

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FAU RTE 1548 (ARCHER AVE. 79TH ST. FRONTAGE RD.)
GARDEN LANE TO OAK GROVE AVENUE
RECONSTRUCTION
SECTION No. 12-00039-00-PV
PROJECT No. M-4003 (062)
JOB No. C-91-479-12
VILLAGE OF JUSTICE
COOK COUNTY

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	1
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 61B97				

INDEX OF SHEETS: SEE SHEET 2

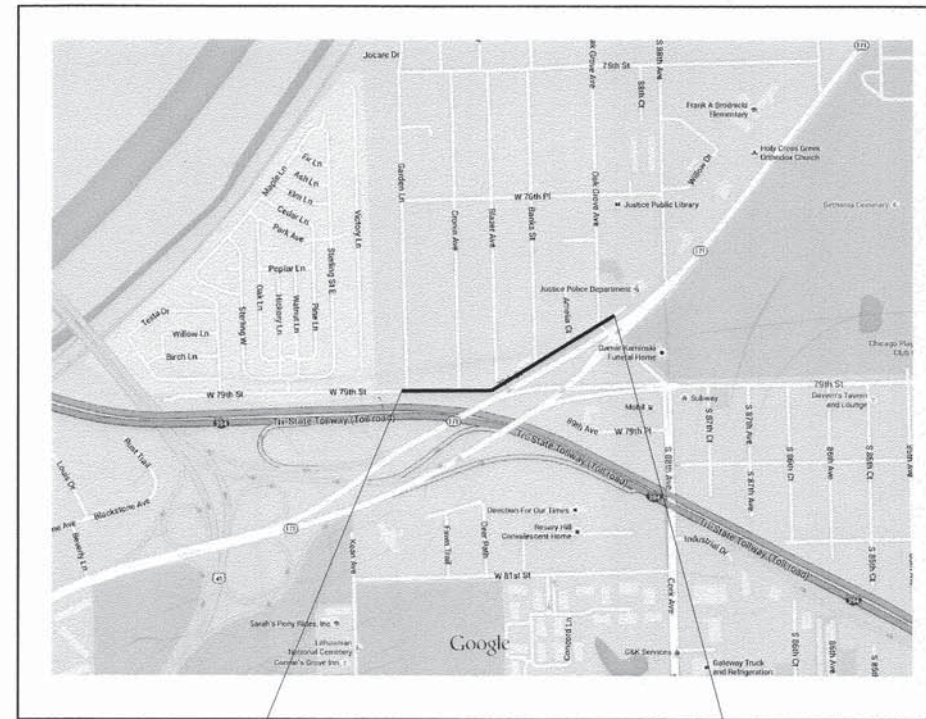
HIGHWAY STANDARDS: SEE SHEET 2

DESIGN DESIGNATION - MINOR COLLECTOR

2015 ADT = 4,000
P.V. = 88% S.V. = 9% H.V. = 3%

SPEED LIMIT = 20 MPH

DESIGN SPEED = 35 MPH



LYONS TOWNSHIP LOCATION MAP SCALE: N.T.S. 3RD P.M.
BEGIN PROJECT STA. 9+82 END PROJECT STA. 28+59



LOCATION OF SECTION INDICATED AS [black box]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED 8-17-2015
Dufflasov
JUSTICE PRESIDENT

PASSED 8-31-2015
W. Holtz
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW September 2, 2015
John Padon
DEPUTY DIRECTOR OF HIGHWAYS/REGION 1 ENGINEER

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 FOR EXCAVATION
1-800-892-0123 -OR- 811

CONTRACT NO. 61B97

GROSS LENGTH OF PROJECT 1,877 FEET (0.35 MILES)
NET LENGTH OF PROJECT 1,877 FEET (0.35 MILES)

hbe **Hoeffler-Butler Engineering, Inc.**
Consulting Civil Engineers - Land Surveyors
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-00019
8714 S. ROBERTS ROAD HICKORY HILLS, ILLINOIS 60457
(708) 599-8980 FAX: (708) 599-8790

EXPIRES 11-30-15



Signature
SIGNATURE

DATE

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INDEX OF SHEETS

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- 2. INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, COMMITMENTS
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- 21-23. CROSS SECTIONS

HIGHWAY STANDARDS

- 000001-06: STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-07: TEMPORARY EROSION CONTROL SYSTEMS
- 424001-08: PERPENDICULAR CURB RAMPS FOR SIDEWALKS
- 442101-07: CLASS B PATCHES
- 602301-04: INLET, TYPE A
- 602401-03: MANHOLE, TYPE A
- 604001-04: FRAME AND LIDS, TYPE 1
- 606001-06: CONCRETE CURB, TYPE B, AND COMBINATION CURB AND GUTTER
- 701006-05: OFF-ROAD OPERATIONS, 2L, 2, 15' TO 24" FROM PAVEMENT EDGE
- 701106-02: OFF-ROAD OPERATIONS, MULTI-LANE, MORE THAN 15' AWAY
- 701301-04: LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03: LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 701501-06: URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701707-09: URBAN LANE CLOSURE, MULTI-LANE INTERSECTION
- 701901-04: TRAFFIC CONTROL DEVICES
- 780001-05: TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

PAVING

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR OR IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

PAVEMENT GRADES SHOWN ON PLANS ARE TOP OF PAVEMENT

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNER OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTORS SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE VILLAGE DOES NOT GUARANTEE THEIR ACCURACY, THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR THE VILLAGE. THIS WORK SHALL BE AT THE CONTRACTORS EXPENSE.

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

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

CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUITS, DETECTORS AND EQUIPMENT. IF ANY OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT AND/OR EQUIPMENT AT NO COST TO THE COUNTY OR VILLAGE.

STORM SEWER

THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.

ANY EXISTING STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT HIS OR HER OWN EXPENSE.

RESTORATION

CONTRACTOR IS TO RESTORE ALL UNPAVED AREAS DAMAGED DURING CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION INCLUDING THE FINE GRADING AND SODDING OR SEEDING OF AREAS WITHIN EASEMENTS AND RIGHTS-OF-WAY.

SEEDING SHALL 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 DETERMINATION OF WHICH AREAS ARE TO BE SODDED OR SEEDED SHALL BE MADE BY THE ENGINEER.

TRAFFIC SIGNS

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR, AT 847-705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

MISCELLANEOUS

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING CONSTRUCTION.

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

EXCEPT FOR CLASS B PATCHES, ALL SAWCUTTING SHALL BE INCLUDED IN THE UNIT OF COST OF REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.

ANY EXISTING PAVEMENT OUTSIDE THE AREAS DESIGNATED FOR REMOVAL IN THE PLANS DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION SHALL BE REPLACED/REPAIRED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER WITH NO ADDITIONAL COMPENSATION TO THE CONTRACTOR.

STAKING

THE CONTRACTOR SHALL TAKE CARE TO PROTECT AND PRESERVE ALL STAKING AND MARKING DURING CONSTRUCTION. CONTINUOUS DESTRUCTION OF STAKES AS A RESULT OF CARELESSNESS MAY RESULT IN THE CONTRACTOR BEING BILLED FOR THE COST OF REPLACEMENT.

THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK. THEY SHALL BE NOTIFIED AT LEAST 72 HOURS IN ADVANCE IF CONSTRUCTION STAKING IS REQUIRED.

NONE

COMMITMENTS

MEMBERS OF "JULIE" KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

- 1. NICOR GAS
- 2. AT&T
- 3. COMMONWEALTH EDISON Co.
- 4. VILLAGE OF JUSTICE
- 5. JUSTICE - WILLOW SPRINGS WATER COMMISSION

P:\Project\PROJECT FILES\Land 15\15702\dwg	DESIGNED BY: SAL	REVISED: _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS		FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN BY: ALS	REVISED: _____				1548	12-00039-00-PV	COOK	23	2
	CHECKED BY: SAL	REVISED: _____		CONTRACT No. 61B97						
	DATE: 06/11/15	REVISED: STATE REV. 08/06/15		SCALE: N.T.S.	SHEET No. 2 OF 23 SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

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SEE JOB No. 15-702

CODE NO.	ITEM	UNIT	CONSTRUCTION CODE
			STP FUNDS
			70% FED 30% LOCAL
			0004 URBAN
TOTAL QUANTITY			
20200100	EARTH EXCAVATION	CU YD	410
20400800	FURNISHED EXCAVATION	CU YD	510
20800150	TRENCH BACKFILL	CU YD	187
21101625	TOPSOIL FURNISH & PLACE, 6"	SQ YD	6185
25200110	SODDING, SALT TOLERANT	SQ YD	6185
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	77
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	77
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	77
25200200	SUPPLEMENTAL WATERING	UNIT	2
28000305	TEMPORARY DITCH CHECKS	FOOT	50
28000400	PERIMETER EROSION BARRIER	FOOT	2483
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B, 4"	SQ YD	2732
35102200	AGGREGATE BASE COURSE, TYPE B, 10"	SQ YD	1260
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 8"	SQ YD	1549
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	100
40600275	BITUMINOUS MATERIALS (PRIME COAT)	lb	4150
40600400	MIXTURE FOR CRACKS, JOINTS AND FLANGWAYS	TON	10
40600625	LEVELING BINDER (MACHINE METHOD),N50	TON	756.5
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQYD	52
40603335	HOT-MIX SURFACE COURSE, MIX "D", N50	TON	802
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQ FT	1336
42400800	DETECTABLE WARNINGS	SQ FT	20
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	7211
44000100	PAVEMENT REMOVAL	SQ YD	2331
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	969

~ DENOTES SPECIAL PROVISION ITEM

* DENOTES SPECIALTY ITEM

CODE NO.	ITEM	UNIT	CONSTRUCTION CODE
			STP FUNDS
			70% FED 30% LOCAL
			0004 URBAN
TOTAL QUANTITY			
44200948	CLASS B PATCHER, TYPE I, 9 INCH	SQ YD	95
44200956	CLASS B PATCHES, TYPE II, 9 INCH	SQ YD	345
44200962	CLASS B PATCHES, TYPE III, 9 INCH	SQ YD	152
44213200	SAW CUTS	FOOT	1880
44213204	TIE BARS, 3/4"	EACH	1816
44300100	AREA REFLECTIVE CRACK CONTROL TREATMENT	SQ YD	4958
550A0040	STORM SEWER, CLASS A, TYPE 1, 10"	FOOT	257
550A0050	STORM SEWER, CLASS A, TYPE 1, 12"	FOOT	306
550A0070	STORM SEWER, CLASS A, TYPE 1, 15"	FOOT	380
55100500	STORM SEWER REMOVAL, 12"	FOOT	34
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5
60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	12
60255410	CATCH BASINS TO BE CLEANED	EACH	3
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	1
60500060	REMOVING INLETS	EACH	1
67100100	MOBILIZATION	L SUM	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	600
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTER & SYMBOLS	SQ FT	36.4
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2884
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	22
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	98
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	61
~ X6064200	COMBINATION CURB AND GUTTER, TYPE B6.12	FOOT	4648
~ X4810200	AGGREGATE SHOULDER REMOVAL	CU YD	39
~ X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
~ Z0004544	HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL	SQ YD	2070

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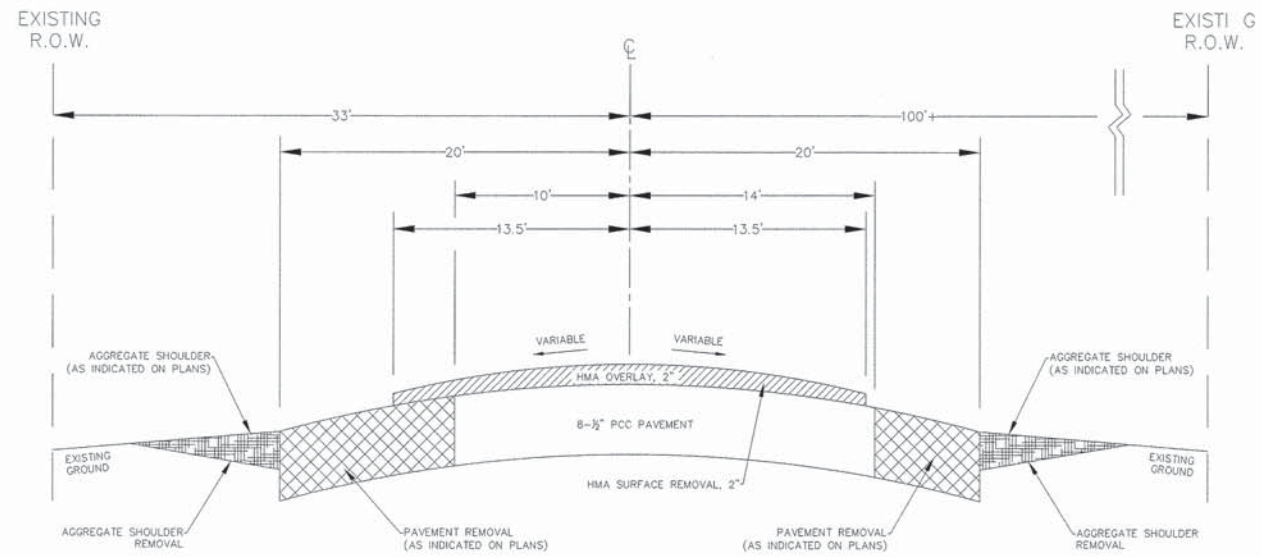
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CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

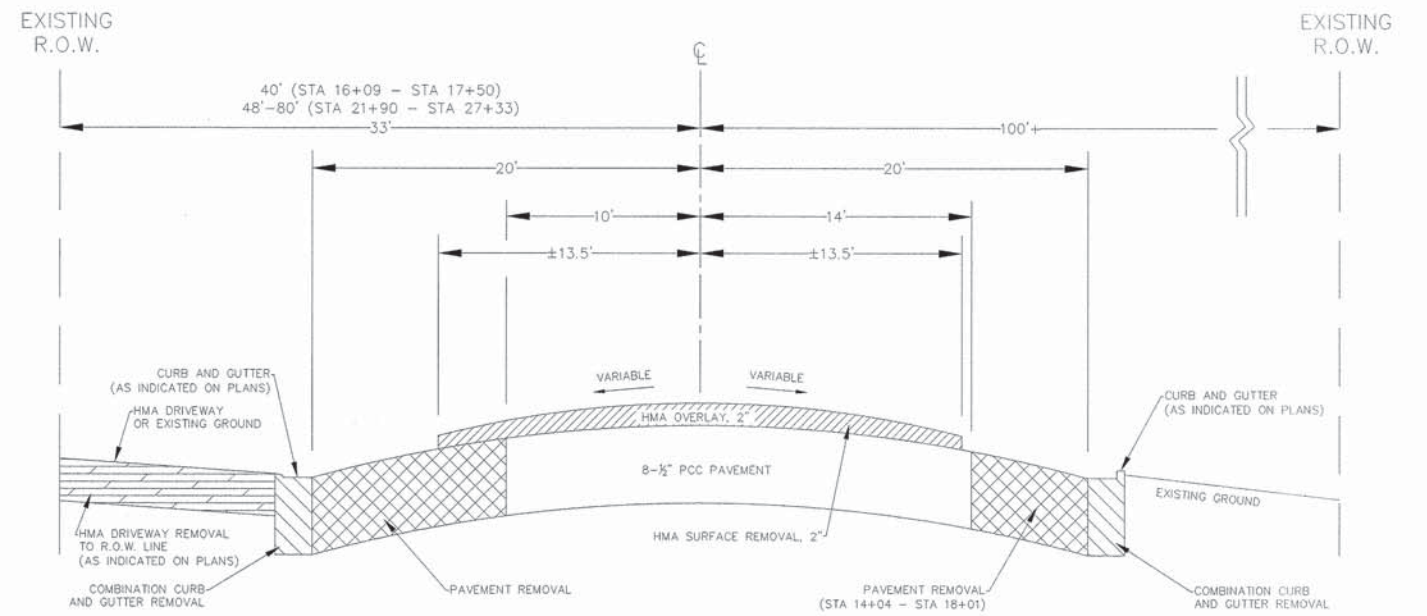
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FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	3
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



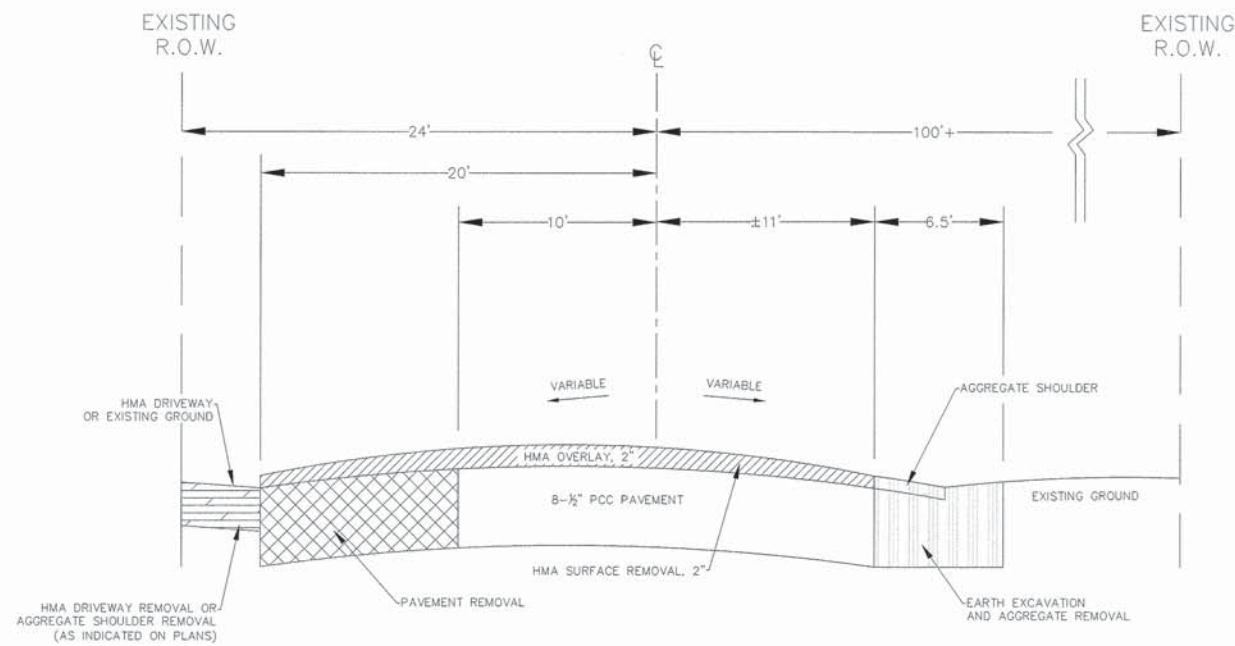
NOTE: EXISTING PAVEMENT THICKNESSES ARE AN AVERAGE OF THICKNESS TAKEN FROM BORING LOGS. BORING LOGS ARE LOCATED IN SPECIAL PROVISIONS.

EXISTING TYPICAL SECTION
STA 9+82 - STA 14+04



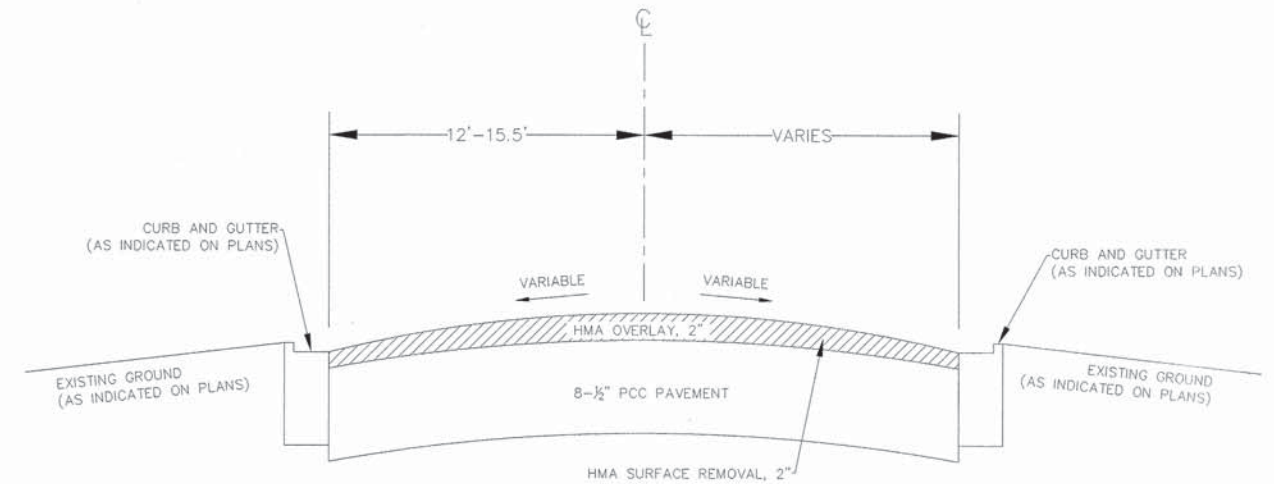
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EXISTING TYPICAL SECTION
STA 14+04 - STA 18+01
STA 21+41 - STA 27+33



NOTE: EXISTING PAVEMENT THICKNESSES ARE AN AVERAGE OF THICKNESS TAKEN FROM BORING LOGS. BORING LOGS ARE LOCATED IN SPECIAL PROVISIONS.

EXISTING TYPICAL SECTION
STA 18+01 - STA 21+41



NOTE: EXISTING PAVEMENT THICKNESSES ARE AN AVERAGE OF THICKNESS TAKEN FROM BORING LOGS. BORING LOGS ARE LOCATED IN SPECIAL PROVISIONS.

EXISTING TYPICAL SECTION
STA 27+33 - STA 27+85

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DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

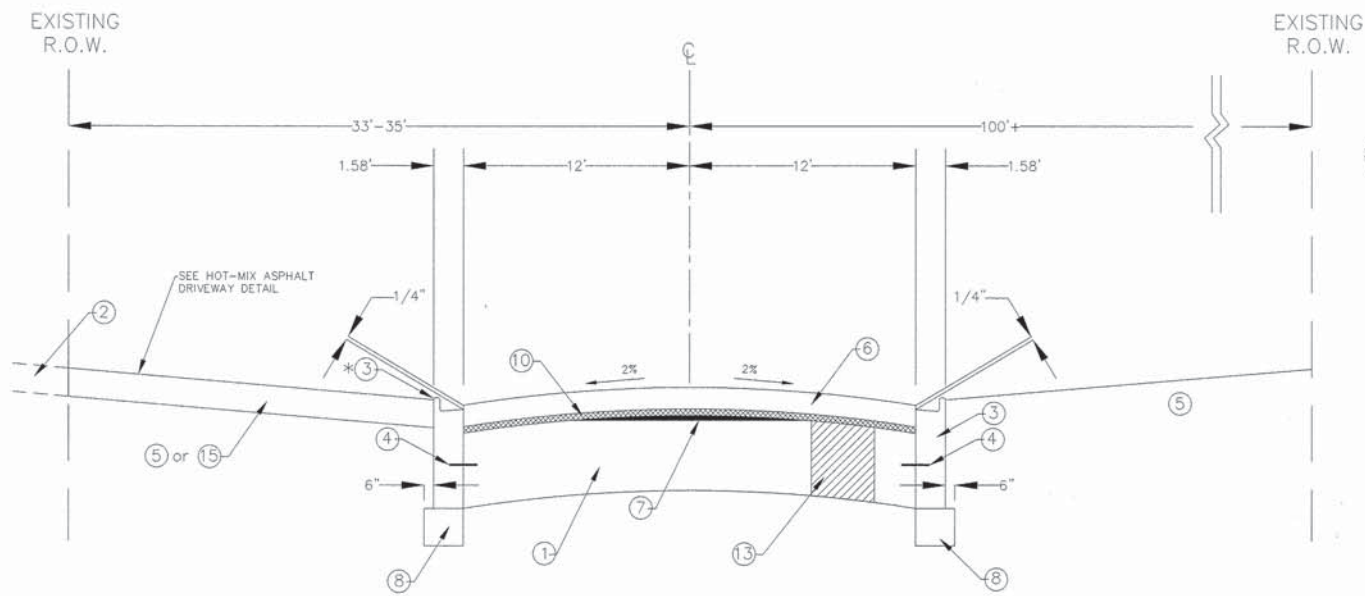
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SHEET No. 4 OF 23 SHEETS

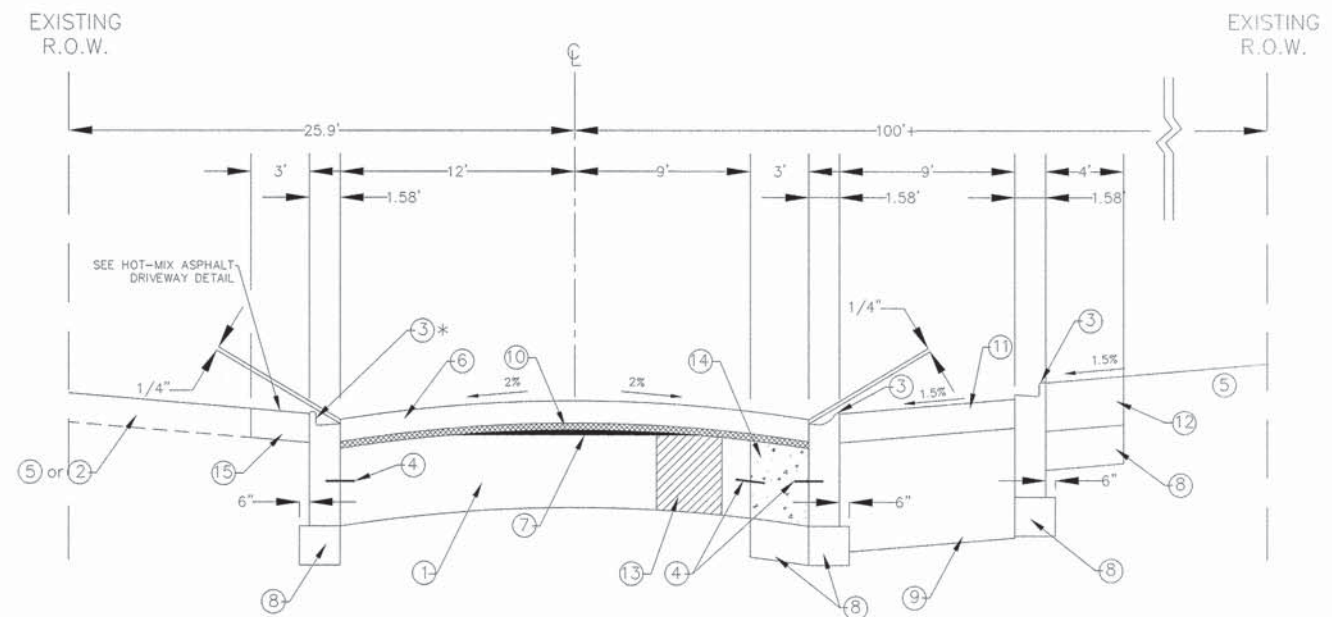
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FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT No. 61B97				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

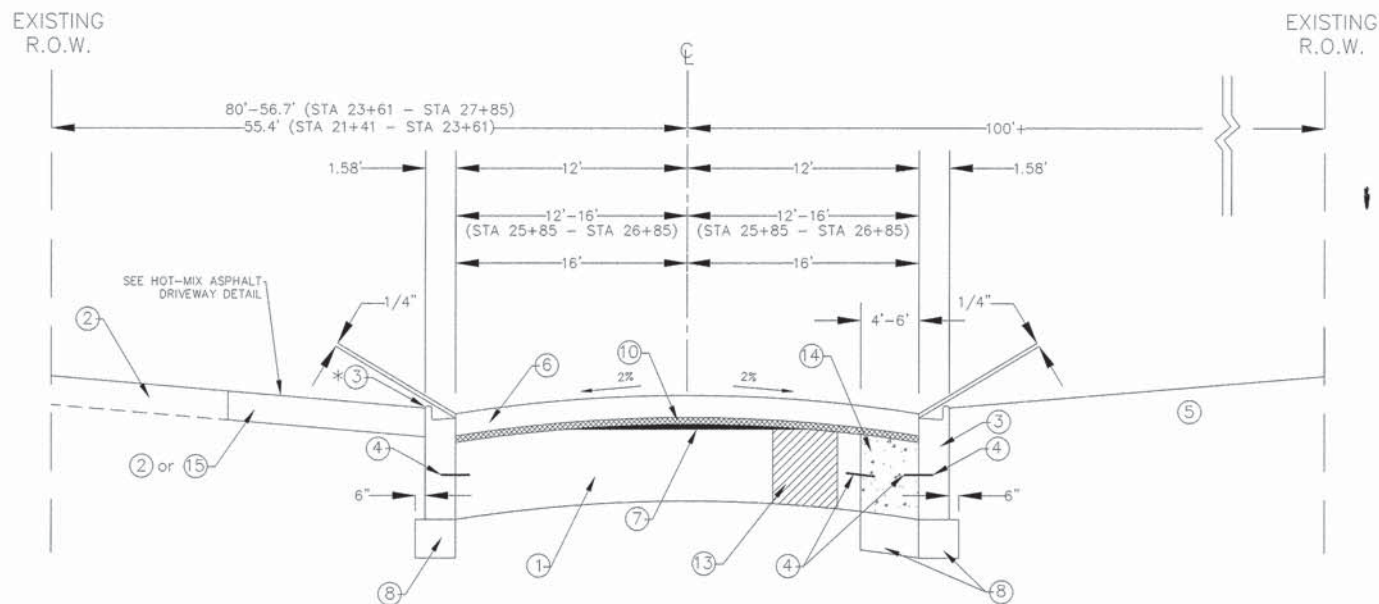
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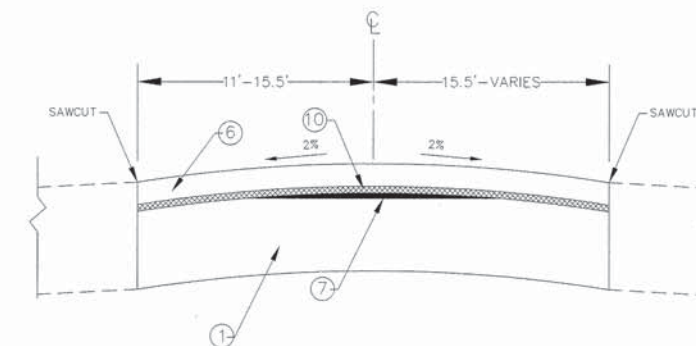
PROPOSED TYPICAL SECTION
STA 9+82 - STA 18+01



PROPOSED TYPICAL SECTION
STA 18+01 - STA 21+41



PROPOSED TYPICAL SECTION
STA 21+41 - STA 27+85



PROPOSED TYPICAL SECTION
STA 27+85 - STA 27+89

MIXTURES TABLE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
LOCATION	MIXTURE TYPE	AIR VOIDS @ NODES
PAVEMENT RESURFACING	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	4% @ 50 GYR
	LEVELING BINDER (MACHINE METHOD), N50	4% @ 50 GYR
DRIVEWAYS	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	4% @ 50 GYR

- * THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/S.Y.-IN.
- * MINIMUM THICKNESS OF LEVELING BINDER SHALL BE 1 INCH
- * FOR "AC TYPE" AND "PERCENT RAP" SEE DISTRICT 1 SPECIAL PROVISIONS

PROPOSED SECTION LEGEND

- ① EXISTING CONCRETE BASE, 9"
- ② EXISTING ASPHALT DRIVEWAY
- ③ COMBINATION CURB & GUTTER, TY B6.12
- ④ TIE BARS, 3/4"
- ⑤ EXISTING GROUND
- ⑥ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- ⑦ LEVELING BINDER (MACHINE METHOD), N50
- ⑧ SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
- ⑨ AGGREGATE BASE COURSE, TYPE B, 10"
- ⑩ AREA REFLECTIVE CRACK CONTROL TREATMENT
- ⑪ HMA SURFACE COURSE, MIX "D", N50, 3"
- ⑫ P.C.C. SIDEWALK, 5"
- ⑬ CLASS B PATCHES, 9" (WHERE MARKED IN FIELD)
- ⑭ P.C.C. BASE COURSE WIDENING, 8"
- ⑮ HOT-MIX ASPHALT DRIVEWAY

* DEPRESSED CURB AND GUTTER SHALL BE INSTALLED ADJACENT TO ALL DRIVEWAYS

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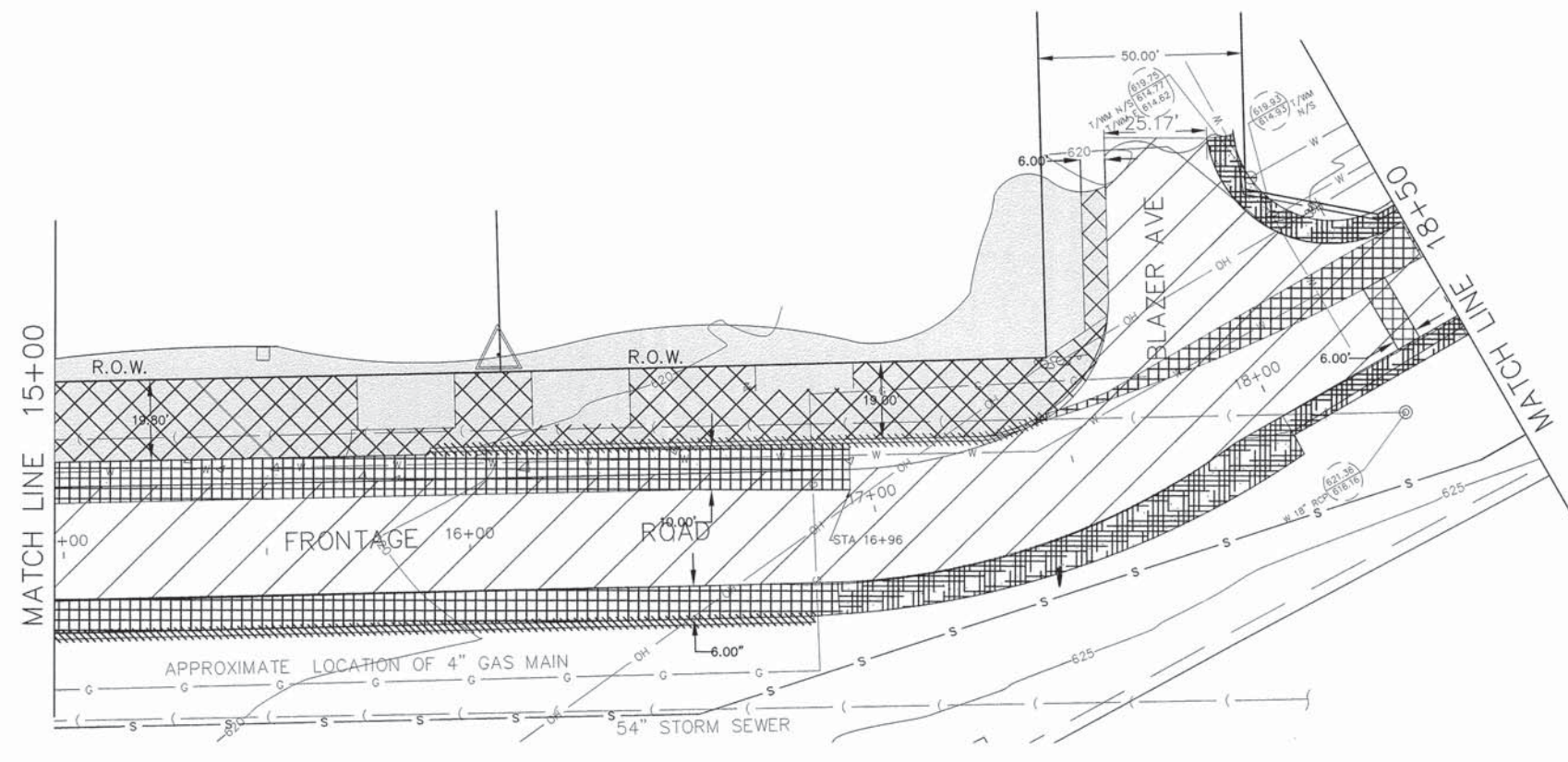
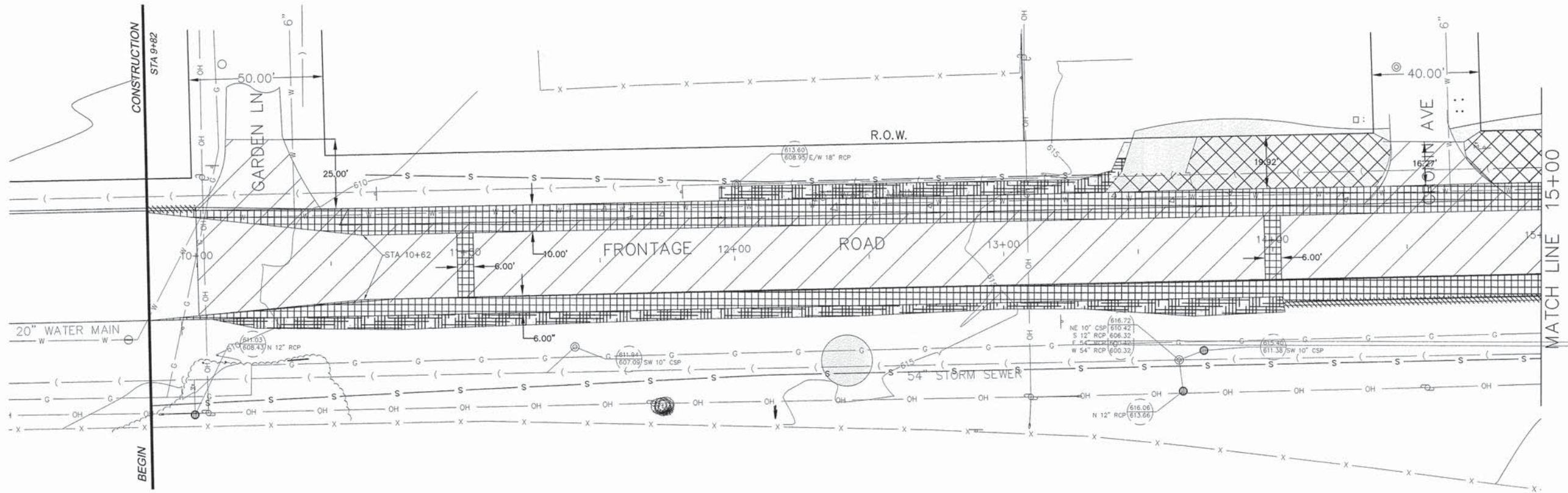
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**


TYPICAL SECTIONS

SCALE: N.T.S. SHEET No. 5 OF 23 SHEETS STA. _____ TO STA. _____

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	5
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

-  PAVEMENT REMOVAL
-  AGGREGATE SHOULDER REMOVAL
-  HOT-MIX ASPHALT DRIVEWAY REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, 2"
-  CURB & GUTTER REMOVAL



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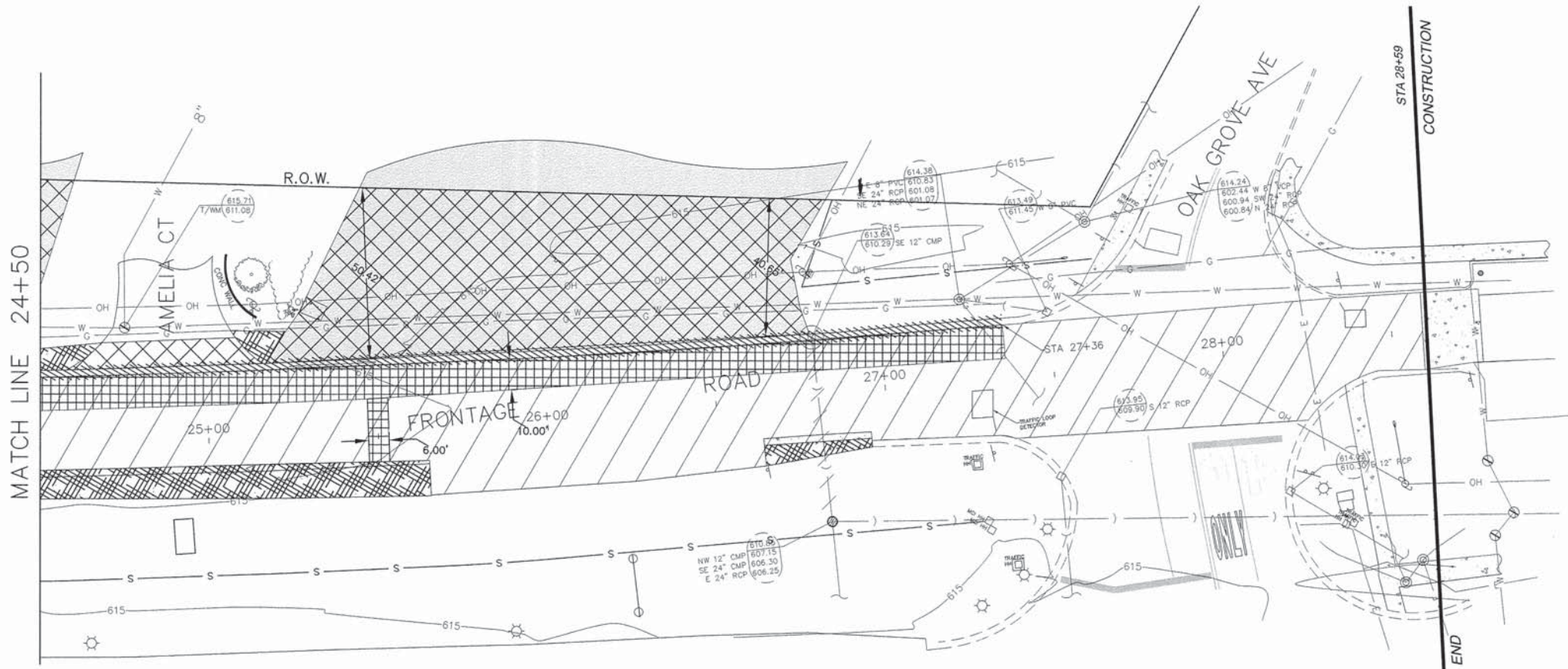
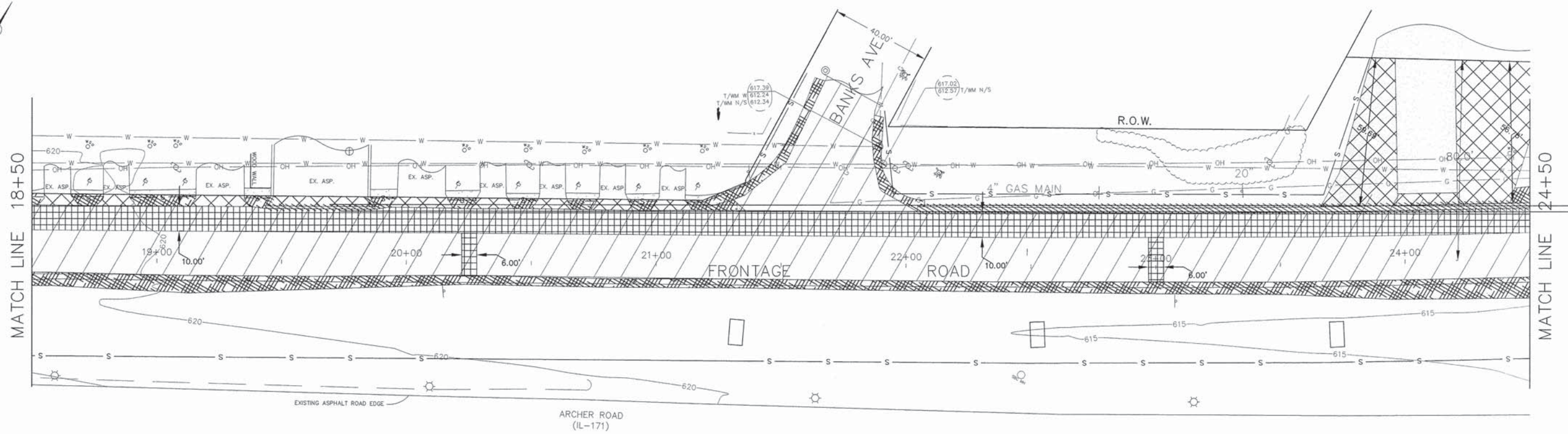
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CHECKED BY: SAL	REVISED: STATE REV. 09/04/15
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REMOVAL PLANS

SCALE: H:1"=20'	SHEET No. 6 OF 23 SHEETS	STA. 9+82 TO STA. 18+50
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FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 6
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REMOVAL LEGEND

-  PAVEMENT REMOVAL
-  AGGREGATE SHOULDER REMOVAL
-  HOT-MIX ASPHALT DRIVEWAY REMOVAL
-  HOT-MIX ASPHALT SURFACE REMOVAL, 2"
-  CURB & GUTTER REMOVAL
-  STORM SEWER REMOVAL
-  INLET REMOVAL



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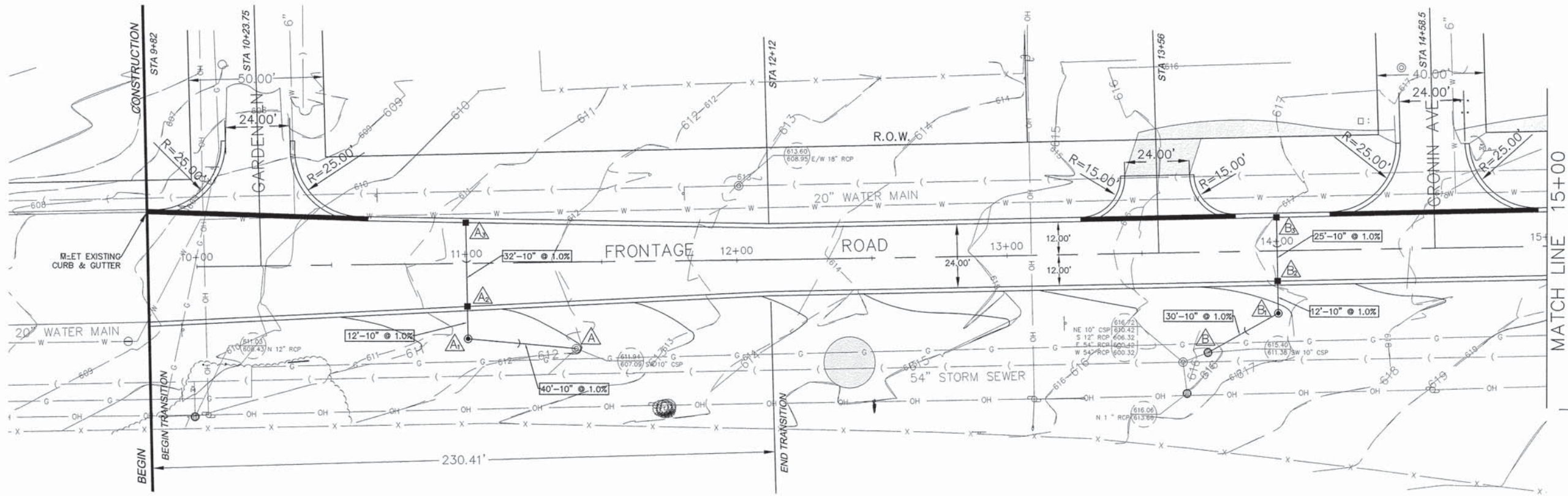
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REMOVAL PLANS

SCALE: H:1"=20' SHEET No. 7 OF 23 SHEETS STA. 18+50 TO STA. 28+59

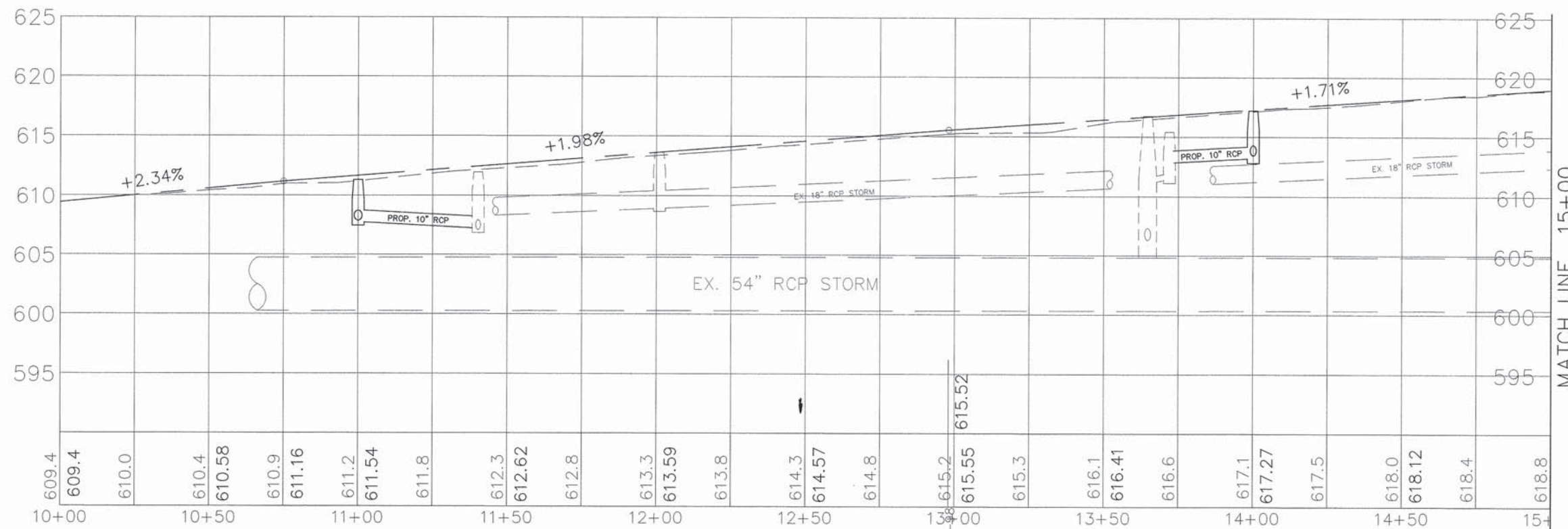
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	7
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HBE JOB No. 15-702



LEGEND

- PROPOSED DEPRESSED CURB
- PROPOSED CURB
- PROPOSED STORM SEWER
- PROPOSED 2' INLET
- PROPOSED 4' MANHOLE
- STRUCTURE LABEL



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DESIGNED BY: SAL/JCH	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

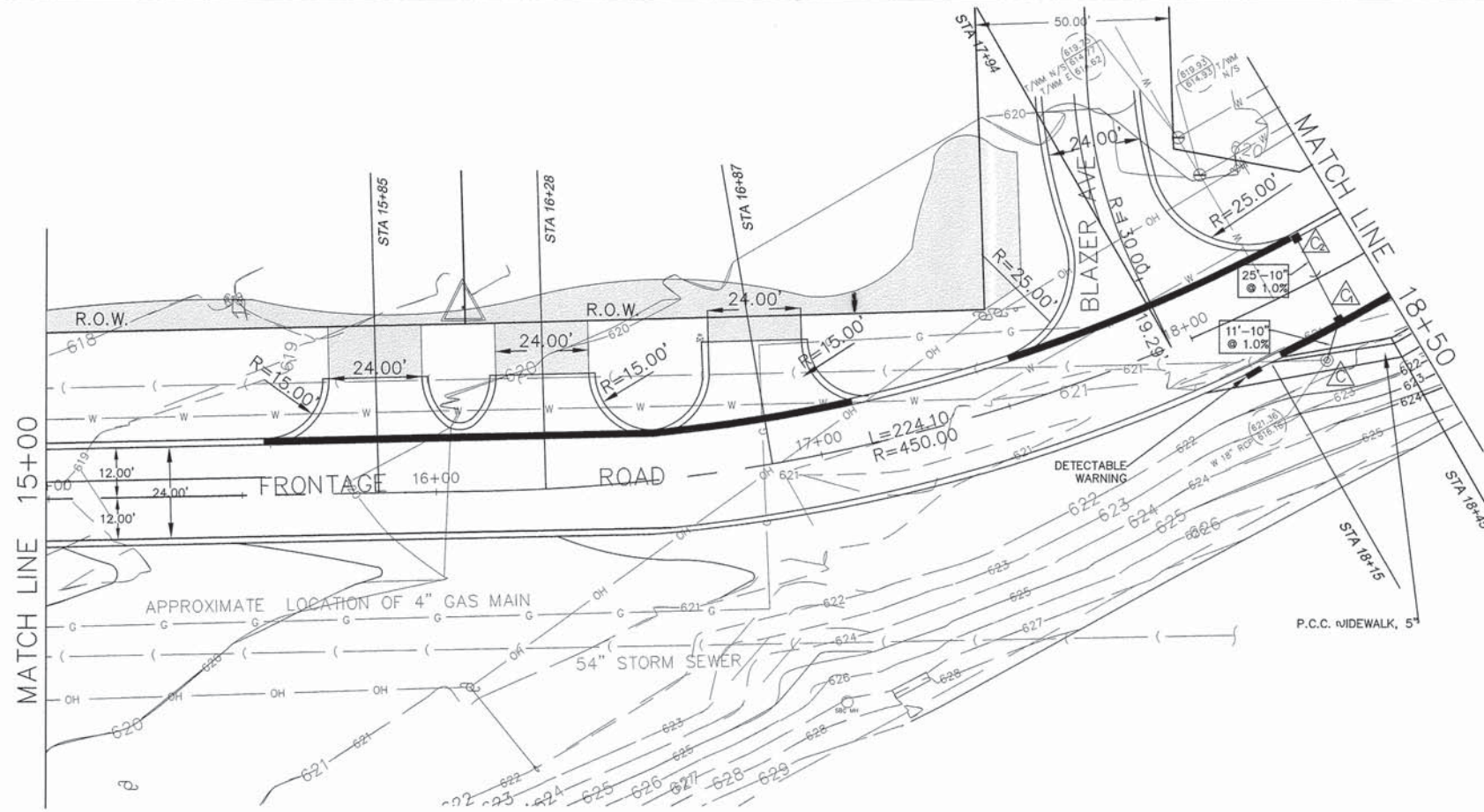
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRONTAGE ROAD PLAN,
STORM SEWER & PROFILE**

SCALE: H: 1"=20'
V: 1"=5'

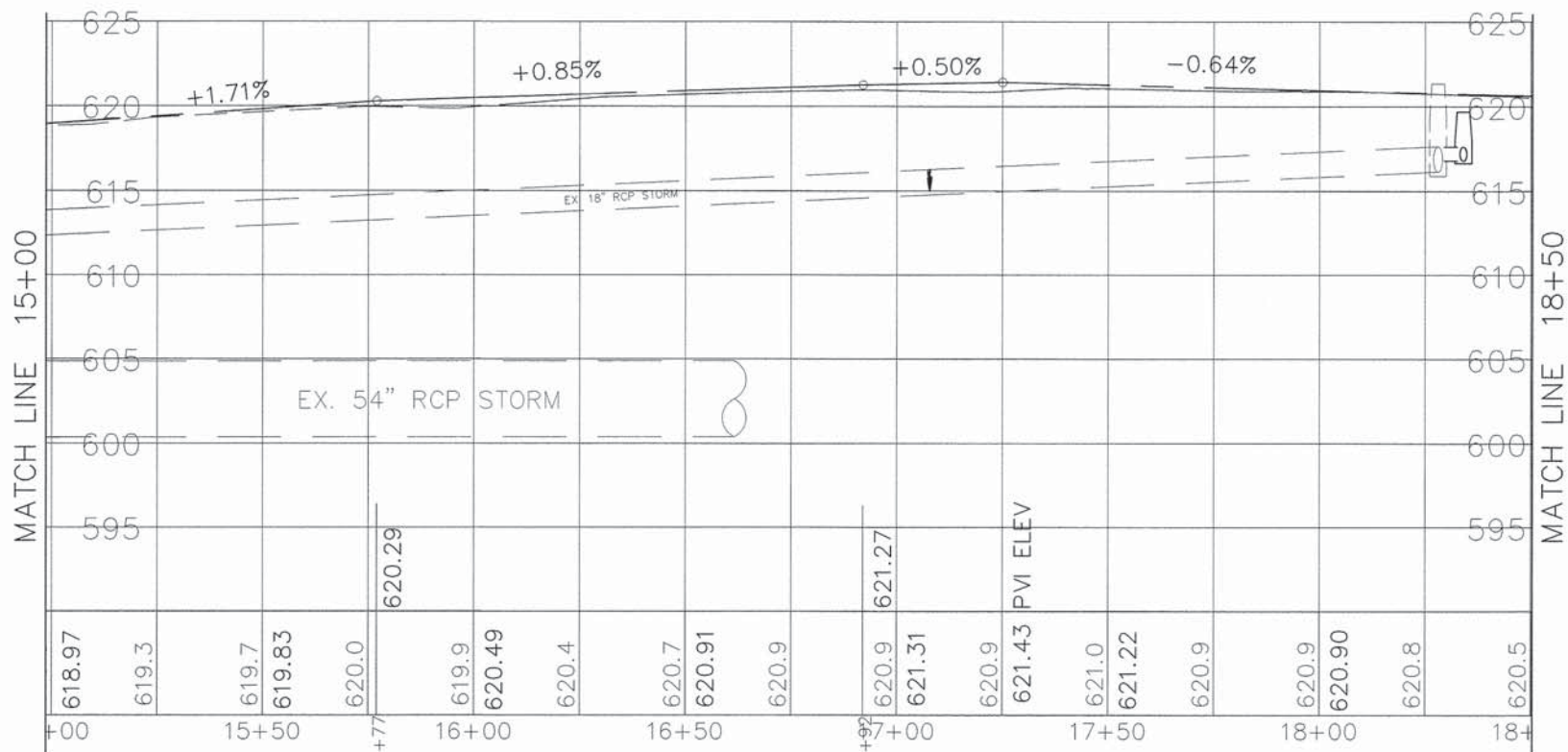
FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 8
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE JOB No. 15-702



LEGEND

- PROPOSED DEPRESSED CURB
- PROPOSED CURB
- PROPOSED STORM SEWER
- PROPOSED 2' INLET
- PROPOSED 4' MANHOLE
- STRUCTURE LABEL



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DESIGNED BY: SAL/JCH	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRONTAGE ROAD PLAN,
STORM SEWER & PROFILE**

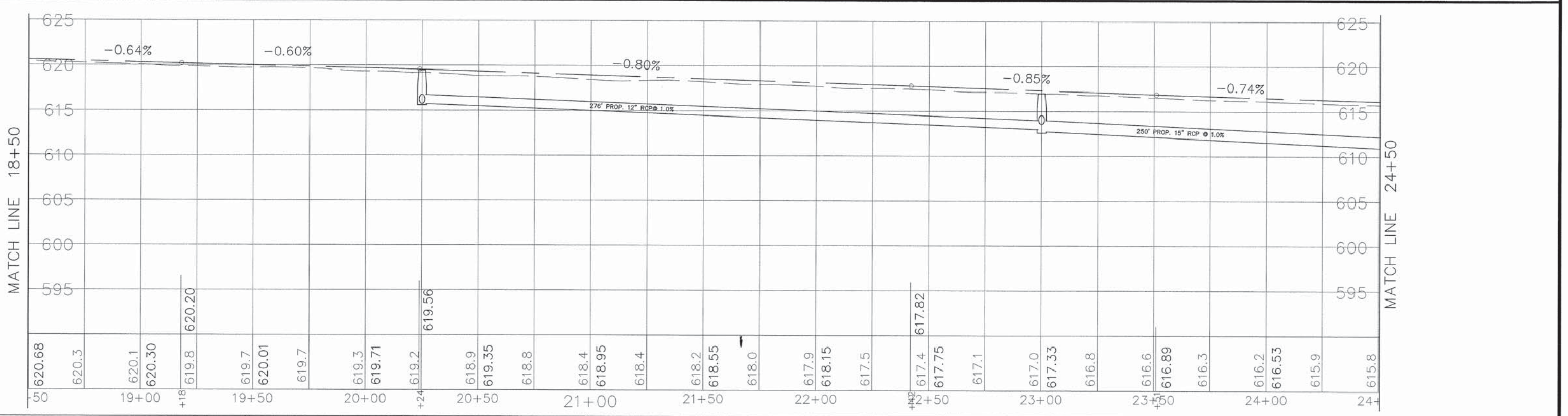
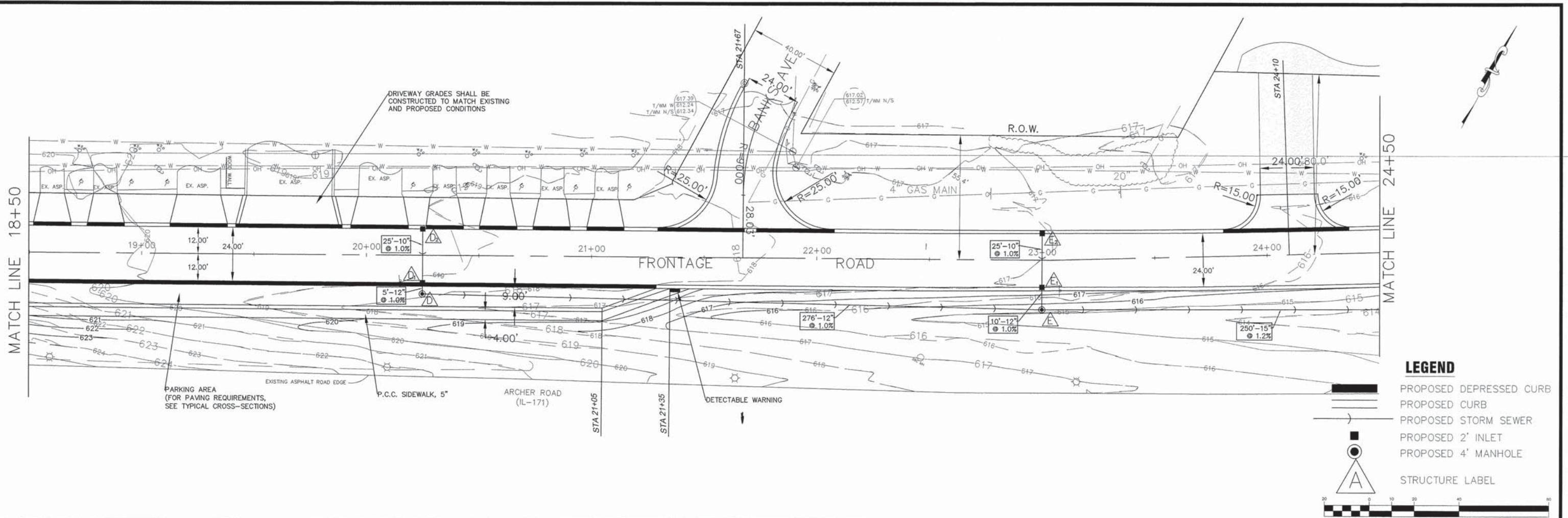
SCALE: H: 1"=20'
V: 1"=5'

SHEET No. 9 OF 23 SHEETS STA. 15+00 TO STA. 18+50

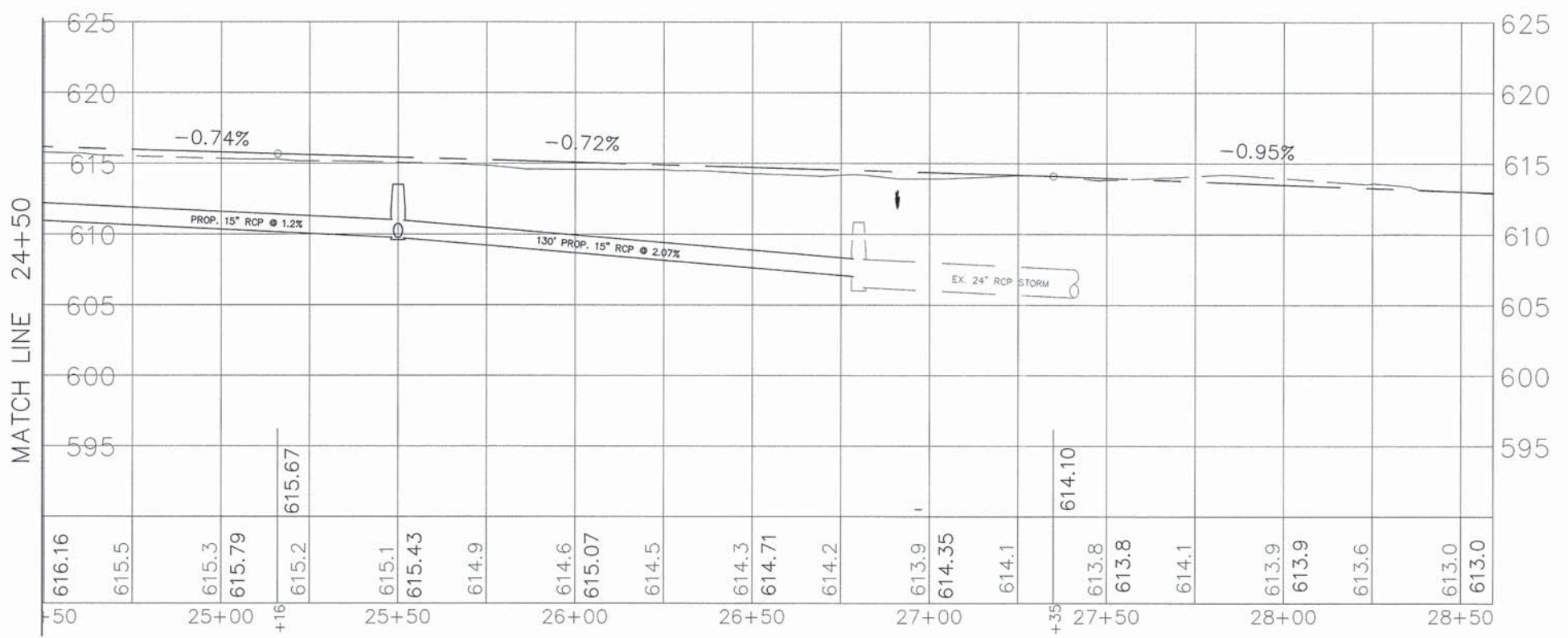
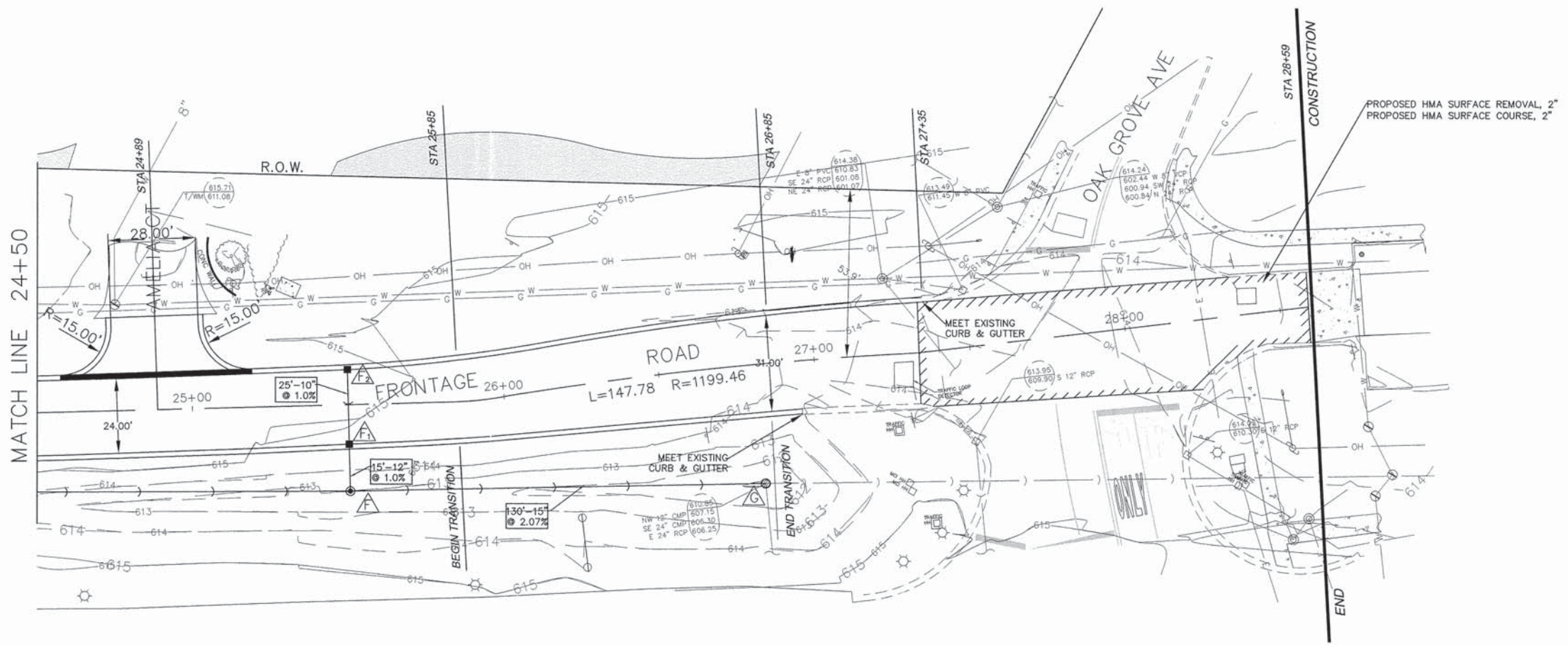
FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 9
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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FILE: 608 No. 15-702



P:\Project\PROJECT FILES\Land 15\15702\dwg	DESIGNED BY: SAL/JCH	REVISED: _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRONTAGE ROAD PLAN, STORM SEWER & PROFILE		FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN BY: ALS	REVISED: _____				1548	12-00039-00-PV	COOK	23	10
	CHECKED BY: SAL	REVISED: _____				CONTRACT No. 61B97				
	DATE: 06/11/15	REVISED: STATE REV. 08/06/15				SCALE: H:1"=20' V:1"=5'	SHEET No. 10 OF 23 SHEETS	STA. 18+50 TO STA. 24+50	FED. ROAD DIST. NO.	ILLINOIS



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DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

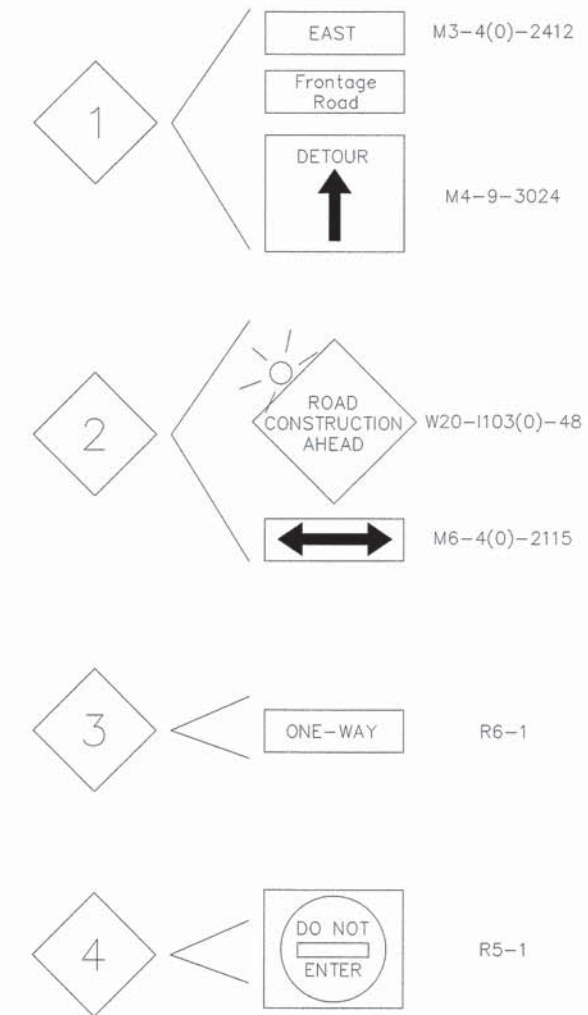
**FRONTAGE ROAD PLAN,
STORM SEWER & PROFILE**

SCALE: H: 1"=20'
V: 1"=5'

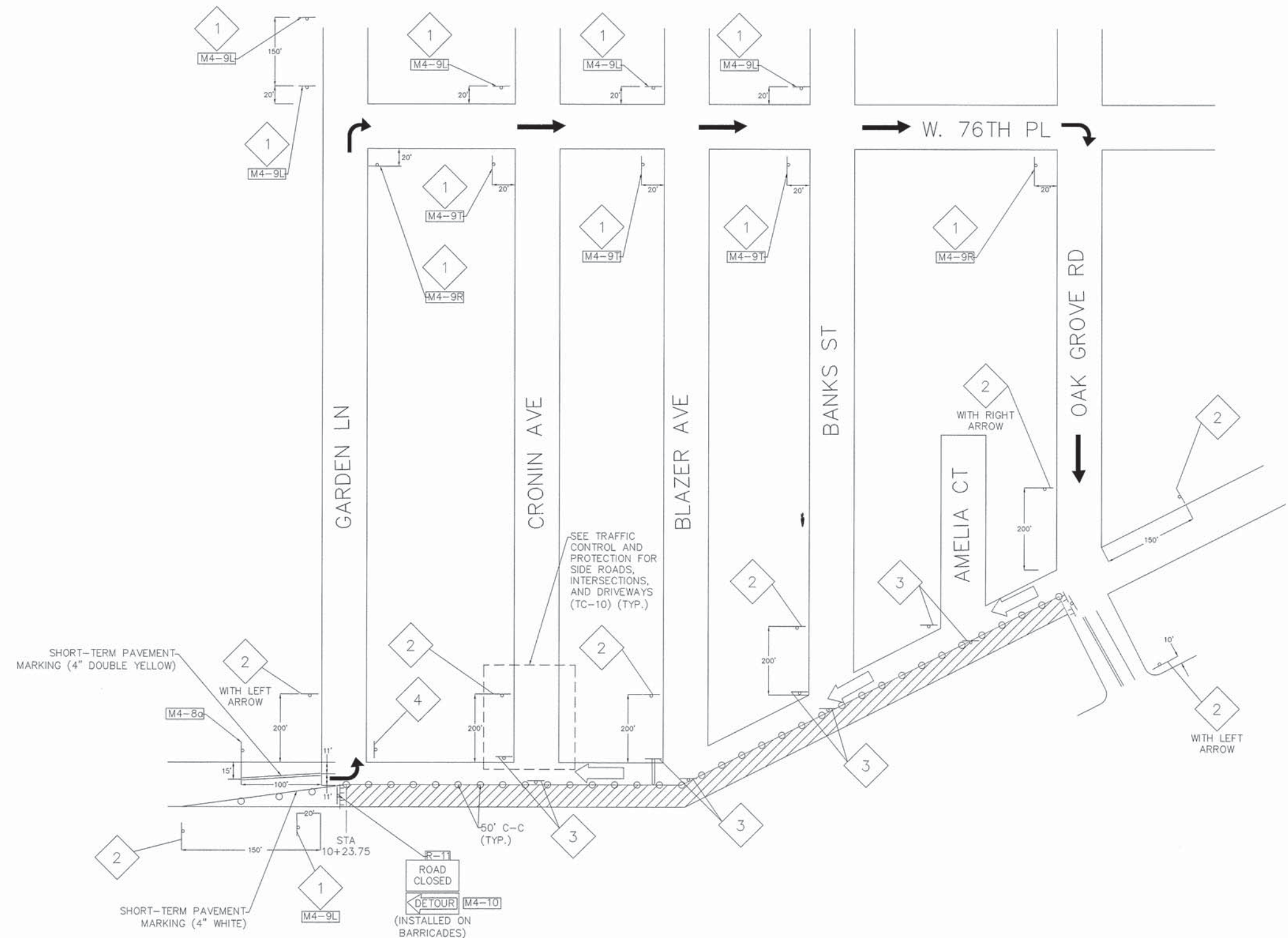
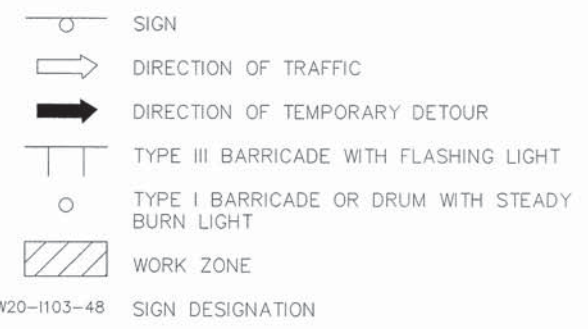
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CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HBE JOB No. 15-702

SIGN LEGEND



LEGEND



SEE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10) (TYP.)

STAGE I TRAFFIC CONTROL

- NOTES:
- "ONE-WAY" SIGNS SHALL BE PLACED OPPOSITE ALL DRIVEWAYS AND AMELIA CT.
 - VILLAGE WILL REMOVE ALL SIGNS IN CONFLICT WITH PROPOSED CONSTRUCTION.

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DESIGNED BY: SAL	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: STATE REV. 08/31/15
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

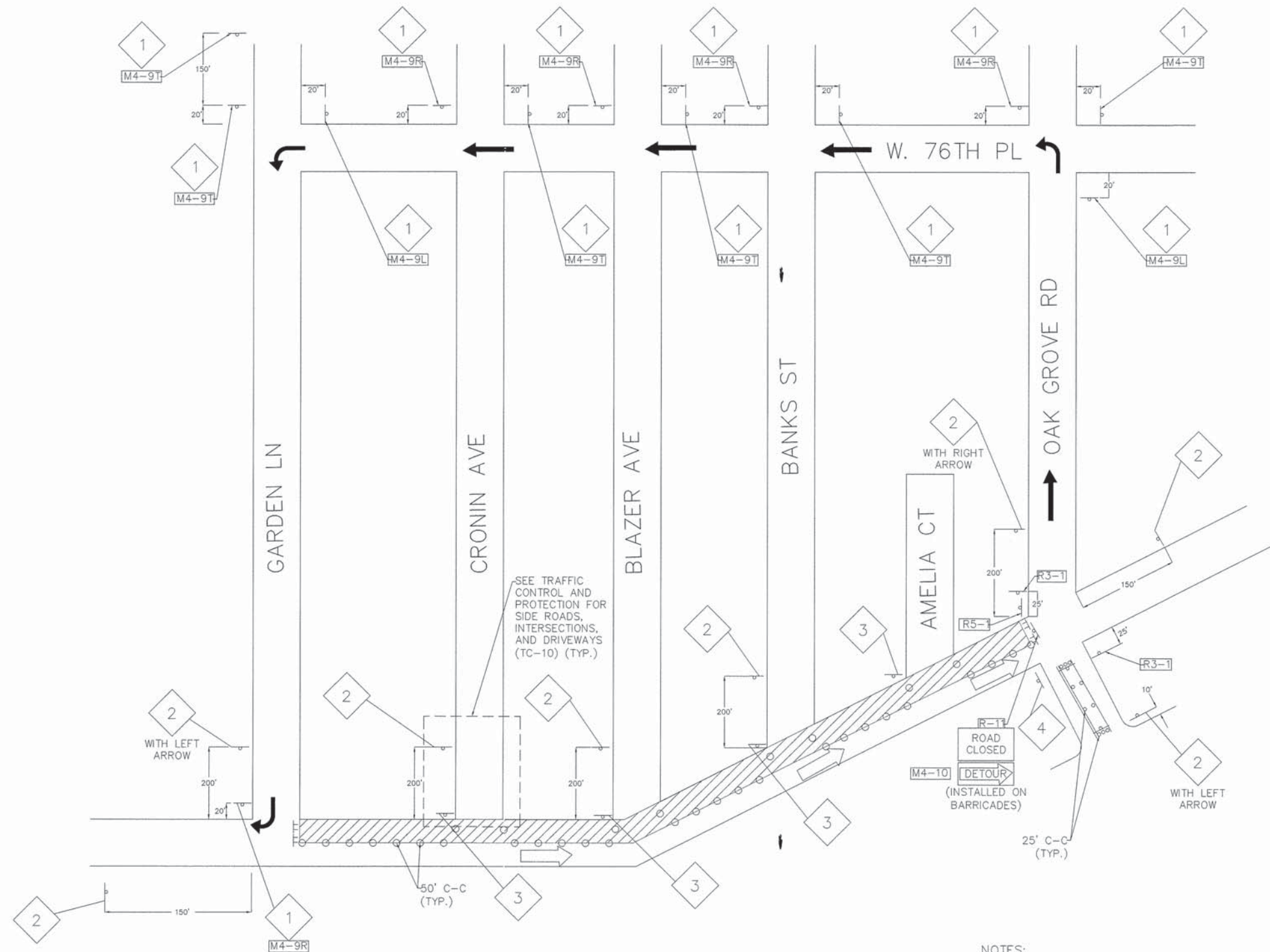
**TRAFFIC CONTROL PLAN
STAGE I**

SCALE: N.T.S. SHEET No. 12 OF 23 SHEETS STA. 9+82 TO STA. 28+59

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	12
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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HBE JOB No. 15-702

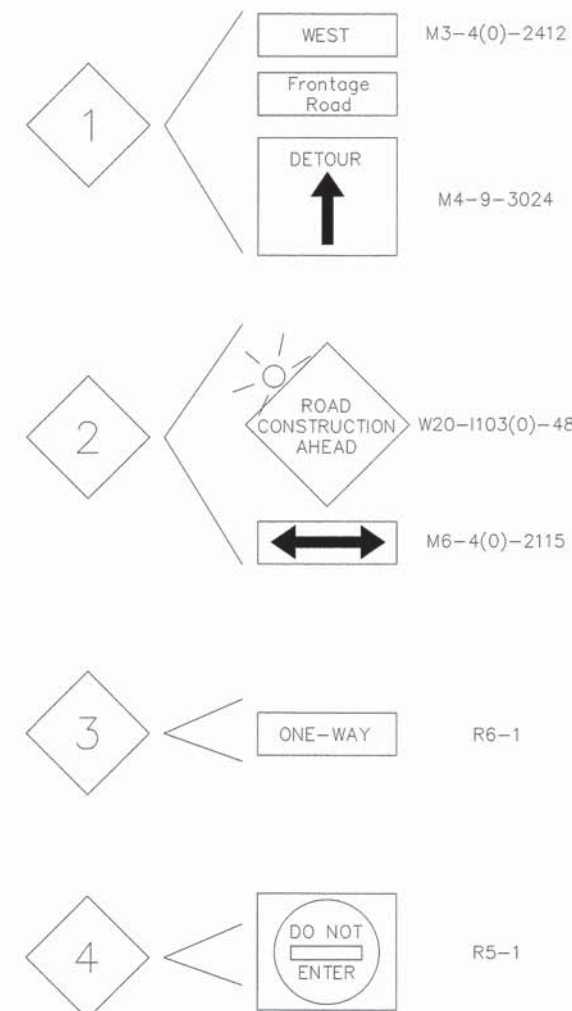


STAGE II TRAFFIC CONTROL

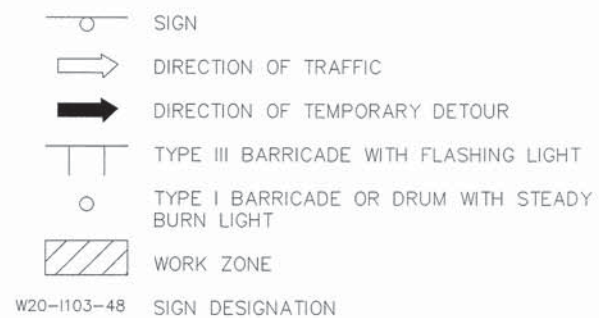
NOTES:

- "ONE-WAY" SIGNS SHALL BE PLACED OPPOSITE ALL DRIVEWAYS AND AMELIA CT.
- ACCESS FROM SIDE STREETS SHALL BE MAINTAINED DURING STAGE II WITH PLACEMENT OF "AGGREGATE FOR TEMPORARY ACCESS"
- VILLAGE WILL REMOVE ALL SIGNS IN CONFLICT WITH PROPOSED CONSTRUCTION.

SIGN LEGEND



LEGEND



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DESIGNED BY: SAL	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: STATE REV. 08/31/15
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

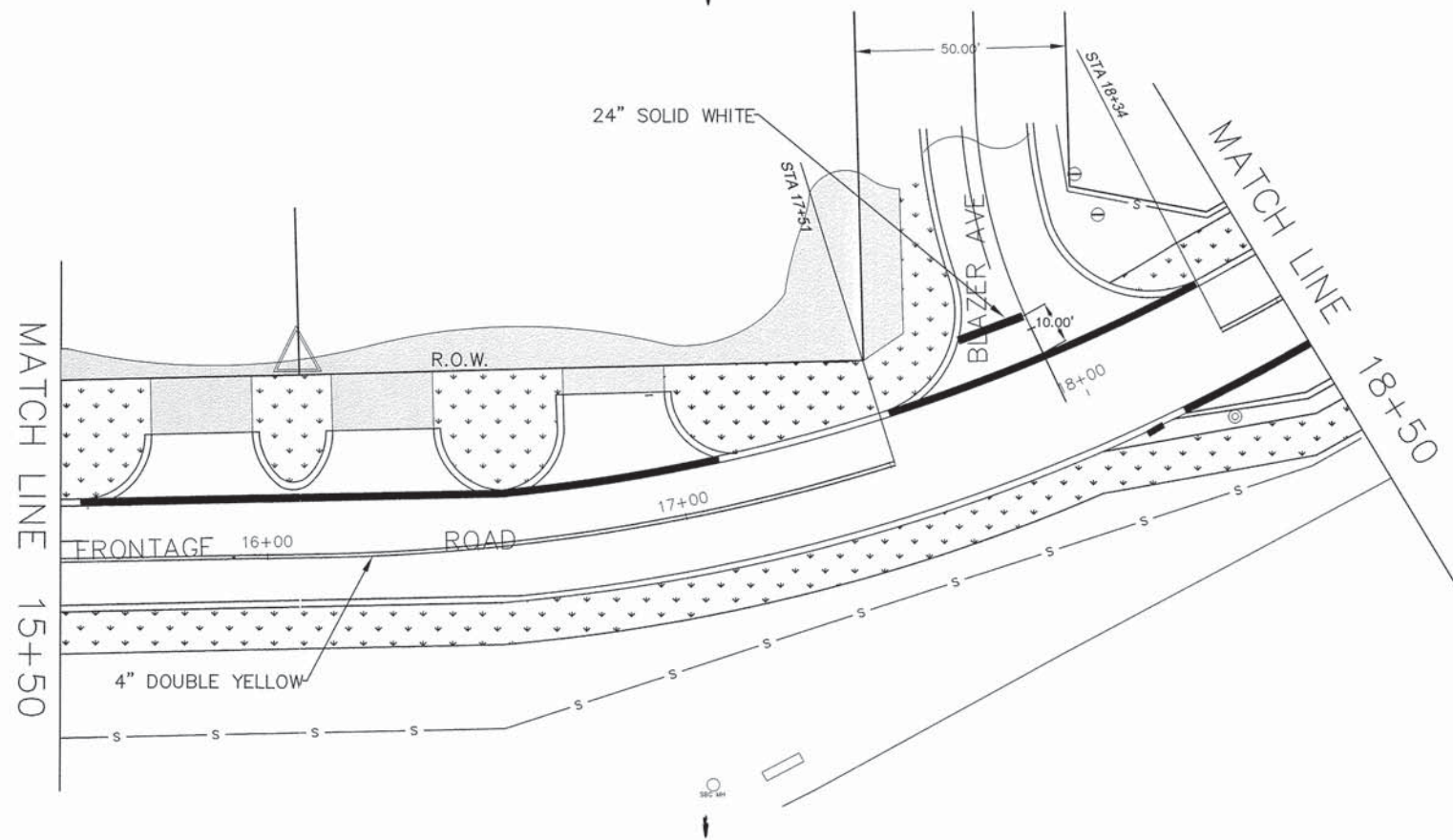
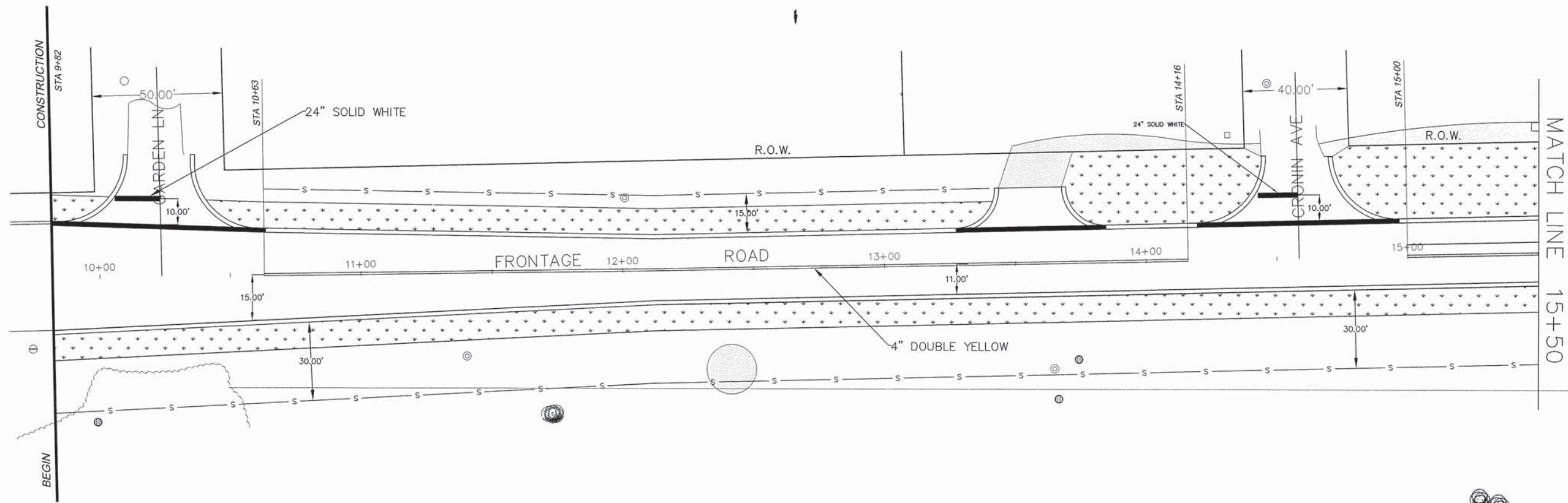
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STAGE II

SCALE: N.T.S. SHEET No. 13 OF 23 SHEETS STA. 9+82 TO STA. 28+59

FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 13
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HBE JOB No: 15-702



LEGEND

-  SOD
-  PERIMETER EROSION BARRIER
-  DITCH CHECK

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 DESIGNED BY: SAL
 DRAWN BY: ALS
 CHECKED BY: SAL
 DATE: 06/11/15

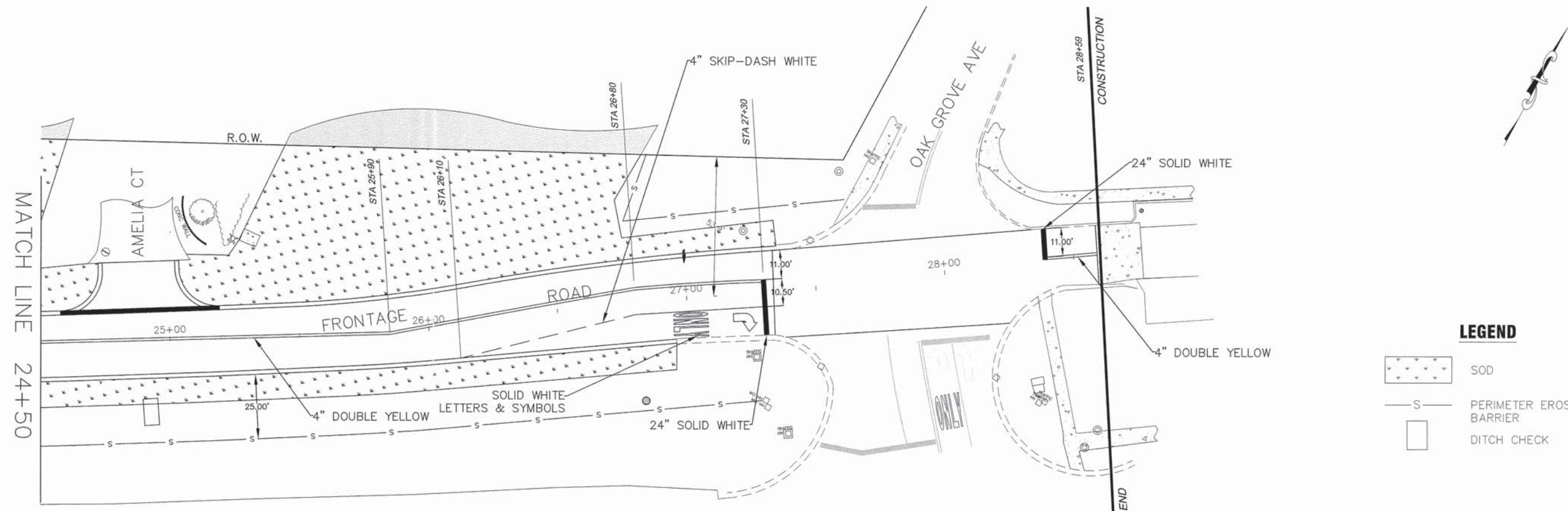
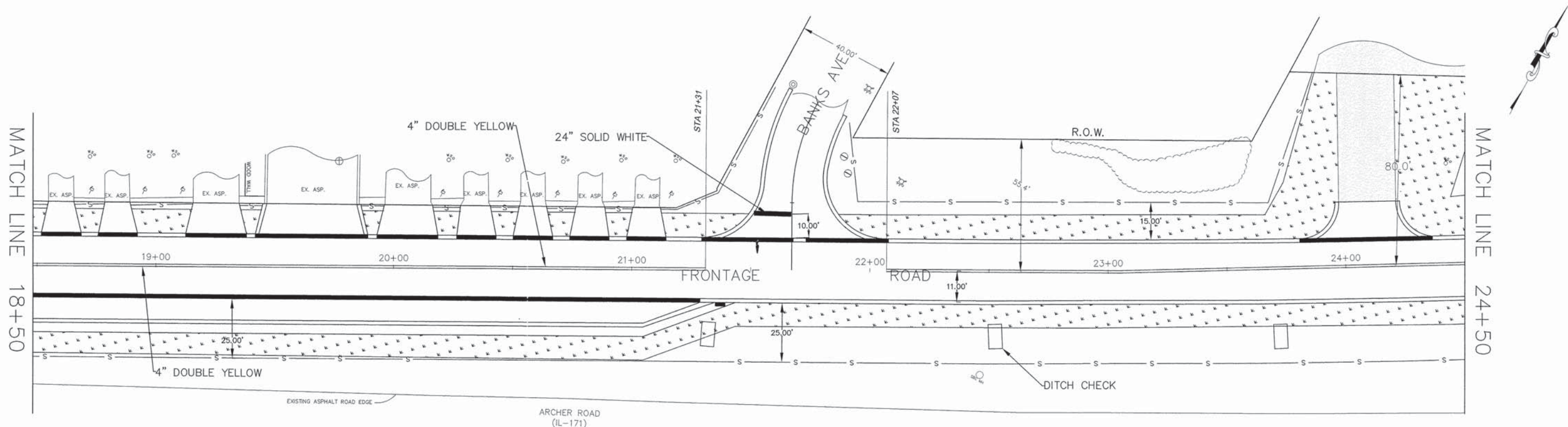
REVISED: _____
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 REVISED: _____
 REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING &
 EROSION CONTROL PLANS**

SCALE: H:1"=20' SHEET No. 14 OF 23 SHEETS STA. 9+82 TO STA. 18+50

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	14
CONTRACT No. 61B97				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEGEND

	SOD
	PERIMETER EROSION BARRIER
	DITCH CHECK

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 DESIGNED BY: SAL
 DRAWN BY: ALS
 CHECKED BY: SAL
 DATE: 06/11/15

REVISED: _____
 REVISED: _____
 REVISED: _____
 REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING &
 EROSION CONTROL PLANS**

SCALE: H:1"=20' SHEET No. 15 OF 23 SHEETS STA. 18+50 TO STA. 28+59

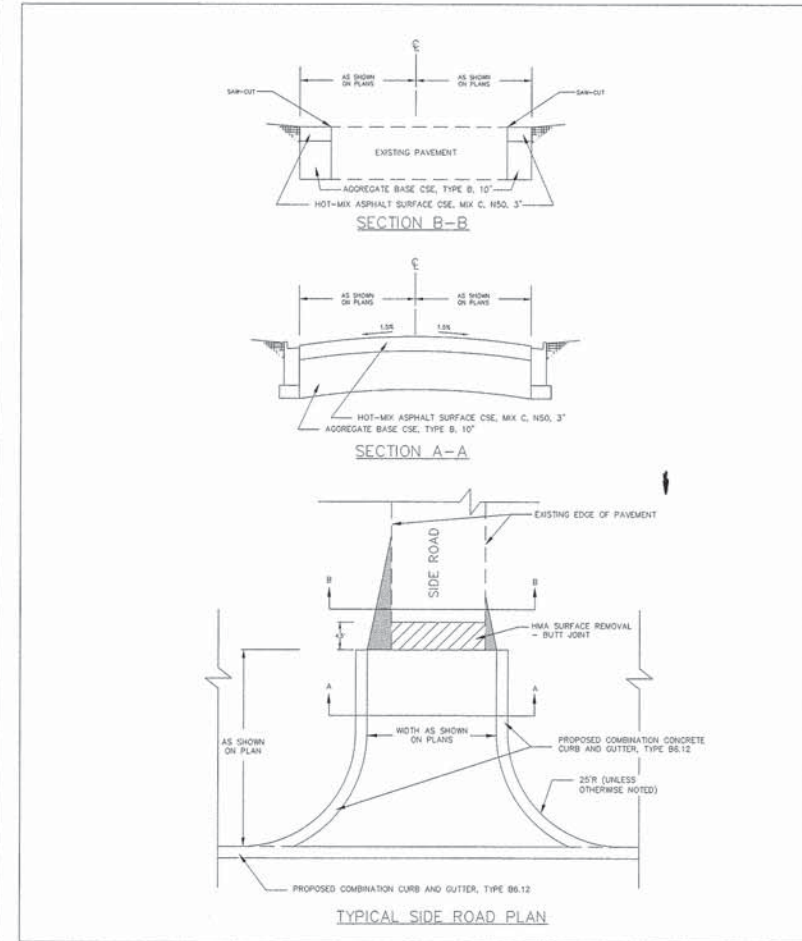
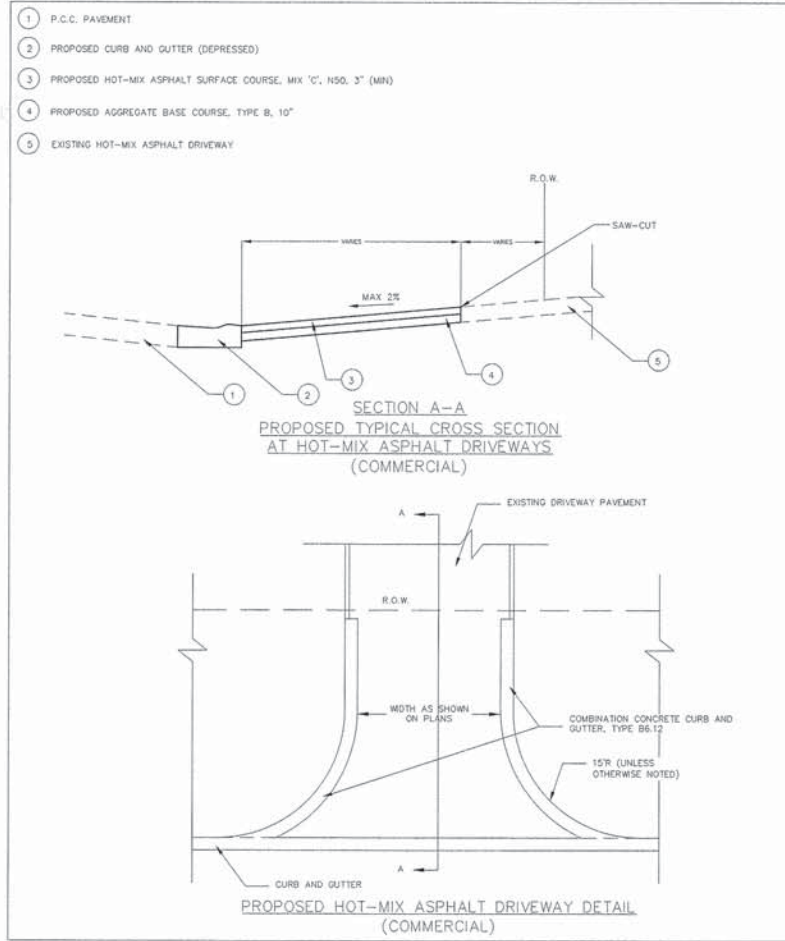
FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	15
CONTRACT No. 61B97				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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HBE AOB 10x15-702

STRUCTURE TABLE

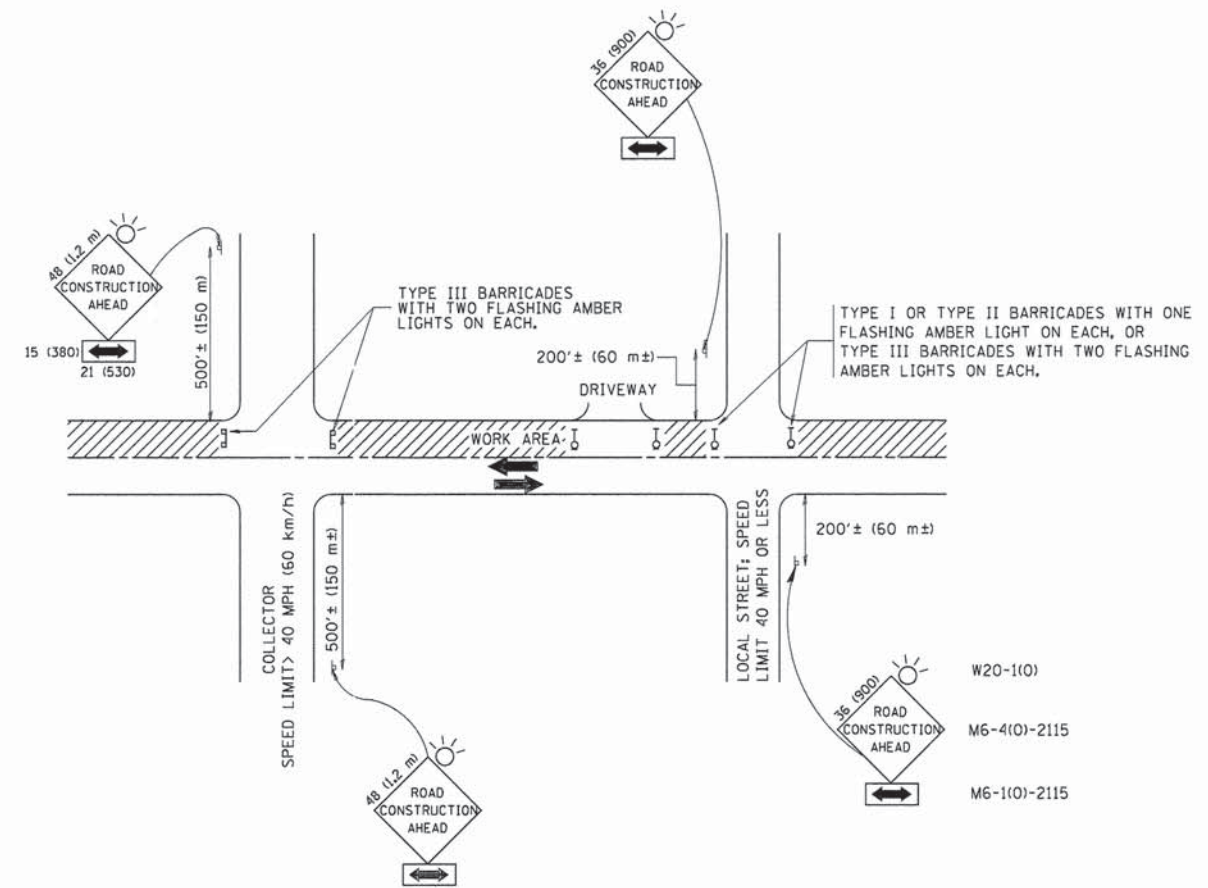
Structure	Type	Rim	Invert	Frame	Adjust	Clean	Notes
A	Existing	611.94	607.09 SW 607.32 NW 607.84 N	REPLACE FRAME WITH SOLID COVER		X	CORE DRILL
A1	48" MH TYPE A	611.30	607.72 SE 608.19 N				
A2	24" Inlet Typ A	611.24	608.00 S 608.19 N				
A3	24" Inlet Typ A	611.24	608.50 S				
B	Existing	615.40	612.73 NE			X	CORE DRILL
B1	48" MH TYPE A	617.20	613.03 SW 613.23 N				
B2	24" Inlet Typ A	617.10	613.35 S 613.45 N				
B3	24" Inlet Typ A	617.10	613.70 S				
C	Existing	621.36	616.16 W 617.70 N	REPLACE FRAME WITH SOLID COVER	X	X	CORE DRILL
C1	24" Inlet Typ A	619.70	617.80 S&NW				
C2	24" Inlet Typ A	619.70	618.05 S				
D	48" MH TYPE A	619.47	615.75 E&N				
D1	24" Inlet Typ A	619.25	615.80 S 616.00 N				
D2	24" Inlet Typ A	619.25	616.25 S				
E	48" MH TYPE A	616.15	612.98 W 612.75 E 613.57 N				
E1	24" Inlet Typ A	617.00	613.67 S 613.75 N				
E2	24" Inlet Typ A	617.00	614.00 S				
F	48" MH TYPE A	613.50	609.75 E&W 610.00 N				
F1	24" Inlet Typ A	615.13	611.88 N 611.70 S				
F2	24" Inlet Typ A	615.13	612.13 S				
G	Existing	610.85	607.15 NW 606.30 SE 606.25 E 607.00 W				



P:\Project\PROJECT FILES\Land 15\15702\dwg	DESIGNED BY: SAL	REVISED: _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN BY: ALS	REVISED: _____			1548	12-00039-00-PV	COOK	23	16
	CHECKED BY: SAL	REVISED: _____			CONTRACT No. 61B97				
	DATE: 06/11/15	REVISED: STATE REV. 08/06/15			SCALE: N.T.S.	SHEET No. 16 OF 23 SHEETS	STA. _____ TO STA. _____	FED. ROAD DIST. NO.	ILLINOIS

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FEE JOB No. 15-702



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

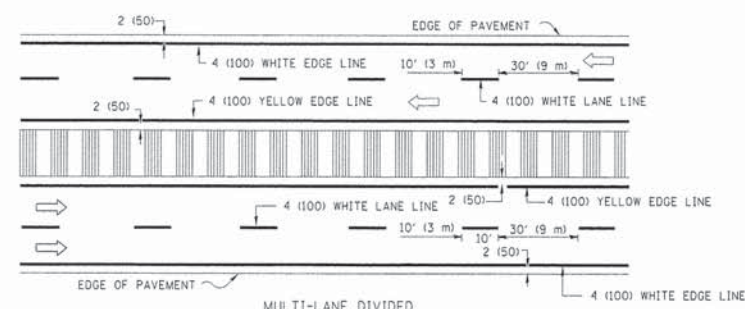
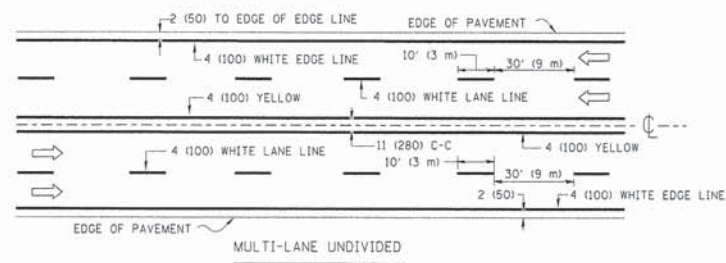
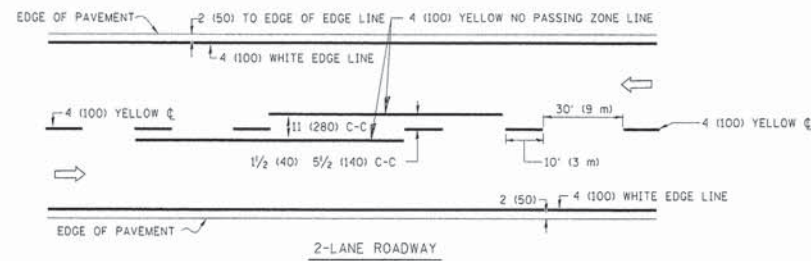
FILE NAME * W:\distatd\22x24\1010.dgn	USER NAME * gegianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

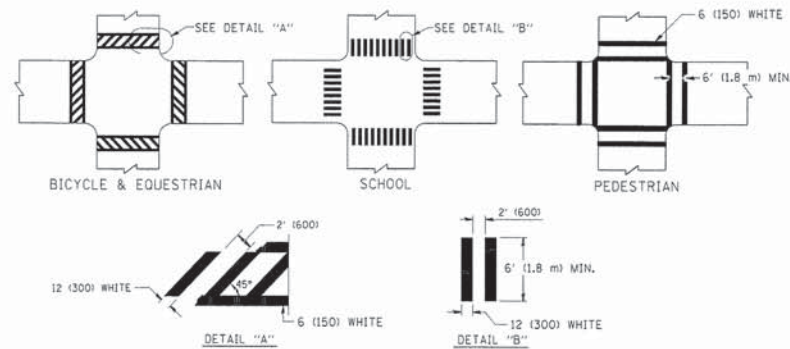
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	17
TC-10			CONTRACT NO. 61B97	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

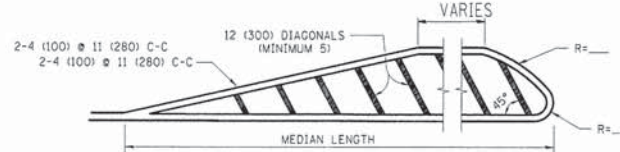
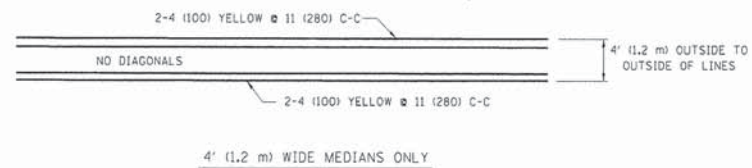


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

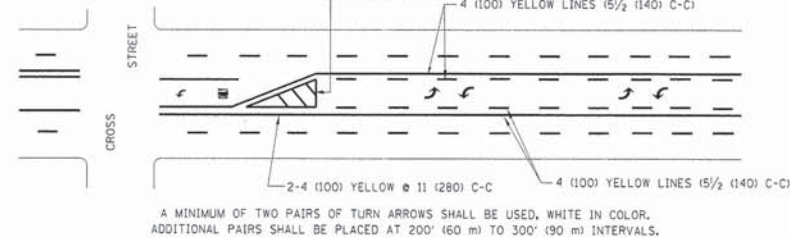


TYPICAL CROSSWALK MARKING

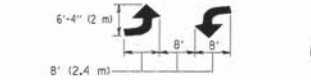


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

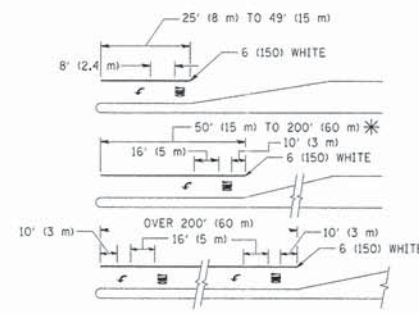


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

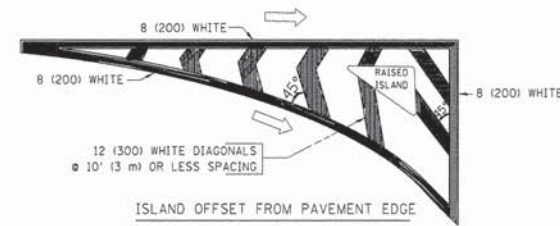
TYPICAL PAINTED MEDIAN MARKING



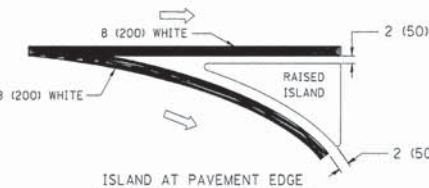
FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

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

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

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

FILE NAME =	USER NAME = drvakasn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
ca:\pw_work\pvidot\drvakasn\d0108315\to	3.dgn	DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

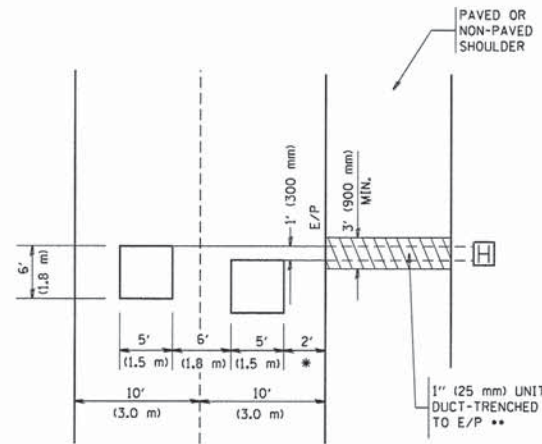
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A. R.F.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	18
TC-13		CONTRACT NO.	61897	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.



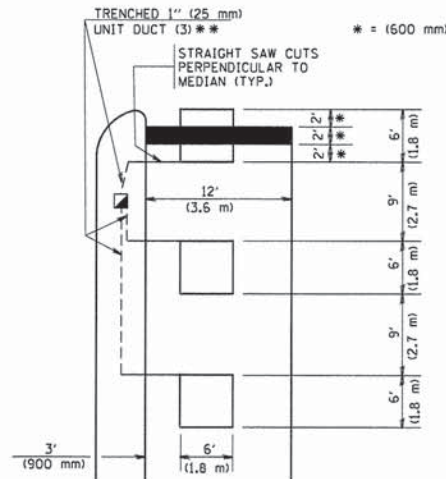
* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH**

(PROTECTED / PERMITTED LEFT TURN PHASING)

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

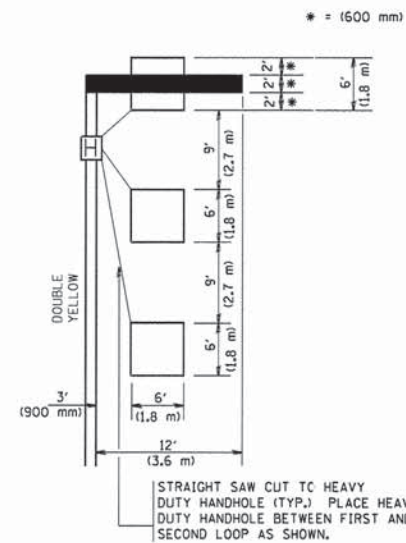


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

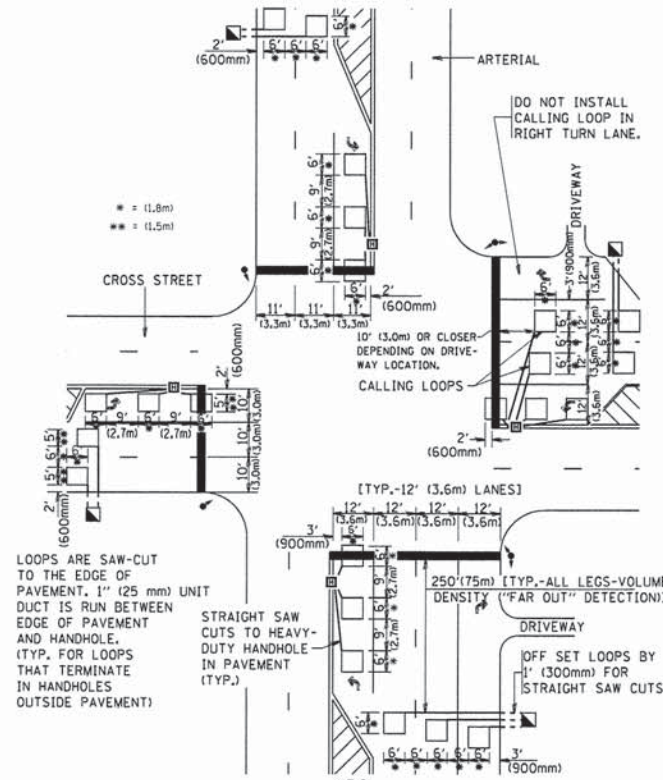
**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH**

(PROTECTED / PERMITTED LEFT TURN PHASING)



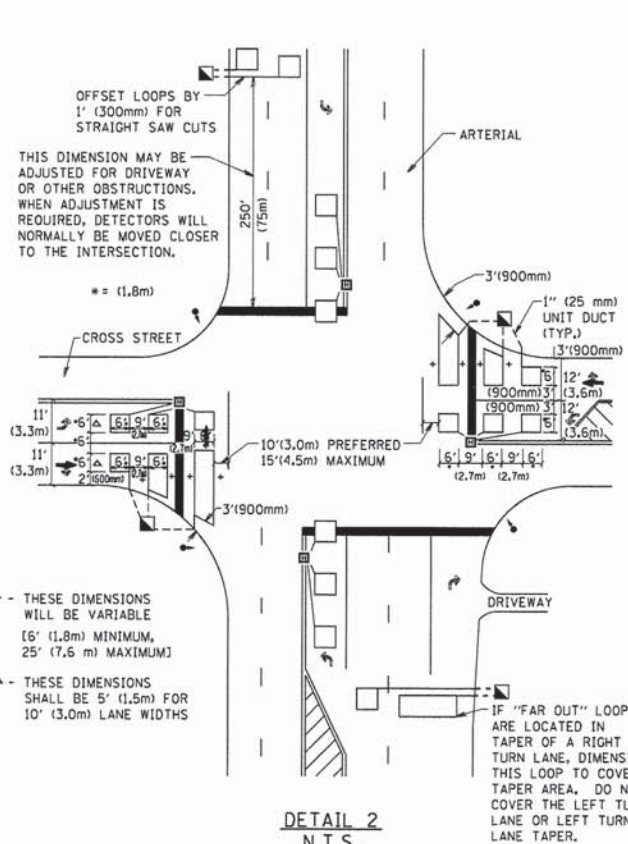
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



DETAIL 1
N.T.S.

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

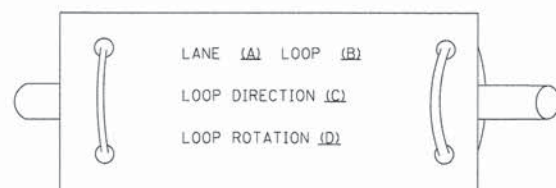
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME = W:\diststd\22x34\ts07.dgn	USER NAME = goglianob	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING			F.A. RTE. 1548	SECTION 12-00 39-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 19
	PLOT SCALE = 50,0000' / IN.	DRAWN - R.K.F.	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TS-07				
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -					CONTRACT NO. 61B97				
		DATE -	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

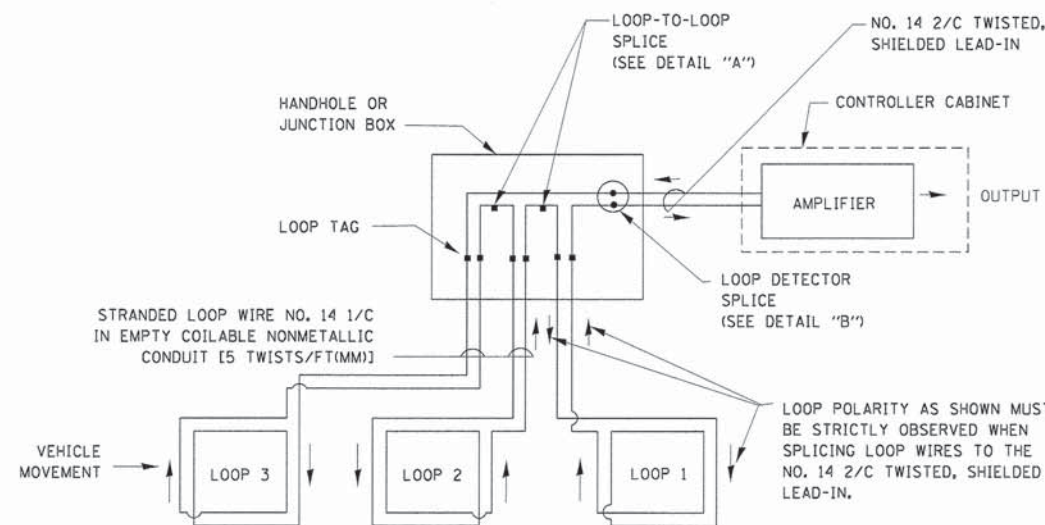
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

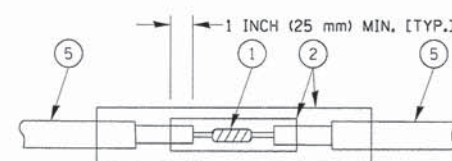


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

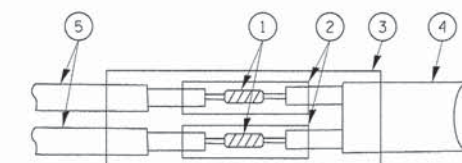


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

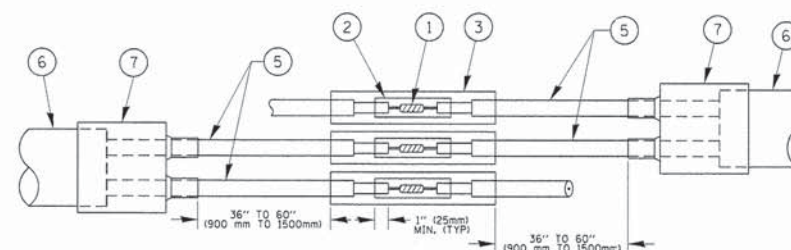


DETAIL "A"
LOOP-TO-LOOP SPLICE

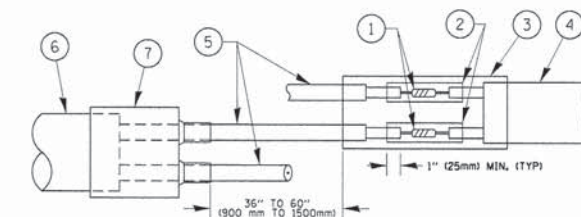


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



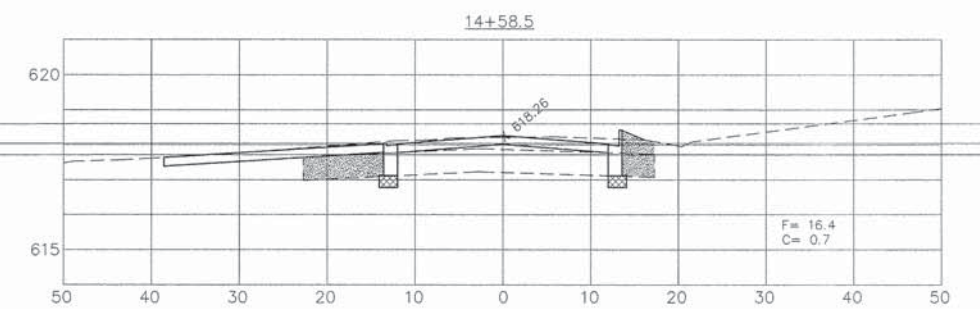
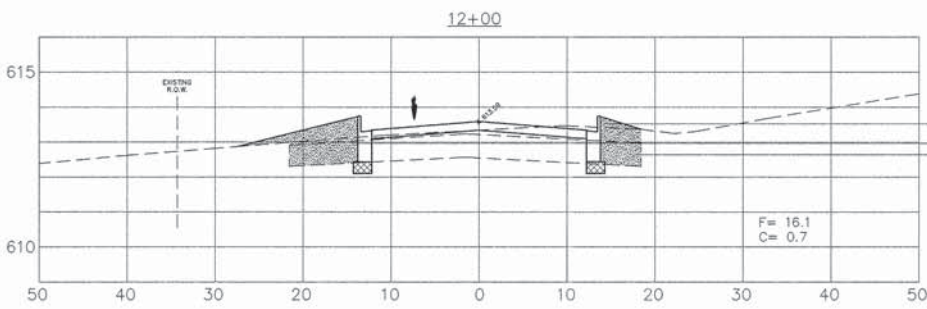
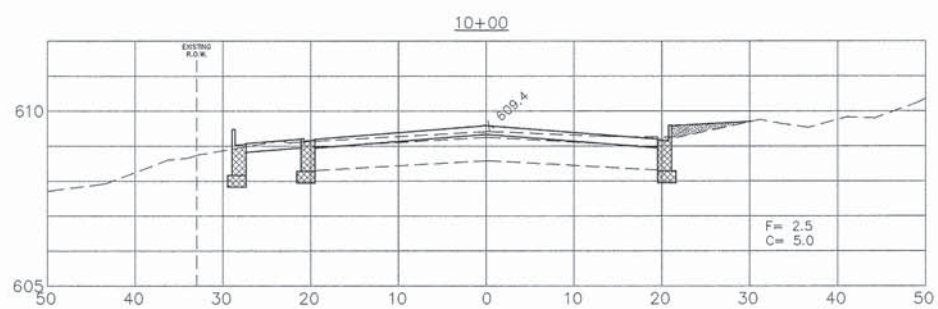
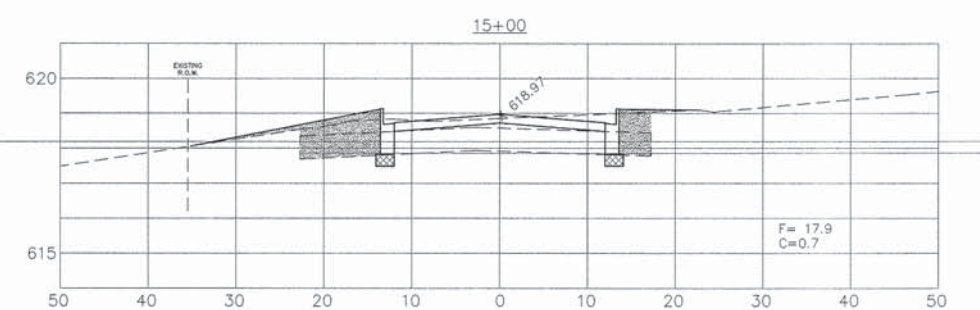
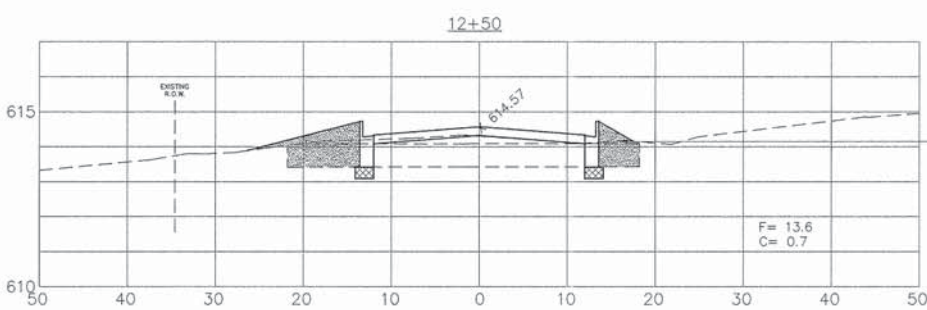
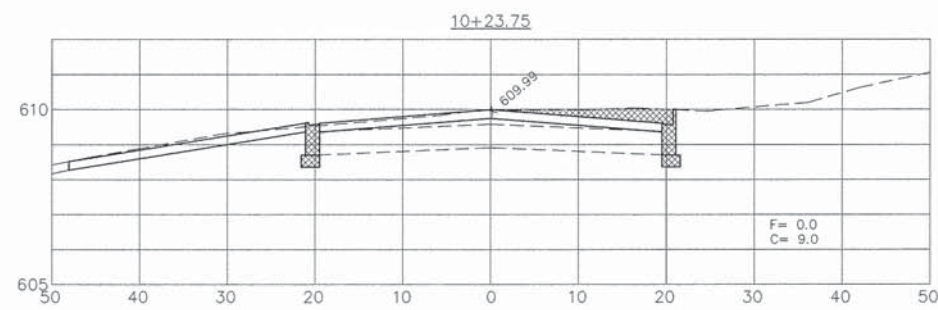
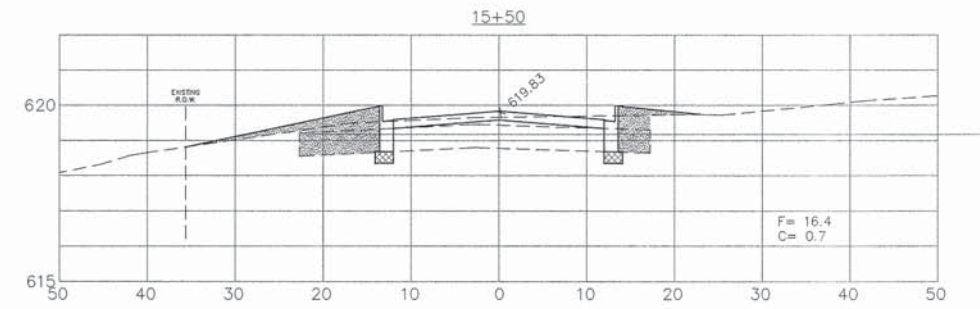
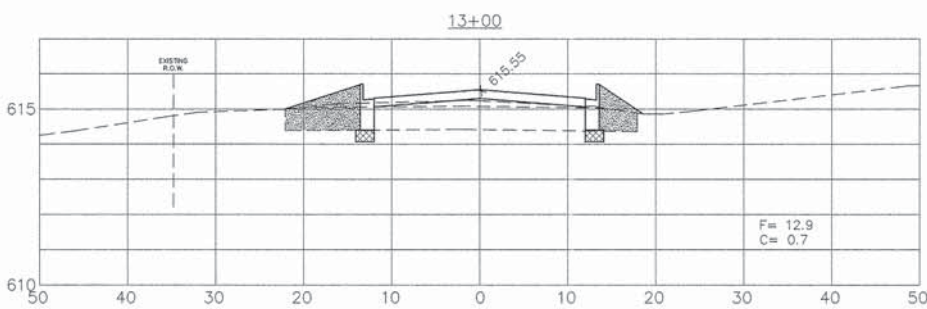
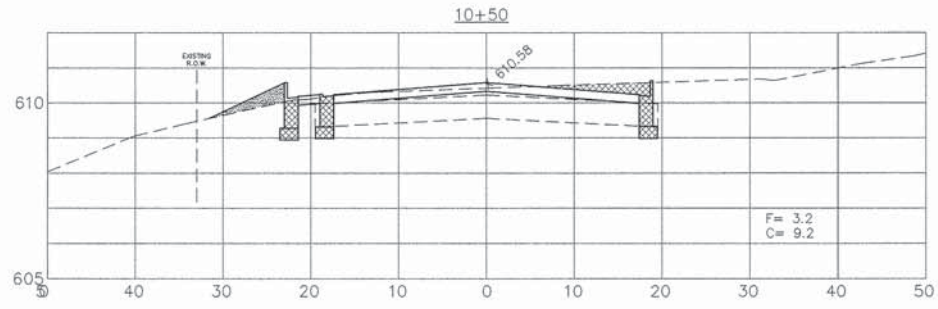
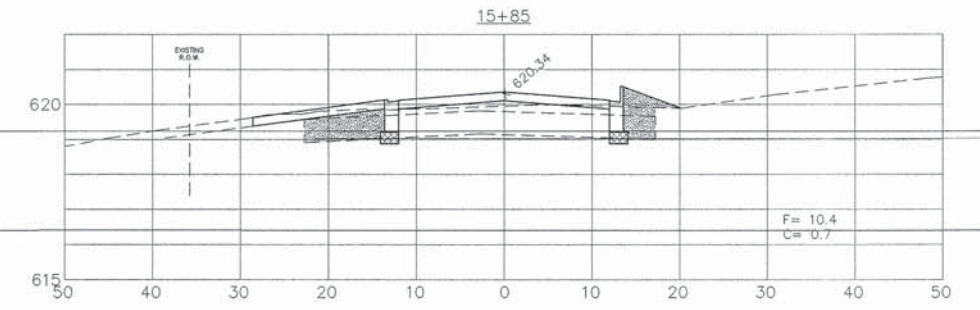
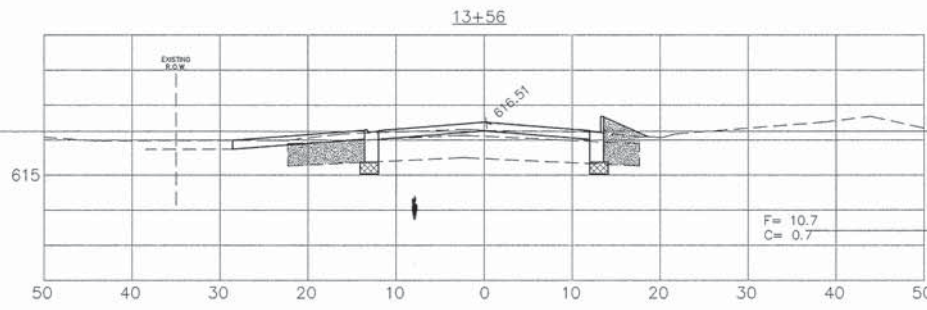
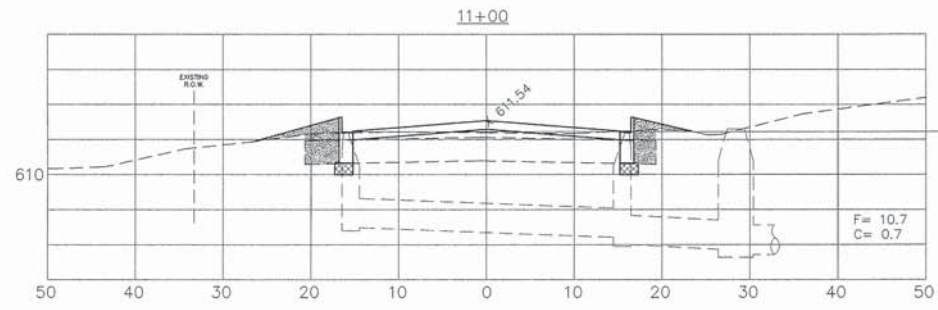
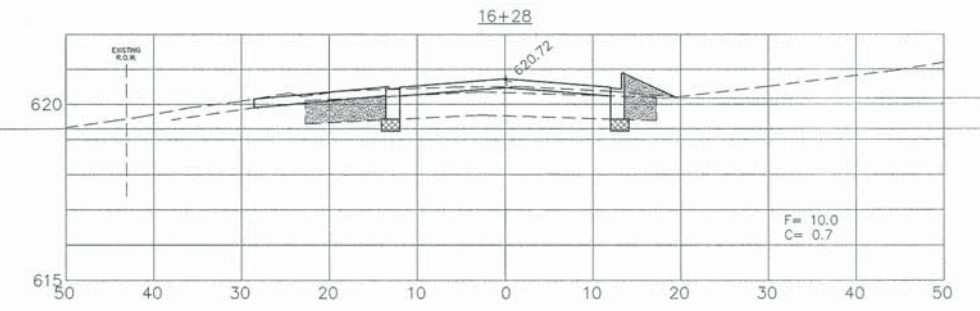
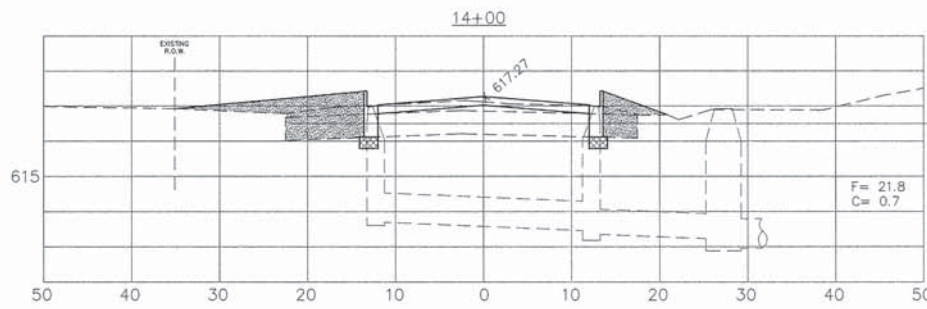
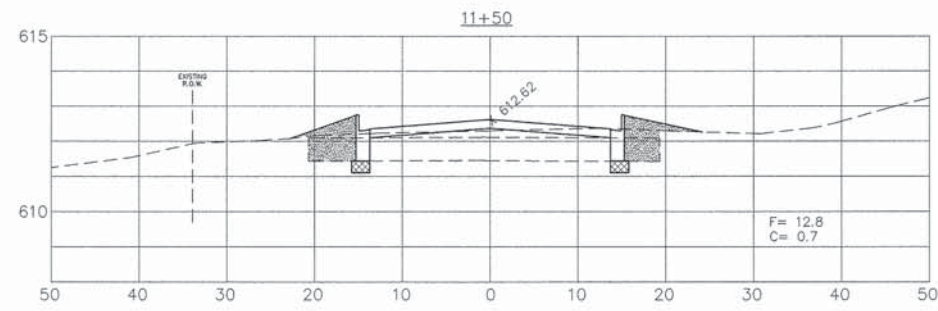
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 5" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME *	USER NAME = foatemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
c:\pw_work\pwidot\foatemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2	OF 7 SHEETS	STA.	TO STA.	1548	12-00039-00-PV	COOK	23	20
		CHECKED - DAD	REVISED -								TS-05	CONTRACT NO.	61B97	
		DATE - 10-28-09	REVISED -								FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			



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DESIGNED BY: SAL

REVISED: _____

DRAWN BY: ALS

REVISED: _____

CHECKED BY: SAL

REVISED: _____

DATE: 06/11/15

REVISED: STATE REV. 08/06/15

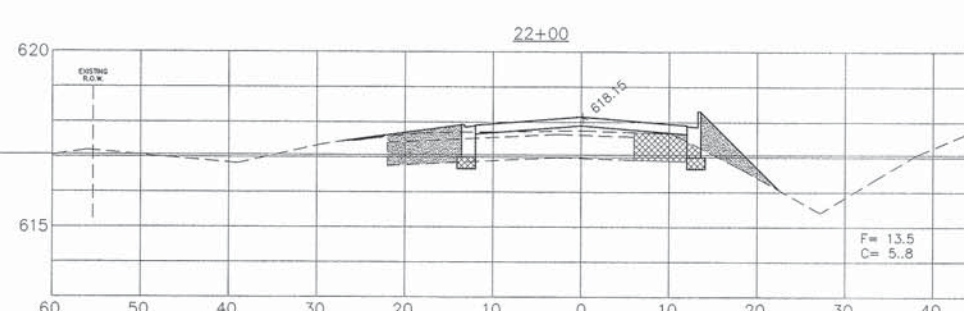
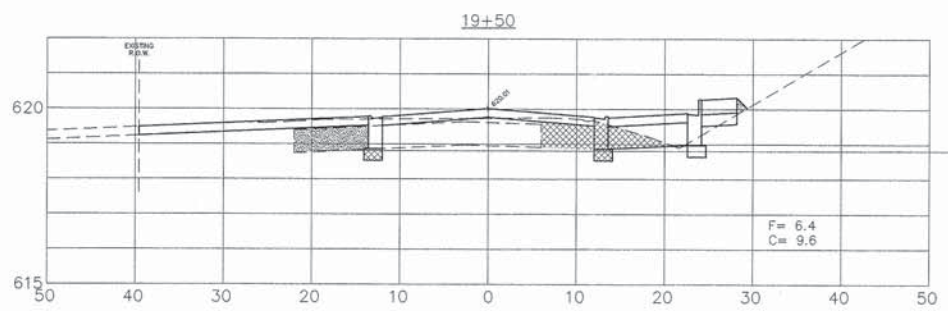
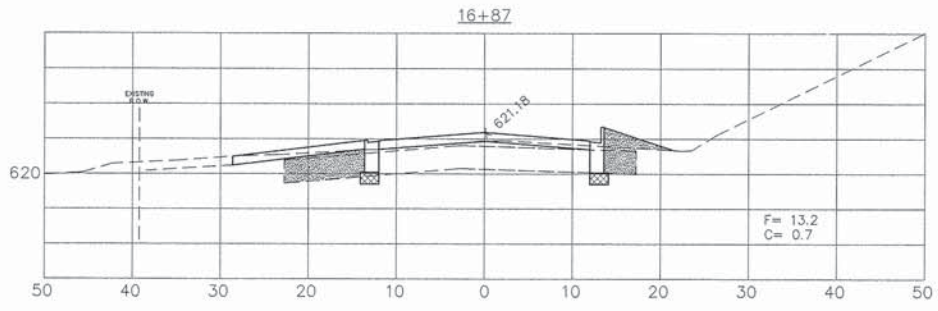
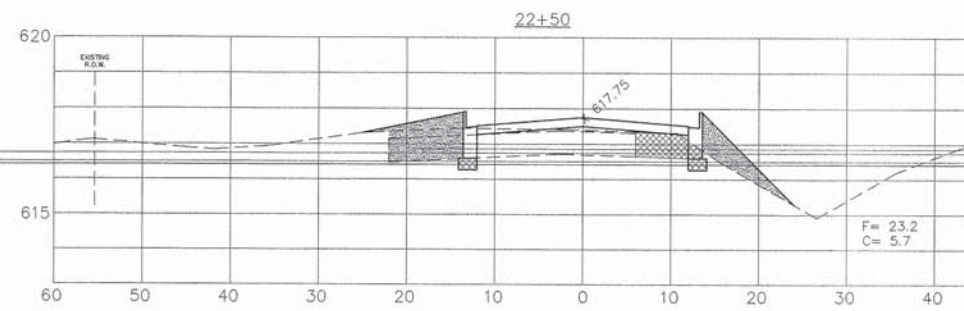
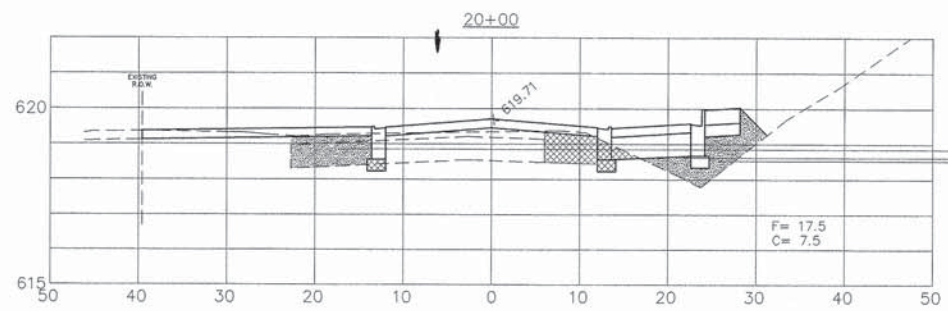
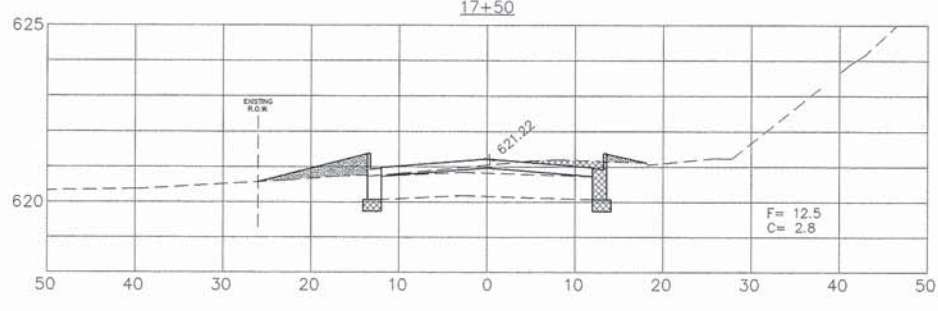
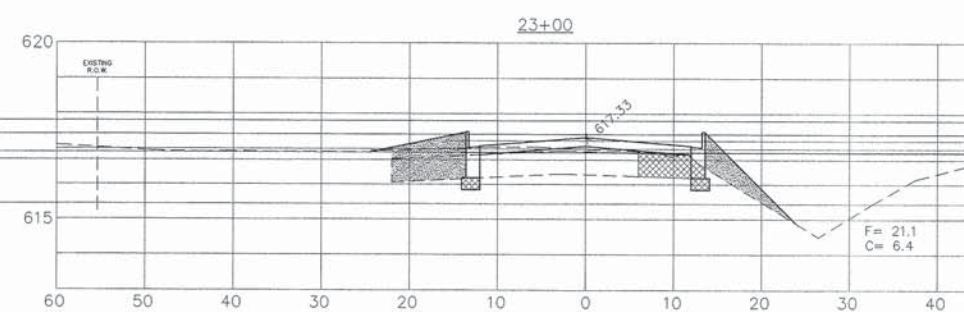
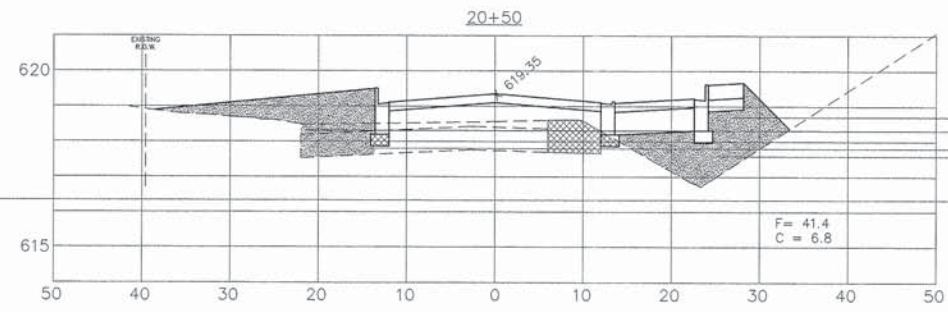
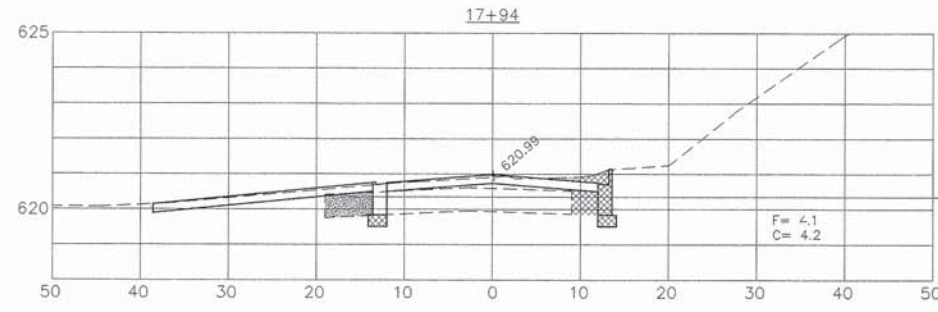
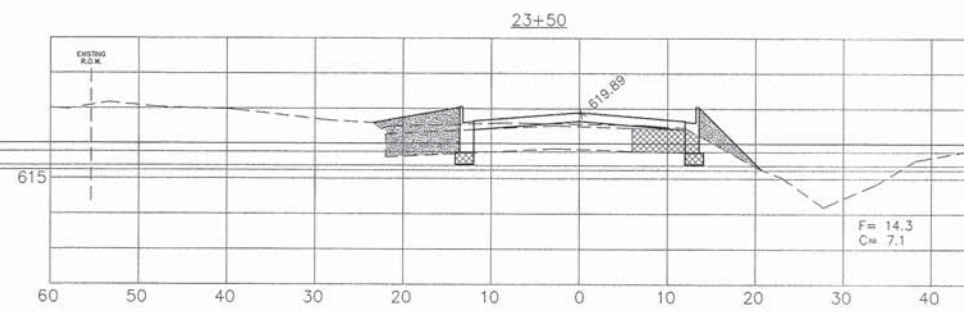
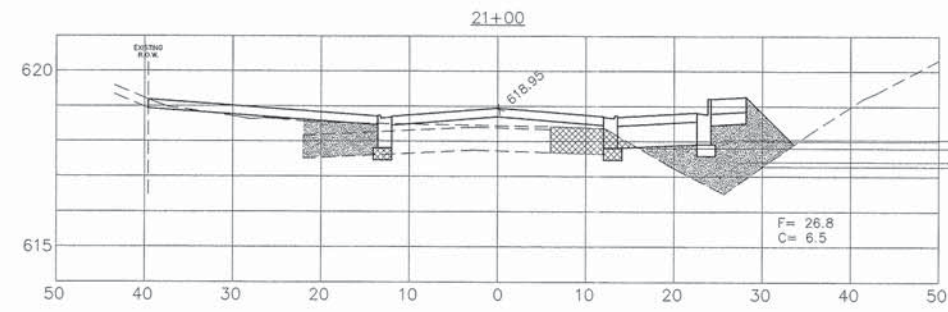
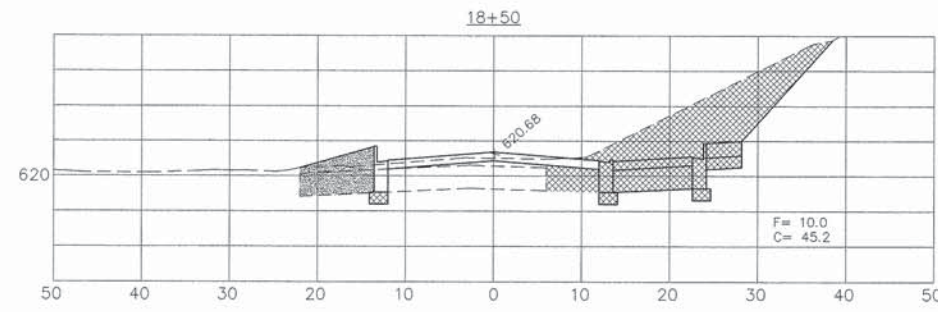
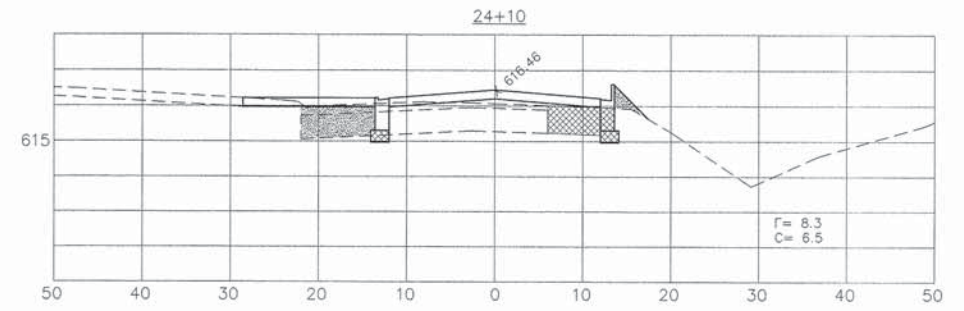
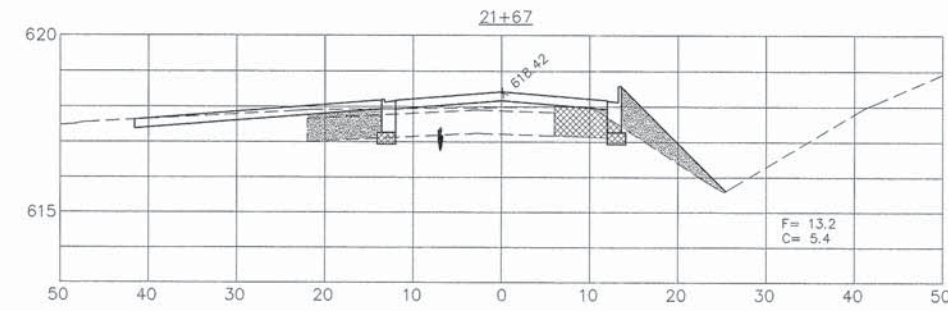
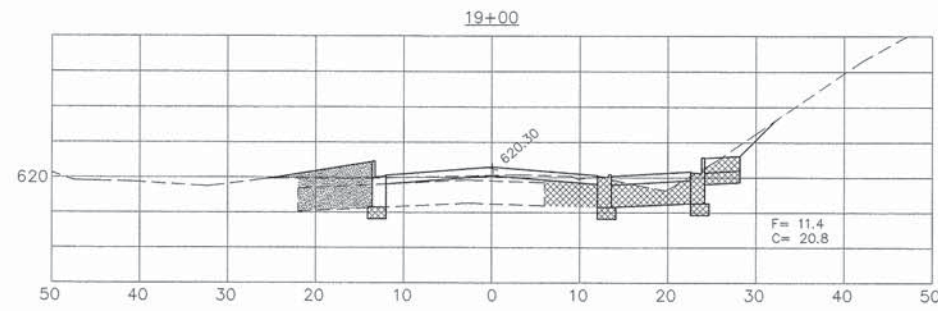
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: H: 1"=10'
V: 1"=2.5'

SHEET No. 21 OF 23 SHEETS STA. _____ TO STA. _____

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1548	12-00039-00-PV	COOK	23	21
CONTRACT No. 61B97				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



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DESIGNED BY: SAL	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

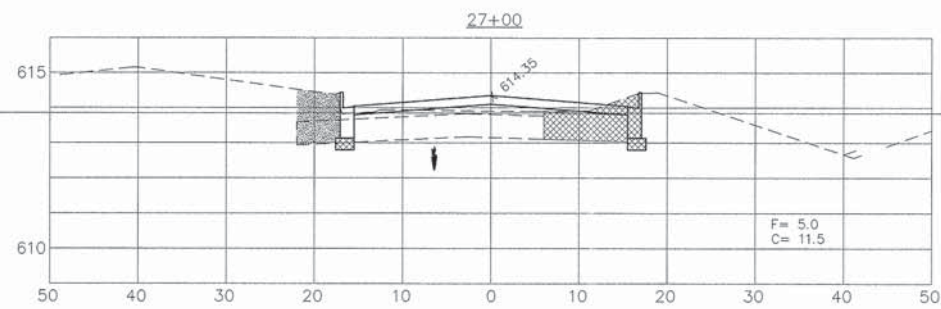
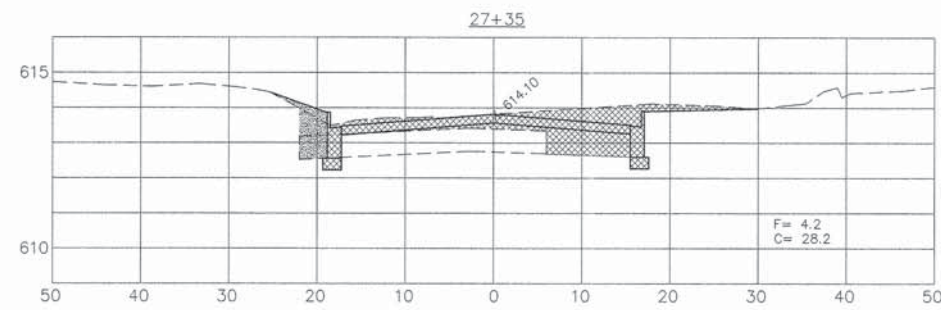
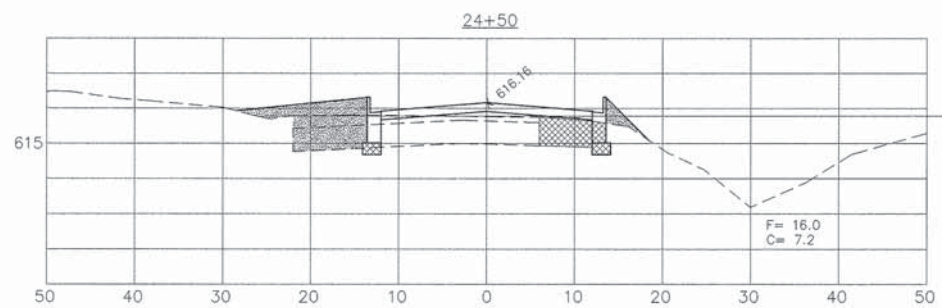
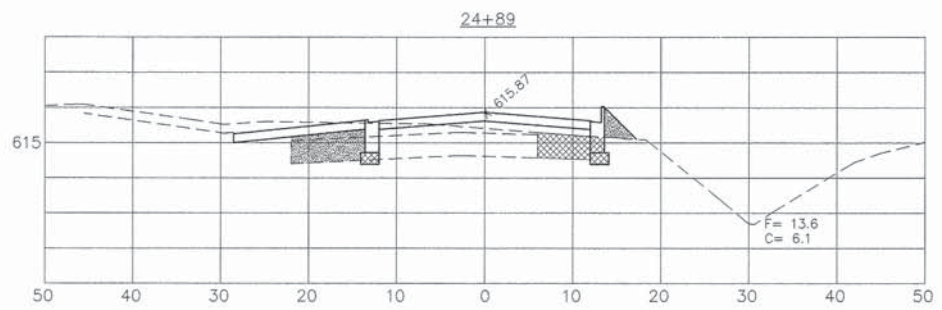
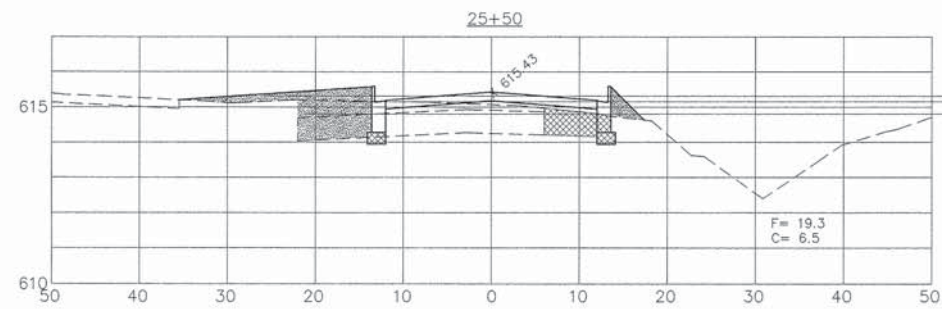
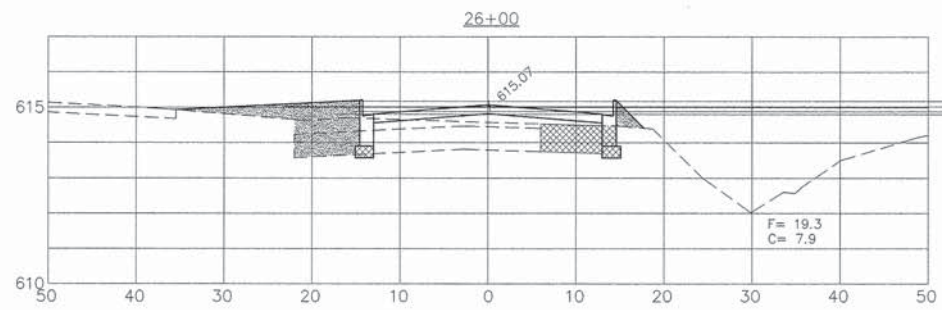
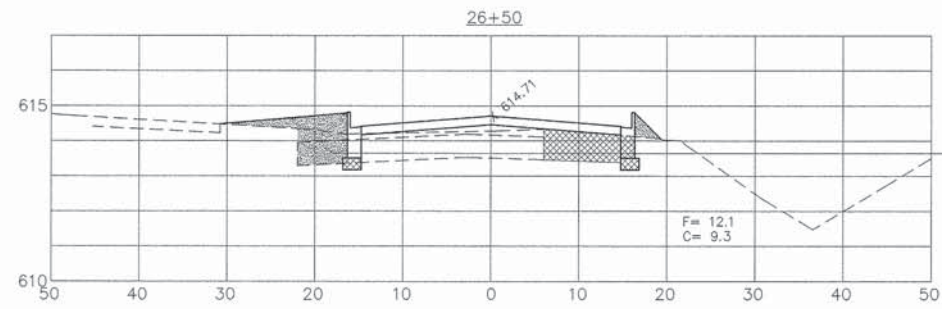
SCALE: H: 1"=10'
V: 1"=2.5'

SHEET No. 22 OF 23 SHEETS STA. _____ TO STA. _____

FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 22
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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HEE JOB No. 15-702



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DESIGNED BY: SAL	REVISED: _____
DRAWN BY: ALS	REVISED: _____
CHECKED BY: SAL	REVISED: _____
DATE: 06/11/15	REVISED: STATE REV. 08/06/15

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: H: 1"=10'
V: 1"=2.5'

SHEET No. 23 OF 23 SHEETS

STA. _____ TO STA. _____

FAU RTE 1548	SECTION 12-00039-00-PV	COUNTY COOK	TOTAL SHEETS 23	SHEET NO. 23
CONTRACT No. 61B97				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		