			URBAN	CONSTRUCTION CODE 80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 RURAL	0044 099-0918	0021 RURAL
20101000	TEMPORARY FENCE	FOOT	300	300		
20101200	TREE ROOT PRUNING	EACH	4	4		
20101700	SUPPLEMENTAL WATERING	UNIT	12	12		
20200100	EARTH EXCAVATION	CU YD	340	305		35
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	134	130		4
20700220	POROUS GRANULAR EMBANKMENT	CU YD	206	130	76	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	771	771		
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	200	200		
25000310	SEEDING, CLASS 4	ACRE	0.25	0.25		
25000314	SEEDING, CLASS 4B	ACRE	0.05	0.05		

* SPECIALTY ITEMS

P:\60616005.14-PTB177-004.WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheet\3.60V28-sht-SOQ1.dgn

AES ENGINEERS & SURVEYORS
111 S. Wacker Drive, Suite 3910
Chicago, IL 60606
Ph: 312-235-6783

USER NAME = tmohammed
PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 5/31/2018

DESIGNED - TOM
DRAWN - AWM
CHECKED - JA
DATE - 05/24/2018

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK
SUMMARY OF QUANTITIES – SHEET 1 OF 6

SCALE | SHEET OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	3

CONTRACT NO. 60V28
ILLINOIS FED. AID PROJECT

1 REV. 8/29/18 REV. 8/22/18 REV. - MS

			URBAN	CONSTRUCTION CODE 80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0021 RURAL	BOX CULVERT 0044 099-0918	ROADWAY 0021 RURAL
25000775	SELECTIVE MOWING STAKES	EACH	4	4		
25100630	EROSION CONTROL BLANKET	SQ YD	730	730		
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	590	590		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25	25		
28000305	TEMPORARY DITCH CHECKS	FOOT	86	86		
28000315	AGGREGATE DITCH CHECKS	TON	11	11		
28000400	PERIMETER EROSION BARRIER	FOOT	700	700		
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	1320	1320		
28100109	STONE RIPRAP, CLASS A5	SQ YD	99		99	
28100705	STONE DUMPED RIPRAP, CLASS A3	SQ YD	15	15		
28200200	FILTER FABRIC	SQ YD	114	15	99	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	55	55		
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1414	1414		
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	34			34

* SPECIALTY ITEMS

			URBAN	CONSTRUCTION CODE 80% FEDERAL 20% STATE		
				IL 102 at Rayns Creek		Old Chicago Rd
				ROADWAY	BOX CULVERT	ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021 RURAL	0044 099-0918	0021 RURAL
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	67			67
40700100	BITUMINOUS MATERIALS (TACK COAT)	POUND	720	720		
40701886	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 10 1/4"	SQ YD	800	800		~~180~~
44000100	PAVEMENT REMOVAL	SQ YD	822	822		
44004250	PAVED SHOULDER REMOVAL	SQ YD	171	171		
48101498	AGGREGATE SHOULDERS, TYPE B 4"	SQ YD	258			258
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	371	371		
48203038	HOT-MIX ASPHALT SHOULDERS, 10 1/4"	SQ YD	546	546		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50104000	BRIDGE RAIL REMOVAL	FOOT	45		45	
50200100	STRUCTURE EXCAVATION	CU YD	934		934	
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	76		76	
50300300	PROTECTIVE COAT	SQ YD	43		43	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	116630		116630	

* SPECIALTY ITEMS

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USER NAME = tmohammed	DESIGNED - TOM	REVISED -	
	DRAWN - AWM	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - JA	REVISED -	
PLOT DATE = 5/31/2018	DATE - 05/24/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK
SUMMARY OF QUANTITIES – SHEET 3 OF 6

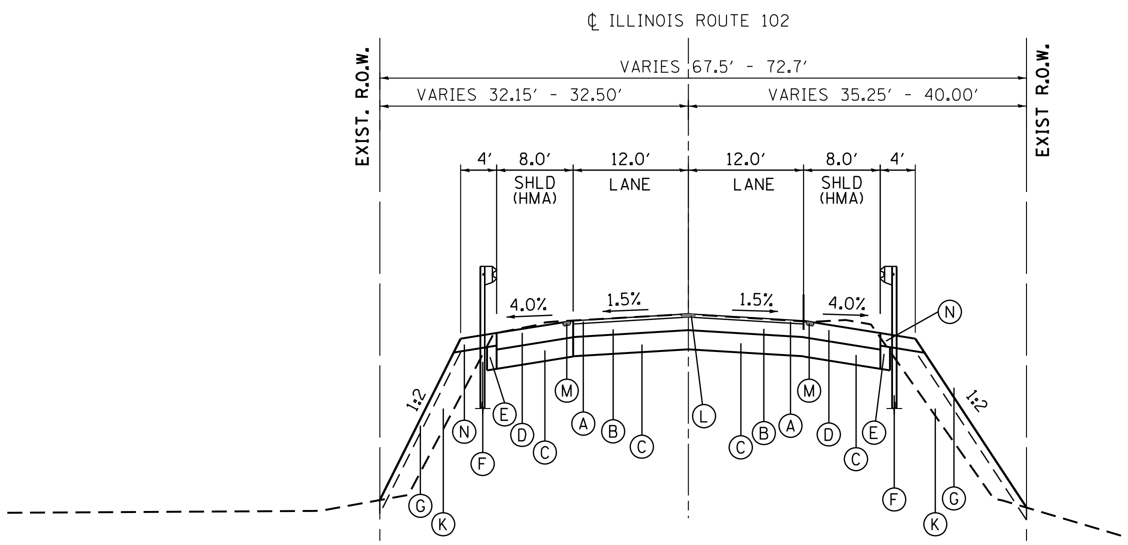
SCALE | SHEET OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	5

CONTRACT NO. 60V28

ILLINOIS FED. AID PROJECT

1 REV. 9/11/18 1 REV. 8/29/18 REV. 8/22/18 REV. - MS

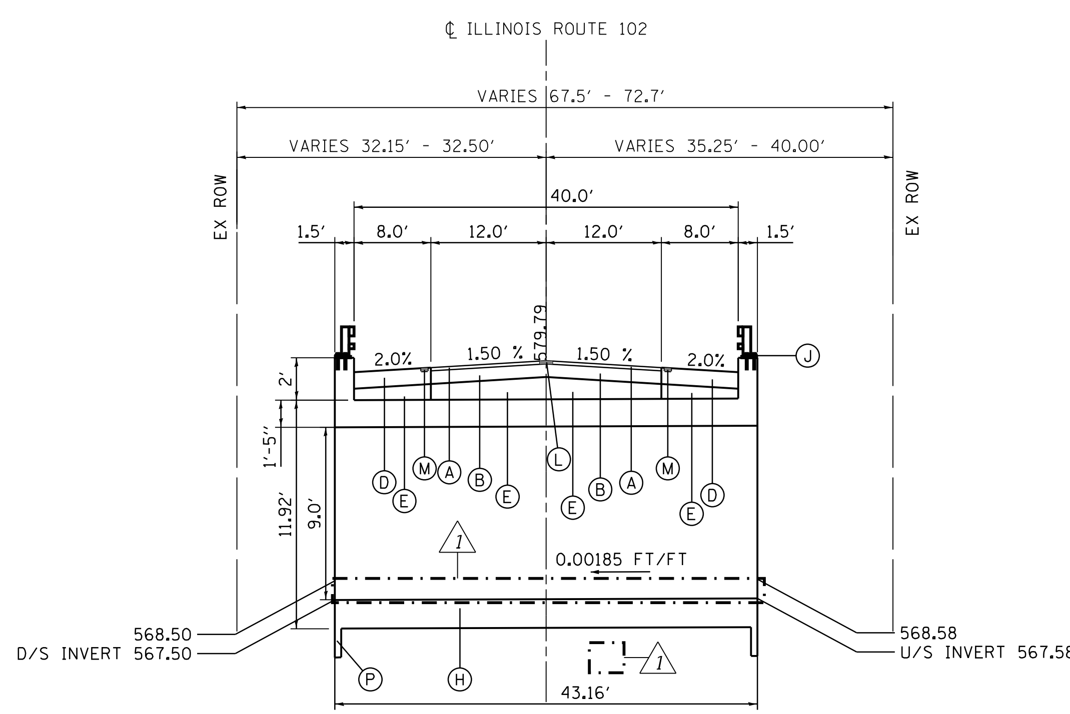


PROPOSED TYPICAL SECTION

STA. 741+00.00 TO STA. 741+35.00
STA. 741+78.00 TO STA. 744+00.00

CONSTRUCTION LIMITS

STA. 738+00.00 TO STA. 741+00.00
STA. 744+00.00 TO STA. 745+00.00



PROPOSED TYPICAL SECTION

STA. 741+35.00 TO STA. 741+78.00

HMA MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ NDES	QUALITY MANAGEMENT PROGRAM (QMP)
HMA PAVEMENT (FD), 10¼"		
2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5MM)	4% @ 70 GYR	QC/QA
HOT-MIX ASPHALT, BASE COURSE 8¼", (HMA BINDER, IL-19.0)	4% @ 70 GYR	QC/QA
HOT MIX ASPHALT SHOULDERS, 10¼"		
2" HMA SURFACE COURSE, MIX D N70 (IL-9.5MM)	4% @ 70 GYR	QC/QA
8¼" HMA BINDER IL-19 MM	4% @ 70 GYR	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)		

MIXTURE TABLE NOTES

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQYD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. 1
3. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

PROPOSED LEGEND

- A 2" HMA SURFACE COURSE, MIX "D", N70
- B 8¼" HMA BASE COURSE, IL-19.0, N70
- C 12" AGGREGATE SUBGRADE IMPROVEMENT
- D HMA SHOULDERS, 10-¼"
- E AGGREGATE SUBGRADE IMPROVEMENT
- F STEEL PLATE GUARDRAIL, TYPE A
- G RESTORATION LANDSCAPING:
  - EROSION CONTROL BLANKET
  - SEEDING CLASS 4/4B
  - TOPSOIL 4"
- H CONCRETE BOX CLVERT
- I 1
- J STEEL RAILING, TYPE 2399
- K EMBANKMENT
- L CENTERLINE RUMBLE STRIPS, (16" WIDE)
- M SHOULDER RUMBLE STRIPS, (8" WIDE)
- N AGGREGATE SHOULDERS, TYPE B 8"
- P TOE WALL

P:\6061\60005.14-PT8177-004.WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheets\10.60V28-Typical section2.dgn

AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = awmohammed	DESIGNED - TOM	REVISED - 1 9/10/2018 AWM
		DRAWN - AWM	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - JA	REVISED -
	PLOT DATE = 9/10/2018	DATE - 08/14/2018	REVISED -

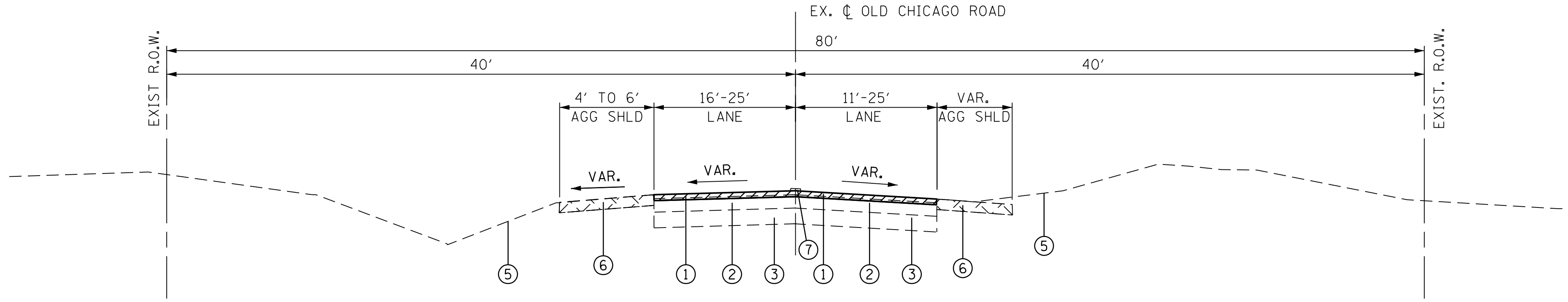
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) OVER RAYN'S CREEK
PROPOSED TYPICAL SECTIONS

SCALE | SHEET OF SHEETS | STA. TO STA.

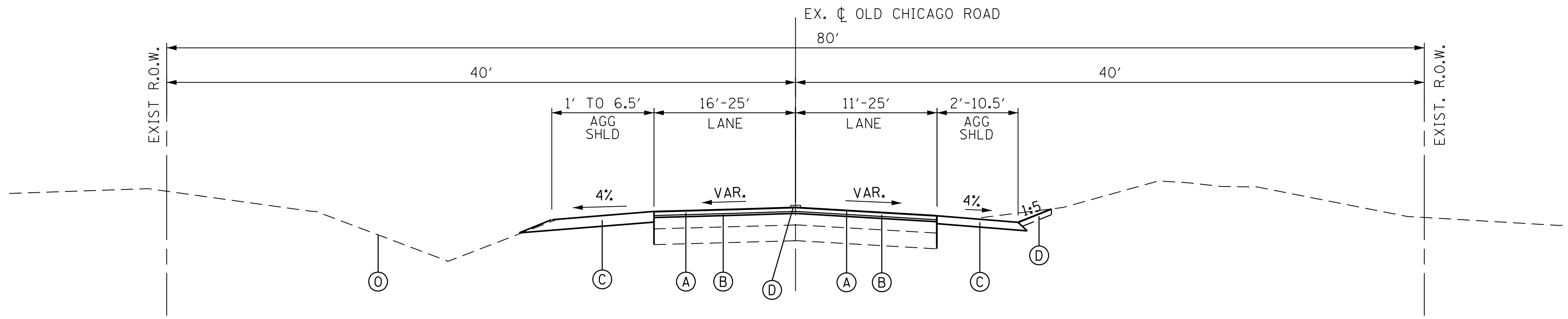
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	10
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

1 REV. 9/12/18



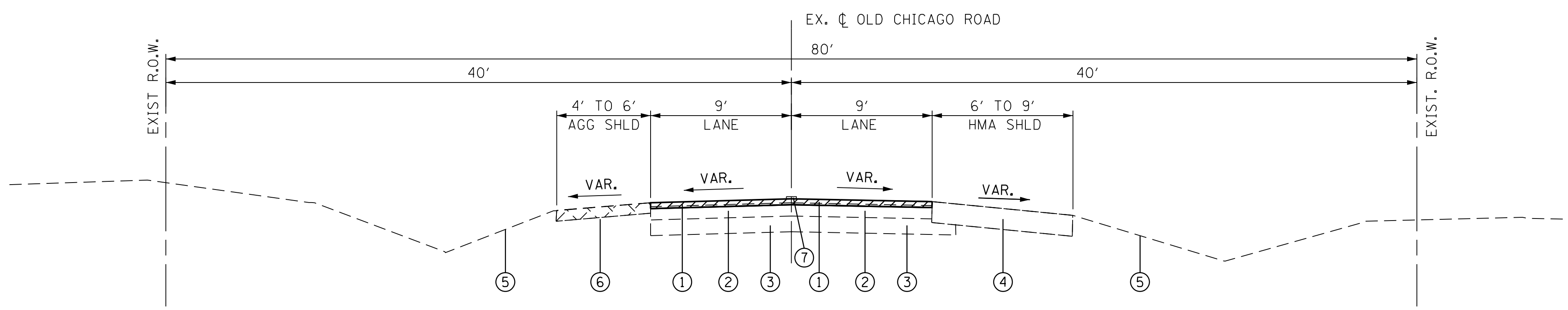
EXISTING TYPICAL SECTION (OLD CHICAGO ROAD) LOOKING NORTH

STA. 332+86.15 TO STA 333+70.20



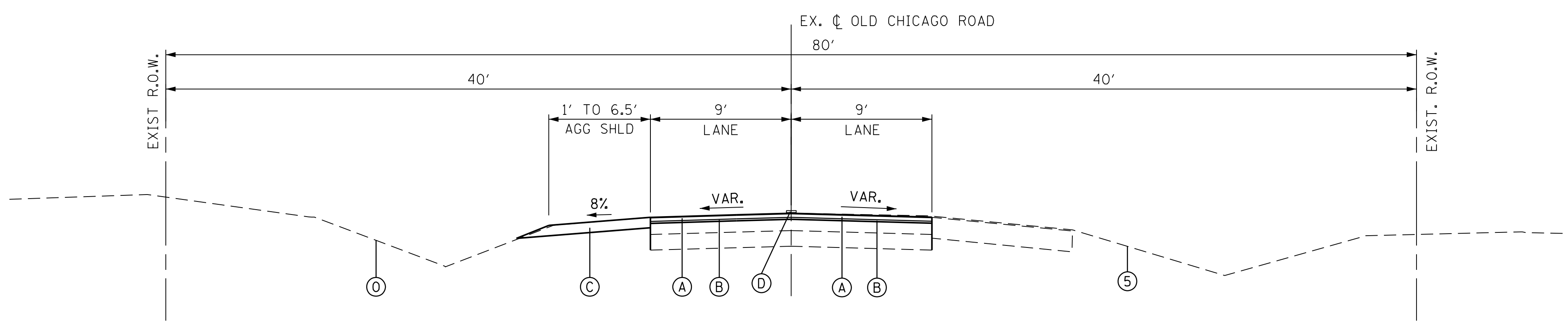
PROPOSED TYPICAL SECTION (OLD CHICAGO ROAD) LOOKING NORTH

STA. 332+86.15 TO STA 333+70.20



EXISTING TYPICAL SECTION (OLD CHICAGO ROAD) LOOKING NORTH

STA. 333+70.20 TO STA. 335+85.00



PROPOSED TYPICAL SECTION (OLD CHICAGO ROAD) LOOKING NORTH

STA. 333+70.20 TO STA. 335+85.00

1

HMA MIXTURE REQUIREMENTS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS MIXTURE TYPE	AIR VOIDS @ NDES	QMP
PAVEMENT RESURFACING 2 1/4"		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM) - 1 1/2"	4% @ 50 GYR.	QC/QA
POLYMERIZED LEVELING BINDER, (MM), IL 4.75, N50 - 3/4"	3.5% @ 50 GYR.	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA):		

MIXTURE TABLE NOTES

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQYD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
3. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

EXISTING LEGEND

1 HMA SURFACE MILLING 2 1/4"
2 EXISTING HMA OVERLAY 4" TO 6 1/2"
3 EXISTING HMA BASECOURSE (VAR. THICKNESS)
4 EXISTING HMA SHOULDER 8"
5 EXISTING EMBANKMENT
6 EXISTING AGGREGATE SHOULDER
7 EXISTING PAVEMENT MARKING LINE

PROPOSED LEGEND

A HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM) 1 1/2"
B POLYMERIZED LEVELING BINDER, (MM), IL 4.75, N50 3/4"
C AGGREGATE SHOULDERS, TYPE B 4"
D THERMOPLASTIC PAVEMENT MARKING LINE 4" (2 SOLID YELLOW)

HMA SURFACE MILLING 2 1/4"

AGGREGATE SHOULDER REMOVAL 4"

NOTE: AGGREGATE WEDGE SHOULDER, TYPE B TO BE MAINTAINED DURING THE DURATION OF THE DETOUR.

P:\6861\60005.14-PTB177-004.WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheets\IL60V28-Intersection Improvement-Typicals.dgn

AES ENGINEERS & SURVEYORS
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USER NAME = tmohammed	DESIGNED - TOM	REVISED -	
	DRAWN - AWM	REVISED -	
PLOT SCALE = 10.0000 '/ in.	CHECKED - JA	REVISED -	
PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD
INTERSECTION IMPROVEMENTS EX. & PR. TYPICALS

SCALE | SHEET OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	11

CONTRACT NO. 60V28

ILLINOIS FED. AID PROJECT

1 REVISED ENTIRE SHEET 8/29/18

1

IL 102 (RAYN'S CREEK)
EARTHWORK SCHEDULE

From Station	To Station	Length	Topsoil Stripping	Excavation	Adjust for Shrinkage (15%)	Fill	Topsoil Placement	Earthwork Balance Waste (+) or Shortage (-)	Remove & Dispose of Unsuitable Material	Porous Granular Embankment
		(FT)	(CuYd)	(CuYd)	(CuYd)	(CuYd)	(CuYd)	(CuYd)	(CuYd)	(CuYd)
A	B	C = B-A	D	E	F = E*(85%)	G		H = F - G	I	J = I
738+81.29	739+00.00	18.71	0.7	0.2	0.2	0.0	2.7	0.2		
739+00.00	739+29.35	29.35	4.1	0.9	0.8	1.1	3.8	-0.3		
739+29.35	739+39.36	10.01	2.1	0.4	0.3	0.9	1.3	-0.6		
739+39.36	739+41.75	2.39	0.5	0.1	0.1	0.2	0.4	-0.1		
739+41.75	739+50.00	8.25	1.8	0.2	0.2	0.4	1.8	-0.2		
739+50.00	739+89.71	39.71	13	1.5	1.3	3.5	9.5	-2.2		
739+89.71	739+99.70	9.99	4.4	0.6	0.5	1.8	3.1	-1.3		
739+99.70	740+00.00	0.30	0.1	0.0	0.0	0.1	0.2	-0.1		
740+00.00	740+50.00	50.00	23.5	3.1	2.6	14.6	31.9	-12.0		
740+50.00	741+00.00	50.00	27.2	33.1	28.1	26.9	30.0	1.2	20.9	20.9
741+00.00	741+01.76	1.76	0.9	2.2	1.9	1.0	1.0	0.9	0.7	0.7
741+01.76	741+24.62	22.86	7	30.4	25.8	5.5	13.2	20.3	9.6	9.6
741+24.62	741+33.09	8.47	1.9	11.7	9.9	0.0	5.1	9.9	1.8	1.8
741+33.09	741+50.00	16.91			STRUCTURE OMISSION					
741+50.00	741+80.13	30.13								
741+80.13	741+88.56	8.43	3.9	4.0	3.4	5.4	4.1	-2.0	3.5	3.5
741+88.56	742+00.00	11.44	5.1	11.3	9.6	5.0	4.5	4.6	4.8	4.8
742+00.00	742+11.37	11.37	5.9	11.5	9.8	3.2	4.1	6.6	4.8	4.8
742+11.37	742+50.00	38.63	22.5	36.8	31.3	13.2	22.1	18.1	16.2	16.2
742+50.00	743+00.00	50.00	26.5	44.4	37.7	19.4	28.0	18.3	20.9	20.9
743+00.00	743+13.60	13.60	6.5	11.1	9.4	4.5	5.2	4.9	5.7	5.7
743+13.60	743+23.60	10.00	4.6	8.6	7.3	3.4	4.3	3.9	4.2	4.2
743+23.60	743+47.60	24.00	11.6	23.6	20.1	6.5	10.3	13.6	10.0	10.0
743+47.60	743+50.00	2.40	1.2	2.5	2.1	0.5	1.0	1.6	1.0	1.0
743+50.00	743+74.00	24.00	11.5	26.3	22.4	3.9	6.7	18.5	10.0	10.0
743+74.00	743+84.02	10.02	4.7	12.0	10.2	1.0	1.3	9.2	4.2	4.2
743+84.02	744+00.00	15.98	6.5	21.2	18.0	0.7	1.5	17.3	6.7	6.7
744+00.00	744+08.00	8.00	1.4	5.6	4.8	0.1	0.6	4.7	1.7	1.7
Totals			200.0	305.0	260.0	125.0	200.0	135.0	130.0	130.0

NOTES:

THE QUANTITY OF EXISTING TOPSOIL STRIPPING WAS ESTIMATED USING A UNIFORM 6" DEPTH. TOPSOIL PLACEMENT WILL USE A NOMINAL 6" DEPTH. THE INTENT IS TO BALANCE THE EXISTING TOPSOIL WITHIN THE CONTRACT LIMITS. THE CONTRACTOR MAY VARY THE THICKNESS OF THE TOPSOIL PLACEMENT BETWEEN 5" AND 9" TO ACHIEVE THIS BALANCE. NO PAYMENT WILL BE MADE FOR DISPOSAL OR HAULING OF TOPSOIL.

EARTHWORK SCHEDULE

LOCATION	SIDE	EARTH EXCAVATION (CU YD)	UNSUITABLE MATERIAL (CU YD)	15% ADJUSTMENT FOR SHRINKAGE (CU YD)	FILL EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE(+) SHORTAGE(-) (CU YD)
STATION TO STATION						
IL 102	LT/RT					
716+36.00 TO 716+55.00	RT	0.94	0.094	0.719	0.00	0.719
716+55.00 TO 717+00.00	RT	4.58	0.458	3.504	0.00	3.504
OLD CHICAGO ROAD						
333+00.00 TO 333+50.00	LT	2.56	0.256	1.958	0.00	1.958
333+50.00 TO 334+00.00	LT	5.28	0.528	4.039	0.00	4.039
334+00.00 TO 334+50.00	LT	5.43	0.543	4.153	0.00	4.153
334+50.00 TO 335+00.00	LT	4.81	0.481	3.679	0.00	3.679
335+00.00 TO 335+50.00	LT	3.58	0.358	2.738	0.00	2.738
335+50.00 TO 335+85.00	LT	1.53	0.153	1.170	0.00	1.170
333+00.00 TO 333+50.00	RT	5.39	0.539	4.123	0.00	4.123
TOTAL		34.11	3.411	26.08	0.00	26.08

FILE NAME = D160V28-sht-Schedule1.dgn

Wight	USER NAME = untitled	DESIGNED - JNH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS ROUTE 102 OVER RAYN'S CREEK SCHEDULE OF QUANTITIES	F.A.P. RTE. 631	SECTION (111N-B)B-R	COUNTY WILL	TOTAL SHEETS 47	SHEET NO. 12
		DRAWN - JNH	REVISED -							
	PLOT SCALE = 2.0000 ' / in.	CHECKED - JWK	REVISED -			CONTRACT NO. 60V28				
	PLOT DATE = 8/15/2018	DATE - 5/25/18	REVISED -		SCALE: N/A SHEET 1 OF 2 SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT				

1 REVISED ENTIRE SHEET 8/29/18

SELECTIVE MOWING STAKES

STATION	OFFSET	QUANTITY (EACH)
738+00	LT	1
738+35	RT	1
744+10	RT	1
744+84	LT	1
TOTAL		4

AGGREGATE DITCH CHECKS

STATION	OFFSET	QUANTITY (TONS)
738+00	LT	0.4
739+00	RT	0.9
742+50	RT	1.9
742+83	RT	1.9
743+17	RT	2.3
743+49	RT	2.3
744+00	RT	0.9
TOTAL		10.6

PERIMETER EROSION BARRIER

STATION	STATION	OFFSET	LENGTH (FT)
739+50.0	741+59.7	LT	209.7
739+50.0	741+27.0	RT	177.0
741+82.4	744+00.0	LT	217.6
741+55.0	742+50.0	RT	95.0
TOTAL			699.3

CONCRETE HEADWALL FOR PIPE DRAINS

STATION	OFFSET	QUANTITY (EACH)
740+68.3	29.7 LT	1
740+68.3	29.0 RT	1
TOTAL		2

PIPE UNDERDRAIN TYPE 2 4"

STATION	OFFSET	QUANTITY (FT)
740+68.3	29.7 LT	10
740+68.3	29.0 RT	10
TOTAL		20

CONC CURB TB

STATION	STATION	OFFSET	LENGTH (FT)	ADAJACENT TO
741+08.7	741+24.7	LT	16	GR1
742+11.4	742+27.4	LT	16	GR2
740+85.8	741+01.8	RT	16	GR3
741+88.6	742+04.6	RT	16	GR4
TOTAL			64	

SPBGR TY A 9FT POSTS

STATION	STATION	OFFSET	LENGTH (FT)	DESIGNATION
740+87.2	740+49.7	LT	37.5	GR1
742+48.9	743+23.9	LT	75.0	GR2
740+64.3	739+89.3	RT	75.0	GR3
742+26.1	742+63.6	RT	37.5	GR4
TOTAL			225.0	

TRAFFIC BARRIER TERMINAL, TYPE 6A

STATION	STATION	OFFSET	QUANTITY	DESIGNATION
741+26.6	740+87.2	LT	1.0	GR1
742+09.5	742+48.9	LT	1.0	GR2
741+03.7	740+64.3	RT	1.0	GR3
741+86.7	742+26.1	RT	1.0	GR4
TOTAL			4.0	

TRAFFIC BARRIER TERMINAL, T1 (SPEC) TAN

STATION	STATION	OFFSET	QUANTITY	DESIGNATION
740+49.7	739+99.7	LT	1.0	GR1
743+23.9	743+73.9	LT	1.0	GR2
739+89.3	739+39.3	RT	1.0	GR3
742+63.6	743+13.6	RT	1.0	GR4
TOTAL			4.0	

TERMINAL MARKER – DIRECT APPLIED

STATION	OFFSET	QUANTITY	DESIGNATION
739+99.7	LT	1.0	GR1
743+73.9	LT	1.0	GR2
739+39.3	RT	1.0	GR3
743+13.6	RT	1.0	GR4
TOTAL		4.0	

IL 102 AT OLD CHICAGO ROAD
PAVEMENT MARKING SCHEDULE

LOCATION	SIDE	THERMOPLASTIC PAVEMENT MARKING (FOOT)			PAVEMENT MARKING REMOVAL
		(YELLOW)	(WHITE)		
STATION TO STATION	LT/RT	LINE 4"	LINE 4"	LINE 24"	(SQ. FT.)
OLD CHICAGO ROAD					
333+00.00 TO 335+85.00	LT/RT	570	570	17	377
TOTAL	LT/RT	570	570	17	377

Wight	USER NAME = untitled	DESIGNED - JNH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - JNH	REVISED -	
	PLOT SCALE = 2.0000 ' / in.	CHECKED - JWK	REVISED -	
	PLOT DATE = 8/15/2018	DATE - 5/25/18	REVISED -	

ILLINOIS ROUTE 102 OVER RAYN'S CREEK
SCHEDULE OF QUANTITIES

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	13

CONTRACT NO. 60V28

ILLINOIS FED. AID PROJECT

FILE NAME = D160V28-sht-Schedule2.dgn

1 REVISED ENTIRE SHEET 8/29/18

1

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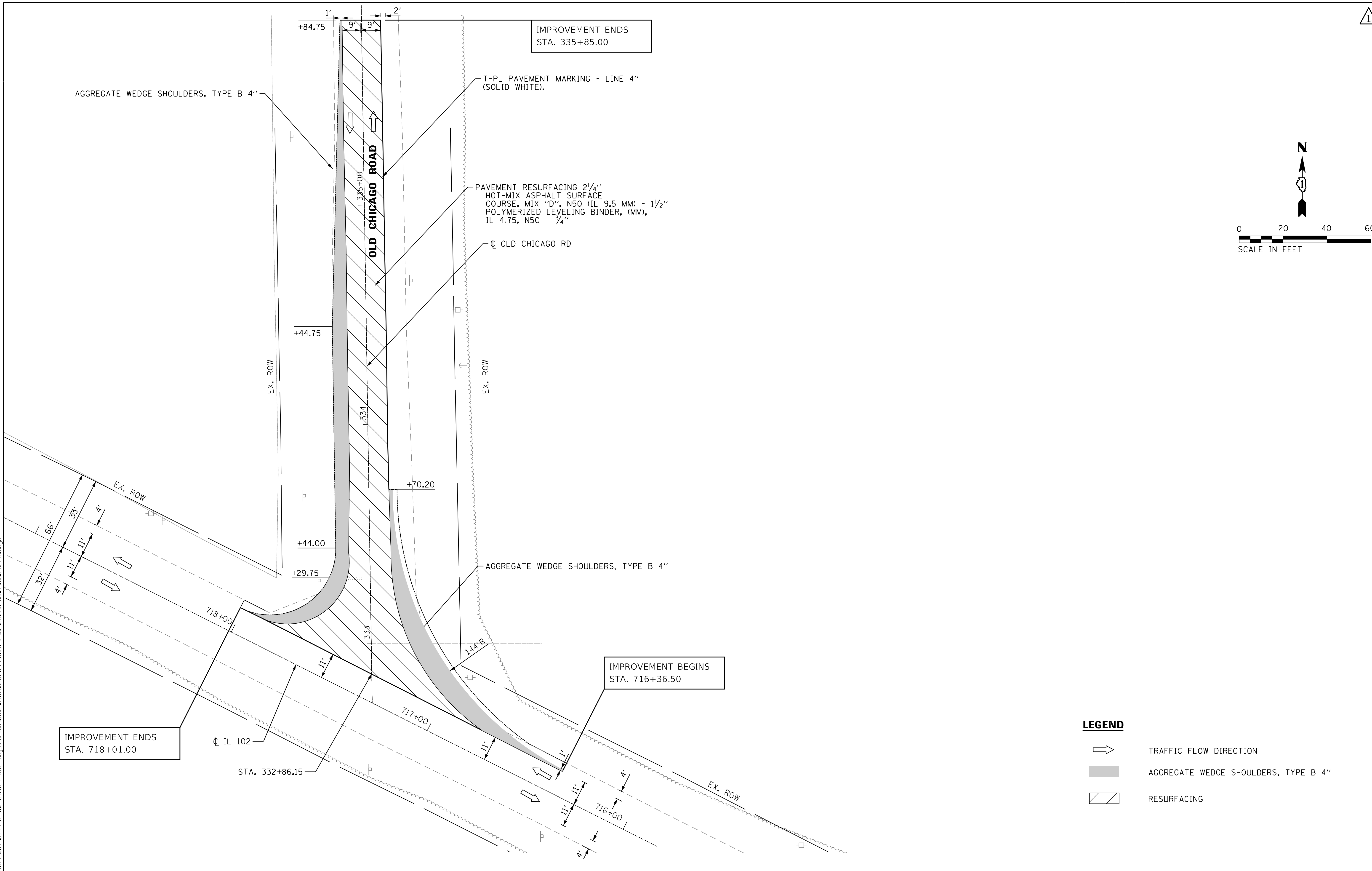
AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = tmohammed	DESIGNED - TOM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD EXISTING CONDITIONS AND REMOVAL PLAN		
		DRAWN - AWM	REVISED -				
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JA	REVISED -				
	PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -		SCALE	SHEET OF SHEETS	STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	17
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

1 REVISED ENTIRE SHEET 8/29/18



AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = tmohammed	DESIGNED - TOM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD IMPROVEMENT PLAN
		DRAWN - AWM	REVISED -		
	PLOT SCALE = 40.0000 ' / in.	CHECKED - JA	REVISED -		
	PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -		SCALE / SHEET OF SHEETS / STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	19
		CONTRACT NO. 60V28		
		ILLINOIS FED. AID PROJECT		

1 REVISED ENTIRE SHEET 8/29/18

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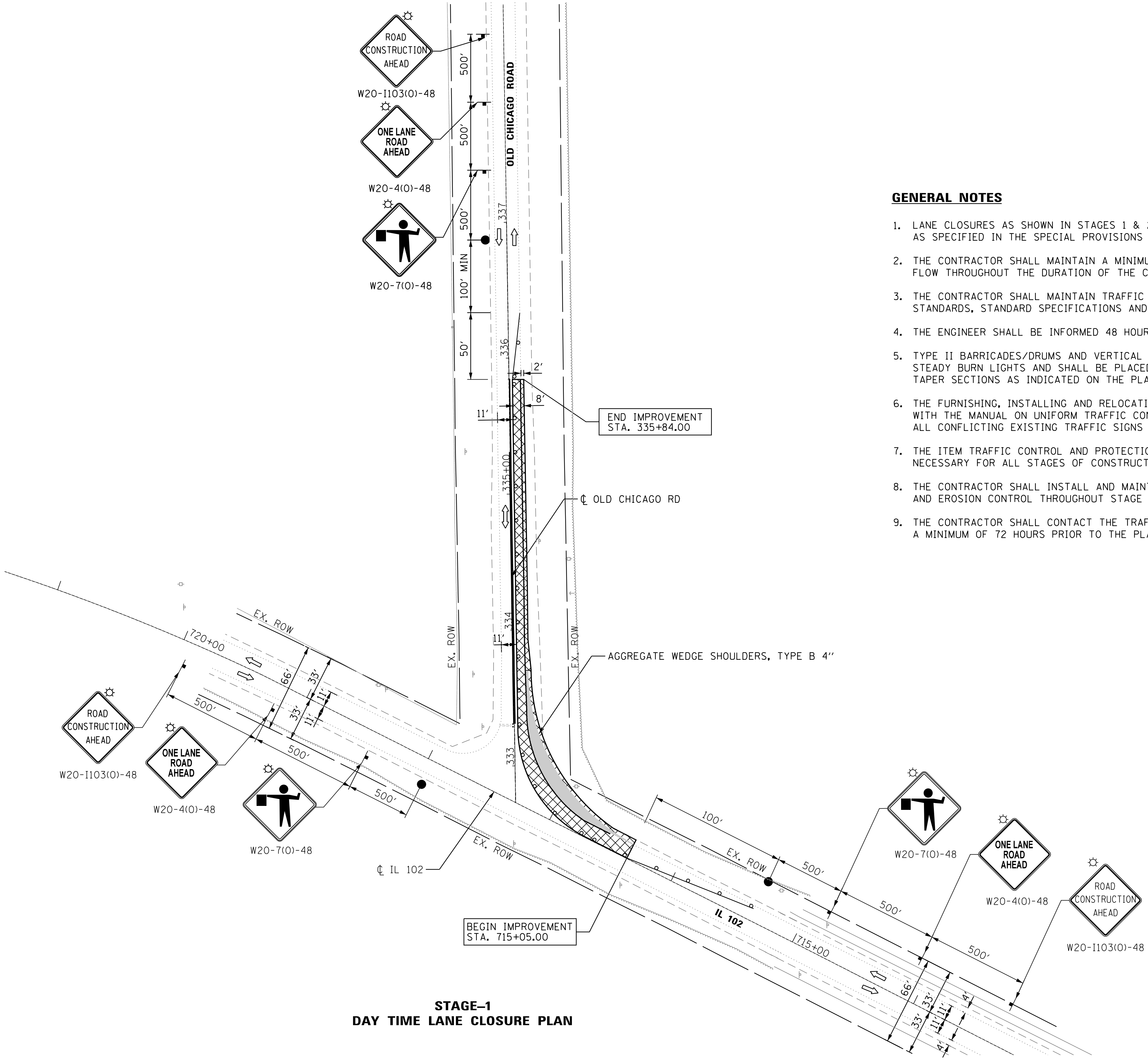


STAGE–1
DAY TIME LANE CLOSURE PLAN

GENERAL NOTES

1. LANE CLOSURES AS SHOWN IN STAGES 1 & 2 SHALL BE UTILIZED DURING ALLOWABLE HOURS ONLY AS SPECIFIED IN THE SPECIAL PROVISIONS " KEEPING ARTERIAL ROADWAY OPEN TO TRAFFIC".
2. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 11' CLEAR WIDTH ROADWAY FOR ONE-WAY TRAFFIC FLOW THROUGHOUT THE DURATION OF THE CONTRACT.
3. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE SPECIAL PROVISIONS, STATE STANDARDS, STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
4. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF BETWEEN STAGE 1 AND 2.
5. TYPE II BARRICADES/DRUMS AND VERTICAL PANELS SHALL BE EQUIPPED WITH MONO DIRECTIONAL STEADY BURN LIGHTS AND SHALL BE PLACED ALONG THE PROPOSED WORK ZONE AND WITHIN TAPER SECTIONS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. THE FURNISHING, INSTALLING AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE IDOT STANDARD SPECIFICATIONS ALL CONFLICTING EXISTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER.
7. THE ITEM TRAFFIC CONTROL AND PROTECTION (SPECIAL) SHALL INCLUDE ALL TRAFFIC CONTROL NECESSARY FOR ALL STAGES OF CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY AND PROPOSED DRAINAGE SYSTEMS AND EROSION CONTROL THROUGHOUT STAGE CONSTRUCTION DURING THE DURATION OF THE PROJECT.
9. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR VIA EMAIL AT CORY.JUCIUS@ILLINOIS.GOV A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

LEGEND

- DRUM OR TYPE II BARRICADE @ 50' CENTERS
- FLASHING LIGHT ABOVE SIGN
- TRAFFIC FLOW DIRECTION
- WORK ZONE
- AGGREGATE WEDGE SHOULDERS, TYPE B 4"
- FLAGGER WITH TRAFFIC CONTROL SIGN

P:\6061\60005.14-PTB177-004.WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheets\21.60V28-Intersection Improvement.MOT 1.dgn

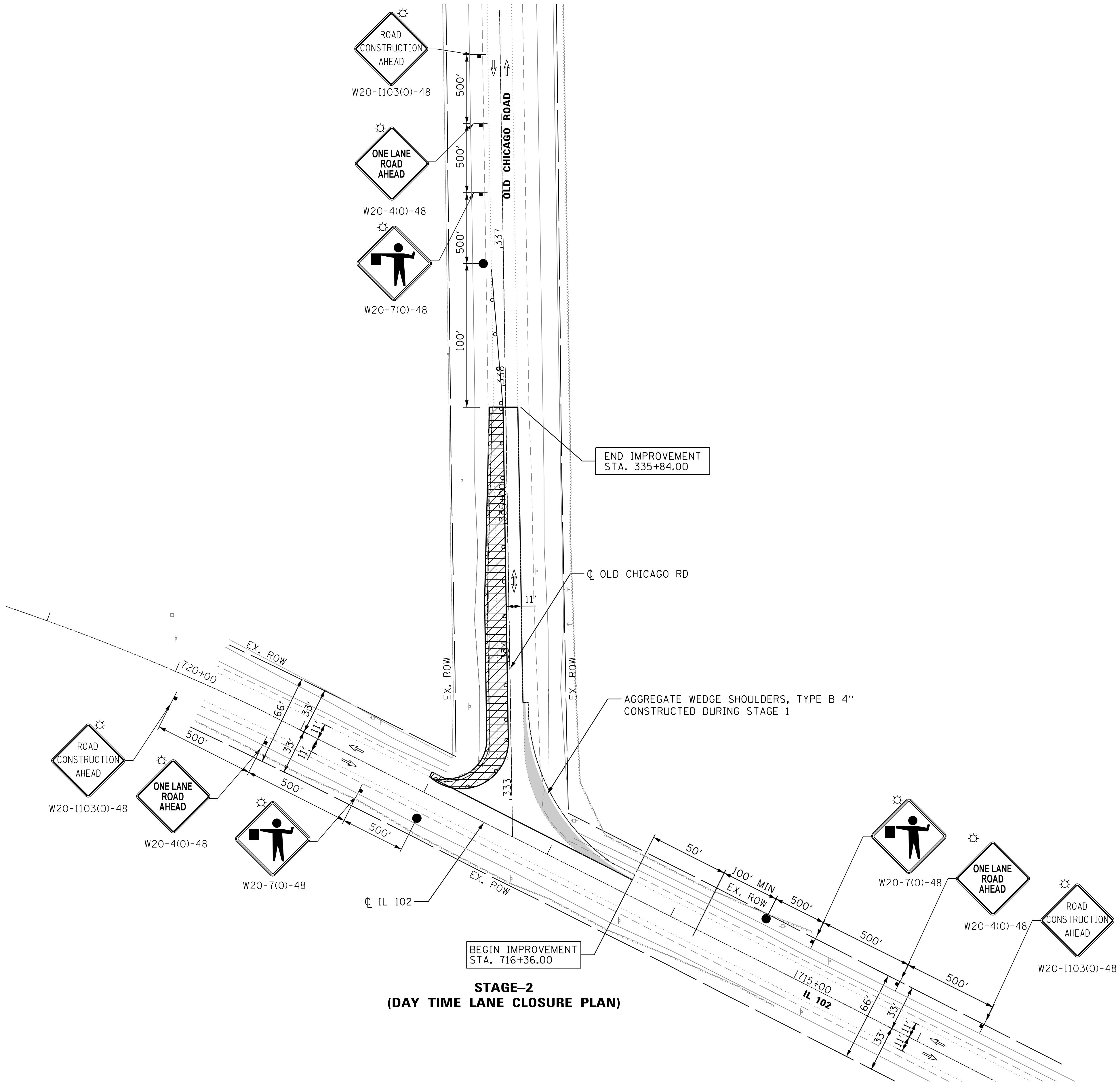
AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = tmohammed	DESIGNED - TOM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - AWM	REVISED -	
	PLOT SCALE = 80.0000 ' / in.	CHECKED - JA	REVISED -	
	PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -	

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD
STAGE–1 DAY TIME LANE CLOSURE PLAN

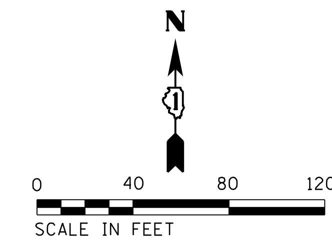
SCALE	SHEET	OF	SHEETS	STA.	TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	21
		CONTRACT NO. 60V28		
		ILLINOIS FED. AID PROJECT		

1 REVISED ENTIRE SHEET 8/29/18



STAGE–2
(DAY TIME LANE CLOSURE PLAN)



LEGEND

- DRUM OR TYPE II BARRICADE @ 50' CENTERS
- FLASHING LIGHT ABOVE SIGN
- TRAFFIC FLOW DIRECTION
- WORK ZONE
- AGGREGATE WEDGE SHOULDERS, TYPE B 4"
- FLAGGER WITH TRAFFIC CONTROL SIGN

AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME = tmohammed	DESIGNED - TOM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD STAGE–2 DAY TIME LANE CLOSURE PLAN	F.A.P RTE. 631	SECTION (111N-B)B-R	COUNTY WILL
		DRAWN - AWM	REVISED -			TOTAL SHEETS 47	SHEET NO. 22	
	PLOT SCALE = 80.0000 ' / in.	CHECKED - JA	REVISED -		SCALE / SHEET OF SHEETS / STA. TO STA.	CONTRACT NO. 60V28		
	PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -			ILLINOIS FED. AID PROJECT		

1 REVISED ENTIRE SHEET 8/29/18

1

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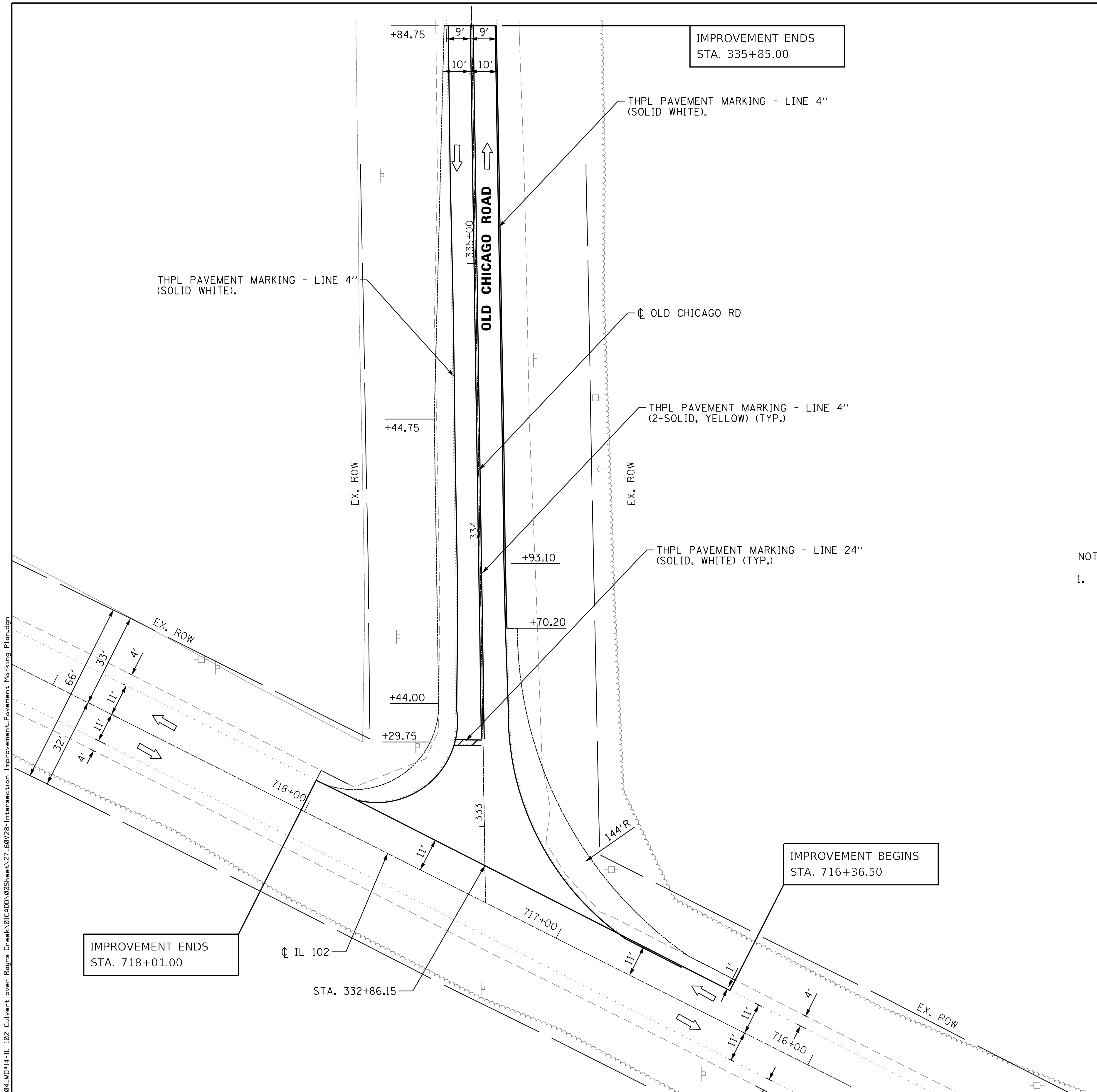
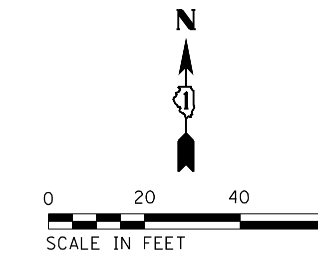
1





NOTES:

1. TYPICAL PAVEMENT MARKINGS INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-13

LEGEND

TRAFFIC FLOW DIRECTION

P:\6061\60005_14-PTB177-004_WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheets\27_60V28-Intersection Improvement_Pavement Marking Plan.dgn

AES ENGINEERS & SURVEYORS
111 S. Wacker Drive, Suite 3910
Chicago, IL 60606
Ph: 312-235-6783

USER NAME = tmohammed	DESIGNED - TOM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - AWM	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - JA	REVISED -	
PLOT DATE = 8/14/2018	DATE - 08/14/2018	REVISED -	

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD
PAVEMENT MARKING PLAN

SCALE | SHEET OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	27
		CONTRACT NO. 60V28		
	ILLINOIS FED. AID PROJECT			

1 REVISED ENTIRE SHEET 8/29/18

BENCH MARK:

Set a RR Spike in the first power pole NE of the box culvert.
Elevation NGVD 88: 577.14
Northing: 1665597.386;
Easting: 1054179.948

EXISTING STRUCTURE:

Structure 099-0170 was built in 1929 as a reinforced concrete slab bridge. The superstructure is comprised of precast channel beams with a 5" reinforced concrete wearing surface. The back to back abutment length is 23'-5". The contractor shall remove and replace it with a 16-foot wide by 9-foot high cell flanked by two 9-foot wide by 9-foot high cells. Traffic will be detoured during the construction.

SALVAGE:

No Salvage.

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th edition with 2015 & 2016 interims

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

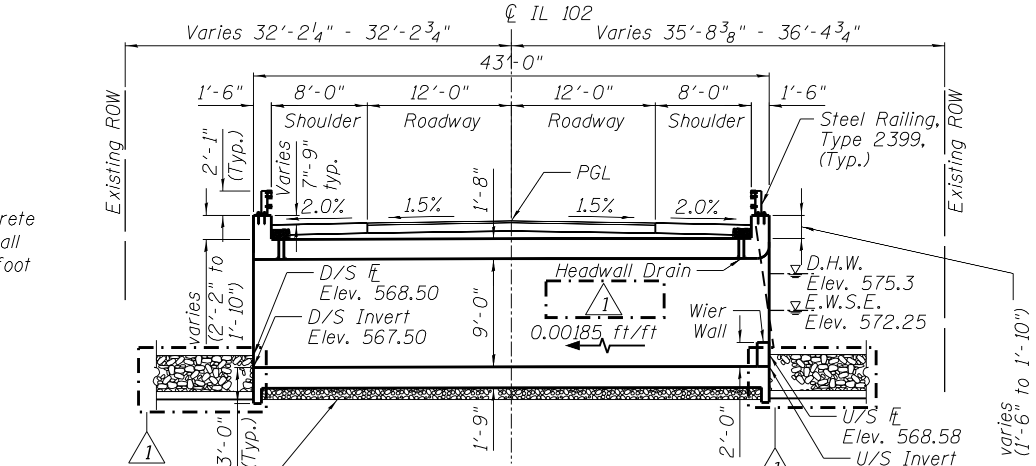
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

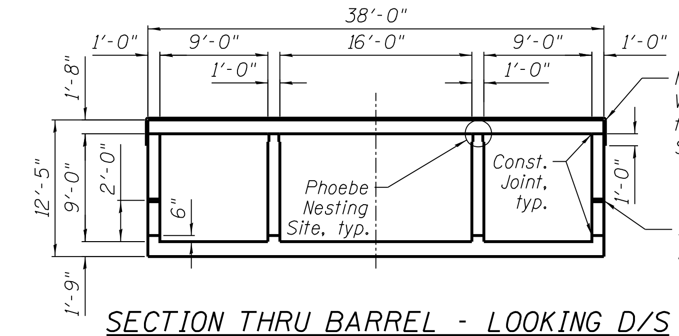
MOHAMMED SALEEM
081.006145
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

DATE: 09/10/2018
IL. LICENSED PROFESSIONAL
LICENSE EXPIRES ON 11/30/2018



LONGITUDINAL SECTION

Dimensions measured perpendicular to ℄ IL Rte. 102



SECTION THRU BARREL - LOOKING D/S

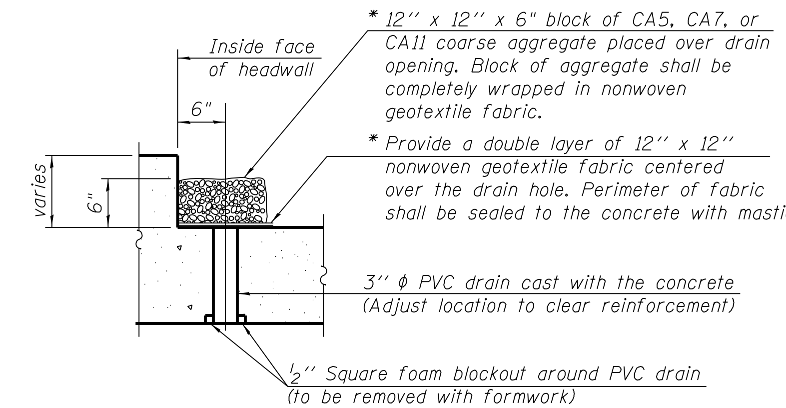
(Dimensions at Rt. L's to ℄ Culvert)

STATION 741+56.61
BUILT BY
STATE OF ILLINOIS
F.A. RT. 631 SEC. (111-B)B-R
LOADING HL-93
STRUCTURE NO. 099-0918

NAME PLATE

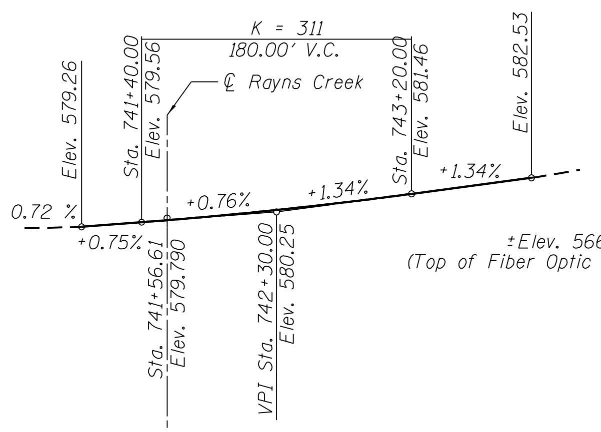
See Std. 515001

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

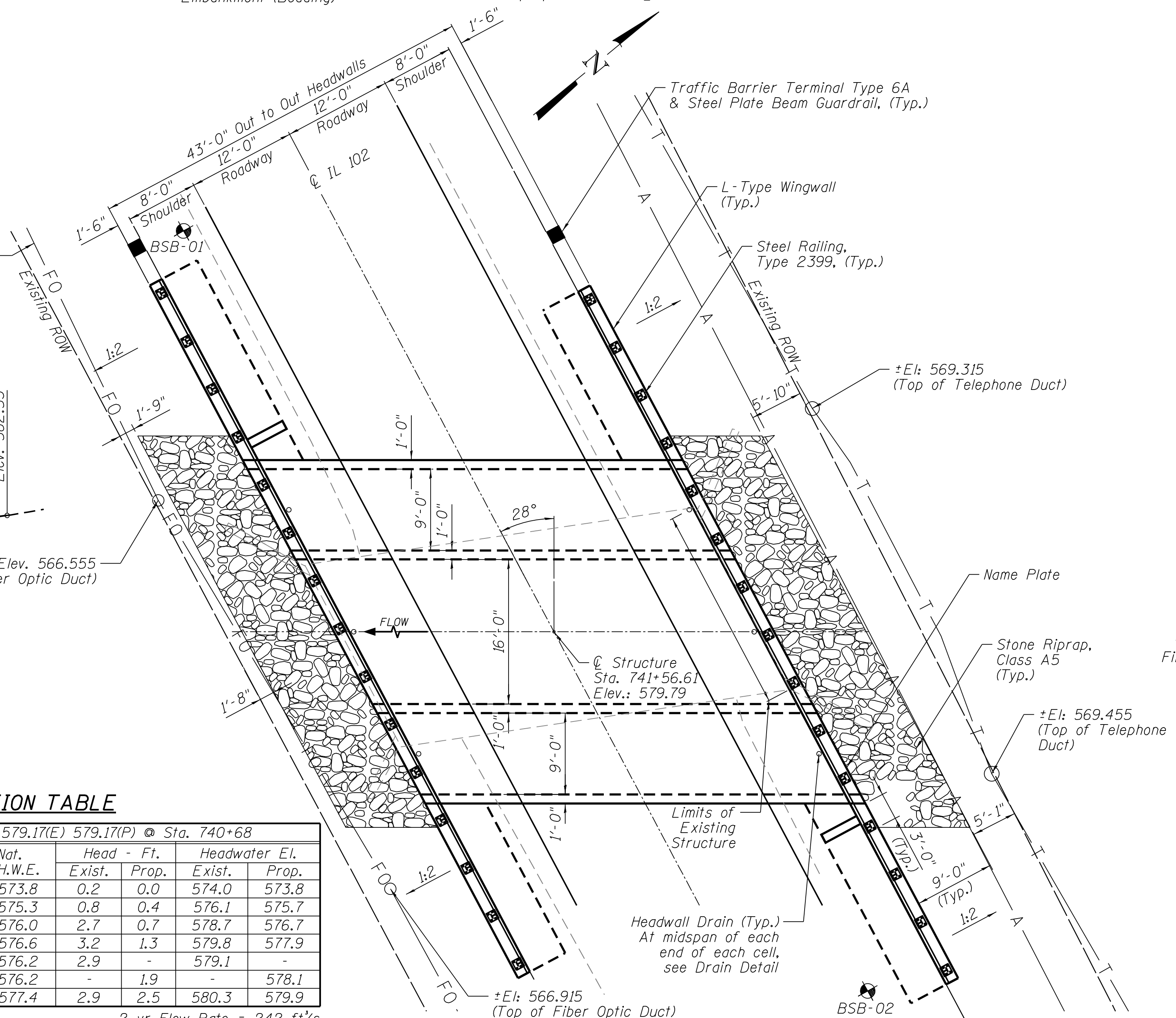


DRAIN DETAIL

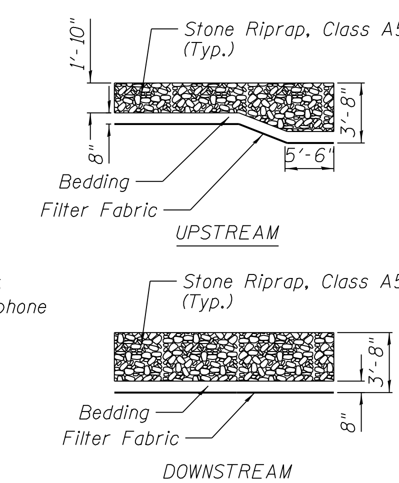
(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



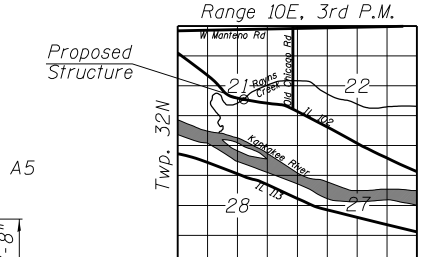
PROFILE GRADE



PLAN



RIPRAP DETAIL



LOCATION SKETCH

WATERWAY INFORMATION TABLE

Drainage Area = 6.59 sq.mi. Low Grade Elev. 579.17(E) 579.17(P) @ Sta. 740+68									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	408	96	157	573.8	0.2	0.0	574.0	573.8
Design	50	866	126	207	575.3	0.8	0.4	576.1	575.7
Base	100	1250	140	231	576.0	2.7	0.7	578.7	576.7
Scour Design Check	200	1700	152	250	576.6	3.2	1.3	579.8	577.9
Ex. Overtop	130	1375	164	-	576.2	2.9	-	579.1	-
Pr. Overtop	360	2100	-	250	576.2	-	1.9	-	578.1
Max. Calc.	500	2375	164	250	577.4	2.9	2.5	580.3	579.9

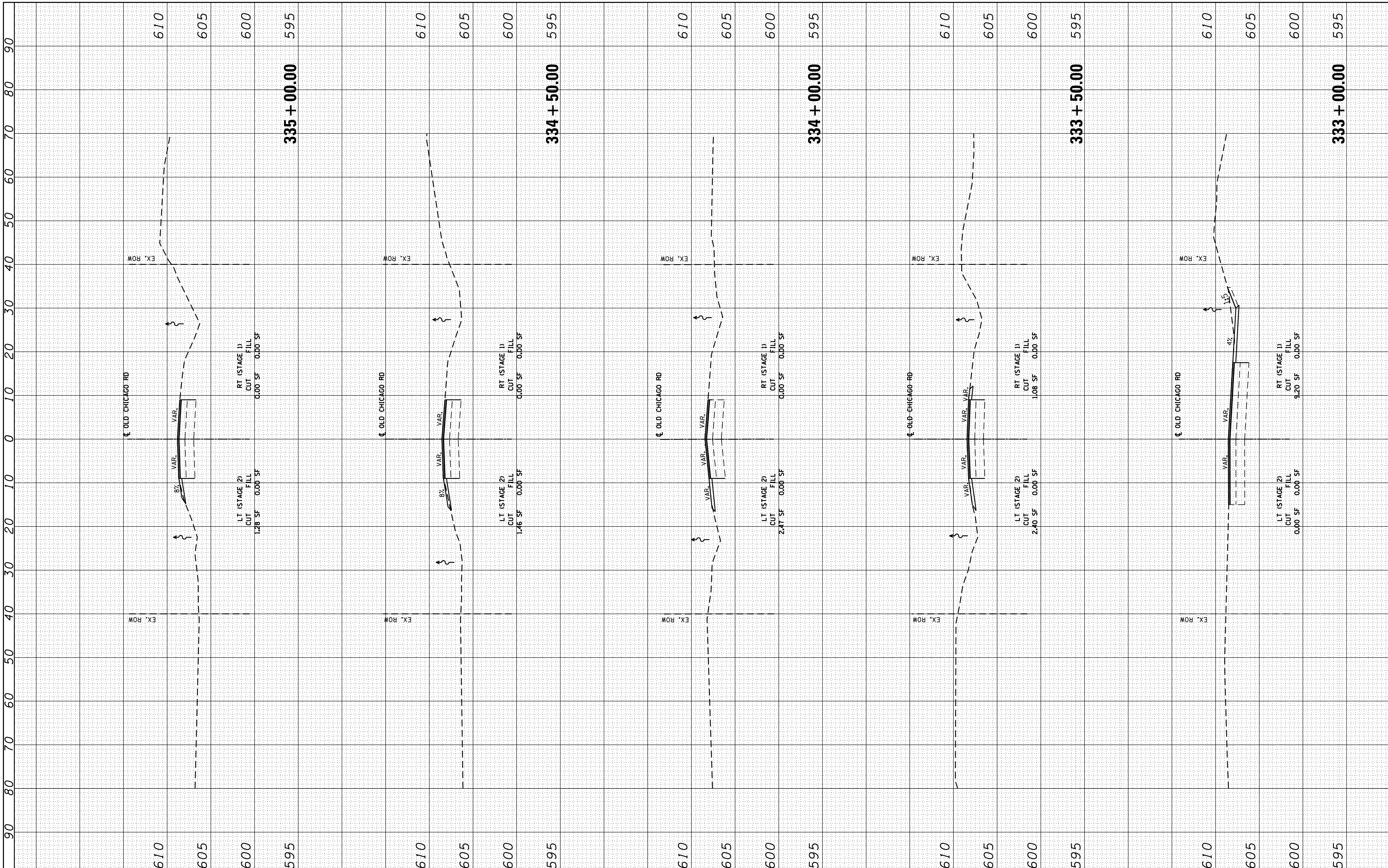
10-yr Velocity through Existing Structure = 4 ft/s
10-yr Velocity through Proposed Structure = 2 ft/s
2-yr Flow Rate = 242 ft³/s

GENERAL PLAN AND ELEVATION
US ROUTE 102 OVER RAYNS CREEK
F.A.P. ROUTE 631
SECTION (111N-B)B-R
WILL COUNTY
STATION 741+56.61
STRUCTURE NO. 099-0918

FILE NAME = AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	USER NAME =	DESIGNED - AM, AWM	REVISED - 1 9/10/2018 AWM	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION STRUCTURE NO.: 099-0918
		CHECKED - MS	REVISED -		
	PLOT SCALE =	DRAWN - AM, AWM	REVISED -		
	PLOT DATE =	CHECKED - MS	REVISED -		SHEET NO. S1 OF S7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	30
CONTRACT NO. 60V28				
ILLINOIS FED. AID PROJECT				

1 REVISED ENTIRE SHEET 9/12/18



FILE NAME = P:\606160005.14-PTB177-004_WO#14-IL 102 Culvert over Rayns Creek\01CADD\00Sheet\47_60V28-Intersection Improvement Xsec Sheet 1.dgn	USER NAME = tmohammed	DESIGNED - TOM	REVISED -
		DRAWN - TOM	REVISED -
AES ENGINEERS & SURVEYORS 111 S. Wacker Drive, Suite 3910 Chicago, IL 60606 Ph: 312-235-6783	PLOT SCALE = 20.000 ' / in.	CHECKED - JA	REVISED -
	PLOT DATE = 8/14/2018	DATE - 05/24/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 102 (FAP 631) & OLD CHICAGO RD
INTERSECTION IMPROVEMENT CROSS SECTIONS

SCALE: 1":10' | SHEET NO. X OF X SHEETS | STA. XXX+XX TO STA. XXX+XX

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
631	(111N-B)B-R	WILL	47	47
		CONTRACT NO. 60V28		
	ILLINOIS FED. AID PROJECT			

1 REVISED ENTIRE SHEET 8/29/18