

FOR INDEX OF SHEETS SEE SHEET NO. 2

**TRAFFIC DATA**

2030 ADT = 6,000  
 POSTED SPEED LIMIT: 25 MPH  
 DESIGN SPEED LIMIT: 30 MPH

PROJECT LOCATED IN  
 THE VILLAGE OF BROOKFIELD

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 PLANS FOR PROPOSED  
 FEDERAL AID HIGHWAY  
 FAU ROUTE 1694 (GRAND BOULEVARD)  
 GRANT AVENUE TO VETERANS CIRCLE  
 SECTION NO. 07-00122-00-PV  
 PROJECT M-9003 (125)  
 VILLAGE OF BROOKFIELD  
 COOK COUNTY  
 JOB NO. C-91-142-09**

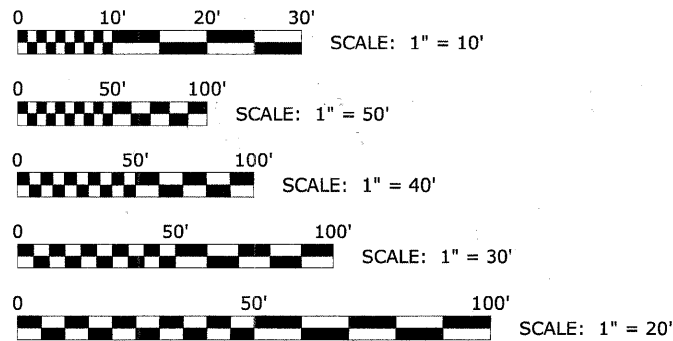
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	1
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



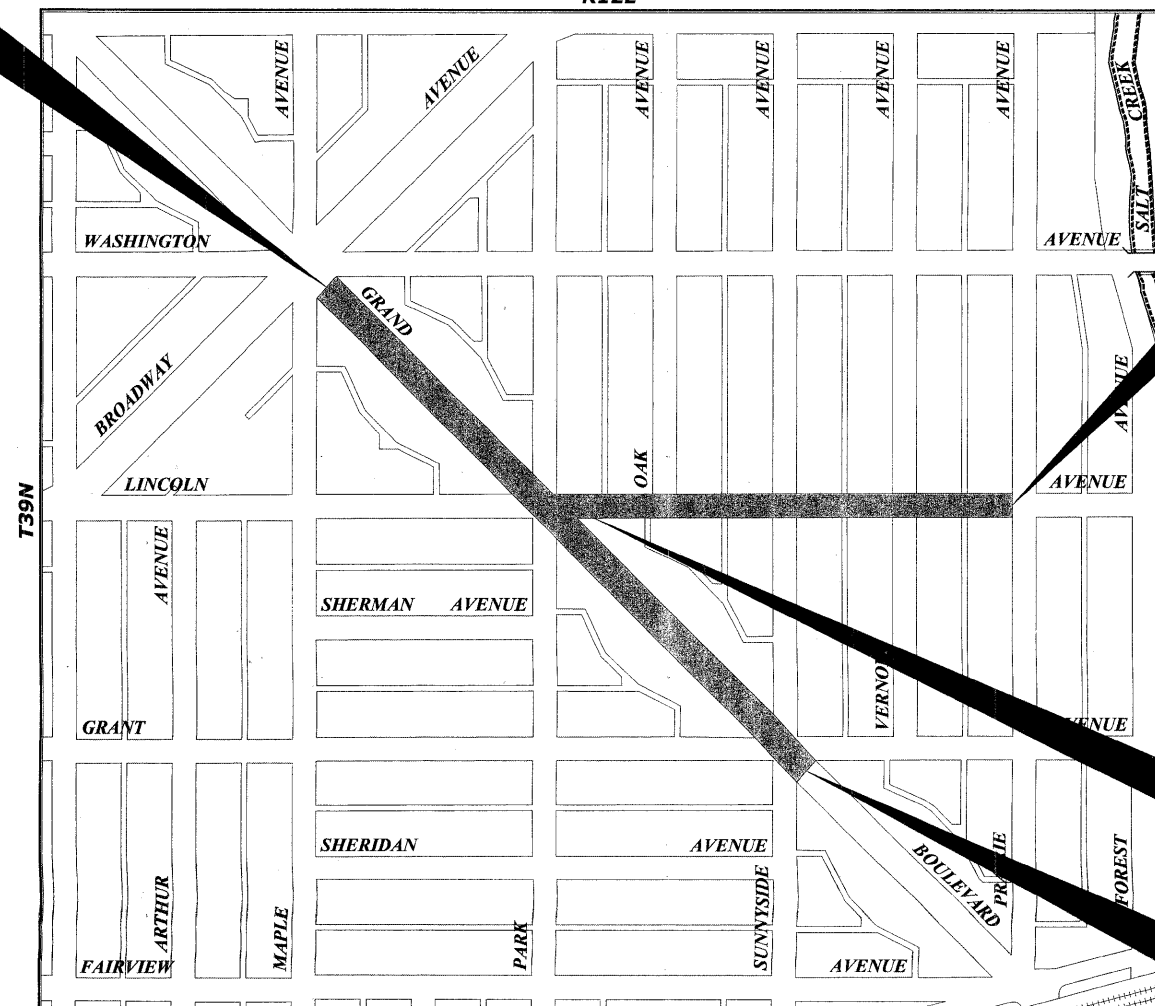
LOCATION OF SECTION INDICATED THIS:

**PROJECT ENDS  
 STATION 28+75  
 GRAND BOULEVARD**

**LOCATION MAP  
 R12E**



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.



**PROJECT ENDS  
 STATION 14+88  
 LINCOLN AVENUE**

**PROJECT BEGINS  
 STATION 2+67  
 LINCOLN AVENUE**

**PROJECT BEGINS  
 STATION 9+60  
 GRAND BOULEVARD**

Drawing File: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Cover.dwg Jan 08, 2009 - 2:48pm  
 FIELD ENGINEER: MARLIN SOLOMON PHONE: (847)705-4407  
 CONSULTANT: EDWIN HANCOCK ENGINEERING COMPANY  
 9933 ROOSEVELT ROAD PHONE: (708)865-0300  
 WESTCHESTER, ILLINOIS 60154



**Know what's below.  
 Call before you dig.**

CONTRACT NO. 63101

**PROVISO TOWNSHIP**

**- AREA OF IMPROVEMENT  
 GROSS AND NET LENGTH OF PROJECT = 3,136 FT. = 0.594 MI.**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

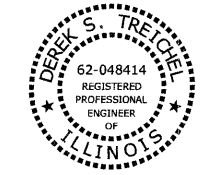
APPROVED: January 9, 2009  
*Ming Gann*  
 VILLAGE OF BROOKFIELD, PRESIDENT

PASSED: JANUARY 15, 2009  
*Chad Christensen*  
 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
 BASED ON LIMITED  
 REVIEW: JANUARY 15, 2009  
*Diana M. O'Keefe*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

(PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS)

*Derek S. Treichel*



DATE SIGNED: 01-09-09

LICENSE EXPIRES: 11-30-09

E.H.E. NO. 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	2
ILLINOIS PROJECT		M-9003 (125)		
VILLAGE SECTION				
CONTRACT NO. 63101				

## INDEX OF SHEETS

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1	TITLE SHEET, LOCATION MAP
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## I.D.O.T. STANDARD DRAWINGS

STANDARD NO.	TITLE OR DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
353001-04	PCC BASE COURSE WITH HOT-MIX ASPHALT BINDER AND SURFACE COURSE
424001-05	CURB RAMPS FOR SIDEWALKS
442101-07	CLASS B PATCHES
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
701501-05	URBAN LANE CLOSURE, 2 L, 2 W, UNDIVIDED
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE, 1 W OR 2 W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT

## BENCHMARKS

BENCHMARK	DESCRIPTION	ELEVATION
TBM-Q	NORTH-NORTHEAST BONNET BOLT ON FIRE HYDRANT IN FRONT OF 3527 GRAND BOULEVARD	622.515
TBM-R	NORTH-NORTHEAST BONNET BOLT ON FIRE HYDRANT AT NORTHEAST CORNER OF GRAND BOULEVARD AND PARK AVENUE (LINCOLN AVENUE)	622.245
TBM-S	SOUTH BONNET BOLT ON FIRE HYDRANT IN FRONT OF 3627 GRAND BOULEVARD	621.405
TBM-T	NORTH BONNET BOLT ON FIRE HYDRANT AT NORTHWEST CORNER OF LINCOLN AVENUE AND OAK AVENUE	621.175
TBM-U	NORTH BONNET BOLT ON FIRE HYDRANT AT NORTHWEST CORNER OF LINCOLN AVENUE AND SUNNYSIDE AVENUE	621.225
TBM-V	NORTH-NORTHEAST BONNET BOLT ON FIRE HYDRANT AT NORTHWEST CORNER OF LINCOLN AVENUE AND VERNON AVENUE	621.535

## LEGEND OF SYMBOLS

(TO BE USED IN CONJUNCTION WITH I.D.O.T. STANDARD 000001-04)

SYMBOL	DESCRIPTION
	EXISTING POWER POLE
	EXISTING GAS VALVE
	EXISTING STREET LIGHT
	EXISTING WATER MAIN BUFFALO BOX
	EXISTING FIRE HYDRANT
	EXISTING WATER MAIN VALVE VAULT
	EXISTING MANHOLE
	EXISTING INLET
	EXISTING CATCH BASIN
	EXISTING TREE
	EXISTING HOT-MIX ASPHALT AREA
	EXISTING CONCRETE AREA
	EXISTING GRASS AREA
	EXISTING STONE OR GRAVEL AREA
	EXISTING STORM SEWER
	EXISTING SANITARY SEWER
	EXISTING ELECTRIC LINE
	EXISTING GAS LINE
	EXISTING TELEPHONE LINE
	EXISTING WATER MAIN
	EXISTING CURB AND GUTTER
	EXISTING RIGHT OF WAY
	EXISTING STRUCTURE TO BE REMOVED
	EXISTING STRUCTURE TO BE FILLED
	EXISTING CURB AND GUTTER TO BE REMOVED
	EXISTING HOT-MIX ASPHALT SURFACE TO BE REMOVED
	EXISTING HOT-MIX ASPHALT AREA TO BE REMOVED
	EXISTING CONCRETE AREA TO BE REMOVED
	PROPOSED SANITARY SEWER
	PROPOSED COMBINATION SEWER
	PROPOSED STORM SEWER
	PROPOSED WATER MAIN
	PROPOSED MANHOLE
	PROPOSED INLET
	PROPOSED CATCH BASIN
	STRUCTURE TO BE ADJUSTED
	TYPE 1 FRAME & CLOSED LID
	TYPE 1 FRAME & OPEN LID
	RECONSTRUCT EXISTING STRUCTURE
	PROPOSED DIRECTION OF FLOW
	PROPOSED SUMMIT
	PROPOSED HOT-MIX ASPHALT AREA
	PROPOSED CONCRETE AREA
	PROPOSED GRASS AREA
	PROPOSED COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

REVISION	DATE	BY

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
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### BROOKFIELD GRAND BOULEVARD IMPROVEMENTS INDEX OF SHEETS, LEGEND OF SYMBOLS, BENCHMARKS, & I.D.O.T. STANDARD DRAWINGS

DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 SCALE: NOT TO SCALE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	3
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

## ACCESS

THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN INGRESS AND EGRESS FOR EMERGENCY VEHICLES INGRESS AND EGRESS ONTO PRIVATE & COMMERCIAL PROPERTY DURING THE CONSTRUCTION PERIOD. DURING CONSTRUCTION, GARBAGE TRUCKS MUST BE PERMITTED ACCESS TO THE WORK ZONE IN ORDER TO PICK UP RESIDENTIAL AND COMMERCIAL GARBAGE FOR THOSE PROPERTIES FRONTING THE WORK ZONE. IF GARBAGE TRUCK ACCESS IS NOT PROVIDED, THE CONTRACTOR WILL BE REQUIRED TO MOVE TRASH CONTAINERS TO AN ACCESSIBLE LOCATION.

## STANDARDS

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE DEPARTMENT AS SHOWN ON THE INDEX OF SHEETS IN THE PLANS.

## UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD SURVEYS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THE DATA IS ESSENTIALLY CORRECT, BUT THE VILLAGE OF BROOKFIELD, THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR OTHER OFFICES AND AGENCIES ASSOCIATED WITH THE DEVELOPMENT OF THESE PLANS DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR WILL BE REQUIRED TO VERIFY THE EXACT LOCATION OF EACH FACILITY WITH THE UTILITY COMPANY, AND SHALL TAKE DUE CARE IN ALL PHASES OF THE CONSTRUCTION TO PROTECT ANY SUCH FACILITIES WHICH MAY BE AFFECTED BY THE WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

ADJUSTMENTS REQUIRED BY UTILITY COMPANIES WILL BE PERFORMED BY THE COMPANY INVOLVED OR ITS CONTRACTOR.

COORDINATION OF ALL UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT A PRE-CONSTRUCTION CONFERENCE.

THE CONTRACTOR SHALL USE EXTREME CAUTION IN THE REMOVAL OF ABANDONED EXISTING GAS LINES SINCE RESIDUAL MATERIALS CONTAINED THEREIN ARE HIGHLY EXPLOSIVE, FLAMMABLE, AND TOXIC. ONCE THE MAINS ARE ABANDONED BY THE OWNER, THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE AND/OR INJURY OCCURRING ON THE PROJECT DUE TO HIS OPERATIONS NEXT TO THE MAINS AND/OR THE METHOD OF REMOVAL OF THE ABANDONED MAINS. UNDER NO CIRCUMSTANCE SHALL THE UTILITY COMPANIES BE HELD LIABLE FOR ANY DAMAGE AND/OR INJURY ONCE THEIR MAINS HAVE BEEN RELOCATED AND THE EXISTING ABANDONED.

## STORM SEWER

THE VERTICAL AND HORIZONTAL CLEARANCES BETWEEN WATER MAINS AND PROPOSED OR EXISTING STORM SEWERS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 41-1.02A THROUGH 41-1.02D OF THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS".

## FRAMES AND GRATES

THE TYPE OF FRAMES AND GRATES REQUIRED FOR ALL CATCH BASINS AND MANHOLES LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.01 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE.

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF BROOKFIELD AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE OF BROOKFIELD PUBLIC WORKS YARD LOCATED AT 4545 EBERLY AVENUE.

## MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES FLOWS THROUGH EXISTING STORM AND SANITARY SEWER SYSTEMS. HE SHALL ALSO PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT IF NECESSARY AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER COLLECTED IN A SAFE MANNER WITHOUT DAMAGE OF ANY KIND TO ADJACENT PROPERTIES. THE ENDS OF EXISTING DRAINAGE LINES WHICH ARE NOT TO BE INCORPORATED INTO THE PROJECT ARE TO BE SEALED AS SPECIFIED IN THE SPECIAL PROVISIONS. THE COST OF ALL THE PREVIOUSLY MENTIONED WORK SHALL BE INCLUDED IN THE CONTRACT. ALL ACCUMULATION OF MATERIAL IN THE STRUCTURE DUE TO CONSTRUCTION OPERATIONS AS WELL AS MATERIAL EXISTING BEFORE CONSTRUCTION, SHALL BE REMOVED BY THE CONTRACTOR AT HIS EXPENSE.

## EXISTING STRUCTURE MODIFICATIONS

ALL KNOWN EXISTING STRUCTURES IN THE PAVEMENT OR ADJACENT AREAS WHICH ARE INVOLVED IN THE CONSTRUCTION HAVE BEEN SHOWN ON THE PLANS AND NOTED AS TO BE REMOVED, FILLED, RECONSTRUCTED, OR ADJUSTED BY THE CONTRACTOR EXCEPT THOSE OF AMERITECH, COMED, AND THE NICOR GAS COMPANY, WHICH ARE TO BE ADJUSTED BY THE APPROPRIATE UTILITY FORCE. WHERE EXISTING STRUCTURES ARE TO BE REMOVED OR FILLED, OR THE EXISTING CASTING REPLACED, THE CASTINGS REMOVED FROM THE STRUCTURE ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF BROOKFIELD AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE OF BROOKFIELD PUBLIC WORKS YARD LOCATED AT 4545 EBERLY AVENUE.

## SHEETING OR SHORING

IT SHOULD BE NOTED THAT ANY SHEETING OR SHORING REQUIRED FOR THE STORM SEWER INSTALLATION OR OTHER CONSTRUCTION ELEMENTS REQUIRING RELATIVELY DEEP EXCAVATIONS, SHALL BE INCLUDED IN THE PARTICULAR PAYMENT ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY SUPPLEMENTAL WORK ASSOCIATED WITH THE MAINTENANCE OF TRENCH SIDES OR OTHER EXCAVATED AREAS.

## MAINTENANCE OF EXISTING DRAINAGE STRUCTURES

WHEN DURING THE CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF ANY GUTTERS OR DRAINAGE STRUCTURE SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE FACILITIES SHALL BE CLEAN AND FREE OF ALL OBSTRUCTIONS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACT.

## SAW CUTTING

THE CONTRACTOR SHALL SAW CUT ASPHALT PAVEMENT AND CONCRETE PAVEMENT AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, TO SEPARATE THE EXISTING PAVEMENT TO BE REMOVED BY MEANS OF AN APPROVED CONCRETE SAW TO A DEPTH AS DIRECTED BY THE ENGINEER. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT, STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO DAMAGE THE REMAINING PAVEMENT DIRECTLY ADJACENT TO THE PAVEMENT TO BE REMOVED. ANY DAMAGE TO THE EXISTING PAVEMENT RESULTING FROM PAVEMENT REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE PRICE OF SAW CUTTING, AS NOTED ABOVE, SHALL BE INCLUDED IN THE PARTICULAR PAY ITEMS.

## TRAFFIC PROTECTION

CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT WHEN WORK COMMENCES, THE CONTRACTOR SHALL ASSUME THE MAINTENANCE OF ANY PAVEMENT, SHOULDERS, DRAINAGE FACILITIES, TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS, AND OTHER APPURTENANCES ON ROADWAYS WITHIN THE LIMITS OF THE CONTRACT WHICH ARE TO BE USED BY THE PUBLIC DURING CONSTRUCTION AND TO RETAIN THIS MAINTENANCE RESPONSIBILITY UNTIL THE VILLAGE ASSUMES THE MAINTENANCE. NEED FOR SNOW AND ICE CONTROL DURING THE CONSTRUCTION PERIOD SHALL BE ACCOMMODATED FOR BY OTHERS. ALL UNBALLASTED TYPE I & TYPE II BARRICADES SHALL HAVE TWO SANDBAGS ONE ACROSS EACH BOTTOM RAIL.

## EXISTING ROADWAY SIGNS

ALL EXISTING ROADWAY SIGNS, MARKERS, ETC., LOCATED WITHIN THE ROADWAY RIGHT-OF-WAY WHICH ARE INVOLVED IN THIS CONSTRUCTION SHALL BE REMOVED AND DELIVERED TO THE VILLAGE PUBLIC WORKS YARD LOCATED AT 4545 EBERLY AVENUE. ALL WORK ASSOCIATED WITH THIS ITEM SHALL BE CONSIDERED INCLUDED IN THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

## SOILS REPORT

A SOILS REPORT HAS BEEN PREPARED CONTAINING CERTAIN INFORMATION RELATING TO GENERAL SOIL CONDITIONS TO BE ENCOUNTERED ALONG THE ROUTE OF THE WORK. THE CONTRACTOR WILL BE PERMITTED TO EXAMINE THIS INFORMATION AND DETERMINE ITS VALUE. ANY ADDITIONAL BORINGS DEEMED NECESSARY BY THE CONTRACTOR SHALL BE MADE AT HIS OWN EXPENSE.

## PLUGGING EXISTING SEWERS AND DRAINS


UNLESS OTHERWISE SPECIFIED, ABANDONED SEWERS AND DRAINS, AS DESIGNATED BY THE ENGINEER, SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FOOT LONG NON-SHRINK/MORTAR PLUG. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVING AND/OR FILLING THE VARIOUS TYPES OF STRUCTURES.

## SUGGESTED SEQUENCE OF WORK OPERATIONS

IT IS ANTICIPATED THAT THE FIRST MAJOR ITEM OF WORK WILL BE THE INSTALLATION OF THE STORM SEWER BEGINNING ON LINCOLN AVENUE AT PRAIRIE AVENUE AND EXTENDING WEST DOWN LINCOLN AVENUE. THEN THE STORM SEWER WILL BE INSTALLED ON GRAND BOULEVARD EXTENDING NORTH AND SOUTH OF LINCOLN AVENUE.

GRAND BOULEVARD WILL REMAIN OPEN TO TRAFFIC FOR AS LONG A PERIOD AS POSSIBLE WHILE THE STORM SEWER IS BEING INSTALLED ON LINCOLN AVENUE. ONCE THE CONTRACTOR ESTIMATES THAT HE HAS APPROXIMATELY ONE WEEK OF WORK REMAINING BEFORE HE REACHES GRAND BOULEVARD WITH THE STORM SEWER, HE CAN CLOSE GRAND BOULEVARD TO THROUGH TRAFFIC. DURING THIS ONE WEEK PERIOD, ALL OF THE PAVEMENT ABOVE THE PROPOSED STORM SEWER ON GRAND BOULEVARD WILL BE REMOVED AND THE CONTRACTOR WILL PERFORM THE EXPLORATORY EXCAVATION NECESSARY TO DETERMINE THE ELEVATION OF THE EXISTING SEWER SERVICES ON THE WEST SIDE OF GRAND BOULEVARD. ONCE THE ELEVATION OF ALL OF THE SEWER SERVICES HAS BEEN DETERMINED, THE ENGINEER CAN CONFIRM OR MODIFY THE ELEVATIONS OF THE PROPOSED STORM SEWER AND THEN THE CONTRACTOR CAN ORDER THE STORM SEWER STRUCTURES FOR GRAND BOULEVARD.

REVISION:	

 <b>HANCOCK ENGINEERING</b>	<ul style="list-style-type: none"> <li>◆ Civil Engineers</li> <li>◆ Municipal Consultants</li> <li>◆ Established 1911</li> </ul>	<small>9333 Riverfront Road Woodstock, Illinois 60091-7100 Phone: 708-965-4200 Fax: 708-965-1212</small>
	<b>BROOKFIELD GRAND BOULEVARD IMPROVEMENTS GENERAL NOTES</b>	
DRAWN BY: LEV/ECW/MK CHECKED BY: JCG DATE: 01-09-09		SCALE: NOT TO SCALE

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Sum\_Quantities.dwg Jan 29, 2009 - 9:34am

**SUMMARY OF QUANTITIES**

L23 070

CODE	PAY ITEM	UNIT	TOTAL QUANTITY	1000-2A	
				75% FEDERAL 25% LOCAL	100% LOCAL
* 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	8	8	0
* 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	100	100	0
* 20101000	TEMPORARY FENCE	FOOT	1,800	1,800	0
* 20101200	TREE ROOT PRUNING	EACH	72	72	0
20200100	EARTH EXCAVATION	CUYD	2,400	1,838	562
~ 20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS	CUYD	50	50	0
~ 20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CUYD	50	50	0
~ 20800150	TRENCH BACKFILL	CUYD	5,200	4,875	325
~ 21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQYD	8,600	7,000	1,600
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQYD	5,100	3,655	1,445
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	95	95	0
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	95	95	0
* 25000600	POTASSIUM PERTILIZER NUTRIENT	POUND	95	95	0
* 25200100	SODDING	SQYD	5,100	3,655	1,445
25200200	SUPPLEMENTAL WATERING	UNIT	100	100	0
~ 28000510	INLET FILTERS	EACH	46	35	11
~ 35101800	AGGREGATE BASE COURSE, TYPE B, 6"	SQYD	5,400	3,800	1,600
~ 35300300	PORTLAND CEMENT CONCRETE BASE COURSE, 8"	SQYD	2,250	2,245	5
~ 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	1,750	1,750	0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	1,600	1,430	170
40600300	AGGREGATE (PRIME COAT)	TON	50	50	0
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	425	425	0
40600895	CONSTRUCTING TEST STRIP	EACH	1	1	0
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	875	859	16
40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SQYD	3,350	1,750	1,600
40701861	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 9"	SQYD	3,300	3,300	0
42101300	PROTECTIVE COAT	SQYD	3,200	2,245	955
42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQYD	850	481	369
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQYD	250	125	125
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQFT	7,700	6,570	1,130
~ 42400800	DETECTABLE WARNINGS	SQFT	550	414	136
~ 44000100	PAVEMENT REMOVAL	SQYD	9,300	7,595	1,705
~ 44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQYD	5,200	5,120	80
44000200	DRIVEWAY PAVEMENT REMOVAL	SQYD	850	481	369
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	5,100	3,680	1,420
44000600	SIDEWALK REMOVAL	SQFT	7,800	6,645	1,155
55021800	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 18"	FOOT	415	415	0
55022000	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 24"	FOOT	218	218	0
55022100	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 27"	FOOT	240	240	0
55022200	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 30"	FOOT	410	410	0
55022400	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 36"	FOOT	272	272	0
55022500	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 42"	FOOT	1,254	1,254	0
~ 56103000	DUCTILE IRON WATER MAIN, 6"	FOOT	150	0	150
~ 56103100	DUCTILE IRON WATER MAIN, 8"	FOOT	300	0	300
~ 56106700	ADJUSTING WATER MAIN, 16"	FOOT	35	0	35
~ 56400500	FIRE HYDRANTS TO BE REMOVED	EACH	5	0	5
~ 56400510	FIRE HYDRANTS TO BE REMOVED AND REPLACED	EACH	4	0	4
~ 56400820	FIRE HYDRANT WITH AUXILARY VALVE AND BOX	EACH	1	0	1

\* DENOTES SPECIALTY ITEM  
 ~ DENOTES THAT A SPECIAL PROVISION HAS BEEN PROVIDED

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	4
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

**HANCOCK ENGINEERING**  
 ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9333 Rosemead Road  
 Westchester, Illinois 60591-9798  
 Phone: 708/666-6300  
 Fax: 708/666-1312

**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 SUMMARY OF QUANTITIES**

DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09

SCALE: NOT TO SCALE

REVISION:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	5
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

SUMMARY OF QUANTITIES					
CODE	PAY ITEM	UNIT	TOTAL QUANTITY	1000-2A 75% FEDERAL 25% LOCAL	1000-2A 100% LOCAL
~ 60213800	RESTRICTED DEPTH CATCH BASINS, 4' DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	33	33	0
~ 60224600	RESTRICTED DEPTH MANHOLES, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1	0
~ 60225400	RESTRICTED DEPTH MANHOLES, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	12	12	0
~ 60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	2	2	0
~ 60248700	VALVE VAULTS, TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5	0	5
~ 60248900	VALVE VAULTS, TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	0	1
~ 60257900	MANHOLES TO BE RECONSTRUCTED	EACH	14	14	0
~ 60266500	VALVE VAULTS TO BE REMOVED	EACH	2	0	2
~ 60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	14	14	0
~ 60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	26	26	0
~ 60500050	REMOVING CATCH BASINS	EACH	22	22	0
~ 60500060	REMOVING INLETS	EACH	3	3	0
~ 60600605	CONCRETE CURB, TYPE B	FOOT	265	100	165
~ 60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	5,350	3,930	1,420
~ 67100100	MOBILIZATION	L SUM	1	1	0
~ 70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	0
~ 70106800	CHANGEABLE MESSAGE SIGN	CAL-MO	0.5	0.5	0
~ 72000100	SIGN PANEL - TYPE 1	SQFT	185	185	0
~ 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	465	465	0
* 78001100	PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQFT	10	0	10
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	480	140	340
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3,700	3,700	0
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	900	900	0
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	325	325	0
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	185	185	0
* B2005720	TREE, PYRUS CALLERYANA CHANTICLEER (CHANTICLEER CALLERY PEAR), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	2	2	0
* B2006220	TREE, SYRINGA RETICULATA (JAPANESE TREE LILAC), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	2	2	0
* K1003679	MULCH	CUYD	80	80	0
~ X0325544	PRESSURE CONNECTION 16" X 8"	EACH	1	0	1
~ XX000541	EXPLORATORY EXCAVATION	CUYD	175	175	0
~ XX000479	WATER MAIN REMOVAL, 6 INCH	FOOT	270	0	270
~ XX000836	PRESSURE TESTING AND DISINFECTION	L SUM	1	0	1
~ XX001464	SANITARY SEWERS, PVC, 6"	FOOT	435	435	0
~ XX001490	GATE VALVES, 8"	EACH	4	0	4
~ XX001672	STORM SEWERS, PVC, SDR 26, 12"	FOOT	348	348	0
~ XX002982	GATE VALVES, 6"	EACH	1	0	1
~ XX003036	STORM SEWERS, PVC, SDR 26, 10"	FOOT	883	883	0
~ XX003037	DUCTILE IRON FITTINGS AND ACCESSORIES	POUND	1,410	0	1,410
~ XX003059	DECORATIVE BRICK SIDEWALK	SQFT	3,045	2,755	290
~ XX003517	CONNECTION TO EXISTING WATER MAIN (NON-PRESSURE) 6"	EACH	4	0	4
~ XX005636	PIPE UNDERDRAINS, PERFORATED POLYVINY L CHLORIDE PIPE, 6"	FOOT	210	210	0
~ XX005758	TEMPORARY PAVEMENT	TON	25	25	0
~ XX006227	RESTRAINED JOINT, 8"	EACH	28	0	28
~ XX006228	RESTRAINED JOINT, 6"	EACH	40	0	40
~ XX006449	12" PVC COMBINED SEWER PIPE REPLACEMENT	FOOT	60	60	0
~ XX006450	15" PVC COMBINED SEWER PIPE REPLACEMENT	FOOT	15	15	0
~ XX006454	WATER SERVICE RELOCATION	EACH	27	27	0
~ XX006805	PORTLAND CEMENT CONCRETE BASE COURSE, 4" SPECIAL	SQFT	3,045	2,755	290
~ Z0001050	AGGREGATE SUBGRADE 12"	SQYD	3,300	3,300	0
~ Z0019600	DUST CONTROL WATERING	UNIT	100	100	0
~ Z0075300	TIE BARS	EACH	850	850	0
~ Z0076600	TRAINEES	HOUR	1,000	1,000	0

\* DENOTES SPECIALTY ITEM  
~ DENOTES THAT A SPECIAL PROVISION HAS BEEN PROVIDED

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants  
9700 Riverfront Plaza, Woodbury, Illinois 61574-2700  
Phone: 815-895-4300 Fax: 815-895-1212  
Established 1911

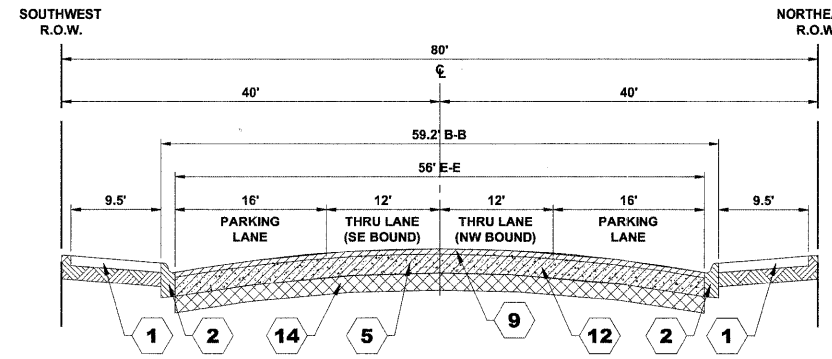
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**SUMMARY OF QUANTITIES**

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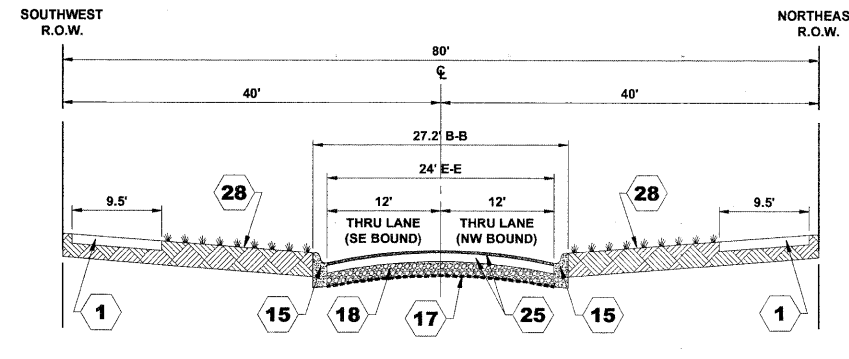
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CHECKED BY: JCG  
DATE: 01-09-09

E.I.E. PROJECT NO.: 125-08-13501

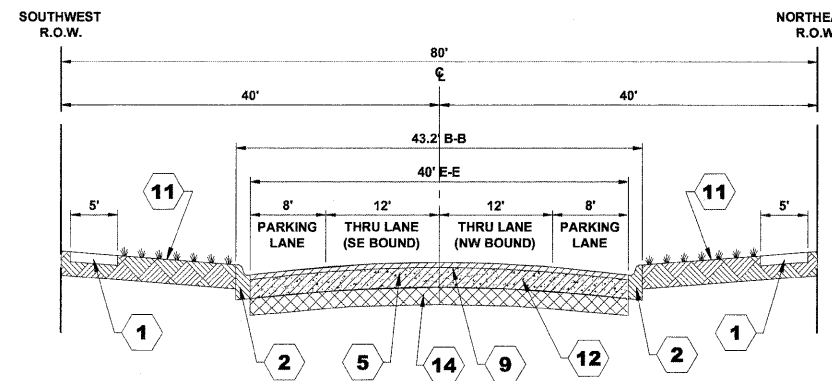
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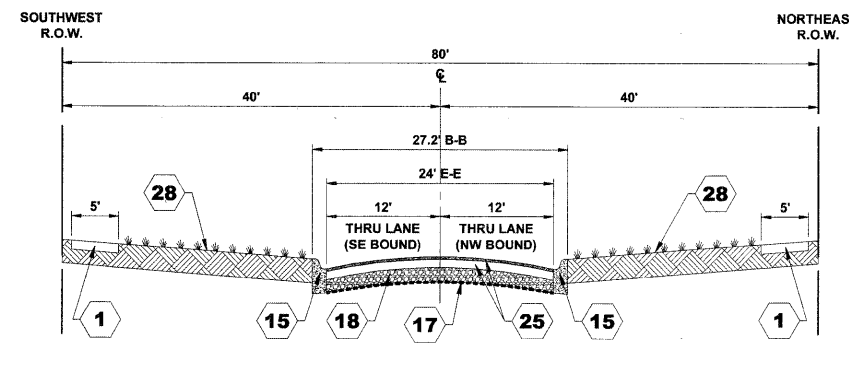
**EXISTING TYPICAL CROSS SECTION**  
**GRAND BOULEVARD**  
**(9+87 TO 10+86)**



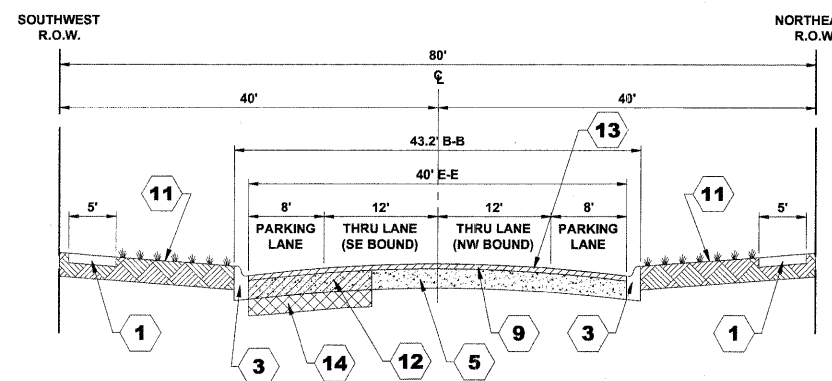
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**GRAND BOULEVARD**  
**(9+87 TO 10+86)**



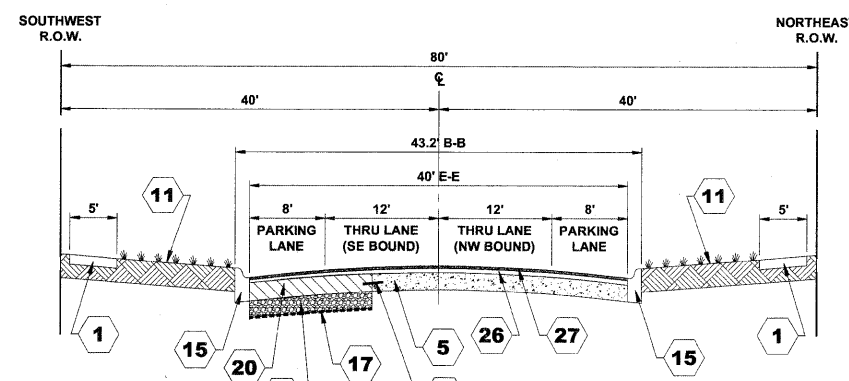
**EXISTING TYPICAL CROSS SECTION**  
**GRAND BOULEVARD**  
**(10+86 TO 12+05)**  
**(19+00 TO 21+50)**



**PROPOSED TYPICAL CROSS SECTION**  
**GRAND BOULEVARD**  
**(10+86 TO 12+05)**  
**(19+00 TO 21+50)**



**EXISTING TYPICAL CROSS SECTION**  
**GRAND BOULEVARD**  
**(12+05 TO 19+00)**  
**(21+50 TO 28+75)**



**PROPOSED TYPICAL CROSS SECTION**  
**GRAND BOULEVARD**  
**(12+05 TO 19+00)**  
**(21+50 TO 28+75)**

**TYPICAL CROSS SECTION LEGEND**

- | EXISTING |   | PROPOSED |  |
|----------|---|----------|--|
| 1        | PORTLAND CEMENT CONCRETE SIDEWALK, 5"   | 15       | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12  |
| 2        | COMBINATION CURB AND GUTTER REMOVAL (TYPE B-6.12)   | 16       | CONCRETE CURB, TYPE B  |
| 3        | COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12 (ONLY CERTAIN DETERIORATED SECTIONS OF COMBINATION CONCRETE CURB AND GUTTER WILL BE REPLACED) | 17       | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION   |
| 4        | COMBINATION CURB & GUTTER REMOVAL (TYPE B-6.18)   | 18       | AGGREGATE SUBGRADE, 12"  |
| 5        | PORTLAND CEMENT CONCRETE BASE COURSE, 6" - 10"  | 19       | AGGREGATE BASE COURSE, TYPE B, 6"  |
| 6        | PORTLAND CEMENT CONCRETE BASE COURSE, 6" - 8"   | 20       | PORTLAND CEMENT CONCRETE BASE COURSE, 8"   |
| 7        | PORTLAND CEMENT CONCRETE PAVEMENT, 6" - 7"  | 21       | PORTLAND CEMENT CONCRETE BASE COURSE, 4" SPECIAL   |
| 8        | DRIVEWAY PAVEMENT REMOVAL (CONCRETE DRIVEWAY PAVEMENT OVERLAID WITH HOT-MIX ASPHALT)  | 22       | PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7"   |
| 9        | HOT-MIX ASPHALT BINDER & SURFACE COURSE, 4" - 7"  | 23       | TIE BARS (EPOXY COATED, 3/8" DIAMETER, 18" LONG DEFORMED TIE BARS @ 24" O.C.)  |
| 10       | HOT-MIX ASPHALT BINDER & SURFACE COURSE, 2" - 4"  | 24       | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 6"<br>-HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"<br>-HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"                           |
| 11       | GRASS PARKWAY   | 25       | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 9"<br>-HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"<br>-HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 7"<br>(INSTALLED IN 2 LIFTS) |
| 12       | PAVEMENT REMOVAL  | 26       | LEVELING BINDER (MACHINE METHOD), N50, 1"  |
| 13       | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH   | 27       | HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"   |
| 14       | EARTH EXCAVATION  | 28       | TOPSOIL FURNISH AND PLACE 4" SODDING   |
|          |   | 29       | DECORATIVE BRICK SIDEWALK  |

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

ITEM DESCRIPTION	AC TYPE	VOIDS
GRAND BOULEVARD - "FULL DEPTH" PAVEMENT, 9" HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50, 7" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5mm), 2"	PG 64 - 22*	4% @ 50 Gyr.
LINCOLN AVENUE - "FULL DEPTH" PAVEMENT, 6" HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50, 4" HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, (IL 9.5mm), 2"	PG 64 - 22*	4% @ 50 Gyr.
GRAND BOULEVARD - RESURFACING LEVELING BINDER (MACHINE METHOD), N50 HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50 (IL 9.5mm)	PG 64 - 22 *	4% @ 50 Gyr.
TEMPORARY PAVEMENT (HOT MIX) (2") (BINDER IL - 19mm)	PG 64 - 22 *	4% @ 50 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.  
 \*WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58 -22

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

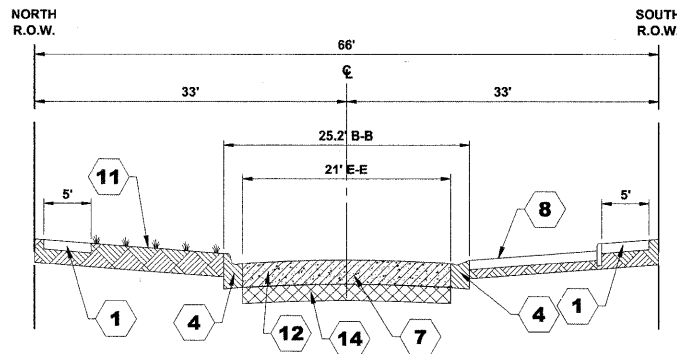
9333 Riverside Road  
 Woodstock, Illinois 60093-0700  
 Phone: 708/865-0300  
 Fax: 708/865-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**TYPICAL CROSS SECTIONS**

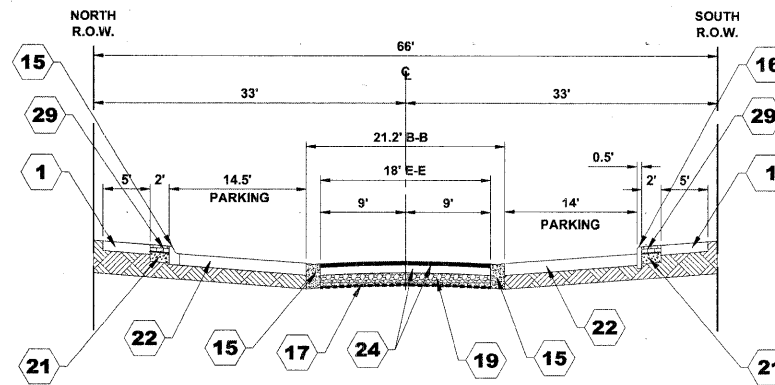
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DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09

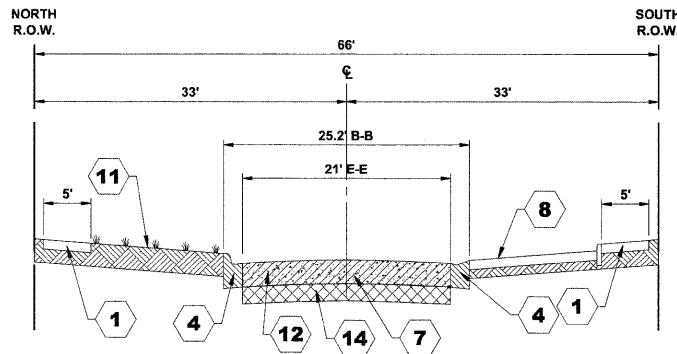
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	7
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



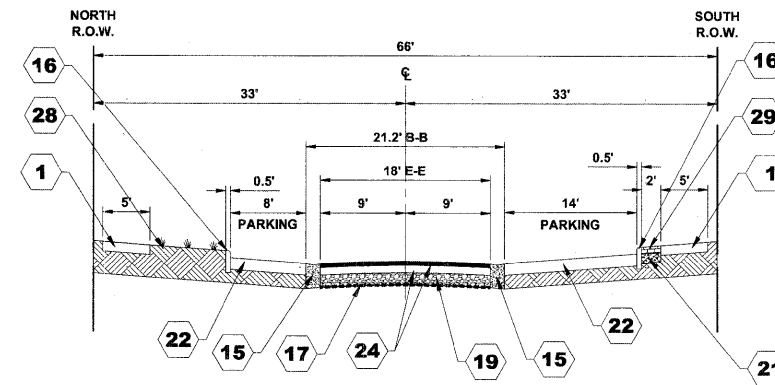
**EXISTING TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(2+67 TO 3+80)



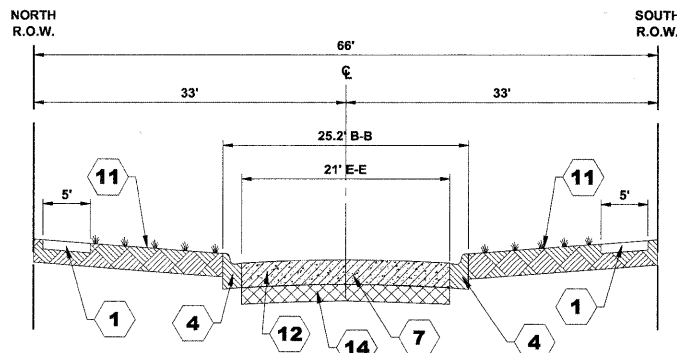
**PROPOSED TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(2+67 TO 3+80)



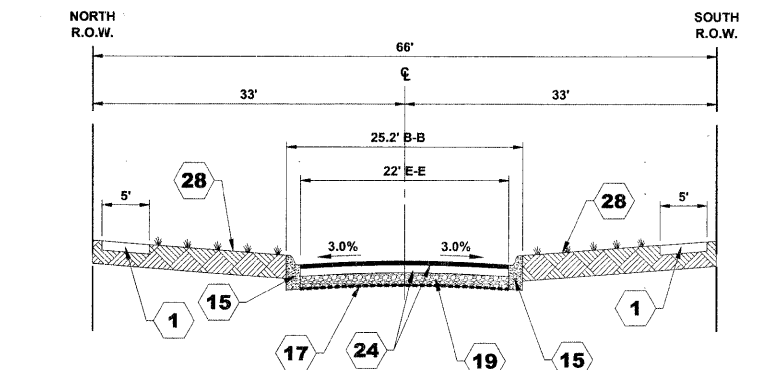
**EXISTING TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(3+80 TO 4+70)



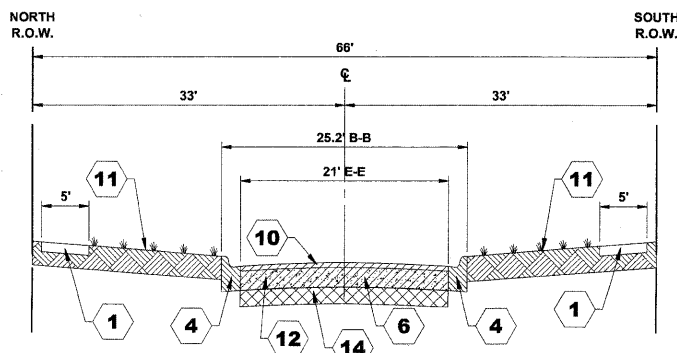
**PROPOSED TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(3+80 TO 4+70)



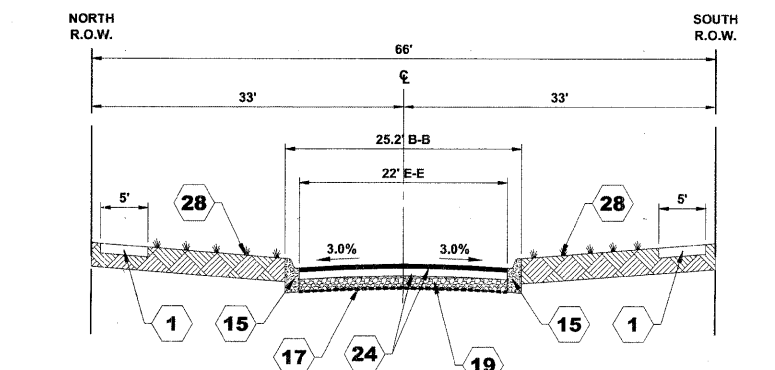
**EXISTING TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(4+70 TO 8+75)



**PROPOSED TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(4+70 TO 8+75)



**EXISTING TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(8+75 TO 14+88)



**PROPOSED TYPICAL CROSS SECTION**  
LINCOLN AVENUE  
(8+75 TO 14+88)

**TYPICAL CROSS SECTION LEGEND**

- | EXISTING |   | PROPOSED |   |
|----------|---|----------|---|
| 1        | PORTLAND CEMENT CONCRETE SIDEWALK, 5"   | 15       | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12   |
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| 10       | HOT-MIX ASPHALT BINDER & SURFACE COURSE, 2" - 4"  | 24       | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 6"<br>HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"<br>HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"                        |
| 11       | GRASS PARKWAY   | 25       | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 9"<br>HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"<br>HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 7" (INSTALLED IN 2 LIFTS) |
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| 13       | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH   | 27       | HOT-MIX ASPHALT SURFACE COURSE, MIX D, N50, 2"  |
| 14       | EARTH EXCAVATION  | 28       | TOPSOIL FURNISH AND PLACE 4" SODDING  |
|          |   | 29       | DECORATIVE BRICK SIDEWALK   |

**PAVEMENT CORE SUMMARY**

BORE	STREET	STATION	LANE	BITUMINOUS	CONC. BASE	TOTAL
PC-25	GRAND	26+90	SOUTHEAST BOUND INNER	5 3/4"	8 1/2"	14 1/4"
PC-26	GRAND	26+90	NORTHWEST BOUND INNER	5"	8"	13"
PC-27	GRAND	26+90	NORTHWEST BOUND OUTER	5 1/2"	0"	5 1/2"
SB-9	GRAND	26+90	SOUTHEAST BOUND OUTER	6"	8"	14"
PC-28	GRAND	21+10	SOUTHEAST BOUND INNER	5 1/2"	7 3/4"	13 1/4"
PC-29	GRAND	21+10	NORTHWEST BOUND INNER	5 1/4"	8"	13 1/4"
PC-30	GRAND	21+10	NORTHWEST BOUND OUTER	6 1/2"	0"	6 1/2"
SB-10	GRAND	21+10	SOUTHEAST BOUND OUTER	6"	10"	16"
PC-31	GRAND	17+40	SOUTHEAST BOUND INNER	5 3/4"	8"	13 3/4"
PC-32	GRAND	17+40	NORTHWEST BOUND INNER	4 1/2"	8 1/4"	12 3/4"
PC-33	GRAND	17+40	NORTHWEST BOUND OUTER	5 1/4"	0"	5 1/4"
SB-11	GRAND	17+40	SOUTHEAST BOUND OUTER	4"	8"	12"
PC-34	GRAND	13+15	SOUTHEAST BOUND INNER	5 1/4"	8"	13 1/4"
PC-35	GRAND	13+15	NORTHWEST BOUND INNER	5 1/2"	7"	12 1/2"
PC-36	GRAND	13+15	NORTHWEST BOUND OUTER	6 1/4"	0"	6 1/4"
SB-12	GRAND	13+15	SOUTHEAST BOUND OUTER	6"	6"	12"
PC-43	LINCOLN	4+25	WESTBOUND	0"	6 1/2"	6 1/2"
SB-18	LINCOLN	7+15	WESTBOUND	0"	6"	6"
PC-44	LINCOLN	10+40	EASTBOUND	2 1/2"	7 1/4"	9 3/4"
SB-19	LINCOLN	13+30	WESTBOUND	3"	6"	9"

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
9031 Riverwood Road, Woodstock, Illinois 60193-2700  
Phone: 708.565-0300 Fax: 708.565-1212

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS TYPICAL CROSS SECTIONS**

REVISION:	

SCALE: NOT TO SCALE  
DRAWN BY: LEVICW/MK  
CHECKED BY: JCG  
DATE: 01-09-09  
E.H.E. PROJECT NO. : 125-08-13501

LEGEND OF SYMBOLS					
SYMBOL	DESCRIPTION	CODE & SIZE	SYMBOL	DESCRIPTION	CODE & SIZE
		W20-3 48"x48"			M4-8 24"x18"
		W20-2 48"x48"			M4-8 36"x24"
		W1-2 24"x24"			M4-9 30"x24"
		W1-2 24"x24"			M4-9 30"x24"
		W1-2 24"x24"			M4-9 30"x24"
		W1-2 24"x24"			M4-9R 24"x30"
		R8-3 24"x24"			M4-9L 24"x30"
		R11-4 60"x30"			M4-10 48"x18"
		R11-4 60"x30"			M4-10 48"x18"
		M3-1 24"x12"			R8-3 12"x18" R8-3a 12"x6"
		M3-1 24"x12"			R8-3 12"x18" R8-3a 12"x6"
		M4-8 36"x12"			

**NOTE:**  
 CONTRACTOR TO NOTIFY IDOT HEAD OF TRAFFIC MAINTENANCE (842)705-4470, SEVENTY-TWO HOURS IN ADVANCE OF SETTING UP DETOUR ROUTE.

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans Maintenance of Traffic.dwg Jan 09, 2009 - 9:46am

REVISION:	

	♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911	<small>9913 Roosevelt Road          Wheeling, Illinois 60142-2700          Phone: 708/965-6388          Fax: 708/965-1212</small>
	<b>BROOKFIELD</b> <b>GRAND BOULEVARD IMPROVEMENTS</b> <b>MAINTENANCE OF TRAFFIC</b> <b>LEGEND OF SYMBOLS</b>	
DRAWN BY: LEV/ECW/MK CHECKED BY: JCG DATE: 01-09-09		SCALE: NOT TO SCALE

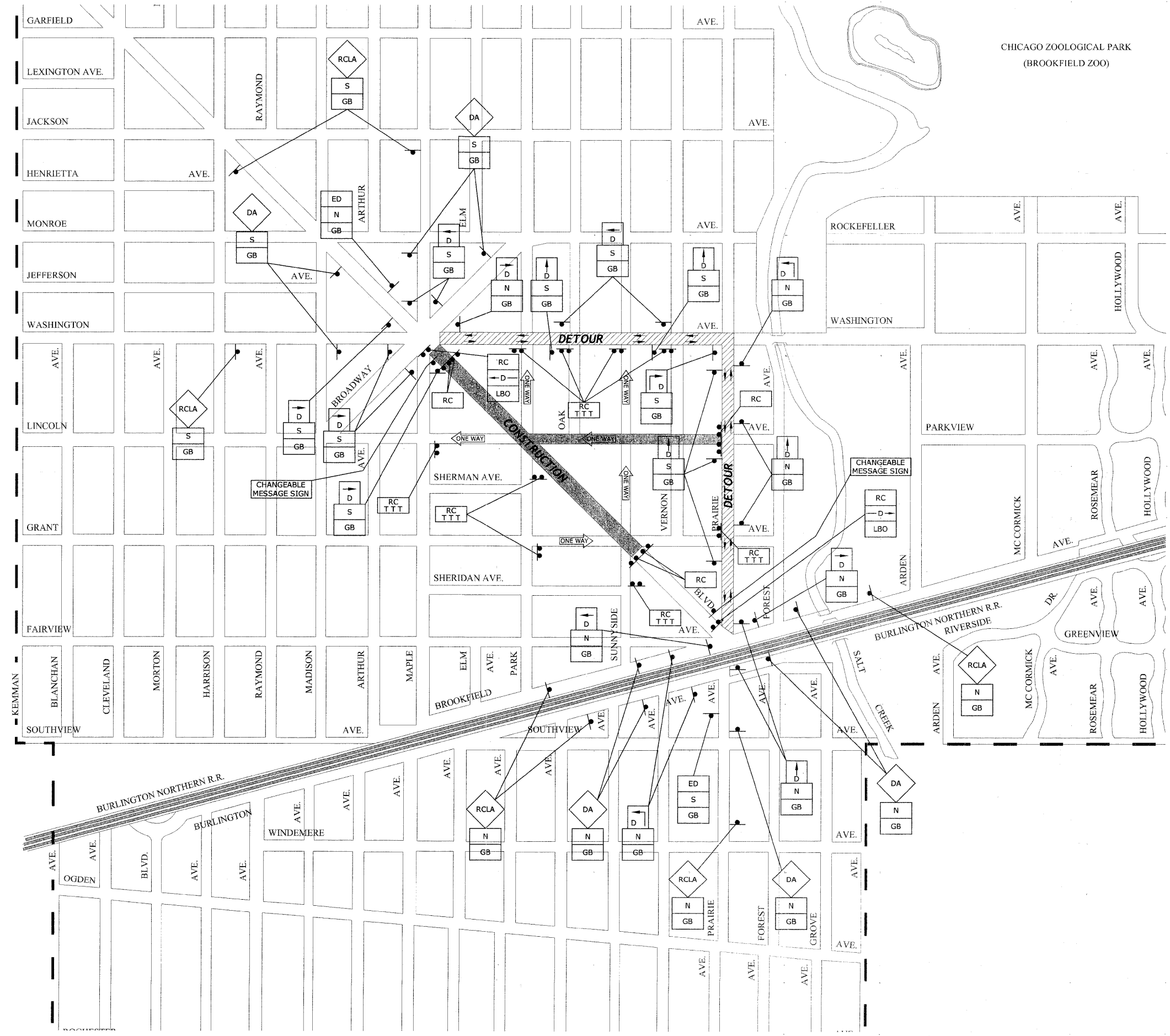


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	9
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**NOTES:**

1. ANY LOCAL DETOURS SHALL BE APPROVED BY THE VILLAGE AT LEAST 48 HOURS PRIOR TO INSTALLATION.
2. THE TWO CHANGEABLE MESSAGE SIGNS ARE TO BE ON SITE AND FUNCTIONING FOR 1 WEEK PRIOR TO GRAND BLVD. BEING CLOSED.



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Maintenance of Traffic.dwg Jun 08, 2009 - 9:46am

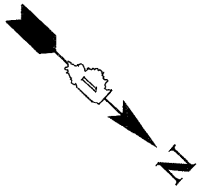
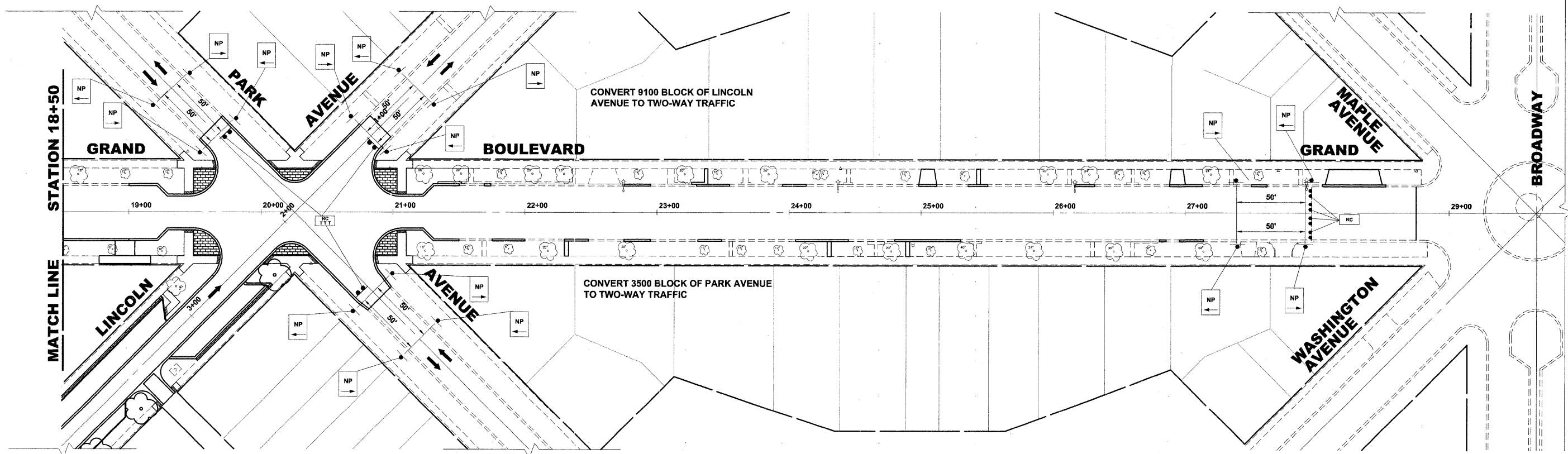
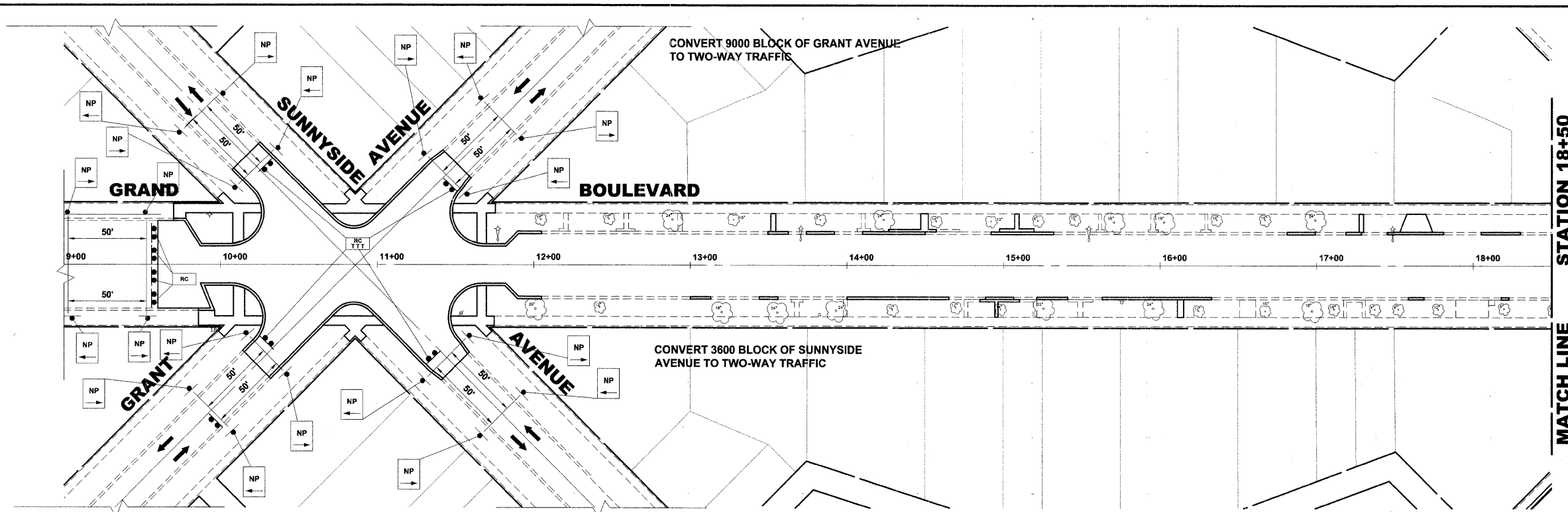
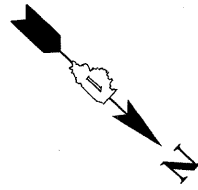
REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 933 Koenigs Road, Wheeling, Illinois 60427-2700, Phone: 708-955-6300, Fax: 708-955-1212

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS MAINTENANCE OF TRAFFIC DETOUR FOR THROUGH TRAFFIC SIGNING PLAN**

DRAWN BY: LEVCEW/MK  
 CHECKED BY: JCG  
 SCALE: NOT TO SCALE  
 DATE: 01-09-09  
 E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	10
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Scale.dwg Jan 09, 2009 - 9:50am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers  
 ♦ Municipal Consultants  
 ♦ Established 1911

9903 Rosemead Road  
 Westchester, Illinois 60154-2700  
 Phone: 708/666-0300  
 Fax: 708/666-1212

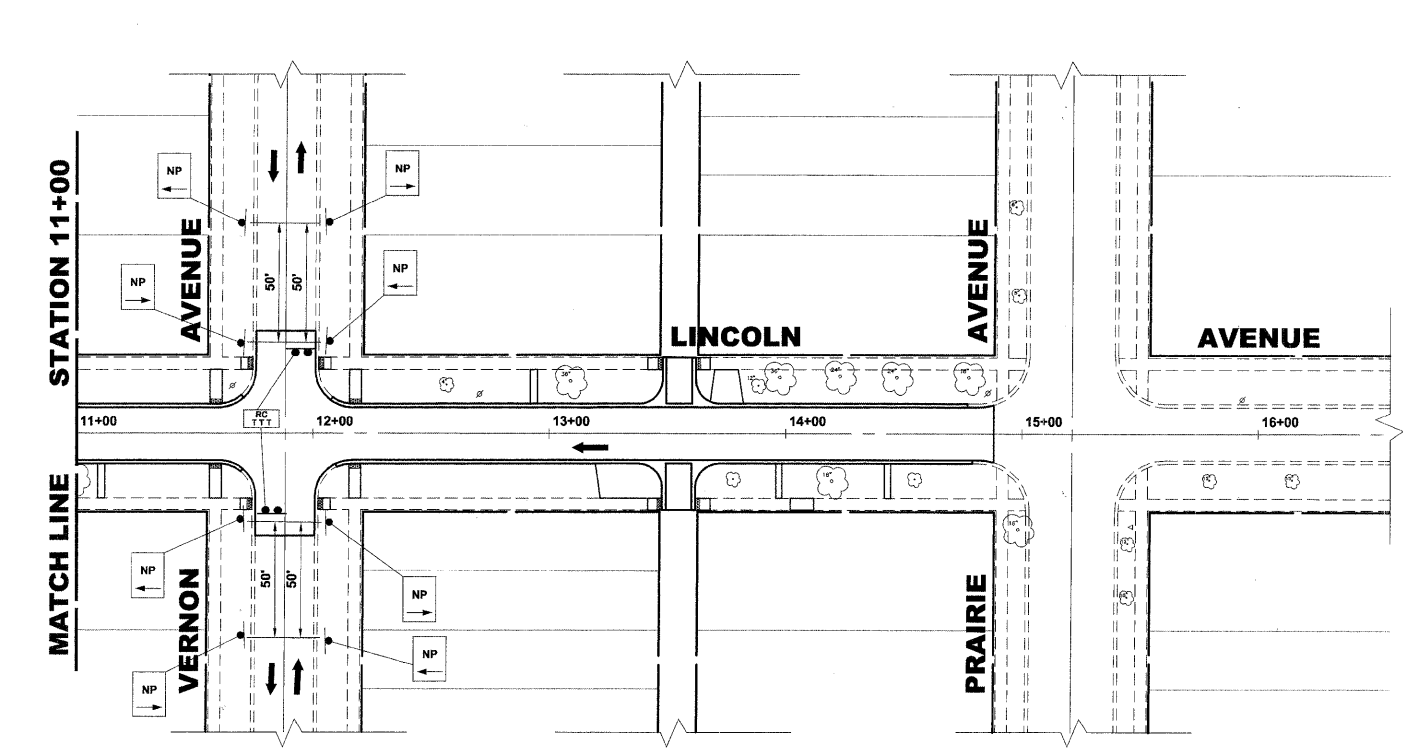
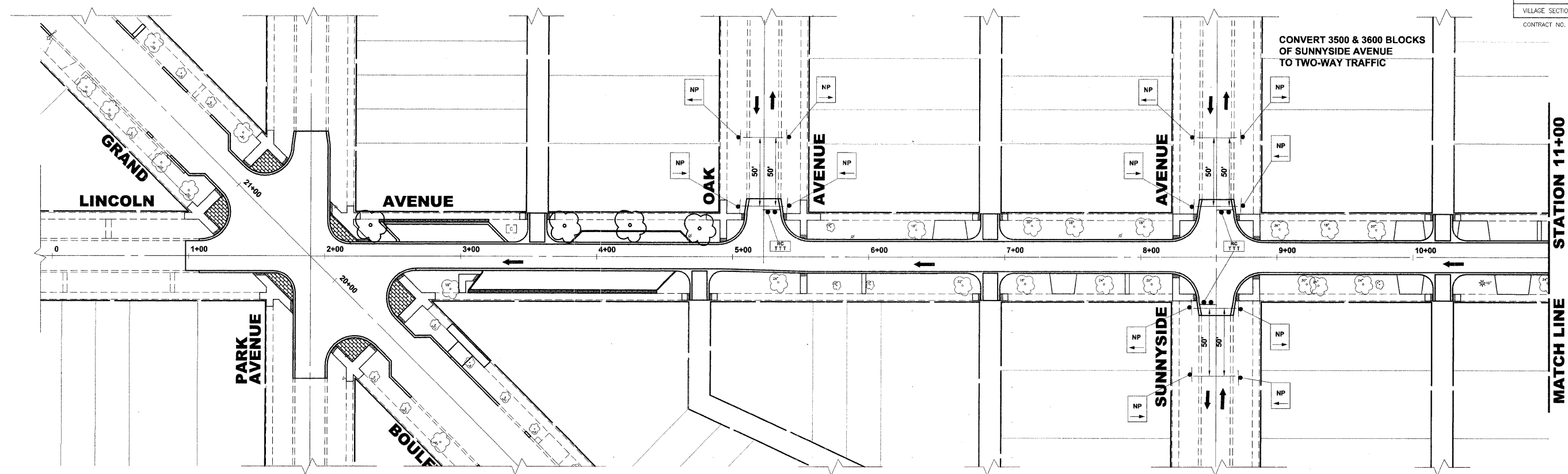
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 MAINTENANCE OF TRAFFIC  
 LOCAL ACCESS  
 SIGNING PLAN**

DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09

SCALE: 1" = 40'

E.H.E. PROJECT NO.: 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1684	07-00122-00-PV	COOK	55	11
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**PROJECT STAGING AND LOCAL ACCESS**

1. ONCE WORK HAS BEGUN ON THE STORM SEWER ON LINCOLN AVENUE, LINCOLN AVENUE WILL BE CLOSED TO THROUGH TRAFFIC FROM PRAIRIE AVENUE TO GRAND BOULEVARD.
2. ONCE WORK HAS BEGUN ON THE STORM SEWER ON GRAND BOULEVARD, GRAND BOULEVARD WILL BE CLOSED TO THROUGH TRAFFIC FROM GRANT AVENUE TO VETERAN'S CIRCLE.
3. THE PAVEMENT ON THE SOUTH SIDE OF LINCOLN AVENUE WILL BE LEFT IN PLACE WHILE THE STORM SEWER AND CONCRETE ITEMS ARE INSTALLED TO PROVIDE A HARD SURFACE FOR LOCAL ACCESS. ONLY THE NORTH HALF OF THE PAVEMENT ON LINCOLN AVENUE WILL BE REMOVED WHILE THE STORM SEWER IS BEING INSTALLED. THE PAVEMENT WILL BE SAW-CUT ALONG THE CENTER-LINE AND AT ALL INTERSECTIONS TO ALLOW FOR THE NEAT REMOVAL OF THE EXISTING PAVEMENT. THE PAVEMENT SHALL ALSO BE SAW-CUT AND NEATLY REMOVED FOR ALL TRENCHES THAT CROSS THE SOUTH HALF OF THE PAVEMENT.
4. THE EXCAVATION FOR THE PROPOSED PAVEMENT ON LINCOLN AVENUE SHALL BEGIN AFTER THE INSTALLATION OF THE PROPOSED CONCRETE CURB AND GUTTER, SIDEWALK, AND DRIVEWAY APRONS.
5. ACCESS MUST BE MAINTAINED AT ALL TIMES TO AT LEAST ONE OF THE FOLLOWING PARKING LOCATIONS FOR THE PUBLIC LIBRARY.
  - A. DIAGONAL PARKING ON THE SOUTH SIDE OF LINCOLN AVENUE.
  - B. PARALLEL PARKING ALONG THE LIBRARY FRONTAGE ON THE EAST SIDE OF GRAND BOULEVARD.
6. WHILE THE STORM SEWER AND CONCRETE WORK IS BEING PERFORMED, ON-STREET PARKING WILL BE ALLOWED ON THE EAST SIDE OF GRAND BOULEVARD AND 2 THROUGH LANES WILL BE MAINTAINED TO PERMIT LOCAL ACCESS DURING NON-WORKING HOURS.
7. THE TRENCHES FOR THE STORM SEWER LATERALS SHALL BE BACKFILLED TO THE TOP OF THE EXISTING PAVEMENT TO PROVIDE LOCAL ACCESS.
8. THE TRENCH BACKFILL FOR THE PROPOSED STORM SEWER ON THE WEST SIDE OF GRAND BOULEVARD WILL EXTEND TO THE TOP OF THE EXISTING SUBGRADE. TEMPORARY STONE RAMPS SHALL BE PROVIDED TO ALL DRIVEWAYS ON THE WEST SIDE OF GRAND BOULEVARD.
9. THE 3500 BLOCK OF PARK, THE 3500 & 3600 BLOCK OF SUNNYSIDE, THE 9000 BLOCK OF GRANT, AND THE 9100 BLOCK OF LINCOLN TO BE CONVERTED TO TWO-WAY TRAFFIC.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BAGGING ALL REGULATORY SIGNS THAT ARE NOT APPLICABLE DURING CONSTRUCTION.

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9313 Roosevelt Road  
Woodstock, Illinois 60093-2786  
Phone: 708/665-0300  
Fax: 708/665-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**MAINTENANCE OF TRAFFIC**  
**LOCAL ACCESS**  
**SIGNING PLAN**

DRAWN BY: LEVCEW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

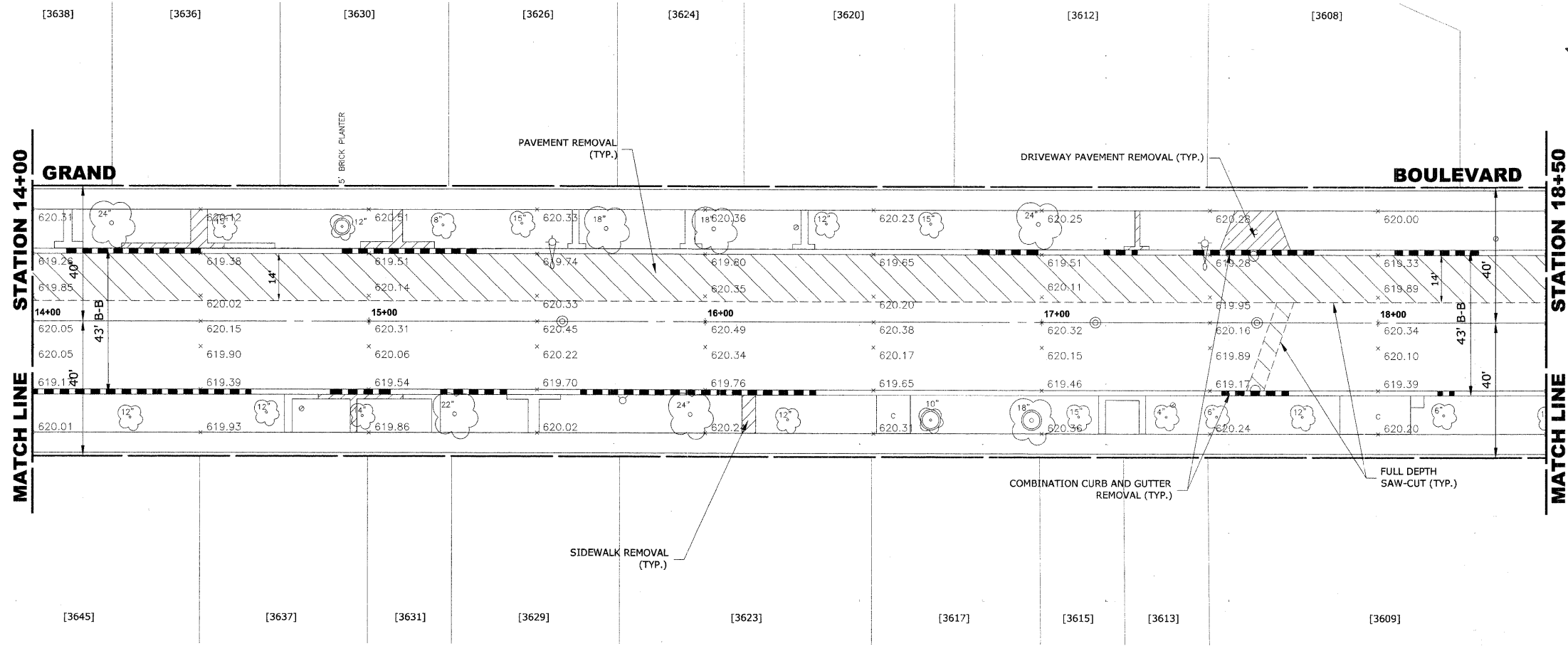
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E.H.E. PROJECT NO. : 125-08-13501

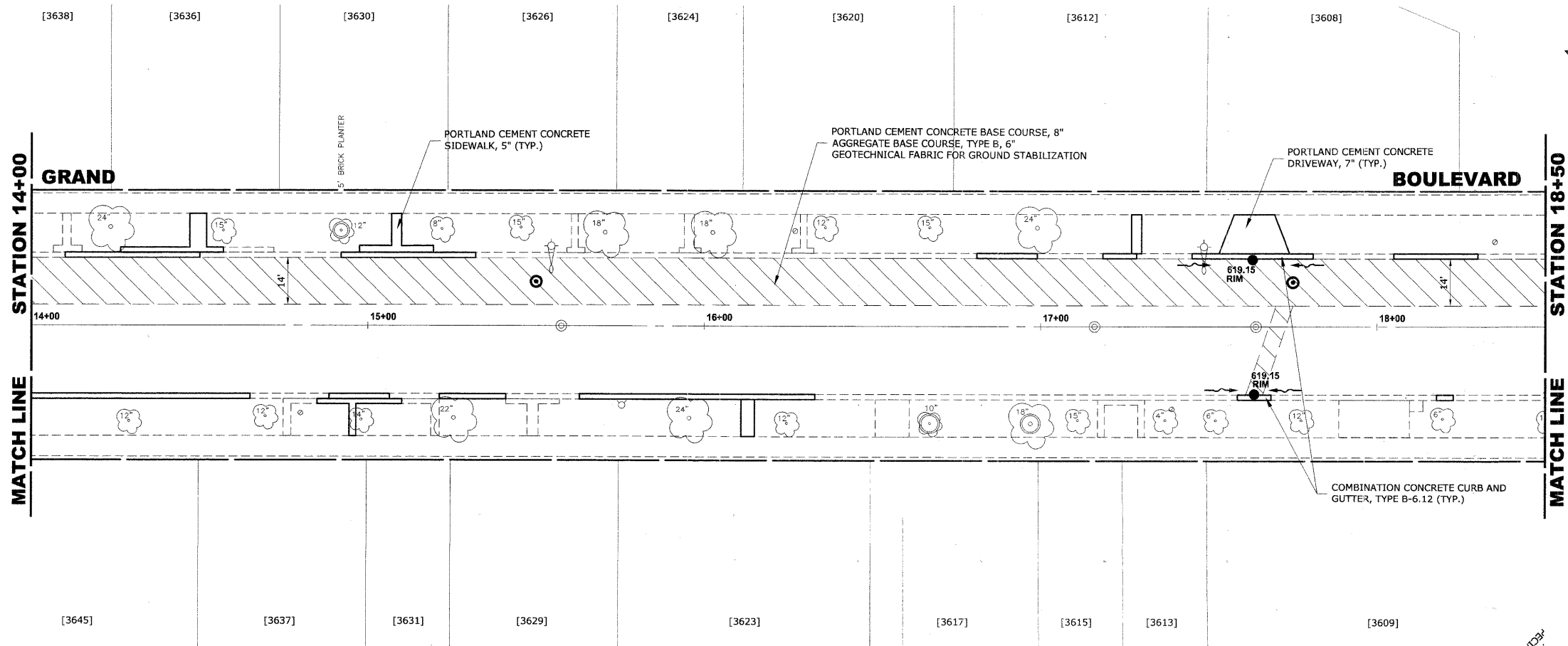
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	13
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

953 Riverside Road  
Waukegan, Illinois 60094-2700  
Phone: 815-466-0900  
Fax: 815-466-1212

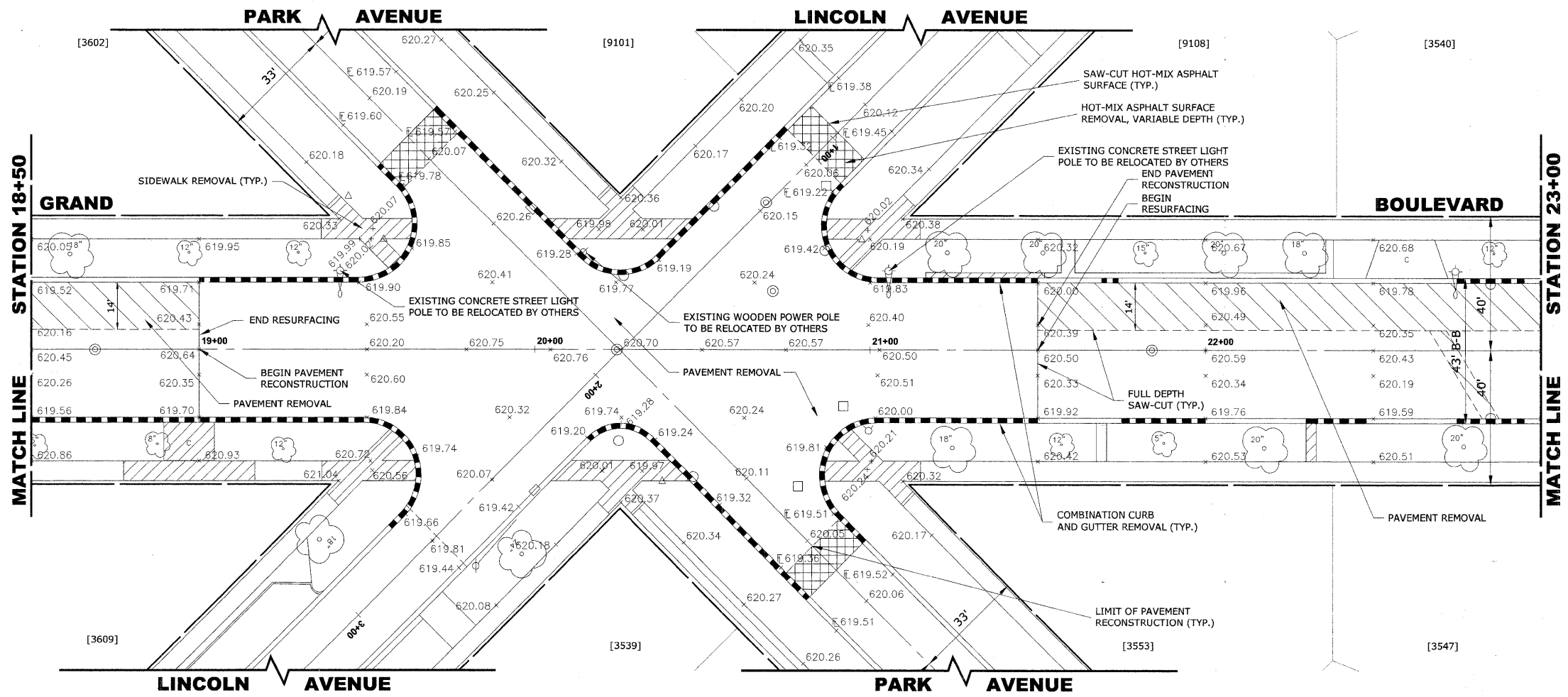
**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
GRAND BOULEVARD  
PAVING PLAN**

REVISION:	

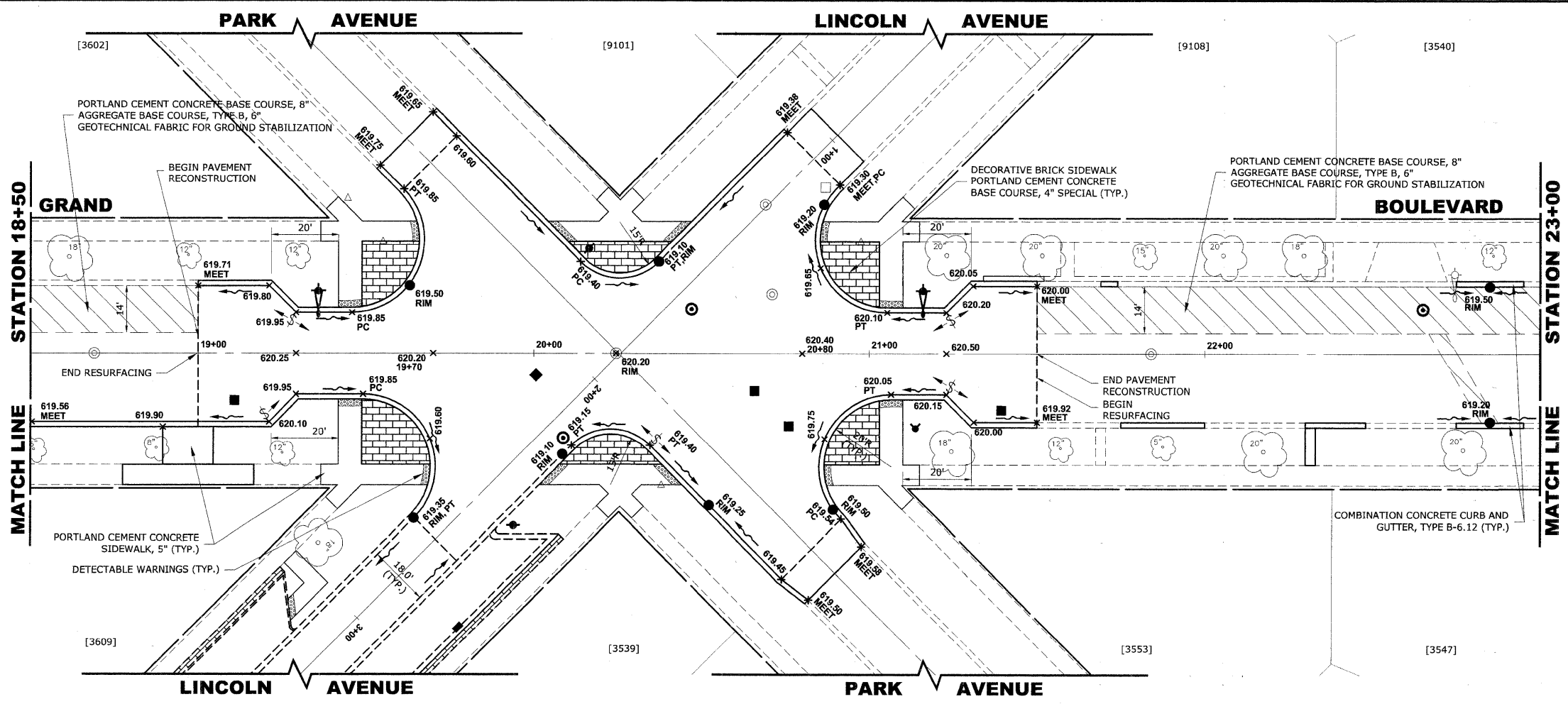
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CHECKED BY: JCG  
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	14
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**

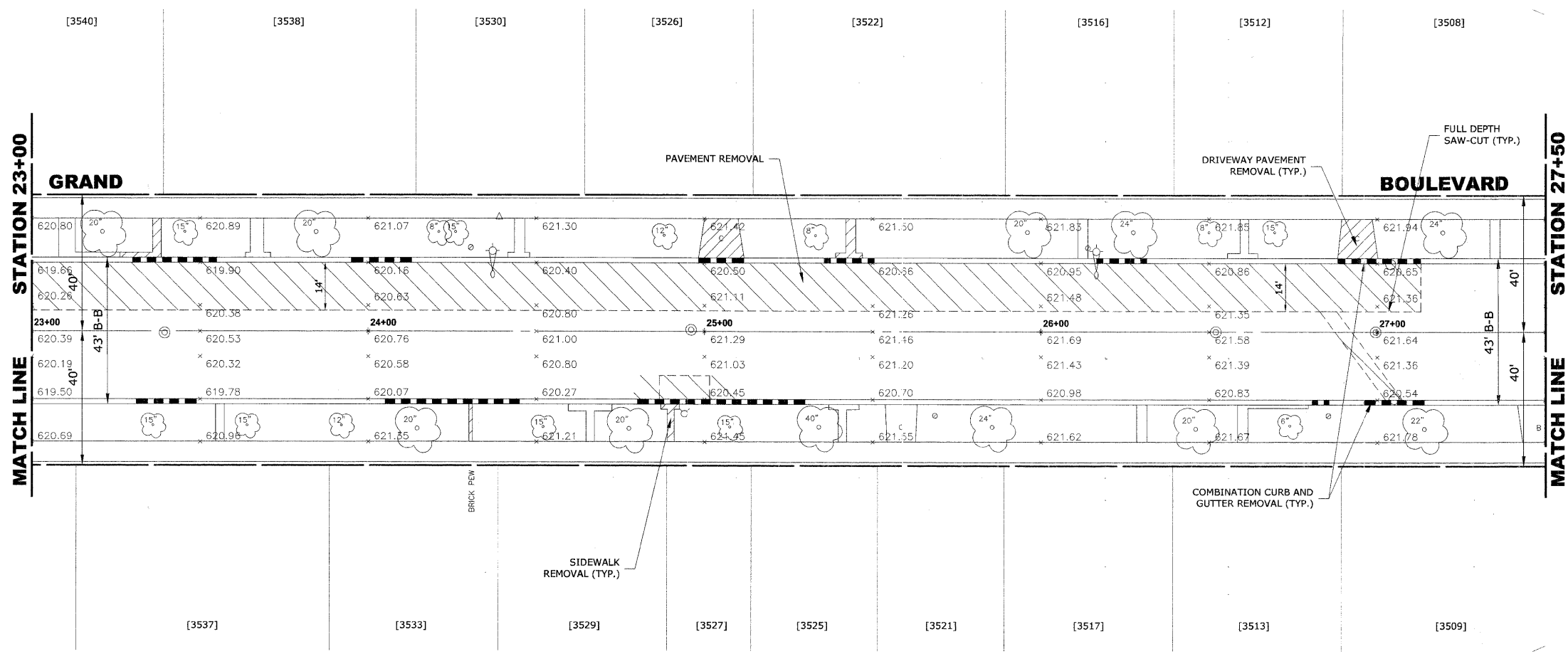


**PROPOSED IMPROVEMENTS**

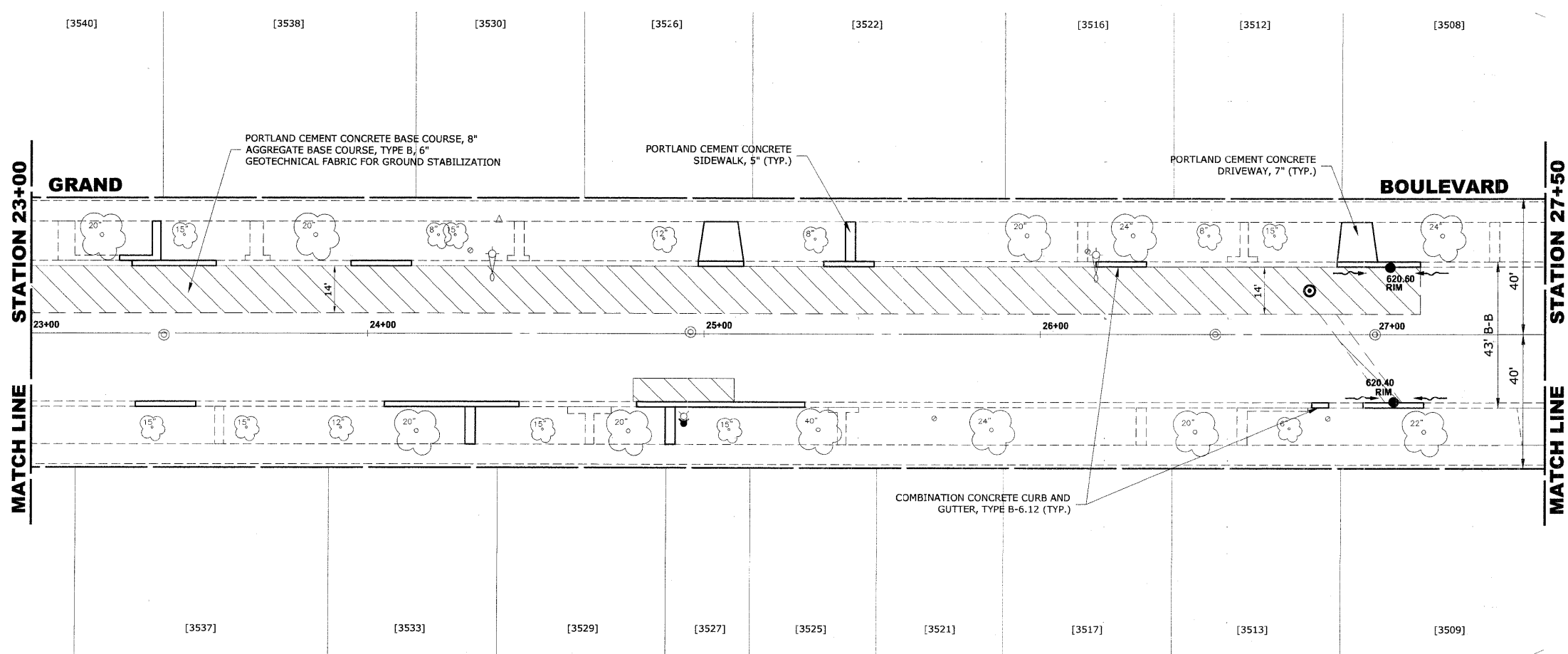
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	<b>BROOKFIELD GRAND BOULEVARD IMPROVEMENTS GRAND BOULEVARD PAVING PLAN</b>											
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REVISION:												
DRAWN BY: LEVIEC/WMK CHECKED BY: JCG DATE: 01-09-09		SCALE: 1" = 20' E.H.E. PROJECT NO.: 125-08-13501										

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd\Grand Blvd.dwg    Jan 29, 2009 - 11:55am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	15
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9333 Roosevelt Road  
Woodstock, Illinois 60093-2700  
Phone: 708.965-0300  
Fax: 708.965-1212

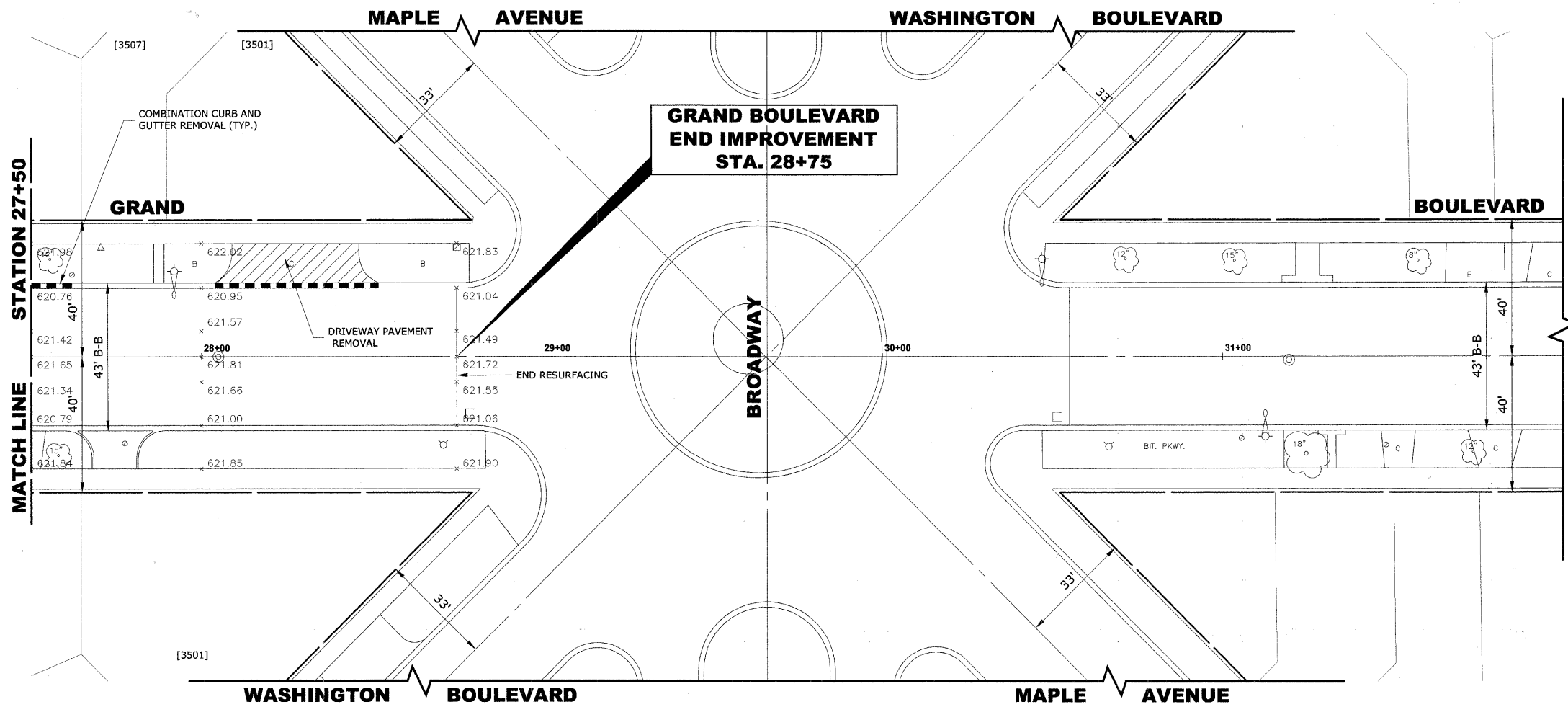
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GRAND BOULEVARD IMPROVEMENTS  
GRAND BOULEVARD  
PAVING PLAN**

REVISION:	

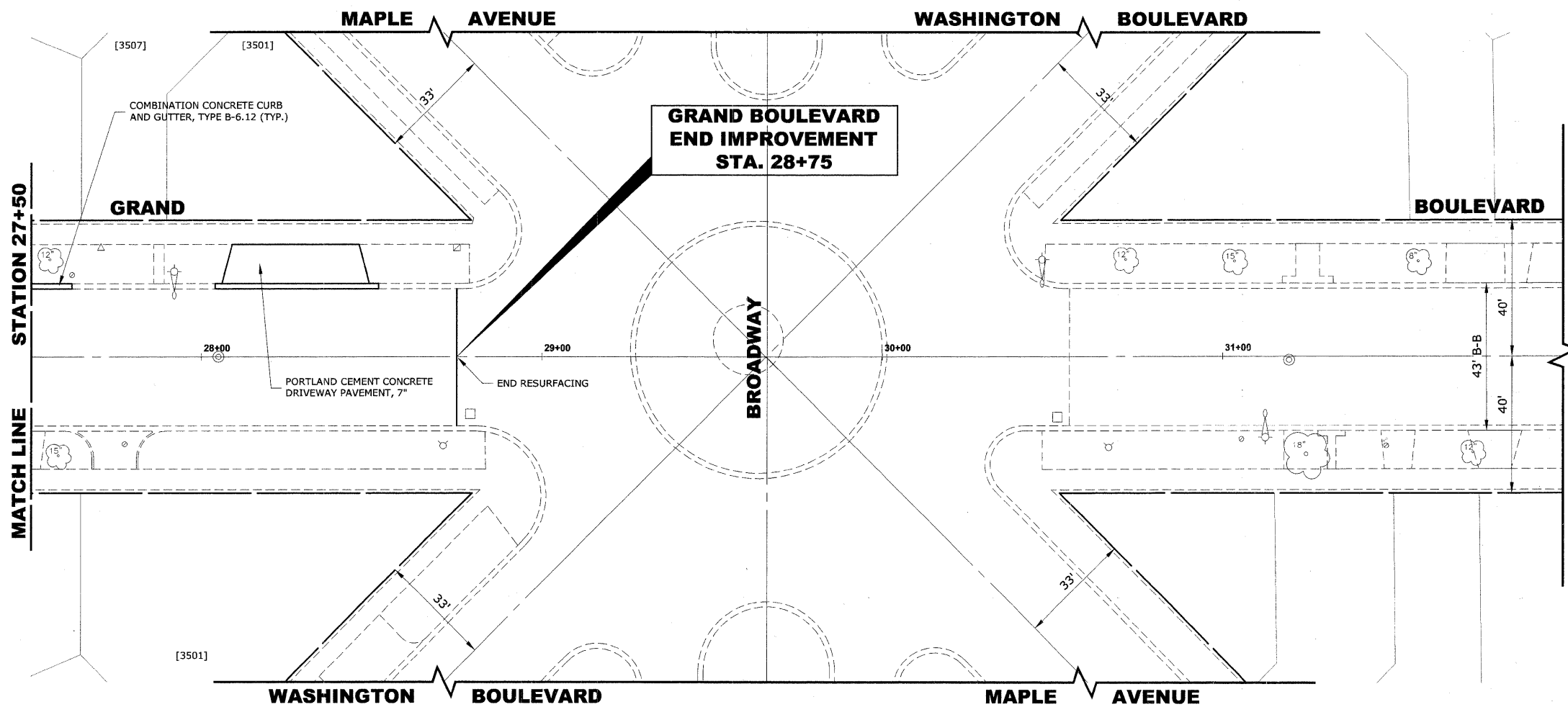
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	16
ILLINOIS PROJECT		M-9003 (125)		
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants  
 901 Riverside Blvd. Westchester, Illinois 60591-2780  
 Phone: 708.945.4300 Fax: 708.945.1212

**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 GRAND BOULEVARD  
 PAVING PLAN**

REVISION:	

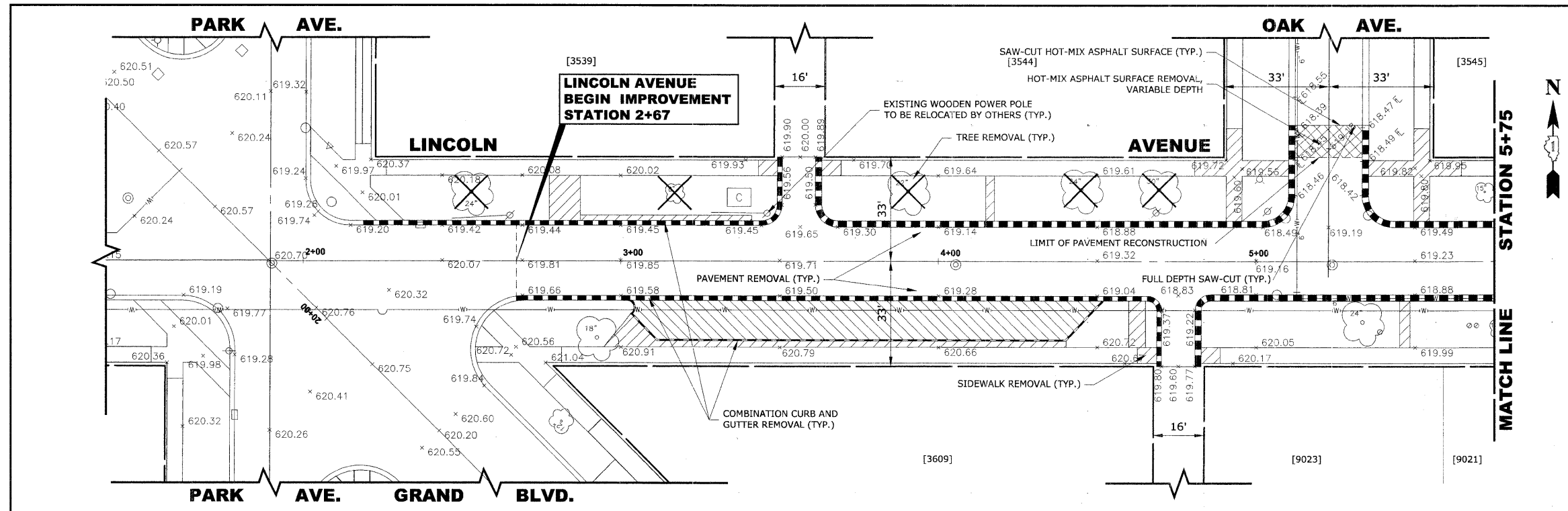
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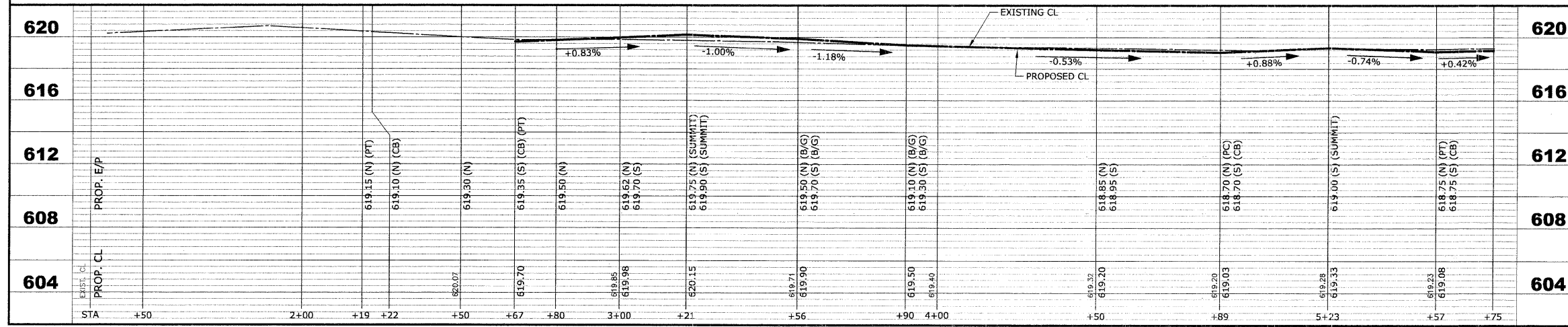
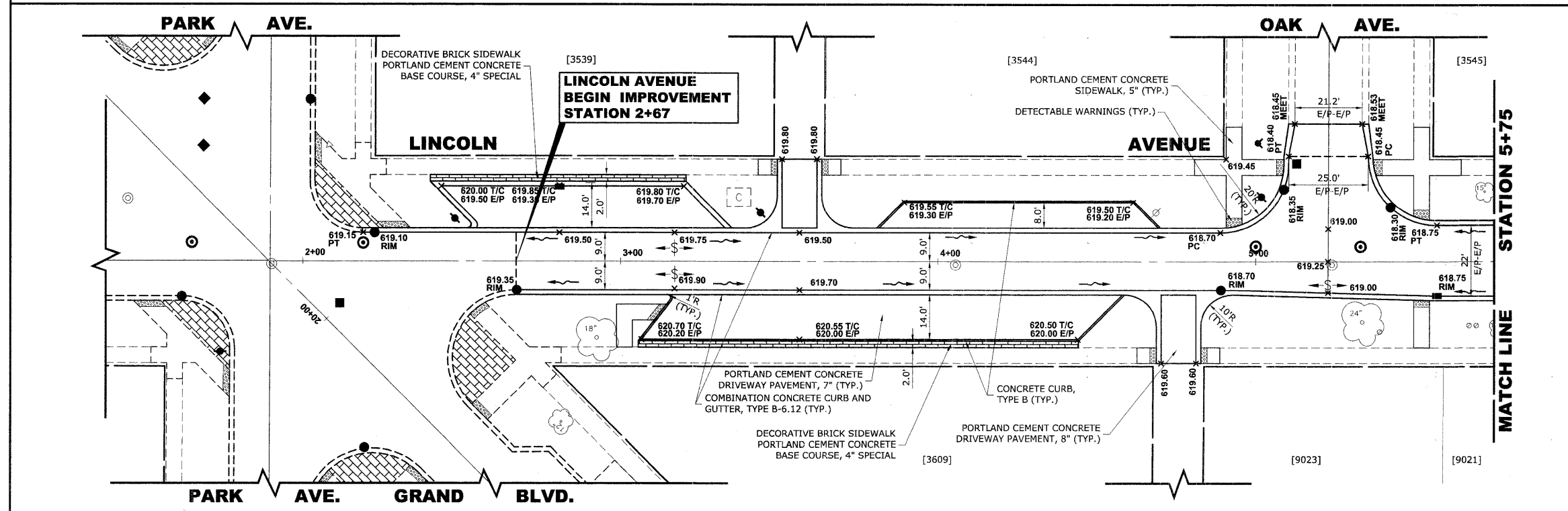
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	17
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

913 Riverside Road  
Westbrook, CT 06095-2706  
Phone: 783-565-4300  
Fax: 783-565-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**LINCOLN AVENUE**  
**PAVING PLAN AND PROFILE**

REVISION:

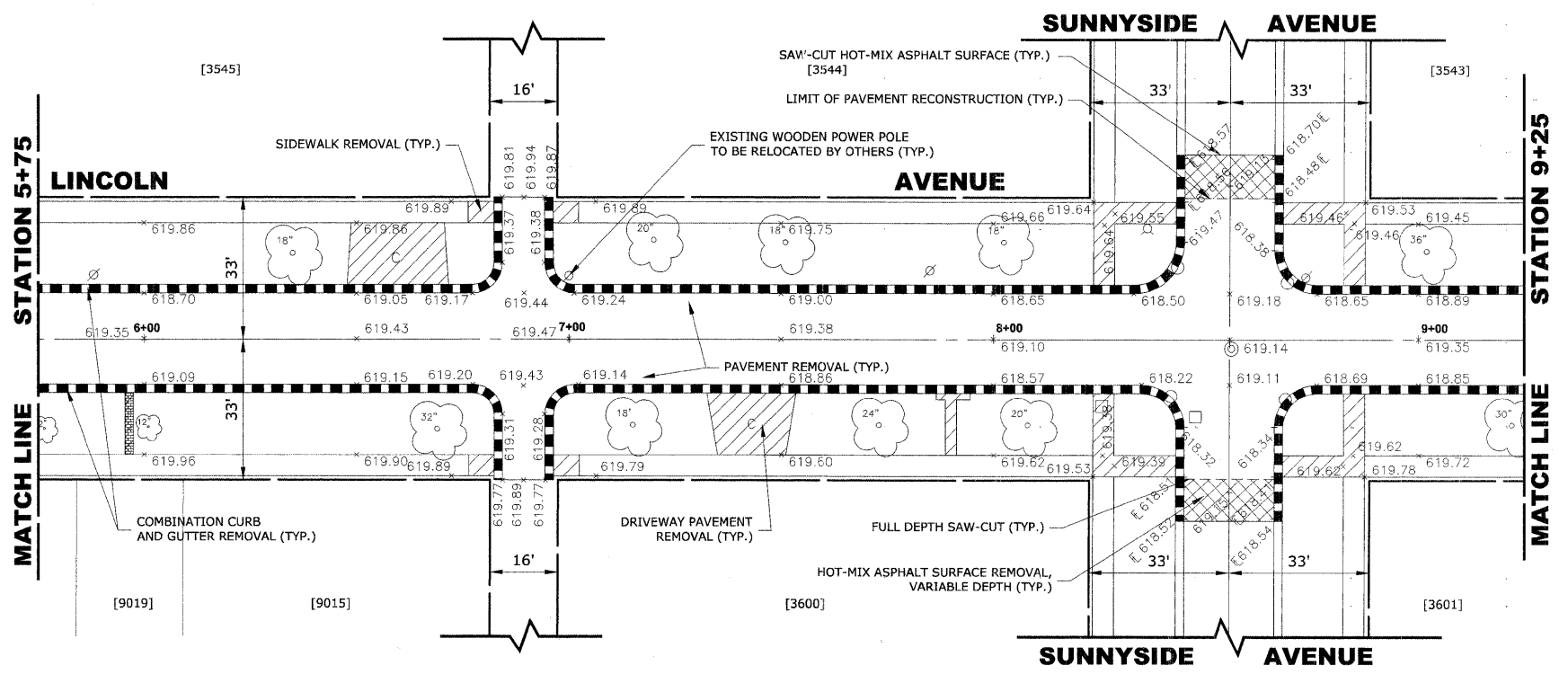
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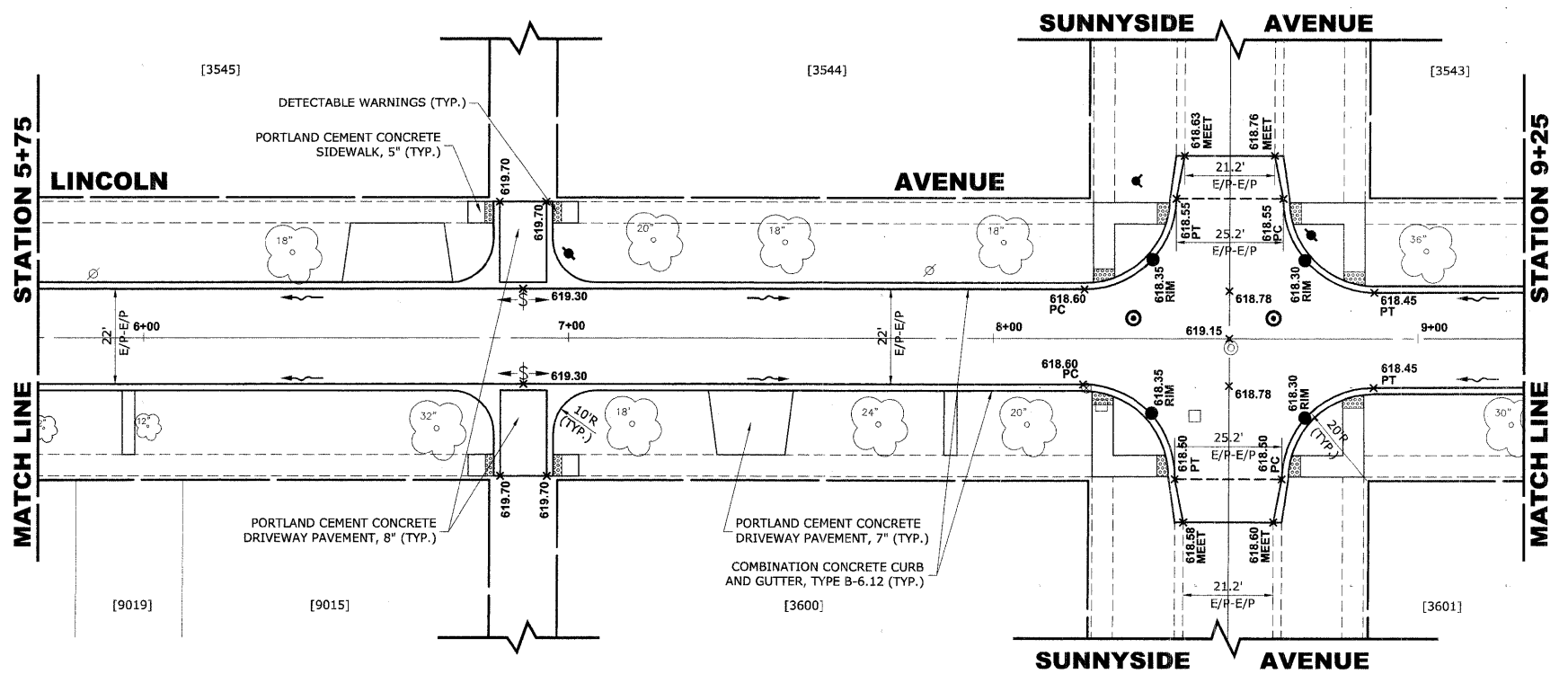
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	18
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

STA	PROP. CL	PROP. E/P	EXIST. CL	EXIST. E/P
620				
616				
612				
608				
604				

STA	PROP. CL	PROP. E/P
+75	619.35	619.26
+50	619.43	619.47
+89	619.63	619.30 (N) (SUMMIT) 619.30 (S) (SUMMIT)
+74.50	619.38	618.99 (N) 618.99 (S)
+8+00	619.05	618.72 (N) 618.72 (S)
+22	618.93	618.60 (N) (PC) 618.60 (S) (PC)
+56	619.14	618.78 (N) 618.78 (S)
+90	618.78	618.45 (N) (PT) 618.45 (S) (PT)

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Established 1911  
 ♦ Municipal Consultants  
 933 Riverside Road  
 Wheeling, Illinois 60094-2788  
 Phone: 708.945-4180  
 Fax: 708.945-1212

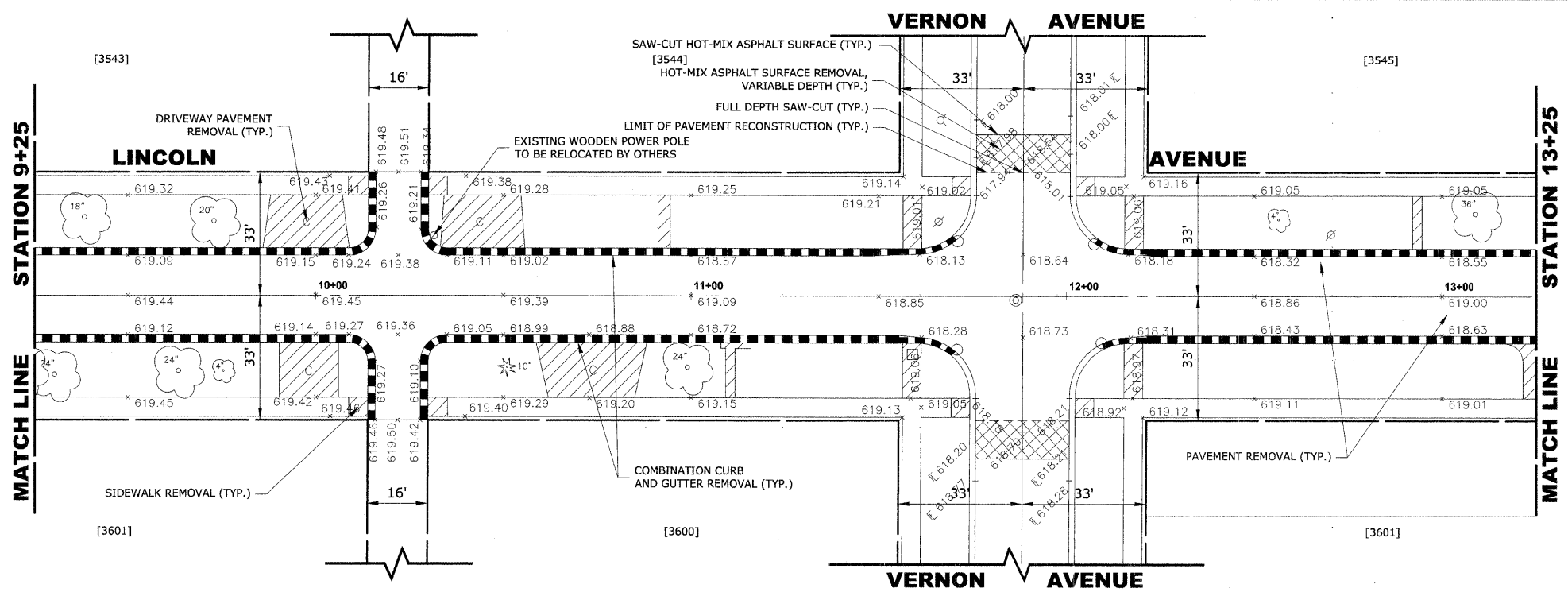
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**LINCOLN AVENUE**  
**PAVING PLAN & PROFILE**

REVISION:

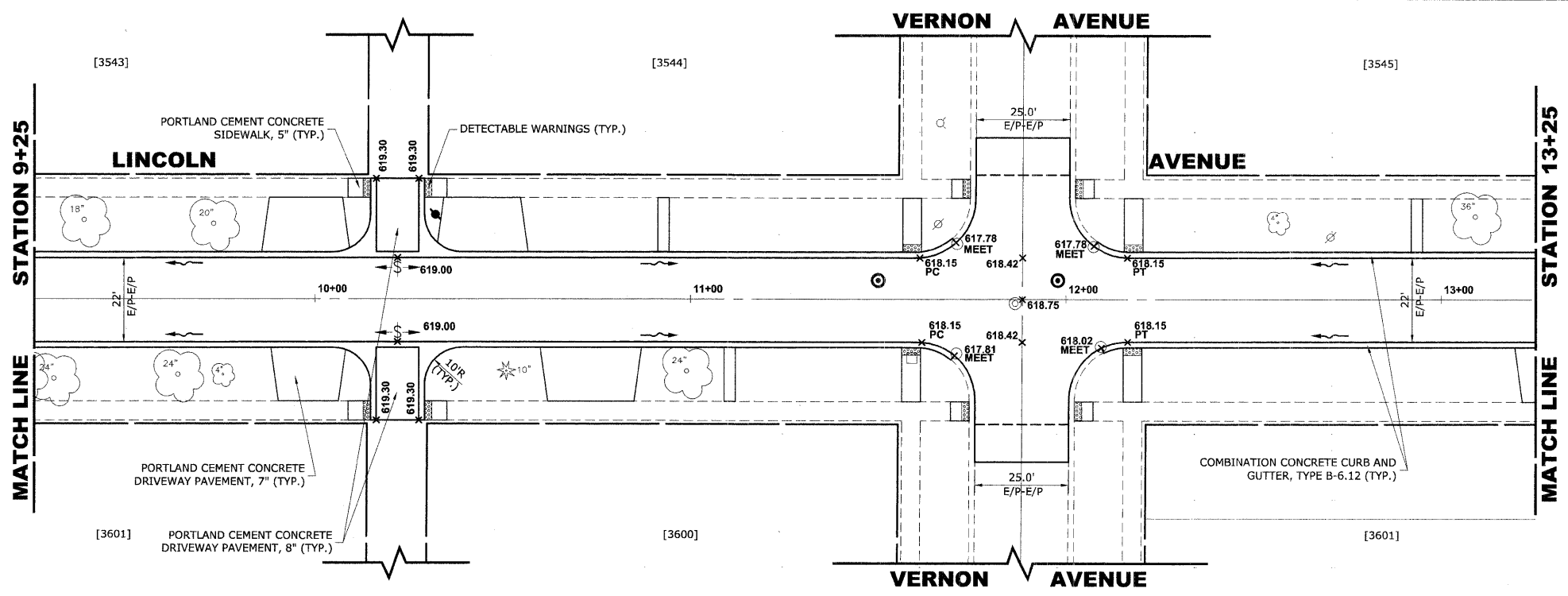

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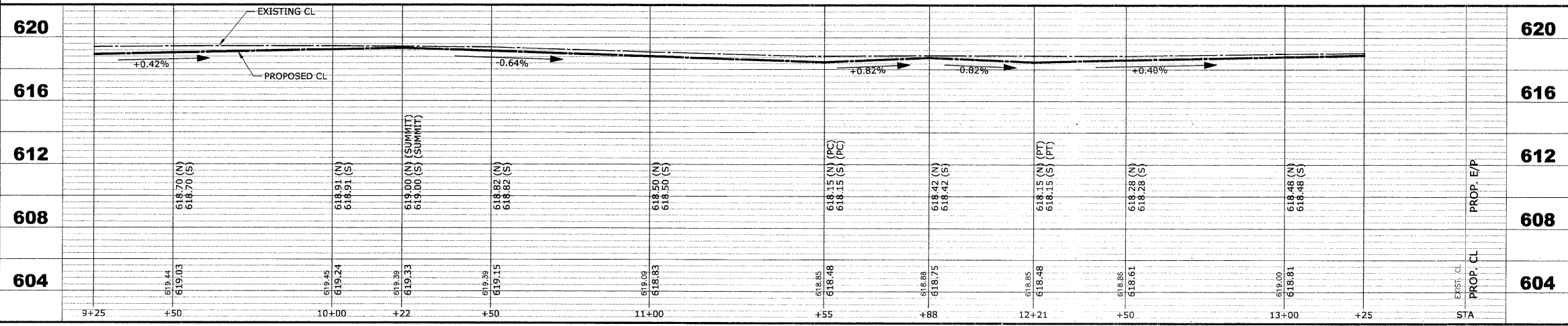
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FAU 1694	07-00122-00-PV	COOK	55	19
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**



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 Established 1911

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**LINCOLN AVENUE**  
**PAVING PLAN AND PROFILE**

REVISION:

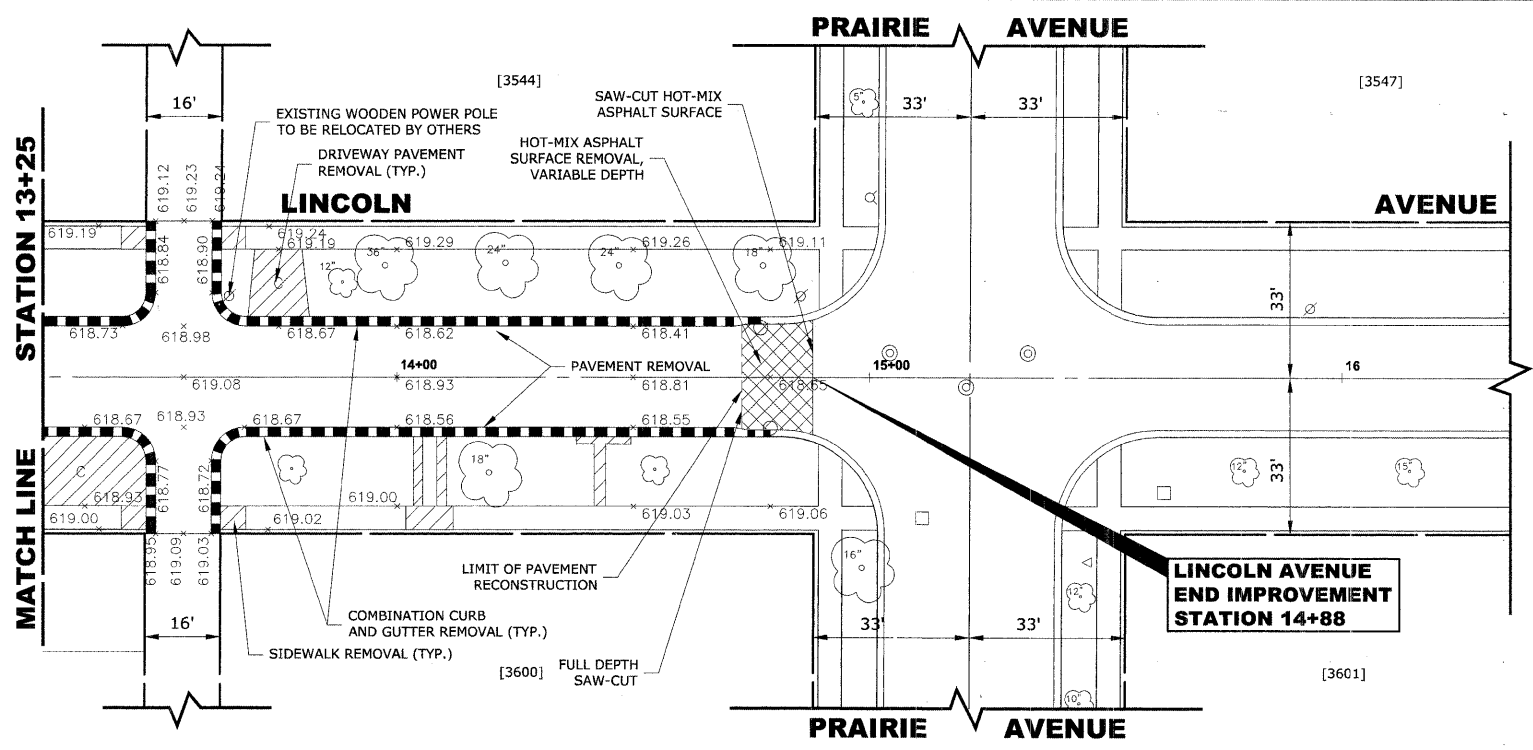
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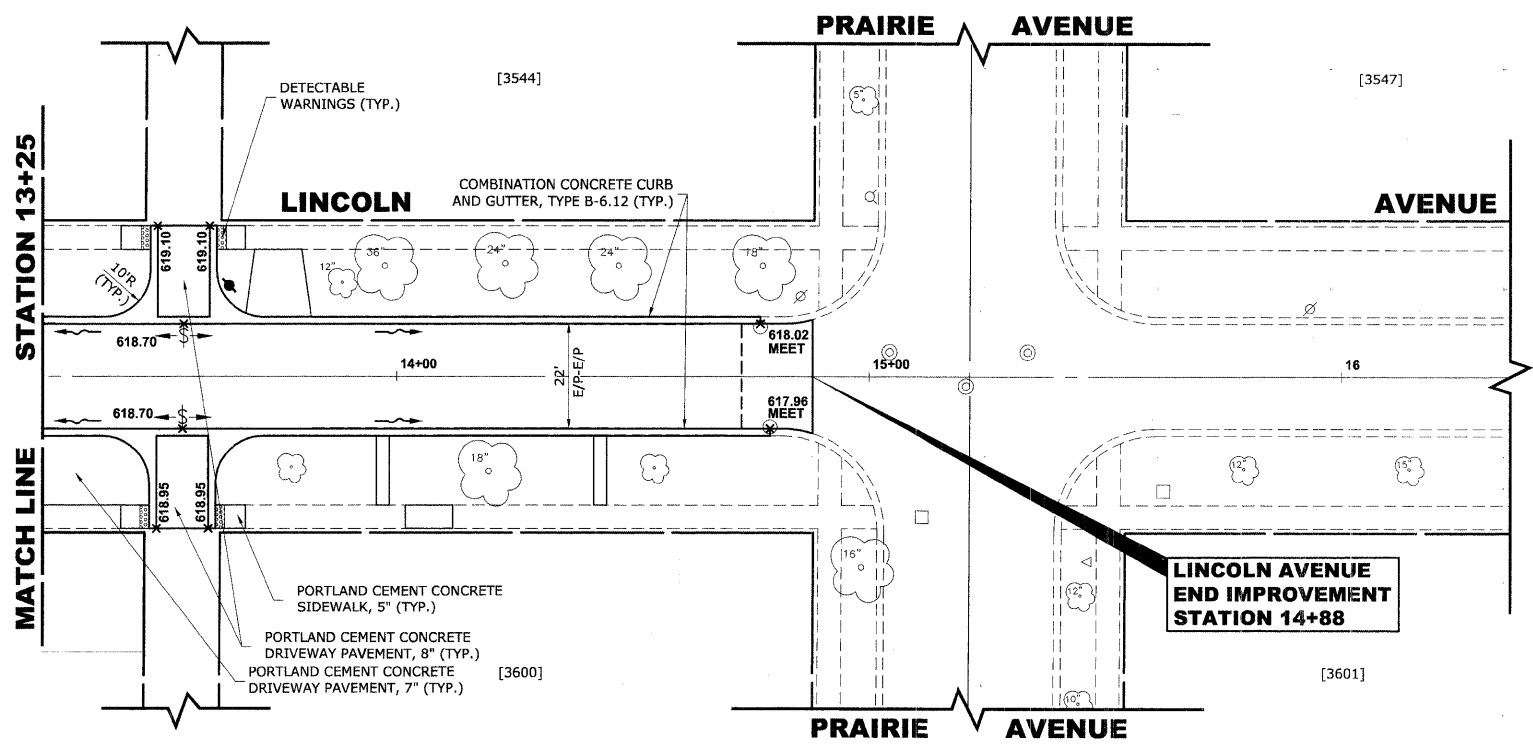
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	20
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**EXISTING TOPOGRAPHY**



**PROPOSED IMPROVEMENTS**

STA	EXIST. CL	PROP. CL	PROP. E/P
620			620
616			616
612			612
608			608
604			604

STA	EXIST. CL	PROP. CL	PROP. E/P
+25	619.08	618.70 (N) (SUMMIT) 618.70 (S) (SUMMIT)	
+55	618.93	618.45 (N) 618.78	
14+00	618.81	618.17 (N) 618.17 (S)	
+50	618.75	618.02 (N) MEET 617.96 (S) MEET	
+78			
15+00			
+50			
16+00			

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

1913 Roosevelt Road  
Woodstock, Illinois 60154-2700  
Phone: 708.565-6100  
Fax: 708.565-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**LINCOLN AVENUE**  
**PAVING PLAN AND PROFILE**

DRAWN BY: LEVECWMK  
CHECKED BY: JCG  
DATE: 01-09-09

SCALE: 1"=20'H. & 1"=4'V.

E.H.E. PROJECT NO. : 125-08-13501

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	21
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

### GENERAL NOTES

**DEPRESSED CURBS** - THE TOP OF CURBS SHALL BE DEPRESSED WHERE THE CURB AND GUTTER IS CONSTRUCTED AT HANDICAP ACCESSIBLE SIDEWALK RAMP AT ALLEY RETURNS AND STREET INTERSECTIONS, AND FOR PRIVATE DRIVES AND AS DIRECTED BY THE ENGINEER

**DRAINAGE OPENINGS** - AT ALL LOCATIONS WHERE CASTINGS ARE TO BE INCORPORATED IN THE CURB AND GUTTER, A 3/4" EXPANSION JOINT SHALL BE INSTALLED IN THE CURB AND GUTTER A DISTANCE OF 5 FT. FROM EACH SIDE OF THE CASTING. 2-NO. 4 RE-BARS, 9' IN LENGTH, SHALL BE INCORPORATED IN THE CONTINUOUS PORTION OF CONCRETE CURB BEHIND THE CASTING.

**SLIPFORM CONSTRUCTION** - VERTICAL FACES MAY BE BATTERED AT THE RATE OF 3/4" PER FOOT OF HEIGHT TO AID IN SLIPFORM OPERATIONS.

**DEPRESSED CURB HEIGHT** - THE HEIGHT OF THE DEPRESSED CURB SHALL BE 1-1/2" AT DRIVEWAYS. SEE IDOT STANDARD 424001-04 FOR HEIGHT AT SIDEWALK RAMP.

**BITUMINOUS EXPANSION JOINTS**- THREE QUARTER INCH (3/4") BITUMINOUS PREMOLDED INORGANIC FIBER EXPANSION JOINTS SHALL BE INSTALLED WHERE NEW SIDEWALK OR CURB AND GUTTER OR DRIVEWAY PAVEMENT ABUTS AN EXISTING CONCRETE WALK, DRIVE, OR CURB WHICH IS TO REMAIN IN PLACE, AND AT NOT LESS THAN NINETY FOOT (90') INTERVALS AT LOCATIONS WHERE CURB REPLACEMENT IS IN EXCESS OF NINETY FEET (90'); AT RADIUS POINTS, AT BOTH SIDES OF FRAMES AND GRATES WHICH FALL IN THE CURB; AND AS DIRECTED BY THE ENGINEER.

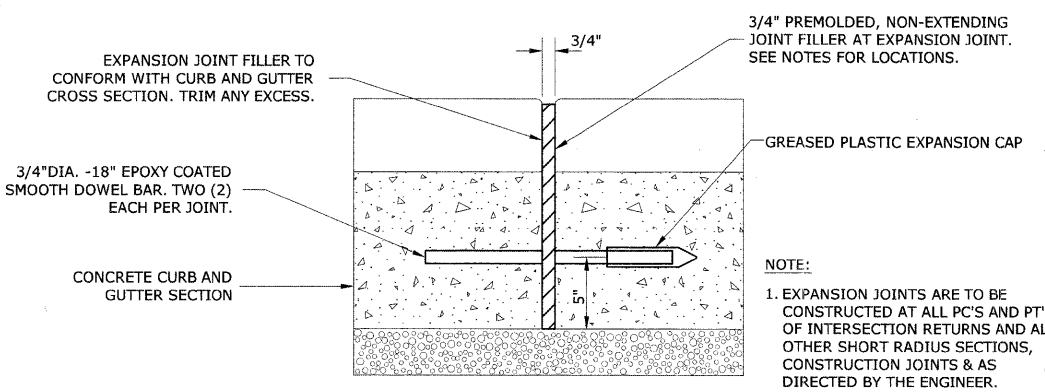
ALL EXPANSION JOINTS LOCATED IN THE CURB AND GUTTER SHALL HAVE TWO (2) THREE QUARTER INCH (3/4") DIAMETER, SMOOTH, ROUND, EPOXY COATED DOWEL BARS, EIGHTEEN INCHES (18") IN LENGTH, WITH GREASED PLASTIC END CAPS INSERTED TO ALLOW THE CURB AND GUTTER TO EXPAND AND CONTRACT LATERALLY. CONTRACTION JOINTS SHALL BE TOOLED INTO THE CURB AND GUTTER AT INTERVALS NOT TO EXCEED FIFTEEN FEET (15'). THESE CONTRACTION JOINTS SHALL BE SAW CUT TO A DEPTH OF TWO INCHES (2") WITHIN TWENTY-FOUR (24) HOURS OF CONCRETE PLACEMENT. THE COST OF THE ABOVE WORK SHALL BE INCLUDED INT THE RESPECTIVE ITEMS FOR CONCRETE INSTALLATION.

### CURB AND GUTTER REMOVAL

THE COSTS FOR REMOVAL OF ANY ASPHALT OVERLAY THAT EXTENDS INTO THE GUTTER PORTION OF THE CURB AND GUTTER WILL BE INCLUDED IN THE PRICE FOR COMBINATION CURB AND GUTTER REMOVAL.

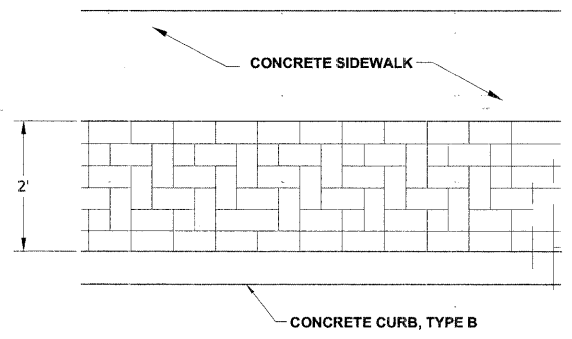
### UNDERCUT AND POROUS GRANULAR EMBANKMENT (PGE)

A QUANTITY OF POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES), HAS BEEN PROVIDED FOR USE IF THE EXISTING SOILS ARE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHALL BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOIL SHALL BE REMOVED AND REPLACED WITH PGES AS DETERMINED BY THE ENGINEER. IF UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY OF PGES WILL REMAIN UNUSED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR. THE 3-INCH CAPPING AGGREGATE (CA-6 GRADATION) WILL NOT BE REQUIRED SINCE GRANULAR SUBBASE WILL BE PLACED ON TOP OF THE PGE.

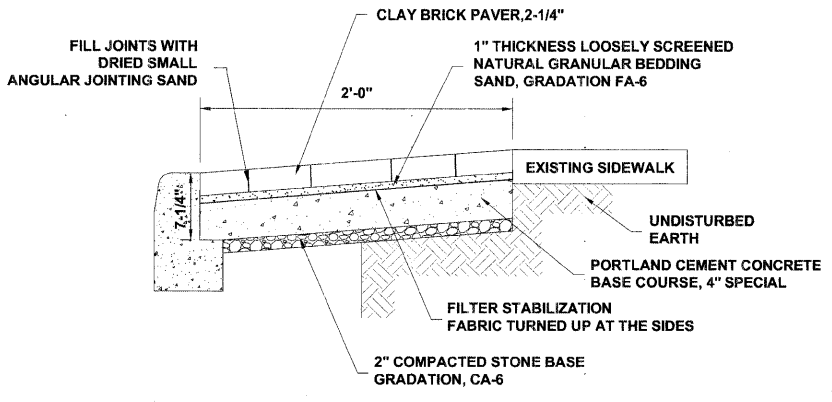


**TYPICAL CURB AND GUTTER EXPANSION JOINT**

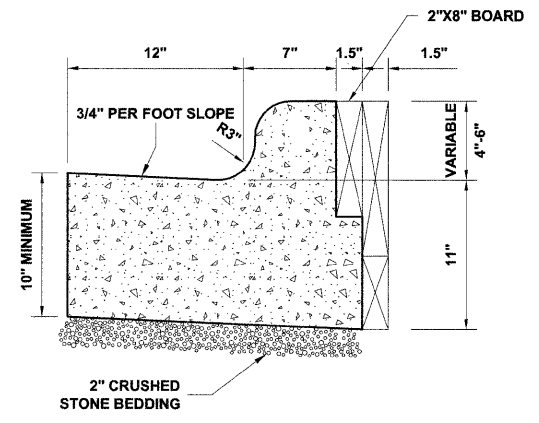
**NOTE:**  
1. EXPANSION JOINTS ARE TO BE CONSTRUCTED AT ALL PC'S AND PT'S OF INTERSECTION RETURNS AND ALL OTHER SHORT RADIUS SECTIONS, CONSTRUCTION JOINTS & AS DIRECTED BY THE ENGINEER.



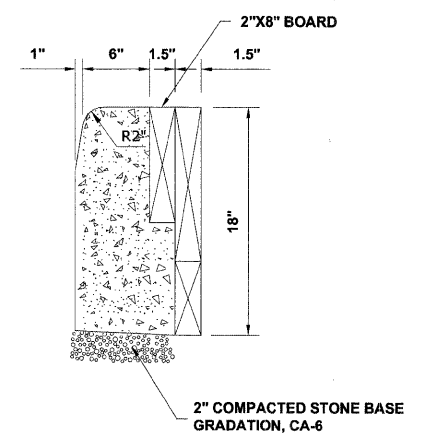
**DECORATIVE BRICK SIDEWALK PATTERN DETAIL**



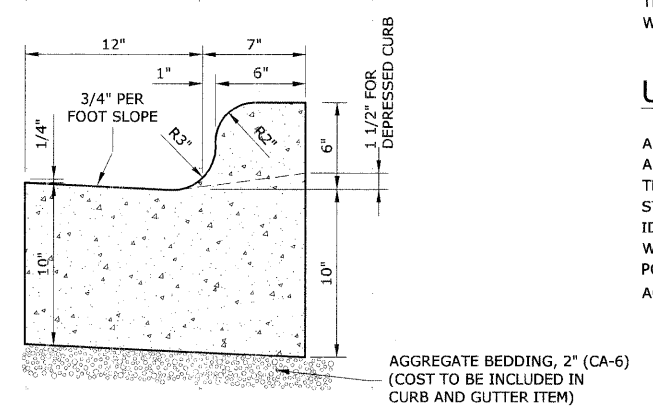
**DECORATIVE BRICK SIDEWALK DETAIL**



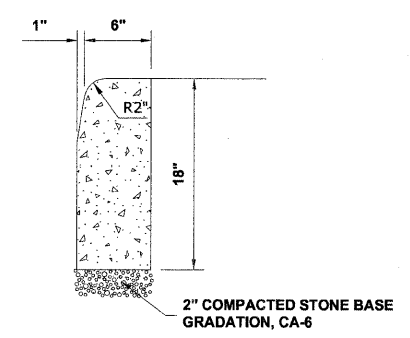
**COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12 ADJACENT TO DECORATIVE BRICK SIDEWALK**



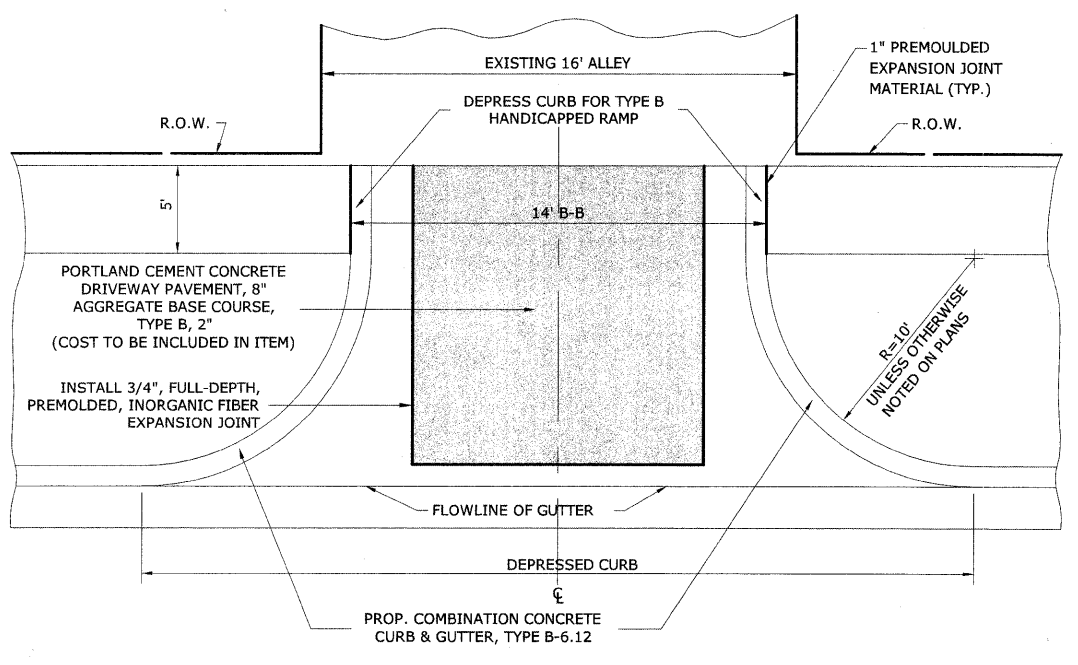
**CONCRETE CURB, TYPE B ADJACENT TO DECORATIVE BRICK SIDEWALK**



**COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12**

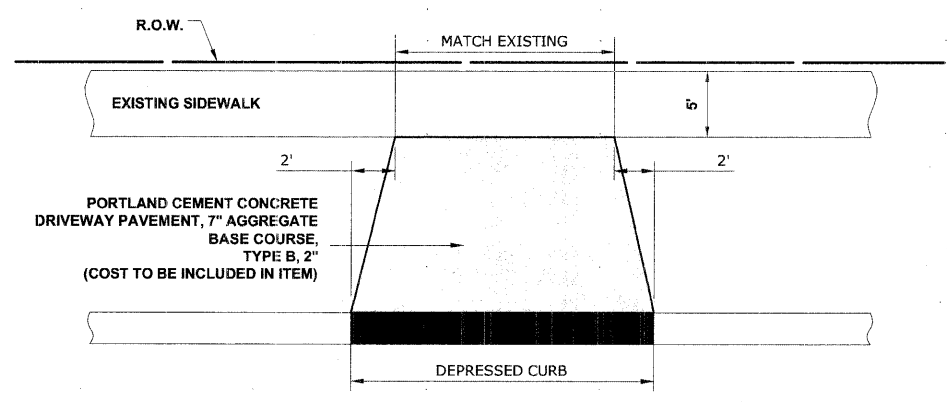


**CONCRETE CURB, TYPE B**



NOTE: UNLESS OTHERWISE NOTED ON PLAN USE RADII AS MARKED ABOVE.

**CONCRETE ALLEY RETURN DETAIL**



**DRIVEWAY DETAIL**

REVISION:	

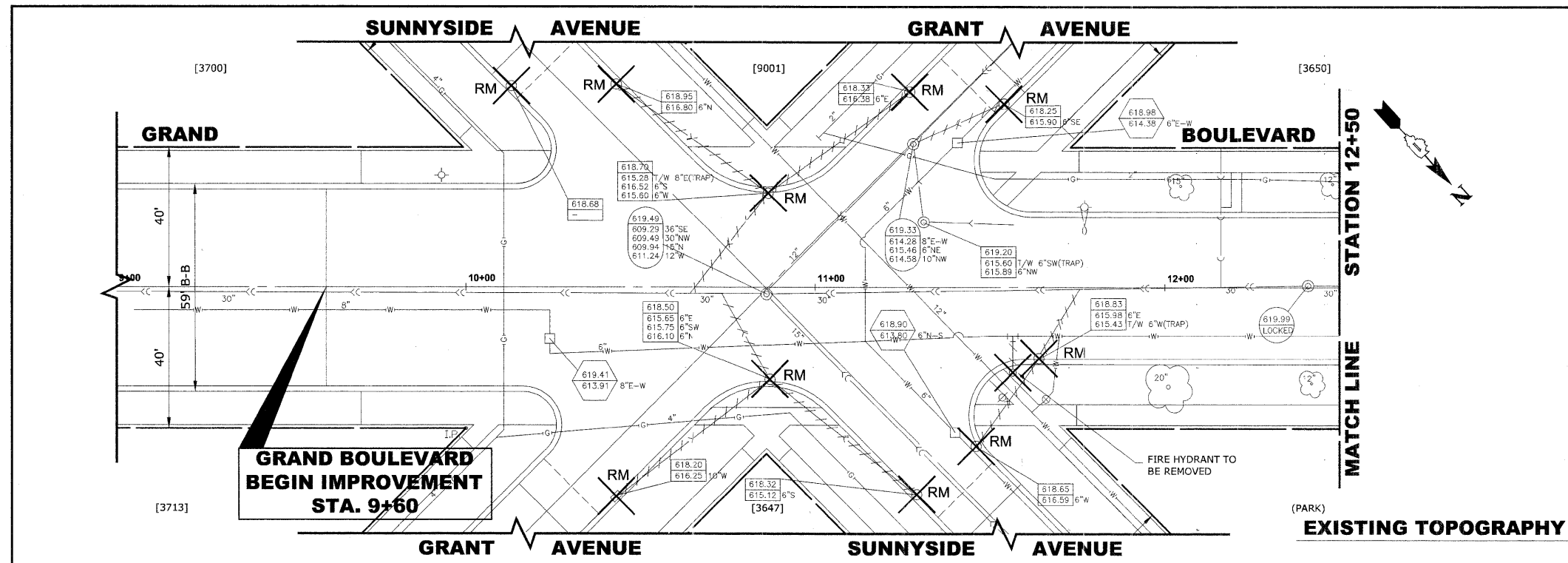
**HANCOCK ENGINEERING**  
 9013 Rowland Road  
 Westmont, Illinois 60154-2708  
 Phone: 708-665-6300  
 Fax: 708-665-2122

◆ Civil Engineers  
 ◆ Municipal Consultants  
 ◆ Established 1911

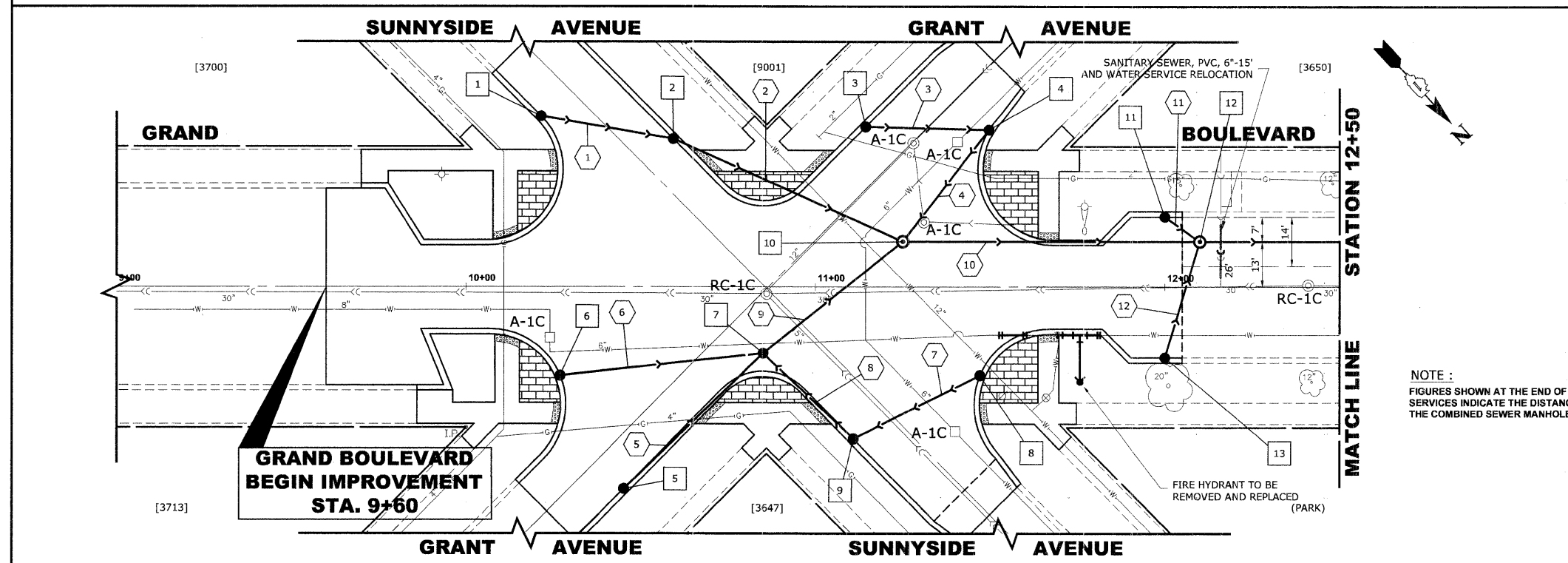
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 ROADWAY DETAILS**

DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
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 SCALE: NOT TO SCALE  
 E.H.E. PROJECT NO. : 125-08-13501

Drawing file: W:\Projects\12508\135 - Grand Blvd Grant to Veterans Roadway-Details.dwg Jan 09, 2009 - 10:50am

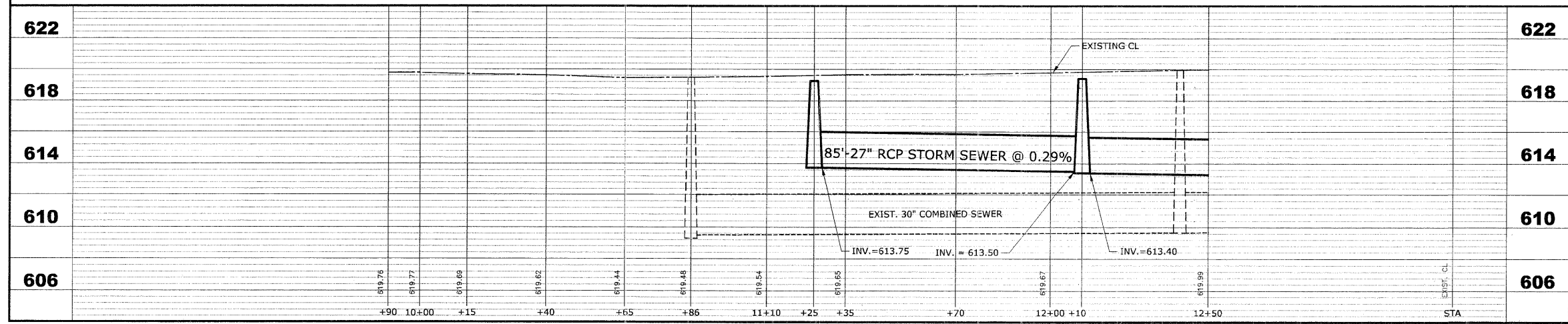


STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
1	10+29	49' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.60	615.10 NW
2	10+59	43' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.50	614.90 SE 614.80 NW
3	11+15	46' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.50	615.00 NW
4	11+49	44' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.25	614.65 SE 614.55 E
5	10+45	57' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.30	614.80 W
6	10+27	24' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.70	615.20 NW
7	10+85	19' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.80	614.65 SE 614.45 E 614.45 N 614.35 W
8	11+47	25' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.45	614.95 E
9	11+11	43' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.35	614.75 W 614.65 S
10	11+25	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.25	614.45 SE 614.15 W 614.10 E 613.75 NW
11	12+00	20' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.00	615.50 N
12	12+10	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.40	615.40 S 615.15 E 613.50 SE 613.40 NW
13	12+00	20' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.00	615.50 W



NOTE :  
 FIGURES SHOWN AT THE END OF THE 6" SANITARY SEWER SERVICES INDICATE THE DISTANCE THE SERVICE IS FROM THE COMBINED SEWER MANHOLE.

PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
1	40'	10"	SS, PVC, SDR 26	0.50%	1.7
2	70'	12"	SS, PVC, SDR 26	0.50%	6.8
3	35'	10"	SS, PVC, SDR 26	1.00%	1.5
4	40'	12"	SS, PVC, SDR 26	1.00%	4.5
5	55'	10"	SS, PVC, SDR 26	0.64%	4.3
6	55'	10"	SS, PVC, SDR 26	1.00%	3.7
7	40'	10"	SS, PVC, SDR 26	0.50%	1.7
8	35'	12"	SS, PVC, SDR 26	0.57%	2.6
9	50'	12"	SS, PVC, SDR 26	0.50%	7.8
10	85'	27"	SS, TY-2, RCCP, CL-III	0.29%	60.3
11	10'	10"	SS, PVC, SDR 26	1.00%	0.7
12	35'	10"	SS, PVC, SDR 26	1.00%	2.6



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

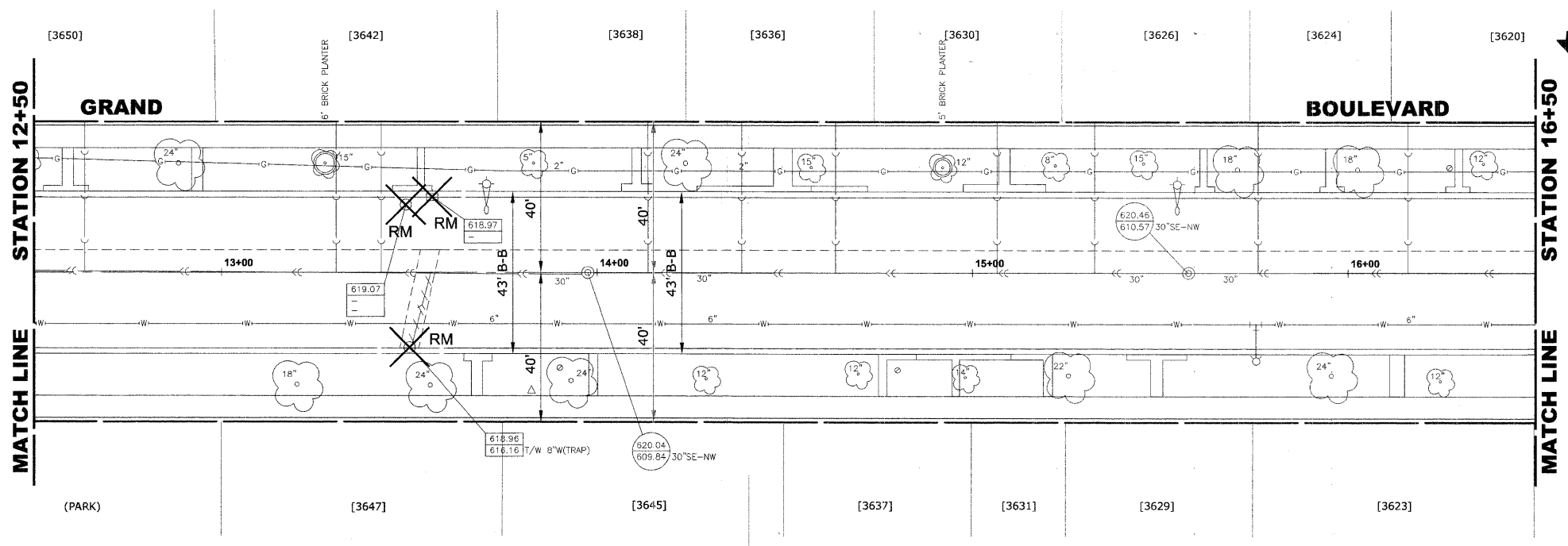
**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS GRAND BOULEVARD UTILITIES PLAN AND PROFILE**

REVISION:


DRAWN BY: LEVICW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 SCALE: 1"=20'H. & 1"=4'V.  
 E.H.E. PROJECT NO. : 125-08-13501

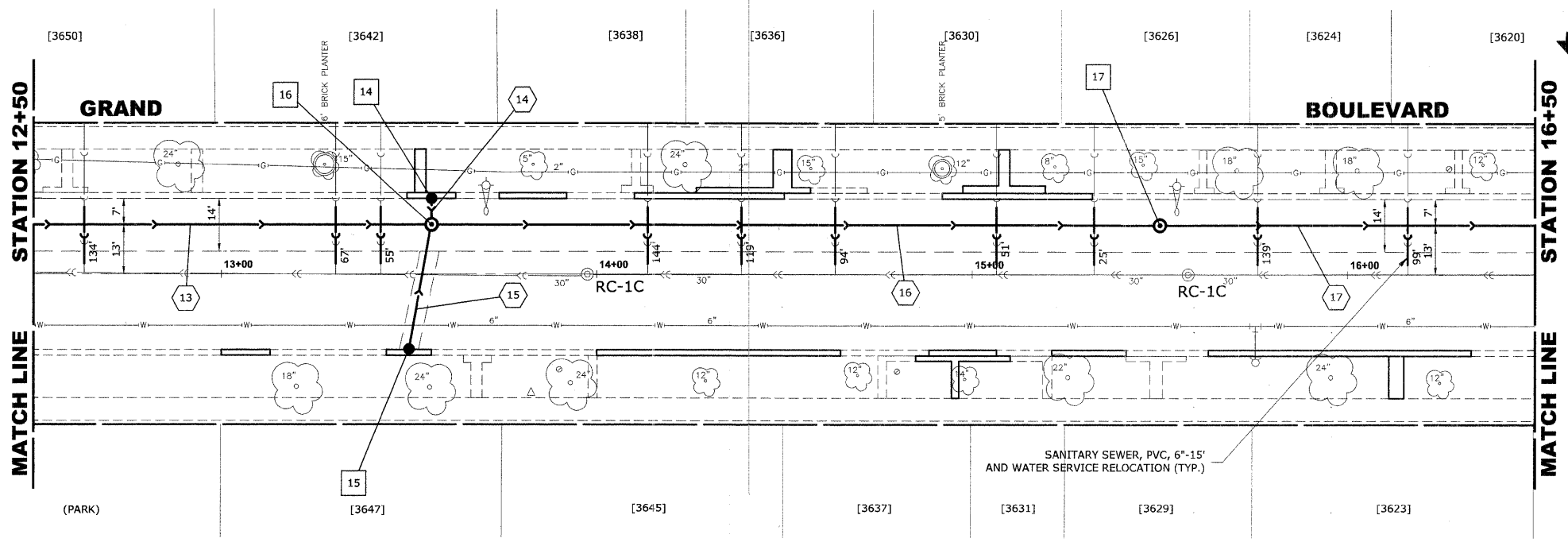
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	23
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



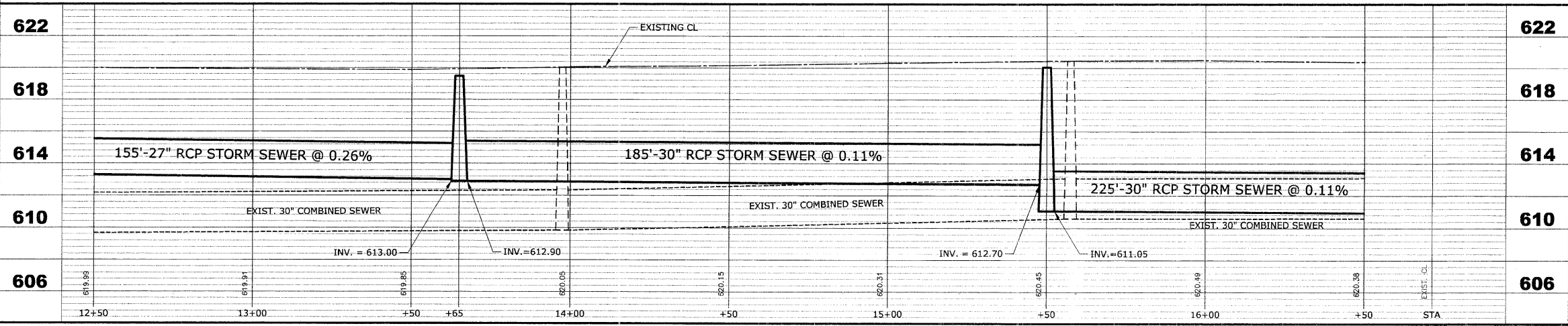
STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
14	13+55	20' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.00	615.50 N
15	13+50	20' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.00	615.50 W
16	13+65	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.45	615.40 S 615.15 E 613.00 SE 612.90 NW
17	15+50	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	620.05	612.70 SE 611.05 NW

**EXISTING TOPOGRAPHY**



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
13	155'	27"	SS, TY-2, RCCP, CL-III	0.26%	127.4
14	10'	10"	SS, PVC, SDR 26	1.00%	0.7
15	35'	10"	SS, PVC, SDR 26	1.00%	2.6
16	185'	30"	SS, TY-2, RCCP, CL-III	0.11%	183.8
17	225'	30"	SS, TY-2, RCCP, CL-III	0.11%	322.4

**NOTE:**  
 FIGURES SHOWN AT THE END OF THE 6" SANITARY SEWER SERVICES INDICATE THE DISTANCE THE SERVICE IS FROM THE COMBINED SEWER MANHOLE.



**PROPOSED IMPROVEMENTS**

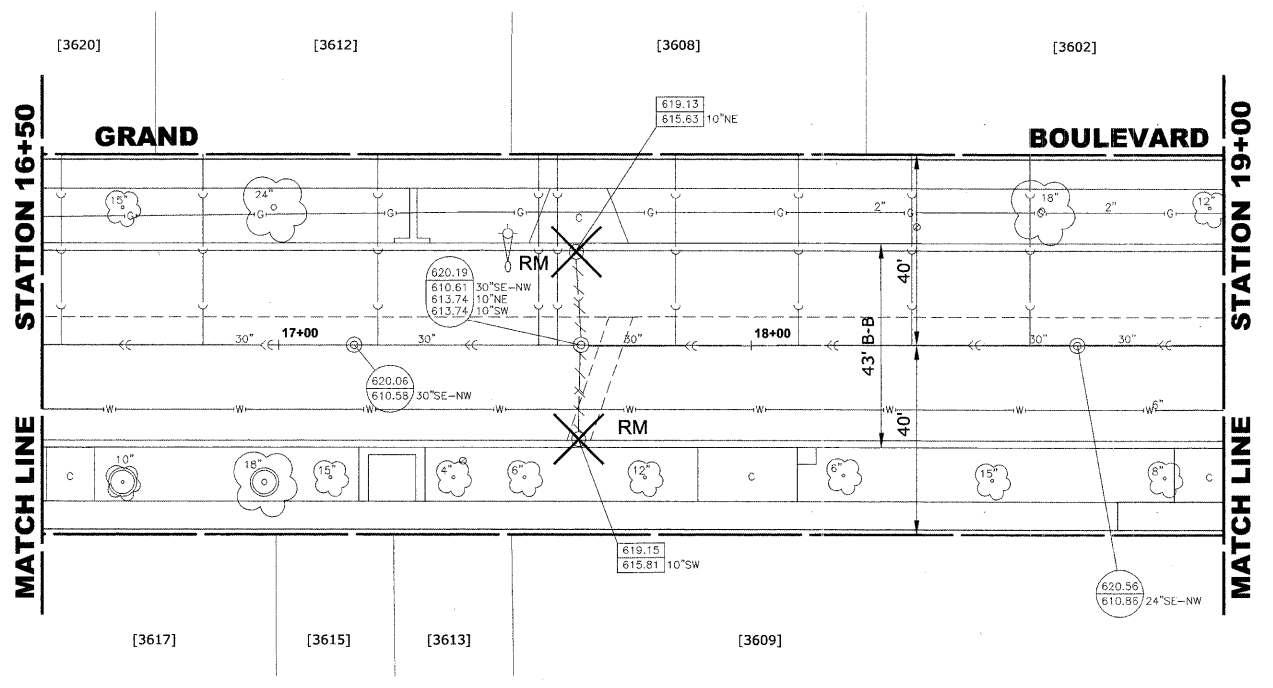
**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 903 Roseville Road  
 Wheeling, Illinois 60454-2788  
 Phone: 708.562.0400  
 Fax: 708.562.1212

**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 GRAND BOULEVARD  
 UTILITIES PLAN AND PROFILE**

NO.	REVISION

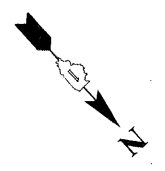
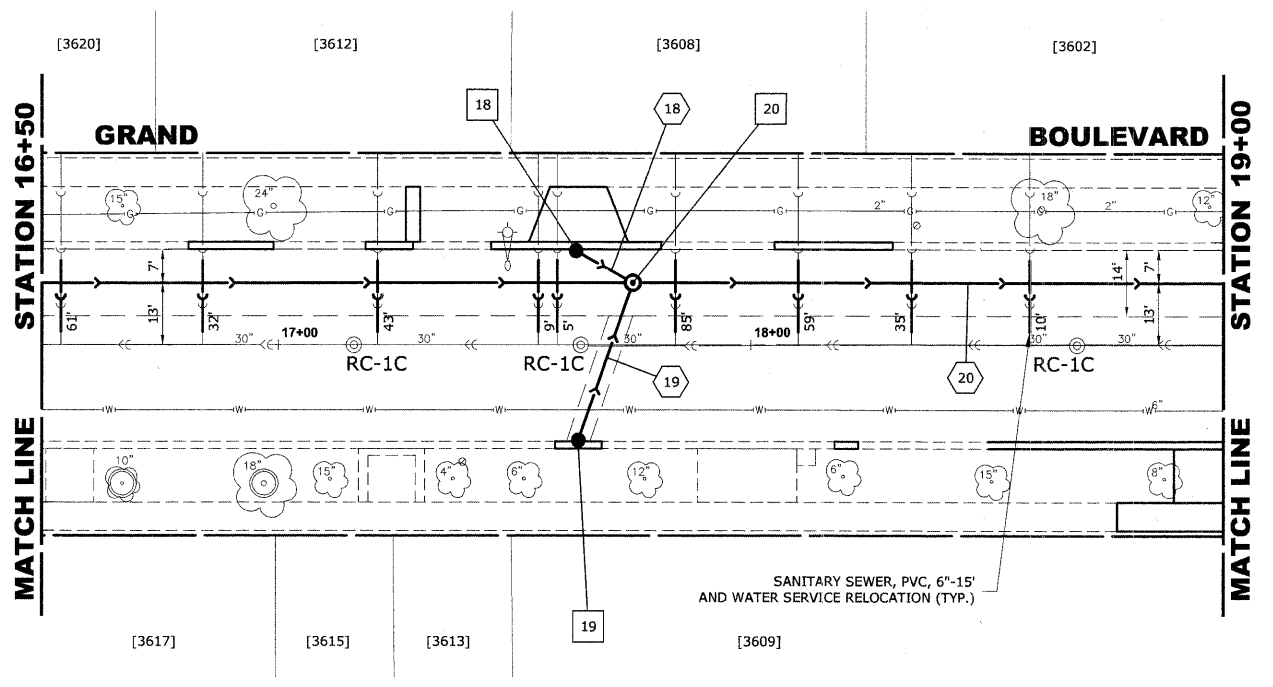
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 E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	24
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



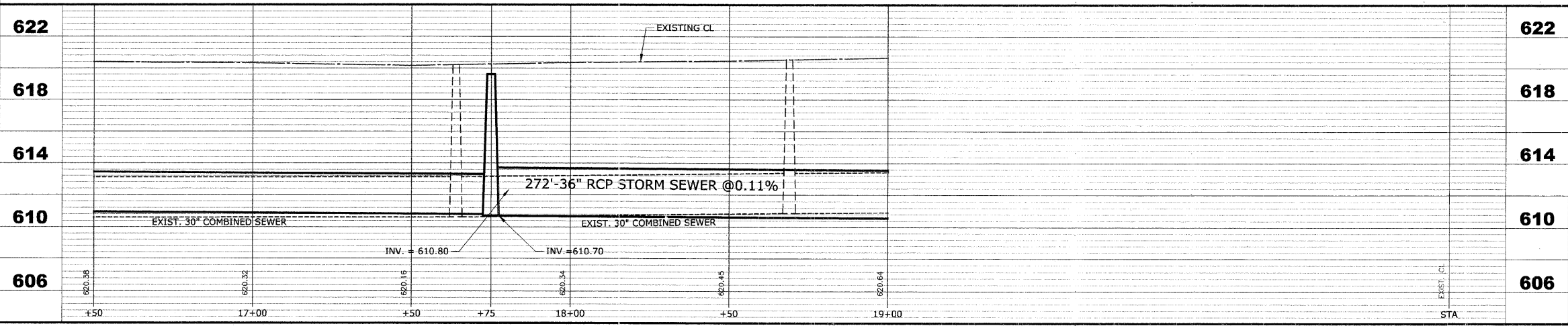
STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
18	17+63	20' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.15	615.65 N
19	17+63	20' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.15	615.65 W
20	17+75	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.60	615.50 S 615.30 E 610.80 SE 610.70 NW

**EXISTING TOPOGRAPHY**



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
18	12'	10"	SS, PVC, SDR 26	1.25%	0.8
19	35'	10"	SS, PVC, SDR 26	1.00%	2.6
20	272'	36"	SS, TY-2, RCCP, CL-III	0.11%	431.0

NOTE :  
FIGURES SHOWN AT THE END OF THE 6" SANITARY SEWER SERVICES INDICATE THE DISTANCE THE SERVICE IS FROM THE COMBINED SEWER MANHOLE.



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 GRAND BOULEVARD  
 UTILITIES PLAN AND PROFILE**

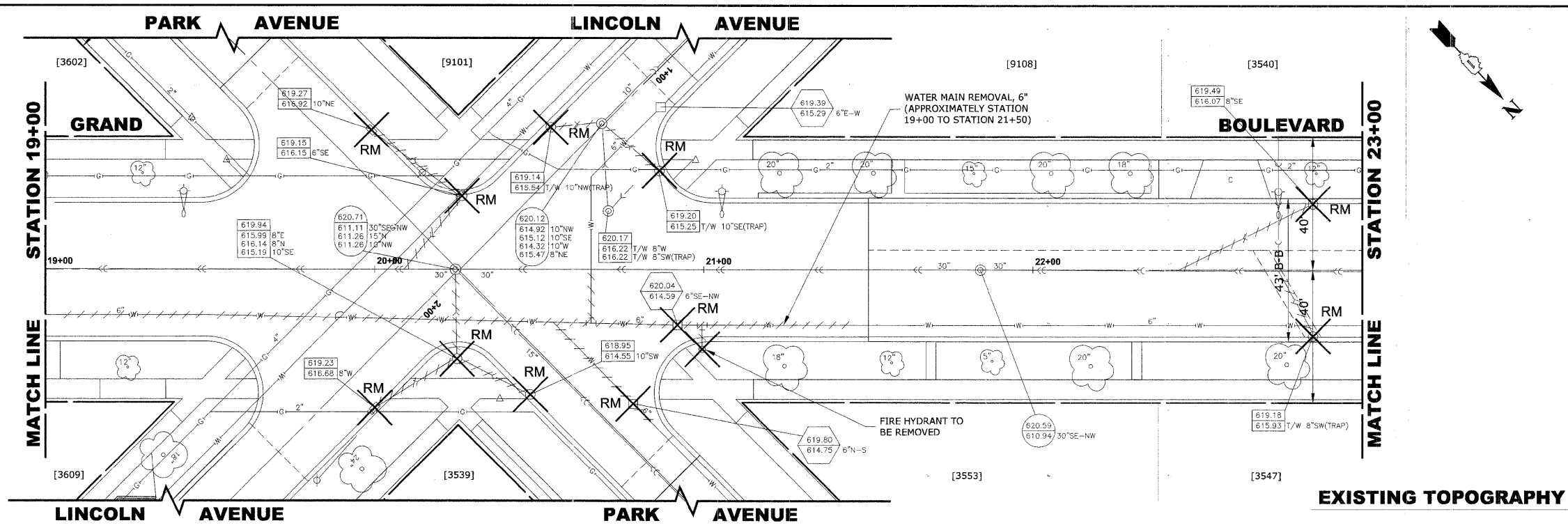
REVISION:

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 E.H.E. PROJECT NO. : 125-08-13501

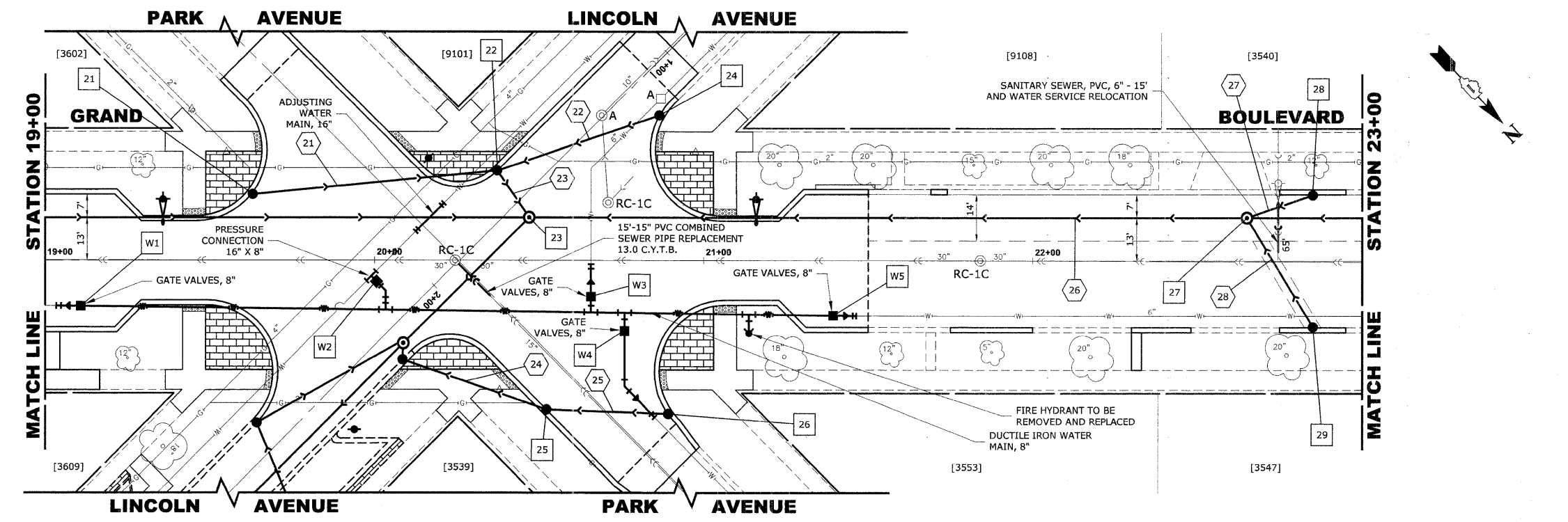
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	25
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

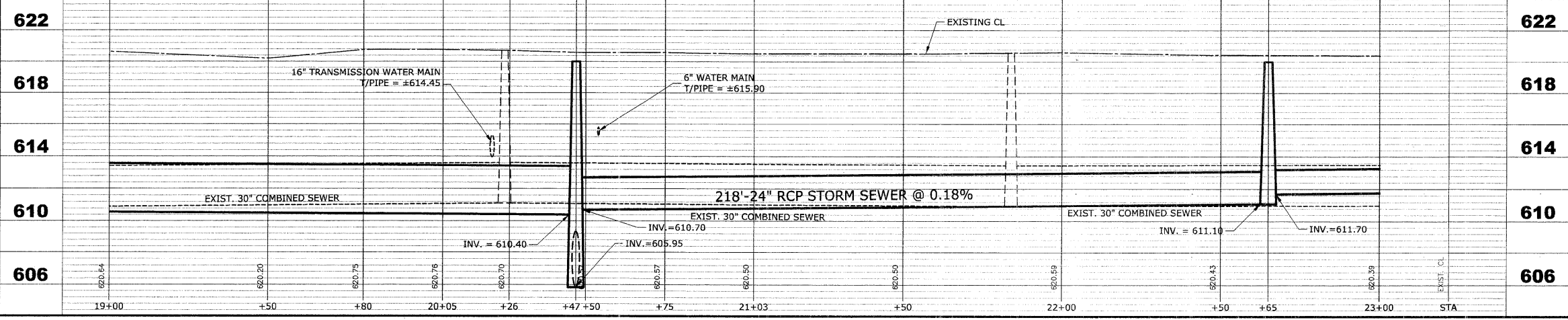


STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
21	19+65	24' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.50	616.00 NW
22	20+37	27' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.10	615.30 SE 614.20 NW 614.10 N
23	20+47	13' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	620.00	613.95 S 610.70 NW 610.40 SE 605.95 E
24	20+86	43' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.20	614.70 SE
25	20+52	45' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.25	615.65 NW 615.55 SE
26	20+88	44' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.50	616.00 SE
27	22+65	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	620.00	615.80 W 615.30 N 611.70 NW 611.10 SE
28	22+85	20' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.50	616.00 E
29	22+85	20' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.20	615.70 S
W1	19+10	14' RT	VALVE VAULT, TYPE A, 4' DIA., TYPE 1 FRAME, CLOSED LID	619.00	-
W2	20+00	7' RT	VALVE VAULT, TYPE A, 5' DIA., TYPE 1 FRAME, CLOSED LID	620.00	-
W3	20+66	10' RT	VALVE VAULT, TYPE A, 4' DIA., TYPE 1 FRAME, CLOSED LID	620.10	-
W4	20+76	22' RT	VALVE VAULT, TYPE A, 4' DIA., TYPE 1 FRAME, CLOSED LID	620.00	-
W5	21+40	17' RT	VALVE VAULT, TYPE A, 4' DIA., TYPE 1 FRAME, CLOSED LID	620.10	-



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
21	70'	10"	SS, PVC, SDR 26	1.00%	3.5
22	50'	10"	SS, PVC, SDR 26	1.00%	7.7
23	15'	12"	SS, PVC, SDR 26	1.00%	5.3
24	45'	12"	SS, PVC, SDR 26	1.00%	4.1
25	35'	10"	SS, PVC, SDR 26	1.00%	1.5
26	218'	24"	SS, TY-2, RCCP, CL-III	0.18%	349.8
27	20'	10"	SS, PVC, SDR 26	1.00%	1.4
28	40'	10"	SS, PVC, SDR 26	1.00%	3.8

NOTE :  
 FIGURES SHOWN AT THE END OF THE 6" SANITARY SEWER SERVICES INDICATE THE DISTANCE THE SERVICE IS FROM THE COMBINED SEWER MANHOLE.



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

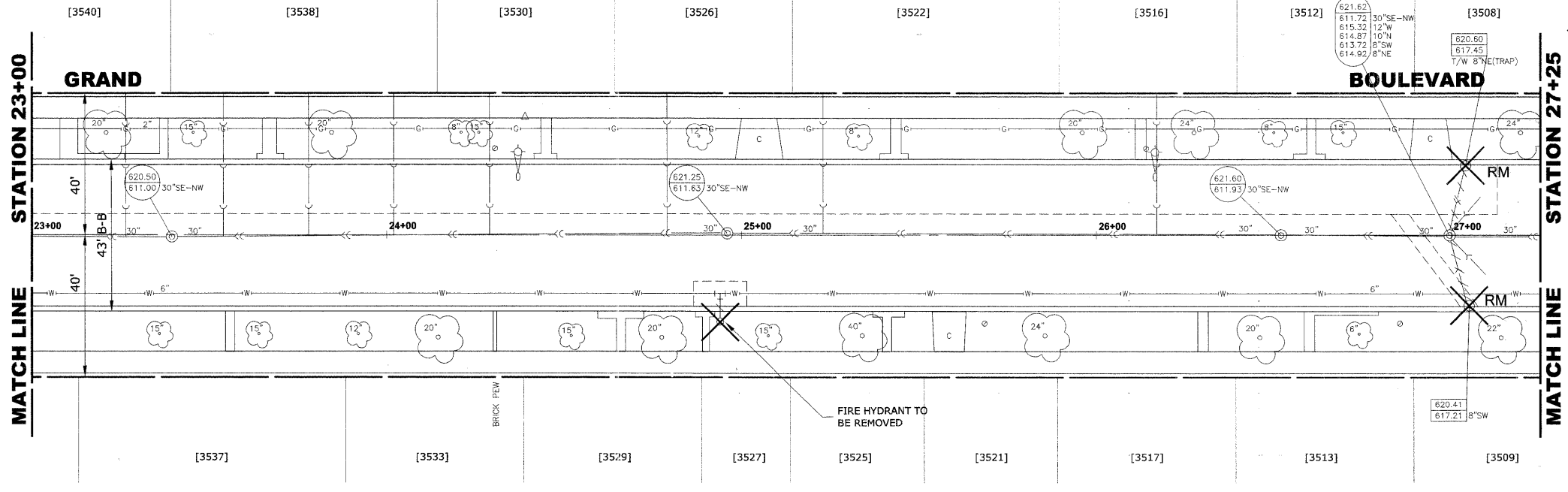
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 GRAND BOULEVARD  
 UTILITIES PLAN AND PROFILE**

DRAWN BY: LEVIC/WMK  
 CHECKED BY: JCG  
 DATE: 01-09-09

SCALE: 1"=20'H. & 1"=4'V.

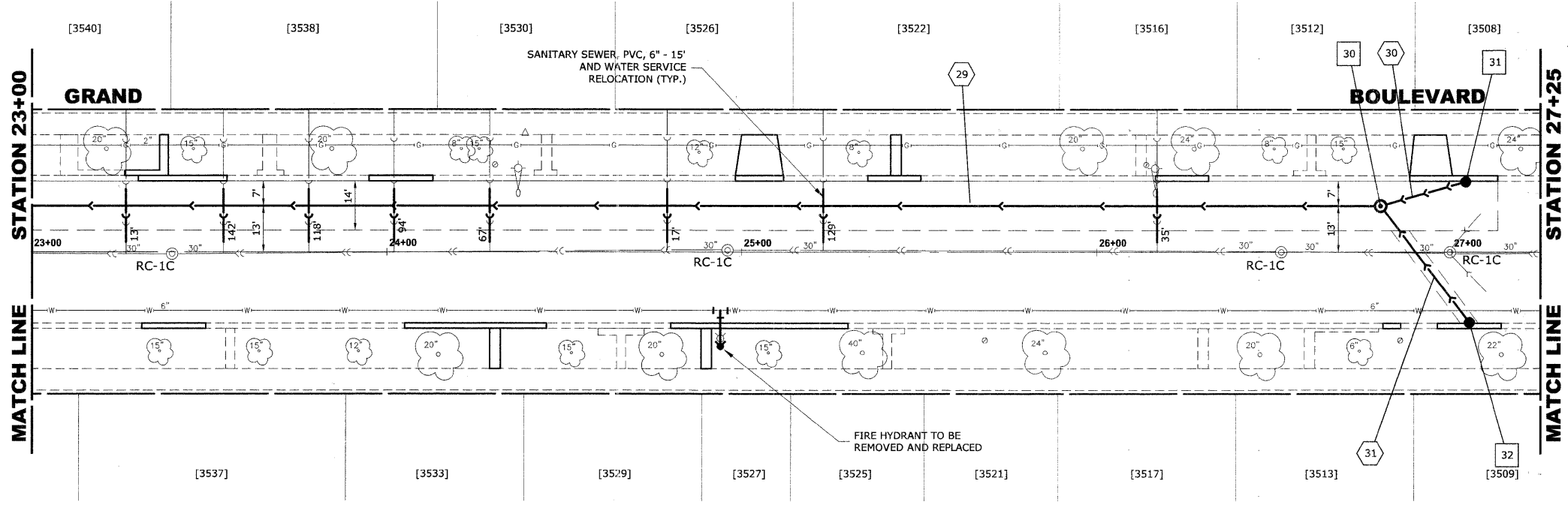
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	26
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



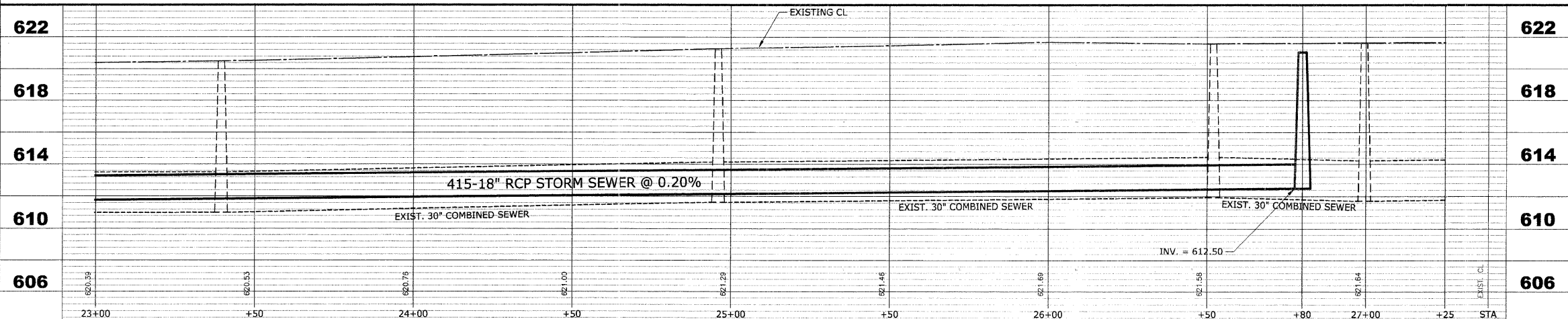
STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
30	26+80	13' LT	R.D. STORM SEWER MANHOLE, 4' DIA., TYPE 1 FRAME, CLOSED LID	621.05	616.85 W 616.50 N 612.50 SE
31	27+05	20' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	620.60	617.10 E
32	27+05	20' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	620.40	616.90 S

**EXISTING TOPOGRAPHY**



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
29	415'	18"	SS, TY-2, RCCP, CL-III	0.19%	488.8
30	25'	10"	SS, PVC, SDR 26	1.00%	1.8
31	40'	10"	SS, PVC, SDR 26	1.00%	3.5

**NOTE :**  
 FIGURES SHOWN AT THE END OF THE 6" SANITARY SEWER SERVICES INDICATE THE DISTANCE THE SERVICE IS FROM THE COMBINED SEWER MANHOLE.



**PROPOSED IMPROVEMENTS**

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911

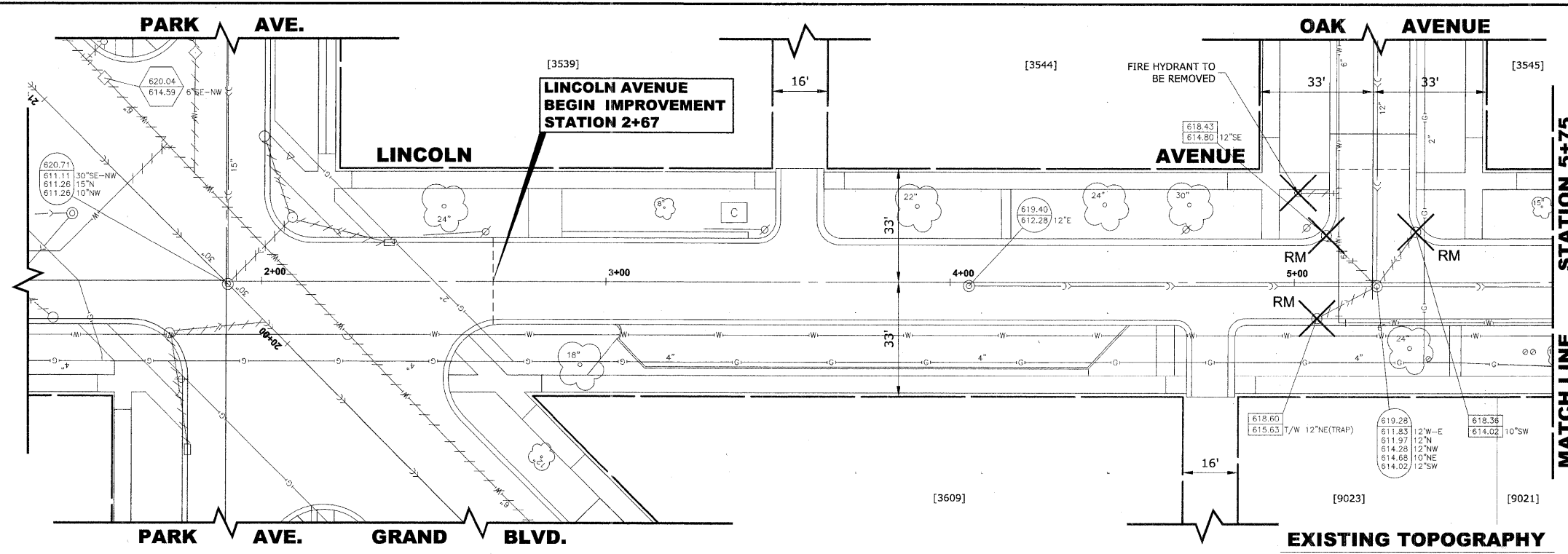
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 GRAND BOULEVARD  
 UTILITIES PLAN AND PROFILE**

REVISION:	

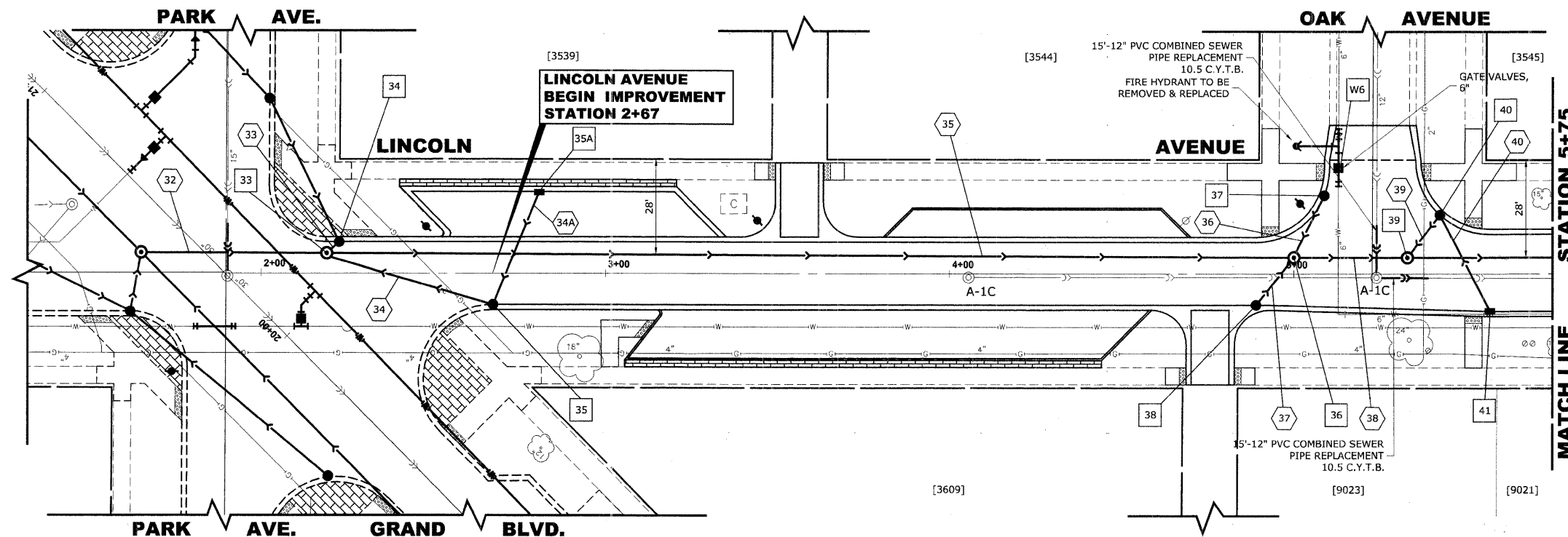
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 DRAWN BY: LEV/ECW/MK  
 CHECKED BY: JCG  
 E.H.E. PROJECT NO.: 125-08-13501



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	28
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

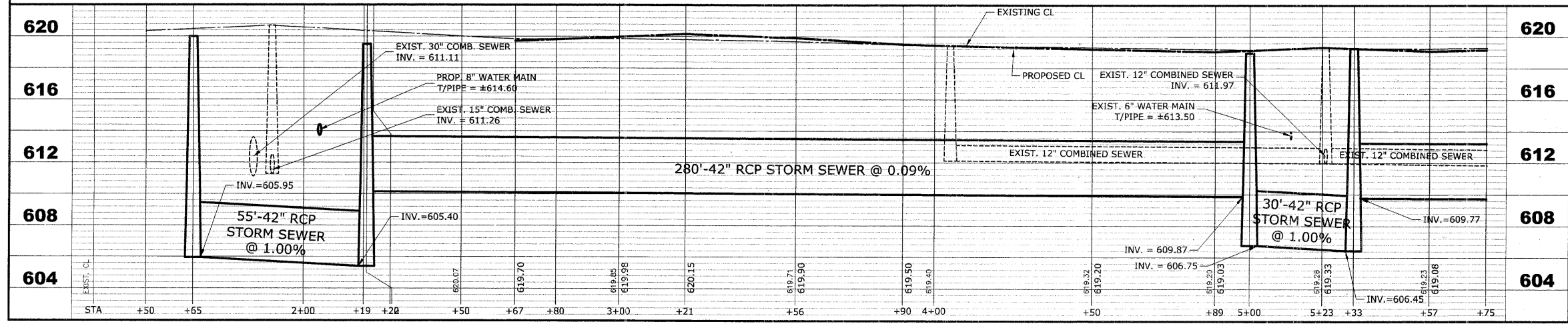


STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
33	2+20	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.50	614.90 NE 614.90 SE 610.15 E 605.40 W
34	2+22	9' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.10	615.05 SE 614.95 SW
35	2+67	9' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	619.35	615.50 NE 615.40 NW
35A	2+80	23.5' LT	INLET, TYPE A, TYPE 1 FRAME, OPEN LID	619.35	615.85 SW
36	5+00	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	618.95	614.65 NE 615.00 SW 609.87 W 606.75 E
37	5+08	22' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.35	614.85 SW
38	4+89	9' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.70	615.20 NE
39	5+33	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	619.10	614.50 NE 609.77 E 606.45 W
40	5+42	18' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.30	614.80 SE 614.70 SW
41	5+57	11' RT	INLET, TYPE A, TYPE 1 FRAME, OPEN LID	618.75	615.25 NW
W6	5+13	30' LT	VALVE VAULT, TYPE A, 4' DIA., TYPE 1 FRAME, CLOSED LID	618.50	-



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
32	55'	42"	SS, TY-2, RCCP, CL-III	1.00%	161.8
33	3'	12"	SS, PVC, SDR 26	1.00%	0.5
34	50'	12"	SS, PVC, SDR 26	1.00%	2.9
34A	35'	10"	SS, PVC, SDR 26	1.00%	2.7
35	280'	42"	SS, TY-2, RCCP, CL-III	0.09%	458.0
36	20'	10"	SS, PVC, SDR 26	1.00%	1.5
37	15'	10"	SS, PVC, SDR 26	1.33%	0.9
38	30'	42"	SS, TY-2, RCCP, CL-III	1.00%	75.0
39	15'	12"	SS, PVC, SDR 26	1.33%	1.3

**PROPOSED IMPROVEMENTS**



**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9413 Riverfront Road  
 Woodstock, Illinois 60093-2700  
 Phone: 708/565-4100  
 Fax: 708/565-1212

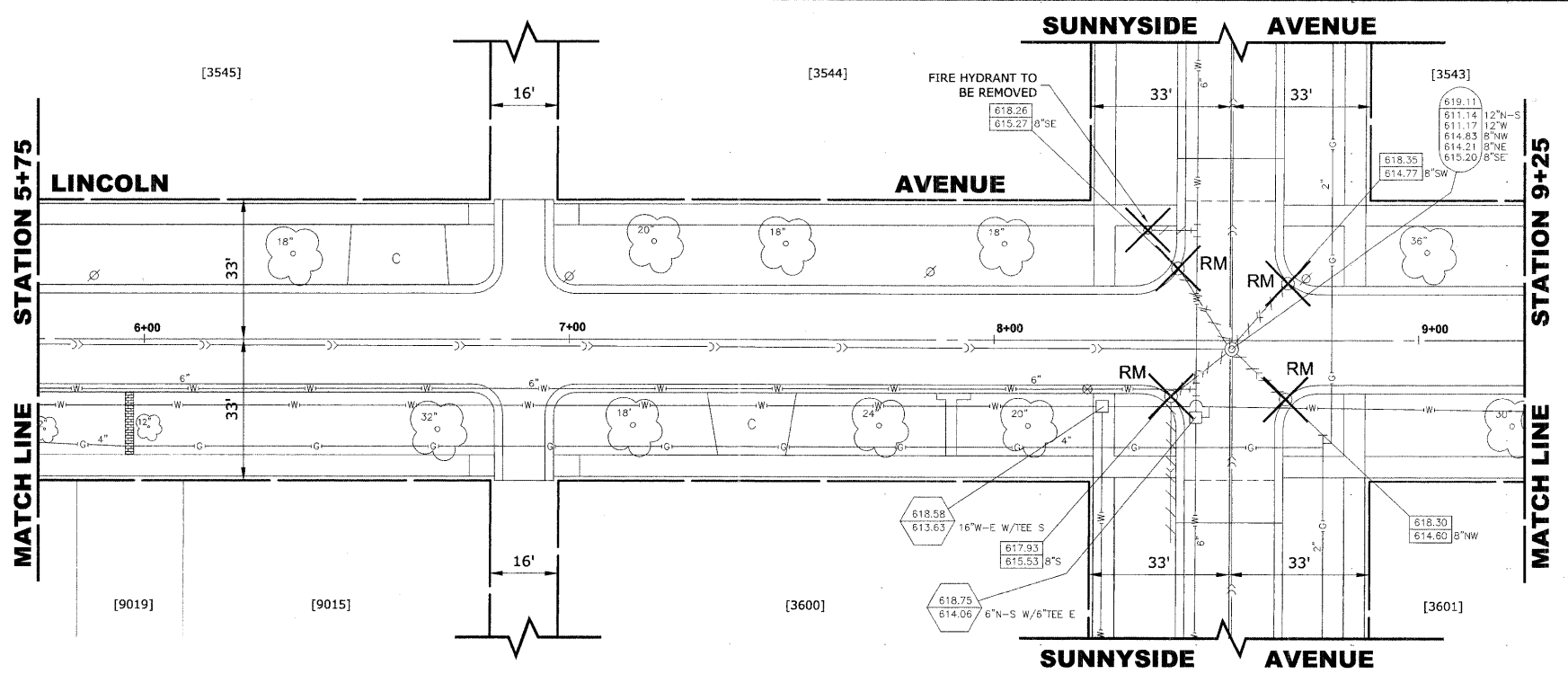
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**LINCOLN AVENUE**  
**UTILITIES PLAN AND PROFILE**

REVISION:

SCALE: 1"=20'H. & 1"=4'V.  
 DATE: 01-09-09  
 DRAWN BY: LEVCEC/WMK  
 CHECKED BY: JCG  
 E.H.E. PROJECT NO.: 125-08-13501

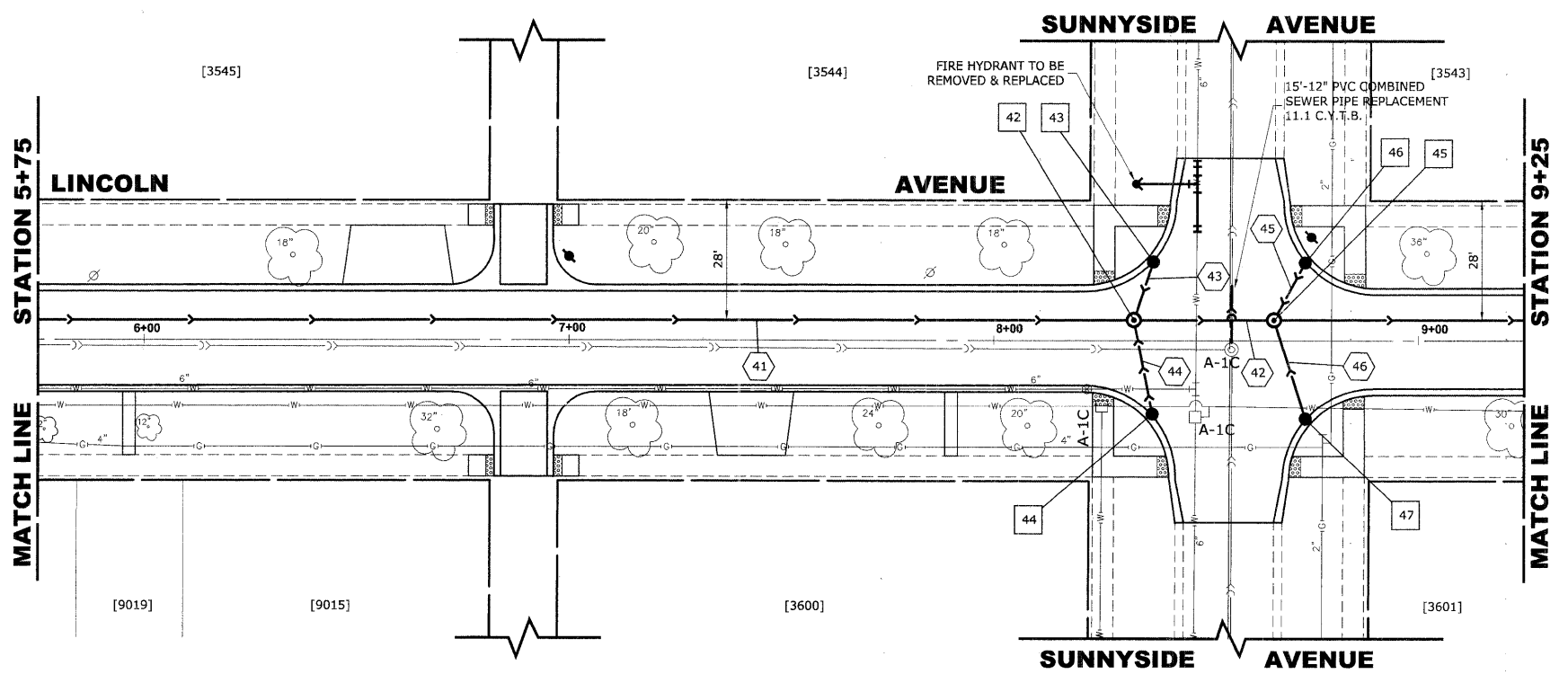
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	29
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

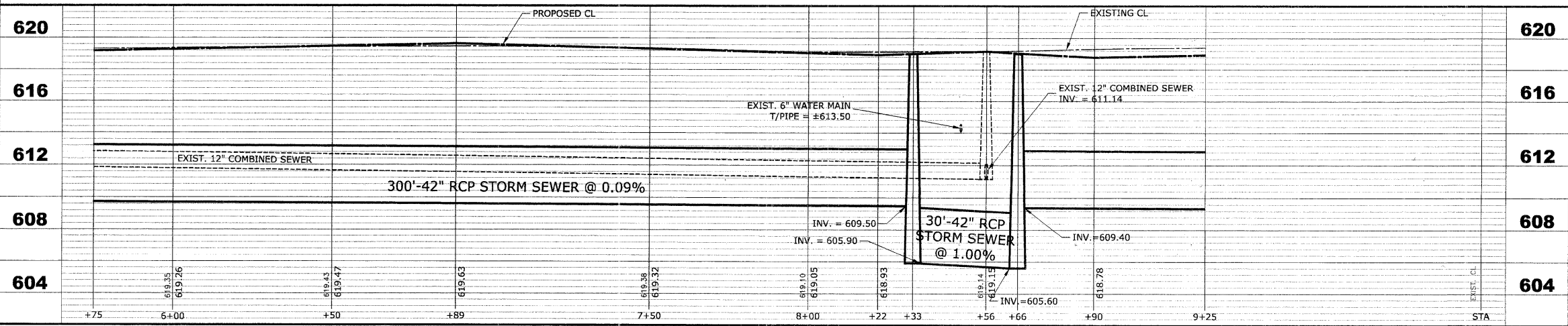


STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
42	8+33	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	618.85	614.70 NE 614.60 SE 609.50 W 605.90 E
43	8+37	17' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.35	614.85 SW
44	8+37	17' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.35	614.85 NW
45	8+66	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	618.90	614.65 NE 614.55 SE 609.40 E 605.60 W
46	8+75	17' LT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.30	614.80 SW
47	8+75	17' RT	R.D. CATCH BASIN, 4' DIA., TYPE 1 FRAME, OPEN LID	618.30	614.80 NW

EXISTING TOPOGRAPHY



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
41	300'	42"	SS, TY-2, RCCP, CL-III	0.09%	500.7
42	30'	42"	SS, TY-2, RCCP, CL-III	1.00%	80.6
43	12'	10"	SS, PVC, SDR 26	1.25%	0.8
44	25'	10"	SS, PVC, SDR 26	1.00%	1.8
45	12'	10"	SS, PVC, SDR 26	1.25%	0.9
46	25'	10"	SS, PVC, SDR 26	1.00%	2.0



PROPOSED IMPROVEMENTS



BROOKFIELD  
**GRAND BOULEVARD IMPROVEMENTS  
 LINCOLN AVENUE  
 PAVING PLAN AND PROFILE**

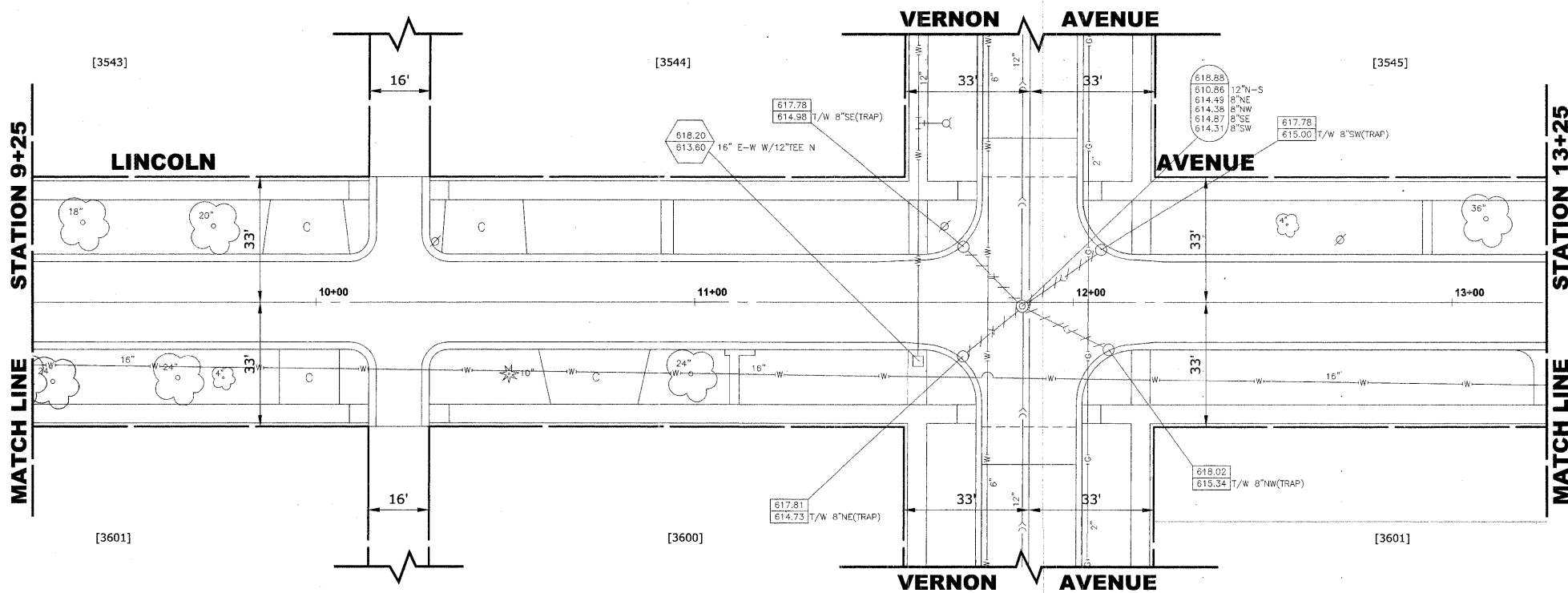
REVISION

DRAWN BY: LEVEC/WMK  
 CHECKED BY: JCG  
 DATE: 01-09-09

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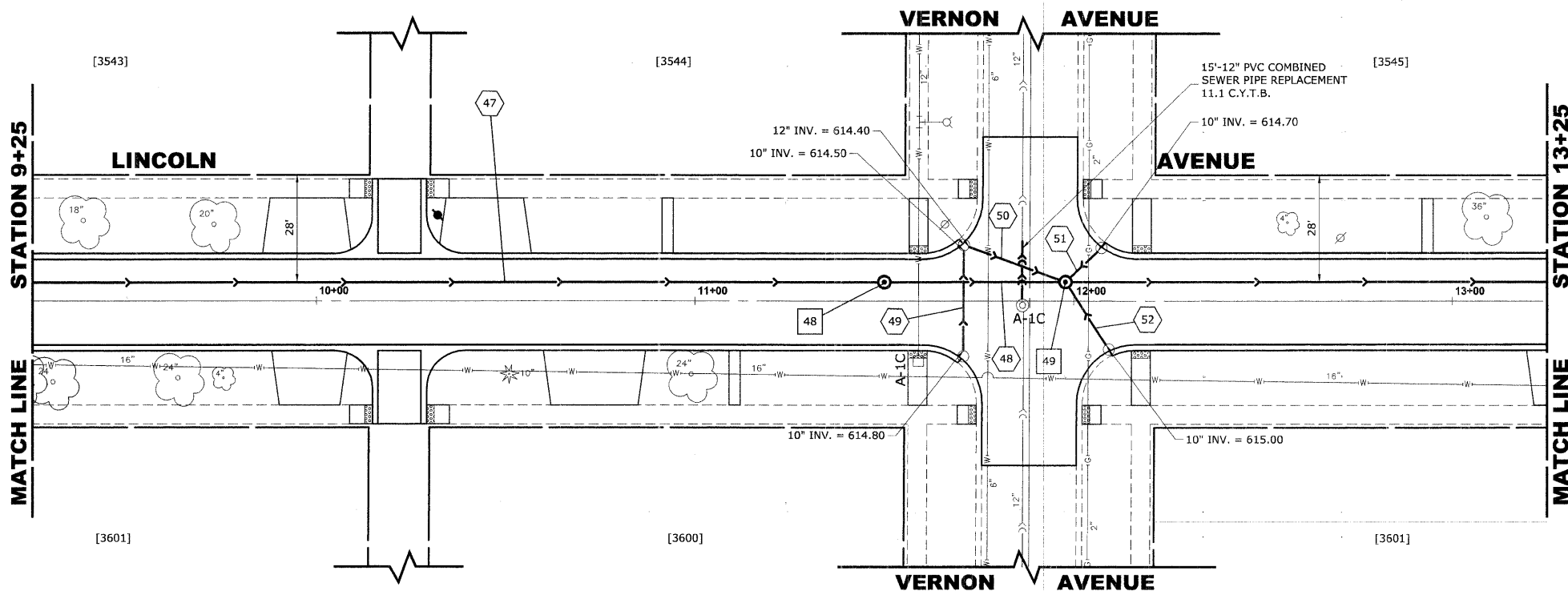
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	30
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

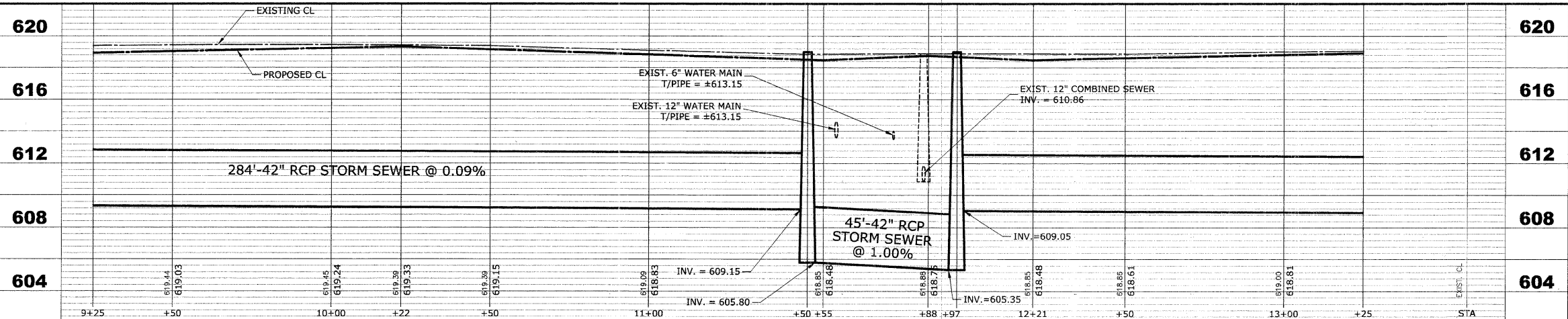


STRUC. NO.	STA	OFFSET	TYPE	RIM ELEV.	INVERT ELEV.
48	11+50	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	618.35	609.15 W 605.80 E
49	11+97	5' LT	R.D. STORM SEWER MANHOLE, 5' DIA., TYPE 1 FRAME, CLOSED LID	618.55	614.60 SE 614.40 NE 609.05 E 605.35 W

**EXISTING TOPOGRAPHY**



PIPE NO	LENGTH	DIA.	TYPE	SLOPE	C.Y.T.B.
47	284'	42"	SS, TY-2, RCCP, CL-III	0.09%	474.8
48	45'	42"	SS, TY-2, RCCP, CL-III	1.00%	116.8
49	30'	10"	SS, PVC, SDR 26	1.00%	0.1
50	25'	12"	SS, PVC, SDR 26	1.00%	1.5
51	12'	10"	SS, PVC, SDR 26	1.25%	0.6
52	20'	10"	SS, PVC, SDR 26	1.00%	0.7



**PROPOSED IMPROVEMENTS**

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**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
LINCOLN AVENUE  
UTILITIES PLAN AND PROFILE**

REVISION:	

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

SCALE: 1"=20'H. & 1"=4'V.  
E.H.E. PROJECT NO.: 125-06-13501

Drawing file: W:\Projects\12506135 - Grand Blvd Grant to Veterans\Grand Blvd\Grand Blvd.dwg Jan 09, 2009 - 10:52am



### M.W.R.D.G.C. GENERAL NOTES

- THE MWRDGC LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK AT (708) 588-4055.
- ELEVATION DATUM IS U.S.G.S.
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE INTO THE STORM SEWER SYSTEM.
- ALL PVC STORM, COMBINED, AND SANITARY SEWER PIPE JOINTS SHALL CONFORM TO ASTM D-3139, AND THE PIPE SHALL CONFORM TO ASTM D-2241. ALL PVC SEWER PIPE SHALL BE SDR 26. ALL RCCP SEWER TO MEET ASTM C-76 AND JOINTS SHALL CONFORM TO ASTM C-443.
- ALL SANITARY SEWER CONSTRUCTION, AND ALSO STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS, REQUIRES STONE BEDDING 1/2" TO 1" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR INCHES (4") NOR MORE THAN EIGHT INCHES (8"). MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC PIPE.
- "BAND SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
  - CIRCULAR SAW-CUT OF SEWER MAIN BY MECHANICAL CORING MACHINE, AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. AFTER THE WYE OR TEE BRANCH IS INSERTED, CONCRETE SHALL BE PLACED OVER THE BROKEN AREA TO A MINIMUM THICKNESS OF 4" AND TO A DIMENSION OF 8" IN ALL DIRECTIONS.
  - USING PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING. USE "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THE INSTALLATION.
- WHEREVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATER MAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/ COMBINED SEWERS AND WATER MAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT THE OPPOSITE SIDE ON BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FOOT LONG, NON-SHRINK CONCRETE/MORTAR PLUG.
- ALL INLET AND OUTLET PIPES OF SANITARY SEWER MANHOLES AND OTHER UNDERGROUND STRUCTURES (IN COMBINED SEWER AREAS, ALSO INCLUDED ARE ALL COMBINED/STORM SEWER MANHOLES, CATCH BASINS, INLETS, AND UNDERGROUND DETENTION STORAGE STRUCTURES) SHALL BE JOINED WITH WATERTIGHT FLEXIBLE RUBBER CONNECTORS CONFORMING TO ASTM C-443 AND C-923 WITH STAINLESS STEEL BAND.
- ALL PIPE CONNECTIONS TO EXISTING STRUCTURES SHALL BE MADE BY CORE-DRILLING THE WALL OF THE EXISTING STRUCTURE AND INSERTING AN EXPANDABLE, FLEXIBLE RUBBER CONNECTOR INTO THE WALL OF THE EXISTING STRUCTURE. THE CONNECTOR SHALL BE A PSX DIRECT DRIVE CONNECTOR AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR A PRIOR APPROVED EQUAL.

### DRAINAGE AND UTILITIES NOTES

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, COMBINED SEWERS, TELEPHONE LINES, COMMUNICATION LINES, ELECTRIC LINES, GAS MAINS, AND WATER SERVICES ARE APPROXIMATE AND THEIR SPECIFIC LOCATIONS ARE TO BE DETERMINED IN THE FIELD AT NO COMPENSATION TO THE CONTRACTOR.

COORDINATION OF ALL UTILITY WORK INVOLVED WITHIN THE CONSTRUCTION AREAS SHALL BE SUBJECT TO DISCUSSION AND CLARIFICATION AT A PRECONSTRUCTION MEETING.

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINAGE STRUCTURES OR SEWERS UNTIL PERMANENT CONNECTIONS TO SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

WHEN, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINES OF GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE OBSTRUCTING MATERIALS SHALL BE REMOVED AT THE CLOSE OF EACH WORK DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES ARE TO BE FREE OF ALL DIRT, DEBRIS, AND OBSTRUCTING MATERIALS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

ALL COSTS INVOLVED IN CONNECTING OF PROPOSED STORM SEWERS AND STORM STRUCTURES TO EXISTING STORM SEWERS OR PROPOSED STORM SEWERS SHALL BE CONSIDERED INCIDENTAL TO THE PROPOSED ITEMS BEING CONSTRUCTED.

ALL PROPOSED WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH IN THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", FIFTH EDITION, DATED 1996, AND ALL REVISIONS THERETO.

THE CONTRACTOR SHALL VERIFY THE TYPE OF ALL WATER MAIN HARDWARE INCLUDING VALVES, FIRE HYDRANTS, VALVE BOXES, CORPORATION STOPS, CURB STOPS, AND WATER SERVICES BOXES WITH THE UTILITY SUPERINTENDENT PRIOR TO ORDERING SUCH MATERIAL.

THE TYPE OF FRAMES AND GRATES REQUIRED FOR ALL CATCH BASINS AND MANHOLES LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.01 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE.

ON ALL IMPROVEMENTS, THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF BROOKFIELD AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE OF BROOKFIELD PUBLIC WORKS YARD LOCATED AT 4545 EBERLY AVENUE.

ANY COSTS FOR SHEETING OR SHORING REQUIRED FOR THE STORM SEWER INSTALLATION OR OTHER CONSTRUCTION ELEMENTS REQUIRING RELATIVELY DEEP EXCAVATIONS SHALL BE INCLUDED IN THE PARTICULAR PAYMENT ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY SUPPLEMENTAL WORK ASSOCIATED WITH THE MAINTENANCE OF TRENCH SIDES OR OTHER EXCAVATED AREAS.

UNLESS OTHERWISE SPECIFIED, ABANDONED SEWERS AND DRAINS, AS DESIGNATED BY THE ENGINEER, SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FOOT LONG, NON-SHRINK CONCRETE/MORTAR PLUG. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVING AND/OR FILLING THE VARIOUS TYPES OF STRUCTURES.

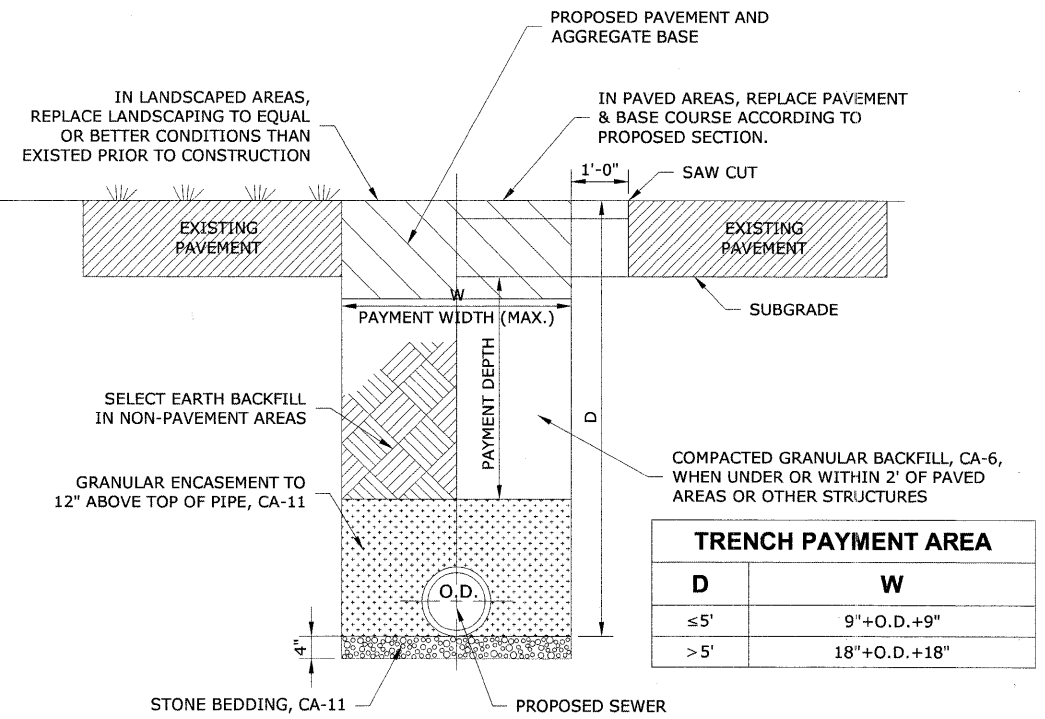
SEWER PIPE INSTALLED ON THIS PROJECT SHALL CONFORM TO THE FOLLOWING STANDARD:

TYPE OF PIPE	MATERIAL STANDARD	JOINT STANDARD
REINFORCED CONCRETE PIPE	ASTM C-76	ASTM C-361
POLYVINYLCHLORIDE PIPE (6"-12")	ASTM D-2241	ASTM D-3139
POLYVINYLCHLORIDE PIPE (6"-15")	ASTM D-3034	ASTM D-3212

FINAL ADJUSTMENT OF ALL STRUCTURES IN THE PAVEMENT, INCLUDING THOSE IN THE PROPOSED BASE COURSE, SHALL NOT BE COMPLETED UNTIL AFTER THE PLACEMENT OF THE BITUMINOUS CONCRETE BINDER COURSE.

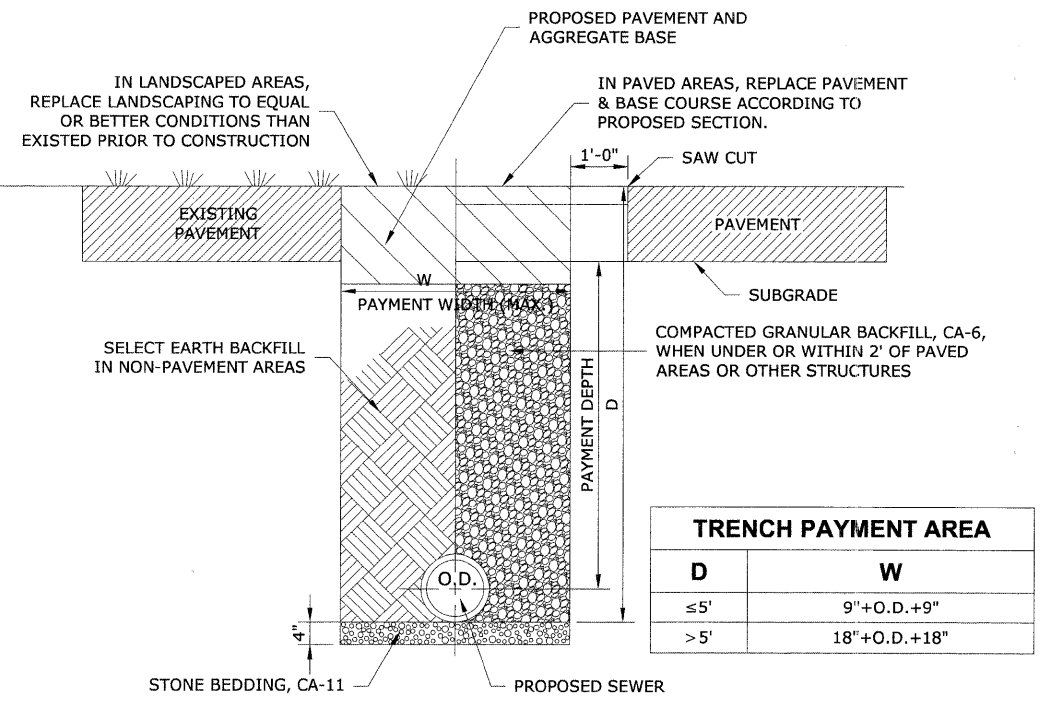
THE AREA WITHIN THE ROUNDOUT SHALL BE FILLED WITH CRUSHED STONE AND A MINIMUM OF 1 1/2" THICK BITUMINOUS MATERIAL APPROVED BY THE ENGINEER. COST IS TO BE INCLUDED IN THE RESPECTIVE PAY ITEM FOR THE NEW, ADJUSTED OR RECONSTRUCTED STRUCTURE.

A 3 FOOT PIECE OF PIPE UNDERDRAIN SHALL BE INSTALLED IN EACH DIRECTION PARALLEL TO THE CURB AND GUTTER AT EACH DRAINAGE STRUCTURE.



TRENCH PAYMENT AREA	
D	W
≤ 5'	9"+O.D.+9"
> 5'	18"+O.D.+18"

**TYPICAL PVC SEWER TRENCH DETAIL**



TRENCH PAYMENT AREA	
D	W
≤ 5'	9"+O.D.+9"
> 5'	18"+O.D.+18"

**TYPICAL RCCP SEWER TRENCH DETAIL**

REVISION:	

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9133 Stevenson Road  
Westchester, Illinois 60594-2700  
Phone: 708-664-6200  
Fax: 708-664-1212

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS DRAINAGE AND UTILITIES DETAILS**

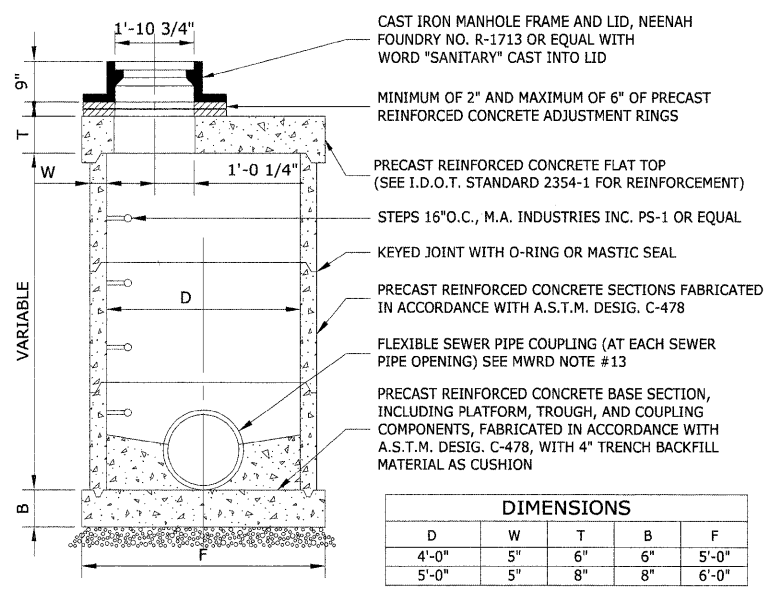
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DATE: 01-09-09

SCALE: NOT TO SCALE

E.H.E. PROJECT NO.: 125-08-13501



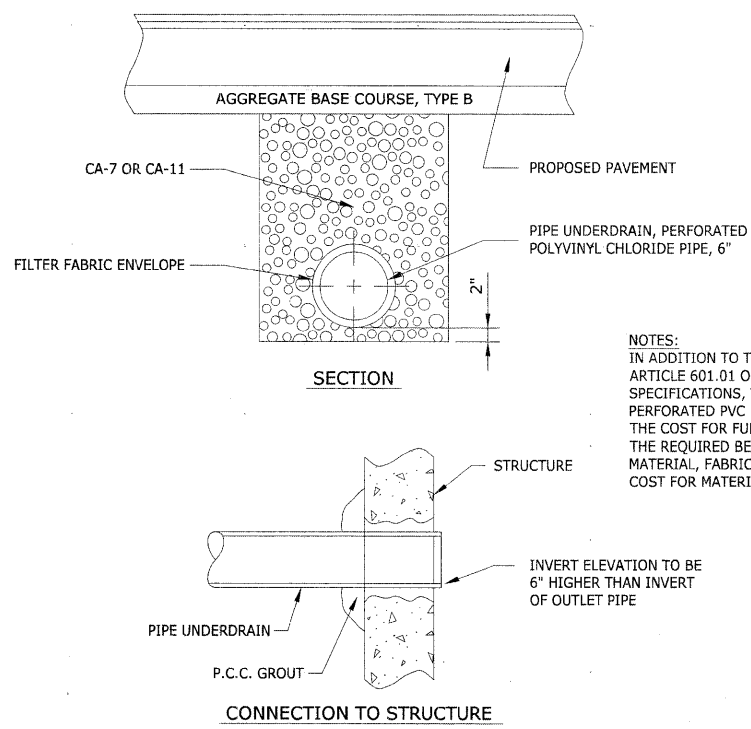
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	33
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



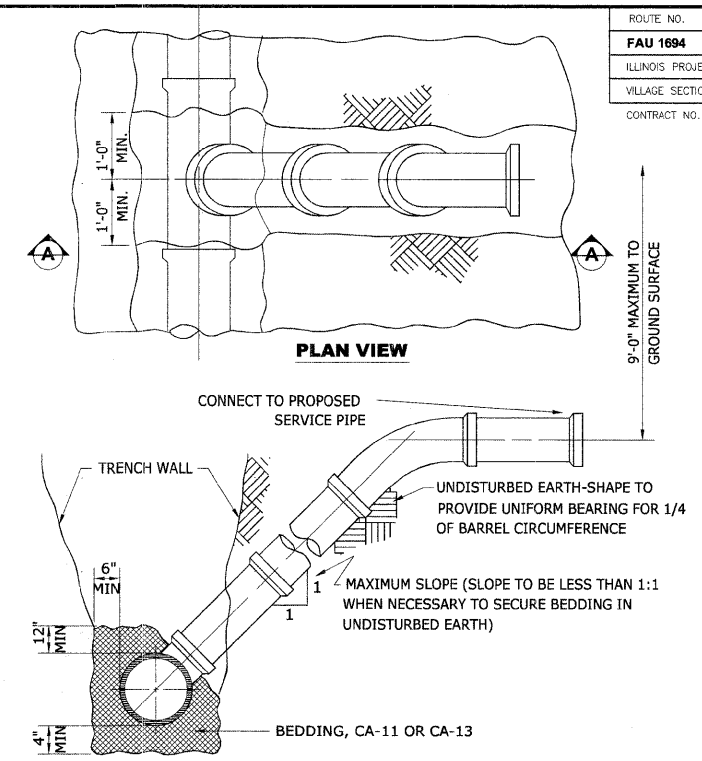
**RESTRICTED DEPTH COMBINED SEWER MANHOLE**

**DUCTILE IRON PIPE SPECIFICATIONS**

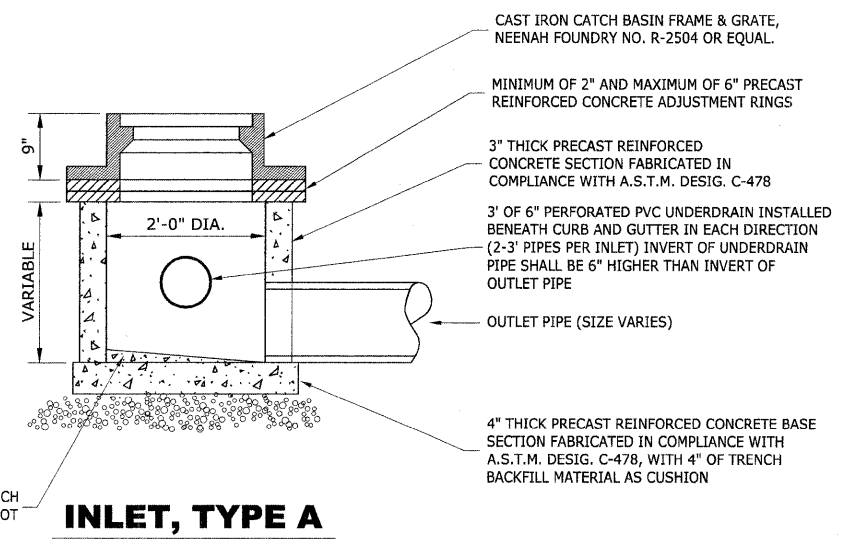
- ALL DUCTILE IRON PIPE WATER MAINS AND SEWER MAINS SHALL BE CLASS 52, CEMENT-LINED AND TAR-COATED, MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C151/A21.51 WITH "PUSH-ON" JOINTS MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C111/A21.11. WHERE SPECIFIED ON THE PLANS, OR IN THE SPECIFICATIONS, MECHANICAL JOINTS AND "LOCK-TYPE" JOINTS SHALL BE USED IN LIEU OF "PUSH-ON" JOINTS.
- ALL PIPE FITTINGS AND SPECIAL CASTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C153/A21.53 AND ANSI/AWWA C111/A21.11 SPECIFICATIONS AND SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS 150 DUCTILE IRON PIPE. IF CERTAIN FITTINGS ARE NOT MANUFACTURED IN DUCTILE IRON, CAST IRON FITTINGS SHALL BE ACCEPTABLE. MECHANICAL JOINT TYPE FITTINGS SHALL BE USED.
- ALL PROPOSED DUCTILE IRON PIPE WATER MAIN AND SEWER MAIN WILL BE ENCASED WITHIN FOUR (4) MIL THICK, HIGH-DENSITY POLYETHYLENE TUBING. ALL FITTINGS SHALL BE ENCASED IN A DOUBLE-LAYER OF POLYETHYLENE TUBING. THE POLYETHYLENE MATERIAL SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH ANSI/AWWA C105/A21.5. ALL PROPOSED WATER AND SEWER SERVICES SHALL BE ENCASED IN POLYETHYLENE TUBING FOR A MINIMUM DISTANCE OF THREE FEET (3') FROM THE PROPOSED WATER MAIN AND SEWER MAIN.



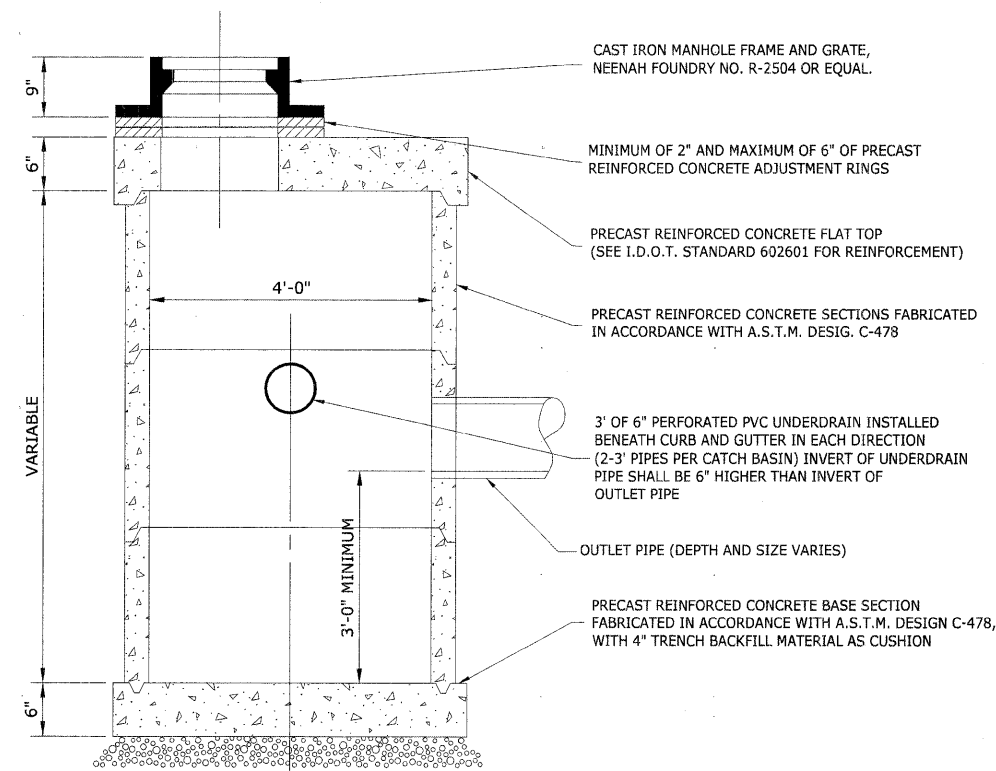
**PIPE UNDERDRAIN DETAIL**



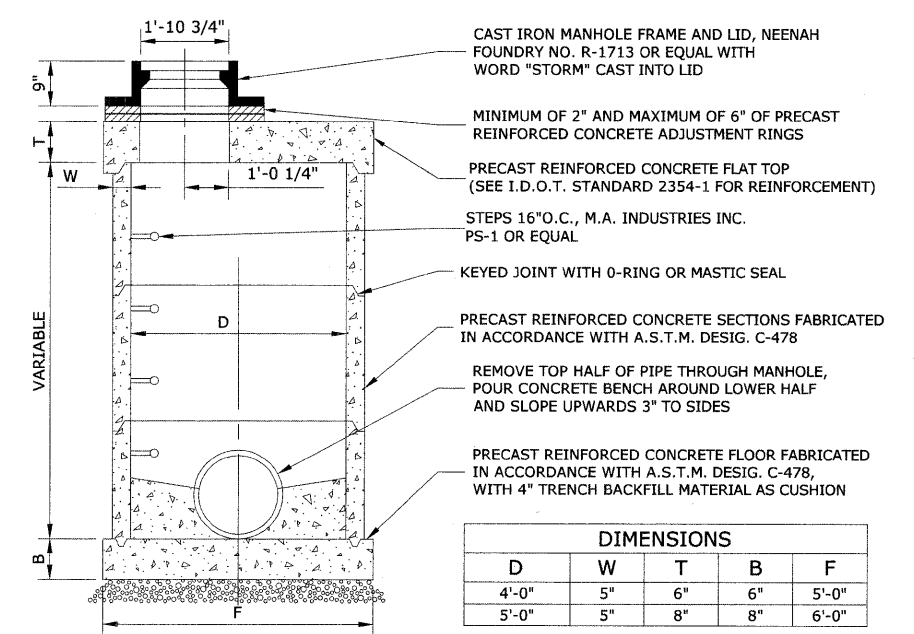
**TYPICAL RISER FOR SERVICE LATERAL**



**INLET, TYPE A**



**RESTRICTED DEPTH CATCH BASIN**



**RESTRICTED DEPTH STORM MANHOLE**

REVISION:

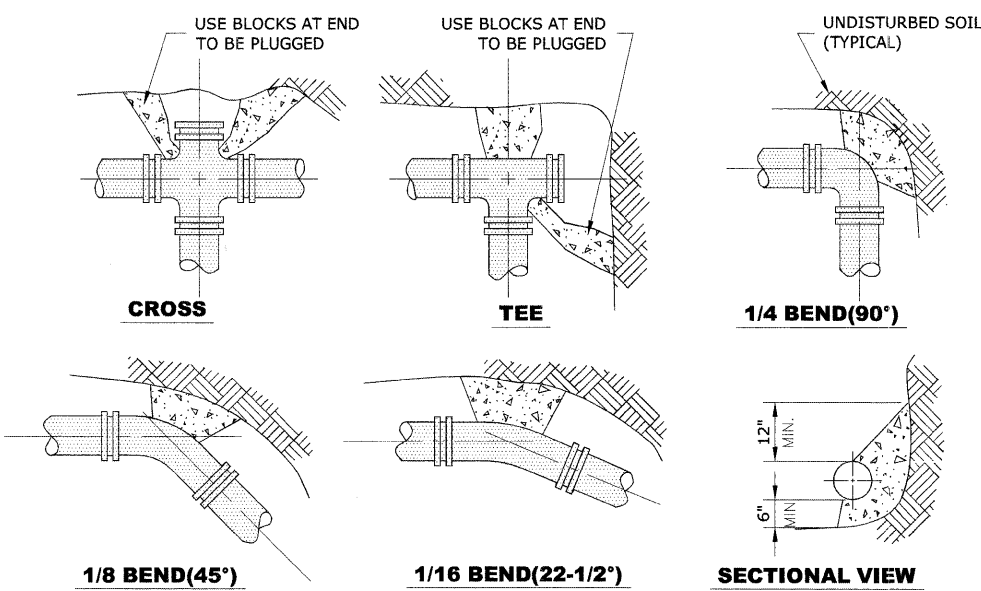
**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9033 Riverport Road  
Woodstock, Illinois 60091-2700  
Phone: 708/565-6300  
Fax: 708/565-1212

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS DRAINAGE AND UTILITIES DETAILS**

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09  
SCALE: NOT TO SCALE  
E.H.E. PROJECT NO.: 125-08-13501

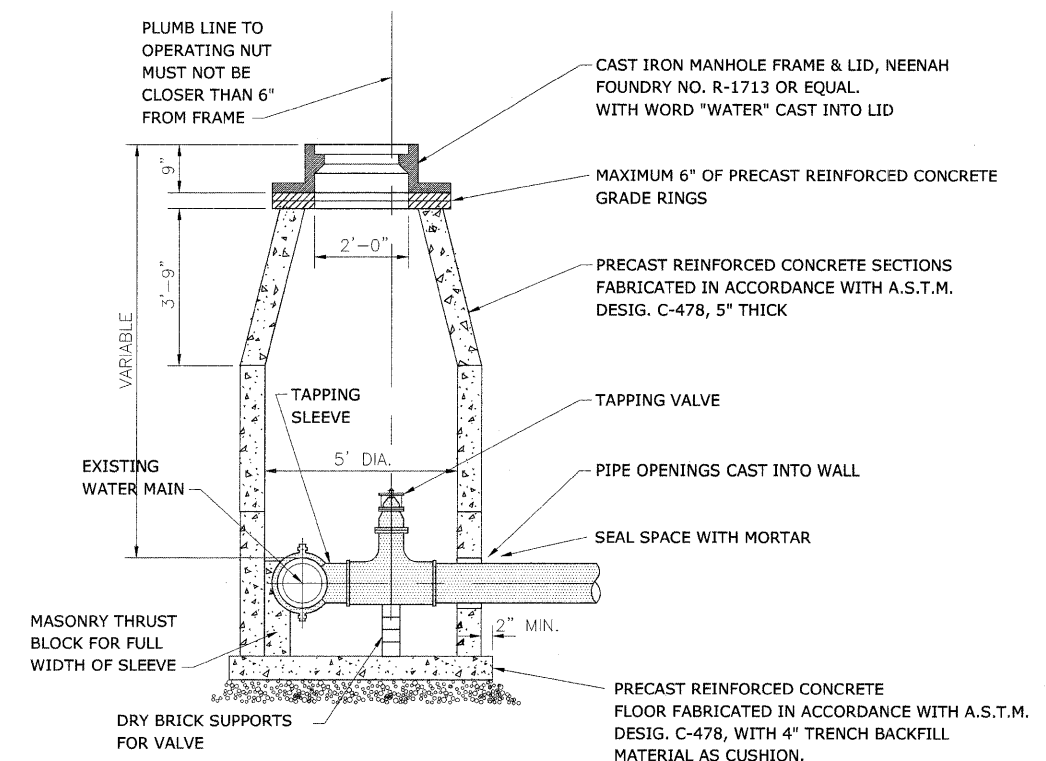
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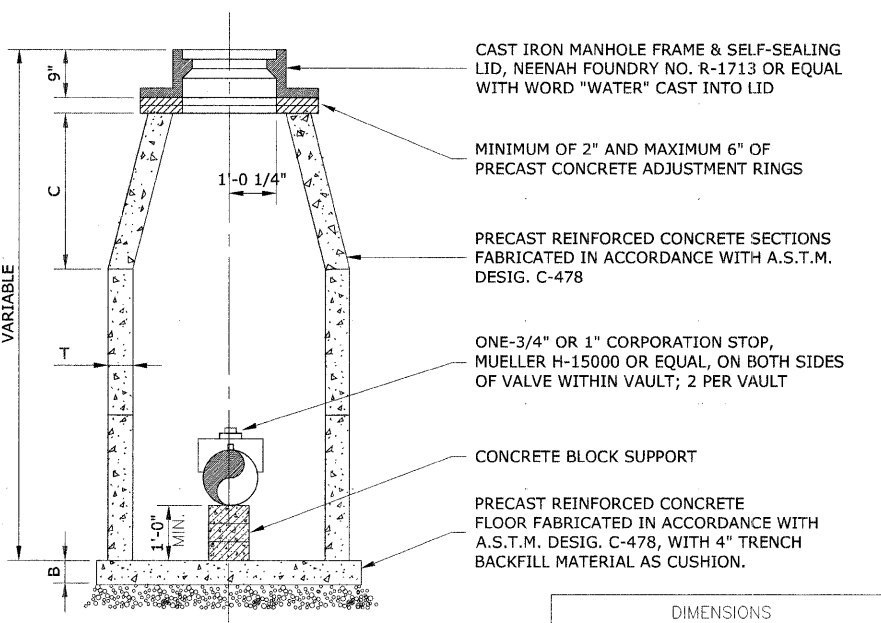
**NOTE:**

1. THRUST BLOCKS TO BE USED AT 1/16(22-1/2°) OR GREATER BENDS & AT ALL ENDS TO BE PLUGGED.
2. PRECAST CONCRETE THRUST BLOCKS TO BE PLACED AGAINST FIRM, UNDISTURBED SOIL.

**THRUST BLOCK DETAIL**

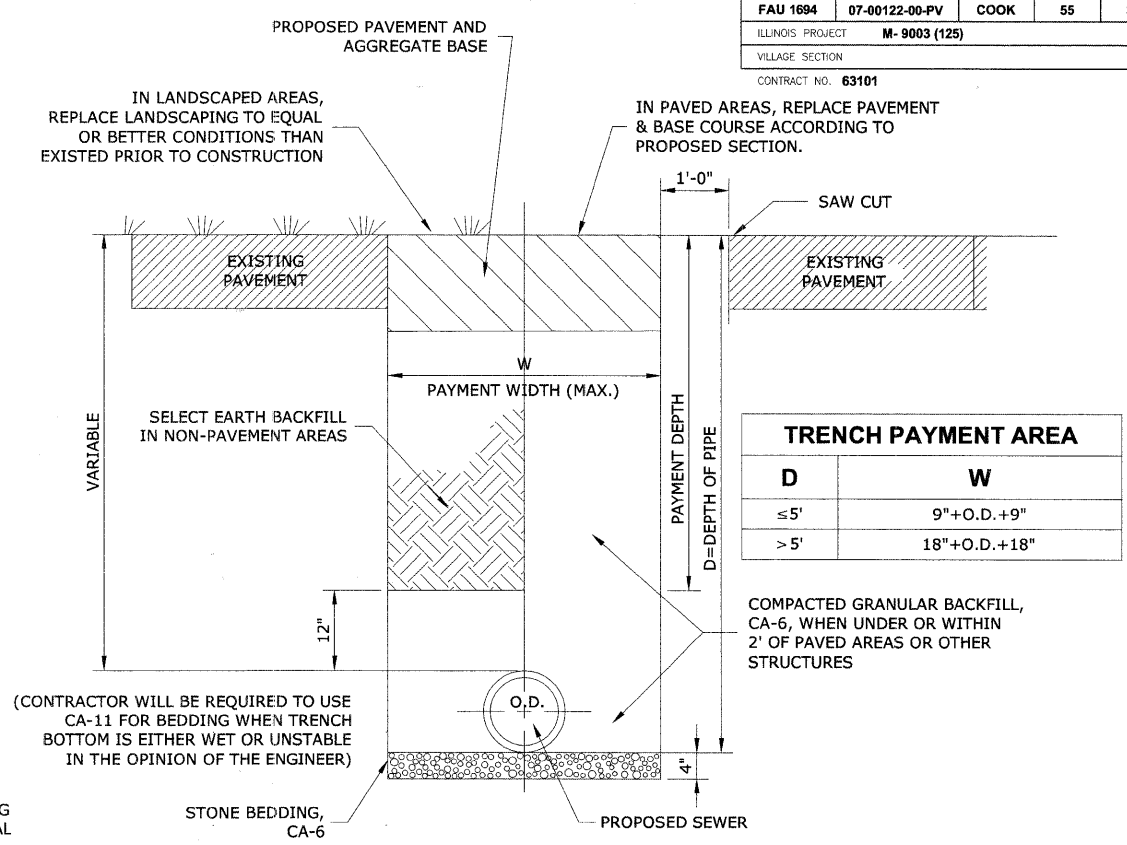


**PRESSURE CONNECTION VAULT DETAIL**

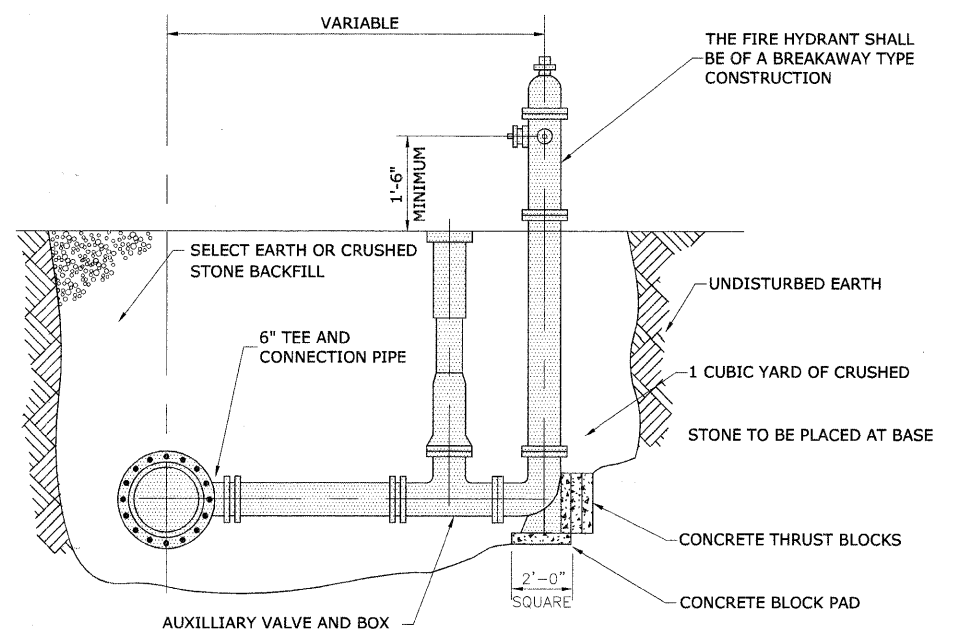


**STANDARD VALVE VAULT DETAIL**

DIMENSIONS			
D	C	T(MIN.)	B
4'-0"	2'-6"	4"	6"
5'-0"	3'-9"	5"	8"



**TYPICAL WATER MAIN TRENCH DETAIL**



**FIRE HYDRANT DETAIL**

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9933 Riverdale Road  
Winchester, Illinois 60156-4700  
Phone: 708-365-6300  
Fax: 708-365-1212

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS DRAINAGE AND UTILITIES DETAILS**

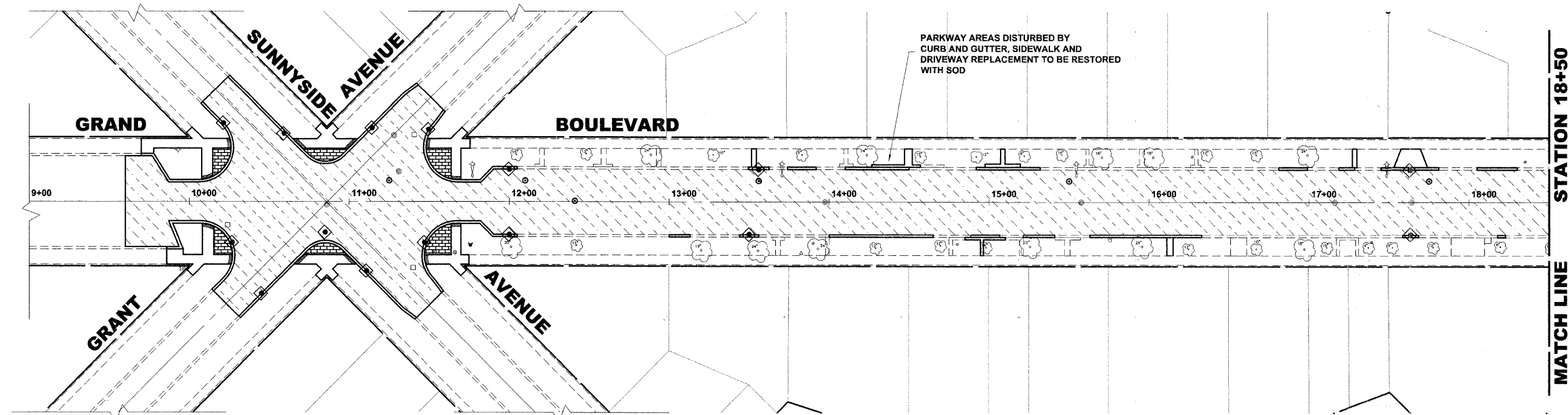
REVISION:

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CHECKED BY: JCG  
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Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Drainage-Details.dwg Jan 09, 2009 - 9:14am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	35
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

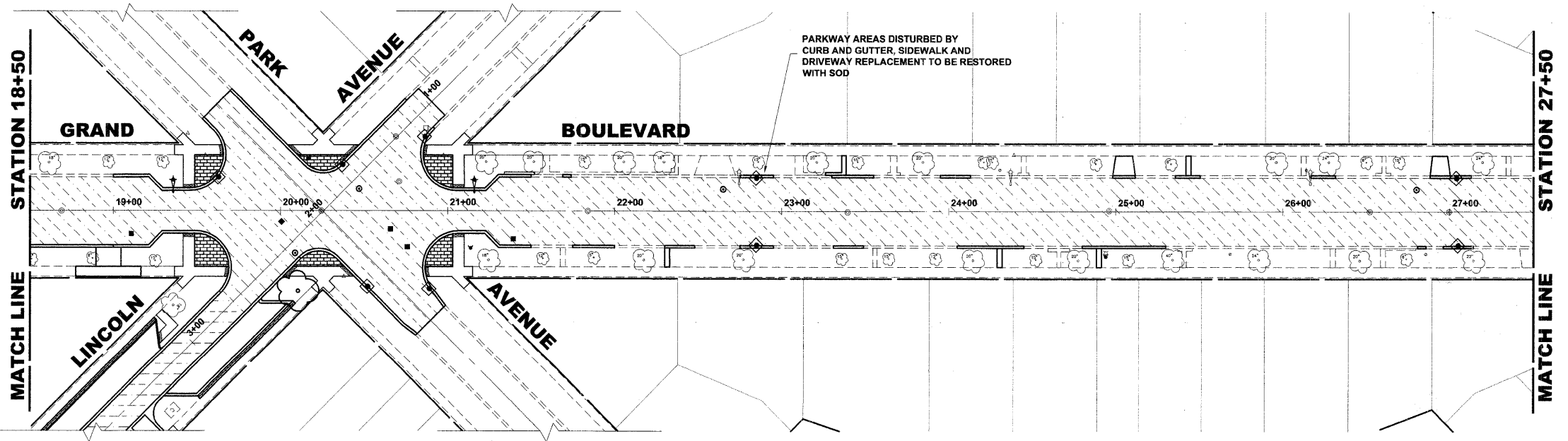


**EROSION CONTROL NOTES**

1. SEE IDOT STANDARD 280001-03 FOR TEMPORARY EROSION CONTROL SYSTEMS.
2. THE CONTRACTOR SHALL ENSURE THAT ADJACENT PROPERTIES REMAIN PROTECTED FROM SEDIMENT DEPOSITION.
3. SOIL STOCKPILES SHALL BE PROTECTED WITH PERIMETER EROSION BARRIER OR OTHER EROSION PROTECTION SPECIFIED BY THE RESIDENT ENGINEER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE FOR THE INDIVIDUAL SOIL MATERIALS.
4. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. THE PROVISIONS MAY INCLUDE SPRAYING VEHICLE WHEELS TO CLEAR SEDIMENT BEFORE EXITING THE CONSTRUCTION SITE OR OTHER MEASURES APPROVED BY THE ENGINEER.

**LEGEND**

SYMBOL	DESCRIPTION
◆	INLET FILTER



**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 933 Roseville Road, Wheeling, Illinois 60090-2790  
 Phone: 708-965-0300 Fax: 708-965-1212

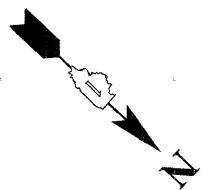
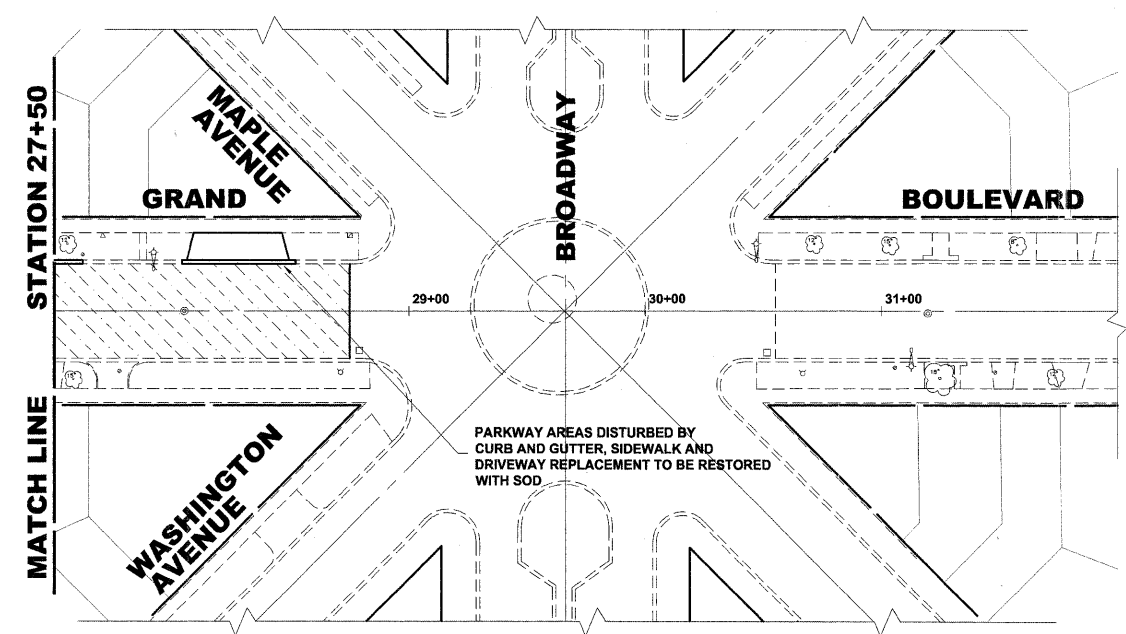
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 EROSION CONTROL PLAN**

REVISION:

DRAWN BY: LEVIECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 SCALE: 1" = 40'

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Streets.dwg Jan 09, 2009 - 9:50am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	36
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

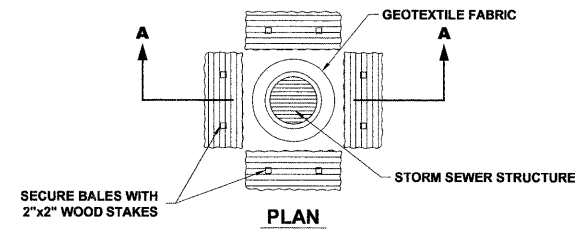
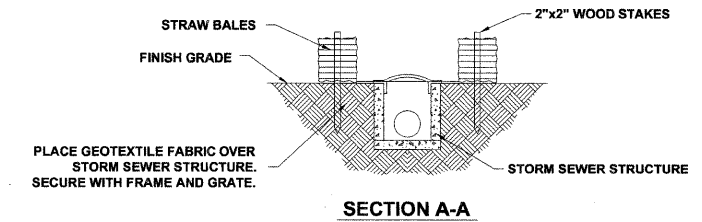


**LEGEND**

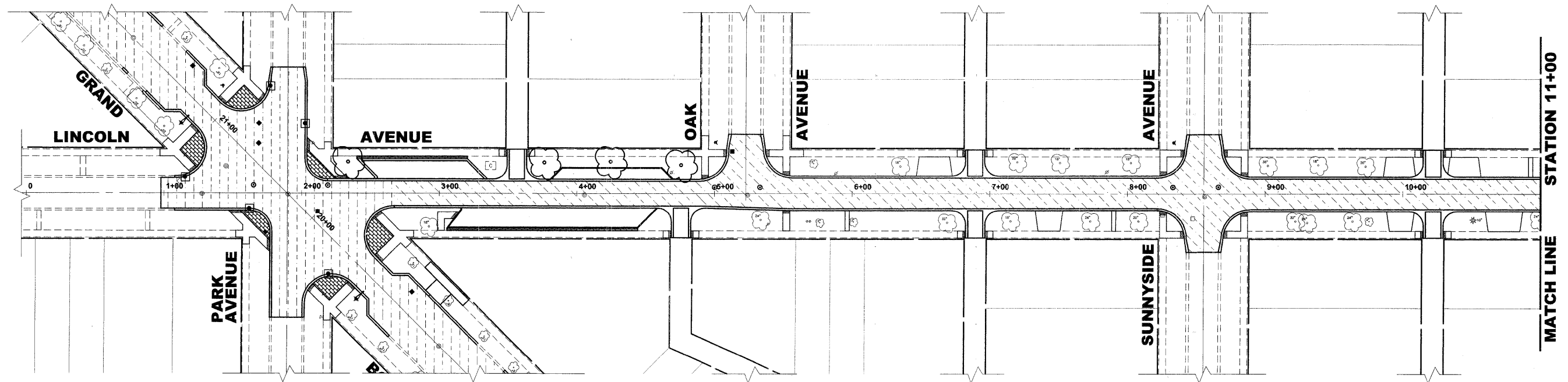
SYMBOL	DESCRIPTION
	INLET FILTER

**EROSION CONTROL NOTES**

1. SEE IDOT STANDARD 280001-03 FOR TEMPORARY EROSION CONTROL SYSTEMS.
2. THE CONTRACTOR SHALL ENSURE THAT ADJACENT PROPERTIES REMAIN PROTECTED FROM SEDIMENT DEPOSITION.
3. SOIL STOCKPILES SHALL BE PROTECTED WITH PERIMETER EROSION BARRIER OR OTHER EROSION PROTECTION SPECIFIED BY THE RESIDENT ENGINEER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE FOR THE INDIVIDUAL SOIL MATERIALS.
4. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. THE PROVISIONS MAY INCLUDE SPRAYING VEHICLE WHEELS TO CLEAR SEDIMENT BEFORE EXITING THE CONSTRUCTION SITE OR OTHER MEASURES APPROVED BY THE ENGINEER.



**STRAW BALE SEDIMENT TRAP**



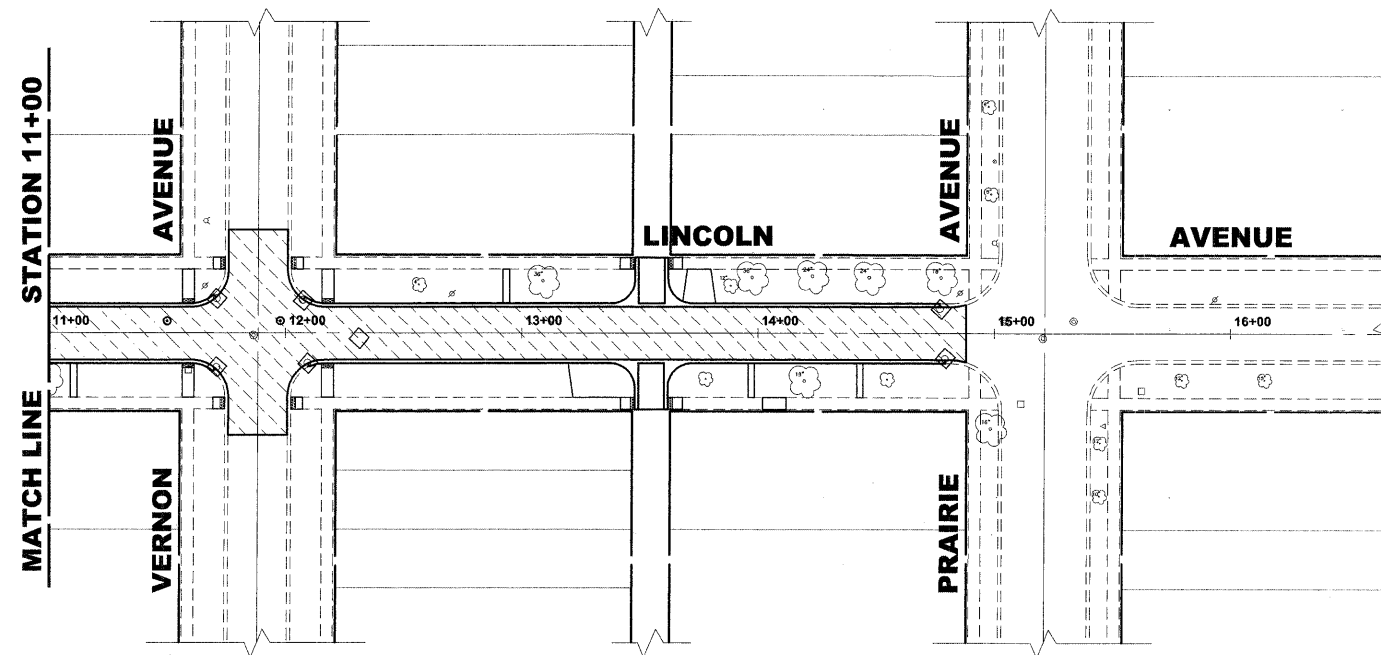
**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9513 Rosemead Road  
 Woodridge, Illinois 60554-2788  
 Phone: 708-565-6100  
 Fax: 708-565-1212

**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 EROSION CONTROL PLAN**

REVISION:

SCALE: 1" = 40'  
 DRAWN BY: LEV/EC/WMK  
 CHECKED BY: JCG  
 DATE: 01-09-09

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	37
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

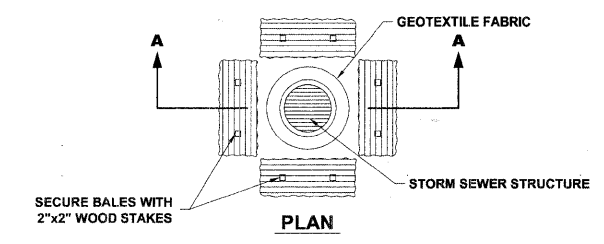
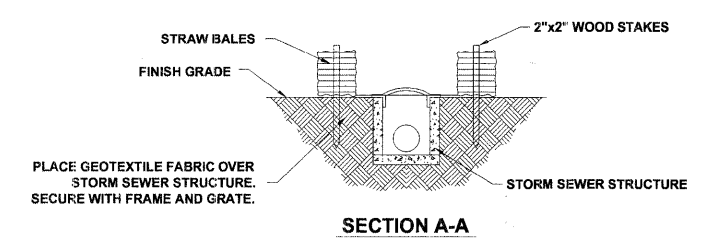


**LEGEND**

SYMBOL	DESCRIPTION
◊	INLET FILTER

**EROSION CONTROL NOTES**

1. SEE IDOT STANDARD 280001-03 FOR TEMPORARY EROSION CONTROL SYSTEMS.
2. THE CONTRACTOR SHALL ENSURE THAT ADJACENT PROPERTIES REMAIN PROTECTED FROM SEDIMENT DEPOSITION.
3. SOIL STOCKPILES SHALL BE PROTECTED WITH PERIMETER EROSION BARRIER OR OTHER EROSION PROTECTION SPECIFIED BY THE RESIDENT ENGINEER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE FOR THE INDIVIDUAL SOIL MATERIALS.
4. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. THE PROVISIONS MAY INCLUDE SPRAYING VEHICLE WHEELS TO CLEAR SEDIMENT BEFORE EXITING THE CONSTRUCTION SITE OR OTHER MEASURES APPROVED BY THE ENGINEER.



**STRAW BALE SEDIMENT TRAP**

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9933 Rosemead Road  
Westchester, Illinois 60154-2700  
Phone: 708-965-8000  
Fax: 708-965-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**EROSION CONTROL PLAN**

SCALE: 1" = 40'

DRAWN BY: LEVECWM/K  
CHECKED BY: JCG  
DATE: 01-09-09

E.H.E. PROJECT NO. : 125-08-13501

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Scale.dwg Jan 09, 2009 - 9:50am

SYMBOL	SIGN	CODE & SIZE	SYMBOL	SIGN	CODE & SIZE	SYMBOL	SIGN	CODE & SIZE
		R1-1 30"x30"						
		R1-3 12"x6"						
		R2-1 24"x30"						
		R2-1 24"x30"						
		R5-1 30"x30"						
		R6-2 18"x24"						
		R6-2 18"x24"						
		W16-7p 18"x6"						
		S1-1 36"x36"						

**LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
	PROPOSED TRAFFIC SIGN (TELESCOPING STEEL SIGN SUPPORT)
	PROPOSED TRAFFIC SIGN (2 TELESCOPING STEEL SIGN SUPPORT)

Drawing file: W:\Projects\12509135 - Grand Blvd Grant to Veterans\Signing Legend.dwg Jan 09, 2009 - 9:45am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 9833 Roswell Road, Westchester, Illinois 60154-2760  
 Phone: 708-965-8100 Fax: 708-965-1212

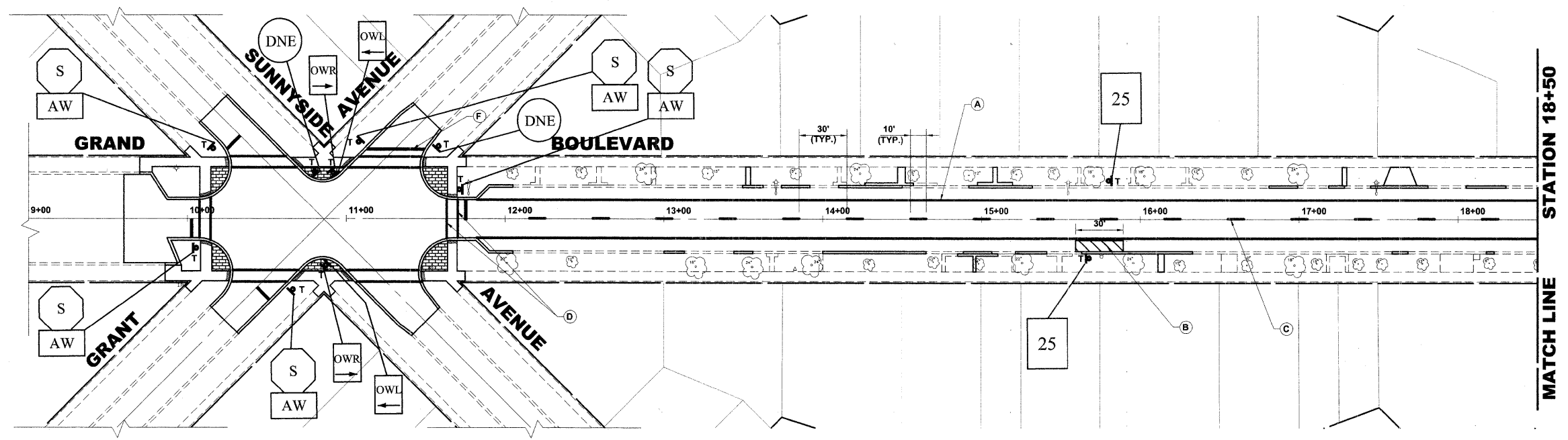
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**SIGNING LEGEND AND NOTES**

DRAWN BY: LEV/CW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09

SCALE: NOT TO SCALE

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	39
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**SIGNING PLAN  
LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
T	PROPOSED TRAFFIC SIGN (TELESCOPING STEEL SIGN SUPPORT)

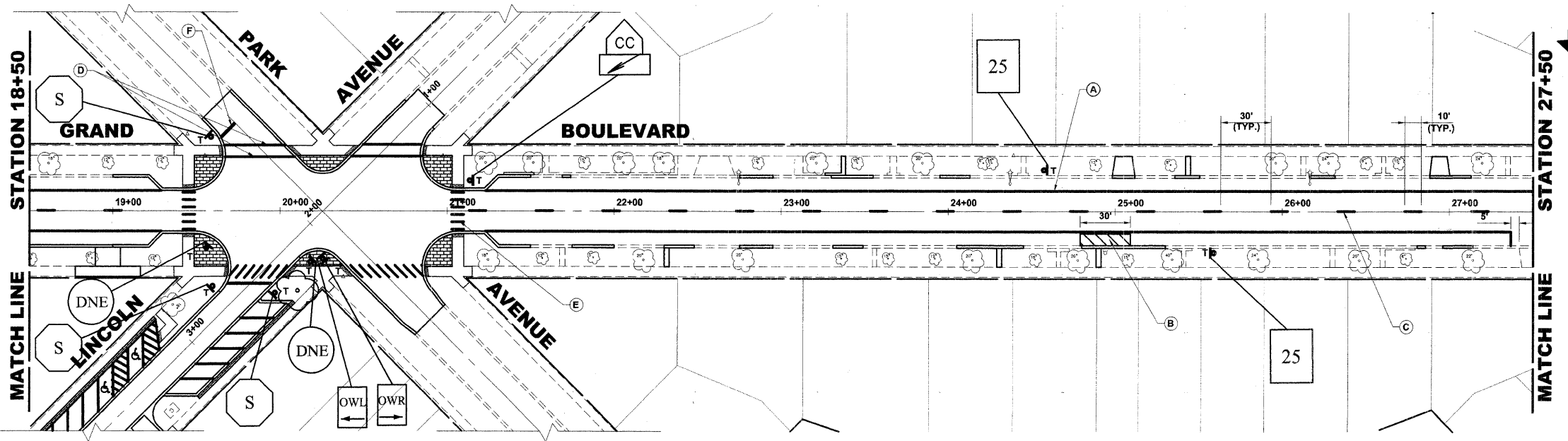
NOTE: "2T" SHALL DENOTE TWO (2) TELESCOPING STEEL SIGN SUPPORTS, RESPECTIVELY.

**PAVEMENT MARKINGS LEGENDS**

ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PARKING LANE LINE, WHITE	A
THERMOPLASTIC PAVEMENT MARKING - LINE 4", NO PARKING AREA, YELLOW	B
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PAVEMENT CENTERLINE SKIP DASH, YELLOW	C
THERMOPLASTIC PAVEMENT MARKING - LINE 6", CROSS WALK, WHITE	D
THERMOPLASTIC PAVEMENT MARKING - LINE 12", SCHOOL CROSSWALK, WHITE	E
THERMOPLASTIC PAVEMENT MARKING - LINE 24", STOP BAR, WHITE	F
PAINT PAVEMENT MARKING - LINE 4", PARKING STALL LINE, YELLOW	G
PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS, HANDICAP SYMBOL, YELLOW	H

**SIGNING NOTES**

STREET NAME SIGNS AND POSTS ARE TO BE REMOVED BY CONTRACTOR AT THE BEGINNING OF CONSTRUCTION, SAFELY STORED BY THE CONTRACTOR AND REINSTALLED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT (COST IS TO BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION, SPECIAL)



REVISION:

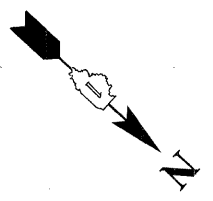
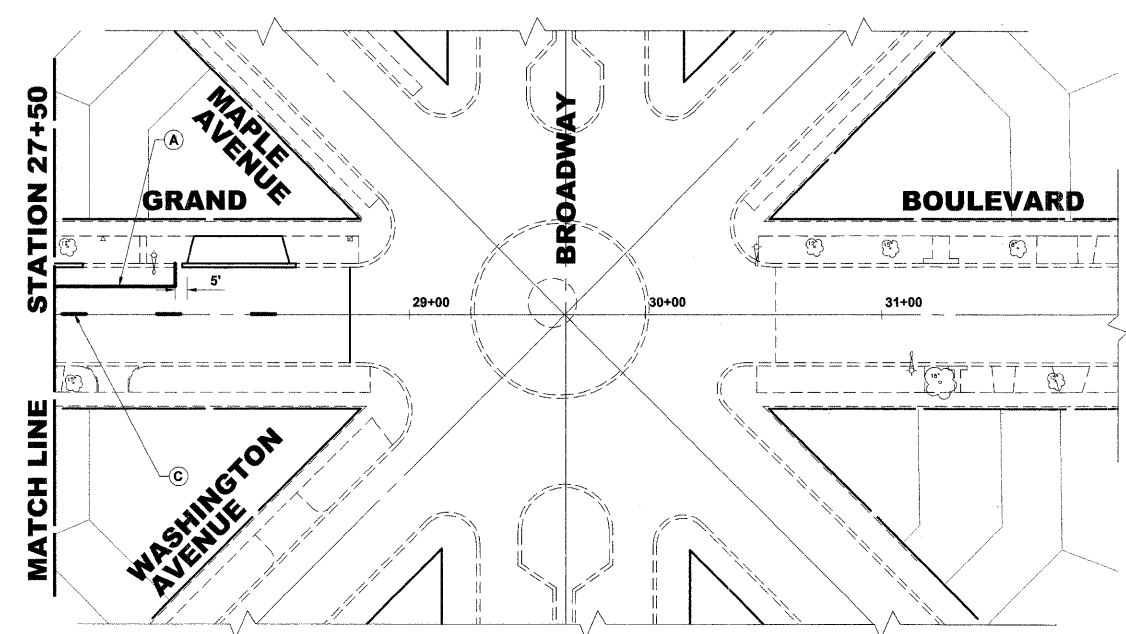
**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9533 Rosemead Road  
 Westchester, Illinois 60154-2760  
 Phone: 708-661-6900  
 Fax: 708-661-1212

**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
PAVEMENT MARKING AND  
SIGNING PLAN**

DRAWN BY: LEVIECW/MK  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 SCALE: 1" = 40'  
 E.H.E. PROJECT NO. : 125-08-13501

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40\Scotte.dwg Jan 09, 2009 - 9:50am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	40
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**SIGNING PLAN  
LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
T	PROPOSED TRAFFIC SIGN (TELESCOPING STEEL SIGN SUPPORT)

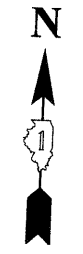
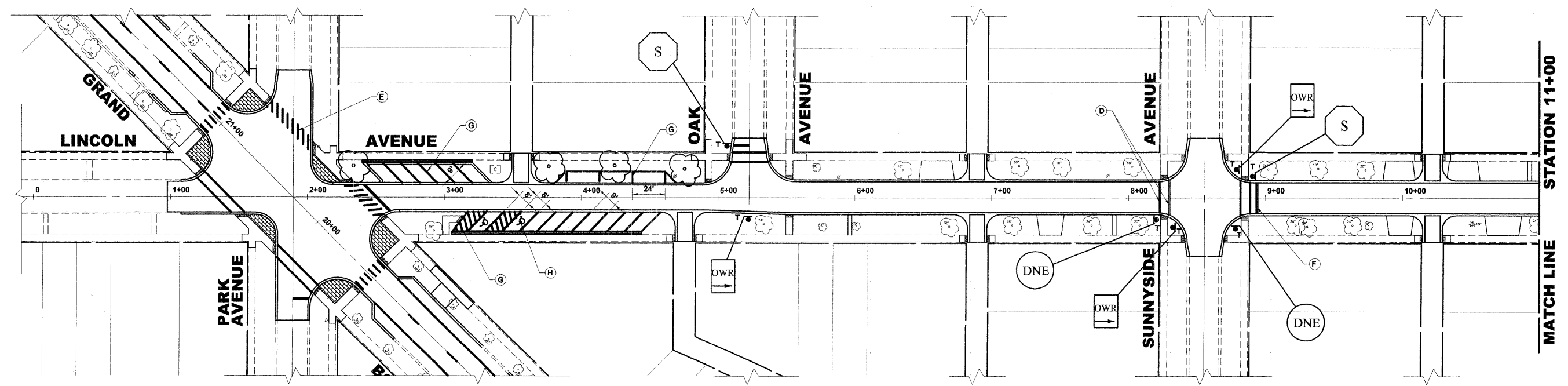
NOTE: "2T" SHALL DENOTE TWO (2) TELESCOPING STEEL SIGN SUPPORTS, RESPECTIVELY.

**PAVEMENT MARKINGS LEGENDS**

ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PARKING LANE LINE, WHITE	A
THERMOPLASTIC PAVEMENT MARKING - LINE 4", NO PARKING AREA, YELLOW	B
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PAVEMENT CENTERLINE SKIP DASH, YELLOW	C
THERMOPLASTIC PAVEMENT MARKING - LINE 6", CROSSWALK, WHITE	D
THERMOPLASTIC PAVEMENT MARKING - LINE 12", SCHOOL CROSSWALK, WHITE	E
THERMOPLASTIC PAVEMENT MARKING - LINE 24", STOP BAR, WHITE	F
PAINT PAVEMENT MARKING - LINE 4", PARKING STALL LINE, YELLOW	G
PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS, HANDICAP SYMBOL, YELLOW	H

**SIGNING NOTES**

STREET NAME SIGNS AND POSTS ARE TO BE REMOVED BY CONTRACTOR AT THE BEGINNING OF CONSTRUCTION, SAFELY STORED BY THE CONTRACTOR AND REINSTALLED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT (COST IS TO BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION, SPECIAL)



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Scale.dwg Jan 09, 2009 - 9:50am

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9033 Rosemead Road  
 Woodridge, Illinois 60554-2700  
 Phone: 708-665-0100  
 Fax: 708-665-1312

**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
PAVEMENT MARKING AND  
SIGNING PLAN**


REVISION:

DRAWN BY: LEVECWMK  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 SCALE: 1" = 40'



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	41
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				

**SIGNING PLAN  
LEGEND OF SYMBOLS**

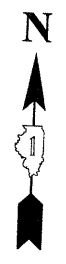
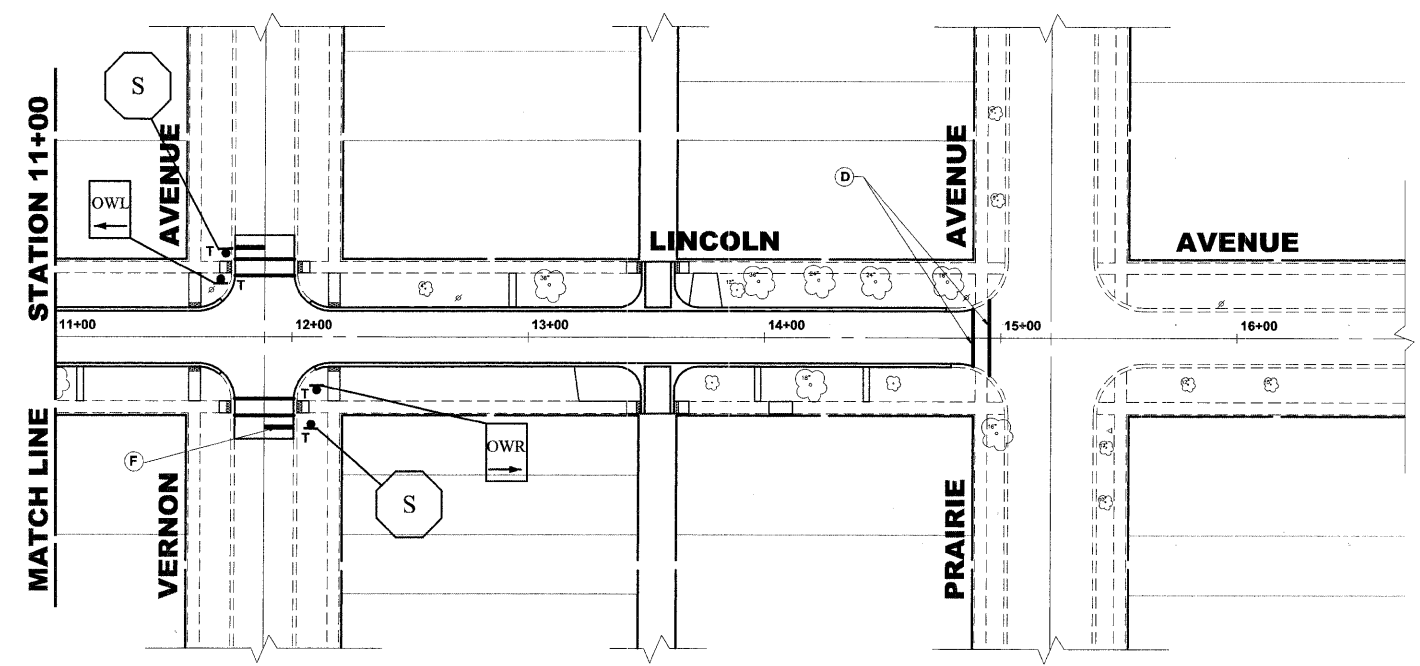
SYMBOL	DESCRIPTION
	PROPOSED TRAFFIC SIGN (TELESCOPING STEEL SIGN SUPPORT)
NOTE: "2T" SHALL DENOTE TWO (2) TELESCOPING STEEL SIGN SUPPORTS, RESPECTIVELY.	

**SIGNING NOTES**

STREET NAME SIGNS AND POSTS ARE TO BE REMOVED BY CONTRACTOR AT THE BEGINNING OF CONSTRUCTION, SAFELY STORED BY THE CONTRACTOR AND REINSTALLED BY THE CONTRACTOR AT THE COMPLETION OF THE PROJECT (COST IS TO BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION, SPECIAL)

**PAVEMENT MARKINGS LEGENDS**

ITEM DESCRIPTION	SYMBOL
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PARKING LANE LINE, WHITE	A
THERMOPLASTIC PAVEMENT MARKING - LINE 4", NO PARKING AREA, YELLOW	B
THERMOPLASTIC PAVEMENT MARKING - LINE 4", PAVEMENT CENTERLINE SKIP DASH, YELLOW	C
THERMOPLASTIC PAVEMENT MARKING - LINE 6", CROSS WALK, WHITE	D
THERMOPLASTIC PAVEMENT MARKING - LINE 12", SCHOOL CROSSWALK, WHITE	E
THERMOPLASTIC PAVEMENT MARKING - LINE 24", STOP BAR, WHITE	F
PAINT PAVEMENT MARKING - LINE 4", PARKING STALL LINE, YELLOW	G
PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS, HANDICAP SYMBOL, YELLOW	H



Drawing file: W:\Projects\12506135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Scale.dwg Jan 09, 2009 - 9:50am

REVISION	DATE	BY

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 9813 Roosevelt Road, Wheeling, Illinois 60454-2760  
 Phone: 708-965-8300 Fax: 708-965-1212

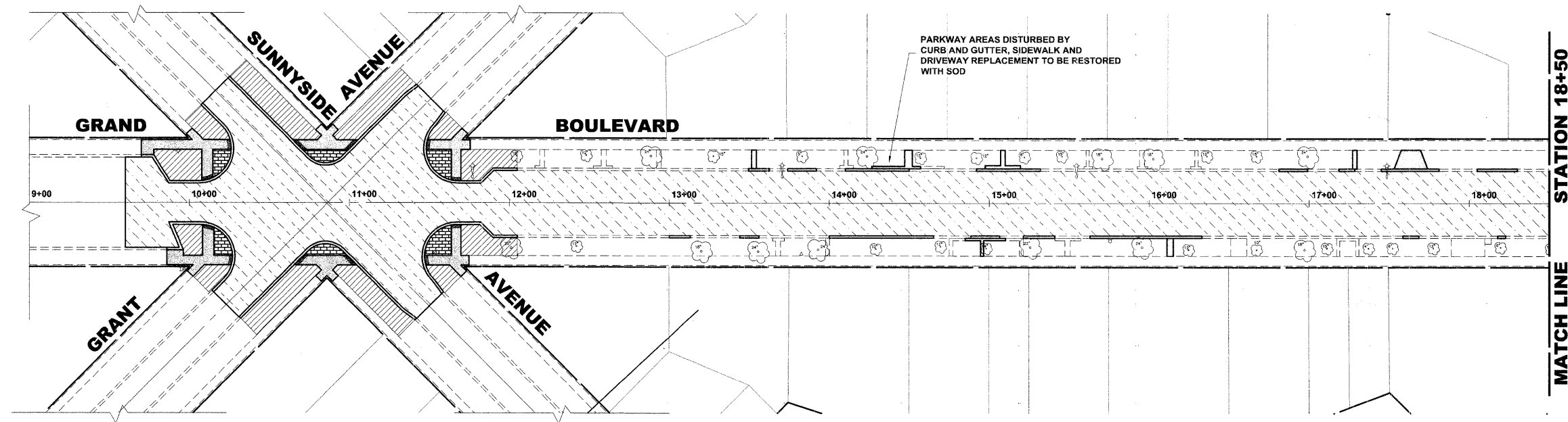
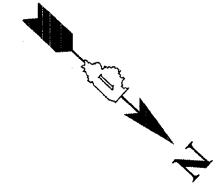
**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
PAVEMENT MARKING AND  
SIGNING PLAN**

SCALE: 1" = 40'

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

E.H.E. PROJECT NO. : 125-06-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	42
ILLINOIS PROJECT		M-9003 (125)		
VILLAGE SECTION				
CONTRACT NO. 63101				



STATION 18+50  
MATCH LINE

**LANDSCAPING NOTES**

**SODDING:**  
ALL DISTURBED AREAS INDICATED ON CROSS SECTION OR LANDSCAPING PLANS TO BE SODDED, INCLUDING FERTILIZER NUTRIENTS\*, AND SUPPLEMENTAL WATERING WHICH IS TO BE USED AFTER THE INITIAL WATERING (AS SPECIFIED AND AS DIRECTED BY THE ENGINEER) AT THE RATE OF 10 GALLONS PER SQUARE YARD SODDING. SODDED SLOPES WHICH ARE 2:1 OR STEEPER SHALL BE STAKED. (PROVIDE A 3" STRIP AROUND CATCH BASINS IN SEEDING AREAS).

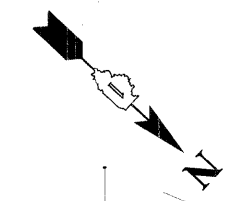
**FERTILIZER NUTRIENTS\* FOR SODDING:**  
USE A FERTILIZER WITH A 1:1:1 RATIO PER ACRE:  
  
60 LBS. NITROGEN FERTILIZER NUTRIENT  
60 LBS. PHOSPHORUS FERTILIZER NUTRIENT  
60 LBS. POTASSIUM FERTILIZER NUTRIENT

**TOTAL: 180 LBS. PER ACRE**  
**4" TOP SOIL LAYER:**  
SOIL SHALL BE SPREAD AS INDICATED ON THE TYPICAL CROSS SECTIONS.

A MINIMUM OF GRADING TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 6' FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER.

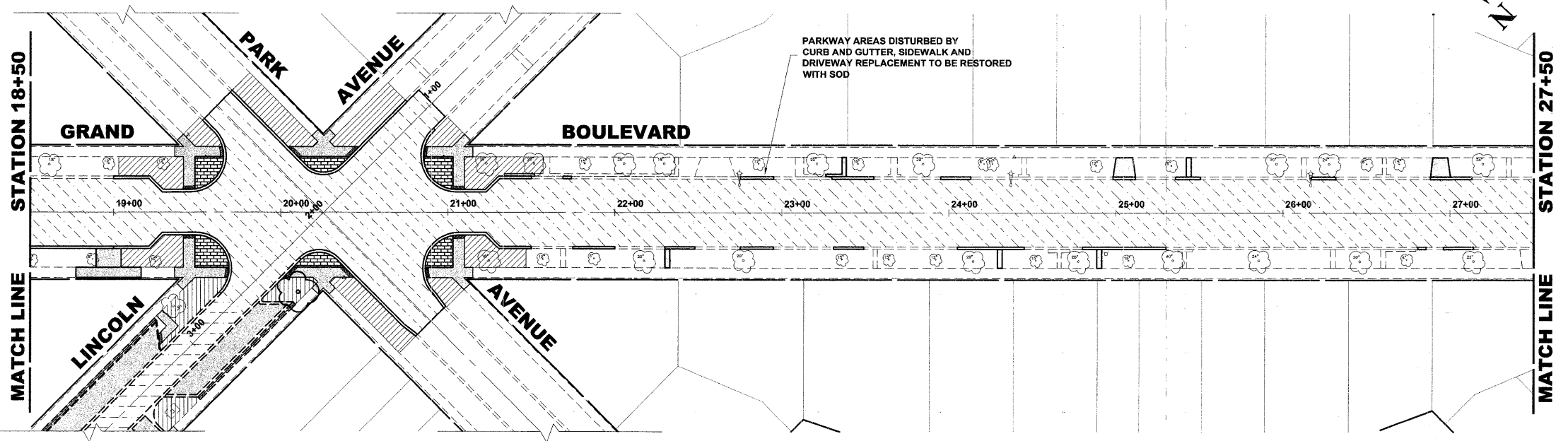
**TREE REPLACEMENT:**  
TREE TYPE & LOCATION TO BE DETERMINED IN THE FIELD BY THE LICENSED VILLAGE FORESTER

**MULCH:**  
MULCH TO BE PLACED AROUND ALL TREES LOCATED IN AREAS THAT ARE TO BE SODDED.



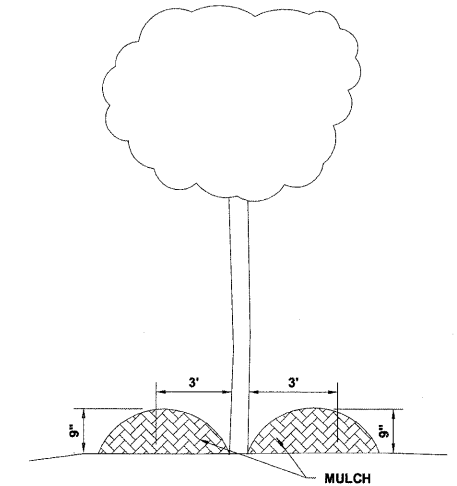
**LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
	PROPOSED HOT-MIX ASPHALT AREA
	PROPOSED CONCRETE AREA
	PROPOSED SODDED PARKWAY
	PROPOSED DECORATIVE BRICK SIDEWALK



STATION 18+50  
MATCH LINE

MATCH LINE  
STATION 27+50



**TREE MULCH DETAIL**

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
9933 Rosemead Road, Westchester, Illinois 60154-2700  
Phone: 708-666-6988 Fax: 708-666-1212

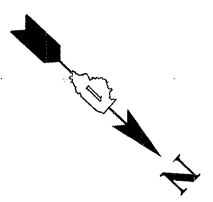
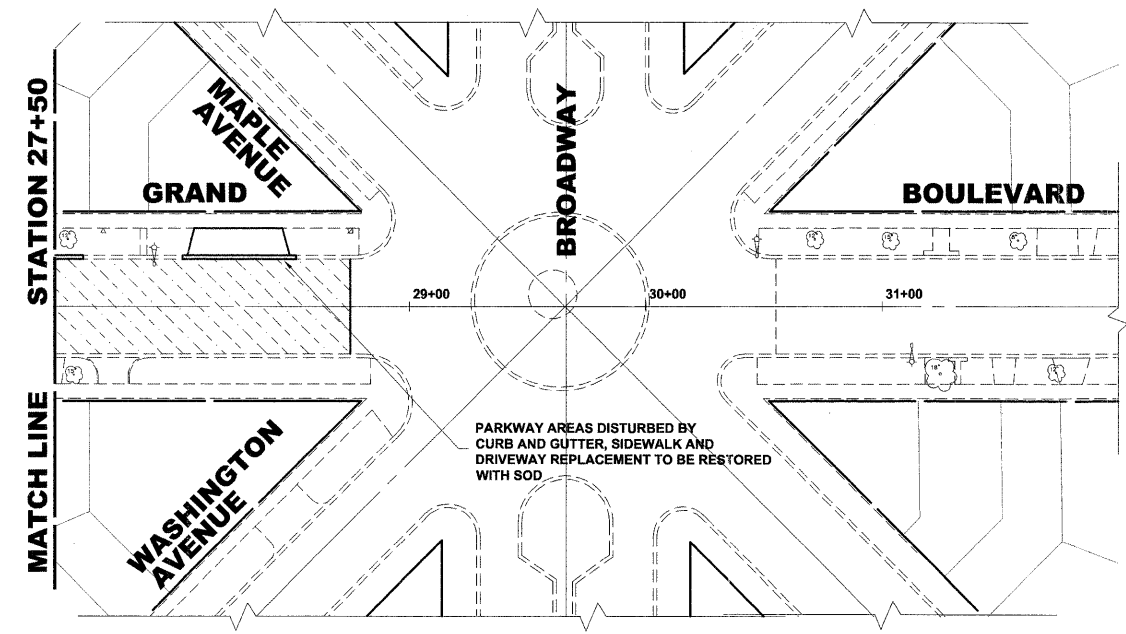
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS ASPHALT & LANDSCAPING PLAN**

DRAWN BY: LEVEC/WMK  
CHECKED BY: JCG  
DATE: 01-09-09  
SCALE: 1" = 40'

E.H.E. PROJECT NO. : 125-08-13501

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40\_Scales.dwg Jan 09, 2009 - 9:50am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	43
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



### LANDSCAPING NOTES

**SODDING:**  
 ALL DISTURBED AREAS INDICATED ON CROSS SECTION OR LANDSCAPING PLANS TO BE SODDED, INCLUDING FERTILIZER NUTRIENTS\*, AND SUPPLEMENTAL WATERING WHICH IS TO BE USED AFTER THE INITIAL WATERING (AS SPECIFIED AND AS DIRECTED BY THE ENGINEER) AT THE RATE OF 10 GALLONS PER SQUARE YARD SODDING. SODDED SLOPES WHICH ARE 2:1 OR STEEPER SHALL BE STAKED. (PROVIDE A 3" STRIP AROUND CATCH BASINS IN SEEDING AREAS).

**FERTILIZER NUTRIENTS\* FOR SODDING:**  
 USE A FERTILIZER WITH A 1:1:1 RATIO PER ACRE:  
 60 LBS. NITROGEN FERTILIZER NUTRIENT  
 60 LBS. PHOSPHORUS FERTILIZER NUTRIENT  
 60 LBS. POTASSIUM FERTILIZER NUTRIENT  
 TOTAL: 180 LBS. PER ACRE

**4" TOP SOIL LAYER:**  
 SOIL SHALL BE SPREAD AS INDICATED ON THE TYPICAL CROSS SECTIONS.

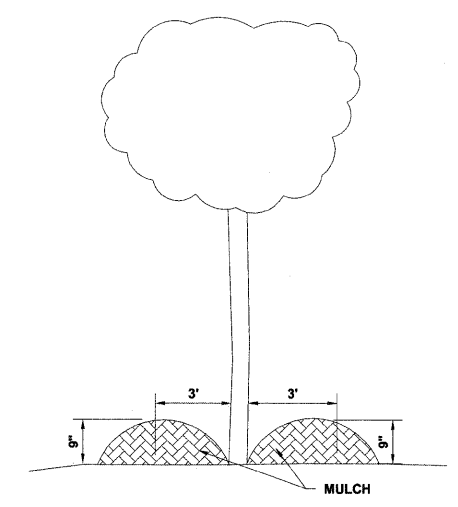
A MINIMUM OF GRADING TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 6' FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER.

**TREE REPLACEMENT:**  
 TREE TYPE & LOCATION TO BE DETERMINED IN THE FIELD BY THE LICENSED VILLAGE FORESTER

**MULCH:**  
 MULCH TO BE PLACED AROUND ALL TREES LOCATED IN AREAS THAT ARE TO BE SODDED.

### LEGEND OF SYMBOLS

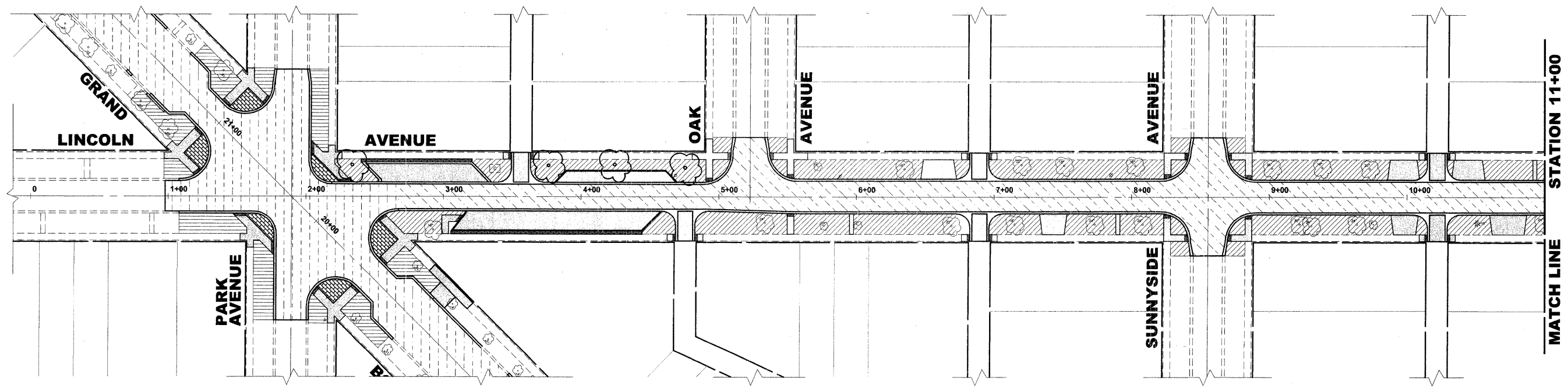
SYMBOL	DESCRIPTION
	PROPOSED HOT-MIX ASPHALT AREA
	PROPOSED CONCRETE AREA
	PROPOSED SODDED PARKWAY
	PROPOSED DECORATIVE BRICK SIDEWALK



TREE REPLACEMENT			
COMMON NAME	SCIENTIFIC NAME	SIZE	QUANTITY*
CHANTICLEER CALLERY PEAR	PYRUS CALLERYANA CHANTICLEER QUEEN	2-1/2" CALIPER	2
JAPANESE TREE LILAC	SYRINGA RETICULATA	2-1/2" CALIPER	2

\* TYPE OF TREE TO BE PLACED AT EACH LOCATION TO BE DETERMINED IN THE FIELD BY THE LICENSED VILLAGE FORESTER

NOTE: ALL TREES BALLED AND BURLAPPED



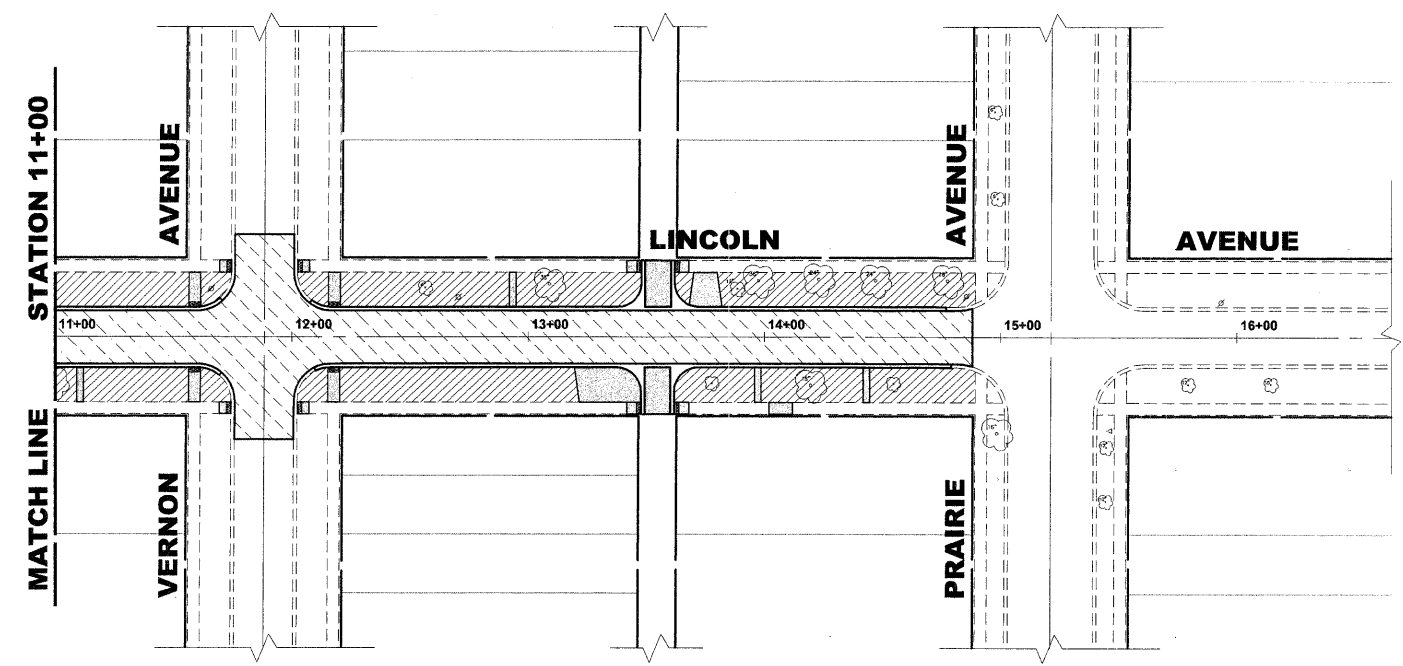
REVISION:

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9533 Rosemead Road  
 Woodridge, Illinois 60553-2788  
 Phone: 708-665-0300  
 Fax: 708-665-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**ASPHALT AND LANDSCAPING PLAN**

SCALE: 1" = 40'  
 DRAWN BY: LEV/EC/W/M/K  
 CHECKED BY: JCG  
 DATE: 01-09-09  
 E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	44
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



**LANDSCAPING NOTES**

**SODDING:**  
 ALL DISTURBED AREAS INDICATED ON CROSS SECTION OR LANDSCAPING PLANS TO BE SODDED, INCLUDING FERTILIZER NUTRIENTS\*, AND SUPPLEMENTAL WATERING WHICH IS TO BE USED AFTER THE INITIAL WATERING (AS SPECIFIED AND AS DIRECTED BY THE ENGINEER) AT THE RATE OF 10 GALLONS PER SQUARE YARD SODDING. SODDED SLOPES WHICH ARE 2:1 OR STEEPER SHALL BE STAKED. (PROVIDE A 3" STRIP AROUND CATCH BASINS IN SEEDING AREAS).

**FERTILIZER NUTRIENTS\* FOR SODDING:**  
 USE A FERTILIZER WITH A 1:1:1 RATIO PER ACRE:  
 60 LBS. NITROGEN FERTILIZER NUTRIENT  
 60 LBS. PHOSPHORUS FERTILIZER NUTRIENT  
 60 LBS POTASSIUM FERTILIZER NUTRIENT  
 TOTAL: 180 LBS. PER ACRE

**4" TOP SOIL LAYER:**  
 SOIL SHALL BE SPREAD AS INDICATED ON THE TYPICAL CROSS SECTIONS.

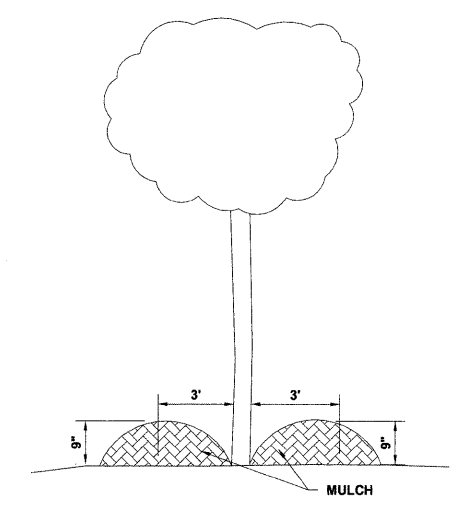
A MINIMUM OF GRADING TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 6' FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER.

**TREE REPLACEMENT:**  
 TREE TYPE & LOCATION TO BE DETERMINED IN THE FIELD BY THE LICENSED VILLAGE FORESTER

**MULCH:**  
 MULCH TO BE PLACED AROUND ALL TREES LOCATED IN AREAS THAT ARE TO BE SODDED.

**LEGEND OF SYMBOLS**

SYMBOL	DESCRIPTION
	PROPOSED HOT-MIX ASPHALT AREA
	PROPOSED CONCRETE AREA
	PROPOSED SODDED PARKWAY
	PROPOSED DECORATIVE BRICK SIDEWALK



**TREE MULCH DETAIL**

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\Grand Blvd 40 Scale.dwg Jan 09, 2009 - 9:50am

REVISION:	

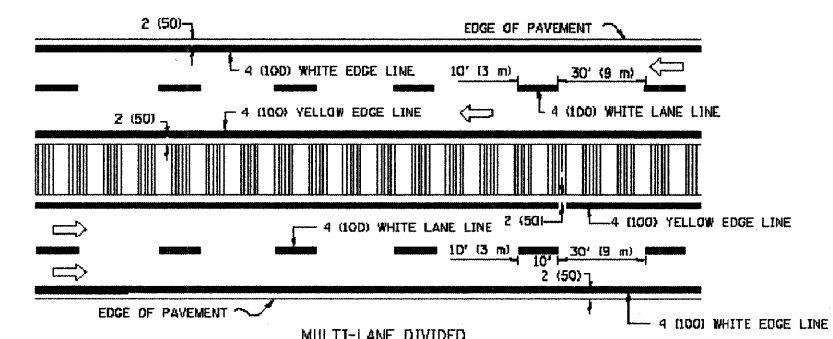
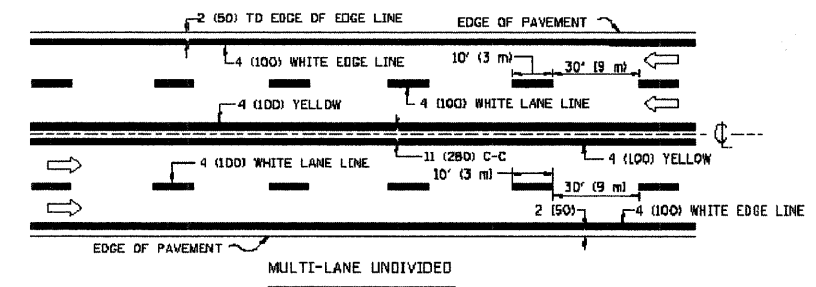
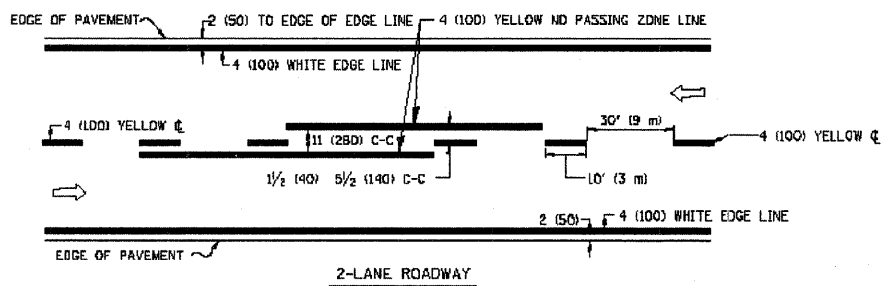
**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 9933 Rosecroft Road, Westchester, Illinois 60591-2700  
 Phone: 708-965-6300 Fax: 708-965-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**ASPHALT AND LANDSCAPING PLAN**

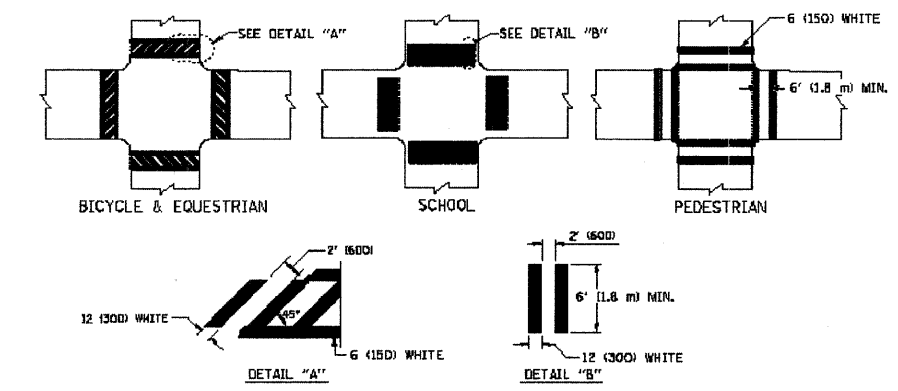
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DRAWN BY: LEVIECWMK  
 CHECKED BY: JCG  
 DATE: 01-09-09

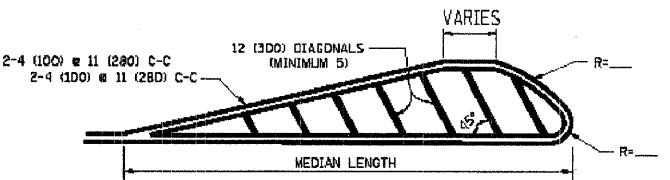
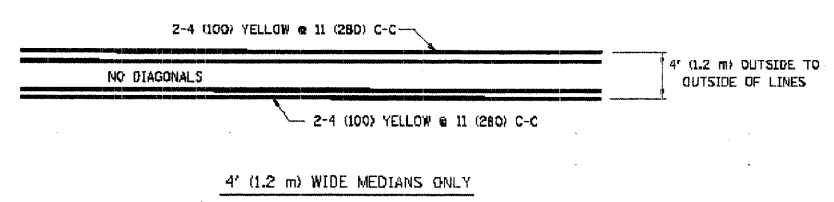
E.H.E. PROJECT NO. : 125-08-13501



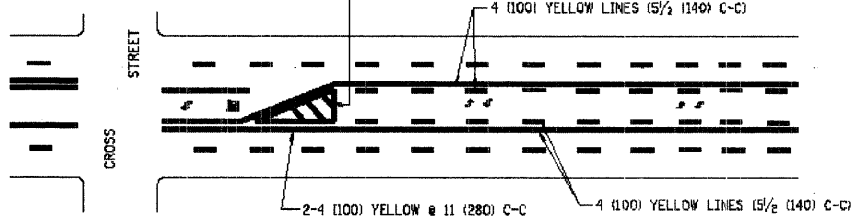
TYPICAL LANE AND EDGE LINE MARKING



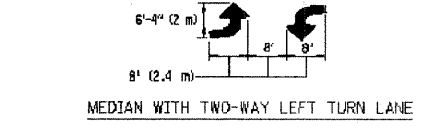
TYPICAL CROSSWALK MARKING



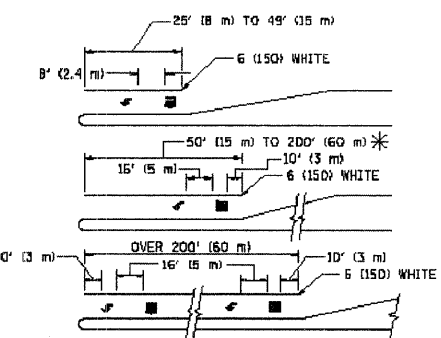
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.  
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
 75' (23 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



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



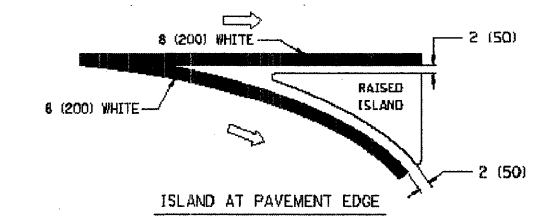
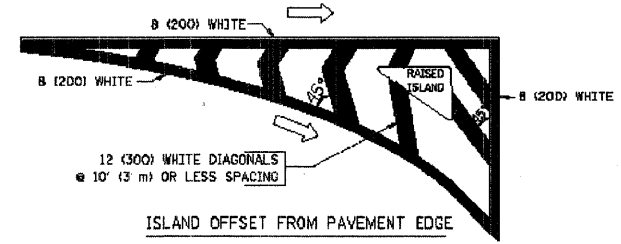
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



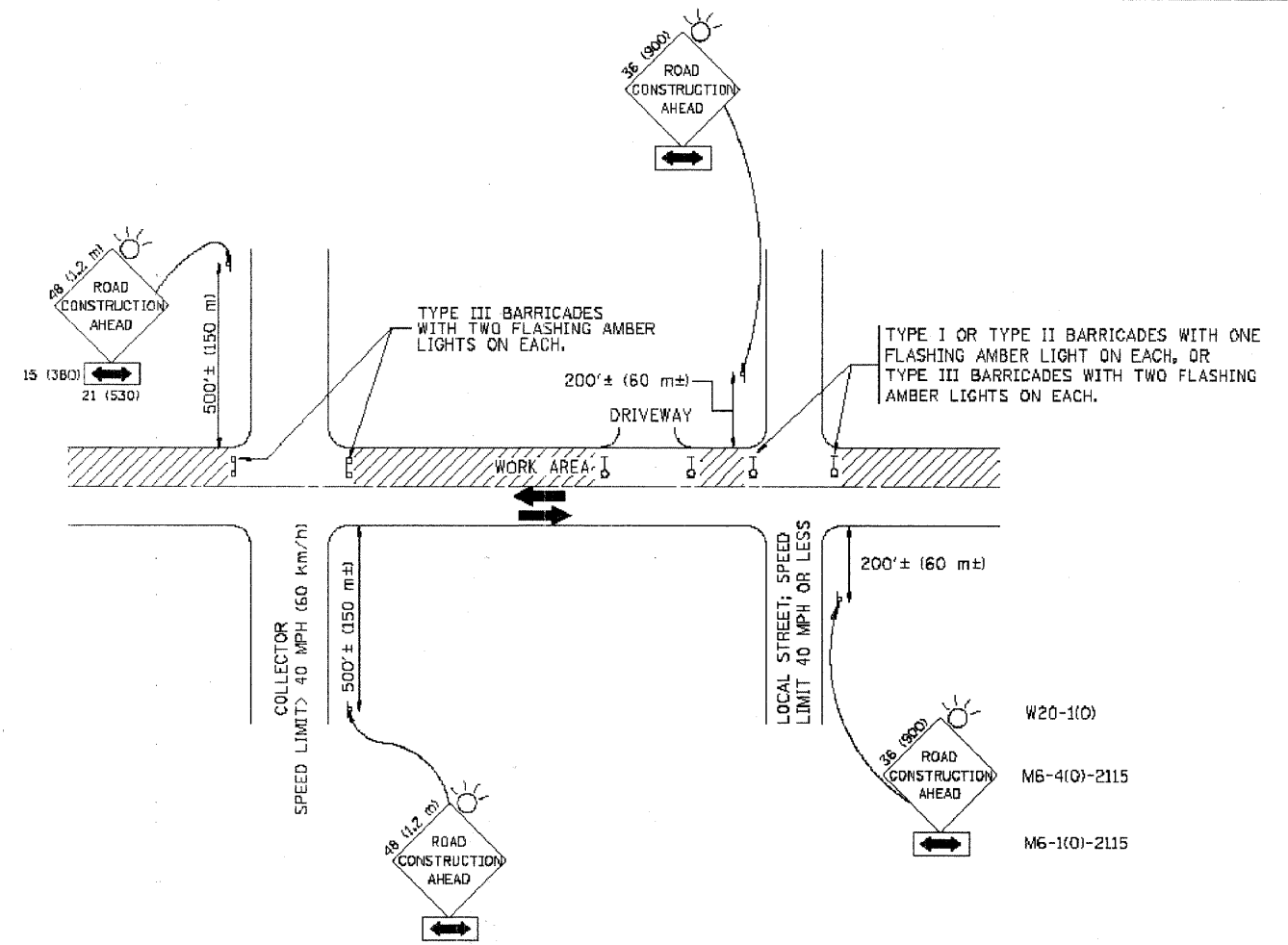
TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2' (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW, EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE, FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH & 5/2' (140) 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 @ 5 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CDRE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES "RR" IS 5' (1.5 m) LETTERS: 18 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=64.0 SQ. FT. (5.9 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\MARKINGS.dwg Jan 09, 2009 - 10:10am



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS:
  1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
  3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
 

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701605 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

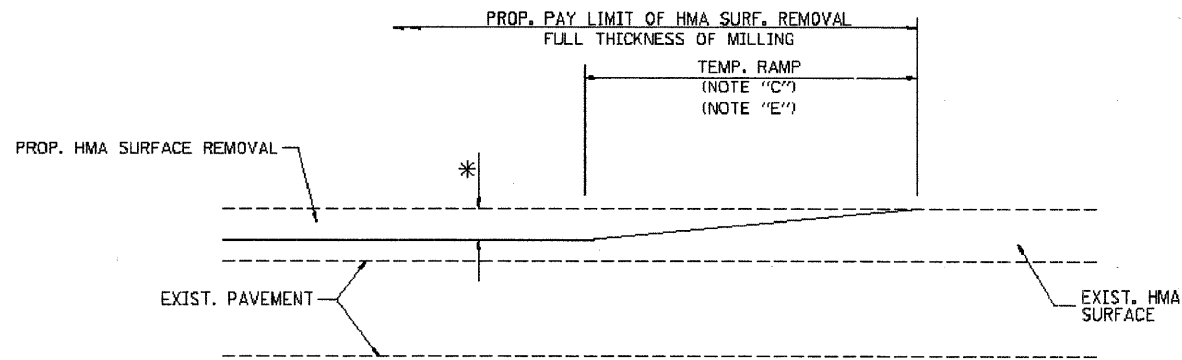
Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans' MARKINGS.dwg Jan 09, 2008 - 10:10am

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	PLOT SCALE = 68.888 1/2 IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

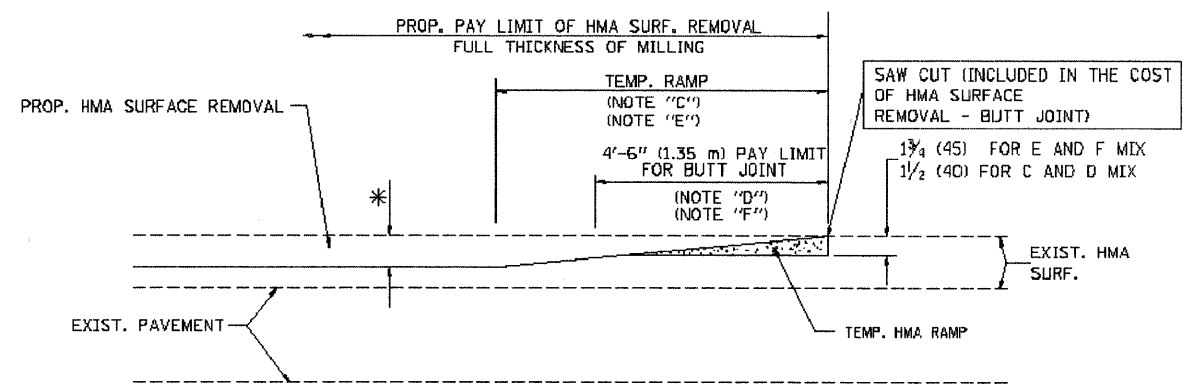
TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS  
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1694	07-00122-00-PV	COOK	55	46
TC-10			CONTRACT NO. 63101	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				
E.H.E. PROJECT NO. 125-08-13501				



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

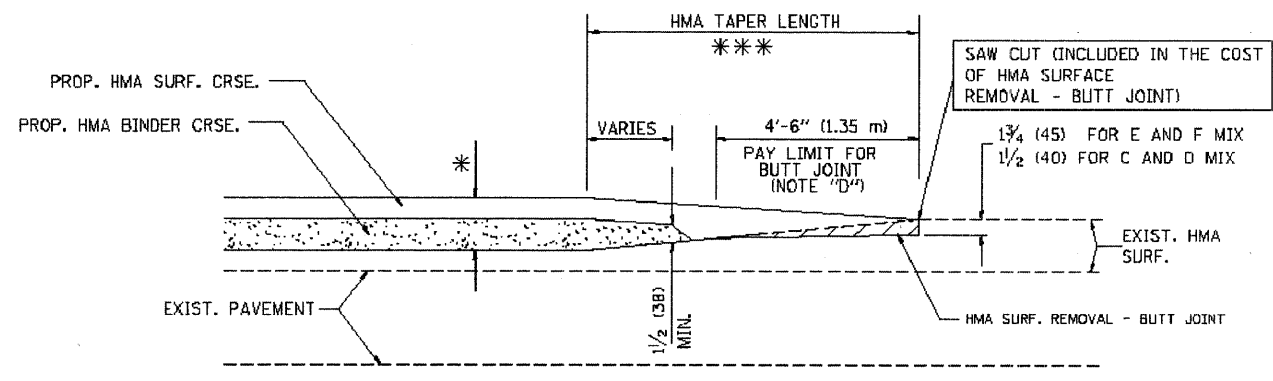
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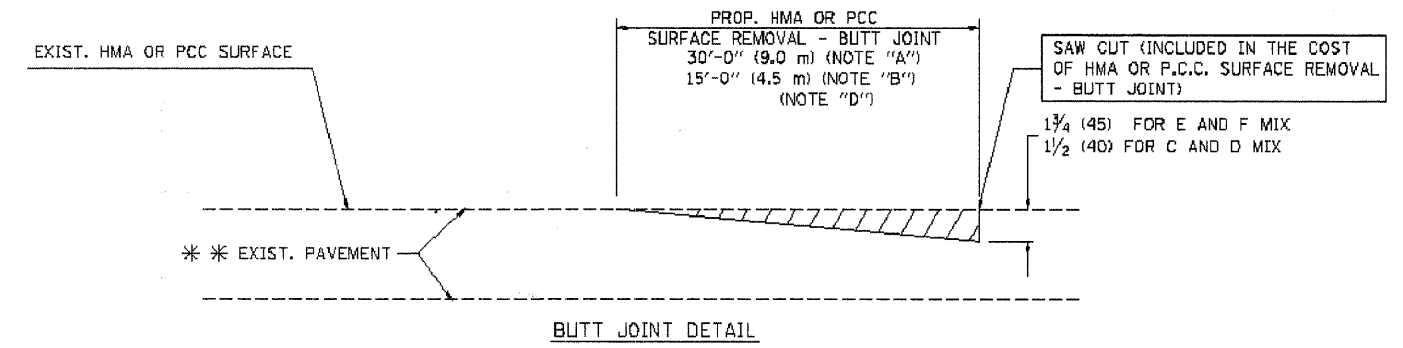
HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

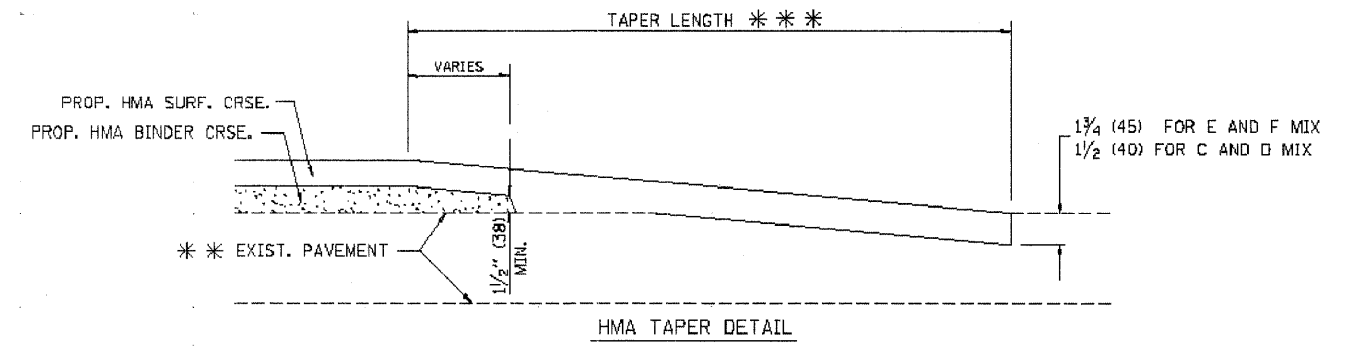
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

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

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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

Drawing file: W:\Projects\12508135 - Grand Blac Grant to Veterans\MARKINGS.dwg Jan 09, 2009 - 10:26am

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PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - M. GOMEZ 04-06-01
		REVISED - R. BORO 01-01-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

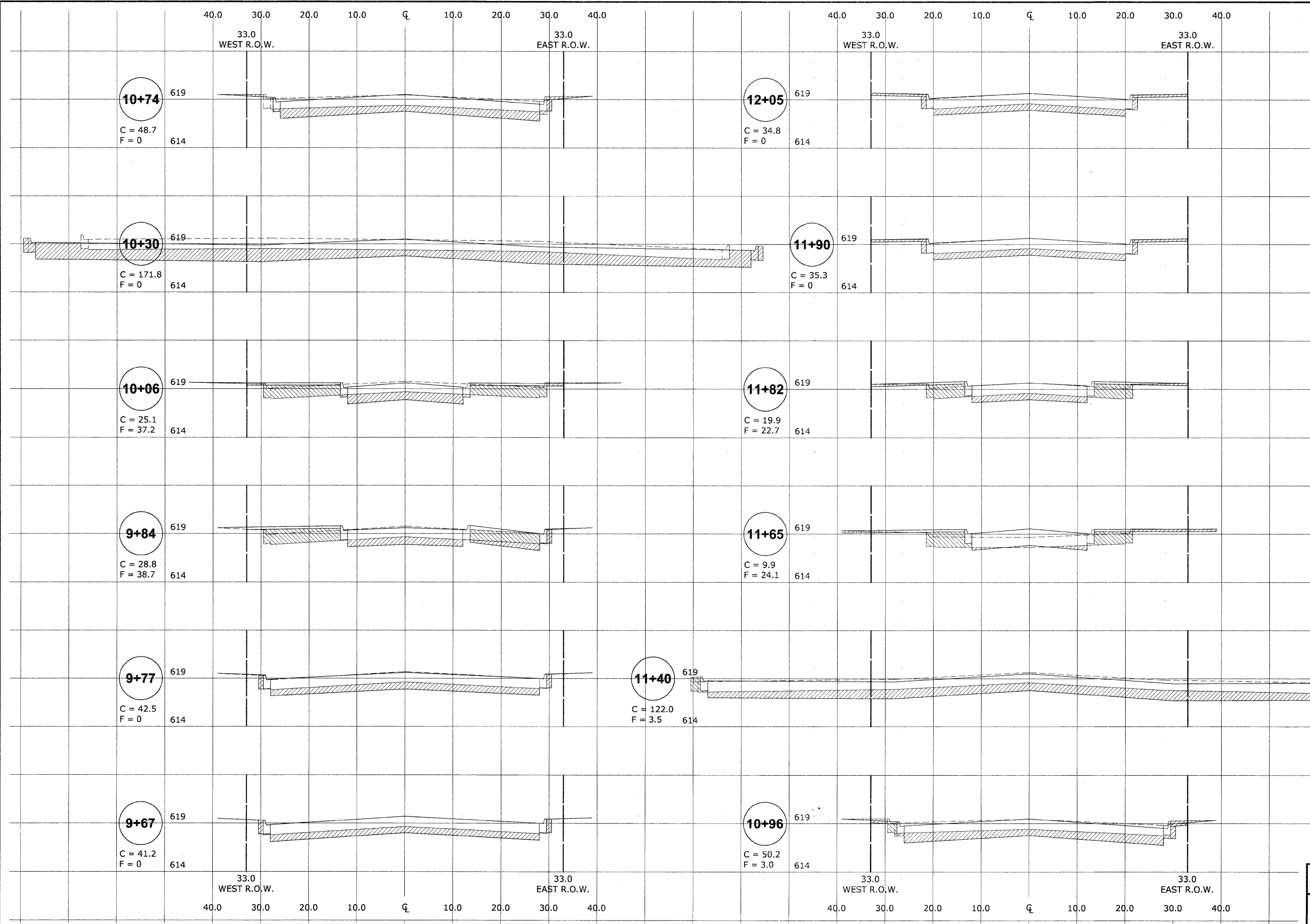
BUTT JOINT AND  
HMA TAPER DETAILS

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1694	07-00122-00-PV	COOK	55	47
RD400-05 RD32			CONTRACT NO. 63101	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

E.H.E. PROJECT NO. 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	48
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12508-135 - Grand Blvd Grant to Veterans\X-sections\GranL2\Xsect GRANL2.dwg Jan 09, 2009 - 9:55am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

913 Riverside Road  
Westchester, Illinois 61164-2700  
Phone: 708/661-0300  
Fax: 708/661-1212

**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
CROSS SECTIONS  
GRAND AVENUE  
(STA. 9+67 TO STA. 12+05)**

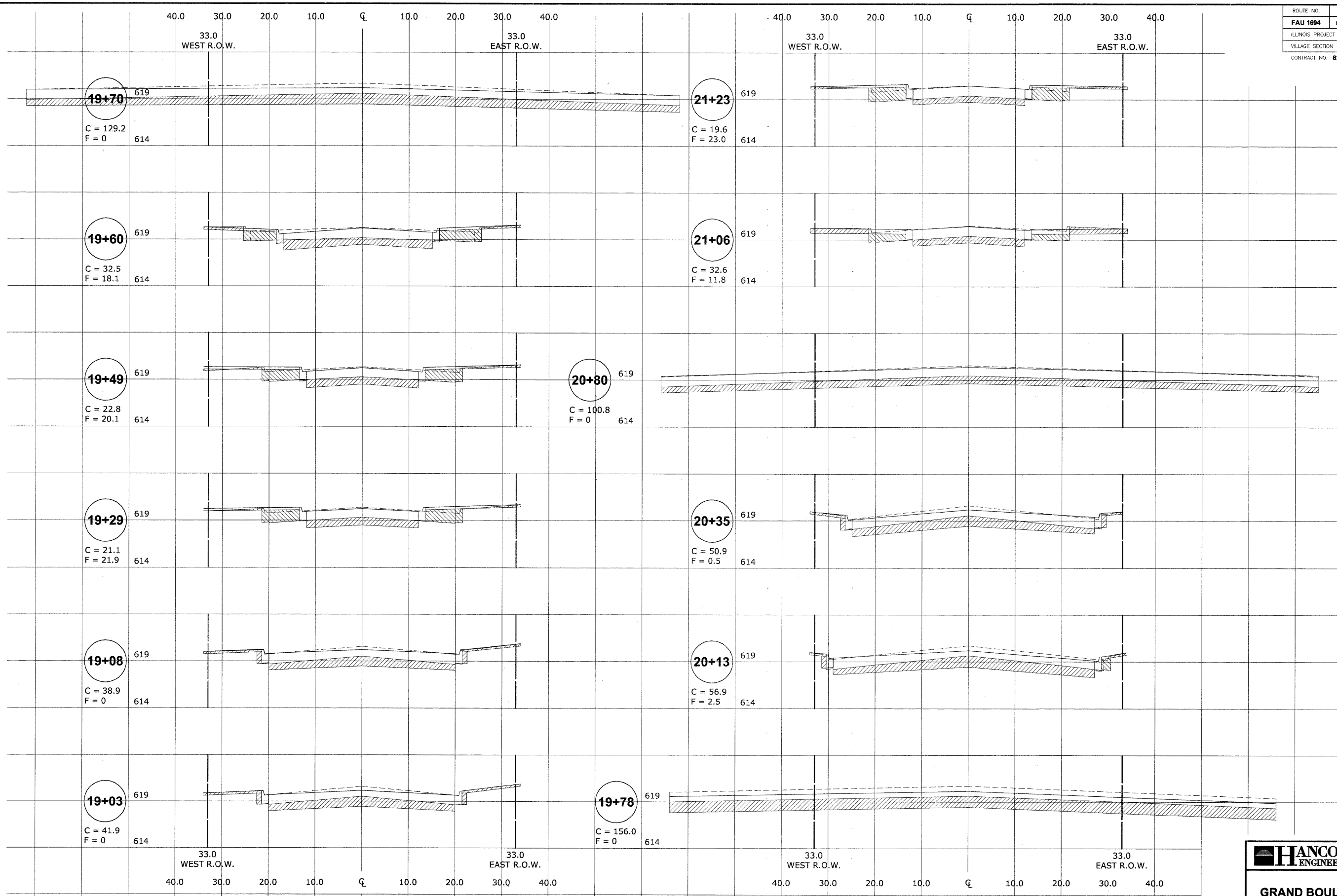
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CHECKED BY: JCG  
DATE: 01-09-09

SCALE: 1"=10'H  
1"=5'V

E.H.E. PROJECT NO. : 125-08-13501



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	49
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12500135 - Grand Blvd Grant to Veterans\sections\Grand\West\sect GRAND.dwg Jan 09, 2009 - 9:51am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers  
 ♦ Municipal Consultants ♦ Established 1911  
 9513 Rosemead Road, Woodstock, Illinois 60093-7100  
 Phone: 708-945-5100 Fax: 708-945-1312

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**CROSS SECTIONS**  
**GRAND AVENUE**  
**(STA. 19+03 TO STA. 21+23)**

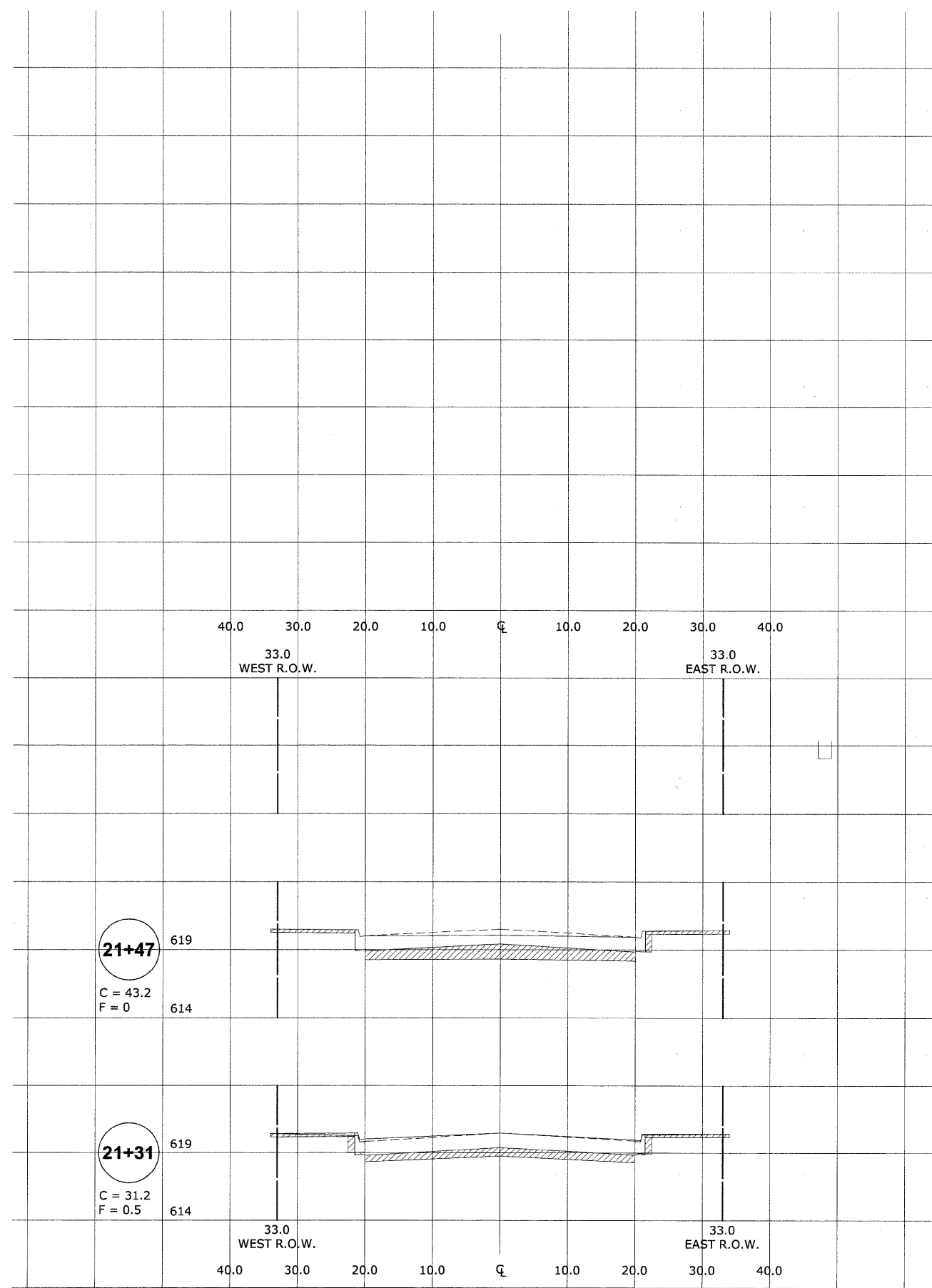
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 1"=5'V

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	50

ILLINOIS PROJECT M-9003 (125)  
 VILLAGE SECTION  
 CONTRACT NO. 63101



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\sections\Grand\Xsect GRAND.dwg Jan 09, 2009 - 9:51am

REVISION:

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911  
 933 Riverside Road, Wheeling, Illinois 60094-2760  
 Phone: 708-965-8300 Fax: 708-965-1212

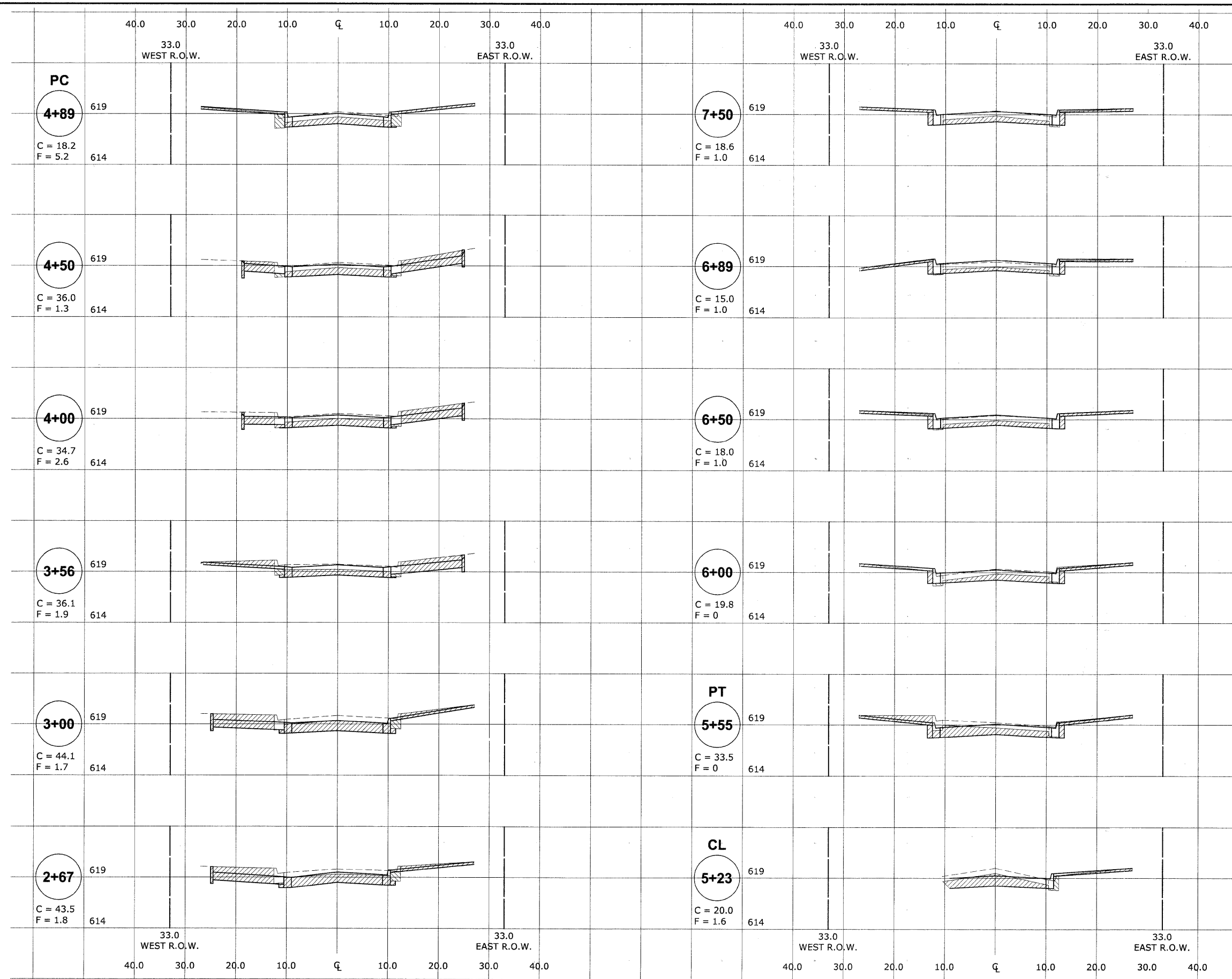
**BROOKFIELD  
 GRAND BOULEVARD IMPROVEMENTS  
 CROSS SECTIONS  
 GRAND AVENUE  
 (STA. 21+31 TO STA. 21+47)**

DRAWN BY: LEVECWMK  
 CHECKED BY: JCG  
 DATE: 01-09-09

SCALE: 1"=10'H  
 1"=5'V

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	51
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



REVISION:

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

**BROOKFIELD GRAND BOULEVARD IMPROVEMENTS CROSS SECTIONS LINCOLN AVENUE (STA. 2+67 TO STA. 7+50)**

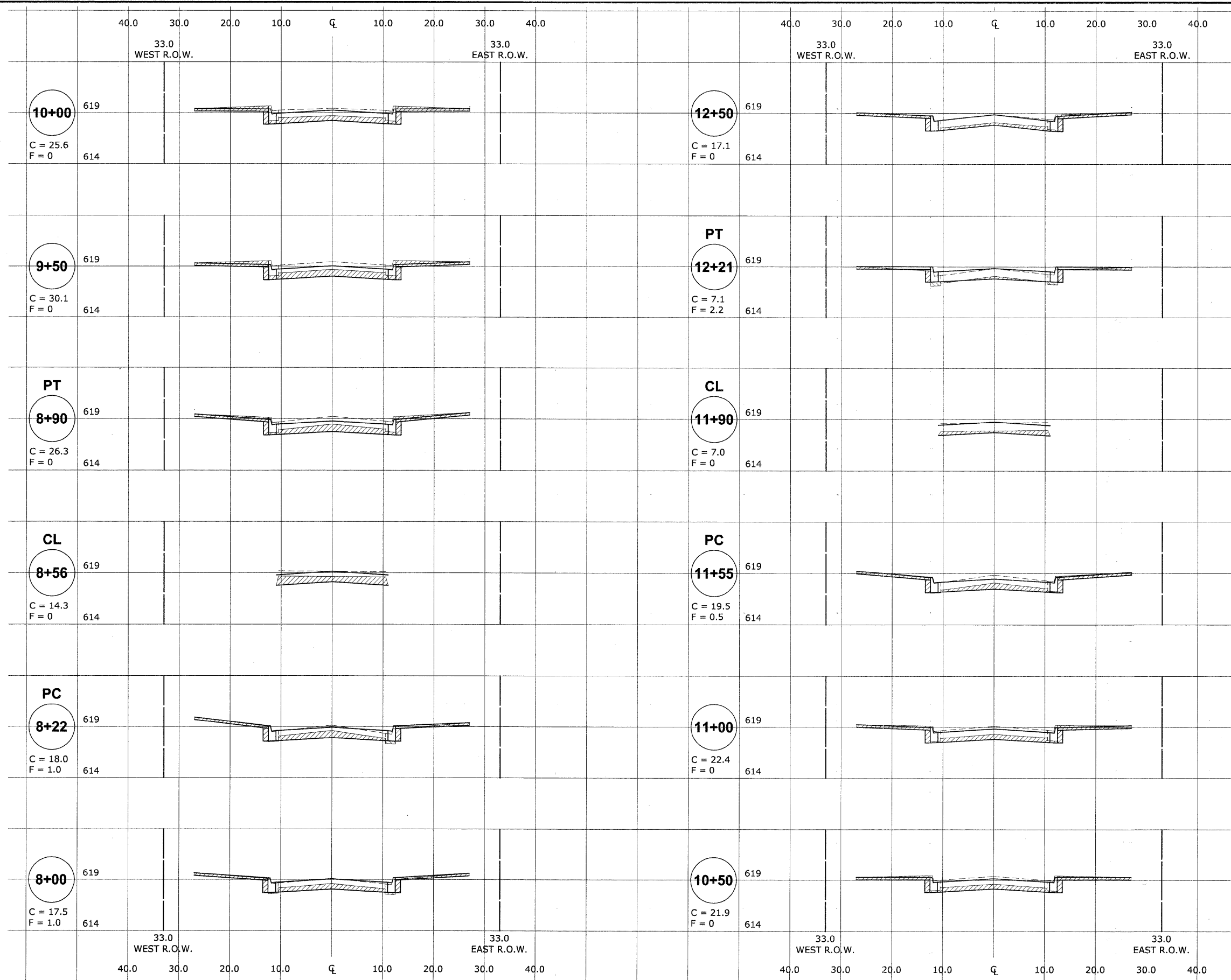
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DATE: 01-09-09

E.H.E. PROJECT NO. : 125-08-13501

Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans X-sections\Lincoln\sect\_1\lincoln.dwg Jan 09, 2009 - 9:25am

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	52
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\22508135 - Grand Blvd Grant to Veterans\sections\Lincoln\Sheet\_L1\_Lincoln.dwg Jan 09, 2009 - 9:54am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

933 Roswell Road  
Westbrook, Illinois 60161-2700  
Phone: 708/661-6100  
Fax: 708/661-1212

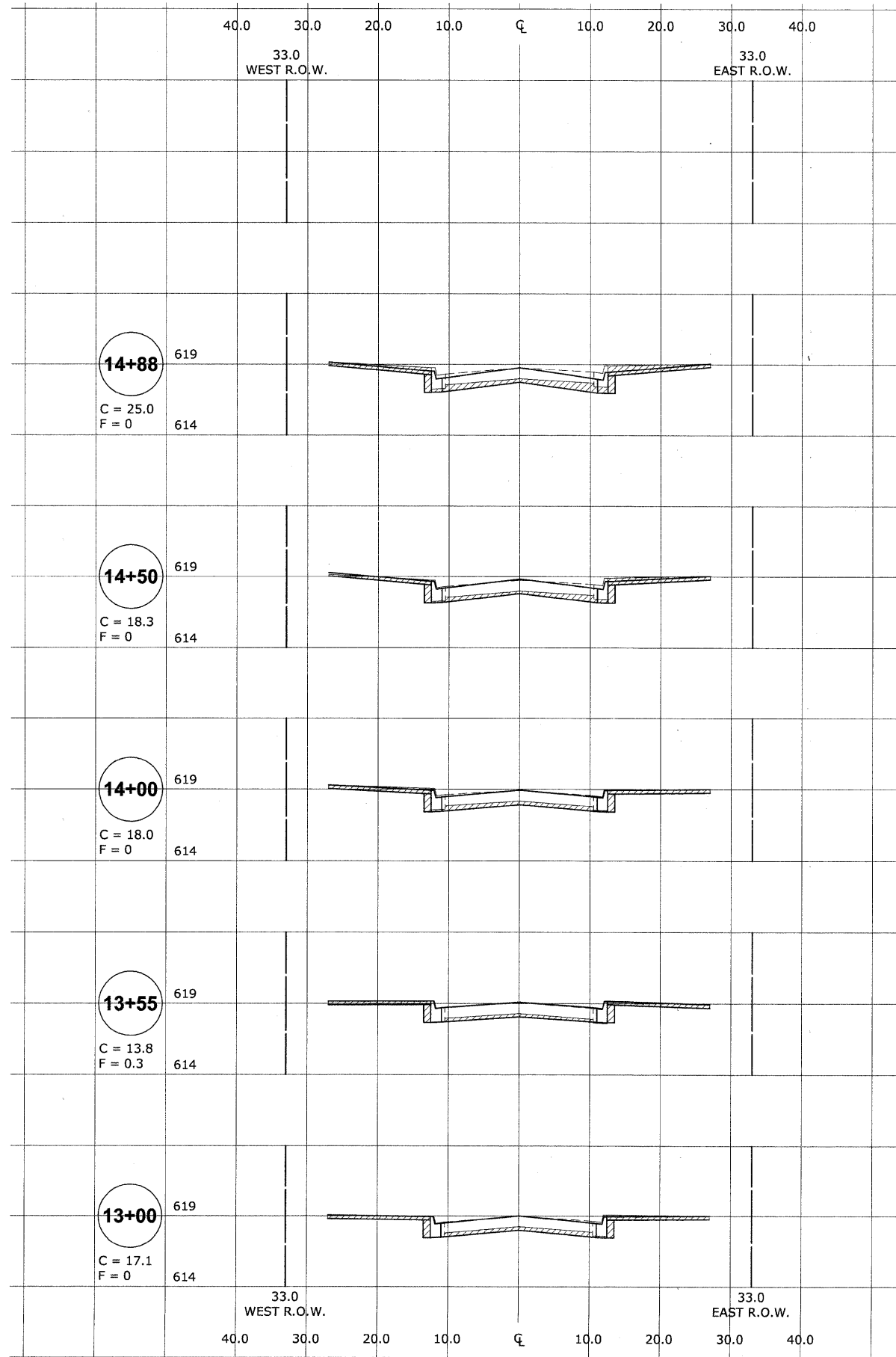
**BROOKFIELD  
GRAND BOULEVARD IMPROVEMENTS  
CROSS SECTIONS  
LINCOLN AVENUE  
(STA. 8+00 TO STA. 12+50)**

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

1"=10'H  
SCALE: 1"=5'V

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	53
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\X-sections\Lincoln\Xsect\_L1\_Lincoln.dwg Jan 09, 2009 - 9:54am

REVISION:	

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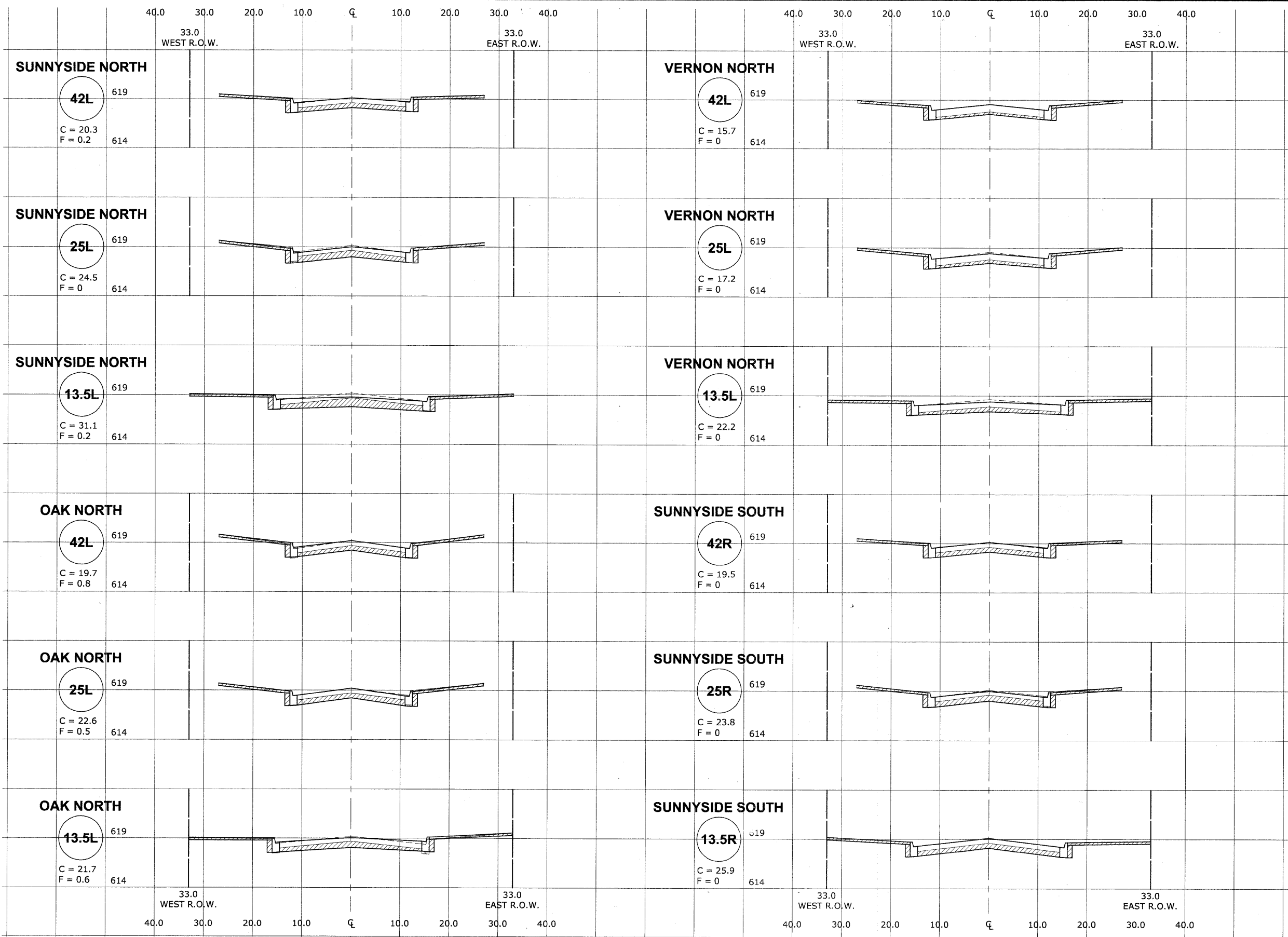
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**CROSS SECTIONS**  
**LINCOLN AVENUE**  
**(STA. 13+00 TO STA. 14+88)**

SCALE: 1"=10'H  
1"=5'V

DRAWN BY: LEVECWMK  
CHECKED BY: JCG  
DATE: 01-09-09

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	54
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12508125 - Grand Blvd Grant to Veterans\X-sections\Sideroads\Xsect\_Sideroads.dwg Jan 09, 2009 - 9:54am

REVISION:	DATE:	BY:

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9813 Roswell Road  
Wendover, Illinois 61564-2700  
Phone: 708/866-6300  
Fax: 708/866-5122

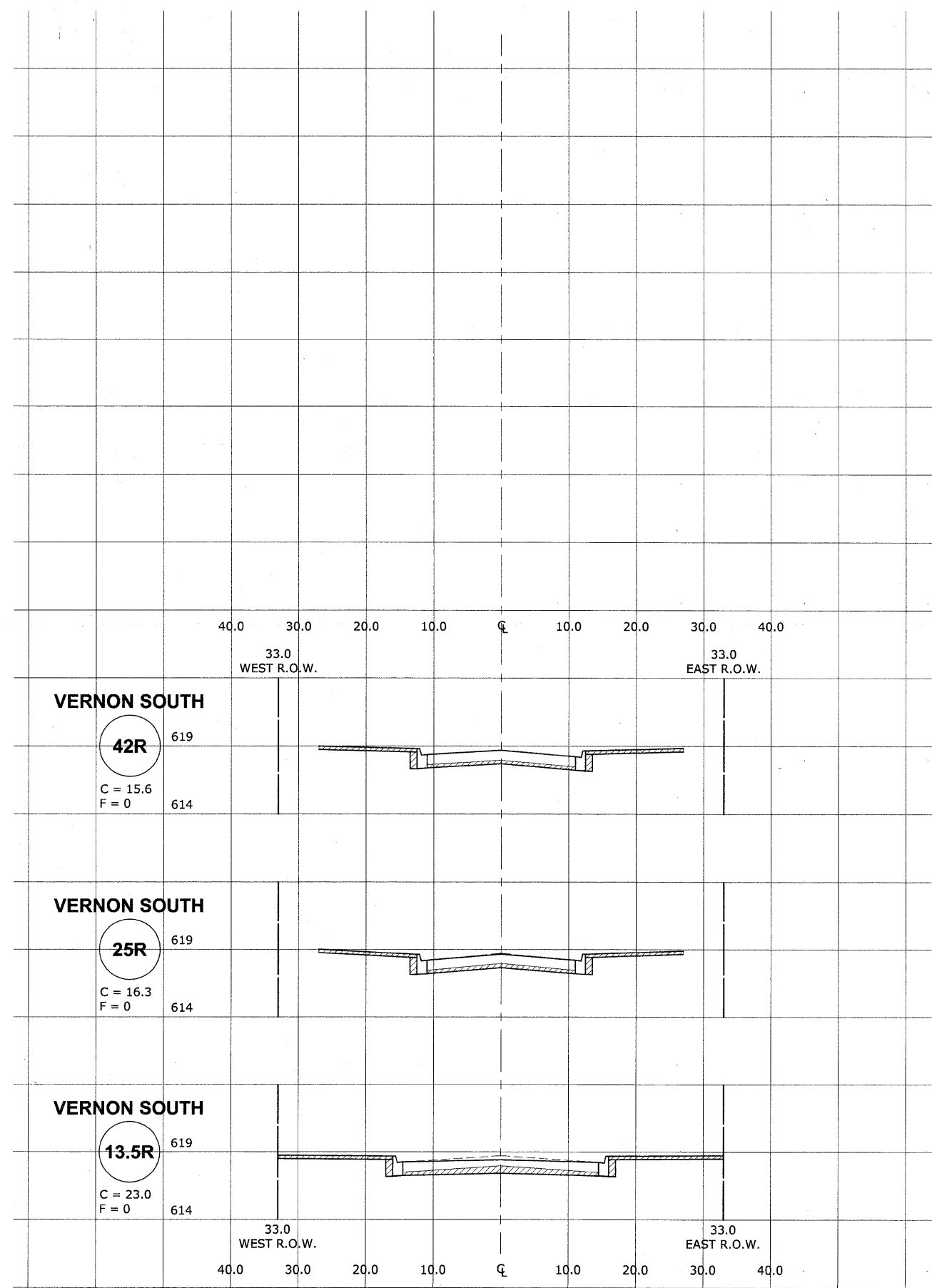
**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**CROSS SECTIONS**  
**LINCOLN AVENUE (SIDE STREETS)**

SCALE: 1"=10'H  
1"=5'V

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

E.H.E. PROJECT NO. : 125-08-13501

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1694	07-00122-00-PV	COOK	55	55
ILLINOIS PROJECT M-9003 (125)				
VILLAGE SECTION				
CONTRACT NO. 63101				



Drawing file: W:\Projects\12508135 - Grand Blvd Grant to Veterans\X-sections\Sidecross\Xsect\_Sideroads.dwg Jan 09, 2009 - 9:53am

REVISION:	

**HANCOCK ENGINEERING** ♦ Civil Engineers ♦ Municipal Consultants ♦ Established 1911

9103 Riverwood Road  
Winchester, Illinois 61551-2768  
Phone: 708-365-6300  
Fax: 708-365-1212

**BROOKFIELD**  
**GRAND BOULEVARD IMPROVEMENTS**  
**CROSS SECTIONS**  
**LINCOLN AVENUE (SIDE STREETS)**

SCALE: 1"=10'H  
1"=5'V

DRAWN BY: LEV/ECW/MK  
CHECKED BY: JCG  
DATE: 01-09-09

E.H.E. PROJECT NO. : 125-08-13501