

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-1	LAKE	10	1
ILLINOIS			CONTRACT NO. 62H18	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED IN
THE VILLAGE OF GRAYSLAKE

TRAFFIC DATA

2017 ADT = 18000
SPEED LIMIT = 35 MPH

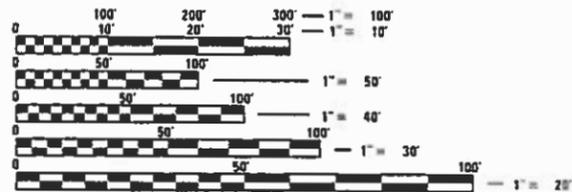
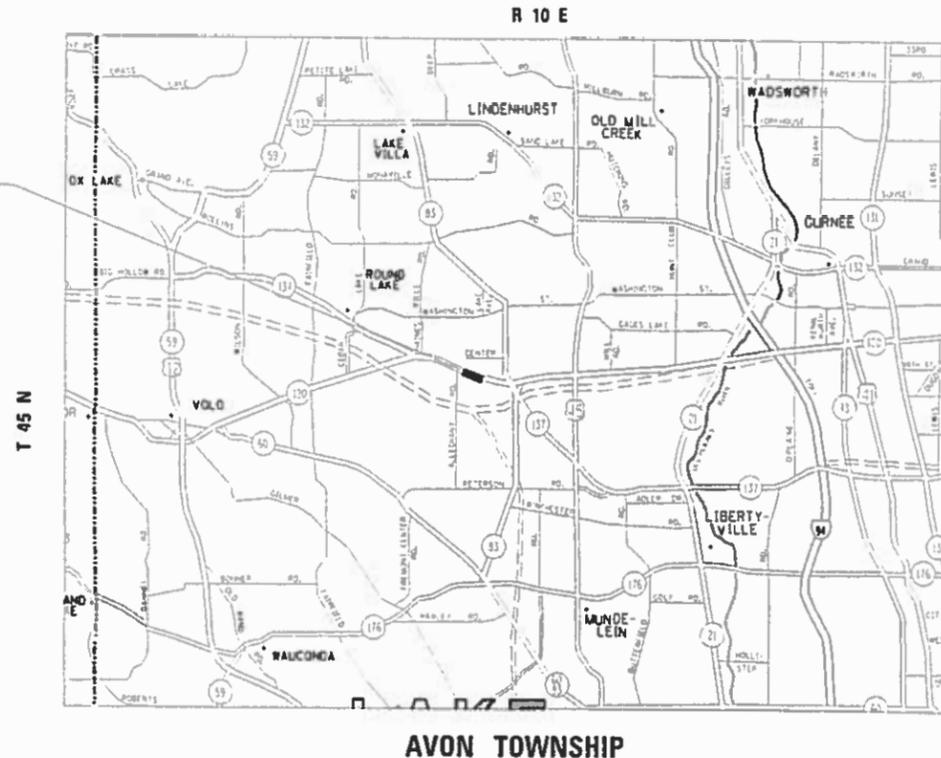
PROPOSED
HIGHWAY PLANS

FAP ROUTE 333: IL 120 (BELVIDERE ROAD)
OVER CREEK WEST OF IL-83
(SN 049-0560)
SECTION: 2018-073-1
CULVERT REPAIR
LAKE COUNTY

C-91-211-19



SN 049-0560
LOCATION OF IMPROVEMENT



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: JEAN ALAIN MIDY (847)221-3056
PROJECT MANAGER: FAWAD AQUEEL (847)705-4247

CONTRACT NO. 62H18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED: MARCH 29 2019
Anthony J. Wingley REGIONAL ENGINEER
MAY 10 2019
Paul P. [Signature] ENGINEER OF DESIGN AND ENVIRONMENT
MAY 10 2019
Paul P. [Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	SITE PLAN
5	ROADWAY PLAN DETAIL
6-8	STRUCTURE PLAN
9	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
10	INFORMATION SIGN (TC-22)

STANDARD NO.

DESCRIPTION

280001-07	TEMPORARY EROSION CONTROL SYSTEM
701001-02	OFF-ROAD OPERATIONS 2L, 2W MORE THEN 15' AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701901-08	TRAFFIC CONTROL DEVICES

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF GRAYSLAKE.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 (72 HOURS IN ADVANCE OF BEGINNING WORK).

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.

THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED WITH THE EXCEPTION OF COFFERDAMS WHICH WILL BE PAID FOR AS COFFERDAM (TYPE 1) (IN-STREAM /WETLAND WORK) WITH A BASIS OF PAYMENT OF EACH .

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

MODEL: Default
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 PROJECT: I:\Information.dwg
 USER: hassani
 DATE: 4/25/2019

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	DRAWN -	REVISED -
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PLOT DATE = 4/25/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 (BELVIDERE RD) OVER CREEK WEST OF IL-83
INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES**

SCALE: SHEET 0F SHEETS STA. T0 STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-I	LAKE	10	2
			CONTRACT NO. 62H18	
		ILLINOIS	FED. AID PROJECT	

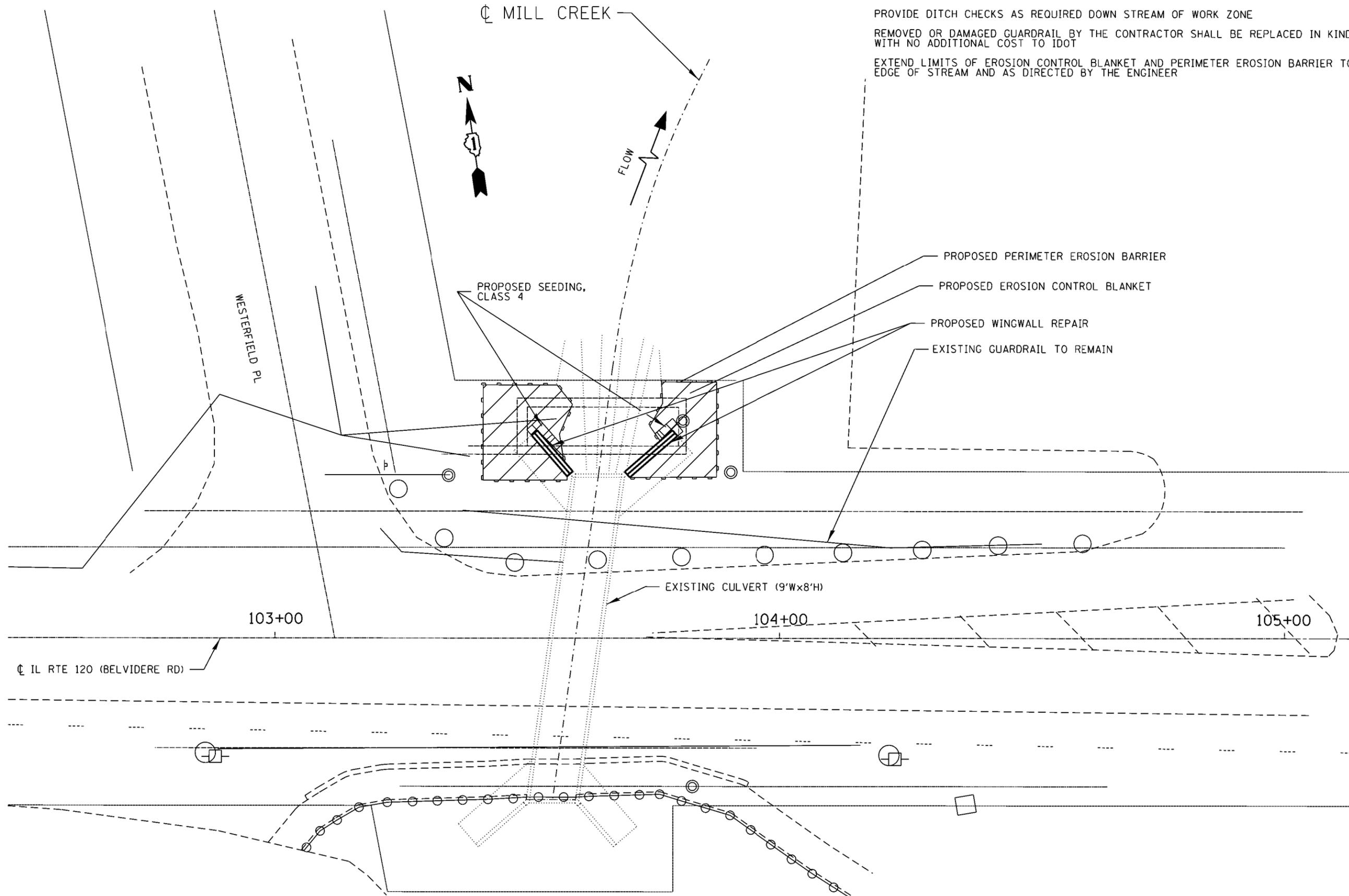
SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		ROADWAY 0013 URBAN					
20200100	EARTH EXCAVATION	CU YD	42	42					
21101630	TOPSOIL FURNISH AND PLACE, 8"	SO YD	47	47					
25000200	SEEDING, CLASS 2	ACRE	0.1	0.1					
25000310	SEEDING, CLASS 4	ACRE	0.1	0.1					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9	9					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9	9					
25100630	EROSION CONTROL BLANKET	SO YD	60	60					
28000400	PERIMETER EROSION BARRIER	FOOT	140	140					
48301000	PROTECTIVE COAT	SO YD	30	30					
50102400	CONCRETE REMOVAL	CU YD	4.6	4.6					
50200100	STRUCTURE EXCAVATION	CU YD	20.5	20.5					
50300225	CONCRETE STRUCTURES	CU YD	5.3	5.3					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1130	1130					
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	35	35					
66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1					
66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1					

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT							
66901002	ON-SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	10	10					
66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					
67100100	MOBILIZATION	L SUM	1	1					
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1					
X0900075	COFFERDAM (TYPE I) (IN-STREAM/WETLAND WORK)	SO FT	102	102					
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	62.5	62.5					
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	102	102					

REV. - MS

NOTES

PROVIDE DITCH CHECKS AS REQUIRED DOWN STREAM OF WORK ZONE
 REMOVED OR DAMAGED GUARDRAIL BY THE CONTRACTOR SHALL BE REPLACED IN KIND, WITH NO ADDITIONAL COST TO IDOT
 EXTEND LIMITS OF EROSION CONTROL BLANKET AND PERIMETER EROSION BARRIER TO EDGE OF STREAM AND AS DIRECTED BY THE ENGINEER



USER NAME =	DESIGNED - NH	REVISED -
	CHECKED - JAM	REVISED -
PLOT SCALE =	DRAWN - NH	REVISED -
PLOT DATE = 10/23/2015	DATE - 03/29/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL RTE 120 (BELVIDERE RD) OVER MILL CREEK
 ROADWAY PLAN DETAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-1	LAKE	10	5
CONTRACT NO. 62H18			ILLINOIS FED. AID PROJECT	

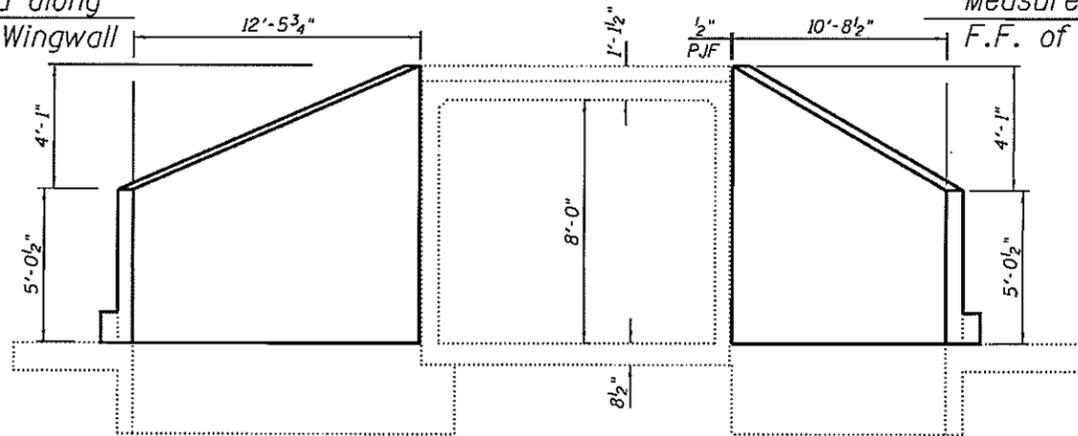
SCOPE OF WORK

1. Remove existing damaged wingwall, cost included with Concrete Removal.
2. Preform structure and earth excavation.
3. Construct wingwall.
4. Apply concrete sealer to the new concrete surface.
5. Backfill with Granular Backfill For Structures and add on 8" thick top soil at the top of the backfill to allow for seeding.

NOTES:

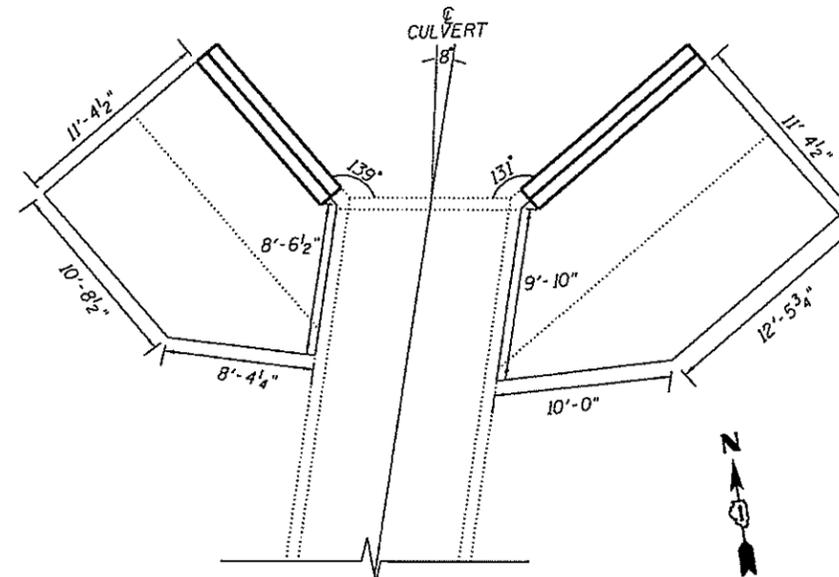
1. Prior to repair of wingwall, the Engineer shall inspect footing for soundness of concrete.
2. Space proposed dowel bars d(E) and d(E) to miss existing reinforcement.
3. The Contractor shall exercise extreme caution during construction to make certain that construction activities, Earth and Structure Excavation will not have detrimental effects on the telephone line and manhole. Any damage to the telephone line and manhole during construction shall be repaired by the contractor at his expense at no charge to IDOT.

Measured along F.F. of Wingwall

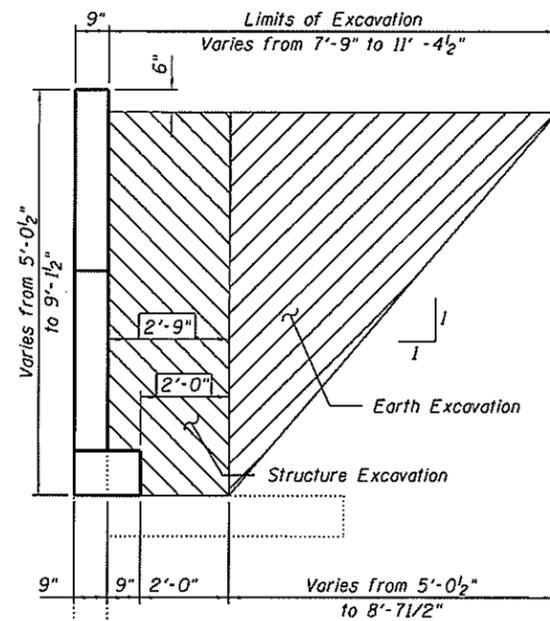


ELEVATION
(Looking South)

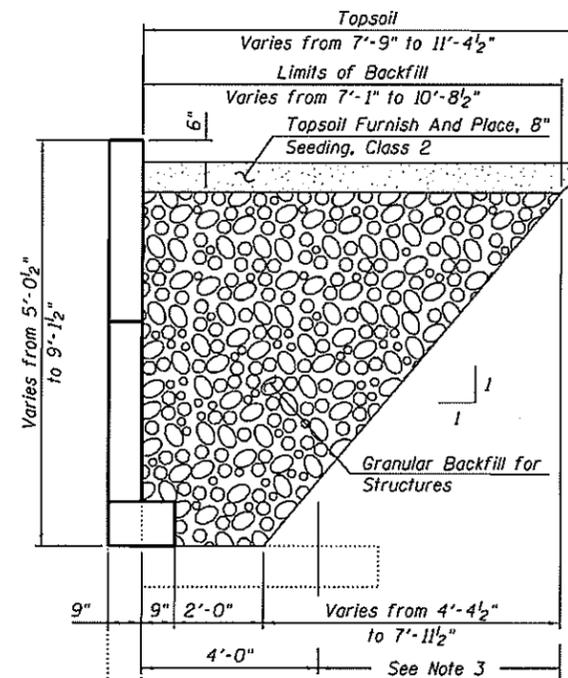
Measured along F.F. of Wingwall



EXCAVATION PLAN



WALL EXCAVATION



WALL BACKFILL

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

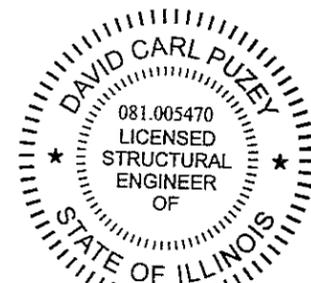
$f'_c = 3,500$ psi (Cast-in-Place Concrete)
 $f_y = 60,000$ psi (Reinforcement)

EXISTING UNITS

$f'_c = 1,200$ psi (approx. $f'_c = 2,667$ psi)
 $f_s = 20,000$ psi (Reinforcement)

LEGEND:

- Existing Telephone
- Existing Water Main
- F.F. Front Face
- B.F. Back Face
- E.F. Each Face
- Earth Excavation
- Structure Excavation
- Granular Backfill for Structures
- Topsoil Furnish and Place, 8"



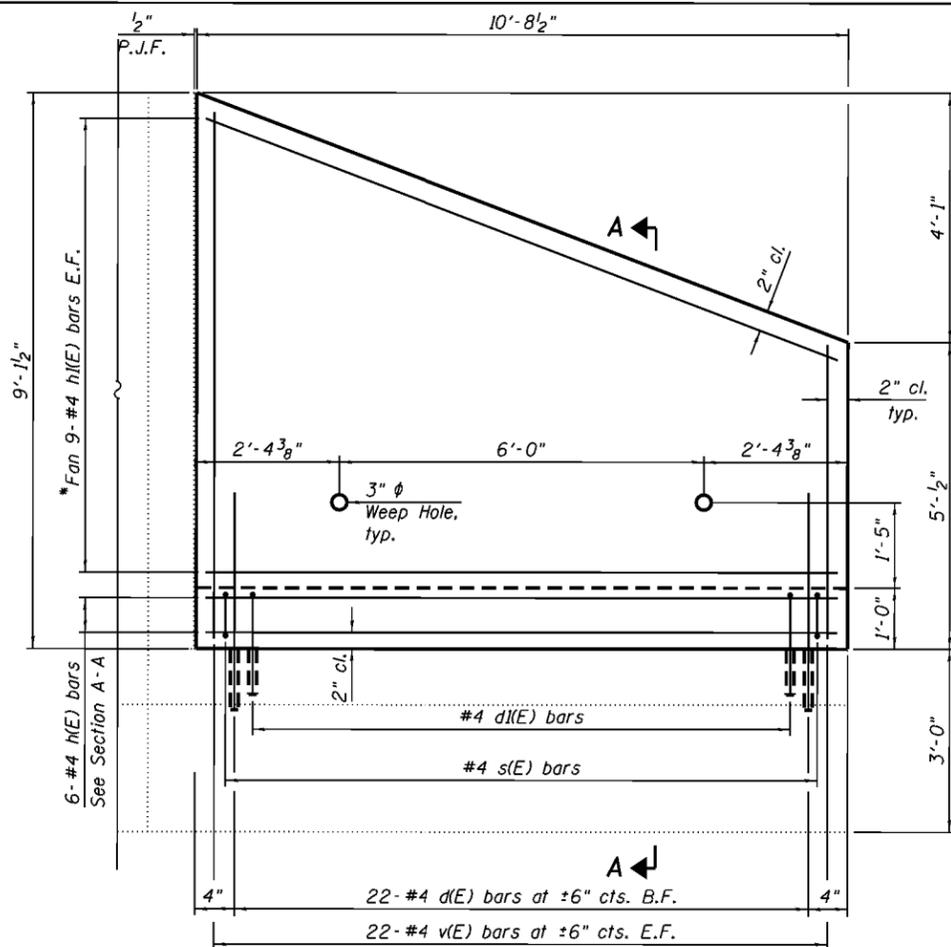
David Carl Puzey 5/9/19
Exp. 11/30/20

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PLOT DATE :	DATE - 03/29/2019	REVISED -

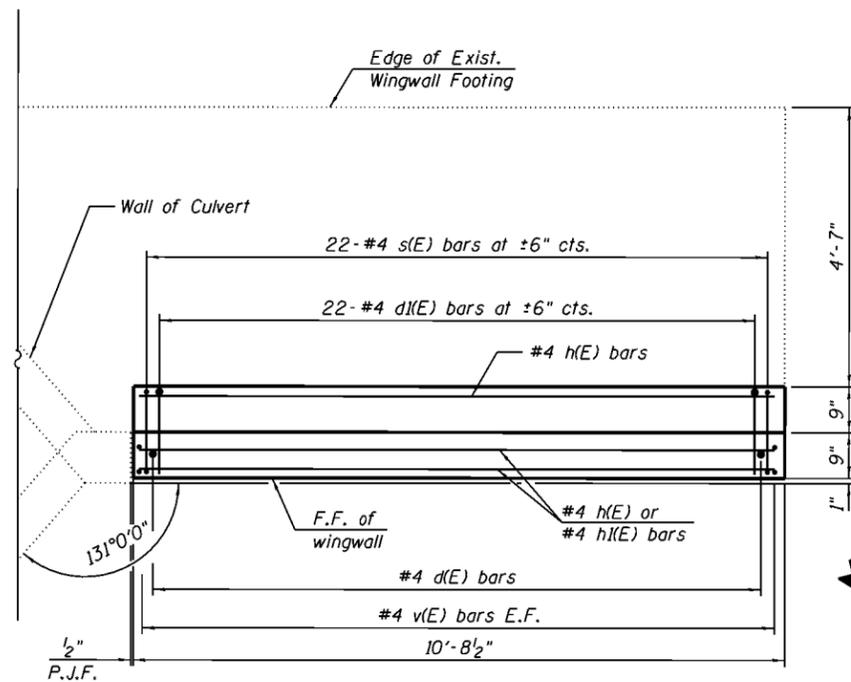
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 120 (BELVIDERE RD) OVER MILL CREEK
PLAN AND ELEVATION

F.A.P. RTE. 333	SECTION 2018-073-1	COUNTY LAKE	TOTAL SHEETS 10	SHEET NO. 6
				CONTRACT NO. 62H18
(ILLINOIS) FED. AID PROJECT				



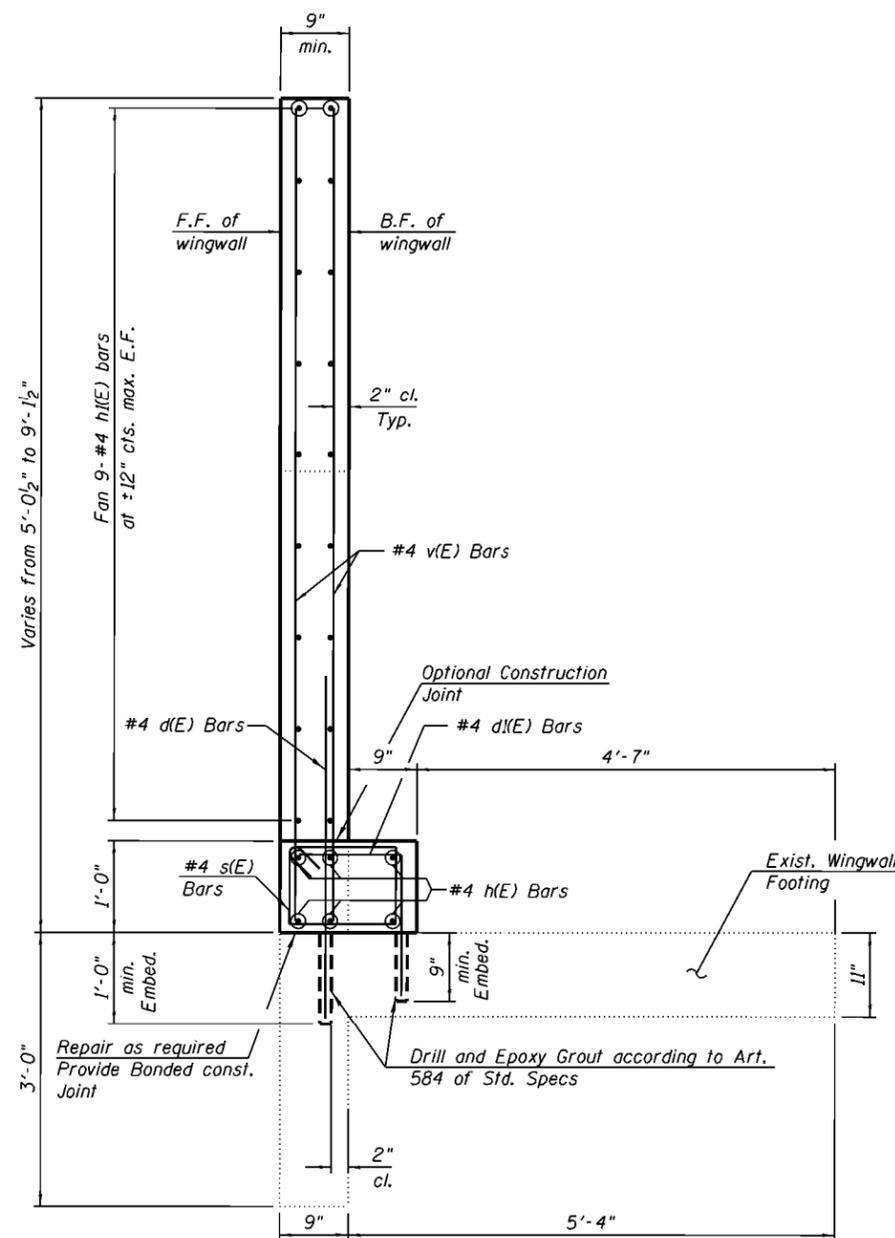
WINGWALL ELEVATION



PARTIAL PLAN AT WINGWALL

NOTES:

1. Space proposed dowel bars d(E) and d(E) to miss existing reinforcement.

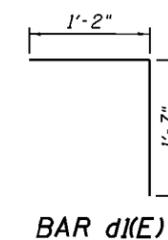


SECTION A-A

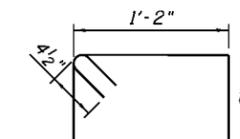
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	22	#4	3'-9"	—
d(E)	22	#4	2'-9"	└
h(E)	6	#4	10'-4"	—
*h(E)	18	#4	10'-4"	—
s(E)	22	#4	4'-5"	□
v(E)	22	#4	13'-6"	—
Concrete Removal			CU YD	2.1
Structure Excavation			CU YD	8.7
Concrete Structures			CU YD	2.4
Reinforcement Bars, Epoxy Coated			POUND	524
Granular Backfill For Structures			CU YD	20.5

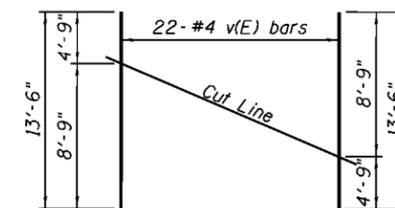
* Order bars at full length and cut in field to fit



BAR d(E)



BAR s(E)



FIELD CUTTING DIAGRAM

Order v(E) full length. Cut as shown and use remainder of bars in opposite face.

LAP SPLICES

Bar	Lap
#4	2'-7"

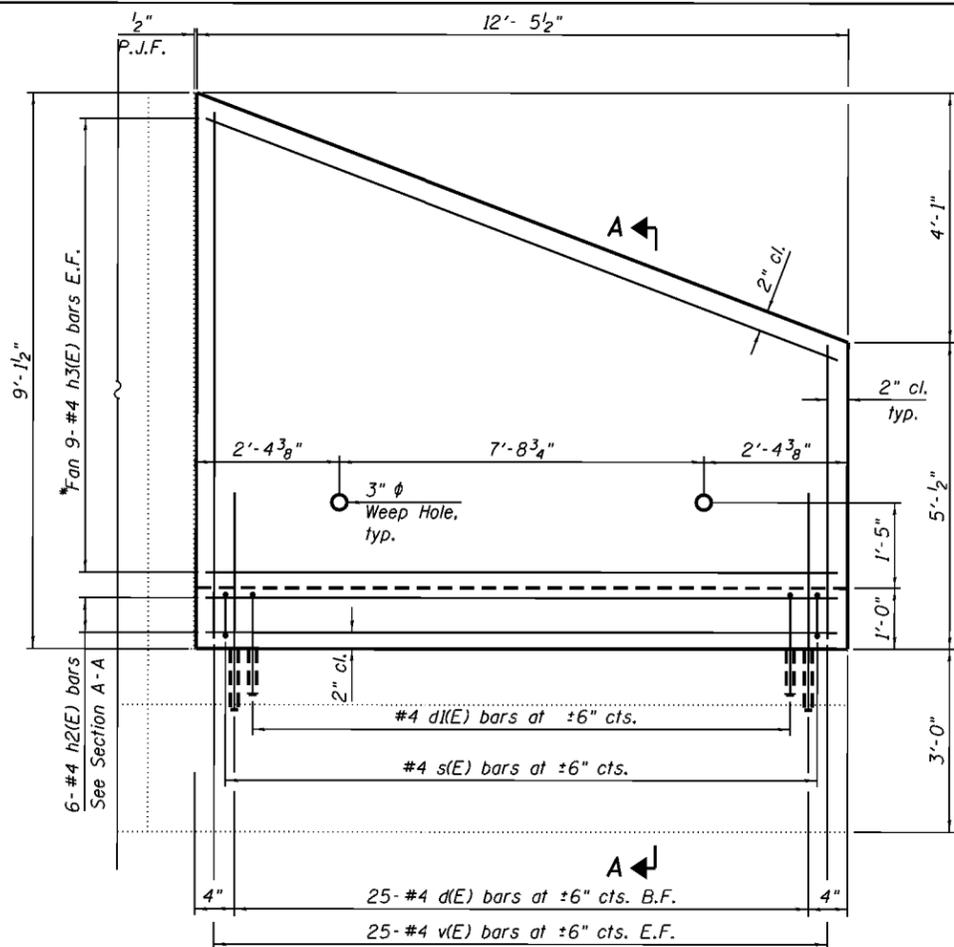
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

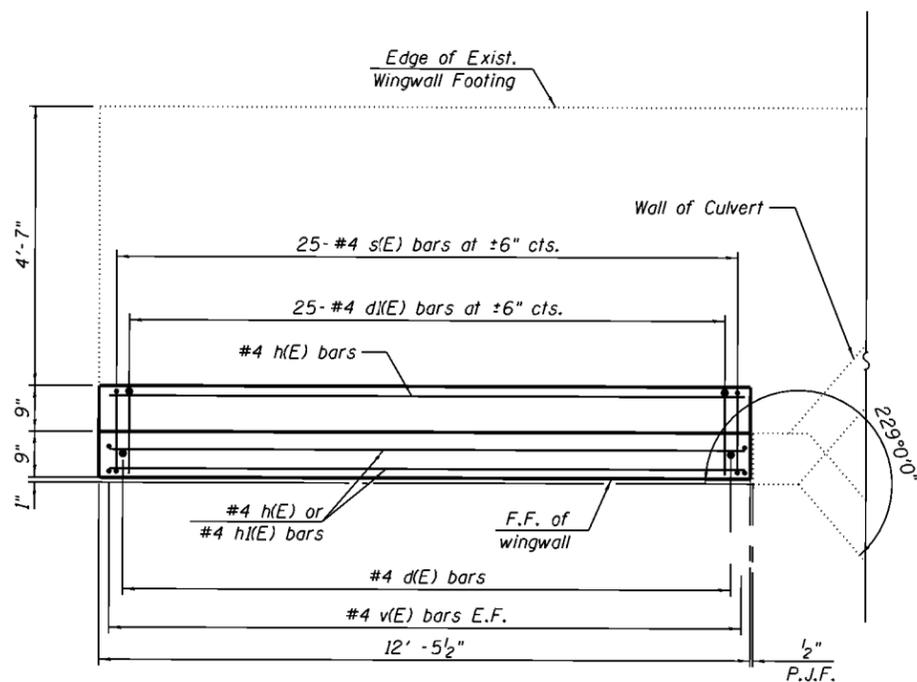
IL RTE 120 (BELVIDERE RD) OVER MILL CREEK
NORTH EAST WING WALL SECTIONS AND DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-1	LAKE	10	7
CONTRACT NO. 62H18				

ILLINOIS FED. AID PROJECT



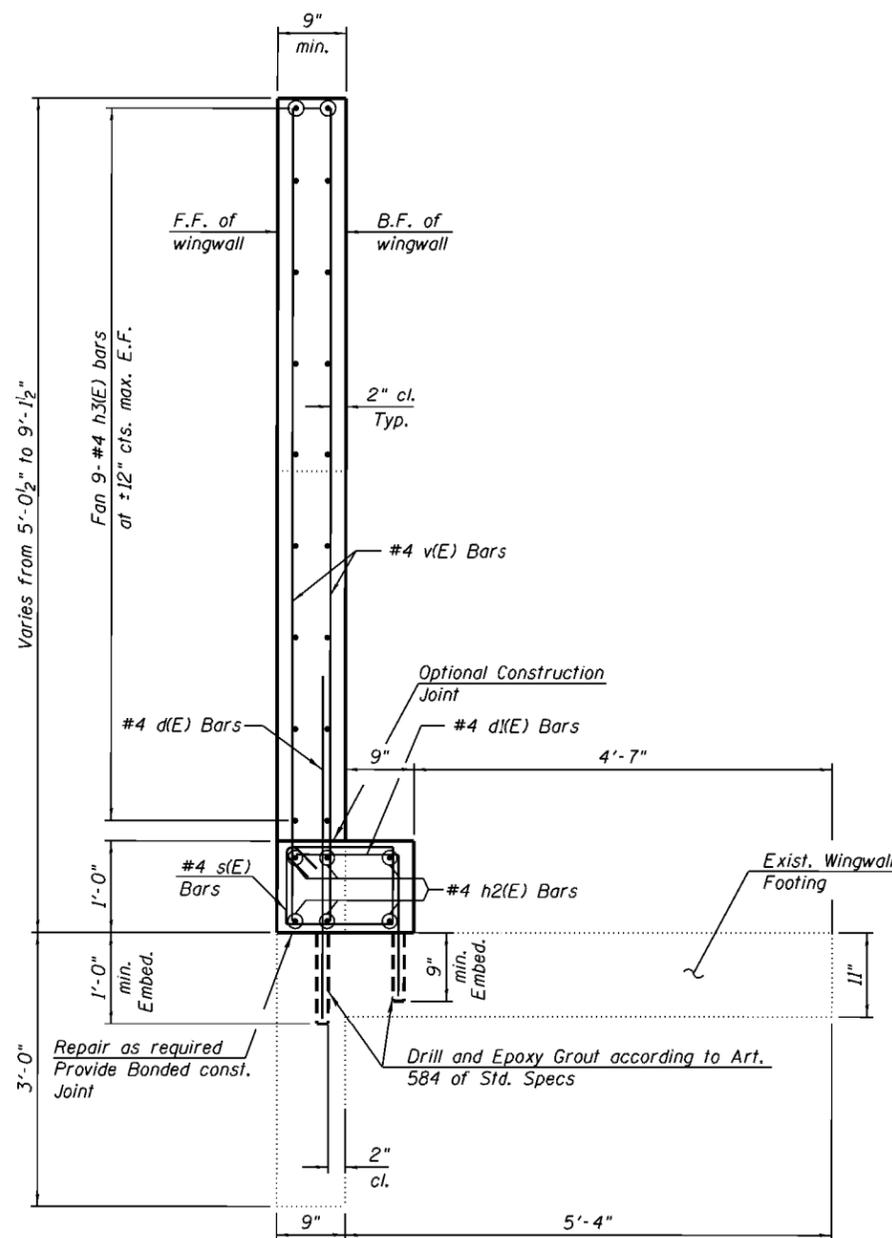
WINGWALL ELEVATION



PARTIAL PLAN AT WINGWALL

NOTES:

1. Space proposed dowel bars d(E) and d(E) to miss existing reinforcement.

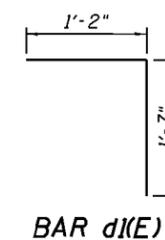


SECTION A-A

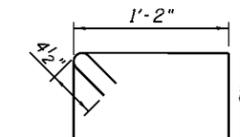
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	25	#4	3'-9"	—
d(E)	25	#4	2'-9"	└
h2(E)	6	#4	12'-1"	—
*h3(E)	18	#4	12'-1"	—
s(E)	25	#4	4'-5"	□
v(E)	25	#4	13'-6"	—
Concrete Removal			CU YD	2.5
Structure Excavation			CU YD	11.8
Concrete Structures			CU YD	2.9
Reinforcement Bars, Epoxy Coated			POUND	601
Granular Backfill For Structures			CU YD	42.2

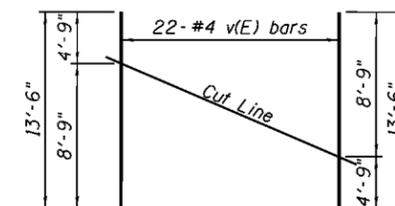
*Order bars at full length and cut in field to fit



BAR d(E)



BAR s(E)



FIELD CUTTING DIAGRAM

Order v(E) full length. Cut as shown and use remainder of bars in opposite face.

LAP SPLICES

Bar	Lap
#4	2'-7"

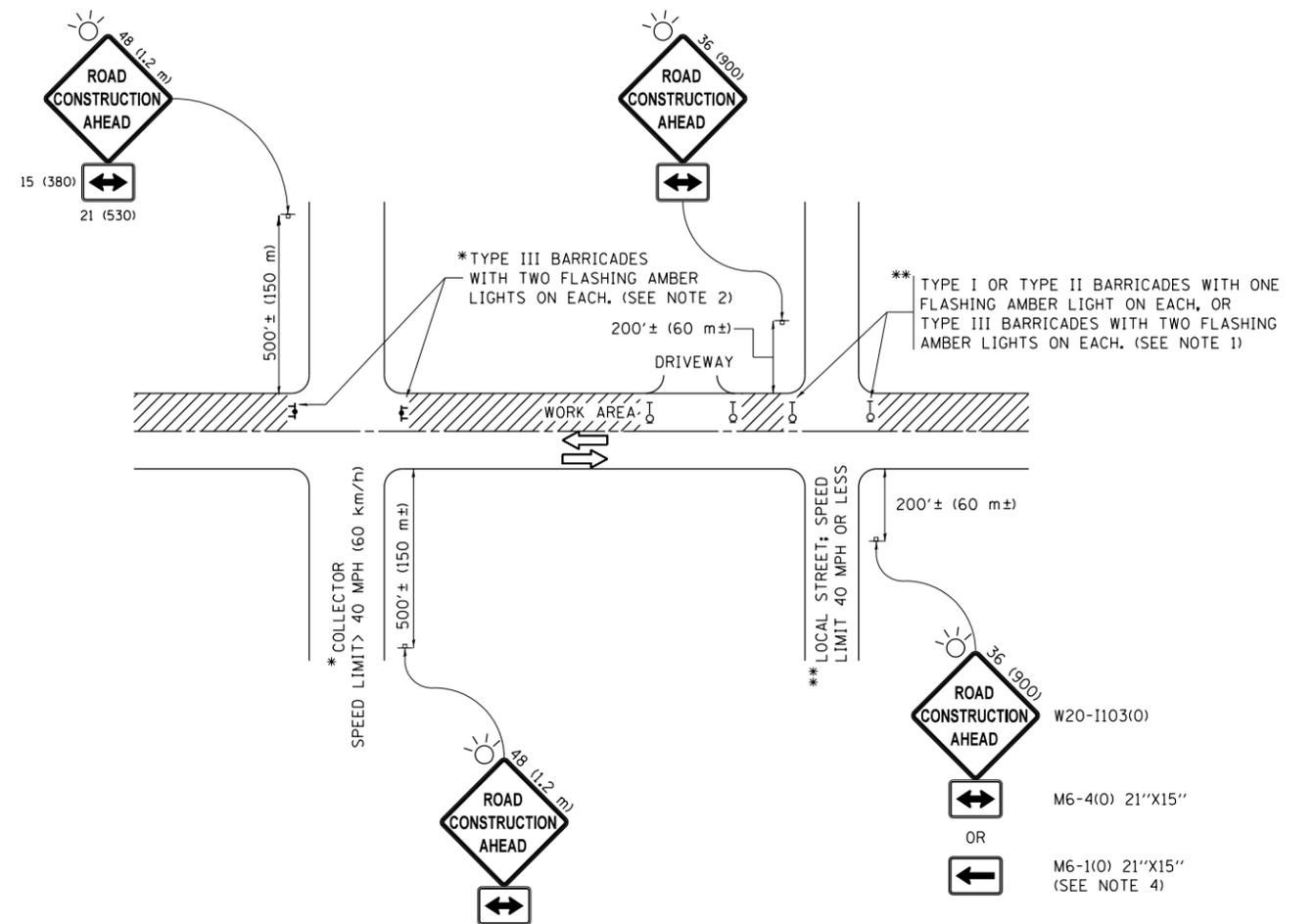
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PLOT DATE = 10/23/2015	DATE - 03/29/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 120 (BELVIDERE RD) OVER MILL CREEK
NORTH WEST WING WALL SECTIONS AND DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-1	LAKE	10	8
CONTRACT NO. 62H18				

ILLINOIS FED. AID PROJECT



NOTES:

1. 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:
 - a) 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.
 - b) 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.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) 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.
 - b) 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.
3. 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.
4. 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).
5. 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.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. 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.

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	PLOT DATE = 3/22/2019	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.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	2018-073-1	LAKE	10	9
TC-10			CONTRACT NO. 62H18	
ILLINOIS FED. AID PROJECT				

