

CONTRACT NO. 91337
 Total Sheets 12 Sheet No. 1

CITY OF URBANA
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION

PREPARED BY:
Joseph L. Smith 2-21-06
 Senior Civil Engineer Date

REVIEWED:
William R. Bray 2/21/06
 Public Works Director/City Engineer Date



Illinois Department of Transportation
 DIVISION OF HIGHWAYS

PASSED: 2/27 2006
David H. Spill
 District Five Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review: Feb 28 2006
Joseph E. Crowe
 Deputy Director of Highways
 Region Three Engineer

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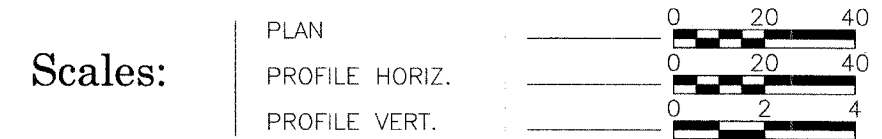
City of Urbana
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**
 F.A.U. Route 7177 (Lincoln Avenue)
 Project No. HS-7127(031) Job No. C-95-317-05
 Lincoln Ave. & Pennsylvania Ave.
Traffic Signal Installation
 City Section 04-00396-00-TL

INDEX OF SHEETS

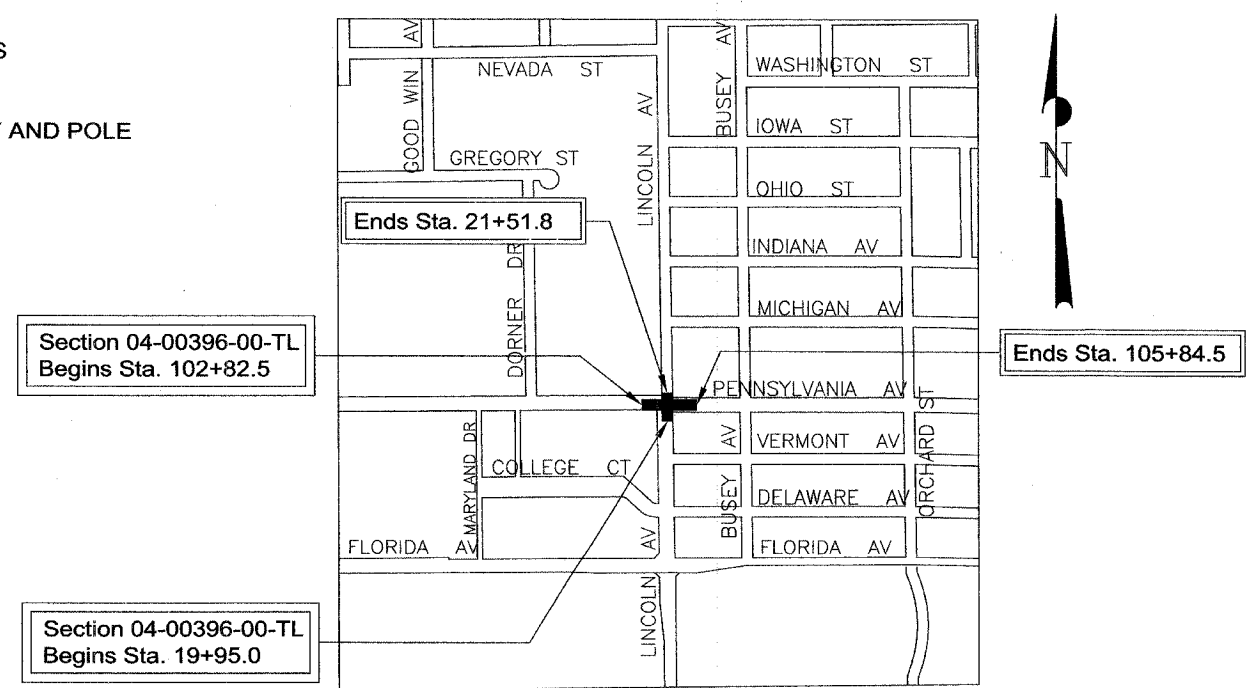
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12. TRAFFIC SIGNAL DETAILS
HIGHWAY STANDARDS

HIGHWAY STANDARDS

- | | |
|-----------|--|
| 424001-04 | CURB RAMPS FOR SIDEWALKS |
| 602301-01 | INLET - TYPE A |
| 602306-01 | INLET - TYPE B |
| 604001-02 | FRAME AND LIDS, TYPE 1 |
| 604006-02 | FRAME AND GRATE, TYPE 3 |
| 606001-02 | CONCRETE CURB TYPE B AND COMBINATION
CONCRETE CURB AND GUTTER |
| 701701-04 | URBAN LANE CLOSURE, MULTILANE INTERSECTION |
| 701801-03 | LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK
OR SIDEWALK CLOSURE |
| 702001-06 | TRAFFIC CONTROL DEVICES |
| 720016-01 | MAST ARM MOUNTED STREET NAME SIGNS |
| 805001 | ELECTRICAL SERVICE INSTALLATION DETAILS |
| 813001-01 | JUNCTION BOXES |
| 814001 | CONCRETE HANDHOLES |
| 814006 | DOUBLE HANDHOLES |
| 857001 | STANDARD PHASE DESIGNATION DIAGRAMS
AND PHASE SEQUENCES |
| 873001 | TRAFFIC SIGNAL GROUNDING |
| 877011-02 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE |
| 878001-04 | CONCRETE FOUNDATION DETAILS |
| 880006 | TRAFFIC SIGNAL MOUNTING DETAILS |
| 886001 | DETECTOR LOOP INSTALLATIONS |
| 886006 | TYPICAL LAYOUTS FOR DETECTION LOOPS |



Location Map



TOTAL LENGTH OF SECTION = 458.8 FEET = 0.09 MILE
 NOT TO SCALE

TRAFFIC DATA:

LEG A (NORTH)		LEG C (WEST)	
ADT (2005) = 16000	DHV (2005) = 1500	ADT (2005) = 8000	DHV (2005) = 770
LEG B (SOUTH)		LEG D (EAST)	
ADT (2005) = 15300	DHV (2005) = 1515	ADT (2005) = 4300	DHV (2005) = 360

GENERAL NOTES

CONTRACT NO. 91337

ANY REFERENCE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN ON THE SCHEDULE OF STANDARDS ON THE COVER SHEET.

WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED JANUARY 1, 2002.

UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED AND THEIR ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY. THESE UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. THE FOLLOWING IS A LIST OF UTILITY COMPANIES LOCATED ALONG THIS SECTION. THE UTILITY OWNERS MARKED WITH AN "*" BELONG TO J.U.L.I.E.

- * ILLINOIS AMERICAN WATER COMPANY (WATER)
- * AMEREN ILLINOIS POWER COMPANY (ELECTRIC AND GAS)
- * SBC AMERITECH (COMMUNICATIONS)
- * McCLEOD USA (COMMUNICATIONS)
- * INSIGHT COMMUNICATIONS (CATV)
- * URBANA AND CHAMPAIGN SANITARY DISTRICT (SANITARY SEWER INTERCEPTORS)
- * CITY OF URBANA (STORM AND SANITARY SEWERS, STREETLIGHTS, TRAFFIC SIGNALS)
- * UNIVERSITY OF ILLINOIS (PRIVATE WATER, SEWER, STEAM, COMPRESSED AIR, COOLING WATER ELECTRIC AND COMMUNICATIONS)

EARTH EXCAVATION FOR THIS PROJECT IS CLASSIFIED AS EARTH EXCAVATION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS PROVIDED IN THE CONTRACT SPECIFICATIONS. THE EARTH EXCAVATION SHALL INCLUDE THE REMOVAL OF EARTH AND UNCLASSIFIED MATERIALS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND AGENCIES PRIOR TO EXCAVATION OPERATIONS. EARTH EXCAVATION WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO THE SPECIFIC CONSTRUCTION PAY ITEM REQUIRING ANY EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE EXISTING TRAFFIC SIGNS WHICH INTERFERE WITH THE CONSTRUCTION SHALL BE REMOVED AND RETURNED TO THE CITY OF URBANA'S PUBLIC WORKS CENTER. THE COST FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL.

AT LOCATIONS INDICATED ON THE PLANS, PROPOSED STORM SEWERS ARE TO BE CONNECTED INTO EXISTING INLETS. THESE CONNECTIONS SHALL BE MADE IN A WORKMANLIKE MANNER AND MASONRY CONSTRUCTED AROUND THEM SO AS TO PREVENT LEAKAGE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO STORM SEWERS OF THE TYPE AND SIZE SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

WHERE THE P.C. CONCRETE PAVEMENT IS LESS THAN 12 INCHES IN WIDTH, IT SHALL BE POURED MONOLITHICALLY WITH THE COMBINATION CONCRETE CURB AND GUTTER.

THE CONTRACTOR SHALL CAREFULLY PROTECT ANY TREES OR SHRUBS NOT INCLUDED IN THE CONTRACT FOR REMOVAL. SNOW FENCE SHALL BE ERECTED TEN FEET FROM TREES AND SHRUBS TO REMAIN, THAT ARE IMMEDIATELY ADJACENT TO THE WORK, FOR PROTECTION DURING CONSTRUCTION OPERATIONS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM FOR EARTH EXCAVATION WITH NO ADDITIONAL COMPENSATION ALLOWED.

EXISTING CONCRETE AND BITUMINOUS CONCRETE, OR COMBINATION CONCRETE CURB AND GUTTER, IN WHICH THE TOP SURFACE IS TO BE BUTT JOINED TO THE PROPOSED WORK SHALL BE SO JOINED THROUGH FULL DEPTH SAW CUT JUNCTIONS. THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

THE EXISTING TIE BARS BETWEEN THE EXISTING PAVEMENT AND EXISTING MEDIANS, GUTTERS AND/OR COMBINATION CURB GUTTERS THAT ARE FOUND SUITABLE FOR REUSE SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY EXISTING TIE BARS THAT ARE FOUND UNSUITABLE TO BE INCORPORATED INTO THE PROPOSED CONSTRUCTION DUE TO EXCESSIVE RUSTING OR DISTRESS SHALL BE REMOVED FLUSH WITH THE FACE OF THE EXISTING CONCRETE AND DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS REMOVAL PAY ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SODDING SHALL BE DONE AT LOCATIONS SHOWN ON THE PLANS WHERE THE EXISTING EARTH HAS BEEN DISTURBED AND AT LOCATIONS WITHIN THE RIGHT-OF-WAY HAVING INSUFFICIENT VEGETATION AS DIRECTED BY THE ENGINEER. ANY EXISTING AREAS OUTSIDE THE LIMITS OF CONSTRUCTION DAMAGED BY THE CONTRACTOR SHALL BE SODDED AT THEIR OWN EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SODDED. THE CONTRACTOR SHALL STOCKPILE SUITABLE SOILS FROM THE EXCAVATION OPERATIONS OR SUPPLY SUITABLE TOPSOIL AS REQUIRED. THE SOIL MATERIALS SHALL MEET THE REQUIREMENTS OF ARTICLE 181.05 OF THE STANDARD SPECIFICATIONS OR BE APPROVED BY THE ENGINEER. THE SOIL BACKFILL AND FINAL SHAPING REQUIRED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO SODDING.

THE CONTRACTOR SHALL COORDINATE HIS EFFORTS WITH OTHER CONTRACTORS REGARDING THE MILLING AND RESURFACING OF THE LINCOLN AND PENNSYLVANIA AVENUE INTERSECTION, INSTALLATION OF STREET LIGHTING AND THE PLACEMENT OF PAVEMENT MARKINGS. IN ADDITION, POWER FOR THE TRAFFIC SIGNAL CONTROLLER IS BEING PROVIDED BY THE UNIVERSITY OF ILLINOIS BY INSTALLING A SERVICE CONDUIT AND ELECTRIC CABLES FROM THE TRUCK DOCK AT PENNSYLVANIA AVENUE RESIDENCE HALLS.

LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

Design/ACAD by: JLS
Approved by: WRG
Date: 12/30/05

GENERAL NOTES

H:\jlsmith\LINCPENNSIGNAL\LincolnPenn2GenNotes.dwg

TOTAL SHEETS	SHEET NO.
12	2

SUMMARY OF QUANTITIES

CONTRACT NO. 91337

4031-1F

CODE NO.	ITEM	UNIT	QUANTITY
20100110 *	TREE REMOVAL (6-15 UNITS DIAMETER)	UNIT	6
25200100 *	SODDING	SQYD	275
25200200 *	SUPPLEMENTAL WATERING	UNIT	4
35300300 *	PORTLAND CEMENT CONCRETE BASE COURSE, 8"	SQYD	114
40200900 *	AGGREGATE SURFACE COURSE, TYPE B	CUYD	5
42400300 *	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	SQFT	1643
42400800 *	DETECTABLE WARNINGS	SQFT	88
44000100 *	PAVEMENT REMOVAL	SQYD	72
44000300 *	CURB REMOVAL	FOOT	222
44000500 *	COMBINATION CURB AND GUTTER REMOVAL	FOOT	195
44000600 *	SIDEWALK REMOVAL	SQFT	1935
50104600 *	CONCRETE RETAINING WALL REMOVAL	FOOT	28
550B0030 *	STORM SEWER, CLASS B, TYPE 1, 8"	FOOT	8
60235700 *	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	2
60240220 *	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	EACH	1
60255500 *	MANHOLES TO BE ADJUSTED	EACH	1
60260300 *	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME OPEN LID	EACH	4
60265700 *	VALVE VAULT TO BE ADJUSTED	EACH	1
60266600 *	VALVE BOXES TO BE ADJUSTED	EACH	2
60604400 *	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	337
60605000 *	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	97
67100100	MOBILIZATION	LSUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1
72000200 *	SIGN PANEL, TYPE 2	SQ FT	60
80501000	SERVICE INSTALLATION (SPECIAL)	EACH	1
81012300	CONDUIT, IN TRENCH, 1" DIAMETER, PVC	FOOT	44
81012600	CONDUIT, IN TRENCH, 2" DIAMETER, PVC	FOOT	224
81012700	CONDUIT, IN TRENCH, 2-1/2" DIAMETER, PVC	FOOT	49
81013000	CONDUIT, IN TRENCH, 4" DIAMETER, PVC	FOOT	3
81021570	CONDUIT, AUGURED, 3" DIAMETER, PVC	FOOT	158
81021590	CONDUIT, AUGURED, 4" DIAMETER, PVC	FOOT	70
81027050	POLYETHYLENE DUCT, BORED AND PULLED, 1-1/2"	FOOT	414
81400400	CONCRETE HANDHOLE	EACH	7
81400600	CONCRETE DOUBLE HANDHOLE	EACH	1
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	320
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 10	FOOT	748
84200500	REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	2
84200600	REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	2
84200700	LIGHTING FOUNDATION REMOVAL	EACH	2
85700200	FULL ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86600010	GULFBOX JUNCTION	EACH	2
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	748
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	94
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	716
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	1320
87301265	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 9/C	FOOT	998
87301515	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 3 PR	FOOT	1360
87301705	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 18 3PR	FOOT	252

4031-1F

CODE NO.	ITEM	UNIT	QUANTITY
87500600	TRAFFIC SIGNAL POST, 10'	EACH	2
87501000	TRAFFIC SIGNAL POST, 14'	EACH	2
87501200	TRAFFIC SIGNAL POST, 16'	EACH	2
87600100	PEDESTRIAN PUSH-BUTTON POST, TYPE 1	EACH	5
87702810	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 16'	EACH	1
87702830	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 20'	EACH	1
87702850	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 24'	EACH	1
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28'	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	18
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	3.5
87800400	CONCRETE FOUNDATION, TYPE E, 30" DIAMETER	FOOT	40
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	8
88600100	DETECTOR LOOP, TYPE 1	FOOT	537
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	280
X0974300	SIGN REMOVAL	EACH	5
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1/C	FOOT	684
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
X8801400	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
X8801415	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
X8801437	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 1 3-SECTION, 1 5-SECTION, BRACKET MOUNTED	EACH	2
X8850106	INDUCTIVE LOOP DETECTOR, RACK MOUNTED	EACH	8
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
XX003079	REMOVE JUNCTION BOX	EACH	2
XX006533	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
XX006513 *	REMOVE AND REPLACE FLAGSTONE WALL	FOOT	46
XX006511	LUMINAIRE, METAL HALIDE, SPECIAL, 400 WATT	EACH	3
XX006512	LUMINAIRE, METAL HALIDE, SPECIAL, 400 WATT WITH PHOTOCCELL	EACH	1
XX006514	JUNCTION BOX, POLYMER CONCRETE, 12" X 12" X 12"	EACH	2
Z0042300 *	PORTLAND CEMENT CONCRETE SIDEWALK CURB	FOOT	8
X8760250	VIBROTACTILE FEATURE	EACH	8

* SPECIALTY ITEMS

LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

Design/ACAD by: JLS
Approved by: WRG
Date: 12/30/05

SUMMARY OF QUANTITIES

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TOTAL SHEETS	SHEET NO.
12	3

SCHEDULE OF QUANTITIES

CONTRACT NO. 91337

Remove & Replace Flagstone Wall #5000774	
Location	Foot
20+16.9 to 104+69.8, Rt.	46.0
Total=	46.0

Curb Removal 44000300	
Location	Feet
103+17.5 to 103+92.5, Lt.	76.0
104+56.1 to 104+73.1, Lt.	17.0
104+51.9 to 105+51.9, Rt.	103.7
103+65.2 to 103+89.4 Rt.	25.3
Total=	222.0

Inlets, Type A, Type 3 Frame and Grate 60235700	
Location	Each
21+22.0, 22.5' Lt.	1.0
103+82.8, 26.0' Rt.	1.0
Total=	2.0

Valve Boxes to be Adjusted 60266600	
Location	Each
104+62.8, 21.4' Rt.	1.0
20+43.9, 27.8' Rt.	1.0
Total=	2.0

Sodding 25200100	
Location	Sq. Yd.
NW Quadrant	54.0
NE Quadrant	44.0
SE Quadrant	101.0
SW Quadrant	76.0
Total=	275.0

Detectable Warnings 42400800	
Location	Sq. Ft.
NW Quadrant	23.2
NE Quadrant	20.0
SE Quadrant	18.0
SW Quadrant	26.8
Total=	88.0

Remove Junction Box XX003079	
Location	Each
104+59.1, 17.8' Lt.	1.0
105+21.8, 18.6' Rt.	1.0
Total=	2.0

Comb. Curb and Gutter Removal 44000500	
Location	Feet
21+19.0 to 21+48.0, Lt.	28.8
21+23.6 to 21+48.0, Rt.	24.4
21+19.6, Rt. to 104+55.6, Lt.	25.0
20+27.3 to 20+46.6, Rt.	19.3
105+51.9 to 105+84.4, Rt.	32.5
19+95.0 to 20+57.8, Lt.	65.0
Total=	195.0

Inlets, Type B, Type 3 Frame and Grate 60240220	
Location	Each
103+20.3, 19.7' Lt.	1.0
Total=	1.0

Removal of Existing Lighting Unit, Salvage 84200500	
Location	Each
104+58.5, 22.0' Lt.	1.0
105+24.2, 20.3' Rt.	1.0
Total=	2.0

Supplemental Watering 25200200	
Location	Unit
NW Quadrant	0.8
NE Quadrant	0.6
SE Quadrant	1.5
SW Quadrant	1.1
Total=	4.0

Comb. Conc. Curb & Gutter, Type B-6.18 60604400	
Location	Foot
20+46.6 Rt. 105+84.4 Rt.	147.0
21+48.0 Rt. 104+73.1 Lt.	64.2
103+19.4 Lt. 21+48.0 Lt.	116.4
103+65.2 Rt. 103+75.0 Rt.	9.4
Total=	337.0

Sign Removal X0974300	
Location	Each
21+29.7, 22.5' Lt.	1.0
104+57.7, 18.4' Lt.	1.0
105+30.4, 17.7' Rt.	1.0
20+40.8, 25.0' Rt.	1.0
103+80.3, 27.4' Rt.	1.0
Total=	5.0

Sidewalk Removal 44000600	
Location	Sq. Ft.
NW Quadrant	595.4
NE Quadrant	451.0
SE Quadrant	279.0
105+07.7 to 105+47.8, Rt.	91.6
SW Quadrant	518.0
Total=	1935.0

Manholes to be Adjusted 60255500	
Location	Each
103+83.5, 29.4' Lt.	1.0
Total=	1.0

Removal of Existing Lighting Unit, No Salvage 84200600	
Location	Foot
21+25.5, 22.9' Rt.	1.0
20+22.4, 22.2' Lt.	1.0
Total=	2.0

P. C. Concrete Base Course, 8" 35300300	
Location	Sq. Yd.
103+17.5 103+24.2 Lt.	1.6
103+80.6 21+27.0 Lt.	9.4
21+34.5 Rt. 104+65.4 Lt.	21.8
20+46.6 105+68.2 Rt.	52.5
103+75.0 Rt. 20+14.5 Lt.	28.7
Total=	114.0

Comb. Conc. Curb & Gutter, Type B-6.24 60605000	
Location	Foot
19+95.5 20+63.0 Lt.	77.7
20+27.3 20+46.6	19.3
Total=	97.0

Tree Removal (6-15 Units Dia.) 20100110	
Location	Inch Dia
104+69.4, 22.6' Lt.	6.0
Total=	6.0

Concrete Retaining Wall Removal 50104600	
Location	Feet
103+82.7 to 103+93.0 Lt.	10.3
21+16.5 to 21+34.2 Lt.	17.7
Total=	28.0

Inlets to be Adjusted with New Type 1 Frame openLid 60260300	
Location	Each
21+18.4, 21.2' Lt.	1.0
21+09.7, 23.4' Rt.	1.0
20+56.4, 27.5' Rt.	1.0
20+57.5, 31.1' Lt.	1.0
Total=	4.0

Lighting Foundation Removal 84200700	
Location	Each
21+25.5, 22.9' Rt.	1.0
20+22.4, 22.2' Lt.	1.0
Total=	2.0

Aggregate Surface Course, Ty. B 40200900	
Location	Cu Yd
NW Quadrant	5.0
Total=	5.0

P. C. Concrete Sidewalk Curb Z0042300	
Location	Foot
21+26.6 to 21+34.1, 28.3 - 30.6' Lt.	8.0
Total=	8.0

Pavement Removal 44000100	
Location	Sq. Yd.
103+17.5 to 21+34.5 Lt.	37.4
21+19.6 to 21+23.6, Rt.	0.9
104+55.4 to 104+73.1, Lt.	3.3
20+27.3 to 105+51.9, Rt.	22.0
106+65.2, Rt. to 19+95.0, Lt.	8.4
Total=	72.0

Storm Sewer, Class B Type1, 8" 550B0030	
Location	Feet
21+19.3 to 21+21.1, 21.9' Lt.	2.0
103+83.9 to 103+89.6, 26.5' Rt.	6.0
Total=	8.0

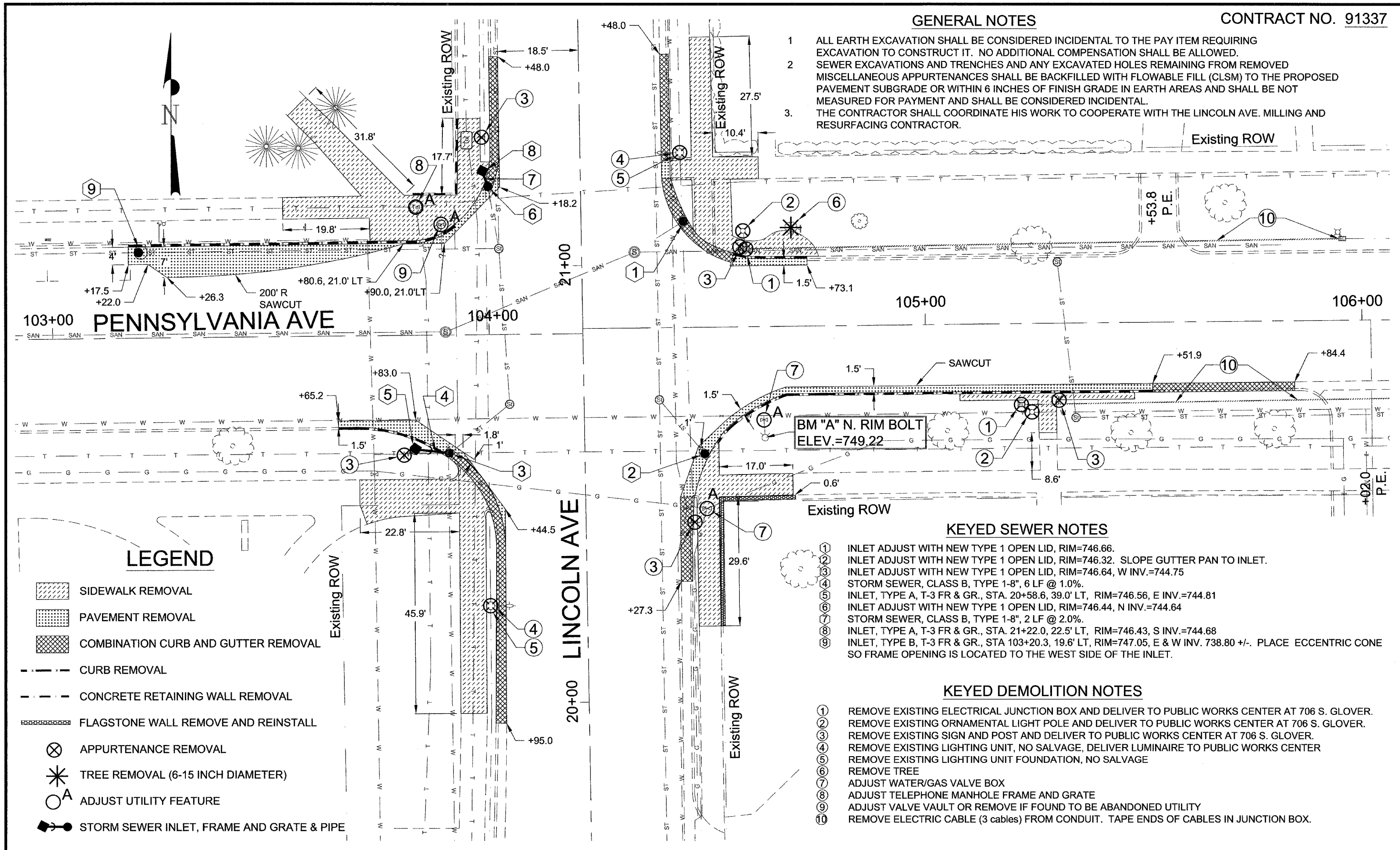
Valve Vault to be Adjusted 60265700	
Location	Each
103+89.3, 25.4' Lt.	1.0
Total=	1.0

Remove Electric Cable from Conduit 89502300	
Location	Foot
104+59.5 to 105+95.3, Lt.	135.8
105+22.2 to 106+66.4, Rt.	144.2
Total=	280.0

P.C. Concrete Sidewalk, 6" 42400300	
Location	Sq. Ft.
NW Quadrant	543.4
NE Quadrant	287.3
105+27.8, Rt.	27.8
SE Quadrant	300.3
SW Quadrant	484.2
Total=	1643.0

GENERAL NOTES

- 1 ALL EARTH EXCAVATION SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM REQUIRING EXCAVATION TO CONSTRUCT IT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
- 2 SEWER EXCAVATIONS AND TRENCHES AND ANY EXCAVATED HOLES REMAINING FROM REMOVED MISCELLANEOUS APPURTENANCES SHALL BE BACKFILLED WITH FLOWABLE FILL (CLSM) TO THE PROPOSED PAVEMENT SUBGRADE OR WITHIN 6 INCHES OF FINISH GRADE IN EARTH AREAS AND SHALL BE NOT MEASURED FOR PAYMENT AND SHALL BE CONSIDERED INCIDENTAL.
- 3 THE CONTRACTOR SHALL COORDINATE HIS WORK TO COOPERATE WITH THE LINCOLN AVE. MILLING AND RESURFACING CONTRACTOR.



Existing ROW

105+00

106+00

103+00 PENNSYLVANIA AVE

104+00

20+00 LINCOLN AVE

BM "A" N. RIM BOLT
ELEV.=749.22

Existing ROW

+02.0 P.E.

LEGEND

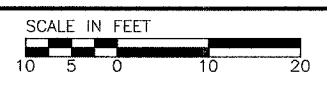
- SIDEWALK REMOVAL
- PAVEMENT REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- CURB REMOVAL
- CONCRETE RETAINING WALL REMOVAL
- FLAGSTONE WALL REMOVE AND REINSTALL
- APPURTENANCE REMOVAL
- TREE REMOVAL (6-15 INCH DIAMETER)
- ADJUST UTILITY FEATURE
- STORM SEWER INLET, FRAME AND GRATE & PIPE

KEYED SEWER NOTES

- 1 INLET ADJUST WITH NEW TYPE 1 OPEN LID, RIM=746.66.
- 2 INLET ADJUST WITH NEW TYPE 1 OPEN LID, RIM=746.32. SLOPE GUTTER PAN TO INLET.
- 3 INLET ADJUST WITH NEW TYPE 1 OPEN LID, RIM=746.64, W INV.=744.75
- 4 STORM SEWER, CLASS B, TYPE 1-8", 6 LF @ 1.0%.
- 5 INLET, TYPE A, T-3 FR & GR., STA. 20+58.6, 39.0' LT, RIM=746.56, E INV.=744.81
- 6 INLET ADJUST WITH NEW TYPE 1 OPEN LID, RIM=746.44, N INV.=744.64
- 7 STORM SEWER, CLASS B, TYPE 1-8", 2 LF @ 2.0%.
- 8 INLET, TYPE A, T-3 FR & GR., STA. 21+22.0, 22.5' LT, RIM=746.43, S INV.=744.68
- 9 INLET, TYPE B, T-3 FR & GR., STA 103+20.3, 19.6' LT, RIM=747.05, E & W INV. 738.80 +/- PLACE ECCENTRIC CONE SO FRAME OPENING IS LOCATED TO THE WEST SIDE OF THE INLET.

KEYED DEMOLITION NOTES

- 1 REMOVE EXISTING ELECTRICAL JUNCTION BOX AND DELIVER TO PUBLIC WORKS CENTER AT 706 S. GLOVER.
- 2 REMOVE EXISTING ORNAMENTAL LIGHT POLE AND DELIVER TO PUBLIC WORKS CENTER AT 706 S. GLOVER.
- 3 REMOVE EXISTING SIGN AND POST AND DELIVER TO PUBLIC WORKS CENTER AT 706 S. GLOVER.
- 4 REMOVE EXISTING LIGHTING UNIT, NO SALVAGE, DELIVER LUMINAIRE TO PUBLIC WORKS CENTER
- 5 REMOVE EXISTING LIGHTING UNIT FOUNDATION, NO SALVAGE
- 6 REMOVE TREE
- 7 ADJUST WATER/GAS VALVE BOX
- 8 ADJUST TELEPHONE MANHOLE FRAME AND GRATE
- 9 ADJUST VALVE VAULT OR REMOVE IF FOUND TO BE ABANDONED UTILITY
- 10 REMOVE ELECTRIC CABLE (3 cables) FROM CONDUIT. TAPE ENDS OF CABLES IN JUNCTION BOX.



LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

Design/ACAD by: JLS	DEMOLITION & SEWER PLAN	TOTAL SHEETS	SHEET NO.
Approved by: WRG		12	5
Date: 12/30/05		H:\jlsmith\LINCPENNSIGNAL\LincolnPenn5Demo.dwg	

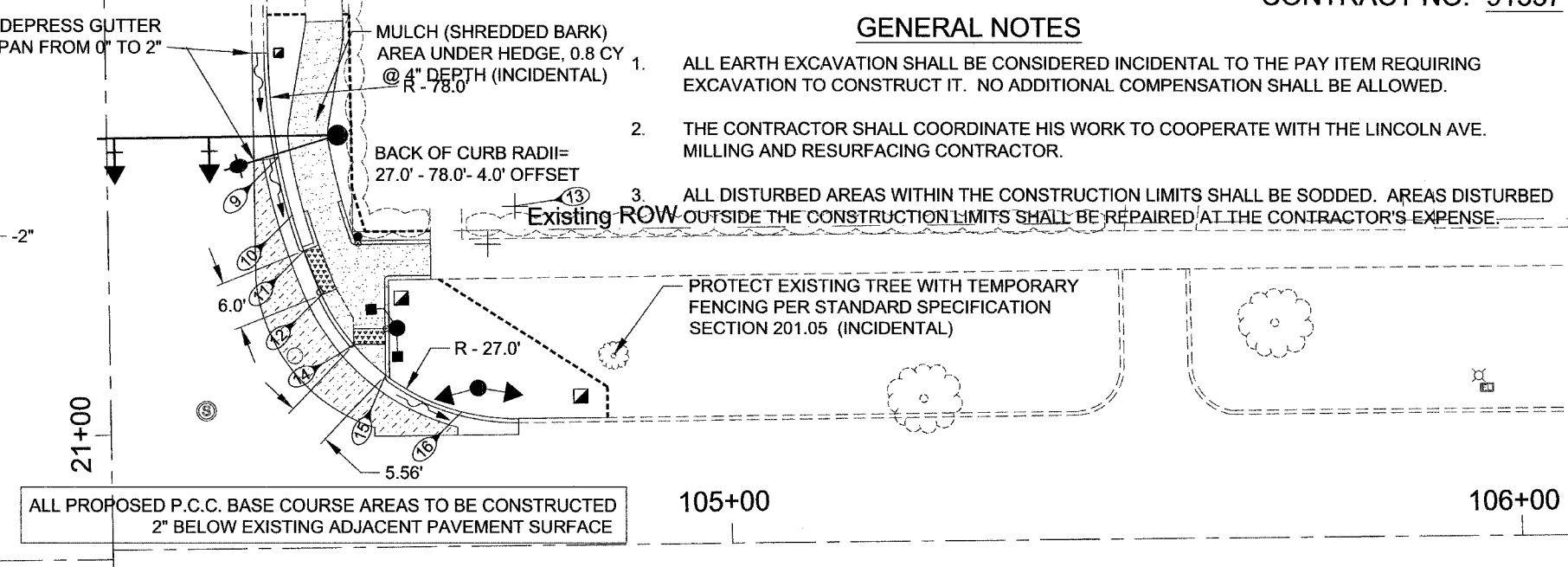
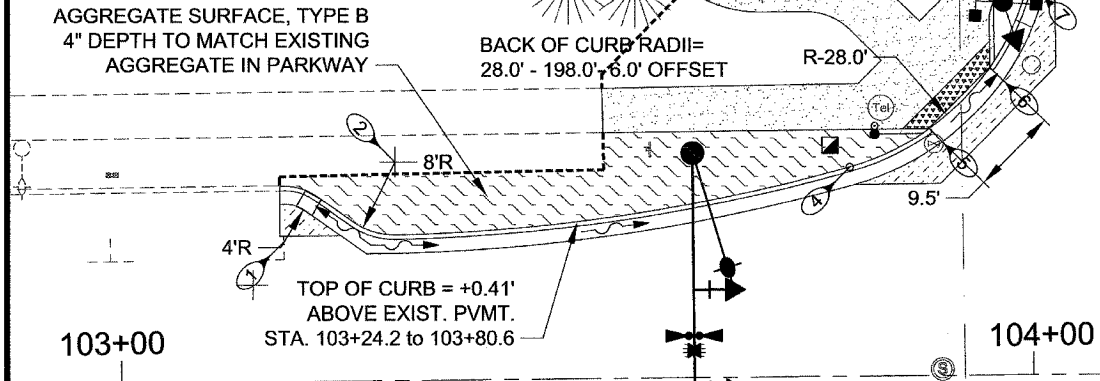
GENERAL NOTES

1. ALL EARTH EXCAVATION SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM REQUIRING EXCAVATION TO CONSTRUCT IT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
2. THE CONTRACTOR SHALL COORDINATE HIS WORK TO COOPERATE WITH THE LINCOLN AVE. MILLING AND RESURFACING CONTRACTOR.
3. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE SODDED. AREAS DISTURBED OUTSIDE THE CONSTRUCTION LIMITS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

SEE SCHEDULE OF QUANTITIES FOR PAY ITEMS LOCATIONS AND QUANTITIES

SEE REMOVAL PLAN FOR ADDITIONAL INFORMATION

SEE SIDEWALK DETAIL SHEETS FOR ADDITIONAL ELEVATION AND LAYOUT INFORMATION



PENNSYLVANIA AVE

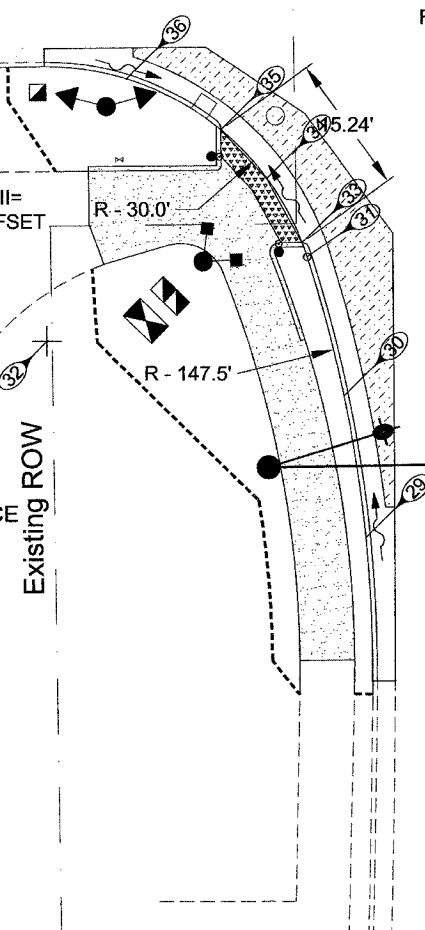
ALL PROPOSED P.C.C. BASE COURSE AREAS TO BE CONSTRUCTED 2" BELOW EXISTING ADJACENT PAVEMENT SURFACE

MILLING AND RESURFACING, 2" DEPTH FROM STATION 100+11 TO 106+89 AND 15+35 TO 47+50 TO BE DONE BY OTHERS

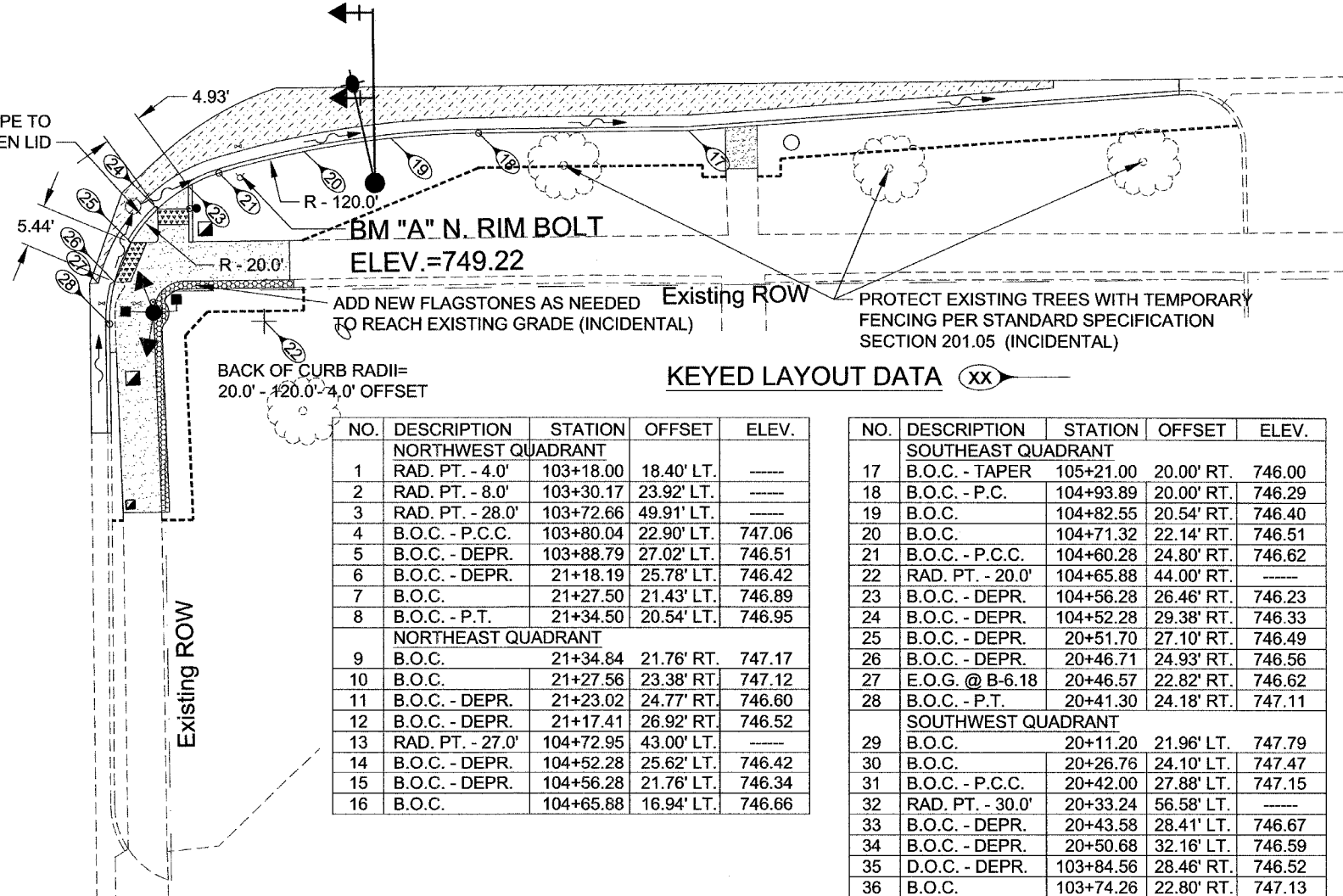
REVERSE GUTTER SLOPE TO FLOW TO TYPE 1 OPEN LID

LEGEND

- PROPOSED P.C.C. SIDEWALK, 6"
- PROPOSED P.C.C. BASE COURSE, 8"
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED SODDING
- PROPOSED AGGREGATE SURFACE
- PROPOSED P.C.C. SIDEWALK CURB
- PROPOSED FLAGSTONE RETAINING WALL INSTALLATION FROM EXISTING WALL STONES
- CONSTRUCTION LIMIT



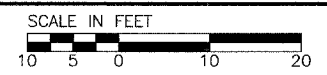
LINCOLN AVE



KEYED LAYOUT DATA

NO.	DESCRIPTION	STATION	OFFSET	ELEV.
NORTHWEST QUADRANT				
1	RAD. PT. - 4.0'	103+18.00	18.40' LT.	----
2	RAD. PT. - 8.0'	103+30.17	23.92' LT.	----
3	RAD. PT. - 28.0'	103+72.66	49.91' LT.	----
4	B.O.C. - P.C.C.	103+80.04	22.90' LT.	747.06
5	B.O.C. - DEPR.	103+88.79	27.02' LT.	746.51
6	B.O.C. - DEPR.	21+18.19	25.78' LT.	746.42
7	B.O.C.	21+27.50	21.43' LT.	746.89
8	B.O.C. - P.T.	21+34.50	20.54' LT.	746.95
NORTHEAST QUADRANT				
9	B.O.C.	21+34.84	21.76' RT.	747.17
10	B.O.C.	21+27.56	23.38' RT.	747.12
11	B.O.C. - DEPR.	21+23.02	24.77' RT.	746.60
12	B.O.C. - DEPR.	21+17.41	26.92' RT.	746.52
13	RAD. PT. - 27.0'	104+72.95	43.00' LT.	----
14	B.O.C. - DEPR.	104+52.28	25.62' LT.	746.42
15	B.O.C. - DEPR.	104+56.28	21.76' LT.	746.34
16	B.O.C.	104+65.88	16.94' LT.	746.66

NO.	DESCRIPTION	STATION	OFFSET	ELEV.
SOUTHEAST QUADRANT				
17	B.O.C. - TAPER	105+21.00	20.00' RT.	746.00
18	B.O.C. - P.C.C.	104+93.89	20.00' RT.	746.29
19	B.O.C.	104+82.55	20.54' RT.	746.40
20	B.O.C.	104+71.32	22.14' RT.	746.51
21	B.O.C. - P.C.C.	104+60.28	24.80' RT.	746.62
22	RAD. PT. - 20.0'	104+65.88	44.00' RT.	----
23	B.O.C. - DEPR.	104+56.28	26.46' RT.	746.23
24	B.O.C. - DEPR.	104+52.28	29.38' RT.	746.33
25	B.O.C. - DEPR.	20+51.70	27.10' RT.	746.49
26	B.O.C. - DEPR.	20+46.71	24.93' RT.	746.56
27	E.O.G. @ B-6.18	20+46.57	22.82' RT.	746.62
28	B.O.C. - P.T.	20+41.30	24.18' RT.	747.11
SOUTHWEST QUADRANT				
29	B.O.C.	20+11.20	21.96' LT.	747.79
30	B.O.C.	20+26.76	24.10' LT.	747.47
31	B.O.C. - P.C.C.	20+42.00	27.88' LT.	747.15
32	RAD. PT. - 30.0'	20+33.24	56.58' LT.	----
33	B.O.C. - DEPR.	20+43.58	28.41' LT.	746.67
34	B.O.C. - DEPR.	20+50.68	32.16' LT.	746.59
35	D.O.C. - DEPR.	103+84.56	28.46' RT.	746.52
36	B.O.C.	103+74.26	22.80' RT.	747.13

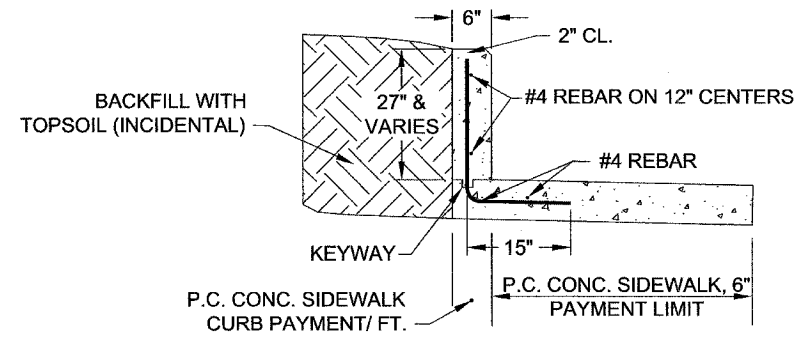


LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

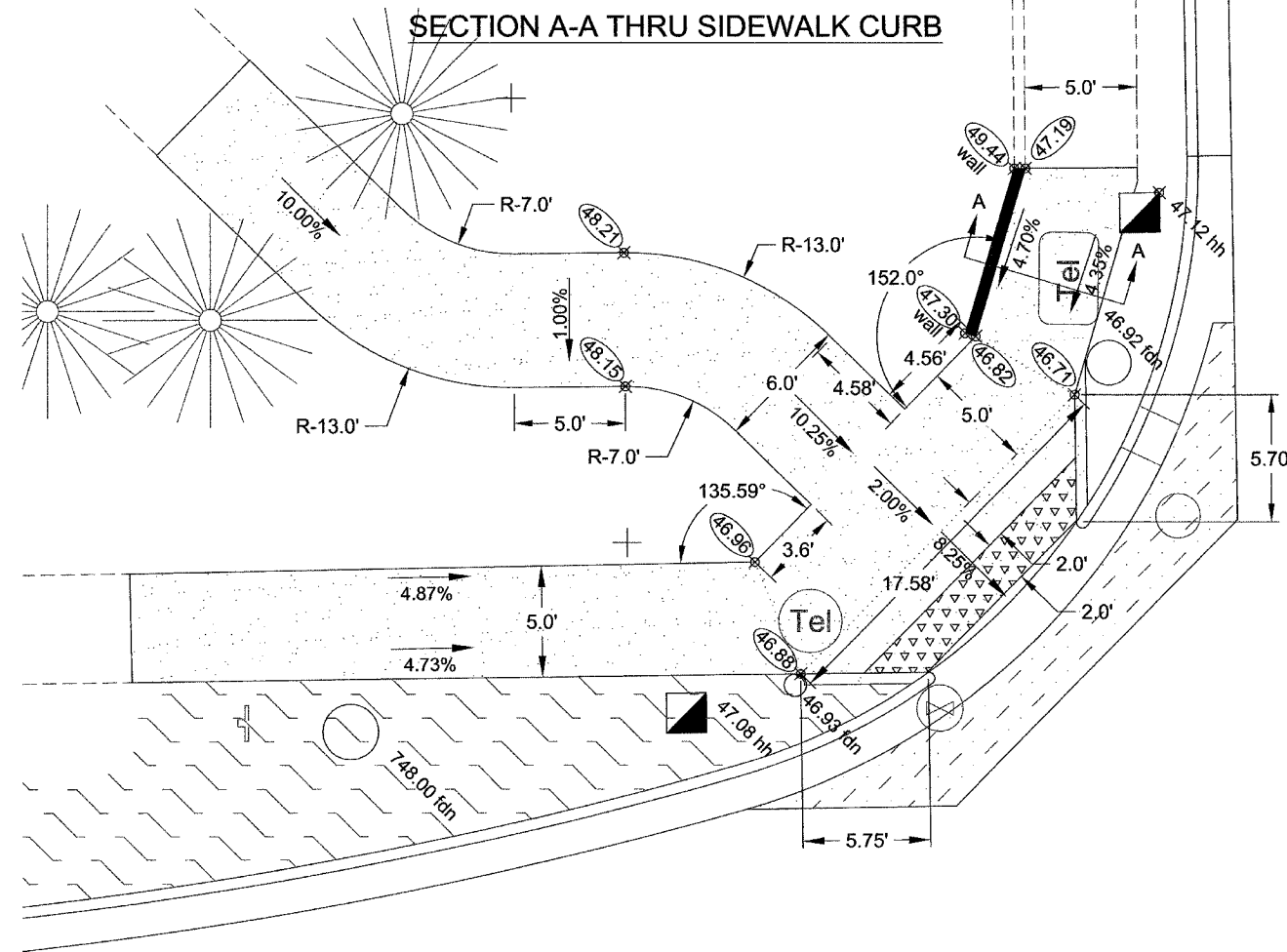
Design/ACAD by: JLS
Approved by: WRG
Date: 12/30/05

CONSTRUCTION PLAN
H:\smith\LINC PENNSIGNAL\LincolnPenn6ConstPlan.dwg
TOTAL SHEETS: 12
SHEET NO.: 6

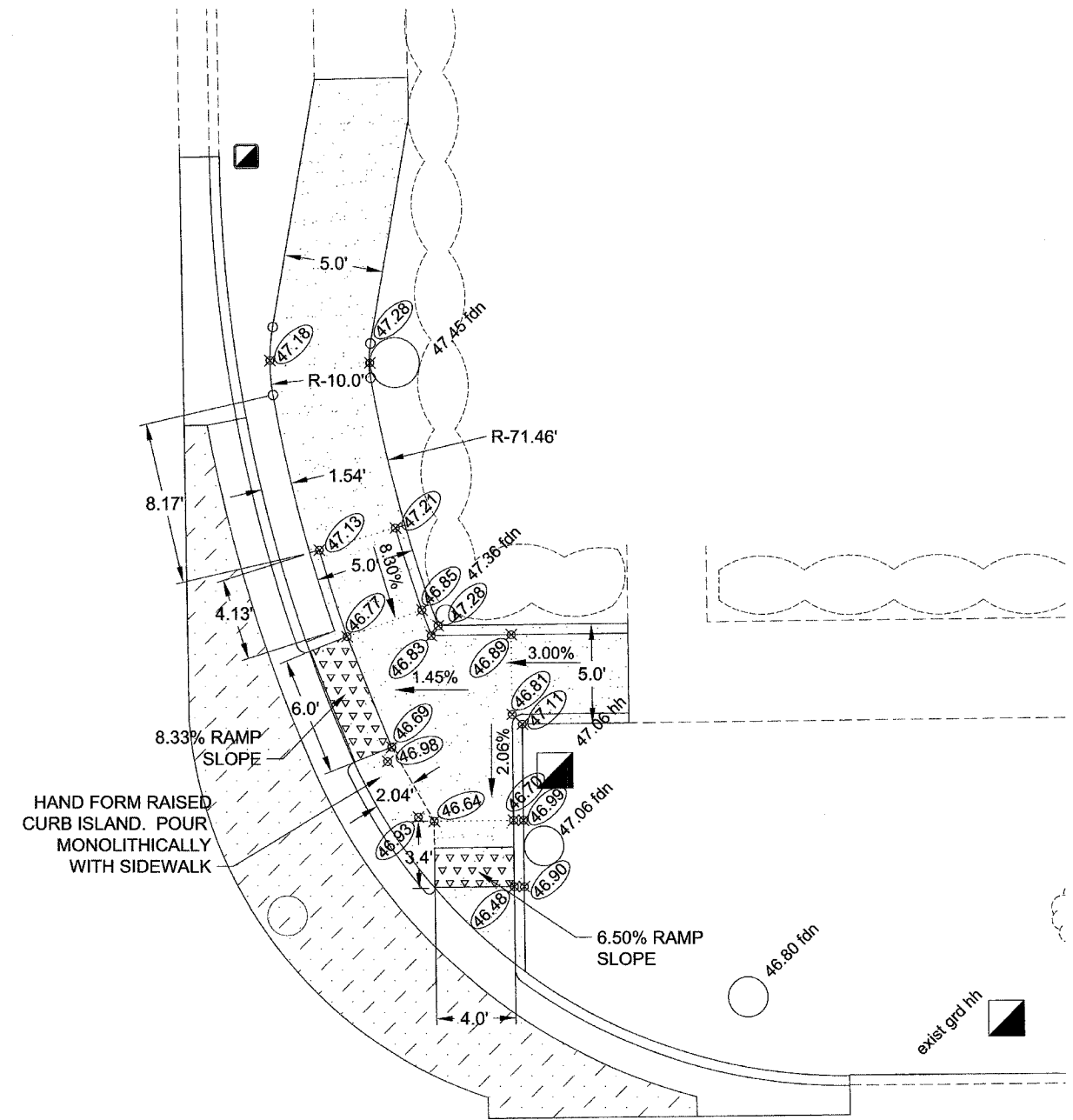
DRILL 2- 18" #4 REBAR INTO EXISTING WALL TO A DEPTH OF 9". EPOXY IN PLACE AND BEND TO 45° AND CONNECT TO NEW WALL REBAR



SECTION A-A THRU SIDEWALK CURB



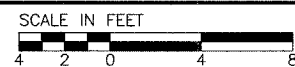
NORTHWEST QUADRANT SIDEWALK DETAIL



NORTHEAST QUADRANT SIDEWALK DETAIL

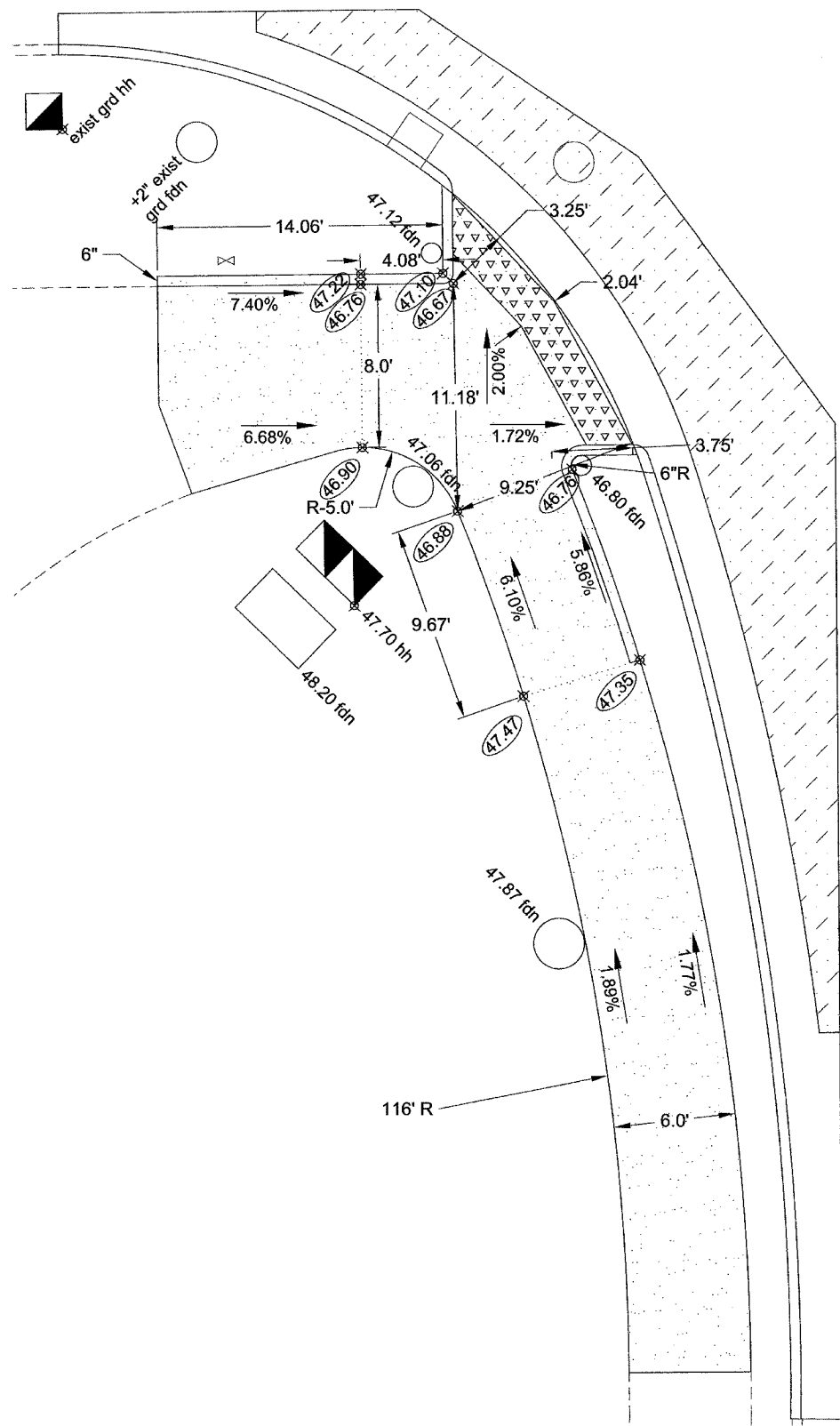
BM A = 749.22 AT SE CORNER
NORTH RIM BOLT
ADD 700 TO ELEVATIONS

- INDICATES RAMP BREAK
- ⊗ (XX.XX) PROPOSED SPOT ELEVATION
- ▤ PROPOSED DETECTABLE WARNING SURFACE

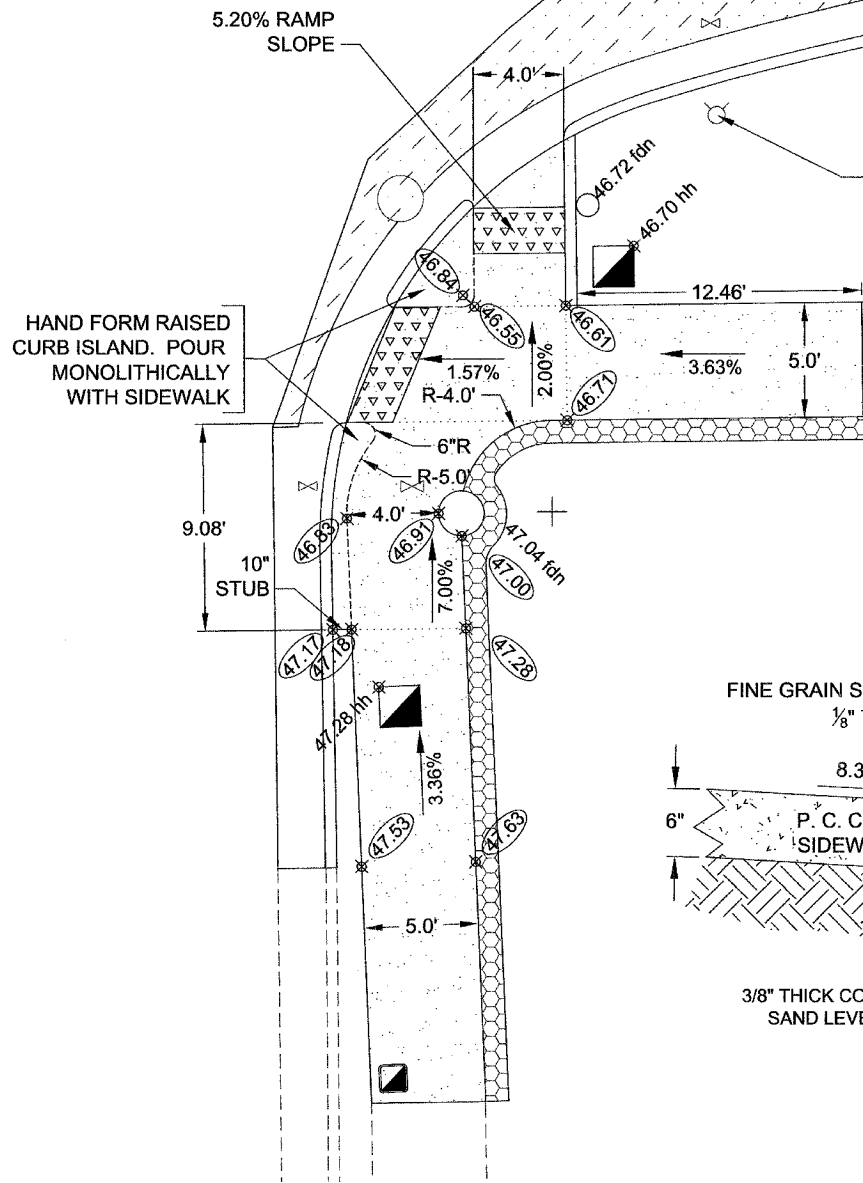


LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

Design/ACAD by: JLS	SIDWALK CONSTRUCTION DETAIL	TOTAL SHEETS	SHEET NO.
Approved by: WRG		12	7
Date: 12/30/05		H:\j\smith\LINC PENNSIGNAL\LincPenn6ConstPlan.dwg	

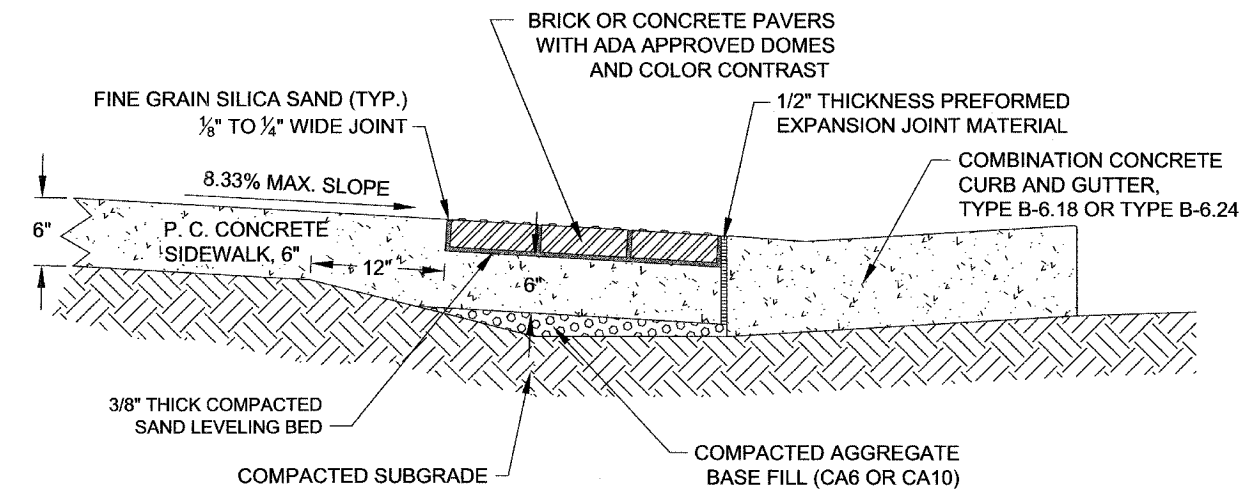


SOUTHWEST QUADRANT SIDEWALK DETAIL



SOUTHEAST QUADRANT SIDEWALK DETAIL

- BM A = 749.22 AT SE CORNER NORTH RIM BOLT
ADD 700 TO ELEVATIONS
- INDICATES RAMP BREAK
- ⊗ XX.XX PROPOSED SPOT ELEVATION
- ▤ PROPOSED DETECTABLE WARNING SURFACE



TYPICAL SECTION

GENERAL NOTES

SIDEWALK RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE 424 OF THE STANDARD SPECIFICATIONS.

SIDEWALK RAMPS AND CROSSWALKS WHICH ABUT STREETS SHALL BE PROVIDED WITH A 2 FOOT DETECTABLE WARNING SURFACE IN ACCORDANCE WITH THIS DETAIL AND HIGHWAY STANDARD 424001-03. IN CASE OF CONFLICT WITH THE STANDARD THIS DETAIL SHALL GOVERN THE INSTALLATION OF SIDEWALK RAMPS.

THE AREA OF DETECTABLE WARNING SURFACE PAVERS SHALL BE MEASURED SEPARATELY AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR DETECTABLE WARNINGS.

DETAIL OF DETECTABLE WARNING SURFACE AND DEPRESSED BARRIER CURB AT SIDEWALK RAMPS



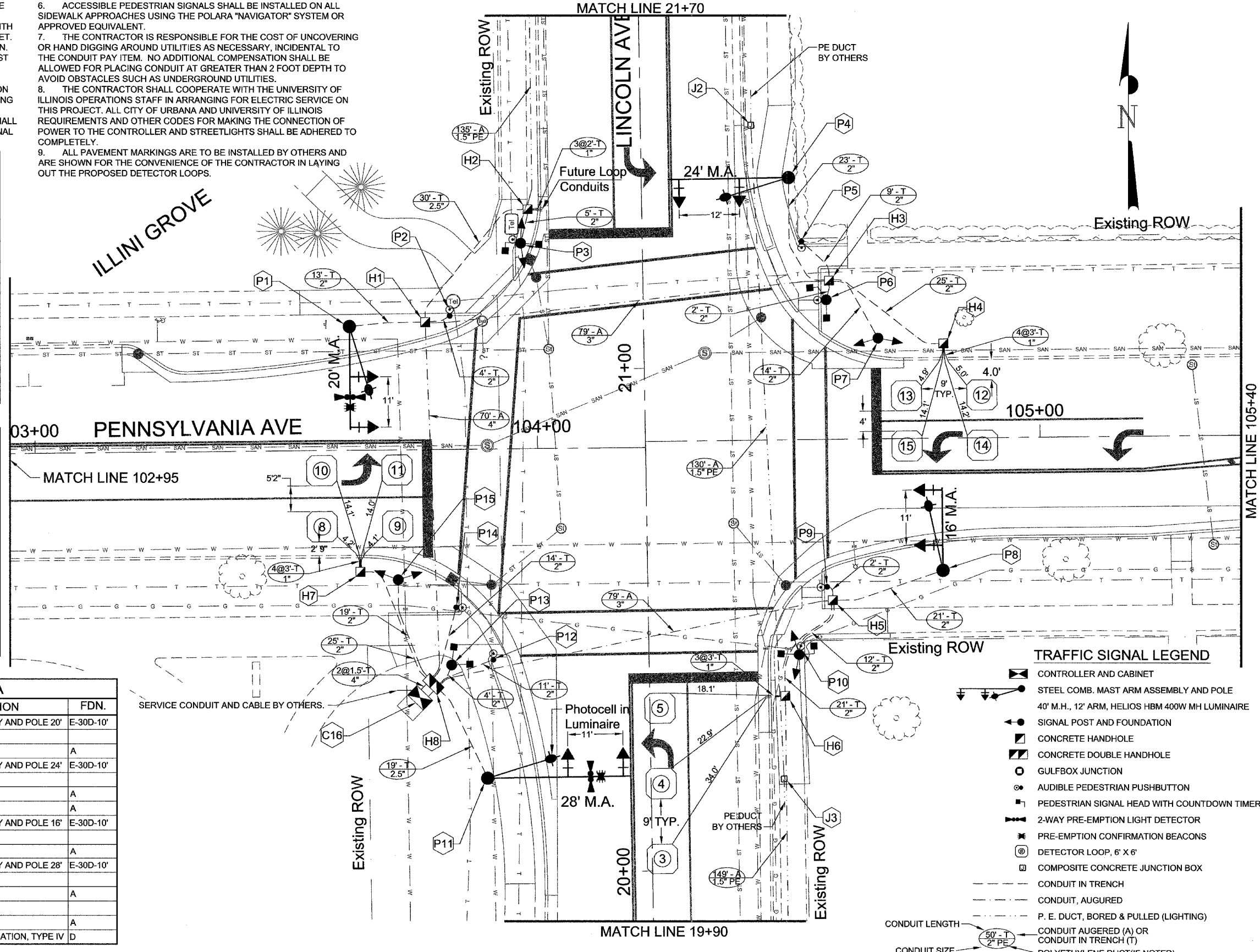
TRAFFIC SIGNAL GENERAL NOTES

- THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD.
- COMBINATION MAST ARM ASSEMBLIES SHALL BE FURNISHED WITH 12 FOOT TRUSS ARMS WITH A MOUNTED LUMINAIRE HEIGHT OF 40 FEET. TRUSS ARMS TO BE ALIGNED WITH THE MAST ARM WITH NO ROTATION.
- ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
- DETECTOR LOOPS SHALL BE INSTALLED AFTER THE COMPLETION OF THE RESURFACING OF LINCOLN AND PENNSYLVANIA WHICH IS BEING CONSTRUCTED UNDER A SEPARATE CONTRACT.
- ALL TRAFFIC SIGNAL HEADS SHALL BE 12". LED INDICATIONS SHALL BE USED ON ALL SIGNAL AND PEDESTRIAN HEADS. PEDESTRIAN SIGNAL HEAD FACES SHALL BE SYMBOLS WITH COUNTDOWN TIMERS.
- ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE INSTALLED ON ALL SIDEWALK APPROACHES USING THE POLARA "NAVIGATOR" SYSTEM OR APPROVED EQUIVALENT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT PAY ITEM. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FOOT DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL COOPERATE WITH THE UNIVERSITY OF ILLINOIS OPERATIONS STAFF IN ARRANGING FOR ELECTRIC SERVICE ON THIS PROJECT. ALL CITY OF URBANA AND UNIVERSITY OF ILLINOIS REQUIREMENTS AND OTHER CODES FOR MAKING THE CONNECTION OF POWER TO THE CONTROLLER AND STREETLIGHTS SHALL BE ADHERED TO COMPLETELY.
- ALL PAVEMENT MARKINGS ARE TO BE INSTALLED BY OTHERS AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR IN LAYING OUT THE PROPOSED DETECTOR LOOPS.

DETECTOR LOOP DATA			
NO.	STATION	OFFSET	DESCRIPTION
1	18+71.4	15.6' RT.	6' X 6' DETECTOR LOOP
2	18+91.4	4.6' RT.	6' X 6' DETECTOR LOOP
3	20+02.4	2.0' RT.	6' X 6' DETECTOR LOOP
4	20+17.4	2.0' RT.	6' X 6' DETECTOR LOOP
5	20+32.4	2.0' RT.	6' X 6' DETECTOR LOOP
6	22+74.0	13.0' LT.	6' X 6' DETECTOR LOOP
7	22+74.0	2.0' LT.	6' X 6' DETECTOR LOOP
8	103+57.0	15.2' RT.	6' X 6' DETECTOR LOOP
9	103+72.0	15.2' RT.	6' X 6' DETECTOR LOOP
10	103+57.0	4.0' RT.	6' X 6' DETECTOR LOOP
11	103+72.0	4.0' RT.	6' X 6' DETECTOR LOOP
12	104+88.5	8.5' LT.	6' X 6' DETECTOR LOOP
13	104+73.5	8.5' LT.	6' X 6' DETECTOR LOOP
14	104+88.5	1.5' RT.	6' X 6' DETECTOR LOOP
15	104+73.5	1.5' RT.	6' X 6' DETECTOR LOOP

HANDHOLE AND JUNCTION BOX DATA			
NO.	STATION	OFFSET	DESCRIPTION
H1	103+77.9	25.3' LT.	CONC. HANDHOLE
H2	21+32.0	22.7' LT.	CONC. HANDHOLE
H3	104+58.4	31.5' LT.	CONC. HANDHOLE
H4	104+81.0	18.8' LT.	CONC. HANDHOLE
H5	104+58.4	32.0' RT.	CONC. HANDHOLE
H6	20+34.5	27.0' RT.	CONC. HANDHOLE
H7	103+64.5	24.2' RT.	CONC. HANDHOLE
H8	20+38.0	43.0' LT.	CONC. DOUBLE HANDHOLE
J1	22+68.5	21.5' LT.	GULFBOX JUNCTION
J2	21+48.0	22.0' RT.	JUNCTION BOX(STREETLIGHT)
J3	20+18.0	26.5' RT.	JUNCTION BOX(STREETLIGHT)
J4	18+84.0	24.5' RT.	GULFBOX JUNCTION

POST AND MAST ARM DATA				
NO.	STATION	OFFSET	DESCRIPTION	FDN.
P1	103+62.8	24.6' LT.	STEEL COMB. MAST ARM ASSEMBLY AND POLE 20'	E-30D-10'
P2	103+82.8	26.5' LT.	PEDESTRIAN PUSH-BUTTON POST	
P3	21+32.0	22.7' LT	TRAFFIC SIGNAL POST, 16'	A
P4	21+37.5	29.3' RT.	STEEL COMB. MAST ARM ASSEMBLY AND POLE 24'	E-30D-10'
P5	104+53.0	39.4' LT.	PEDESTRIAN PUSH-BUTTON POST	
P6	104+57.8	27.7' LT.	TRAFFIC SIGNAL POST, 10'	A
P7	104+68.0	20.0' LT.	TRAFFIC SIGNAL POST, 14'	A
P8	104+80.4	26.3' RT.	STEEL COMB. MAST ARM ASSEMBLY AND POLE 16'	E-30D-10'
P9	104+57.3	29.3' RT.	PEDESTRIAN PUSH-BUTTON POST	
P10	104+51.6	42.7' RT.	TRAFFIC SIGNAL POST, 16'	A
P11	20+19.1	32.5' LT.	STEEL COMB. MAST ARM ASSEMBLY AND POLE 28'	E-30D-10'
P12	20+42.6	31.0' LT.	PEDESTRIAN PUSH-BUTTON POST	
P13	20+41.7	39.3' LT.	TRAFFIC SIGNAL POST, 10'	A
P14	103+83.5	31.4' RT.	PEDESTRIAN PUSH-BUTTON POST	
P15	103+72.0	25.8' RT.	TRAFFIC SIGNAL POST, 14'	A
C16	20+35.3	45.7' LT.	CONTROLLER CABINET AND FOUNDATION, TYPE IV	D



TRAFFIC SIGNAL LEGEND

- CONTROLLER AND CABINET
- STEEL COMB. MAST ARM ASSEMBLY AND POLE
- 40' M.H., 12' ARM, HELIOS HBM 400W MH LUMINAIRE
- SIGNAL POST AND FOUNDATION
- CONCRETE HANDHOLE
- CONCRETE DOUBLE HANDHOLE
- GULFBOX JUNCTION
- AUDIBLE PEDESTRIAN PUSHBUTTON
- PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
- 2-WAY PRE-EMPTION LIGHT DETECTOR
- PRE-EMPTION CONFIRMATION BEACONS
- DETECTOR LOOP, 6' X 6'
- COMPOSITE CONCRETE JUNCTION BOX
- CONDUIT IN TRENCH
- CONDUIT, AUGURED
- P. E. DUCT, BORED & PULLED (LIGHTING)
- CONDUIT AUGERED (A) OR CONDUIT IN TRENCH (T)



LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

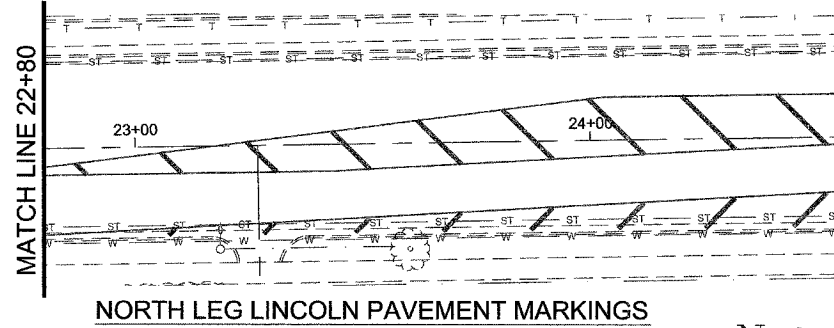
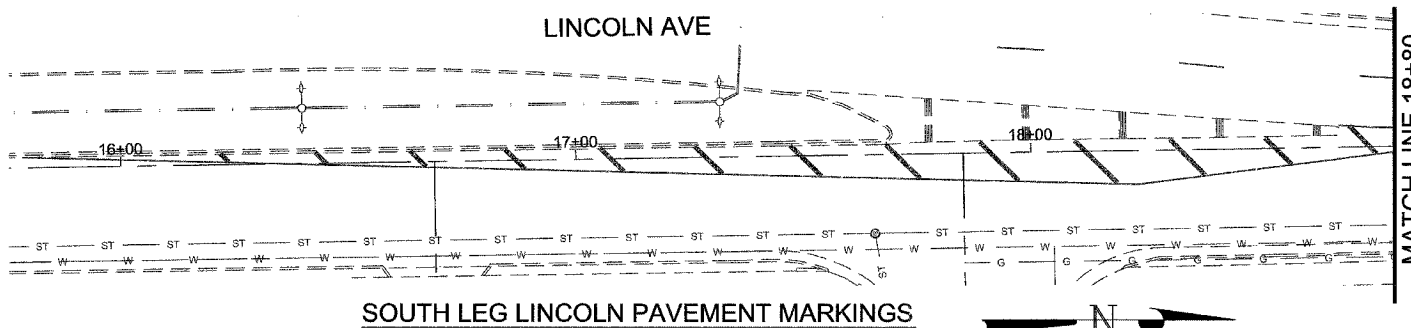
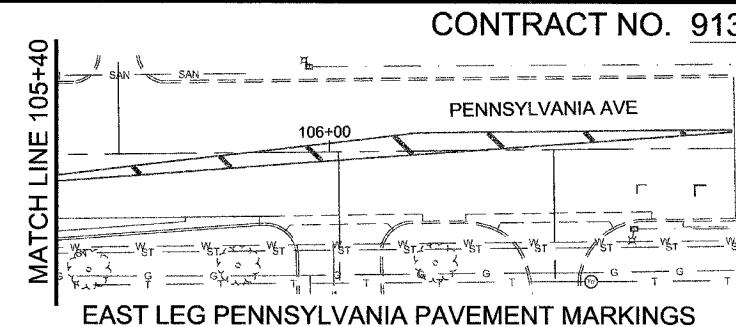
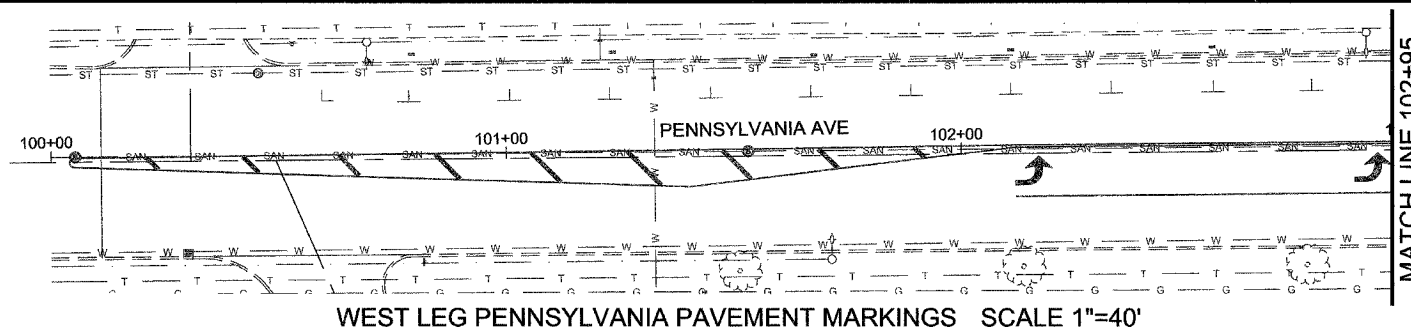
Design/ACAD by: JLS
Approved by: WRG
Date: 12/30/05

TRAFFIC SIGNAL LAYOUT
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TOTAL SHEETS: 12
SHEET NO.: 9

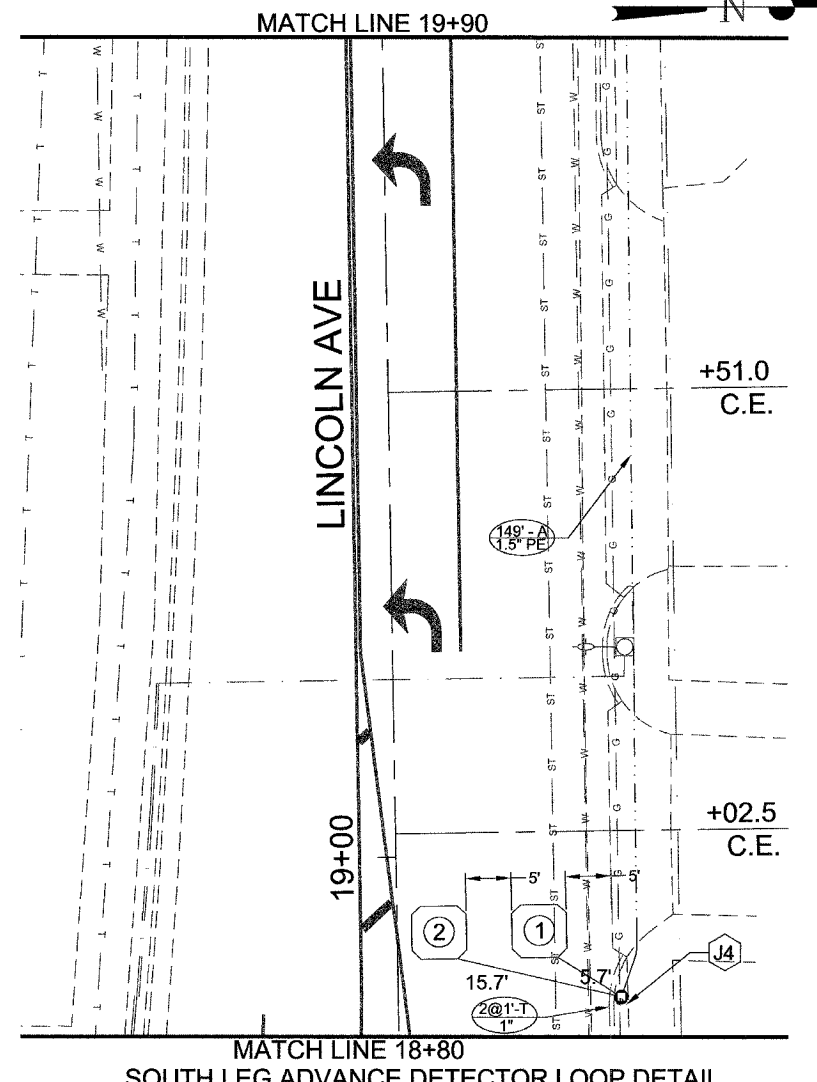
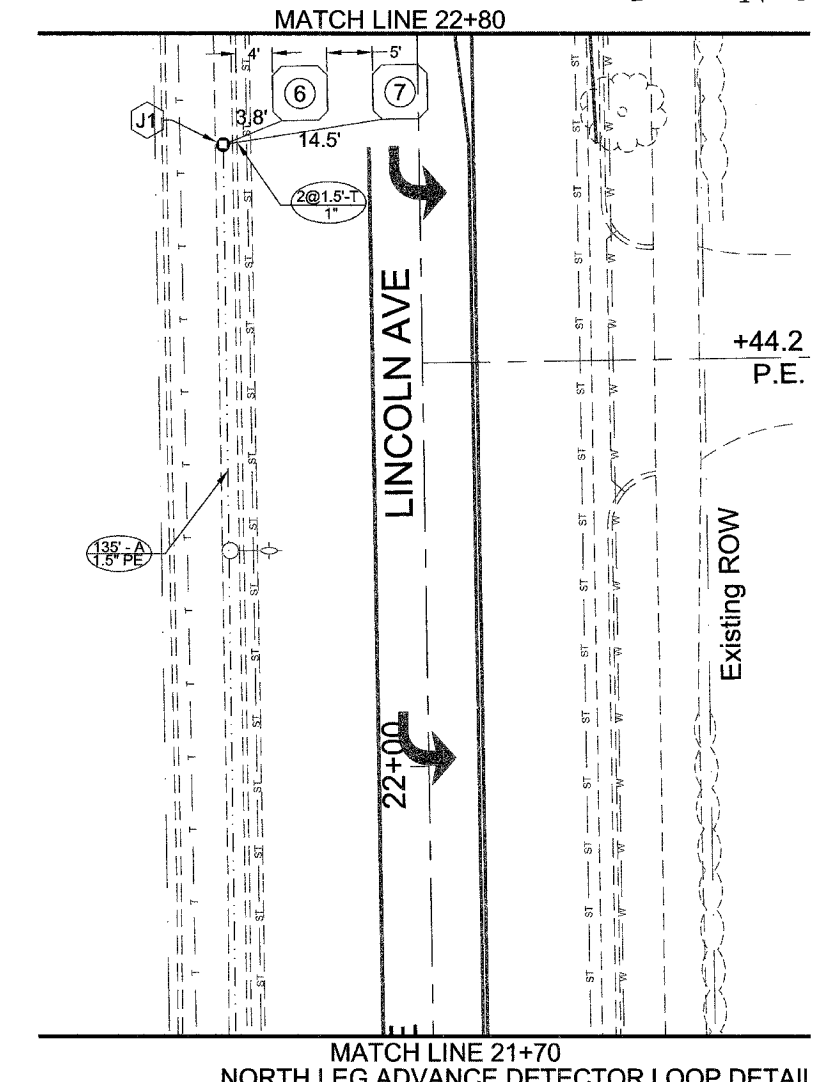
TRAFFIC SIGNAL LEGEND

- PROPOSED CONTROLLER AND CABINET
 - PROPOSED COMBINATION STEEL MAST ARM ASSEMBLY AND POLE, 40' M.H., 12' ARM,
 - PROPOSED SIGNAL POST AND FOUNDATION
 - PROPOSED HANDHOLE
 - PROPOSED DOUBLE HANDHOLE
 - PROPOSED GULFBOX JUNCTION
 - PROPOSED PEDESTRIAN PUSHBUTTON
 - PROPOSED PEDESTRIAN SIGNAL HEAD
 - PROPOSED 2-WAY PRE-EMPTION DETECTOR
 - CONFIRMATION BEACONS
 - PROPOSED DETECTOR LOOP, 6' X 6'
 - PROPOSED STREETLIGHTING JUNCTION BOX
 - PROPOSED CONDUIT IN TRENCH
 - PROPOSED CONDUIT, AUGURED
 - PROPOSED P. E. DUCT, BORED & PULLED
- CONDUIT LENGTH CONDUIT AUGURED (A) OR CONDUIT IN TRENCH (T)
- CONDUIT SIZE POLYETHYLENE DUCT (IF NOTED)



BILL OF MATERIALS

CODE NO.	ITEM	UNIT	QUANTITY
72000200	SIGN PANEL, TYPE 2	SQ FT	60
80501000	SERVICE INSTALLATION (SPECIAL)	EACH	1
81012300	CONDUIT, IN TRENCH, 1" DIAM., PVC	FOOT	44
81012600	CONDUIT, IN TRENCH, 2" DIAM., PVC	FOOT	224
81012700	CONDUIT, IN TRENCH, 2-1/2" DIAM., PVC	FOOT	49
81013000	CONDUIT, IN TRENCH, 4" DIAM., PVC	FOOT	3
81021570	CONDUIT, AUGURED, 3" DIAM., PVC	FOOT	158
81021590	CONDUIT, AUGURED, 4" DIAM., PVC	FOOT	70
81027050	POLYETHYLENE DUCT, BORED AND PULLED, 1-1/2"	FOOT	414
81400400	CONCRETE HANDHOLE	EACH	7
81400600	CONCRETE DOUBLE HANDHOLE	EACH	1
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	320
81702110	ELECTRIC CABLE IN CONDUIT, 600V(XLP-TYPE USE), 1/C NO. 10	FOOT	748
85700200	FULL ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
86600010	GULFBOX JUNCTION	EACH	2
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1/C	FOOT	684
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2/C	FOOT	748
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	FOOT	94
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5/C	FOOT	716
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	FOOT	1320
87301265	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 9/C	FOOT	998
87301515	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 3 PR	FOOT	1360
87301705	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 18 3PR	FOOT	252
87500600	TRAFFIC SIGNAL POST, 10'	EACH	2
87501000	TRAFFIC SIGNAL POST, 14'	EACH	2
87501200	TRAFFIC SIGNAL POST, 16'	EACH	2
87600100	PEDESTRIAN PUSH BUTTON POST, TYPE 1	EACH	5
87702810	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 16'	EACH	1
87702830	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 20'	EACH	1
87702850	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 24'	EACH	1
87702870	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28'	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	3.5
87800400	CONCRETE FOUNDATION, TYPE E, 30" DIAMETER	FOOT	40
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
X8801400	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
X8801415	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
X8801437	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 1 3-SECTION, 1 5-SECTION, BRACKET MOUNTED	EACH	2
XX006533	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	8
X8850106	INDUCTIVE LOOP DETECTOR, RACK MOUNTED	EACH	8
88600100	DETECTOR LOOP, TYPE 1	FOOT	537
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
X9760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
X9660511	LUMINAIRE, METAL HALIDE, SPECIAL, 400 WATT	EACH	3
X8006512	LUMINAIRE, METAL HALIDE, SPECIAL, 400 WATT WITH PHOTOCELL	EACH	1
X9006514	JUNCTION BOX, POLYMER CONCRETE, 12" X 12" X 12"	EACH	2
X8760250	VIOLATOR ATTACHE FEATURE	EACH	2

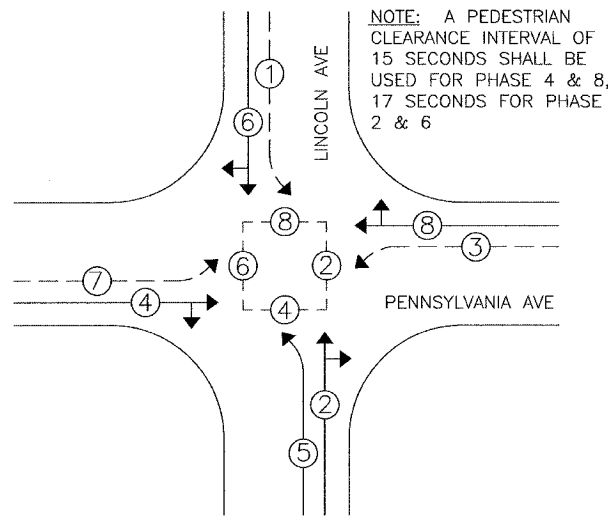


CABLE DIAGRAM LEGEND

- CONTROLLER AND CABINET
 - SIGNAL POST OR MAST ARM POLE
 - CONCRETE HANDHOLE
 - CONCRETE DOUBLE HANDHOLE
 - GULFBBOX JUNCTION
 - ELECTRIC CABLE IN CONDUIT
 - SIGNAL FACE WITH TURN ARROW
 - SIGNAL FACE WITH BACKPLATE
 - PEDESTRIAN SIGNAL FACE
 - PEDESTRIAN PUSH-BUTTON APS
 - 2-WAY EMERGENCY PRE-EMPTION DETECTOR
 - CONFIRMATION BEACONS
 - DETECTOR LOOP, 6" X 6"
 - NUMBER OF CONDUCTORS IN CABLE
ALL CABLE #14 EXCEPT AS INDICATED
ALL LOOP DETECTOR CABLE TO BE NO. 18 3 PR. TWISTED AND SHIELDED
 - LUMINAIRE, 400W METAL HALIDE
 - LUMINAIRE WITH PHOTOCELL CONTROL
- CONDUIT SIZE — NUMBER OF CABLES IN CONDUIT
- CONDUIT SIZE — NUMBER OF CONDUCTORS IN EACH CABLE

Suggested Timings

PHASE:	1	2	3	4	5	6	7	8
MIN. GRN. AM	20.0		10.0	7.0	20.0		10.0	
PM	20.0		10.0	7.0	20.0		10.0	
SEC./ ACT.	1.3				1.3			
MAX. GRN. AM	55.0	22.0	9.0	43.0	22.0			
PM	57.0	30.0	7.0	47.0	30.0			
PASSAGE	4.7	3.0	3.0	4.7	3.0			
MIN. GAP	3.2			3.2				
AMB. CLR.	3.5	3.5	3.0	3.5	3.5			
RED CLR.	1.5	1.0	1.0	1.5	1.0			



Phasing Diagram

NOTE: A PEDESTRIAN CLEARANCE INTERVAL OF 15 SECONDS SHALL BE USED FOR PHASE 4 & 8, 17 SECONDS FOR PHASE 2 & 6

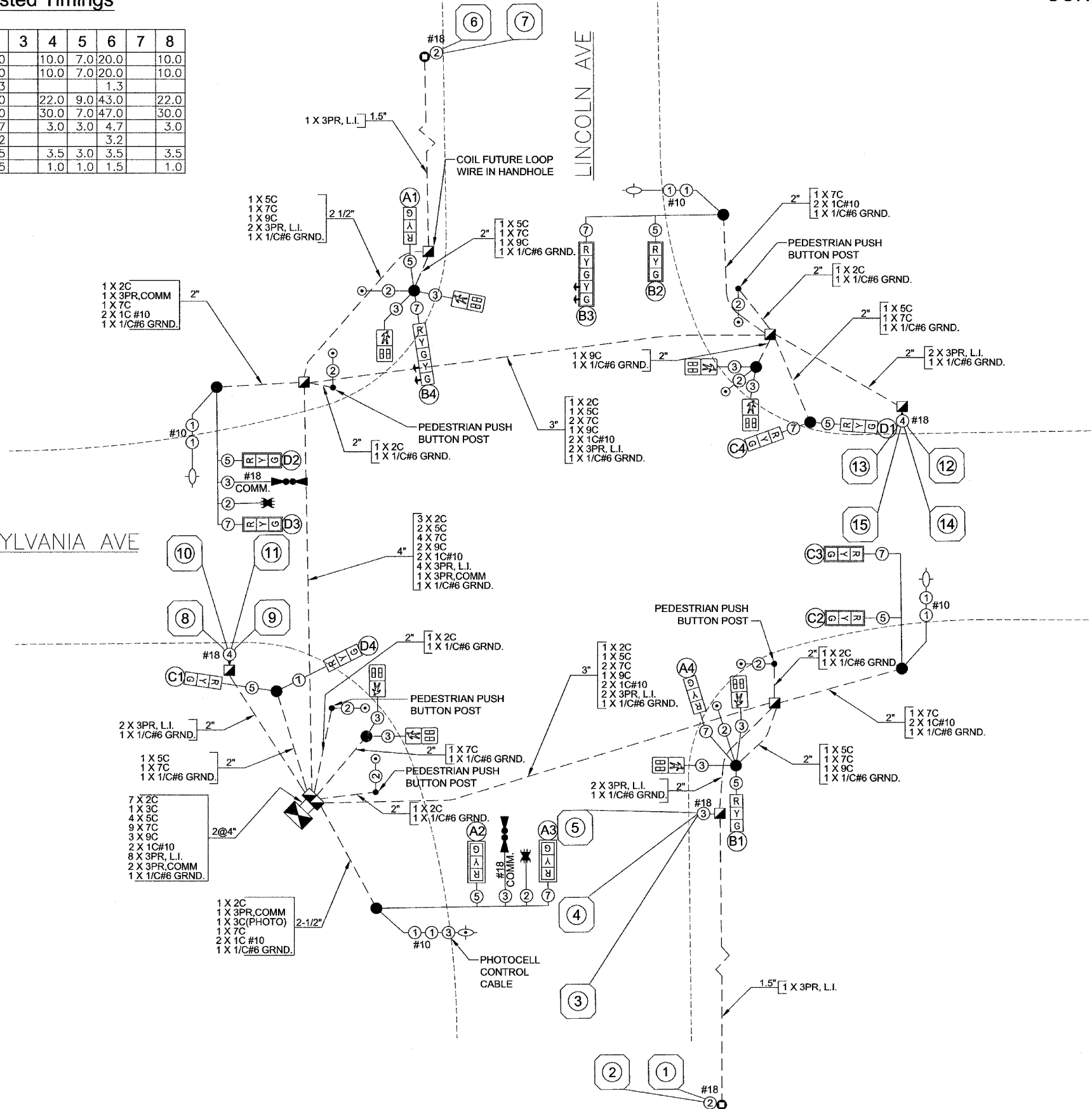
Detector Loop Data

LOOP:	SIZE:	MODE:	QUADRA-POLE	DELAY
8,9,10,11 12,13,14,15	6.0 ft.x6.0 ft. 7	PRESENCE	NO	7 8,9,12,13 ONLY
1,2,6,7	6.0 ft.x6.0 ft.	PULSE	NO	0
3,4,5	6.0 ft.x6.0 ft.	PRESENCE	NO	0

THE FOLLOWING LOOPS SHALL BE WIRED TO COMMON AMPLIFIERS:
(1,2), (6,7), (3,4,5), (8,9,10,11), (12,13,14,15)—
5 AMPLIFIERS TOTAL REQUIRED WITH 3 AMPLIFIERS INSTALLED FOR FUTURE USE
THE CONTROLLER SHALL BE SET TO MINIMUM RECALL LINCOLN AVENUE

PENNSYLVANIA AVE

LINCOLN AVE



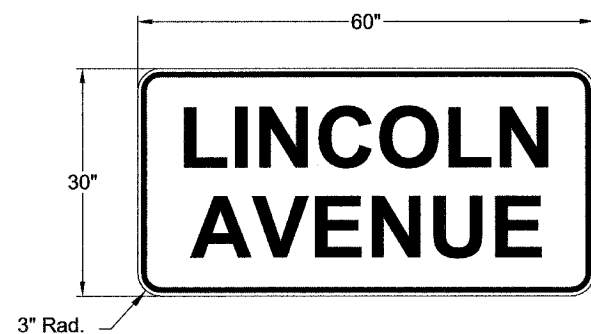
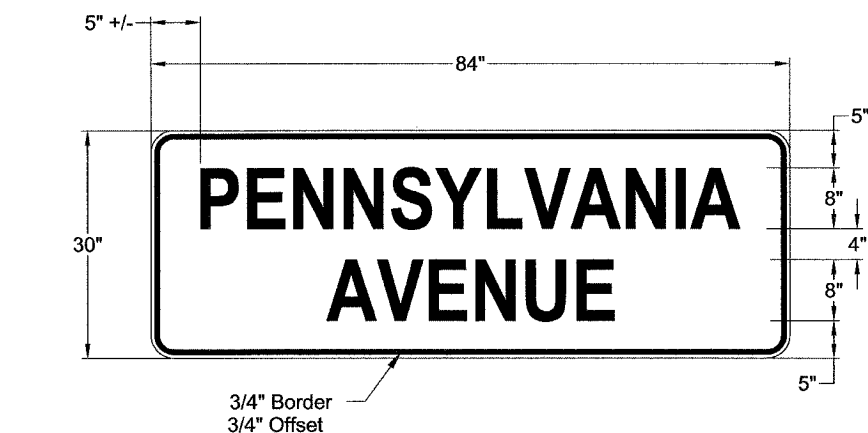
NO SCALE

LINCOLN-PENNSYLVANIA TRAFFIC SIGNAL INSTALLATION
City Section 04-00396-00-TL

Design/ACAD by: JLS
Approved by: WRG
Date: 12/30/05

TRAFFIC SIGNAL CABLE DIAGRAM
H:\j\smith\LINC PENNSIGNAL\LincolnPenn7SignalPlan.dwg

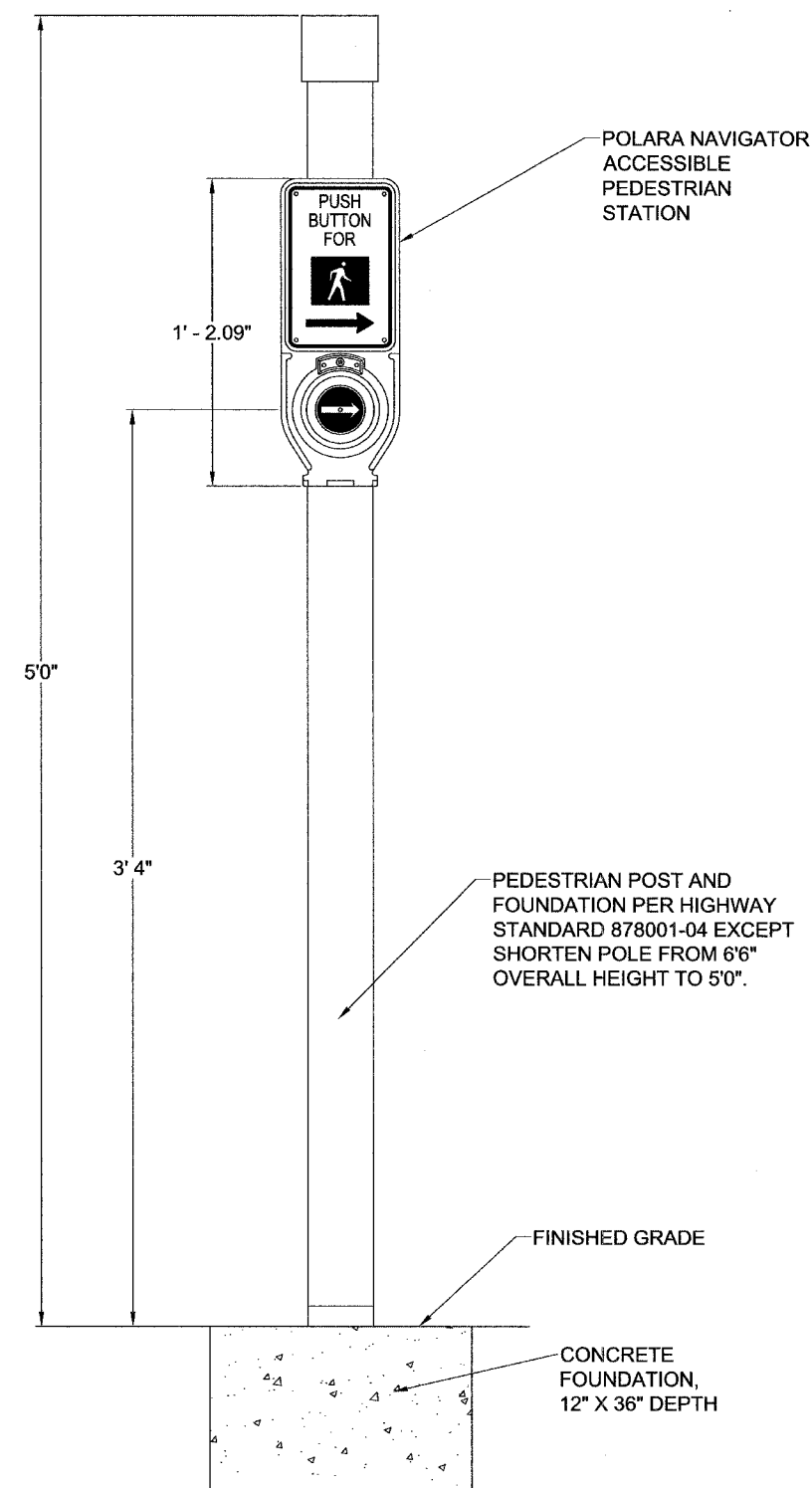
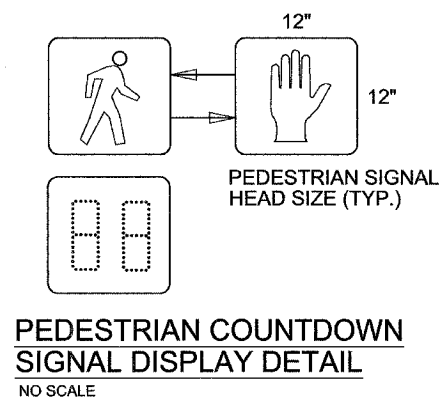
TOTAL SHEETS: 12
SHEET NO.: 11



TEXT SPECIFICATIONS

- All text is 8" in height.
- Width scale of 1:1.
- Border and legend :
3M Diamond Grade VIP 3990 white
- Background:
EC series 1170 Green Translucent (reverse image)

MAST ARM MOUNTED STREET NAME SIGN PANEL DETAIL



PEDESTRIAN PUSH-BUTTON POST DETAIL
NO SCALE