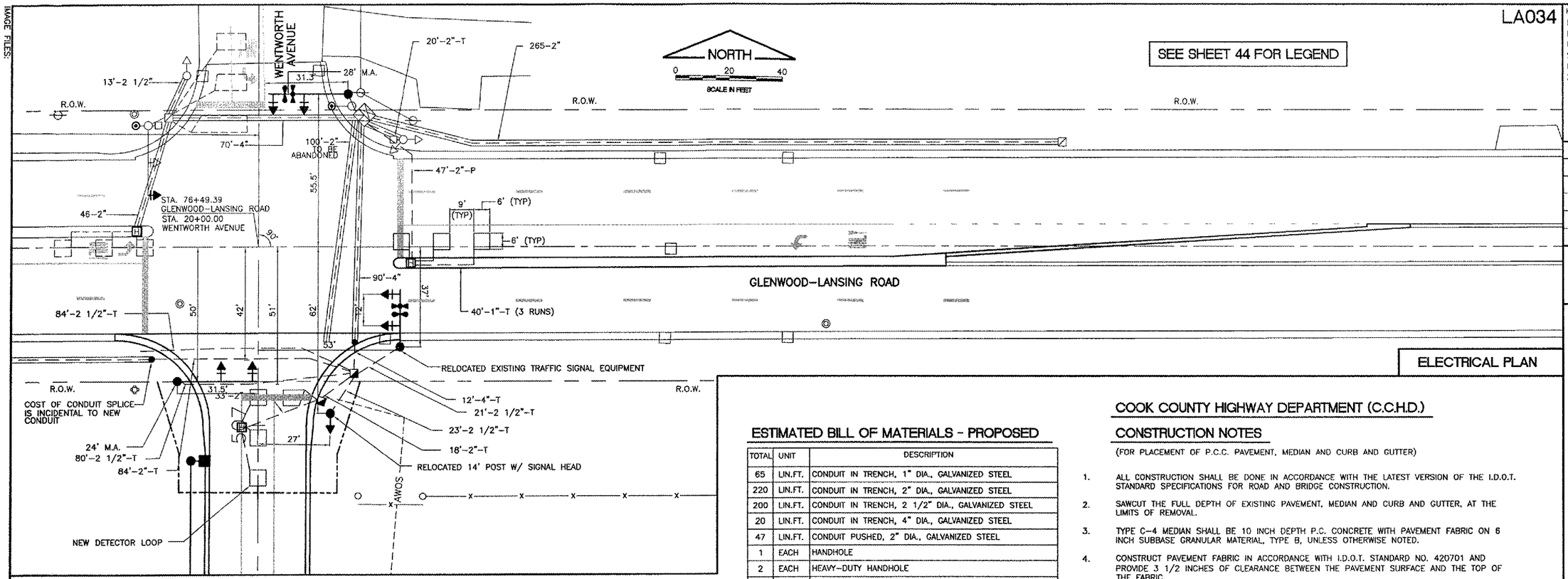
IMAGE FILES:




SEE SHEET 44 FOR LEGEND

ELECTRICAL PLAN

## COUNTY GENERAL NOTES

1. THE CONTRACTOR SHALL INFORM THE CCHD ENGINEER AT (312) 603-1730 PRIOR TO THE START OF ANY WORK ON THE CONTRACT. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCE NOTICE IS REQUIRED.
2. THE CONTRACTOR SHALL MARK LOCATIONS OF LOOPS AND CONTACT THE COUNTY ENGINEER AT (312) 603-1730 FOR LOCATION APPROVAL PRIOR TO CUTTING OF THE LOOPS. A MINIMUM OF FIVE (5) WORKING DAYS ADVANCED NOTICE IS REQUIRED.
3. ALL MAST ARM MOUNTED SIGNAL HEADS ARE TO BE ATTACHED 2'-0" FROM END OF MAST ARM UNLESS OTHERWISE NOTED.
4. ALL SIGNAL POSTS SHALL BE SET BACK FOUR (4) FEET MINIMUM AND ALL MAST ARM POLES SHALL BE SET BACK SIX (6) FEET MINIMUM FROM THEIR CENTERLINE TO THE BACK OF CURB UNLESS OTHERWISE NOTED. IN NON-CURBED AREAS THE MAST ARM POLE AND SIGNAL POST SHALL BE LOCATED A MINIMUM OF TEN (10) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER.
5. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR EXACT LOCATIONS OF THE UTILITIES CALL J.U.L.I.E. TOLL FREE AT (800) 892-0123.
6. IT IS CONTRACTORS' RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.
7. ALL ELECTRIC CABLE TO HAVE POLYVINYL CHLORIDE JACKET.
8. CONDUITS UNDER ROADWAYS AND DRIVEWAYS SHOULD BE INSTALLED IN TRENCH BEFORE PAVEMENT IS PLACED.
9. REFER TO THE IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." (RED BOOK) ADOPTED JANUARY 1, 2002 FOR SPECIFICATIONS ASSOCIATED WITH THIS IMPROVEMENT.
10. VEHICLE LOOP DETECTOR SHALL BE COMPATIBLE WITH THE CONTROL EQUIPMENT.
11. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE COOK COUNTY HIGHWAY DEPARTMENT AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.
12. ALL PROPOSED TRAFFIC SIGNALS SHALL BE LED.
13. THE CONTRACTOR SHALL RETROFIT ALL EXISTING TRAFFIC EQUIPMENT TO REMAIN TO LED.

## TRAFFIC SIGNAL LEGEND

| PROPOSED | EXISTING | |
|---|---|---|
| ■ | ⊠ | CONTROLLER |
| ⊢ | ⊣ | SERVICE INSTALLATION |
| ← | ← | SIGNAL HEAD |
| ←+ | ←+ | SIGNAL HEAD WITH BACKPLATE |
| ⊢ | ⊣ | SIGNAL HEAD, PEDESTRIAN |
| ● | ○ | SIGNAL POST |
| —● | —○ | MAST ARM ASSEMBLY AND POLE, STEEL |
| UD | | UNIT DUCT |
| CT | | COMMON TRENCH |
| ◪ | ▨ | HANDHOLE |
| H | H | HEAVY DUTY HANDHOLE |
| ◪ | ▨ | DOUBLE HANDHOLE |
| — — — | ═══ | G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) |
| ◉ | ◎ | PEDESTRIAN PUSHBUTTON DETECTOR |
| □ | ⛶ | DETECTOR LOOP |
| ⋈ | ⋈ | EMERGENCY VEHICLE LIGHT DETECTOR |
| ⋈ | ⋈ | CONFIRMATION BEACON |
| —●═ | | CONDUIT SPLICE |
| ⊗ | ⊗ | WOOD POLE |

## ESTIMATED BILL OF MATERIALS - PROPOSED

| TOTAL | UNIT | DESCRIPTION |
|---|---|---|
| 65 | LIN.FT. | CONDUIT IN TRENCH, 1" DIA., GALVANIZED STEEL |
| 220 | LIN.FT. | CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL |
| 200 | LIN.FT. | CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL |
| 20 | LIN.FT. | CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL |
| 47 | LIN.FT. | CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL |
| 1 | EACH | HANDHOLE |
| 2 | EACH | HEAVY-DUTY HANDHOLE |
| 1 | EACH | MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION |
| 250 | LIN.FT. | ELECTRIC CABLE IN CONDUIT, SIGNAL, #14, 3C |
| 650 | LIN.FT. | ELECTRIC CABLE IN CONDUIT, SIGNAL, #14, 5C |
| 650 | LIN.FT. | ELECTRIC CABLE IN CONDUIT, SIGNAL, #14, 7C |
| 1440 | LIN.FT. | ELECTRIC CABLE IN CONDUIT, LEAD-IN, #14 1 PAIR |
| 250 | LIN.FT. | ELECTRIC CABLE IN CONDUIT #20 3/C, TWISTED, SHIELDED |
| 1 | EACH | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 24FT |
| 1 | EACH | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28FT |
| 45 | LIN.FT. | CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER |
| 1 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED |
| 3 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED |
| 4 | EACH | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM |
| 3 | EACH | INDUCTIVE LOOP DETECTOR |
| 350 | LIN.FT. | DETECTOR LOOP, TYPE 1 |
| 1 | EACH | LIGHT DETECTOR AMPLIFIER |
| 1 | EACH | TEMPORARY TRAFFIC SIGNAL INSTALLATION |
| 1 | EACH | RELOCATE EXISTING SIGNAL HEAD |
| 2 | EACH | RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT |
| 1 | EACH | RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY |
| 1 | EACH | MODIFY EXISTING CONTROLLER |
| 1 | EACH | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT |
| 3 | EACH | REMOVE EXISITNG CONCRETE FOUNDATION |
| 6 | EACH | LED SIGNAL FACE RETROFIT, YELLOW BALL |
| 6 | EACH | LED SIGNAL FACE RETROFIT, RED BALL |
| 6 | EACH | LED SIGNAL FACE RETROFIT, GREEN BALL |
| 1 | EACH | LED SIGNAL FACE RETROFIT, YELLOW ARROW |
| 1 | EACH | LED SIGNAL FACE RETROFIT, GREEN ARROW |
| 2 | EACH | LED SIGNAL FACE RETROFIT, WALK SIGNAL |
| 2 | EACH | LED SIGNAL FACE RETROFIT, DON'T WALK SIGNAL |
| 1 | EACH | RELOCATE EXISTING HANDHOLE |

## COOK COUNTY HIGHWAY DEPARTMENT (C.C.H.D.)

## CONSTRUCTION NOTES

(FOR PLACEMENT OF P.C.C. PAVEMENT, MEDIAN AND CURB AND GUTTER)

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. SAWCUT THE FULL DEPTH OF EXISTING PAVEMENT, MEDIAN AND CURB AND GUTTER, AT THE LIMITS OF REMOVAL.
3. TYPE C-4 MEDIAN SHALL BE 10 INCH DEPTH P.C. CONCRETE WITH PAVEMENT FABRIC ON 6 INCH SUBBASE GRANULAR MATERIAL, TYPE B, UNLESS OTHERWISE NOTED.
4. CONSTRUCT PAVEMENT FABRIC IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 420701 AND PROVIDE 3 1/2 INCHES OF CLEARANCE BETWEEN THE PAVEMENT SURFACE AND THE TOP OF THE FABRIC.
5. DISREGARD ALL DETAILS AND NOTES REGARDING PAVEMENT BLOCKOUTS ON I.D.O.T. STANDARD NO. 420701 AND COMPLY WITH I.D.O.T. STANDARD NO. 420111 AT ALL DRAINAGE/UTILITY STRUCTURE LOCATIONS.
6. WHERE THE PROPOSED PAVEMENT OR TYPE C-4 MEDIAN ABUTS THE EXISTING PAVEMENT LONGITUDINALLY, PROVIDE A TIED LONGITUDINAL CONSTRUCTION JOINT IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 420001, USING 3/4 INCH DIAMETER TIE BARS AT 24 INCH CENTERS.
7. WHERE THE PROPOSED PAVEMENT OR TYPE C-4 MEDIAN ABUTS THE EXISTING PAVEMENT OR TYPE C-4 MEDIAN TRANSVERSELY, PROVIDE A TRANSVERSE JOINT IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 442101, USING 1 1/2 INCH DIAMETER DOWEL BARS AT 12 INCH CENTERS.
8. PROVIDE TRANSVERSE SAWED CONTRACTION JOINTS EVERY 20 FEET IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 420001, USING 1 1/2 INCH DIAMETER DOWEL BARS AT 12 INCH CENTERS AND ALIGN PROPOSED JOINTS WITH EXISTING JOINTS. SAWED, GROOVE AND JOINT SEAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH I.D.O.T. STANDARD 42 0001 (COST INCIDENTAL TO P.C.C. PAVEMENT).
9. IF A PROPOSED TRANSVERSE SAW CUT IS LOCATED LESS THAN 10 FEET FROM AN EXISTING TRANSVERSE JOINT, THEN THE EXISTING PAVEMENT OR TYPE C-4 MEDIAN SHALL BE REMOVED AND REPLACED UP TO THE EXISTING TRANSVERSE JOINT.
10. PAVEMENT PATCHES SHALL BE CLASS B, CONSTRUCTED IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 442101 AND SHALL EXTEND THE FULL WIDTH OF THE EXISTING LANE(S). WHERE PATCHING MORE THAN ONE LANE WIDTH, PROVIDE A TIED LONGITUDINAL JOINT (CONSTRUCTION OR SAWED) BETWEEN LANES, IN ACCORDANCE WITH I.D.O.T. STANDARD NO. 420001. C.C.H.D. CONSTRUCTION NOTE NUMBERS 1 THROUGH 8 SHALL APPLY TO THE CONSTRUCTION OF CLASS B PATCHES.
11. CURB AND GUTTER SHALL BE CONSTRUCTED AND TIED INTO ABUTTING EXISTING OR PROPOSED P.C.C. PAVEMENT IN ACCORDANCE WITH I.D.O.T. STANDARD NUMBERS 606001 AND 420001, USING 3/4 INCH DIAMETER TIE BARS AT 24 INCH CENTERS.
12. CONSTRUCT TYPE C-4 AND TYPE M-7 MEDIANS IN ACCORDANCE WITH THE C.C.H.D. MEDIAN STANDARD.
13. PLACEMENT OF CATCH BASINS WITHIN TYPE M-7 MEDIAN SHALL BE IN ACCORDANCE WITH THE C.C.H.D. "POLICY FOR DRAINING TYPE M-7 MEDIAN" STANDARD.
14. WHERE A MEDIAN OPENING IS PROVIDED, THE PAVEMENT SHALL BE CROWNED AT THE CENTERLINE USING A ONE PERCENT CROSS SLOPE.
15. ALL TRENCHES WITHIN THE COUNTY RIGHT OF WAY SHALL BE BACKFILLED WITH FA-6 SAND IN ACCORDANCE WITH ARTICLE 550.07 OF THE I.D.O.T. STANDARD SPECIFICATIONS. THE BACKFILLING MUST EXTEND UP TO THE PROPOSED SUBBASE IN PAVEMENT SECTIONS. COST SHALL BE INCIDENTAL TO RESPECTIVE PAY ITEM.
16. ALL PAVEMENT MARKING WORK ALONG GLENWOOD-LANSING ROAD SHALL BE PER C.C.H.D. STANDARDS.
17. ALL DISTURBED LAWN AREAS/SHOULDER AREAS WITHIN C.C.H.D. RIGHT-OF-WAY SHALL BE RESTORED WITH 4" TOPSOIL AND SOD PER THE STORM WATER POLLUTION PREVENTION PLAN. PAYMENT SHALL BE UNDER ITEM 905 AND ITEM 908 PER STANDARD SPECIFICATIONS OF CONSTRUCTION OF AIRPORTS.

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FILE: NewIntersection-2.dwg
LAYOUT: Layout1
UPDATE BY: johse
SURVEY BOOK #
DATE: Fri 3/18/05 3:30pm
XREF DWG: tbclnt.dwg
tb.dwg
netlgr-base.dwg

REVISIONS

| NUMBER | BY | DATE |
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0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

LANSING MUNICIPAL AIRPORT
LANSING, ILLINOIS

NORTH QUADRANT SITEWORK - PHASE 1
AND TAXIWAY G2 EXTENSION

INTERSECTION IMPROVEMENTS
ELECTRICAL PLAN
AND MISCELLANEOUS DETAILS

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Lansing Municipal airport

| | |
|---|---|
| DESIGN BY: | JRL |
| DRAWN BY: | JRO |
| CHECKED BY: | |
| APPROVED BY: | |
| DATE: | 03/04/05 |
| JOB No: | 03297-02 |

IL PROJECT: IGQ-3329
A.I.P. PROJECT: 3-17-0121-B21

SHEET 49 OF 50 SHEETS