

FOR INDEX OF SHEETS AND HIGHWAY STANDARDS SEE SHEET NO. 2

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED FEDERAL AID HIGHWAY MUN 3015 (BRAGA DRIVE) 25TH AVENUE TO 21ST AVENUE ROADWAY RECONSTRUCTION SECTION 16-00080-00-PV PROJECT AMPP (871) VILLAGE OF BROADVIEW COOK COUNTY C-91-223-17

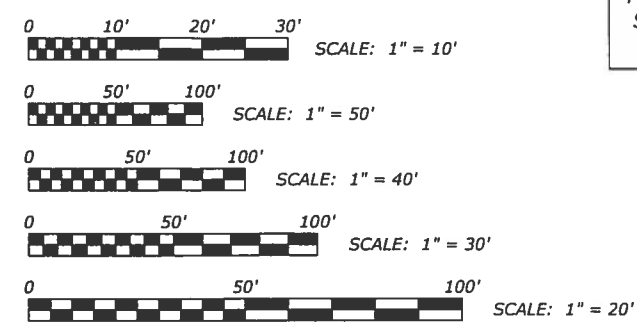
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	66	1
ILLINOIS PROJECT -				
SECTION -				
CONTRACT NO. 61F39				



LOCATION OF SECTION INDICATED THUS:

**TRAFFIC DATA**

ADT (2040) = 3,600  
POSTED SPEED LIMIT: 25 MPH  
DESIGN SPEED LIMIT: 30 MPH  
COLLECTOR



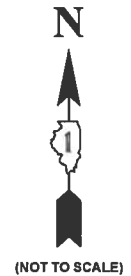
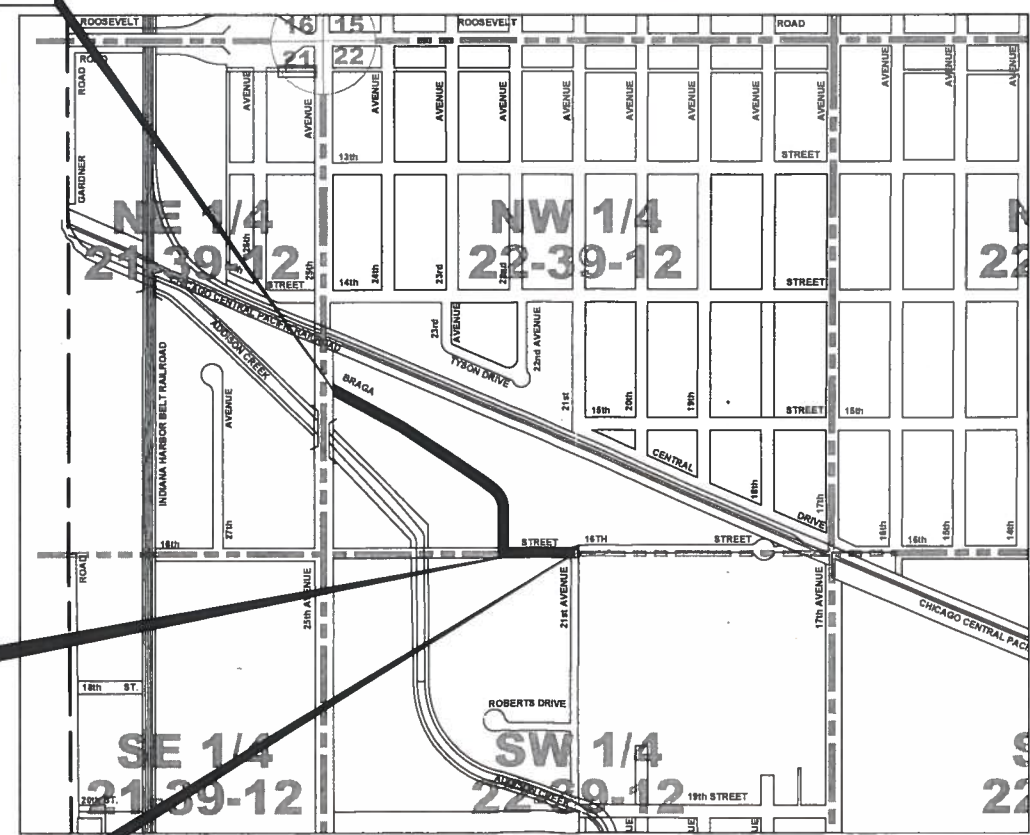
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PROJECT BEGINS  
STATION 00+62  
BRAGA DRIVE

STATION EQUATION  
END BRAGA DR.  
BEGIN 16TH ST.  
STATION 14+25

PROJECT ENDS  
STATION 18+00  
16TH STREET

LOCATION MAP  
RANGE 12 EAST PRINCIPAL NTS MERIDIAN



(NOT TO SCALE)

MAP SCALE : NONE  
**PROVISO TOWNSHIP**

- AREA OF IMPROVEMENT  
GROSS LENGTH OF PROJECT = 1738 FT. = 0.329 MI.  
NET LENGTH OF PROJECT = 1738 FT. = 0.329 MI.

**STATE OF ILLINOIS  
ILLINOIS DEPARTMENT OF TRANSPORTATION**

APPROVED December 17<sup>th</sup> 2018  
[Signature]  
VILLAGE OF BROADVIEW, PRESIDENT

PASSED 2/5/19 20  
[Signature]  
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW FEBRUARY 15 2019  
[Signature]  
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



DATE SHOWN: 12-17-18  
LICENSE EXPIRES: 11-30-18

EDWIN HANCOCK ENGINEERING COMPANY  
9933 ROOSEVELT ROAD PHONE: (708)865-0300  
WESTCHESTER, ILLINOIS 60154

E.H.E. NO. 120-17-28301



**Know what's below.  
Call before you dig.**

CONTRACT NO. 61F39

Drawing File: W:\Projects\_by\_Village\Broadview\2017283 - Braga Drive Stages 1 - Design\Cad\Site\01\_COVER.dwg Dec 20, 2018 - 10:07am

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E.  
SCHAUMBURG, ILLINOIS  
PHONE: (847)705-4406  
CONSULTANT: EDWIN HANCOCK ENGINEERING CO.  
9933 ROOSEVELT ROAD  
WESTCHESTER, IL 60154  
PHONE: (708)865-0300

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET, LOCATION MAP
2	INDEX OF SHEETS, LEGEND, HIGHWAY STANDARDS & BENCHMARKS
3	GENERAL NOTES
4	M.W.R.D.G.C. GENERAL NOTES
5-6	SUMMARY OF QUANTITIES
7-8	TYPICAL SECTIONS
9	ALIGNMENT AND TIES, ROUTE OUTLET MAP
10-14	PAVING PLAN AND PROFILE
15	ADA RAMP DETAIL
16	ROADWAY DETAILS
17-22	MAINTENANCE OF TRAFFIC PLAN, STAGE CONSTRUCTION PLAN
23	DETOUR PLAN
24-25	EROSION CONTROL PLAN AND SWPPP
26-30	UTILITIES PLAN AND PROFILE
31-33	DRAINAGE AND UTILITIES DETAILS
34	SIGNING PLAN LEGEND AND NOTES
35-36	PAVEMENT MARKING AND SIGNING PLAN
37-38	CONCRETE AND LANDSCAPING PLAN
39-40	STREET LIGHTING PLAN
41	STREET LIGHT WIRING PLAN
42	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
43	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
44	DETOUR SIGNING FOR CLOSING STAGE HIGHWAYS (TC-21)
45	ARTERIAL ROAD INFORMATION SIGN (TC-22)
46	DRIVEWAY ENTRANCE SIGNING (TC-26)
47	BUTT JOINTS AND HMA TAPER DETAILS (BD-32)
48	LIGHT CONTROLLER, PEDESTAL MOUNT (BE-210)
49	LIGHT POLE FOUNDATION, METAL (BE-305)
50	ALUMINUM LIGHT POLE, 30' MOUNTING HEIGHT (BE-403)
51	MISC. ELECTRICAL DETAILS, SHEET A (BE-702)
52-56	STATION CROSS SECTIONS

**LEGEND OF SYMBOLS**

(TO BE USED IN CONJUNCTION WITH I.D.O.T. STANDARD 000001-06)

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
		POWER POLE			PIPE UNDERDRAIN TYPE 2, 4"
		GAS VALVE			STORM SEWER TO BE REMOVED
		STREET LIGHT			STORM SEWER PIPE
		WATER MAIN BUFFALO BOX			COMBINATION SEWER PIPE
		WATER MAIN VALVE BOX			SANITARY SEWER PIPE
		SPRINKLER			WATER MAIN
		WATER MAIN VALVE VAULT			ELECTRIC LINE
		STORM INLET			GAS LINE
		FIRE HYDRANT			TELEPHONE LINE
		EXISTING STRUCTURE TO BE REMOVED			CURB AND GUTTER
		EXISTING STRUCTURE TO BE FILLED			DIRECTION OF FLOW
		TREE TO BE REMOVED			DRAINAGE SUMMIT
		BUSH			WATER MAIN VALVE VAULT RIM AND TOP OF PIPE ELEVATION
		TREE			COMBINATION MANHOLE RIM AND INVERT ELEVATION
		EXISTING CURB AND GUTTER TO BE REMOVED			STORM SEWER MANHOLE/CATCHBASIN RIM AND INVERT ELEVATION
		EARTH EXCAVATION SPECIAL			STRUCTURE TO BE ADJUSTED
		NON-SPECIAL WASTE DISPOSAL			TYPE 1 FRAME & CLOSED LID
		EXISTING CONCRETE SIDEWALK TO BE REMOVED			TYPE 1 FRAME & OPEN LID
		EXISTING CONCRETE DRIVEWAY TO BE REMOVED			RECONSTRUCT EXISTING STRUCTURE
		HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT			GROUND ELEVATIONS
		PROPOSED CONCRETE PAVEMENT/SIDEWALK			CATCH BASINS, TYPE A, 4' DIAMETER, TYPE I FRAME, OPEN LID, SPECIAL
		PROPOSED HOT MIX ASPHALT PAVING			CATCH BASINS, TYPE A, 4' DIAMETER, TYPE I FRAME, OPEN LID

**HIGHWAY STANDARDS DRAWINGS**

STANDARD NO.	TITLE OR DESCRIPTION
000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420111-04	PCC PAVEMENT ROUNDOUTS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602601-06	PRECAST REINFORCED CONCRETE FLAT SLAB TOP OFF-RD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701006-05	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701301-04	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701311-03	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701501-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701701-10	SIDEWALK, CORNER OF CROSSWALK CLOSURE
701801-06	TRAFFIC CONTROL DEVICES
701901-08	SIGN PANEL MOUNTING DETAILS
720001-01	SIGN PANEL ERECTION DETAILS
720006-04	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
720011-01	APPLICATIONS OF TYPES A&B METAL POSTS
729001-01	TYPICAL PAVEMENT MARKINGS
780001-05	PORTLAND CEMENT CONCRETE PAVEMENT (NONREINFORCED)
B,L,R, 14-12	BREAKAWAY DEVICES
838001-01	

B.M. NO.	DESCRIPTION	ELEVATION
1	N.W. 'BURY' BOLT ON F.H. AT STA. 17+75	626.41
2	N.W. BONNET BOLT ON F.H. AT STA. 14+70	626.17
3	NORTH 'BURY' BOLT ON F.H. AT STA. 11+35	629.11
4	N.E. 'BURY' BOLT ON F.H. AT STA. 8+60	631.04
5	NORTH 'BURY' BOLT ON F.H. AT STA. 5+75	629.17
6	NORTH 'BURY' BOLT ON F.H. AT STA. 2+50	627.34
7	P.K. NAIL ON GUARDRAIL AT STA. 1+10	627.74

**BENCHMARKS**

DATUM IS NAVD 88

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Bragg Drive Stage 1 - Design\CAD\Shea\02\_Index.dwg Jan 11, 2019 10:46am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>INDEX OF SHEETS, LEGEND OF SYMBOLS</b>		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.

MUN. RTE. 3015	SECTION 16-00080-00-PV	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 2
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

## ACCESS

THE CONTRACTOR SHALL MAINTAIN INGRESS AND EGRESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING THE CONSTRUCTION PERIOD. DURING CONSTRUCTION, GARBAGE TRUCKS MUST BE PERMITTED ACCESS TO THE WORK ZONE TO PICK UP RESIDENTIAL AND COMMERCIAL GARBAGE FOR THOSE PROPERTIES FRONTING THE WORK ZONE. IF GARBAGE TRUCK ACCESS IS NOT PROVIDED, THE CONTRACTOR SHALL MOVE TRASH CONTAINERS TO AN ACCESSIBLE LOCATION.

## UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS HAVE BEEN OBTAINED FROM FIELD SURVEYS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THE DATA IS ESSENTIALLY CORRECT, BUT THE VILLAGE OF BROADVIEW, THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR OTHER OFFICES AND AGENCIES ASSOCIATED WITH THE DEVELOPMENT OF THESE PLANS DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EACH FACILITY WITH THE UTILITY COMPANY, AND SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY SUCH FACILITIES THAT MAY BE AFFECTED BY THE WORK. ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH ARTICLE LR 105.

ADJUSTMENTS REQUIRED BY UTILITY COMPANIES WILL BE PERFORMED BY THE COMPANY INVOLVED OR ITS CONTRACTOR, BUT WILL BE COORDINATED BY GENERAL CONTRACTOR.

COORDINATION OF ALL UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT A PRE-CONSTRUCTION CONFERENCE.

THE CONTRACTOR SHALL USE EXTREME CAUTION IN THE REMOVAL OF ABANDONED EXISTING GAS LINES SINCE RESIDUAL MATERIALS CONTAINED THEREIN ARE HIGHLY EXPLOSIVE, FLAMMABLE, AND TOXIC. ONCE THE MAINS ARE ABANDONED BY THE OWNER, THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE AND/OR INJURY OCCURRING ON THE PROJECT DUE TO HIS OPERATIONS NEXT TO THE MAINS AND/OR THE METHOD OF REMOVAL OF THE ABANDONED MAINS.

## STORM SEWER

THE VERTICAL AND HORIZONTAL CLEARANCES BETWEEN WATER MAINS AND PROPOSED OR EXISTING STORM SEWERS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 41-1.02A THROUGH 41-1.02D OF THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS".

BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07(b, c) OF THE SSRBC WILL NOT BE ALLOWED.

## FRAMES AND GRATES

THE TYPE OF FRAMES AND GRATES REQUIRED FOR ALL CATCH BASINS AND MANHOLES LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.01 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE.

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE'S PUBLIC WORKS YARD, LOCATION AT 2734 SOUTH 9TH AVENUE.

## FORMS FOR CONCRETE SIDEWALKS, DRIVEWAYS, PAVEMENT, AND GUTTER FLAGS

A 2" X 6" BOARD WILL BE USED AS A FORM FOR ALL SIDEWALKS TO BE INSTALLED FIVE INCHES (5") IN THICKNESS. A 2" X 8" BOARD WILL BE USED AS A FORM FOR ALL DRIVEWAYS TO BE INSTALLED SEVEN INCHES (7") IN THICKNESS. A 2" X 10" BOARD WILL BE USED AS THE FORM FOR ALL PAVEMENTS TO BE INSTALLED EIGHT INCHES (8") IN THICKNESS. A 2" X 12" BOARD WILL BE USED AS THE FORM FOR THE FACE OF THE GUTTER FLAGS TO BE INSTALLED TEN INCHES (10") IN THICKNESS. ALL FORMS MUST BE OF A MINIMUM HEIGHT OF THE PROPOSED THICKNESS OF THE RESPECTIVE CONCRETE ITEMS TO BE INSTALLED.

## OPEN EXCAVATION

LEAVING OF ANY EXCAVATION NECESSARY FOR STORM SEWERS OPEN OVERNIGHT WILL NOT BE ALLOWED ON THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETELY BACKFILLING OR PLATING OVER OF ALL EXCAVATIONS AT THE END OF EACH DAY. IF THE EXCAVATIONS ARE BACKFILLED THEY SHALL BE FILLED WITH AN AGGREGATE MEETING THE GRADATION OF CA-6. THE MATERIAL WILL BE COMPACTED SUFFICIENTLY TO PREVENT RUTTING OR SETTLEMENT OF MATERIAL UNDER TRAFFIC LOADS. IF PLATES ARE USED THEY SHALL BE OF SUFFICIENT THICKNESS TO SUPPORT VEHICULAR LOADS. ADDITIONALLY THEY SHALL EXTEND A MINIMUM OF NINE INCHES (9") BEYOND THE LIMITS OF THE EXCAVATION ON ALL SIDES. IF THE PLATES ARE TO BE LEFT OVER THE WEEKEND, THE EDGES OF THE PLATES SHALL BE CUSHIONED WITH A BITUMINOUS MIXTURE IN AREAS WHERE VEHICULAR TRAFFIC WILL CROSS THE PLATES.

## MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS SO AS TO MAINTAIN AT ALL TIMES FLOWS THROUGH EXISTING STORM AND COMBINED SEWER SYSTEMS. HE SHALL ALSO PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT IF NECESSARY AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER COLLECTED IN A SAFE MANNER WITHOUT DAMAGE OF ANY KIND TO ADJACENT PROPERTIES. THE ENDS OF EXISTING DRAINAGE LINES THAT ARE NOT TO BE INCORPORATED INTO THE PROJECT ARE TO BE SEALED AS SPECIFIED IN THE SPECIAL PROVISIONS. ALL ACCUMULATION OF MATERIAL IN THE STRUCTURE DUE TO CONSTRUCTION OPERATIONS AS WELL AS MATERIAL EXISTING BEFORE CONSTRUCTION, SHALL BE REMOVED BY THE CONTRACTOR.

## EXISTING STRUCTURE MODIFICATIONS

ALL KNOWN EXISTING STRUCTURES IN THE PAVEMENT OR ADJACENT AREAS THAT ARE INVOLVED IN THE CONSTRUCTION HAVE BEEN SHOWN ON THE PLANS AND NOTED TO BE REMOVED, FILLED, RECONSTRUCTED, OR ADJUSTED BY THE CONTRACTOR EXCEPT THOSE OF AT&T, COMED, AND THE NICOR GAS COMPANY, WHICH ARE TO BE ADJUSTED BY THE APPROPRIATE UTILITY FORCE. WHERE EXISTING STRUCTURES ARE TO BE REMOVED OR FILLED, OR THE EXISTING CASTING REPLACED, THE CASTINGS REMOVED FROM THE STRUCTURE ARE TO REMAIN THE PROPERTY OF THE VILLAGE AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE'S PUBLIC WORKS YARD.

## MAINTENANCE OF EXISTING DRAINAGE STRUCTURES

ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTERS OR DRAINAGE STRUCTURE SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE FACILITIES SHALL BE CLEAN AND FREE OF ALL OBSTRUCTIONS.

## SAW CUTTING

THE CONTRACTOR SHALL SAW CUT ASPHALT PAVEMENT AND CONCRETE PAVEMENT AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, TO SEPARATE THE EXISTING PAVEMENT TO BE REMOVED BY MEANS OF AN APPROVED CONCRETE SAW TO A DEPTH AS DIRECTED BY THE ENGINEER. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT, STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO DAMAGE THE REMAINING PAVEMENT DIRECTLY ADJACENT TO THE PAVEMENT TO BE REMOVED. ANY DAMAGE TO THE EXISTING PAVEMENT RESULTING FROM PAVEMENT REMOVAL OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR.

## PROPOSED STRUCTURES

THE CONTRACTOR SHALL NOT ORDER PROPOSED STRUCTURES UNTIL A JULIE REQUEST HAS BEEN EXECUTED AND THE ENGINEER HAS BEEN NOTIFIED BY THE CONTRACTOR OF ANY CONFLICTS.

## ITEMS TO BE SALVAGED

WHERE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, EXISTING SEWER FRAMES AND LIDS, VALVE BOXES, DOMESTIC WATER SERVICE BOXES, FIRE HYDRANTS AND OTHER CASTINGS ARE TO BE REMOVED BY THE CONTRACTOR. ADDITIONALLY, ALL EXISTING SIGNAGE SCHEDULED FOR REMOVAL WILL ALSO BE APPROPRIATED BY THE CONTRACTOR. THESE ITEMS WILL REMAIN THE PROPERTY OF THE VILLAGE, AND SHALL BE DELIVERED TO THE OWNER AT ITS PUBLIC WORKS FACILITY AT 2734 S. 9TH AVENUE, BROADVIEW, IL 60155.

## NOTIFICATION OF RESIDENTS

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING WRITTEN NOTICE TO ALL RESIDENCES AND/OR PLACES OF BUSINESS IN THE WORK ZONE AT LEAST ONE (1) WORKING DAY PRIOR TO PERFORMING ANY CONSTRUCTION ACTIVITY THAT WILL ELIMINATE ACCESS TO THEIR PROPERTY. THE WRITTEN NOTICE SHALL BE APPROVED BY THE ENGINEER AND COORDINATED WITH THE VILLAGE PRIOR TO THE BEGINNING OF CONSTRUCTION.

## TRAFFIC PROTECTION

WHEN WORK COMMENCES, THE CONTRACTOR SHALL ASSUME THE MAINTENANCE OF ANY PAVEMENT, SHOULDERS, DRAINAGE FACILITIES, TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS, AND OTHER APPURTENANCES ON ROADWAYS WITHIN THE LIMITS OF THE CONTRACT THAT ARE TO BE USED BY THE PUBLIC DURING CONSTRUCTION AND TO RETAIN THIS MAINTENANCE RESPONSIBILITY UNTIL PROJECT COMPLETION. NEED FOR SNOW AND ICE CONTROL DURING THE CONSTRUCTION PERIOD SHALL BE ACCOMMODATED FOR BY OTHERS.

## PLUGGING EXISTING SEWERS AND DRAINS

UNLESS OTHERWISE SPECIFIED, ABANDONED SEWERS AND DRAINS, AS DESIGNATED BY THE ENGINEER, SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FOOT LONG NON-SHRINK/MORTAR PLUG.

## UNDERCUT AND AGGREGATE SUBGRADE IMPROVEMENT

A QUANTITY OF AGGREGATE SUBGRADE IMPROVEMENT AND SUBGRADE REMOVAL HAVE BEEN PROVIDED FOR USE IF THE EXISTING SOILS ARE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH IMPROVED SUBGRADE WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHALL BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOIL SHALL BE REMOVED AND REPLACED AS DETERMINED BY THE ENGINEER. IF UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY OF AGGREGATE SUBGRADE IMPROVEMENT WILL REMAIN UNUSED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR. THE 3-INCH CAPPING AGGREGATE (CA-6 GRADATION) WILL NOT BE REQUIRED SINCE GRANULAR SUBBASE WILL BE PLACED ON TOP OF THE AGGREGATE SUBGRADE IMPROVEMENT.

THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECT BY THE ENGINEER AT CONTRACTOR EXPENSE.

## STORM SEWER STRUCTURES

PRE-CAST REINFORCED CONCRETE SECTIONS FABRICATED IN ACCORDANCE WITH ASTM C-478 WILL BE USED ON ALL STRUCTURES AND RECONSTRUCTED STRUCTURES. FINAL ADJUSTMENT SHALL BE MADE USING PRE-CAST ADJUSTING RINGS. A MAXIMUM OF 6" OF ADJUSTING RINGS WILL BE PERMITTED. THE WORK DESCRIBED WITHIN THE SPECIAL PROVISION FOR FRAMES AND LIDS TO BE ADJUSTED (SPECIAL) SHALL BE PERFORMED WHEN INSTALLING A NEW STORM SEWER STRUCTURE.

## MANHOLE OR VALVE VAULT COVERS

THE WORD "WATER", "SANITARY", OR "STORM" SHALL BE CAST INTO THE LID OF EACH RESPECTIVE MANHOLE OR VALVE VAULT.

## BACKFILLING SEWERS UNDER ROADWAY

FOR SEWERS UNDER THE ROADWAY, BACKFILLING METHODS TWO AND THREE (JETTING) AS DESCRIBED IN ARTICLE 550.07 WILL NOT BE ALLOWED.

## CONCRETE BREAKERS

WHEN REMOVING PAVEMENT, CURB AND GUTTER, SHOULDER, AND/OR ANY OTHER STRUCTURES, THE USE OF ANY TYPE OF CONCRETE BREAKERS SUCH AS DROP HAMMERS, WHICH MIGHT DAMAGE UNDERGROUND PUBLIC OR PRIVATE UTILITIES, WILL NOT BE PERMITTED. UNDER NO CIRCUMSTANCES WILL THE USE OF A FROST BALL BE PERMITTED.

## NOTE

THE CONTRACTOR SHALL NOTIFY THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	3
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

## M.W.R.D.G.C. GENERAL NOTES

### A. REFERENCED SPECIFICATIONS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
  - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
  - STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
    - VILLAGE OF BROADVIEW MUNICIPAL CODE;
    - THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
- IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

### b. NOTIFICATIONS

- THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
- THE VILLAGE OF BROADVIEW ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

### c. GENERAL NOTES

- ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS 0.0 FT.
- MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION OR TESTING OF THIS WORK ON THE PROJECT.
- THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
- THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
- ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED BY THE CONTRACTOR.
- MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
- THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENT TO NOTIFY ALL INSPECTION AGENCIES.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.
- d. SANITARY SEWER**
  - THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
  - A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
  - DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
  - ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
  - ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
  - ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
  - ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE) FUSION)	ASTM D-3350	ASTM D-3261, F-2620 (HEAT FUSION)
	ASTM D-3035	ASTM D-3212, F-477
(GASKETED)		
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D-3212, F-477

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE 1/2" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
- ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS, SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
  - A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.
  - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
  - WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING FLEXIBLE NON-SHEAR CONNECTORS TO HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATERMAIN, THE SEWER SHALL BE CONSTRUCTED TO WATERMAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATERMAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE "PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
- EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
- A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

### e. EROSION AND SEDIMENT CONTROL

- THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
- ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
  - UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
  - ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
- MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
- TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
- ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
- VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
- EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
- STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
- THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGED TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
- ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\cadd\She\04\_MWRDGC\_GeneralNotes.dwg Jan 11, 2019 - 10:56am



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.
-------------	-------------------------	--------------

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	4
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

I.H.E. PROJECT NO. 120-17-28301

## SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE RECONSTRUCTION 0004 80% FEDERAL 20% LOCAL	CONSTRUCTION TYPE CODE RECONSTRUCTION 0043 0% FEDERAL 100% LOCAL
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CUYD	500	500	
20700220	POROUS GRANULAR EMBANKMENT	CUYD	500	500	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	5	5	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	5	5	
25200100	SODDING	SQ YD	700	700	
25200200	SUPPLEMENTAL WATERING	UNIT	10	10	
28000510	INLET FILTERS	EACH	15	15	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	650	650	
30300112	AGGREGATE SUBGRADE IMPROVEMENT, 12"	SQ YD	7,450	7,450	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	120	120	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	240	240	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	640	640	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	100	100	
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	60	60	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	100	100	
42000900	HIGH-EARLY-STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT 8"	SQ YD	455	455	
42001000	HIGH-EARLY-STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT 9"	SQ YD	6,430	6,430	
42001300	PROTECTIVE COAT	SQ YD	9,285	9,285	
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	40	40	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	16,100	16,100	
42400800	DETECTABLE WARNINGS	SQ FT	60	60	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	525	525	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	3,425	3,425	
44000600	SIDEWALK REMOVAL	SQ FT	11,900	11,900	
550A2340	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 18"	FOOT	235	235	
550A2540	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 18"	FOOT	245	245	
550B2320	STORM SEWERS, RUBBER GASKET, CLASS B, TYPE 1 12"	FOOT	254	254	
* 56103000	DUCTILE IRON WATER MAIN 6"	FOOT	25		25
* 56103100	DUCTILE IRON WATER MAIN 8"	FOOT	40		40
* 56103300	DUCTILE IRON WATER MAIN 12"	FOOT	420		420
* 56105200	WATER VALVES 12"	EACH	3		3
* 56400500	FIRE HYDRANTS TO BE REMOVED	EACH	2		2
* 56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	2		2
60108204	PIPE UNDERDRAINS TYPE2, 4"	FOOT	310	310	
60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3		3

~ DENOTES SPECIAL PROVISION HAS BEEN PROVIDED  
\* DENOTES SPECIALTY ITEM

CODE NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE RECONSTRUCTION 0004 80% FEDERAL 20% LOCAL	CONSTRUCTION TYPE CODE RECONSTRUCTION 0043 0% FEDERAL 100% LOCAL
60255500	MANHOLES TO BE ADJUSTED	EACH	1	1	
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	17	17	
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	1	1	
60266100	VALVE VAULTS TO BE RECONSTRUCTED	EACH	11	11	
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	30	30	
61140600	STORM SEWERS (SPECIAL), 18"	FOOT	61	61	
61140800	STORM SEWERS (SPECIAL), 21"	FOOT	10	10	
61140900	STORM SEWERS (SPECIAL), 24"	FOOT	40	40	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CUYD	2,500	2,500	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	5	5	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	
* 66901002	ON-SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	150	150	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	
67100100	MOBILIZATION	L SUM	1	1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	215	215	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3,500	3,500	
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	40	40	
* 72000100	SIGN PANEL - TYPE 1	SQ FT	205	205	
* 72900100	METAL POST - TYPE A	FOOT	400	400	
* 78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	430	430	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	3,220	3,220	
* 78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	105	105	
* 78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	60	60	
* 78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	70	70	
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1,000	1,000	
* 80400100	ELECTRIC SERVICE INSTALLATION	EACH	2	2	
* 81028200	UNDERGROUND CABLE, GALVANIZED STEEL, 2" DIA.	FOOT	40	40	
* 81028250	UNDERGROUND CABLE, GALVANIZED STEEL, 5" DIA.	FOOT	90	90	
* 81603040	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLPTYPE USE), 1" DIA. POLYETHYLENE	FOOT	2,134	2,134	
* 81702400	ELECTRIC CABLE IN CONDUIT, 600V (XLPTYPE USE) 3-1/C NO. 2	FOOT	40	40	
* 82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240 VOLT, 100 AMP	EACH	2	2	
* 8306500	LIGHT POLE ALUMINUM, 30 FT. M.H., 12 FT. MAST ARM	EACH	12	12	
* 83600352	LIGHT POLE FOUNDATION, METAL, 11 1/2" BOLT CIRCLE, 85/8" X 6'	EACH	12	12	
* 83800505	BREAKAWAY DEVICE COUPLING ALUMINUM SKIRT	EACH	48	48	
* 84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	16	16	
* 84200804	REMOVAL OF POLE FOUNDATION	EACH	16	16	
X0322719	TEMPORARY DRAINAGE CONNECTION	EACH	9	9	
X0325143	FILLING EXISTING VAULT	EACH	2	2	

Drawing file: W:\Projects\_by\_Silence\Breadboard\12017283 - Bridge Drive Stage 1 - Design\CD\SHA\05-05\_Summary\_of\_Quantities.dwg Mar 07 2019 1:45pm



CH2 Engineers  
 Municipal Consultants  
 1007 North of  
 Broad Street  
 9933 Roosevelt Road  
 Westchester, IL 60154-2790  
 Phone: 708-615-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	03/07/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

### SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	5
FIELD BOOK NO.:		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

I.H.E. PROJECT NO. 120-1728301

## SUMMARY OF QUANTITIES

	CODE NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE RECONSTRUCTION 0004 80% FEDERAL 20% LOCAL	CONSTRUCTION TYPE CODE RECONSTRUCTION 0043 0% FEDERAL 100% LOCAL
~	X0325607	GROUND STABILIZATION GEOSYNTHETIC	SQ YD	6,430	6,430	
	X0327203	CASING PIPE, OPEN CUT, 24" STEEL	FOOT	58		58
~	X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	4,500	4,500	
~	X2080250	TRENCH BACKFILL, SPECIAL	CU YD	1,400	1,025	375
~	X2110104	TOPSOIL FURNISH AND PLACE, 4" (SPECIAL)	SQ YD	355	355	
~	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	350	350	
~	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	21	21	
~	X4023000	TEMPORARY ACCESS (ROAD)	EACH	3	3	
~	X5510100	STORM SEWER REMOVAL	FOOT	750	750	
~ *	X5610004	DUCTILE IRON WATER MAIN FITTINGS	POUND	3,000		3,000
~ *	X5630708	CONNECTION TO EXISTING WATER MAIN 8"	EACH	2		2
~ *	X5630712	CONNECTION TO EXISTING WATER MAIN 12"	EACH	1		1
~	X6022805	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID, SPECIAL	EACH	11	11	
	X6023700	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID, SPECIAL	EACH	4	4	
~	X6064200	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL)	FOOT	3,425	3,425	
~	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
~ *	X7240600	REMOVE AND RE-ERECT EXISTING SIGN	EACH	4	4	
~	Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	10	10	
~	Z0019600	DUST CONTROL WATERING	UNIT	100	100	
~	Z0023200	FILLING DRAINAGE STRUCTURES	EACH	3	3	
~	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	265	265	
~ *	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	8	8	
~	Z0056644	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 8"	FOOT	185	185	
~ *	Z0058500	SANITARY SEWER, TYPE 1 12"	FOOT	54	54	
~	Z0062000	SAW CUTTING	FOOT	2,000	2,000	
~	Z0062456	TEMPORARY PAVEMENT	SQ YD	1,500	1,500	
Δ	Z0076600	TRAINEES	HOUR	500	500	
Δ	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500	
~ *	XX000836	PRESSURE TESTING AND DISINFECTION	L SUM	1		1
~ *	XX006227	RESTRAINED JOINT 8"	EACH	8		8
~ *	XX006228	RESTRAINED JOINT 6"	EACH	2		2
~ *	XX006834	ELECTRICAL CONNECTION TO EXISTING LIGHTING SYSTEM	EACH	4	4	
~ *	XX008914	RESTRAINED JOINT 12"	EACH	18		18
~ *	XX009296	LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE B	EACH	12	12	

Δ 0042  
 ~ DENOTES SPECIAL PROVISION HAS BEEN PROVIDED  
 \* DENOTES SPECIALTY ITEM

Drawing file: W:\Projects\_by\_Village\Brownsview\12017283 - Bragg Drive Stage 1 - Design\CAD\Site\05-06\_Sum\_of\_Qty.dwg Mar 07, 2018 - 1:45pm



100+ Years of  
 Experience  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-665-0300  
 www.hancock.com

DESIGNED - MWV	REVISED - 03/07/19
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG, MWV	REVISED -
DATE - 12/18/18	REVISED -

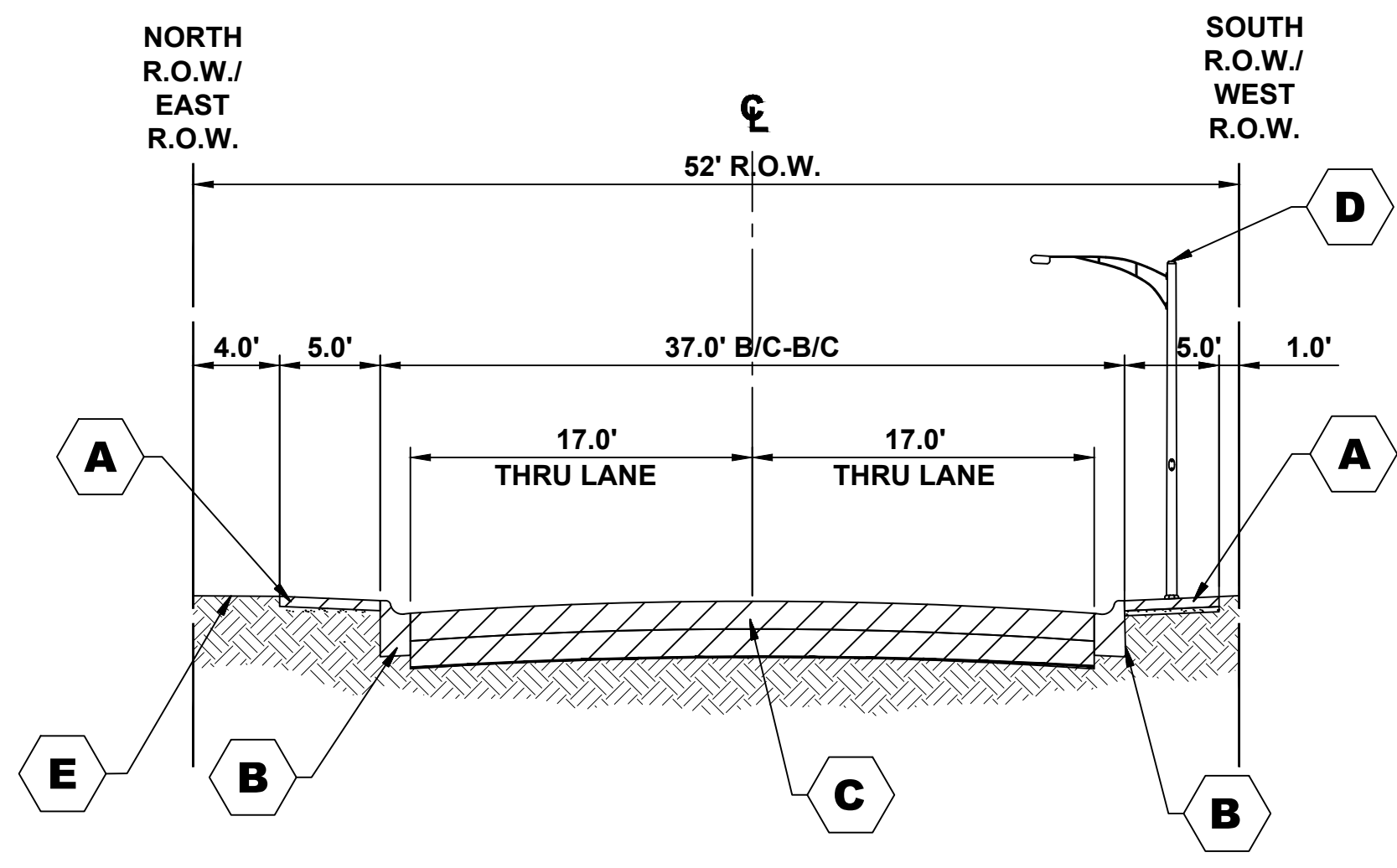
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

MUN RTE. 3015	SECTION 16-00080-00-PV	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 6
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

I.H.E. PROJECT NO. 120-17-28301



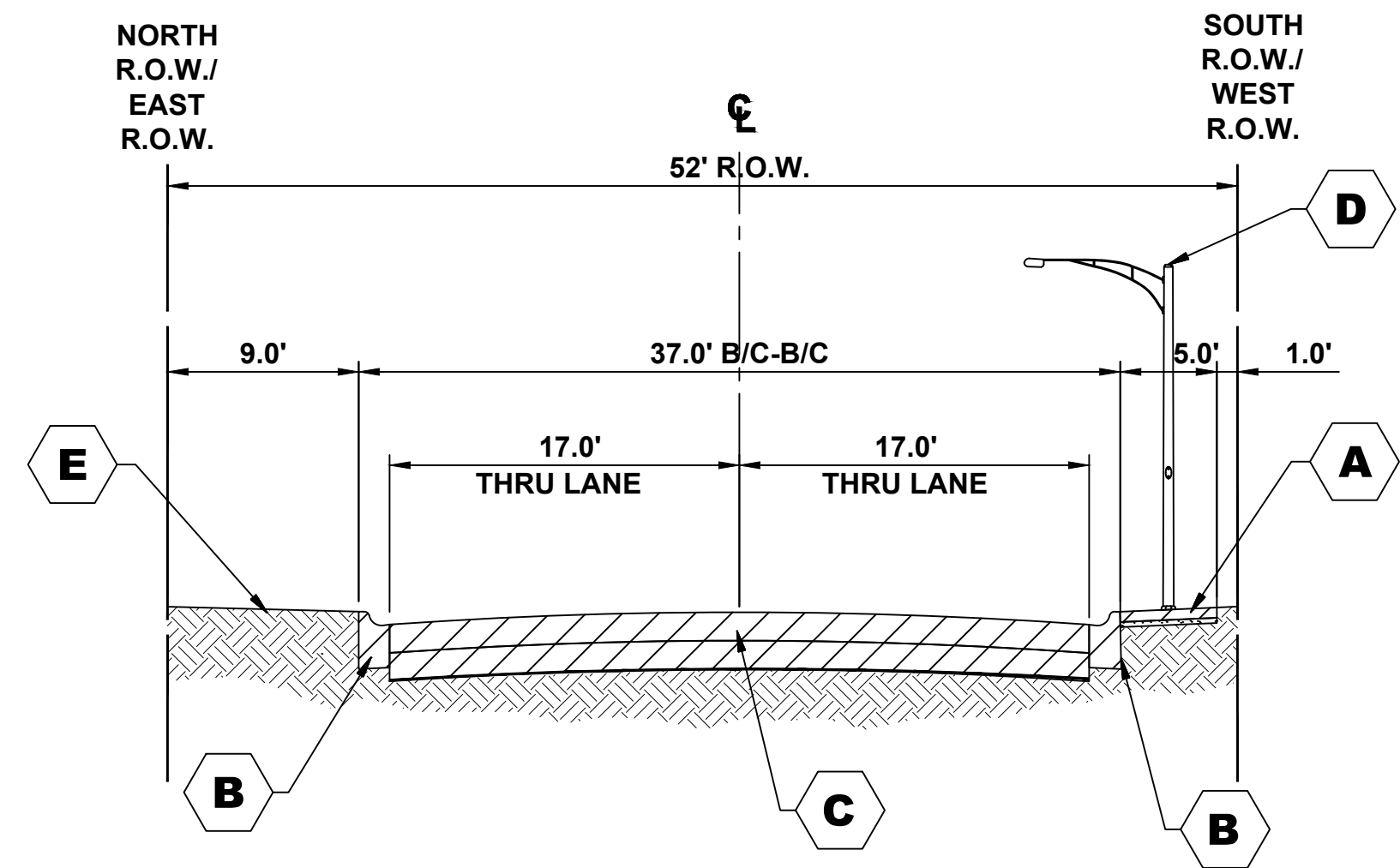
**EXISTING TYPICAL SECTION**  
**STA. 0+62 TO STA. 14+25, BRAGA DRIVE**

**TYPICAL SECTION LEGEND**

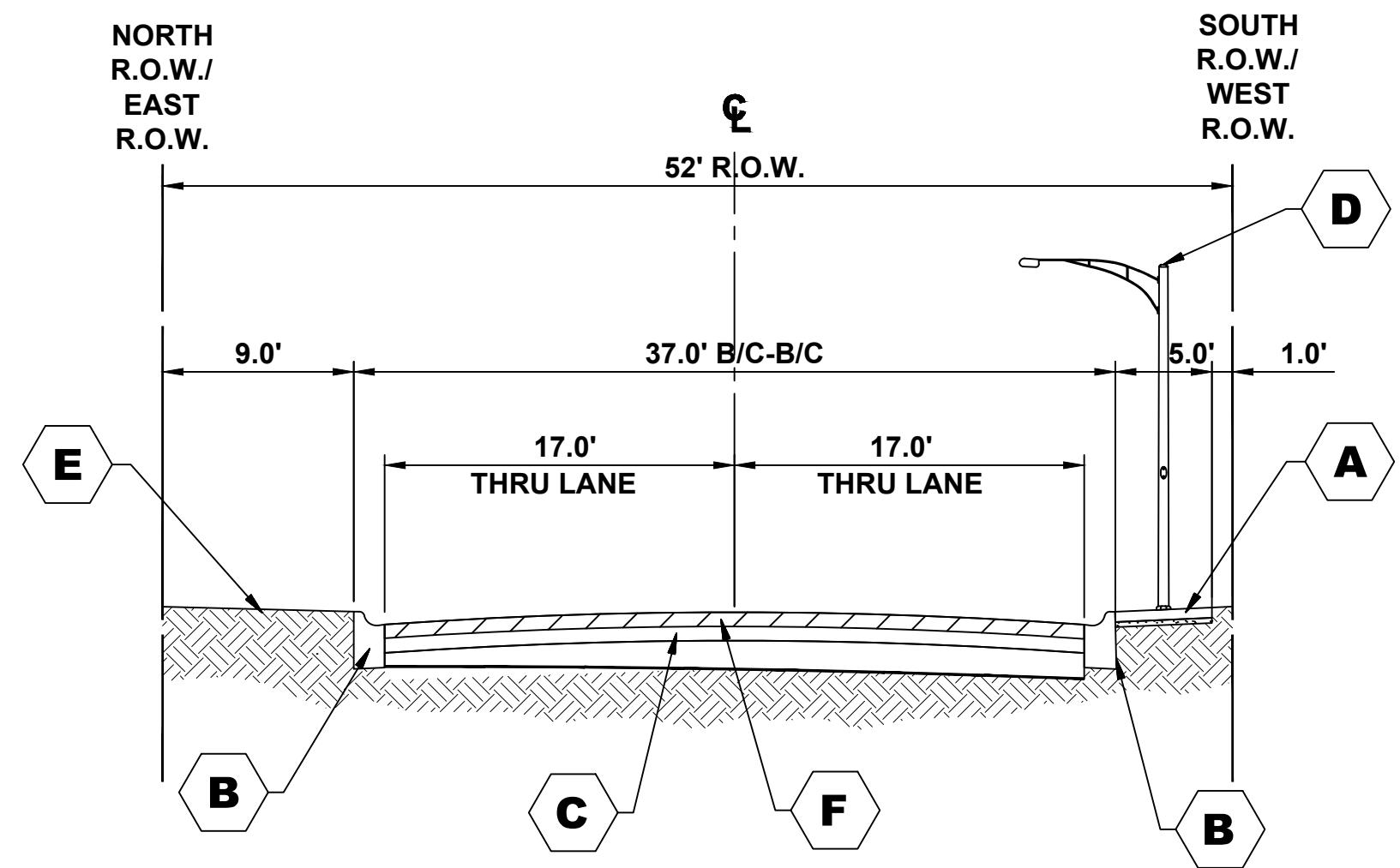
- EXISTING**
- A** PORTLAND CEMENT CONCRETE SIDEWALK
  - B** COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
  - C** EXISTING PAVEMENT
  - D** EXISTING STREET LIGHT TO BE REMOVED
  - E** LANDSCAPED PARKWAY
  - F** HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

<b>HOT-MIX ASPHALT MIXTURE REQUIREMENTS</b>	
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>INCIDENTAL HOT-MIX ASPHALT SURFACING - BUTT JOINT</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL 9.5mm)	4% @ 50 Gyr.
<b>INCIDENTAL HOT-MIX ASPHALT SURFACING - HMA PARKWAYS</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 3" (2 LIFTS) (IL 9.5mm)	4% @ 50 Gyr.
<b>TEMPORARY PAVEMENT</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5" (IL 9.5mm)	4% @ 50 Gyr.
<b>21ST AVENUE / 16TH STREET</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5" (IL 9.5mm)	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50, 2.5"	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.  
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.



**EXISTING TYPICAL SECTION**  
**STA. 14+25 TO STA. 17+45, 16TH STREET**



**EXISTING TYPICAL SECTION**  
**STA. 17+45 TO STA. 18+00, 16TH STREET**

<b>PAVEMENT CORE SUMMARY</b>					
BORE	STREET	STATION	LANE	BITUMINOUS	STONE BASE
SB-1	BRAGA	3+00, 14'RT	EASTBOUND LANE	5"	16"
SB-2	BRAGA	6+24, 14'LT	WESTBOUND LANE	5"	11"
SB-3	BRAGA	9+45, 11'RT	EASTBOUND LANE	4"	12"
SB-4	BRAGA	12+57, 13'LT	NORTHBOUND LANE	3.25"	11.75"
SB-5	16TH AVE.	15+35, 9'LT	EASTBOUND LANE	5"	11"
SB-6	21ST AVE.	17+71, 19'LT	NORTHBOUND LANE	5.25"	10.75"

**NOTES:**  
 THESE CORES REFLECT ONLY THE INFORMATION FOUND AT LOCATIONS LISTED. THEY DO NOT REFLECT ANY VARIATIONS WHICH MAY OCCUR BETWEEN THESE BORINGS.

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\07-08\_Typ\_Sections.dwg Jan 11, 2019 - 11:00am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

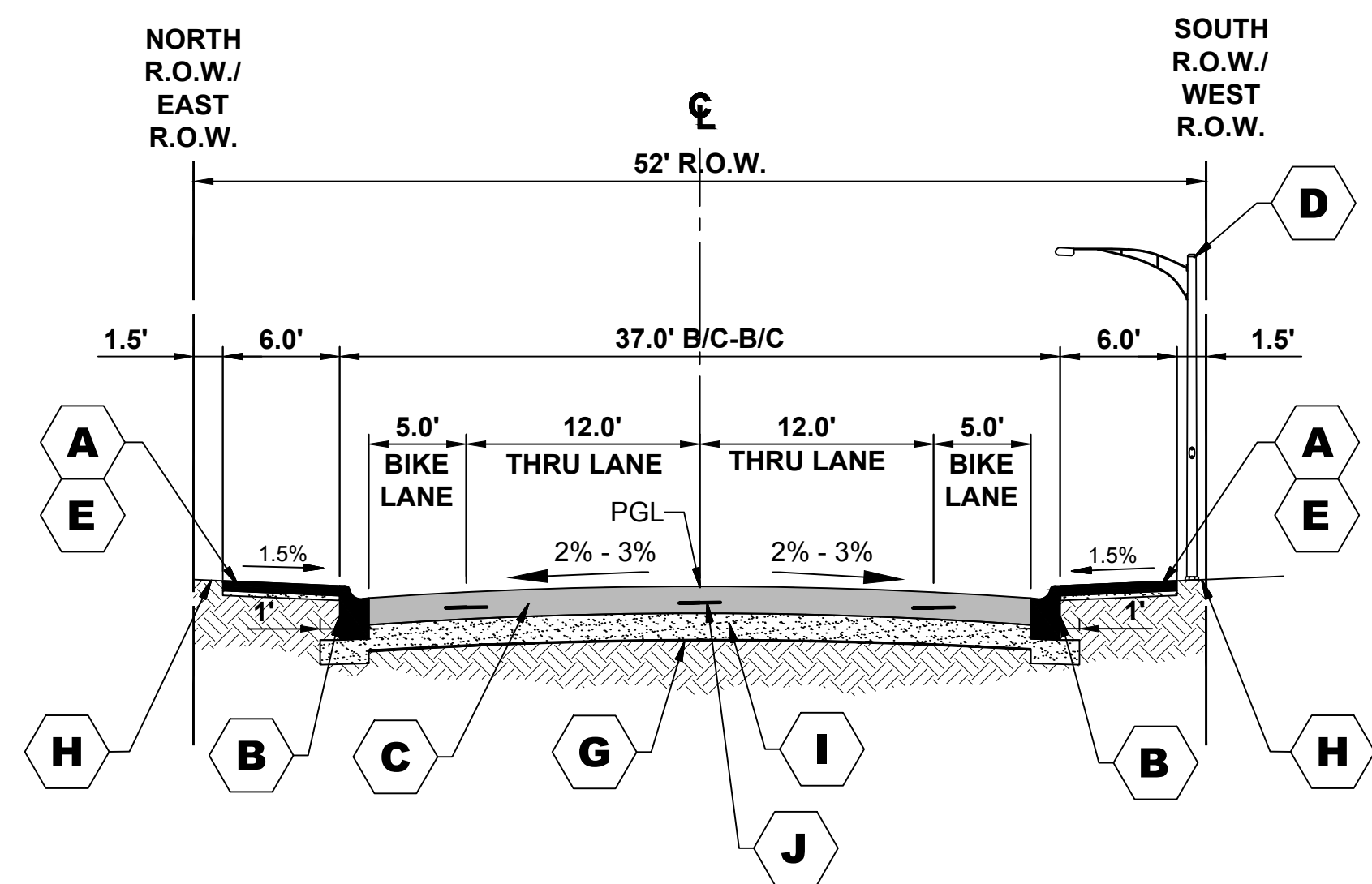
DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTIONS</b>	
SCALE: NONE	SHEET NO. 1 OF 2 SHEETS
STA.	TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	7
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

I.H.E. PROJECT NO. 120-17-28301

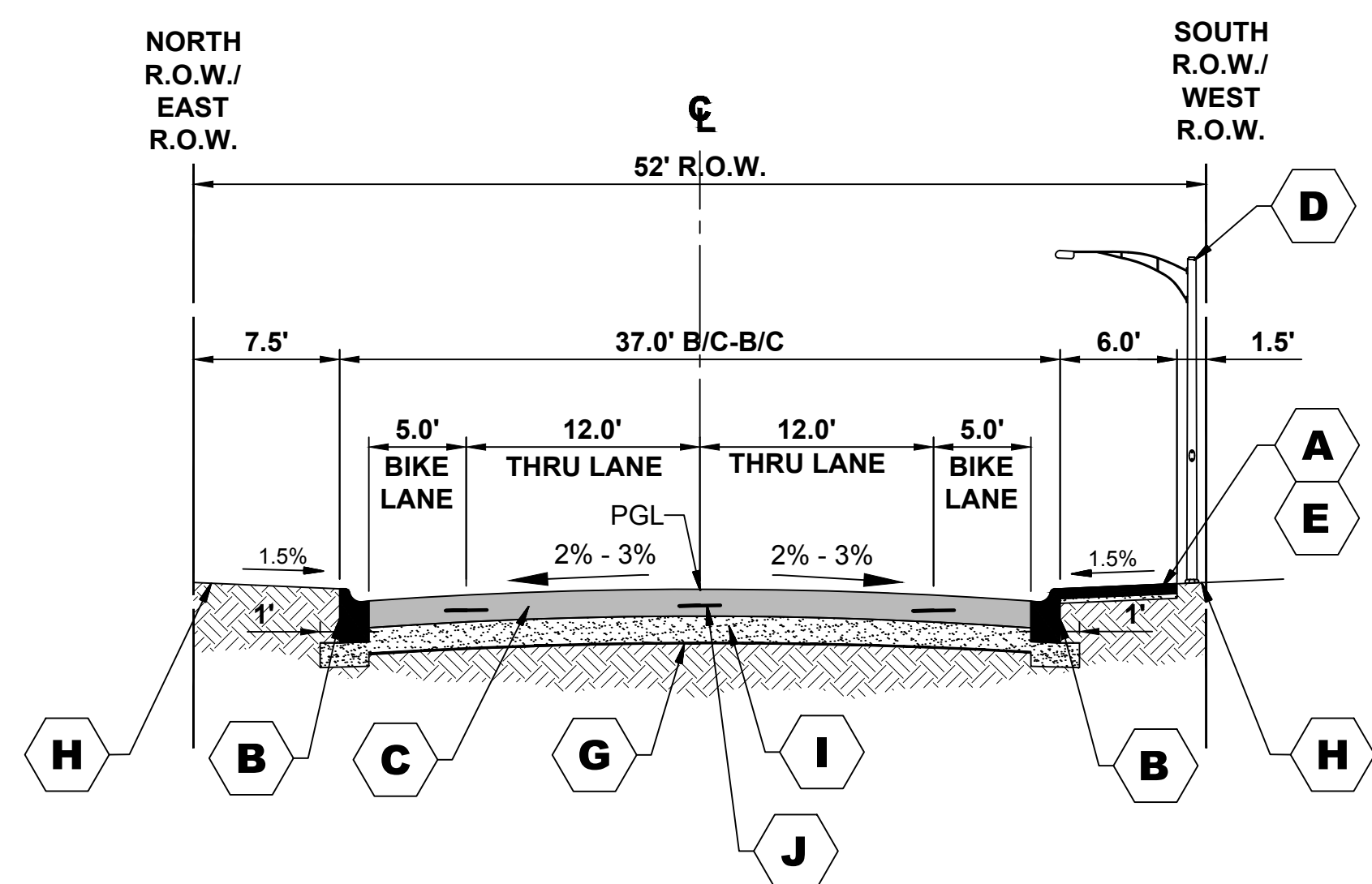


**PROPOSED TYPICAL SECTION**  
**STA. 0+62 TO STA. 14+25, BRAGA DRIVE**

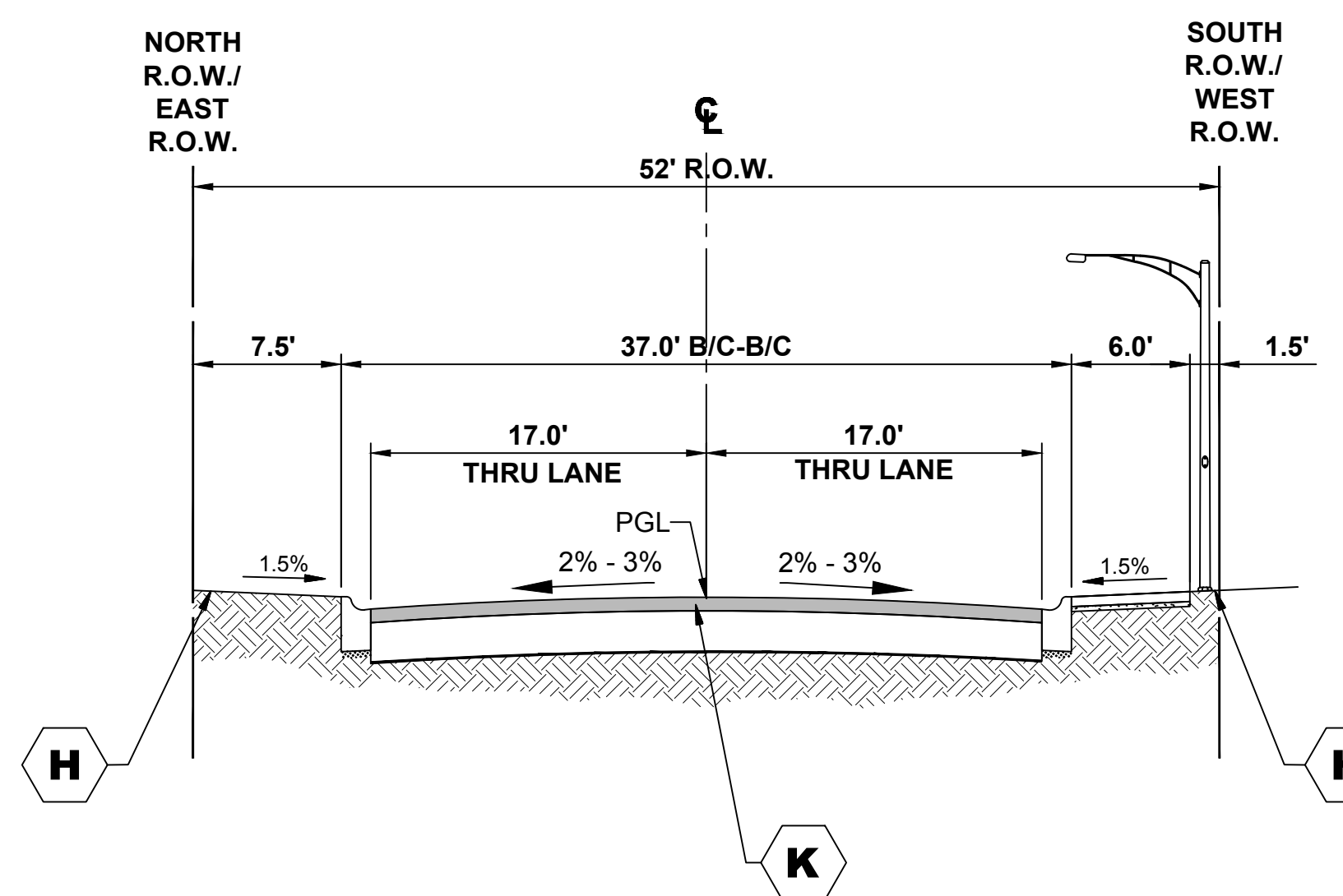
**TYPICAL SECTION LEGEND**

**PROPOSED**

- A** PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- B** COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- C** HIGH-EARLY-STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT, 9"
- D** PROPOSED LIGHT POLE
- E** SUBBASE GRANULAR MATERIAL, TYPE B, 2" FOR SIDEWALKS, 4" FOR DRIVEWAYS
- G** GROUND STABILIZATION GEOSYNTHETIC
- H** LANDSCAPED PARKWAY
- I** AGGREGATE SUBGRADE IMPROVEMENT, 12"
- J** TIE BARS
- K** HOT-MIX ASPHALT ASPHALT RESURFACING



**PROPOSED TYPICAL SECTION**  
**STA. 14+25 TO STA. 17+45, 16TH STREET**



**PROPOSED TYPICAL SECTION**  
**STA. 17+45 TO STA. 18+00, 16TH STREET**

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\07-08\_Typ\_Sections.dwg Feb 21, 2019 10:18am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED - MWV	REVISED - 2/21/19
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG, MWV	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

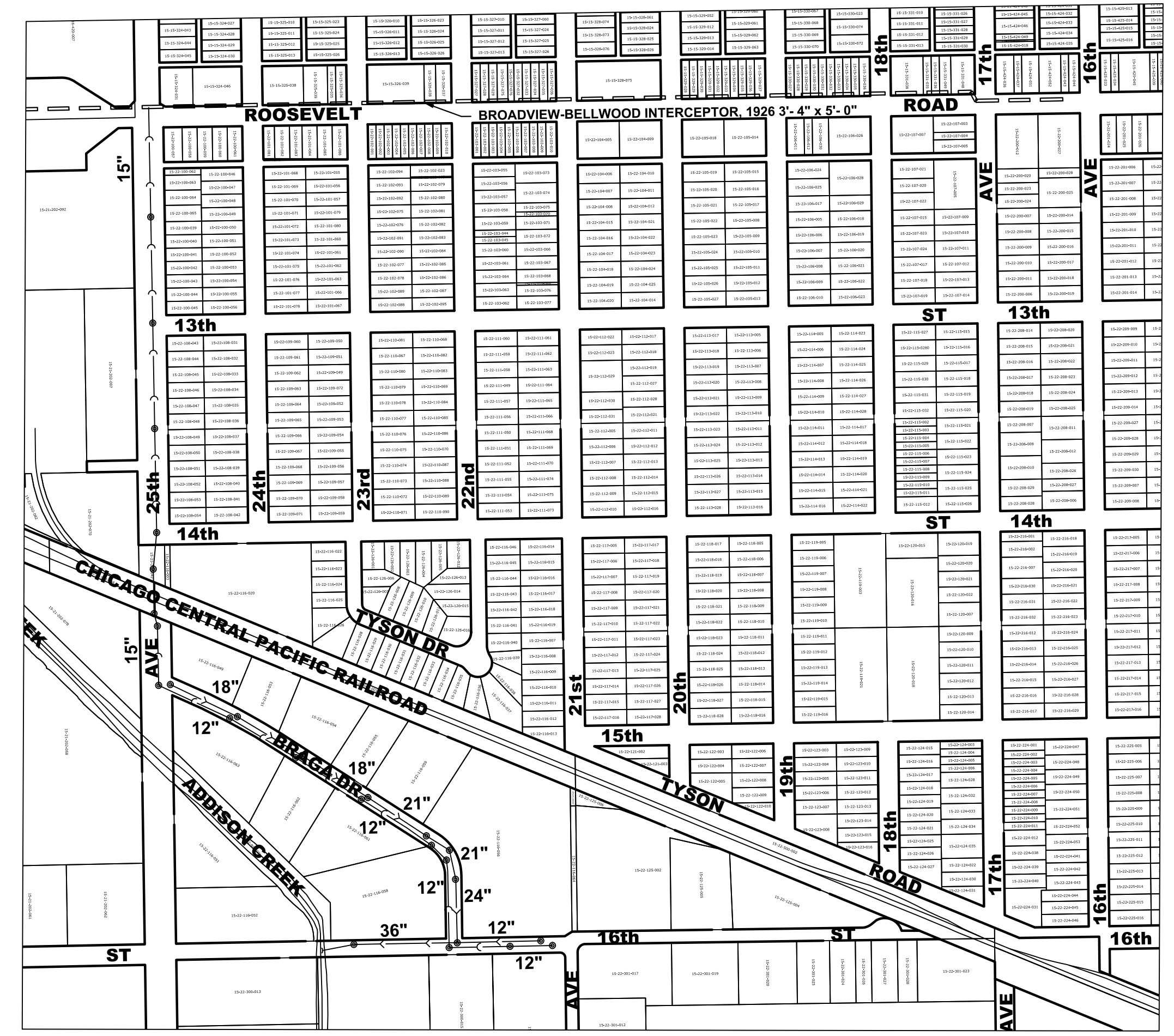
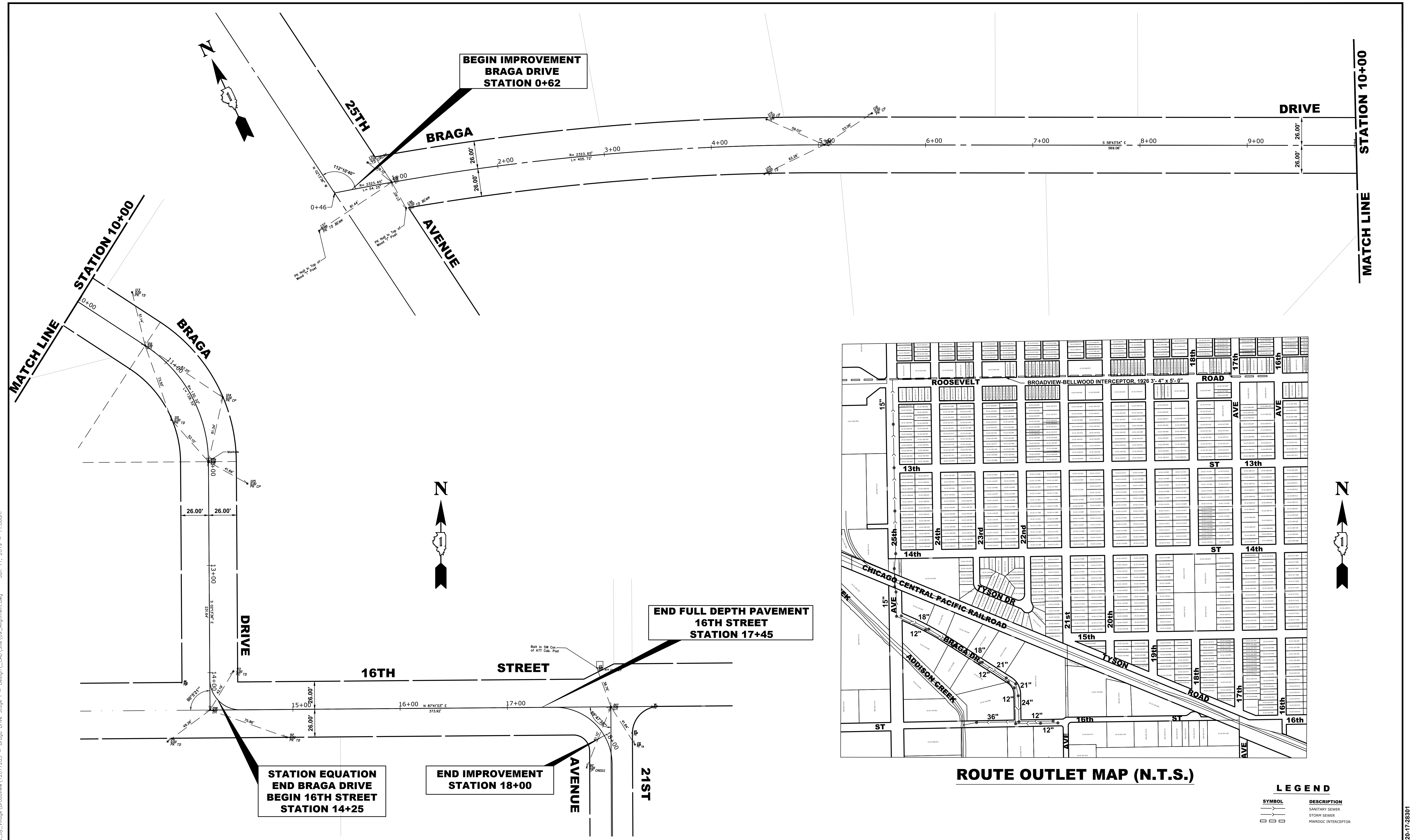
SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	8
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

I.H.E. PROJECT NO. 120-17-28301



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stages I - Design\CAD\Site\09\_Alignment.dwg Jan 11, 2019 - 11:06am



**ROUTE OUTLET MAP (N.T.S.)**

**LEGEND**

SYMBOL	DESCRIPTION
	SANITARY SEWER
	STORM SEWER
	MWRDGC INTERCEPTOR



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>BRAGA DRIVE ALIGNMENT AND TIES, ROUTE OUTLET MAP</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	9
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

E.I.E. PROJECT NO. 120-1728301

Drawing file: W:\Projects\_By\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg  
 Feb 21, 2019 - 10:07am

**BEGIN IMPROVEMENT  
BRAGA DRIVE  
STATION 0+62**

**BEGIN IMPROVEMENT  
BRAGA DRIVE  
STATION 0+62**

**25TH AVENUE**

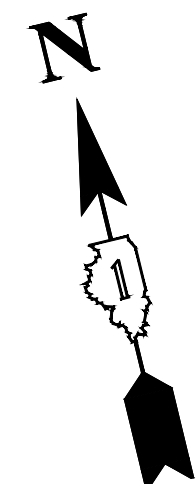
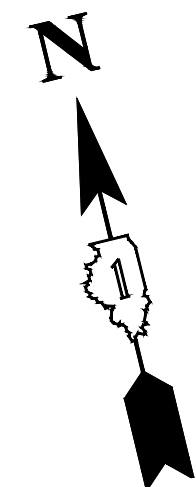
**25TH AVENUE**

**BRAGA**

**DRIVE**

**BRAGA**

**DRIVE**



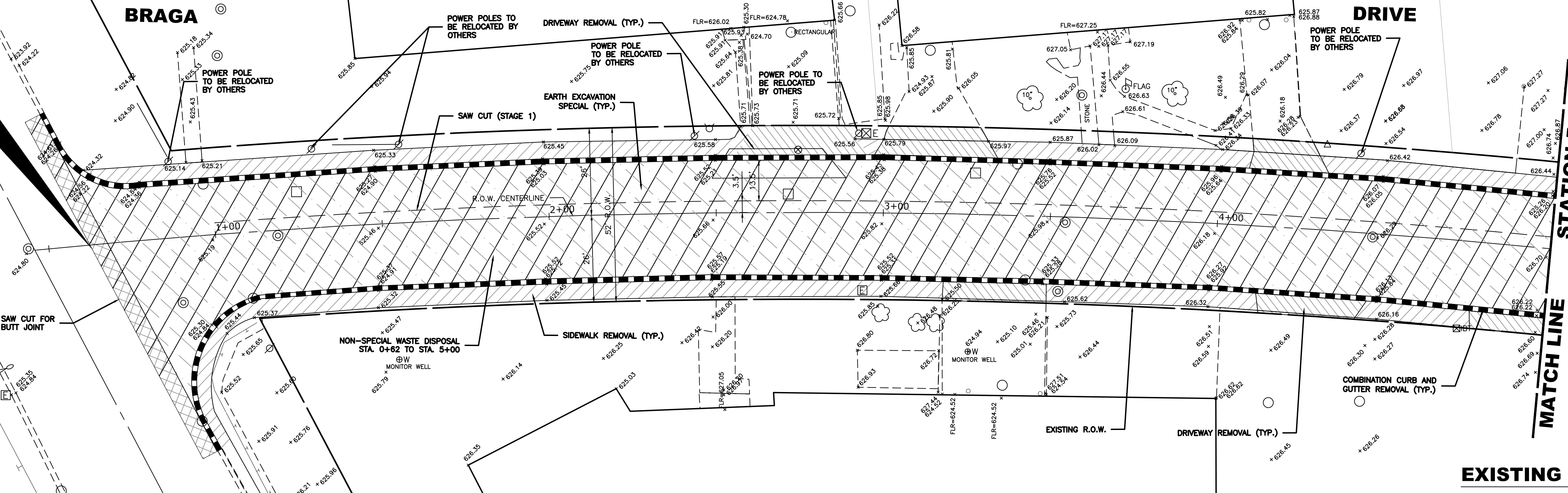
**STATION 5+00**

**STATION 5+00**

**MATCH LINE**

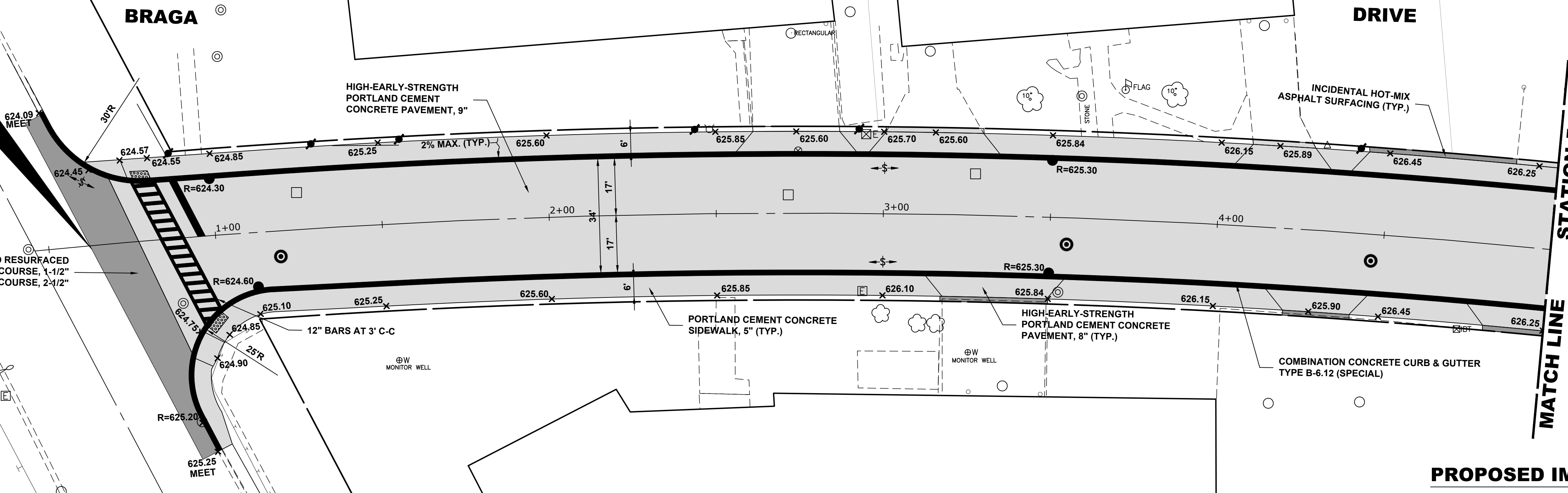
**MATCH LINE**

SAW CUT FOR BUTT JOINT

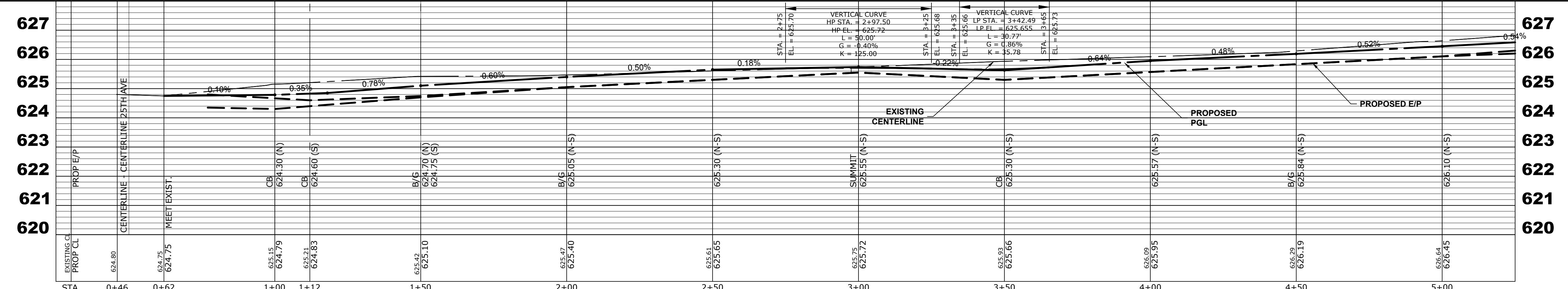


**EXISTING TOPOGRAPHY**

PAVEMENT TO BE MILLED AND RESURFACED  
HOT-MIX ASPHALT SURFACE COURSE, 1-1/2"  
HOT-MIX ASPHALT BINDER COURSE, 2-1/2"



**PROPOSED IMPROVEMENT**



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

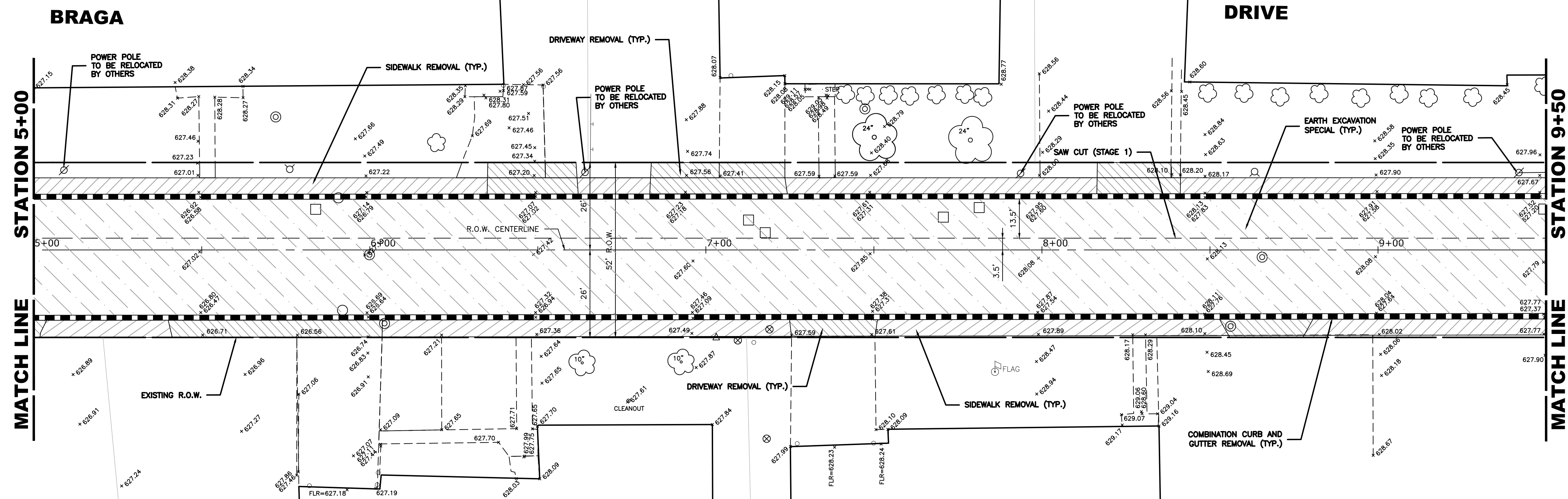
DESIGNED -	MWV	REVISED -	2/21/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

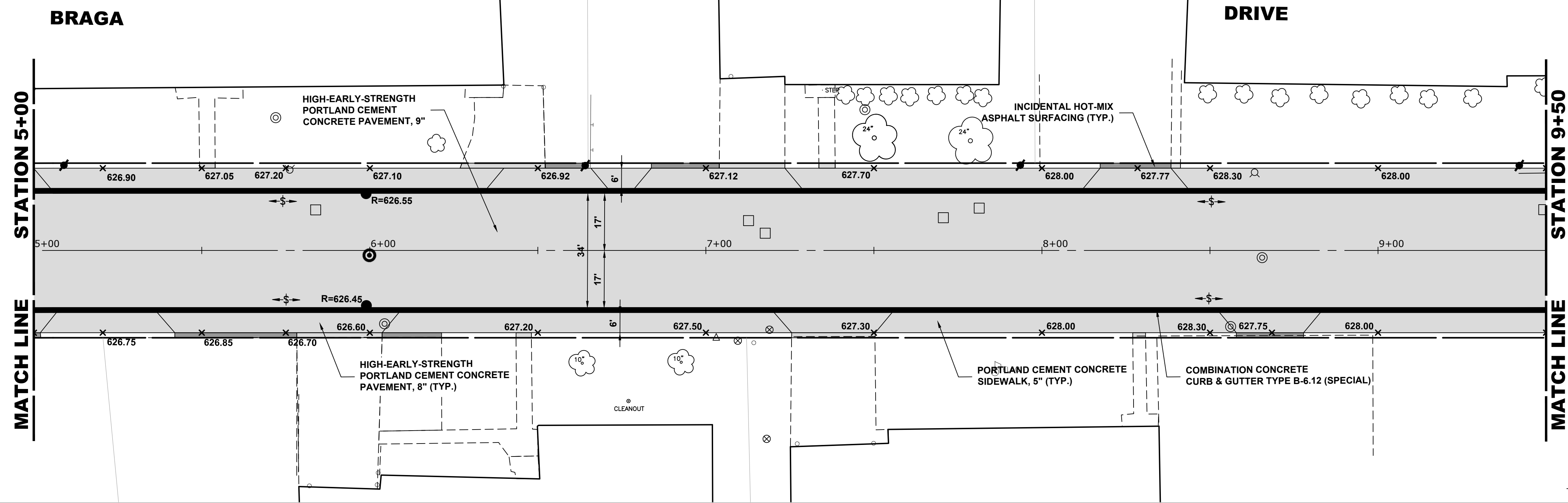
**BRAGA DRIVE  
PAVING PLAN AND PROFILE**  
 SCALE: H:1"=20', V:1"=2'    SHEET NO. 1 OF 5 SHEETS    STA. 0+00 TO STA. 5+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	10
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS   FED. AID PROJECT		

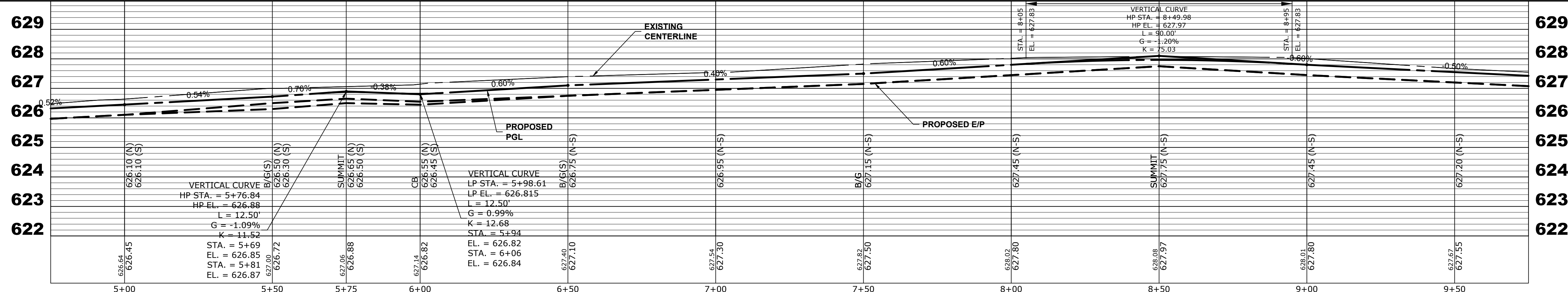
E.H.E. PROJECT NO. 120-17-28301



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENT**



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg Feb 21, 2019 - 10:05am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	2/21/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

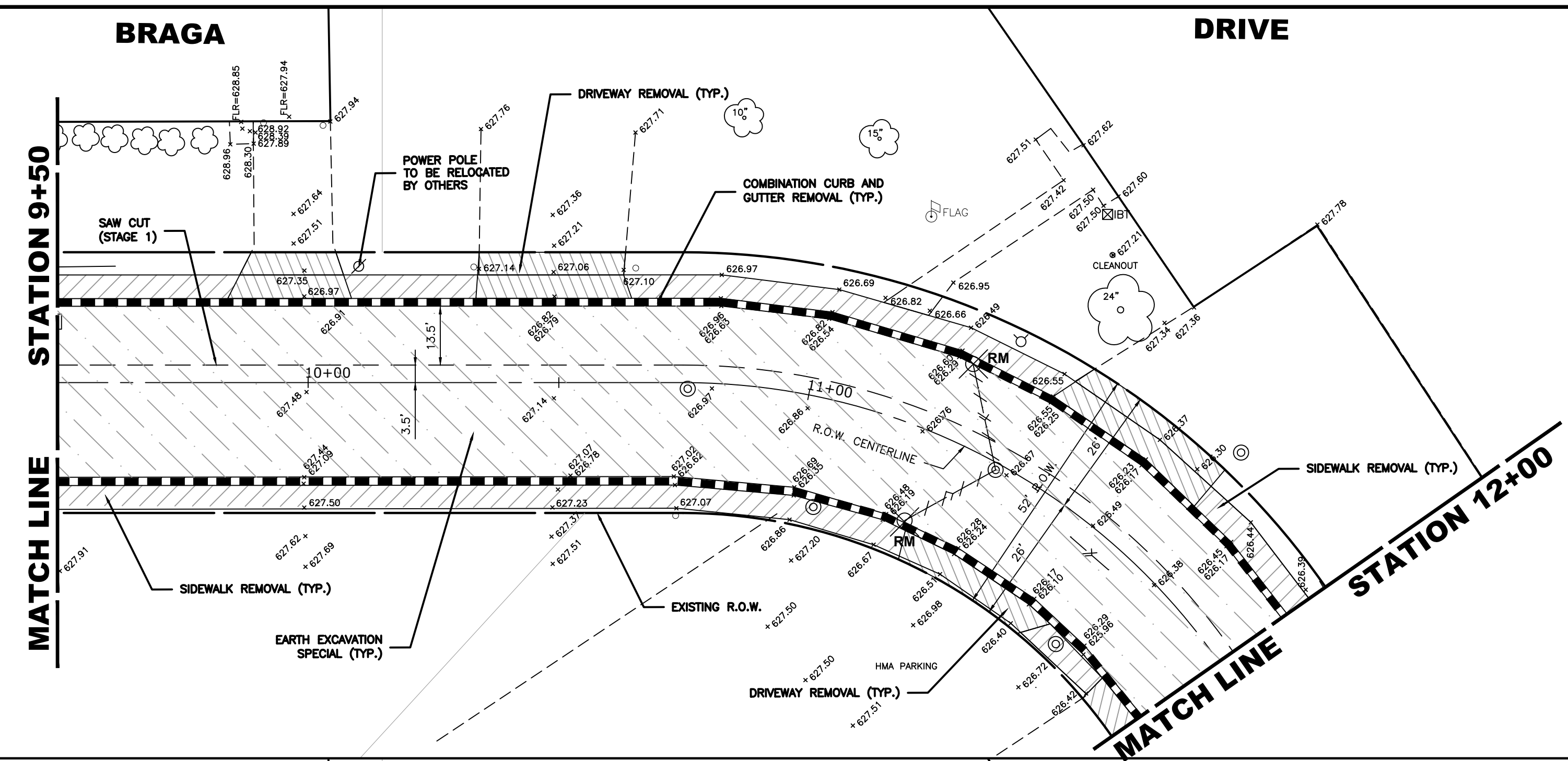
**BRAGA DRIVE  
 PAVING PLAN AND PROFILE**

SCALE: H:1"=20', V:1"=2' SHEET NO. 2 OF 5 SHEETS STA. 5+00 TO STA. 9+50

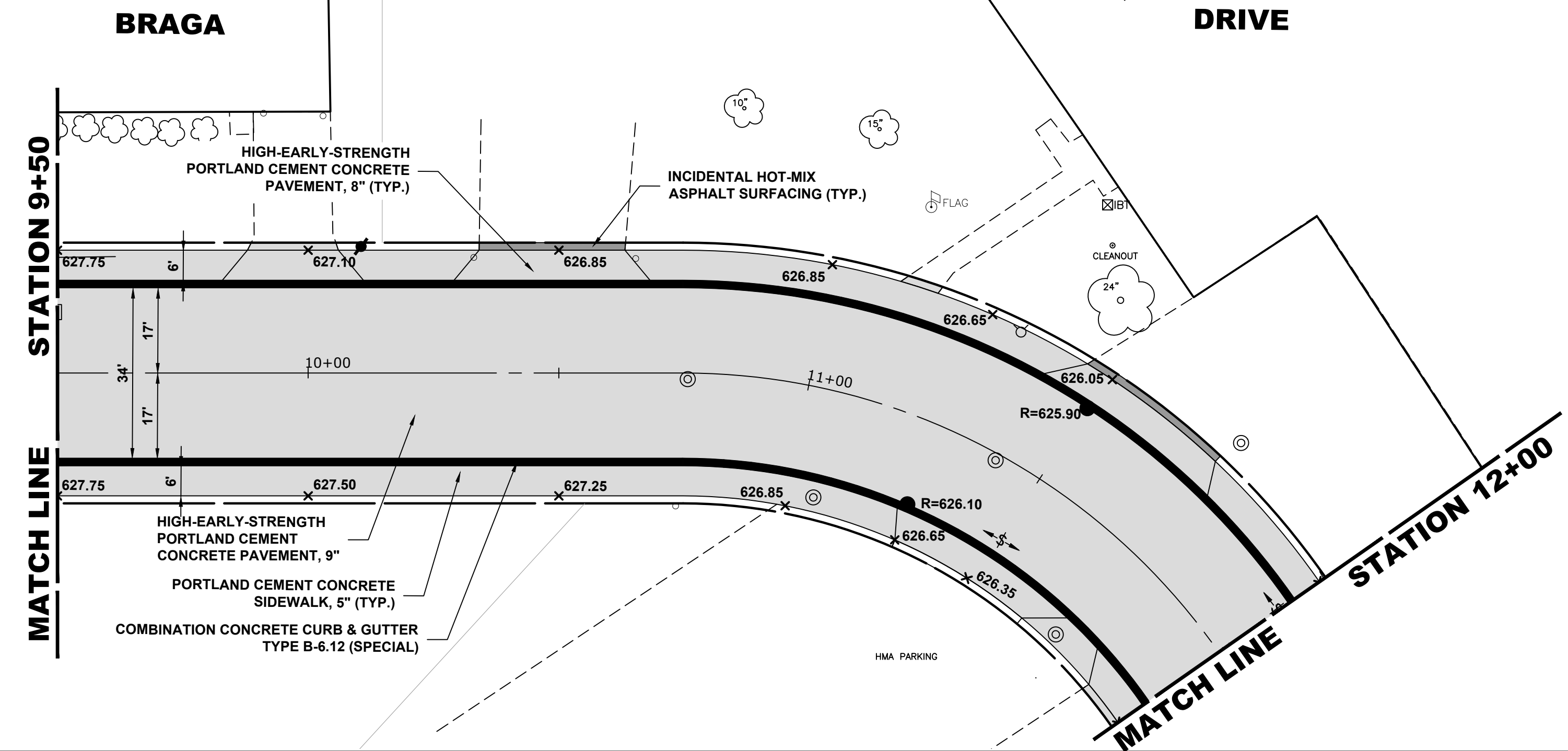
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	11
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

E.I.E. PROJECT NO. 120-17-28301

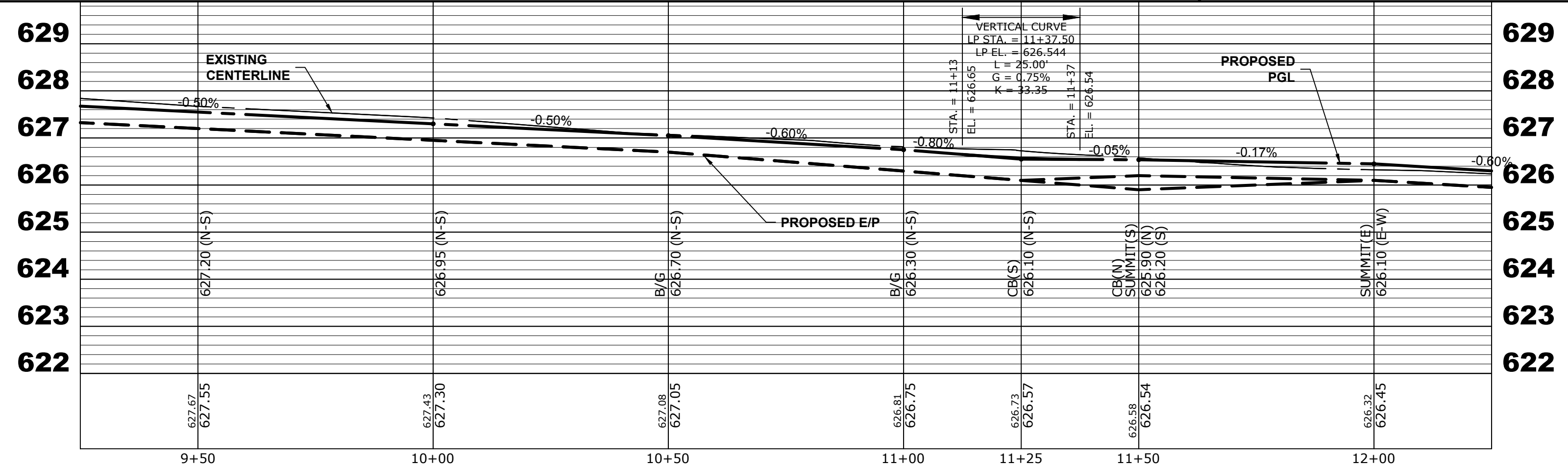
Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg Feb 21, 2019 - 10:00am



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENT**



**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	2/21/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

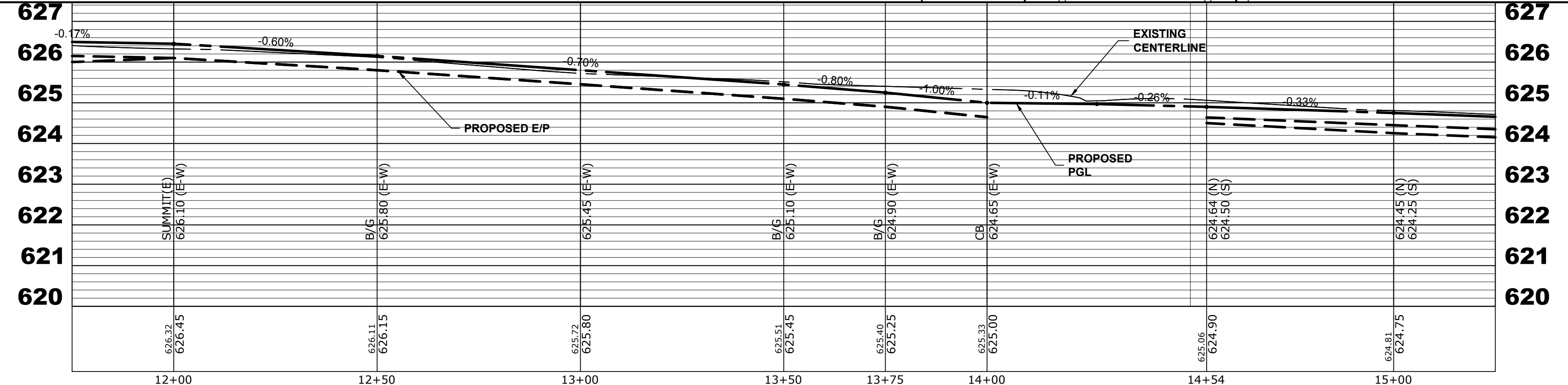
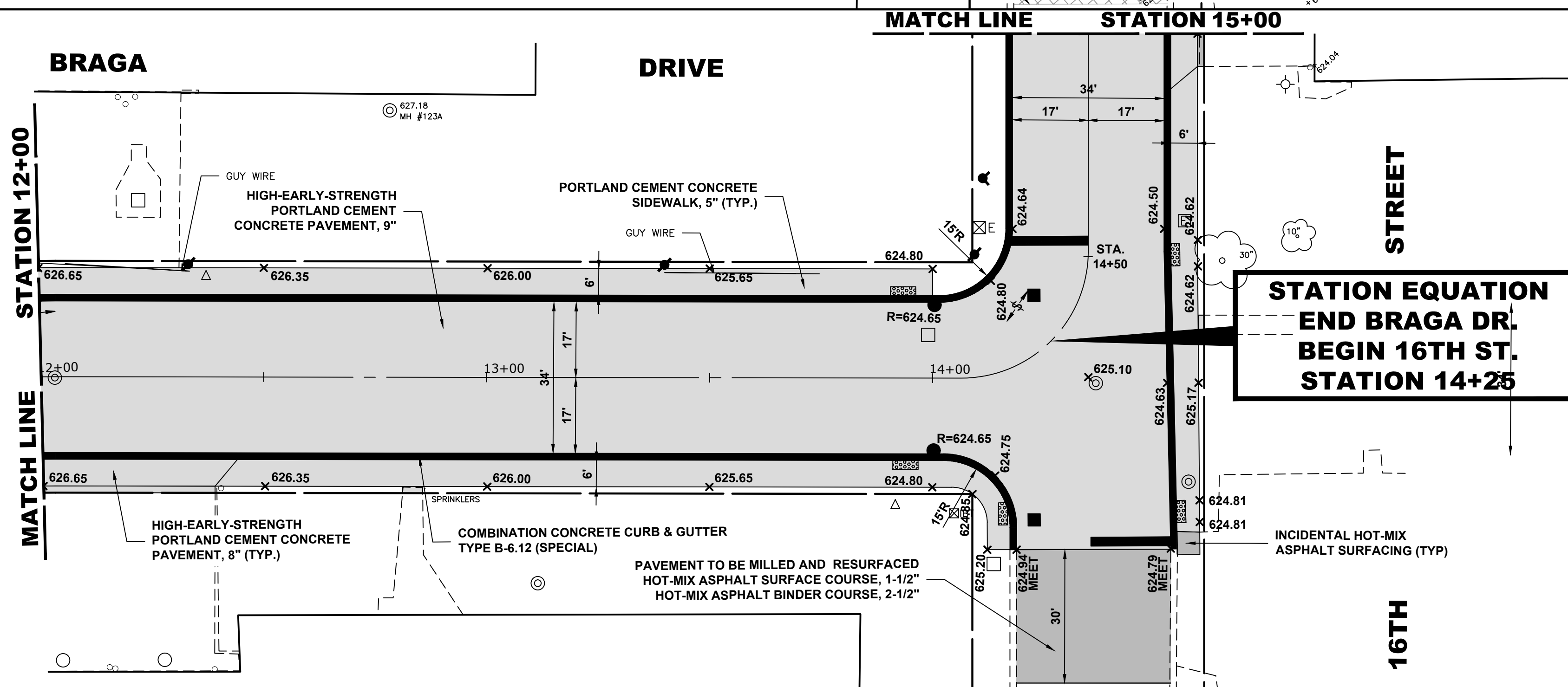
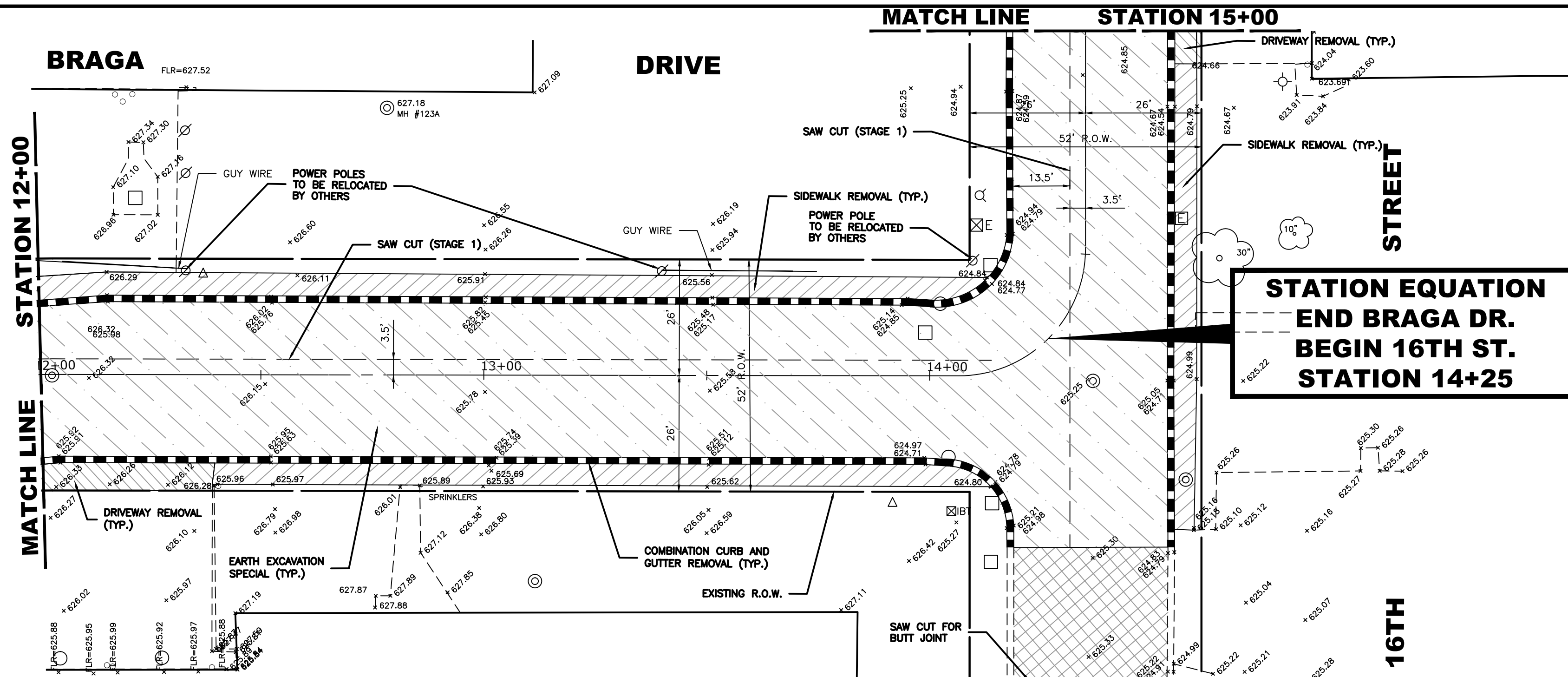
**BRAGA DRIVE  
 PAVING PLAN AND PROFILE**

SCALE: H:1"=20', V:1"=2'    SHEET NO. 3 OF 5 SHEETS    STA. 9+50 TO STA. 12+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	12
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_By\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg Feb 21, 2019 - 10:10am



**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	2/21/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

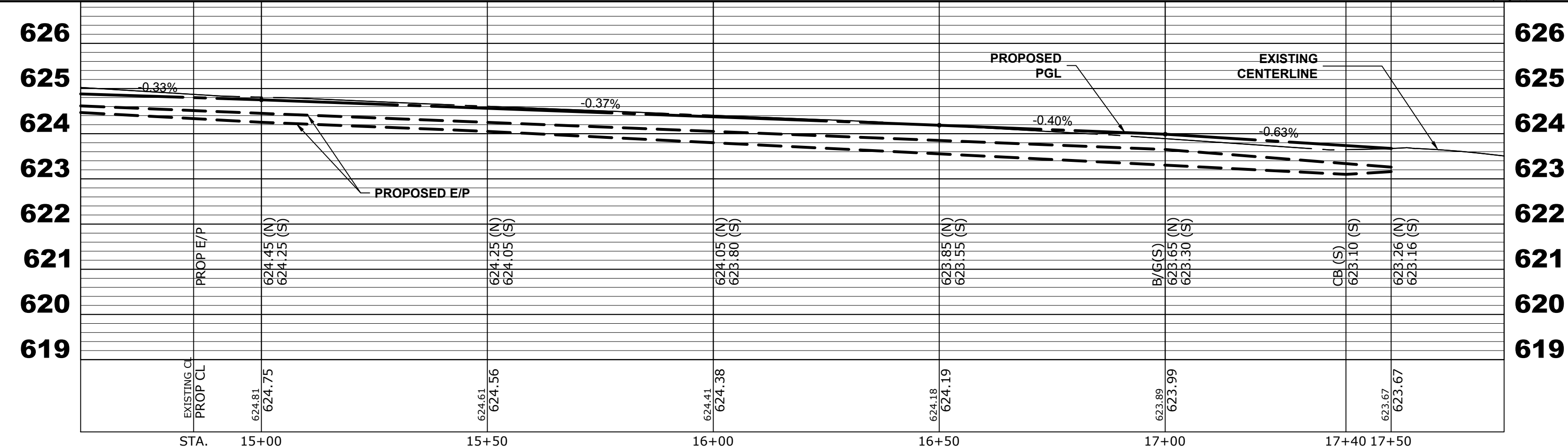
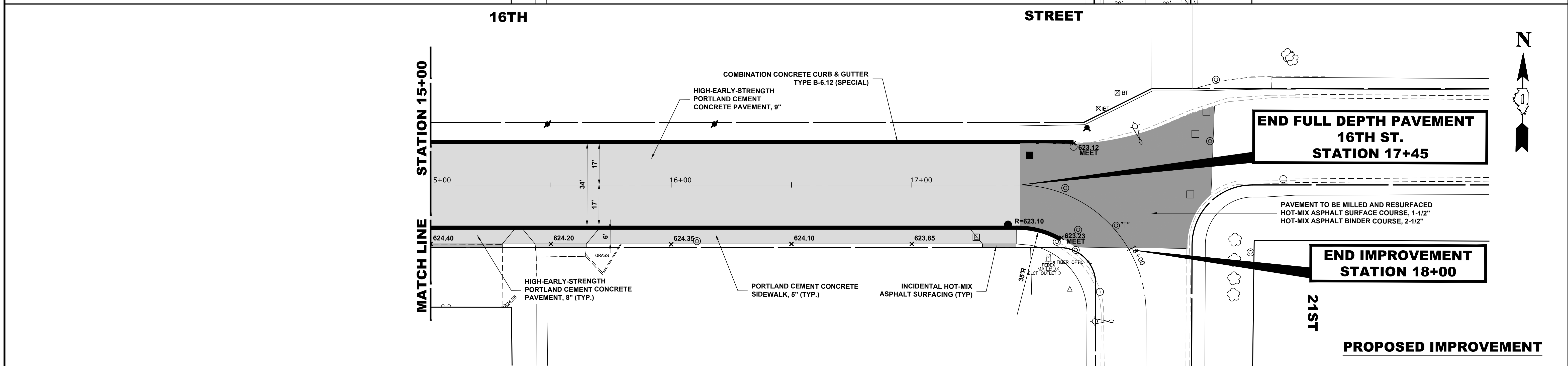
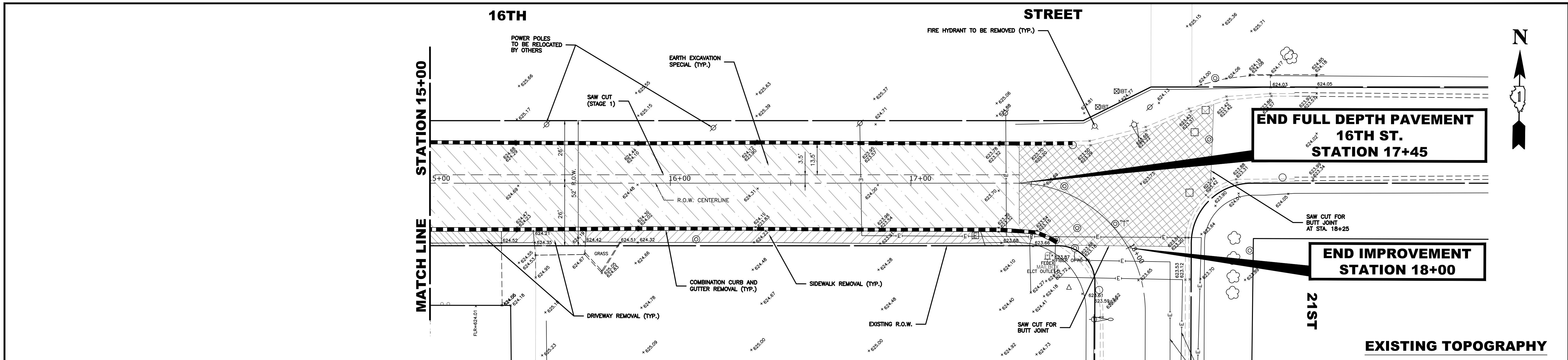
**BRAGA DRIVE  
 PAVING PLAN AND PROFILE**

SCALE: H:1"=20', V:1"=2'  
 SHEET NO. 4 OF 5 SHEETS  
 STA. 12+00 TO STA. 15+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	13
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph 2\_Sig.dwg Feb 21, 2019 - 10:11am



**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-945-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	2/21/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG, MWV	REVISED -	
DATE -	12/18/18	REVISED -	

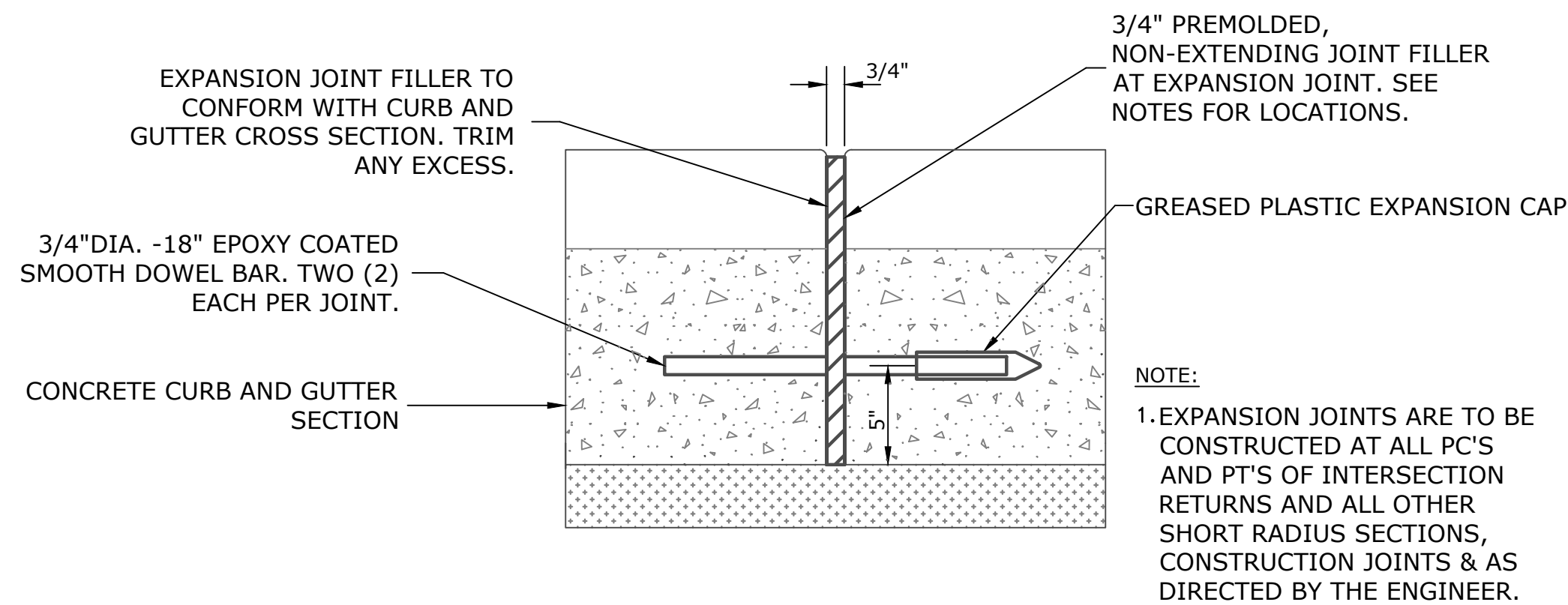
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BRAGA DRIVE  
 PAVING PLAN AND PROFILE**  
 SCALE: H:1"=20', V:1"=2' SHEET NO. 5 OF 5 SHEETS STA. 15+00 TO STA. 17+45

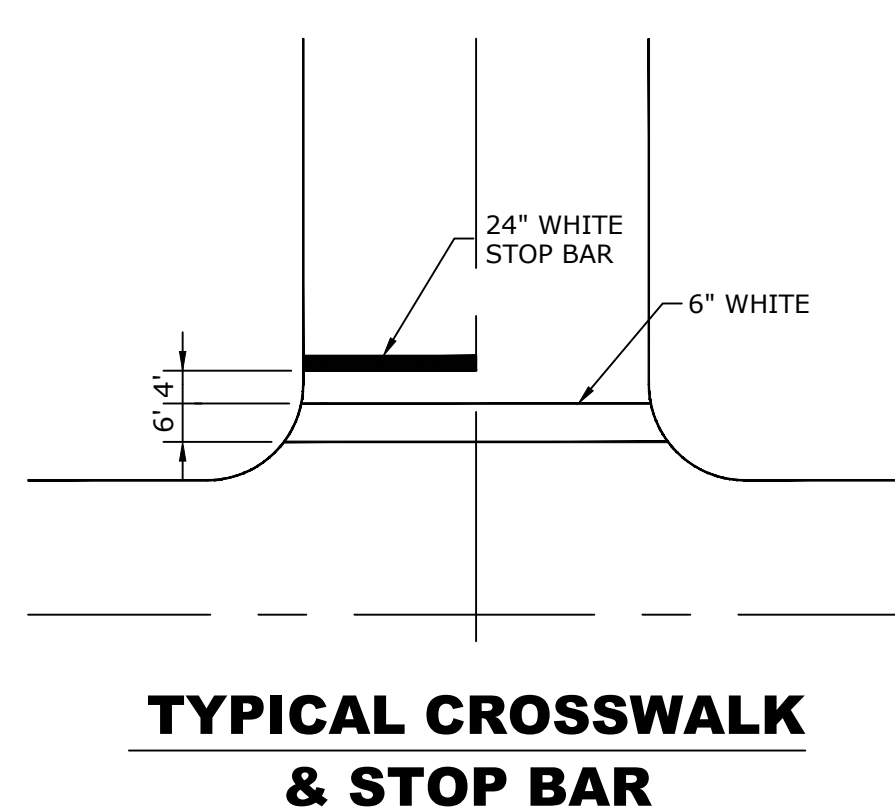
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	14
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301





**TYPICAL CURB AND GUTTER EXPANSION JOINT**



**TYPICAL CROSSWALK & STOP BAR**

**GENERAL NOTES**

**DEPRESSED CURBS** - THE TOP OF CURBS SHALL BE DEPRESSED WHERE THE CURB AND GUTTER IS CONSTRUCTED AT HANDICAP ACCESSIBLE SIDEWALK RAMP AT ALLEY RETURNS AND STREET INTERSECTIONS, AND FOR PRIVATE AND COMMERCIAL DRIVES AND AS DIRECTED BY THE ENGINEER

**DRAINAGE OPENINGS** - AT ALL LOCATIONS WHERE CASTINGS ARE TO BE INCORPORATED IN THE CURB AND GUTTER, A 3/4" EXPANSION JOINT SHALL BE INSTALLED IN THE CURB AND GUTTER A DISTANCE OF 5 FT. FROM EACH SIDE OF THE CASTING. 2-NO. 4 RE-BARS, 9' IN LENGTH, SHALL BE INCORPORATED IN THE CONTINUOUS PORTION OF CONCRETE CURB BEHIND THE CASTING.

**DETECTABLE WARNINGS** - DETECTABLE WARNINGS SHALL BE INSTALLED AT HANDICAP ACCESSIBLE SIDEWALK RAMP, AT ALLEY RETURNS, AND STREET INTERSECTIONS. THESE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE IDOT STANDARDS.

**SLIPFORM CONSTRUCTION** - VERTICAL FACES MAY BE BATTERED AT THE RATE OF 3/4" PER FOOT OF HEIGHT TO AID IN SLIPFORM OPERATIONS. THE PROPOSED CURB HEIGHT IS VARIABLE.

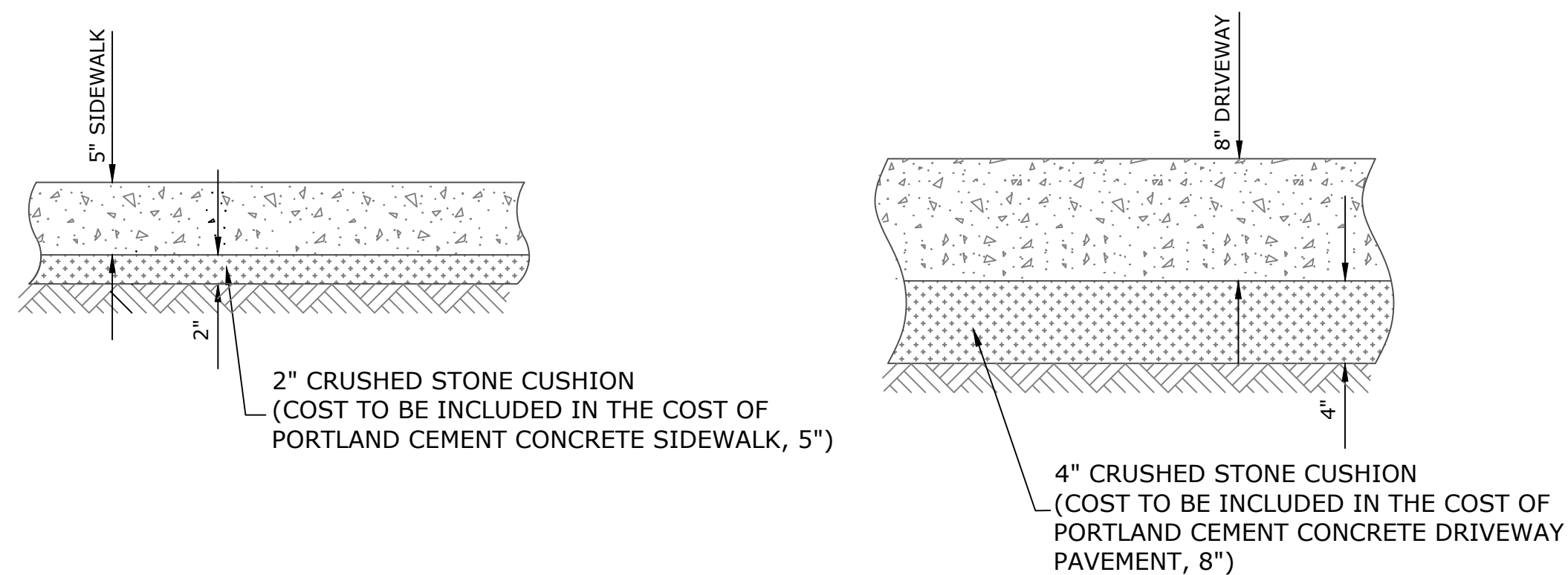
**DEPRESSED CURB HEIGHT** - THE HEIGHT OF THE DEPRESSED CURB SHALL BE 1-1/2" AT DRIVEWAYS. SEE IDOT STANDARD 424001-05 FOR HEIGHT AT SIDEWALK RAMP.

**BITUMINOUS EXPANSION JOINTS** - THREE QUARTER INCH (3/4") BITUMINOUS PREMOLDED INORGANIC FIBER EXPANSION JOINTS SHALL BE INSTALLED WHERE NEW SIDEWALK OR CURB AND GUTTER OR DRIVEWAY PAVEMENT ABUTS AN EXISTING CONCRETE WALK, DRIVE, OR CURB WHICH IS TO REMAIN IN PLACE, AND AT NOT LESS THAN NINETY FOOT (90') INTERVALS AT LOCATIONS WHERE CURB REPLACEMENT IS IN EXCESS OF NINETY FEET (90'); AT RADIUS POINTS, AT BOTH SIDES OF FRAMES AND GRATES WHICH FALL IN THE CURB; AND AS DIRECTED BY THE ENGINEER.

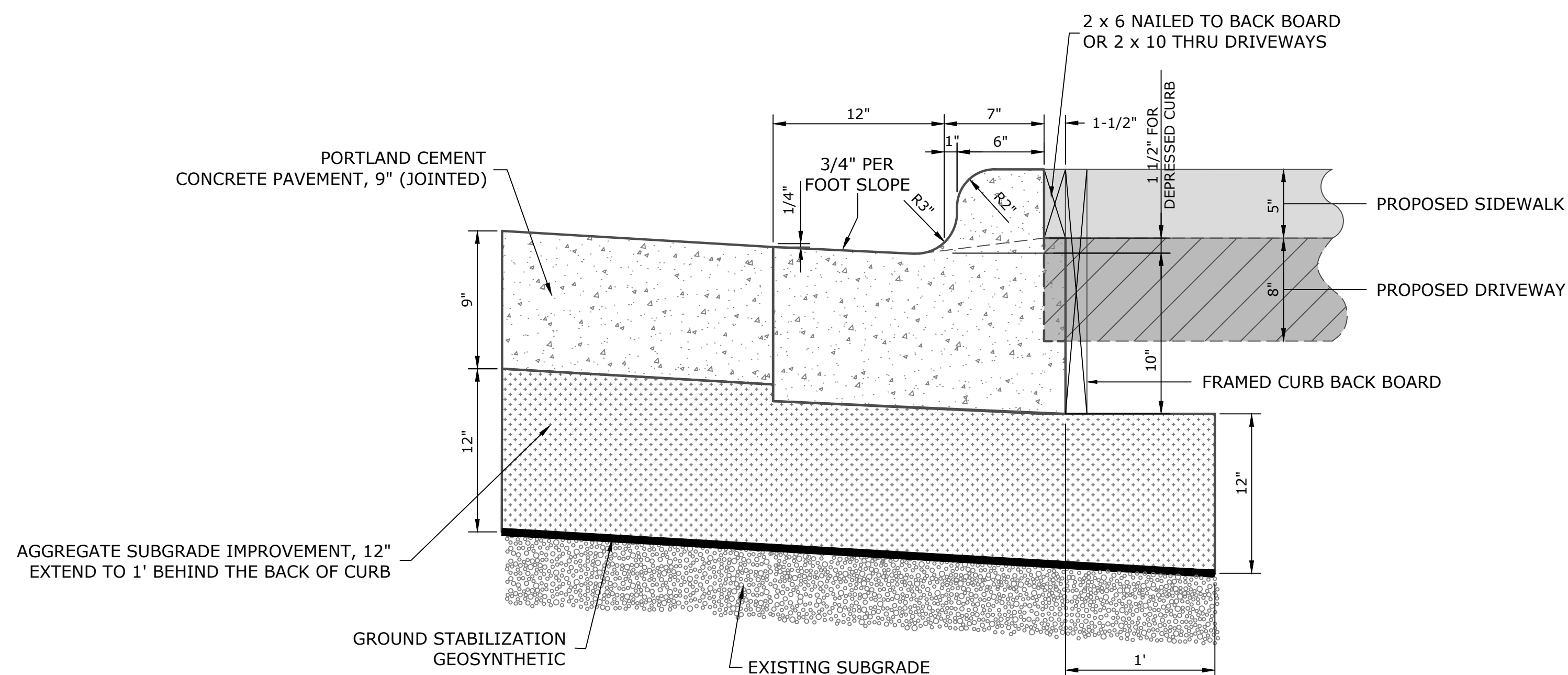
ALL EXPANSION JOINTS LOCATED IN THE CURB AND GUTTER SHALL HAVE TWO (2) THREE QUARTER INCH (3/4") DIAMETER, SMOOTH, ROUND, EPOXY COATED DOWEL BARS, EIGHTEEN INCHES (18") IN LENGTH, WITH GREASED PLASTIC END CAPS INSERTED TO ALLOW THE CURB AND GUTTER TO EXPAND AND CONTRACT LATERALLY. CONTRACTION JOINTS SHALL BE TOOLED INTO THE CURB AND GUTTER AT INTERVALS NOT TO EXCEED FIFTEEN FEET (15'). THESE CONTRACTION JOINTS SHALL BE SAW CUT TO A DEPTH OF TWO INCHES (2") WITHIN TWENTY-FOUR (24) HOURS OF CONCRETE PLACEMENT AND CAULKED WITHIN SEVEN (7) DAYS. THE COST OF THE ABOVE WORK SHALL BE INCLUDED IN THE RESPECTIVE ITEMS FOR CONCRETE INSTALLATION.

THE COSTS FOR REMOVAL OF ANY ASPHALT OVERLAY THAT EXTENDS INTO THE GUTTER PORTION OF THE CURB AND GUTTER WILL BE INCLUDED IN THE PRICE FOR COMBINATION CURB AND GUTTER REMOVAL.

THE EDWIN HANCOCK ENGINEERING COMPANY AND THE VILLAGE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO ANY CONSTRUCTION ACTIVITY.

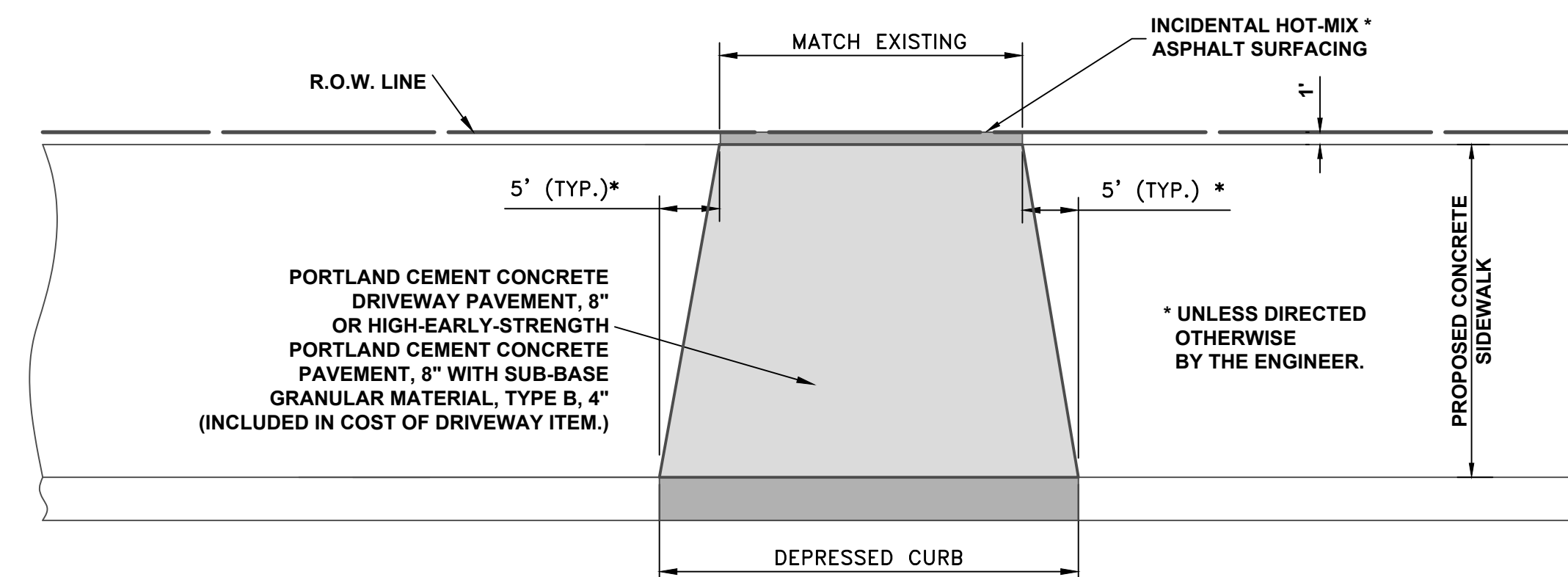


**TYPICAL P.C.C. SIDEWALK & DRIVEWAY**



NOTE:  
TO BE USED FOR ALL CURB AND GUTTER.

**COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12 (SPECIAL)**



**DRIVEWAY**



100+ Years of Excellence  
Civil Engineers  
Municipal Consultants  
Established 1911  
9933 Roosevelt Road  
Westchester, IL 60154-2780  
Phone: 708-846-0300  
www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	16
FIELD BOOK NO. -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\Site\16\_Roadway-Details.dwg Jun 11, 2019 - 11:28am

E.H.E. PROJECT NO. 120-17-28301



Drawing File: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\17\_22\_BRAGA\_MINT\_OF\_TRAFFIC.dwg Jan 11, 2019 - 11:31am

LEGEND OF SYMBOLS					
SYMBOL	DESCRIPTION	CODE & SIZE	SYMBOL	DESCRIPTION	CODE & SIZE
	END WORK ZONE SPEED LIMIT	G20- I103 36"x60"		STOP	R1-1 30"x30"
	LOCAL BUSINESSES OPEN	CUSTOM 36"x24" 5" WHITE LETTERS ON BLUE BACKGROUND			R3-2 24"x24"
	WORK ZONE SPEED LIMIT <b>25</b> \$375 FINE MINIMUM	W21-I115 36"x18"  R2-1 36"x48"  R2-I106P 36"x18"			R3-2 24"x24"
		M6-1(0) 21"x15"		KEEP RIGHT 	R4-8a 24"x30"
		M6-1(0) 21"x15"		KEEP LEFT 	R4-8a 24"x30"
		W20-3 48"x48"		ONE WAY 	R6-1 24"x30"
		W20-I103 48"x48"		ONE WAY 	R6-1 24"x30"
	Braga Drive	M4-8 36"x12"		BEGIN ONE WAY	R6-6 24"x30"
		R5-1 30"x30"		END ONE WAY	R6-7 24"x30"
	ROAD CLOSED	R11-2 48"x30"		SIDEWALK CLOSED  USE OTHER SIDE	R11-I102 24"x30"
		W1-6L(0) 60"x30"			W1-3L(0) 48"x48"

**NOTE:**  
CONTRACTOR MUST NOTIFY IDOT ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847)705-4470, SEVENTY-TWO HOURS IN ADVANCE OF SETTING UP DETOUR ROUTE.

**HANCOCK ENGINEERING**  
100+ Years of Excellence  
Civil Engineers  
Municipal Consultants  
Established 1911

9933 Roosevelt Road  
Westchester, IL 60154-2780  
Phone: 708-865-0300  
www.hancock.com

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

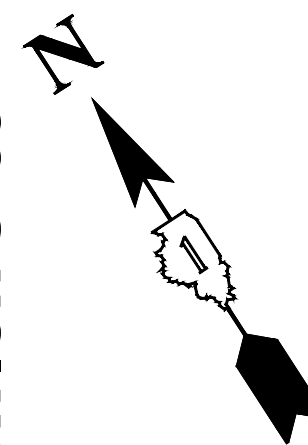
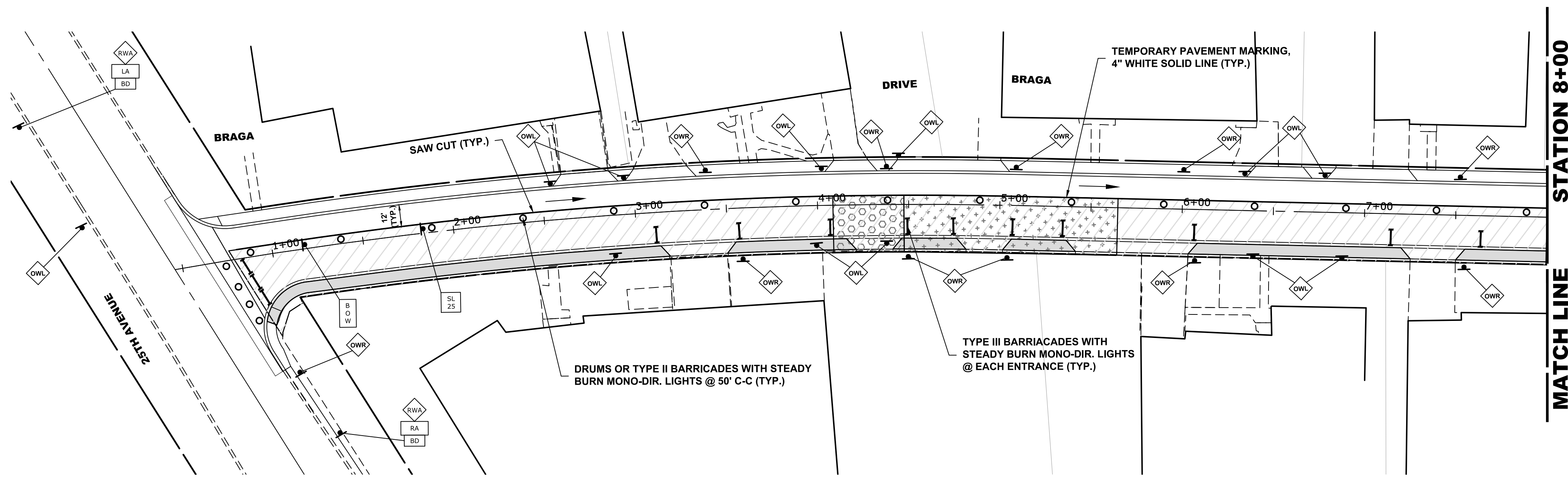
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC LEGEND  
STAGE CONSTRUCTION**

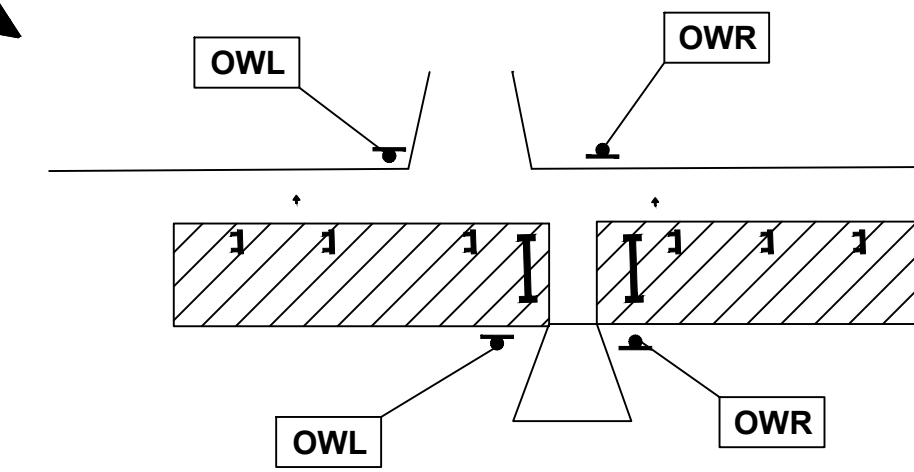
SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	17
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301



NOTE:  
ONE WAY (R6-1) SIGNS ARE REQUIRED  
IN FRONT OF ALL DRIVEWAYS AS SHOWN



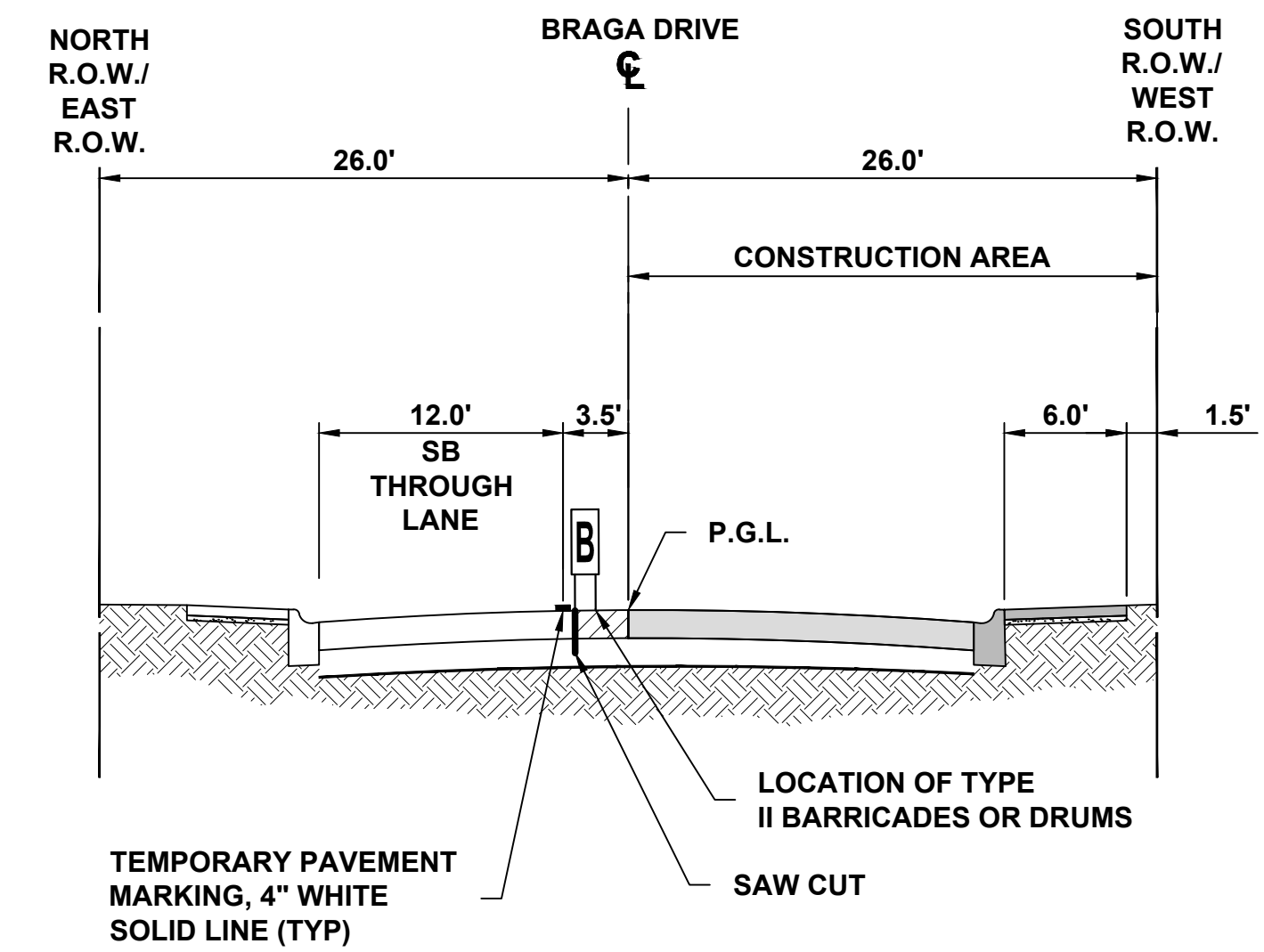
**TYPICAL DRIVEWAY DETAIL**

**STAGE 1 CONSTRUCTION**

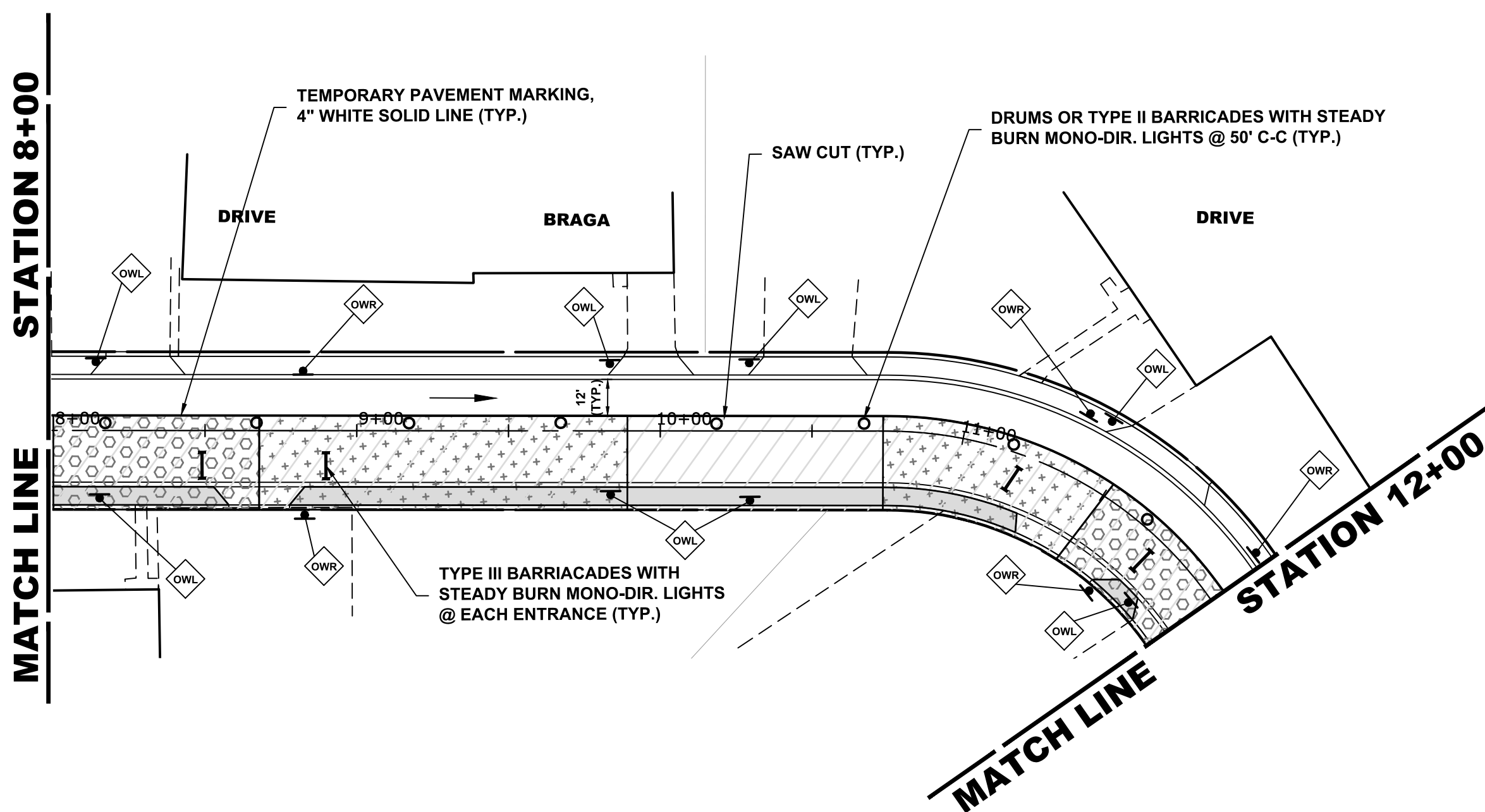
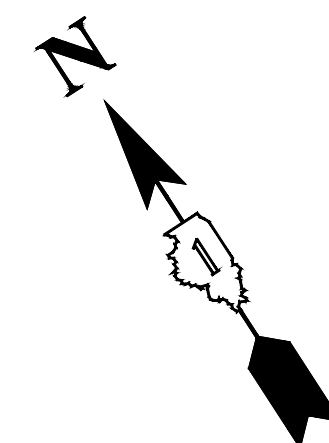
1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS ALONG THE SOUTH AND WEST SIDE OF BRAGA DRIVE AND 16TH STREET.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE SOUTH AND WEST SIDE OF BRAGA DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.

**LEGEND**

- CONSTRUCTION WORK ZONE
  - DIRECTION OF TRAFFIC FLOW
  - PHASE I CONSTRUCTION ACCESS
  - PHASE II CONSTRUCTION ACCESS
  - HIGH EARLY STRENGTH PCC PAVEMENT, 9" OR 8"
  - PROPOSED PAVEMENT WITH STANDARD PCC SIDEWALK
  - DRUMS OR TYPE II BARRICADES
- \*NOTE:  
9" PAVEMENT TO BE INSTALLED WITH CURB AND GUTTER,  
8" PAVEMENT TO BE INSTALLED BEHIND BACK OF CURB.



**TYPICAL SECTION DURING  
STAGE 1 CONSTRUCTION**



Drawing File: W:\Projects\_by\_Village\Brookview\12017263 - Braga Drive Stage 1 - Design\CAD\Site\17\_22\_Braga\_MAINT\_OF\_TRAFFIC.dwg  
 Feb. 08, 2019 - 2:28pm  
 100% Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com



DESIGNED - MWV  
 DRAWN - DMM, SFB  
 CHECKED - JGG  
 DATE - 12/18/18

REVISIED - 02/07/19  
 REVISIED -  
 REVISIED -  
 REVISIED -

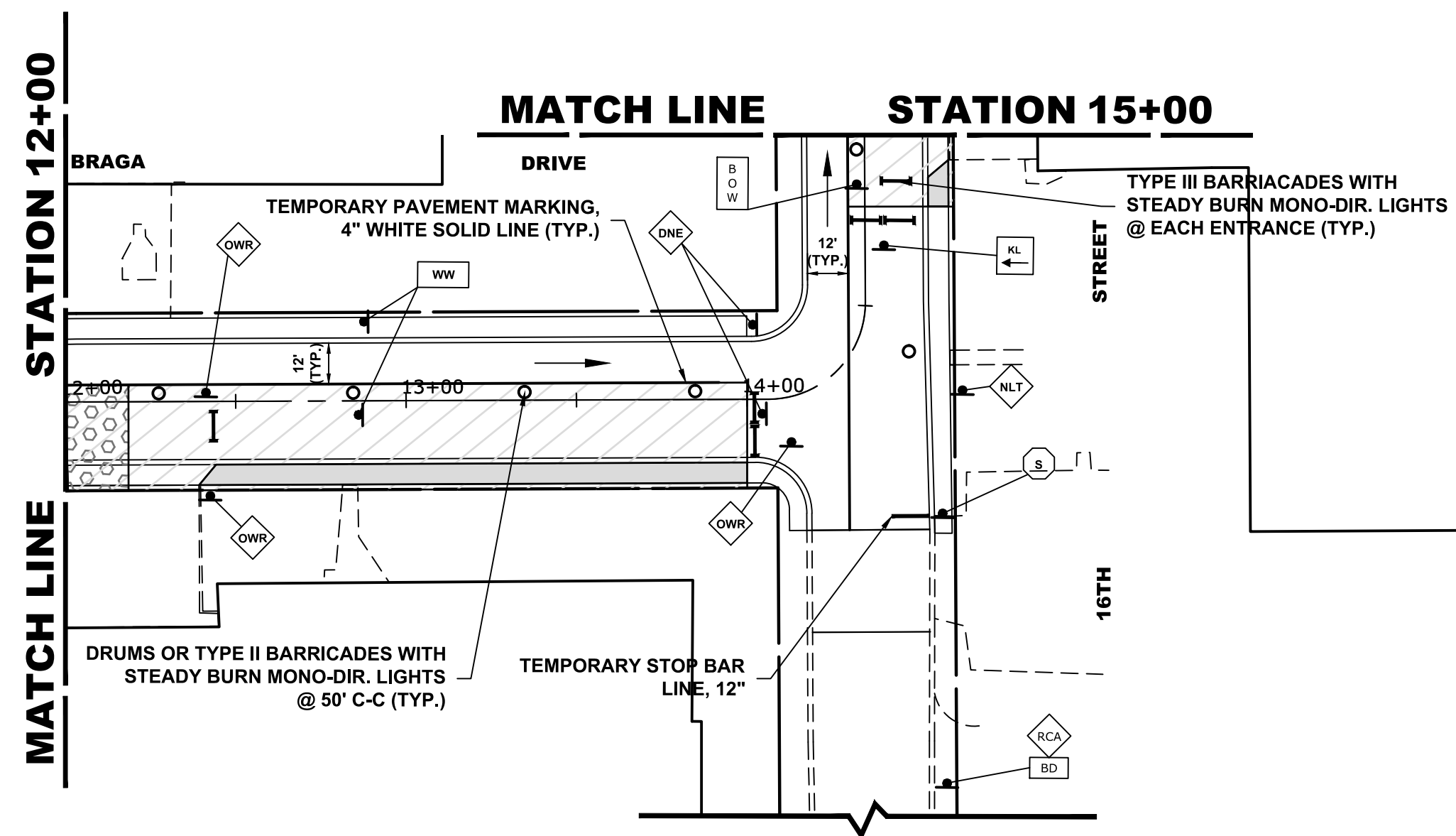
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN  
 STAGE 1 CONSTRUCTION**

SCALE: 1" = 40'  
 SHEET NO. 1 OF 2 SHEETS  
 STA. 0+62 TO STA. 12+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	18
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-26301

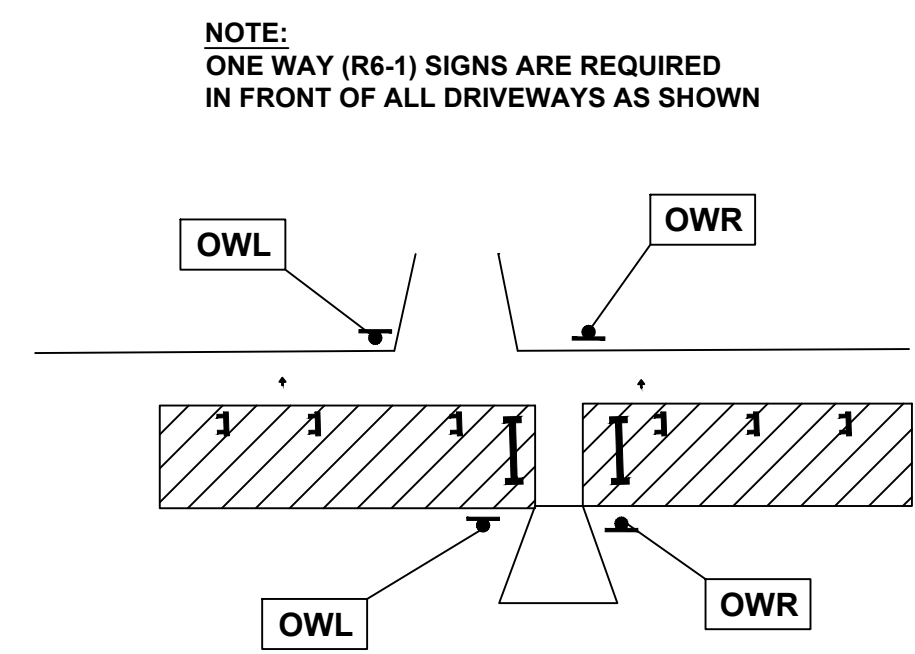


### STAGE 1 CONSTRUCTION

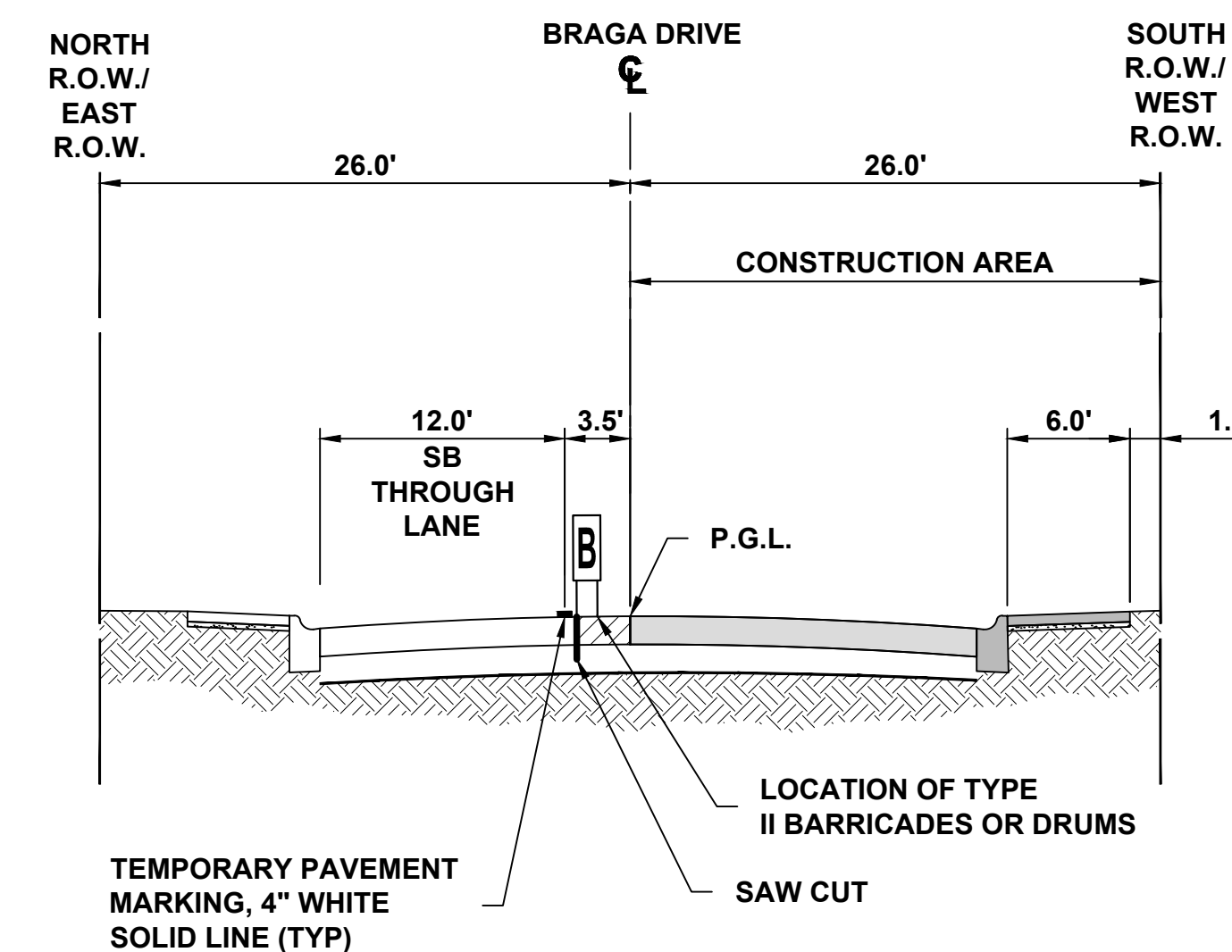
1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS ALONG THE SOUTH AND WEST SIDE OF BRAGA DRIVE AND 16TH STREET.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE SOUTH AND WEST SIDE OF BRAGA DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.

### LEGEND

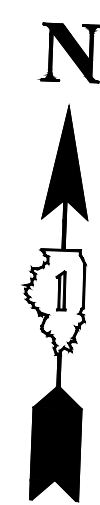
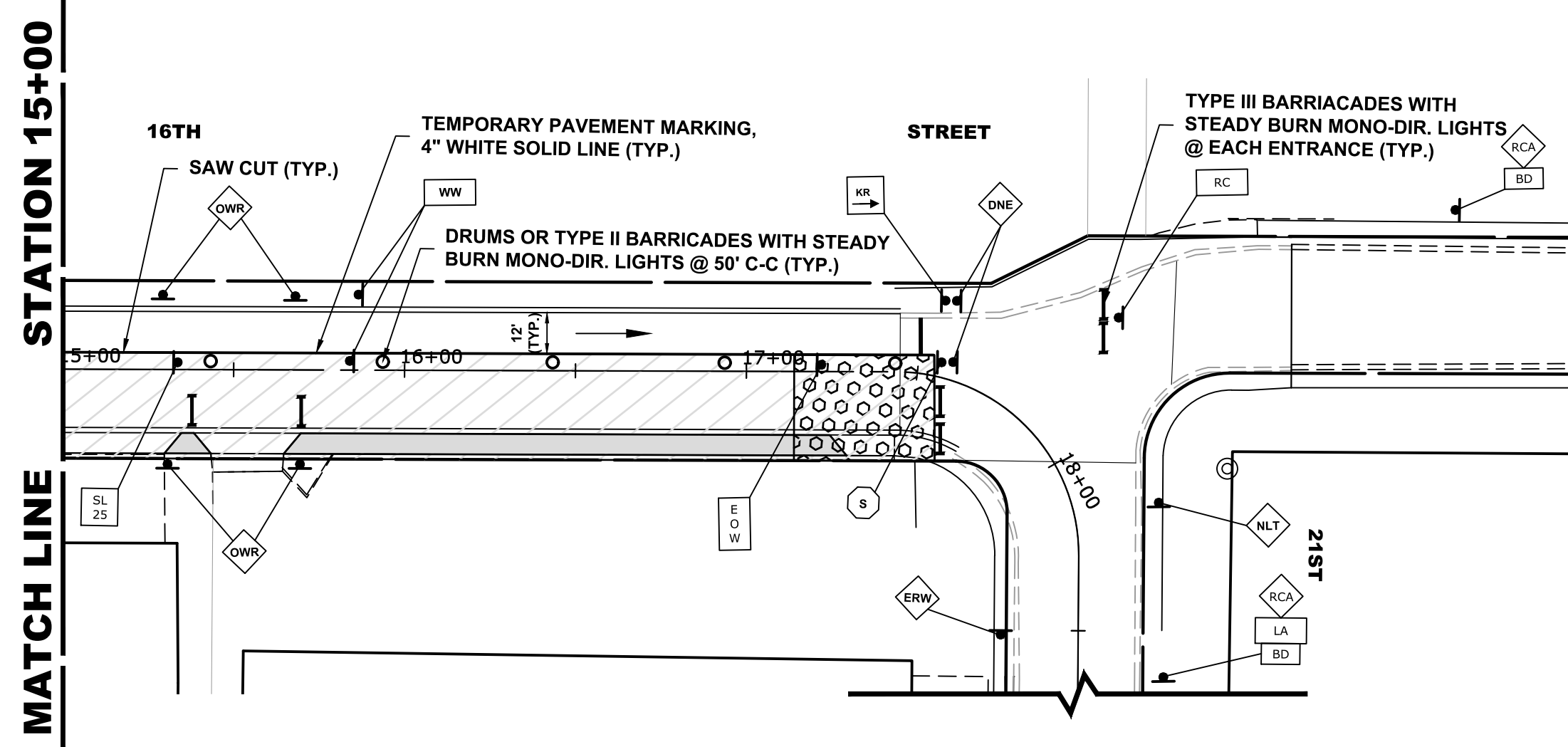
- CONSTRUCTION WORK ZONE
  - DIRECTION OF TRAFFIC FLOW
  - PHASE I CONSTRUCTION ACCESS
  - PHASE II CONSTRUCTION ACCESS
  - HIGH EARLY STRENGTH PCC PAVEMENT, 9" OR 8"
  - PROPOSED PAVEMENT WITH STANDARD PCC SIDEWALK
  - DRUMS OR TYPE II BARRICADES
- \*NOTE:  
9" PAVEMENT TO BE INSTALLED WITHIN CURB AND GUTTER,  
8" PAVEMENT TO BE INSTALLED BEHIND BACK OF CURB.



**TYPICAL DRIVEWAY DETAIL**



**TYPICAL SECTION DURING STAGE 1 CONSTRUCTION**



Civil Engineers  
Municipal Consultants  
Established 1911

9933 Roosevelt Road  
Westchester, IL 60154-2780  
Phone: 708-865-0300  
www.hancock.com

DESIGNED -	MWV	REVISED -	02/07/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

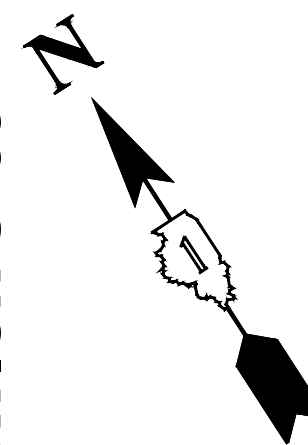
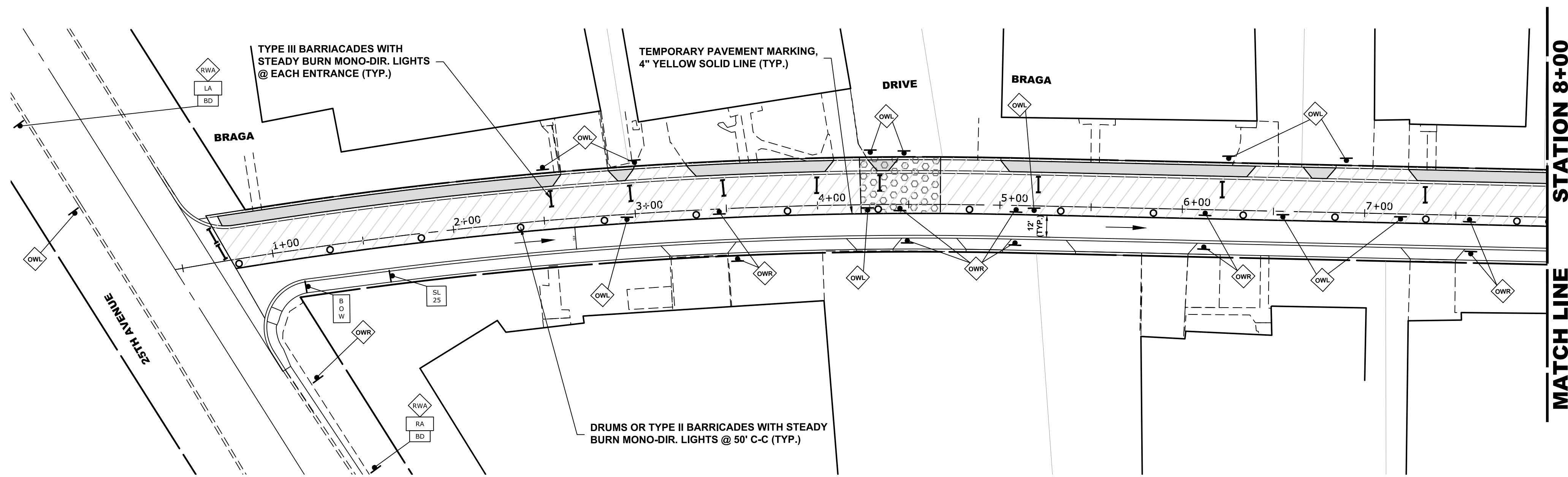
**MAINTENANCE OF TRAFFIC PLAN  
STAGE 1 CONSTRUCTION**

SCALE: 1" = 40' SHEET NO. 2 OF 2 SHEETS STA. 12+00 TO STA. 17+45

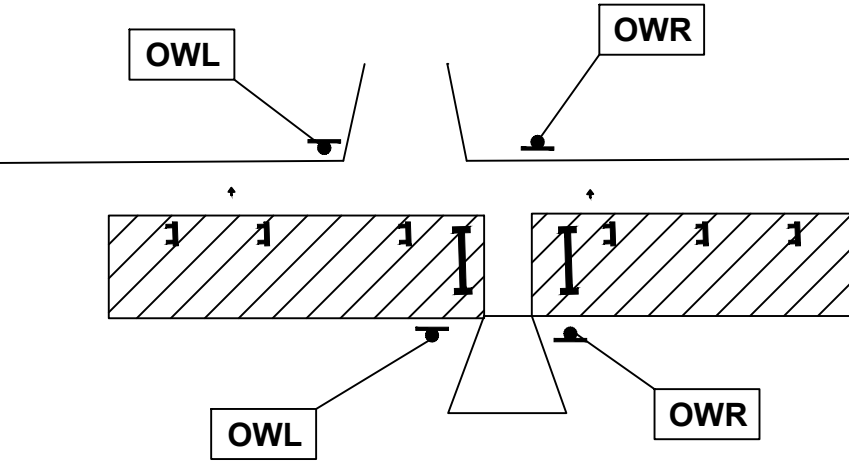
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	19
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Brookview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\17\_22\_BRAGA\_MINT\_OF\_TRAFFIC.dwg Feb. 08, 2019 - 2:28pm



NOTE:  
ONE WAY (R6-1) SIGNS ARE REQUIRED  
IN FRONT OF ALL DRIVEWAYS AS SHOWN



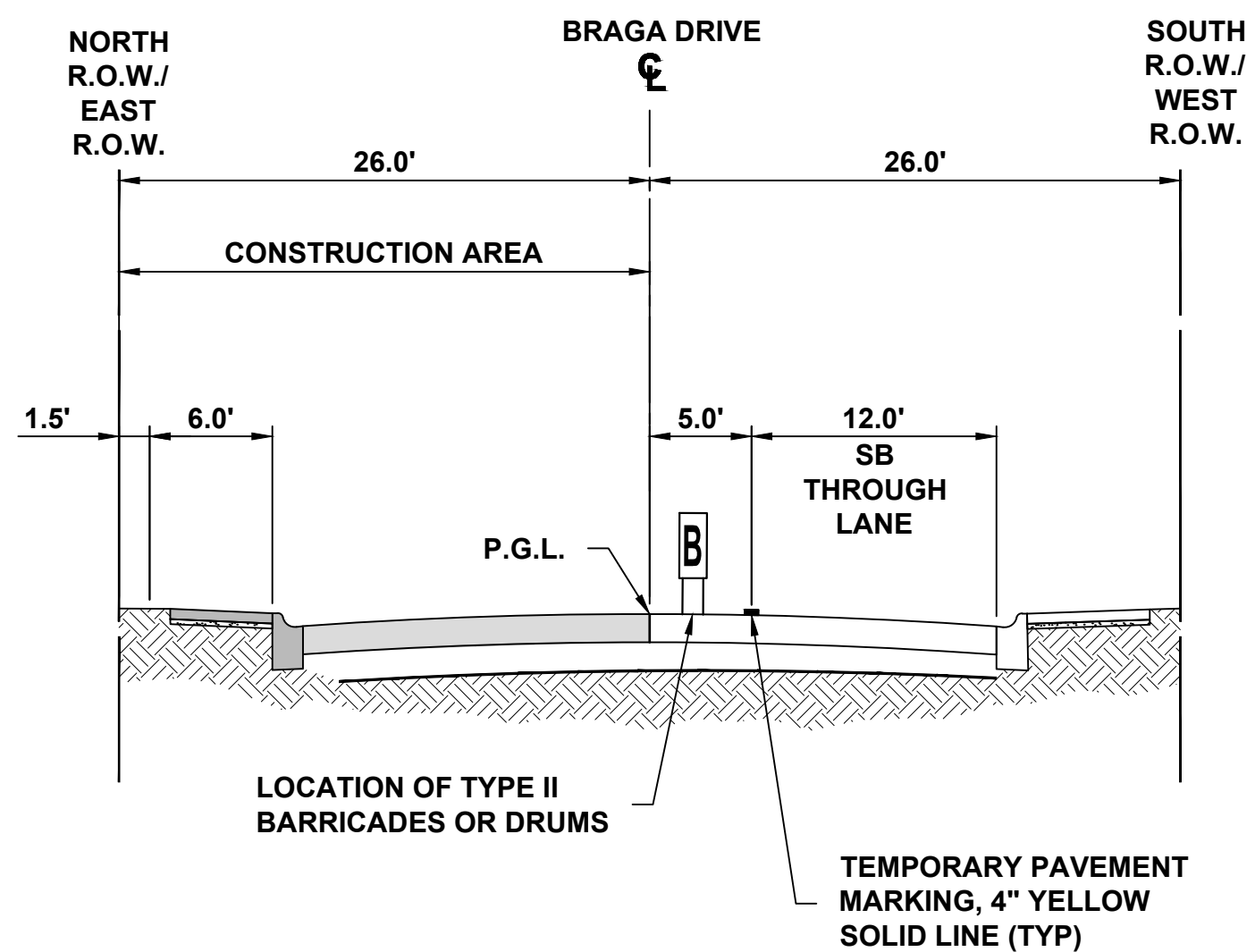
**TYPICAL DRIVEWAY DETAIL**

**STAGE 2 CONSTRUCTION**

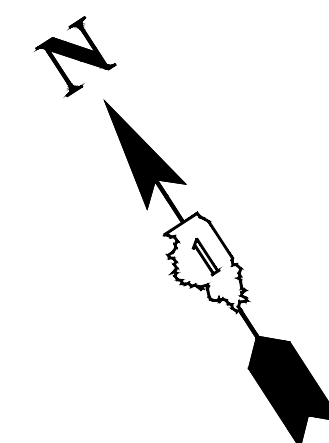
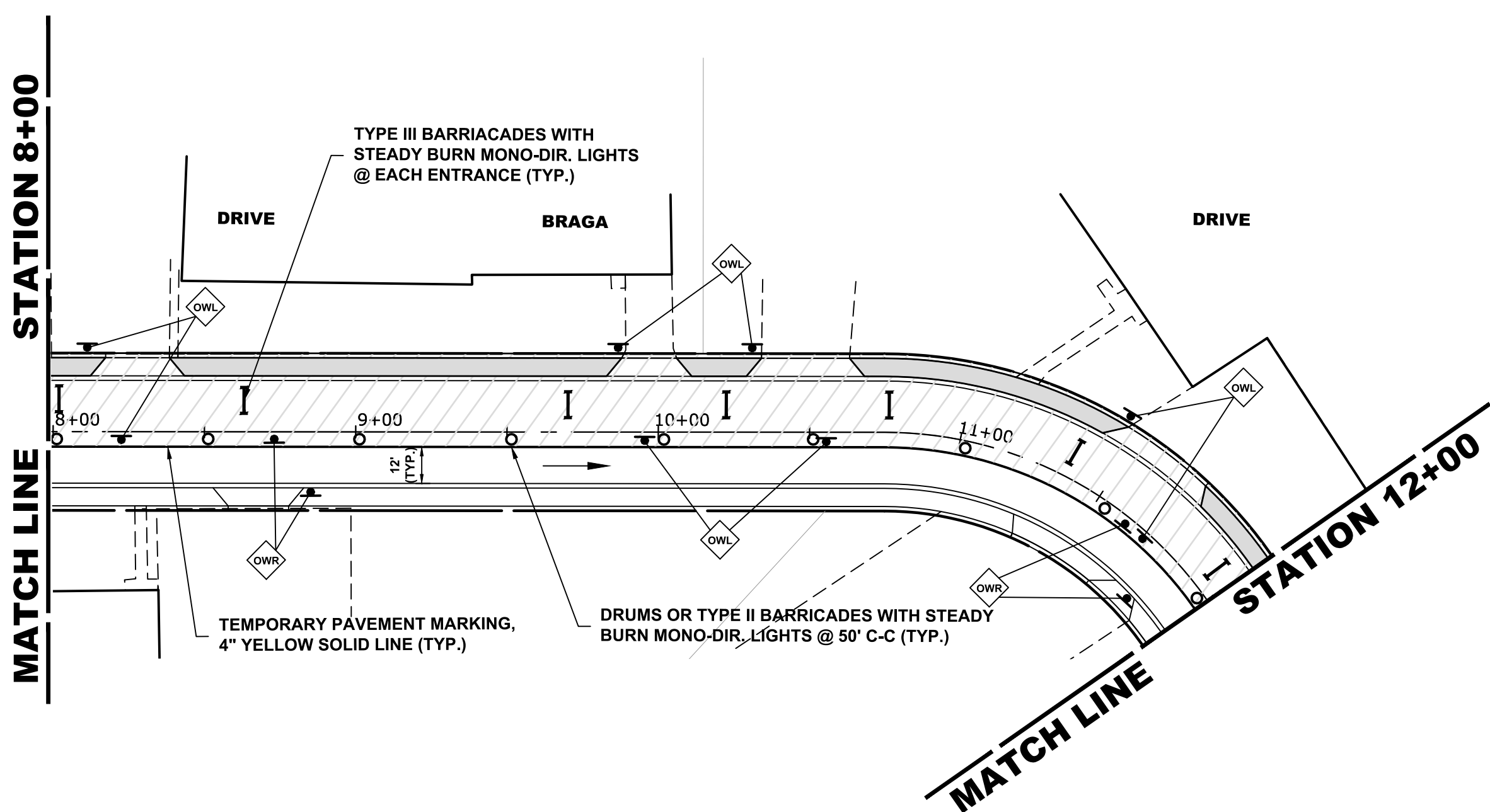
1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS ALONG THE NORTH AND EAST SIDE OF BRAGA DRIVE AND 16TH STREET.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE NORTH AND EAST SIDE OF BRAGA DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.

**LEGEND**

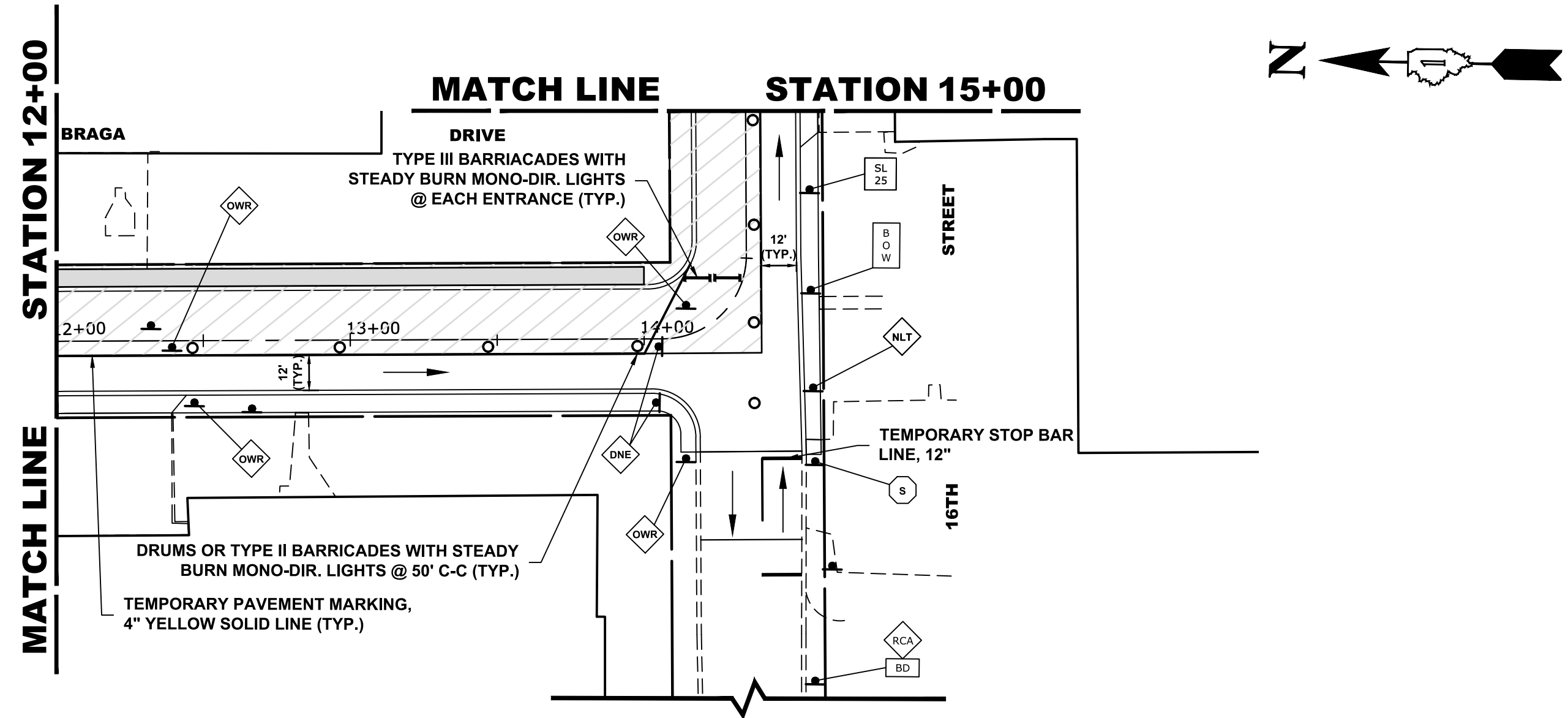
- CONSTRUCTION WORK ZONE
  - DIRECTION OF TRAFFIC FLOW
  - PHASE I CONSTRUCTION ACCESS
  - PHASE II CONSTRUCTION ACCESS
  - HIGH EARLY STRENGTH PCC PAVEMENT, 9" OR 8"
  - PROPOSED PAVEMENT WITH STANDARD PCC SIDEWALK
  - DRUMS OR TYPE II BARRICADES
- \*NOTE:  
9" PAVEMENT TO BE INSTALLED WITHIN CURB AND GUTTER,  
8" PAVEMENT TO BE INSTALLED BEHIND BACK OF CURB.



**TYPICAL SECTION DURING  
STAGE 2 CONSTRUCTION**



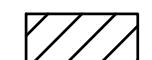
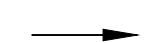
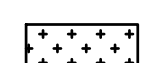

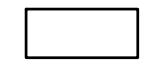


Drawing File: W:\Projects\_by\_Village\Brookview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\17\_22\_BRAGA\_MINT\_OF\_TRAFFIC.dwg  
 Feb. 08, 2019 - 2:27pm  
 E.H.E. PROJECT NO. 120-17-28301

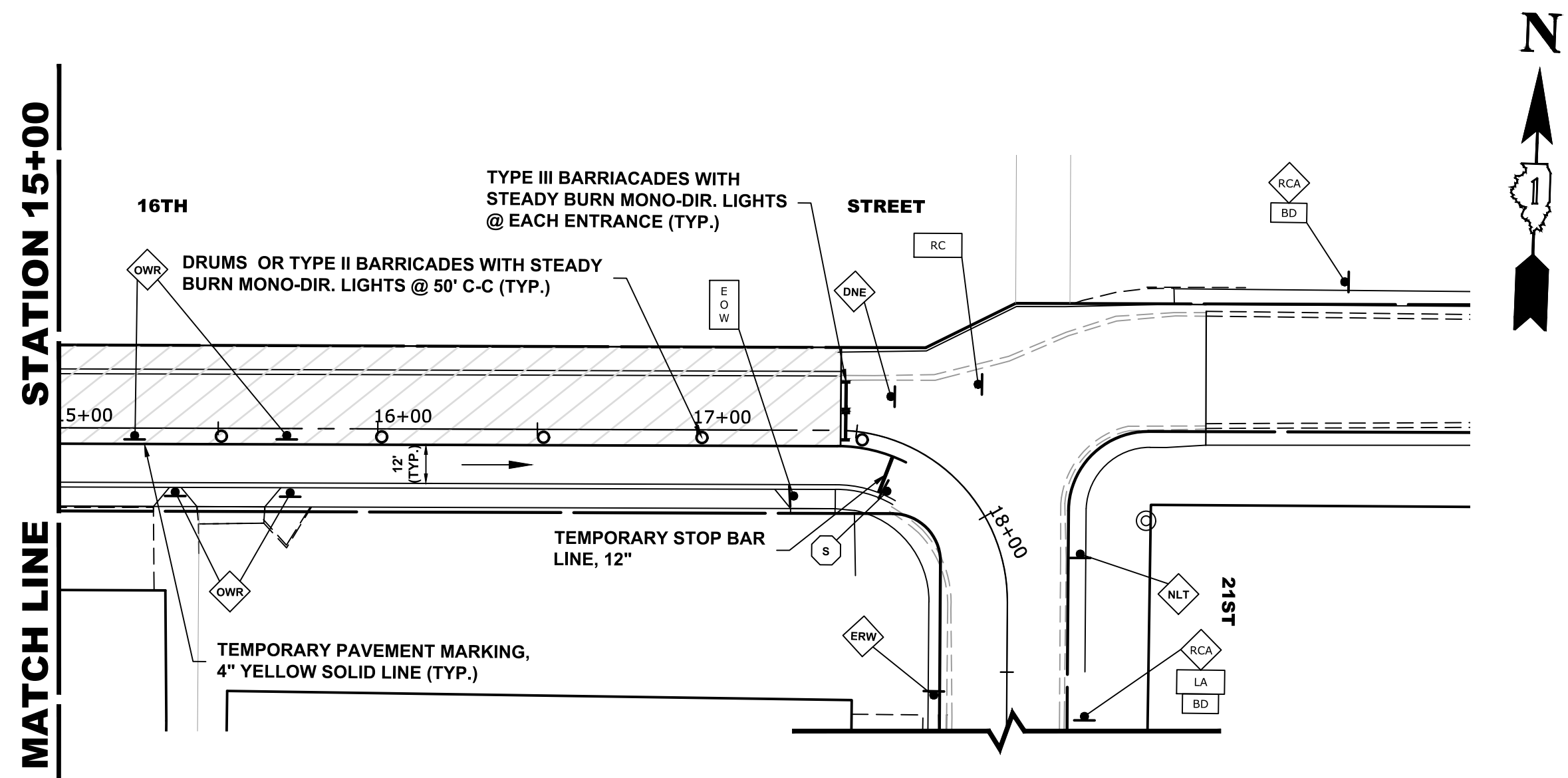
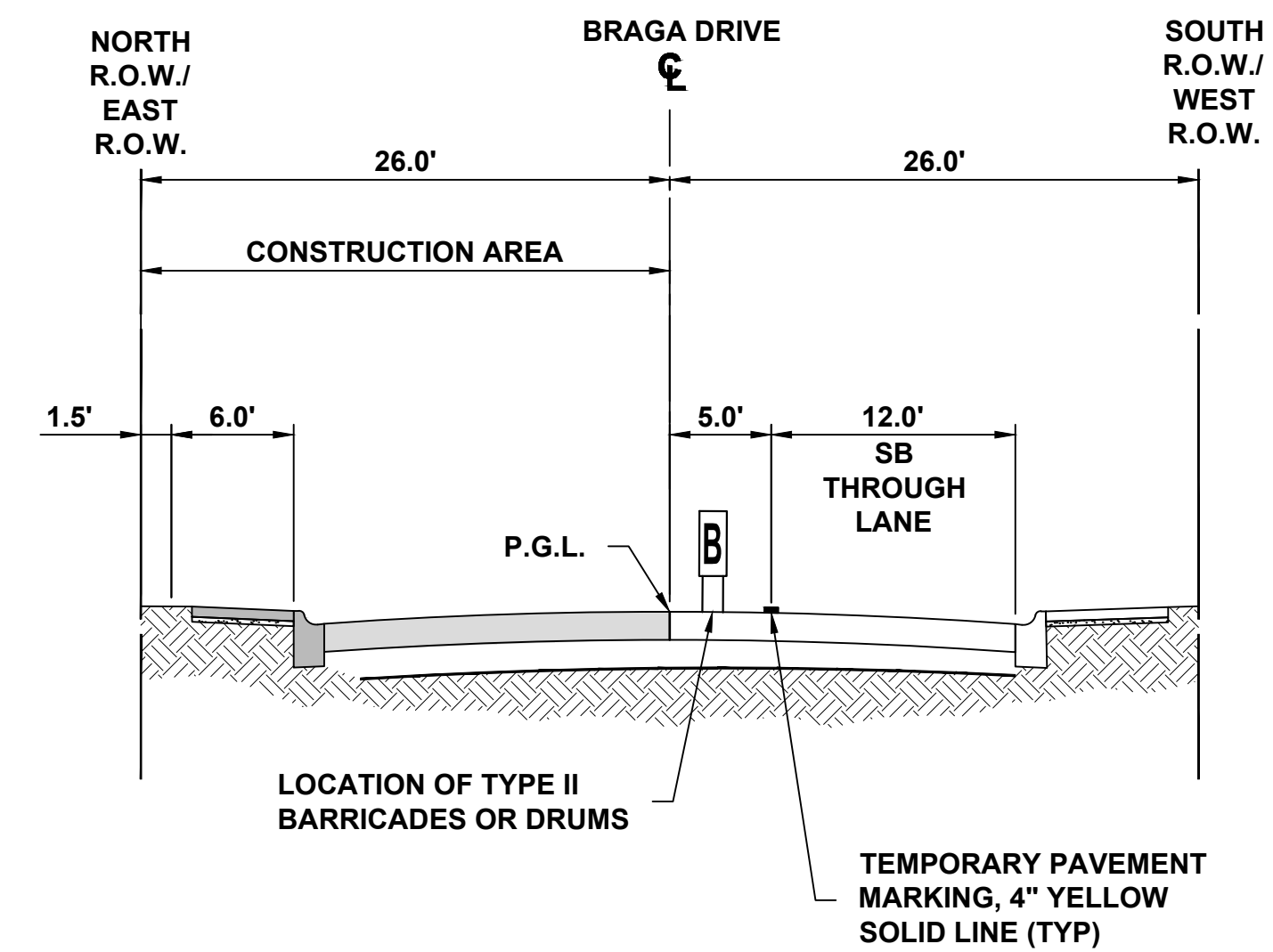
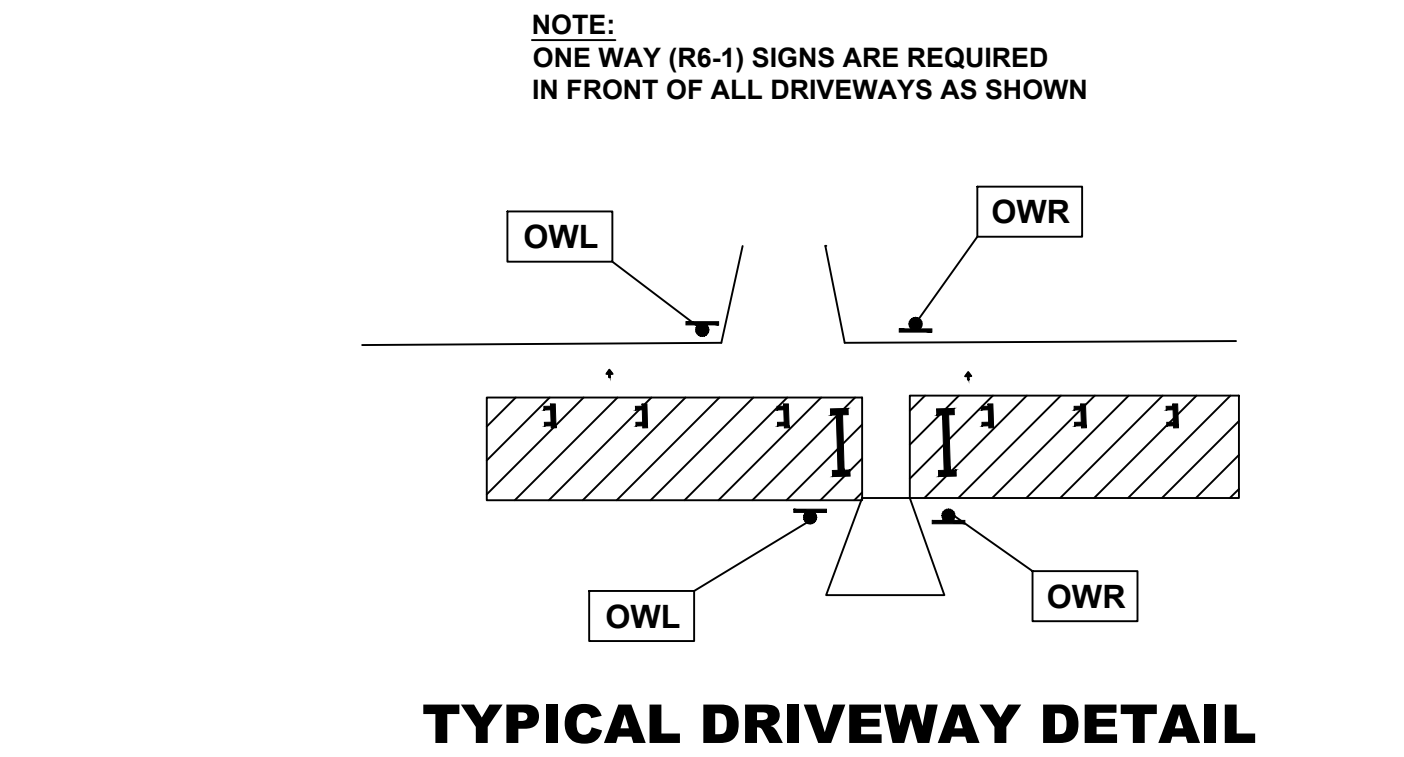


### STAGE 2 CONSTRUCTION

1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS ALONG THE NORTH AND EAST SIDE OF BRAGA DRIVE AND 16TH STREET.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE NORTH AND EAST SIDE OF DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.

### LEGEND

-  CONSTRUCTION WORK ZONE
-  DIRECTION OF TRAFFIC FLOW
-  PHASE I CONSTRUCTION ACCESS
-  PHASE II CONSTRUCTION ACCESS
-  HIGH EARLY STRENGTH PCC PAVEMENT, 9" OR 8"
-  PROPOSED PAVEMENT WITH STANDARD PCC SIDEWALK
-  DRUMS OR TYPE II BARRIACADES



Civil Engineers  
 Municipal Consultants  
 Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

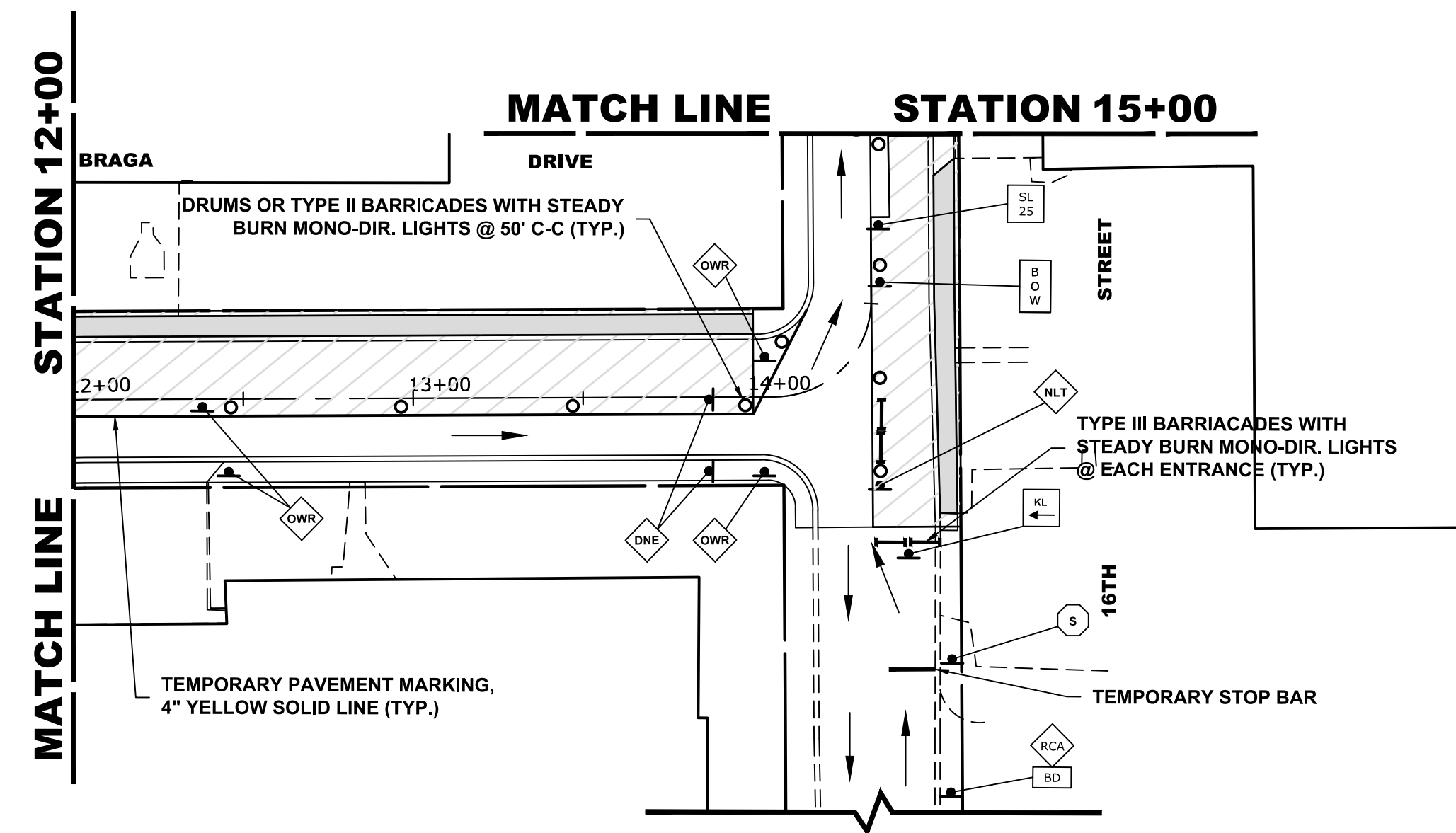
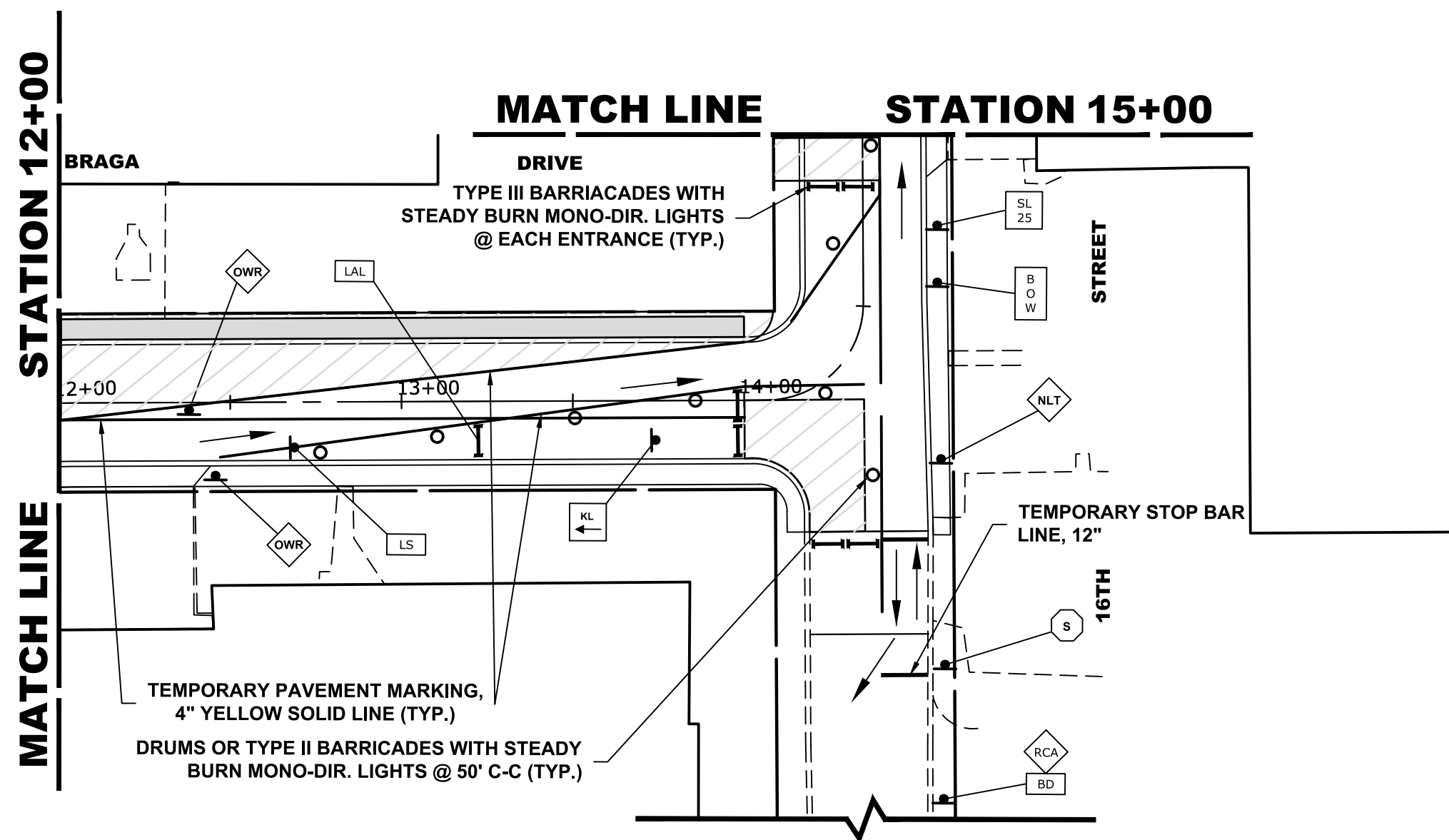
DESIGNED -	MWV	REVISED -	02/07/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN**  
**STAGE 2 CONSTRUCTION**

SCALE: 1" = 40'    SHEET NO. 2 OF 2 SHEETS    STA. 12+00 TO STA. 17+45

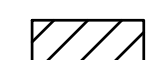
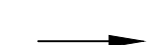
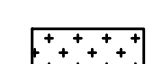
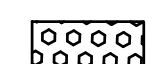
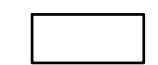


MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	21
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				



**STAGE 3 CONSTRUCTION**

1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS AT THE NORTHWEST CORNER OF 16TH ST. AND BRAGA DRIVE.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE NORTH AND EAST SIDE OF DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.
7. INSTALL W1-6L(0) SHOWN AS LAL, ON TOP OF TYPE III BARRICADE WITH FLASHING LIGHTS.

**LEGEND**

-  CONSTRUCTION WORK ZONE
-  DIRECTION OF TRAFFIC FLOW
-  PHASE I CONSTRUCTION ACCESS
-  PHASE II CONSTRUCTION ACCESS
-  HIGH EARLY STRENGTH PCC PAVEMENT, 9" OR 8"  
\*NOTE:  
9" PAVEMENT TO BE INSTALLED WITHIN CURB AND GUTTER,  
8" PAVEMENT TO BE INSTALLED BEHIND BACK OF CURB.
-  PROPOSED PAVEMENT WITH STANDARD PCC SIDEWALK
-  DRUMS OR TYPE II BARRICADES

**STAGE 4 CONSTRUCTION**

1. WORK DURING THIS STAGE SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF UTILITIES AND ROADWAY AS INDICATED ON THE PROPOSED PAVEMENT AND UTILITY PLANS AT THE SOUTH SIDE OF THE INTERSECTION OF 16TH ST. AND BRAGA DRIVE.
2. ALL THE COMMERCIAL DRIVEWAYS ARE TO BE OPENED THROUGHOUT CONSTRUCTION FOR TRAFFIC OR AS DIRECTED BY THE ENGINEER AND AS PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
3. IDOT STANDARD 701501-06 SHALL BE USED TO ESTABLISH TRAFFIC CONTROL AND PROTECTION NECESSARY FOR SAW CUTTING, THE REMOVAL OF EXISTING PAVEMENT, EARTH EXCAVATION AS NECESSARY AND PERFORMING ALL THE PROPOSED PAVEMENT WORK ALONG THE NORTH AND EAST SIDE OF DRIVE.
4. INTERSECTIONS ARE TO REMAIN OPEN AT ALL TIMES, EXCEPT DURING PREPARATION, POURING AND CURING OF NEW PAVEMENT, AND SHALL BE PAID FOR AS TEMPORARY ACCESS (ROAD).
5. CONSTRUCTION VEHICLES, INCLUDING CONSTRUCTION DELIVERY VEHICLES, WILL NEED TO SHARE THE "THROUGH" LANE. FLAGGERS TO BE USED FOR COORDINATING TRAFFIC FLOW.
6. CONTRACTOR CANNOT REMOVE EXISTING PAVEMENT IN AREA OUTSIDE OF CONSTRUCTION LIMITS. THE EXISTING STONE AND ASPHALT MUST BE MAINTAINED THROUGHOUT THIS STAGE.

Drawing file: W:\Projects\_by\_Village\Brookview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\17\_22\_Braga\_Maint\_OF\_Traffic.dwg Feb. 08, 2019 - 2:27pm

**HANCOCK ENGINEERING**  
 100 Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	02/07/19
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

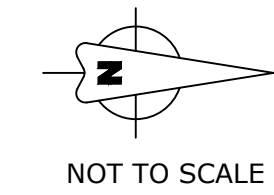
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC PLAN  
 STAGE 3 AND 4 CONSTRUCTION**

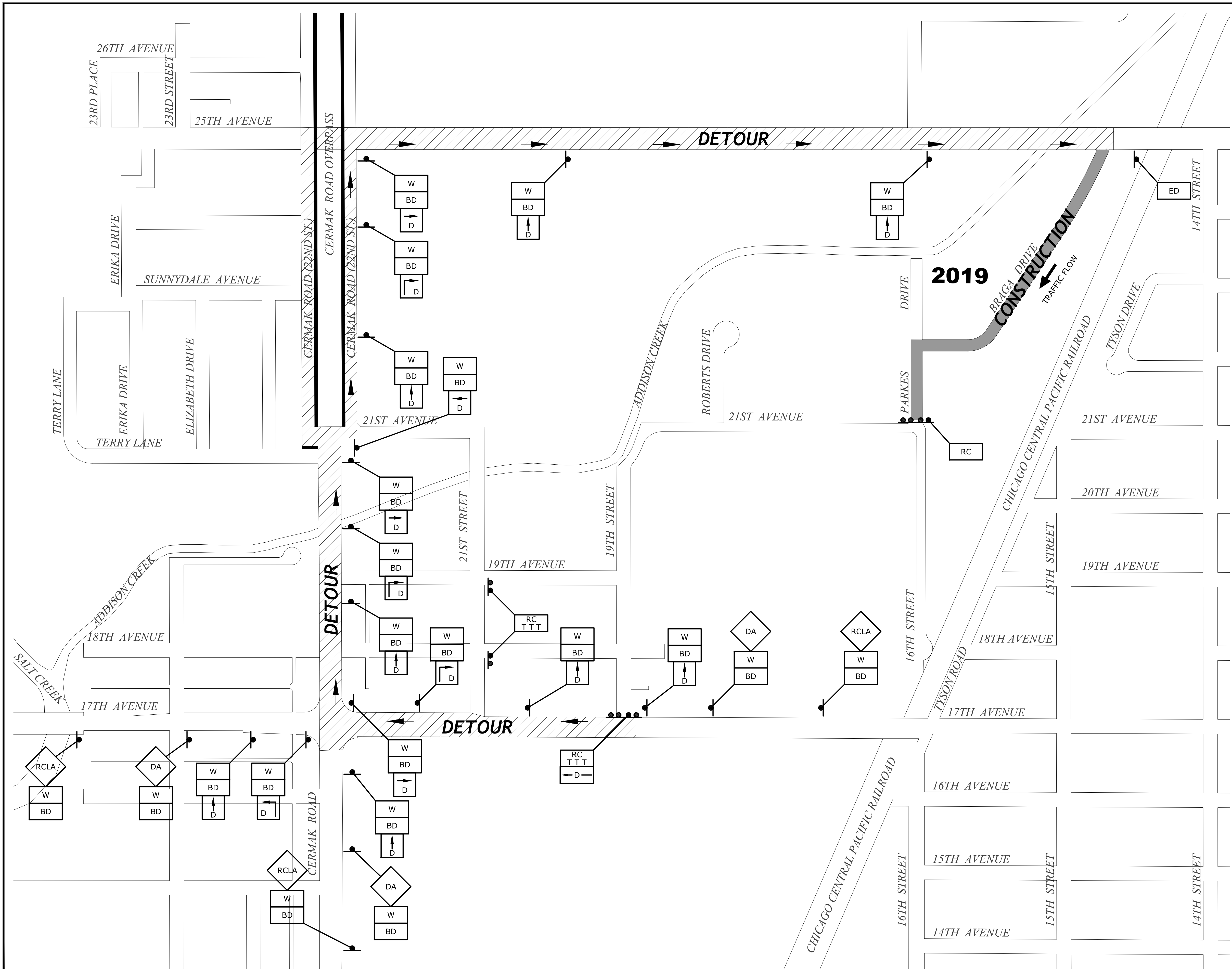
SCALE: 1" = 40'    SHEET NO. 2 OF 2 SHEETS    STA. 12+00 TO STA. 17+45

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	22
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

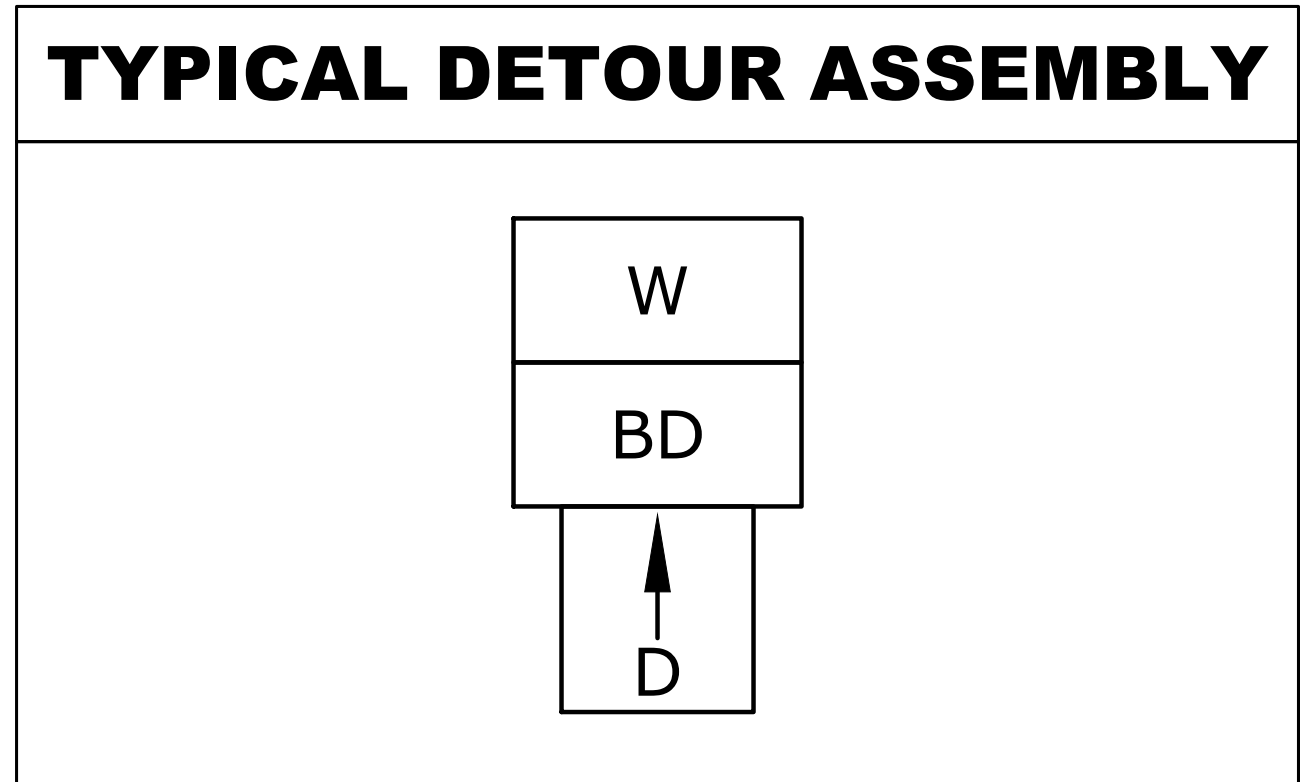
E.H.E. PROJECT NO. 120-17-28301



NOT TO SCALE



LEGEND OF SYMBOLS		
SYMBOL	DESCRIPTION	CODE & SIZE
		W20-3 48"x48"
		W20-2 48"x48"
		M3-4(0) 24"x12"
		M4-8 36"x12"
		M4-8 24"x18"
		M4-9 30"x24"
		M4-9 30"x24"
		M4-9 30"x24"
		M4-9R 24"x30"
		M4-9L 24"x30"
		R11-4 60"x30"
		R11-4 60"x30"
		M4-10L 48"x18"



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stages I - Design\CAD\Site\25\_Braga Drive-Detour.dwg Jan 11, 2019 - 11:35am

**HANCOCK ENGINEERING**  
 100 Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

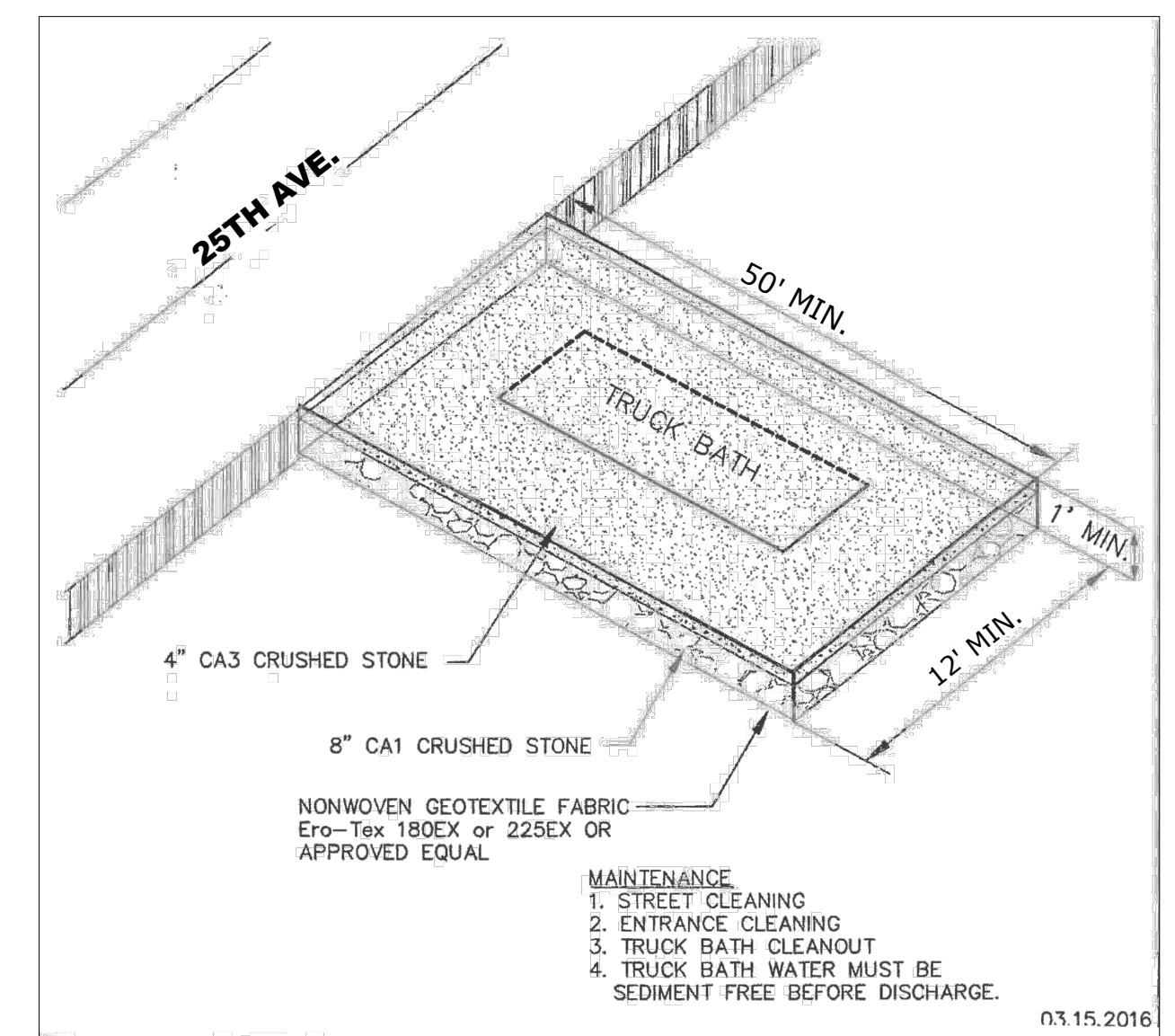
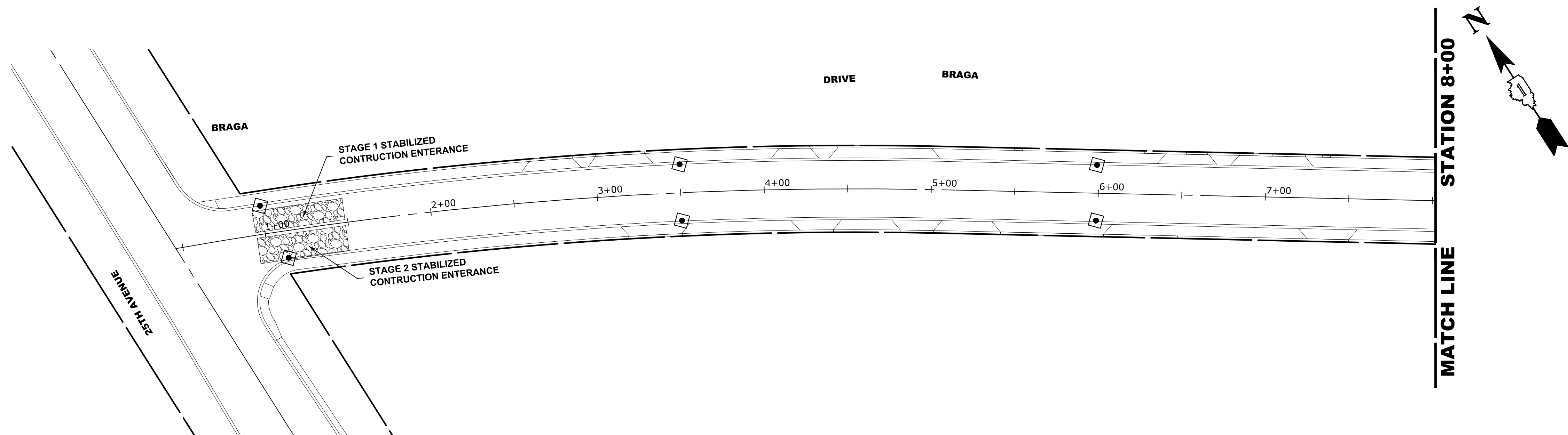
DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

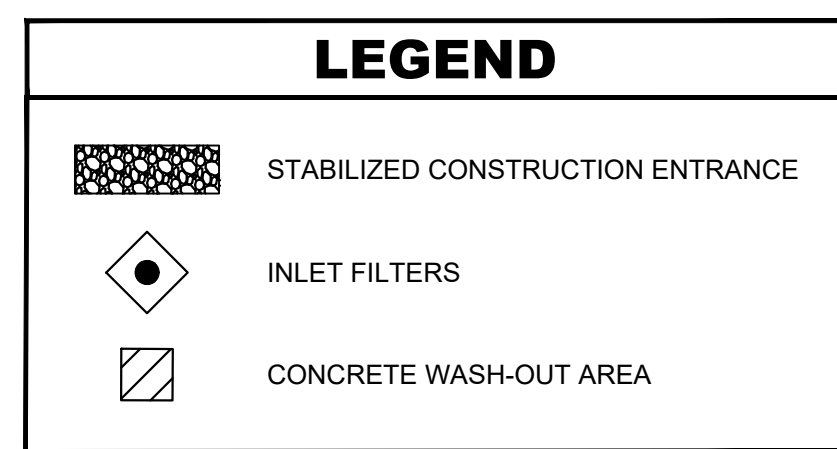
<b>DETOUR PLAN</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	23
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301



**STABILIZED CONSTRUCTION ENTRANCE**



**TENTATIVE SCHEDULE:**  
 SOIL EROSION MEASURES - INSTALLED BEFORE START OF CONSTRUCTION (WITH ONGOING MAINTENANCE THROUGH STABILIZATION)  
 STAGE 1 DEMOLITION AND PAVEMENT REMOVAL - 4 WEEKS  
 STAGE 1 UNDERGROUND UTILITIES - 3 WEEKS  
 STAGE 1 EARTHWORK AND GRADING - 3 WEEKS  
 STAGE 1 PAVING AND FINAL RESTORATION - 4 WEEKS

**TENTATIVE SCHEDULE:**  
 SOIL EROSION MEASURES - INSTALLED BEFORE START OF CONSTRUCTION (WITH ONGOING MAINTENANCE THROUGH STABILIZATION)  
 STAGE 2 DEMOLITION AND PAVEMENT REMOVAL - 4 WEEKS  
 STAGE 2 UNDERGROUND UTILITIES - 3 WEEKS  
 STAGE 2 EARTHWORK AND GRADING - 3 WEEKS  
 STAGE 2 PAVING AND FINAL RESTORATION - 4 WEEKS

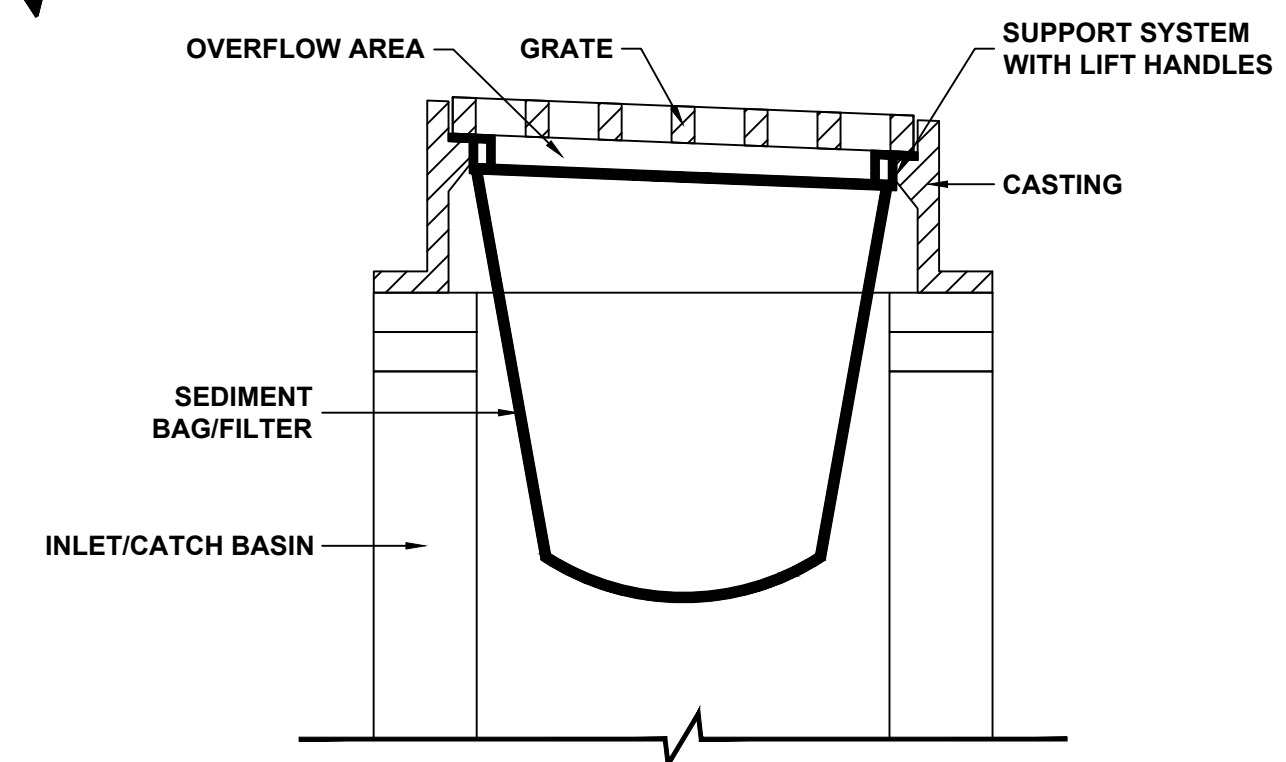
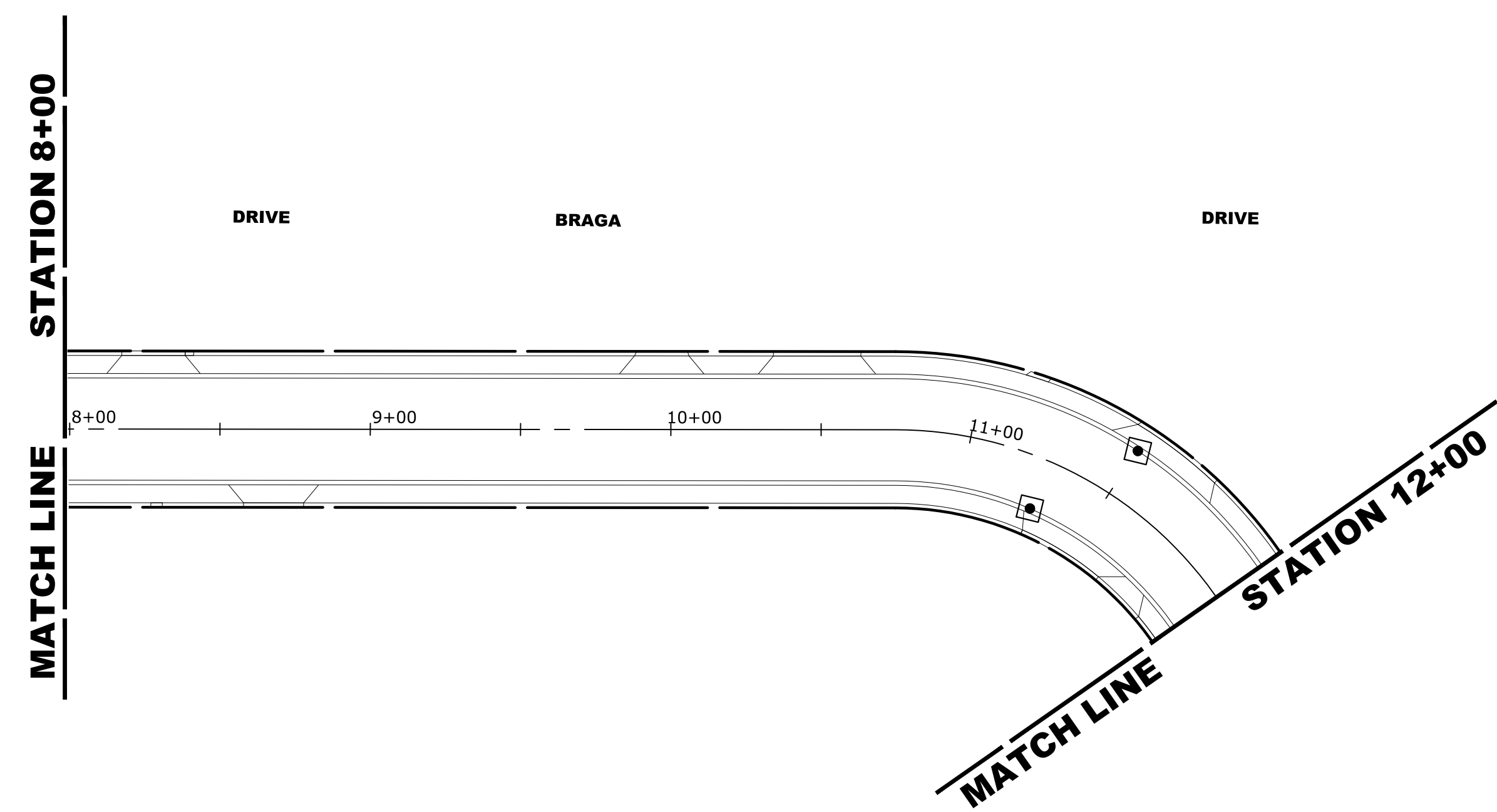
**NOTES**

1. SEE IDOT STANDARD 280001-07 FOR TEMPORARY EROSION CONTROL SYSTEMS.
2. THE CONTRACTOR SHALL ENSURE THAT ADJACENT PROPERTIES REMAIN PROTECTED FROM SEDIMENT DEPOSITION.
3. SOIL STOCKPILES SHALL BE PROTECTED WITH PERIMETER EROSION BARRIER OR OTHER EROSION PROTECTION SPECIFIED BY THE RESIDENT ENGINEER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE FOR THE INDIVIDUAL SOIL MATERIALS.
4. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. THE PROVISIONS MAY INCLUDE SPRAYING VEHICLE WHEELS TO CLEAR SEDIMENT BEFORE EXITING THE CONSTRUCTION SITE OR OTHER MEASURES APPROVED BY THE ENGINEER.
5. THE COST OF ABOVE WORK WILL BE INCLUDED IN COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL)

**CONTRACTOR CERTIFICATION STATEMENT:**

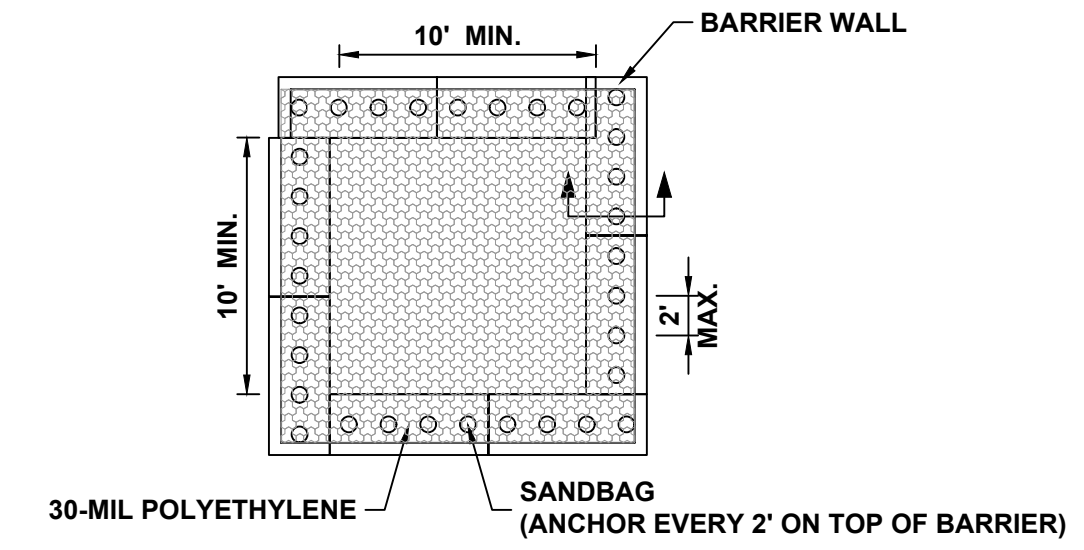
I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS.

CONTRACTOR NAME (PRINT): \_\_\_\_\_  
 CONTRACTOR SIGNATURE: \_\_\_\_\_  
 DATE: \_\_\_\_\_

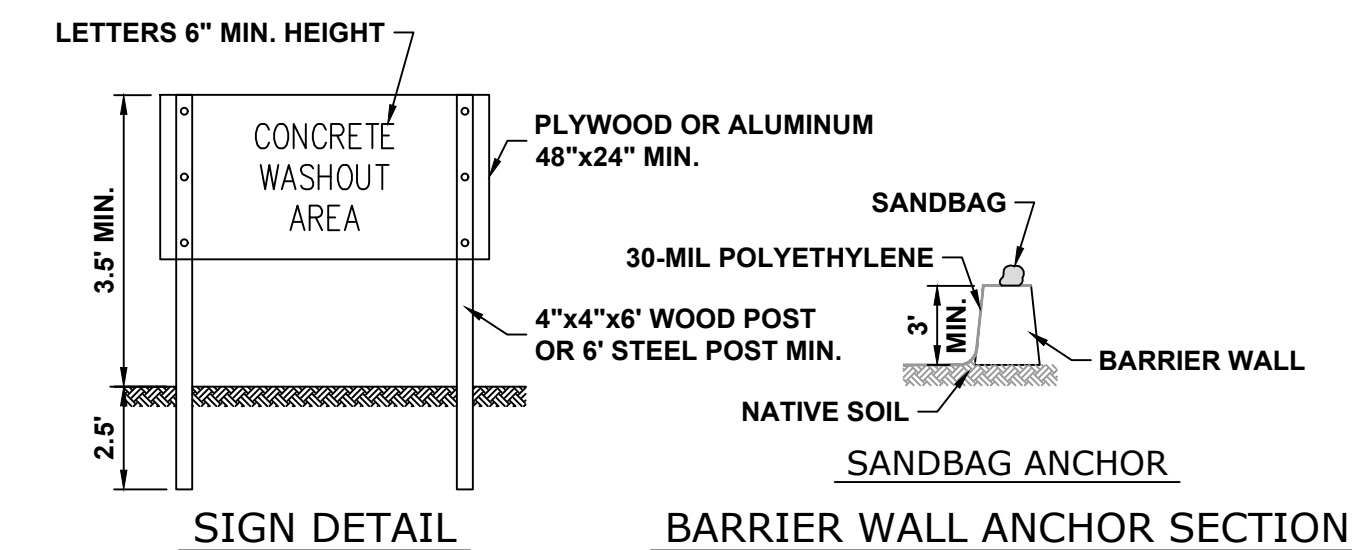


**INLET/CATCH BASIN PROTECTION  
 DETAIL  
 (DROP-IN PROTECTION)**

1. CLEAN OUT AFTER EVERY RAIN EVENT.
2. INSTALL BEFORE BEGINNING ANY WORK.



**PLAN VIEW**



**NOTES:**

1. MAINTAINING TEMPORARY CONCRETE FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDEN CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.

**CONCRETE WASHOUT  
 (BARRIER WALL)**

Drawing file: W:\Projects\_by\_Village\Brosaview\12017263 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 11:40am

**HANCOCK ENGINEERING**  
 100 Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

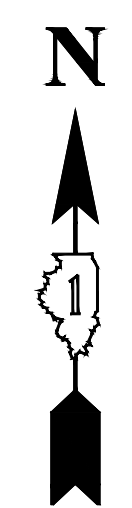
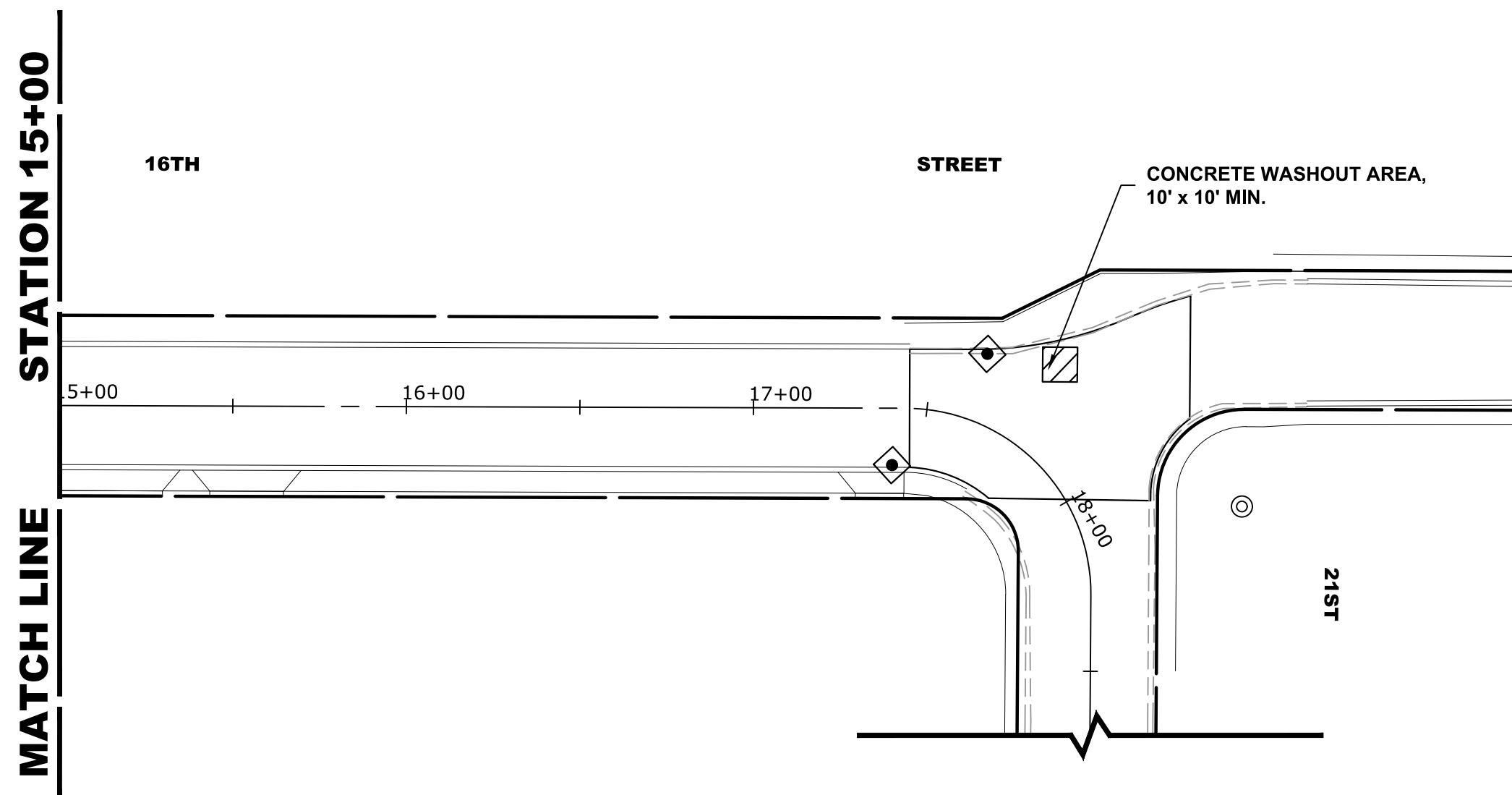
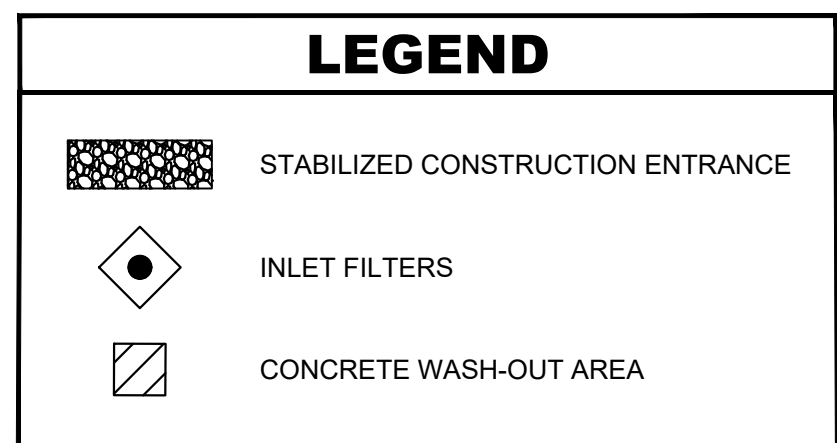
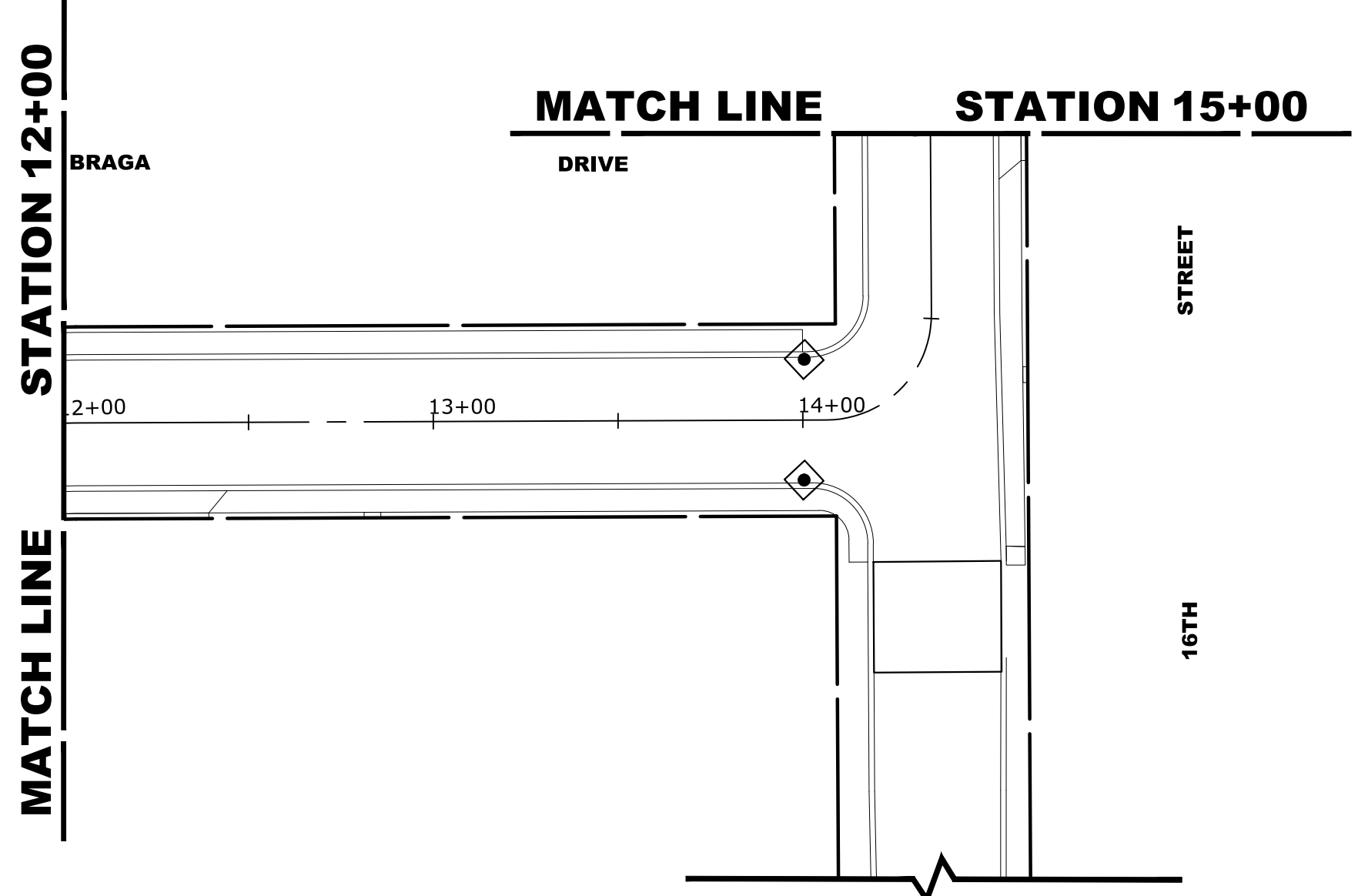
<b>EROSION CONTROL AND SWPPP</b>			
SCALE: 1" = 40'	SHEET NO. 1 OF 2 SHEETS	STA. 0+62	TO STA. 12+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	24
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-26301



# STORM WATER POLLUTION PREVENTION PLAN EROSION AND SEDIMENT CONTROLS



**NARRATIVE DESCRIPTION OF EXISTING CONDITIONS AND PROPOSED DEVELOPMENT**

THE PROJECT WILL COMPLY WITH THE APPLICABLE SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS OF ALL CITY ORDINANCES AND THE IEPA NPDES. THE EXISTING SITE IS PRIMARILY AN IMPERVIOUS R.O.W. SOILS ARE PRIMARILY SILTY CLAY AND ARE DESIGNATED AS TYPE 533 ON THE NRCS REPORT. THE SOILS AFTER DEVELOPMENT WILL REMAIN THE SAME. THE SITE IS NOT WITHIN THE FLOOD PROTECTION AREA OR FLOOD ZONE. ALL STORM WATER WILL BE DISCHARGED TO THE EXISTING CITY STORM SEWER ALONG BRAGA DRIVE AND 16TH ST.

**DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION (WHERE APPLICABLE):**

- A) AT LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, INLET PROTECTION SHALL BE INSTALLED AROUND EXISTING INLETS OR CATCH BASINS.

**DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION (WHERE APPLICABLE):**

- 1) DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION AREA AS OUTLINED PREVIOUSLY SHALL BE PROTECTED FROM DAMAGE EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESIGNATED ON THE PLANS OR DIRECTED BY THE ENGINEER), PARKING VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
- A) WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE HIGH FLOWS OF WATER AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
- B) TOP SOIL AND EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
- C) AS THE CONTRACTOR CONSTRUCTS THE UNDERGROUND IMPROVEMENTS, THEY SHALL ADHERE TO THE FOLLOWING STEPS AS DIRECTED BY THE ENGINEER:
  - I. PLACE TEMPORARY EROSION CONTROL SYSTEMS AT LOCATIONS WHERE WATER LEAVES AND ENTERS THE CONSTRUCTION ZONE.
- D) THE CONTRACTOR SHALL IMMEDIATELY FOLLOW MAJOR EARTH MOVING OPERATIONS WITH FINAL GRADING EQUIPMENT. AFTER MAJOR EARTH SPREAD OPERATION HAS MOVED TO A NEW LOCATION, FINAL GRADING SHALL BE COMPLETED WITHIN FOURTEEN DAYS. IF GRADING IS NOT COMPLETED WITHIN FOURTEEN DAYS, ALL MAJOR EARTH MOVING OPERATIONS WILL BE STOPPED, AS DIRECTED BY THE ENGINEER, UNTIL DISTRIBUTED AREAS ARE FINAL GRADED AND SEEDED.
- E) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED WHEN FINAL GRADED. IF NOT, THEY SHALL BE TEMPORARILY SEEDED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING".
- F) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUN-OFF IN COMPLIANCE WITH EPA WATER QUALITY REGULATIONS LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
- G) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING ACTIVITIES AND WEEKLY OR AFTER LARGE RAINS DURING THE WINTER SHUTDOWN PERIOD. THIS PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BIWEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER CONTROL WORK IS NECESSARY.
- H) SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEM SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF MAINTENANCE IS INCIDENTAL TO THE CONTRACT.
- I) THE TEMPORARY EROSION CONTROL SYSTEM SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER ITS USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING.

**DOCUMENTATION**

- 1) A REPORT SUMMARIZING THE SCOPE OF INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE SECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLANTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTION TAKEN IN ACCORDANCE WITH SECTION 4.B. SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G. OF THE GENERAL PERMIT.
- 2) IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL COMPLETE AND FILE AN "INCIDENT OF NONCOMPLIANCE (ION)" REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI.G. OF THE GENERAL PERMIT. THE REPORT ID NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
COMPLIANCE ASSURANCE SECTION #19  
POST OFFICE BOX 19276  
SPRINGFIELD, IL 62794-9276

**DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:**

- 1) EXCAVATION AND REMOVAL OF EXISTING STRUCTURES AND PAVED SURFACES WILL BE COMPLETED AT LOCATIONS AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- 2) DRAINAGE STRUCTURES WILL BE INSTALLED BEFORE AND/OR DURING THE EXCAVATION AND REMOVAL OF THE EXISTING STRUCTURES TO ALLOW FOR PROPER DRAINAGE OF THE SITE.
- 3) PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEANUP OF TEMPORARY EROSION CONTROL, SUCH AS EROSION CONTROL FENCE, HAY OR STRAW BALE DITCH CHECKS, INLET PROTECTION, AND TEMPORARY SEEDING AND MULCHING.
- 4) FINAL GRADING AND PLACEMENT OF PERMANENT EROSION CONTROL SEEDING AND MULCHING.

**AREA OF DISTURBED GROUND**

THE TOTAL AREA DISTURBED BY CONSTRUCTION ACTIVITIES IS APPROXIMATELY 2.14 ACRES. THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEM AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES. THE CONTRACTOR SHALL ABIDE TO ALL REQUIREMENTS WITHIN THIS PLAN AS PART OF THE CONTRACT. ALL DISTURBED AREAS HAVING HIGH POTENTIAL FOR EROSION, AS DETERMINED BY THE ENGINEER, SHALL BE PERMANENTLY SEEDED AS SOON AS POSSIBLE.

**MAINTENANCE AFTER CONSTRUCTION (WHERE APPLICABLE):**

- 1) CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE IS RECEIVED AT THE FINAL INSPECTION.
- 2) AREAS WILL BE INSPECTED ON A REGULAR BASIS BY THE ENGINEER AND THE VILLAGE OF BROADVIEW.
- 3) MAINTENANCE CREWS WILL ALSO AID IN ANY DRAINAGE PROBLEMS.
- 4) ALL MAINTENANCE WILL BE CONDUCTED AT TIMES WHEN WEATHER CONDITIONS WILL NOT CAUSE SITE DAMAGE.
- 5) CONTRACTORS SHALL COMPLY WITH ALL TERMS AND CONDITIONS OF IEPA NPDES PERMIT ILR 10. RESTORATION SHALL OCCUR WITHIN 7 DAYS OF DISTURBANCE.
- 6) CONTRACTORS SHALL SUBMIT INSPECTION REPORTS TO THE VILLAGE AT LEAST ONCE PER SEVEN DAYS AND AFTER RAINFALL EVENTS OF HALF INCH (OR EQUIVALENT SNOW FALL).
- 7) THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE SWPPP ON SITE AT ALL TIMES.
- 8) TECHNIQUES SHALL BE EMPLOYED BY THE CONTRACTOR TO PREVENT THE BLOWING OF DUST OR SEDIMENT FROM THE SITE.
- 9) DAILY REMOVAL OF SEDIMENT AND DEBRIS FROM THE STREET SHALL BE REQUIRED OF THE CONTRACTOR.

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 11:40am

**HANCOCK ENGINEERING**  
100 Years of Excellence

- ◆ Civil Engineers
- ◆ Municipal Consultants
- ◆ Established 1911

9933 Roosevelt Road  
Westchester, IL 60154-2780  
Phone: 708-865-0300  
www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

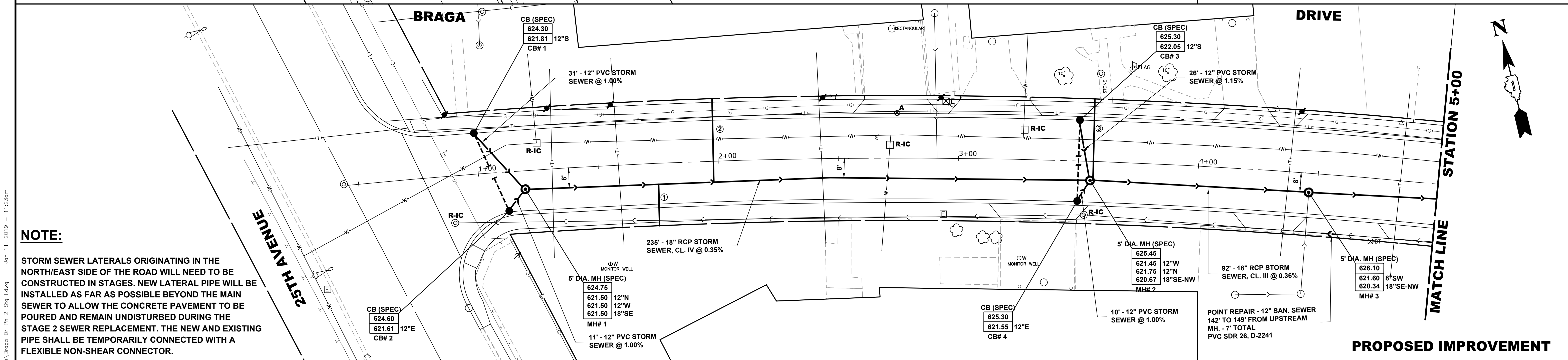
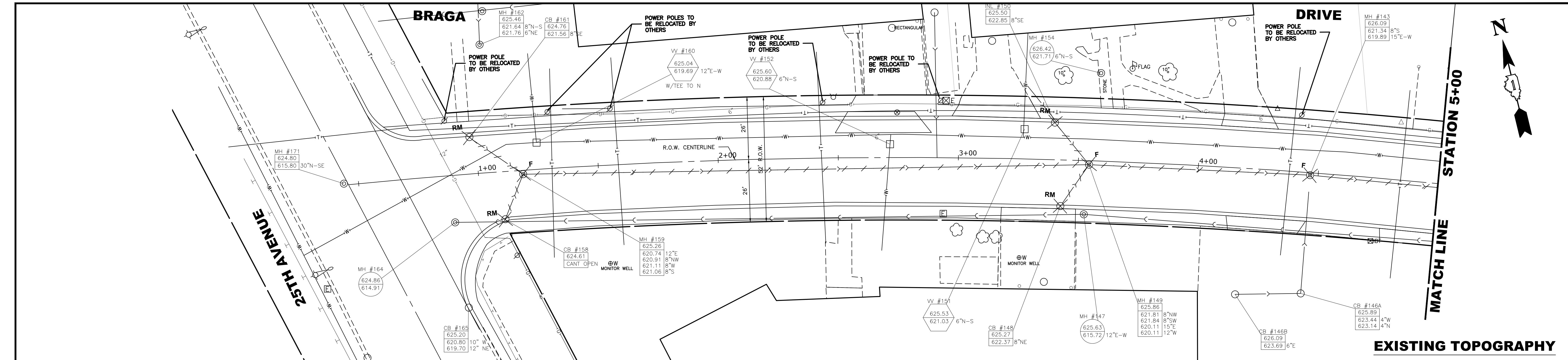
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL AND SWPPP**

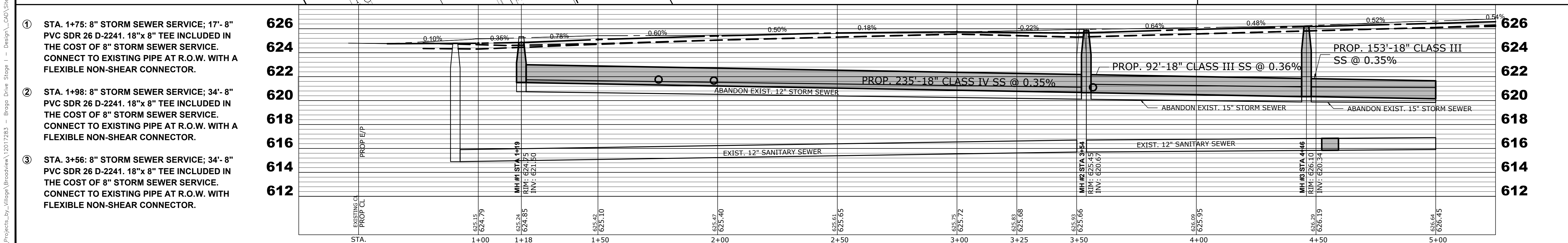
SCALE: 1" = 40'    SHEET NO. 2 OF 2 SHEETS    STA. 12+00 TO STA. 17+45

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	25
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301



**NOTE:**  
 STORM SEWER LATERALS ORIGINATING IN THE NORTH/EAST SIDE OF THE ROAD WILL NEED TO BE CONSTRUCTED IN STAGES. NEW LATERAL PIPE WILL BE INSTALLED AS FAR AS POSSIBLE BEYOND THE MAIN SEWER TO ALLOW THE CONCRETE PAVEMENT TO BE POURED AND REMAIN UNDISTURBED DURING THE STAGE 2 SEWER REPLACEMENT. THE NEW AND EXISTING PIPE SHALL BE TEMPORARILY CONNECTED WITH A FLEXIBLE NON-SHEAR CONNECTOR.



**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-345-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRAGA DRIVE**  
**UTILITY PLAN AND PROFILE**

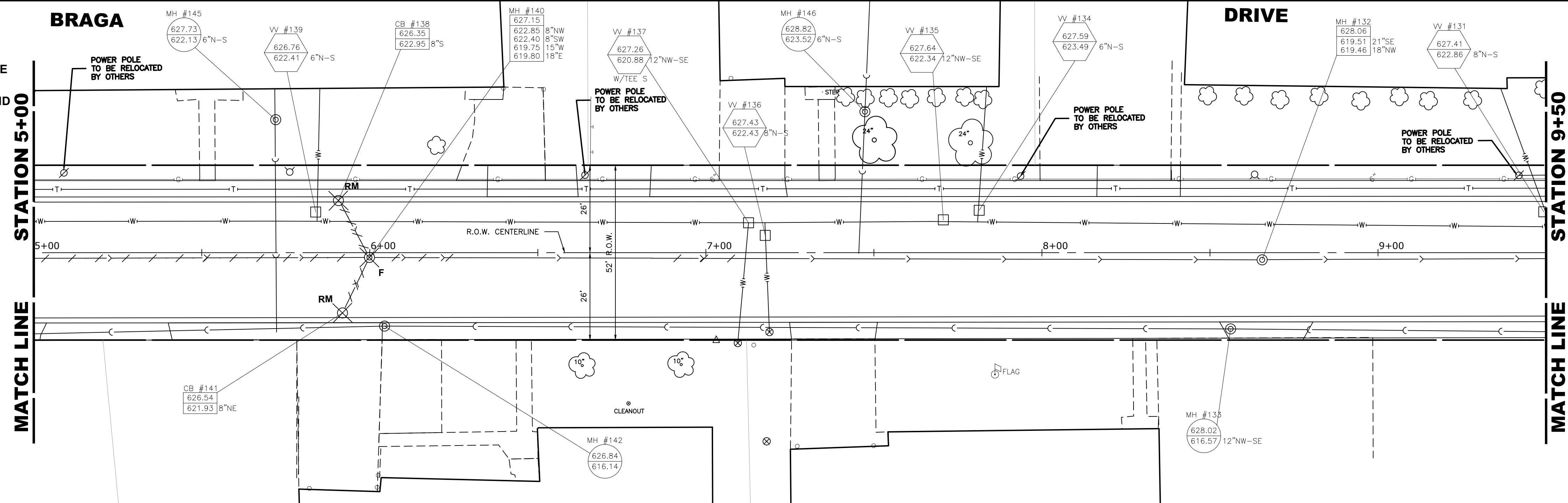
SCALE: H:1"=20', V:1"=2' SHEET NO. 1 OF 5 SHEETS STA. 0+00 TO STA. 5+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	26
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig.dwg Jan 11, 2019 11:23am  
 E.I.E. PROJECT NO. 120-17-28301

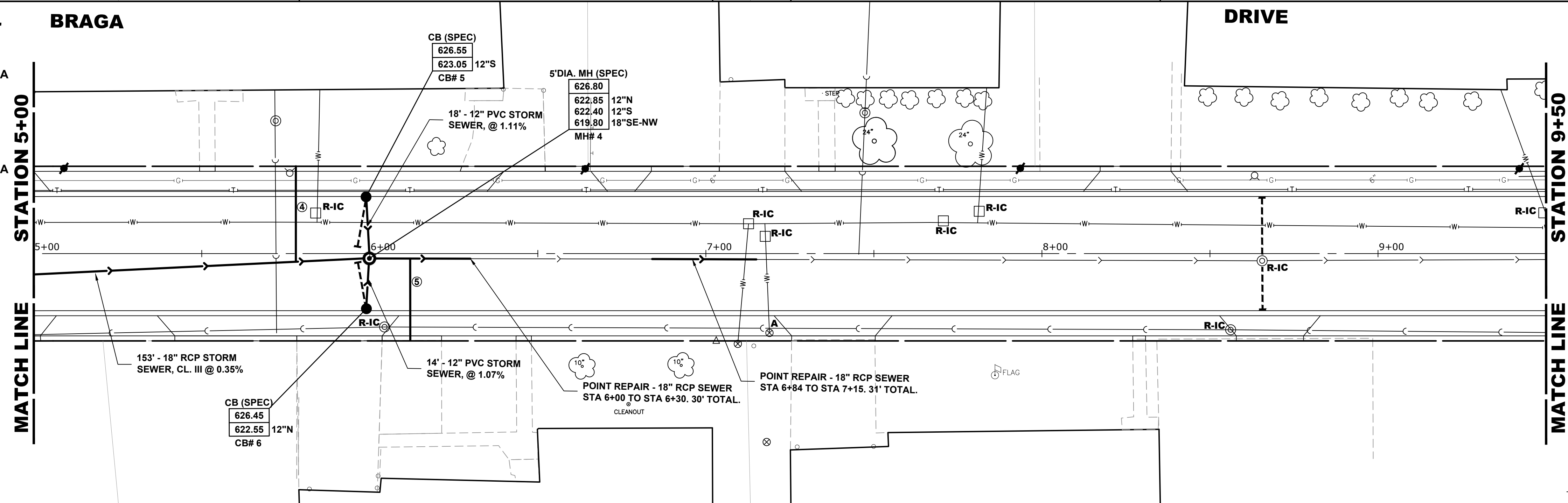
**NOTE:**

STORM SEWER LATERALS ORIGINATING IN THE NORTH/EAST SIDE OF THE ROAD WILL NEED TO BE CONSTRUCTED IN STAGES. NEW LATERAL PIPE WILL BE INSTALLED AS FAR AS POSSIBLE BEYOND THE MAIN SEWER TO ALLOW THE CONCRETE PAVEMENT TO BE POURED AND REMAIN UNDISTURBED DURING THE STAGE 2 SEWER REPLACEMENT. THE NEW AND EXISTING PIPE SHALL BE TEMPORARILY CONNECTED WITH A FLEXIBLE NON-SHEAR CONNECTOR.

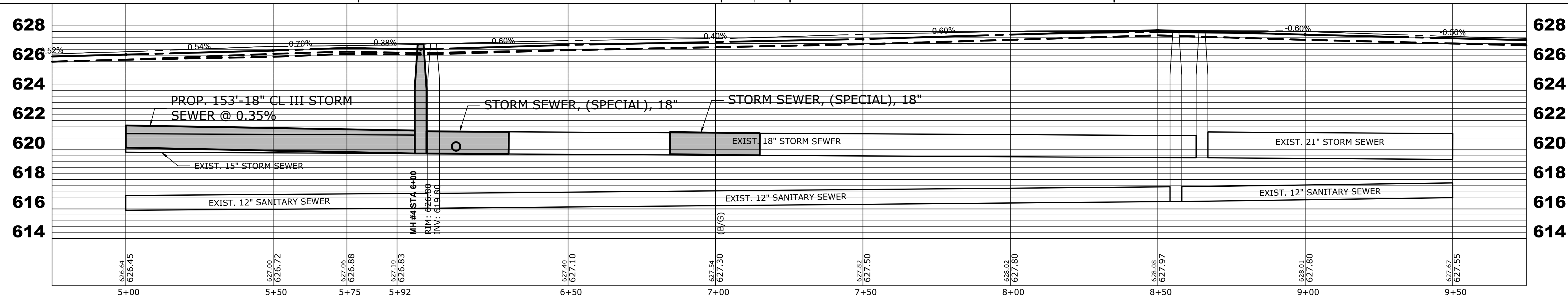


**EXISTING TOPOGRAPHY**

- ④ STA. 5+78: 8" STORM SEWER SERVICE; 28'-8" PVC SDR 26 D-2241. 18"x 8" TEE INCLUDED IN THE COST OF 8" STORM SEWER SERVICE. CONNECT TO EXISTING PIPE AT R.O.W. WITH A FLEXIBLE NON-SHEAR CONNECTOR.
- ⑤ STA. 6+12: 8" STORM SEWER SERVICE; 24'-8" PVC SDR 26 D-2241. 18"x 8" TEE INCLUDED IN THE COST OF 8" STORM SEWER SERVICE. CONNECT TO EXISTING PIPE AT R.O.W. WITH A FLEXIBLE NON-SHEAR CONNECTOR.



**PROPOSED IMPROVEMENT**



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_Sig.dwg Jan 11, 2019 - 11:23am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRAGA DRIVE  
UTILITY PLAN AND PROFILE**

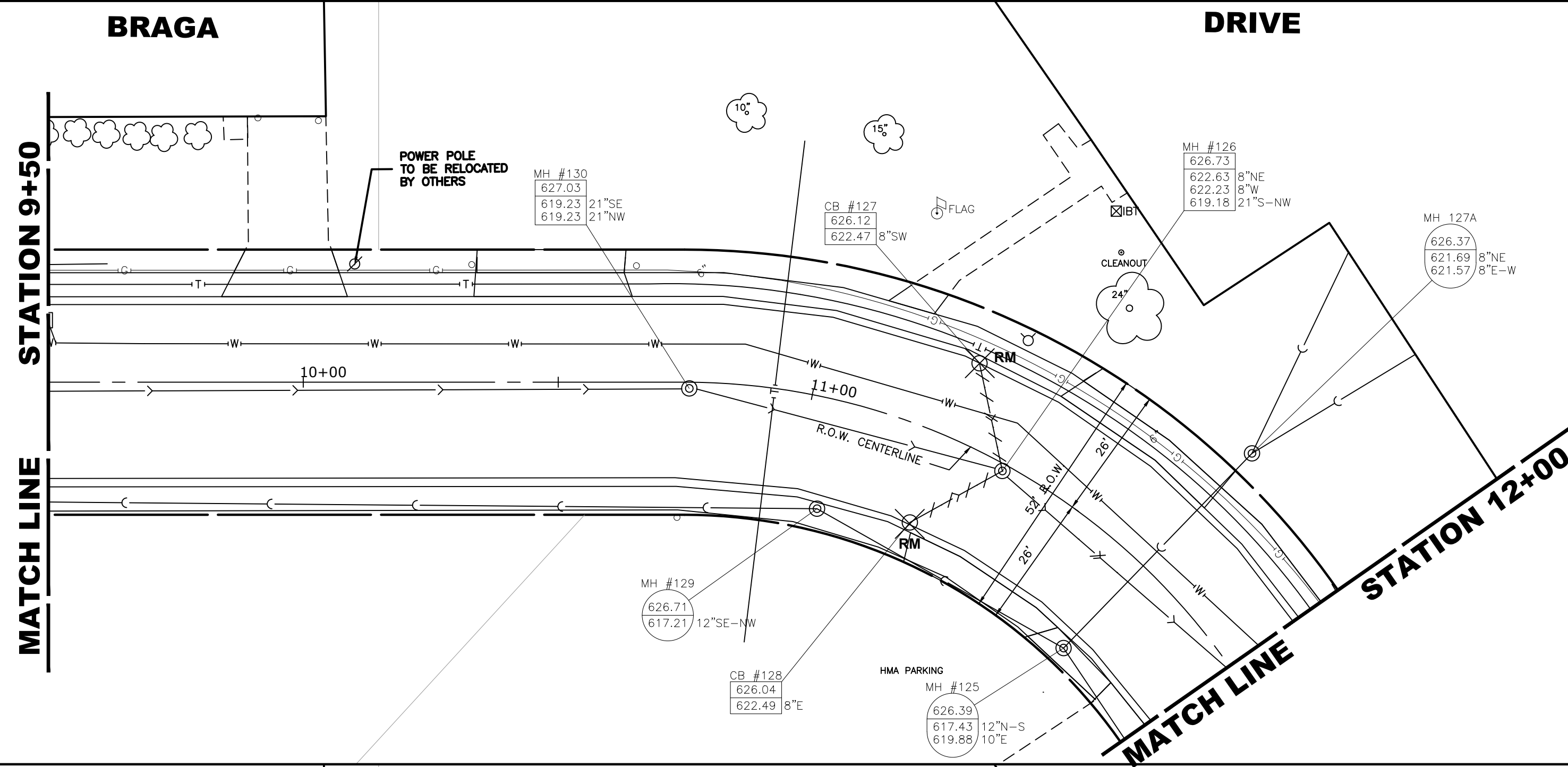
SCALE: H:1"=20', V:1"=2'    SHEET NO. 2 OF 5 SHEETS    STA. 5+00 TO STA. 9+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	27
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301

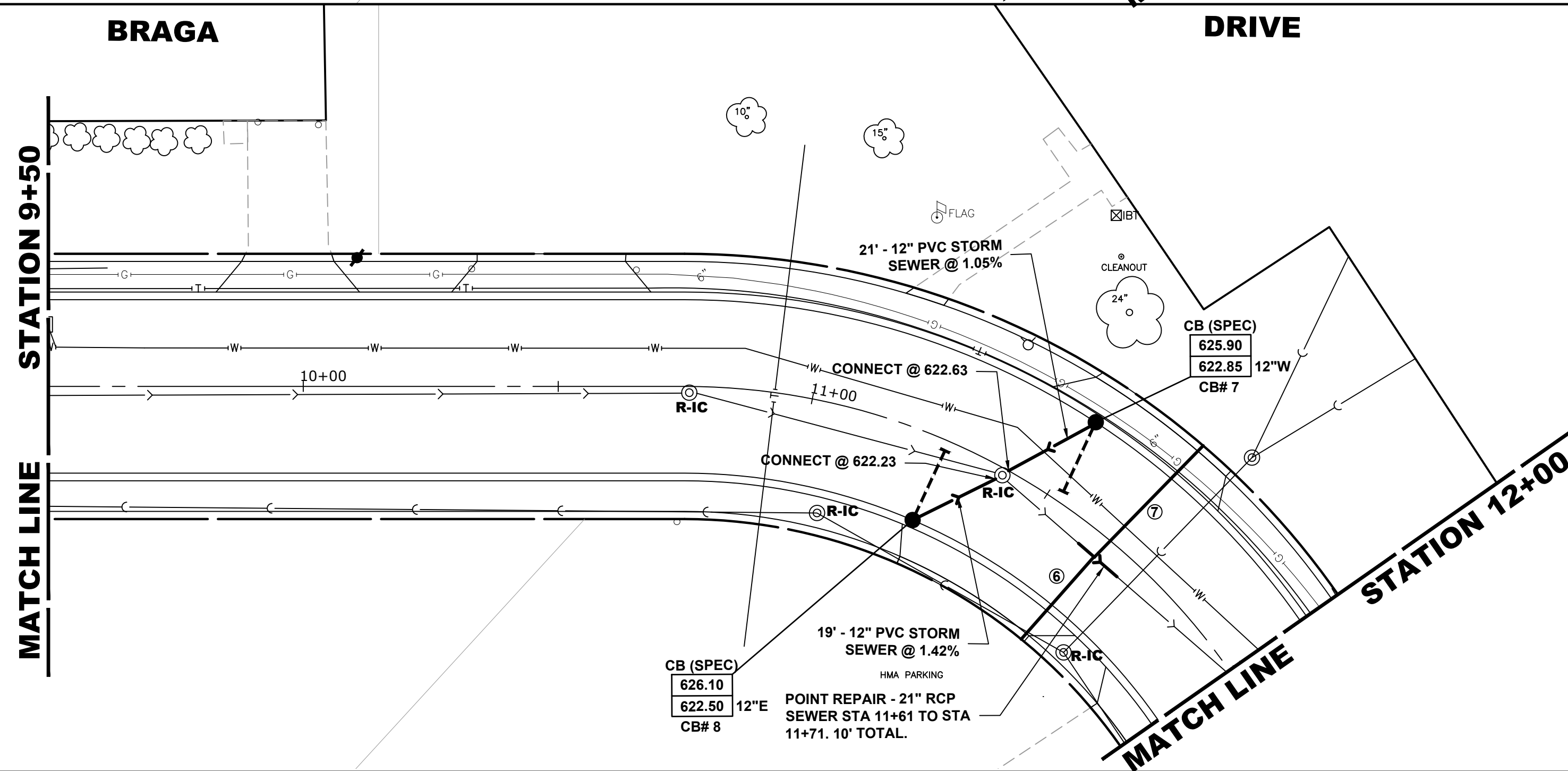
**NOTE:**

STORM SEWER LATERALS ORIGINATING IN THE NORTH/EAST SIDE OF THE ROAD WILL NEED TO BE CONSTRUCTED IN STAGES. NEW LATERAL PIPE WILL BE INSTALLED AS FAR AS POSSIBLE BEYOND THE MAIN SEWER TO ALLOW THE CONCRETE PAVEMENT TO BE POURED AND REMAIN UNDISTURBED DURING THE STAGE 2 SEWER REPLACEMENT. THE NEW AND EXISTING PIPE SHALL BE TEMPORARILY CONNECTED WITH A FLEXIBLE NON-SHEAR CONNECTOR.

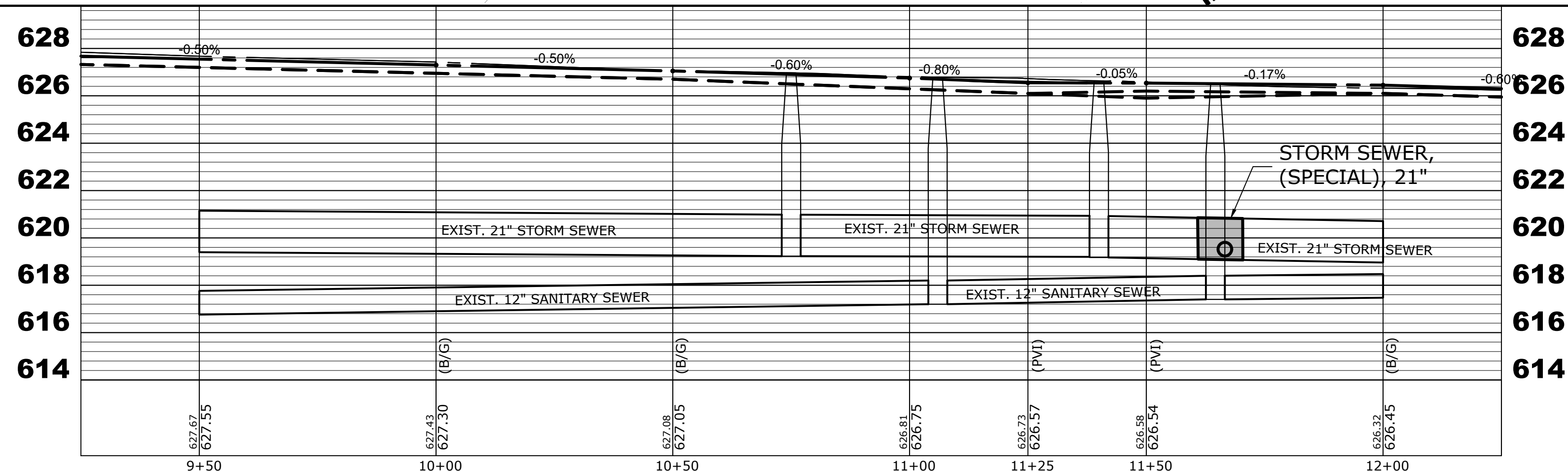


**EXISTING TOPOGRAPHY**

- ⑥ STA. 11+66: 8" STORM SEWER SERVICE; 18'- 8" PVC SDR 26 D-2241. 21"x 8" TEE INCLUDED IN THE COST OF 8" STORM SEWER SERVICE. CONNECT TO EXISTING PIPE AT R.O.W. WITH A FLEXIBLE NON-SHEAR CONNECTOR.
- ⑦ STA. 11+66: 8" STORM SEWER SERVICE; 30'- 8" PVC SDR 26 D-2241. 21"x 8" TEE INCLUDED IN THE COST OF 8" STORM SEWER SERVICE. CONNECT TO EXISTING PIPE AT R.O.W. WITH A FLEXIBLE NON-SHEAR CONNECTOR.



**PROPOSED IMPROVEMENT**



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg Jan 11, 2019 - 11:24am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWW	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BRAGA DRIVE  
 UTILITY PLAN AND PROFILE**

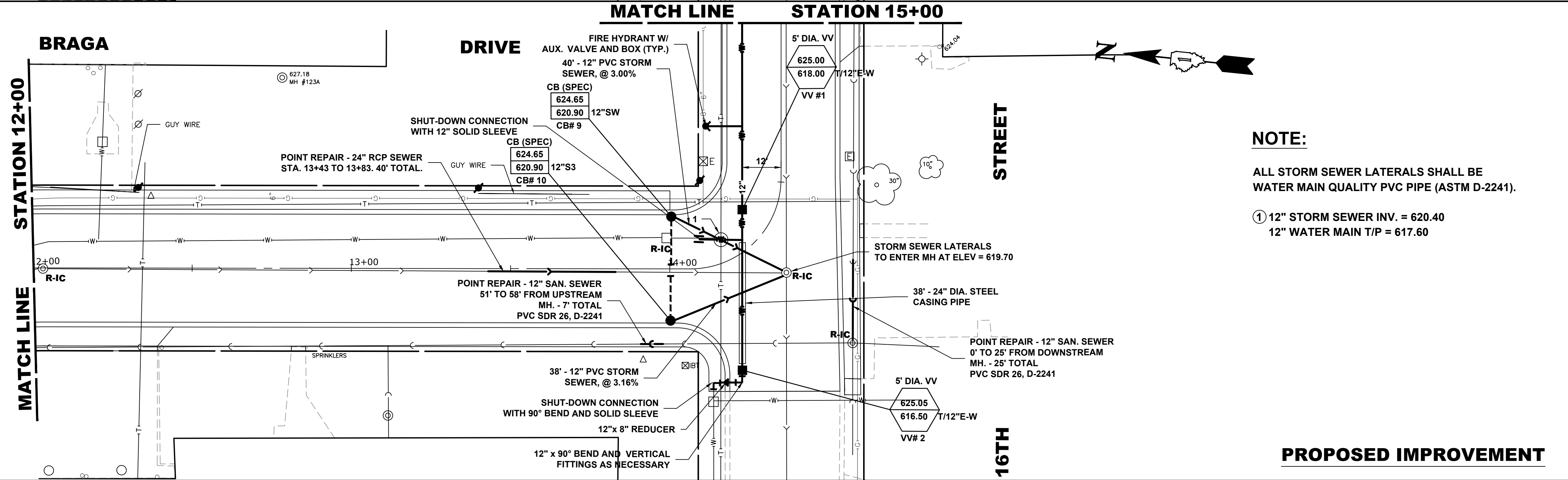
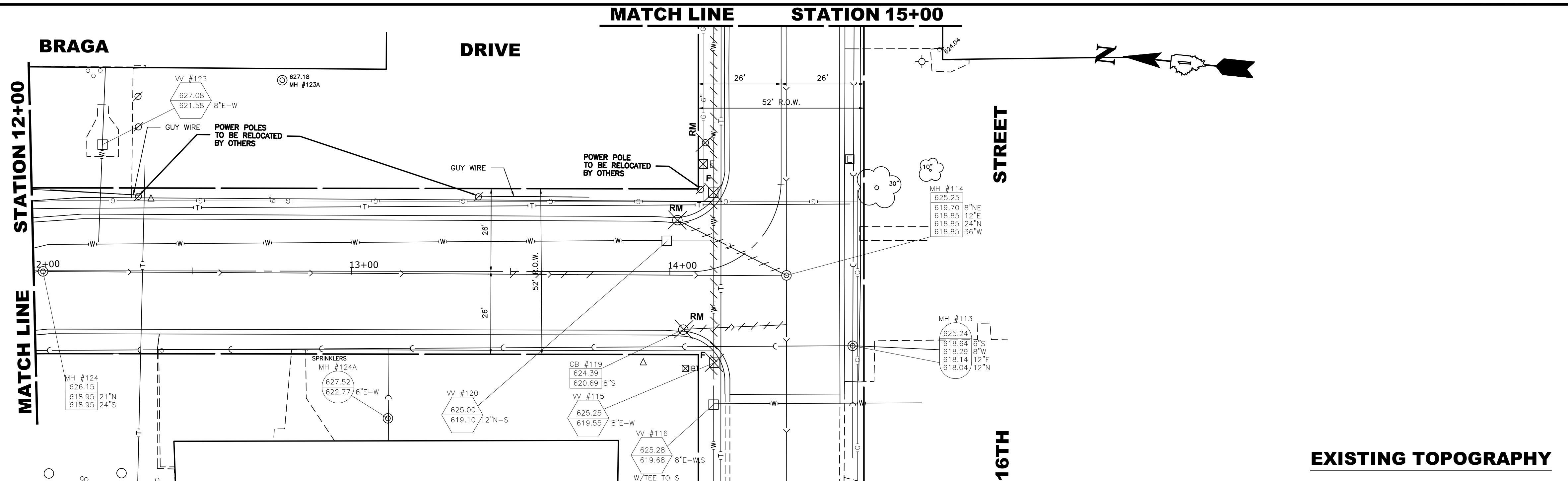
SCALE: H:1"=20', V:1"=2'  
 SHEET NO. 3 OF 5 SHEETS  
 STA. 9+50 TO STA. 12+00

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	28
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

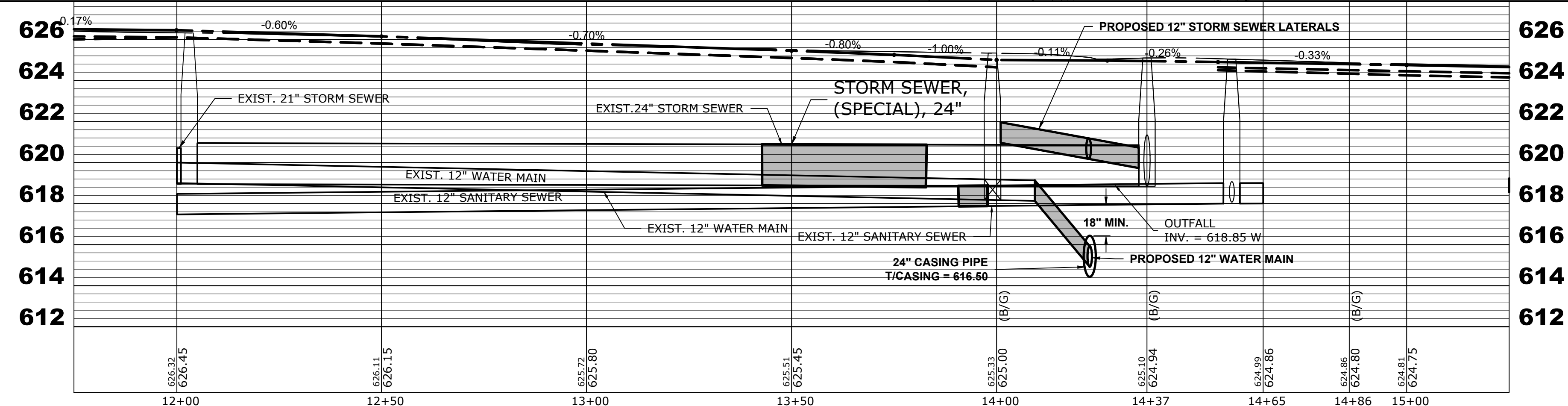
E.H.E. PROJECT NO. 120-17-28301

**NOTE:**

STORM SEWER LATERALS ORIGINATING IN THE NORTH/EAST SIDE OF THE ROAD WILL NEED TO BE CONSTRUCTED IN STAGES. NEW LATERAL PIPE WILL BE INSTALLED AS FAR AS POSSIBLE BEYOND THE MAIN SEWER TO ALLOW THE CONCRETE PAVEMENT TO BE POURED AND REMAIN UNDISTURBED DURING THE STAGE 2 SEWER REPLACEMENT. THE NEW AND EXISTING PIPE SHALL BE TEMPORARILY CONNECTED WITH A FLEXIBLE NON-SHEAR CONNECTOR.



**NOTE:**  
 ALL STORM SEWER LATERALS SHALL BE WATER MAIN QUALITY PVC PIPE (ASTM D-2241).  
 ① 12" STORM SEWER INV. = 620.40  
 12" WATER MAIN T/P = 617.60



Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph\_2\_Sig\_1.dwg Jan 11, 2019 11:25am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED - MWV	REVISÉD -
DRAWN - DMM, SFB	REVISÉD -
CHECKED - JGG	REVISÉD -
DATE - 12/18/18	REVISÉD -

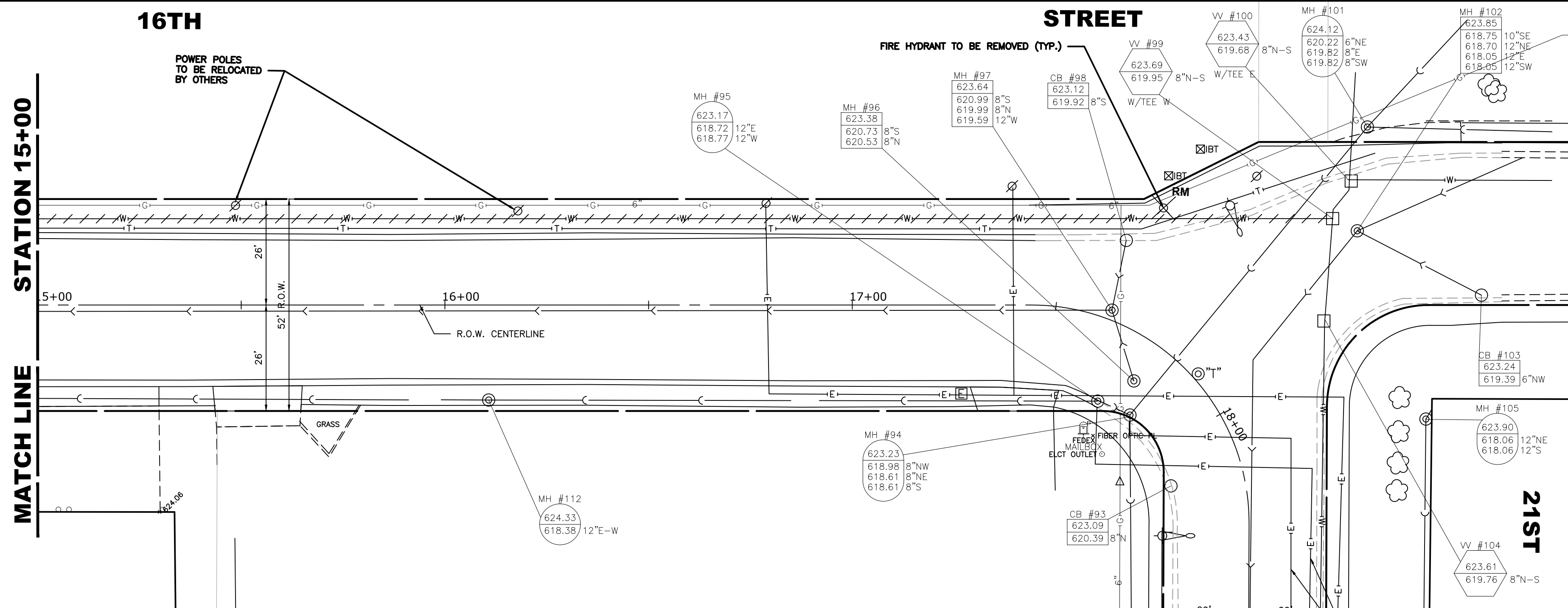
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BRAGA DRIVE  
 UTILITY PLAN AND PROFILE**

SCALE: H:1"=20', V:1"=2' SHEET NO. 4 OF 5 SHEETS STA. 12+00 TO STA. 15+00

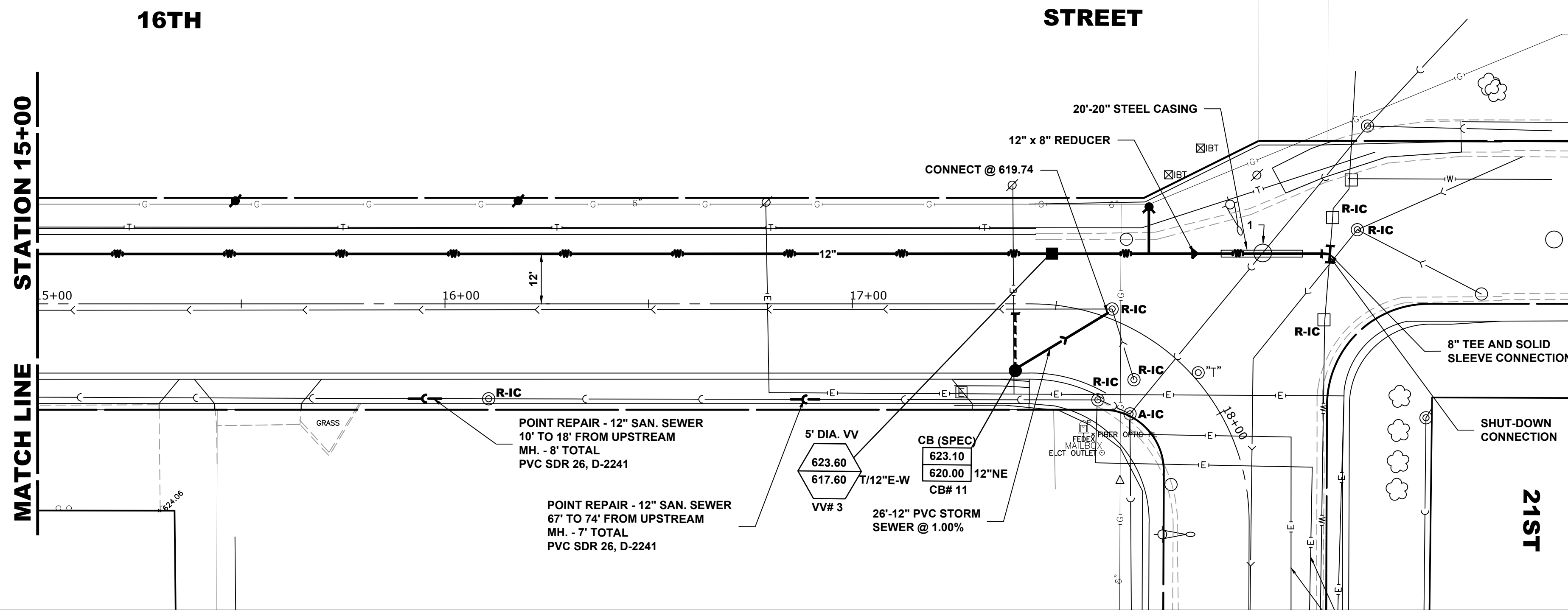
MUN RTE. 3015	SECTION 16-00080-00-PV	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 29
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301



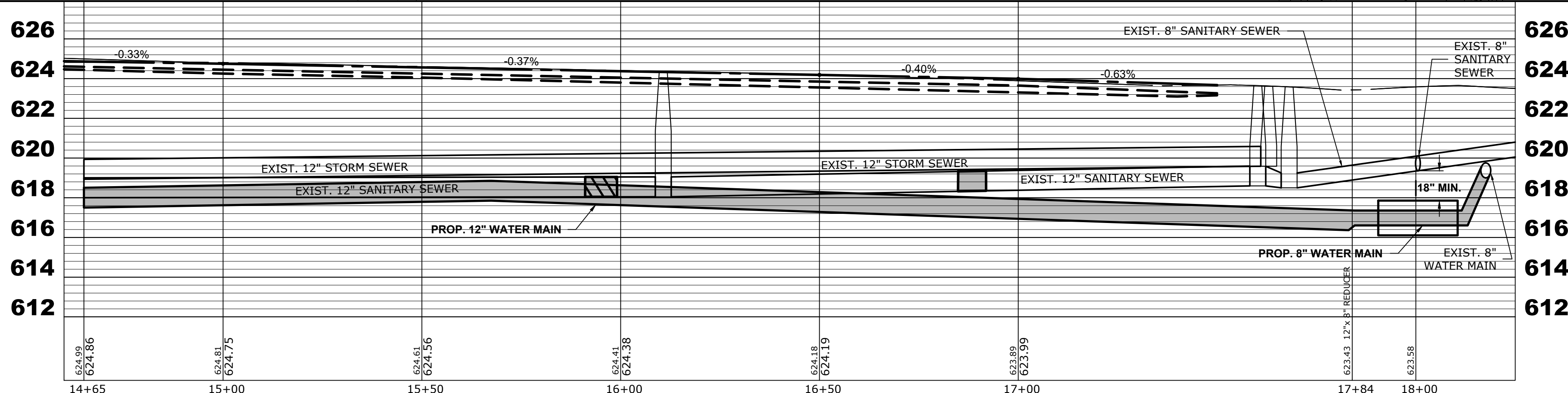
**NOTE:**  
 STORM SEWER LATERALS ORIGINATING IN THE NORTH/EAST SIDE OF THE ROAD WILL NEED TO BE CONSTRUCTED IN STAGES. NEW LATERAL PIPE WILL BE INSTALLED AS FAR AS POSSIBLE BEYOND THE MAIN SEWER TO ALLOW THE CONCRETE PAVEMENT TO BE POURED AND REMAIN UNDISTURBED DURING THE STAGE 2 SEWER REPLACEMENT. THE NEW AND EXISTING PIPE SHALL BE TEMPORARILY CONNECTED WITH A FLEXIBLE NON-SHEAR CONNECTOR.

**EXISTING TOPOGRAPHY**



**NOTE:**  
 ① 8" SAN. SEWER INV. = 619.28 20" STEEL CASING. T/P = 617.70

**PROPOSED IMPROVEMENT**



Drawing file: W:\Projects\_By\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga Dr\_Ph 2\_Sig.dwg Jan 11, 2019 11:26am

**HANCOCK ENGINEERING**  
 100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

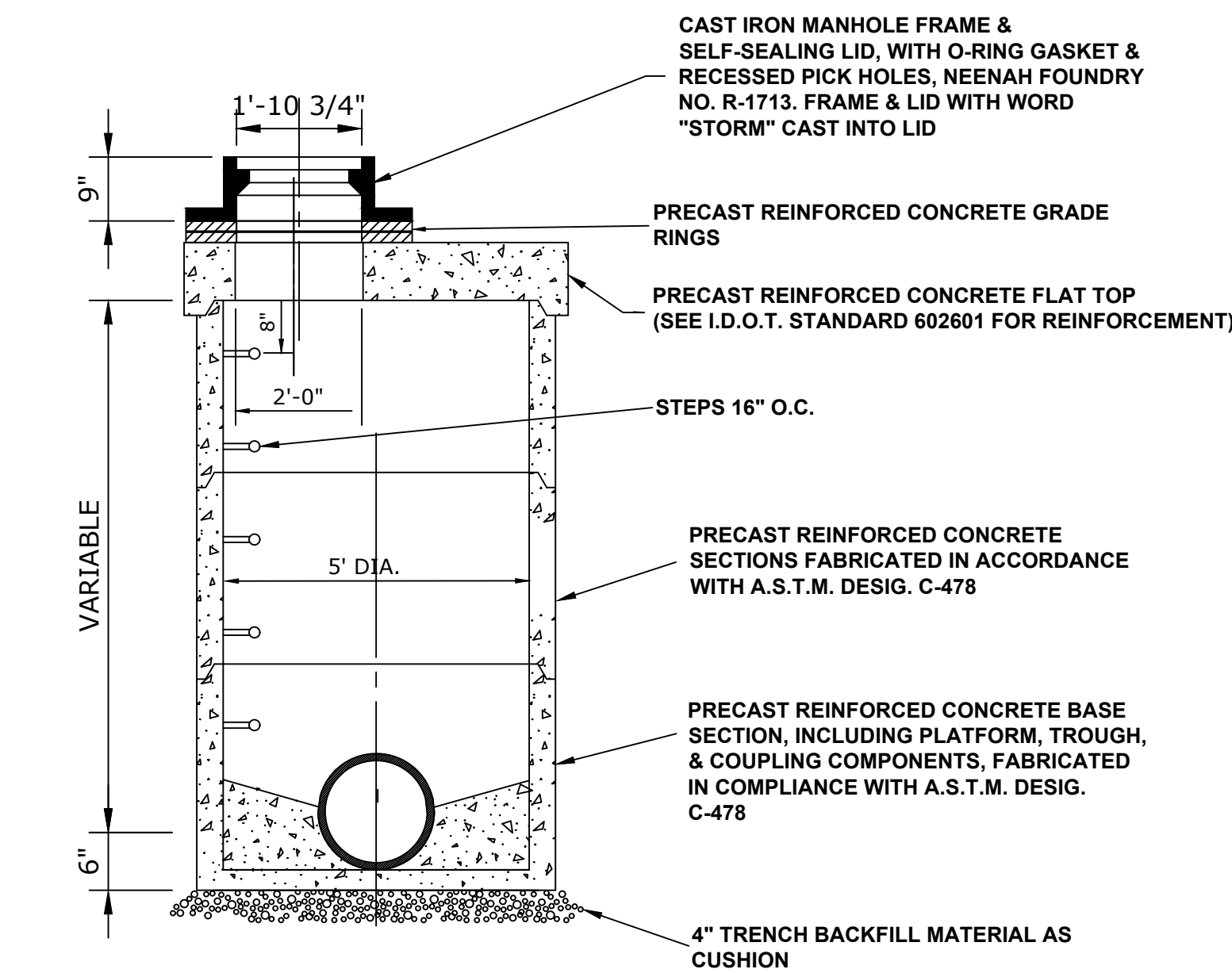
DESIGNED -	MWW	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

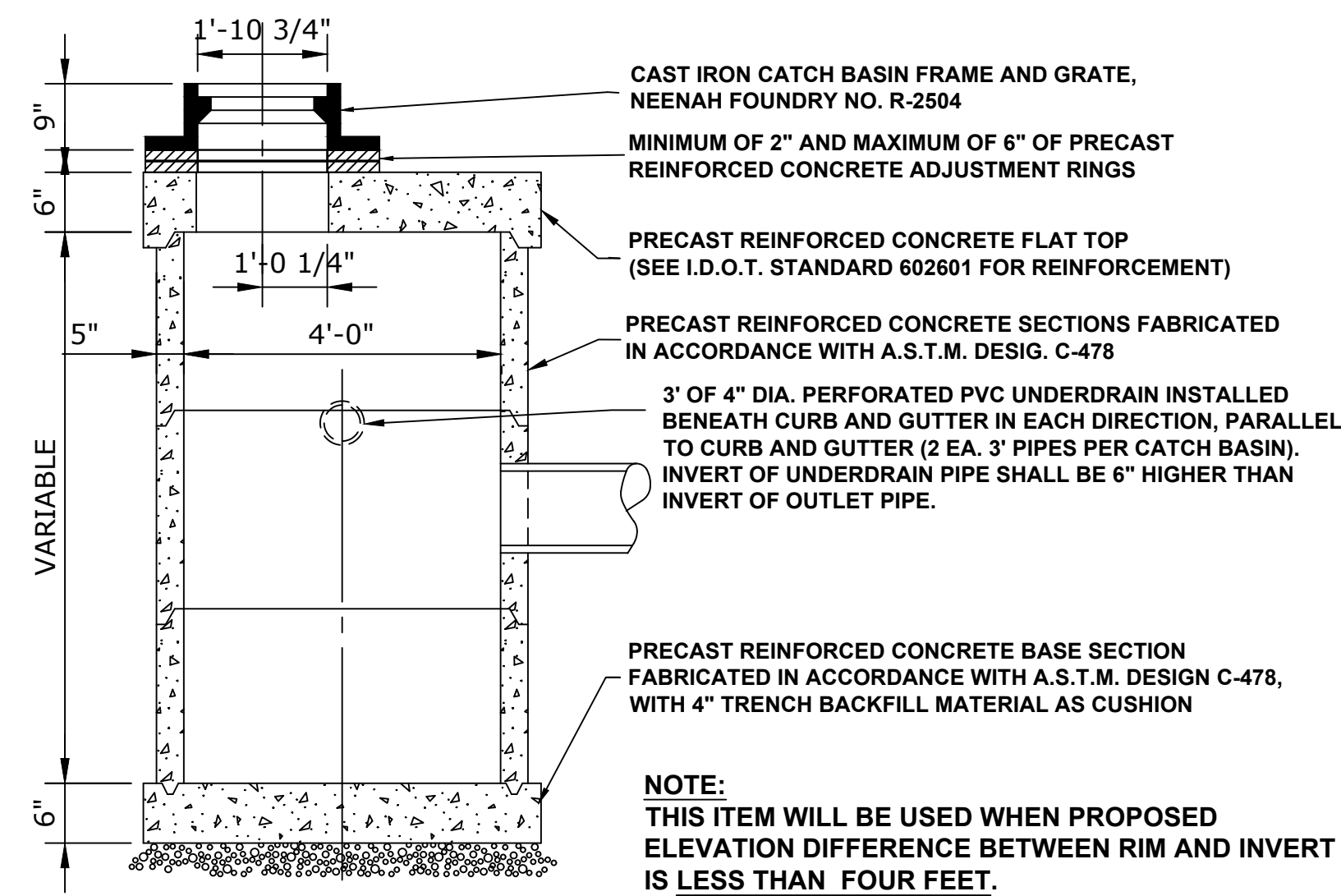
**BRAGA DRIVE  
 UTILITY PLAN AND PROFILE**  
 SCALE: H:1"=20', V:1"=2'  
 SHEET NO. 5 OF 5 SHEETS  
 STA. 14+60 TO STA. 18+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	30
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS		FED. AID PROJECT		

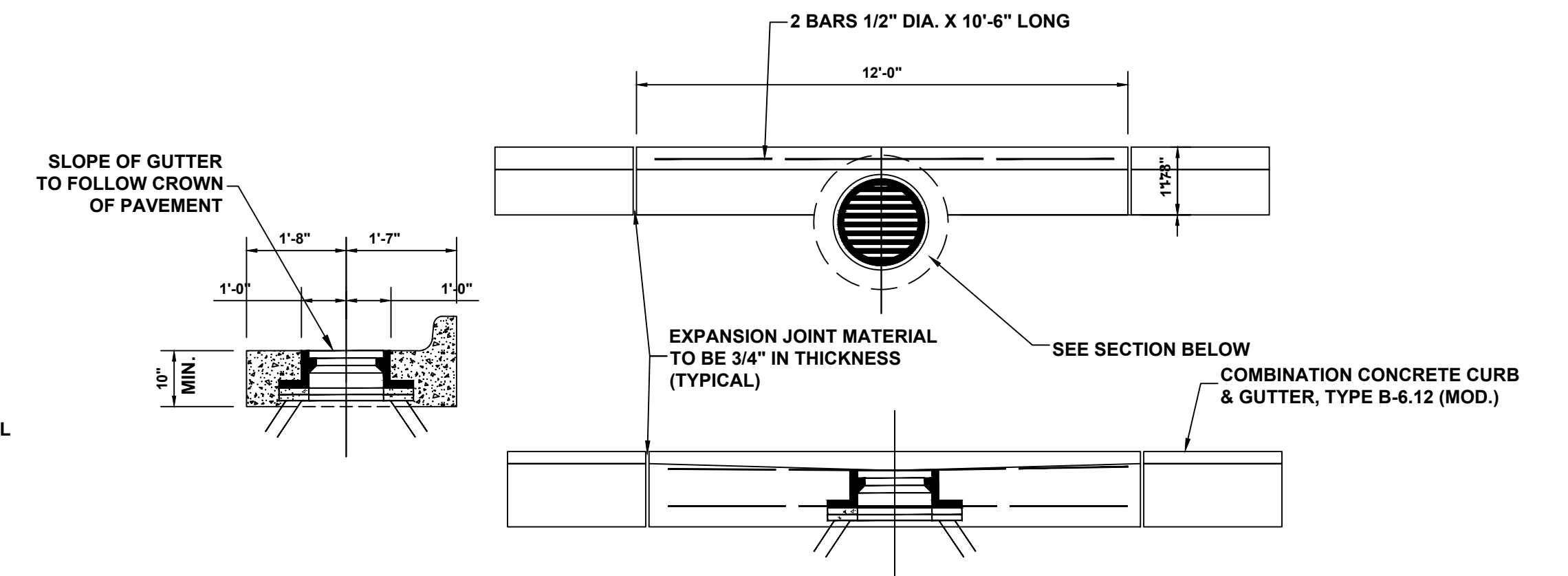
E.H.E. PROJECT NO. 120-17-28301



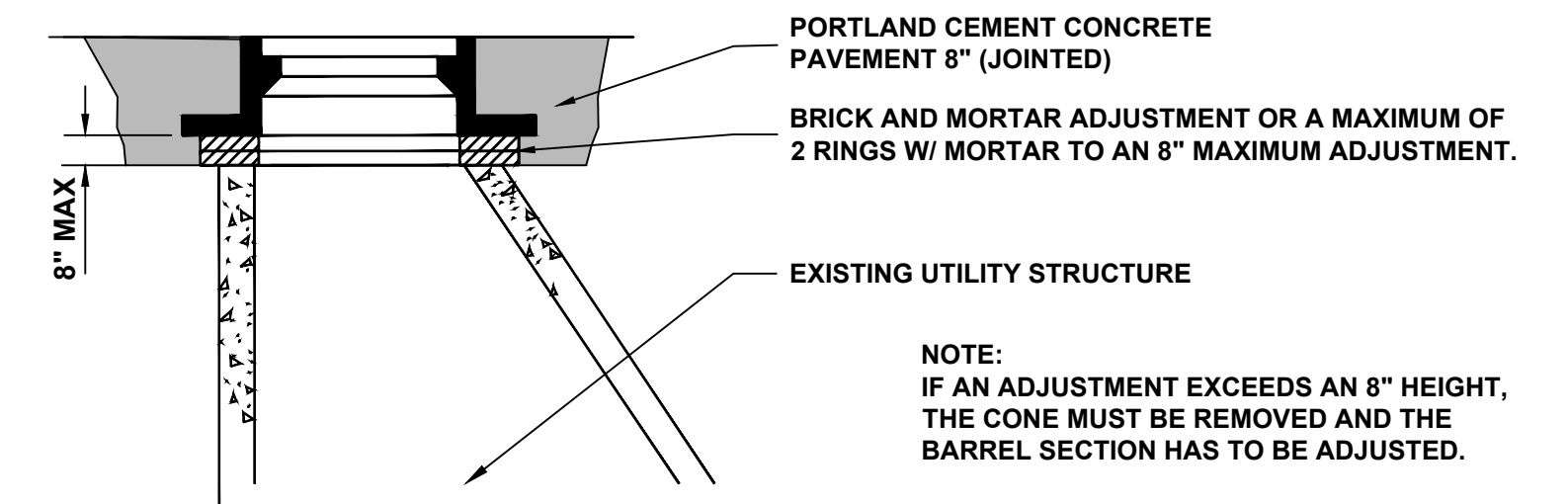
**MANHOLES, TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID, (SPECIAL)**



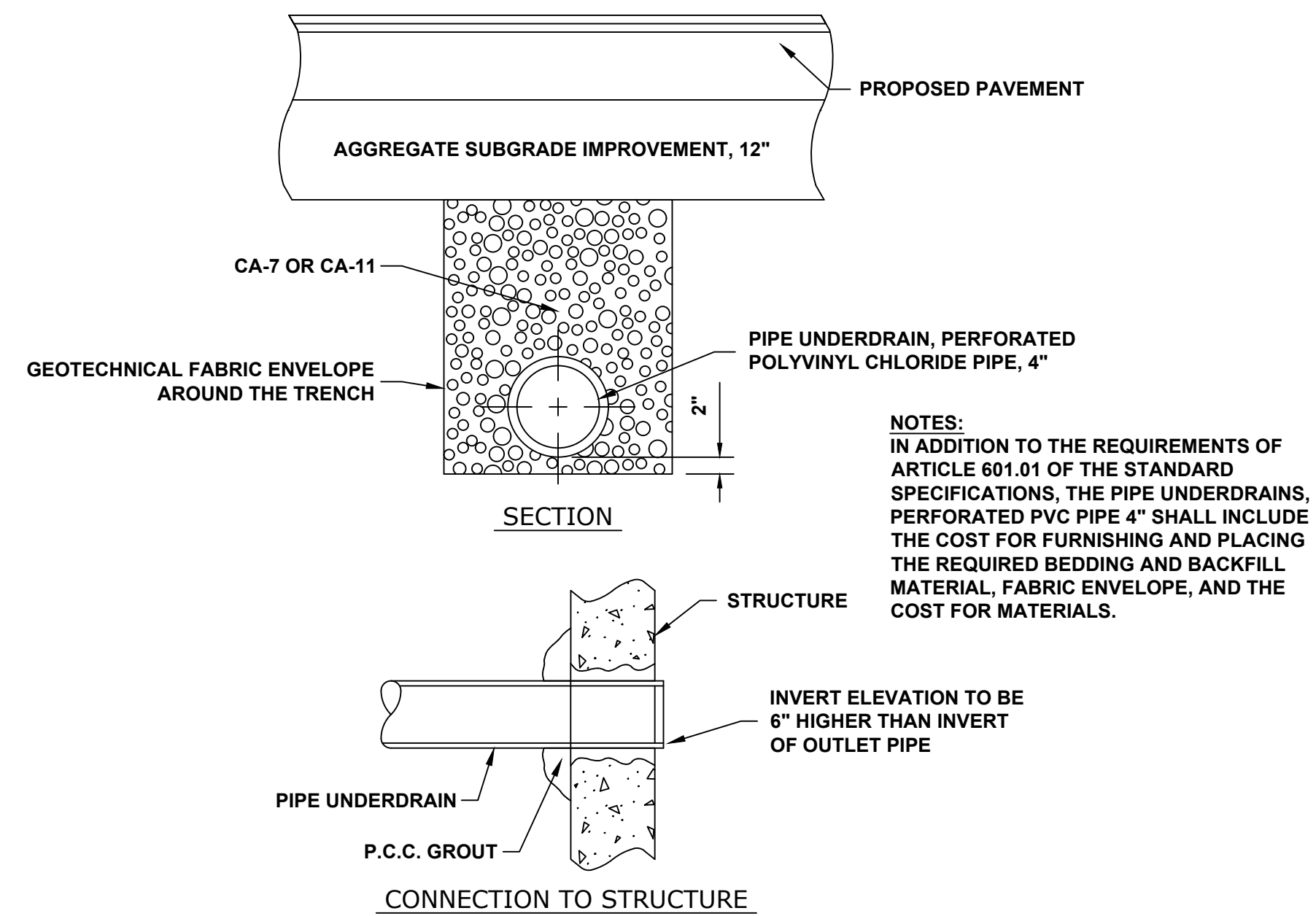
**CATCH BASINS, TYPE A, 4' DIAMETER, TYPE 1 FRAME, OPEN LID (SPECIAL)**



**GUTTER DETAIL AT DRAINAGE STRUCTURE**

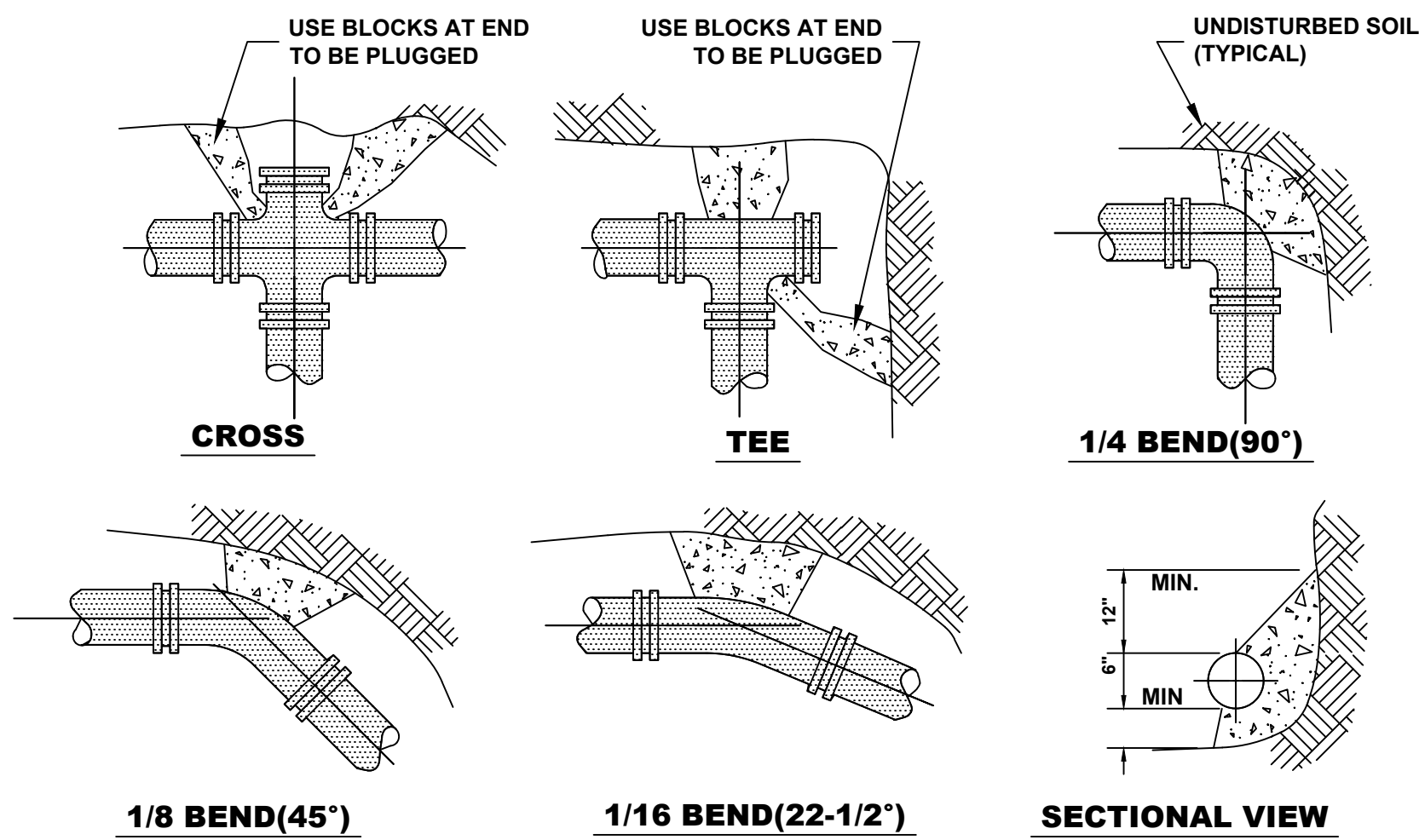


**TYPE 1 FRAME ADJUSTMENT**



**PIPE UNDERDRAIN DETAIL**

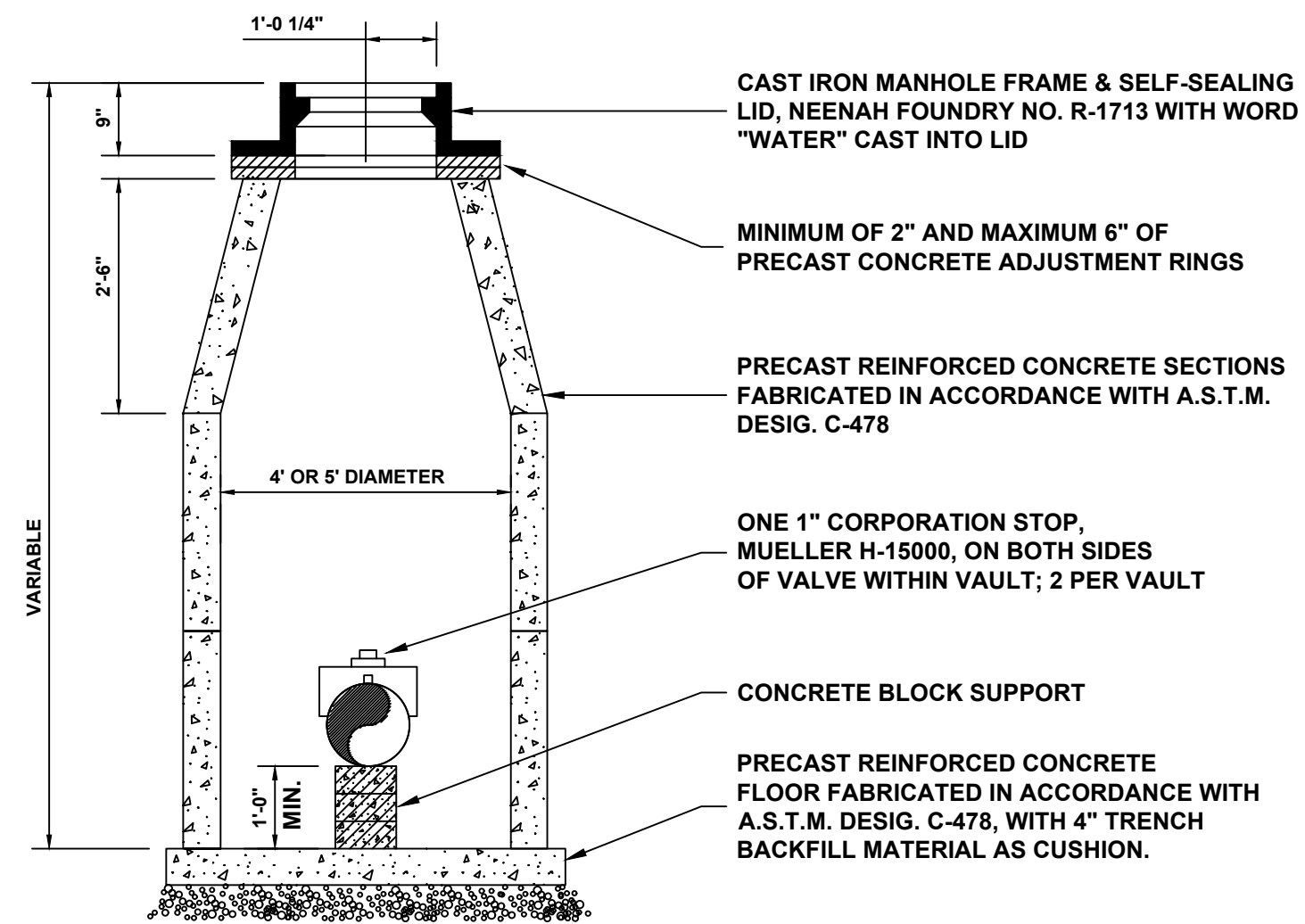
Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Brogo Drive Stage 1 - Design\CAD\Site\31-33\_Drainage-Details.dwg Jan 11, 2019 - 11:37am



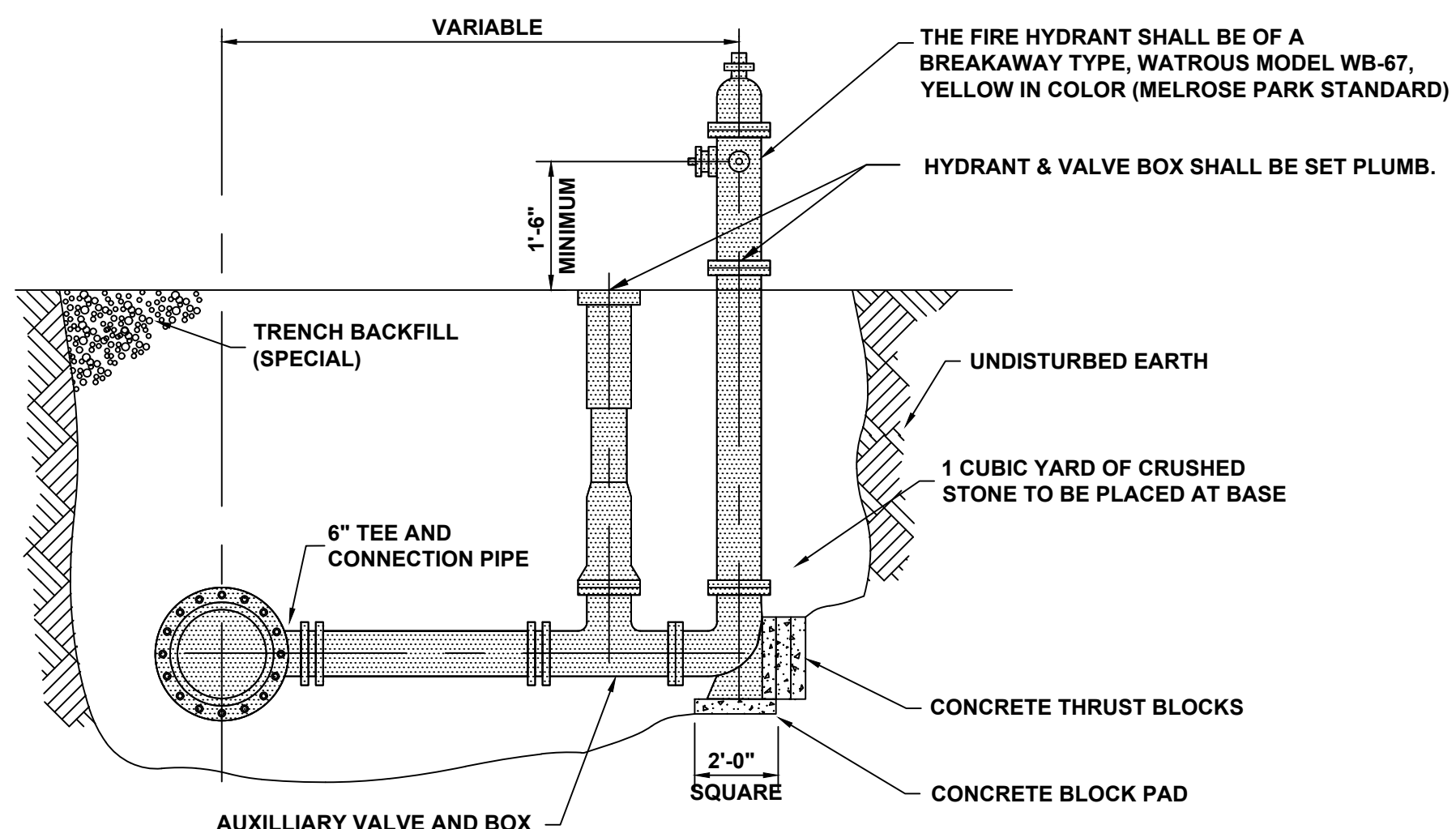
**NOTE:**

1. THRUST BLOCKS TO BE USED AT 1/16(22-1/2°) OR GREATER BENDS & AT ALL ENDS TO BE PLUGGED.
2. PRECAST CONCRETE THRUST BLOCKS TO BE PLACED AGAINST FIRM, UNDISTURBED SOIL.

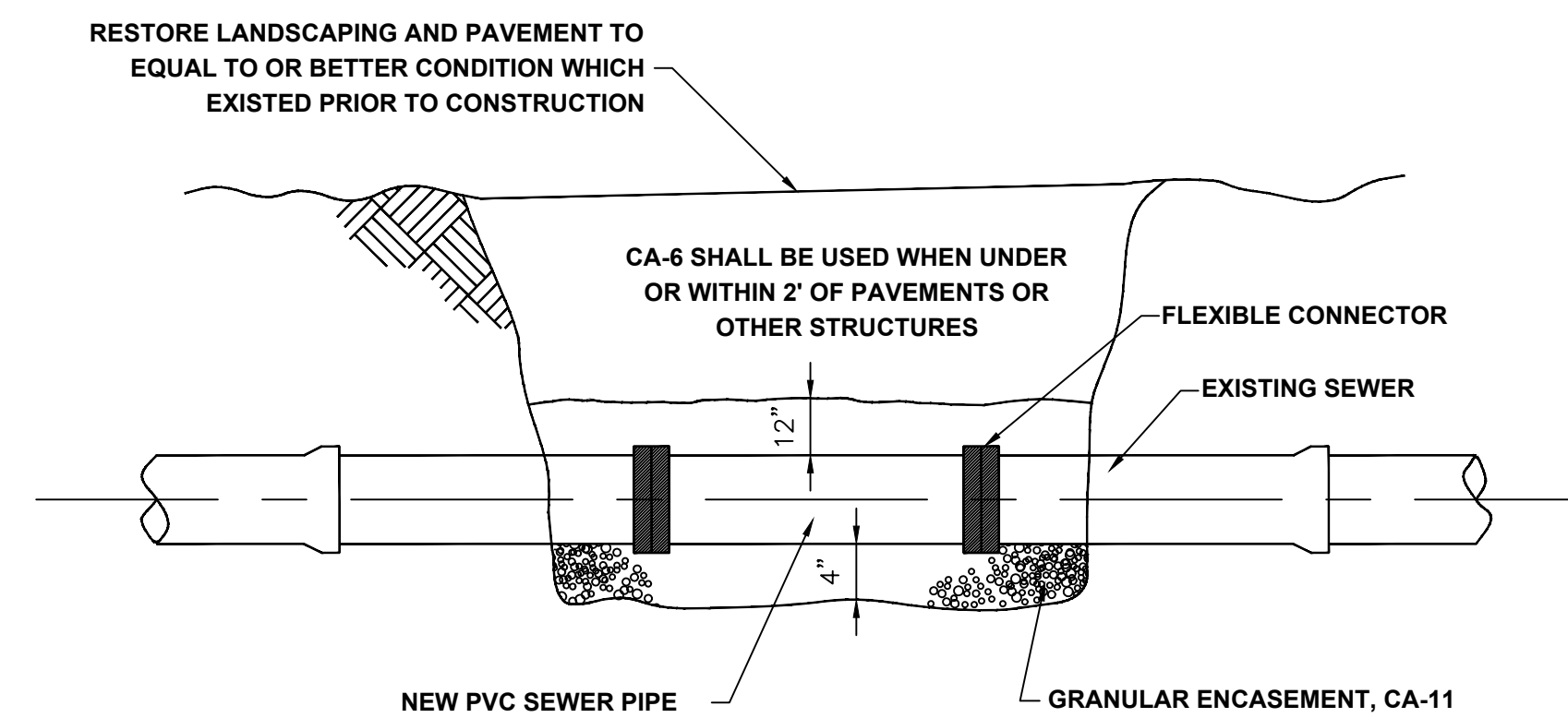
**THRUST BLOCK**



**STANDARD VALVE VAULT**



**FIRE HYDRANT**



**TYPICAL SEWER PIPE REPAIR**



100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.ehancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE AND UTILITIES DETAILS**

SCALE: NONE    SHEET NO. 2 OF 3 SHEETS    STA.    TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	32
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

E.H.E. PROJECT NO. 120-17-28301



## DRAINAGE AND UTILITIES NOTES

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, COMBINED SEWERS, TELEPHONE LINES, COMMUNICATION LINES, ELECTRIC LINES, GAS MAINS, AND WATER SERVICES ARE APPROXIMATE AND THEIR SPECIFIC LOCATIONS ARE TO BE DETERMINED IN THE FIELD AT NO COMPENSATION TO THE CONTRACTOR.

COORDINATION OF ALL UTILITY WORK INVOLVED WITHIN THE CONSTRUCTION AREAS SHALL BE SUBJECT TO DISCUSSION AND CLARIFICATION AT A PRECONSTRUCTION MEETING.

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINAGE STRUCTURES OR SEWERS UNTIL PERMANENT CONNECTIONS TO SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL BE PAID FOR AS TEMPORARY DRAINAGE CONNECTIONS.

IF, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINES OF GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE OBSTRUCTING MATERIALS SHALL BE REMOVED AT THE CLOSE OF EACH WORK DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES ARE TO BE FREE OF ALL DIRT, DEBRIS, AND OBSTRUCTING MATERIALS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF PROPOSED ITEMS BEING CONSTRUCTED.

ALL COSTS INVOLVED IN CONNECTING PROPOSED STORM SEWERS AND STORM STRUCTURES TO EXISTING STORM SEWERS OR PROPOSED STORM SEWERS SHALL BE CONSIDERED INCLUDED IN THE COST OF PROPOSED ITEMS BEING CONSTRUCTED.

ALL PROPOSED WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", SEVENTH EDITION, DATED 2014, AND ALL REVISIONS THERETO.

THE CONTRACTOR SHALL VERIFY THE TYPE OF ALL WATER MAIN HARDWARE INCLUDING VALVES, FIRE HYDRANTS, VALVE BOXES, CORPORATION STOPS, CURB STOPS, AND WATER SERVICES BOXES WITH THE UTILITY SUPERINTENDENT PRIOR TO ORDERING SUCH MATERIAL.

THE TYPE OF FRAMES AND GRATES REQUIRED FOR ALL CATCH BASINS AND MANHOLES LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.01 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE.

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF BROADVIEW AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE OF BROADVIEW PUBLIC WORKS YARD.

ANY COSTS FOR SHEETING OR SHORING REQUIRED FOR THE STORM SEWER INSTALLATION OR OTHER CONSTRUCTION ELEMENTS REQUIRING RELATIVELY DEEP EXCAVATIONS SHALL BE INCLUDED IN THE PARTICULAR PAYMENT ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY SUPPLEMENTAL WORK ASSOCIATED WITH THE MAINTENANCE OF TRENCH SIDES OR OTHER EXCAVATED AREAS.

UNLESS OTHERWISE SPECIFIED, ABANDONED SEWERS AND DRAINS, AS DESIGNATED BY THE ENGINEER, SHALL BE PLUGGED WITH CLASS "SI" CONCRETE OR BRICK AND SUITABLE MORTAR TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVING AND/OR FILLING THE VARIOUS TYPES OF STRUCTURES.

SEWER PIPE INSTALLED ON THIS PROJECT SHALL CONFORM TO THE FOLLOWING STANDARD:

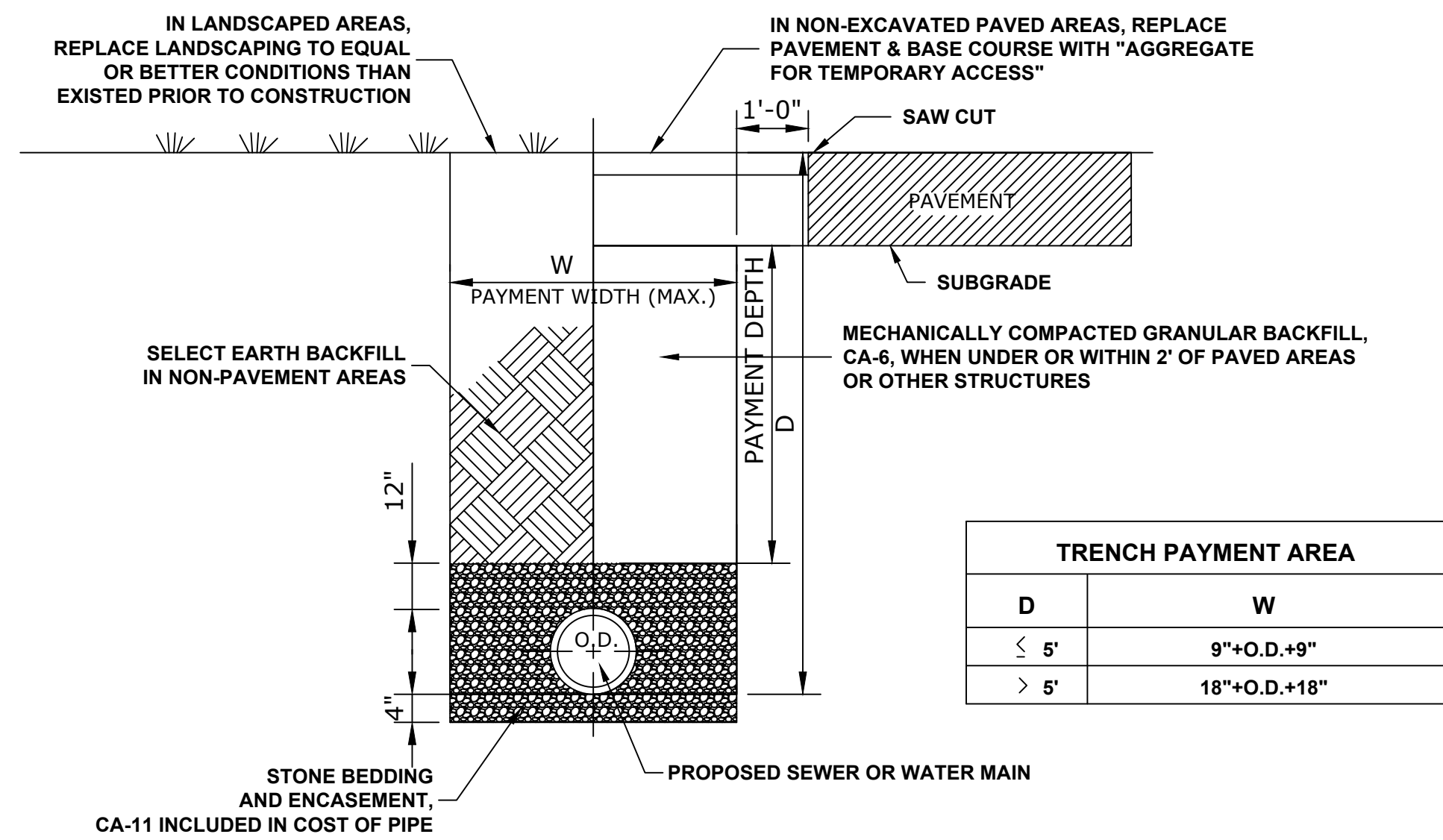
TYPE OF PIPE	MATERIAL STANDARD	JOINT STANDARD
REINFORCED CONCRETE PIPE	ASTM C-76	ASTM C-443
POLYVINYLCHLORIDE PIPE, SDR 26	ASTM D-2241	ASTM D-3139
DUCTILE IRON PIPE, CLASS 52	ASTM A-21.51	ASTM A-21.11

### DUCTILE IRON PIPE SPECIFICATIONS

- ALL DUCTILE IRON PIPE WATER MAINS AND SEWER MAINS SHALL BE CLASS 52, CEMENT-LINED AND TAR-COATED, MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C151/A21.51 WITH "PUSH-ON" JOINTS MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C111/A21.11. WHERE SPECIFIED ON THE PLANS, OR IN THE SPECIFICATIONS, MECHANICAL JOINTS AND "LOCK-TYPE" JOINTS SHALL BE USED IN LIEU OF "PUSH-ON" JOINTS.
- ALL PIPE FITTINGS AND SPECIAL CASTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C153/A21.53 AND ANSI/AWWA C111/A21.11 SPECIFICATIONS AND SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS 150 DUCTILE IRON PIPE. IF CERTAIN FITTINGS ARE NOT MANUFACTURED IN DUCTILE IRON, CAST IRON FITTINGS SHALL BE ACCEPTABLE. MECHANICAL JOINT TYPE FITTINGS SHALL BE USED.
- ALL PROPOSED DUCTILE IRON PIPE WATER MAIN AND SEWER MAIN WILL BE ENCASED WITHIN SIX (6) MIL THICK, HIGH-DENSITY POLYETHYLENE TUBING. ALL FITTINGS SHALL BE ENCASED IN A DOUBLE-LAYER OF POLYETHYLENE TUBING. THE POLYETHYLENE MATERIAL SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH ANSI/AWWA C109/A21.5.

### PVC PIPE SPECIFICATIONS

- ALL PVC SEWER PIPE 12" DIAMETER OR LESS SHALL HAVE A MINIMUM STANDARD DIMENSION RATIO (SDR) OF 26 AND SHALL CONFORM TO ASTM DESIGNATION D-2241 (WATER QUALITY PIPE)
- THE JOINTS SHALL BE RUBBER GASKET AND CONFORM TO ASTM DESIGNATIONS D-3139 AND F-447.



### TYPICAL SEWER AND WATER MAIN TRENCH DETAIL (ROADWAY)

Drawing file: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 11:41 am

**SIGNING NOTES:**

DESIGN: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 1975.

CONSTRUCTION: CURRENTS STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS, AND APPLICABLE SPECIAL PROVISIONS.

LOADING: FOR 80 MPH WIND VELOCITY WITH 30% GUST FACTOR, NORMAL TO SIGN.

SOIL PRESSURE: MINIMUM ALLOWABLE SOIL PRESSURE = 1.25 TSF.

MATERIALS: POSTS SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.29, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF ILLINOIS.

HARDWARE FOR ATTACHING SIGN PANELS TO POSTS SHALL BE CADMIUM OR ZINC COATED STEEL, STAINLESS STEEL, OR ALUMINUM, AND SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS: CADMIUM OR ZINC COATED STEEL: BOLTS, NUTS, AND WASHERS: ASTM A165, TYPE NS. ZINC COATED IN ACCORDANCE WITH AASHTO M-232 OR ASTM A164, TYPE GS.

STAINLESS STEEL: BOLTS: ASTM A193, CLASS I, GRADE B8, NUTS: ASTM A194, GRADE 8 OR 8F, WASHERS: ASTM A240, TYPE 302 OR 304.

ALUMINUM: BOLTS: ASTM B211 ALLOY 6061-T6 OR 2024-T4, NUTS: ASTM B211 ALLOY 6061-T6 OR 6262-T9, WASHERS: ASTM B209 ALCLAD 2024-T4.

**NOTE:** PER 2009 MUTCD SECTION 2D.42, PARAGRAPH 03, STREET NAME SIGNS ARE TO BE MIXED CASE FONT.

JOB-SITE SIGNING CODES AND SIZES			JOB-SITE SIGNING CODES AND SIZES		
SYMBOL	SIGN	CODE & SIZE	SYMBOL	SIGN	CODE & SIZE
		R1-1 30"x 30"			NEW STREET NAME SIGN AND NEW POST TO BE INSTALLED BY CONTRACTOR (1 EACH) (SIZE TO BE DETERMINED BY ENGINEER)
		R2-1 24"x 30"			NEW STREET NAME SIGN AND NEW POST TO BE INSTALLED BY CONTRACTOR (1 EACH) (SIZE TO BE DETERMINED BY ENGINEER)
		R7-1 12"x 18"			
		R3-17 24"x 18"			
		R5-1b 12"x 18"			
		R9-3cP 12"x 12"			
		R3-17bP 24"x 8"			
		W1-1L 30"x 30"			
		W1-1R 30"x 30"			
		W1-7 48"x 24"			

SYMBOL	DESCRIPTION
	METAL POST - TYPE A



100+ Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

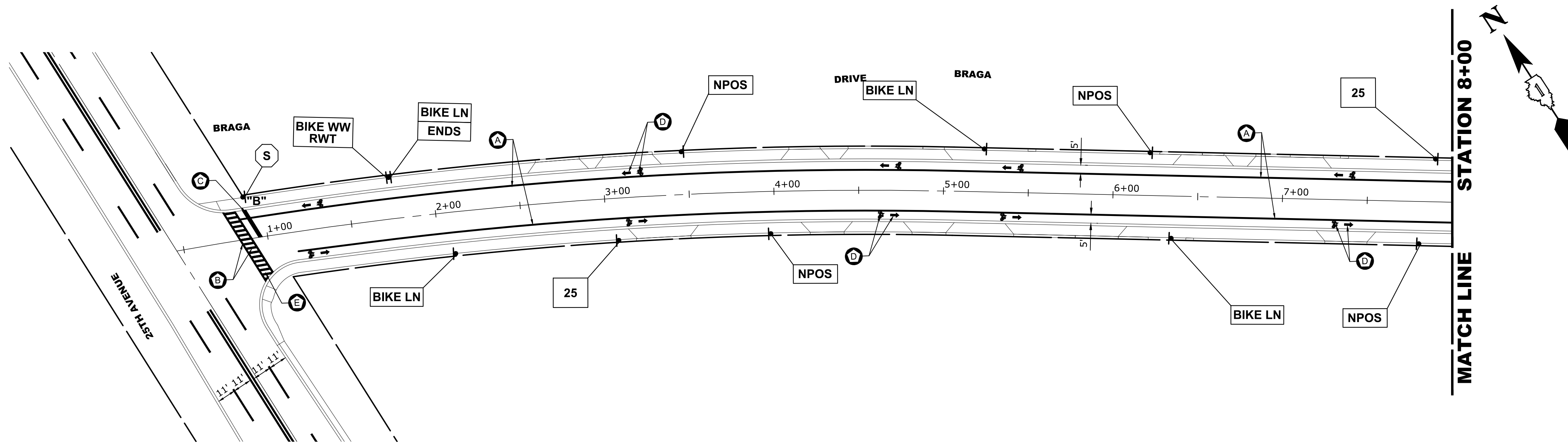
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN LEGENDS AND NOTES**

SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	34
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301



**NOTE:**

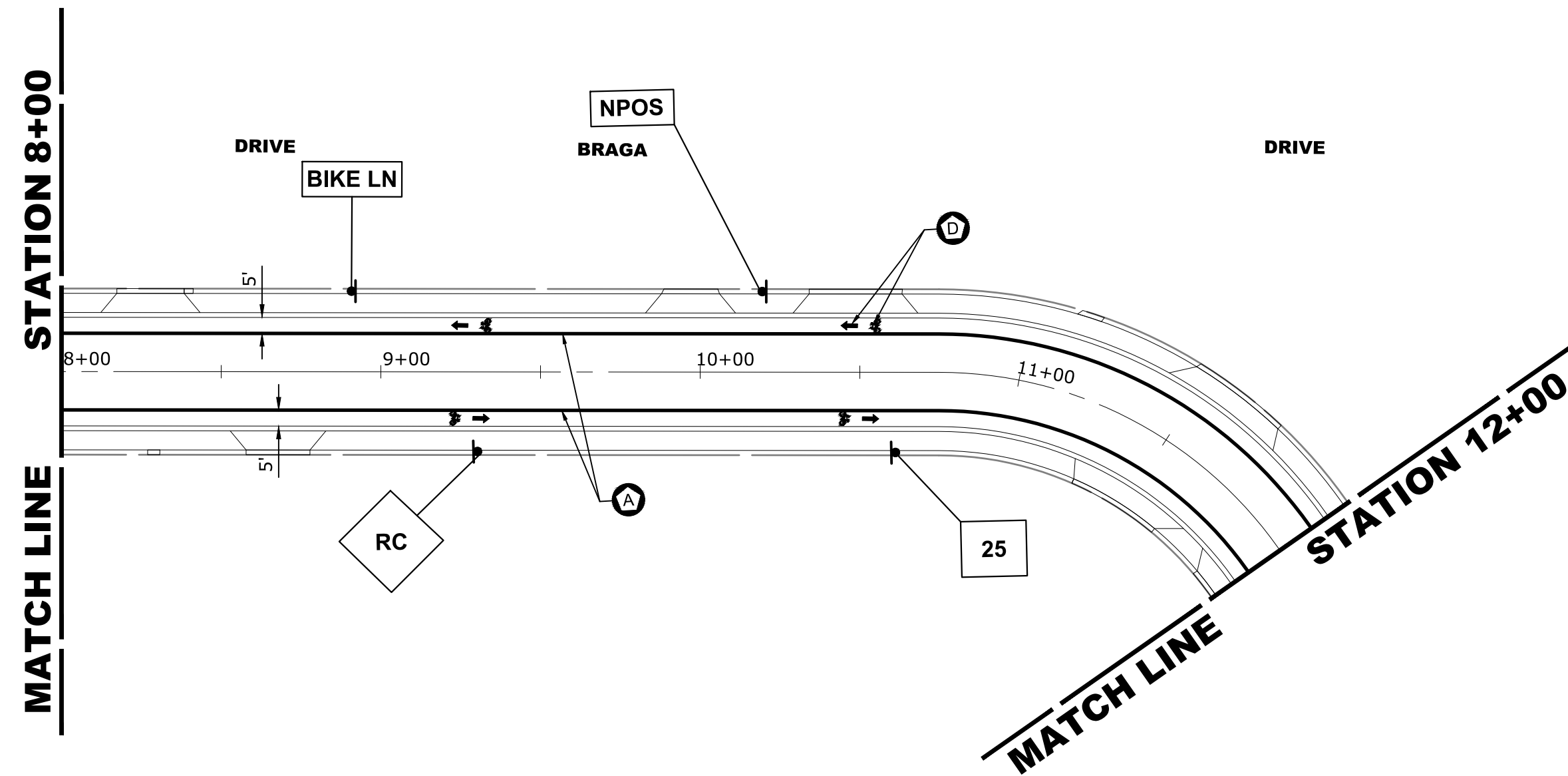
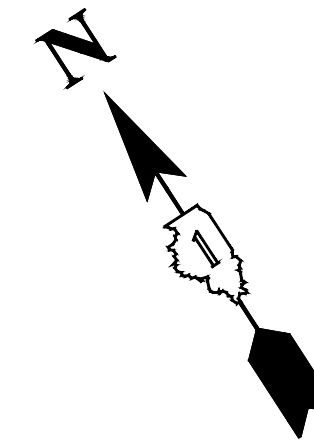
- VILLAGE MISCELLANEOUS (SPECIALTY) SIGNS ARE TO BE REMOVED BY THE THE CONTRACTOR PRIOR TO CONSTRUCTION. AS DESIGNATED BY ENGINEER, THE CONTRACTOR SHALL REINSTALL SIGNS AFTER COMPLETION OF PROJECT. REMOVAL AND NEW REPLACEMENT OF VILLAGE MISCELLANEOUS (SPECIALTY) SIGNS AND THEIR POSTS ARE TO BE DETERMINED BY THE ENGINEER. (COST IS TO BE INCLUDED IN THE "REMOVE AND RE-ERECT EXISTING SIGN " OR "SIGN PANEL - TYPE 1" AND "METAL POST - TYPE I" PAY ITEM)
- STREET NAME SIGNS AND POSTS ARE TO BE REMOVED BY CONTRACTOR AT THE BEGINNING OF CONSTRUCTION, SAFELY STORED BY THE CONTRACTOR AND REINSTALLED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT (COST IS TO BE INCLUDED IN THE "REMOVE AND RE-ERECT EXISTING SIGN" PAY ITEM)
- ALL POSTS TO BE TYPE A UNLESS OTHERWISE NOTED.
- CONTRACTOR TO VERIFY LOCATIONS OF ALL SIGNAGE.
- CROSSWALK 12" BARS SPACED AT 3' CENTER TO CENTER

**ITEM DESCRIPTION**

- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4", BIKE LANE, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 6", CROSS WALK, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 24", STOP BAR, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LETTERS & SYMBOLS, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 12", CROSS WALK, WHITE

**SYMBOL**

- (A)
- (B)
- (C)
- (D)
- (E)



Drawing file: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 11:41am



Civil Engineers  
Municipal Consultants  
Established 1911

9933 Roosevelt Road  
Westchester, IL 60154-2780  
Phone: 708-865-0300  
www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

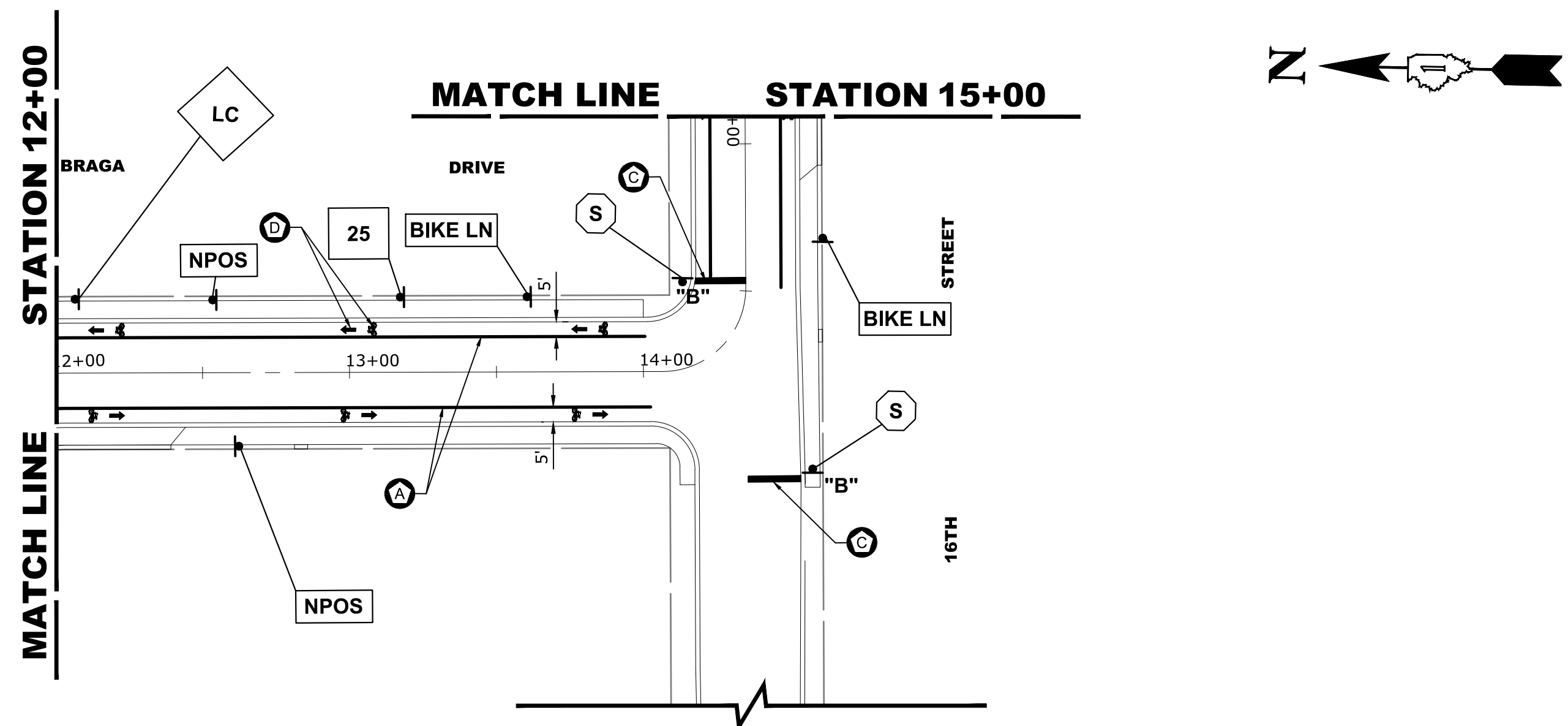
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING  
AND SIGNING PLAN**

SCALE: 1" = 40' SHEET NO. 1 OF 2 SHEETS STA. 0+00 TO STA. 12+00

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	35
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301



**NOTE:**

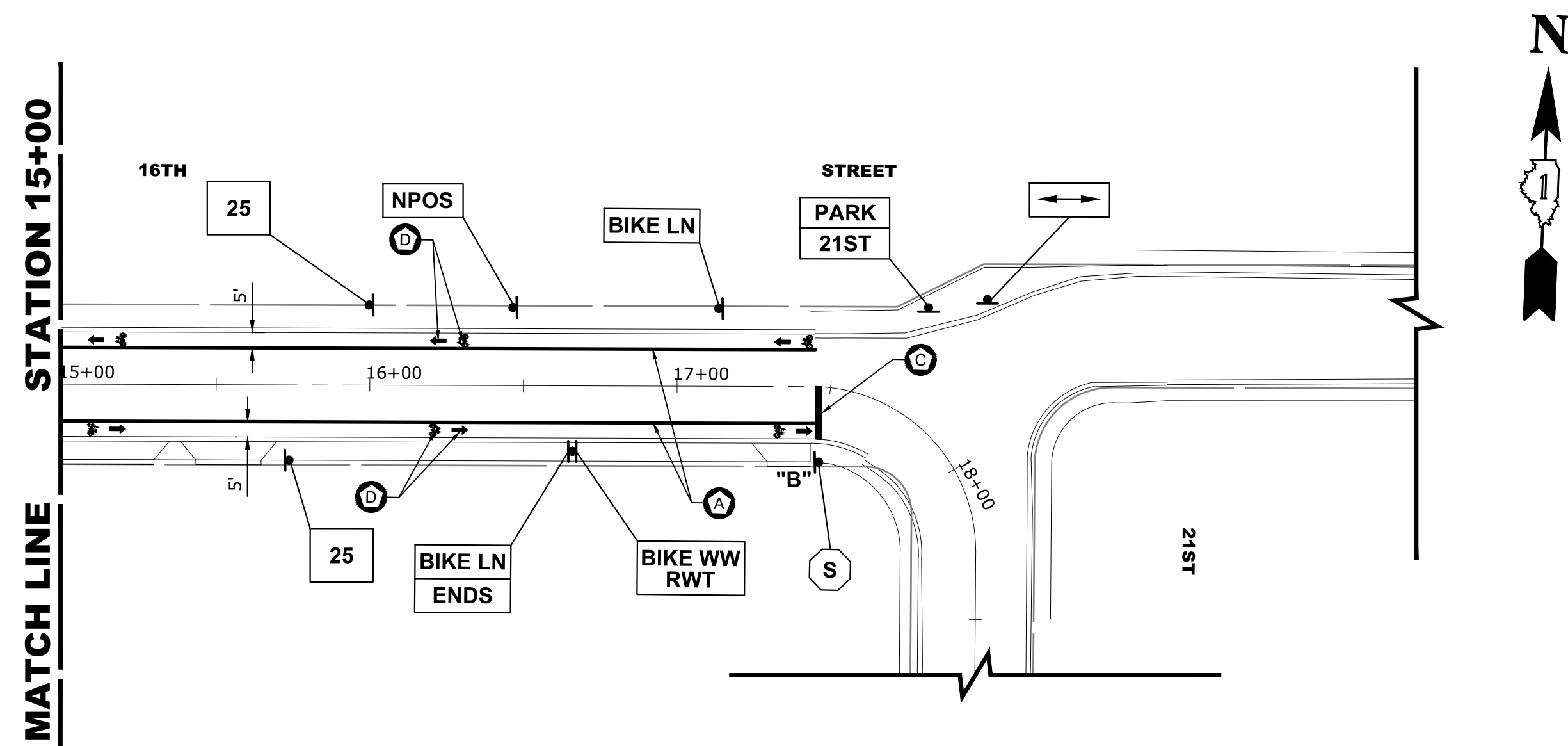
- VILLAGE MISCELLANEOUS (SPECIALTY) SIGNS ARE TO BE REMOVED BY THE THE CONTRACTOR PRIOR TO CONSTRUCTION. AS DESIGNATED BY ENGINEER, THE CONTRACTOR SHALL REINSTALL SIGNS AFTER COMPLETION OF PROJECT. REMOVAL AND NEW REPLACEMENT OF VILLAGE MISCELLANEOUS (SPECIALTY) SIGNS AND THEIR POSTS ARE TO BE DETERMINED BY THE ENGINEER. (COST IS TO BE INCLUDED IN THE "REMOVE AND RE-ERECT EXISTING SIGN " OR "SIGN PANEL - TYPE 1" AND "METAL POST - TYPE I" PAY ITEM)
- STREET NAME SIGNS AND POSTS ARE TO BE REMOVED BY CONTRACTOR AT THE BEGINNING
- OF CONSTRUCTION, SAFELY STORED BY THE CONTRACTOR AND REINSTALLED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT (COST IS TO BE INCLUDED IN THE "REMOVE AND RE-ERECT EXISTING SIGN" PAY ITEM)
- ALL POSTS TO BE TYPE A UNLESS OTHERWISE NOTED.
- CONTRACTOR TO VERIFY LOCATIONS OF ALL SIGNAGE.
- CROSSWALK 12" BARS SPACED AT 3' CENTER TO CENTER

**ITEM DESCRIPTION**

- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4", BIKE LANE, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 6", CROSS WALK, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 24", STOP BAR, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LETTERS & SYMBOLS, WHITE
- POLYUREA PAVEMENT MARKING TYPE 1 - LINE 12", CROSS WALK, WHITE

**SYMBOL**

- (A)
- (B)
- (C)
- (D)
- (E)



100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

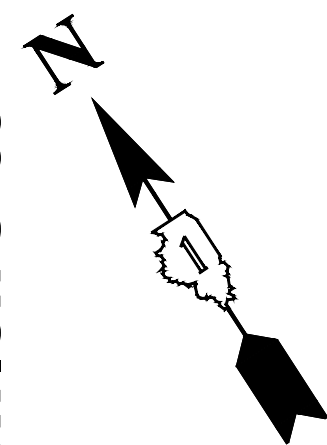
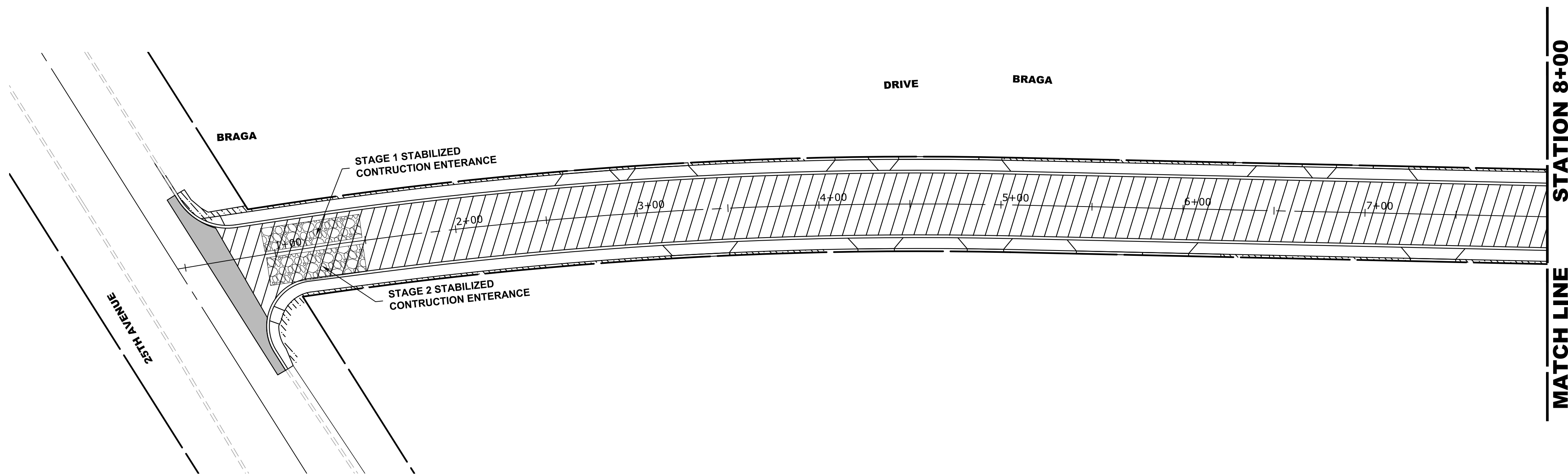
DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING  
 AND SIGNING PLAN**

SCALE: 1" = 40' SHEET NO. 2 OF 2 SHEETS STA. 12+00 TO STA. 17+45

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	36
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				



**LANDSCAPING NOTES**

**SODDING:**

ALL DISTURBED AREAS INDICATED ON CROSS SECTION OR LANDSCAPING PLANS TO BE SODDED, INCLUDING FERTILIZER NUTRIENTS\*, AND SUPPLEMENTAL WATERING WHICH IS TO BE USED AFTER THE INITIAL WATERING (AS SPECIFIED AND AS DIRECTED BY THE ENGINEER) AT THE RATE OF 10 GALLONS PER SQUARE YARD SODDING. SODDED SLOPES WHICH ARE 2:1 OR STEEPER SHALL BE STAKED. (PROVIDE A 3" STRIP AROUND CATCH BASINS IN SEEDED AREAS).

**FERTILIZER NUTRIENTS\* FOR SODDING:**

USE A FERTILIZER WITH A 1:1:1 RATIO PER ACRE:

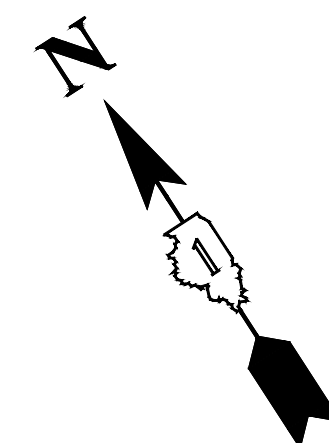
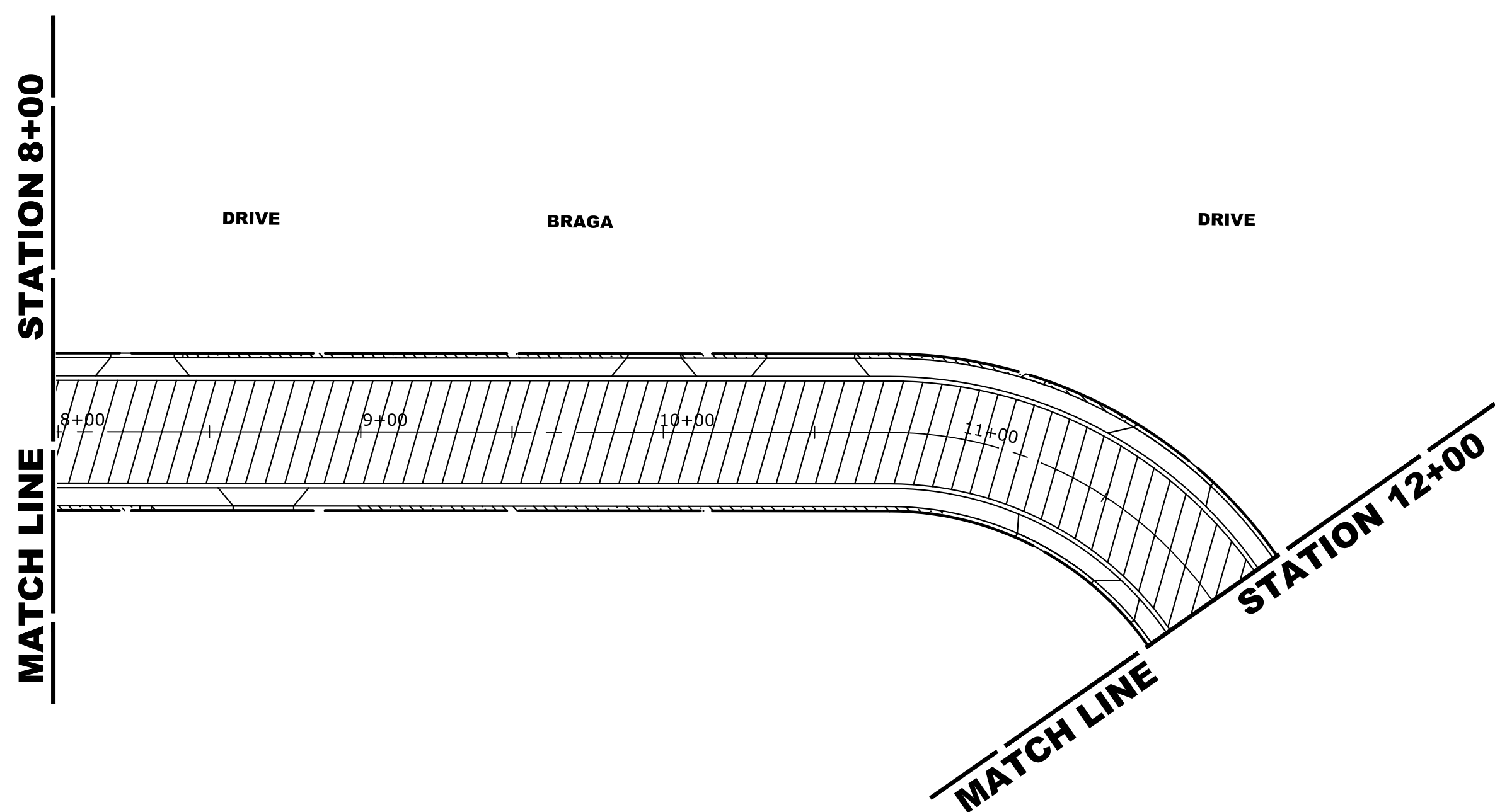
- 60 LBS. NITROGEN FERTILIZER NUTRIENT
- 60 LBS POTASSIUM FERTILIZER NUTRIENT

TOTAL: 180 LBS. PER ACRE

**4" TOP SOIL LAYER:**

SOIL SHALL BE SPREAD AS INDICATED ON THE TYPICAL CROSS SECTIONS.

A MINIMUM OF GRADING TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 6' FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER.



**LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
	PROPOSED SODDED PARKWAY
	PROPOSED CONCRETE AREA
	PROPOSED CONCRETE PAVEMENT AREA
	PROPOSED HOT-MIX ASPHALT AREA

Drawing File: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 1:53pm

**HANCOCK ENGINEERING**  
 108 Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

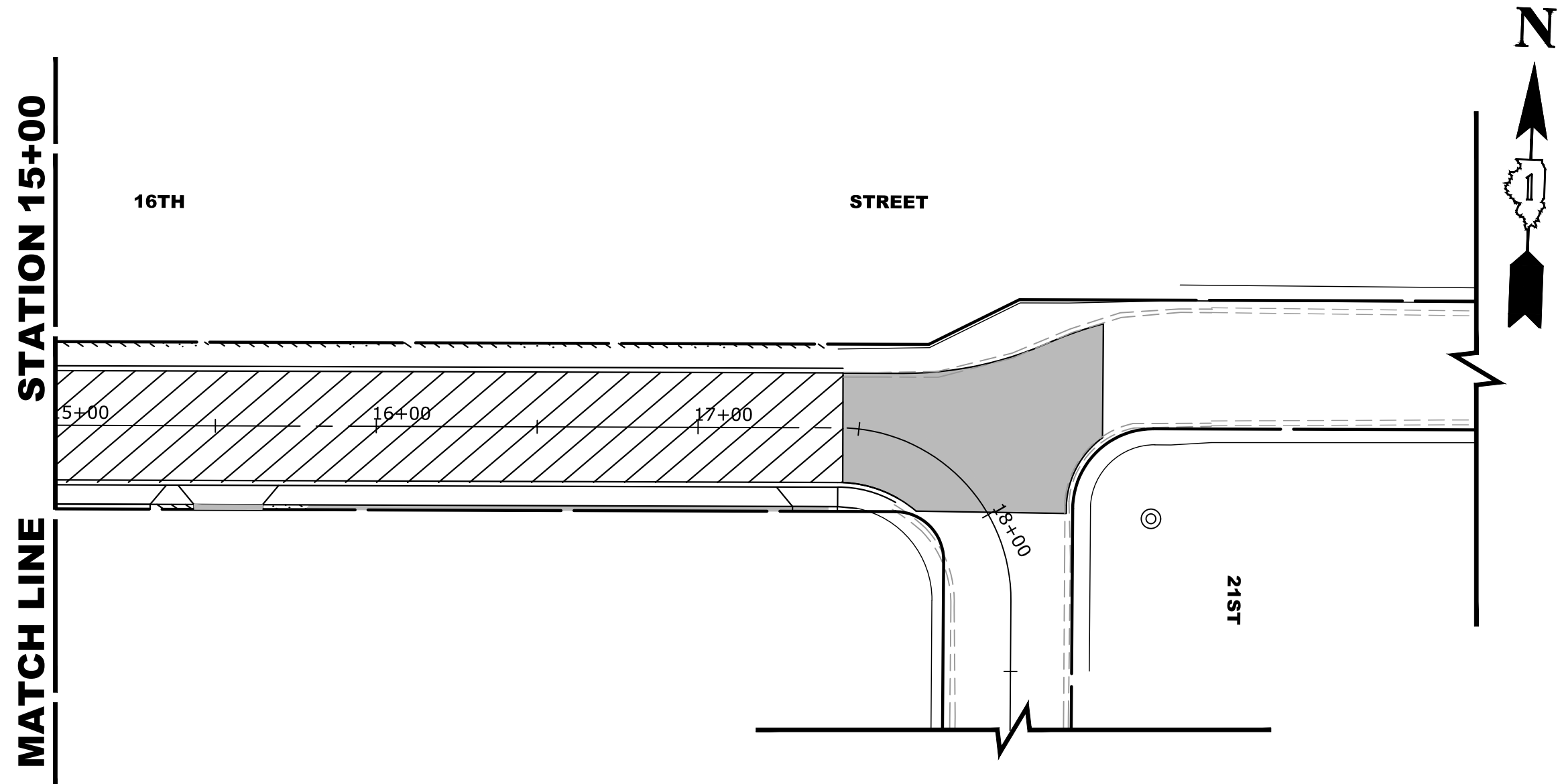
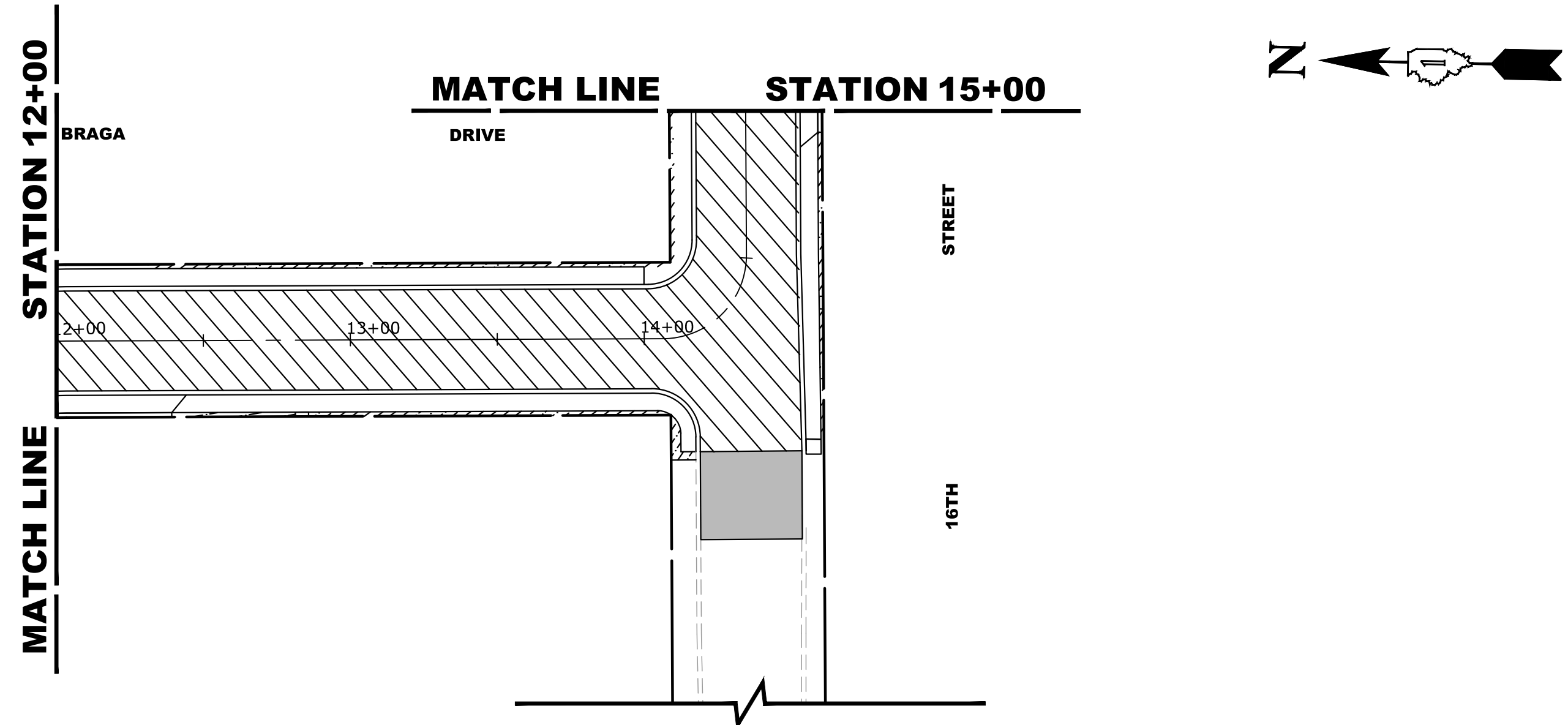
**CONCRETE AND LANDSCAPING PLAN**

SCALE: 1" = 40'    SHEET NO. 1 OF 2 SHEETS    STA. 0+62    TO STA. 12+00

MUN. RTE. 3015	SECTION 16-00080-00-PV	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 37
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Jan 11, 2019 - 11:45am



### LANDSCAPING NOTES

**SODDING:**

ALL DISTURBED AREAS INDICATED ON CROSS SECTION OR LANDSCAPING PLANS TO BE SODDED, INCLUDING FERTILIZER NUTRIENTS\*, AND SUPPLEMENTAL WATERING WHICH IS TO BE USED AFTER THE INITIAL WATERING (AS SPECIFIED AND AS DIRECTED BY THE ENGINEER) AT THE RATE OF 10 GALLONS PER SQUARE YARD SODDING. SODDED SLOPES WHICH ARE 2:1 OR STEEPER SHALL BE STAKED. (PROVIDE A 3" STRIP AROUND CATCH BASINS IN SEEDED AREAS).

**FERTILIZER NUTRIENTS\* FOR SODDING:**

USE A FERTILIZER WITH A 1:1:1 RATIO PER ACRE:

- 60 LBS. NITROGEN FERTILIZER NUTRIENT
- 60 LBS POTASSIUM FERTILIZER NUTRIENT

TOTAL: 180 LBS. PER ACRE

**4" TOP SOIL LAYER:**

SOIL SHALL BE SPREAD AS INDICATED ON THE TYPICAL CROSS SECTIONS.

A MINIMUM OF GRADING TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 6' FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER.

### LEGEND OF SYMBOLS

SYMBOL	DESCRIPTION
	PROPOSED SODDED PARKWAY
	PROPOSED CONCRETE AREA
	PROPOSED CONCRETE PAVEMENT AREA
	PROPOSED HOT-MIX ASPHALT AREA



100+ Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 12/18/18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

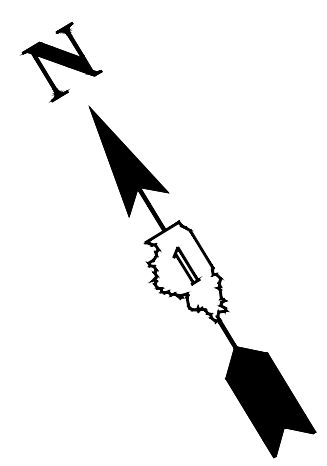
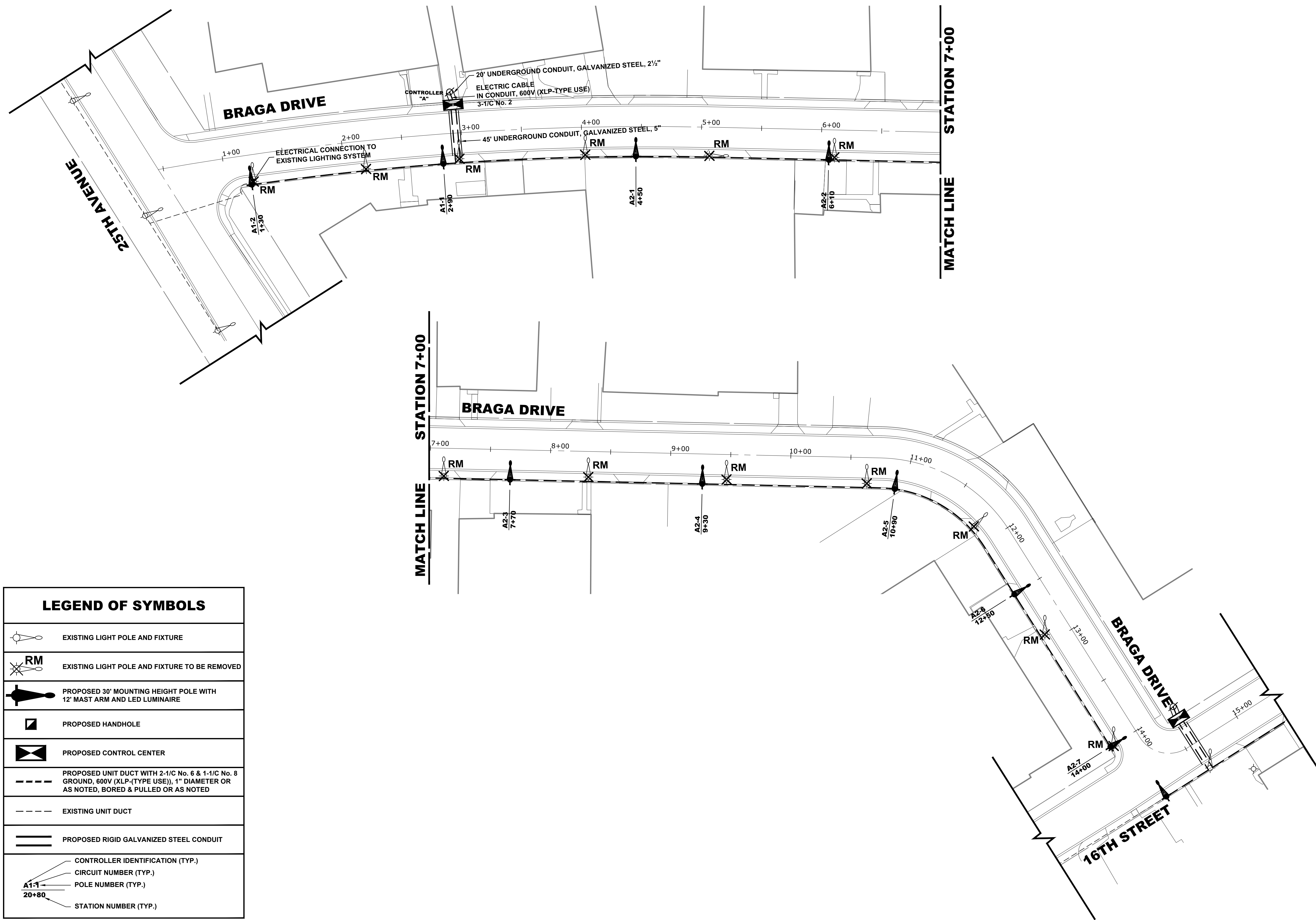
**CONCRETE AND LANDSCAPING PLAN**

SCALE: 1" = 40'    SHEET NO. 2 OF 2 SHEETS    STA. 12+00 TO STA. 17+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	38
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

E.H.E. PROJECT NO. 120-17-28301

Drawing File: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg Nov. 20, 2018 - 11:21am



LEGEND OF SYMBOLS	
	EXISTING LIGHT POLE AND FIXTURE
	EXISTING LIGHT POLE AND FIXTURE TO BE REMOVED
	PROPOSED 30' MOUNTING HEIGHT POLE WITH 12' MAST ARM AND LED LUMINAIRE
	PROPOSED HANDHOLE
	PROPOSED CONTROL CENTER
	PROPOSED UNIT DUCT WITH 2-1/2" NO. 6 & 1-1/2" NO. 8 GROUND, 600V (XLP-TYPE USE), 1" DIAMETER OR AS NOTED, BORED & PULLED OR AS NOTED
	EXISTING UNIT DUCT
	PROPOSED RIGID GALVANIZED STEEL CONDUIT
	CONTROLLER IDENTIFICATION (TYP.)
	CIRCUIT NUMBER (TYP.)
	POLE NUMBER (TYP.)
	STATION NUMBER (TYP.)



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED - MWV	REVISED -
DRAWN - DMM, SFB	REVISED -
CHECKED - JGG	REVISED -
DATE - 11-20-18	REVISED -

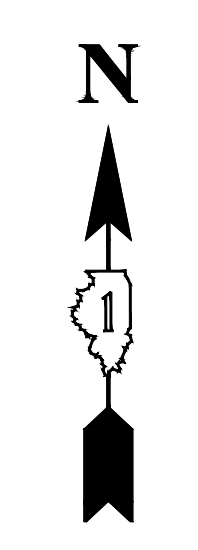
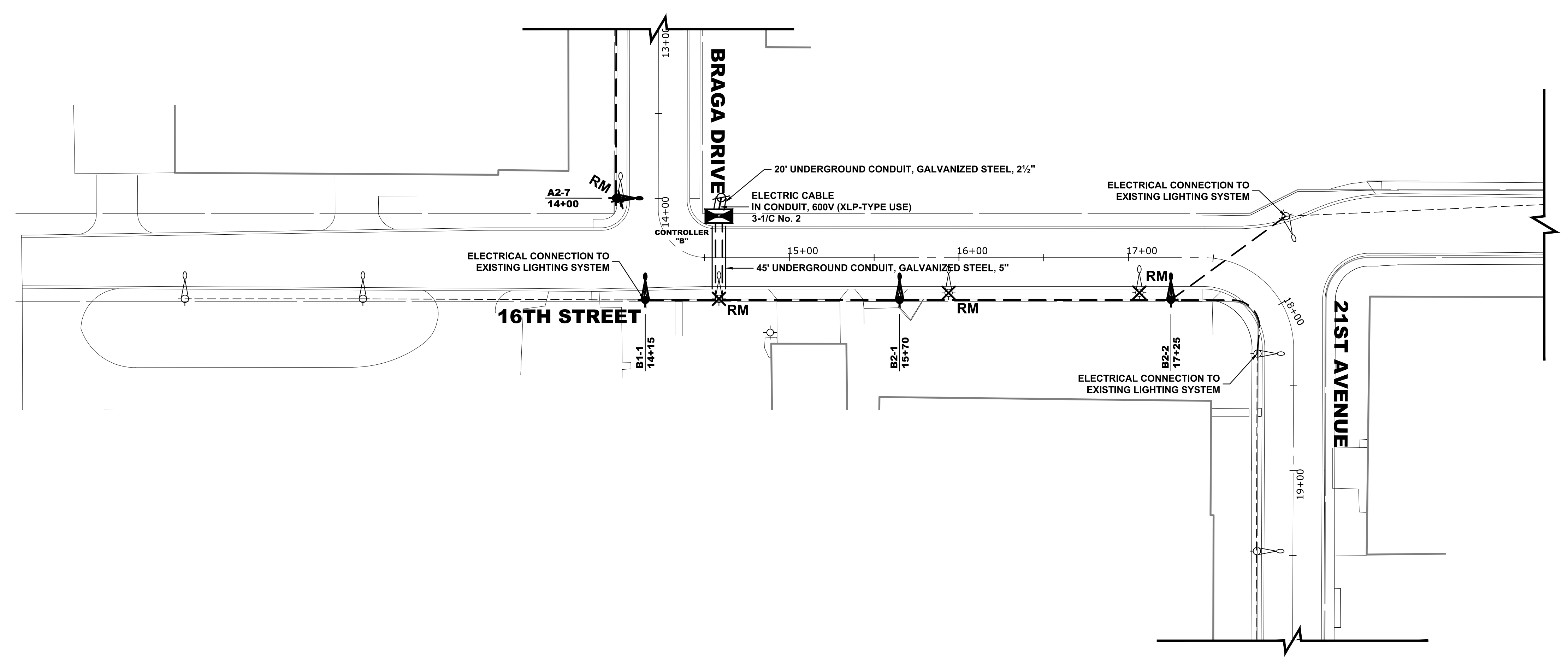
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

STREET LIGHTING PLAN		CONTROLLER "A"	
SCALE: 1" = 40'	SHEET NO. 1 OF 2 SHEETS	STA. 0+00	TO STA. 15+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	39
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing File: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg  
 Nov. 20, 2018 - 11:22am



LEGEND OF SYMBOLS	
	EXISTING LIGHT POLE AND FIXTURE
	EXISTING LIGHT POLE AND FIXTURE TO BE REMOVED
	PROPOSED 30' MOUNTING HEIGHT POLE WITH 12' MAST ARM AND LED LUMINAIRE
	PROPOSED HANDHOLE
	PROPOSED CONTROL CENTER
	PROPOSED UNIT DUCT WITH 2-1/C No. 6 & 1-1/C No. 8 GROUND, 600V (XLP-TYPE USE), 1" DIAMETER OR AS NOTED, BORED & PULLED OR AS NOTED
	EXISTING UNIT DUCT
	PROPOSED RIGID GALVANIZED STEEL CONDUIT
	CONTROLLER IDENTIFICATION (TYP.) CIRCUIT NUMBER (TYP.) POLE NUMBER (TYP.)
	STATION NUMBER (TYP.)



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	11-20-18	REVISED -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

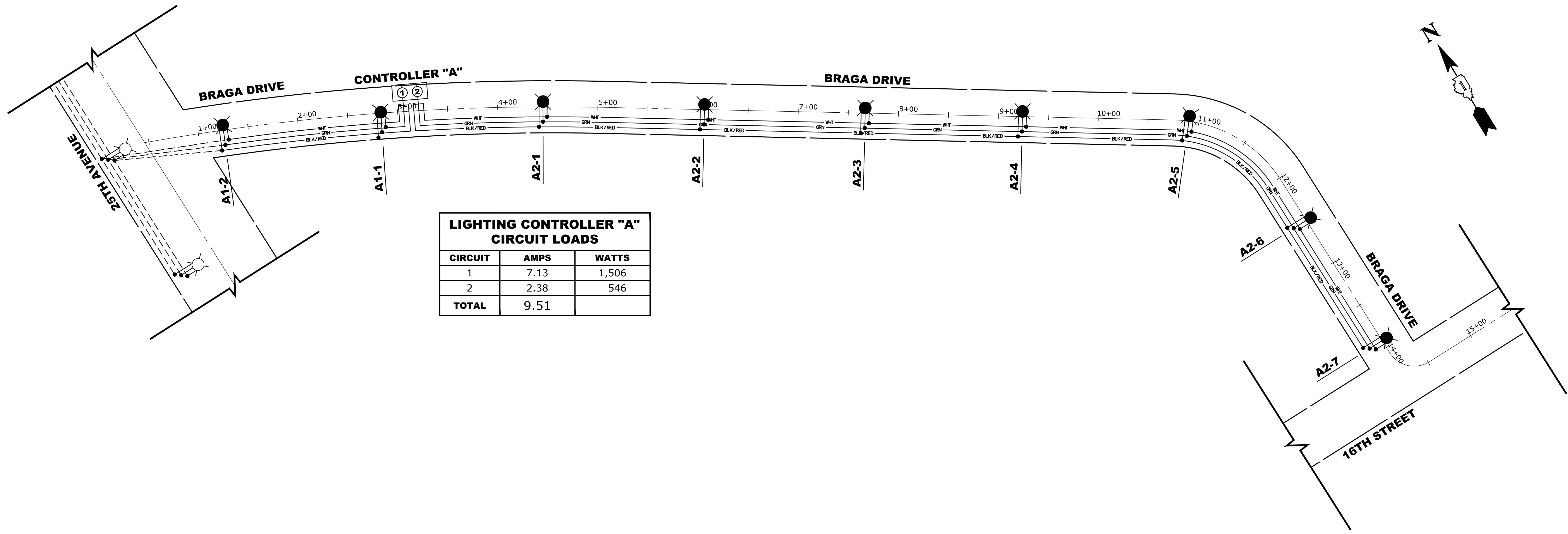
<b>STREET LIGHTING PLAN</b> <b>CONTROLLER "B"</b>			
SCALE: 1" = 40'	SHEET NO. 2 OF 2 SHEETS	STA. 13+00	TO STA. 23+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-0080-00-PV	COOK	56	40
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

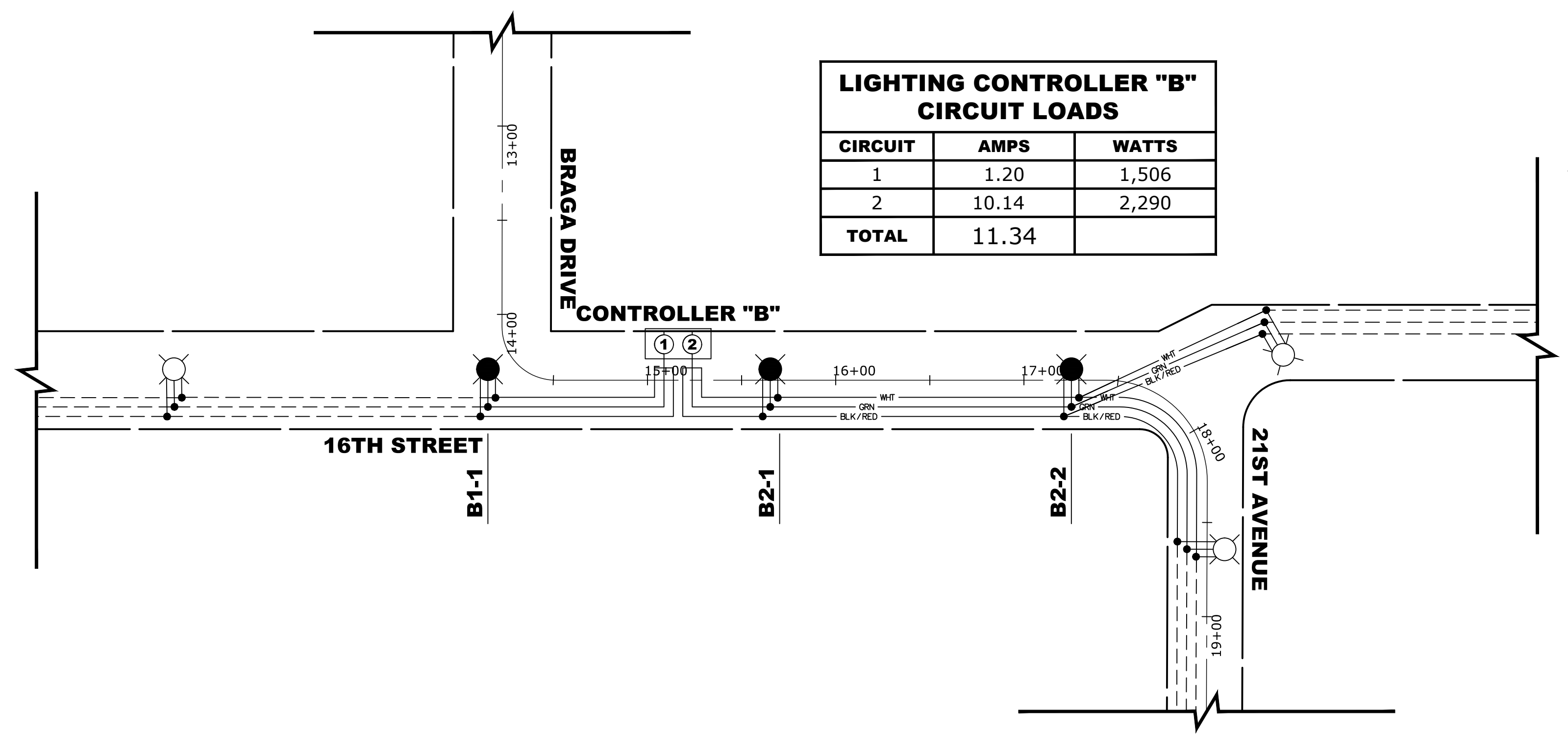
E.H.E. PROJECT NO. 120-17-28301



Drawing File: W:\Projects\_by\_Village\Brossview\12017283 - Braga Drive Stage 1 - Design\CAD\Site\Braga\_Dr\_Ph\_2\_40scale.dwg  
 Nov. 20, 2018 - 11:22am



LIGHTING CONTROLLER "A" CIRCUIT LOADS		
CIRCUIT	AMPS	WATTS
1	7.13	1,506
2	2.38	546
<b>TOTAL</b>	<b>9.51</b>	



LIGHTING CONTROLLER "B" CIRCUIT LOADS		
CIRCUIT	AMPS	WATTS
1	1.20	1,506
2	10.14	2,290
<b>TOTAL</b>	<b>11.34</b>	

LEGEND OF SYMBOLS	
	BLK/RED 240 VOLT PHASE CABLE (BLACK OR RED)
	WHIT 240 VOLT NEUTRAL CABLE (WHITE)
	GRN GROUND WIRE (GREEN)
	EXISTING CABLE
	SPLICE
	EXISTING LUMINAIRE
	PROPOSED LED LUMINAIRE
<b>A1-1</b>	PROPOSED CIRCUIT/POLE NUMBER

**HANCOCK ENGINEERING**  
 100 Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-865-0300  
 www.hancock.com

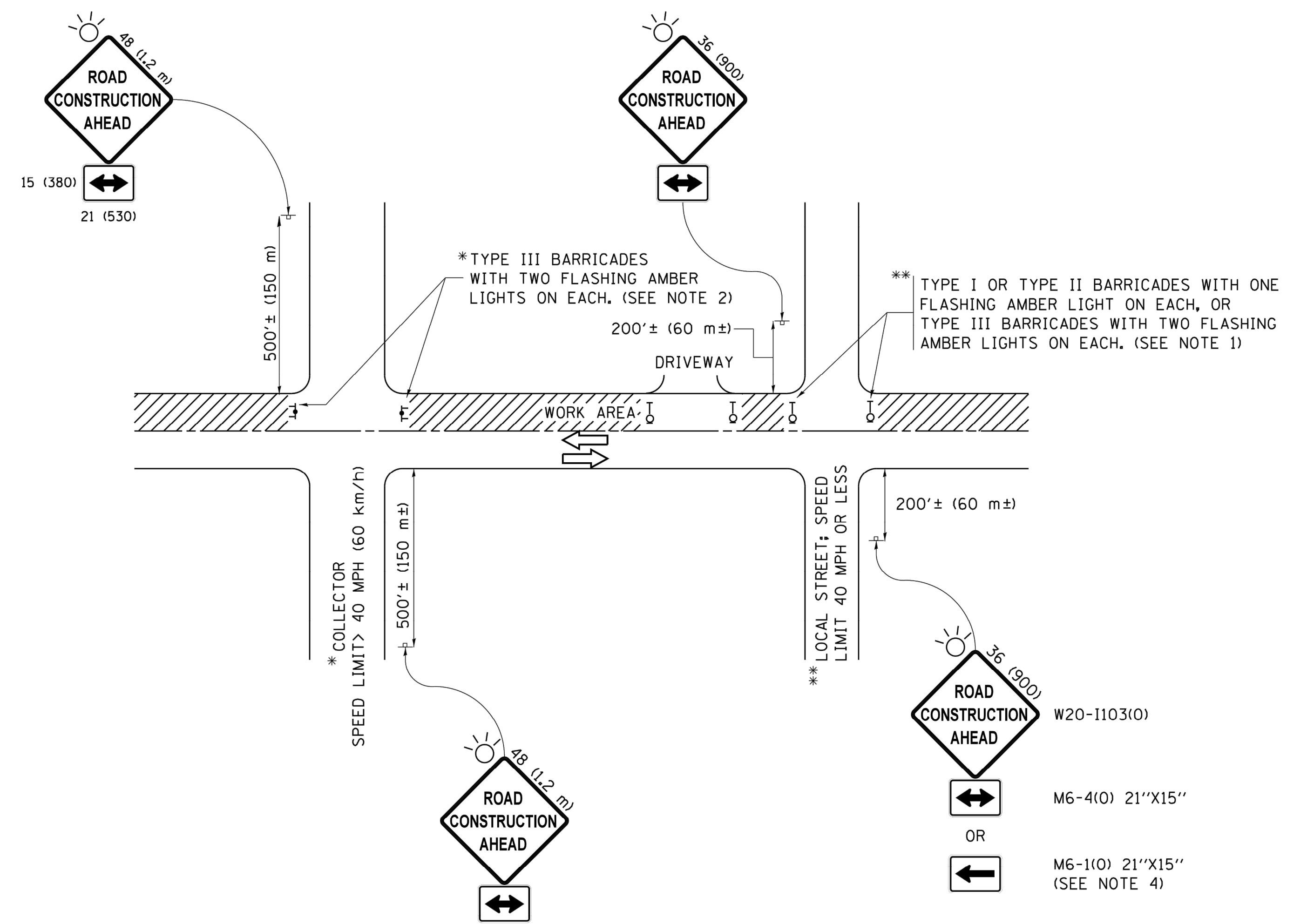
DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	11-20-18	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**STREET LIGHTING WIRING DIAGRAM**  
 SCALE: 1" = 50'  
 SHEET NO. 1 OF 1 SHEETS  
 STA. 0+00 TO STA. 23+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	41
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301



**NOTES:**

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

Drawing File: W:\Projects\_by\_Village\Broadview\2017283 - Broad Drive Stage 1 - Design\CAD\Sheets\42-TC-10.dwg Jun 15, 2019 - 11:04am

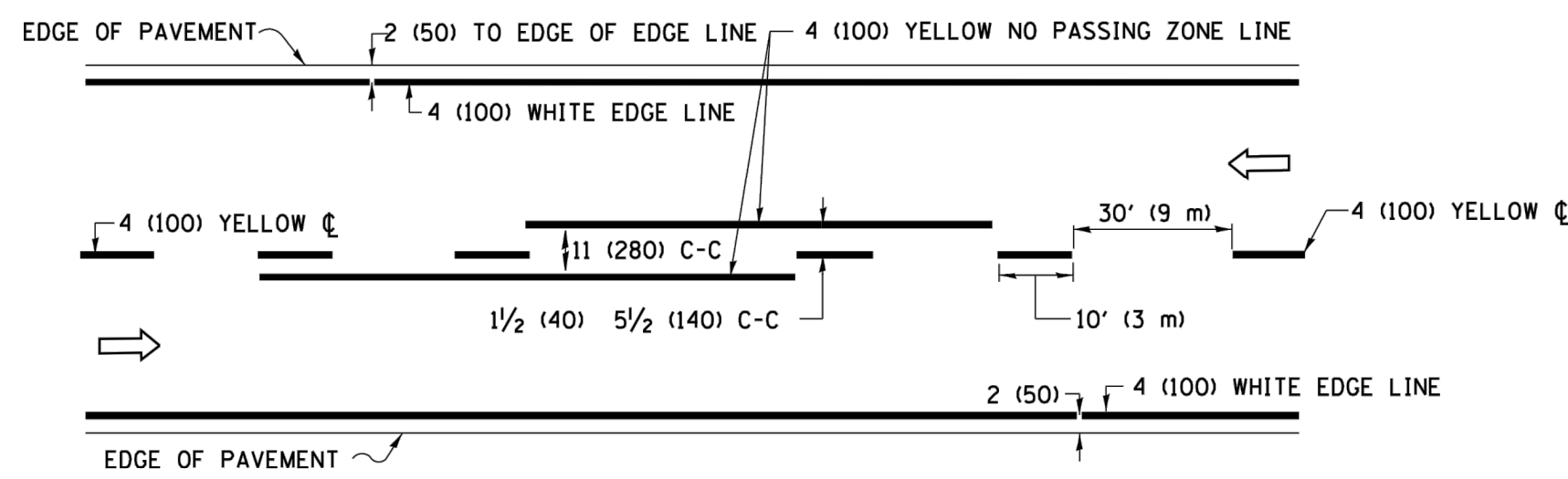
FILE NAME =	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
p:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist		DRAWN - CADData\CADsheets\tcl.dgn	REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

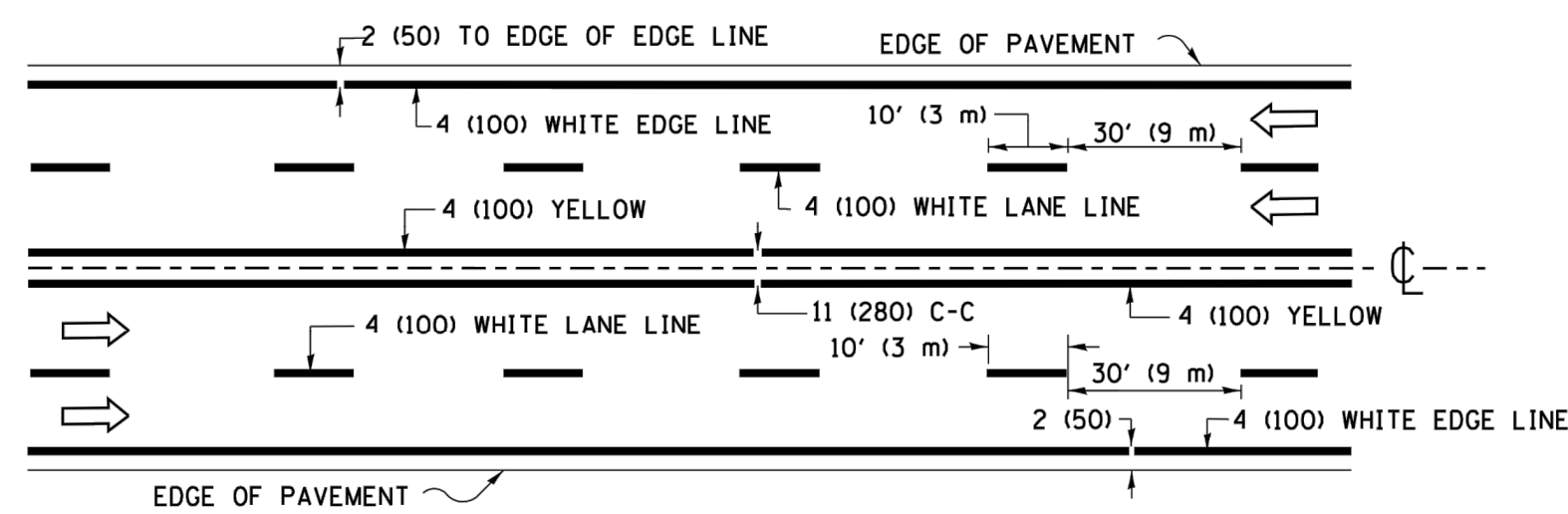
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	42
TC-10			CONTRACT NO. 61F39	
ILLINOIS FED. AID PROJECT				

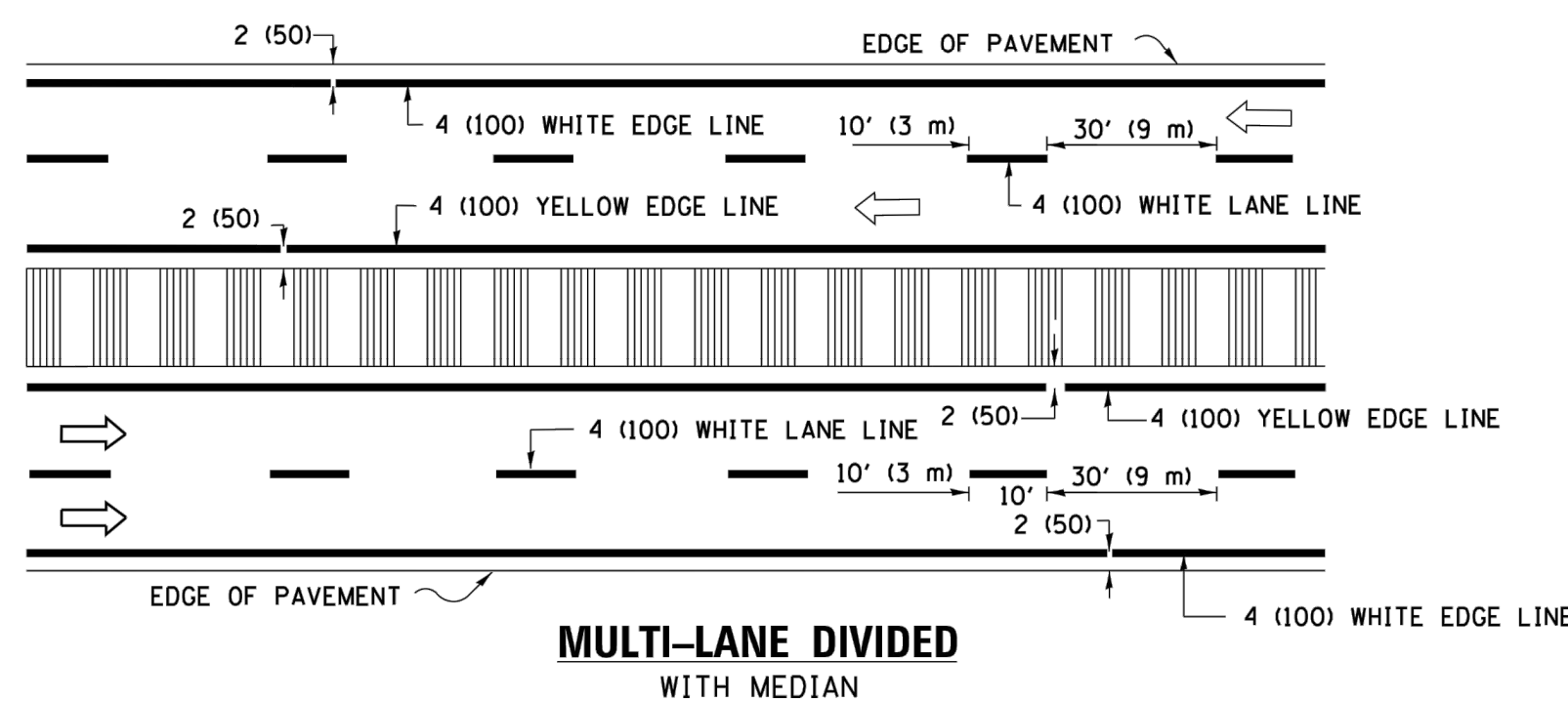
E.H.E. PROJECT NO. 120-17-28301



**2-LANE ROADWAY**

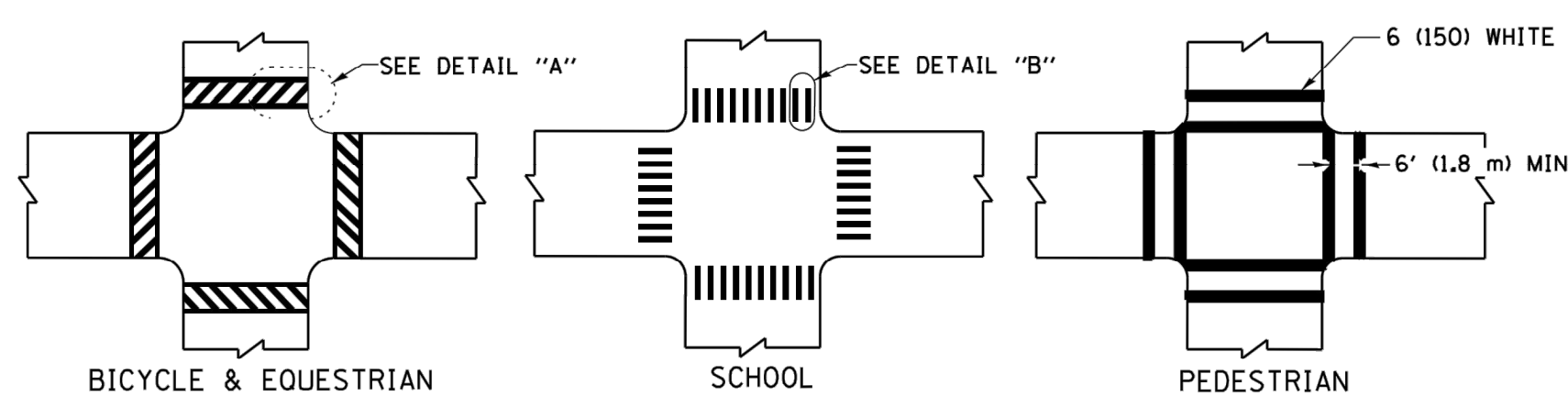


**MULTI-LANE UNDIVIDED**



**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

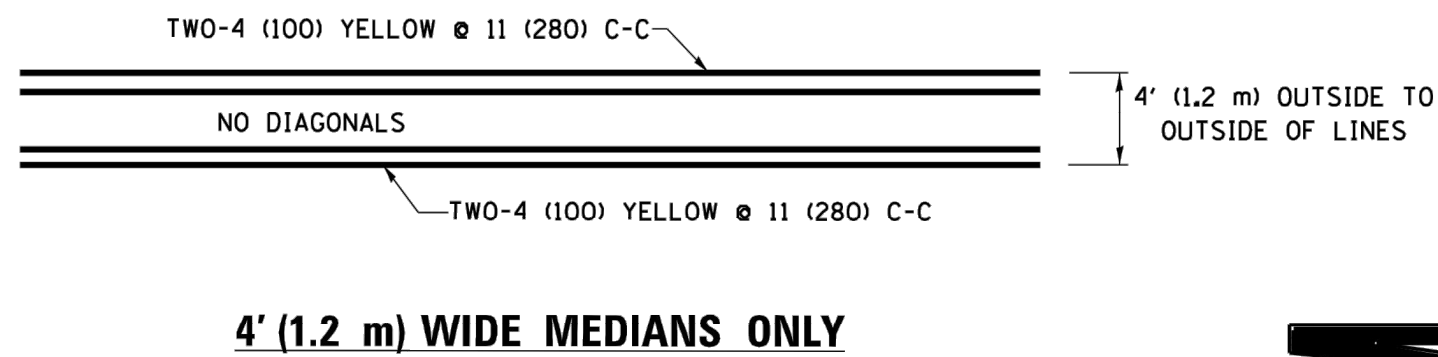


**DETAIL "A"**

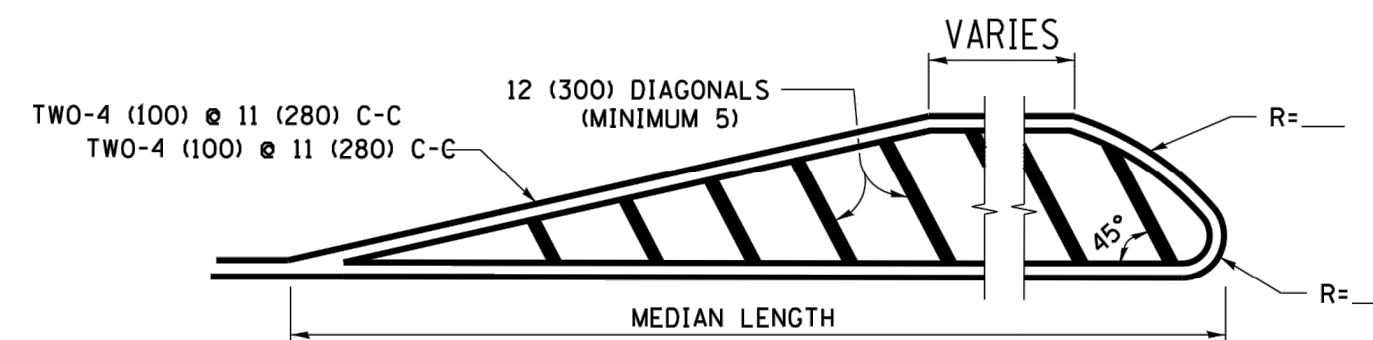
**DETAIL "B"**

**TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

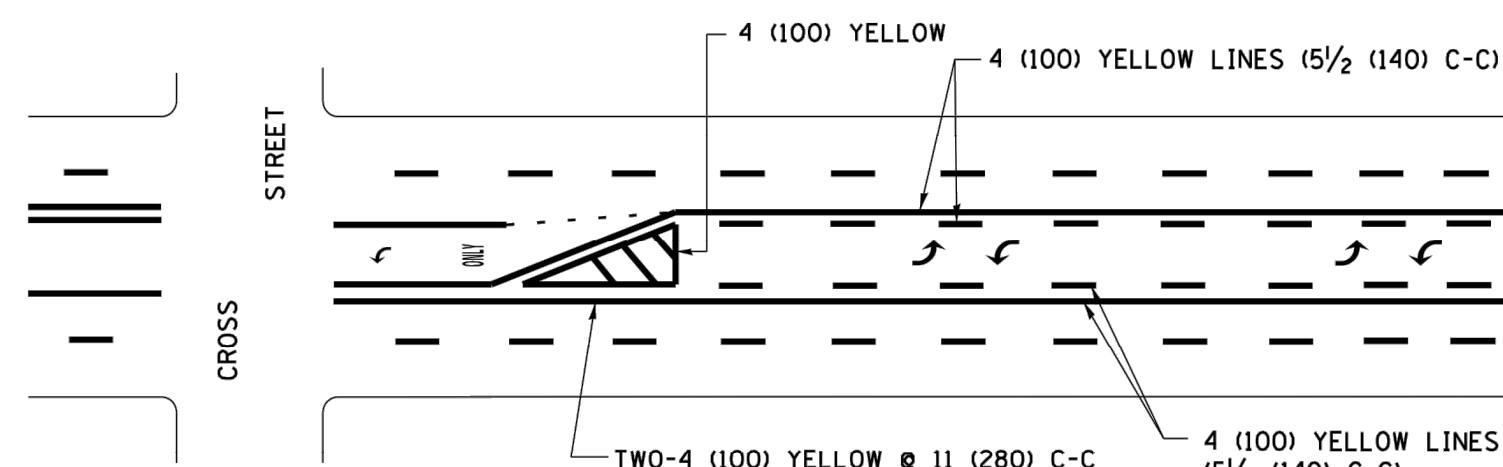


**4' (1.2 m) WIDE MEDIANS ONLY**



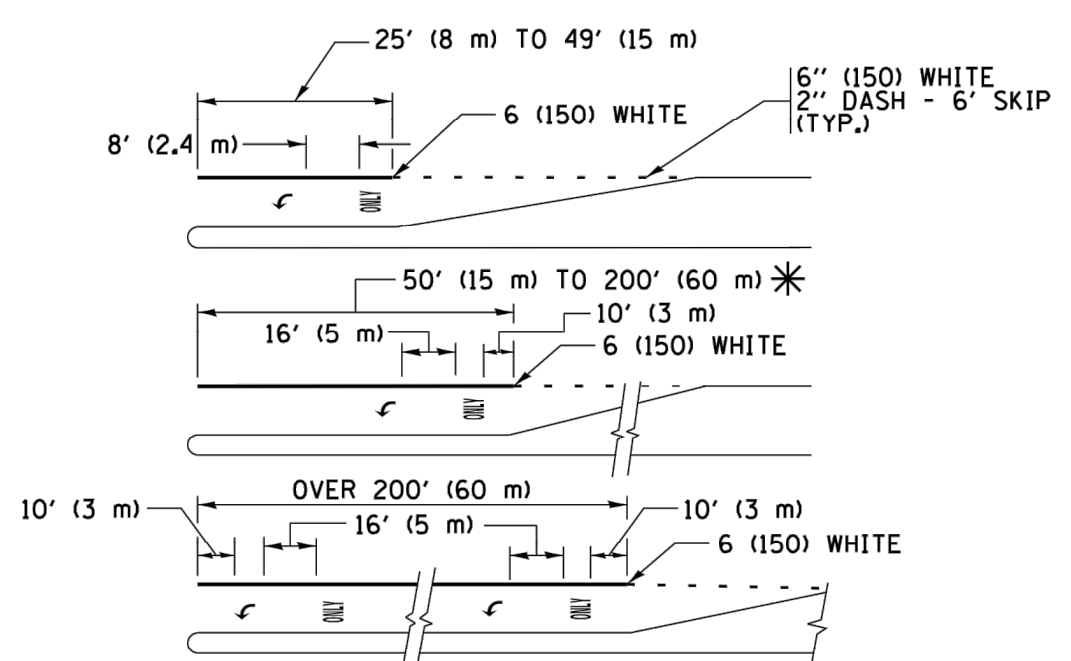
**MEDIANS OVER 4' (1.2 m) WIDE**

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



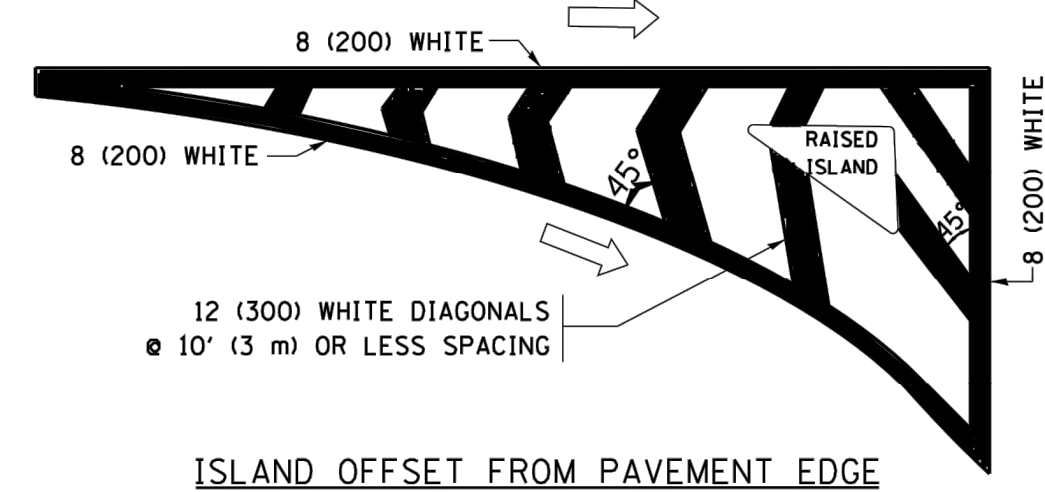
**MEDIAN WITH TWO-WAY LEFT TURN LANE**

**TYPICAL PAINTED MEDIAN MARKING**

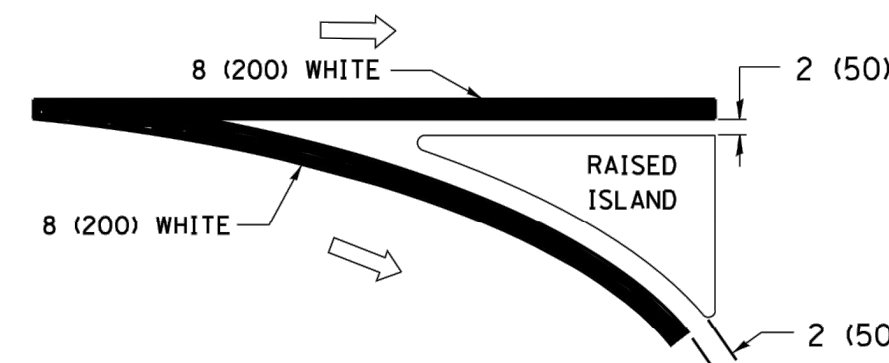


**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

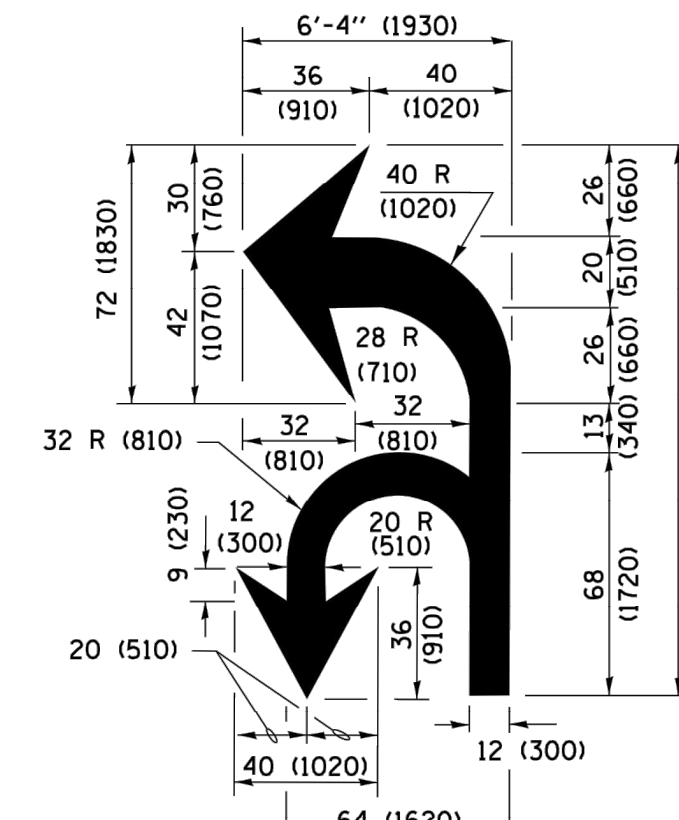


**ISLAND OFFSET FROM PAVEMENT EDGE**

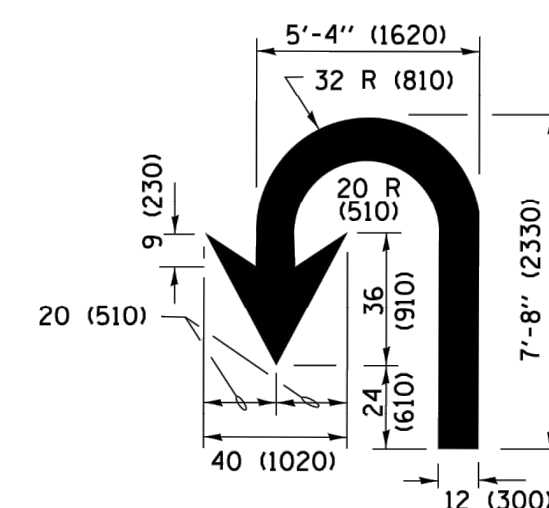


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID	WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6" (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "RR"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
pwt\IL084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist		DRAWN - CADData\CADsheets\tcl3.dgn	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE TYPICAL PAVEMENT MARKINGS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	43
<b>TC-13</b>		<b>CONTRACT NO. 61F39</b>		
ILLINOIS FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing File: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\Sheets\TC-21-2013.dwg  
 Nov 21, 2018 - 10:32am  
 User: drvakosgn

**ROUTE MARKERS**

FOR U.S. ROUTES  
M1-40-2424

FOR ILLINOIS ROUTES  
M1-50-2424

R.R. UNMARKED ROUTES  
SPECIAL 24" x 18" VARIABLE  
4" BLACK LETTERS ON WHITE  
REFLECTIVE BACKGROUND

**ARROWS SIGNS**

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

**CARDINAL DIRECTION & DETOUR SIGNS**

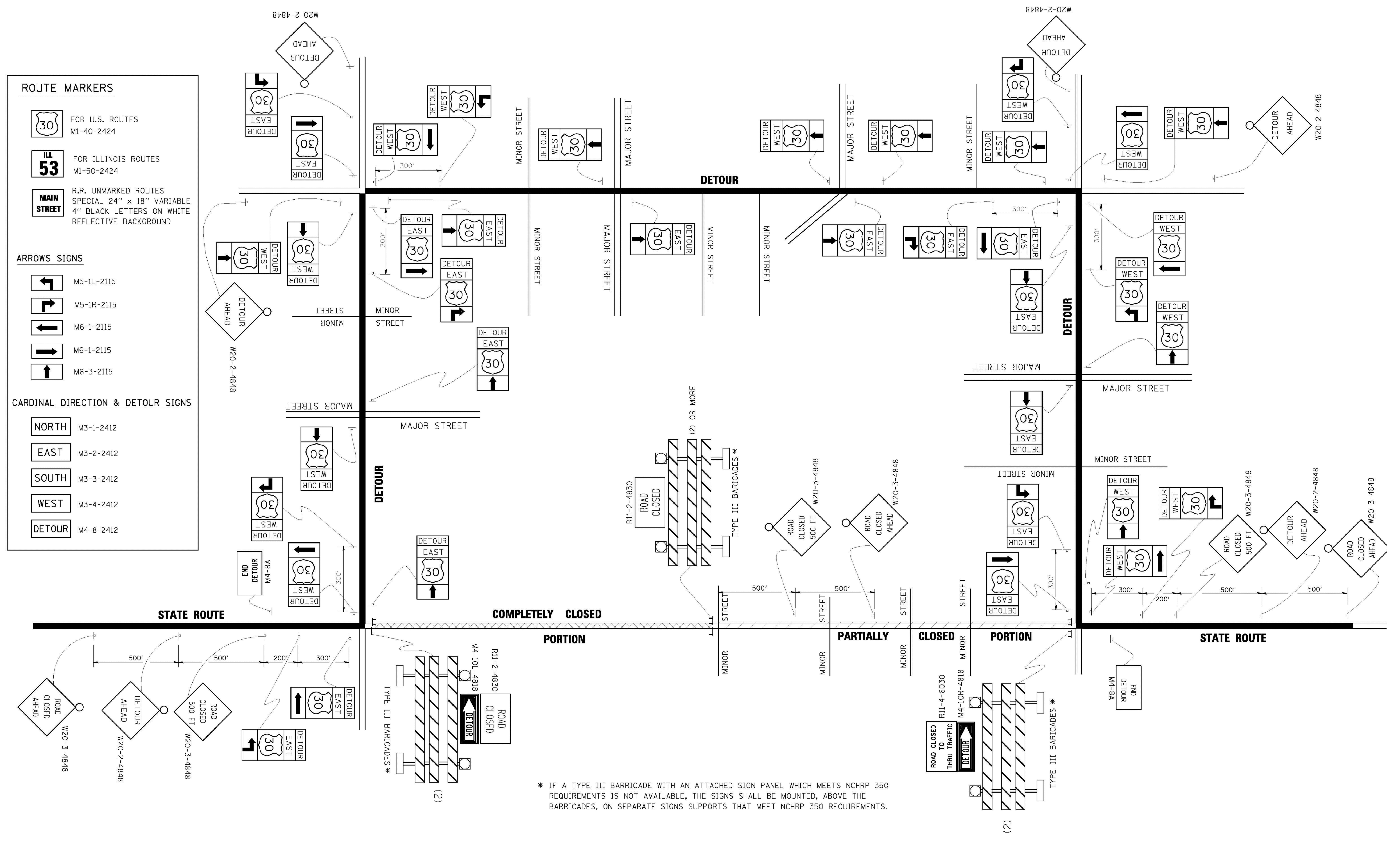
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



\* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - 10-18-02
ca:\pwork\pwwid\drvakosgn\d010315\12017283.dwg		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

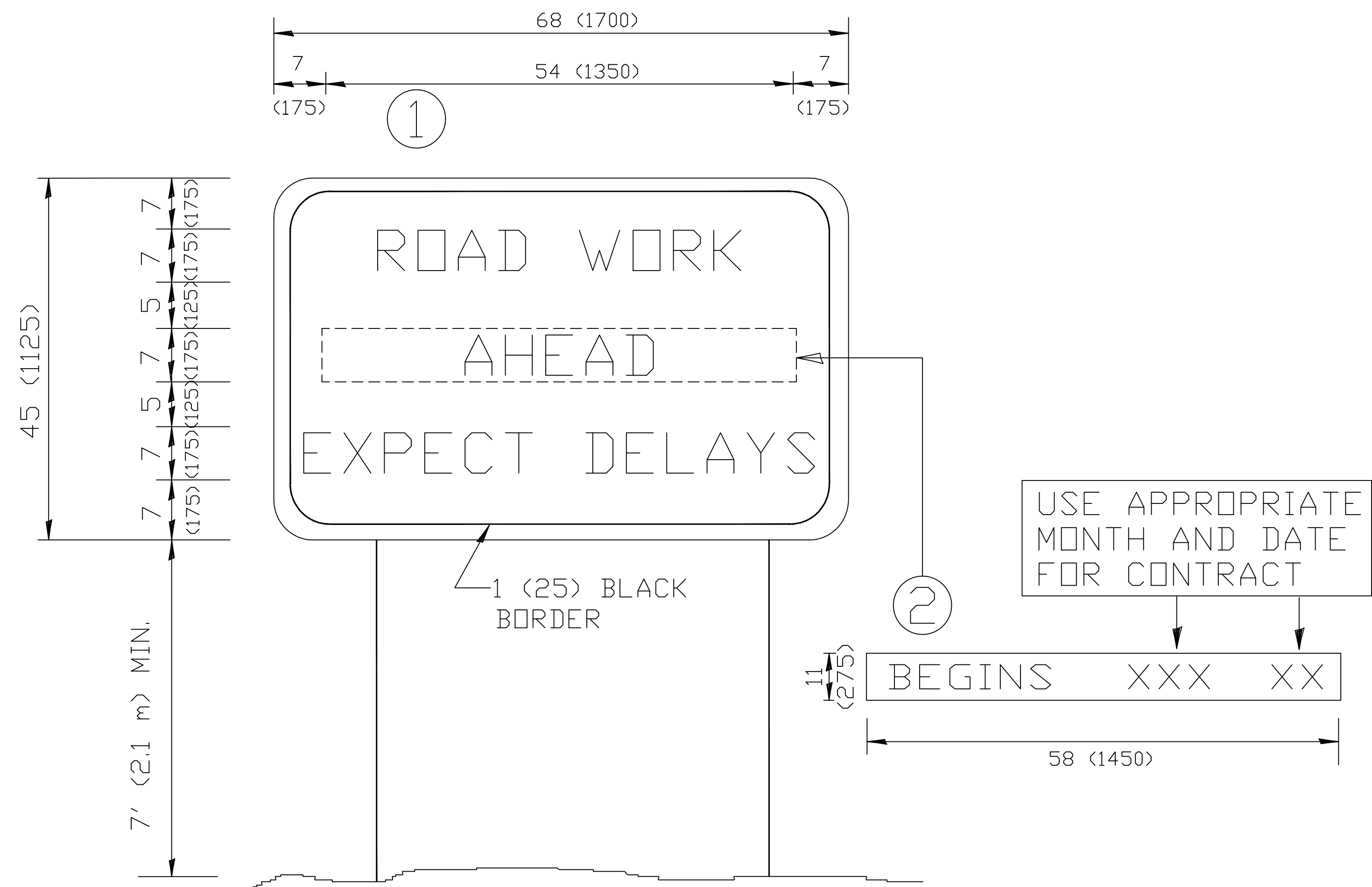
**DETOUR SIGNING  
FOR CLOSING STATE HIGHWAYS**

SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2075	13-00125-00-PV	COOK	56	44
<b>TC-21</b>		<b>CONTRACT NO. 63881</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Bridges\Bridges\12017283 - Bridge Drive Stage 1 - Design\CAD\Site\45-TC-22-2013.dwg Nov 21, 2018 - 10:32am



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

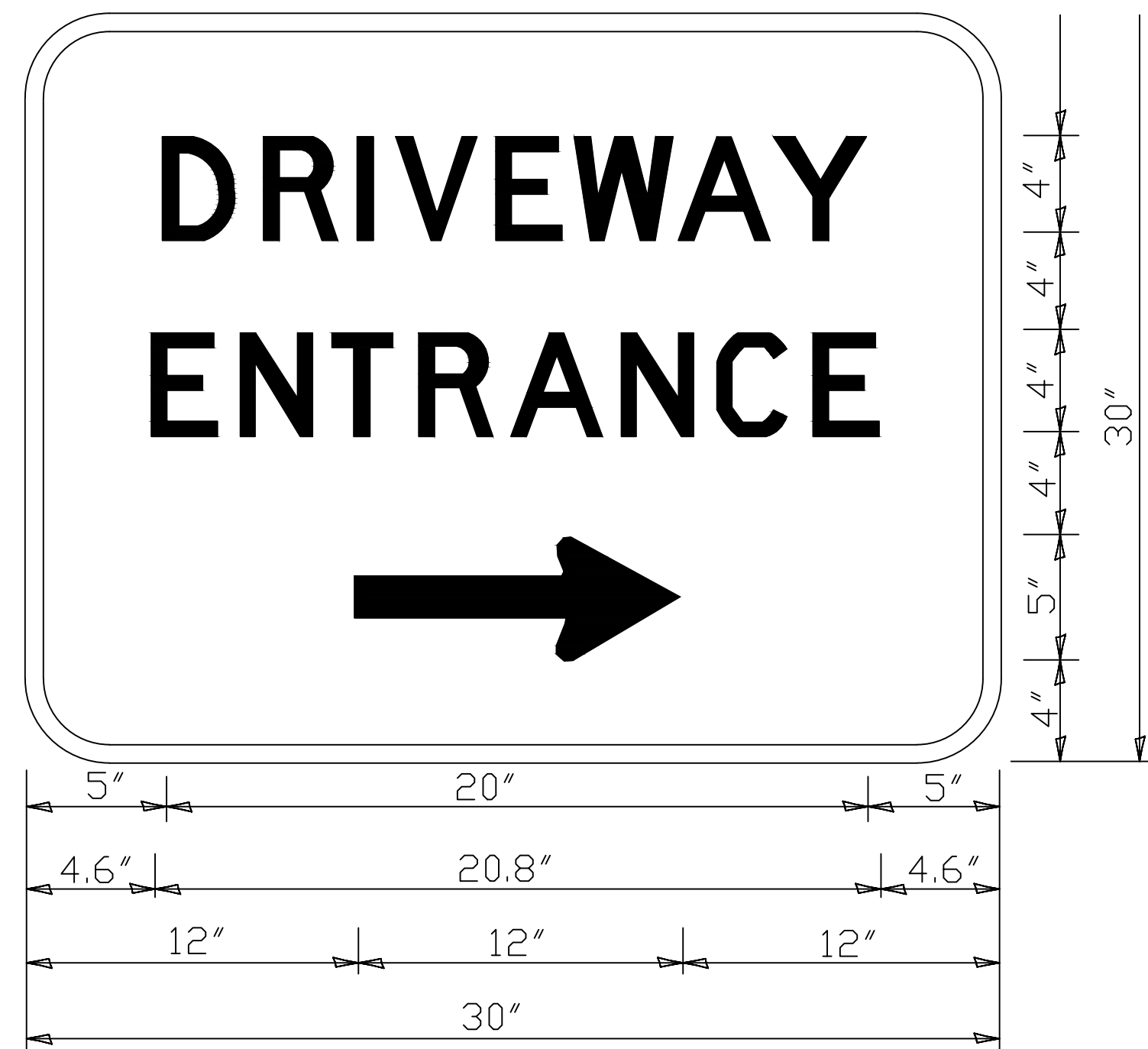
**ARTERIAL ROAD  
INFORMATION SIGN**

USER NAME =	DESIGNED -	REVISED - R. MIRS 09-15-97
PLOT SCALE =	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT DATE =	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	DATE -	REVISED - C. JUCIUS 01-31-07

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2075	13-00125-00-PV	COOK	56	45
TC-22			CONTRACT NO. 61F39	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

I.H.E. PROJECT NO. 120-17-28301



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

Drawing file: W:\Projects\_by\_Village\Broadview\2017283 - Broad Drive Stage 1 - Design\CAD\Site\6-TC-26-2013.dwg Nov 21, 2018 - 10:33am

USER NAME =	DESIGNED -	REVISED - C. JUCIUS 02-15-07
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

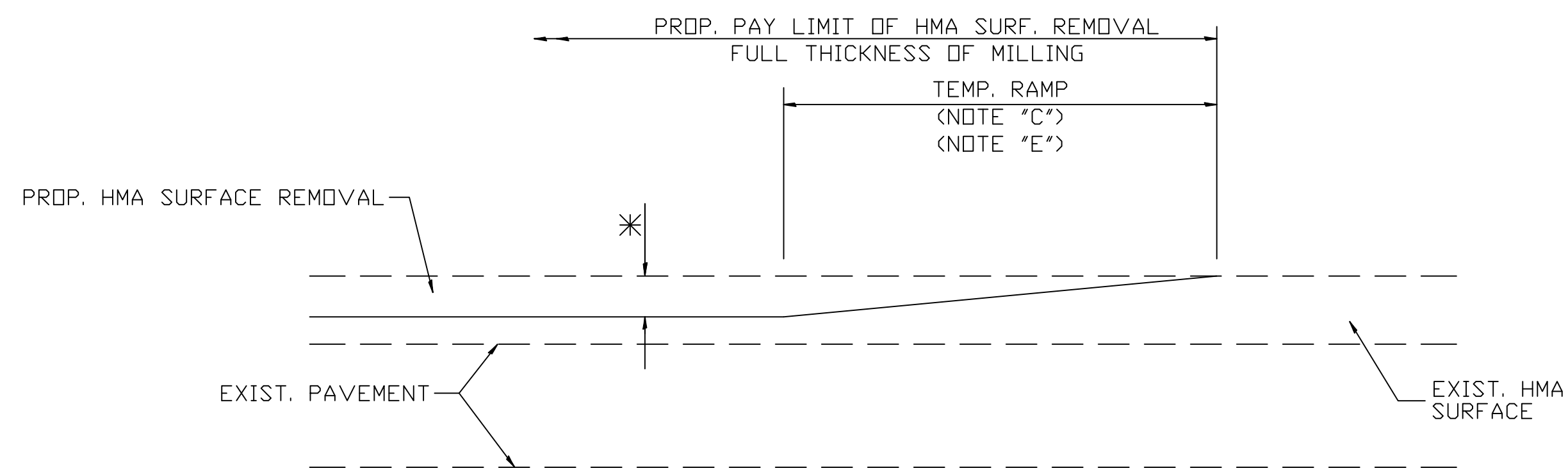
**DRIVEWAY ENTRANCE SIGNING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2075	13-00125-00-PV	COOK	56	46
TC-26			CONTRACT NO. 61F39	
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT	

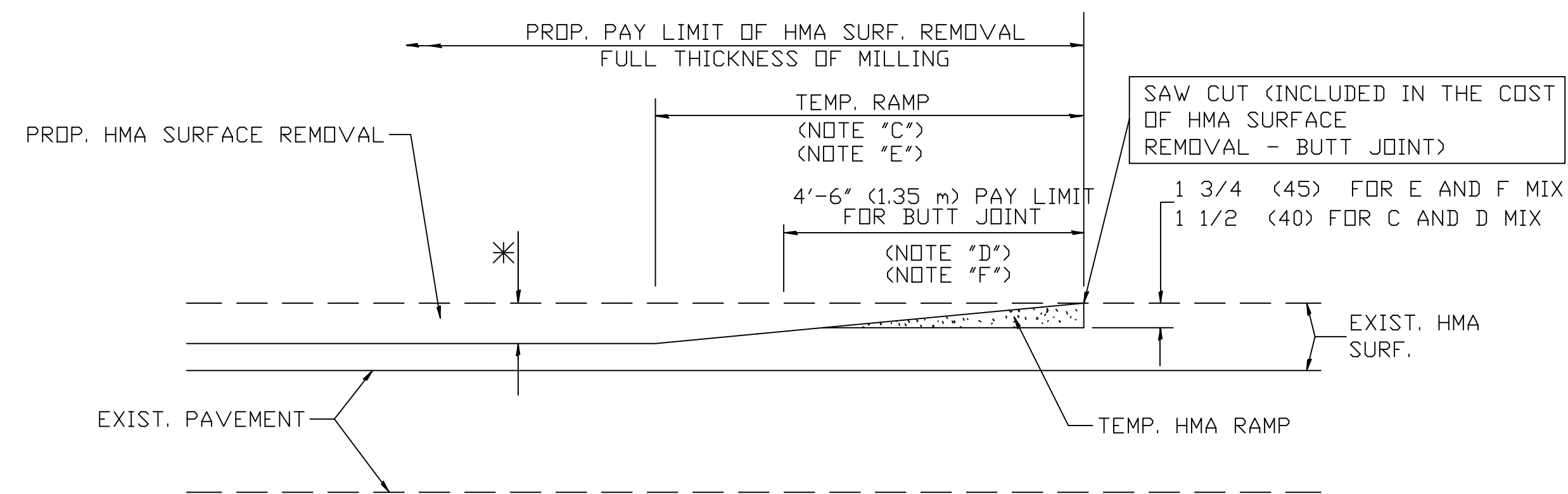
I.H.E. PROJECT NO. 120-17-28301

Drawing File: W:\Projects\_by\_Village\Broadview\12017283 - Biogo Drive Stage 1 - Design\CAD\Site\47-bd32.dwg Nov. 21, 2018 - 10:35am



**MILLED TEMPORARY RAMP**  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

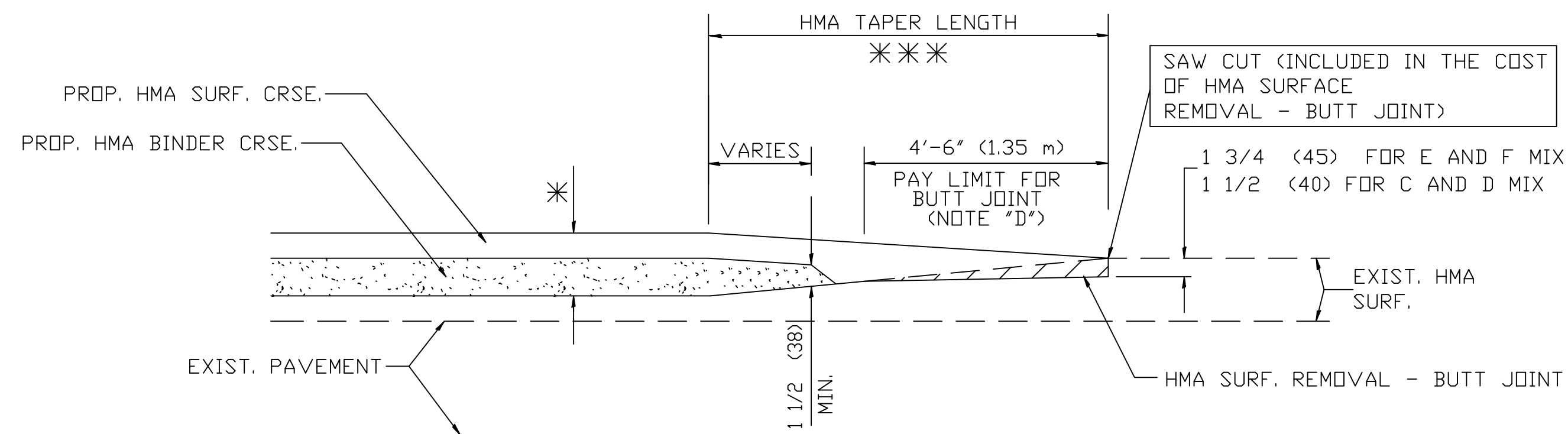
**OPTION 1**



**HMA CONSTRUCTED TEMPORARY RAMP**  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

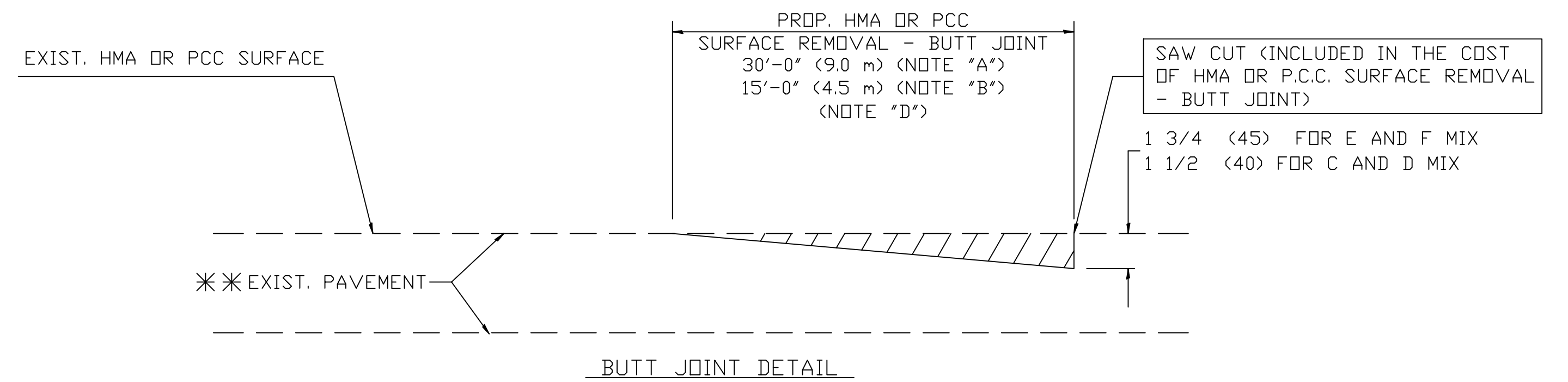
**OPTION 2**

**TYPICAL TEMPORARY RAMP**

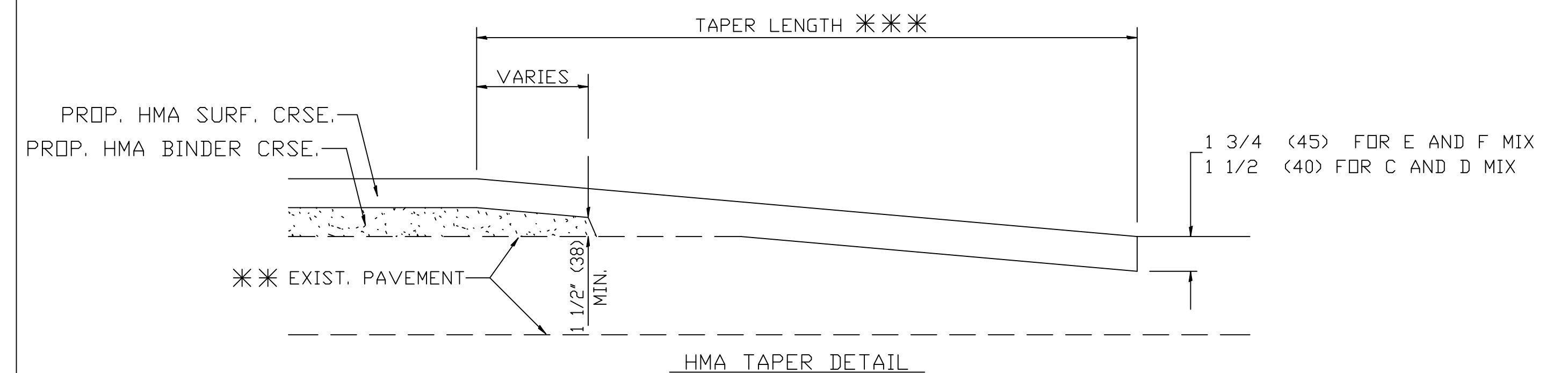


**BUTT JOINT AND HMA TAPER**

**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \*\*\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

USER NAME =	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
PLOT SCALE =	DRAWN -	REVISED - A. ABBAS 03-21-97
PLOT DATE =	CHECKED -	REVISED - M. GOMEZ 04-06-01
	DATE - 06-13-90	REVISED - R. BORO 01-01-07

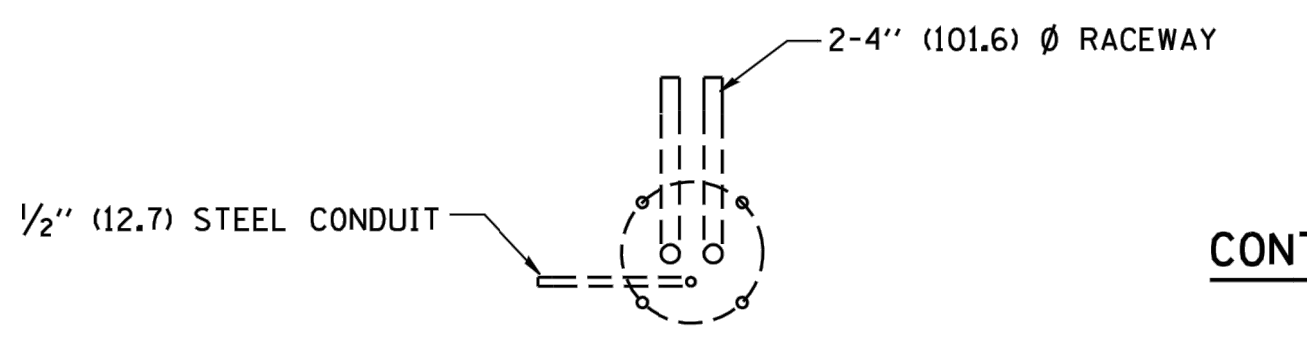
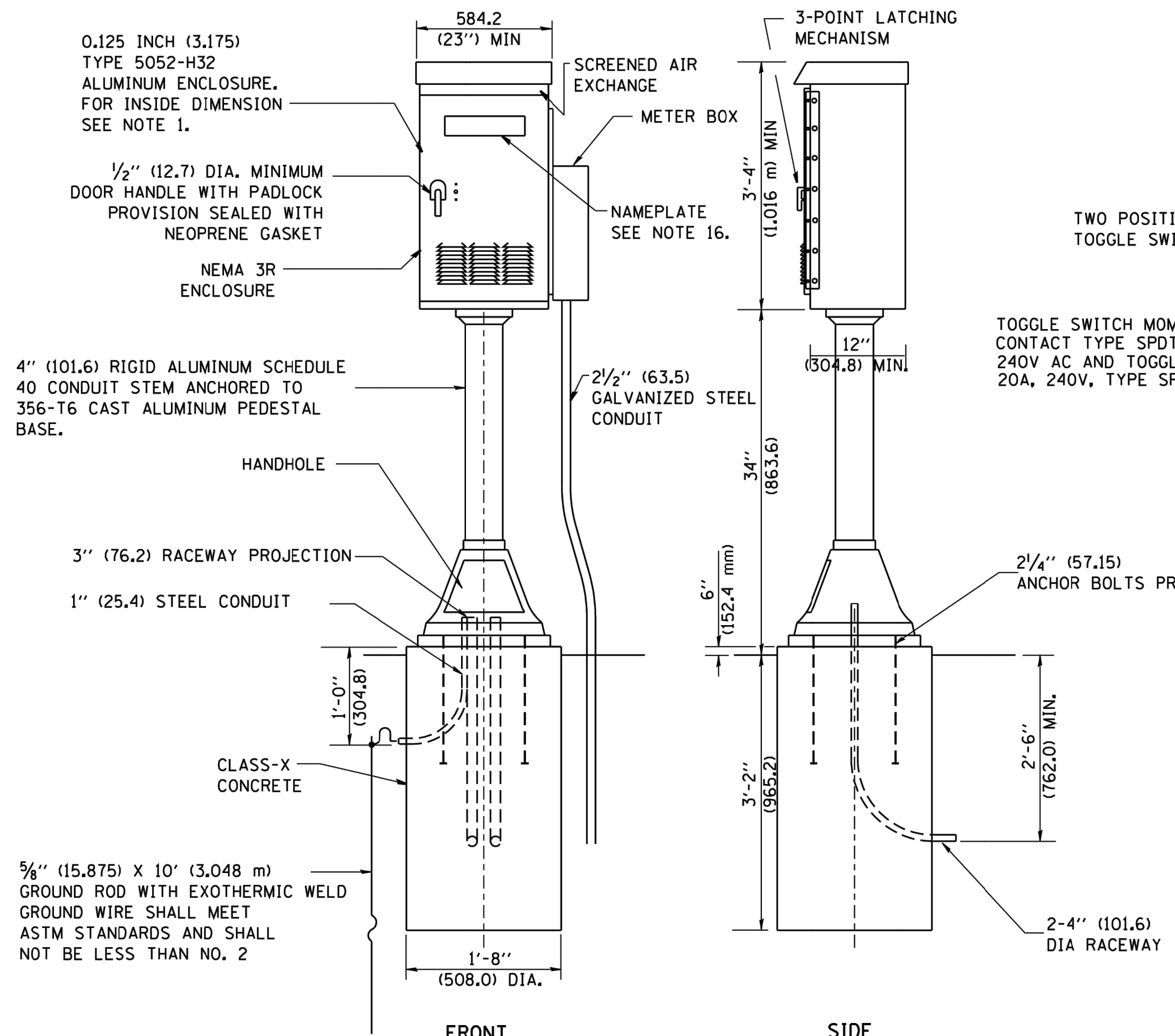
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

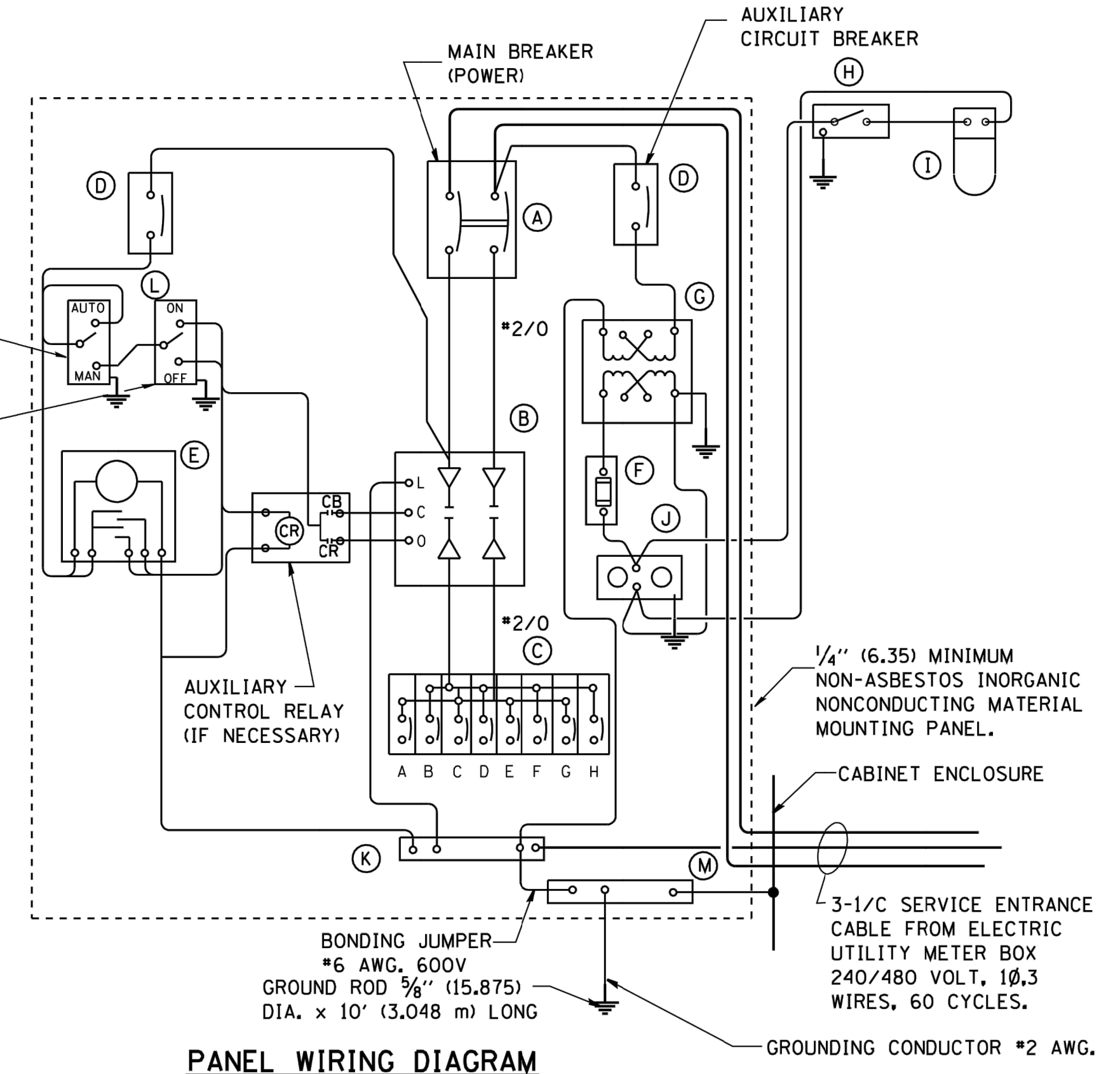
MS. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2075	13-00125-00-PV	COOK	56	47
BD400-05 (BD-32)			CONTRACT NO. 61F39	
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301



FOUNDATION PLAN

CONTROL CABINET



PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 277V., 100 AMP., FRAME 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 HZ.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS

NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- UNLESS OTHERWISE INDICATED, THE CABINET SHALL BE MOUNTED ATOP A 4-INCH (101.6 mm) RIGID ALUMINUM SCHEDULE 40 CONDUIT STEM ANCHORED TO A CAST ALUMINUM PEDESTAL BASE.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (18,288 mm) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.  
R = RED      BL = BLUE      W = WHITE  
B = BLACK      Y = YELLOW      G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.

Drawing file: W:\Projects\_by\_Village\Broadview\2017283 - Broad Drive Stage 1 - Design\CAD\Site\48-51\_Lighting-Detail.dwg Dec 17, 2018 11:44am

FILE NAME =	USER NAME = goglianobt
W:\diststd\22x34\be210.dgn	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - R. GUPTA
PLOT DATE = 1/4/2008	DATE -

DESIGNED -	REVISED - D. DREW 12-02-93
DRAWN -	REVISED - R. TOMSONS 08-19-04
CHECKED - R. GUPTA	REVISED -
DATE -	REVISED -

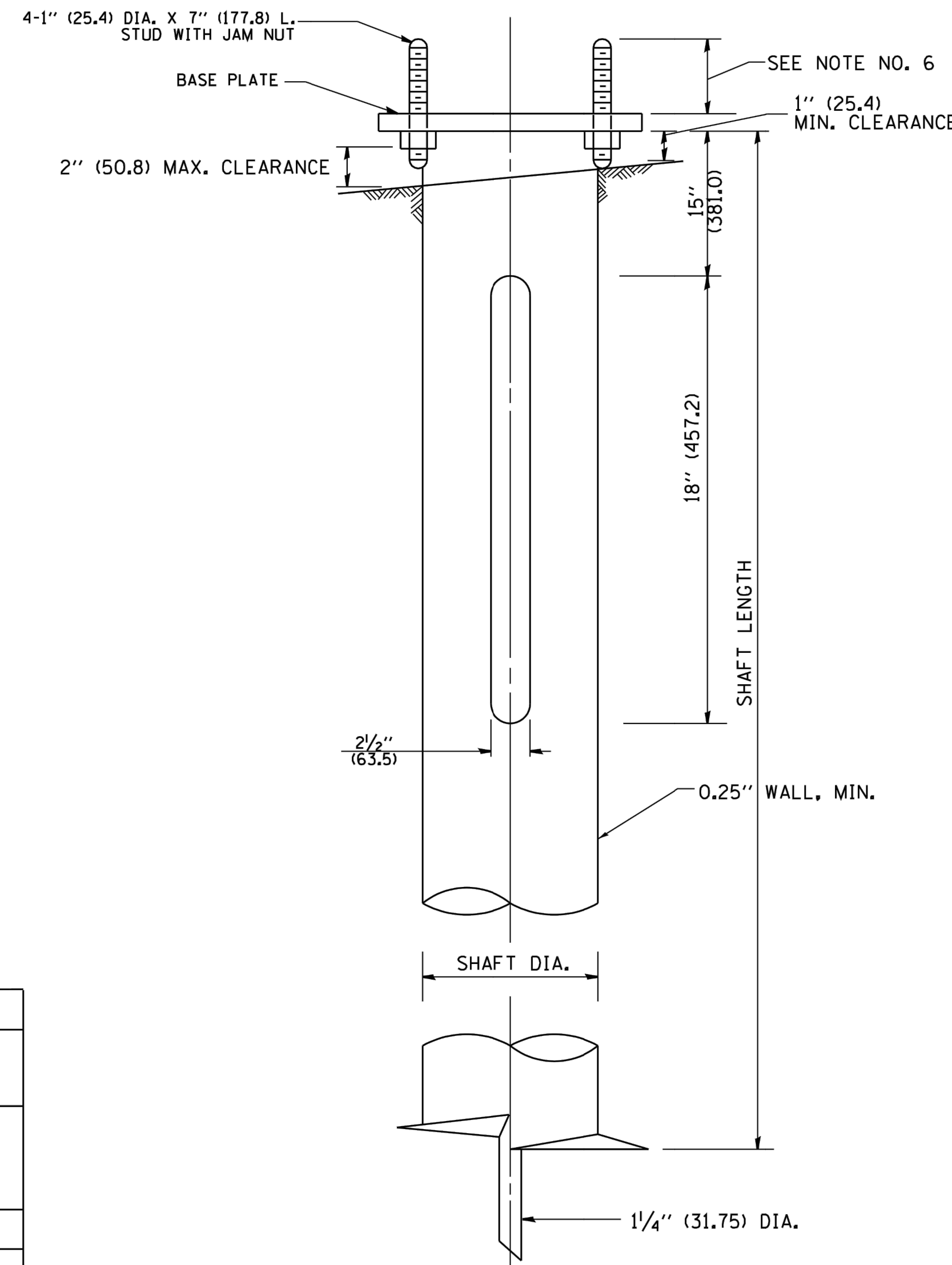
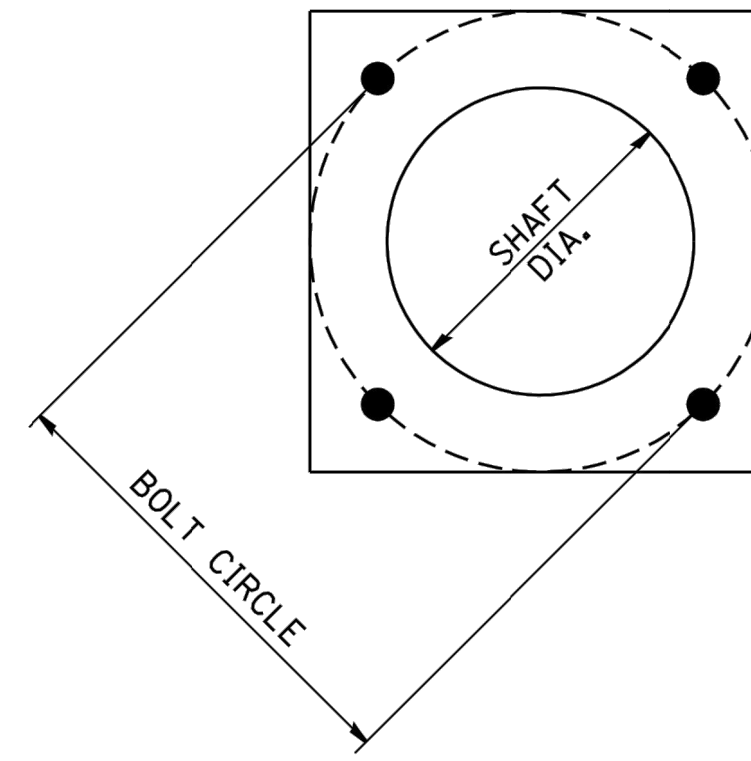
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING CONTROLLER PEDESTAL MOUNT</b>	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

MUN RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	48
<b>BE-210</b>		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

I.E. PROJECT NO. 120-17-28301





**NOTES:**

1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1/4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS ( $\pm 1^\circ$ ) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC ( $\pm 0.188$ ) TO THE SHAFT AXIS.
11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC ( $\pm 0.125$ ) AND IN LINE ( $\pm 2^\circ$ ).
12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

**HELIX FOUNDATION SIZE**

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	11 1/2"	8 5/8"	6 FT.	12"x12"x1"
31 FT.-35 FT.	11 1/2"	8 5/8"	6 FT.	12"x12"x1"
36 FT.-40FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
41 FT.-45 FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
46 FT.-50 FT.	15"	10"	8 FT.	15"x15"x1 1/4"

**METAL HELIX FOUNDATION MATERIALS**

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\Sheet\48-51\_Lighting-Details.dwg Dec 17, 2018 12:10pm

FILE NAME = W:\diststd\22x34\be305.dgn	USER NAME = goglianob	DESIGNED -	REVISED -
		DRAWN - DLB	REVISED -
		CHECKED -	REVISED -
		DATE - 02-27-07	REVISED -
PLOT SCALE = 50.000' / IN.			
PLOT DATE = 1/4/2008			

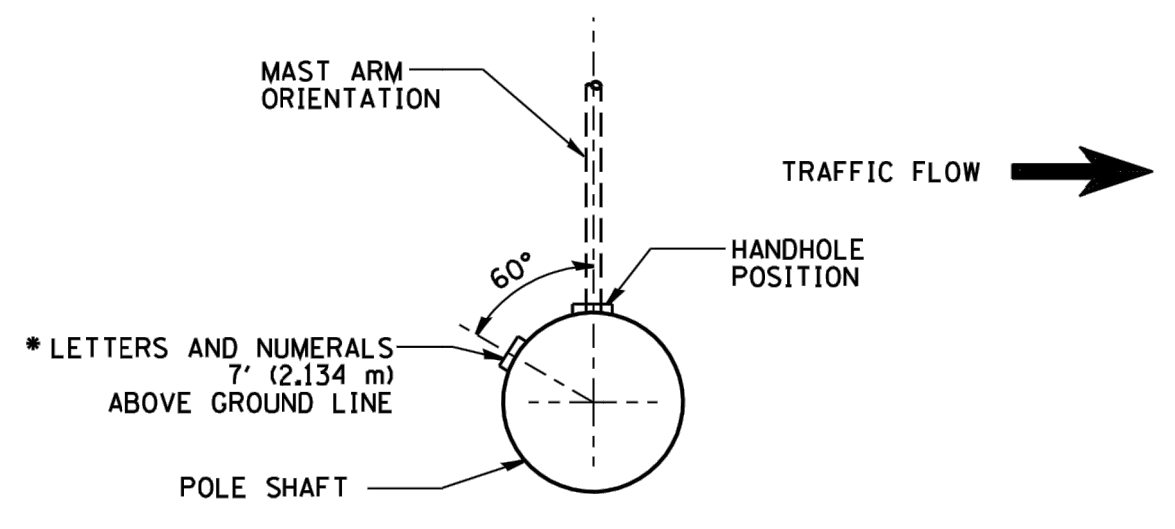
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>LIGHT POLE FOUNDATION, METAL</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

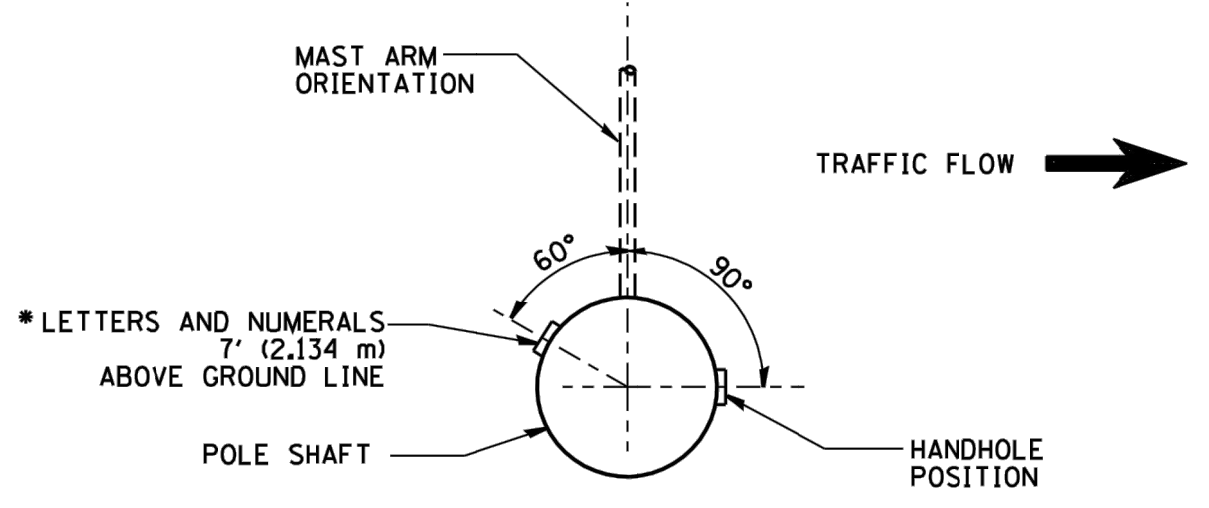
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	49
<b>BE-305</b>		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

I.E. PROJECT NO. 120-17-28301

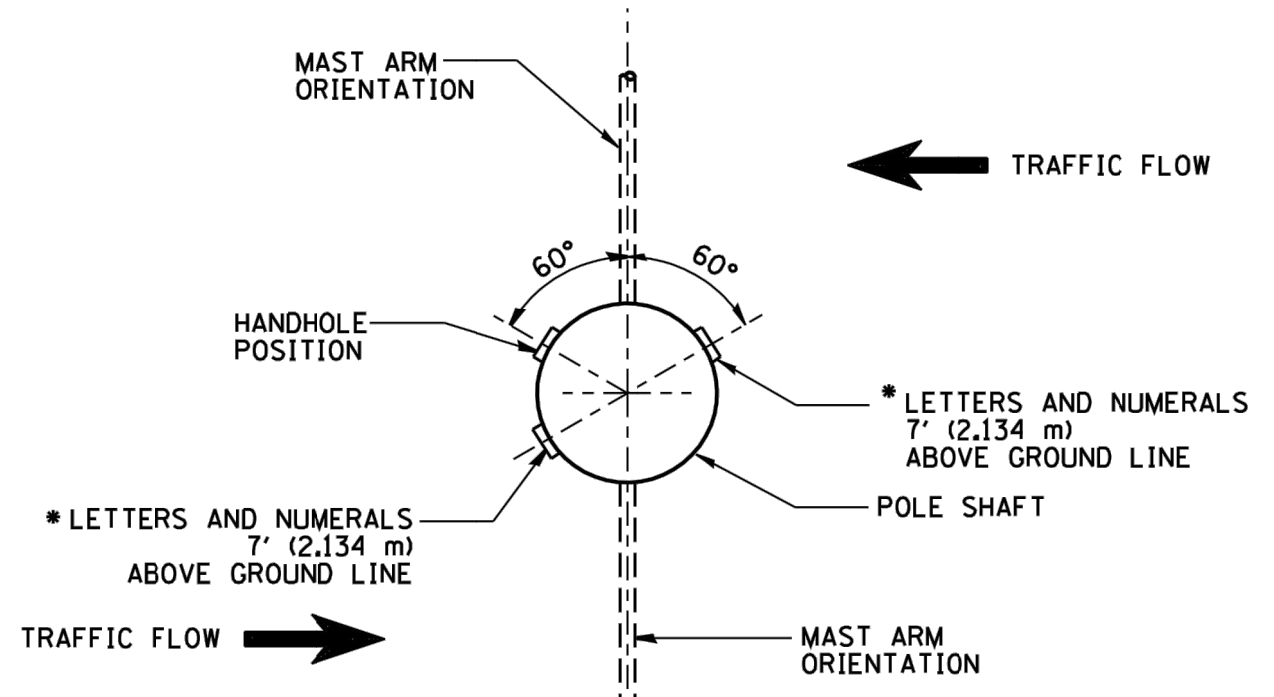
Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\Site\48-51\_Lighting-Detail.dwg Dec 17, 2018 11:22am



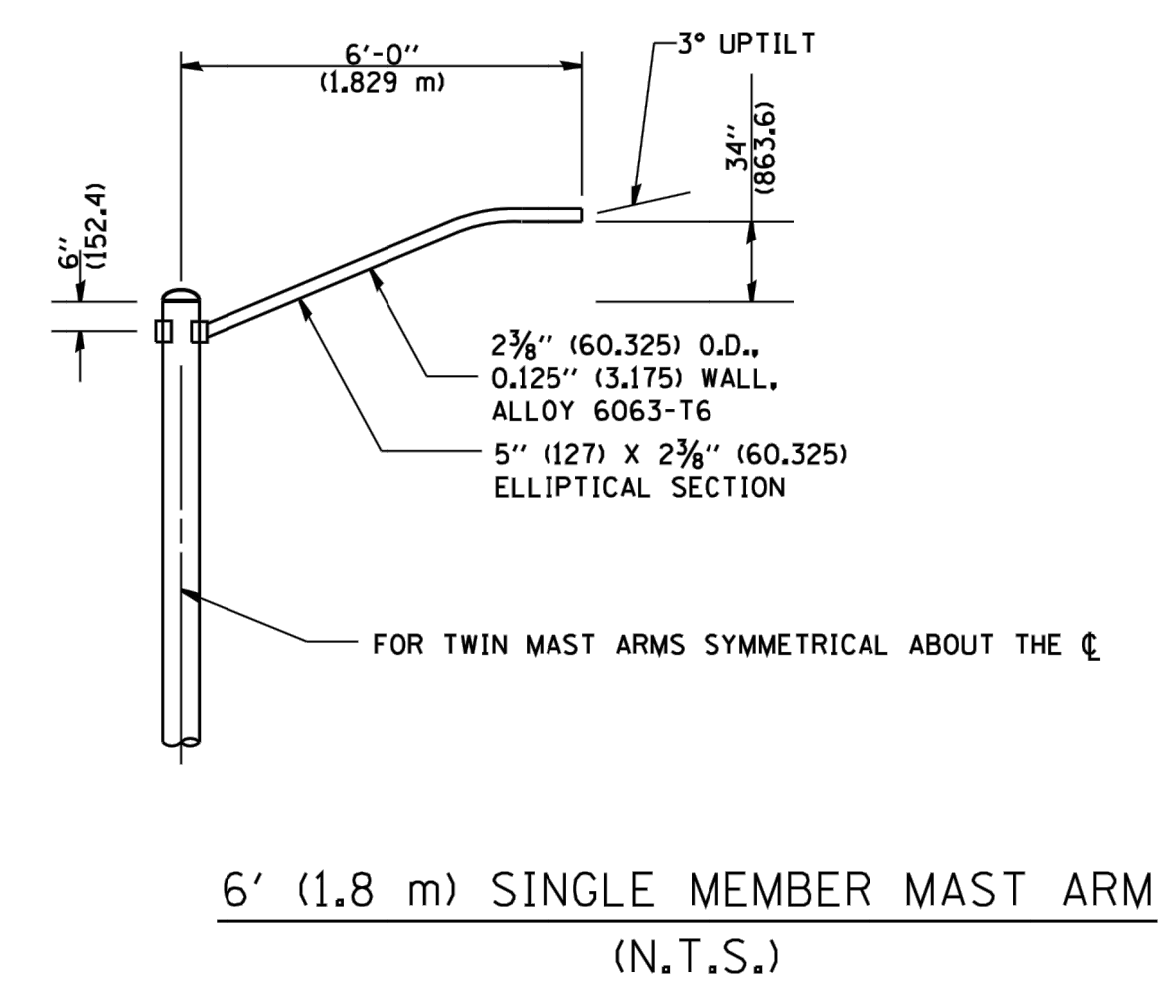
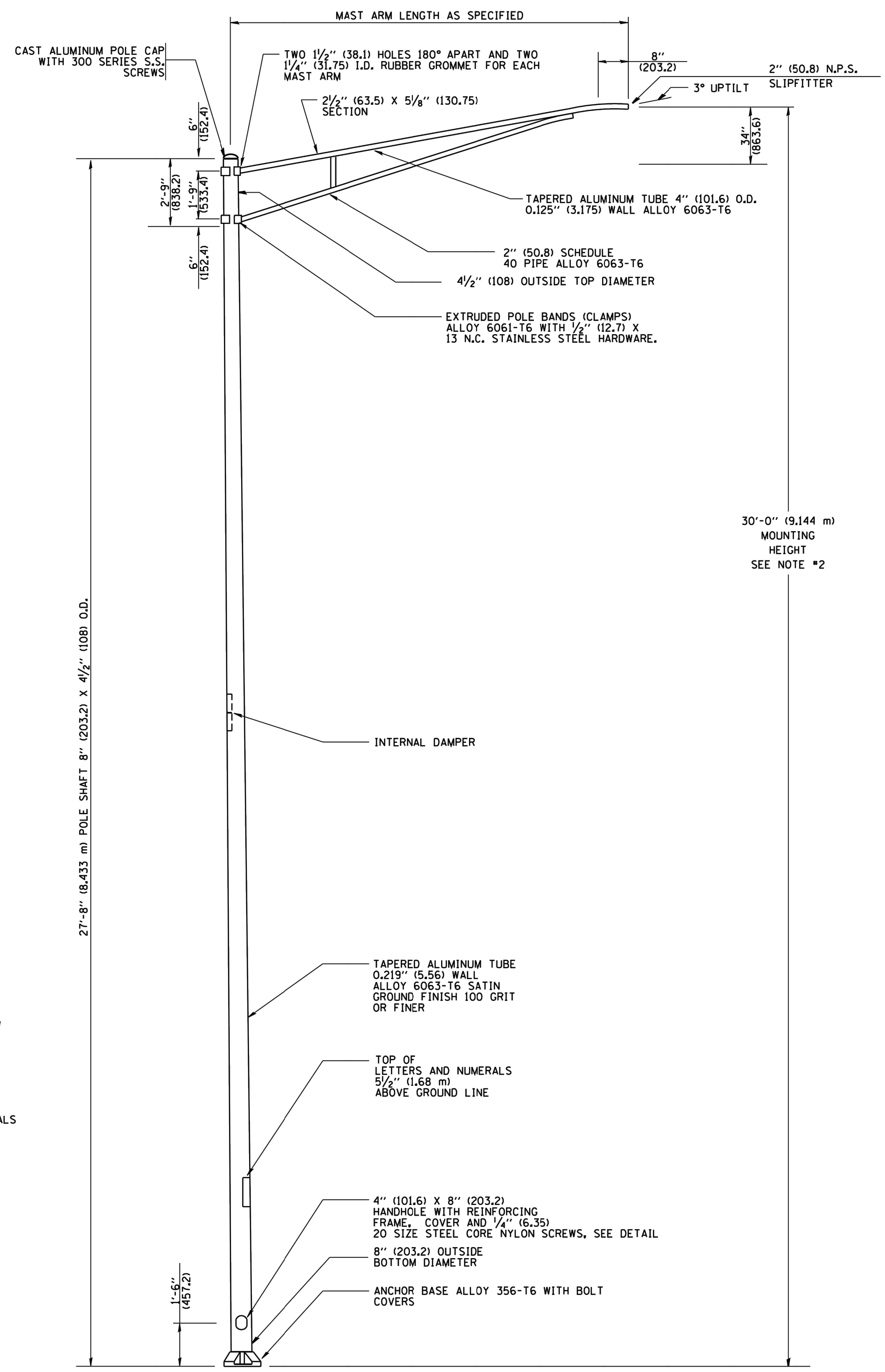
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

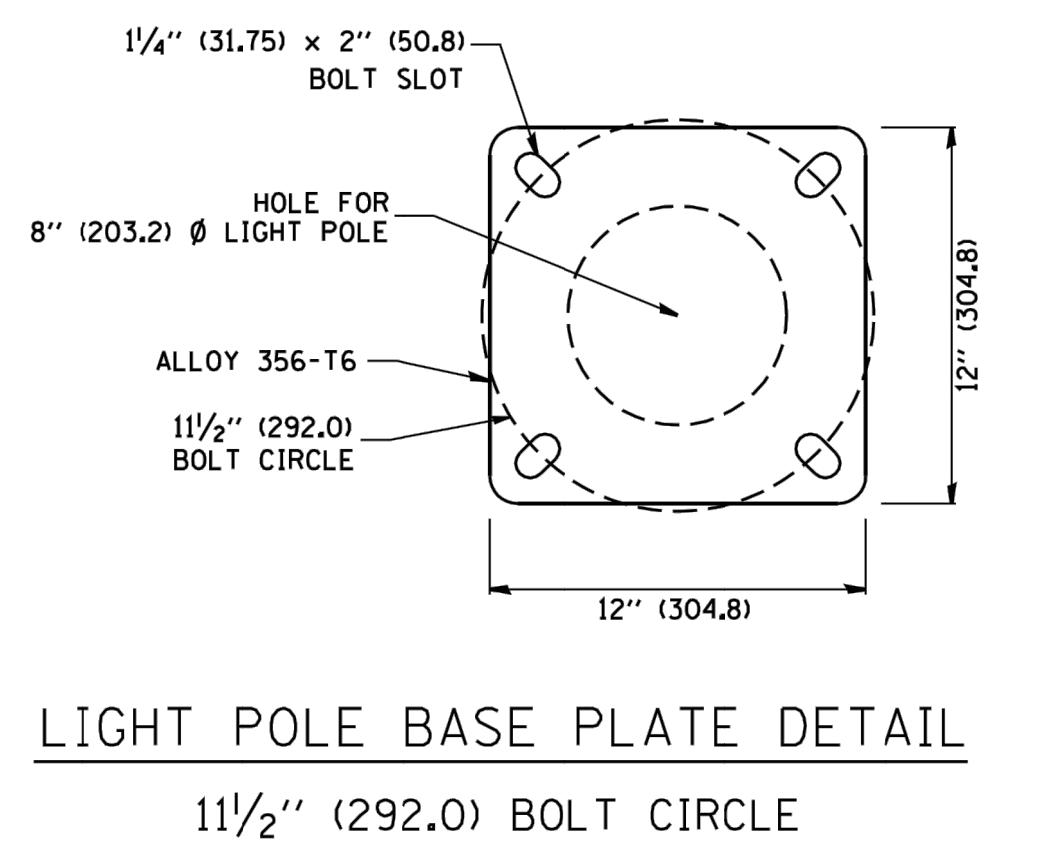


POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

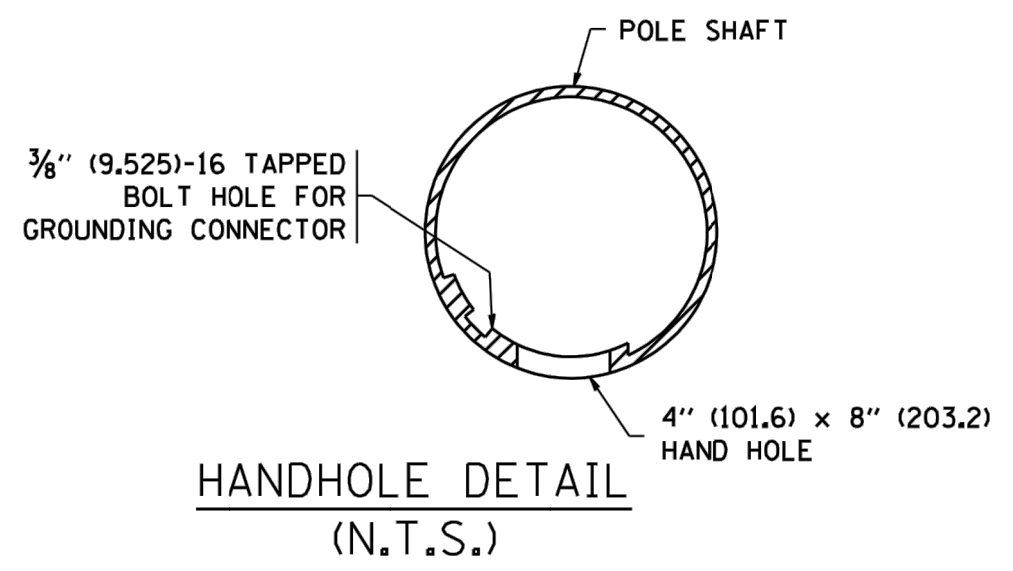


6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR - BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL  
11 1/2" (292.0) BOLT CIRCLE



HANDHOLE DETAIL (N.T.S.)

FILE NAME =	USER NAME = goglianob
W:\diststd\22x34\be403.dgn	

DESIGNED -	REVISD - R. TOMSONS 09-02-03
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

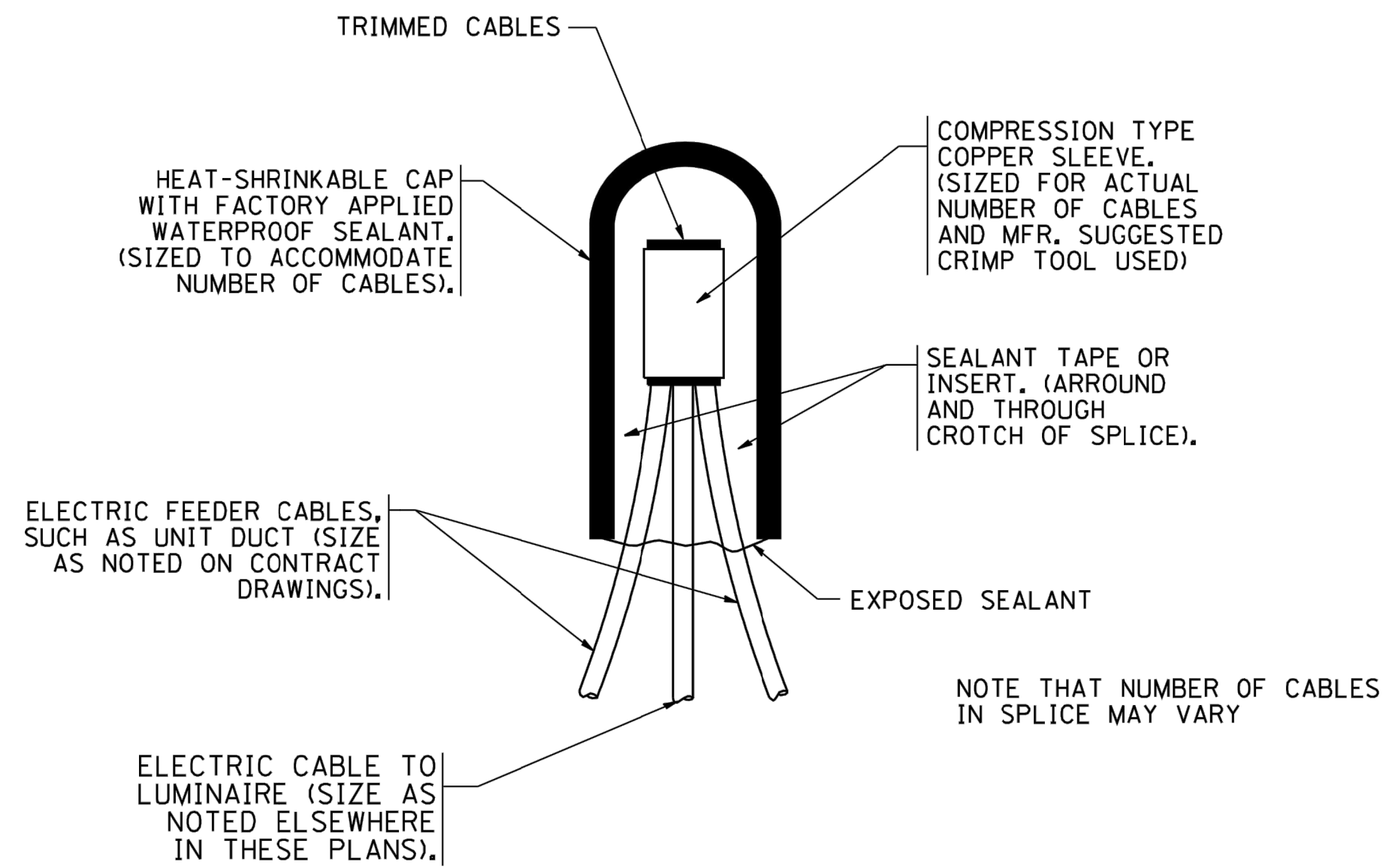
PLOT SCALE = 50.000' / IN.	
PLOT DATE = 1/4/2008	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>ALUMINUM LIGHT POLE</b>			
30'-0" (9.144 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

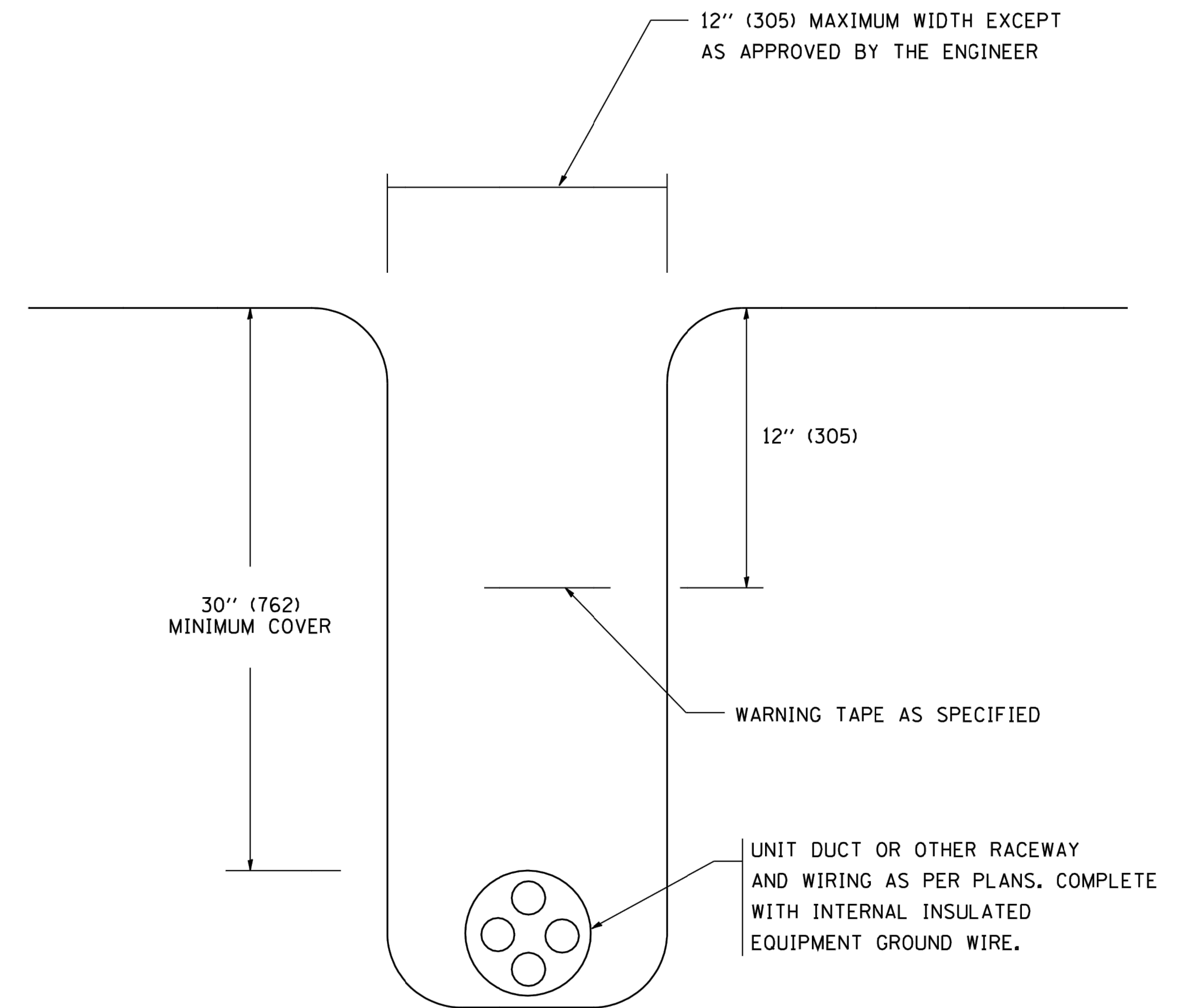
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	50
<b>BE-403</b>		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

I.H.E. PROJECT NO. 120-17-28301

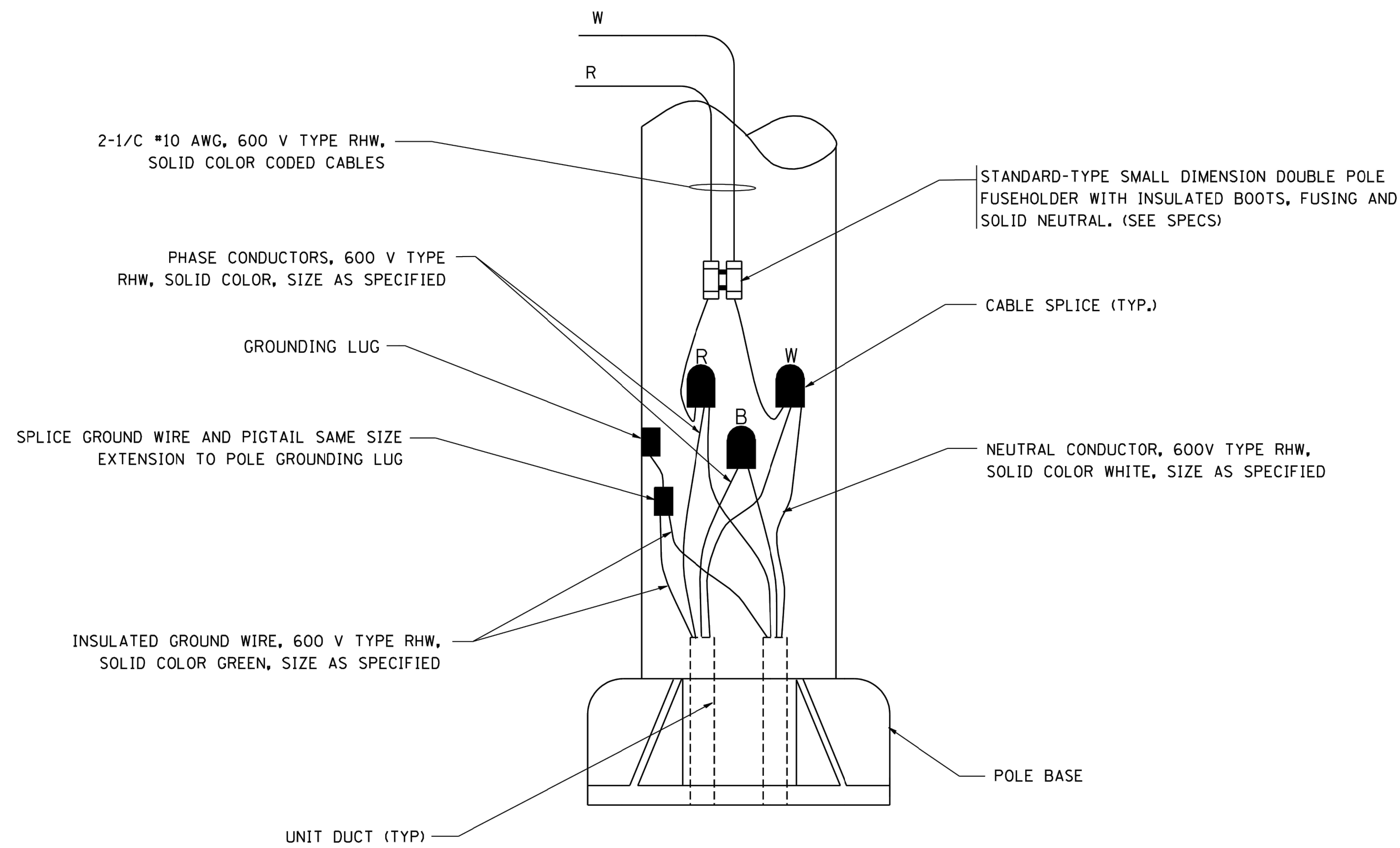


**TYPICAL SPLICE DETAIL**  
N.T.S.

NOTE THAT NUMBER OF CABLES IN SPLICE MAY VARY



**TYPICAL WIRING IN TRENCH DETAIL**  
N.T.S.



**POLE WIRING DETAIL**  
N.T.S.

Drawing file: W:\Projects\_by\_Village\Broadview\12017263 - Broad Drive Stage 1 - Design\CAD\Site\48-51\_Lighting-Details.dwg Dec 17, 2018 - 11:23am

FILE NAME =	USER NAME = goglianob
W:\diststd\22x34\be702.dgn	
PLOT SCALE = 50.000' / IN.	CHECKED -
PLOT DATE = 1/4/2008	DATE -

DESIGNED -	REVISED - 08-08-03
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MISC. ELECTRICAL DETAILS SHEET A</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

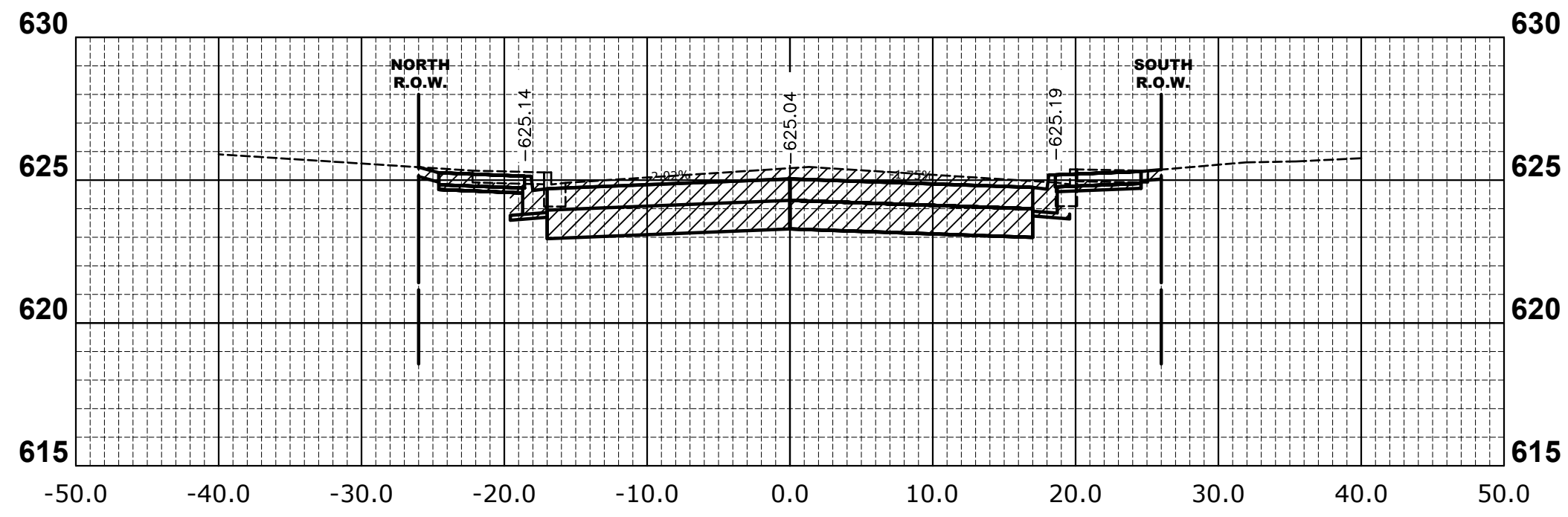
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	51
BE-702		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\XSECT\XSECT.dwg Jan 11, 2019 - 1:46pm

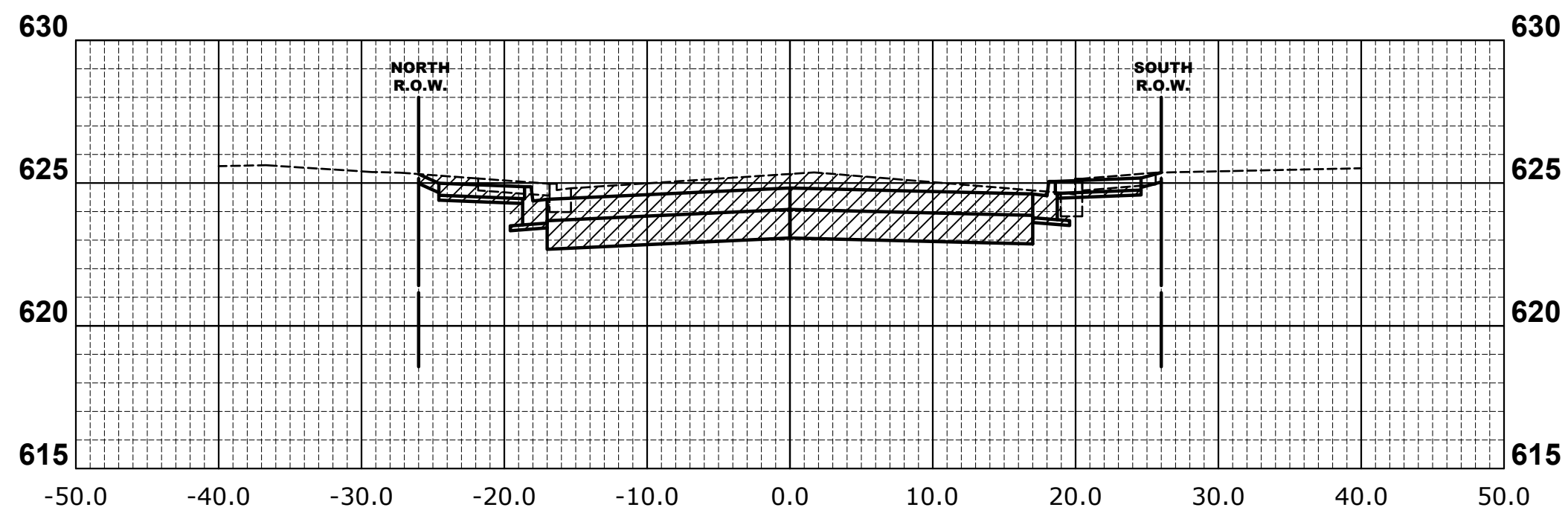
**1+50.00**

CUT = 78.77 SQ. FT.



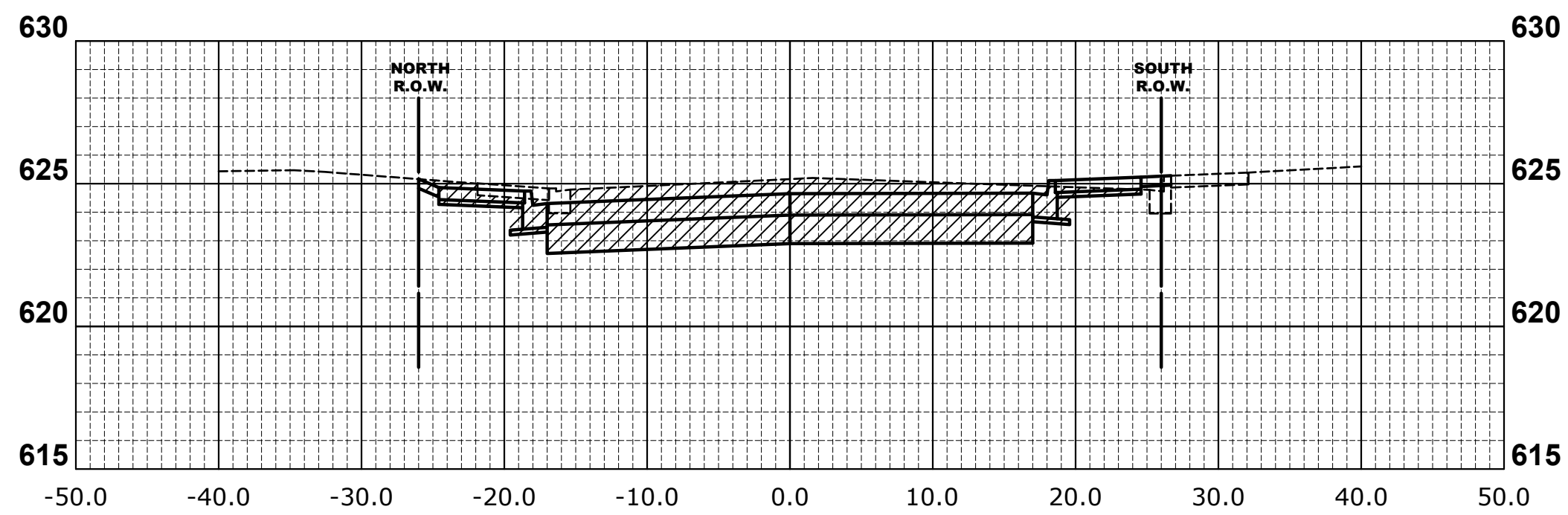
**1+16.13**

CUT = 82.20 SQ. FT.



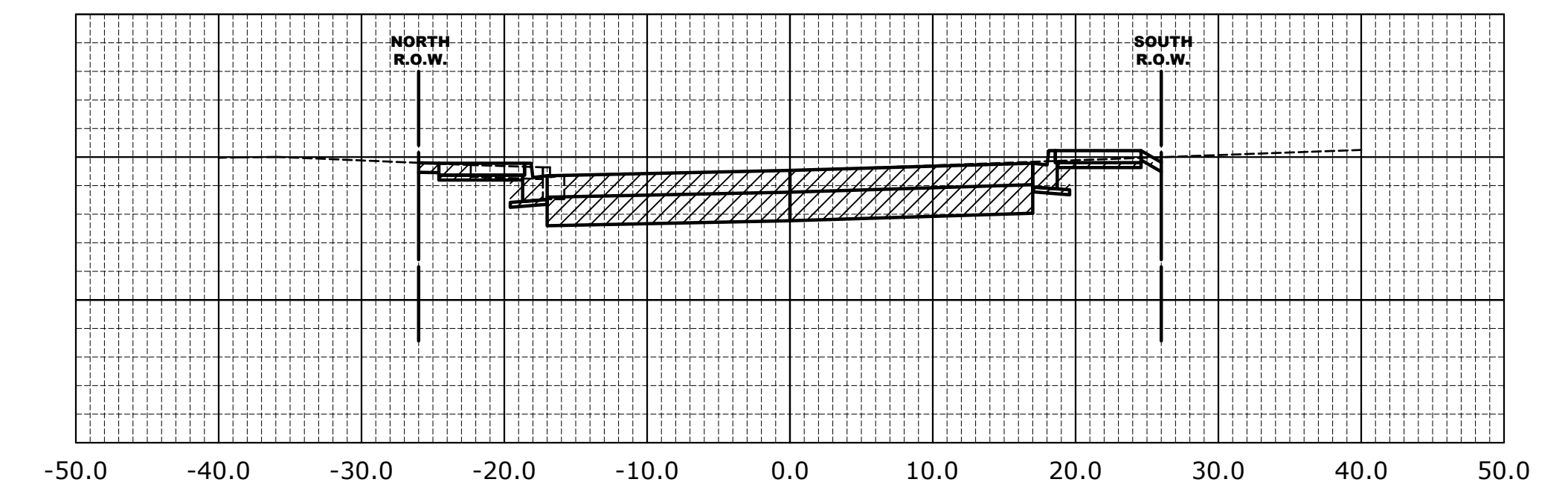
**1+00.00**

CUT = 56.60 SQ. FT.



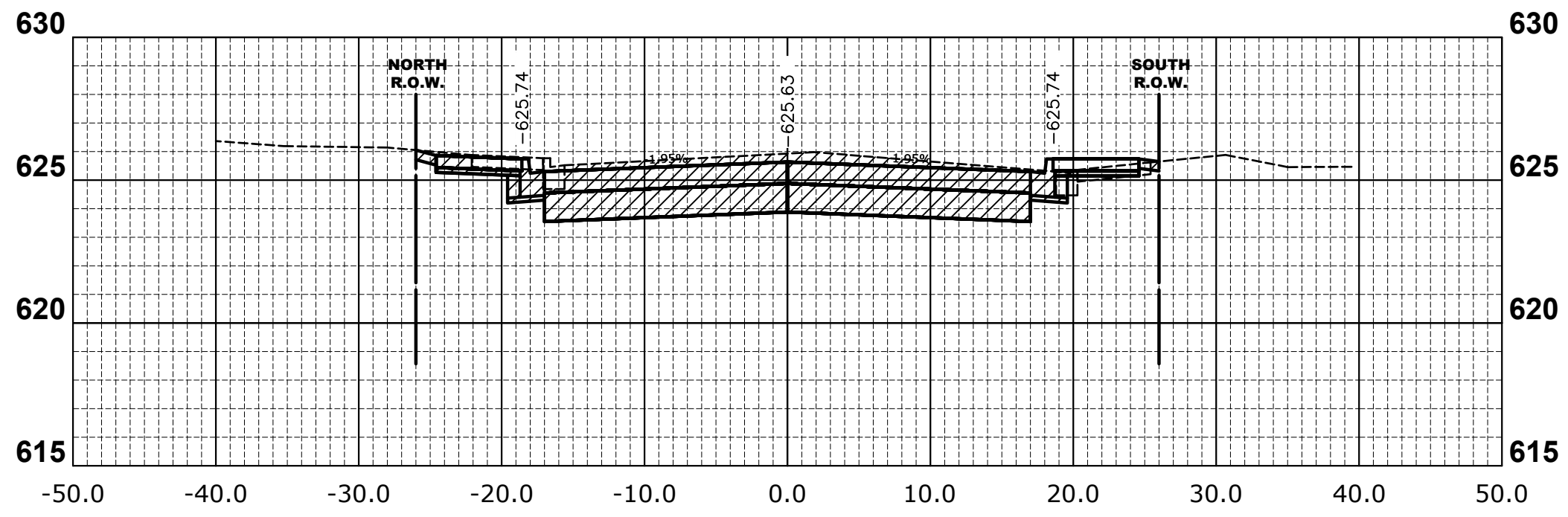
**0+70.60**

CUT = 65.60 SQ. FT.



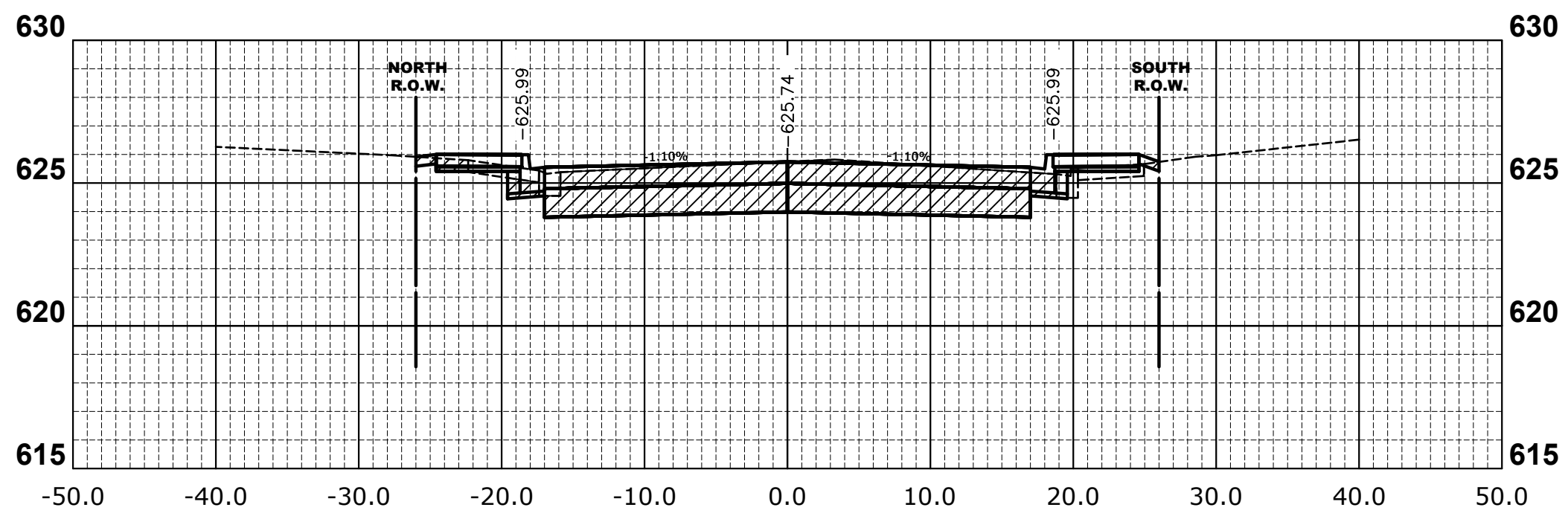
**3+50.00**

CUT = 74.45 SQ. FT.



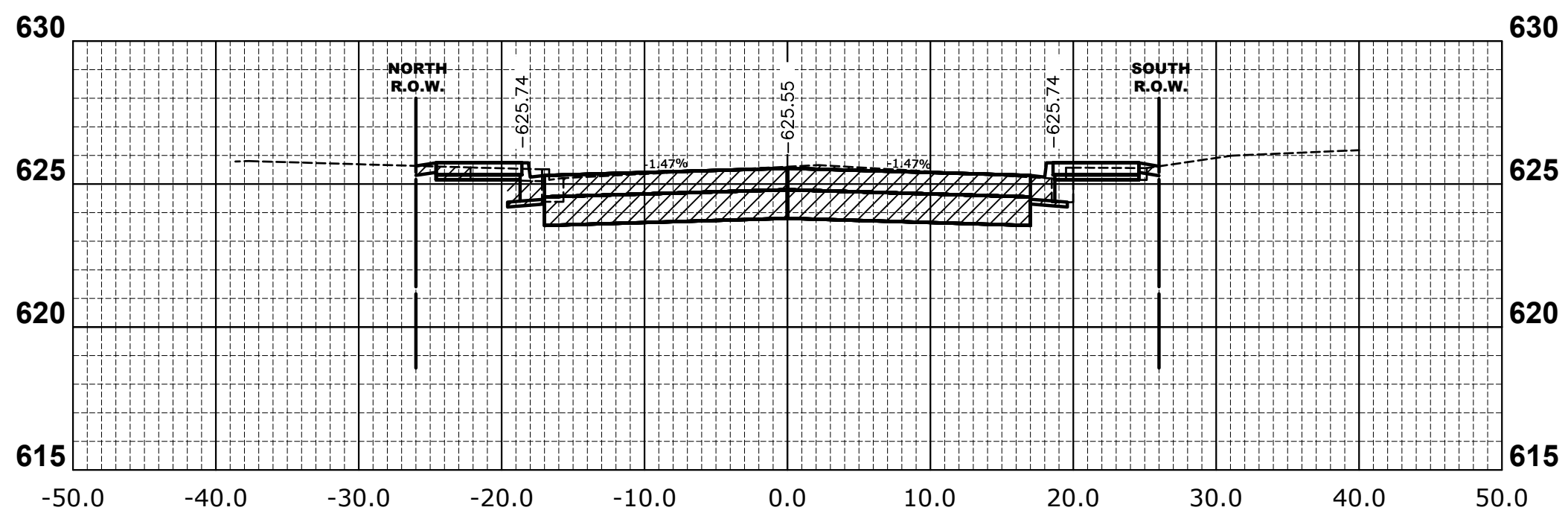
**3+00.00**

CUT = 61.06 SQ. FT.



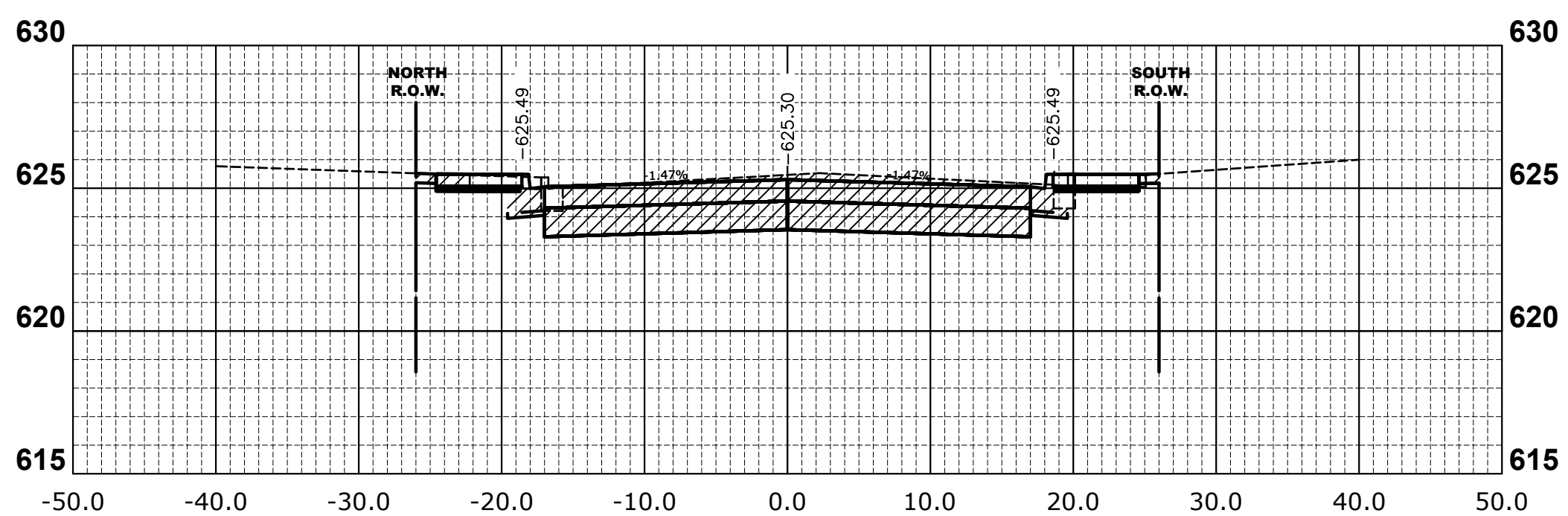
**2+50.00**

CUT = 64.05 SQ. FT.



**2+00.00**

CUT = 70.45 SQ. FT.



100+ Years of Excellence  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: H:1"=10', V:1"=5' SHEET NO. 1 OF 5 SHEETS STA. 0+70 TO STA. 3+50

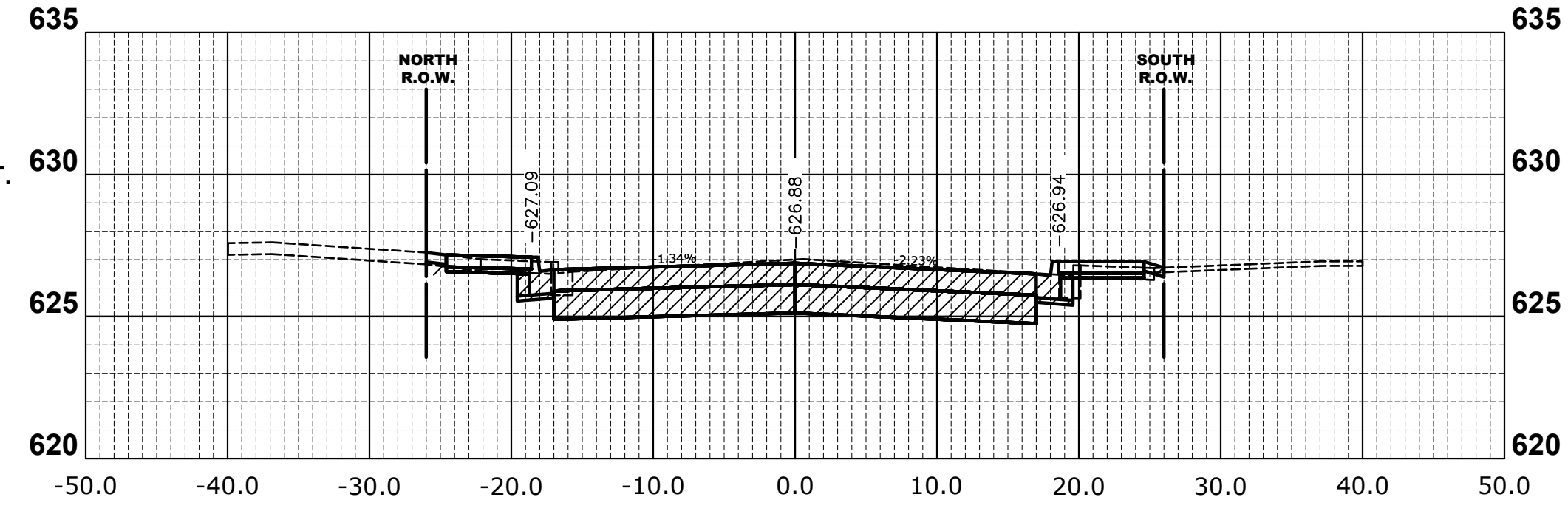
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	52
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\XSECT\XSECT.dwg Jun 11, 2019 - 1:47pm

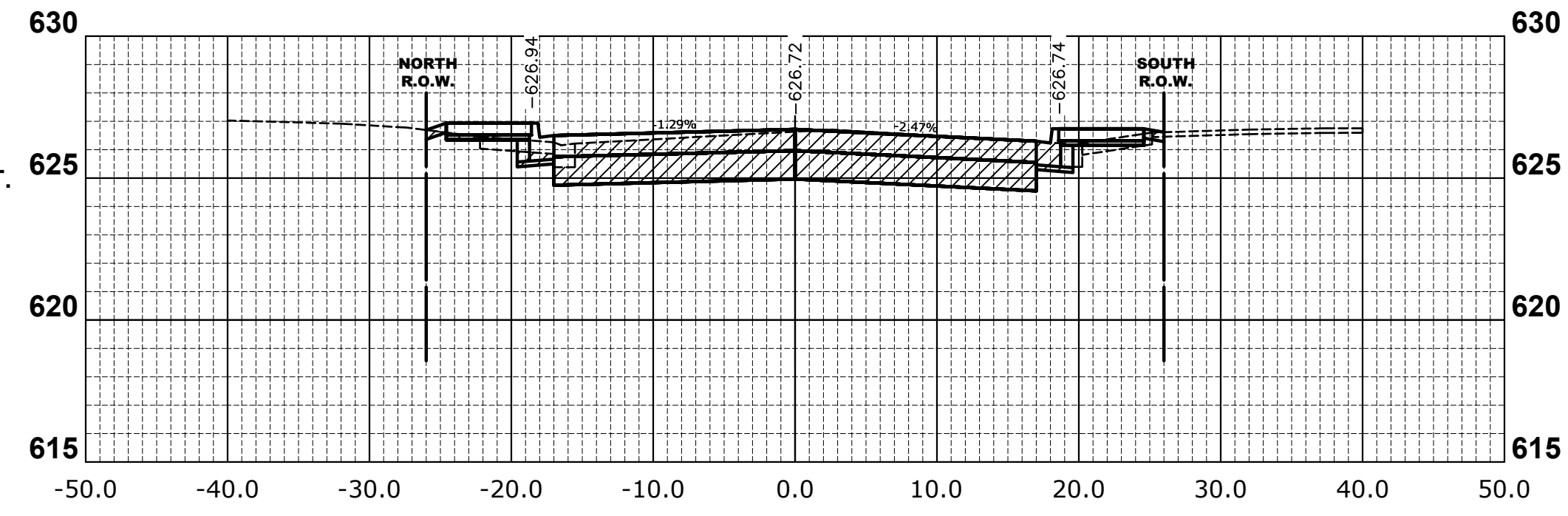
**5+75.00**

CUT = 65.40 SQ. FT.



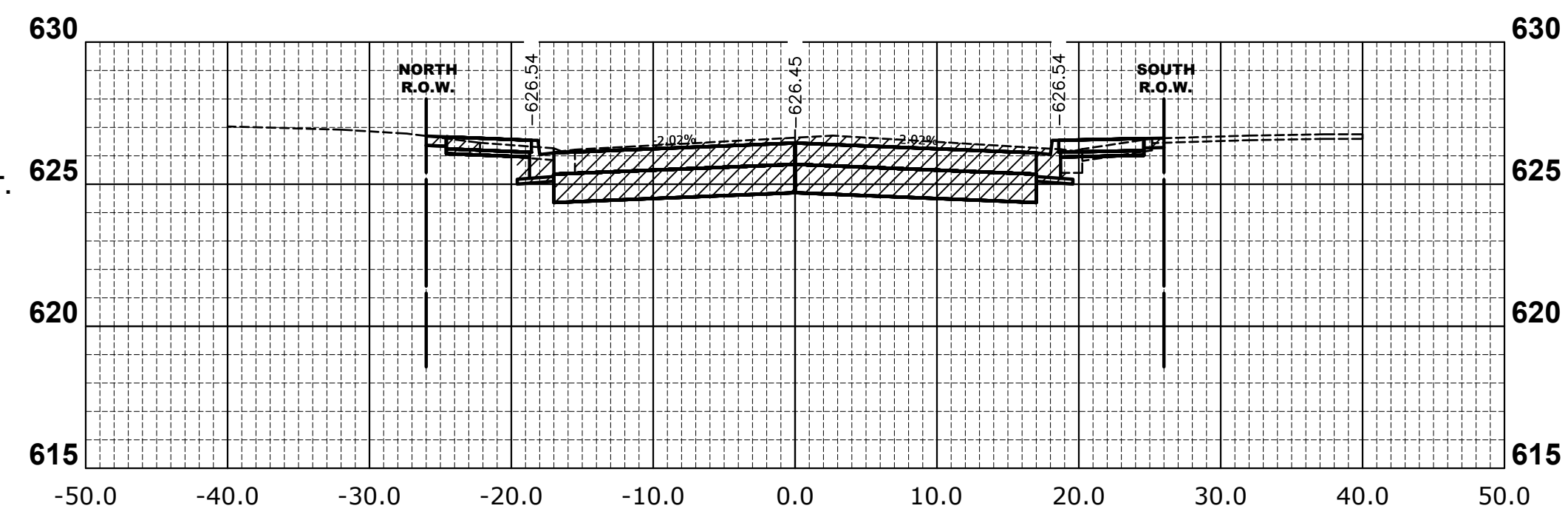
**5+50**

CUT = 58.98 SQ. FT.



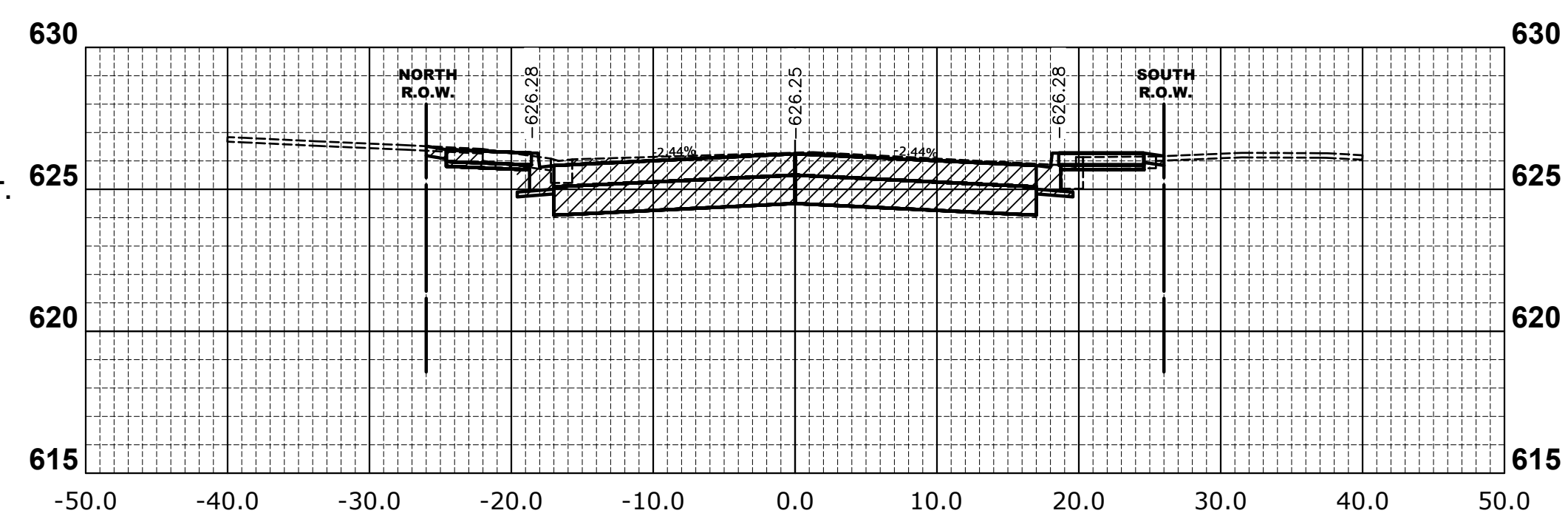
**5+00.00**

CUT = 71.12 SQ. FT.



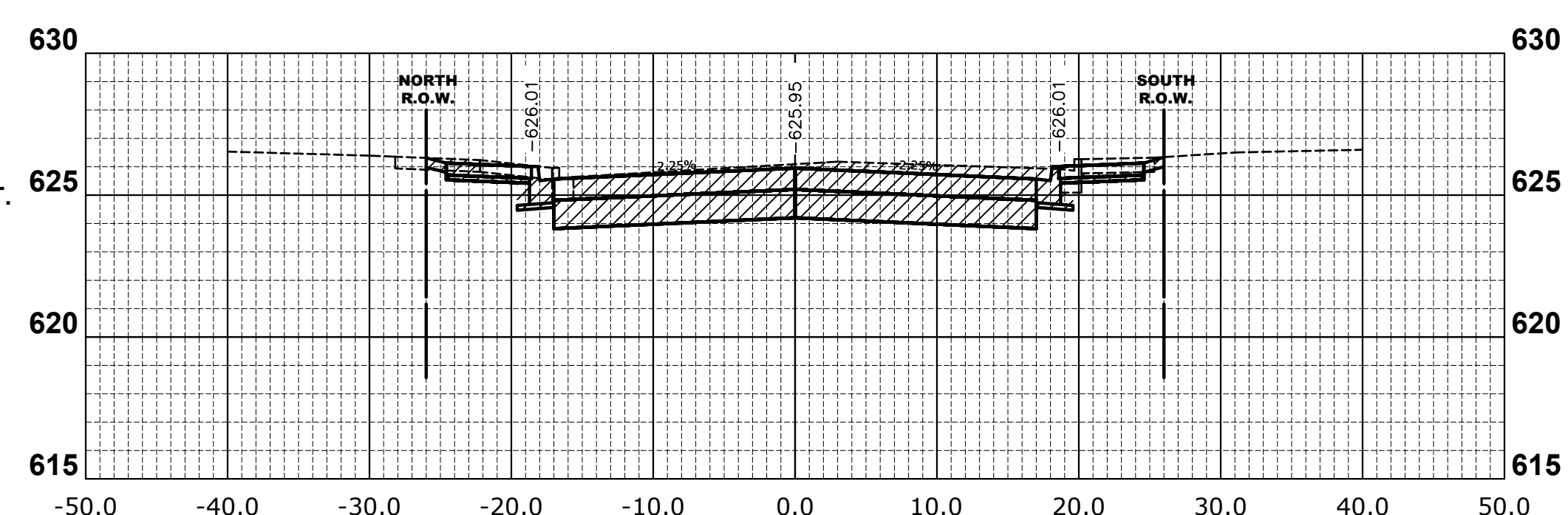
**4+50.00**

CUT = 69.29 SQ. FT.



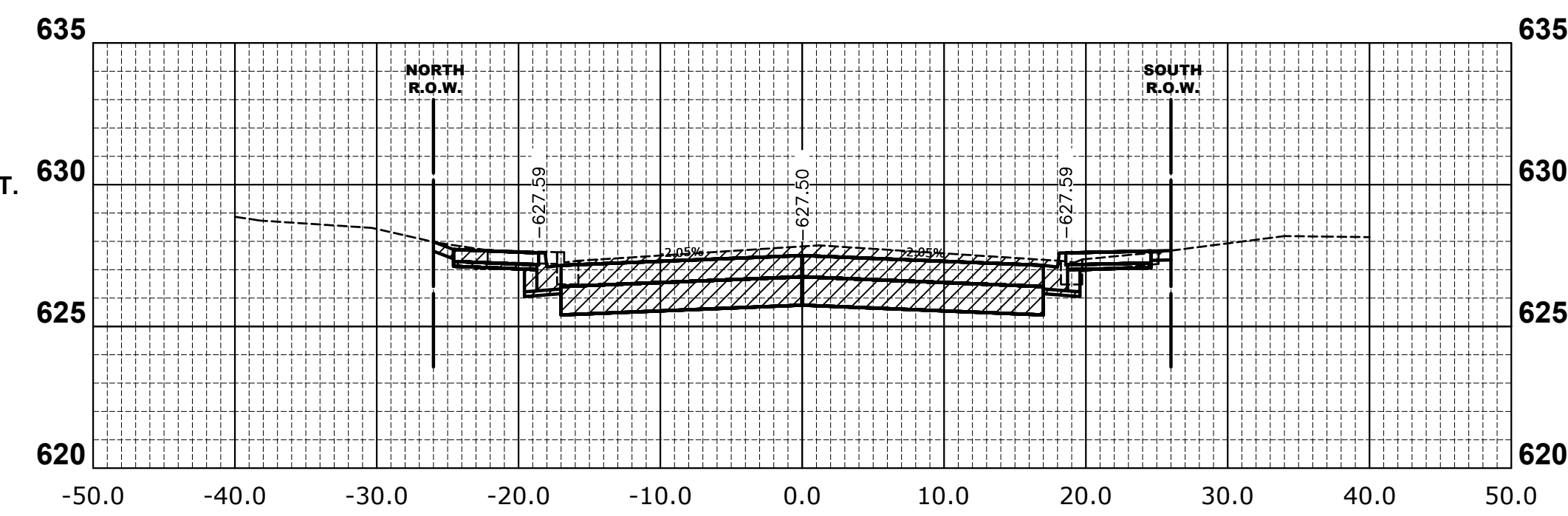
**4+00.00**

CUT = 75.51 SQ. FT.



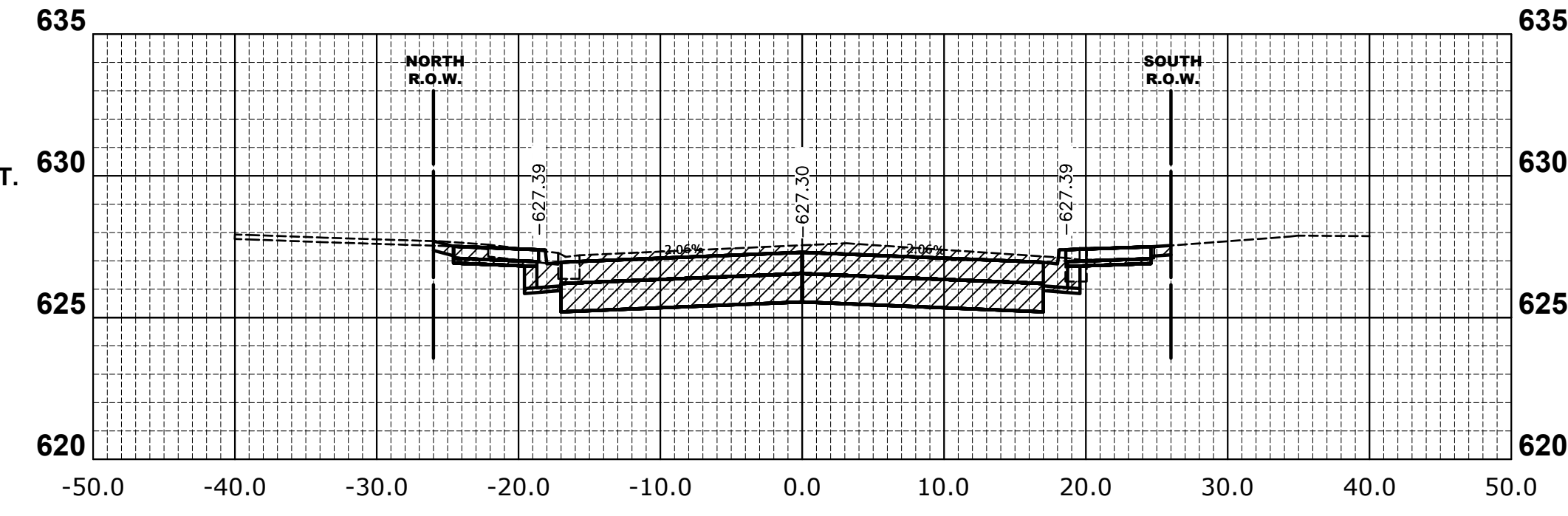
**7+50.00**

CUT = 75.02 SQ. FT.



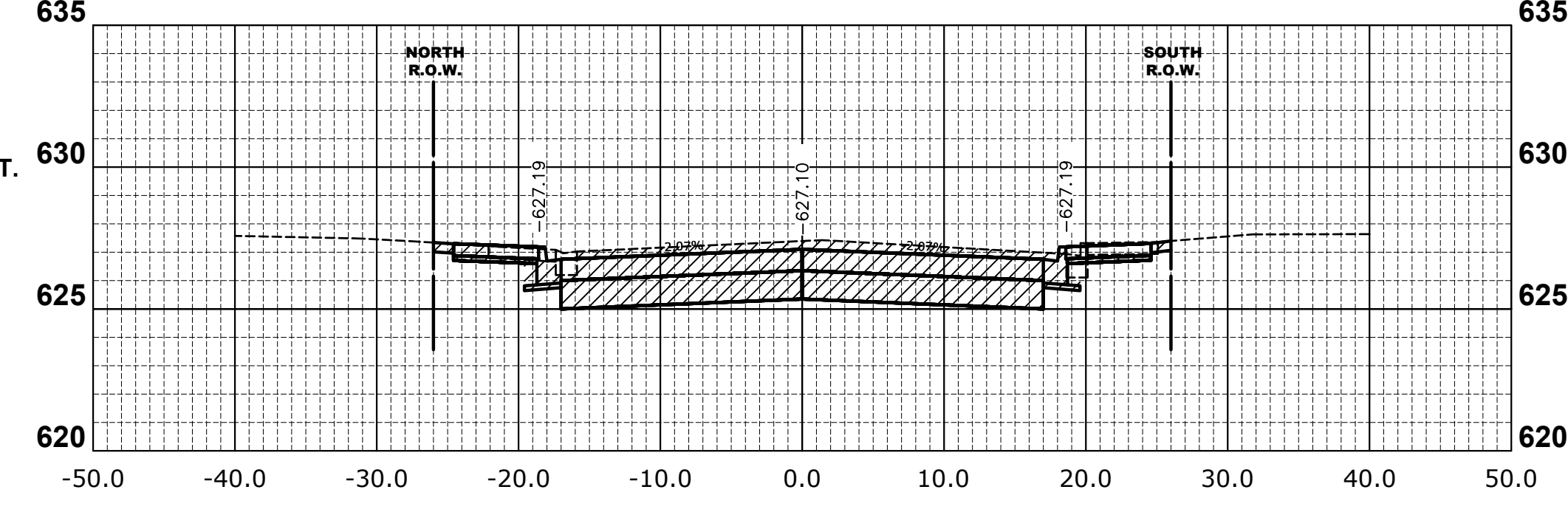
**7+00.00**

CUT = 75.88 SQ. FT.



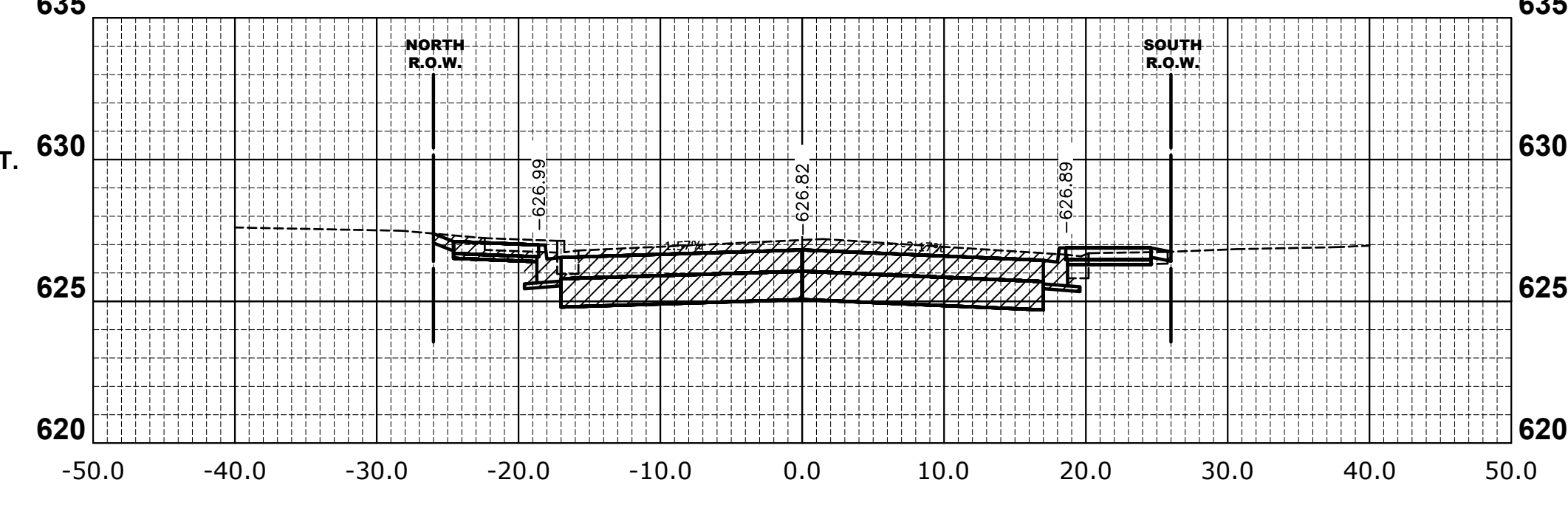
**6+50.00**

CUT = 76.69 SQ. FT.



**6+00.00**

CUT = 77.98 SQ. FT.



100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

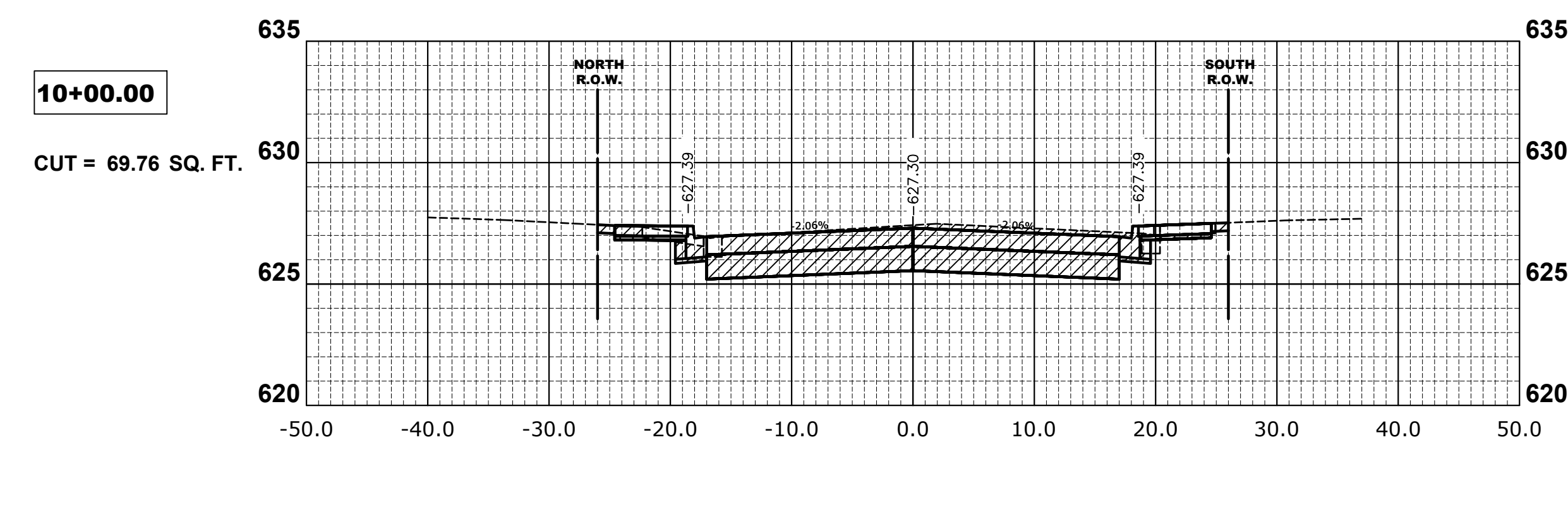
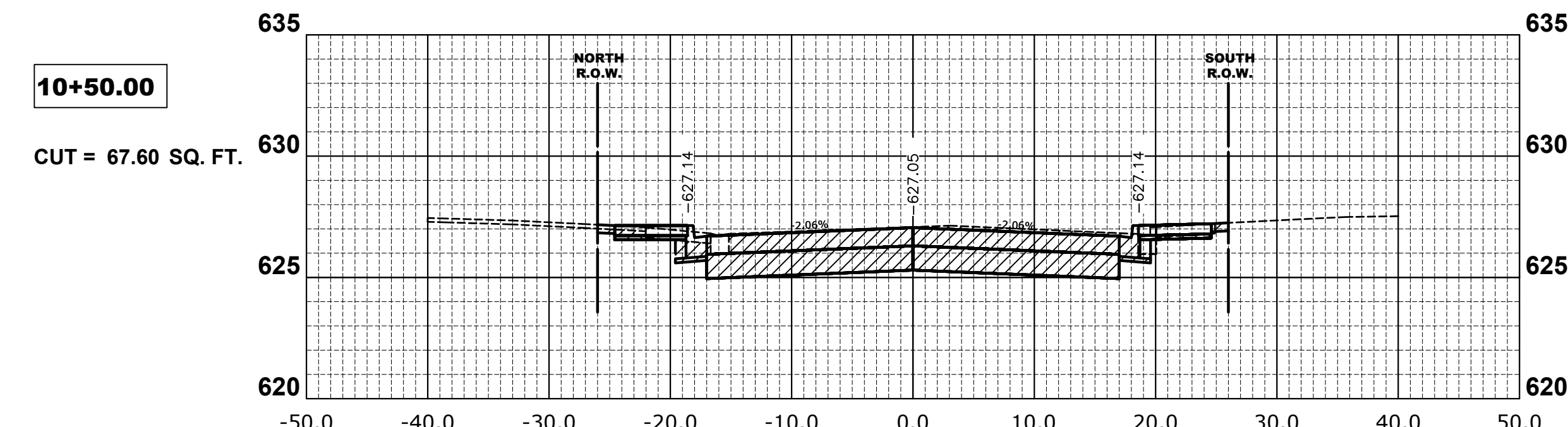
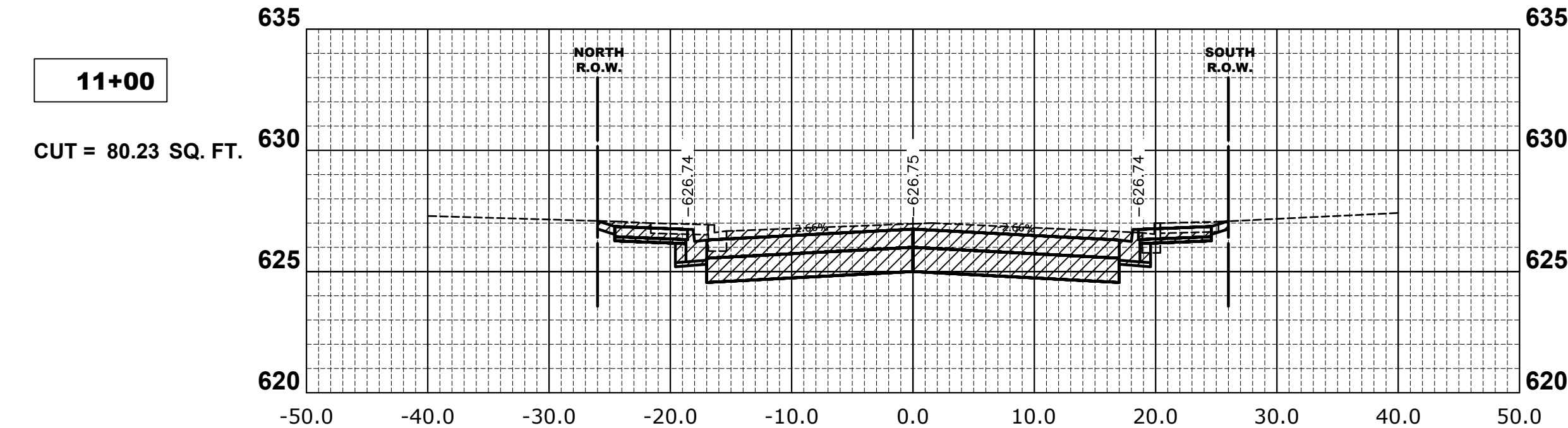
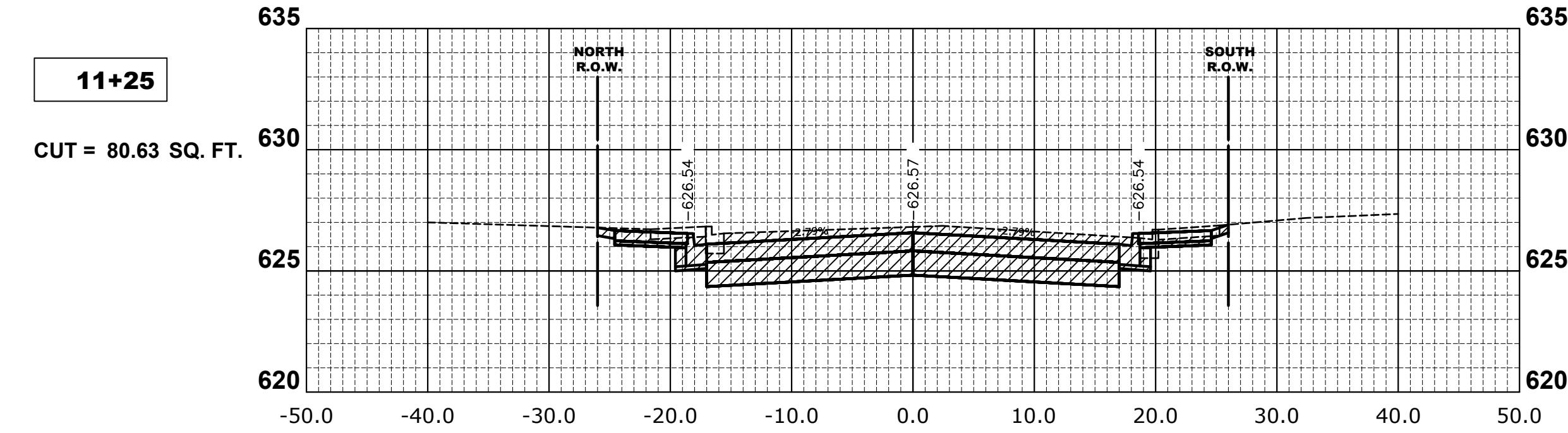
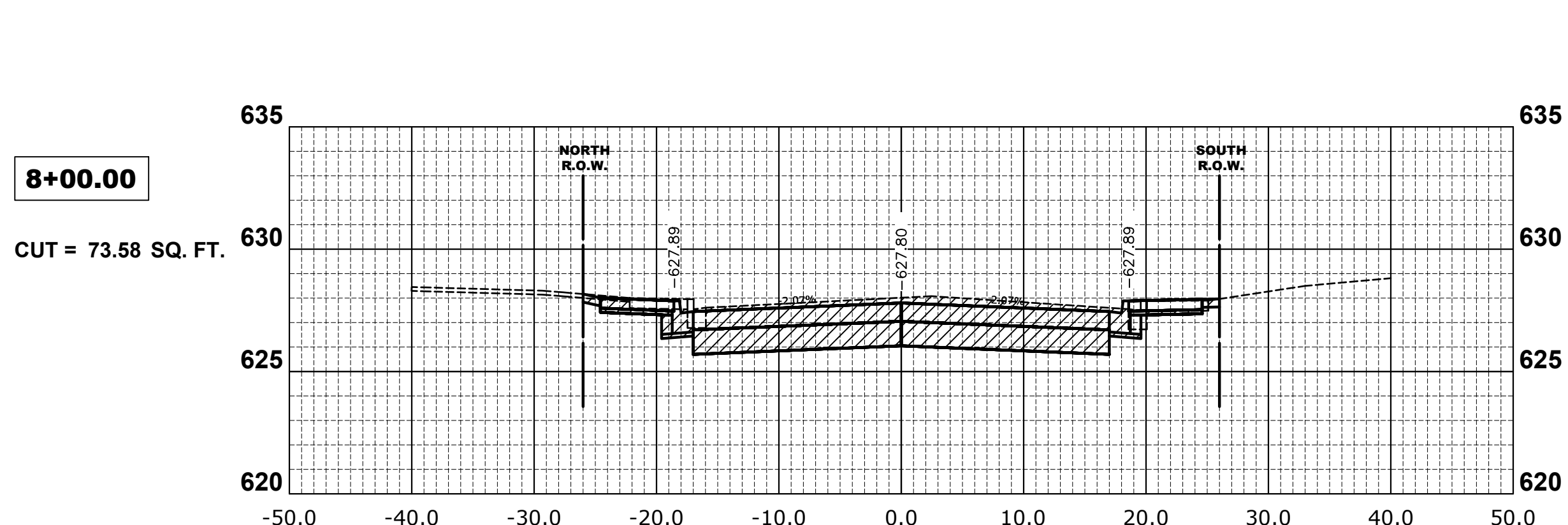
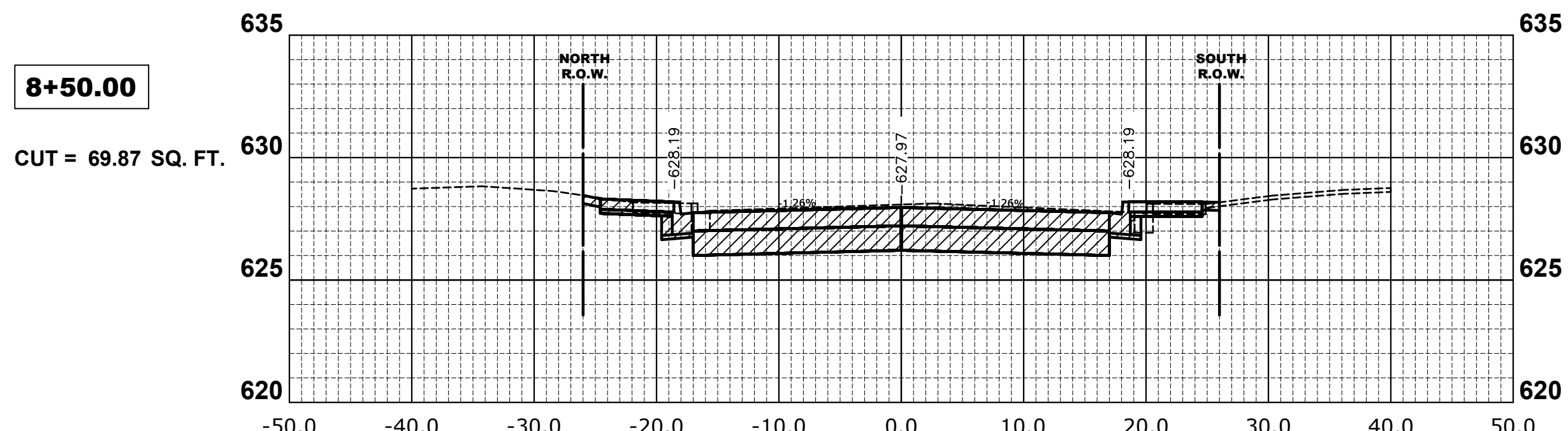
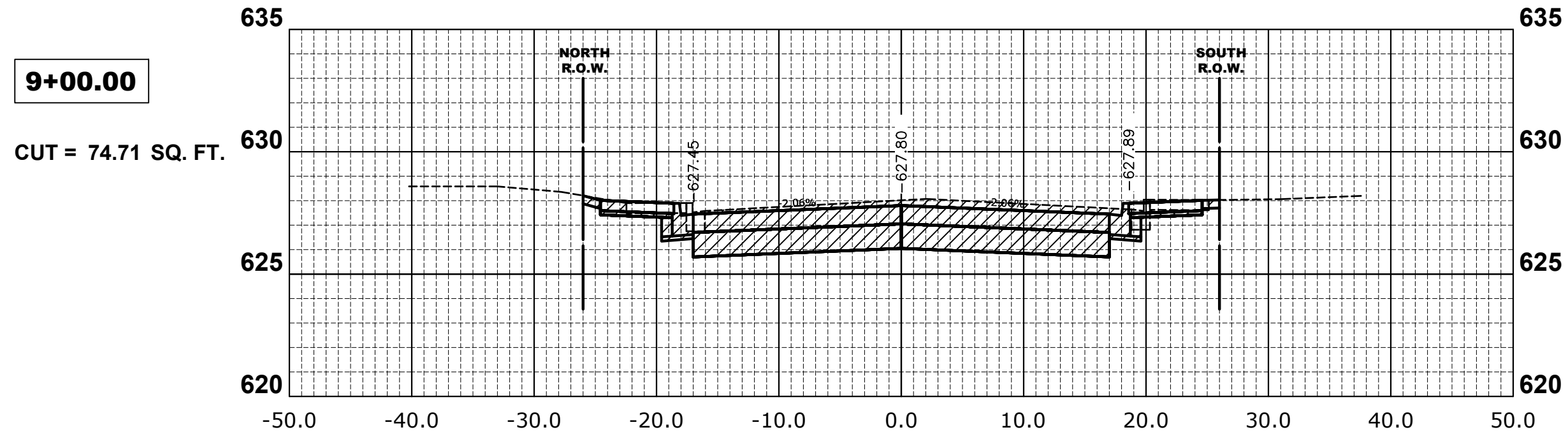
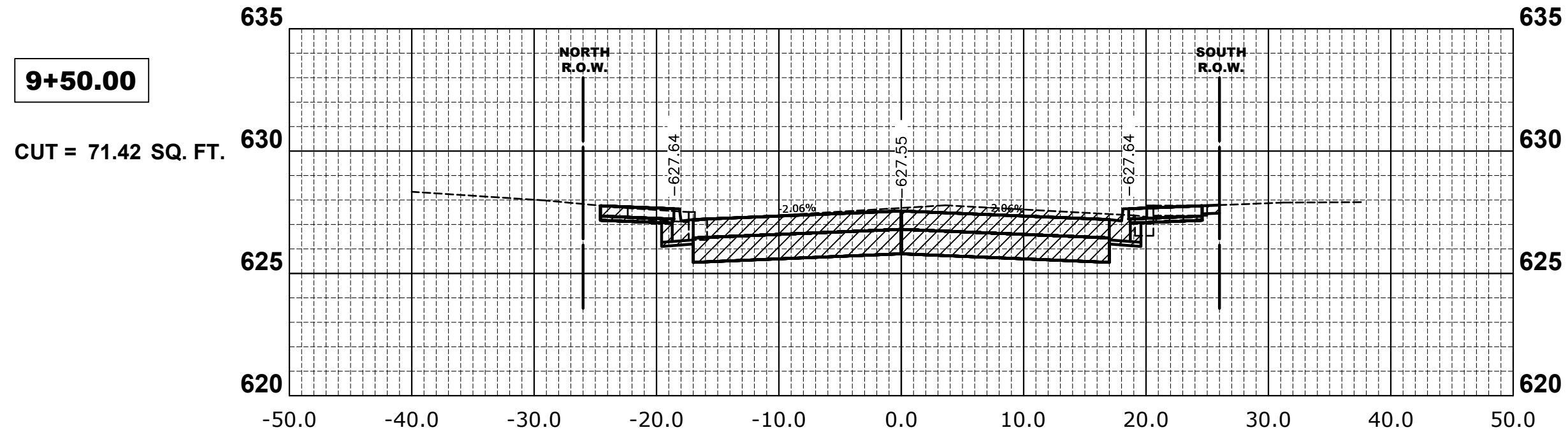
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS</b>	
SCALE: H:1"=10', V:1"=5'	SHEET NO. 2 OF 5 SHEETS
STA. 4+00	TO STA. 7+50

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	53
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Brega Drive Stage 1 - Design\CAD\XSECT\XSECT.dwg Jan 11, 2019 - 1:48pm



100+ Years of Excellence  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -
DRAWN -	DMM, SFB	REVISED -
CHECKED -	JGG	REVISED -
DATE -	12/18/18	REVISED -

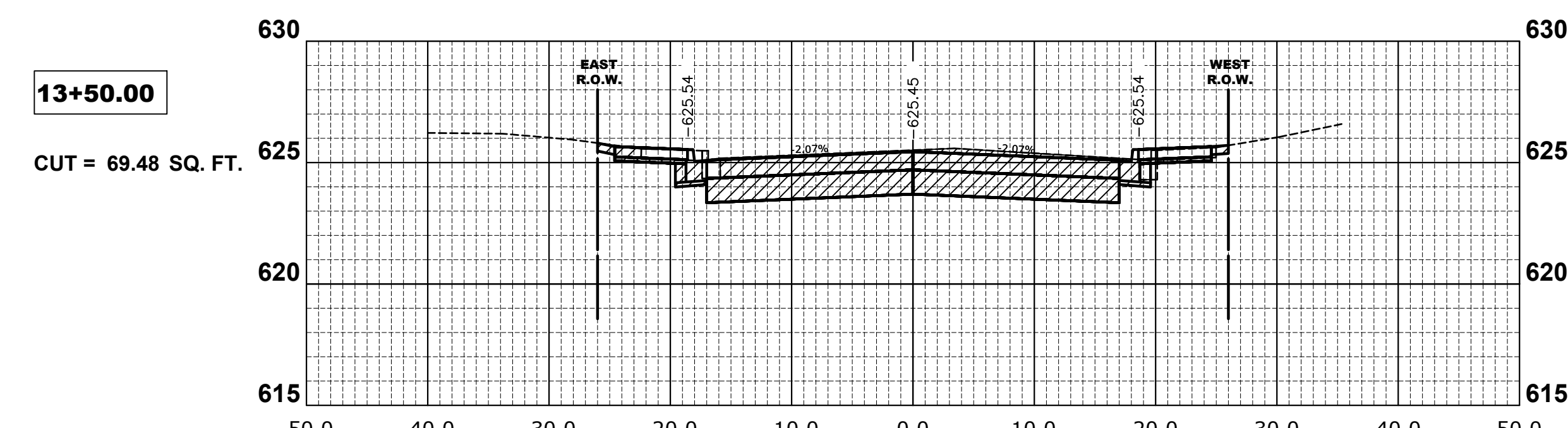
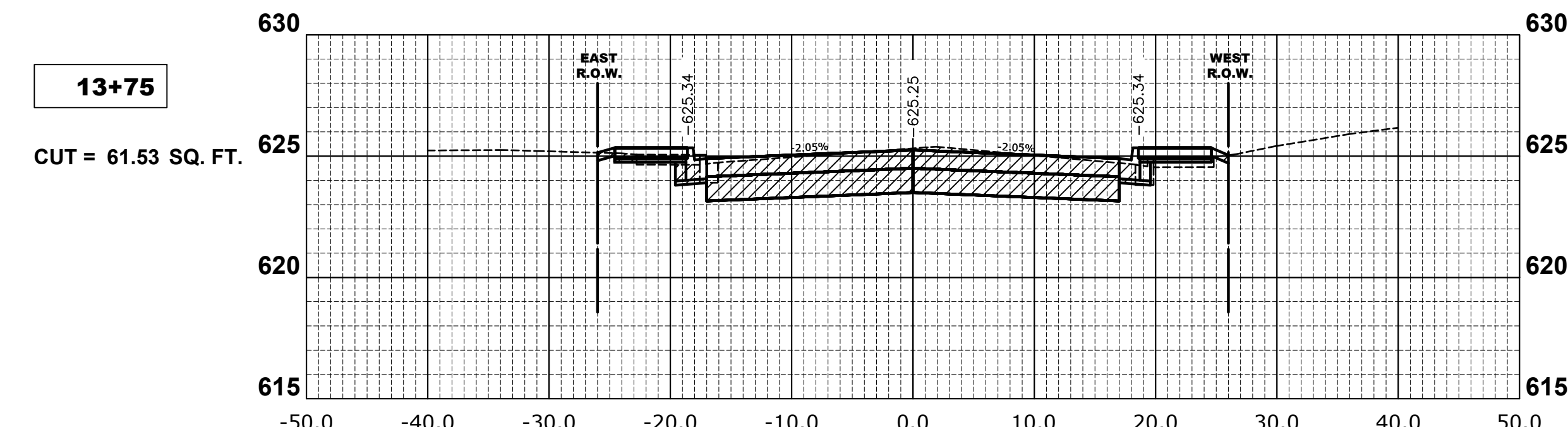
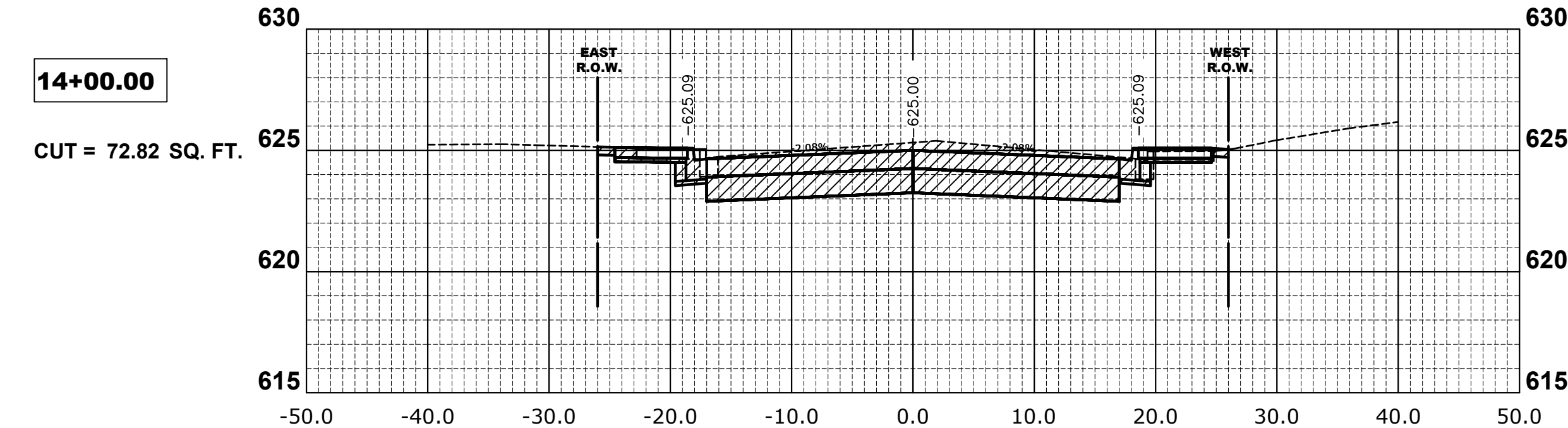
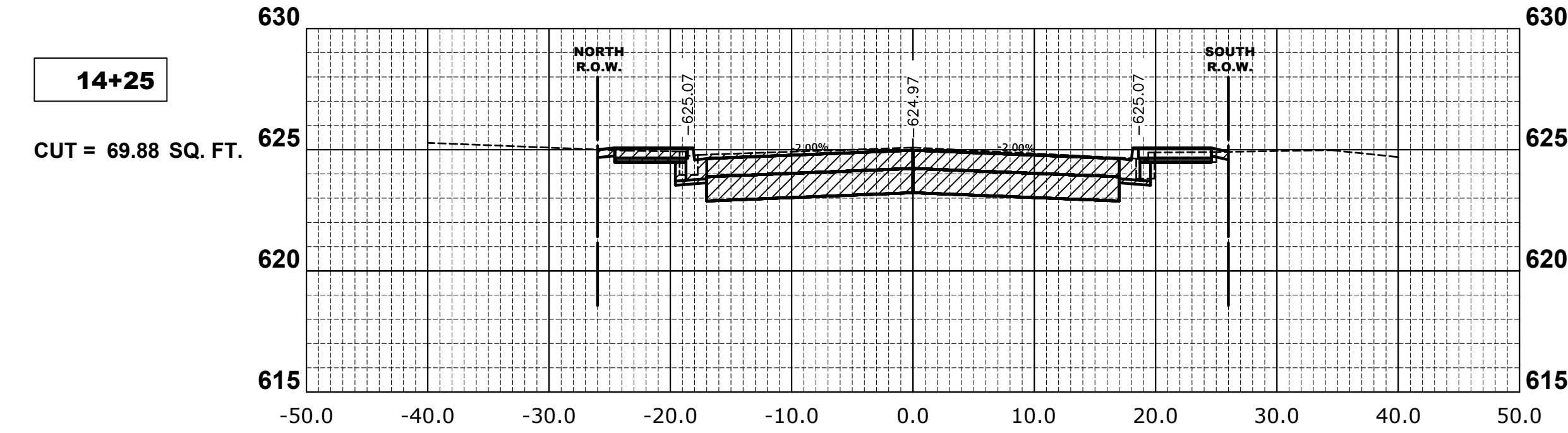
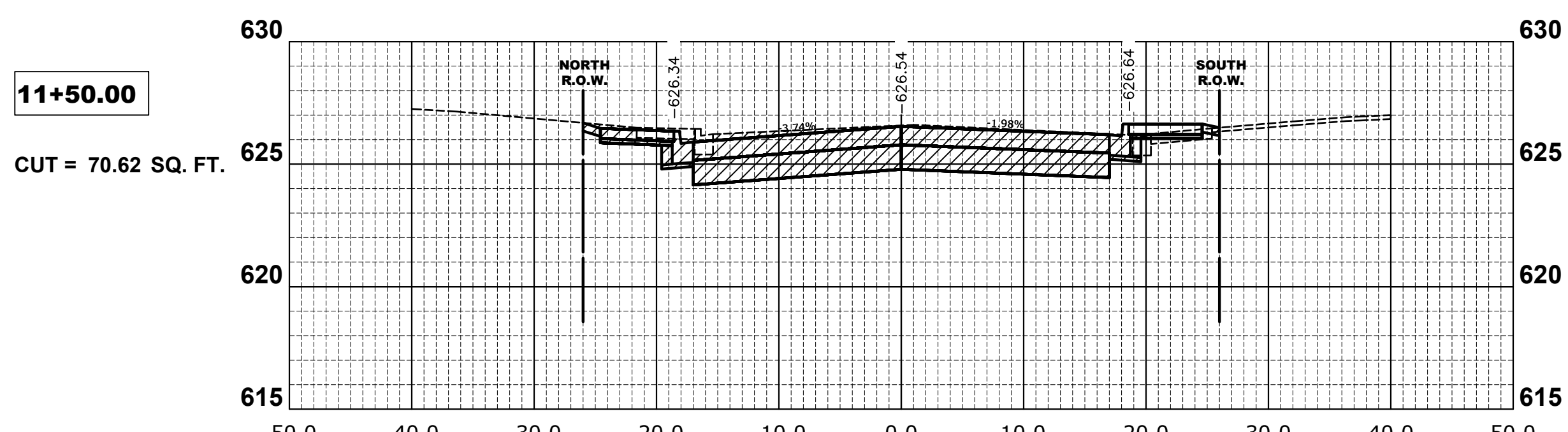
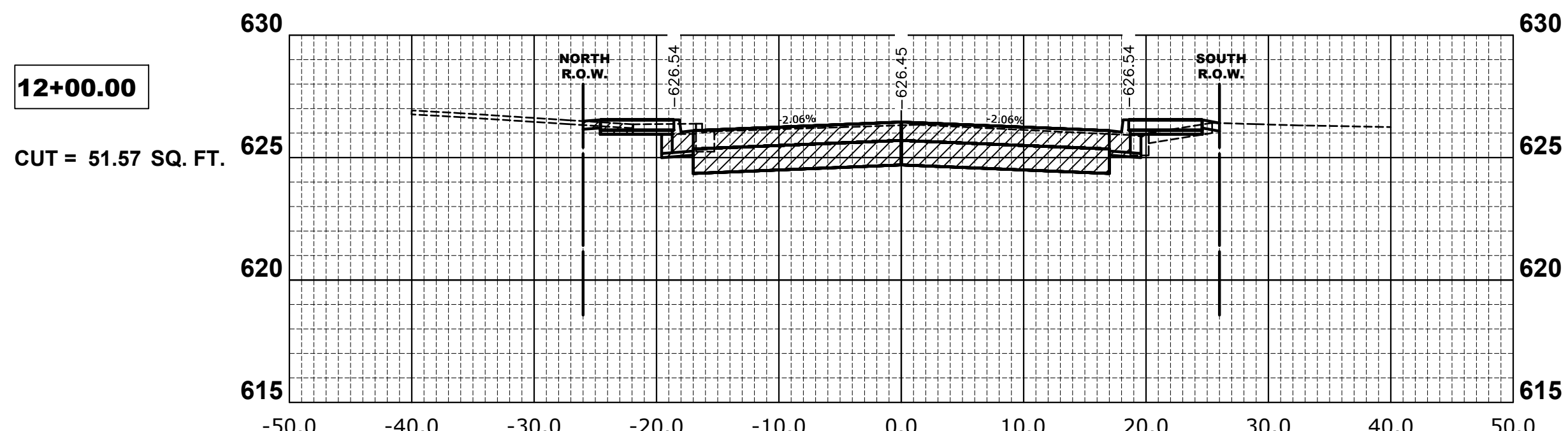
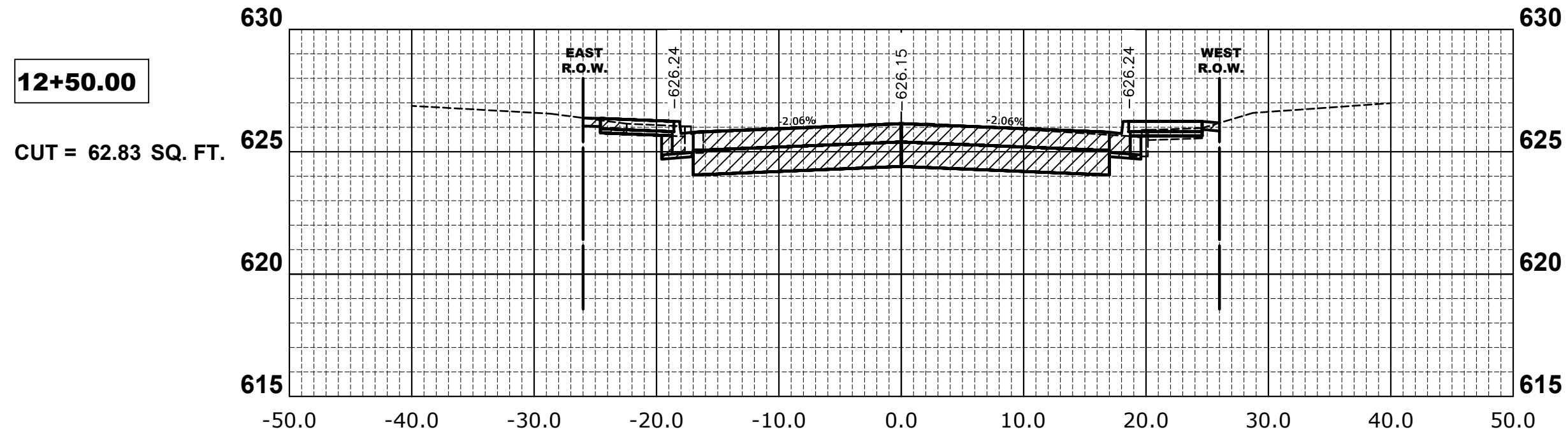
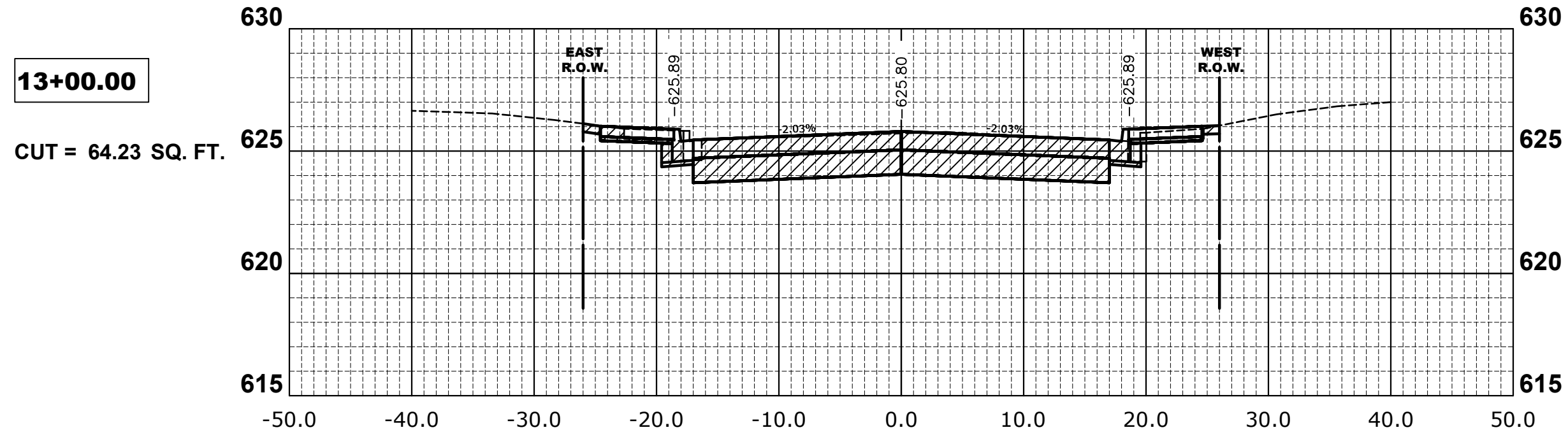
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
 SCALE: 1"=10', V: 1"=5'  
 SHEET NO. 3 OF 5 SHEETS  
 STA. 8+00 TO STA. 11+25

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	54
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Broad Drive Stage 1 - Design\CAD\XSECT\XSECT.dwg Jan 11, 2019 - 1:49pm



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: H:1"=10', V:1"=5'    SHEET NO. 4 OF 5 SHEETS    STA. 11+50 TO STA. 14+25

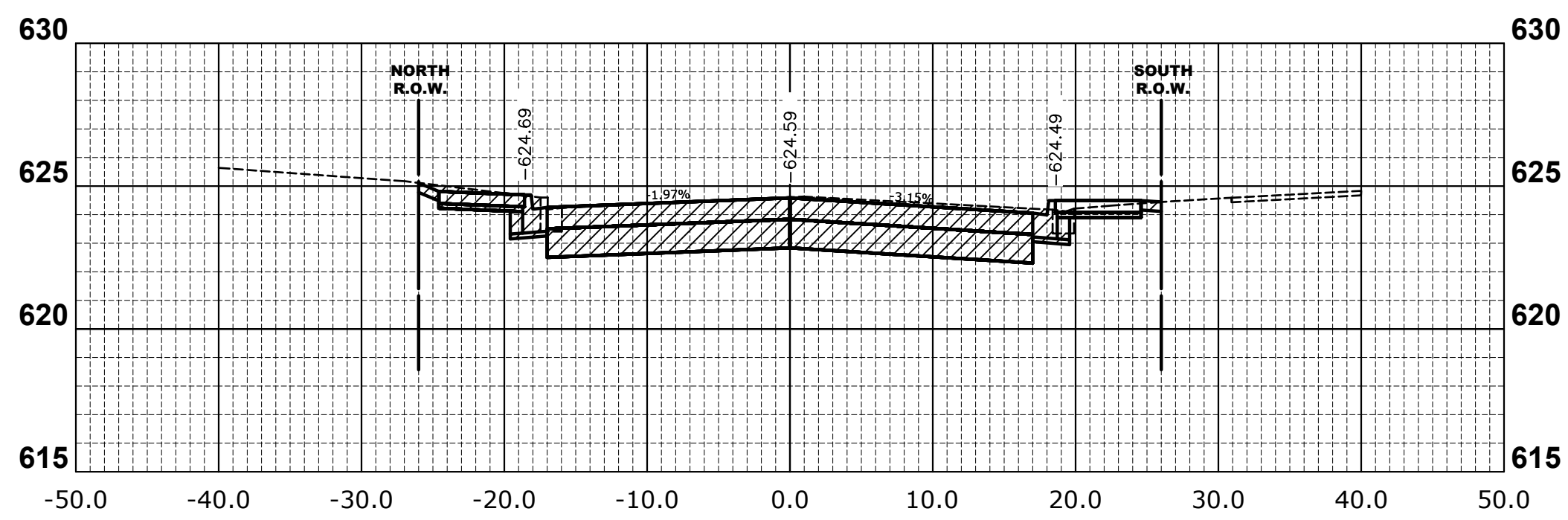
MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	55
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

E.H.E. PROJECT NO. 120-17-28301

Drawing file: W:\Projects\_by\_Village\Broadview\12017283 - Brega Drive Stage 1 - Design\CAD\XSECT\XSECT.dwg Jan 11, 2019 - 1:50pm

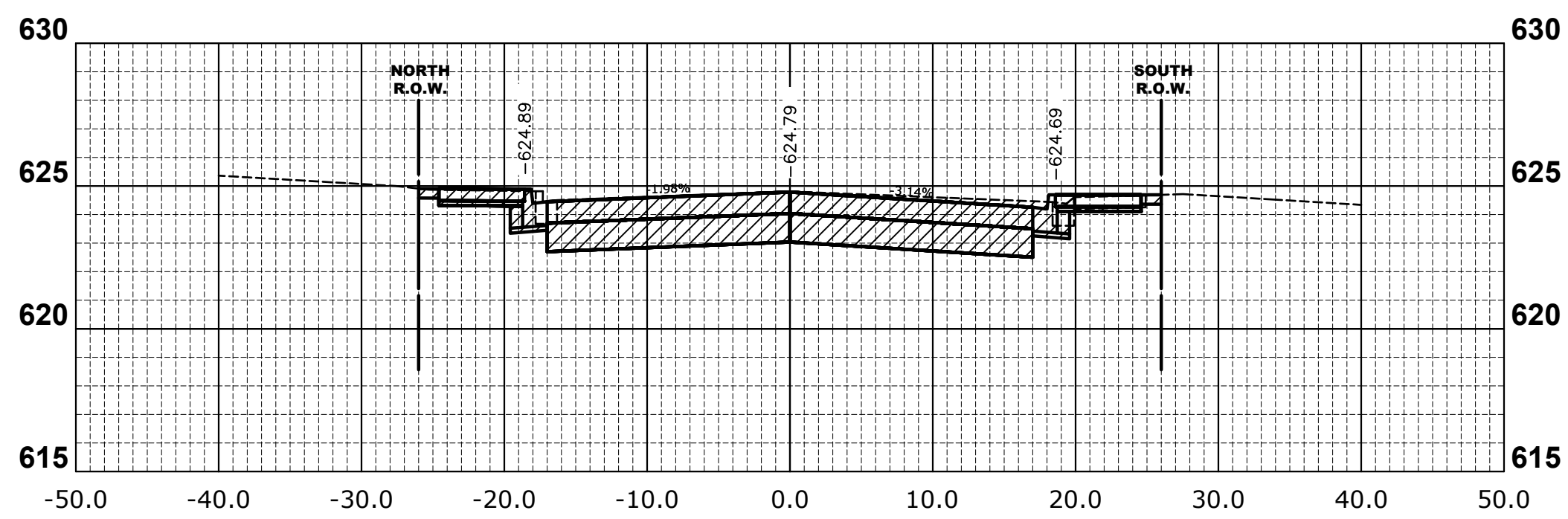
**15+50.00**

CUT = 70.21 SQ. FT.



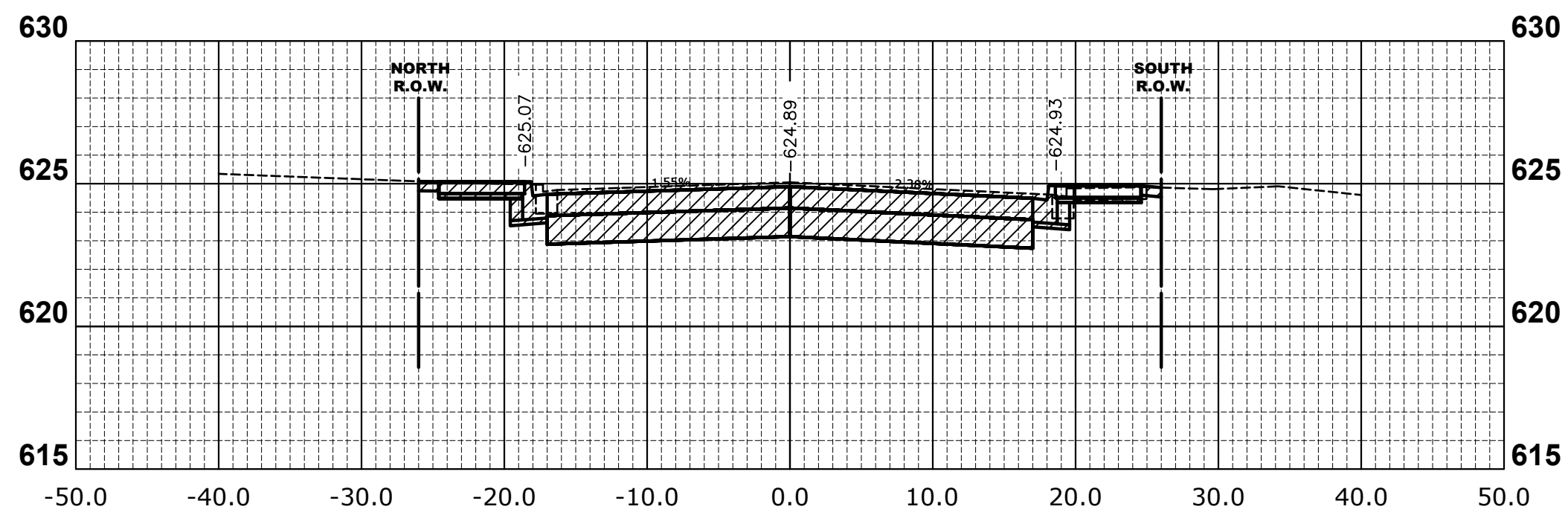
**15+00.00**

CUT = 70.50 SQ. FT.



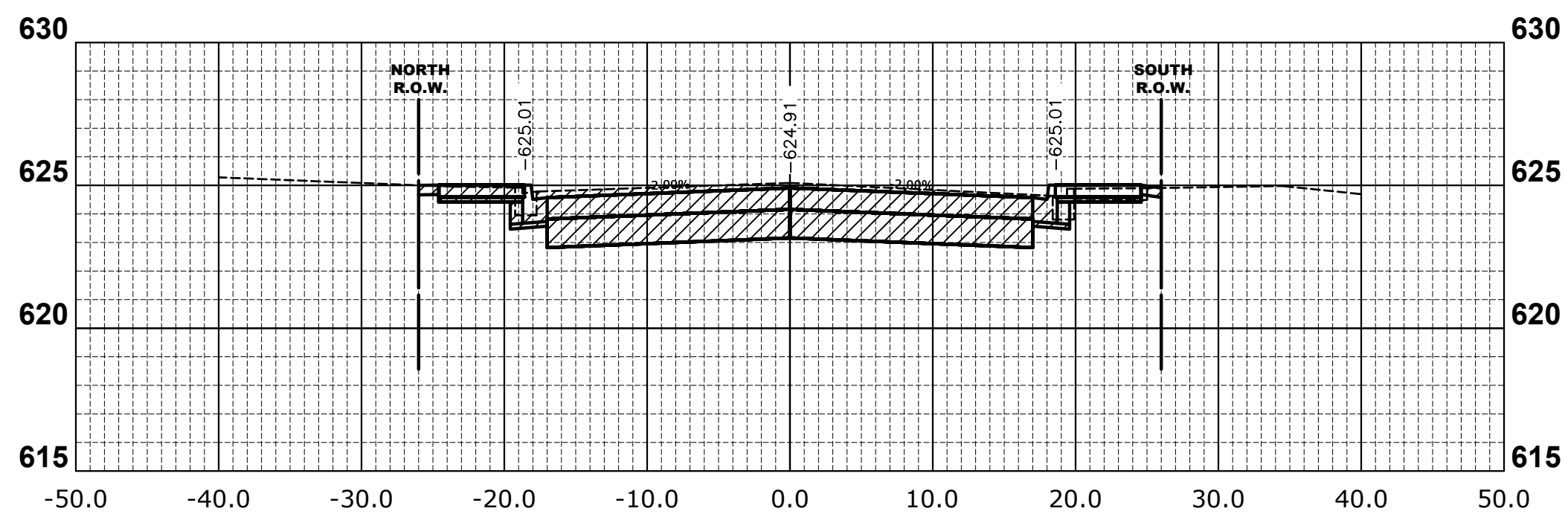
**14+56.22**

CUT = 72.85 SQ. FT.



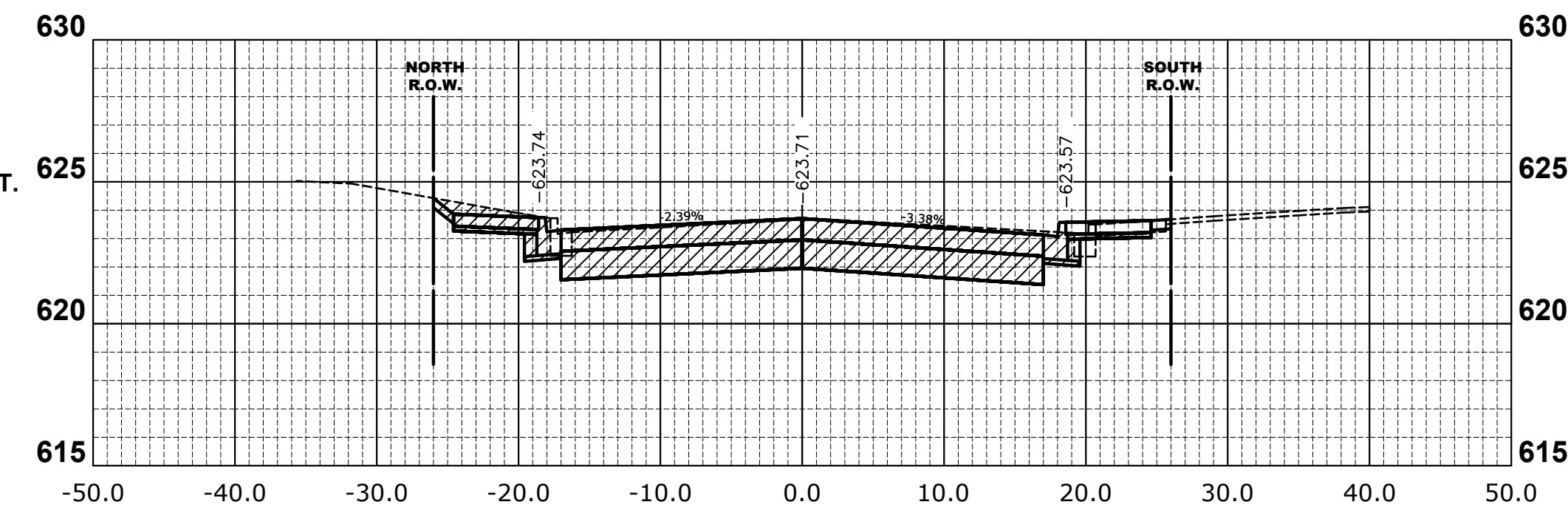
**14+50.00**

CUT = 72.83 SQ. FT.



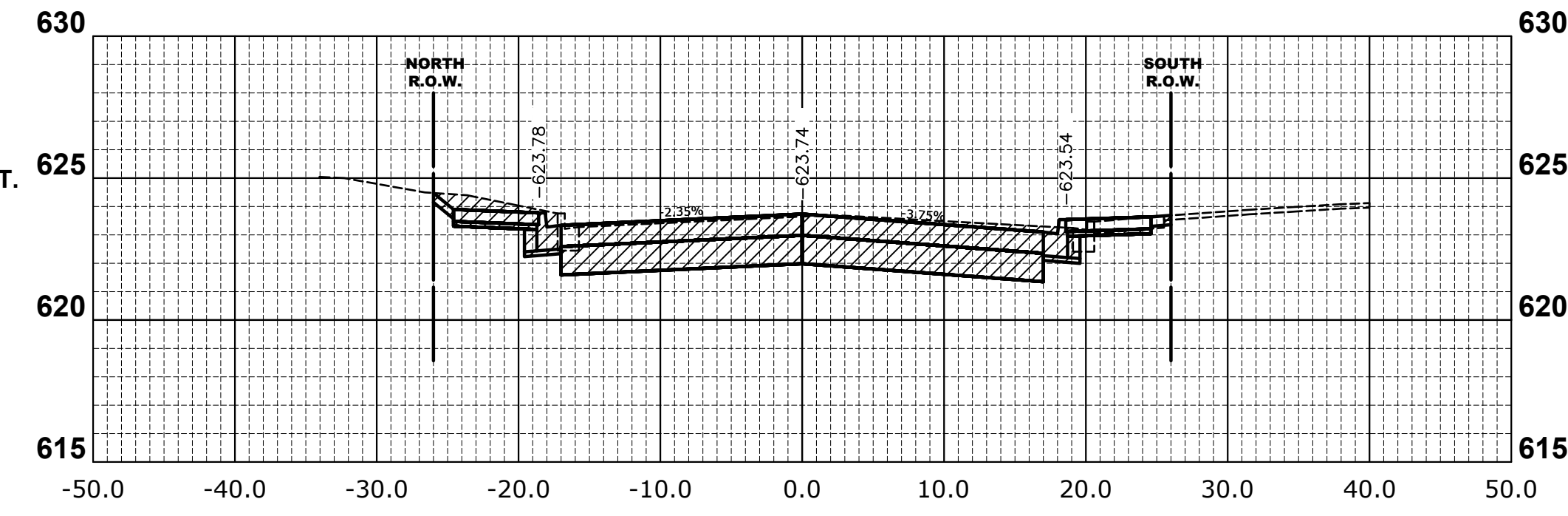
**17+45**

CUT = 70.23 SQ. FT.



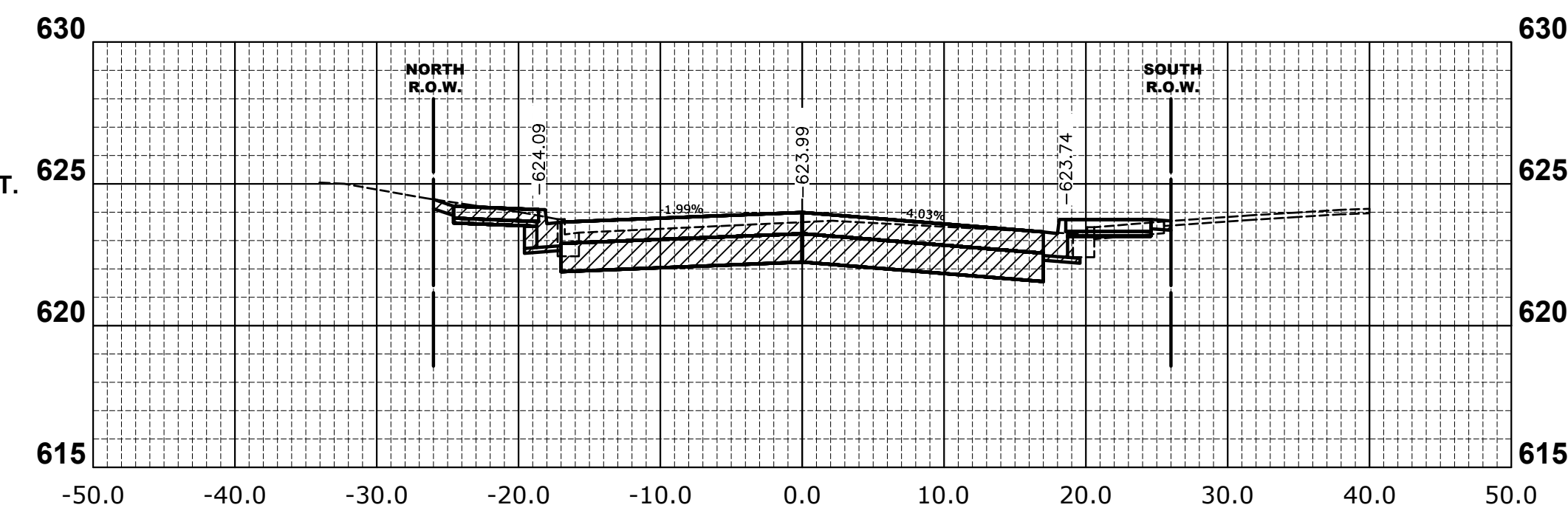
**17+40**

CUT = 71.53 SQ. FT.



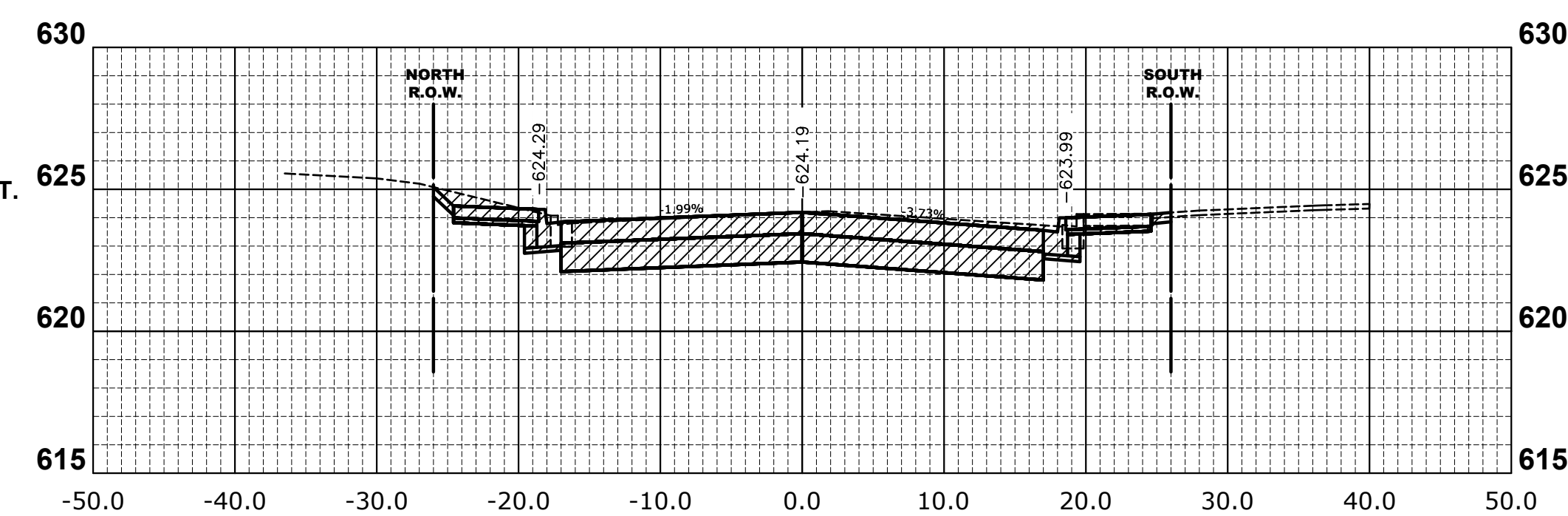
**17+00**

CUT = 58.76 SQ. FT.



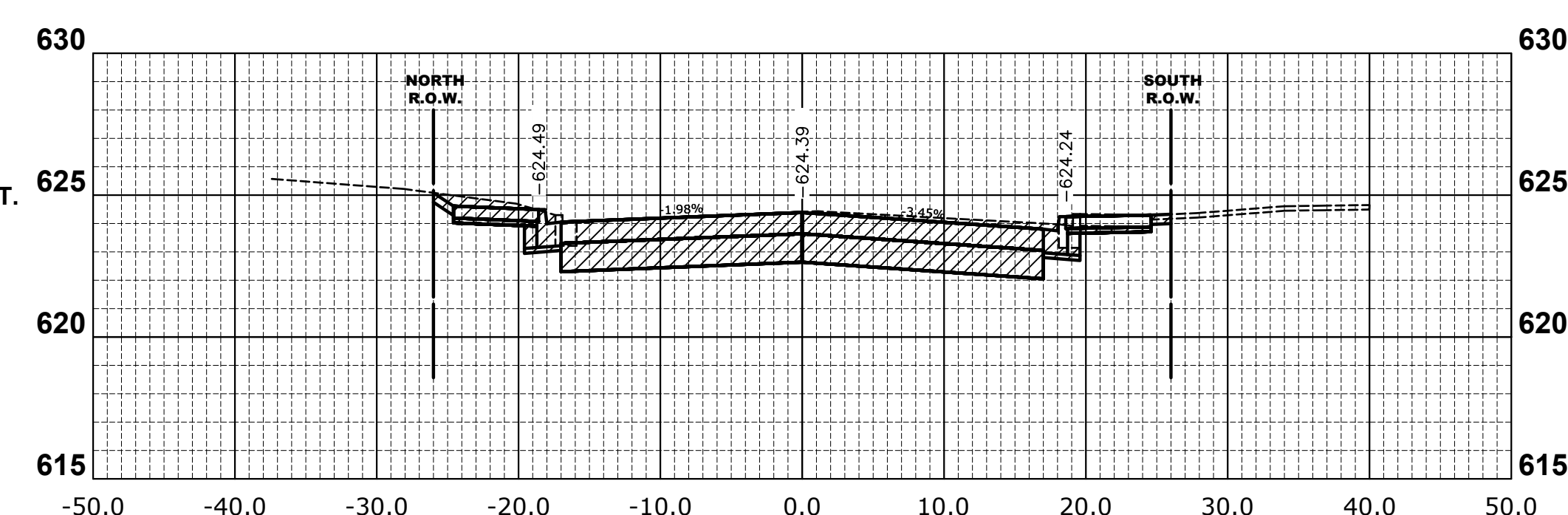
**16+50.00**

CUT = 71.92 SQ. FT.



**16+00.00**

CUT = 72.51 SQ. FT.



♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911  
 9933 Roosevelt Road  
 Westchester, IL 60154-2780  
 Phone: 708-845-0300  
 www.hancock.com

DESIGNED -	MWV	REVISED -	
DRAWN -	DMM, SFB	REVISED -	
CHECKED -	JGG	REVISED -	
DATE -	12/18/18	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: H:1"=10', V:1"=5'    SHEET NO. 5 OF 5 SHEETS    STA. 14+50 TO STA. 17+45

MUN. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3015	16-00080-00-PV	COOK	56	56
FIELD BOOK NO. : -		CONTRACT NO. 61F39		
FED. ROAD DIST. NO. 1		ILLINOIS		
		FED. AID PROJECT		

E.H.E. PROJECT NO. 120-17-28301