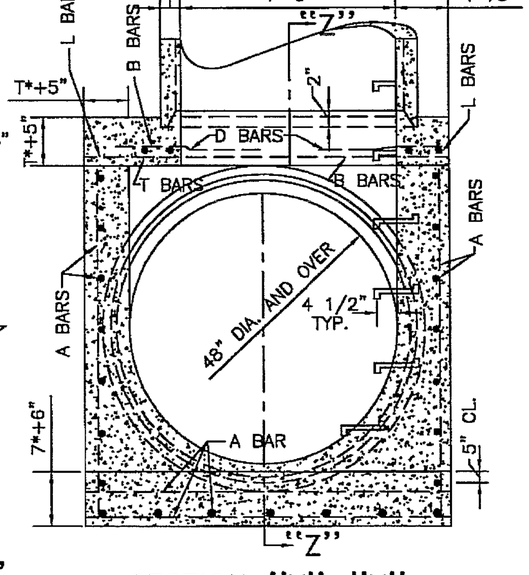
NOTE:
STEPS SHALL BE CAST IRON AS PER ASTM A 48 CLASS 30 GRAY IRON OR ALUMINUM AS PER ASTM B 221,6061-T6



PLAN



SECTION "Z"-"Z"



SECTION "Y"-"Y"

CONNECTION BOX FOR PRECAST MANHOLES ON SEWERS 48" AND OVER

NOTES:

NO HOLES FOR 12" INLET OR CATCH BASIN CONNECTIONS SHALL BE CUT IN ANY SECTION LESS THAN 36"MANHOLE BARREL. NOT MORE THAN 2 INLET CONNECTIONS SPACED 2± FEET APART HORIZONTALLY PERMITTED IN 3 OR 4 FOOT MANHOLE SECTIONS.

ALL JOINTS AND PIPE OPENINGS IN THE MANHOLE SHALL BE THOROUGHLY CALKED WITH 1:3 CEMENT MORTAR HAVING A 1/2" MINIMUM THICKNESS.

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM DESIGNATION C 478-06a: MINIMUM WALL THICKNESS SHALL BE 5 INCHES.

CONNECTION BOXES FOR SEWERS 48" AND OVER IN DIAMETER SHALL BE REINFORCED AS SHOWN AND AS SPECIFIED BELOW:

A) BARS SHALL BE SPACED AT 12" CENTERS IN BOTH DIRECTIONS.

B) BARS SHALL BE SPACED AT 3" CENTERS IN BOTH DIRECTIONS.
A,B & L BARS SIZES:
5/8" DIAM. FOR 48" TO 60" SEWERS.
3/4" DIAM. FOR 66" TO 78" SEWERS.
7/8" DIAM. FOR 84" TO 96" SEWERS.

C) T BARS SHALL BE 5/8" DIAM. SPACED AT 12" CENTERS.

D) BARS SHALL BE 5/8" DIAMETER EPOXY COATED REINFORCING STEEL SHALL HAVE 2" CLEARANCE EXCEPT WHERE OTHERWISE SPECIFIED.

E) STANDARD MANHOLE FRAME AS PER A-503 (SHEET 61) AND COVER AS PER A-605 (SHEET 62) OR A-695 (SHEET 63)

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK-DIRECTOR OF PUBLIC SERVICE
STANDARD CONSTRUCTION DRAWING
DETAIL PLAN OF PRECAST CONCRETE MANHOLE
NOT TO SCALE

DRAWN BY: R. PLIODZINSKAS DATE: 8/28/07
SUBMITTED BY: W. MCLAUGHLIN DATE: 8/28/07
APPROVED: DATE: 7-8-08
COMMISSIONER OF ENGINEERING & CONSTRUCTION

FILE NO. MH 1	SHEET 1/1	23

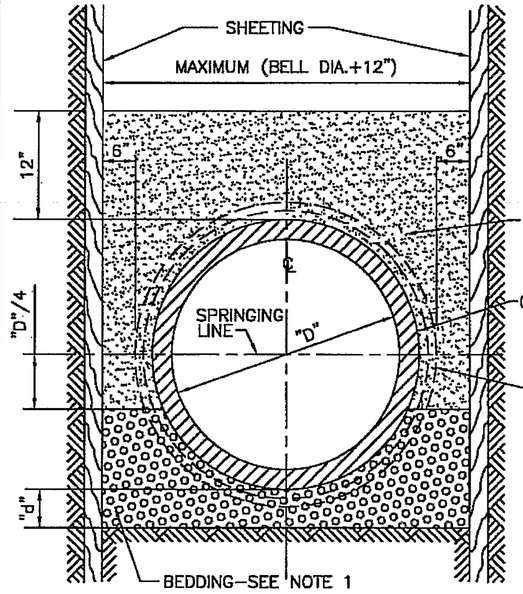
DRAINAGE DETAILS
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

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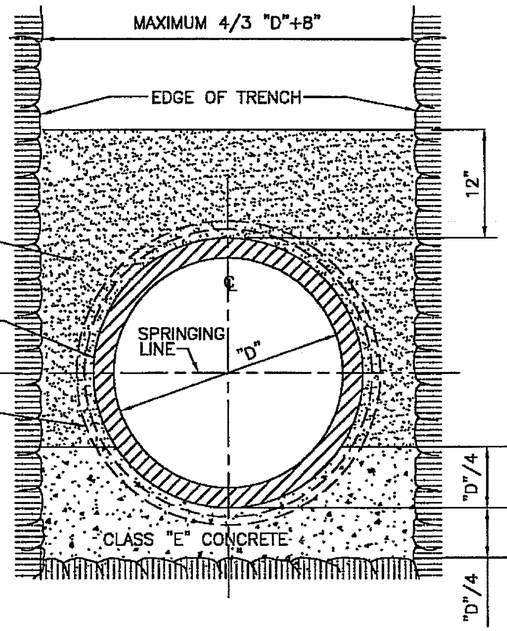
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 12/8/25
PROJECT ID 122389
SHEET P.91 TOTAL 195



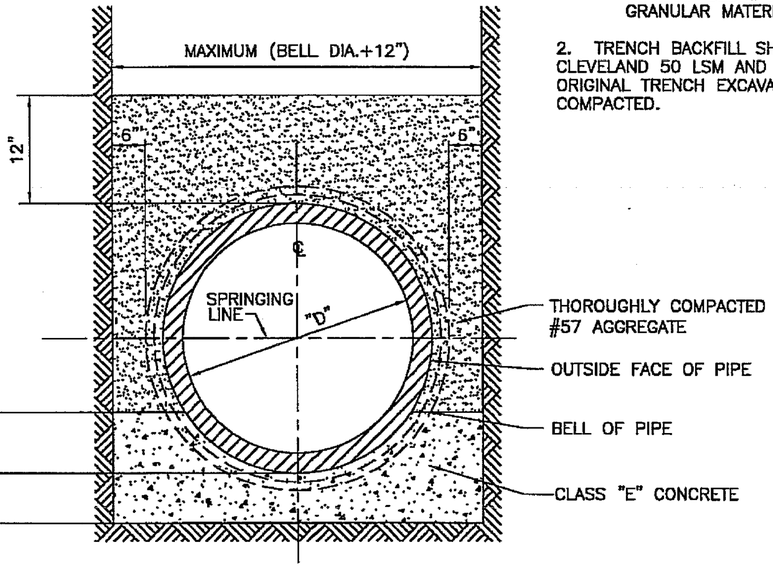
TYPICAL SECTION

PIPE SEWERS IN
ORDINARY EARTH BEDDING



TYPICAL SECTION

PIPE SEWER IN ROCK
AND OR SHALE
WHERE DIRECTED



TYPICAL SECTION

PIPE SEWER IN
CONCRETE CRADLE

NOTES:

1. THE PIPE BEDDING MATERIAL SHALL BE COARSE NATURAL AGGREGATE COMPLYING WITH 703.01 WITH THE FOLLOWING PROVISIONS:

   (A) 4" BEDDING DEPTH "d" OF NO. 57 GRANULAR MATERIAL FOR 8" TO 24" PIPE

   (B) 6" BEDDING DEPTH "d" OF NO. 5 GRANULAR MATERIAL FOR 27" TO 60" PIPE

   (C) 8" BEDDING DEPTH "d" OF NO. 4 GRANULAR MATERIAL FOR PIPE SIZES GREATER THAN 60". THE MINIMUM DEPTH OF THE BEDDING SHALL BE 2" BELOW THE PIPE BELLS, IF ANY, BUT IN NO CASE SHALL THE BEDDING BE LESS THAN 8"

   (D) SERVICE CONNECTIONS SHALL HAVE A 3" MINIMUM BEDDING DEPTH OF NO. 57 GRANULAR MATERIAL.

2. TRENCH BACKFILL SHALL IN PAVED AREAS SHALL BE CLEVELAND 50 LSM AND OUTSIDE OF PAVED AREAS ORIGINAL TRENCH EXCAVATION MAY BE USED, PROPERLY COMPACTED.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK—DIRECTOR OF PUBLIC SERVICE
STANDARD CONSTRUCTION DRAWING
STANDARD TRENCH FOR PIPE SEWERS
NOT TO SCALE

DRAWN BY: R. PLIODZINSKAS DATE: 8/28/07
SUBMITTED BY: W. MCLAUGHLIN DATE: 8/28/07
APPROVED: [signature] DATE: 7-8-08
COMMISSIONER OF ENGEERING & CONSTRUCTION

FILE NO. 146-ME	SHEET 22	22

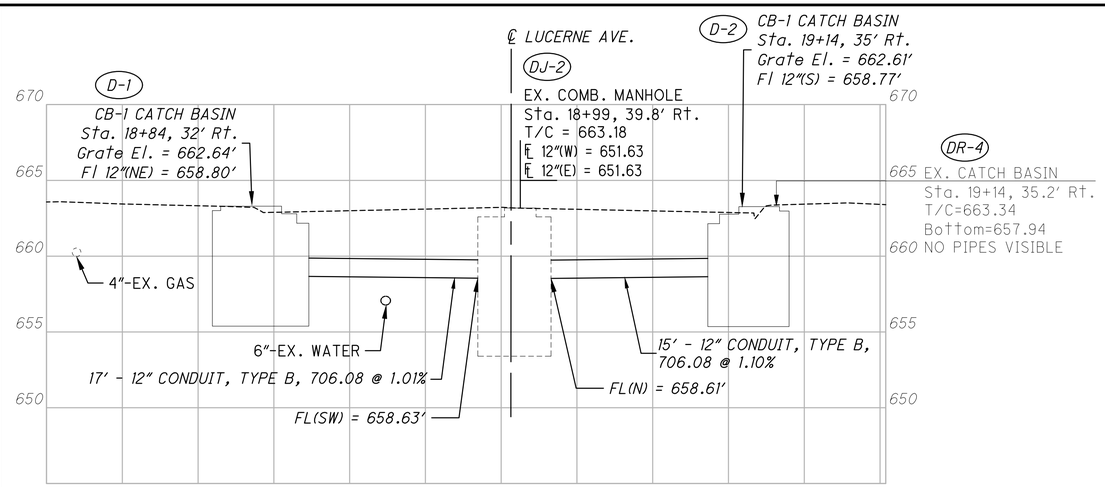
DRAINAGE DETAILS
EAST 66TH STREET

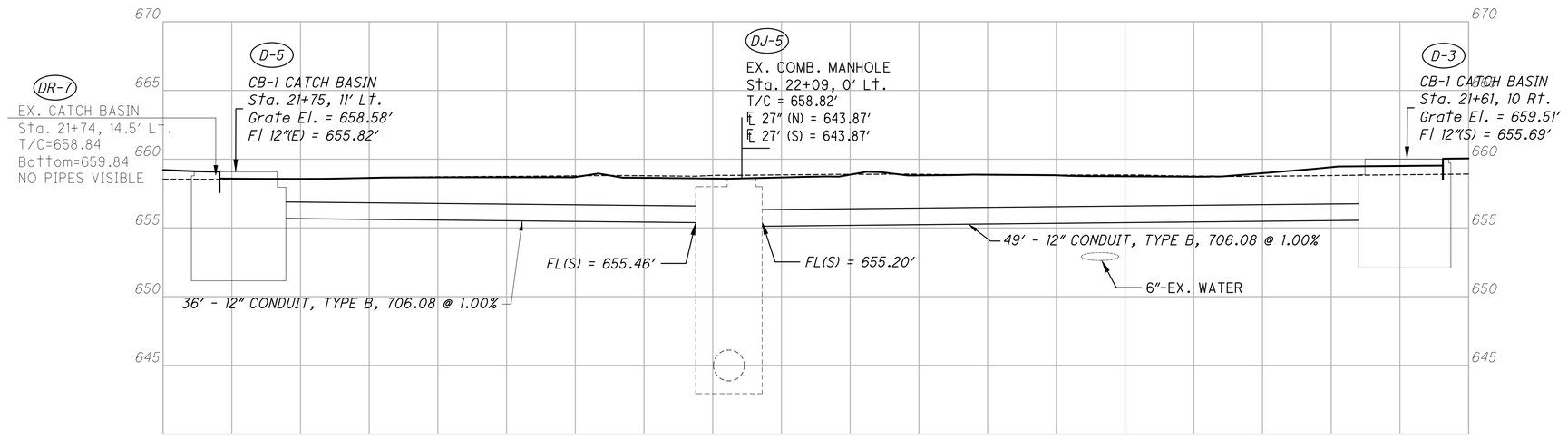
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CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

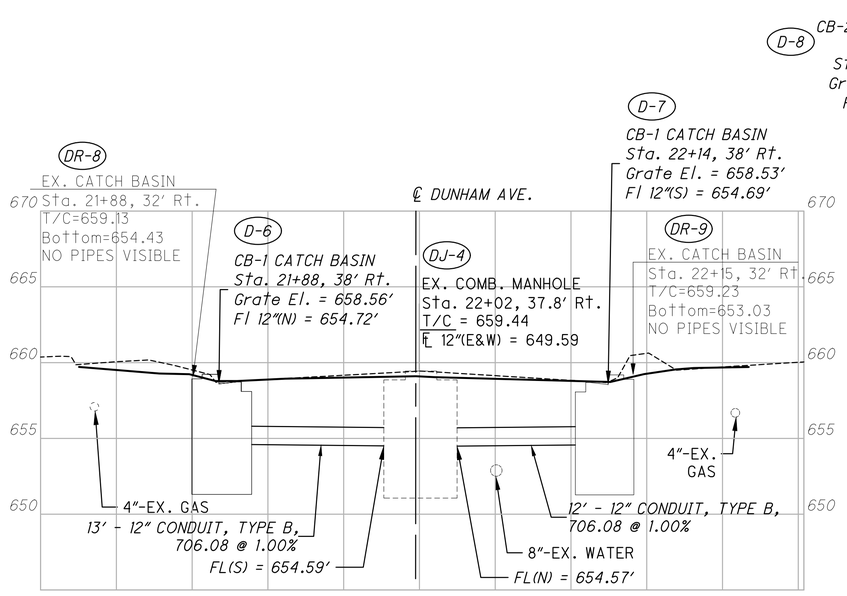
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REVIEWER DRP 12/8/25
PROJECT ID 122389
SHEET P.92 TOTAL 195

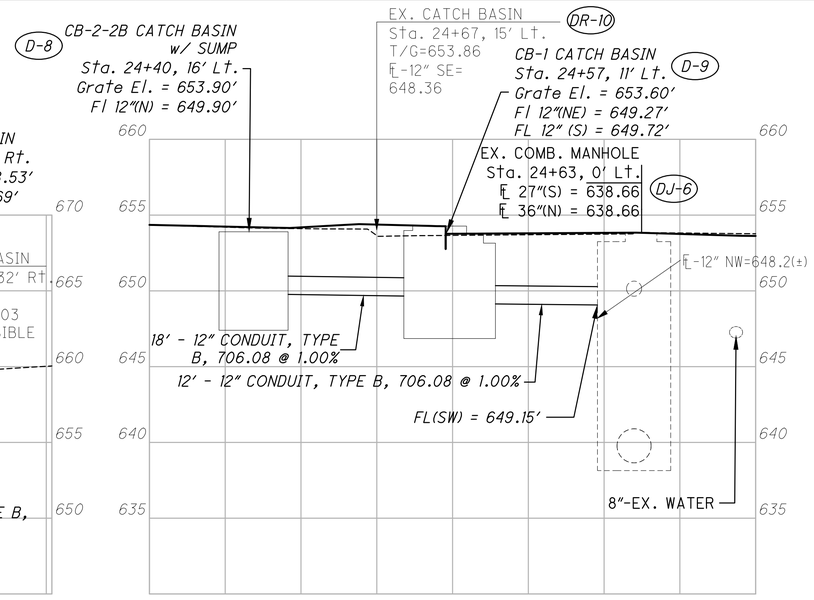
CUY-EAST 66TH STREET TLCI

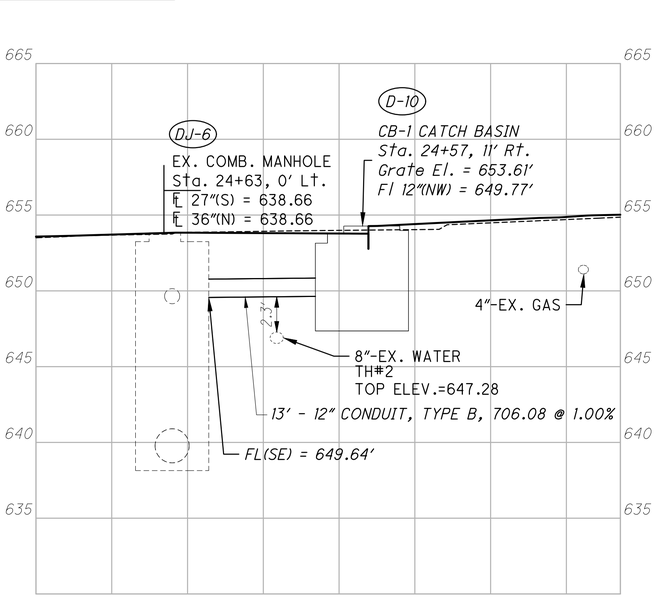
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HORIZONTAL SCALE IN FEET
0 2.5 5 10

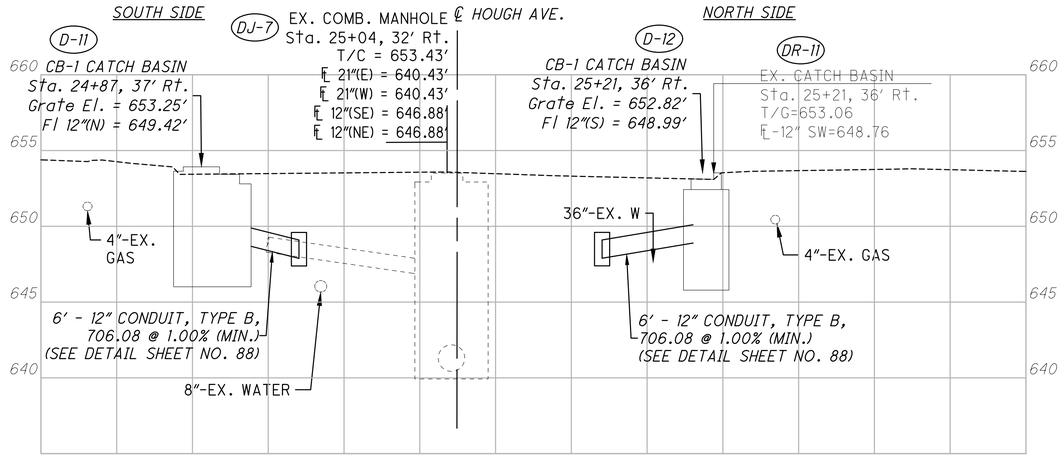
STORM SEWER PROFILES
EAST 66TH STREET

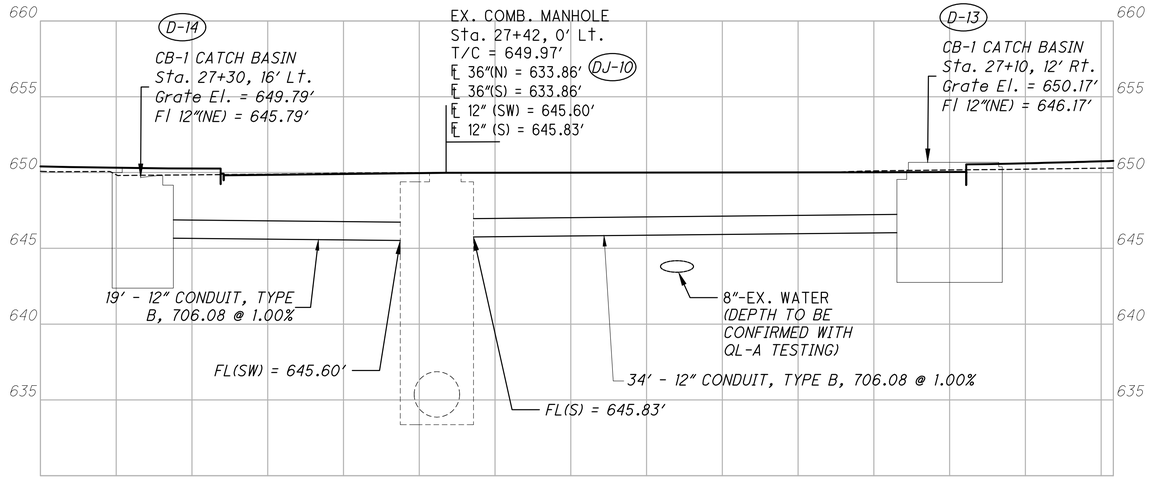
CUY-EAST 66TH STREET TLCI

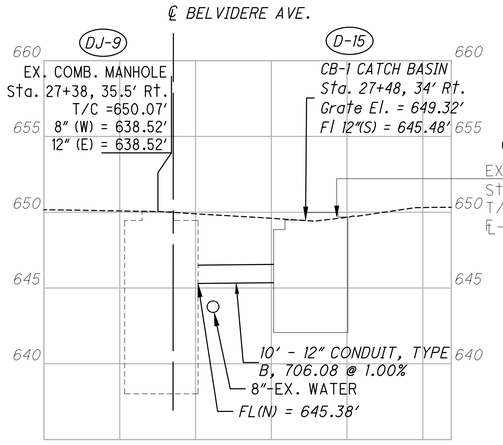
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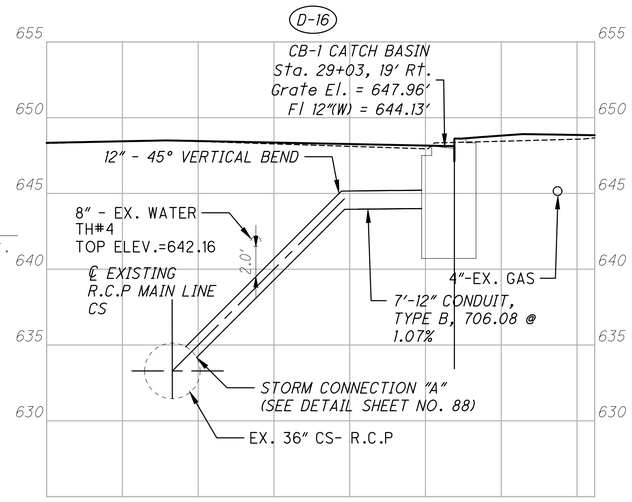
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CLEVELAND, OH 44114
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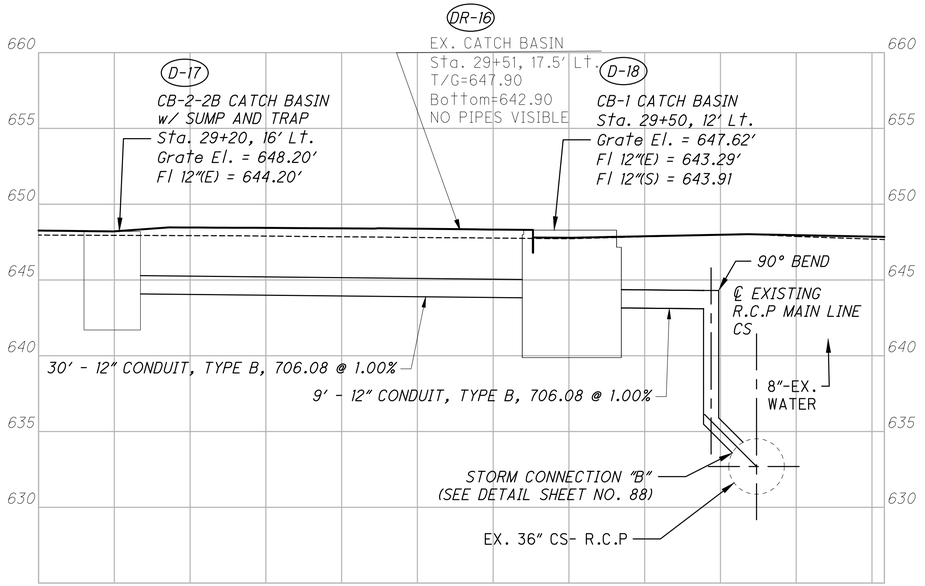
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REVIEWER DRP 12/21/25
PROJECT ID 122389
SHEET P.93 TOTAL 195

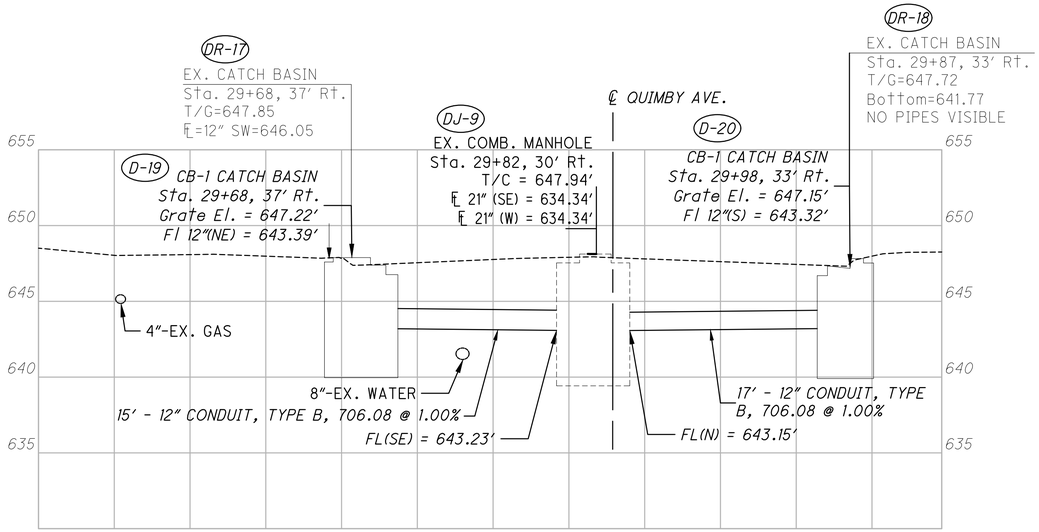


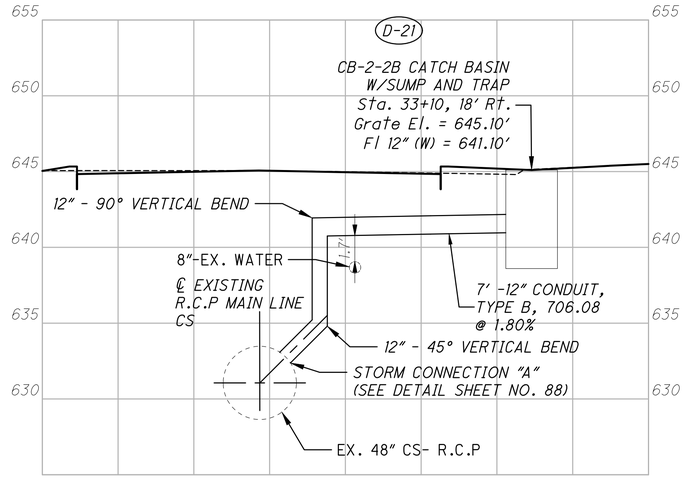












HORIZONTAL SCALE IN FEET
0 2.5 5 10

STORM SEWER PROFILES
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

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DESIGNER	IRK
REVIEWER	DRP 12/21/25
PROJECT ID	122389
SHEET	P.94
TOTAL	195

D-22
CB-2-2B CATCH BASIN
w/ SUMP
Sta. 33+52, 16' Lt.
Grate El. = 644.60'
Fl 12"(N) = 640.60'

D-24
CB-1 CATCH BASIN
Sta. 33+91, 17' Lt.
Grate El. = 643.91'
Fl 12"(E) = 639.65'
Fl 12"(S) = 640.21'

DJ-14
EX. COMB. MANHOLE
Sta. 34+19, 0' Lt.
T/C = 644.13'
℄ 48" (N) = 628.38'
℄ 48" (S) = 628.38'

EX. GAS

39' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

32' - 12" CONDUIT, TYPE B, 706.08 @ 1.02%

FL(SW) = 639.32'

8"-EX. WATER

650 645 640 635 630 625

DJ-14
EX. COMB. MANHOLE
Sta. 34+19, 0' Lt.
T/C = 644.13'
℄ 48" (N) = 628.38'
℄ 48" (S) = 628.38'

D-23
CB-1 CATCH BASIN
Sta. 33+85, 12' Rt.
Grate El. = 644.11'
Fl 12"(W) = 640.28'

2.1'

8"-EX. WATER
TH#5
TOP ELEV.=637.89

36' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

FL(S) = 639.91'

650 645 640 635 630

DR-21
EX. CATCH BASIN
Sta. 34+14, 36' Rt.
T/G=644.39
℄-12" SW=642.59

D-25
CB-1 CATCH BASIN
Sta. 34+14, 36' Rt.
Grate El. = 643.62'
Fl 12"(N) = 640.62'

DJ-15
EX. COMB. MANHOLE
Sta. 34+30, 31' Rt.
T/C = 644.25'
21" (NW) = 629.70'
21" (E) = 629.70'

℄ LEXINGTON AVE.

DR-22
EX. CATCH BASIN
Sta. 34+52, 36' Rt.
T/G=643.53
℄-12" NW=641.58

D-26
CB-1 CATCH BASIN
Sta. 34+52, 37' Rt.
Grate El. = 643.33'
Fl 12"(S) = 640.33'

4"-EX. GAS

8"-EX. WATER

16' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%
FL(S) = 640.46'

FL(N) = 640.10'

EX. GAS

23' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

650 645 640 635

D-27
CB-1 CATCH BASIN
Sta. 36+18, 18' Rt.
Grate El. = 642.50'
Fl 12"(W) = 638.50'

90° BEND

12" - 45° VERTICAL BEND

1.5'

℄ EXISTING
R.C.P MAIN LINE
CS

15' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

8"-EX. WATER
TH#6
TOP ELEV.=636.74

STORM CONNECTION "B"
(SEE DETAIL SHEET NO. 88)

EX. 48" CS- R.C.P

650 645 640 635 630 625

DR-24
EX. CATCH BASIN
Sta. 36+83, 17' Lt.
T/G=642.55
℄-12" E=638.45

D-28
CB-1 CATCH BASIN
Sta. 36+85, 11' Lt.
Grate El. = 642.10
Fl 12"(E) = 638.27

DJ-17
EX. COMB. MANHOLE
Sta. 36+88, 2' Rt.
T/C = 642.46'
℄ 12" (W) = 637.08'
℄ 12" (NW) = 636.98'
℄ 48" (N) = 625.51'
℄ 48" (S) = 625.51'

4"-EX. GAS

6' -12" CONDUIT, TYPE B, 706.08 @ 1.00% (MIN.)
(SEE DETAIL SHEET NO. 88)

8"-EX. WATER

650 645 640 635 630

D-29
CB-1 CATCH BASIN
Sta. 38+46, 18' Rt.
Grate El. = 641.22'
Fl 12"(NW) = 637.39'

12" - 45° VERTICAL BEND

1.5'

℄ EXISTING
R.C.P MAIN LINE
CS

11'- 12" CONDUIT, TYPE B, 706.08 @ 1.11%

8"-EX. WATER
TH#7
TOP ELEV.=634.55

STORM CONNECTION "A"
(SEE DETAIL SHEET NO. 88)

EX. 48" CS - R.C.P

650 645 640 635 630 625

D-30
CB-2 CATCH BASIN
Sta. 38+59, 13' Lt.
Grate El. = 641.30'
Fl 12"(E) = 637.54'

90° BEND

4"-EX. GAS

℄ EXISTING
R.C.P MAIN LINE
CS

4'- 12" CONDUIT, TYPE B, 706.08 @ 1.09%

8"-EX. WATER

STORM CONNECTION "B"
(SEE DETAIL SHEET NO. 88)

EX. 48" CS - R.C.P

650 645 640 635 630 625

NORTH SIDE

DR-30
EX. CATCH BASIN
Sta. 39+25, 35' Rt.
T/G=641.56
℄-12" S=638.81

SOUTH SIDE

℄ LINWOOD AVE.
EX. COMB. MANHOLE
Sta. 39+10, 42' Rt.
T/C = 641.69'
℄ 12" (SW) = 636.29'
℄ 12" (NW) = 635.49'
℄ 12" (S) = 627.04'
℄ 30" (NW) = 625.74'
℄ 30" (E) = 625.74'

D-33
CB-1 CATCH BASIN
Sta. 39+25, 35' Rt.
Grate El. = 641.22'
Fl 12"(SE) = 637.38'

DJ-18

D-31
CB-1 CATCH BASIN
Sta. 38+98, 34' Rt.
Grate El. = 641.33'
Fl 12"(NE) = 637.50'

DR-28
EX. CATCH BASIN
Sta. 38+97, 34' Rt.
T/C=641.99
BOTTOM=638.79
NO PIPES VISIBLE

4"-EX. GAS

16' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

FL(NW) = 637.22'

8"-EX. WATER

15' - 12" CONDUIT, TYPE B, 706.08 @ 1.00%

FL(SW) = 637.35'

650 645 640 635 630

HORIZONTAL SCALE IN FEET
0 2.5 5 10

STORM SEWER PROFILES
EAST 66TH STREET

CUY-EAST 66TH STREET TLCI

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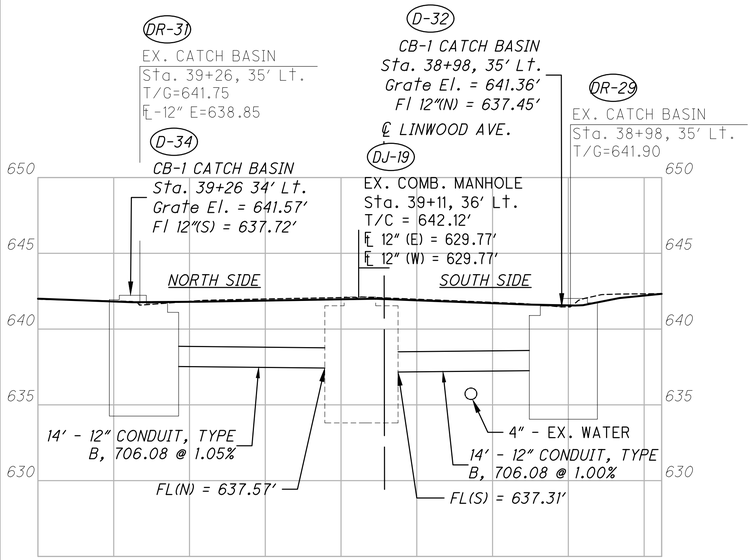
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OSBORN ENGINEERING
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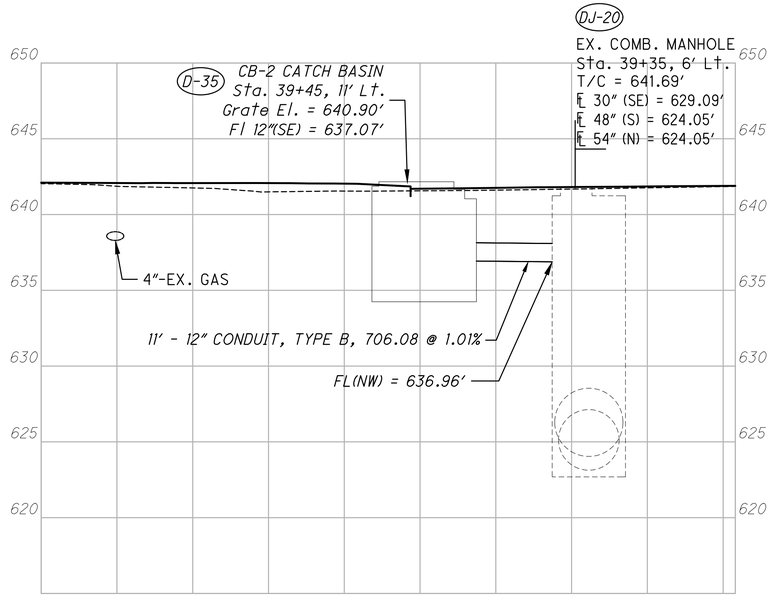
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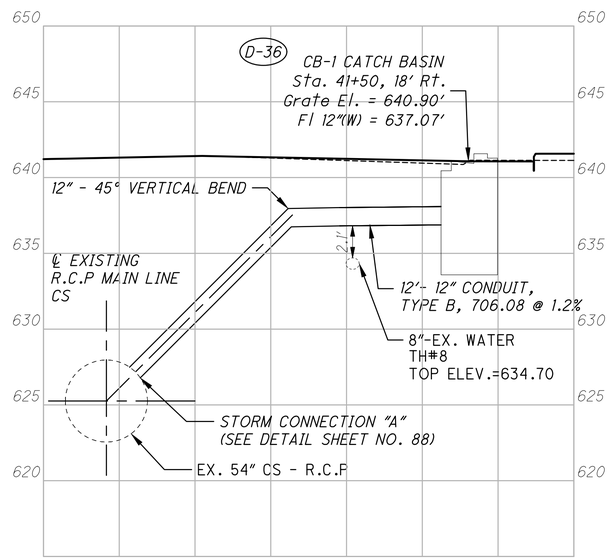
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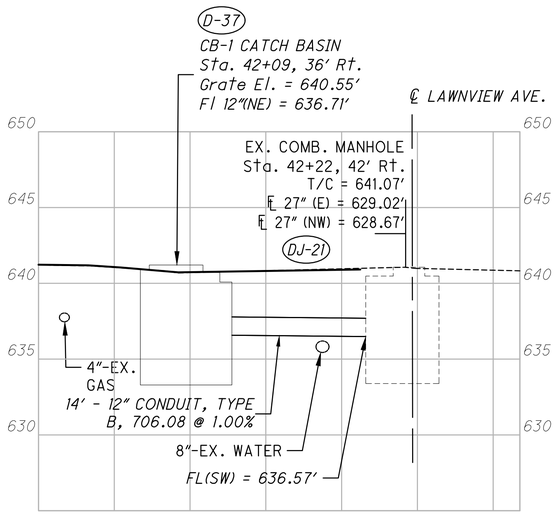
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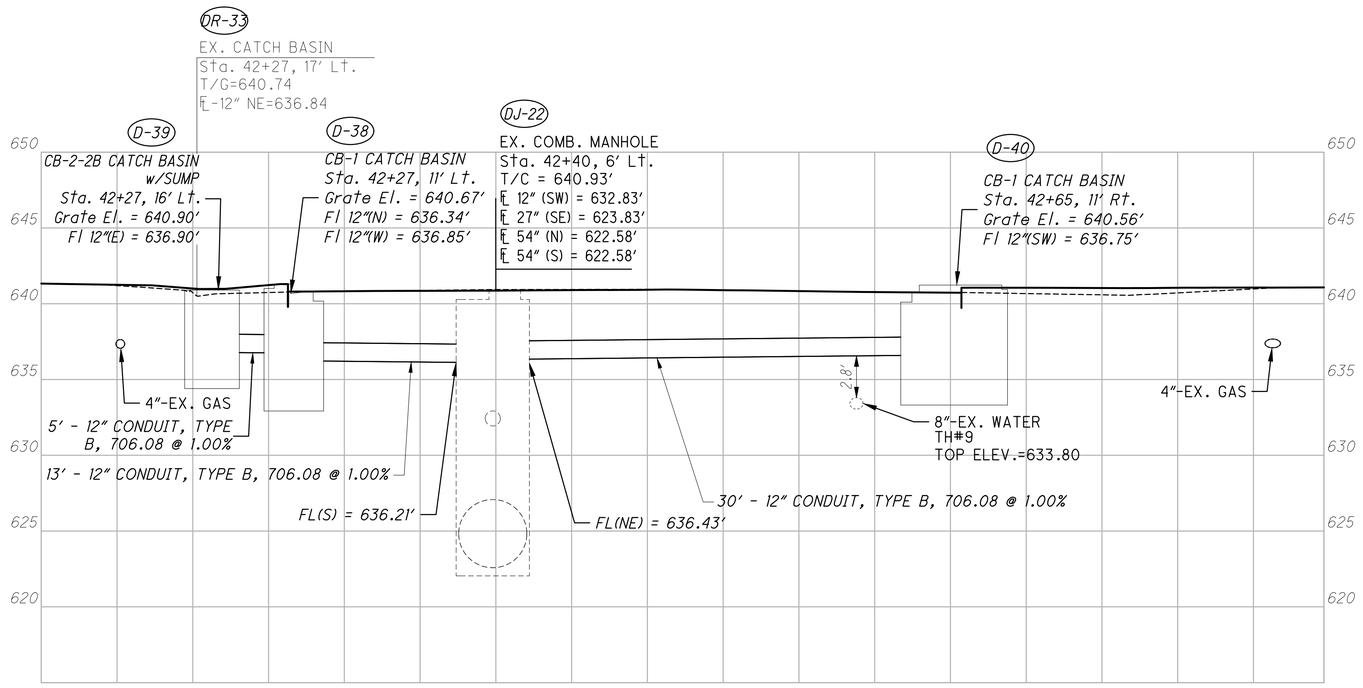
SHEET P.95 TOTAL 195











CUY-EAST 66TH STREET TLCI

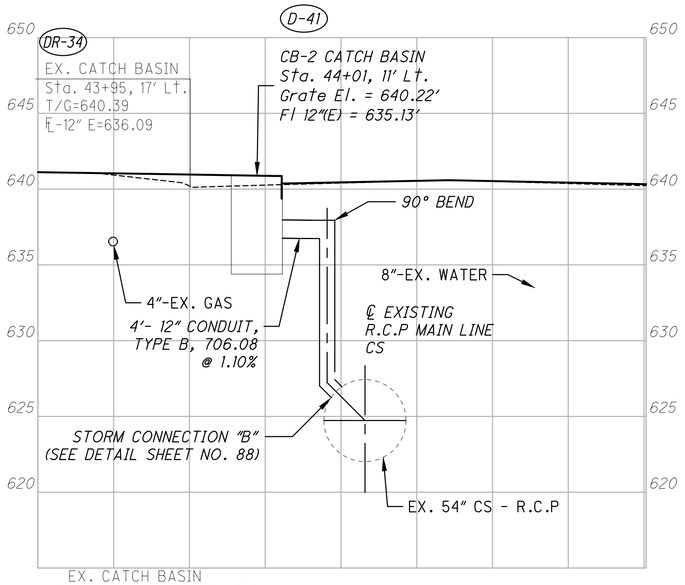
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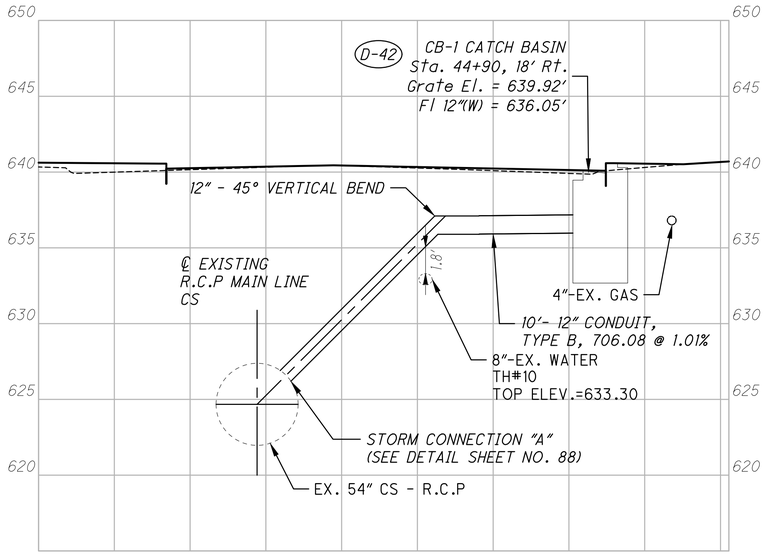
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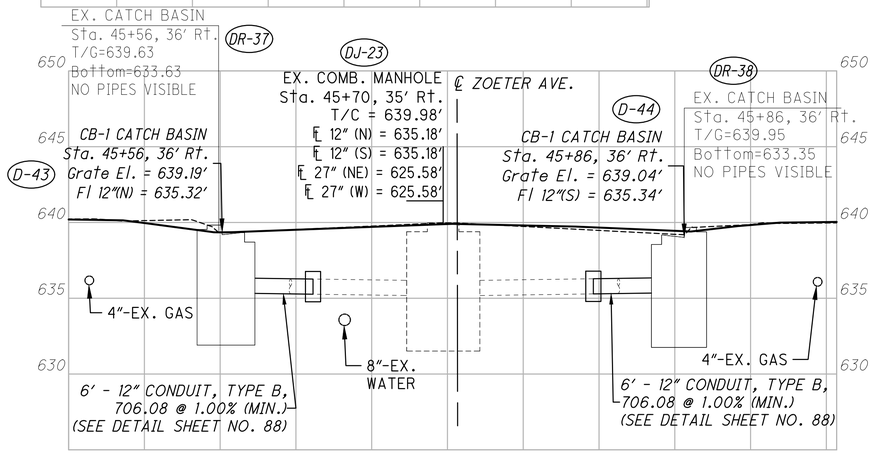
STORM SEWER PROFILES
EAST 66TH STREET

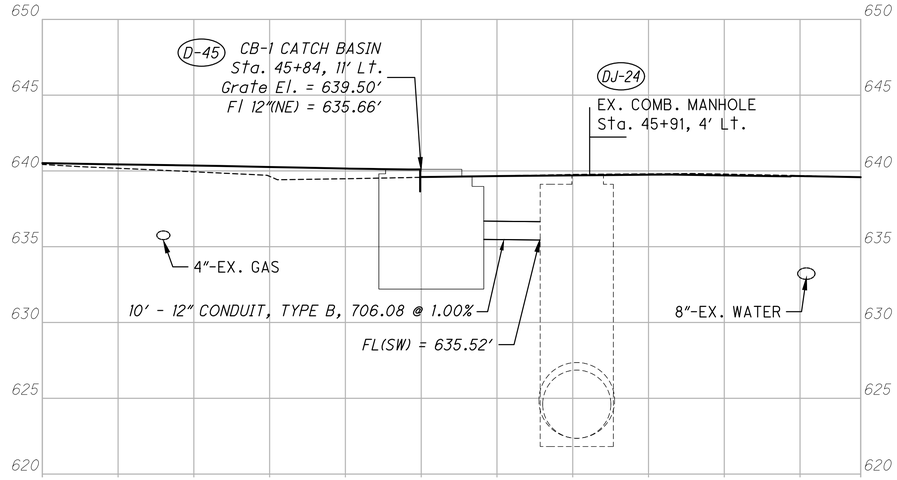
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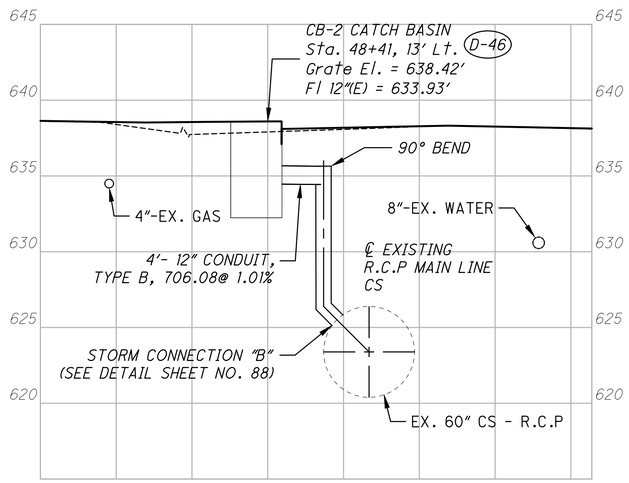
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REVIEWER DRP 12/21/25
PROJECT ID 122389
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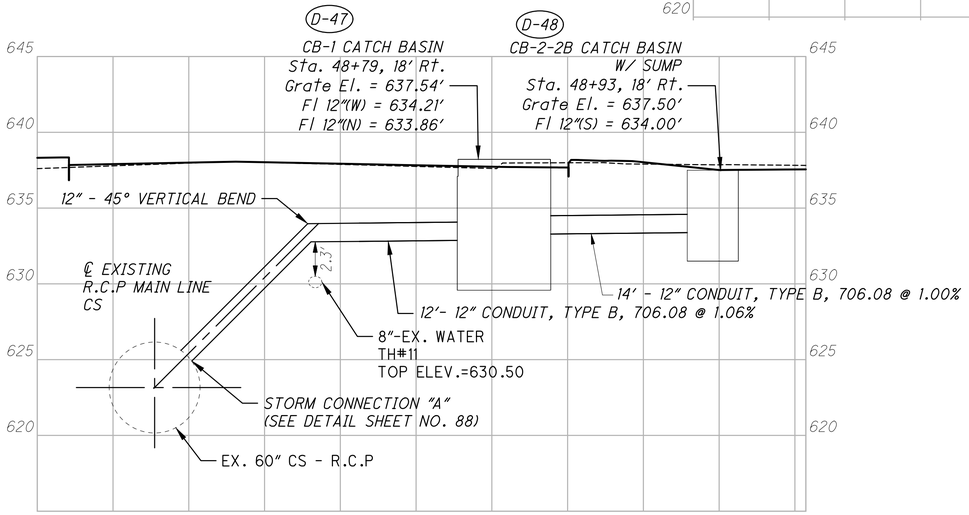












CUY-EAST 66TH STREET TLCI

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HORIZONTAL SCALE IN FEET
0 2.5 5 10

STORM SEWER PROFILES
EAST 66TH STREET

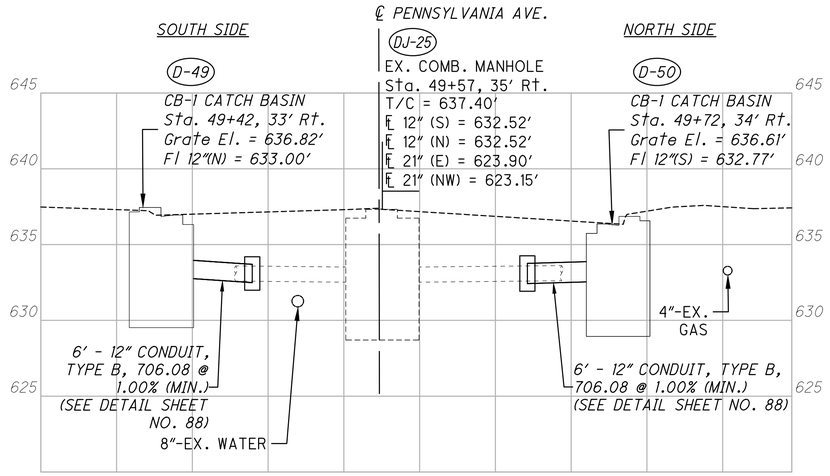
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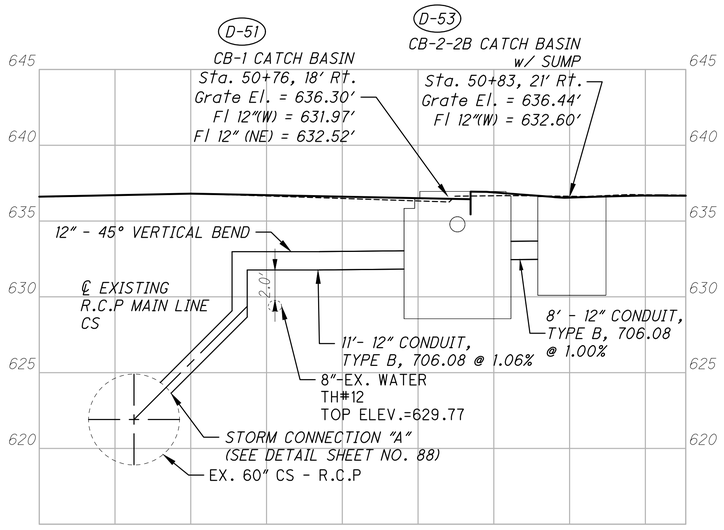
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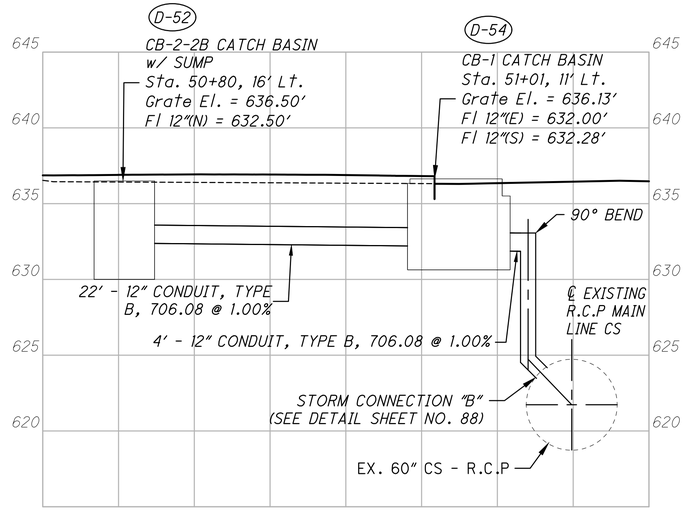
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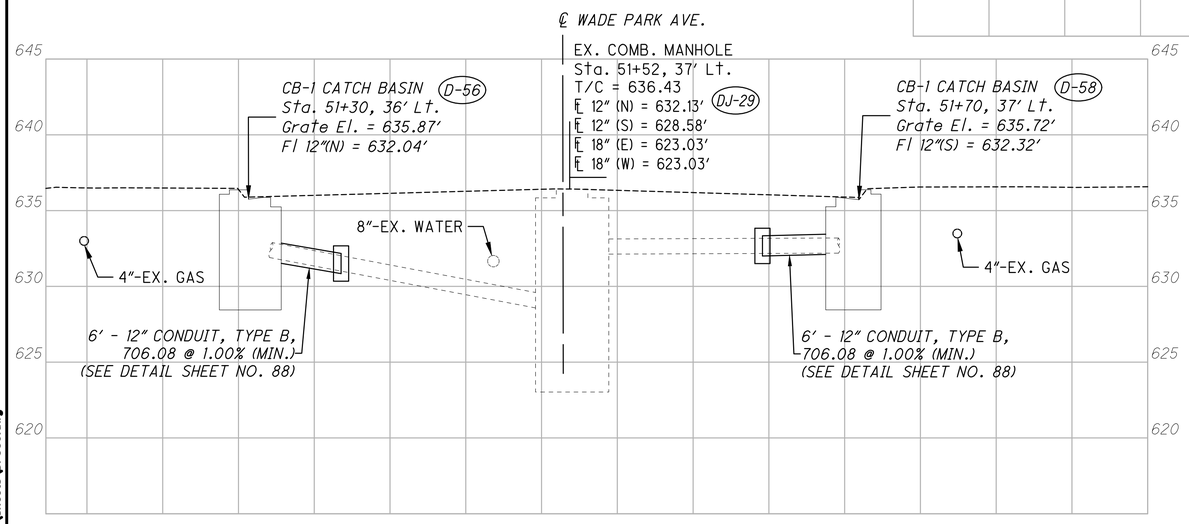
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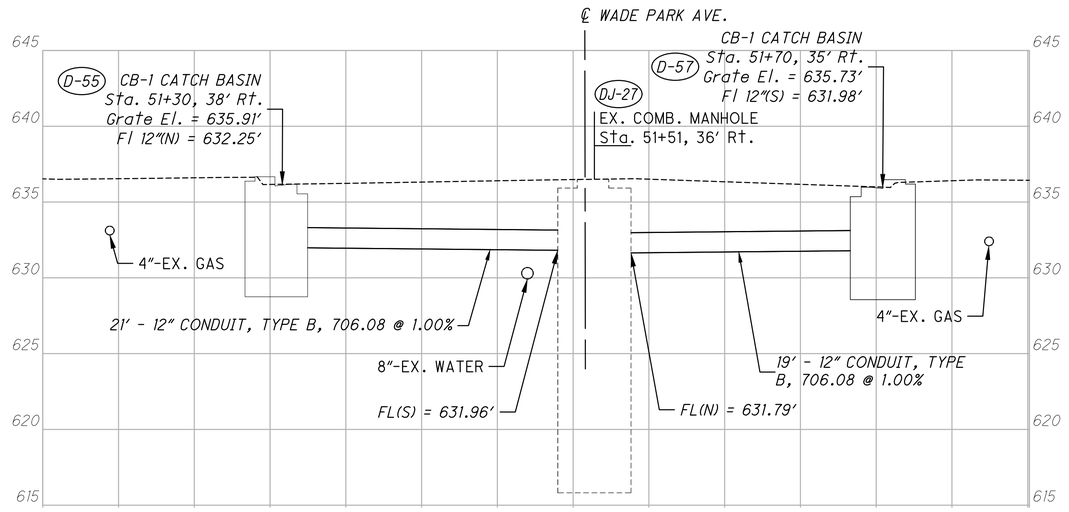
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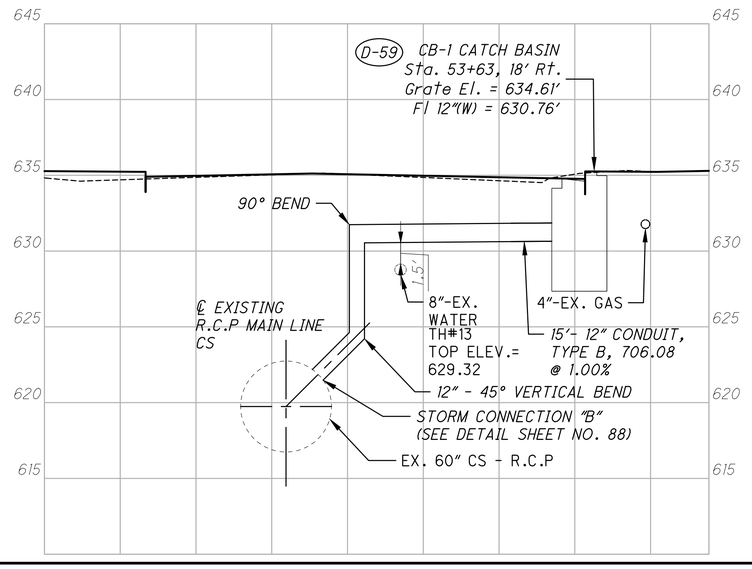


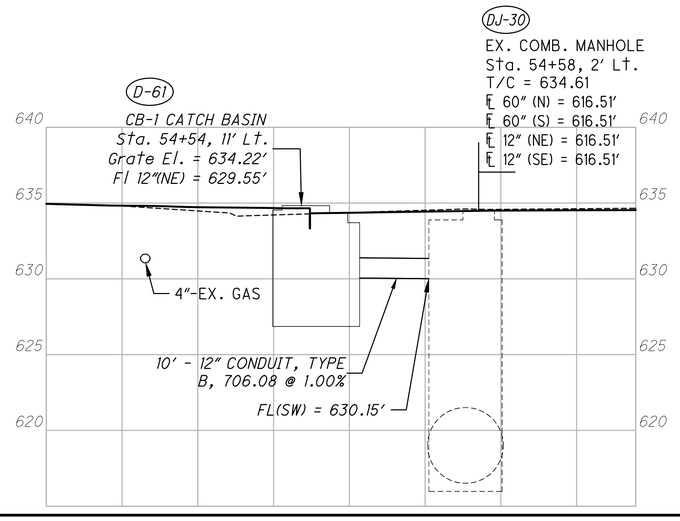


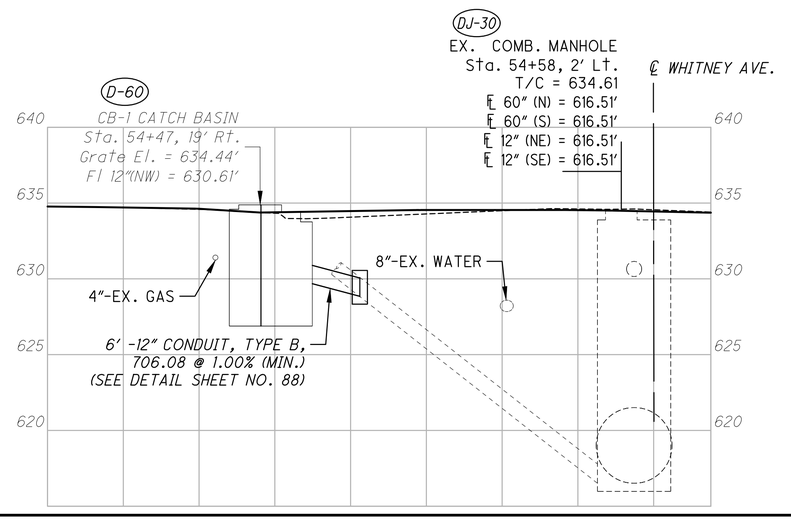












HORIZONTAL SCALE IN FEET
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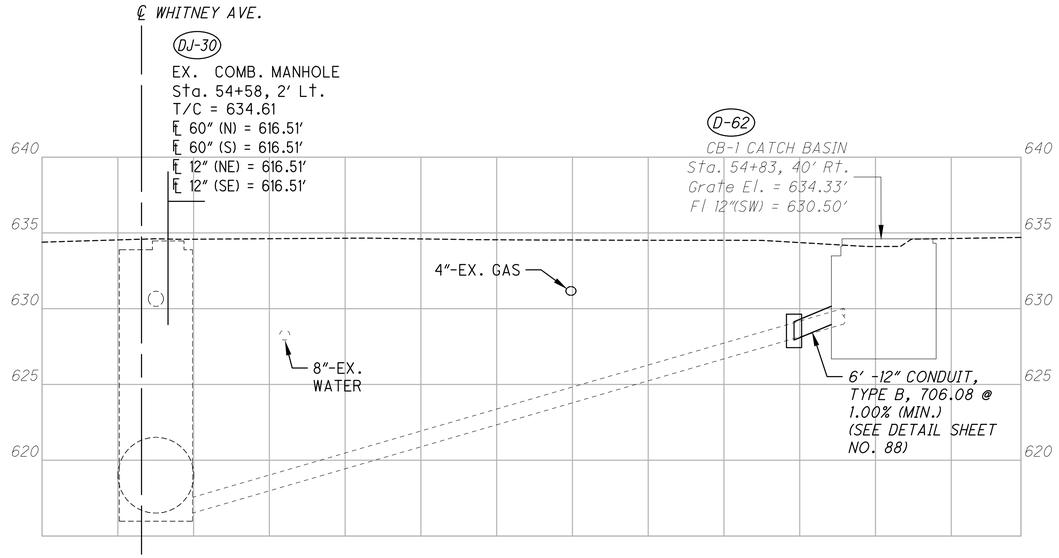
STORM SEWER PROFILES
EAST 66TH STREET

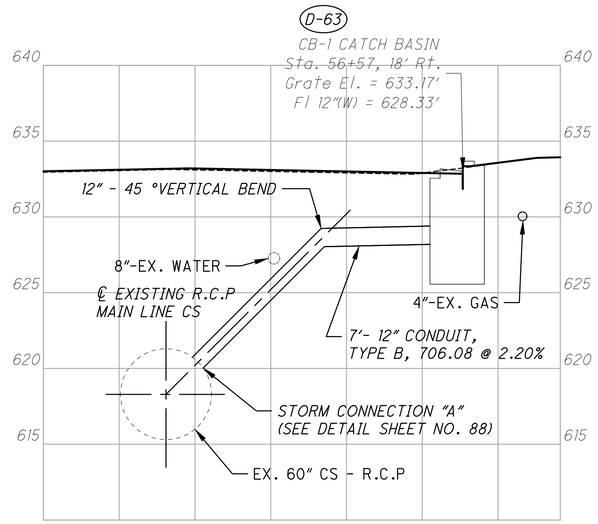
CUY-EAST 66TH STREET TLCI

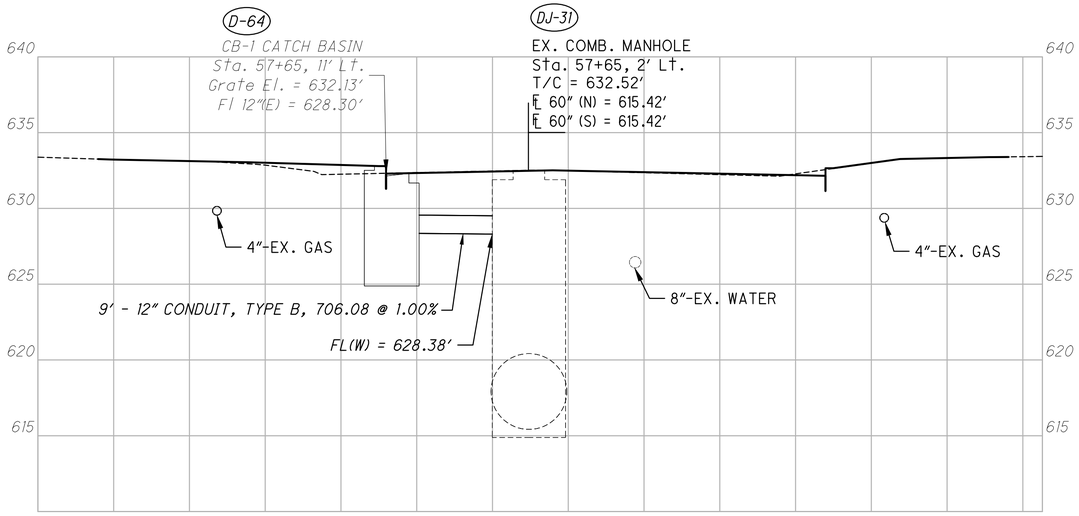
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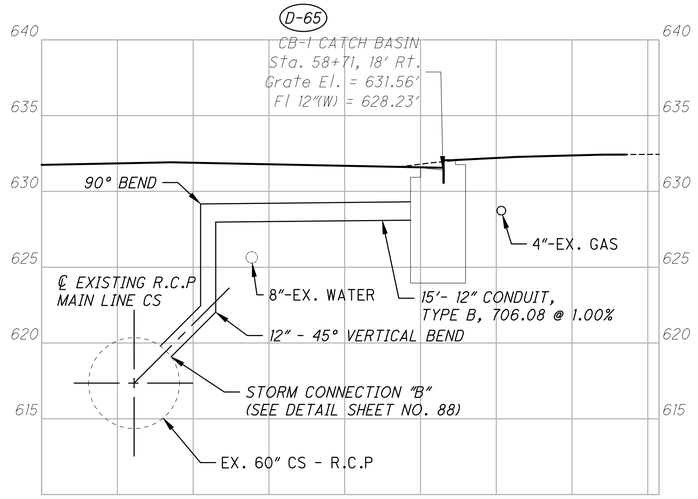
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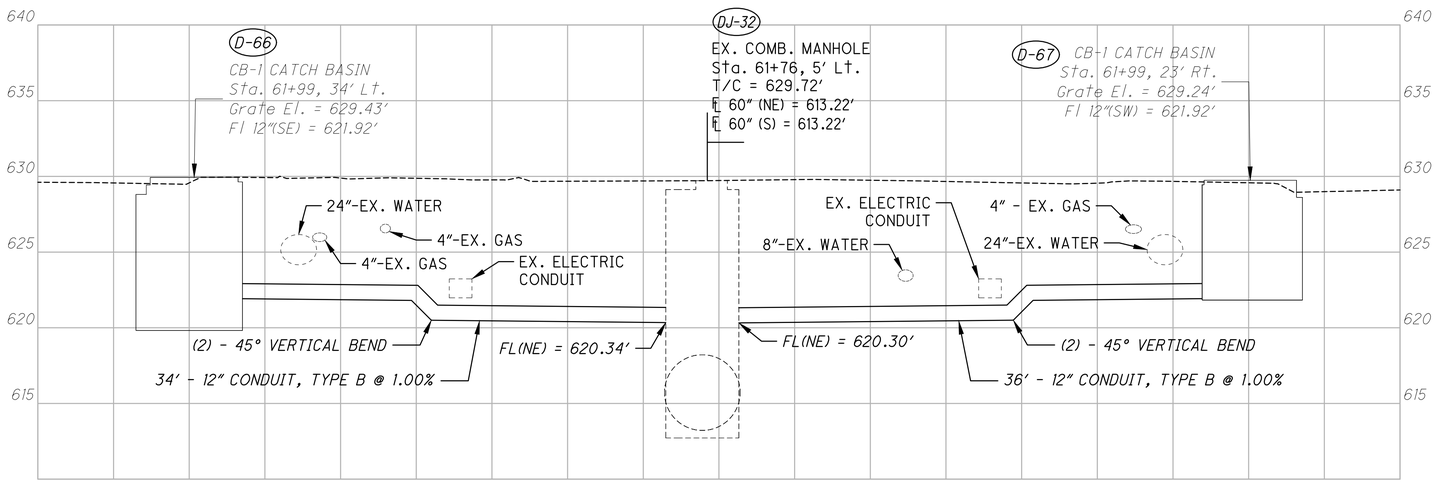
DESIGNER	IRK
REVIEWER	DRP 12/21/25
PROJECT ID	122389
SHEET	P.98
TOTAL	195











CUY-EAST 66TH STREET TLCI

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HORIZONTAL SCALE IN FEET
0 2.5 5 10

STORM SEWER PROFILES EAST 66TH STREET

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DESIGNER IRK
REVIEWER DRP 12/11/25
PROJECT ID 122389
SHEET P.99 TOTAL 195

MATERIAL CRITERIA FOR WATER MAIN INSTALLATION AND REPLACEMENT (7/12/24)

REFERENCE STANDARDS

1. ASTM A276- STAINLESS STEEL BARS AND SHAPES
2. ASTM A193/A194- ALLOY-STEEL AND STAINLESS-STEEL BOLTING FOR HIGH TEMPERATURE OR HIGH-PRESSURE SERVICE AND OTHER SPECIAL PURPOSE APPLICATIONS
3. ASTM A536- DUCTILE IRON CASTINGS
4. ASTM A1097- STEEL CASING PIPE, CARBON, ELECTRIC-FUSION (ARC)-WELDED (NPS 10 AND LARGER)
5. ASTM D2774- STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING
6. ASTM F1668- STANDARD GUIDE FOR CONSTRUCTION PROCEDURES FOR BURIED PLASTIC
7. ANSI/AWWA C111- RUBBER-GASKET JOINTS FOR DUCTILE IRON PRESSURE PIPE AND FITTINGS
8. ANSI/AWWA C151-DUCTILE-IRON PIPE, CENTRIFUGALLY CAST
9. ANSI/AWWA C153- DUCTILE IRON COMPACT FITTINGS
10. ANSI/AWWA C110- DUCTILE IRON FLANGED FITTINGS
11. AWWA C219- BOLTED SLEEVE-TYPE COUPLINGS FOR PLAIN-END PIPE
12. AWWA C509- RESILIENT-SEATED GATE VALVES FOR WATER SUPPLY SERVICE
13. AWWA C515- REDUCED-WALL, RESILIENT-SEATED GATE VALVES FOR WATER SUPPLY SERVICE
14. AWWA C900- POLYVINYL CHLORIDE PVC PRESSURE PIPE AND FABRICATED FITTINGS
15. 1AWWA C909- MOLECULARLY ORIENTED POLYVINYL CHLORIDE
16. ODOT 499- CONCRETE

DUCTILE IRON PIPE

1. ALL PIPE SHALL BE AWWA C151 DUCTILE IRON, MINIMUM CLASS 52, WITH A CEMENT MORTAR LINING, HAVING PUSH-ON JOINTS WITH RADIALLY COMPRESSED RUBBER RING GASKET. MAINS 36" AND LARGER SHALL BE MINIMUM PRESSURE CLASS 350.

PVC PIPE

1. AWWA C900 CLASS 235 PSI (DR18) OR AWWA C909 CLASS 235 PSI (DR18).
2. INSIDE DIAMETER: NO LARGER THAN 12", NO SMALLER THAN 4".

GATE VALVES

1. AWWA C509 OR C515 APPROVED MODEL RESILIENT SEATED GATE VALVES.
2. VALVE OPERATING NUTS: TAPERED (1 7/8" TO 2" FROM TOP TO BOTTOM) AND 2" DEEP.
3. MIDDLE RING AND FOLLOWER GLANDS TO BE DUCTILE IRON ASTM A536.

AIR RELIEF VALVES

1. AIR RELIEF VALVE COMPONENT PARTS SHALL CONFORM TO AWWA C800 AND ASTM B584 FOR MATERIALS THAT COME INTO CONTACT WITH POTABLE WATER.
2. VALVE INLET AND OUTLET SIZE SHALL BE 2". INSTALL ONLY CLEVELAND WATER-APPROVED AIR RELIEF VALVE PRODUCTS.

HYDRANTS

1. INSTALL ONLY CLEVELAND WATER-APPROVED HYDRANT MODELS.
2. HYDRANTS SHALL BE FACTORY EQUIPPED WITH THE APPROPRIATE HYDRANT NOZZLE, INCLUDING STORZ IF REQUESTED BY THE LOCAL MUNICIPALITY.
3. INSTALL ALL HYDRANTS WITH APPROVED PVC PIPE (ITEM 2) AND AWWA C509 6" RW GATE VALVES .
4. HYDRANT CONNECTIONS ARE TO BE MADE WITH RETAINED MECHANICAL JOINT SOLID SLEEVES (SHORT OR LONG PATTERN) DUCTILE IRON CLASS 350 OR CAST IRON CLASS 250 OR COMPRESSION COUPLINGS WITH ROD AND CLAMPS AS DIRECTED BY CLEVELAND WATER.
5. HYDRANT BRANCHES TO BE FULLY RESTRAINED. IF BRANCH IS SHORTENED, USE ONLY 1 SLEEVE OR COUPLING WITH NO NEW PIPE REQUIRED.
6. MIDDLE RING AND FOLLOWER GLANDS TO BE EITHER STEEL OR DUCTILE IRON ASTM A536.
7. FLUSHING HYDRANTS SHALL CONSIST OF 2" FIP. VERTICAL INLET, 2" MIP OUTLET AND BE SELF-DRAINING. FLUSHING HYDRANT SHALL BE FULLY OPERABLE AND SERVICEABLE FROM ABOVE GROUND. EQUAL TO KUPERFERLE TRUFLO MODEL NO. TF500.

COMPRESSION COUPLINGS - VALVES AND HYDRANTS

1. CLASS 250 AWWA C219 GASKETED, SLEEVE TYPE WITH DIAMETERS TO PROPERLY FIT PLAIN END PIPE
2. MINIMUM WORKING PRESSURE: 250 PSI
3. EQUAL TO DRESSER STYLE NO. 38, 138, OR 162 (TRANSITION TYPE) OR ROMAC 501/ SMITH-BLAIR 441 STRAIGHT AND TRANSITION COUPLINGS.
4. EACH COUPLING TO CONSIST OF 1 DUCTILE IRON MIDDLE RING WITHOUT STOPS (ASTM-A536), 2 DUCTILE IRON FOLLOWER GLANDS (ASTM A536), 2 RUBBER COMPOUND BUNA-N BLEND, WEDGE SECTION GASKETS, AND SUFFICIENT TRACKHEAD STAINLESS STEEL BOLTS AND NUTS OF ASTM A276/A193/194 TYPE 304 EXTRA HEAVY HEX TO PROPERLY COMPRESS THE GASKETS.

FITTINGS/JOINTS

1. ALL FITTINGS/JOINTS TO BE APPROVED DUCTILE IRON, CLASS 350, CEMENT LINED, OR FUSION BONDED EPOXY COATED (UNLESS OTHERWISE CALLED FOR ON PLANS).
2. ALL FITTINGS TO BE RESTRAINED USING A "RETAINED" MECHANICAL JOINT CONFORMING TO THE MATERIAL AND PERFORMANCE REQUIREMENTS OF ANSI/AWWA C110/A21.10 AND ANSI/AWWA C111/A21.11, OR "COMPACT" FITTINGS IN ACCORDANCE WITH ANSI/AWWA C153/A21.53.
3. MUST HAVE APPROVED "TYPE I" OR "TYPE II" BOLTLESS RESTRAINED PUSH-ON JOINTS TO THE LIMITS SHOWN ON THE DRAWINGS.
4. ALL FITTINGS ARE TO HAVE BELL ENDS.

GASKETS AND LUBRICANTS

1. ELASTOMERIC GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477 FOR HIGH-HEAD APPLICATIONS.
2. GASKETS AND LUBRICANTS INTENDED FOR USE WITH POTABLE WATER SHALL BE CERTIFIED BY AN ACCREDITED TESTING AGENCY FOR COMPLIANCE WITH NSF/ANSI 61.

ANODE PROTECTION

1. MAGNESIUM ALLOY ANODES SHALL MEET ASTM B843 AND ASTM G97.
2. THERMITE WELDS ARE TO BE COATED WITH A PREFABRICATED ONE-PIECE PLASTIC CAP.
3. COPPER SLEEVES ARE REQUIRED FOR THERMITE WELD WIRE CONNECTIONS USING #10 AWG WIRE OR SMALLER.

WATER MAIN TRENCH

1. BEDDING, INITIAL, AND PREMIUM BACKFILL MATERIAL: # 57 OR #67 COARSE LIMESTONE AGGREGATE COMPLYING WITH ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 703.11; WRITTEN APPROVAL REQUIRED BY CWD FOR SAND BEDDING FOR DUCTILE IRON PIPE.
2. SUITABLE BACKFILL: EXCAVATED MATERIAL FREE OF ROCK LARGER THAN 1.5", FROZEN MATERIALS, ORGANIC MATERIAL, AND DEBRIS.
3. TYPE 2 CONTROLLED LOW-STRENGTH MORTAR (CLSM) SHALL CONFORM TO ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 613.03. CLSM MAY BE USED AS DIRECTED BY CLEVELAND WATER.

CASING

1. CASING SPACER: 8" WIDE STAINLESS STEEL WITH EPDM LINER AND REINFORCED PLASTIC RUNNERS.
2. CASING PIPE: ASTM A1097 COATED OR UNCOATED STEEL WITH A MIN. 35,000 PSI SMYS.
3. FOR 8" WATER MAIN USE 16" CASING.
4. FOR 12" WATER MAIN USE 20" CASING.

TRACER WIRE

1. MUST BE INSTALLED WITH A CONTINUOUS RUN OF 12-GAUGE COPPER-CLAD STEEL WIRE.
2. BREAKING LOAD: MIN. 450 POUNDS.
3. MIN. 30 MILS OF BLUE HDPE INSULATION CERTIFIED FOR DIRECT BURIAL.
4. GROUND ROD: MIN 1.5 LB MAGNESIUM DRIVE-IN ANODE ROD WITH CONNECTED GROUND WIRE.
5. CONNECTORS: WATERPROOF, CONTAIN DIELECTRIC SILICONE AND RATED FOR DIRECT BURIAL.
6. NON-LOCKING FRICTION FIT, TWIST-ON, AND TAPED CONNECTIONS ARE NOT PERMITTED.

SERVICE CONNECTIONS

1. ALL SERVICE CONNECTIONS SHALL BE A MINIMUM OF 1".
2. FOR CONNECTIONS 2" AND SMALLER: USE TYPE K COPPER.
3. FOR CONNECTIONS 3" AND LARGER: USE CLASS 52 DUCTILE IRON WRAPPED IN V-BIO ENHANCED POLYETHYLENE ENCASEMENT.

BOLTS AND NUTS

1. ALL BOLTS AND NUTS ON ALL RETAINED MECHANICAL JOINTS SHALL HAVE FIELD APPLIED ONE 1 COAT OF BITUMASTIC PAINTING FOLLOWED BY AN ENCASEMENT OF V-BIO POLYETHYLENE WRAP OR APPROVED EQUAL WRAPPING IN ACCORDANCE WITH ANSI/AWWA C105/A21.5 MODIFIED METHOD "A" .

CONCRETE

1. FOR BULKHEAD: CLASS QC 1 OR 4,000 PSI HIGH STRENGTH BAGGED CONCRETE MIX.
2. FOR THRUST BLOCK: CLASS QC 1 WITH 4,000 PSI 28 DAY COMPRESSIVE STRENGTH (ODOT 499).

FROST PROOFING

1. USE PRE-FORMED CELLULAR CONCRETE FOAM "GILSULATE 500 XR" AS MANUFACTURED BY GILSULATE INTERNATIONAL, INC. OR APPROVED EQUAL.

LOWERING

1. PIPE USED SHALL BE 8" (MIN.) AND 12" (MAX.) IN DIAMETER.
2. MAXIMUM BEND ALLOWED TO BE 22.5 DEGREES.

TEE

1. PIPE TO BE USED ON TEE: 8" (MIN.) AND 12" (MAX).
2. AWWA C110 OR C153 DI CLASS 350 MJ FITTINGS WITH FBE COATING, CEMENT LINING, POLYETHYLENE ENCASEMENT
3. AWWA C219 PIPE COUPLINGS- ROMAC 501 OR SMITH BLAIR 441 DI ONLY.
4. AWWA C509 DUCTILE IRON RESILIENT WEDGE GATE VALVE (MJ X MJ).
5. MECHANICAL JOINT RETAINER GLAND FOR PVC PIPE-TYLER UNION OR APPROVED EQUAL.

CUY-EAST 66TH STREET TLCI

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WATER WORK GENERAL NOTES

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	IRK
REVIEWER	DRP 10/1/25
PROJECT ID	122389
SHEET	P.100
TOTAL	195

GUIDELINES FOR WATER MAIN INSTALLATION AND REPLACEMENT (5/31/24)

REFERENCE STANDARDS

1. AWWA C600 - INSTALLATION OF DUCTILE-IRON MAINS AND THEIR APPURTENANCES.
2. AWWA C605- UNDERGROUND INSTALLATION OF POLYVINYL CHLORIDE PRESSURE PIPE AND FITTINGS.
3. AWWA C651- DISINFECTING WATER MAINS.
4. ASTM D2774- STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING.
5. ASTM F1668- STANDARD GUIDE FOR CONSTRUCTION PROCEDURES FOR BURIED PLASTIC PIPE.

OVERALL PIPE PREPARATION AND EXECUTION

1. ALL DUCTILE IRON PIPE SHALL BE INSTALLED PER THE MOST CURRENT REVISION OF AWWA C600, AWWA MANUAL M41, DIPRA'S "INSTALLATION GUIDE FOR DUCTILE IRON PIPE" (ISBN 0-9642194-0-9) AND "DIRECT TAPPING OF DUCTILE IRON PIPING ENCASED IN POLYETHYLENE", AS WELLAS THE MANUFACTURER'S INSTRUCTIONS.
2. ALL DUCTILE IRON BURIED WATER MAINS, FITTINGS, VALVES, FIRE HYDRANT BRANCH PIPING AND APPURTENANCES SHALL BE ENCASED WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT INSTALLED IN ACCORDANCE WITH THE MOST CURRENT REVISION OF ANSI/AWWA C-105/A21.5 MODIFIED METHOD "A" AND ASTM A674.
3. PIPE AND ACCESSORIES SHOULD BE INSPECTED FOR DEFECTS AND CLEANLINESS BEFORE THEY ARE LOWERED INTO THE TRENCH. ANY DEFECTIVE OR DAMAGED MATERIAL SHOULD BE REPAIRED OR REPLACED, AND ALL FOREIGN MATTER OR DIRT REMOVED FROM THE INTERIOR OF THE PIPE AND ACCESSORIES BEFORE LOWERING INTO TRENCH.
4. ALL PVC PIPE SHALL BE INSTALLED PER AWWA, C605, ASTM D2774, ASTM F1668, AND MANUFACTURER'S INSTRUCTIONS.
5. ONCE DELIVERED, ALL PVC PIPE MUST BE PROTECTED FROM DIRECT SUN EXPOSURE UNTIL THE PIPE IS INSTALLED AND BACKFILLED.
6. ANY PIPE JOINT THAT HAS BEEN OVER-INSERTED SHALL HAVE BOTH THE BELL PIPE AND THE SPIGOT PIPE REMOVED AND DISCARDED.
7. IN NO CASE SHALL MAINS BE LAID WITH LESS THAN 3'-6" OF COVER IN UNPAVED AREAS AND 3'-0" TO BOTTOM OF SLAB IN PAVED AREAS. MAINS SHALL BE LAID AT A BURY DEPTH OF 6 FT MIN. UNLESS WRITTEN PERMISSION IS PROVIDED BY CLEVELAND WATER.
8. ALL MATERIALS, INCLUDING BUT NOT LIMITED TO WATER MAINS, FIRE HYDRANTS, VALVES, CONNECTION MATERIALS AND OTHER WATER APPURTENANCES, SHALL BE NEW AND UNUSED AND SHALL CONFORM TO THE MOST CURRENT CLEVELAND WATER SPECIFICATIONS. ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH CLEVELAND DIVISION OF WATER STANDARDS.
9. TWO FEET ABOVE THE MAIN, DETECTABLE TRACER TAPE NOTING THE PRESENCE OF A WATER MAIN SHALL BE INSTALLED FOR THE ENTIRE LENGTH OF THE MAIN, INCLUDING HYDRANT LATERALS AND OPEN CUT INSTALLED SERVICE CONNECTIONS.
10. ALL MATERIALS USED SHALL ABIDE BY REQUIREMENTS LISTED ON MATERIAL SPECIFICATION LIST (CWD DETAIL GEN-000A, SHEET NO. 100).

TRACER WIRE FOR PVC PIPE

1. ALL NEW TRACER WIRE INSTALLATIONS SHALL HAVE THEIR FUNCTIONS VERIFIED BY BEING LOCATED USING TYPICAL LOW FREQUENCY (512HZ) LINE TRACING EQUIPMENT. THE LOCATING FIRM SHALL PROVIDE WRITTEN CERTIFICATIONS THAT THE SYSTEM IS COMPLETELY FUNCTIONAL AT TEST COMPLETION.
2. MAGNESIUM GROUND ANODE RODS ARE TO BE INSTALLED AT EACH DEAD END PER THE MANUFACTURER'S INSTRUCTIONS.
3. TRACER LINES SHALL TERMINATE AT A DEDICATED AT-GRADE ACCESS POINT/TEST STATION IDENTIFIED WITH "WATER" ON THE CAP. AT LEAST 2 FEET OF SLACK WIRE SHALL BE PROVIDED AT EACH TERMINATION POINT.
4. LATERAL TRACER LINES ON HYDRANTS, TEES, AND CROSSES ARE NOT TO CUT THE MAIN TRACER WIRE.

HYDROSTATIC PRESSURE TESTING

1. CLEAN PIPE PRIOR TO CONDUCTING HYDROSTATIC PRESSURE TESTING. CLEANING MAY BE COMPLETED VIA FLUSHING OR SWABBING EXCEPT IF DISINFECTION IS CONDUCTED USING THE TABLET METHOD.
2. FILL WATER MAIN AT A CONTINUOUS RATE, 1 FT/SEC MAXIMUM. ONCE FULL, FLUSH THE LINE NOT LESS THAN 3 FT/SEC UNLESS DIRECTED BY CLEVELAND WATER THAT CONDITIONS DO NOT PERMIT THE REQUIRED FLOW RATE TO BE ACHIEVED. FLUSHING SHALL CONTINUE UNTIL THE VOLUME OF WATER IN THE NEWLY INSTALLED MAIN HAS TURNED OVER AT LEAST ONE TIME.
3. THE HYDROSTATIC TEST PRESSURE SHALL BE 75 PSI ABOVE THE STATIC PRESSURE PREVAILING AT THE SITE, BUT IN NO CASE LESS THAN 150 PSI.
4. DURATION: 2 HOURS (WITH PRESSURE MAINTAINED WITHIN 5 PSI OF THE REQUIRED TEST PRESSURE).
5. SHOULD THE PRESSURE TEST FAIL, THE CONTRACTOR SHALL IDENTIFY THE SOURCE(S) AND CORRECT THE DEFICIENCY. THE HYDROSTATIC PRESSURE TEST SHALL BE REPEATED FOR THE PRESCRIBED DURATION TO VERIFY THAT THE NEW WATER MAIN MEETS THE TEST CRITERIA. WORK PERFORMED TO IDENTIFY AND CORRECT FAILURE SOURCE(S) AND THEIR REMEDIATION MUST BE COMPLETED TO THE SATISFACTION OF CLEVELAND WATER AT NO ADDITIONAL COST.

DISINFECTION

1. DISINFECTION FOR WATER MAINS SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MOST CURRENT REVISION OF AWWA C651.

SERVICE CONNECTIONS

1. SADDLE TAPPING SHALL BE PERFORMED FOR PIPES OF ANY NOMINAL SIZE AND PRESSURE CLASS. TAP SIZE IS LIMITED TO 2-INCHES MAXIMUM.
2. TAPPING SLEEVE AND VALVE IS REQUIRED FOR SERVICE CONNECTIONS LARGER THAN 2-INCHES. THRUST RESTRAINT IS REQUIRED.
3. SERVICE CLAMPS OF SADDLES SHALL PROVIDE FULL SUPPORT AROUND THE CIRCUMFERENCE OF THE PIPE AND PROVIDE A BEARING AREA OF SUFFICIENT WIDTH ALONG THE AXIS OF THE PIPE TO PREVENT DISTORTION WHEN THE SADDLE IS TIGHTENED. NARROW U-BOLT-TYPE STRAPS AND SADDLES HAVING LUGS ARE PROHIBITED.

PIPE JOINTS

1. PIPE JOINTS SHALL ADHERE TO ANSI/AWWA C110/A21.10, C111/A21.11, C153/A21.53, C900, C905, C907, AND C909 REQUIREMENTS AND PROCEDURES FOR JOINT METHODS AND MATERIALS.
2. RESTRAINED JOINTS, AS INDICATED ON THE PLANS, SHALL COMPLY WITH ANSI/AWWA C111/A21.11.

FITTINGS AND APPURTENANCES

1. ALL FITTINGS SHALL BE APPROVED DUCTILE IRON CLASS 350, CEMENT LINED AND FUSION BOND EPOXY COATED CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53.
2. ALL FITTINGS AND PIPES CONNECTED TO FITTINGS SHALL BE RESTRAINED USING A "RETAINED" MECHANICAL JOINT. JOINTS SHALL COMPLY WITH ANSI/AWWA C111/A21.11.
3. ALL FITTINGS MUST HAVE BELL ENDS UNLESS APPROVED BY CLEVELAND WATER.
4. PROVIDE PROPER SUPPORT FOR VALVES, HYDRANTS, AND FITTINGS SUCH THAT THE WEIGHT IS NOT APPLIED TO THE PIPE.

FIELD QUALITY CONTROL

1. PIPE SPIGOT END, BELL END, COUPLER OR FITTING, AND ELASTOMERIC GASKET SHALL BE CLEANED IMMEDIATELY BEFORE ASSEMBLY. DO NOT REMOVE FACTORY INSTALLED GASKETS. APPROVED LUBRICANTS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. PIPE CUTTING SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C600, C900, AND MANUFACTURER REQUIREMENTS. PIPE SHALL BE MARKED AROUND ITS ENTIRE CIRCUMFERENCE TO ENSURE A SQUARE CUT.
3. CUT ENDS OF PIPE SHALL BE BEVELED TO ENSURE PROPER JOINT ASSEMBLY. USE FACTORY-FINISHED PIPE END AS A GUIDE TO DETERMINE THE ANGLE AND LENGTH OF THE BEVEL. DEBURR AND CLEAN CUT PIPE END PRIOR TO BELL INSERTION.
4. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL PLUG ALL OPEN PIPE ENDS WITH WATERTIGHT PLUGS AS PER THE "PREVENTATIVE AND CORRECTIVE MEASURES DURING CONSTRUCTION" SECTION OF THE MOST CURRENT REVISION OF AWWA C-651 AS TO PREVENT THE INFILTRATION OR INTRUSION OF ANY FOREIGN OBJECTS OR MATERIALS. DATE STAMPED DIGITAL PHOTOS SHALL BE PROVIDED FOR EACH WORKDAY DEMONSTRATING THAT PROPER AWWA C-651 METHODS WERE USED TO PLUG ALL OPEN WATER MAIN ENDS. EACH PHOTO SHALL CLEARLY IDENTIFY THE STATION AT WHICH THE PIPE IS PLUGGED BY USE OF A STATION MARKER PLACED AT THE PLUGGED PIPE END. PHOTOS SHALL BE SUBMITTED ON A DAILY BASIS UNLESS OTHERWISE DEFINED BY THE CLEVELAND WATER INSPECTOR OR ENGINEER. ALL PHOTOS TAKEN OVER THE COURSE OF THE PROJECT SHALL BE SUBMITTED BY THE CONTRACTOR AS PART OF THE AS-BUILT SUBMITTAL. PHOTOS ARE TO INCLUDE STATIONING MARKERS. AS-BUILTS SHALL BE DEEMED INCOMPLETE WITHOUT SAID COLLECTION OF DIGITAL PHOTOS.
5. CLEVELAND WATER INSPECTORS SHALL BE INVITED TO WITNESS TRACER WIRE VERIFICATION FOR PVC PIPE INSTALLATIONS. THIS VERIFICATION SHALL BE PERFORMED UPON COMPLETION OF ROUGH GRADING AND AGAIN PRIOR TO THE FINAL ACCEPTANCE OF THE PROJECT. CONTINUITY TESTING IN LIEU OF ACTUAL LINE TRACING SHALL NOT BE ACCEPTED. CLEVELAND WATER WILL REQUIRE COMPLETION OF THE FIRST VERIFICATION PRIOR TO CHLORINATION, WITH CERTIFICATION SUBMITTED ALONG WITH RED LINE DRAWINGS. CERTIFICATION OF THE SECOND VERIFICATION SHALL BE PROVIDED WITH AS-BUILT DRAWINGS.

WATER WORK GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK

REVIEWER DRP 10/1/25

PROJECT ID 122389

SHEET P.101 TOTAL 195

CLEVELAND WATER NOTES FOR WATER MAIN INSTALLATION AND/OR REPLACEMENT (10/2/2023)

DEVELOPERS, ENGINEERS, AND CONTRACTORS ARE TO ABIDE BY THE MOST CURRENT VERSION OF THE CLEVELAND WATER NOTES AND DETAILS. THE MOST UP-TO-DATE VERSION CAN BE FOUND AT:

WWW.CLEVELANDWATER.COM/CONSTRUCTION/

OR AS PROVIDED BY CWD STAFF.

GENERAL:

1. ALL WATER WORK REQUIRED, WHETHER SHOWN ON THE PLANS OR AS DIRECTED BY CLEVELAND WATER, SHALL BE AT THE EXPENSE OF THE PROJECT UNLESS OTHERWISE AGREED TO BY THE COMMISSIONER OF THE CLEVELAND DIVISION OF WATER.

2. THE INFORMATION SHOWN ON THE CLEVELAND DIVISION OF WATER'S SUMMARY OF WORK/CHARGE LETTER, STRIP MAPS, AS BUILT DRAWINGS, AND GIS ARE TAKEN FROM EXISTING AVAILABLE RECORDS, AND THEIR ACCURACY IS NOT GUARANTEED.

3. CALL THE INSPECTION AND ENFORCEMENT UNIT AT 216-664-2342 TO SCHEDULE A PRECONSTRUCTION MEETING AT LEAST 1 WEEK PRIOR TO STARTING CONSTRUCTION. THE OPERATION OF ANY VALVE OR ALTERATION OF ANY PART OF THE WATER SYSTEM BY CONTRACTORS OR THEIR EMPLOYEES IS PROHIBITED WITHOUT THE SUPERVISION OF THE CLEVELAND DIVISION OF WATER INSPECTOR.

4. PRIOR TO REQUESTING CHLORINATION, THE CONTRACTOR SHALL SUPPLY THE CLEVELAND WATER INSPECTOR WITH REDLINE DRAWINGS SHOWING CHANGES MADE FROM THE APPROVED DESIGN DRAWINGS AND ACTUAL MEASUREMENTS. CHLORINATION SHALL NOT OCCUR BEFORE THESE DRAWINGS ARE SUBMITTED. IF THERE WERE NO CHANGES FROM THE APPROVED PLANS, YOU MUST STILL SUBMIT A HARDCOPY OF PLANS INDICATING NO DEVIATIONS WERE MADE ON EACH PLAN AND PROFILE PAGE CONTAINING WATER WORK. PLEASE NOTE THAT THIS DOES NOT COUNT AS AN AS BUILT SUBMISSION (SEE NOTE 12).

5. FOR THE PURPOSES OF CHLORINATION AND BACTERIOLOGICAL TESTING OF THE WATER MAINS THE CONTRACTOR SHALL PROVIDE AND INSTALL, AT EACH OF THE CHLORINATION PIT LOCATIONS SHOWN AND AT OTHER LOCATIONS DETERMINED BY CLEVELAND WATER. FLUSHING / SAMPLING TAP SIZES ARE TO BE DETERMINED CLEVELAND WATER. CHLORINATION PITS SHALL BE SIX (6) FOOT SQUARE AND ARE TO MEET OSHA STANDARDS. NO CUSTOMER TAPS SHALL BE INSTALLED PRIOR TO CHLORINATION.

6. A TWO YEAR WARRANTY, COMMENCING FROM THE DATE OF ACCEPTANCE OF THE FINAL CHLORINATION OF THE WATER MAIN INSTALLATION SHALL BE PROVIDED BY THE BUILDER/ DEVELOPER AND/OR CONTRACTOR FOR ALL WATER MAINS AND SERVICE CONNECTION WORK PERFORMED BY THE CONTRACTOR, INCLUDING TAPS IF PERFORMED. SHOULD ANY LEAKS OCCUR AND REPAIRS BE REQUIRED DUE TO DEFECTIVE MATERIAL OR POOR WORKMANSHIP. A LETTER INDICATING THE COMMENCEMENT DATE AND END DATE OF THE WARRANTY SHALL BE INCLUDE WITH THE AS-BUILT SUBMISSION IN NOTE 12.

7. USE BACKFILL MATERIAL AS SPECIFIED AND COMPACT SUFFICIENTLY IN THOSE AREAS WHERE EXISTING MAINS AND WATER SERVICE CONNECTIONS ARE EXPOSED. (SEE CLEVELAND WATER STANDARD DETAIL STD-001 AND PVC-001).

8. ALL MATERIALS, INCLUDING BUT NOT LIMITED TO WATER MAINS, FIRE HYDRANTS, VALVES, CONNECTION MATERIALS AND OTHER WATER APPURTENANCES, SHALL BE NEW AND UNUSED AND SHALL CONFORM TO THE MOST CURRENT CLEVELAND WATER SPECIFICATIONS. ALL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH CLEVELAND WATER'S STANDARDS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING WATER MAINS AND APPURTENANCES THEREOF WHEN CONSTRUCTING OR CONNECTING THE NEW WATER MAIN. THIS SHALL INCLUDE LEADED JOINTS IN EXISTING FITTINGS WHICH MAY REQUIRE REPLACEMENT FITTINGS AT THE DISCRETION OF THE INSPECTOR IF IT IS DETERMINED THEY WERE DISTURBED. ALL REPAIRS TO DAMAGED EXISTING FACILITIES SHALL BE MADE BY THE CONTRACTOR, AT THE PROJECT'S EXPENSE, TO THE SATISFACTION OF CLEVELAND WATER.

10. ALL HYDROSTATIC PRESSURE TESTING SHALL BE DONE BY THE CONTRACTOR IN THE PRESENCE OF THE CLEVELAND WATER INSPECTOR. THE HYDROSTATIC TEST PRESSURE SHALL BE 75 PSI ABOVE THE STATIC PRESSURE PREVAILING AT THE SITE, BUT IN NO CASE LESS THAN 150 PSI. THE PRESSURE TEST SHALL BE FOR A DURATION OF TWO (2) HOURS WITH THE PRESSURE BEING MAINTAINED WITHIN 5 PSI OF THE REQUIRED TEST PRESSURE. SHOULD THE PRESSURE TEST FAIL THE CONTRACTOR SHALL FIND AND CORRECT THE DEFICIENCY(IES) TO THE SATISFACTION OF CLEVELAND WATER AND REPEAT THE TWO (2) HOUR PRESSURE TEST. MAKE UP WATER SHALL NOT BE PERMITTED.

11. ALL DUCTILE IRON BURIED WATER MAINS, FITTINGS, VALVES, FIRE HYDRANT BRANCH PIPING AND APPURTENANCES SHALL BE ENCASED WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT INSTALLED IN ACCORDANCE WITH THE MOST CURRENT REVISION OF ANSI/AWWA C-105/A21.5 INSTALLATION METHOD "A" AND ASTM A-674.

12. THE PROJECT'S PROFESSIONAL ENGINEER OR A DESIGNATED PROFESSIONAL SURVEYOR SHALL OBTAIN ACTUAL FIELD MEASUREMENTS OF THE MAIN DURING INSTALLATION AND SHALL FURNISH THE CLEVELAND WATER INSPECTOR WITH AS-BUILT DRAWINGS MEETING CLEVELAND WATER STANDARDS WITHIN 60 DAYS OF THE WATER MAIN GOING INTO SERVICE AND ALL TAPS/RETAPS BEING MADE. ONE HARD COPY AND ONE PDF COPY SHALL BE PROVIDED. DRAWINGS SHALL BE SIGNED, DATED, AND STAMPED WITH THE ENGINEER OR SURVEYOR'S SEAL. REDLINE DRAWINGS ARE NOT SUFFICIENT. CLEVELAND WATER RESERVES THE RIGHT TO WITHHOLD PAYMENT AND/OR APPROVAL OF FUTURE WORK IF AS-BUILTS ARE NOT SUBMITTED.

    THE CONTRACTOR SHALL PROVIDE A TABLE SHOWING ALL CONNECTIONS, IDENTIFIED BY CLEVELAND WATER CONNECTION NUMBER, SHOWING THE FOUND CONNECTION MATERIAL (IF A REPLACEMENT) FOR BOTH THE CITYSIDE AND OWNERSIDE CONNECTION, AS WELL AS THE NEW CONNECTION MATERIAL FOR ALL CONNECTIONS. THE TABLE SHALL ALSO NOTE ANY NEW OR REVISED CONNECTION MEASUREMENTS AND SIZES. A SAMPLE TABLE WILL BE PROVIDED. THE SUBMISSION SHALL BE IN MICROSOFT EXCEL FORMAT.

    FAILURE TO PROVIDE AS BUILT DRAWINGS AND CONNECTION DATA MAY INCUR PENALTIES AND DELAYS ON FUTURE PROJECTS.

WATER MAINS:

13. ALL PIPE SHALL BE AWWA C151 DUCTILE IRON, MINIMUM CLASS 52, WITH A CEMENT MORTAR LINING, HAVING PUSH-ON JOINTS WITH RADIALLY COMPRESSED RUBBER RING GASKET. MAINS 36" AND LARGER SHALL BE MINIMUM PRESSURE CLASS 350.

14. WITH THE WRITTEN AUTHORIZATION OF CWD, PRESSURE CLASS 235 PSI C900 (DR18) OR C909 PVC, CONFORMING TO THE LATEST AWWA STANDARDS MAY BE USED. DUCTILE IRON PIPE SHALL BE REQUIRED FOR SIZES LARGER THAN 12".

15. ALL DUCTILE IRON PIPE SHALL BE INSTALLED PER THE MOST CURRENT REVISION OF AWWA C600, AWWA MANUAL M41, DIPRA'S "INSTALLATION GUIDE FOR DUCTILE IRON PIPE" (ISBN 0-9642194-0-9) AND "DIRECT TAPPING OF DUCTILE IRON PIPING ENCASED IN POLYETHYLENE", AS WELL AS THE MANUFACTURER'S INSTRUCTIONS.

16. ALL PVC PIPE SHALL BE INSTALLED PER UNI-PUB-09, UNI-PUB--08, ASTM D2774, ASTM F1668, AND MANUFACTURER'S INSTRUCTIONS.

17. ONCE DELIVERED, ALL PVC PIPE MUST BE PROTECTED FROM DIRECT SUN EXPOSURE UNTIL THE PIPE IS INSTALLED AND BACKFILLED.

18. ALL PVC PIPE SHALL BE INSTALLED WITH A CONTINUOUS RUN OF 10 GAUGE COPPER CLAD STEEL TRACER WIRE WITH BREAKING LOAD OF AT LEAST 600 POUNDS AND AT LEAST 30 MILS OF BLUE HDPE INSULATION CERTIFIED FOR DIRECT BURIAL. CONNECTORS SHALL BE WATERPROOF, CONTAINING DIELECTRIC SILICONE, AND RATED FOR DIRECT BURIAL. CONNECTIONS MUST BE MADE SO AS TO PREVENT UNINSULATED WIRE FROM BEING EXPOSED. LATERAL TRACER LINES ON HYDRANTS, TEES, AND CROSSES SHALL NOT CUT THE MAIN TRACER WIRE. NON-LOCKING FRICTION FIT, TWIST-ON, AND TAPED CONNECTIONS ARE NOT PERMITTED. MAGNESIUM GROUND ANODE RODS SHALL BE INSTALLED AT EACH DEAD END PER THE MANUFACTURER'S INSTRUCTIONS. TRACER LINES SHALL TERMINATE AT A DEDICATED AT-GRADE ACCESS POINT/TEST STATION IDENTIFIED WITH "WATER" ON THE CAP. AT LEAST 2 FEET OF SLACK WIRE SHALL BE PROVIDED AT EACH TERMINATION POINT.

19. ALL NEW TRACE WIRE INSTALLATIONS SHALL HAVE THEIR FUNCTION VERIFIED BY BEING LOCATED USING TYPICAL LOW FREQUENCY (512HZ) LINE TRACING EQUIPMENT BY AN INDEPENDENT UTILITY LOCATING FIRM, WITH SUCH FIRM PROVIDING WRITTEN CERTIFICATION. CWD INSPECTORS SHALL BE INVITED TO WITNESS THIS VERIFICATION. THIS VERIFICATION SHALL BE PERFORMED UPON COMPLETION OF ROUGH GRADING AND AGAIN PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. CONTINUITY TESTING IN LIEU OF ACTUAL LINE TRACING SHALL NOT BE ACCEPTED. CWD WILL REQUIRE COMPLETION OF THE FIRST VERIFICATION PRIOR TO CHLORINATION, WITH CERTIFICATION SUBMITTED ALONG WITH RED LINE DRAWINGS. CERTIFICATION OF THE SECOND VERIFICATION SHALL BE PROVIDED WITH AS-BUILT DRAWINGS.

20. TWO FEET ABOVE THE MAIN, DETECTABLE TRACER TAPE NOTING THE PRESENCE OF A WATER MAIN SHALL BE INSTALLED FOR THE ENTIRE LENGTH OF THE MAIN, INCLUDING HYDRANT LATERALS AND OPEN CUT INSTALLED SERVICE CONNECTIONS.

21. PVC PIPE JOINTS SHALL BE ASSEMBLED VIA THE BAR AND BLOCK METHOD. ANY PIPE JOINT THAT HAS BEEN OVER INSERTED SHALL HAVE BOTH THE BELL PIPE AND THE SPIGOT PIPE REMOVED AND DISCARDED.

22. ALL FITTINGS, UNLESS OTHERWISE CALLED FOR, SHALL BE APPROVED DUCTILE IRON, CLASS 350, CEMENT LINED OR FUSION BONDED EPOXY COATED. ALL FITTINGS AND PIPE CONNECTED TO FITTINGS SHALL BE RESTRAINED USING A "RETAINED" MECHANICAL JOINT CONFORMING TO THE MATERIAL AND PERFORMANCE REQUIREMENTS OF ANSI/AWWA C-110/A21.10 AND ANSI/AWWA C-111/A21.11, OR "COMPACT" FITTINGS IN ACCORDANCE WITH ANSI/AWWA C-153/A21.53. EXCEPT FOR ANCHOR TEES, REDUCERS OR OTHER SPECIAL CIRCUMSTANCES WHEN BY CLEVELAND WATER, ALL FITTINGS ARE TO HAVE BELL ENDS.

23. ALL BOLTS AND NUTS ON ALL "RETAINED" MECHANICAL JOINTS SHALL HAVE FIELD APPLIED ONE (1) COAT OF BITUMASTIC PAINTING.

24. WHERE SHOWN ON THE PLANS, OR WHEN OTHERWISE CALLED FOR, PIPE AND FITTINGS SHALL HAVE AN APPROVED "TYPE 1" OR "TYPE II" BOLTLESS RESTRAINED PUSH-ON JOINTS TO THE LIMITS SHOWN ON THE DRAWINGS.

25. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL PLUG ALL OPEN PIPE ENDS WITH WATER TIGHT PLUGS AS PER THE "PREVENTATIVE AND CORRECTIVE MEASURES DURING CONSTRUCTION" SECTION OF THE MOST CURRENT REVISION OF AWWA C-651 AS TO PREVENT THE INFILTRATION OR INTRUSION OF ANY FOREIGN OBJECTS OR MATERIALS. DATE STAMPED DIGITAL PHOTOS SHALL BE PROVIDED FOR EACH WORKDAY DEMONSTRATING THAT PROPER AWWA C-651 METHODS WERE USED TO PLUG ALL OPEN WATER MAIN ENDS. EACH PHOTO SHALL CLEARLY IDENTIFY THE STATION AT WHICH THE PIPE IS PLUGGED BY USE OF A STATION MARKER PLACED AT THE PLUGGED PIPE END. PHOTOS SHALL BE SUBMITTED ON A DAILY BASIS UNLESS OTHERWISE DEFINED BY THE CLEVELAND WATER INSPECTOR OR ENGINEER. ALL PHOTOS TAKEN OVER THE COURSE OF THE PROJECT SHALL BE SUBMITTED BY THE CONTRACTOR AS PART OF THE AS-BUILT SUBMITTAL. PHOTOS ARE TO INCLUDE STATIONING MARKERS. AS-BUILTS SHALL BE DEEMED INCOMPLETE WITHOUT SAID COLLECTION OF DIGITAL PHOTOS.

HYDRANTS:

26. IN ALL HYDRANT INSTALLATIONS THE CONTRACTOR SHALL FACE ALL HYDRANT'S 4" OR 4-1/2" (STEAMER) NOZZLE TOWARD THE PAVEMENT PRIOR TO TESTING AND CHLORINATION OF WATER MAINS. ONLY CLEVELAND WATER APPROVED HYDRANT MODELS SHALL BE INSTALLED. CONTRACTOR SHALL CONSULT WITH THE LOCAL MUNICIPALITY'S ENGINEERING OR SERVICE DEPARTMENT TO OBTAIN HYDRANT NOZZLE THREAD REQUIREMENTS IF NOT INDICATED ON THE APPROVED PLANS. ALL HYDRANTS SHALL BE FACTORY EQUIPPED WITH THE APPROPRIATE HYDRANT NOZZLE, INCLUDING STORZ IF REQUESTED BY THE MUNICIPALITY.

    HYDRANT BRANCHES SHALL BE FULLY RESTRAINED AND INSTALLED PER THE APPROPRIATE HYDRANT CLEVELAND WATER HYDRANT DETAIL. HYDRANT BRANCH VALVES SHALL BE PLACED DIRECTLY AFTER THE HYDRANT TEE UNLESS OTHERWISE APPROVED BY THE INSPECTOR IN WRITING.

VALVES:

27. ALL VALVES SHALL BE AN APPROVED MODEL RESILIENT SEATED GATE VALVES AS PER THE MOST CURRENT VERSION OF AWWA C509 OR C515. VALVE OPERATING NUTS SHALL BE TAPERED (1 7/8" TO 2" FROM TOP TO BOTTOM) AND 2" DEEP. ALL VALVES AT TIE IN POINTS TO EXISTING MAINS SHALL BE REPLACED AT THE PROJECT'S EXPENSE UNLESS OTHERWISE DIRECTED.

LEAD SERVICE CONNECTIONS:

28. IF A WATER MAIN IS SUSPECTED TO HAVE LEAD SERVICES OR WAS INSTALLED PRIOR TO 1954, THE OHIO EPA REQUIRES CWD TO PROVIDE A NOTICE TO ALL AFFECTED CUSTOMERS THAT THEIR WATER SERVICE LINE WILL BE DISTURBED A MINIMUM OF 45 DAYS IN ADVANCE OF CONSTRUCTION. TO AVOID PROJECT DELAYS, 60 DAYS PRIOR TO CONSTRUCTION, PLEASE CONTACT VIA EMAIL BRENDA CULLER BRENDA_CULLER @CLEVELANDWATER.COM AND FRED_ROBERTS@ CLEVELANDWATER.COM TO VERIFY LETTERS WERE SENT OUT.

WATER WORK GENERAL NOTES

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\20220116.100_East_66th_St_Find_Engineering\Drawings\Trans\Utilities\Sheets\UN001.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK

REVIEWER DRP 10/1/25

PROJECT ID 122389

SHEET P.102 TOTAL 195

CLEVELAND WATER NOTES FOR WATER MAIN INSTALLATION AND/OR REPLACEMENT (1/1/2019) (CONTINUED)

29. IF A CUSTOMER-OWNED LEAD SERVICE LINE IS ENCOUNTERED, IMMEDIATELY NOTIFY THE CWD INSPECTOR SO THAT APPROPRIATE NOTIFICATION CAN BE MADE AND ACTION CAN BE TAKEN. IF THE CWD INSPECTOR IS NOT AVAILABLE, CALL BRENDA CULLER AT (216) 664-2444 EXT. 75609 OR BRYAN RASK AT (216) 664-2444 EXT. 73733.

    ANY CITY-OWNED LEAD SERVICE LINE ENCOUNTERED SHALL BE REPLACED WITH TYPE K COPPER FROM THE CORPORATION STOP TO THE CURB STOP. THE REPLACEMENT SERVICE LINE SHALL BE 1-INCH MINIMUM DIAMETER, BUT MATCH ANY EXISTING CONNECTION SIZE IF LARGER (5/8" AND 3/4" CONNECTIONS SHALL NOT BE PERMITTED). CUSTOMERS WITH A CUSTOMER-OWNED LEAD SERVICE LINE SHALL NOT BE RECONNECTED TO THE NEW WATER MAIN WITHOUT EXPRESS WRITTEN APPROVAL FROM BRYAN RASK, OR HIS APPROVED REPRESENTATIVE AT CWD.

    AS PART OF THIS CONTRACT, THE CONTRACTOR SHALL OFFER EACH CUSTOMER TO REPLACE LEAD SERVICES FROM THE CURB STOP TO THE INLET STOP & WASTE VALVE INSIDE THE CUSTOMER'S HOME. IF THE REPLACEMENT IS NOT COVERED UNDER THE BID ITEMS, THE CONTRACTOR SHALL PROVIDE CWD (AND THE LOCAL MUNICIPALITY IF OUTSIDE THE CITY OF CLEVELAND) WITH A CHANGE ORDER AND COST ESTIMATES FOR THE CUSTOMER-OWNED LEAD SERVICE LINE REPLACEMENT. UPON APPROVAL FROM CWD (AND THE LOCAL MUNICIPALITY IF OUTSIDE THE CITY OF CLEVELAND), THE CONTRACTOR SHALL PERFORM THE REPLACEMENT OF THE CUSTOMER-OWNED LEAD SERVICE LINE. AS STATED ABOVE, CUSTOMERS WITH CUSTOMER-OWNED LEAD SERVICE LINES SHALL NOT BE RECONNECTED TO THE NEW WATER MAIN WITHOUT EXPRESS WRITTEN APPROVAL FROM PAYTON HALL, OR HIS APPROVED REPRESENTATIVE AT CWD.

    IN THE EVENT THAT A CWD WAIVER IS GRANTED SUCH THAT A CUSTOMER-OWNED LEAD SERVICE LINE IS NOT REPLACED, CWD SHALL SUPPLY THE CONTRACTOR WITH LEAD FILTERS AND PITCHERS THAT THE CONTRACTOR SHALL DISTRIBUTE TO EACH RESIDENCE WITHIN THE PROJECT AREA, INCLUDING TO ALL UNITS OF MULTI-UNIT HOUSING BUILDINGS. THE FILTERS SHALL BE POUR-THROUGH PITCHER TYPE LEAD FILTERS THAT ARE NSF/ANSI-53 CERTIFIED TO REMOVE LEAD. THE PITCHER, A 6-MONTH SUPPLY OF FILTERS, AND CWD-SUPPLIED USE INSTRUCTIONS AND OTHER APPLICABLE MATERIALS SHALL BE DISTRIBUTED. RECORDS OF RESIDENTS WHO RECEIVED AND WHO REFUSED THE FILTERS SHALL BE PROVIDED BY THE CONTRACTOR TO CWD (AND THE LOCAL MUNICIPALITY IF OUTSIDE THE CITY OF CLEVELAND).

    AT THE END OF THE DAY BEFORE A CUSTOMER IS SCHEDULED TO BE CONNECTED TO THE NEW WATER MAIN, THE CONTRACTOR SHALL NOTIFY INSPECTOR SO NOTIFICATIONS AND OTHER APPLICABLE MATERIALS MAY BE PROVIDED AT THE TIME OF CONNECTION.

GENERAL SERVICE CONNECTIONS:

30. ALL SERVICE CONNECTIONS SHALL BE A MINIMUM OF 1". 1/2", 5/8" AND 3/4" CONNECTIONS SHALL NOT BE INSTALLED, EVEN IF REPLACING AN EXISTING CONNECTION SMALLER THAN 1". ALL REPLACEMENT SERVICE CONNECTIONS SHALL ALSO INCLUDE A NEW CURB STOP.

31. TYPE K COPPER SHALL BE USED ON ALL CONNECTIONS 2" AND SMALLER. CLASS 52 DUCTILE IRON WRAPPED IN V-BIO ENHANCED POLYETHYLENE ENCASEMENT SHALL BE USED ON ALL CONNECTIONS 3" AND LARGER. ALL CONNECTIONS SHALL COMPLY WITH CWD'S SERVICE CONNECTION REQUIREMENTS, AS POSTED ON OUR WEBSITE.

32. NEW WATER SERVICE CONNECTIONS LOCATIONS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT PART OF THE WATER MAIN APPROVAL. THE SPECIFIC LOCATION FOR EACH CONNECTION WILL BE DETERMINED BY CLEVELAND WATER PRIOR TO THE TAPS BEING INSTALLED. ALL PERMITS FOR TAPS AND METERS FOR PARCELS ASSOCIATED WITH THE WATER MAINS INSTALLED ON THIS PROJECT ARE TO BE OBTAINED BY THE LAND OWNER OF SAID IMPROVEMENT PLANS. IT IS THE LAND OWNERS RESPONSIBILITY TO ARRANGE FOR OBTAINING PERMITS FOR ALL WATER SERVICE CONNECTIONS BEFORE ANY SERVICE CONNECTION WORK MAY PROCEED. ALL FEES CAN BE OBTAINED FROM THE CLEVELAND WATER PERMITS AND SALES SECTION AT 216-664-3130 PROMPT #2 OR 216-664-2444 X75209.

    ACCOUNTS SHALL BE INITIATED IN THE LAND OWNER'S NAME AS PART OF THE PERMITTING PROCESS. ALL RESPONSIBILITIES ASSOCIATED WITH EACH WATER SERVICE, INCLUDING, THE OWNER SIDE INSPECTIONS, METER SET/ METER PIPING INSPECTION AND THE METER INSTALLATION SHALL BE THE RESPONSIBILITY OF SAID OWNER.

    METERS INSTALLATIONS WILL NOT BE AUTHORIZED TO BE INSTALLED UNTIL ALL INSPECTIONS HAVE BEEN COMPLETED. ESTIMATED BILLS MAY ENSUE IF A HOME IS IDENTIFIED AS HAVING WATER SERVICE BUT NO METER HAS BEEN INSTALLED. IF NEW OWNERS, ONCE PARCELS ARE SOLD OFF AND TRANSFER TITLE, DO NOT CONTACT CLEVELAND WATER TO ESTABLISH ACCOUNTS IN THEIR NAME, ACCOUNTS AND THEIR ASSOCIATED BILLS WILL REMAIN IN THE NAME OF OUR LAST OWNER OF RECORD WHICH MAY BE THE DEVELOPER OR BUILDER. IT IS THE RESPONSIBILITY OF THE NEW OWNER TO TRANSFER ACCOUNTS INTO THEIR NAME WHEN THE PROPERTIES LEGALLY TRANSFER. UPON TRANSFER OF PROPERTY, SELLER OF PROPERTY MUST COMMUNICATE ALL UNCOMPLETED PORTIONS OF THE REFERENCED RESPONSIBILITIES TO THE NEW OWNER.

1. ONE INCH SERVICE CONNECTIONS SHALL BE PERMITTED TO SERVICE NEW HOMES (AS SHOWN ON APPROVED WATER MAIN EXTENSION PLANS) BASED ON THE FOLLOWING CRITERIA:

    - PEAK FLOW DEMANDS DO NOT EXCEED 25 GPM FOR AN INDIVIDUAL HOME/UNIT. INCLUSIVE OF ALL USAGE (DOMESTIC AND/OR IRRIGATION),
    - LENGTH OF ONE INCH CONNECTION DOES NOT EXCEED 75 FEET AS MEASURED FROM THE MAIN TO THE POINT OF ENTRY INTO THE PROPOSED HOME/UNIT.
    - THE CONNECTIONS DO NOT INCLUDE LIMITED AREA OR NFPA 13D SPRINKLER SYSTEMS

    ANY SERVICE REQUESTS DIFFERING FROM THE STATED CRITERIA SHALL REQUIRE THE SUBMITTAL OF A COMPLETE WATER SERVICE APPLICATION FOR EACH WATER SERVICE REQUESTED.

34. ALL CURB VALVE BOXES & METER VAULTS WILL BE INSTALLED IN GRASS AREAS WHEN POSSIBLE. CURB VALVES SHALL BE PLACED APPROXIMATELY 2 FEET OFF THE CURB. CURB VALVES IN EASEMENTS SHALL BE PLACED APPROXIMATELY 3 FEET OFF THE WATER MAIN. IF VALVE BOXES OR METER VAULTS ARE INSTALLED OUTSIDE OF A DEDICATED RIGHT OF WAY OR EASEMENT FOR THE PURPOSES OF WATER SUPPLY, A STANDARD CLEVELAND EASEMENT FOR A VAULT SHALL BE PROVIDED.

EMERGENCIES:

35. IF A WATER MAIN OR SERVICE CONNECTION BREAK OCCURS DURING CONSTRUCTION AND EMERGENCY ASSISTANCE IS REQUIRED, PLEASE NOTIFY CLEVELAND WATER AT 216-664-3060. THIS LINE IS AVAILABLE AT ALL TIMES.

SCOPE OF WATER WORK

THE SCOPE OF THE WATER WORK ITEMS FOR THIS PROJECT ARE AS INDICATED ON THE WATER WORK PLANS (SHEET NO. 105 TO 114) AND AS FOLLOWS:

- EXISTING WATER SERVICE CONNECTIONS IDENTIFIED BY CLEVELAND WATER AS ABANDONED: REMOVE THE EXISTING WATER SERVICE STOP BOX, METER VAULT (AND EQUIPMENT IF APPLICABLE), AND/OR WATER VALVE BOX. ALL OTHER ITEMS, INCLUDING THE PIPE, WILL REMAIN IN PLACE.
- ACTIVE WATER SERVICE CONNECTIONS: REPLACE ALL LEAD ACTIVE CONNECTIONS IDENTIFIED BY THE CLEVELAND WATER DEPARTMENT FROM THE WATER MAIN TO THE CURB STOP. NEW CONNECTION SIZE SHALL MATCH EXISTING, WITH A 1-INCH MINIMUM DIAMETER.
- ALL EXISTING WATER SERVICE STOP BOXES AND METER VAULTS THAT WILL BE LOCATED WITHIN THE NEW PAVEMENT OR THE NEW SHARED USE PATH WILL BE REMOVED AND RELOCATED.
- EXISTING FIRE HYDRANTS THAT WILL BE LOCATED WITHIN THE NEW PAVEMENT WILL BE EXTENDED AND ADJUSTED.
- NEW FIRE HYDRANTS WILL BE INSTALLED WHERE THE EXISTING HYDRANT SPACING DOES NOT MEET CLEVELAND WATER STANDARDS.
- ALL OTHER EXISTING WATER WORK ITEMS (VALVE BOXES, HYDRANTS, ETC.) NOT BEING RELOCATED OR REMOVED WILL BE ADJUSTED TO GRADE.

ITEM 202 - METER VAULT REMOVED, AS PER PLAN

WORK UNDER THIS ITEM SHALL INCLUDE EXCAVATING, REMOVING AND DISPOSING OF THE WATER METER VAULT STRUCTURE FOR A DEPTH OF AT LEAST 3 FEET FROM FINISHED SUBGRADE. THE EXCAVATION SHALL BE FILLED WITH CLEVELAND LSM BACKFILL MATERIAL IN ACCORDINACE WITH D-31.

THE EXISTING CASTING SHALL BE DELIVERED BY THE CONTRACTOR TO CLEVELAND WATER DEPARTMENT HARVARD YARD, 4600 HARVARD AVENUE, CLEVELAND, OHIO.

IF THERE IS AN EXISTING METER WITHIN THE VAULT, THE CONTRACTOR SHALL REMOVE IT AND DELIVER IT TO THE CLEVELAND WATER DEPARTMENT HARVARD YARD.

ITEM 202 - REMOVAL, MISC.: WATER SERVICE STOP BOX
ITEM 202 - VALVE BOX REMOVED, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 202 AND THE CITY OF CLEVELAND WATER DEPARTMENT STANDARDS, WORK UNDER THESE ITEMS SHALL INCLUDE THE FOLLOWING:

- THE CONTRACTOR SHALL DELIVER THE VALVE BOX AND SERVICE STOP BOX TO CLEVELAND WATER DEPARTMENT HARVARD YARD, 4600 HARVARD AVENUE, CLEVELAND, OHIO.
- THE UNIT PRICE BID FOR THESE ITEMS SHALL INCLUDE (BUT NOT BE LIMITED TO) EXCAVATION, REMOVAL OF THE EXCAVATED MATERIAL, BACKFILLING, AND ALL OTHER WORK AS REQUIRED.

ITEM SPECIAL - VALVE BOX ADJUSTED TO GRADE (CLEVELAND)
ITEM SPECIAL - SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)

IN ADDITION TO THE REQUIREMENTS OF ITEM 638 AND THE CITY OF CLEVELAND WATER DEPARTMENT STANDARDS, WORK UNDER THESE ITEMS SHALL INCLUDE THE FOLLOWING:

- THE CONTRACTOR SHALL RESET THE EXISTING CASTING TO FINISHED GRADE BY RAISING OR LOWERING THE EXISTING CASTING OR BY ADDING APPROPRIATE STEM SECTIONS. IN RAISING OF THE CASTINGS, NO INSERTS SHALL BE PERMITTED.
- THE UNIT PRICE BID FOR THESE ITEMS SHALL INCLUDE (BUT NOT BE LIMITED TO) EXCAVATION, REMOVAL OF THE EXCAVATED MATERIAL, BACKFILLING, AND ALL OTHER WORK AS REQUIRED.

ANY CASTINGS FOUND TO BE DAMAGED OR UNSUITABLE FOR REUSE SHALL BE REPLACED BY THE CONTRACTOR UNDER THE MISCELLANEOUS METAL (WATER) BID ITEM.

ITEM 638 - WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE

IN ADDITION TO THE REQUIREMENTS OF ITEM 638 AND THE CITY OF CLEVELAND WATER DEPARTMENT STANDARDS, WORK UNDER THIS ITEM SHALL INCLUDE THE FOLLOWING:

- THE CONTRACTOR SHALL CAREFULLY REMOVE AND CLEAN THE EXISTING FRAME, ADJUST THE HEIGHT OF THE SUPPORT WALLS, AND RESET THE EXISTING FRAME IN MORTAR OF CONCRETE TO FINISHED GRADE.
- THE UNIT PRICE BID FOR THIS ITEMS SHALL INCLUDE (BUT NOT BE LIMITED TO) EXCAVATION, REMOVAL OF THE EXCAVATED MATERIAL, BACKFILLING, AND ALL OTHER WORK AS REQUIRED.

ANY CASTINGS FOUND TO BE DAMAGED OR UNSUITABLE FOR REUSE SHALL BE REPLACED BY THE CONTRACTOR UNDER THE MISCELLANEOUS METAL (WATER) BID ITEM.

ANCHOR THE BRANCH PIPE WITH SUITABLE RODS, CLAMPS, OR OTHER APPROVED RESTRAINT AS APPROVED OR DIRECTED BY THE CITY. THE INTERIOR OF THE HYDRANT SHALL BE THOROUGHLY CLEANED AND ALL DIRT AND FOREIGN MATTER BEFORE SETTING.

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL OF, BUT TO LIMITED TO, FURNISHING AND INSTALLATION OF THE NEW HYDRANT, EXCAVATION, BACKFILL, REMOVAL AND DISPOSAL OF EXISTING PIPING, BRNACH PIPING, CUT-IN TEE AND FITTINGS, GATE VALVE AND VALVE BOX, THRUST BLOCKING, BACKFILL, APPURTENANCES, AND ANY OTHER MATERIALS OR WORK REQUIRED.

ITEM SPECIAL - MISCELLANEOUS METAL (WATER)

ANY VALVE BOX, SERVICE BOX, OR VAULT FRAME AND COVER THAT IS FOUND TO BE DAMAGED OR UNSUITABLE FOR REUSE SHALL BE REPLACED AS DIRECTED BY THE CITY. THE WORK SHALL INCLUDE REMOVING AND DISPOSING OF THE UNSUITABLE VALVE BOX OR FRAME OR COVER, AND FURNISHING AND INSTALLING A REPLACEMENT VALVE BOX OR FRAME AND COVER IN KIND.

PAYMENT FOR THIS ITEM SHALL BE PER POUND OF MISCELLANEOUS METAL REPLACED AND INCLUDE ALL LABOR AND MATERIALS TO PERFORM THE REPLACEMENT TO THE SATISFACTION OF THE ENGINEER.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - MISCELLANEOUS METAL (WATER)	1000 LB	

WATER WORK GENERAL NOTES

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 10/23/25
PROJECT ID 122389
SHEET P.103 TOTAL 195

ITEM 638 - WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE

WHERE INDICATED ON THE PLANS, NEW FIRE HYDRANT ASSEMBLIES SHALL BE FURNISHED AND SET, COMPLETE, IN ACCORDANCE WITH CWD DRAWING GEN-H08 AND GEN-H09 (SHEET NO. 116).

THE 6-INCH HYDRANTS SHALL BE CITY OF CLEVELAND STANDARD AND SHALL CONFORM TO THE DIVISION OF WATER'S SPECIFICATIONS AND APPROVED HYDRANT DRAWINGS. WHEN PLACED BEHIND THE CURB, THE HYDRANT BARREL SHALL BE SET SO THAT THE CENTER OF THE BARREL IS NO LESS THAN 3 FEET FROM THE FACE OF CURB. WHEN SET IN THE LAWN SPACE BETWEEN THE CURB AND THE SIDEWALK, OR BETWEEN THE SIDEWALK AND THE PROPERTY LINE, NO PORTION OF THE NOZZLE OR HYDRANT CAP SHALL BE WITHIN 6 INCHES OF THE SIDEWALK.

THE HYDRANT SHALL STAND PLUMB, WITH 4-INCH STEAMER NOZZLE POINTING TOWARD THE CURB. THE CONTRACTOR SHALL RELEASE THE SWIVEL HEAD BOLTS AND ADJUST HYDRANT 4-INCH STEAMER NOZZLE TO FACE THE CURB AT THE PROPER ANGLE. HYDRANTS WITHOUT SWIVEL HEADS SHALL BE ADJUSTED TO CORRECT THE POSITION OF THE 4-INCH STEAMER NOZZLE TO FACE THE CURB. THE HEIGHT OF THE HYDRANT SHALL CONFORM TO THE ESTABLISHED GRADE WITH THE TOP OF THE FROST CASING TO BE LOCATED AT LEAST FOUR INCHES ABOVE GROUND.

DRAINAGE SHALL BE PROVIDED AT THE BASE OF THE HYDRANT BY FILLING AROUND THE ELBOW WITH COARSE GRAVEL OR CRUSHED STONE TO AT LEAST SIX INCHES ABOVE THE WASTE OPENING. WHEREVER THE HYDRANT IS SET IN ROCK, CLAY, OR OTHER IMPERVIOUS SOIL, THE TRENCH SHALL BE WIDENED AND DEEPENED ON EACH SIDE OF THE HYDRANT BASE, WHICH SPACE SHALL BE FILLED COMPACTLY WITH COARSE GRAVEL, CRUSHED STONE, OR BROKEN STONE AND MIXED WITH COARSE SAND OF SUFFICIENT QUANTITY TO ABSORB ALL WATER TO BE DRAINED FROM THE HYDRANT WHEN BRANCH VALVE IS CLOSED.

THE HYDRANT WILL BE SET ON A STONE SLAB OR SIMILAR FOUNDATION AND THE BASE OF THE HYDRANT SHALL BE WELL BRACED AGAINST UNEXCAVATED EARTH TO THE END OF THE TRENCH WITH CONCRETE BACKING, AND IT SHALL BE RESTRAINED TO THE BRANCH PIPING WITH SWIVEL JOINTS OR RETAINED MECHANICAL JOINTS, OR BE TIED TO THE BRANCH PIPE WITH SUITABLE RODS, CLAMPS, OR OTHER APPROVED RESTRAINT AS APPROVED OR DIRECTED BY THE CITY. THE INTERIOR OF THE HYDRANT SHALL BE THOROUGHLY CLEANED AND ALL DIRT AND FOREIGN MATTER BEFORE SETTING.

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL OF, BUT TO LIMITED TO, FURNISHING AND INSTALLATION OF THE NEW HYDRANT, EXCAVATION, BACKFILL, REMOVAL AND DISPOSAL OF EXISTING PIPING, BRANCH PIPING, CUT-IN TEE AND FITTINGS, GATE VALVE AND VALVE BOX, THRUST BLOCKING, BACKFILL, APPURTENANCES, AND ANY OTHER MATERIALS OR WORK REQUIRED.

ITEM 638 - FIRE HYDRANT REMOVED AND DISPOSED OF

WHERE INDICATED ON THE PLANS, THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THIS ITEM, INCLUDING REMOVING THE EXISTING HYDRANT, GATE VALVE AND BOX, AND HYDRANT BRANCH; CUTTING OUT AND REMOVING THE EXISTING TEE AND ADJACENT WATER LINE AS NECESSARY; INSTALLING A DUCTILE IRON PIPE SPOOL PIECE WITH COUPLINGS OR SLEEVES; EXCAVATION AND DISPOSAL OF THE EXCAVATED MATERIAL, PROVIDE SHEETING AND SHORING, BACKFILL, TEMPORARY PAVING AND ALL OTHER WORK AS REQUIRED, IN ACCORDANCE WITH THIS NOTE AND CWD DRAWING GEN-008 (SHEET NO. 116). THE REMOVED HYDRANT AND GATE VALVE AND BOX SHALL BE DELIVERED BY THE CONTRACTOR TO CWD HARVARD YARDS, UNLESS DIRECTED OTHERWISE BY CWD.

ITEM SPECIAL - FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)

WHERE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR, TOOLS, AND EQUIPMENT REQUIRED TO LOWER OR RAISE EXISTING HYDRANT BRANCH PIPING TO VERTICALLY ADJUST EXISTING HYDRANT TO GRADE IN ACCORDANCE WITH THIS NOTE AND CWD DRAWING STD-H12 (SHEET NO. 115). DEPTH OF COVER OVER RAISED HYDRANT BRANCH SHALL IN NO CASE BE LESS THAN FIVE (5) FEET TO TOP OF PIPE. THE LOWERING OR RAISING OF THE EXISTING BRANCH PIPING SHALL EXTEND FROM THE EXISTING BRANCH VALVE TO A POINT BEYOND THE OBSTRUCTION TO PERMIT RECONNECTION TO THE EXISTING HYDRANT.

ITEM SPECIAL - SHORTEN WATER SERVICE CONNECTION (CLEVELAND)

AT LOCATIONS WHERE THE EXISTING CURB STOP AND BOX WILL BE LOCATED WITHIN THE NEW ASPHALT SHARED USE PATH, THE EXISTING CURB STOP AND BOX SHALL BE REMOVED AND A NEW CURB STOP AND BOX INSTALLED OUTSIDE OF THE PATH IN ACCORDANCE WITH THIS NOTE AND THE DETAIL ON SHEET NO. 117.

THE REMOVAL OF THE EXISTING SERVICE BOX, VALVE, AND PIPING AS NECESSARY, AND THE FURNISHING AND INSTALLATION OF THE NEW PIPING, SERVICE CONNECTION VALVE, VALVE STEM, AND SERVICE BOX, EXCAVATION, DISPOSAL OF THE EXCAVATED MATERIAL, AND TEMPORARY PAVEMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THIS ITEM.

ITEM 638 - WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (BY SIDE)

AT LOCATIONS WHERE THE EXISTING ACTIVE CONNECTION IS LOCATED WITHIN A NEW TREE PIT OR OTHER PROPOSED ITEM THAT IS IN CONFLICT, OR IF THE EXISTING CONNECTION BETWEEN THE CURB STOP AND WATER MAIN HAS BEEN IDENTIFIED BY CWD AS BEING LEAD, THE EXISTING CONNECTION SHALL BE RECONNECTED TO THE EXISTING WATER MAIN AND RELOCATED (IF NECESSARY), IN ACCORDANCE WITH THIS NOTE AND CWD DRAWING STD-M31 (SHEET NO. 115).

THE UNIT PRICE BID SHALL INCLUDE ALL OF, BUT NOT BE LIMITED TO, THE FOLLOWING:

- REMOVAL AND DISPOSAL OF THE EXISTING SERVICE CONNECTION PIPING, CURB VALVES, AND ALL OTHER WATER ITEMS AS NECESSARY.
- FURNISHING AND INSTALLATION OF ALL REQUIRED TYPE "K" COPPER PIPING AND FITTINGS AS NECESSARY, INCLUDING EXCAVATION, DISPOSAL OF EXCAVATED MATERIAL, BEDDING, AND BACKFILL. EXISTING CONNECTIONS 1" AND SMALLER SHALL BE REPLACED WITH 1" SERVICE CONNECTIONS.
- FURNISHING AND INSTALLATION OF THE CORPORATION STOP AND TAPPING OF THE EXISTING WATER MAIN.
- FURNISHING AND INSTALLATION OF THE CURB STOP AND BOX, AND BRICK SUPPORT.
- CONNECTION OF THE NEW COPPER PIPE TO THE EXISTING PIPE, INCLUDING A REDUCER AS NECESSARY.

THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE DIVISION OF WATER.

ANY REMOVAL AND RESETTING OF THE METER AND METER VAULT REQUIRED SHALL BE INCLUDED UNDER SEPARATE BID ITEM FOR PAYMENT.

PAYMENT FOR THIS ITEM SHALL BE PER EACH OF RETAP AND RECONNECT WATER SERVICE CONNECTION (BY SIDE).

ALL KNOWN EXISTING ACTIVE CITY SIDE LEAD CONNECTIONS HAVE BEEN IDENTIFIED IN THE DRAWINGS. SHOULD ANY OTHER CONNECTIONS THAT ARE DISTURBED DURING CONSTRUCTION ARE FOUND TO BE LEAD ON THE CITY SIDE, THEY SHALL ALSO BE REPLACED UNDER THIS ITEM. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 638 - WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE) 2 EACH
ITEM 638 - WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE) 2 EACH

ITEM SPECIAL - EXTEND 3/4" COPPER WATER SERVICE CONNECTION (CLEVELAND)

AT LOCATIONS WHERE THE PAVEMENT IS BEING WIDENED AND THE EXISTING WATER CURB STOP WILL BE LOCATED WITHIN THE NEW PAVEMENT, OR LESS THAN 2' BEHIND THE BACK OF THE NEW CURB, THE EXISTING WATER SERVICE CONNECTION SHALL BE EXTENDED IN ACCORDANCE WITH THIS NOTE AND CWD DRAWING STD-C01 (SHEET NO. 115).

THE REMOVAL OF THE EXISTING SERVICE BOX AND PIPING AS NECESSARY, AND THE FURNISHING AND INSTALLATION OF THE NEW PIPING, SERVICE CONNECTION VALVE, VALVE STEM, AND SERVICE BOX, EXCAVATION, DISPOSAL OF THE EXCAVATED MATERIAL, AND TEMPORARY PAVEMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THIS ITEM.

ITEM 638 - WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET

IN LOCATIONS WHERE AN EXISTING METER VAULT ON AN ACTIVE CONNECTION IS LOCATED WITHIN THE NEW ASPHALT SHARED USE PATH, THE CONTRACTOR SHALL REMOVE THE EXISTING METER VAULT AND EQUIPMENT AND INSTALL A NEW VAULT AND METER AS SHOWN ON THE DETAIL ON SHEET NO. 117 AND AS SPECIFIED HEREIN.

THE UNIT PRICE BID SHALL INCLUDE ALL OF, BUT NOT BE LIMITED TO, THE FOLLOWING:

- EXCAVATION, REMOVAL AND DISPOSAL OF THE COMPLETE WATER METER VAULT STRUCTURE. THE EXCAVATED AREA BELOW THE SHARED USE PATH SUBGRADE SHALL BE FILLED WITH CLEVELAND LSM BACKFILL MATERIAL IN ACCORDANCE WITH D-31. THE EXISTING CASTING AND METER SHALL BE REMOVED AND DELIVERED BY THE CONTRACTOR TO CLEVELAND WATER DEPARTMENT HARVARD YARD, 4600 HARVARD AVENUE, CLEVELAND, OHIO.
- FURNISH AND INSTALL ALL MATERIAL, LABOR AND EQUIPMENT NECESSARY FOR THE NEW METER VAULT, INCLUDING FRAME AND COVER, ALL IN CONFORMANCE WITH RULES AND REGULATIONS OF THE DEPARTMENT OF PUBLIC UTILITIES. VAULTS SHALL BE IN ACCORDANCE WITH THOSE APPROVED BY THE DEPARTMENT OF PUBLIC UTILITIES AS TO SIZE AND USE DESIGNATION AS ON FILE IN THE PERMITS AND SALES SECTION OF THE DIVISION OF WATER. THE CONTRACTOR SHALL DO ALL RELATED WORK INCLUDING ALL THE NECESSARY EXCAVATION, SHEETING AND SHORING, BEDDING PREPARATION, HANDLING, SETTING, AND BACKFILLING.
- FURNISH AND INSTALL ALL REQUIRED COPPER PIPING AND FITTINGS (LESS METER) AS NECESSARY, INCLUDING EXCAVATION, DISPOSAL OF EXCAVATED MATERIAL, AND BACKFILL. COPPER SETTER SHALL BE 1" MINIMUM.
- THE DIVISION OF WATER WILL INSTALL THE NEW METER IN THE COPPER SETTER INSTALLED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE DIVISION OF WATER.

PAYMENT FOR THIS ITEM SHALL BE PER EACH OF WATER METER AND METER VAULT REMOVED AND REPLACED.

ITEM 638 - WATER WORK, MISC.: REPLACEMENT OF OWNER SIDE LEAD WATER CONNECTION

AS PER THE CLEVELAND WATER DEPARTMENT STANDARD NOTE NO. 29 (SHEET NO. 102 AND 103), IF A CUSTOMER-OWNED LEAD SERVICE LINE IS ENCOUNTERED, THE CONTRACTOR SHALL OFFER THAT CUSTOMER TO REPLACE THE LEAD SERVICE FROM THE CURB STOP TO THE INLET STOP AND WASTE VALVE INSIDE THE CUSTOMER'S HOME.

THE UNIT PRICE BID SHALL INCLUDE ALL OF, BUT NOT BE LIMITED TO, THE FOLLOWING:

- ALL COORDINATION WITH THE PROPERTY OWNER AND THE DIVISION OF WATER.
- REMOVAL AND DISPOSAL OF THE EXISTING SERVICE CONNECTION PIPING, CURB VALVES, AND ALL OTHER WATER ITEMS AS NECESSARY.
- FURNISHING AND INSTALLATION OF ALL REQUIRED TYPE "K" COPPER PIPING AND FITTINGS AS NECESSARY, INCLUDING EXCAVATION, DISPOSAL OF EXCAVATED MATERIAL, BEDDING, AND BACKFILL. EXISTING CONNECTIONS 1" AND SMALLER SHALL BE REPLACED WITH 1" SERVICE CONNECTIONS.
- CONNECTION OF THE NEW COPPER PIPE TO THE EXISTING PIPE INSIDE OF THE CUSTOMER'S HOUSE, INCLUDING A REDUCER AS NECESSARY.
- REMOVAL AND REPAIR OR REPLACEMENT OF ALL DISTURBED DRIVEWAYS, SIDEWALKS, LANDSCAPING, ETC.; SEEDING OF ALL DISTURBED GRASSED AREAS.

THE FOLLOWING INFORMATION SHALL BE DOCUMENTED AND RECORDED BY THE CONTRACTOR AND PROVIDED TO THE CITY AND THE PROPERTY OWNER:

- PICTURES INSIDE OF THE BUILDING WHERE THE NEW AND EXISTING PIPES ARE CONNECTED.
- LENGTH, SIZE, AND MATERIAL OF NEW PIPE INSTALLED.
- TYPE OF PIPE MATERIAL THE NEW PIPE IS CONNECTED TO INSIDE OF THE BUILDING.
- LENGTH AND LOCATION OF ANY ABANDONED LEAD SERVICE PIPE LEFT IN THE GROUND.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

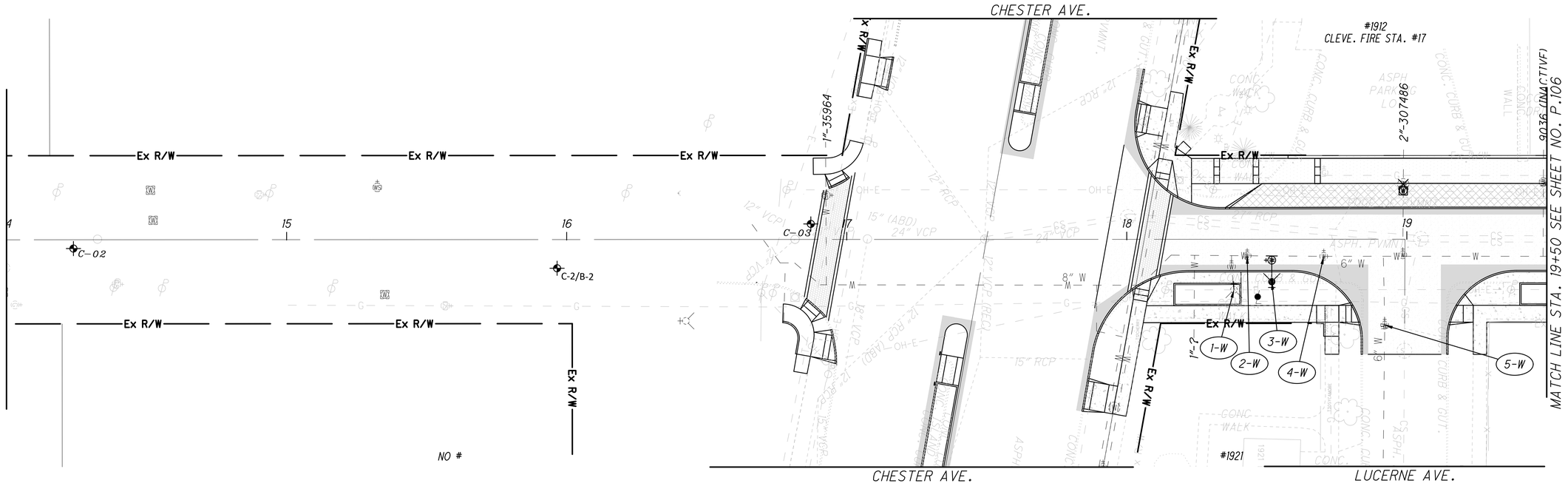
ITEM 638 - WATER WORK, MISC: REPLACEMENT OF OWNER SIDE LEAD WATER CONNECTION 3 EACH

WATER WORK GENERAL NOTES

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 10/23/25
PROJECT ID 122389
SHEET P.104 TOTAL 195



WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638	
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVCE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH
		LEFT SIDE								
307486	Y				1					1
9036	N			1						
		RIGHT SIDE								
??	Y							1		
TOTALS		0	0	1	1	0	0	1	0	1

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL		638	
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
1-W	18+38	RT			1	
2-W	18+43	RT	1			
3-W	18+52	RT				1
4-W	18+70	RT	1			
5-W	18+92	RT	1			
TOTALS			3	0	1	1

CUY-EAST 66TH STREET TLCI

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HORIZONTAL SCALE IN FEET 0 10 20 40

WATER WORK - EAST 66TH STREET STA. 14+00.00 TO STA. 19+50.00

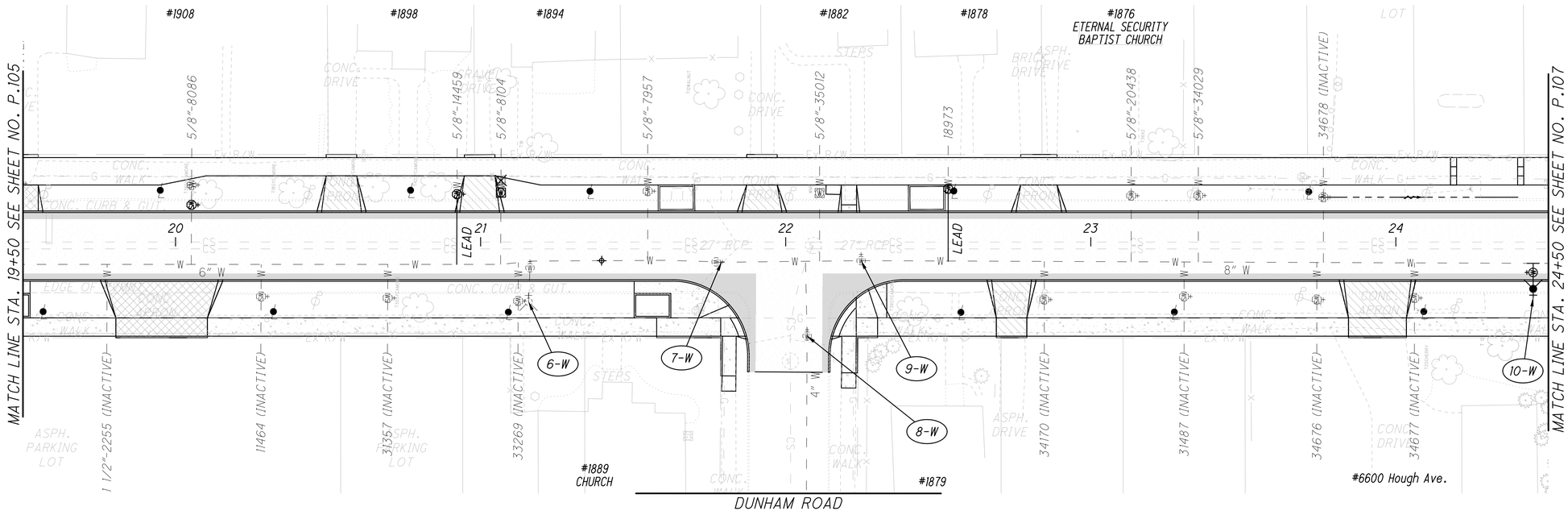
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK

REVIEWER DRP 5/5/25

PROJECT ID 122389

SHEET P.105 TOTAL 195



HORIZONTAL SCALE IN FEET
0 10 20 40

WATER WORK - EAST 66TH STREET
STA. 19+50.00 TO STA. 24+50.00

WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638		
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVCE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)
		EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH
		LEFT SIDE									
8086	Y					8					
14459	Y										1
8104	Y									1	
7957	Y							1			
35102	Y								1		
18973	Y										1
20438	Y							1			
34029	Y							1			
34678	N			1							
		RIGHT SIDE									
2255	N										
11464	N			1							
31357	N			1							
33269	N			1							
34170	N			1							
31487	N			1							
34676	N			1							
34677	N			1							
TOTALS		0	0	8	0	8	0	3	1	1	2

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

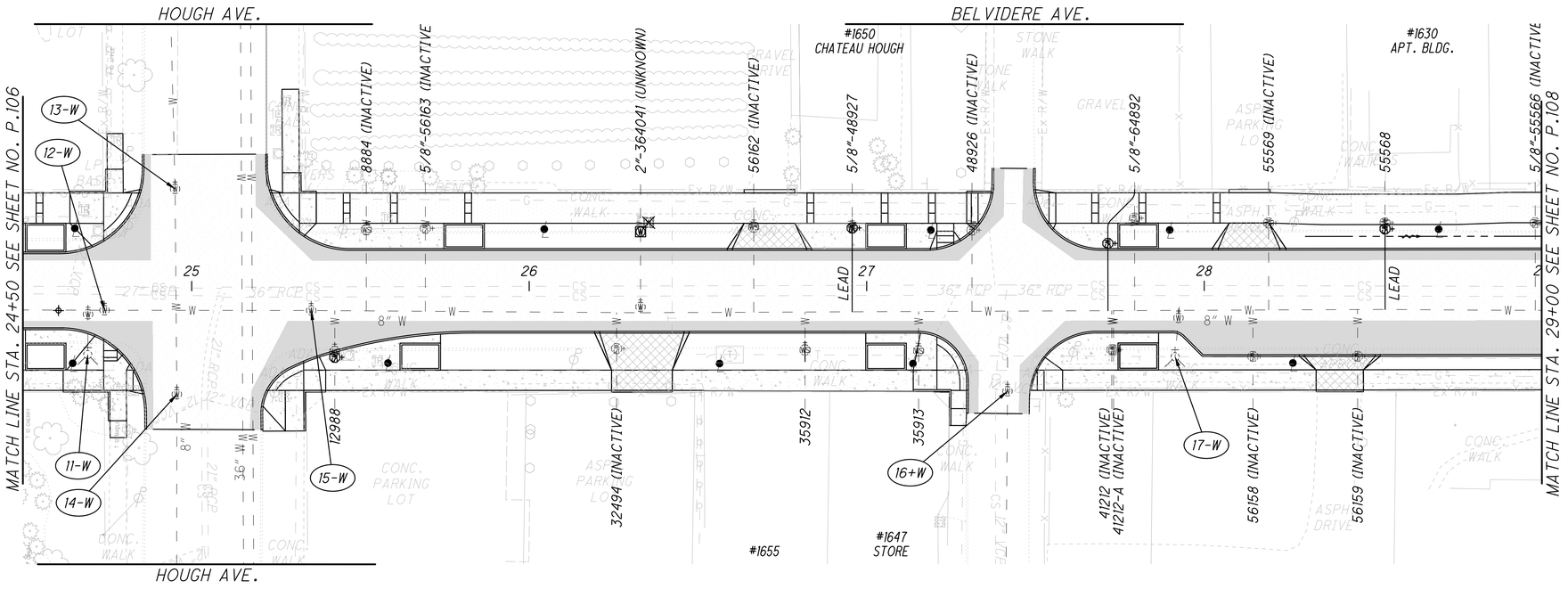
REF. NO.	STATION	SIDE	SPECIAL		638	
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
6-W	21+16	RT	1	1		
7-W	21+79	RT	1			
8-W	22+07	RT	1			
9-W	22+25	RT	1			
10-W	24+45	RT				1
TOTALS			4	1	0	1

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.106 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638		
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH
		LEFT SIDE									
8884	N			1							
56163	N			1							
364041	??									1	
56162	N			1							
48927	Y										1
48926	N			1							
64892	Y										1
55569	N			1							
55568	Y										1
55566	N			1							
		RIGHT SIDE									
12988	Y						6				
32494	N			1							
35912	Y							1			
35913	Y							1			
41212	N			1							
41212-A	N			1							
56158	N			1							
56169	N			1							
TOTALS		0	0	11	0	0	6	2	0	1	3

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL			638	638
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT SERVICE LINE EXTENDED AND ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH	EACH
11-W	24+69	RT				1	
12-W	24+74	RT	1				
13-W	24+95	LT	1				
14-W	24+96	RT	1				
15-W	25+35	RT	1				
16-W	27+41	RT	1				
17-W	27+91	RT	1		1		
TOTALS			6	0	1	1	0

HORIZONTAL SCALE IN FEET
0 10 20 40

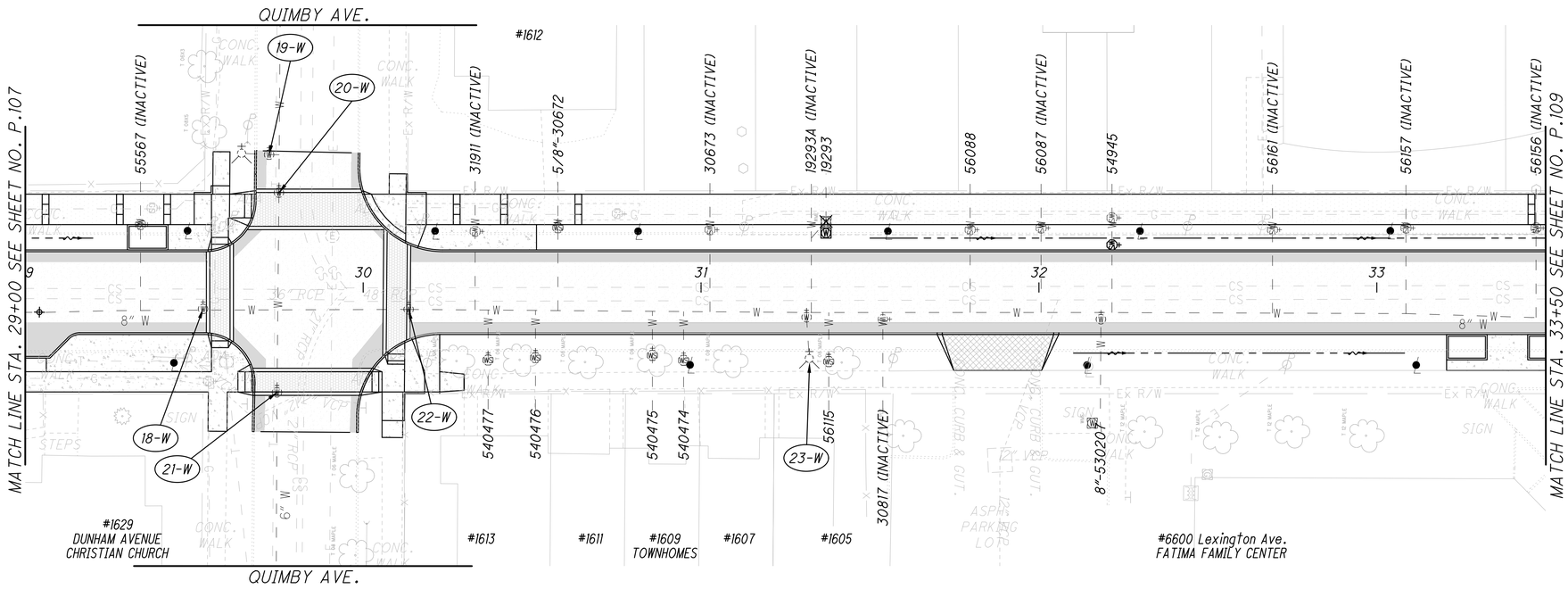
WATER WORK - EAST 66TH STREET STA. 24+50.00 TO STA. 29+00.00

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
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DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.107 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638	
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET
		EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH
		LEFT SIDE								
55567	N			1						
31911	N			1						
30672	Y							1		
30673	N			1						
19293A	N			1						
19293	Y									1
56088	Y							1		
56087	N			1						
54945	Y					8				
56161	N			1						
56157	N			1						
56156	N			1						
		RIGHT SIDE								
540477	Y							1		
540476	Y							1		
540475	Y							1		
540474	Y							1		
56115	Y							1		
30817	N		1							
530207	Y				1					
TOTALS		0	1	8	1	8	0	7	0	1

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL			638
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT SERVICE LINE EXTENDED AND ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
18-W	29+53	RT	1			
19-W	29+72	LT	1		1	
20-W	29+75	LT	1			
21-W	29+75	RT	1			
22-W	30+13	RT	1			
23-W	31+32	RT	1		1	
TOTALS			6	0	2	0

HORIZONTAL SCALE IN FEET
0 10 20 40

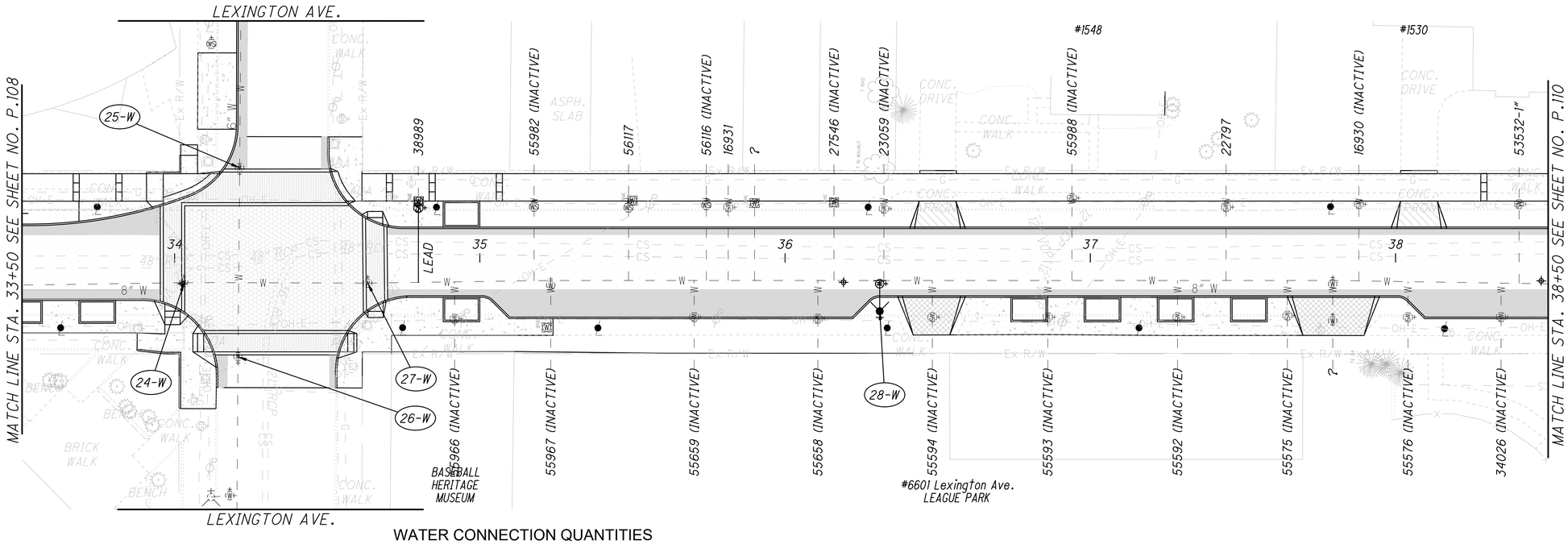
CUY-EAST 66TH STREET TLCI

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WATER WORK - EAST 66TH STREET
STA. 29+00.00 TO STA. 33+50.00

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.108 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638		
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH
		LEFT SIDE									
38989	Y								1		1
55982	N			1							
56117	Y							1	1		
56116	N			1							
16931	Y							1			
??	N	1									
27546	N	1									
23059	N			1							
55988	N			1							
22797	Y							1			
16930	N			1							
53532	Y							1			
		RIGHT SIDE									
55966	N			1							
55967	N	1	1								
55659	N			1							
55658	N			1							
55594	N			1							
55593	N			1							
55592	N			1							
55575	N			1							
??	N		2								
55576	N			1							
34026	N			1							
TOTALS		3	3	14	0	0	0	4	2	0	1

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL			638
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT SERVICE LINE EXTENDED AND ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
24-W	34+03	RT	1			
25-W	34+21	LT	1			
26-W	34+21	RT	1			
27-W	34+63	RT	1			
28-W	36+31	RT				1
TOTALS			4	0	0	1

HORIZONTAL SCALE IN FEET
0 10 20 40

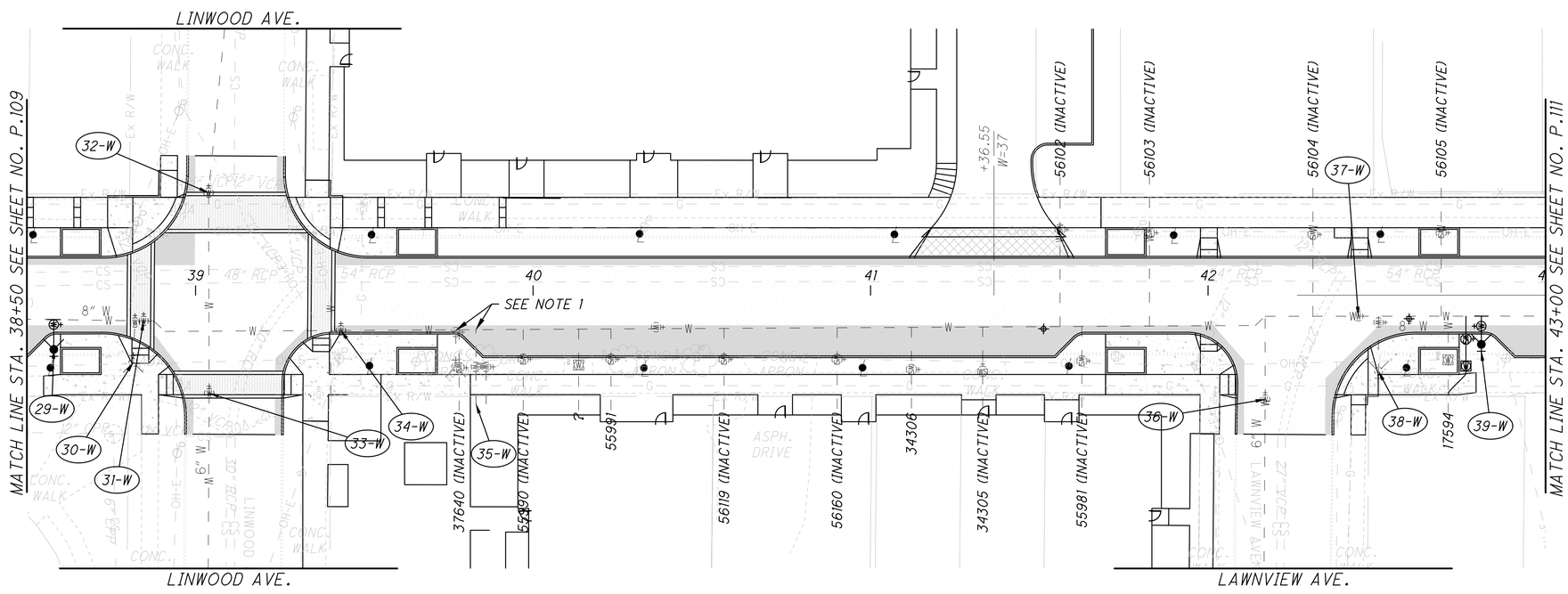
WATER WORK - EAST 66TH STREET STA. 33+50.00 TO STA. 38+50.00

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.109 TOTAL 195



NOTES:

1. THE CURRENT GATEWAY 66 PLANS SHOW A NEW HYDRANT AND WATER CONNECTIONS BEING INSTALLED OFF OF THE EAST 66TH WATER MAIN, AND MAY BE IN PLACE AT THE TIME THAT THE EAST 66TH STREET IMPROVEMENTS ARE BEING CONSTRUCTED. QUANTITIES HAVE BEEN PROVIDED FOR THE ADJUSTMENT TO GRADE OF THESE WATER ITEMS, FOR USE AS DIRECTED BY THE ENGINEER.

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638		
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH
		LEFT SIDE									
STA. 40+36	*		1								
56102	N			1							
56103	N			1							
56104	N			1							
56105	N			1							
		RIGHT SIDE									
37640	N			1							
55990	N			1							
??	??								1		
55991	**			1							
56119	N			1							
56160	N			1							
34306	**			1							
34305	N			1							
55981	N			1							
17594	Y									1	1
TOTALS		0	1	12	0	0	0	0	1	1	1

* = CONNECTION NO. 56101, PREVIOUSLY REMOVED.
** = CURRENTLY LISTED AS ACTIVE, EXPECTED TO BE INACTIVE AFTER THE GATEWAY 66 DEVELOPMENT

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL		638		
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE	
			EACH	EACH	EACH	EACH	
29-W	38+58	RT				1	
30-W	38+82	RT			1		
31-W	38+85	RT	1				
32-W	39+04	LT	1				
33-W	39+04	RT	1				
34-W	39+43	RT	1				
35-W	#	RT	3	1			# = SEE NOTE 1
36-W	42+17	RT	1				
37-W	42+45	RT	1				
38-W	42+50	RT			1		
39-W	42+81	RT				1	
TOTALS			9	1	2	2	

HORIZONTAL SCALE IN FEET
0 10 20 40

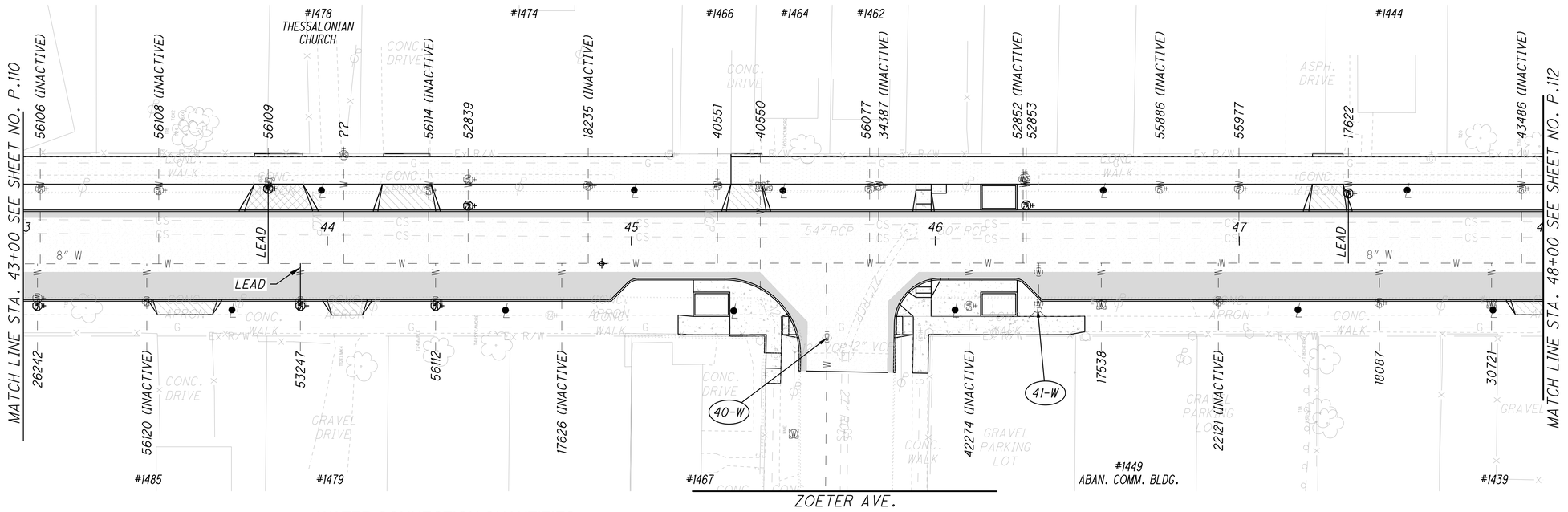
WATER WORK - EAST 66TH STREET STA. 38+00.00 TO STA. 43+00.00

CUY-EAST 66TH STREET TLCI

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.110 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638			
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
		EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH
		LEFT SIDE										
56106	N			1								
56108	N			1								
56109	Y								1		1	
??	??							1				
56114	N			1								
52839	Y					8						
18235	N			1								
40551	Y							1				
40550	Y							1	1			
56077	Y							1				
34387	N			1								
52852	N			1								
52853	Y					8						
55886	N			1								
55977	Y							1				
17622	Y										1	
43486	N			1								
		RIGHT SIDE										
26242	Y						6					
56120	N			1								
53247	Y											1
56112	Y						6					
17626	N			1								
42274	N			1								
17538	Y								1			
22121	N			1								
18087	Y							1				
30721	Y								1			
TOTALS		0	0	12	0	16	12	6	4	0	2	1

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL			638
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT SERVICE LINE EXTENDED AND ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
40-W	45+64	RT	1			
41+W	46+34	RT	1		1	
TOTALS			2	0	1	0

HORIZONTAL SCALE IN FEET
0 10 20 40

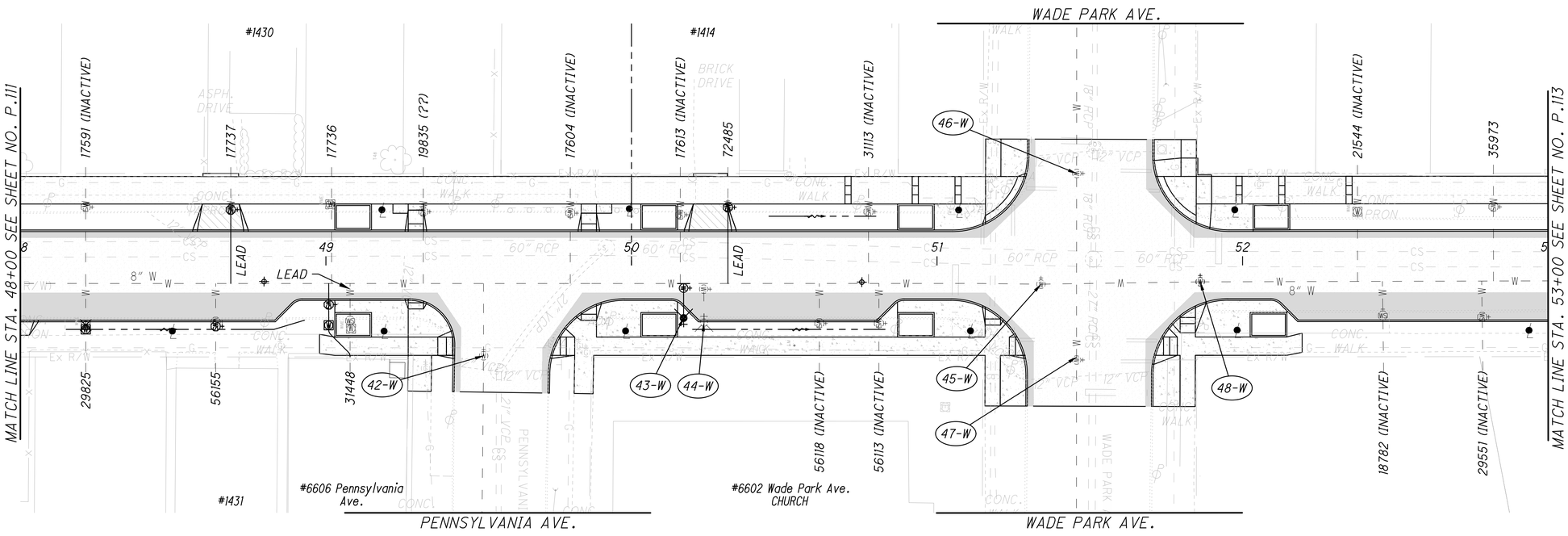
WATER WORK - EAST 66TH STREET STA. 43+00.00 TO STA. 48+00.00

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.111 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638			
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH
		LEFT SIDE										
17591	N			1								
17737	Y										1	
17736	Y								1			
19835	??							1				
17604	N			1								
17613	N			1								
72485	Y										1	
31113	N			1								
21544	N	1										
35973	Y							1				
		RIGHT SIDE										
29825	Y									1		
56155	Y						6					
31448	Y									1		1
56118	N			1								
56113	N			1								
18782	N			1								
29551	N			1								
TOTALS		1	0	8	0	0	6	2	1	2	2	1

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL		638	
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
42-W	49+52	RT	1			
43-W	50+17	RT				1
44-W	50+24	RT			1	
45-W	51+34	RT	1			
46-W	51+46	LT	1			
47-W	51+46	RT	1			
48-W	51+86	RT	1			
TOTALS			5	0	1	1

HORIZONTAL SCALE IN FEET
0 10 20 40

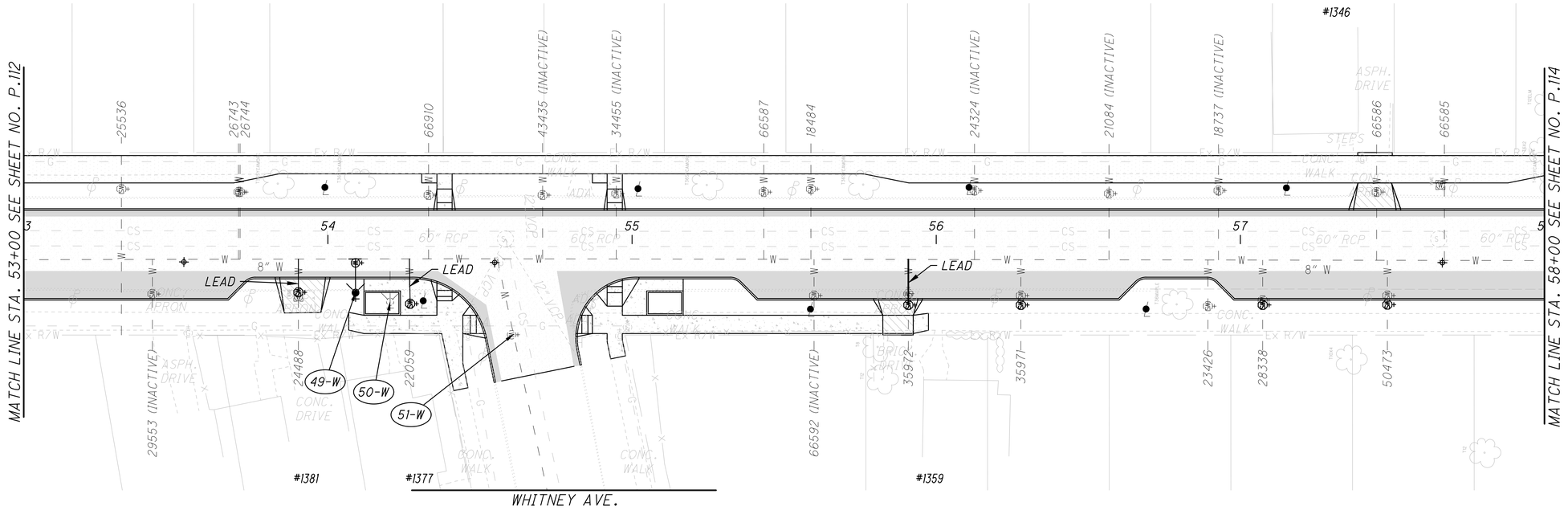
WATER WORK - EAST 66TH STREET STA. 48+00.00 TO STA. 53+00.00

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.112 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638		
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVCE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH
		LEFT SIDE									
25536	Y							1			
26743	Y							1			
26744	Y							1			
66910	Y							1			
43435	N			1							
34455	N			1							
66587	Y							1			
18484	Y							1			
24324	N			1							
21084	N			1							
18737	N			1							
66586	Y							1			
66585	Y								1		
		RIGHT SIDE									
29553	N			1							
24488	Y								1		1
22059	Y										1
66592	N			1							
35972	Y										1
35971	Y						6				
23426	Y							1			
28338	Y						6				
50473	Y						6				
TOTALS		0	0	7	0	0	18	8	2	0	3

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL		638	
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
49-W	54+09	RT				1
50-W	54+20	RT			1	
51-W	54+61	RT	1			
TOTALS			1	0	1	1

HORIZONTAL SCALE IN FEET
0 10 20 40

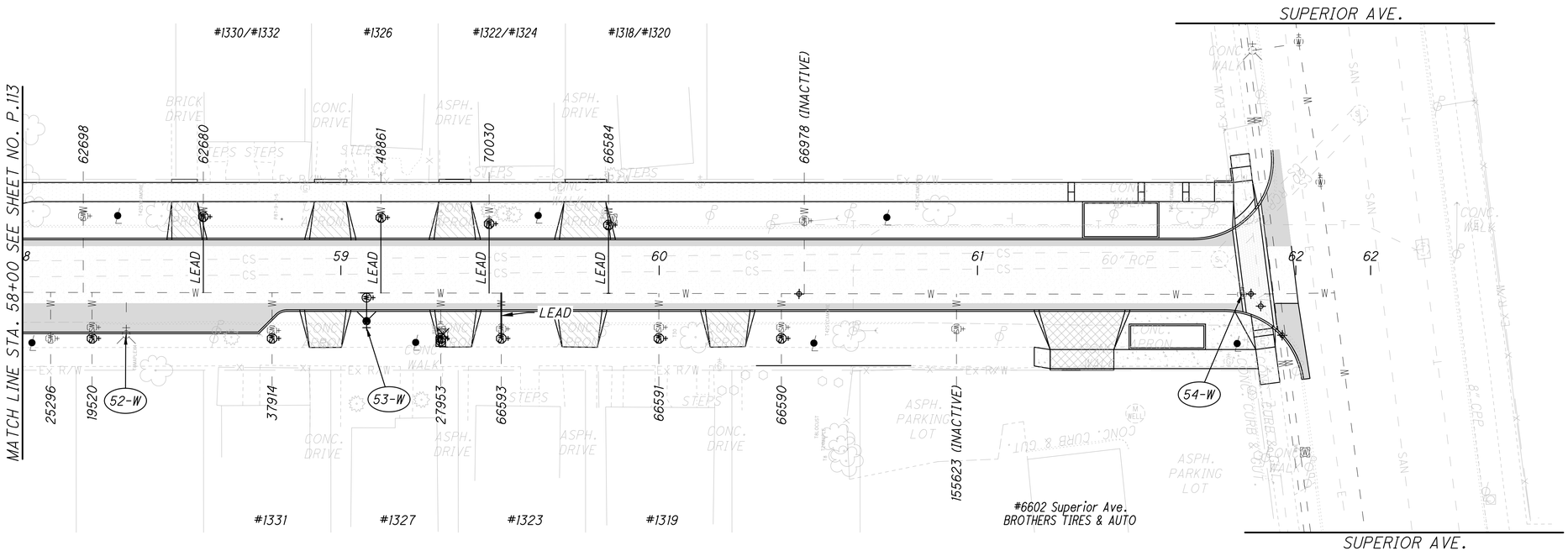
CUY-EAST 66TH STREET TLCI

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WATER WORK - EAST 66TH STREET
STA. 53+00.00 TO STA. 58+00.00

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.113 TOTAL 195



WATER CONNECTION QUANTITIES

CONN. NO.	ACTIVE CONN? (Y/N)	202			SPECIAL				638			
		METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SHORTEN WATER SERVCE CONNECTION (CLEVELAND)	EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
		EACH	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH
		LEFT SIDE										
62698	Y							1				
62680	Y										1	
48861	Y										1	
70030	Y										1	
66584	Y								1		1	
66978	N			1								
		RIGHT SIDE										
25296	Y							1				
19520	Y						6					
37914	Y						6					
27953	Y						6			1		
66593	Y											1
66591	Y						6					
66590	Y						6					
155623	N			1								
TOTALS		0	0	2	0	0	30	2	1	1	4	1

WATER WORK QUANTITIES CARRIED TO SHEET NO. 117

WATER WORK SUBSUMMARY

REF. NO.	STATION	SIDE	SPECIAL		638	
			VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE
			EACH	EACH	EACH	EACH
52-W	58+32	RT			1	
53-W	59+08	RT				1
54-W	61+83	RT	1			
TOTALS			1	0	1	1

HORIZONTAL SCALE IN FEET
0 10 20 40

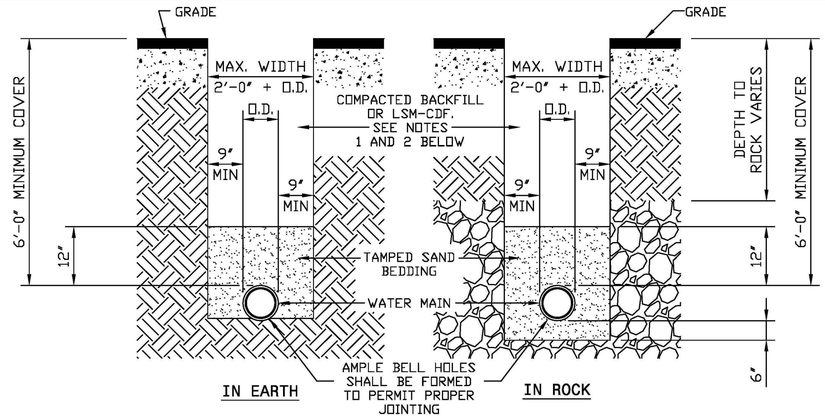
WATER WORK - EAST 66TH STREET STA. 58+00.00 TO STA. 62+30.00

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER IRK
REVIEWER DRP 5/5/25
PROJECT ID 122389
SHEET P.114 TOTAL 195

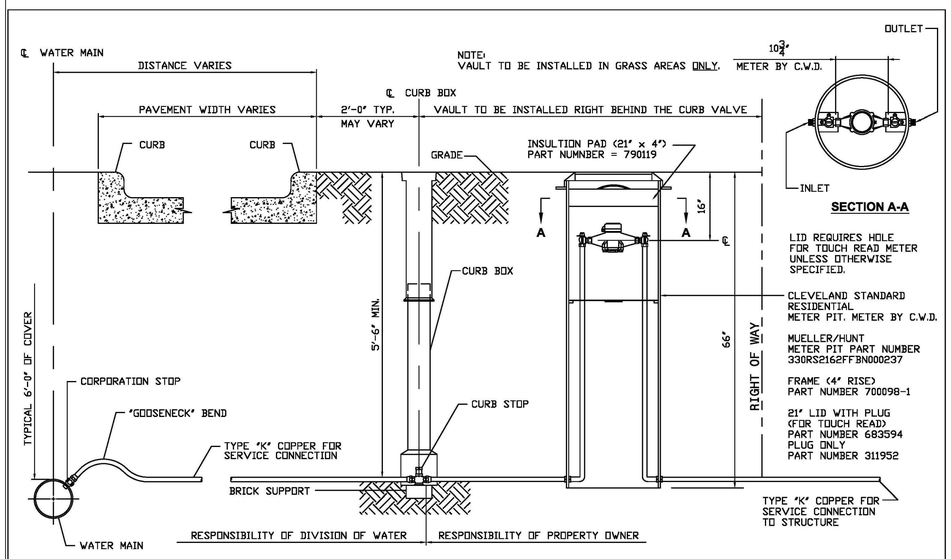


WATER MAIN TRENCH DETAILS

- NOT TO SCALE -

NOTES:
1) PREMIUM BACKFILL CONSISTING OF LOW STRENGTH MORTAR - CONTROLLED DENSITY FILL (LSM-CDF) 'FLOWABLE FILL' IS REQUIRED:
   A) UNDER ALL EXISTING OR FUTURE PAVEMENTS, SIDEWALKS AND DRIVES WITHIN THE CITY OF CLEVELAND CORPORATION LIMITS.
   B) AS SPECIFIED IN LOCAL MUNICIPALITIES SERVED BY CWD (SEE LOCAL REQUIREMENTS)
2) WHEN PREMIUM BACKFILL IS REQUIRED BY THE LOCAL MUNICIPALITY FOR CASES OTHER THAN THOSE LISTED IN NOTE 1 ABOVE, IT SHALL BE LIMESTONE GRADED PER ODOT 304.02 OR ODOT 411. NO SLAG IS PERMITTED.
3) CONTRACTOR SHALL USE SPECIAL CARE IN PLACING THE SAND BEDDING, SO AS TO AVOID SCRAPING OF THE EXTERIOR COATING, INJURING THE PIPE, DISTORTING OR MOVING THE PIPE WHEN COMPACTING THE SAME. THE SAND BEDDING SHALL BE TAMPED IN SIX (6) INCH LAYERS, SIMULTANEOUSLY ON EACH SIDE OF THE PIPE, AND THOROUGHLY COMPACTED SO AS TO PROVIDE A SOLID BACKING AGAINST THE EXTERNAL SURFACE OF THE PIPE.
4) MINIMUM COMPACTION FOR ALL SAND BEDDING, BACKFILL AND PREMIUM BACKFILL SHALL BE 95% STANDARD PROCTOR.
5) PAVEMENT, SIDEWALK OR DRIVES TO BE INSTALLED IN ACCORDANCE WITH LOCAL MUNICIPALITY'S SPECIFICATIONS.

STD-001 | DATE: 6-21-2012



NEW 1" SERVICE CONNECTION WITH CLEVELAND STANDARD METER PIT IN PUBLIC RIGHT OF WAY

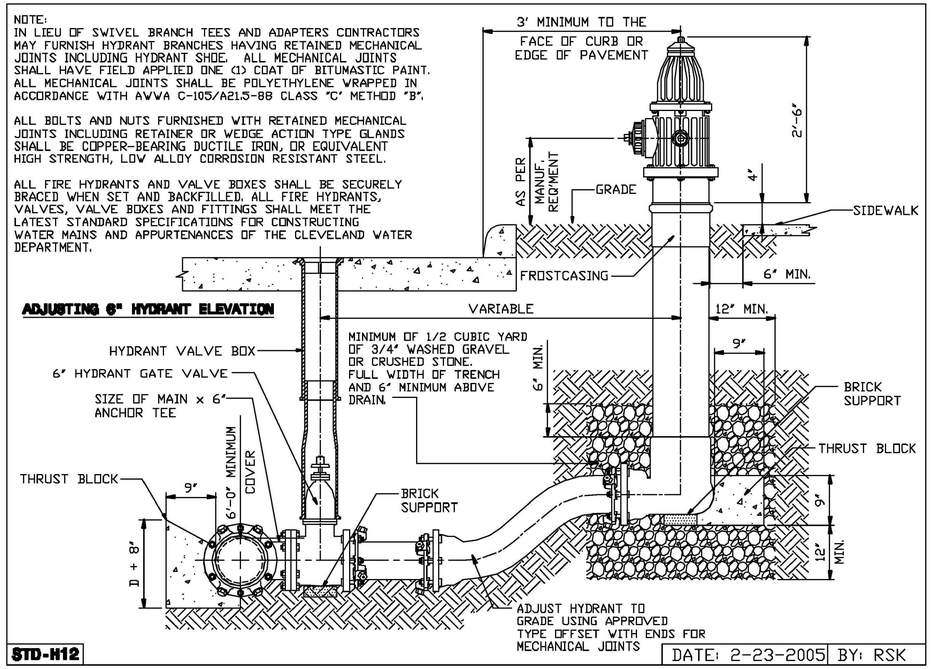
- NOT TO SCALE -

STD-M31 | DATE: 10-12-2007 | BY: RSK

NOTE:
IN LIEU OF SWIVEL BRANCH TEES AND ADAPTERS CONTRACTORS MAY FURNISH HYDRANT BRANCHES HAVING RETAINED MECHANICAL JOINTS INCLUDING HYDRANT SHOE. ALL MECHANICAL JOINTS SHALL HAVE FIELD APPLIED ONE (1) COAT OF BITUMASTIC PAINT. ALL MECHANICAL JOINTS SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH AWWA C-105/A21.5-88 CLASS 'C' METHOD 'B'.

ALL BOLTS AND NUTS FURNISHED WITH RETAINED MECHANICAL JOINTS INCLUDING RETAINER OR WEDGE ACTION TYPE GLANDS SHALL BE COPPER-BEARING DUCTILE IRON, OR EQUIVALENT HIGH STRENGTH, LOW ALLOY CORROSION RESISTANT STEEL.

ALL FIRE HYDRANTS AND VALVE BOXES SHALL BE SECURELY BRACED WHEN SET AND BACKFILLED. ALL FIRE HYDRANTS, VALVES, VALVE BOXES AND FITTINGS SHALL MEET THE LATEST STANDARD SPECIFICATIONS FOR CONSTRUCTING WATER MAINS AND APPURTENANCES OF THE CLEVELAND WATER DEPARTMENT.



STD-H12 | DATE: 2-23-2005 | BY: RSK

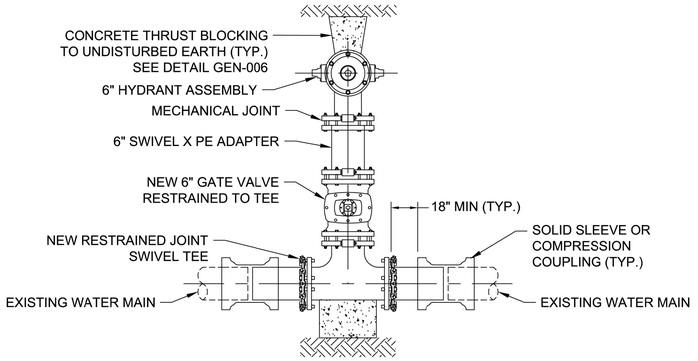
CUY-EAST 66TH STREET TLCI

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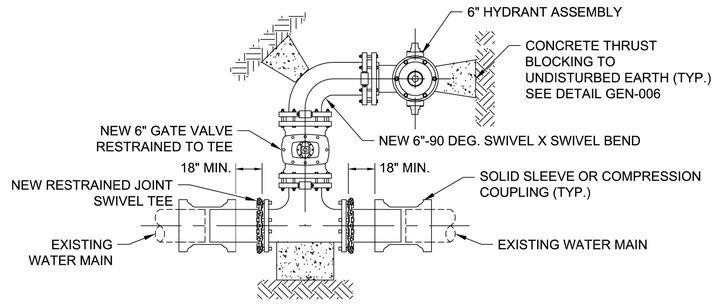
WATER WORK DETAILS

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 10/1/25
PROJECT ID 122389
SHEET P.115 TOTAL 195

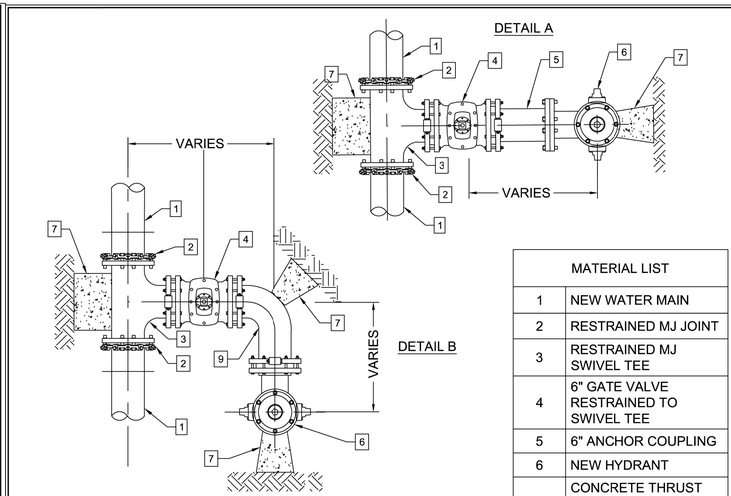


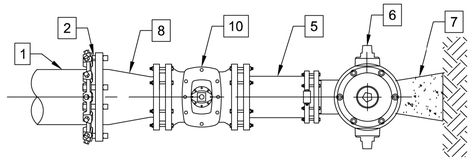
STRAIGHT HYDRANT - DETAIL "A"



OFFSET HYDRANT - DETAIL "B"

REVISIONS			CITY OF CLEVELAND DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER (CWD)	CUT-IN TEE FOR NEW HYDRANT ON EXISTING WATER MAIN	
NO.	DATE	BY		DETAIL NO.:	GEN-H08
				SCALE: N.T.S.	DATE: 5/31/2024



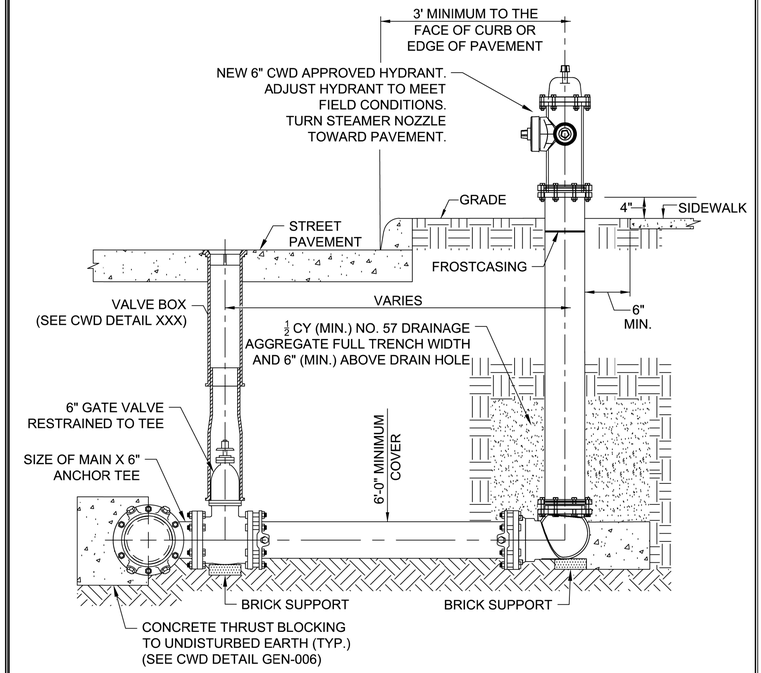


MATERIAL LIST	
1	NEW WATER MAIN
2	RESTRAINED MJ JOINT
3	RESTRAINED MJ SWIVEL TEE
4	6" GATE VALVE RESTRAINED TO SWIVEL TEE
5	6" ANCHOR COUPLING
6	NEW HYDRANT
7	CONCRETE THRUST BLOCKING TO UNDISTURBED EARTH (SEE CWD DETAIL GEN-006)
8	SIZE OF MAIN X 6" REDUCER
9	SWIVEL X SWIVEL 90 DEG. BEND
10	6" GATE VALVE RESTRAINED TO REDUCER

NOTES:

1. INSTALL RESTRAINED JOINTS ON ALL PIPE AND FITTINGS.
2. ADJUST NEW HYDRANT TO MEET FIELD CONDITIONS. TURN STEAMER NOZZLE TOWARD PAVEMENT.
3. INSTALL NEW 8" PIPE WITH 36 LF (MIN.) FULLY RESTRAINED JOINTS OR NEW 12" PIPE WITH 54 LF (MIN.) RESTRAINED JOINTS.

REVISIONS			CITY OF CLEVELAND DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER (CWD)	TYPICAL NEW HYDRANT INSTALLATION DETAILS	
NO.	DATE	BY		DETAIL NO.:	GEN-H09
				SCALE: N.T.S.	DATE: 5/31/2024



NOTES:

1. SEE DETAILS GEN-H02, GEN-H03, GEN-H08 AND GEN-H09 FOR HYDRANT INSTALLATIONS.

REVISIONS			CITY OF CLEVELAND DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER (CWD)	6" HYDRANT ELEVATION DETAIL	
NO.	DATE	BY		DETAIL NO.:	GEN-H13
				SCALE: N.T.S.	DATE: 5/28/2024

WATER WORK DETAILS

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY

OSBORN ENGINEERING
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CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK

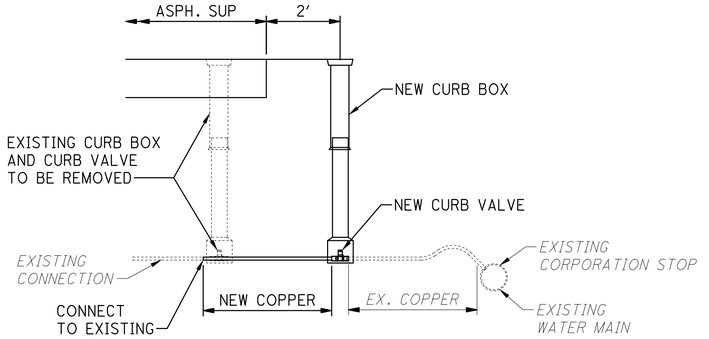
REVIEWER DRP 10/1/25

PROJECT ID 122389

SHEET P.116 TOTAL 195

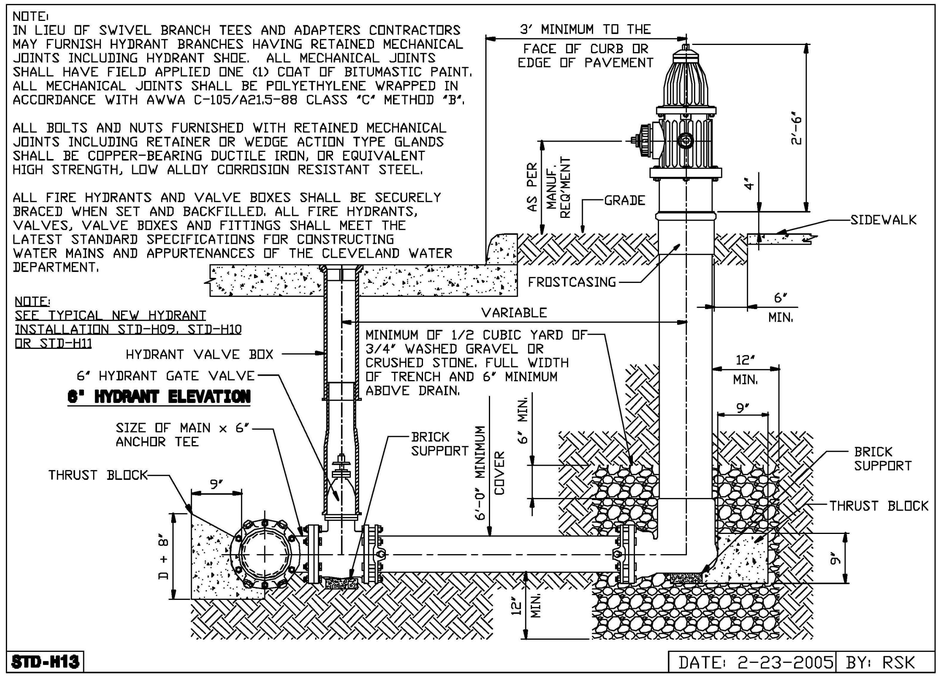
SHEET NO.	202			SPECIAL					638					
	METER VAULT REMOVED	VALVE BOX REMOVED, AS PER PLAN	REMOVAL MISC.: WATER SERVICE STOP BOX	SPECIAL-VALVE BOX ADJUSTED TO GRADE (CLEVELAND)	SPECIAL-SHORTEN WATER SERVICE CONNECTION (CLEVELAND)	SPECIAL-EXTEND ¾" COPPER WATER SERVICE CONNECTION (CLEVELAND)	SPECIAL-SERVICE BOX ADJUSTED TO GRADE (CLEVELAND)	SPECIAL-FIRE HYDRANT ADJUSTED TO GRADE (CLEVELAND)	FIRE HYDRANT REMOVED AND DISPOSED OF	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE	WATER WORK, MISC.: WATER METER VAULT ADJUSTED TO GRADE	WATER WORK, MISC.: METER AND METER VAULT REMOVED AND RESET	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (LONG SIDE)	WATER WORK, MISC.: RETAP AND RECONNECT WATER SERVICE CONNECTION (SHORT SIDE)
	EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
105			1	4			1		1	1		1		
106			8	3	8		3	1		1	1	1	2	
107			11	6		6	2	1	1			1	3	
108		1	8	7	8		7	2				1		
109	3	3	14	4			4			1	2		1	
110		1	12	9				1	2	2	1	1		1
111			12	2	16	12	6	1			4		2	1
112	1		8	5		6	2		1	1	1	2	2	1
113			7	1		18	8		1	1	2			3
114			2	1		30	2		1	1	1	1	4	1
*	4	5	83	42	32	72	35	6	7	8	12	8	14	7

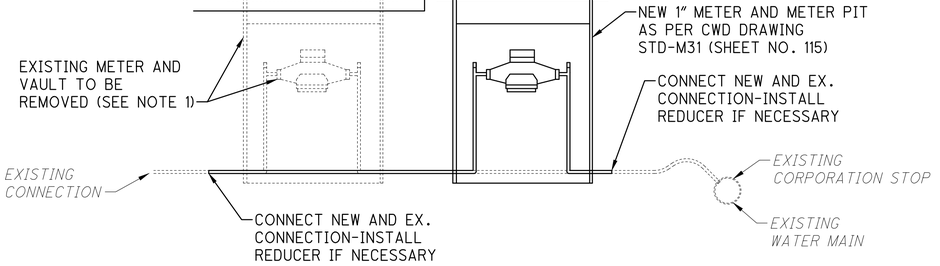
* = TOTALS CARRIED TO GENERAL SUMMARY



NOTE: IF EXISTING SERVICE CONNECTION IS FOUND TO BE GALVANIZED OR LEAD, REPLACE FROM CORPORATION STOP TO CURB VALVE.

ITEM SPECIAL - SHORTEN WATER SERVICE CONNECTION (CLEVELAND)





NOTES:

1. REMOVE THE EXISTING METER AND ALL FITTINGS FROM EXISTING VAULT. METER TO BE DELIVERED TO CWD HARVARD YARD. ALL OTHER ITEMS TO BE DISPOSED OF BY THE CONTRACTOR.
2. EXISTING SERVICE CONNECTION IS FOUND TO BE GALVANIZED OR LEAD, REPLACE FROM CORPORATION STOP TO NEW METER PIT.

ITEM 638 - WATER WORK, MISC.: MATER AND METER VAULT REMOVED AND RESET

WATER WORK DETAILS AND SUBSUMMARY

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2020116.00_East_66th_St_Final_Engineering\Drawings\Trans\Utilities\Sheets\UD003.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER DRP 12/22/25
PROJECT ID 122389
SHEET P.117 TOTAL 195

CLEVELAND PUBLIC POWER GENERAL NOTES

CONTACT OHIO UTILITIES PROTECTION SERVICE, TWO WORKING DAYS PRIOR TO START OF CONSTRUCTION. IN OHIO, CALL TOLL FREE 1-800-362-2764. IT'S THE LAW

UTILITIES SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND FIELD INVESTIGATION, AND ARE NOT NECESSARILY COMPLETE OR EXACT. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL UTILITIES AND APPURTENANCES WHETHER SHOWN ON THIS PLAN OR NOT.

SCOPE OF WORK

A. THE CONTRACTOR SHALL INSTALL OR REMOVE ALL CLEVELAND PUBLIC POWER (CPP) FACILITIES AS INDICATED ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PROPERLY COMPLETED, INCLUDING INCIDENTALS, AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN:

B. THE MAJOR ITEMS OF WORK TO BE PERFORMED BY THE CONTRACTOR SHALL BE AS FOLLOWS:

- FURNISHING AND INSTALLATION OF WOODEN POWER POLES AS INDICATED ON THE DRAWINGS. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632, WOOD POLE (35' CLASS III).
- COORDINATION WITH THE VARIOUS UTILITY COMPANIES THAT HAVE FACILITIES ON THE POLES TO SCHEDULE THE WORK NECESSARY TO RELOCATE ALL WIRING, EQUIPMENT, ETC. FROM THE EXISTING TO THE NEW POLES.
- REMOVAL OF EXISTING POWER POLES AFTER ALL ITEMS HAVE BEEN REMOVED. CPP SHALL DETERMINE WHICH POLES ARE TO BE SALVAGED. SALVAGED POLES SHALL BE DELIVERED BY THE CONTRACTOR TO A LOCATION TO BE DETERMINED BY CPP. POLES THAT ARE NOT SALVAGED SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. REMOVAL OF ALL GUY ANCHORS AND WIRES ATTACHED TO THE POLE SHALL ALSO BE REMOVED AND DISPOSED OF. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202, REMOVAL, MISC.: POLE REMOVED.

C. THE MAJOR ITEMS OF WORK TO BE PERFORMED BY CPP SHALL BE AS FOLLOWS:

- FURNISHING AND INSTALLATION OF GROUND RODS AND ALL NECESSARY WIRING.
- FURNISHING AND INSTALLATION OF ALL NECESSARY GUY ANCHORS AND WIRES. ANY GUY ANCHORS LOCATED IN CONCRETE SIDEWALK AREAS SHALL BE A SIDEWALK ANCHOR TYPE.
- REMOVAL AND RELOCATION OR REPLACEMENT OF ALL ELECTRIC WIRING RUNNING BETWEEN THE POLES.
- RECONNECTION OF ANY WIRING BETWEEN THE NEW POLE AND EXISTING BUILDINGS.
- INSTALLATION OF ANY NECESSARY CONDUIT RISERS ON THE POLE TO SERVE ADJACENT BUILDINGS.
- REMOVAL AND RELOCATION OR REPLACEMENT OF ALL ELECTRICAL EQUIPMENT ON THE POLE, INCLUDING (BUT NOT LIMITED TO) LUMINAIRES, BRACKET ARMS, AND TRANSFORMERS.

STATUS OF CITY INSPECTOR

INSPECTORS AS DESIGNATED BY THE CITY OF CLEVELAND SHALL BE AUTHORIZED TO INSPECT ALL WORK DONE AND MATERIALS FURNISHED. SUCH INSPECTING MAY EXTEND TO ALL OR ANY OF THE WORK, AND TO THE PREPARATION OR MANUFACTURE OF THE MATERIALS TO BE USED IN THE WORK. THE CITY INSPECTOR AS DESIGNATED BY THE CITY OF CLEVELAND DIRECTOR OF PUBLIC UTILITIES SHALL GIVE WORK INSTRUCTIONS THROUGH THE PROJECT ENGINEER.

SHEET NO.	REF. NO.	CPP POLE NO.	EXIST. POLE LOCATION	PROP. POLE LOCATION	202 REMOVAL, MISC.: POLE REMOVED EACH	632 WOOD POLE (35', CLASS III) EACH		
P.119	RL-1	------	17+86, 63' RT.	17+87, 55' RT.	1	1		
	RL-2	------	18+06, 42' LT.	18+07, 36' LT.	1	1		
	RL-3	NE2-122	19+31, 18' RT.	19+37, 18' RT.	1	1		
	RL-4	BP B193 SPNO6 3-3	21+70, 19' LT.	21+75, 14.5' LT.	1	1		
	RL-5	------	23+72, 18' LT.	23+67, 16.5' LT.	1	1		
P.120	RL-6	NE2-116	26+78, 20' LT.	26+86, 16.5' LT.	1	1		
	RL-7	NE2-115	28+27, 20.4' LT.	28+32, 16.5' LT.	1	1		
	RL-8	------	30+17, 20.0' LT.	30+18, 16.5' LT.	1	1		
	RL-9	NE2-113	31+13, 19.4' LT.	31+18, 16.5' LT.	1	1		
	RL-10	------	32+44, 19.6' LT.	32+39, 16.5' LT.	1	1		
	RL-11	------	32+66, 19.7' LT.	32+61, 16.5' LT.	1	1		
P.121	RL-12	NE2-111	33+97, 20.8' LT.	33+79, 18' LT.	1	1		
	RL-13	NE2-110	35+56, 18.9' LT.	35+61, 16.5' LT.	1	1		
	RL-14	NE2-109	37+18, 19.8' LT.	37+23, 16.5' LT.	1	1		
	RL-15	------	38+82, 18.7' LT.	38+74, 16.5' LT.	1	1		
	RL-16	NE2-106	41+79, 18.9' LT.	41+86, 16.5' LT.	1	1		
P.122	RL-17	NE2-105	43+18, 18.7' LT.	43+23, 16.5' LT.	1	1		
	RL-18	NE2-104	44+63, 19.1' LT.	44+68, 16.5' LT.	1	1		
	RL-19	NE2-103	46+10, 19.2' LT.	46+05, 16.5' LT.	1	1		
	RL-20	NE2-102	47+11, 19.1' LT.	47+16, 16.5' LT.	1	1		
	RL-21	NE2-101	48+56, 18.9' LT.	48+51, 16.5' LT.	1	1		
	RL-22	NE2-100	49+42, 19.2' LT.	49+47, 16.5' LT.	1	1		
	RL-23	NE2-99	50+73, 19.6' LT.	50+85, 16.5' LT.	1	1		
	RL-24	NE2-87-9-12-__	52+13, 18.9' LT.	52+20, 16.5' LT.	1	1		
P.123	RL-25	NE2-87-9-12-7	61+43, 19.1' LT.	61+26, 19' LT.	1	1		
TOTALS TO GENERAL SUMMARY					25	25		

— — — —OH-E— — — — EX. OVERHEAD FIRST ENERGY (OTHER UTILITIES POSSIBLE)

— — — —OH-E— — — — EX. OVERHEAD CPP (OTHER UTILITIES POSSIBLE)

CLEVELAND PUBLIC POWER GENERAL NOTES AND SUBSUMMARY

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\2022011116.100_East_66th_St_Final_Engineering\Drawings\Trans\Utilities\Sheets\UN101.dwg

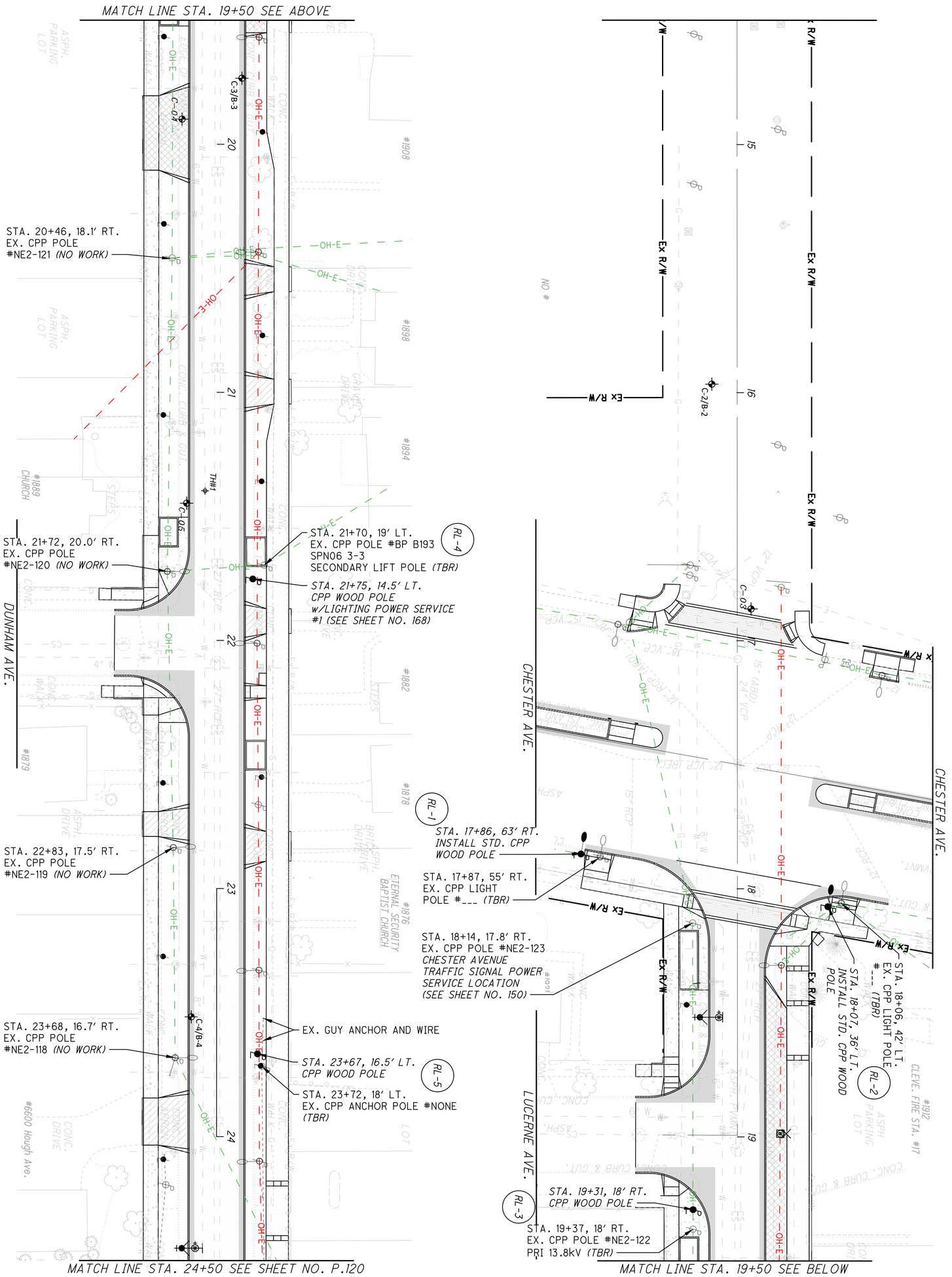
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER IRK

REVIEWER DRP 12/21/25

PROJECT ID 122389

SHEET P.118 TOTAL 195



SHEET	TOTAL
P.119	195

PROJECT ID 122389

REVIEWER DRP 11/19/25

DESIGNER IRK

DESIGN AGENCY

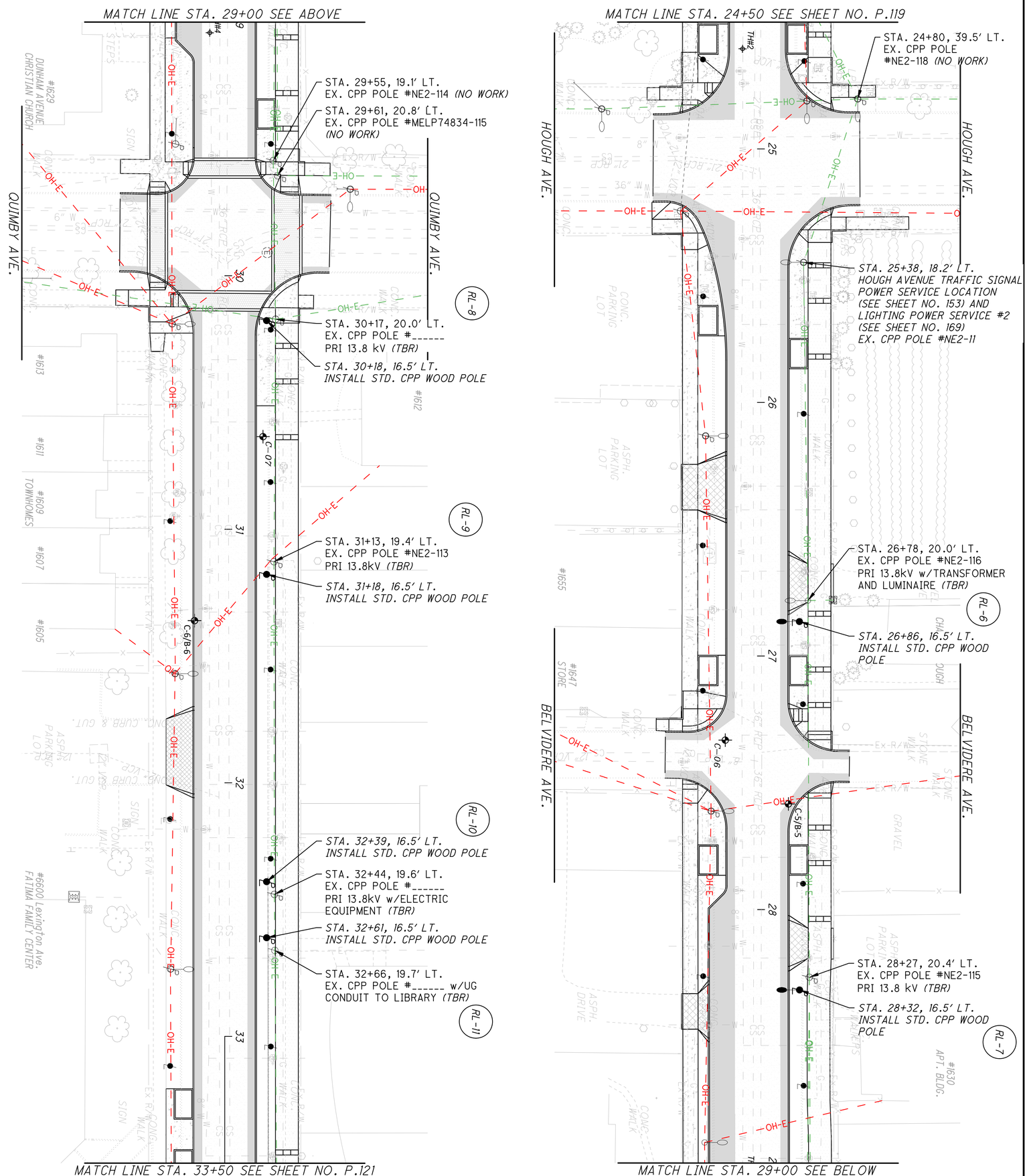
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2700
CLEVELAND, OH 44114
216.861.2020
www.osborn-eng.com

CPP RELOCATION PLANS - EAST 66TH STREET
CHESTER AVENUE TO STA. 24+50.00

HORIZONTAL SCALE IN FEET

0 20

10 40



CPP RELOCATION PLANS - EAST 66TH STREET
STA. 24+50.00 TO STA. 33+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

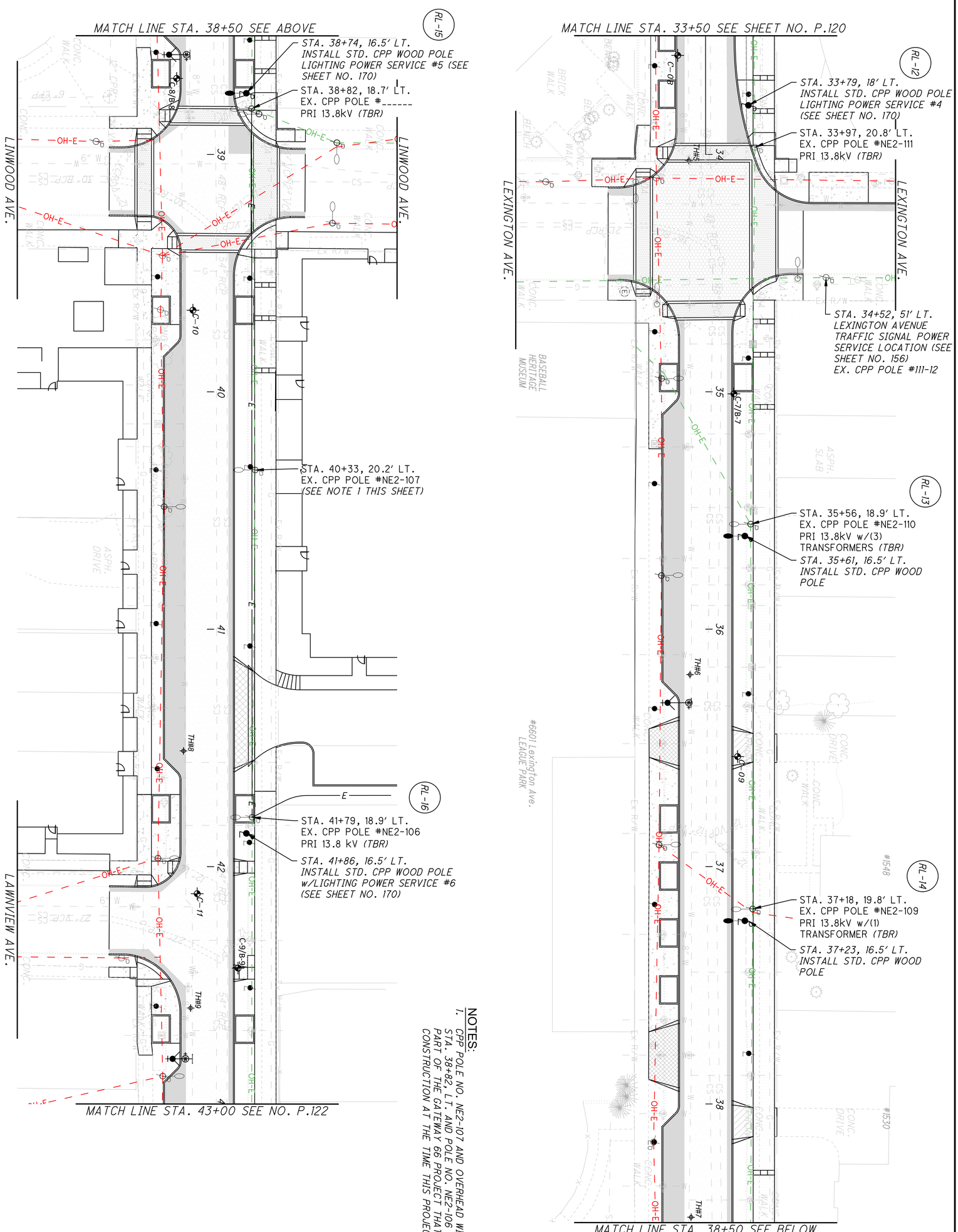
SHEET	TOTAL
P. 120	195

PROJECT ID 122389

REVIEWER DRP 11/19/25

DESIGNER IRK

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2700
CLEVELAND, OH 44114
(216)861-2020
www.osborn-eng.com

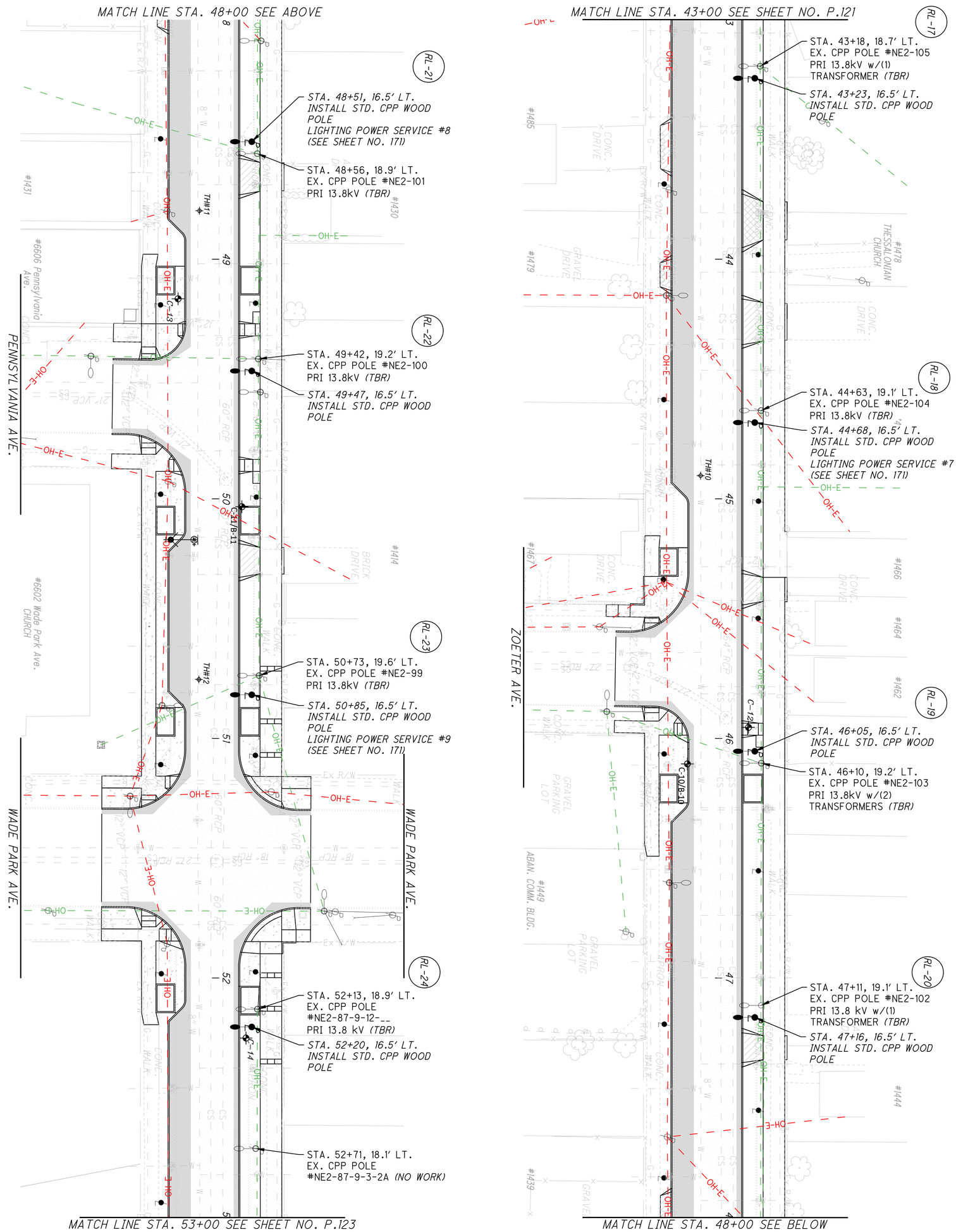


NOTES:

1. CPP POLE NO. NE2-107 AND OVERHEAD WIRING BETWEEN POLE AT STA. 38+82, LT. AND POLE NO. NE2-106 WILL BE REMOVED AS PART OF THE GATEWAY 66 PROJECT THAT WILL BE UNDER CONSTRUCTION AT THE TIME THIS PROJECT IS BEGINNING.

SHEET P.121 TOTAL 195	PROJECT ID 122389	DRP 11/19/25 REVIEWER	DESIGNER IRK	DESIGN AGENCY OSBORN ENGINEERING 1111 SUPERIOR AVE. STE. 2700 CLEVELAND, OH 44114 216.861.2020 www.osborn-eng.com	CPP RELOCATION PLANS - EAST 66TH STREET STA. 33+50.00 TO STA. 43+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40



SHEET	TOTAL
P.122	195

PROJECT ID 122389

DRP 11/19/25 REVIEWER

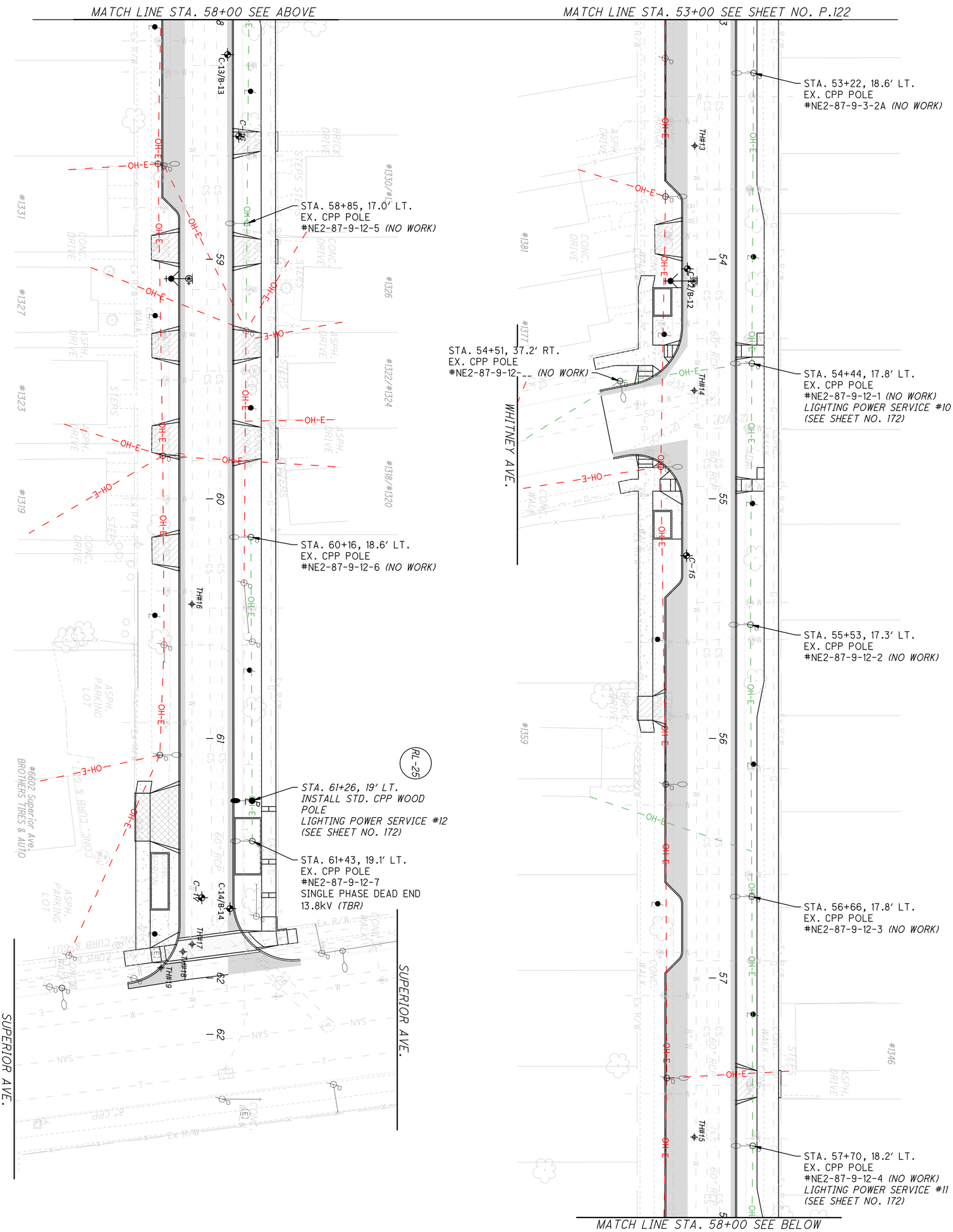
IRK DESIGNER

OSBORN ENGINEERING DESIGN AGENCY
1111 SUPERIOR AVE. STE. 2700
CLEVELAND, OH 44114
216.861.2020 www.osborn-eng.com

CPP RELOCATION PLANS - EAST 66TH STREET
STA. 43+00.00 TO STA. 53+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

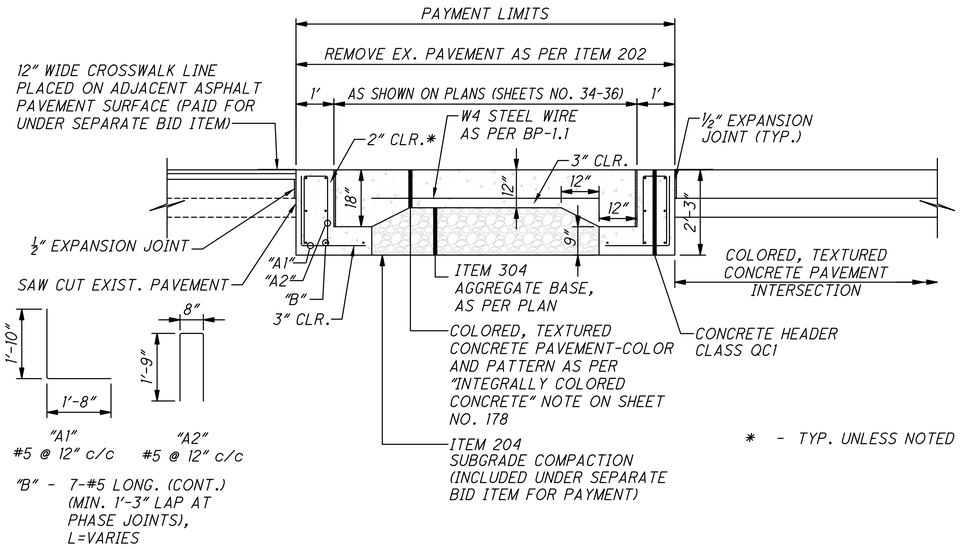
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SHEET P.123 TOTAL 195	PROJECT ID 122389	DRP 11/19/25 REVIEWER	DESIGNER IRK	OSBORN ENGINEERING 1111 SUPERIOR AVE. STE. 2700 CLEVELAND, OH 44114 216.861.2020 www.osborn-eng.com	DESIGN AGENCY

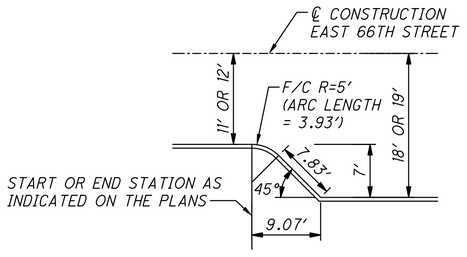
CPP RELOCATION PLANS - EAST 66TH STREET
STA. 53+00.00 TO SUPERIOR AVENUE

HORIZONTAL SCALE IN FEET
0 20
10 40

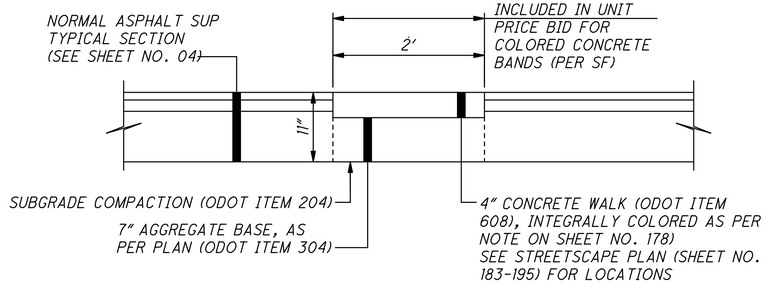


REINFORCING STEEL, CONFORMING TO ITEM 509, EPOXY COATED

ITEM 451 - REINFORCED CONCRETE, MISC.: DECORATIVE CONCRETE CROSSWALK

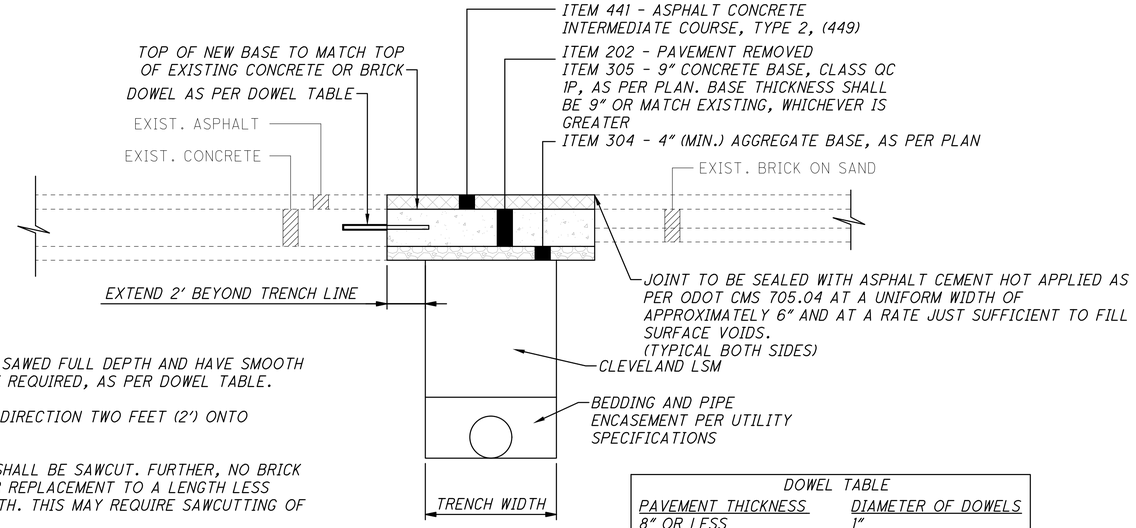


PARKING LANE BUMPOUT START/END DETAIL



ITEM 608 -WALKWAY, MISC.:COLORED CONCRETE BANDS

NOTE: REFER TO STREETSCAPE PLANS FOR LOCATION AND SPACING OF UNIT PAVERS



NOTES:

1. ALL PAVEMENT OPENINGS SHALL BE SAWED FULL DEPTH AND HAVE SMOOTH VERTICAL FACES. DOWELS SHALL BE REQUIRED, AS PER DOWEL TABLE.
2. EXTEND OVERCUT IN LONGITUDINAL DIRECTION TWO FEET (2') ONTO UNDISTURBED SUBGRADE.
3. SAWCUTTING: ALL PARTIAL BRICKS SHALL BE SAWCUT. FURTHER, NO BRICK WILL BE PERMITTED TO BE CUT FOR REPLACEMENT TO A LENGTH LESS THAN ONE-HALF ITS ORIGINAL LENGTH. THIS MAY REQUIRE SAWCUTTING OF ADJACENT UNDISTURBED BRICK(S).
4. THE PERIMETER FACES OF THE EXISTING BASE MATERIAL SHALL BE CUT BACK TO AS NEARLY VERTICAL ORIENTATION AS POSSIBLE. IF SHEARING OF THE ADJACENT BASE RESULTS, THE CONTRACTOR SHALL REMOVE ADDITIONAL BRICK AND BASE AS SHOWN IN THE DETAIL.
5. ALL BACKFILL MATERIALS USED UNDER PAVEMENT SHALL BE CLEVELAND LSM PLACED FROM THE INITIAL ONE FOOT OVER THE TOP OF THE UTILITIES, TO THE SUBGRADE.
6. TO PREVENT FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS, COVER ALL JOINTS IN CLAY PIPE IN THE TRENCH AREA WITH POLYETHYLENE MATERIAL BEFORE POURING FLOWABLE FILL, REPAIR TECHNIQUES SHALL BE IN ACCORDANCE WITH THE UTILITY COMPANY'S STANDARD REPAIR PROCEDURES.

DOWEL TABLE

PAVEMENT THICKNESS	DIAMETER OF DOWELS
8" OR LESS	1"
9"	1-⅛"
10"	1-¼"
OVER 10"	AS DIRECTED

DOWELS SHALL BE SPACED EVERY 30"

PAVEMENT REPLACEMENT DETAIL

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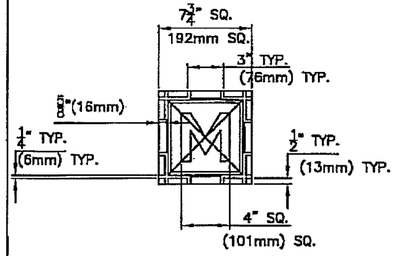
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK

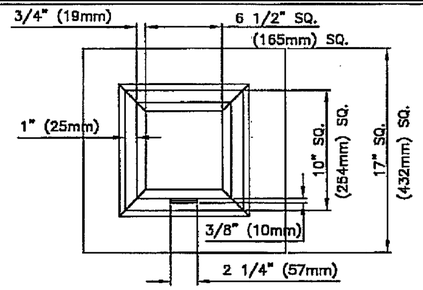
REVIEWER CEL 12/14/25

PROJECT ID 122389

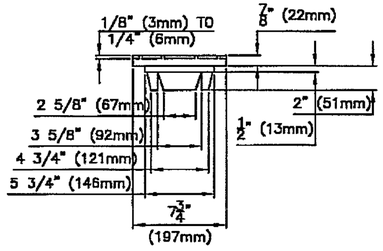
SHEET P.124 TOTAL 195



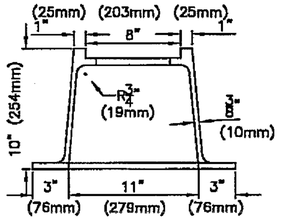
PLAN OF COVER



PLAN OF FRAME

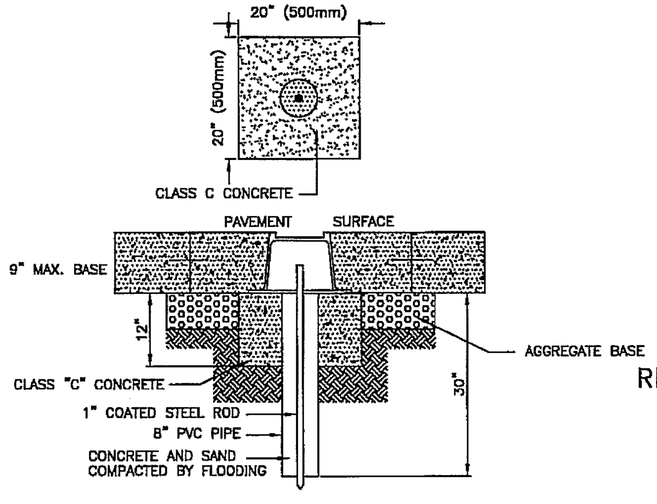


SIDE VIEW OF COVER

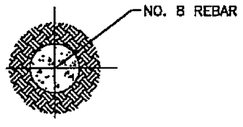


SECTION OF FRAME

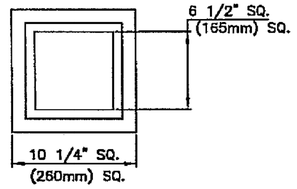
MONUMENT ASSEMBLY SECTION

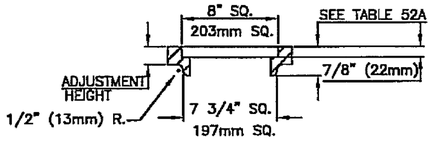


ROADWAY MONUMENT ASSEMBLY



RIGHT OF WAY MONUMENT

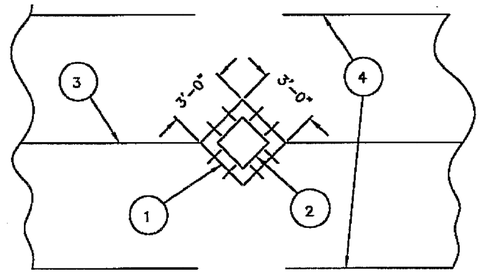




ADJUSTING RING

NOTE: ADJUSTING RING IS TO BE TACK WELDED TO THE FRAME BY LEAST TWO (2) POINTS OF AN APPROVED METHOD.

ADJUSTMENT HEIGHT	DIMENSION 52A	MINIMUM WEIGHTS
1–1/8" (29mm)	2' (51mm)	14–LBS. (6.4 kg)
1–1/2" (38mm)	2–3/8" (60mm)	20–LBS. (9.1 kg)
2–1/2" (64mm)	3–3/8" (86mm)	27–LBS. (12.2 kg)
3" (76mm)	3–7/8" (98mm)	30–LBS. (13.6 kg)
3–12" (89mm)	4–3/8" (111mm)	32–LBS. (14.5 kg)



1. MONUMENT ASSEMBLY BLOCK OUT CONSTRUCTION JOINT H/12" (305mm) LONG 1–1/4" (32mm) DIA. DOWELS. (BY CONTRACTOR)
2. MONUMENT BOX (BY CONTRACTOR)
3. TYPICAL LONGITUDINAL JOINT
4. 451 OR 452 CONC. PAYMENT A.P.P

NOTE; 36" ROUND BOX OUT MAY BE APPROVED UNDER SPECIAL CONDITIONS BY THE ENGINEER. 8–9 EQUALLY SPACED DOWELS SHALL BE INSTALLED.

TYPICAL BLOCK OUT IN RIGID PAVEMENT. (OMIT FOR FULL DEPTH FLEXIBLE PAVEMENT)

NOTES

CASTING SHALL MINIMALLY MEET THE REQUIREMENTS OF 604.02–711.12 A.S.T.M. A 48 CLASS 35 GRAY IRON OR 711.13 DUCTILE IRON.
THE ASSEMBLY SHELL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THOSE SHOWN HEREON.

MINIMUM WEIGHTS:
FRAME ---- 94 LBS. (42.6 kg)
COVER ---- 16 LBS. (7.3 kg)
PROVIDED THEY COMPLY WITH THE SPECIFICATIONS. DETAILS. DIMENSIONS AND MINIMUM WEIGHTS.
EAST JORDAN – NO. 8360
OR APPROVED EQUAL CASTINGS ARE ACCEPTABLE.

BEARING AREAS SHELL BE FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT. NO PROJECTION SHALL EXIST ON THE BEARING AREAS AND THE COVER SHELL SEAT IN ITS FRAME WITHOUT ROCKING.

PRIOR TO CONSTRUCTION OF PAVEMENT. THE FRAME SHALL BE SET TO GRADE IN SUCH A MANNER THAT WILL PREVENT ANY PAVEMENT MATERIAL FROM ENTERING THE CASTING.

CONTACT CITY OF CLEVELAND SURVEY DEPT. AT (216) 664–2460 AT LEAST TWO (2) WEEKS PRIOR TO THE DISTURBANCE OF ANY EXISTING MONUMENTS.

ALL MONUMENTS ARE TO BE SET UNDER THE DIRECTION OF A REGISTERED SURVEYOR. (REF. O.A.C. 4733–37–03)

WHERE CLEVELAND REGIONAL GEODETIC SURVEY (C.R.G.S.) MONUMENT ASSEMBLIES ARE MARKED ON THE PLANS TO BE ABANDONED. THE CONTRACTOR SHALL CAREFULLY REMOVE AND STORE THE MONUMENT CASTINGS AND BRONZE C.R.G.S. MARKERS FOR SALVAGE BY THE COUNTY. THE CONTRACTOR SHELL ALSO NOTIFY THE REGIONAL GEODETIC SURVEY OFFICE AT (216) 348–3846. SO THAT THE MONUMENT CASTINGS AND BRONZE C.R.G.S. MARKERS MAY BE PICKED UP. PAYMENT SHELL BE MADE UNDER ITEM 202–MONUMENT ASSEMBLY ABANDONED. C.R.G.S. MONUMENT.

ITEM 202–MONUMENT ASSEMBLY ABANDONED. C.R.G.S. MONUMENT
ITEM 604– CITY OF CLEVELAND MONUMENT BOX
ITEM 604– CITY OF CLEVELAND ROADWAY MONUMENT ASSEMBLY
ITEM 604– CITY OF CLEVELAND RIGHT OF MAY MONUMENT
ITEM 604– MONUMENT BOX ADJUSTED TO GRADE. AS PER PLAN (ONLY WHEN EXISTING MONUMENT BOX CONFORMS TO MB–IC AND IS SUITABLE FOR REUSE)

LEGEND

- CONCRETE CLASS "C"
- SAND (703.02). COMPACTED AS REQUIRED
- SUBBASE/AGGREGATE BASE PER THE PLANS.
- UNDISTURBED EARTH OR SUITABLE BACKFILL AND FIRM FOUNDATION IN ACCORDANCE WITH 604.04 AND TO THE SATISFACTION OF THE ENGINEER.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK–DIRECTOR OF PUBLIC SERVICE

MONUMENT BOX ASSEMBLIES

NOT TO SCALE

REVISED BY: R. PLIODZINSKAS DATE: 4/8/08
SUBMITTED BY: W. MCLAUGHLIN DATE: 4/8/08
APPROVED: [signature] DATE: 7-8-08
COMMISSIONER OF ENGINEERING & CONSTRUCTION

MB–1C | 38

MISCELLANEOUS DETAILS

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER IRK
REVIEWER CEL 12/14/25
PROJECT ID 122389
SHEET P.125 TOTAL 195

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Roadway\Sheets\GM001.dwg

SHEET NO.	REF. NO.	STATION TO STATION	644 CENTER LINE	644 CHANNELIZING LINE, 12"	644 STOP LINE	644 CROSSWALK LINE, 12"	644 CROSSWALK LINE, 24"	644 LANE ARROW	644 YIELD LINE	644 REMOVAL OF PAVEMENT MARKING	644 REMOVAL OF PAVEMENT MARKING	646 PAVEMENT MARKING, MISC.; DO NOT BLOCK INTERSECTION MARKINGS							
			MILE	FT	FT	FT	FT	EACH	FT	FT	EACH	EACH							
P.133	CL-1	18+23 TO 18+65	0.01																
P.133	CL-2	19+30 TO 21+72	0.05																
P.133	INT-1	18+54 TO 19+36										1							
P.133	SL-1	16+76			17														
P.133	SL-2	18+23			13														
P.133	SL-3	LUCERNE AVE			15														
P.133	XW-1	16+84 TO 17+04				93													
P.133	XW-2	18+00 TO 18+17				73													
P.133	XW-3	18+81 TO 19+18				68													
P.134	CL-3	22+24 TO 24+66	0.05																
P.134	SL-4	22+01			13														
P.134	XW-4	21+84 TO 22+17				60													
P.134	XW-5	22+17 TO 22+24				61													
P.135	CL-4	HOUGH AVE RT	0.001																
P.135	CL-5	HOUGH AVE LT	0.001																
P.135	CL-6	25+40 TO 27+19	0.03																
P.135	CL-7	27+62 TO 29+46	0.03																
P.135	SL-5	24+66			12														
P.135	SL-6	HOUGH AVE RT			17														
P.135	SL-7	HOUGH AVE LT			18														
P.135	SL-8	25+40			13														
P.135	SL-9	BELVIDERE AVE RT			19														
P.135	XW-6	24+72 T0 24+79				65													
P.135	XW-7	24+83 TO 25+26				79													
P.135	XW-8	24+79 TO 25+26				85													
P.135	XW-9	25+26 TO 25+33				79													
P.135	XW-10	27+20 TO 27+27				57													
P.135	XW-11	27+30 TO 27+50				39													
P.135	XW-12	27+33 TO 27+54				33													
P.136	CL-8	30+21 TO 33+88	0.07																
P.136	SL-10	29+46			12														
P.136	SL-11	QUIMBY RT			30														
P.136	SL-12	30+21			12														
P.136	XW-13	29+52 TO 29+61				53													
P.136	XW-14	29+67 TO 30+03				67													
P.136	XW-15	29+65 TO 30+06				71													
P.136	XW-16	30+05 TO 30+14				64													
P.137	CL-9	LEXINGTON AVE RT	0.001																
P.137	CL-10	LEXINGTON AVE LT	0.001																
P.137	CL-11	34+77 TO 38+79	0.08																
P.137	SL-13	33+88			12														
P.137	SL-14	LEXINGTON AVE RT			19														
P.137	SL-15	LEXINGTON AVE LT			13														
P.137	SL-16	34+77			11														
SUBTOTALS CARRIED TO SHEET P.128			0.32	0	246	1047	0	0	0	0	0	1							

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TS001.dwg

PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB

REVIEWER DRP 9/23/25

PROJECT ID 122389

SHEET P.126 TOTAL 195

SHEET NO.	REF. NO.	STATION TO STATION	644 CENTER LINE	644 CHANNELIZING LINE, 12"	644 STOP LINE	644 CROSSWALK LINE, 12"	644 CROSSWALK LINE, 24"	644 LANE ARROW	644 YIELD LINE	644 REMOVAL OF PAVEMENT MARKING	644 REMOVAL OF PAVEMENT MARKING	646 PAVEMENT MARKING, MISC.; DO NOT BLOCK INTERSECTION MARKINGS							
			MILE	FT	FT	FT	FT	EACH	FT	FT	EACH	EACH							
P.137	XW-17	33+95 TO 34+04				66													
P.137	XW-18	34+09 TO 34+57				88													
P.137	XW-19	34+04 TO 34+58				88													
P.137	XW-20	34+61 TO 34+70				56													
P.138	CL-12	39+62 TO 41+96	0.05																
P.138	CL-13	42+49 TO 45+40	0.06																
P.138	SL-17	LINWOOD AVE LT			14														
P.138	SL-18	LAWNVIEW AVE RT			28														
P.138	XW-21	38+79 TO 38+88				57													
P.138	XW-22	38+93 TO 39+26				62													
P.138	XW-23	38+90 TO 39+33				72													
P.138	XW-24	39+33 TO 39+42				55													
P.138	XW-25	41+97 TO 42+04				48													
P.138	XW-26	42+08 TO 42+40				61													
P.138	XW-27	42+41 TO 42+48				58													
P.138	YL-1	38+59							11										
P.138	YL-2	39+72							11										
P.139	CL-14	46+00 TO 49+25	0.06																
P.139	XW-28	45+52 TO 45+87				66													
P.139	XW-29	45+93 TO 46+00				47													
P.140	CL-15	49+90 TO 51+08	0.02																
P.140	CL-16	WADE PARK AVE RT	0.002																
P.140	CL-17	WADE PARK AVE LT	0.001																
P.140	CL-18	51+92 TO 54+34	0.05																
P.140	SL-19	PENNSYLVANIA AVE			31														
P.140	SL-20	51+08			11														
P.140	SL-21	WADE PARK AVE RT			20														
P.140	SL-22	WADE PARK AVE LT			20														
P.140	SL-23	51+92			11														
P.140	XW-30	49+26 TO 49+33				45													
P.140	XW-31	49+42 TO 49+76				66													
P.140	XW-32	49+83 TO 49+90				50													
P.140	XW-33	51+15 TO 51+22				61													
P.140	XW-34	51+26 TO 51+73				90													
P.140	XW-35	51+23 TO 51+77				96													
P.140	XW-36	51+79 TO 51+86				61													
P.141	CL-19	54+98 TO 61+75	0.13																
P.141	SL-24	WHITNEY AVE			15														
P.141	XW-37	54+34 TO 54+42				49													
P.141	XW-38	54+49 TO 54+83				64													
P.141	XW-39	54+91 TO 54+98				47													
P.142	SL-25	61+75			11														
P.142	XW-40	61+80 TO 61+95				67													
SUBTOTALS CARRIED TO SHEET P.128			0.36	0	161	1520	0	0	22	0	0	0							

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornweng.com

DESIGNER JMB

REVIEWER DRP 9/23/25

PROJECT ID 122389

SHEET P.127 TOTAL 195

SHEET NO.	REF. NO.	STATION TO STATION	644 CENTER LINE	644 CHANNELIZING LINE, 12"	644 STOP LINE	644 CROSSWALK LINE, 12"	644 CROSSWALK LINE, 24"	644 LANE ARROW	644 YIELD LINE	644 REMOVAL OF PAVEMENT MARKING	644 REMOVAL OF PAVEMENT MARKING	646 PAVEMENT MARKING, MISC.; DO NOT BLOCK INTERSECTION MARKINGS							
			MILE	FT	FT	FT	FT	EACH	FT	FT	EACH	EACH							
P.143	CH-1	119+52 TO 119+90		38															
P.143	CH-2	121+22 TO 122+14		92															
P.143	LA-1	119+70						1											
P.143	LA-2	121+42						1											
P.143	LA-3	121+94						1											
P.143	SL-26	119+90			45														
P.143	SL-27	121+22			45														
P.143	XL-1	119+96 TO 120+16					180												
P.143	XL-2	119+96 TO 120+16					120												
P.143	XL-3	120+96 TO 121+16					140												
P.143	XL-4	120+96 TO 121+16					180												
		CHESTER INTERSECTION REMOVAL								604	4								
SUBTOTALS THIS SHEET			0	130	90	0	620	3	0	604	4	0							
SUBTOTALS SHEET P.126			0.32	0	246	1047	0	0	0	0	0	1							
SUBTOTALS SHEET P.127			0.36	0	161	1520	0	0	22	0	0	0							
TOTALS CARRIED TO GENERAL SUMMARY			0.68	130	497	2567	620	3	22	604	4	1							

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY

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DESIGNER JMB

REVIEWER DRP 9/23/25

PROJECT ID 122389

SHEET P.128 TOTAL 195

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST (FT)	630 GROUND MOUNTED SUPPORT, NO. 3 POST (FT)	630 GROUND MOUNTED SUPPORT, NO. 4 POST (FT)	630 ONE WAY SUPPORT, NO. 3 POST (FT)	630 STREET NAME SIGN SUPPORT, NO. 2 POST (FT)	630 SIGN POST REFLECTOR (EACH)	630 SIGN, FLAT SHEET (SF)	630 SIGN, DOUBLE FACED, STREET NAME (EACH)	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)	630 GROUND MOUNTED POST SUPPORT AND DISPOSAL (EACH)	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL (EACH)		630 SIGNING, MISC.; SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY (EACH)	
P.133	S-1	E. 66TH ST./LUCERNE AVE.	19+18	RT	R1-1	30 X 30		12.8				1	6.25							
P.133	S-2	E. 66TH ST.	19+25	RT	D3-1	42 X 12					12.6			1						
					D3-1	42 X 12								1						
P.133	SR-1	E. 66TH ST.	16+82	RT													2			
P.133	SR-2	E. 66TH ST.	18+06	LT													2			
P.133	SR-3	E. 66TH ST.	18+31	LT													1			
P.133	SR-4	E. 66TH ST.	18+47	RT											1	1				
P.133	SR-5	E. 66TH ST./LUCERNE AVE.	19+18	RT											3	1				
P.134	S-3	E. 66TH ST.	19+63	LT	R10-7 MOD.	24 X 30		12.8					5.00							
P.134	S-4	E. 66TH ST.	19+64	RT	R2-1	24 X 30		12.8					5.00							
P.134	S-5	E. 66TH ST./DUNHAM AVE.	22+17	RT	R1-1	30 X 30		12.8				1	6.25							
P.134	S-6	E. 66TH ST.	22+24	RT	D3-1	36 X 12					12.6			1						
					D3-1	42 X 12								1						
P.134	S-7	E. 66TH ST.	23+76	LT	R7-13	12 X 18	11.9						1.50							
P.134	SR-6	E. 66TH ST.	19+57	LT													2			
P.134	SR-7	E. 66TH ST.	21+72	RT													3			
P.134	SR-8	E. 66TH ST./DUNHAM AVE.	22+16	RT											1	1				
P.134	SR-9	E. 66TH ST.	22+83	RT													1			
P.134	SR-10	E. 66TH ST.	24+10	LT													1			
P.134	SR-11	E. 66TH ST.	24+19	RT													1			
P.135	S-8	E. 66TH ST./BELVIDERE AVE.	27+52	RT	R1-1	36 X 36			14.6				9.00							
					R5-1	30 X 30							6.25							
					R6-1L	36 X 12							3.00							
					R6-1R	36 X 12							3.00							
P.135	S-9	E. 66TH ST.	27+57	RT	D3-1	36 X 12					12.6			1						
					D3-1	48 X 12								1						
P.135	SR-12	E. 66TH ST.	25+25	RT													1			
P.135	SR-13	E. 66TH ST.	25+45	LT													1			
P.135	SR-14	E. 66TH ST.	25+45	RT													2			
P.135	SR-15	E. 66TH ST.	26+13	RT													1			
P.135	SR-16	E. 66TH ST./BELVIDERE AVE.	27+51	RT											4	1				
P.135	SR-17	E. 66TH ST.	27+61	RT													2			
P.135	SR-18	E. 66TH ST.	28+27	LT													1			
P.135	SR-19	E. 66TH ST.	28+89	RT													1			
P.136	S-10	E. 66TH ST.	29+46	RT	R1-1	30 X 30		12.8				1	6.25							
P.136	S-11	E. 66TH ST.	29+53	LT	D3-1	36 X 12					12.6			1						
					D3-1	42 X 12								1						
P.136	S-12	E. 66TH ST./QUIMBY AVE.	29+62	LT	R6-1L	36 X 12				12.6			3.00							
					R6-1R	36 X 12							3.00							
P.136	S-13	E. 66TH ST./QUIMBY AVE.	30+02	RT	R1-1	36 X 36			14.6				9.00							
					R5-1	30 X 30							6.25							
					R6-1L	36 X 12							3.00							
					R6-1R	36 X 12							3.00							
P.136	S-14	E. 66TH ST.	30+13	RT	D3-1	42 X 12					12.6			1						
					D3-1	36 X 12								1						
SUBTOTALS CARRIED TO SHEET P.132							11.9	63.8	29.2	12.6	62.9	3	78.8	10	9	4	22		0	

SIGNING SUBSUMMARY

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)587-2223 www.osborneng.com

DESIGNER JMB

REVIEWER DRP 1/13/26

PROJECT ID 122389

SHEET P.129 TOTAL 195

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SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 4 POST FT	630 ONE WAY SUPPORT, NO. 3 POST FT	630 STREET NAME SIGN SUPPORT, NO. 2 POST FT	630 SIGN POST REFLECTOR EACH	630 SIGN, FLAT SHEET SF	630 SIGN, DOUBLE FACED, STREET NAME EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH		630 SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY EACH	
P.136	S-15	E. 66TH ST.	30+21	LT	R1-1	30 X 30		12.8				1	6.25							
P.136	S-16	E. 66TH ST.	32+00	LT	R2-1	24 X 30		12.8					5.00							
P.136	S-17	E. 66TH ST.	33+00	LT	R7-13	12 X 18	11.9						1.50							
P.136	SR-20	E. 66TH ST.	29+48	RT													2			
P.136	SR-21	E. 66TH ST.	29+55	LT													1			
P.136	SR-22	E. 66TH ST.	29+61	LT													2			
P.136	SR-23	E. 66TH ST./QUIMBY AVE.	30+01	RT											3	1				
P.136	SR-24	E. 66TH ST.	30+17	LT													3			
P.136	SR-25	E. 66TH ST.	31+13	LT													1			
P.137	S-18	E. 66TH ST.	36+66	RT	R2-1	24 X 30		12.8					5.00							
P.137	SR-26	E. 66TH ST.	34+11	LT													3			
P.137	SR-27	E. 66TH ST.	34+64	RT													2			
P.137	SR-28	E. 66TH ST.	34+94	RT													1			
P.137	SR-29	E. 66TH ST.	35+77	RT													2			
P.138	RRFB-1	E. 66TH ST.	38+80	RT															1	
P.138	RRFB-2	E. 66TH ST.	38+80	LT															1	
P.138	RRFB-3	E. 66TH ST.	39+41	RT															1	
P.138	RRFB-4	E. 66TH ST.	39+41	LT															1	
P.138	S-19	E. 66TH ST.	38+59	RT	R1-5	36 X 36			13.3				9.00							
P.138	S-20	E. 66TH ST.	38+80	LT	D3-1	42 X 12					12.6			1						
					D3-1	42 X 12								1						
P.138	S-21	E. 66TH ST./LINWOOD AVE.	38+95	LT	R1-1	30 X 30		12.8				1	6.25							
					W4-4P	24 X 12							2.00							
P.138	S-22	E. 66TH ST./LINWOOD AVE.	39+33	RT	R6-1L	36 X 12				12.6			3.00							
					R6-1R	36 X 12							3.00							
P.138	S-23	E. 66TH ST.	39+41	RT	D3-1	42 X 12					12.6			1						
					D3-1	42 X 12								1						
P.138	S-24	E. 66TH ST.	39+72	LT	R1-5	36 X 36			13.3				9.00							
P.138	S-25	E. 66TH ST.	41+00	LT	R7-13	12 X 18	11.9						1.50							
P.138	S-26	E. 66TH ST./LAWNVIEW AVE.	42+41	RT	R1-1	30 X 30			14.6				9.00							
					R5-1	30 X 30							6.25							
					R6-1L	36 X 12							3.00							
					R6-1R	36 X 12							3.00							
P.138	S-27	E. 66TH ST.	42.49	RT	D3-1	42 X 12					12.6			1						
					D3-1	48 X 12								1						
P.138	SR-30	E. 66TH ST.	38+83	LT													2			
P.138	SR-31	E. 66TH ST./LINWOOD AVE.	38+96	LT											1	1				
P.138	SR-32	E. 66TH ST.	39+43	RT													4			
P.138	SR-33	E. 66TH ST.	39+65	RT													1			
P.138	SR-34	E. 66TH ST.	40+48	RT													1			
P.138	SR-35	E. 66TH ST.	41+96	RT													5			
P.138	SR-36	E. 66TH ST./LAWNVIEW AVE.	42+38	RT													4			
P.138	SR-37	E. 66TH ST.	45+88	RT													1			
SUBTOTALS CARRIED TO SHEET P.132							23.8	51.0	41.1	12.6	37.7	2	72.8	6	4	2	35		4	

SIGNING SUBSUMMARY

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB

REVIEWER DRP 1/13/26

PROJECT ID 122389

SHEET P.130 TOTAL 195

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

SIGNING SUBSUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 4 POST FT	630 ONE WAY SUPPORT, NO. 3 POST FT	630 STREET NAME SIGN SUPPORT, NO. 2 POST FT	630 SIGN POST REFLECTOR EACH	630 SIGN, FLAT SHEET SF	630 SIGN, DOUBLE FACED, STREET NAME EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH		630 SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY EACH	
P.139	S-28	E. 66TH ST./LINWOOD AVE.	45+92	RT	R6-1L	36 X 12				12.6										
					R6-1R	36 X 12														
P.139	S-29	E. 66TH ST.	45+99	RT	D3-1	42 X 12					12.6			1						
					D3-1	42 X 12								1						
P.139	SR-38	E. 66TH ST.	44+15	RT													1			
P.139	SR-39	E. 66TH ST.	45+39	RT													1			
P.139	SR-40	E. 66TH ST./LINWOOD AVE.	45+89	RT													4			
P.139	SR-41	E. 66TH ST.	46+60	RT													3			
P.140	S-30	E. 66TH ST./PENNSYLVANIA AVE.	49+76	RT	R1-1	36 X 36			14.6				9.00							
					R5-1	30 X 30							6.25							
					R6-1L	36 X 12							3.00							
					R6-1R	36 X 12							3.00							
P.140	S-31	E. 66TH ST.	49+90	RT	D3-1	42 X 12					12.6			1						
					D3-1	60 X 12								1						
P.140	S-32	E. 66TH ST.	50+55	LT	R7-13	12 X 18	11.9						1.50							
P.140	S-33	E. 66TH ST.	51+08	RT	R1-1	30 X 30		12.8				1	6.25							
P.140	S-34	E. 66TH ST.	51+15	LT	D3-1	42 X 12					12.6			1						
					D3-1	48 X 12								1						
P.140	S-35	E. 66TH ST./WADE PARK AVE.	51+26	LT	R1-1	30 X 30		12.8				1	6.25							
P.140	S-36	E. 66TH ST./WADE PARK AVE.	51+74	RT	R1-1	30 X 30		12.8				1	6.25							
P.140	S-37	E. 66TH ST.	51+86	RT	D3-1	42 X 12					12.6			1						
					D3-1	48 X 12								1						
P.140	S-38	E. 66TH ST.	51+92	LT	R1-1	30 X 30		12.8				1	6.25							
P.140	SR-42	E. 66TH ST.	48+09	LT													1			
P.140	SR-43	E. 66TH ST.	48+56	LT													2			
P.140	SR-44	E. 66TH ST.	48+80	RT													1			
P.140	SR-45	E. 66TH ST.	49+42	LT													1			
P.140	SR-46	E. 66TH ST./PENNSYLVANIA AVE.	49+77	RT													2			
P.140	SR-47	E. 66TH ST.	49+93	RT													5			
P.140	SR-48	E. 66TH ST.	50+74	LT													1			
P.140	SR-49	E. 66TH ST.	50+86	RT													1			
P.140	SR-50	E. 66TH ST.	51+22	LT													2			
P.140	SR-51	E. 66TH ST.	51+82	RT													2			
P.140	SR-52	E. 66TH ST.	52+13	LT													1			
P.141	S-39	E. 66TH ST./WHITNEY AVE.	54+86	RT	R1-1	30 X 30		12.8				1	6.25							
P.141	S-40	E. 66TH ST.	54+98	RT	D3-1	42 X 12					12.6			1						
					D3-1	42 X 12								1						
P.141	SR-53	E. 66TH ST.	53+22	LT													1			
P.141	SR-54	E. 66TH ST.	53+74	RT													1			
P.141	SR-55	E. 66TH ST./WHITNEY AVE.	54+84	RT											1	1				
P.141	SR-56	E. 66TH ST.	54+87	RT													3			
P.141	SR-57	E. 66TH ST.	56+19	RT													1			
SUBTOTALS CARRIED TO SHEET P.132							11.9	63.8	14.6	12.6	62.9	5	54.0	10	1	1	34		0	

DESIGN AGENCY
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CLEVELAND, OH 44114
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DESIGNER JMB

REVIEWER DRP 1/13/26

PROJECT ID 122389

SHEET P.131 TOTAL 195

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SIGNING SUBSUMMARY

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST (FT)	630 GROUND MOUNTED SUPPORT, NO. 3 POST (FT)	630 GROUND MOUNTED SUPPORT, NO. 4 POST (FT)	630 ONE WAY SUPPORT, NO. 3 POST (FT)	630 STREET NAME SIGN SUPPORT, NO. 2 POST (FT)	630 SIGN POST REFLECTOR (EACH)	630 SIGN, FLAT SHEET (SF)	630 SIGN, DOUBLE FACED, STREET NAME (EACH)	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)	630 GROUND MOUNTED POST SUPPORT AND DISPOSAL (EACH)	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL (EACH)		630 SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY (EACH)	
P.142	S-41	E. 66TH ST.	59+16	LT	R2-1	24 X 30		12.8					5.00							
P.142	S-42	E. 66TH ST.	61+00	LT	R7-13	12 X 18	11.9						1.50							
P.142	S-43	E. 66TH ST.	61+75	RT	R1-1	30 X 30		12.8				1	6.25							
P.142	SR-58	E. 66TH ST.	58+60	RT													1			
P.142	SR-59	E. 66TH ST.	59+30	LT													1			
P.142	SR-60	E. 66TH ST.	60+61	RT													1			
P.142	SR-61	E. 66TH ST.	61+11	LT											1	1				
P.142	SR-62	E. 66TH ST.	61+85	RT											1	1				
SUBTOTALS THIS SHEET							11.9	25.5	0.0	0.0	0.0	1	12.75	0	2	2	3		0	
SUBTOTALS SHEET P.129							11.9	63.8	29.2	12.6	62.9	3	78.75	10	9	4	22		0	
SUBTOTALS SHEET P.130							23.8	51.0	41.1	12.6	37.7	2	72.75	6	4	2	35		4	
SUBTOTALS SHEET P.131							11.9	63.8	14.6	12.6	62.9	5	54.00	10	1	1	34		0	
TOTALS CARRIED TO GENERAL SUMMARY							59.4	204.0	84.8	37.7	163.5	11	218.3	26	16	9	94		4	

DESIGN AGENCY

OSBORN ENGINEERING

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CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER JMB

REVIEWER DRP 1/13/26

PROJECT ID 122389

SHEET P.132 TOTAL 195

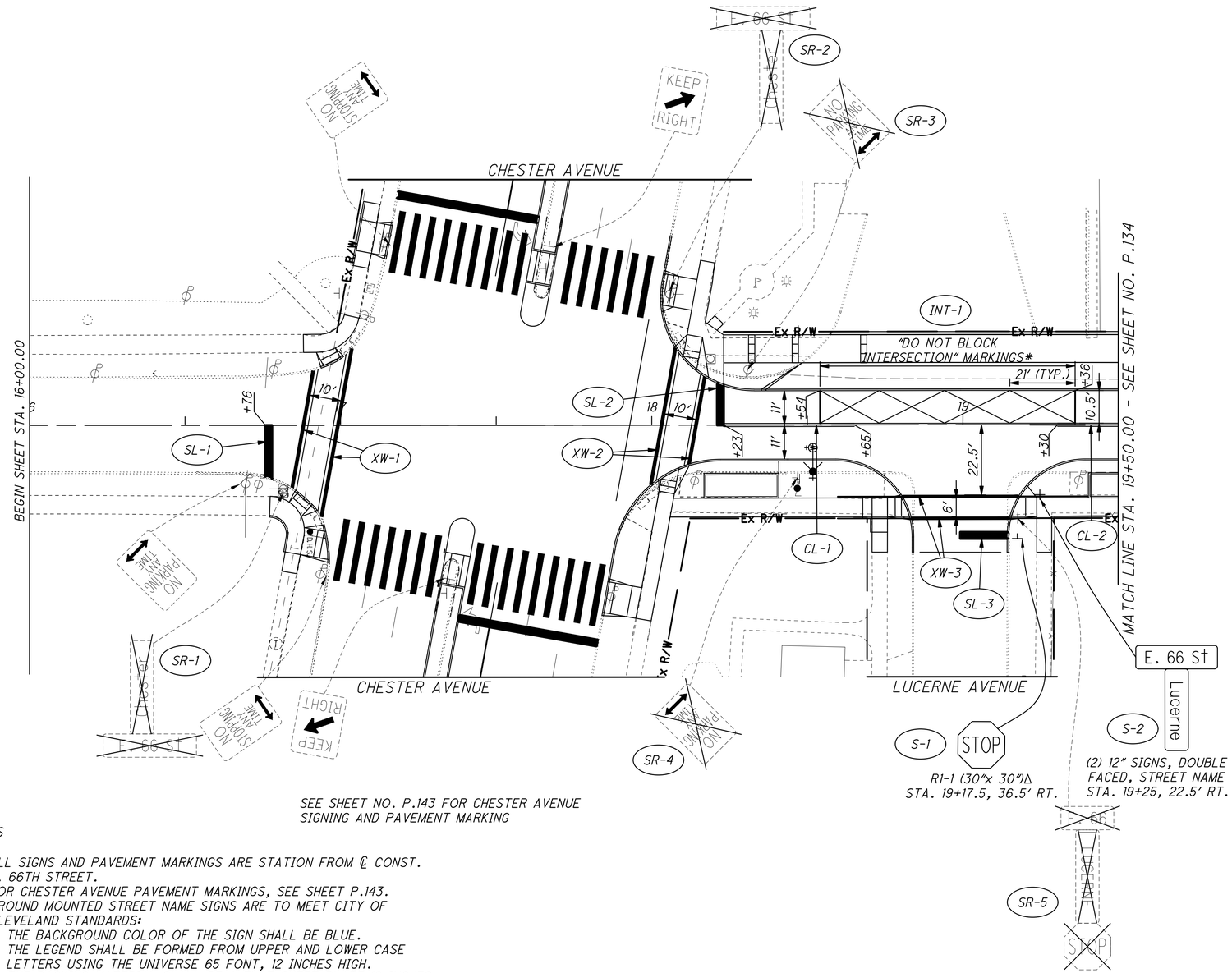
PAVEMENT MARKING LEGEND

ALL PAVEMENT MARKINGS TO BE ITEM 644, THERMOPLASTIC, UNLESS OTHERWISE NOTED

CL-X	CENTER LINE: SOLID, DOUBLE
CH-X	CHANNELIZING LINE, 12"
SL-X	STOP LINE
XW-X	CROSSWALK LINE, 12"
XL-X	CROSSWALK LINE, 24"
LA-X	LANE ARROW
YL-X	YIELD LINE
X-X	QUANTITY IS SHOWN ON PREVIOUS SHEET

SIGNING LEGEND

S-X	PROPOSED SIGN
	EXISTING SIGN TO REMAIN
SR-X	EXISTING SIGN TO BE REMOVED AND DISPOSED OF
Δ	SIGN POST REFLECTOR
RRFB	SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY



SEE SHEET NO. P.143 FOR CHESTER AVENUE SIGNING AND PAVEMENT MARKING

ITEM 644 - PAVEMENT MARKING, MISC.: DO NOT BLOCK INTERSECTION MARKINGS:

"DO NOT BLOCK INTERSECTION" MARKINGS SHALL BE INSTALLED IN THE SOUTHBOUND LANE OF EAST 66TH STREET AT THE LIMITS INDICATED ON THE PLANS. THE BOX SHALL USE 12" SOLID WHITE LINES AND THE CENTER "X"S SHALL USE 6" SOLID WHITE LINES. THIS IS TO BE PERFORMED IN ACCORDANCE WITH OMUTCD SECTION 3B.17.

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR "ITEM 646 - PAVEMENT MARKING, MISC,: DO NOT BLOCK INTERSECTION MARKINGS."

NOTES

1. *ALL SIGNS AND PAVEMENT MARKINGS ARE STATION FROM ℄ CONST. E. 66TH STREET.*
2. *FOR CHESTER AVENUE PAVEMENT MARKINGS, SEE SHEET P.143.*
3. *GROUND MOUNTED STREET NAME SIGNS ARE TO MEET CITY OF CLEVELAND STANDARDS:*
   - *THE BACKGROUND COLOR OF THE SIGN SHALL BE BLUE.*
   - *THE LEGEND SHALL BE FORMED FROM UPPER AND LOWER CASE LETTERS USING THE UNIVERSE 65 FONT, 12 INCHES HIGH.*
   - *THE BACKING MATERIAL SHALL BE A FLAT SHEET PLATE 12 INCHES HIGH AND LENGTH AS NECESSARY TO FIT THE LEGEND, MINIMUM OF 3 FEET.*
   - *THE BORDER SHALL BE WIDE, SET 1/2-INCH FROM THE EDGE OF THE PLATE.*

** SEE NOTE ON THIS SHEET.*

HORIZONTAL SCALE IN FEET
0 10 20 40

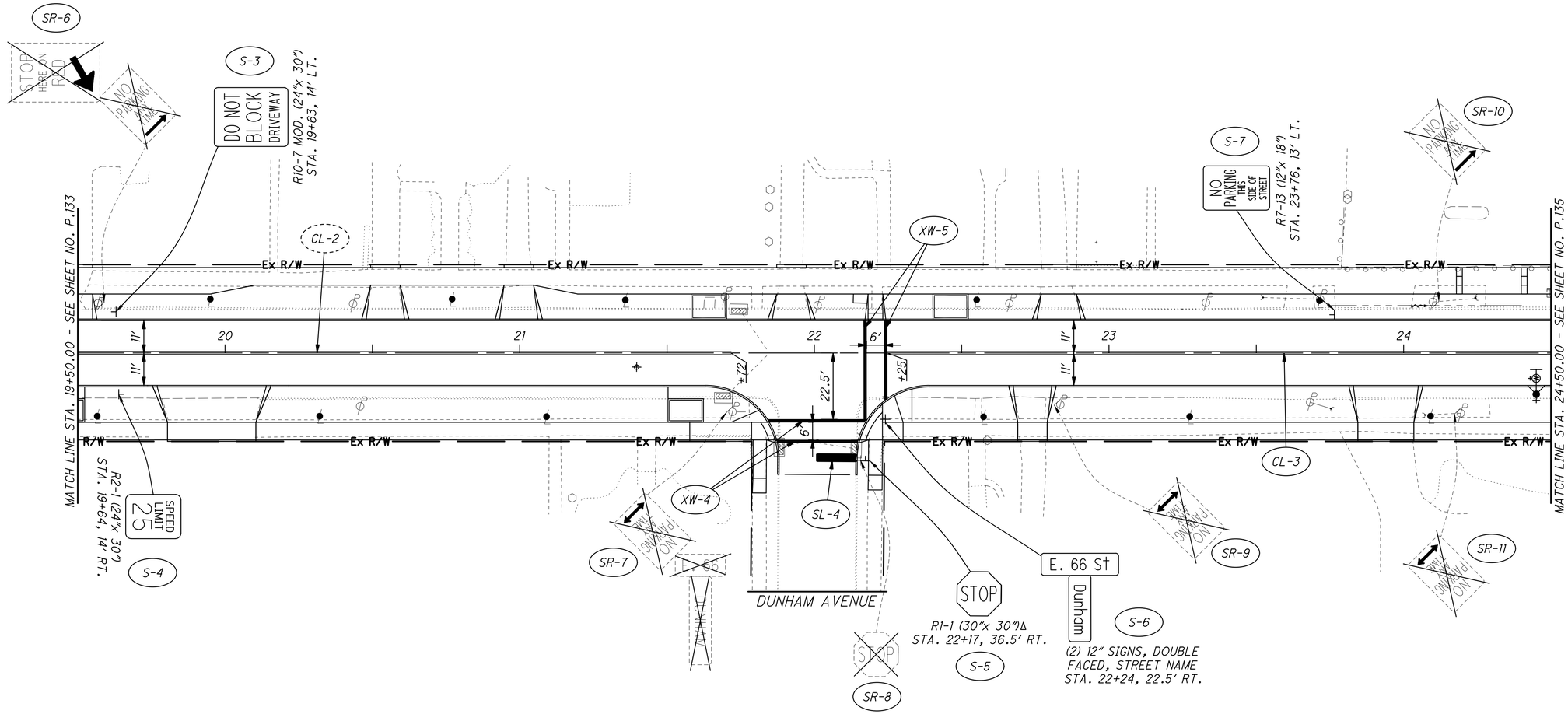
SIGNING AND PAVEMENT MARKING STA. 14+00.00 TO STA. 19+50.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP002.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	MVN
REVIEWER	CEL 10/13/25
PROJECT ID	122389
SHEET	P.133
TOTAL	195



NOTES

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.
2. ALL SIGNS AND PAVEMENT MARKINGS ARE STATION FROM ℄ CONST. E. 66TH STREET.
3. GROUND MOUNTED STREET NAME SIGNS ARE TO MEET CITY OF CLEVELAND STANDARDS:
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HORIZONTAL SCALE IN FEET
0 10 20 40

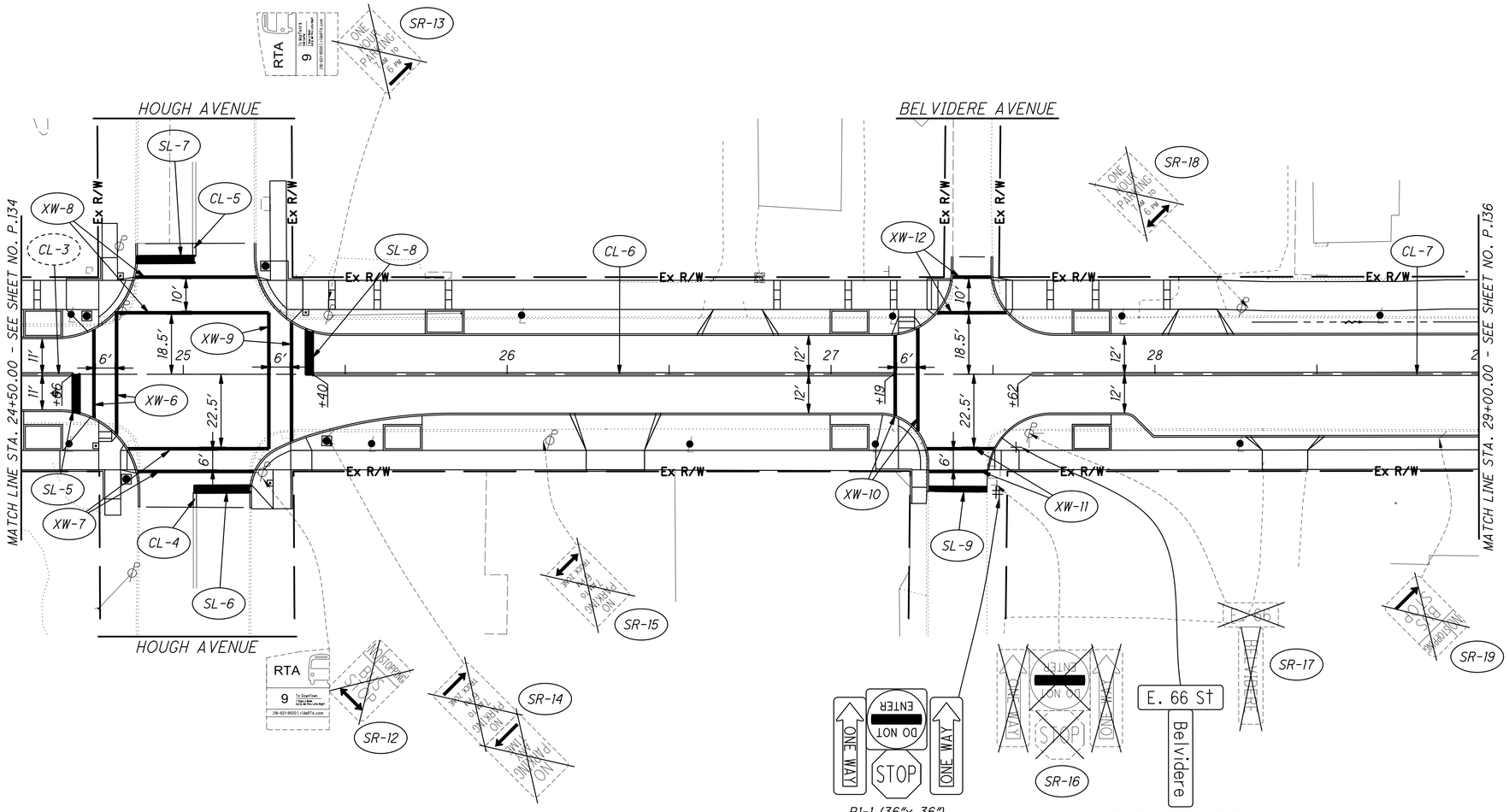
SIGNING AND PAVEMENT MARKING
STA. 19+50.00 TO STA. 24+50.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP003.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 9/18/25
PROJECT ID 122389
SHEET P.134 TOTAL 195



NOTES

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.
2. ALL SIGNS AND PAVEMENT MARKINGS ARE STATION FROM ℄ CONST. E. 66TH STREET.
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- THE BORDER SHALL BE WIDE, SET 1/2-INCH FROM THE EDGE OF THE PLATE.

HORIZONTAL SCALE IN FEET
0 10 20 40

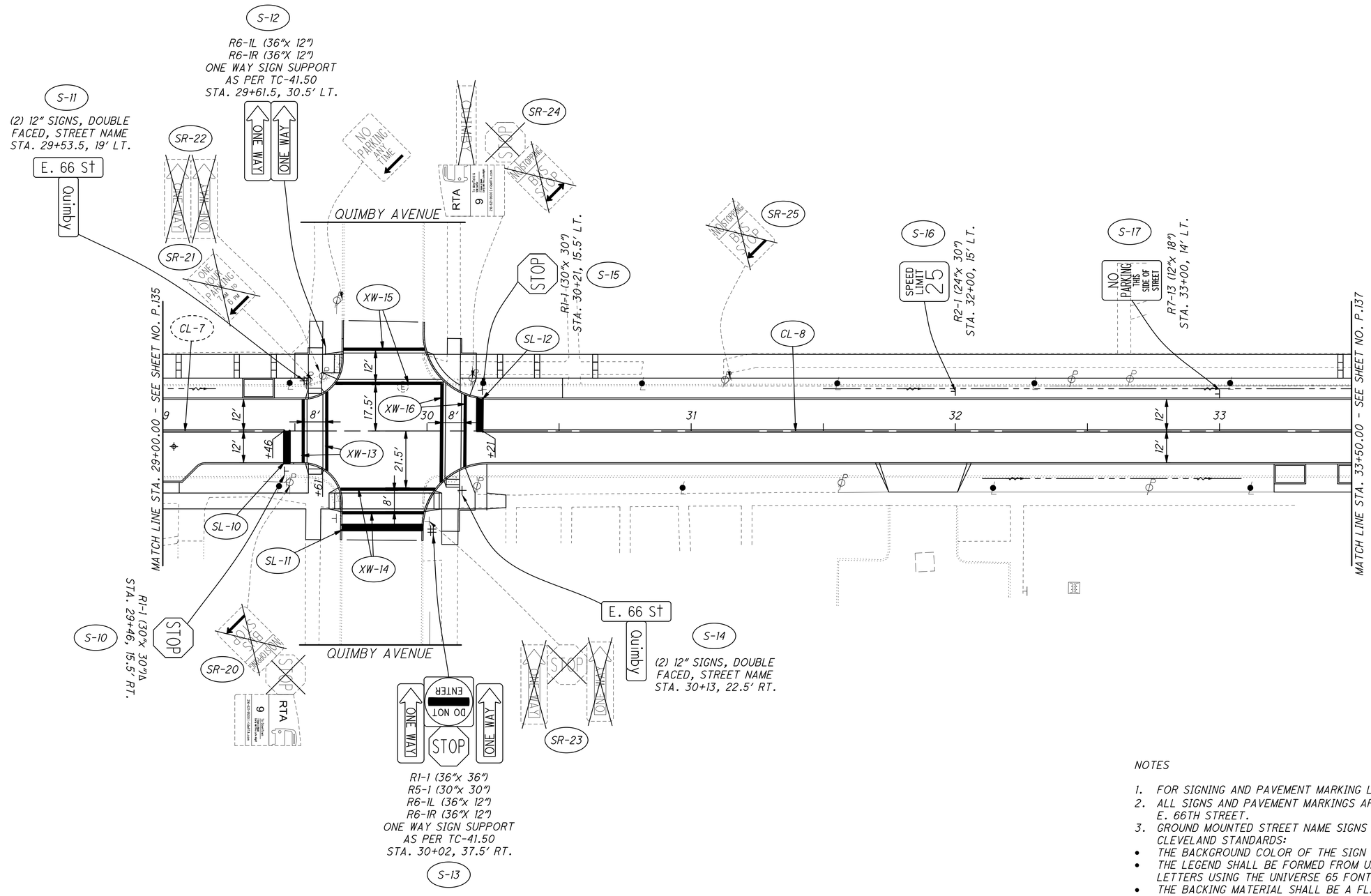
SIGNING AND PAVEMENT MARKING STA. 24+50.00 TO STA. 29+00.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J2020116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP004.dwg

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CLEVELAND, OH 44114
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DESIGNER MVN
REVIEWER CEL 9/18/25
PROJECT ID 122389
SHEET P.135 TOTAL 195



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING
STA. 29+00.00 TO STA. 33+50.00

NOTES

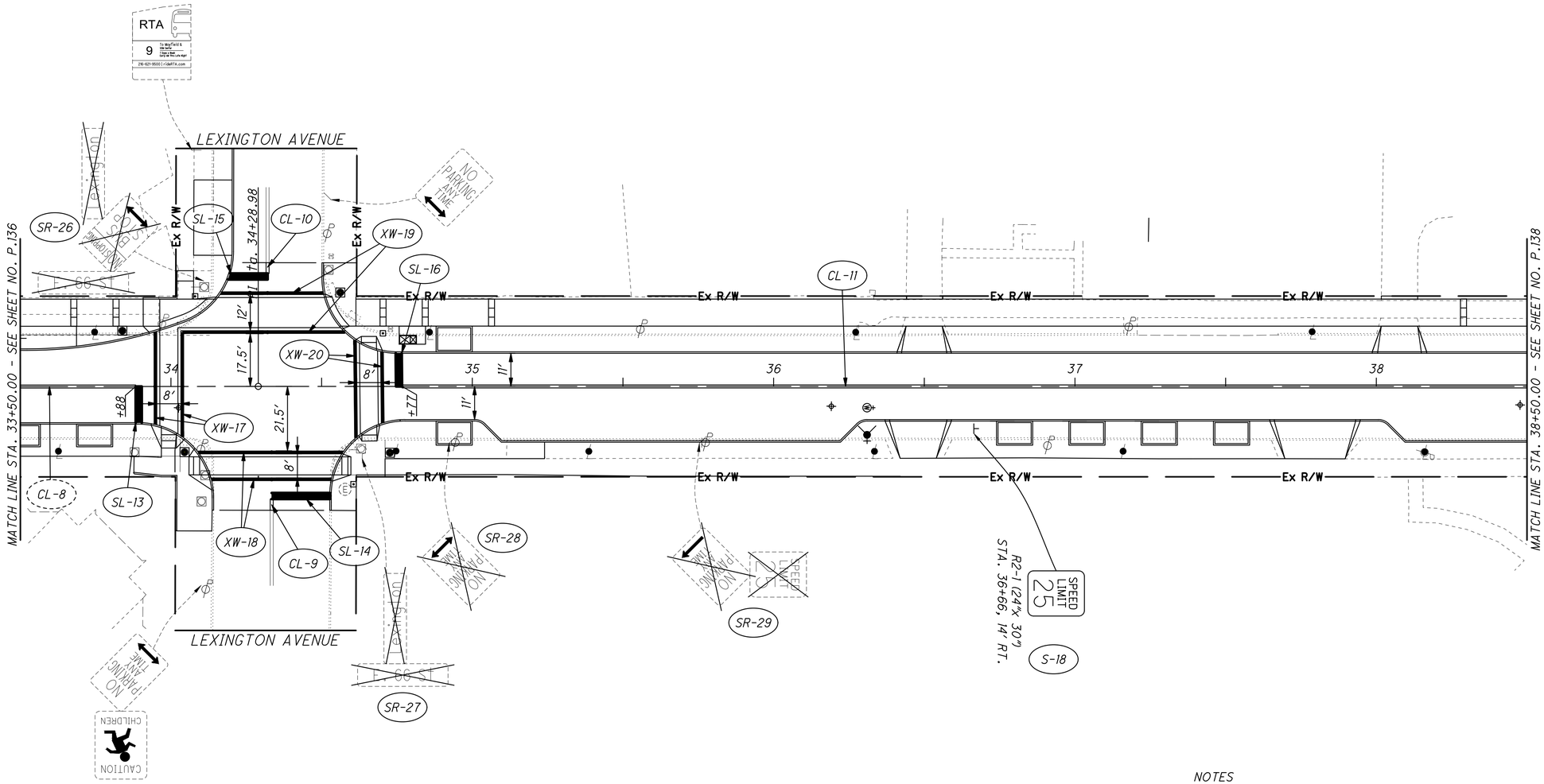
1. *FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.*
2. *ALL SIGNS AND PAVEMENT MARKINGS ARE STATION FROM ℄ CONST. E. 66TH STREET.*
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   - *THE BACKING MATERIAL SHALL BE A FLAT SHEET PLATE 12 INCHES HIGH AND LENGTH AS NECESSARY TO FIT THE LEGEND, MINIMUM OF 3 FEET.*
   - *THE BORDER SHALL BE WIDE, SET 1/2-INCH FROM THE EDGE OF THE PLATE.*

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OSBORN ENGINEERING
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DESIGNER MVN
REVIEWER CEL 12/12/25
PROJECT ID 122389
SHEET P.136 TOTAL 195

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP005.dwg



NOTES

1. *FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.*
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3. *GROUND MOUNTED STREET NAME SIGNS ARE TO MEET CITY OF CLEVELAND STANDARDS:*
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   - *THE LEGEND SHALL BE FORMED FROM UPPER AND LOWER CASE LETTERS USING THE UNIVERSE 65 FONT, 12 INCHES HIGH.*
   - *THE BACKING MATERIAL SHALL BE A FLAT SHEET PLATE 12 INCHES HIGH AND LENGTH AS NECESSARY TO FIT THE LEGEND, MINIMUM OF 3 FEET.*
   - *THE BORDER SHALL BE WIDE, SET 1/2-INCH FROM THE EDGE OF THE PLATE.*

HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING
STA. 33+50.00 TO STA. 38+50.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP006.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
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DESIGNER MVN
REVIEWER CEL 9/19/25
PROJECT ID 122389
SHEET P.137 TOTAL 195

RRFB
(2) 12" SIGNS, DOUBLE FACED, STREET NAME
(SEE NOTE SHEET NO. 149)
STA. 38+80, 19' LT

W16-7pR | RRFB | W11-2 | W11-2 | RRFB | W16-7pL

E. 66 St
Linwood

S-20
RRFB-2

R1-1 (30"x 30")
W4-4P (24"X 12")
STA. 38+95, 37.5' LT.

S-21

LINWOOD AVENUE

SR-30

SR-31

RRFB-4

RRFB (SEE NOTE SHEET NO. 149)
STA. 39+41, 19' LT

W16-7pR | RRFB | W11-2 | W11-2 | RRFB | W16-7pL

R1-5 (36"x 36")
STA. 39+72, 14.5' LT.

S-24

R7-13 (12"x 18")
STA. 41+00, 13' LT.

S-25

NO PARKING THIS SIDE OF STREET

+36.55
W=37

MATCH LINE STA. 38+50.00 - SEE SHEET NO. P.137

CL-11 | SL-17 | XW-23 | YL-2 | CL-12 | XW-25 | XW-27 | CL-13

XW-24 | XW-21 | XW-22 | YL-1

12' | 17.5' | 21.5' | 8' | 39 | 40 | 41 | 42 | 6' | 11' | 22.5'

+59 | +79 | +42 | +72 | +96 | +49

SR-33 | SR-34 | SR-37

XW-26 | SL-18

MATCH LINE STA. 43+00.00 - SEE SHEET NO. P.139

R1-5 (36"x 36")
STA. 38+59, 14.5' RT.

S-19

LINWOOD AVENUE

SR-32

R6-1L (36"x 12")
R6-1R (36"X 12")
ONE WAY SIGN SUPPORT
AS PER TC-41.50
STA. 39+33, 31' RT.

S-22

SR-35

LAWNVIEW AVENUE

R1-1 (36"x 36")
R5-1 (30"x 30")
R6-1L (36"x 12")
R6-1R (36"X 12")
ONE WAY SIGN SUPPORT
AS PER TC-41.50
STA. 42+40.5, 36.5' RT.

S-26

E. 66 St
Lawnview

(2) 12" SIGNS, DOUBLE
FACED, STREET NAME
STA. 42+48.5, 22.5' RT.

S-27

SR-36

W16-7pL | RRFB | W11-2 | W11-2 | RRFB | W16-7pR

RRFB (SEE NOTE SHEET NO. P.149)
STA. 38+80, 21' RT

RRFB-1

W16-7pL | RRFB | W11-2 | E. 66 St Linwood | W11-2 | RRFB | W16-7pR

RRFB
(2) 12" SIGNS, DOUBLE FACED, STREET NAME
(SEE NOTE SHEET NO. P.149)
STA. 39+40.5, 18' RT

S-23 | RRFB-3

NOTES

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.
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3. GROUND MOUNTED STREET NAME SIGNS ARE TO MEET CITY OF CLEVELAND STANDARDS:

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- THE BORDER SHALL BE WIDE, SET 1/2-INCH FROM THE EDGE OF THE PLATE.

HORIZONTAL SCALE IN FEET
0 10 20 40

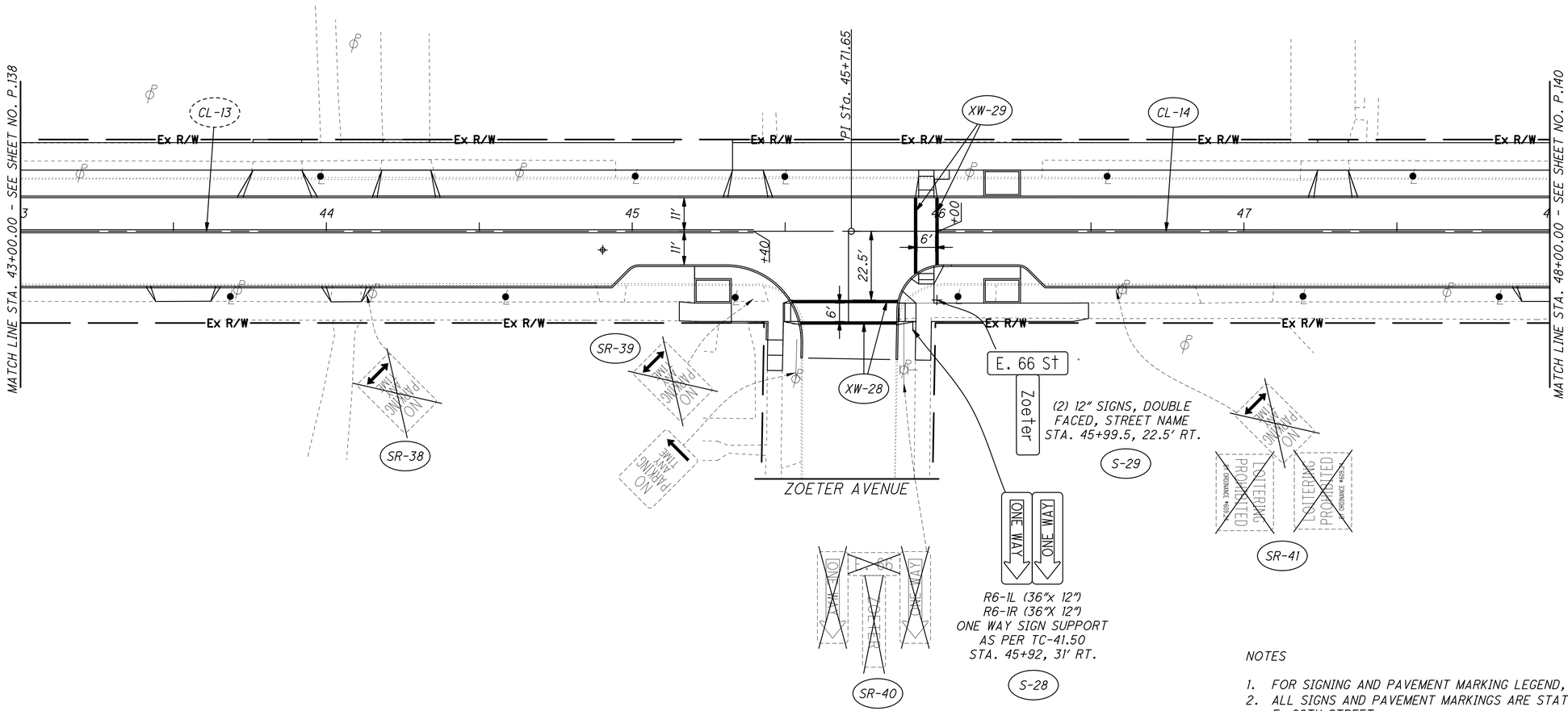
SIGNING AND PAVEMENT MARKING
STA. 38+50.00 TO STA. 43+00.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP007.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 9/22/25
PROJECT ID 122389
SHEET P.138 TOTAL 195



NOTES

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.
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HORIZONTAL SCALE IN FEET
0 10 20 40

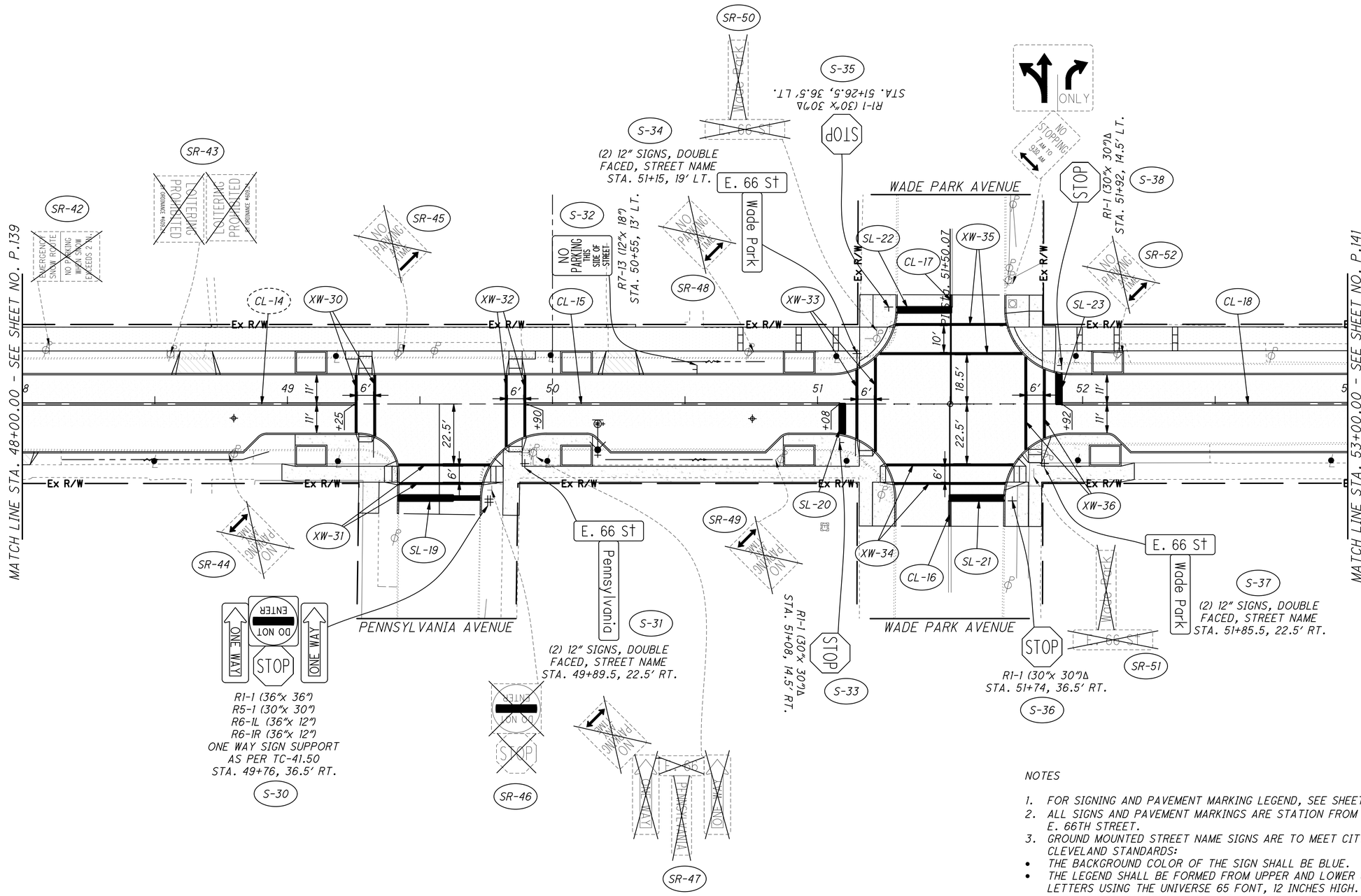
SIGNING AND PAVEMENT MARKING STA. 43+00.00 TO STA. 48+00.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J2020116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP008.dwg

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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 9/22/25
PROJECT ID 122389
SHEET P.139 TOTAL 195



NOTES

1. FOR SIGNING AND PAVEMENT MARKING LEGEND, SEE SHEET P.133.
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HORIZONTAL SCALE IN FEET
0 10 20 40

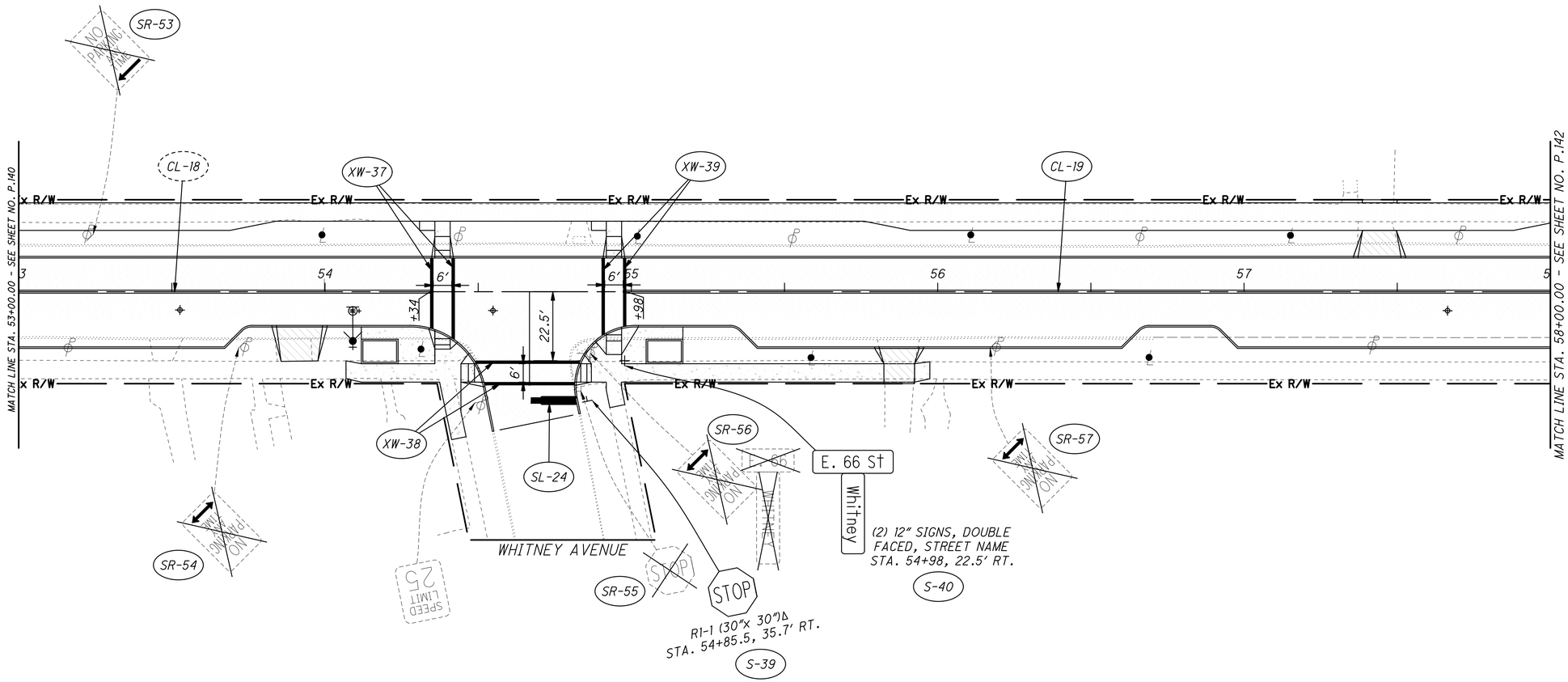
SIGNING AND PAVEMENT MARKING
STA. 48+00.00 TO STA. 53+00.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP009.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornerng.com

DESIGNER	
MVN	
REVIEWER	
CEL	9/22/25
PROJECT ID	
122389	
SHEET	TOTAL
P.140	195



NOTES

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HORIZONTAL SCALE IN FEET
0 10 20 40

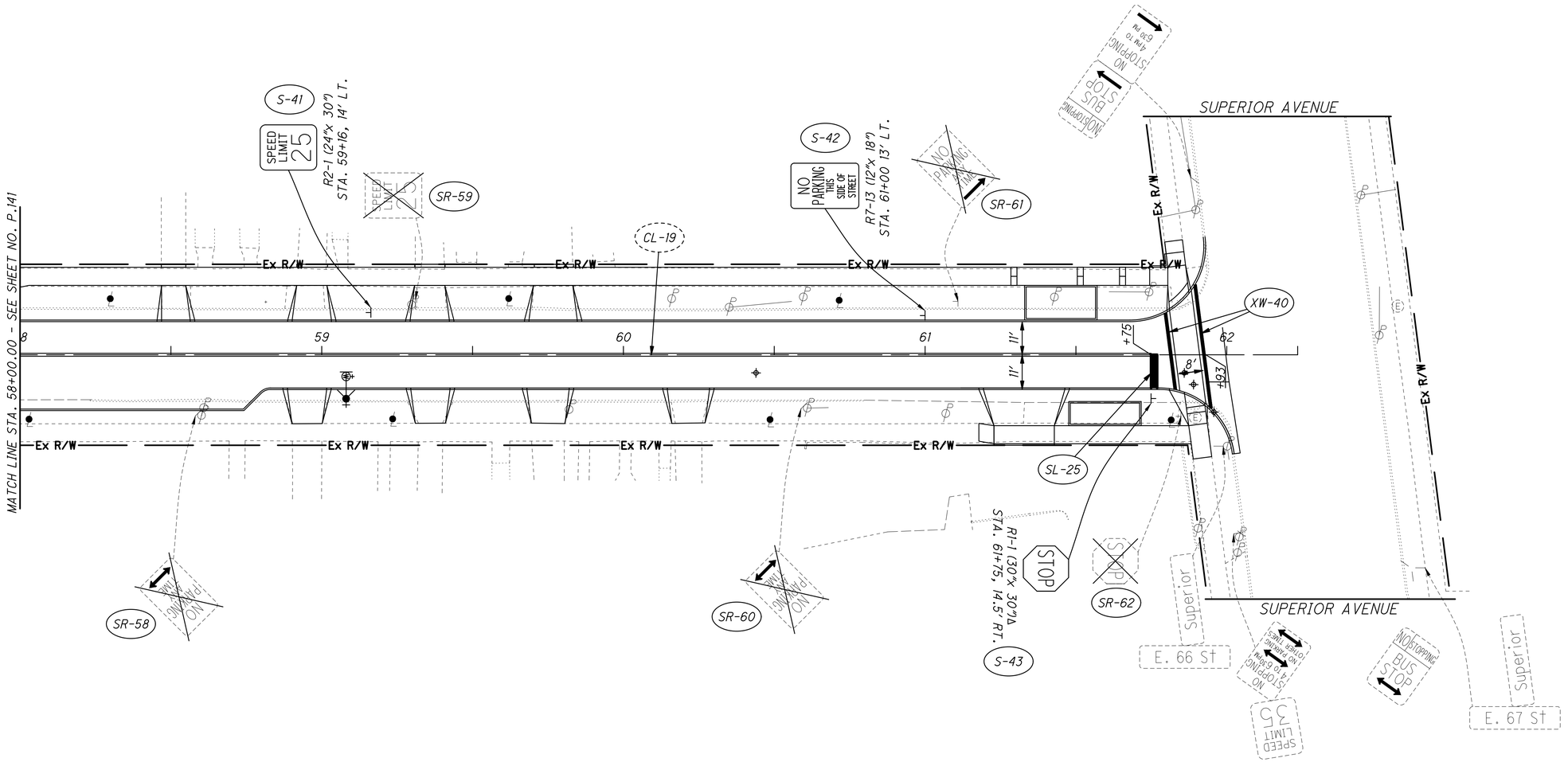
SIGNING AND PAVEMENT MARKING STA. 53+00.00 TO STA. 58+00.00

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP010.dwg

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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER MVN
REVIEWER CEL 9/22/25
PROJECT ID 122389
SHEET P.141 TOTAL 195



NOTES

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HORIZONTAL SCALE IN FEET
0 10 20 40

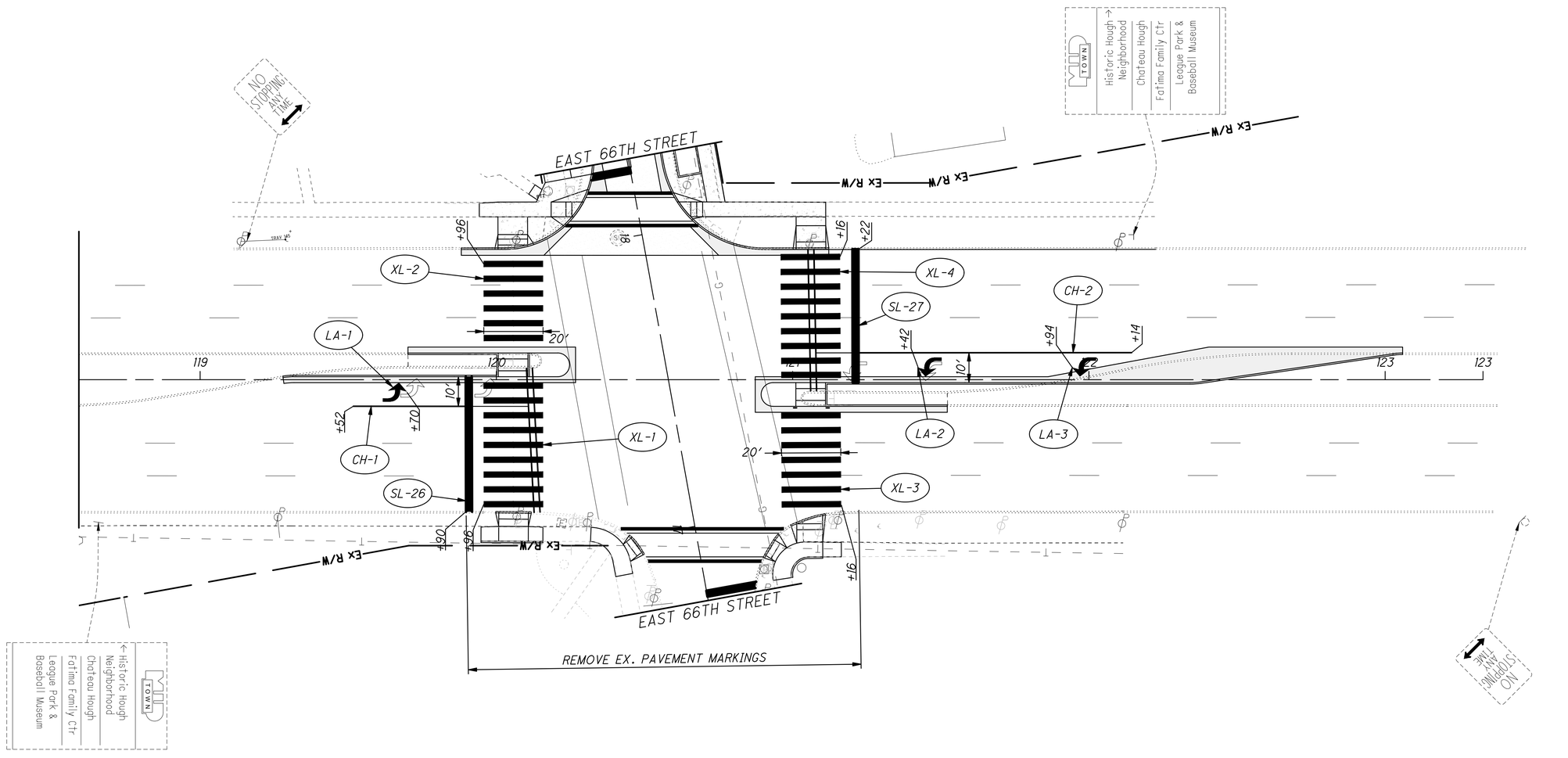
SIGNING AND PAVEMENT MARKING
STA. 58+00.00 TO STA. 62+23.51

DESIGN AGENCY
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1111 SUPERIOR AVE. STE. 2100
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(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 9/22/25
PROJECT ID 122389
SHEET P.142 TOTAL 195

CUY-EAST 66TH STREET TLCI

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NOTES

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HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING
E. 66TH STREET AND CHESTER AVENUE

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Trans\Traffic\Sheets\TP012.dwg

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(216)861-2020 www.osborn-eng.com

DESIGNER MVN
REVIEWER CEL 9/22/25
PROJECT ID 122389
SHEET P.143 TOTAL 195

SHEET NO.	LOCATION	625	625	625	625	625	625	625	625	625	625	630	630	632	632	632	632	632	632
		CONDUIT, 2", 725.051	CONDUIT, 3", 725.051	CONDUIT, 4", 725.051	CONDUIT, 6", 725.051	CONDUIT, 4", JACKED OR DRILLED, 725.051	TRENCH	PULL BOX, MISC.: 13"X24"	PULL BOX, MISC.: 17"X30"	PULL BOX, MISC.: 24"X36"	GROUND ROD	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	SIGN, STREET NAME, AS PER PLAN	VEHICULAR SIGNAL HEAD, (LED), 3- SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN	COVERING OF PEDESTRIAN SIGNAL HEAD	ACCESSIBLE PEDESTRIAN PUSHBUTTON	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG
		FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT
P.150	EAST 66TH STREET AND CHESTER AVENUE	52	68	12	5	496		1	6	1	10	4	4	10	12	4		6	782
P.153	EAST 66TH STREET AND HOUGH AVENUE	62	144	103	32		196	4	5	2	8	4	4	8	8	4	4	4	612
P.156	EAST 66TH STREET AND LEXINGTON AVENUE	42	242		37		189	5	3	1	7	4	4	8	8	4		4	757
TOTALS CARRIED TO GENERAL SUMMARY		156	454	115	74	496	385	10	14	4	25	12	12	26	28	12	4	14	2151

SHEET NO.	LOCATION	632	632	632	632	632	632	632	632	632	632	632	632	633	633	633	633	809	
		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	INTERCONNECT CABLE,MISC.: EXISTING INTERCONNECT REPLACEMENT	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	PEDESTAL FOUNDATION	TEST HOLE PERFORMED	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	CABINET FOUNDATION	CONTROLLER WORK PAD	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2	STOP LINE RADAR DETECTION, AS PER PLAN		
		FT	FT	FT	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
																			2	
P.150	EAST 66TH STREET AND CHESTER AVENUE	1327	763		4	5	9	12	44	2	2	5	1	1	1	1	1	4		
P.153	EAST 66TH STREET AND HOUGH AVENUE	1046	741	276	4	4	8	12	61	4		4	1	1	1	1	1	2		
P.156	EAST 66TH STREET AND LEXINGTON AVENUE	873	891		4	3	7	12	68	4		3	1	1	1	1	1	2		
P.159	EAST 66TH STREET AND WADE PARK AVENUE												1							
																			2	
TOTALS CARRIED TO GENERAL SUMMARY		3246	2395	276	12	12	24	36	173	10	2	12	4	3	3	3	3	8		

TRAFFIC SIGNAL SUBSUMMARY

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE, STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER
JMB

REVIEWER
DRP 12/22/25

PROJECT ID
122389

SHEET P.144 | TOTAL 195

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM CPP, AT THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS. ALL POWER CABLES SHALL BE RATED FOR 600 VOLTS AND CONSIST OF NO. 6 AWG COPPER. ALL CONNECTION OF POWER CABLE TO EQUIPMENT SHALL BE BY MEANS OF APPROVED SOLDERLESS TYPE CONNECTORS. THE SOLDERLESS CONNECTIONS ARE TO BE TAPED. POWER SERVICE SHALL ALSO INCLUDE 2" CONDUIT RISERS WHERE NECESSARY.

THE CONTRACTOR SHALL MEET ON SITE WITH CPP THREE (3) DAYS PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT CPP TO MAKE THE NECESSARY ARRANGEMENTS.

SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC.). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND THE CITY OF CLEVELAND. THE CITY OF CLEVELAND WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND CITY OF CLEVELAND AT LEAST TEN (10) WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. CITY OF CLEVELAND SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

UTILITY CLEARANCES

PRIOR TO ORDERING MATERIALS FOR THE SIGNAL SUPPORTS AND MAST ARMS, THE CONTRACTOR SHALL FIELD VERIFY THE CLEARANCES FOR THE UNDERGROUND AND OVERHEAD UTILITIES IN THE VICINITY OF THE EQUIPMENT. THE CONTRACTOR SHALL RECEIVE APPROVAL BY THE ENGINEER SHOULD THE CONTRACTOR NEED TO ORDER DIFFERENT ITEMS THAN ORIGINALLY DESIGNED DUE TO UTILITY CLEARANCE CONFLICTS.

THE CONTRACTOR SHALL ENSURE THAT ALL SIGNAL FACES ARE CLEARLY VISIBLE TO ALL ONCOMING VEHICLES & CLEAR OF ANY OBSTRUCTIONS ONCE MOUNTED TO THE MAST ARMS.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND THE CITY OF CLEVELAND WITH 72-HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITES(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/INTERCONNECT EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE CITY OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

DETECTION MAINTENANCE

IF VEHICLE DETECTION BECOMES UNEXPECTEDLY DISABLED, REQUIRES MODIFICATION, OR IS SCHEDULED TO BE TEMPORARILY REMOVED DURING THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER.

IF THE LOSS OF VEHICLE DETECTION IS KNOWN PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE DISCUSSED AT THE PRECONSTRUCTION MEETING. AT SUCH TIME, THE DISTRICT TRAFFIC ENGINEER SHALL ADVISE THE PROJECT ENGINEER AND CONTRACTOR ON THE APPROPRIATE ACTION TO RECTIFY ANY LOSS OF VEHICLE DETECTION. THIS MAY INCLUDE PLACING THE TRAFFIC SIGNAL ON MINIMUM OR MAXIMUM RECALL, MODIFYING THE MINIMUM GREEN TIMES, AND REMOVING THE MALFUNCTIONING DETECTION FROM SERVICE. WHERE NONINTRUSIVE DETECTION (I.E. VIDEO, RADAR) ALREADY EXISTS, THE CONTRACTOR SHALL INSURE THAT DETECTION IS OPERATING AND MAINTAINED BY RECONFIGURING THE DETECTION UNITS ACCORDINGLY DURING ALL CONSTRUCTION PHASES. THIS IS TO AVOID THE SIGNAL FROM MAXING OUT THE EFFECTED SIGNAL PHASE AND CREATING UNNECESSARY DELAYS.

LOCATIONS WHERE NON-INTRUSIVE DETECTION IS PROPOSED AND THE EXISTING VEHICLE DETECTION IS TO BE ABANDON, THE NON-INTRUSIVE VEHICLE DETECTION SHALL BE INSTALLED, CONFIGURED AND MADE FULLY FUNCTIONAL PRIOR TO THE EXISTING DETECTION BEING DISABLED. THE CONTRACTOR SHALL CONTINUE TO MAINTAIN AND MODIFY THE DETECTION UNTIL FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL. THIS IS TO ENSURE VEHICLE DETECTION REMAINS FULLY FUNCTIONAL THROUGHOUT CONSTRUCTION.

REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

TRAFFIC SIGNAL INSTALLATION, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, MAST ARMS, PEDESTRIAN POLES, LUMINAIRES, CABINET, CONTROLLER, PULL BOXES, SIGNAL SUPPORT MOUNTED SIGNS, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED IN THE PLANS.

PULL BOXES SHALL BE REMOVED ENTIRELY WITH BLACK FILLING, RESTORATION OF SURFACES AND DISPOSAL OF SURPLUS MATERIAL.

THE CONTRACTOR SHALL NOTIFY THE CITY OF CLEVELAND DIVISION OF TRAFFIC ENGINEERING AT (216) 664-3194, FORTY-EIGHT (48) HOURS PRIOR TO THE REMOVAL OF ANY EXISTING TRAFFIC SIGNAL EQUIPMENT. ALL REMOVALS SHALL BE PERFORMED IN THE PRESENCE OF A DESIGNATED REPRESENTATIVE OF THE CITY OF CLEVELAND. ITEMS SHALL NOT BE REMOVED UNTIL A NEW OR TEMPORARY INSTALLATION IS IN OPERATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. REMOVED ITEMS AS INDICATED BY CITY STAFF SHALL BE RETURNED TO THE CITY OF CLEVELAND TO THE FOLLOWING LOCATION:

TRAFFIC SIGNAL UNIT
4150 E 49TH ST. BLDG. #4
CLEVELAND, OH 44105

ITEMS TO BE RETURNED SHALL INCLUDE TRAFFIC SIGNAL HEADS, CONTROLLERS, PEDESTRIAN PUSHUBTTONS, PEDESTRIAN SIGNAL HEADS, CABINETS, PEDESTRIAN POLES, AND LUMINAIRES. OTHER MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY CITY OF CLEVELAND TRAFFIC SIGNAL UNIT AND STORE THE MATERIALS ON SITE, SUITABLY PROTECTED, AT A DESIGNATED LOCATION FOR INSPECTION BY CITY STAFF WITHIN FIVE (5) BUSINESS DAYS OF NOTIFICATION BY THE CONTRACTOR. CITY STAFF WILL INDICATE WHICH REMOVED ITEMS SHALL BE RETURNED TO THEIR FACILITY. THE CONTRACTOR SHALL DELIVER THESE REMOVED ITEMS TO THE CITY FACILITY. THE CONTRACTOR MAY DISPOSE OF MATERIALS THAT ARE NOT INDICATED FOR RETURN WITHIN THE FIVE DAY TIMEFRAME.

SIGNAL POLE AND PEDESTAL FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR SIGNAL POLE AND PEDESTAL FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION, AS SHOWN IN SCD TC-21.21 SHALL APPLY TO THE LOW SIDE OF THE SLOPE. THE TOP OF THE FOUNDATION SHALL BE SET 2 INCHES ABOVE THE EXISTING SURFACE ON THE HIGH SIDE OF THE SLOPE. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENT SHALL BE ADDED TO THE FORMED TOP.

ITEM 632 - TEST HOLE PERFORMED

IT IS ANTICIPATED THAT THE CONTRACTOR WILL ENCOUNTER UNDERGROUND UTILITIES WHILE EXCAVATING FOR SIGNAL SUPPORT FOUNDATIONS OR SIMILAR FOUNDATIONS. IF, AFTER ACCURATELY IDENTIFYING THE PROPOSED LOCATION OF THE FOUNDATION, AS SHOWN IN THE PLAN, AND AFTER MODIFYING THAT LOCATION, IF NECESSARY, BASED ON THE FIELD MARKING OF UNDERGROUND UTILITY LOCATION, THE CONTRACTOR DISCOVERS UTILITY CONFLICT DURING THE EXCAVATION OPERATION, THE CONTRACTOR WILL BE COMPENSATED FOR THE LABOR AND EQUIPMENT COST ASSOCIATED FOR EACH PARTIAL FOUNDATION EXCAVATION ACCORDING TO THE BID PRICE.

BEFORE THE CONTRACTOR BEGINS THE EXCAVATION AT THE MODIFIED LOCATION, THE CONTRACTOR SHALL VERIFY THAT THERE WILL BE NO OVERHEAD UTILITY CONFLICTS RESULTING FROM THE NEW SIGNAL SUPPORT LOCATION. NEW SUPPORT LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.

THE CONTRACTOR WORK UNDER THIS BID ITEM SHALL INCLUDE BACKFILLLING, COMPACTING, AND RESTORATION OF THE EXCAVATION TO THE SITE'S ORIGINAL CONDITION. EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH ITEM 632 - TEST HOLE PERFORMED.

A QUANTITY OF 25 EACH HAS BEEN CARRIED TO THE TRAFFIC SIGNAL SUBSUMMARY (SHEET NO. 144) TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 632 - SIGNAL SUPPORT FOUNDATION, AS PER PLAN

WITHIN TWO (2) WEEKS OF RECEIVING A SIGNED CONTRACT, THE CONTRACTOR HAVE AN OHIO LICENSED PROFESSIOANL SURVEYOR LAYOUT THE PERIMETER OF EACH SIGNAL SUPPORT FOUNDATION, AND THEN CONTACT OUPS (1-800-362-2764), OGPUPS (1-800-925-0988) AND THE CITY OF CLEVELAND. A MEETING BETWEEN THE CONTRACTOR AND A REPRESENTATIVE FROM THE CITY WILL BE HELD ON SITE NO LATER THAN TWO (2) WEEKS AFTER THE UTILITY NOTIFICATION TO DETERMINE WHICH FOUNDATIONS MAY REQUIRE TEST HOLES TO BE PERFORMED UNDER SEPARATE BID ITEM.

IF A UTILITY OR OTHER CONFLICT EXISTS WHICH REQUIRES THAT A SIGNAL SUPPORT BE CONSTRUCTED AT A LOCATION OTHER THAN WHAT IS INDICATED IN THE PLANS, THE CITY AND ENGINEER SHALL DETERMINE WHETHER THE SPECIFIED MAST ARM LENGTH IS APPROPRIATE. IF A LONGER ARM IS REQUIRED, WITHIN TEN (10) WORKING DAYS, THE CITY WILL PROVIDE THE CONTRACTOR WITH REVISED POLES AND ARM DATA. THE CONTRACTOR SHALL NO ORDER THE POLES PRIOR TO RECEIVING THIS DATA. SUPPORT FOUNDATION LOCATIONS SHALL BE ADJUSTED ONLY WHEN APPROVED BY THE ENGINEER.

THE CONTRACTOR IS ADVISED TO LOCATED AND CONSTRUCT THE SIGNAL SUPPORT FOUNDATIONS AS SOON AS POSSIBLE IN ORDER TO PROVIDE AMPLE LEAD TIME TO ORDER THE SIGNAL SUPPORTS AND THEIR ASSOCIATED MAST ARMS. NO TIME EXTENSIONS SHALL BE GRANTED FOR DELAYS WHICH ARE CAUSED BY THE CONTRACTOR'S FAILURE TO PLAN FOUNDATION WORK AS SOON AS POSSIBLE IN THE CONTRACTOR'S PROGRESS SCHEDULE.

THE CONTRACTOR SHALL PROTECT PEDESTRIANS AND VEHICLES FROM EXPOSED ANCHOR BOLTS AT ALL TIMES UNTIL THE ASSOCIATED SIGNAL SUPPORT IS ERECTED. THE METHOD OF COVERING THE ANCHOR BOLTS SHALL BE APPROVED BY THE ENGINEER.

CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO ORDERING THE SIGNAL SUPPORTS. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

ITEM 632 - INTERCONNECT CABLE, MISC.: EXISTING INTERCONNECT REPLACEMENT

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING NEW INTERCONNECT CABLE TO CONNECT PROPOSED TRAFFIC SIGNAL TO EXISTING INTERCONNECT SYSTEM ALONG HOUGH AVENUE. INTERCONNECT CABLE AND INSTALLATION SHALL COMPLY WITH C&MS 632 AND MATCH EXISTING SIZE.

PAYMENT FOR ITEM 632 INTERCONNECT CABLE, MISC.: EXISTING INTERCONNECT REPLACEMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE PER FOOT AND SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO INSTALL NEW INTERCONNECT CABLE.

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER JMB

REVIEWER CEL 12/22/25

PROJECT ID 122389

SHEET P.145 TOTAL 195

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

A. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS.
625-CONDUIT, (BY SIZE), 725.051, AS PER PLAN

ALL CONDUIT INSTALLED UNDER PAVEMENT IN THIS PROJECT FOR TRAFFIC SIGNALS SHALL BE CONCRETE ENCASED UNLESS SPECIFIED IN THE PLANS. CONDUIT SHALL BE SCHEDULE 40 AND CONFORM TO OHIO DEPARTMENT OF TRANSPORTATION'S SPECIFICATION 625.12 AND 725.051.

A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING.

A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.

625-GROUND ROD, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 625.19 AND 725.16, GROUND RODS SHALL BE 1" DIAMETER, COPPER CLAD STEEL AND BONDED ELECTRICALLY TO THE FOUNDATION REINFORCEMENT.

A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/ BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.

A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

ITEM 633 - UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8-INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE DISTRICT TRAFFIC ENGINEER AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES PERFORMANCE.

AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4 &8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

THIS ITEM SHALL INCLUDE A RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENT TO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65 OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/ SHATTER RESISTANT. IT SHALL BE A DOMED ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED ON THE SIDE OF THE UPS CABINET FACING TOWARDS THE MAINLINE ROADWAY AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY," WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION). THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V AC UNLESS OTHERWISE INDICATED.

ITEM 632 - COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN

COVER VEHICULAR SIGNAL HEADS IF ERECTED AT INTERSECTIONS WHERE TRAFFIC IS MAINTAINED BEFORE ENERGIZING THE SIGNALS. USE A STURDY OPAQUE COVERING MATERIAL SPECIFICALLY MADE FOR USE WITH TRAFFIC SIGNALS, AND ENSURE THAT THE COLOR OF THE COVER IS DIFFERENT THAN THE SIGNAL HEAD, TAN OR BEIGE, SO THAT IT IS CLEAR TO DRIVERS THE HEADS ARE COVERED, NOT DARK. USE A METHOD OF COVERING TO COVER ATTACHMENT AND MATERIALS, INCLUDING BACKPLATES, AS APPROVED BY THE ENGINEER. COVERS ARE TO BE FREE OF TEXT, PICTURES OR ANY TYPE OF ADVERTISING. MAINTAIN COVER, AND REMOVE THEM WHEN DIRECTED BY THE ENGINEER.

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE: 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB
REVIEWER CEL 12/22/25
PROJECT ID 122389
SHEET P.146 TOTAL 195

TRAFFIC SIGNAL GENERAL NOTES

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION. IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF CLEVELAND FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 3 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00 AM TO 9:00 AM AND 3:00 PM TO 7:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY OFF-DUTY CITY OF CLEVELAND POLICE, HIRED BY THE CONTRACTOR.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 633 - CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2

THE CONTROLLER SHALL FURNISH AN ACTUATED 8-PHASE DIGITAL MICROPROCESSOR CONTROLLER AND BASE MOUNTED CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

THE CONTROLLER AND CABINET SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE CURRENT EDITION OF NEMA STANDARDS TS-2, FOR TYPE 2 CONTROLLERS, AND SECTIONS 633 AND 733 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, AND SHALL BE DELIVERED PRE-WIRED, EQUIPPED WITH THE INTERNAL TIME BASED COORDINATOR AND TELEMETRY UNIT.

THE CABINET SHALL BE NEMA TS-2, TYPE 1 CABINET.

THE CONTROLLER SHALL BE COMPLETELY COMPATIBLE WITH THE CITY OF CLEVELAND CLOSED LOOP SYSTEM, AND SHALL INCLUDE ALL COMMUNICATION AND INTERFACE EQUIPMENT NECESSARY TO TRANSMIT AND RECEIVE ALL REQUIRED PATTERN AND COMMAND DATA BETWEEN THE CENTRAL OFFICE COMPUTER, THE SYSTEM MASTER, AND THE LOCAL CONTROLLER.

1. THE FOLLOWING SWITCHES SHALL BE MOUNTED ON THE SWITCH PANEL IN THE CABINET.

   A. RUN/STOP TIME RUN/STOP TIME
   B. CONTROLLER TIMER POWER CONTROLLER TIMER POWER
   C. COORDINATION/FREE COORDINATION/FREE
   D. DETECTOR TEST DETECTOR TEST
   E. FLASH CONTROL FLASH CONTROL

2. THE FOLLOWING SWITCHES SHALL BE ACCESSIBLE VIA A POLICE PANEL DOOR:

   A. SIGNAL SHUTDOWN
   B. FLASH CONTROL FLASH CONTROL
   C. MANUAL PUSHBUTTON AND TEN FOOT (10') MANUAL PUSHBUTTON AND TEN FOOT (10') EXTENSION CORD

3. A SERVICE LAMP WITH DOOR ACTIVATED ON/OFF SWITCH

4. THE LOAD SWITCHES SHALL PROVIDE INPUT AND OUTPUT INDICATIONS

5. THE CABINET EXTERIOR, INCLUDING THE CABINET RISER, SHALL BE PAINTED DARK BRONZE AND THE INTERIOR SHALL BE WHITE. THE CABINET AND RISER SHALL BE FEDERAL COLOR NUMBER F-283 AND PAINTED BY THE SAME PROCESS UTILIZED ON THE SIGNAL SUPPORTS.

6. A TELEPHONE MODEM COMPLETELY WIRED TO REPORT CABINET FAILURES, DETECTOR FAILURES, AND TRAFFIC COUNTS AT ALL LOCATIONS SHOWN IN THE PLANS WHERE THERE IS A PHONE DROP.

7. AN INCANDESCENT LAMP IN A GOOSENECK FIXTURE WITH MANUAL ON/OFF SWITCH

8. BACK PANEL SHALL BE A 16 POSITION CONTINUOUS BACK PANEL.

9. ONE SPARE 2" CONDUIT TO THE CLOSET PULLBOX. (PAYMENT FOR THE UNDERGROUND 2" CONDUIT SHALL BE INCIDENTAL TO ITEM 625 - CONDUIT, 2" 725.051)

10. LIGHTNING PROTECTION

RESTRICTIONS:

THE CONTROLLER SHALL BE CURRENT MODEL OF SIEMENS' TS-2, TYPE 2 M-60 CONTROLLER. THE CONTROLLER SHALL BE INSTALLED IN A TS-2, TYPE 1 CABINET.

THE CONTRACTOR SHALL FURNISH A CABINET PLAN SHOWING COMPONENT PLACEMENT, FOR APPROVAL BY THE ENGINEER AND MAINTAINING AGENCY.

PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL CERTIFY IN WRITING THAT THE MALFUNCTION MANAGEMENT UNIT HAS BEEN TESTED BY AN AUTOMATIC MONITOR TEST, AND THAT NO CONFLICTS EXIST IN THE PROPER OPERATION OF THE CONTROLLER.

PAYMENT FOR "ITEM 633 - CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2" SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TESTING, CERTIFICATIONS, AND OTHER INCIDENTALS NECESSARY TO FURNISH THE CONTROLLER, COMPLETE IN PLACE, INCLUDING ALL CONNECTIONS MADE AND WIRING COMPLETE, TESTED, AND ACCEPTED.

ITEM 630 - SIGN, STREET NAME, AS PER PLAN

STREET NAME SIGNS SHALL BE AS PER C&MS 630 EXCEPT FOR THE FOLLOWING MODIFICATIONS:

OVERHEAD MOUNTED D3-1 STREET NAME SIGNS SHALL BE TWENTY (20) INCHES HIGH FLAT SHEETS WITH TWELVE (12) IN LETTERING FOR THE STREET NAME. OVERHEAD MOUNTED STREET NAME SIGNS SHALL USE THE UNIVERSE 65 FONT AND USE 3M HIGH INTENSITY GRADE REFLECTIVE SHEETING. COLOR BACKGROUND FOR THE STREET NAME SHALL BE BLUE SCOTCHLITE #883 OR EQUIVALENT TRANSPARENT FILM. THE MESSAGES SHALL BE SCREEN PRINTED, WHEREBY THE BACKGROUND COLORS ARE SCREENED AND THE MESSAGES "DROPS OUT" IN WHITE FROM THE HIGH-INTENSITY GRADE REFLECTORIZED SHEETING. THE STREET NAME SIGN SHALL ALSO HAVE A 3/4" INCH INSET BORDER. SIGN PANELS ARE 0.080" THICK ALUMINUM WITH CONSISTENT WIDTH (96").

THE CONTRACTOR SHALL PROVIDE LAYOUTS OF SIGNS HAVING STREET NAMES TO THE CITY OF CLEVELAND TRAFFIC ENGINEERING DEPARTMENT FOR APPROVAL PRIOR TO FABRICATION OF THE SIGNS.

ITEM 632 - PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE FOLLOWING SHALL APPLY:

1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

3. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.

5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED.

6. THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE REQUIREMENTS OF C&MS 732.04-C. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB

REVIEWER CEL 12/22/25

PROJECT ID 122389

SHEET P.147 TOTAL 195

ITEM 632 - SIGNAL SUPPORT, TYPE TC-81.22, BY DESIGN, AS PER PLAN
ITEM 632 - PEDESTAL, 10.7' TALL, TRANSFORMER BASE, AS PER PLAN

FURNISH SIGNAL POLES AND MAST ARMS WHICH COMPLY WITH C&MS 632.15 AND 732.11, BUT DO NOT FURNISH POLES OR MAST ARMS THAT CONSIST OF STRAIGHT SECTIONS WITH A TAPERED EFFECT ACCOMPLISHED BY USE OF REDUCERS. FURNISH POLES THAT ARE CONSTRUCTED OF SINGLE SECTION TRUE CONTINUOUS TAPERED TUBES, AND MAST ARMS THAT ARE CONSTRUCTED OF ONE OR TWO SECTION TRUE CONTINUOUS TAPERED TUBES, AS SHOWN ON STANDARD CONSTRUCTION DRAWING TC-81.22. FURNISH PEDESTALS AND TRANSFORMER BASES WHICH COMPLY WITH C&MS 632.19 AND 732.15. SIGNAL SUPPORTS AND PEDESTALS SHALL COMPLY WITH CITY OF CLEVELAND STANDARD SPECIFICATIONS. ALL MATERIALS SHALL BE PAINTED DARK BRONZE, FEDERAL COLOR NUMBER F-283. ALL SUPPORTS SHALL BE HOT-DIP GALVANIZED PRIOR TO PAINTING,

IN ADDITION TO THE REQUIREMENTS OF SPECIFICATION 632, SIGNAL SUPPORTS AND PEDESTALS SHALL BE PAINTED IN ACCORDANCE WITH THE FOLLOWING:

1. POWDER COATING COLOR: DARK BRONZE
   - 1.1. SURFACE PREPARATION- THE EXTERIOR STEEL SURFACE SHALL BE BLAST CLEANED TO STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATION NO. 6 (SSPC-SP6) REQUIREMENTS UTILIZING CAST STEEL ABRASIVES CONFORMING TO THE SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) RECOMMENDED PRACTICE J827. THE BLAST METHOD USED IS A RECIRCULATING, CLOSED CYCLE CENTRIFUGAL WHEEL SYSTEM WITH ABRASIVE CONFORMING TO SAE SHOT NUMBER S280.
   - 1.2. INTERIOR COATING-INTERIOR SURFACES (POLE SHAFTS ONLY) AT THE BASE END FOR A LENGTH OF APPROXIMATELY 2.0 FEET SHALL BE MECHANICALLY CLEANED AND COATED WITH A ZINC RICH EPOXY POWDER. THE COATING SHALL BE ELECTROSTATICALLY APPLIED AND CURED IN A GAS FIRED CONVECTION OVEN BY HEATING THE STEEL SUBSTRATE TO A MINIMUM OF 350 DEGREES FAHRENHEIT.
   - 1.3. EXTERIOR COATING-ALL THE EXTERIOR SURFACES SHALL BE COATED WITH A URETHANE OR TRIGLYCIDYL ISOCYANURATE (TIC) POLYESTER POWDER TO A MINIMUM FILM THICKNESS OF 2.0 MILS (0.0029"). THE COATING SHALL BE ELECTROSTATICALLY APPLIED AND CURED IN A GAS FIRED CONVECTION OVEN BY HEATING THE STEEL SUBSTRATE TO A MINIMUM OF 350 DEGREES FAHRENHEIT. THE THERMOSETTING POWDER RESIN SHALL PROVIDE BOTH INTERCOAT AS WELL AS SUBSTRATE FUSION ADHESION THAT MEETS 5A OR 5B CLASSIFICATIONS OF ASTMD3559.

2. COMBINATION COATING GALVANIZED-POWDER TOP COAT COLOR: DARK BRONZE
   - 2.1. SURFACE PREPARATION-PRIOR TO BEING INCORPORATED INTO AN ASSEMBLED PRODUCT, STEEL PLATES ¾ INCHES OR MORE IN THICKNESS SHALL BE BLAST CLEANED WHEN REQUIRED TO REMOVE ROLLED IN MILL SCALE, IMPURITIES AND NON-METALLIC FOREIGN MATERIALS. AFTER ASSEMBLY, ALL WELD FLUX SHALL BE MECHANICALLY REMOVED. THE IRON OR STEEL PRODUCT SHALL BE DEGREASED BY IMMERSION IN AN AGITATED 4.5%-6.0% CONCENTRATED CAUSTIC SOLUTION ELEVATED TO A TEMPERATURE RANGING FROM 150 DEGREES FAHRENHEIT TO 190 DEGREES FAHRENHEIT. IT SHALL NEXT BE THE RINSED CLEAN FROM ANY RESIDUAL EFFECTS OF THE CAUSTIC OR ACID SOLUTIONS BY IMMERSION IN CONCENTRATED ZINC AMMONIUM CHLORIDE FLUX SOLUTION HEATED TO 130 DEGREES FAHRENHEIT. THE SOLUTION'S ACIDITY CONTENT SHALL BE MAINTAINED BETWEEN 4.5-5.0 PH. THE ASSEMBLY SHALL BE AIR DRIED TO REMOVE ANY MOISTURE REMAINING IN THE FLUX COAT AND/OR TRAPPED WITHIN THE PRODUCT.
   - 2.2. ZINC COATING- THE PRODUCT SHALL BE HOT-DIP GALVANIZED TO THE REQUIREMENTS OF EITHER ASTM A123 (FABRICATED PRODUCTS) OR ASTM 153 (HARDWARE ITEMS) BY IMMERSION IN A MOLTEN BATH OF PRIME WESTERN GRADE ZINC MAINTAINED BETWEEN 810 FAHRENHEIT AND 850 DEGREES FAHRENHEIT. THE ENTIRE PRODUCT SHALL BE TOTALLY IMMERSED WITH NO PART OF IT PROTRUDING OUT OF THE ZINC (NO DOUBLE DIPPING). THIS IS TO LIMIT A RISK OF TRAPPED CONTAMINANTS CONTAINING CHLORIDES AND REDUCE THE RISK OF BARE SPOTS (BARE SPOTS CAN OCCUR WHEN FLUX ON THE STEEL SURFACE IS BURNED AWAY BY HEAT OF THE FIRST DIP). MAXIMUM ALUMINUM CONTENT OF THE BATH SHALL BE 0.01%. FLUX ASH SHALL BE SKIMMED FROM THE BATH SURFACE PRIOR TO IMMERSION AND EXTRACTION OF THE PRODUCT TO ASSURE A DEBRIS FREE ZINC COATING.
   - 2.3. EXTERIOR COATING - ALL GALVANIZED EXTERIOR SURFACES SHALL BE COATED WITH A URETHANE OR TRIGLYCIDYL ISOCYANURATE (TGIC) POLYESTER POWDER TO MINIMUM FILM THICKNESS OF 2.0 MILS (0.002"). PRIOR TO APPLICATION, THE SURFACES TO BE POWDER COATED SHALL BE MECHANICALLY ETCHED BY BRUSH BLASTING (REF. SSPC-SP7) AND THE SINC COATED SUBSTRATE PREHEATED TO 450 DEGREES FAHRENHEIT FOR A MINIMUM OF ONE HOUR IN A GAS FIRED CONVECTION OVEN. THE COATING SHALL BE ELECTROSTATICALLY APPLIED AND CURED IN A GAS FIRE CONVECTION OVEN BY HEATING THE ZINC COATED SUBSTRATE TO A MINIMUM OF 350 DEGREES FAHRENHEIT AND A MAXIMUM OF 400 DEGREES FAHRENHEIT. THE THERMOSETTING POWDER RESIN SHALL PROVIDE BOTH INTERCOAT AS WELL AS SUBSTRATE FUSION ADHESION THAT MEETS 5A OR 5B CLASSIFICATION OF ASTM D3559.

MINIMUM CLEARANCE FROM OVERHEAD ELECTRIC WIRES SHALL COMPLY WITH REQUIREMENTS OF THE NATIONAL ELECTRIC SAFETY CODE, RULE 232, AND THE REQUIREMENTS OF CLEVELAND PUBLIC POWER.

DUE TO THE POSSIBILITY OF CONFLICT WITH EXISTING OR PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTIONS) WHICH COULD AFFECT THE LOCATION OF THE FOUNDATIONS FOR THESE ITEMS, AND CONSEQUENTLY, THE DESIGN OF THE VARIOUS SUPPORTS, AND/OR ARMS, DO NOT PLACE FINAL ORDERS FOR THESE ITEMS UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS NOTED IN THE PLANS PRIOR TO ORDERING THE SIGNAL SUPPORTS.

ITEM 625 - PULL BOX, MISC.: 13"X24"
ITEM 625 - PULL BOX, MISC.: 17"X30"
ITEM 625 - PULL BOX, MISC.: 24"X36"

1. SIZE: 13" X 24"
   - a. THE EXTERIOR DIMENSIONS AT THE TOP SHALL BE 13" X 24" (NOMINAL)
   - b. THE BOX SHALL BE 24" DEEP (NOMINAL) AND SHALL TAPER OUTWARD FROM THE TOP TO THE OPEN BOTTOM
   - c. THE INSIDE DIMENSIONS AT THE BOTTOM SHALL BE 11-7/8" X 21-3/8" (MINIMUM)
   - d. THE BOX, WITHOUT COVER, SHALL WEIGH APPROXIMATELY 64 LBS.
   - e. THE COVER SHALL BE 13-3/4" X 23-1/4" X 2" AND SHALL WEIGH APPROXIMATELY 34 LBS.

2. SIZE: 17" X 30"
   - a. THE EXTERIOR DIMENSIONS AT THE TOP SHALL BE 17" X 30" (NOMINAL)
   - b. THE BOX SHALL BE 24" DEEP (NOMINAL) AND SHALL TAPER OUTWARD FROM THE TOP TO THE OPEN BOTTOM
   - c. THE INSIDE DIMENSIONS AT THE BOTTOM SHALL BE 15-5/8" X 28-5/8" (MINIMUM)
   - d. THE BOX, WITHOUT COVER, SHALL WEIGH APPROXIMATELY 84 LBS.
   - e. THE COVER SHALL BE 17-1/2" X 30-1/2" X 2" AND SHALL WEIGH APPROXIMATELY 65 LBS.

3. SIZE: 24" X 36"
   - a. THE EXTERIOR DIMENSIONS AT THE TOP SHALL BE 24" X 36" (NOMINAL)
   - b. THE BOX SHALL BE 24" DEEP (NOMINAL) AND SHALL TAPER OUTWARD FROM THE TOP TO THE OPEN BOTTOM
   - c. THE INSIDE DIMENSIONS AT THE BOTTOM SHALL BE 29-13/16" X 41" (MINIMUM)
   - d. THE BOX, WITHOUT COVER, SHALL WEIGH APPROXIMATELY 124 LBS.
   - e. THE COVER SHALL BE 24" X 35-5/8" X 3" AND SHALL WEIGH APPROXIMATELY 137 LBS.

4. LOAD CAPACITY

THE BOX AND COVER SHALL BE CAPABLE OF SUPPORTING A LOAD OF 20,000 LBS. ON A 10" X 10" AREA, TESTED IN ACCORDANCE WITH "WESTERN UNDERGROUND COMMITTEE GUIDE 3.6". THE COVER DEFLECTION SHALL NOT EXCEED ½" AT DESIGN LOAD. THE COVER AND BOX SHALL SHOW NO SIGNS OF DAMAGE AFTER TEN (10) CYCLES AT DESIGN LOAD.

5. MATERIAL AND CONSTRUCTION

THE BOX SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYMER (FRP) WITH ISOPTHALIT POLYESTER USING THE SPRAY-UP AND ROLL CONSTRUCTION METHOD. THE MATERIAL SHALL HAVE STABILIZERS TO RESIST ULTRAVIOLET (UV) DEGRADATION IN ACCORDANCE WITH ASTM D-790 AND ASTM D-11501-71, SECTION 6, PROCEDURE B.

THE TOP RING OF THE BOX SHALL BE MADE OF POLYMER CONCRETE USING A POLYESTER BINDER WITH AGGREGATE FILLERS AND CHOPPED FIBERGLASS WITH MINIMUM TENSILE STRENGTH OF 1900 PSI. THE RING SHALL HAVE THE SAME UV RESISTANCE AS THE FRP MATERIAL. THE THREADED INSERTS FOR THE COVER BOLTS SHALL BE STAINLESS STEEL.

THE COVER SHALL BE MADE WITH A THICK MOLDING COMPOUND (TMC) USING THE COMPRESSION MOLDING METHOD. THE TMC SHALL CONSIST OF A MINIMUM OF TEN PERCENT (10%) FIBERGLASS IN A CALCIUM CARBONATE AND POLYESTER RESIN MATRIX. THE COVER SHALL BE MARKED WITH THE WORD "TRAFFIC" IN 2 LETTERS, EMBOSSED INTO THE TMC AND SHALL HAVE A NON-SKID SURFACE AND THE SAME UV RESISTANCE AS THE FRP MATERIAL.

THE COVER SHALL BE SECURED TO THE BOX USING TWO HEX HEAD STAINLESS STEEL BOLTS AND WASHERS WHICH SHALL ATTACH TO THREADED INSERTS IN THE BODY OF THE BOX.

6. CONDUIT OPENINGS

THE OPENINGS IN THE SIDE OF THE PULL BOX, WHICH ARE REQUIRED TO INSERT CONDUIT (INTO THE PULL BOX) SHALL BE DRILLED OR SAWN IN THE FIELD, ONCE THESE LOCATIONS HAVE BEEN DETERMINED. THE OPENINGS SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE CONDUIT BY MORE THAN FIVE PERCENT (5%). ALL OPENINGS IN THE SIDE OF THE PULL BOX SHALL BE THOROUGHLY GROUTED WITH CEMENT MORTAR AFTER PLACING THE CONDUIT.

NOTE: THE EXACT LOCATIONS OF THE PULL BOXES ARE TO BE STAKED AND CHECKED BY THE ENGINEER PRIOR TO PLACEMENT TO VERIFY CLEARANCE OF UNDERGROUND FACILITIES AND ANY ABOVE GROUND OBSTRUCTIONS. IF THERE ARE ANY CONFLICTS, THESE WILL BE ADJUSTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS ADJUSTMENT IS INCIDENTAL TO THESE ITEMS.

7. PULL BOX DRAIN

PULL BOXES ARE TO PROVIDED A 4" DRAIN TO THE NEAREST STORM INLET, UNDER DRAIN, OR OTHER SUITABLE OUTLET FROM THE PULL BOX. TWENTY (20) FEET OF 4" PVC CONDUIT SHALL BE USED AND INCLUDED IN THE PRICE OF THE PULL BOX.

FAILURE TO INSTALL DRAIN CONDUIT SHALL RESULT IN A PENALTY EQUAL TO THE PRICE BID FOR THE AFFECTED PULL BOXES. PAYMENT FOR PULL BOX ITEMS SHALL NOT BE MADE UNTIL PULL BOXES, INCLUDING UNDER DRAIN, HAVE BEEN COMPLETELY INSTALLED.

8. PAYMENT

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY FOR THE ACTUALLY COMPLETED AND ACCEPTED QUANTITIES OF:
ITEM 625, PULL BOX, MISC.: 13" X 24"
ITEM 625, PULL BOX, MISC.: 17" X 30"
ITEM 625, PULL BOX, MISC.: 24" X 36"

ITEM 630 - SIGN HANGAR ASSEMBLY, MAST ARM, AS PER PLAN

RIGIDLY ATTACH FLAT SHEET SIGNS TO TRAFFIC SIGNAL MAST ARMS WITH THE SIGN CENTERED VERTICALLY ON THE ARM USING THE SIGN BRACKET DETAIL ON STANDARD CONSTRUCTION DRAWING TC-16.21, OR ANOTHER METHOD OF RIGID ATTACHMENT AS APPROVED BY THE ENGINEER. INSURE THAT THE SIGN FACE IS MOUNTED PERPENDICULAR TO THE DIRECTION OF TRAFFIC.

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TRAFFIC SIGNAL GENERAL NOTES

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborneng.com

DESIGNER JMB
REVIEWER CEL 2/3/26
PROJECT ID 122389
SHEET P.148 TOTAL 195

ITEM 809 - STOP LINE RADAR DETECTION, AS PER PLAN

THE STOP LINE RADAR DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
2. ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
3. THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
4. SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
5. THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).
7. THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.

PAYMENT FOR ITEM 809 - STOP LINE RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, AND CONNECTIONS TESTED AND ACCEPTANCE.

ITEM 632 - VEHICULAR SIGNAL HEAD, (LED), (BY TYPE), 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN

IN ADDITION TO THE REQUIREMENT OF 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. SIGNAL AND VISORS SHALL BE CONSTRUCTED OF YELLOW POLYCARBONATE PLASTIC WITH VISORS AS SPECIFIED AND MEET ITE SPECIFICATIONS.
2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
3. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL.
4. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.
5. ALL SIGNAL HEADS SHALL BE RIGIDLY MOUNTED TO THE MAST ARM WITH THE YELLOW MODULE LOCATED IN FRONT OF THE MAST ARM.
6. ALUMINUM BACKPLATES SHALL BE IN ACCORDANCE WITH THE C&MS AND INCLUDE A FLUORESCENT YELLOW REFLECTIVE BORDER.
7. THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE REQUIREMENTS OF C&MS 732.04-C. THE CONTRACTOR SHALL PROVIDE THE CITY OF CLEVELAND, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE OF ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR FOR INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.
8. SIGNAL HEADS SHALL HAVE A MINIMUM WALL THICKNESS OF 0.117 INCHES.
9. SIGNAL HEAD SHALL INCLUDE CUTAWAY TYPE VISORS UNLESS OTHERWISE SPECIFIED IN THE PLANS.
10. APPLY A BEAD OF SILICONE TO THE SIGNAL HEAD, WASHER, AND ENTRANCE ADAPTER SERRATIONS TO PREVENT WATER INTRUSION. ALSO, FILL THE SPACE BETWEEN CONCENTRIC SERRATION RINGS ON THE TOP OF THE SIGNAL HEAD TO COMPLETELY EXCLUDE WATER FROM THE SPACE BETWEEN THE CONCENTRIC RINGS.
11. BALANCE ADJUSTERS SHALL NOT BE USED ON ONE-WAY HEADS OR TETHERED HEADS.
12. GLASS LENSES SHALL BE USED.

PAYMENT FOR ITEM 632 - VEHICULAR SIGNAL HEAD, (LED), (BY TYPE), 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN SHALL BE MADE FOR COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND NEW ATTACHMENT HARDWARE.

ITEM 630 - SIGNING, MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. 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) AND FHWA INTERIM APPROVAL FOR RRFBS (IA-21).

GENERAL REQUIREMENTS -

EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

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

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE BY THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS -

EACH RRFB SHALL UTILIZE SOLAR POWER.

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).

EACH REMOTE RRFB SHALL BE WIRELESSLY ACTIVATED.

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

THE UNIT SHALL BE CAPABLE OF RUNNING 14 DAYS WITHOUT SUNLIGHT.

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

a. EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE X 2" HIGH.
b. THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTALLY, WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE FRONT AND TWO INDICATIONS ON THE BACK.
c. EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL.
d. EACH RRFB SHALL BE LOCATED BETWEEN THE BOTTOM OF THE CROSSING WARNING SIGN AND THE TOP OF THE SUPPLEMENTAL DOWNWARD DIAGONAL ARROW PLAQUE.
e. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS I SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY, 2005.
f. TO MINIMIZE EXCESSIVE GLARE DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHALL BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
g. AN LED PEDESTRIAN 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.
h. THE PEDESTRIAN CONFIRMATION LIGHT SHALL HAVE A MINIMUM AREA OF 0.5 SQUARE INCHES AND BE CONSPICUOUS TO PEDESTRIANS AT ALL DISTANCES FROM THE BEGINNING OF THE CONTROLLED CROSSWALK TO A POINT 10 FEET FROM THE END OF THE CONTROLLED CROSSWALK DURING BOTH DAY AND NIGHT.

2. SIGNS

a. ALL SIGN ASSEMBLIES SHALL USE ANTI-VANDAL FASTENERS TO MOUNT COMPONENTS TO SIGN AND SIGN TO FIXTURE.
b. PEDESTRIAN PUSHBUTTONS SIGNS SHALL BE PROVIDED AND INCLUDE THE LEGEND "PUSH BUTTON TO TURN ON WARNING LIGHTS". SIGNS SHOULD BE MOUNTED ADJACENT TO OR INTEGRAL WITH EACH PEDESTRIAN PUSHBUTTON.
c. TWO SETS OF SIGNS SHALL BE REQUIRED PER UNIT FOR VIEW FROM EACH APPROACH.
d. ASSURE SIGN MEETS THE REQUIREMENTS OF C&MS 630.

3. CONTROL CIRCUIT

a. 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.
b. THE CONTROL CIRCUIT SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS.
c. 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.

4. BATTERY AND SOLAR PANELS

a. BATTERY UNIT SHALL BE A 12VDC, 35 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO YEAR FULL REPLACEMENT WARRANTY.
b. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS PEAK TOTAL OUTPUT.
c. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES- 60 DEGREES TO PROVIDE MAXIMUM OUTPUT.
d. ALL FASTENERS USED SHALL BE ANTI-VANDAL.

5. WIRELESS RADIO

a. RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
b. RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
c. 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.

6. PUSHBUTTON

a. THE PUSHBUTTON SHALL BE CAPABLE OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -30 DEGREES F TO +165 DEGREES F.
b. PUSHBUTTON SHALL BE ADA COMPLIANT.

7. PEDESTAL SHAFT AND BASE - MOUNT ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH BREAKAWAY BASE. A 14 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED AND CAPPED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE IN THE PLANS. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.

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 DEPARTMENT WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT.

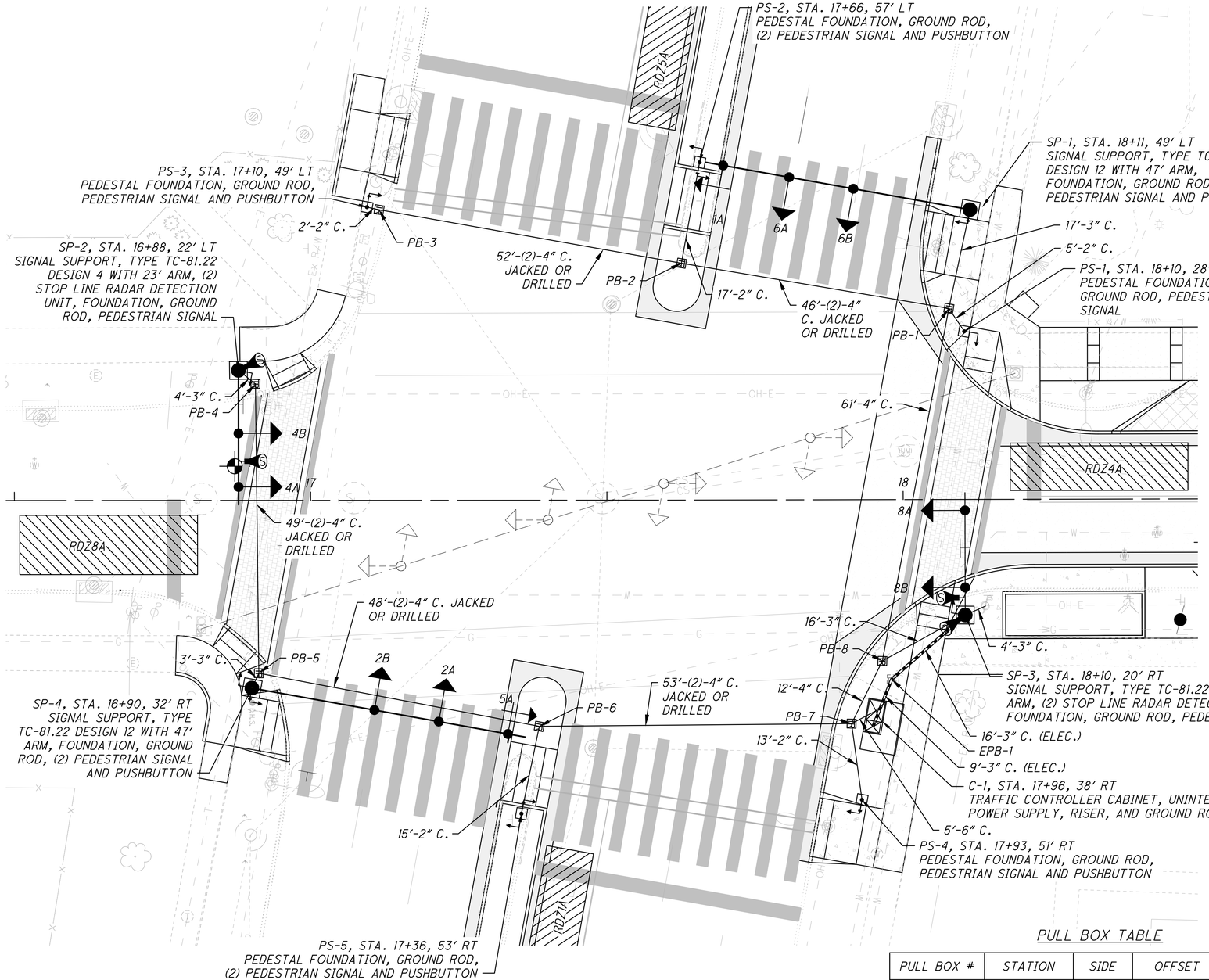
PAYMENT -

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 - SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY.

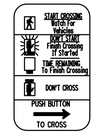
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1111 SUPERIOR AVE. STE. 2100
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DESIGNER JMB
REVIEWER CEL 12/22/25
PROJECT ID 122389
SHEET P.149 TOTAL 195



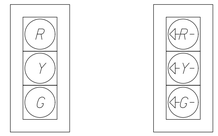
PEDESTRIAN SIGNS



R10-3E-9

6 - LEFT ARROWS
2 - RIGHT ARROWS
2 - DOUBLE ARROWS

VEHICULAR SIGNAL HEADS



2A, 2B, 4A, 4B, 6A, 6B, 8A, 8B

1A, 5A

12" POLYCARBONATE WITH LED LENSES, BACKPLATES AND CUTAWAY TYPE VISORS

MAST ARM MOUNTED SIGNS

E. 66th St

S-1, S-4
D3-1
96"X20"

Chester

S-2, S-3
D3-1
96"X20"

PEDESTRIAN SIGNAL HEADS



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE
PB-1	18+08	LT	32'	17" X 30"
PB-2	17+63	LT	40'	17" X 30"
PB-3	17+12	LT	49'	17" X 30"
PB-4	16+89	LT	19'	17" X 30"
PB-5	16+90	RT	31'	17" X 30"
PB-6	17+39	RT	38'	17" X 30"
PB-7	17+91	RT	38'	24" X 36"
PB-8	17+96	RT	27'	17" X 30"
EPB-1	17+98	RT	30'	13" X 24"

LEGEND

	PR.	EX.
TRAFFIC SIGNAL, 3 UNIT, 12"		
PEDESTRIAN PUSH BUTTON		
PEDESTRIAN HEAD		
SIGNAL SUPPORT POLE		
PEDESTAL SUPPORT		
CONTROLLER CABINET AND WORK PAD (TS-2)		
POLE MOUNTED CONTROLLER		
TRAFFIC PULL BOX		
STOP LINE RADAR DETECTION UNIT		
DETECTION ZONE		

NOTES

1. EXISTING PULL BOXES TO BE REMOVED.
2. FOR PROPOSED PAVEMENT MARKING PLANS, SEE SHEETS P.133-P.143.

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
EAST 66TH STREET AND CHESTER AVENUE

CUY-EAST 66TH STREET TLCI

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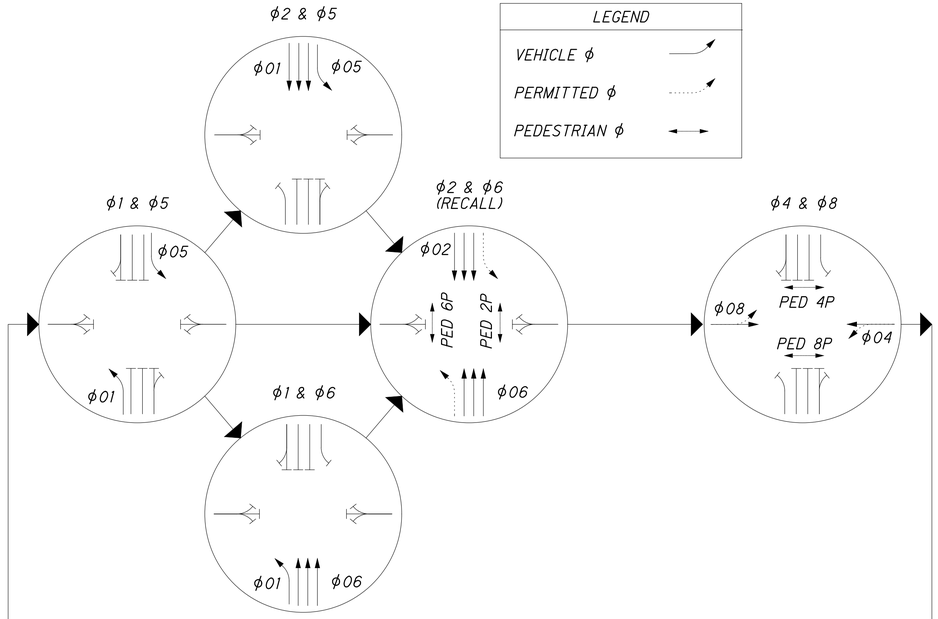
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
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DESIGNER JMB
REVIEWER CEL 1/12/26
PROJECT ID 122389
SHEET P.150 TOTAL 195

RADAR DETECTION CHART

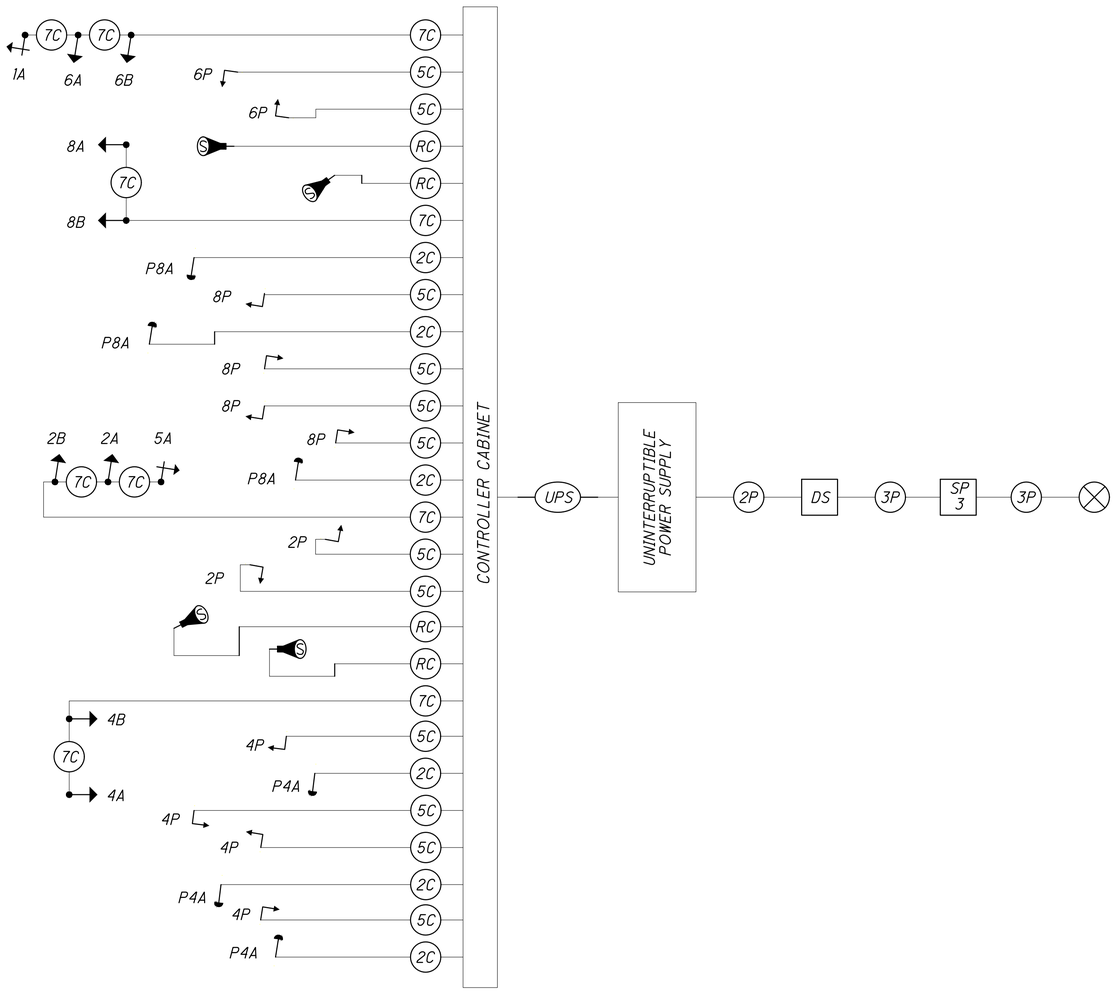
DETECTION ZONE	MOVEMENT	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ1A	WB LT	1	-	-	-	CALL/EXTEND PHASE 1	30
RDZ4A	SB THRU	4	-	-	-	CALL/EXTEND PHASE 4	30
RDZ5A	EB LT	5	-	-	-	CALL/EXTEND PHASE 5	30
RDZ8A	NB THRU	8	-	-	-	CALL/EXTEND PHASE 8	30

PHASING DIAGRAM



SIGNAL TIMING TO BE PROVIDED BY THE CITY OF CLEVELAND.

WIRING DIAGRAM



LEGEND

	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"	2C	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG
	PEDESTRIAN SIGNAL	5C	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
	PEDESTRIAN PUSH BUTTON	7C	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
	STOP LINE RADAR DETECTION UNIT	RC	RADAR DETECTION CABLE
SP X	SIGNAL SUPPORT POLE NO. X	2P	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
DS	DISCONNECT SWITCH	3P	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
UPS	UNINTERRUPTIBLE POWER SUPPLY CABLE		POWER SOURCE

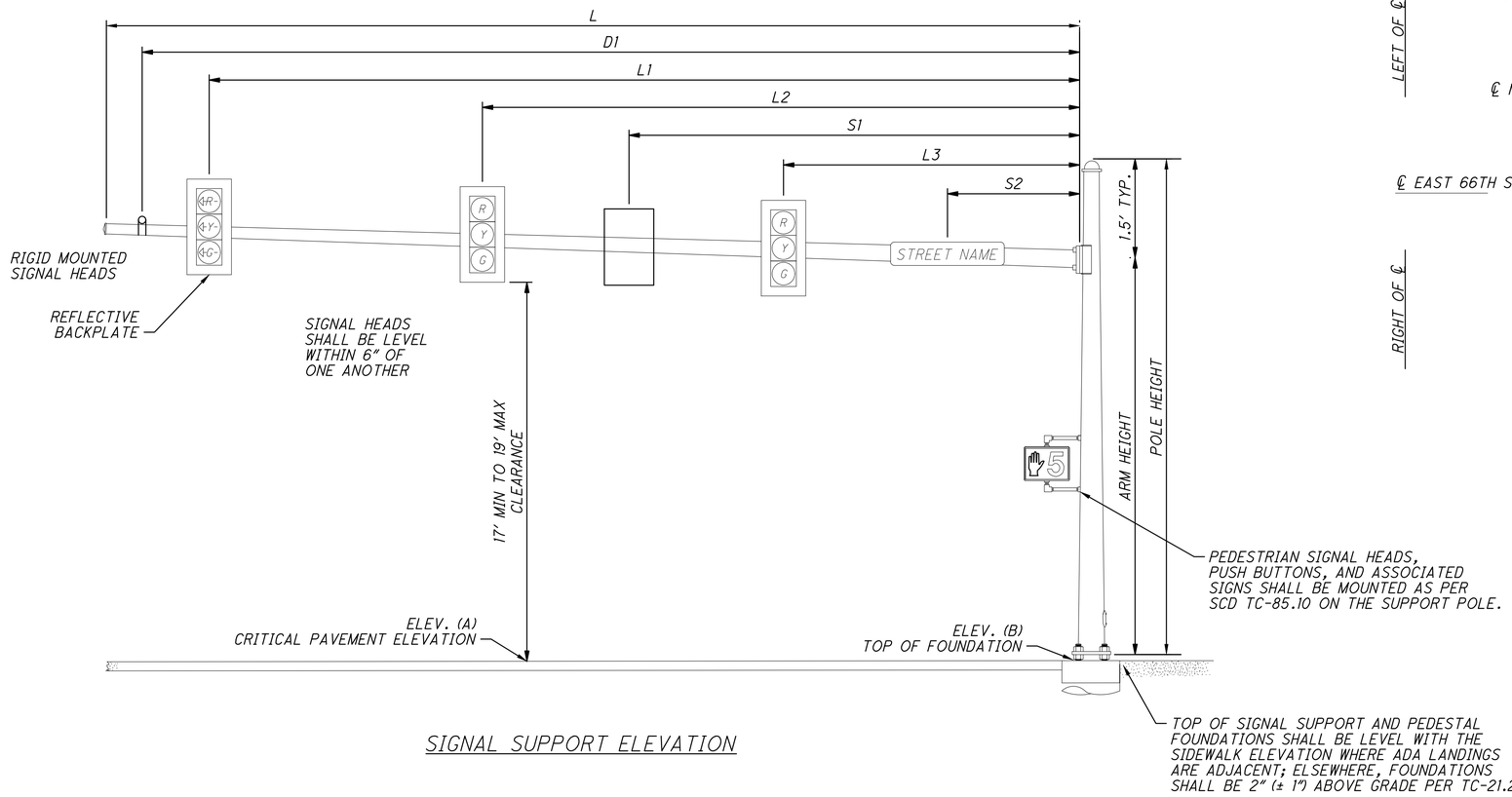
TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND CHESTER AVENUE

CUY-EAST 66TH STREET TLCI

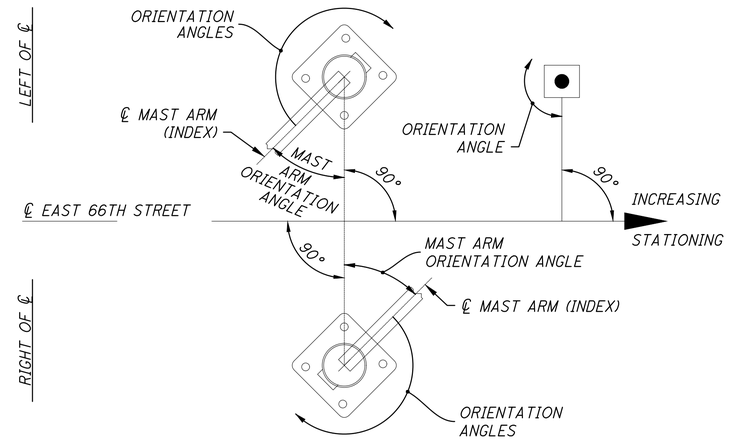
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OSBORN ENGINEERING
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(216)861-2020 www.osbornengcom

DESIGNER JMB
REVIEWER CEL 7/31/25
PROJECT ID 122389
SHEET P.151 TOTAL 195



SIGNAL SUPPORT ELEVATION



POLE ORIENTATION

NOTES

1. LOCATION OF RADAR DETECTORS ARE SHOWN FOR REFERENCE ONLY. FINAL LOCATION IS TO BE AS PER MANUFACTURER'S RECOMMENDATION.

MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS											ORIENTATION ANGLES FROM MAST ARM			
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	S1	S2	MAST ARM ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	HANDHOLE
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG
SP-1	18+11	49' LT	664.60	664.82	TC-81.22	12	21.5	20	45	42	31	20	-	-	-	9	100	8	8	280
SP-2	16+88	22' LT	664.37	664.81	TC-81.22	4	21.5	20	23	20	11	-	-	15	-	6	0	282		180
SP-3	18+10	20' RT	664.05	664.22	TC-81.22	4	21.5	20	21	18	5	-	-	3	-	11	0	280	280	180
SP-4	16+88	45' RT	664.54	664.70	TC-81.22	12	21.5	20	47	44	32	21	-	-	-	11	100	100/280	-	280
PS-1	18+10	28' LT	-	664.38	-	-	-	-	-	-	-	-	-	-	-	-	-	279	-	99
PS-2	17+66	57' LT	-	665.66	-	-	-	-	-	-	-	-	-	-	-	-	-	11 / 191	11	191
PS-3	17+10	49' LT	-	664.93	-	-	-	-	-	-	-	-	-	-	-	-	-	191	191	11
PS-4	17+93	51' RT	-	664.64	-	-	-	-	-	-	-	-	-	-	-	-	-	191	191	11
PS-5	17+36	53' RT	-	665.40	-	-	-	-	-	-	-	-	-	-	-	-	-	11 / 191	11	191

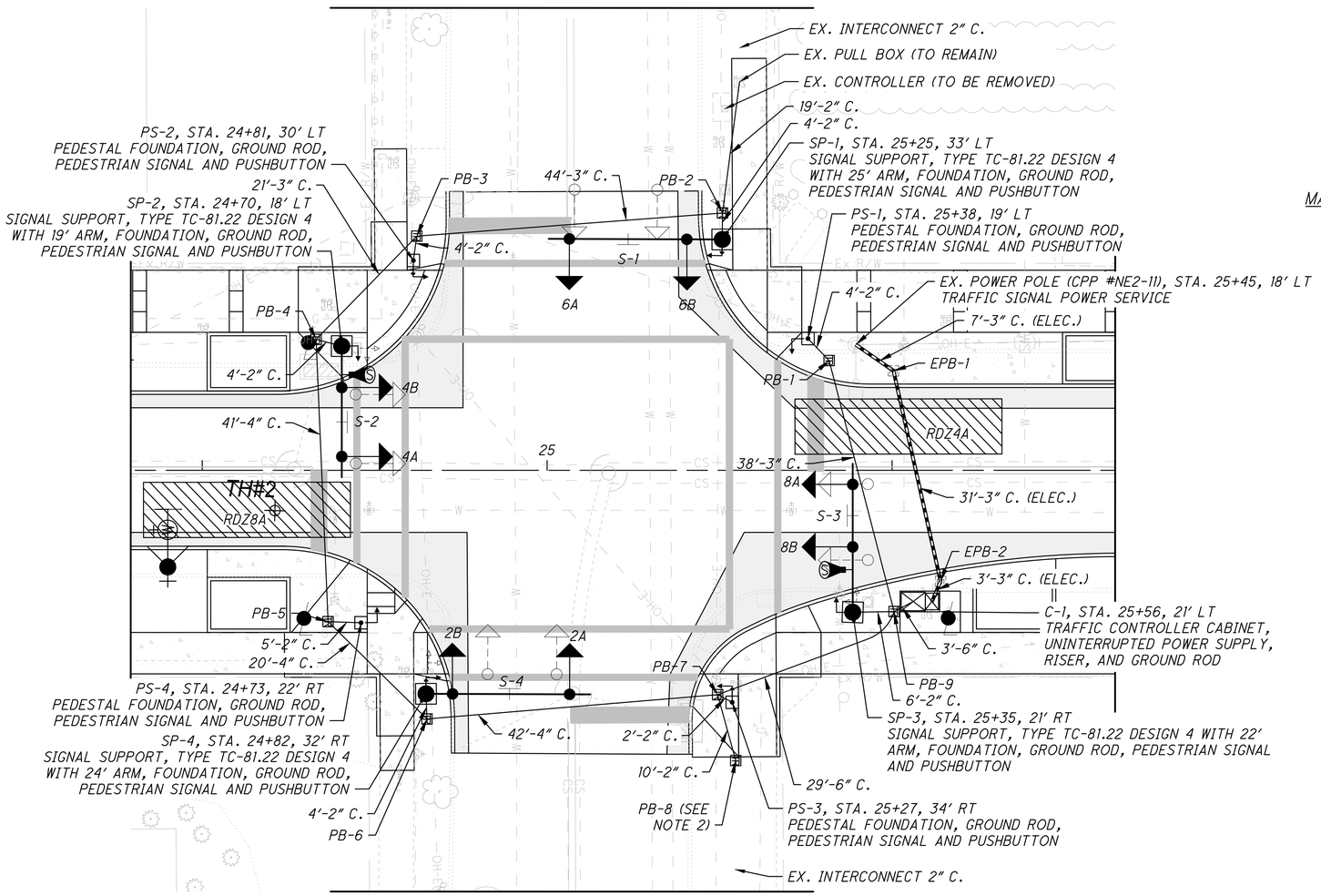
CUY-EAST 66TH STREET TLCI

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TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND CHESTER AVENUE

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER JMB
REVIEWER CEL 1/12/26
PROJECT ID 122389
SHEET P.152 TOTAL 195

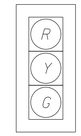


PEDESTRIAN SIGNS



R10-3E-9
4 - LEFT ARROWS
4 - RIGHT ARROWS

VEHICULAR SIGNAL HEADS



2A, 2B, 4A, 4B, 6A,
6B, 8A, 8B

12" POLYCARBONATE WITH LED LENSES,
BACKPLATES AND CUTAWAY TYPE
VISORS

MAST ARM MOUNTED SIGNS

E. 66th St

S-1, S-4
D3-1
96"X20"

Hough

S-2, S-3
D3-1
96"X20"

PEDESTRIAN SIGNAL HEADS



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE
PB-1	25+40	LT	19'	13" X 24"
PB-2	25+25	LT	38'	13" X 24"
PB-3	24+81	LT	34'	13" X 24"
PB-4	24+67	LT	19'	17' X 30"
PB-5	24+68	RT	22'	17" X 30"
PB-6	24+82	RT	32'	17" X 30"
PB-7	25+25	RT	33'	24" X 36"
PB-8	25+27	RT	42'	13" X 24"
PB-9	25+50	RT	20'	24" X 36"
EPB-1	25+50	LT	14'	17" X 30"
EPB-2	25+57	RT	16'	17" X 30"

LEGEND

	PR.	EX.
TRAFFIC SIGNAL, 3 UNIT, 12"		
PEDESTRIAN PUSH BUTTON		
PEDESTRIAN HEAD		
SIGNAL SUPPORT POLE		
PEDESTAL SUPPORT		
CONTROLLER CABINET, BASE MOUNTED WITH PAD		
CONTROLLER CABINET AND WORK PAD (TS-2)		
TRAFFIC PULL BOX		
STOP LINE RADAR DETECTION UNIT		
DETECTION ZONE		

NOTES

1. EXISTING PULL BOXES TO BE REMOVED UNLESS OTHERWISE NOTED.
2. PROPOSED PULL BOX SHALL BE INSTALLED ALONG THE EXISTING INTERCONNECT CONDUIT FOR CONNECTION TO THE NEW SIGNAL. EXISTING INTERCONNECT CABLE REMOVAL SHALL BE INCIDENTAL TO ITEM 632 REMOVAL OF TRAFFIC INSTALLATION, AS PER PLAN.
3. FOR PROPOSED PAVEMENT MARKING PLANS, SEE SHEETS P.133-P.143.

HORIZONTAL SCALE IN FEET
0 5 10 20

TRAFFIC SIGNAL PLAN
EAST 66TH STREET AND HOUGH AVENUE

CUY-EAST 66TH STREET TLCI

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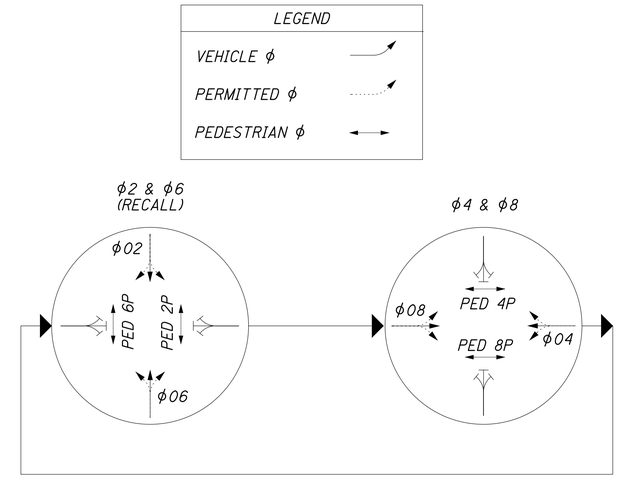
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER JMB
REVIEWER CEL 9/24/25
PROJECT ID 122389
SHEET P.153 TOTAL 195

RADAR DETECTION CHART

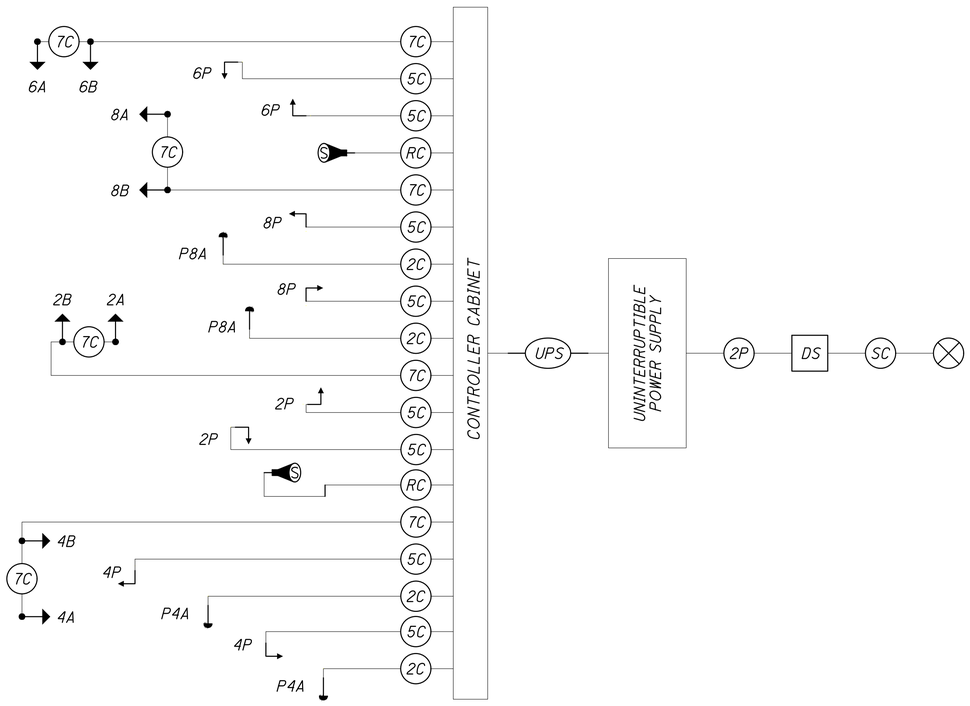
DETECTION ZONE	MOVEMENT	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ4A	SB THRU	4	-	-	-	CALL/EXTEND PHASE 4	30
RDZ8A	NB THRU	8	-	-	-	CALL/EXTEND PHASE 8	30

PHASING DIAGRAM



SIGNAL TIMING TO BE PROVIDED BY THE CITY OF CLEVELAND.

WIRING DIAGRAM



LEGEND

	TRAFFIC SIGNAL, 3 UNIT, 12"	2C	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG
	PEDESTRIAN SIGNAL	5C	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
	PEDESTRIAN PUSH BUTTON	7C	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
S	STOP LINE RADAR DETECTION UNIT	RC	RADAR DETECTION CABLE
SP X	SIGNAL SUPPORT POLE NO. X	2P	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
DS	DISCONNECT SWITCH	SC	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
UPS	UNINTERRUPTIBLE POWER SUPPLY CABLE		POWER SOURCE

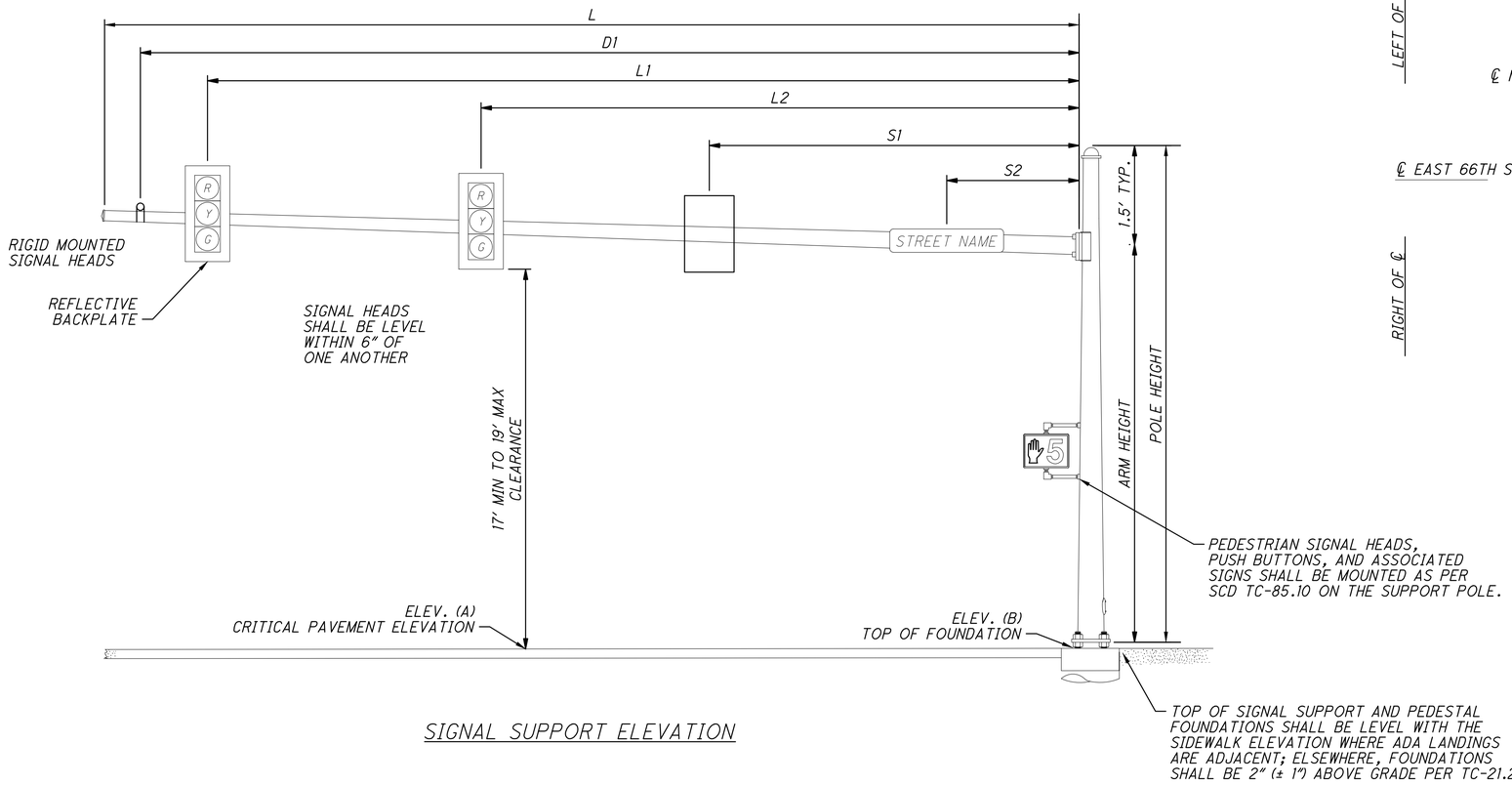
TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND HOUGH AVENUE

CUY-EAST 66TH STREET TLCI

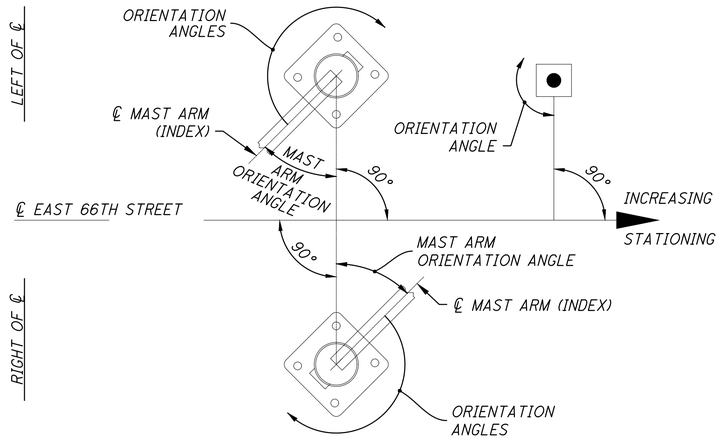
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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osbornengr.com

DESIGNER JMB
REVIEWER CEL 7/31/25
PROJECT ID 122389
SHEET P.154 TOTAL 195



SIGNAL SUPPORT ELEVATION



POLE ORIENTATION

MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS											ORIENTATION ANGLES FROM MAST ARM			
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	S1	S2	MAST ARM ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	HANDHOLE
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG
SP-1	25+25	33' LT	652.65	652.96	TC-81.22	4	21.5	20	25	22	5	-	-	-	-	13	90	0	0	270
SP-2	24+70	18' LT	653.48	653.75	TC-81.22	4	22	20.5	19	16	6	-	-	4	-	11	0	270	270	180
SP-3	25+35	21' RT	652.46	653.10	TC-81.22	4	21.5	20	22	19	9	-	-	6	-	14	0	270	270	180
SP-4	24+82	32' RT	653.92	654.04	TC-81.22	4	22	20.5	24	21	4	-	-	-	-	12	90	0	0	270
PS-1	25+38	19' LT	-	652.90	-	-	-	-	-	-	-	-	-	-	-	-	-	90	90	270
PS-2	24+81	30' LT	-	653.39	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	180
PS-3	25+27	34' RT	-	653.18	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	180
PS-4	24+73	22' RT	-	653.75	-	-	-	-	-	-	-	-	-	-	-	-	-	90	90	270

NOTES
1. LOCATION OF RADAR DETECTORS ARE SHOWN FOR REFERENCE ONLY. FINAL LOCATION IS TO BE AS PER MANUFACTURER'S RECOMMENDATION.

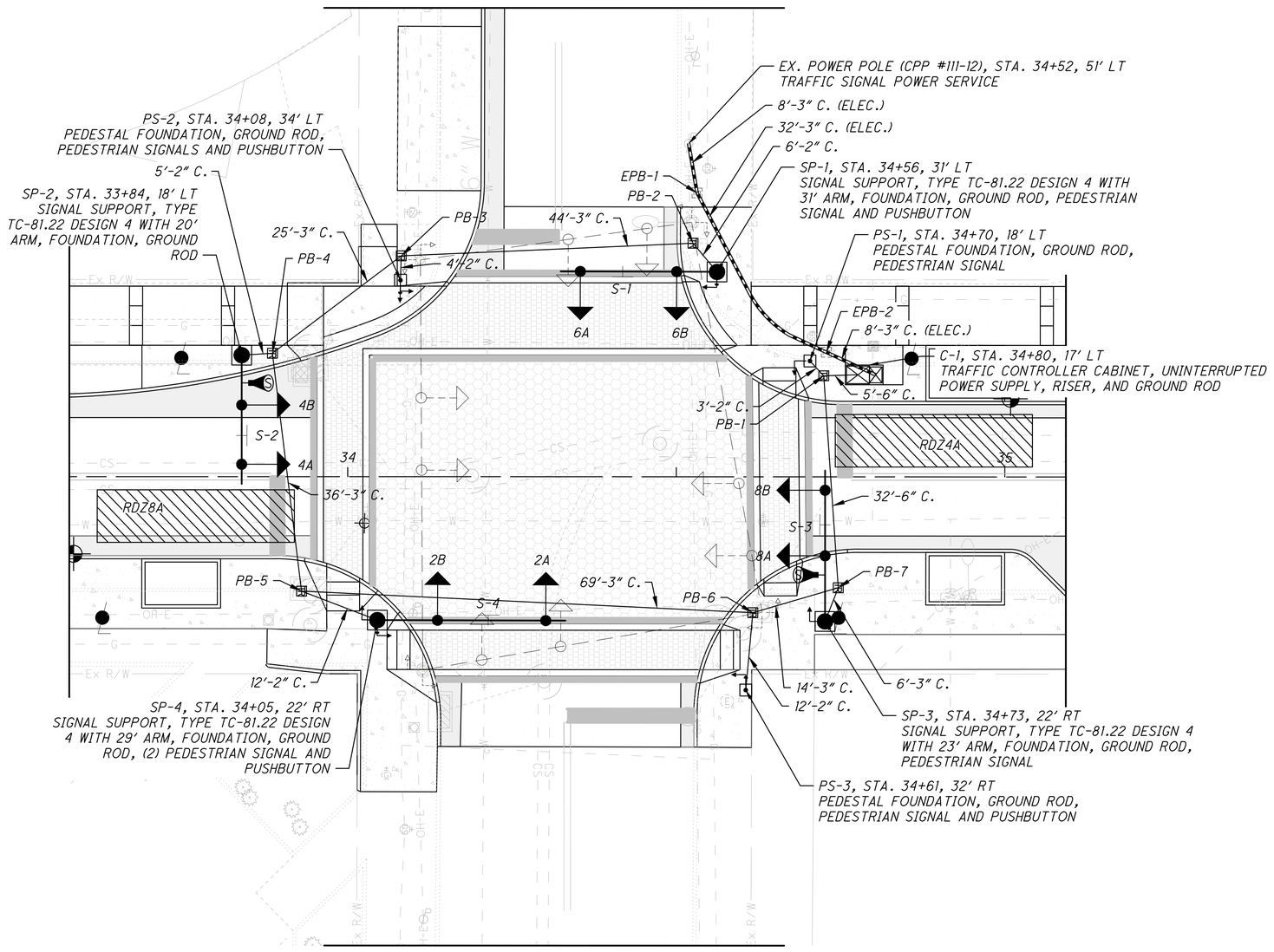
CUY-EAST 66TH STREET TLCI

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TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND HOUGH AVENUE

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1111 SUPERIOR AVE. STE. 2100
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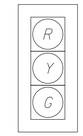
PEDESTRIAN SIGNS



R10-3E-9

4 - LEFT ARROWS
4 - RIGHT ARROWS

VEHICULAR SIGNAL HEADS



2A, 2B, 4A, 4B, 6A, 6B, 8A, 8B

12" POLYCARBONATE WITH LED LENSES, BACKPLATES AND CUTAWAY TYPE VISORS

MAST ARM MOUNTED SIGNS

E. 66th St

S-1, S-4
D3-1
96"X20"

Lexington

S-2, S-3
D3-1
96"X20"

PEDESTRIAN SIGNAL HEADS



PEDESTRIAN HEADS (LED, COUNTDOWN, TYPE D2)

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE
PB-1	34+72	LT	15'	13" X 24"
PB-2	34+53	LT	36'	24" X 36"
PB-3	34+08	LT	34'	17" X 30"
PB-4	33+89	LT	19'	17" X 30"
PB-5	33+93	RT	20'	17" X 30"
PB-6	34+62	RT	21'	13" X 24"
PB-7	34+75	RT	17'	13" X 24"
EPB-1	34+53	LT	43'	13" X 24"
EPB-2	34+73	LT	19'	13" X 24"

LEGEND

	PR.	EX.
TRAFFIC SIGNAL, 3 UNIT, 12"	●⟶	○--▷
PEDESTRIAN PUSH BUTTON	⟶	⟶
PEDESTRIAN HEAD	⌐↓	⌐↓
SIGNAL SUPPORT POLE	◙	◙
PEDESTAL SUPPORT	⊡	
CONTROLLER CABINET AND WORK PAD (TS-2)	⊠	
POLE MOUNTED CONTROLLER		⊠
TRAFFIC PULL BOX	TR	
STOP LINE RADAR DETECTION UNIT	⟶Ⓢ	
DETECTION ZONE	▨	

NOTES

1. EXISTING PULL BOXES TO BE REMOVED.
2. FOR PROPOSED PAVEMENT MARKING PLANS, SEE SHEETS P.133-P.143.

HORIZONTAL SCALE IN FEET
0 5 10 20

TRAFFIC SIGNAL PLAN
EAST 66TH STREET AND LEXINGTON AVENUE

CUY-EAST 66TH STREET TLCI

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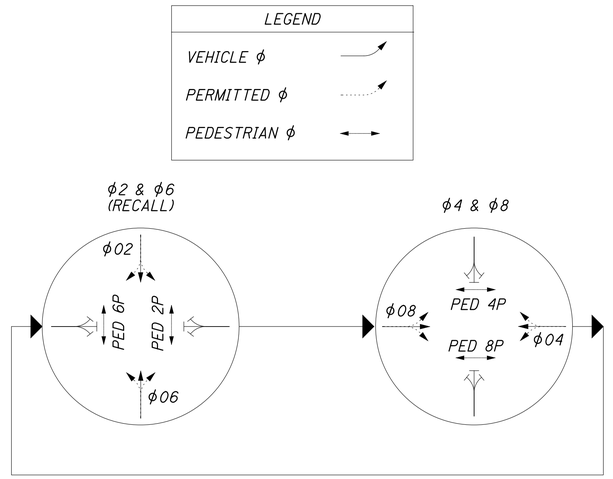
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RADAR DETECTION CHART

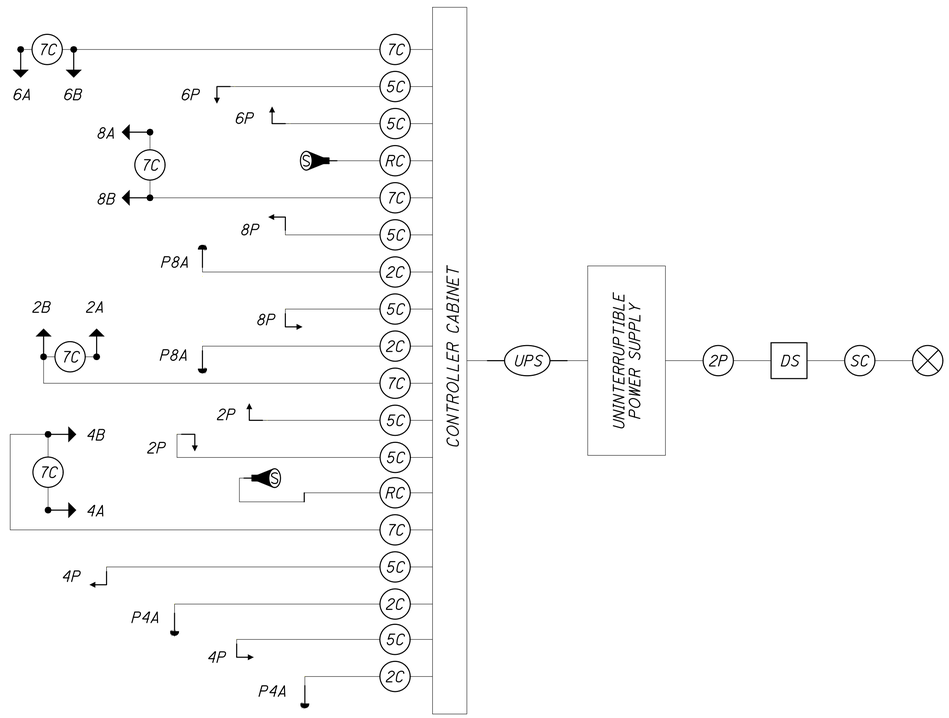
DETECTION ZONE	MOVEMENT	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DETECTOR NUMBER	PURPOSE	DETECTION ZONE LENGTH (FT)
RDZ4A	SB THRU	4	-	-	-	CALL/EXTEND PHASE 4	30
RDZ8A	NB THRU	8	-	-	-	CALL/EXTEND PHASE 8	30

PHASING DIAGRAM



SIGNAL TIMING TO BE PROVIDED BY THE CITY OF CLEVELAND

WIRING DIAGRAM



LEGEND

→	TRAFFIC SIGNAL, 3 UNIT, 12"	2C	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG
↳	PEDESTRIAN SIGNAL	5C	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
→	PEDESTRIAN PUSH BUTTON	7C	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
S	STOP LINE RADAR DETECTION UNIT	RC	RADAR DETECTION CABLE
SP X	SIGNAL SUPPORT POLE NO. X	2P	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
DS	DISCONNECT SWITCH	SC	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
UPS	UNINTERRUPTIBLE POWER SUPPLY CABLE	⊗	POWER SOURCE

CUY-EAST 66TH STREET TLCI

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TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND LEXINGTON AVENUE

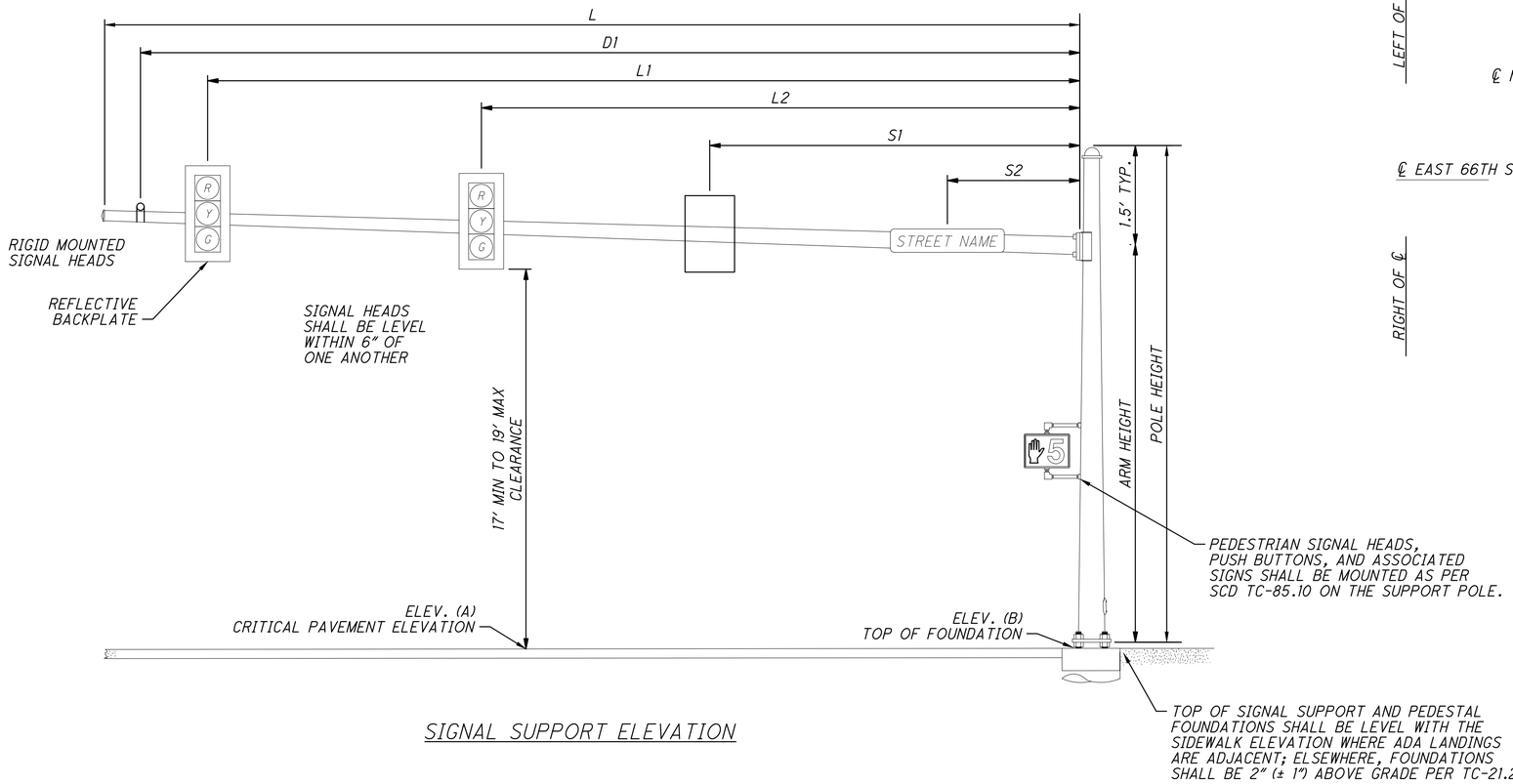
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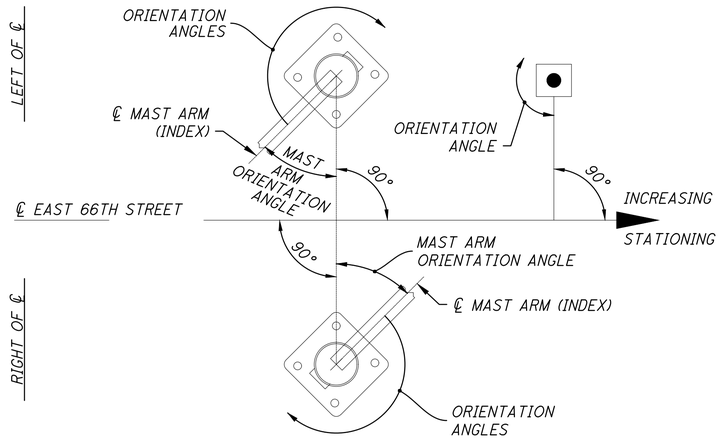
REVIEWER CEL 7/31/25

PROJECT ID 122389

SHEET P.157 TOTAL 195



SIGNAL SUPPORT ELEVATION



POLE ORIENTATION

NOTES
1. LOCATION OF RADAR DETECTORS ARE SHOWN FOR REFERENCE ONLY. FINAL LOCATION IS TO BE AS PER MANUFACTURER'S RECOMMENDATION.

MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS											ORIENTATION ANGLES FROM MAST ARM			
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	D1	S1	S2	MAST ARM ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	HANDHOLE
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG
SP-1	34+55	31' LT	643.96	644.10	TC-81.22	4	21.5	20	22	19	5	-	-	-	-	13	90	0	0	270
SP-2	33+84	18' LT	644.61	644.71	TC-81.22	4	21.5	20	20	17	8	-	-	4	-	12	0	270	270	180
SP-3	34+73	22' RT	644.09	644.19	TC-81.22	4	21.5	20	23	20	10	-	-	7	-	15	0	270	270	180
SP-4	34+05	22' RT	644.11	644.41	TC-81.22	4	21.5	20	29	26	9	-	-	-	-	17	90	180/270	180	270
PS-1	34+70	18' LT	-	644.13	-	-	-	-	-	-	-	-	-	-	-	-	-	90	90	270
PS-2	34+08	34' LT	-	644.14	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	180
PS-3	34+61	32' RT	-	643.84	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	180

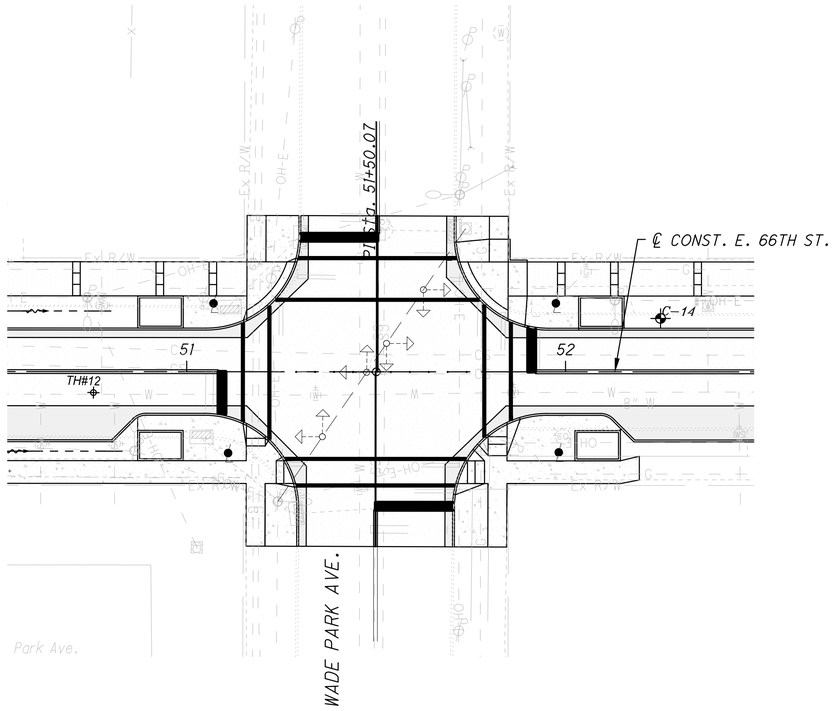
CUY-EAST 66TH STREET TLCI

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TRAFFIC SIGNAL DETAILS
EAST 66TH STREET AND LEXINGTON AVENUE

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1111 SUPERIOR AVE. STE. 2100
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REVIEWER CEL 9/24/25
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SHEET P.158 TOTAL 195



TEMPORARY SIGNS

S-1

SIGNAL
WILL BE
REMOVED
MM DD, YYYY

W24-H2c

NOTES

1. *THE WADE PARK TRAFFIC SIGNAL SHALL BE PLACED INTO FLASH MODE AND W24-H2c SIGNS SHALL BE INSTALLED ON EACH APPROACH AT LEAST 30 DAYS PRIOR TO THE SIGNAL BEING TAKEN OUT OF SERVICE. THE DATE ON THE SIGN SHALL BE THE DATE THE SIGNAL WILL BE REMOVED. THE FURNISHING, INSTALLATION, AND REMOVAL OF THE W24-H2c SIGNS SHALL BE CONSIDERED INCIDENTAL TO ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN.*

HORIZONTAL
SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
EAST 66TH STREET AND WADE PARK AVENUE REMOVAL

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER
JMB

REVIEWER
CEL 12/14/25

PROJECT ID
122389

SHEET P.159 TOTAL 195

CUY-EAST 66TH STREET TLCI

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STREET LIGHTING AND METERED POWER PANEL ELECTRICAL NOTES:

1. THE CONTRACTOR SHALL INSTALL THE STREET LIGHTING & METERED POWER PANEL CONDUIT SYSTEM, CONDUCTORS, PULL BOXES, LIGHT POLES, LUMINAIRES, BASES, PULLING ALL WIRES, BRACKET ARMS, ANCHOR BOLTS, CONNECTIONS, TESTING, EXCAVATION, BACKFILL, ETC FOR A COMPLETE AND OPERATIONAL SYSTEM.

2. THE CONTRACTOR SHALL INSTALL THE LIGHTING CONDUIT SYSTEM, CONDUCTORS, PULL BOXES, LIGHT POLE FOUNDATIONS, LIGHT POLES, LUMINAIRES, PULLING ALL WIRES, BRACKET ARMS, POWER SERVICE, METER SOCKET, METER, POWER PEDESTAL, LIGHTING CONTROLS, WEATHERHEADS, WALL MOUNTED UNDERPASS LUMINAIRES, AND ALL WIRING UP TO CPP UTILITY CONNECTION POINT.

3. ALL WORK SHALL BE INSTALLED BY A CITY OF CLEVELAND AND CPP QUALIFIED ELECTRICAL CONTRACTOR.

4. CLEVELAND PUBLIC POWER (C.P.P.) WILL MAKE ALL FINAL CONNECTIONS FOR THE STREET LIGHTING SYSTEM AND PRIVATE METERED SYSTEM TO THEIR MAINS. C.P.P. WILL RELOCATE ALL SERVICE LATERAL WIRES AS REQUIRED.THE CONTRACTOR SHALL PROVIDE ALL WORK INDICATED ON PLANS, SPECIFICATIONS AND PER CPP STANDARDS.

5. ALL ELECTRICAL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CLEVELAND PUBLIC POWER DETAILS AND SPECIFICATIONS AND THE NATIONAL ELECTRIC CODE (NEC). CONTACT JAMES FERGUSON AT CLEVELAND PUBLIC POWER AT 216-420-7704 EXT 183 TO OBTAIN THE CURRENT C.P.P. SPECIFICATIONS, FEES, PERMITS, TESTING AND INSPECTION REQUIREMENTS.

6. THE CONDUIT SHALL BE PERMANENTLY MARKED ON THE OUTSIDE AT REGULAR INTERVALS WITH THE MANUFACTURER'S NAME, TRADEMARK, NOMINAL DUCT DIAMETER, TYPE AND YEAR OF MANUFACTURE.

7. CONDUIT COUPLINGS, CONNECTORS AND SWEEPS FOR ALL CONDUITS SHALL BE BY THE SAME MANUFACTURER AS THE CONDUITS.

8. PROVIDE ALL PIPE BENDS, SWEEPS, COUPLINGS, DUCT PLUGS, SPACERS, ELBOWS AND FITTINGS, BOND BREAKER, FINAL CLEANING AND MANDRELLING OF EACH CONDUIT, AND THE RISER STUB UP FOR POWER SERVICE AS SHOWN ON THE DETAIL SHEET.

9. PROVIDE ALL CONDUITS WITH A 400 LB PULL LINE.

10. PROVIDE EXPANSION FITTINGS AS REQUIRED. EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

11. PROVIDE DEFLECTION COUPLINGS AS REQUIRED. DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

12. CONTRACTOR SHALL PROVIDE METER SOCKET ENCLOSURES WHERE REQUIRED. METER SOCKET ENCLOSURES SHALL MEET CPP'S SPECIFICATIONS. METER SOCKET ENCLOSURES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR; OR RELOCATED AS INDICATED ON THE PLANS.

13. LIGHT POLE SHALL BE ROUND TAPERED MOUNTED ON NEW BASE.

14. CONTRACTOR SHALL PROVIDE 2-POLE, FUSED, QUICK DISCONNECT 'Y' CONNECTOR KIT WITH 10A FUSING IN EACH POLE BASE.

15. CONTRACTOR SHALL PROTECT ALL EXISTING AND PROPOSED LIGHT POLES UNTIL ALL CONSTRUCTION AND DEMOLITION ACTIVITIES ARE COMPLETE. THE PROTECTION SHALL BE PROVIDED FROM GRADE TO 6'-0" ABOVE GRADE AT A MINIMUM. THE PROTECTION SHALL CONSIST OF BURLAP MATERIAL, OR EQUAL, SECURED AROUND THE POLE BASE AND SHALL PROTECT THE POLE FROM GOUGING, DENTS, SCRAPES, AND SPRAYING BY FOREIGN SUBSTANCES.

16. CONTRACTOR SHALL FACTORY PAINT THE NEW POLES AND FIXTURES BRONZE WITH A POWDER COATED CORROSION RESISTANT FINISH. COLOR AS SPECIFIED BY OWNER/ARCHITECT.

17. THE POLE AND BRACKET ARM SHALL BE FIBERGLASS AND THE COLOR SHALL BE BRONZE. THE BRACKET ARM SHALL HAVE A TWO-FOOT UPSWEEP OR AS DESIGNED ON PLANS. APPROVED PRODUCT MANUFACTURER'S ARE WHATLEY, SHAKESPEARE COMPOSITE STRUCTURES OR APPROVED EQUAL.

18. LUMINAIRES SHALL BE MULTI-VOLT, LED, AND AS INDICATED ON PLANS. LUMINAIRE SHALL INCLUDE AN INTEGRAL PHOTO-ELECTRIC CELL EXCEPT FOR LUMINAIRES INSTALLED AT BRIDGE UNDERPASS. HOUSING SHALL BE AS INDICATED ON PLANS: POST TOP ACORN, SHOE BOX STYLE OR FLOOD LIGHT. APPROVED PRODUCTS BY COOPER, KING LUMINAIRE PRODUCTS-STRESSCRETE GROUP, OR APPROVED EQUAL.

19. ALL LUMINAIRES, POLES, ETC. SHALL BE APPROVED BY C.P.P. PRIOR TO PURCHASE.

CPP SPECIFICATION:

D.11 ROUND, TAPERED FIBERGLASS STREET LIGHT POLES

THIS SPECIFICATION SECTION SHALL COVER STANDARD STREETLIGHT POLES.

ALL POLES SHALL BE HOLLOW, TRUNCATED CONE OF SUITABLE WALL THICKNESS AND TAPER. THE TAPER SHALL BE UNIFORM FROM TOP TO BOTTOM (ANY SECTION SHALL BE CIRCULAR). POLES SHALL HAVE TENON TOPS.

ANY POLE PROVIDED SHALL NOT WEIGH LESS THAN 95% OF THE MANUFACTURER'S ADVERTISED OR SPECIFIED WEIGHT.

WOOD POLES FURNISHED AS PART OF THIS SPECIFICATION SHALL BE CAPABLE OF BEING FITTED AS FOLLOWS:

1. DECORATIVE LUMINAIRE OR ROADWAY LUMINAIRE AND MAST ARM AT TOP OF POLE.
2. UP TO TWO FLOODLIGHTS AT TOP OF POLE.
3. DECORATIVE LUMINAIRE AT TWELVE (12) FEET ABOVE BASE OF POLE.
4. DUPLEX RECEPTACLE AT ELEVEN (11) FEET OF BASE OF POLE.

D-11.1 WIND LOADING

THE POLES FURNISHED AS PART OF THIS SPECIFICATION SHALL BE DESIGNED IN ACCORDANCE WITH 90 MPH (30% GUST FACTOR) AASHTO WIND LOADING. CERTIFIED MATHEMATICAL WIND LOAD CALCULATIONS MUST BE SUBMITTED TO C.P.P. FOR ACCEPTANCE.

D-11.2 MATERIAL

THE REINFORCING GLASS SHALL BE A COMMERCIAL GRADE OF "E" GLASS FIBERS IN CONTINUOUS FILAMENT, WOVEN FILAMENTS, CHOPPED STRAND FORMS OR A COMBINATION OF THE SAME. THE GLASS FIBERS SHALL BE TREATED WITH A COUPLING AGENT COMPATIBLE WITH THE RESIN USED. THE POLE SHALL BE NON-CONDUCTIVE AND CHEMICALLY INERT. THE THERMOSETTING RESIN SHALL CONTAIN ULTRAVIOLET INHIBITORS.

D-11.3 SURFACE

THE POLE EXTERIOR SURFACE SHALL BE SMOOTH AND UNIFORM IN TEXTURE AND COLOR SHOULD NOT CONTAIN ANY EXPOSED FIBERS.

A NON WOVEN POLYESTER TAPE IS TO BE DOUBLE WRAPPED OVER THE UNCURED FIBERGLASS POLE. THE POLYESTER FABRIC IS TO PRE-SATURATED WITH EPOXY RESIN TO IMPREGNATE THE POLE AND INSURE A POSITIVE BOND. THE POLYESTER FABRIC TAPE IS TO BE APPLIED TO THE POLE TO MAINTAIN SURFACE INTEGRITY WITHOUT SIGNIFICANT NOTICEABLE CHANGE IN APPEARANCE TO ULTRAVIOLET, CHEMICALS. AND EXTREME WEATHER CONATIONS.

THE FINISH COAT SHALL BE A HIGHLY WEATHER RESISTANT, COLOR PIGMENTED POLYURETHANE AND SHALL HAVE A DRY FILM THICKNESS OF 1 ½ MILS MINIMUM. COLOR INCLUDING ALL STANDARD COLORS, TO BE BRONZE (OR AS DESIGNATED BY OWNER/ARCHITECT).

THE SURFACE IS TO BE TESTED FOR A MINIMUM OF 2,500 HOURS OF ACCELERATED TESTING IN ACCORDANCE WITH ASTM G-53, LATEST REVISION. THE RESULTS SHALL INDICATE NO FIBER EXPOSURE, CRAZING, OR CHECKING. THERE MAY BE ONLY SLIGHT CHALKING AND COLOR MAT ONLY DULL SLIGHTLY.

D.11.4 REINFORCING

THE STANDARD STREETLIGHT POLES SHALL BE REINFORCED IN THE AREA BETWEEN FOURTEEN (14) FEET AND TWENTY-FOUR (24) FEET ABOVE THE GROUND LINE TO ALLOW BAND MOUNTING OR HOLIDAY ORNAMENTS OR BANNERS.

D.11.5 DUPLEX RECEPTACLE

A WEATHERPROOF 120 V ELECTRICAL DUPLEX OUTLET SHALL BE INSTALLED AT SEVENTEEN (17) FEET ABOVE THE BASE ON THE STANDARD STREETLIGHT POLE. BLANK COVERS SHALL BE PROVIDED TO PLUG HOLES IN CASES WHERE RECEPTACLES ARE NOT INSTALLED.

D.11.6 POLE TOP

THE POLE TOP FOR THE STANDARD STREET LIGHT POLES IS 27 FEET IN HEIGHT AND SHALL BE 2 3/8$^{9}/_{32}$ O.D. X 2 $^{3}/_{4}$$^{9}/_{32}$ LONG HEAVY DUTY TENDON. THE TENDON SHALL BE ALUMINUM OR STEEL PERMANENTLY ATTACHED TO THE POLE SHAFT. THE TENON SHALL BE STRAIGHT WITH NO TAPER AND COATED WITH MATCHING URETHANE FINISH. STANDARD STREETLIGHT POLES SHALL ALSO BE SUPPLIED WITH A TENON CAP. ALL TENONS WILL BE SECURED WITH THREE SETS OF SCREWS.

D.11.7 PULL WIRES

POLES SHALL HAVE PULL WIRES INSTALLED TO FACILITATE INSTALLATION OF CONDUCTORS.

D.11.8 HAND HOLE

EACH POLE SHALL HAVE A HAND HOLE WITH A NON METALLIC, REMOVABLE, LOCKABLE COVER AND SEAL. THE COVER SHALL BE THE SAME COLOR AND TEXTURE AS THE POLE. THE HAND HOLE SHALL BE 2-1/2$^{9}/_{32}$ X 5$^{9}/_{32}$ FOR THE STANDARD STREET LIGHT POLE.

D.11.9 SHIPPING

EACH POLE SHALL BE INDIVIDUALLY WRAPPED WITH PLASTIC SHRINK WRAP FILM OR POLYBAGGED FOR PROTECTION DURING SHIPPING AND STORAGE.

D.11.10 BASE PLATE AND COVE ANCHOR BASE POLES

A ONE PIECE, STEEL (HOT DIPPED GALVANIZED) ANCHOR BASE CASTING SHALL BE PROVIDED WHICH IS PERMANENTLY ATTACHED TO THE BOTTOM OF THE POLE. THE BASE SHALL BE ADHESIVELY BONDED TO THE POLE AND SHALL BE MECHANICALLY LOCKED TO THE POLE IN SUCH A MANNER THAT IT CANNOT COME LOOSE EVEN IF THE ADHESIVE BOND FAILS. THE ANCHOR BASE CASTING SHALL BE CAPABLE OF COVERING A BOLT CIRCLE RANGE OF 11$^{9}/_{32}$ TO 15$^{9}/_{32}$

A REMOVABLE CLAM-SHELL STYLE COVER OF THE SAME MATERIAL AND COLOR AS THE POLE SHALL BE PROVIDED THAT COMPLETELY SURROUNDS THE BASE.

D.11.11 ANCHOR RODS FOR ANCHOR BASE POLES

ONE SET OF FOUR (4) GALVANIZED 1 INCH ANCHOR RODS 40 (36+4) INCHES IN LENGTH, EACH WITH TWO NUTS AND TWO WASHERS, SHALL BE FURNISHED WITH EACH POLE ASSEMBLY. ANCHOR BOLTS SHALL CONFORM TO LATEST ASTM SPECIFICATION FOR HIGH STRENGTH, GALVANIZED ANCHOR BOLTS, 50,000 PSI MINIMUM.

D.11.12 LOADING TEST

THE MANUFACTURER SHALL PROVIDE ONE (1) SET OF SHOP DRAWINGS FOR THE POLE AND CERTIFIED TEST DATA FOR DEFLECTION AND ULTIMATE STRENGTH SHALL ALSO BE SUBMITTED WITH THE BID. ALL TESTING IS TO BE PERFORMED ON THE POLE WITH THE APPROPRIATE SIZE HAND HOLE LOCATED ON THE COMPRESSION SIDE.

1. A HORIZONTAL LOAD IS TO BE APPLIED ON 100 POUND INCREMENTS AT A POINT 12 INCHES FROM THE TOP UNTIL AN ULTIMATE TOP LOAD OF 1,400 POUNDS HAS BEEN APPLIED. THE POLE SHALL WITHSTAND A MINIMUM OF 1,400 POUNDS OF HORIZONTAL LOAD BEFORE FAILURE.

   UNDER THE SAME TEST PROCEDURE, THE MAXIMUM DEFLECTION UNDER 100 POUND LOADING SHALL BE 4% OF THE ABOVEGROUND LENGTH OF THE POLE.

2. A HORIZONTAL LOAD IS TO BE APPLIED IN 100 POUND INCREMENTS AT A POINT 12 INCHES FROM THE TOP OF THE POLE. THE LOAD IS TO BE HELD FOR FIVE (5) MINUTES WITHOUT POLE FAILURE AND THE POLE IS THE HAVE NO MORE THAN 1% PERMANENT DEFLECTION AFTER UNLOADING.

D.11.13 INVENTORY IDENTIFICATION

ALL POLES, DAVIT ARMS AND BASES SHALL BE PERMANENTLY MARKED WITH INVENTORY CODES SUPPLIED AT TIME OF ORDER. MARKINGS SHALL BE SUCH THAT THEY CAN NOT BE REMOVED BY HAND OR FADED OR OTHERWISE OBLITERATED BY RAIN, SNOW, WIND, SUN OR OTHER WEATHER CONDITIONS ENCOUNTERED IN OUTDOOR STORAGE.

CUY-EAST 66TH STREET TLCI

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ELECTRICAL NOTES - EAST 66TH STREET

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED

REVIEWER MRB 10/31/25

PROJECT ID 122389

SHEET P.160 TOTAL 195

LIGHTING

STREET LIGHTING SYSTEM

THE CONTRACTOR SHALL INSTALL THE STREET LIGHTING CONDUIT SYSTEM, CONDUCTORS, PULL BOXES, LIGHT POLES, LUMINAIRES, LAMPS, PULLING ALL WIRES, BRACKET ARMS, ANCHOR BOLTS, AND CONNECTIONS.

THE STREET LIGHTING SYSTEM SHALL BE INSTALLED BY AN ODOT, CITY OF CLEVELAND AND CLEVELAND PUBLIC POWER (CPP) QUALIFIED ELECTRICAL CONTRACTOR.

COORDINATE CONNECTION FOR THE STREET PEDESTRIAN LIGHTING SYSTEM TO THE EXISTING CPP CIRCUIT TRANSFORMERS.

ITEM 625 - LIGHT POLE FOUNDATION CPP, AS PER PLAN

THIS ITEM IS FOR FURNISHING AND INSTALLING LIGHT POLE FOUNDATIONS PER CPP STANDARD AND THE LIGHT POLE FOUNDATION DETAIL AS SHOWN ON THE ELECTRICAL DETAILS ON SHEET 174.

THE COST FOR THE CONDUIT INCLUDING BENDS, JUNCTION BOX, STEEL, HARDWARE, FITTINGS AND COUPLINGS SHALL BE INCLUDED IN THE COST FOR ITEM 625 - LIGHT POLE FOUNDATION CPP, AS PER PLAN.

ALL EXISTING AND PROPOSED CONCRETE FOUNDATION WITH EXPOSED ANCHOR BOLTS SHALL BE PROTECTED BY INSTALLING A CAST ALUMINUM FRANGIBLE BASE OR A SPECIALLY CONSTRUCTED WOODEN BOX UNTIL THE INSTALLATION OF THE LIGHT POLES OR OTHER APPURTENANCE.

ALL COSTS ASSOCIATED WITH PROTECTING FOUNDATIONS SHALL BE CONSIDERED INCIDENTAL TO THE LIGHTING PAY ITEMS OR OTHER PAY ITEM NECESSITATING THE PROTECTION.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, SHALL BE MADE AT THE CONTRACT PRICE FOR EACH LIGHT POLE FOUNDATION INSTALLED INCLUDING STEEL PLATES, REBAR, ANCHOR BOLTS, CONDUIT STUB-OUT TO NEAREST PULL BOX/NEXT LIGHT POLE BASE, GROUND ROD, AND CONDUCTORS, COMPLETE WITH CONNECTORS AND GROUNDING CONDUCTORS

ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF AN UNDERGROUND ELECTRIC CONDUIT SYSTEM FOR THE PROPOSED STREET AND PEDESTRIAN LIGHTING SYSTEMS AS SHOWN ON THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF ODOT ITEM 625. CONDUIT TO BE USED SHALL BE PVC EPC-80-PVC AND SHALL BE CONCRETE ENCASED PER THE DETAILS ON THE ELECTRICAL DETAILS ON SHEET 174.

ALL ELECTRIC WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC).

THE CONDUIT SHALL BE PERMANENTLY MARKED ON THE OUTSIDE AT REGULAR INTERVALS WITH THE MANUFACTURER'S NAME, TRADEMARK, NOMINAL DUCT DIAMETER, TYPE AND YEAR OF MANUFACTURE.

COUPLINGS, CONNECTORS AND SWEEPS FOR PVC CONDUITS SHALL BE BY THE SAME MANUFACTURER AS THE CONDUITS.

THE CONCRETE ENCASEMENT SHALL BE OCI OR OC MISC CONCRETE AND SHALL HAVE PLASTIC CAUTION TAPE PLACED ON TOP OF THE UNDERGROUND RACEWAY. THE COST FOR THE CONCRETE ENCASEMENT AND PLASTIC CAUTION TAPE SHALL BE INCLUDED IN THE COST FOR ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN.

ALL PIPE BENDS, SWEEPS, COUPLINGS, DUCT PLUGS, SPACERS, ELBOWS AND FITTINGS, BOND BREAKER, FINAL CLEANING AND MANDRELLING OF EACH CONDUIT, AND THE RISER STUB UP FOR POWER SERVICE AS SHOWN ON THE LIGHTING DETAIL SHEET SHALL BE INCLUDED IN THE COST FOR ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN.

THE COST OF ALL TRENCHING NECESSARY TO INSTALL THE CONDUITS, INCLUDING TRENCHES LOCATED IN PAVED AREAS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

ALL CONDUITS SHALL HAVE 400 LB PULL LINE AND SHALL BE INCLUDED IN THE COST FOR ITEM 625- CONDUIT, 2", 725.051, AS PER PLAN.

THE COST PER LINEAR FOOT OF ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN, SHALL INCLUDE THE NUMBER OF CONDUITS AS SPECIFIED WITHIN THE CONCRETE ENCASEMENT AND SHALL BE MEASURED PER UNIT FOOT OF CONCRETE ENCASED CONDUIT(S) INSTALLED, NO SEPARATE PAYMENT WILL BE MADE FOR EACH CONDUIT RUN WITHIN THE ENCASED RACEWAY.

EACH UNDERGROUND RACEWAY SHALL BE MEASURED ALONG THE CENTER OF THE TOP OF THE CONDUIT(S) FROM THE CENTER OF THE PULL BOX TO THE CENTER OF THE PULLBOX; OR TO THE CENTER OF THE RISER POLE STUB-UP; OR TO THE CENTER OF LIGHT POLE; OR TO THE CENTER OF THE POWER PEDESTAL.

PAYMENT SHALL BE MADE AT THE CONTRACT UNIT PRICE BID AND SHALL BE FULL COMPENSATION FOR LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR THE ACTUALLY COMPLETED AND ACCEPTED QUANTITIES OF: ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN.

ITEM 625 - LIGHT POLE, MISC.: PEDESTRIAN

IN ADDITION TO THE REQUIREMENTS OF ODOT C&MS, CITY OF CLEVELAND STANDARDS, CPP STANDARDS, AND SUPPLEMENTAL SPECIFICATIONS 813, 913 AND 916, CONVENTIONAL LIGHT POLES INSTALLED ON THIS PROJECT SHALL BE AS FOLLOWS:

PEDESTRIAN LIGHT POLES SHALL BE AS SHOWN IN DETAIL ON SHEET 174. INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

PEDESTRIAN LIGHT POLES SHALL BE ALUMINUM, PROVIDE A LUMINAIRE MOUNTING HEIGHT OF 15' ON. PEDESTRIAN LIGHT POLES SHALL HAVE A FESTOON OUTLET NEMA 5-20 DUPLEX GFCI WITH WEATHERPROOF COVER AT THE MOUNTING HEIGHT OF 11'. THE GFCI OUTLET MUST BE UL-LISTED FOR MARINE GRADE LOCATIONS, PER NED ARTICLE 406. THE "WR" LABEL MUST BE VISIBLE ON THE OUTLET FACE, THE RECEPTACLE SHALL FACE AWAY FROM THE STREET.

INCLUDE RENTAL FOR BUCKET TRUCK USE FOR INSTALLATION OF LUMINAIRES ON LIGHT POLES. MINIMUM TWO WEEKS OF RENTAL.

PAYMENT FOR ITEM 625 - LIGHT POLE, MISC.: PEDESTRIAN SHALL BE MADE AT THE UNIT PRICE BID PER EACH AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH LIGHT POLE FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

CONDUIT EXPANSION AND DEFLECTION

IN ADDITION TO REQUIREMENTS OF CPP'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, CONDUIT EXPANSION AND DEFLECTION SHALL BE AS FOLLOWS:

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 625 - LUMINAIRE, POST TOP, SOLID STATED (LED) TYPE II, SLP4, 120/277V, AS PER PLAN.

IN ADDITION TO THE REQUIREMENTS OF CPP'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR PEDESTRIAN LUMINAIRE LIGHTING UNITS SHALL BE AS FOLLOWS:

WORK UNDER THE THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING PEDESTRIAN LIGHT POLE MOUNTED LUMINAIRES INCLUDING ALL REQUIRED MOUNTING HARDWARE TO LIGHT POLE. ALL WORK SHALL BE IN ACCORDANCE WITH ITEM 625, ODOT DETAILS AND SPECIFICATIONS AND THE NATIONAL ELECTRIC CODE (NEC).

LUMINAIRE SHALL BE A POST TOP LUMINAIRE WITH CAST ALUMINUM HOUSING, TYPE II DISTRIBUTION, POLYESTER TGIC POWDER COAT FINISH, PYRAMID SPINNING STYLE TOP, 4-ARRAY COBRA STRUT, 7-PRONG TWISTLOCK, PHOTOCELL RECEPTACLE, ANSI C136.2 SURGE PROTECTION, IP66 AND QUICK DISCONNECT.

KING KOBRA STRUT
K581-P4FL-II-75-SSL-8060-120-4-PS-NR-(PAINT COLOR)-PR7-4K

INVUE LXS LUXESCAPE COLLECTION
IM LIGHTING UR20 EDGE-LIT POST TOP

REFER TO LUMINAIRE SCHEDULE ON SHEET 162 FOR ADDITIONAL INFORMATION.

TESTING OF THE LIGHTING SYSTEM SHALL BE COMPLETED PER 625.19. ALL COST TO COMPLETE THIS WORK SHALL BE INCLUDED IN THIS PAY ITEM.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, SHALL BE MADE AT THE CONTRACT PRICE PER EACH.

ITEM 625 - LIGHTING MISC., PULLBOX 725.08, 18"CPP

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL BE AS FOLLOWS:

COMPLY WITH CPP REQUIREMENTS.

ITEM 625 - POWER SERVICE, AS PER PLAN

EXISTING TRANSFORMER TO BE UTILIZED FOR ELECTRICAL SERVICE. FINAL CONNECTIONS TO THE TRANSFORMER TO BE COMPLETED BY CPP. CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION, RESTORATION, LIGHT POLES, FOUNDATIONS, LUMINAIRES, CONNECTIONS, STRUCTURE BOXES, GROUND BOXES, STRUCTURE GROUNDING, POWER SERVICES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.

CPP CLEVELAND PUBLIC POWER

ALL ELECTRICAL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CPP CLEVELAND PUBLIC POWER DETAILS AND SPECIFICATIONS AND THE NATIONAL ELECTRIC CODE (NEC). CONTACT CPP TO OBTAIN THE CURRENT CPP SPECIFICATIONS, FEES, PERMITS, TESTING AND INSPECTION REQUIREMENTS. ANY COST INCURRED FROM CPP, INCLUDING BUT NOT LIMITED TO FEES, PERMITS, AND INSPECTIONS, SHALL BE INCLUDED IN THE COST FOR THE PERTINENT LIGHTING ITEMS.

CUY-EAST 66TH STREET TLCI

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LIGHTING NOTES - EAST 66TH STREET

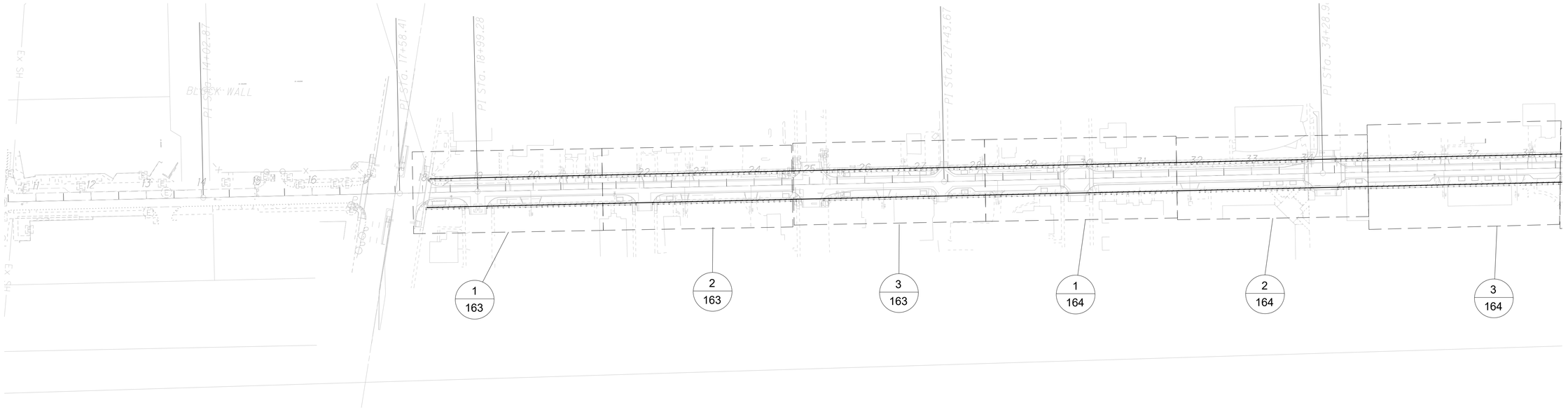
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

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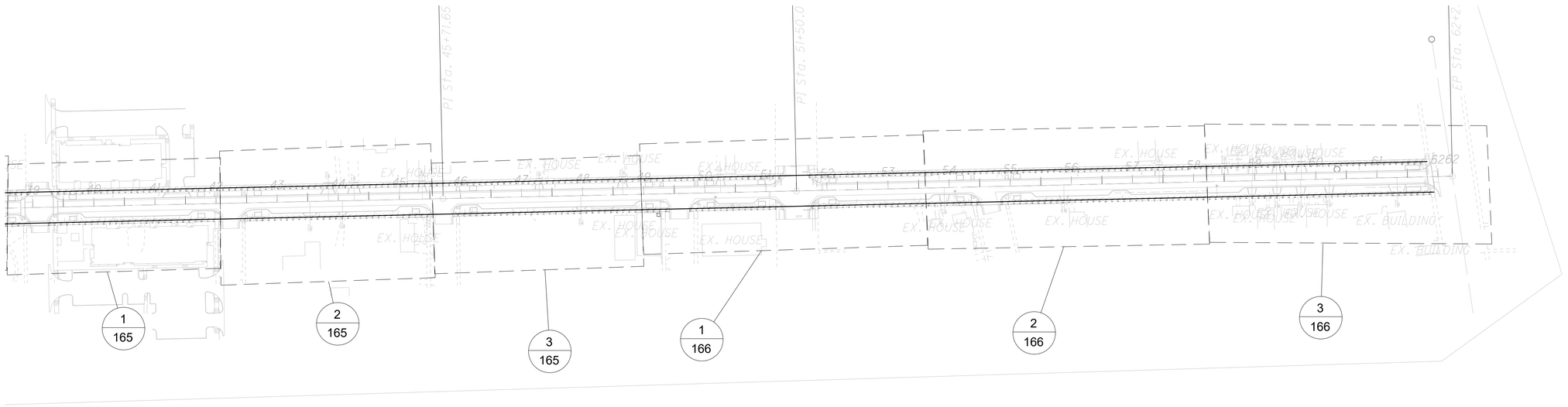
REVIEWER
MRB 10/31/25

PROJECT ID
122389

SHEET P.161 | TOTAL 195



1 PARTIAL PHOTOMETRIC PLAN - STA. 10+00.00 TO STA.38+50.00



2 PARTIAL PHOTOMETRIC PLAN - STA. 38+50.00 TO STA. 62+30.00

LUMINAIRE SCHEDULE

TYPE	SYMBOL	DESCRIPTION	VOLTAGE	LAMPING	FIXTURE WATTAGE	MANUFACTURER	SERIES	REMARKS
SLP4		20" DIA x 26.75"H POST TOP LUMINAIRE, WITH CAST ALUMINUM HOUSING, TYPE II OPTICAL DISTRIBUTION, POLYESTER TGIC POWDER COAT FINISH, PYRAMID SPINNING STYLE TOP, 4-ARRAY COBRA STRUT, 7-PRONG TWISTLOCK, PHOTOCELL RECEPTACLE, ANSI C136.2 SURGE PROTECTION, IP66 AND QUICK DISCONNECT. POLE SHALL BE WHATLEY, ROUND TAPERED SMOOTH COMPOSITE 15' IN HEIGHT.	120V-277V UNV	7600 LUMEN (NOMINAL) LED MODULE 4000°K	25W	KING COBRA STRUT INVUE LXS LUXESCAPE COLLECTION OR APPROVED EQUAL.	K581-P4FL-II-75-SSL-8060 -120-4-PS-NR-(PAINT COLOR) -PR7-4K IM LIGHTING UR20 EDGE LIT POST TOP	ORNAMENTAL E & K PACKAGE, COLOR FINISH SHALL BE GRAY OR BLACK AS SELECTED BY ARCHITECT.

LUMINAIRE SCHEDULE NOTES - SEE GENERAL AND SHEET NOTES DRAWING FOR THESE NOTES.

HORIZONTAL SCALE IN FEET
0 10 20 40

PHOTOMETRIC PLAN - EAST 66TH STREET STA. 10+00.00 TO STA. 62+30.00

CUY-EAST 66TH STREET TLCI

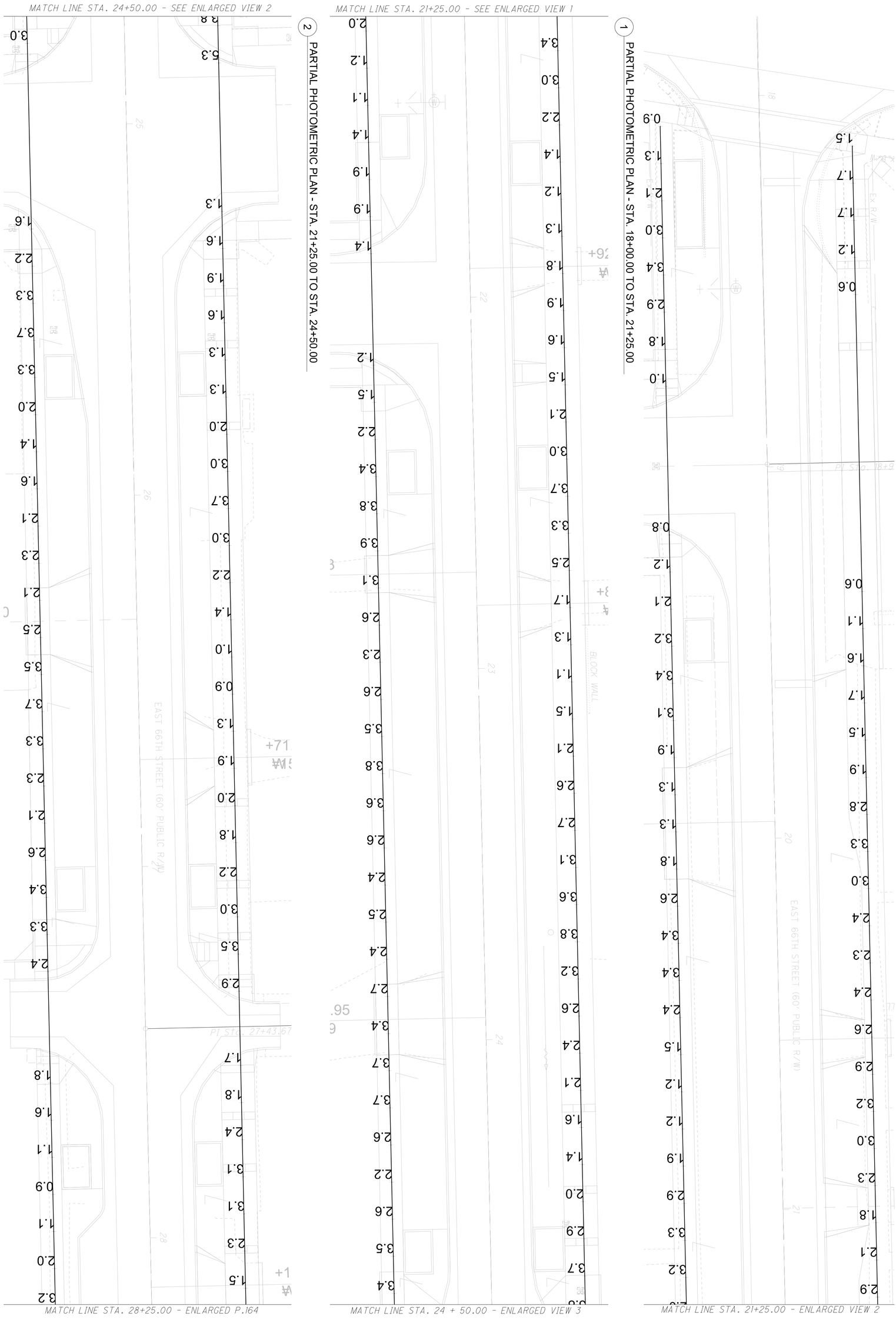
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OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED
REVIEWER MRB 12/19/25
PROJECT ID 122389
SHEET P.162 TOTAL 195

CUY-EAST 66TH STREET TLCI

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DESIGNER TED

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PROJECT ID 122389

SHEET P.163 TOTAL 195

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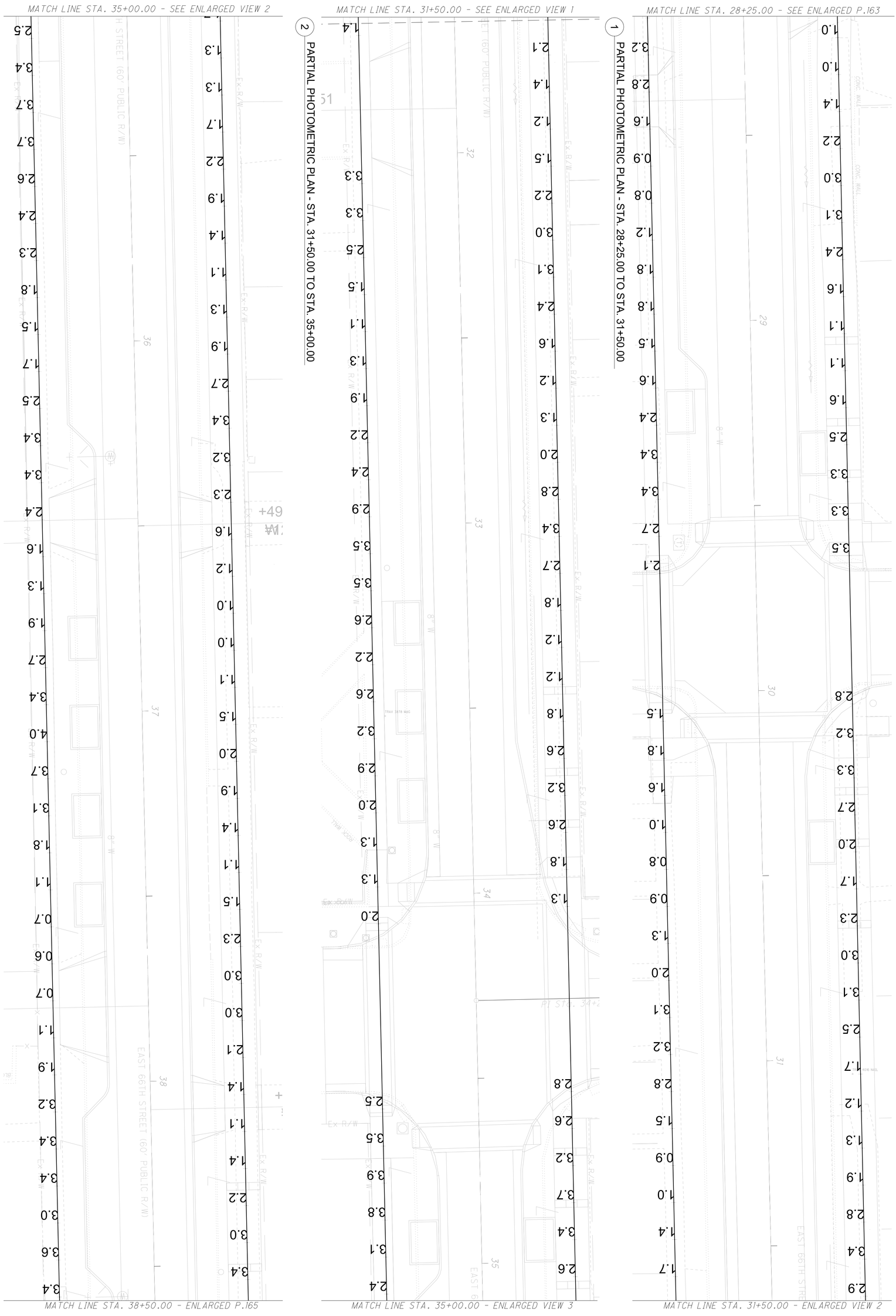
1111 SUPERIOR AVE. STE. 2100
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(216)861-2020
www.osborngroup.com

PARTIAL PHOTOMETRIC PLAN - EAST 66TH STREET
STA. 17+75.00 TO STA. 28+25.00

HORIZONTAL SCALE IN FEET

0 20
10 40

N



PARTIAL PHOTOMETRIC PLAN - EAST 66TH STREET
STA. 28+25.00 TO STA. 38+50.00

DESIGNER: TED

REVIEWER: MRB 12/19/25

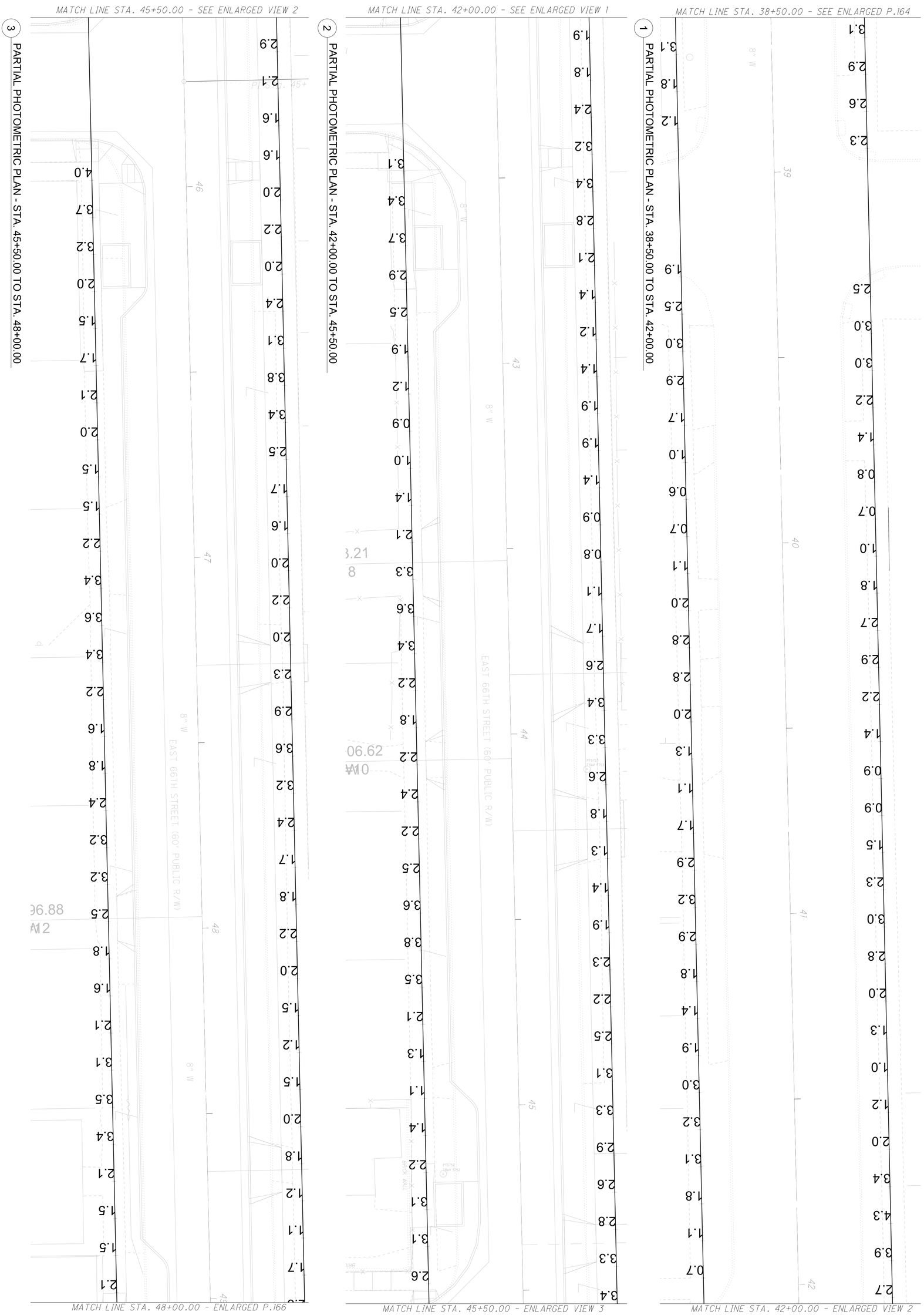
PROJECT ID: 122389

SHEET: P. 164

TOTAL: 195

DESIGN AGENCY: OSBORN ENGINEERING, 1111 SUPERIOR AVE. STE. 2100, CLEVELAND, OH 44114, (216)861-2020, www.osborngroup.com

HORIZONTAL SCALE IN FEET: 0, 20, 10, 40



PARTIAL PHOTOMETRIC PLAN - EAST 66TH STREET
STA. 38+50.00 TO STA. 48+00.00

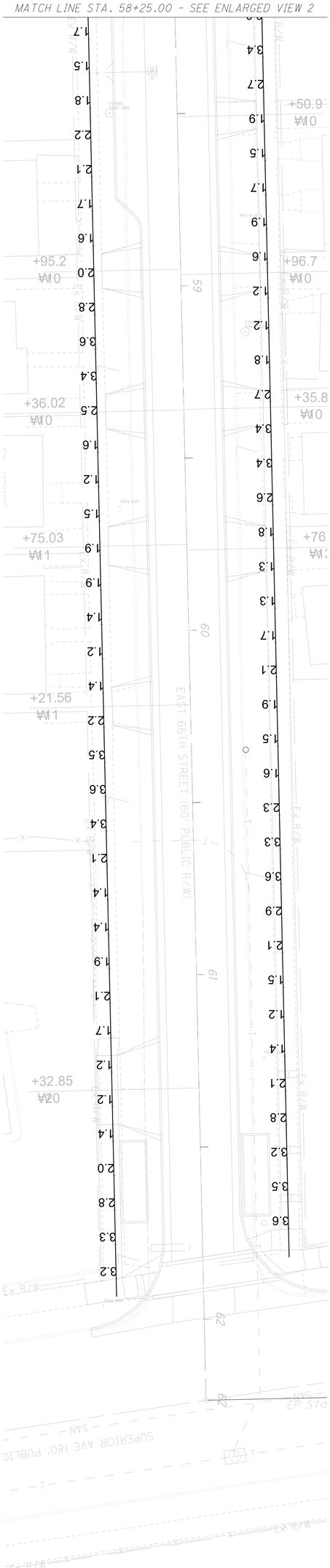
HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGNER TED
REVIEWER MRB 12/19/25
PROJECT ID 122389
SHEET P. 165
TOTAL 195

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CLEVELAND, OH 44114
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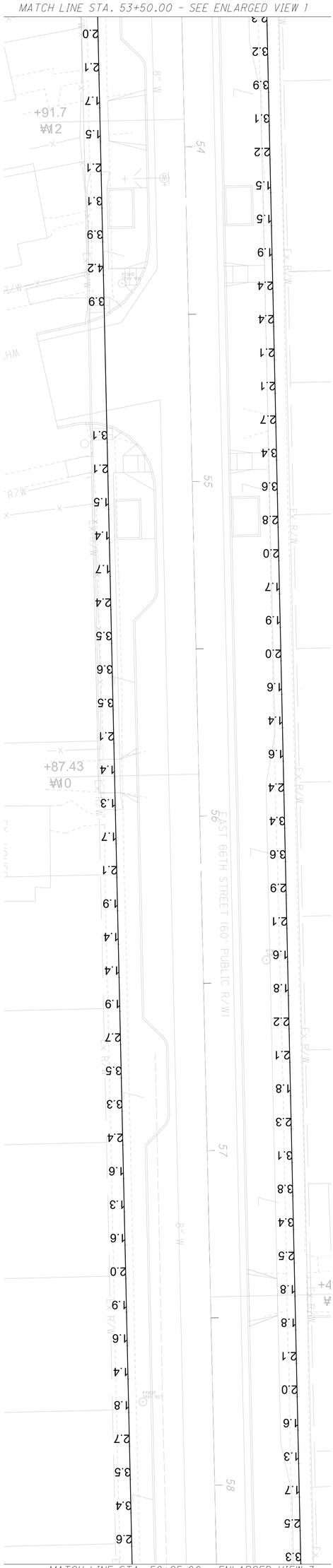
MATCH LINE STA. 58+25.00 - SEE ENLARGED VIEW 2

3 PARTIAL PHOTOMETRIC PLAN - STA. 58+25.00 TO STA. 62+00.00



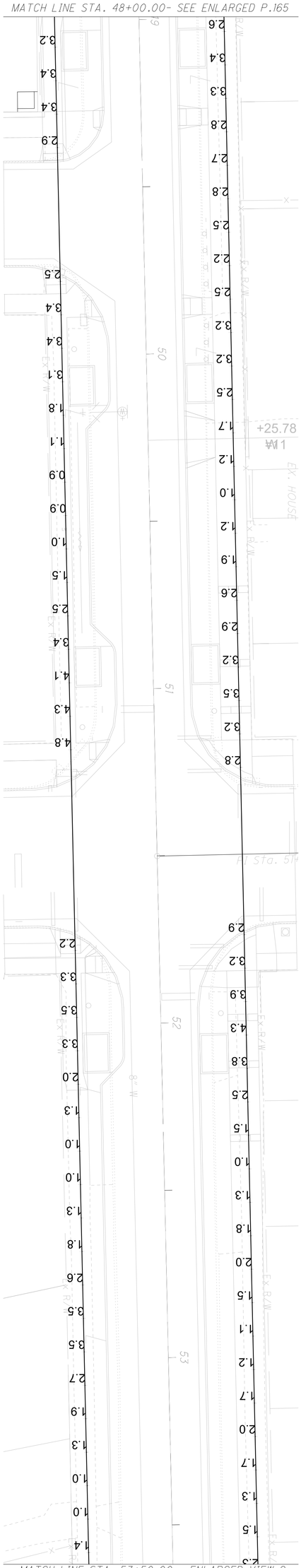
MATCH LINE STA. 53+50.00 - SEE ENLARGED VIEW 1

2 PARTIAL PHOTOMETRIC PLAN - STA. 53+50.00 TO STA. 58+25.00



MATCH LINE STA. 48+00.00- SEE ENLARGED P.165

1 PARTIAL PHOTOMETRIC PLAN - STA. 48+00.00 TO STA. 53+50.00



MATCH LINE STA. 58+25.00 - ENLARGED VIEW 3

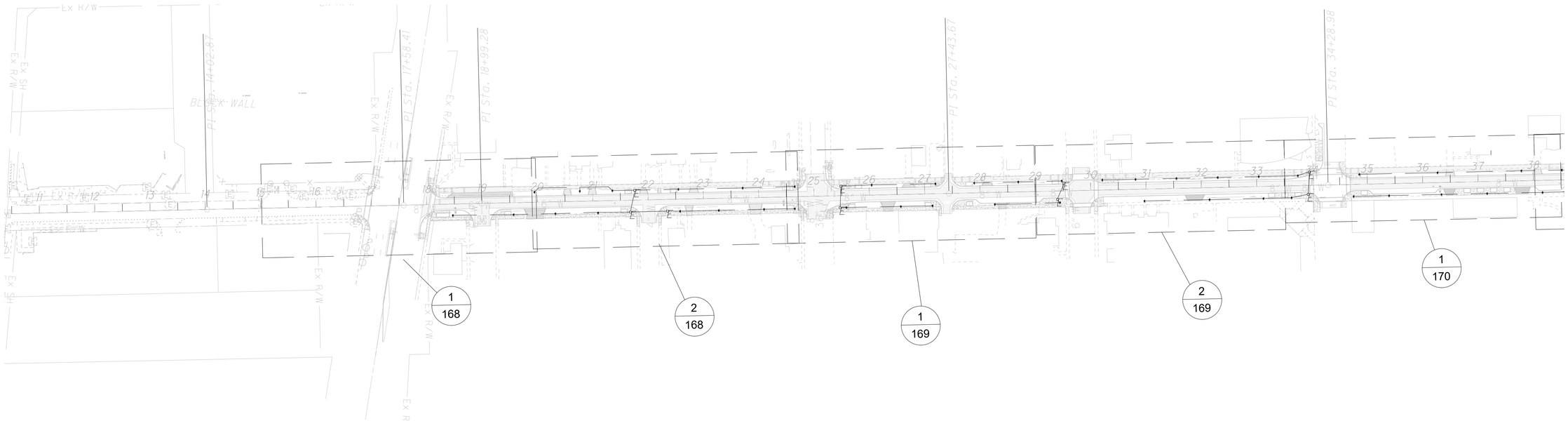
MATCH LINE STA. 53+50.00 - ENLARGED VIEW 2

PARTIAL PHOTOMETRIC PLAN - EAST 66TH STREET
STA. 48+00.00 TO STA. 62+30.00

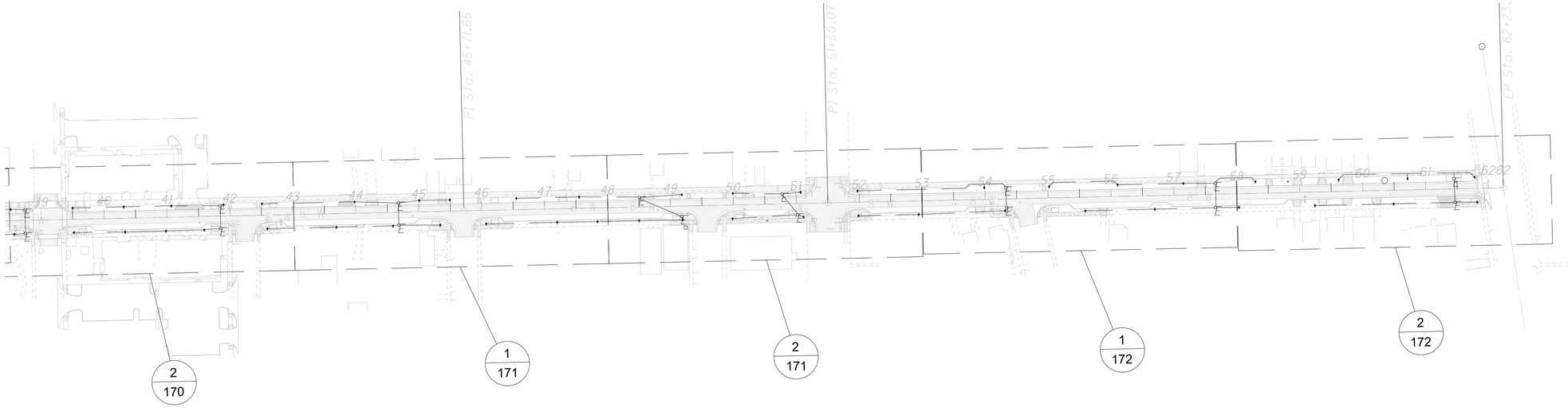
HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGNER TED
REVIEWER MRB 12/19/25
PROJECT ID 122389
SHEET P. 166
TOTAL 195

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OSBORN ENGINEERING
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CLEVELAND, OH 44114
(216)861-2020
www.osborngroup.com



1 ENLARGED LIGHTING PLAN - STA. 10+00.00 TO STA.38+50.00



2 ENLARGED LIGHTING PLAN - STA. 38+50.00 TO STA. 62+30.00

CUY-EAST 66TH STREET TLCI

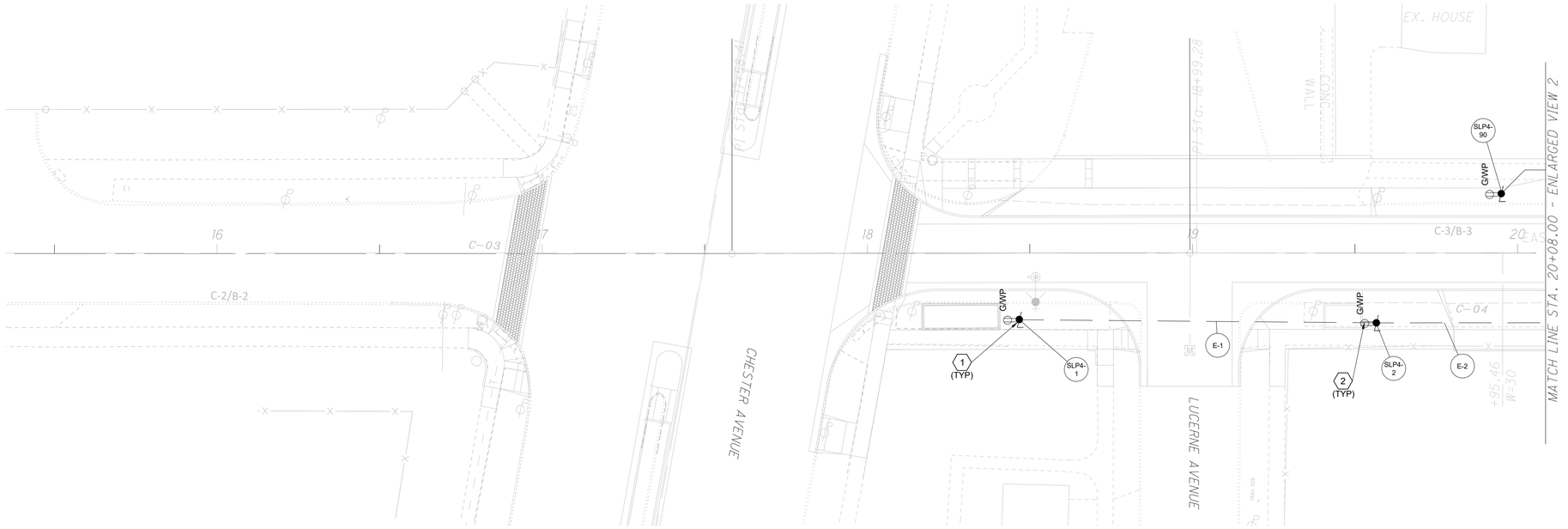
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HORIZONTAL SCALE IN FEET
0 10 20 40

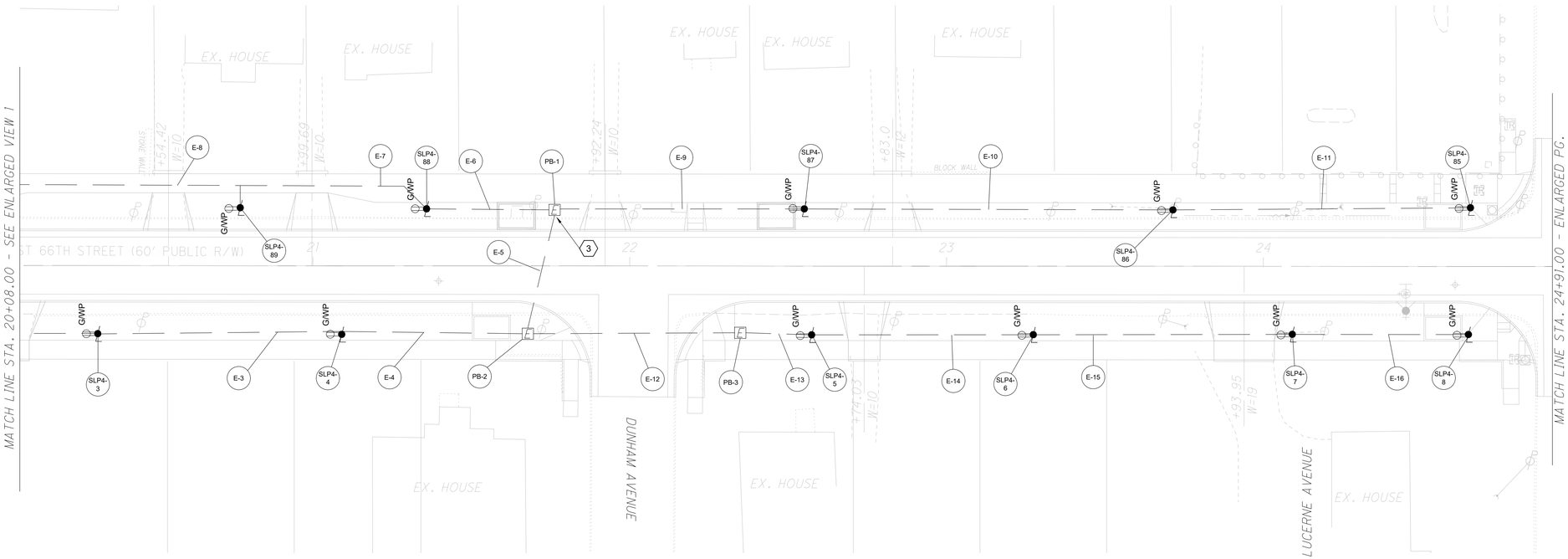
LIGHTING PLAN - EAST 66TH STREET
STA. 10+00.00 TO STA. 62+30.00

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER: TED
REVIEWER: MRB 12/19/25
PROJECT ID: 122389
SHEET: P.167 TOTAL: 195



1 ENLARGED LIGHTING PLAN - STA. 15+35.00 TO STA. 20 + 08.00



2 ENLARGED LIGHTING PLAN - STA 20 +08.00 TO STA. 24 +91.00

SHEET KEYNOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF THE LIGHT POLES, FOUNDATIONS, LUMINAIRES, POLE RISER, PULL APART CONNECTORS, CONDUIT, WIRING, PULL BOXES, EXCAVATION, RESTORATION, GROUNDING, COMMISSIONING, ETC FOR A COMPLETE AND OPERABLE SYSTEM. FINAL CONNECTIONS AT POWER SOURCE WILL BE BY CPP. FINAL OWNERSHIP WILL BE BY CPP.
2. CONTRACTOR SHALL BE PROVIDE WEATHER PROOF GFCI RECEPTACLES PER NOTES ON DRAWING 174 FOR EACH LIGHT POLE. PROVIDE AND CONNECT FEEDERS. RECEPTACLE SHALL BE MOUNTED AT TOP OF LIGHT POLES.
3. CONTRACTOR SHALL PROVIDE NEW SECONDARY FEEDERS FROM EXISTING CPP TRANSFORMER TO PULLBOX LOCATED AT BASE OF UTILITY POLE. FEEDER TO PROVIDE POWER TO NEW PEDESTRIAN LIGHT POLES AS SHOWN. COORDINATE ALL UTILITY, CONNECTIONS, ROUTING, EQUIPMENT LOCATIONS, AND SITE ELECTRICAL WITH CPP PRIOR TO INSTALL. REFER TO DETAIL ITEM 625 - POWER SERVICE DETAIL ON SHEET 174 FOR POWER SERVICE INSTALLATION REQUIREMENTS.

PLAN TAG LEGEND

E-X	UNDERGROUND FEEDER.
PB-X	PULL BOX. LOCATION FOR CONDUIT TO BE INSTALLED TO.
SLP4-X	SITE LIGHTING. LIGHT POLE, FOUNDATION,LUMINARE, ETC. FOR ADDITIONAL DETAILS REFER TO LUMINAIRE SCHEDULE ON SHEET P.162.

HORIZONTAL SCALE IN FEET
0 10 20 40

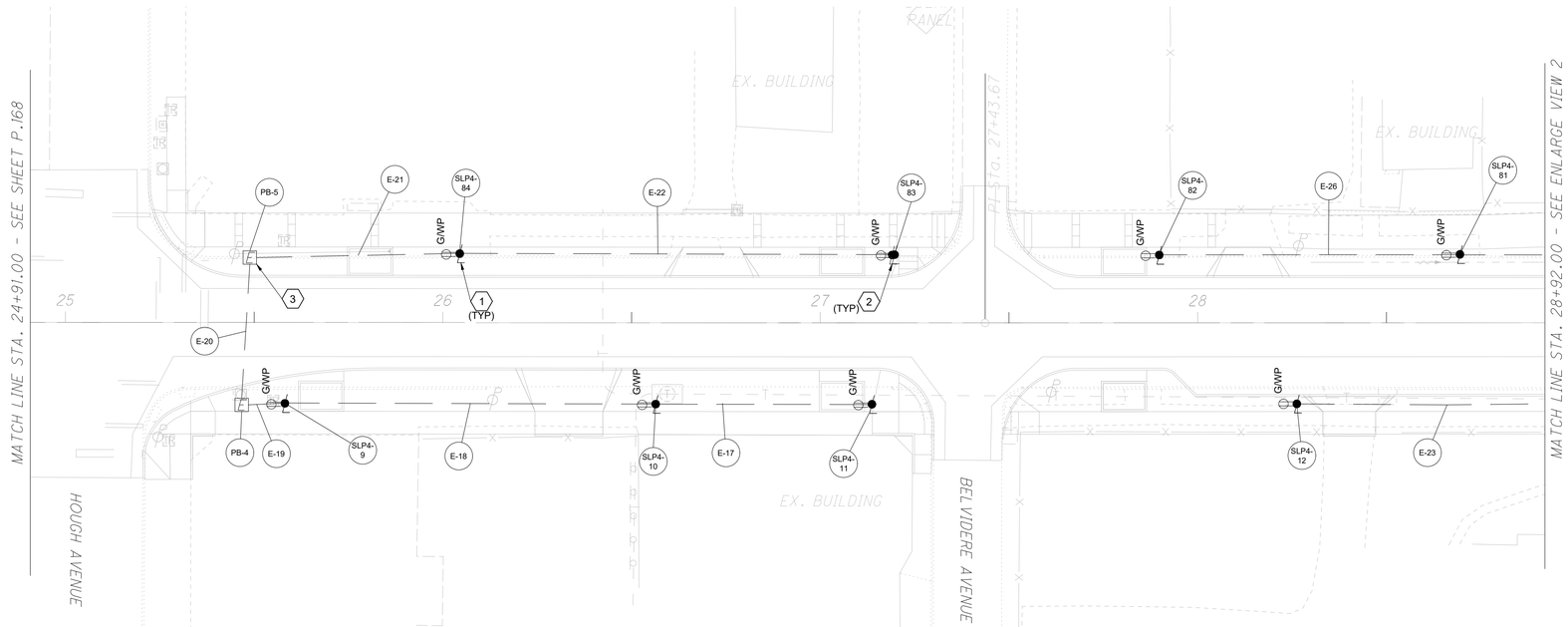
LIGHTING PLAN - EAST 66TH STREET STA. 15+35.00 TO STA. 24+91.00

CUY-EAST 66TH STREET TLCI

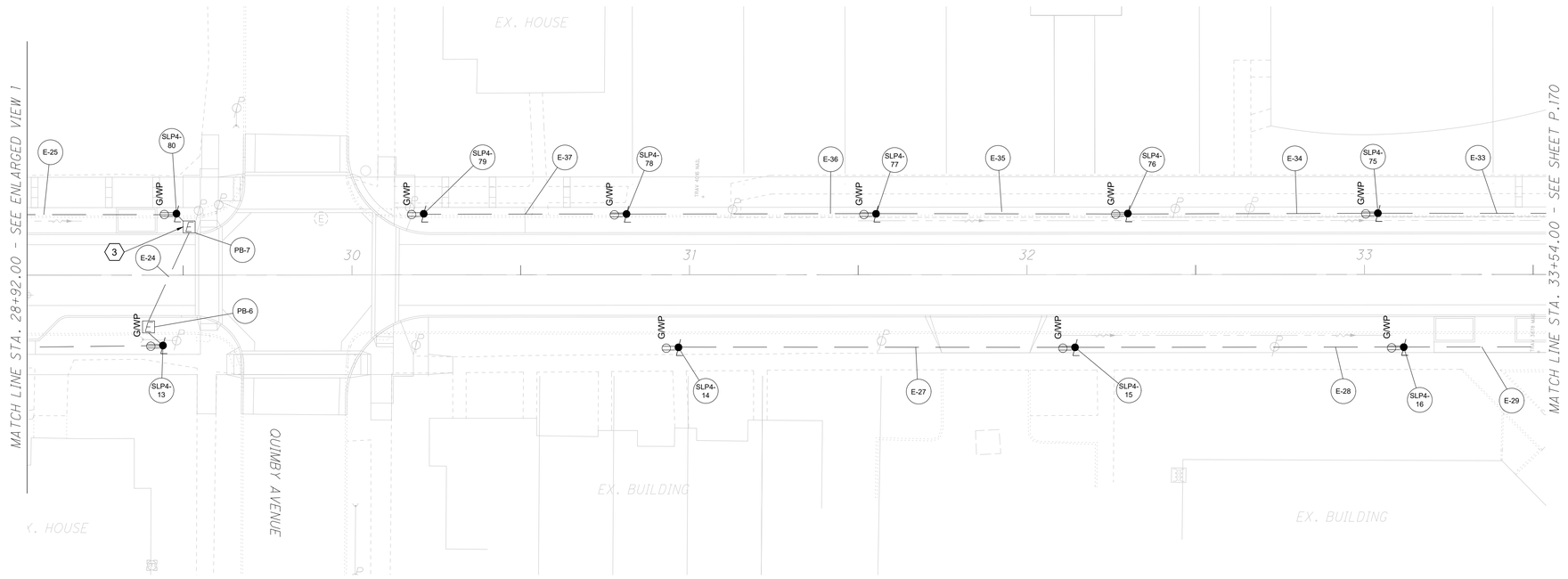
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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
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DESIGNER TED
REVIEWER MRB 12/19/25
PROJECT ID 122389
SHEET P.168 TOTAL 195



1 ENLARGED LIGHTING PLAN - STA. 24+91.00 TO STA. 28 + 92.00



2 ENLARGED LIGHTING PLAN - STA 28 +92.00 TO STA. 33 +54.00

SHEET KEYNOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF THE LIGHT POLES, FOUNDATIONS, LUMINAIRES, POLE RISER, PULL APART CONNECTORS, CONDUIT, WIRING, PULL BOXES, EXCAVATION, RESTORATION, GROUNDING, COMMISSIONING, ETC FOR A COMPLETE AND OPERABLE SYSTEM. FINAL CONNECTIONS AT POWER SOURCE WILL BE BY CPP. FINAL OWNERSHIP WILL BE BY CPP.
2. CONTRACTOR SHALL BE PROVIDE WEATHER PROOF GFCI RECEPTACLES PER NOTES ON DRAWING 174 FOR EACH LIGHT POLE. PROVIDE AND CONNECT FEEDERS. RECEPTACLE SHALL BE MOUNTED AT TOP OF LIGHT POLES.
3. CONTRACTOR SHALL PROVIDE NEW SECONDARY FEEDERS FROM EXISTING CPP TRANSFORMER TO PULLBOX LOCATED AT BASE OF UTILITY POLE. FEEDER TO PROVIDE POWER TO NEW PEDESTRIAN LIGHT POLES AS SHOWN. COORDINATE ALL UTILITY, CONNECTIONS, ROUTING, EQUIPMENT LOCATIONS, AND SITE ELECTRICAL WITH CPP PRIOR TO INSTALL. REFER TO DETAIL ITEM 625 - POWER SERVICE DETAIL ON SHEET 174 FOR POWER SERVICE INSTALLATION REQUIREMENTS.

PLAN TAG LEGEND

E-X	UNDERGROUND FEEDER.
PB-X	PULL BOX. LOCATION FOR CONDUIT TO BE INSTALLED TO.
SLP4-X	SITE LIGHTING. LIGHT POLE, FOUNDATION,LUMINARE, ETC. FOR ADDITIONAL DETAILS REFER TO LUMINAIRE SCHEDULE ON SHEET P.162.

HORIZONTAL SCALE IN FEET
0 10 20 40

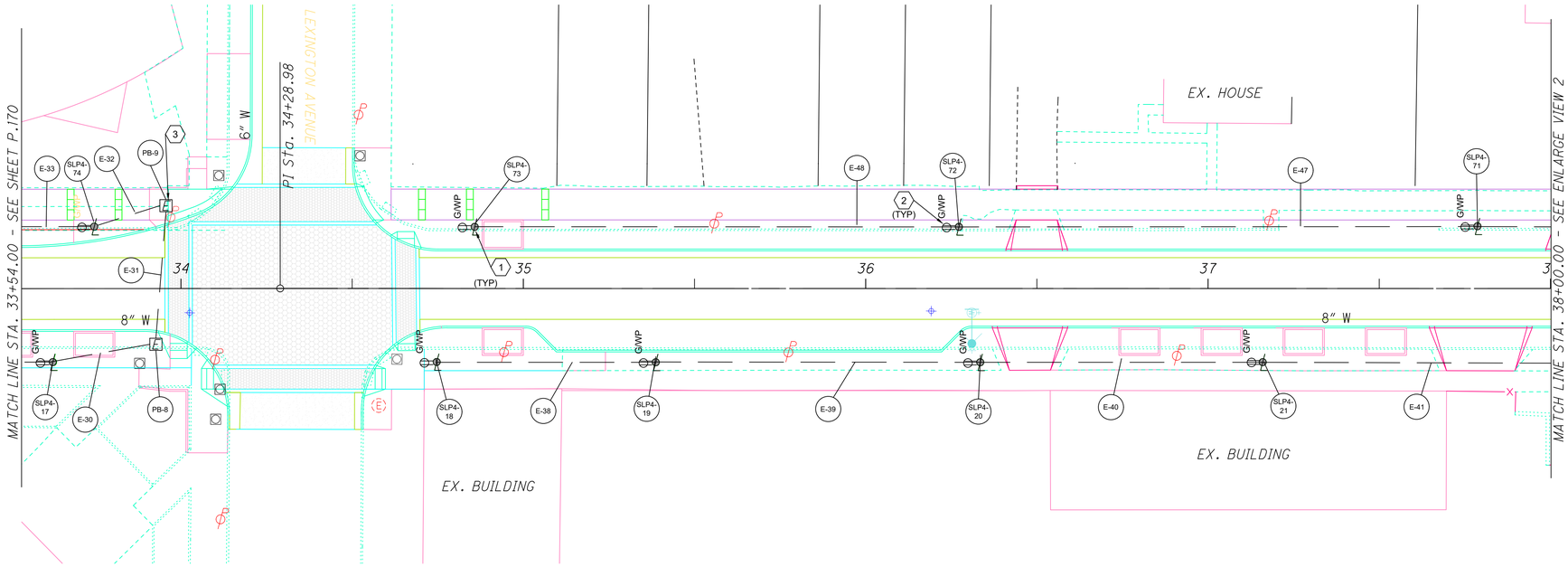
LIGHTING PLAN - EAST 66TH STREET STA. 24+91.00 TO STA. 33+54.00

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

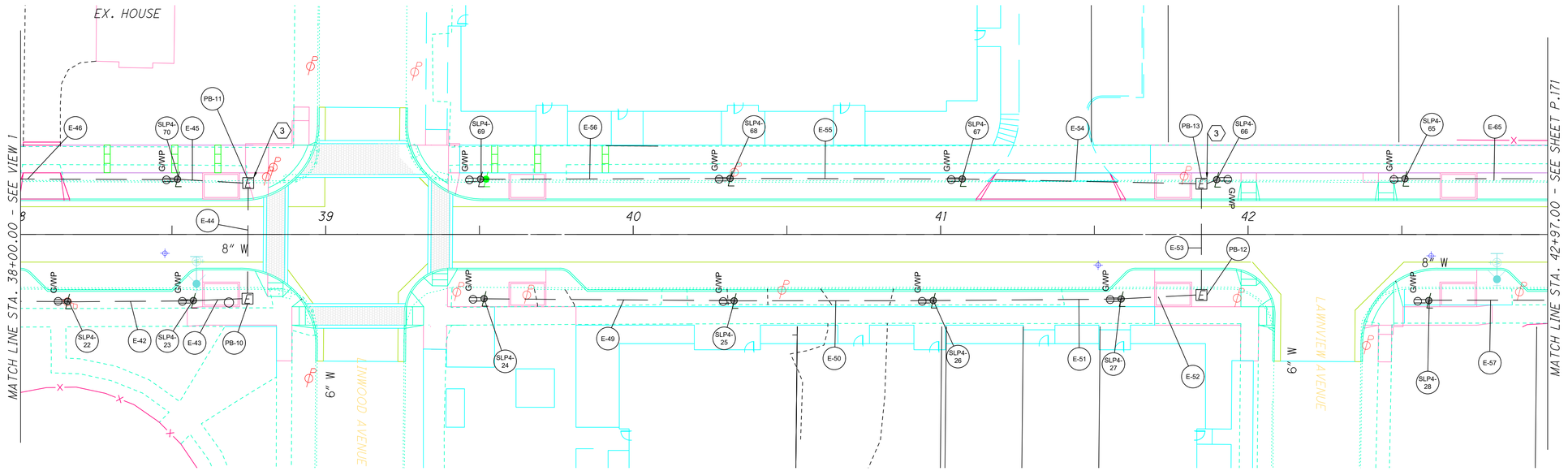
DESIGNER: TED
REVIEWER: MRB 12/19/25
PROJECT ID: 122389
SHEET: P.169 TOTAL: 195

CUY-EAST 66TH STREET TLCI

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1 ENLARGED LIGHTING PLAN - STA. 33+54.00 TO STA. 38 + 00.00



2 ENLARGED LIGHTING PLAN - STA 38 +00.00 TO STA. 42 +97.00

SHEET KEYNOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF THE LIGHT POLES, FOUNDATIONS, LUMINAIRES, POLE RISER, PULL APART CONNECTORS, CONDUIT, WIRING, PULL BOXES, EXCAVATION, RESTORATION, GROUNDING, COMMISSIONING, ETC FOR A COMPLETE AND OPERABLE SYSTEM. FINAL CONNECTIONS AT POWER SOURCE WILL BE BY CPP. FINAL OWNERSHIP WILL BE BY CPP.
2. CONTRACTOR SHALL BE PROVIDE WEATHER PROOF GFCI RECEPTACLES PER NOTES ON DRAWING 174 FOR EACH LIGHT POLE. PROVIDE AND CONNECT FEEDERS. RECEPTACLE SHALL BE MOUNTED AT TOP OF LIGHT POLES.
3. CONTRACTOR SHALL PROVIDE NEW SECONDARY FEEDERS FROM EXISTING CPP TRANSFORMER TO PULLBOX LOCATED AT BASE OF UTILITY POLE. FEEDER TO PROVIDE POWER TO NEW PEDESTRIAN LIGHT POLES AS SHOWN. COORDINATE ALL UTILITY, CONNECTIONS, ROUTING, EQUIPMENT LOCATIONS, AND SITE ELECTRICAL WITH CPP PRIOR TO INSTALL. REFER TO DETAIL ITEM 625 - POWER SERVICE DETAIL ON SHEET 174 FOR POWER SERVICE INSTALLATION REQUIREMENTS.

PLAN TAG LEGEND

E-X	UNDERGROUND FEEDER.
PB-X	PULL BOX. LOCATION FOR CONDUIT TO BE INSTALLED TO.
SLP4-X	SITE LIGHTING. LIGHT POLE, FOUNDATION,LUMINARE, ETC. FOR ADDITIONAL DETAILS REFER TO LUMINAIRE SCHEDULE ON SHEET P.162.

HORIZONTAL SCALE IN FEET
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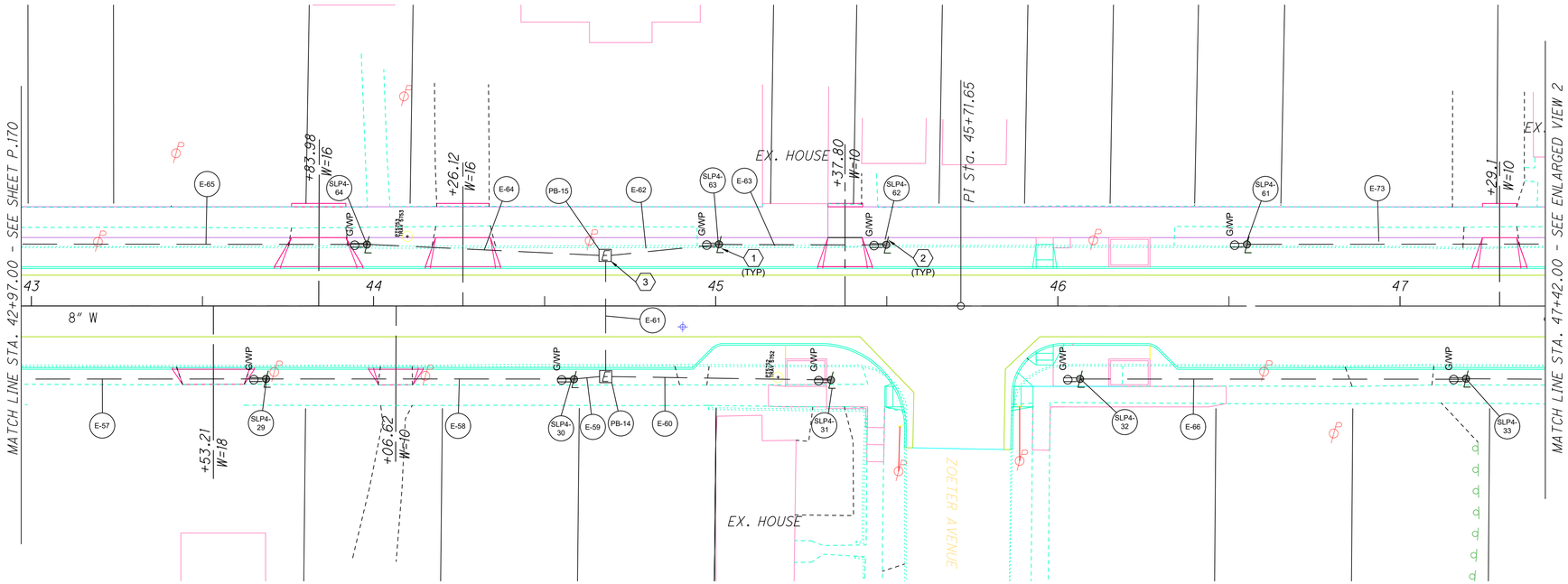
LIGHTING PLAN - EAST 66TH STREET
STA. 33+54.00 TO STA. 42+97.00

CUY-EAST 66TH STREET TLCI

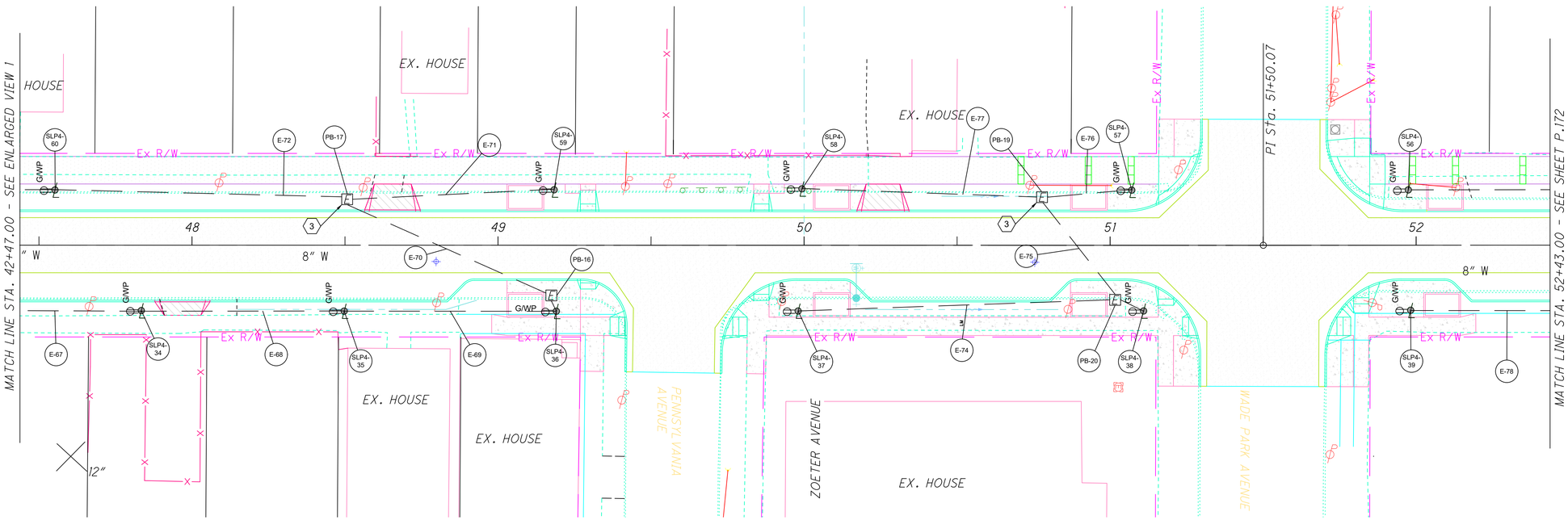
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER	TED
REVIEWER	MRB 12/19/25
PROJECT ID	122389
SHEET	P.170
TOTAL	195



1 ENLARGED LIGHTING PLAN - STA. 42+97.00 TO STA. 47 + 42.00



2 ENLARGED LIGHTING PLAN - STA 47 +42.00 TO STA. 52+43.00

SHEET KEYNOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF THE LIGHT POLES, FOUNDATIONS, LUMINAIRES, POLE RISER, PULL APART CONNECTORS, CONDUIT, WIRING, PULL BOXES, EXCAVATION, RESTORATION, GROUNDING, COMMISSIONING, ETC FOR A COMPLETE AND OPERABLE SYSTEM. FINAL CONNECTIONS AT POWER SOURCE WILL BE BY CPP. FINAL OWNERSHIP WILL BE BY CPP.
2. CONTRACTOR SHALL BE PROVIDE WEATHER PROOF GFCI RECEPTACLES PER NOTES ON DRAWING 174 FOR EACH LIGHT POLE. PROVIDE AND CONNECT FEEDERS. RECEPTACLE SHALL BE MOUNTED AT TOP OF LIGHT POLES.
3. CONTRACTOR SHALL PROVIDE NEW SECONDARY FEEDERS FROM EXISTING CPP TRANSFORMER TO PULLBOX LOCATED AT BASE OF UTILITY POLE. FEEDER TO PROVIDE POWER TO NEW PEDESTRIAN LIGHT POLES AS SHOWN. COORDINATE ALL UTILITY, CONNECTIONS, ROUTING, EQUIPMENT LOCATIONS, AND SITE ELECTRICAL WITH CPP PRIOR TO INSTALL. REFER TO DETAIL ITEM 625 - POWER SERVICE DETAIL ON SHEET 174 FOR POWER SERVICE INSTALLATION REQUIREMENTS.

PLAN TAG LEGEND

E-X	UNDERGROUND FEEDER.
PB-X	PULL BOX. LOCATION FOR CONDUIT TO BE INSTALLED TO.
SLP4-X	SITE LIGHTING. LIGHT POLE, FOUNDATION,LUMINARE, ETC. FOR ADDITIONAL DETAILS REFER TO LUMINAIRE SCHEDULE ON SHEET P.162.

HORIZONTAL SCALE IN FEET
0 10 20 40

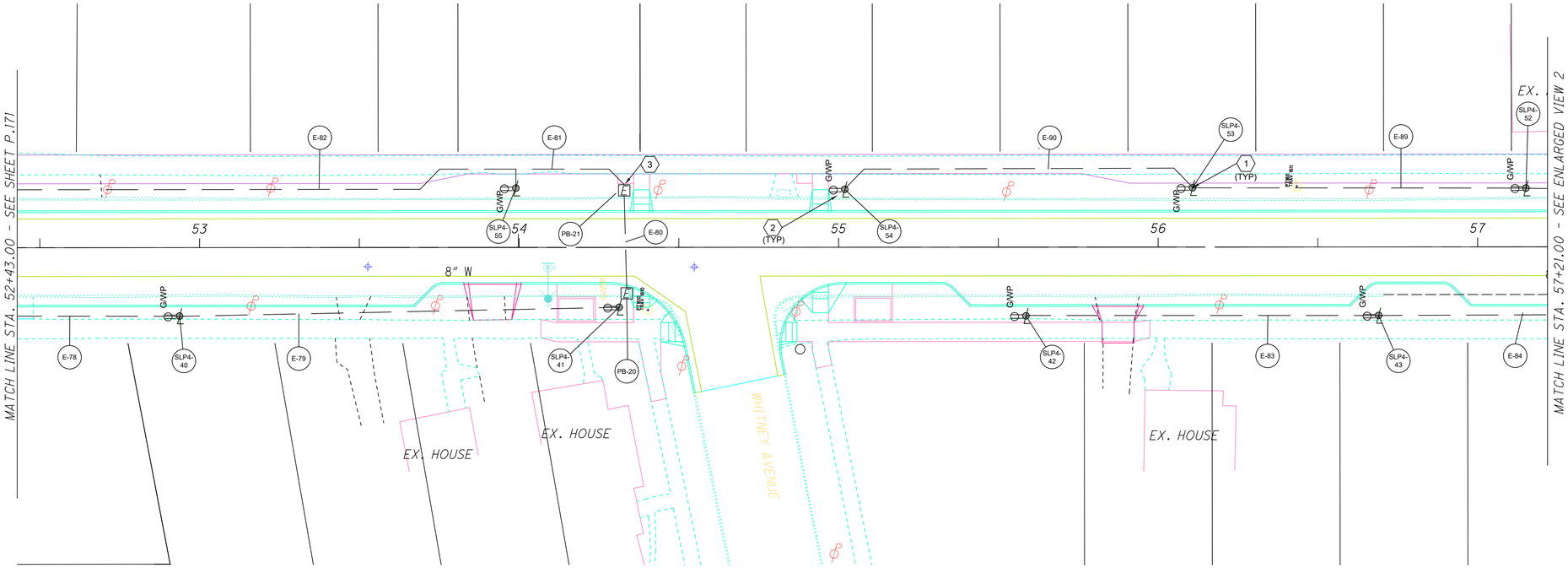
LIGHTING PLAN - EAST 66TH STREET STA. 42+97.00 TO STA. 52+43.00

CUY-EAST 66TH STREET TLCI

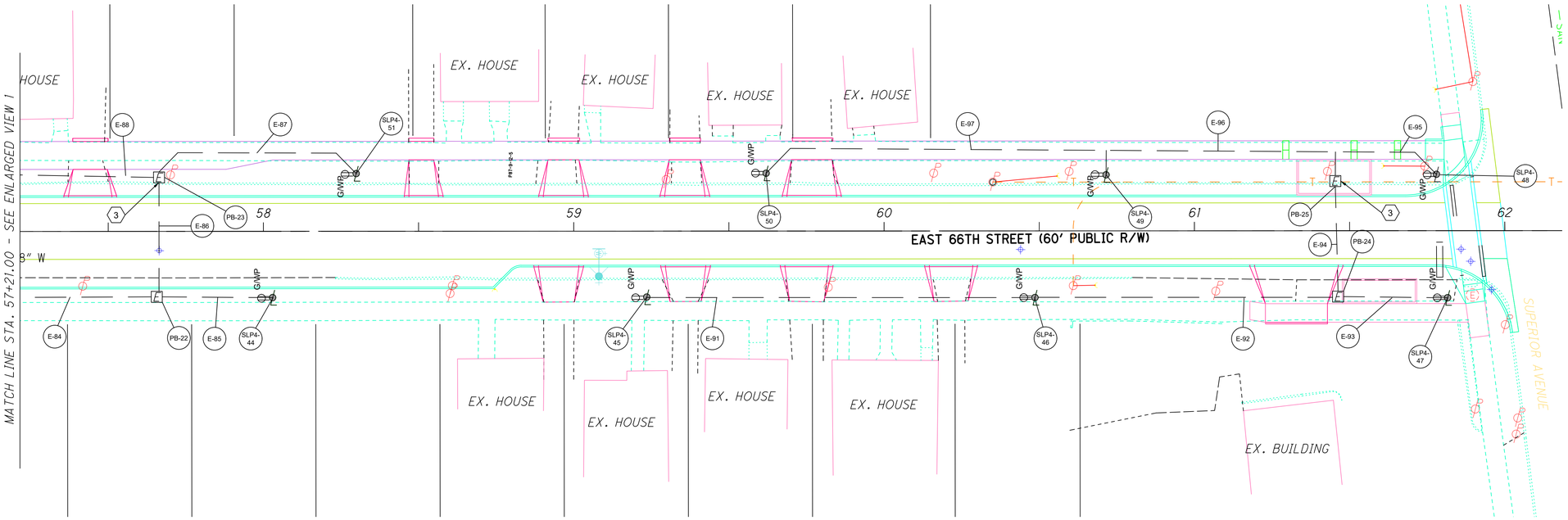
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)867-2020 www.osborn-eng.com

DESIGNER	TED
REVIEWER	MRB 12/19/25
PROJECT ID	122389
SHEET	P.171
TOTAL	195



1 ENLARGED LIGHTING PLAN - STA. 52+43.00 TO STA. 57 + 21.00



2 ENLARGED LIGHTING PLAN - STA 57 +21.00 TO STA. 62 +20.00

SHEET KEYNOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE INSTALLATION OF THE LIGHT POLES, FOUNDATIONS, LUMINAIRES, POLE RISER, PULL APART CONNECTORS, CONDUIT, WIRING, PULL BOXES, EXCAVATION, RESTORATION, GROUNDING, COMMISSIONING, ETC FOR A COMPLETE AND OPERABLE SYSTEM. FINAL CONNECTIONS AT POWER SOURCE WILL BE BY CPP. FINAL OWNERSHIP WILL BE BY CPP.
2. CONTRACTOR SHALL BE PROVIDE WEATHER PROOF GFCI RECEPTACLES PER NOTES ON DRAWING 174 FOR EACH LIGHT POLE. PROVIDE AND CONNECT FEEDERS. RECEPTACLE SHALL BE MOUNTED AT TOP OF LIGHT POLES.
3. CONTRACTOR SHALL PROVIDE NEW SECONDARY FEEDERS FROM EXISTING CPP TRANSFORMER TO PULLBOX LOCATED AT BASE OF UTILITY POLE. FEEDER TO PROVIDE POWER TO NEW PEDESTRIAN LIGHT POLES AS SHOWN. COORDINATE ALL UTILITY, CONNECTIONS, ROUTING, EQUIPMENT LOCATIONS, AND SITE ELECTRICAL WITH CPP PRIOR TO INSTALL. REFER TO DETAIL ITEM 625 - POWER SERVICE DETAIL ON SHEET 174 FOR POWER SERVICE INSTALLATION REQUIREMENTS.

PLAN TAG LEGEND

E-X	UNDERGROUND FEEDER.
PB-X	PULL BOX. LOCATION FOR CONDUIT TO BE INSTALLED TO.
SLP4-X	SITE LIGHTING. LIGHT POLE, FOUNDATION,LUMINARE, ETC. FOR ADDITIONAL DETAILS REFER TO LUMINAIRE SCHEDULE ON SHEET P.162.

HORIZONTAL SCALE IN FEET
0 10 20 40

LIGHTING PLAN - EAST 66TH STREET STA. 52+43.00 TO STA. 62+20.00

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
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1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED
REVIEWER MRB 12/19/25
PROJECT ID 122389
SHEET P.172 TOTAL 195

CLEVELAND PUBLIC POWER GENERAL CONSTRUCTION NOTES:
(Drawing # 9385)

Contact Ohio Utilities Protection Service, two working days prior to start of construction. In Ohio, call toll free 1-800-362-2764. It's the Law.

All power conduit runs are to be constructed by using 2", 4", or 5" PVC schedule EB conduits, as depicted on the plans, encased with a 3" concrete envelope, unless otherwise noted on the plans or specifications. The concrete envelope is to be 4000 psi (City of Cleveland Concrete Mix). When conduits are not encased in concrete in the utility easement area, all conduit runs are to be constructed using 2", 4" or 5" Schedule DB.

All primary conduit runs are to be installed at a minimum of 30" below existing and/or proposed grades and secondary conduit runs are to be installed at a minimum of 24" below existing and/or proposed grades.

All Vertical and horizontal curves shall have a minimum radius of no less than 30 feet. These curves are to be constructed by using 2' 6" chord lengths and appropriate 5-degree couplings, or as noted on plan view. See "conduit curve construction chart". The Engineering Department of Cleveland Public Power must approve any other curve design, field changes, or the use of preformed radius bends.

A rugged polyethylene material warning tape capable of resisting high or low ph conditions must be placed above the electrical conduit bank. This warning tape is to be six inches wide, red in color, and imprinted with the words, "DANGER – BURIED HIGH VOLTAGE CABLES BELOW". This tape is to be placed 6" above the newly installed duct bank. This shall conform with the standards as set by Ohio Utilities Protection Service.

As an option, contractor may elect to encase CPP's conduits in red concrete. Both methods are approved by Cleveland Public Power and are recommended by Ohio Utilities Protection Service.

All manhole outside walls and conduits runs are to have a minimum clearance of 5' (face to face), horizontally from all water lines. Vertical clearance shall be at a minimum of 1' 6", or as shown on profile sheets of the project. Clearance between other utilities shall be 1 foot, unless noted otherwise. CPP's duct bank shall cross over or under other utilities at an angle of no less than 45 degrees.

Each newly constructed manhole shall be free of all foreign objects and debris. The contractor shall also provide a pulling line in each of the new conduits.

The contractor shall provide Cleveland Public Power with as-built plans of newly installed conduit system, showing both vertical and horizontal locations. These locations shall be at 50' intervals. All elevations are to be based on Cuyahoga County Regional Geodetic Surveys.

BACKFILL MATERIAL AND BACKFILLING PROCEDURES

Sand may only be used as indicated on the plan details for items such as conduit cover. The sand material shall be natural river or bank sand; free of silt, clay, loam, friable or soluble materials and organic matter. The backfill shall be installed in 4 inch (4") lifts and compacted using mechanical means only. Compact to within 12" of sub grade and each layer of backfill to 95% maximum dry density as determined by Standard Proctor Test (ASTM D698). The use of water for compaction is prohibited, example flooding or puddling.

Employ a placement method that does not disturb or damage conduit encasement.

Do not backfill over wet, frozen or unstable sub grade surfaces.

FLOWABLE FILL SPECIFICATION FOR UTILITY TRENCHES

PART 1 CERTIFICATION OF COMPLIANCE
Material must come from a plant with a current Certificate of Compliance demonstrating the ability of mix design to meet the specified requirements. Certificates in excess of one year will not be accepted. Certificates must contain the name of supplier, date, contract number and mix design data on each delivery ticket.

PART 11 MATERIALS
All materials shall conform to the applicable requirements stated herein.
1. Cement shall be ASTM C-150 Type 1
2. **The use of Fly Ash is strictly prohibited**

3. Fine aggregate shall conform to ODOT Specification 703.03. Fine aggregate for Mortar or Grout. (ODOT Construction and Materials Specifications most current edition). The use of spent foundry sand or core is strictly prohibited.

PART 111 PERFORMANCE ENHANCING ADMIXTURE
An air-enhancing admixture shall be incorporated in the mix that will have an effect of lowering the water/cement ratio to 95 and 105 lbs/cubic foot. The air entrained content for the mix shall be 30% to eliminate/minimize the excessive water and segregation. Compressive strengths shall have a range of 50 PSI to 80 PSI at 28 days will be required if additional excavation by machine or hand is required.

Approved Admixtures

Manufacturer	Product
a) Master Builders	Rheofill
b) Axim	Fow Air
c) W.R. Grace	Darafill
d) Or approved equal	

PART IV FLOWABLE FILL MIX DESIGN
The mix design shall be proportional as follows:

Cement (Type 1)	50 lbs/cubic yard
Sand (SSD)	2475 lbs/cubic yard
Water	25 gallons/cubic yard
Admixture (air)	3 oz/cubic yard

Variations of the aforementioned mix design are strictly prohibited

PART V APPLICATION
1. Flowable fill shall begin 12" above the top of pipe and continue in the trench to the concrete base.
2. Material for pipe bedding and pipe zone to a minimum depth of 12 inches over the top of the pipe shall be specified by the utility.
3. Exposed bolts and valves exposed in the trench should be wrapped with polyethylene material conforming to ODOT 748.07 (8 mil thick).

4. Cover all joints in clay pipe in the trench area with polyethylene material before pouring flowable fill. Repair all observed openings in any pipe or manhole in the trench area prior to backfilling with flowable fill. Repair techniques shall be in accordance with the utility company's standard repair procedures.
5. Contact the respective utility owner for repair procedures.

CONCRETE DESIGN MIX (CITY OF CLEVELAND)

Under this section of these specifications the contractor is required to submit a separate mix design for each combination of cement type, aggregate type, and concrete supplier they will use under this contract. Each mix shall be designed in accordance with ASTM C94-94 Option C and as herein modified.

REQUIREMENT
Minimum twenty-eight (28)
4000 psi for 28 days compressive strength test. Four cylinders will be taken and tested per ASTM C-39-94. One to be tested at seven days and the remaining three will be tested at twenty-eight days. Acceptance will be based on the average results of the three cylinders.

Minimum Cement Constant
650 lbs. Per cubic yard. The cement shall conform to ASTM C-150-94 or C-595-94.

Water Cement Ratio
0.45 Maximum

Slump
Three inches (3") Nominal, as per ASTM C-94-94 (2"-4" actual). The use of chemical admixtures meeting ASTM C-494, to increase the slump to a maximum of 7", may be used with prior written approval of the Division of Engineering and Construction Inspector. If this option is selected the admixture and resultant slump shall be submitted for approval.

Air Content
Four percent (4%) to seven and one-half percent (7 ½ %)
ASTM C-173-94 or C-231-94.

Aggregate size
No. 57 for course aggregate shall be limestone, gravel or crushed air-cooled blast furnace slag. Both course and fine aggregate are as per ASTM C 33-94.

If crushed air-cooled blast furnace slag is used it shall meet all of the requirements of ODOT 703.01 and ODOT 703.02. Copies of all tests and certifications for the crushed air-cooled blast furnace slag, if used, shall be submitted as part of the concrete mix design.

When high early strength is required, ASTM C-150-94 Type 111 A cement or admixtures in accordance with ASTM C-494-94 shall be used.

PAVEMENT REPAIR

Concrete Pavement
All pavement openings shall be sawed full depth and have smooth vertical faces.
Dowels shall be required as per dowel table.

Concrete repaving shall be performed in such a manner that the entire lane and/or slab in which the repair area is located shall be restored. Should any portion of the repair area extend into an adjacent lane and/or slab, that lane or slab shall also be repaved.

Asphalt Pavement
All asphalt openings shall be sawed full depth and have smooth vertical faces. Dowels shall be required as per the dowel table.

Asphalt resurfacing shall be performed in such a manner that the entire lane in which the repairs are located shall be restored. Should any portion of the repair area extend into an adjacent lane, that lane shall also be resurfaced. For pavements with a width of 40' or less, a lane is considered ½ the pavement width.

Extend over cut in longitudinal direction two feet (2') unto undisturbed sub grade.

Brick Pavement
All streets within the City of Cleveland that are currently brick paved, shall be replaced with brick, or as directed by the inspector representing the Division of Engineering and Construction of the City of Cleveland.

The contractor under this section of the specifications shall construct concrete base, pavement, sidewalk, driveway aprons, curb and gutter sections, handicap ramps, and integral radius curb and walk. This includes the restoration of all adjacent surfaces, which are disturbed by this construction at no cost to the City of Cleveland and/or Cleveland Public Power. Contractor shall take any and all measures to ensure vandals do not deface concrete with graffiti, footprints, tire tracks, and rocks etc.

REGULATIONS GOVERNING THE LAYING OF CONCRETE SIDEWALKS, APRONS AND CURBING

Concrete walks shall be of one-course construction and shall be four inches (4") in thickness, except in the downtown district where they must be six inches (6") in thickness. Concrete for walks, curbs, drives, and aprons shall be Class "C" concrete as per item 608 and Special of the "Supplemental to State Specifications for the City of Cleveland – 1967".

When concrete walks are laid on clay, an extra excavation to a depth of one-and-one-half inches (1 ½") must be made and filled with sand and gravel, to act as a foundation to the four inches of sidewalk proper.

No blocks of concrete shall be larger than six feet (6') and the joints must be cut by the use of an approved "Grooving Tool" making a groove one-fourth inches (1/4") deep. All edges shall be rounded with an approved "Edging Tool" to a radius of one-fourth inch (I/4").

Existing aprons and drive areas of the walk must be constructed of concrete. Aprons and the area of walk over which vehicles drive must be no less than six inches (6") in thickness, and must be laid in accordance with Supplemental to State Specifications for the City of Cleveland.

At all water-meter covers, gas boxes, hydrants, or other obstructions, neatly fitted openings shall be cut in the sidewalk. No walk shall be laid until all these obstructions have been raised or lowered to the correct elevations.

No obstruction shall be placed in front of any catch basin, fire hydrant, fire alarm box or letter box, or near enough to the same to interfere with their use.

No change in the width of the walk to be laid shall be made from that of existing walks on the street at the time work is done under this permit, unless specially permitted by the Director of Public Service. Trees, lawns, and shrubbery shall not be interfered with or destroyed by any work performed by the contractor. Walks must be laid to the same grade as existing walks on the street, unless permission for change of grade is obtained from the Director of Public Service.

Only one-half (1/2) of sidewalk in the business district can be obstructed at one time, unless contractor has an obstruction permit. Gutters must be left open at all times.

The spacing between the walk and the curb line must be graded to allow water drainage, and must be of a gradual slope from walk to the curb line.

The contractor is responsible for removing all dirt and rubbish caused by his work.

FAILURE OF A CONTRACTOR TO COMPLY WITH THESE REGULATIONS SHALL RESULT IN THE WITHHOLDING OF FUTURE PERMITS AND SHALL SUBJECT THE HOLDER OF THIS PERMIT TO THE PENALTIES PRESCRIBED IN THE SIDEWALK ORDINANCE.

CURBING: Curbing shall conform to the standards established for size and quality in the district in which it is to be installed. Cast-in-place concrete curbs and Integral curbs, where used, shall conform to detail Plan No. ME-246 of City of Cleveland.

Copies of these specifications and plans for Pavement Repair and Laying of Concrete Sidewalks may be obtained, upon request, from the Division of Engineering and Construction of The City of Cleveland.

CPP DETAILS ARE PROVIDED FOR REFERENCE. INFORMATION PROVIDED ON PLANS SHALL TAKE PRECEDENCE OVER CPP DETAILS UNLESS OTHERWISE NOTED. VERIFY EXACT DIMENSIONS, REQUIREMENTS, ETC. WITH FIELD CONDITIONS AND WITH CPP.

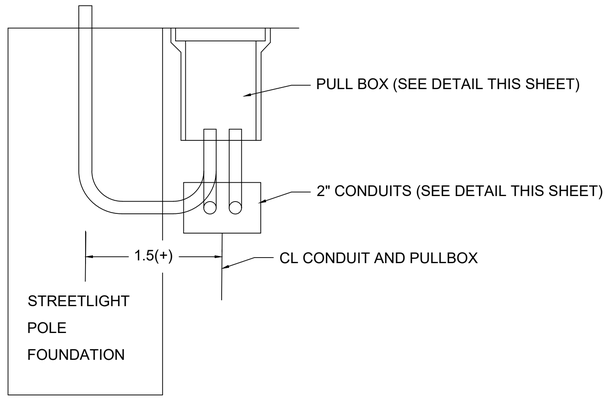
DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

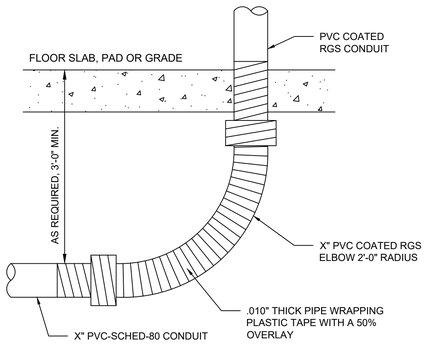
DESIGNER
TED

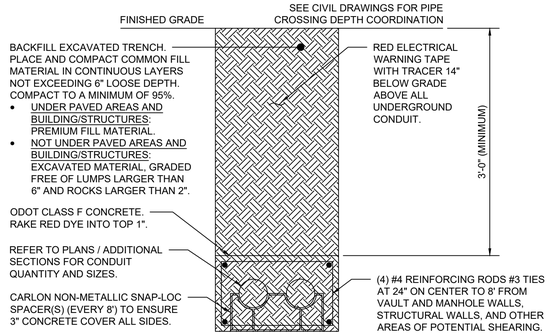
REVIEWER
MRB 10/31/25

PROJECT ID
122389

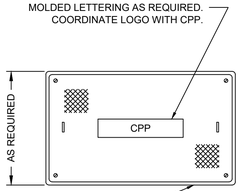
SHEET P.173 TOTAL 195



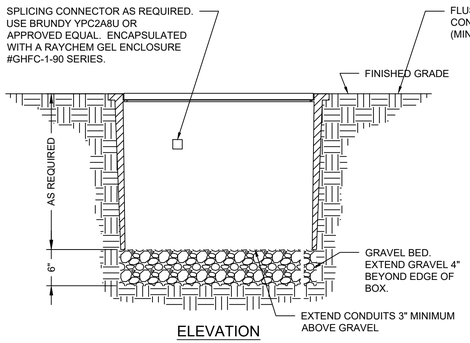




2 ITEM 625 - CONDUIT, 2", 725.051, AS PER PLAN



PLAN



ELEVATION

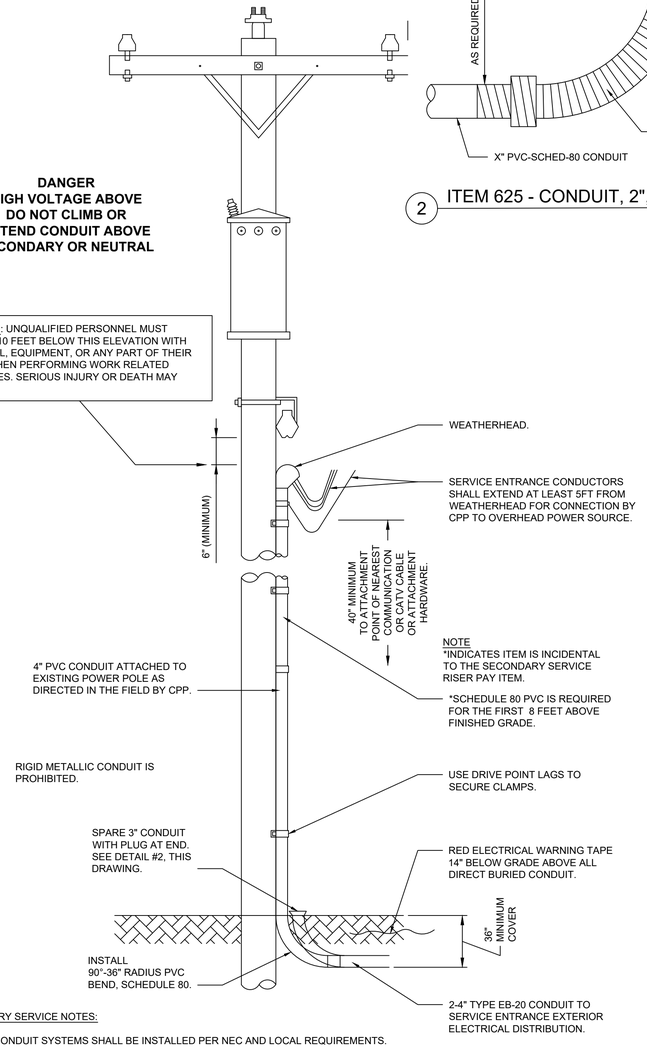
NOTES:

1. COORDINATE SIZE WITH N.E.C. REQUIREMENTS AND CPP.
2. ALL GROUND BOXES/HAND HOLES SHALL COMPLY WITH ANSI 77 TIER 15 RATING (SUBJECT TO OCCASIONAL NON-DELIBERATE HEAVY VEHICULAR TRAFFIC).

4 ITEM 625 - LIGHTING MISC. PULLBOX 725.08, 18" CPP, AS PER PLAN

DANGER
HIGH VOLTAGE ABOVE
DO NOT CLIMB OR
EXTEND CONDUIT ABOVE
SECONDARY OR NEUTRAL

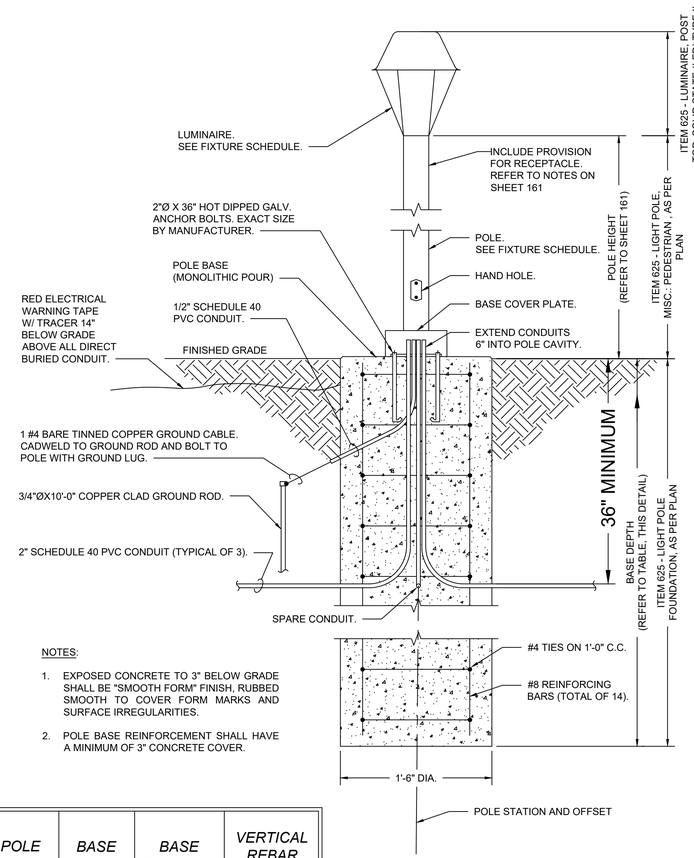
CAUTION: UNQUALIFIED PERSONNEL MUST REMAIN 10 FEET BELOW THIS ELEVATION WITH MATERIAL, EQUIPMENT, OR ANY PART OF THEIR BODY WHEN PERFORMING WORK RELATED ACTIVITIES. SERIOUS INJURY OR DEATH MAY RESULT.



SECONDARY SERVICE NOTES:

1. CPP CONDUIT SYSTEMS SHALL BE INSTALLED PER NEC AND LOCAL REQUIREMENTS.
2. CPP PROVIDE AND INSTALL SERVICE LATERAL AND RISER GUARD PER COMPANY CONSTRUCTION STANDARDS.
3. DO NO EXTEND CONDUIT ABOVE THE SECONDARY OR NEUTRAL POSITION AT ANY TIME.
4. CONDUIT SHALL MAINTAIN A MINIMUM CLEARANCE OF 6" BELOW THE SECONDARY OR NEUTRAL.
5. CUSTOMER SHALL PROVIDE ADDITIONAL CONTINUOUS CABLE OF SUFFICIENT LENGTH (5 FT MINIMUM) TO CONNECT WITH OVERHEAD SOURCE.
6. UTILITY COMPANY SHALL DETERMINE THE LOCATION / POSITION OF VERTICAL RISERS ON THE POLE BASED ON TRAFFIC FLOW AND LOCATION OF CATV, OR TELEPHONE CO. ATTACHMENTS.

3 ITEM 625 - POWER SERVICE



NOTES:

1. EXPOSED CONCRETE TO 3" BELOW GRADE SHALL BE "SMOOTH FORM" FINISH, RUBBED SMOOTH TO COVER FORM MARKS AND SURFACE IRREGULARITIES.
2. POLE BASE REINFORCEMENT SHALL HAVE A MINIMUM OF 3" CONCRETE COVER.

POLE HEIGHT	*BASE DEPTH*	*BASE DIAMETER*	*VERTICAL REBAR SIZE*
15'-0"	6'-0"	1'-6"	#5

1 ITEM 625 - LIGHT POLE, PEDESTRIAN, AS PER PLAN

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Elect\ELECTRICAL DETAILS.dwg

ELECTRICAL DETAILS - EAST 66TH STREET

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED
REVIEWER MRB 10/31/25
PROJECT ID 122389
SHEET P.174 TOTAL 195

				625											
REF. NO.	SHEET NO.	STATION OR AREA DESCRIPTION	OFFSET	LUMINAIRE, POST TOP, SOLID STATE (LED) TYPE II, SLP4, 120/277V, AS PER PLAN	LIGHT POLE, MISC.: PEDESTRIAN	LIGHT POLE, FOUNDATION, AS PER PLAN	CONDUIT, 2" 725.051, AS PER PLAN	NO.6 AWG 600V DISTRIBUTION CABLE	GROUND ROD	LIGHTING, MISC.: PULL BOX, 725.08, CPP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	POWER SERVICE AS PER PLAN	
				EACH	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	
SLP4-01	168	18+47.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-02	168	19+58.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-03	168	20+32.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-04	168	21+09.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-05	168	22+57.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-06	168	23+27.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-07	168	24+10.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-08	168	24+65.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-09	168	25+58.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-10	169	26+57.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-11	169	27+14.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-12	169	28+26.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-13	169	29+44.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-14	169	30+97.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-15	169	32+14.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-16	169	33+12.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-17	170	33+63.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-18	170	34+74.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-19	170	35+39.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-20	170	36+33.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-21	170	37+16.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-22	170	38+16.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-23	170	38+57.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-24	170	39+51.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-25	170	40+33.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-26	170	40+98.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-27	170	41+59.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-28	171	42+59.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-29	171	43+68.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-30	171	44+59.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-31	171	45+34.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-32	171	46+06.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-33	171	47+19.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-34	171	47+83.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-35	171	48+50.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-36	171	49+20.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-37	172	49+98.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-38	172	51+11.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-39	172	51+98.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-40	172	52+94.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-41	172	54+32.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-42	172	55+59.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-43	172	56+69.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-44	172	58+04.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-45	172	59+21.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-46	172	60+49.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-47	172	61+82.00	21' Rt	1	1	1			1	1	15	2	3		
SLP4-48	172	61+78.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-49	172	60+72.00	18' Lt	1	1	1			1	1	15	2	3		

				625											
REF. NO.	SHEET NO.	STATION OR AREA DESCRIPTION	OFFSET	LUMINAIRE, POST TOP, SOLID STATE (LED) TYPE II, SLP4, 120/277V, AS PER PLAN	LIGHT POLE, MISC.: PEDESTRIAN	LIGHT POLE, FOUNDATION, AS PER PLAN	CONDUIT, 2" 725.051, AS PER PLAN	NO.6 AWG 600V DISTRIBUTION CABLE	GROUND ROD	LIGHTING, MISC.: PULL BOX, 725.08, CPP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	POWER SERVICE AS PER PLAN	
				EACH	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	EACH	EACH	
SLP4-50	172	59+62.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-51	172	58+30.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-52	172	57+15.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-53	172	56+11.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-54	172	55+00.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-55	171	54+00.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-56	171	51+97.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-57	171	51+07.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-58	171	50+00.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-59	171	49+18.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-60	171	47+55.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-61	171	46+55.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-62	171	45+50.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-63	170	45+00.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-64	170	43+98.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-65	170	42+51.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-66	170	41+53.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-67	170	41+07.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-68	170	40+32.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-69	170	39+50.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-70	170	38+52.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-71	170	37+79.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-72	169	36+27.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-73	169	34+86.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-74	169	33+74.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-75	169	33+04.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-76	169	32+30.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-77	169	31+55.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-78	169	30+82.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-79	169	30+22.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-80	169	29+48.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-81	169	28+70.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-82	169	27+89.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-83	168	27+20.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-84	168	26+04.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-85	168	24+66.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-86	168	23+72.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-87	168	22+55.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-88	171	21+36.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-89	170	20+77.00	18' Lt	1	1	1			1	1	15	2	3		
SLP4-90	170	19+95.00	18' Lt	1	1	1			1	1	15	2	3		
PB-01	168	21+76.00	18' Lt							1					1
PB-02	168	21+68.00	21' Rt							1					
PB-03	168	22+35.00	21' Rt							1					
PB-04	169	25+47.00	21' Rt							1					
PB-05	169	25+49.00	18' Lt							1					1
PB-06	169	29+40.00	21' Rt							1					
PB-07	169	29+52.00	18' Lt							1					1
SUBTOTALS SHEET NO. 175				90	90	90			90	97	1350	180	270	3	

CUY-EAST 66TH STREET TLCI

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HORIZONTAL SCALE IN FEET
0 10 20 40

ELECTRICAL SUB SUMMARY - 1

DESIGN AGENCY

OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED

REVIEWER MRB 10/31/25

PROJECT ID 122389

SHEET 175 | TOTAL 195

				625											
REF. NO.	SHEET NO.	STATION OR AREA DESCRIPTION	OFFSET	LUMINAIRE, POST TOP, SOLID STATE (LED) TYPE II, SLP4, 120/277V, AS PER PLAN	LIGHT POLE, MISC.: PEDESTRIAN	LIGHT POLE, FOUNDATION, AS PER PLAN	CONDUIT, 2" 725.051, AS PER PLAN	NO.6 AWG 600V DISTRIBUTION CABLE	GROUND ROD	LIGHTING, MISC.: PULL BOX, 725.08, CPP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	POWER SERVICE AS PER PLAN
				EACH	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	EACH	EACH
PB-08	170	33+96.00	21' Rt							1				
PB-09	170	33+96.00	18' Lt							1				1
PB-10	170	38+75.00	21' Rt							1				
PB-11	170	38+75.00	18' Lt							1				1
PB-12	170	41+85.00	21' Rt							1				
PB-13	170	41+85.00	18' Lt							1				1
PB-14	170	44+68.00	21' Rt							1				
PB-15	170	44+68.00	18' Lt							1				1
PB-16	171	49+18.00	21' Rt							1				
PB-17	171	48+51.00	18' Lt							1				1
PB-18	171	51+00.00	21' Rt							1				
PB-19	171	50+78.00	18' Lt							1				1
PB-20	172	54+34.00	21' Rt							1				
PB-21	172	54+34.00	18' Lt							1				1
PB-22	172	57+66.00	21' Rt							1				
PB-23	172	57+66.00	18' Lt							1				1
PB-24	172	61+45.00	21' Rt							1				
PB-25	172	61+45.00	18' Lt							1				1
E-01	168	18+47.00 TO 19+58.00	21' Rt				110	110						
E-02	168	19+58.00 TO 20+33.00	21' Rt				76	76						
E-03	168	20+33.00 TO 21+06.00	21' Rt				77	77						
E-04	168	21+06.00 TO 21+68.00	21' Rt				57	57						
E-05	168	CONNECTS PB-2 & PB-1	–				37	37						
E-06	168	21+36.00 TO 21+76.00	18' Lt				40	40						
E-07	168	20+77.00 TO 21+36.00	–				72	72						
E-08	168	20+00.00 TO 20+77.00	25' Lt				83	83						
E-09	168	21+76.00 TO 22+55.00	18' Lt				77	77						
E-10	168	22+55.00 TO 23+72.00	18' Lt				116	116						
E-11	168	23+28.00 TO 24+10.00	18' Lt				94	94						
E-12	168	21+68.00 TO 22+35.00	21' Rt				63	63						
E-13	168	22+35.00 TO 22+57.00	21' Rt				22	22						
E-14	168	22+57.00 to 23+27.00	21' Rt				70	70						
E-15	168	23+27.00 TO 24+10.00	21' Rt				82	82						
E-16	168	24+10.00 TO 24+65.00	21' Rt				56	56						
E-17	169	26+57.00 TO 26+57.00	21' Rt				57	57						
E-18	169	25+58.00 TO 27+14.00	21' Rt				98	98						
E-19	169	25+57.00 TO 25+58.00	21' Rt				11	11						
E-20	169	CONNECTS PB-4 & PB-5	–				36	36						
E-21	169	25+49.00 TO 26+04.00	18' Lt				54	54						
E-22	169	26+04.00 TO 27+20.00	18' Lt				115	115						
E-23	169	28+26.00 TO 29+44.00	21' Rt				106	106						
E-24	169	CONNECTS PB-6 & PB-7	–				29	29						
E-25	169	28+70.00 TO 29+48.00	18' Lt				66	66						
E-26	169	27+89.00 TO 28+70.00	18' Lt				80	80						
E-27	169	30+97.00 TO 32+14.00	21' Rt				117	117						
E-28	170	32+14.00 TO 33+12.00	21' Rt				97	97						
E-29	169,170	33+12.00 TO 33+96.00	21' Rt				51	51						
E-30	170	33+63.00 TO 33+96.00	21' Rt				29	29						
E-31	170	CONNECTS PB-8 & PB-9	–				40	40						
E-32	170	33+74.00 TO 33+96.00	18' Lt				21	21						
E-33	169,170	33+04.00 TO 33+74.00	18' Lt				70	70						
E-34	169	32+30.00 TO 33+04.00	18' Lt				74	74						
E-35	169	31+55.00 TO 32+30.00	18' Lt				75	75						
E-36	169	30+82.00 TO 31+55.00	18' Lt				74	74						
E-37	169	30+22.00 TO 30+82.00	18' Lt				60	60						
E-38	170	34+74.00 TO 35+39.00	21' Rt				64	64						
E-39	170	35+39.00 TO 36+33.00	21' Rt				95	95						
E-40	170	36+33.00 TO 37+16.00	21' Rt				83	83						
E-41	170	37+16.00 TO 38+16.00	21' Rt				100	100						
E-42	170	38+16.00 TO 38+57.00	21' Rt				41	41						
E-43	170	38+57.00 TO 38+75.00	21' Rt				16	16						
E-44	170	CON. PB-10 & PB-11	–				34	34						
E-45	170	38+52.00 TO 38+75.00	18' Lt				21	21						
E-46	170	37+79.00 TO 38+52.00	18' Lt				73	73						
E-47	170	36+27.00 TO 37+79.00	18' Lt				152	152						
E-48	170	34+86.00 TO 36+27.00	18' Lt				141	141						
E-49	170	39+51.00 TO 40+33.00	21' Rt				81	81						
E-50	170	40+33.00 TO 40+98.00	21' Rt				65	65						
E-51	170	40+98.00 TO 41+59.00	21' Rt				61	61						
E-52	170	41+59.00 TO 41+85.00	21' Rt				24	24						
E-53	170	CON. PB-12 & PB-13	–				34	34						
E-54	170	41+07.00 TO 41+85.00	18' Lt				76	76						
E-55	170	40+32.00 TO 41+07.00	18' Lt				75	75						
E-56	170	39+50.00 TO 40+32.00	18' Lt				81	81						
E-57	170,171	42+59.00 TO 43+68.00	21' Rt				110	110						
E-58	171	43+68.00 TO 44+59.00	21' Rt				90	90						
E-59	171	44+59.00 TO 44+68.00	21' Rt				9	9						
E-60	171	44+68.00 TO 45+34.00	21' Rt				66	66						
E-61	171	CON. PB-14 & PB-15	–				32	32						
E-62	171	44+68.00 TO 45+00.00	18' Lt				33	33						
E-63	171	45+00.00 TO 45+50.00	18' Lt				49	49						
E-64	171	43+98.00 TO 44+68.00	18' Lt				70	70						
E-65	170,171	42+51.00 TO 43+98.00	18' Lt				147	147						
E-66	171	46+06.00 TO 47+19.00	21' Rt				113	113						
E-67	171	47+19.00 TO 47+83.00	21' Rt				64	64						
E-68	171	47+83.00 TO 48+50.00	21' Rt				67	67						
E-69	171	48+50.00 TO 49+20.00	21' Rt				69	69						
E-70	171	CON. PB-16 & PB-17	–				74	74						
E-71	171	48+51.00 TO 49+18.00	18' Lt				68	68						
E-72	171	47+55.00 TO 48+51.00	18' Lt				95	95						
E-73	171	46+55.00 TO 47+55.00	18' Lt				100	100						
E-74	171	49+98.00 TO 51+11.00	21' Rt				110	110						
E-75	172	CON. PB-18 & PB-19	–				41	41						
E-76	172	50+78.00 TO 51+07.00	18' Lt				30	30						
E-77	172	50+00.00 TO 50+78.00	18' Lt				78	78						
E-78	172	51+98.00 TO 52+94.00	21' Rt				106	106						
E-79	172	52+94.00 TO 54+32.00	21' Rt				124	124						
SUBTOTALS SHEET NO. 176							5554	5554		18				9

HORIZONTAL SCALE IN FEET
0 10 20 40

ELECTRICAL SUB SUMMARY - 2

CUY-EAST 66TH STREET TLCI

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DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
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DESIGNER TED
REVIEWER MRB 10/31/25
PROJECT ID 122389
SHEET 176 TOTAL 195

				625											
REF. NO.	SHEET NO.	STATION OR AREA DESCRIPTION	OFFSET	LUMINAIRE, POST TOP, SOLID STATE (LED) TYPE II, SLP4, 120/277V, AS PER PLAN	LIGHT POLE, MISC.: PEDESTRIAN	LIGHT POLE, FOUNDATION, AS PER PLAN	CONDUIT, 2",725.051, AS PER PLAN	NO.6 AWG 600V DISTRIBUTION CABLE	GROUND ROD	LIGHTING, MISC.: PULL BOX, 725.08, CPP	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	POWER SERVICE AS PER PLAN
				EACH	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	EACH	EACH
E-80	172	CON. PB-20 & PB-21	–				35	35						
E-81	172	54+00.00 TO 54+34.00	25' Lt				44	44						
E-82	171,172	51+97.00 TO 54+00.00	–				208	208						
E-83	172	55+59.00 TO 56+69.00	21' Rt				110	110						
E-84	172	56+69.00 TO 57+66.00	21' Rt				97	97						
E-85	172	57+66.00 TO 58+04.00	21' Rt				38	38						
E-86	172	CON. PB-22 & PB-23	–				39	39						
E-87	172	57+66.00 TO 58+30.00	18' Lt				79	79						
E-88	172	57+15.00 TO 57+66.00	18' Lt				51	51						
E-89	172	56+11.00 TO 57+15.00	18' Lt				104	104						
E-90	172	55+00.00 TO 56+11.00	25' Lt				123	123						
E-91	172	59+21.00 TO 60+49.00	21' Rt				125	125						
E-92	172	60+49.00 TO 61+45.00	21' Rt				97	97						
E-93	172	61+45.00 TO 60+82.00	21' Rt				36	36						
E-94	168	CON. PB-24 & PB-25	–				37	37						
E-95	172	61+45.00 TO 61+78.00	25' Lt				49	49						
E-96	172	60+72.00 TO 61+45.00	25' Lt				82	82						
E-97	168	59+62.00 TO 60+72.00	25' Lt				118	118						
SUBTOTALS SHEET NO. 177							1468	1468						
SUBTOTALS SHEET NO. 176							5554	5554		18				9
SUBTOTALS SHEET NO. 175				90	90	90			90	97	1350	180	270	3
GENERAL SUMMARY TOTAL				90	90	90	7022	7022	90	115	1350	180	270	12

HORIZONTAL SCALE IN FEET
0 10 20 40

ELECTRICAL SUB SUMMARY - 3

CUY-EAST 66TH STREET TLCI

P:\City of Cleveland\J20201116.100_East_66th_St_Final_Engineering\Drawings\Elect\SUB_SUMMARYv2.dwg

DESIGN AGENCY
OSBORN ENGINEERING
1111 SUPERIOR AVE. STE. 2100
CLEVELAND, OH 44114
(216)861-2020 www.osborn-eng.com

DESIGNER TED

REVIEWER MRB 10/31/25

PROJECT ID 122389

SHEET 177 TOTAL 195

LANDSCAPE GENERAL NOTES

1. LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK. PRIOR TO ANY EXCAVATION, CALL OHIO 811 TO LOCATE UNDERGROUND UTILITIES. KEEP DISTURBANCE OF ALL AREAS TO A MINIMUM.
2. DO NOT PARK, STORE, OR OPERATE EQUIPMENT OR MATERIALS WITHIN THE DRIP-LINE OF ANY EXISTING TREES OR OPEN/LANDSCAPED AREAS ON SITE.
3. PROTECT ALL EXISTING TREES TO REMAIN. CONTRACTOR TO EMPLOY AN ARBORIST TO PERFORM TREE CARE ON ALL EXISTING TREES TO REMAIN IN ACCORDANCE WITH THE SPECIFICATIONS.
4. INSTALL ALL PLANTS IN ACCORDANCE WITH ODOT 661 AND ACCORDING TO PLANS, DETAILS, AND SUPPLEMENTAL SPECIFICATIONS.
5. AVOID OVER-SEEDING OR SPRAYING ONTO ADJACENT SURFACES. CLEAN AND REMOVE ALL OVER-SEEDING ON THESE AREAS.
6. DO NOT INSTALL PLANT MATERIAL BEFORE COMPLETION AND APPROVAL OF ROUGH GRADING. PLANT MATERIALS INSTALLED WITHOUT APPROVAL ARE AT THE CONTRACTOR'S RISK.
7. PROVIDE BALLED AND BURLAPPED OR CONTAINER GROWN PLANTS AS SPECIFIED. CONTAINER GROWN STOCK WILL NOT BE ACCEPTED IF IT IS ROOT BOUND.
8. REMOVE THE CONTAINER AND CUT THE BALL VERTICALLY THOUGH THE SURFACE IN TWO LOCATIONS FOR CONTAINER GROWN STOCK.
9. SPRAY ALL PLANTS WITH ANTIDESSICANT WITHIN 24 HOURS OF PLANTING, AND AT THE BEGINNING OF THEIR FIRST WINTER.
10. IN THE EVENT OF CONFLICTS BETWEEN PROPOSED TREES AND UNDERGROUND UTILITIES, CONSULT PROJECT ENGINEER AND ARCHITECT TO DETERMINE NEW OR SHIFTED LOCATION OF TREE.
11. TRESS SHALL BE PLANTED A MINIMUM 1'-6" FROM WALKS.
12. FOR TREE REMOVALS, SEE ROADWAY PLANS.

PLANT MATERIAL SUBMITTAL

CONTRACTOR TO SUBMIT PLANT NURSERY LOCATION AND SOURCE OF SUPPLY AS PER ODOT ITEM 661.03. CONTRACTOR TO SUBMIT PLANT LIST TO PROJECT ENGINEER FOR APPROVAL AT LEAST 30 DAYS PRIOR TO PROPOSED INSTALLATION DATE. SUBMITTAL TO INCLUDE QUANTITIES, SIZES, QUALITY, AND SOURCES FOR PLANT MATERIALS. IF SUBSTITUTIONS ARE REQUESTED, CONTRACTOR MUST ALSO SUBMIT A REVISED LANDSCAPE PLAN SHOWING ALL PLANT SUBSTATIONS LOCATIONS FOR APPROVAL BY PROJECT ENGINEER AND DIVISION OF URBAN FORESTRY AT LEAST 30 DAYS PRIOR TO PROPOSED INSTALLATION DATE.

CONTRACTOR SHALL COORDINATE ALL LANDSCAPING WITH OTHER TRADES TO CREATE A COMPLETE PROJECT AS PER PLANS AND ODOT SPECIFICATIONS.

INTEGRALLY COLORED CONCRETE

SUBMITTALS

PRODUCT DATA: SUBMIT MANUFACTURER'S COMPLETE TECHNICAL DATA SHEETS FOR THE FOLLOWING:

1. COLORED ADMIXTURE.
2. POWDER ANTIQUING RELEASE AGENT.
3. IMPRINTING/TEXTURING TOOLS.
4. CURING COMPOUND.

SAMPLES FOR INITIAL SELECTION: MANUFACTURER'S COLOR CHARTS SHOWING FULL RANGE OF COLORS AVAILABLE.

QUALITY ASSURANCE

MANUFACTURER QUALIFICATIONS: MANUFACTURER WITH 10-YEARS EXPERIENCE IN PRODUCTION OF SPECIFIED PRODUCTS. INSTALLER QUALIFICATIONS: AN INSTALLER WITH 5-YEARS EXPERIENCE WITH WORK OF SIMILAR SCOPE AND QUALITY.

INTEGRALLY COLORED IMPRINTED CONCRETE MOCKUPS AT LOCATION ON PROJECT SELECTED BY ARCHITECT, PLACE AND FINISH 4 BY 4 FEET MINIMUM FOR EACH TYPE OF PATTERN AND TYPE. FOR ACCURATE COLOR, THE QUANTITY OF CONCRETE MIXED TO PRODUCE THE SAMPLE SHOULD NOT BE LESS THAN 3 CUBIC YARDS (OR NOT LESS THAN 1/3 THE CAPACITY OF THE MIXING DRUM ON THE READY-MIX TRUCK) AND SHOULD ALWAYS BE IN FULL CUBIC YARD INCREMENTS. EXCESS MATERIAL SHALL BE DISCARDED ACCORDING TO LOCAL REGULATIONS. CONSTRUCT MOCKUP USING PROCESSES AND TECHNIQUES INTENDED FOR USE ON PERMANENT WORK, INCLUDING CURING PROCEDURES. INCLUDE SAMPLES OF CONTROL, CONSTRUCTION, AND EXPANSION JOINTS IN SAMPLE PANELS. MOCKUP SHALL BE PRODUCED BY THE INDIVIDUAL WORKERS WHO WILL PERFORM THE WORK FOR THE PROJECT.

DELIVERY, STORAGE AND HANDLING

COLORED ADMIXTURE: COMPLY WITH MANUFACTURER'S INSTRUCTIONS. DELIVER COLORED ADMIXTURES IN ORIGINAL, UNOPENED PACKAGING. STORE IN DRY CONDITIONS.

PROJECT CONDITIONS

INTEGRALLY COLORED CONCRETE ENVIRONMENTAL REQUIREMENTS:

1. SCHEDULE PLACEMENT TO MINIMIZE EXPOSURE TO WIND AND HOT SUN BEFORE CURING MATERIALS ARE APPLIED.
2. AVOID PLACING CONCRETE IF RAIN, SNOW, OR FROST IS FORECAST WITHIN 24-HOURS. PROTECT FRESH CONCRETE FROM MOISTURE AND FREEZING.
3. COMPLY WITH PROFESSIONAL PRACTICES DESCRIBED IN ACI 305R AND ACI 306R.

SCHEDULE DELIVERY OF CONCRETE TO PROVIDE CONSISTENT MIX TIMES FROM BATCHING UNTIL DISCHARGE. MIX TIMES SHALL MEET MANUFACTURER'S WRITTEN RECOMMENDATIONS.

ACCEPTABLE MANUFACTURERS

A. SIKACOLOR, AURORA, IL (800) 800-9900 OR THE APPROPRIATE LOCAL CONTACT: SCOTT REYES 586-292-1492
B. SOLOMON COLORS, SPRINGFIELD, ILLINOIS (800) 624-0261 E-MAIL: SGS@SOLOMONCOLORS.COM
C. APPROVED EQUAL

MATERIALS

SIKACOLOR FOR INTEGRALLY COLORED CONCRETE: SIKACOLOR-100P, SIKACOLOR-120G OR SIKACOLOR-140SG BY SIKACOLOR.

1. ADMIXTURE SHALL BE A COLORED ADMIXTURE CONTAINING NO CALCIUM CHLORIDE WITH COLORING AGENTS THAT ARE LIME PROOF AND UV RESISTANT.
2. COLORED ADMIXTURE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C979.
3. SIKACOLOR 200 COLOR HARDENER: APPLY RANDOMLY TO COVER APPROX. 30% OF SURFACE.

STAMPING/IMPRINTING TOOLS AND MATERIALS: SIKASTAMPS IMPRINTING TOOLS; SIKACOLOR.

POWDER ANTIQUING RELEASE AGENT: SIKACOLOR-300 OR 340SG ANTIQUING RELEASE; SIKACOLOR OR SIKACEM 800 CLEAR LIQUID RELEASE.

1. POWDER ANTIQUING RELEASE AGENT SHALL BE RECOMMENDED BY PATTERN TOOL MANUFACTURER AND COMPATIBLE WITH INTEGRAL COLOR ADDITIVES.

CURING AND SEALING COMPOUND: SIKACEM-100 CLEAR GUARD PRO 350 , SIKACOLOR. CURING AND SEALING COMPOUND SHALL COMPLY WITH ASTM C309 AND BE OF SAME MANUFACTURER AS COLORED ADMIXTURE, FOR USE WITH INTEGRALLY COLORED CONCRETE.

COLORS AND PATTERNS

COLORED ADMIXTURE:
-CROSSWALKS: DARK RED A-27
-INTERSECTION: WARM CORK 5925
-STRIPES IN ASPHALT: CAUTION YELLOW 1005
-OR SELECTED FROM APPROVED EQUAL'S FULL COLOR LINE AND APPROVED BY THE ARCHITECT

STAMP/IMPRINTING PATTERN:
-CROSSWALKS: PATTERN #56200 NEW BRICK RUNNING BOND
-INTERSECTION: PATTERN #56100 NEW BRICK BASKET WEAVE
-OR AS SELECTED BY ARCHITECT FROM APPROVED EQUAL'S FULL LINE

SURFACE RETARDER:
-STRIPES IN ASPHALT: SIKACEM -110 SURFACE RETARDER 50 WITH HEAVY SAND BLAST TEXTURE WITH ⅜" TO ½" AGGREGATE EXPOSURE

POWDER ANTIQUING RELEASE AGENT: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

COLOR HARDENER: SIKACOLOR 200 CHART.

CONCRETE MIX DESIGN

DO NOT ADD CALCIUM CHLORIDE TO MIX AS IT CAUSES MOTTLING AND SURFACE DISCOLORATION. SUPPLEMENTAL ADMIXTURES SHALL NOT BE USED UNLESS APPROVED BY MANUFACTURER. DO NOT ADD WATER TO THE MIX IN THE FIELD. ADD COLORED ADMIXTURE TO THE MIX ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS IN PREMEASURED BAGS, NOT BY WEIGHT OF CEMENT CONTENT.

INSTALLATION

DO NOT ADD WATER TO THE MIX IN THE FIELD. SURFACES SHALL BE FINISHED UNIFORMLY. STAMPED/IMPRINTED: APPLY PATTERN ACCORDING TO TOOL MANUFACTURER'S INSTRUCTIONS. TOUCH-UP PATTERN AND FINISH EDGES WITH HAND TOOLS AS NECESSARY.

CURING

INTEGRALLY COLORED CONCRETE: APPLY CURING AND SEALING COMPOUND FOR INTEGRALLY COLORED CONCRETE ACCORDING TO MANUFACTURER'S INSTRUCTIONS USING MANUFACTURER'S RECOMMENDED APPLICATION TECHNIQUES. APPLY CURING AND SEALING COMPOUND AT CONSISTENT TIME FOR EACH POUR TO MAINTAIN CLOSE COLOR CONSISTENCY.

PRECAUTIONS SHALL BE TAKEN IN HOT WEATHER TO PREVENT PLASTIC CRACKING RESULTING FROM EXCESSIVELY RAPID DRYING AT SURFACE AS DESCRIBED IN CIP 5 PLASTIC SHRINKAGE CRACKING PUBLISHED BY THE NATIONAL READY MIXED CONCRETE ASSOCIATION.

TOLERANCES

MINOR VARIATIONS IN APPEARANCE OF COLORED CONCRETE, WHICH ARE SIMILAR TO NATURAL VARIATIONS IN COLOR AND APPEARANCE OF UNCOLORED CONCRETE, ARE ACCEPTABLE.

ITEM 680 SPECIAL - TRASH RECEPTACLE

WORK SHALL CONSIST OF FURNISHING AND SURFACE MOUNTING TRASH RECEPTACLE.
TRASH RECEPTACLE SHALL BE ONE OF THE FOLLOWING:

- VICTOR STANLEY - S-42 WITH TAPERED FORMED LID (BLACK)
- KEYSTONE RIDGE - MIDTOWN LITTER RECEPTACLE MT3-38 WITH FLAT ROUND LID (GLOSS BLACK)
- APPROVED EQUAL

FINISH TO BE POWDER COATED. INSTALLATION TO BE SURFACE MOUNTED AND IN STRICT CONFORMANCE TO MANUFACTURER'S DETAILS AND RECOMMENDATIONS TO ENSURE VANDAL RESISTANCE.

PAYMENT TO BE MADE UNDER:	UNIT
ITEM SPECIAL - TRASH RECEPTACLE	(EACH)

ITEM 690 SPECIAL - BICYCLE RACK

WORK SHALL CONSIST OF FURNISHING AND SURFACE MOUNTING BICYCLE RACKS.
BICYCLE RACK SHALL BE ONE OF THE FOLLOWING:

- DERO - BIKE HITCH (DEEP RED, GREEN, BLACK - SEE PLANS)
- VICTOR STANLEY - BRBS-103 (RED, GREEN, BLACK - SEE PLANS)
- APPROVED EQUAL

FINISH TO BE POWDER COATED. INSTALLATION TO BE SURFACE MOUNTED AND IN STRICT CONFORMANCE TO MANUFACTURER'S DETAILS AND RECOMMENDATIONS TO ENSURE VANDAL RESISTANCE.

PAYMENT TO BE MADE UNDER:	UNIT
ITEM SPECIAL - BICYCLE RACK	(EACH)

ITEM 690 SPECIAL - METAL BENCH

WORK SHALL CONSIST OF FURNISHING AND SURFACE MOUNTING METAL BENCH.
METAL BENCH SHALL BE ONE OF THE FOLLOWING:

- VICTOR STANLEY - RMS-24, 6' LONG (BLACK)
- KEYSTONE RIDGE - EVERETT BENCH WITH BACK, 6' LONG (GLOSS BLACK)
- APPROVED EQUAL

FINISH TO BE POWDER COATED. INSTALLATION TO BE SURFACE MOUNTED AND IN STRICT CONFORMANCE TO MANUFACTURER'S DETAILS AND RECOMMENDATIONS TO ENSURE VANDAL RESISTANCE.

PAYMENT TO BE MADE UNDER:	UNIT
ITEM SPECIAL -METAL BENCH	(EACH)

ITEM 690 SPECIAL - WOOD BENCH

WORK SHALL CONSIST OF FURNISHING AND SURFACE MOUNTING WOOD BENCH.
WOOD BENCH SHALL BE ONE OF THE FOLLOWING:

- VICTOR STANLEY - EVA BENCH, 6' LONG (BLACK AND JATOBA WOOD)
- LANDSCAPE FORMS - HARPO BENCH, 69" WIDE WOOD SLATS (GLOSS BLAC, JARRAH WOOD)
- APPROVED EQUAL

FINISH TO BE POWDERCOAT WITH WOOD SLATS. INSTALLATION TO BE SURFACE MOUNTED AND IN STRICT CONFORMANCE TO MANUFACTURER'S DETAILS AND RECOMMENDATIONS TO ENSURE VANDAL RESISTANCE.

PAYMENT TO BE MADE UNDER:	UNIT
ITEM SPECIAL -WOOD BENCH	(EACH)

ITEM 690 SPECIAL - TABLE AND BENCH SET

WORK SHALL CONSIST OF FURNISHING AND SURFACE MOUNTING TABLE AND BENCHES.
TABLE AND BENCH SET SHALL BE ONE OF THE FOLLOWING:

- VICTOR STANLEY - FBF-56, 6' LONG (BLACK)
- BELSON RICHMOND TABL 63SM-HS6-PRE, 6' LONG (BLACK) WITH (2) RICHMOND COLLECTION BENCHES 82SM-HS6, 6' LONG (BLACK)
- APPROVED EQUAL

FINISH TO BE POWDER COATED. INSTALLATION TO BE SURFACE MOUNTED AND IN STRICT CONFORMANCE TO MANUFACTURER'S DETAILS AND RECOMMENDATIONS TO ENSURE VANDAL RESISTANCE.

PAYMENT TO BE MADE UNDER:	UNIT
ITEM SPECIAL -TABLE AND BENCH SET	(EACH)

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

X:\2025\25001 - East 66th Street\08 - Drawings\08.02 - AutoCAD\A000s - Sheet Specs.dwg

STREETSCAPE & LANDSCAPE GENERAL NOTES - CUY EAST 66TH STREET TLCI

DESIGN AGENCY
City Architecture
12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
cityarch.com

DESIGNER MBZ
REVIEWER KP 12/22/25
PROJECT ID 25001
SHEET 178 TOTAL 195

ITEM 661 - PLANTING, MISC; TREE CARE
PAYMENT FOR THIS ITEM INCLUDES ALL LABOR, EQUIPMENT AND MATERIALS FOR THE PERFORMANCE OF TREE CARE BY AN ISA TRAQ CERTIFIED ARBORIST ON ALL EXISTING TREES TO REMAIN WITHIN THE LIMITS OF DISTURBANCE PER THE PLANS, DETAILS, AND AS PER ITEM 661 AND 666. ARBORIST WORK INCLUDES INITIAL TREE EVALUATION, DEVELOPMENT OF A CUSTOMIZED TREE CARE PLAN, BIWEEKLY MONITORING OF EXISTING TREE HEALTH THROUGHOUT CONSTRUCTION, AIR SPACING, ROOT PRUNING, FERTILIZING, MULCHING, WATERING, AND OTHER INCIDENTAL WORK RELATED TO THE CARE OF EXISTING TREES TO REMAIN.

TREE CARE SHOULD INCLUDE THE FOLLOWING;

1. PRIOR TO CONSTRUCTION
   - 1.1. ENGAGE AN ISA TRAQ CERTIFIED ARBORIST TO PERFORM A TREE RISK ASSESSMENT ON EACH TREE TO REMAIN WITHIN THE WORK AREA. TREES TO REMAIN ARE INDICATED ON LANDSCAPE PLANS AND TREE REMOVALS ARE INDICATED ON ROADWAY PLANS. TREE RISK ASSESSMENT SHALL OCCUR AT THE BEGINNING OF CONSTRUCTION TO IDENTITY TREE CARE NEEDS AND HAZARD TREES.
   - 1.2. DOCUMENT EACH TREE'S CONDITION WITH A PHOTO RECORD AND WRITTEN ASSESSMENT PRIOR TO ANY CONSTRUCTION ACTIVITY.
   - 1.3. IF THE ARBORIST IDENTIFIES ANY ADDITIONAL TREES THAT SHOULD BE REMOVED DUE TO DAMAGE, DISEASE, OR IF THEY PRESENT A SAFETY HAZARD. CONTRACTOR SHALL PRESENT A LIST OF RECOMMENDED TREE REMOVALS TO THE PROJECT ENGINEER AND THE URBAN FORESTER IN THE CITY HAVING JURISDICTION. THE FINAL DECISION ON ADDITIONAL TREE REMOVALS LIES WITH THE CITY HAVING JURISDICTION. WRITTEN APPROVAL FROM BOTH PARTIES SHALL BE OBTAINED BEFORE ANY ADDITIONAL TREE REMOVALS ARE PERFORMED.
   - 1.4. IF ADDITIONAL TREE REMOVALS ARE AGREED TO BY THE CITY, THE REMOVAL OF THE TREE AND THE PLANTINGS OF A NEW TREE SHALL BE PAID UNDER ITEM 661 - PLANTINGS, MISC. TREE REPLACEMENT. THE PROVISIONS OF THIS PAY ITEM WILL APPLY BUT NOT BE COMPENSABLE IF IT'S DETERMINED THAT THE HEALTH OF THE TREE WAS NEGATIVELY IMPACT BY THE CONTRACTOR'S MEANS AND METHODS/ NEGLECT TO FOLLOW OTHER PROVISIONS FOR TREE CARE.
   - 1.5. ON TREES TO REMAIN, ARBORIST TO PERFORM TREE CARE IN ACCORDANCE WITH THEIR TREE CARE RECOMMENDATIONS. IT IS EXPECTED THAT PRE-CONSTRUCTION TREE CARE INCLUDE THE FOLLOWING:
     - 1.5.1. AIR SPADING TO DE-COMPACT SOIL AND ENCLOSURE NEW ROOT GROWTH TO OCCUR WITHIN THE EXISTING TREE PIT DURING CONSTRUCTION.
     - 1.5.2. APPLY ROOT BARRIER NEXT TO SHARED USE PATH TO DETER ROOTS FROM DISRUPTING THE PATH OVER TIME
     - 1.5.3. APPLY A GROWTH REGULATOR (I.E. ROOT BARRIER) AT PERIMETER OF EXPANDED OR NEW TREE PITS.
     - 1.5.4. APPLY FERTILIZER
   - 1.6. PROTECT EXISTING TREES WITH CHAIN LINK OR ORANGE SNOW FENCE, 4' HT. MINIMUM, AS SHOWN ON CITY OF CLEVELAND STANDARD DETAIL TP-1 AND TP-4
   - 1.7. AFTER TREE PROTECTION HAS BEEN INSTALLED, CONTRACTOR SHALL CONTACT THE CITY FOR INSPECTION OF THE INSTALLED TREE PROTECTION.
     - 1.7.1. IN CITY OF CLEVELAND, CONTACT JENNIFER KIPP, URBAN FORESTER, 216-857-1741

2. DURING CONSTRUCTION
   - 2.1. ARBORIST SHALL HAVE A BIWEEKLY SITE VISIT TO ACTIVE WORK ZONES. ARBORIST SHALL PROVIDE A BRIEF REPORT TO PROJECT ENGINEER AND DOCUMENT ANY CHANGES TO TREE CARE PLAN.
   - 2.2. WATER EXISTING TREES AT A RATE OF 10 GALLONS PER WEEK PER CALIPER INCH. ADAPT WATERING SCHEDULE BASED ON WEATHER.
   - 2.3. DO NOT ALLOW SOIL COMPACTION OR MATERIAL STOCKPILING WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES. THE TREE ROOTS LIKELY EXTEND UP TO 2X THE DIAMETER OF THE TREE CANOPY.
   - 2.4. ARBORIST SHALL BE PRESENT DURING ANY PAVEMENT DEMOLITION OR EXCAVATION WORK THAT OCCURS WITHIN 10 FEET OF AN EXISTING TREE TO REMAIN. CONTRACTOR SHALL USE A CONCRETE SAW TO CAREFULLY CUT AND REMOVE SIDEWALK/ CURBS WITH HAND TOOLS WITHOUT DAMAGING ROOTS. DO NOT REMOVE PAVEMENT ADJACENT TO TREES WITH LARGE EQUIPMENT.
   - 2.5. TREE ROOTS ARE LIKELY INSIDE THE EXISTING CURB DRAIN (IF ONE EXISTS). CARE MUST BE TAKEN WHEN REMOVING EXISTING CURB DRAIN TO MINIMIZE ROOT DISTURBANCE AND AVOID DE-STABILIZING THE TREE.
   - 2.6. IMMEDIATELY AFTER SIDEWALKS AND SHARED USED PATHS ARE INSTALLED, PERFORM AIR SPADING TO A DEPTH OF 12 INCHES TO REDUCE COMPACTION WITHIN ROOT ZONE, INCREASE OXYGEN FLOW INTO SOIL, IDENTIFY AND MITIGATE GIRDLED ROOTS, AND IDENTIFY/ LOCATE BURIED UTILITIES WITHOUT DISTURBING ROOTS.
   - 2.7. ROOT PRUNING - IDENTIFY AND SELECTIVELY PRUNE GIRDLED ROOTS AT TIME OF AIR SPADING. COVER EXPOSED ROOTS WITH ORGANIC MATERIAL (LEAF COMPOST) TO SOIL TO PROVIDE NUTRIENTS. PAYMENT FOR COMPOST SHALL BE INCIDENTAL TO THIS ITEM.
     - 2.7.1. PERFORM ROOT PRUNING WHERE UNAVOIDABLE EXCAVATION OR TRENCHING OCCURS WITHIN THE ROOT ZONE OF EXISTING TREES DESIGNATED FOR PROTECTION. UTILITIES SHALL BE BORED UNDER OR THROUGH CRITICAL ROOT ZONE WHEN POSSIBLE TO AVOID ROOT ZONE DISTURBANCE.
     - 2.7.2. WHEN EXCAVATION OR CONSTRUCTION WITHIN THE CRITICAL ROOT ZONE OF A TREE IS NECESSARY AND LESS THAN 50% IF THE ROOT SYSTEM WILL BE AFFECTED, ROOT PRUNING CAN OCCUR. IF MORE THAN 50% OF THE ROOT ZONE WILL BE AFFECTED, THEN THE ARBORISTS SHALL DECIDE IF THE TREE'S ROOT PRUNING CAN PROCEED OR IF THE TREE SHALL BE REMOVED.
     - 2.7.3. CUT ROOTS CLEANLY PRIOR TO MECHANICAL EXCAVATION NEAR TREE TO MINIMIZE DAMAGE TO REMAINING ROOT AND REDUCE THE RISK OF CAUSING DISEASE, DECAY, AND INSTABILITY.
     - 2.7.4. AS A TEMPORARY MEASURE, PLACE BURLAP MATERIAL AND/OR SPREAD MULCH OVER EXPOSED ROOTS AFTER CUTS ARE MADE AND BEFORE SOIL IS REPLACED. KEEP THIS MATERIAL DAMP UNTIL BACKFILLED TO PREVENT THE FINE ROOTS FROM DRYING OR DYING.
     - 2.7.5. PROPOSED ROOT CUTS SHOULD BE MARKED IN THE FIELD AND REVIEWED BY THE CITY'S URBAN FORESTER OR AUTHORIZED REPRESENTATIVE AND/OR APPROPRIATE CONSULTANT PRIOR TO TRENCHING, EXCAVATING OR CUTTING TO DETERMINE THE IMPACT ON ANY STRUCTURAL CRITICAL ROOTS AN THE CLOSEST POINT TO TREE THAT SOIL MAY BE DISTURBED.
     - 2.7.6. ARBORIST TO BE ON-SITE TO PERFORM ALL ROOT CUTS. ARBORIST SHALL PHOTOGRAPH AND DOCUMENT ALL ROOT CUTS PRIOR TO BACKFILL.
     - 2.7.7. ROOT PRUNING SHALL OCCUR ALONG OR BEHIND THE LINE OF A PLANNED EXCAVATION AND THEREFORE SHOULD COORDINATE WITH THE TREE PROTECTION FENCING.
     - 2.7.8. ROOT PRUNING CAN BE ACCOMPLISHED WITH CIRCULAR SAWS OF VARYING TYPES AND/OR A ROTARY-TYPE STUMP GRINDER TO A DEPTH OF 18 INCHES OR TO THE MAXIMUM DEPTH OF THE REQUIRED GRADING CUT, WHICHEVER IS LESS. SAW BLADES AND GRINDER TEETH SHOULD BE SHARPENED PRIOR TO USE.
     - 2.7.9. ROOT PRUNING CAN ALSO BE ACCOMPLISHED WITH THE AID OF A SUPERSONIC AIR TOOL AND A TRAINED OPERATOR.
     - 2.7.10. THE EXACT LOCATION AND DEPTH OF ROOT PRUNING SHALL BE DETERMINED BY THE ARBORIST. SPECIFIC EQUIPMENT AND METHODS WILL BE DETERMINED BY THE ARBORIST.
   - 2.8. AFTER ROOT PRUNING IS COMPLETE, COVER ALL EXPOSED ROOTS WITH LEAF COMPOST AND KEEP ROOTS MOIST.
     - 2.8.1. PERFORM CROWN PRUNING AS DIRECTED BY ARBORIST ON A CASE BY CASE BASIS TO PROMOTE TREE HEALTH AND MITIGATE SAFETY HAZARDS. CROWN PRUNING SHALL OCCUR ONLY WHEN TREE IS DORMANT IN LATE FALL/WINTER/EARLY SPRING. DO NOT PRUNE CROWN AT THE SAME TIME AS PERFORMING ROOT PRUNING. LEAVES PROVIDE FOOD TO THE ROOTS DURING A TIME OF STRESS AND CROWN PRUNING WILL HINDER THE TREE'S ABILITY TO RECOVER.

3. POST CONSTRUCTION
   - 3.3. APPLY SOIL CONDITIONER AND FERTILIZER TO EACH TREE AND OTHER CARE AS DIRECTED BY ARBORIST.
   - 3.4. TREES SHALL BE MONITORED AND TREE CARE PERFORMED IN ACCORDANCE WITH ARBORISTS RECOMMENDATIONS FOR A PERIOD OF TWO YEARS FOLLOWING PROJECT COMPLETION.

THIS ITEM WILL BE PAID ON A PER ITEM BASIS.

ITEM 661 - PLANTING, MISC; ROOT BARRIER
THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, DETAILS, AND ODOT 661. PAYMENT OF THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS, EXCAVATION, AND ANY OTHER INCIDENTAL WORK RELATING TO THE COMPLETE IN PLACE INSTALLATION OF THE ROOT BARRIER.

ROOT BARRIER IS A VERTICAL PLASTIC MECHANICAL BARRIER USED TO REDIRECT AND GUIDE TREE ROOTS DOWN AND AWAY FORM HARDSCAPE SURFACES TO PREVENT UPLIFTING OF THE PAVEMENT. ROOT BARRIER ALSO PREVENTS ROOT GIRDLING. ROOT BARRIER IS TYPICALLY INSTALLED AT THE INTERFACE OF TREE PLANTING BEDS AND PAVEMENT EDGES.

APPLICATION:
INSTALL ROOT BARRIER IN THE FOLLOWING LOCATIONS

1. TREE LAWNS - INSTALL CONTINUOUS ROOT BARRIER ALONG THE EDGES OF NEW SIDEWALKS ADJACENT TO TREE LAWN WHERE TREES ARE PRESENT.
2. ROLLED CURB PLANTERS - INSTALL ROOT BARRIER AROUND ENTIRE PERIMETER OF ALL PROPOSED ROLLED CURB PLANTERS.

SPECIFICATION:

1. ROOT BARRIER DEPTH: 12 INCHES
2. COLOR: BLACK
3. MATERIAL POLYPROPYLENE WITH UV INHIBITORS
4. DIMENSIONS: 0.075 INCH MINIMUM WALL THICKNESS BY 12 INCHES DEEP
5. ROOT BARRIER SHOULD CONTAIN
   - 5.1. STIFFENING RIBS TO PREVENT PANEL DEFLECTION OR DEFORMITY
   - 5.2. INTEGRAL MOLDED VERTICAL ROOT DIRECTING RIBS; 0.060" THICKNESS BY $\frac{1}{2}$" DEEP SPACES AT 6" HORIZONTAL SPACING
   - 5.3. HORIZONTAL ANTI-LIFT GROUND LOCK TABS; 0.060" THICKNESS BY 2-1/4" LONG BY $\frac{3}{8}$" WIDE
   - 5.4. ATTACH ADJACENT ROOT BARRIER PANELS PER MANUFACTURER'S RECOMMENDED METHODS.

INSTALLATION:

1. USING AIR SPADE, TRENCH IMMEDIATELY ADJACENT TO HADSCAPE TO THE APPROPRIATE DEPTH FOR SPECIFIED ROOT BARRIER. ENSURE THAT TOP OF ROOT BARRIER IS SET 1 INCH BELOW FINISHED GRADE, SO THAT IT IS NOT VISIBLE.
2. PLACE ROOT BARRIER IN TRENCH, VERTICAL RIBS FACING TOWARD PLANTING AREA AND TREE ROOTS.
3. WHERE POSSIBLE, USE HARDSCAPE AS A GUIDE FOR ROOT BARRIER ALIGNMENT.
4. BACKFILL ADJACENT PLANTING SOIL AGAINST THE ROOT BARRIER TO PROMOTE CLEAN FIT TO HARDSCAPE. FILL TO FINISH GRADE PER PROJECT SPECIFICATION.
5. DISTRIBUTE SOIL EVENLY TO MAINTAIN THE SHAPE OF ROOT BARRIER AND COMPACT PER PROJECT SPECIFICATIONS.

SUBMITTALS

1. PRODUCT DATA: MANUFACTURERS STANDARD LITERATURE DEFINING MATERIALS FOR USE ON THE PROJECT

LIST OF ACCEPTABLE MANUFACTURERS:

BASIS OF DESIGN:
DEEP ROOT GREEN INFRASTRUCTURE, LLC
101 MONTGOMERY STREET, SUITE 2850
SAN FRANCISCO, CA 94104
1-800-458-7668

ALTERNATE MANUFACTURER 1:
GREEN BLUE URBAN
4405 ANDERSON ROAD, KNOXVILLE, TN, 3791
1-866-282-2743

ALTERNATE MANUFACTURER 2:
NDS
851 N HARVARD AVENUE
LINDSAY, CA 93247
1-877-410-7467

OR APPROVED EQUAL.

THIS ITEM WILL BE PAID ON A PER FOOT BASIS.

ITEM 661 - DECIDUOUS TREE, 2" CALIPER, AS PER PLAN
CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS FOR INSTALLATION OF 2" CALIPER TREE PER THE PLANS AND AS PER ITEM 661. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS INCLUDING EXCAVATION, SOIL PREPARATION, PLANING BACKFILL, LEAF COMPOST, FERTILIZER, WEED BARRIER MAT, DEER TRUNK PROTECTION, TREE STAKING, TEMPORARY WATERING BAGS, A 24- MONTH WARRANTY, AND OTHER INCIDENTAL WORK RELATING TO A COMPLETE INSTALLATION OF THE TREE.

ALL NEW TREES SHALL HAVE DEER PROTECTION INSTALLED. SEE SECTION "10 - TRUNK GUARDS".

ITEM 661 - PLANTING MISC. - TREE REPLACEMENT
THE HEALTH OF EXISTING STREET TREES SHALL BE EVALUATED AND MONITORED BY AN ARBORIST PRIOR TO, DURING, AND AFTER CONSTRUCTION UNDER THE FOLLOWING PAY ITEM: ITEM 661 - PLANTING, MISC. - TREE CARE

IF A TREE'S HEALTH IS DETERMINED TO BE UNSATISFACTORY OR PRESENTS A HAZARD TO THE PUBLIC, THEN THE ARBORIST MAY RECOMMEND THAT ADDITIONAL TREE(S) BE REMOVED. ALL SUPPLEMENTAL TREE REMOVALS SHALL BE SUBMITTED IN WRITING TO THE PROJECT ENGINEER AND THE URBAN FORESTER IN THE CITY HAVING JURISDICTION FOR APPROVAL THE FINAL DECISION ON TREE REMOVALS SHALL BE BY THE CITY. IN THE EVENT THAT AN EXISTING TREE IS REMOVED, IT SHALL BE REPLACED BY A NEW TREE UNDER THIS PAY ITEM.

PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS FOR TREE AND STUMP REMOVAL, REPLACEMENT OF TREE PIT SOIL WITH NEW TOPSOIL, AND THE COMPLETE IN PLACE INSTALLATION OF A NEW 2" CAL. DECIDUOUS TREE. TREE PLANTING SHALL COMPLY WITH 661, LANDSCAPE NOTES, AND DETAILS. TREE SPECIES SHALL MATCH THE NEWLY PLANTED TREES ON THE REST OF THE CORRIDOR.

THE PROVISIONS OF THIS PAY ITEM WILL APPLY BUT NOT BE COMPENSABLE IF IT'S DETERMINED THAT THE HEALTH OF THE TREE WAS NEGATIVELY IMPACTED BY THE CONTRACTOR'S MEANS AND METHODS/NEGLECT TO FOLLOW OTHER PROVISIONS FOR TREE CARE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE SUBSUMMARY ON SHEET NO. 193 FOR USE AS DIRECTED BY THE ENGINEER

ITEM 661, PLANTING MISC. - EXISTING TREE REPLACEMENT 15 EACH

ITEM 661 - PERENNIALS, AS PER PLAN
CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR THE INSTALLATION OF THE PERENNIALS PER THE PLANS AND AS PER ITEM 661. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS INCLUDING EXCAVATION, SOIL PREPARATION, PLANTING BACKFILL, LEAF COMPOST, FERTILIZER, WEED BARRIER MAT, TEMPORARY WATERING, A 24-MONTH WARRANTY, AND OTHER INCIDENTAL WORK RELATING TO THE COMPLETE INSTALLATION OF THE PLANT MATERIAL.

PLANT SPECIES AND SIZES SHALL CONFORM TO THE PLANTING SCHEDULE.

TREE PIT PERENNIAL BEDS SHALL BE MULCHED PER SECTION "9 - MULCHING TREES" INCIDENTAL TO THIS PAY ITEM.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT WATERING FOR THE PERENNIALS DURING THE FIRST 24 MONTHS FOLLOWING INSTALLATION.

THIS ITEM WILL BE PAID ON A PER EACH BASIS.

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.
X:\2025\25001 - East 66th Street\08 - Drawings\08.02 - AutoCAD\A000s - Sheet Specs.dwg

STREETSCAPE & LANDSCAPE GENERAL NOTES - CUY EAST 66TH STREET TLCI

DESIGN AGENCY
City Architecture
12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
cityarch.com

DESIGNER MBZ
REVIEWER KP 12/22/25
PROJECT ID 25001
SHEET 179 TOTAL 195

TREE PLANTING, WATERING, STAKING, ESTABLISHMENT

1 PLANTING OPERATIONS

THIS SECTION INCLUDES SPECIFICATIONS FOR SITE PREPARATION AND TREE PLANTING. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, CLEARING, CUTTING, BACKFILLING AND GRADING AS NECESSARY TO BRING THE AREAS TO THE FINISHED GRADE AS REQUIRED FOR THE PROJECT SPECIFIED IN THIS SECTION AND OTHER SECTIONS OF THE SPECIFICATIONS. THE CONTRACTOR SHALL PLANT TREES, STAKE TREES, INSTALL TREE GUARDS, WATER TREES, MULCH TREES AND PRUNE TREES ALL IN ACCORDANCE WITH SPECIFICATIONS.

2 DEPTH OF PLANTING

PRIOR TO PLANTING, LOCATE AND EXPOSE THE ROOT COLLAR/TRUNK FLARE AT THE TOP OF THE ROOT BALL. THE PLANTING HOLE DEPTH SHALL BE EQUAL TO THE DISTANCE BETWEEN THE EXPOSED ROOT FLARE/TRUNK FLARE AND THE BOTTOM OF THE ROOT BALL. DO NOT EXCAVATE ANY DEEPER THAN THE DEPTH NEEDED TO KEEP THE ROOT COLLAR/TRUNK FLARE EQUAL TO THE FINISHED GRADE OF THE SURROUNDING SOIL.

3 TREE LAWN PREPARATION

HOLES MAY BE DUG BY HAND, MINI-EXCAVATOR, STUMP GRINDER, OTHER APPROVED EQUIPMENT AT SPECIFIED LOCATION. AUGERS ARE NOT ACCEPTABLE. WALLS OF THE PLANTING HOLE SHALL BE DUG SO THAT THEY ARE SLOPED. THE PLANTING HOLE SHALL BE AT LEAST TWO TIMES THE DIAMETER OF THE ROOT BALL. FOR EXAMPLE, IF A 2-INCH CALIPER TREE HAS A MINIMUM ROOT BALL DIAMETER OF 24 INCHES, THE TOP DIAMETER OF THE PLANTING HOLE SHALL BE 48 INCHES.

THE BOTTOM OF THE HOLE SHALL BE DEEP ENOUGH TO HAVE THE ROOT FLARE/TRUNK FLARE LEVEL WITH THE SURROUNDING SOIL GRADE. THIS IS ACCOMPLISHED BY FIRST LOCATING THE ROOT FLARE/TRUNK FLARE. EXPOSE THE ROOT FLARE/TRUNK FLARE PRIOR TO PLACING THE B&B TREE IN THE PLANTING HOLE. DOING SO ALLOWS THE CONTRACTOR TO MEASURE PLANTING HOLE DEPTH. THE PLANTING HOLE DEPTH SHALL BE EQUAL TO THE DISTANCE BETWEEN THE ROOT FLARE/TRUNK FLARE AND THE BOTTOM OF THE ROOT BALL.

THE ROOT BALL SHALL SIT ON UNDISTURBED SUBSOIL. HOLES SHOULD BE EXCAVATED ONLY ON THE DAY THE TREE IS PLANTED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING OPEN HOLES ARE PROTECTED FROM PEDESTRIAN TRAFFIC UNTIL PLANTED.

4 BACKFILLING TREE LAWN AREAS

TREE LAWN PLANTING HOLES SHALL BE BACKFILLED WITH THE EXISTING, EXCAVATED SOIL. ANY SOIL AMENDMENTS SHALL BE MIXED IN PRIOR TO FILLING THE HOLE.

5 SURPLUS EXCAVATION

ALL EXCESS MATERIALS, ROCKS, AND DEBRIS MUST BE STORED IN CONTAINERS AND DISPOSED OF OFF-SITE THROUGHOUT THE PROJECT AT THE CONTRACTOR'S EXPENSE.

6 PLANTING

AFTER USING THE ROOT COLLAR/TRUNK FLARE TO DETERMINE THE DEPTH OF THE PLANTING HOLE (SECTION 3 AND 6), DIG THE PLANTING HOLE TWO TIMES WIDER THAN THE DIAMETER OF THE TOP OF THE ROOT BALL.

LIFT TREES FROM THE BOTTOM OF THE ROOT BALLS OR WITH BELTS OR LIFTING HARNESSES OF SUFFICIENT WIDTH SO AS NOT TO DAMAGE THE ROOT BALLS OR TRUNK. ALL PLANTS SHALL BE HANDLED BY THE ROOT BALL, NOT BY THE BRANCHES OR TRUNK TO AVOID DAMAGING THE ROOT BALL AND TRUNK.

ALL NURSERY STAKES, TAGS, WIRE, CORDAGE AND TWINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ROPE AND TWINE SHALL BE REMOVED FROM THE TRUNK.

COMPLETELY REMOVE THE BURLAP FROM THE SIDES OF THE ROOT BALL THEN REMOVE THE BURLAP FROM THE PLANTING HOLE.

REMOVE THE SIDES OF THE WIRE BASKET FROM THE PLANTING HOLE BEFORE BACKFILLING THE PLANTING HOLE. THE ONLY PORTION OF THE WIRE BASKET REMAINING IN THE HOLE SHOULD BE UNDERNEATH THE ROOT BALL.

PLANTING IS NOT PERMITTED WHEN THE SOIL IS SATURATED OR FROZEN.

7 WATERING TREES

THOROUGHLY WATER ALL TREES DURING PLANTING WHEN BACKFILLING THE PLANTING HOLE (SECTION 4). IN ADDITION, THE CONTRACTOR SHALL APPLY FIVE GALLONS OF WATER PER INCH IN CALIPER PLUS AN ADDITIONAL FIVE GALLONS PER TREE. WATERING SHALL TAKE PLACE THE DAY OF PLANTING. APPLY WATER USING VERY LOW PRESSURE TO AVOID RUNOFF. WHEN PLANTED, WATERED AND FULLY SETTLED, THE TREE SHALL BE VERTICAL.

TREES SHALL BE WATERED WEEKLY THROUGHOUT THE GROWING SEASON. FOR TREES PLANTED IN THE FALL, TREES SHALL BE WATERED UNTIL LEAF DROP AND RESUME THE FOLLOWING SPRING. FOR TREES PLANTED IN THE SPRING, TREES SHALL BE WATERED WEEKLY UNTIL LEAF DROP THE FOLLOWING FALL. THE CONTRACTOR MAY NEED TO INCREASE OR REDUCE THE FREQUENCY OF WATERING BASED ON WEATHER CONDITIONS, RESULTING SOIL WATER CONTENT OR OTHER FACTORS.

8- STAKING

STAKES SHALL BE USED TO SECURE NEWLY PLANTED TREES. STAKING SHOULD CONSIST OF TWO (2) TWO-INCH WOOD STAKES. INSTALL STAKES OUTSIDE OF PLANTING HOLE IN UNDISTURBED SOIL. TREES SHOULD BE SECURED TO THE INSTALLED STAKES USING ARBOR TIE ™ OR OTHER APPROVED FLAT WOVEN POLYPROPYLENE MATERIAL. DO NOT USE A CINCH KNOT OR SIMILAR TO AFFIX THE TIE TO THE TRUNK. KNOTS ARE PERMITTED ON STAKES, NOT THE TRUNK OF THE TREE.

STAKES SHALL BE INSTALLED AT THE TIME OF PLANTING, AND SHALL BE REMOVED BY THE CONTRACTOR AT THE END OF THE GUARANTEE PERIOD. ANY TREE THAT IS NOT VERTICAL AT THE END OF THIS TIME SHALL BE REJECTED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.

9 MULCHING TREES

MULCHING MATERIAL SHALL BE ROUGH HARDWOOD CHIPS CREATED BY TREE CARE CHIPPING OPERATIONS OR EQUIVALENT AS APPROVED BY URBAN FORESTRY.

MULCH SHALL BE UNIFORMLY APPLIED AROUND TREES WITHIN 48 HOURS AFTER PLANTING.

FOR TREE LAWN PLANTINGS, MULCH SHALL BE APPLIED TO A DEPTH OF THREE (3) INCHES AND TO A RADIUS (WITH THE TREE BEING THE CENTER OF THE CIRCLE) OF TWO (2) FEET. FOR TREE PIT PLANTINGS, MULCH SHALL BE APPLIED TO A DEPTH OF THREE INCHES AND COVER THE ENTIRE SURFACE AREA OF THE TREE PIT.

MULCH SHALL NOT COME WITHIN THREE (3) INCHES OF THE TRUNK OF THE TREE WHEN MULCHING IS COMPLETE.

10 TRUNK GUARDS

NEWLY PLANTED TREES SHALL HAVE TRUNKS PROTECTED FROM DAMAGE. TRUNK GUARDS SHOULD BE RIGID, PLASTIC MESH TO ALLOW FOR AIR AND LIGHT PENETRATION. THE CONTRACTOR SHALL MAINTAIN THE TRUNK GUARDS THROUGHOUT THE GUARANTEE PERIOD. ANY TRUNK GUARDS DAMAGED, SHALL BE REPLACED AT NO COST TO THE CITY. TRUNK GUARDS DISPLACED BY MOWERS, STRING TRIMMERS, ETC., SHALL BE RESET AND STABILIZED THROUGHOUT THE GUARANTEE PERIOD. THE TRUNK GUARD PRODUCT REQUIRES PRIOR APPROVAL OF URBAN FORESTRY BEFORE INSTALLATION. THE CITY WILL BE RESPONSIBLE FOR THE REMOVAL OF TRUNK GUARDS.

TREE GUARD HEIGHT SHALL BE BETWEEN FOUR AND FIVE FEET TALL. INSTALL THE BOTTOM OF THE GUARD AT LEAST 4 INCHES INTO THE SOIL TO MAKE SURE IT DOESN'T GET KNOCKED OFF THE TREE. THE TRUNK GUARD, WHEN INSTALLED, SHALL BE STABLE AND PROPERLY SECURED.

11 ROOT PRUNING

GIRDLING, CIRCLING, BROKEN OR DAMAGED ROOTS SHOULD BE PRUNED OFF CLEANLY, REMOVING ONLY TO OFFENDING PORTION. GIRDLING OR CIRCLING ROOTS WITH A DIAMETER OF ½ INCH OR SMALLER MAY BE ABLE TO BE PRUNED OFF IF THEY CANNOT BE REPOSITIONED AT THE TIME OF PLANTING. GIRDLING OR CIRCLING ROOTS LARGER THAN ½ INCH IN DIAMETER THAT CANNOT BE REPOSITIONED, SHALL RESULT IN A REJECTION OF THE TREE.

12 BRANCH PRUNING

TOP PRUNING OF BROKEN OR CROSSING BRANCHES SHALL BE DONE ACCORDING TO RECOGNIZED ARBORICULTURAL STANDARDS AS SET FORTH BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A300-PART 1- 2017. BROKEN CENTRAL LEADERS SHALL RESULT IN A REJECTION OF THE TREE.

13 CLEAN-UP

UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE FROM THE SITE: CORDAGE, WRAPPING, NURSERY STAKES AND EXTRANEOUS MATERIALS, EXCEPT THOSE NECESSARY FOR MAINTENANCE.

14 TREE AND SITE MAINTENANCE

MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH TREE IS PLANTED AND CONTINUE UNTIL THE GUARANTEE PERIOD ENDS. THE GUARANTEE PERIOD BEGINS ON THE DAY URBAN FORESTRY OR HIS/HER DESIGNEE INSPECTS THE TREE AND ENDS TWENTY-FOUR (24) MONTHS THEREAFTER.

PLANTING AREAS SHALL BE MAINTAINED DURING THE LIFE OF CONTRACT. MAINTENANCE SHALL CONSIST OF WATERING, WEEDING, MULCHING, REPAIRING STAKES, REPAIRING TRUNK GUARDS, AND RESETTING TREES TO UPRIGHT POSITIONS.

PLANTING AREAS AND TREES SHALL BE PROTECTED AT ALL TIMES AGAINST DAMAGE OF ALL KINDS FOR THE DURATION OF THE MAINTENANCE PERIOD. IF A TREE BECOMES DAMAGED, INJURED, OR VANDALIZED, IT SHALL BE REPLACED ONE TIME AS DIRECTED BY URBAN FORESTRY AT NO ADDITIONAL COST TO THE CITY.

WATERING SHALL TAKE PLACE THROUGHOUT THE GROWING SEASON IN THE GUARANTEE PERIOD. THE GROWING SEASON IS DEFINED AS STARTING MAY 1 THROUGH LEAF DROP IN THE FALL. A MINIMUM OF 20 GALLONS SHALL BE APPLIED AT WEEKLY INTERVALS. SEE SECTION 7 SPECIFICATION. WATER SHALL NOT BE APPLIED IN A MANNER THAT DAMAGES PLANTS, STAKES OR ADJACENT AREAS.

DAMAGES RESULTING FROM THESE OPERATIONS SHALL BE IMMEDIATELY REPAIRED AT THE EXPENSE OF THE CONTRACTOR.

15 TRANSPORTATION TO RECEIVING SITE

TREES TRANSPORTED IN AN OPEN VEHICLE MUST HAVE PROTECTIVE COVERING OVER THEM. LARGER TREES: BALLED AND BURLAPPED OR MACHINE MOVED, THAT HAVE BROKEN DORMANCY MUST BE WRAPPED TO PREVENT FOLIAGE FROM DRYING OUT.

TREES TRANSPORTED IN CLOSED VEHICLES MUST HAVE ADEQUATE VENTILATION AND/OR REFRIGERATION TO PREVENT OVERHEATING DAMAGE OR SWEATING, WHICH PREMATURELY BREAKS DORMANCY.

DECIDUOUS TREES MUST ARRIVE IN A DORMANT CONDITION UNLESS SPECIFIED OTHERWISE. (EXAMPLE - IF EXTENDED PLANTING SEASON IS APPROVED, CONTAINER GROWN OR BALLED AND BURLAPPED TREES, WHICH HAVE BROKEN DORMANCY, MAY BE PLANTED).

16 DELIVERY

IF ALL PLANT STOCK DOCUMENTATION IS ACCEPTABLE, URBAN FORESTRY SHALL EXAMINE THE PLANT STOCK FOR PROPER STORAGE, TRANSPORT, AND HANDLING IN THE TRUCK BEFORE IT IS UNLOADED. PLANT STOCK MUST ARRIVE IN GOOD CONDITION. ALTHOUGH A CONTRACTOR MAY BE CAPABLE OF BRINGING UNHEALTHY, UNDERSIZED, POORLY FORMED, OR OTHERWISE SUBSTANDARD PLANTS INTO COMPLIANCE BY THE END OF THE GUARANTEE PERIOD, THESE PLANTS MUST BE REJECTED.

17 TEMPORARY STORAGE

TREES HELD, SHIPPED, AND STORED FOR INSTALLATION, UNTIL PLANTED, MUST BE WATERED AND PROTECTED SO THE ROOTS ARE MOIST AT ALL TIMES. TREES ARE PERISHABLE AND AN ACCEPTABLE TREE CAN BECOME UNACCEPTABLE IN A SHORT TIME THROUGH IMPROPER CARE. CONTRACTOR ASSUMES ALL RISK AND EXPENSE OF TEMPORARY STORAGE.

18 PLANTING SEASON

THE PLANTING SEASONS ARE WEATHER DEPENDENT. GENERALLY, FALL PLANTING SEASON RUNS FROM OCTOBER 1ST, TO DECEMBER 31ST. THE PLANTING SEASON FOR SPRING BEGINS MARCH 15TH, AND ENDS BY MAY 31ST. NO TREE PLANTING SHALL TAKE PLACE IF THE SOIL IS FROZEN OR SATURATED.

19 GUARANTEE

THE CONTRACTOR GUARANTEES THAT ALL TREES SHALL REMAIN ALIVE AND HEALTHY UNTIL THE END OF A TWO (2) YEAR GUARANTEE PERIOD.

CONTRACTOR REPLACES, AS SPECIFIED, AND AT HIS/HER EXPENSE, ANY DEAD TREES AND ANY TREES THAT IN THE OPINION OF URBAN FORESTRY HAVE BECOME UNHEALTHY OR UNSIGHTLY OR HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES, IMPROPER MAINTENANCE, OR ANY OTHER CAUSE DUE TO CONTRACTOR'S NEGLIGENCE. CONTRACTOR WILL BEAR THE ENTIRE COST OF ALL CORRECTIVE ACTIONS. ALL CORRECTIVE ACTIONS AND REPLACEMENTS WILL BE PERFORMED WITHIN A TIMEFRAME DETERMINED BY URBAN FORESTRY.

THE PERIOD OF GUARANTEE SHALL BEGIN ON THE DATE WHEN URBAN FORESTRY PERFORMS THE INITIAL INSPECTION (TO APPROVE 90% PAYMENT) AND SHALL CONTINUE FOR A PERIOD OF TWENTY-FOUR (24) MONTHS THEREAFTER. IF AT ANY TIME DURING SAID PERIOD OF GUARANTEE, ANY DEFECTS OR OMISSIONS BECOME APPARENT IN THE WORK, OR IF IT BECOMES APPARENT THAT ANY OF THE WORK IS NOT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, OR IF ANY WORK CONSTRUCTED UNDER THIS CONTRACT REQUIRES REPAIRS DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP, OR FOR ANY OTHER CAUSE WHICH MAY BE ATTRIBUTED TO THE WORK WHICH IS BEING DONE OR HAS BEEN DONE BY THE CONTRACTOR, ALL AS DETERMINED BY URBAN FORESTRY, WHO WILL NOTIFY THE CONTRACTOR TO RECTIFY SUCH DEFECTS OR OMISSIONS, OR TO MAKE THE REPAIRS SO REQUIRED.

IF THE CONTRACTOR FAILS TO BEGIN TO RECTIFY SUCH DEFECTS OR OMISSIONS AFTER PRELIMINARY ACCEPTANCE, OR IF SUCH RECTIFICATION OR REPAIR WORK IS NOT MADE IN A MANNER SATISFACTORY, THE CONTRACTOR SHALL NOT BE PAID FOR THAT TREE.

IF IT IS NECESSARY TO REMOVE ANY PART OF THE WORK TO RECTIFY DEFECTS OR OMISSIONS OR TO REPAIR DEFECTS IN MATERIALS OR WORKMANSHIP, OR IF ANY PART OF THE WORK BECOMES DAMAGED DUE TO SUCH RECTIFICATION OR REPAIRING, ALL SUCH SHALL BE REPLACED OR REPAIRED, ALL TO THE SATISFACTION OF THE CITY. THE GUARANTEE PROVISIONS SHALL ALSO APPLY TO ALL RECTIFIED OR REPAIRED WORK.

CLAIMS BY THE CONTRACTOR THAT THE OWNER'S MAINTENANCE PRACTICES OR LACK OF MAINTENANCE RESULTS IN DEAD OR DYING TREES WILL NOT BE CONSIDERED IF SUCH CLAIMS HAVE NOT BEEN DOCUMENTED BY THE CONTRACTOR DURING THE GUARANTEE PERIOD.

20 REPLACEMENT OF TREE MATERIAL

ALL TREES THAT ARE DEAD OR NOT FOUND TO BE IN VIGOROUS CONDITION SHALL BE REPLACED BY THE CONTRACTOR AT HIS/HER EXPENSE WITH TREE MATERIAL OF THE SPECIFIED SPECIES OR VARIETY, SIZE AND QUALITY MEETING THE SPECIFICATIONS.

NURSERY STOCK

21 B&B TREES

ALL TREES SHALL MEET THE ANSI Z60.1-2014 AMERICAN STANDARD FOR NURSERY STOCK.

ALL TREES SHOULD BE HEALTHY, VIGOROUS AND WELL-GROWN, SHOWING EVIDENCE OF PROPER ROOT AND CANOPY PRUNING, SINGLE-TRUNK, WITH BRANCHING HEIGHT NOT LESS THAN 1/3 OR MORE THAN 1/2 OF THE HEIGHT OF THE TREE. NO TREE SHOULD HAVE A BRANCH GREATER THAN OR EQUAL TO 1/3 THE DIAMETER OF THE TRUNK. ALL TREES SHALL BE BETWEEN 1¾ AND 2½ INCH CALIPER UNLESS OTHERWISE APPROVED.

ALL B&B TREES SHALL HAVE BALL SHAPE AND SIZE CONFORMING TO ANSI Z60.1-2014 STANDARDS. ROOT FLARE/TRUNK FLARE WILL BE EASILY VISIBLE ON ROOT BALLS. ROOT BALLS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN, HEAT, FREEZING, AND DRYING.

TREES LISTED (B&B) BALLED AND BURLAP, SHALL BE DELIVERED WITH FIRM, COMPACT, NATURAL BALLS OF EARTH WRAPPED AND TIED IN BURLAP. TREES WITH FRACTURED ROOT BALLS OR MALFORMED ROOT BALLS WILL BE REJECTED.

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

X:\2025\25001 - East 66th Street\08 - Drawings\08.02 - AutoCAD\A000s - Sheet Specs.dwg

STREETSCAPE & LANDSCAPE GENERAL NOTES - CUY EAST 66TH STREET TLCI

DESIGN AGENCY

City Architecture
12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
cityarch.com

DESIGNER MBZ

REVIEWER KP 12/22/25

PROJECT ID 25001

SHEET 180 TOTAL 195

22 DOCUMENTATION OF STOCK SOURCE
IN ACCORDANCE WITH THE U.S.D.A. HARDINESS ZONE MAP, PLANTING STOCK WILL BE ACCEPTED WHEN GROWN FOR A MINIMUM OF 2 YEARS ON STATE INSPECTED GROWING RANGES WITHIN DESIGNATED PLANT HARDINESS ZONES 2, 3, 4, 5 AND 6 THAT THE SEED SOURCE, ROOT STOCK AND/OR GRAFTED STOCK IS FROM WITHIN U.S.D.A. HARDINESS ZONES 2, 3, 4 OR 5. ANY STOCK THAT IS GROWN OUTSIDE THESE ZONES, MUST INCLUDE PROPER DOCUMENTATION THAT THE SEED SOURCE, ROOTSTOCK AND/OR GRAFTED STOCK IS FROM U.S.D.A. HARDINESS ZONES 2, 3, 4 OR 5. THE CITY OF CLEVELAND URBAN FORESTRY SECTION RESERVES THE RIGHT TO MAKE FINAL APPROVAL OF PLANTING STOCK, WHERE VERIFICATION OF HARDINESS TO ZONES 2, 3, 4, AND 5 IS IN QUESTION.

23 INSECT AND TREE DISEASE
FOR THE CITY OF CLEVELAND TO CONSIDER B&B STOCK FROM NURSERIES THAT RESIDE IN COUNTIES INFESTED BY EMERALD ASH BORER, ASIAN LONGHORNED BEETLE, HEMLOCK WOOLY ADELGID, GYPSY MOTH, SPOTTED LANTERNFLY, OR WALNUT TWIG BEETLE, THE BIDDER MUST PROVIDE STATE OF ORIGIN DOCUMENTATION AND EITHER A STATE PHYTOSANITARY CERTIFICATE OR A CURRENT NURSERY STOCK CERTIFICATE WITH AN ADDITIONAL DECLARATION OR EQUIVALENT DOCUMENTATION ATTESTING TO COMPLIANCE WITH THIS HARMONIZATION PLAN.

A COPY OF CURRENT NURSERY CERTIFICATES, WHICH LISTS REGISTRATION NUMBER AND EXPIRATION DATE, WILL BE REQUIRED TO BE SUBMITTED TO URBAN FORESTRY PRIOR TO DELIVERY OF NURSERY STOCK.

24 LICENSED NURSERY GROWN
THE VENDOR AGREES TO SOURCE TREES UNDER THIS CONTRACT FROM A LICENSED NURSERY. LICENSED NURSERIES ARE BUSINESSES WHICH PRODUCE & SELL WINTER-HARDY TREES, SHRUBS, PERENNIALS OR OTHER NURSERY STOCK. THESE DIFFER FROM NURSERY STOCK DEALERS AS NURSERIES ARE RESPONSIBLE FOR THE PRODUCTION OF THE NURSERY STOCK. NURSERY STOCK PRODUCED BY LICENSED NURSERIES ARE INSPECTED BY PUBLIC OFFICIALS TO PREVENT THE SPREAD OF PESTS AND DISEASES.

25 DELIVERY INSPECTIONS
TREES WILL BE INSPECTED UPON DELIVERY TO THE DESIGNATED RECEIVING SITE AND THE CITY OF CLEVELAND URBAN FORESTRY SECTION RESERVES THE RIGHT TO REJECT THOSE WHICH DO NOT MEET THE (ANSI Z60.1-2014) STANDARDS, THAT HAVE DRY ROOTS, BROKEN TOPS, POOR BRANCH STRUCTURE, OR HAVE BEEN OTHERWISE DAMAGED DURING SHIPMENT.

ALL B&B PLANTING STOCK DELIVERED TO THE DESIGNATED RECEIVING SITE, EVEN IF IT IS UNLOADED FROM THE DELIVERY TRUCK, WILL NOT BE CONSIDERED ACCEPTED BY THE CITY OF CLEVELAND UNTIL IT HAS BEEN THOROUGHLY INSPECTED AND APPROVED BY THE CITY OF CLEVELAND URBAN FORESTER OR REPRESENTATIVE.

ALL B&B TREES SHALL HAVE SOLID, COMPACT SOIL BALLS PROPERLY DUG, BALLED AND BURLAPPED AND SHALL BE PLACED IN THE PROPER SIZED WIRE BASKET. ALL ROPES, TARPS AND/OR OTHER EQUIPMENT USED TO SECURE THE TREES WHILE IN TRANSIT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETRIEVE AT HIS/HER EXPENSE.

DOUBLE BALLED AND BURLAPPED OR PROCESSED BALLED TREES WILL NOT BE ACCEPTED. THE CITY OF CLEVELAND URBAN FORESTRY SECTION ALSO RESERVES THE RIGHT TO BREAK OPEN ONE OR TWO SOIL BALLS ON B&B TREES WHEN ACCEPTANCE OF A TREE SHIPMENT IS IN QUESTION. THIS SHALL BE AT THE CONTRACTOR'S EXPENSE.

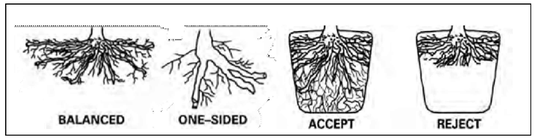
26 PLANT STOCK INSPECTION
IF TRANSPORT AND HANDLING OF PLANT STOCK ARE ACCEPTABLE, URBAN FORESTRY SHALL INSPECT PLANTS FOR COMPLIANCE AND ACCEPTANCE EITHER IN THE DELIVERY TRUCK OR AS THEY ARE UNLOADED. ACCEPT ONLY PLANTS SPECIFIED IN THE PLAN OR PRE- APPROVED SUBSTITUTIONS THAT MEET THE HEALTH AND VIGOR CRITERIA FOR ACCEPTANCE.

27 PLANT STOCK LABELS
URBAN FORESTRY SHALL REJECT PLANT STOCK WITHOUT IDENTIFICATION LABELS ON ALL INDIVIDUALLY SHIPPED PLANTS AND ON ALL BUNDLES, BALES, FLATS, OR BOXES OF PLANTS. PLANTS ARE LABELED BY EITHER A COMMON OR BOTANICAL NAME (OR SOMETIMES BOTH), SIZE, AND QUANTITY CONTAINED IN THE BALE, FLAT, BOX, ETC.

28 ROOT BALL INSPECTION
URBAN FORESTRY SHALL INSPECT ROOT BALLS TO ENSURE NO ROOT BALLS ARE BROKEN OR LOOSE. TEST BY PULLING ON THE STEM OR CROWN OF THE BALL. IF THE STEM OR CROWN MOVES AND THE BALL DOES NOT, THE BALL IS BROKEN. A BROKEN ROOT BALL INDICATES TORN FINE WOODY AND FIBROUS ABSORBING ROOTS WHICH ARE NECESSARY FOR PROPER WATER AND NUTRIENT UPTAKE. BROKEN ROOT BALLS WILL BE REJECTED.

29 INSPECTING ROOTS
URBAN FORESTRY SHALL REJECT PLANTS WITH UNDERSIZED, INSUFFICIENT, UNBALANCED, DAMAGED, OR IMPROPERLY STORED, TRANSPORTED OR HANDLED ROOT SYSTEMS. DYSFUNCTIONAL ROOT SYSTEMS RESULT IN PLANTS THAT ARE PRONE TO BEING TIPPED OR BLOWN OVER AND HAVE RESTRICTED UPTAKE OF MOISTURE AND NUTRIENTS.

URBAN FORESTRY SHALL REJECT PLANTS WITH ENCIRCLING ROOTS THAT CANNOT BE PROPERLY REPOSITIONED DURING INSTALLATION. STEM ENCIRCLING ROOTS OVER TIME MAY RESULT IN STEM-GIRDLING ROOTS THAT CAUSE LACK OF VIGOR, UNEVEN GROWTH, AND FAILURE DURING HIGH WINDS OR DECLINE AS NUTRIENT UPTAKE IS CUT OFF.



30 INSPECTING TOP GROWTH
TREES SHALL BE REJECTED IF A CENTRAL LEADER IS ABSENT OR DAMAGED; OR IF A CENTRAL LEADER CANNOT BE TRAINED AFTER CUTTING BACK COMPETING MULTIPLE LEADERS. SHOOTS DECIDUOUS TREES HAVE BUD SCALE SCARS MARKING NODES CREATED BY THE TERMINAL BUD. TYPICALLY, IN NORTHERN CLIMATES, SPACES BETWEEN (INTERNODE) EACH BUD SCALE SCAR OR BRANCH WHORL (NODE) INDICATES ONE YEAR'S GROWTH. IN A YEAR UNDER MOISTURE AND TEMPERATURE CONDITIONS WHICH ARE VERY FAVORABLE FOR GROWTH, PLANTS WHICH HAVE A TENDENCY TO EXHIBIT "FREE GROWTH" (PAPER BIRCH, POPLAR, APPLE, GINKGO, SEVERAL TYPES OF MAPLE & LARCH) MAY PUT ON MORE THAN ONE FLUSH OF NEW SHOOT GROWTH. URBAN FORESTRY EXPECTS AT LEAST 4 INCHES OF SHOOT GROWTH FOR PLANTS THAT HAVE RECEIVED GOOD NURSERY CARE. FOR FAST GROWING TREES SUCH AS POPLAR, THERE MAY BE 8-INCHES OR MORE OF GROWTH. SHORT SPACES BETWEEN NODES (BUD SCALE SCARS/WHORLS) INDICATE YEARS WHEN THE PLANT WAS STRESSED. SHORT OR STUNTED NEEDLES OR SMALLER LEAVES ALSO INDICATE STRESS. URBAN FORESTRY SHALL REJECT PLANTS WITH SHOOTS THAT ARE LIMP OR WILTED.

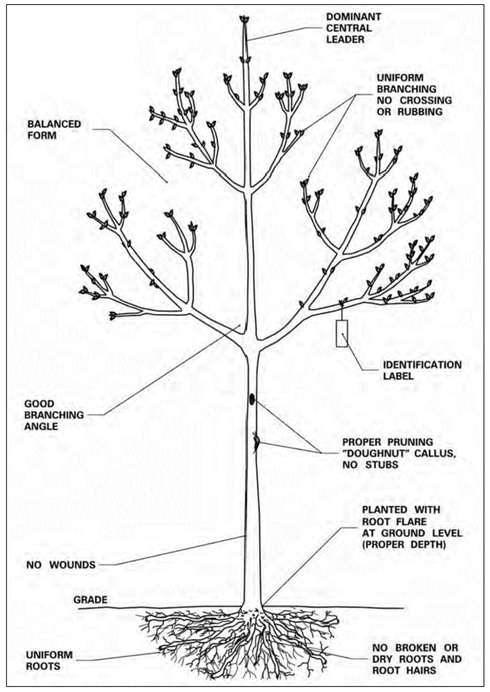
BUDS
URBAN FORESTRY SHALL CHECK BUD VITALITY ON DECIDUOUS TREES BY SPLITTING OPEN ONE OR TWO BUDS. LOOK FOR GREEN TISSUE, WHICH ARE THE UNOPENED LEAVES AND/OR FLOWERS. PLANTS WITH SHRIVELED, DRIED OUT, OR DEAD BUDS SHALL BE REJECTED. DEAD BUDS MAY FALL OFF WHEN TOUCHED, BRUSHED, OR SPLIT. URBAN FORESTRY SHALL REJECT PLANTS WITH NEW BUDS THAT ARE LIMP OR WILTED.

31 INSPECTING FOR WOUNDS
EXAMINE THE TRUNK, STEM, AND BRANCHES FOR WOUNDS OR BRUISES. THESE CAN PROVIDE AN AVENUE FOR DISEASES AND INSECTS TO ENTER AND MAY INCREASE THE CHANCE OF SUNSCALD AND FROST CRACK FORMATION. WOUNDS ARE IDENTIFIED BY DISCOLORATION OR SCRAPING OF THE BARK. TREES ARE SOMETIMES DELIVERED WITH A PROTECTIVE SLEEVE OF CARDBOARD OR PLASTIC AROUND THE TRUNK AND WITH THE BRANCHES TIED TOGETHER. THE SLEEVES AND TIED BRANCHES LIMIT WOUNDS TO THE TRUNK AND BRANCHES DURING TRANSPORT BUT THEY CAN ALSO HIDE EXISTING WOUNDS. CUT THE TWINE AND REMOVE THE SLEEVE OR SLIDE IT UP TO EXAMINE PLANTS FOR DAMAGE.

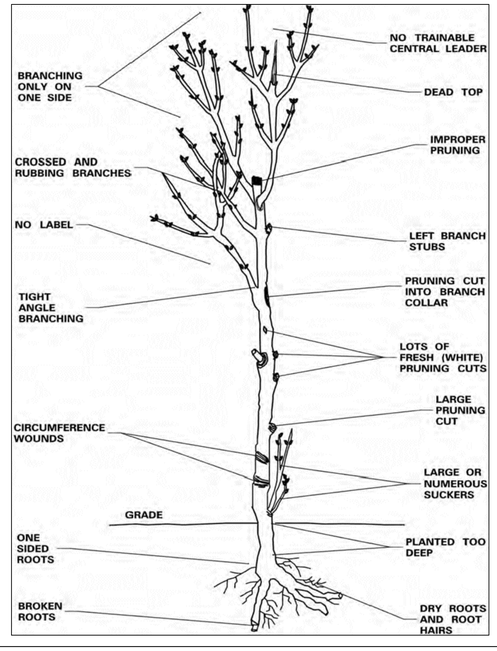
URBAN FORESTRY SHALL REJECT PLANTS WITH CANKERS; LOCALIZED SUNKEN, RAISED AND DISCOLORED DEAD AREAS. CANKERS USUALLY FORM AROUND A DEAD BUD, BRANCH, STUB, OR A STEM WOUND. URBAN FORESTRY SHALL REJECT PLANTS WITH FROST CRACKS. FROST CRACKS ARE VERTICAL CRACKS IN THE BARK WHICH OCCUR IN WINTER. PLANTS WITH CRACKS OR WOUNDS CAUSED BY WEED WHIPS OR MOWERS IN THE NURSERY SHALL BE REJECTED.

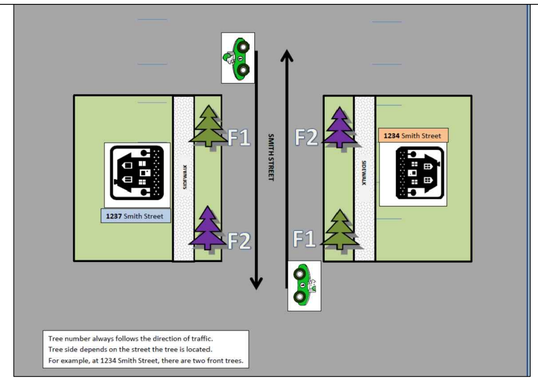
BALLED & BURLAP PLANT STOCK WITH MORE THAN 4 INCHES OF SOIL DEPTH ABOVE THE ROOT FLARE/TRUNK FLARE SHALL BE REJECTED. EXCESS SOIL ABOVE THE ROOT FLARE/TRUNK FLARE CAN IN TIME RESULT IN STEM ENCIRCLING ROOTS, WHICH CAN THEN LEAD TO STEM GIRDLING ROOTS. PLANT STOCK MAY BE ACCEPTED PROVIDED THE EXCESS SOIL IS LESS THAN 4 INCHES AND CAN BE REMOVED WITHOUT DAMAGING THE ROOT SYSTEM OF THE PLANT.

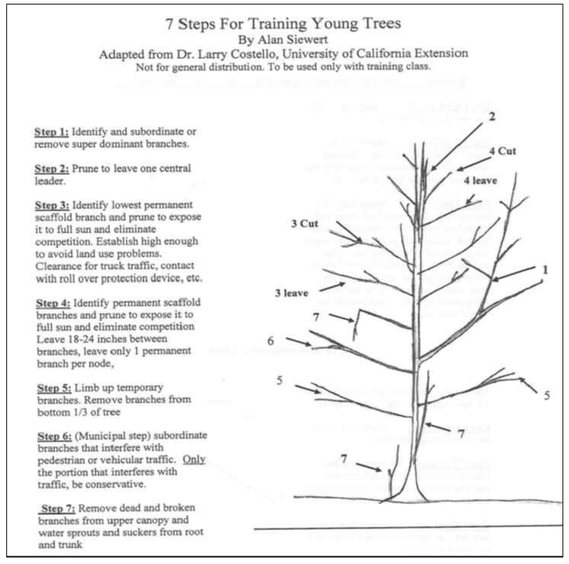
ONE GOOD TREE = ACCEPT



ONE BAD TREE = REJECT






7 Steps For Training Young Trees
By Alan Siewert
Adapted from Dr. Larry Costello, University of California Extension
Not for general distribution. To be used only with training class.

Step 1: Identify and subordinate or remove super dominant branches.

Step 2: Prune to leave one central leader.

Step 3: Identify lowest permanent scaffold branch and prune to expose it to full sun and eliminate competition. Establish high enough to avoid land use problems. Clearance for truck traffic, contact with roll over protection device, etc.

Step 4: Identify permanent scaffold branches and prune to expose it to full sun and eliminate competition Leave 18-24 inches between branches, leave only 1 permanent branch per node,

Step 5: Limb up temporary branches. Remove branches from bottom 1/3 of tree

Step 6: (Municipal step) subordinate branches that interfere with pedestrian or vehicular traffic. Only the portion that interferes with traffic, be conservative.

Step 7: Remove dead and broken branches from upper canopy and water sprouts and suckers from root and trunk

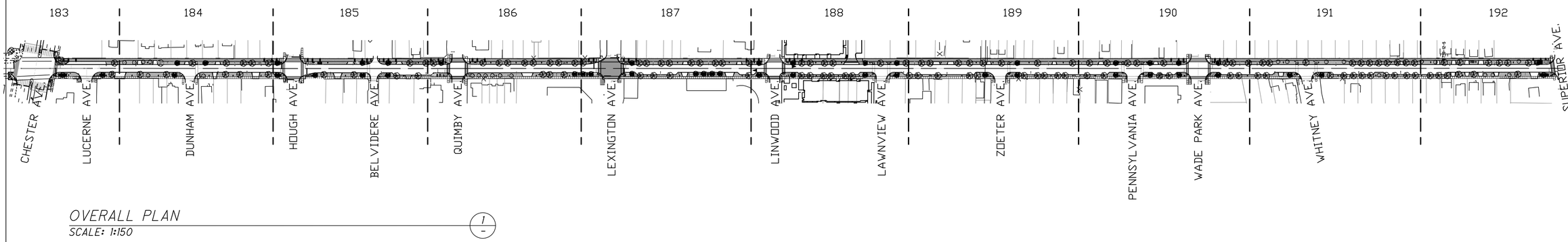
STREETSCAPE & LANDSCAPE GENERAL NOTES - CUY EAST 66TH STREET TLCI

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

X:\2025\25001 – East 66th Street\08 – Drawings\08.02 – AutoCAD\A000s – Sheet Specs.dwg

DESIGN AGENCY
City Architecture
12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
cityarch.com

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REVIEWER KP 12/22/25
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SHEET 181 TOTAL 195



OVERALL PLAN
SCALE: 1:150

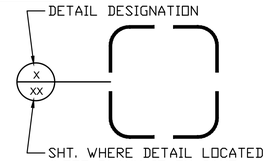
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NOTES (FOR ALL SHEETS)

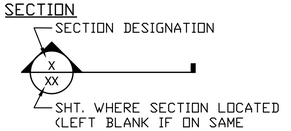
1. CONTACT THE OHIO UTILITIES PROTECTION SERVICE PRIOR TO COMMENCEMENT OF ANY DEMOLITION OR CONSTRUCTION: 811 OR 1-800-362-2764. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO ONSET OF WORK AND COORDINATE ACCORDINGLY. CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES LOCATED ON SITE WHETHER SHOWN OR NOT. IN THE CASE OF A CONFLICT, NOTIFY ARCHITECT. LOCATION OF UNDERGROUND UTILITIES ON DRAWINGS DO NOT PURPORT TO BE 100% ACCURATE AND/OR COMPLETE AND SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY SUPPORT PRECAUTIONS AND/OR DAMAGES INCURRED.
2. CONTRACTOR TO VERIFY UTILITY ROUTINGS AND COORDINATE THIS WORK WITH EXISTING UTILITY LOCATIONS. WORK WITH ARCHITECT IF PLANT MATERIAL ADJUSTMENTS ARE NEEDED DUE TO CONFLICTS WITH UTILITIES.
3. PROTECT EXISTING WORK TO REMAIN INCLUDING SIDEWALKS, CURBS, STEPS AND WALLS THROUGHOUT CONSTRUCTION.
4. CONTRACTOR SHALL COORDINATE ALL VEHICULAR PARKING ENTRY AND EXIT TO CONSTRUCTION AREA WITH PROPERTY OWNERS. CONTRACTOR HAS SOLE RESPONSIBILITY TO RESTORE AND/OR REPLACE ANY AREA DISTURBED BY CONSTRUCTION VEHICLES DURING ANY PHASE OF DEMOLITION OR CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES THAT OCCUR TO ANY EXISTING ITEM SCHEDULED TO REMAIN DURING ANY PHASE OF DEMOLITION OR CONSTRUCTION. ANY ITEM DAMAGED SHALL BE REPLACED/REPAIRED AT CONTRACTOR'S EXPENSE. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES DURING CONSTRUCTION - COORDINATE AND INFORM PROPERTY OWNERS / BUSINESS OPERATORS REGARDING PHASING AND SCHEDULE.
5. PROVIDE EXPANSION JOINTS WHERE SHOWN ON PLANS AND AS DETAILED ON CIVIL PLANS. PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING ABUTS WALLS, CURBS, VERTICAL FACES, EXISTING PAVING AND AT MATERIAL CHANGES. EXPANSION JOINTS TO BE PER ODOT ITEM 608.
6. PROVIDE SAWCUT CONTROL JOINTS IN CONCRETE PAVING AS SHOWN ON PLANS. ALIGN JOINTS WITH WALLS, CURBS, CORNERS AND OTHER ADJACENT FEATURES TO CONTROL PAVEMENT CRACKING AS INDICATED ON PLANS. SAW CUT CONTROL JOINTS TO BE PER ODOT ITEM 608.
7. PROVIDE AGED, DOUBLE SHREDDED HARDWOOD BARK MULCH 3" DEEP MIN. AT PLANTING BEDS. PROVIDE A MIN. 3' DIAMETER MULCH BED AROUND EACH INDIVIDUAL TREE UNLESS TREES ARE INCORPORATED IN A PLANTING BED OR ARE WITHIN A COVERED TREE PIT. MULCH COLOR TO BE BLACK.
8. ALL PLANTING BEDS TO RECEIVE A MIN. 6" DEPTH OF SOIL MIX AFTER FINAL GRADE IS ESTABLISHED. SEE ODOT ITEM FOR SOIL MIXTURE. ALL SEEDED AREAS TO RECEIVE A MINIMUM OF 2" OF CLEAN FINE GRADED TOPSOIL, FREE OF ALL ROCKS AND DELETERIOUS DEBRIS.
9. ANY PLANT MATERIAL SUBSTITUTIONS TO BE SUBMITTED TO OWNER AND ARCHITECT WITH A REVISED LANDSCAPE PLAN SHOWING ALL SUBSTITUTION LOCATIONS FOR APPROVAL NO LESS THAN 30 DAYS PRIOR TO PROPOSED INSTALLATION.
10. PLACEMENT OF PLANTING MATERIALS SHALL NOT AFFECT THE INTENDED DRAINAGE PATTERN OF THE FINAL GRADING PLAN. THIS INCLUDES BUT IS NOT LIMITED TO PLACING PLANT MATERIALS IN SWALES OR CREATING MOUNDS THAT BLOCK THE INTENDED SURFACE DRAINAGE PATTERN.
11. DO NOT SCALE DRAWINGS. DIMENSIONS SHOWN ARE TO CENTERLINES, CENTERS AND EDGES OF FEATURES UNLESS OTHERWISE NOTED.
12. CONTRACTOR TO PROVIDE PRODUCT DATA / SUBMITTALS FOR ALL SITE FURNITURE, UNIT PAVING AND MASONRY.
13. CONTRACTOR TO APPLY STARTER FERTILIZER (20-26-6) OR APPROVED SIMILAR FOR ALL LAWN AND PLANT MATERIALS.
14. PLANT LISTS & QUANTITIES ARE PROVIDED FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PLANT MATERIALS INDICATED ON THE PLANS.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS AND SEEDED AREAS UNTIL SUBSTANTIAL COMPLETION OF PROJECT. REFER TO TREE PLANTING, WATERING, STAKING, ESTABLISHMENT SPEC. FOR TREE-SPECIFIC WATERING GUIDELINES.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY SCHEDULE AND PROTECTION BETWEEN DELIVERY AND PLANTING TO MAINTAIN HEALTHY PLANT CONDITIONS.
17. SAW CUT CONTROL JOINTS AS SHOWN ON PLANS. ALIGN TO AND OFFSET FROM EDGE OF CURBED PLANTERS WHERE EXIST. INFORM ARCHITECT 48 HOURS PRIOR TO SAW CUTTING DECORATIVE PATTERNS FOR COORDINATION OF JOINT LAYOUT.

LEGEND (FOR ALL SHEETS)

DETAIL



SECTION



HORIZONTAL SCALE IN FEET
0 75 150 300

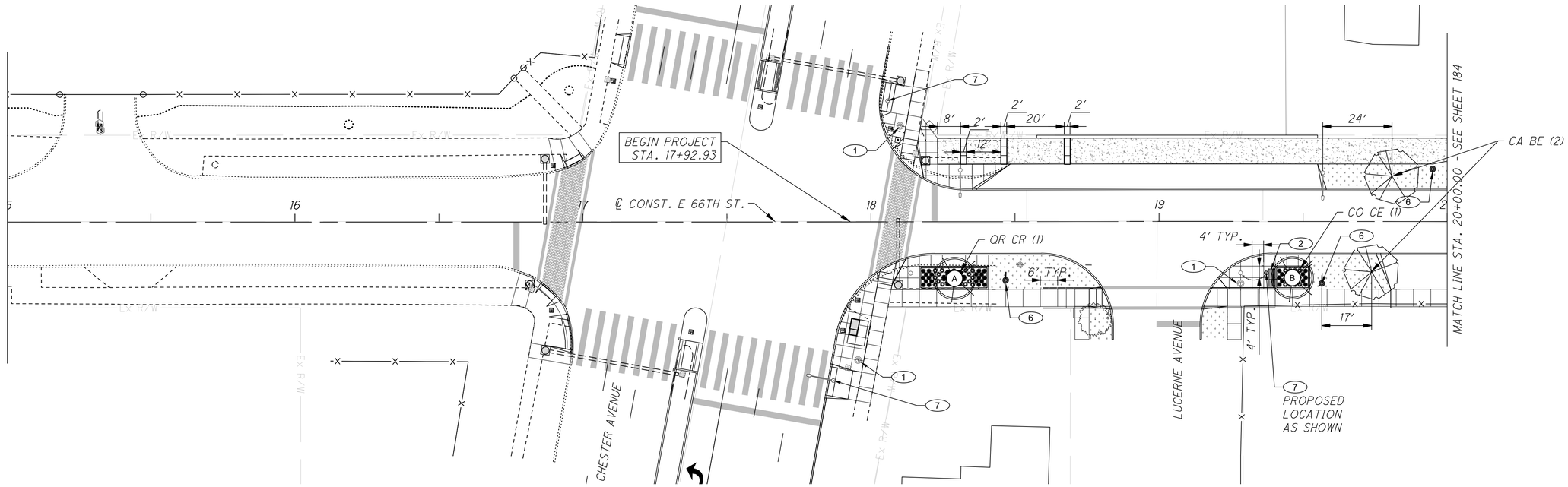
STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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City Architecture
12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
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REVIEWER KP 12/22/25
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SHEET 182 TOTAL 195



LEGEND

- EXISTING UTILITY POLE WITH COBRA HEAD
- TRAFFIC MAST
- PEDESTRIAN CROSSING SIGNAL
- FIRE HYDRANT
- NEW TREES. SEE LANDSCAPE DETAILS
- (X) PLANTER TYP. SEE SHEET 195
- STANDARD CONCRETE
- COLORED, TEXTURED CONCRETE 1
- COLORED, TEXTURED CONCRETE 2
- COLORED CONCRETE
- ASPHALT PATH
- COLORED CONCRETE BANDS. SEE SHEET 117
- ARTISTIC CROSSWALK
- GRASS SEED MIX

KEYNOTE LEGEND

1. TRASH RECEPTACLE
2. METAL BENCH
3. WOOD BENCH
4. TABLE AND BENCH SETS
5. BIKE / SCOOTER RACKS
6. PEDESTRIAN LIGHT POLE WITH BANNER
7. EXISTING UTILITY POLE TO BE RELOCATED

HORIZONTAL SCALE IN FEET
0 10 20 40

STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 15+00.00 TO STA. 20+00.00

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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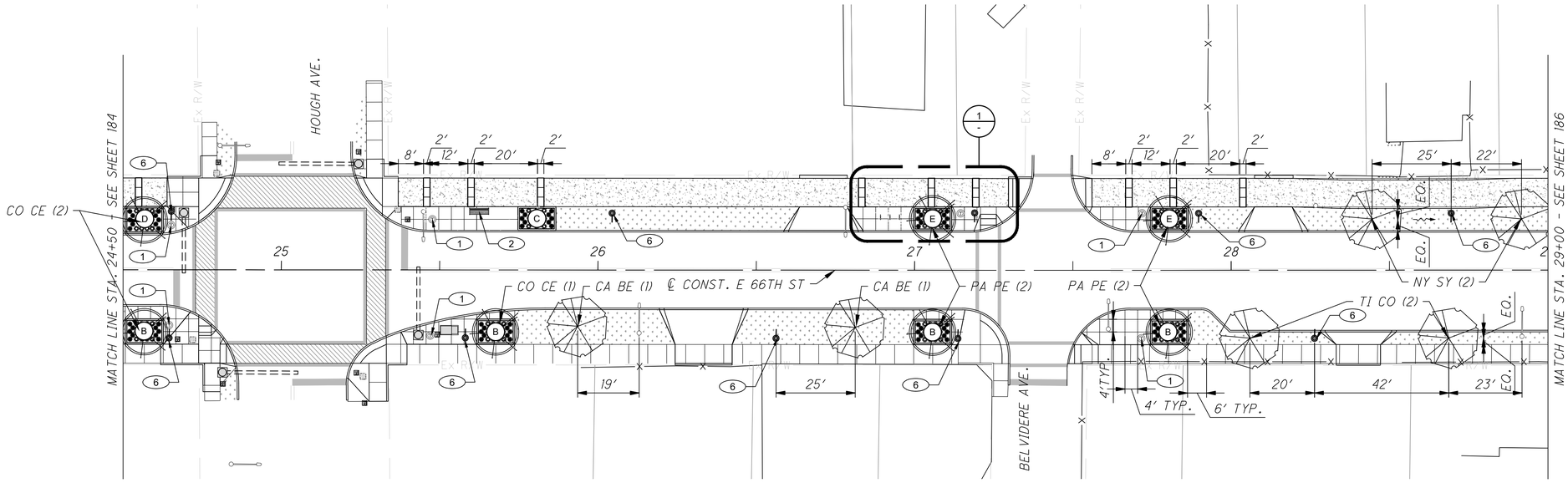
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STA. 20+00.00 TO STA. 24+50.00

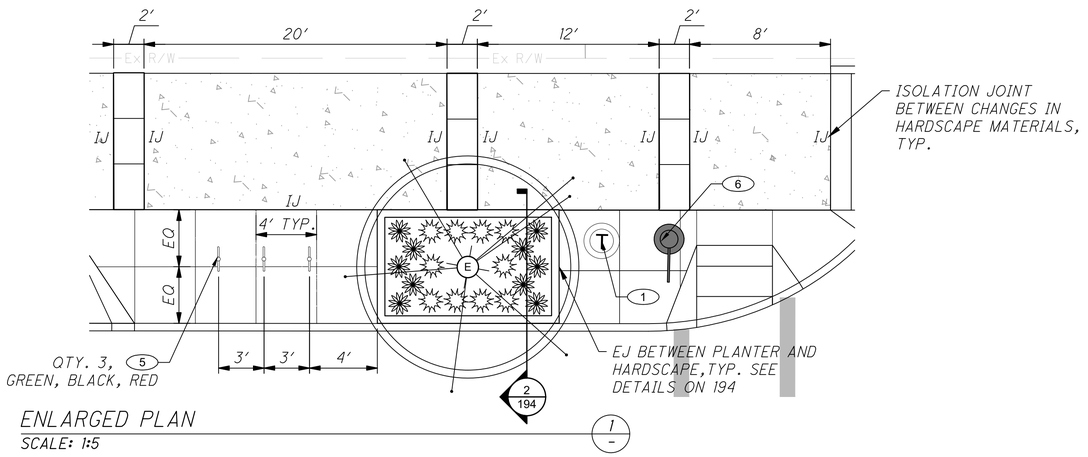
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ENLARGED PLAN
SCALE: 1:5

LEGEND

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0 10 20 40

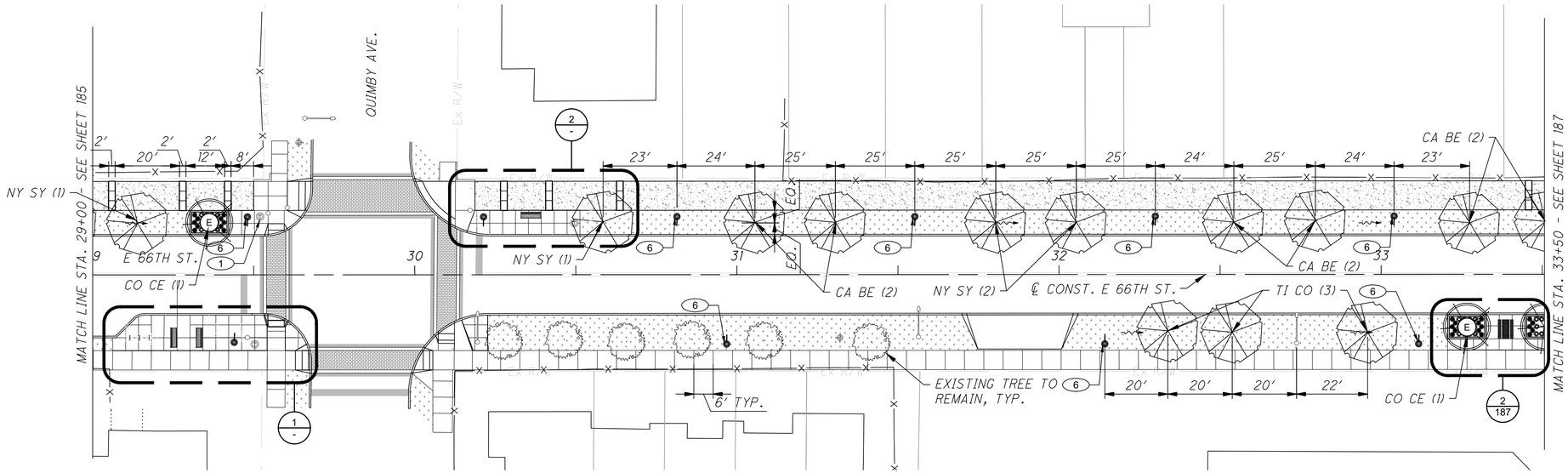
STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 24+50.00 TO STA. 29+00.00

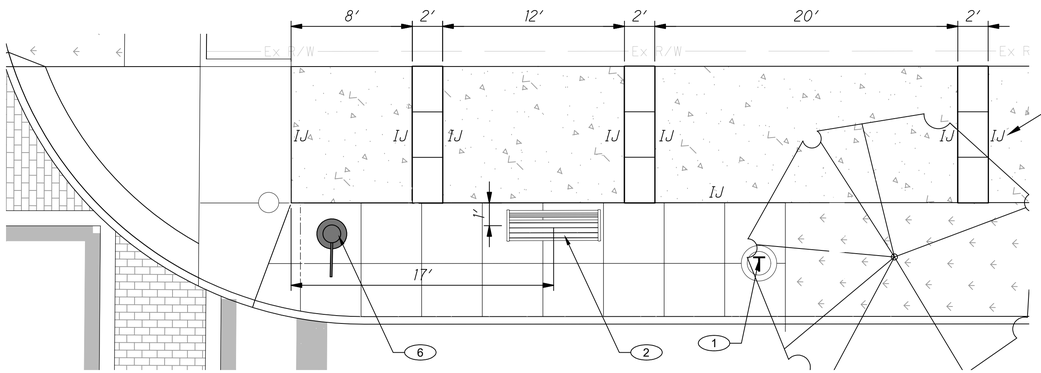
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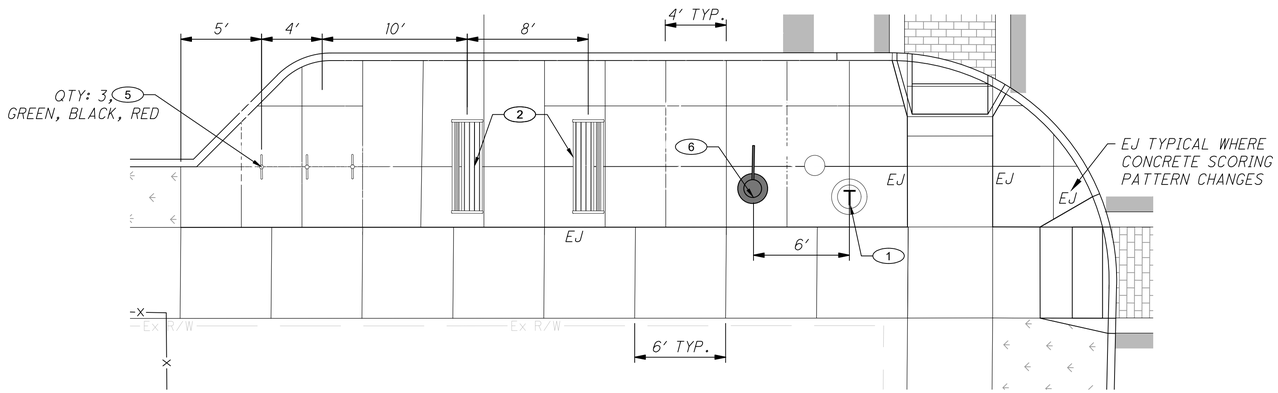
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Cleveland, Ohio 44120
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DESIGNER	MBZ
REVIEWER	KP 12/22/25
PROJECT ID	25001
SHEET	185
TOTAL	195





ENLARGED PLAN
SCALE: 1:5



ENLARGED PLAN
SCALE: 1:5

LEGEND

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HORIZONTAL SCALE IN FEET
0 10 20 40

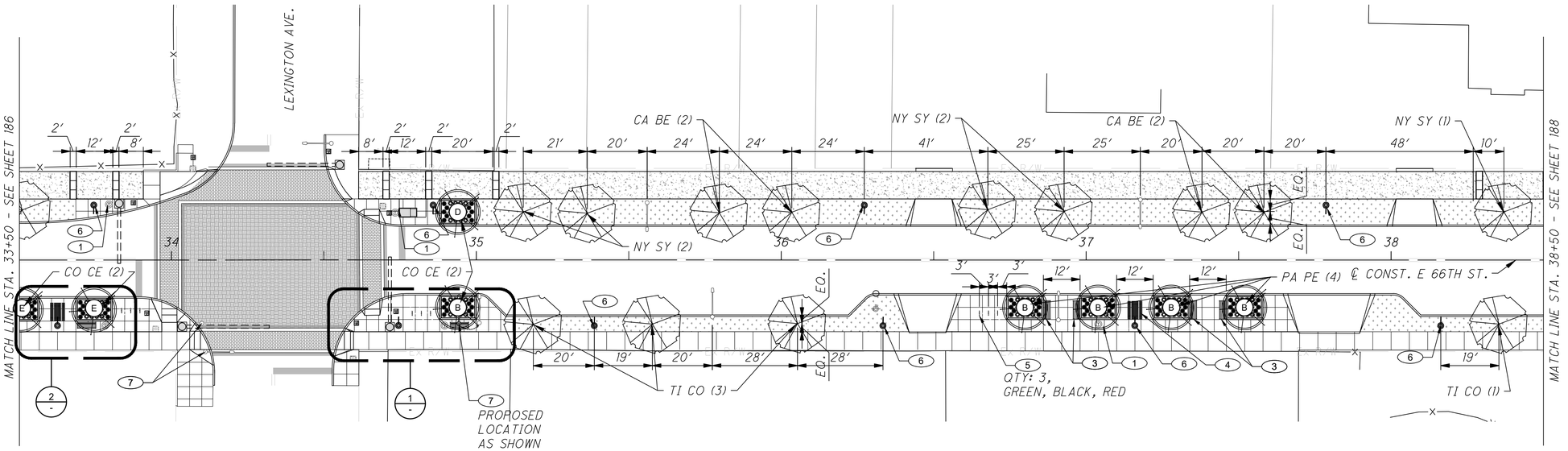
STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 29+00.00 TO STA. 33+50.00

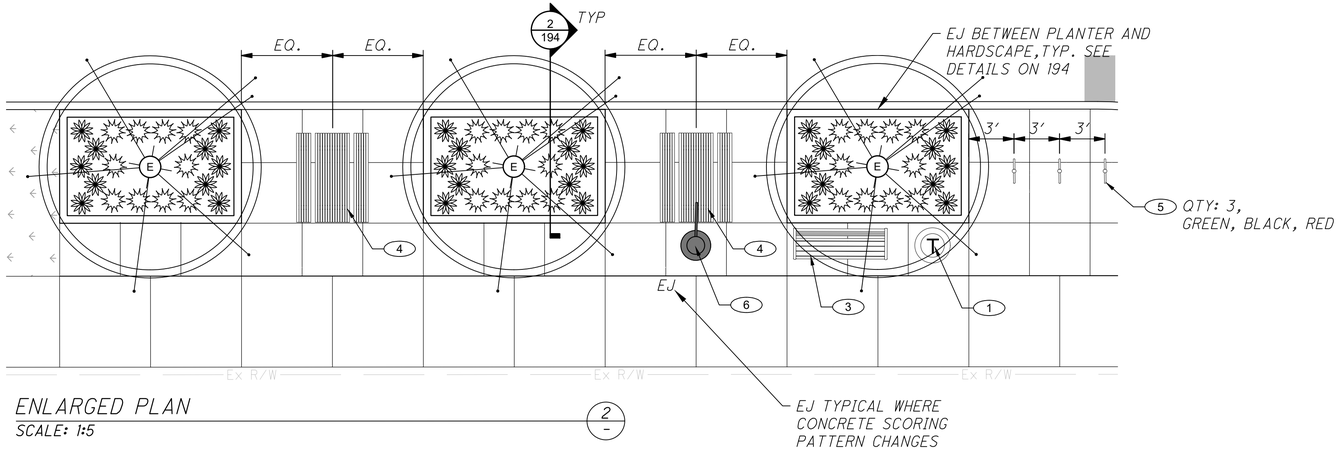
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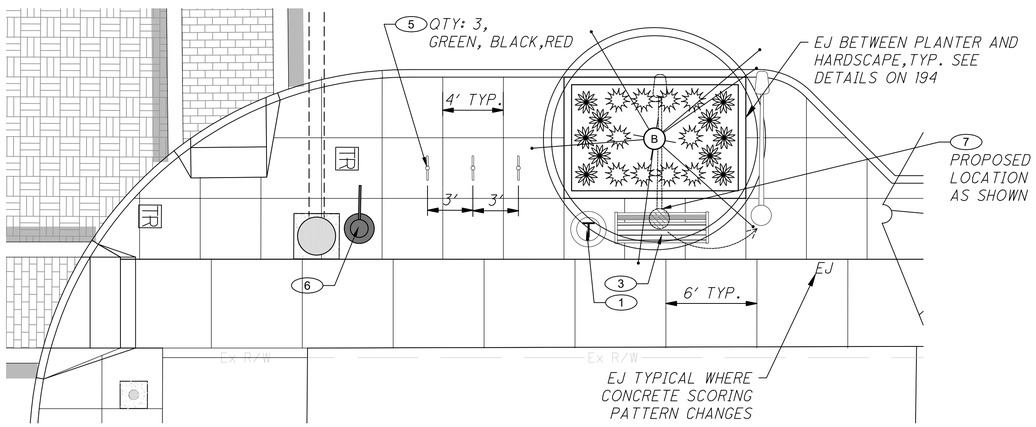
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ENLARGED PLAN
SCALE: 1:5
2
-



ENLARGED PLAN
SCALE: 1:5
1
-

LEGEND

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NN

HORIZONTAL SCALE IN FEET
0 10 20 40

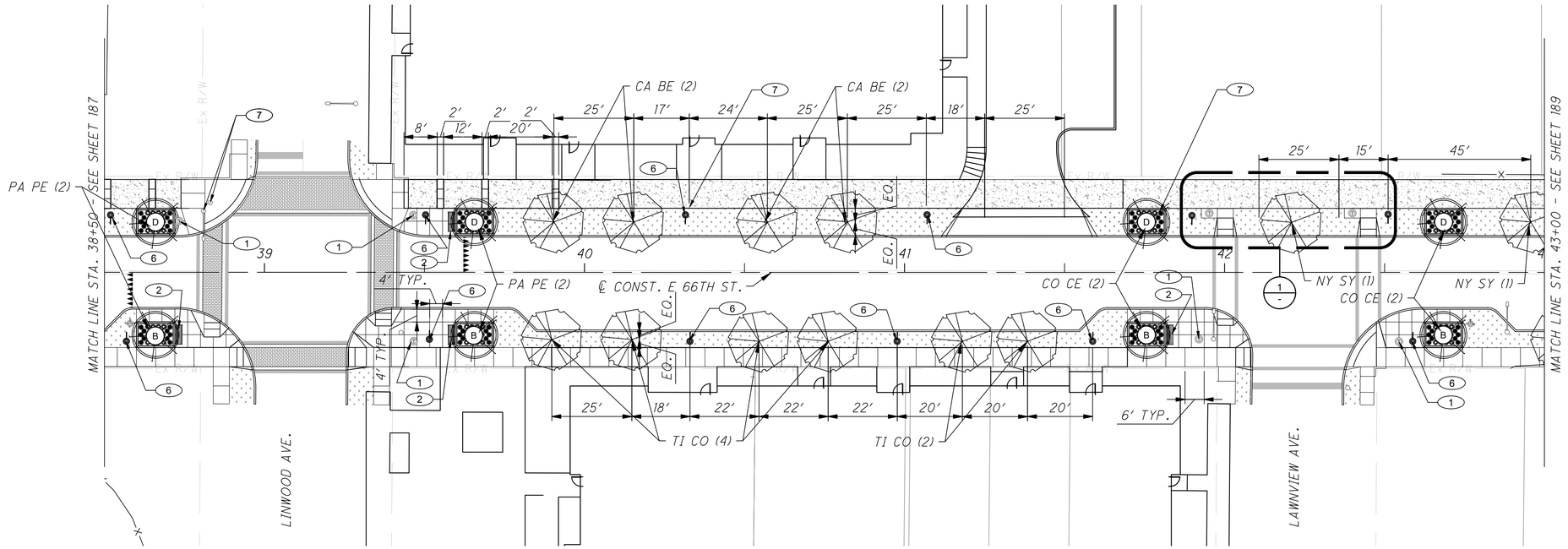
STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 34+00.00 TO STA. 38+50.00

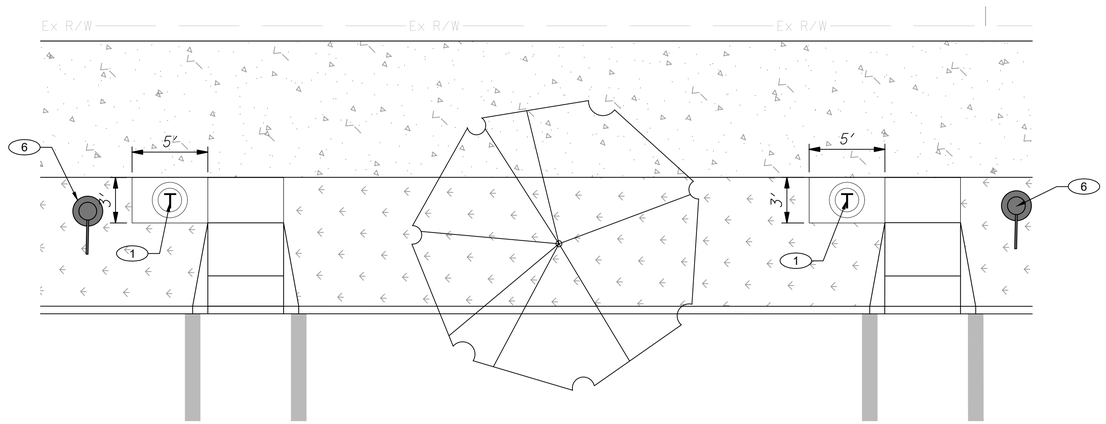
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City Architecture
12205 Larchmere Boulevard
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P 216.881.2444
cityarch.com

DESIGNER MBZ
REVIEWER KP 12/22/25
PROJECT ID 25001
SHEET 187 TOTAL 195

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

X:\2025\25001 - East 66th Street\08 - Drawings\08.02 - AutoCAD\AS100s - Plan Sheets.dwg





ENLARGED PLAN
SCALE: 1:5

1 / -

LEGEND

- EXISTING UTILITY POLE WITH COBRA HEAD
- TRAFFIC MAST
- PEDESTRIAN CROSSING SIGNAL
- FIRE HYDRANT
- NEW TREES. SEE LANDSCAPE DETAILS
- (X) PLANTER TYP. SEE SHEET 195
- STANDARD CONCRETE
- COLORED, TEXTURED CONCRETE 1
- COLORED, TEXTURED CONCRETE 2
- COLORED CONCRETE
- ASPHALT PATH
- COLORED CONCRETE BANDS. SEE SHEET 117
- ARTISTIC CROSSWALK
- GRASS SEED MIX

KEYNOTE LEGEND

1. TRASH RECEPTACLE
2. METAL BENCH
3. WOOD BENCH
4. TABLE AND BENCH SETS
5. BIKE / SCOOTER RACKS
6. PEDESTRIAN LIGHT POLE WITH BANNER
7. EXISTING UTILITY POLE TO BE RELOCATED

HORIZONTAL SCALE IN FEET
0 10 20 40

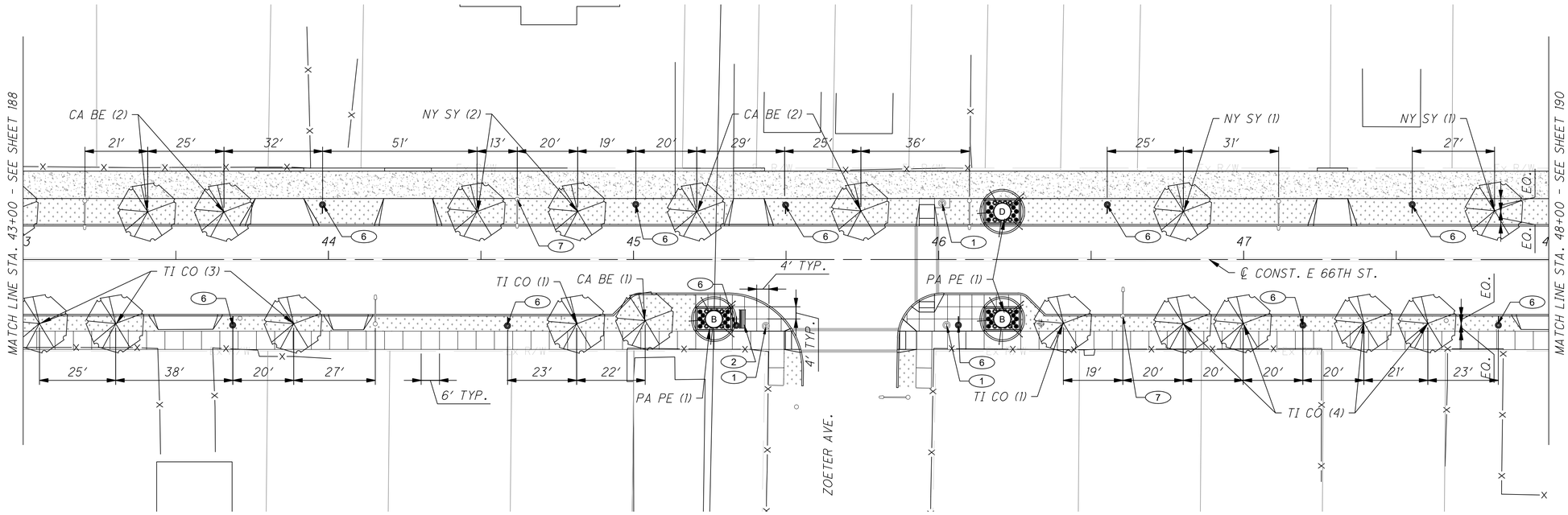
STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 38+50.00 TO STA. 43+00.00

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SHEET 188 TOTAL 195

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

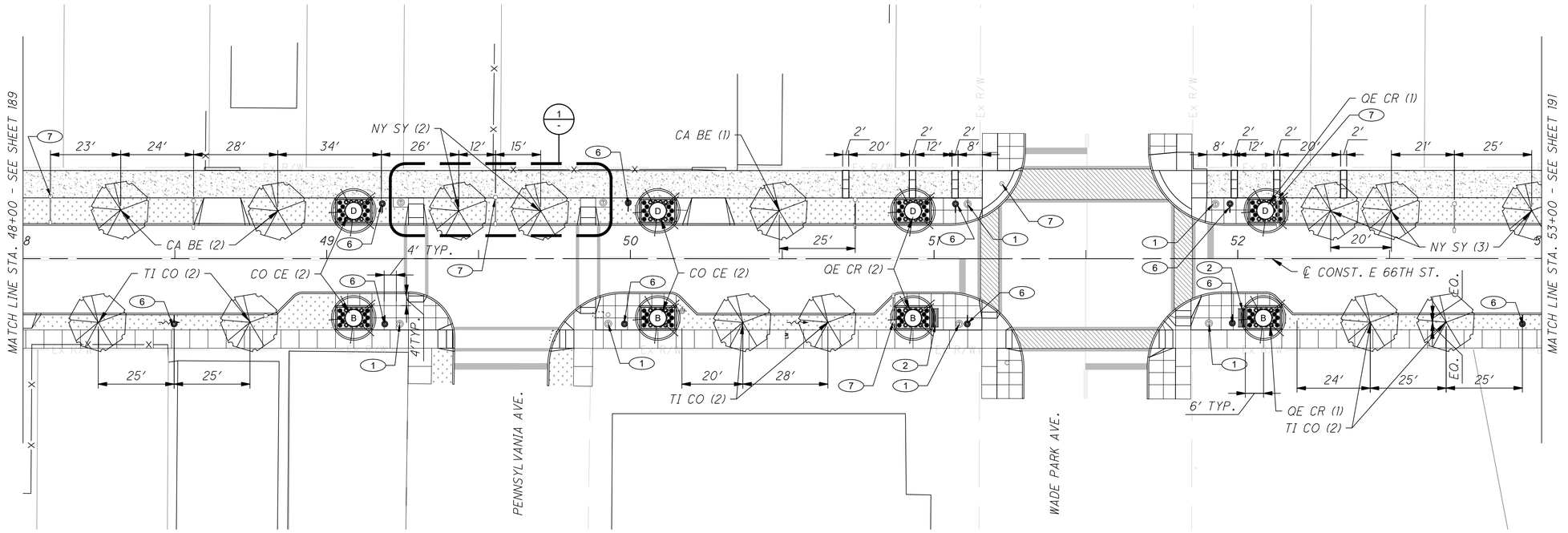
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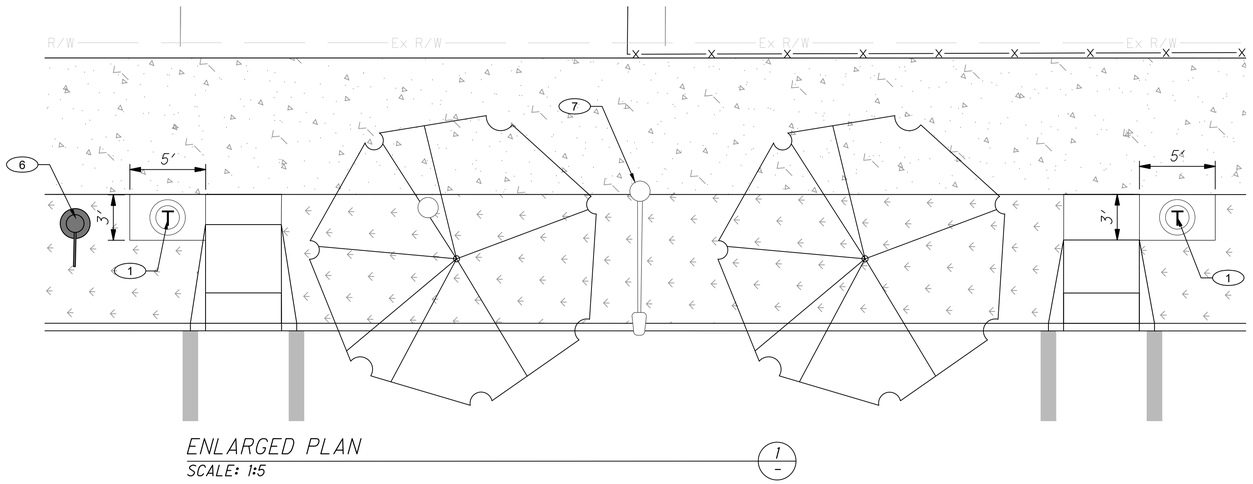
HORIZONTAL SCALE IN FEET
0 10 20 40

STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 34+00.00 TO STA. 48+00.00

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SHEET 189 TOTAL 195





ENLARGED PLAN
SCALE: 1:5

LEGEND

- EXISTING UTILITY POLE WITH COBRA HEAD
- TRAFFIC MAST
- PEDESTRIAN CROSSING SIGNAL
- FIRE HYDRANT
- NEW TREES. SEE LANDSCAPE DETAILS
- PLANTER TYP. SEE SHEET 195
- STANDARD CONCRETE
- COLORED, TEXTURED CONCRETE 1
- COLORED, TEXTURED CONCRETE 2
- COLORED CONCRETE
- ASPHALT PATH
- COLORED CONCRETE BANDS. SEE SHEET 117
- ARTISTIC CROSSWALK
- GRASS SEED MIX

KEYNOTE LEGEND

1. TRASH RECEPTACLE
2. METAL BENCH
3. WOOD BENCH
4. TABLE AND BENCH SETS
5. BIKE / SCOOTER RACKS
6. PEDESTRIAN LIGHT POLE WITH BANNER
7. EXISTING UTILITY POLE TO BE RELOCATED

HORIZONTAL SCALE IN FEET
0 10 20 40

STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 48+00.00 TO STA. 53+00.00

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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PROJECT ID 25001
SHEET 190 TOTAL 195

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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LEGEND

- EXISTING UTILITY POLE WITH COBRA HEAD
- TRAFFIC MAST
- PEDESTRIAN CROSSING SIGNAL
- FIRE HYDRANT
- NEW TREES. SEE LANDSCAPE DETAILS
- (X) PLANTER TYP. SEE SHEET 195
- STANDARD CONCRETE
- COLORED, TEXTURED CONCRETE 1
- COLORED, TEXTURED CONCRETE 2
- COLORED CONCRETE
- ASPHALT PATH
- COLORED CONCRETE BANDS. SEE SHEET 117
- ARTISTIC CROSSWALK
- GRASS SEED MIX

KEYNOTE LEGEND

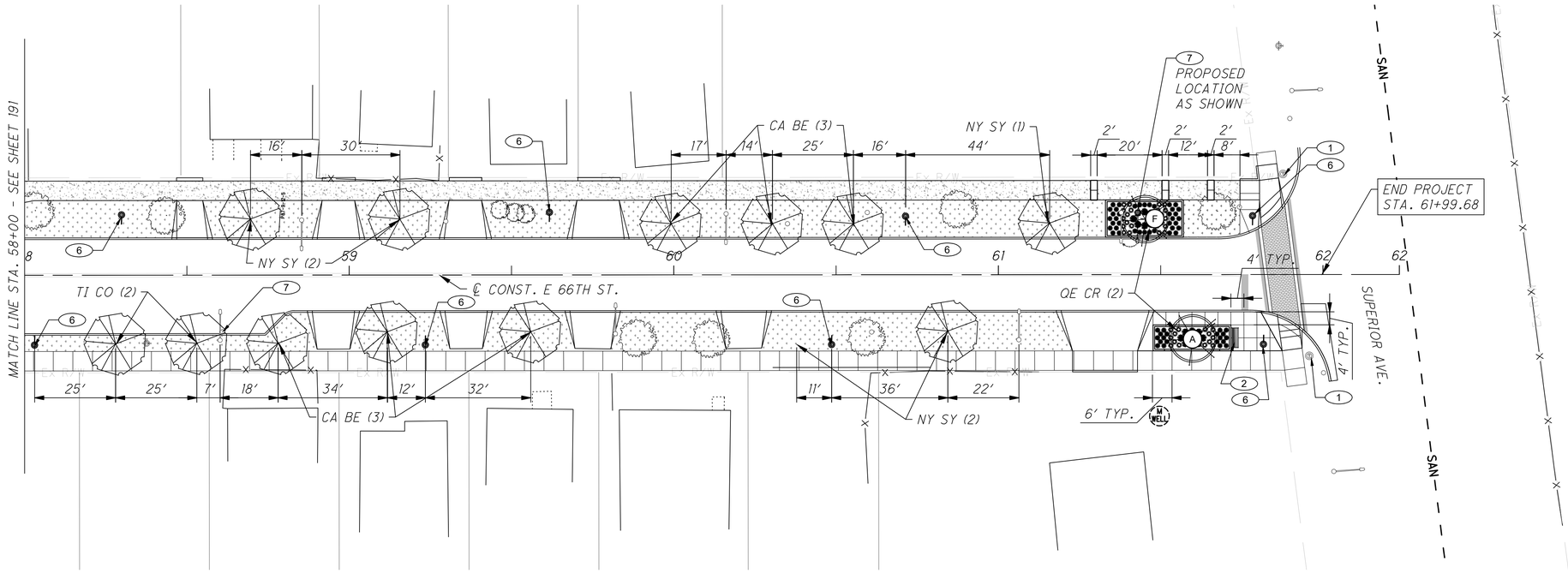
1. TRASH RECEPTACLE
2. METAL BENCH
3. WOOD BENCH
4. TABLE AND BENCH SETS
5. BIKE / SCOOTER RACKS
6. PEDESTRIAN LIGHT POLE WITH BANNER
7. EXISTING UTILITY POLE TO BE RELOCATED

HORIZONTAL SCALE IN FEET
0 10 20 40

STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 53+00.00 TO STA. 58+00.00

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PROJECT ID 25001
SHEET 191 TOTAL 195



HORIZONTAL SCALE IN FEET
0 10 20 40

STREETSCAPING & LANDSCAPING PLAN - CUY EAST 66TH STREET TLCI
STA. 58+00.00 TO STA. 62+30.00

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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PROJECT ID 25001
SHEET 192 TOTAL 195

CATEGORY	ITEM	COMPONENT	MANUFACTURER	MODEL	NAME / STYLE	COLOR; FINISH; SIZE	176	177	178	179	180	181	182	183	184	185	TOTAL	NOTES
HARDSCAPE	608	ROLLED CONCRETE CURB	-	-	-		104 LF	122 LF	238 LF	78 LF	319 LF	324 LF	121 LF	324 LF	80 LF	64 LF	1,774 LF	SEE DETAILS SHEETS 183 AND 184
PLANTING	661	TREE CARE	-	-	-	-	1	6	0	7	0	0	0	0	4	10	28	
PLANTING	661	ROOT BARRIER	DEEP ROOT GREEN INFRASTRUCTURE	-	-	-	164	462	358	478	579	564	481	604	600	524	4,814 LF	
PLANTING	661	TREE REPLACEMENT															15 EA	CONTINGENCY QUANTITY ON SHEET 179
SITE FURNITURE	680	TRASH RECEPTACLE	VICTOR STANLEY	S-42	-	BLACK	3	3	7	3	5	7	3	8	4	2	45	
SITE FURNITURE	690	BENCH - METAL	VICTOR STANLEY	-	EVA -OR- RMS-24	6 FT	1	0	1	3	0	4	1	2	0	1	13	
SITE FURNITURE	690	BENCH - WOOD	VICTOR STANLEY	-	EVA -OR- RMS-24	6 FT	0	0	0	0	6	0	0	0	0	0	6	
SITE FURNITURE	690	BIKE RACK	DERO	-	HITCH	GREEN, BLACK, RED	0	0	3	3	6	0	0	0	0	0	12	
SITE FURNITURE	690	TABLE AND BENCH SET	VICTOR STANLEY	FBF-56	-	BLACK	0	0	0	1	2	0	0	0	0	0	3	
PUBLIC ART	690	ARTISTIC CROSSWALKS	CUSTOM	-	PAINTED	ARTIST AND ARTWORK TO BE SELECTED AND DEVELOPED IN COORDINATION WITH MIDTOWN CLEVELAND AND THE BLACK AVENUE CULTURAL DISTRICT INTIATIVE.	0 SF	0 SF	1,110 SF	0 SF	0 SF	0 SF	0 SF	1,247 SF	0 SF	0 SF	2,357 SF	PAINTING TO BE PERFORMED IN COOPERATION WITH ROADPRINTZ. CONTACT: SAM BELL 216-534-5302
PUBLIC ART	690	METAL BANNERS	CUSTOM	-	-	2 FT X 3 FT LASER CUT; ARTIST AND DESIGN TO BE SELECTED AND DEVELOPED IN COORDINATION WITH MIDTOWN CLEVELAND AND THE BLACK AVENUE CULTURAL DISTRICT INTIATIVE.	3	9	10	10	10	12	11	10	7	8	90	TO BE MOUNTED TO STREET-SIDE OF ALL PEDESTRIAN LIGHT POLES. INCLUDE ALL NECESSARY MOUNTING HARDWARE.
PUBLIC ART	690	UTILITY POLE WRAPS / PAINT	CUSTOM	-	-	ARTIST AND DESIGN TO BE SELECTED AND DEVELOPED IN COORDINATION WITH MIDTOWN CLEVELAND & THE BLACK AVENUE CULTURAL DISTRICT INTIATIVE.											56	TO BE INSTALLED AROUND UTILITY POLES PER ARTIST-IDENTIFIED LOCATIONS TBD.

KEY	BOTANICAL NAME	COMMON NAME	ITEM	SIZE	COND.	SPACING	176	177	178	179	180	181	182	183	184	185	TOTAL
QE CR	QUERCUS X 'CRIMSCHMIDT' CRIMSON SPIRE	CRIMSON SPIRE HYBRID OAK	661	2" CAL.	B&B	AS SHOWN	1	0	0	0	0	0	0	4	0	2	7
TI CO	TILIA CORDATA 'CORZAM' CORINTHIAN	CORINTHIAN LITTELEAF LINDEN	661	2" CAL.	B&B	AS SHOWN	0	0	2	3	4	6	9	6	10	2	42
CO CE	CORNUS X 'CELESTIAL SHADOW'	CELESTIAL SHADOW HYBRID DOGWOOD	661	2" CAL.	B&B	AS SHOWN	1	0	3	2	3	4	0	4	0	0	17
NY SY	NYSSA SYLVATICA	RED SPLYNDOR BLACK GUM	661	2" CAL.	B&B	AS SHOWN	0	6	2	6	5	2	4	5	6	5	41
PA PE	PARROTIA PERSICA	RUBY VASE PERSIAN IRONWOOD	661	2" CAL.	B&B	AS SHOWN	0	3	4	0	4	4	3	0	2	0	20
CA BE	CARPINUS BETULUS	EMERALD AVENUE HORNBEAM	661	2" CAL.	B&B	AS SHOWN	2	5	3	4	4	4	5	2	6	6	41
CH LA	CHASMANTHIUM LATIFOLIUM	NORTHERN SEA OATS	661	NO. 2	CONT.	24" O.C.	8	0	3	0	0	0	0	0	0	16	27
RU GO	RUDBECKIA F.V.S. "GOLSDTRUM"	GOLDSTRUM BLACK-EYED SUSAN	661	NO. 1	CONT.	24" O.C.	24	30	60	20	80	80	30	80	20	35	459
HE LI	HEREROCALLIS "LITTLE BUSINESS"	LITTLE BUSINESS DAYLILY	661	NO. 1	CONT.	24" O.C.	30	30	54	16	76	80	30	80	20	48	464

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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STREETSCAPE & LANDSCAPE DETAILS - CUY EAST 66TH STREET TLCI
MATERIAL SCHEDULES

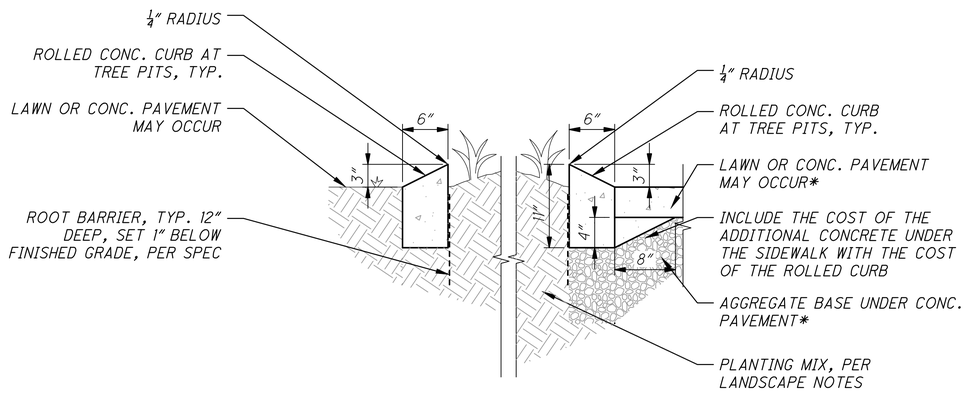
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City Architecture
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PROJECT ID
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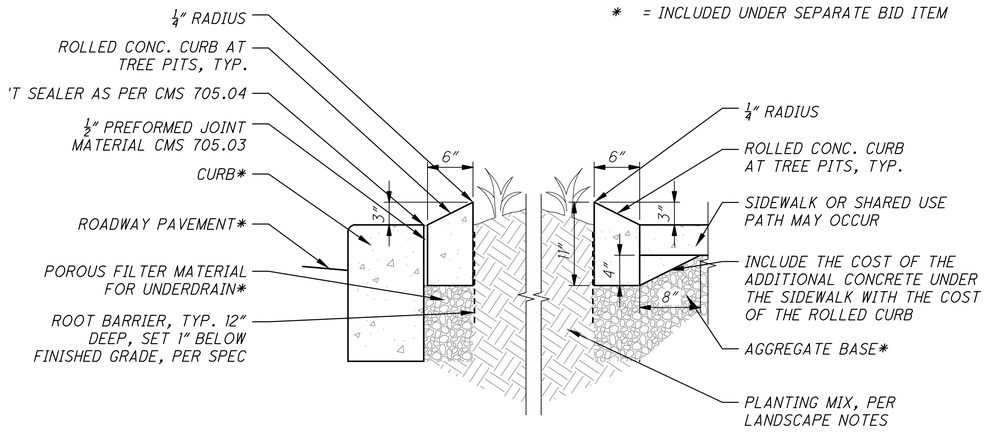
SHEET 193 TOTAL 195



ITEM 609, CURB MISC.: ROLLED CONC. CURB (3)

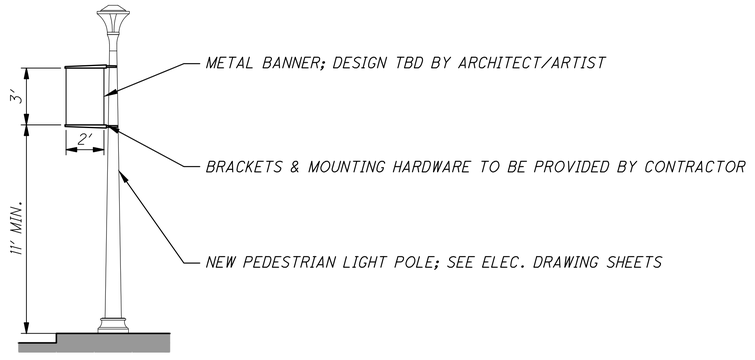
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* = INCLUDED UNDER SEPARATE BID ITEM



ITEM 609, CURB MISC.: ROLLED CONC. CURB (2)

SCALE: 1:10



PUBLIC ART
METAL BANNERS (1)

SCALE: 3"=1'-0"

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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STREETSCAPE & LANDSCAPE DETAILS - CUY EAST 66TH STREET TLCI
HARDSCAPE DETAILS

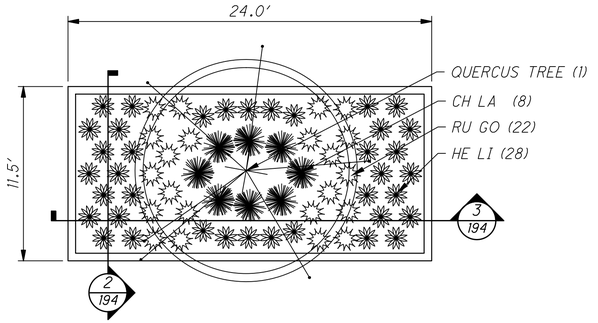
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DESIGNER MBZ

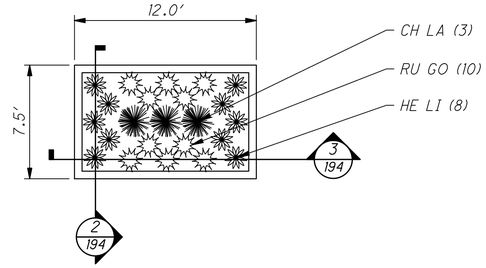
REVIEWER KP 12/22/25

PROJECT ID 25001

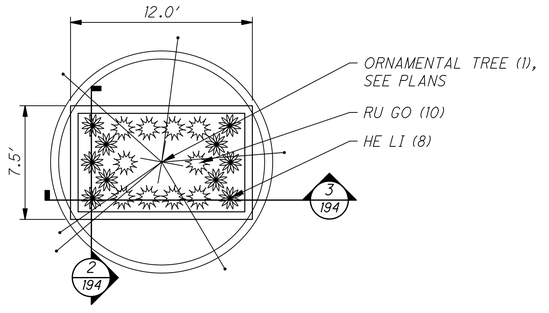
SHEET 194 TOTAL 195



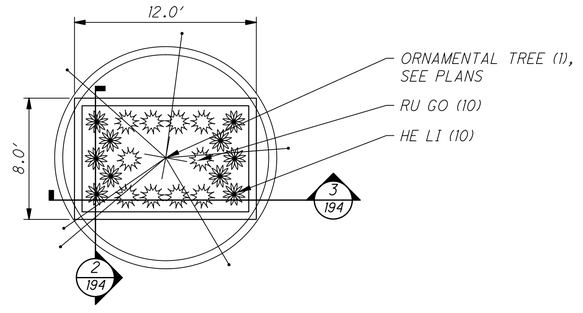
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SCALE: 1:5
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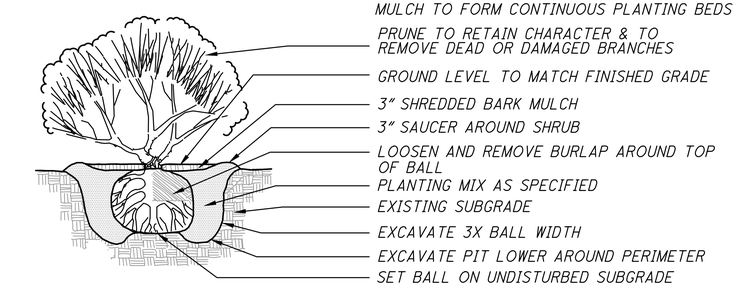
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SCALE: 1:5
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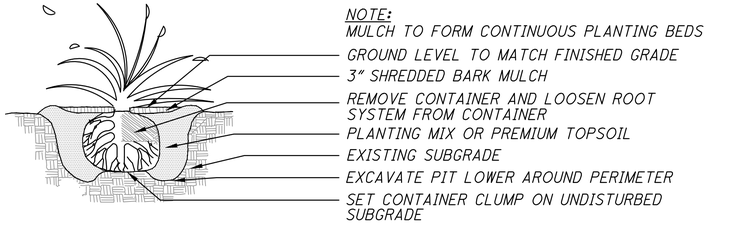
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SCALE: 1:5
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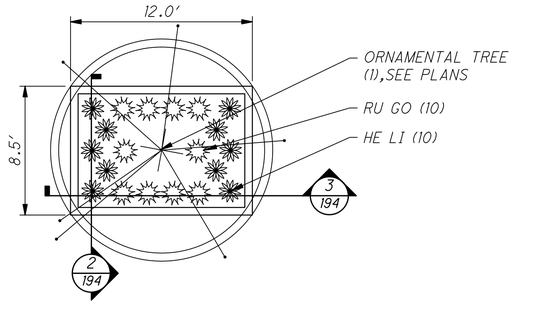
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SCALE: 1:5
2
-



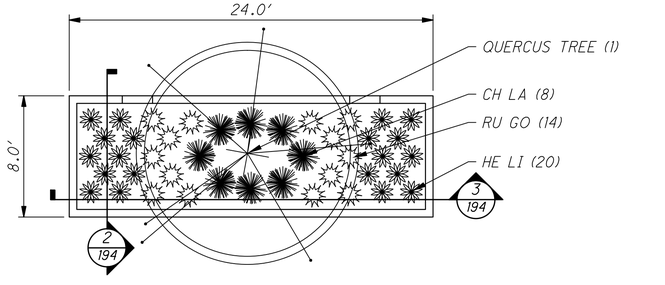
SHRUB PLANTING DETAIL
SCALE: NTS
8
-



PERENNIAL PLANTING DETAIL
SCALE: NTS
7
-



PLANTER TYPE 'D'
SCALE: 1:5
4
-



PLANTER TYPE 'A'
SCALE: 1:5
1
-

EAST 66TH STREET, EUCLID AVE. TO SUPERIOR AVE.

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STREETSCAPE & LANDSCAPE DETAILS - CUY EAST 66TH STREET TLCI
LANDSCAPE DETAILS

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12205 Larchmere Boulevard
Cleveland, Ohio 44120
P 216.881.2444
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MBZ

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KP 12/22/25

PROJECT ID
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SHEET 195 | TOTAL 195