

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**PROPOSED
HIGHWAY PLANS**

**FAP ROUTE 350: IL 50/83 (CICERO AVE.)
OVER CAL SAG CHANNEL
SECTION: 3068 B-I
BRIDGE REPAIRS
COOK COUNTY
C-91-319-06**

| | | | | |
|---------------------|---------------------|--------------------|--------------------|----------------|
| F.A.P. RTE. 350 | SECTION 3068 B-I | COUNTY COOK | TOTAL SHEETS 11 | SHEET NO. 1 |
| FED. ROAD DIST. NO. | ILLINOIS | CONTRACT NO. 60B29 | | |

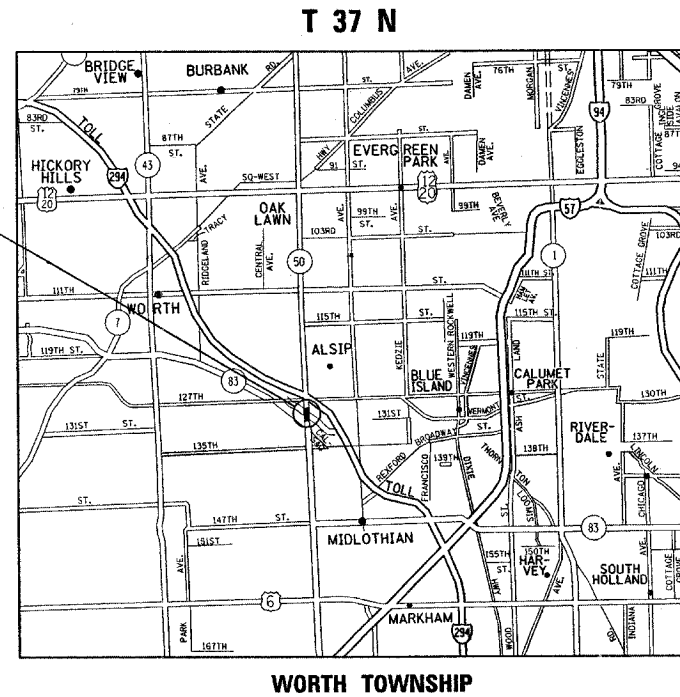
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**THIS IMPROVEMENT IS LOCATED
IN THE VILLAGE OF ALSIP**

TRAFFIC DATA

2007 ADT = 42,400
SPEED LIMIT = 35 MPH

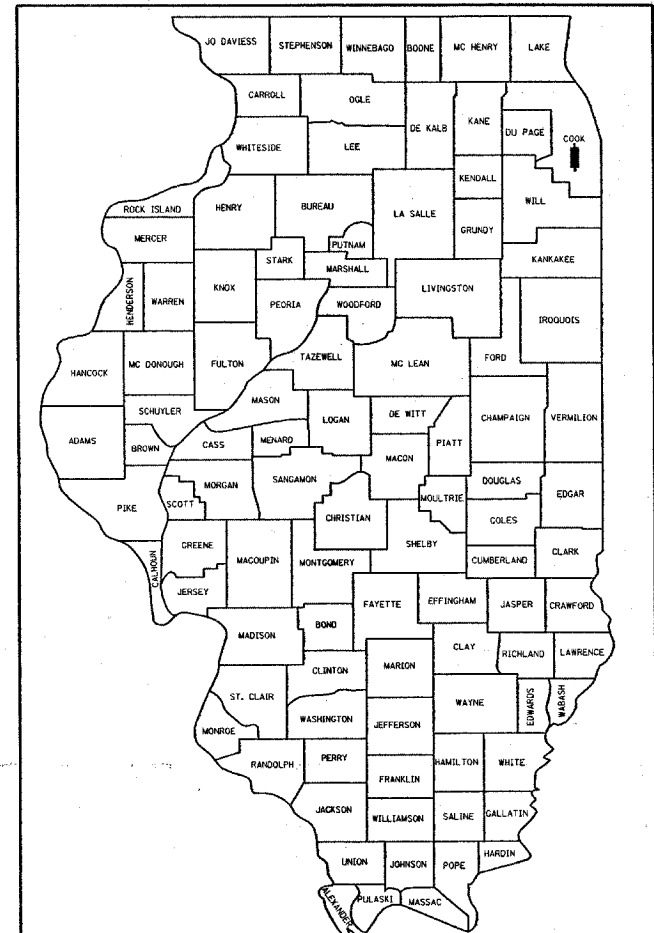
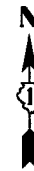
**LOCATION OF IMPROVEMENT
SN 016-0421**



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

PROJECT ENGINEER: BOB BORO (847) 705-4178
PROJECT MANAGER: KEN ENG

CONTRACT NO. 60B29



LOCATION OF SECTION INDICATED THUS: — ■ —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 31, 20 08
Diana M. O'Keefe *DE*
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 20 08
Eric E. H... *ED*
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 20 08
Christine M. Reed *ED*
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|-----------|---|
| 1 | COVER SHEET |
| 2 | INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES |
| 3 | SUMMARY OF QUANTITIES |
| 4 | CLASS D PATCH |
| 5-9 | BRIDGE REPAIR PLAN SHEETS |
| 10 | TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS |
| 11 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS |

LIST OF STATE STANDARDS

| STANDARD NO. | DESCRIPTION |
|--------------|---|
| 701301-02 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701606-05 | URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN |
| 701901 | TRAFFIC CONTROL DEVICES |

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF ALSIP.

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

THE RESIDENT ENGINEER SHALL CONTACT PATRICE HARRIS AREA TRAFFIC FIELD ENGINEER AT (847) 715-8422 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

ALL DAMAGES TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT 847-705-4151 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS

DO NOT SCALE PLAN FOR CONSTRUCTION DIMENSIONS

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

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

THE CONTRACTOR SHALL ONLY SUPPORT THE TRANSVERSE FLOOR BEAM ON ONE TEMPORARY SHORING TOWER AT A TIME. THE OTHER SUPPORT SHALL BE AN EXISTING OR PERMANENT BEARING. THE BEARINGS/ PEDESTALS ON THE EAST SIDE OF THE BRIDGE SHALL BE REPLACE FIRST.

THE CONTRACTOR IS, HEREBY, INFORMED THE THE BRIDGE HAS EXISTING ELECTRICAL CONDUITS FOR NAVIGATIONAL AND ROADWAY LIGHTS. CARE SHOULD BE TAKE NOT TO DAMAGE CONDUITS. ANY DAMAGE TO THESE CIRCUITS RESULTING FROM THE WORK RELATED TO THIS PROJECT SHALL BE REPAIRED AT NO ADDITIONAL COST TO IDOT

| | | | | | | | | | | | | | | |
|--|-------------------|------------|-----------|---|---|-----------|----|--------|----------------|---------|--------|-----------------|--------------|------|
| FILE NAME = c:\projects\dl31986\dl31986.dgn | USER NAME = mdyje | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES | | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | DRAWN - | REVISED - | | SCALE: | SHEET NO. | OF | SHEETS | STA. | TO STA. | 350 | 3068 B-I | COOK | 11 2 |
| | | CHECKED - | REVISED - | | CONTRACT NO. 60B29 | | | | | | | | | |
| | | DATE - | REVISED - | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | | | | |

| | | | | |
|-----------------------|----------|----------|-----------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 350 | 3068 B-I | COOK | 11 | 3 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | HIGHWAY PROJECT | |

| SUMMARY OF QUANTITIES | | | URBAN 100% STATE | CONSTRUCTION TYPE CODE | | | | |
|-----------------------|--|--------|---------------------|------------------------|--|--|--|--|
| CODE NO | ITEM | UNIT | TOTAL QUANTITIES | SFTY-2A | | | | |
| 44201803 | CLASS D PATCHES, TYPE II, 13 INCH | SO YD | 40 | 40 | | | | |
| 50102400 | CONCRETE REMOVAL | CU YD | 1.4 | 1.4 | | | | |
| 50300225 | CONCRETE STRUCTURES | CU YD | 2.1 | 2.1 | | | | |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 1030 | 1030 | | | | |
| 50500715 | JACK AND REMOVE EXISTING BEARINGS | EACH | 4 | 4 | | | | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 440 | 440 | | | | |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 16 | 16 | | | | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 4 | 4 | | | | |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 | | | | |
| 70102625 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701606 | L SUM | 1 | 1 | | | | |
| 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 16 | 16 | | | | |
| X0322467 | TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE | SO FT | 48 | 48 | | | | |
| X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SO FT | 1 | 1 | | | | |
| Z0073200 | TEMPORARY SHORING AND CRIBBING | EACH | 4 | 4 | | | | |
| X0325619 | HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 300K | EACH | 4 | 4 | | | | |

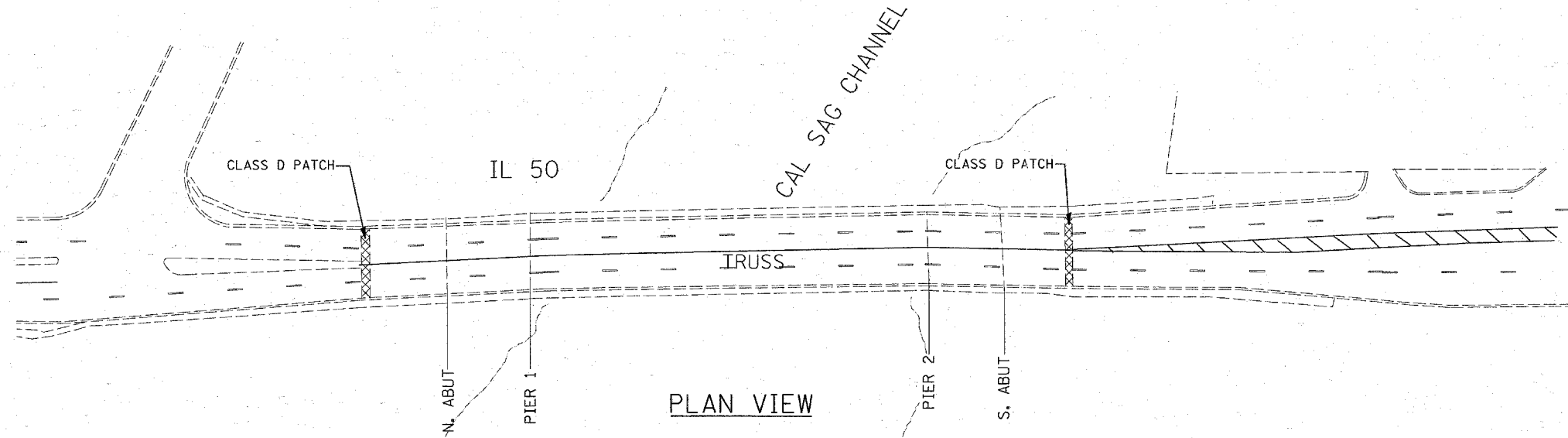
| SUMMARY OF QUANTITIES | | | CONSTRUCTION TYPE CODE | | | | |
|-----------------------|------|------|------------------------|--|--|--|--|
| CODE NO | ITEM | UNIT | TOTAL QUANTITIES | | | | |
| | | | | | | | |

4/4/2008 11:00:00 AM

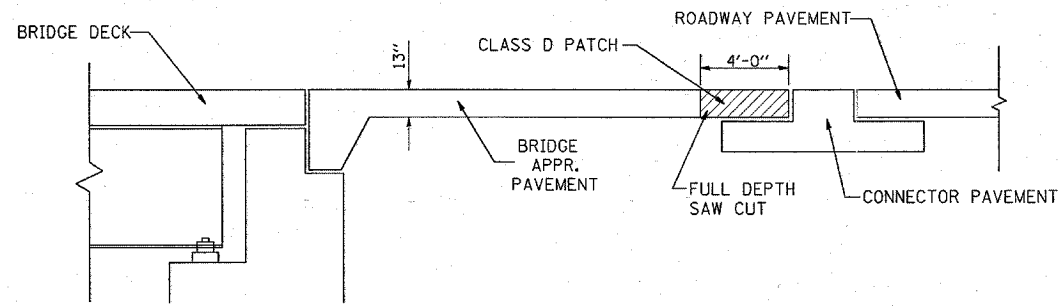
| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PLOT DATE: 4/4/2008



PLAN VIEW



CLASS D PATCH DETAIL

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | | | | |
|--------------------------------------|---|---|------------------|------------------|
| CLASS D PATCH | MIXTURE TYPE | | AC TYPE | AIR VOIDS |
| | TOP 2" | POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, (IL 9.5mm) | | SBS/SBR PG 70-22 |
| BOTT. 11" | POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 | | SBS/SBR PG 70-22 | 4% @ 90 GYR. |

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

FILE NAME =
c:\projects\dl31986\dl31986a.dgn

USER NAME = midyja
PLOT SCALE = 50.00' / IN.
PLOT DATE = 4/4/2008

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CLASS D PATCH

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

| | | | | |
|---|----------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 350 | 3068 B-1 | COOK | 11 | 4 |
| CONTRACT NO. 60B29 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

Rev.

Bridge General Notes

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{13}{16}$ " ϕ , unless otherwise noted.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated

Plan dimensions and details relative to existing plans are subject to routine 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 upon the unit price bid for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

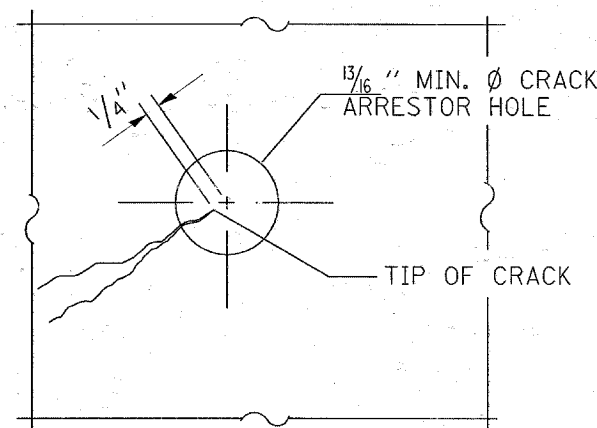
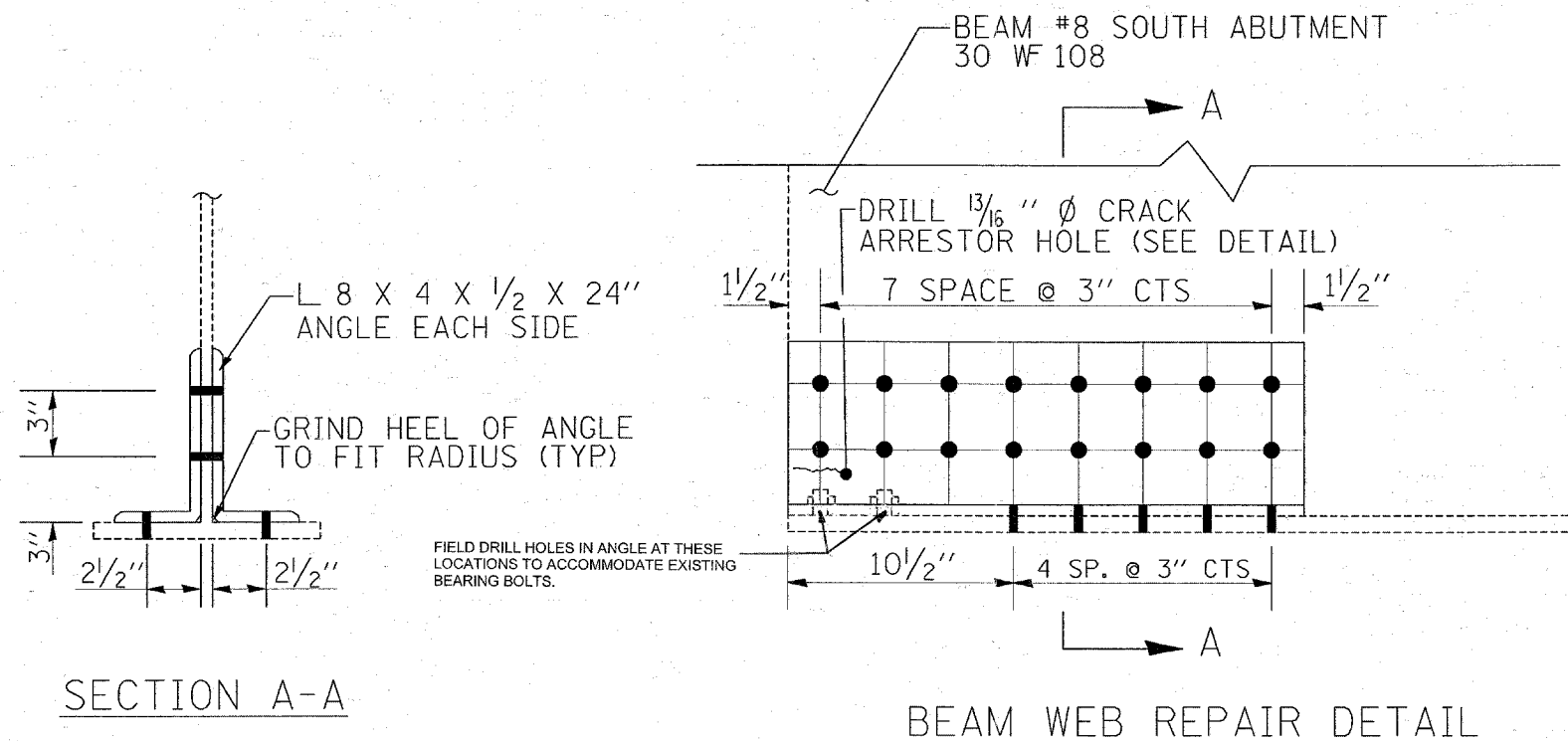
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost Included with Concrete Removal.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the top and bottom flange to prevent flange rotation.

Joint plates and attached bars shall be shop painted with the inorganic zinc rich primer. No field paint required.

TOTAL BILL OF MATERIALS

| <i>Description</i> | <i>Unit</i> | <i>Quantity</i> |
|--|-------------|-----------------|
| Concrete Removal | Cu Yd | 1.4 |
| Concrete Structures | Cu Yd | 2.1 |
| Furnishing and Erecting Structural Steel | Pound | 1030 |
| Jack and Remove Existing Bearings | Each | 4 |
| Reinforcement Bars, Epoxy Coated | Pound | 440 |
| Anchor Bolts, 1" | Each | 16 |
| High Load Multi-Rotational Bearings, Fixed - 300 kip | Each | 4 |
| Structural Repair of Concrete ≤ 5 " | Sq Ft | 1 |
| Temporary Shoring and Cribbing | Each | 4 |



CRACK ARRESTOR HOLE DETAIL

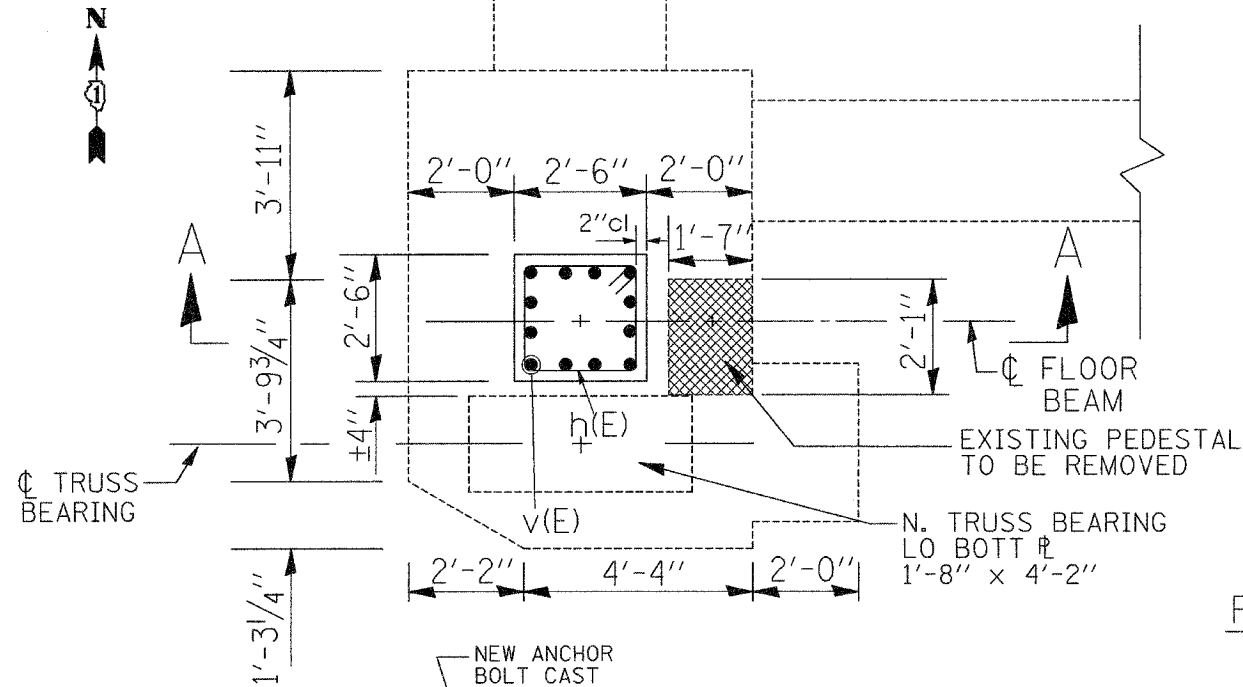
Note:

Locate crack tip using liquid dye penetrant or magnetic particle testing. Drill $\frac{13}{16}$ " min. ϕ Crack Arrestor hole at the crack tip. After Crack Arrestor hole has been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled hole has captured the crack tip. Cost shall be included in the cost of "Furnishing and Erecting Structural Steel".

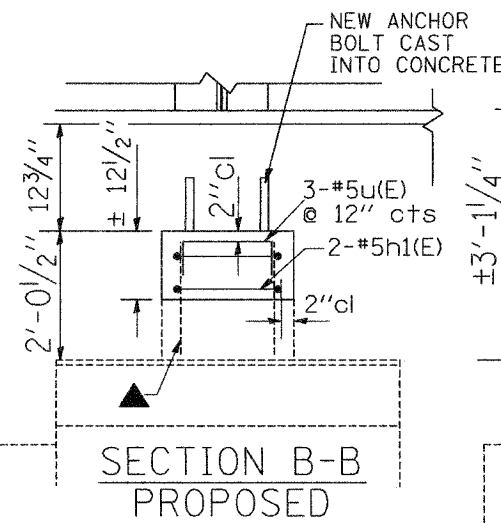
TO NORTH ABUTMENT

SEQUENCE OF CONSTRUCTION NW & SE PEDESTALS:

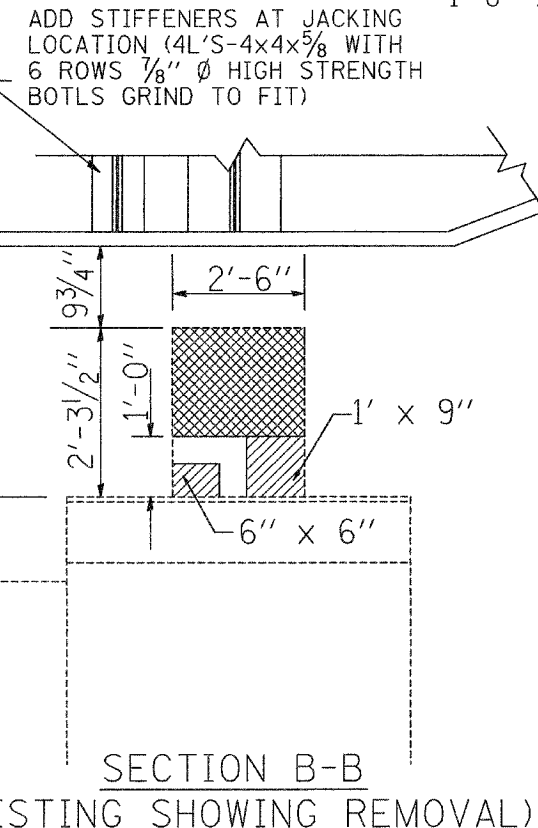
- 1) CONSTRUCT NEW PEDESTAL AS DETAILED
- 2) INSTALL JACK ON NEW PEDESTAL & JACK BEAM
- 3) REMOVE EXISTING BEARING FROM EXISTING PEDESTAL
- 4) REMOVE EXISTING PEDESTAL
- 5) INSTALL JACK AT LOCATION OF EXISTING PEDESTAL AND JACK BEAM
- 6) REMOVE JACK ON NEW PEDESTAL & INSTALL NEW BEARING



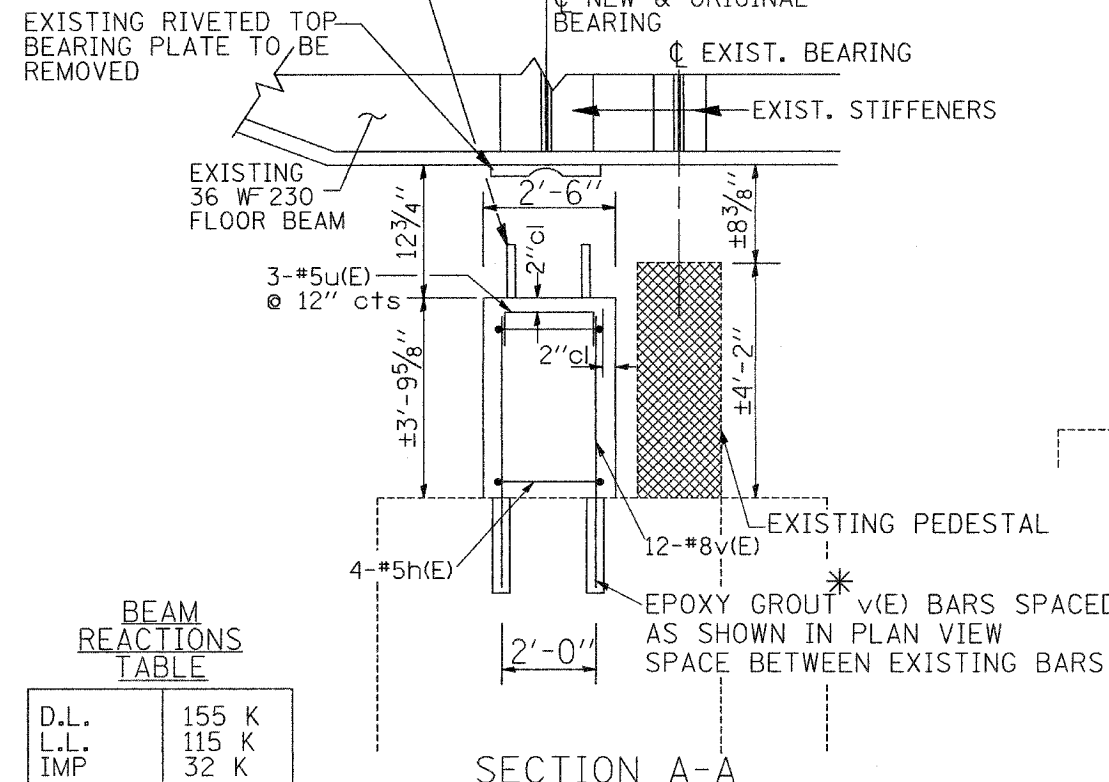
PLAN VIEW
PIER 1



SECTION B-B
PROPOSED



SECTION B-B
(EXISTING SHOWING REMOVAL)



SECTION A-A

BEAM REACTIONS TABLE

| | |
|-------|-------|
| D.L. | 155 K |
| L.L. | 115 K |
| IMP | 32 K |
| TOTAL | 302 K |

MIN. JACKING CAPACITY = 170 TONS

ADD STIFFENERS AT JACKING LOCATION (4L'S-4x4x5/8 WITH 6 ROWS 7/8" Ø HIGH STRENGTH BOTLS GRIND TO FIT)

PIER 1 BAR LIST

| BAR | NO | SIZE | LENGTH | SHAPE | |
|------------------------------------|----|------|--------|-------|-----|
| h(E) | 4 | #5 | 9'-0" | | |
| h1(E) | 2 | #5 | 7'-0" | | |
| v(E) | 12 | #8 | 4'-4" | | |
| u(E) | 6 | #5 | 5'-2" | | |
| CONCRETE REMOVAL | | | | CU YD | 0.7 |
| CONCRETE STRUCTURES | | | | CU YD | 1.1 |
| REINFORCEMENT BARS, EPOXY COATED | | | | POUND | 220 |
| STRUCTURAL REPAIR OF CONCRETE ≤ 5" | | | | SQ FT | 1 |
| TEMPORARY SHORING AND CRIBBING | | | | EA | 2 |

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

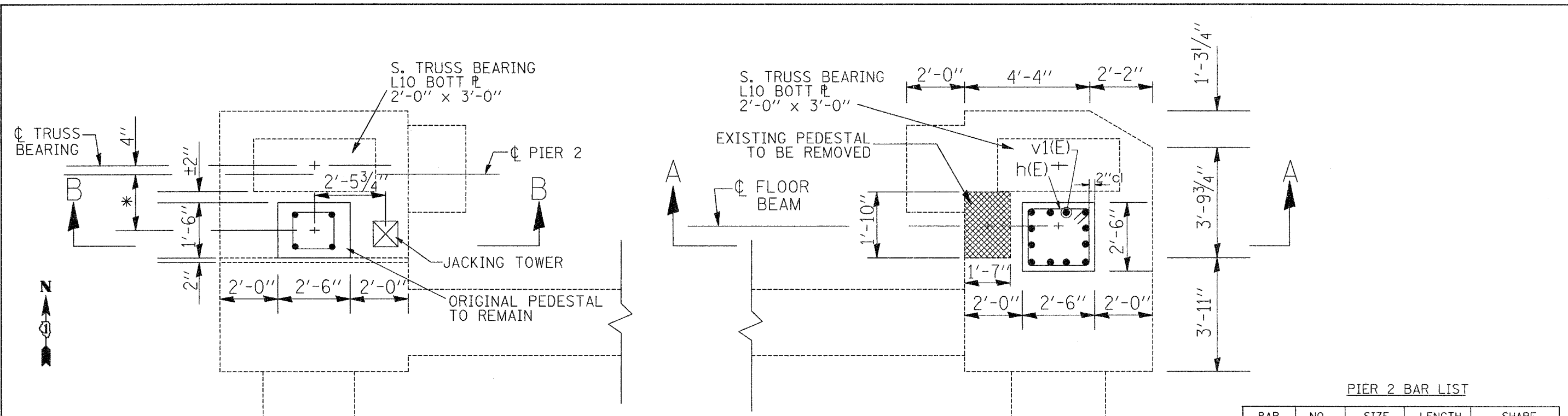
- STRUCTURAL REPAIR OF CONCRETE ≤ 5"
- CONCRETE REMOVAL

▲ EXIST. REINFORCEMENT TO BE CLEANED STRAIGHTENED & INCORPORATED INTO NEW CONSTRUCTION. CUT TO MAINTAIN 2" CLEARANCE

* DRILL & EPOXY GROUT 9" MINIMUM INTO THE EXISTING CONCRETE ACCORDING TO ART. 584 OF THE STD. SPECS.

ALL PROPOSED PEDESTAL HEIGHTS TO BE FIELD VERIFIED

| | | | | | | | | | | | |
|------------------------------------|-------------------|------------|-----------|---|---------------------------------------|---|----------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = midje | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PIER 1 REPAIRS SN 016-0421 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| ct\projects\dl131906\dl131906a.dgn | | DRAWN - | REVISED - | | | 350 | 3068 B-I | COOK | 11 | 6 | |
| PLOT SCALE = 5/8" = 1' / JN. | | CHECKED - | REVISED - | | | CONTRACT NO. 60B29 | | | | | |
| PLOT DATE = 5/2/2008 | | DATE - | REVISED - | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |



* ±1'-7" @ W PEDESTAL
* ±1'-6" @ E PEDESTAL

PIER 2 BAR LIST

| BAR | NO | SIZE | LENGTH | SHAPE | |
|----------------------------------|----|------|--------|-------|-----|
| h(E) | 4 | #5 | 9'-0" | | |
| h2(E) | 2 | #5 | 6'-6" | | |
| v1(E) | 12 | #8 | 4'-4" | | |
| u(E) | 6 | #5 | 5'-2" | | |
| CONCRETE REMOVAL | | | | CU YD | 0.7 |
| CONCRETE STRUCTURES | | | | CU YD | 1.0 |
| REINFORCEMENT BARS, EPOXY COATED | | | | POUND | 220 |
| TEMPORARY SHORING AND CRIBBING | | | | EA | 2 |

TO SOUTH ABUTMENT

ADD STIFFENERS AT JACKING LOCATION (4L'S-4x4x5/8 WITH 6 ROWS 1/8" Ø HIGH STRENGTH BOTLS GRIND TO FIT)
NEW ANCHOR BOLT CAST INTO CONCRETE

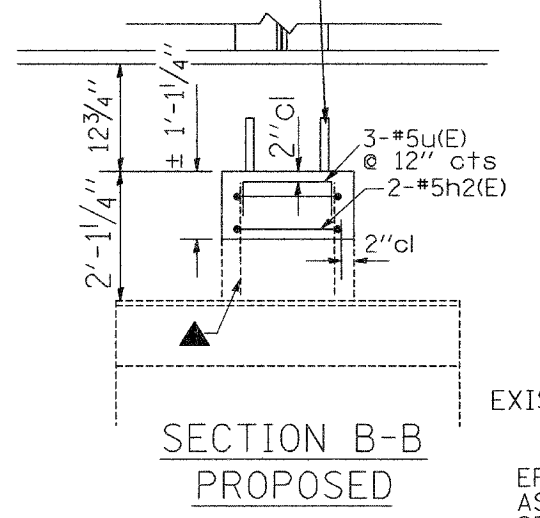
FLOOR BEAM
ORIGINAL RIVETED TOP BEARING PLATE TO BE REMOVED
EXIST. STIFFENERS
NEW & ORIGINAL BEARING

BEAM REACTIONS TABLE

| | |
|-------|-------|
| D.L. | 155 K |
| L.L. | 115 K |
| IMP | 32 K |
| TOTAL | 302 K |

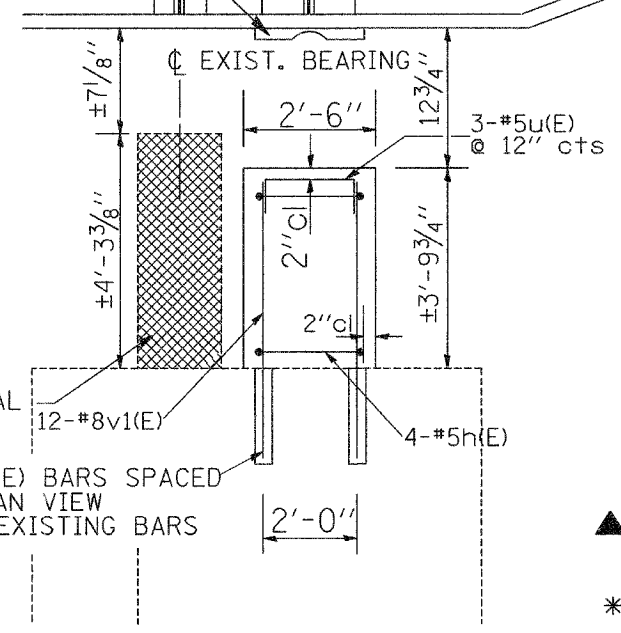
MIN. JACKING CAPACITY = 170 TONS

SECTION B-B
(EXISTING SHOWING REMOVAL)



EXISTING PEDESTAL

EPOXY GROUT *v1(E) BARS SPACED AS SHOWN IN PLAN VIEW SPACE BETWEEN EXISTING BARS



REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

FOR REBAR DETAILS SEE SHEET 6 OF 11

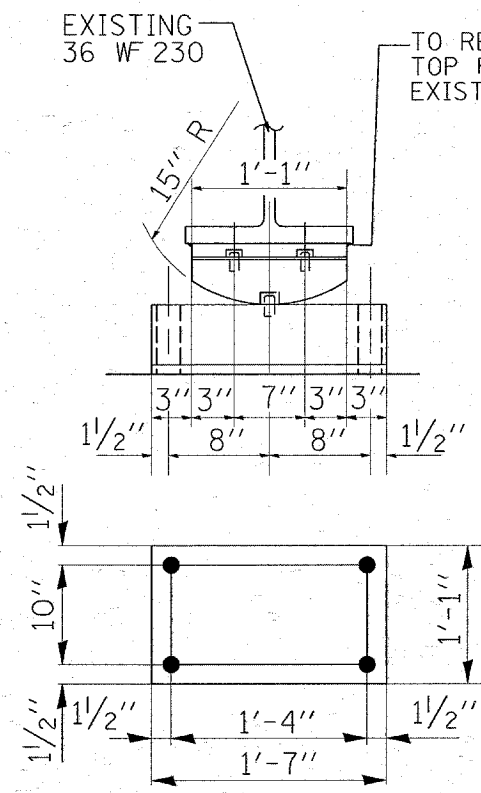
CONCRETE REMOVAL

▲ EXIST. REINFORCEMENT TO BE CLEANED STRAIGHTENED & INCORPORATED INTO NEW CONSTRUCTION. CUT TO MAINTAIN 2" CLEARANCE

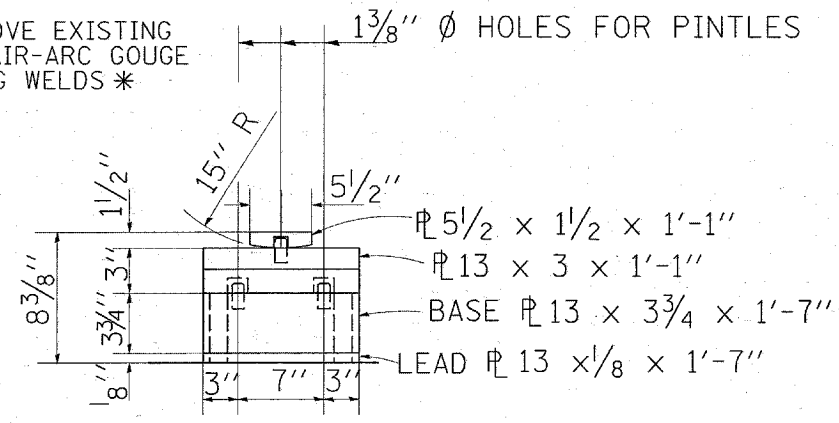
* DRILL & EPOXY GROUT 9" MINIMUM INTO THE EXISTING CONCRETE ACCORDING TO ART. 584 OF THE STD. SPECS.

ALL PROPOSED PEDESTAL HEIGHTS TO BE FIELD VERIFIED

| | | | | | | | | | | | | |
|--|--------------------|------------|---|---|---------------------------------------|-------------------------|---------------------|----------------|--------------------|----------------|--|--|
| FILE NAME = c:\projects\131906\131906.dgn | USER NAME = mrdjja | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PIER 2 REPAIRS SN 016-0421 | F.A.P. RTE. 350 | SECTION 3068 B-I | COUNTY COOK | TOTAL SHEETS 11 | SHEET NO. 7 | | |
| PLOT SCALE = 5/8" = 1' IN. | CHECKED - | REVISED - | SCALE: | | | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA. | CONTRACT NO. 60B29 | | | |
| PLOT DATE = 5/2/2008 | DATE - | REVISED - | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | | | |
| | | | | | | | | | | | | |

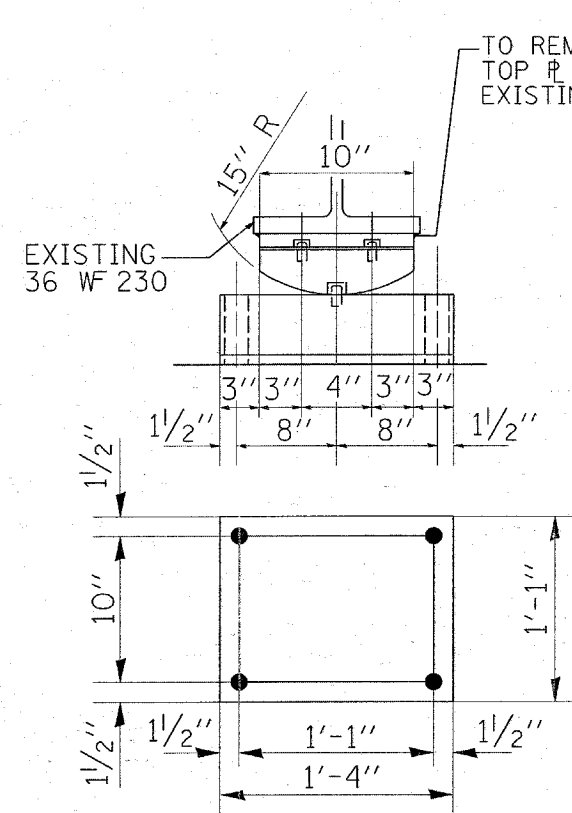


TO REMOVE EXISTING TOP ϕ AIR-ARC GOUGE EXISTING WELDS *

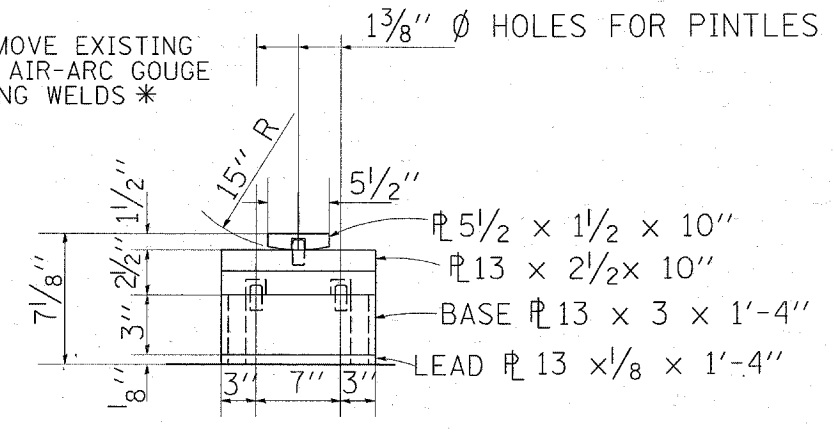


* CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING 36WF 230 TO REMAIN

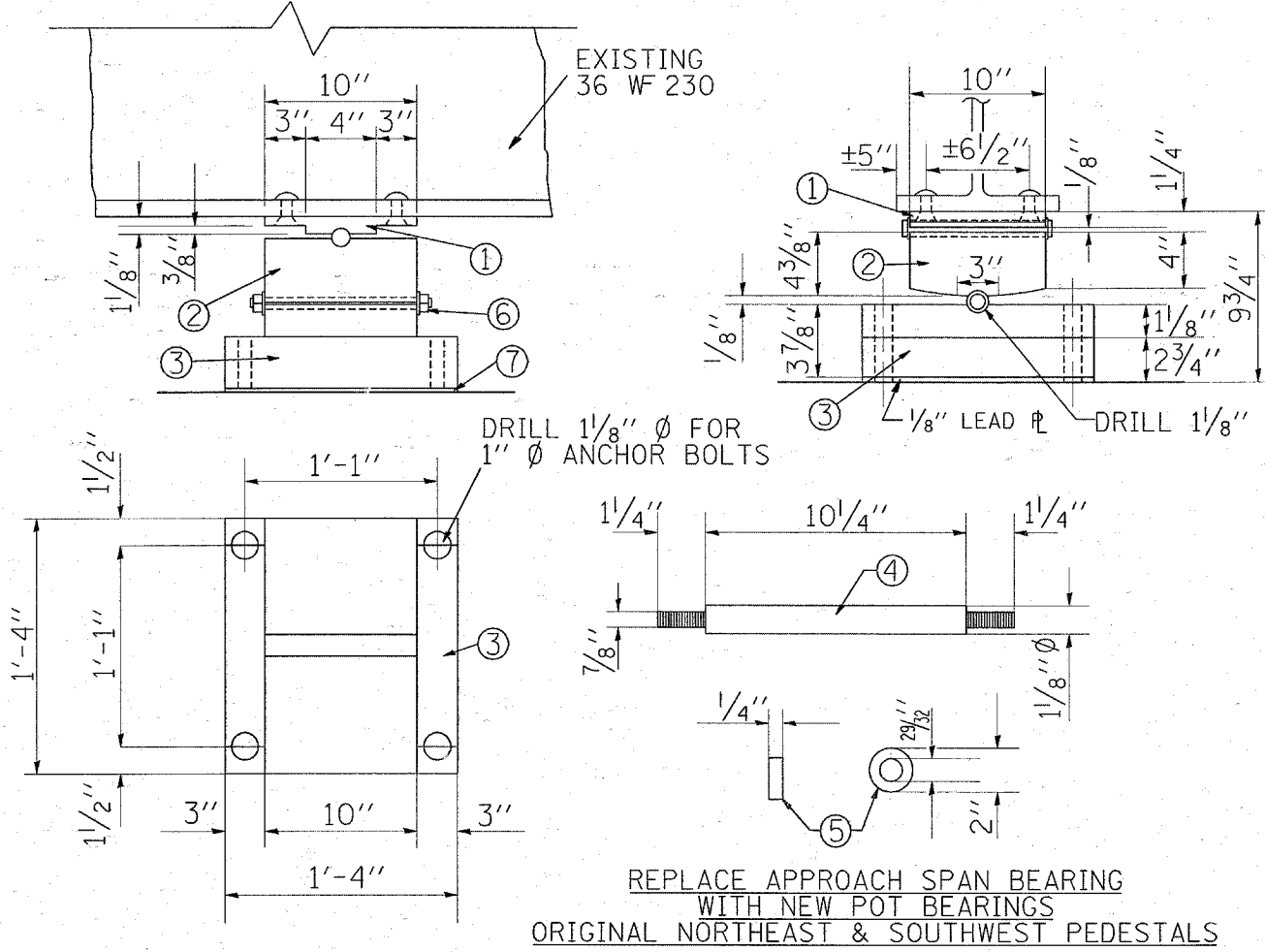
REPLACE APPROACH SPAN BEARING NEW NORTHWEST PEDESTAL



TO REMOVE EXISTING TOP ϕ AIR-ARC GOUGE EXISTING WELDS *



REPLACE APPROACH SPAN BEARING NEW SOUTHEAST PEDESTAL



REPLACE APPROACH SPAN BEARING WITH NEW POT BEARINGS ORIGINAL NORTHEAST & SOUTHWEST PEDESTALS

MATERIAL FOR ONE BEARING

- ① 1- ϕ 10 x 1/8 x 0'-10"
- ② 1- ϕ 10 x 4 1/2 x 0'-10"
- ③ 1- ϕ 16 x 4 x 1'-4"
- ④ 2- PINS 1 1/8" ϕ x 1'-0 3/4"
- ⑤ 4- WASHERS 1/4" x 2"
- ⑥ 4- 7/8" NUTS
- ⑦ 1- ϕ 16 x 1/8 x 1'-4" (LEAD)

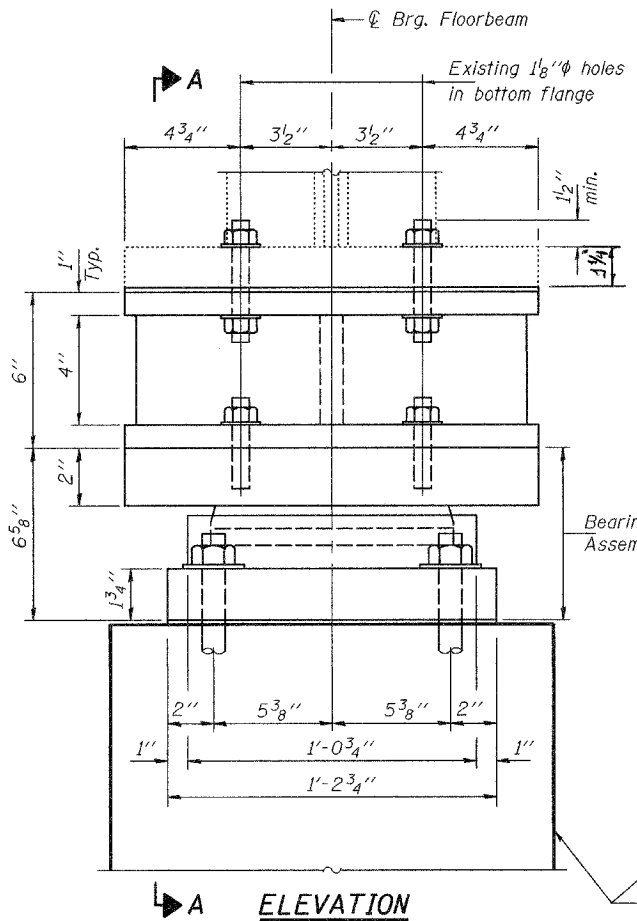
FOR INFORMATION ONLY

| | | | | | | | | | | | |
|---|---------------------------|------------|-----------|---|--------------------------|-------------------------|-----------------|---|-------------|-----------------|-------------|
| FILE NAME = c:\projects\131906\131906a.dgn | USER NAME = midyja | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING BEARING DETAILS | | F.A.P. RTE. 350 | SECTION 3068 B-I | COUNTY COOK | TOTAL SHEETS 11 | SHEET NO. 8 |
| | PLOT SCALE = 50.00' / IN. | DRAWN - | REVISED - | | SCALE: | SHEET NO. 4 OF 5 SHEETS | STA. TO STA. | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | |
| PLOT DATE = 4/4/2008 | DATE - | CHECKED - | REVISED - | CONTRACT NO. 60B29 | | | | | | | |

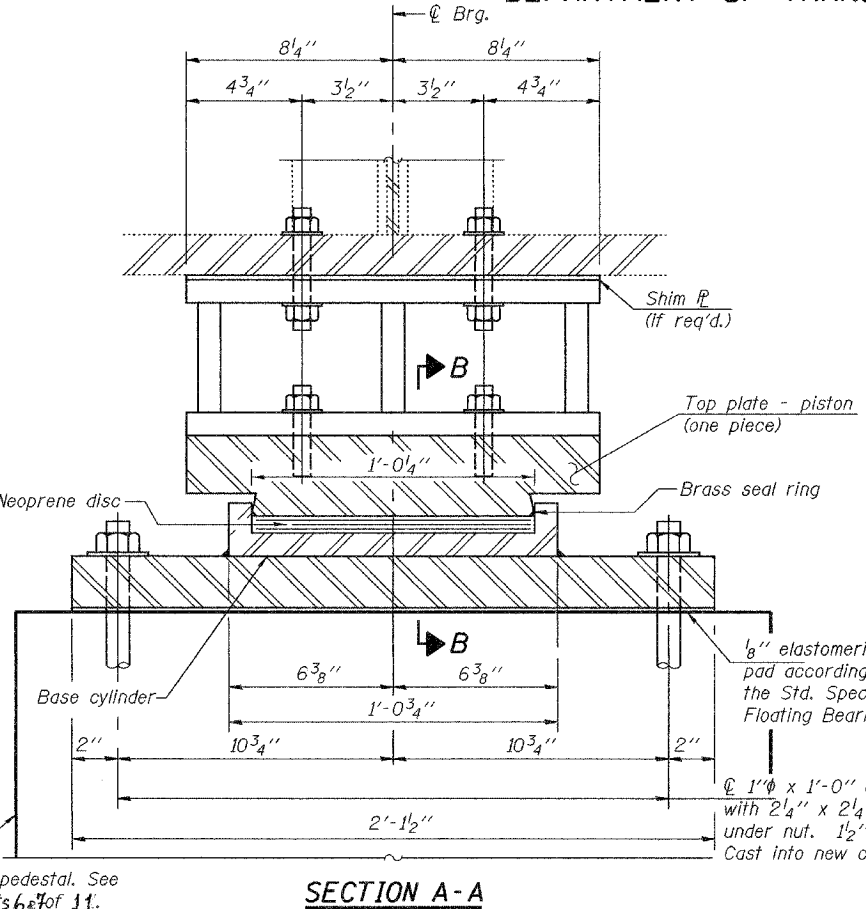
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|----------------------------|---------|------------------|-----------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. |
| FAP 350 | # | COOK | 11 | 9 |
| ILLINOIS | | FED. AID PROJECT | | |
| * 3068 B-1 Contract #60B29 | | | | |

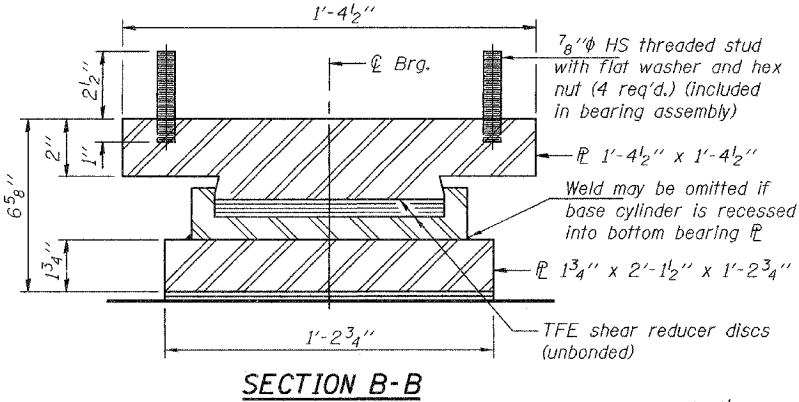
Notes:
The plates of the Bearing Assembly shall be AASHTO M270, Grade 50.
Anchor bolts shall be AASHTO M314 Grade 55.
Prior to ordering any material, the contractor shall verify in the field all bearing height and shim thickness dimensions.
Cost of steel extensions included with Furnishing and Erecting Structural Steel.



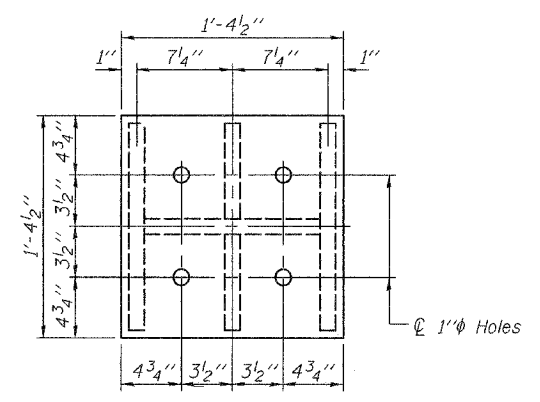
ELEVATION
FIXED FLOATING BEARING AT PIERS 1 & 2



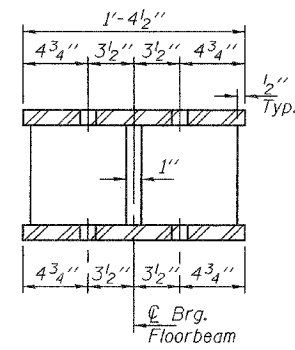
SECTION A-A



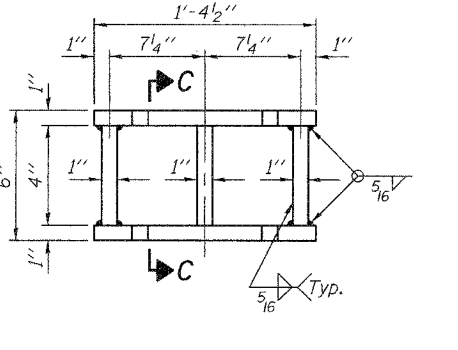
SECTION B-B



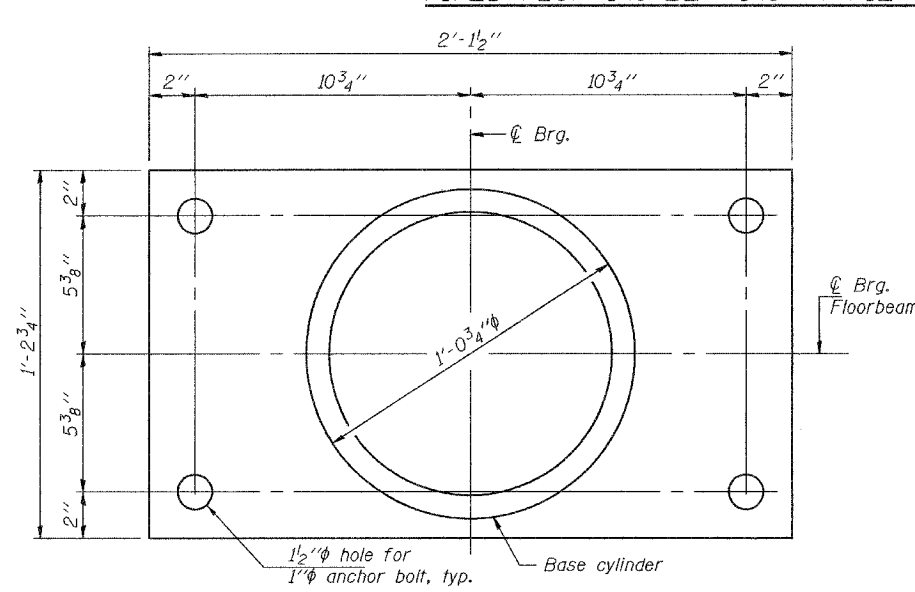
PLAN TOP AND BOTTOM PLATE



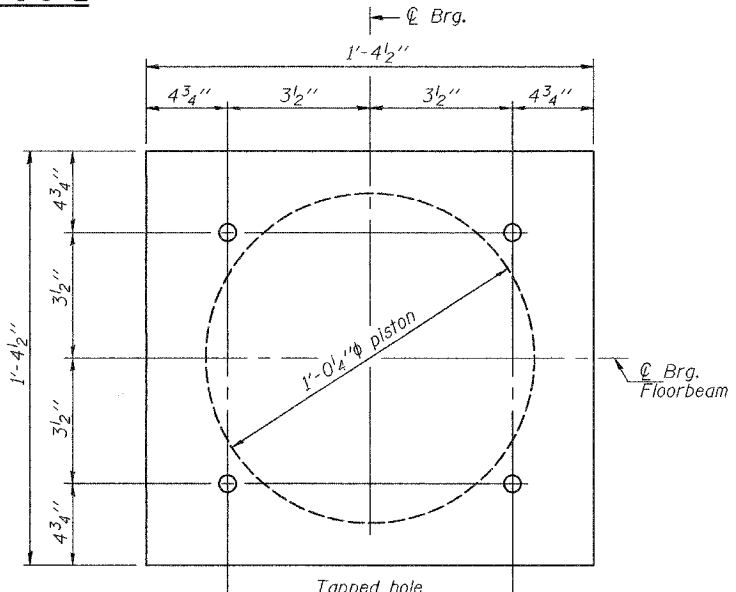
SECTION C-C



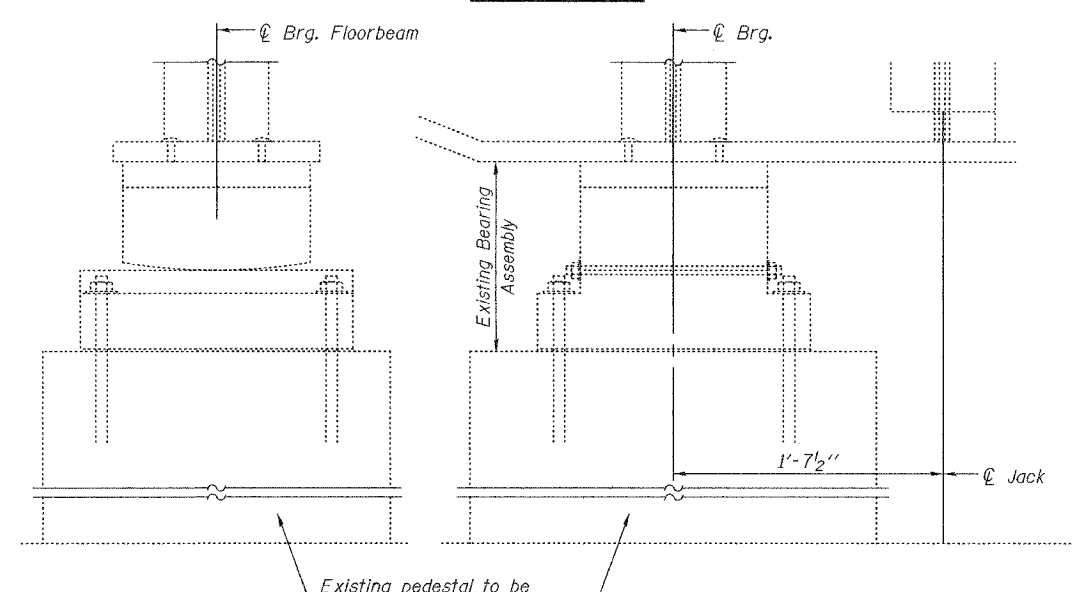
STEEL EXTENSION DETAIL



BOTTOM BEARING AND BASE CYLINDER PLAN



TOP BEARING AND PISTON PLAN



EXISTING BEARING REMOVAL DETAIL

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| High Load Multi-Rotation Bearings, Fixed - 300 kip | Each | 4 |
| Anchor Bolts, 1" | Each | 16 |
| Jack and Remove Existing Bearings | Each | 4 |
| Furnishing and Erecting Structural Steel | Pound | 930 |

Cost included with Jack and Remove Existing Bearings.

APPROACH BEARING DETAILS
FAP 350 (IL 50/83)
CICERO AVE OVER CAL SAG CHANNEL
COOK COUNTY
STRUCTURE NO. 016-0421

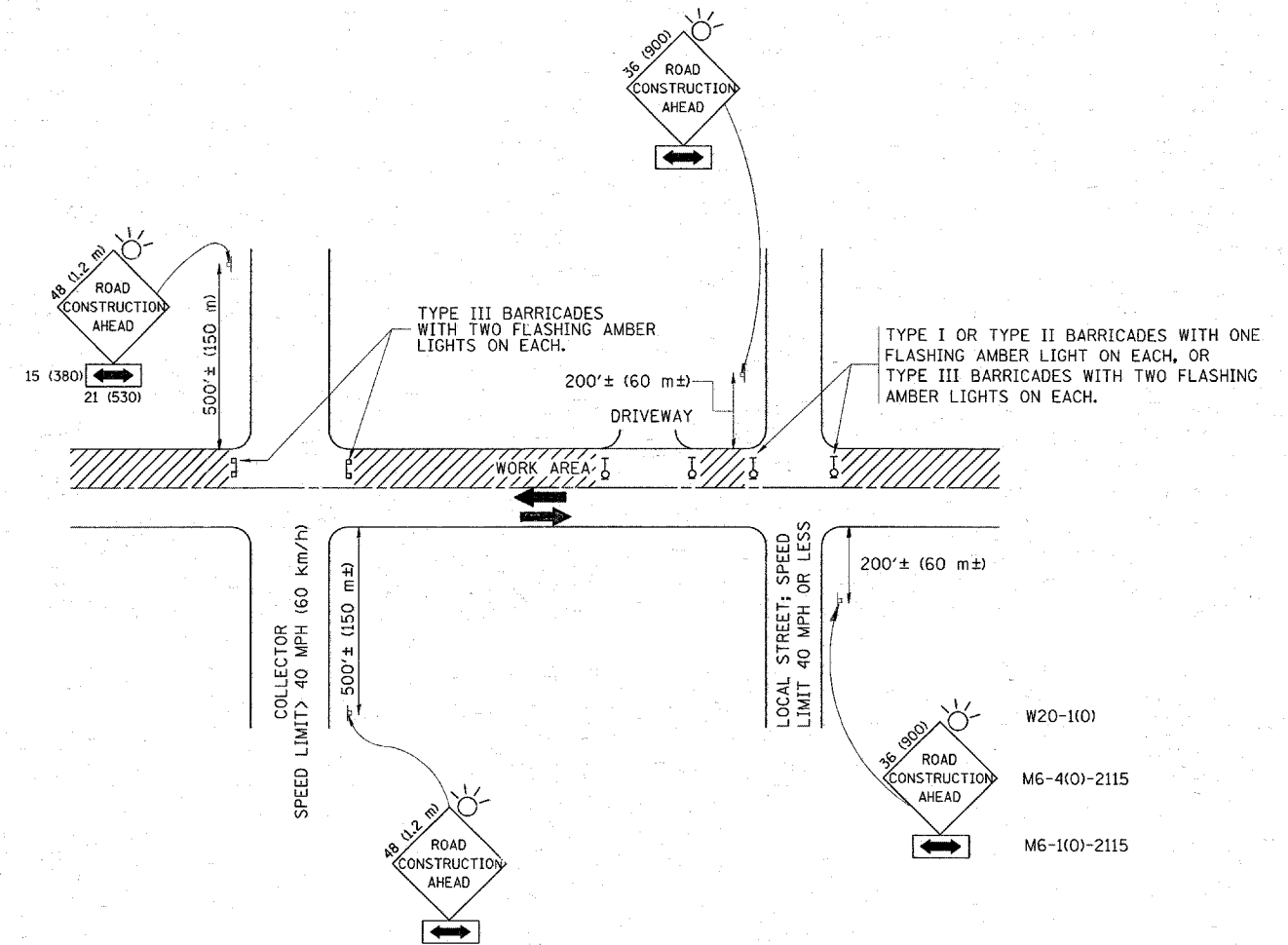
| BEARING DATA | |
|----------------------|---------|
| Vertical design load | 270 kip |
| Lateral design load | 54 kip |

| | |
|----------|-----------------|
| DESIGNED | Victor H. Voliz |
| CHECKED | SJB |
| DRAWN | ballva |
| CHECKED | VHV SJB |

| | | |
|----------|--------------------|-------------|
| EXAMINED | Cal Jones | MAY 7, 2008 |
| PASSED | Robert E. Anderson | |



EXPIRES 11-30-2008



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.

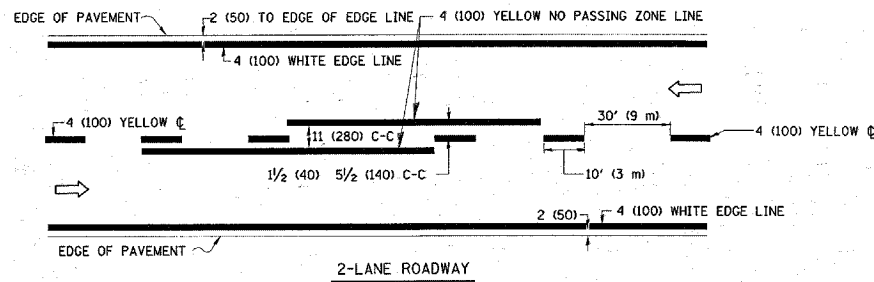
| | | | |
|--|----------------------------|----------------|---------------------------------|
| FILE NAME = M:\diststd\22x34\tol0.dgn | USER NAME = midyja | DESIGNED - LHA | REVISED - J. OBERLE 10-18-95 |
| | | DRAWN - | REVISED - A. HOUSEH 03-06-96 |
| | PLOT SCALE = 50.000' / IN. | CHECKED - | REVISED - A. HOUSEH 10-15-96 |
| | PLOT DATE = 4/4/2008 | DATE - 06-89 | REVISED - T. RAMMACHER 01-06-00 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

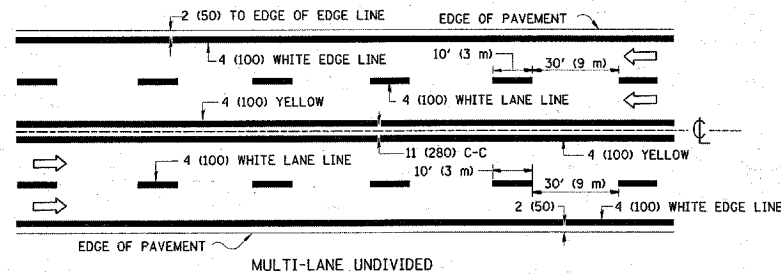
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

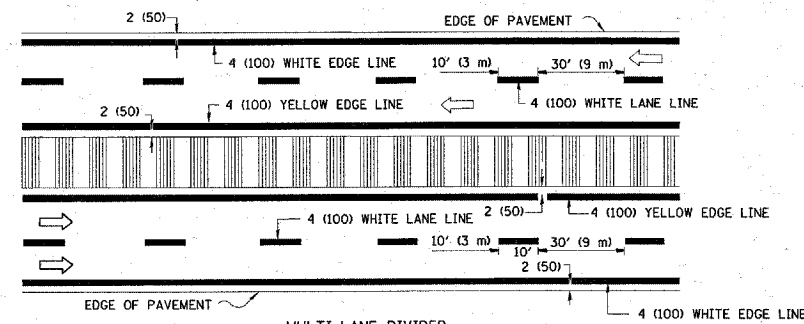
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------|--------|--------------------|-----------|
| 350 | 3068 B-I | Cook | 11 | 10 |
| TC-10 | | | CONTRACT NO. 60829 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



2-LANE ROADWAY



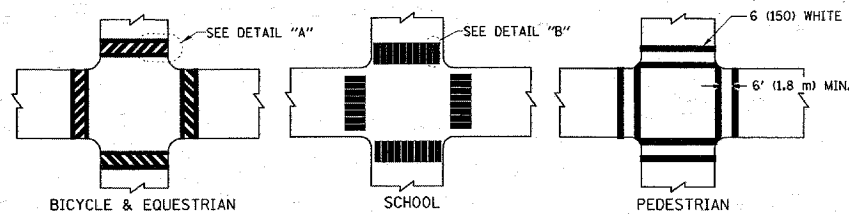
MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

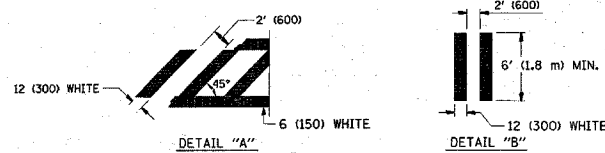
TYPICAL LANE AND EDGE LINE MARKING



BICYCLE & EQUESTRIAN

SCHOOL

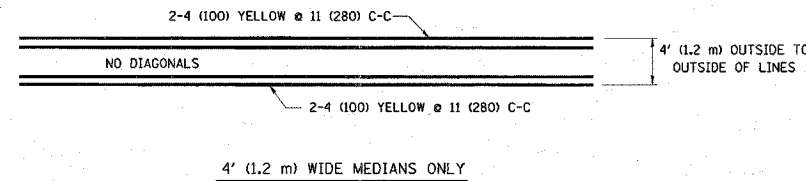
PEDESTRIAN



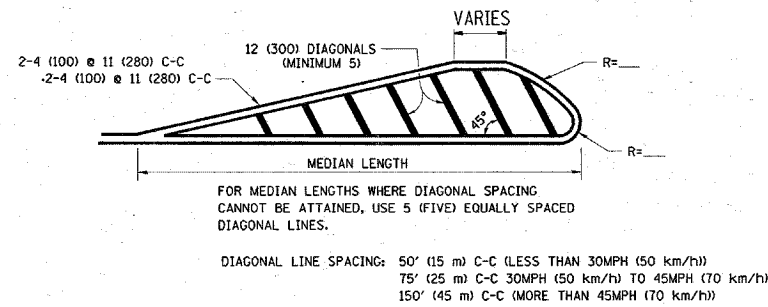
DETAIL "A"

DETAIL "B"

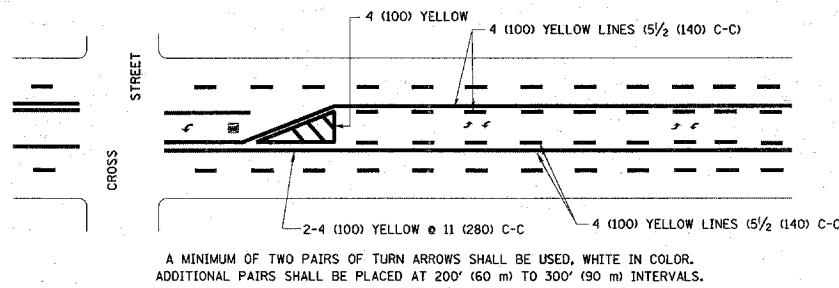
TYPICAL CROSSWALK MARKING



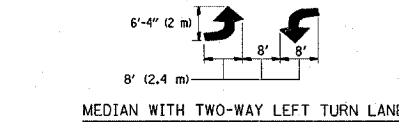
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

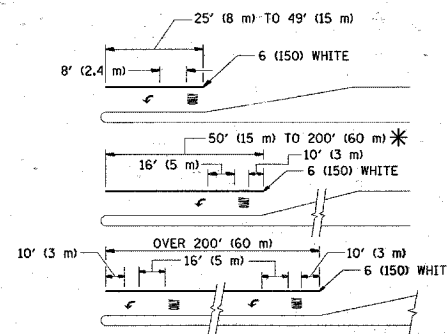


TYPICAL PAINTED MEDIAN MARKING



MEDIAN WITH TWO-WAY LEFT TURN LANE

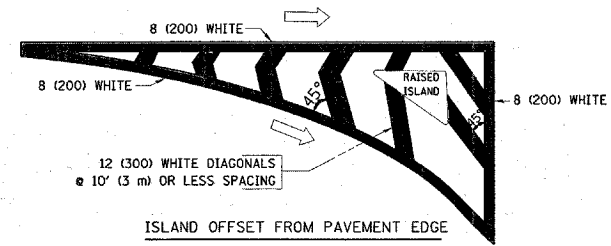
TYPICAL PAINTED MEDIAN MARKING



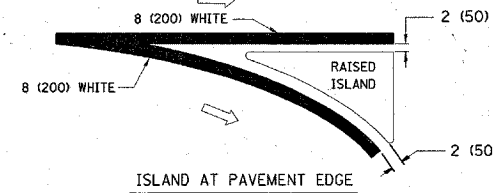
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

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



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

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

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

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

FILE NAME = W:\distsatd\22x34\td13.dgn
 USER NAME = midjja
 PLOT SCALE = 50.000' / 1" IN.
 PLOT DATE = 4/4/2008

DESIGNED - EVERS
 DRAWN -
 CHECKED -
 DATE - 03-19-90
 REVISED - T. RAMMACHER 10-27-94
 REVISED - A. HOUSEH 10-09-96
 REVISED - A. HOUSEH 10-17-96
 REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
 TYPICAL PAVEMENT MARKINGS

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

F.A.P. R.T.E. SECTION COUNTY TOTAL SHEETS SHEET NO.
 350 3068 B-I Cook 11 11
 TC-13 CONTRACT NO. 60623
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT