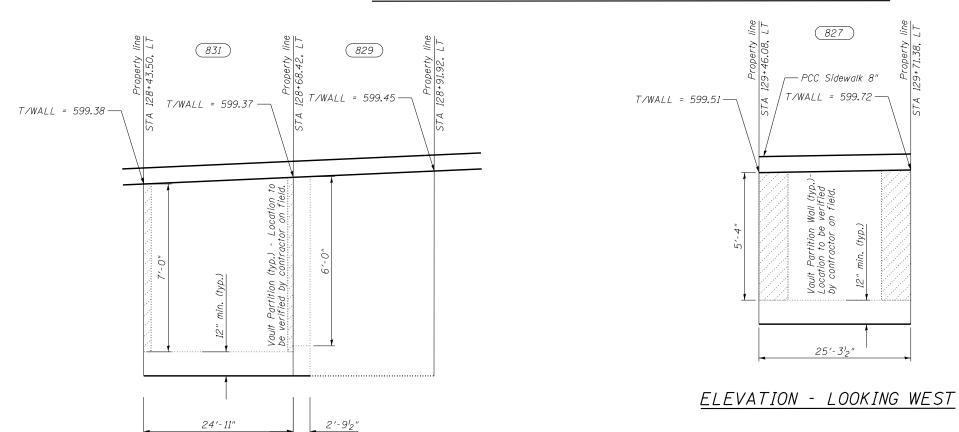


#### PLAN - VAULTED SIDEWALK ADDRESS: 831, 829 AND 827



#### LEGEND:

**₩** 

- Soil Boring Location

- Direction of Traffic

to l

Existing Vault Space (to be field verified by Contractor) Vault Partition Wall, Remove as required (to be field verified by Contractor)



- 1. See Sheet S-5 and S-6 for business information and notes specific to each address.
- 2. The removal of the sidewalk and/or roof, partition masonry walls, deteriorated beams, full depth saw cutting, sealing floor drains, breaking up the vault floor, protection of existing utilities, providing access to abutting properties, plywood portion walls and closing of minor openings is included in the cost of Vaulted Sidewalk Removal.
- 3. All vault locations shown are approximate. Contractor to verify all dimensions before begining the work.

|  | USER |
|--|------|
| AFC AES Services, Inc. 111 S. Wacker Drive, Suite 3910 |      |
| Chicago, IL 60606<br>Ph: 312-235-6783                  | PLOT |
| 111. 512-233-0763                                      | PLOT |

|    | USER NAME =  | DESIGNED | - | MS        | REVISED - |
|----|--------------|----------|---|-----------|-----------|
| 10 |              | DRAWN    | - | AWM       | REVISED - |
|    | PLOT SCALE = | CHECKED  | - | MS        | REVISED - |
|    | PLOT DATE =  | DATE     | - | 3/20/2017 | REVISED - |
| _  |              |          |   |           |           |

ELEVATION - LOOKING WEST

|               | ILLINOIS FE | D. A   | ID PROJECT      |              |      |
|---------------|-------------|--------|-----------------|--------------|------|
|               |             |        | CONTRACT        | NO. 6        | 2009 |
| 577           | D-EXT-N     | WILL   | 140             | 102          |      |
| F.A.P<br>RTE. | SECTION     | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO. |      |

#### VAULT CONSTRUCTION NOTES

BUILDING ADDRESS: 827 S. STATE ST. BUSINESS NAME: MINT SALON BUSINESS CONTACT INFORMATION: 815-838-2660

- 1. Access shall be maintained to the business at all times.
- 2. Contractor shall cut an opening in the sidewalk to expose the vault, the opening should be cut in the sidewalk to the south of the doorway. The remaining sidewalk shall be supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.

BUILDING ADDRESS: 829 S. STATE ST. BUSINESS NAME: CORNOLO TRAVEL BUSINESS CONTACT INFORMATION: 815-838-4068

- 1. Access shall be maintained to the residential apartment units and business at all times.
- 2. The contractor shall constructed or provide a temporary access bridge to provide access across this vault during construction or shall perform all work outside of the businesses normal operating hours.

BUILDING ADDRESS: 831 S. STATE ST. BUSINESS NAME: THE THOMPSON LAW OFFICE, P.C. BUSINESS CONTACT INFORMATION: 815-838-6033

- 1. Access shall be maintained to the residential apartment units and business at all times.
- Contractor shall cut an opening in the sidewalk to expose the vault. The opening should be cut
  in the sidewalk between the north and south doorways. The remaining sidewalk shall be
  supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access to the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 901 S. STATE ST. BUSINESS NAME: ALLSTATE INSURANCE, JOE RICKER AGENCY (STATE STREET) BUSINESS CONTACT INFORMATION: 815-834-2100

BUSINESS NAME: VACANT (9TH ST)
BUSINESS CONTACT INFORMATION: N/A
BUILDING OWNER NAME AND CONTACT INFORMATION:SCOTT & WM ROSAK, 365 OLD HICKORY RD, JOLIET, IL 60431

- 1. Access shall be maintained to the residential apartment units and business at all times.
- 2. Contractor shall cut an opening in the sidewalk to expose the vault. The opening should be cut in the sidewalk between the north and south doorways, the remaining sidewalk shall be supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access to the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 905-907 S. STATE ST. BUSINESS NAME: DESIGN STUDIO 905 BUSINESS CONTACT INFORMATION: 815-552-2491

AES Services, Inc.
111 S. Wacker Drive, Suite 39

Ph: 312-235-6783

- 1. Access shall be maintained to the residential apartment units and business at all times.
- 2. Contractor shall cut an opening in the sidewalk to expose the vault. The opening should be cut in the sidewalk between the north and south doorways. The remaining sidewalk shall be supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access to the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 901-911 S. STATE ST. BUSINESS NAME: CANAL HOUSE ANTIQUES BUSINESS CONTACT INFORMATION: 815-838-8551

- 1. Access shall be maintained to the residential apartment units and business at all times.
- 2. Contractor shall cut an opening in the sidewalk to expose the vault. The opening should be cut in the sidewalk between the north and south doorways. The remaining sidewalk shall be supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.
- The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access to the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 931 S. STATE ST. BUSINESS NAME: VACANT AS OF 10-31-14 BUSINESS CONTACT INFORMATION: N/A BUILDING OWNER NAME & CONTACT INFORMATION: JANET C BARTLETT, 21242 BRUSH LAKE DR, CREST HILL, IL 60403

- 1. Access shall be maintained to the residential apartment units (and business if occupied at the time of construction) at all times.
- Contractor shall cut an opening in the sidewalk to expose the vault. The opening should be cut
  in the sidewalk between the north and south doorways, the remaining sidewalk shall be
  supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours if this business is occupied at the time of construction.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access to the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 935 S. STATE ST. BUSINESS NAME: VACANT AS OF 10-31-14 BUSINESS CONTACT INFORMATION: N/A BUILDING OWNER NAME & CONTACT INFORMATION: WGAF LLC, 935 S STATE ST. LOCKPORT, IL 60441

- 1. If property is vacant at the time of construction, no staging of construction necessary.
- 2. If property is occupied, access shall be maintained to the businesses and residential apartment units at all times.

BUILDING ADDRESS: 910/912 S. STATE ST. BUSINESS NAME: MARCHIO TILE & CARPET, INC. BUSINESS CONTACT INFORMATION: 815.838.6050

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

- 1. Access shall be maintained to business and masonic lodge at all times.
- 2. Vaulted sidewalk between northern edge of building and ground level entry as well as vaulted sidewalk between upstairs entry to masonic temple and ground level entry shall be saw cut and removed to allow for filling and wall construction in north and south vaults. Remaining sidewalk shall be supported as necessary
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours, ground level entryway is large enough to support staged sidewalk reconstruction with either north or south side being constructed sequentially to allow constant access to marchio tile & carpet.
- 4. Masonic lodge entryway sidewalk reconstruction should be coordinated with lodge to not interfere with scheduled events. There is a rear entrance to the masonic lodge. The contractor shall confirm that the rear access can be utilized to provide access during reconstruction of the sidewalk. Emergency access must be maintained for the street-side access at all times that the masonic lodge is occupied for events or meetings.

#### VAULT CONSTRUCTION NOTES

BUILDING ADDRESS: 916/918/920 S. STATE ST. BUSINESS NAME: THE LAW OFFICES OF J. F. KLUNK BUSINESS CONTACT INFORMATION: 815-834-1108

- 1. Access shall be maintained to the businesses and residential apartment units at all times.
- 2. Contractor to cut two openings in the sidewalk to expose the vault. The two openings should be cut in the sidewalk between the north and center doorway and between the center and south doorways. The remaining sidewalk shall be supported if necessary.
- 3. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours of the law office such that access to the law office is not impeded at any time
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access two the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 922 S. STATE ST. BUSINESS NAME: HOLLINGWORTH CANDIES BUSINESS CONTACT INFORMATION: 815-838-2275

- 1. Access shall be maintained to the businesses and residential apartment units at all times.
- 2. Vaulted sidewalks between north building edge and ground level entry shall be saw cut and removed to allow for filling and wall construction in vaults. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed, the balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours.
- 3. Ground level entryway to hollingworth candies is large enough to allow staged sidewalk reconstruction with either north or south side being constructed sequentially to allow continuous access to hollingworth candies.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access two the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 924/926 S. STATE ST. BUSINESS NAME: HERITAGE PIZZA & CATERING BUSINESS CONTACT INFORMATION: 815-838-8888

- 1. Access shall be maintained to the businesses and residential apartment units at all times.
- 2. Vaulted sidewalks between ground level entrance and upstairs entry shall be removed to allow for filling and wall construction in vaults. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed, the balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours.
- 3. Ground level entryway is large enough to support staged sidewalk reconstruction with either north or south side being constructed sequentially to allow constant access to heritage pizza & caterina.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access two the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 928/930 S. STATE ST. BUSINESS NAME: VEGAN CAFE BUSINESS CONTACT INFORMATION: 815-838-4626

- 1. Access shall be maintained to the businesses and residential apartment units at all times.
- 2. Vaulted sidewalks between ground level entry door and upstairs entry door to be saw cut and removed to allow for filling and wall construction in vaults. The gravity wall construction and the majority of the vault filling operation shall be performed through the cut sidewalk openings before the remaining sidewalk is removed. The balance of the sidewalk removal, backfill placement and sidewalk placement shall be performed outside of the business hours.
- 3. Ground level entryway is large enough to allow staged sidewalk reconstruction with the sidewalk in front of this entryway being constructed in halves to allow constant access to vegan cafe.
- 4. The contractor shall coordinate with the property owner to confirm that the residents of the upper floors can use the rear entry for access two the apartments during the construction of the sidewalk.

BUILDING ADDRESS: 932 S. STATE ST.
BUSINESS NAME: VACANT
BUSINESS CONTACT INFORMATION: N/A
BUILDING OWNER NAME AND CONTACT :DAVID B & EVELYN MABE, 932 S STATE ST. LOCKPORT, IL 60441

1. Building is vacant and being renovated. Staging will have to be evaluated once the new business is open.

BUILDING ADDRESS: 940 S. STATE ST. BUSINESS NAME: THIMBLES BUSINESS CONTACT INFORMATION: 815-836-8735

- 1. Access shall be maintained to the businesses at all times.
- Vaulted sidewalks between ground level entry door and northern edge of building to be saw cut
  and removed to allow for filling and wall construction in vaults. The gravity wall construction
  and the majority of the vault filling operation shall be performed through the cut sidewalk
  openings before the remaining sidewalk is removed.
- 3. The contractor shall construct or provide a temporary access bridge to provide access across this vault.

#### GENERAL NOTES

1. Backfill shall be placed behind the abutment after the superstructure has been poured and falsework removed. See Article 502.10 of the Standard Specifications.

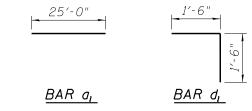
2. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations 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 at the unit price bid for the work.

#### TOTAL BILL OF MATERIAL

| ITEM                               | UNIT    | TOTAL |
|------------------------------------|---------|-------|
| Porous Granular Embankment         | Cu. Yd. | 960   |
| Sub Base Granular Material, Type B | Cu. Yd. | 47    |
| Structure Excavation               | Cu. Yd. | 155   |
| Concrete Structures                | Cu. Yd. | 383   |
| Reinforcement Bars, Epoxy Coated   | Pound   | 2040  |
| Sand Backfill                      | Cu. Yd. | 60    |
| Vaulted Sidewalk Removal           | Sq. Ft. | 4298  |

#### REBAR DETAILS

| Bar                 | No.                 | Size | Length | Shape |
|---------------------|---------------------|------|--------|-------|
| а,                  | 66                  | #4   | 25′-0" |       |
| d,                  | 468                 | #4   | 3'-0"  |       |
| Reinford<br>Epoxy C | cement Bo<br>Coated | grs  | Pound  | 2040  |



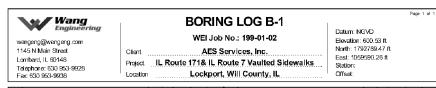
Min. Lap Length of 2'-7"

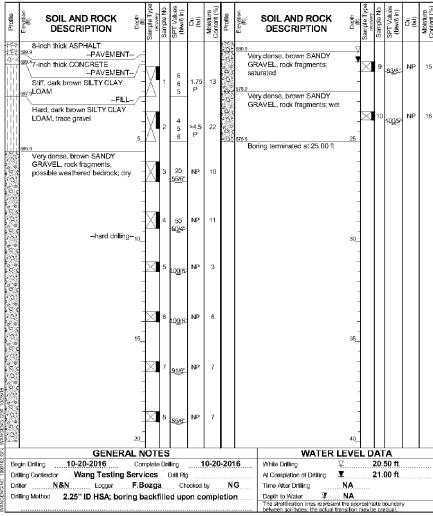
|   | USEF |
|---|------|
| AES Services, Inc.<br>111 S. Wacker Drive, Suite 3910 |      |
| Chicago, IL 60606<br>Ph: 312–235–6783                 | PL01 |
| 111: 312-233-0703                                     | PL01 |

|   | USER NAME =  | DESIGNED | - | MS        | REVISED - |
|---|--------------|----------|---|-----------|-----------|
| o |              | DRAWN    | - | AWM       | REVISED - |
|   | PLOT SCALE = | CHECKED  | - | MS        | REVISED - |
|   | PLOT DATE =  | DATE     | - | 3/20/2017 | REVISED - |

| IL 171 (STATE ST.) & IL 7 (9™ ST.) IMPROVEMENTS | F.A.P<br>RTE. |  |
|---|---------------|--|
| GRAVITY WALL CONSTRUCTION NOTES - II            |               |  |
| CHAVITI WALL CONGINGUITOR ROLLS II              |               |  |

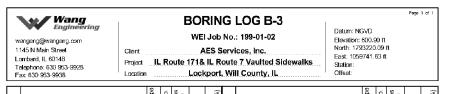
| F.A.P<br>RTE. | SECTION         | COUNTY     | TOTAL<br>SHEETS | SHEE1 |
|---------------|-----------------|------------|-----------------|-------|
| 577           | D-EXT-N         | WILL       | 140             | 104   |
|               |                 | CONTRACT   | NO. 6           | 2C09  |
|               | TILITADIS EED A | ID PROJECT |                 |       |

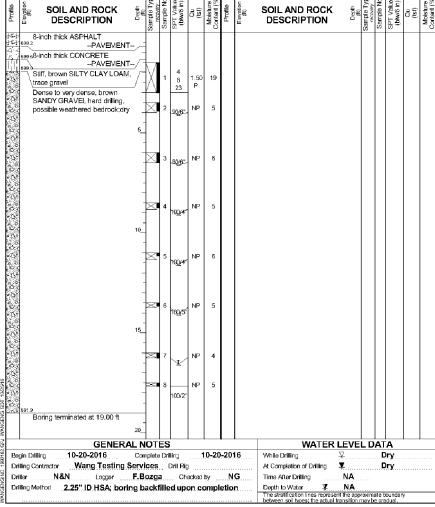




| Wang Wang                                    | BORING LOG B-2                                     | Page 1 c                         |
|--|--|----------------------------------|
| Engineering                                  | DOMING EGG D-2                                     | Datum: NGVD                      |
| wangeng@wangeng.com                          | WEI Job No.: 199-01-02                             | Elevation: 600.61 ft             |
| 1145 N Main Street                           | Client AES Services, Inc.                          | North: 1793018.50 ft             |
| Lombard, IL 60148<br>Telephone: 630 953-9928 | Project IL Route 171& IL Route 7 Vaulted Sidewalks | East: 1059670.06 ft.<br>Station: |
| Fax: 630 953-9938                            | Location Lockport, Will County, IL                 | Offset:                          |

| Elevation                                      |   | Depth<br>(ft)<br>Sample Type | Sample No. | SPT Values<br>(blw/6 in)               | (عو)<br>(عو) | Moisture<br>Content (%) | Profile | Elevation<br>(ft) | SOIL AND ROO<br>DESCRIPTION                                 |          | Sample Type | Sample No. | SPI values<br>(blw/6 in) | On<br>(tst) | Moisture |
|--|---|------------------------------|------------|--|--------------|-------------------------|---------|-------------------|---|----------|-------------|------------|--------------------------|-------------|----------|
| $\sim$   | <sub>0</sub> 7-inch thick ASPHALTPAVEMENT- <sup>4</sup> 7-inch thick ASPHALTPAVEMENT-                   | -/-                          | 1          | 10                                     | ΝP           | 9                       |         |                   |   |          |             |            |                          |             |          |
| 5 597  | Medium dense, brown, SANDY<br>GRAVEL; dry<br><u>6</u><br>Very dense, brown, SANDY                       | 4                            | . [        | 5                                      | MP           | э                       |         |                   |   |          |             |            |                          |             |          |
| 7 A 7 A 7                                      | GRAVEL, trace gravel; dry   | 5                            | 2          | 9<br>24<br>33                          | ΝP           | 12                      |         |                   |   |          |             |            |                          |             |          |
| 595<br>595<br>54                               | e Very dense, brown, SANDY GRAVEL, rock fragments, hard drilling; dry                                   |                              | 3          | 34<br>-80 <u>/</u> 4"-                 | ΝP           | 11                      |         |                   |   |          |             |            |                          |             |          |
|  |   | 10_                          | 4          | 95/6"                                  | ΝP           | 7                       |         |                   |   |          |             |            |                          |             |          |
| 5<br>5<br>4<br>5<br>8<br>5<br>8<br>5<br>8<br>8 |   | 1                            | 5          | 719 <u>0</u> /4″                       | ΝP           | 10                      |         |                   |   |          |             |            |                          |             |          |
| 4  | Very dense, brown, SANDY<br>GRAVEL, rock fragments,<br>possible wathered bedrock, hard<br>drilling; dry | 15_                          | 6          | 10 <u>0</u> 25"                        | ΝP           | 6                       |         |                   |   |          |             |            |                          |             |          |
| 4  |   | -<br>-                       | 7          | ************************************** | ΝP           | 5                       |         |                   |   |          |             |            |                          |             |          |
| 5<br>14<br>581                                 | .6Augur refusal at 19'-<br>Boring terminated at 19.00 ft  | 20_                          | 8          | rygerf                                 | NP           | 6                       |         |                   |   |          |             |            |                          |             |          |
| —  | GENERA  | L NO                         | ES         | ;<br>;                                 |              |                         | —       |                   | WATI  | R LEVE   | LD          | AT/        | ╮┤                       |             | _        |
| Begin [  | Drilling 10-20-2016   | Comple                       |            |  | 1            | 0-20                    | -20     | 16                | While Drilling  | ⊽        |             | Dr         |                          |             | _        |
| Drilling<br>Driller                            | Contractor Wang Testing S   | ervice:<br>F.Bozg            | a          | Drill Rig<br>Ch                        | ecked        | by                      | N       | G                 | At Completion of Drillin Time After Drilling Depth to Water | NA<br>NA |             | Dr         | <b>Y</b>                 |             |          |
|  |   |                              |            |  |              |                         |         |                   |   |          |             |            |                          |             |          |



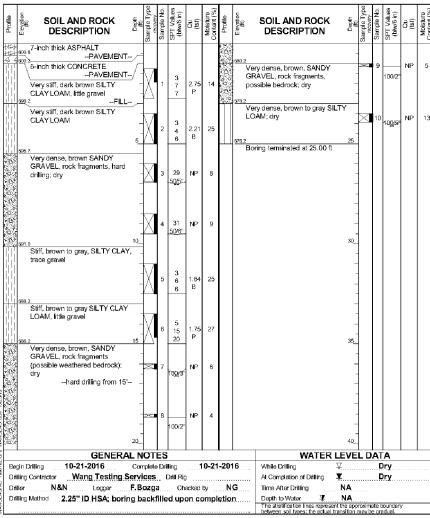


|  | US |
|--|----|
| AES Services, Inc. 111 S. Wacker Drive, Suite 3910 |    |
| Chicago, IL 60606<br>Ph: 312–235–6783              | PL |
| 1111 012 200 0700                                  | Ċ  |

| USER NAME = tmohammed      | DESIGNED - | AWM       | REVISED - |
|----------------------------|------------|-----------|-----------|
|                            | DRAWN -    | TOM       | REVISED - |
| PLOT SCALE = 2.0000 '/ in. | CHECKED -  | JA        | REVISED - |
| PLOT DATE = 5/11/2017      | DATE -     | 3/20/2017 | REVISED - |

SCALE

| IL 171 | (STATE | ST.) &  | L 7 (9 <sup>†</sup> | IMPROVEMENTS | F.A.P<br>RTE. | SECTION |          | COUNTY   | TOTAL<br>SHEETS | SHEET<br>NO. |  |
|--------|--------|---------|---------------------|--------------|---------------|---------|----------|----------|-----------------|--------------|--|
|        |        | OIL BOI | RING I              | nce .        | 577 D-EXT-N   |         |          | WILL     | 140             | 105          |  |
|        |        | OIL DO  |                     |              |               |         |          | CONTRACT | NO. 6           | 2009         |  |
| E      | SHEET  | OF      | SHEETS              | STA.         | TO STA.       |         | ILLINOIS | FED. AI  | D PROJECT       |              |  |



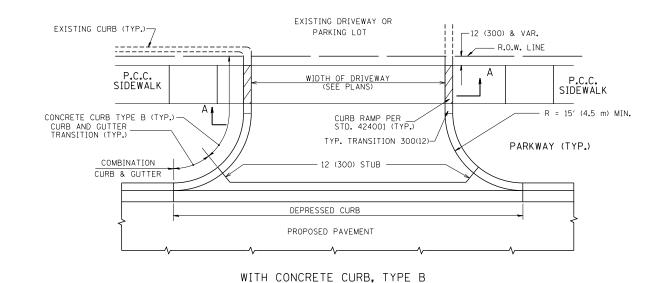
| Wang<br>Engineering   |                               | E                                     | 3OF                      | RIN          | G L                     | .0         | G B-5a/B-5b   | Datum: N  | CVE            |  | Page | 1 of 1                  |
|---|-------------------------------|---------------------------------------|--------------------------|--------------|-------------------------|------------|---|---|----------------|--|------|-------------------------|
| wangeng@wangeng.com<br>1145 N Main Street<br>Lomberd, IL 60148<br>Telephone: 630 953-9928<br>Fax: 630 953-9938  | Client<br>Project<br>Location |                                       |                          | A<br>171&    | ES S                    | erv<br>out | : 199-01-02<br>ices, Inc.<br>e 7 Vaulted Sidewalks<br>Il County, IL | Elevation:<br>North: 17<br>East: 105<br>Station:<br>Offset: | 601.3<br>92927 | 43 ft                                  |      |                         |
| SOIL AND ROCK DESCRIPTION  THE TABLE TO THE TRANSPORT OF | Depth<br>(ft)                 | Sample Type<br>recovery<br>Sample No. | SPT Values<br>(blw/6 in) | us)<br>(tsf) | Moisture<br>Content (%) | Profile    | SOIL AND ROOM DESCRIPTION   | £ 60 €  |                | Sample No.<br>SPT Values<br>(blw/6 in) | (ja) | Moisture<br>Content (%) |

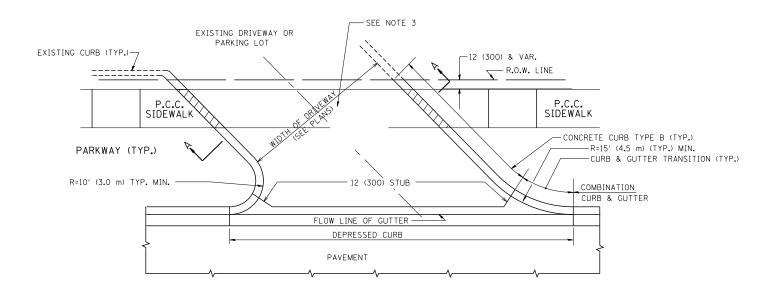
| Profile | E BESSIAI IISIA   | Sample Type | Sample No. | SPT Values<br>(blw/6 in) | Ou<br>(tsf) | Moisture<br>Content (%) | Profile            | Elevation<br>(ft) | SOIL AND ROCK<br>DESCRIPTION                                       | Depth                     | Sample Type | Sample No.     | SPT Values<br>(blw/6 in) | Ou<br>(taf) | Moisture<br>Content (%) |
|---------|---|-------------|------------|--------------------------|-------------|-------------------------|--------------------|-------------------|--|---------------------------|-------------|----------------|--------------------------|-------------|-------------------------|
|         | 7.5-inch thick ASPHALT -PAVEMENT 500 27-inch thick CONCRETE -PAVEMENT Stiff, dark brown, SILTY CLAY, little gravel<3" -FILL |             |            | 5<br>4<br>5              | 1.50<br>P   | 17                      | 0°00°0°0           |                   |  | -<br>-<br>-<br>-          | ו           | 9              | 100/2                    | NP          | 5                       |
|         | Medium dense, brown, GRAVELLY LOAM, rock fragments; dryObstruction at 3 feet, boring moved 5 feet west-                     | 5           | 2          | 6<br>4<br>14             | NP          | 12                      | а <sub>В</sub> с в | 576.4             | Possible bedr  | -<br>-<br>25<br>ock       | <b>*</b>    | 10             | 78Q8f                    | NP          | 10                      |
|         | Very dense, brown, SANDY<br>GRAVEL, rock fragments<br>(possible weathered bedrock);<br>dry                                  |             | 3          | 22<br>42<br>50/5"        | ΝP          | 8                       |                    | Во                | ring terminated at 25.00 ft  | -<br>-<br>-               |             |                |                          |             |                         |
|         | 1   | •           | 4          | 40 <u>0</u> /5/          | NP          | 7                       |                    |                   |  | 30_                       |             |                |                          |             |                         |
|         |   |             | 5          | ከ <u>ፀ</u> ቧ/4"          | NP          | 4                       |                    |                   |  | -<br>-<br>-               |             |                |                          |             |                         |
|         | 1   | 5_          | <b>=</b> 6 | 100/2"                   | NP.         | 5                       |                    |                   |  | 35_                       |             |                |                          |             |                         |
|         |   |             | 7          | 70 <u>0</u> /3           | NP          | 5                       |                    |                   |  | -<br>-<br>-               |             |                |                          |             |                         |
|         | 2   |             | 8          | 19 <u>0</u> /3           | NP          | 5                       |                    |                   |  | -<br>-<br>40_             |             |                |                          |             |                         |
|         | GENERAL   | NOT         | ES         | -                        | _           |                         | _                  |                   | WATER  | LEVE                      | LD          | AT             | Α                        |             | _                       |
| Bej     |   | omplet      |            |                          |             | 10-21                   | 1-201              | 16                | While Drilling   | ⊽                         |             |                | 50 ft                    |             |                         |
| Dri     | Illing Contractor Wang Testing Ser  |             |            |                          |             |                         |                    |                   | At Completion of Drilling  | ₹                         |             |                | ry                       |             |                         |
| Dri     | iller N&N Logger F.   |             |            |                          |             |                         |                    |                   | Time After Drilling  | NA.                       |             |                |                          |             |                         |
| Dri     | illing Method 2,25" ID HSA; boring  | back        | fille      | d up                     | on c        | ompl                    | etio               | n                 | Depth to Water ¥   | NA                        |             |                |                          |             |                         |
|         |   |             |            |                          |             |                         |                    |                   | The stratification lines represe<br>between soil types; the actual | rii the app<br>transition | mav b       | ate d<br>e are | xuundary<br>adual.       | y           |                         |

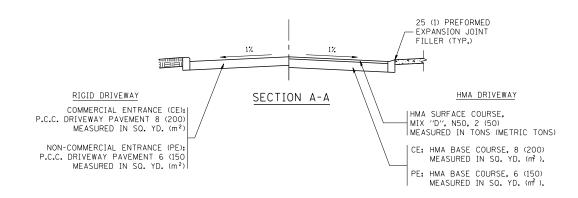
|  | U  |
|--|----|
| AES Services, Inc. 111 S. Wacker Drive, Suite 3910 |    |
| Chicago, IL 60606<br>Ph: 312–235–6783              | PI |
|  | PI |

|    | USER NAME = tmohammed      | DESIGNED | - | AWM       | REVISED - |  |
|----|----------------------------|----------|---|-----------|-----------|--|
| 10 |                            | DRAWN    | - | ТОМ       | REVISED - |  |
|    | PLOT SCALE = 2.0000 '/ in. | CHECKED  | - | JA        | REVISED - |  |
|    | PLOT DATE = 5/11/2017      | DATE     | - | 3/20/2017 | REVISED - |  |

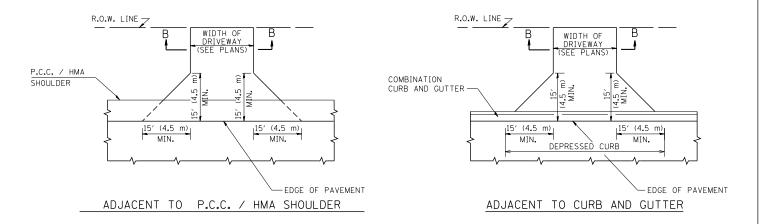
| IL 171 (S                        | TATE ST | .) & IL | . 7 (9 <sup>†</sup> | <sup>⊢</sup> ST.) I | NTS | F.A.P<br>RTE. | SECTION  | COUNTY           | TOTAL<br>SHEETS | SHEET<br>NO. |  |
|----------------------------------|---------|---------|---------------------|---------------------|-----|---------------|----------|------------------|-----------------|--------------|--|
|                                  | enn     | L BORI  | NC I                |                     | 577 | D-EXT-N       | WILL     | 140              | 106             |              |  |
|                                  | 3011    | L DUNI  | ING L               |                     |     |               | CONTRACT | NO. 6            | 2C09            |              |  |
| ALE SHEET OF SHEETS STA. TO STA. |         |         |                     |                     |     |               |          | ILLINOIS FED. AI | D PROJECT       |              |  |

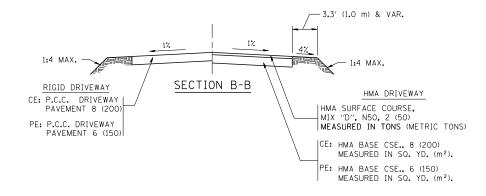






WITH CONCRETE CURB, TYPE B





#### RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

#### GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK, DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY OUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

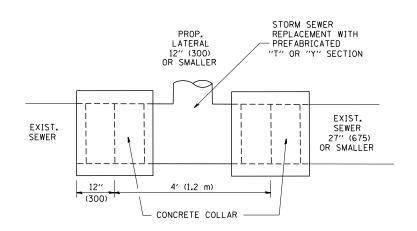
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

SCALE: NONE

| ILE NAME =                               | USER NAME = leysa           | DESIGNED - R. SHAH | REVISED - P. LaFLUER 04-15-03 |
|--|-----------------------------|--------------------|-------------------------------|
| :\pw_work\pwidot\leysa\d0108315\bd01.dgr |                             | DRAWN -            | REVISED - R. BORO 01-01-07    |
|  | PLOT SCALE = 50.0000 '/ in. | CHECKED -          | REVISED - R. BORO 06-11-08    |
|  | PLOT DATE = 9/6/2011        | DATE - 11-04-95    | REVISED - R. BORO 09-06-11    |

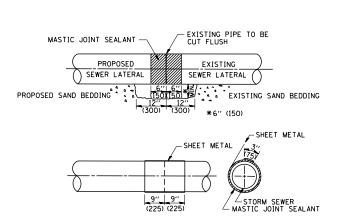
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

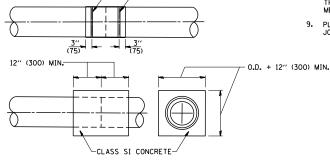
| DRIVEWAY DETAILS   | – DISTANCE | BETWEEN   | F.A.P.<br>RTE. | SECTION           | COUNTY                            | TOTAL<br>SHEETS | SHEET<br>NO. |     |
|--------------------|------------|-----------|----------------|-------------------|-----------------------------------|-----------------|--------------|-----|
| AND FACE OF CURB & | EDGE OF SI | IUIII DEB | ~ 15' // 5 m)  | 577               | D-EXT-N                           | WILL            | 140          | 107 |
| AND FACE OF CORD & | EDGE OF 3  | IUULDEN . |                | BD0156-07 (BD-01) | CONTRACT                          | NO. 6           | 2C09         |     |
| E SHEET NO. 1 OF 1 | SHEETS     | STA.      | TO STA.        | FED. R            | OAD DIST. NO. 1   ILLINOIS FED. A | ID PROJECT      |              |     |



#### DETAIL "A"

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





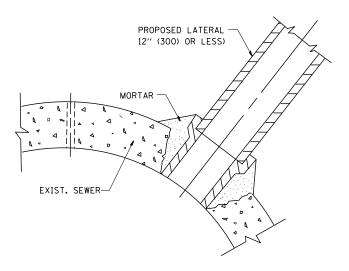
METAL BINDING

DETAIL "B"

CLASS SI CONCRETE COLLAR

#### CONSTRUCTION SEQUENCE

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



DETAIL "C"

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

#### NOTES

#### MATERIAL

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

#### CONSTRUCTION METHODS

- I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

  A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

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

#### GENERAL

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

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

#### BASIS OF PAYMENT

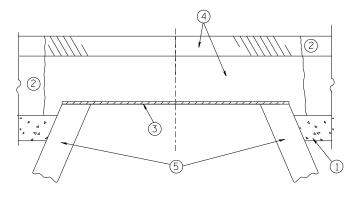
TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING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

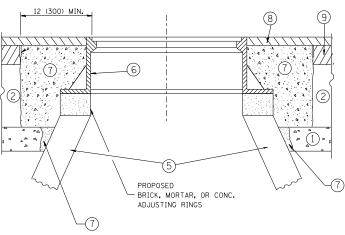
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

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

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

| FILE NAME =               | USER NAME = gaglianobt      | DESIGNED - M. DE YONG | REVISED - M. DE YONG 05-08-92 |                              |             | DETAIL OF STORM SEWER        |         | F.A.P.  | SECTION                        | COUNTY   | TOTAL S | SHEET |
|---------------------------|-----------------------------|-----------------------|-------------------------------|------------------------------|-------------|------------------------------|---------|---------|--------------------------------|----------|---------|-------|
| W:\diststd\22x34\bd07.dgn |                             | DRAWN -               | REVISED - R. SHAH 09-09-94    | STATE OF ILLINOIS            |             |                              |         | 577     | D-EXT-N                        | WILL     | 140     | 108   |
|                           | PLOT SCALE = 50.000 ' / IN. | CHECKED -             | REVISED - R. SHAH 10-25-94    | DEPARTMENT OF TRANSPORTATION |             | CONNECTION TO EXISTING SEV   | VER     |         | BD500-01 (BD-7)                | CONTRACT |         | 209   |
|                           | PLOT DATE = 1/4/2008        | DATE - 07-25-90       | REVISED - R. SHAH 06-12-96    |                              | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS STA. | TO STA. | FED. RO | AD DIST. NO. 1   ILLINOIS FED. |          |         |       |





#### NOTES:

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

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

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

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

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

#### CONSTRUCTION PROCEDURES

#### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM
- AROUND THE STRUCTURE.

  B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.

  D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40)
- THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE

#### LEGEND

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

#### LOCATION OF STRUCTURES:

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

#### BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

#### DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

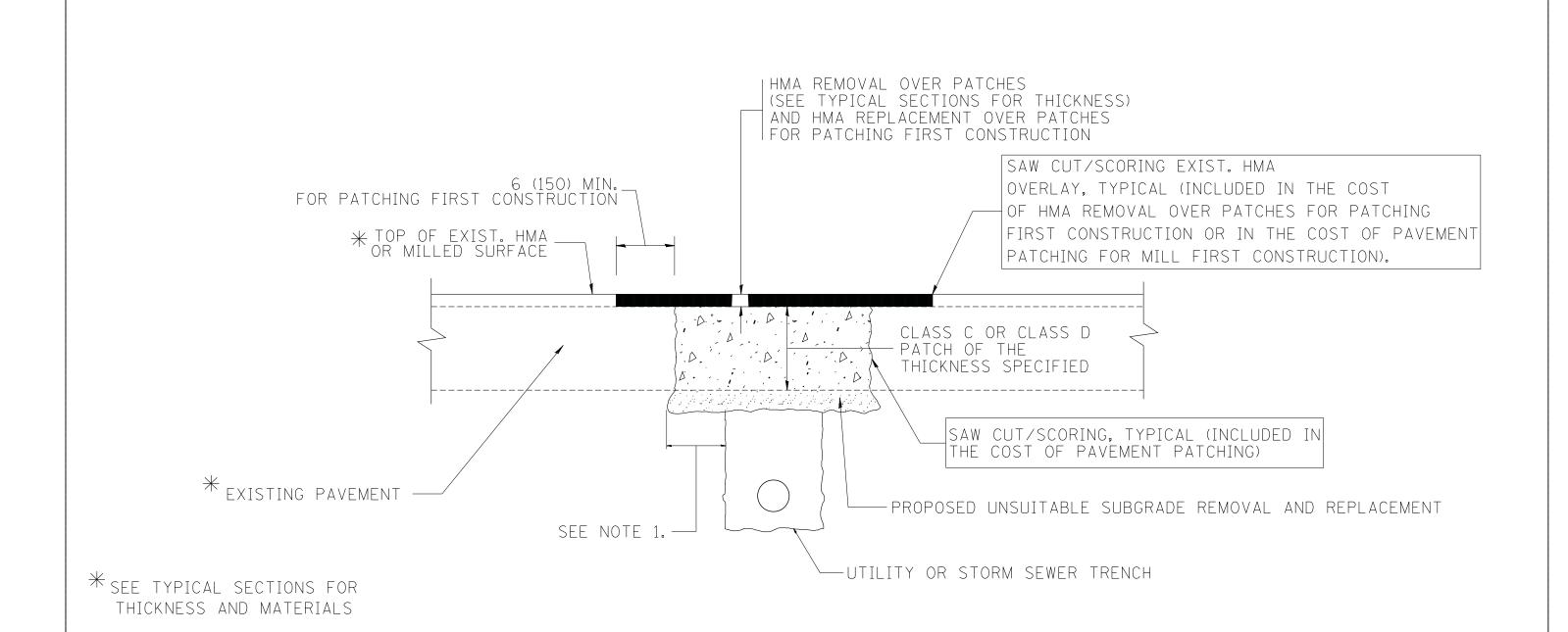
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

| FILE NAME =                              | USER NAME = bauerdl         | DESIGNED - R. SHAH | REVISED - R. WIEDEMAN 05-14-04 |
|--|-----------------------------|--------------------|--------------------------------|
| c:\pw_work\pwidot\bauerdl\d0108315\bd08. | lgn                         | DRAWN -            | REVISED - R. BORO 01-01-07     |
|  | PLOT SCALE = 1968.5000 '/ m | CHECKED -          | REVISED - R. BORO 03-09-11     |
|  | PLOT DATE = 12/6/2011       | DATE - 10-25-94    | REVISED - R. BORO 12-06-11     |

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

|             |             | D     | ETAILS FO | R          |            | F.A.P.<br>RTE. |    |
|-------------|-------------|-------|-----------|------------|------------|----------------|----|
|             | FRAMES AND  | ı ine | лп шетм   | IENT WIT   | H MILLING  | 577            | Ĺ  |
|             | I HAWLS AND | LIDS  | ADJUGIT   | ILIVI VVII | II WILLING |                |    |
| SCALE: NONE | SHEET NO. 1 | OF 1  | SHEETS    | STA.       | TO STA.    | FED. RO        | 5, |

COUNTY D-EXT-N WILL 140 109 CONTRACT NO. 62C09 BD600-03 (BD-8)



#### 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".

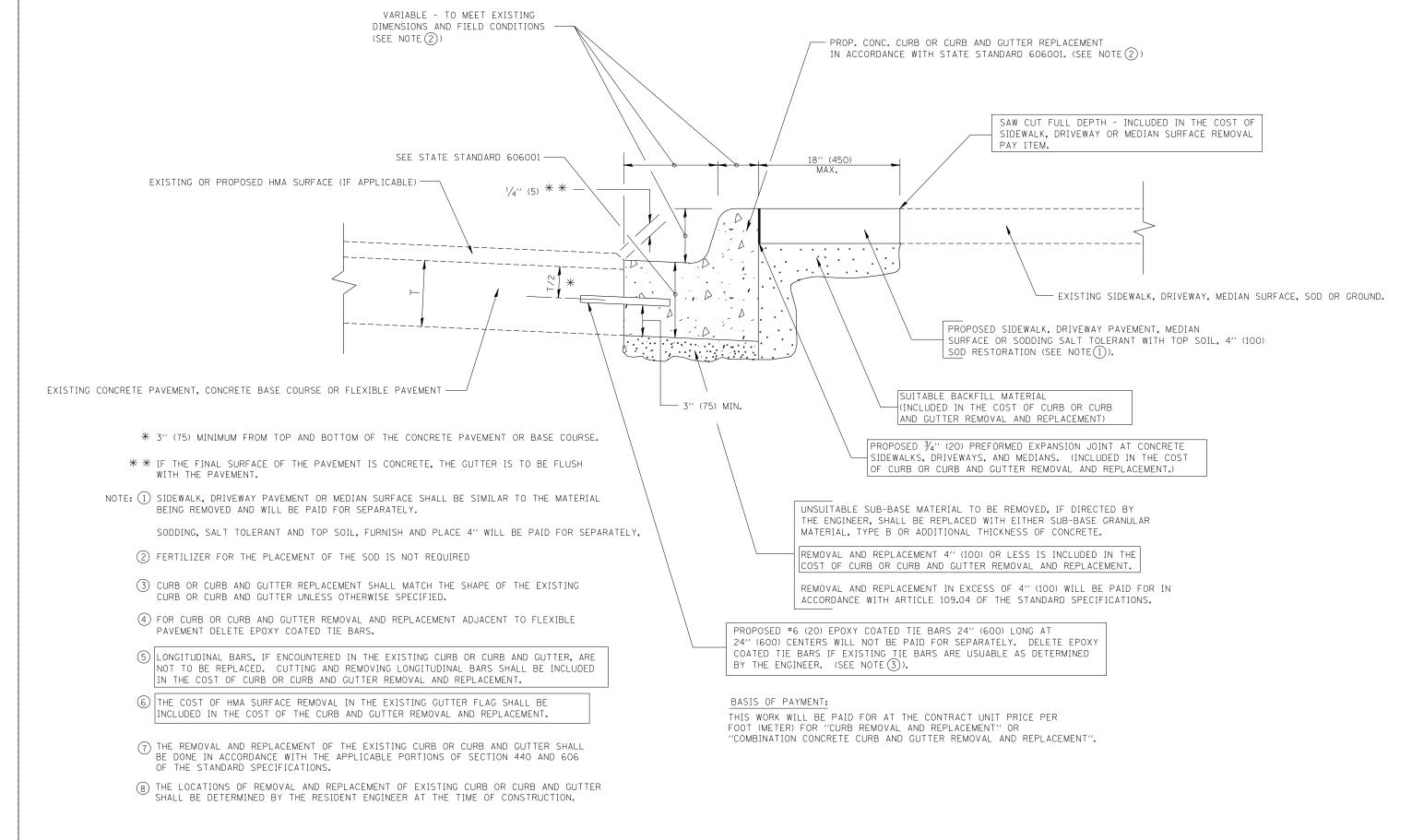
#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 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)

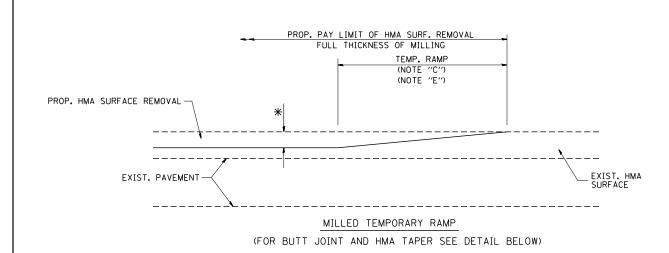
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

| FILE NAME =                       | USER NAME = bauerd1         | DESIGNED - R. SHAH | REVISED - | A. ABBAS 04-27-98 |                              |             | PAVEMENT PATCHING FOR        |         | RTE.    | SECTION                        | COUNTY        | SHEETS  | NO.  |
|-----------------------------------|-----------------------------|--------------------|-----------|-------------------|------------------------------|-------------|------------------------------|---------|---------|--------------------------------|---------------|---------|------|
| c:\projects\diststd22x34\bd22.dgn |                             | DRAWN -            | REVISED - | R. BORO 01-01-07  | STATE OF ILLINOIS            |             |                              |         | 577     | D-EXT-N                        | WILL          | 140     | 110  |
|                                   | PLOT SCALE = 50.000 ' / IN. | CHECKED -          | REVISED - | R. BORO 09-04-07  | DEPARTMENT OF TRANSPORTATION |             | HMA SURFACED PAVEMENT        |         |         | BD400-04 (BD-22)               | CONTRAC       | T NO. 6 | 2C09 |
|                                   | PLOT DATE = 10/27/2008      | DATE - 10-25-94    | REVISED - | K. ENG 10-27-08   |                              | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS STA. | TO STA. | FED. RO | DAD DIST. NO. 1   ILLINOIS FED | . AID PROJECT |         |      |

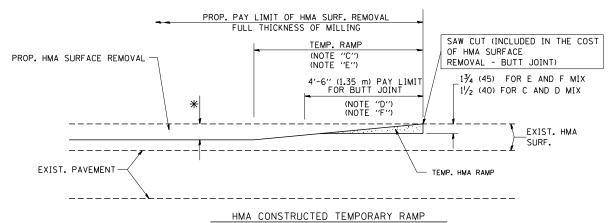


# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

| FILE NAME =                              | USER NAME = drivakosgn     | DESIGNED - A. HOUSEH | REVISED - | R. SHAH 10-03-96  |                              |             | CURB OR CURB AND GUTTER        |         | F.A.P.    | SECTION                     | COUNTY        | SHEETS SE  | NO I |
|--|----------------------------|----------------------|-----------|-------------------|------------------------------|-------------|--------------------------------|---------|-----------|-----------------------------|---------------|------------|------|
| c:\pw_work\pwidot\drivakosgn\d0108315\bd | 24.dgn                     | DRAWN -              | REVISED - | A. ABBAS 03-21-97 | STATE OF ILLINOIS            |             |                                |         | 577       | D-EXT-N                     | WILL          | 140 1      | 111  |
|  | PLOT SCALE = 50.000 '/ IN. | CHECKED -            | REVISED - | M. GOMEZ 01-22-01 | DEPARTMENT OF TRANSPORTATION |             | REMOVAL AND REPLACEMENT        |         | BD        | 1600-06 (BD-24)             | CONTRACT      | T NO. 62C0 | 9    |
|  | PLOT DATE = 12/15/2009     | DATE - 03-11-94      | REVISED - | R. BORO 12-15-09  |                              | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS STA. T | TO STA. | FED. ROAD | DIST. NO. 1   ILLINOIS FED. | . AID PROJECT |            |      |

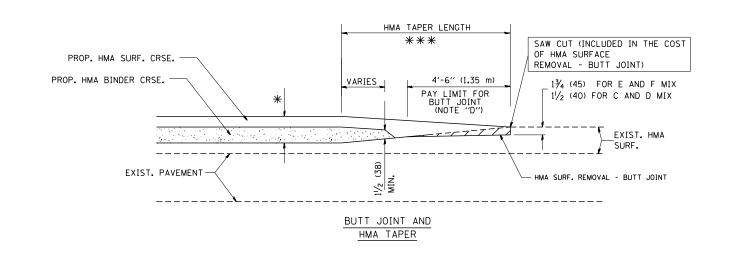


#### OPTION 1



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

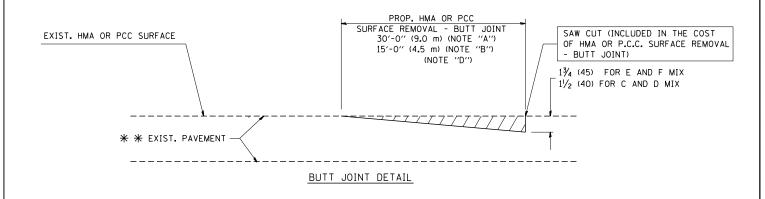
# OPTION 2 TYPICAL TEMPORARY RAMP

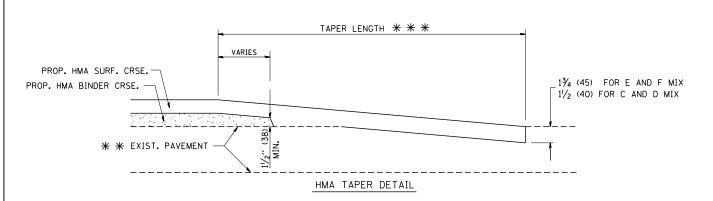


# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 USER NAME = gaglianobt W:\diststd\22x34\bd32.dqr DRAWN REVISED A. ABBAS 03-21-97 CHECKED REVISED M. GOMEZ 04-06-01 DATE R. BORO 01-01-07 PLOT DATE = 1/4/2008 06-13-90 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

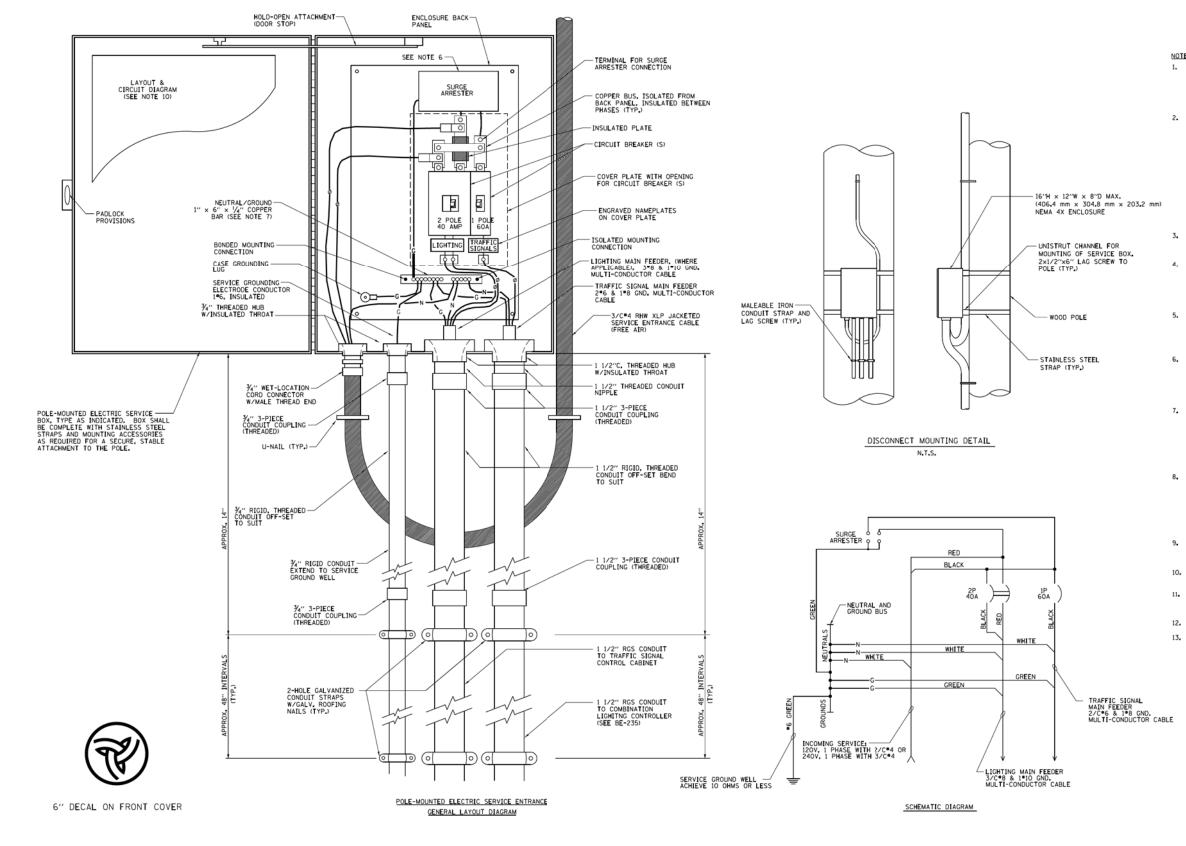
#### NOTES

- 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".

SCALE: NONE



#### NOTES:

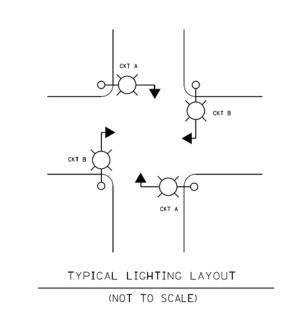
- 1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY, SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WRIE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
- 2. THE POLE-MOUNTED ELECTRIC SERVICE BOX DETAIL DEPICTS
  THE BASIC CONSTRUCTION OF THE EQUIPMENT. SLIGHT
  MODIFICATIONS APPLY FOR DIFFERING SERVICES AND
  APPLICATIONS AS FOLLOWS:
  - TYPE A FULLY EQUIPPED FOR 240/120V. 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER
  - TYPE A1 FULLY EQUIPPED FOR 240/120V. 3W SERVICE, BLANK COVER IN LIEU OF LIGHTING MAIN BREAKER

  - TYPE B EQUIPPED FOR 120V. SERVICE, COMPLETE WITH 1P, 60A, TRAFFIC SIGNALS MAIN BREAKER
- TYPE B1 EOUIPPED FOR 120V. SERVICE, COMPLETE WITH IP, 40A. TRAFFIC SURVEILLANCE MAIN BREAKER
  3. THE ELECTRIC SERVICE EOUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EOUIPMENT.
- 4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
- 5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/ TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
- 6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE U. LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
- 7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
- 8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
- THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANCED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
- 10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
- 12. LUGS AND CONNECTORS SHALL BE RATED FOR  $75^{\circ}\mathrm{C}$  CONDUCTOR.
- 13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.

SCALE: NONE

| COMBINATION    | I LIGHTING                          | & TRAFFIC POLE | F.A.P.<br>RTE. | SECTION | COUNTY                        | TOTAL SHEE NO.  |     |     |  |  |  |
|----------------|-------------------------------------|----------------|----------------|---------|-------------------------------|-----------------|-----|-----|--|--|--|
| MOUNTED EI     | ECTDIC SEDV                         | ICE DOV DETAIL |                | 577     | D-EXT-N                       | WILL            | 140 | 113 |  |  |  |
| MOONIED EL     | MOUNTED ELECTRIC SERVICE BOX DETAIL |                |                |         |                               | BE-230 CONTRACT |     |     |  |  |  |
| SHEET NO. 1 OF | 1 SHEETS                            | STA.           | TO STA.        | FED. R  | OAD DIST. NO. 1 ILLINOIS FED. | NID PROJECT     |     |     |  |  |  |

#### PANEL EQUIPMENT



STANDARD-TYPE SMALL DIMENSION DOUBLE POLE FUSEHOLDER WITH INSULATED BOOTS, FUSING AND

(SEE SPECS)

- CABLE SPLICE (TYP.)

SOLID COLOR, SIZE AS SPECIFIED (TYP.)

COMBINATION POLE WIRING DETAIL

IDOT TRAFFIC SIGNAL/LIGHTING CONTROL CABINET

-1

- GROUND JUMPER

SHALL BE BONDED TO

CABINET ENCLOSURE

COMBINATION LIGHTING CONTROLLER

WIRING DIAGRAM

(NOT TO SCALE)

(NOT TO SCALE)

2-1/C =10 AWG, 600 V TYPE RHW, SOLID COLOR CODED CABLES

SPLICE GROUND WIRE AND PIGTAIL SAME SIZE —
EXTENSION TO POLE GROUNDING LUG

600V 3-1/C NO. 8 AND 1/C NO. 10 GND IN RGS CONDUIT

FROM DISCONECTCABINET

(SEE NOTES 10 AND 11)

INSULATED GROUND WIRE, 600 V TYPE RHW, SOLID COLOR GREEN, SIZE AS SPECIFIED

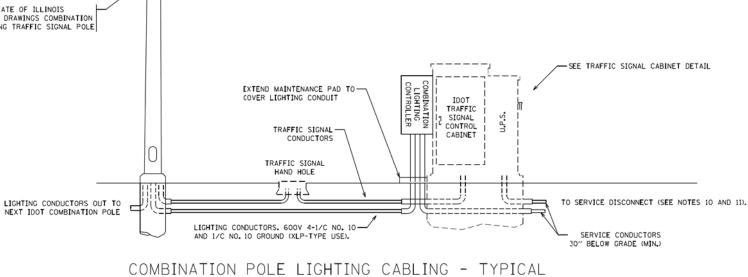
GROUNDING LUG -

UNIT DUCT (TYP)

|          | BILL OF MATERIALS   |
|----------|---|
| QUANTITY | DESCRIPTION   |
| 1        | CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 2 POLE,<br>240 VOLT 100 AMP FRAME, 30 AMP TRIP, INTERRUPTING RATING<br>22K RMS SYMETRICALL AMP     |
| 1        | REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 30 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT.               |
| 2        | CIRCUIT BREAKERS, 2 POLE, 100 AMP, FRAME 20 AMP, NON-INTERCHANGABLE TRIP INTERUPTING RATING NEMA 10,000 AMP AT 240 V.                             |
| 1        | CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 100 AMP FRAME,<br>15 AMP NON-INTERCHANGABLE TRIP, INTERRUPTING RATING<br>22K RMS SYMETRICAL AMP AT 240V. |
| 1        | ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH]  |
| 1        | H-O-A SWITCH  |
| 1        | COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm)<br>LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS                                    |
| 1        | COPPER NEUTRAL BUS 1/4" (6,35) X 1" (25,4) X 12" (304,8 mm)<br>LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS                                   |
| 1        | RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTACTOR   |
|          | 1 2 1 1 1 1 1 1 1   |

#### NOTES:

- 1. ALL WIRING RELATED TO THE LIGHTING CONTROLS SHALL BE #10 AWG, 600V, TYPE SWITCH BOARD WIRE, STRANDED COPPER.
- 2. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE ENCLOSURE.
- 3. ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED.
- 4. ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY, UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT
- 5. THE COMBINATION POLE LIGHTING CABLING DETAIL IS INTENDED TO SHOW CONNECTIONS ONLY. FOR FURTHER INFORMATION ON THE COMBINATION LIGHT POLE, THE TRAFFIC SIGNAL CONTROL CABINET, AND THE SERVICE DISCONNECT BOX OR CABINET REFER TO THE RESPECTIVE DETAIL DRAWINGS.
- 6. COMBINATION LIGHTING SHALL BE TIMED TO ENERGIZE 20 MINUTES PRIOR TO DUSK AND DE-ENERGIZE 20 MINUTES AFTER DAWN.
- 7. COMBINATION LIGHTING CONTROLLER AND ALL COMBINATION POLES SHALL HAVE IDOT DESIGNATIONS AND LABELS. LIGHTING CONTROLER DESIGNATIONS SHALL BE COORDINATED WITH THE BUREAU OF TRAFFIC LIGHTING SECTION.
- 8. ENCLOSURE SHALL BE UNPAINTED, NATURAL ALUMINUM FINISH, SHALL BE U.L. LISTED NEMA TYPE 3R AND SHALL BE 26" X 17" X 15"
- 9. 12" x 16" STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- 10. ELECTRIC SERVICE SHALL BE 120V/240V SERVICE AND SHALL BE A SHARED SERVICE FOR COMBINATION LIGHTING AND TRAFFIC SIGNALS.
- 11. CONDUIT SIZES TO THE SERVICE DISCONNECT SHALL BE COORDINATED WITH THE SERVICE DISCONNECT DETAILS. REFER TO THE FOLLOWING DETAIL DRAWINGS FOR FOR THE SERVICE DISCONNECT.
  - FOR POLE MOUNTED ELECTRIC SERVICE USE "COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRIC SERVICE BOX" (BE-230).
  - FOR GROUND MOUNTED ELECTRIC SERVICE USE "STANDARD COMBINATION LIGHTING DISCONNECT" CONTAINED IN THE TRAFFIC SIGNAL DETAILS.



# (NOT TO SCALE)

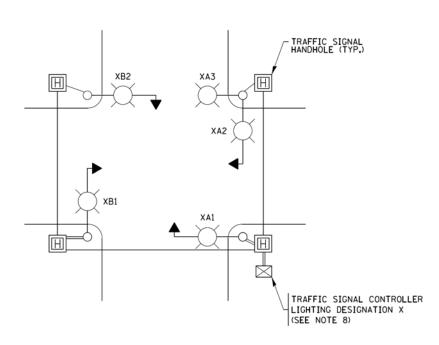
| _ L |  |                              |                |                        |                              |            |                         |        |          |        |         |            |                 |       |
|-----|--|------------------------------|----------------|------------------------|------------------------------|------------|-------------------------|--------|----------|--------|---------|------------|-----------------|-------|
|     | FILE NAME =                              | USER NAME = bauerdl          | DESIGNED - MP  | REVISED - MAP 9/20/11  |                              |            |                         |        |          | F.A.P. | SECTION | COUNTY     | TOTAL<br>SHEETS | SHEET |
|     | c:\pw_work\pw1dot\bauerd1\d0108315\be235 | dgn                          | DRAWN - MP     | REVISED - MAP 10/25/12 | STATE OF ILLINOIS            |            | DMBINATION LIGHT        | ING CO | NTROLLER | 577    | D-EXT-N | WILL       | 140             | 114   |
|     |  | PLOT SCALE = 50.0000 ' / in. | CHECKED -      | REVISED -              | DEPARTMENT OF TRANSPORTATION |            |                         |        |          |        | BE-235  | CONTRACT   | NO. 6           | 2C09  |
| L   |  | PLOT DATE = 2/27/2013        | DATE - 8/24/11 | REVISED -              |                              | SCALE: NTS | SHEET NO. 1 OF 1 SHEETS | STA.   | TO STA.  |        |         | ID PROJECT |                 |       |

SEE STATE OF ILLINOIS DETAIL DRAWINGS COMBINATION LIGHTING TRAFFIC SIGNAL POLE

-600V 4-1/C NO. 10 AND 1/C

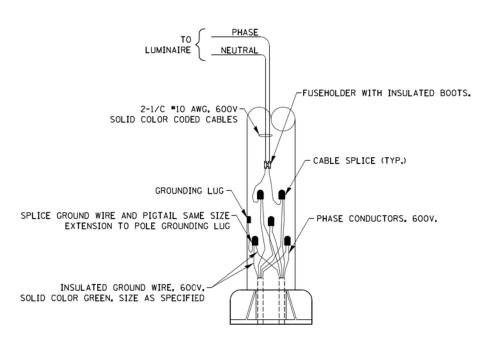
CKT A

— CKT В -GROUND NO. 10 GROUND, (XLP-TYPE USE).
TO COMBINATION LIGHT POLES



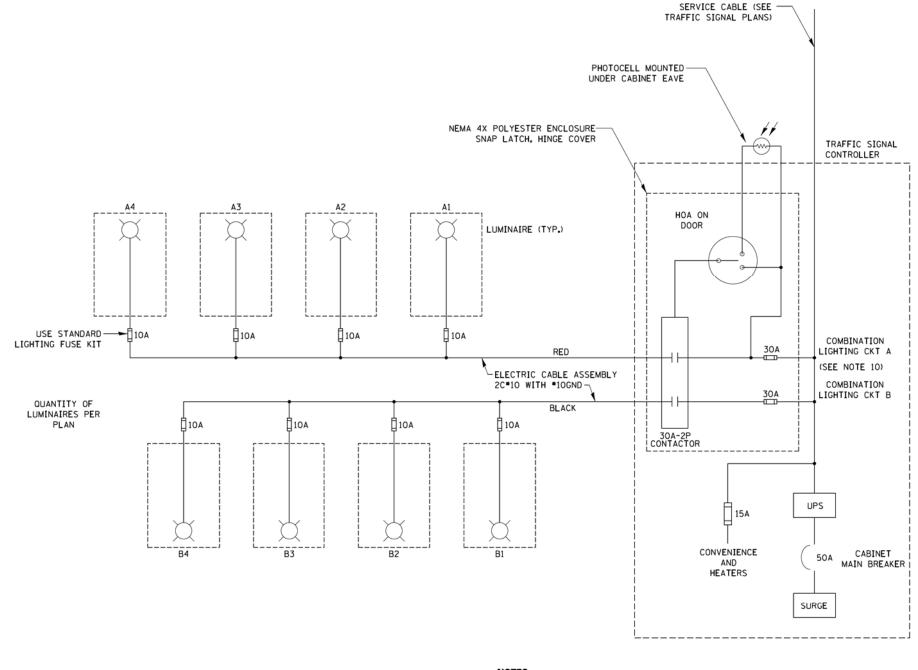
#### TYPICAL LIGHTING CIRCUIT DESIGNATIONS

(NOT TO SCALE)



#### **COMBINATION POLE WIRING DETAIL**

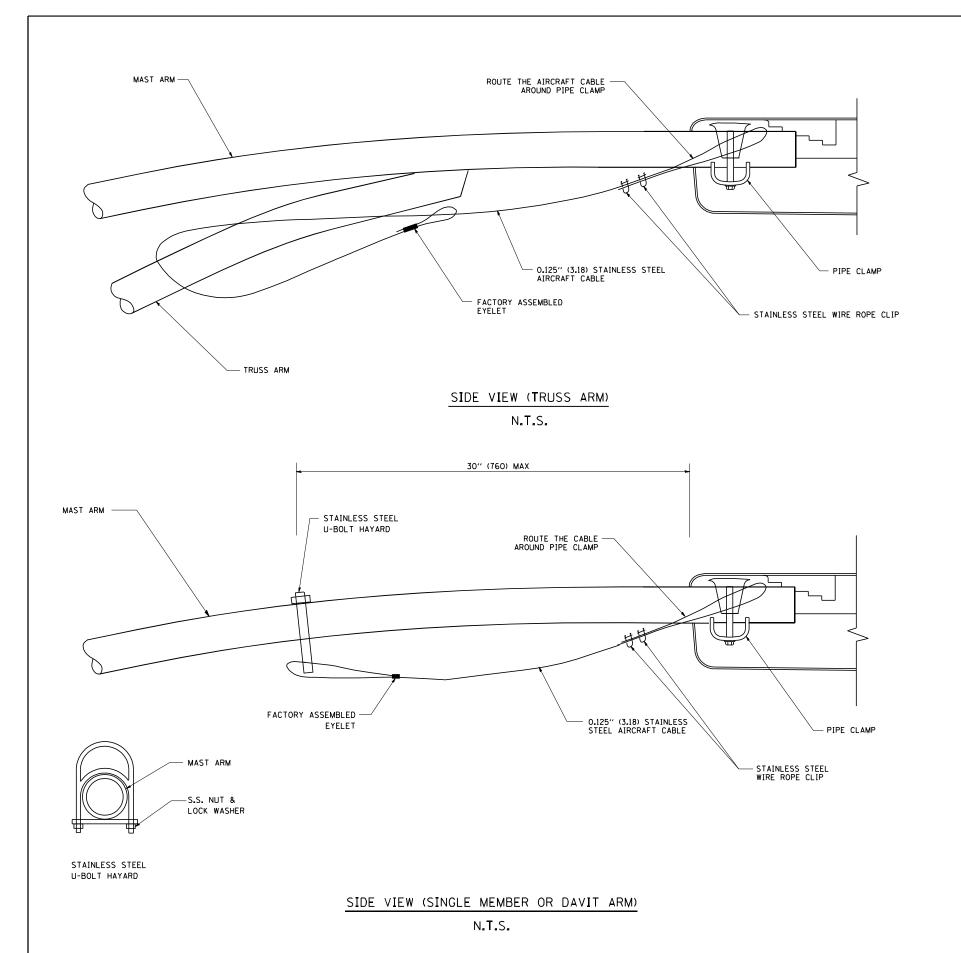
(NOT TO SCALE)

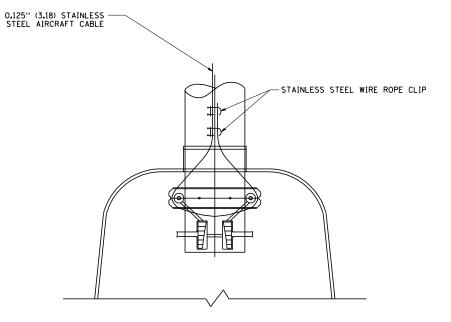


- 1. 4 LUMINAIRES PER CIRCUIT, MAXIMUM.
- 2. MULTI-CONDUCTOR CABLE ASSEMBLY FOR LIGHTING CIRCUITS.
- 3. ROUTE LIGHTING CIRCUITS IN TRAFFIC SIGNAL CONDUIT SYSTEM.
- 4. ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY.
- 5. ALL CONTROLLERS TO HAVE TWO FUSED LIGHTING BRANCH CIRCUITS.
- 6. ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED. (UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED).
- LIGHTING CONTROLLER DESIGNATION SHALL BE CONFIRMED WITH THE ENGINEER.
- 8. RECORD DRAWING SHALL INCLUDE:TRAFFIC SIGNAL PLAN SHEET(S)

  - TRAFFIC SIGNAL CABLE PLAN SHEET(S)
  - LIGHTING PLANS
  - THIS DETAIL
- 9. THE H.O.A. SWITCH SHALL BE LABELED AS "LIGHTING CONTROL" WITH THE POSITIONS "AUTO", "OFF" AND "TEST" WITH ENGRAVED NAME PLATES.
- 10. LIGHTING CONNECTED TO UPS BYPASS CIRCUIT

| - 1 | FILE NAME = | USER NAME = Inszekrf         | DESIGNED - RI     | KENIZED - 02/10/2012 | 1                            | 1          |                         |         |              | RTE. | SECTION | COUNTY      | SHEETS NO. |
|-----|-------------|------------------------------|-------------------|----------------------|------------------------------|------------|-------------------------|---------|--------------|------|---------|-------------|------------|
| - 1 | be240.dgn   |                              | DRAWN -           | REVISED - 10/13/2015 | STATE OF ILLINOIS            | COMB       | INATION LIGHTING, TRAFF | IC SIGN | AL SCHEMATIC | 577  | D-EXT-N | WILL        | 140 115    |
| - 1 |             | PLOT SCALE = 50.0000 ' / in. | CHECKED - RT      | REVISED -            | DEPARTMENT OF TRANSPORTATION |            |                         |         |              |      | BE-240  | CONTRACT    | NO. 62CO9  |
| I   | Default     | PLOT DATE = 10/13/2015       | DATE - 08/18/2014 | REVISED -            |                              | SCALE: NTS | SHEET 1 OF 1 SHEETS     | STA.    | TO STA.      |      |         | AID PROJECT |            |





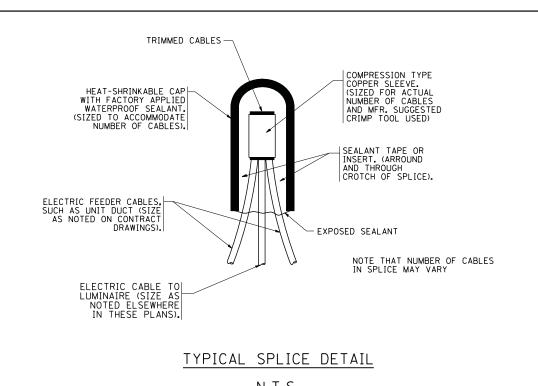
## BOTTOM VIEW

N.T.S.

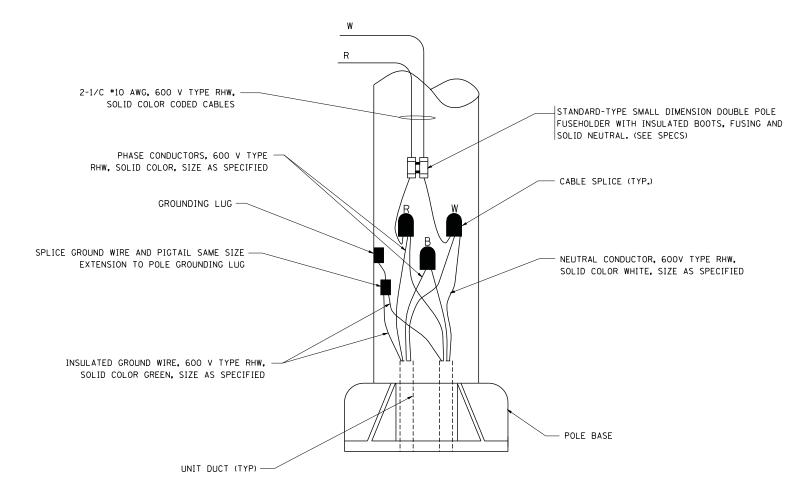
#### NOTES

- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
- THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
- 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

COUNTY SHEETS NO.
WILL 140 116 USER NAME = gaglianobt DESIGNED REVISED - 08-08-03 SECTION LUMINAIRE SAFETY CABLE ASSEMBLY STATE OF ILLINOIS W:\diststd\22x34\be701.dgn DRAWN REVISED D-EXT-N PLOT SCALE = 50.000 '/ IN. CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. BE-701 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. DATE REVISED PLOT DATE = 1/4/2008



N.T.S.



#### POLE WIRING DETAIL

N.T.S.

| FILE NAME =                | USER NAME = gaglianobt     | DESIGNED - | REVISED - 08-08-03 |
|----------------------------|----------------------------|------------|--------------------|
| W:\diststd\22x34\be702.dgn |                            | DRAWN -    | REVISED -          |
|                            | PLOT SCALE = 50.000 '/ IN. | CHECKED -  | REVISED -          |
|                            | PLOT DATE = 1/4/2008       | DATE -     | REVISED -          |

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE:

|      | MISC. ELE        | CTRICAL | DETAILS | F.A.P.<br>RTE. | SECTION | COUNTY                          | TOTAL<br>SHEETS |     |     |
|------|------------------|---------|---------|----------------|---------|---------------------------------|-----------------|-----|-----|
|      |                  | SHEET A |         |                | 577     | D-EXT-N                         | WILL            | 140 | 117 |
|      |                  |         | BE-702  | CONTRACT       | NO. 62  | C09                             |                 |     |     |
| NONE | SHEET NO. 1 OF 1 | SHEETS  | STA.    | TO STA.        | FED. RO | DAD DIST. NO. 1   ILLINOIS FED. | AID PROJECT     |     |     |

TYPICAL WIRING IN TRENCH DETAIL N.T.S.

30" (762) MINIMUM COVER

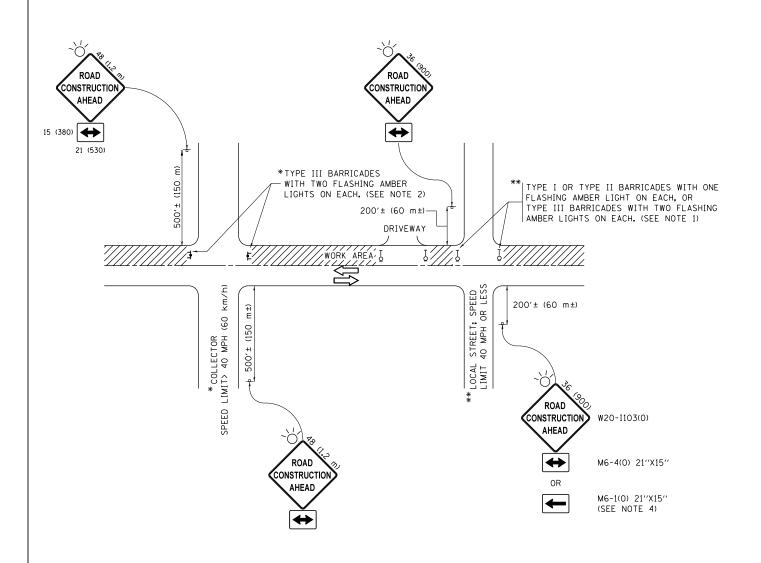
12" (305) MAXIMUM WIDTH EXCEPT AS APPROVED BY THE ENGINEER

12" (305)

WARNING TAPE AS SPECIFIED

UNIT DUCT OR OTHER RACEWAY AND WIRING AS PER PLANS. COMPLETE

WITH INTERNAL INSULATED EQUIPMENT GROUND WIRE.



#### NOTES:

- 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 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  $\times$  48 (1.2 m  $\times$  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. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEICHT
- 4. 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).

SCALE: NONE

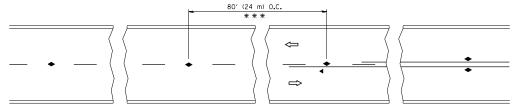
- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

| FILE NAME =                                | USER NAME = footemj                           | DESIGNED - L.H.A.                           | REVISED | - A. HOUSEH 10-15-96   |
|--|---|---|---------|------------------------|
| pw:\\IL084EBIDINTEG.ıllınoıs.gov:PWIDOT\Do | cuments\IDOT Offices\District 1\Projects\Dist | St <b>GRAWM</b> \CADData\CADsheets\tc10.dgn | REVISED | -T. RAMMACHER 01-06-00 |
|  | PLOT SCALE = 50.000 '/ in.                    | CHECKED -                                   | REVISED | - A. SCHUETZE 07-01-13 |
| Default                                    | PLOT DATE = 9/15/2016                         | DATE - 06-89                                | REVISED | - A. SCHUETZE 09-15-16 |

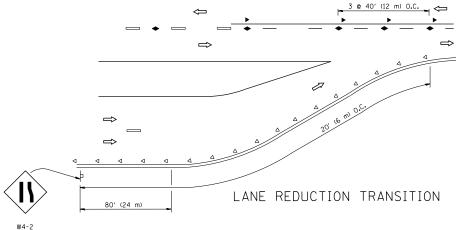
| STATI      | E OF | ILLINOIS       |
|------------|------|----------------|
| DEPARTMENT | 0F   | TRANSPORTATION |

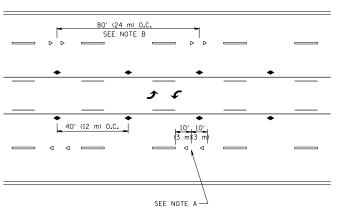
| TRAFFIC CONTROL AND PROTECTION FOR        | F.A.P.<br>RTE. | SECTION          |        |
|---|----------------|------------------|--------|
| SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS  | 577            | D-EXT-N          |        |
| SIDE HOADS, INTERISECTIONS, AND DRIVEWATS |                | TC-10            |        |
| SHEET 1 OF 1 SHEETS STA. TO STA.          |                | ILLINOIS FED. AT | ה<br>ה |



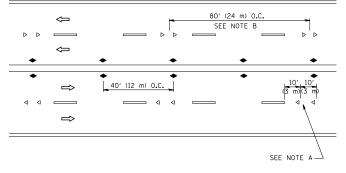
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

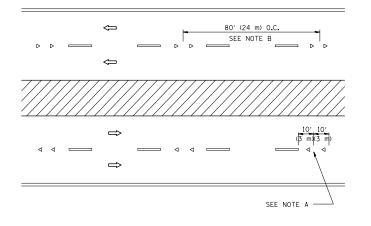




TWO-WAY LEFT TURN



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.

#### 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.

#### SYMBOLS

---- YELLOW STRIPE

── WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

#### 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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

| 3 e 80' (24 m) 0.C.<br>*  *  *  *  *  *  *  *  *  *  *  *  * | 40' (12 m)<br>0.c. | MINIMUM OF 3 W EQUALLY SPACED  40' (12 m) O.C. E  40' (12 m) O.C. **  40' (12 m) O.C. | © * 3 @ 40' (12 m) 3 @ 80' (24 m) 0.C. |
|--|--------------------|---|--|
|  |                    | * SEE TWO-LANE/TWO-WAY WHERE MARKER  ** WHERE THE MEDIAN WIDTH IS 6' (2 m) ( USE TWO-WAY MARKERS.   |  |

LEFT TURN

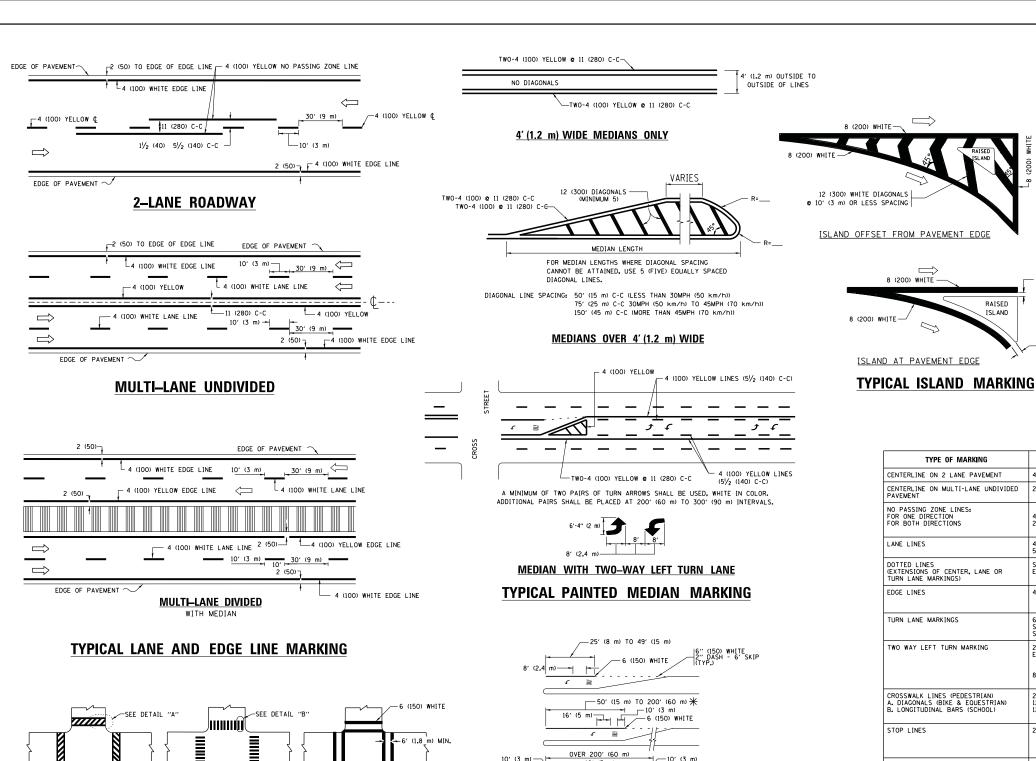
All dimensions are in inches (millimeters) unless otherwise shown.

COUNTY

WILL 140 119 CONTRACT NO. 62C09

SECTION

| FILE NAME =                               | USER NAME = leyso          | DESIGNED - | REVISED -T. RAMMACHER 09-19-9 |                              | TYPICAL APPLICATIONS                                     | RTE.    | SECTION                        | COUNTY         |
|---|----------------------------|------------|-------------------------------|------------------------------|--|---------|--------------------------------|----------------|
| c:\pw_work\pwidot\leysa\d0108315\tc11.dgr | 1                          | DRAWN -    | REVISED -T. RAMMACHER 03-12-9 |                              |  | 577     | D-EXT-N                        | WILL           |
|   | PLOT SCALE = 50.000 '/ IN. | CHECKED -  | REVISED -T. RAMMACHER 01-06-0 | DEPARTMENT OF TRANSPORTATION | RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) |         | TC-11                          | CONTRACT       |
|   | PLOT DATE = 3/2/2011       | DATE -     | REVISED - C. JUCIUS 09-09-0   | 3                            | SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.         | FED. RO | DAD DIST. NO. 1   ILLINOIS FEE | D. AID PROJECT |



# 6 (150) WHITE

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

FILE NAME = DESIGNED - EVERS REVISED - C. JUCIUS 09-09-09 USER NAME = footemj ow:\\ILØ84EBIDINTEG.:111:no ments\IDOT Offices\District 1\Projects\DistBIRAWM\CADDete\CADsheets\tc13.don REVISED -C. JUCIUS 07-01-13 CHECKED REVISED C. JUCIUS 12-21-15 DATE REVISED -C. JUCIUS 04-12-16 PLOT DATE = 4/13/2016

TYPICAL CROSSWALK MARKING

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

2' (600)

DETAIL "B"

12 (300) WHITE

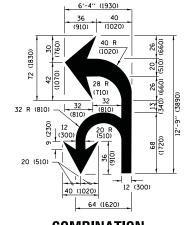
PEDESTRIAN

- 6 (150) WHITE

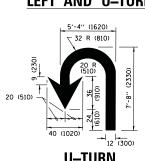
DETAIL "A"

BICYCLE & EQUESTRIAN

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001. SECTION COUNTY DISTRICT ONE WILL D-FXT-N 140 120 TYPICAL PAVEMENT MARKINGS TC-13 CONTRACT NO. 62C09 OF 1 SHEETS STA. TO STA. SHEET 1



#### COMBINATION LEFT AND U-TURN



— 2 (50)

2 (50)

RAISED

ISLAND

8 (200) WHITE -

SCALE: NONE

# LANE REDUCTION TRANSITION

D(FT)

425

500

580

665

750

SPEED LIMIT

45

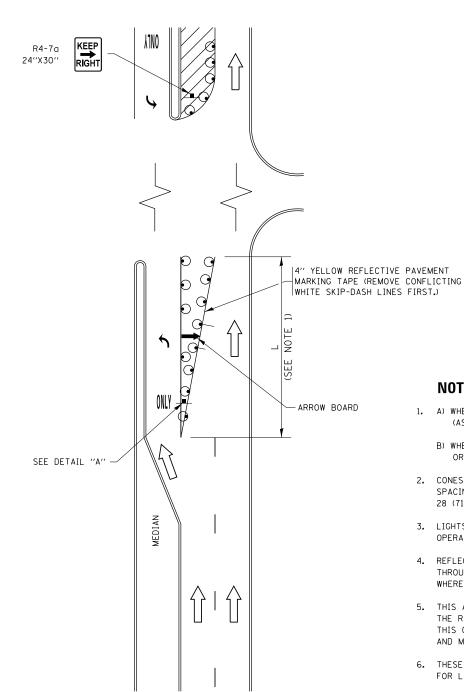
50

55

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

| 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<br>PAVEMENT  | 2 @ 4 (100)   | SOLID                              | YELLOW  | 11 (280) C-C   |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS                                | 4 (100)<br>2 @ 4 (100)  | SOLID<br>SOLID                     | YELLOW<br>YELLOW  | 5/2 (140) C-C FROM SKIP-DASH CENTERLINE<br>11 (280) C-C<br>OMIT SKIP-DASH CENTERLINE BETWEEN   |
| LANE LINES  | 4 (100)<br>5 (125) ON FREEWAYS  | SKIP-DASH<br>SKIP-DASH             | WHITE<br>WHITE  | 10' (3 m) LINE WITH 30' (9 m) SPACE  |
| DOTTED LINES<br>(EXTENSIONS OF CENTER, LANE OR<br>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<br>WHITE-RIGHT                              | OUTLINE MEDIANS IN YELLOW  |
| TURN LANE MARKINGS  | 6 (150) LINE; FULL<br>SIZE LETTERS &<br>SYMBOLS (8' (2.4m))   | SOLID                              | WHITE   | SEE TYPICAL TURN LANE MARKING DETAIL   |
| TWO WAY LEFT TURN MARKING   | 2 @ 4 (100)<br>EACH DIRECTION<br>8' (2.4m) LEFT ARROW   | SKIP-DASH<br>AND SOLID<br>IN PAIRS | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH, 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL                 |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIACONALS (BIKE & EOUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 <b>e</b> 6 (150)<br>12 (300) <b>e</b> 45°<br>12 (300) <b>e</b> 90°                                | SOLID<br>SOLID<br>SOLID            | WHITE<br>WHITE<br>WHITE                                 | NOT LESS THAN 6' (1.8 m) APART<br>2' (600) APART<br>2' (600) APART<br>5' (600) APART<br>SEE TYPICAL CROSSWALK MARKING DETAILS.                                     |
| STOP LINES  | 24 (600)  | SOLID                              | WHITE   | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS   | 2 @ 4 (100) WITH<br>12 (300) DIAGONALS<br>@ 45°<br>NO DIAGONALS USED FOR<br>4' (1.2 m) WIDE MEDIANS | SOLID                              | YELLOW:<br>TWO WAY TRAFFIC<br>WHITE:<br>ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE<br>SEE TYPICAL PAINTED MEDIAN MARKING.  |
| GORE MARKING AND<br>CHANNELIZING LINES  | 8 (200) WITH 12 (300)<br>DIAGONALS & 45°  | SOLID                              | WHITE   | DIACONALS:<br>15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h))<br>20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))<br>30' (9 m) C-C (OVER 45MPH (70 km/h))             |
| RAILROAD CROSSING   | 24 (600) TRANSVERSE<br>LINES; "RR" IS 6' (1.8 m)<br>LETTERS; 16 (400)<br>LINE FOR "X"               | SOLID                              | WHITE   | SEE STATE STANDARD 780001<br>AREA OF:<br>"R"=3.6 SO. FT. (0.33 m²) EACH<br>"X"=54.0 SO. FT. (5.0 m²)   |
| SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')  | 12 (300) <b>@</b> 45°   | SOLID                              | WHITE - RIGHT<br>YELLOW - LEFT                          | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/t)<br>150' (45 m) C-C (OVER 45MPH (70 km/h))                        |
| U TURN ARROW  | SEE DETAIL  | SOLID                              | WHITE   | 16.3 SF  |
| 2 ARROW COMBINATION<br>LEFT AND U TURN  | SEE DETAIL  | SOLID                              | WHITE   | 30.4 SF  |

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



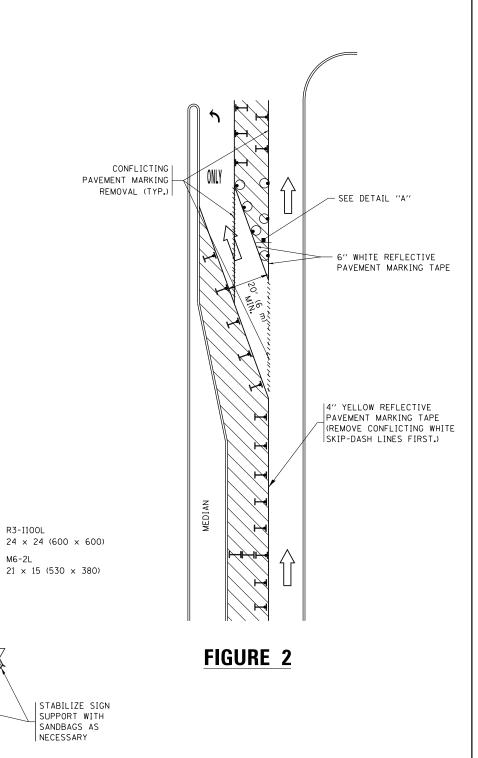
## FIGURE 1

# **LEGEND** WORK AREA LANE OPEN TO TRAFFIC ARROW BOARD TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT DRUM WITH STEADY BURN LIGHT SIGN ASSEMBLY TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

#### NOTES:

- 1. A) WHEN "L" IS < THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. 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.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. 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-I100R 24 x 24 (600 x 600) AND M6-2R 21  $\times$  15 (530  $\times$  380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

# **TURN BAY ENTRANCE** WITHIN A LANE CLOSURE



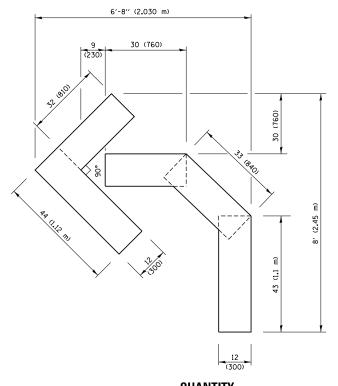
## **DETAIL A**

TURN

LANE

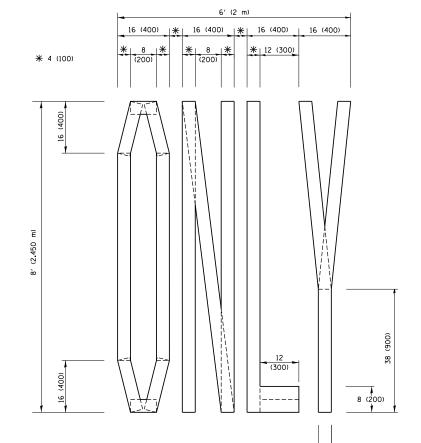
All dimensions are in inches (millimeters) unless otherwise shown.

| FILE NAME =                                | USER NAME = footemj                          | REVISED -T. RAMMACHER 09-08-9                   | 4 REVISED - R. BORO 09-14-09   |                              | TRAFFIC CONTROL AND PROTECTION AT TURN BAYS      | F.A.P<br>RTF | SECTION     | COUNTY TOTAL SHEET |
|--|--|---|--------------------------------|------------------------------|--|--------------|-------------|--------------------|
| pw:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\Do | cuments\IDOT Offices\District 1\Projects\Dis | CO 40E443EBINDEG CO (CIMEDIAD BEDERI 19930 ) 33 | REVISED - A. SCHUETZE 07-01-13 | STATE OF ILLINOIS            | (TO REMAIN OPEN TO TRAFFIC)                      | 577          | D-EXT-N     | WILL 140 121       |
|  | PLOT SCALE = 50.0000 '/ 10.                  | REVISED - A. HOUSEH 10-12-96                    | REVISED - A. SCHUETZE 09-15-16 | DEPARTMENT OF TRANSPORTATION |  |              | TC-14       | CONTRACT NO. 62C09 |
| Default                                    | PLOT DATE = 9/15/2016                        | REVISED -T. RAMMACHER 01-06-00                  | O REVISED -                    |                              | SCALE: NONE   SHEET 1 OF 1 SHEETS   STA. TO STA. |              | ILLINOIS FE | D. AID PROJECT     |

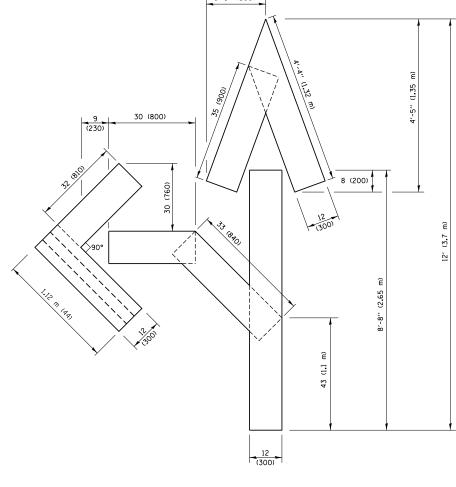


#### QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m) 21.4 sq. ft. (1.99 sq. m)

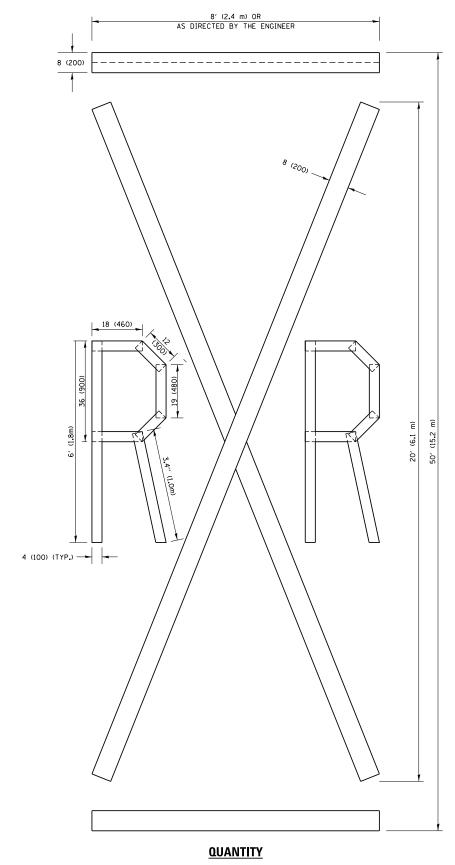


#### QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

#### NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

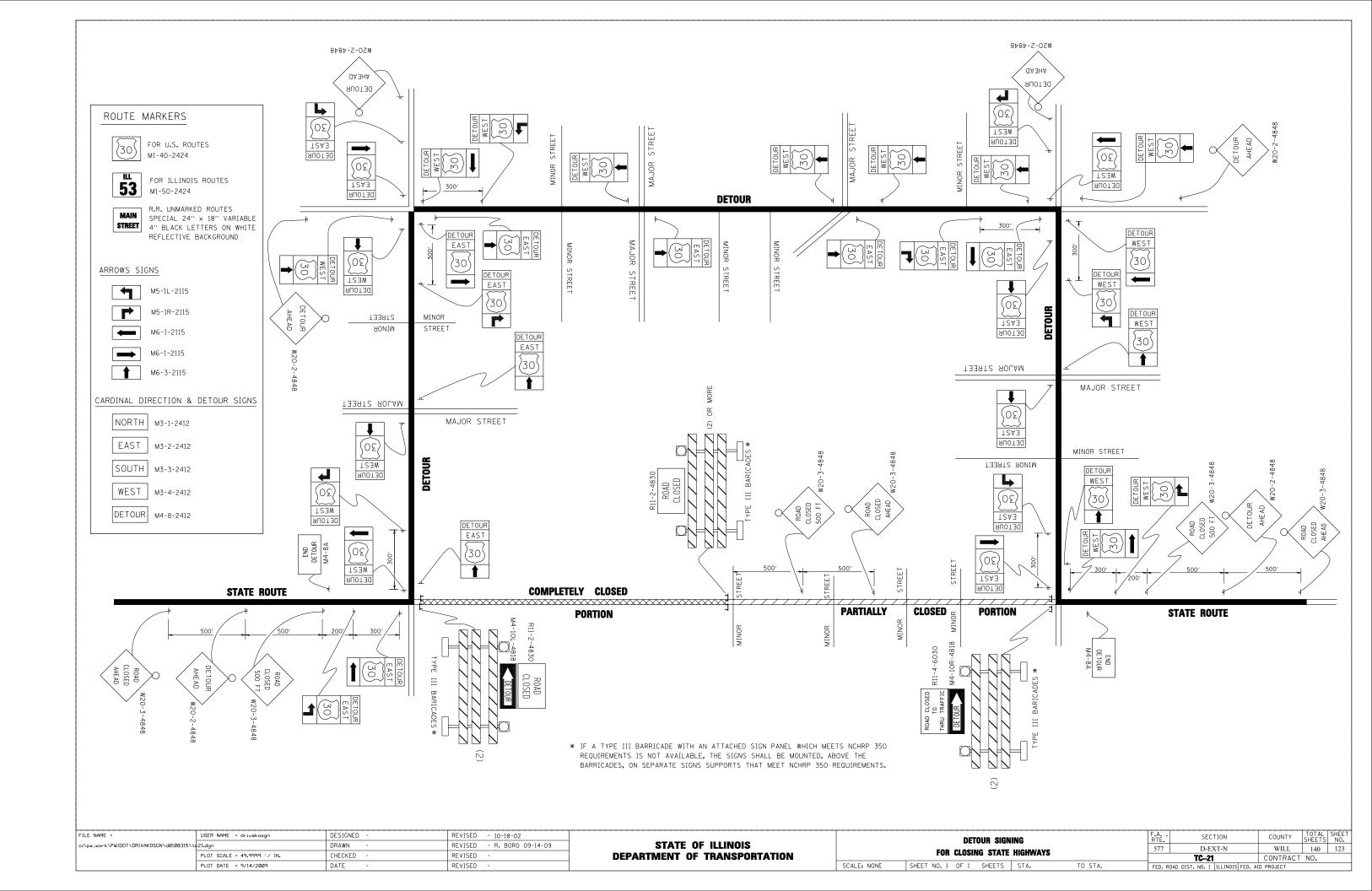
> All dimensions are in inches (millimeters) unless otherwise shown.

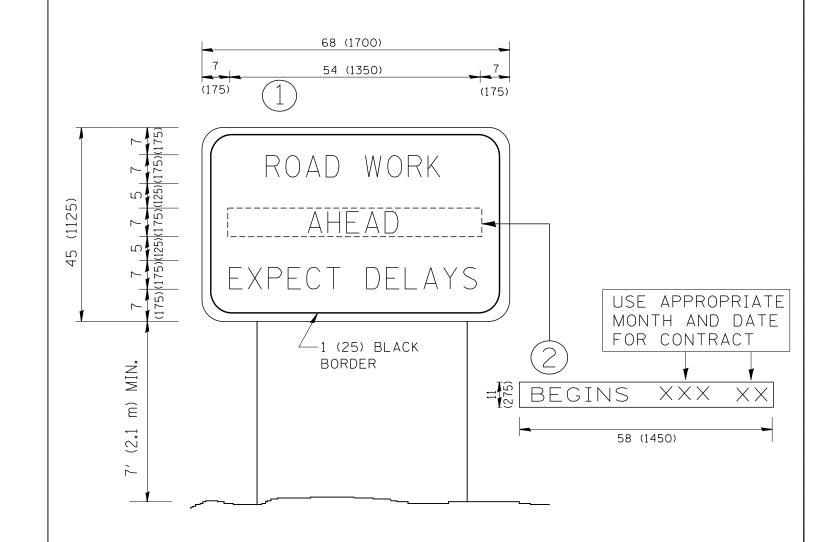
| FILE NAME =                                 | USER NAME = footemj                           | DESIGNED -                                 | REVISED | -T. RAMMACHER 03-02-98 |
|---|---|--|---------|------------------------|
| pw:\\IL084EBIDINTEG.:ll1:no1s.gov:PWIDOT\Do | cuments\IDOT Offices\District 1\Projects\Dist | t <b>@R‰wm</b> \CADData\CADsheets\tcl6.dgn | REVISED | -E. GOMEZ 08-28-00     |
|   | PLOT SCALE = 50.0000 '/ in.                   | CHECKED -                                  | REVISED | -E. GOMEZ 08-28-00     |
|   | PLOT DATE = 9/15/2016                         | DATE - 09-18-94                            | REVISED | - A. SCHUETZE 09-15-16 |

QUANTITY

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

|             |                         |           |             | F.A.P.<br>RTE. | SECTION                          | COUNTY    | TOTAL<br>SHEETS | SHEET<br>NO. |
|-------------|-------------------------|-----------|-------------|----------------|----------------------------------|-----------|-----------------|--------------|
| SHORT       | T TERM PAVEMENT MARKIN  | G LETTERS | AND SYMBOLS | 577            | D-EXT-N                          | WILL      | 140             | 122          |
|             |                         |           |             |                | TC-16                            | CONTRACT  | NO. 62          | C09          |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA.      | TO STA.     | FED. R         | DAD DIST, NO. 1 ILLINOIS FED. AI | D PROJECT |                 |              |

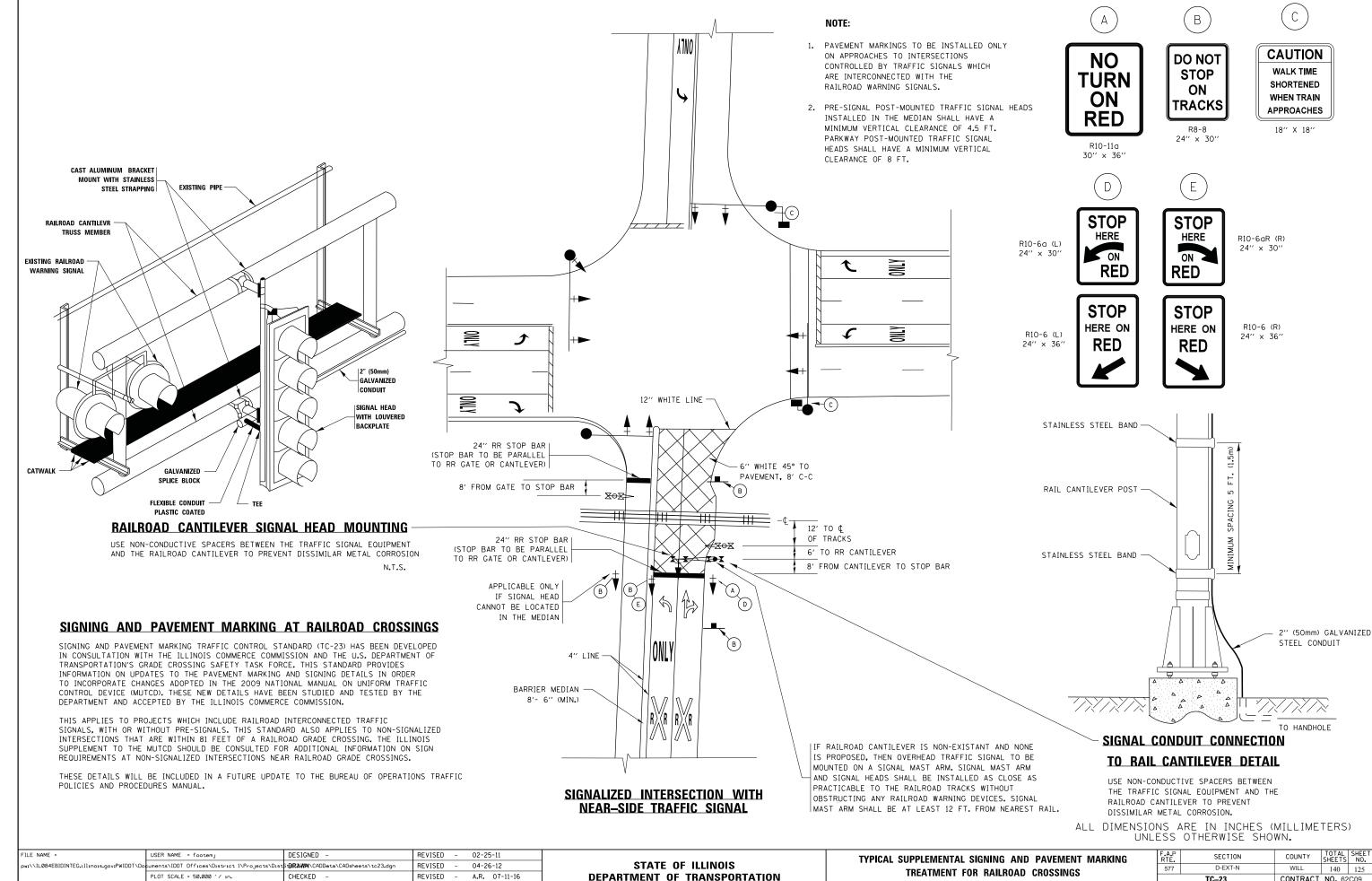




## NOTES:

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

| FILE NAME =               | USER NAME = gaglianobt     | DESIGNED - | REVISED - R. MIRS 09-15-97     |                              |             | ARTERIAL ROAD                |         | F.A.P.   | SECTION                | COUNTY           | TOTAL S  | EET<br>10. |
|---------------------------|----------------------------|------------|--------------------------------|------------------------------|-------------|------------------------------|---------|----------|------------------------|------------------|----------|------------|
| W:\diststd\22x34\tc22.dgn |                            | DRAWN -    | REVISED - R. MIRS 12-11-97     | STATE OF ILLINOIS            |             | INFORMATION SIGN             |         | 577      | D-EXT-N                | WILL             | 140      | 24         |
|                           | PLOT SCALE = 50.000 '/ IN. | CHECKED -  | REVISED -T. RAMMACHER 02-02-99 | DEPARTMENT OF TRANSPORTATION |             | INFORMATION SIGN             |         |          | TC-22                  | CONTRACT         | NO. 62C0 | ,          |
|                           | PLOT DATE = 1/4/2008       | DATE -     | REVISED - C. JUCIUS 01-31-07   |                              | SCALE: NONE | SHEET NO. 1 OF 1 SHEETS STA. | TO STA. | FED. ROA | D DIST. NO. 1 ILLINOIS | FED. AID PROJECT |          |            |



PLOT DATE = 7/11/2016

DATE

REVISED

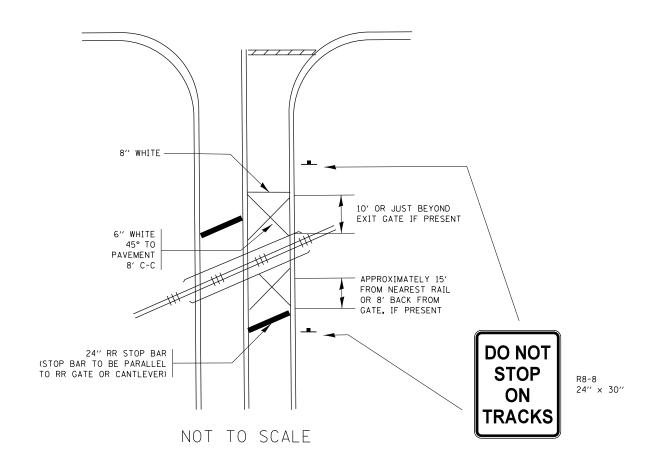
**DEPARTMENT OF TRANSPORTATION** 

TREATMENT FOR RAILROAD CROSSINGS SCALE: NONE SHEET 1 OF 2 SHEETS STA.

CONTRACT NO. 62C09 TC-23

# TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS

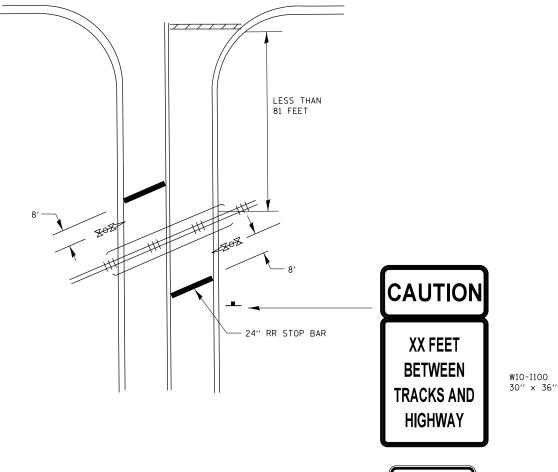
#### WITH SIGNALIZED INTERSECTION



#### NOTE:

- PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- 2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION. (SEE DETAIL FOR PRE-SIGNALS).

# WITH NON-SIGNALIZED INTERSECTION 81' OR LESS TO CLOSEST RAIL



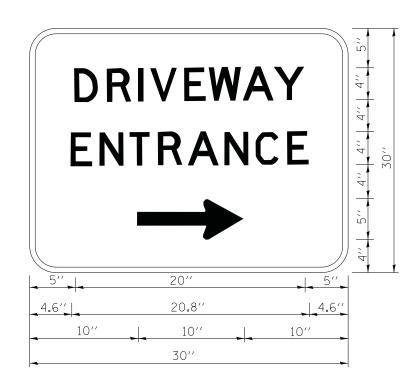
#### NOTE:

- 1. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET FROM THE RAIL CLOSET TO THE INTERSECTION OR FROM THE CLOSEST POINT ALONG THE EXIT GATE IF PRESENT OVER THE ROADWAY WHEN IN THE LOWERED POSITION TO THE STOP BAR OR CROSSWALK, WHICHEVER IS CLOSEST, ROUNDED DOWN TO THE NEAREST 5 FEET. WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
- 2. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6 FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKING EXTEND TO THE INTERSECTION.

DO NOT STOP ON TRACKS

R8-8 24" × 30"

| FILE NAME =                                | USER NAME = footemj                           | DESIGNED -                                   | REVISED - | 02-25-11      |                              | TYPICAL     | SUPPLEM | IFNΙΤΔΙ   | SIGNING AN | ID PAVEMI  | ENT MARKING | F.A.P<br>RTF. | SECTION         | COUNTY    | TOTAL SH | HEET<br>NO.   |
|--|---|--|-----------|---------------|------------------------------|-------------|---------|-----------|------------|------------|-------------|---------------|-----------------|-----------|----------|---------------|
| pw:\\ILØ84EBIDINTEG.ıllınoıs.gov:PWIDOT\Do | cuments\IDOT Offices\District 1\Projects\Dist | tbt <b>@RZWM</b> \CADData\CADsheets\tc23.dgn | REVISED - | 04-26-12      | STATE OF ILLINOIS            | 111107      |         |           |            |            | i           | 577           | D-EXT-N         | WILL      | 140 1    | 26            |
|  | PLOT SCALE = 50.000 '/ in.                    | CHECKED -                                    | REVISED - | A.R. 07-11-16 | DEPARTMENT OF TRANSPORTATION |             | IKEAIN  | VIENII FU | OR RAILROA | n cknooiii | 162         |               | TC-23           | CONTRACT  | NO. 62C0 | 9             |
| Default                                    | PLOT DATE = 7/11/2016                         | DATE -                                       | REVISED - |               |                              | SCALE: NONE | SHEET 2 | OF 2      | 2 SHEETS S | STA.       | TO STA.     |               | ILLINOIS FED. A | D PROJECT |          | $\overline{}$ |



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

#### NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

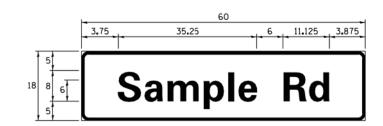
| FILE NAME =                              | USER NAME = gaglianobt     | DESIGNED - | REVISED - C. JUCIUS 02-15-07 |
|--|----------------------------|------------|------------------------------|
| c:\pw_work\pwidot\gaglianobt\d0108315\tc | 26 <b>.</b> dgn            | DRAWN -    | REVISED -                    |
|  | PLOT SCALE = 50.000 '/ in. | CHECKED -  | REVISED -                    |
|  | PLOT DATE = 12/13/2012     | DATE -     | REVISED -                    |

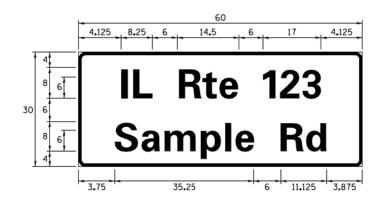
| STATE OF      | ILLINOIS       |
|---------------|----------------|
| DEPARTMENT OF | TRANSPORTATION |

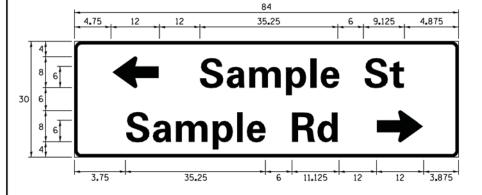
SCALE: NONE

|          | DRIV | EWAY | ENTRANC | E SIGNING |         | F.A.P.<br>RTE. | SECTION                           | COUNTY     | TOTAL<br>SHEETS | SHEET<br>NO. |
|----------|------|------|---------|-----------|---------|----------------|-----------------------------------|------------|-----------------|--------------|
|          |      |      |         |           |         |                | D-EXT-N                           | WILL       | 140             | 127          |
|          |      |      |         |           |         |                | TC-26                             | CONTRACT   | NO. 62          | C09          |
| SHEET NO | 1    | OF 1 | SHEETS  | STA.      | TO STA. | FED. R         | OAD DIST. NO. 1   ILLINOIS FED. A | ID PROJECT |                 |              |

#### SIGN PANEL - TYPE 1 OR TYPE 2







| DESIGN | AREA    | SIGN PANEL | SHEETING | OTY.     |
|--------|---------|------------|----------|----------|
| SERIES | (SQ FT) | TYPE       | TYPE     | REQUIRED |
| D OR C | -       | 1 OR 2     | ZZ       | -        |

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

# COMMON STREET NAME ABBREVIATIONS AND WIDTHS

| NAME          | ABBREVATION | WIDTH      | (INCH)     |
|---------------|-------------|------------|------------|
| NAME          | ADDREVATION | SERIES "C" | SERIES "D" |
| AVENUE        | Ave         | 15.000     | 18.250     |
| BOULEVARD     | Blvd        | 17.125     | 20.000     |
| CIRCLE        | Cir         | 11.125     | 13.000     |
| COURT         | C†          | 8. 250     | 9.625      |
| DRIVE         | Dr          | 8.625      | 10.125     |
| HIGHWAY       | Hwy         | 18.375     | 22.000     |
| ILLINOIS      | IL          | 7. 000     | 8. 250     |
| LANE          | Ln          | 9.125      | 10.750     |
| PARKWAY       | Pkwy        | 23. 375    | 27.375     |
| PLACE         | PI          | 7. 125     | 7. 750     |
| ROAD          | Rd          | 9.625      | 11.125     |
| ROUTE         | Rte         | 12.625     | 14.500     |
| STREET        | St          | 8. 000     | 9.125      |
| TERRACE       | Ter         | 12.625     | 14.625     |
| TRAIL         | Tr          | 7. 750     | 9.125      |
| UNITED STATES | US          | 10.375     | 12.250     |

#### **GENERAL NOTES**

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" × 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-O". ALL BORDERS SHALL BE ¾" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-O" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-O" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-O" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS: PARTS LISTING:

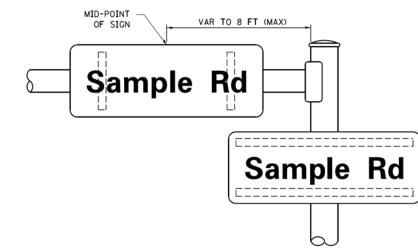
- J.O. HERBERT COMPANY, INC SIGN CHANNEL PART "HPN053 (MED. CHANNEL) MIDLOTHIAN, VA SIGN SCREWS 1/4" x 14 x 1" H.W.H. "3 SELF TAPPING WITH NEOPRENE WASHER PART "HPN034 (UNIVERSAL)

WOODRIDGE, IL CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

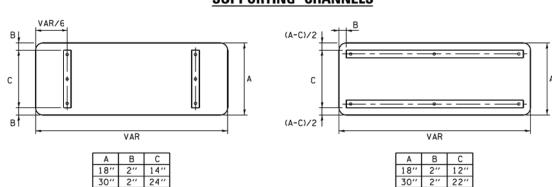
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

#### **MOUNTING LOCATION**

ARM OR POLE MOUNTED



#### SUPPORTING CHANNELS



SCALE:

#### STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

|           | FHWA SEF                  | RIES "C"        |                            | FHWA SERIES "D" |                           |                 |                            |  |  |
|-----------|---------------------------|-----------------|----------------------------|-----------------|---------------------------|-----------------|----------------------------|--|--|
| CHARACTER | LEFT<br>SPACING<br>(INCH) | WIDTH<br>(INCH) | RIGHT<br>SPACING<br>(INCH) | CHARACTER       | LEFT<br>SPACING<br>(INCH) | WIDTH<br>(INCH) | RIGHT<br>SPACING<br>(INCH) |  |  |
| Α         | 0.240                     | 5.122           | 0.240                      | Α               | 0.240                     | 6.804           | 0.240                      |  |  |
| В         | 0.880                     | 4.482           | 0.480                      | В               | 0.960                     | 5.446           | 0.400                      |  |  |
| С         | 0.720                     | 4.482           | 0.720                      | С               | 0.800                     | 5.446           | 0.800                      |  |  |
| D         | 0.880                     | 4.482           | 0.720                      | D               | 0.960                     | 5.446           | 0.800                      |  |  |
| E         | 0.880                     | 4.082           | 0.480                      | E               | 0.960                     | 4.962           | 0.400                      |  |  |
| F         | 0.880                     | 4.082           | 0.240                      | F               | 0.960                     | 4.962           | 0.240                      |  |  |
| G         | 0.720                     | 4.482           | 0.720                      | G               | 0.800                     | 5.446           | 0.800                      |  |  |
| Н         | 0.880                     | 4.482           | 0.880                      | н               | 0.960                     | 5.446           | 0.960                      |  |  |
| I         | 0.880                     | 1.120           | 0.880                      | I               | 0.960                     | 1.280           | 0.960                      |  |  |
| J         | 0.240                     | 4.082           | 0.880                      | J               | 0.240                     | 5.122           | 0.960                      |  |  |
| K         | 0.880                     | 4.482           | 0.480                      | K               | 0.960                     | 5.604           | 0.400                      |  |  |
| L         | 0.880                     | 4.082           | 0.240                      | L               | 0.960                     | 4.962           | 0.240                      |  |  |
| М         | 0.880                     | 5. 284          | 0.880                      | М               | 0.960                     | 6. 244          | 0.960                      |  |  |
| N         | 0.880                     | 4.482           | 0.880                      | N               | 0.960                     | 5.446           | 0.960                      |  |  |
| 0         | 0.720                     | 4.722           | 0.720                      | 0               | 0.800                     | 5.684           | 0.800                      |  |  |
| Р         | 0.880                     | 4.482           | 0.720                      | Р               | 0.960                     | 5.446           | 0.240                      |  |  |
| Q         | 0.720                     | 4.722           | 0.720                      | 0               | 0.800                     | 5.684           | 0.800                      |  |  |
| R         | 0.880                     | 4.482           | 0.480                      | R               | 0.960                     | 5.446           | 0.400                      |  |  |
| S         | 0.480                     | 4.482           | 0.480                      | S               | 0.400                     | 5.446           | 0.400                      |  |  |
| T         | 0.240                     | 4.082           | 0.240                      | T               | 0.240                     | 4.962           | 0.240                      |  |  |
| U         | 0.880                     | 4.482           | 0.880                      | U               | 0.960                     | 5.446           | 0.960                      |  |  |
| ٧         | 0.240                     | 4.962           | 0.240                      | ٧               | 0.240                     | 6.084           | 0.240                      |  |  |
| W         | 0.240                     | 6.084           | 0.240                      | W               | 0.240                     | 7.124           | 0.240                      |  |  |
| Х         | 0.240                     | 4.722           | 0.240                      | X               | 0.400                     | 5.446           | 0.400                      |  |  |
| Υ         | 0.240                     | 5.122           | 0.240                      | Y               | 0.240                     | 6.884           | 0.240                      |  |  |
| Z         | 0.480                     | 4.482           | 0.480                      | Z               | 0.400                     | 5.446           | 0.400                      |  |  |
| a         | 0.320                     | 3.842           | 0.640                      | a               | 0.400                     | 4.562           | 0.720                      |  |  |
| Ь         | 0.720                     | 4.082           | 0.480                      | Ь               | 0.800                     | 4.802           | 0.480                      |  |  |
| С         | 0.480                     | 4.002           | 0.240                      | С               | 0.480                     | 4.722           | 0.240                      |  |  |
| d         | 0.480                     | 4.082           | 0.720                      | d               | 0.480                     | 4.802           | 0.800                      |  |  |
| е         | 0.480                     | 4.082           | 0.320                      | е               | 0.480                     | 4.722           | 0.320                      |  |  |
| f         | 0.320                     | 2.480           | 0.160                      | f               | 0.320                     | 2.882           | 0.160                      |  |  |
| g         | 0.480                     | 4.082           | 0.720                      | g               | 0.480                     | 4.802           | 0.800                      |  |  |
| h         | 0.720                     | 4.082           | 0.640                      | h               | 0.800                     | 4.722           | 0.720                      |  |  |
| i         | 0.720                     | 1.120           | 0.720                      | ī               | 0.800                     | 1.280           | 0.800                      |  |  |
| j         | 0.000                     | 2.320           | 0.720                      | j               | 0.000                     | 2.642           | 0.800                      |  |  |
| k         | 0.720                     | 4.322           | 0.160                      | k               | 0.800                     | 5.122           | 0.160                      |  |  |
| I         | 0.720                     | 1.120           | 0.720                      | 1               | 0.800                     | 1.280           | 0.800                      |  |  |
| m         | 0.720                     | 6.724           | 0.640                      | m               | 0.800                     | 7.926           | 0.720                      |  |  |
| n         | 0.720                     | 4.082           | 0.640                      | n               | 0.800                     | 4.722           | 0.720                      |  |  |
| 0         | 0.480                     | 4.082           | 0.480                      | 0               | 0.480                     | 4.882           | 0.480                      |  |  |
| р         | 0.720                     | 4.082           | 0.480                      | P               | 0.800                     | 4.802           | 0.480                      |  |  |
| q         | 0.480                     | 4.082           | 0.720                      | q               | 0.480                     | 4.802           | 0.800                      |  |  |
| r         | 0.720                     | 2.642           | 0.160                      | r               | 0.800                     | 3.042           | 0.160                      |  |  |
| s         | 0.320                     | 3. 362          | 0.240                      | s               | 0.320                     | 3. 762          | 0.240                      |  |  |
| +         | 0.080                     | 2.882           | 0.080                      | +               | 0.080                     | 3. 202          | 0.080                      |  |  |
| U         | 0.640                     | 4.082           | 0.720                      | U               | 0.720                     | 4.722           | 0.800                      |  |  |
| ٧         | 0.160                     | 4.722           | 0.160                      | ٧               | 0.160                     | 5.684           | 0.160                      |  |  |
| w         | 0.160                     | 7.524           | 0.160                      | w               | 0.160                     | 9.046           | 0.160                      |  |  |
| ×         | 0.000                     | 5. 202          | 0.000                      | ×               | 0.000                     | 6. 244          | 0.000                      |  |  |
| У         | 0.160                     | 4.962           | 0.160                      | У               | 0.160                     | 6.004           | 0.160                      |  |  |
| z         | 0.240                     | 3. 362          | 0.240                      | Z               | 0.240                     | 4.002           | 0.240                      |  |  |
| 1         | 0.720                     | 1.680           | 0.880                      | 1               | 0.800                     | 2.000           | 0.960                      |  |  |
| 2         | 0.480                     | 4.482           | 0.480                      | 2               | 0.800                     | 5.446           | 0.800                      |  |  |
| 3         | 0.480                     | 4.482           | 0.480                      | 3               | 1.440                     | 5.446           | 0.800                      |  |  |
| 4         | 0.240                     | 4.962           | 0.720                      | 4               | 0.160                     | 6.004           | 0.960                      |  |  |
| 5         | 0.480                     | 4.482           | 0.480                      | 5               | 0.800                     | 5.446           | 0.800                      |  |  |
| 6         | 0.720                     | 4.482           | 0.720                      | 6               | 0.800                     | 5.446           | 0.800                      |  |  |
| 7         | 0.240                     | 4.482           | 0.720                      | 7               | 0.560                     | 5. 446          | 0.560                      |  |  |
| 8         | 0.480                     | 4.482           | 0.480                      | 8               | 0.800                     | 5.446           | 0.800                      |  |  |
| 9         | 0.480                     | 4.482           | 0.480                      | 9               | 0.800                     | 5.446           | 0.800                      |  |  |
| 0         | 0.720                     | 4.722           | 0.720                      | 0               | 0.800                     | 5.684           | 0.800                      |  |  |
| -         | 0.240                     | 2.802           | 0.240                      | -               | 0.240                     | 2.802           | 0.240                      |  |  |
|           |                           |                 |                            |                 |                           |                 |                            |  |  |

#### 

| STATE      | OF   | ILLINOIS       |
|------------|------|----------------|
| DEPARTMENT | OF ' | TRANSPORTATION |

|   | DISTRICT ONE                       |    |        |      |            | RTE. | SECTION         | COUNTY     | SHEETS | NO   |
|---|------------------------------------|----|--------|------|------------|------|-----------------|------------|--------|------|
| M | MAST ARM MOUNTED STREET NAME SIGNS |    |        | 577  | D-EXT-N    | WILL | 140             | 128        |        |      |
|   | MAST ARM MOUNTED STREET NAME SIGNS |    |        |      | ANIE SIGNS |      | TS-02           | CONTRACT   | NO.    | 52C0 |
|   | SHEET                              | OF | SHEETS | STA. | TO STA.    |      | ILLINOIS FED. A | ID PROJECT |        |      |

# TRAFFIC SIGNAL LEGEND

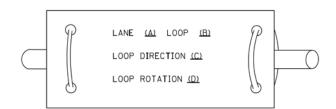
(NOT TO SCALE)

|   |                                 |  |  | (NOT TO SCALE)  |                 |   |                                       |   |
|---|---------------------------------|--|--|---|-----------------|---|---------------------------------------|---|
| ITEM  | EXISTING                        | PROPOSED                                     | LTEM   | EXISTING  | PROPOSED        | ITEM  | EXISTING                              | PROPOSED                                    |
| CONTROLLER CABINET  | $\boxtimes$                     | $\blacksquare$                               | HANDHOLE<br>-SQUARE                            |   |                 | SIGNAL HEAD<br>-(P) PROGRAMMABLE SIGNAL HEAD  | R R                                   | RR  |
| COMMUNICATION CABINET   | ECC                             | СС   | -ROUND HEAVY DUTY HANDHOLE                     |   |                 |   |                                       | G G   |
| MASTER CONTROLLER   | EMC                             | MC   | -SQUARE<br>-ROUND                              | H   | ⊞ 19            |   |                                       | <b>4</b> Y <b>4</b> Y <b>4</b> G <b>4</b> G |
| MASTER MASTER CONTROLLER  | EMMC                            | ммс  | DOUBLE HANDHOLE                                |   |                 | CIONAL HEAD WITH BACKBLATE  |                                       | ,   |
| UNINTERRUPTABLE POWER SUPPLY  | <b>4</b>                        | <b>F</b>                                     | JUNCTION BOX                                   |   | •               | SIGNAL HEAD WITH BACKPLATE  -(P) PROGRAMMABLE SIGNAL HEAD  -(RB) RETROREFLECTIVE BACKPLATE                        |                                       | R R Y                                       |
| SERVICE INSTALLATION -(P) POLE MOUNTED  | -D- <sup>P</sup>                | <b></b> P                                    | RAILROAD CANTILEVER MAST ARM                   | X <del>OX</del> X   | <del>Id</del> I |   |                                       | Y   |
| SERVICE INSTALLATION  |                                 |  | RAILROAD FLASHING SIGNAL                       | <del>∑⊙</del> ∑   | X+X             |   | P RB                                  | P RB  |
| -(G) GROUND MOUNTED<br>-(GM) GROUND MOUNTED METERED                                     | $\boxtimes_{C} \boxtimes_{CW}$  | <b>⊠</b> <sup>G</sup> <b>⊠</b> <sup>GM</sup> | RAILROAD CROSSING GATE                         | <del>X0X</del> >  | X+X-            | PEDESTRIAN SIGNAL HEAD  | <b>O</b>                              | <b>₽</b>                                    |
| TELEPHONE CONNECTION  | ET                              | T  | RAILROAD CROSSBUCK                             | <b></b>   | <b>*</b>        | AT RAILROAD INTERSECTIONS   | <b></b>                               |   |
| STEEL MAST ARM ASSEMBLY AND POLE  | 0                               | •—   | RAILROAD CONTROLLER CABINET                    | <b>⊠</b>  | <b>≯</b> ∢      | PEDESTRIAN SIGNAL HEAD<br>WITH COUNTDOWN TIMER  | <b>(₽)</b> C<br>( <b>X</b> ) D        | <b>₽</b> C ★ D                              |
| ALUMINUM MAST ARM ASSEMBLY AND POLE   | 0                               |  | UNDERGROUND CONDUIT (UC), GALVANIZED STEEL     |   |                 |   |                                       |   |
| STEEL COMBINATION MAST ARM<br>ASSEMBLY AND POLE WITH LUMINAIRE                          | o-x—                            | • <del>×</del>                               | TEMPORARY SPAN WIRE,<br>TETHER WIRE, AND CABLE |   |                 | ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"   |                                       | <b>(9)</b>                                  |
| SIGNAL POST<br>-(BM) BARREL MOUNTED - TEMPORARY   | 0                               | ● ● BM                                       | SYSTEM ITEM INTERSECTION ITEM                  | S   | SP<br>IP        | NUMBER OF CONDUCTORS, ELECTRIC<br>CABLE NO. 14, UNLESS NOTED OTHERWISE.<br>ALL DETECTOR LOOP CABLE TO BE SHIELDED |                                       |   |
| WOOD POLE   | $\otimes$                       | 0  | REMOVE ITEM                                    |   | R               | GROUND CABLE IN CONDUIT,  | (1#6)                                 | (1#6)                                       |
| GUY WIRE  | >-                              | >-   | RELOCATE ITEM                                  |   | RL              | NO. 6 SOLID COPPER (GREEN)  ELECTRIC CABLE IN CONDUIT, TRACER   |                                       |   |
| SIGNAL HEAD   | $\rightarrow$                   | <b>→</b>                                     | ABANDON ITEM                                   |   | Α               | NO. 14 1/C  | (1)                                   | <b>—</b> ①—                                 |
| SIGNAL HEAD WITH BACKPLATE  | +>                              | +►   | CONTROLLER CABINET AND                         |   | RCF             | COAXIAL CABLE   | <u> </u>                              | —©—   |
| SIGNAL HEAD OPTICALLY PROGRAMMED  | > <sup>P</sup> +-> <sup>P</sup> | → P + → P                                    | FOUNDATION TO BE REMOVED  MAST ARM POLE AND    |   | RMF             | VENDOR CABLE  |                                       |   |
| FLASHER INSTALLATION -(FS) SOLAR POWERED  | or or es                        | •→ <sup>F</sup> •→ <sup>FS</sup>             | FOUNDATION TO BE REMOVED                       |   | RMF             | COPPER INTERCONNECT CABLE,  |                                       |   |
|   | ors orse                        | ■→ <sup>F</sup> ■→ <sup>FS</sup>             | SIGNAL POST AND<br>FOUNDATION TO BE REMOVED    |   | RPF             | NO. 18, 3 PAIR TWISTED, SHIELDED  | 6#18                                  | <u></u>                                     |
| PEDESTRIAN SIGNAL HEAD  | -0                              | 4  | DETECTOR LOOP, TYPE I                          |   |                 | FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F   | 12F                                   |   |
| PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON                         |                                 |  | PREFORMED DETECTOR LOOP                        | [P] (P)   | P P             | -NO. 62.5/125, MM12F SM24F  |                                       | —(24F)—                                     |
| RADAR DETECTION SENSOR  | R                               | R.   | SAMPLING (SYSTEM) DETECTOR                     | $[\S]$ $(\S)$   | s s             |   | 36F)                                  | — <u>36F</u> —                              |
| VIDEO DETECTION CAMERA  | V 1                             | <b>V</b>                                     | INTERSECTION AND SAMPLING (SYSTEM) DETECTOR    | $[\underline{\tilde{1}}\underline{\tilde{5}}]$ $(\hat{\tilde{1}}\hat{\tilde{5}})$ | IS (S)          |   |                                       |   |
| RADAR/VIDEO DETECTION ZONE  |                                 | <b>III</b>                                   | QUEUE AND SAMPLING<br>(SYSTEM) DETECTOR        | [05] (0\$)  | as (as          | GROUND ROD -(C) CONTROLLER -(M) MAST ARM  | T T T T                               | † † † † *                                   |
| PAN, TILT, ZOOM (PTZ) CAMERA  | PTZ                             | <b>PTZ■</b>                                  | WIRELESS DETECTOR SENSOR                       | <b>®</b>  | <b>®</b>        | -(P) POST<br>-(S) SERVICE   |                                       |   |
| EMERGENCY VEHICLE LIGHT DETECTOR  | $\bowtie$                       | <b>~</b>                                     | WIRELESS ACCESS POINT                          |   | -               |   |                                       |   |
| CONFIMATION BEACON  | <b>○</b> ─□                     | <b>⊢</b> 4                                   |  |   |                 |   |                                       |   |
| WIRELESS INTERCONNECT   | <b>○+1  </b>                    | •- <del>   </del>                            |  |   |                 |   |                                       |   |
| WIRELESS INTERCONNECT RADIO REPEATER  | ERR                             | RR   |  |   |                 |   |                                       |   |
|   |                                 |  |  |   |                 |   |                                       |   |
| FILE NAME = USER NAME = loyso ts05.dgn  PLOT SCALE = 50.0000 '/ 1 PLOT DATE = 9/29/2016 | .n. CHECKED -                   | IP REVISED -                                 |  | TE OF ILLINOIS<br>T OF TRANSPORTATION   |                 | DISTRICT ONE NDARD TRAFFIC SIGNAL DESIGN DETAILS HEET 1 OF 7 SHEETS STA. TO STA.                                  | F.A.P. SECTIO<br>577 D-EXT-N<br>TS-05 | SHEETS NO.                                  |

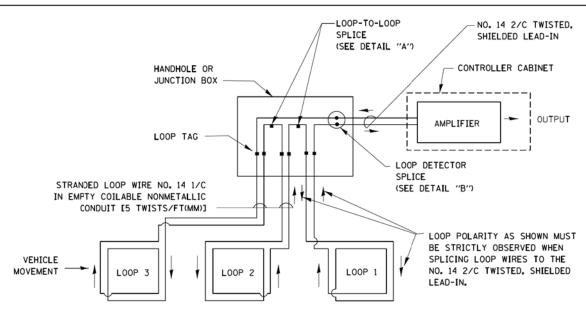
#### **LOOP DETECTOR NOTES**

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

#### LOOP LEAD-IN CABLE TAG

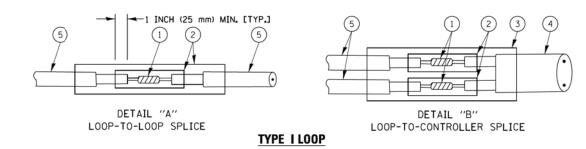


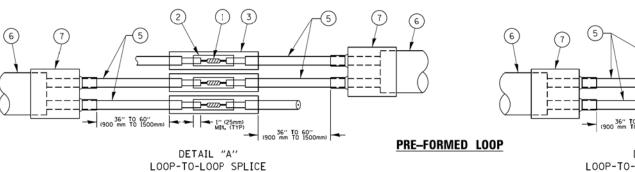
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### **DETECTOR LOOP WIRING SCHEMATIC**

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



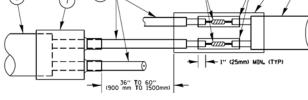




- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH, THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

SCALE: NONE

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.



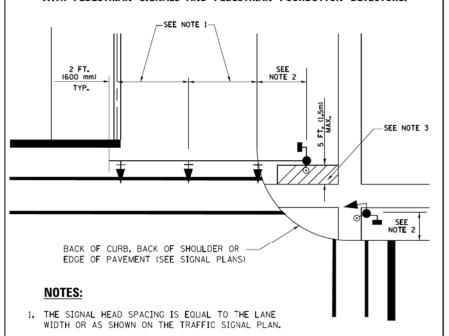
DETAIL "B" LOOP-TO-CONTROLLER SPLICE

- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

| FILE NAME =                              | USER NAME = footemj         | DESIGNED | - | DAD      | KENIZED | - | DAG 1-1-14 |
|--|-----------------------------|----------|---|----------|---------|---|------------|
| c:\pw_work\pw1dot\footemj\d0108315\ts05. | dgn .                       | DRAWN    | - | BCK      | REVISED | - |            |
|  | PLOT SCALE = 50.0000 '/ in. | CHECKED  | - | DAD      | REVISED | - |            |
|  | PLOT DATE = 1/13/2014       | DATE     | - | 10-28-09 | REVISED | - |            |

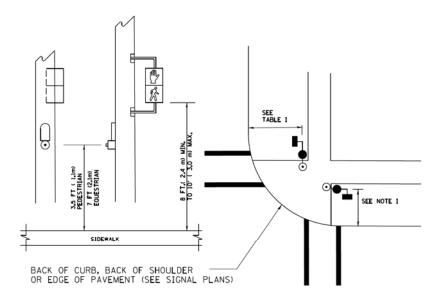
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



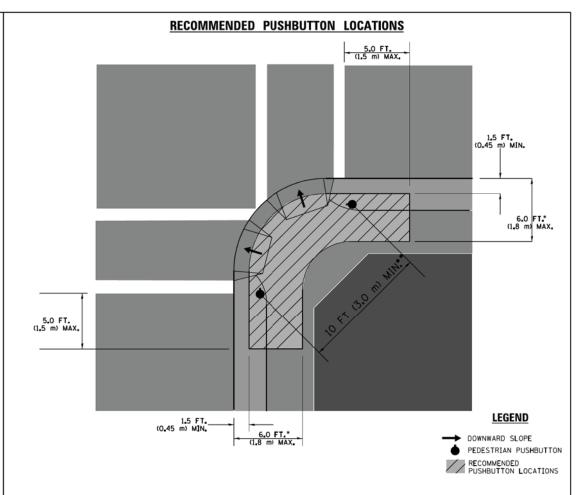
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO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

## PEDESTRIAN SIGNAL POST PEDESTRIAN PUSH BUTTON POST



#### NOTES:

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



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

COUNTY WILL

140 CONTRACT NO. 62CO9

#### NOTES:

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

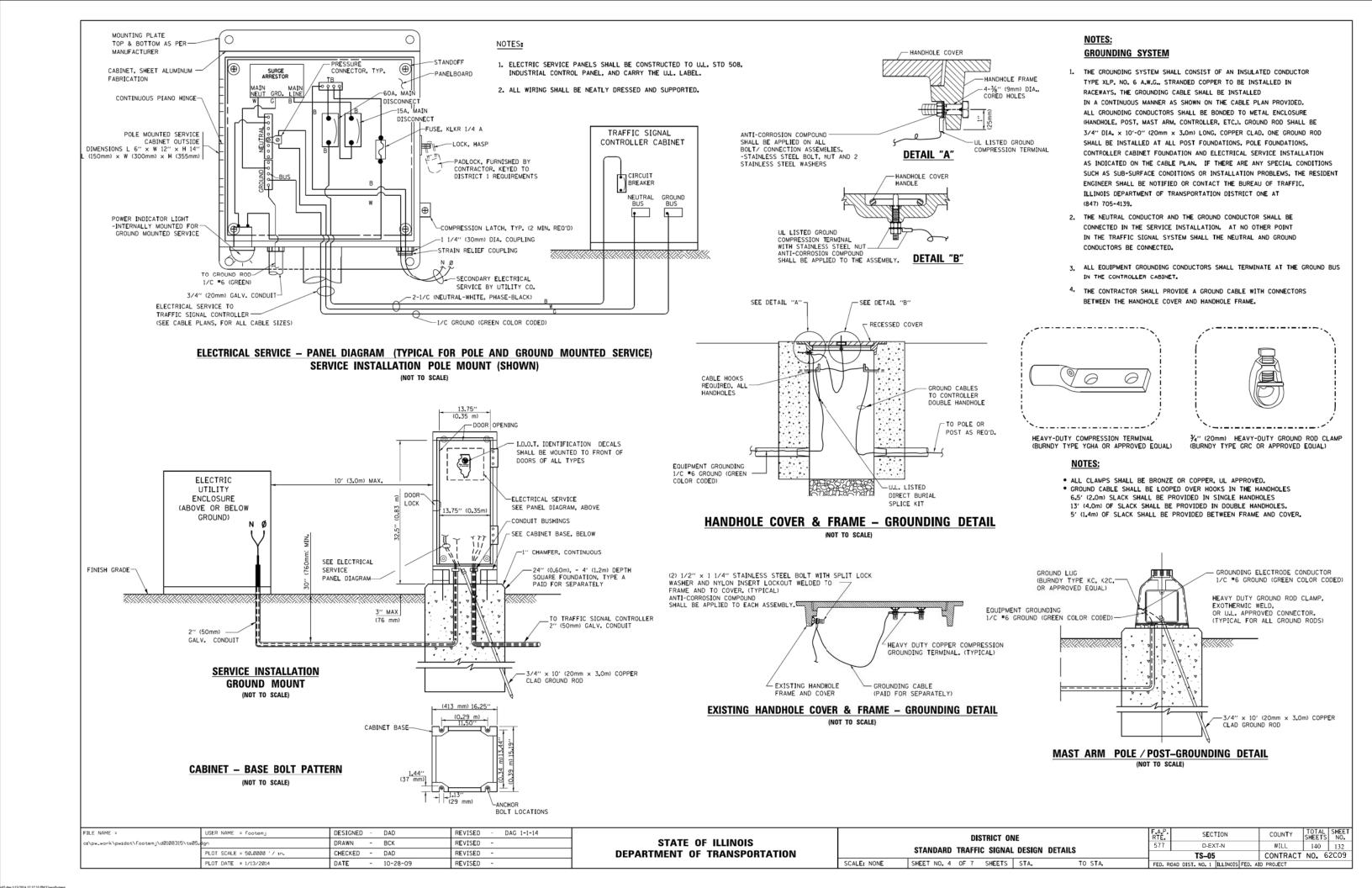
#### TRAFFIC SIGNAL EQUIPMENT OFFSET

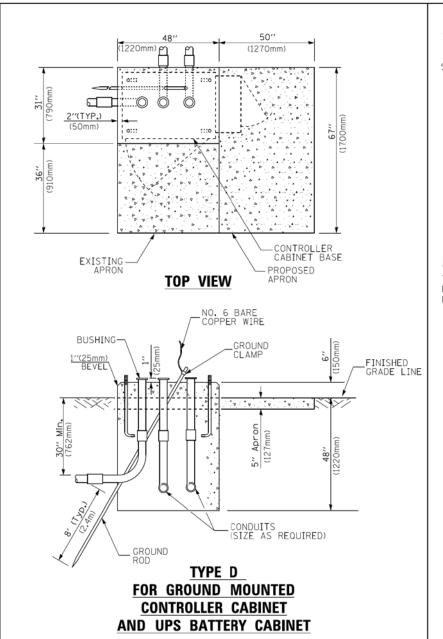
| TRAFFIC SIGNAL EQUIPMENT              | COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION) | SHOULDER/NON-CURBED AREA (MINIMUM<br>DISTANCE FROM EDGE OF PAVEMENT<br>TO CENTERLINE OF FOUNDATION) |
|---------------------------------------|---|---|
| TRAFFIC SIGNAL MAST ARM POLE          | 6 FT (1.8m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| TRAFFIC SIGNAL POST                   | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN SIGNAL POST                | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN PUSHBUTTON POST            | 4 FT (1•2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| TEMPORARY WOOD POLE                   | 6 FT (1.8m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| CONTROLLER CABINET                    | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2   | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.                                      |
| SERVICE INSTALLATION,<br>GROUND MOUNT | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2   | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.                                      |

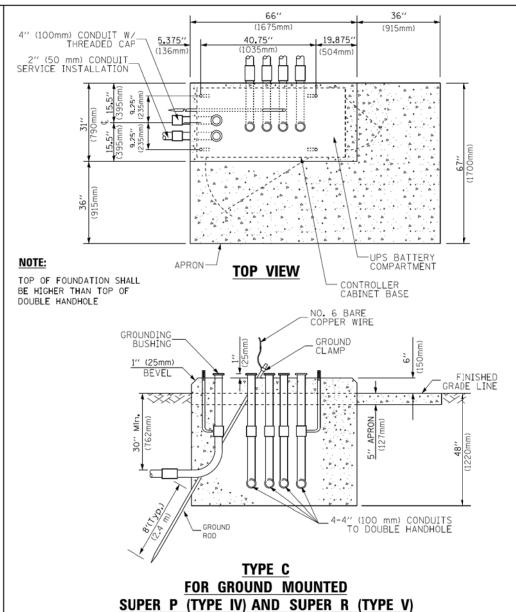
#### NOTES:

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

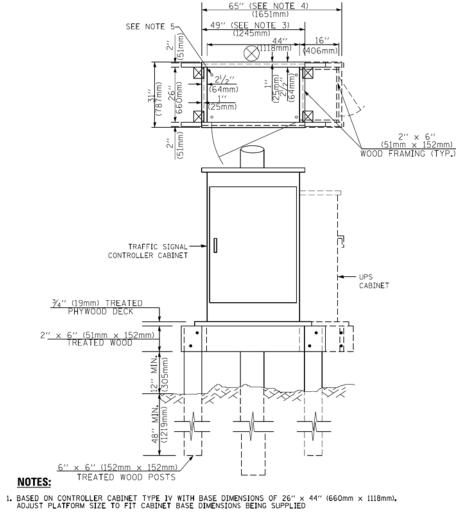
| FILE NAME =                              | USER NAME = footemj         | DESIGNED - | DAD      | REVISED - DAG 1-1-14 |                              |             | DISTRICT ONE                           | RTE.    | SECTION                         | COUNTY      |
|--|-----------------------------|------------|----------|----------------------|------------------------------|-------------|--|---------|---------------------------------|-------------|
| c:\pw_work\pw1dot\footemj\d0108315\ts05. | dgn                         | DRAWN -    | BCK      | REVISED -            | STATE OF ILLINOIS            |             | STANDARD TRAFFIC SIGNAL DESIGN DETAILS | 577     | D-EXT-N                         | WILL        |
|  | PLOT SCALE = 50.0000 '/ in. | CHECKED -  | DAD      | REVISED -            | DEPARTMENT OF TRANSPORTATION |             | STANDARD TRAFFIC SIGNAL DESIGN DETAILS |         | TS-05                           | CONTRACT    |
|  | PLOT DATE = 1/13/2014       | DATE -     | 10-28-09 | REVISED -            |                              | SCALE: NONE | SHEET NO. 3 OF 7 SHEETS STA. TO STA.   | FED. RO | OAD DIST. NO. 1 ILLINOIS FED. A | AID PROJECT |







**CONTROLLER CABINETS** 



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

#### TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

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

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

#### VERTICAL CABLE LENGTH

**CABLE SLACK** 

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

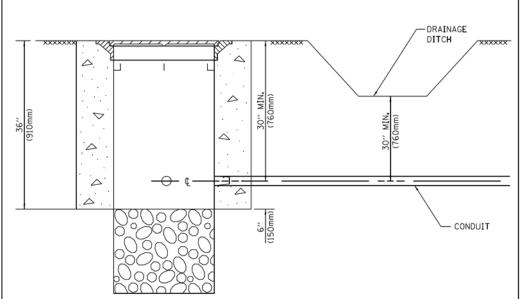
#### **DEPTH OF FOUNDATION**

| ① Foundation<br>Depth | Foundation<br>Diameter  | Spiral<br>Diameter  | Quantity of<br>Rebars  | Size of<br>Rebars   |
|-----------------------|---|---|--|---|
| 10'-0" (3.0 m)        | 30" (750mm)   | 24" (600mm)   | 8  | 6(19)   |
| 13'-6" (4.1 m)        | 30" (750mm)   | 24" (600mm)   | 8  | 6(19)   |
| 11'-0" (3.4 m)        | 36" (900mm)   | 30" (750mm)   | 12   | 7(22)   |
| 13'-0" (4.0 m)        | 36" (900mm)   | 30" (750mm)   | 12   | 7(22)   |
| 15'-0'' (4.6 m)       | 36" (900mm)   | 30" (750mm)   | 12   | 7(22)   |
| 21'-0" (6.4 m)        | 42" (1060mm)  | 36" (900mm)   | 16   | 8(25)   |
| 25'-0" (7.6 m)        | 42" (1060mm)  | 36" (900mm)   | 16   | 8(25)   |
|                       | Depth  10'-0" (3.0 m)  13'-6" (4.1 m)  11'-0" (3.4 m)  13'-0" (4.0 m)  15'-0" (4.6 m) | Depth Diameter  10'-0" (3.0 m) 30" (750mm)  13'-6" (4.1 m) 30" (750mm)  11'-0" (3.4 m) 36" (900mm)  13'-0" (4.0 m) 36" (900mm)  15'-0" (4.6 m) 36" (900mm)  21'-0" (6.4 m) 42" (1060mm) | Depth         Diameter         Diameter           10'-0" (3.0 m)         30" (750mm)         24" (600mm)           13'-6" (4.1 m)         30" (750mm)         24" (600mm)           11'-0" (3.4 m)         36" (900mm)         30" (750mm)           13'-0" (4.0 m)         36" (900mm)         30" (750mm)           15'-0" (4.6 m)         36" (900mm)         30" (750mm)           21'-0" (6.4 m)         42" (1060mm)         36" (900mm) | Depth         Diameter         Diameter         Rebors           10'-0" (3.0 m)         30" (750mm)         24" (600mm)         8           13'-6" (4.1 m)         30" (750mm)         24" (600mm)         8           11'-0" (3.4 m)         36" (900mm)         30" (750mm)         12           13'-0" (4.0 m)         36" (900mm)         30" (750mm)         12           15'-0" (4.6 m)         36" (900mm)         30" (750mm)         12           21'-0" (6.4 m)         42" (1060mm)         36" (900mm)         16 |

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

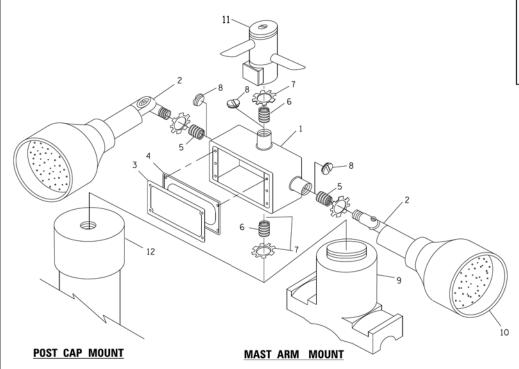
#### DEPTH OF MAST ARM FOUNDATIONS, TYPE E

|     | FILE NAME =                             | USER NAME = footemj          | DESIGNED - DAG  | REVISED - DAG 1-1-14 | ·                            |             | DISTRICT ONE                           | F.A.P.    | SECTION                     | COUNTY TOTAL | L SHEET |
|-----|---|------------------------------|-----------------|----------------------|------------------------------|-------------|--|-----------|-----------------------------|--------------|---------|
|     | c:\pw_work\pw1dot\footemj\d0108315\ts05 | dgn                          | DRAWN - BCK     | REVISED -            | STATE OF ILLINOIS            |             |  | 577       | D-EXT-N                     | WILL 140     | 133     |
|     |   | PLOT SCALE = 50.0000 ' / in. | CHECKED - DAD   | REVISED -            | DEPARTMENT OF TRANSPORTATION |             | STANDARD TRAFFIC SIGNAL DESIGN DETAILS |           | TS-05                       | CONTRACT NO. | 62CO9   |
| - 1 |   | PLOT DATE = 1/13/2014        | DATE - 10-28-09 | REVISED -            |                              | SCALE: NONE | SHEET NO. 5 OF 7 SHEETS STA. TO STA.   | FED. ROAD | D DIST. NO. 1 ILLINOIS FED. | AID PROJECT  |         |



- 1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- 2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- 3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

#### HANDHOLE WITH MINIMUM CONDUIT DEPTH (NOT TO SCALE)



# -CONTROLLER CABINET BASE PROPOSED -**TOP VIEW** (NOT TO SCALE) NO. 6 BARE COPPER WIRE NO. 3 DOWEL 18" (450mm) LONG (8 REQ.) BUSHING -\_GROUND CLAMP / ANCHOR BOLTS 1"(25mm) BEVEL -EXISTING CONDUITS XISTING GROUND ROD MODIFY EXISTING TYPE "D" FOUNDATION

(1675mm)

40.75"

(1035mm)

(136mm

(915mm

19.875"

(504mm)

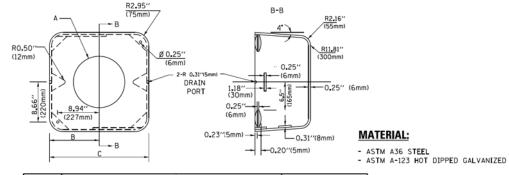
# TO TYPE "C" FOUNDATION

(NOT TO SCALE)

#### ITEM NO. IDENTIFICATION 1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET REDUCING BUSHING 1/4"(19 mm) CLOSE NIPPLE 74"(19 mm) LOCKNUT 74"(19 mm) HOLE PLUG SADDLE BRACKET - GALV. 6 WATT PAR 38 LED FLOOD LAMP DETECTOR UNIT POST CAP [18 FT. (5.4 m) POST MIN.]

#### NOTES:

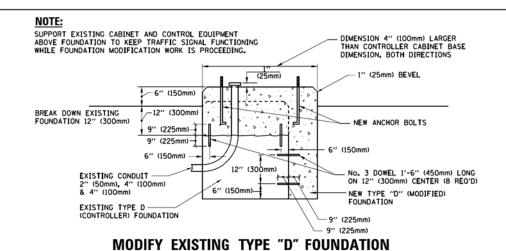
- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT ITEM \*2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM \*9 SHALL NOT BE REQUIRED. THE DETECTION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



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

#### SHROUD

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



# GALVANIZED TO BE REMOVED EXISTING CONDUIT TO REMAIN

SCALE: NONE

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.

ELEVATION

2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

#### HANDHOLE TO INTERCEPT EXISTING CONDUIT

PLAN

#### DAG 1-1-14 FILE NAME = DESIGNED -REVISED DRAWN ВСК REVISED REVISED CHECKED - DAD PLOT SCALE = 50.0000 ' / in-DATE 10-28-09 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TOTAL SHEE NO. COUNTY D-FXT-N WILL 140 134 STANDARD TRAFFIC SIGNAL DESIGN DETAILS TS-05 CONTRACT NO. 62CO9 SHEET NO. 6 OF 7 SHEETS STA.

