

INDEX OF SHEETS 09-18-2020 LETTING ITEM 021

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7. STRUCTURE NO. 050-2539 CONSTRUCTION DETAILS
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STANDARDS

- | | |
|-----------|--|
| 000001-07 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 701001-02 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY |
| 701006-05 | OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701201-05 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH |
| 701206-05 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS \geq 45 MPH |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701316-13 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS \geq 45 MPH |
| 701901-08 | TRAFFIC CONTROL DEVICES |

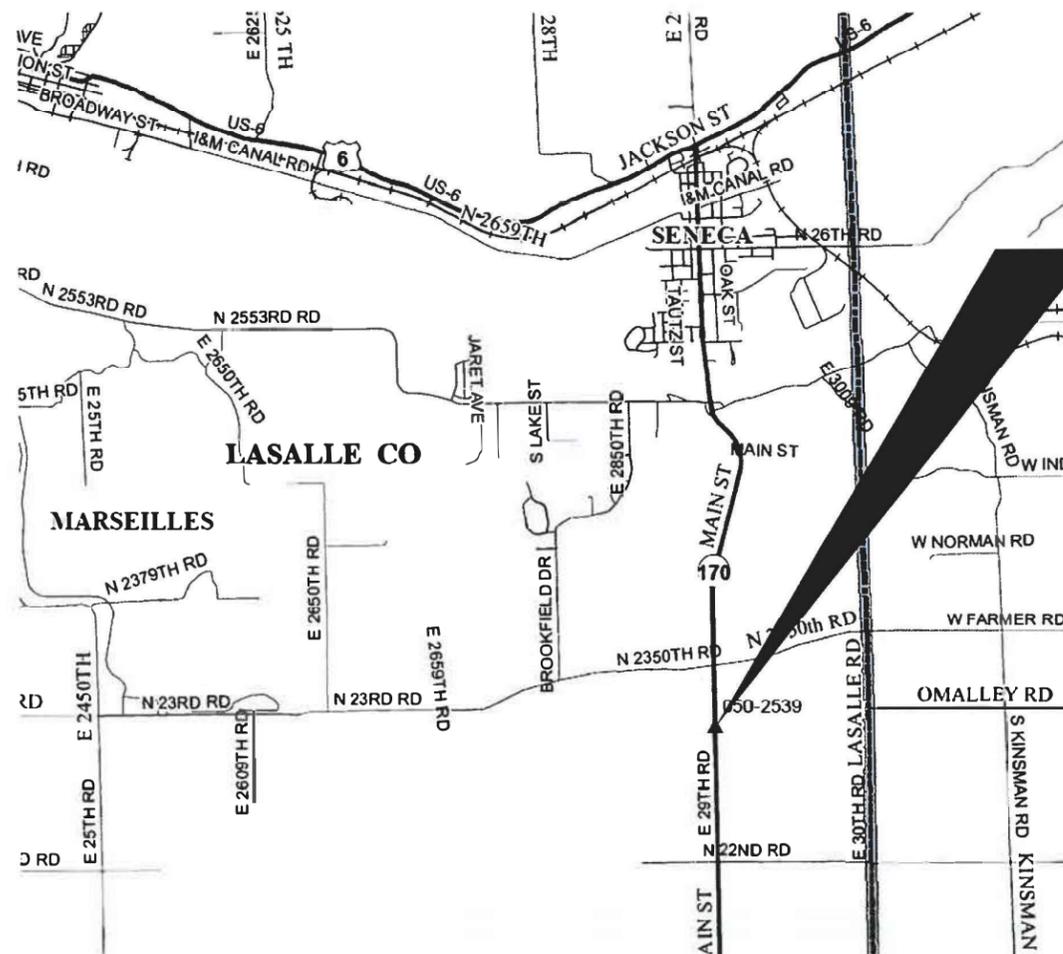
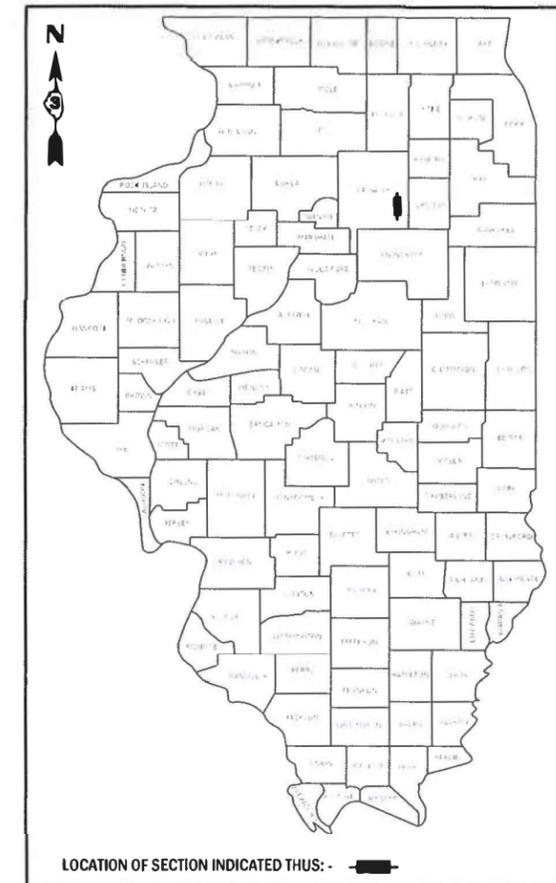
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 786 (IL 170)
SECTION (110)CLV
BOX CULVERT REPAIR
LASALLE COUNTY
C-93-115-20

F.A.P. SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(110)CLV	LASALLE	9	1
		ILLINOIS	CONTRACT NO. 66L2	

D-93-080-20

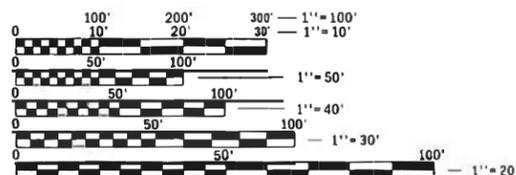


PROJECT LOCATION

STRUCTURE NO. 050-2539
STA. 207+77
10' X 9' X 34'
CONCRETE BOX CULVERT
3.86 MILES SOUTH OF US ROUTE 6

FUNCTIONAL CLASSIFICATION

RURAL
MINOR ARTERIAL
F.A.P. ROUTE 786 (IL 170)
2019 ADT = 2250
P.V. 76.67% S.U. 11.11% M.U. 12.22%



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: JOE KANNEL, P.E.
UNIT CHIEF: RON WOODSHANK
DISTRICT 3 NO. (815) 434-6131
DAY LABOR NO. 66L27

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED July 07, 2020
[Signature]
REGIONAL ENGINEER

August 14, 2020
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

August 14, 2020
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

GENERAL NOTES

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES (100 MILLIMETERS) IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF RELATED CONSTRUCTION WORK.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY DUE TO ENVIRONMENTAL DOCUMENTATION REQUIREMENTS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
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THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

DATE: _____

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

PREPARED BY: _____
DISTRICT STUDIES & PLANS ENGINEER

START & END DATES
OF CONSTRUCTION:

EXAMINED BY: _____
DISTRICT CONSTRUCTION ENGINEER

INSPECTORS: _____

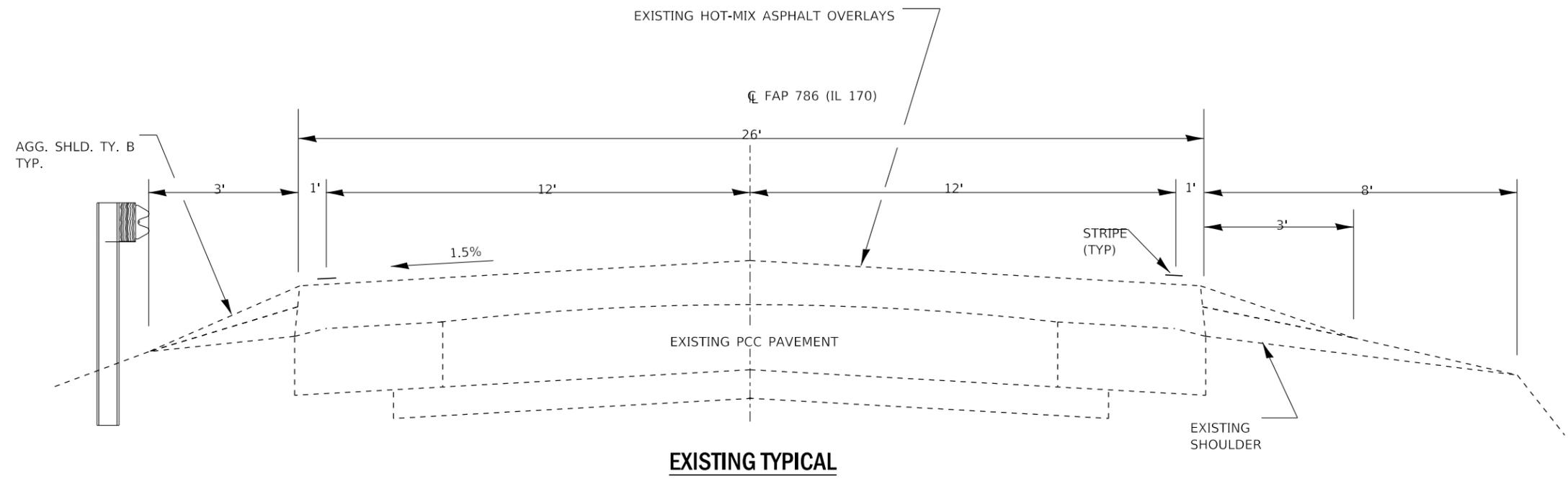
DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = WOODSHANKRL	DESIGNED - EM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\planroom.dot.illinois.gov\PIDOT\Documents\IDOT Offices\District 3\Projects\0366L27\0366L27-EM.dgn	DESIGNED - EM	REVISED -	786			(110)CLV	LASALLE	9	2		
Default	PLOT SCALE = 100.0000' / in.	CHECKED - RW	REVISED -			CONTRACT NO. 66L27					
	PLOT DATE = 8/14/2020	DATE - 5/22/2020	REVISED -			SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				CONTRACT MAINTENANCE	
				100% STATE	
				BOX CULVERT	
				0013	
				050-2539	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	20		20
50102400	CONCRETE REMOVAL	CU YD	9.1		9.1
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	652		652
54003000	CONCRETE BOX CULVERTS	CU YD	11		11
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1940		1940
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	100		100
67100100	MOBILIZATION	L SUM	1		1
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	42		42

FILE NAME =	USER NAME = WOODSHANKRL	DESIGNED - EM	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\planroom.dot\illinois.gov\PWIDOT\Documents\DOT Offices\District 3\Projects\0366L27\CADDData\0366L27	DRAWN - EM	CHECKED - RW	REVISED - _____			786	(110)CLV	LASALLE	8	3	
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	PLOT DATE = 6/30/2020	DATE - 5/22/2020	REVISED - _____			ILLINOIS FED. AID PROJECT					



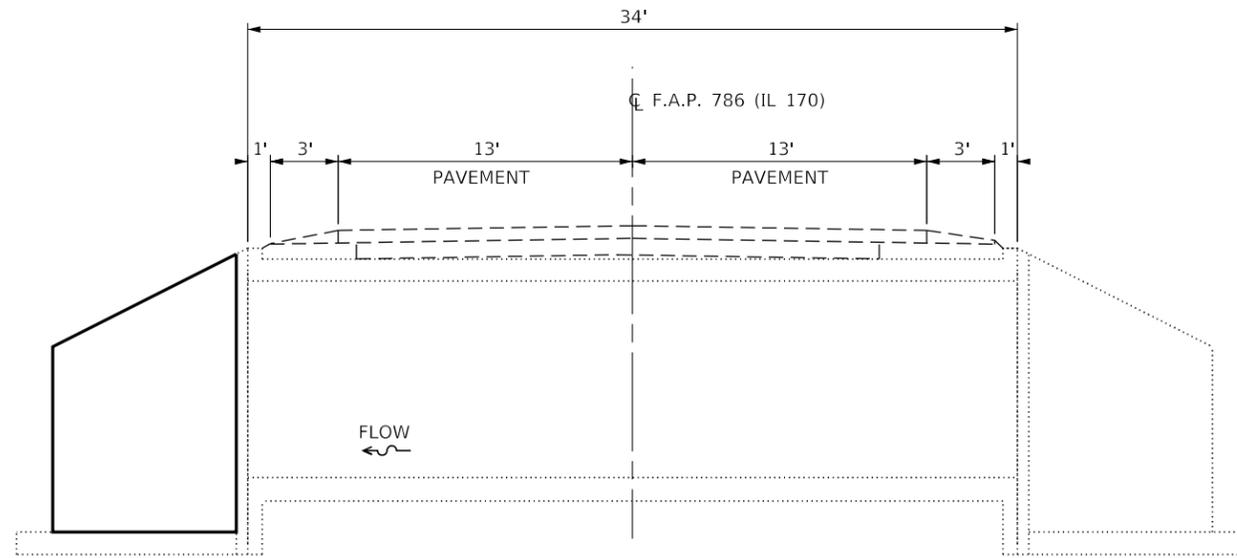
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	PLOT DATE = 8/14/2020		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

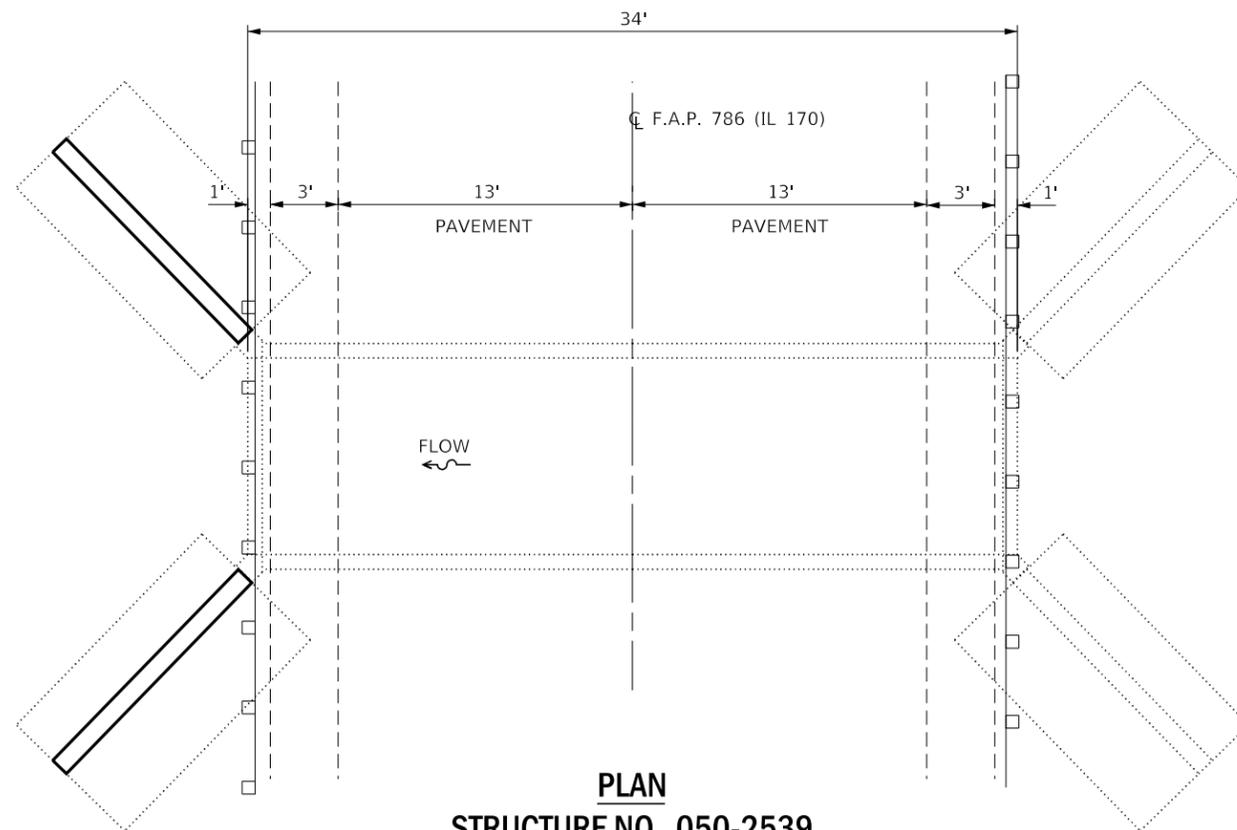
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(110)CLV	LASALLE	9	4
CONTRACT NO. 66L27			ILLINOIS FED. AID PROJECT	



ELEVATION

DIMENSION AT RT. 4's TO CL ROADWAY



PLAN
STRUCTURE NO. 050-2539

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.	652
CONCRETE REMOVAL	CU. YD.	9.1
CONCRETE BOX CULVERTS	CU YD	11
REINFORCEMENT BARS, EPOXY COATED	POUND	1940



Expires 11-30-2020

David Carl Puze

8/16/2020

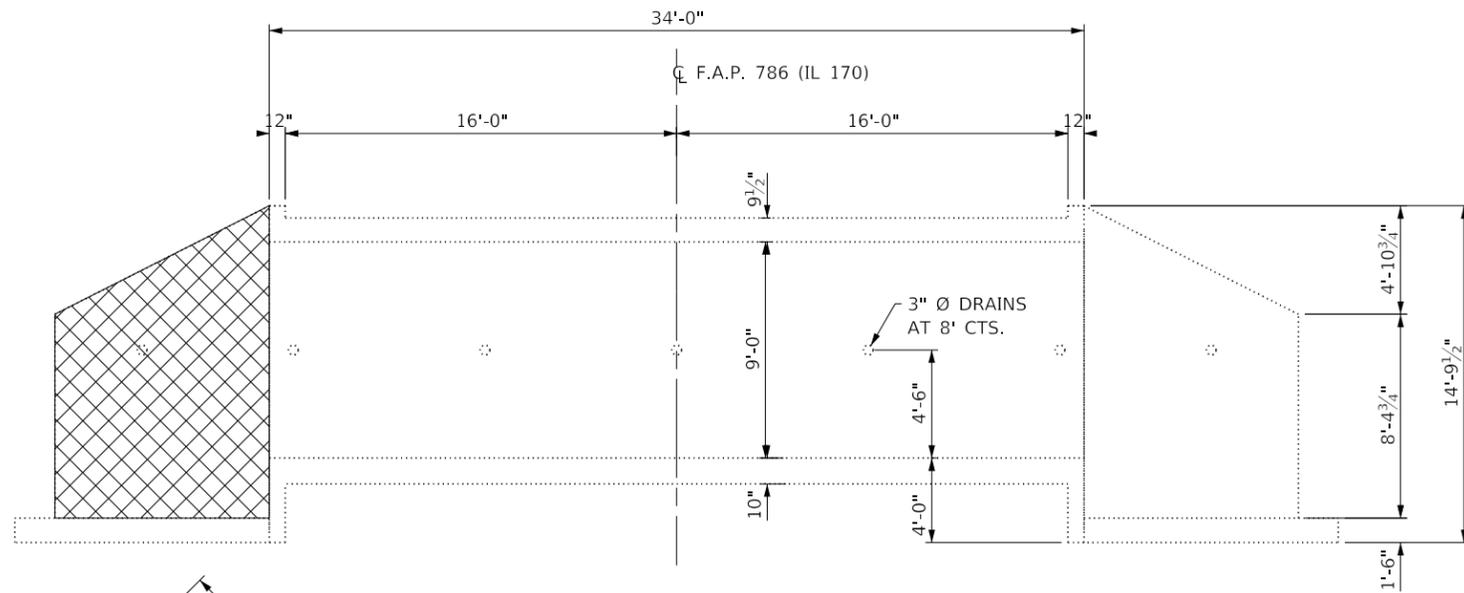
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Default	PLOT SCALE = 100.0000 ' / in.	DATE - 5/22/2020	REVISED - _____
	PLOT DATE = 8/14/2020		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 050-2539

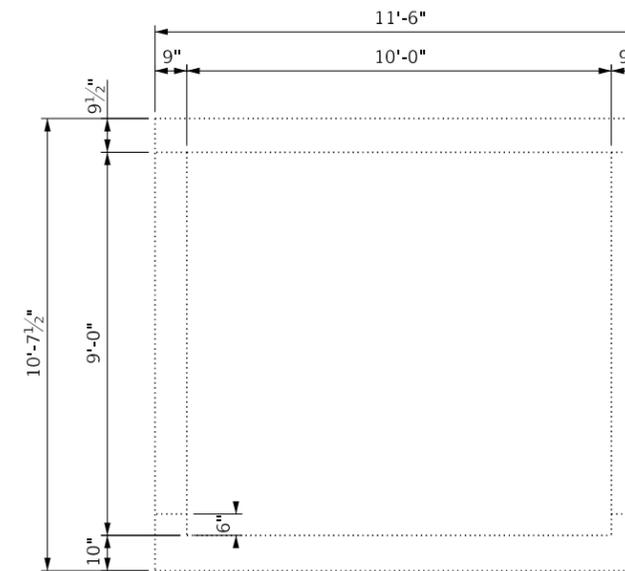
SCALE: _____ SHEET 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(110)CLV	LASALLE	9	5
			CONTRACT NO. 66L27	
ILLINOIS FED. AID PROJECT				



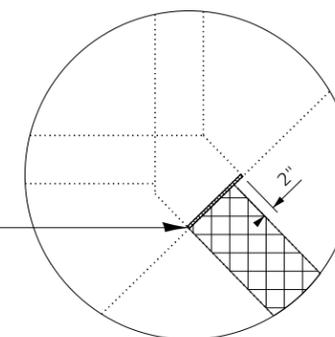
ELEVATION

DIMENSION AT RT. Δ's TO CL ROADWAY



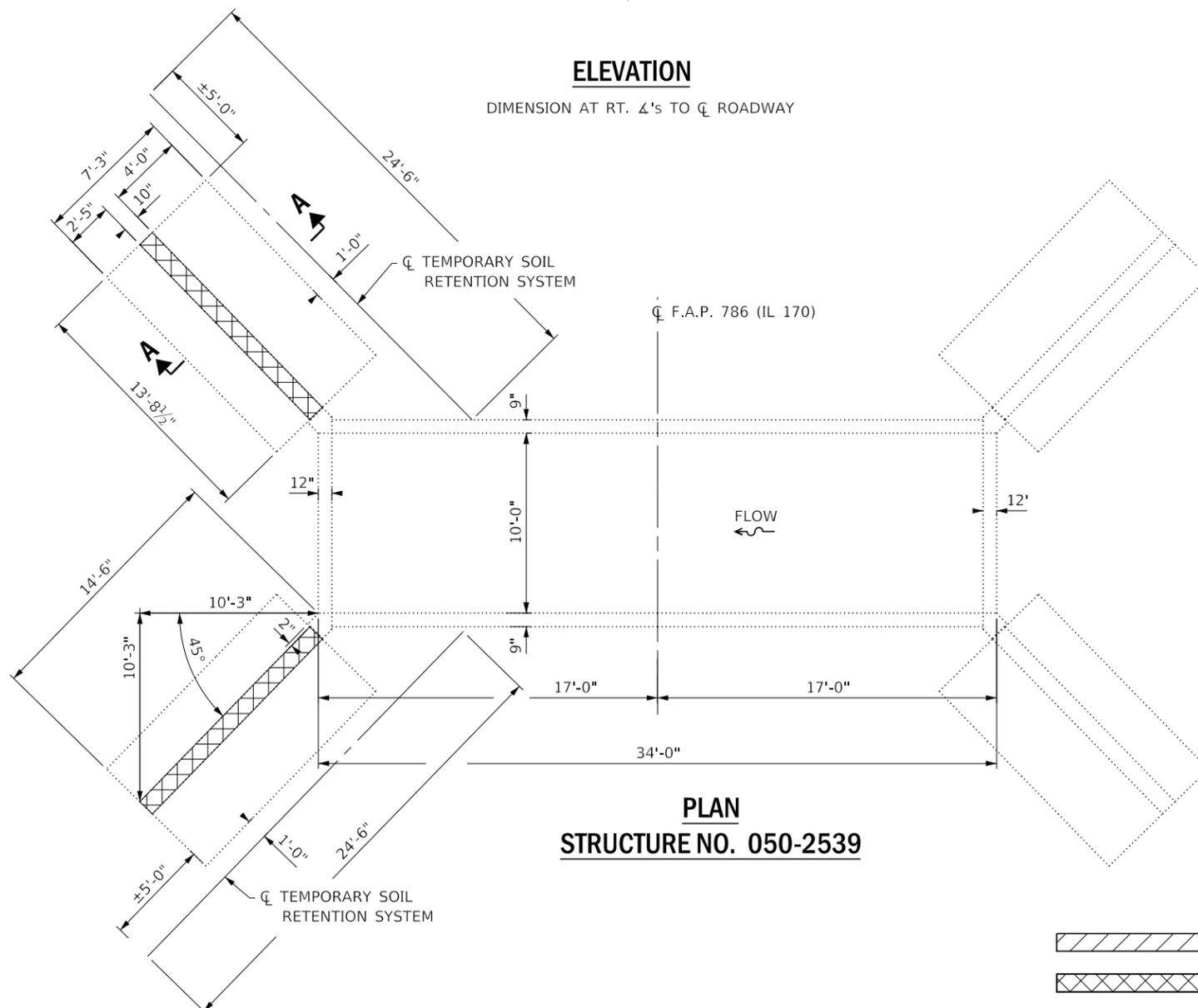
SECTION THRU BARREL

HALF INCH PREFORMED JOINT FILLER



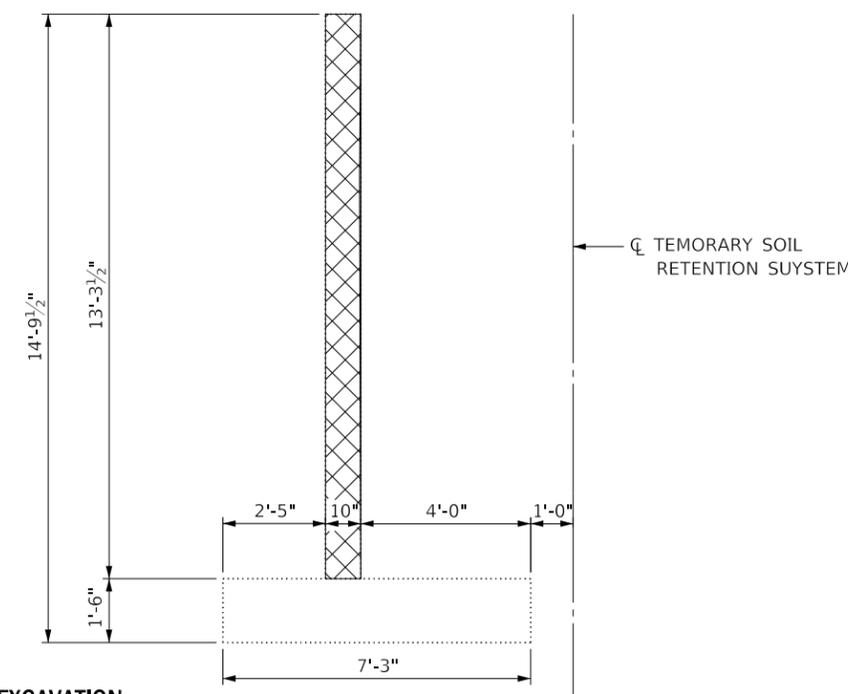
CORNER DETAIL

NOTE: THE COST OF EXCAVATION REQUIRED BETWEEN THE STEM AND TEMPORARY SOIL RETENTION SYSTEM SHALL BE INCLUDED IN THE COST OF CONCRETE REMOVAL.



PLAN

STRUCTURE NO. 050-2539



SECTION A-A

TYPICAL

- STRUCTURE EXCAVATION
- CONCRETE REMOVAL

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

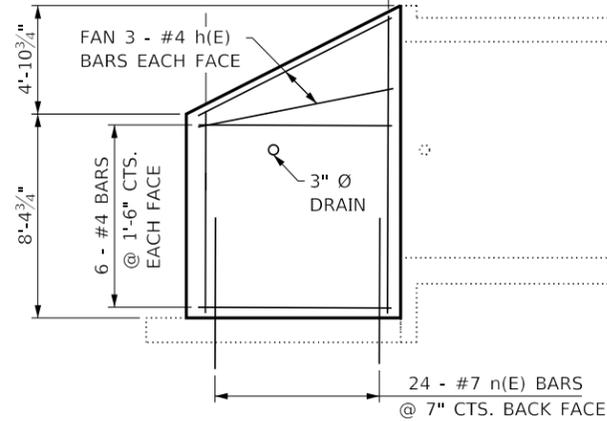
**STRUCTURE NO. 050-2539
REMOVAL DETAILS**

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 786	SECTION (110)CLV	COUNTY LASALLE	TOTAL SHEETS 9	SHEET NO. 6
			CONTRACT NO. 66L27	
ILLINOIS FED. AID PROJECT				

NOTE: ORDER v₁(E) BARS FULL LENGTH AND CUT TO FIT SKEW.

24 - #6 v(E) BARS @
7" CTS. BACK FACE
9 - #4 v₁(E) BARS @
1'-6" CTS, FRONT FACE



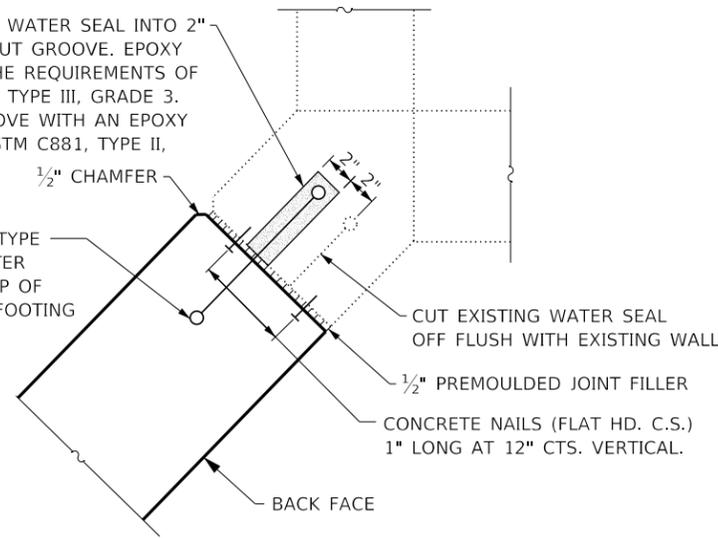
CL F.A.P. 786 (IL 170)

ELEVATION

DIMENSION AT RT. Δ's TO CL ROADWAY

EPOXY NEW WATER SEAL INTO 2" WIDE SAWCUT GROOVE. EPOXY TO MEET THE REQUIREMENTS OF ASTM C881, TYPE III, GRADE 3. PRIME GROOVE WITH AN EPOXY MEETING ASTM C881, TYPE II, GRADE 1.

6" HOLLOW BULB TYPE NONMETALLIC WATER SEAL (6" FROM TOP OF WALL TO TOP OF FOOTING)

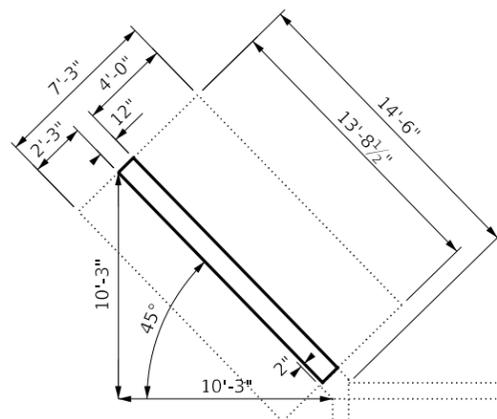


CORNER DETAIL

COST OF FURNISHING AND INSTALLING THE BULB TYPE WATERSEAL (INCLUDING GROOVING EXISTING CONCRETE HEADWALL, BULB WATERSEAL, NAILS AND PREMOLDED JOINT FILLER) SHALL BE INCLUDED IN THE COST OF "CONCRETE BOX CULVERTS".

BILL OF MATERIAL

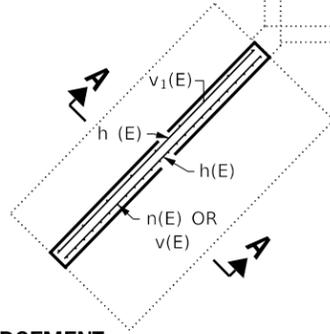
BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	36	#4	13'-6"	
n(E)	48	#7	5'-3"	
v(E)	48	#6	13'-0"	
v ₁ (E)	18	#4	13'-0"	
CONCRETE REMOVAL			CU. YD.	9.1
CONCRETE BOX CULVERTS			CU. YD.	11
REINFORCEMENT BARS EPOXY COATED			POUND	1940
TEMPORARY SOIL RETENTION SYSTEM			SQ. FT.	652



SHOWING DIMENSIONS

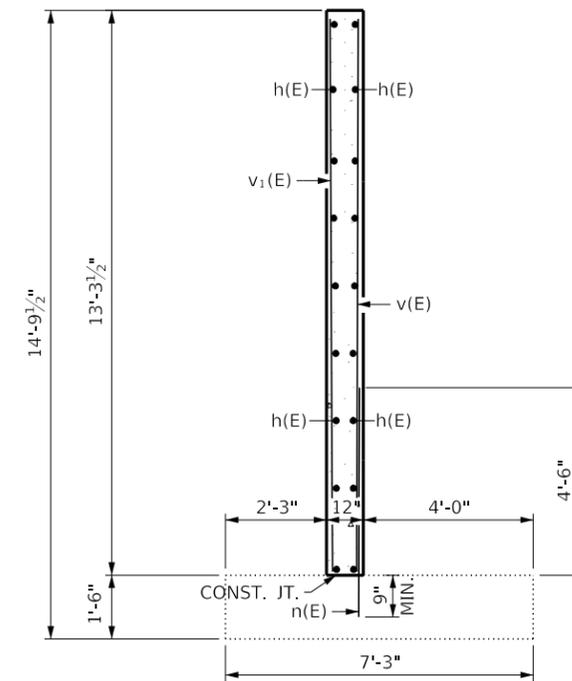
CL F.A.P. 786 (IL 170)

FLOW



SHOWING REINFORCEMENT

**HALF PLAN
STRUCTURE NO. 050-2539**



SECTION A-A

* v BARS SHALL NOT BE PLACED MORE THAN 1 1/2" CL. FROM BACK FACE OF WINGWALL.

** DRILL AND GROUT n(E) BARS A MINIMUM OF 9" INTO EXISTING CONCRETE FOOTING ACCORDING TO SECTION 584 OF THE STANDARD SPECIFICATIONS

NOTE: v(E) BARS WILL BE DRILLED AND GROUTED ACCORDING TO SECTION 584 OF THE STANDARD SPECIFICATIONS.

NOTE: THE v₁(E) BARS SHALL BE ORDERED FULL LENGTH AND CUT TO FIT SKEW.

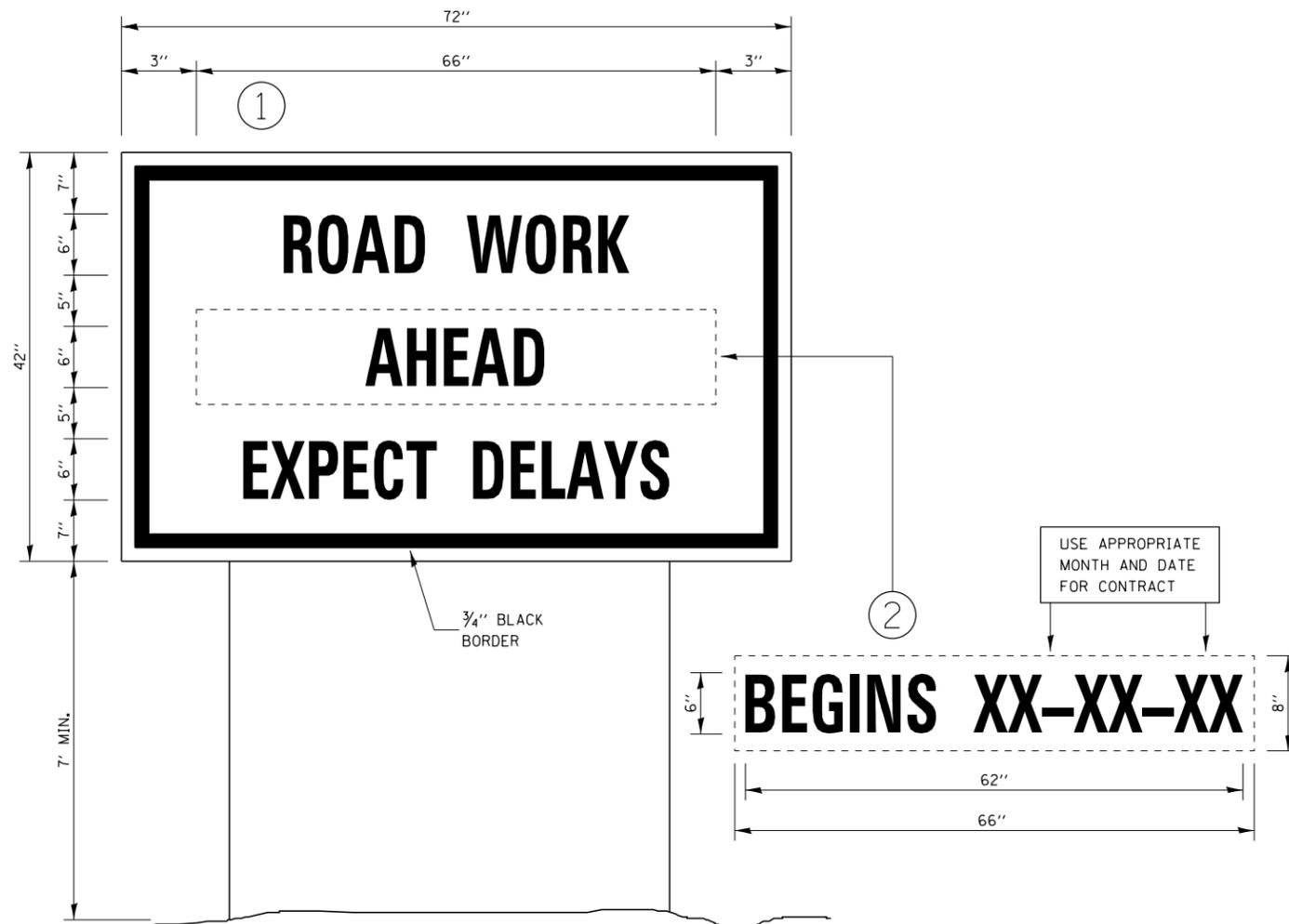
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	PLOT DATE = 8/14/2020	DATE - 5/22/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

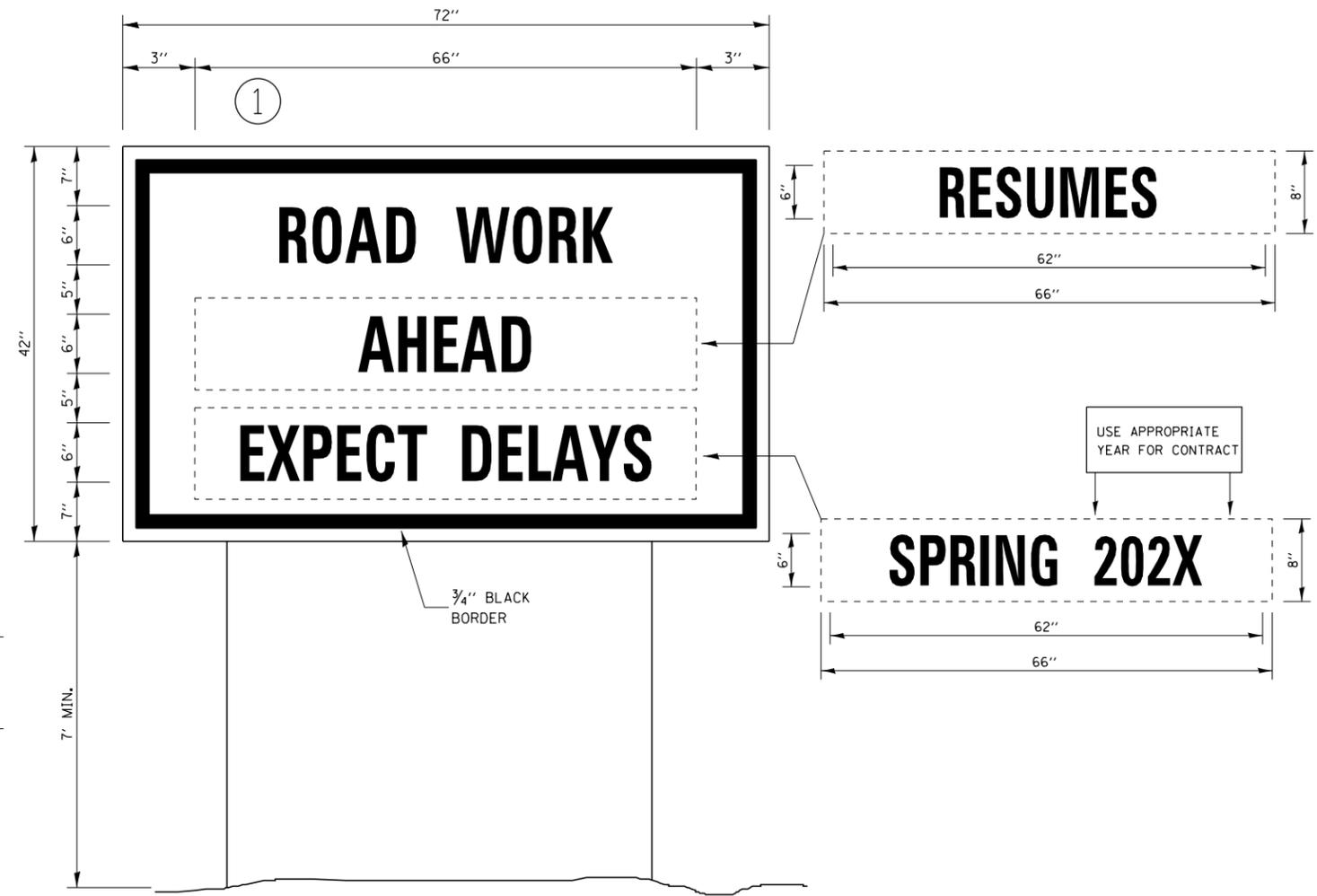
STRUCTURE NO. 050-2539
CONSTRUCTION DETAILS

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 786	SECTION (110)CLV	COUNTY LASALLE	TOTAL SHEETS 9	SHEET NO. 7
			CONTRACT NO. 66L27	
ILLINOIS FED. AID PROJECT				



TEMPORARY INFORMATION SIGNING



WINTER SHUT DOWN SIGNING

NOTES:

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE LANE CLOSURE.
4. REMOVE PANEL ② ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL ② WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

FILE NAME =	USER NAME = WOODSHANKRL	DESIGNED - EM	REVISED -
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	PLOT DATE = 8/14/2020		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

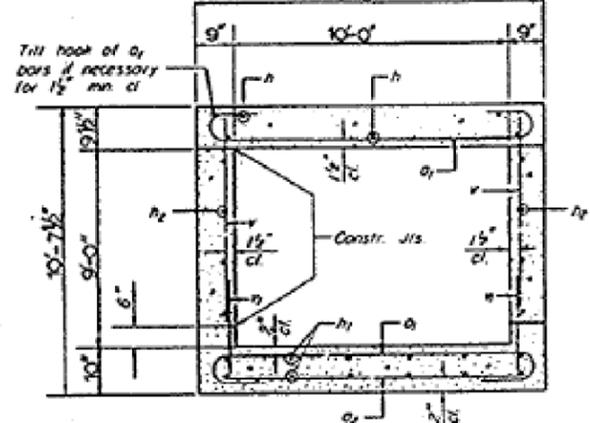
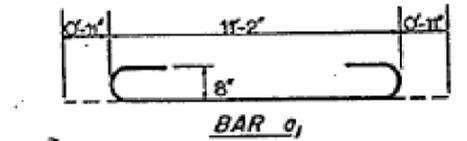
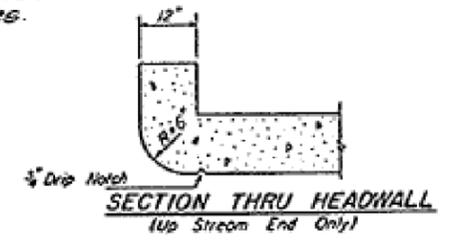
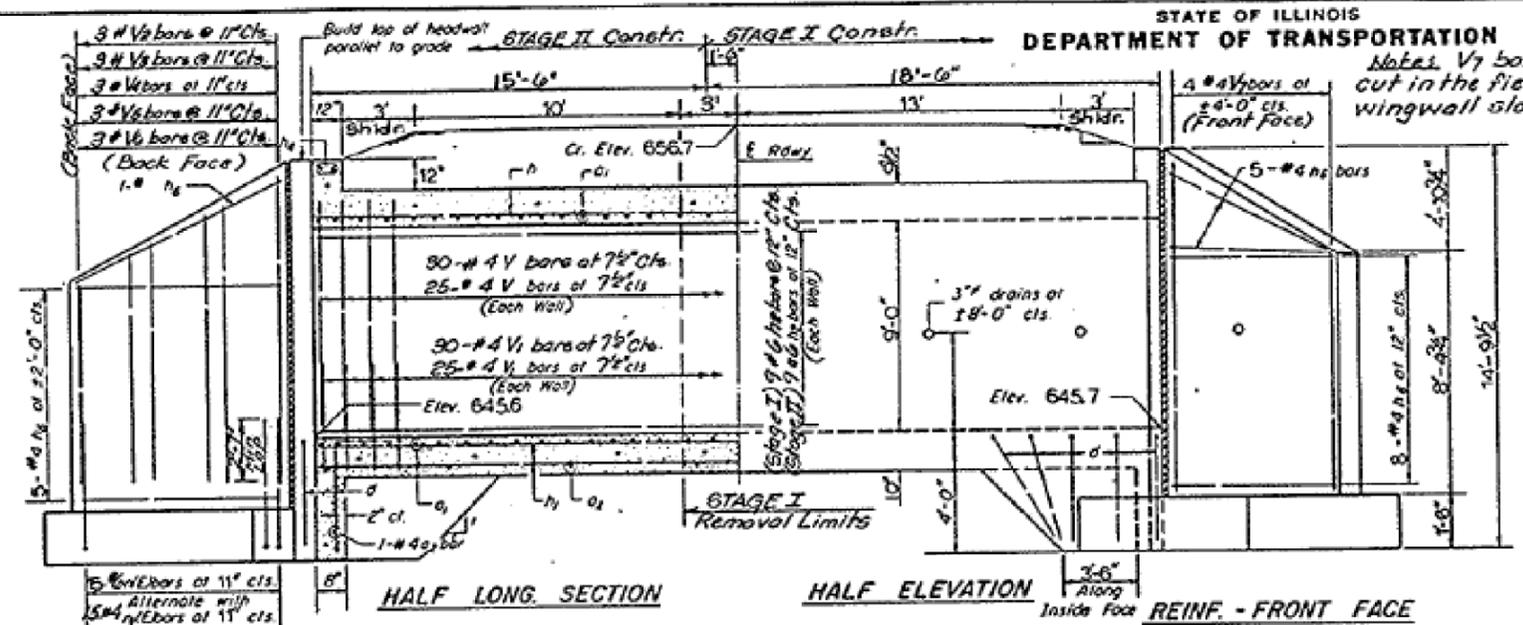
TEMPORARY INFORMATION SIGNING

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(110)CLV	LASALLE	9	8
			CONTRACT NO. 66L27	
ILLINOIS FED. AID PROJECT				

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
* * *	* * *	LASALLE	41	41
S.M.A. REG. 9 ILLINOIS PROJECT				

* F.A.P. 780 (ILL. RTE. 170)
** (109,110,110)RS-2, 110BR



REINF. - BACK FACE

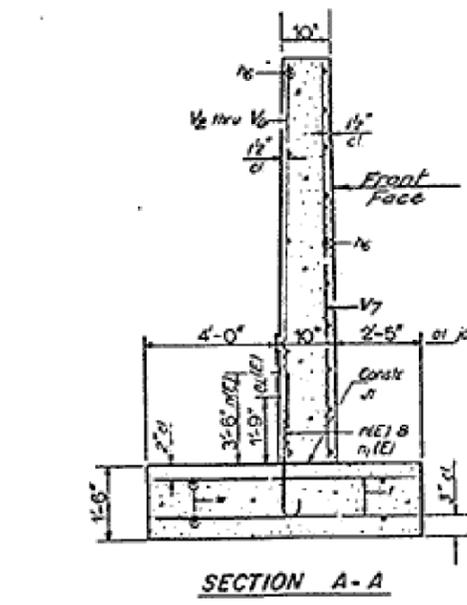
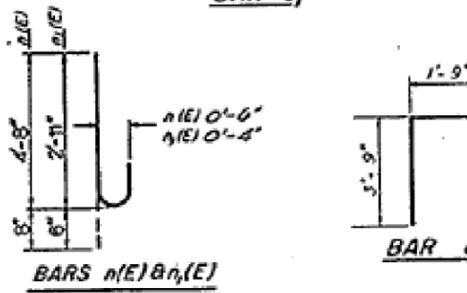
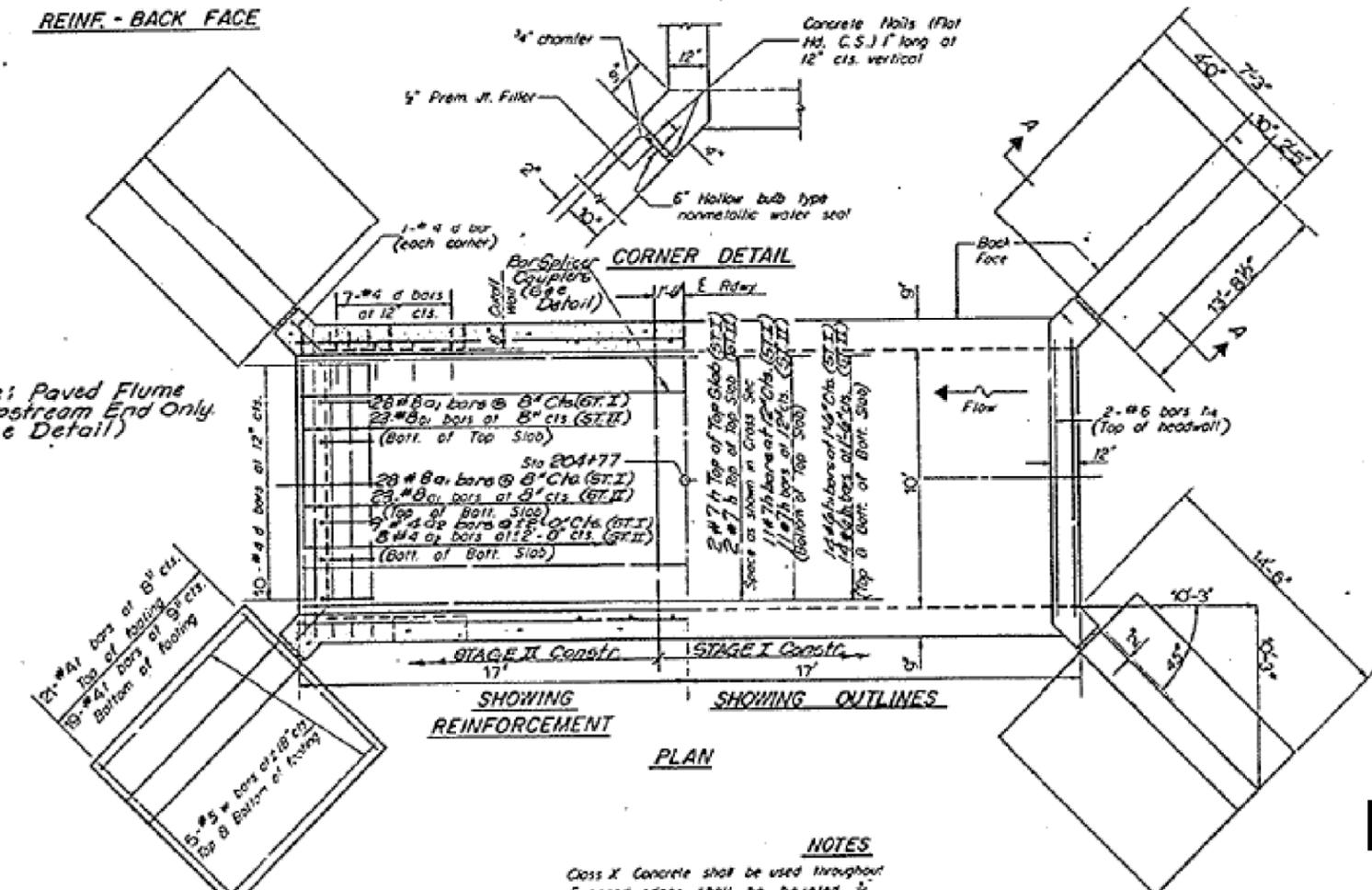
HALF LONG SECTION

HALF ELEVATION

REINF. - FRONT FACE

BAR a1

SECTION THRU BARREL



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	
			ST. I	ST. II
a1	58	#8	13'-0"	13'-0"
a2	10	#4	10'-3"	10'-3"
d	26	#4	5'-6"	5'-6"
h	13	#7	18'-1 1/2"	15'-3"
h1	14	#6	18'-1 1/2"	15'-3"
h2	18	#6	18'-1 1/2"	15'-3"
h4	2	#6	11'-0"	11'-0"
h6	38	#4	13'-5"	13'-5"
n(E)	30	#6	5'-4"	5'-4"
n1(E)	30	#4	3'-5"	3'-5"
i	80	#4	7'-0"	7'-0"
v	30	#4	9'-1"	9'-1"
v1	30	#4	2'-5"	2'-5"
v2	6	#5	12'-3"	12'-3"
v3	6	#5	11'-3"	11'-3"
v4	6	#5	10'-3"	10'-3"
v5	6	#5	9'-3"	9'-3"
v6	6	#5	8'-3"	8'-3"
v7	8	#4	12'-9"	12'-9"
w	20	#4	13'-5"	13'-5"

CLASS X CONCRETE BOX CULVERTS	48	39
REINFORCED BARS	5107	4500
REINFORCED BARS (EPOXY COATED)	309	309

FOR INFORMATION ONLY

DESIGN STRESSES

1/2 * 60,000 psi
1/6 * 3,500 psi

Max Soil Pressure under footing = psi

LOADING HS20-44 & ALI

**10' X 9' BOX CULVERT
STA. 204+77**

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

NOTES
Class X Concrete shall be used throughout
Exposed edges shall be beveled 1/4"
Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60
For backing and embankment, see Standard Specifications
Nonmetallic water seal used in the wingwall joints shall extend from the top of the footing to within 6" of the top of the headwall.
Bars indicated thus 12 #4 - #5 etc indicates 12 lines of bars with 4 lengths per line
Reinforcement bars designated (E) shall be epoxy coated.

Notes B.M. Chis. 'D' on N.E. Corner of Walkway on Exist. Structure. Elev. 657.21