#### INDEX OF SHEETS COVER SHEET, LOCATION MAP, INDEX OF SHEETS, INDEX OF DISTRICT 1 DETAILS, GENERAL CONSTRUCTION NOTES, SPECIAL PROJECT NOTES, BENCHMARK STAMPED COLORED PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH DETAIL SUMMARY OF QUANTITIES TYPICAL SECTIONS, HOT-MIX ASPHALT MIXTURE REQUIREMENTS PLAN & PROFILE: 25TH STREET - (BEAUTIFICATION) - NORTH RIVERSIDE MALL ROAD TO HARLEM AVE. PLAN: 25TH STREET - (PAVEMENT MARKING) - NORTH RIVERSIDE MALL ROAD TO HARLEM AVE. INDEX OF DISTRICT 1 DETAILS BD-08 DETAILS FOR FRAMES AND LIDS ADJUSTMENTS WITH MILLING BD-22 PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT BD-32 BUTT JOINT AND HMA TAPER DETAILS TC-10 TRAFFIC CONTROL & PROTECTION FOR SIDE ROADS, INTERSECTIONS, & DRIVEWAYS TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKINGS TC-14 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS 15.) TC-16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING TS-05 STANDARD TRAFFIC SIGNAL DESIGN DETAILS 16-21.) TS-07 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING 22.) CROSS SECTIONS: 25TH STREET - (STA. 0+92 TO STA. 2+00) INDEX OF HIGHWAY STANDARDS STANDARD SYMBOLS, ABBREVATIONS, AND PATTERNS 000001-06 280001-07 TEMPORARY EROSION CONTROL SYSTEMS 420701-02 PAVEMENT FABRIC PERPENDICULAR CURB RAMPS FOR SIDEWALKS DIAGONAL CURB RAMPS FOR SIDEWALKS 424001-07 424006-01 424011-01 CORNER PARALLEL CURB RAMPS FOR SIDEWALKS 424021-02 DEPRESSED CORNER FOR SIDEWALKS 424026-01 ENTRANCE/ALLEY PEDESTRIAN CROSSING 442201-03 604001-03 CLASS C AND D PATCHES FRAMES & LIDS-TYPE 1 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB & GUTTER 606001-05 701427-02 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS < 40 MPH 701606-09 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN 701701-09 LIRRAN LANE CLOSURE, MULTILANE INTERSECTION SIDEWALK, CORNER OR CROSSWALK CLOSURE 701801-05 TRAFFIC CONTROL DEVICES 701901-03 TYPICAL PAVEMENT MARKINGS 780001-04 886001-01 DETECTOR LOOP INSTALLATIONS 886006-01 TYPICAL LAYOUTS FOR DETECTION LOOPS TRAFFIC DATA DESIGN DESIGNATION ADT: 25th STREET 3000 (2013) 847) POSTED SPEED DESIGN SPEED 25 MPH (PROPOSED) 1"=100' 1"=10" 1"=50" 1"=40" 1"=30 1"=20 FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS. THE ABOVE SCALES MAY BE USED. JOINT UTILITY LOCATION INFORMATION FOR Know what's below. EXCAVATION Call before you diq. CALL 811 Frank Novotny & Associates, Inc. 825 Midway Drive . Willowbrook, IL . 60527 . Telephone: (630) 887-8640 . Fax: (630) 887-0132 ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-000928 13255 DRAWN/DESIGNED JFP/AMS CHECKED/APPROVED JEF/JEF FNA PROJECT NO. 1 0 N BY DATE JEF 1-20-14 JEF 3-18-14

CONTRACT NO. 63847

STATE OF ILLINOIS 06-13-14 LETTING ITEM 205

DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

# **VILLAGE WIDE BIKE PATH - STAGE 3**

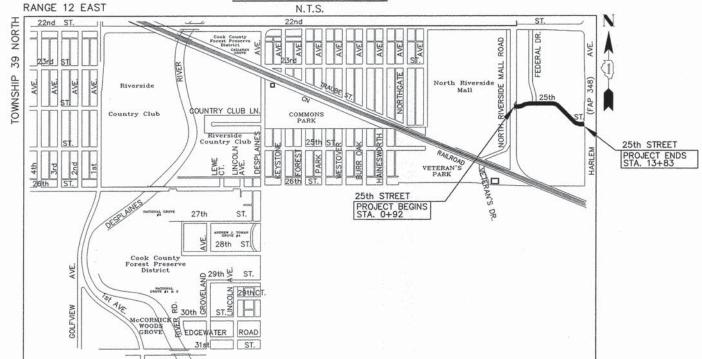
25TH STREET
NORTH RIVERSIDE MALL ROAD TO FAP 348 (HARLEM AVENUE)
BEAUTIFICATION

SECTION 06-00080-02-BT PROJECT HPP-3463 (007)

# VILLAGE OF NORTH RIVERSIDE COOK COUNTY

C-91-282-14

PROJECT LOCATION MAP



DENOTES LOCATION OF IMPROVEMENT

#### LENGTH OF PROJECT

GROSS LENGTH OF PROJECT NET LENGTH OF PROJECT

RIVERSIDE TOWNSHIP

1,291 FEET (0.244 MILES)

1,291 FEET (0.244 MILES)

3rd PRINCIPAL MERIDIAN

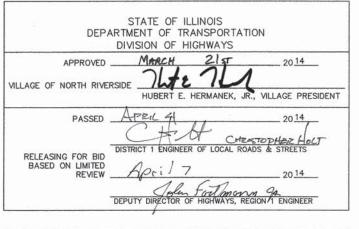
 FAU RTE
 SECTION
 COUNTY SHEET SHEET NO.

 NONE
 06-00080-02-BT
 COOK
 23
 1

 F.H.W.A. REG.
 ILLINOIS
 PROJECT
 HPP-3463 (007)

CONTRACT NO. 63847







PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

# GENERAL CONSTRUCTION NOTES PAVING AND STORM SEWERS

#### **SPECIFICATIONS**

THE JANUARY 1, 2012 EDITIONS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", PREPARED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" SHALL GOVERN ALL WORK ASSOCIATED WITH THIS PROJECT. THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" MAY GOVERN OTHER WORK ON THIS PROJECT AS INDICATED BY REFFRENCE THIS PROJECT AS INDICATED BY REFERENCE.

#### CARE IN EXCAVATION

CARE SHALL BE EXERCISED BY THE CONTRACTOR IN CARRYING OUT EARTH AND/OR TRENCHING OPERATIONS SO THAT LOCAL UTILITY SERVICES, WATER VALVES, MANHOLES, CATCH BASINS, INLETS, BUFFALO BOXES, AND OTHER STRUCTURES ARE NOT DAMAGED OR REMOVED. ANY DAMAGE DONE BY THE CONTRACTOR, WHETHER THE STRUCTURE OR SERVICE IS VISIBLE AT THE GROUND SURFACE OR NOT, SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLES 105.07

#### NOTIFICATION OF PUBLIC UTILITIES

PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OFFICIALS OF THE PUBLIC WORKS DEPARTMENT OF THE LOCAL MUNICIPALITY, J.U.L.I.E. AT 1-800-892-0123 OR 811, AND OTHER PUBLIC AND PRIVATE UTILITIES SO THAT ARRANGEMENTS CAN BE MADE TO LOCATE THEIR VARIOUS FACILITIES WITHIN THE LIMITS OF CONSTRUCTION UNDER THIS CONTRACT, AS WELL AS TO PROVIDE ADEQUATE PROTECTION AND INSPECTION THERETO. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES IN THE FIELD.

### TRAFFIC CONTROL DEVICES

BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 107.14 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

### PROTECTION OF SIGNS AND PROPERTY

ALL TRAFFIC SIGNS, STREET SIGNS, ETC., THAT INTERFERE WITH THE CONSTRUCTION OPERATIONS SHALL BE REMOVED AND PLACED AT NEW LOCATIONS AS DESIGNATED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. IN ADDITIONAL MAIL BOXES THAT INTERFERE WITH CONSTRUCTION SHALL BE SIMILARLY RELOCATED AT NO ADDITIONAL COST IN ACCORDANCE WITH ARTICLES 107.20 AND 107.21 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

SPECIAL ATTENTION IS DRAWN TO ARTICLE 105.06 OF THE "STANDARD SPECIFICATIONS FOR ROAD SPECIAL ATTENTION IS DRAWN TO ARTICLE 105.06 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" WHICH REQUIRES THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES, IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE CAPABLE OF READING AND UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT AND SHALL BE RESPONSIBLE FOR SCHEDULING AND HAVING CONTROL OF ALL THE WORK AS THE AGENT OF THE GENERAL CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS PROVIDED IN ARTICLE 108.07.

#### SAWING EXISTING IMPROVEMENTS

ALL PERMANENT TYPE PAVEMENTS OR OTHER PERMANENT IMPROVEMENTS WHICH ABUT THE PROPOSED IMPROVEMENT AND MUST BE REMOVED, SHALL BE SAWED AS DIRECTED PRIOR TO REMOVAL. ALL ITEMS SO REMOVED SHALL BE REPLACED WITH SIMILAR CONSTRUCTION MATERIALS TO THEIR ORIGINAL CONDITION OR BETTER. PAYMENT FOR SAWING SHALL BE INCLUDED IN THE COST FOR THE REMOVAL OF EACH ITEM, AND REPLACEMENT WILL BE PAID FOR UNDER THE RESPECTIVE ITEMS IN THE CONTRACT UNLESS OTHERWISE INDICATED. SAW CUTTING FOR PATCHES WILL BE INCLUDED IN THE COST OF TO THE PATCHING ITEM. EXISTING DRIVEWAY PAVEMENT AND SIDEWALK TO REMAIN IN PLACE SHALL BE SAWCUT TO PROVIDE A NEAT VERTICAL FACE BETWEEN THE PROPOSED AND THE EXISTING, AND SUCH COST SHALL BE

### CONSTRUCTION LAYOUT STAKES

CONSTRUCTION LAYOUT STAKES
THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WOODEN STAKES OR OTHER LAYOUT
MATERIALS FOR LAYOUT OF THE LINES AND GRADES OF THE PROJECT. FAILURE TO PROVIDE STAKES
IN A TIMELY MANNER WILL RESULT IN A DELAY IN STAKEOUT WHICH WILL BE APPLICABLE AGAINST
THE TIME LIMIT FOR COMPLETION SHOWN IN THE PROJECT SPECIFICATIONS. LINE AND GRADE WILL BE
ESTABLISHED BY THE ENGINEER AT REGULAR INTERVALS ON PERMANENTLY PAVED SUFFACES,
SIDEWALKS OR STAKES AT THE REGISIEER'S OPTION, ALL WITHIN THE PUBLIC RIGHT—OF—WAY AND
SHALL BE TRANSFERRED BY THE CONTRACTOR TO THE ACTUAL LINE OF CONSTRUCTION.

# PROJECT SAFETY

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1-1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FRO THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE CONTRACTOR SHALL COMPLY WITH AND OBSERVE THE RULES AND REGULATIONS OF O.S.H.A. AND APPROPRIATE AUTHORITIES RECARDING SAFETY PROVISIONS. THE CONTRACTOR, ENGINEER, AND OWNER SHALL EACH BE RESPONSIBLE FOR THEIR OWN RESPECTIVE AGENTS AND EMPLOYEES.

THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS, OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE DOCUMENTS AND SPECIFICATIONS.

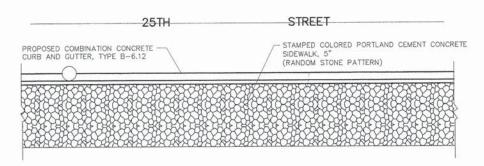
THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

# SPECIAL PROJECT NOTES

- ALL SAWCUTS SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS FOR WHICH THE WORK APPLIES,
- 2) ALL EXISTING FRAMES AND LIDS THAT ARE TO BE REPLACED (AS DIRECTED BY THE ENGINEER), SHALL BE SALVAGED TO THE CONTRACTOR.
- 3) ALL COMED HANDHOLES TO BE ADJUSTED (BY OTHERS).
- 4) MEET EXISTING CURB AND FLOW LINE ELEVATIONS AT REPLACEMENT LIMITS.
- NEW CURB AND GUTTER SHALL BE BACKFILLED WITH SUITABLE MATERIAL AT LOCATIONS REQUIRING SOD RESTORATION AND SHALL BE CONSIDERED INCLUDED IN THE COST OF "COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12".

# BENCHMARKS

TOP OF NW BOLT ON FIRE HYDRANT AT STA. 5+70, LT. USGS DATUM: ELEV.=619.69



STAMPED COLORED PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH DETAIL

Frank Novotny & Associates, Inc. 825 Midway Drive • Willowbrook, IL • 60527 • Telephone: (630) 887-8640 • Fax: (630) 887-0 ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-000928

SER NAME = DESIGNED - AMS REVISED - JEF 1-20-14 REVISED - JEF 3-18-14 VILLAGE OF NORTH RIVERSIDE DRAWN 25TH STREET REVISED - JEF 5-2-14 HECKED - JEF PLOT SCALE = NORTH RIVERSIDE MALL ROAD TO FAP 348 (HARLEM AVENUE) BEAUTIFICATION PLOT DATE =

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL CONSTRUCTION NOTES SPECIAL PROJECT NOTES. BENCHMARK, STAMPED COLORED PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH DETAIL SHEET NO. OF SHEETS STA

SECTION COUNTY COOK 23 2 NONE 06-00080-02-BT CONTRACT NO. 63847 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT HPP-3463 (007)

| Specialty<br>Item | Special<br>Provision | Code<br>No           | ltem   | Unit  | Total<br>Quantity | Construction Code Type 0005 |
|-------------------|----------------------|----------------------|--|-------|-------------------|-----------------------------|
|                   |                      |                      |  |       | 250               |                             |
|                   |                      | 20200100             | EARTH EXCAVATION                                   | CU YD | 250               | 250                         |
|                   |                      | 20201200             | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL        | CU YD | 75                | 75                          |
|                   |                      | 21101615             | TOPSOIL FURNISH AND PLACE, 4"                      | SQ YD | 400               | 400                         |
|                   |                      | 25000400             | NITROGEN FERTILIZER NUTRIENT                       | POUND | 1                 | 1                           |
|                   |                      | 25000600             | POTASSIUM FERTILIZER NUTRIENT                      | POUND | 11                | 1                           |
|                   |                      | 25200110             | SODDING SALT TOLERANT                              | SQ YD | 400               | 400                         |
|                   |                      | 28000510             | INLET FILTERS                                      | EACH  | 11                | 11                          |
|                   | SP                   | 30300001             | AGGREGATE SUBGRADE IMPROVEMENT                     | CU YD | 75                | 75                          |
|                   |                      | 31101200             | SUBBASE GRANULAR MATERIAL, TYPE B 4"               | SQ YD | 570               | 570                         |
|                   |                      | 35300300             | PORTLAND CEMENT BASE COURSE 8"                     | SQ YD | 360               | 360                         |
|                   |                      | 35501320             | HOT-MIX ASPHALT BASE COURSE, 9"                    | SQ YD | 570               | 570                         |
|                   |                      | 40201000             | AGGREGATE FOR TEMPORARY ACCESS                     | TON   | 100               | 100                         |
|                   |                      | 40600400             | MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS         | TON   | 20                | 20                          |
|                   |                      | 40600535             | LEVELING BINDER (MACHINE METHOD), N70              | TON   | 405               | 405                         |
|                   |                      | 40600982             | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT       | SQ YD | 45                | 45                          |
|                   |                      | 40603340             | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70       | TON   | 830               | 830                         |
|                   |                      | 42001200             | PAVEMENT FABRIC                                    | SQ YD | 100               | 100                         |
|                   |                      | 42300400             | PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH | SQ YD | 100               | 100                         |
|                   |                      | 42400200             | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH           | SQ FT | 1535              | 1535                        |
|                   |                      | 42400800             | DETECTABLE WARNINGS                                | SQ FT | 270               | 270                         |
|                   |                      | 44000100             | PAVEMENT REMOVAL                                   | SQ YD | 295               | 295                         |
|                   |                      | 44000161             | HOT-MIX ASPHALT SURFACE REMOVAL, 3"                | SQ YD | 6600              | 6600                        |
|                   |                      | 44000169             | HOT-MIX ASPHALT SURFACE REMOVAL, 5"                | SQ YD | 570               | 570                         |
|                   |                      | Contract of the same |  |       |                   |                             |
|                   |                      | 44000200             | DRIVEWAY PAVEMENT REMOVAL                          | SQ YD | 100               | 100                         |
|                   |                      | 44000500             | COMBINATION CURB AND GUTTER REMOVAL                | FOOT  | 2660              | 2660                        |
|                   |                      | 44000600             | SIDEWALK REMOVAL                                   | SQ FT | 11000             | 11000                       |
|                   |                      | 44201749             | CLASS D PATCHES, TYPE I, 9 INCH                    | SQ YD | 25                | 25                          |

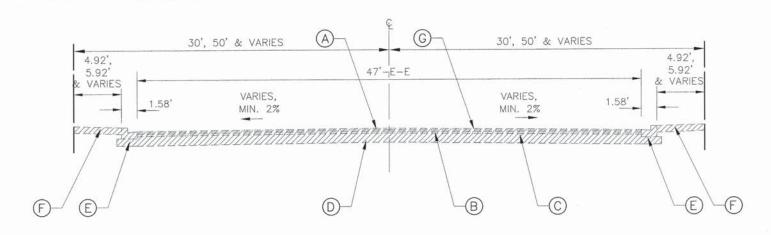
| pecialty | Special   | Code     |  |       | Total    | Construction Code |
|----------|-----------|----------|--|-------|----------|-------------------|
| Item     | Provision | No       | ltem   | Unit  | Quantity | Type 0005         |
|          |           | 44201757 | CLASS D PATCHES, TYPE III, 9 INCH                        | SQ YD | 100      | 100               |
|          |           | 44201759 | CLASS D PATCHES, TYPE IV, 9 INCH                         | SQ YD | 300      | 300               |
|          |           | 44300100 | AREA REFLECTIVE CRACK CONTROL TREATMENT                  | SQ YD | 6600     | 6600              |
|          |           | 60255500 | MANHOLES TO BE ADJUSTED                                  | EACH  | 4        | 4                 |
|          |           | 60260100 | INLETS TO BE ADJUSTED                                    | EACH  | 12       | 12                |
|          |           | 60265700 | VALVE VAULTS TO BE ADJUSTED                              | EACH  | 1        | 1                 |
|          |           | 60406000 | FRAMES AND LIDS, TYPE 1, OPEN LID                        | EACH  | 9        | 9                 |
|          |           | 60406100 | FRAMES AND LIDS, TYPE 1, CLOSED LID                      | EACH  | 4        | 4                 |
|          |           | 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE 8-6.12        | FOOT  | 2660     | 2660              |
|          |           | 67100100 | MOBILIZATION   | L SUM | 1        | 1                 |
|          |           | 70102625 | TRAFFIC CONTROL AND PROTECTION, STANDARD, 701606         | L SUM | 1        | 1                 |
|          |           | 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD, 701701         | L SUM | 1        | 11                |
|          |           | 70102640 | TRAFFIC CONTROL AND PROTECTION, STANDARD, 701801         | L SUM | 1        | 1                 |
|          |           | 70300100 | SHORT TERM PAVEMENT MARKING                              | FOOT  | 1000     | 1000              |
|          |           | 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL                       | SQ FT | 575      | 575               |
| *        |           | 78000100 | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS     | SQ FT | 150      | 150               |
| *        |           | 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                 | FOOT  | 2800     | 2800              |
| *        |           | 78000400 | THERMOPLASTIC PAVEMENT MARKING - LINE 6"                 | FOOT  | 250      | 250               |
| *        |           | 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                | FOOT  | 35       | 35                |
| *        |           | 88600600 | DETECTOR LOOP REPLACEMENT                                | FOOT  | 486      | 486               |
|          | SP        | X0795800 | COARSE AGGREGATE   | TON   | 100      | 100               |
|          | SP        | X4060110 | BITUMINOUS MATERIALS (PRIME COAT)                        | POUND | 2970     | 2970              |
|          | SP        | X6030310 | FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)                 | EACH  | 9        | 9                 |
| *        | SP        | X8140115 | HANDHOLE TO BE ADJUSTED                                  | EACH  | 6        | 6                 |
|          | SP        | Z0048400 | RAILROAD CROSSING REMOVAL                                | EACH  | 1        | 11                |
|          | SP        | Z0048900 | RAILROAD TRACK REMOVAL                                   | FOOT  | 200      | 200               |
|          | SP        | XX008257 | STAMPED COLORED PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 9285     | 9285              |

| NAME  | USER NAME =  | DESIGNED - AMS  | REVISED - JEF 1-20-14 |
|---|--------------|-----------------|-----------------------|
| VILLAGE OF NORTH RIVERSIDE                              |              | DRAWN - JEP-JFP | REVISED - JEF 3-18-14 |
| 25TH STREET FRSIDE MALL ROAD TO FAP 348 (HARLEM AVENUE) | PLOT SCALE = | CHECKED - JEF   | REVISED - JEF 5-2-14  |
| REALITIFICATION   | PLOT DATE =  | DATE - 12-4-13  | REVISED -             |

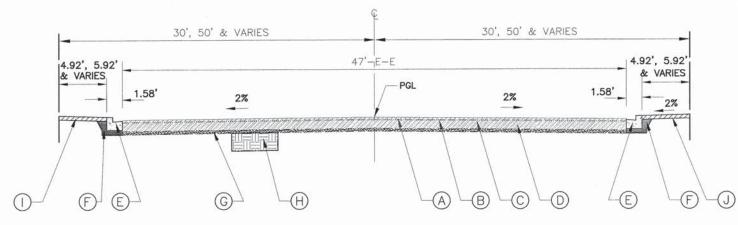
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE SHEET NO. OF SHEETS STA.

| COUNTY | TOTAL | SHEE'  |
|--------|-------|--------|
| COOK   | 23    | 3      |
|        | соок  | SHEETS |



EXISTING TYPICAL SECTION STA. 0+92 TO STA. 2+00, 25TH STREET



PROPOSED TYPICAL SECTION STA. 0+92 TO STA. 2+00, <u>25TH STREET</u>

# EXISTING LEGEND

- (A) HOT-MIX ASPHALT SURFACE COURSE, 1-1/2" TO BE REMOVED
- (B) LEVELING BINDER, 1-1/2" TO BE REMOVED
- (C) HOT-MIX ASPHALT BINDER COURSE, 2", TO BE REMOVED
- (D) AGGREGATE BASE COURSE TO BE REMOVED (PAID FOR AS "EARTH EXCAVATION")
- (E) COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12 TO BE REMOVED
- (F) SIDEWALK AND GRASS PARKWAY TO BE REMOVED OR RESTORED
- (G) PROPOSED "HOT-MIX ASPHALT SURFACE REMOVAL, 5 INCH", (FULL WIDTH) AS SHOWN ON PLANS

INDICATES REMOVAL WORK

NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING.

| HOT-MIX ASPHALT MIXTURE REQU   | IREMENTS    |       |
|--|-------------|-------|
|  | AIR VOIDS   | 1     |
| MIXTURE TYPE   | @ NDES      |       |
| PAVEMENT RESURFACING   |             |       |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm)             | 4% @ 70 GYR | QC/0A |
| LEVELING BINDER (MACHINE METHOD), N70, (IL-9.5mm)                    | 4% @ 70 GYR | QC/QA |
| PAVEMENT RECONSTRUCTION  |             |       |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm), 2"         | 4% @ 70 GYR | Q4/0A |
| LEVELING BINDER (MACHINE METHOD), N70, (IL-9.5mm), 1"                | 4% @ 70 GYR | QC/QA |
| HOT-MIX ASPHALT BASE COURSE, 9" (HMA BINDER, IL-19.0mm) (IN 3 LIFTS) | 4% @ 70 GYR | QC/QA |
| PATCHING   |             |       |
| CLASS D PATCHES, TYPE I-IV, 9" (HMA BINDER, IL-19.0mm) (IN 3 LIFTS)  | 4% @ 70 GYR | QC/QA |

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

"THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS

FOR HMA FULL DEPTH "AC TYPE" SEE SPECIAL PROVISIONS

FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS

# PROPOSED LEGEND

- (A) "HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70", 2 INCH
- (B) "LEVELING BINDER (MACHINE METHOD), N70", 1 INCH
- (C) "BITUMINOUS MATERIALS (PRIME COAT)"
- D "HOT-MIX ASPHALT BASE COURSE, 9 INCH"
- (E) "COMBINATION CURB AND GUTTER REMOVAL" AND "COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12"
- (F) "COARSE AGGREGATE" BACKFILL BENEATH SIDEWALK AND CONCRETE CURB AND GUTTER
- © "SUBBASE GRANULAR MATERIAL, TYPE B, 4 INCH"
- H "AGGREGATE SUBGRADE IMPROVEMENT" AND "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL"-AS DIRECTED AT LOCATIONS BY THE ENGINEER

# AS APPLICABLE

1 "TOP SOIL FURNISH AND PLACE, 4 INCH" "SODDING, SALT TOLERANT"

OR

J "SIDEWALK REMOVAL" AND "PORTLAND CEME

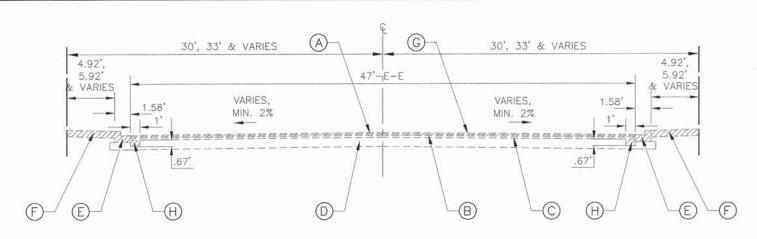
# IMPORTANT!

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES INDICATED IN TITLE BLOCK.

| ENT CONCRETE SIDEWALK, 5 INCH" | Frank Novotny & Associates, Inc.  155 Midway Drive • Willowbreak, L. • 6627 • Telephone: (50) 887-860 • Fax: (50) 887-0122  Millowise PROFESSIONAL DESIGN FIRM NO. 184-00028 |   |  |  |  |  |
|--------------------------------|--|---|--|--|--|--|
|                                | F.A.U. SECTION COUNTY TOTAL SHEE   | T |  |  |  |  |
| TYPICAL SECTIONS               | NONE 06-00080-02-BT COOK 23 4  |   |  |  |  |  |

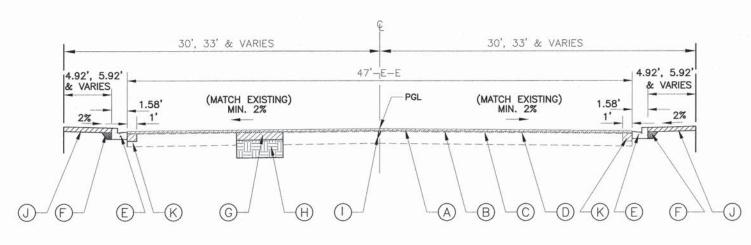
REVISED - JEF 1-20-14 REVISED - JEF 3-18-14 SER NAME = VILLAGE OF NORTH RIVERSIDE STATE OF ILLINOIS DRAWN - JEP-JFF 25TH STREET CHECKED - JEF PLOT SCALE = REVISED -DEPARTMENT OF TRANSPORTATION NORTH RIVERSIDE MALL ROAD TO FAP 348 (HARLEM AVENUE BEAUTIFICATION

SCALE: 1"=5" SHEET NO. OF SHEETS STA. TO STA. CONTRACT NO. 63847



EXISTING TYPICAL SECTION

STA. 2+00 TO STA. 13+83, 25TH STREET



ALL "AREA REFLECTIVE CRACK CONTROL TREATMENT" SHALL HAVE A WEIGHT OF 6 OZ. PER SQUARE YARD.

# PROPOSED TYPICAL SECTION

STA. 2+00 TO STA. 13+83, 25TH STREET

# EXISTING LEGEND

- (A) HOT-MIX ASPHALT SURFACE COURSE, 1-1/2" TO BE REMOVED
- B) LEVELING BINDER, 1-1/2" TO BE REMOVED
- (C) HOT-MIX ASPHALT BINDER COURSE, 2", TO REMAIN
- (D) AGGREGATE BASE COURSE TO REMAIN
- (E) COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12 TO BE REMOVED
- (F) SIDEWALK, DRIVEWAY AND GRASS PARKWAY TO BE REMOVED OR RESTORED
- © PROPOSED "HOT-MIX ASPHALT SURFACE REMOVAL, 3 INCH", (FULL WIDTH) AS SHOWN ON PLANS
- (H) PROPOSED "PAVEMENT REMOVAL"

INDICATES REMOVAL WORK

# PROPOSED LEGEND

- (A) "HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70", 2 INCH
- (B) "AREA REFLECTIVE CRACK CONTROL TREATMENT" (6 OZ.) BETWEEN LEVELING BINDER AND SURFACE COURSE
- C "LEVELING BINDER (MACHINE METHOD), N70", 1 INCH
- (D) "BITUMINOUS MATERIALS (PRIME COAT)" AT 0.10 GAL/S.Y.
- (E) "COMBINATION CURB AND GUTTER REMOVAL" AND "COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12"
- (F) "COARSE AGGREGATE" BACKFILL BENEATH SIDEWALK
- © "CLASS D PATCHES, TYPE I-IV, 9 INCH"-AS DIRECTED AT LOCATIONS BY THE ENGINEER
- H "AGGREGATE SUBGRADE IMPROVEMENT" AND "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL"-AS DIRECTED AT LOCATIONS BY THE ENGINEER
- () "MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS" AS APPLICABLE
- (J) "SIDEWALK REMOVAL" AND "PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH"

"STAMPED COLORED PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH"

"DRIVEWAY PAVEMENT REMOVAL" AND REPLACEMENT WITH "PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH" AND "PAVEMENT FABRIC"

"TOP SOIL FURNISH AND PLACE, 4 INCH" "SODDING, SALT TOLERANT"

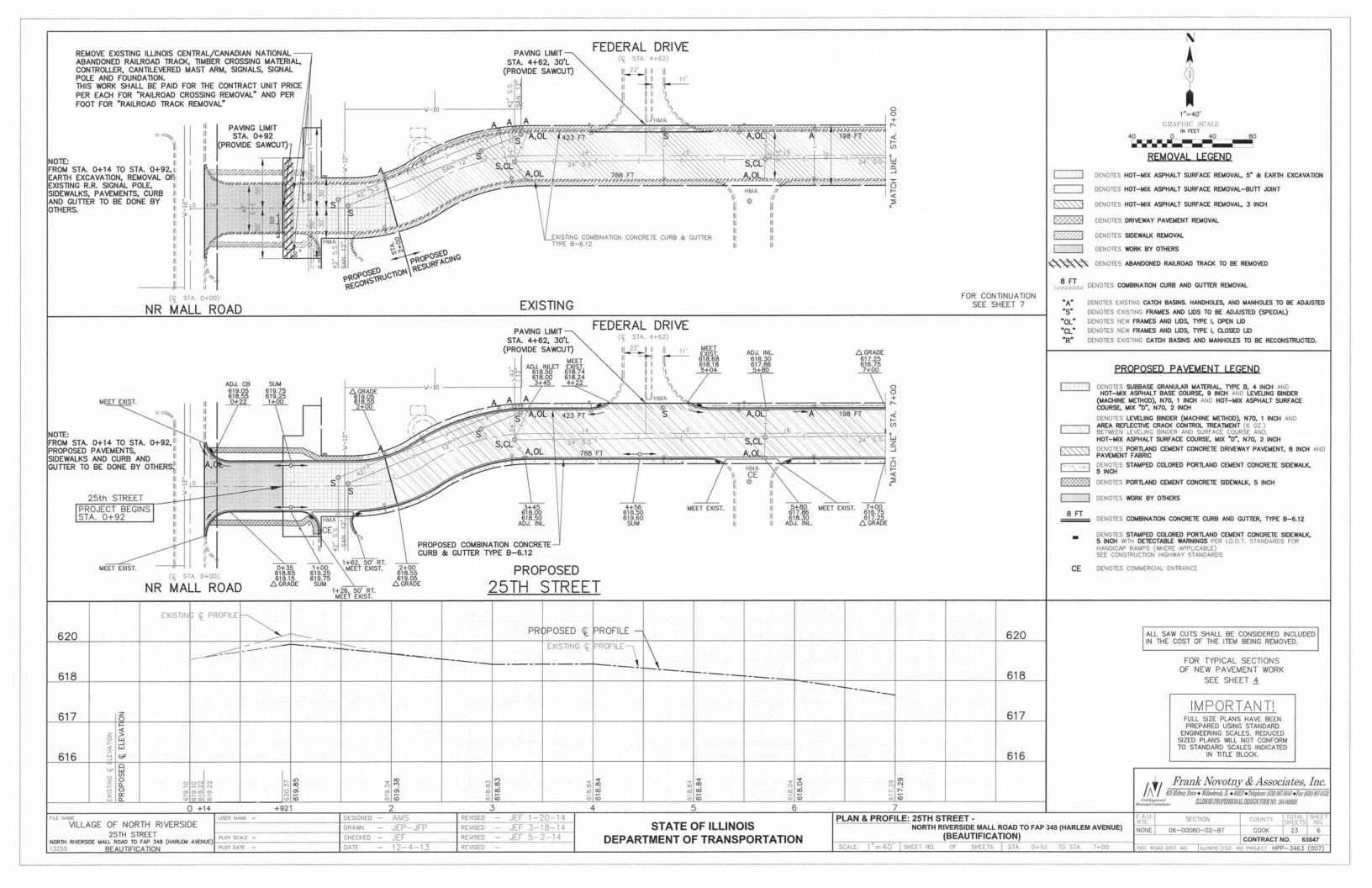
(K) "PORTLA

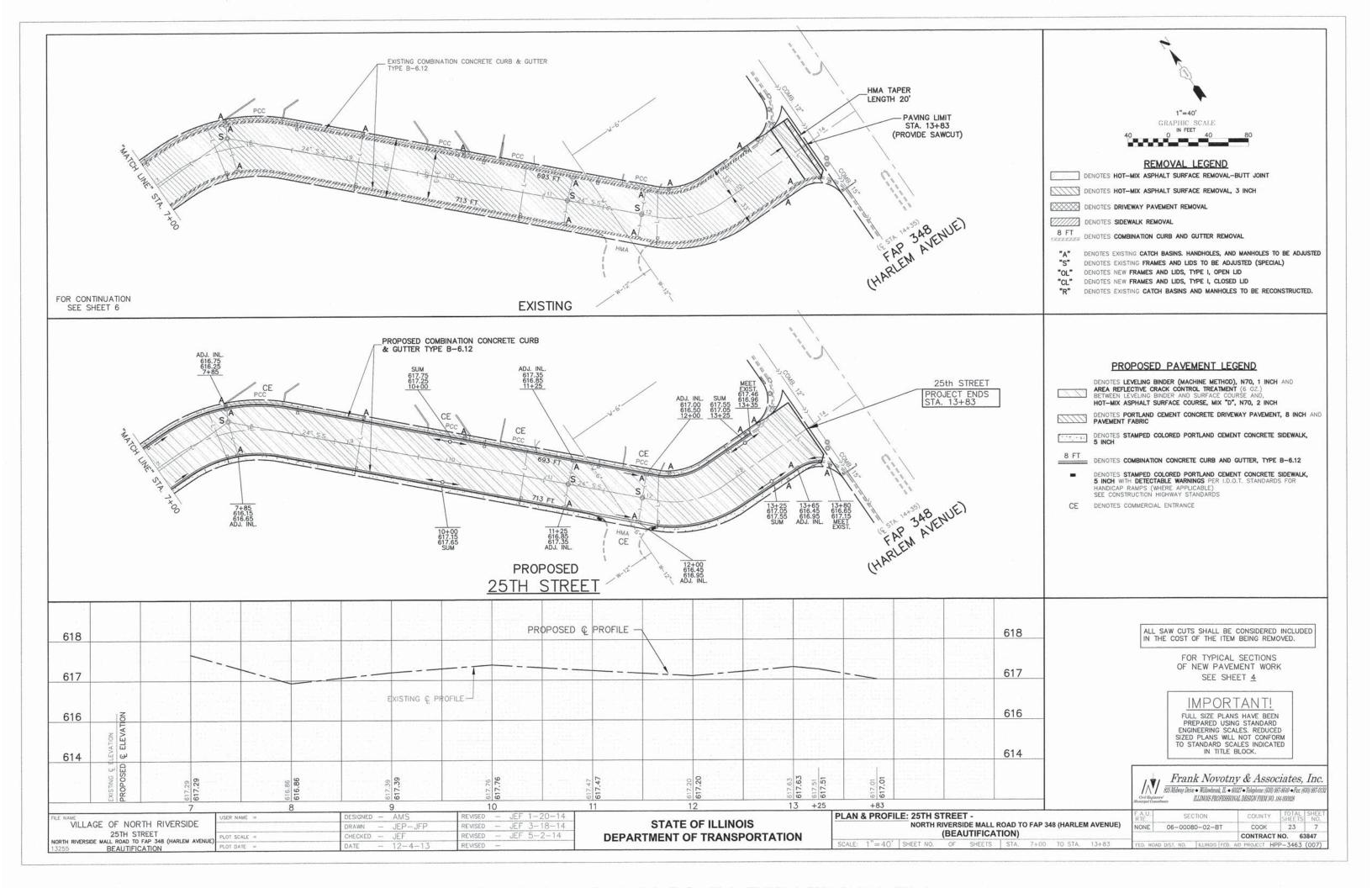
# IMPORTANT.

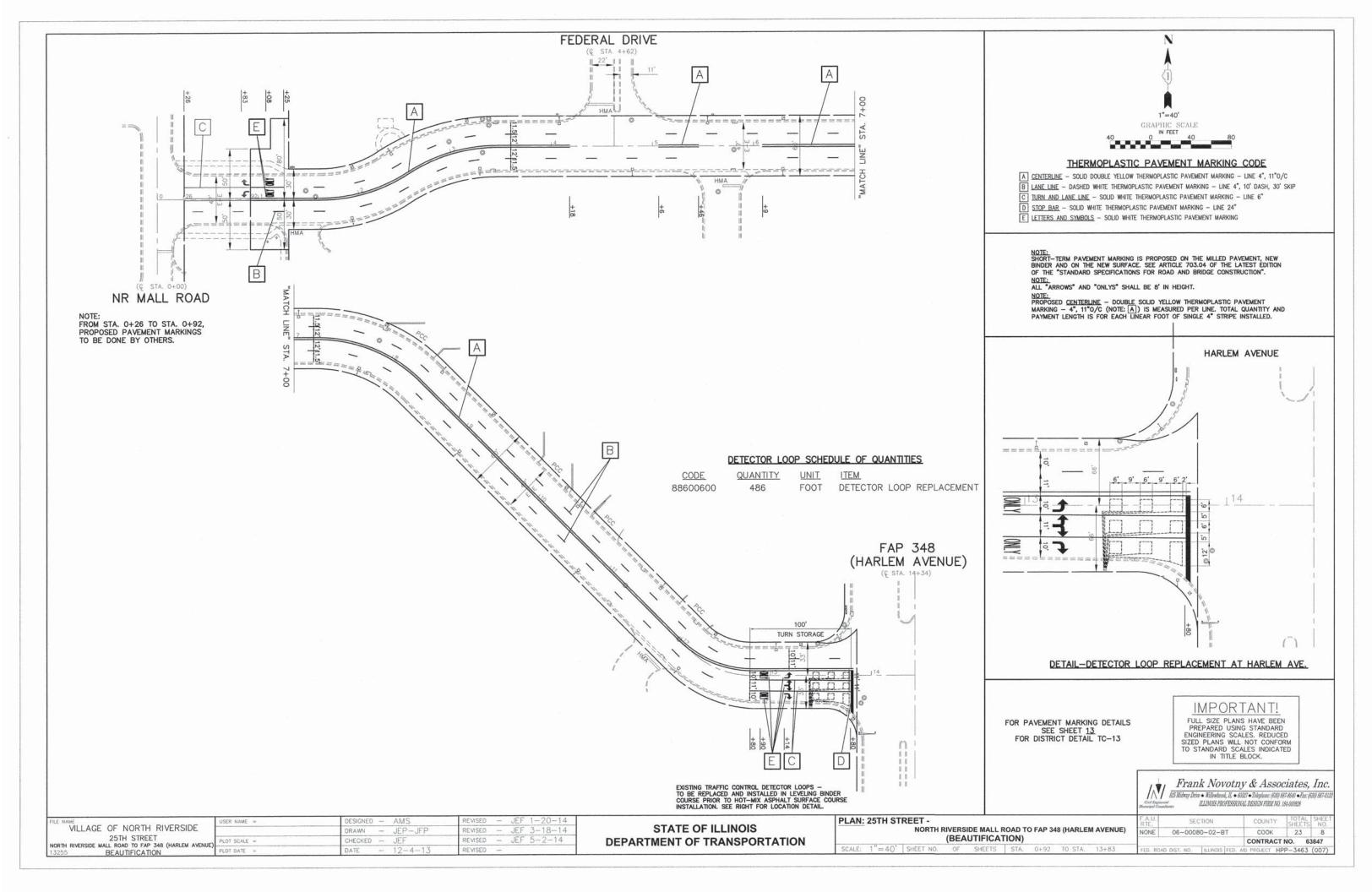
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES INDICATED IN TITLE BLOCK.

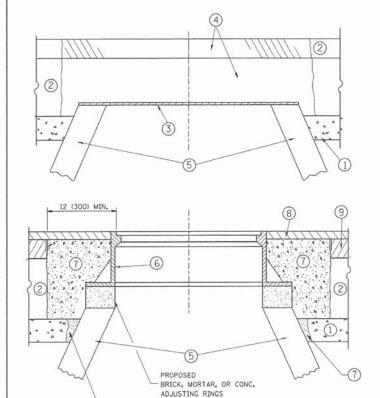
| NG, SALT TOLERANT               | Frank Novotny & Associates, Inc.  |
|---------------------------------|---|
| AND CEMENT BASE COURSE, 8 INCH" | 25 Midway Drive • Willowbrook, IL • 60527 • Telephone: (630) 887-8640 • Fax: (630) 887-0132 |
|                                 | Civil Engineers'  ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-000928                          |

REVISED - JEF 1-20-14 REVISED - JEF 3-18-14 SER NAME = DESIGNED - AMS SECTION COUNTY VILLAGE OF NORTH RIVERSIDE STATE OF ILLINOIS TYPICAL SECTIONS JEP-JFF DRAWN --COOK NONE 06-00080-02-BT 23 25TH STREET - JEF 5-2-14 REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 63847 NORTH RIVERSIDE MALL ROAD TO FAP 348 (HARLEM AVENUE) SCALE: 1"=5" SHEET NO. OF SHEETS STA. PLOT DATE = DATE AID PROJECT HPP-3463 (007 BEAUTIFICATION









#### 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
PEMOVAL 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
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40)
  THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

#### STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID: ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS 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 ENGINEER."

#### 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
- 8 PROPOSED HMA SURFACE COURSE
- PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 9 PROPOSED HMA BINDER COURSE
- 5 EXISTING STRUCTURE

#### 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 (SPECIAL)."

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

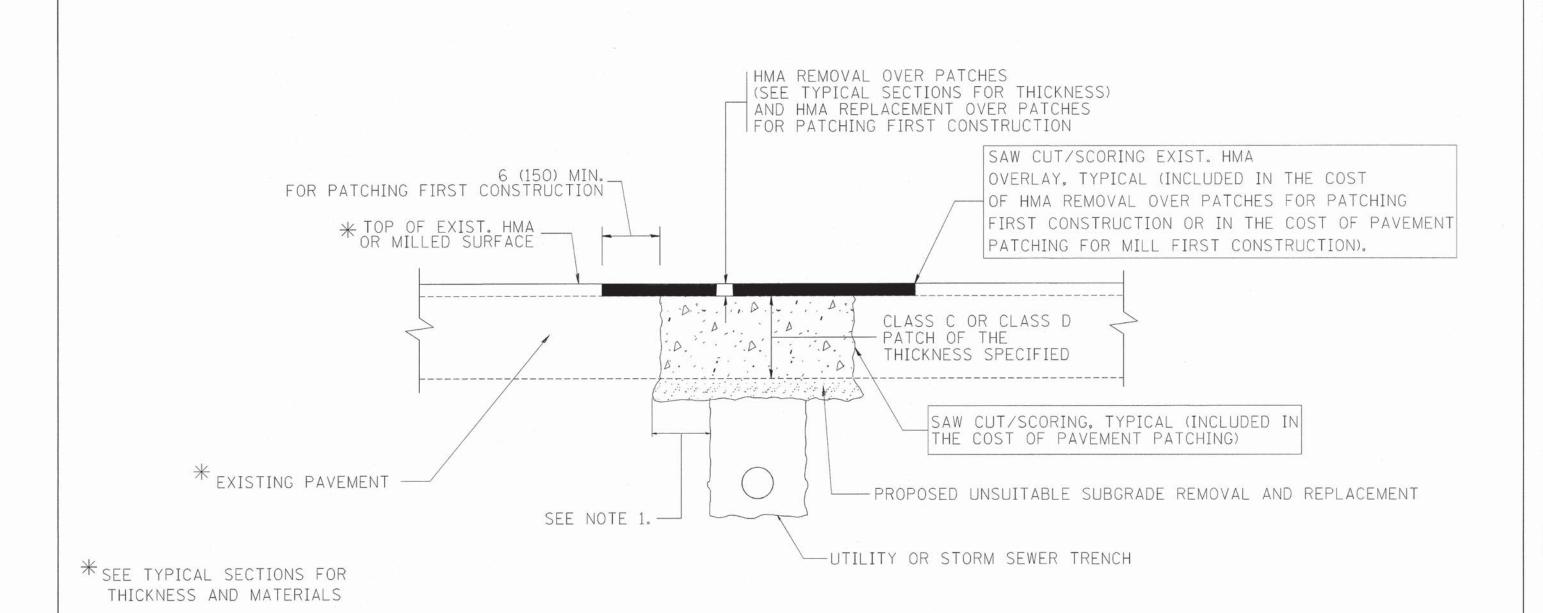
| FILE NAME =                                | USER NAME = bewordl         | DESIGNED - R. SHAH | REVISED - R. WIEDEMAN 05-14-04 |
|--|-----------------------------|--------------------|--------------------------------|
| c:\pw.work\pwidot\bauerdl\d0108315\bd08.eg | n                           | DRAWN -            | 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

|             | DETAILS FOR |      |         |           |         |     |
|-------------|-------------|------|---------|-----------|---------|-----|
|             | FRAMES AND  | LIDS | ADJUSTN | MENT WITH | MILLING |     |
| SCALE: NONE | SHEET NO. 1 | 0F 1 | SHEETS  | STA.      | TO      | STA |

F.A.U. SECTION COUNTY TOTAL SHEETS NO. NONE 06-00080-02-BT COOK 23 9

BD600-03 (BD-8) CONTRACT NO. 63847
FEO. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT HDP. 3463 (002)



# NOTES:

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

# SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

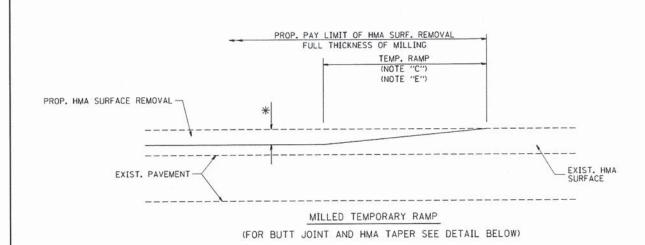
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

# SEQUENCE OF CONSTRUCTION (MILLING FIRST)

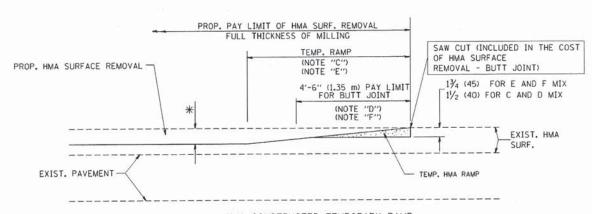
- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED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

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

| FILE NAME =                       | USER NAME = bouerdl         | DESIGNED - R. SHAH | REVISED - A. ABBAS 04-27-98 |                              |             | PAVEMENT PATCHING FOR        | 1       | F.A.U. | SECTION          | COUNTY         | TOTAL SHEET    |
|-----------------------------------|-----------------------------|--------------------|-----------------------------|------------------------------|-------------|------------------------------|---------|--------|------------------|----------------|----------------|
| c:\projects\diststd22x34\bd22.dgn |                             | DRAWN -            | REVISED - R. BORO 01-01-07  | STATE OF ILLINOIS            |             |                              |         | NONE   | 06-00080-02-BT   | COOK           | 23 10          |
|                                   | PLOT SCALE = 50.000 ' / IN. | CHECKED -          | REVISED - R. BORO 09-04-07  | DEPARTMENT OF TRANSPORTATION |             | HMA SURFACED PAVEMEN         | 1       |        | BD400-04 (BD-22) | CONTRACT       | T NO. 63847    |
|                                   | 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. | -      |                  | AID PROJECT HE | IPP-3463 (007) |



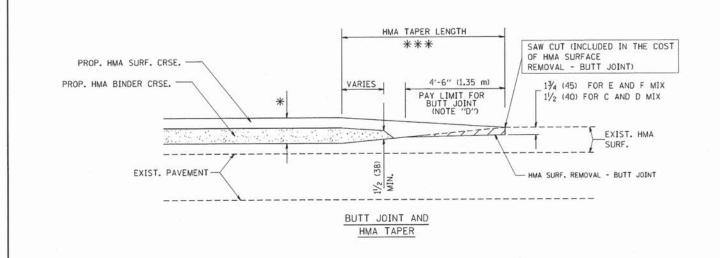
# OPTION 1



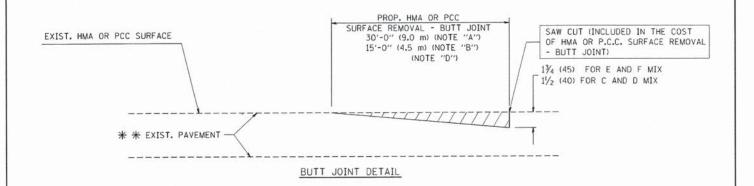
HMA CONSTRUCTED TEMPORARY RAMP (FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

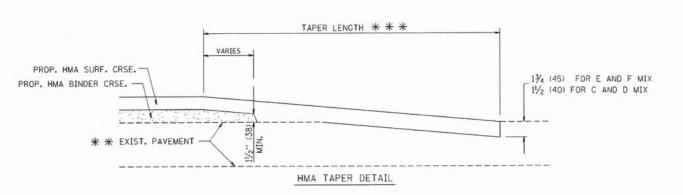
# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# 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:

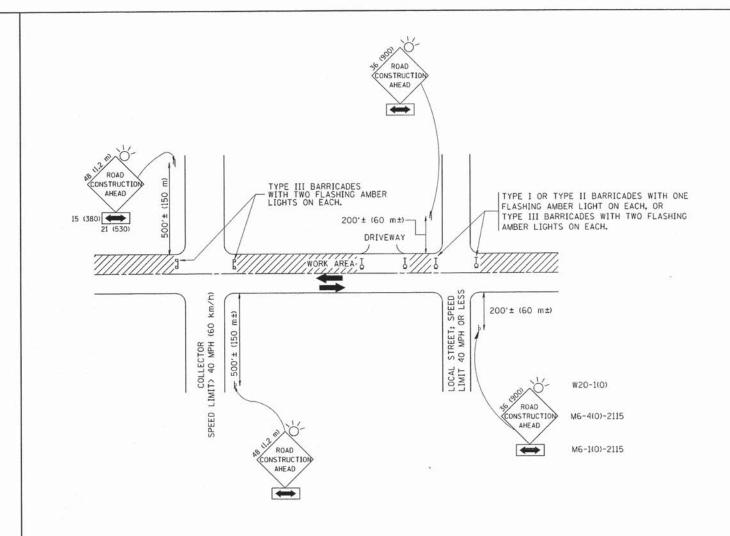
- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SOUARE YARD (SOUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL BUTT JOINT".

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

| FILE NAME =               | USER NAME = gaglianobt       | DESIGNED - M. DE YONG | REVISED - R. SHAH 10-25-94  |
|---------------------------|------------------------------|-----------------------|-----------------------------|
| Wi\distatd\22x34\bd32.dgn |                              | DRAWN -               | REVISED - A. ABBAS 03-21-97 |
|                           | PLOT SCALE = 50.0000 ' / IN. | CHECKED -             | REVISED - M. GOMEZ 04-06-01 |
|                           | PLOT DATE = 1/4/2008         | DATE - 06-13-90       | REVISED - R. BORO 01-01-07  |

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

|             | BUTT JOINT AND          |       |         |           | SECTION                       | COUNTY       | SHEETS  | NO.   |
|-------------|-------------------------|-------|---------|-----------|-------------------------------|--------------|---------|-------|
|             | HMA TAPER DETAILS       |       |         | NONE      | 06-00080-02-BT                | COOK         | 23      | 11    |
|             | HIVIA TAPER DE          | TAILS |         | В         | 3D400-05 BD32                 | CONTRACT     | NO.     | 63847 |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA.  | TO STA. | FED. ROAD | DIST. NO. 1   ILLINOIS FED. A | ID PROJECT H | PP-3463 | (007) |



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

# NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36  $\times$  36 (900 $\times$ 900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 48 × 48 (1.2 m × 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

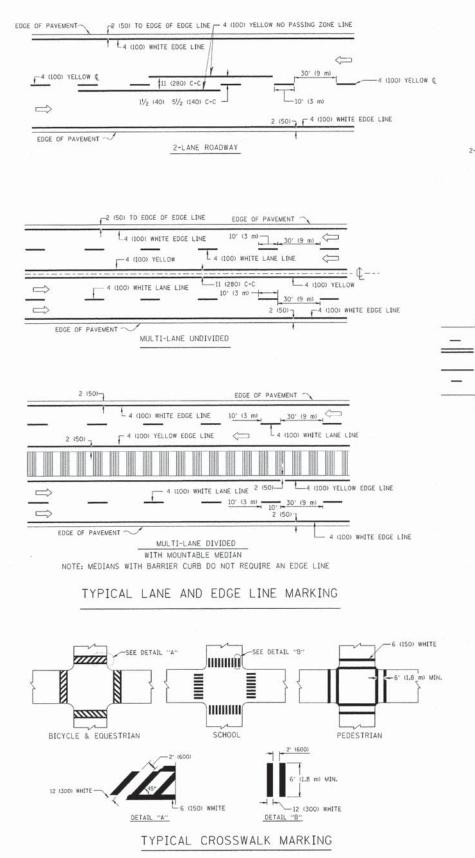
All dimensions are in millimeters (inches) unless otherwise shown.

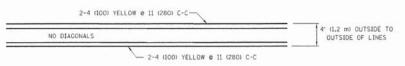
FILE NAME = USER NAME = goglionobt DESIGNED - LHA REVISED - J. OBERLE 10-18-95

| DRAWN - REVISED - A. HOUSEH 03-06-96
| PLOT SCALE = 50.000 '/ IN, CHECKED - REVISED - A. HOUSEH 10-15-96
| PLOT DATE = 1/4/2008 DATE - 06-89 REVISED - T. RAMMACHER 01-06-06

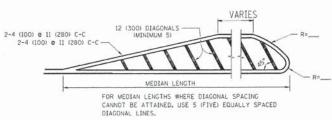
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

|             | TRAFFI    | C CONTE  | OL AND F  | ROTECTION  | FOR     |
|-------------|-----------|----------|-----------|------------|---------|
|             | SIDE ROA  | DS, INTE | RSECTIONS | , AND DRIV | EWAYS   |
| SCALE: NONE | SHEET NO. | 1 OF 1   | SHEETS    | STA.       | TO STA. |



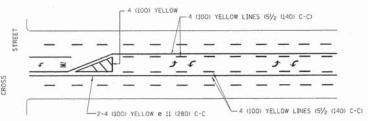


### 4' (1.2 m) WIDE MEDIANS ONLY



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

#### MEDIANS OVER 4' (1.2 m) WIDE

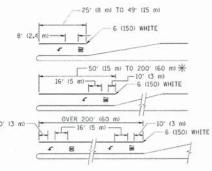


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING



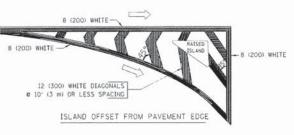
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.

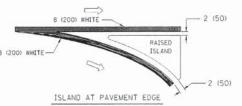
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

# TYPICAL TURN LANE MARKING





# TYPICAL ISLAND MARKING

| TYPE OF MARKING   | WIDTH OF LINE   | PATTERN                | COLOR   | SPACING / REMARKS  |
|---|---|------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT   | 4 (100)   | SKIP-DASH              | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE  |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT   | 2 @ 4 (100)   | SOLID                  | YELLOW  | 11 (280) C-C   |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS                                | 4 (100)<br>2 ø 4 (100)  | SOLID<br>SOLID         | YELLOW<br>YELLOW  | 5½ (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 MOUNTABLE MEDIANS IN<br>YELLOW: EDGE LINES ARE NOT<br>USED NEXT TO BARRIER CURB  |
| 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   | SKIP-DASH<br>AND SOLID | YELLOW  | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE  |
|   | 8' (2.4m) LEFT ARROW  | IN PAIRS               | WHITE   | SEE TYPICAL TWO-WAY LEFT TURN<br>MARKING DETAIL  |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 8 6 (150)<br>12 (300) 8 45°<br>12 (300) 8 90°   | 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>SEE TYPICAL CROSSWALK MARKING DETAILS.   |
| STOP LINES  | 24 (600)  | SOL10                  | WHITE   | PLACE 4' (1.2 M) IN ADVANCE OF AND PARALLEL TO CROSSMALK, IF PRESENT. OTHERMISE, 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°  | SOLIO                  | WHITE   | DIAGONALS:<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 0F:<br>"R"=3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH<br>"X"=54.0 SO. FT. (5.0 m <sup>2</sup> )                                     |
| SHOULDER DIAGONALS  | 12 (300) @ 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/h)<br>150' (45 m) C-C (OVER 45MPH (70 km/h))                        |

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

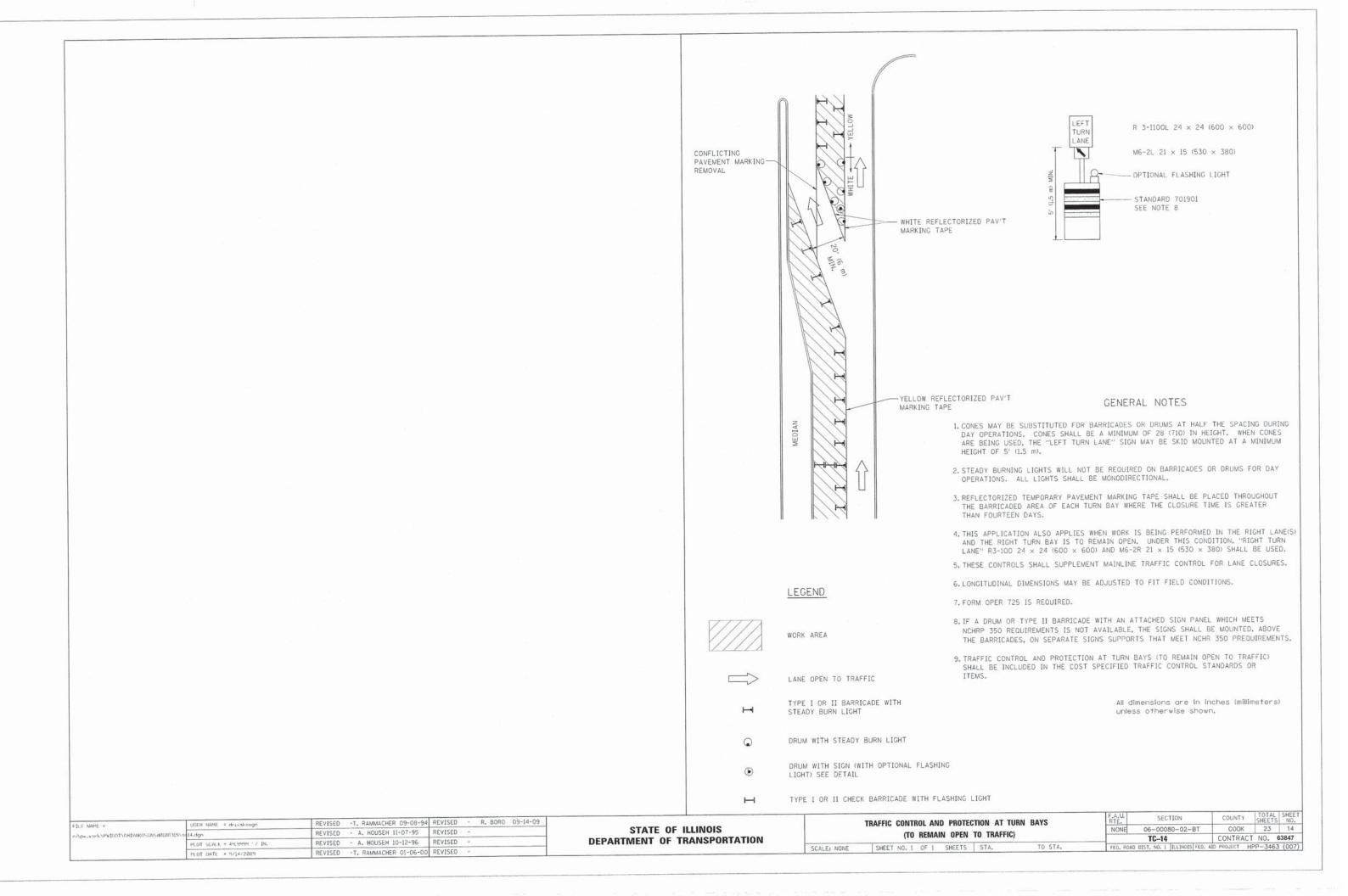
|  | LARGE SIZE  | SMALL SIZE  |
|--|-------------|-------------|
| THROUGH ARROW                                    | 1.07 (11.5) | 0.60 (6.5)  |
| LEFT OR RIGHT<br>ARROW                           | 1.47 (15.6) | 0.60 (6.5)  |
| COMBINATION<br>LEFT (RIGHT) AND<br>THROUGH ARROW | 2.42 (26.0) | 1.37 (14.7) |
| RAILROAD "R"<br>1.8m (6ft.)                      | 0.33 (3.6)  |             |
| RAILROAD "X"<br>6.1m (20ft.)                     | 5.02(54.0)  |             |
| HANDICAPPED<br>SYMBOL                            | 0.43 (4.6)  | -           |

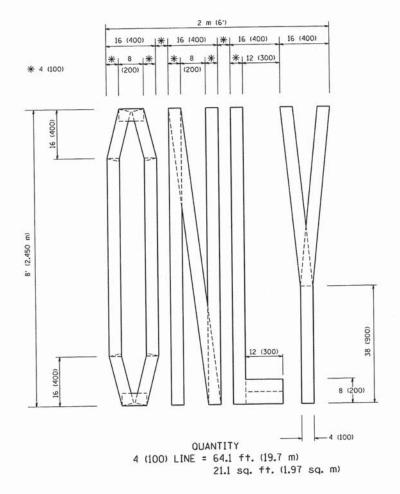
All dimensions are in inches (millimeters) unless otherwise shown.

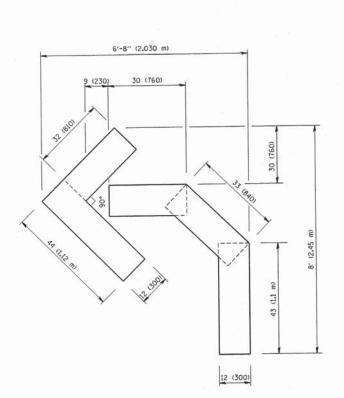
| FIF NAME =                               | USER NAME = drivokosgo      | DESIGNED - EVERS | REVISED -T. RAMMACHER 10-27-94 |
|--|-----------------------------|------------------|--------------------------------|
| ci\pw_work\pwidet\drivekosgn\d0108315\tc | (3.dgn                      | DRAWN -          | REVISED -C. JUCIUS 09-09-09    |
|  | PLOT SCALE = 50.000 ° / IN. | CHECKED -        | REVISED -                      |
| -2.53                                    | PLOT DATE = 9/9/2009        | DATE - 03-19-90  | REVISED -                      |

| STATE      | E 01 | FILLINOIS      |
|------------|------|----------------|
| DEPARTMENT | OF   | TRANSPORTATION |

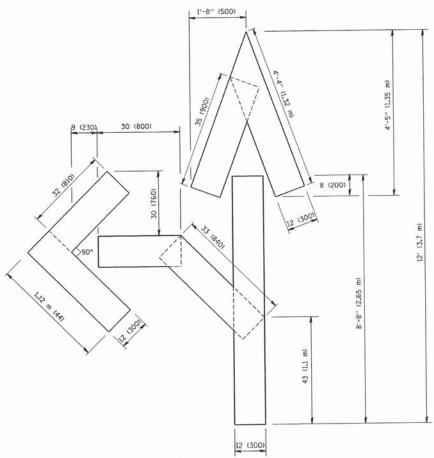
| Ï |             | DIS              | TRICT ON    | E          |         | F.A.U.<br>RTE. | SECTION                       | COUNTY       | TOTAL  | SHEET<br>NO. |
|---|-------------|------------------|-------------|------------|---------|----------------|-------------------------------|--------------|--------|--------------|
|   |             | TYPICAL PAY      | CRACKIT I   | MADVINICE  |         | NONE           | 06-00080-02-BT                | COOK         | 23     | 13           |
|   |             | TTPICAL PA       | VEIVIEIVI I | VIARKIIVGS |         |                | TC-13                         | CONTRACT     | NO.    | 3847         |
|   | SCALE: NONE | SHEET NO. 1 OF 1 | SHEETS      | STA.       | TO STA. | FED. ROAL      | D DIST. NO. 1 ILLINOIS FED. A | D PROJECT HP | P-3463 | (007)        |







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



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

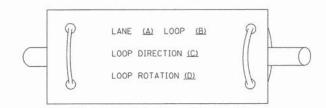
All dimensions are in inches (millimeters) unless otherwise shown.

|  |                              |                 |                                |  |  | F.A.U. SECTION            | COUNTY TOTAL SHEE  |
|--|------------------------------|-----------------|--------------------------------|--|--|---------------------------|--------------------|
| FILE NAME =<br>W:\diststd\22x34\tc16.dgn | USER NAME = gaglianobt       | DESIGNED -      | REVISED -T. RAMMACHER 06-05-96 | OTHER OF HIMMOR                                | PAVEMENT MARKING LETTERS AND SYMBOLS             | NONE 06-00080-            | 02-BT COOK 23 15   |
|  |                              | DRAWN -         | REVISED -T. RAMMACHER 11-04-97 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FOR TRAFFIC STAGING                              | TC-16                     | CONTRACT NO. 63847 |
|  | PLOT SCALE = 50.0000 ' / IN. | CHECKED -       | REVISED -T. RAMMACHER 03-02-98 |  | SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA. | FED. ROAD DIST. NO. 1 ILL |                    |
|  |                              | DATE - 09-18-94 | REVISED -E. GOMEZ 08-28-00     |  | JOHE HONE STREET                                 |                           |                    |

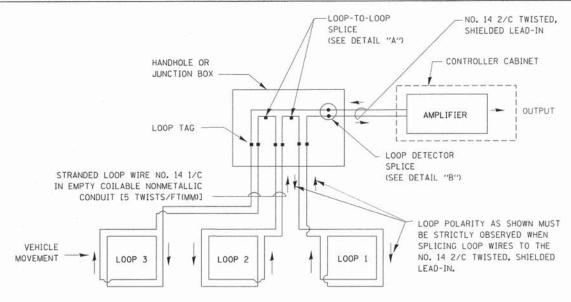
# LOOP DETECTOR NOTES

- 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

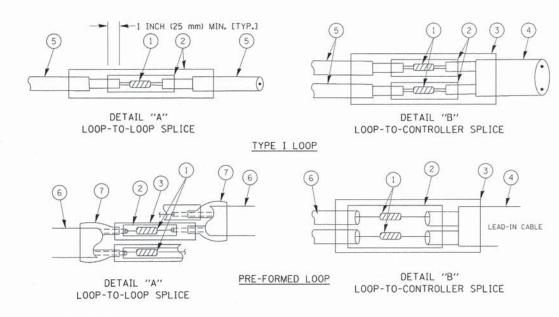


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### 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.



#### LOOP DETECTOR SPLICE

- OF THE SOLDER SHALL BE SMOOTH. WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES
- (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.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- (6) PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR
- 7 BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

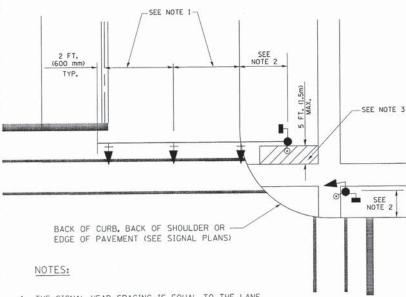
|   |                             |                 |           | _ |
|---|-----------------------------|-----------------|-----------|---|
| FILE NAME =                               | USER NAME = kanthaphixaybo  | DESIGNED - DAD  | REVISED - |   |
| c:\pw_work\PWIDOT\KANTHAPHIXAYBC\dØ1126 4 | \traffic_legend_v7.dgn      | DRAWN - BCK     | REVISED - |   |
|   | PLOT SCALE = 20.0000 '/ IN. | CHECKED - DAD   | REVISED - |   |
|   | PLOT DATE = 10/6/2009       | DATE - 10/28/09 | REVISED - |   |

|     | STATE   | OF | ILLINOIS              |
|-----|---------|----|-----------------------|
| DEP | ARTMENT | OF | <b>TRANSPORTATION</b> |

| T |         | DISTRICT                | ONF               | F.A.U<br>RTE. | SECTION                     | COUNTY         | TOTAL   | SHEET<br>NO. |
|---|---------|-------------------------|-------------------|---------------|-----------------------------|----------------|---------|--------------|
| ı | CIVIDVE |                         | AL DESIGN DETAILS | NONE          | 06-00080-02-BT              | COOK           | 23      | 16           |
| ļ | STANDAR | ID TRAFFIC SIGN         | AL DESIGN DETAILS |               |                             | CONTRACT       | NO.     | 63847        |
| 1 | SCALE:  | SHEET NO. 1 OF 6 SHEETS | STA. TO STA.      | FED. ROAD     | D DIST. NO.   ILLINOIS FED. | AID PROJECT HI | PP-3467 | 5 (007)      |

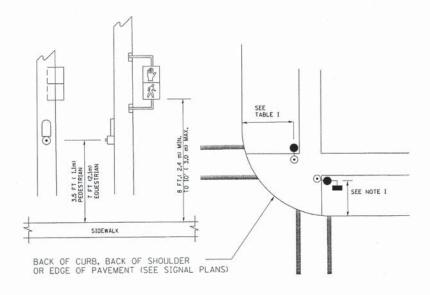
# TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

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



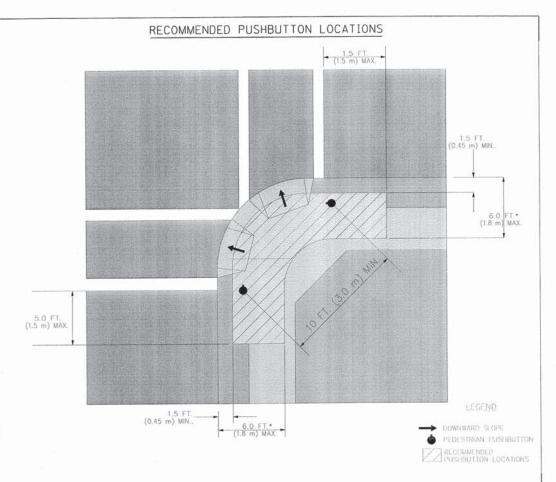
- THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM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

# PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



### NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 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 MUTCO 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.

# NOTES:

- I. 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.

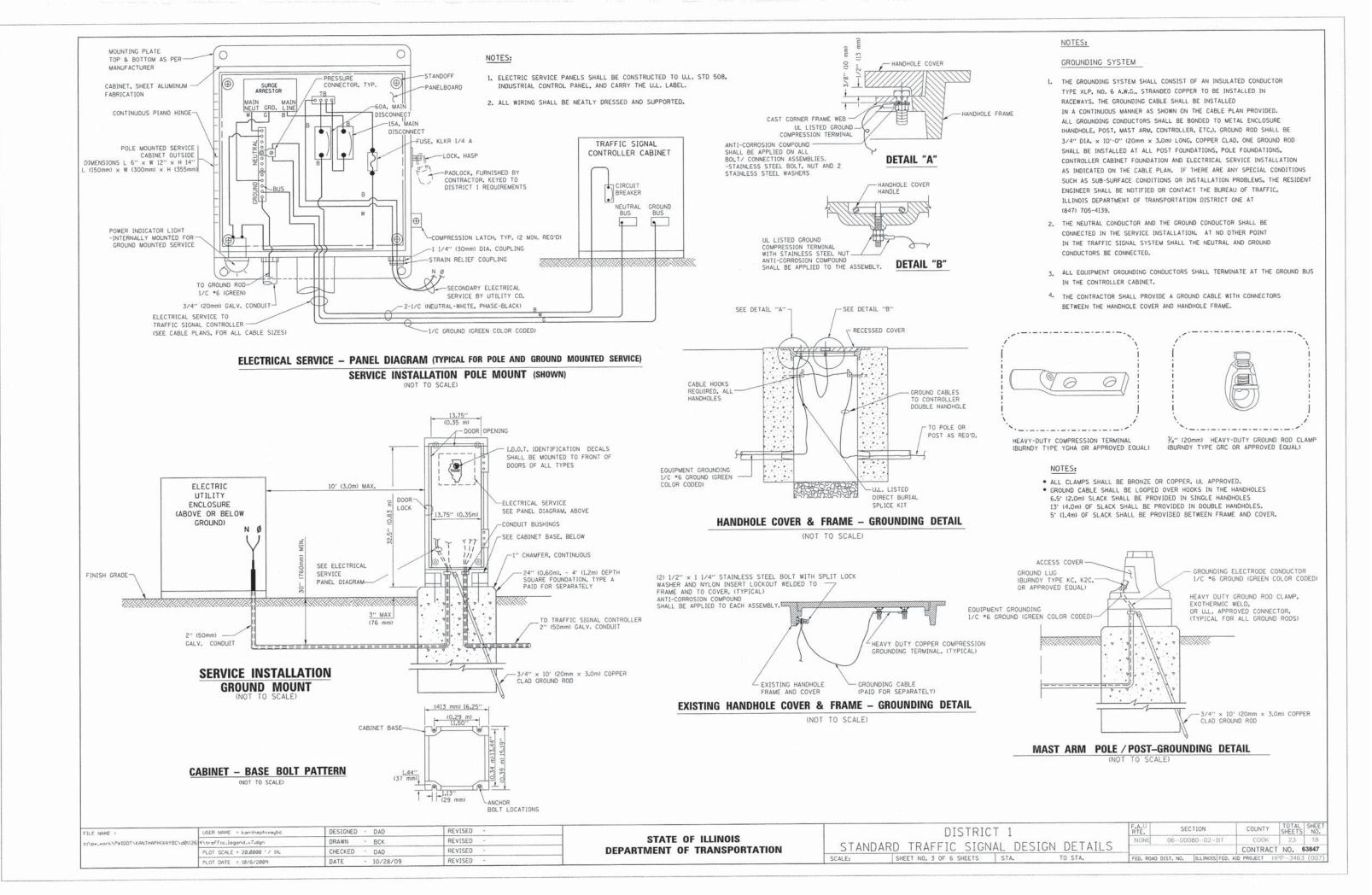
### TRAFFIC SIGNAL EQUIPMENT OFFSET

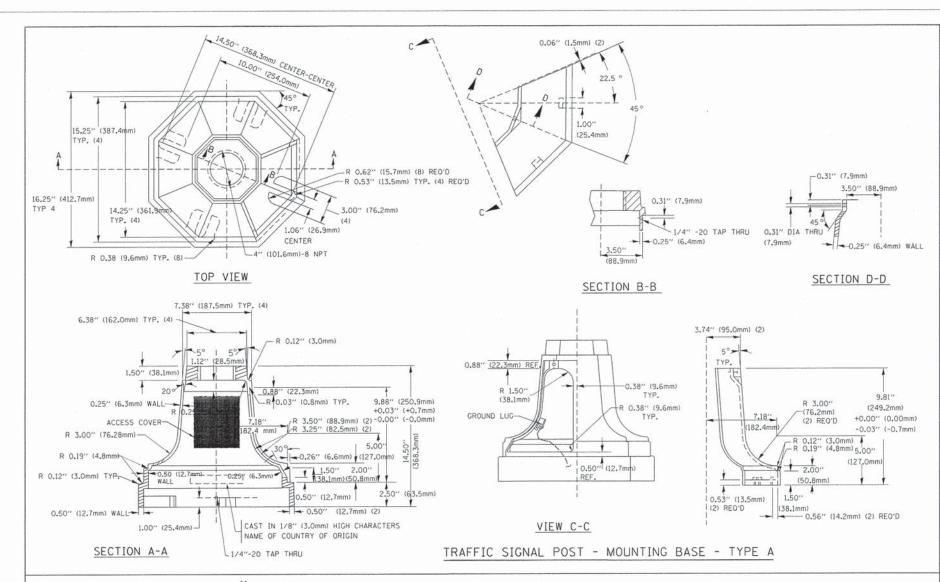
|                                       | TRAFFIC SIGNAL EDDIT WENT   | 011 0E1   |
|---------------------------------------|---|---|
| TRAFFIC SIGNAL EQUIPMENT              | COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION) | SHOULDER/NON-CURBED AREA (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 (L.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.                                      |

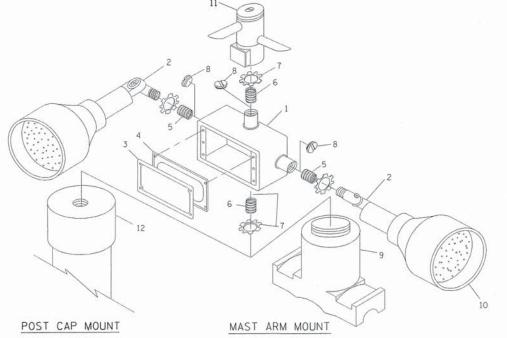
#### NOTES

- 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 TO THE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

|   |                               |                   |            |   |           |                         | 2                | F.A.U     | CECTION                | COUNTY      | IUIAL SH    | 451 |
|---|-------------------------------|-------------------|------------|---|-----------|-------------------------|------------------|-----------|------------------------|-------------|-------------|-----|
| FILE NAME #                             | USER NAME * kanthaphixaybs    | DESIGNED - DAG    | REVISED -  | CONTRACTOR OF THE STATE OF THE |           | DISTRICT                | 1                | RTE.      | SECTION                | COUNTY      | SHEETS N    | .0. |
|   | Name of Fig. Jacobsky 7 dogs  | DRAWN - BCK       | REVISED -  | STATE OF ILLINOIS   | CT LUC LD |                         | DECION DETAILS   | NONE      | 06-00080-02-BT         | COOK        | 23 1        | 7   |
| c:\pw-work\PWIDOT\KANTHAPHIXAYBC\dØ1126 | D. CT. CCALE - 28 8888 / / IN | CHECKED - DAD     | REVISED -  | DEPARTMENT OF TRANSPORTATION  | STANDAR   | D TRAFFIC SIGNA         | L DESIGN DETAILS |           |                        | CONTRAC     | T NO. 6384  | 47  |
| 1                                       | PLOT SCALE = 20.0000 '/ IN.   | CHECKED DAD       | DEVICEO    |   | SCALE:    | SHEET NO. 2 OF 6 SHEETS | STA. TO STA.     | FED. ROAD | DIST. NO. ILLINOIS FED | AID PROJECT | IPP-3463 (0 | 07) |
| 1                                       | DI OT DATE - 10/6/2009        | 1 DATE - 10728709 | L KE VISED |   |           |                         |                  |           |                        |             |             |     |



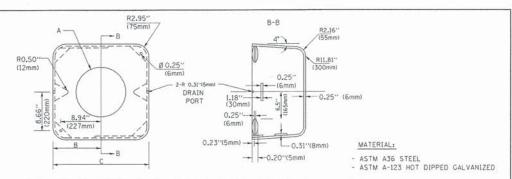




| ITEM | NO. IDENTIFICATION                         |
|------|--|
| 1    | OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-N |
| 2    | LAMP HOLDER AND COVER                      |
| 3    | OUTLET BOX COVER                           |
| 4    | RUBBER COVER GASKET                        |
| 5    | REDUCING BUSHING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

### NOTES:

- ALL ELECTRICAL ITEMS. EXCEPT ITEMS "2 AND "II SHALL BE ALUMINUM OR GALVANIZED
- 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  $\frac{Y}{4}$ "(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.

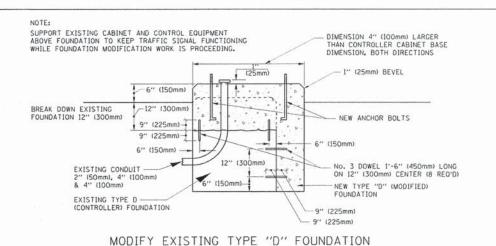


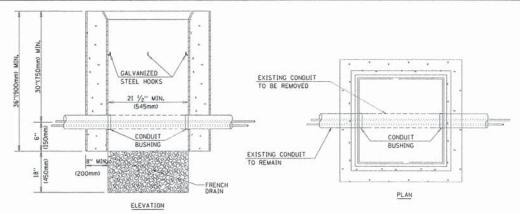
| Α      | В             | С            | HEIGHT                   | WEIGHT          |
|--------|---------------|--------------|--------------------------|-----------------|
| VARIES | 9.5"(241mm)   | 19''(483mm)  | 7" (178mm) - 12" (300mm) | 53 lbs (24kg)   |
| VARIES | 10.75"(273mm) | 21.5"(546mm) | 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

#### NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD.
  THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 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.





## NOTES:

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

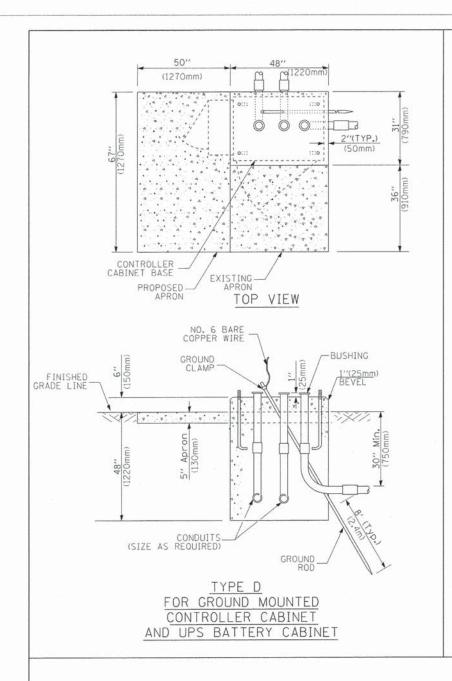
# HANDHOLE TO INTERCEPT EXISTING CONDUIT

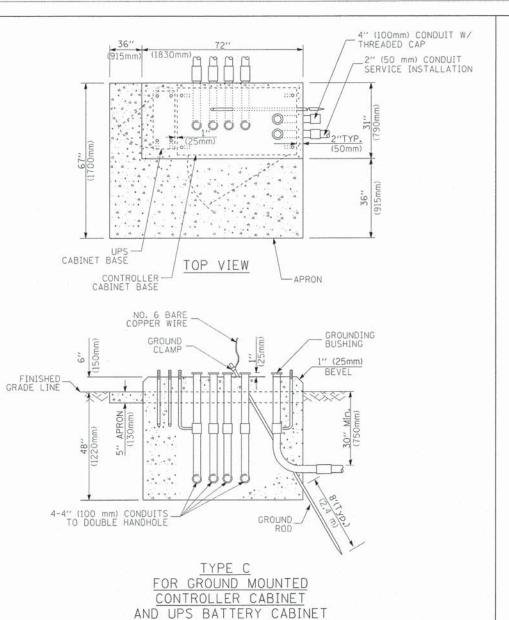
| FILE NAME =                             | USER NAME = kanthaphixaybo  | DESIGNED - DAG  | REVISED - |
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| 0:\pw_work\PWIDOT\KANTHAPHIXAYBC\dØ1126 | 4\traffic.legend.v7.dgn     | DRAWN - BCK     | REVISED - |
|   | PLOT SCALE = 20.0000 1/ IN. | CHECKED - DAD   | REVISED - |
|   | PLOT DATE = 10/6/2009       | DATE - 10/28/09 | REVISED - |

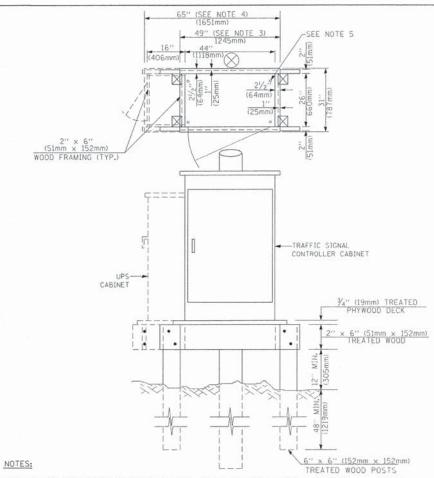
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

|         | DISTRIC                 | T 1     |            | F.A.U<br>RTE. | SECTION                    | COUNTY        | TOTAL    | SHEET<br>NO. |
|---------|-------------------------|---------|------------|---------------|----------------------------|---------------|----------|--------------|
| CIANDAE | D TRAFFIC SIGN          |         | CN DETAILS | NONE          | 06-00080-02-BT             | COOK          | 23       | 19           |
| STANDAR | D TRAFFIC SIGN          | AL DESI | UN DETAILS |               |                            | CONTRACT      | NO. 6    | 53847        |
| CALE:   | SHEET NO. 4 OF 6 SHEETS | STA.    | TO STA.    | FED ROAD      | DIST. NO. THE INOIS FED. A | ID PROJECT HE | D _ 3463 | (007)        |







- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 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<br>(SIGNAL POST, MAST ARM, CABINET)  | 1.5  | 0.5   |
| GROUND CABLE<br>(BETWEEN FRAME AND COVER)         | 5.0  | 1.6   |

CABLE SLACK

| VERTICAL CABLE LENGTH   |        |       |  |  |  |
|---|--------|-------|--|--|--|
| MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD)                                     |        | 1     |  |  |  |
| (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

DEPTH OF FOUNDATION

FOUNDATION

|  | 100 100 1111 |
|--|--------------|
| 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, | 4'-0" (1.2m) |

DEPTH

| Mast Arm Length  | ① Foundation<br>Depth | Foundation<br>Diameter | Spiral<br>Diameter | Quantity of<br>Rebars | Size of<br>Rebars |
|--|-----------------------|------------------------|--------------------|-----------------------|-------------------|
| Less than 30' (9.1 m)  | 10'-0" (3.0 m)        | 30" (750mm)            | 24" (600mm)        | 8                     | 6(19)             |
| Greater than or equal to   | 13'-6" (4.1 m)        | 30" (750mm)            | 24" (600mm)        | 8                     | 6(19)             |
| 30' (9.1 m) and less than<br>40' (12.2 m)                              | 11'-0" (3.4 m)        | 36" (900mm)            | 30" (750mm)        | 12                    | 7(22)             |
| Greater than or equal to<br>40' (12.2 m) and less than<br>50' (15.2 m) | 13'-0" (4.0 m)        | 36" (900mm)            | 30" (750mm)        | 12                    | 7(22)             |
| Greater than or equal to<br>50' (15.2 m) and up to<br>55' (16.8 m)     | 15'-0'' (4.6 m)       | 36" (900mm)            | 30" (750mm)        | 12                    | 7(22)             |
| Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)       | 21'-0" (6.4 m)        | 42" (1060mm)           | 36" (900mm)        | 16                    | 8(25)             |
| Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)           | 25'-0" (7.6 m)        | 42" (1060mm)           | 36" (900mm)        | 16                    | 8(25)             |

- NOTES:
- These foundation depths are for sites which have cohesive soils (clayey slit, 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 = kanthaphixaybo   | DESIGNED - DAG  | REVISED - |  |
|---|------------------------------|-----------------|-----------|--|
| c:\pw_work\PWIDOT\KANTHAPHIXAY8C\dØ1126 | 4\traffic_legend_v7.dgn      | DRAWN - BCK     | REVISED - |  |
|   | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD   | REVISED - |  |
|   | PLOT DATE = 10/6/2009        | DATE - 10/28/09 | REVISED - |  |

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

|         | DIS                | TRICT 1  |        |         | RTE.      | SEC       | TIC |
|---------|--------------------|----------|--------|---------|-----------|-----------|-----|
| STANDAR | RD TRAFFIC         | SIGNAL   | DESIGN | DETAILS | NONE      | 06-0008   | 30- |
| SCALE:  | SHEET NO. 5 OF 6 S | HEETS ST | Α.     | TO STA. | FED. ROAD | DIST. NO. | ILI |

COUNTY TOTAL SHEE SHEETS NO. COOK CONTRACT NO. 63847 LLINOIS FED. AID PROJECT HPP-3463 (O

# TRAFFIC SIGNAL LEGEND

| ITEM   | REMOVAL            | EXISTING                   | PROPOSED       | ITEM  | REMOVAL                          | EXISTING              | PROPOSED   | ITEM   | REMOVAL       | EXISTING  | PROPOSED           |
|--|--------------------|----------------------------|----------------|---|----------------------------------|-----------------------|------------|--|---------------|---|--------------------|
| CONTROLLER CABINET   | R                  |                            | $\blacksquare$ | EMERGENCY VEHICLE LIGHT DETECTOR  | R ≪                              | <b>⊗</b> <            | •          | ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE  |               | <del>-</del> O-   |                    |
| AILROAD CONTROL CABINET  |                    | R R                        | A R            | CONFIRMATION BEACON   | R <sub>o-Q</sub>                 | 0-0                   |            | When the same is   |               | d   |                    |
| OMMUNICATIONS CABINET  | CCR                | E C C                      | CC             | HANDHOLE  | R⊠                               |                       |            | COAXIAL CABLE  |               |   | —©—                |
| MASTER CONTROLLER  |                    | [EMC]                      | MC             |   |                                  |                       |            | VENDOR CABLE FOR CAMERA  |               |   | 0                  |
| MASTER MASTER CONTROLLER   | R                  | EMMC                       | MMC            | HEAVY DUTY HANDHOLE   | RH                               | H                     | H          |  |               | ),0   | <b>─</b> ♥─        |
| UNINTERRUPTIBLE POWER SUPPLY   | UPS                | [EUPS]                     | UPS            | DOUBLE HANDHOLE   | R SS                             |                       |            | COPPER INTERCONNECT CABLE.  NO. 18 3 PAIR TWISTED, SHIELDED  |               | -6-   | -6-                |
| SERVICE INSTALLATION, P) POLE OR (G) GROUND MOUNT  | -□ <sup>R</sup>    | -D <sup>P</sup>            | - <b>■</b> P   | JUNCTION BOX GALVANIZED STEEL CONDUIT                                       | R                                |                       | <b>0</b>   | FIBER OPTIC CABLE<br>NO. 62.5/125, MM12F   |               | —(12F)—   |                    |
| TELEPHONE CONNECTION P) POLE OR (G) GROUND MOUNT   | R                  | PŢ                         | PI             | IN TRENCH (T) OR PUSHED (P) TEMPORARY SPAN WIRE, TETHER WIRE,               | R                                |                       |            | FIBER OPTIC CABLE<br>NO. 62.5/125, MM12F SM12F   |               | -(24F)-   | -(24F)-            |
| STEEL MAST ARM ASSEMBLY AND POLE   | <u></u>            | 0                          | •              | AND CABLE   |                                  |                       |            | FIBER OPTIC CABLE NO. 62.5/125.  |               | _   |                    |
| ALUMINUM MAST ARM ASSEMBLY AND POLE  | R<br>Q             | 0                          | •              | COMMON TRENCH   |                                  |                       | CT         | (NUMBER OF FIBERS & TYPE TO BE<br>NOTED ON PLANS)  |               | -0-   | -0-                |
| STEEL COMBINATION MAST ARM<br>ASSEMBLY AND POLE WITH LUMINAIRE                           | <sup>R</sup> O-≭—— | O-X                        | •*             | COILABLE NONMETALLIC CONDUIT (EMPTY:<br>SYSTEM ITEM                         | 1:                               | S                     | S          | GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM,  |               | c <sub>al</sub> —   | <sup>C</sup>   -→  |
| STEEL COMBINATION MAST ARM<br>ASSEMBLY AND POLE WITH PTZ CAMERA                          | PTZI               | PTZI                       | PIZ            | INTERSECTION ITEM   |                                  | 1                     | IP         | OR (S) SERVICE   |               | **  |                    |
| SIGNAL POST  | RO                 | 0                          |                | REMOVE ITEM   | R                                |                       |            | CONTROLLER CABINET AND<br>FOUNDATION TO BE REMOVED   | RCF           |   |                    |
| FEMPORARY WOOD POLE (CLASS 5 OR  | R⊗                 | $\otimes$                  | •              | RELOCATE ITEM   | RL                               |                       |            | NATIONAL CONTROL SECTION AND AND AND AND AND AND AND AND AND AN  | RMF           |   |                    |
| BETTER) 45 FOOT (13.7m) MINIMUM GUY WIRE   | >R                 | >                          | >-             | ABANDON ITEM  12" (300mm) TRAFFIC SIGNAL SECTION                            | A                                | R                     | R          | STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED   | ORWIT         |   |                    |
| SIGNAL HEAD  | R                  | >                          |                |   |                                  | 6                     | _          | ALUMINUM MAST ARM POLE AND<br>FOUNDATION TO BE REMOVED   | RMF           |   |                    |
| SIGNAL HEAD CONSTRUCTION STAGES NUMBERS INDICATE THE CONSTRUCTION STAGE)                 |                    |                            | <b>-</b> 2     | 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FAC         | DE .                             |                       |            | STEEL COMBINATION MAST ARM ASSEMBLY<br>AND POLE WITH LUMINAIRE AND   | RMF<br>O-32   |   |                    |
| SIGNAL HEAD WITH BACKPLATE   | +CR                | +>                         | +              |   |                                  | R                     | R          | FOUNDATION TO BE REMOVED   | 0 %           |   |                    |
| SIGNAL HEAD OPTICALLY PROGRAMMED   | R "P"              |                            | <b>-►</b> "P"  | SIGNAL FACE   |                                  |                       | G<br>4Y    | SIGNAL POST AND FOUNDATION<br>TO BE REMOVED  | RMF           |   |                    |
| LASHER INSTALLATION<br>S DENOTES SOLAR POWER)  | O-D''F"            | O-D"F"                     | •►"F"          |   |                                  |                       | <b>◆</b> G | INTERSECTION & SAMPLING<br>(SYSTEM) DETECTOR   |               | IS  | IS                 |
| EDESTRIAN SIGNAL HEAD  | R<br>-             | -0                         | -1             |   |                                  | R                     | R          | SAMPLING (SYSTEM) DETECTOR   |               | [5]   | S                  |
| EDESTRIAN PUSHBUTTON DETECTOR  | R                  | •                          | •              | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD                   |                                  | (T)                   | G<br>◆Y    | EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETEC  | TOR           | [P]   |                    |
| CCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR   | @ APS              | @APS                       | APS            |   |                                  | p.//                  | <b>4</b> G | EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETEC  | TOR           | [PP]  |                    |
| ILLUMINATED SIGN<br>'NO LEFT TURN''  | (5)                | (3)                        | •              | 12" (300mm) PEDESTRIAN SIGNAL HEAD<br>WALK/DON'T WALK SYMBOL                |                                  | (W)                   |            | PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR  |               | PIS   | PIS                |
| LLUMINATED SIGN<br>'NO RIGHT TURN''  | R<br>(S)           | (8)                        |                | 12" (300mm) PEDESTRIAN SIGNAL HEAD  |                                  |                       |            | PREFORMED SAMPLING (SYSTEM) DETECTOR   |               | [PS]  | PS                 |
| DETECTOR LOOP, TYPE I  |                    |                            |                | INTERNATIONAL SYMBOL, OUTLINED  |                                  |                       |            | A STATE OF THE STA |               | 1-1   | 1-1                |
|  |                    |                            | -              | 12" (300mm) PEDESTRIAN SIGNAL HEAD  |                                  |                       | •          | RAILROAD   | CAMBU         | 2 1   |                    |
| REFORMED DETECTOR LOOP   | R                  | Î-Î                        | P              | INTERNATIONAL SYMBOL, SOLID PEDESTRIAN SIGNAL HEAD, INTERNATIONA            | AL.                              |                       | <b>*</b>   | NAILNUAD   | STIVIDU       | LS  |                    |
| ICROWAVE VEHICLE SENSOR  | R MI               | [M]                        | <b>M</b> ■     | SYMBOL. WITH COUNTDOWN TIMER  |                                  | <b>●</b> C <b>★</b> D | ₹ D        |  |               | EXISTING  | PROPOSED           |
| IDEO DETECTION CAMERA  | R <sub>V</sub>     | (V)                        | <b>(</b> )     | RADIO INTERCONNECT  | <del>    </del> 0                | ##+0                  |            | RAILROAD CONTROL CABINET   |               | $\mathbb{R} \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$ |                    |
| IDEO DETECTION ZONE  |                    |                            |                | RADIO REPEATER  | RERR                             | ERR                   | RR         | RAILROAD CANTILEVER MAST ARM   | Σ             | (OX X X   | IOX X              |
| AN THE TOOM CAMERA   | R<br>PTZ]1         | PTZ                        | PT             | DENOTES NUMBER OF CONDUCTORS, ELEC  |                                  |                       |            | FLASHING SIGNAL  |               | X <sub>0</sub> X  | XOX                |
| AN, TILT, ZOOM CAMERA  IRELESS DETECTOR SENSOR   | R(W)               | (W)                        | (W)            | CABLE NO. 14, UNLESS NOTED OTHERWISE<br>ALL DETECTOR LOOP CABLE TO BE SHIEL | Ε,                               | -5-                   | _5_        | CROSSING GATE  |               | <del>20</del> <del>2</del> >  | <del>***</del>     |
| RELESS ACCESS POINT  | R                  |                            | -              | GROUND CABLE IN CONDUIT<br>NO. 6 SOLID COPPER (GREEN)                       |                                  | (1)                   | (1)        | CROSSBUCK  |               | <b>≥</b> ≤  | *                  |
| E NAME = USER NAME = kanthaphixay  |                    | SIGNED - DAG/BCK           | REVISED -      |   | or                               | •                     |            | DISTRICT 1   | F.A.U<br>RTE. | SECTION   | COUNTY TOTAL SHEET |
| DW.,WOFK\PWIDDT\KANTHAPHIXAYBC\d01126 4\troffic.legend_v7.dgn PLOT SCALE = 20.0000 ' / I |                    | RAWN - BCK<br>HECKED - DAD | REVISED -      |   | TATE OF ILLINOI<br>ENT OF TRANSP |                       |            | STANDARD TRAFFIC SIGNAL DESIGN DETAIL  |               | 06-00080-02-BT  | COOK 23            |

# LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT
NOTE WHICH SHOULD EDUAL
3' 1900 mm) X WIDTH OF
PAVED SHOULDER.

PAVED OR
NON-PAVED
SHOULDER

\* = (600 mm)

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

(3.0 m)

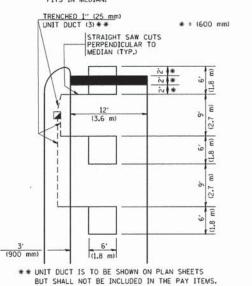
(1.5 m) (1.8 m) (1.5 m)

(3.0 m)

# LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

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



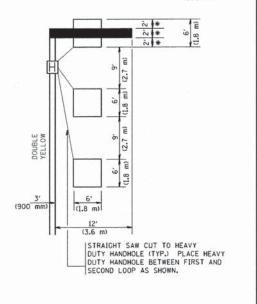
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

VOLUME DENSITY ("FAR OUT" DETECTION)

ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

\* = (600 mm)



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

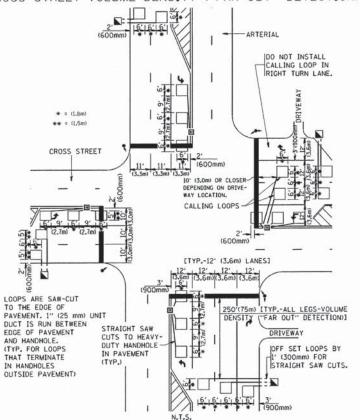
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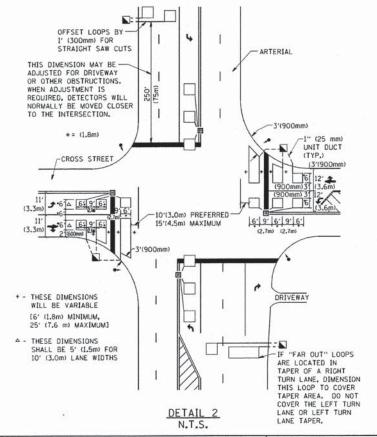
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

1" (25 mm) UNIT

TO E/P ..

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





#### NOTES

#### VEHICLES LOOP DETECTORS

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

#### PLACEMENT OF DETECTORS

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

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON  $\underline{\mathsf{ALL}}$  SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

# NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1
TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

| FILE NAME =               | USER NAME = geglienabt       | DESIGNED -       | REVISED - |  |
|---------------------------|------------------------------|------------------|-----------|--|
| vi\diststd\22x34\ts87.dgn |                              | DRAWN -          | REVISED - |  |
|                           | PLOT SCALE = 50.0000 ' / IN. | CHECKED - R.K.F. | REVISED - |  |
|                           | PLOT DATE = 1/4/2008         | DATE -           | REVISED - |  |

DETAIL

N.T.S.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION

DETAILS FOR ROADWAY RESURFACING

SHEET NO. 1 OF 1 SHEETS STA. TO STA.

