

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAU 3778 PULASKI ROAD
SECTION 2011-022-T
AT 103rd STREET
DRAINAGE IMPROVEMENTS & RESURFACING

PROJECT : M-3778(001)
COOK COUNTY
C-91-489-11

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34*	1
		ILLINOIS	CONTRACT NO. 60P21	

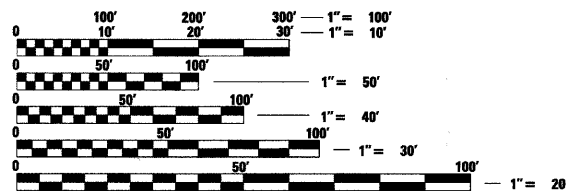
* 34 + 1 = 35

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

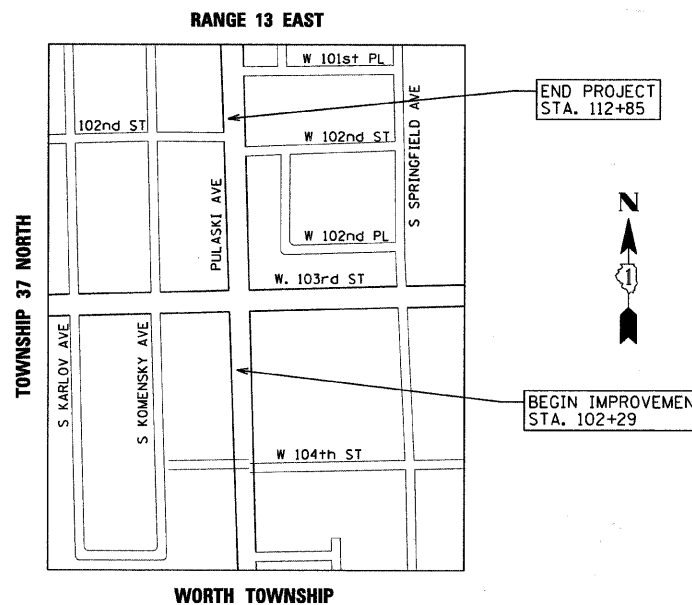
EXISTING ADT = 29,700 (2006)
SPEED LIMIT = 35 MPH

THE IMPROVEMENT IS LOCATED
WITHIN THE CITY OF CHICAGO
AND VILLAGE OF OAK LAWN



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.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811
C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
1-312-744-7000



LICENSED PROFESSIONAL ENGINEER
PETER M. JOHNSTON
062-047647
STATE OF ILLINOIS
Peter M. Johnston
6-2-11
DATE

LICENSE EXPIRES 11-30-2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JUNE 3, 20 11

Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

July 1 20 11
Scott E. Stitt, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

July 1 20 11
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: PETER JOHNSTON (GRAEF) 773-399-0112
PROJECT MANAGER: KEN ENG (IDOT) 847-705-4247

CONTRACT NO. 60P21

GRAEF 8501 W. Higgins Road; Suite 280
Chicago, Illinois 60631
(773) 399-0112

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28-33	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (6 SHEETS) (TS05)
34	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS07)

HIGHWAY STANDARDS

STD. NO.	TITLE
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
424001-05	CURB RAMPS FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
602001-02	CATCH BASIN, TYPE A
602301-03	INLET, TYPE A
602406-04	MANHOLE, TYPE A, 6' (1.8mm) DIAMETER
602601-02	PRECAST REINFORCED CONCRETE FLAT TOP SLAB
602701-02	MANHOLE STEPS
604001-03	FRAME AND LIDS, TYPE 1
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701602-05	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701801-04	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
780001-02	TYPICAL PAVEMENT MARKINGS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

PLAN NOTES - CITY OF CHICAGO

- ALL CATCH BASINS IN THE CITY OF CHICAGO MUST MEET THE DEPARTMENT OF SEWERS STANDARDS.
- PERMITS FROM THE DEPARTMENT OF SEWERS ARE REQUIRED FOR ALL UNDERGROUND STORM OF SEWER STRUCTURES, THE DEPARTMENT OF SEWERS' PERMIT MUST BE OBTAINED BY A LICENSED SEWER DRAIN LAYER PRIOR TO THE START OF CONSTRUCTION. THE LICENSED SEWER CONTRACTOR SUBCONTRACTOR MUST SUBMIT TWO SETS OF PLANS APPROVED BY THE DEPARTMENT OF SEWERS FOR THE ISSUE OF THE SEWER PERMIT TO SUITE 410, 333 SOUTH STATE STREET, CHICAGO, ILLINOIS 60604-3971. INSPECTION WILL BE PROVIDED BY THE DEPARTMENT OS SEWERS. IN CASE OF DAMAGE TO THE CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWER STRUCTURES AND/OR BENCH MONUMENTS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE DEPARTMENT OF SEWERS AT (312) 747-7852 OR (312) 747-7893.
- BENCH MARK LOCATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE OBTAINED FROM THE DEPARTMENT OF SEWERS AT SUITE 410, 333 SOUTH STATE STREET, CHICAGO, ILLINOIS 60604-3971. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPLACING ANY BENCH MONUMENT DAMAGED OR DESTROYED DURING CONSTRUCTION.
- SIDEWALK ACCESSIBILITY RAMPS SHALL NOT BE CONSTRUCTED DIRECTLY OVER EXISTING OR PROPOSED DRAINAGE STRUCTURES.
- ALL BROKEN, CRACKED, WORN OR OTHERWISE DAMAGED OR BICYCLE UNSAFE FRAMES AND GRATES OR LIDS ON SEWER STRUCTURES SHALL BE REPLACED WITH NEW DEPARTMENT OF SEWERS STANDARD FRAMES AND GRATES OR LIDS. OLD FRAMES AND GRATES OR LIDS SHALL BE DELIVERED TO THE DEPARTMENT OF SEWERS AT 39TH STREET AND ASHLAND AVENUE.
- CITY OF CHICAGO WATER VALVE VAULTS AND SEWER STRUCTURES SHALL NOT BE CLOSED, COVERED OR OTHERWISE OBSTRUCTED DURING CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE CITY OF CHICAGO DEPARTMENT OF WATER AND/OR DEPARTMENT OF SEWERS.
- CURB AND GUTTER CONSTRUCTION SHALL PROVIDE A MINIMUM CURB HEIGHT OF 3 INCHES.
- PAVEMENT REPLACEMENT AROUND FRAMES AND GRATES OR LIDS WHERE DRAINAGE, WATER MAIN OR ELECTRIC STRUCTURES ARE ADJUSTED OR RECONSTRUCTED, SHALL BE WITH CLASS SI CONCRETE.

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES AND THE CITY OF LOCKPORT AT 815-838-0549 FOR FIELD LOCATIONS OF SANITARY SEWER AND WATER MAIN. (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- THE RESIDENT ENGINEER SHOULD CONTACT MS. PATRICE HARRIS, AREA TRAFFIC ENGINEER, AT 708-597-9800 PRIOR TO PLACING ANY PERMANENT PAVEMENT MARKINGS.
- FOR PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO DISTRICT ONE 'TYPICAL PAVEMENT MARKINGS' AND 'RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)' FOR DETAILS NOT SHOWN.
- MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE REESTABLISHED FOR STRIPING, EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINTS AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED IS 45 MPH OR LESS WITH WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H)

FILE NAME =	USER NAME = JUSERL	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - EF	REVISED -		INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES		3778	2011-022-T	COOK	34	2
		CHECKED - RS	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P21		
		DATE - 06-02-2011	REVISED -		ILLINOIS FED. AID PROJECT						

SUMMARY OF QUANTITIES

80% FED.
20% STATE
URBAN

PAY ITEM NUMBER	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0005	DRAINAGE 0040
20800150	TRENCH BACKFILL	CU YD	759		759
21101615	TOPSOIL, FURNISH AND PLACE, 4"	SQ YD	28	17	11
21301048	EXPLORATION TRENCH 48" DEPTH	FOOT	30		30
25200110	SODDING, SALT TOLERANT	SQ YD	28	17	11
28000510	INLET FILTERS	EACH	13		13
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	30	30	
40600300	AGGREGATE (PRIME COAT)	TON	152	152	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	6	6	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	177	177	
40600895	CONSTRUCTING TEST STRIP	EACH	2	2	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	94	94	
40601005	HOX-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	100	42	58
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	413	413	
42101300	PROTECTIVE COAT	SQ YD	64	28	36
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	6		6
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	75		75
42400800	DETECTABLE WARNINGS	SQ FT	8		8
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	3,371	3,371	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	6		6
44000600	SIDEWALK REMOVAL	SQ FT	75		75
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SQ FT	3,748	3,748	
44002210	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 2 1/2"	SQ YD	1,180	339	841
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	64	64	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	233	233	
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	801		801
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	3,059	3,059	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	34		34
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	18		18
550A0090	STORM SEWERS, CLASS A, TYPE 1 18"	FOOT	2		2
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	9		9
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	2		2
550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	4		4
550A0480	STORM SEWERS, CLASS A, TYPE 2 48"	FOOT	551		551
55100300	STORM SEWER REMOVAL 8"	FOOT	52		52
55100400	STORM SEWER REMOVAL 10"	FOOT	26		26
60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	4		4
60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	6		6
60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	2		2
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	1	1	
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	1	1	
60500050	REMOVING CATCH BASINS	EACH	5		5

SUMMARY OF QUANTITIES

80% FED.
20% STATE
URBAN

PAY ITEM NUMBER	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0005	DRAINAGE 0040
60500060	REMOVING INLETS	EACH	3		3
67000400	ENGINEERS FIELD OFFICE TYPE A	CAL MO	6	3	3
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	302		302
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	73		73
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3,267		3,267
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	320		320
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	15		15
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,795		1,795
70400100	TEMPORARY CONCRETE BARRIER	FOOT	813		813
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	175		175
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	109	73	36
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,800	2,556	2,244
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	468	260	208
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	293	57	236
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	94	33	61
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	35	35	
* 78100300	REPLACEMENT REFLECTOR	EACH	67		67
78300100	PAVEMENT MARKING REMOVAL	SQ FT	2,482	1,178	1,304
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	21	21	
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	172	172	
* 89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1
* 89502376	REBUILD EXISTING HANDHOLE	EACH	1	1	
Z0004562	COMBINATION CONCRETE CURB & GUTTER, REMOVAL & REPLACEMENT	FOOT	200	101	99
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1
Δ Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	12	6	6
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2		2
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2		2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103	51	52
X0517100	STORM SEWERS, DUCTILE IRON PIPE 8"	FOOT	21		21
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	7		7
Δ X5537700	STORM SEWERS TO BE CLEANED 10"	FOOT	58	55	3
Δ X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	315	130	185
Δ X5537900	STORM SEWERS TO BE CLEANED 15"	FOOT	311		311
X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	4	4	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.5	0.5
X7030025	WET REFLECTIVE TEMPORARY TAPE, TYPE III - LETTERS AND SYMBOLS	SQ FT	73		73
X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	5,152		5,152
X7030040	WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	198		198
X6022550	CATCH BASINS, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		1

* DENOTES SPECIALTY ITEM

Δ FEDERAL NON-PARTICIPATING (100% STATE)

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#FILE#	PLOT SCALE = 50.0000' / IN.	DRAWN - EF	REVISED -			3778	2011-022-T	COOK	34	3	
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -			CONTRACT NO. 60P21					
		DATE - 06-02-2011	REVISED			ILLINOIS FED. AID PROJECT					
					SCALE: NTS	SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.		

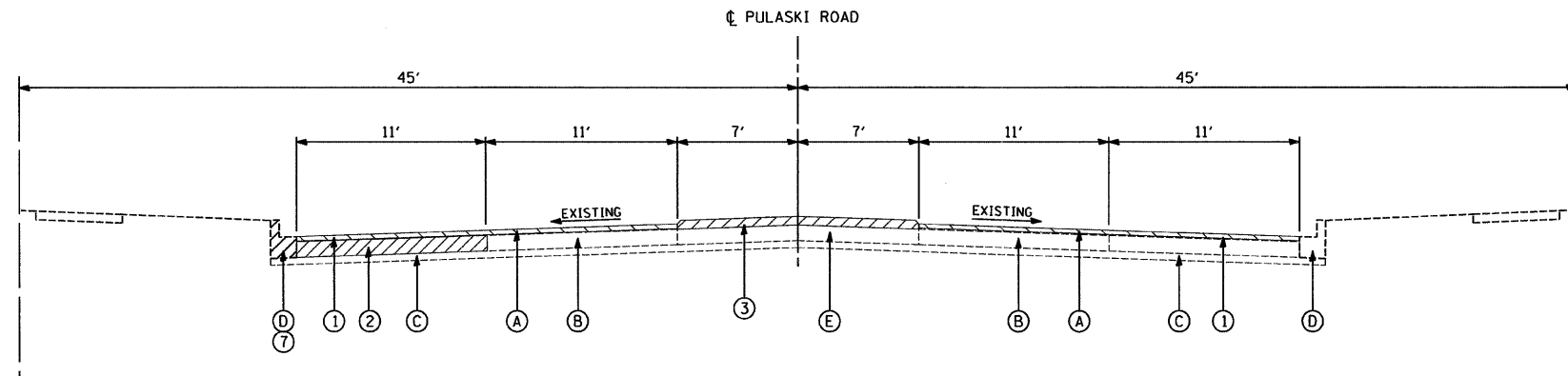
SUMMARY OF QUANTITIES

PAY ITEM NUMBER	DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0005	DRAINAGE 0040
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1		1
* 89502200	MODIFY EXISTING CONTROLLER	EACH	1		1
* Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1
* Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1		1
* X0327318	VIDEO DETECTION SYSTEM, PARTIAL	EACH	1		1
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	1000		1000
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1		1
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	4		4

* Specialty Items

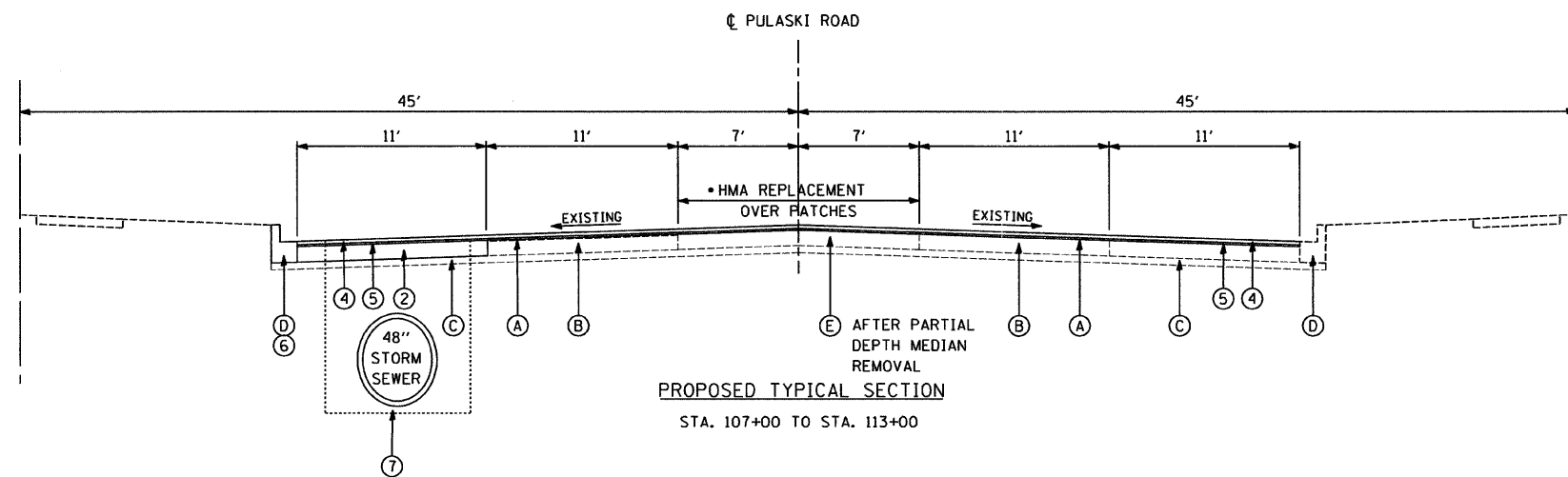
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	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -			CONTRACT NO. 60P21					
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					SCALE: NTS	SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.		



EXISTING TYPICAL SECTION

STA. 107+00 TO STA. 113+00



PROPOSED TYPICAL SECTION

STA. 107+00 TO STA. 113+00

• THE PAY ITEM HMA REPLACEMENT OVER PATCHES WILL BE USED FOR INTERIM RESURFACING OF THE MEDIAN FOLLOWING PARTIAL DEPTH REMOVAL

EXISTING CONDITIONS:

- (A) HOT-MIX ASPHALT SURFACE COURSE, 3"
- (B) PCC PAVEMENT, 9"
- (C) STABILIZED SUB-BASE, 4"
- (D) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 OR B-6.18
- (E) C-4 CONCRETE MEDIAN
- (Hatched) ITEMS TO BE REMOVED

PROPOSED IMPROVEMENTS:

- (1) HMA SURFACE REMOVAL 2 1/2"
- (2) CLASS D PATCHES, 10"
- (3) MEDIAN REMOVAL PARTIAL DEPTH
- (4) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- (5) LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- (6) COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT AS DIRECTED BY THE ENGINEER
- (7) PROPOSED STORM SEWER AND TRENCH BACKFILL FOR SEWER TRENCH

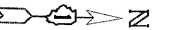
THE CONTRACTOR SHALL PATCH BEFORE MILLING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS
RESURFACING	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" (9.5mm)	4% @ 90 GYR
LEVELING BINDER (MACHINE METHOD), N70, 3/4" INCH (9.5mm)	4% @ 70 GYR
PAVEMENT PATCHING	
HMA REPLACEMENT OVER PATCHES (HMA BINDER 19.0mm), 2 1/2"	4% @ 70 GYR
CLASS D PATCHES TYPE IV, 10", HMA BINDER (IL 19.0mm) (IN THREE LIFTS)	4% @ 70 GYR

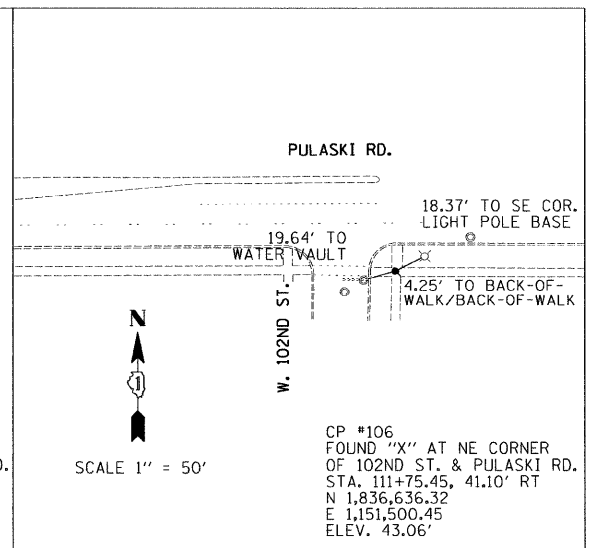
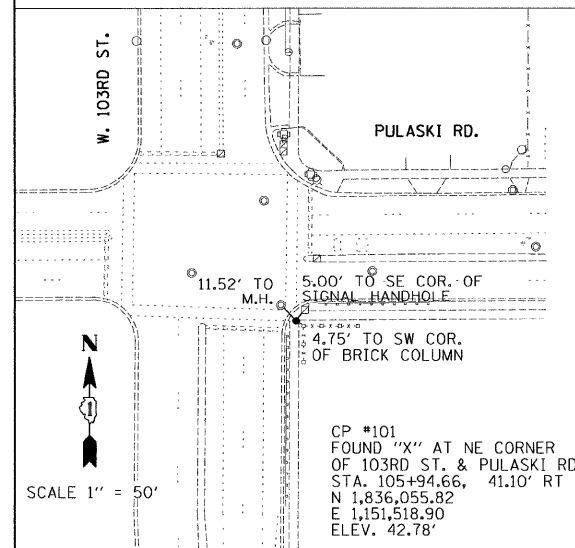
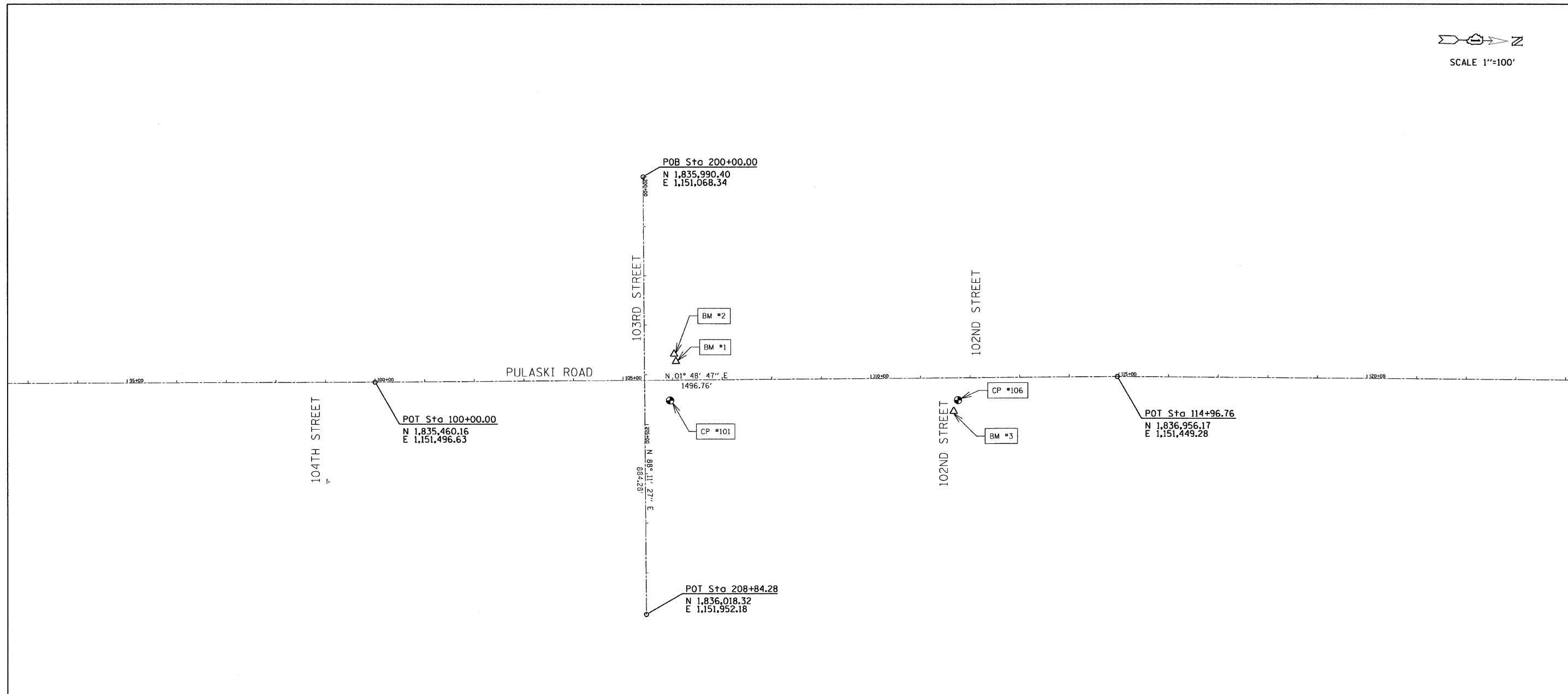
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE A IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS



SCALE 1"=100'



ALIGNMENT COORDINATES - PULASKI ROAD			
PULASKI	STATION	N	E
POB	100+00.00	1,835,460.16	1,151,496.63
POT	114+96.76	1,836,956.17	1,151,449.28

ALIGNMENT COORDINATES - 103RD STREET			
103RD	STATION	N	E
POB	200+00.00	1,835,990.40	1,151,068.34
POT	208+84.28	1,836,018.32	1,151,952.18

SCALE 1" = 50'

SCALE 1" = 50'

BENCHMARK #1
ELEV. 44.08'
NW FLANGE BOLT ON
HYDRANT AT NW CORNER
OF 103RD ST. & PULASKI RD.
STA. 106+07.02, 38.57' LT.

BENCHMARK #2
ELEV. 45.16'
NE BOLT ON STEEL BASE FOR
MOBIL SIGN AT THE NW
CORNER OF 103RD ST. & PULASKI RD.
STA. 106+03.29, 50.95' LT.

BENCHMARK #3
ELEV. 44.17'
WESTERN-MOST NW FLANGE
BOLT ON HYDRANT AT THE NE
CORNER OF 103RD ST. & PULASKI RD.
STA. 112+73.89, 63.27' RT.

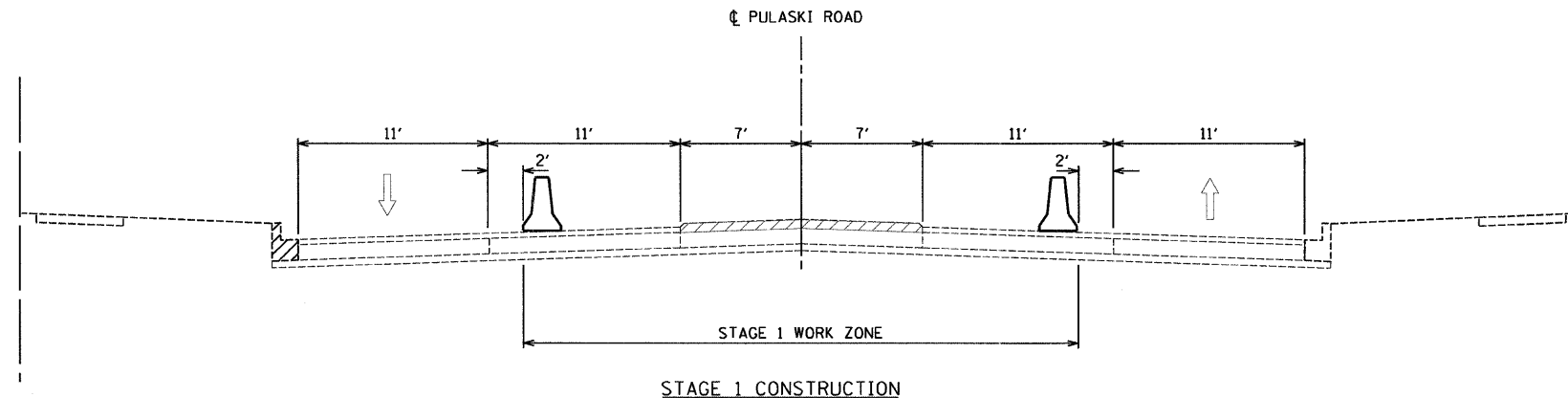
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	PLOT DATE = 6/2/2011	DATE - 06-02-2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PULASKI ROAD AT 103rd STREET
ALIGNMENT, TIES AND BENCHMARKS**

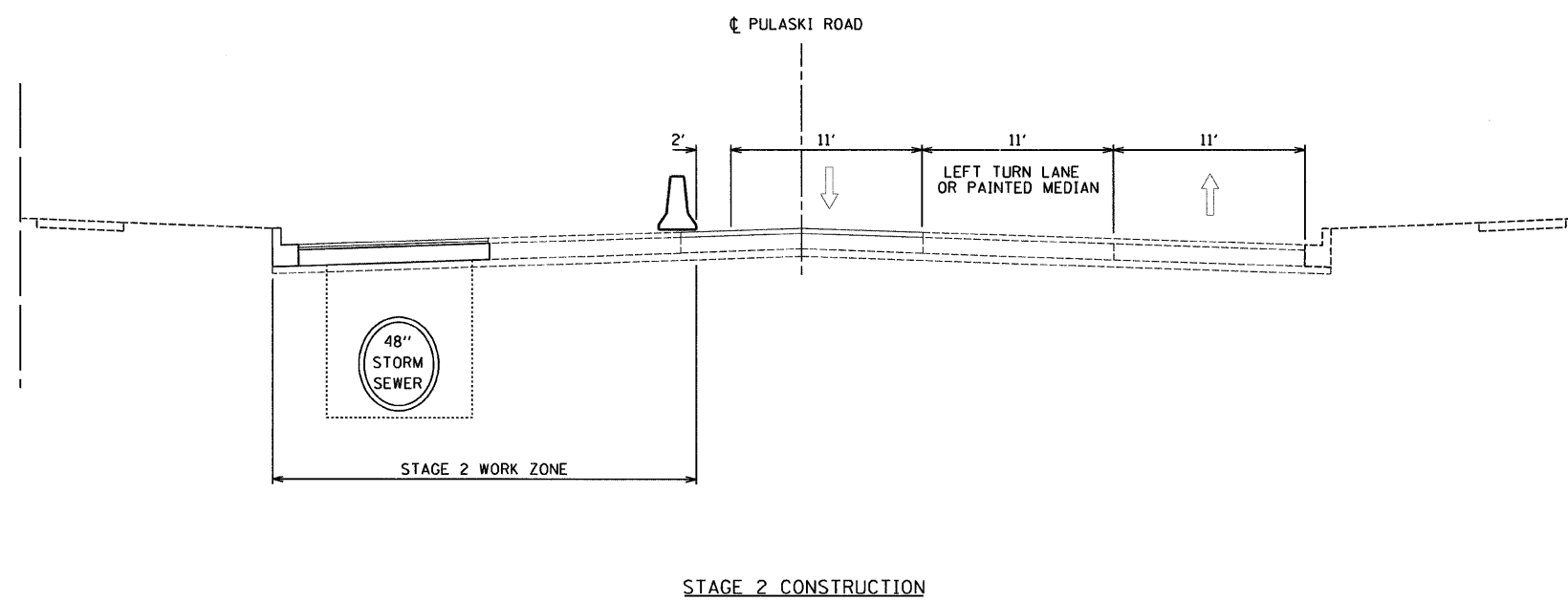
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34	5
CONTRACT NO. 60P21				
ILLINOIS FED. AID PROJECT				



STAGE 1 SUGGESTED CONSTRUCTION STAGING
 TRAFFIC SHIFTED TO OUTSIDE LANES IN EACH DIRECTION.
 LEFT TURN LANES PROVIDED TO MATCH EXISTING

STAGE 1 CONSTRUCTION
 CONNECT PROPOSED 8" STORM SEWER TO EXISTING 66" SEWER, EXTEND 8" STORM SEWER INTO INSIDE SOUTHBOUND LANE. PATCH PAVEMENT.
 PARTIAL DEPTH MEDIAN REMOVAL TO MATCH DEPTH OF HMA SURFACE REMOVAL.
 REBUILD HANDHOLE AT 103RD STREET
 PATCH INSIDE NORTHBOUND LANE
 RESURFACE MEDIAN AREA AND PATCHES WITH HMA REPLACEMENT OVER PATCHES
 INSTALL TEMPORARY TRAFFIC SIGNALS



STAGE 2 SUGGESTED CONSTRUCTION STAGING
 SOUTH 102ND STREET CLOSED FROM PULASKI ROAD TO ALLEY.
 TRAFFIC SHIFTED TO TWO NORTHBOUND LANES AND MEDIAN.
 LEFT TURN LANES PROVIDED TO MATCH EXISTING.

TO PROVIDE ACCESS TO ADJACENT PROPERTIES, ONLY ONE OF TWO DRIVEWAYS TO EACH RESIDENCE CAN BE CLOSED AT ANY TIME.





STAGE 2 CONSTRUCTION
 REMOVE EXISTING PAVEMENT, CURB & GUTTER, DRIVEWAYS AND SIDEWALKS SHOWN ON PLANS.
 PROVIDE ACCESS TO ABUTTING PROPERTY USING AGGREGATE SURFACE COURSE, TYPE B.
 EXTEND 8" STORM SEWER TO PROPOSED MANHOLE AND CONSTRUCT STORM SEWER SYSTEM.
 REPLACE CURB & GUTTER, DRIVEWAYS AND SIDEWALK.
 LANDSCAPE DISTURBED AREAS BEHIND CURB & GUTTER OR SIDEWALK.
 PATCH STORM SEWER TRENCH TO LEVEL OF PROPOSED HMA SURFACE REMOVAL.
 PATCH INSIDE SOUTHBOUND LANE
 MILL INSIDE SOUTHBOUND LANE.
 PLACE LEVELING BINDER ON SOUTHBOUND LANES.
 REPLACE ADVANCE DETECTOR LOOPS IN SOUTHBOUND LANES.
 PLACE HMA SURFACE COURSE ON SOUTHBOUND LANES.
 REMOVE TEMPORARY TRAFFIC SIGNALS

STAGE 3 SUGGESTED CONSTRUCTION STAGING
 THE REMAINING PORTIONS OF PULASKI ROAD WILL BE CONSTRUCTED USING HWY STD 701602.

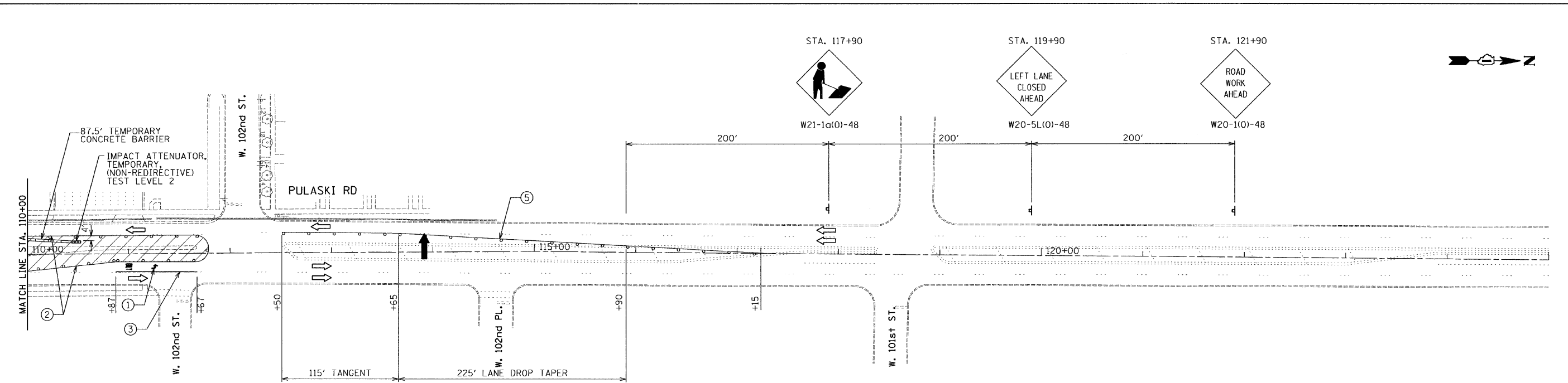
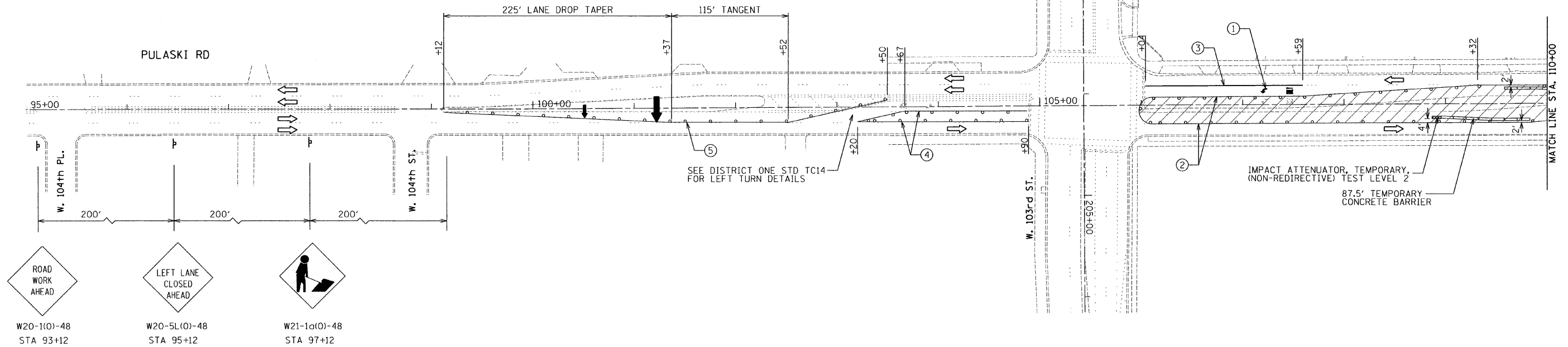
STAGE 3 CONSTRUCTION
 PATCH OUTSIDE NORTHBOUND LANS
 MILL AND OVERLAY NORTHBOUND LANES AND MEDIAN.
 REPLACE DETECTOR LOOPS IN SOUTHBOUND LEFT TURN LANE AT 103RD STREET.
 RESTORE/PLACE PERMANENT PAVEMENT MARKINGS.

FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET SUGGESTED CONSTRUCTION STAGING TYPICAL SECTIONS				F.A.J. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 6
FILEL	PLOT SCALE = 50.0000' / IN.	DRAWN - EF	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P21				
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE - 06-02-2011	REVISED -										

LEGEND:

-  - FLASHING ARROW BOARD
-  - WORK ZONE
-  - DIRECTION OF TRAFFIC
-  - TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL FLASHING LIGHT AT 50' CENTERS

- ① - TEMPORARY PAVEMENT MARKING - LETTERS & SYMBOLS
- ② - TEMPORARY PAVEMENT MARKING - 4" YELLOW SOLID
- ③ - TEMPORARY PAVEMENT MARKING - 6" WHITE SOLID
- ④ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 4" WHITE SOLID
- ⑤ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 4" YELLOW SOLID



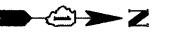
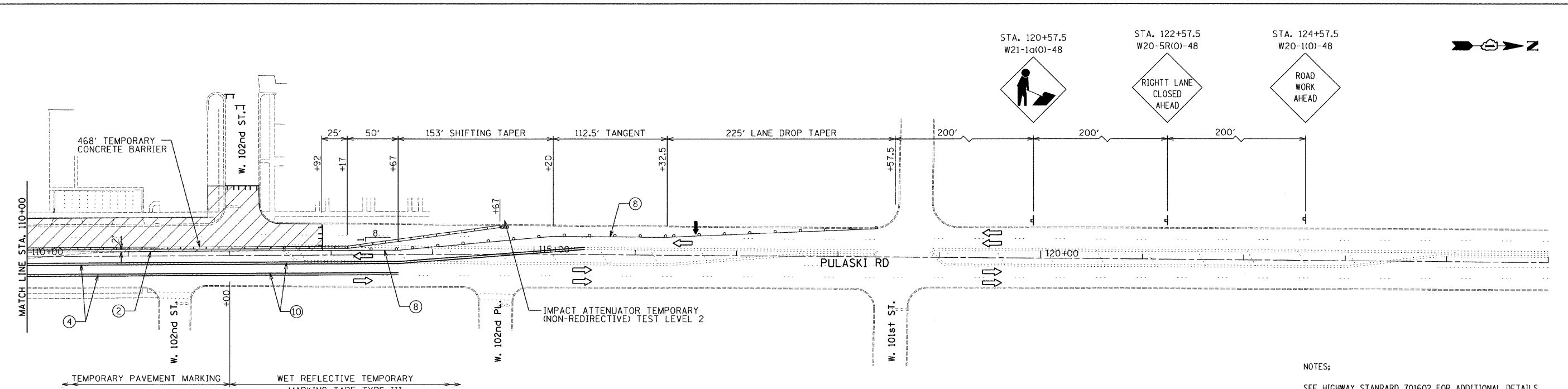
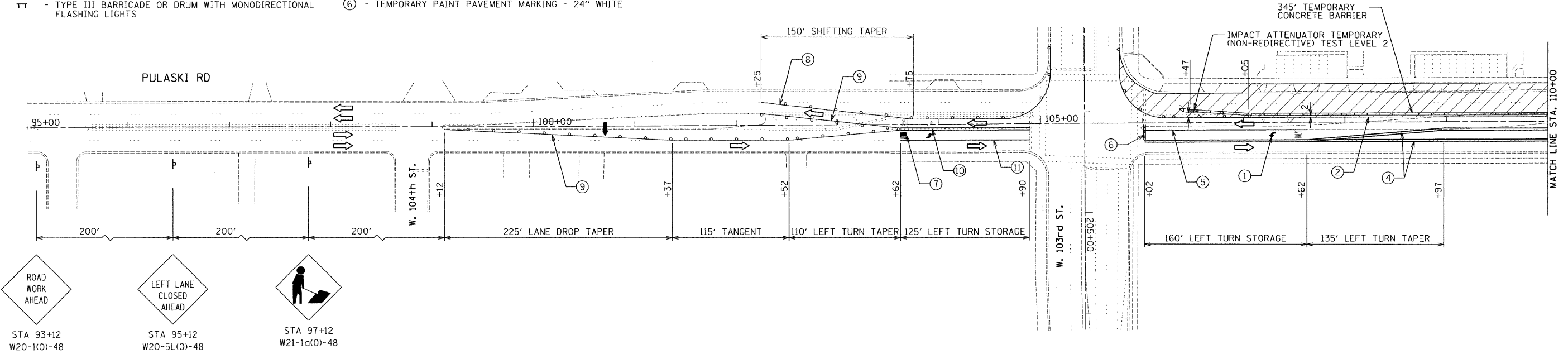
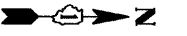
FILE NAME =	USER NAME = USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET SUGGESTED CONSTRUCTION STAGING - STAGE 1			F.A.U. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 7
#FILE#	PLOT SCALE = 50.0000' / IN.	DRAWN - EF	REVISED -		SCALE: 50	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	CONTRACT NO. 60P21				
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - 06-02-2011	REVISED -									

LEGEND:

- FLASHING ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL FLASHING LIGHT AT 50' CENTERS
- TYPE III BARRICADE OR DRUM WITH MONODIRECTIONAL FLASHING LIGHTS

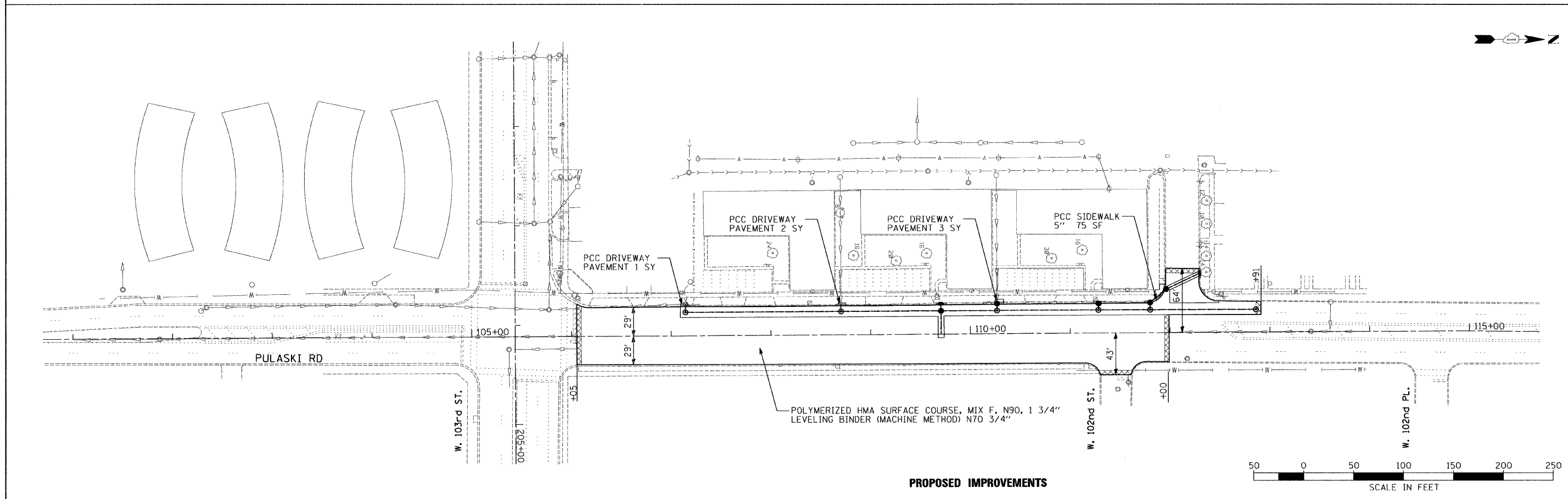
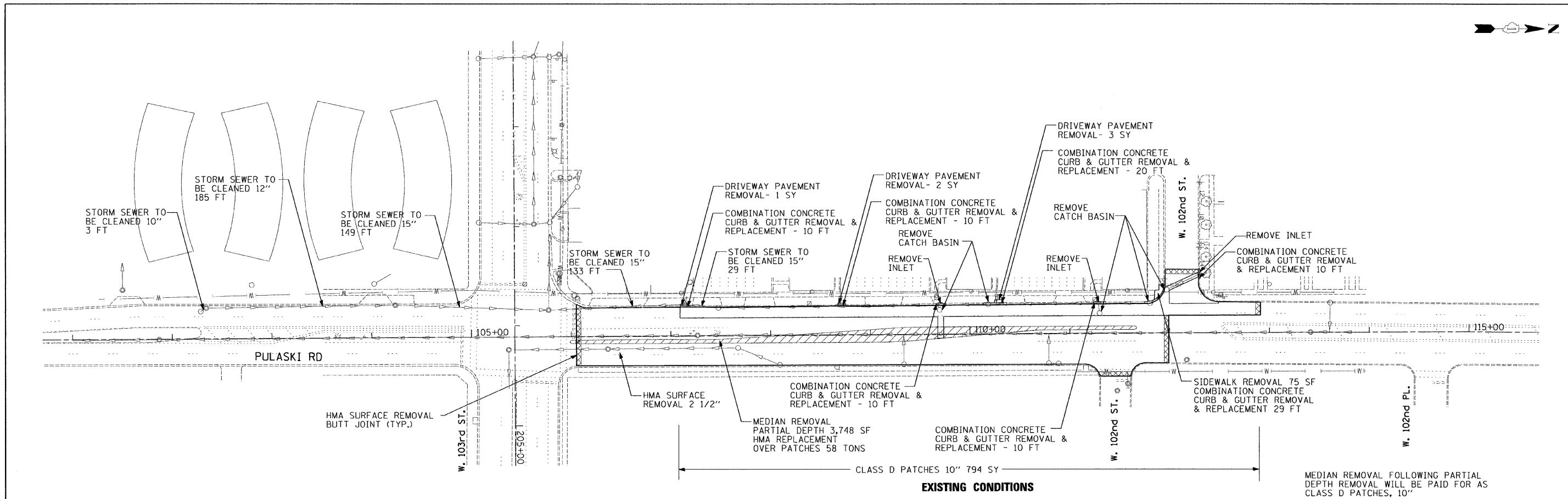
- ① - TEMPORARY PAINT PAVEMENT MARKING - SYMBOLS
- ② - TEMPORARY PAINT PAVEMENT MARKING - 4" WHITE SOLID
- ③ - TEMPORARY PAINT PAVEMENT MARKING - 4" YELLOW SOLID
- ④ - TEMPORARY PAINT PAVEMENT MARKING - 4" DOUBLE YELLOW SOLID
- ⑤ - TEMPORARY PAINT PAVEMENT MARKING - 6" WHITE SOLID
- ⑥ - TEMPORARY PAINT PAVEMENT MARKING - 24" WHITE

- ⑦ - WET REFLECTIVE TEMPORARY TAPE, TYPE III - LETTERS AND SYMBOLS
- ⑧ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 4" WHITE SOLID
- ⑨ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 4" YELLOW SOLID
- ⑩ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 4" DOUBLE YELLOW SOLID
- ⑪ - WET REFLECTIVE TEMPORARY TAPE TYPE III - 6" WHITE SOLID



NOTES:
 SEE HIGHWAY STANDARD 701602 FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.
 MAINTAINING ACCESS TO ADJACENT PROPERTIES WILL BE PAID FOR AS TEMPORARY ACCESS (COMMERCIAL ENTRANCE)

FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET SUGGESTED CONSTRUCTION STAGING - STAGE 2		F.A.U. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 8	
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		DATE - 06-02-2011	REVISED -									

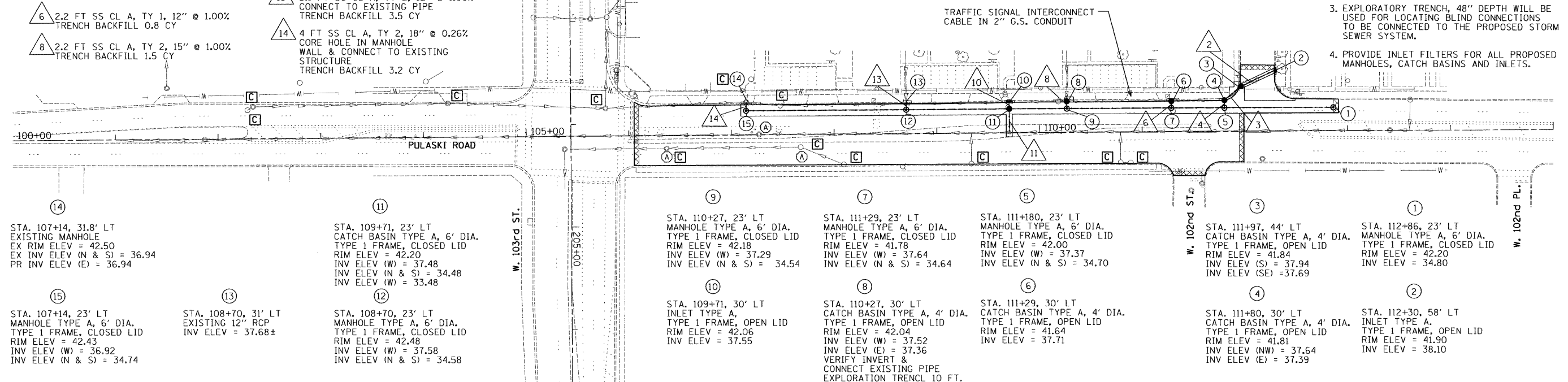
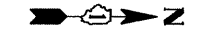


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	PLOT SCALE = 50,0000' / IN.	DRAWN - EF	REVISED -		SCALE: 50	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P21				
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -		DATE - 06-02-2011	ILLINOIS FED. AID PROJECT							
	DATE - 06-02-2011	REVISED -	REVISED -		REVISED -								

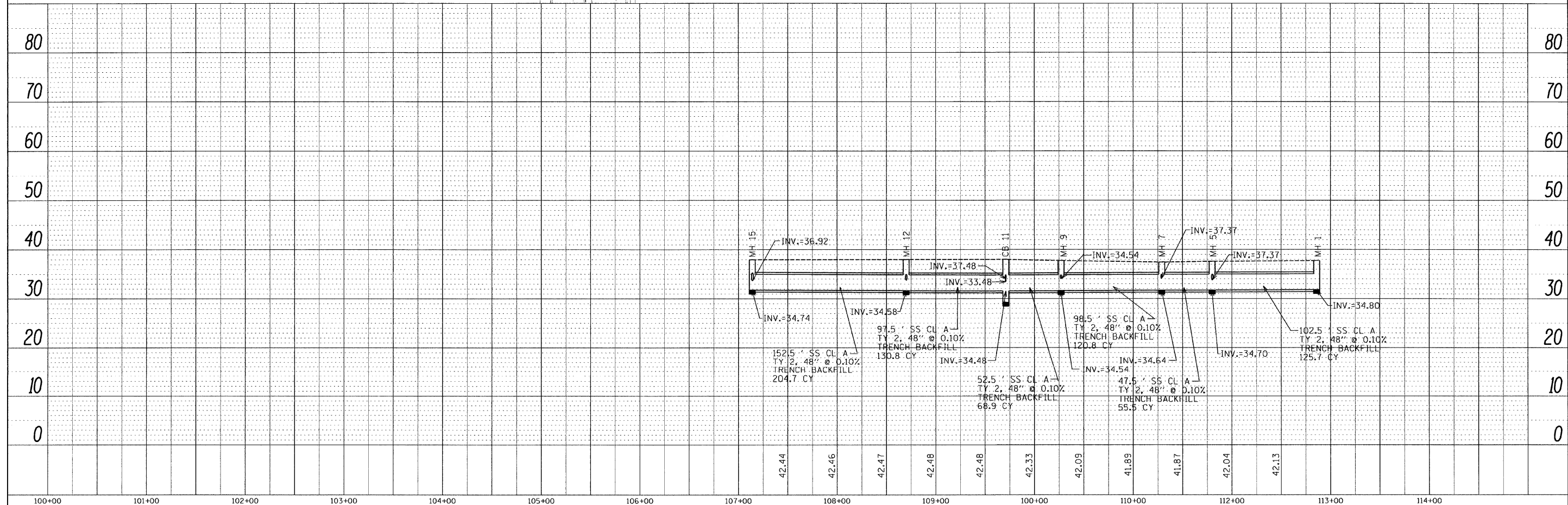
- 2 32 FT SS CL A, TY 1, 12" @ 0.44%
TRENCH BACKFILL 10.6 CY
- 3 18.4 FT SS CL A, TY 1, 15" @ 0.32%
TRENCH BACKFILL 10.6 CY
- 4 2.4 FT SS CL A, TY 1, 18" @ 0.26%
TRENCH BACKFILL 1.6 CY
- 6 2.2 FT SS CL A, TY 1, 12" @ 1.00%
TRENCH BACKFILL 0.8 CY
- 8 2.2 FT SS CL A, TY 2, 15" @ 1.00%
TRENCH BACKFILL 1.5 CY
- 10 3.4 FT SS CL A, TY 2, 12" @ 1.00%
TRENCH BACKFILL 2.1 CY
- 11 18 FT SS DIP, 8", CORE PIPE & CONNECT
TO EXISTING 66" STORM SEWER PIPE.
TRENCH BACKFILL 19.4 CY
- 13 5.1 FT SS CL A, TY 2, 12" @ 1.00%
CONNECT TO EXISTING PIPE
TRENCH BACKFILL 3.5 CY
- 14 4 FT SS CL A, TY 2, 18" @ 0.26%
CORE HOLE IN MANHOLE
WALL & CONNECT TO EXISTING
STRUCTURE
TRENCH BACKFILL 3.2 CY

- (A) FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)
- (C) DRAINAGE STRUCTURE TO BE CLEANED

- DRAINAGE NOTES
- CONNECTING EXISTING STORM SEWER PIPES TO PROPOSED STORM SEWER PIPES OR STRUCTURES WILL NOT BE PAID FOR BUT INCLUDED IN THE COST OF THE VARIOUS DRAINAGE PAY ITEMS.
 - CONNECTING PROPOSED STORM SEWER PIPES TO EXISTING DRAINAGE STRUCTURES WILL NOT BE PAID FOR BUT INCLUDED IN THE COST OF THE VARIOUS DRAINAGE PAY ITEMS.
 - EXPLORATORY TRENCH, 48" DEPTH WILL BE USED FOR LOCATING BLIND CONNECTIONS TO BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM.
 - PROVIDE INLET FILTERS FOR ALL PROPOSED MANHOLES, CATCH BASINS AND INLETS.



14	11	9	7	5	3	1
STA. 107+14, 31.8' LT EXISTING MANHOLE EX RIM ELEV = 42.50 EX INV ELEV (N & S) = 36.94 PR INV ELEV (E) = 36.94	STA. 109+71, 23' LT CATCH BASIN TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 42.20 INV ELEV (W) = 37.48 INV ELEV (N & S) = 34.48 INV ELEV (W) = 33.48	STA. 110+27, 23' LT MANHOLE TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 42.18 INV ELEV (W) = 37.29 INV ELEV (N & S) = 34.54	STA. 111+29, 23' LT MANHOLE TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 41.78 INV ELEV (W) = 37.64 INV ELEV (N & S) = 34.64	STA. 111+180, 23' LT MANHOLE TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 42.00 INV ELEV (W) = 37.37 INV ELEV (N & S) = 34.70	STA. 111+97, 44' LT CATCH BASIN TYPE A, 4' DIA. TYPE 1 FRAME, OPEN LID RIM ELEV = 41.84 INV ELEV (S) = 37.94 INV ELEV (SE) = 37.69	STA. 112+86, 23' LT MANHOLE TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 42.20 INV ELEV = 34.80
15	13	10	8	6	4	2
STA. 107+14, 23' LT MANHOLE TYPE A, 6' DIA. TYPE 1 FRAME, CLOSED LID RIM ELEV = 42.43 INV ELEV (W) = 36.92 INV ELEV (N & S) = 34.74	STA. 108+70, 31' LT EXISTING 12" RCP INV ELEV = 37.68±	STA. 109+71, 30' LT INLET TYPE A, TYPE 1 FRAME, OPEN LID RIM ELEV = 42.06 INV ELEV = 37.55	STA. 110+27, 30' LT CATCH BASIN TYPE A, 4' DIA. TYPE 1 FRAME, OPEN LID RIM ELEV = 42.04 INV ELEV (W) = 37.52 INV ELEV (E) = 37.36 VERIFY INVERT & CONNECT EXISTING PIPE EXPLORATION TRENCH 10 FT.	STA. 111+29, 30' LT CATCH BASIN TYPE A, 4' DIA. TYPE 1 FRAME, OPEN LID RIM ELEV = 41.64 INV ELEV = 37.71	STA. 111+80, 30' LT CATCH BASIN TYPE A, 4' DIA. TYPE 1 FRAME, OPEN LID RIM ELEV = 41.81 INV ELEV (NW) = 37.64 INV ELEV (E) = 37.39	STA. 112+30, 58' LT INLET TYPE A, TYPE 1 FRAME, OPEN LID RIM ELEV = 41.90 INV ELEV = 38.10



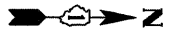
FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET DRAINAGE PLAN AND PROFILE			F.A. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 11
#FILEL*	PLOT SCALE = 50.0000' / IN.	DRAWN - EF	REVISED -		SCALE: 20	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60P21		
	PLOT DATE = 6/18/2011	CHECKED - RS	REVISED -							ILLINOIS FED. AID PROJECT		
		DATE - 05-02-2011	REVISED -									

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	PAID FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	STRUCTURE NOTATIONS CHRD	

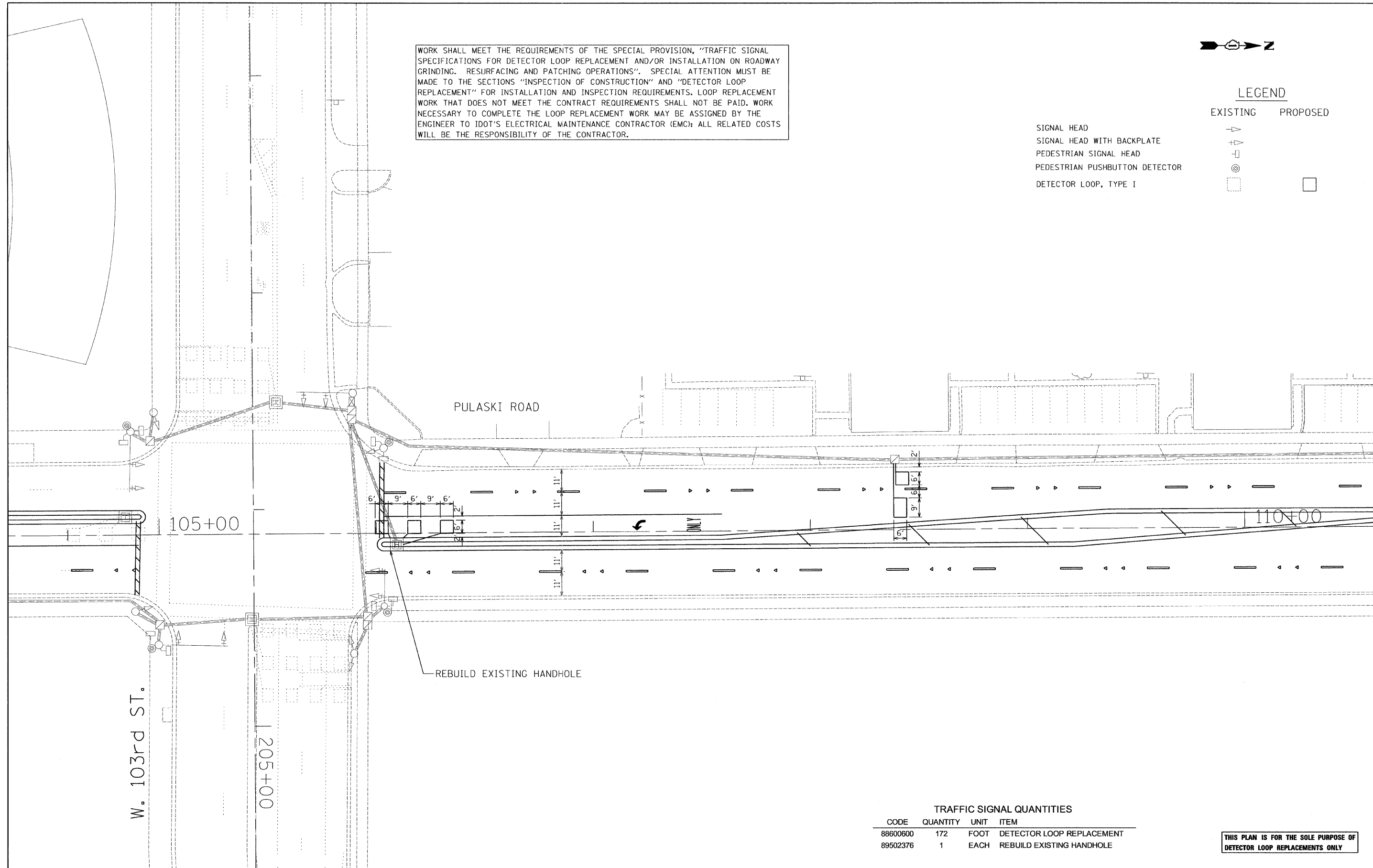
6-13-2011

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



LEGEND

	EXISTING	PROPOSED
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		

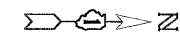


TRAFFIC SIGNAL QUANTITIES

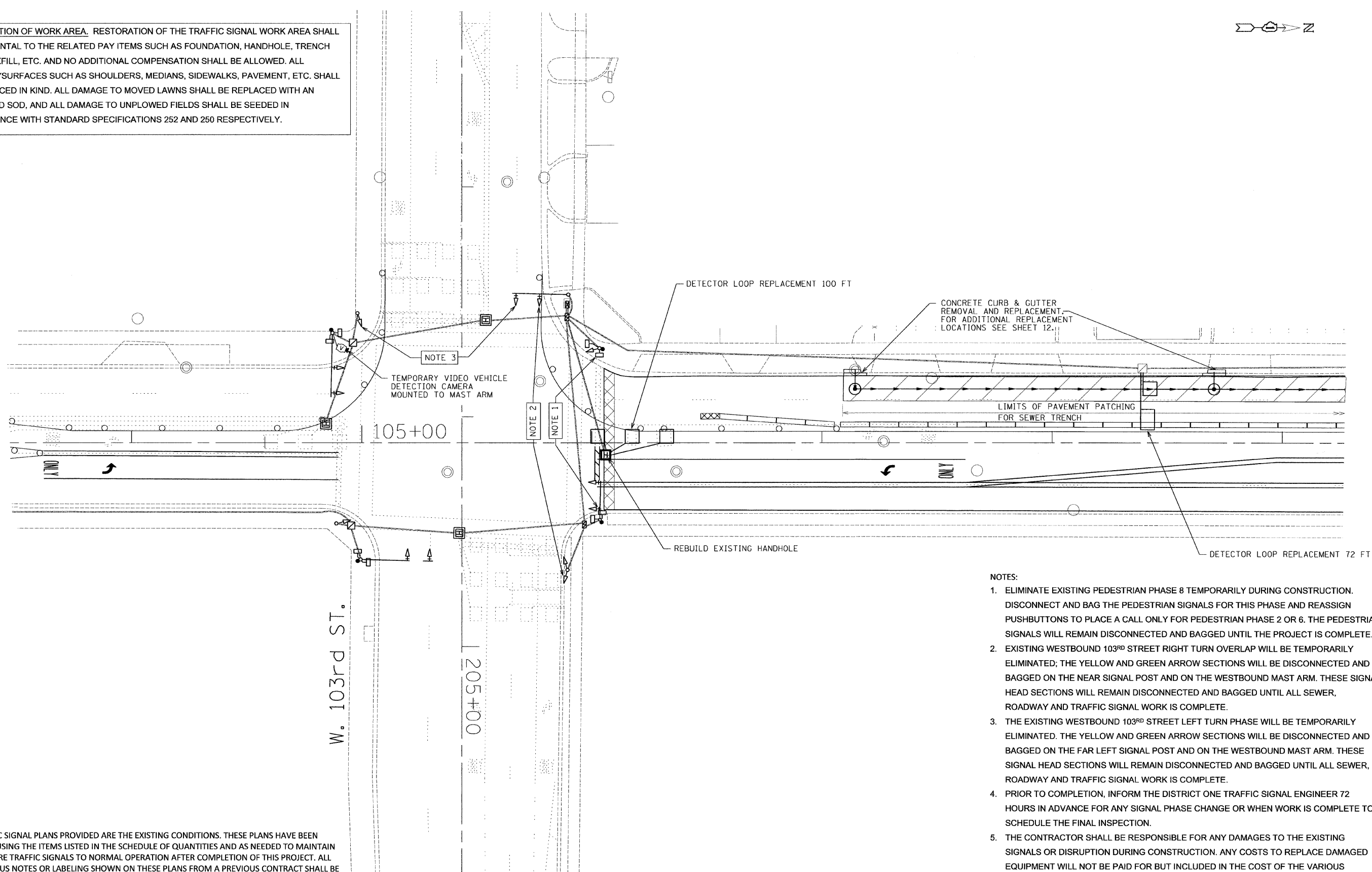
CODE	QUANTITY	UNIT	ITEM
88600600	172	FOOT	DETECTOR LOOP REPLACEMENT
89502376	1	EACH	REBUILD EXISTING HANDHOLE

**THIS PLAN IS FOR THE SOLE PURPOSE OF
DETECTOR LOOP REPLACEMENTS ONLY**

FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET DETECTOR LOOP REPLACEMENT PLANS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILEL#	PLOT SCALE = 20,000' / IN.	DRAWN - EF	REVISED -		3778	2011-022-T	COOK	34	12				
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -		SCALE: NTS			SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		CONTRACT NO. 60P21	
		DATE - 06-02-2011	REVISED -		ILLINOIS FED. AID PROJECT								



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS SUCH AS FOUNDATION, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. ALL ROADWAYSURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOVED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNPLOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



- NOTES:**
1. ELIMINATE EXISTING PEDESTRIAN PHASE 8 TEMPORARILY DURING CONSTRUCTION. DISCONNECT AND BAG THE PEDESTRIAN SIGNALS FOR THIS PHASE AND REASSIGN PUSHBUTTONS TO PLACE A CALL ONLY FOR PEDESTRIAN PHASE 2 OR 6. THE PEDESTRIAN SIGNALS WILL REMAIN DISCONNECTED AND BAGGED UNTIL THE PROJECT IS COMPLETE.
 2. EXISTING WESTBOUND 103RD STREET RIGHT TURN OVERLAP WILL BE TEMPORARILY ELIMINATED; THE YELLOW AND GREEN ARROW SECTIONS WILL BE DISCONNECTED AND BAGGED ON THE NEAR SIGNAL POST AND ON THE WESTBOUND MAST ARM. THESE SIGNAL HEAD SECTIONS WILL REMAIN DISCONNECTED AND BAGGED UNTIL ALL SEWER, ROADWAY AND TRAFFIC SIGNAL WORK IS COMPLETE.
 3. THE EXISTING WESTBOUND 103RD STREET LEFT TURN PHASE WILL BE TEMPORARILY ELIMINATED. THE YELLOW AND GREEN ARROW SECTIONS WILL BE DISCONNECTED AND BAGGED ON THE FAR LEFT SIGNAL POST AND ON THE WESTBOUND MAST ARM. THESE SIGNAL HEAD SECTIONS WILL REMAIN DISCONNECTED AND BAGGED UNTIL ALL SEWER, ROADWAY AND TRAFFIC SIGNAL WORK IS COMPLETE.
 4. PRIOR TO COMPLETION, INFORM THE DISTRICT ONE TRAFFIC SIGNAL ENGINEER 72 HOURS IN ADVANCE FOR ANY SIGNAL PHASE CHANGE OR WHEN WORK IS COMPLETE TO SCHEDULE THE FINAL INSPECTION.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THE EXISTING SIGNALS OR DISRUPTION DURING CONSTRUCTION. ANY COSTS TO REPLACE DAMAGED EQUIPMENT WILL NOT BE PAID FOR BUT INCLUDED IN THE COST OF THE VARIOUS TRAFFIC SIGNAL PAY ITEMS.
 6. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR TEMPORARY TRAFFIC SIGNALS.

NOTE;
THE TRAFFIC SIGNAL PLANS PROVIDED ARE THE EXISTING CONDITIONS. THESE PLANS HAVE BEEN MODIFIED USING THE ITEMS LISTED IN THE SCHEDULE OF QUANTITIES AND AS NEEDED TO MAINTAIN AND RESTORE TRAFFIC SIGNALS TO NORMAL OPERATION AFTER COMPLETION OF THIS PROJECT. ALL THE PREVIOUS NOTES OR LABELING SHOWN ON THESE PLANS FROM A PREVIOUS CONTRACT SHALL BE DISREGARDED.

STAGE 2 MAINTENANCE OF TRAFFIC AND CONSTRUCTION SHOWN

FILE NAME =	USER NAME = .USER_	DESIGNED - EF	REVISED -
#FILE#		DRAWN - EF	REVISED -
	PLOT SCALE = 20,0000' / IN.	CHECKED - RS	REVISED -
	PLOT DATE = 6/10/2011	DATE - 06-02-2011	REVISED -

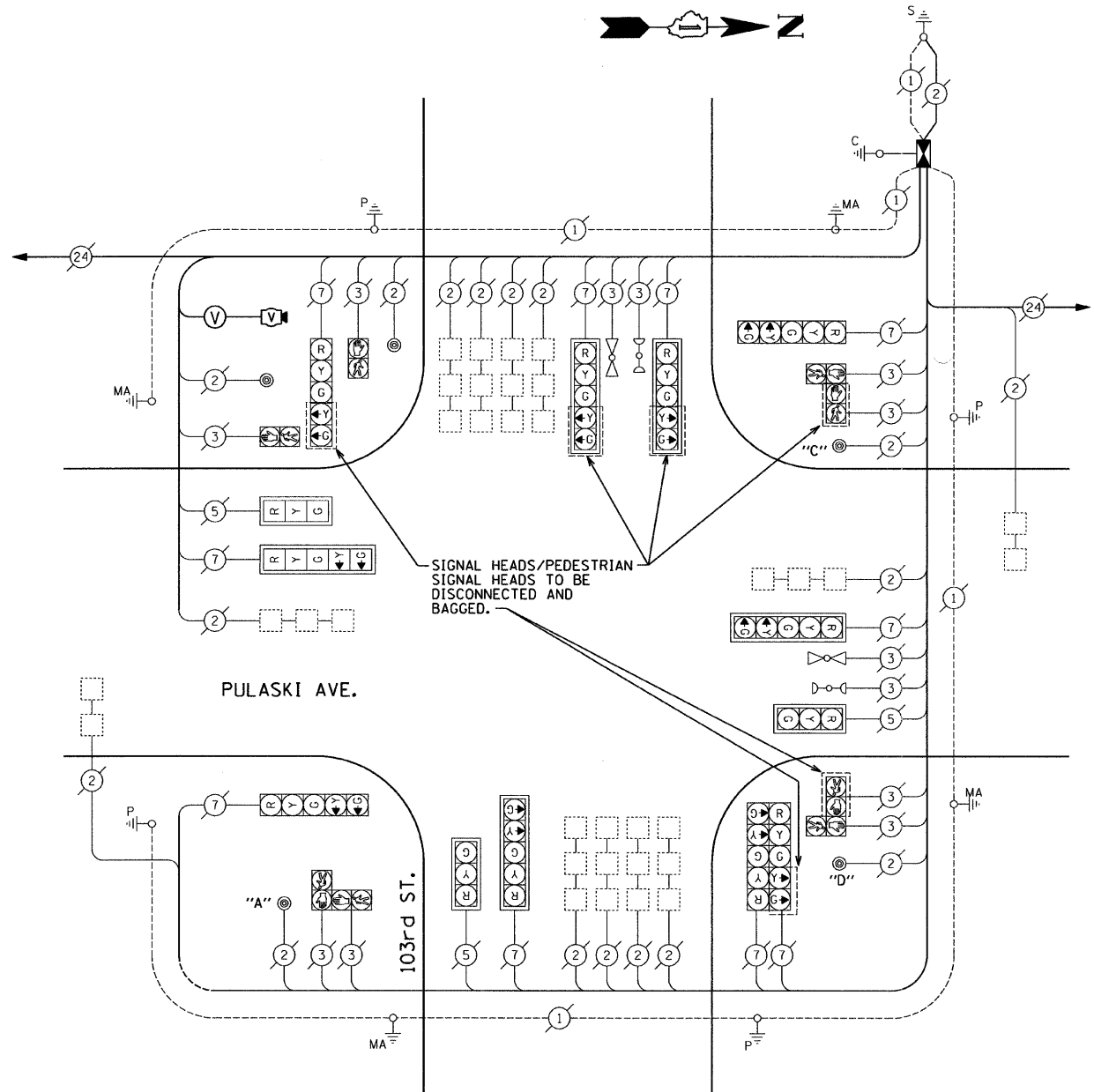
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PULASKI ROAD AT 103RD STREET
INSTALLATION PLAN TEMPORARY & PERMANENT TRAFFIC SIGNALS**

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

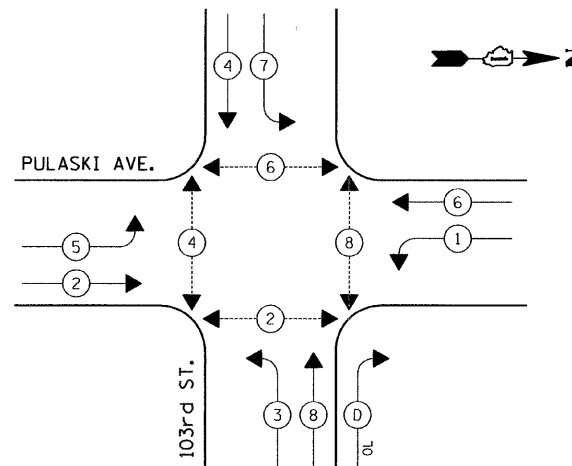
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34	13
CONTRACT NO. 60P21				
ILLINOIS FED. AID PROJECT				

6-13-2011



CABLE DIAGRAM
NOT TO SCALE

EXISTING AND POST CONSTRUCTION CONTROLLER SEQUENCE



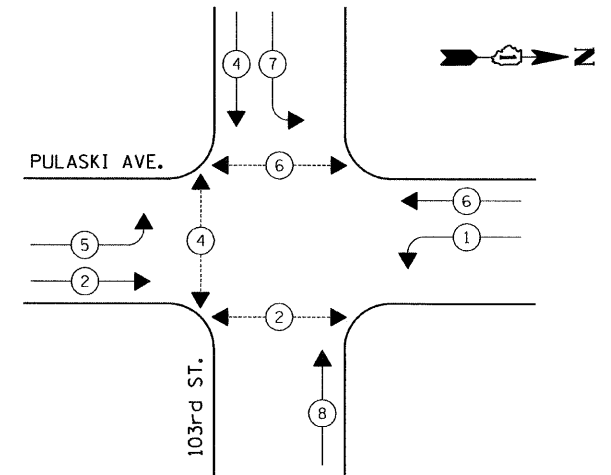
EXISTING/POST CONSTRUCTION PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

PUSHBUTTON "A" SHALL PLACE CALLS IN PHASES 2 AND 4
 PUSHBUTTON "C" SHALL PLACE CALLS IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE CALLS IN PHASES 2 AND 8

TEMPORARY (CONSTRUCTION) CONTROLLER SEQUENCE



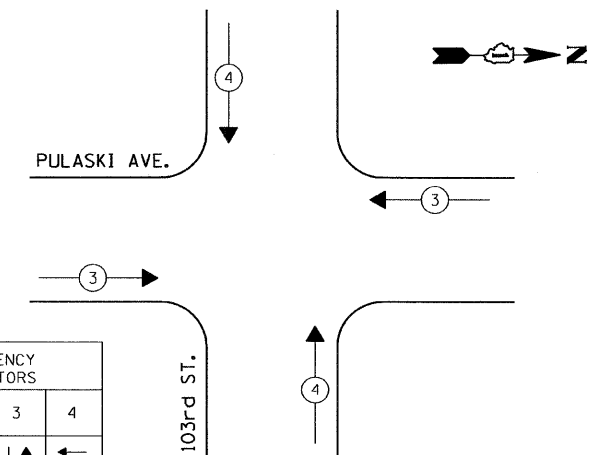
TEMPORARY (CONSTRUCTION) PHASE DESIGNATION DIAGRAM

PUSHBUTTON "A" SHALL PLACE CALLS IN PHASES 2 AND 4
 PUSHBUTTON "C" SHALL PLACE CALLS IN PHASE 6
 PUSHBUTTON "D" SHALL PLACE CALLS IN PHASE 2

LEGEND

- ← * → DUAL ENTRY PHASE
- ← * → PEDESTRIAN PHASE
- ← * OL → OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
DETECTOR LOOP REPLACEMENT	FOOT	172
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1
VIDEO DETECTION SYSTEM, PARTIAL	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13	17	0.50		110.50
(YELLOW)	13	25	0.25		81.25
(GREEN)	13	15	0.25		48.75
ARROW	20	12	0.10		24.00
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
FLASHER				0.50	
ENERGY COST TO:					TOTAL = 564.50

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: _____
 PHONE: _____
 COMPANY: _____

FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -
#FILE#		DRAWN - EF	REVISED -
	PLOT SCALE = 20,000' / IN.	CHECKED - RS	REVISED -
	PLOT DATE = 6/10/2011	DATE - 06-02-2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

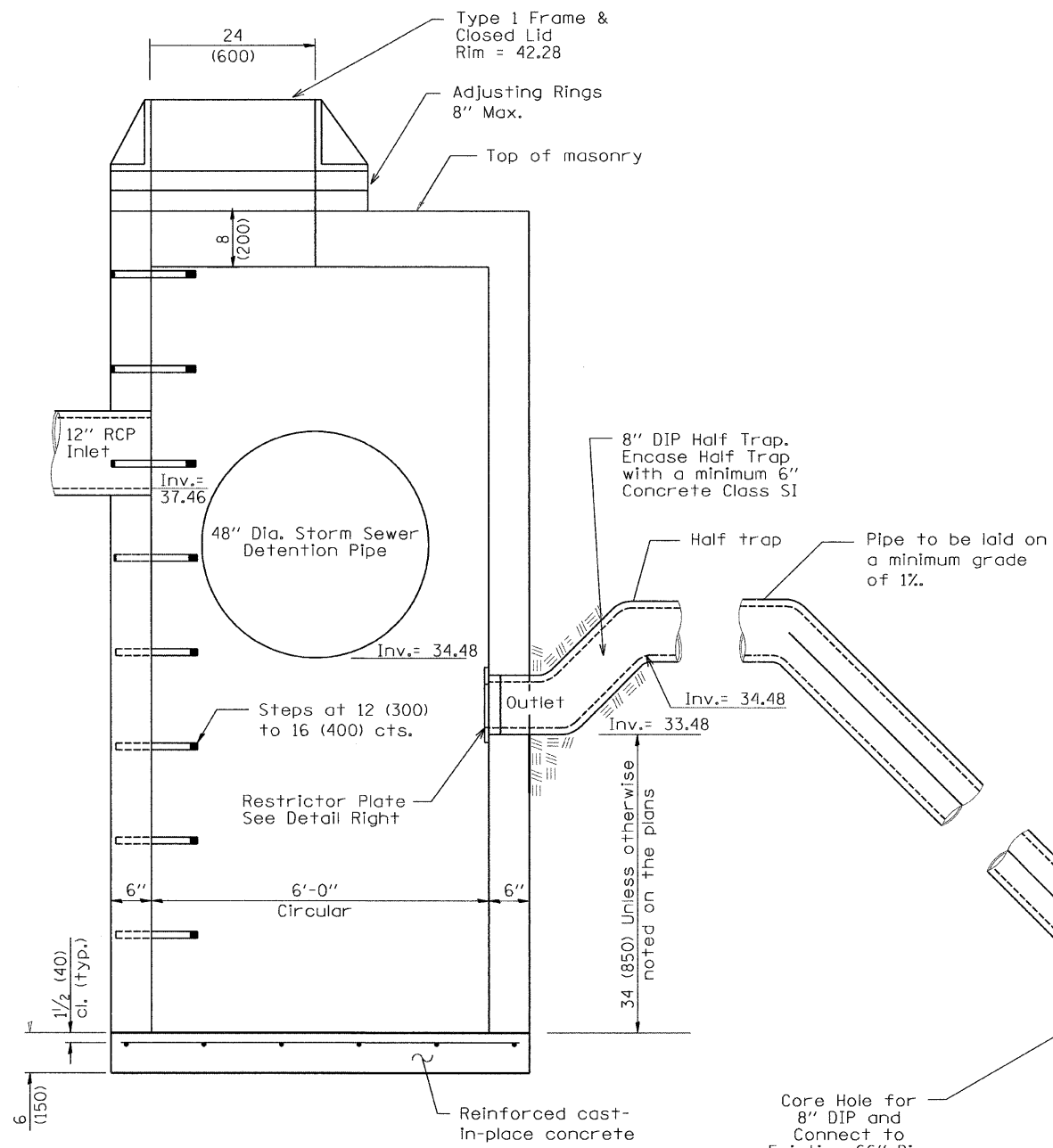
PULASKI ROAD AT 103rd STREET
CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND SCHEDULE OF QUANTITIES

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

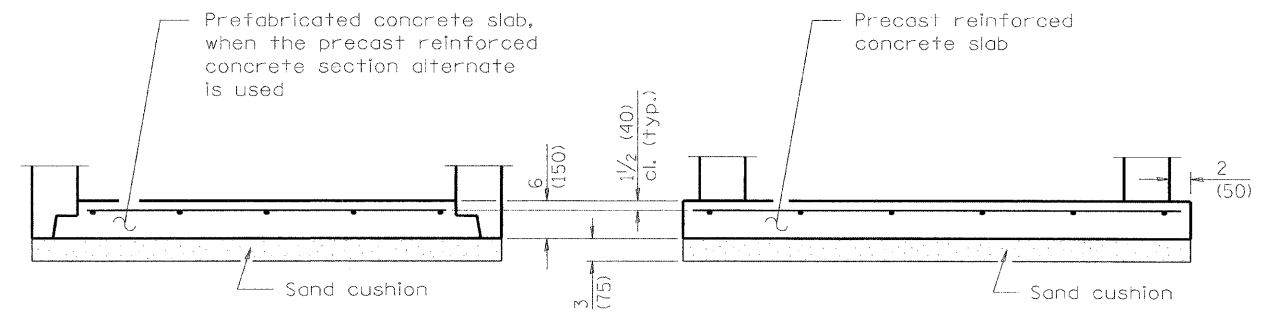
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34	14

CONTRACT NO. 60P21
ILLINOIS FED. AID PROJECT

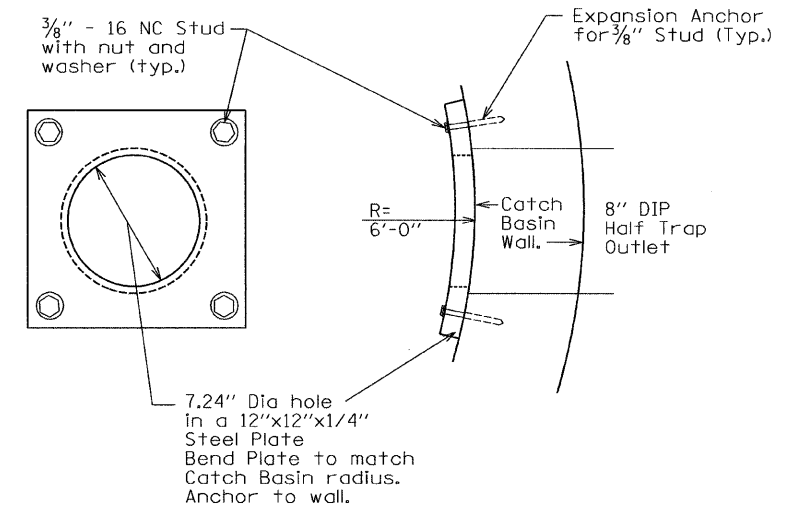
6-13-2011



ELEVATION
(Not to Scale)



ALTERNATE BOTTOM SLAB



RESTRICTOR PLATE DETAIL

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.20 sq. in./ft (420 sq. mm/m) in both directions with a maximum spacing of 12 (300).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602406 for additional details

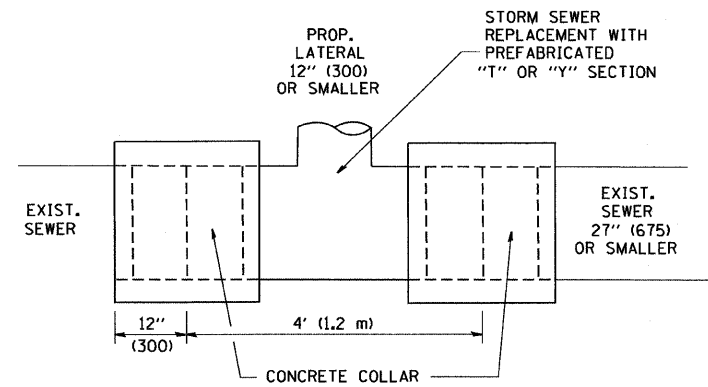
See Standard 602601 for details of Precast Reinforced Concrete Flat Top Slab.

See Standard 602701 for details of steps.

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

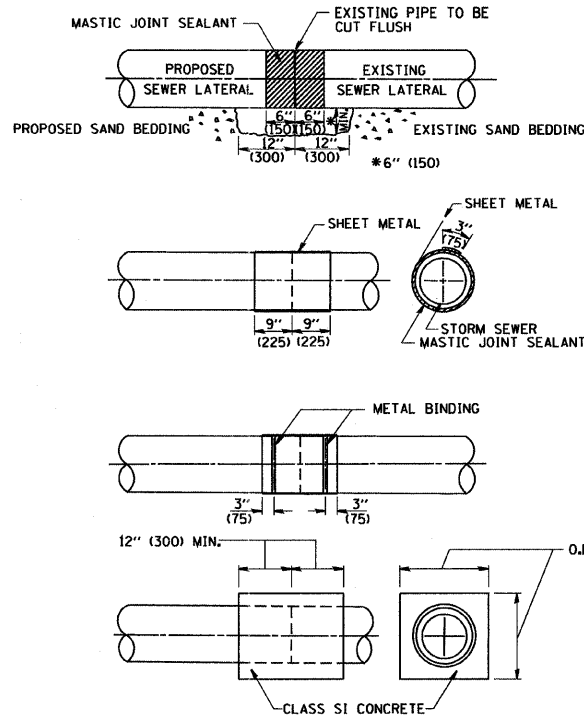
Basis of Payment: CATCH BASINS, TYPE A, 6' DIAMETER, TYPE 1 FRAME, CLOSED LID.

FILE NAME =	USER NAME = .USER.	DESIGNED - EF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PULASKI ROAD AT 103rd STREET OUTLET CONTROL STRUCTURE AND RESTRICTOR DETAIL			F.A.U. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 15
#FILEL#	PLOT SCALE = 50:1 (0.0000) 1" / IN.	DRAWN - EF	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	CONTRACT NO. 60P21				
	PLOT DATE = 6/2/2011	CHECKED - RS	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - 06-02-2011	REVISED -									



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

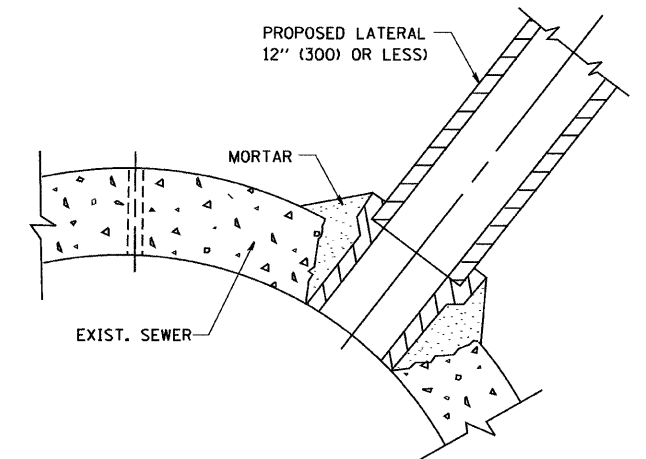


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
- WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

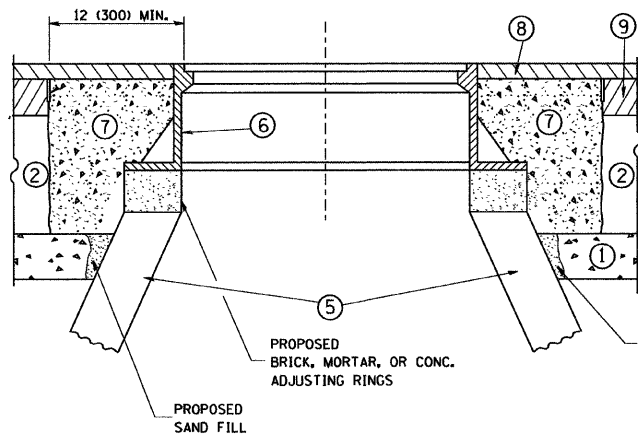
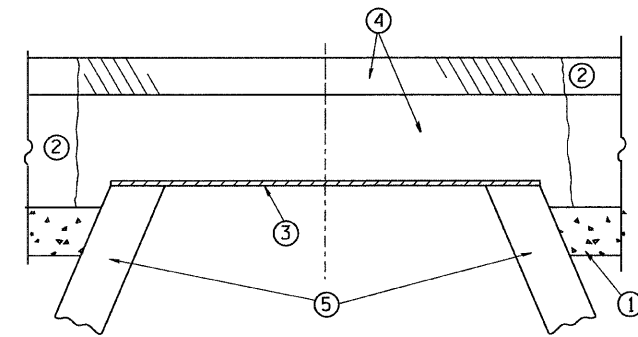
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = M:\diststd\22x34\bd07.dgn	USER NAME = gagliano	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. SHAH 09-09-94		3778	2011-022-T	COOK	34	16			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - R. SHAH 10-25-94		BD500-01 (BD-7)			CONTRACT NO. 60P21				
		DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

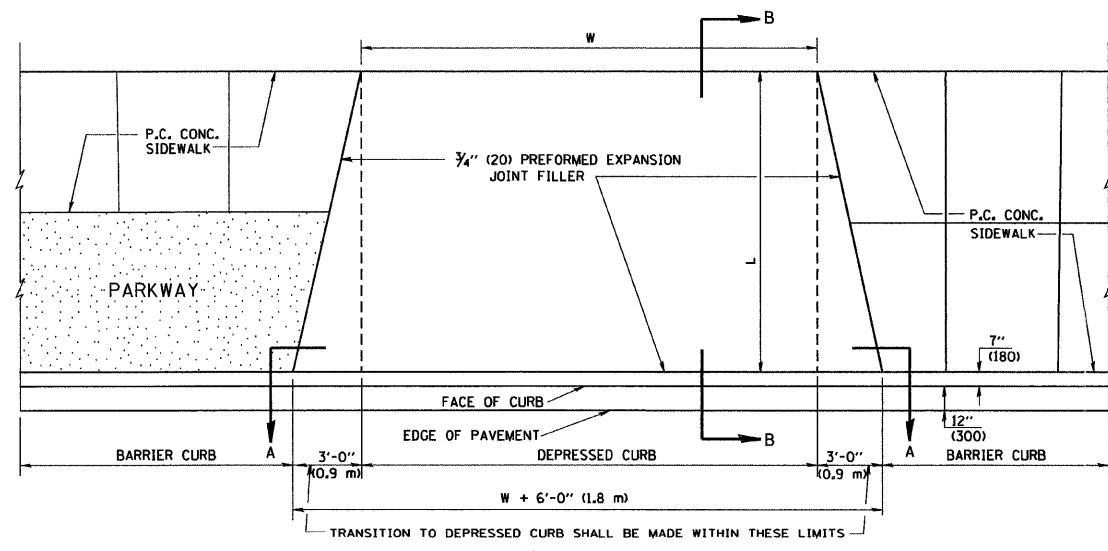
THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

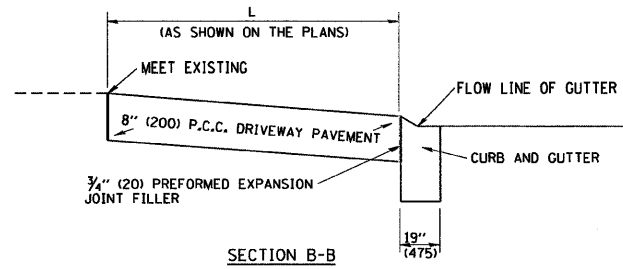
FILE NAME = M:\dststd\22x34\bd88.dgn	USER NAME = gaglionabt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	3778	2011-022-T	COOK	34	17
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - R. WIEDEMAN 05-14-04					BD600-03 (BD-8)		CONTRACT NO. 60P21		
		DATE - 10-25-94	REVISED - R. BORO 01-01-07					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



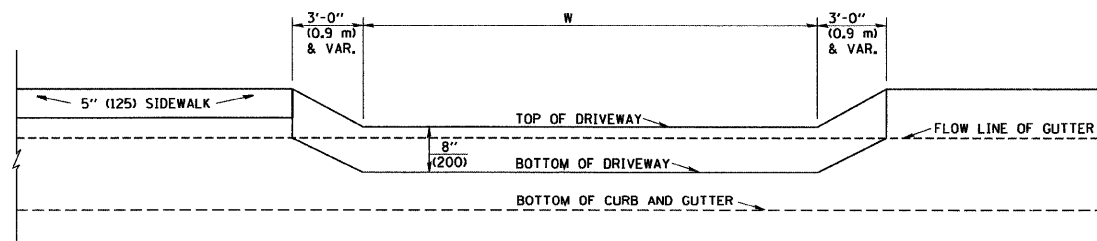
PLAN VIEW

NOTES:

1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR FEET (1.2 METERS).
3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. 3/4" (20) PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 8" (200).
5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.

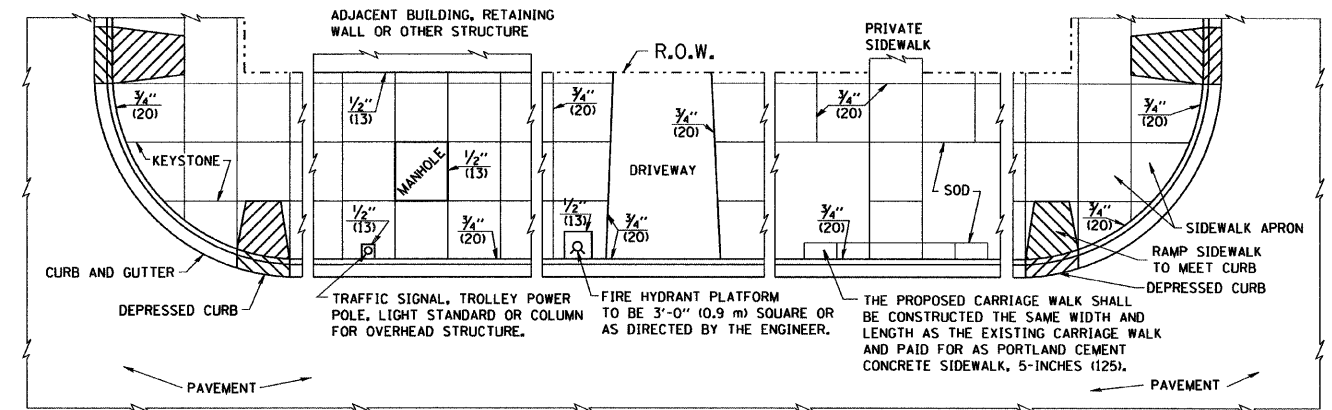


SECTION B-B



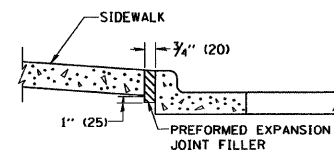
SECTION A-A

P.C.C. DRIVEWAY PAVEMENT DETAIL



NOTES:

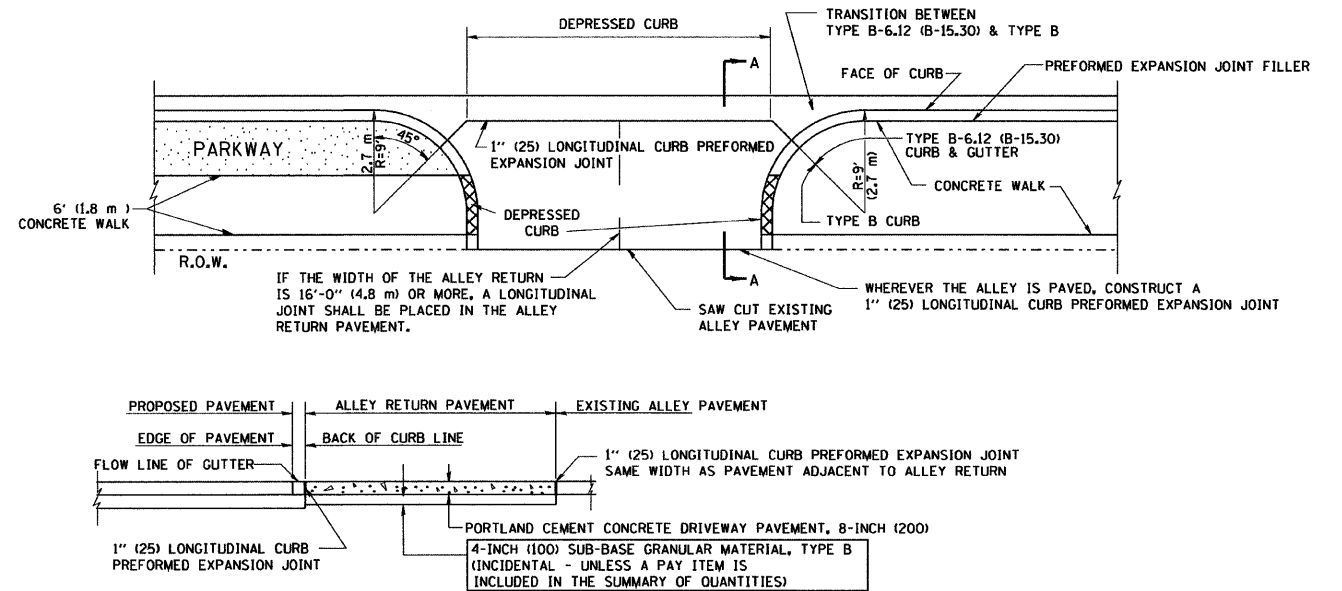
1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. 3/4" (20) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET (30 METERS) IN THE SIDEWALK. WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.



SLOPE FOR SIDEWALK
1" (25) IN 3'-0" (0.9 m) IN CHICAGO

PORTLAND CEMENT CONCRETE SIDEWALK DETAILS

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE



SECTION A-A

ALLEY RETURN DETAIL

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

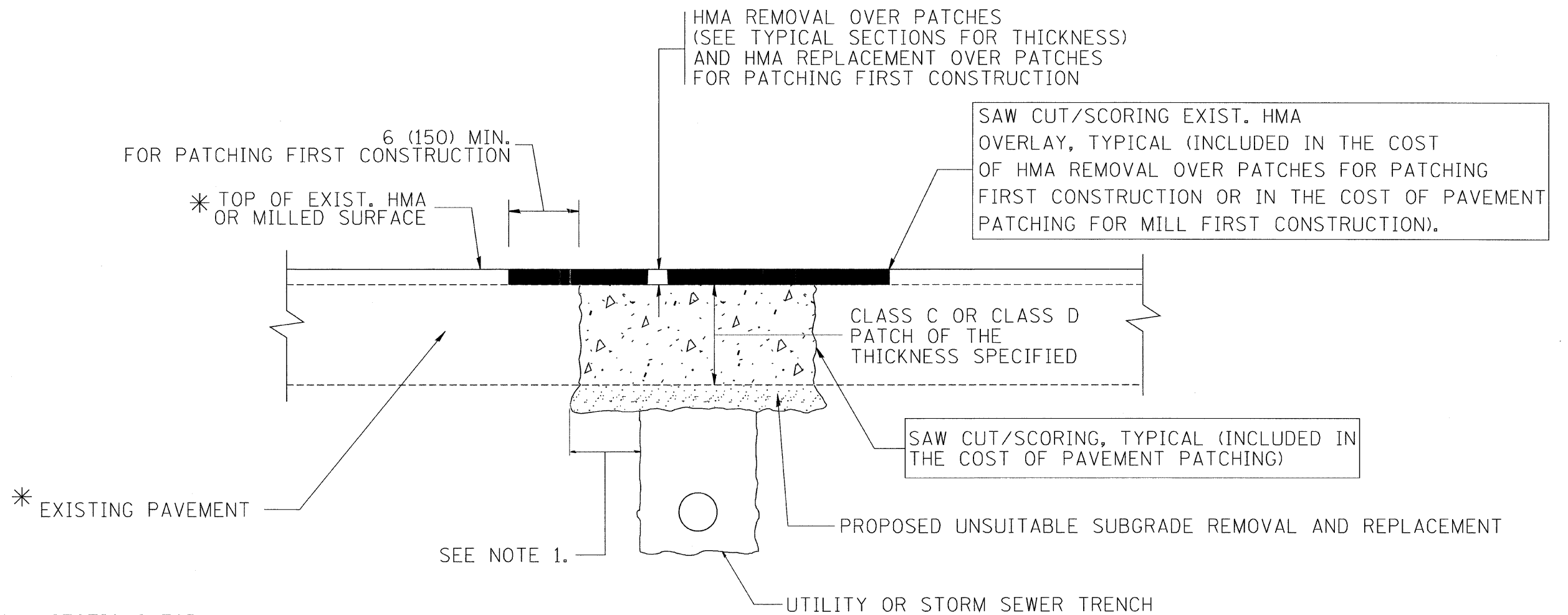
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		DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK

F.A.L. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 18
BD400-03		BD-17	CONTRACT NO. 60P21	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

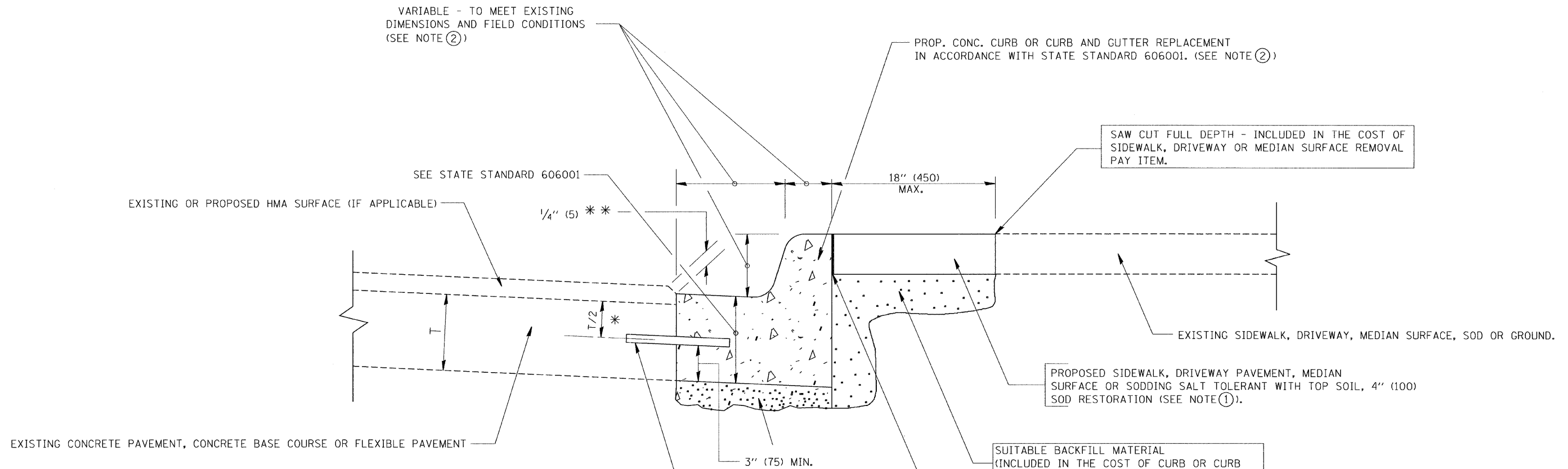
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.L.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.000 ' / IN.	DRAWN -	REVISED - R. BORO 01-01-07		3778	2011-022-T	COOK	34	19			
	PLOT DATE = 10/27/2008	CHECKED -	REVISED - R. BORO 09-04-07		BD400-04 (BD-22)			CONTRACT NO. 60P21				
		DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
 - * * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

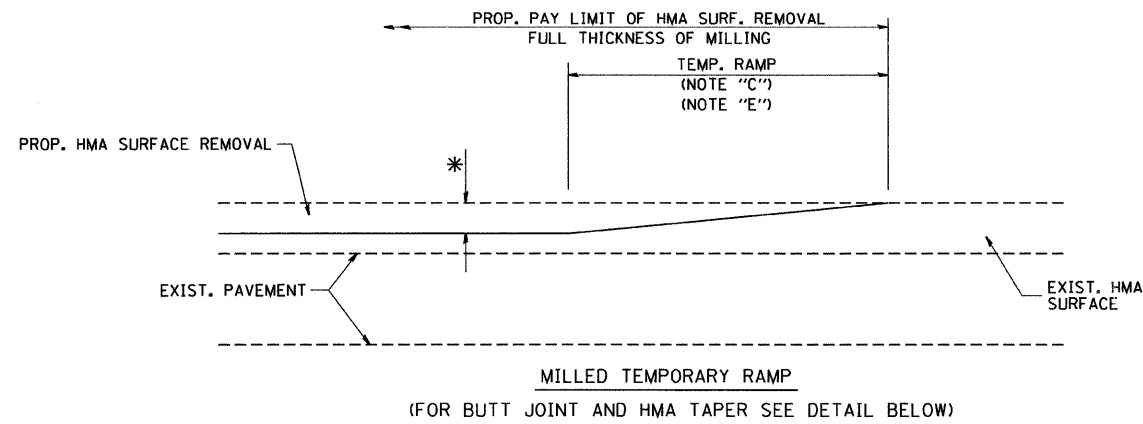
- SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)
- PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)
- UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.
- REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
- PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

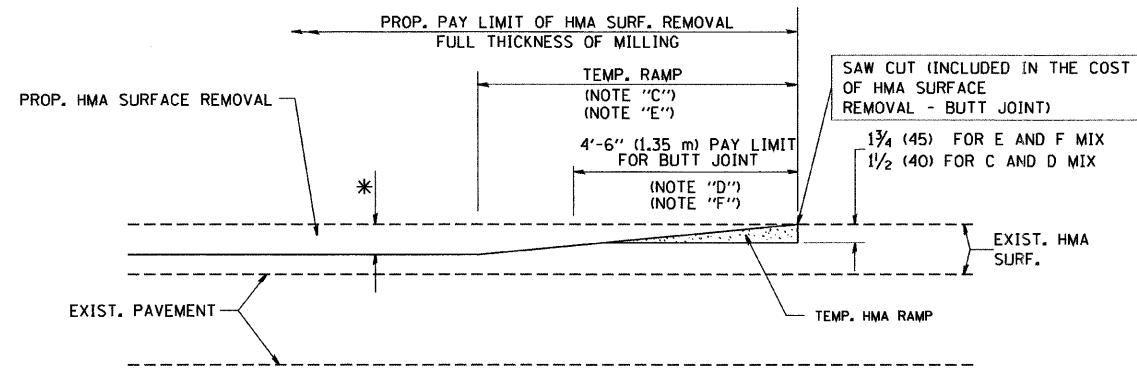
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pe_work\pawidot\drivakosgn\d0108315\bc24.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	REVISED - M. GOMEZ 01-22-01			3778	2011-022-T	COOK	34	20	
PLOT SCALE = 50.000 1 / IN.	CHECKED -	REVISED - R. BORO 12-15-09				BD600-06 (BD-24)		CONTRACT NO. 60P21			
PLOT DATE = 12/15/2009	DATE - 03-11-94					SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



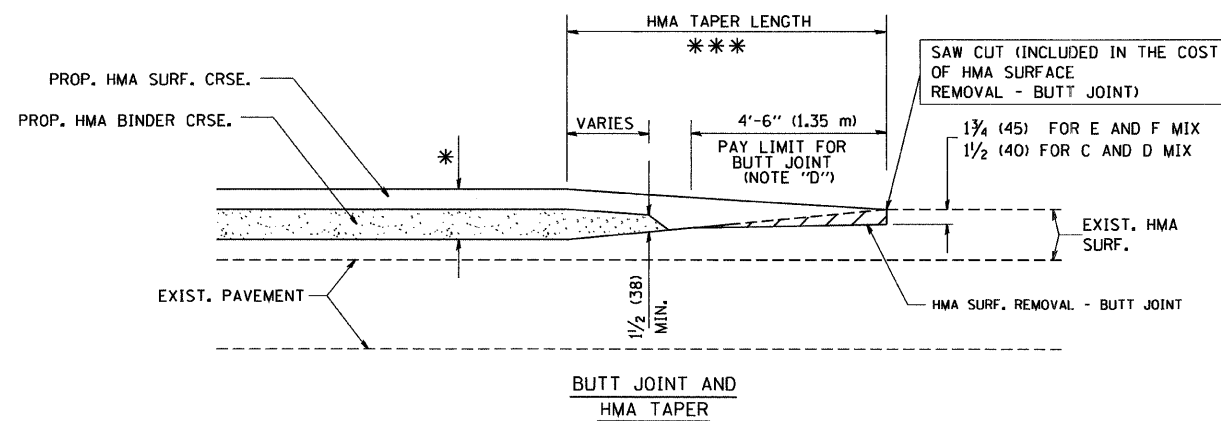
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

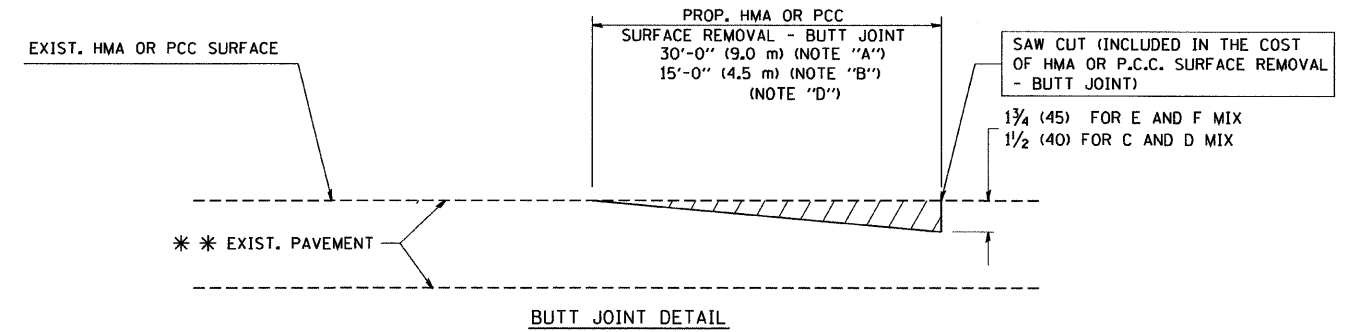


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

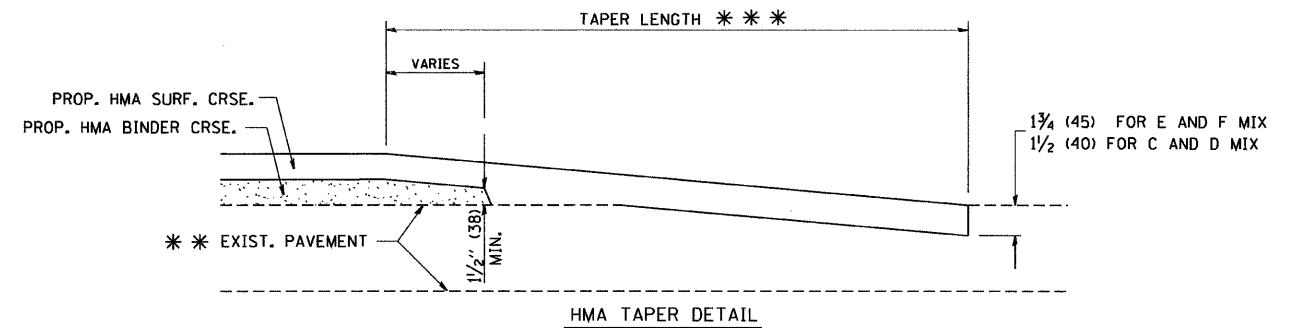
OPTION 2
TYPICAL TEMPORARY RAMP



**TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING**



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY**

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

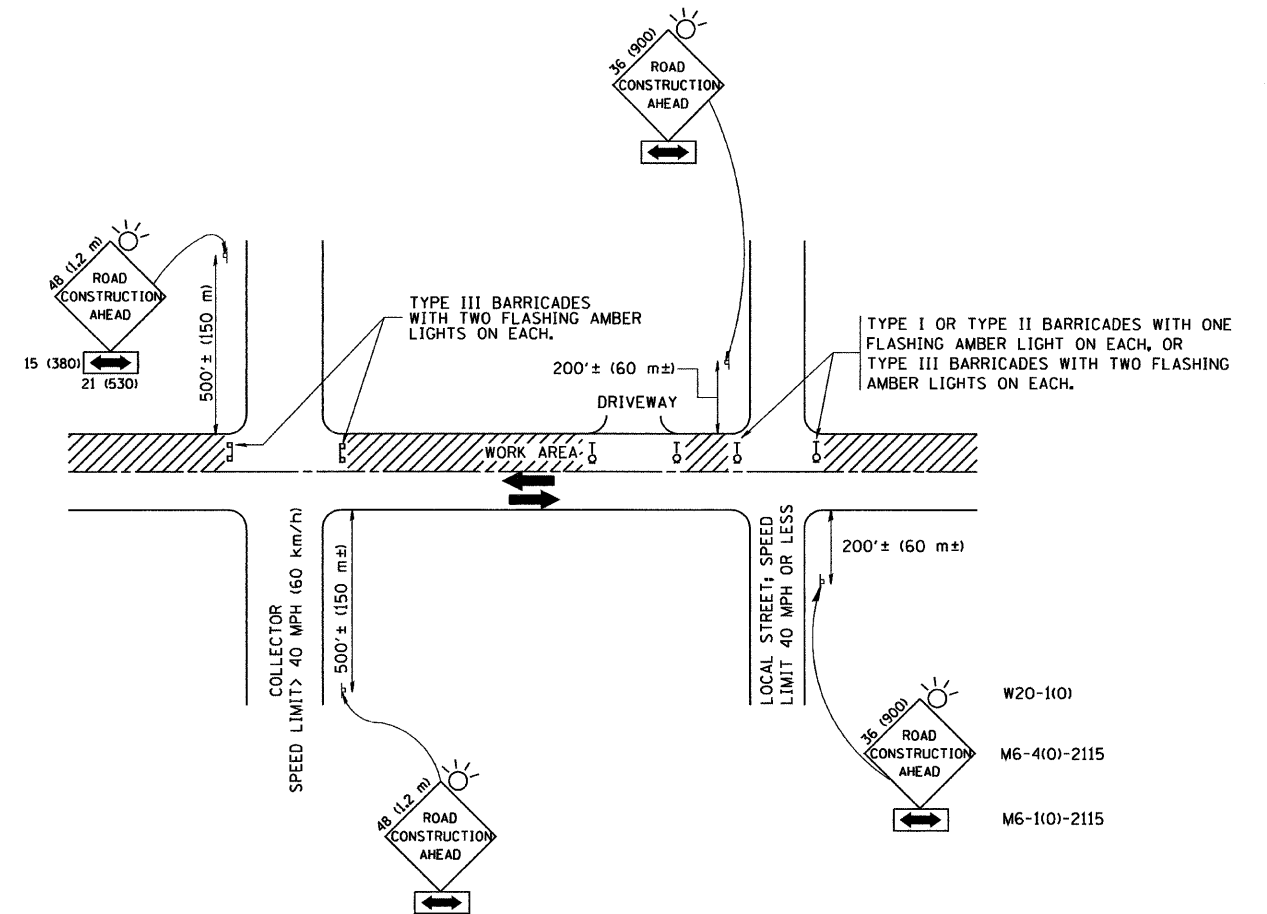
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distatd\22x34\bd32.dgn	USER NAME = gegltonobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS			F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		3778	2011-022-T	COOK	34	21			
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - M. GOMEZ 04-06-01		BD400-05 BD32			CONTRACT NO. 60P21				
		DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



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

NOTES:

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

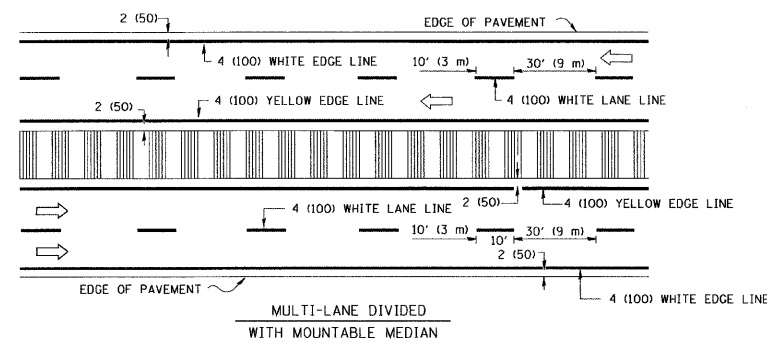
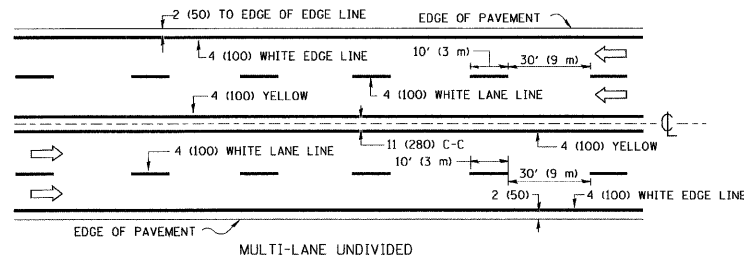
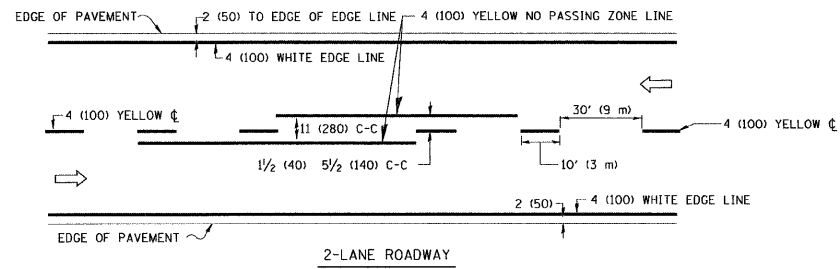
1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN 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.

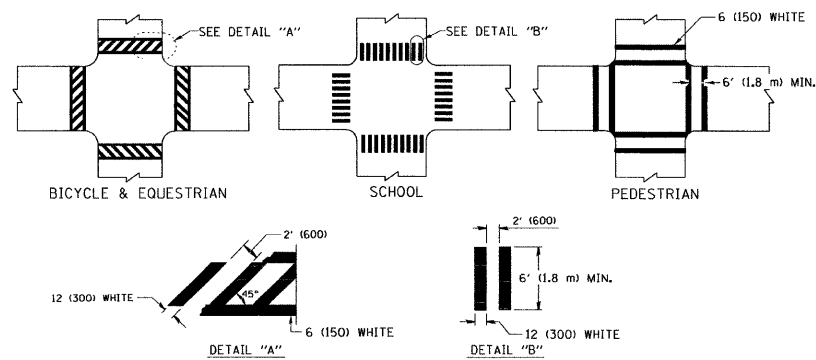
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = W:\d\stsd\22x34\tbl.dgn	USER NAME = goglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.U. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 22
	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED - A. HOUSEH 03-06-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-10		CONTRACT NO. 60P21	
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - A. HOUSEH 10-15-96		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT							
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00									

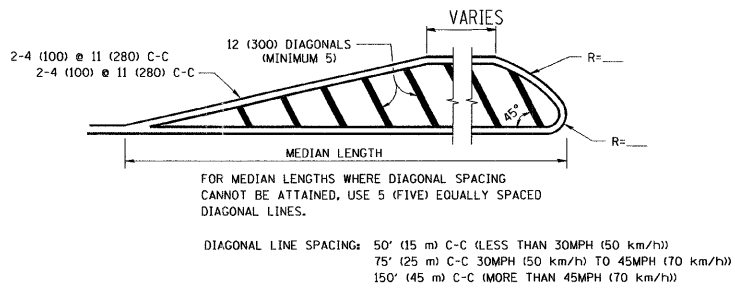
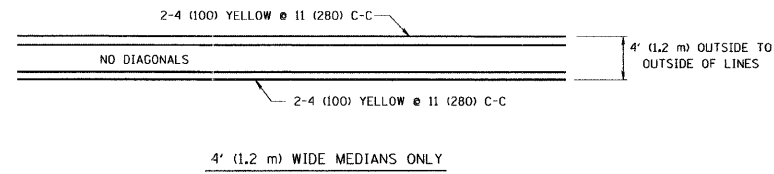


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

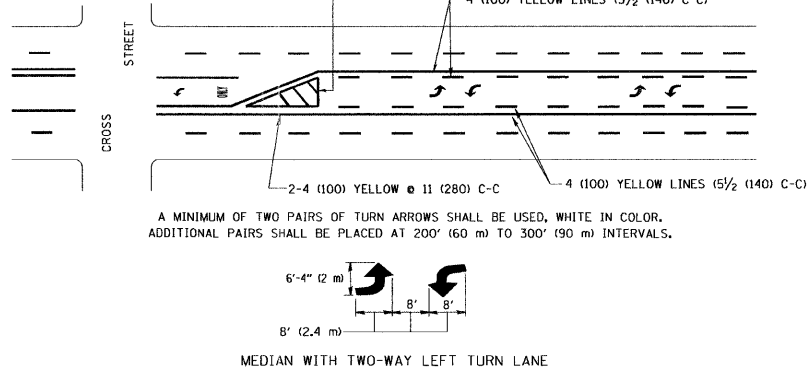
TYPICAL LANE AND EDGE LINE MARKING



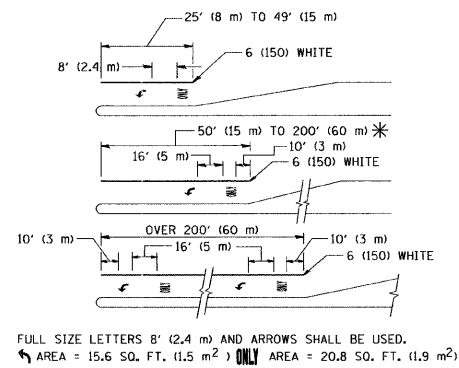
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

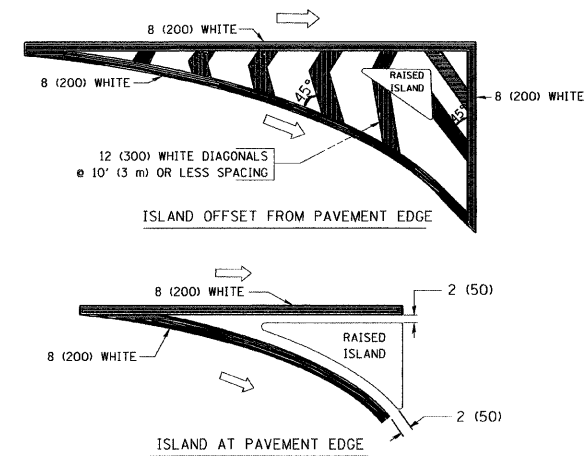


TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



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) LINES 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 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.
GORE 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.

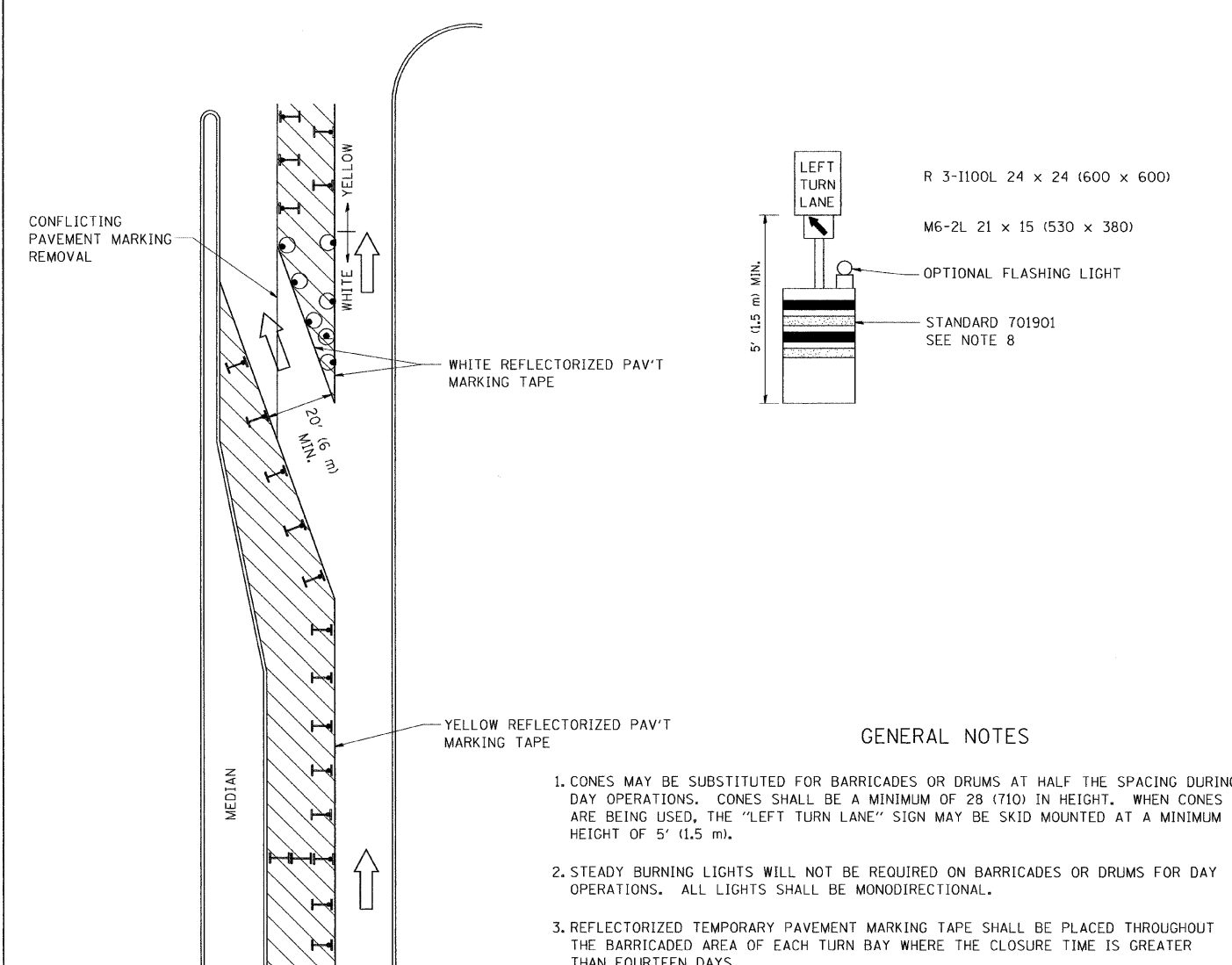
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PLOT SCALE = 50.000 ' / IN.		CHECKED -	REVISED -
PLOT DATE = 9/9/2009		DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34	24
TC-13		CONTRACT NO. 60P21		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

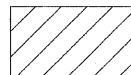







GENERAL NOTES

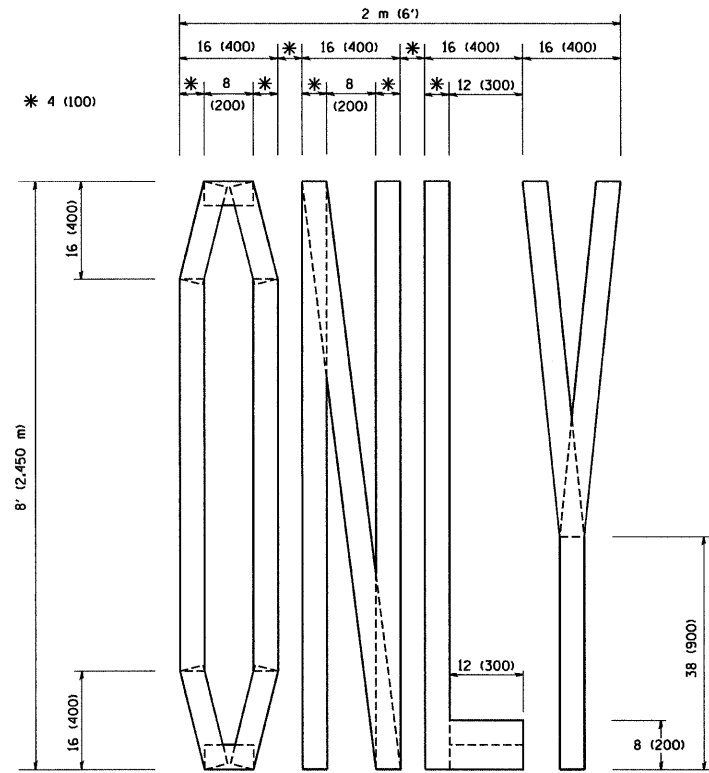
1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

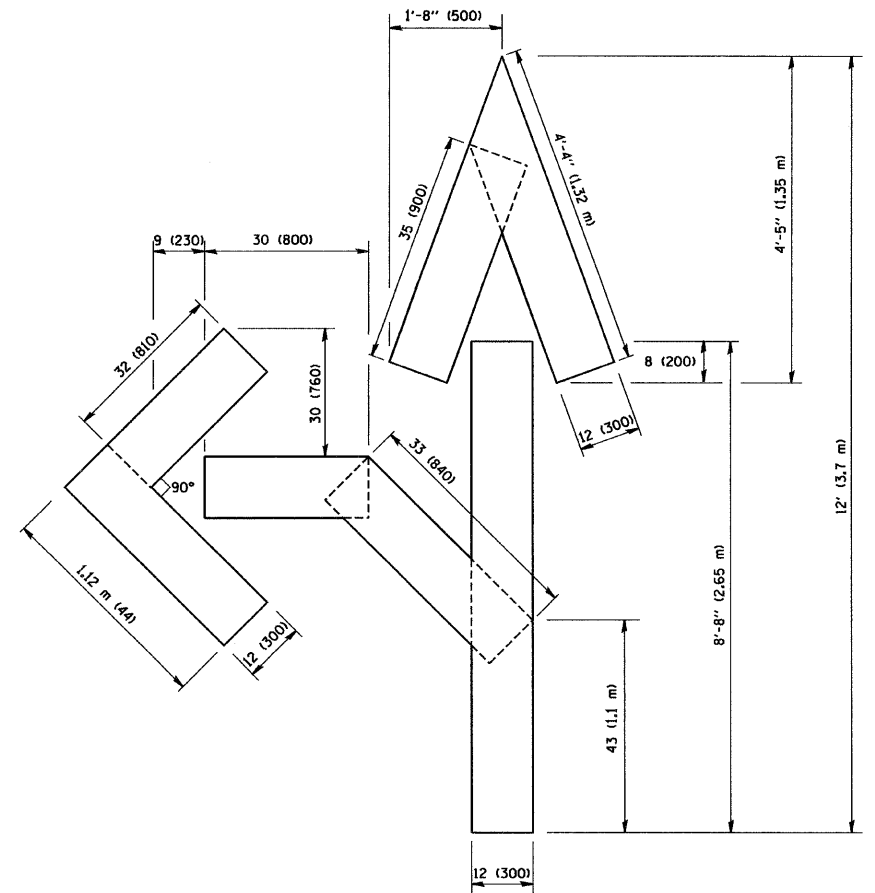
LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

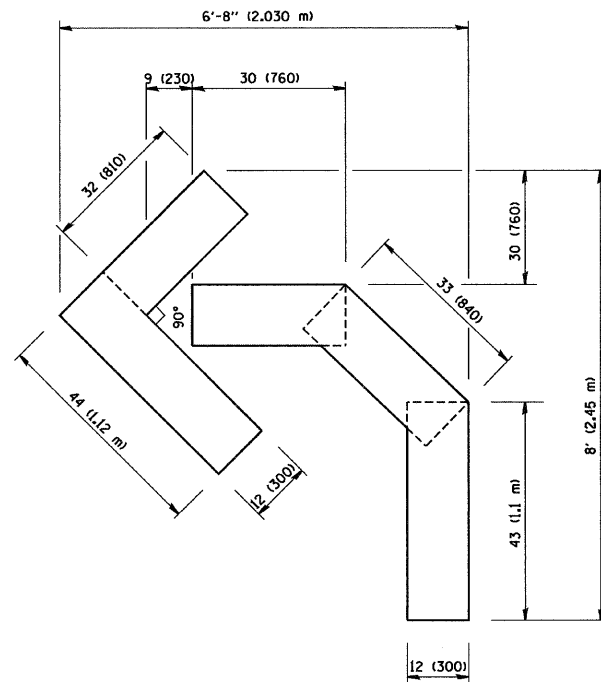
FILE NAME =	USER NAME = drvakosgn	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\FWIDOT\DRIVAKOSGN\0108315\14.dgn	PLOT SCALE = 49.9999' / IN.	REVISED - A. HOUSEH 11-07-95	REVISED -		3778	2011-022-T	COOK	34	25			
PLOT DATE = 9/14/2009	REVISED - T. RAMMACHER 01-06-00	REVISED -	REVISED -		TC-14			CONTRACT NO. 60P21				
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



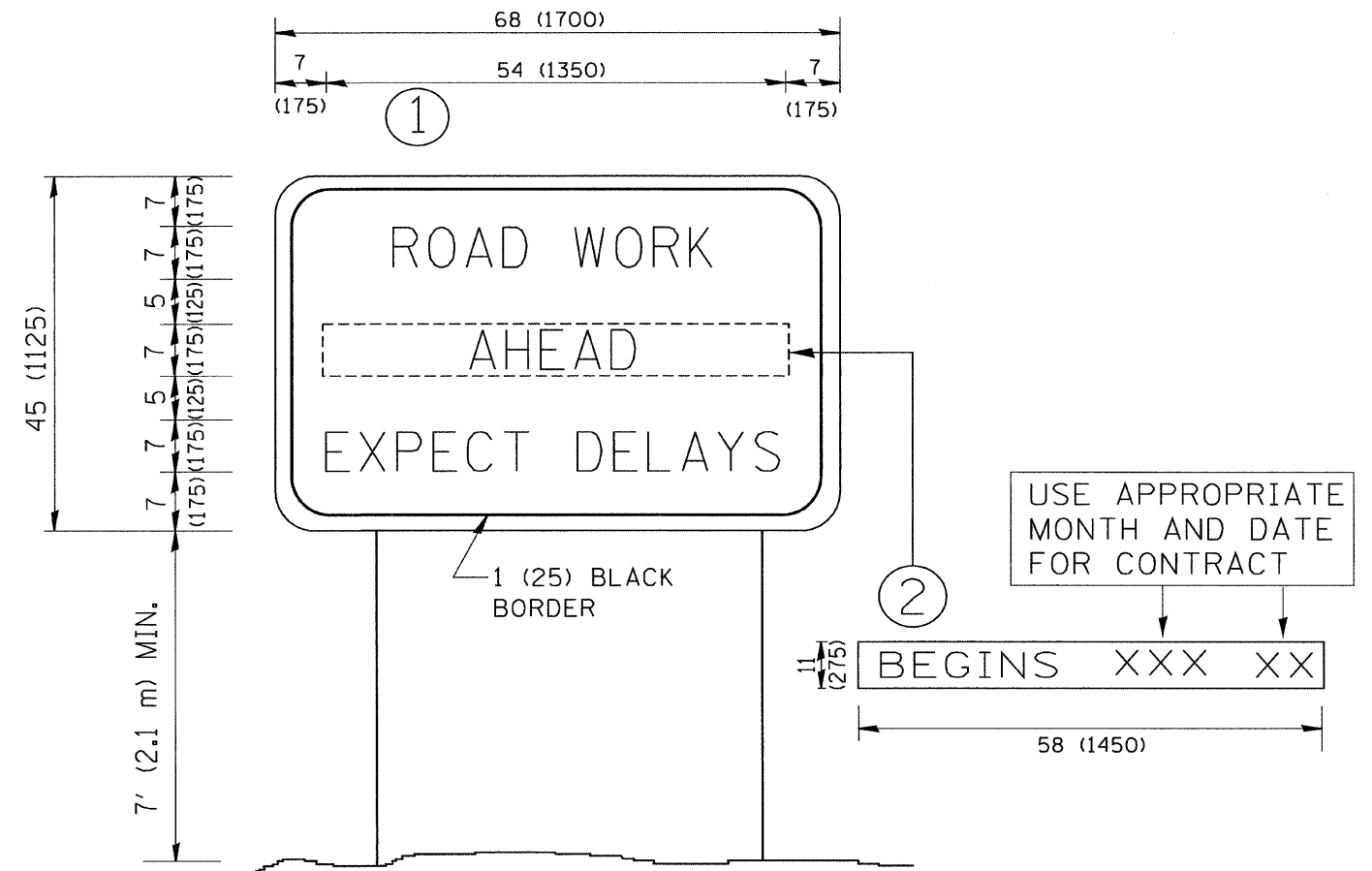
QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME = M:\diststd\22x34\vc16.dgn	USER NAME = gaglionabt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,0000' / IN.	DRAWN -	REVISED -T. RAMMACHER 11-04-97					3778	2011-022-T	COOK	34	26
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -T. RAMMACHER 03-02-98		TC-16			CONTRACT NO. 60P21				
		DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

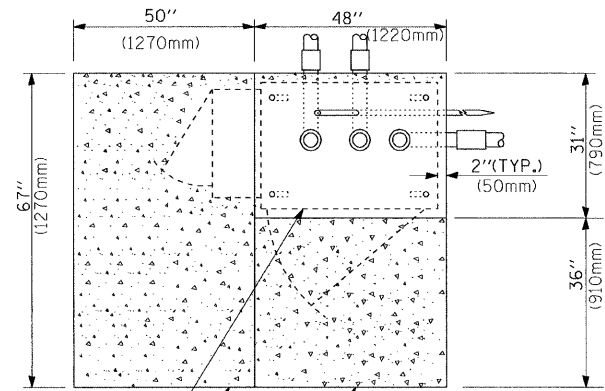


NOTES:

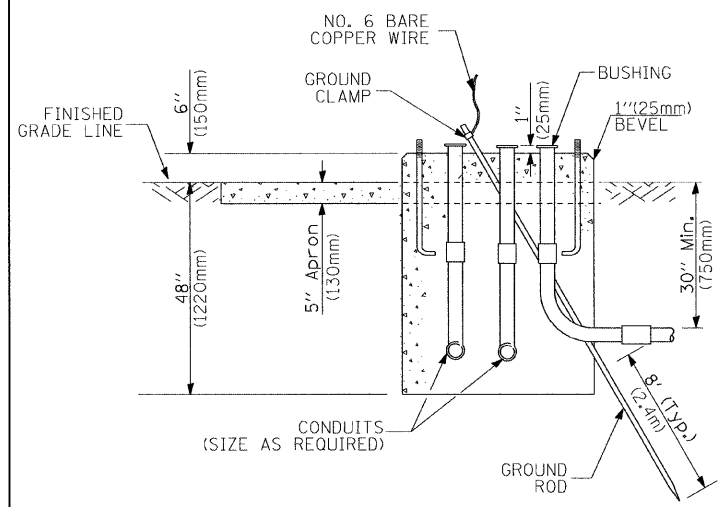
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

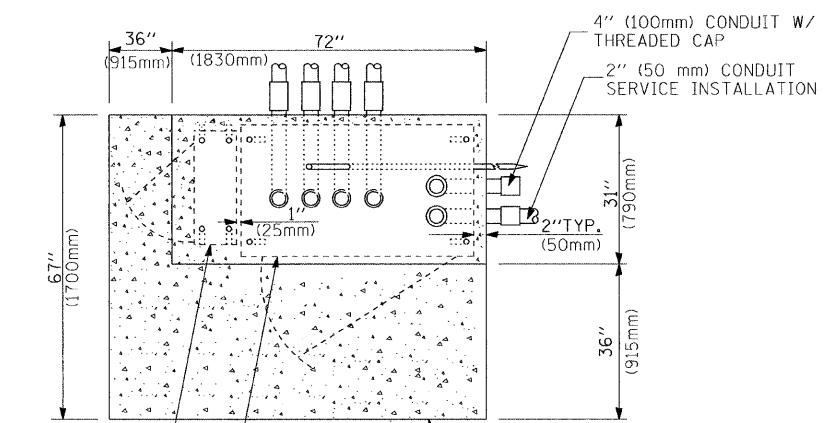
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	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99								CONTRACT NO. 60P21	
		DATE -	REVISED - C. JUCIUS 01-31-07									



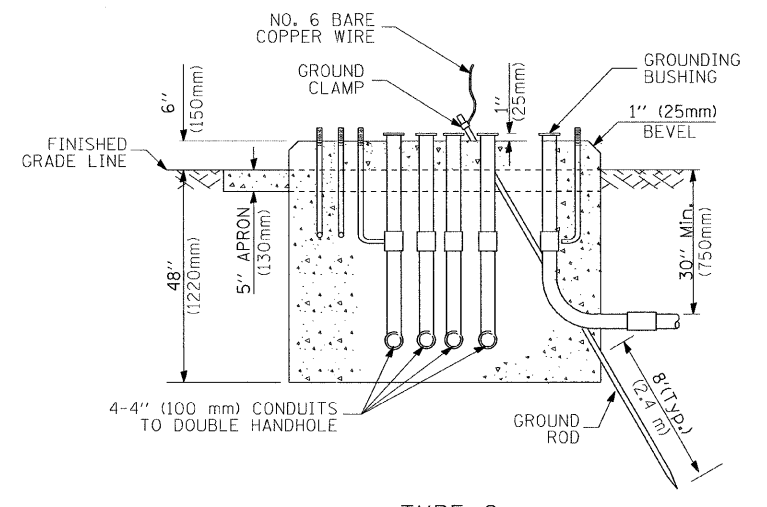
CONTROLLER CABINET BASE
PROPOSED APRON
EXISTING APRON
TOP VIEW



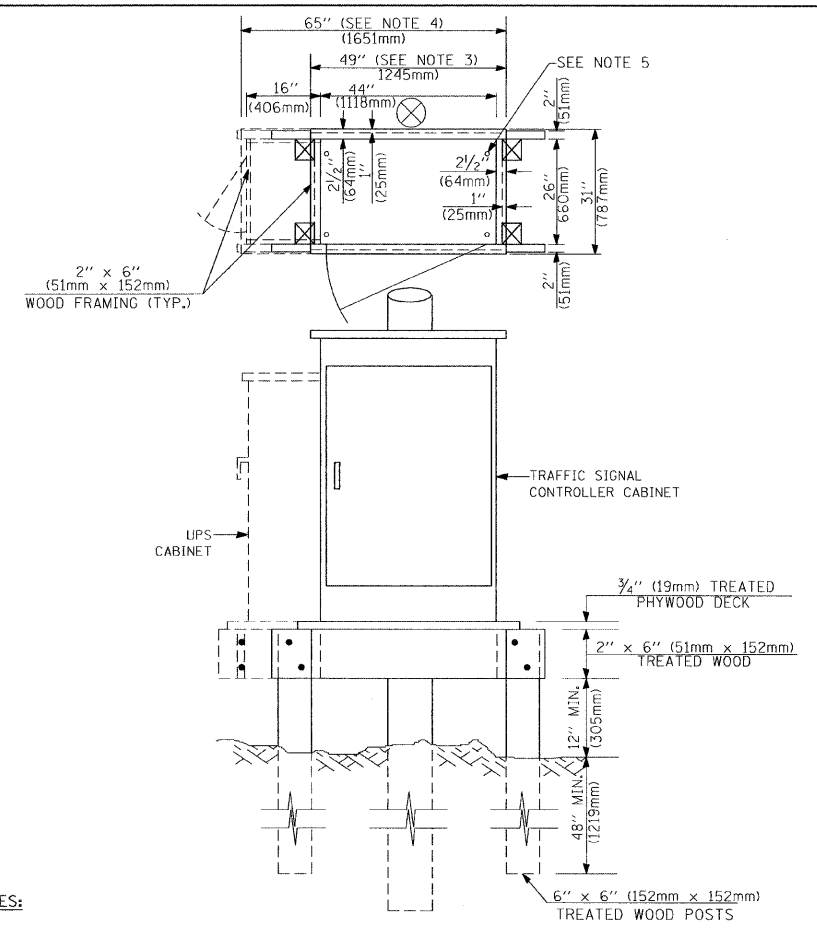
NO. 6 BARE COPPER WIRE
GROUND CLAMP
BUSHING
1" (25mm) BEVEL
30" Min. (750mm)
8" (TYP.) (203mm)
CONDUITS (SIZE AS REQUIRED)
GROUND ROD
TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



4" (100mm) CONDUIT W/ THREADED CAP
2" (50 mm) CONDUIT SERVICE INSTALLATION
CONTROLLER CABINET BASE
UPS CABINET BASE
TOP VIEW
APRON



NO. 6 BARE COPPER WIRE
GROUND CLAMP
GROUNDING BUSHING
1" (25mm) BEVEL
30" Min. (750mm)
8" (TYP.) (203mm)
4-4" (100 mm) CONDUITS TO DOUBLE HANDHOLE
GROUND ROD
TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

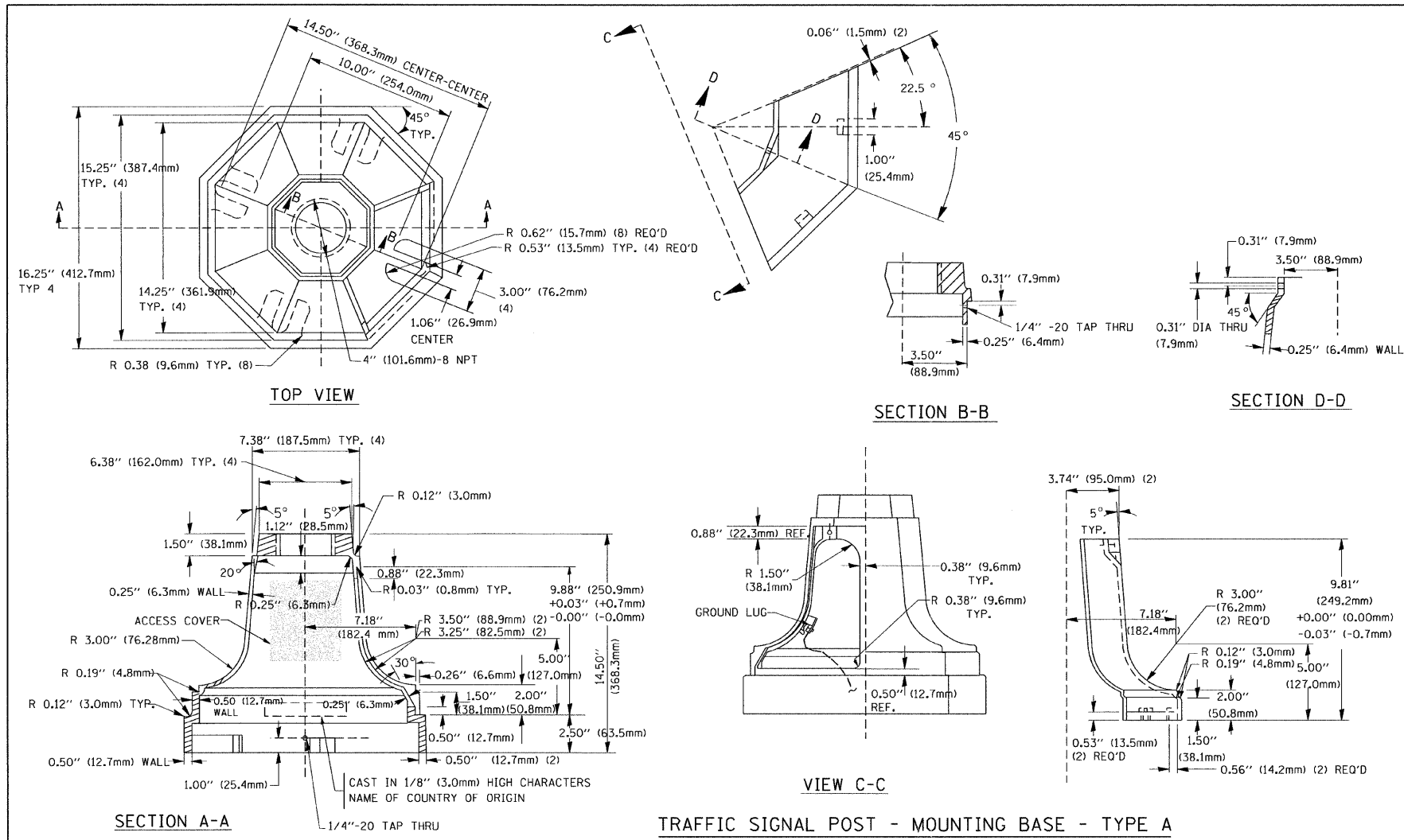
DEPTH OF FOUNDATION

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

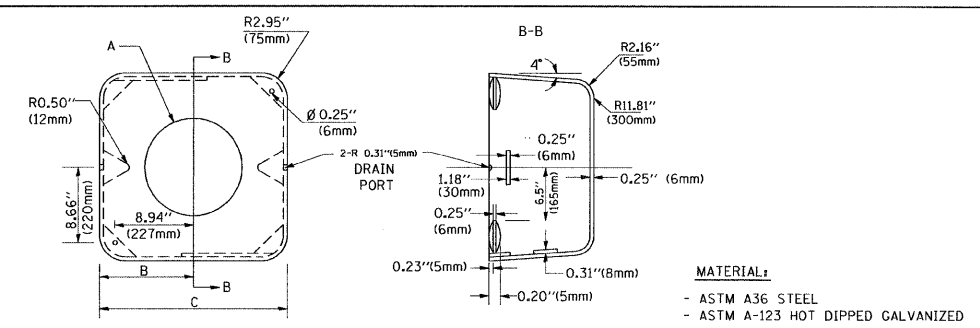
NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E



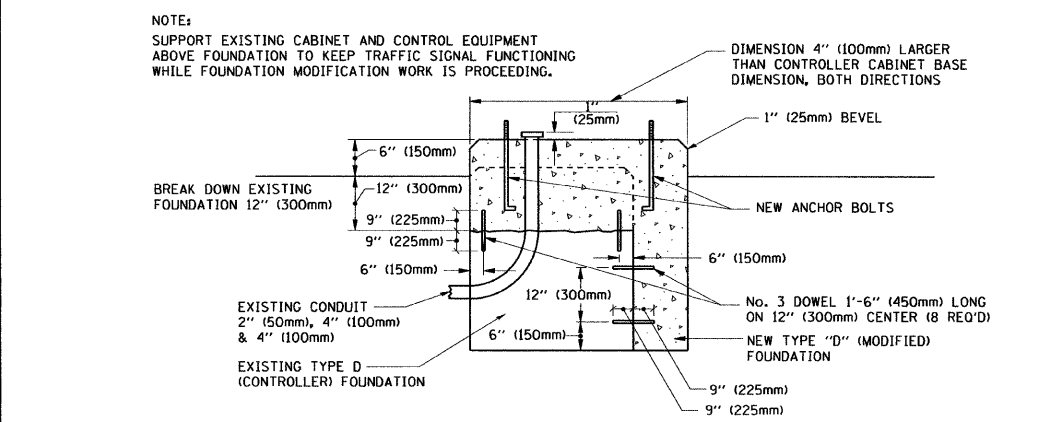
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



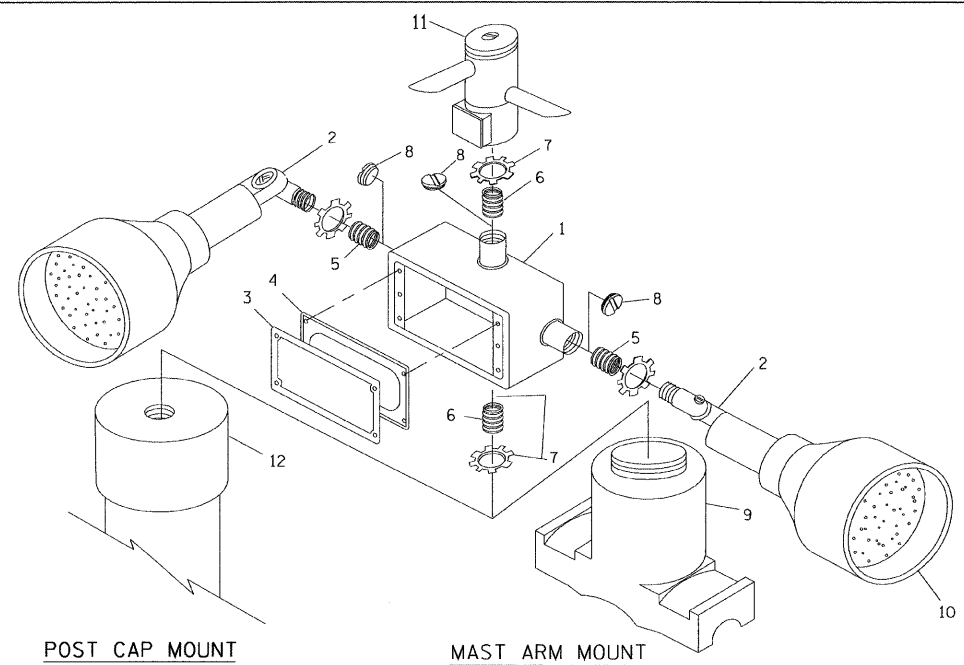
A	B	C	HEIGHT	WEIGHT
VARIES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126 lbs (57 kg)

SHROUD

- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



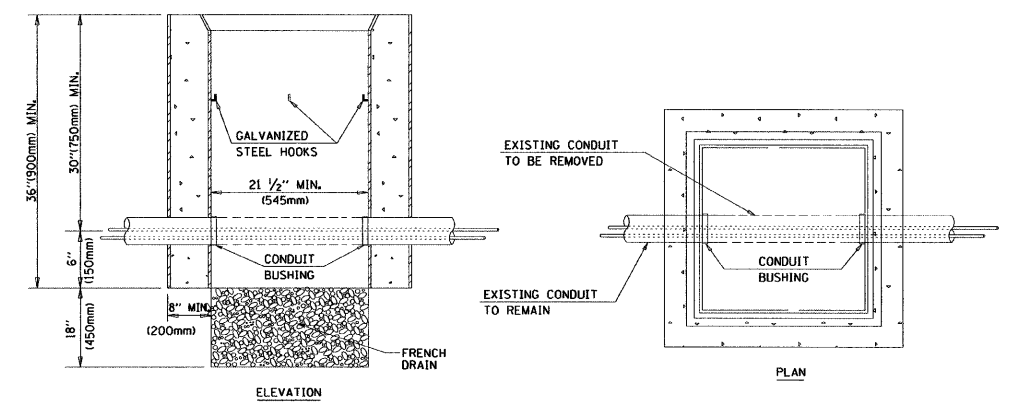
MODIFY EXISTING TYPE "D" FOUNDATION



POST CAP MOUNT
MAST ARM MOUNT
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

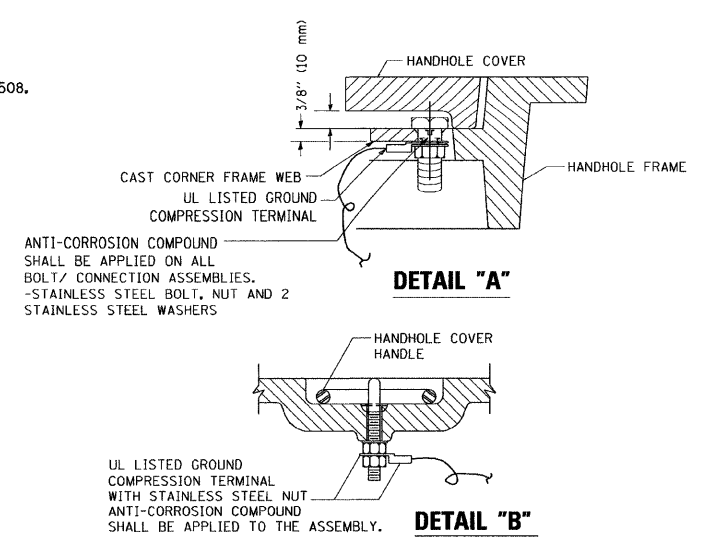
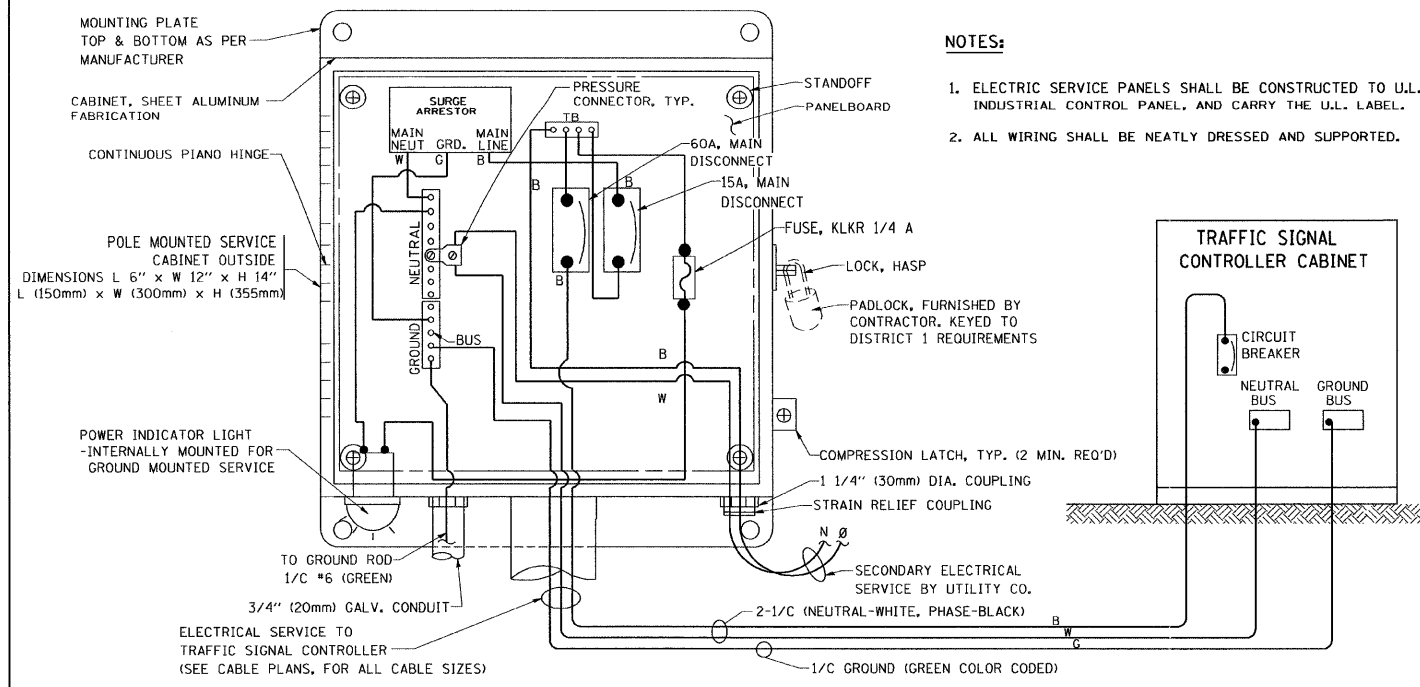
ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



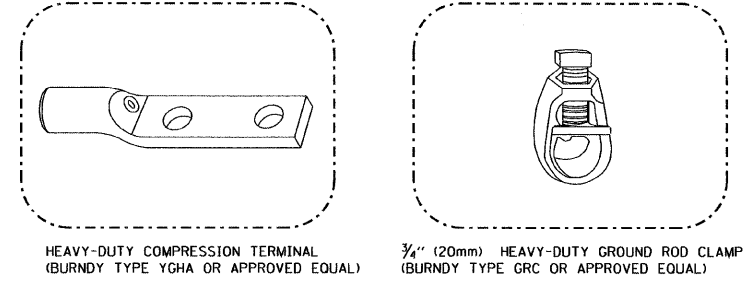
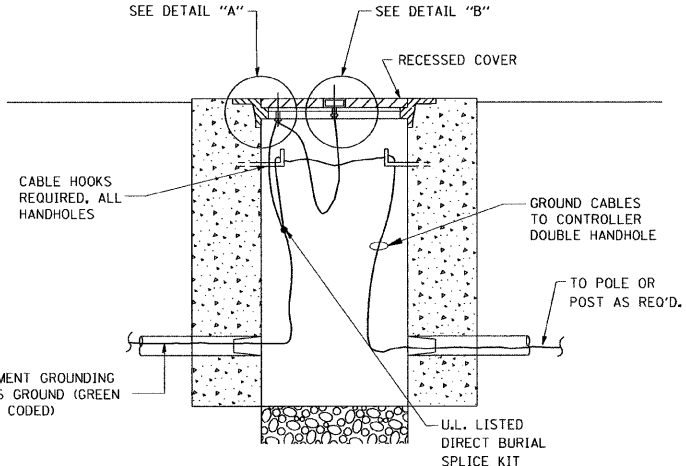
- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

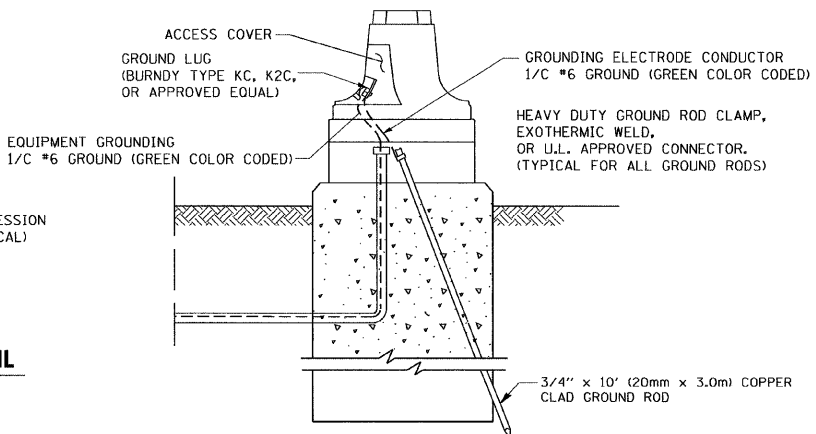
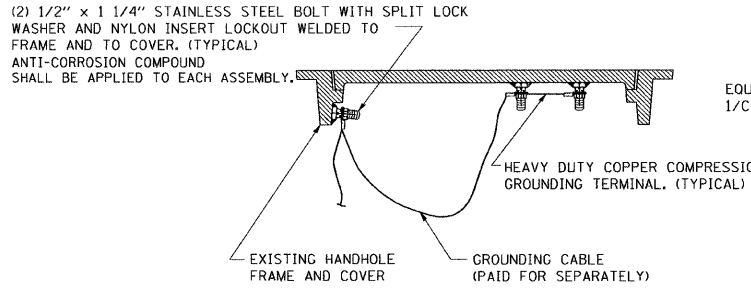
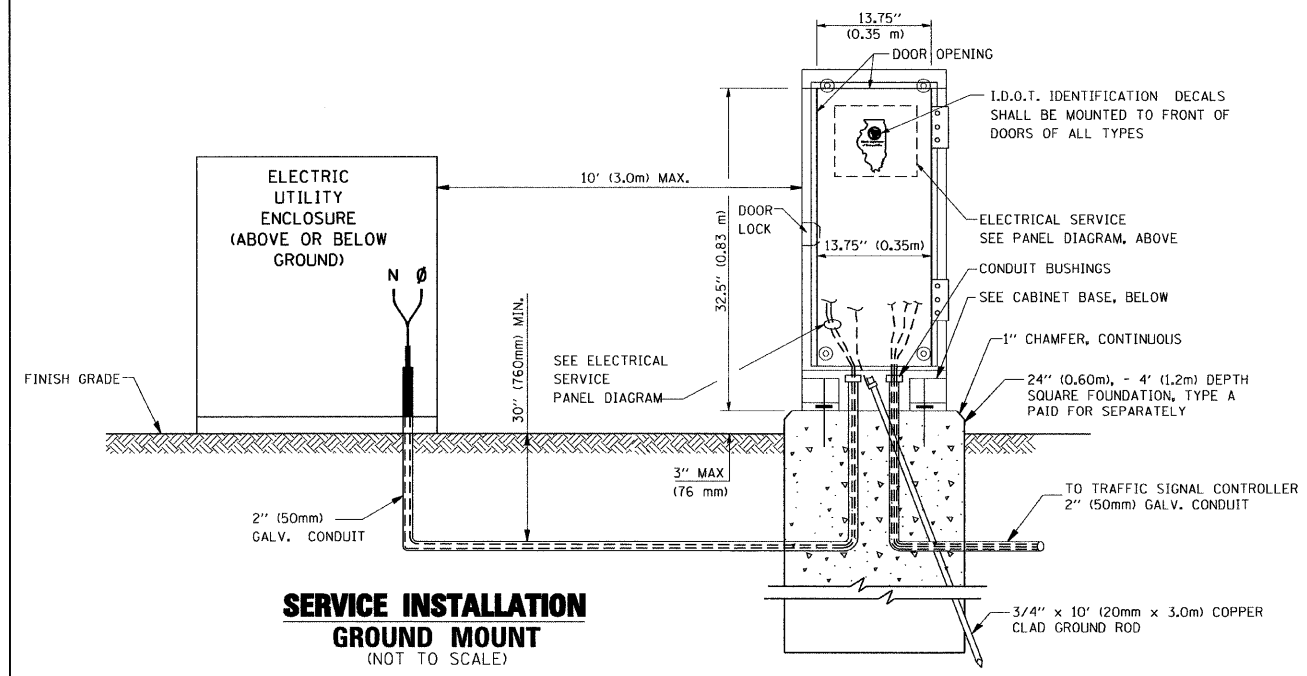


- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)

FILE NAME =	USER NAME = bauerdl	DESIGNED - DAD	REVISED -
ca:\pwr_wor-k\VPID001\BAUERDL\d0128315\td05.dgn		DRAWN - BCK	REVISED -
PLOT SCALE = 50.0000" / IN.		CHECKED - DAD	REVISED -
PLOT DATE = 11/4/2009		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

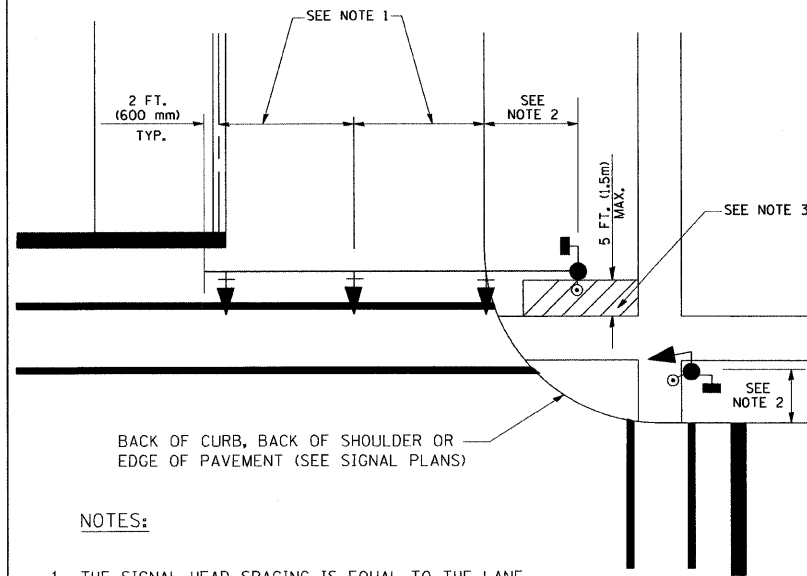
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 3 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3778	2011-022-T	COOK	34	30
TS-05		CONTRACT NO. 60P21		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

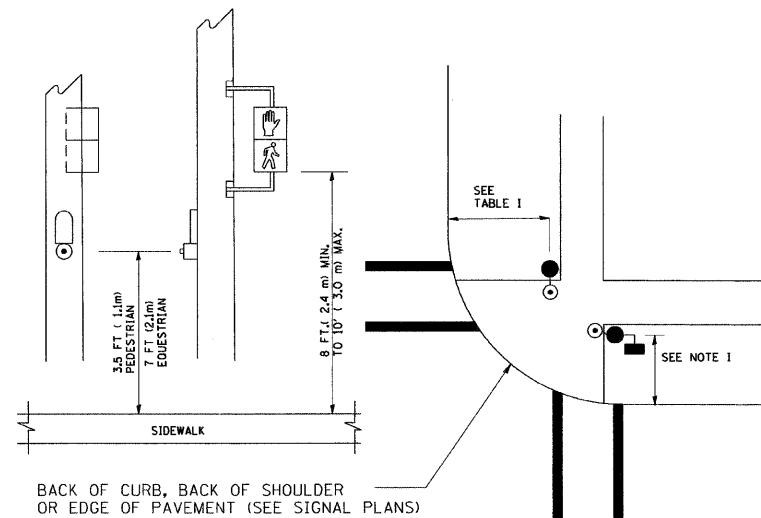
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

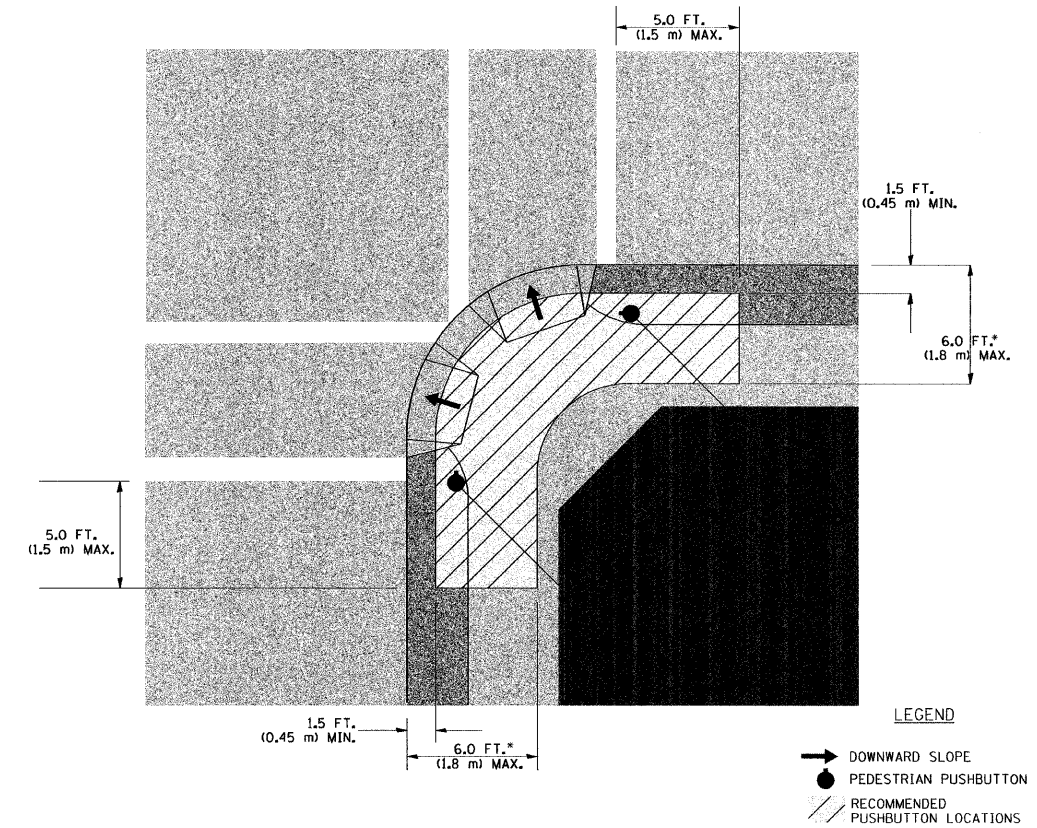
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

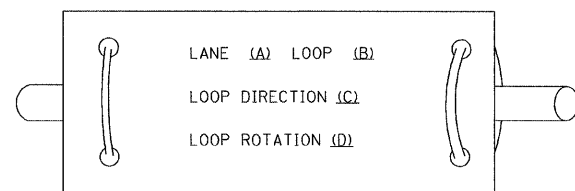
NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

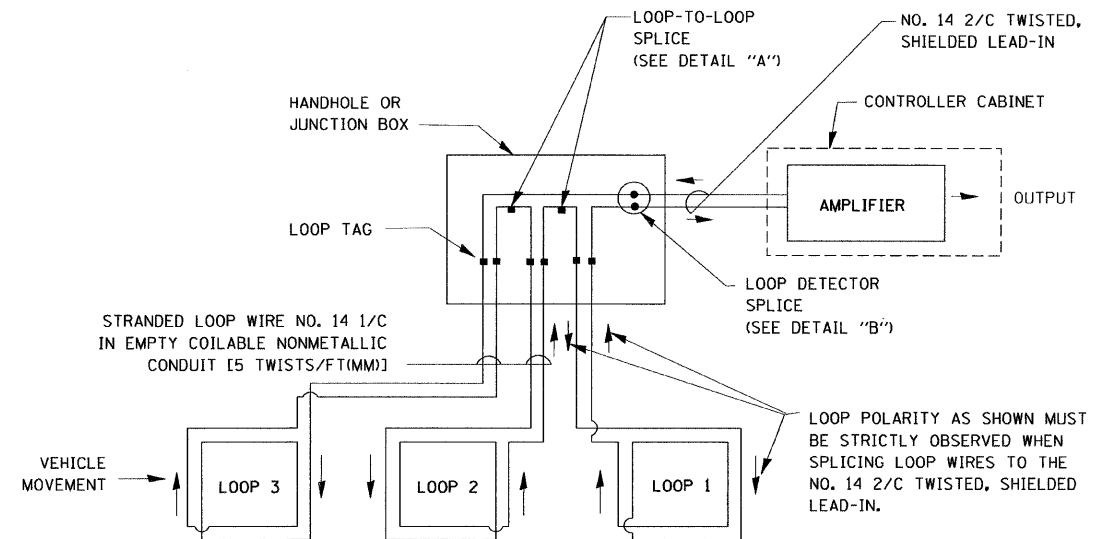
LOOP DETECTOR NOTES

- 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.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES 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.
- 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.
- 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

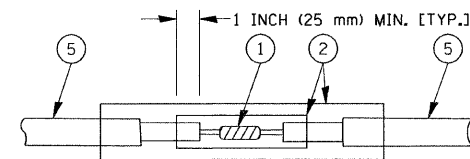


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

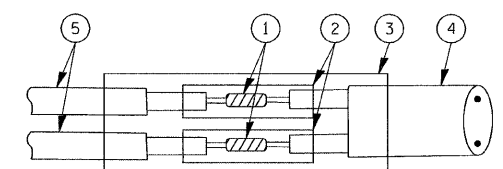


DETECTOR LOOP WIRING SCHEMATIC

- 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.

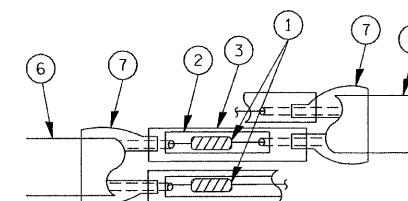


DETAIL "A" LOOP-TO-LOOP SPLICE

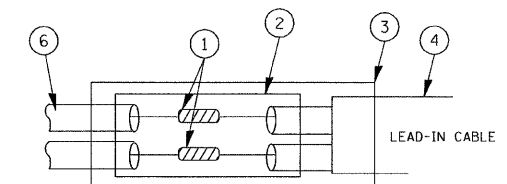


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

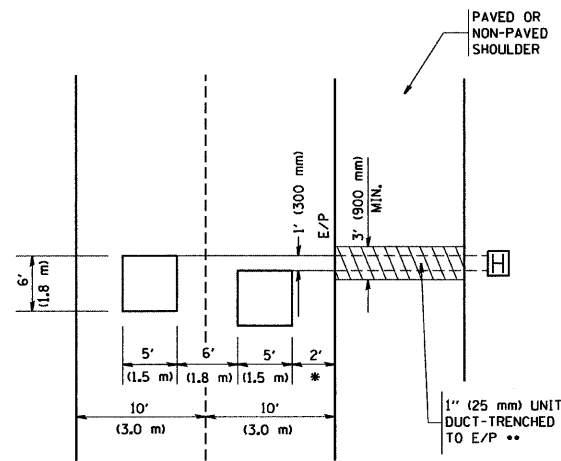
FILE NAME =	USER NAME = bauerd	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cs:\pwork\PIWIDOT\BALEROL\d0108315\ts05	sign	DRAWN - BCK	REVISED -			3778	2011-022-T	COOK	34	32
PLOT SCALE = 50.0000' / IN.	CHECKED - DAD	REVISOR -	REVISOR -			TS-05		CONTRACT NO. 60P21		
PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISOR -	REVISOR -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.			

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PREFORMED SAMPLING (SYSTEM) DETECTOR			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD SYMBOLS			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				EXISTING			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				RAILROAD CANTILEVER MAST ARM			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				FLASHING SIGNAL			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				CROSSING GATE			
MICROWAVE VEHICLE SENSOR								CROSSBUCK			
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

LOOPS NEXT TO SHOULDERS

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

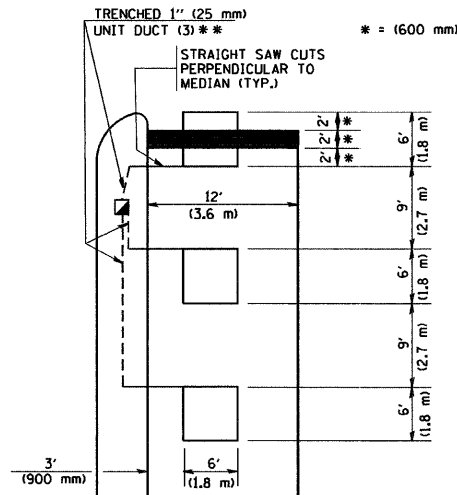


* = (600 mm)

** 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)**

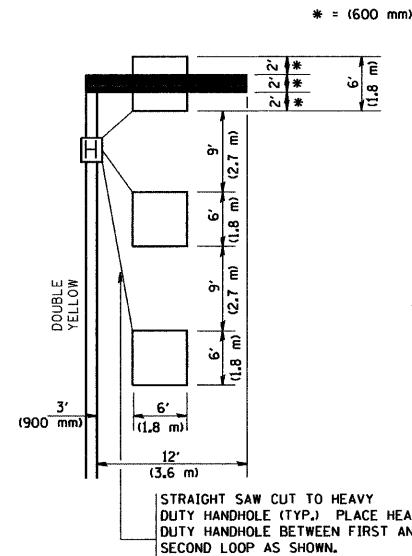
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD B14001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

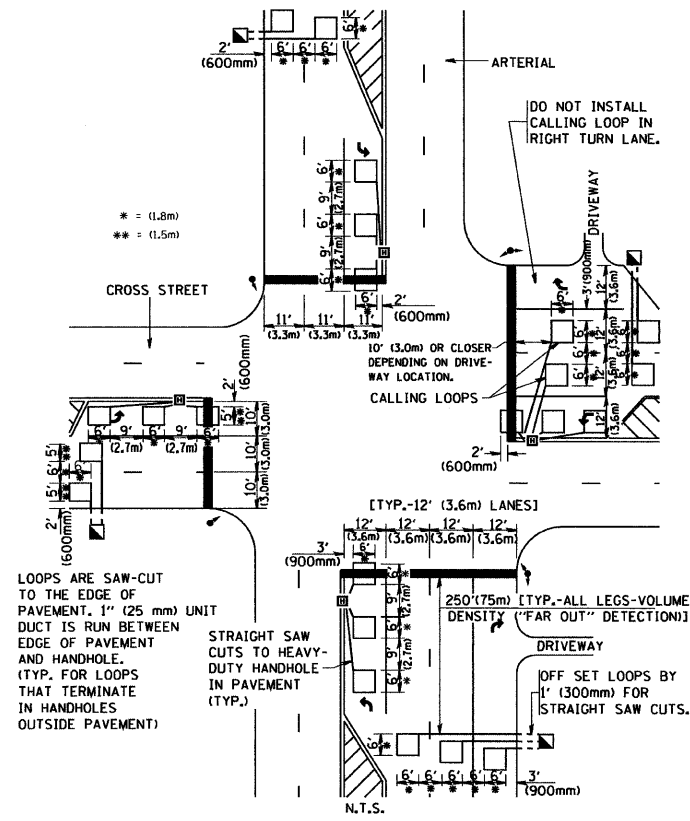
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



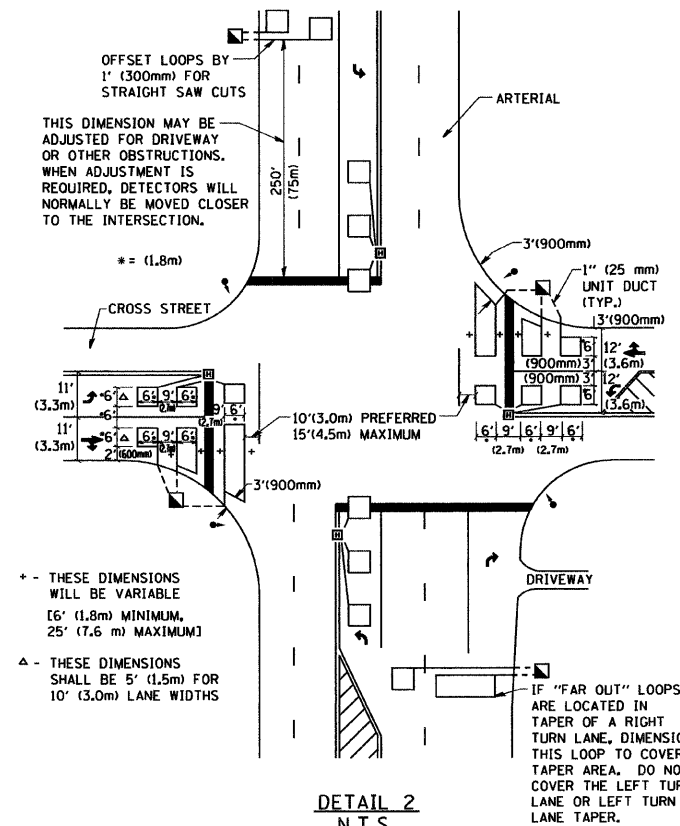
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**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 DIMENSIONS 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:\dist1\22x34\ts07.dgn	USER NAME = gaglianob	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING			F.A.I. RTE. 3778	SECTION 2011-022-T	COUNTY COOK	TOTAL SHEETS 34	SHEET NO. 34
PLOT SCALE = 50.0000' / IN.	PLOT DATE = 1/4/2008	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TS-07		CONTRACT NO. 60P21	
		CHECKED - R.K.F.	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE -	REVISED -									