

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2530	09-00075-00-RS	DUPAGE	15	1
FEDERAL ROAD DIST. NO. 1 ILLINOIS		CONTRACT NO. 63350		

**INDEX OF SHEETS**

- 1 TITLE SHEET
- 2 GENERAL NOTES AND SUMMARY OF QUANTITIES
- 3 TYPICAL SECTIONS
- 4-7 PLAN SHEETS
- 8-15 DISTRICT 1 DETAILS

**IDOT STATEWIDE STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 442201-03 CLASS C AND D PATCHES
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL GUARDRAIL TERMINALS
- 635001-01 DELINEATORS
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-03 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24' (600M) FROM PAVEMENT EDGE
- 701011-02 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
- 701501-05 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-01 TRAFFIC CONTROL DEVICES
- 780001-02 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- 886001-01 DETECTOR LOOP INSTALLATIONS
- 886006-01 TYPICAL LAYOUTS FOR DETECTION LOOPS

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**F.A.U. ROUTE 2530 (POWIS ROAD)  
IL ROUTE 64 (NORTH AVENUE) TO SMITH ROAD  
LAPP RESURFACING  
SECTION NO. 09-00075-00-RS  
PROJECT NO. ARA-9003(403)  
JOB NO. C-91-804-09  
CITY OF WEST CHICAGO  
DUPAGE COUNTY**

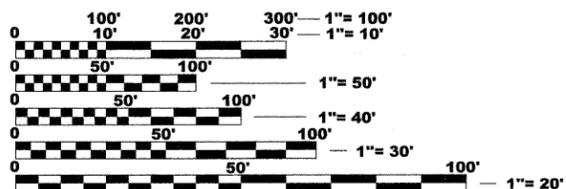
THE PROJECT IS LOCATED IN THE CITY OF WEST CHICAGO



**DESIGN DESIGNATION:**  
LOCAL ROAD

**ADT:**  
4,100 VPD (2002)  
7,000 VPD (2030)

**POSTED SPEED LIMIT(S):**  
40 MPH



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

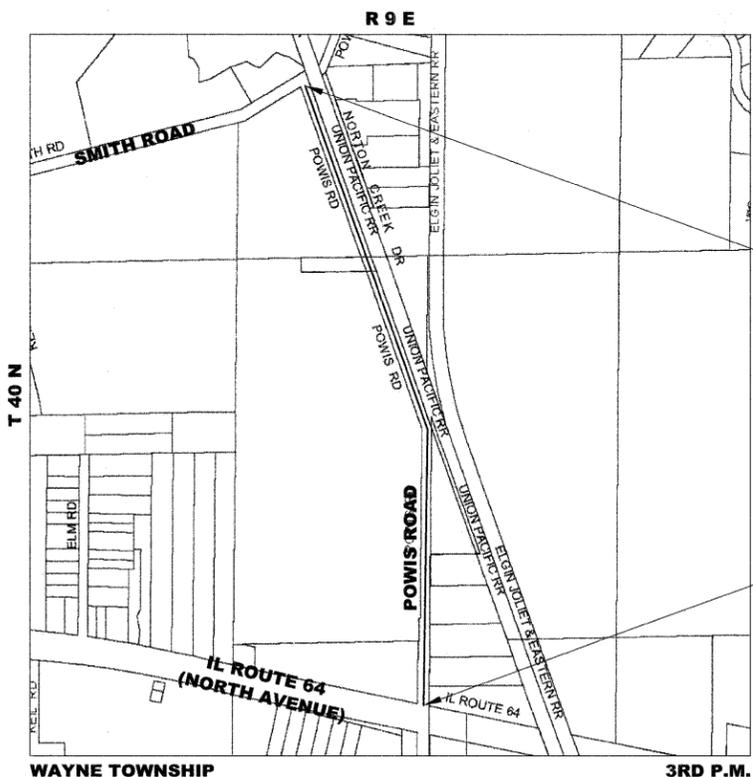
**J.U.L.I.E.**  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

**PLANS PREPARED BY:**

 <b>CITY OF WEST CHICAGO</b> 475 MAIN STREET PHONE: 630-293-2200 FAX: 630-293-3028 P.O. BOX 488 WEST CHICAGO, IL 60185	 <b>thomas</b> engineering group <small>service at the highest grade</small> thomas engineering group, llc 238 south kenilworth avenue suite 100 oak park, il 60302 phone: 708-533-1700
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**PROJECT ENGINEER: BRIAN L. PAWULA, P.E., (847) 922-6125**  
**PROJECT MANAGER: KEVIN C. VANDEWOESTYNE, P.E., (847) 815-9500**

**CONTRACT NO. 63350**



**LOCATION MAP**  
N.T.S.

**PROJECT LENGTH**  
GROSS = 4,454 FT = 0.84 MI  
NET = 4,454 FT = 0.84 MI

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED <u>12/16/09</u>  CITY OF WEST CHICAGO, DIRECTOR OF PUBLIC WORKS	
PASSED <u>December 16 2009</u>  DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS	
RELEASING FOR BID BASED ON LIMITED REVIEW <u>December 16 2009</u>  DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER	
 BY: <u>Brian L. Pawula</u> DATE: <u>12/16/09</u> THOMAS ENGINEERING GROUP, LLC LICENSE EXPIRES: <u>11/30/11</u>	
 BY: <u>Richard A. Young</u> DATE: <u>12/16/09</u> EJM ENGINEERING, INC. LICENSE EXPIRES: <u>4/30/11</u> THIS SEAL APPLIES TO SHEET(S): 4	

FEDERAL AID DESIGN ENGINEER: MARLIN SOLOMON, P.E. (847) 705-4407

GENERAL NOTES:

1. ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JANUARY 1, 2007 OR LATER.
2. BEFORE STARTING EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ALL UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE CITY OF WEST CHICAGO IF UNMARKED UTILITIES ARE DISCOVERED AND IF MUNICIPAL UTILITIES ARE DAMAGED DURING CONSTRUCTION. THE CONTRACTOR WILL COOPERATE WITH THE CITY OF WEST CHICAGO IF MUNICIPAL UTILITY IMPROVEMENTS ARE REQUIRED WITHIN THE DURATION OF THE CONTRACT.
5. THE THICKNESSES OF HMA MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM THICKNESSES PERMITTED.
6. QUANTITIES FOR MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS AND STRIP REFLECTIVE CRACK CONTROL TREATMENT HAVE BEEN PROVIDED. AFTER THE HMA SURFACE REMOVAL OPERATIONS ARE COMPLETE ALL OPEN CRACKS AND OPEN EXPANSION JOINTS HAVING A WIDTH OF 1/2 IN. OR MORE SHALL BE CLEANED AND FILLED AND STRIP REFLECTIVE CRACK CONTROL WILL BE APPLIED ACCORDING TO ARTICLE 406 AND 443, RESPECTIVELY. THE ACTUAL NEED FOR THESE ITEMS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. IF CRACK SEALING IS NOT REQUIRED THE QUANTITIES WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
7. QUANTITIES FOR PAVEMENT PATCHING (CLASS D PATCHES AND PAVEMENT PATCHING - PARTIAL DEPTH) HAVE BEEN PROVIDED IN THE CONTRACT BASED ON FIELD OBSERVATIONS OF EXISTING CONDITIONS. LOCATIONS SHOWN IN THE PLANS MAY DIFFER AND WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. IF PAVEMENT PATCHING IS NOT REQUIRED THE QUANTITY WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
8. PAVEMENT PATCHING SHALL BE SCHEDULED IMMEDIATELY FOLLOWING HMA SURFACE REMOVAL TO REDUCE DEGRADATION OF THE EXISTING BASE.
9. THE MAXIMUM ALLOWABLE VERTICAL PAVEMENT LANE DROP DIFFERENTIAL WILL BE 1-1/2".
10. THE CONTRACTOR SHALL PLACE SHORT-TERM PAVEMENT MARKINGS IMMEDIATELY FOLLOWING PLACEMENT OF THE FINAL HMA SURFACE COURSE. PAVEMENT MARKING GROOVING CANNOT OCCUR UNTIL SEVEN (7) DAYS AFTER PLACEMENT OF FINAL HMA SURFACE COURSE (SEE SPECIAL PROVISIONS).
11. THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION, AND SHALL PREVENT STORMWATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
12. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE BUTT JOINT AND HMA TAPER DETAILS SHEET INCLUDED IN THE PLANS (BD-32).
13. ALL PAVEMENTS, CURB AND GUTTER, SIDEWALKS, AND DRIVEWAYS TO BE REMOVED SHALL BE SAW CUT PRIOR TO REMOVAL TO PREVENT DAMAGE TO THE ITEMS TO REMAIN. THE COST OF SAW CUTTING SHALL BE INCLUDED IN THE COST OF THE ITEMS BEING CONSTRUCTED.
14. PARKWAY RESTORATION SHALL INCLUDE REPLACEMENT OF DAMAGED AND DESTROYED LANDSCAPE, IN KIND, OF THE EXISTING TURF ADJACENT TO THE WORKING LIMITS AND WHERE THE CONTRACTOR'S EQUIPMENT HAS DESTROYED OR DAMAGED THE TURF. THE CONTRACTOR SHALL PREPARE THE GROUND ACCORDING TO SECTION 211 OF THE STANDARD SPECIFICATIONS. SALT TOLERANT SEED AND FERTILIZER SHALL BE PLACED ACCORDING TO SECTION 250 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR ITEMS BEING CONSTRUCTED SUCH AS AGGREGATE WEDGE SHOULDERS, TYPE B; GRADING EXISTING SHOULDER; AND STEEL PLATE BEAM GUARDRAIL, TYPE A (SEE SPECIAL PROVISIONS).
15. ALL STREETS AND COMMERCIAL PARKING LOT ENTRANCES SHALL REMAIN OPEN DURING CONSTRUCTION. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH IDOT STANDARDS 701006, 701011, 701301, 701311, AND 701901 (SEE SPECIAL PROVISIONS).
16. WORK SHALL BE CAREFULLY PLANNED BY THE CONTRACTOR TO REDUCE DISRUPTION TO RESIDENTS, BUSINESSES, AND THE PUBLIC SEEKING TO ACCESS THE BUSINESSES. AT LEAST ONE LANE OF TRAFFIC MUST REMAIN OPEN AT ALL TIMES.
17. DURING AND AFTER CONSTRUCTION OPERATIONS, LOOSE MATERIAL ON ROADWAYS AS A RESULT OF CONTRACTOR OPERATIONS, INCLUDING BUT NOT LIMITED TO HMA SURFACE REMOVAL, BINDER COURSE AND SURFACE COURSE INSTALLATION, SHALL BE REMOVED AND DEPOSITED OFF SITE BY THE CLOSE OF EACH BUSINESS DAY. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT. THIS APPLIES TO EXCESSIVE PRIMER LEFT ON ROADWAYS.
18. GUARDRAIL REMOVAL SHALL INCLUDE DISMANTLING, LOADING, HAULING, DISPOSAL, AND RESTORATION OF THE SITE IN PREPARATION FOR INSTALLATION OF NEW GUARDRAIL.

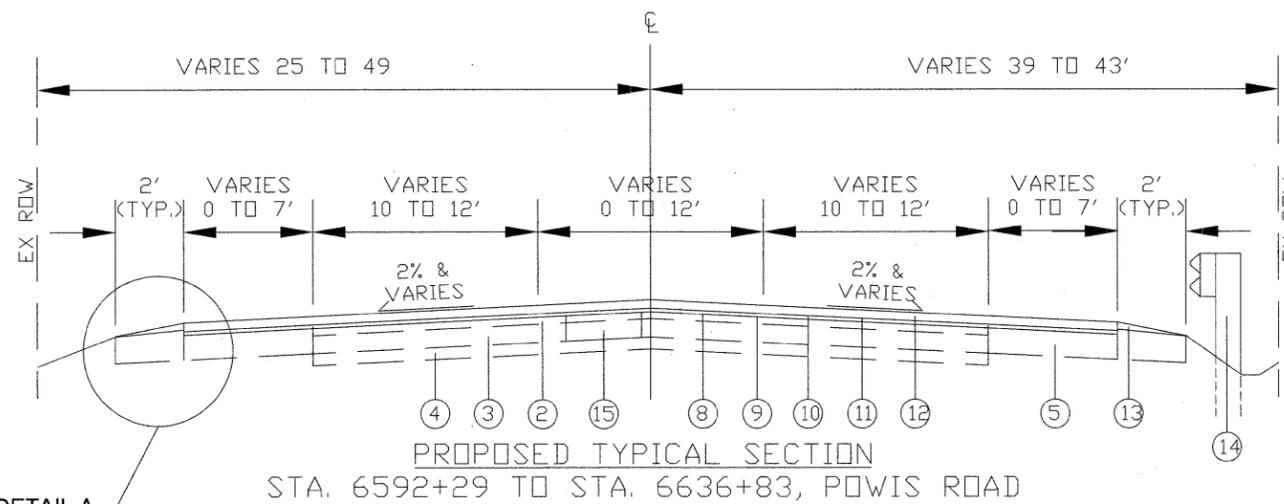
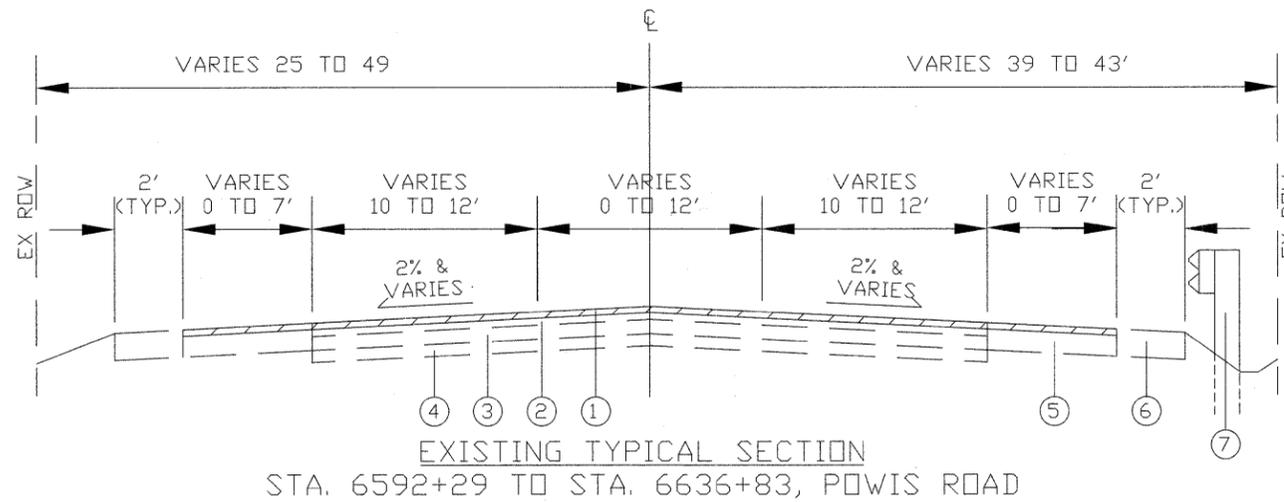
19. THE COST OF REMOVING AND REPLACING EARTH AND SHOULDER MATERIAL NECESSARY FOR INSTALLATION OF GUARDRAIL WILL NOT BE PAID FOR SEPERATELY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR STEEL PLATE BEAM GUARDRAIL, TYPE A. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL FIELD CONDITIONS WHICH RELATE TO THIS ITEM AND ALL OTHER ITEMS ASSOCIATED WITH THIS CONTRACT.
20. ONCE WORK HAS BEGUN ON A CONTINUOUS SECTION OF GUARDRAIL, ALL OF THE GUARDRAIL THAT IS REMOVED FROM THAT SECTION MUST BE REPLACED WITH NEW GUARDRAIL IN THE SAME DAY. NEW GUARDRAIL SHALL BE TEMPORARILY CONNECTED TO REMAINING OLD GUARDRAIL IN A MANNER APPROVED BY THE ENGINEER.
21. GUARDRAIL AND TERMINAL MARKERS SHALL BE INSTALLED THE SAME DAY THAT THE GUARDRAIL AND TERMINAL SECTIONS TO WHICH THEY ARE TO BE ATTACHED. GUARDRAIL MARKERS SHALL NOT BE ATTACHED TO THE TERMINAL SECTIONS.
22. THE CONTRACTOR SHALL PLACE "NO PASSING ZONES NOT STRIPED NEXT \_ MILES" SIGNS AT THE BEGINNING OF UNSTRIPED AREAS, JUST BEYOND EACH MAJOR INTERSECTION WITHIN THE UPSTRIPED AREA, AND AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. THE SIGNS SHALL BE PLACED JUST PRIOR TO REMOVAL OR COVERING OF THE STRIPING AND SHALL REMAIN IN PLACE UNTIL FULL NO PASSING ZONE STRIPING HAS BEEN RESTORED. THESE SIGNS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR MOBILIZATION.
23. THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

DENOTES ITEM(S) OR WORK NOT PAID FOR SEPARATELY

SUMMARY OF QUANTITIES

SPEC. ITEM	PAY CODE	DESCRIPTION	UNIT	TOTAL QUANTITY 1000
	20201010	GRADING EXISTING SHOULDER	SQ YD	145
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1253
	40600300	AGGREGATE (PRIME COAT)	TON	25
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	6.3
	40600895	CONSTRUCTING TEST STRIP	EACH	2
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	80
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	1053
	44000153	HOT-MIX ASPHALT SURFACE REMOVAL, 1"	SQ YD	12530
	44201713	CLASS D PATCHES, TYPE I, 6 INCH	SQ YD	100
	44201717	CLASS D PATCHES, TYPE II, 6 INCH	SQ YD	100
	44201721	CLASS D PATCHES, TYPE III, 6 INCH	SQ YD	150
	44201723	CLASS D PATCHES, TYPE IV, 6 INCH	SQ YD	150
	44212900	PAVEMENT PATCHING (PARTIAL DEPTH)	SQ YD	50
	44300300	AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A	SQ YD	12530
	44301200	STRIP REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM B, 24 INCH	FOOT	500
	48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	180
*	63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	825
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
	63200310	GUARDRAIL REMOVAL	FOOT	325
	67100100	MOBILIZATION	L SUM	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	3300
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	18977
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	98
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	18977
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	150
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	44
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	84
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	147
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	9
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2
*	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	37
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	285
	40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	526

\* = SPECIALTY ITEM



SEE DETAIL A

LEGEND:

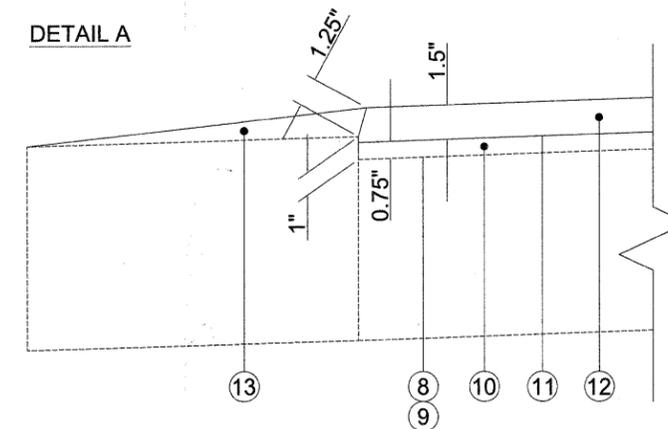
- ① PR HOT-MIX ASPHALT SURFACE REMOVAL, 1"
- ② EX HOT-MIX ASPHALT SURFACE COURSE AND (LEVELING) BINDER COURSE, 3" AND VARIES (1" TO BE MILLED)
- ③ EX HOT-MIX ASPHALT BASE COURSE, VARIES 2" TO 4"
- ④ EX SUBBASE GRANULAR MATERIAL, TYPE B, VARIES 4" TO 18"
- ⑤ EX HOT-MIX ASPHALT SHOULDERS
- ⑥ EX AGGREGATE SHOULDERS
- ⑦ EX GUARDRAIL, REMOVAL (STA. 6609+84 TO STA. 6613+04)
- ⑧ PR AGGREGATE (PRIME COAT)
- ⑨ PR BITUMINOUS MATERIALS (PRIME COAT)
- ⑩ PR POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 0.75"
- ⑪ PR AREA REFLECTIVE CRACK CONTROL TREATMENT, SYSTEM A
- ⑫ PR HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5"
- ⑬ PR AGGREGATE WEDGE SHOULDERS, TYPE B (SEE DETAIL A THIS SHEET)
- ⑭ PR GUARDRAIL, INSTALLATION (STA. 6609+84 TO STA. 6618+03)
- ⑮ PR INTERMITTENT PAVEMENT PATCH

CONTRACTOR SHALL MILL BEFORE PATCHING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>PAVEMENT RESURFACING</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm)	4% @ 50 Gyr.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4% @ 50 Gyr.
<b>PATCHING</b>	
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 Gyr.
PAVEMENT PATCHING (PARTIAL DEPTH) (HMA BINDER IL-19 mm)	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES 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.

DETAIL A



FILE NAME = 03\_Typical Sections\_Powis LAPP  
PLOT DATE = 12/15/09

**thomas** engineering group  
thomas engineering group, llc  
238 south kenilworth avenue  
suite 100  
oak park, il 60302  
phone: 708-533-1700

DESIGNED - DMM  
DRAWN - DMM  
CHECKED - KCV  
DATE - 12/16/09

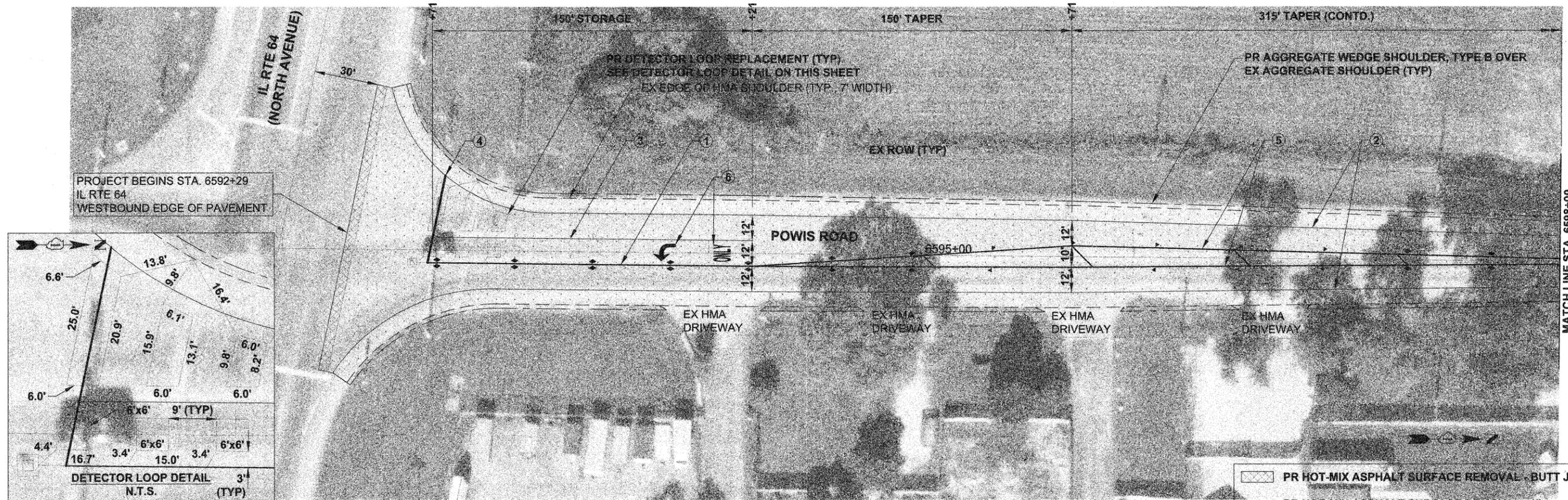
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REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

POWIS ROAD - IL RTE 64 (NORTH AVENUE) TO SMITH ROAD  
TYPICAL SECTIONS  
SCALE: NTS

F.A.U. RTE. 2530	SECTION 09-00075-00-RS	COUNTY DUPAGE	TOTAL SHEETS 15	SHEET NO. 3
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT ARA-9003(403)	

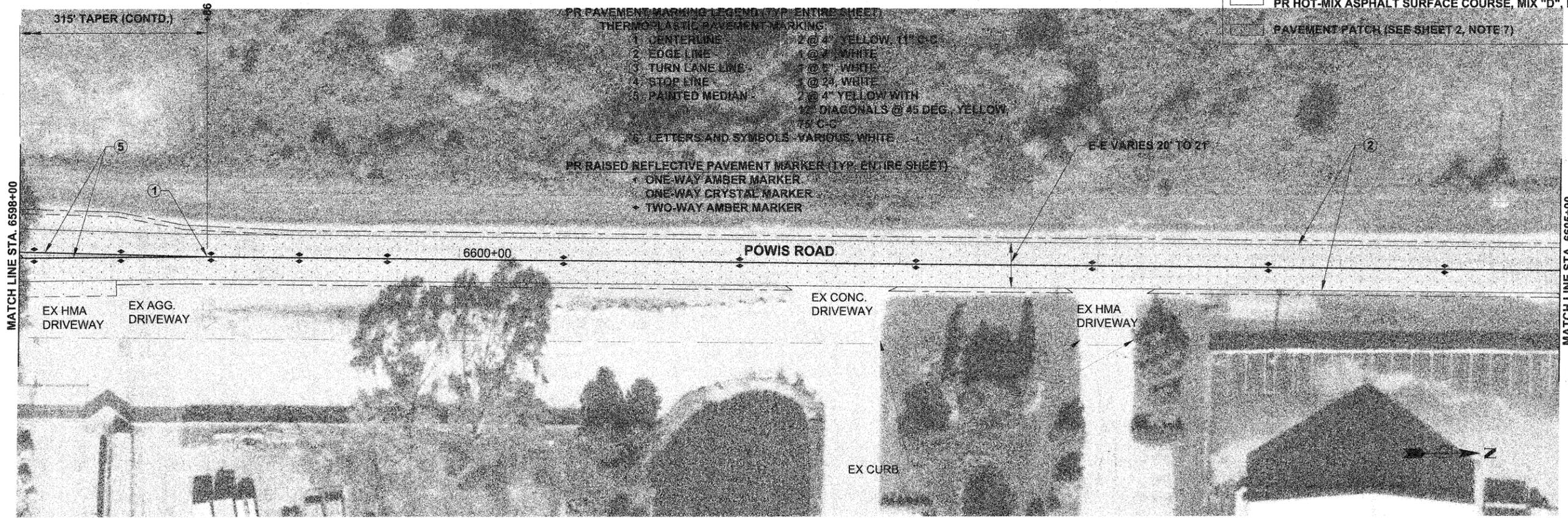
CONTRACT NO. 63350



PROJECT BEGINS STA. 6592+29  
IL RTE 64  
WESTBOUND EDGE OF PAVEMENT

DETECTOR LOOP DETAIL  
N.T.S. (TYP)

- PR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- PR HOT-MIX ASPHALT SURFACE REMOVAL, 1" PR POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PR HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- PAVEMENT PATCH (SEE SHEET 2, NOTE 7)



- PR PAVEMENT MARKING LEGEND (TYP. ENTIRE SHEET)  
THERMO-LASTIC PAVEMENT MARKING
- 1 CENTERLINE 2 @ 4" YELLOW (1" C-C)
  - 2 EDGE LINE 1 @ 7" WHITE
  - 3 TURN LANE LINE 1 @ 5" WHITE
  - 4 STOP LINE 1 @ 24" WHITE
  - 5 PAINTED MEDIAN 2 @ 4" YELLOW WITH 1/2" DIAGONALS @ 45 DEG. YELLOW, 75" C-C
  - 6 LETTERS AND SYMBOLS - VARIOUS, WHITE
- PR RAISED REFLECTIVE PAVEMENT MARKER (TYP. ENTIRE SHEET)
- ↑ ONE-WAY AMBER MARKER
  - ↑ ONE-WAY CRYSTAL MARKER
  - ↔ TWO-WAY AMBER MARKER

FILE NAME = 04-07\_Plan Sheets\_Powis LAPP  
PLOT DATE = 12/15/09



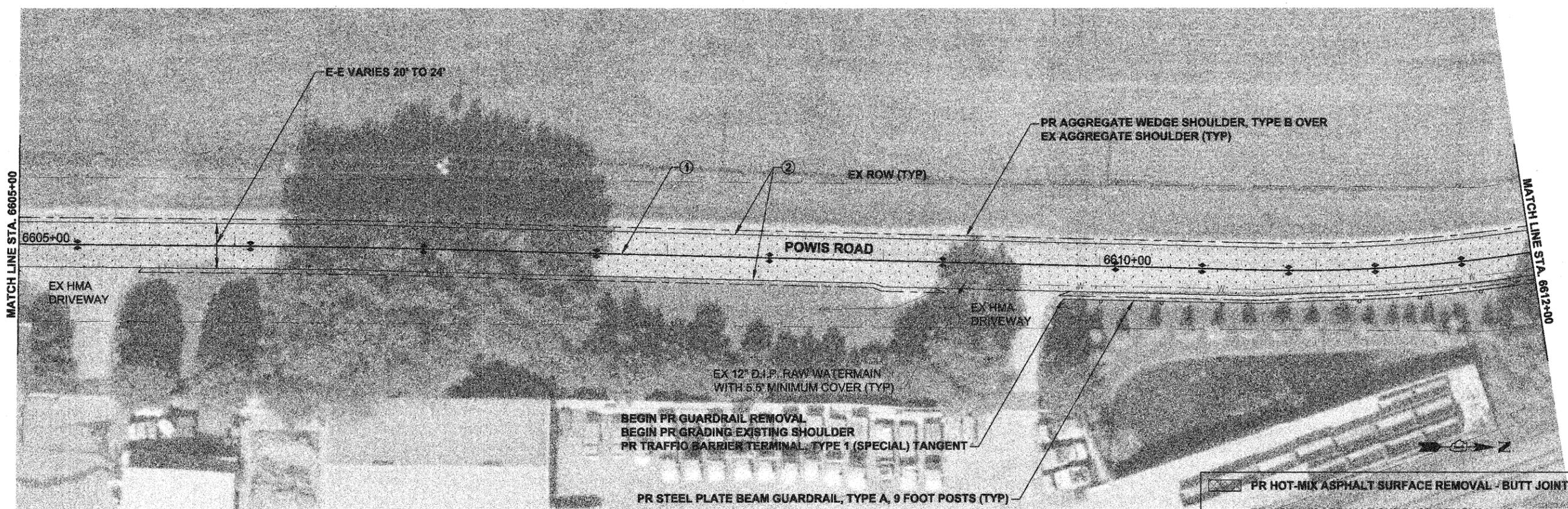
DESIGNED - BLP	REVISED -
DRAWN - BLP	REVISED -
CHECKED - DMM	REVISED -
DATE - 12/16/09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

POWIS ROAD - IL RTE 64 (NORTH AVENUE) TO SMITH ROAD  
PLAN SHEET

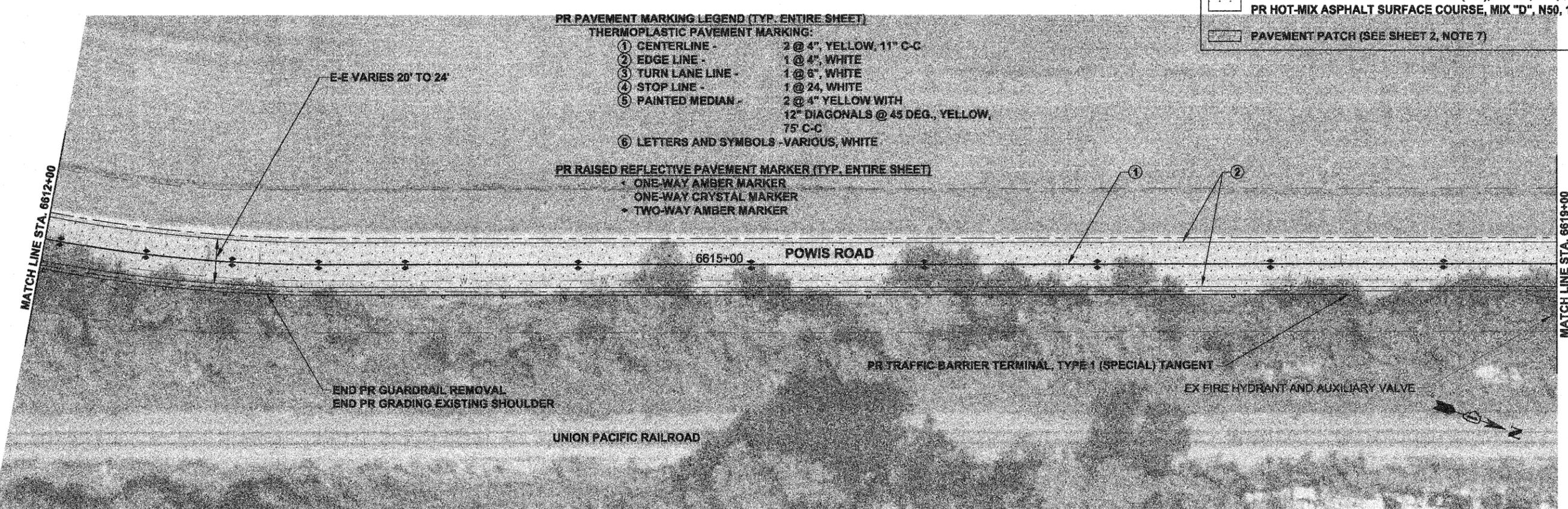
SCALE: 1" = 50' STA. 6591+98 TO STA. 6605+00

F.A.U. RTE. 2530	SECTION 09-00075-00-RS	COUNTY DUPAGE	TOTAL SHEETS 15	SHEET NO. 4
CONTRACT NO. 63350				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(403)				



- PR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- PR HOT-MIX ASPHALT SURFACE REMOVAL, 1"
- PR POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PR HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- PAVEMENT PATCH (SEE SHEET 2, NOTE 7)

- PR PAVEMENT MARKING LEGEND (TYP. ENTIRE SHEET)**
- THERMOPLASTIC PAVEMENT MARKING:**
- ① CENTERLINE - 2 @ 4", YELLOW, 11" C-C
  - ② EDGE LINE - 1 @ 4", WHITE
  - ③ TURN LANE LINE - 1 @ 6", WHITE
  - ④ STOP LINE - 1 @ 24", WHITE
  - ⑤ PAINTED MEDIAN - 2 @ 4" YELLOW WITH 12" DIAGONALS @ 45 DEG., YELLOW, 75' C-C
  - ⑥ LETTERS AND SYMBOLS - VARIOUS, WHITE
- PR RAISED REFLECTIVE PAVEMENT MARKER (TYP. ENTIRE SHEET)**
- ONE-WAY AMBER MARKER
  - ONE-WAY CRYSTAL MARKER
  - TWO-WAY AMBER MARKER



FILE NAME = 04-07\_Plan Sheets\_Powis LAPP  
 PLOT DATE = 12/16/09

**thomas**  
 engineering group  
 thomas engineering group, llc  
 238 south bentworth avenue  
 suite 100  
 oak park, il 60302  
 phone: 708-633-1700

DESIGNED - BLP	REVISED -
DRAWN - BLP	REVISED -
CHECKED - DMM	REVISED -
DATE - 12/16/09	REVISED -

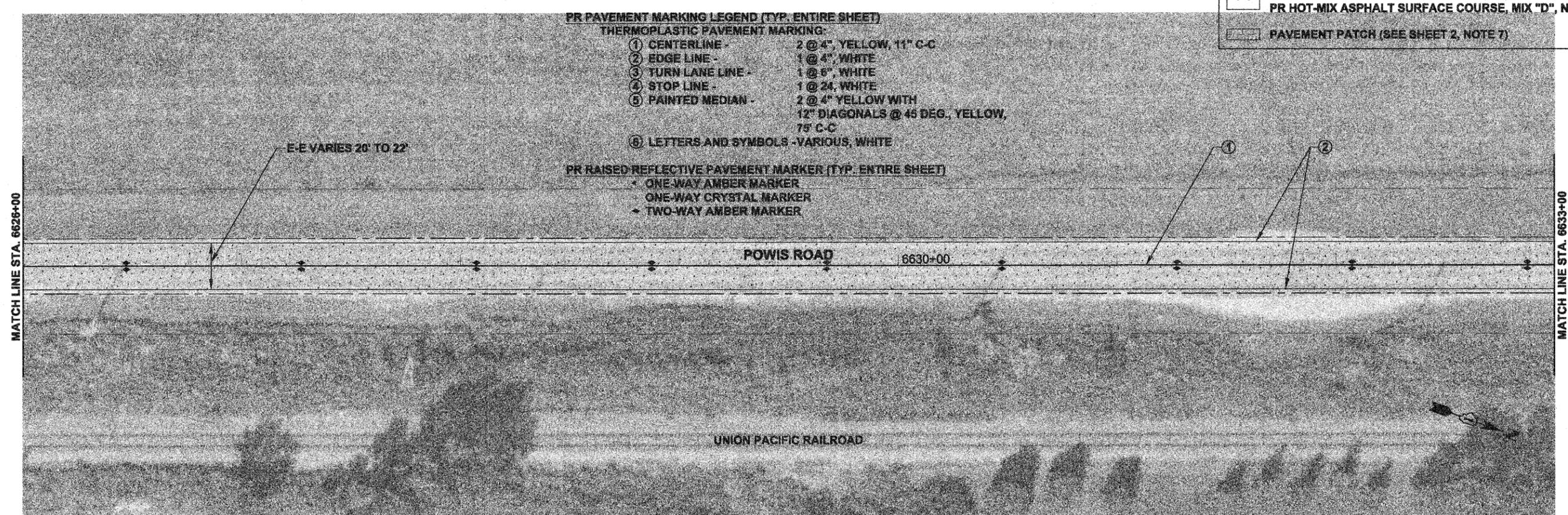
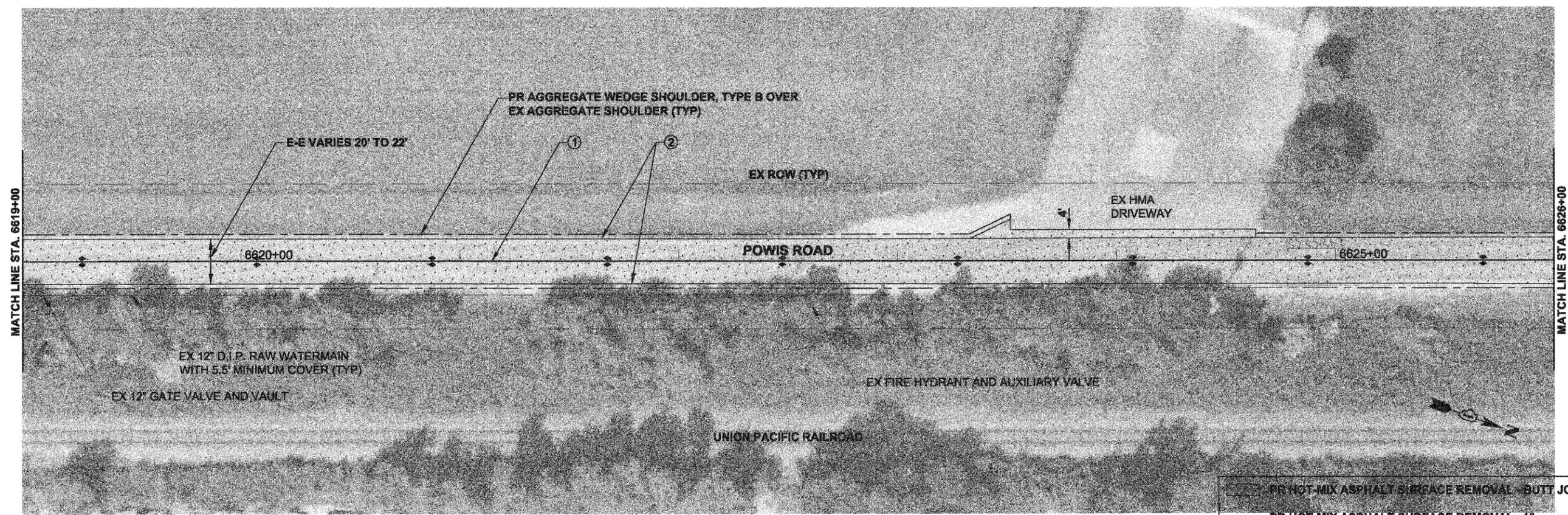
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**POWIS ROAD - IL RTE 64 (NORTH AVENUE) TO SMITH ROAD**

**PLAN SHEET**

SCALE: 1" = 80'      STA. 6605+00 TO STA. 6619+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2530	09-00075-00-RS	DUPAGE	15	5
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 63350	
FED. AID PROJECT ARA-903(463)				



- PR PAVEMENT MARKING LEGEND (TYP. ENTIRE SHEET)**
- THERMOPLASTIC PAVEMENT MARKING:**
- ① CENTERLINE - 2 @ 4" YELLOW, 11" C-C
  - ② EDGE LINE - 1 @ 4" WHITE
  - ③ TURN LANE LINE - 1 @ 6" WHITE
  - ④ STOP LINE - 1 @ 24" WHITE
  - ⑤ PAINTED MEDIAN - 2 @ 4" YELLOW WITH 12" DIAGONALS @ 45 DEG., YELLOW, 75' C-C
  - ⑥ LETTERS AND SYMBOLS - VARIOUS, WHITE
- PR RAISED REFLECTIVE PAVEMENT MARKER (TYP. ENTIRE SHEET)**
- ONE-WAY AMBER MARKER
  - ONE-WAY CRYSTAL MARKER
  - TWO-WAY AMBER MARKER

- PR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- PR HOT-MIX ASPHALT SURFACE REMOVAL, 1"
- PR POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- PR HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- PAVEMENT PATCH (SEE SHEET 2, NOTE 7)

FILE NAME = 04-07\_Plan 04a2a\_Powis LAPP  
 PLOT DATE = 12/16/09

**thomas** engineering group  
 238 south lisle/robert avenue  
 suite 100  
 oak park, il 60452  
 phone: 708-333-1700

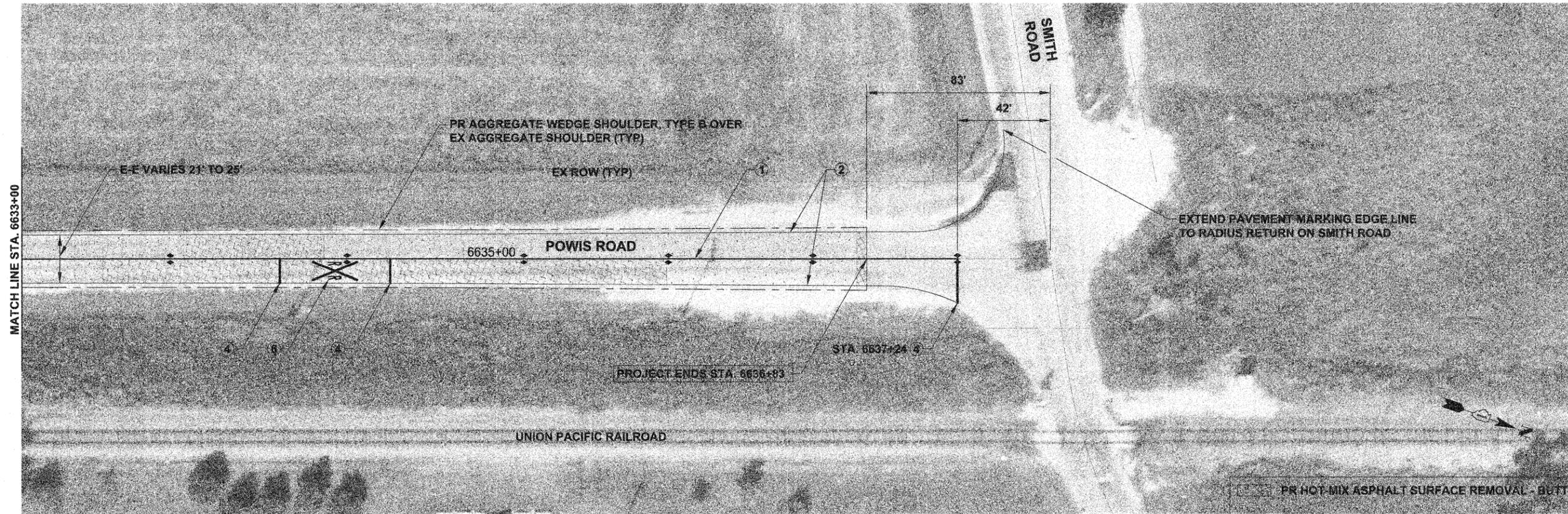
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DRAWN - BLP	REVISED -
CHECKED - DMM	REVISED -
DATE - 12/16/09	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**POWIS ROAD - IL RTE 64 (NORTH AVENUE) TO SMITH ROAD**  
**PLAN SHEET**

SCALE: 1" = 50'      STA. 6619+00 TO STA. 6633+00

F.A.U. RTE. 2630	SECTION 09-00075-00-R6	COUNTY DUPAGE	TOTAL SHEETS 15	SHEET NO. 6
CONTRACT NO. 63350				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT ARA-9063(403)		



-  PR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
-  PR HOT-MIX ASPHALT SURFACE REMOVAL, 1"
-  PR POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4"
-  PR HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
-  PAVEMENT PATCH (SEE SHEET 2, NOTE 7)

**PR PAVEMENT MARKING LEGEND (TYP. ENTIRE SHEET)**

**THERMOPLASTIC PAVEMENT MARKING:**

- ① CENTERLINE - 2 @ 4", YELLOW, 11" C-C
- ② EDGE LINE - 1 @ 4", WHITE
- ③ TURN LANE LINE - 1 @ 6", WHITE
- ④ STOP LINE - 1 @ 24", WHITE
- ⑤ PAINTED MEDIAN - 2 @ 4" YELLOW WITH 12" DIAGONALS @ 45 DEG., YELLOW, 75' C-C
- ⑥ LETTERS AND SYMBOLS - VARIOUS, WHITE

**PR RAISED REFLECTIVE PAVEMENT MARKER (TYP. ENTIRE SHEET)**

- ◆ ONE-WAY AMBER MARKER
- ◇ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

FILE NAME = 04-07\_Plan Sheets\_Powis LAPP  
 PLOT DATE = 12/15/09

**thomas** engineering group  
 thomas engineering group, llc  
 238 south kentworth avenue  
 suite 100  
 oak park, il 60302  
 phone: 708-533-1700

DESIGNED - BLP	REVISED -
DRAWN - BLP	REVISED -
CHECKED - DMM	REVISED -
DATE - 12/16/09	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

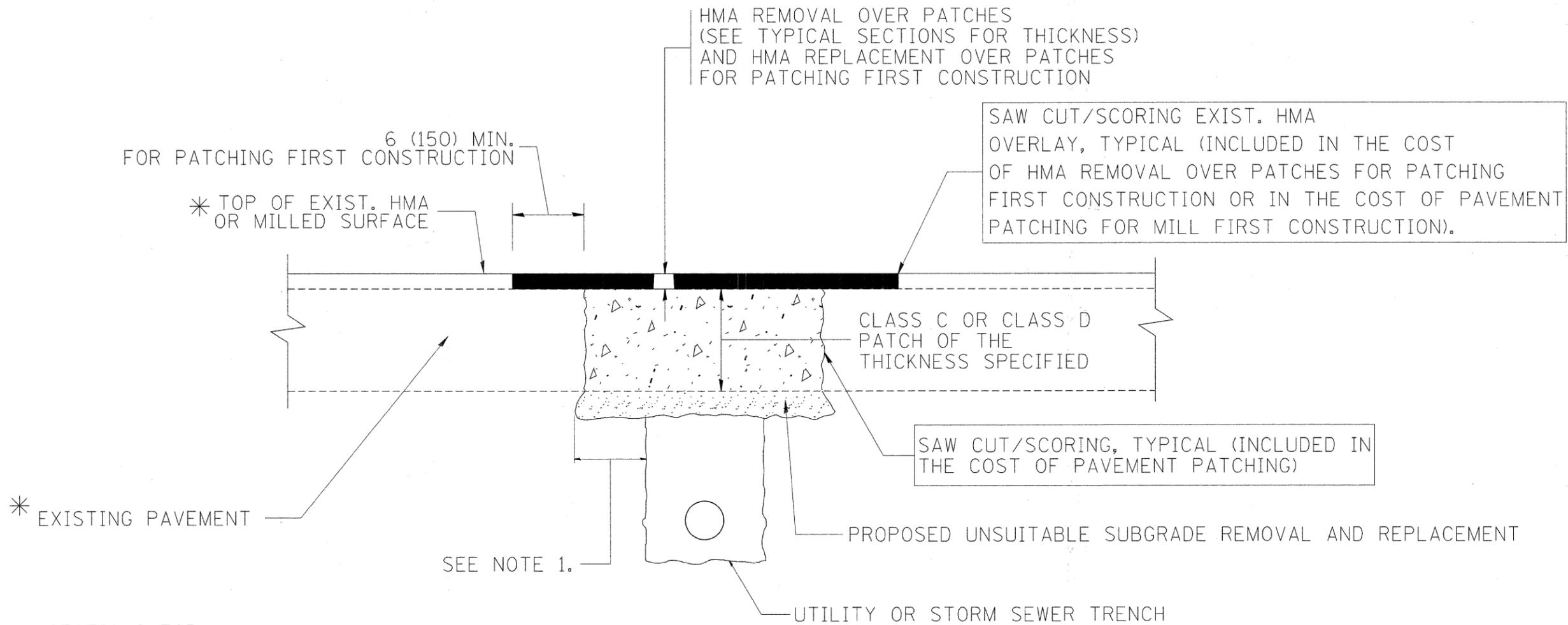
**POWIS ROAD - IL RTE 64 (NORTH AVENUE) TO SMITH ROAD**

**PLAN SHEET**

SCALE: 1" = 50'

STA. 6633+00 TO STA. 6637+66

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2530	09-00075-00-RS	DUPAGE	15	7
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT ARA-9003(403)	
			CONTRACT NO. 63350	



\* 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)

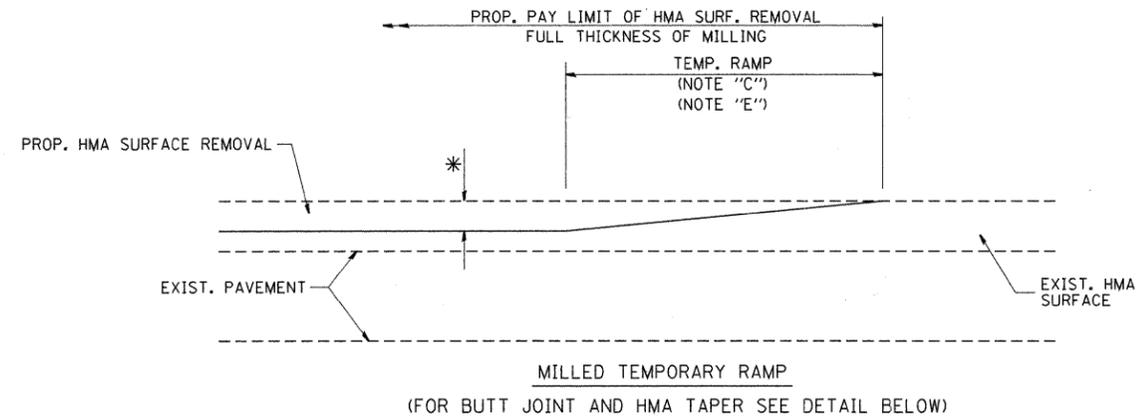
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

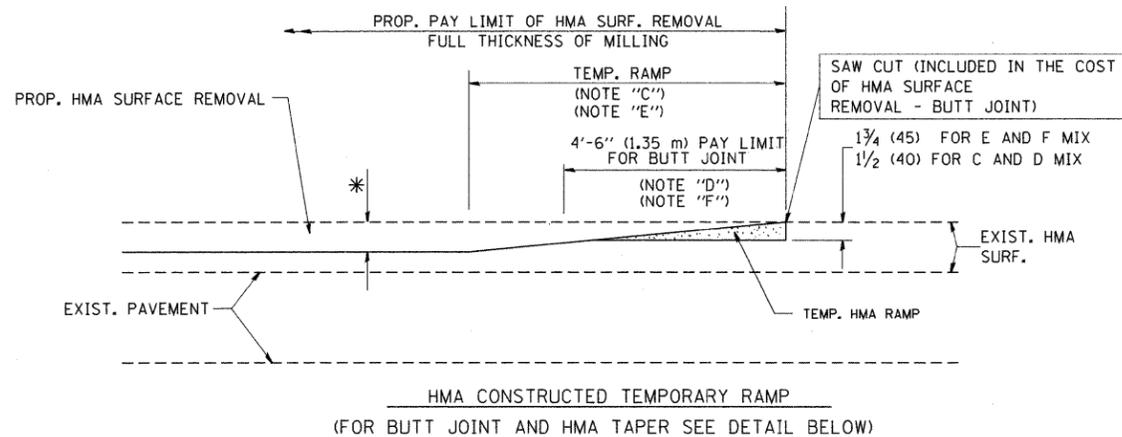
1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

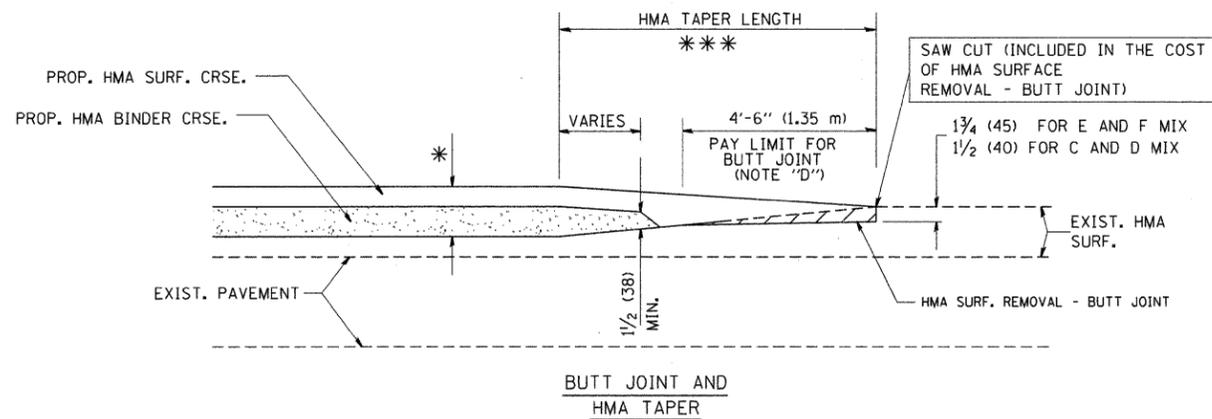
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	PLOT SCALE = 50.000' / IN.	DRAWN -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BD400-04 (BD-22)</b>		CONTRACT NO. 63350	
	PLOT DATE = 10/27/2008	CHECKED -	REVISED - R. BORO 09-04-07		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT ARA-9003(403)							
		DATE - 10-25-94	REVISED - K. ENG 10-27-08									



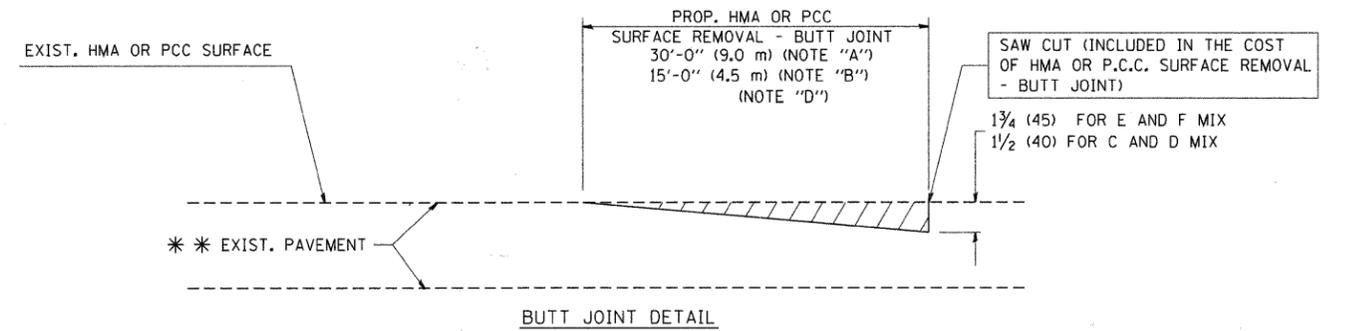
**OPTION 1**



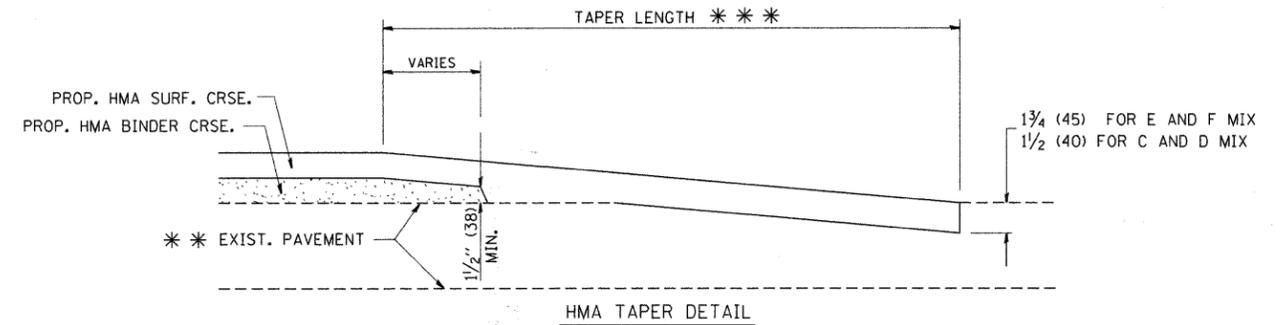
**OPTION 2  
TYPICAL TEMPORARY RAMP**



**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")

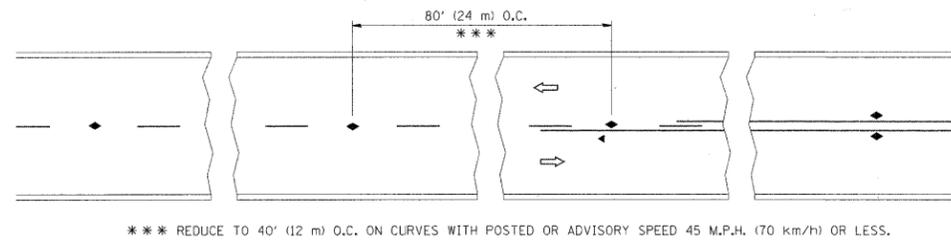
**BASIS OF PAYMENT:**

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".

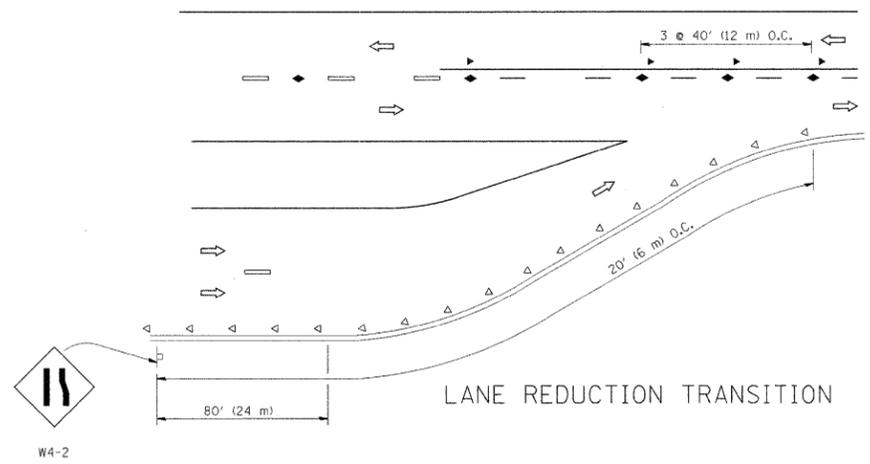
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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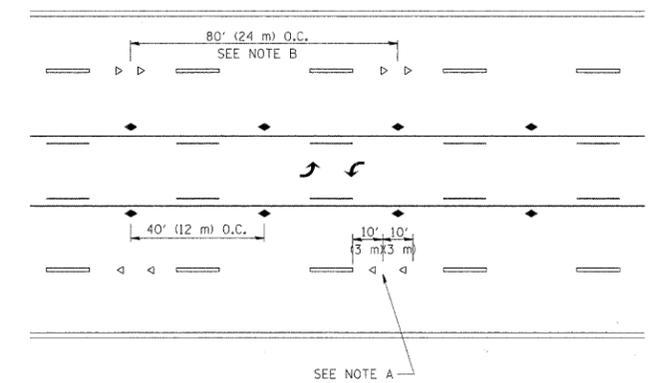




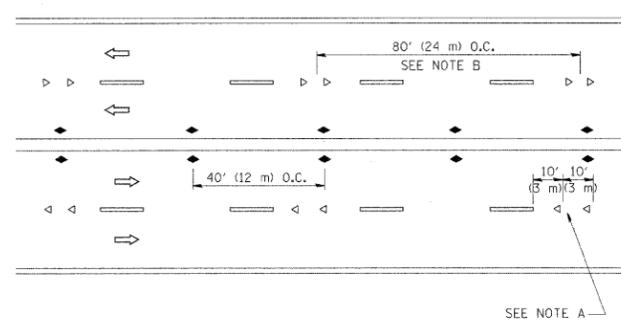
TWO-LANE/TWO-WAY



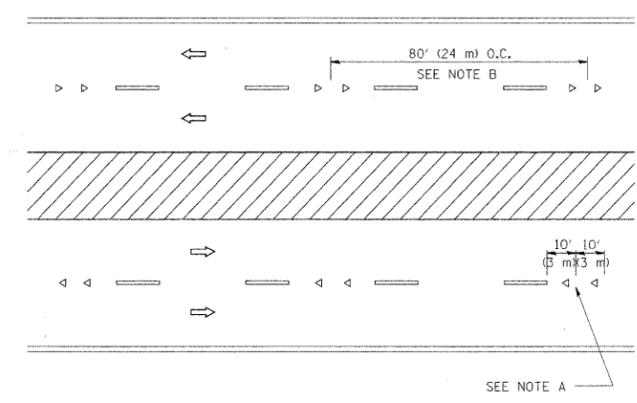
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

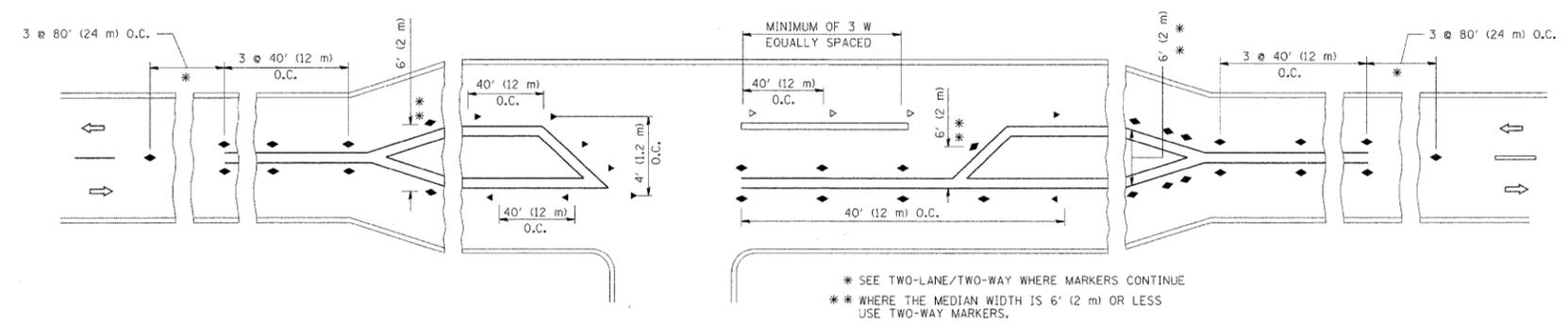
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

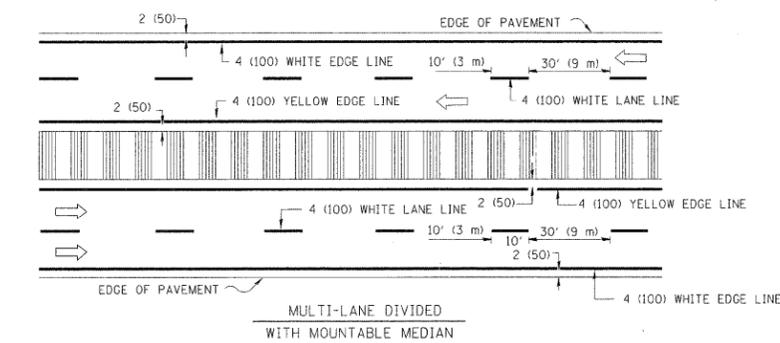
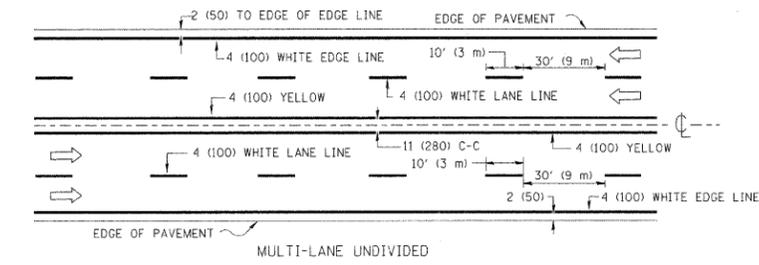
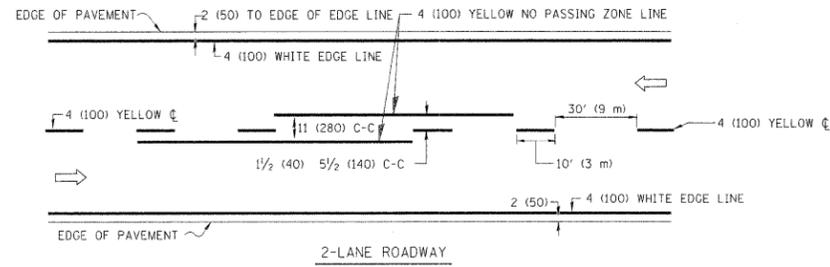
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



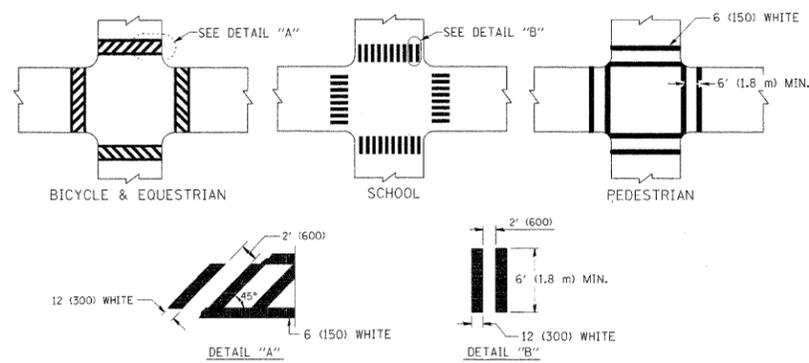
LEFT TURN

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

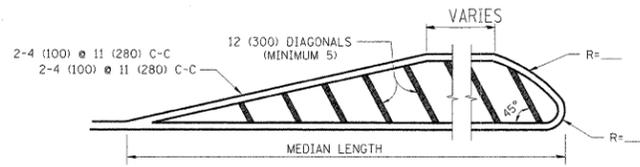
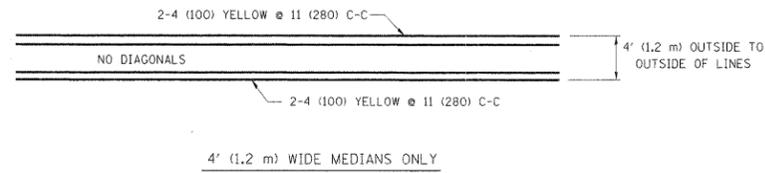
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01:\pwr\work\p1ezdot\drivakosgn\d9108315\to1.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99		<b>RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)</b>			2530	09-00075-00-RS	DUPAGE	15	11	
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PLOT DATE = 9/9/2009		DATE -	REVISED - C. JUCIUS 09-09-09					FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT			ARA-9003(403)		



TYPICAL LANE AND EDGE LINE MARKING



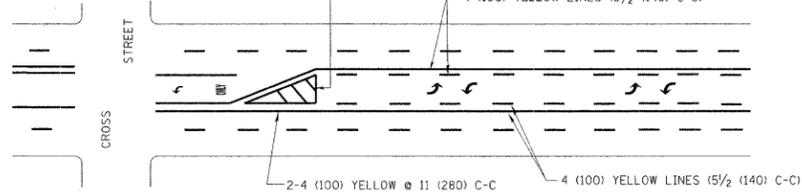
TYPICAL CROSSWALK MARKING



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

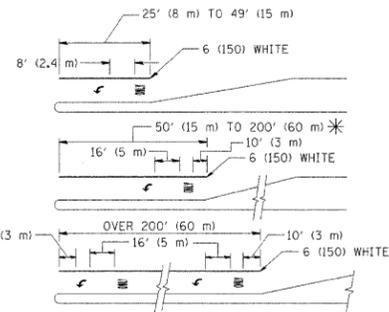
MEDIANS OVER 4' (1.2 m) WIDE



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

MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

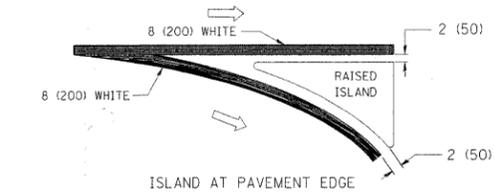
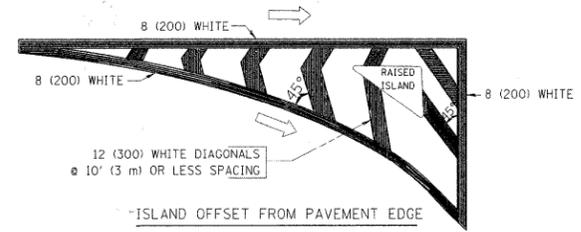


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



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	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
5 (125) ON FREEWAYS	SKIP-DASH	WHITE		
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	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
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
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 T80001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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 T80001.

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

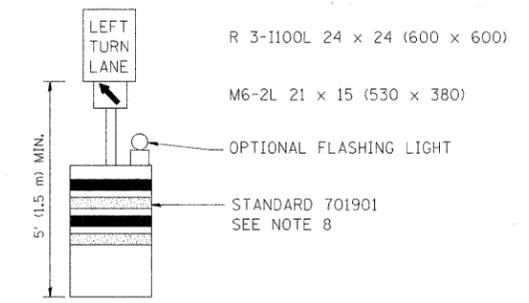
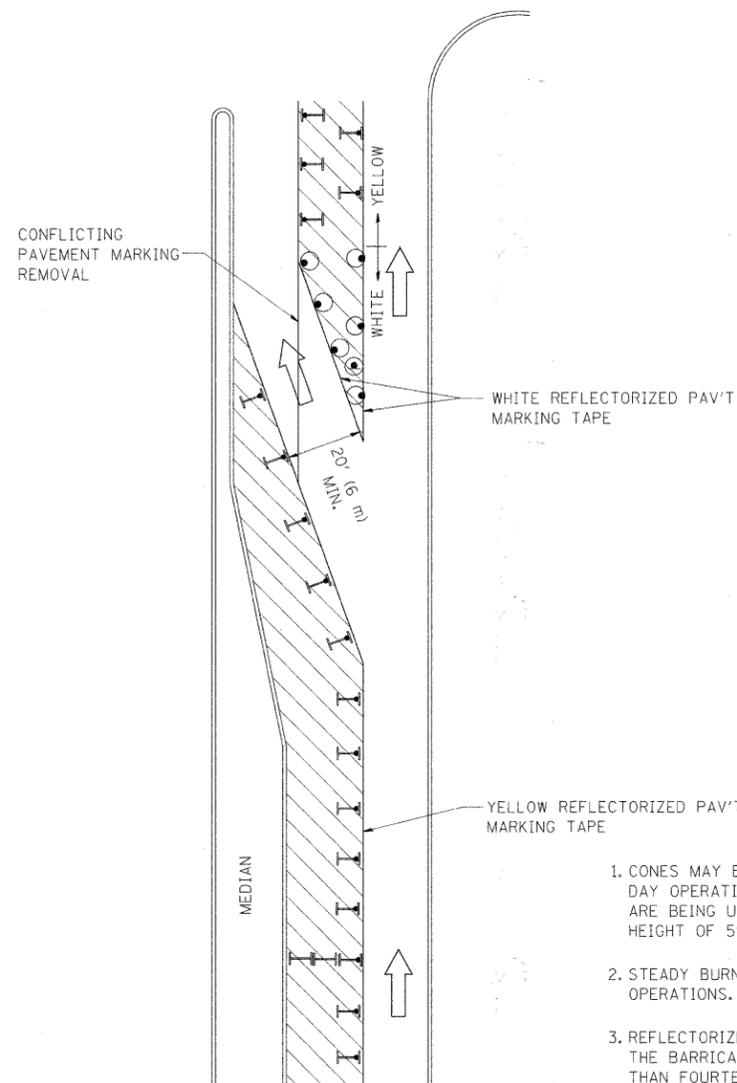
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		CHECKED =	REVISED =
		DATE = 03-19-90	REVISED =

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

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

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2530	09-00075-00-RS	DUPAGE	15	12
TC-13		CONTRACT NO.	63350	
FED. ROAD DIST. NO. 1 [ILLINOIS]		FED. AID PROJECT	ARA-9003(403)	



**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

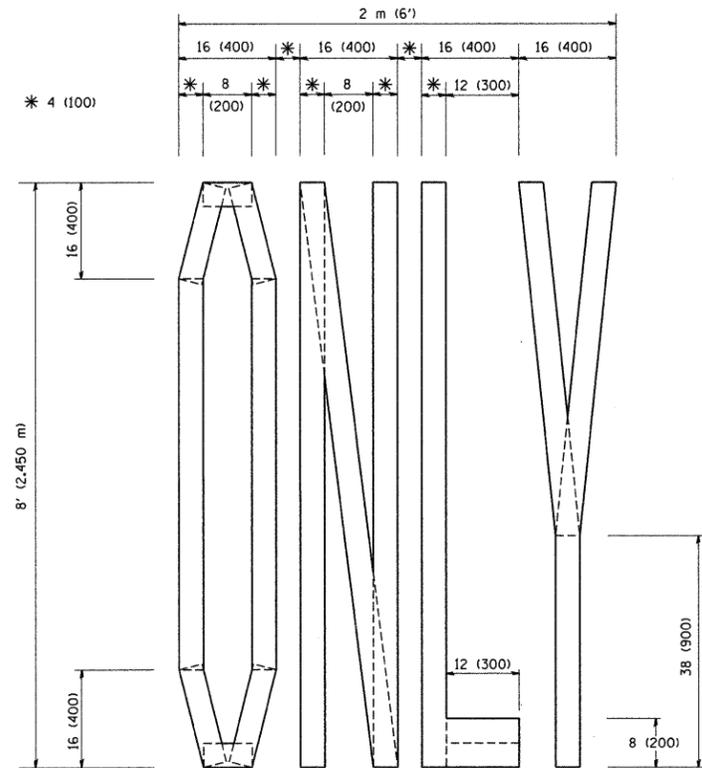
FILE NAME =	USER NAME = drivakosgn	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
g:\pw\work\XPWIDOT\DRIVAKOSGN\0108315\14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT SCALE = 49,9999" / IN.	REVISED - A. HOUSEH 10-12-96	REVISED -
	PLOT DATE = 9/14/2009	REVISED - T. RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

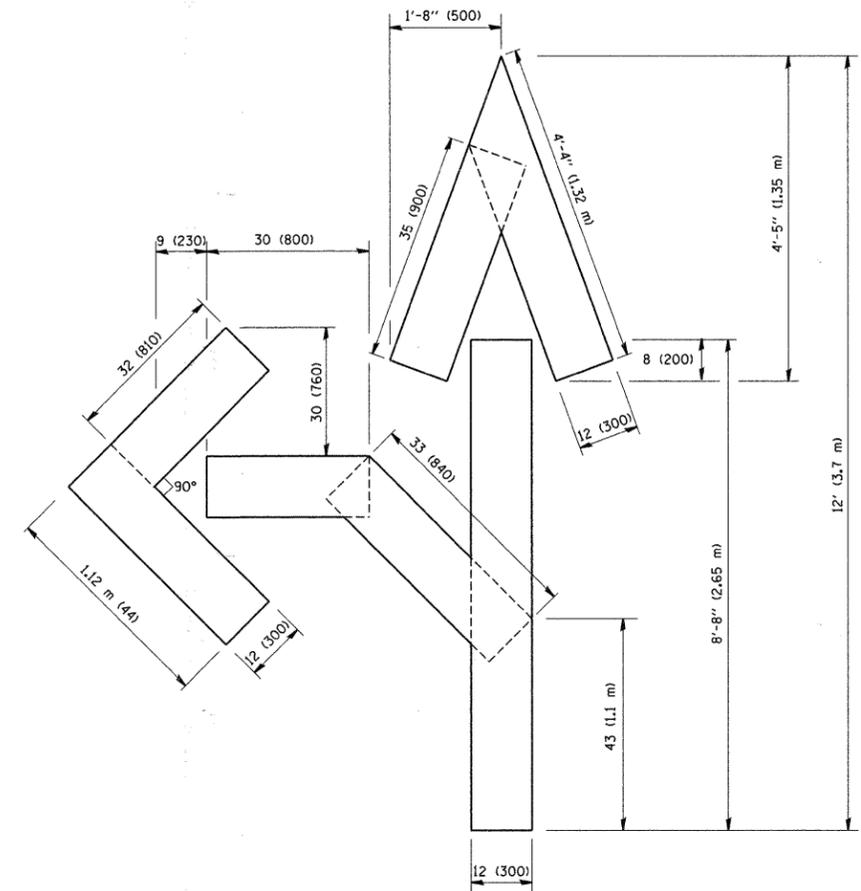
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS  
(TO REMAIN OPEN TO TRAFFIC)**

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

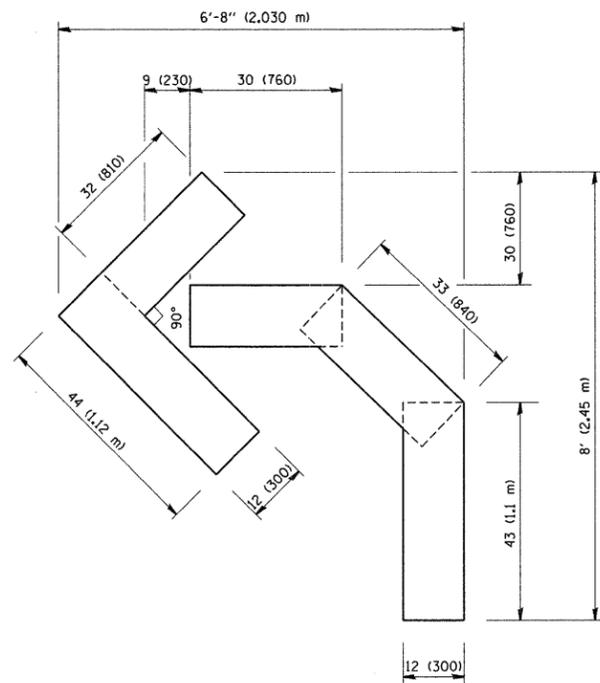
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2530	09-00075-00-RS	DUPAGE	15	13
<b>TC-14</b>			CONTRACT NO. 63350	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(403)				



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 = W:\diststd\22x34\tcl6.dgn	USER NAME = geglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE = 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

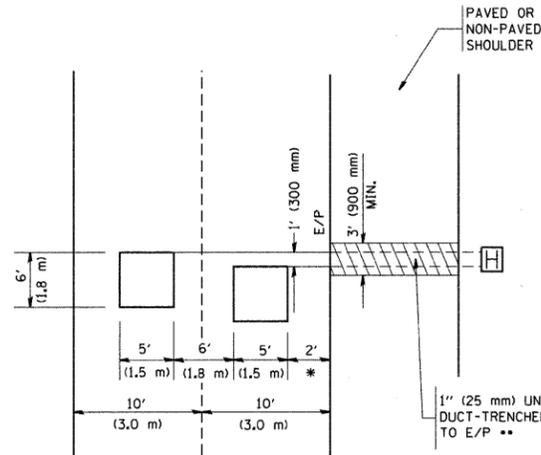
PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

F.A.U. RTE. 2530	SECTION 09-00075-00-RS	COUNTY DUPAGE	TOTAL SHEETS 15	SHEET NO. 14
TC-16		CONTRACT NO. 63350		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT ARA-9003(403)				

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

**LOOPS NEXT TO SHOULDERS**

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

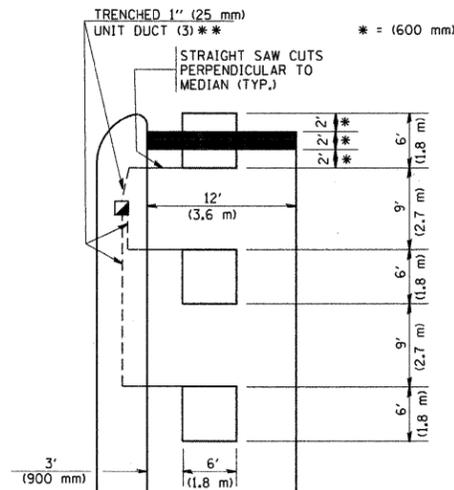


\* = (600 mm)

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

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

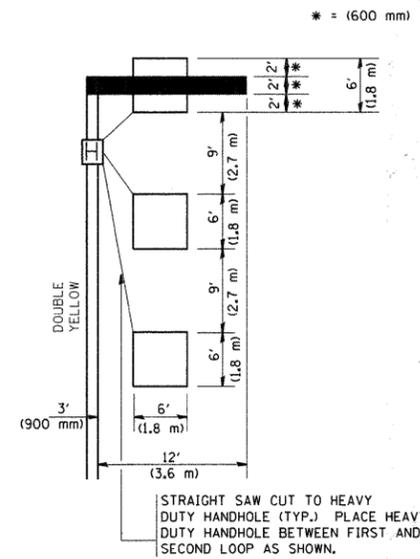
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

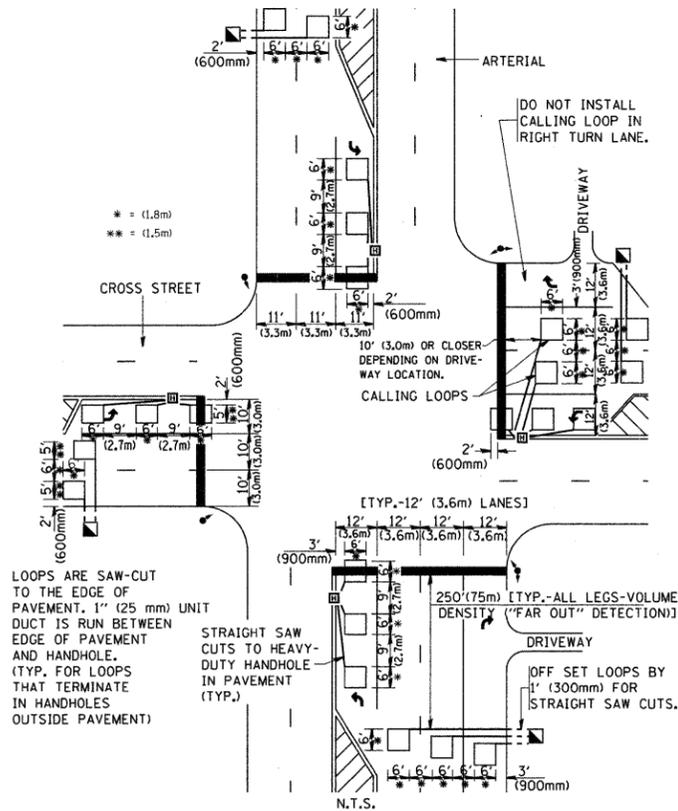
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



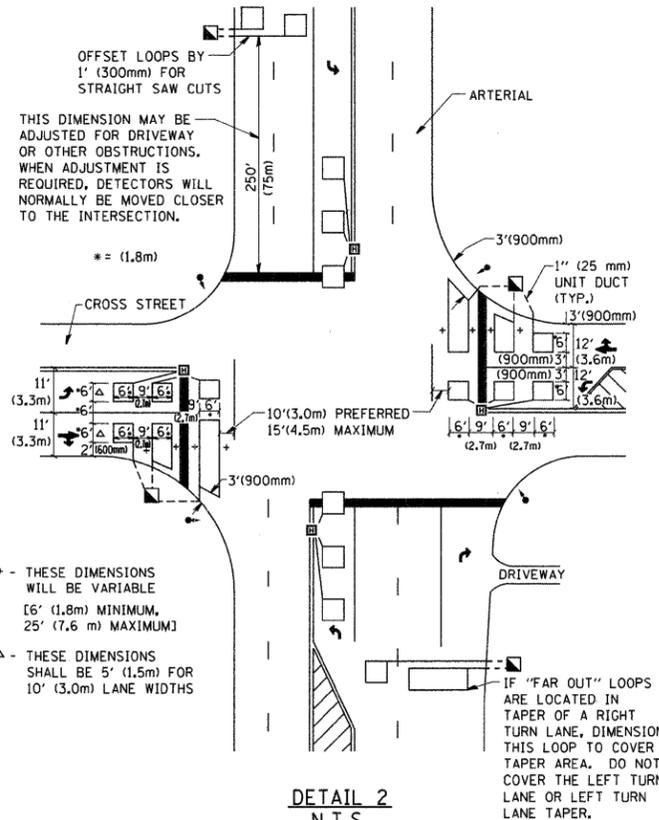
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**DETAIL 1  
N.T.S.**

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



**DETAIL 2  
N.T.S.**

**NOTES:**

**VEHICLES LOOP DETECTORS**

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

**PLACEMENT OF DETECTORS**

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

LOCATIONS AND 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:\diststd\22x34\ts07.dgn	USER NAME = gagiamobt	DESIGNED - DRAWN - CHECKED - R.K.F. DATE -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING</b>				F.A.U. RTE. 2530	SECTION 09-0075-00-RS	COUNTY DUPAGE	TOTAL SHEETS 15	SHEET NO. 15
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT ARA-9003(403)				