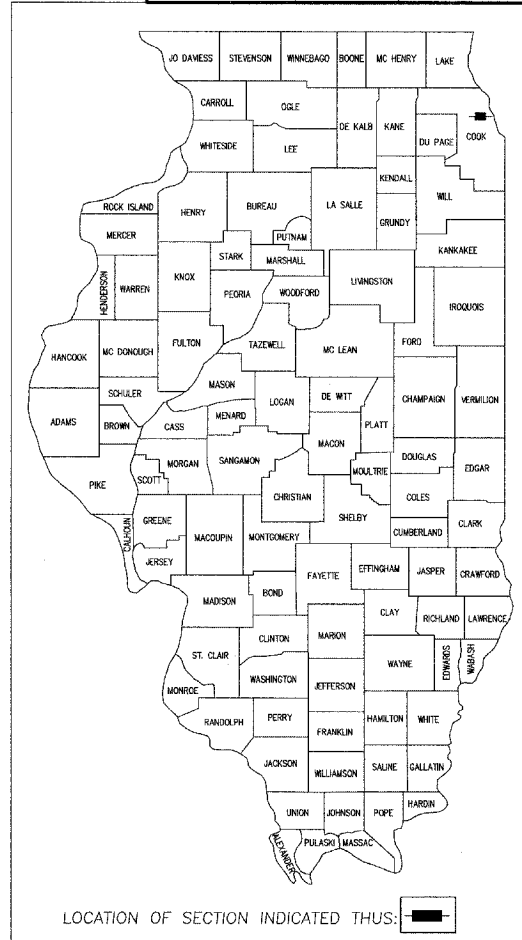


SHEET NO. INDEX OF SHEETS

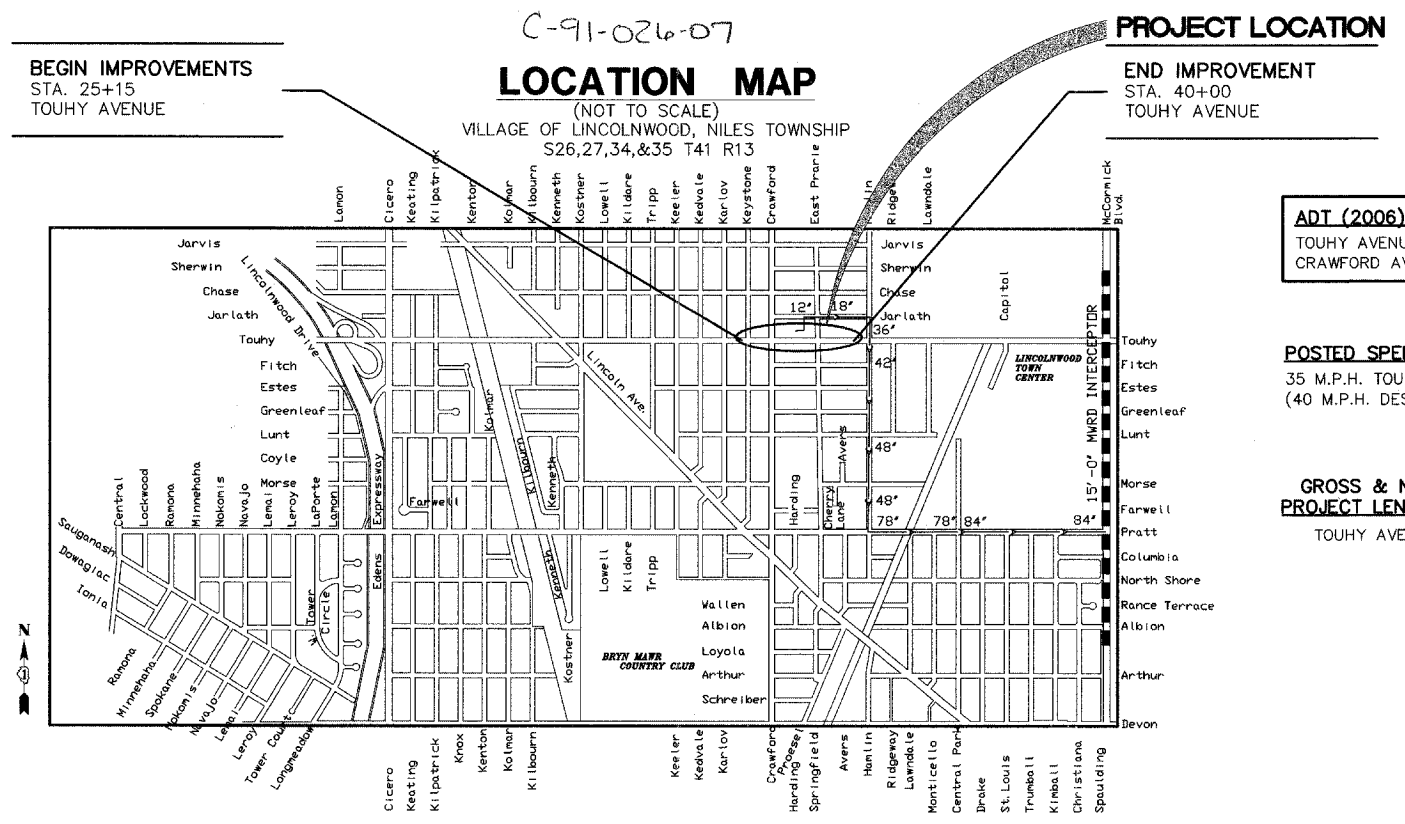
1	TITLE SHEET
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL CROSS SECTIONS
5	TRAFFIC CONTROL PLAN
6-8	EXISTING CONDITIONS / DEMOLITION PLAN
9	IMPROVEMENTS PLAN STA. 20+15 TO STA. 30+50
10	IMPROVEMENTS PLAN STA. 30+50 TO STA. 36+00
11	IMPROVEMENTS PLAN STA. 36+00 TO STA. 40+00
12	PAVEMENT MARKING PLAN
13-17	DETAILS
18-25	LIGHTING PLAN AND DETAILS
26-33	LANDSCAPE PLAN AND DETAILS
34-36	IRRIGATION PLAN AND DETAILS

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU# 1340 TOUHY AVE.
KEYSTONE AVE. TO EAST PRAIRIE AVE.
SECTION# 06 - 00048 - 00 -RS
PROJECT# TE-00D1(702)
RESURFACING, LANDSCAPING & SCENIC BEAUTIFICATION
COOK COUNTY**

P.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	1
COVER SHEET				
ILLINOIS				



COVER SHEET



ADT (2006)
TOUHY AVENUE 36,900
CRAWFORD AVENUE 14,000

POSTED SPEED LIMIT
35 M.P.H. TOUHY AVENUE
(40 M.P.H. DESIGN SPEED)

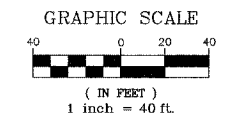
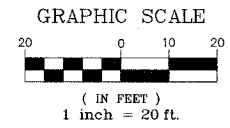
GROSS & NET PROJECT LENGTHS
TOUHY AVENUE: 1,485 FEET
0.28 MILES

THIS PROJECT IS LOCATED IN THE VILLAGE OF LINCOLNWOOD

FEDERAL AID DESIGN ENGINEER: ABIGAIL WILGREEN 847-705-4233

SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR

Call 48 hours before you dig
(Excluding Sat., Sun., & Holidays)
1-800-892-0123



- BENCHMARK INFORMATION:**
- BM # 69 - VILLAGE OF LINCOLNWOOD BENCHMARK AT NORTH END CONCRETE BASE OF LIGHT POLE AT SOUTHEAST CORNER OF KARLOV & TOUHY ELEVATION: 605.530
 - BM # 71 - VILLAGE OF LINCOLNWOOD BENCHMARK AT UPPER NORTHWEST FLANGE BOLT ON HYDRANT AT NORTHWEST CORNER OF CRAWFORD & TOUHY ELEVATION: 604.655
 - BM # 73 - VILLAGE OF LINCOLNWOOD BENCHMARK AT EAST END CONCRETE BASE OF LIGHT POLE AT NORTHEAST CORNER OF SHERWIN & EAST PRAIRIE ELEVATION: 603.202
 - BM # 84 - VILLAGE OF LINCOLNWOOD BENCHMARK AT NORTHWEST FLANGE BOLT ON HYDRANT AT NORTHWEST CORNER OF EAST PRAIRIE & ESTES ELEVATION: 601.020

ROADWAY PLANS PREPARED BY: SHEETS 1 THRU 17

GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Verona Hills, IL 60061
847-478-9700
FAX: 847-478-9701

SIGNATURE: *Steven D. Berecz*

NAME: STEVEN D. BERE CZ, P.E.
LICENSE EXPIRES: 11/30/2007

ELECTRICAL ENGINEERING PLANS BY: SHEETS 18 THRU 25

KJWW Engineering Consultants
Electrical Engineer

1771 West Diehl Road, Suite 300
Naperville, IL 60563
630-527-2320

SIGNATURE: *Jeffrey C. Pratt*

NAME: JEFFREY C. PRATT
LICENSE EXPIRES: NOVEMBER 30, 2007

LANDSCAPE ARCHITECTURE PLANS BY: SHEETS 26 THRU 36

Land Design Collaborative, Inc.
Landscape Architect

James C. Gamble
5142 Main Street
Sikeston, Illinois 60077
847-329-9777

SIGNATURE: *James C. Gamble*

NAME: JAMES C. GAMBLE
LANDSCAPE ARCHITECT
ILLINOIS LICENSE NO. 157-00002
LICENSE EXPIRES: 6/1/07

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED: *FEBRUARY 7* 20 07
J. Wilby
VILLAGE OF LINCOLNWOOD, VILLAGE ADMINISTRATOR

APPROVED: *FEBRUARY 22* 2007
C. Holt *CHRISTOPHER HOLT*
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW
February 22 2007
Diane O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PLANS PREPARED FOR:

VILLAGE OF LINCOLNWOOD
6900 LINCOLN AVENUE
LINCOLNWOOD, ILLINOIS 60712
PHONE: (847) 745-4717

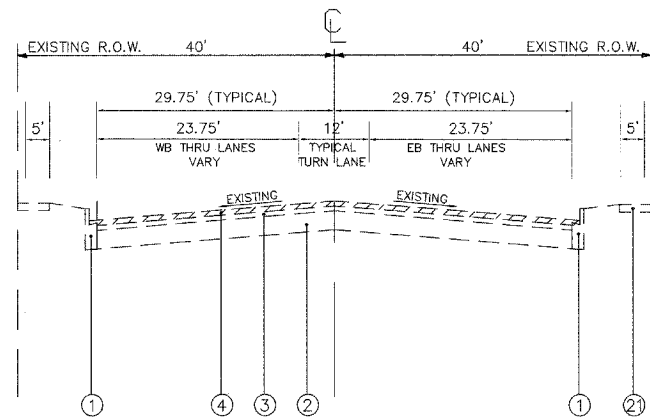
APPROVED: *TIMOTHY C. WIBERG*

SIGNATURE: *J. Wilby*

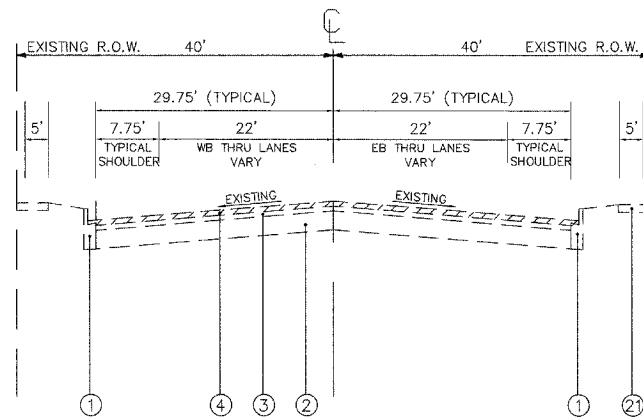
REVISIONS	
NAME	DATE

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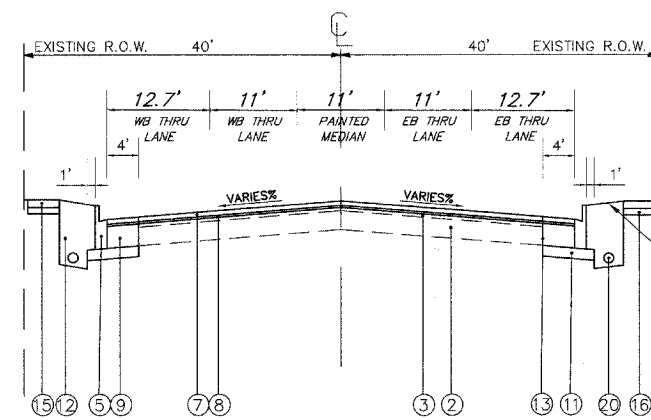
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	4
TYPICAL CROSS SECTIONS				
ILLINOIS				



TYPICAL EXISTING CROSS SECTIONS (TOUHY AVE.)
FROM STA. 29+20 TO STA. 33+60



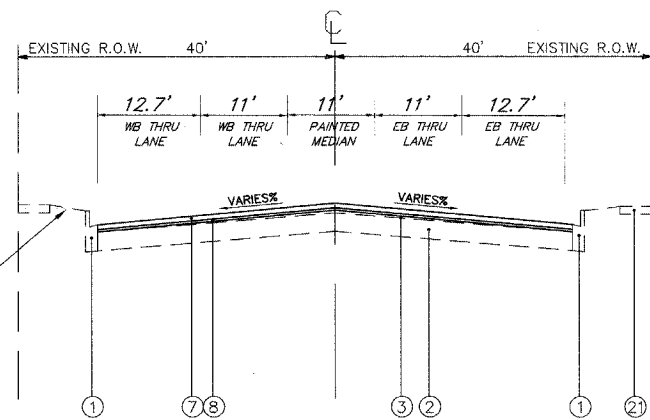
TYPICAL EXISTING CROSS SECTIONS (TOUHY AVE.)
FROM STA. 25+15 TO STA. 29+20
FROM STA. 33+60 TO STA. 40+00



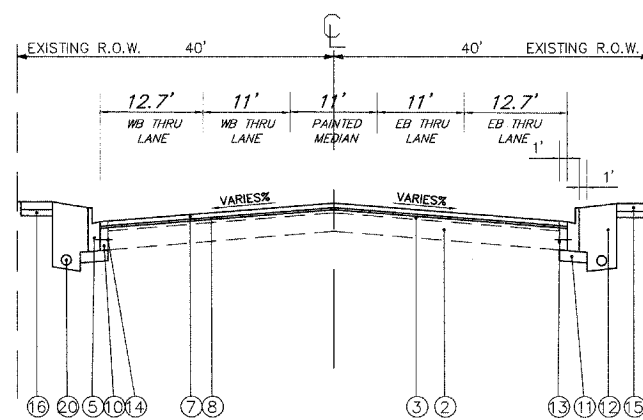
TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 31+67 TO STA. 33+10
FROM STA. 35+65 TO STA. 37+65

LEGEND

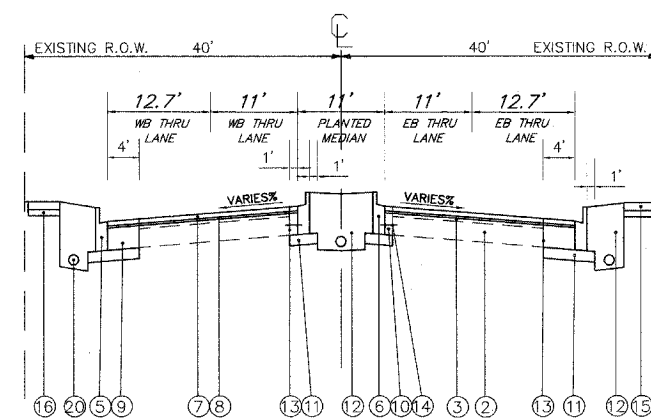
1. EXISTING COMB. CONC. CURB & GUTTER TYPE B6.12 (VARIABLE HEIGHT)
2. EXISTING P.C.C. BASE COURSE (7") +/-
3. EXISTING BITUMINOUS OVERLAY (3-3/4") (AVERAGE)
4. HOT-MIX ASPHALT SURFACE REMOVAL, 2-1/2"
5. COMB. CONC. CURB & GUTTER TYPE, B.6-12
6. COMB. CONC. CURB & GUTTER TYPE, B.6-12 (PITCH OUT)
7. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1-3/4"
8. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"
9. HOT-MIX ASPHALT BASE COURSE 10"
10. PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"
11. SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
12. EARTH EXCAVATION AND TOPSOIL FURNISH AND PLACE, 24"
13. SAW-CUTS
14. 6# TIE BARS 24" LONG, 24" O/C (INCIDENTAL TO COMB. CONC. CURB AND GUTTER)
15. PCC SIDEWALK, 8" OR UNIT PAVERS
16. AGGREGATE BASE COURSE, TYPE B, 4"
17. HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50, 2"
18. HOT-MIX ASPHALT BINDER COURSE, IL-19, N50, 3"
19. SUB-BASE GRANULAR MATERIAL, TYPE B, 8" (2 LIFTS)
20. PIPE UNDERDRAINS, FABRIC LINED TRENCH, 4"
21. EXISTING PCC SIDEWALK



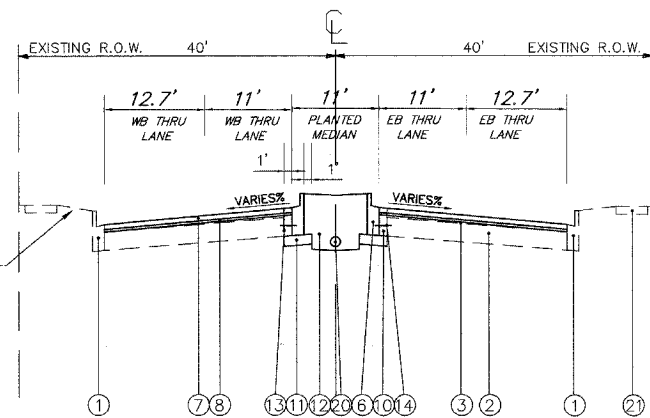
TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 25+15 TO STA. 26+62
FROM STA. 39+18 TO STA. 40+00



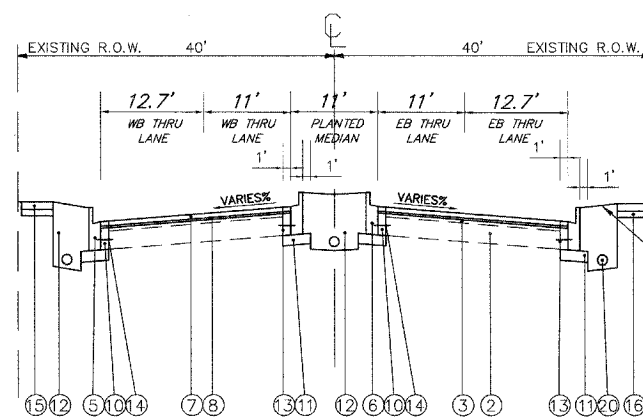
TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 28+45 TO STA. 31+00



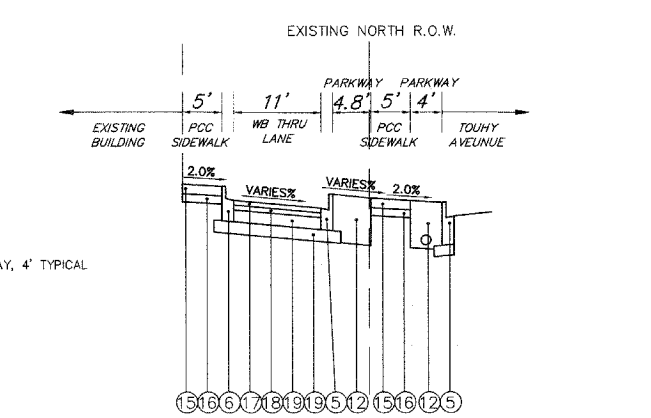
TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 33+10 TO STA. 35+65



TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 26+62 TO STA. 27+73
FROM STA. 38+06 TO STA. 39+18 (NORTH SIDE ROW ONLY)



TYPICAL PROPOSED CROSS SECTIONS (TOUHY AVE.)
FROM STA. 38+06 TO STA. 39+18 (SOUTH SIDE ROW ONLY)



PROPOSED CROSS SECTION (PARKING ACCESS)
SAMPLED AT STA. 35+00

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

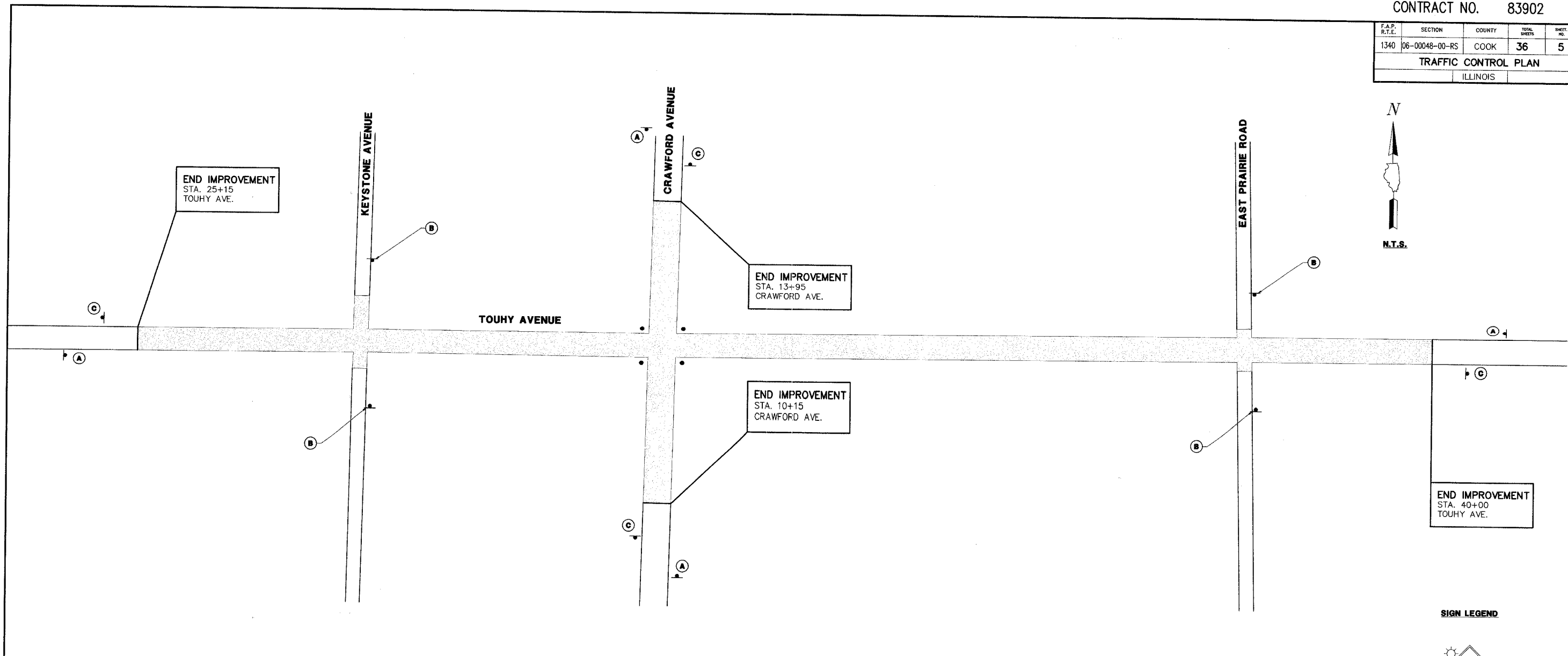
ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL CROSS SECTIONS

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS

SCALE: N.T.S.
DATE: 11-2-06

DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	5
TRAFFIC CONTROL PLAN				
ILLINOIS				



TRAFFIC CONTROL GENERAL NOTES

- ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JAN. 1, 2007", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 1990", THE DETAILS IN THESE PLANS, AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- IF DEEMED NECESSARY BY THE ENGINEER, A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST ONE WEEK PRIOR TO THE DAY THE ROADWAY CLOSURE IS TO BE IN EFFECT.
- THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF HIS REPRESENTATIVES ON THE CONSTRUCTION SITE AND HIS REPRESENTATIVE RESPONSIBLE FOR THE TRAFFIC CONTROL PLAN SIGNING PRIOR TO THE START OF THE WORK.
- LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS WITH THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATION 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE TRAFFIC CONTROL PLAN IS IN EFFECT.
- THE TRAFFIC CONTROL SHOWN ON THIS PLAN IS THE MINIMUM NECESSARY TO ENSURE THESE ROADWAY IMPROVEMENTS. THE CONTRACTOR SHALL MAKE ALL CHANGES IN TRAFFIC CONTROL DEEMED NECESSARY BY THE ENGINEER. ADDITIONS AND DELETIONS OF TRAFFIC CONTROL FOR THIS PLAN SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION." (SPECIAL).
- THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- AS A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED FOR THIS DETOUR SHALL MEET THE REQUIREMENTS FOR TYPE 'A' LOW INTENSITY FLASHING LIGHTS IN ARTICLE 1084.01 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING THE HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.
- ALL BARRICADES SHALL HAVE REFLECTORIZED STRIPING ON BOTH SIDES OF THE BARRICADES. THE TYPE III BARRICADES USED AT THE POINT OF CLOSURE TO THRU TRAFFIC SHALL NOT EXCEED EIGHT FEET (2.4m) IN WIDTH EACH, FOR A SINGLE APPROACH LANE.
- TEMPORARY PAVEMENT MARKING PLACEMENT TO BE DETERMINED IN THE FIELD BY CONTRACTOR WITH THE CONSENT OF THE RESIDENT ENGINEER.

TRAFFIC CONTROL GENERAL NOTES Continued

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL TRAFFIC CONTROL AND CONSTRUCTION SIGNING, INCLUDING BRUSHING BACK VEGETATION IF DEEMED NECESSARY BY THE ENGINEER.
- THE FOLLOWING ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARDS ARE APPLICABLE FOR THIS WORK:
 - 701601-04 URBAN LANE CLOSURE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
 - 701602-02 URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIIRECTIONAL LEFT TURN LANE
 - 701606-04 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
 - 701701-03 URBAN LANE CLOSURE, MULTILANE INTERSECTION
 - 701801-03 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
 - 702001-02 TRAFFIC CONTROL DEVICES
 - TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
 - TC-11 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
 - TC-13 DISTRICT ONE TYPICAL PAVEMENT MARKINGS
 - TC-14 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
 - TC-16 PAVEMENT MARKINGS - LETTERS & SYMBOLS FOR TRAFFIC STAGING
 - TS-07 DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING AND ANY OTHER APPLICABLE STANDARDS NOT LISTED ABOVE
- BARRICADES WILL BE REQUIRED ADJACENT TO PAVEMENT EDGES WHERE CURB & GUTTER, WIDENING OR OVERLAYING WORK IS BEING DONE, AS SPECIFIED IN SECTIONS 701 AND 702 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", EXCEPT THAT THE BARRICADES SHALL BE TYPE II (OR DRUMS), NON-METALLIC WITH STEADY-BURNING LIGHTS. SPACING SHALL BE AT 15m (50ft) CENTERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- ROAD NAME PLATES SHALL BE INSTALLED UNDER "ROAD WORK AHEAD" SIGNS AT THE LOCATIONS SHOWN. NAME PLATES SHALL BE 9" BLANKS WITH 6" UPPER CASE AND 5" LOWER CASE LETTERS.
- ALL CONSTRUCTION SIGNS SHALL HAVE FLUORESCENT ORANGE BACKGROUNDS.

LEGEND

- SIGNALIZED INTERSECTION
- W20-1 48 IN. x 48 IN. CONSTRUCTION WARNING SIGN, WITH AMBER FLASHING LIGHT
- SIGN ON PERMANENT SUPPORT
- M6 SERIES SIGNS
- CONSTRUCTION WORK ZONE

SIGN LEGEND

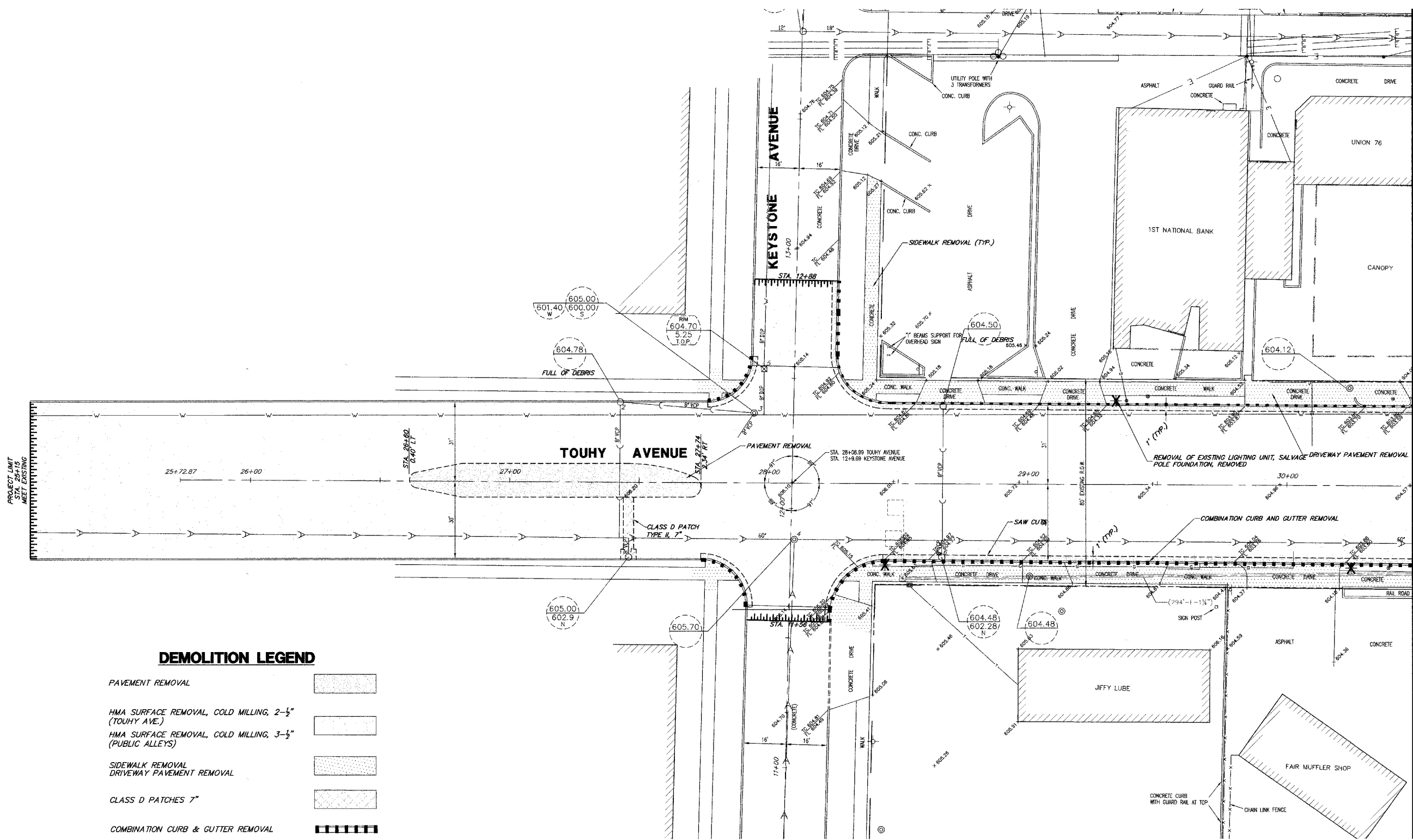
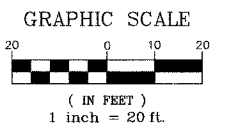
- ROAD CONSTRUCTION AHEAD (A)
- ROAD CONSTRUCTION AHEAD (B)
- END CONSTRUCTION (C)

PLANS PREPARED BY:
GEWALT HAMILTON
 ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
 BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06-00048-00-RS
 DRAWN BY: DSM
 DESIGNED BY: DSM
 CHECKED BY: SDB
 SCALE: N.T.S.
 DATE: 11-2-06

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	6
EXISTING CONDITIONS/ DEMO PLAN				
ILLINOIS				



DEMOLITION LEGEND

- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, COLD MILLING, 2-3" (TOUHY AVE.)
- HMA SURFACE REMOVAL, COLD MILLING, 3-1/2" (PUBLIC ALLEYS)
- SIDEWALK REMOVAL
DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCHES 7"
- COMBINATION CURB & GUTTER REMOVAL
- STORM SEWER REMOVAL, 12"
- BUTT JOINT
- SAW CUTS
- REMOVING MANHOLES
REMOVING INLETS
- REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE
POLE FOUNDATION, REMOVED

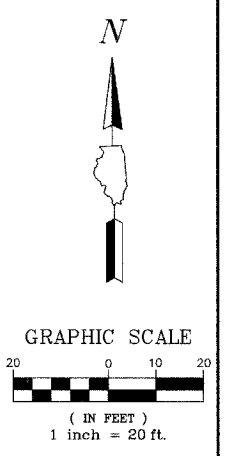
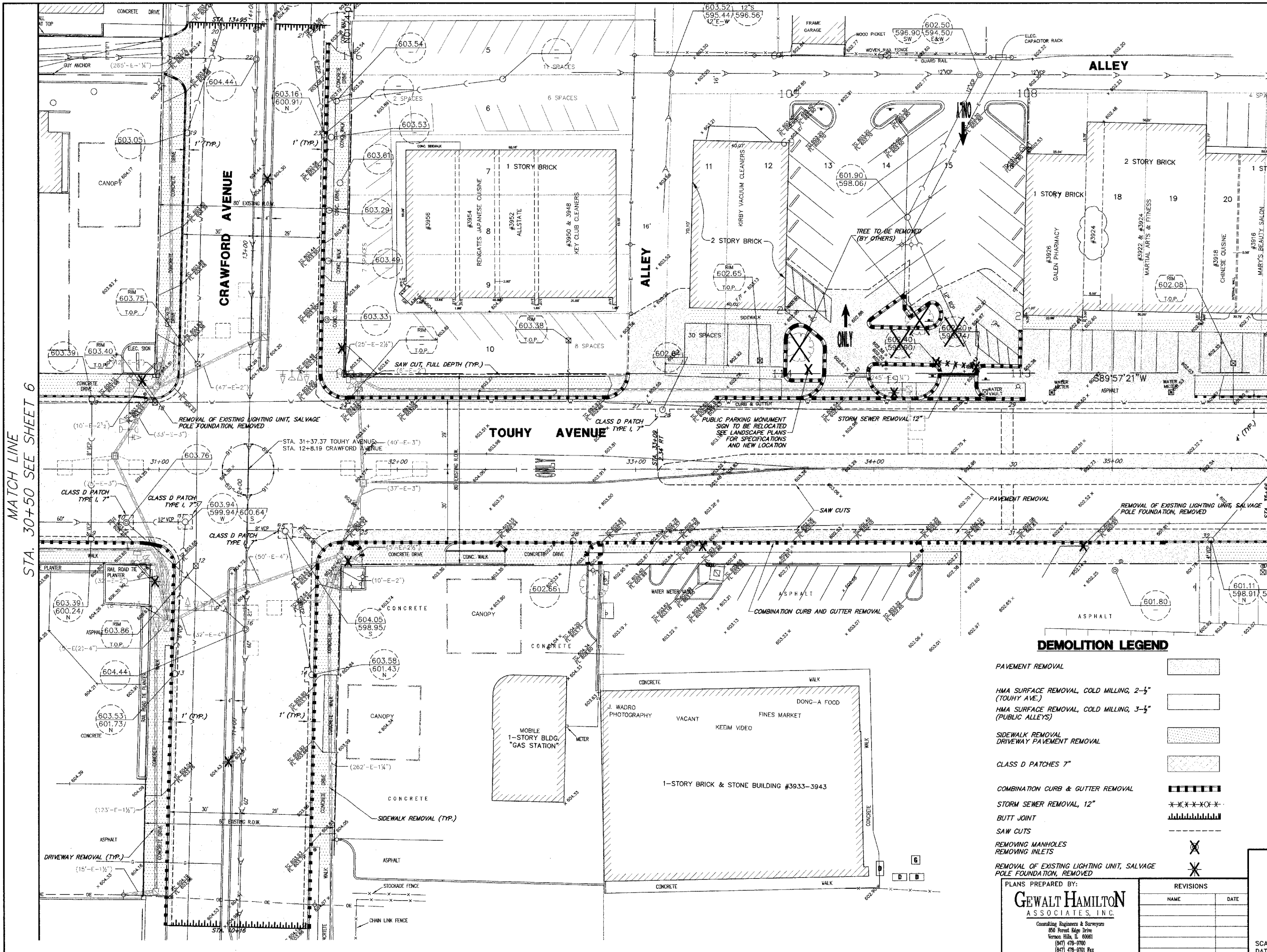
MATCH LINE
STA. 30+50 SEE SHEET 7

PLANS PREPARED BY:
GEWALT HAMILTON
ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**EXISTING CONDITIONS/
DEMOLITION PLAN**
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS
SCALE: 1" = 20'
DATE: 11-2-06
DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	7
EXISTING CONDITIONS/ DEMO PLAN				
ILLINOIS				



DEMOLITION LEGEND

- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, COLD MILLING, 2-1/2" (TOUHY AVE.)
- HMA SURFACE REMOVAL, COLD MILLING, 3-1/2" (PUBLIC ALLEYS)
- SIDEWALK REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCHES 7"
- COMBINATION CURB & GUTTER REMOVAL
- STORM SEWER REMOVAL, 12"
- BUTT JOINT
- SAW CUTS
- REMOVING MANHOLES
- REMOVING INLETS
- REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE POLE FOUNDATION, REMOVED

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING CONDITIONS/ DEMOLITION PLAN
 BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06-00048-00-RS

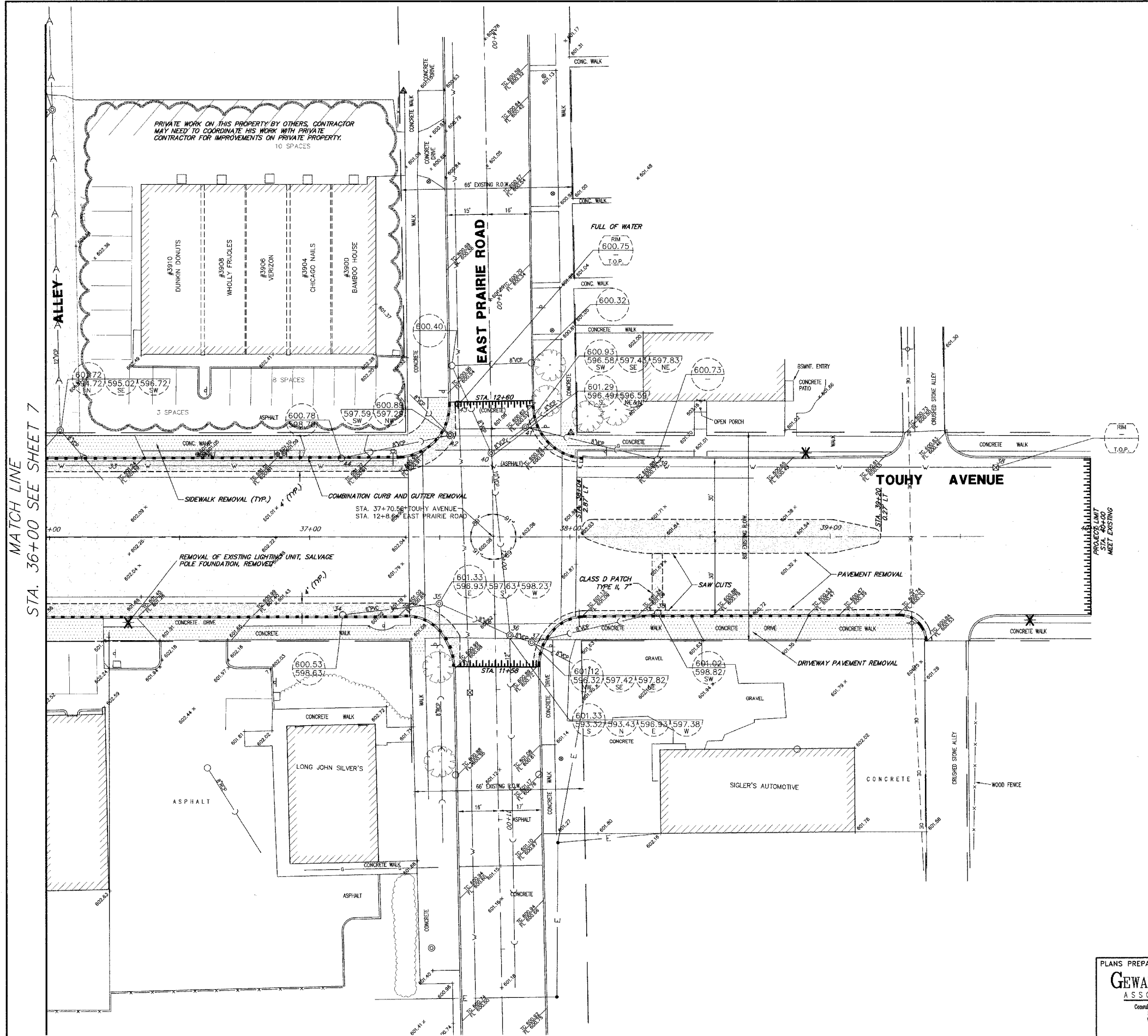
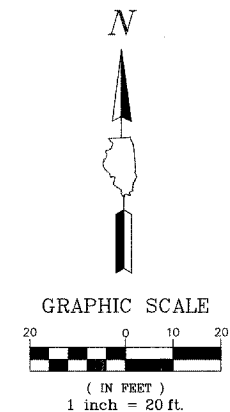
SCALE: 1" = 20'
 DATE: 11-2-06

DRAWN BY: DSM
 DESIGNED BY: DSM
 CHECKED BY: SDB

MATCH LINE STA. 30+50 SEE SHEET 6

MATCH LINE STA. 36+00 SEE SHEET 8

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	8
EXISTING CONDITIONS/ DEMO PLAN				
ILLINOIS				



DEMOLITION LEGEND

- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, COLD MILLING, 2-3" (TOUHY AVE.)
- HMA SURFACE REMOVAL, COLD MILLING, 3-1/2" (PUBLIC ALLEYS)
- SIDEWALK REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- CLASS D PATCHES 7"
- COMBINATION CURB & GUTTER REMOVAL
- STORM SEWER REMOVAL, 12"
- BUTT JOINT
- SAW CUTS
- REMOVING MANHOLES
- REMOVING INLETS
- REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE POLE FOUNDATION, REMOVED

MATCH LINE
STA. 36+00 SEE SHEET 7

PLANS PREPARED BY:
GEWALT HAMILTON
ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60061
(847) 476-9700
(847) 476-9700 Fax

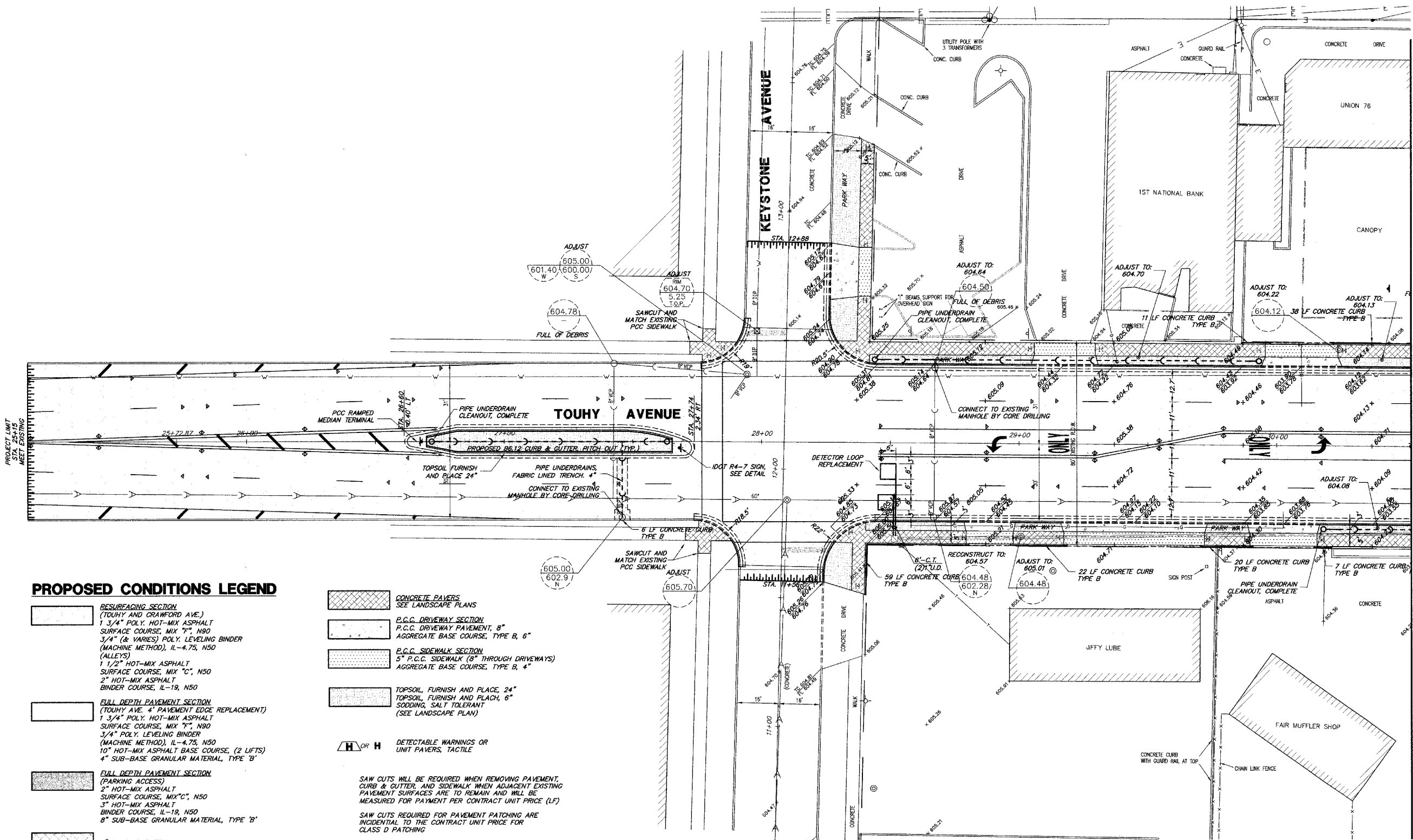
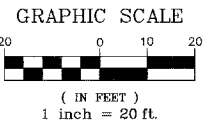
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**EXISTING CONDITIONS/
DEMOLITION PLAN**
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS

SCALE: 1" = 20'
DATE: 11-2-06

DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	9
IMPRV PLAN STA. 20+15 TO 30+50				
ILLINOIS				



PROPOSED CONDITIONS LEGEND

- RESURFACING SECTION**
(TOUHY AND CRAWFORD AVE.)
1 3/4" POLY. HOT-MIX ASPHALT
SURFACE COURSE, MIX "T", N90
3/4" (& VARIES) POLY. LEVELING BINDER
(MACHINE METHOD), IL-4.75, N50
(ALLEYS)
1 1/2" HOT-MIX ASPHALT
SURFACE COURSE, MIX "C", N50
2" HOT-MIX ASPHALT
BINDER COURSE, IL-19, N50
- FULL DEPTH PAVEMENT SECTION**
(TOUHY AVE. 4' PAVEMENT EDGE REPLACEMENT)
1 3/4" POLY. HOT-MIX ASPHALT
SURFACE COURSE, MIX "T", N90
3/4" POLY. LEVELING BINDER
(MACHINE METHOD), IL-4.75, N50
10" HOT-MIX ASPHALT BASE COURSE, (2 LIFTS)
4" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- FULL DEPTH PAVEMENT SECTION**
(PARKING ACCESS)
2" HOT-MIX ASPHALT
SURFACE COURSE, MIX "C", N50
3" HOT-MIX ASPHALT
BINDER COURSE, IL-19, N50
8" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- 7" CLASS D PATCH**
- COMBINATION CONC. CURB & GUTTER, B6.12**
- COMBINATION CONC. CURB & GUTTER, B6.12
DEPRESSED CURB SECTION**
- COMBINATION CONC. CURB & GUTTER, B6.12
PITCH OUT**

- CONCRETE PAVERS**
SEE LANDSCAPE PLANS
- P.C.C. DRIVEWAY SECTION**
P.C.C. DRIVEWAY PAVEMENT, 8"
AGGREGATE BASE COURSE, TYPE B, 6"
- P.C.C. SIDEWALK SECTION**
5" P.C.C. SIDEWALK (8" THROUGH DRIVEWAYS)
AGGREGATE BASE COURSE, TYPE B, 4"
- TOPSOIL, FURNISH AND PLACE, 24"**
TOPSOIL, FURNISH AND PLACE, 6"
SOODING, SALT TOLERANT
(SEE LANDSCAPE PLAN)

H OR **H** DETECTABLE WARNINGS OR
UNIT PAVERS, TACTILE

SAW CUTS WILL BE REQUIRED WHEN REMOVING PAVEMENT,
CURB & GUTTER, AND SIDEWALK WHEN ADJACENT EXISTING
PAVEMENT SURFACES ARE TO REMAIN AND WILL BE
MEASURED FOR PAYMENT PER CONTRACT UNIT PRICE (LF)

SAW CUTS REQUIRED FOR PAVEMENT PATCHING ARE
INCIDENTAL TO THE CONTRACT UNIT PRICE FOR
CLASS D PATCHING

MATCH LINE
STA. 30+50 SEE SHEET 10

PLANS PREPARED BY:
GEWALT HAMILTON
ASSOCIATES, INC.
Consulting Engineers & Surveyors
650 Forest Edge Drive
Vernon Hills, IL 60061
(847) 476-9700
(847) 476-9701 Fax

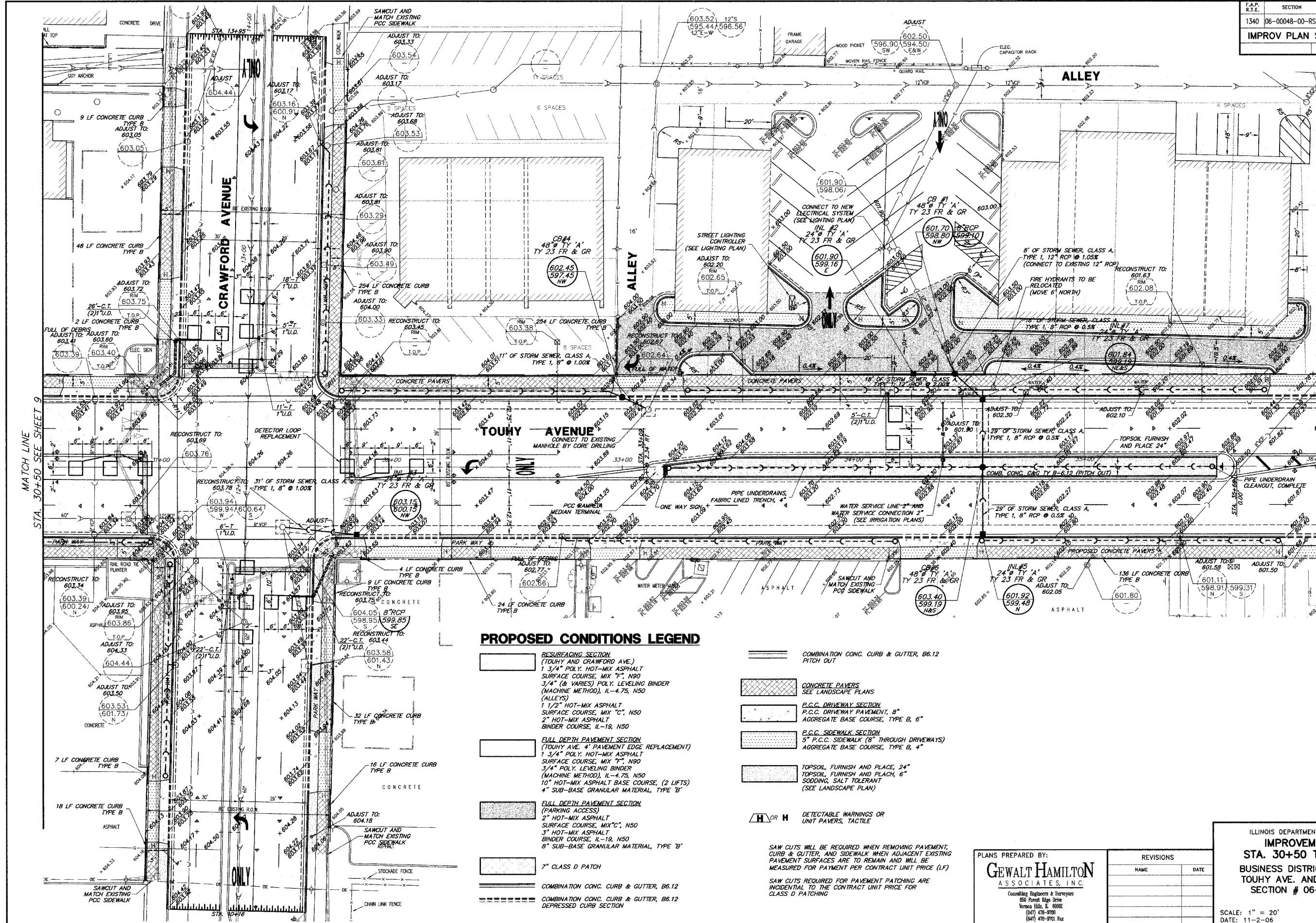
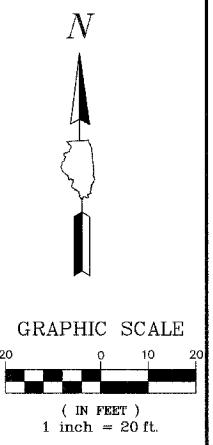
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IMPROVEMENTS PLAN
STA. 20+15 TO STA. 30+50
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS

SCALE: 1" = 20'
DATE: 11-2-06

DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	10
IMPROV PLAN STA. 30+50 TO 36+00				
ILLINOIS				



PROPOSED CONDITIONS LEGEND

- RESURFACING SECTION (TOUHY AND CRAWFORD AVE.)
1 3/4" POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "T", N50
3/4" (& VARIES) POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50
- CONCRETE PAVERS
SEE LANDSCAPE PLANS
- P.C.C. DRIVEWAY SECTION
P.C.C. DRIVEWAY PAVEMENT, 8"
AGGREGATE BASE COURSE, TYPE B, 6"
- P.C.C. SIDEWALK SECTION
5" P.C.C. SIDEWALK (8" THROUGH DRIVEWAYS)
AGGREGATE BASE COURSE, TYPE B, 4"
- TOPSOIL FURNISH AND PLACE, 24"
TOPSOIL FURNISH AND PLACE, 6"
SODDING, SALT TOLERANT
(SEE LANDSCAPE PLAN)
- DETECTABLE WARNINGS OR UNIT PAVERS, TACTILE
- COMBINATION CONC. CURB & GUTTER, B6.12
PITCH OUT
- CONCRETE
- FULL DEPTH PAVEMENT SECTION (TOUHY AVE. 4' PAVEMENT EDGE REPLACEMENT)
1 3/4" POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "T", N50
3/4" POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50
10" HOT-MIX ASPHALT BASE COURSE, (2 LIFTS)
4" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- FULL DEPTH PAVEMENT SECTION (PARKING ACCESS)
2" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
3" HOT-MIX ASPHALT BINDER COURSE, IL-19, N50
8" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- 7" CLASS D PATCH
- COMBINATION CONC. CURB & GUTTER, B6.12
- COMBINATION CONC. CURB & GUTTER, B6.12
DEPRESSED CURB SECTION

SAW CUTS WILL BE REQUIRED WHEN REMOVING PAVEMENT, CURB & GUTTER, AND SIDEWALK WHEN ADJACENT EXISTING PAVEMENT SURFACES ARE TO REMAIN AND WILL BE MEASURED FOR PAYMENT PER CONTRACT UNIT PRICE (LF)

SAW CUTS REQUIRED FOR PAVEMENT PATCHING ARE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR CLASS D PATCHING

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60069
(847) 470-9700
(847) 470-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IMPROVEMENTS PLAN
STA. 30+50 TO STA. 36+00
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS

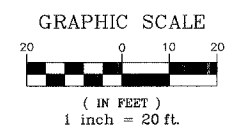
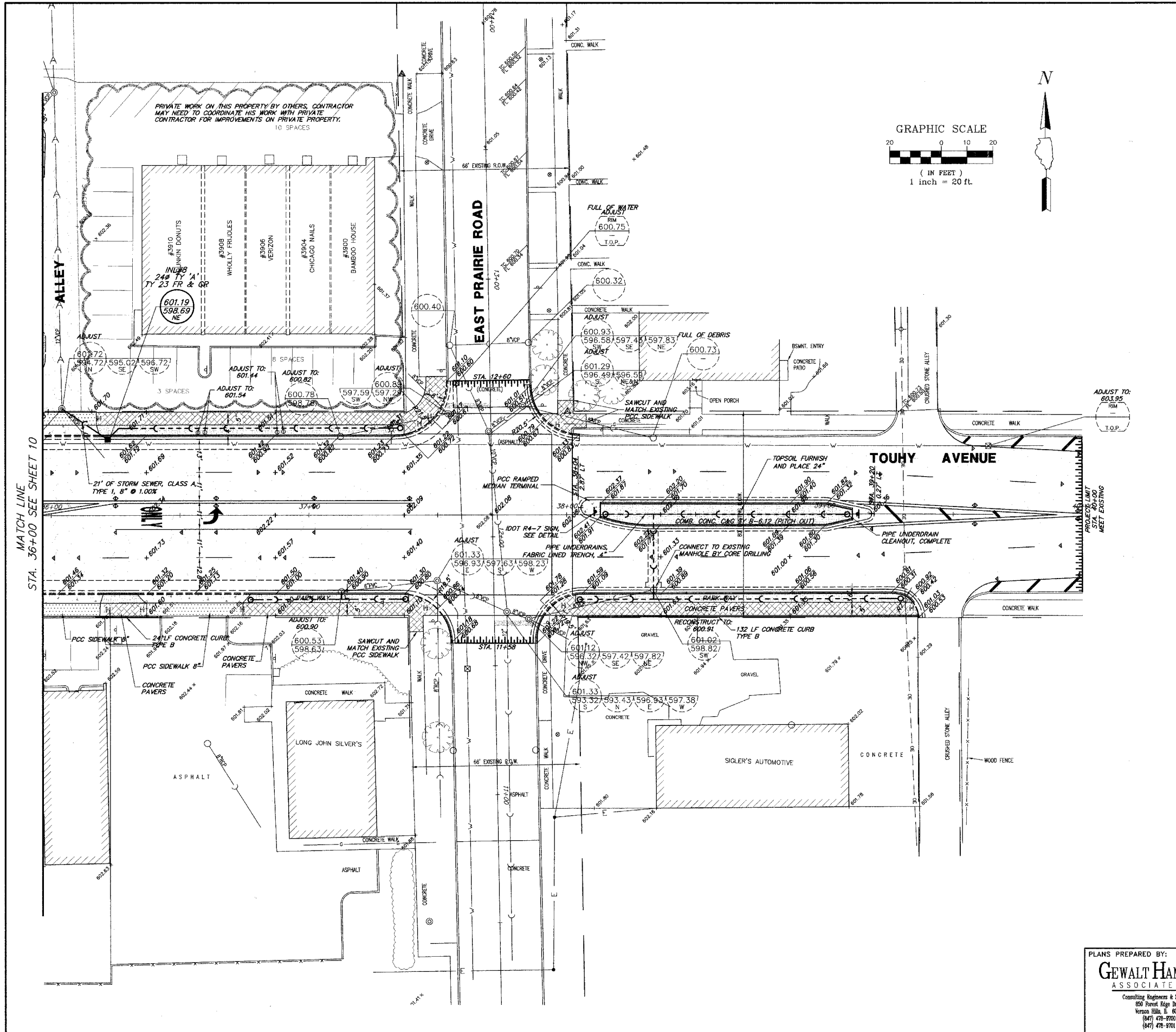
SCALE: 1" = 20'
DATE: 11-2-06

DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

MATCH LINE STA. 30+50 SEE SHEET 9

MATCH LINE STA. 36+00 SEE SHEET 11

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	11
IMPRV PLAN STA. 36+00 TO 40+00				
ILLINOIS				



PROPOSED CONDITIONS LEGEND

- RESURFACING SECTION (TOUHY AND CRAWFORD AVE.)**
 1 3/4" POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90
 3/4" (& VARIES) POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (ALLEYS)
 1 1/2" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
 2" HOT-MIX ASPHALT BINDER COURSE, IL-19, N50
- FULL DEPTH PAVEMENT SECTION (TOUHY AVE. 4' PAVEMENT EDGE REPLACEMENT)**
 1 3/4" POLY. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90
 3/4" POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50
 10" HOT-MIX ASPHALT BASE COURSE, (2 LIFTS)
 4" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- FULL DEPTH PAVEMENT SECTION (PARKING ACCESS)**
 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
 3" HOT-MIX ASPHALT BINDER COURSE, IL-19, N50
 8" SUB-BASE GRANULAR MATERIAL, TYPE "B"
- 7" CLASS D PATCH**
- COMBINATION CONC. CURB & GUTTER, B6.12**
- COMBINATION CONC. CURB & GUTTER, B6.12 DEPRESSED CURB SECTION**
- COMBINATION CONC. CURB & GUTTER, B6.12 PITCH OUT**
- CONCRETE PAVERS**
 SEE LANDSCAPE PLANS
- P.C.C. DRIVEWAY SECTION**
 P.C.C. DRIVEWAY PAVEMENT, 8"
 AGGREGATE BASE COURSE, TYPE B, 6"
- P.C.C. SIDEWALK SECTION**
 5" P.C.C. SIDEWALK (8" THROUGH DRIVEWAYS)
 AGGREGATE BASE COURSE, TYPE B, 4"
- TOPSOIL, FURNISH AND PLACE, 24"**
 TOPSOIL, FURNISH AND PLACE, 6"
 SOODING, SALT TOLERANT (SEE LANDSCAPE PLAN)
- H OR H DETECTABLE WARNINGS OR UNIT PAVERS, TACTILE**

SAW CUTS WILL BE REQUIRED WHEN REMOVING PAVEMENT, CURB & GUTTER, AND SIDEWALK WHEN ADJACENT EXISTING PAVEMENT SURFACES ARE TO REMAIN AND WILL BE MEASURED FOR PAYMENT PER CONTRACT UNIT PRICE (LF)

SAW CUTS REQUIRED FOR PAVEMENT PATCHING ARE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR CLASS D PATCHING

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

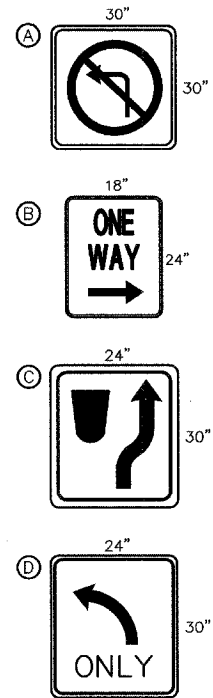
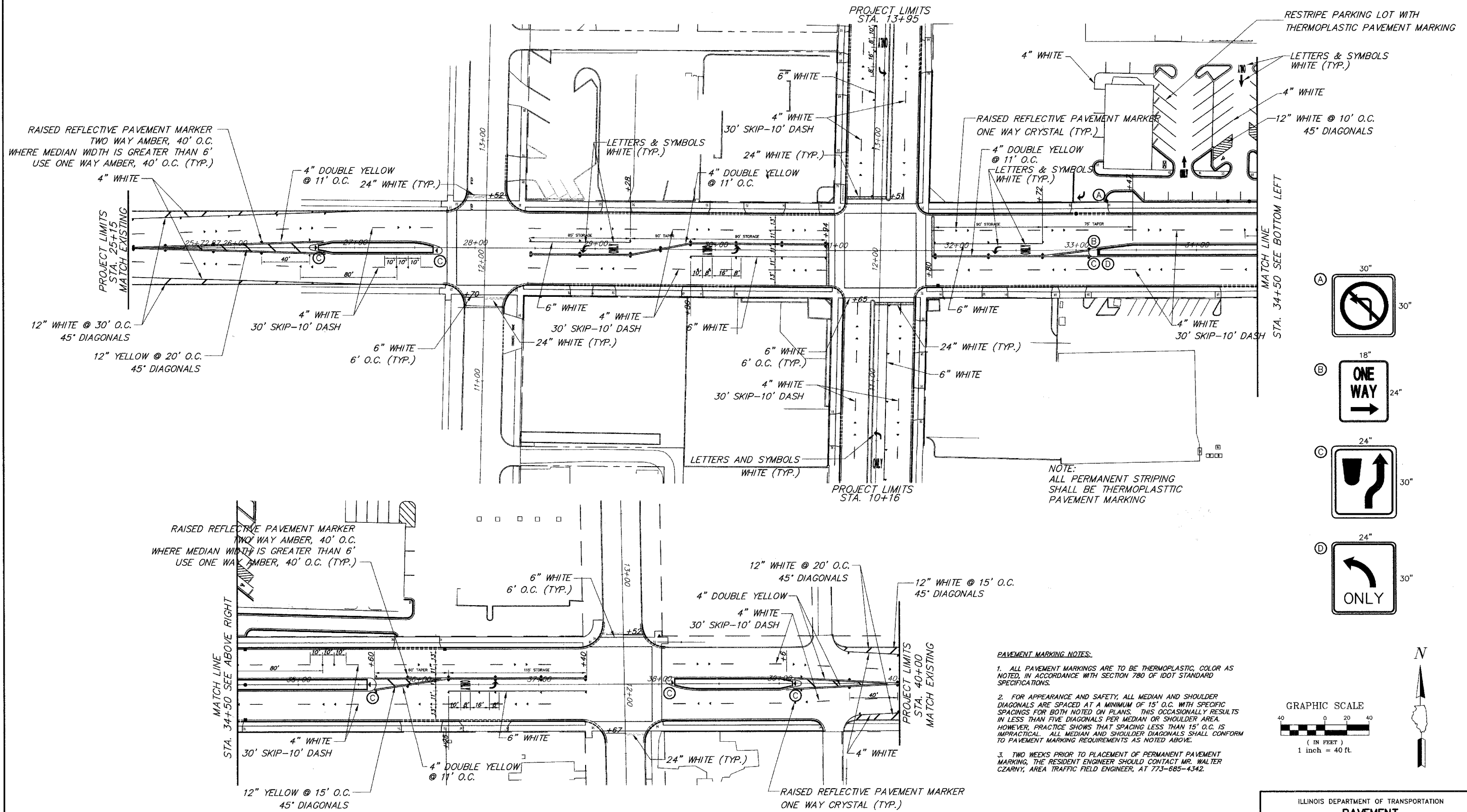
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IMPROVEMENTS PLAN
STA. 36+00 TO STA. 40+00
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS

SCALE: 1" = 20'
 DATE: 11-2-06

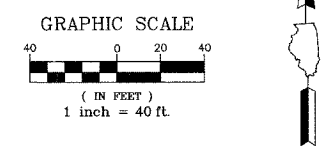
DRAWN BY: DSM
 DESIGNED BY: DSM
 CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	12
PAVEMENT MARKING PLAN				
ILLINOIS				



NOTE:
ALL PERMANENT STRIPING
SHALL BE THERMOPLASTIC
PAVEMENT MARKING

- PAVEMENT MARKING NOTES:**
1. ALL PAVEMENT MARKINGS ARE TO BE THERMOPLASTIC, COLOR AS NOTED, IN ACCORDANCE WITH SECTION 780 OF IDOT STANDARD SPECIFICATIONS.
 2. FOR APPEARANCE AND SAFETY, ALL MEDIAN AND SHOULDER DIAGONALS ARE SPACED AT A MINIMUM OF 15' O.C. WITH SPECIFIC SPACINGS FOR BOTH NOTED ON PLANS. THIS OCCASIONALLY RESULTS IN LESS THAN FIVE DIAGONALS PER MEDIAN OR SHOULDER AREA. HOWEVER, PRACTICE SHOWS THAT SPACING LESS THAN 15' O.C. IS IMPRACTICAL. ALL MEDIAN AND SHOULDER DIAGONALS SHALL CONFORM TO PAVEMENT MARKING REQUIREMENTS AS NOTED ABOVE.
 3. TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING, THE RESIDENT ENGINEER SHOULD CONTACT MR. WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT 773-685-4342.

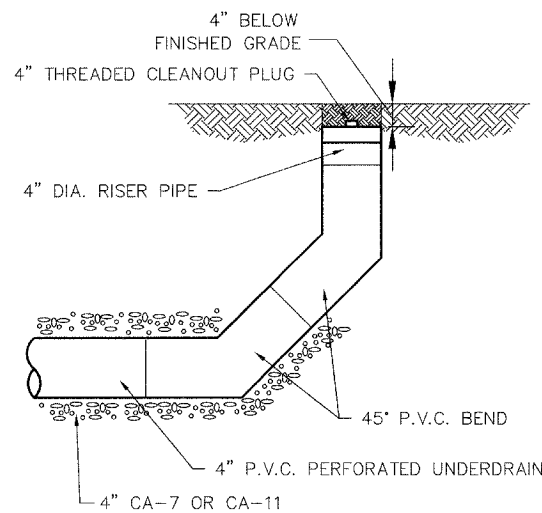


PLANS PREPARED BY:
GEWALT HAMILTON
ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Edge Drive
Vernon Hills, IL 60061
(815) 476-9700
(815) 476-9701 Fax

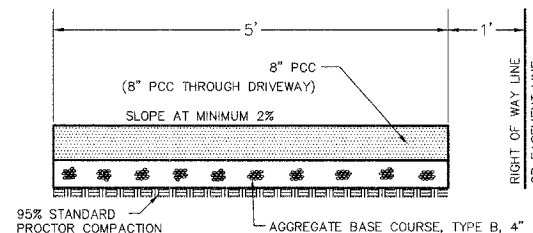
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING PLAN
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06-00048-00-RS
SCALE: 1" = 40'
DATE: 11-2-06
DRAWN BY: DSM
DESIGNED BY: DSM
CHECKED BY: SDB

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	13
DETAILS				
ILLINOIS				

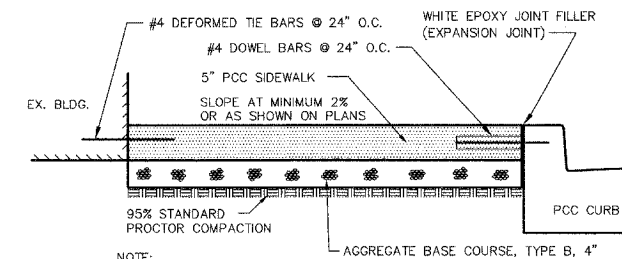


DRAIN PIPE CLEAN-OUT



- NOTE:**
1. SET 3/4" EXPANSION JOINTS AT POINTS ABUTTING CURB OR PAVEMENT AND AT 45' MAX. INTERVALS.
 2. CONTROL JOINTS SHALL BE 1/8" TO 1/4" WIDE AND 1/4" OF THE SIDEWALK THICKNESS DEEP. THE EDGE OF THE CONTROL JOINTS SHALL BE GIVEN A 1/4" RADIUS.
 3. TWO #5 DEFORMED STEEL BARS SHALL BE INSTALLED IN THE SIDEWALK CENTERED OVER ALL TRENCH CROSSINGS. THEY SHALL EXTEND 10 FEET BEYOND THE EDGES OF THE TRENCH.

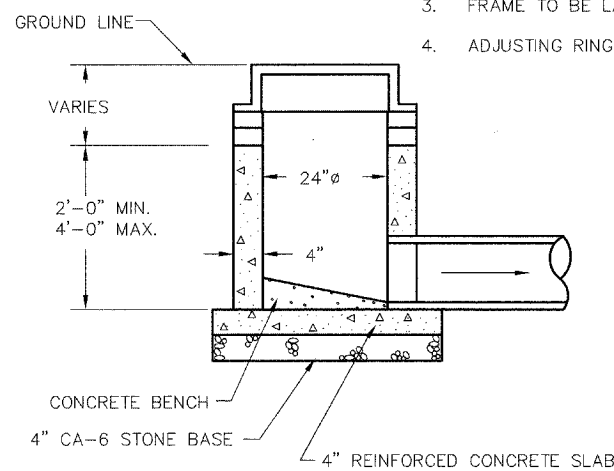
PCC SIDEWALK 8"



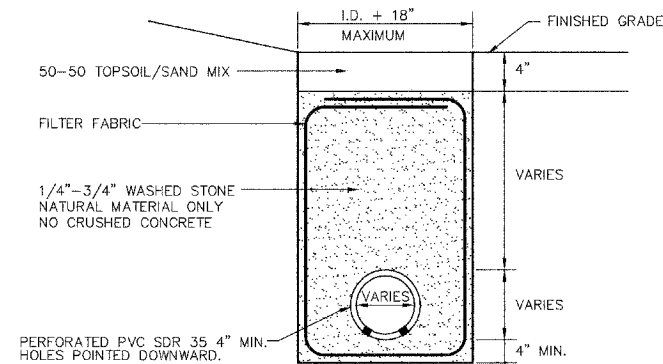
- NOTE:**
1. SET 3/4" WHITE EPOXY EXPANSION JOINTS AT POINTS ABUTTING CURB OR PAVEMENT AND AT 60' MAX. INTERVALS.
 2. CONTROL JOINTS SHALL BE 1/8" TO 1/4" WIDE AND 1/4" OF THE SIDEWALK THICKNESS DEEP. THE EDGE OF THE CONTROL JOINTS SHALL BE GIVEN A 1/4" RADIUS.
 3. SIDEWALK WIDTH AS SHOWN ON PLANS.
 3. ALL STEEL BARS SHOWN ARE EPOXY COATED.

PCC SIDEWALK 5" (ADJACENT TO BUILDINGS)

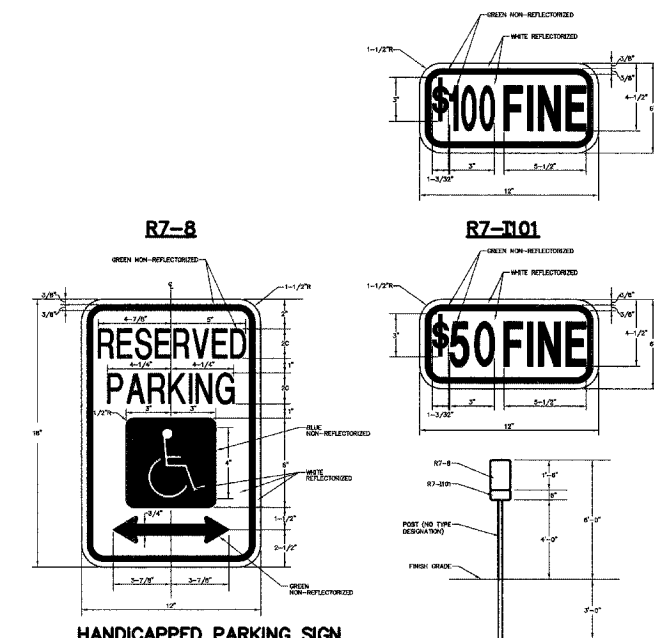
- NOTES:**
1. PIPE OPENINGS TO BE PRECAST INTO WALLS.
 2. PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
 3. FRAME TO BE LAID IN 3/4" MASTIC BED.
 4. ADJUSTING RINGS NOT TO EXCEED 8".



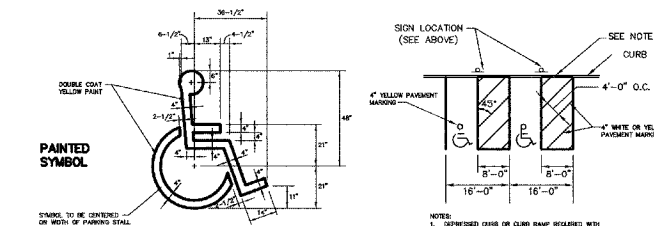
INLET



UNDERDRAIN DETAIL

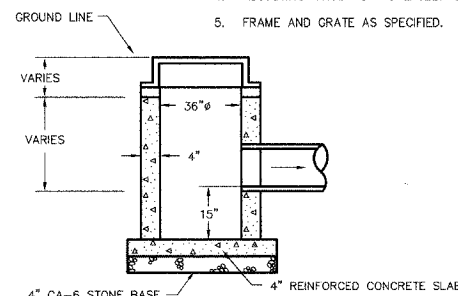


HANDICAPPED PARKING SIGN



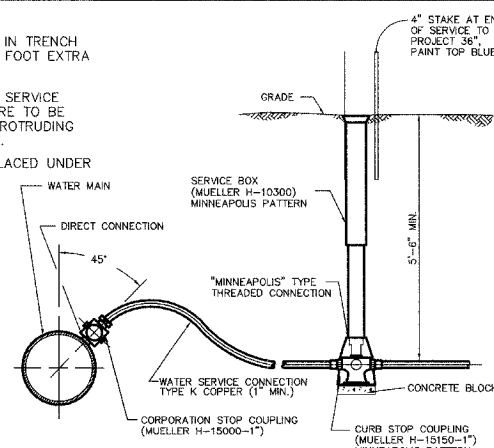
HANDICAPPED PARKING STALL AND SIGN DIMENSIONS

- NOTES:**
1. PIPE OPENINGS TO BE PRECAST INTO WALLS.
 2. PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
 3. FRAME TO BE LAID IN 3/4" MASTIC BED.
 4. ADJUSTING RINGS NOT TO EXCEED 8".
 5. FRAME AND GRATE AS SPECIFIED.

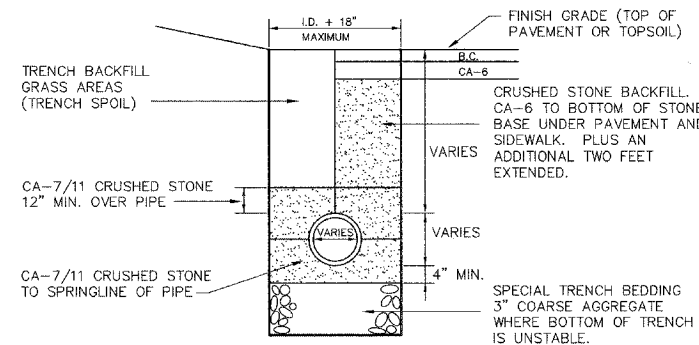


CATCHBASIN TYPE 'B'

- NOTES:**
1. SERVICE PIPE TO BE WEAVED IN TRENCH TO ALLOW AT LEAST ONE (1) FOOT EXTRA LENGTH IN ITS LENGTH.
 2. UPON COMPLETION OF WATER SERVICE CONSTRUCTION, ALL BOXES ARE TO BE FULLY EXTENDED AND LEFT PROTRUDING ABOVE THE PROPOSED GRADE.
 3. GRANULAR BACKFILL TO BE PLACED UNDER PAVEMENT AS SPECIFIED.



WATER SERVICE DETAIL



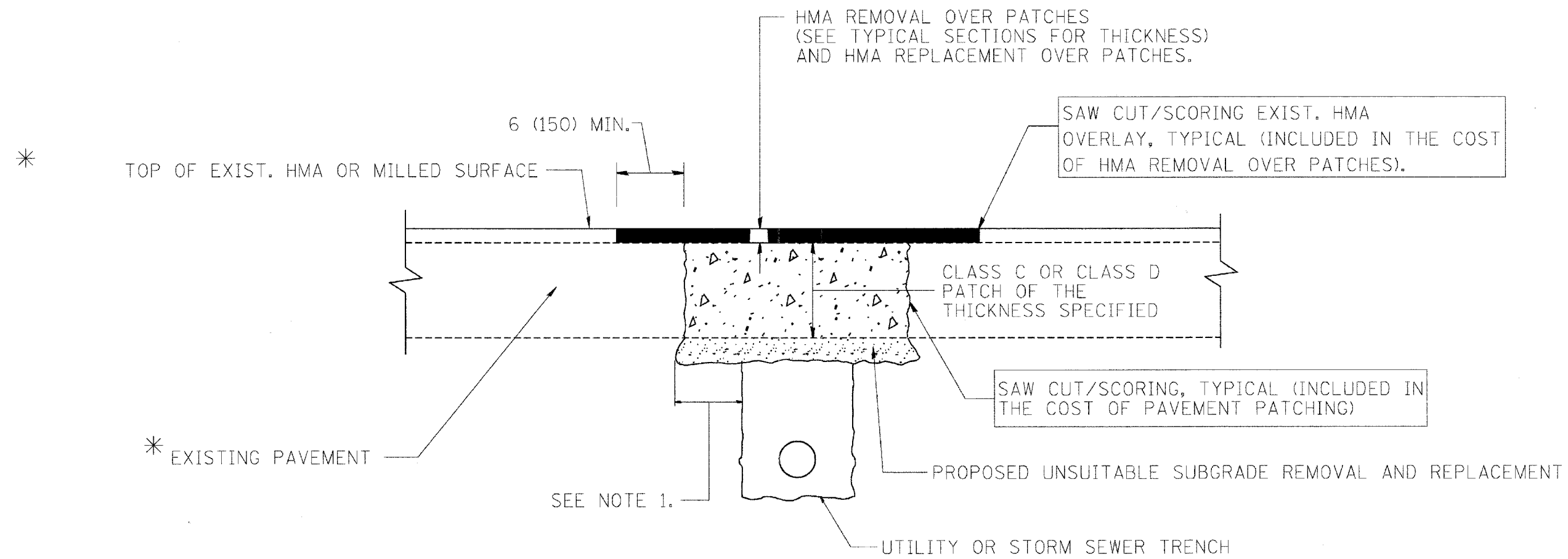
STORM TRENCH DETAIL

PLANS PREPARED BY:
GEWALT HAMILTON
 ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 650 Forest Edge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS
 BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06-00048-00-RS
 SCALE: N.T.S.
 DATE: 11-2-06
 DRAWN BY: DSM
 DESIGNED BY: DSM
 CHECKED BY: SDB

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	14
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

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

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

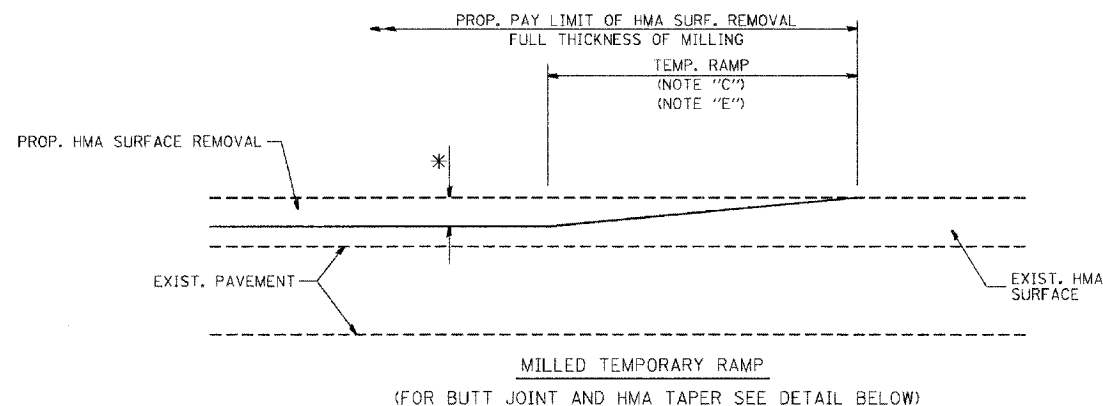
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07

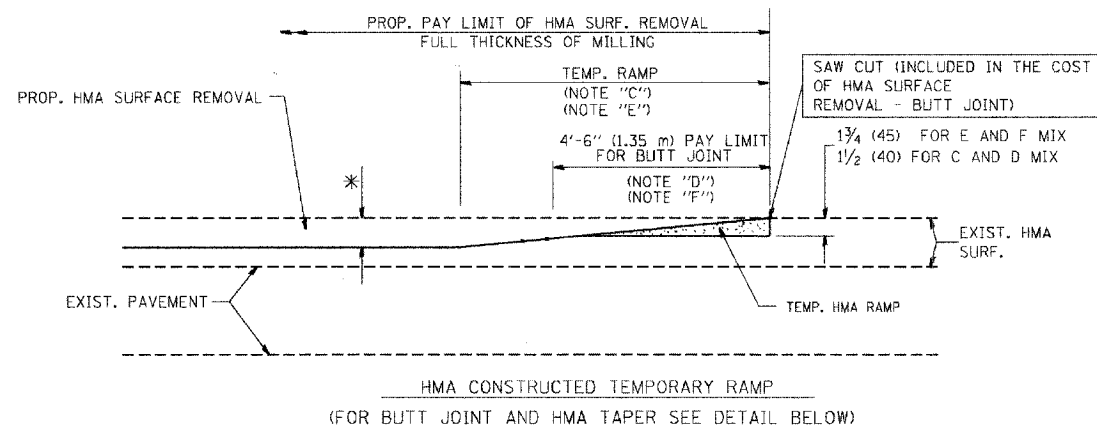
ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
 SCALE: VERT. NONE
 HORIZ. PLOT DATE: 10/31/2006
 DRAWN BY
 CHECKED BY

PLOT DATE = 10/31/2006
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 PLOT SCALE = 0.8000 / IN.
 USER NAME = lrygo

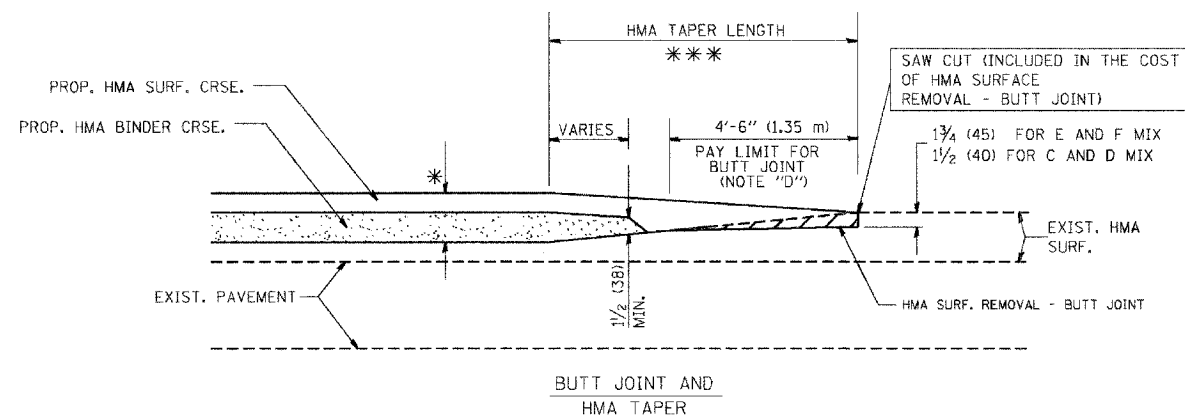
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	15
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



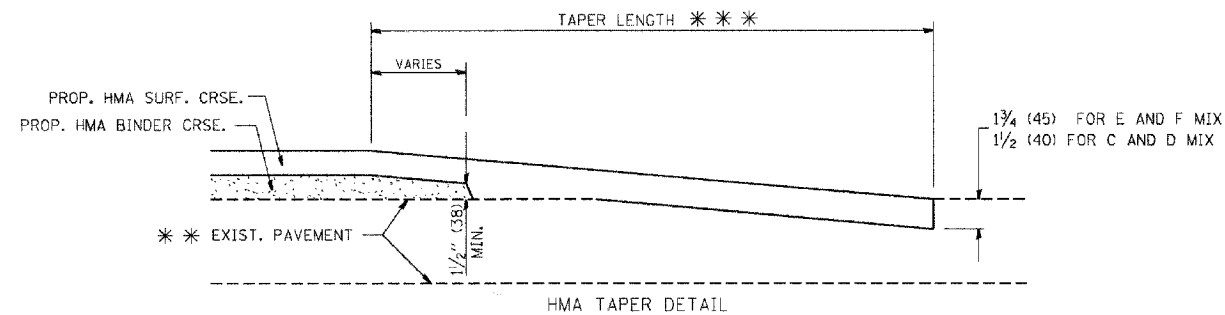
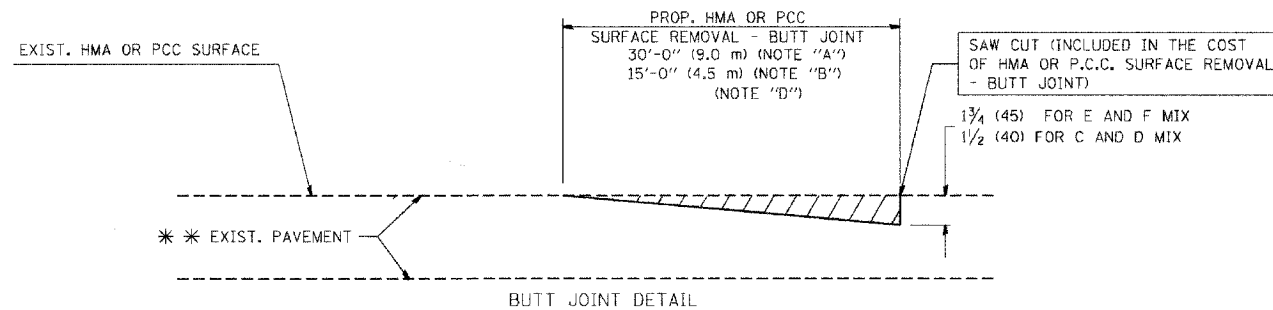
OPTION 1



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")

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

BASIS OF PAYMENT:

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

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

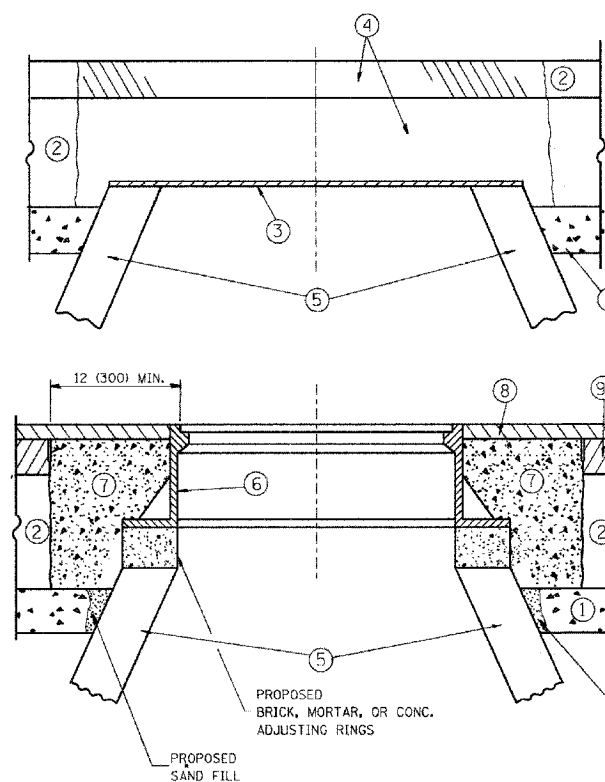
BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ. NONE
PLOT DATE: 10/31/2006

DRAWN BY
CHECKED BY

BD400-05 (V1-BD32)
REVISION DATE: 01/01/07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	16
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (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 S1 CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS S1 CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

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

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

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

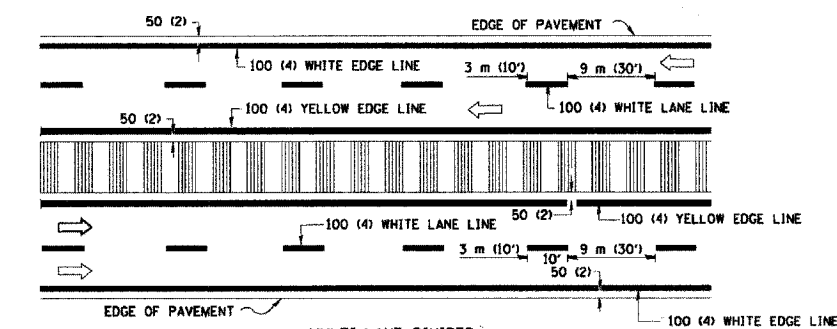
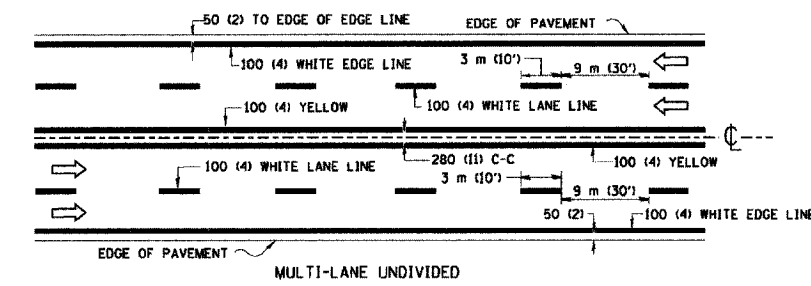
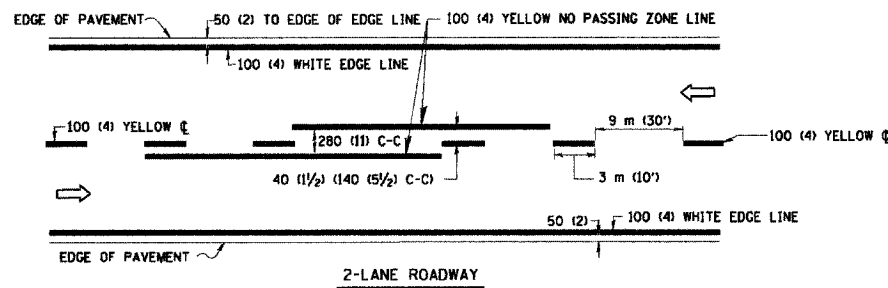
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REVISION DATE: 01/01/07

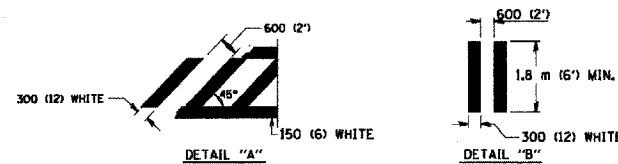
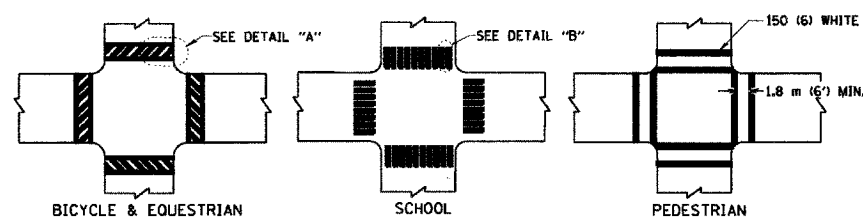
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USER NAME = rjago

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

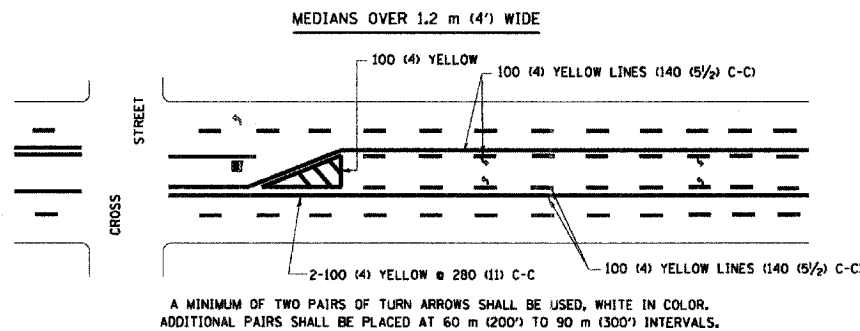
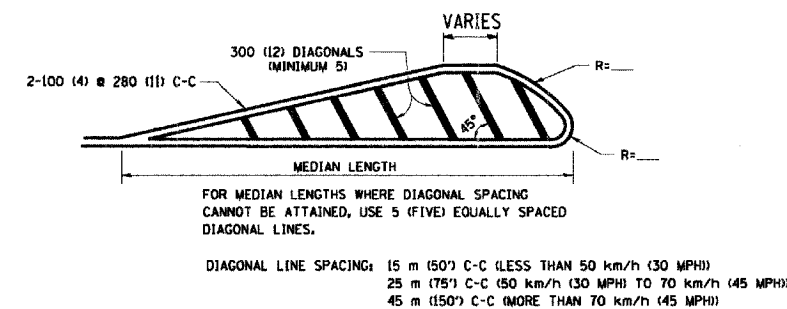
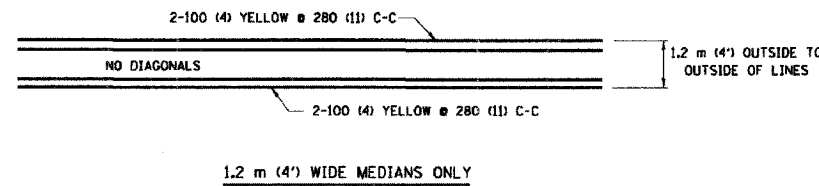


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

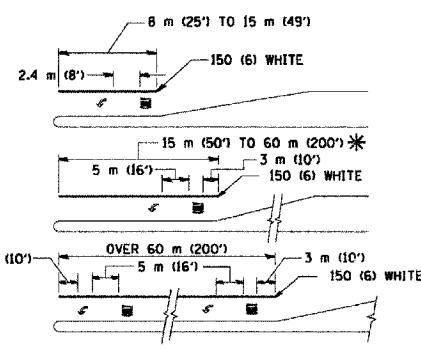
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



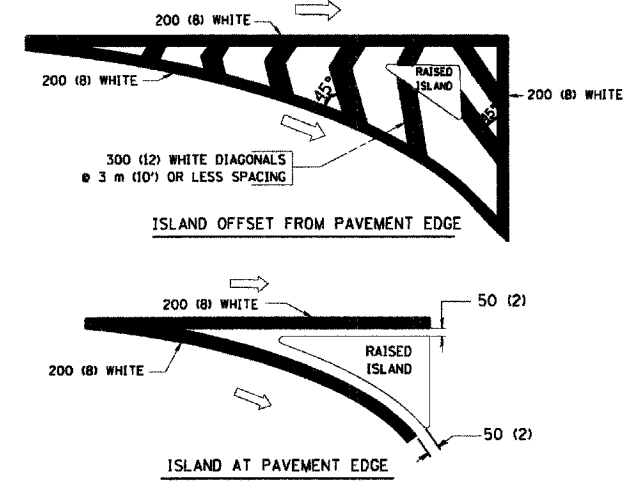
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED. AREA = 1.5 m² (15.6 SQ. FT.) ONLY AREA = 1.9 m² (20.8 SQ. FT.) * TURN LANES IN EXCESS OF 120 m (400') 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	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (2') LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH; 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (2') APART 600 (2') APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES; "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 78000 AREA OF: "R"=0.33m ² (3.6 SQ. FT.) EACH "X"=5.0 m ² (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 78000.

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

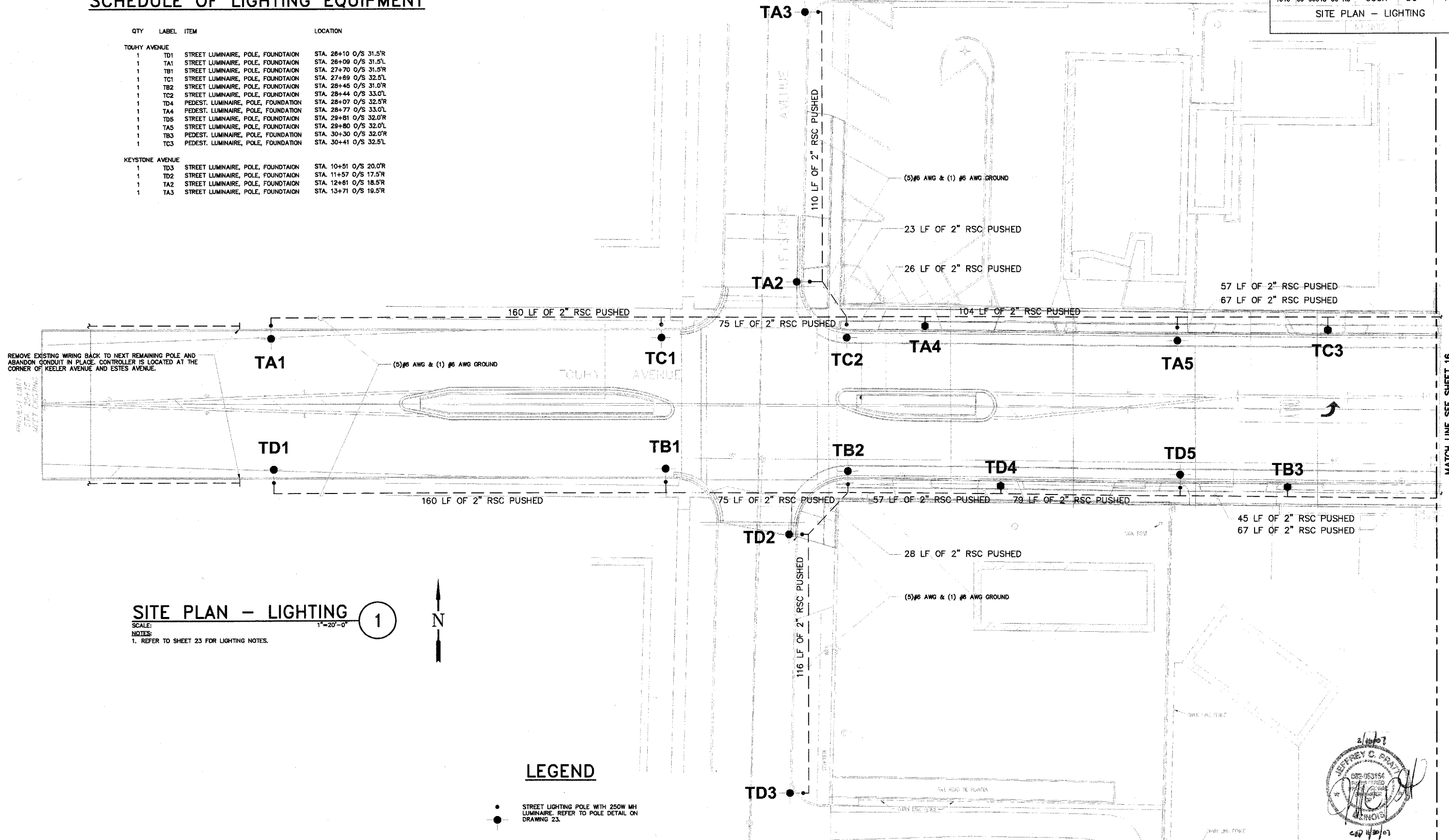
REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSE	10-09-96
ALEX HOUSE	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

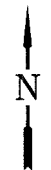
SCALE: NONE
DATE: 2/15/2006
DRAWN BY CADD
CHECKED BY

SCHEDULE OF LIGHTING EQUIPMENT

QTY	LABEL	ITEM	LOCATION
TOUHY AVENUE			
1	TD1	STREET LUMINAIRE, POLE, FOUNDATION	STA. 26+10 O/S 31.5'R
1	TA1	STREET LUMINAIRE, POLE, FOUNDATION	STA. 26+09 O/S 31.5'L
1	TB1	STREET LUMINAIRE, POLE, FOUNDATION	STA. 27+70 O/S 31.5'R
1	TC1	STREET LUMINAIRE, POLE, FOUNDATION	STA. 27+69 O/S 32.5'L
1	TB2	STREET LUMINAIRE, POLE, FOUNDATION	STA. 28+45 O/S 31.0'R
1	TC2	STREET LUMINAIRE, POLE, FOUNDATION	STA. 28+44 O/S 33.0'L
1	TD4	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 28+07 O/S 32.5'R
1	TA4	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 28+77 O/S 33.0'L
1	TD5	STREET LUMINAIRE, POLE, FOUNDATION	STA. 29+81 O/S 32.0'R
1	TA5	STREET LUMINAIRE, POLE, FOUNDATION	STA. 29+80 O/S 32.0'L
1	TB3	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 30+30 O/S 32.0'R
1	TC3	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 30+41 O/S 32.5'L
KEYSTONE AVENUE			
1	TD3	STREET LUMINAIRE, POLE, FOUNDATION	STA. 10+51 O/S 20.0'R
1	TD2	STREET LUMINAIRE, POLE, FOUNDATION	STA. 11+57 O/S 17.5'R
1	TA2	STREET LUMINAIRE, POLE, FOUNDATION	STA. 12+61 O/S 18.5'R
1	TA3	STREET LUMINAIRE, POLE, FOUNDATION	STA. 13+71 O/S 19.5'R



SITE PLAN - LIGHTING ①
 SCALE: 1"=20'-0"
 NOTES:
 1. REFER TO SHEET 23 FOR LIGHTING NOTES.



LEGEND

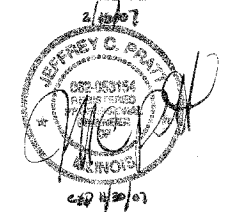
- STREET LIGHTING POLE WITH 250W MH LUMINAIRE. REFER TO POLE DETAIL ON DRAWING 23.
- PEDESTRIAN LIGHTING POLE WITH 50 W MH LUMINAIRE. REFER TO ORNAMENTAL LIGHTING DETAIL ON DRAWING 24.
- #6 AWG CONDUCTOR AND #6 AWG GROUND IN CONDUIT, A MINIMUM OF 48" BELOW GRADE. REFER TO DRAWING 21 FOR NUMBER OF CONDUCTORS UNLESS NOTED OTHERWISE.
- IDOT PAY ITEM
 #81700120 (EACH CONDUCTOR)
 #81018500 (PUSHED)
 #81000800 (TRENCH)

KJ ENGINEERING CONSULTANTS
 1771 W. BISHOP ROAD, SUITE 300
 NAPERVILLE, IL 60563
 630.517.2323 FAX: 630.527.2321
 www.kjeng.com PROJECT #06018500

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Court
 Vernon Hills, IL 60061
 (847) 418-9700
 (847) 418-9700 Fax

REVISIONS

NO.	DATE	DESCRIPTION



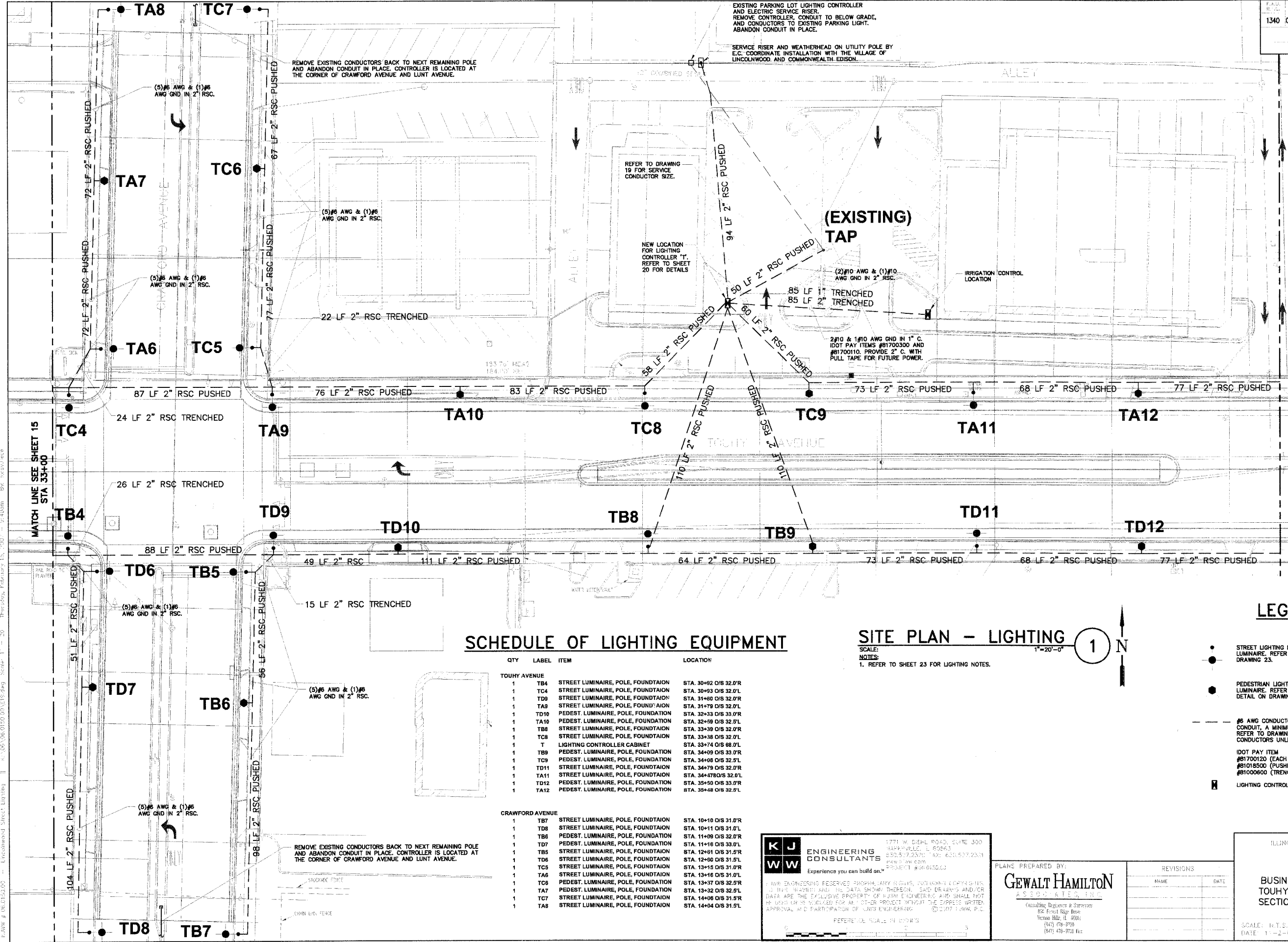
ILLINOIS DEPARTMENT OF TRANSPORTATION
SITE PLAN - LIGHTING
 BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 -RS

SCALE: N.T.S.
 DATE: 11-2-05

DRAWN BY: CFP
 DESIGNED BY: SWW
 CHECKED BY: SDB

I:\Projects\06-00048-00-RS\06-00048-00-RS-018.dwg Scale: 1"=20' Thursday, February 15, 2007 9:40am By: jrcy@ch2m

MATCH LINE SEE SHEET 16
 STA 33+00



SCHEDULE OF LIGHTING EQUIPMENT

QTY	LABEL	ITEM	LOCATION
TOUHY AVENUE			
1	TB4	STREET LUMINAIRE, POLE, FOUNDATION	STA. 30+92 O/S 32.0'R
1	TC4	STREET LUMINAIRE, POLE, FOUNDATION	STA. 30+93 O/S 32.0'L
1	TD9	STREET LUMINAIRE, POLE, FOUNDATION	STA. 31+80 O/S 32.0'R
1	TA9	STREET LUMINAIRE, POLE, FOUNDATION	STA. 31+79 O/S 32.0'L
1	TD10	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 32+33 O/S 33.0'R
1	TA10	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 32+59 O/S 32.5'L
1	TB8	STREET LUMINAIRE, POLE, FOUNDATION	STA. 33+39 O/S 32.0'R
1	TC8	STREET LUMINAIRE, POLE, FOUNDATION	STA. 33+38 O/S 32.0'L
1	T	LIGHTING CONTROLLER CABINET	STA. 33+74 O/S 68.0'L
1	TB9	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 34+09 O/S 33.0'R
1	TC9	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 34+08 O/S 32.5'L
1	TD11	STREET LUMINAIRE, POLE, FOUNDATION	STA. 34+79 O/S 32.0'R
1	TA11	STREET LUMINAIRE, POLE, FOUNDATION	STA. 34+78 O/S 32.0'L
1	TD12	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 35+50 O/S 33.0'R
1	TA12	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 35+48 O/S 32.5'L
CRAWFORD AVENUE			
1	TB7	STREET LUMINAIRE, POLE, FOUNDATION	STA. 10+10 O/S 31.0'R
1	TD8	STREET LUMINAIRE, POLE, FOUNDATION	STA. 10+11 O/S 31.0'L
1	TB6	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 11+06 O/S 32.0'R
1	TD7	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 11+16 O/S 33.0'L
1	TB5	STREET LUMINAIRE, POLE, FOUNDATION	STA. 12+81 O/S 31.5'R
1	TD6	STREET LUMINAIRE, POLE, FOUNDATION	STA. 12+80 O/S 31.5'L
1	TC5	STREET LUMINAIRE, POLE, FOUNDATION	STA. 13+15 O/S 31.0'R
1	TA6	STREET LUMINAIRE, POLE, FOUNDATION	STA. 13+16 O/S 31.0'L
1	TC6	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 13+37 O/S 32.5'R
1	TA7	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 13+38 O/S 32.5'L
1	TC7	STREET LUMINAIRE, POLE, FOUNDATION	STA. 14+06 O/S 31.5'R
1	TA8	STREET LUMINAIRE, POLE, FOUNDATION	STA. 14+04 O/S 31.5'L

SITE PLAN - LIGHTING
 SCALE: 1"=20'-0"
 NOTES:
 1. REFER TO SHEET 23 FOR LIGHTING NOTES.

LEGEND

- STREET LIGHTING POLE WITH 250W MH LUMINAIRE, REFER TO POLE DETAIL ON DRAWING 23.
- PEDESTRIAN LIGHTING POLE WITH 50 W MH LUMINAIRE, REFER TO ORNAMENTAL LIGHTING DETAIL ON DRAWING 24.
- #6 AWG CONDUCTOR AND #6 AWG GROUND IN CONDUIT, A MINIMUM OF 48" BELOW GRADE. REFER TO DRAWING 21 FOR NUMBER OF CONDUCTORS UNLESS NOTED OTHERWISE.
- IDOT PAY ITEM #81700120 (EACH CONDUCTOR) #81018500 (PUSHED) #81000600 (TRENCH)
- LIGHTING CONTROLLER, REFER TO DETAIL 1/25.

KJWW ENGINEERING CONSULTANTS
 Experience you can build on.
 1771 W. DELAWARE ROAD, SUITE 300
 HAWKSVILLE, IL 60893
 815.517.2520 FAX: 815.517.2531
 www.kjww.com PROJECT #06-015043
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PLANS PREPARED BY:
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 (847) 478-9751 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SITE PLAN - LIGHTING
 BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 -RS
 SCALE: N.T.S.
 DATE: 11-2-06
 DRAWN BY: JFF
 DESIGNED BY: SWS
 CHECKED BY: SDB

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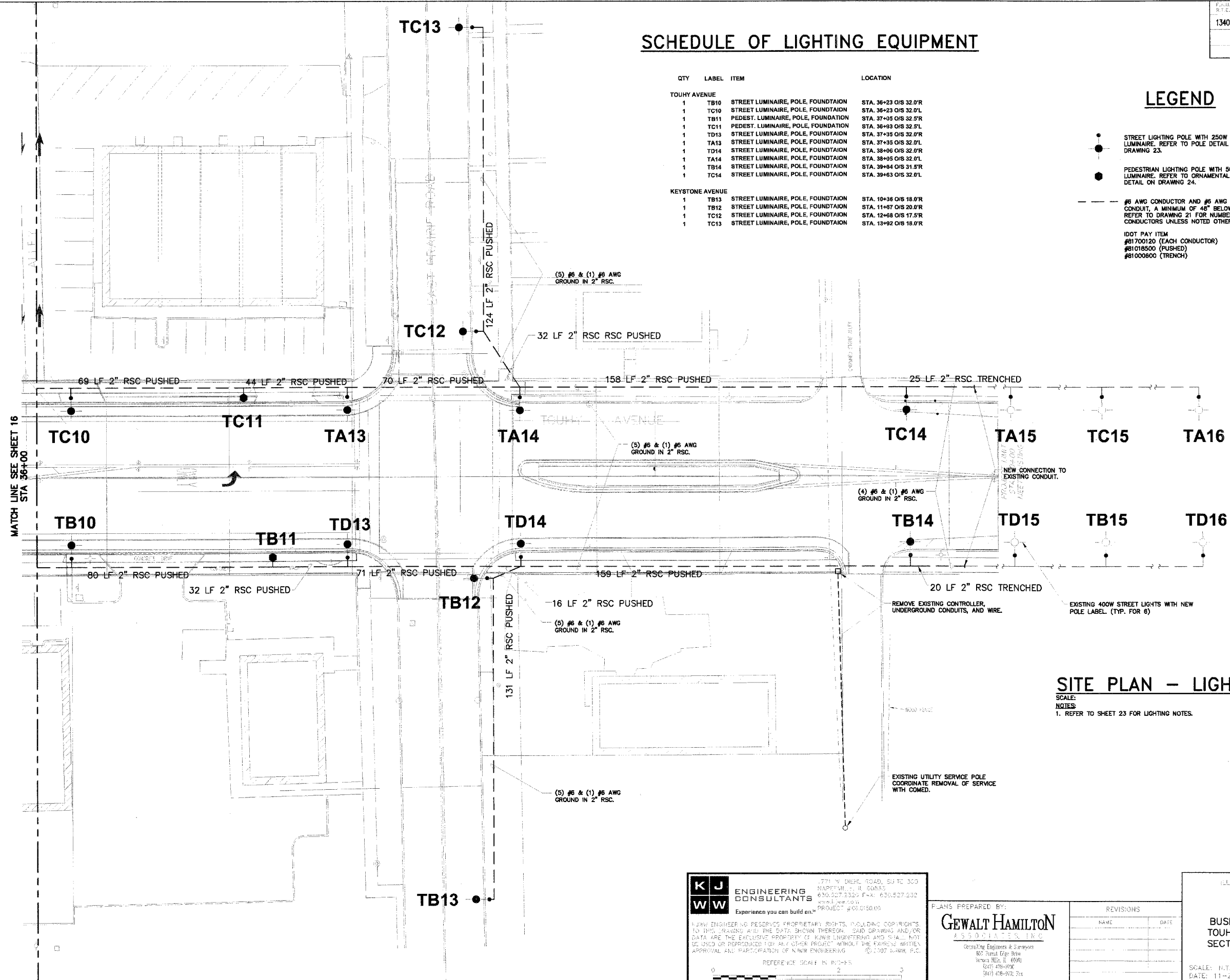
SCHEDULE OF LIGHTING EQUIPMENT

QTY	LABEL	ITEM	LOCATION
TOUHY AVENUE			
1	TB10	STREET LUMINAIRE, POLE, FOUNDATION	STA. 36+23 O/S 32.0'R
1	TC10	STREET LUMINAIRE, POLE, FOUNDATION	STA. 36+23 O/S 32.0'L
1	TB11	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 37+05 O/S 32.5'R
1	TC11	PEDEST. LUMINAIRE, POLE, FOUNDATION	STA. 36+93 O/S 32.5'L
1	TD13	STREET LUMINAIRE, POLE, FOUNDATION	STA. 37+35 O/S 32.0'R
1	TA13	STREET LUMINAIRE, POLE, FOUNDATION	STA. 37+35 O/S 32.0'L
1	TD14	STREET LUMINAIRE, POLE, FOUNDATION	STA. 38+06 O/S 32.0'R
1	TA14	STREET LUMINAIRE, POLE, FOUNDATION	STA. 38+06 O/S 32.0'L
1	TB14	STREET LUMINAIRE, POLE, FOUNDATION	STA. 39+64 O/S 31.5'R
1	TC14	STREET LUMINAIRE, POLE, FOUNDATION	STA. 39+63 O/S 32.0'L
KEYSTONE AVENUE			
1	TB13	STREET LUMINAIRE, POLE, FOUNDATION	STA. 10+36 O/S 18.0'R
1	TB12	STREET LUMINAIRE, POLE, FOUNDATION	STA. 11+97 O/S 20.0'R
1	TC12	STREET LUMINAIRE, POLE, FOUNDATION	STA. 12+68 O/S 17.5'R
1	TC13	STREET LUMINAIRE, POLE, FOUNDATION	STA. 13+92 O/S 18.0'R

LEGEND

- STREET LIGHTING POLE WITH 250W MH LUMINAIRE. REFER TO POLE DETAIL ON DRAWING 23.
- PEDESTRIAN LIGHTING POLE WITH 50 W MH LUMINAIRE. REFER TO ORNAMENTAL LIGHTING DETAIL ON DRAWING 24.
- #6 AWG CONDUCTOR AND #6 AWG GROUND IN CONDUIT, A MINIMUM OF 48" BELOW GRADE. REFER TO DRAWING 21 FOR NUMBER OF CONDUCTORS UNLESS NOTED OTHERWISE.
- IDOT PAY ITEM
#81700120 (EACH CONDUCTOR)
#81018500 (PUSHED)
#81000600 (TRENCH)

MATCH LINE SEE SHEET 16 STA 36+00



SITE PLAN - LIGHTING 1

SCALE: 1"=20'-0"

NOTES:
1. REFER TO SHEET 23 FOR LIGHTING NOTES.

KJ ENGINEERING CONSULTANTS
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630.527.2300 FAX: 630.527.2332
www.kjc.com PROJECT #08.0150.00

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REFERENCE SCALE IN INCHES
0 1 2 3

PLANS PREPARED BY:

GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
602 Forest Edge Drive
Naperville, IL 60563
(708) 476-0700
(708) 476-9100 Fax

REVISIONS	
NAME	DATE

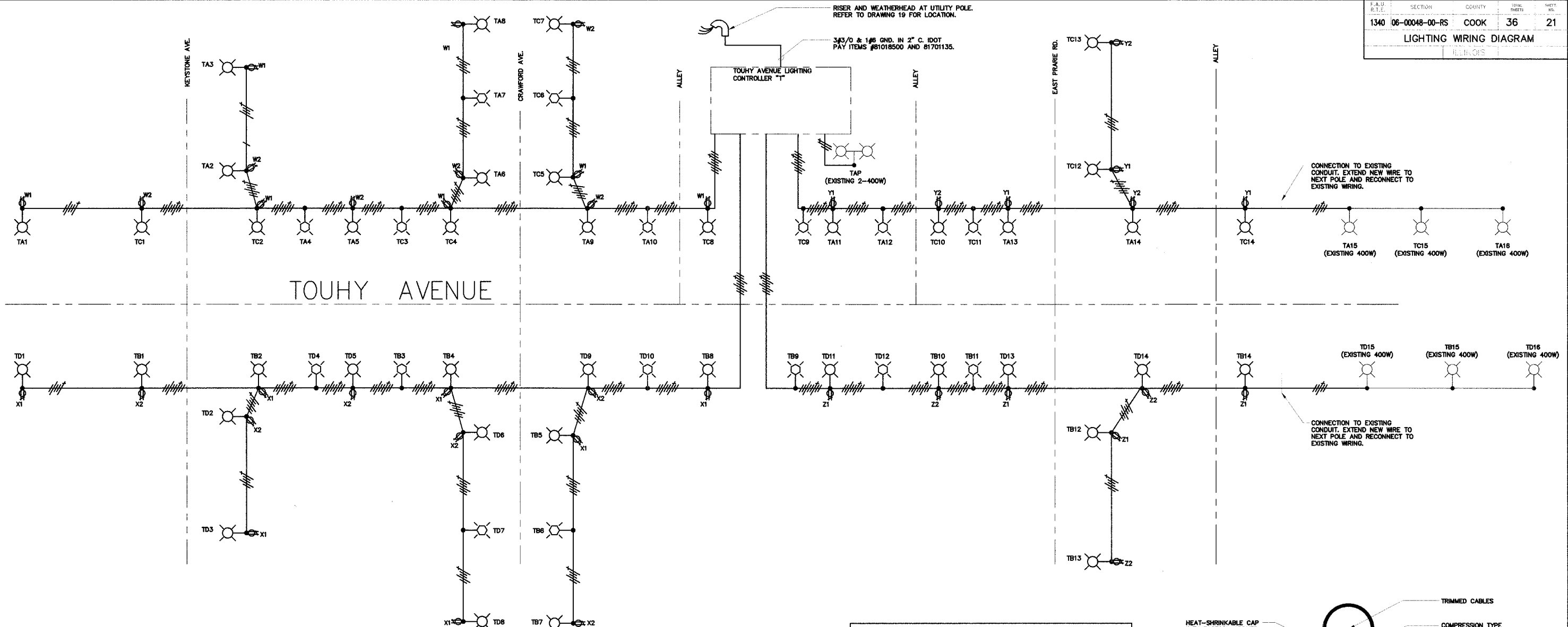
ILLINOIS DEPARTMENT OF TRANSPORTATION

SITE PLAN - LIGHTING

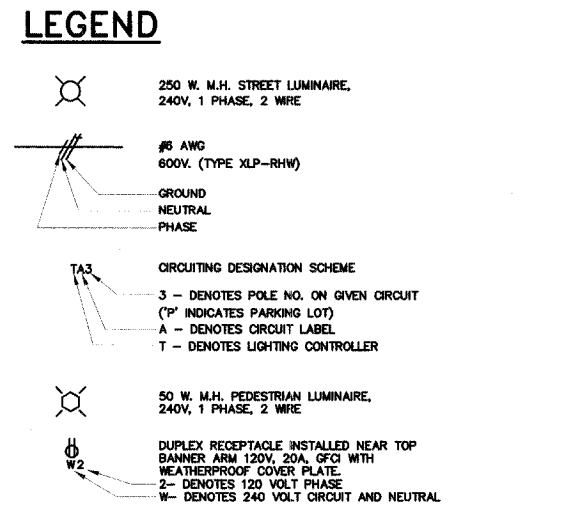
**BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS**

SCALE: N.T.S.
DATE: 11-2-06

DRAWN BY: CEF
DESIGNED BY: SWP
CHECKED BY: SDR

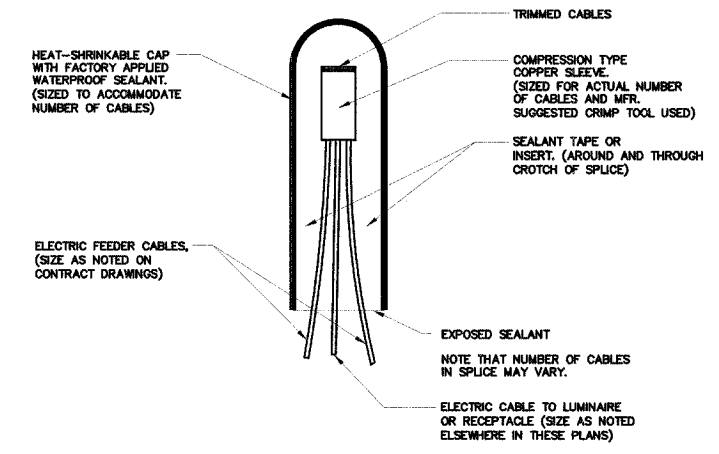


LIGHTING WIRING DIAGRAM 1
NO SCALE

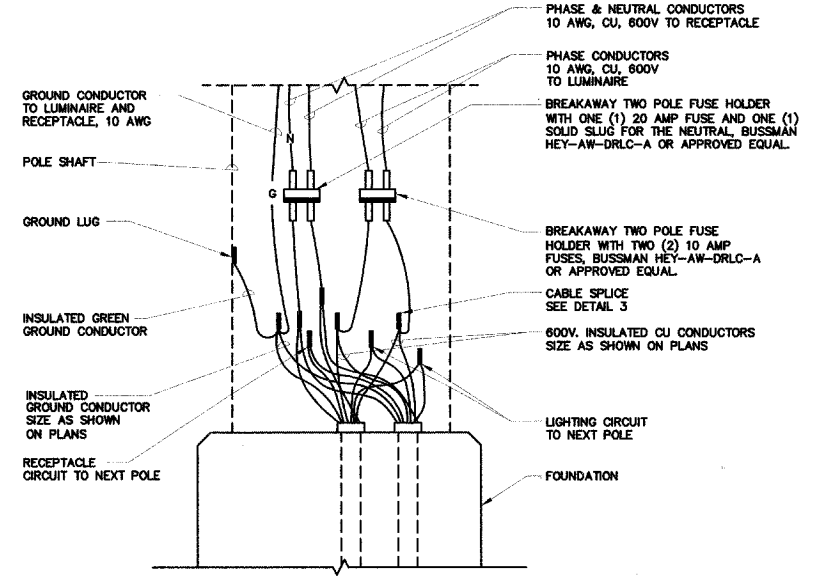


LOAD TABULATION AND VOLTAGE DROP FOR LIGHTING CONTROLLER "T"

CIRCUIT	VOLT AMPS	AMPS	VOLTAGE DROP AT WORST POLE
A LTG	2332	9.7	2.2% (TA16)
B LTG	1656	6.9	2.2% (TB15)
C LTG	1959	8.2	2.0% (TC15)
D LTG	2332	9.7	2.4% (TD16)
W1 RECEPTS	1400	11.7	3.7% (TA1)
W2 RECEPTS	1200	10.0	3.8% (TA2)
X1 RECEPTS	1400	11.7	4.8% (TD1)
X2 RECEPTS	1200	10.0	4.1% (TB1)
Y1 RECEPTS	800	6.7	2.5% (TC14)
Y2 RECEPTS	600	5.0	1.8% (TC13)
Z1 RECEPTS	800	6.7	2.8% (TB14)
Z2 RECEPTS	600	5.0	2.3% (TB13)



SPLICING ELECTRIC CABLES BASIC MATERIALS AND METHODS 3
NO SCALE



POLE BASE WIRING DIAGRAM 2
NO SCALE

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ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING WIRING DIAGRAM
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

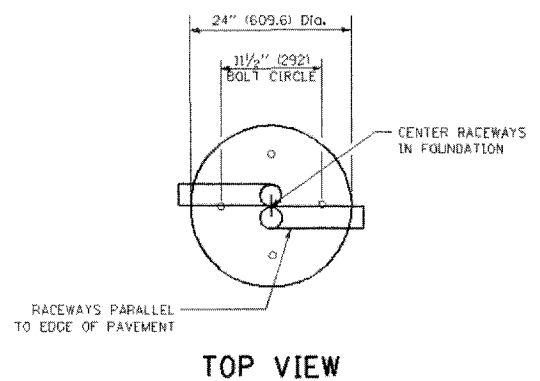
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DESIGNED BY: SWP
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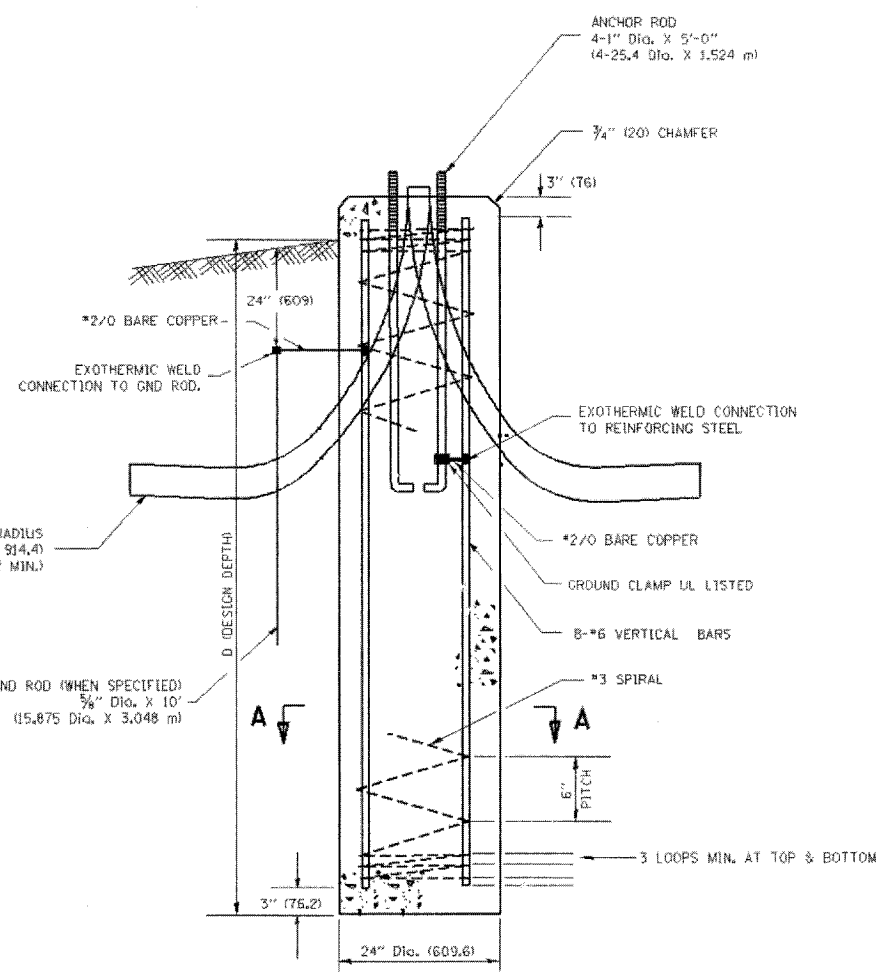
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LIGHT POLE FOUNDATION DEPTH TABLE
30 FT. (9.144M) TO 35 FT. (10.668M) MOUNTING HEIGHT

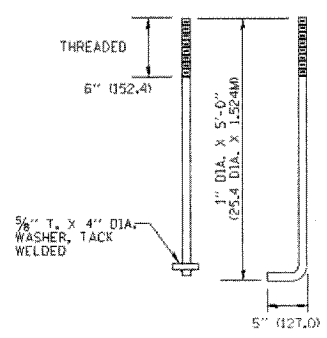
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Du = 0.375 TON/SQ. FT.	11'-0" (3.35)	12'-8" (3.85M)
MEDIUM CLAY Du = 0.75 TON/SQ. FT.	9'-0" (2.74M)	14'-10" (4.52M)
STIFF CLAY Du = 1.50 TON/SQ. FT.	7'-6" (2.29M)	8'-7" (2.61M)
LOOSE SAND φ = 34°	9'-6" (2.90M)	10'-7" (3.22M)
MEDIUM SAND φ = 37.5°	9'-0" (2.74M)	9'-10" (2.99M)
DENSE SAND φ = 40°	8'-3" (2.51M)	9'-7" (2.91M)



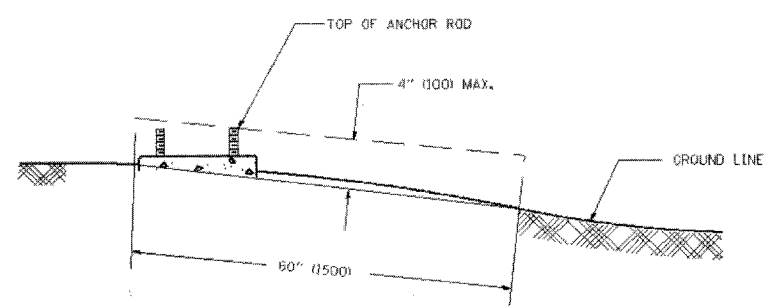
TOP VIEW



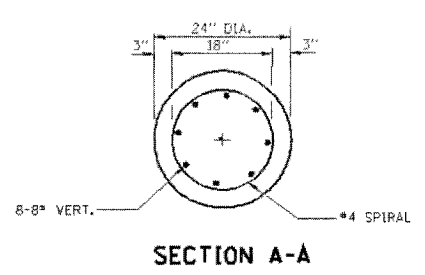
FOUNDATION DETAIL



ANCHOR BOLT DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100MM) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5M) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20MM).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 (UM/6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 MM) WITH A MINIMUM OF 3 INCHES (75 MM) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.5MM) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4MM) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8MM) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4MM) ABOVE THE TOP OF THE FOUNDATION.

IDOT PAY ITEM #83600200

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING DETAILS & NOTES

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

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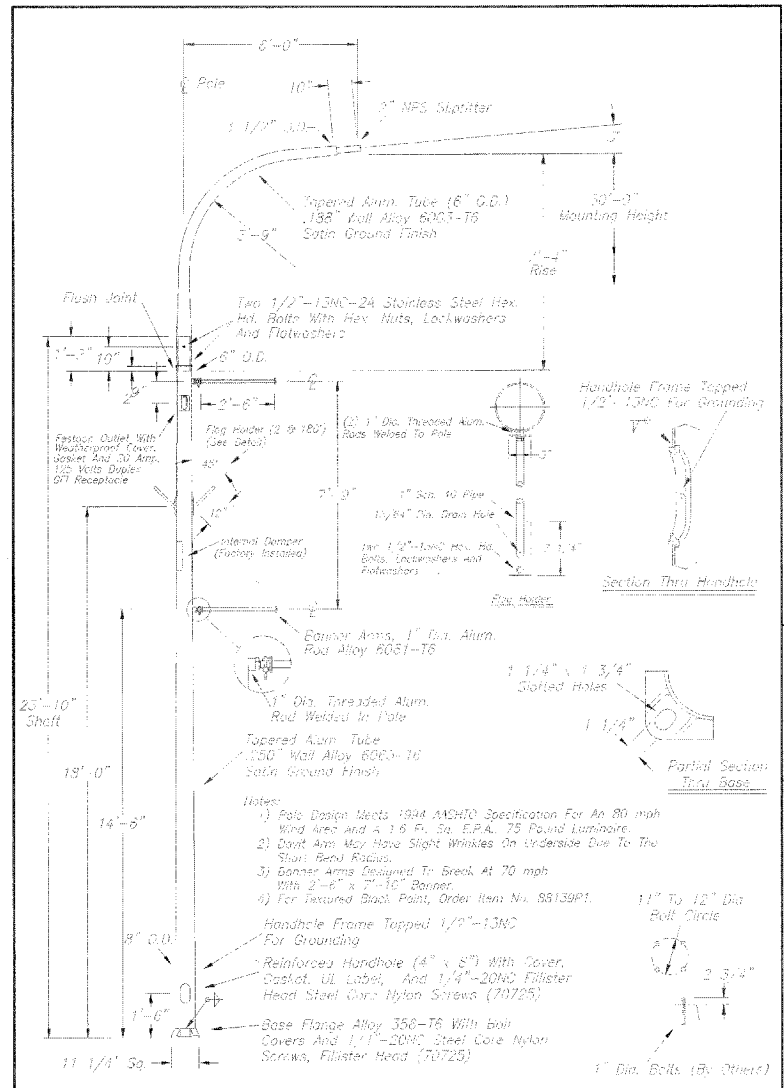
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(815) 490-9500 Fax

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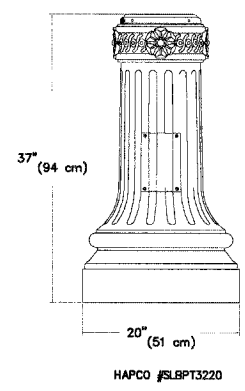
NO.	REVISION	DATE
1	ADD NOTE 2	11/20
2	150" TAPERED ALUM. TUBE 150" WALL ALLOY 6063-T6 SATIN GROUND FINISH	11/20
3	FLANGE HEAD WAS 3/4" SCH 40 PIPE (28-32)	1/07

hapco
Abingdon, Va.

customer CUSTOMER

SCALE DATE
DWG. NO.

DWG. NO.



IDOT PAY ITEM #XX001136

LIGHTING NOTES

1. THE OWNER OF THE PROPOSED ROADWAY LIGHTING SYSTEM SHALL BE THE CITY OF LINCOLNWOOD.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND THE LIGHTING CONTROLLER FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER AT THE PRECONSTRUCTION INSPECTION. THE EXACT LOCATIONS OF ALL ITEMS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
3. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE ENGINEER MAY ASSIST THE CONTRACTOR AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL REMAIN WITH THE CONTRACTOR.
5. ALL LIGHT POLES SHALL BE LOCATED WITHIN THE CORRECT SET BACK IDOT REQUIREMENTS FROM THE BACK OF CURB TO THE FACE OF THE PROPOSED LIGHT POLE.
6. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
7. TO MAINTAIN THE STRUCTURAL INTEGRITY OF POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE PROPOSED LIGHT POLES WILL NOT BE CONSIDERED COMPLETE WITHOUT THE LUMINAIRES INSTALLED.
8. UNLESS OTHERWISE NOTED, ALL CONDUIT PROVIDED BY THIS CONTRACT SHALL BE RIGID GALVANIZED STEEL CONDUIT (RSC) CONFORMING TO IDOT SSRB SECTION 108.15 (a)
9. UNLESS OTHERWISE NOTED, ALL CONVENTIONAL POLES SHALL BE FRANGIBLE WITH BREAKAWAY COUPLINGS AS SPECIFIED.
10. THE CONTRACTOR SHALL MAKE NOTE OF THE SPECIAL CONTROL CABINET, AUXILIARY CABINET AND LIGHTING UNIT IDENTIFICATION REQUIREMENTS NOTED ON THE DRAWINGS.
11. ALL WIRING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. PARTICULAR ATTENTION IS DIRECTED TO THE REQUIREMENTS FOR ELECTRIC SERVICE, GROUNDING, AND OVERCURRENT PROTECTION.
12. THE ELECTRICAL SUPPLY SHALL BE A PROPERLY GROUND AC SYSTEM. DC SERIES WIRING WILL NOT BE PERMITTED.
13. THE AC SYSTEM SHALL BE PROPERLY GROUND AT THE ASSOCIATED SERVICE DISCONNECTING MEANS. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXTENDED CONTINUOUS WITH ALL CIRCUIT WIRING AND SHALL BE BONDED TO THE SYSTEM GROUND AT THE SERVICE DISCONNECTING MEANS. IT IS RECOMMENDED THAT THE EQUIPMENT GROUNDING CONDUCTOR BE INSULATED. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE AN INTEGRAL PART OF ANY MULTI-CONDUCTOR CABLE OR SHALL BE RUN WITH THE CIRCUIT CONDUCTORS IN THE SAME RACEWAY. A SEPARATE GROUNDING CONDUCTOR WILL NOT BE PERMITTED. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE SPLICED AND BONDED VIA A PIGTAIL CONNECTION AT EACH POLE.
14. ALL CONDUCTORS AND EQUIPMENT SHALL HAVE PROPER OVERCURRENT PROTECTION. OVERCURRENT PROTECTION SHALL BE PROVIDED FOR EACH LUMINAIRE AND ITS ASSOCIATED BRANCH CIRCUIT EITHER BY THE USE OF INDIVIDUAL POLE BASE FUSING, FUSING WITHIN THE LUMINAIRE, OR OTHER MEANS AS APPROVED BY THE ENGINEER.
15. THE ANCHOR BOLTS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORMS.
16. EXCAVATION FOR THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24 INCHES IN DIAMETER.
17. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, THE LATEST EDITION OF THE ILLINOIS DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ANY APPLICABLE CODES.
18. BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD UTILITIES CALL LOCAL UTILITY FOR LOCATION APPROVAL.
19. LOCATION OF CONTROLLER CABINET SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER BEFORE FOUNDATION IS EXCAVATED OR POURED.
20. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.
21. CONTRACTOR TO COORDINATE ALL SERVICE CONNECTIONS WITH LOCAL UTILITY COMPANY.
22. UPON COMPLETION OF THE PERMANENT LIGHTING SYSTEMS THE CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR PRE-FINAL INSPECTION WITH A MINIMUM OF THREE DAYS NOTICE TO THE CITY OF LINCOLNWOOD.
23. ALL UNDERGROUND CONDUIT SHALL BE INSTALLED BY DIRECTIONAL BORING UNLESS NOTED OTHERWISE ON THE PLAN SHEETS.
24. PROVIDE EACH POLE WITH ALUMINUM BREAK AWAY COUPLINGS, IDOT PAY ITEM #83800700.

IDOT PAY ITEM #XX001136

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ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS & NOTES

**BUSINESS DISTRICT IMPROVEMENTS
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SECTION # 06 - 00048 - 00 -RS**

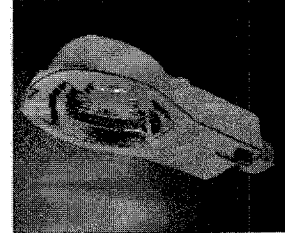
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DATE: 11-2-06

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DESIGNED BY: SWW
CHECKED BY: GDB

DuraStar™ Series 30
Roadway Lighting System
200-400W HPS, 400W MV/MH

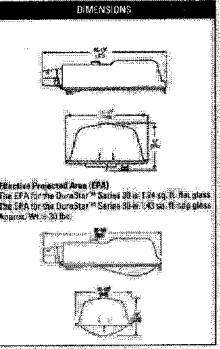
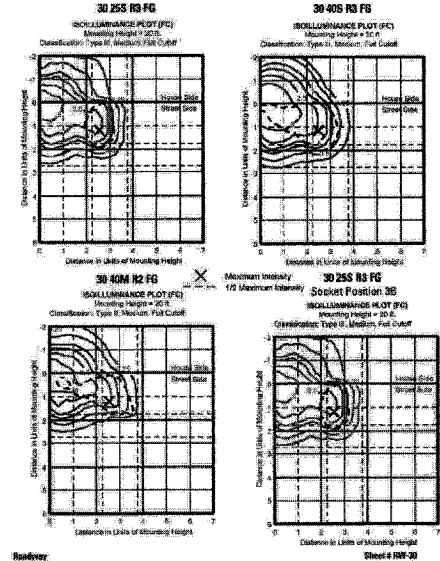
PRODUCT OVERVIEW

Features:
Revolutionary DuraStar™ decking system provides modular installation and interchangeability for easy maintenance. Rugged die-cast, powder-coated decking station mounts securely to meet-orn to ensure secure wiring and long-lasting stability. Durable lightweight lighting fixture positively locks by plugging in with a 20° locking wedge.
High-efficiency optical system maximizes light output while minimizing light pollution glare.
Star Fixidity™ castoff distribution patterns available.
Starter components externally accessible for easy maintenance and is fully interchangeable for long life.
Wedge slides to cast into the decking station (not a separate piece) and is easily adjustable for 1-1/4" to 2" (32mm to 51mm) mast arms.
The cast trigger latch on door frame enables easy and secure one-hand opening for re-lamping and maintenance.
Large surface area "breathing slot" gasket seals the optical chamber to prevent intrusion by insects and environmental contaminants. Heat-resistant gasket material remains effective over the life of the fixture.
Photocontrol receptacle is adjustable without tools.
All electrical components warranted by American Electric Lighting's 9-year guarantee.
Suitable for -30°C MH & MV / -40°C HPS
Optical chamber is IP64 rated standard.
Complies with ANSI: C136.2, C136.3, C136.15, C136.31



Applications:

- Roadways
- Residential streets
- Storage areas
- Parking lots
- Compuces
- Parks



AEL American Electric Lighting

DuraStar™ Series 30
Roadway Lighting System
200-400W HPS, 400W MV/MH

ORDERING INFORMATION

Example: 30 25S CA MT1 R3 FG LC PC

Option	Wattage / Source	Ballast	Voltage	Distribution
30 DuraStar Cobalt™	25 300W S HPS 25 250W M MH 31 310W V MV 23 350/400W wired 250V 24 350/400W wired 480V	RN Reactor Normal RH Reactor High XN High Resistance (Lamp Normal) XN Power Factor DA CML CT CMI MR Mag Reg (2 Cell) XX No Ballast	120 120V 208 208V 220 220V 240 240V 277 277V 347 347V 480 480V MT1 Multi-tap wired 120V MT2 Multi-tap wired 240V MT3 Multi-tap wired 277V TT1 Tri-tap wired 120V TT2 Tri-tap wired 277V TD Tri-tap wired 347V DT1 Dual Tap 120/240 wired 120V DT2 Dual Tap 120/240 wired 240V DT3 Dual Tap 240/480 wired 240V DT4 Dual Tap 240/480 wired 480V	R2 Roadway Type II R3 Roadway Type III Refer to Optic Distribution Matrix below for compatibility Optics S6 Sag Glass Clear Tempered F6 Flat Glass Clear Tempered

Options
Minimum number of options is six. For more options please contact your local American Electric Lighting representative.

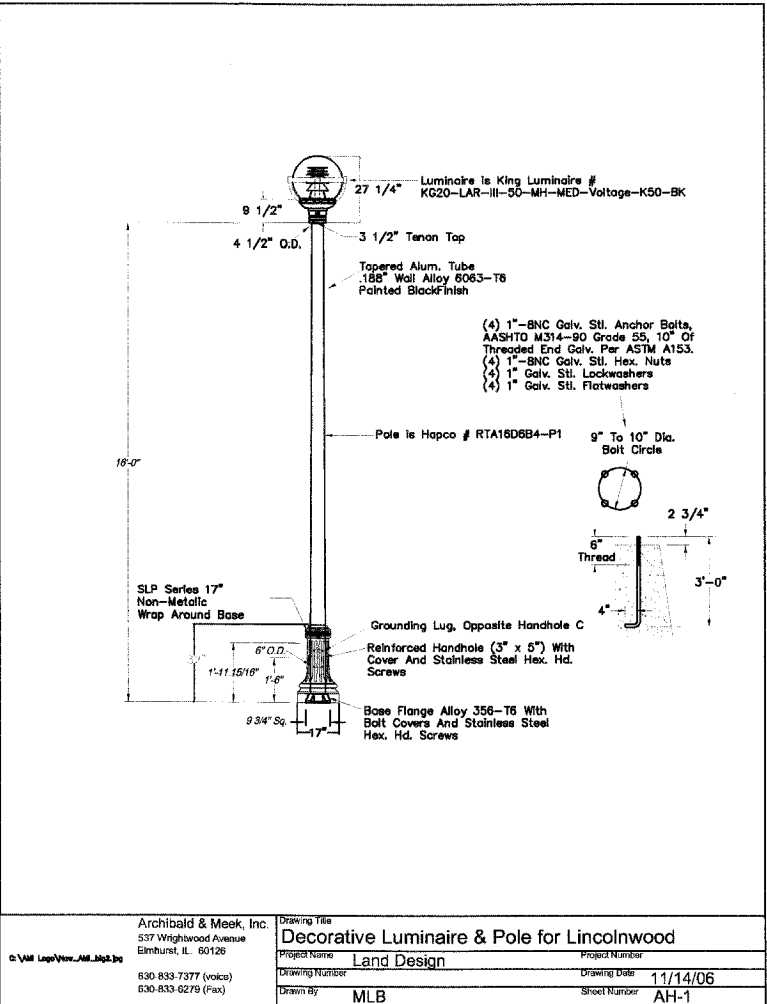
- Mounting:**
 - DB Decklock Decking Station set for 1-1/4" mast arm
 - MZ 2-bolt internal 2" setting for Decklock Decking Station
 - NL 4-bolt Decklock Decking Station
 - VT Vertical Tension Decking Station
- Color:**
 - Gray (standard)
 - BZ Bronze
- USAG:**
 - UL UL Listed
 - CS CSA Certified
- Photocontrol Receptacle:**
 - U000 NEMA Photocontrol Receptacle
 - MR No Photocontrol Receptacle
 - SR Shunting Cap
 - PR Phosphor Bronze Contacts
- Lens:**
 - LC Lamp Included, Clear
 - LD Lamp Included, Drilled/Drilled
 - LG Self-Igniting Lamp
- Starter:**
 - DB Encapsulated Plug-in
 - OB Open Board Integral
 - SN No Igniter (using self-igniting lamp)
- Misc:**
 - PC Photocontrol Included per Voltage Specified
 - ES Stainless Steel Fasteners (external)
 - PL Distributor Pattern Indicator Label
 - SN No NEMA Label on Housing
 - MR No NEMA Label on Housing
 - SN Shunting Cap
 - LCU Low Copper Alloy Contact Decking station (base than 15A)

- Notes:**
- PS, PC, SH not available with NH option.
 - Requires SA option.
 - Available in HPS only.
 - Externally mounted.
 - Limited availability; please contact your local American Electric Lighting representative.

Optic Distribution

	R2SS	R3SG	R2FG	R3FG
25S	✓	✓	✓	✓
25L	✓	✓	✓	✓
25H	✓	✓	✓	✓
48S	✓	✓	✓	✓
17M	✓	✓	✓	✓
25M	✓	✓	✓	✓
19M	✓	✓	✓	✓
17L	✓	✓	✓	✓
20V	✓	✓	✓	✓
20H	✓	✓	✓	✓

American Electric Lighting
Lighting Group, Inc.
195 Industrial Boulevard, Covington, GA 30029
Phone: 800-545-4444 Fax: 770-845-0888
www.americanelectriclighting.com



Archibald & Meek, Inc. 537 Wrightwood Avenue Elmhurst, IL 60126 630 833-7277 (voice) 630 833-6279 (fax)	<p>Drawing Title: Decorative Luminaire & Pole for Lincolnwood</p> <p>Project Name: Land Design</p> <p>Drawing Number: 11/14/06</p> <p>Drawn by: MLB</p> <p>Sheet Number: AH-1</p>
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IDOT PAY ITEM #XX006697

IDOT PAY ITEM #X0321766
ALTERNATE BID: SIMILAR TO THE ABOVE
FROM SUN VALLEY: #7-1035T-16FT-PT27/RCGN22-CA-OPT-050MH-MT-PT-BKM
OR APPROVED EQUAL FROM ANOTHER MANUFACTURER.

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ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS & NOTES

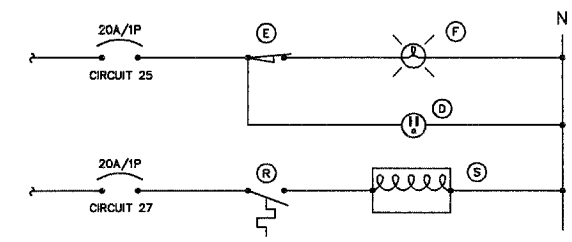
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DATE: 11-2-06

DRAWN BY: JEF
DESIGNED BY: GWN
CHECKED BY: SDE

CONTROLLER ELECTRICAL NOTES:

- ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.
- CABINET SHALL BE FABRICATED FROM 3.175 (0.125-INCH) SHEET ALUMINUM # 3003H14, FORMED AND ARC WELDED ASSEMBLY.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALLED AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL". ASSEMBLED PANEL SHALL BE IDOT APPROVED.
- METAL MOUNTING PANEL SHALL BE #10 GAUGE GALVANIZED SHEET STEEL FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 3.175 (0.125-INCH) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVEABLE.
- BUS BARS SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. NEUTRAL BUS SHALL BE PAINTED WHITE. GROUND BUS SHALL BE PAINTED GREEN.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED USING THESE ABBREVIATIONS:
 R - RED Y - YELLOW
 B - BLACK W - WHITE
 BL - BLUE G - GREEN
- ELEMENTARY DIAGRAMS SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED.
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



2 CABINET ELEMENTARY DIAGRAM
 NO SCALE

PANEL NAME: TOUHY AVE CONNECTED 44.5 KVA

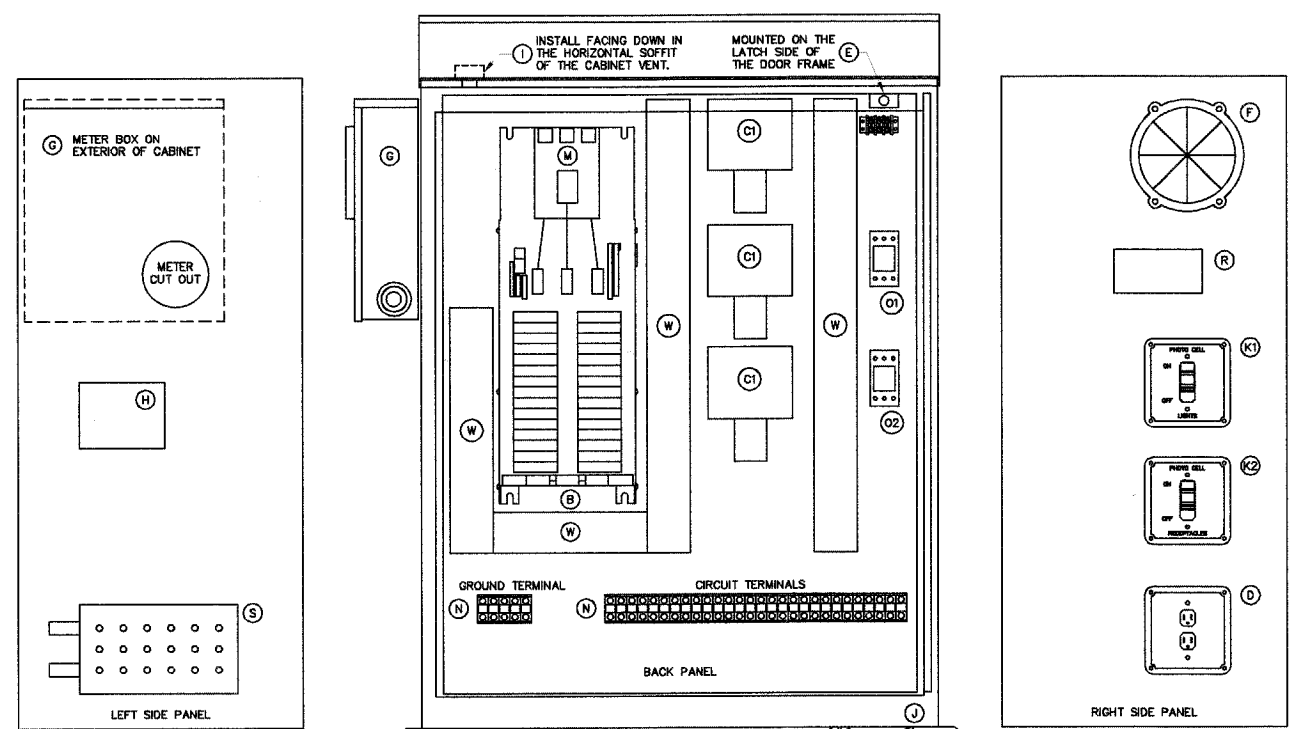
TYPE: BOLT-ON
 MOUNTING: SURFACE - INTERIOR ONLY
 FED FROM: UTILITY
 AIC RATING: 14,000

SOLID NEUTRAL
 GROUND BUS

MAIN: 200A MCB (M)
 VOLTS: 240/120
 PHASE: 1
 WIRE: 3

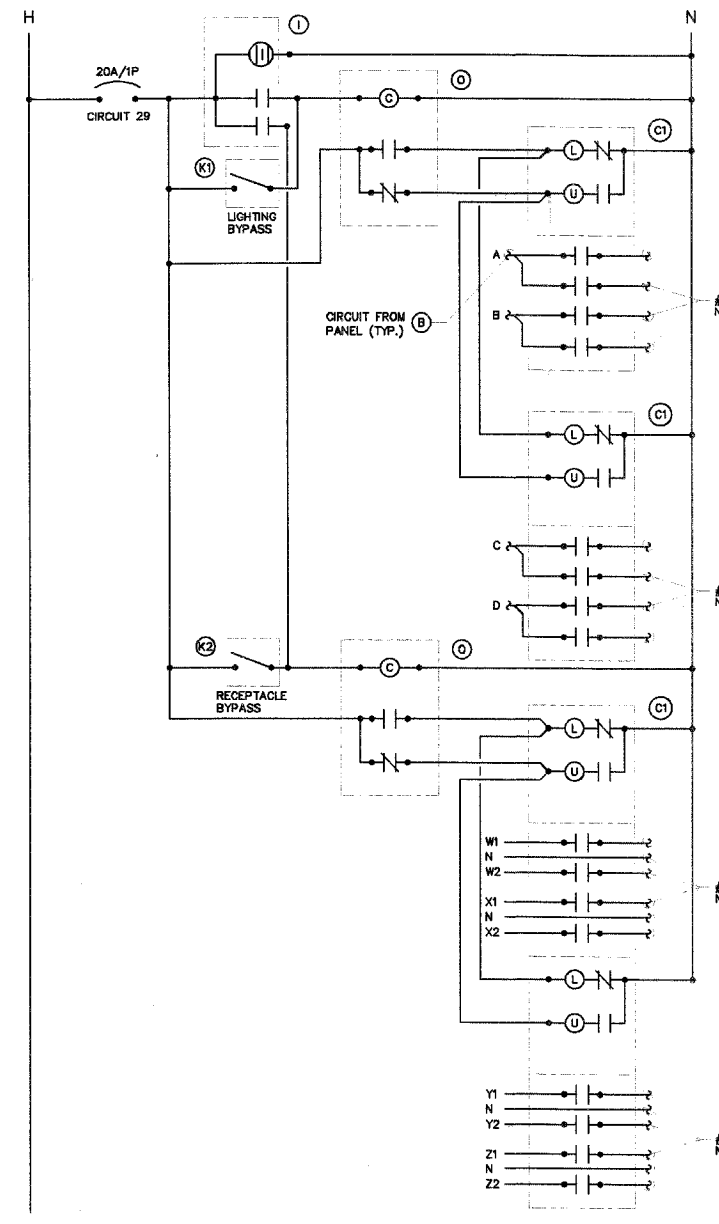
CKT NO.	LOAD DESCRIPTION	WIRE SIZE	LOAD KVA	BREAKER AMP	BREAKER P	LOAD AMP	LOAD P	LOAD KVA	WIRE SIZE	LOAD DESCRIPTION	CKT NO.
1	A NORTH SIDE, 10-250W, 4-50W, 4-400W	*S	5.3	35	2	40	2	6.5	*S	W1 7 RECEPTACLES NW POLES	2
3										W2 6 RECEPTACLES NW POLES	4
5	B SOUTH SIDE, 10-250W, 4-50W, 1-400W	*S	3.8	25	2	25	2	3.5	*S	Y1 4 RECEPTACLES NE POLES	6
7										Y2 3 RECEPTACLES NE POLES	8
9	C NORTH SIDE, 10-250W, 4-50W, 1-400W	*S	3.5	25	2	40	2	8.5	*S	X1 7 RECEPTACLES SE POLES	10
11										X2 6 RECEPTACLES SE POLES	12
13	D SOUTH SIDE, 10-250W, 4-50W, 2-400W	*S	4.2	30	2	25	2	3.5	*S	Z1 4 RECEPTACLES SW POLES	14
15										Z2 3 RECEPTACLES SW POLES	16
17	SPARE			30	2	25	2			SPARE	18
19											20
21	SPARE (FUTURE IRR PUMP)		6.5	35	2	40	2			SPARE	22
23											24
25	LTG. RECEPTACLES	12	0.3	20	1	20	1	0.1	10	IRRIGATION CONTROL	26
27	CABINET HEATER	12	0.4	20	1	20	1			SPARE	28
29	LTG CONTROL	12	0.1	20	1	20	1			SPARE	30

NOTES: *S = REFER TO DRAWING 19 FOR WIRE SIZE.



1 LIGHTING CONTROL CABINET LAYOUT
 NO SCALE

IDOT PAY ITEM #82500505
 (WITH SERVICE INSTALLATION)



3 LIGHTING CONTROL ELEMENTARY DIAGRAM
 NO SCALE

- NOTES:
- ALL CABINET INTERIOR WIRING SHALL BE STRANDED COPPER #12 AWG THIN UNLESS NOTED OTHERWISE.
 - ROUTE TO STREET LIGHTING LUMINAIRES VIA TERMINAL BLOCK (N).
 - ROUTE TO POLE MOUNTED RECEPTACLES VIA TERMINAL BLOCK (N).

BILL OF MATERIALS FOR LIGHTING CONTROLLER "T"

ITEM #	QUANTITY	DESCRIPTION
B	1	BRANCH CIRCUIT PANEL INTERIOR, 200A COPPER BUS, 240/120VOLT, MOLDED CASE THERMAL MAGNETIC CIRCUIT BREAKERS, BOLT ON TYPE, AIC RATING OF 10,000 AMPS AT 240 VOLTS, SQUARE D 1630-N00020L 100C4 OR APPROVED EQUAL
C1	4	MECHANICAL CONTACTOR 4 POLE 30 AMP 120V COIL, SQUARE D 8903-LG40V02 OR APPROVED EQUAL
D	1	GFI RECEPTACLE 120V 20A PREMIUM SPEC. GRADE, NEMA REFERENCE 5-20R IN WEATHER-PROOF BOX WITH FLAP-TYPE COVER, HUBBELL GF5382A, WP28 COVER, OR APPROVED EQUAL
E	1	20A SPDT MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED), 120 VOLT, 15 AMP CONTACTS, SQUARE D XCKL110, OR APPROVED EQUAL
F	1	60 WATT LIGHT FIXTURE, VAPOR TIGHT WITH GLOBE AND GUARD AND MOUNTING BOX
G	1	METER FITTING, 1 PHASE, 3 WIRE, 200 AMP
H	1	SURGE ARRESTOR, BRACKET MOUNTED, 120/240 VOLT SERVICE, G.E. TRANQUILL SLISEBOL OR APPROVED EQUAL
I	1	PHOTOCELL, 120V, 1500 VA RATED, DOUBLE POLE, SINGLE THROW CONTACT, WEATHERPROOF AND CORROSION PROOF ENCLOSURE, U.L. LISTED, TORQ 3000 OR APPROVED EQUAL
J	1	ENCLOSURE PAD MOUNTED, STAINLESS STEEL, N.E.M.A. 4 CONSTRUCTION WITH KEY LOCKING DOOR, KEY CYLINDER SHALL MATCH EXISTING VILLAGE LIGHTING CONTROLLER LOCKS, HOFFMAN, OR APPROVED EQUAL
K1	2	TOGGLE SWITCH, SPST, 20 AMP, 240 VOLT, SPECIFICATION GRADE MOUNTED IN SURFACE BOX, HUBBELL HBL1221 OR APPROVED EQUAL
M	1	MAIN CIRCUIT BREAKER, MOLDED CASE THERMAL MAGNETIC, SERVICE ENTRANCE DUTY RATED 240 VOLT, 200 AMP, 2 POLE, AIC RATING OF 14,000 AMPS AT 240 VOLTS, INTEGRAL TO BRANCH PANEL
N	1	COPPER LOAD TERMINAL BLOCK FOR AWG#6 AND AWG#12
O1	2	FORM TYPE C RELAY, ELECTRICALLY HELD, ONE NORMALLY OPEN (N.O.) AND ONE NORMALLY CLOSED (N.C.) CONTACTS, 600V CONTINUOUS DUTY COIL, 30 AMP CONTACT RATING, SQUARE D CLASS 8501 OR APPROVED EQUAL
R	1	THERMOSTAT, 40-80 DEGREE RANGE, CHROMALUX WR80 OR APPROVED EQUAL
S	1	HEATER, 120 VOLT, 375 WATT, PERFORATED METAL HOUSING, CHROMALUX 278-10 OR APPROVED EQUAL
W	1	WIRE MANAGEMENT RACE WAY

KJ ENGINEERING CONSULTANTS
 1771 W. BIRNEN ROAD, SUITE 300
 NAPERVILLE, IL 60563
 (630) 705-5500 FAX: (630) 705-5501
 WWW.KJENR.COM
 PROJECT #160150-03

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GEWALT HAMILTON
 1200 W. BIRNEN ROAD, SUITE 300
 NAPERVILLE, IL 60563
 (630) 705-5500 FAX: (630) 705-5501

PLANS PREPARED BY:

GEWALT HAMILTON

REVISIONS:

NO.	DATE	DESCRIPTION

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONTROLLER "T" DETAILS

BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 - RS

SCALE: N.T.S.
 DATE: 11-2-06

DESIGNED BY: [Signature]
 CHECKED BY: [Signature]

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	26
LANDSCAPE PLAN				
ILLINOIS				

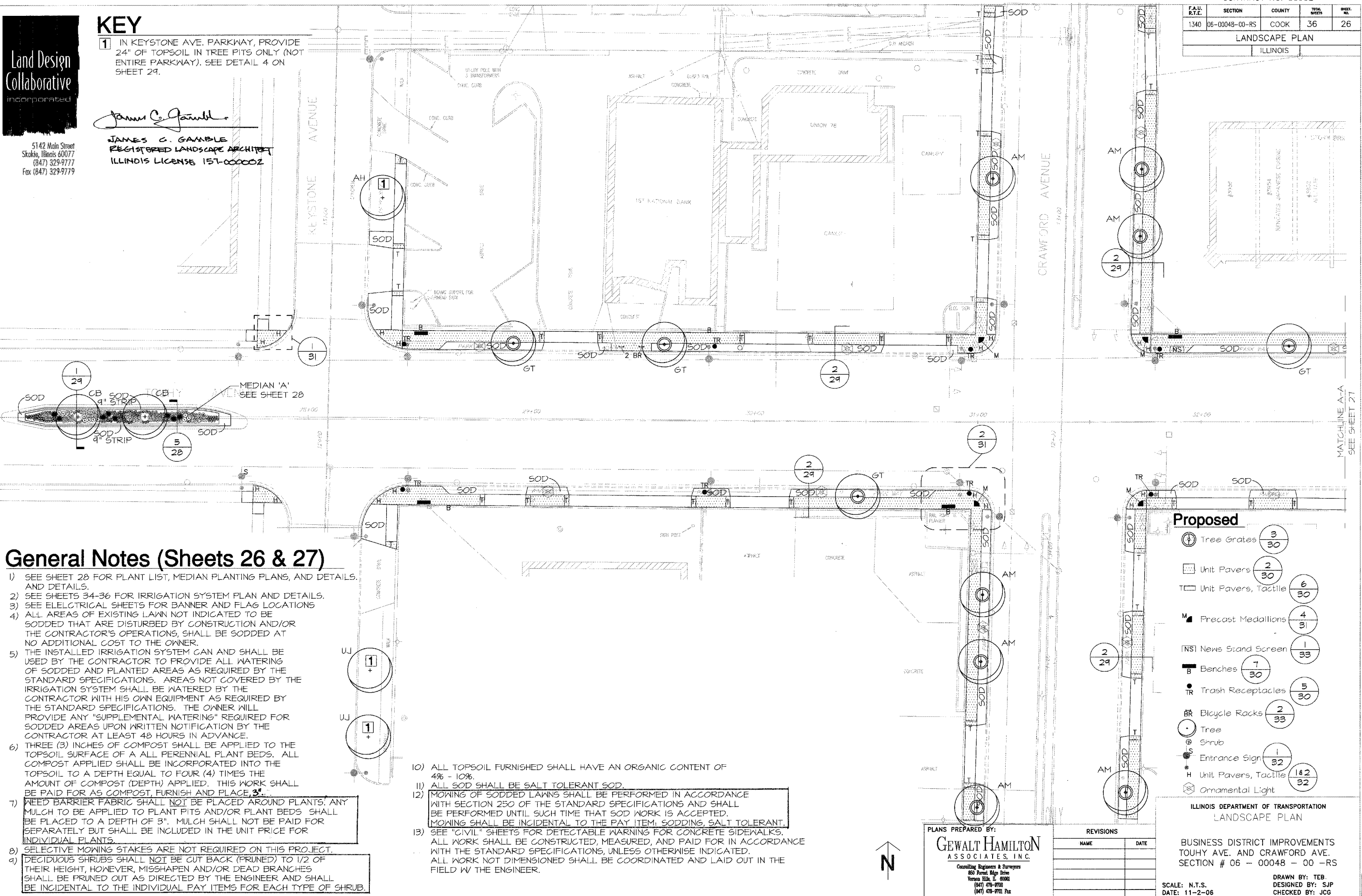


KEY

1) IN KEYSTONE AVE. PARKWAY, PROVIDE 24" OF TOPSOIL IN TREE PITS ONLY (NOT ENTIRE PARKWAY). SEE DETAIL 4 ON SHEET 24.

James C. Gamble
JAMES C. GAMBLE
 REGISTERED LANDSCAPE ARCHITECT
 ILLINOIS LICENSE 157-000002

5142 Main Street
 Skokie, Illinois 60077
 (847) 329-9777
 Fax (847) 329-9779



General Notes (Sheets 26 & 27)

- SEE SHEET 28 FOR PLANT LIST, MEDIAN PLANTING PLANS, AND DETAILS AND DETAILS.
- SEE SHEETS 34-36 FOR IRRIGATION SYSTEM PLAN AND DETAILS.
- SEE ELECTRICAL SHEETS FOR BANNER AND FLAG LOCATIONS
- ALL AREAS OF EXISTING LAWN NOT INDICATED TO BE SODDED THAT ARE DISTURBED BY CONSTRUCTION AND/OR THE CONTRACTOR'S OPERATIONS, SHALL BE SODDED AT NO ADDITIONAL COST TO THE OWNER.
- THE INSTALLED IRRIGATION SYSTEM CAN AND SHALL BE USED BY THE CONTRACTOR TO PROVIDE ALL WATERING OF SODDED AND PLANTED AREAS AS REQUIRED BY THE STANDARD SPECIFICATIONS. AREAS NOT COVERED BY THE IRRIGATION SYSTEM SHALL BE WATERED BY THE CONTRACTOR WITH HIS OWN EQUIPMENT AS REQUIRED BY THE STANDARD SPECIFICATIONS. THE OWNER WILL PROVIDE ANY "SUPPLEMENTAL WATERING" REQUIRED FOR SODDED AREAS UPON WRITTEN NOTIFICATION BY THE CONTRACTOR AT LEAST 48 HOURS IN ADVANCE.
- THREE (3) INCHES OF COMPOST SHALL BE APPLIED TO THE TOPSOIL SURFACE OF ALL PERENNIAL PLANT BEDS. ALL COMPOST APPLIED SHALL BE INCORPORATED INTO THE TOPSOIL TO A DEPTH EQUAL TO FOUR (4) TIMES THE AMOUNT OF COMPOST (DEPTH) APPLIED. THIS WORK SHALL BE PAID FOR AS COMPOST, FURNISH AND PLACE, 3".
- NEED BARRIER FABRIC SHALL NOT BE PLACED AROUND PLANTS. ANY MULCH TO BE APPLIED TO PLANT PITS AND/OR PLANT BEDS SHALL BE PLACED TO A DEPTH OF 3". MULCH SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR INDIVIDUAL PLANTS.
- SELECTIVE MOWING STAKES ARE NOT REQUIRED ON THIS PROJECT.
- DECIDUOUS SHRUBS SHALL NOT BE CUT BACK (PRUNED) TO 1/2 OF THEIR HEIGHT, HOWEVER, MISSHAPEN AND/OR DEAD BRANCHES SHALL BE PRUNED OUT AS DIRECTED BY THE ENGINEER AND SHALL BE INCIDENTAL TO THE INDIVIDUAL PAY ITEMS FOR EACH TYPE OF SHRUB.

- ALL TOPSOIL FURNISHED SHALL HAVE AN ORGANIC CONTENT OF 4% - 10%.
- ALL SOD SHALL BE SALT TOLERANT SOD.
- MOWING OF SODDED LAWNS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 250 OF THE STANDARD SPECIFICATIONS AND SHALL BE PERFORMED UNTIL SUCH TIME THAT SOD WORK IS ACCEPTED. MOWING SHALL BE INCIDENTAL TO THE PAY ITEM: SODDING, SALT TOLERANT.
- SEE "CIVIL" SHEETS FOR DETECTABLE WARNING FOR CONCRETE SIDEWALKS. ALL WORK SHALL BE CONSTRUCTED, MEASURED, AND PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, UNLESS OTHERWISE INDICATED. ALL WORK NOT DIMENSIONED SHALL BE COORDINATED AND LAID OUT IN THE FIELD WITH THE ENGINEER.

Proposed

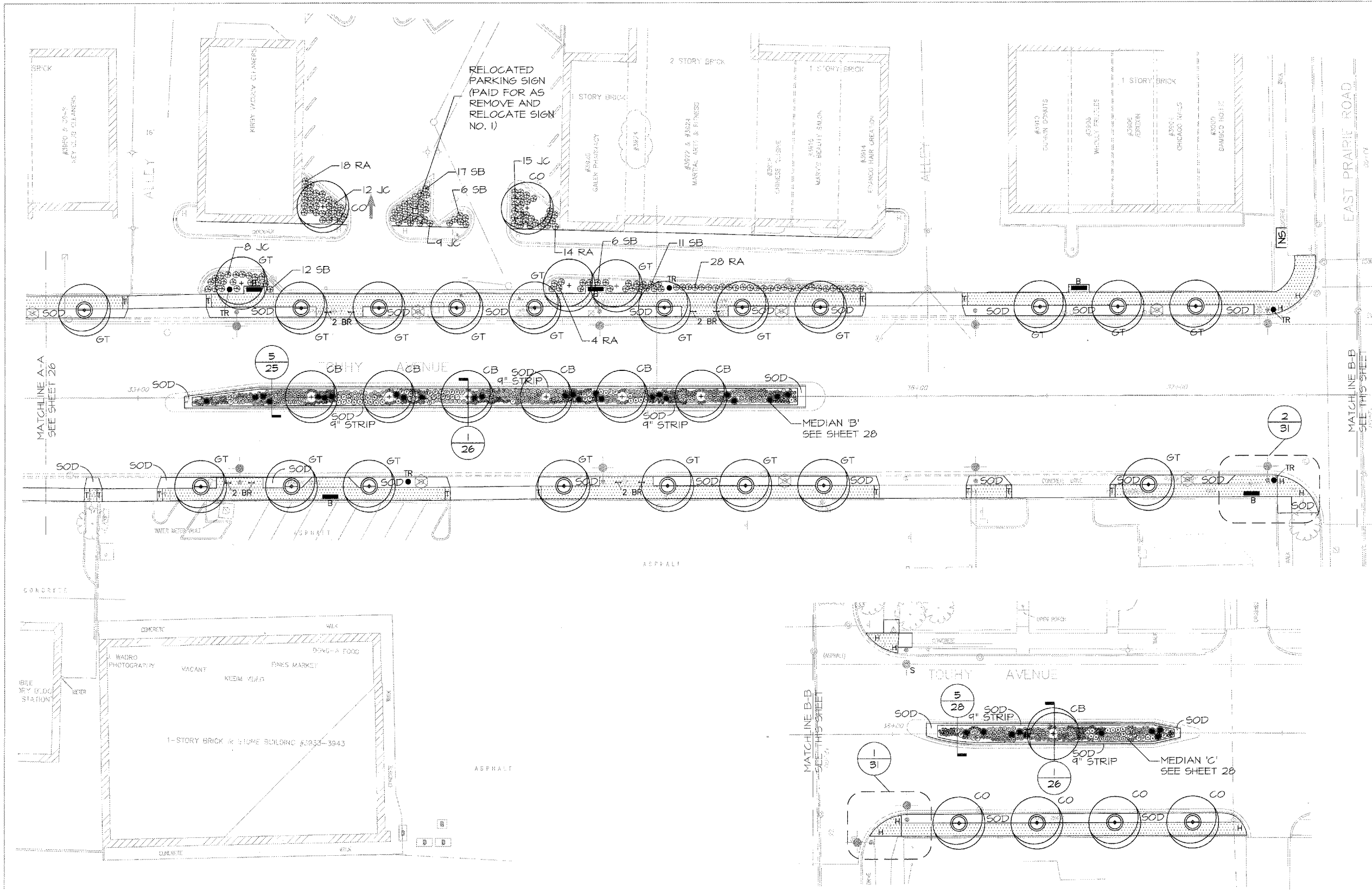
Tree Grates	3	30
Unit Pavers	2	30
Unit Pavers, Tactile	6	30
Precast Medallions	4	31
News Stand Screen	1	33
Benches	7	30
Trash Receptacles	5	30
Bicycle Racks	2	33
Tree		
Shrub		
Entrance Sign	1	32
Unit Pavers, Tactile	1 & 2	32
Ornamental Light		

PLANS PREPARED BY:
GEWALT HAMILTON
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 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LANDSCAPE PLAN
 BUSINESS DISTRICT IMPROVEMENTS
 TOWHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 -RS
 SCALE: N.T.S.
 DATE: 11-2-06
 DRAWN BY: TEB
 DESIGNED BY: SJP
 CHECKED BY: JCG

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	27
LANDSCAPE PLAN				
ILLINOIS				



- Proposed**
- Tree Grates $\frac{3}{30}$
 - Unit Pavers $\frac{2}{30}$
 - Unit Pavers, Tactile $\frac{6}{30}$
 - Precast Medallions $\frac{4}{31}$
 - News Stand Screen $\frac{1}{33}$
 - Benches $\frac{7}{30}$
 - Trash Receptacles $\frac{5}{30}$
 - Bicycle Rocks $\frac{2}{33}$
 - Tree $\frac{1}{32}$
 - Shrub $\frac{1}{32}$
 - Entrance Sign $\frac{1}{32}$
 - Unit Pavers, Tactile $\frac{1 \& 2}{32}$
 - Ornamental Light $\frac{1}{32}$



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REVISIONS	
NAME	DATE

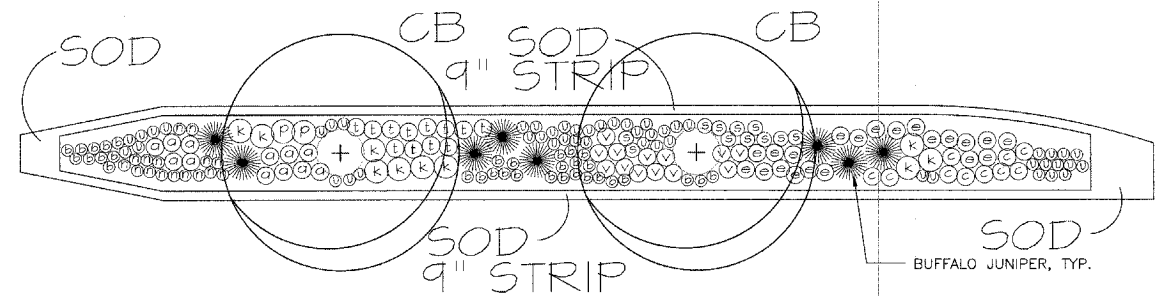
ILLINOIS DEPARTMENT OF TRANSPORTATION
LANDSCAPE PLAN

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

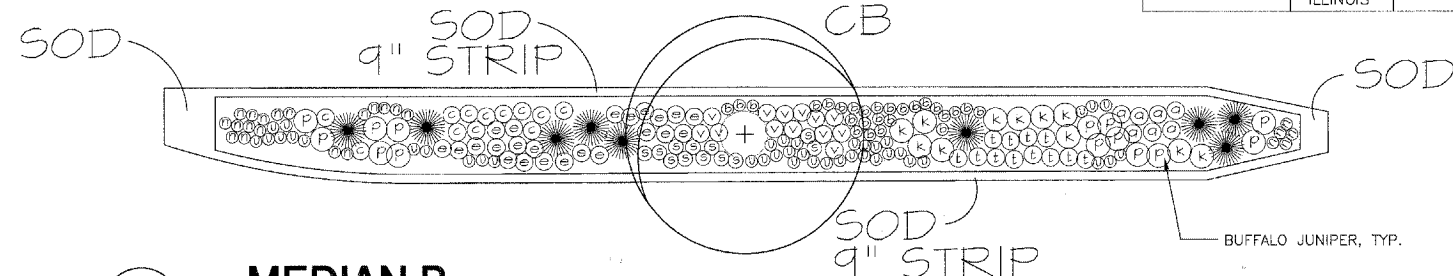
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DATE: 11-2-06

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CHECKED BY: JCG

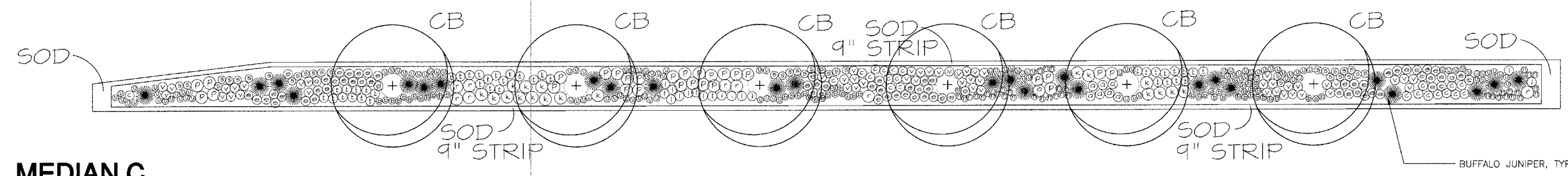
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	28
LANDSCAPE PLANS				
ILLINOIS				



1 MEDIAN A
Scale: 1' = 10'-0"



2 MEDIAN B
Scale: 1' = 10'-0"

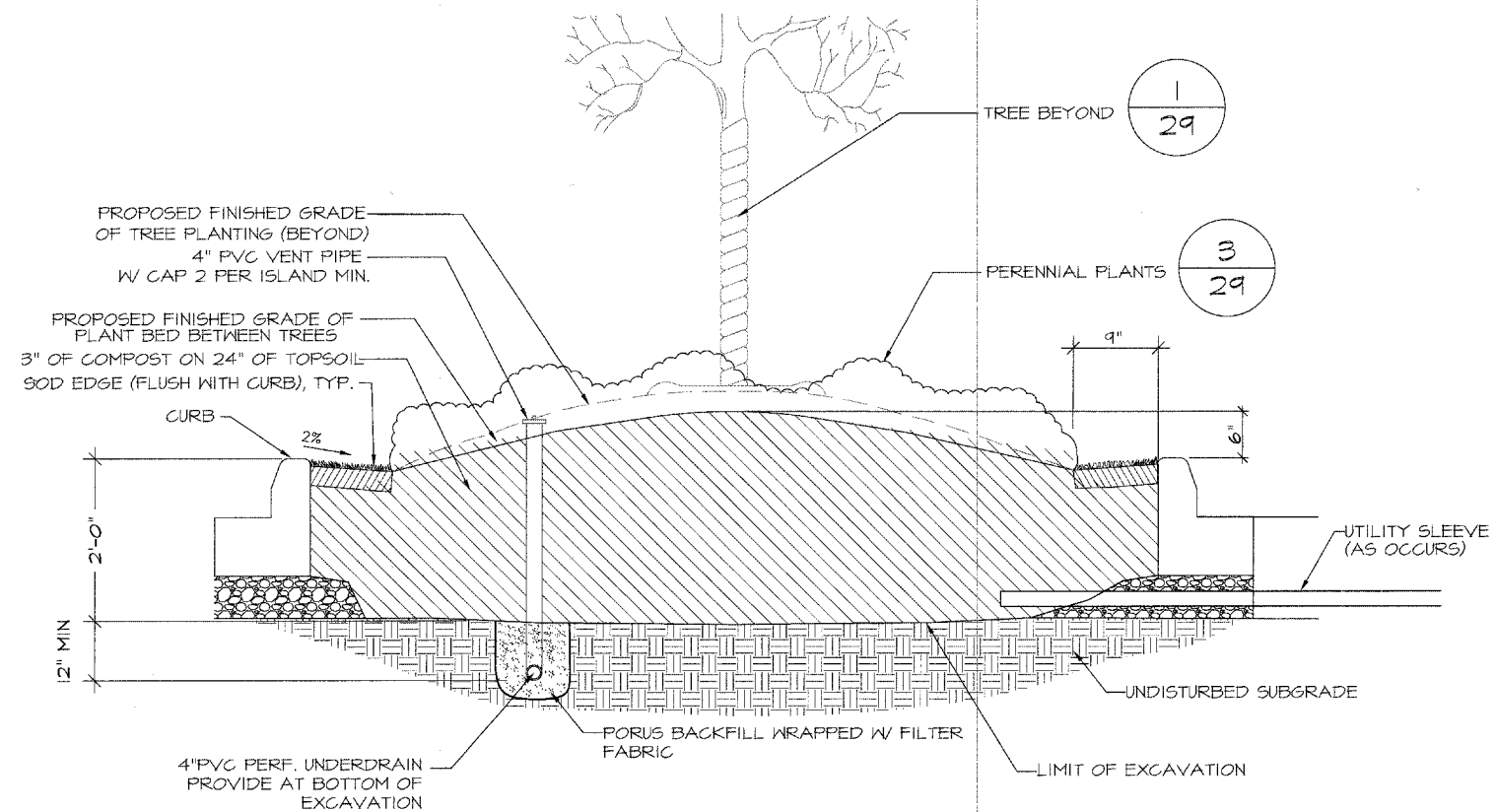


3 MEDIAN C
Scale: 1' = 10'-0"

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS	MATURE HT.
Trees (Paid for as individual trees)						
AM	Acer miyabei 'Morton'	State Street Miyabe Maple	7	4" Cal.	B&B	
AH	Aesculus hippocastanum 'Baumannii'	Baumann Common Horsechestnut	1	4" cal.	B&B	
CO	Celtis occidentalis 'Windy City'	Windy City Common Hackberry	6	4" cal.	B&B	
GT	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Honeylocust	26	4" cal.	B&B	
CB	Carpinus betulus 'Fastigiata'	Pyramidal European Hornbeam	9	3" cal.	B&B, matched	**
UJ	Ulmus japonica x wilsoniana 'Morton'	Accolade Elm	2	4" cal.	B&B	
Shrubs (Paid for as individual shrubs)						
J	Juniperus sabina 'Buffalo'	Buffalo Juniper	42	24" Spd.	36" O.C.	24"
RA	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	64	24" sprd	36" O.C.	24"
SB	Spirea bumalda 'Anthony Waterer'	Anthony Waterer Spirea	52	30" hgt	36" O.C.	
JC	Juniperus chinensis 'Pfitzeriana'	Pfitzer Creeping Juniper	44	24" sprd	36" O.C.	
Perennials (Paid for as PERENNIAL PLANTS, GALLON POT)						
a	Achillea x 'Coronation Gold'	Coronation Gold Yarrow	26	1 Gal.	18" O.C.	24"
b	Astilbe chinensis 'Pumila'	Dwarf Chinensis False Spirea	109	1 Gal.	12" O.C.	8-12"
c	Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	45	1 Gal.	18" O.C.	18-24"
P	Echinacea purpurea 'Alba'	White Coneflower	45	1 Gal.	24" O.C.	18-24"
e	Eragrostis spectabilis	Purple Love Grass	114	1 Gal.	18" O.C.	24"
k	Koeleria cristata	June Grass	39	1 Gal.	24" O.C.	18"
t	Liatris spicata	Gayfeather	62	1 Gal.	18" O.C.	18-24"
l	Liriope spicata	Creeping Lilioturf	15	1 Gal.	18" O.C.	12"
r	Rosa 'Flower Carpet Appleblossom'	Floral Carpet Coral Rose	8	1 Gal.	24" O.C.	
v	Salvia x superba 'East Friesland'	Perennial Salvia	78	1 Gal.	18" O.C.	18"
u	Sedum x Ruby Glow	Stonecrop	200	1 Gal.	12" O.C.	12"
s	Stachys byzantina 'Silver Carpet'	Lamb's Ear	59	1 Gal.	15" O.C.	6-8"
Ground Cover (See pay item No. E20090P3)						
n	Evonymus fortunei var. 'Coloratus'	Purple Leaf Wintercreeper	81	3" Pot	12" O.C.	12"
Bulbs (Paid for as PERENNIAL PLANTS, DAFFODIL BULBS)						
NJ	Narcissus 'Jack Snipe'*	Jack Snipe Daffodil	130	Top Size	8" O.C.	8-10"

* Plant all Narcissus 8" O.C. between perennials in 13 groups (10 bulbs in each group) at locations indicated in the field by the Engineer
 ** Trim lower branches to a minimum height of 4' above pavement level



5 SECTION THROUGH MEDIAN (WITH PERENNIALS), TYP.
No Scale

Land Design Collaborative
incorporated

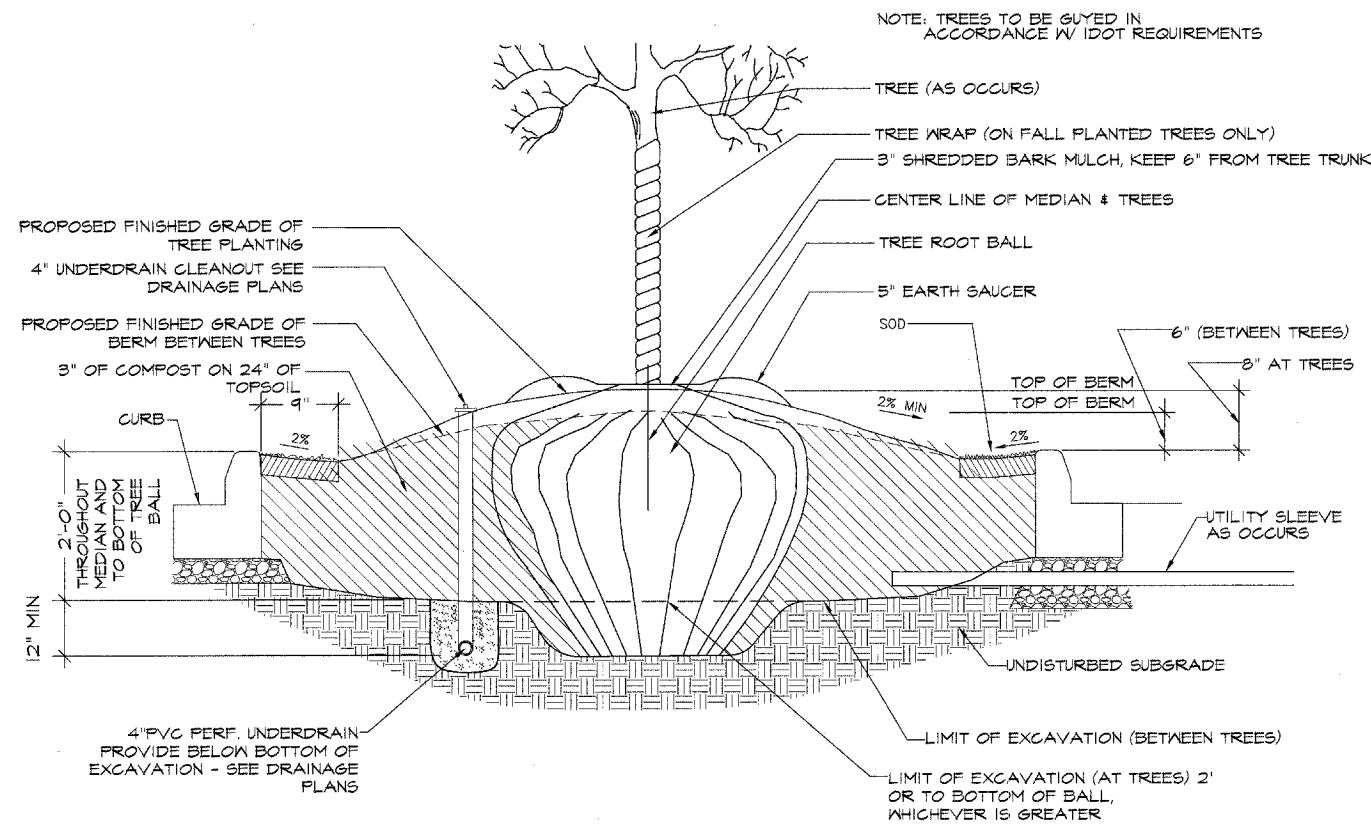
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PLANS PREPARED BY:
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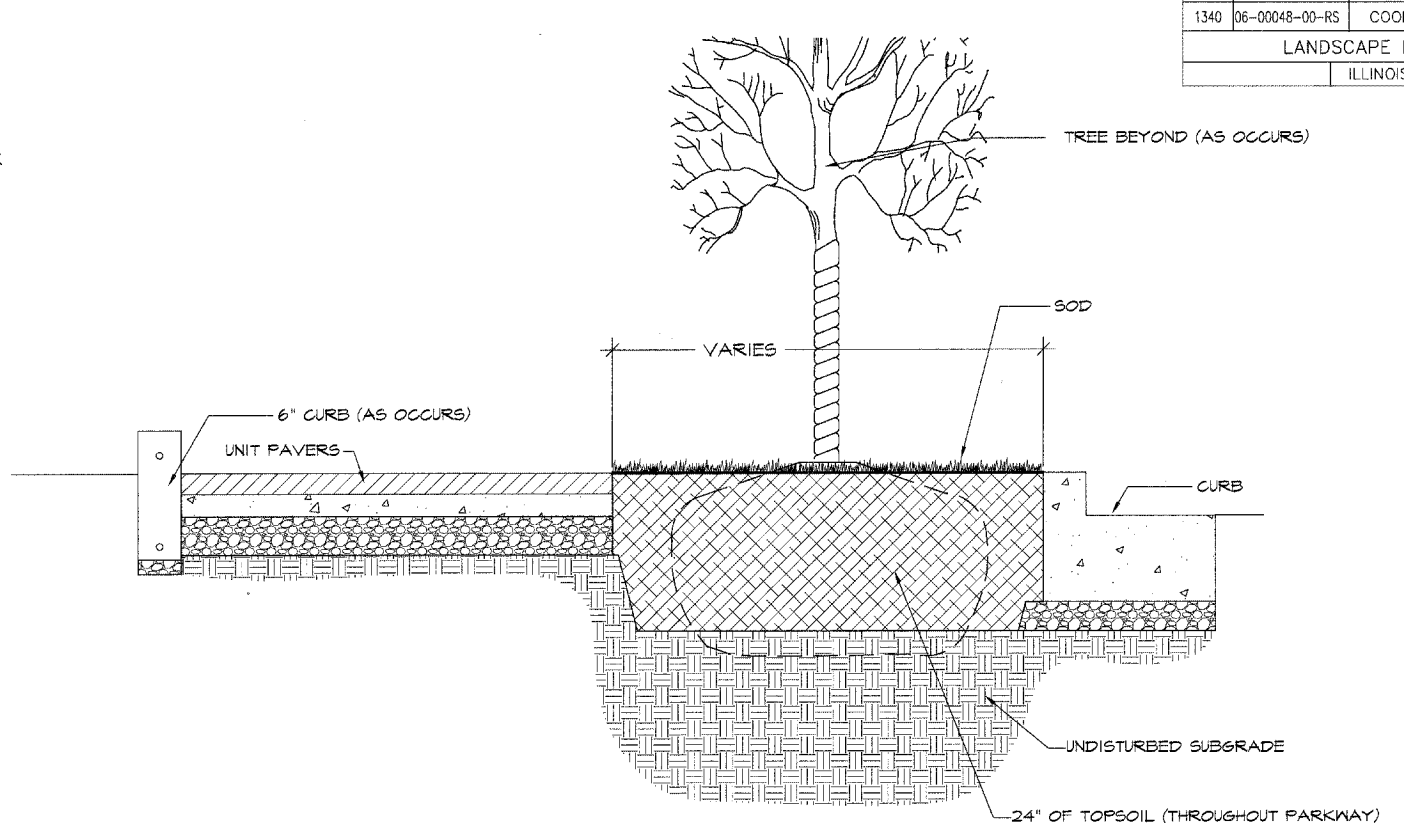
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
LANDSCAPE PLANS
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS
SCALE: N.T.S.
DATE: 11-2-06
DRAWN BY: TEB
DESIGNED BY: SJP
CHECKED BY: JCG

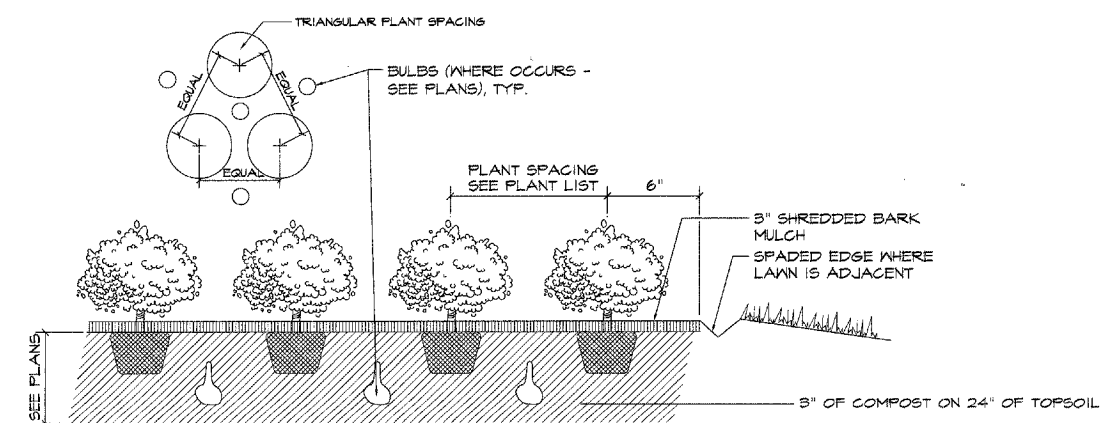
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	29
LANDSCAPE DETAILS				
ILLINOIS				



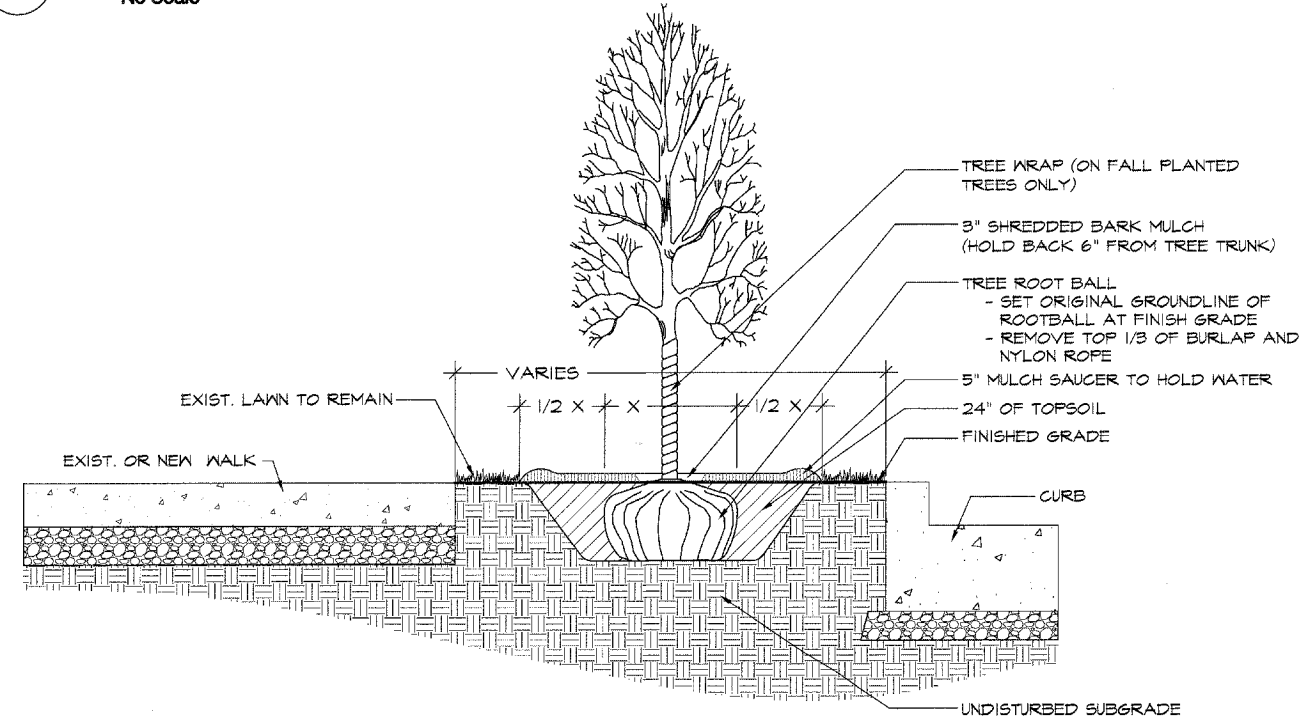
1 SECTION THROUGH MEDIAN @ TREE, TYP.
No Scale



2 SECTION THROUGH PARKWAY, TYP.
No Scale



3 SHRUB/PERENNIAL PLANTING DETAIL, TYP.
No Scale



4 TREE IN EXISTING PARKWAY, TYP.
No Scale

Land Design Collaborative
INCORPORATED

5142 Main Street
Skokie, Illinois 60077
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ILLINOIS DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

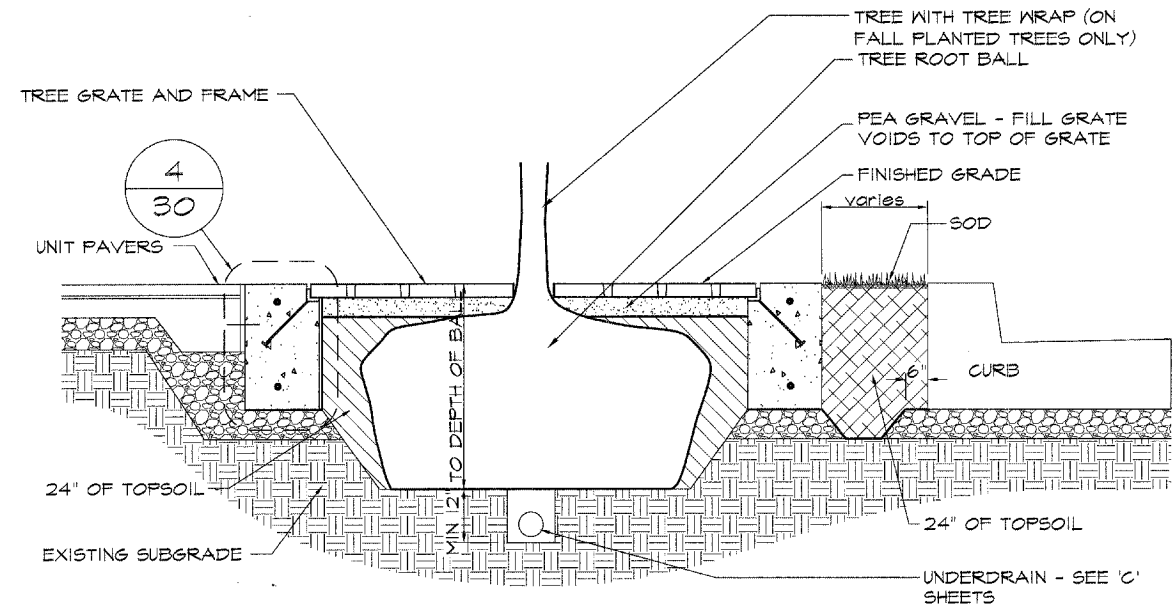
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DATE: 11-2-06

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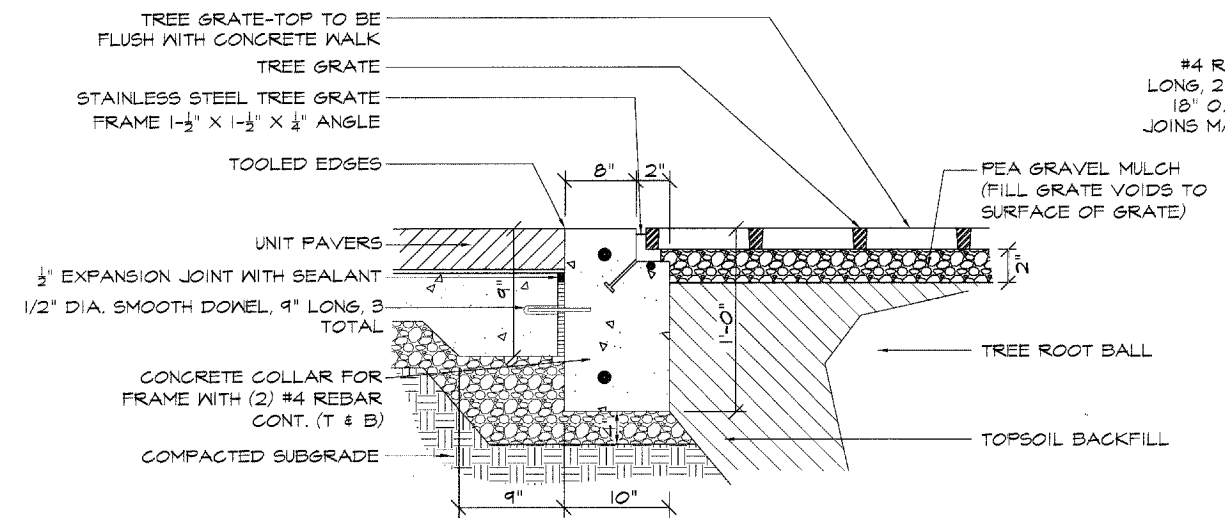
REVISIONS	
NAME	DATE

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GEWALT HAMILTON ASSOCIATES, INC.
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850 Forest Ridge Drive
Vernon Hills, IL 60061
(847) 478-0700
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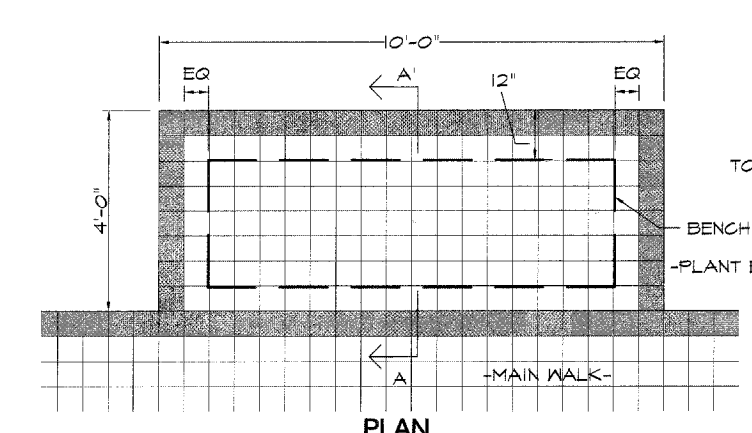
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	30
MISCELLANEOUS DETAILS				
ILLINOIS				



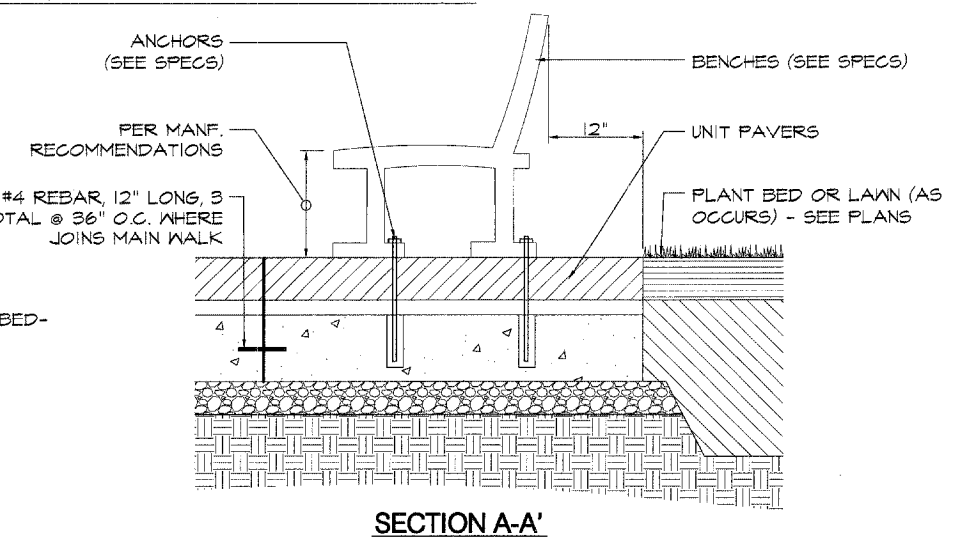
1 TREE GRATES, TYP. (SECTION)
No Scale



4 TREE GRATE COLLAR DETAIL, TYP.
No Scale

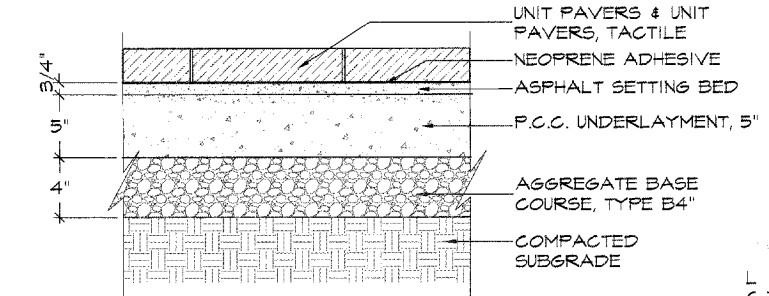


7 BENCHES, TYP.
No Scale

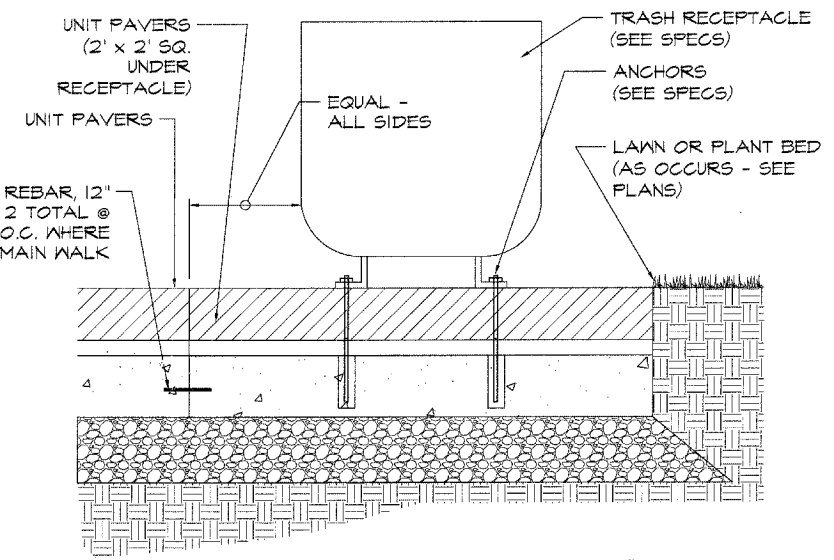


SECTION A-A'

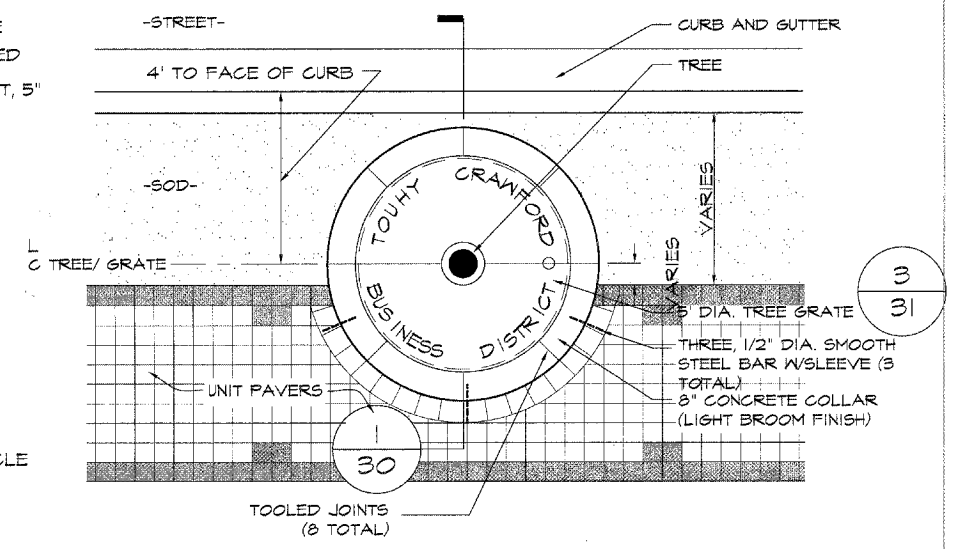
NOTE:
1) 6X6 UNIT PAVERS (COLORS A & B) SHALL BE MEASURED AND PAID FOR AS UNIT PAVERS.
2) 12X12 TACTILE PAVERS SHALL BE MEASURED AND PAID FOR AS UNIT PAVERS, TACTILE



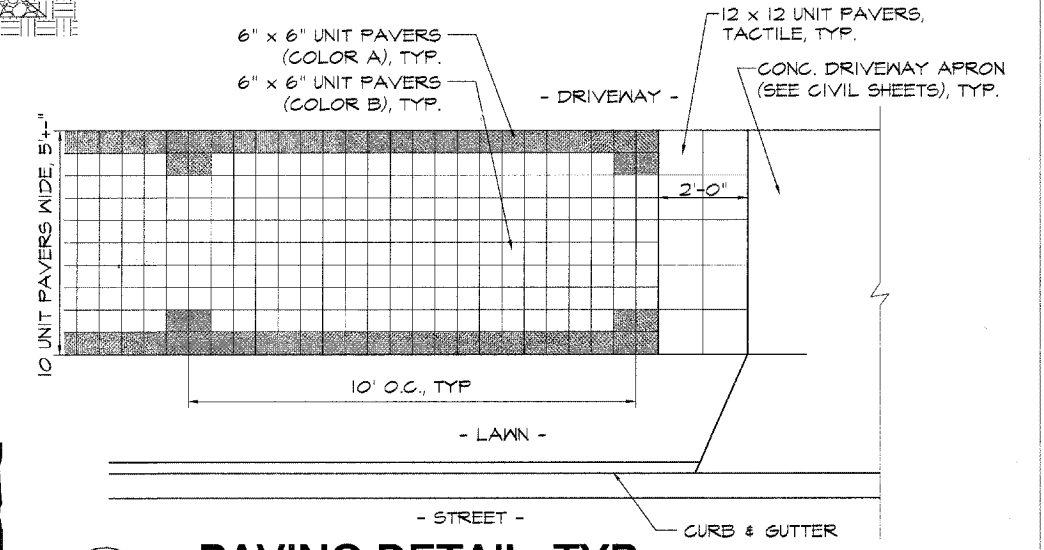
2 UNIT PAVERS & UNIT PAVERS, TACTILE
No Scale



5 TRASH RECEPTACLES
No Scale



3 TREE GRATES, TYP. (PLAN)
No Scale



6 PAVING DETAIL, TYP.
No Scale



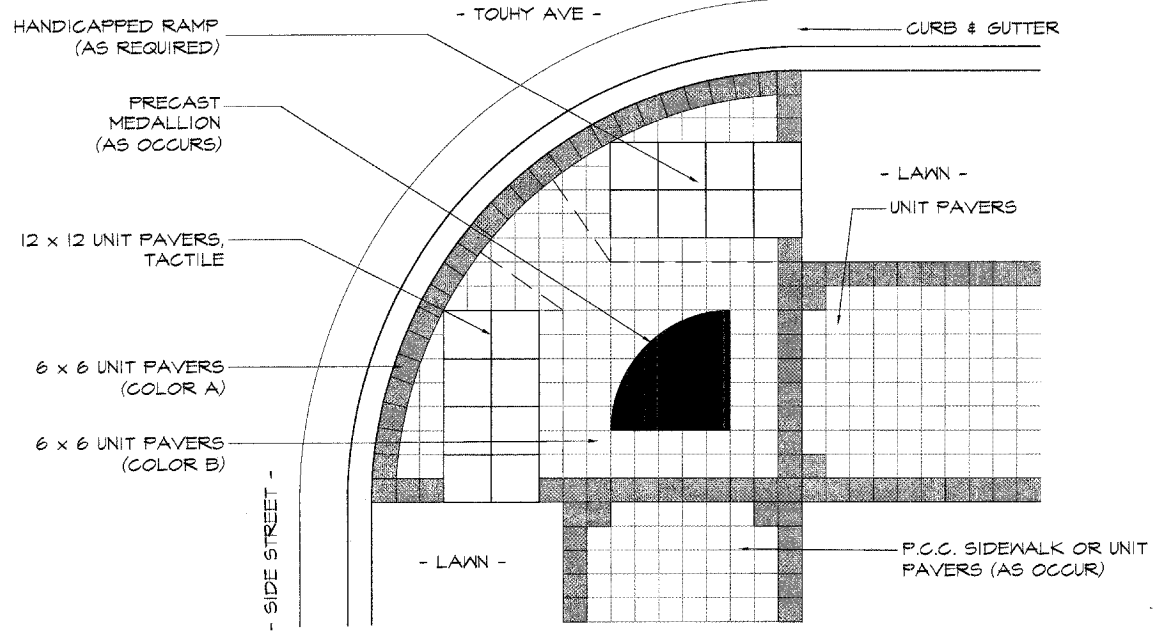
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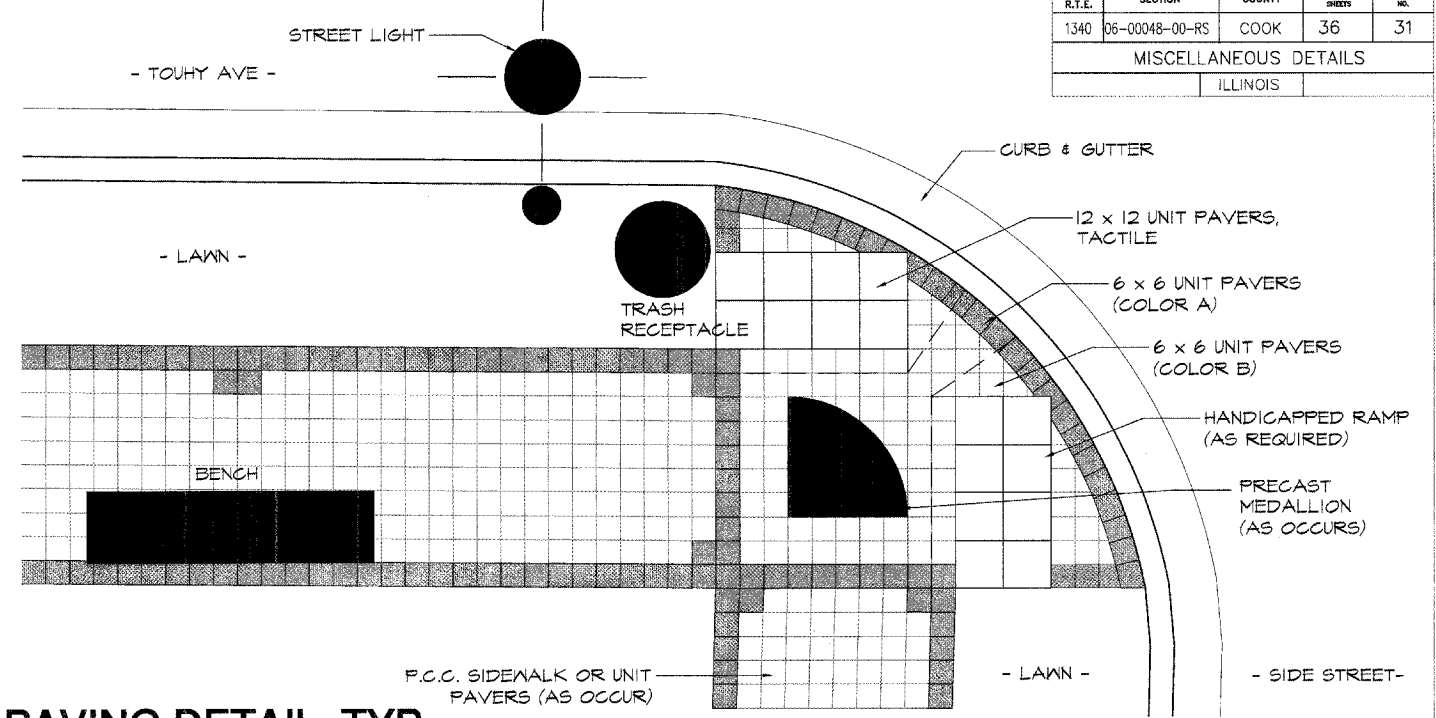
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS
SCALE: N.T.S.
DATE: 11-2-06
DRAWN BY: TEB
DESIGNED BY: SJP
CHECKED BY: JCG

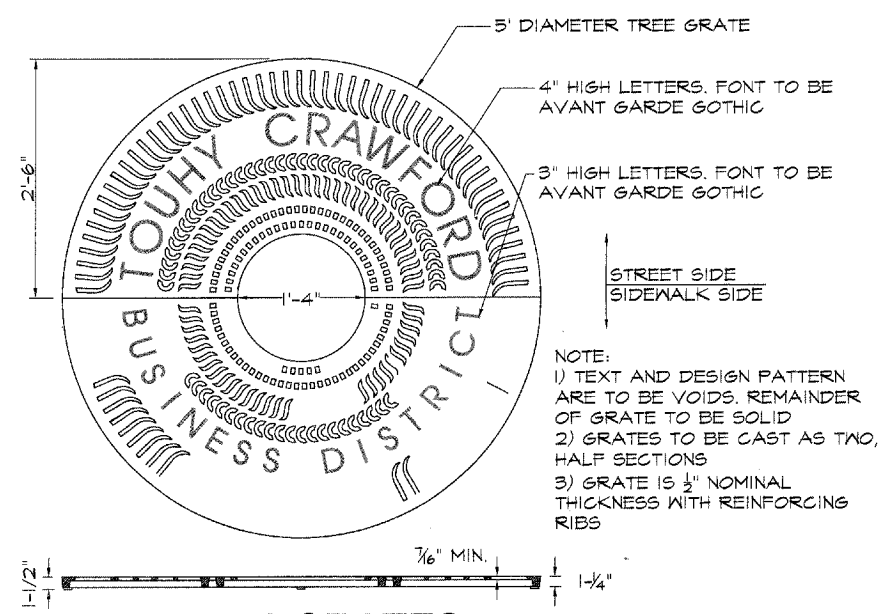
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	31
MISCELLANEOUS DETAILS				
ILLINOIS				



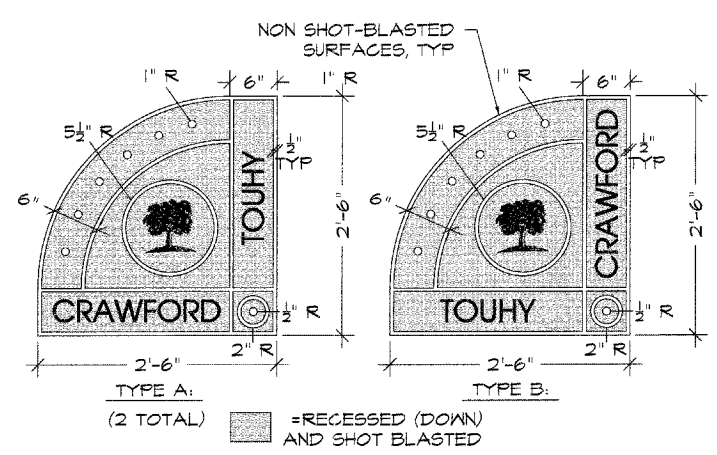
1 PAVING DETAIL, TYP.
No Scale



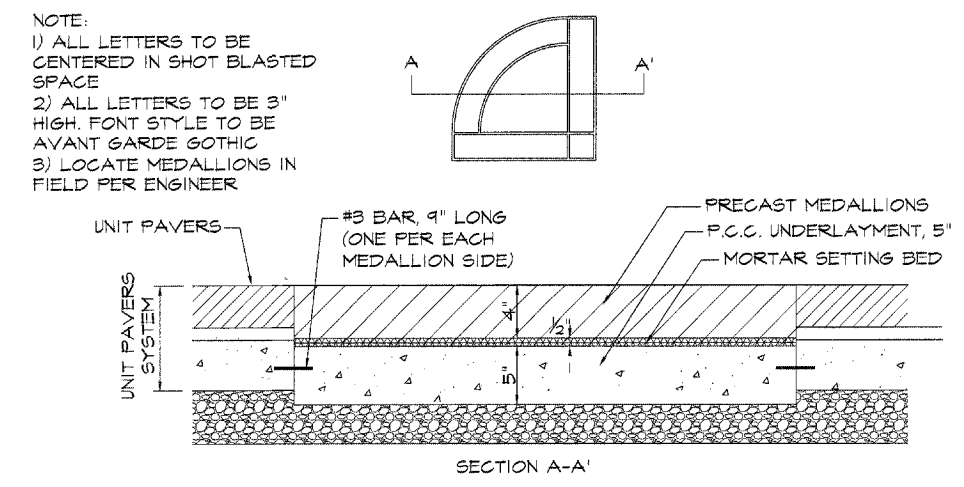
2 PAVING DETAIL, TYP.
No Scale



3 TREE GRATES
No Scale



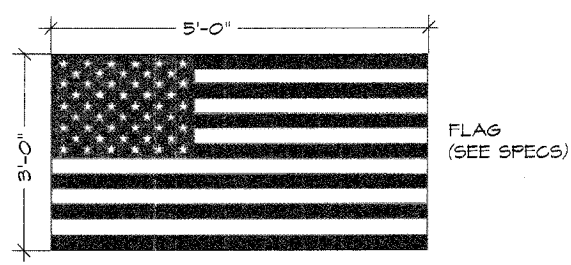
4 PRECAST MEDALLIONS
No Scale



NOTE:
1) ALL LETTERS TO BE CENTERED IN SHOT BLASTED SPACE
2) ALL LETTERS TO BE 3" HIGH, FONT STYLE TO BE AVANT GARDE GOTHIC
3) LOCATE MEDALLIONS IN FIELD PER ENGINEER



5 BANNERS
No Scale



6 FLAG
No Scale



5142 Main Street
Skokie, Illinois 60077
(847) 329-9777
Fax (847) 329-9779

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
Consulting Engineers & Surveyors
850 Forest Ridge Drive
Vernon Hills, IL 60061
(847) 478-9700
(847) 478-9701 Fax

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS

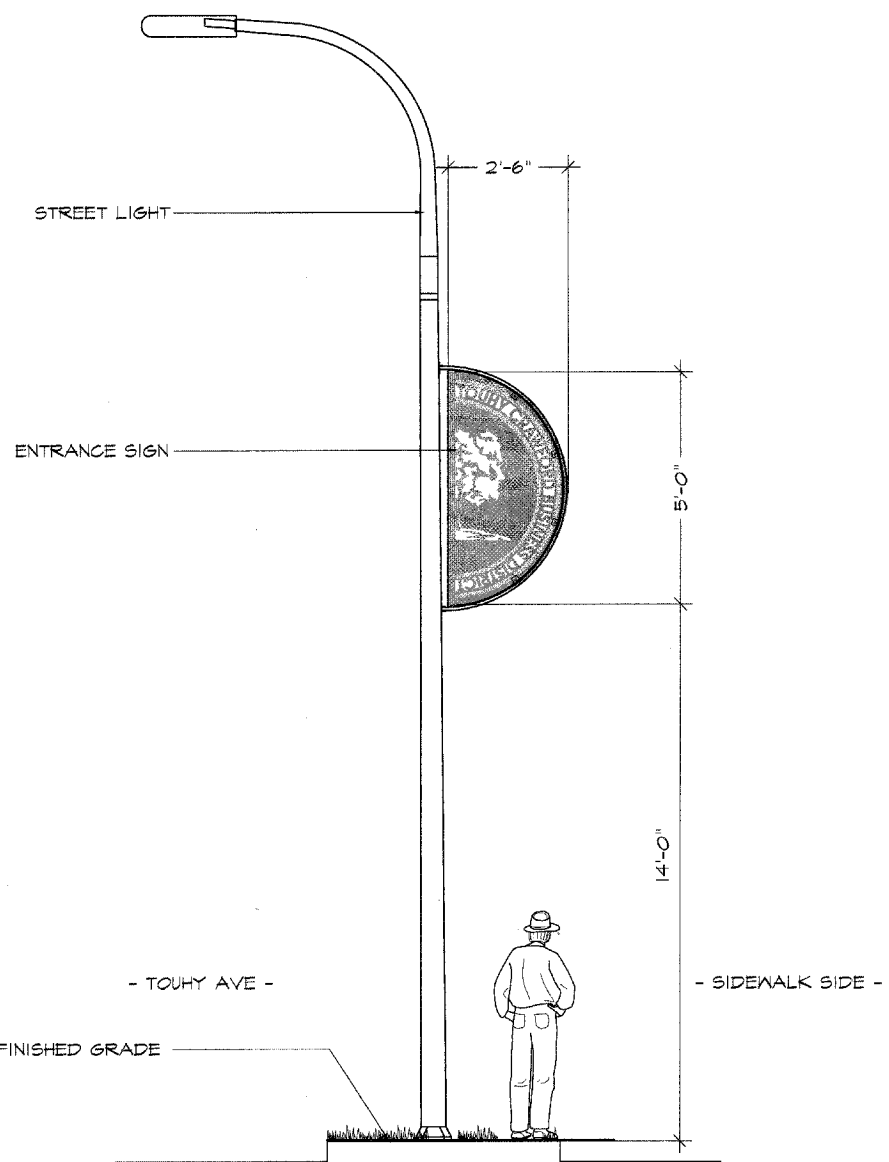
BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 - RS

SCALE: N.T.S.
DATE: 11-2-06

DRAWN BY: TEB
DESIGNED BY: SJP
CHECKED BY: JCG

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	32
ENTRANCE SIGN DETAILS				
ILLINOIS				

NOTE:
Contractor shall provide a detailed engineering shop drawing for the fastening and structural support, signed and sealed by an Illinois licensed structural engineer and in accordance with the light pole manufacturer's requirements.

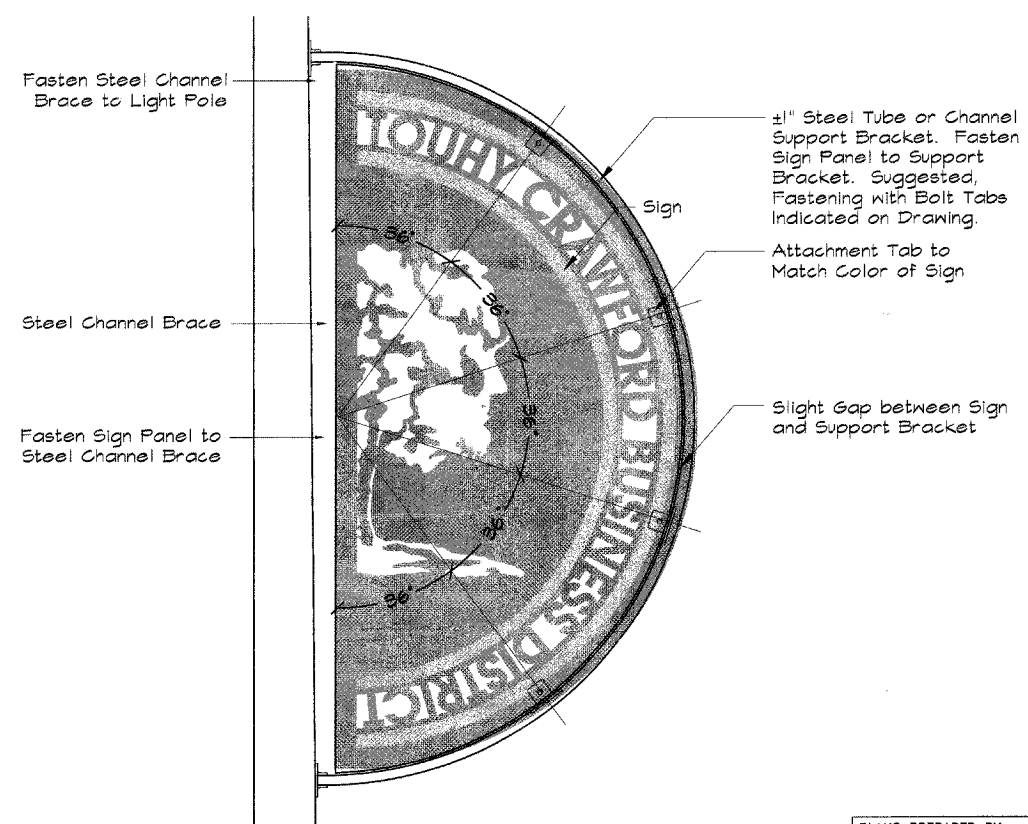


1 ENTRANCE SIGN DETAIL
1"=30'



- Slots Cut through Metal
- DI-Cut 1/8" Metal
- Painted or vinyl letters and image- reflective copy to match Drylac "Taupe" #28-10070. Letters to be Avant Garde Gothic
- Painted Sign- painted MAP Acrylic Polyurethane to match Drylac "Redwood" #28-30040

2 ENTRANCE SIGN MATERIALS
1"=10'



3 SIGN ATTACHMENT DETAIL
No Scale



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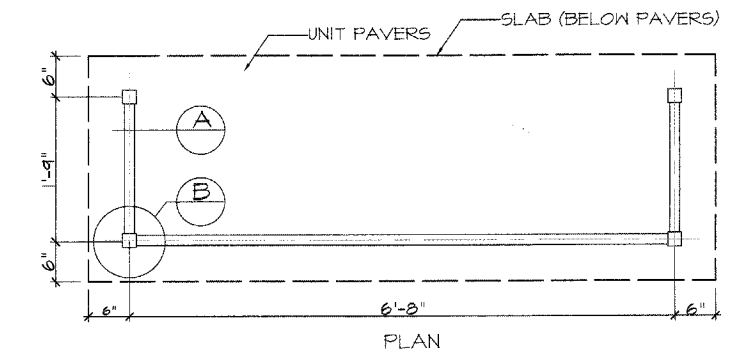
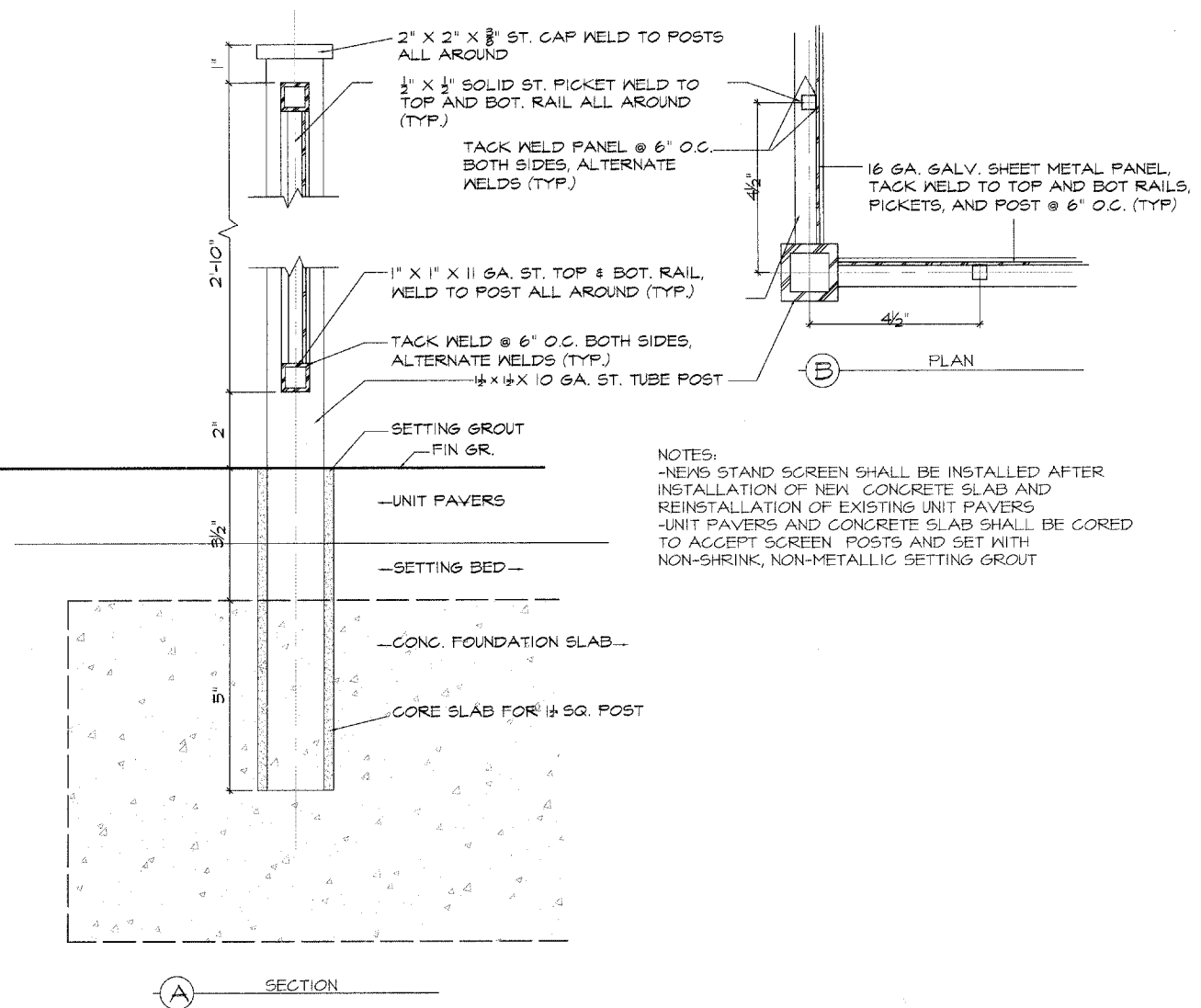
ILLINOIS DEPARTMENT OF TRANSPORTATION
ENTRANCE SIGN DETAILS

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

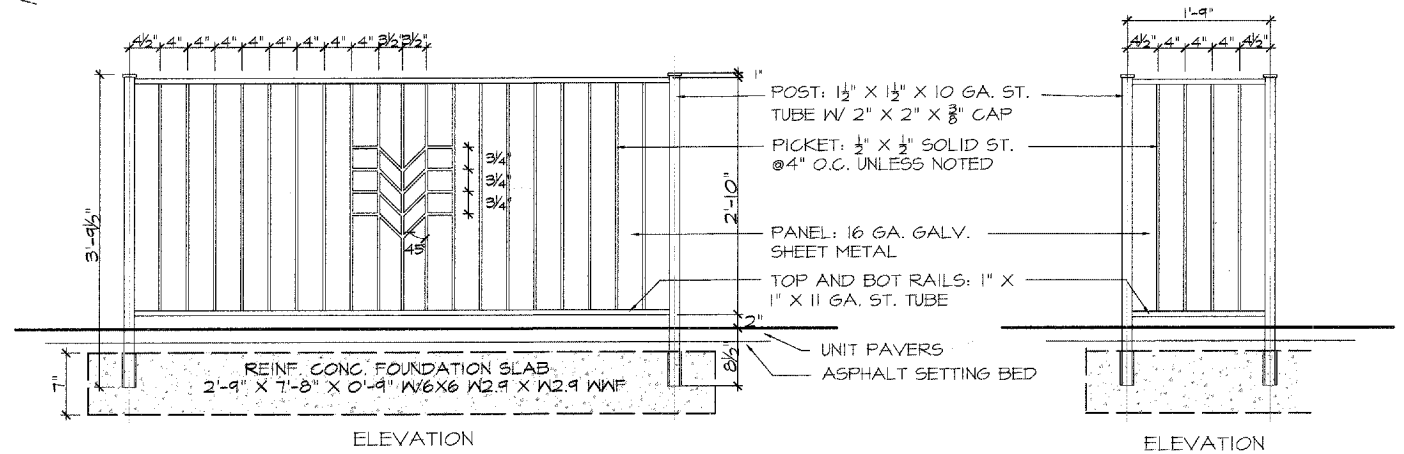
SCALE: N.T.S.
DATE: 11-2-06

DRAWN BY: TEB
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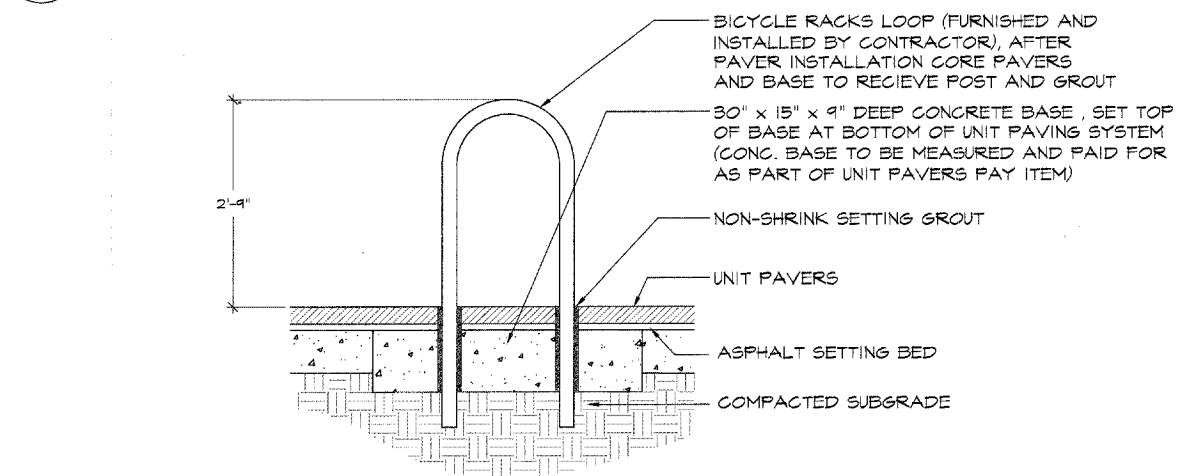
F.A.U. R.T.E.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
1340	06-00048-00-RS	COOK	36	33
MISCELLANEOUS DETAILS				
ILLINOIS				



NOTES:
 -POST, TOP AND BOT. RAILS & PICKETS TO BE FULL WELD ALL AROUND, GALVANIZE AFTER FABRICATION
 -TACK WELD PANEL TO TOP & BOT. RAILS AND PICKETS (MAX SPACING 6")
 -PRIME & FINISH COATS PER SPECS



1 NEWS STAND SCREEN DETAIL
 No Scale



2 BICYCLE RACKS DETAIL
 No Scale

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ILLINOIS DEPARTMENT OF TRANSPORTATION
 MISC. DETAILS

BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 - RS

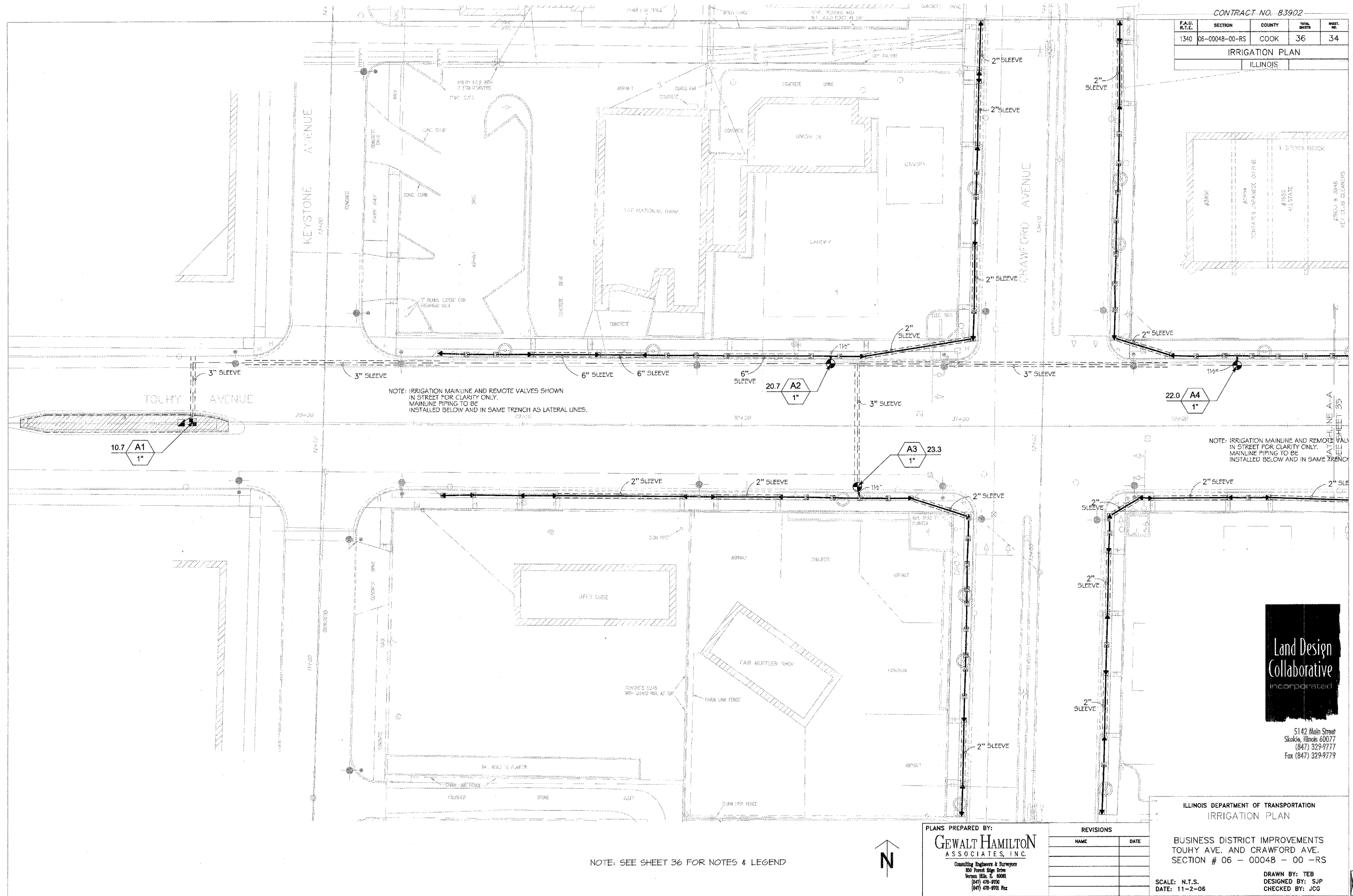
SCALE: N.T.S.
 DATE: 11-2-06

DRAWN BY: TEB
 DESIGNED BY: SJP
 CHECKED BY: JCG

Land Design Collaborative
 incorporated

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F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	34
IRRIGATION PLAN				
ILLINOIS				



NOTE: IRRIGATION MAINLINE AND REMOTE VALVES SHOWN IN STREET FOR CLARITY ONLY. MAINLINE PIPING TO BE INSTALLED BELOW AND IN SAME TRENCH AS LATERAL LINES.

NOTE: IRRIGATION MAINLINE AND REMOTE VALVES SHOWN IN STREET FOR CLARITY ONLY. MAINLINE PIPING TO BE INSTALLED BELOW AND IN SAME TRENCH AS LATERAL LINES.

NOTE: SEE SHEET 36 FOR NOTES & LEGEND

PLANS PREPARED BY:
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 IRRIGATION PLAN

BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 - RS

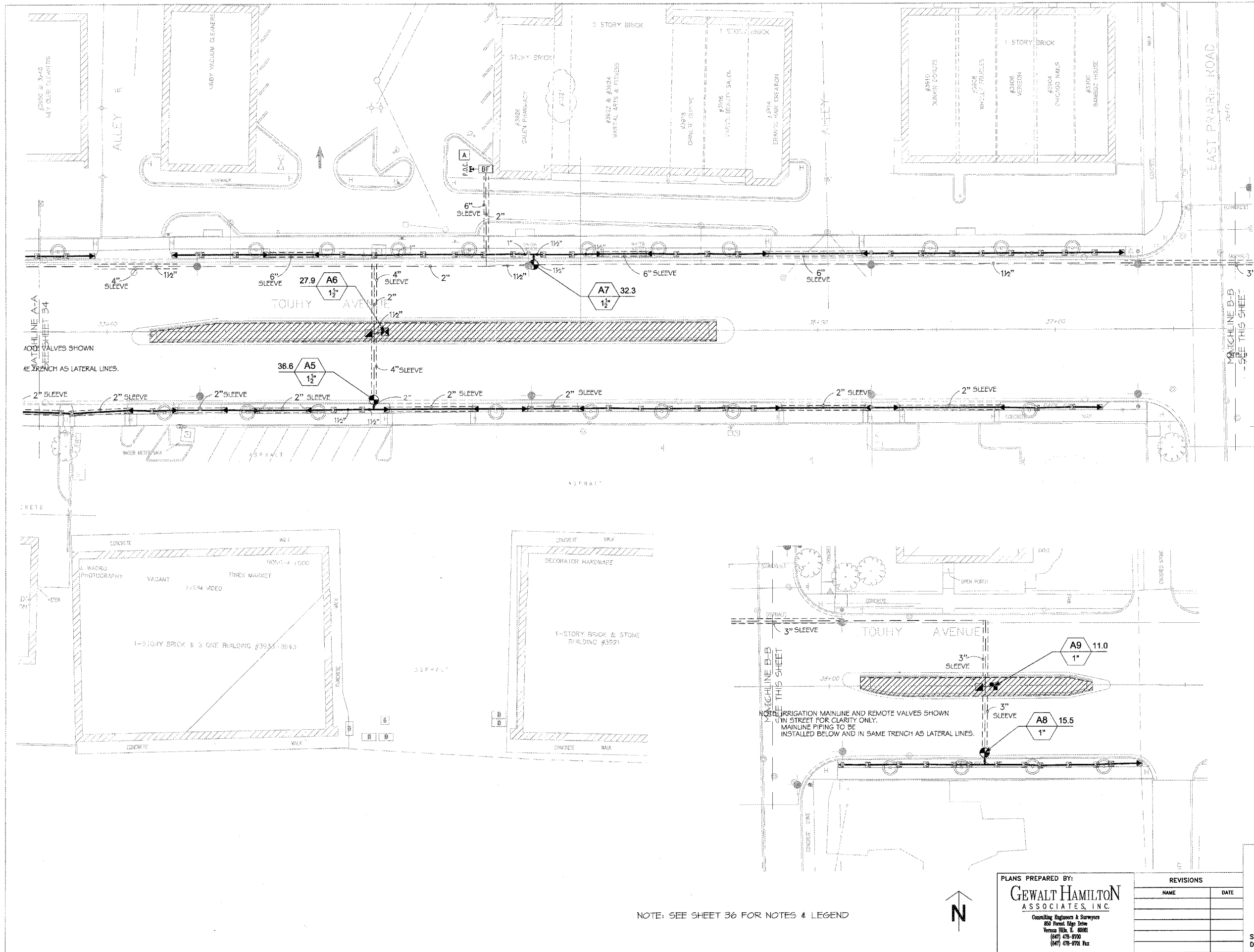
SCALE: N.T.S.
 DATE: 11-2-06

DRAWN BY: TEB
 DESIGNED BY: SJP
 CHECKED BY: JCG



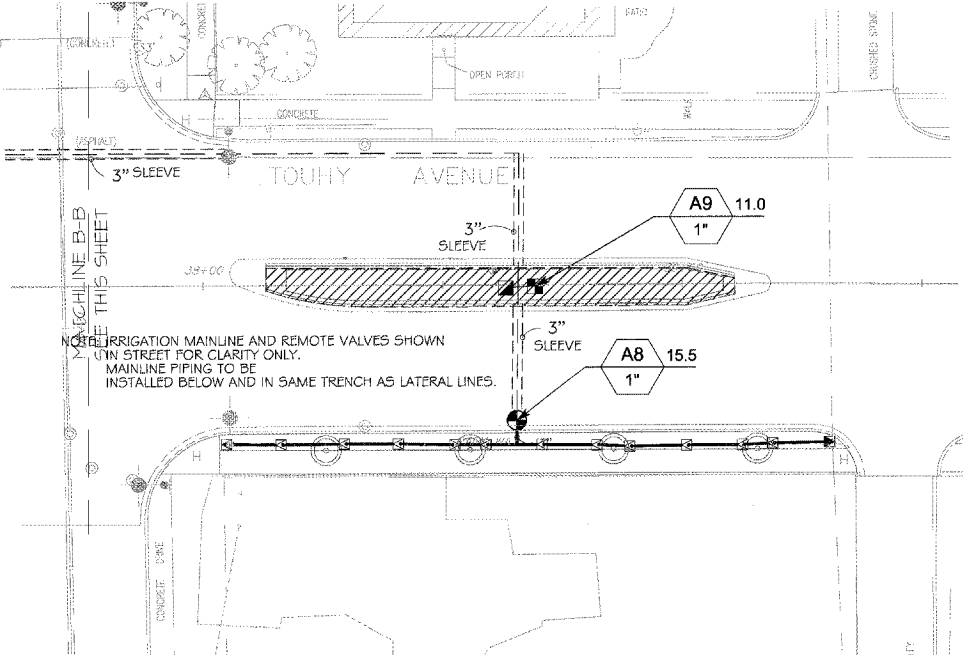
5142 Main Street
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F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	35
IRRIGATION PLAN				
ILLINOIS				



MATCHLINE A-A SEE SHEET 34
 MATCH VALVES SHOWN
 IN TRENCH AS LATERAL LINES.

MATCHLINE B-B
 SEE THIS SHEET



NOTE: IRRIGATION MAINLINE AND REMOTE VALVES SHOWN
 IN STREET FOR CLARITY ONLY.
 MAINLINE PIPING TO BE
 INSTALLED BELOW AND IN SAME TRENCH AS LATERAL LINES.

NOTE: SEE SHEET 36 FOR NOTES & LEGEND



PLANS PREPARED BY:
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ILLINOIS DEPARTMENT OF TRANSPORTATION
 IRRIGATION PLAN

BUSINESS DISTRICT IMPROVEMENTS
 TOUHY AVE. AND CRAWFORD AVE.
 SECTION # 06 - 00048 - 00 -RS

SCALE: N.T.S.
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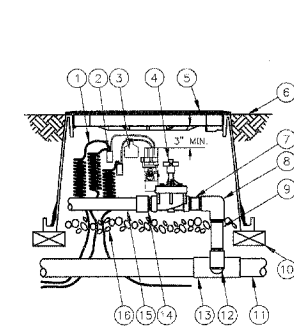
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1340	06-00048-00-RS	COOK	36	36
IRRIGATION PLAN/DETAILS/NOTES				
ILLINOIS				

IRRIGATION SCHEDULE

MANUFACTURER/MODEL/DESCRIPTION	QTY	PSL
EST CST SST Rain Bird 1806-U-PRS 4' stnp Turf Spray 6" pop up with pressure regulator	147	30
Q T H F Rain Bird 1806-U-PRS 6' radius Turf Spray 6" pop up with pressure regulator	2	
MANUFACTURER/MODEL/DESCRIPTION		
Rain Bird XCZ-100-B-COM Drip 1" Rain Bird PESB valve, 2-1" filters and 2-40psi pressure regulators	2	
Rain Bird XCZ-150-COM High flow control zone kit w/ 1 1/2" PESB valve, 2-1" filters, and 2-40psi pressure regulators	1	
Area to receive drip line Rain Bird LD-C9-12 Landscape drip line with 0.92gph emitters at 12" apart, with emitters offset for triangular pattern	3,311	s.f.
MANUFACTURER/MODEL/DESCRIPTION		
Rain Bird PGA-NP-11AN Electric remote control valve with non-potable handle	6	
Rain Bird 3RC 3/4" Quick Coupler valve, one piece body	2	
A Rain Bird ESP-LXM-55 ESP-LXM in stainless steel pedestal as provided by RB5C	1	
BF Watts 909 2" Reduced pressure backflow preventer	1	
Irrigation lateral line: PVC class 200 Only lateral transition pipe sizes 1 1/2" and above are indicated on the plan, with all others being 1" in size	2,296	l.f.
Irrigation mainline: PVC class 200	1,379	l.f.
Pipe sleeve: PVC class 200 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeve material. Extend sleeves 18" beyond edges of paving or construction	1,377	l.f.
Valve Callout # # - Valve Number # # - Valve GPM # # - Valve Size		

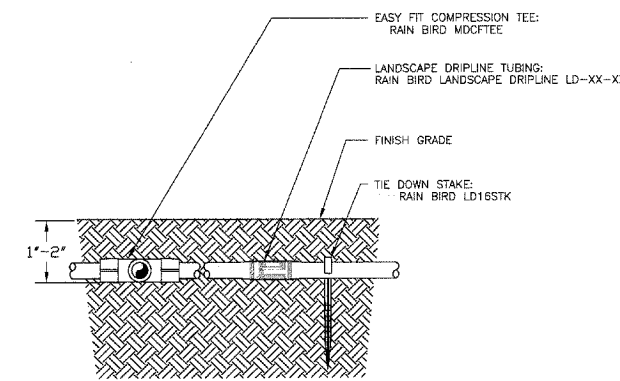
GENERAL IRRIGATION NOTES

- THIS IRRIGATION DESIGN IS DIAGRAMMATIC. ACTUAL LAYOUT OF PIPING, SPRINKLER HEADS, VALVES, CONTROLLERS AND RELATED EQUIPMENT SHALL BE DETERMINED ON SITE. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, STRUCTURES AND UTILITIES AND MAKE THE NECESSARY ADJUSTMENTS TO ACCOMMODATE THE IRRIGATION SYSTEM AS DESIGNED. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN AS WELL AS KNOWN OBSTRUCTIONS, GRADES OR DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PROVIDED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND COSTS NECESSARY FOR THE UNOBSTRUCTED OPERATION OF THE SPRINKLER SYSTEM.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE OF 50PSI AT THE POINT OF CONNECTION AND A MAXIMUM FLOW DEMAND OF 40GPM. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION. REPORT DIFFERENCES BETWEEN REQUIREMENTS AND ACTUAL READINGS TO THE OWNER'S AUTHORIZED REPRESENTATIVE. THE FLOW DEMAND FOR INDIVIDUAL MAINLINES SHALL NOT EXCEED THE FOLLOWING GUIDELINES:
2" CLASS 200=36-55GPM
- THE CONTRACTOR SHALL PROVIDE 120V-AC 3PHASE POWER SOURCE AT THE CONTROLLER LOCATION. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER.
- A RAIN SENSOR SHALL BE INSTALLED IN THE VICINITY OF THE CONTROLLER. SEE SPECIFICATIONS.
- A QUICK COUPLING VALVE SHALL BE LOCATED AT THE IRRIGATION WATER SUPPLY POINT OF CONNECTION TO PROVIDE FOR A POINT OF INJECTION OF COMPRESSED AIR TO PURGE THE SYSTEM OF RETAINED WATER FOR WINTERIZATION.
- PIPE SIZE SHALL CONFORM TO THOSE SHOWN ON DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS FOR LARGER SIZES MAY BE APPROVED. MINIMUM PIPE SHALL BE 1".
- ALL LATERAL ZONES SHALL BE CONNECTED TO THE MAINLINE WITH PVC PIPE AND SIZED AS FOLLOWS:
1" CLASS 200=0-17GPM 1.25" CLASS 200=18-28GPM
1.5" CLASS 200=29-35GPM 2" CLASS 200=36-55GPM
2.5" CLASS 200=56-85GPM 3" CLASS 200=96-85GPM
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR AND FLUSH TO FINISH GRADE AND WITH A CLEARANCE OF 2" (MIN.) FROM THE EDGE OF ANY HARD SURFACE UNLESS OTHERWISE SPECIFIED.
- CHECK VALVES SHALL BE INSTALLED ON ALL IRRIGATION HEADS IN AREAS WHERE FINISH GRADE EXCEEDS 4:1, WHERE POST VALVE SHUTOFF DRAINING OF THE IRRIGATION HEAD OCCURS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- ALL SPRINKLER HEADS AND VALVES SHALL BE FLUSHED AND ADJUSTED FOR OPTIMUM COVERAGE WITH MINIMUM OVER SPRAY ON WALKS, STREETS, WALLS, ETC..
- ALL WIRES/SPICES TO BE MADE IN VALVE BOX.
- ALL VALVE BOXES TO BE INSTALLED WITH METAL DETECTION IN VALVE BOX LID.
- INSTALL TWO SPARE WIRES PER CONTROLLER. WIRE TO BE RUN TO FURTHEST ZONE VALVE LOCATION FOR EACH CONTROLLER.
- ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. INSTALL IRRIGATION SYSTEM IN ACCORDANCE WITH ALL LOCAL AND STATE GOVERNING CODES OF ILLINOIS.
- REFER TO THE SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.
- GENERAL CONTRACTOR TO INSTALL IRRIGATION SLEEVES AS SHOWN NO DEEPER THAN 24" WHEREVER POSSIBLE.
- GENERAL CONTRACTOR TO PROVIDE 120VAC TO IRRIGATION CONTROLLER.
- ALL IRRIGATION WORK (SHEETS 34-36) IS PAID FOR THE CONTRACT UNIT PRICE: IRRIGATION SYSTEM



- 30-INCH LINEAR LENGTH OF WIRE, COILED
- WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- ID TAG: RAIN BIRD VID SERIES
- REMOTE CONTROL VALVE: RAIN BIRD PEB-PRS-D
- VALVE BOX WITH COVER: RAIN BIRD VB-STD
- FINISH GRADE/TOP OF MULCH
- PVC SCH 80 NIPPLE (CLOSE)
- PVC SCH 40 ELL
- PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- BRICK (1 OF 4)
- PVC MAINLINE PIPE
- SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
- PVC SCH 40 TEE OR ELL
- PVC SCH 40 MALE ADAPTER
- PVC LATERAL PIPE
- 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

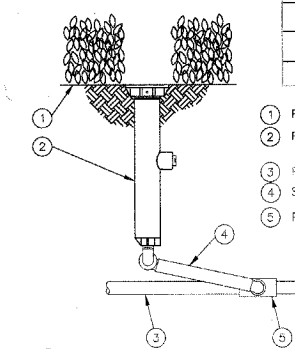
1 ELECTRIC REMOTE-CONTROL VALVE
N.T.S. PEB OR PESB SERIES 1-13-04



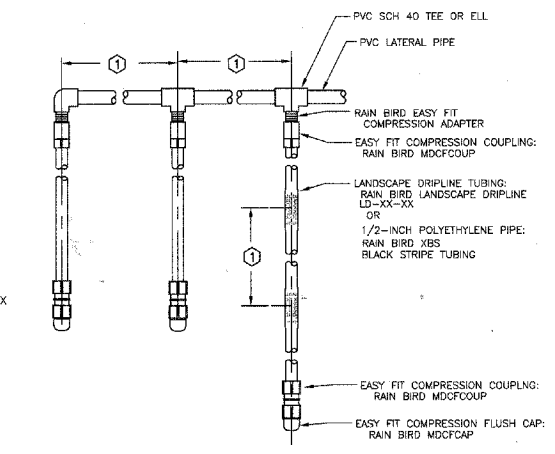
3 LANDSCAPE DRIPLINE 2" BELOW GRADE
N.T.S. WITH EASY FIT TEE - POTABLE SYSTEM 7-28-04

- TOP OF MULCH
- FINISH GRADE
- 30-INCH LINEAR LENGTH OF WIRE, COILED
- WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- ID TAG: RAIN BIRD VID SERIES
- VALVE BOX WITH COVER: RAIN BIRD VB-JMB
- PVC SCH 80 NIPPLE, CLOSE (1 OF 3)
- PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- PVC SCH 40 ELL
- PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- PVC SCH 40 TEE OR ELL
- BRICK (1 OF 4)
- 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- PVC MAINLINE
- CONTROL ZONE KIT: RAIN BIRD MODEL: XCZ-100-COM
- PVC SCH 80 UNION FOR SERVICING ASSEMBLY
- PVC SCH 40 MALE ADAPTER
- PVC LATERAL PIPE

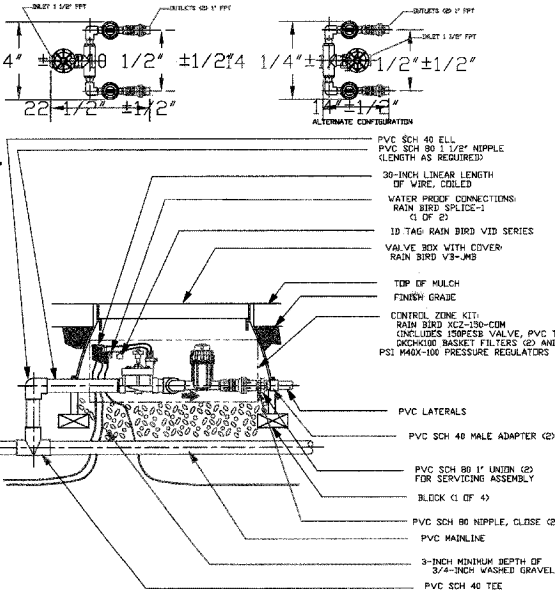
5 1" COMMERCIAL CONTROL ZONE KIT
N.T.S. WITH BASKET FILTER XCZ-100-B-COM 7-8-04



2 POP-UP SPRAY SPRINKLER
N.T.S. 1806 WITH SWING PIPE 4-13-04



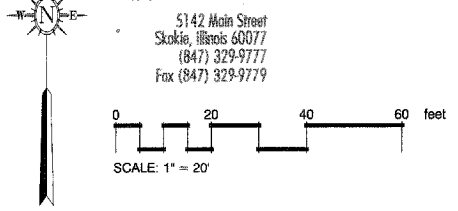
4 LANDSCAPE DRIPLINE LATERALS
N.T.S. POTABLE SYSTEM 7-28-04



6 1 1/2" COMMERCIAL CONTROL ZONE KIT
N.T.S. WITH 2 BASKET FILTERS XCZ-150-COM 11-2-04



SLEEVE SIZE	TOTAL LENGTH
0'-2"	657'-0"
0'-3"	458'-0"
0'-4"	100'-0"
0'-6"	188'-0"



PLANS PREPARED BY:
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ILLINOIS DEPARTMENT OF TRANSPORTATION
IRRIGATION PLAN/DETAILS/NOTES

BUSINESS DISTRICT IMPROVEMENTS
TOUHY AVE. AND CRAWFORD AVE.
SECTION # 06 - 00048 - 00 -RS

SCALE: N.T.S.
DATE: 11-2-06

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