

11-06-2015 LETTING ITEM 092

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

VARIOUS ROUTES
VARIOUS LOCATIONS
SECTION 2015-0581
PERMANENT PROTECTIVE SHIELDING
VARIOUS COUNTIES

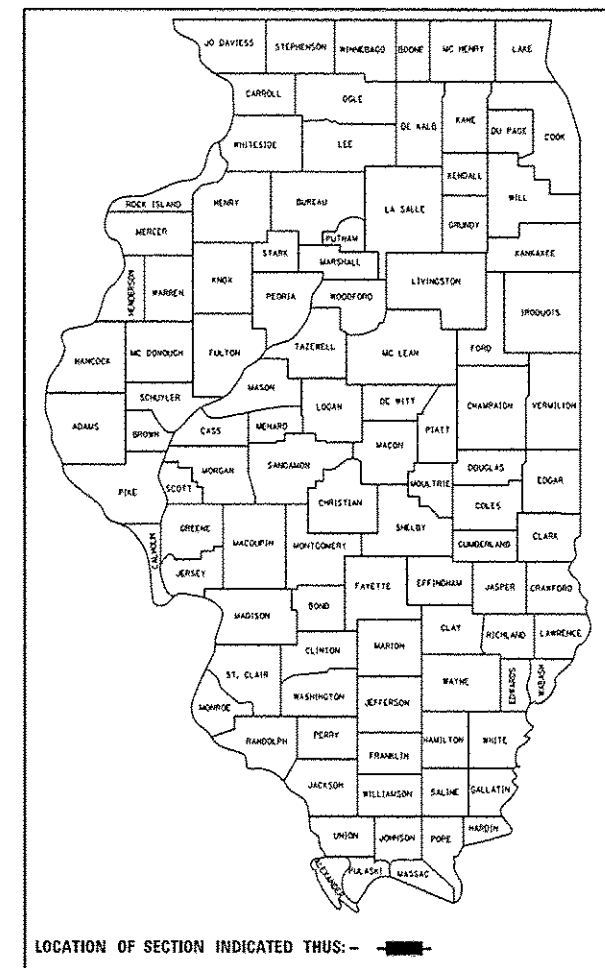
C-91-401-15

- LOC 1) PAULINA AVE. OVER I-290 SN 016-0098
LOC 2) 5TH AVE. OVER I-290 SN 016-0692
LOC 3) 159TH ST. OVER I-57 SN 016-1013
LOC 4) STEGER RD. OVER I-57 SN 016-1108
LOC 5) YORK RD. OVER IL 38 SN 022-0067
LOC 6) IL 120 OVER US 41 SN 049-0050

FOR LOCATION MAPS SEE SHEETS 4 & 5

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2015-0581	VARIOUS	21	1
ILLINOIS			CONTRACT NO. 62B23	

D-91-401-15



FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENTS ARE LOCATED IN THE CITY OF CHICAGO
AND VILLAGES OF MARKHAM, MAYWOOD, PARK CITY,
UNIVERSITY PARK AND YORKFIELD

C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
1-312-744-7000

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

PROJECT ENGINEER J. ALAIN MIDY (847) 221-3056
PROJECT MANAGER ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 62B23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 15, 2015
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

[Signature] 2015
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 2, 2015
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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STATE STANDARDS

- 701101-04 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701400-08 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-09 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701411-09 LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEEDS $\geq$ 45 MPH
- 701421-07 LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY FOR SPEEDS $\geq$ 45 MPH TO 55 MPH
- 701428- TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAYS
- 701446-06 TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701901-04 TRAFFIC CONTROL DEVICES

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION) AT (1-800)-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4151 FOR EXPRESSWAY AND (847) 705-4470 FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BUREAU OF MAINTENANCE BRIDGE INSPECTORS.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

THE CONTRACTOR SHALL RELOCATE ANY CONDUIT ATTACHED TO THE FLANGE PRIOR TO THE INSTALLATION OF THE PROTECTIVE SHIELDING. UNDER NO CIRCUMSTANCES SHALL THE PROTECTIVE SHIELDING REST ON TOP OF THE CONDUIT. ANY DAMAGES CAUSED BY THE CONTRACTOR TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.

ANY WORK DONE BY THE CONTRACTOR ON THE UNDERPASS LIGHTING SYSTEM WILL REQUIRE A TRANSFER OF MAINTENANCE OF THE EFFECTED CIRCUITS TO THE CONTRACTOR. ALTERNATIVELY, THE CONTRACTOR CAN AVOID A MAINTENANCE TRANSFER BY HIRING THE DEPARTMENT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC) TO RELOCATE THE CONDUIT.

WHERE UNDERPASS LIGHTING IS PRESENT ON A STRUCTURE, THE CONTRACTOR SHALL ADJUST THE PROTECTIVE SHIELDING TO RIDE ABOVE THE EXISTING LIGHTING FIXTURES IN ORDER TO MAINTAIN THE EXISTING LEVEL OF LIGHTING ON THE ROADWAY UNDERNEATH. DETAILS SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. A CLEARANCE OF $1\frac{1}{2}" \pm \frac{1}{4}"$ AROUND THE FIXTURE SHALL BE PROVIDED FOR FUTURE MAINTENANCE.

ANY ADJUSTMENT DONE TO THE PROTECTIVE SHIELD SYSTEM MUST NOT CHANGE THE LOAD CARRYING CAPACITY OR CONTAINMENT SPECIFICATIONS AS INDICATED ON THE PERMANENT PROTECTIVE SHIELDING DETAILS LOCATED IN THE PLANS. COST OF ADJUSTING SHIELDING IS INCLUDED IN THE COST OF PROTECTIVE SHIELD (PERMANENT).

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL FIBER OPTIC UTILITIES PRIOR TO STARTING CONSTRUCTION.

CONTRACTOR MUST COMPLETE WORK WITHOUT DISTURBING ANY EXISTING LIGHTING AND SURVEILLANCE CONDUIT OR JUNCTION BOXES. IF INSTALLATIONS ARE DAMAGED IN THE PROCESS, CONTRACTOR SHALL REPAIR OR REPLACE EXISTING ELECTRICAL INSTALLATIONS IN COMPLIANCE WITH ELECTRICAL OR SURVEILLANCE CONSTRUCTION SPECIFICATIONS.

FILE NAME : p:\1108468ID\INTEG\Illinois.gov\FW100T\Documents\100T\Office\District 1\Projects\014810\Drawings\Design\014810S-shield-plan.dgn	USER NAME : pgrzanowski	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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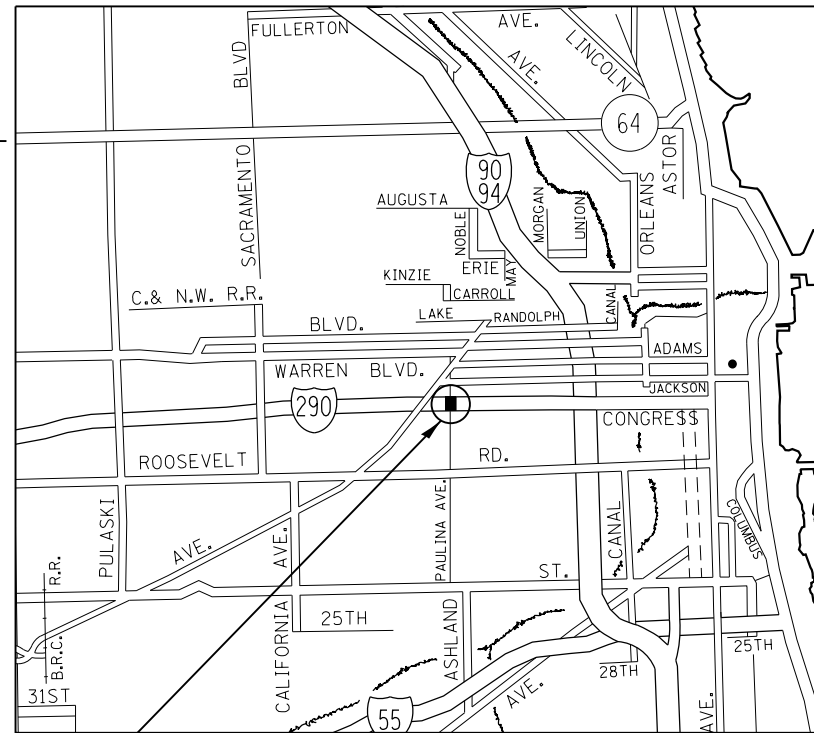
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LOCATION 1

R 13 E | R 14 E

T 39 N | T 40 N



WEST CHICAGO TOWNSHIP

PAULINA AVE. OVER I-290
CITY OF CHICAGO
(SN 016-0098)

TRAFFIC DATA: (I-290)
SPEED LIMIT = 55 MPH
2014 ADT = 181,900

TRAFFIC DATA: (PAULINA AVE.)
SPEED LIMIT = 30 MPH
2014 ADT = 3,450

LOCATION 2

R 12 E

T 39 N



PROVISO TOWNSHIP

5TH AVE. OVER I-290
VILLAGE OF MAYWOOD
(SN 016-0692)

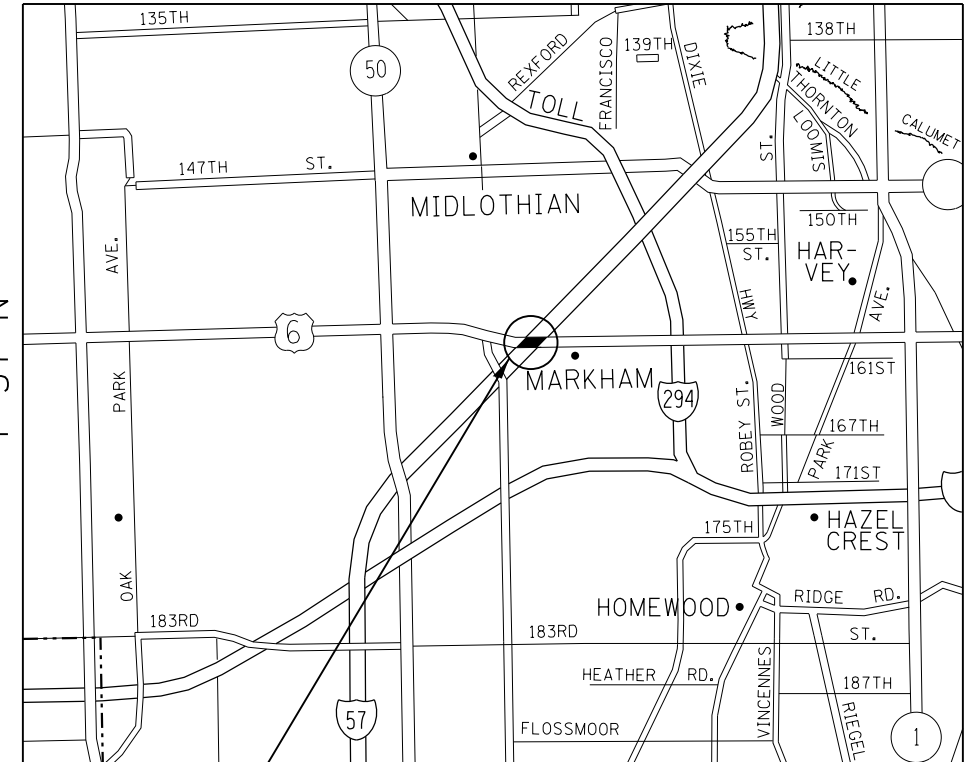
TRAFFIC DATA: (I-290)
SPEED LIMIT = 55 MPH
2014 ADT = 185,700

TRAFFIC DATA: (5TH AVE.)
SPEED LIMIT = 25 MPH
2014 ADT = 8,550

LOCATION 3

R 13 E | R 14 E

T 37 N



BREMEN TOWNSHIP

159TH ST OVER I-57
VILLAGE OF MARKHAM
(SN 016-1013)

TRAFFIC DATA: (I-57)
SPEED LIMIT = 55 MPH
2014 ADT = 84,400

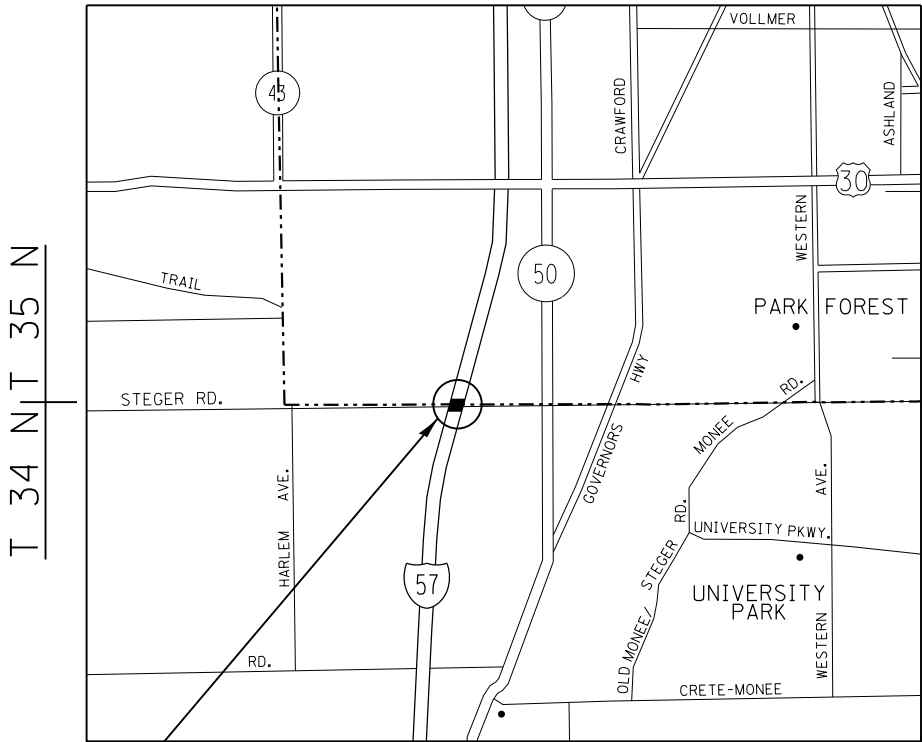
TRAFFIC DATA: (159TH ST.)
SPEED LIMIT = 45 MPH
2013 ADT = 26,900

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LOCATION 4

R 13 E | R 14 E



MONEE & RICH TOWNSHIPS

STEGER RD OVER I-57
VILLAGE OF UNIVERSITY PARK
(SN 016-1108)

TRAFFIC DATA: (I-57)
SPEED LIMIT = 70 MPH
2013 ADT = 44,300

TRAFFIC DATA: (STEGER RD.)
SPEED LIMIT = 45 MPH
2014 ADT = 3,950

LOCATION 5

R 11 E | R 12 E



YORK TOWNSHIP

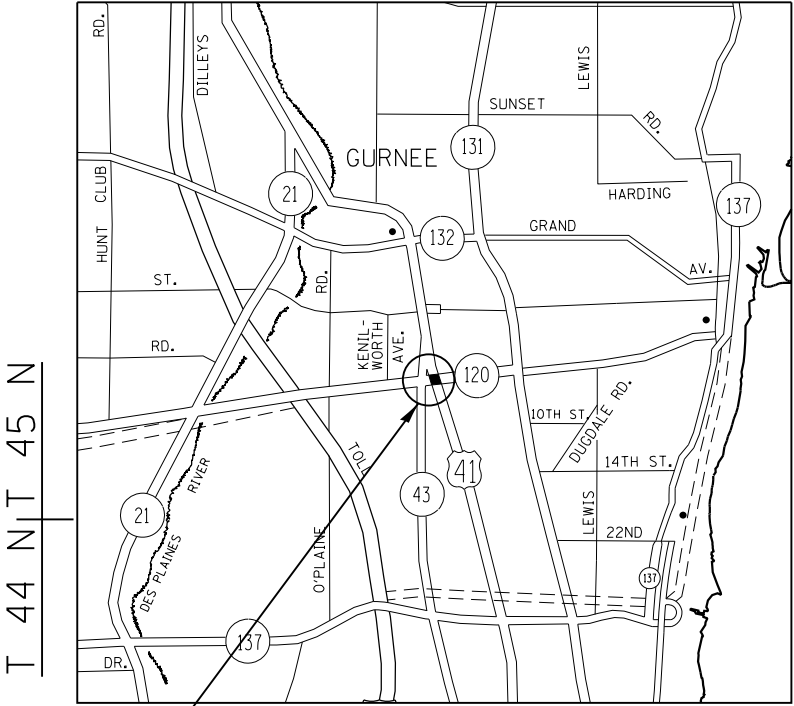
YORK RD. OVER IL 38
VILLAGE OF YORKFIELD
(SN 022-0067)

TRAFFIC DATA: (IL 38)
SPEED LIMIT = 55 MPH
2013 ADT = 54,700

TRAFFIC DATA: (YORK RD.)
SPEED LIMIT = 45 MPH
2008 ADT = 19,500

LOCATION 6

R 11 E | R 12 E



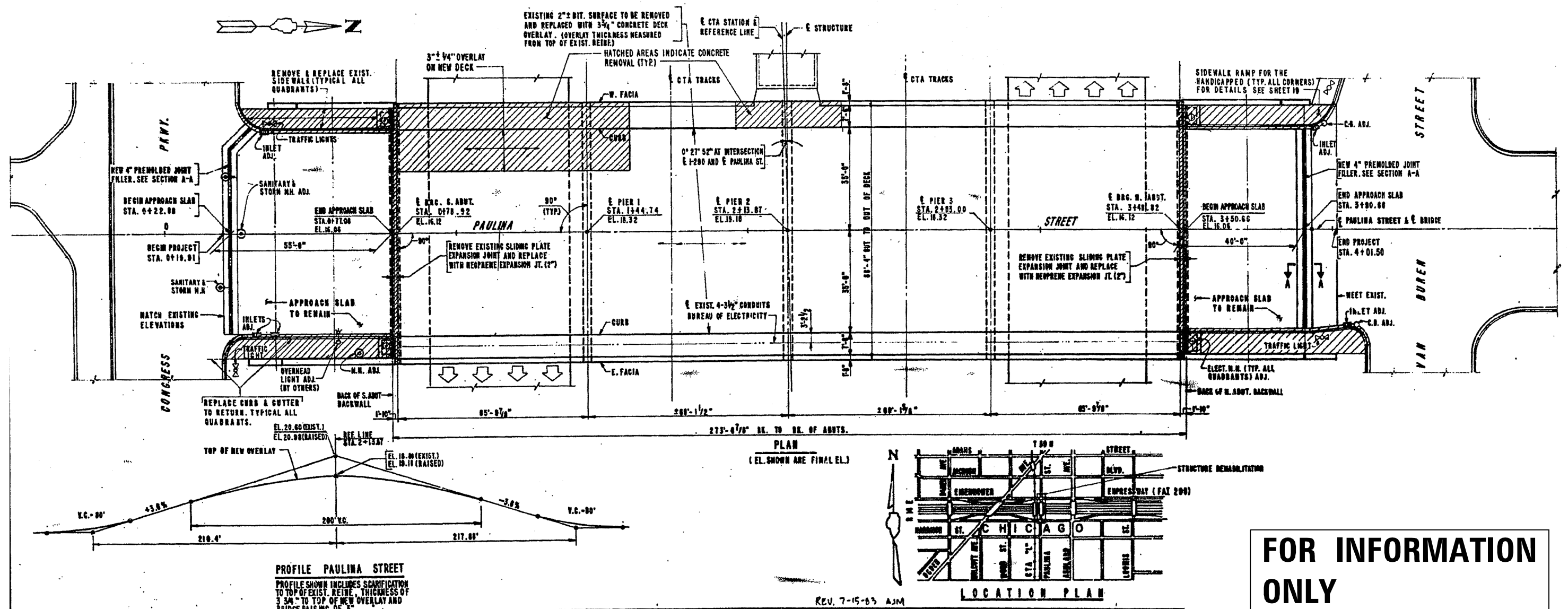
WARREN TOWNSHIP

IL 120 OVER US 41
VILLAGE OF PARK CITY
(SN 049-0050)

TRAFFIC DATA: (US 41)
SPEED LIMIT = 55 MPH
2013 ADT = 32,100

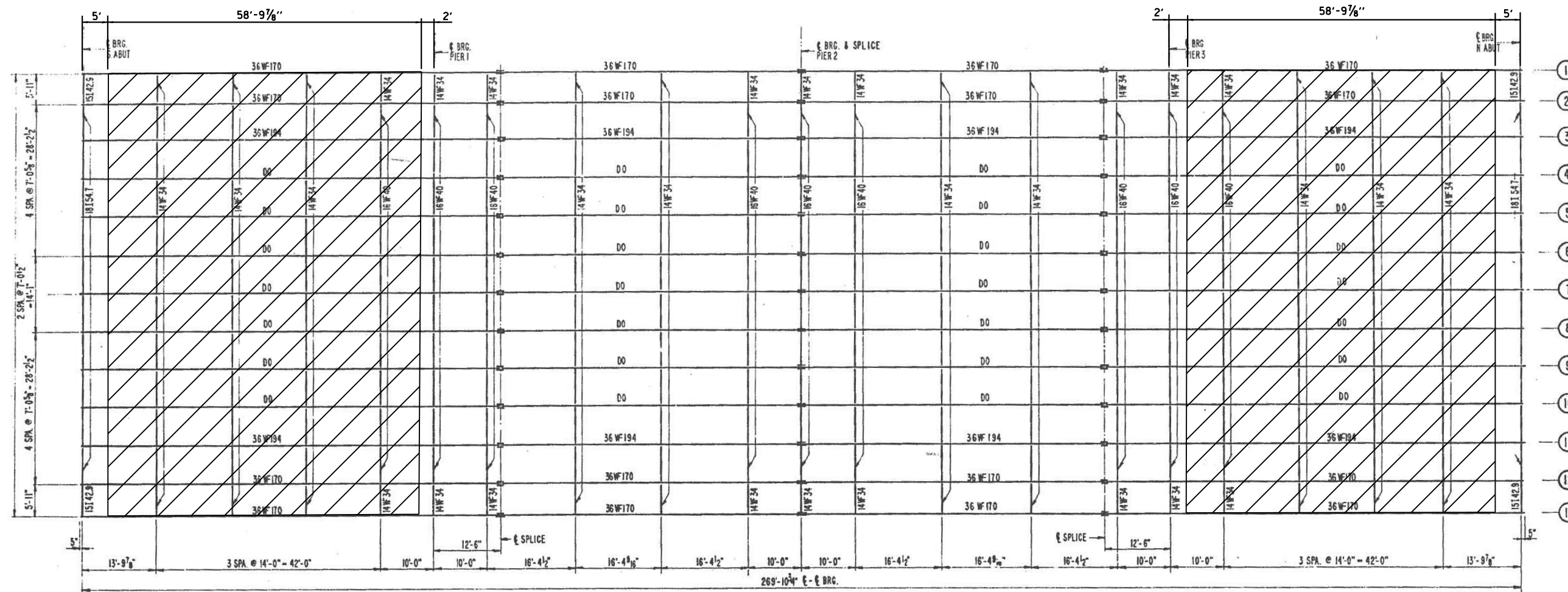
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SPEED LIMIT = 45 MPH
2013 ADT = 29,800

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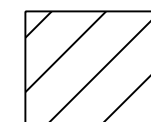


FOR INFORMATION ONLY

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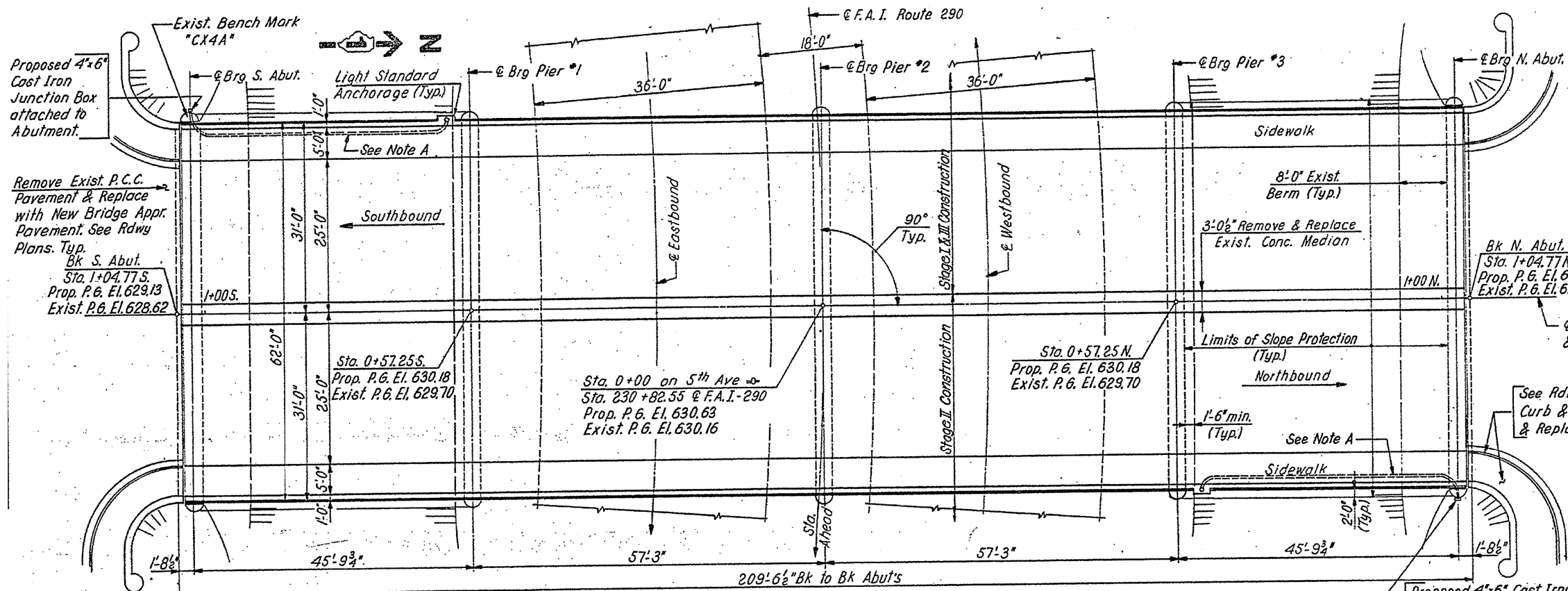


EXISTING FRAMING

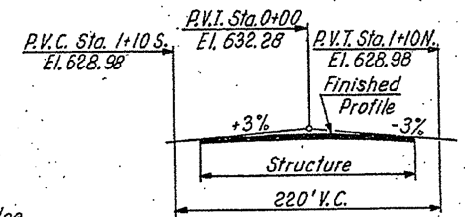


HATCHED AREA INDICATES
= PERMANENT PROTECTIVE
SHIELDING

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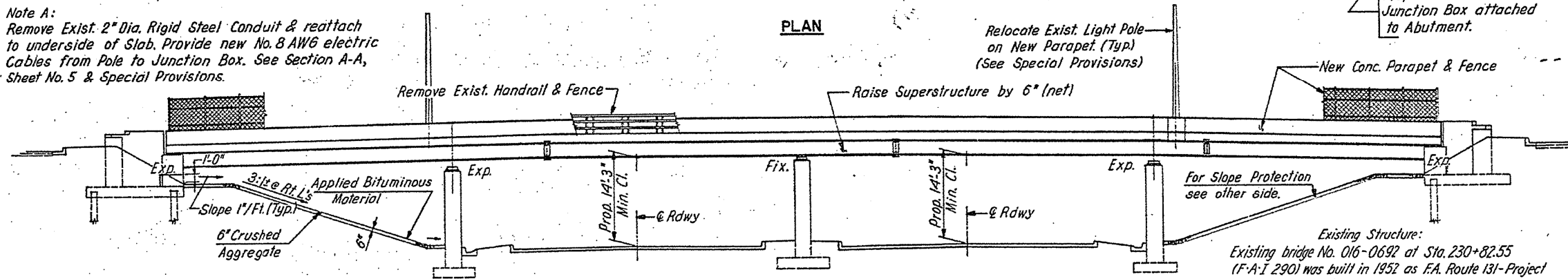


BENCH MARK A standard County bronze disk set on the Southwest Pier of the Fifth Ave. overpass. 32 feet West of the centerline of Fifth Ave.; and 31 feet North of the centerline of Balcon Drive. El. 629.00!



PROPOSED PROFILE ALONG PGL 5TH AVENUE

Note A:
Remove Exist. 2" Dia. Rigid Steel Conduit & reattach to underside of Slab. Provide new No. 8 AWG electric Cables from Pole to Junction Box. See Section A-A, Sheet No. 5 & Special Provisions.

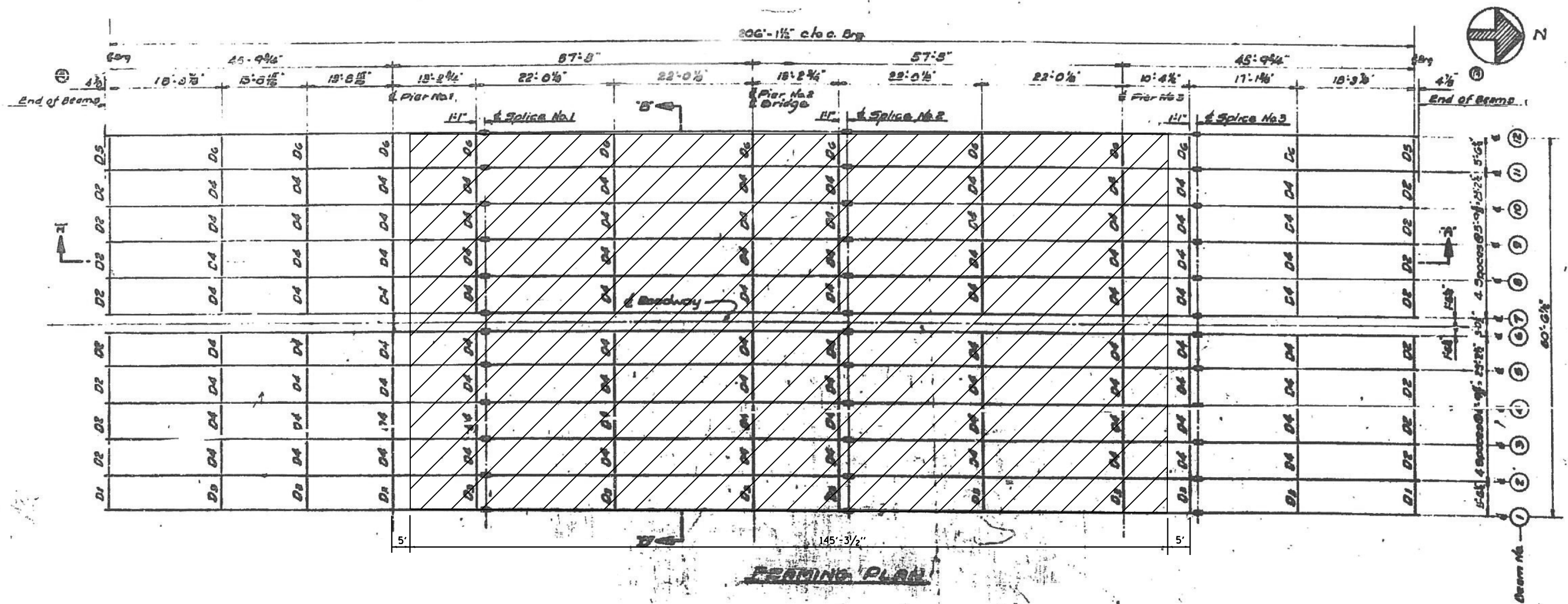


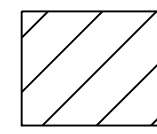
TYP DETAILS OF SLOPE PAVING
(See Special Provisions)

ELEVATION

FOR INFORMATION ONLY

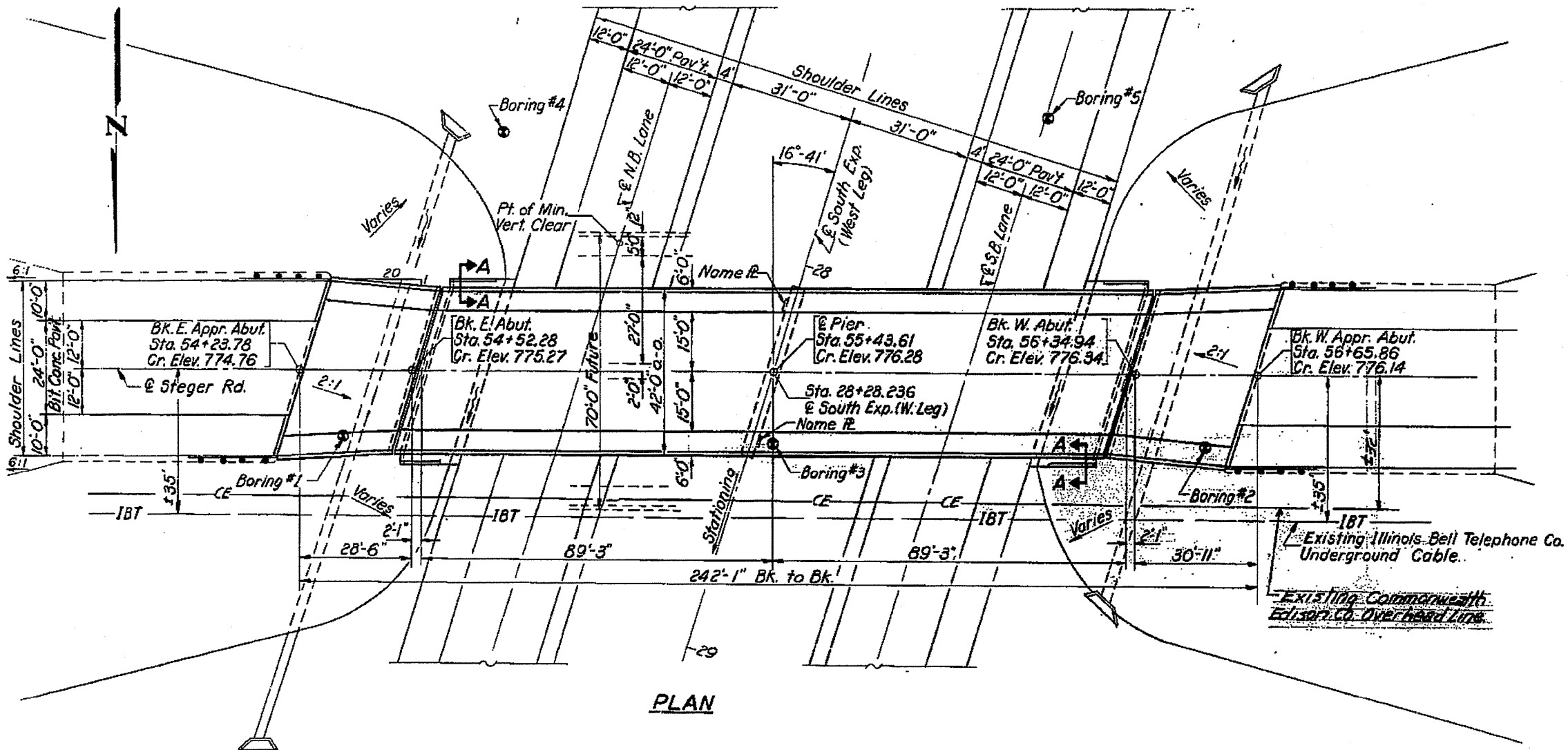
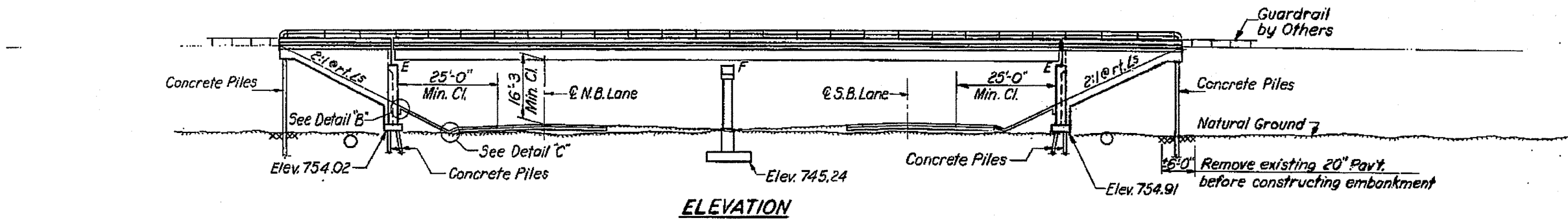
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 HATCHED AREA INDICATES
= PERMANENT PROTECTIVE
SHIELDING

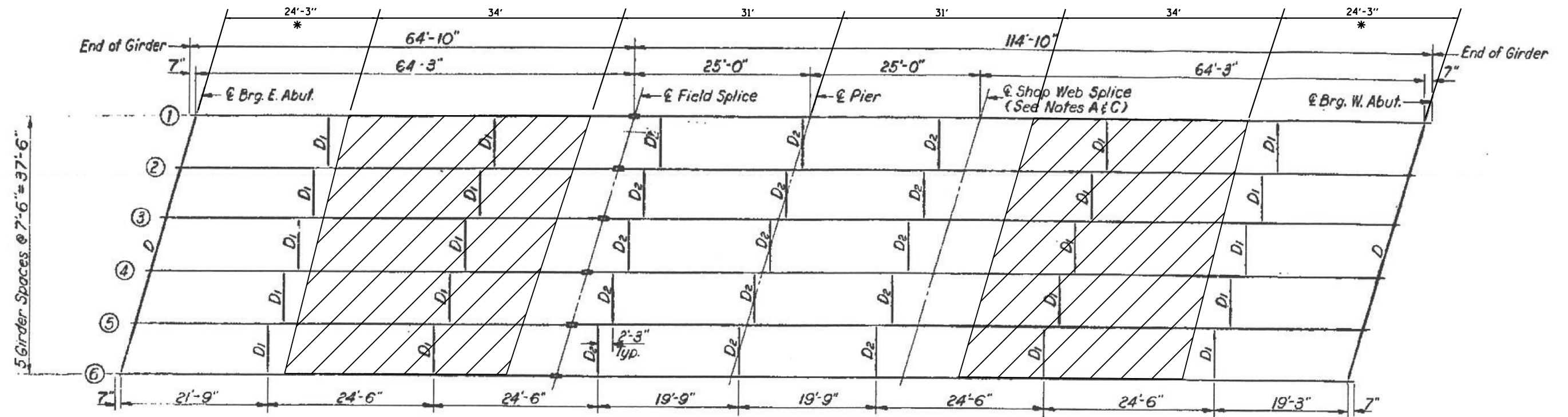
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



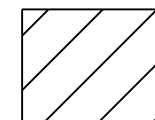
FOR INFORMATION
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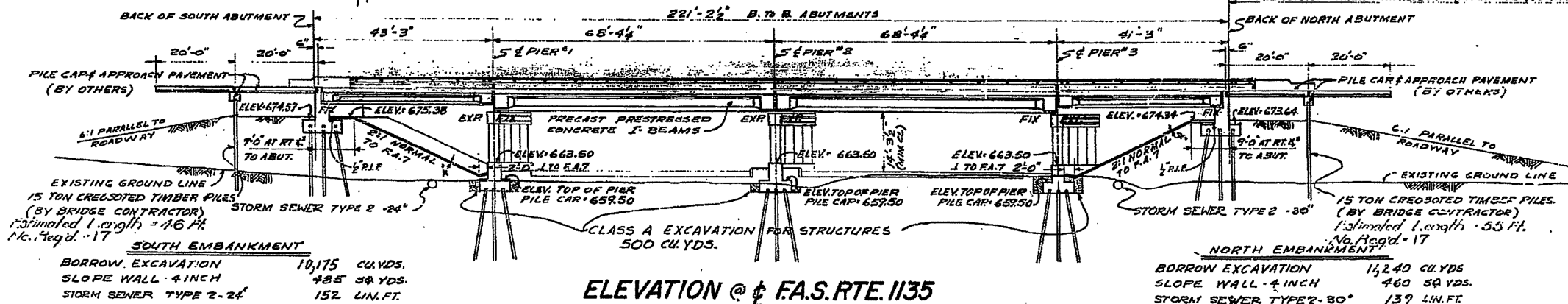
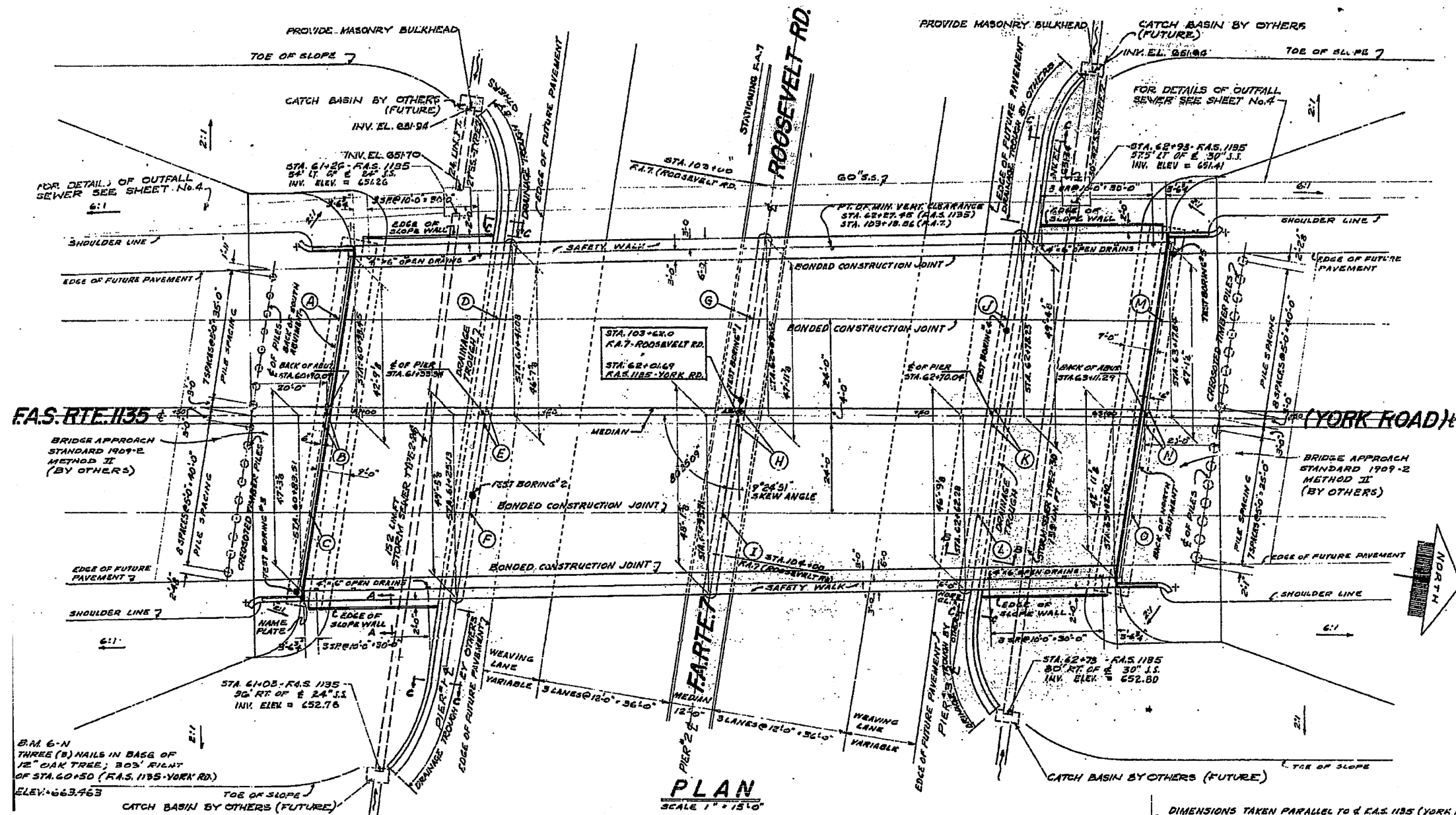
FRAMING PLAN

* = HALF SHOULDER WIDTH = 6'



**HATCHED AREA INDICATES
= PERMANENT PROTECTIVE
SHIELDING**

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PLOT DATE = 8/26/2015		DATE -	REVISOR -		SHEET 2 OF 2 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT				



DESIGN LOAD
LL - H20-516-44
FUTURE DL - 12" BITUMINOUS WEARING SURFACE.

DESIGN STRESSES
CONCRETE (CAST IN PLACE)
f_c = 3500 LBS PER SQ. INCH
f_c = 1400 LBS PER SQ. INCH
f_c (WITH EARTH PRESSURE) = 1000 LBS PER SQ. INCH.
n = 10
V = 75 LBS PER SQ. INCH.

PRESTRESSED CONCRETE
f_c = 5000 LBS PER SQ. INCH.
f_c = 4000 LBS PER SQ. INCH.
f_c = 2000 LBS PER SQ. INCH.

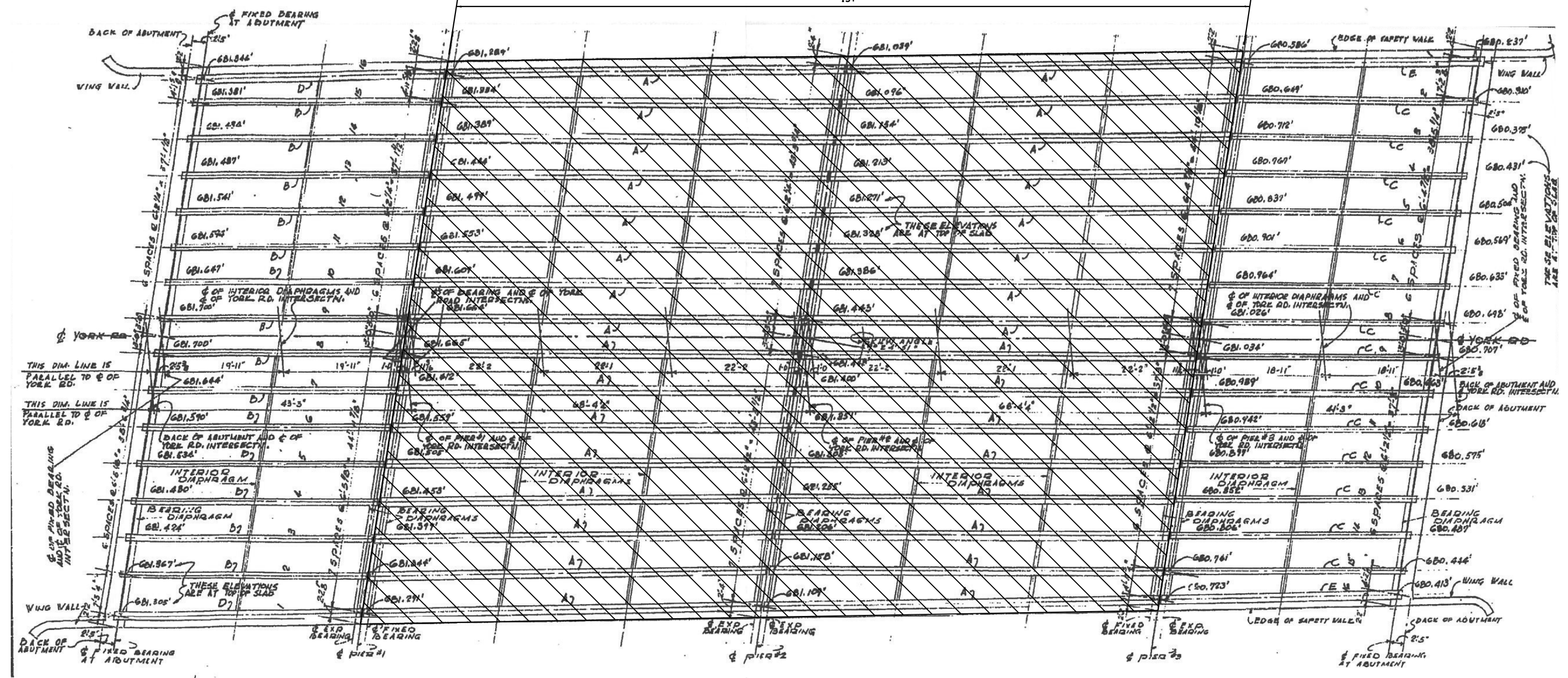
REINFORCING STEEL
f_s = 20,000 LBS PER SQ. INCH.

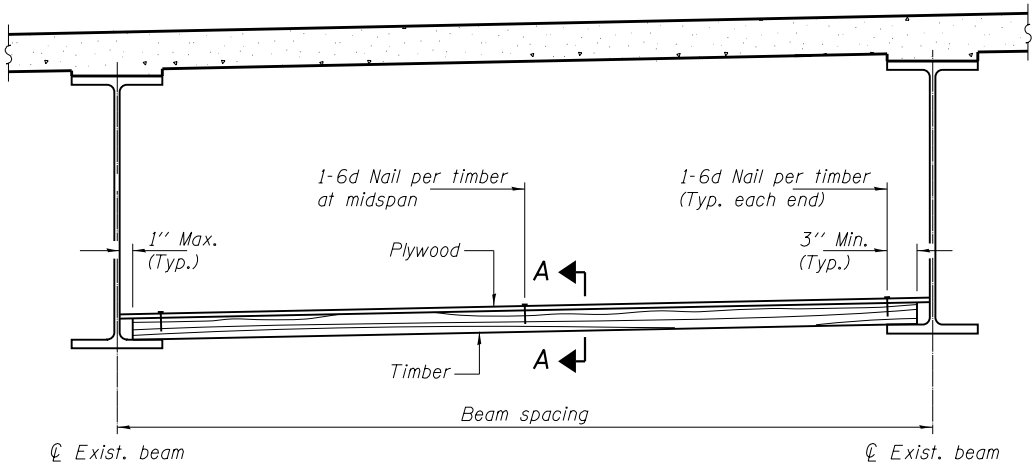
PRETENSIONING STEEL
f_s = 248,000 LBS PER SQ. INCH
f_s = 173,600 LBS PER SQ. INCH

PILE LOADS
40 TONS (CONCRETE PILES)
15 TONS (TIMBER PILES)

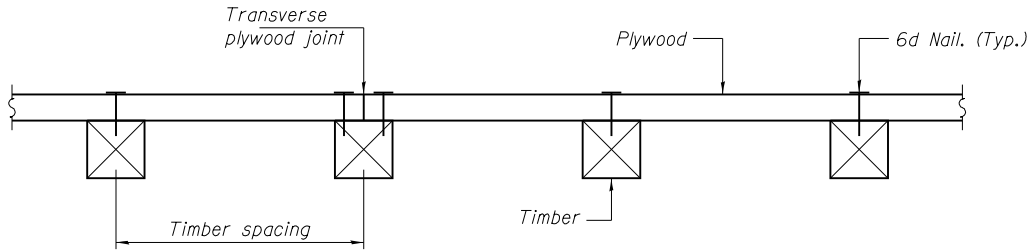
FOR INFORMATION ONLY

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Default		DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
				SCALE:		SHEET 1 OF 2 SHEETS	STA.	TO STA.			





STEEL BEAMS



SECTION A - A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

BILL OF MATERIAL

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	4438

NOTES

See special provision for Permanent Protective Shield System.

Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.

The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.

The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.

All timber shall be treated.

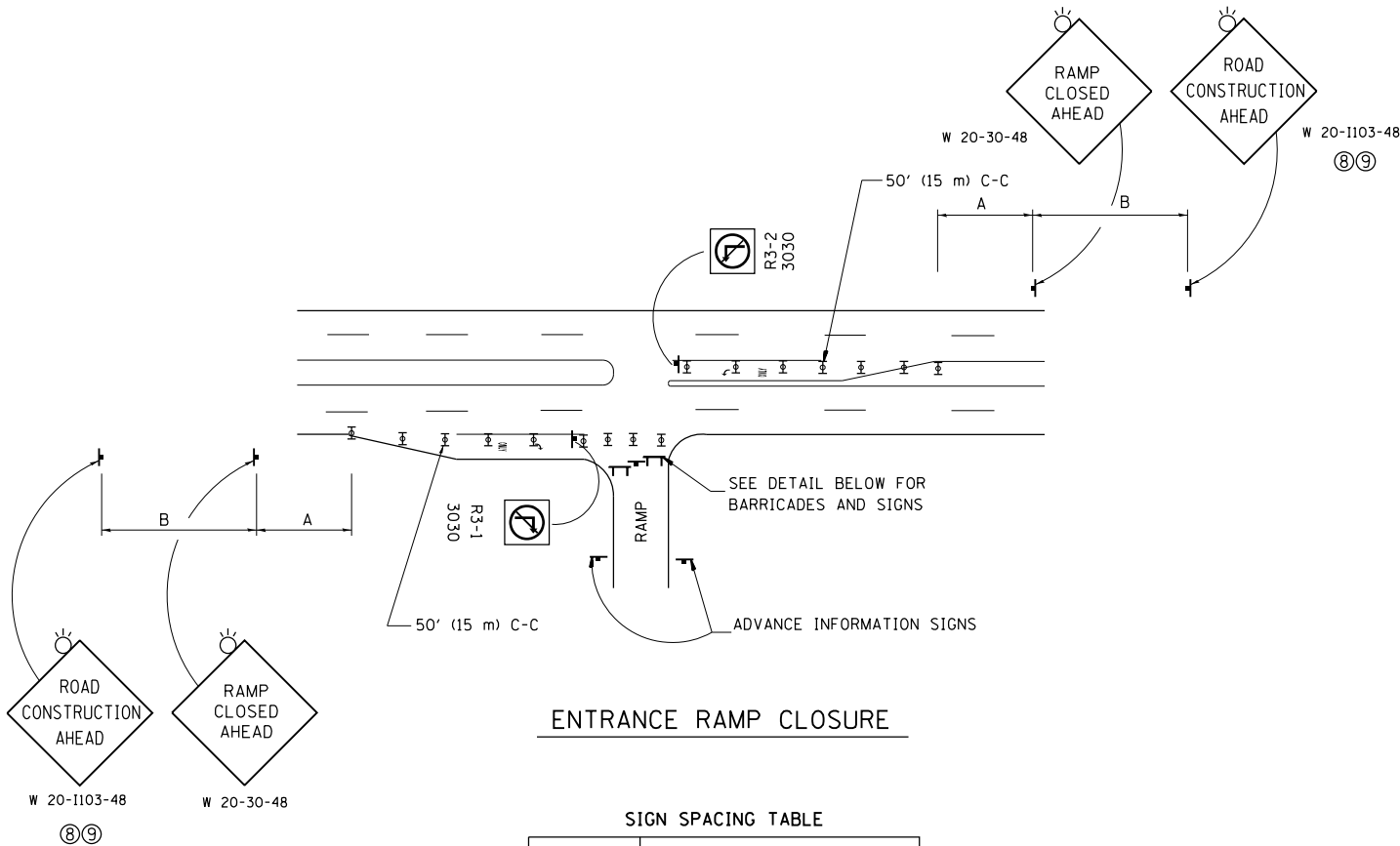
Plywood shall be 5/8 " Exterior type plywood.

Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.

Transverse plywood joints shall be supported by timbers.

When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.

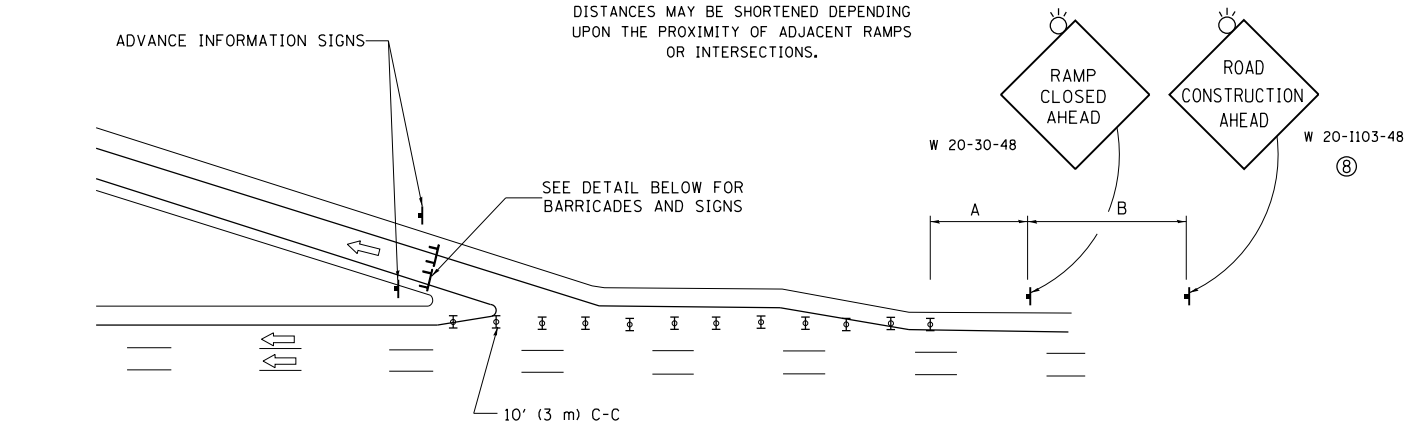
Design load = 200 psf.



ENTRANCE RAMP CLOSURE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

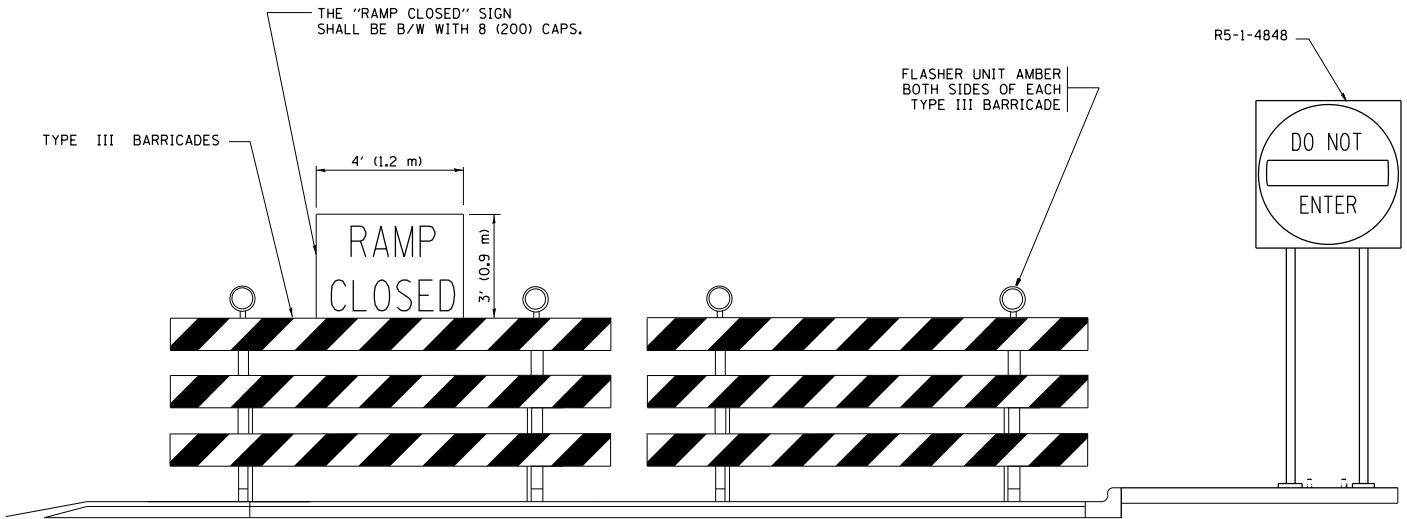
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



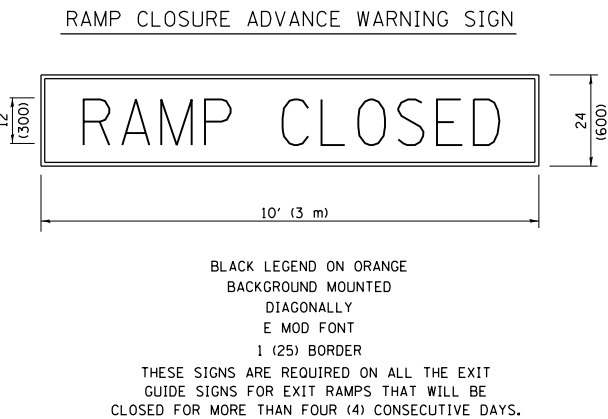
EXIT RAMP CLOSURE

SYMBOLS

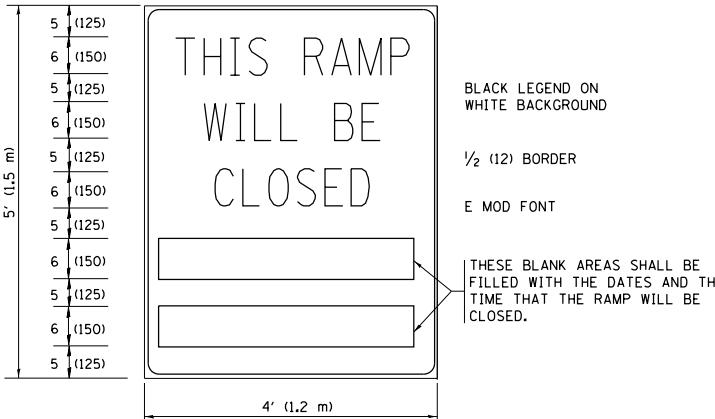
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS



RAMP CLOSURE ADVANCE INFORMATION SIGN



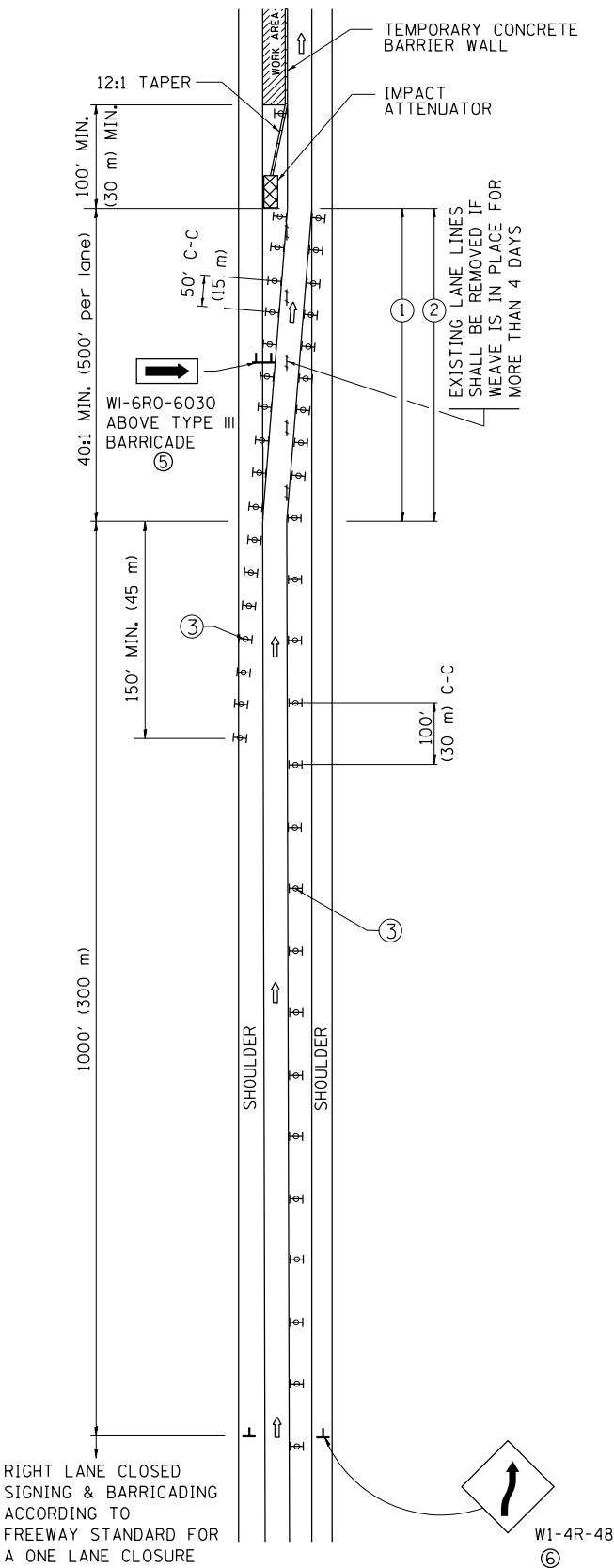
THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.
THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

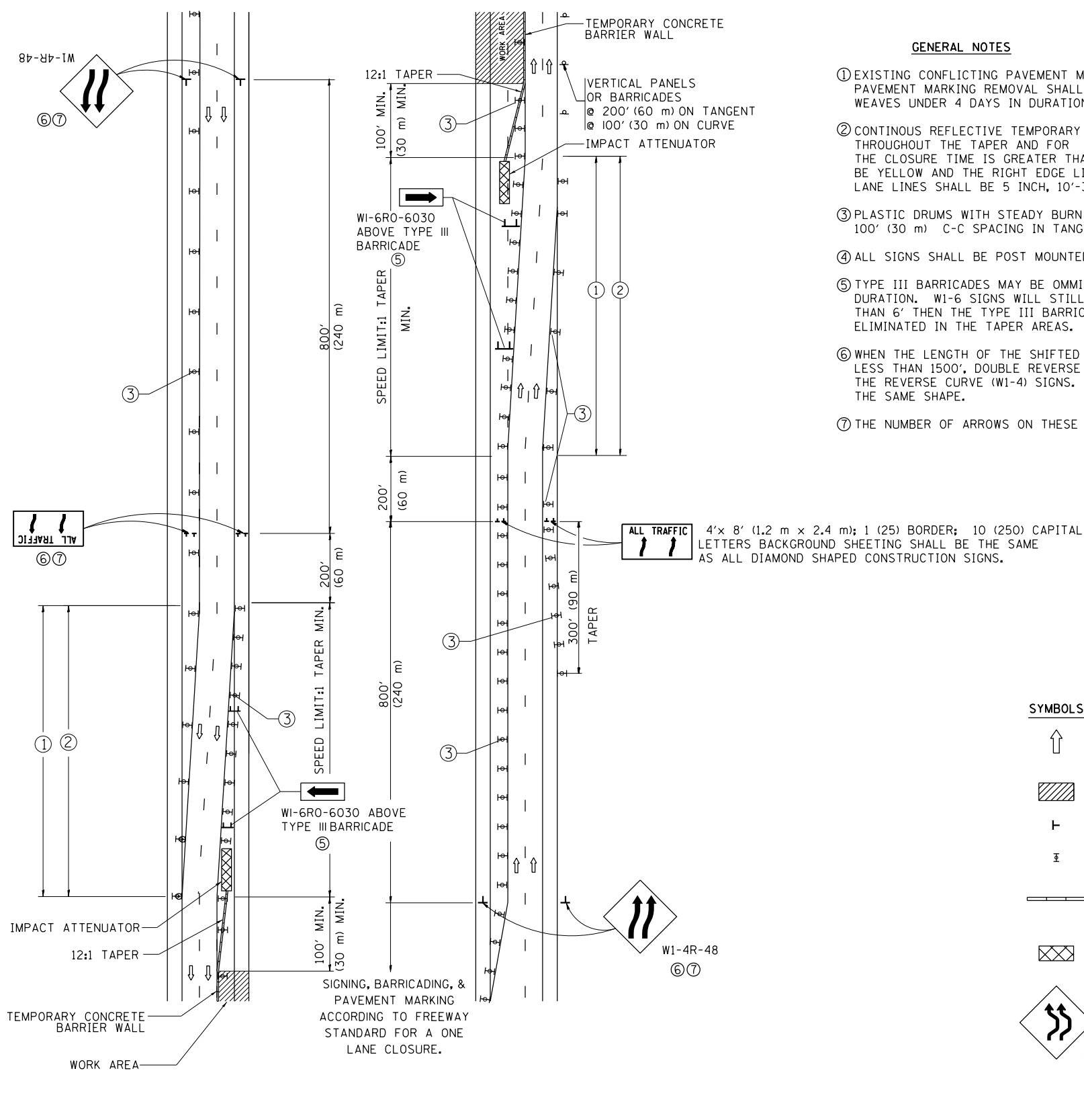
- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

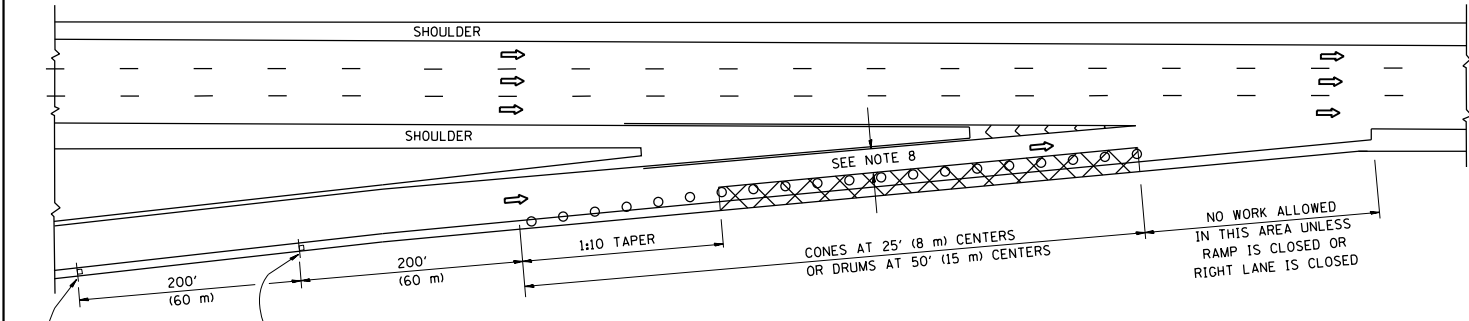
SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W1-4R-48
- W24-1-48

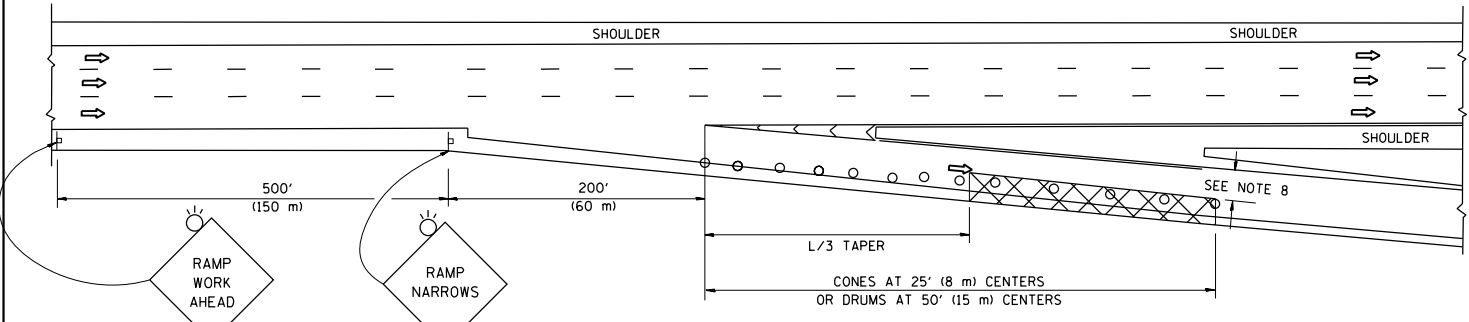
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

FILE NAME = p:\11\084EBID\INTEG\Illinois.gov\PI\DOT\Documents\100T Offices\District 1\Projects\DI40115\Design\DI40115-shit-plan.dgn	USER NAME = pyrzanowskirb	DESIGNED - DWS	REVISED - JAF 02-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - SPB 01-07							VAR.	2015-0581	VARIOUS	21	20
	PLOT DATE = 8/26/2015	DATE - 02-87	REVISED - SPB 12-09							TC-09		CONTRACT NO. 62B23		
			REVISED - MD 06-13							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.				

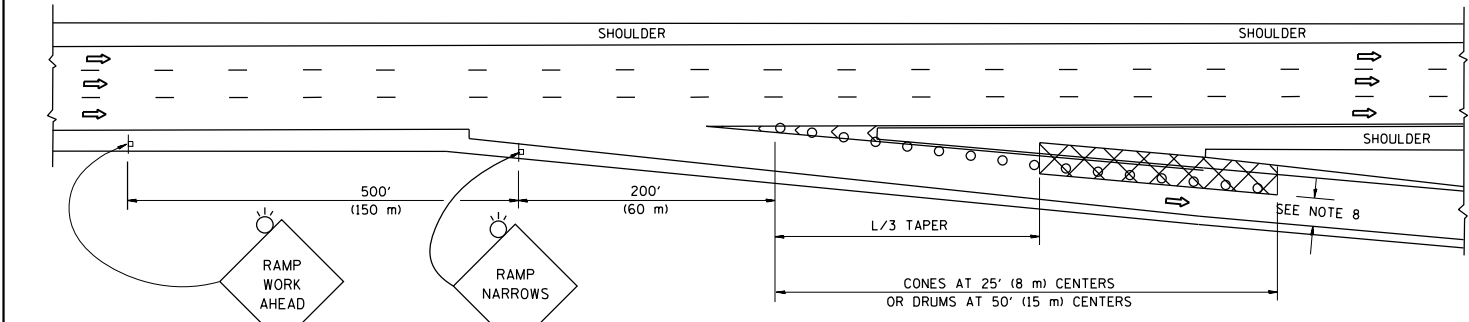
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

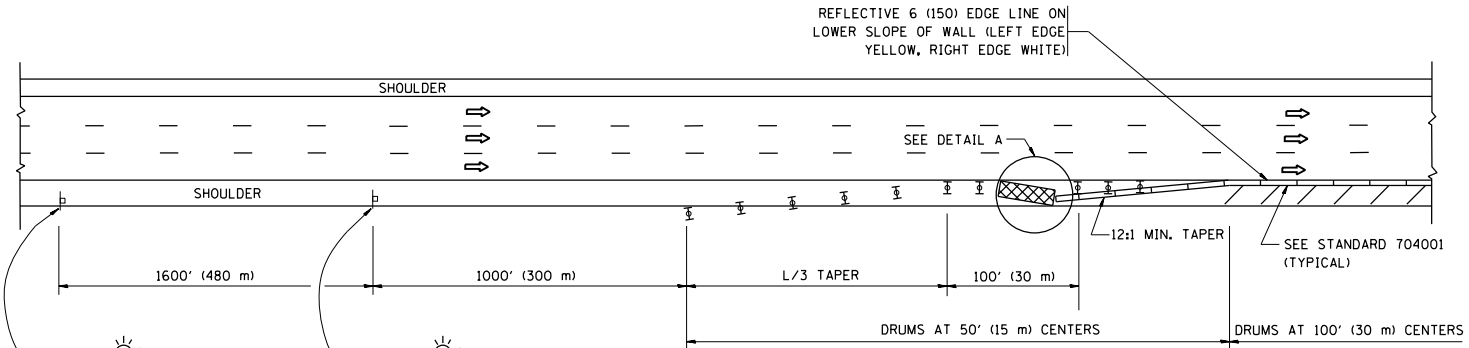
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

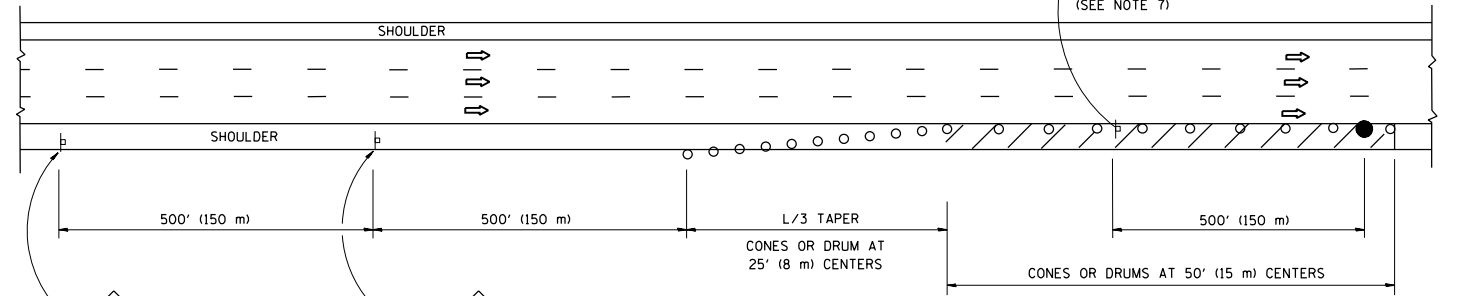
GENERAL NOTES

- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

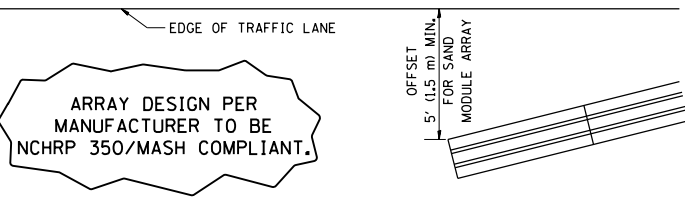


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

- THIS DETAIL IS USED WHERE:
- VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.

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

FILE NAME =	USER NAME = pyzenowskirb	DESIGNED -	REVISED - J.A.F. 12-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBID\INTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\DI4011\Drawings\Design\DWG15-shr-plandgn		CHECKED -	REVISED - S.P.B. 01-07			VAR.	2015-0581	VARIOUS	21	21
		DATE - 11-96	REVISED - S.P.B. 12-09				TC-17	CONTRACT NO.	62B23	
			REVISED - M.D. 06-13			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT