

# PLANS FOR PROPOSED MAJOR BRIDGE PROGRAM FIRST AVENUE OVER FIRST CREEK PROPOSED STRUCTURE NO. 050-7016 SECTION 08-00656-00-BR LASALLE COUNTY - CITY OF MENDOTA PROJECT BRS-0099(061)

FAU RTE. NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO
6011	*	LASALLE	20	1
FED AID PROJECT BRS-0099(061)				
* 08-00656-00-BR				
CONTRACT NO. 87657				

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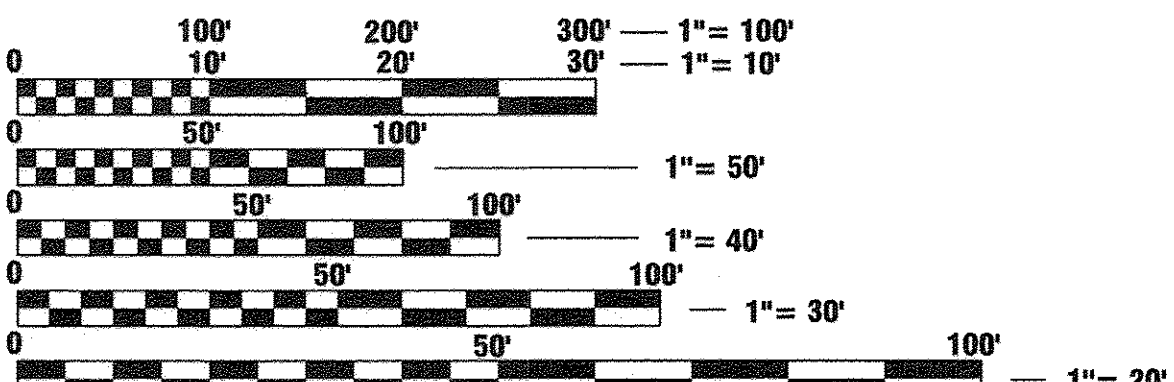
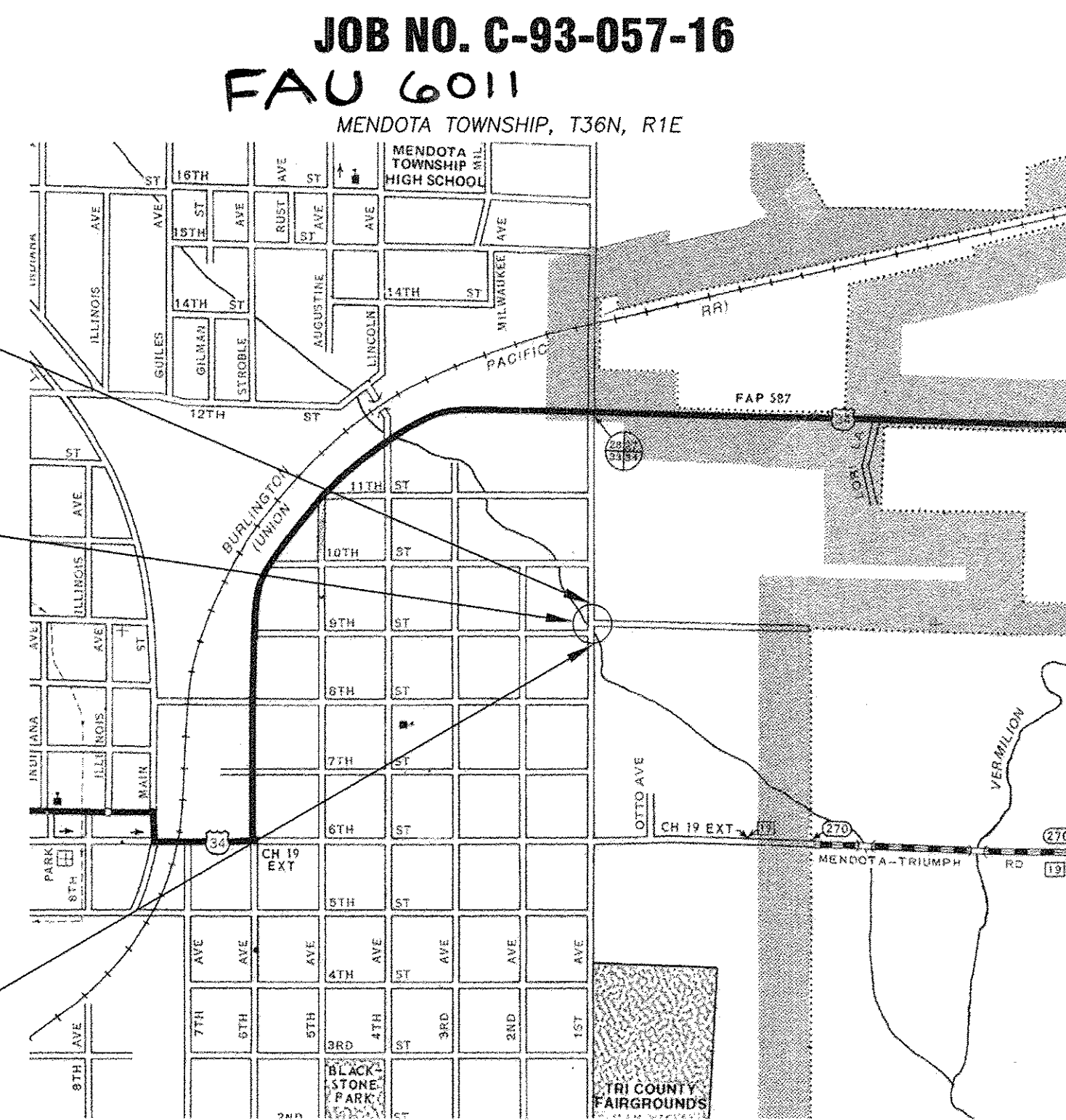
**HIGHWAY STANDARDS**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
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424001-09	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
602011-02	CATCH BASIN TYPE C
602301-04	INLET - TYPE A
602701-02	MANHOLE STEPS
604006-05	FRAME & GRATE TYPE 3
604036-03	GRATE TYPE 8
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB & GUTTER
630001-11	STEEL PLATE BEAM GUARDRAIL
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15'-24" FROM PAVEMENT EDGE
701011-04	OFF-RD OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TERM OPERATIONS
701901-06	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TY. A & B METAL POSTS
780001-05	TYPICAL PAVEMENT MARKINGS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

**SECTION 08-00656-00-BR**  
ENDS AT STA. 8+73

**SECTION 08-00656-00-BR**  
INCLUDES THE REMOVAL OF THE EXISTING CONCRETE SLAB BRIDGE (EXIST. SN 050-7001) AND REPLACING IT WITH A NEW CAST-IN-PLACE CONCRETE DOUBLE BARREL BOX CULVERT (7.5' RISE X 12.5' SPAN), SN 050-7016. ALSO INCLUDED IS NECESSARY APPROACH WORK AND A NEW SIDEWALK.

**SECTION 08-00656-00-BR**  
BEGINS AT STA. 5+66



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

**CONTRACT NO. 87657**

DESIGN CRITERIA				
ROADWAY	DESIGN CLASSIFICATION	ADT 2017	ADT 2037	DESIGN SPEED
FIRST AVE.	LOCAL STREET	1500	1800	30

**WENDLER ENGINEERING SERVICES, INC.**  
Illinois Professional Design Firm No. 184-000848  
Seal covers sheets 1-6 & 8-20

REGISTERED PROFESSIONAL ENGINEER  
SCOTT A. BROWN  
062-053649  
STATE OF ILLINOIS

*Scott A. Brown* 4/3/17  
DATE

SCOTT A. BROWN  
DIXON, ILLINOIS  
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 062-053649  
EXPIRES 11-30-2017

PLANS PREPARED BY:

**wendler**  
GROUND BREAKING SOLUTIONS  
engineers · surveyors · scientists  
www.wendlergs.com ph: 815.288.2261  
Illinois Professional Design Firm No. 184-000848



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

SUBMITTED 4-3 20 17

*Laurence A. Krueger* COUNTY ENGINEER

PASSED 4-12 20 17

*Donald R. ...* DISTRICT 3 ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW 4-12 20 17

*Kewin ...* REGION 2 ENGINEER

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OF THE STATE OF ILLINOIS**

**SUMMARY OF QUANTITIES**  
FUNDING CODE: 0011

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	120
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	100
20700220	POROUS GRANULAR EMBANKMENT	CU YD	1566
20800150	TRENCH BACKFILL	CU YD	86
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	791
25200200	SUPPLEMENTAL WATERING	UNIT	1
28000305	TEMPORARY DITCH CHECKS	FOOT	8
28000400	PERIMETER EROSION BARRIER	FOOT	511
28000510	INLET FILTERS	EACH	3
28100107	STONE RIPRAP, CLASS A4	SQ YD	445
28200200	FILTER FABRIC	SQ YD	445
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	415
35101400	AGGREGATE BASE COURSE, TYPE B	TON	310
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	15
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	633
* 40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2967
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	153
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	144
42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD	55
* 42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	725
42400800	DETECTABLE WARNINGS	SQ FT	12
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	74
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	326
44000600	SIDEWALK REMOVAL	SQ FT	39
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	2779
50300225	CONCRETE STRUCTURES	CU YD	49.94
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1695
50800105	REINFORCEMENT BARS	POUND	4260
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	121190
* 50900805	PEDESTRIAN RAILING	FOOT	52
* Δ 50901760	PIPE HANDRAIL	FOOT	102
* 51500100	NAME PLATES	EACH	1
52200015	PERMANENT SHEET PILING	SQ FT	1302
54003000	CONCRETE BOX CULVERTS	CU YD	439.5
54213453	END SECTIONS 18"	EACH	1
Δ 56100050	DUCTILE IRON WATER MAIN TEE, 12" X 6"	EACH	1
Δ 56100065	DUCTILE IRON WATER MAIN TEE, 12" X 12"	EACH	1
* Δ 56103000	DUCTILE IRON WATER MAIN 6"	FOOT	10
* Δ 56103300	DUCTILE IRON WATER MAIN 12"	FOOT	304
* Δ 56104900	WATER VALVES 6"	EACH	1
* Δ 56105200	WATER VALVES 12"	EACH	3
* Δ 56105702	INSERTING VALVES 12"	EACH	3

Δ	56109412	DUCTILE IRON WATER MAIN FITTINGS 12" 22.50 DEGREE BEND	EACH	2
Δ	56109424	DUCTILE IRON WATER MAIN FITTINGS 12" 45.00 DEGREE BEND	EACH	5
* Δ	56200300	WATER SERVICE LINE 1"	FOOT	30
Δ	56201400	CORPORATION STOPS 1"	EACH	2
* Δ	56400600	FIRE HYDRANTS	EACH	1
*	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	41.7
	60207605	CATCH BASINS, TYPE C, TYPE 8 GRATE	EACH	2
	60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1
	60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	479
Δ	63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	126
	67100100	MOBILIZATION	LSUM	1
	72000100	SIGN PANEL - TYPE 1	SQ FT	6.25
	72900200	METAL POST - TYPE B	FOOT	14
Δ	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	80
Δ	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	94
Δ	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	17
Δ	78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	4
	550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	63
	550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	96
	X0322128	MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	444
* Δ	X0323760	SANITARY SEWER SERVICE, 6" PVC, COMPLETE	EACH	1
* Δ	X0323814	SANITARY SEWER REMOVAL, 18"	FOOT	97
* Δ	X0324930	DUCTILE IRON SLEEVE, 12"	EACH	2
*	X0326717	CONCRETE ENTRANCE (SPECIAL)	SQ YD	82
* Δ	X0322786	SANITARY SEWER TESTING	L. SUM	1
*	X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	480
*	X2520650	SODDING, SALT TOLERANT (SPECIAL)	SQ YD	1230
* Δ	X5610004	DUCTILE IRON WATER MAIN FITTINGS	POUND	490
* Δ	X5610012	CAP EXISTING WATER MAIN	EACH	3
* Δ	X5620030	WATER SERVICE CONNECTION 1"	EACH	2
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	80
* Δ	X6022820	MANHOLES, SANITARY, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2
Δ	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	3
* Δ	X6026054	SANITARY MANHOLES TO BE REMOVED	EACH	1
*	X6320100	GUARDRAIL REMOVAL SPECIAL	FOOT	278
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1
	Z0013798	CONSTRUCTION LAYOUT	LSUM	1
* Δ	Z0015000	CURB STOPS 1"	EACH	2
* Δ	Z0056800	SANITARY SEWER 6"	FOOT	10
* Δ	Z0057300	SANITARY SEWER 18"	FOOT	86
* Δ	Z0067700	STEEL CASINGS 20"	FOOT	55
*	Z0075496	CONCRETE RETAINING WALL REMOVAL	FOOT	197
	*	SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS		



**GENERAL NOTES**

- EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- BEFORE ORDERING STORM SEWERS OR PIPE DRAINS, THE CONTRACTOR SHALL FIELD VERIFY AND CONSULT THE ENGINEER FOR EXACT LENGTHS.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
- ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED 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 SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE CONTRACTOR SHALL BE AWARE OF THE PRESENCE OF OVERHEAD HIGH VOLTAGE POWER LINES WHICH MAY IMPACT CONTRACTORS OPERATIONS.
- UNLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A JOINT.
- THE NEW MANHOLE LIDS ON THIS PROJECT SHALL HAVE THE WORD "STORM", "SANITARY", OR "WATER" ON THE LID. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE WORD TO BE USED ON OTHER LIDS NOT NOTED ON THE PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.
- ALL PROPOSED MANHOLES ON THIS PROJECT SHALL BE PRECAST. NO DOGHOUSE MANHOLES WILL BE ALLOWED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR MANHOLE OF THE TYPE AND SIZE SPECIFIED.
- THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS, UNLESS OTHERWISE NOTED IN PLAN.
- HMA PAVEMENT REMOVAL, STORM SEWER REMOVAL, SAW CUTS SHALL BE INCLUDED IN THE COST BID FOR EARTH EXCAVATION, SPECIAL.
- THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.
- THE HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE HMA SURFACE.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:
 

GRANULAR MATERIALS	2.10	TONS/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	7.85	LBS/GAL
BITUMINOUS MATERIALS (PRIME COAT)		
FOR AGGREGATE BASES	0.001125	TONS/SQ YD
HMA PAVING SURFACE	115	LBS/SQ YD/IN
HMA PAVING BINDER	115	LBS/SQ YD/IN
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

ELECTRIC:	COMED	630-576-7094
CABLE:	COMCAST	224-229-5862
TELEPHONE:	FRONTIER COMMUNICATIONS	815-895-1515
GAS:	NICOR	630-388-2362
WATER, SANITARY, STORM	CITY OF MENDOTA:	815-539-6307

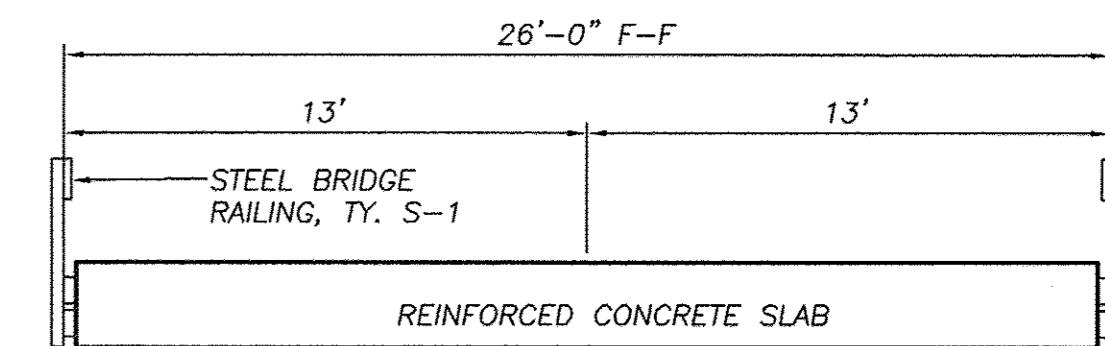
- THE UTILITY INFORMATION SHOWN HEREON IS PROVIDED FOR THE CONVENIENCE OF THE BIDDER AND REFLECTS THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN SUBMITTAL.
- THE CONTRACTOR SHALL GIVE DUE CONSIDERATION TO ALL SAFETY RULES DICTATED BY CODE AND GOOD PRACTICE. ADEQUATE TEMPORARY SUPPORT SHALL BE PROVIDED WHERE NECESSARY TO ENSURE THE STABILITY OF ALL COMPONENTS OF ADJACENT STRUCTURES, ROADWAYS, UTILITIES AND ALL PROPOSED CONSTRUCTION. DESIGN AND CONSTRUCTION OF SUPPORT SYSTEMS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND RESPECTIVE TRADE CONTRACTOR.
- ALL FRAME ADJUSTMENTS SHALL BE ACCOMPLISHED USING PROCEDURES OUTLINED IN THE STANDARD SPECIFICATIONS AND AS DIRECTED IN THE SPECIAL PROVISIONS. ANY SHIMS NEEDED TO ADJUST ANY FRAME SHALL BE OF SOLID FLAT STEEL DIMENSIONS OF 2" IN WIDTH & LENGTH WITH UNIFORM THICKNESS. THE FRAME WILL BE SET TO GRADE USING STEEL SHIMS AND WITHOUT DISTURBING THE ADJUSTMENT; THE FRAME WILL THEN BE LIFTED OFF AND SET ASIDE. A FULL BED OF MORTAR WILL BE PLACED ON THE STRUCTURE BETWEEN THE ADJUSTING SHIMS, WHICH SHALL FORM A SOLID MASONRY BOND BETWEEN THE ADJUSTING RING OR STRUCTURE. THE FRAME SHALL BE SET BACK INTO PLACE IN A METHOD NOT TO DISTURB THE SHIMS OF DAMAGE THE BED OF MORTAR. ALL ADJUSTED FRAMES IN THE ROADWAY SHALL BE BACKFILLED USING COMPACTED HMA BINDER OR CLASS SI CONCRETE TO A MINIMUM DEPTH OF 6" BELOW THE BOTTOM OF THE FRAME.
- DRIVEWAY PAVEMENT & SIDEWALK REMOVAL SHALL INCLUDE THE COMPLETE REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE, HOT-MIX ASPHALT, BRICK OR ANY OTHER PAVEMENTS AND PARTIAL DEPTH REMOVAL OF EXISTING BASES & SUB-BASES IS ASSUMED TO BE AT A DEPTH OF 12".
- GRANULAR BACKFILL SHALL BE USED FOR CULVERT, WING WALL, EXISTING STRUCTURE/CHANNEL BACKFILL, AND RETAINING WALL BACKFILL IN ACCORDANCE WITH THE SCHEDULES ON PLAN SHEET 3. SITE EXCAVATED MATERIAL DEEMED SUITABLE FOR BACKFILL MATERIAL BY THE ENGINEER SHALL BE USED FOR EMBANKMENT ON THE FRONT (STREAM) SIDE OF RETAINING AND WING WALLS AND FOR THE FILL BEHIND THE UPSTREAM END SOUTH WING FOR 10' FROM THE WING END. NO VEHICLE DRIVEN COMPACTION EQUIPMENT SHALL BE USED WITHIN 10 FEET OF ANY PROPOSED STRUCTURE WALL ON THE PROJECT.

**SANITARY SEWER NOTES:**

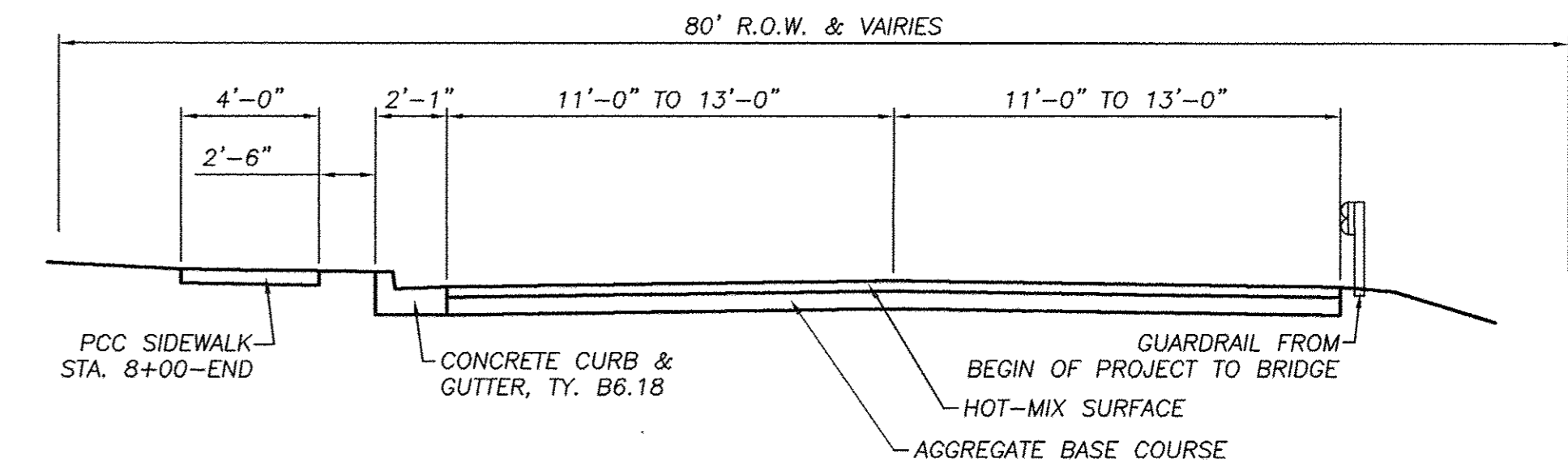
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, 7TH EDITION, 2014.
- THE CONTRACTOR SHALL ORDER MANHOLES BASED UPON THE ENGINEERS ACTUAL FIELD SHOTS AT THE TIME OF CONSTRUCTION. DUE TO EXISTING UTILITY LOCATIONS SOME MANHOLE LOCATIONS MAY CHANGE SLIGHTLY THEREBY CHANGING THE RIM ELEVATIONS.
- PVC SANITARY SEWER PIPE SHALL CONFORM TO ASTM D 3034, TYPE PSM. STANDARD DIMENSION RATIO (SDR) SHALL BE SDR 26 UNLESS OTHERWISE SHOWN ON THE PLANS. JOINTS SHALL CONFORM TO ASTM F477. BEDDING SHALL BE CLASS IA. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTMS D2321-89. SANITARY SEWER FITTINGS SHALL BE HEAVY DUTY PVC, TYPE SDR 26. DUCTILE IRON SANITARY SEWER SHALL MEET THE PIPE AND FITTING SPECIFICATIONS FOR WATERMAIN DESCRIBED ABOVE.
- CERTA-LOK C900 DR 18 RESTRAINED JOINT PIPE FOR DIRECTIONAL DRILLING SHALL CONFORM TO ASTM D 1784 CELL CLASS 12454. PIPE COMPOUND SHALL BE ASTM D 1784. JOINTS SHALL BE IN ACCORDANCE WITH ASTM D 3139. GASKETS SHALL BE IN ACCORDANCE WITH ASTM F477.
- SANITARY SEWER JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D 3212 AND THE BEDDING SHALL BE CLASS IA BEDDING ASTM D 2321. MISSION COUPLINGS SHALL BE USED TO CONNECT PVC TO DUCTILE IRON SANITARY SEWER MAIN.
- THE CONTRACTOR SHALL CORE DRILL EACH EXISTING MANHOLE THAT IS BEING CONNECTED TO. LINK SEALS SHALL BE PROVIDED AT THE CONNECTIONS.
- BACKFILL MATERIAL AROUND THE SANITARY SEWER MANHOLES SHALL BE CA-7 CRUSHED LIMESTONE.
- THE SANITARY SEWER SERVICES SHALL BE PVC SDR 26 - ASTM D2241, 6" IN DIAMETER, THE TRANSITION BETWEEN D3034 PIPE AND D2241 PIPE SHALL BE WITH A GASKETED COUPLING.
- ALL SANITARY SEWER AND SERVICES SHALL BE AIR TESTED AND ALL SANITARY SEWER 8" DIAMETER AND LARGER SHALL BE TELEVISED. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR SANITARY SEWER.
- ALL SANITARY SEWER LINES SHALL BE TESTED FOR DEFLECTION BY USING A MANDREL IN ACCORDANCE WITH THE SPECIFIED PROCEDURE AS OUTLINED IN THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR SANITARY SEWER.
- ALL SANITARY MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE W/ASTM C1244.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH THE LOCATION AND VERTICAL DISTANCE FROM TOP OF CURB TO SANITARY SERVICE FLOW LINE AT THE END OF THE SANITARY SERVICE LINE WHERE IT IS PLUGGED FOR EACH SERVICE INSTALLED.
- ADJUSTMENT OF FRAME OF GRATE: FINAL GRADE FOR ALL MANHOLE CASTINGS WILL BE DETERMINED AFTER THE CURB AND GUTTER HAS BEEN POURED AND THE SUBGRADE AND/OR BASE HAS BEEN CONSTRUCTED. THE FINAL ELEVATION WILL BE DETERMINED BY THE ENGINEER.
- SANITARY SEWER AND WATER MAIN SEPARATION WILL CONFORM TO SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- BYPASS PUMPING WILL BE NECESSARY TO CONSTRUCT THE NEW MANHOLE AT STA. 11+62. COST TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SANITARY SEWER MANHOLE #3-TY. A, 5' DIA.

**HMA MIXTURE REQUIREMENT TABLE**

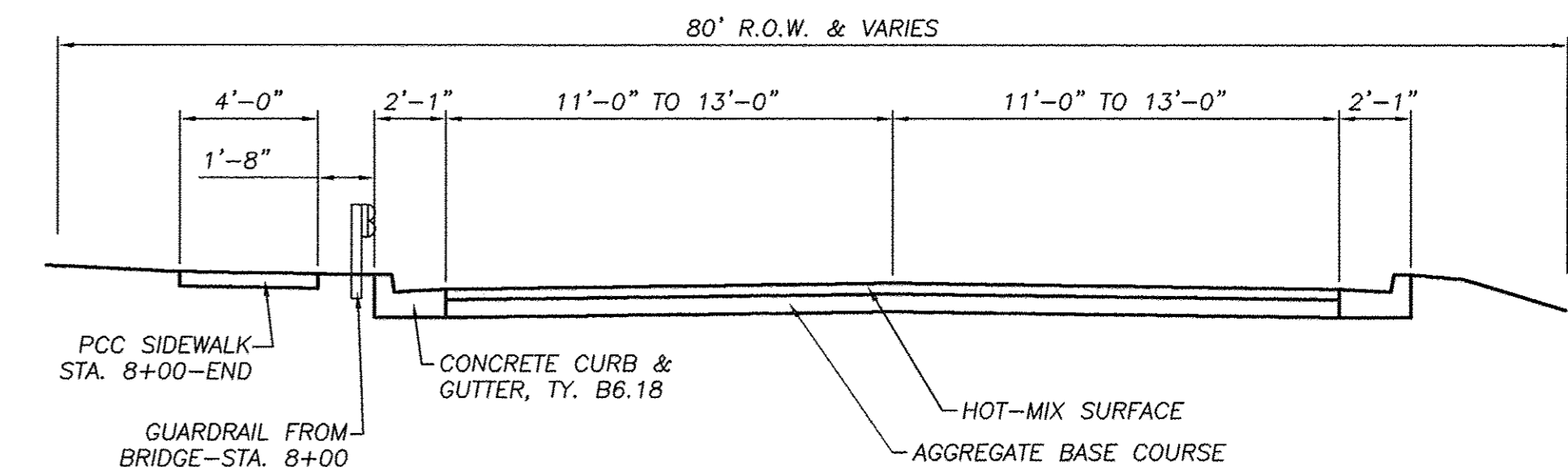
LOCATIONS:	ENTIRE PROJECT	ENTIRE PROJECT
MIXTURE USES	HMA BINDER	HMA SURFACE
PG GRADE	PG64-22	PG64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0	IL 9.5
FRICTION AGGREGATE		MIXTURE C
MIXTURE WEIGHT	112 LB/SY/IN	112 LB/SY/IN
QUALITY MANAGEMENT PROGRAM	QCQA	QCQA
SUBLOT SIZE:	NA	NA
DENSITY TEST METHOD	LR1030	LR1030



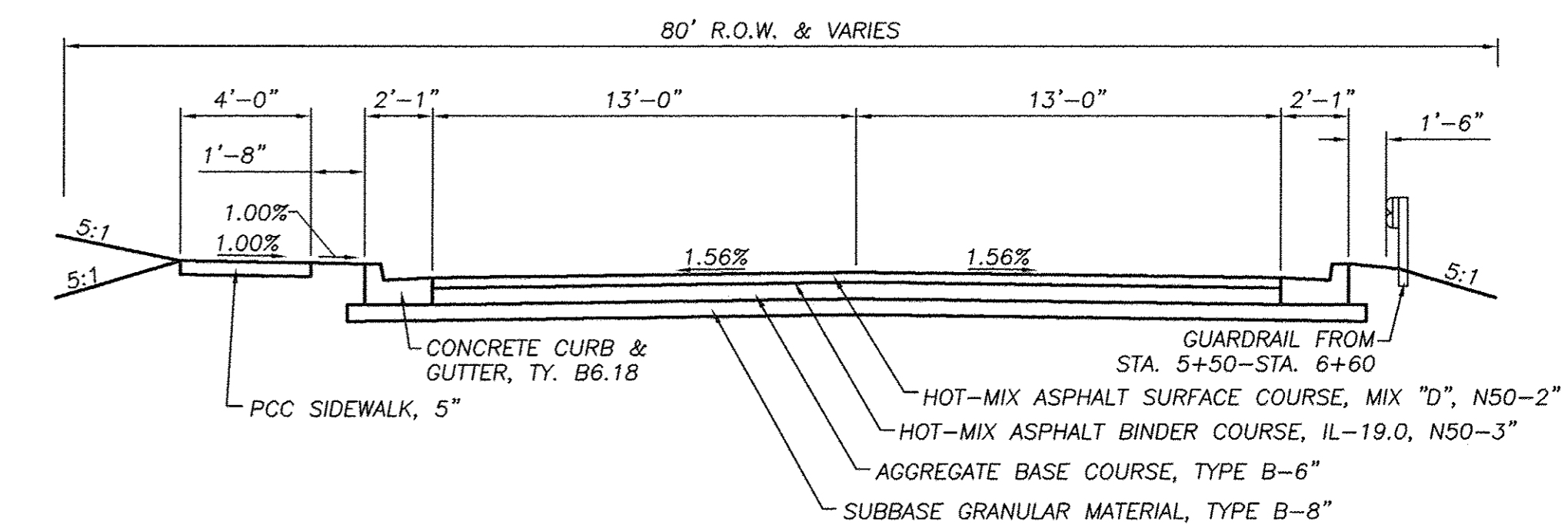
**EXISTING SECTION THRU BRIDGE**  
SN 050-7001  
LOOKING NORTH



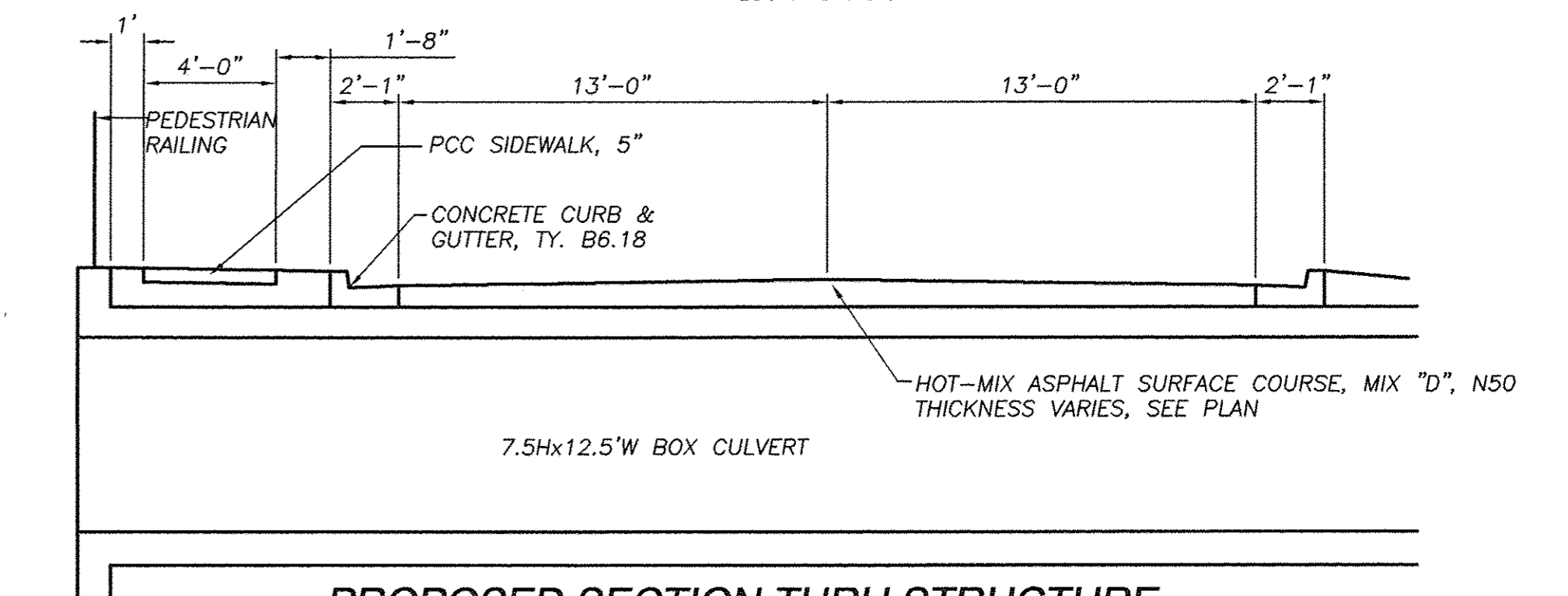
**EXISTING ROADWAY SECTION**  
SOUTH OF BRIDGE  
LOOKING NORTH



**EXISTING ROADWAY SECTION**  
NORTH OF BRIDGE  
LOOKING NORTH



**PROPOSED ROADWAY SECTION**  
LOOKING NORTH



**PROPOSED SECTION THRU STRUCTURE**  
LOOKING NORTH

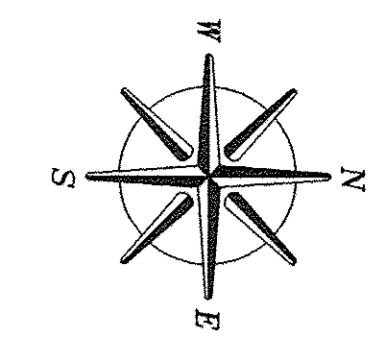
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**LASALLE COUNTY - CITY OF MENDOTA**

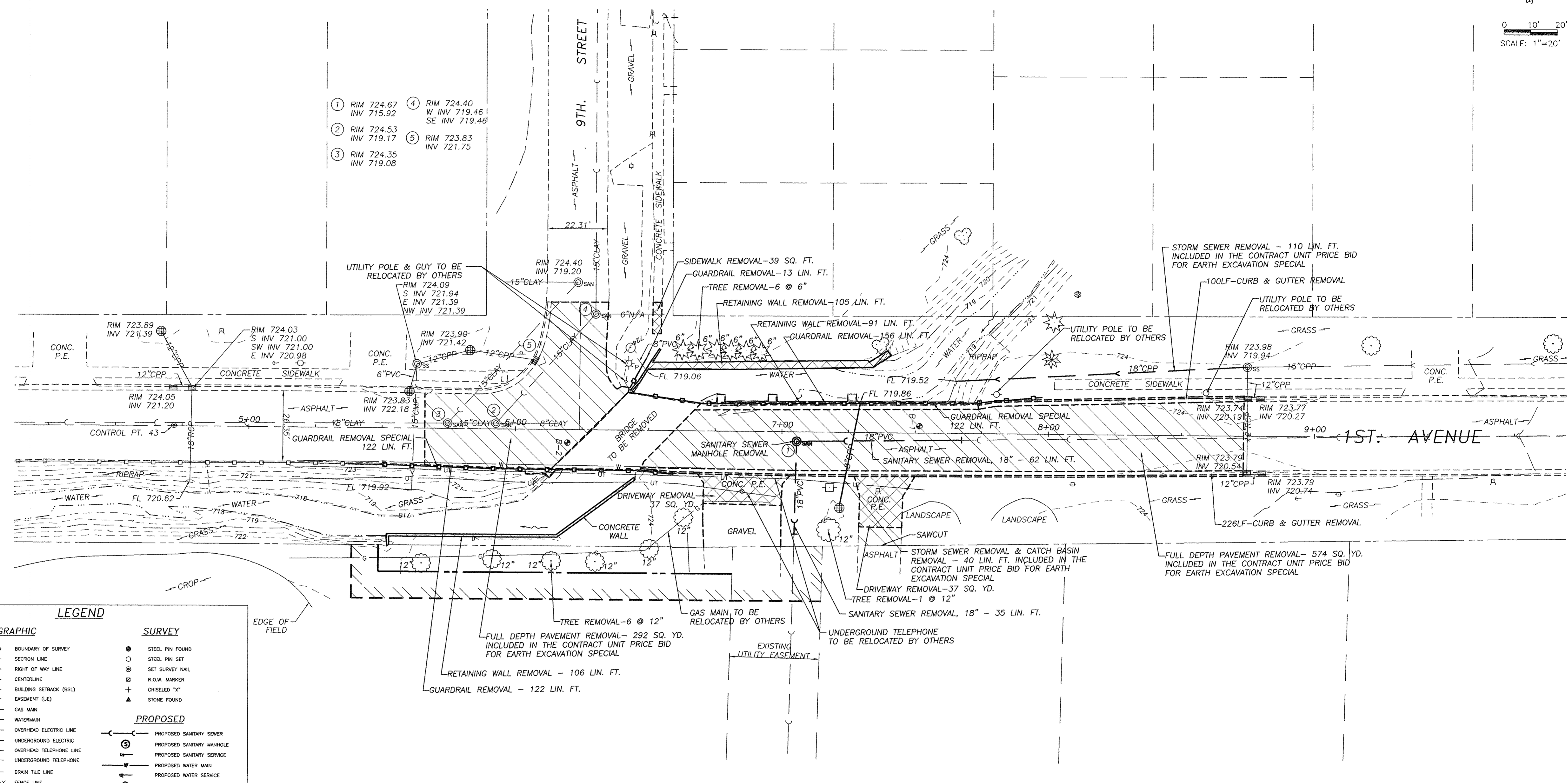
**GENERAL NOTES & TYPICAL SECTIONS**

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

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	4
WES# 2070388	CONTRACT NO		87657	
ILLINOIS FED. AID PROJECT		BRS-00990611		



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SCALE: 1"=20'

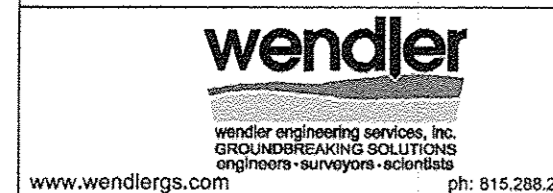


TOPOGRAPHIC		SURVEY	
—	BOUNDARY OF SURVEY	●	STEEL PIN FOUND
- - -	SECTION LINE	○	STEEL PIN SET
- - - - -	RIGHT OF WAY LINE	⊙	SET SURVEY NAIL
- - - - -	CENTERLINE	⊕	R.O.W. MARKER
- - - - -	BUILDING SETBACK (BSL)	+	CHISELED "X"
- - - - -	EASEMENT (UE)	▲	STONE FOUND
C	GAS MAIN	<b>PROPOSED</b>	
W	WATERMAIN	—	PROPOSED SANITARY SEWER
OE	OVERHEAD ELECTRIC LINE	⊙	PROPOSED SANITARY MANHOLE
UGC	UNDERGROUND ELECTRIC	—	PROPOSED SANITARY SERVICE
OT	OVERHEAD TELEPHONE LINE	—	PROPOSED WATER MAIN
UGT	UNDERGROUND TELEPHONE	—	PROPOSED WATER SERVICE
DT	DRAIN TILE LINE	—	PROPOSED WATER VALVE
X-X-X-X	FENCE LINE	—	PROPOSED FIRE HYDRANT
—	STORM SEWER	—	PROPOSED STORM SEWER
—	SANITARY SEWER	—	PROPOSED STORM INLET
—	CURB AND GUTTER	—	PROPOSED STORM MANHOLE
—	DEPRESSED CURB	—	PROPOSED DRAIN TILE
—	EXISTING CONTOUR LINE	—	PROPOSED END SECTION
847	DECIDUOUS SHRUB	—	PROPOSED RIP RAP
—	CONFERIOUS SHRUB	—	PROPOSED DIRECTION OF FLOW
—	DECIDUOUS TREE	—	PROPOSED 100 YEAR FLOOD ROUTE
—	CONFERIOUS TREE	—	TOP OF FOUNDATION
—	STUMP	—	PROPOSED CONTOUR LINE
—	TELEPHONE POLE	—	PROPOSED CURB & GUTTER
—	TELEPHONE PEDESTAL	—	
—	CABLE TV RISER	—	
—	POWER POLE	—	
—	ELEC. PAD W/ TRANS.	—	
—	GAS METER/REGULATOR	—	
—	SIGN	—	

**UTILITY NOTE:**  
THE LOCATION AND SIZE OF UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED UPON INFORMATION PROVIDED BY OTHERS. WENDLER ENGINEERING SERVICES, INC. MAKES NO GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, FOR THE ACCURACY AND LOCATION OF THE UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

ELECTRIC: COMED 630-576-7094  
CABLE: COMCAST 224-229-5862  
TELEPHONE: FRONTIER COMMUNICATIONS 815-895-1515  
GAS: NICOR 630-388-2362  
WATER, SANITARY, STORM CITY OF MENDOTA: 815-539-6307



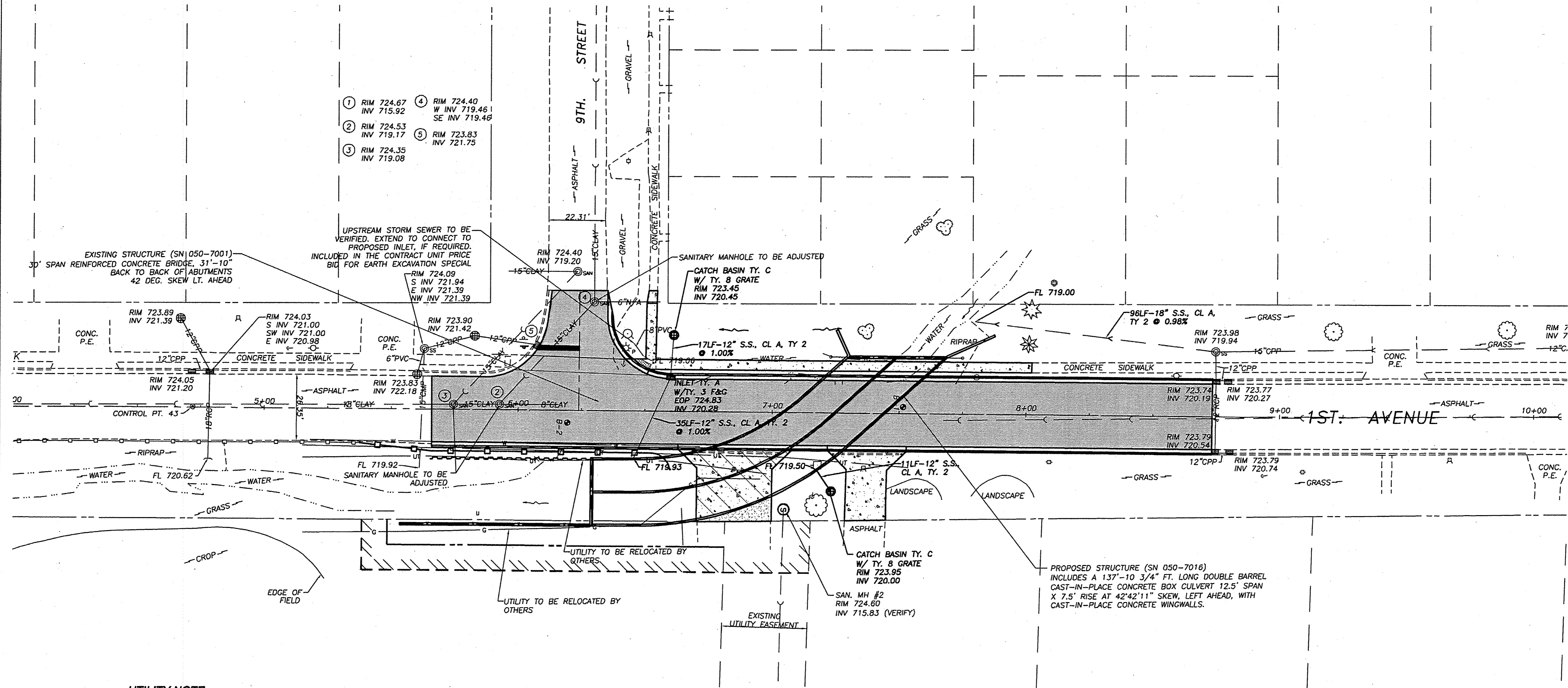
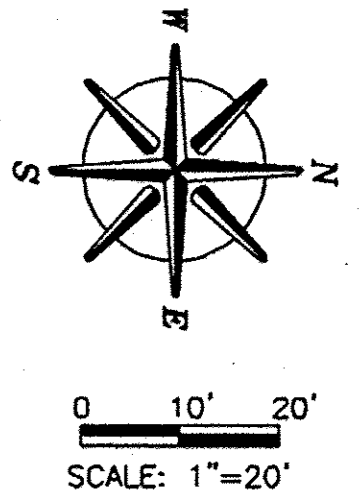
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FILE NAME =	2070388-2011.dwg	DATE =	02/01/2017	REVISED =	-

**LASALLE COUNTY - CITY OF MENDOTA**

**EXISTING & DEMOLITION PLAN**

SCALE: 1"=20' SHEET - OF - SHEETS STA. - TO STA. -

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	5
WES# 2070388		CONTRACT NO		87657
		ILLINOIS FED. AID PROJECT		BRS-00990611



**UTILITY NOTE:**

THE LOCATION AND SIZE OF UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED UPON INFORMATION PROVIDED BY OTHERS. WENDLER ENGINEERING SERVICES, INC. MAKES NO GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, FOR THE ACCURACY AND LOCATION OF THE UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

ELECTRIC: COMED 630-576-7094  
 CABLE: COMCAST 224-229-5862  
 TELEPHONE: FRONTIER COMMUNICATIONS 815-895-1515  
 GAS: NICOR 630-388-2362  
 WATER, SANITARY, STORM: CITY OF MENDOTA 815-539-6307



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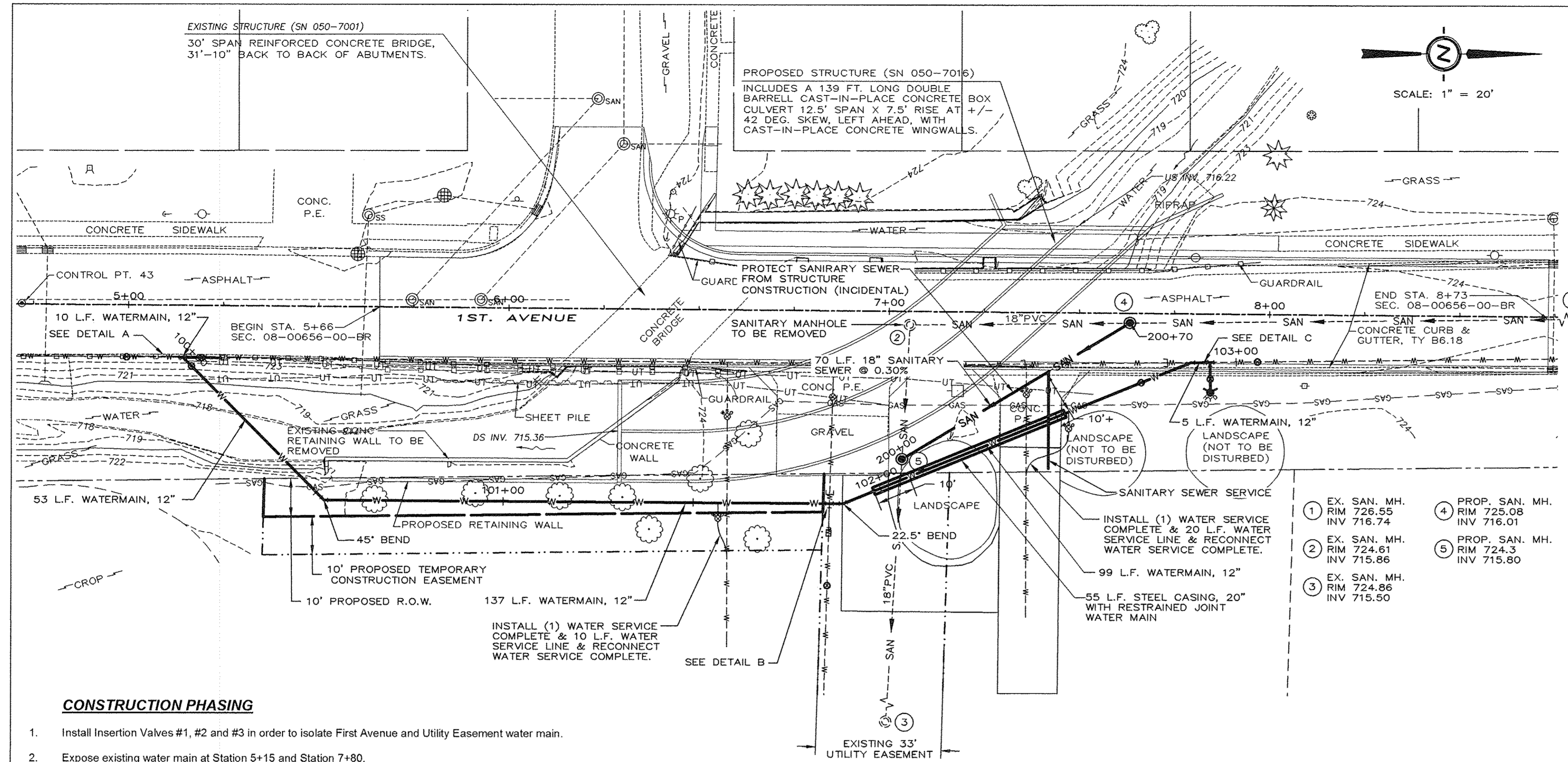
**LASALLE COUNTY - CITY OF MENDOTA**

**UTILITY PLAN**

SCALE: 1"=20'

SHEET - OF - SHEETS STA. - TO STA. -

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	6
WES# 2070388		CONTRACT NO		87657
		ILLINOIS FED. AID PROJECT		BRS-00990611



**SUMMARY OF QUANTITIES**

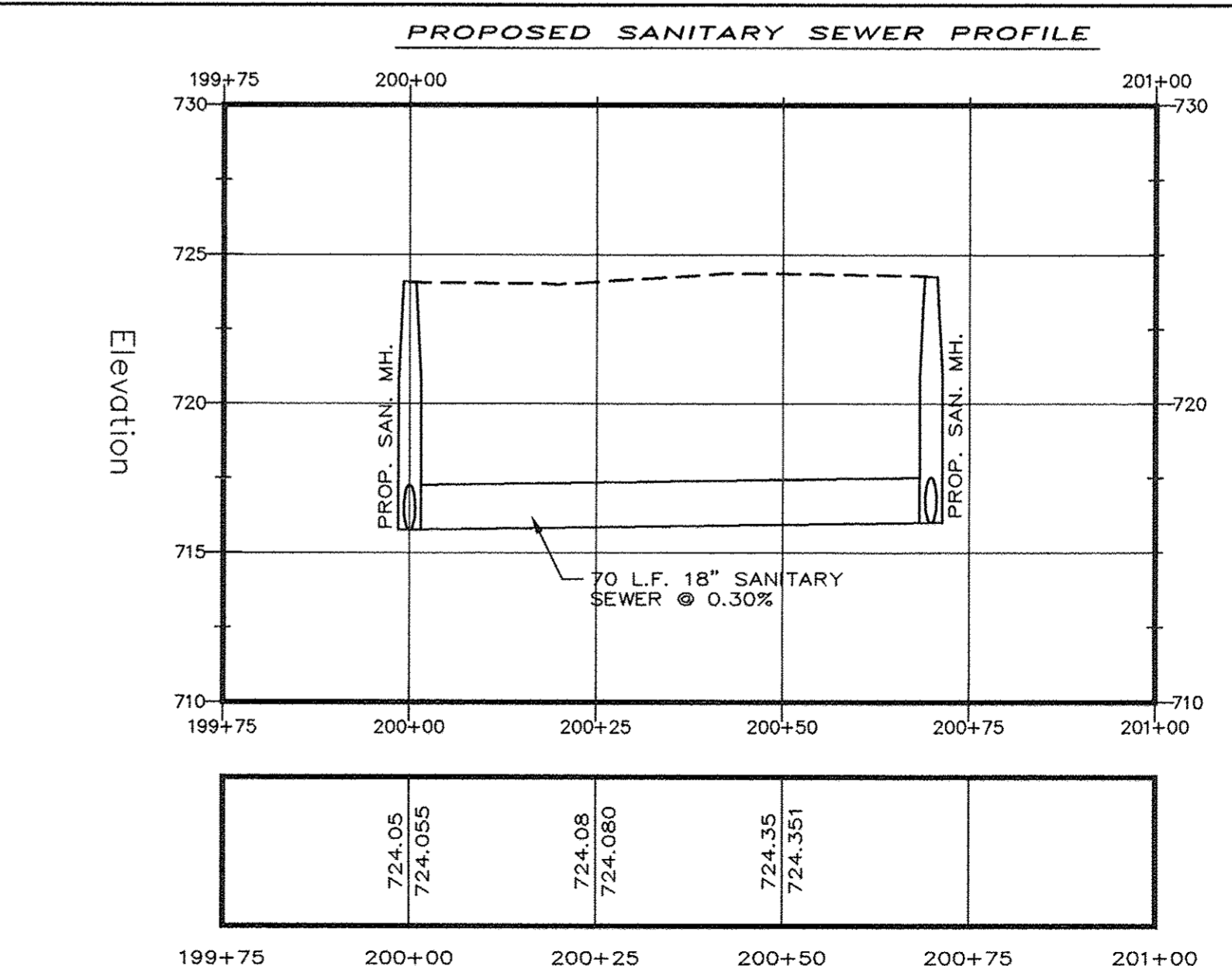
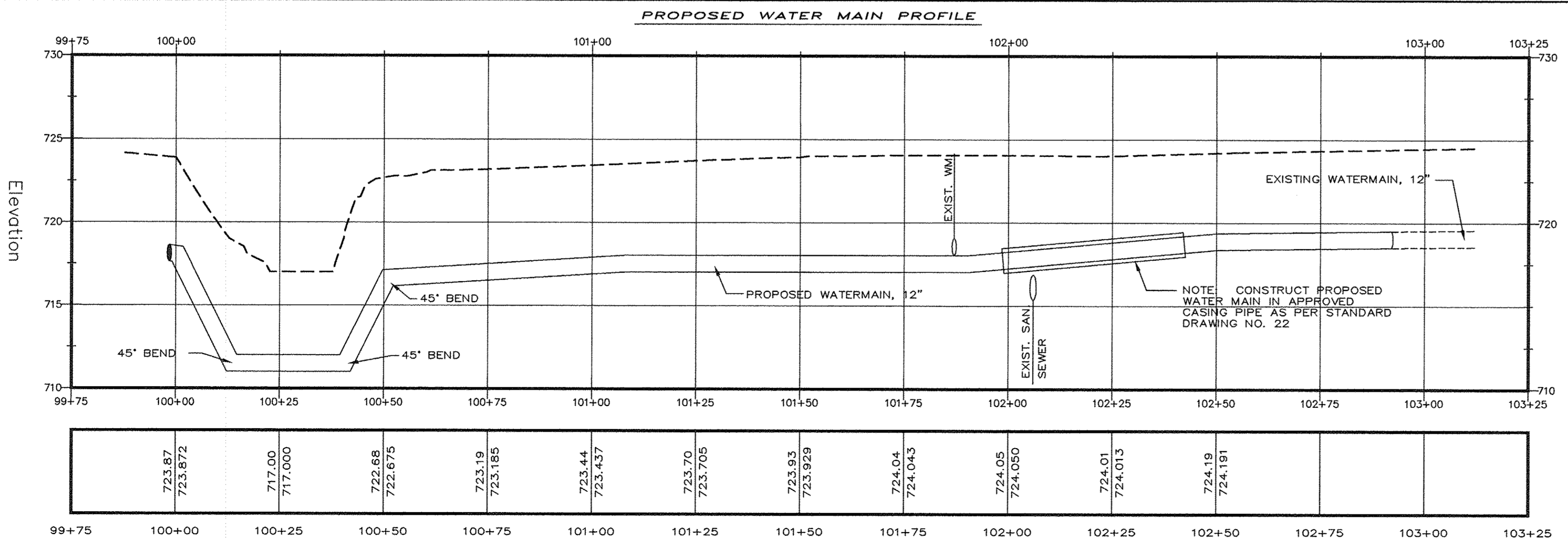
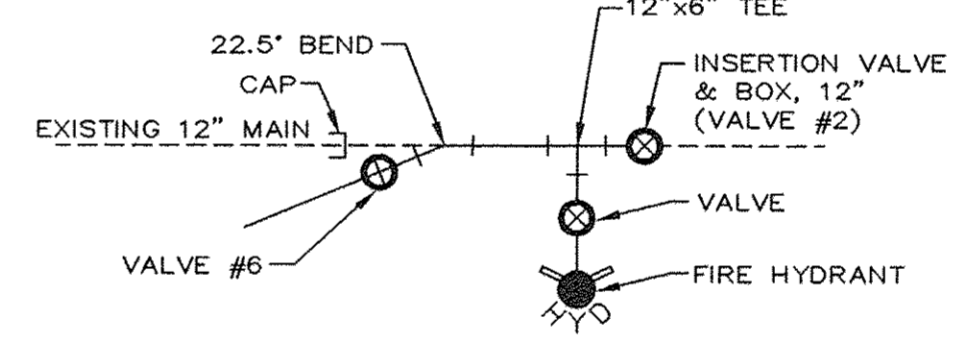
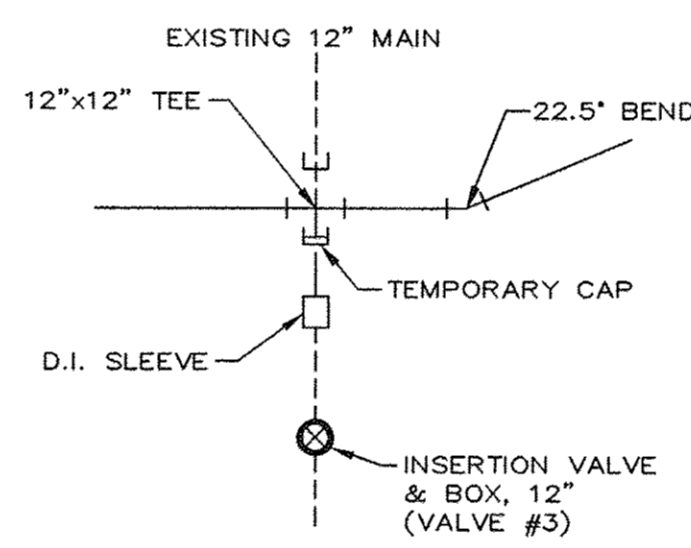
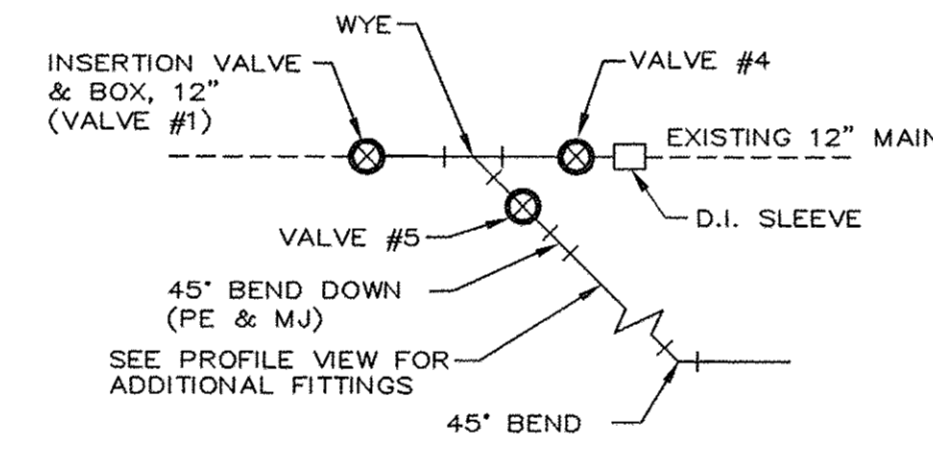
PAY ITEM	DESCRIPTION	QUANTITY	UNIT
20800150	TRENCH BACKFILL	70	CU YD
56100050	DUCTILE IRON WATER MAIN TEE, 12" X 6"	1	EACH
56100065	DUCTILE IRON WATER MAIN TEE, 12" X 12"	1	EACH
56103000	DUCTILE IRON WATER MAIN 6"	10	FOOT
56103300	DUCTILE IRON WATER MAIN 12"	304	FOOT
56104900	WATER VALVES 6"	1	EACH
56105200	WATER VALVES 12"	3	EACH
56105702	INSERTING VALVES 12"	3	EACH
56109412	DUCTILE IRON WATER MAIN FITTINGS 12" 22.50 DEGREE BEND	2	EACH
56109424	DUCTILE IRON WATER MAIN FITTINGS 12" 45.00 DEGREE BEND	5	EACH
56200300	WATER SERVICE LINE 1"	30	FOOT
56201400	CORPORATION STOPS 1"	2	EACH
56400600	FIRE HYDRANTS	1	EACH
X0323760	SANITARY SEWER SERVICE, 6" PVC, COMPLETE	1	EACH
X0324930	DUCTILE IRON SLEEVE, 12"	2	EACH
X5610004	DUCTILE IRON WATER MAIN FITTINGS	490	POUND
X5610012	CAP EXISTING WATER MAIN	3	EACH
X5620030	WATER SERVICE CONNECTION 1"	2	EACH
X6022820	MANHOLES, SANITARY, 5" DIAMETER, TYPE 1 FRAME, CLOSED LID	2	EACH
X6026054	SANITARY MANHOLES TO BE REMOVED	1	EACH
Z0015000	CURB STOPS 1"	2	EACH
Z0056800	SANITARY SEWER 6"	10	FOOT
Z0057300	SANITARY SEWER 18"	86	FOOT
Z0067700	STEEL CASINGS 20"	55	FOOT

**CITY OF MENDOTA WATER AND SEWER MATERIAL SPECIFICATIONS**

- The Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction" adopted April 1, 2016 and the "Standard Specifications for Water & Sewer Main Construction in Illinois" June 2014 or current revision shall govern applicable portions of this project.
- A. Water Main**
- Class 52 Ductile Iron Pipe (cement lined) with push-on joints
- B. Water Main Fittings (Tees, Elbows, Wyes, Plugs, Caps, Etc.)**
- Compact Ductile Iron MJ Fittings -- Must be American made AWWA-C-153 and include pipe restraint system. (Mega-Lug or equal)
- C. Hydrants**
- Mueller Centurion A423 with 6" MJ Shoe and AQUAGRIP system.
  - Waterous WB67-250 with 6" Shoe and ALPHA ends.
- All Hydrants to have:
- Stainless Steel Bolts on Shoe
  - 5 ft. bury
  - (2) 2 1/2" Hose Nozzle
  - (1) 1 1/2" Pumper Nozzle
  - 1" Square Operating Nut & Nozzle Caps
  - Open Right
  - Bleed Back Cap
- D. Water Main Valves**
- Mueller A-2361 Resilient Wedge Gate Valve with AQUAGRIP System
  - Waterous 2500Series Gate Valve with ALPHA ends
- E. Insertion Valves**
- Advanced Valve Technologies, Inc. EZ Valve System
- F. Service Tapping Saddles (on PVC Pipe)**
- Smith-Blair and Cascade, Epoxy Coated Body with Mueller CC Thread Outlet and Double Stainless Steel Straps
  - Ductile Iron Pipe may be direct tap
- G. Water Service Fittings**
- Mueller Brass Compression Fittings to be used on all Service Fittings
- H. Corporation Stops**
- Mueller #H15000 with CC Thread
  - Mueller #H15069 - 90 Degree Swivel
- I. Curb Stops**
- Mueller Mark 3 #H1504-2 (Compression X Compression)
- J. Service Boxes**
- Tyler Service Box (95E)-(30T-39B) Stamped WATER on Lid
- K. Valve Boxes**
- Tyler 664s-2 pc. Cast Iron (26T-36B) Stamped WATER on Lid  
Note: Must be American made and no Welded-On Threads allowed
- L. Water Service Line**
- Type K Soft Copper Tubing, 1" or larger
  - SDR-9 polyethylene tubing with a rating of 200 psi, 1" or larger and with 10 gauge stranded, covered and insulated tracing wire
- M. Sewer Pipe**
- SDR 26 PVC - ASTM D3034
- N. Sewer Pipe Fittings**
- All fittings to have Gasketed Joints
- NOTE: Request for Material Deviations must be Approved by:  
Water Department Superintendent  
City Engineer

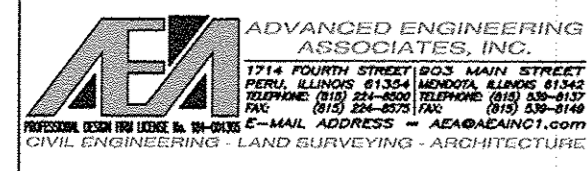
**CONSTRUCTION PHASING**

- Install Insertion Valves #1, #2 and #3 in order to isolate First Avenue and Utility Easement water main.
- Expose existing water main at Station 5+15 and Station 7+80. Remove a portion of existing water main north of Valve #1 and south of Valve #2. Install wye, Valves #4 and #5, sleeve, fire hydrant assembly, 22.5 degree bend, cap, Valve #6 and water main. Open Valve #1 and #4 and close all other Valves.
- Construct water main with tee, temporary cap, corporation stops, casing, etc. to previous water main constructed at North end. Construct tee and plug at Utility Easement under existing water main so as not to disturb water supply.
- Close Valve #4, open Valve #5 and #6 and fill and flush water main through new fire hydrant. Close Valve #5 and #6 and open Valve #4.
- Perform pressure test and bacteriological testing.
- Install water services complete, water service lines and reconnect.
- Close Valve #4 and connect water main to Valve #3. Abandon old water main and Valve #4 in place.
- Open all other valves used to isolate various parts of the project to complete a looped system.
- Construct sanitary sewer as per plans.



FIRST AVENUE OVER FIRST CREEK  
F.A.U. ROUTE 6011  
LASALLE COUNTY / CITY OF MENDOTA  
SECTION 08-00656-00-BR

REVISED: 3/29/2017  
REVISED: 2/22/2017  
REVISED: 2/21/2017  
REVISED: 2/14/2017  
DATE: 1/26/2017



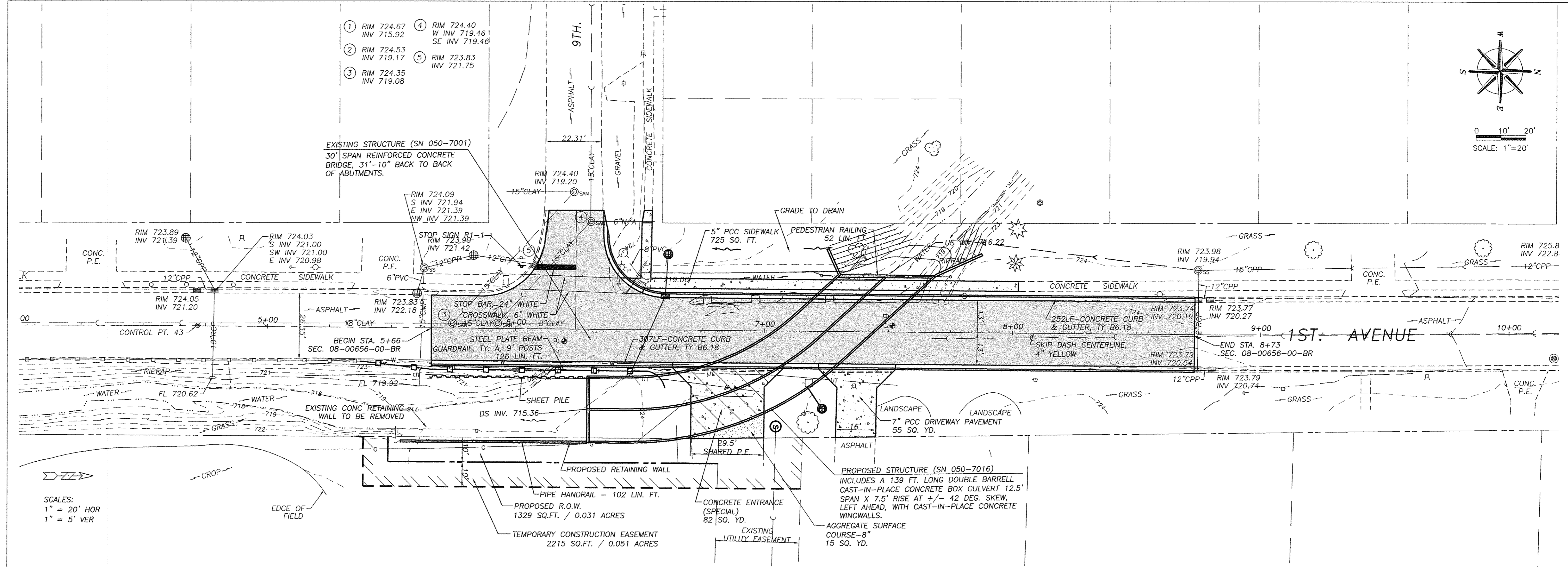
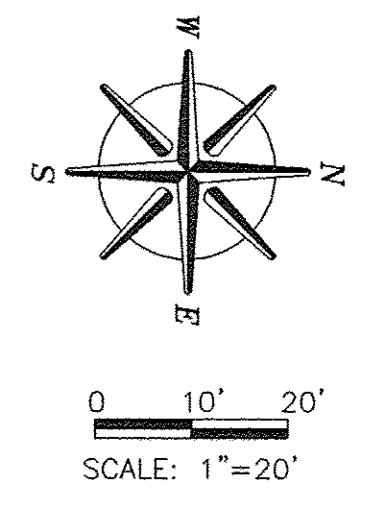
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**LASALLE COUNTY - CITY OF MENDOTA**

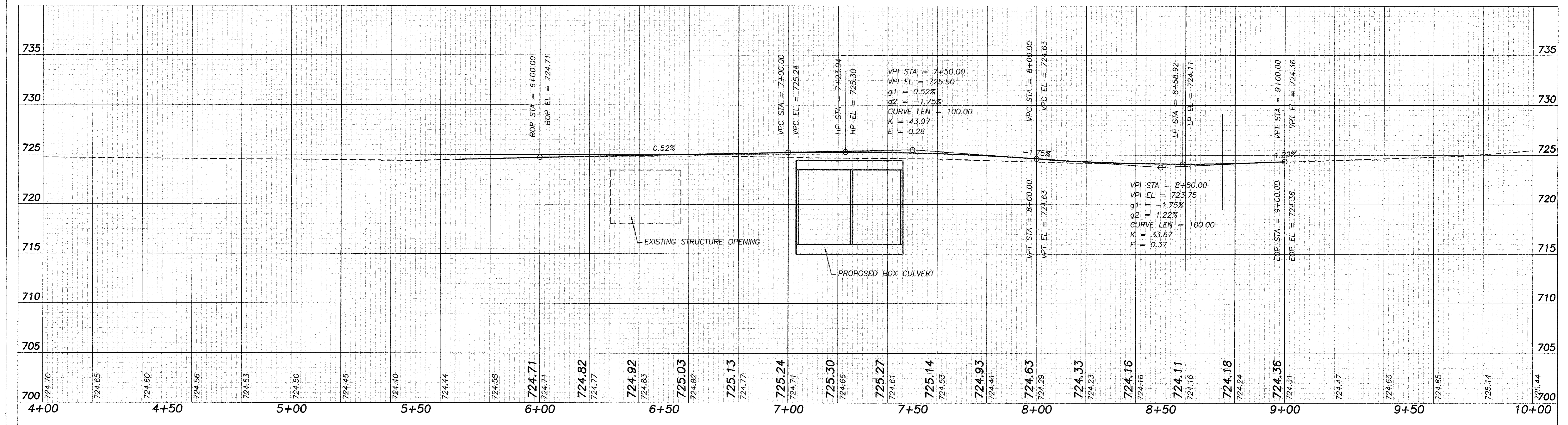
**WATERMAIN AND SANITARY SEWER RELOCATION**

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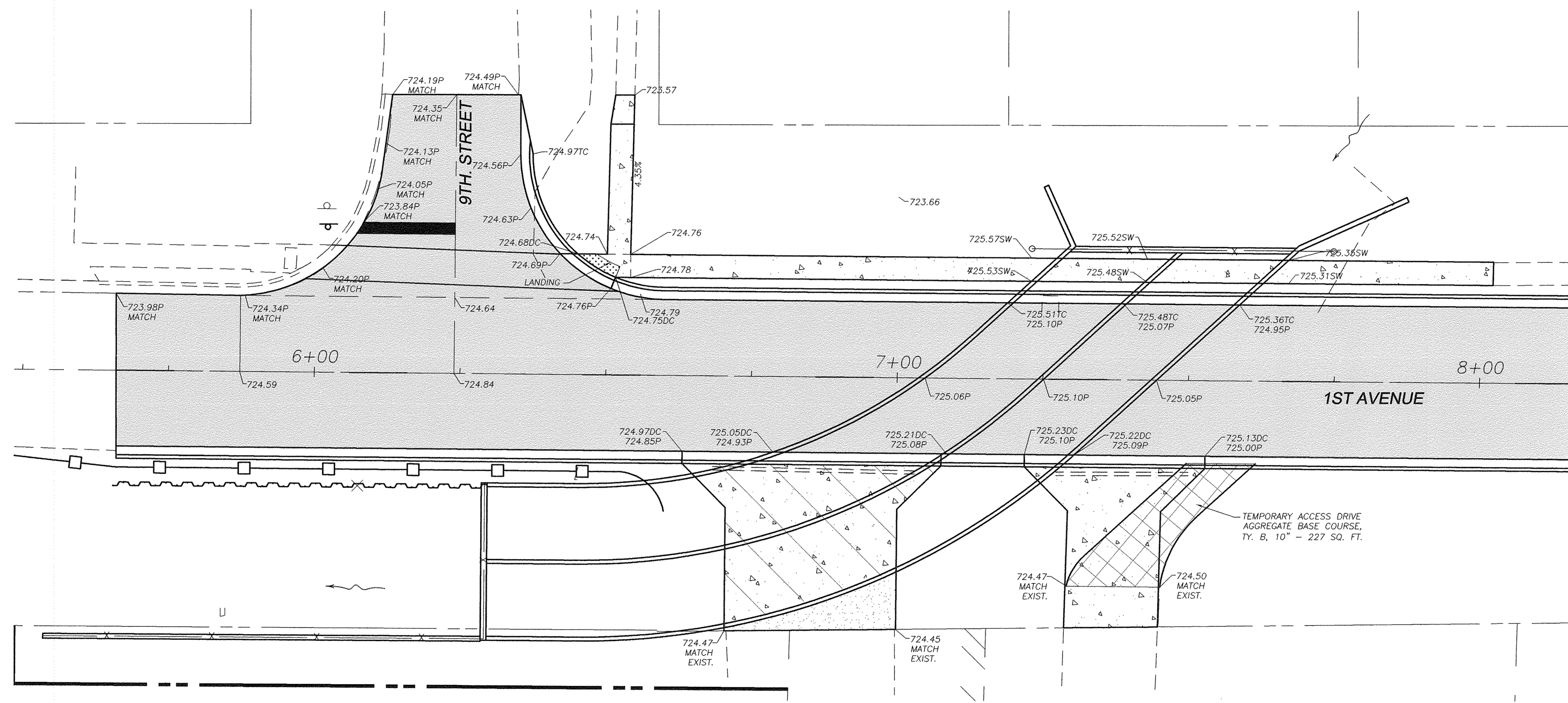
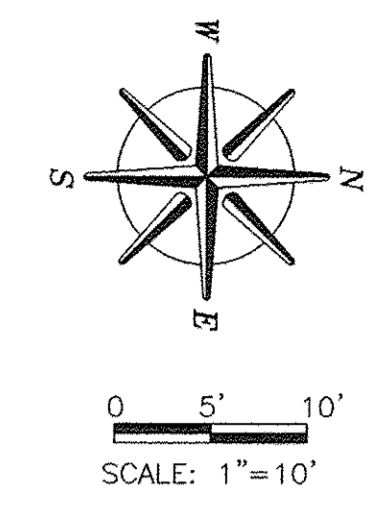
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6011	08-00656-00-BR	LASALLE	-	7
WES# 2070388			CONTRACT NO 87657	
ILLINOIS FED. AID PROJECT			BRS-0099(06)	



SCALES:  
 1" = 20' HOR  
 1" = 5' VER







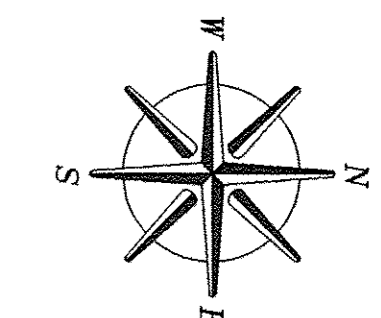
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**LASALLE COUNTY - CITY OF MENDOTA**

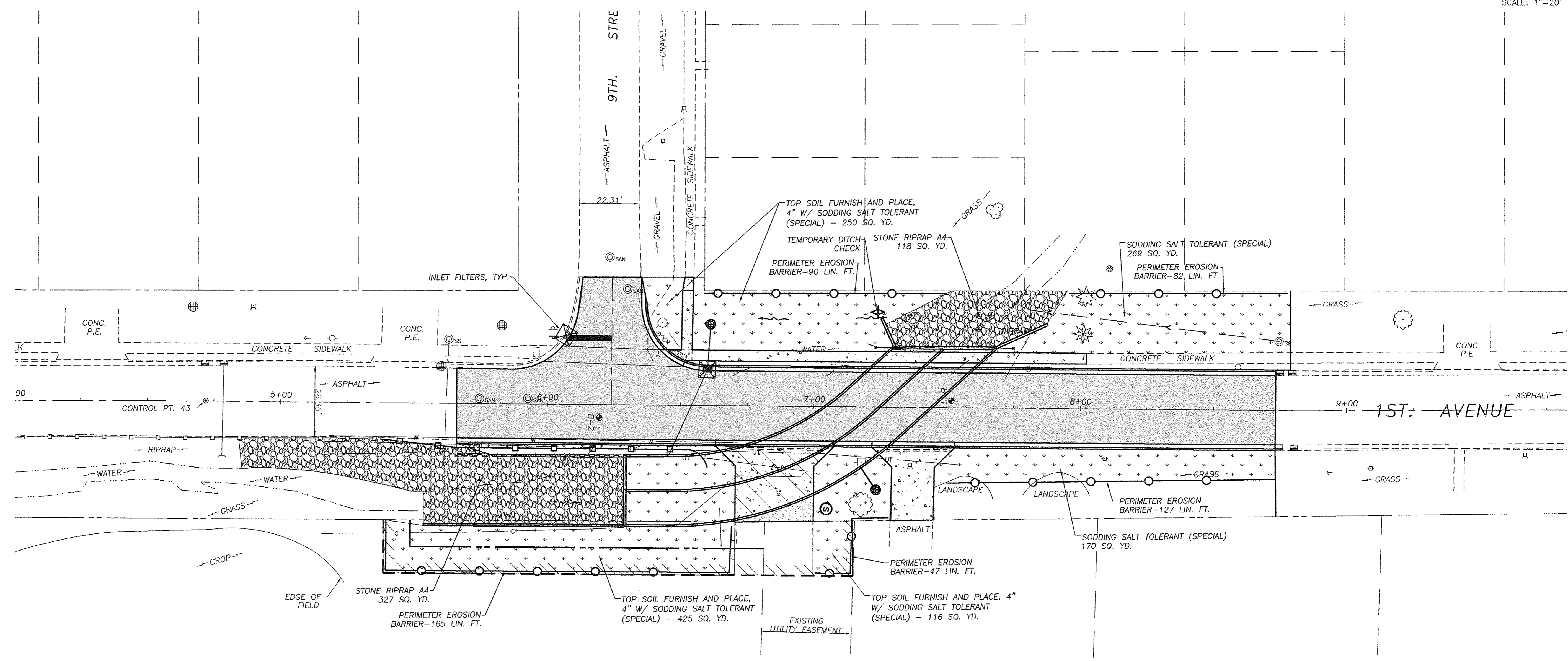
**INTERSECTION & CULVERT GRADING PLAN**

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6011	08-00656-00-BR	LASALLE	20	9
WES# 2070388		CONTRACT NO		87657
ILLINOIS FED. AID PROJECT			BRS-0099061	



0 10' 20'  
SCALE: 1"=20'

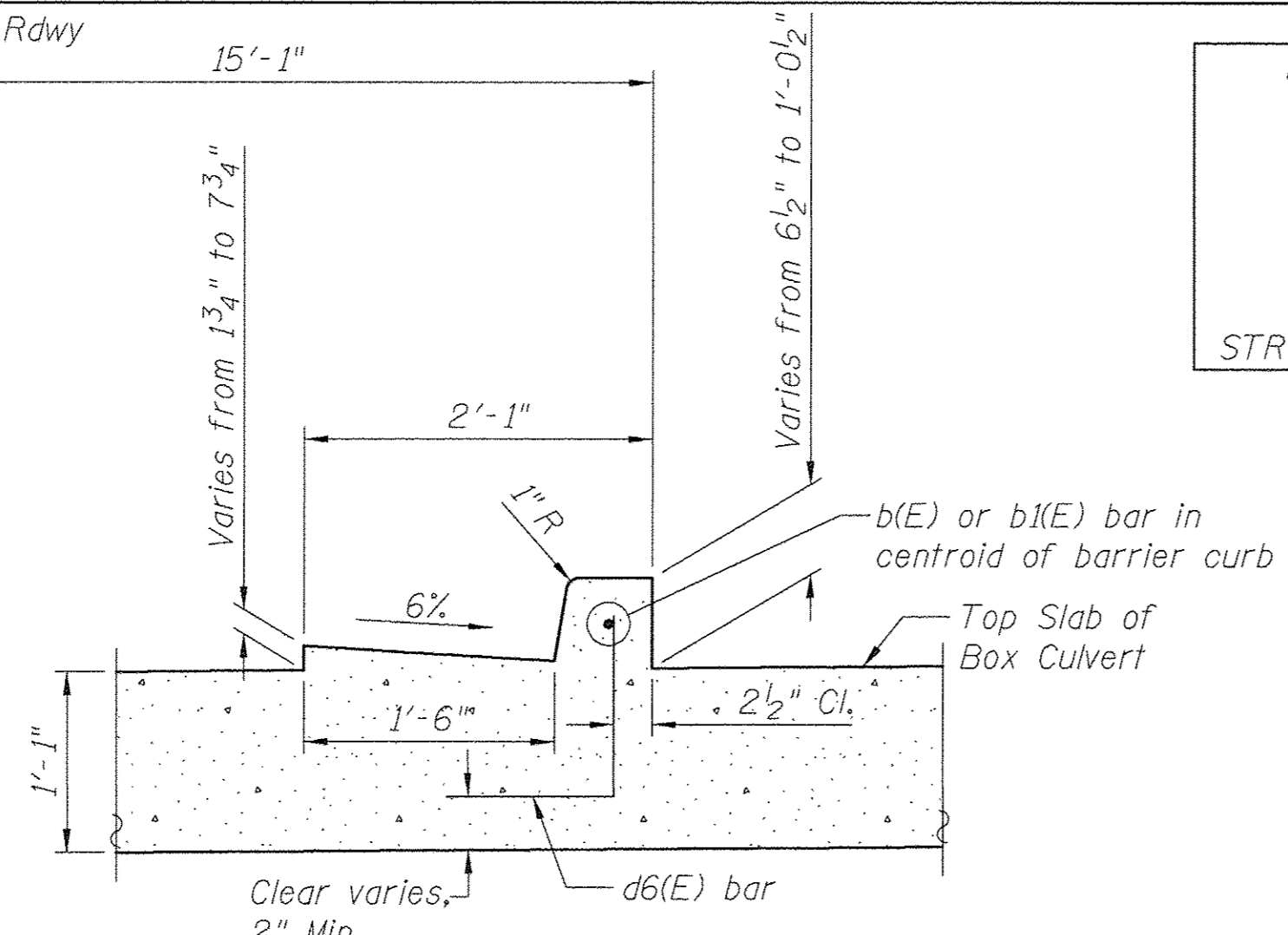


**LEGEND**

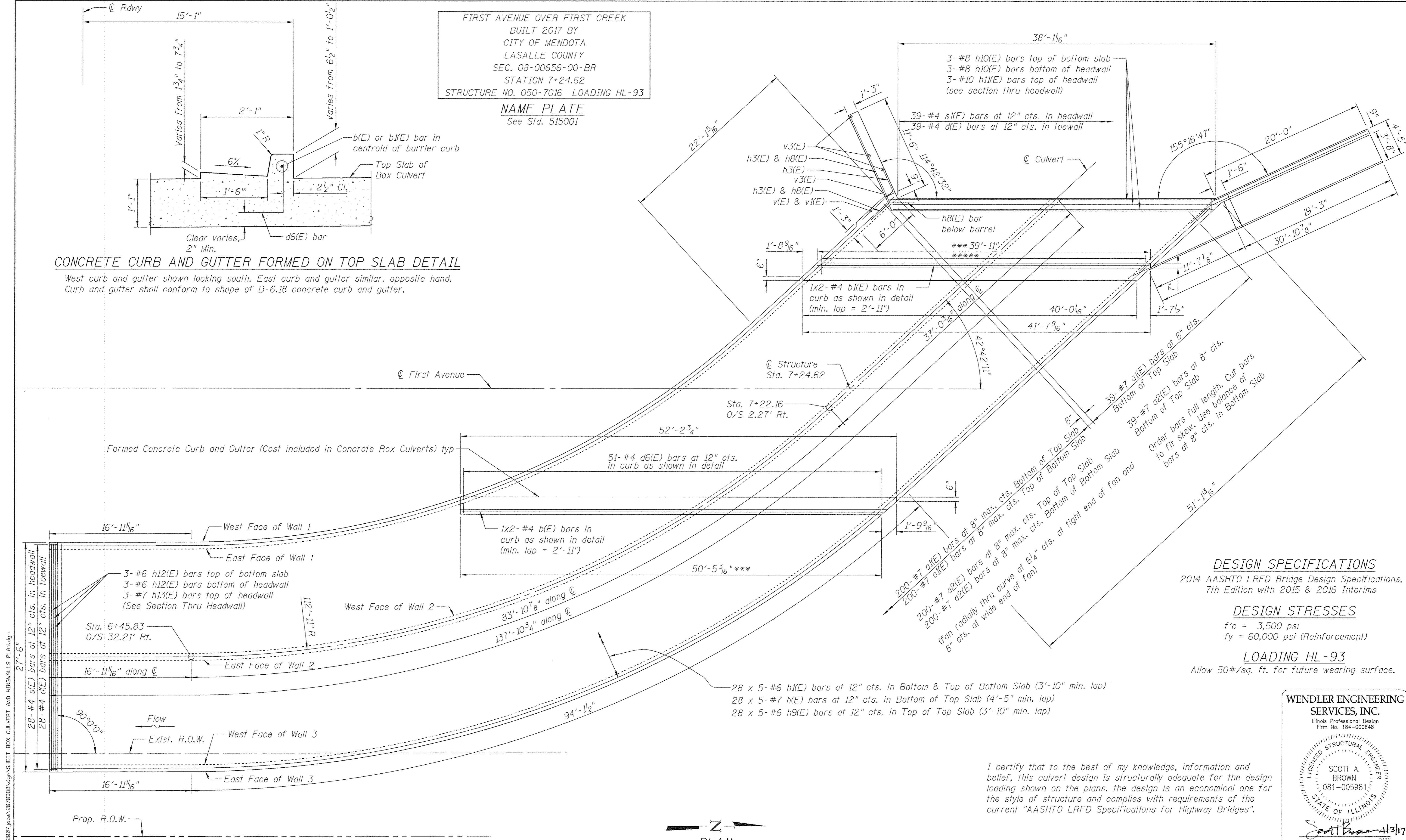
	SODDING SALT TOLERANT, SPECIAL
	STONE RIPRAP, A4
	PERIMETER EROSION BARRIER
	INLET FILTERS
	TEMPORARY DITCH CHECK

FIRST AVENUE OVER FIRST CREEK  
 BUILT 2017 BY  
 CITY OF MENDOTA  
 LASALLE COUNTY  
 SEC. 08-00656-00-BR  
 STATION 7+24.62  
 STRUCTURE NO. 050-7016 LOADING HL-93

**NAME PLATE**  
 See Std. 515001



**CONCRETE CURB AND GUTTER FORMED ON TOP SLAB DETAIL**  
 West curb and gutter shown looking south. East curb and gutter similar, opposite hand.  
 Curb and gutter shall conform to shape of B-6.18 concrete curb and gutter.



**DESIGN SPECIFICATIONS**  
 2014 AASHTO LRFD Bridge Design Specifications,  
 7th Edition with 2015 & 2016 Interims

**DESIGN STRESSES**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**LOADING HL-93**  
 Allow 50#/sq. ft. for future wearing surface.

I certify that to the best of my knowledge, information and belief, this culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications for Highway Bridges".

**WENDLER ENGINEERING SERVICES, INC.**  
 Illinois Professional Design Firm No. 184-000848

SCOTT A. BROWN  
 081-005981  
 LICENSED STRUCTURAL ENGINEER  
 STATE OF ILLINOIS

DATE: 4/3/17

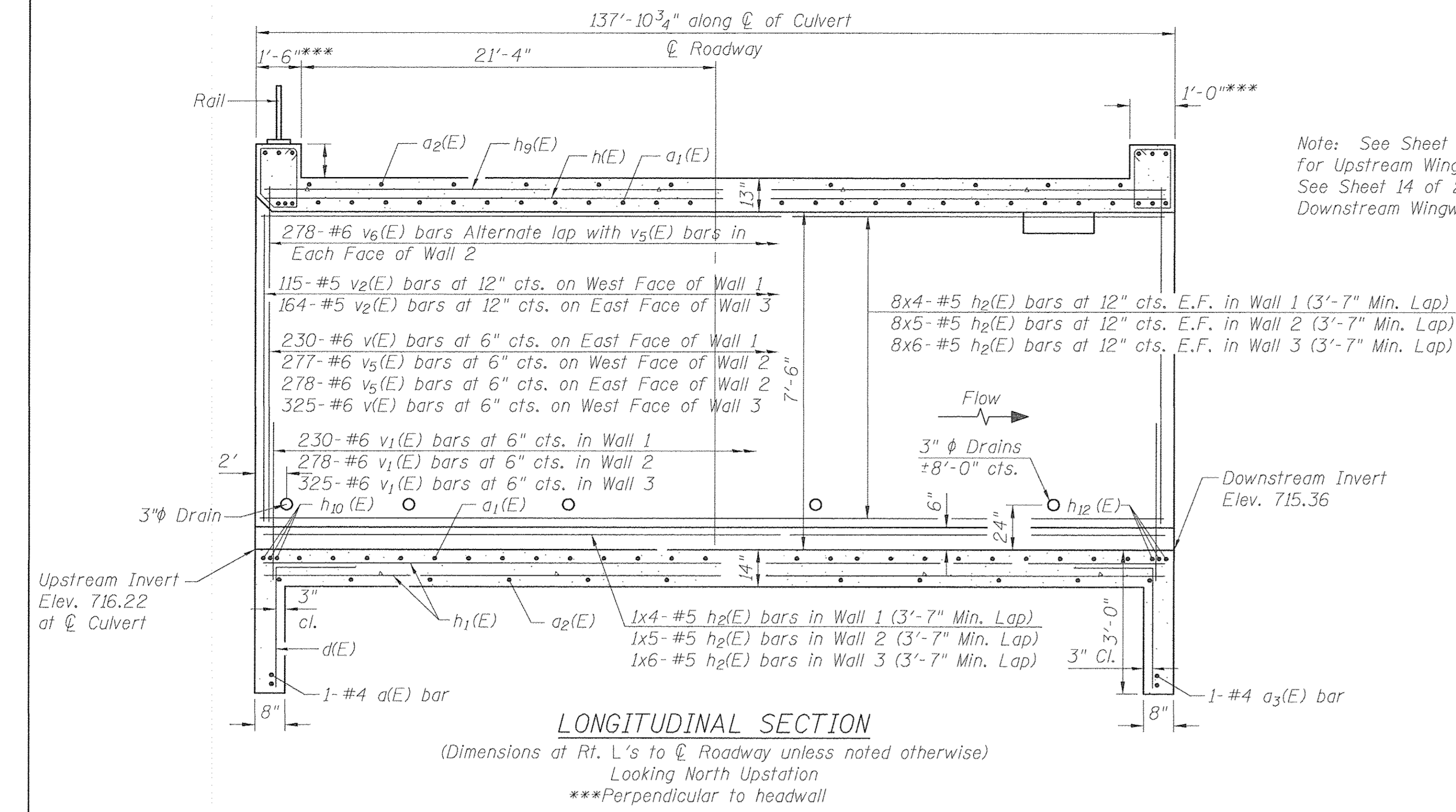
SCOTT A. BROWN  
 DIXON, ILLINOIS  
 ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-005981  
 EXPIRES 11-30-2018

Limits of Concrete Curb & Gutter (CC&G) to be constructed monolithically with Concrete Box Culvert is shown. CC&G outside these limits is paid for separately. See roadway drawings.  
 \*\*\*Cost of this length of CC&G is included in Concrete Box Culverts and is not paid separately.  
 \*\*\*\*\*40-#4 d6(E) bars at 12" cts. in curb as shown in detail.

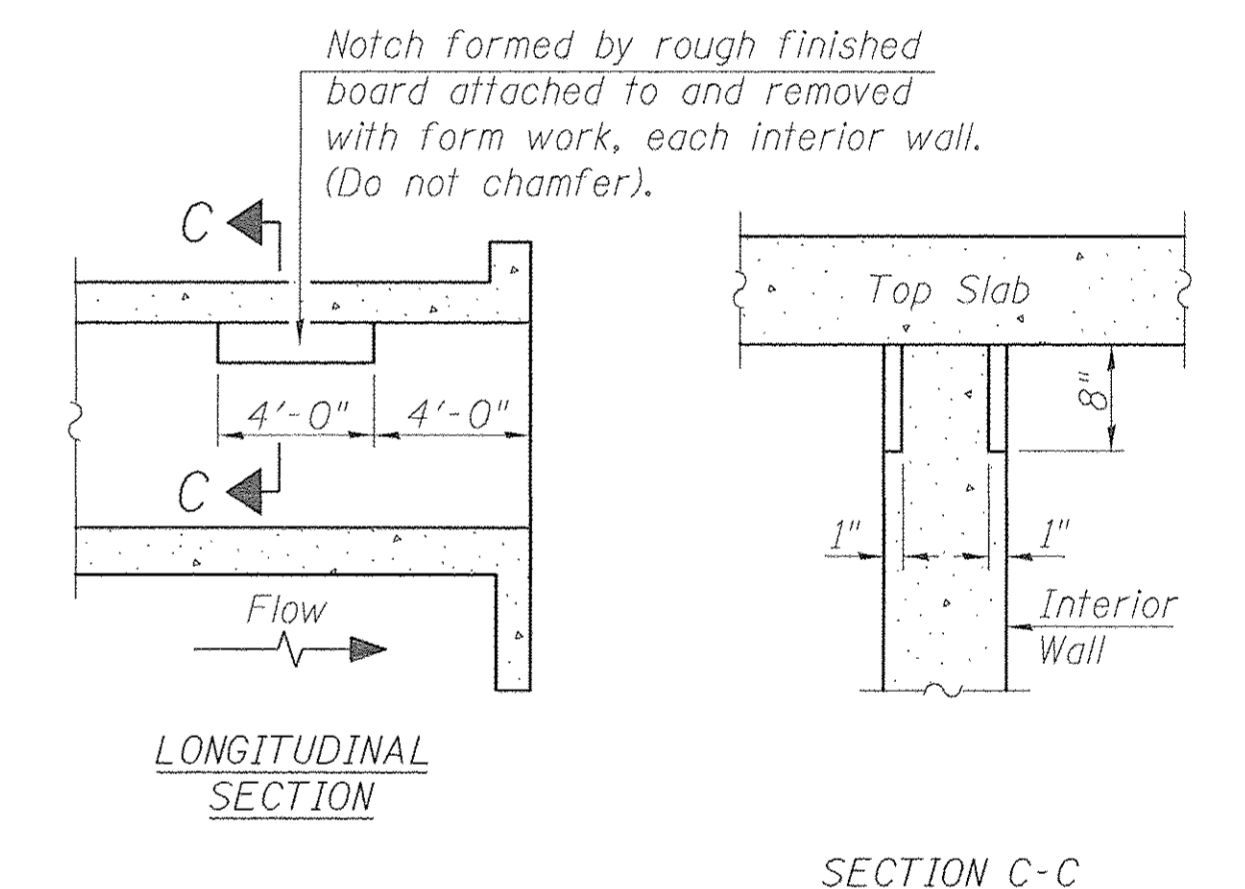
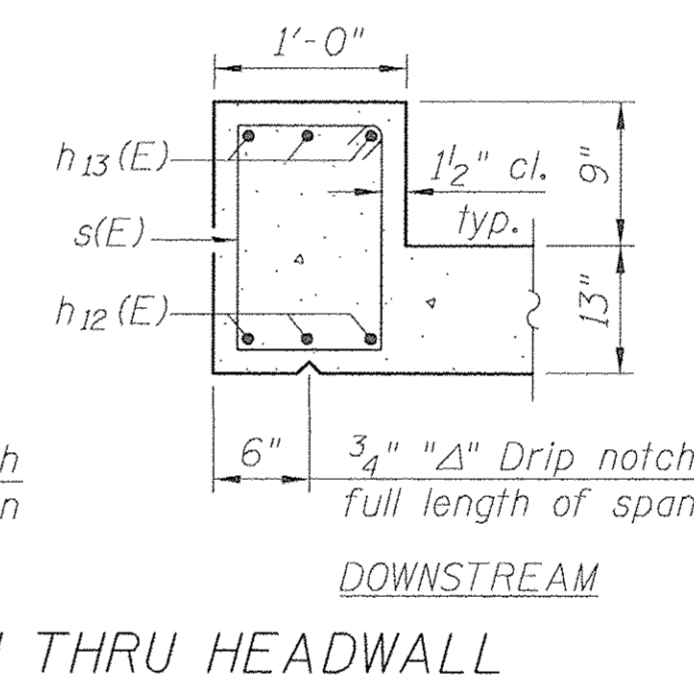
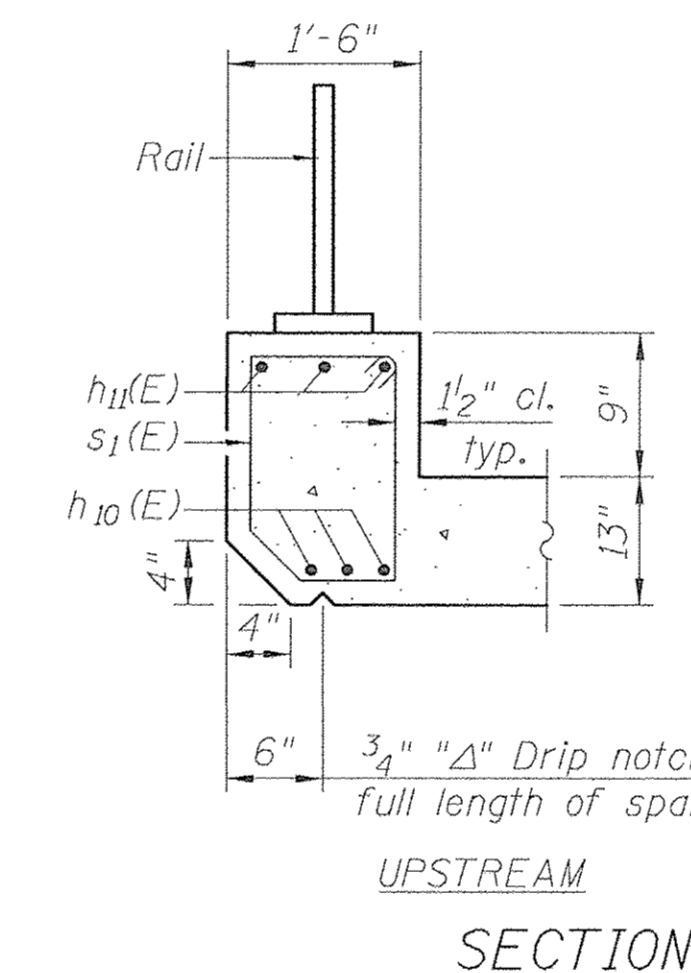
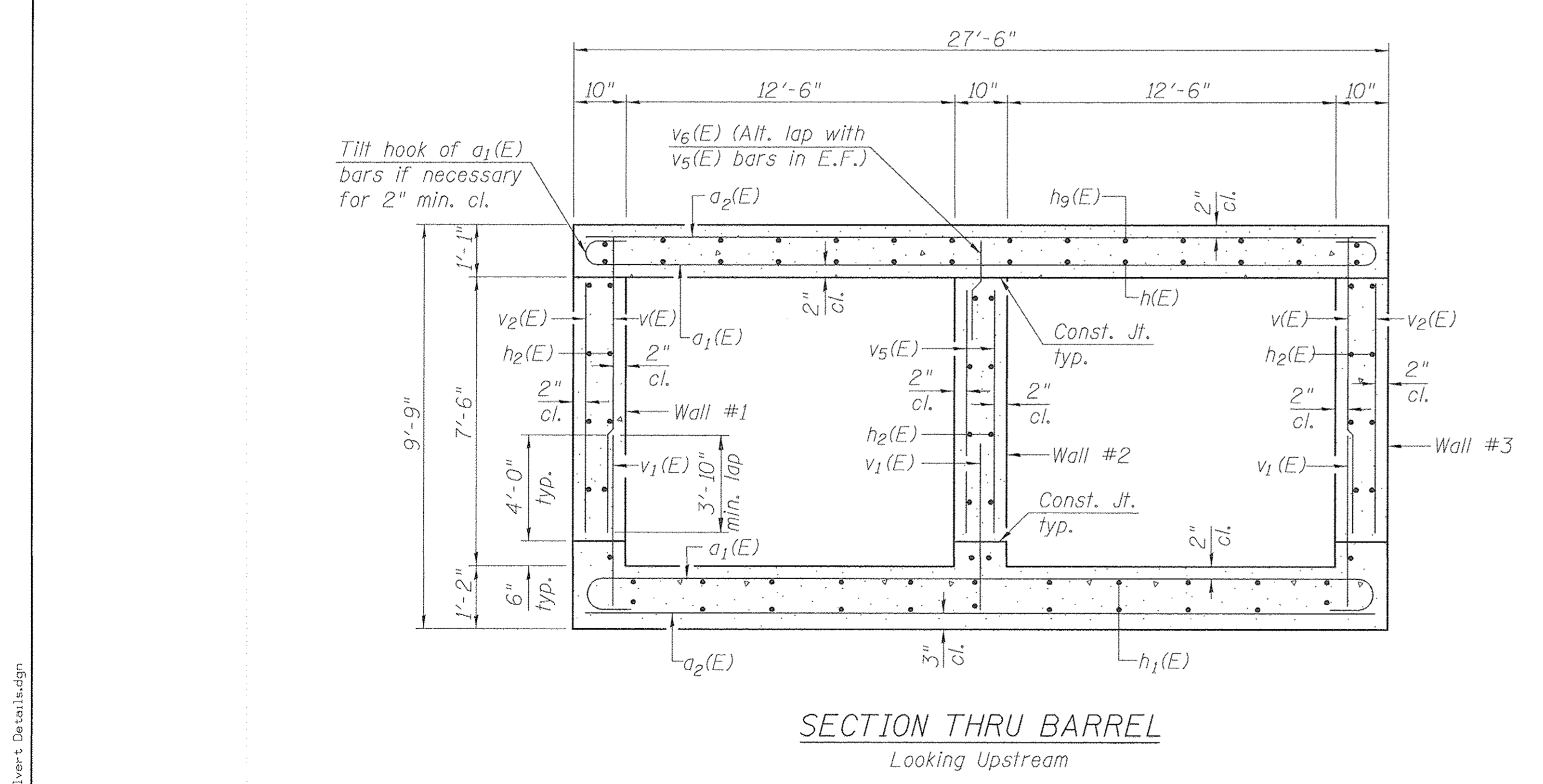
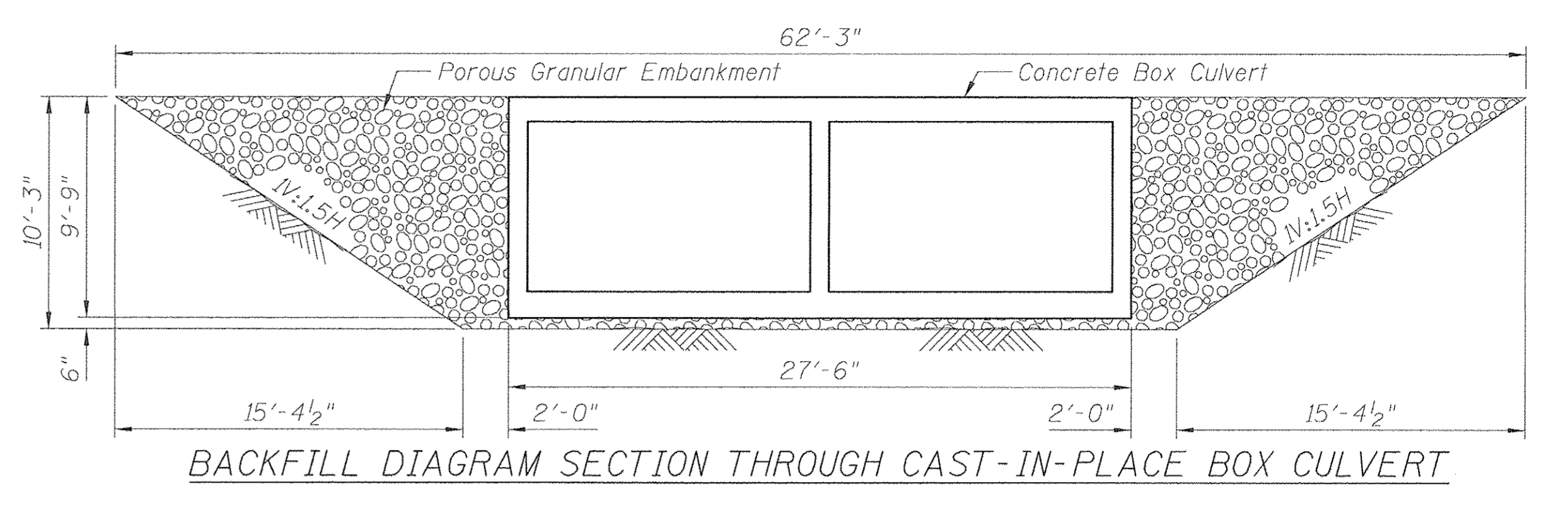
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	PLOT DATE = 3/31/2017	DRAWN -	REVISED			WES# 2070388			ILLINOIS FED. AID PROJECT BRS-00991061	
		CHECKED -	REVISED			SHEET NO. 11 OF 20 SHEETS				

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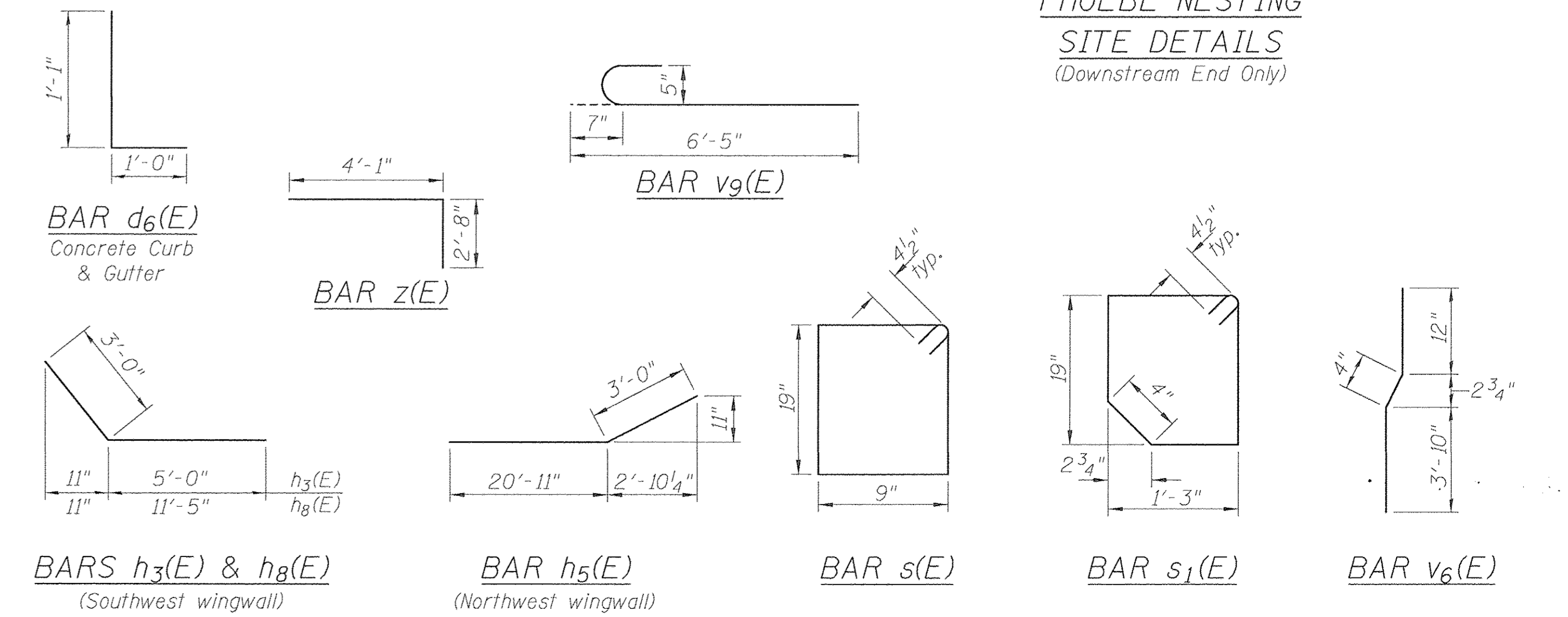
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Note: See Sheet 13 of 20 for Upstream Wingwall Details. See Sheet 14 of 20 for Downstream Wingwall Details.



**PHOEBE NESTING SITE DETAILS**  
(Downstream End Only)



Notes:  
A distance of half the length of the southwest horizontal cantilever wingwall but not less than six feet of the barrel shall be poured monolithically with the southwest horizontal cantilever wingwall.  
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
At the Contractor's option, a longer v1(E) bar may be ordered to replace the v(E) bar. No reduction in quantities shall be made for this substitution.

TSA-SB-HC-LS

10-15-2016



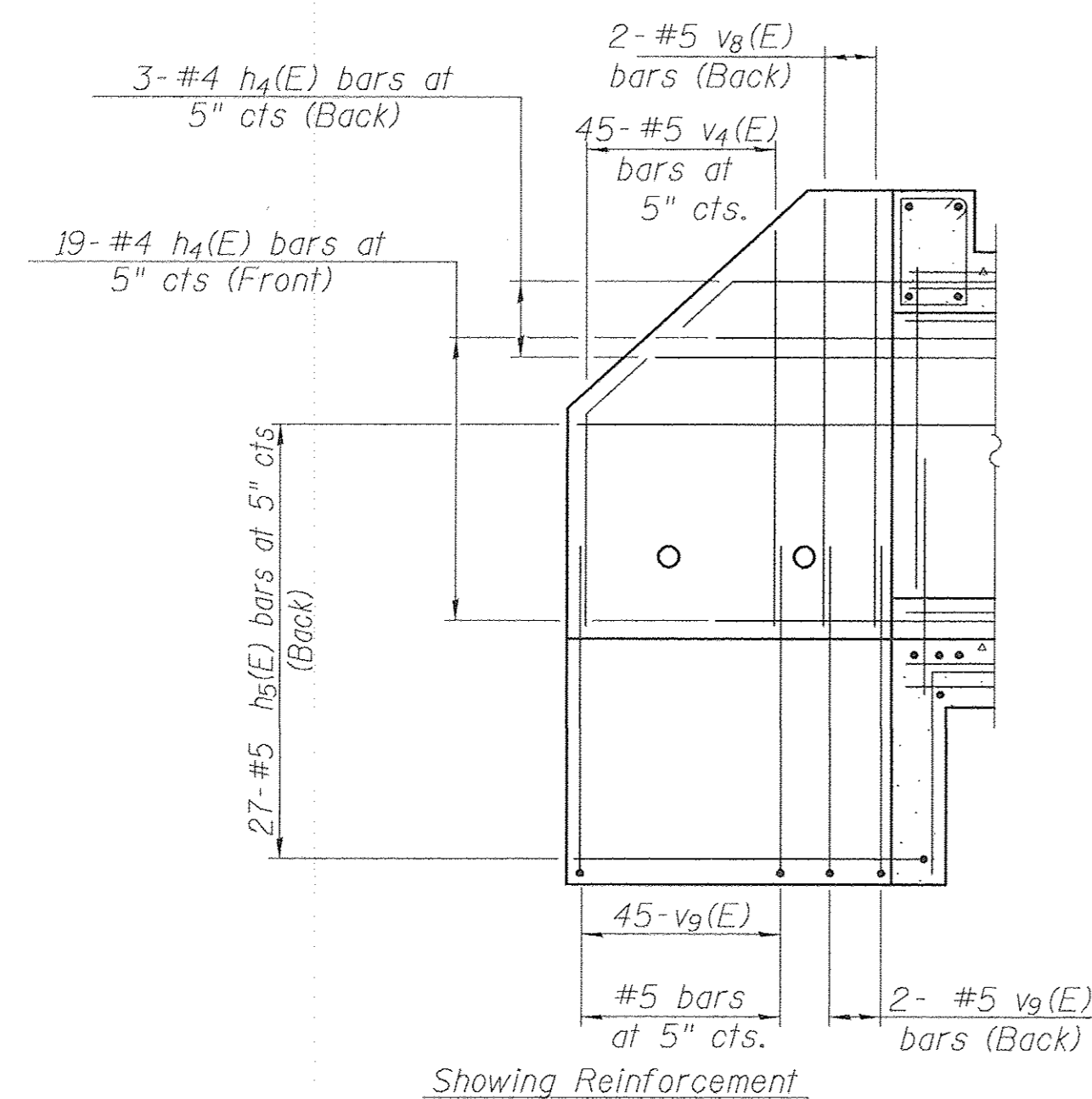
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LASALLE COUNTY - CITY OF MENDOTA

**BOX CULVERT DETAILS**  
**STRUCTURE NO. 050-7016**

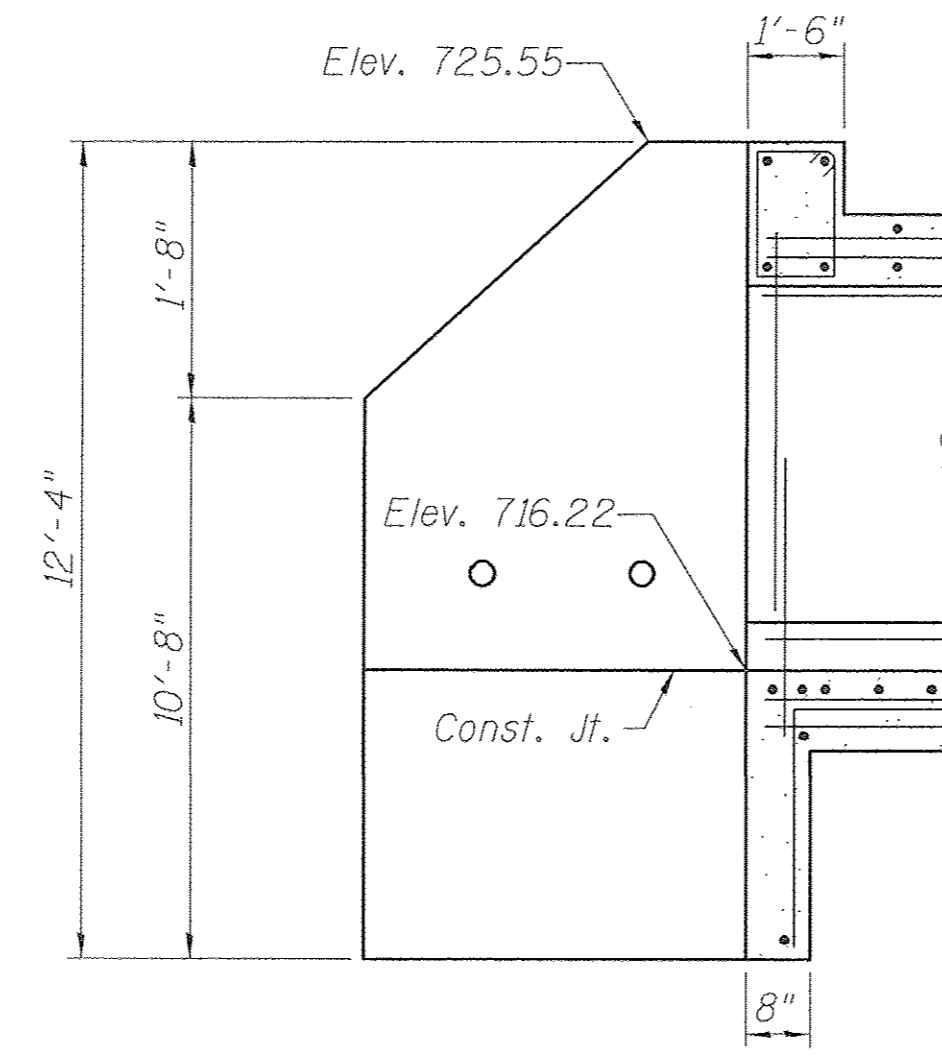
SHEET NO. 12 OF 20 SHEETS

F.A.U. RTE. 6011	SECTION 08-00656-00-BR	COUNTY LASALLE	TOTAL SHEETS 20	SHEET NO. 12
WES# 2070388		CONTRACT NO.	87657	
		ILLINOIS	FED. AID PROJECT BRS-0099(061)	

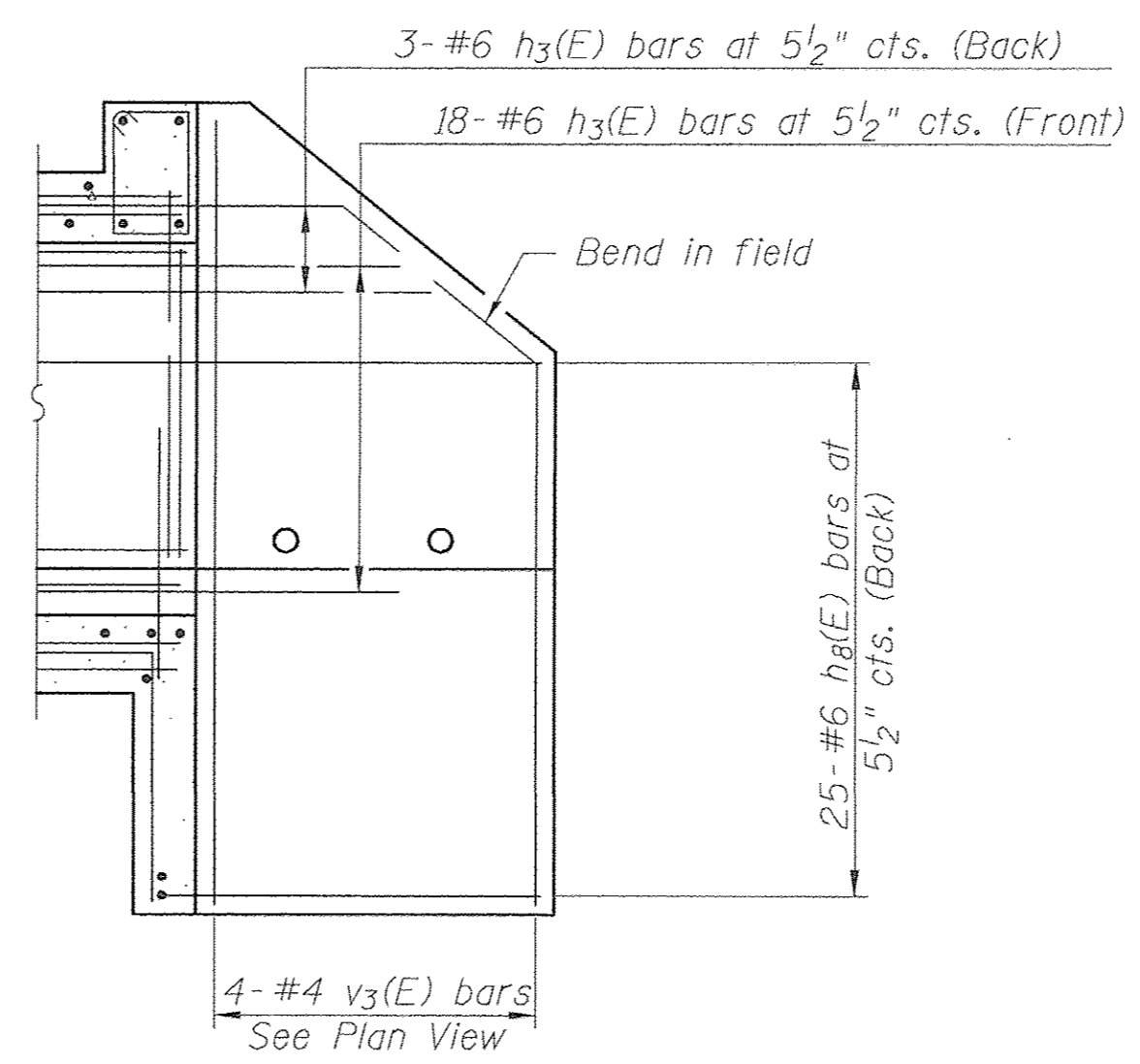


Showing Reinforcement

NORTHWEST WINGWALL ELEVATION

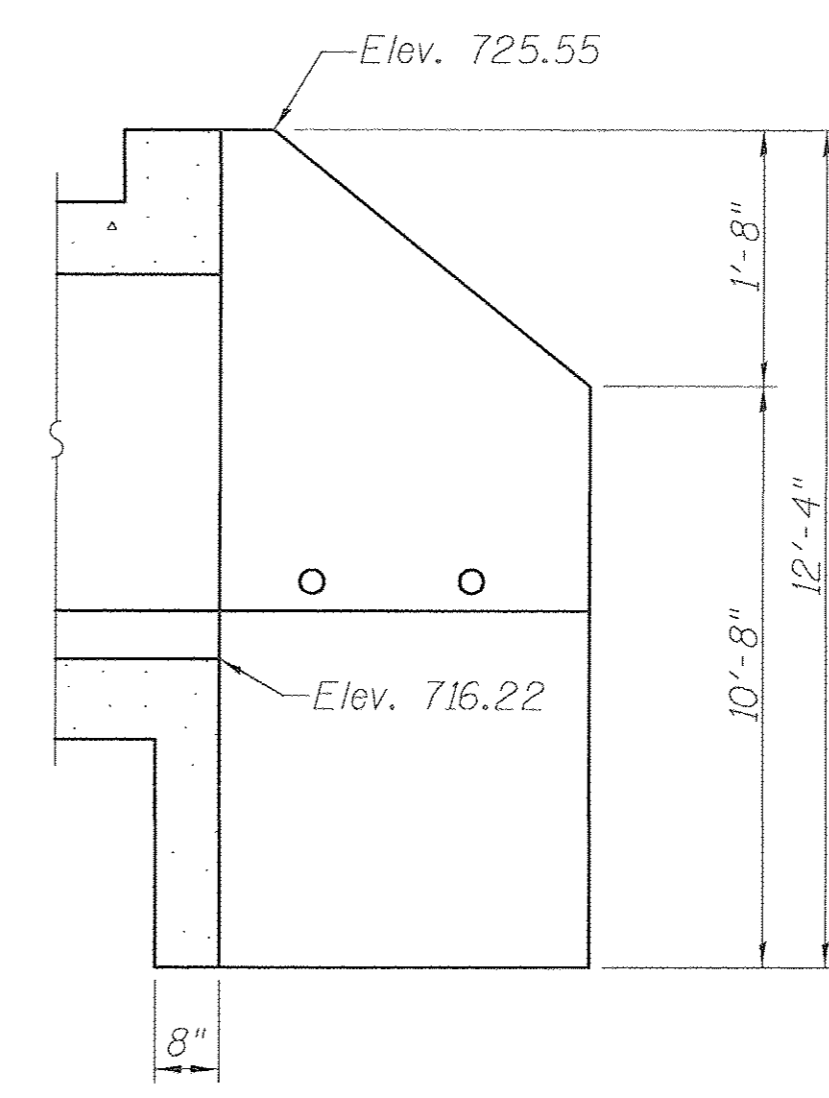


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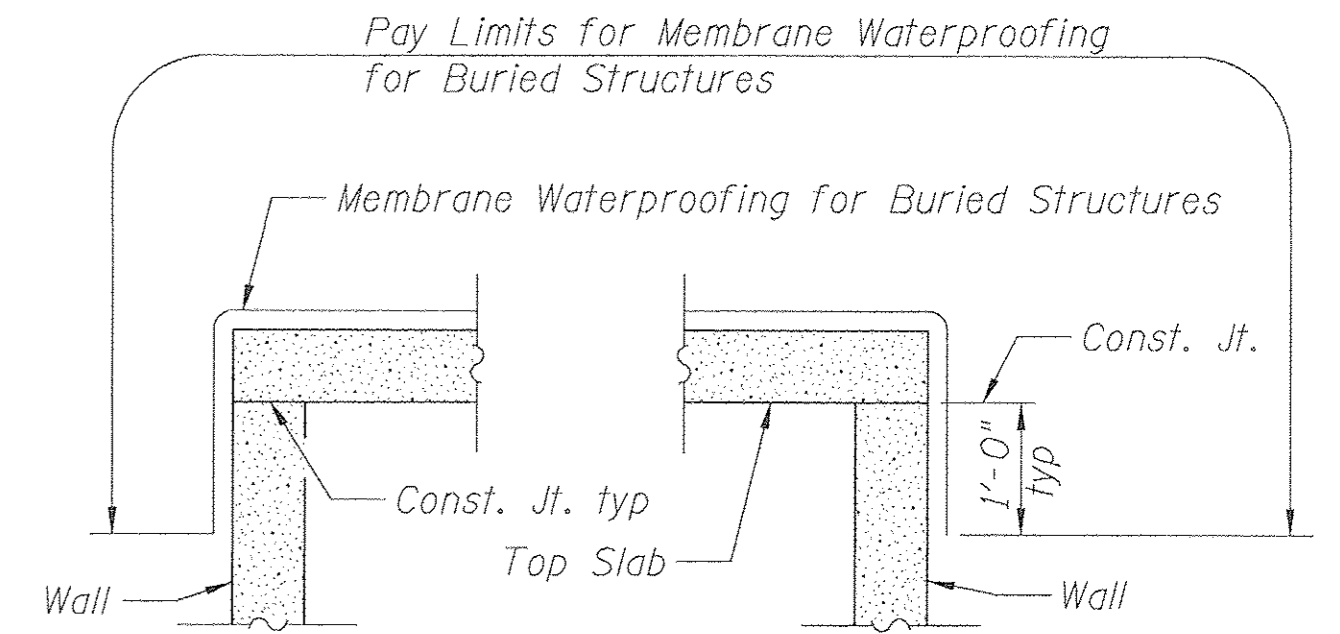


Showing Reinforcement

SOUTHWEST WINGWALL ELEVATION



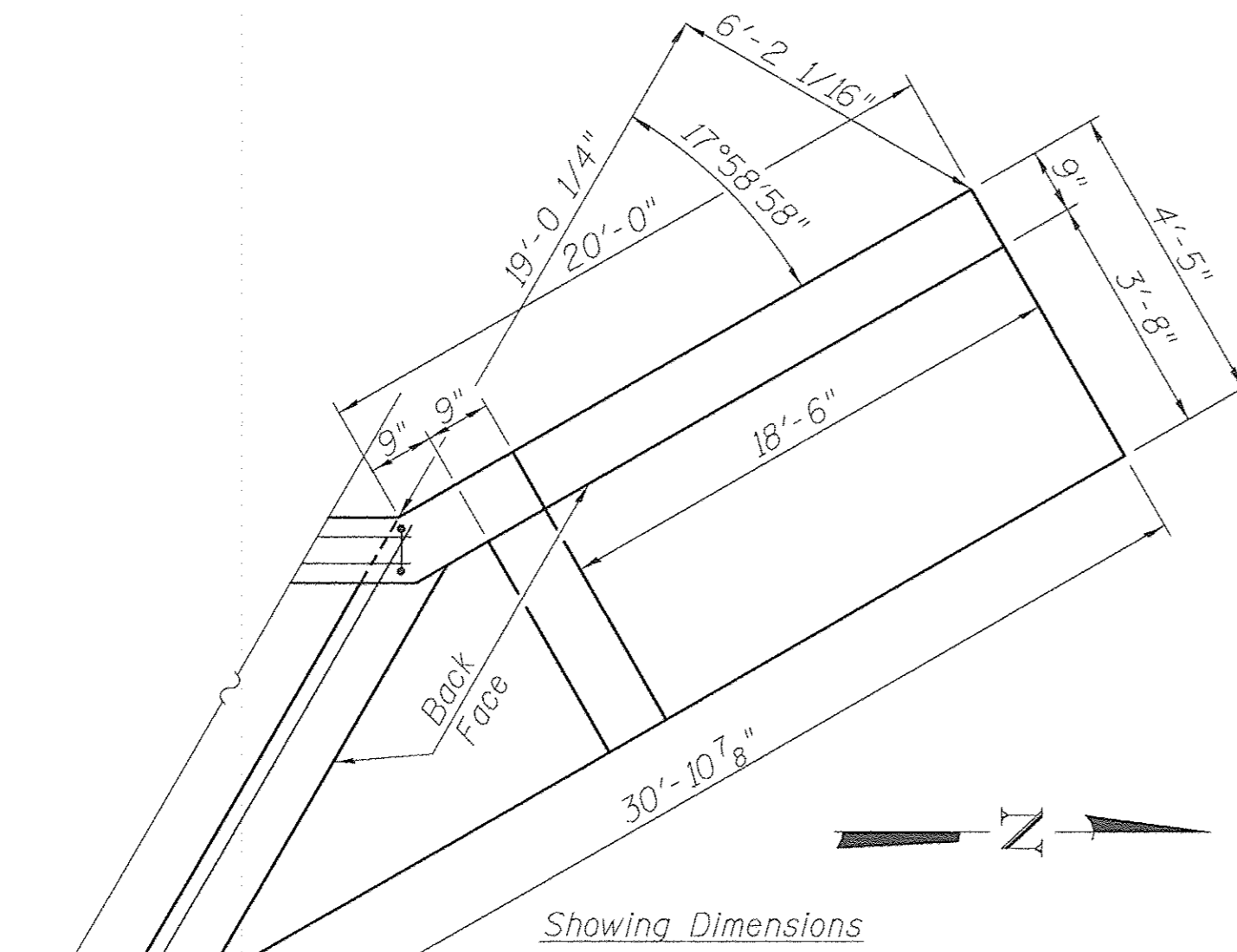
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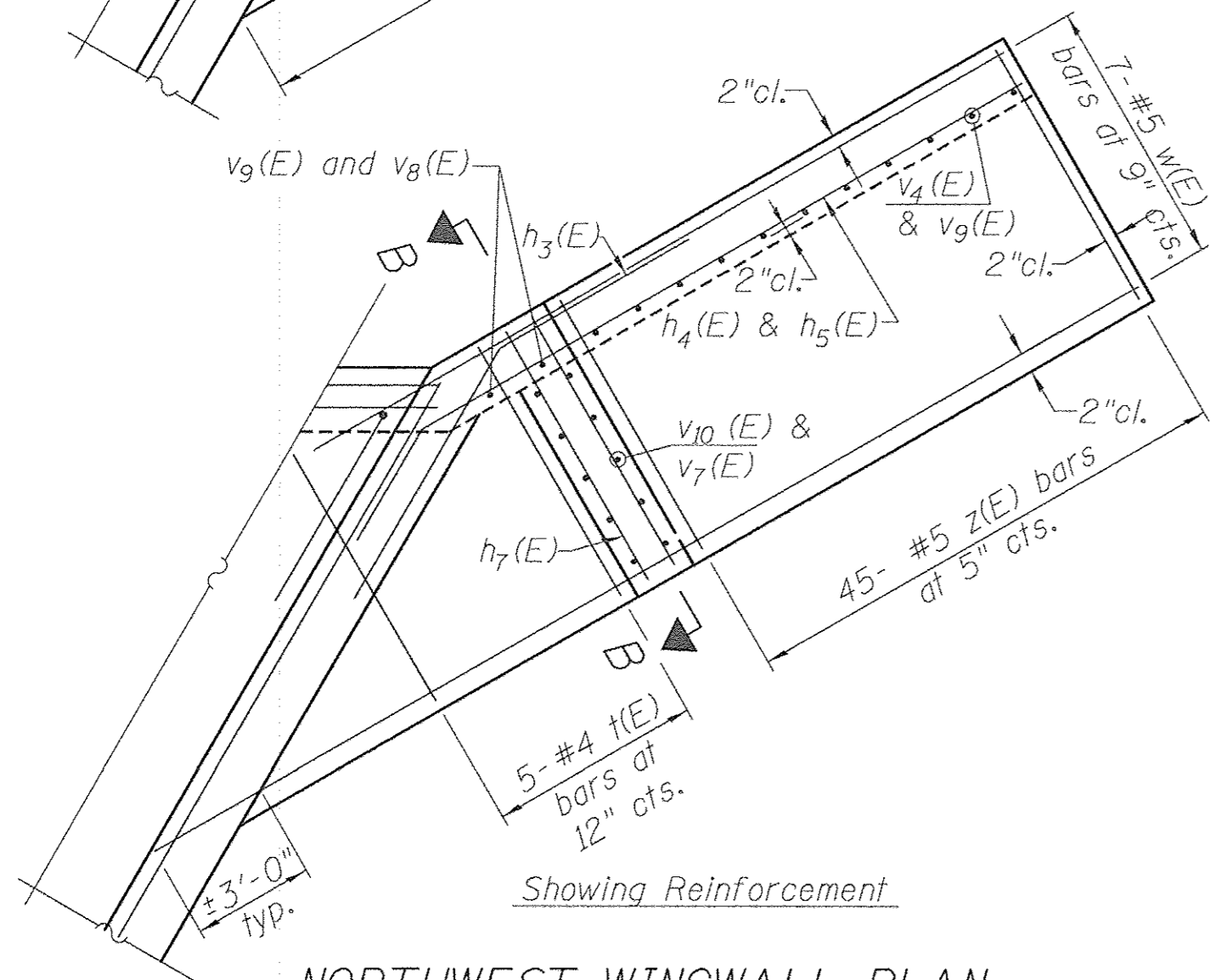
PARTIAL CROSS SECTION MEMBRANE DETAILS

BILL OF MATERIAL for Box Culvert, Northwest & Southwest Wingwalls

Bar	No.	Size	Length	Shape
a (E)	1	#4	27'-2"	—
a1 (E)	439	#7	28'-10"	—
a2 (E)	439	#7	27'-2"	—
a3 (E)	1	#4	39'-0"	—
b (E)	2	#4	26'-8"	—
b1 (E)	2	#4	21'-5"	—
d (E)	67	#4	4'-5"	—
d6 (E)	91	#4	2'-1"	—
h (E)	140	#7	36'-0"	—
h1 (E)	280	#6	35'-6"	—
h2 (E)	255	#5	31'-3"	—
h3 (E)	21	#6	8'-0"	—
h4 (E)	22	#4	23'-11"	—
h5 (E)	27	#5	23'-11"	—
h7 (E)	18	#4	4'-1"	—
h8 (E)	25	#6	14'-5"	—
h9 (E)	140	#6	35'-6"	—
h10 (E)	6	#8	39'-0"	—
h11 (E)	3	#10	39'-0"	—
h12 (E)	6	#6	27'-2"	—
h13 (E)	3	#7	27'-2"	—
s (E)	28	#4	5'-5"	—
s1 (E)	39	#4	6'-4"	—
i (E)	5	#4	4'-1"	—
v (E)	556	#6	7'-9"	—
v1 (E)	834	#6	5'-5"	—
v2 (E)	279	#5	6'-8"	—
v3 (E)	4	#4	12'-0"	—
v4 (E)	45	#5	9'-0"	—
v5 (E)	555	#6	6'-8"	—
v6 (E)	278	#6	5'-2"	—
v7 (E)	20	#5	5'-10"	—
v8 (E)	2	#5	9'-0"	—
v9 (E)	47	#5	6'-5"	—
v10 (E)	20	#5	8'-0"	—
w (E)	7	#5	33'-3"	—
z (E)	45	#5	6'-9"	—

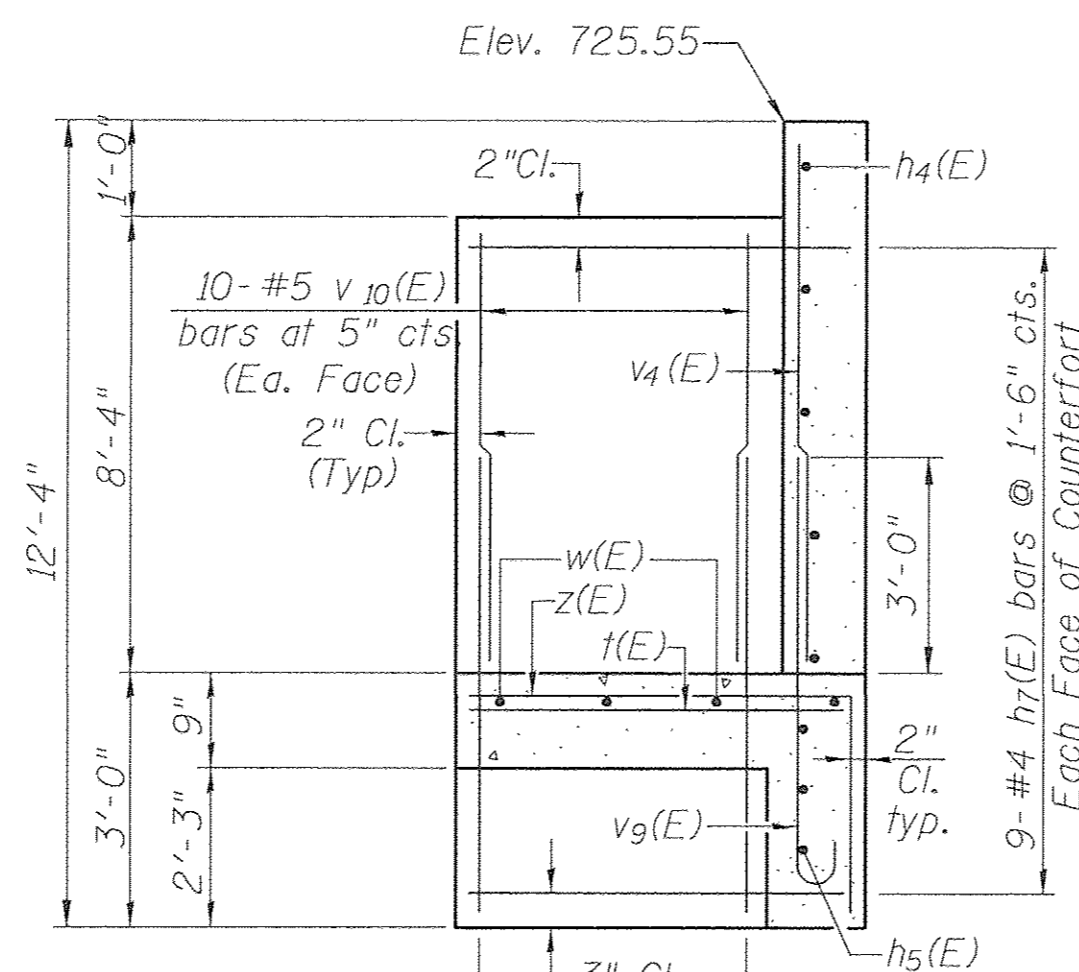


Showing Dimensions



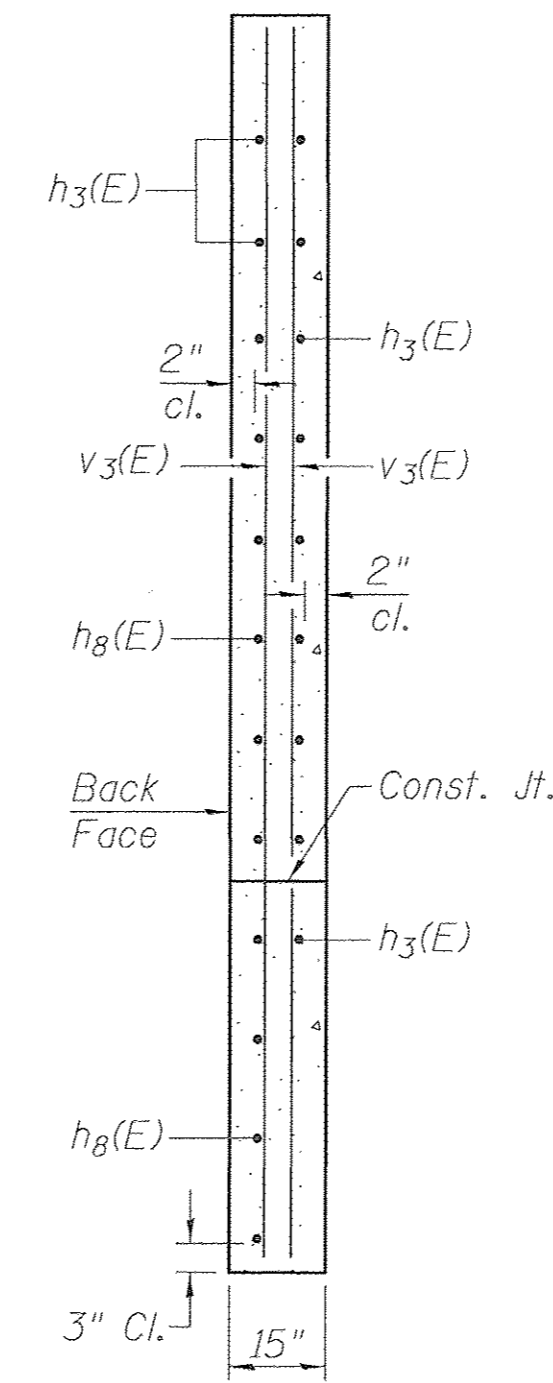
Showing Reinforcement

NORTHWEST WINGWALL PLAN

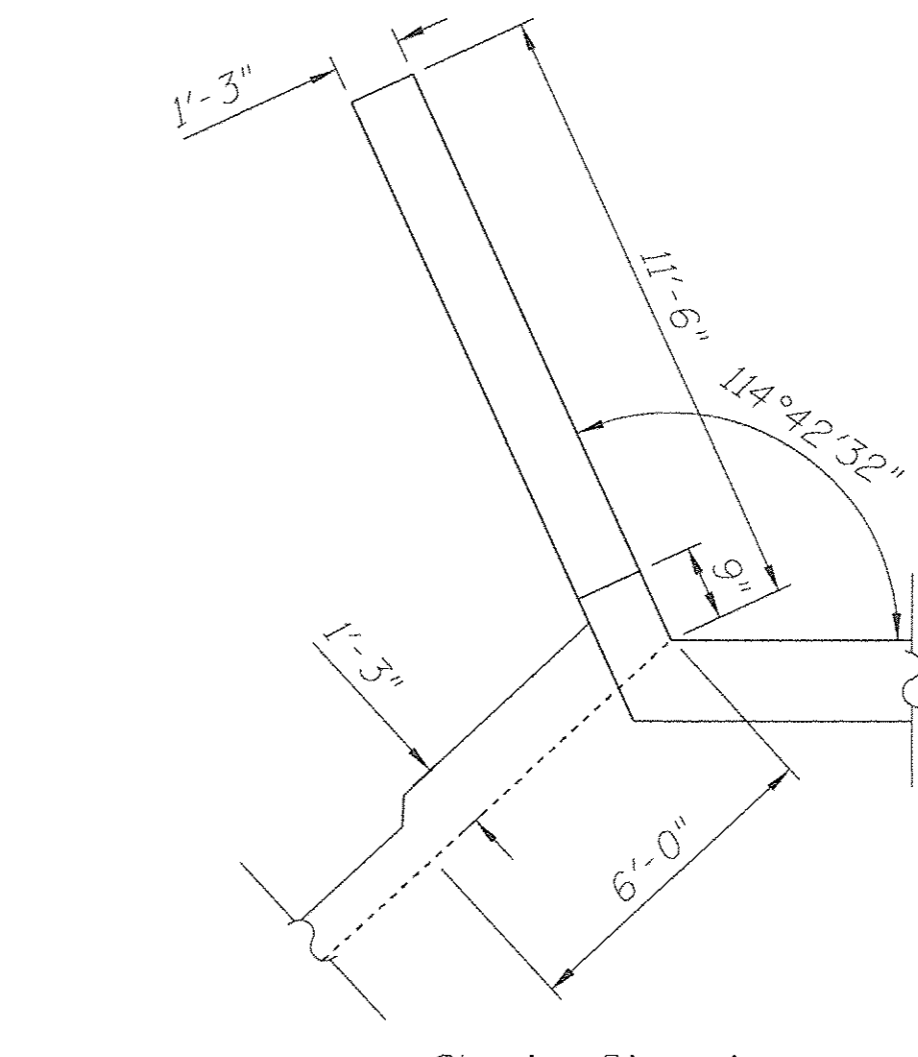


SECTION B-B

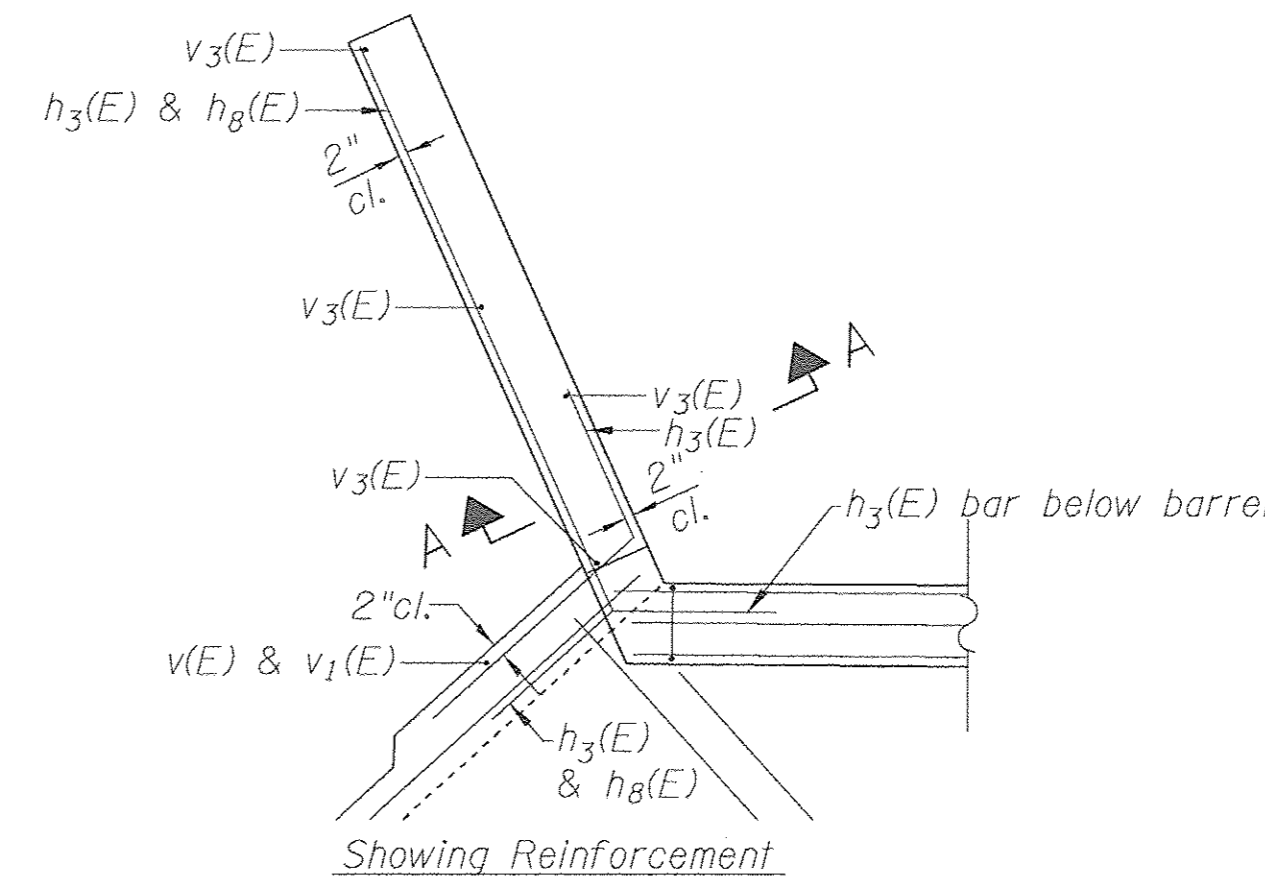
Showing wing with counterfort



SECTION A-A



Showing Dimensions



Showing Reinforcement

SOUTHWEST WINGWALL PLAN

WATERWAY INFORMATION

Drainage Area = 2.5 sq. miles			Low Grade Elev. = 724.11 at Roadway Sta. 8+58.92							
Flood	Frequency Year	Q (cfs)	Opening Sq. Ft.		Existing Structure and Channel			Proposed Structure		
			Existing	Proposed	Natural H.W.E.*	Head Feet	Headwater Elev.*	Natural H.W.E.	Head Feet	Headwater Elev.*
Design	30	1130	140	187.5	726.39	-0.12	726.27	726.39	-2.11	724.28
Base	100	1570	140	187.5	726.84	-0.12	726.72	726.84	-1.05	725.79
Overtopping										
Max Calc.	500	2200	140	187.5	727.72	0.02	727.74	727.72	-1.24	726.48

\*Note: HWE are compared at the upstream end of the proposed culvert (RS 2117 in HEC RAS output).

3/31/2017 8:48:25 AM FA:2007\_sba\207838B.dgn\Culvert\_Detail.dgn



USER NAME = Bryan\_Hartmann  
 DESIGNED -  
 CHECKED -  
 PLOT SCALE = 1:8000 / 1/8" = 1'-0"  
 DRAWN -  
 PLOT DATE = 3/31/2017  
 CHECKED -

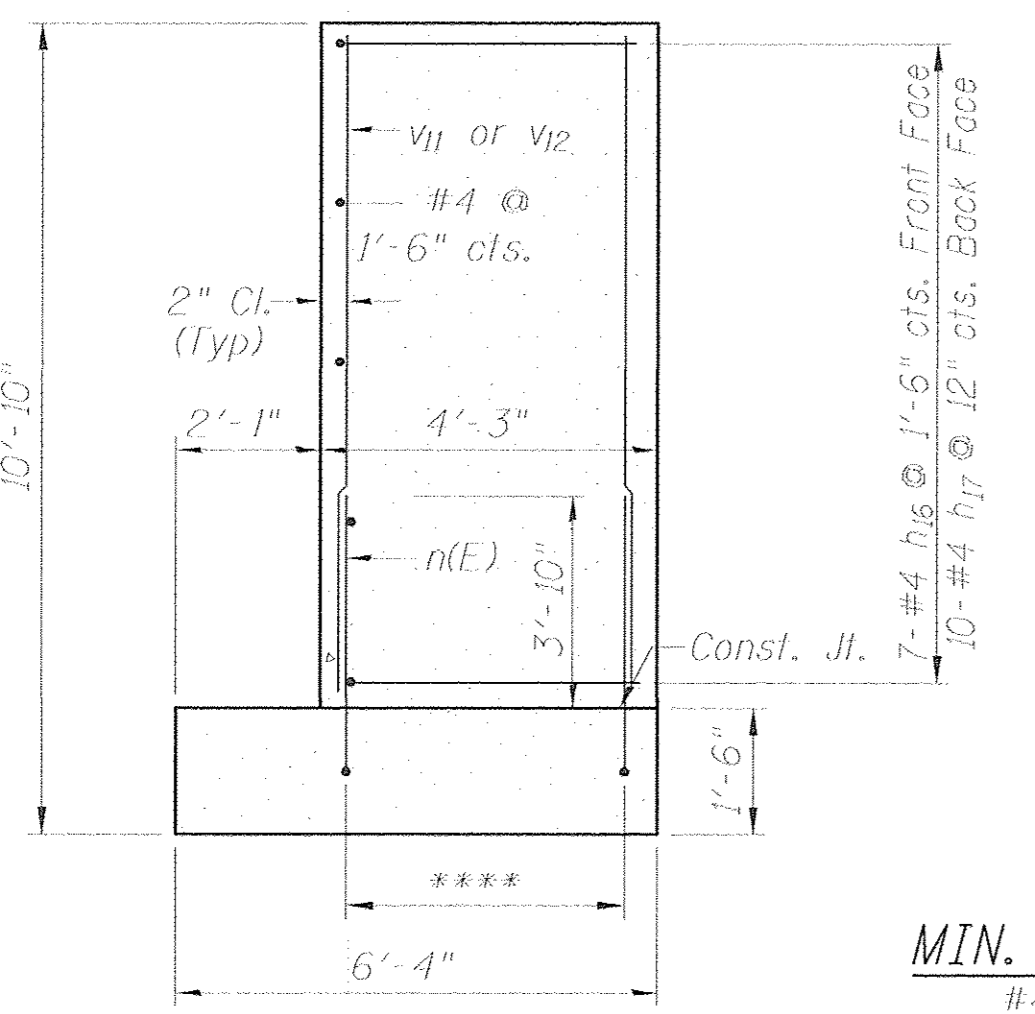
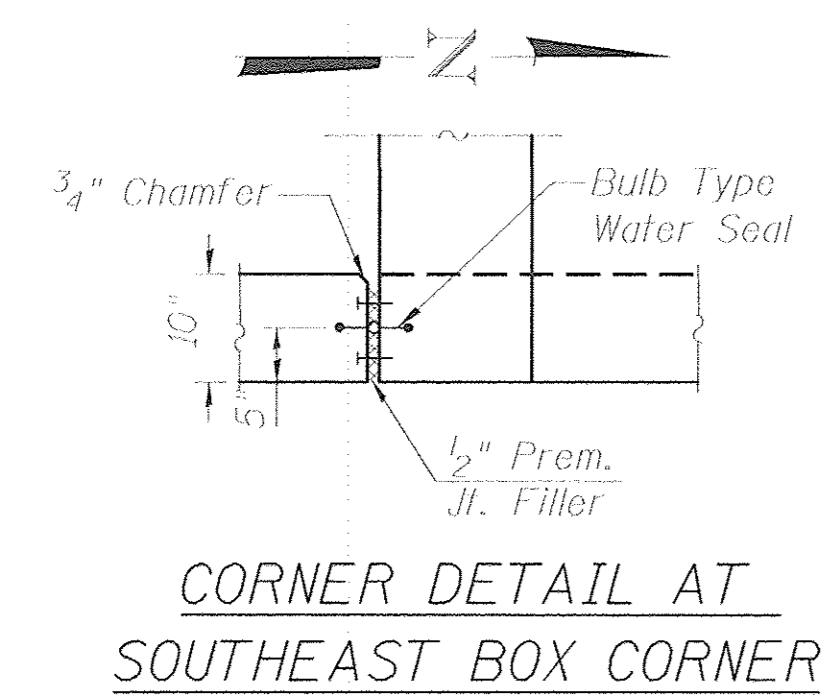
REVISOR  
 REVISION  
 REVISION  
 REVISION  
 REVISION

LASALLE COUNTY - CITY OF MENDOTA

UPSTREAM WINGWALL DETAILS  
 STRUCTURE NO. 050-7016

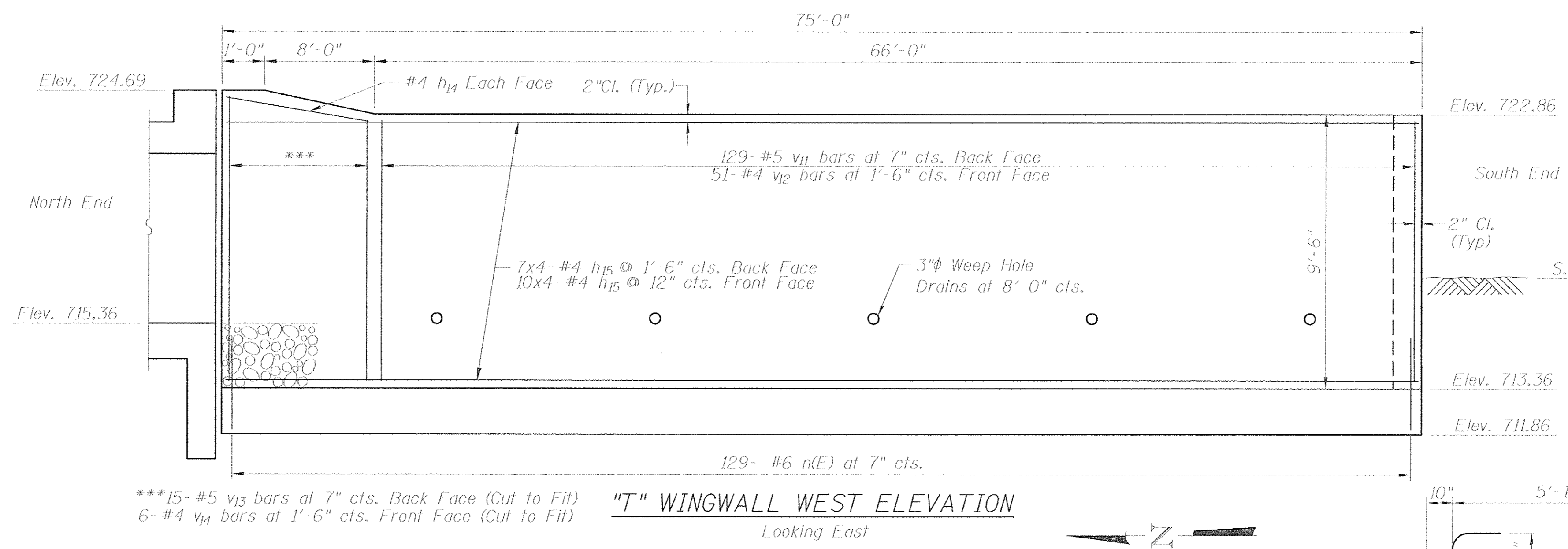
SHEET NO. 13 OF 20 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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WES# 2070388		CONTRACT NO.	87657	
		ILLINOIS FED. AID PROJECT	BRS-0099061	

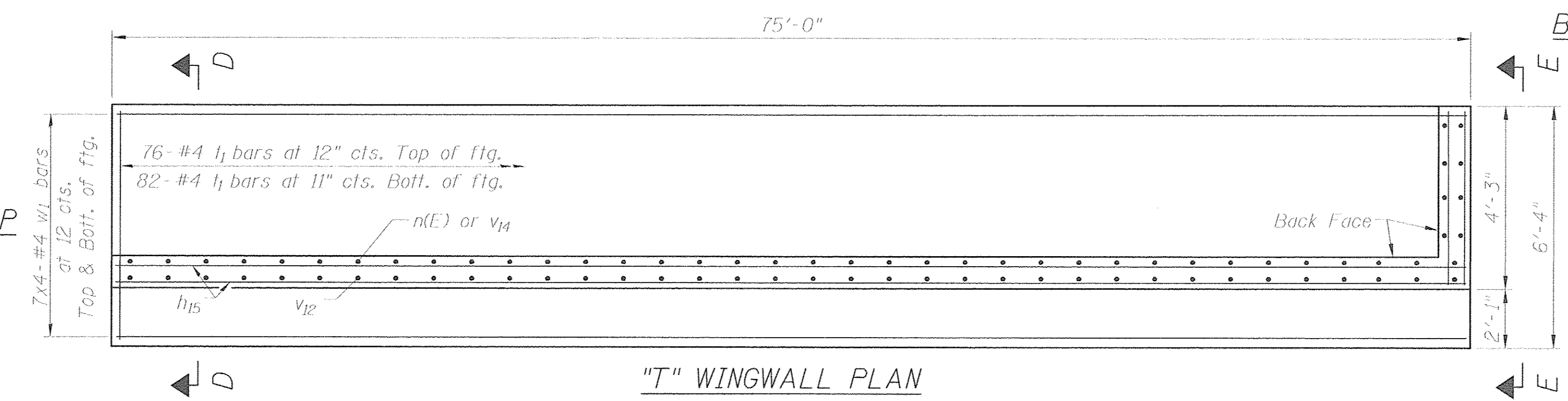


\*\*\*\* 7-#6 n(E) bars @ 7" cts. Back Face  
 7-#5 v11 bars @ 7" cts. Back Face  
 3-#4 v12 bars @ 1'-6" cts. Front Face

**MIN. BAR LAP**  
 #4 2'-11"



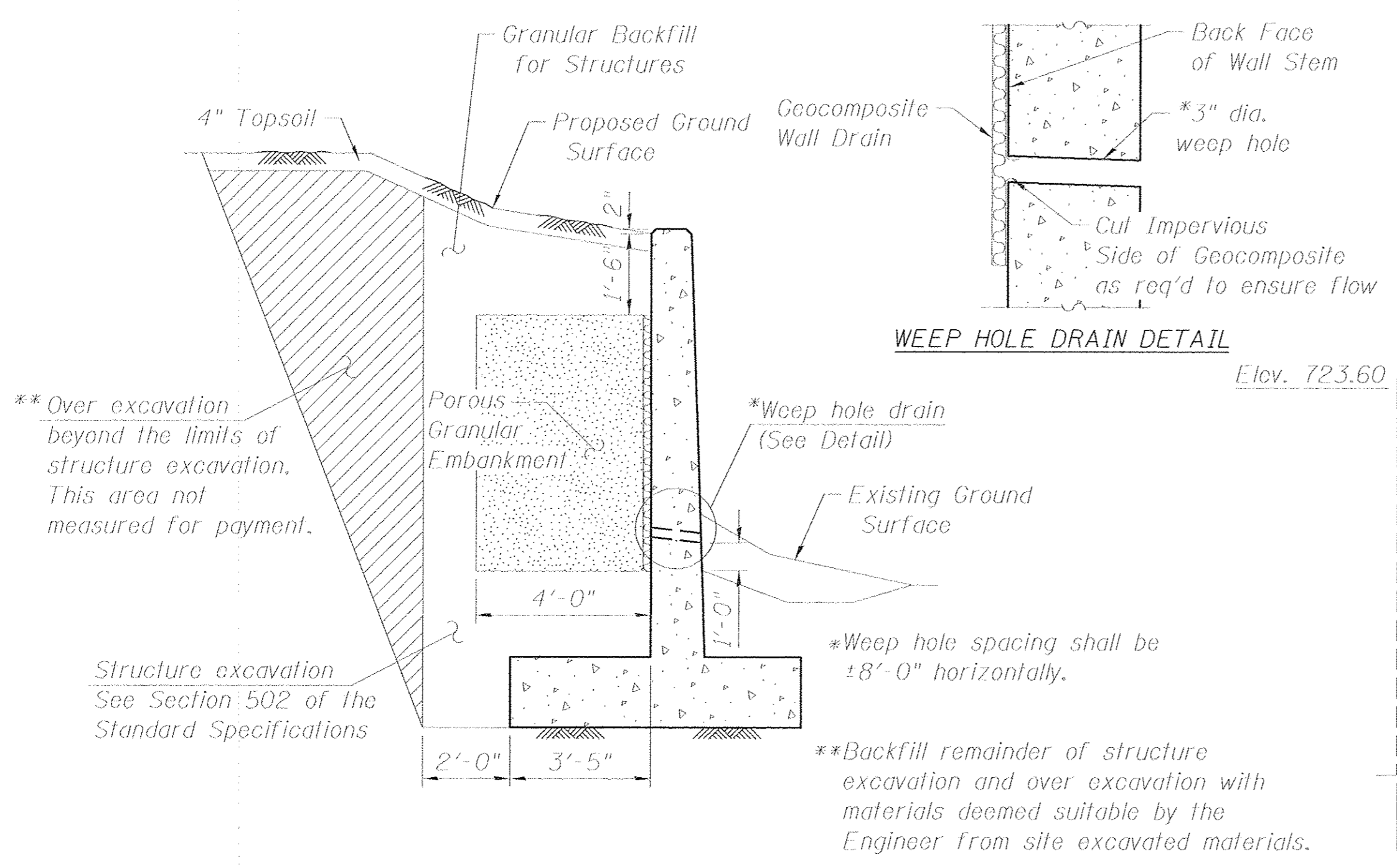
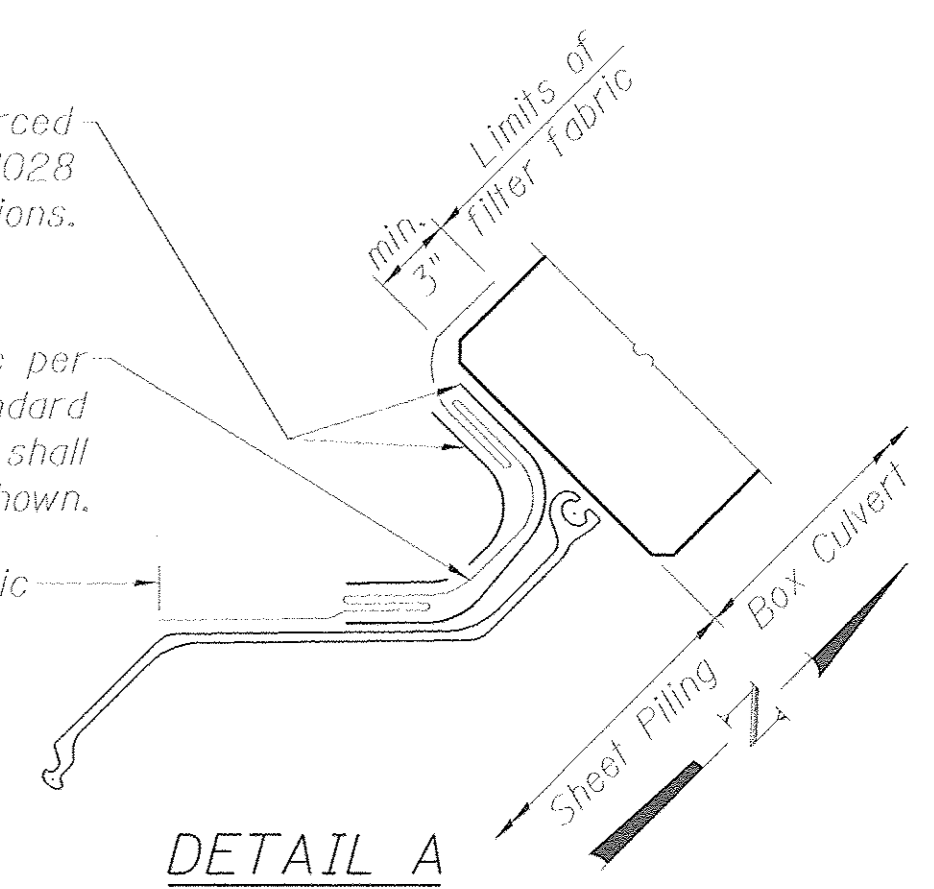
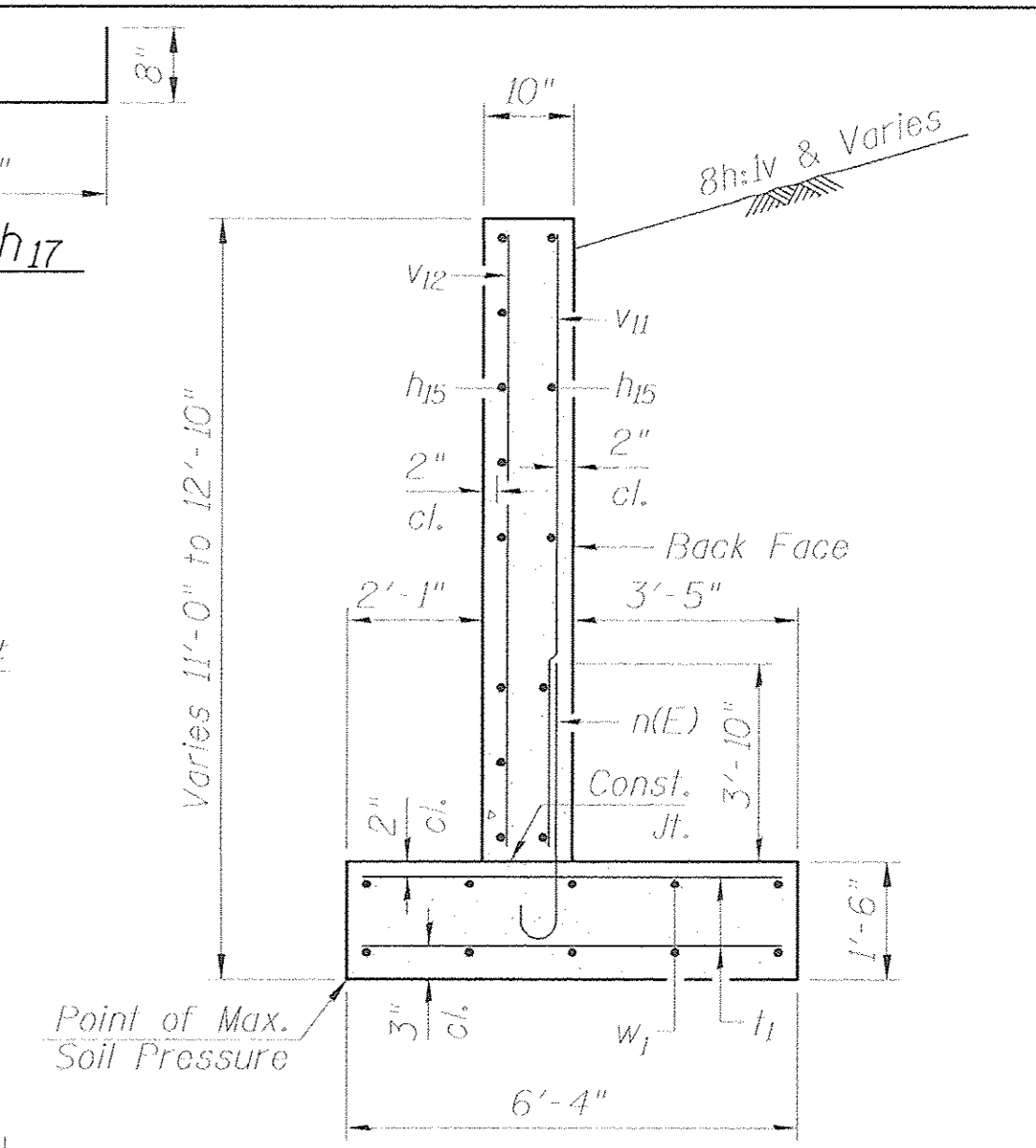
\*\*\* 15-#5 v13 bars at 7" cts. Back Face (Cut to Fill)  
 6-#4 v14 bars at 1'-6" cts. Front Face (Cut to Fill)



**BAR n(E)**

1/4" x 12" wide fabric reinforced elastomeric mat per Section 1028 of the Standard Specifications.

Geosynthetic filter fabric per Section 1080.01 of the Standard Specifications. Minimum weight shall be 4 oz./sq. yd. Fold as shown.

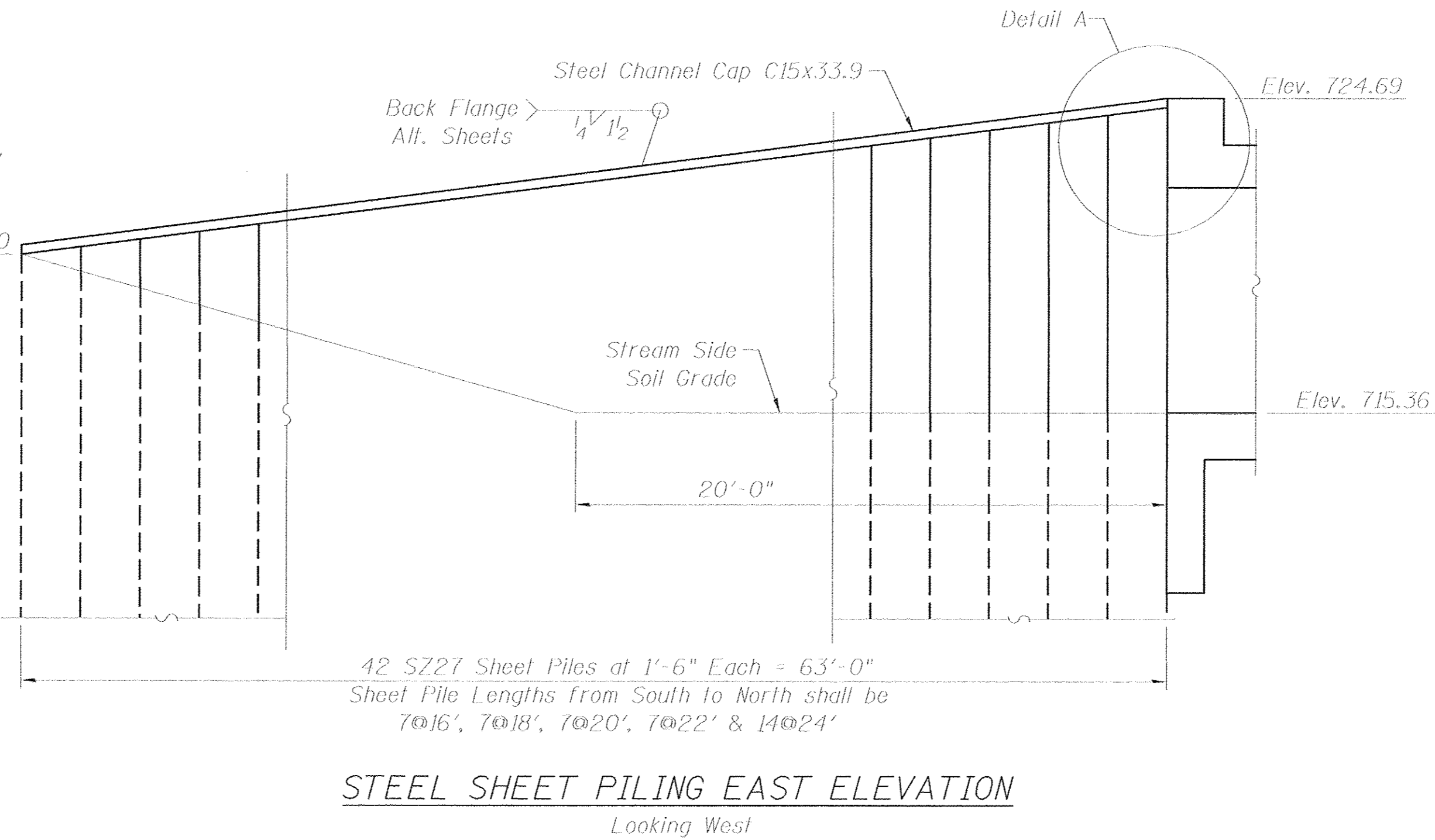


**WEEP HOLE DRAIN DETAIL**

\*\* Over excavation beyond the limits of structure excavation. This area not measured for payment.

\* Weep hole drain (See Detail)

\* Weep hole spacing shall be ±8'-0" horizontally.  
 \*\* Backfill remainder of structure excavation and over excavation with materials deemed suitable by the Engineer from site excavated materials.



42 SZ27 Sheet Piles at 1'-6" Each = 63'-0"  
 Sheet Pile Lengths from South to North shall be 7@16', 7@18', 7@20', 7@22' & 14@24'

**BILL OF MATERIAL**

For "T" type Wingwall

Bar	No.	Size	Length	Shape
h14	2	#4	9'-0"	—
h15	68	#4	20'-3"	—
h16	7	#4	4'-0"	—
h17	10	#4	4'-8"	└
n (E)	136	#6	5'-11"	┌
l1	158	#4	6'-1"	—
v11	136	#5	9'-4"	—
v12	54	#4	9'-4"	—
v13	15	#5	11'-2"	—
v14	6	#4	11'-2"	—
w1	56	#4	20'-3"	—
Concrete Structures		Cu. Yd.	49.7	
Reinforcement Bars		Pound	4,260	
Epoxy Coated		Pound	1210	
Permanent Sheet Piling		Sq. Ft.	1302	
Furnishing & Erecting				
Structural Steel		Pound	1695.0	
Geocomposite Wall Drain		Sq. Yd.	41.7	

4/13/2017 9:56:05 AM FA:20277\_sbs\2720388\egm\Clients - Details.dwg



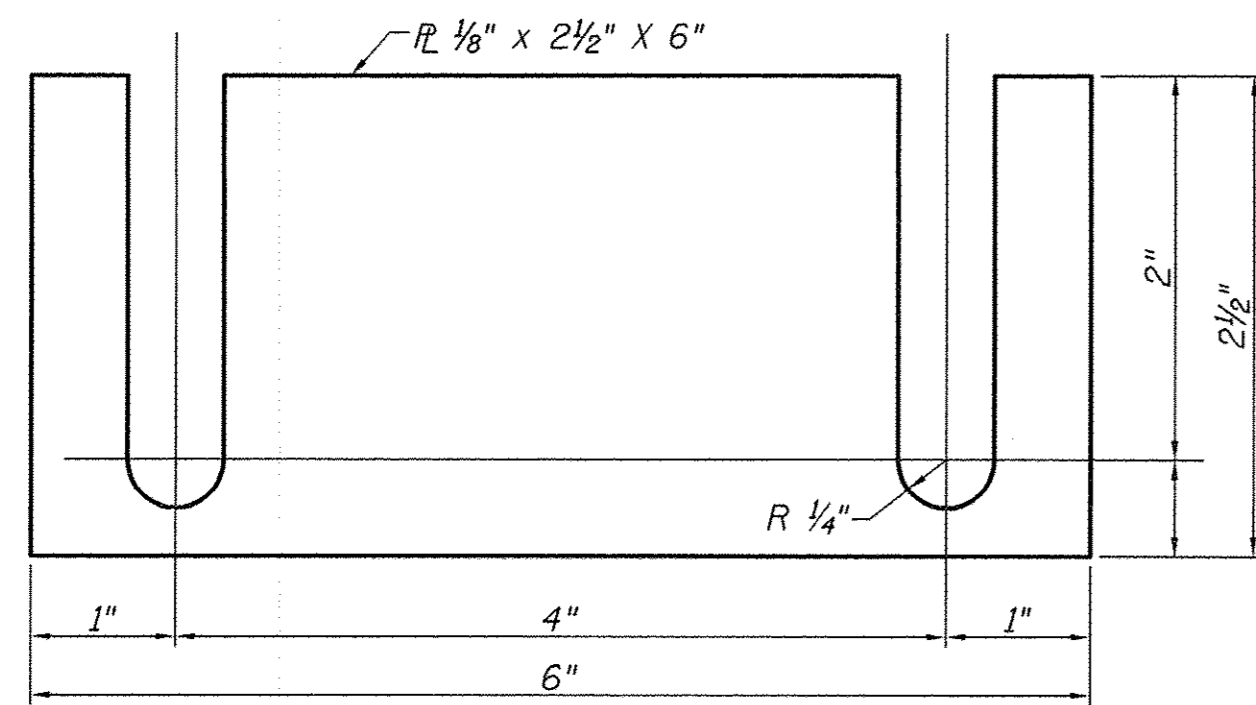
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	CHECKED -	

**LASALLE COUNTY - CITY OF MENDOTA**

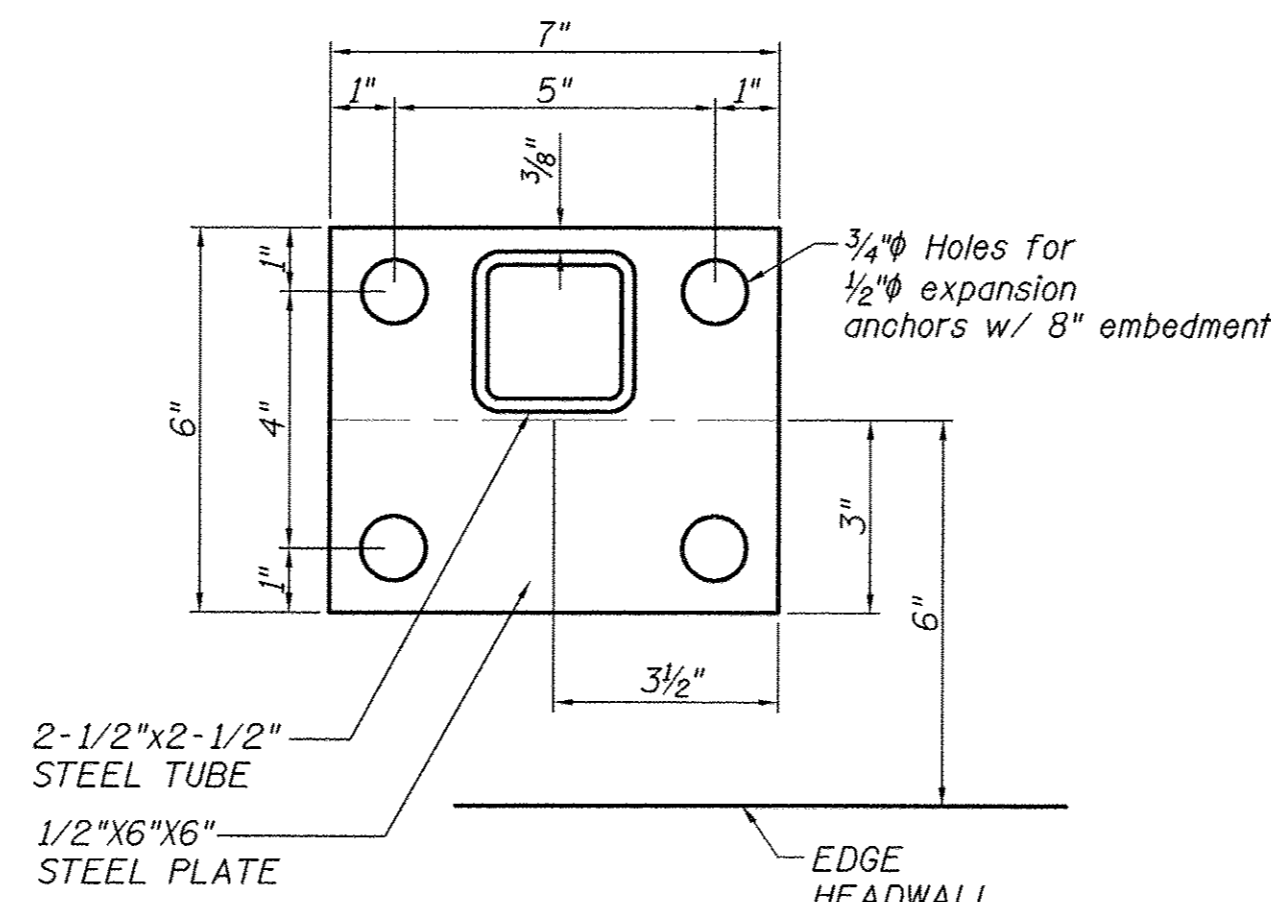
**DOWNSTREAM WINGWALL DETAILS**  
**STRUCTURE NO. 050-7016**

SHEET NO. 14 OF 20 SHEETS

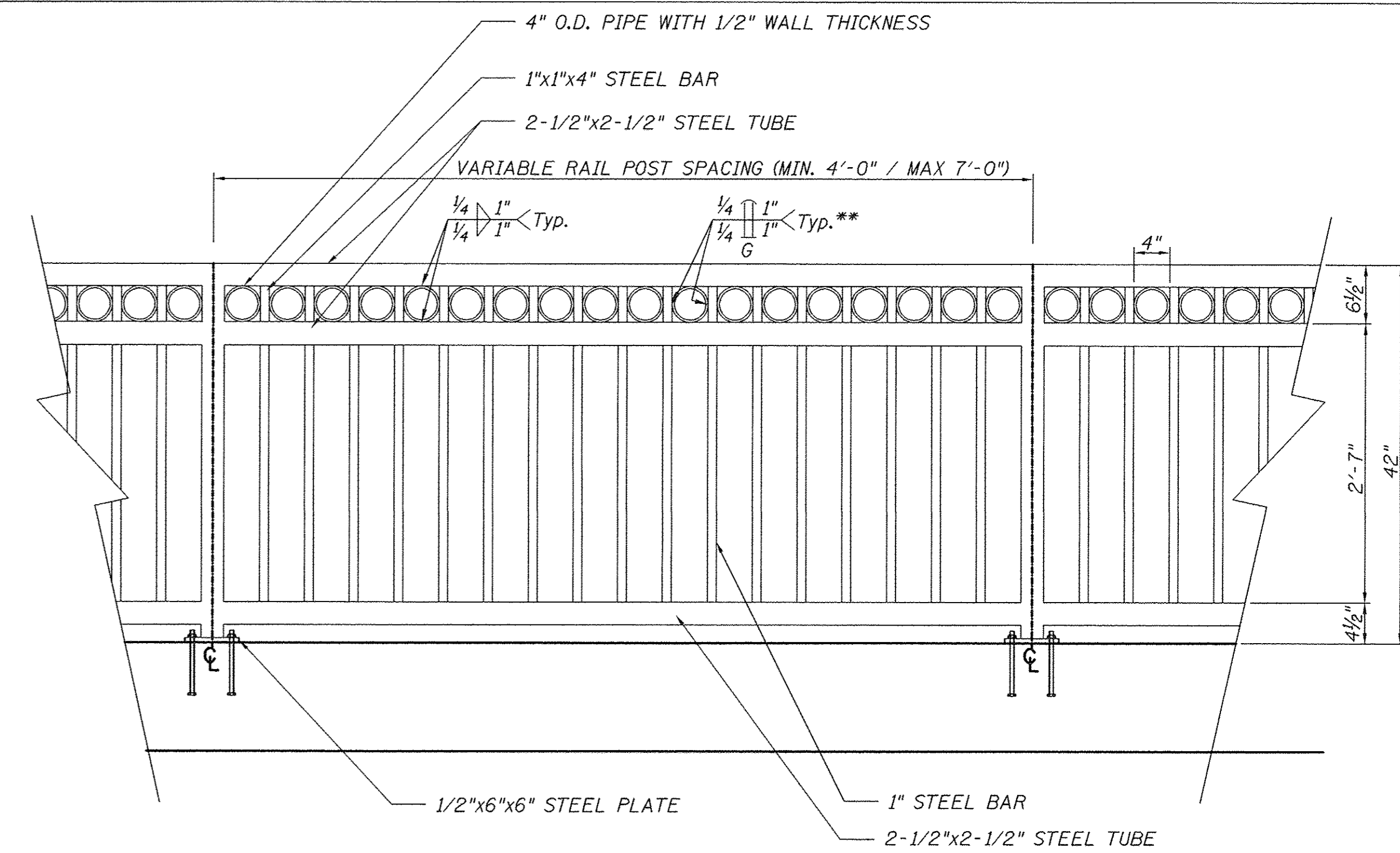
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	14
WES# 2070388		CONTRACT NO.	87657	
		ILLINOIS FED. AID PROJECT	BRS-00990611	



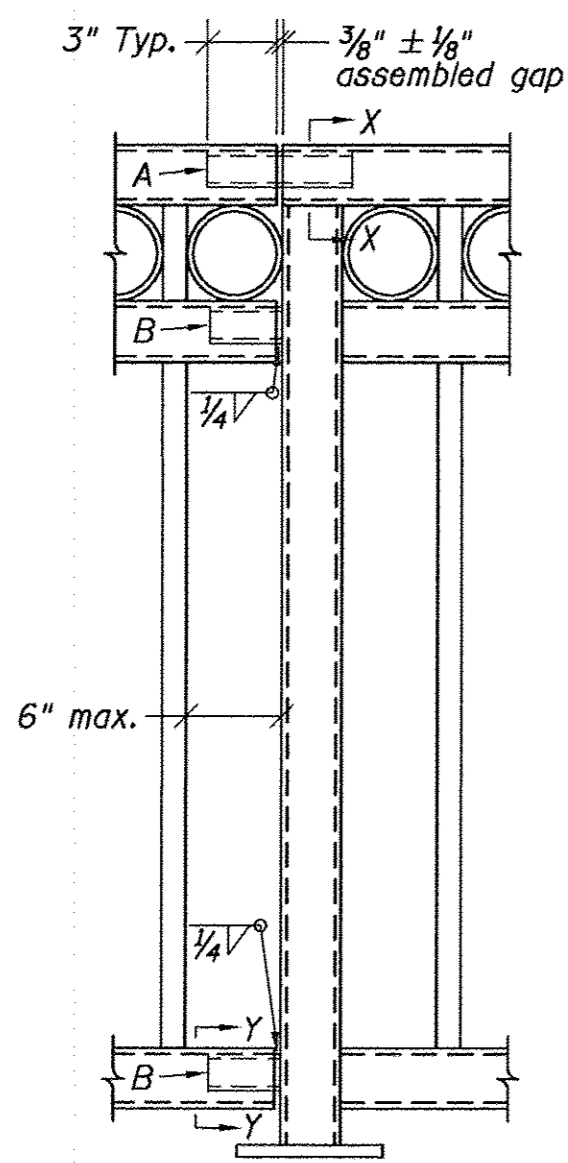
**POST SHIM P DETAIL**  
Shim plates shall be galvanized after shop fabrication according to AASHTO M232.



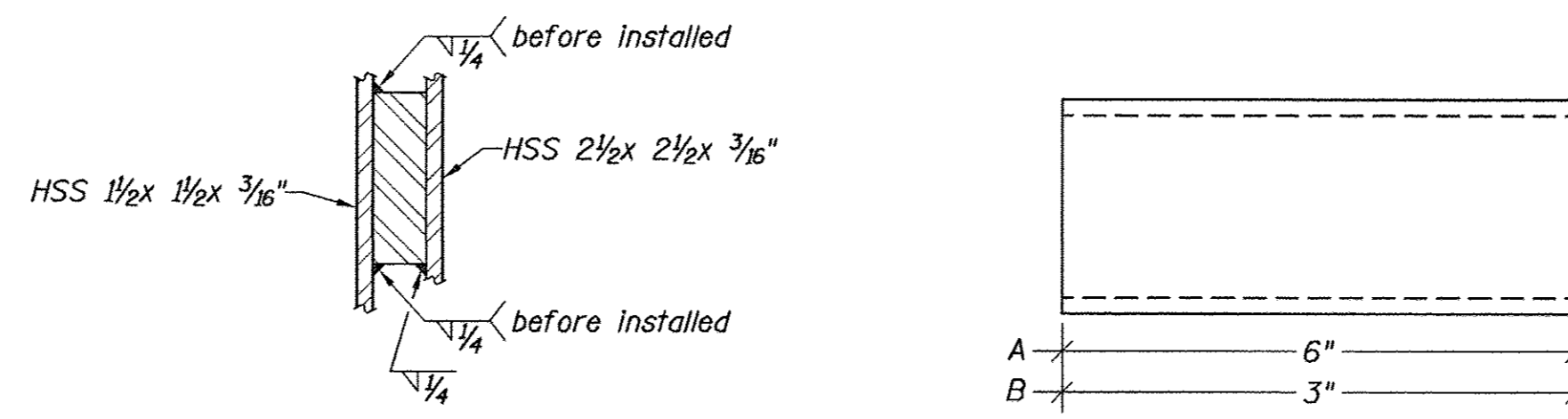
**MOUNTING PLATE PLAN**



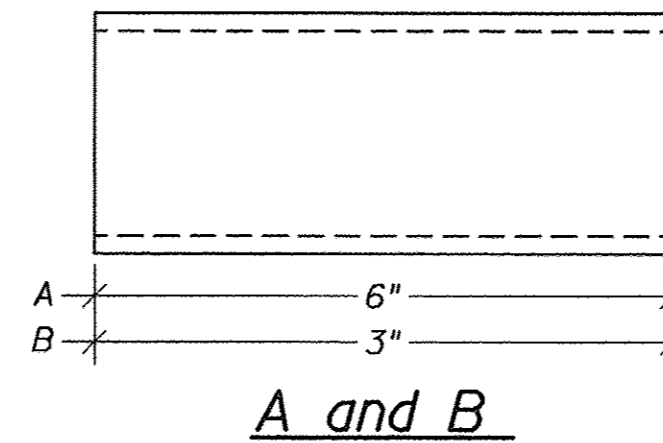
**ELEVATION - PEDESTRIAN RAIL**



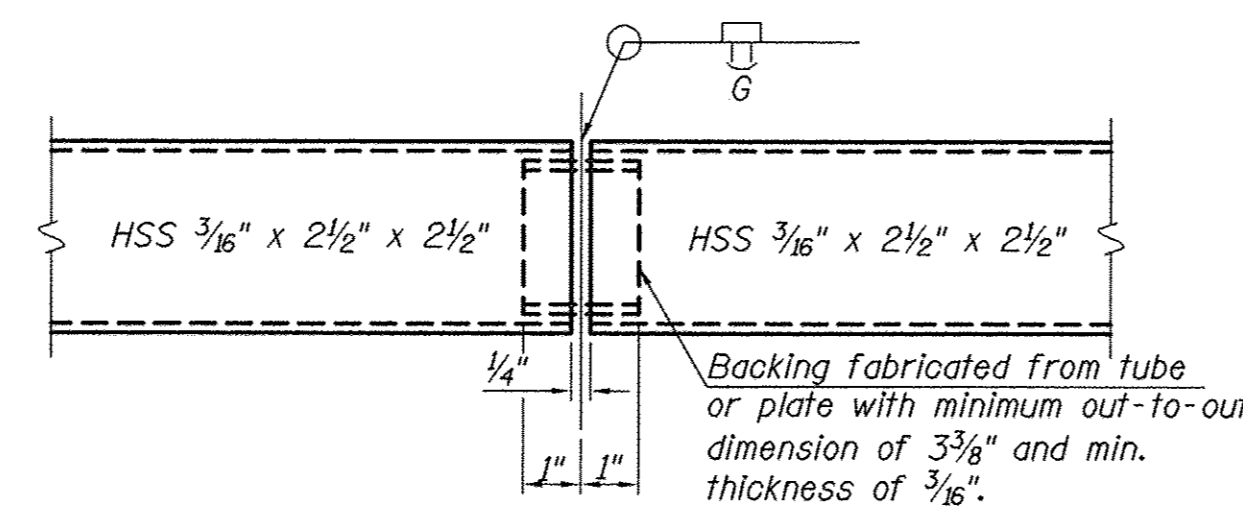
**ELEVATION SPLICE DETAIL**  
Required at ends and over Piers



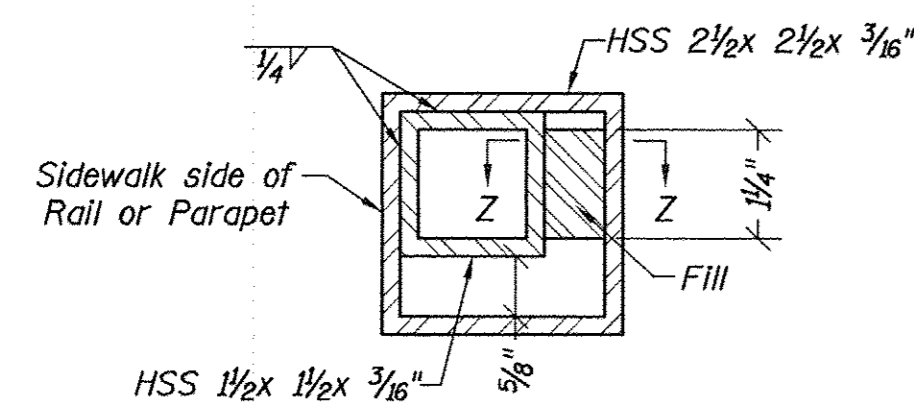
**SECTION Z-Z**



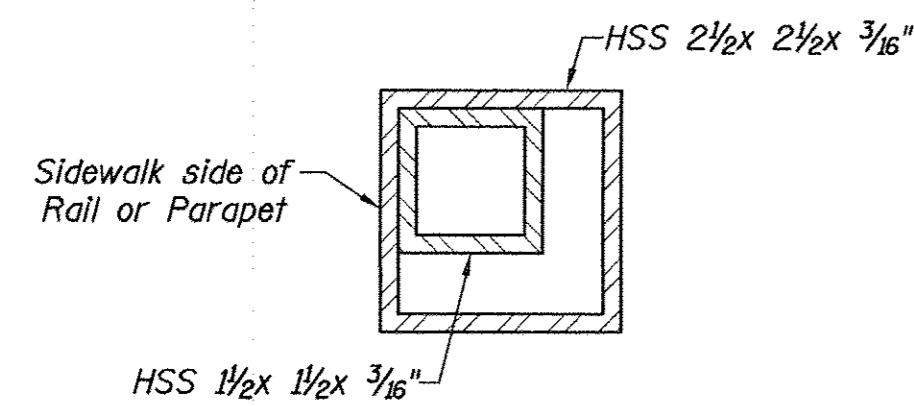
**A and B**



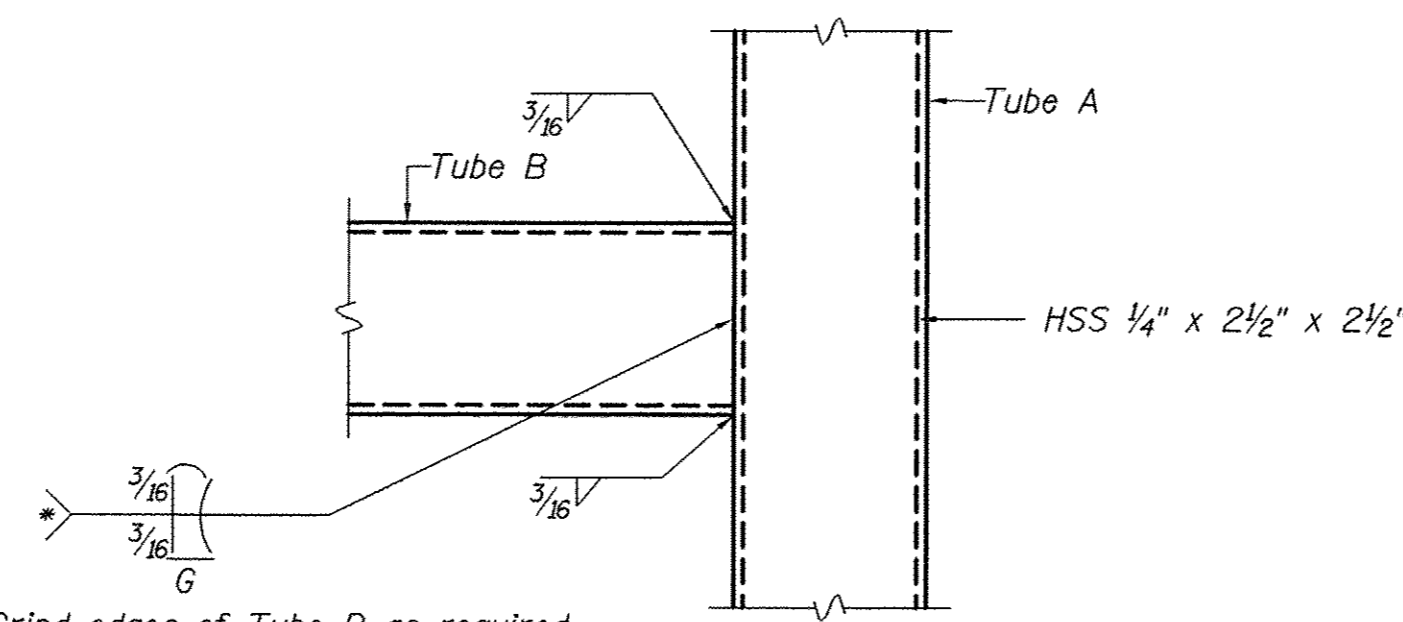
**SHOP RAIL SPLICE DETAIL**  
(Locations must be shown on Shop Drawings)



**SECTION X-X**

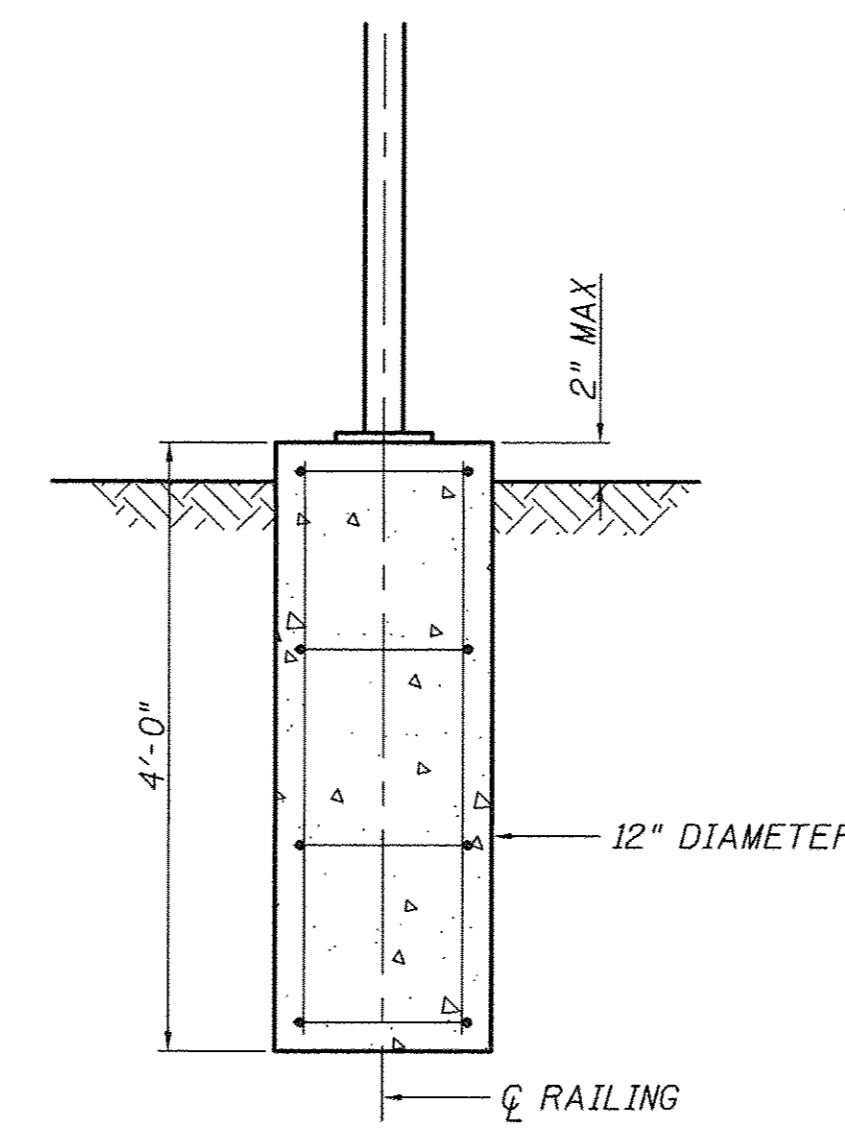


**SECTION Y-Y**

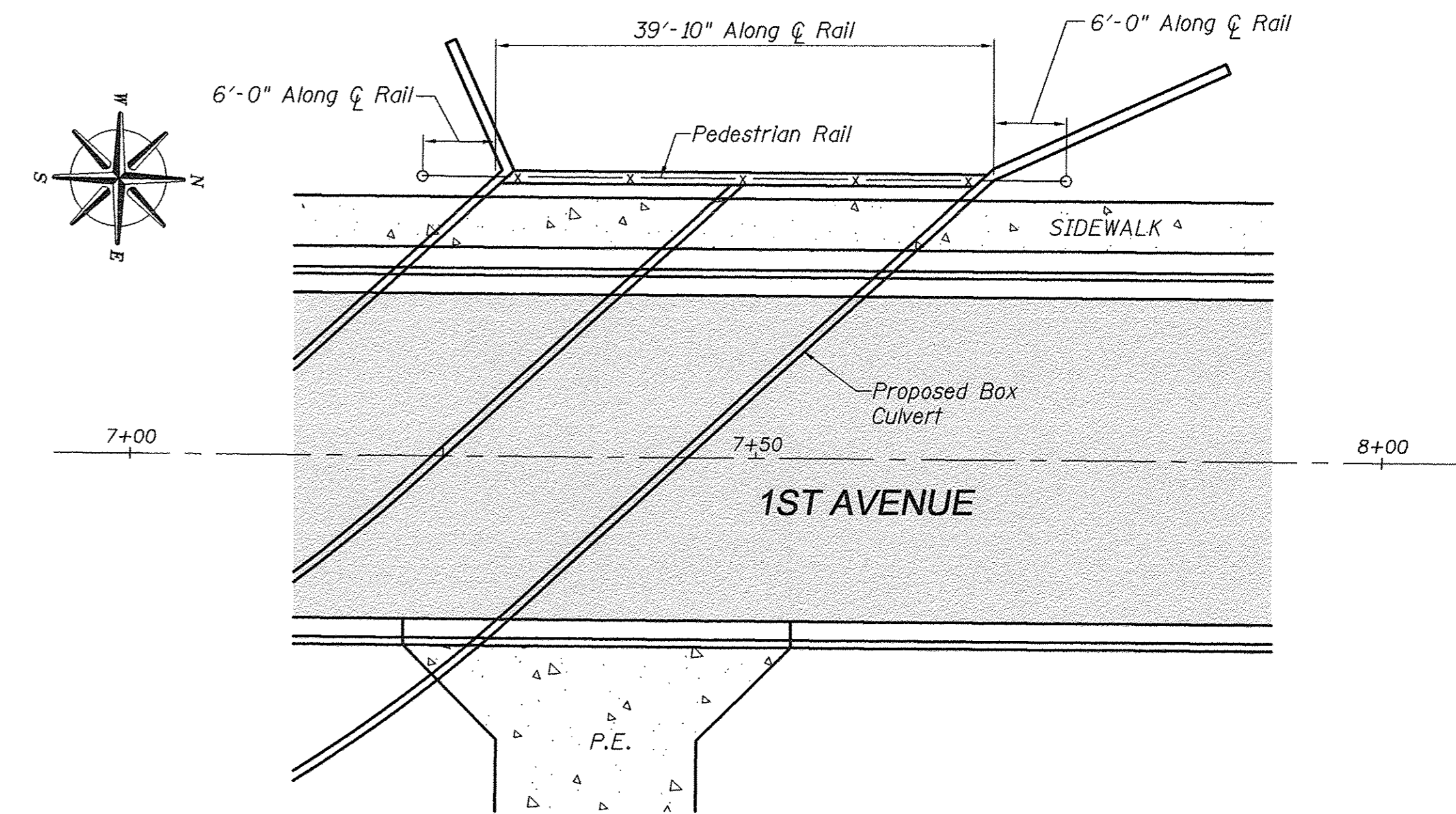


**TYPICAL WELDS AT TUBE INTERSECTS**

\* Grind edges of Tube B as required for weld access. Grind weld flush and smooth on sidewalk side. Transition to fillet welds without interrupting weld.



**RAIL END FOUNDATION**

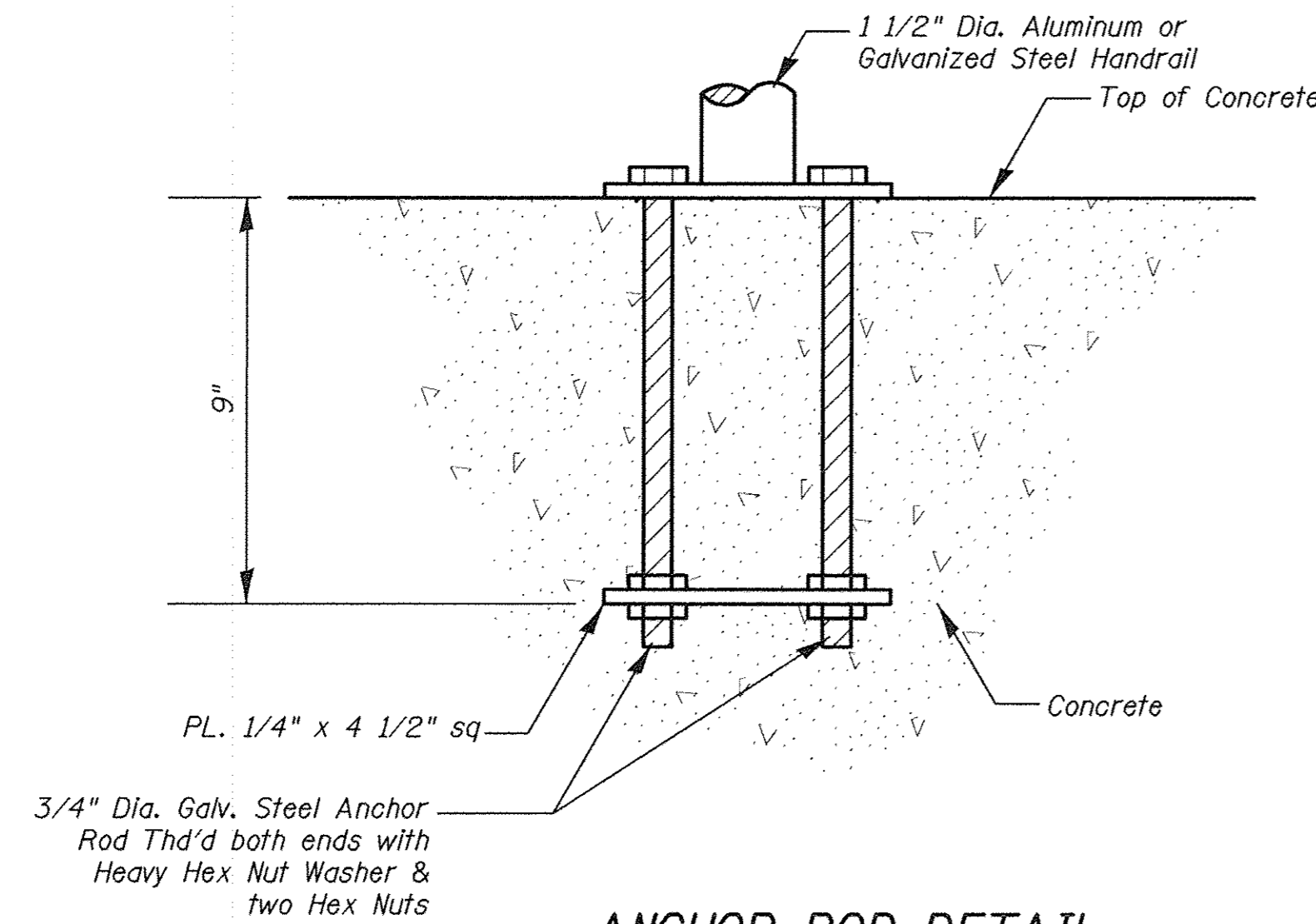


**PLAN**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
PEDESTRIAN RAIL	FOOT	52
CONCRETE STRUCTURES	CU YD	0.24
REINFORCEMENT BARS, EXPOXY COATED	POUND	50

	USER NAME = brionschumaker PLOT SCALE = - PLOT DATE = 3/31/17 FILE NAME = pedestrian rail.dwg	DESIGNED - SAB DRAWN - BOS CHECKED - - DATE - 02/01/2017	REVISED - - REVISED - - REVISED - - REVISED - -	<b>CITY OF MENDOTA</b>	<b>PEDESTRIAN RAIL</b>	FAU RTE. 6011 SECTION 08-00656-00-BR COUNTY LASALLE TOTAL SHEETS 20 SHEET NO. 15	CONTRACT NO. 87657 ILLINOIS FED. AID PROJECT BRS-00910611
	SCALE: SHEET - OF - SHEETS STA. - TO STA. -						

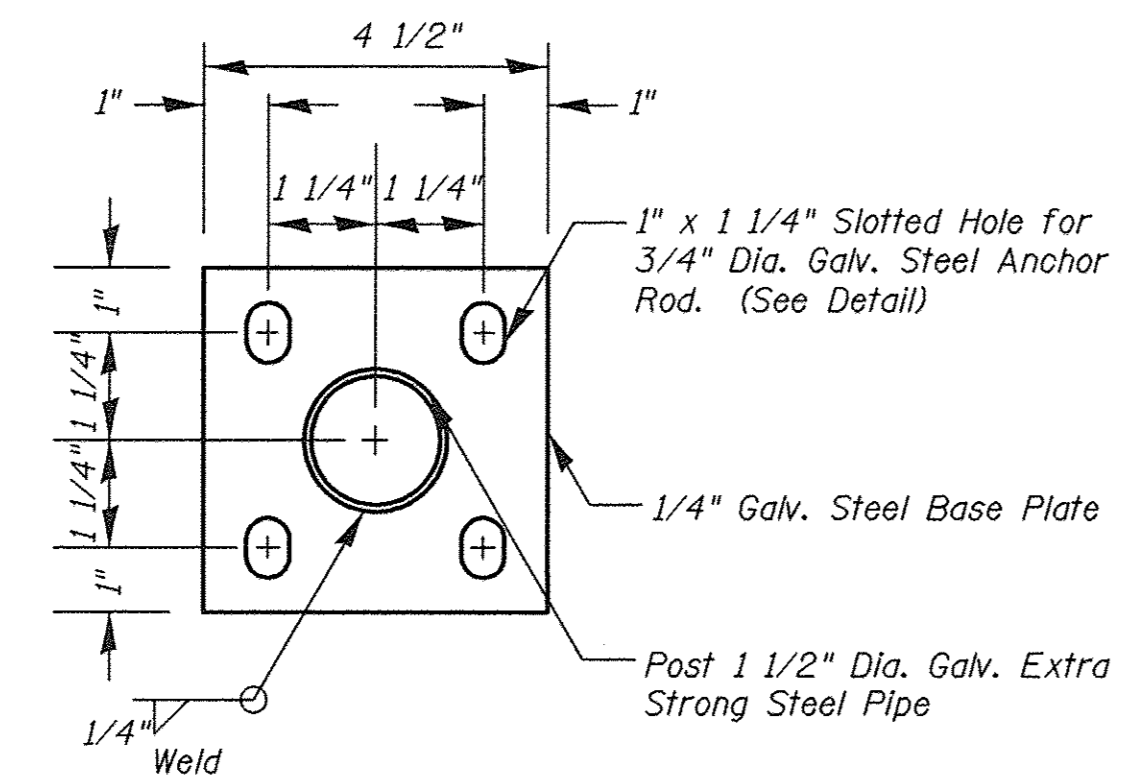


**ANCHOR ROD DETAIL**

(Included in the cost of Hand or Safety Rail)

3/4" Dia. Galv. Steel Anchor Rod Thd'd both ends with Heavy Hex Nut Washer & two Hex Nuts

PL. 1/4" x 4 1/2" sq



**POST BASE PLATE DETAIL**

(Included in the cost of Hand or Safety Rail)

**Notes:**

Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.

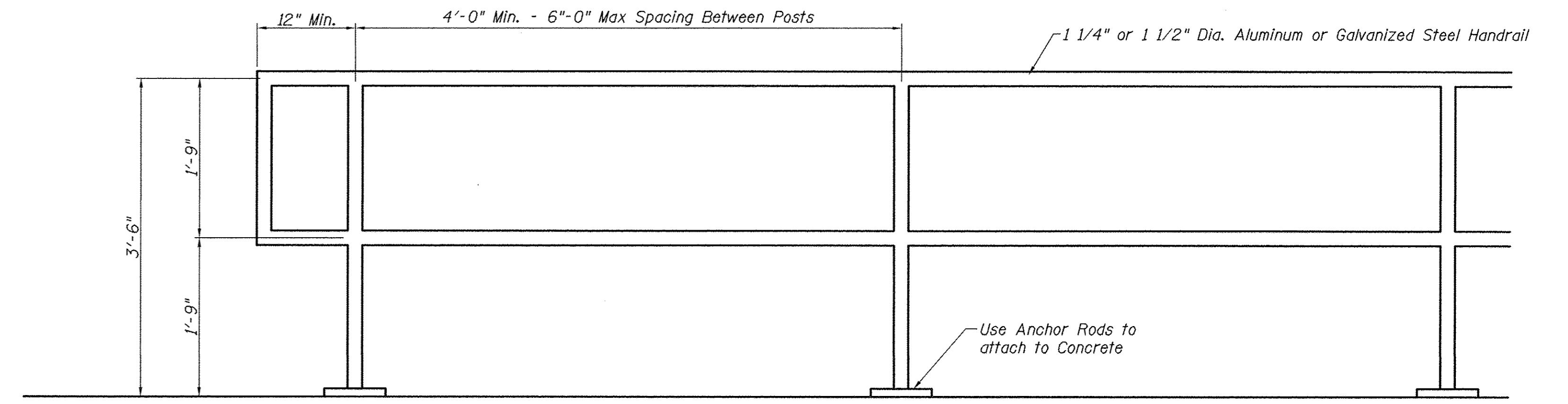
Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

Hand & safety rails shall not rotate within their fittings.

Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006.34.

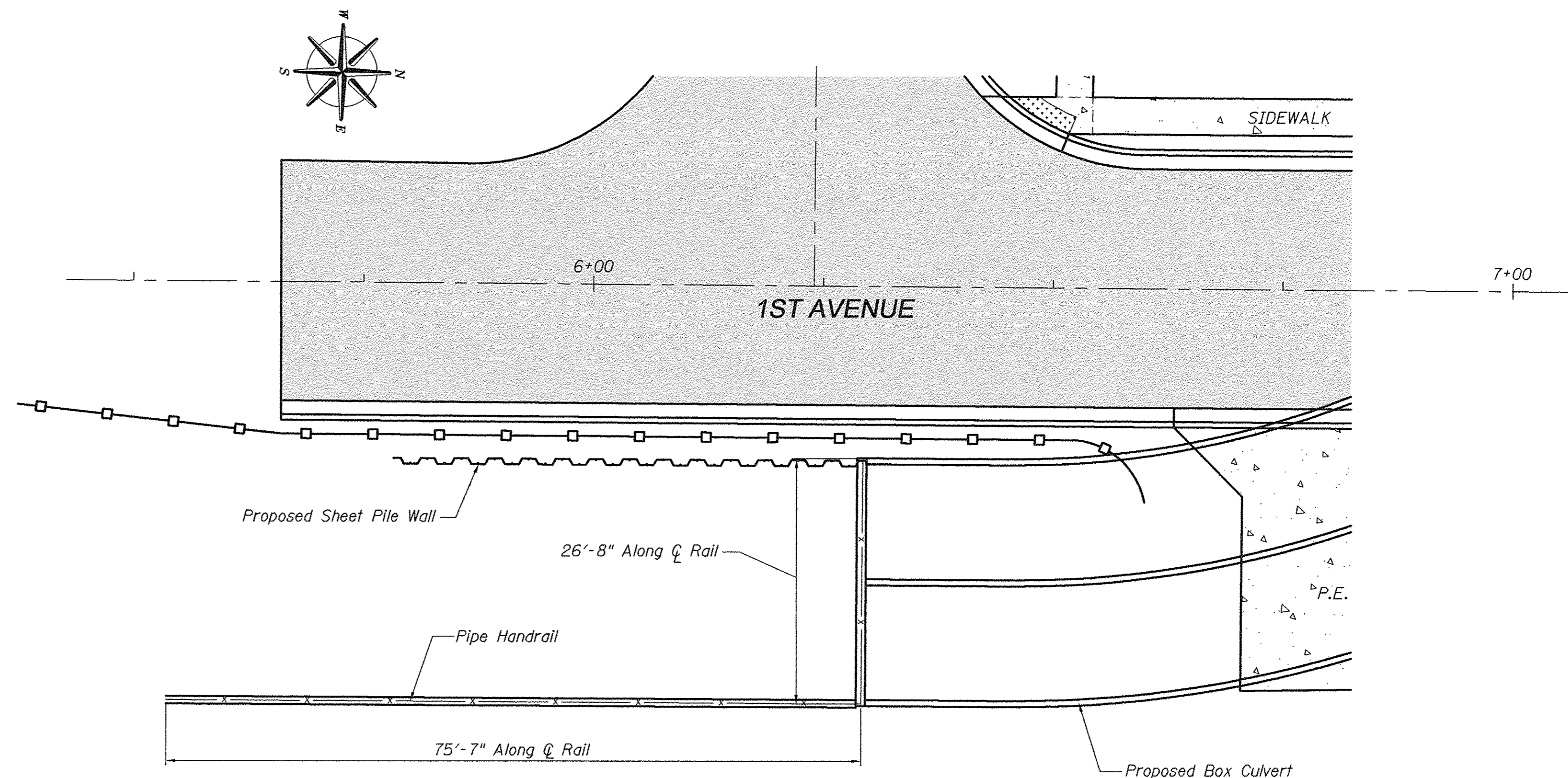
The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

This work shall be paid for at the contract unit price per FOOT for PIPE HANDRAIL.



**HANDRAIL ELEVATION**

Use Anchor Rods to attach to Concrete



**PLAN**

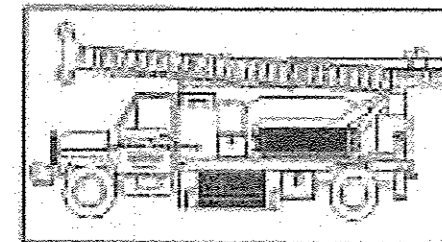
**BILL OF MATERIAL**

PIPE HANDRAIL	FOOT	102
---------------	------	-----

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	PLOT SCALE = -	DRAWN - BOS	REVISED -			SCALE: -	SHEET - OF - SHEETS	STA. -	TO STA. -	WES# 2070388
www.wendlereng.com P: 815.288.2281	PLOT DATE = 3/31/17	CHECKED - -	REVISED -							
	FILE NAME = pedestrian rail.dwg	DATE = 02/01/2017	REVISED -							

P:\2017\20170208\20170208.dwg 2/11/2017 11:02:54 AM 102





**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 2

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

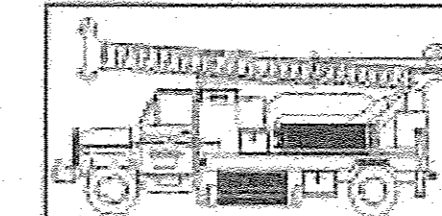
Client: Wendler Engineering Services  
Project Name: First Ave. Box Culvert over First Creek  
Project Site: Section No.: 08-00656-00-BR  
Mendota, Illinois

Boring No. B-1  
Surface Elev. 99.75 724.62  
Auger Depth 31' Rotary Depth NA  
Start Date 01/18/10 Finish Date 01/18/10

Location: North Abutment West of Centerline  
Station: 14+21 3' LT 4' LT  
7+51.6

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
99.75										Randy Saffranski Diedrich D-120	
98.75	+9" of Asphalt over +8" of Aggregate		1								
97.75	Medium Stiff Black/Brown/Gray Silty Clay Fill		2								
96.75			3	1	SS	1.0	7	B	27		
95.75			4								
94.75	Medium Stiff Gray/Brown Silty Clay		5								
93.75			6								
92.75			7								
91.75	Soft Gray very Silty Clay		8	3	SS	0.5	4	B	23		
90.75			9								
89.75	Loose Black/Gray Silt		10								
88.75			11	4	SS	---	7	---	20		Water
87.75			12								
86.75			13	5	SS	3.8	19	B	14		
85.75			14								
84.75			15								
83.75			16	6	SS	4.4	23	B	15		
82.75	Very Stiff to Hard Gray Silty Clay Till		17								
81.75			18	7	SS	4.6	26	B	15		
80.75			19								
79.75			20	8	SS	5.0	30	B	15		

Groundwater Data: Static water level after auger removal 9' depth.  
Comments: *Assumed center of existing bridge deck as 100.0.*



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 2

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services  
Project Name: First Ave. Box Culvert over First Creek  
Project Site: Section No.: 08-00656-00-BR  
Mendota, Illinois

Boring No. B-1  
Surface Elev. 99.75 724.62  
Auger Depth 31' Rotary Depth NA  
Start Date 01/18/10 Finish Date 01/18/10

Location: North Abutment West of Centerline  
Station: 14+21 3' LT 4' LT  
7+51.6

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
99.75											Randy Saffranski Diedrich D-120
78.75											
77.75			22								
76.75			23	9	SS	4.4	25	B	17		
75.75			24								
74.75	Very Stiff to Hard Gray Silty Clay Till		25								
73.75			26	10	SS	4.3	24	B	18		
72.75			27								
71.75			28	11	SS	4.1	22	B	18		
70.75			29								
69.75			30								
68.75			31	12	SS	4.0	21	B	19		
67.75	Bottom of Boring		32								
66.75			33								
65.75			34								
64.75			35								
63.75			36								
62.75			37								
61.75			38								
60.75			39								
59.75			40								
58.75			41								

Groundwater Data: Static water level after auger removal 9' depth.  
Comments: *Assumed center of existing bridge deck as 100.0.*



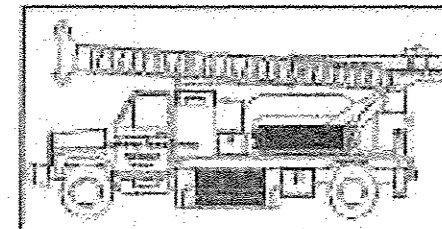
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FILE NAME = soil borings.dwg	DATE = 02/01/2017	REVISED =

**LASALLE COUNTY - CITY OF MENDOTA**

**SOIL BORINGS**

SCALE: SHEET 17 OF 20 SHEETS STA. - TO STA. -

FAU RTE. 6011	SECTION 08-00656-00-BR	COUNTY LASALLE	TOTAL SHEETS 20	SHEET NO. 17
WES* 2070388		CONTRACT NO. 87657		ILLINOIS FED. AID PROJECT BRS-0099061J



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 2

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services  
Project Name: First Ave. Box Culvert over First Creek  
Project Site: Section No.: 08-00656-00-BR  
Mendota, Illinois

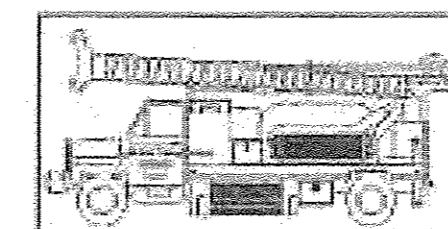
Boring No. B-2  
Surface Elev. 100.08 724.77  
Auger Depth 31' Rotary Depth NA  
Start Date 01/18/10 Finish Date 01/18/10

Location: South Abutment East of Centerline

Station: +12+89.5 RT 3.8 RT  
6+19.7

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
100.08										Randy Safranski Diedrich D-120	
99.08	±5" of Asphalt over ±9" of Aggregate		1								
98.08	Medium Stiff Black Silty Clay Topsoil Fill		2								
97.08			3	1	SS	1.0	7	S	34		
96.08			4								
95.08	Medium Stiff Gray/Brown Silty Clay		5	2	SS	0.8	8	B	9		
94.08			6								
93.08	Very Stiff to Hard Brown/Gray Silty Clay Till		7								
92.08			8	3	SS	1.0	8	B	24		
91.08			9								
90.08	Very Stiff to Hard Brown/Gray Silty Clay Till		10	4	SS	4.0	19	B	18		
89.08			11								
88.08	Very Stiff to Hard Gray Silty Clay Till		12								
87.08			13	5	SS	3.5	23	B	18		
86.08			14								
85.08			15								
84.08			16	6	SS	3.5	18	B	18		
83.08	Very Stiff to Hard Gray Silty Clay Till		17								
82.08			18	7	SS	3.0	16	B	18		
81.08	Medium Dense Brown Fine Sand		19								
80.08			20	8	SS	---	11	---	10		Water Under Head Pressure

Groundwater Data: Static water level after auger removal 3' depth.  
Comments: Assumed center of existing bridge deck as 100.0.



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 2

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Wendler Engineering Services  
Project Name: First Ave. Box Culvert over First Creek  
Project Site: Section No.: 08-00656-00-BR  
Mendota, Illinois

Boring No. B-2  
Surface Elev. 100.08 724.77  
Auger Depth 31' Rotary Depth NA  
Start Date 01/18/10 Finish Date 01/18/10

Location: South Abutment East of Centerline

Station: +12+89.5 RT 3.8 RT  
6+19.7

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
79.08										Randy Safranski Diedrich D-120	
78.08	Medium Dense Brown Medium to Fine Sand		22								
77.08			23	9	SS	---	17	---	9		
76.08	Medium Dense Gray/Brown Coarse Gravel		24								
75.08			25	10	SS	---	20	---	9		
74.08			26								
73.08	Very Stiff Brown/Gray Silty Clay Till		27								
72.08			28	11	SS	2.0	18	B	12		
71.08	Very Stiff Brown/Gray Silty Clay Till		29								
70.08			30								
69.08			31	12	SS	2.3	26	B	11		
68.08	Bottom of Boring		32								
67.08			33								
66.08			34								
65.08			35								
64.08			36								
63.08			37								
62.08			38								
61.08			39								
60.08			40								
59.08			41								

Groundwater Data: Static water level after auger removal 3' depth.  
Comments: Assumed center of existing bridge deck as 100.0.



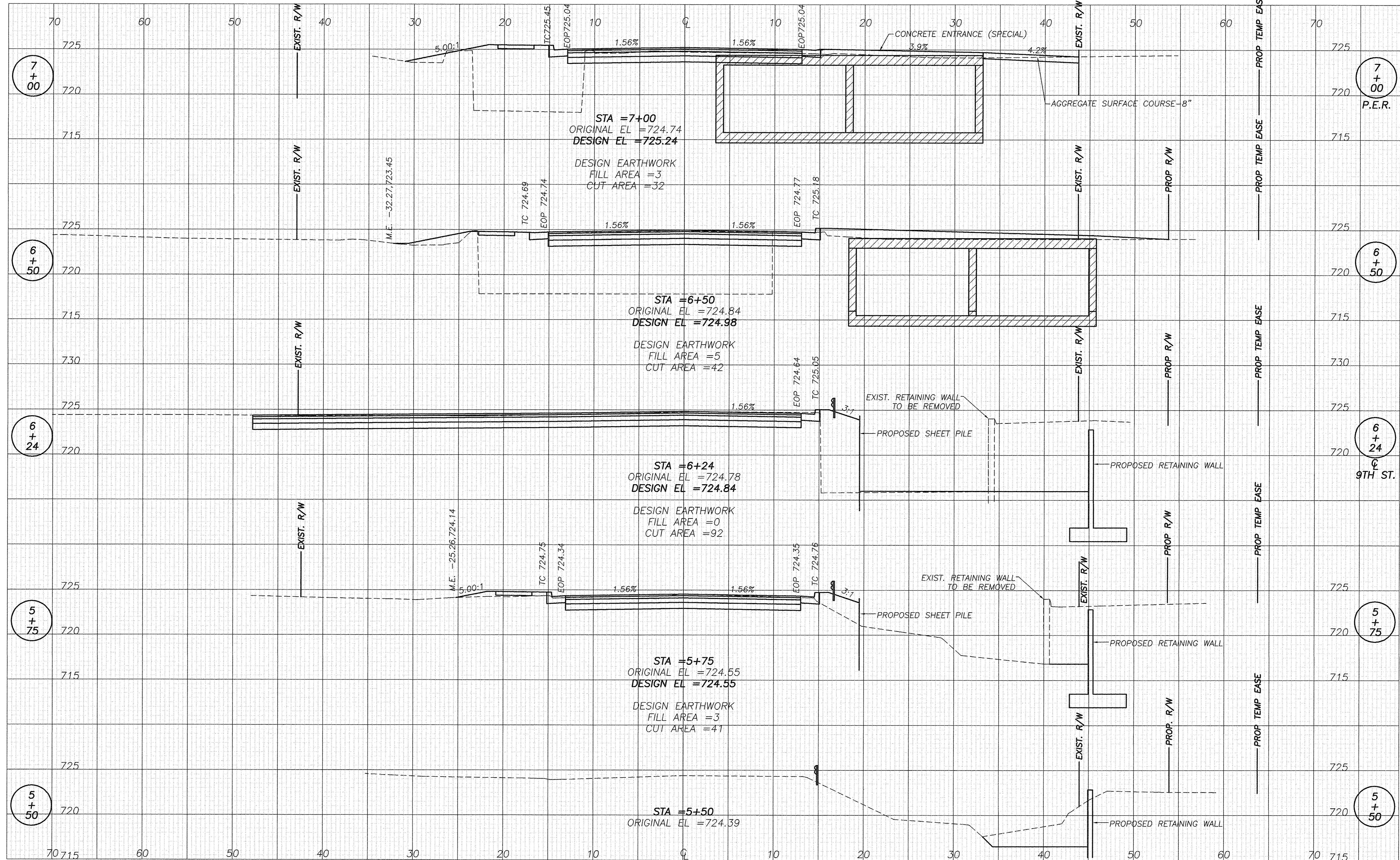
USER NAME = <u>branschumaker</u>	DESIGNED = <u>SAB</u>	REVISED = <u>-</u>
PLOT SCALE = <u>-</u>	DRAWN = <u>BDS</u>	REVISED = <u>-</u>
PLOT DATE = <u>3/31/17</u>	CHECKED = <u>-</u>	REVISED = <u>-</u>
FILE NAME = <u>soil borings.dwg</u>	DATE = <u>02/01/2017</u>	REVISED = <u>-</u>

**LASALLE COUNTY - CITY OF MENDOTA**

**SOIL BORINGS**

SCALE: SHEET 18 OF 20 SHEETS STA. - TO STA. -

FAU RTE. <u>6011</u>	SECTION <u>08-00656-00-BR</u>	COUNTY <u>LASALLE</u>	TOTAL SHEETS <u>20</u>	SHEET NO. <u>18</u>
WES# <u>2070388</u>		CONTRACT NO <u>87657</u>		
ILLINOIS FED. AID PROJECT <u>BRS-00910613</u>				



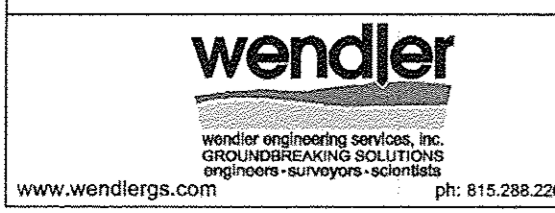
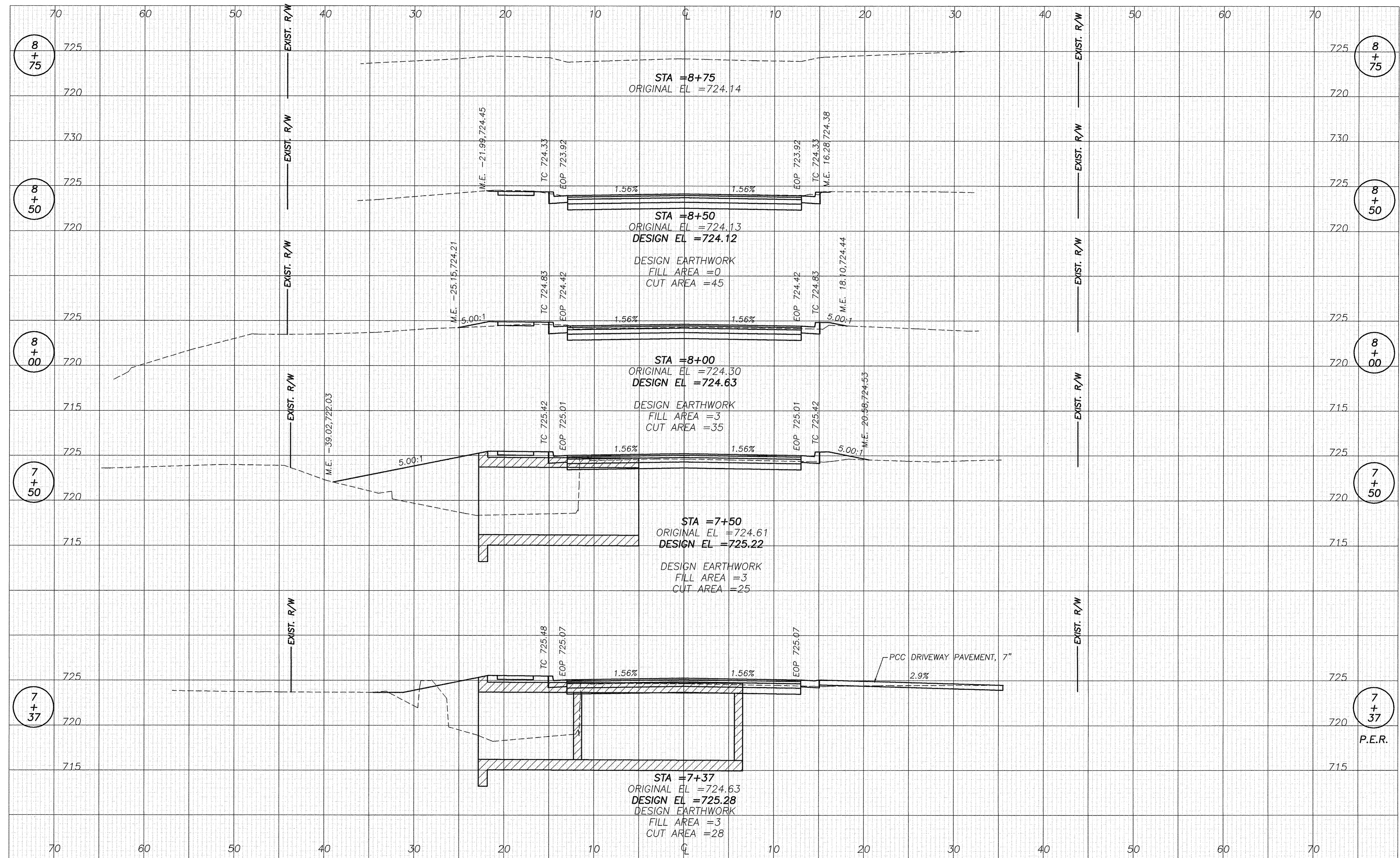
USER NAME = brianschumaker	DESIGNED - SAB	REVISED -
PLOT SCALE = -	DRAWN - BDS	REVISED -
PLOT DATE = 3/30/17	CHECKED -	REVISED -
FILE NAME = rc002001.dwg	DATE = 02/01/2017	REVISED -

**LASALLE COUNTY - CITY OF MENDOTA**

**CROSS SECTIONS**

SCALE: 1"=5' SHEET - OF - SHEETS STA. - TO STA. -

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	19
WES# 2070388			CONTRACT NO 87657	
ILLINOIS FED. AID PROJECT BR5-0091061				



USER NAME = brionschumaker	DESIGNED - SAB	REVISED -
PLOT SCALE = -	DRAWN - BOS	REVISED -
PLOT DATE = 3/30/17	CHECKED -	REVISED -
FILE NAME = rc001001.dwg	DATE = 02/01/2017	REVISED -

LASALLE COUNTY - CITY OF MENDOTA

CROSS SECTIONS

SCALE: 1"=5' SHEET - OF - SHEETS STA. - TO STA. -

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6011	08-00656-00-BR	LASALLE	20	20
WES# 2070388			CONTRACT NO 87657	
ILLINOIS FED. AID PROJECT			BRS-00990611	

P.E.R.