F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 61C77		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF STATE AND LOCAL STANDARDS, SEE SHEET NO. 2

VILLAGE OF GLENVIEW
PROJECT # E12–34

TRAFFIC DATA – CHESTNUT AVENUE
POSTED SPEED: 35 MPH
DESIGN SPEED: 35 MPH
CURRENT ADT (2014): 12,400 VPD
DESIGN ADT (2040): 14,000 VPD

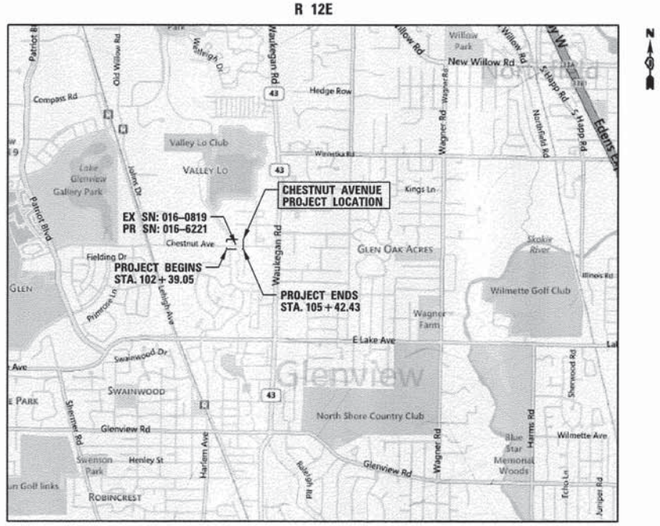
DESIGN DESIGNATION
COLLECTOR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1352 (CHESTNUT AVENUE)
OVER W. FORK OF N. BRANCH OF CHICAGO RIVER
BRIDGE REPLACEMENT
SECTION NO.: 13–00185–00–BR
PROJECT NO.: BHM–4003 (246)
VILLAGE OF GLENVIEW
COOK COUNTY

JOB NO.: C–91–092–14



LOCATION MAP

SCALE: 1" = 0.2 MILES

NORTHFIELD TOWNSHIP
TOWNSHIP: 42N
RANGE: 12E

GROSS LENGTH OF PROJECT = 400 LINEAL FEET (0.08 MILES)
NET LENGTH OF PROJECT = 400 LINEAL FEET (0.08 MILES)

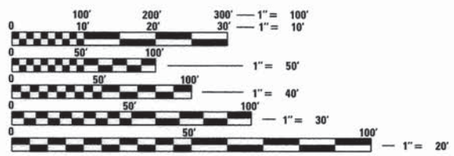
LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED January 29 20 16
VILLAGE ENGINEER
VILLAGE OF GLENVIEW

PASSED Feb 8 20 16
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW February 9 20 16
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

MATTHEW A. PAPIRNIK
062-052094
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Matthew A. Papirnik
MATTHEW A. PAPIRNIK, P.E. ENGINEER
ILLINOIS REGISTRATION No. 062-052094
EXPIRATION DATE: 11/30/2017

STATE OF ILLINOIS
JEFFREY A. RUHDE
081-005613
LICENSED STRUCTURAL ENGINEER

Jeffrey A. Ruhde
JEFFREY A. RUHDE, S.E. ENGINEER
ILLINOIS REGISTRATION No. 081-005613
EXPIRATION DATE: 11/30/2016

BURNS McDONNELL

CONTRACT NO. 61C77

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL PE, PTOE (847) 705–4021 – SCHAUMBURG, IL

INDEX OF SHEETS

VILLAGE OF GLENVIEW REQUIREMENTS

1. REGULAR WEEKLY MEETINGS BETWEEN THE CONTRACTOR PROJECT MANAGER AND THE ENGINEER ARE REQUIRED. THE PROPOSED WORKING SCHEDULE FOR THE NEXT TWO (2) WEEKS SHALL BE SUBMITTED TO THE ENGINEER DURING EACH MEETING. IF ANY MODIFICATIONS TO THE PROPOSED SCHEDULE ARE REQUESTED BY THE ENGINEER, THE CONTRACTOR SHALL ADJUST HIS PROPOSED SCHEDULE ACCORDINGLY AND SUBMIT AN UPDATED TWO WEEK WORKING SCHEDULE TO THE ENGINEER BY 12:00PM ON THURSDAY THE SAME WEEK OF THE MEETING.

2. THE CONTRACTOR SHALL NOTIFY THE MWRD PERMIT SECTION FIELD OFFICE (708/222-4055) AT LEAST TWO DAYS PRIOR TO COMMENCEMENT OF ANY WORK IN THE VICINITY OF MWRD FACILITIES.

3. THE CONTRACTOR SHALL PROTECT ALL EXISTING STREET AND OTHER (NO PARKING, STOP, ETC.) SIGNS OTHER THAN THOSE INDICATED FOR REMOVAL OR RELOCATION IN THE PLANS. ANY STREET SIGN DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AND REINSTALLED AT THE SAME LOCATION WITHOUT ANY ADDITIONAL COST TO THE VILLAGE.

4. THE USE OF FIRE HYDRANTS ON VILLAGE FUNDED PROJECTS IS ONLY PERMITTED WHEN A VILLAGE OF GLENVIEW WATER METER IS ATTACHED. WATER METERS MAY BE OBTAINED IN ACCORDANCE WITH THE VILLAGE OF GLENVIEW MUNICIPAL CODE, SECTION 30-1 BY SUBMITTING AN APPLICATION AND DEPOSIT AT THE GLENVIEW VILLAGE HALL, 1225 WAUKEGAN ROAD, GLENVIEW, ILLINOIS. METERS MAY BE PICKED UP AT THE GLENVIEW PUBLIC WORKS DEPARTMENT, 1333 SHERMER ROAD, GLENVIEW, ILLINOIS, BETWEEN THE WORKING HOURS OF 7 AM AND 3 PM, WEEK DAYS.

5. FENCING AND STOCKPILING: NO OPEN TRENCH OR PIT SHALL REMAIN UNPROTECTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BACKFILL THE TRENCH AND/OR PIT OR ERECT A STABLE AND SECURE SIX (6) FOOT HIGH CHAIN LINK FENCE AROUND THE PERIMETER OF EXCAVATION, ALONG WITH A STEEL PLATE OVER THE EXCAVATION TO PREVENT ANY ACCESS TO THE EXCAVATION WITHOUT THE CONTRACTOR'S PERMISSION.

ALL EXCESS EXCAVATED MATERIAL AND DELIVERED MATERIAL FROM THE INSTALLATION OF UTILITIES AND/OR ROAD SHALL BE REMOVED AND DISPOSED OF OFF-SITE THE SAME DAY. CONTRACTOR IS NOT ALLOWED TO STOCKPILE MORE THAN 5 CUBIC YARDS OF MATERIAL OVERNIGHT. IF ANY MATERIAL STOCKPILES WILL REMAIN OVERNIGHT HIGHER THAN TWO (2) FEET, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ERECT A STABLE AND SECURE SIX (6) FOOT HIGH CHAIN LINK FENCE AROUND THE PERIMETER OF THE STOCKPILED MATERIAL. THESE FENCES SHALL BE INSTALLED AND GATE/S LOCKED AT ALL TIMES EXCEPT WHEN ACCESS BY THE CONTRACTOR IS REQUIRED.

THE COST ASSOCIATED WITH THE JOB-SITE SAFETY, TRENCH/PIT AND STOCKPILE PROTECTION SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES BID FOR THE VARIOUS ITEMS INVOLVED.

6. MATERIAL STORAGE AND REMOVAL: THE CONTRACTOR SHALL NOT DELIVER AND STORE ANY MATERIAL ON THE PROJECT SITE MORE THAN ONE WEEK BEFORE COMMENCING WITH HIS WORK. THE PAVED PORTION OF THE STREET MAY BE USED FOR MATERIAL STORAGE AND THE EXACT MATERIAL STORAGE LOCATION SHALL BE APPROVED BY THE ENGINEER. MATERIALS SHALL BE PROPERLY SECURED AND PROTECTED WITH CHAIN LINK FENCING AND/OR BARRICADES.

ANY REMNANTS OF CONSTRUCTION MATERIALS, DEBRIS AND LITTER GENERATED BY THE CONTRACTOR SHALL BE COLLECTED AND REMOVED OFF THE JOBSITE FREQUENTLY, OR THE SAME DAY IF DIRECTED BY THE ENGINEER. ALL CONCRETE WASH-OUT AREAS SHALL BE APPROVED BY THE ENGINEER. ANY PARKWAY RESTORATION OR PAVEMENT REPAIR DUE TO DAMAGE CAUSED BY ON-SITE MATERIAL STORAGE, SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

7. MATERIAL STORAGE AND REMOVAL DOES NOT REFER TO STOCKPILES OF MATERIAL (STONE, DIRT, SAND, CONCRETE, EXCAVATED STRUCTURES/PIPE, ETC.)

ADA ACCESSIBILITY

ALL SIDEWALKS, CURB RAMPS, AND CROSSWALKS SHALL BE ADA COMPLIANT PER MOST STRINGENT GUIDELINES PROPOSED BY ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY, AMERICANS WITH DISABILITIES ACT, AND ILLINOIS STANDARDS.

STAKING

1. ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. CURB AND GUTTER ELEVATIONS SHOWN ARE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.

2. THE STATION/OFFSET/ELEVATION NOTED FOR ALL DRAINAGE STRUCTURES LOCATED IN THE CURB LINE REFER TO THE POSITION OF THE ADJACENT PROPOSED EDGE OF PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE OFFSET NECESSARY FOR EACH STRUCTURE TO SET THE FRAME AND GRATE IN THE PROPER LOCATION. ALL OTHER STRUCTURES ARE DIMENSIONED TO THE CENTER OF THE STRUCTURE.

3. PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OR PROPOSED PAVEMENT GRADES, UNLESS OTHERWISE NOTED.

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

ALL REFERENCES TO STANDARD SPECIFICATIONS IN THESE GENERAL NOTES SHALL BE INTERPRETED TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, APRIL 1, 2016 AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED APRIL 1, 2016.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS; THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD); THE DETAILS IN THE PLANS AND THE SPECIAL PROVISIONS, AND IDOT STANDARD DRAWINGS AS LISTED IN THE CONTRACT DOCUMENTS.

ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED AS THE RESIDENT ENGINEER.

DOCUMENTATION

THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. FOR INFORMATION REGARDING THE EXISTING STRUCTURE SEE RECORD PLANS ON SHEETS 49 TO 55.

A PRELIMINARY SITE INVESTIGATION HAS BEEN PERFORMED FOR THIS PROJECT. NO AREAS OF CONCERN WERE FOUND. A SUMMARY OF THIS INVESTIGATION IS PROVIDED IN THE PROJECT SPECIAL PROVISIONS. A COMPLETE COPY OF THE INVESTIGATION REPORT IS ON FILE WITH THE VILLAGE OF GLENVIEW.

THOSE SEEKING THE FULL HYDRAULIC REPORT SHOULD CONTACT THE OWNER OF RECORD.

TO MAKE ARRANGEMENTS FOR ACCESS TO REPORTS ON FILE CONTACT:

ADRIANA WEBB
VILLAGE OF GLENVIEW, ILLINOIS
DEPARTMENT OF COMMUNITY DEVELOPMENT
(847) 904-4414

UTILITIES

PRIOR TO THE START OF THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE LOCATION OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ACCURACY IS NOT GUARANTEED. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF SUCH UTILITIES AND EXERCISE CARE DURING CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITIES SO THAT THEIR FACILITIES MAY BE LOCATED AND ADJUSTED OR MOVED.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER, AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ABOVE AND BELOW GROUND UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

ANY EXISTING OR PROPOSED SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. NO ADDITIONAL COMPENSATION SHALL BE PAID FOR THIS WORK.

UTILITY CONTACT FOR THE VILLAGE OF GLENVIEW:
ROBERT STEELE
2500 EAST LAKE AVENUE, GLENVIEW, ILLINOIS
(847) 904-4423

TREE PRESERVATION AND REMOVAL, CLEARING AND HEDGE REMOVAL

1. ALL TREE PROTECTION, TREE REMOVAL, PRUNING AND ROOT PRUNING SHALL BE COMPLETED BEFORE CONSTRUCTION OPERATIONS BEGIN IN ANY AREA. AT NO TIME SHALL THE CONTRACTOR PRUNE OR REMOVE ANY TREES UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

2. THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. HAND EXCAVATION SHALL BE PERFORMED IF MAJOR ROOTS ARE PRESENT. MAJOR ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREAS AT AN ELEVATION THAT WOULD INTERFERE WITH ANY PORTION OF THE PLANNED CONSTRUCTION SHALL BE SEVERED AT A POINT IMMEDIATELY OUTSIDE OF THE EXCAVATION AREA, IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMIC DAMAGE TO THE REMAINING TREE STRUCTURE. THE EXPENSE OF ANY REQUIRED HAND EXCAVATION, AS DESCRIBED ABOVE, SHALL BE INCLUDED IN THE COST OF THE CONTRACT LINE ITEM BEING REMOVED OR INSTALLED AT THAT LOCATION.

3. A QUANTITY FOR TREE ROOT PRUNING IS PROVIDED FOR USE ON EXISTING TREES TO PREVENT THE RIPPING UP OF ROOTS WHEN TRENCHING OR EXCAVATION IS WITHIN THE ROOT ZONE OF ADJACENT TREES TO REMAIN. SUPPLEMENTAL WATERING OF TREES SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING OF THE TREES HAS OCCURRED.

SIGNING, STRIPING & LANDSCAPING

1. SIGNS WHICH ARE SO DESIGNATED BY THE ENGINEER SHALL BE REMOVED, STORED AND SUBSEQUENTLY RELOCATED BY THE CONTRACTOR AND INCLUDED IN THE COST OF MOBILIZATION. IN ADDITION, ANY SIGNS WHICH ARE DAMAGED DURING CONSTRUCTION OPERATIONS BEYOND REPAIR SHALL BE REPLACED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE CONTRACT.

2. WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO ALL SODDED AREAS PRIOR TO FINAL ACCEPTANCE AT A RATE SPECIFIED BY THE ENGINEER AND IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

3.THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

STATE STANDARDS

DRAWING NUMBER	TITLE
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-08	PAVEMENT JOINTS
420401-12	BRIDGE APPROACH PAVEMENT
424001-08	CURB RAMPS FOR SIDEWALKS
424006-02	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-02	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-02	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
424026-01	ENTRANCE/ALLEY PEDESTRIAN CROSSINGS
602301-04	INLET - TYPE A
604001-04	FRAME AND LIDS, TYPE 1
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
664001-02	CHAIN LINK FENCE
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-15	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801-06	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-05	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
720021-02	SIGN PANELS, EXTRUDED ALUMINUM TYPE
729001-01	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

FILE NAME = 88415-sht-index.dgn

BURNS MSDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = mpapirnik	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 20.0000 '/ in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/16/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	2
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	0014 BRIDGE REPLACEMENT (80% FEDERAL/20% L.A.)
	20101000	TEMPORARY FENCE	FOOT	75
	20101200	TREE ROOT PRUNING	EACH	2
	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	1
	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	1
	20200100	EARTH EXCAVATION	CU YD	72
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	671
	20700220	POROUS GRANULAR EMBANKMENT	CU YD	20
	20800150	TRENCH BACKFILL	CU YD	30
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	917
*	25100630	EROSION CONTROL BLANKET	SQ YD	380
*	25000210	SEEDING, CLASS 2A	ACRE	0.1
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10
*	25200100	SODDING	SQ YD	391
*	25200200	SUPPLEMENTAL WATERING	UNIT	200
*	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25
	28000400	PERIMETER EROSION BARRIER	FOOT	460
	28000510	INLET FILTERS	EACH	3
	31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	175
	35600700	HOT-MIX ASPHALT BASE COURSE WIDENING, 6"	SQ YD	99
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	171
	40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	38
	40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	56
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	95

	CODE NO.	ITEM	UNIT	0014 BRIDGE REPLACEMENT (80% FEDERAL/20% L.A.)
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1,749
SP	42400800	DETECTABLE WARNINGS	SQ FT	98
	44000100	PAVEMENT REMOVAL	SQ YD	163
	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	510
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	496
	44000600	SIDEWALK REMOVAL	SQ FT	1,560
	44201773	CLASS D PATCHES, TYPE I, 11 INCH	SQ YD	3
	44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	400
	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
	50102400	CONCRETE REMOVAL	CU YD	103
	50300225	CONCRETE STRUCTURES	CU YD	118
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	54
	50300300	PROTECTIVE COAT	SQ YD	305
SP	50300285	FORM LINER TEXTURED SURFACE	SQ FT	660
	50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	67
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	3,562
	50800105	REINFORCEMENT BARS	POUND	35,920
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	41,950
	50800515	BAR SPLICERS	EACH	104
	51500100	NAME PLATES	EACH	1
	51603000	DRILLED SHAFT IN SOIL	CU YD	221
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	74
	52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	3,165

* SPECIALTY ITEM
SP SPECIAL PROVISION
Δ CONSTRUCTION TYPE CODE 042

FILE NAME = 08415-sht-SQQ01.dgn

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = mpapirnik	DESIGNED - JMA	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 100.0286 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/17/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	3
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	0014 BRIDGE REPLACEMENT (80% FEDERAL/20% L.A.)
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	7
SP *	56100900	WATER MAIN 12"	FOOT	106
SP *	56105100	WATER VALVES 10"	EACH	4
	58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	267
	58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	806
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	75
	60248900	VALVE VAULTS, TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2
	60250200	CATCH BASINS TO BE ADJUSTED	EACH	1
	60255500	MANHOLES TO BE ADJUSTED	EACH	1
	60265700	VALVE VAULTS TO BE ADJUSTED	EACH	1
	~~60406510~~	~~FRAMES AND LIDS (SALVAGED)~~	~~EACH~~	~~1~~
	60500050	REMOVING CATCH BASINS	EACH	1
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	160
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	296
	67100100	MOBILIZATION	LSUM	1
	70106700	TEMPORARY RUMBLE STRIPS	EACH	6
	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	10
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	780
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,646
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	78
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	91
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	294
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	227

	CODE NO.	ITEM	UNIT	0014 BRIDGE REPLACEMENT (80% FEDERAL/20% L.A.)
	70600241	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	3
	70600342	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 2	EACH	2
	72000100	SIGN PANEL - TYPE 1	SQ FT	18
	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	4
	72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	1
	72900200	METAL POST TYPE B	FOOT	27
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1,508
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	79
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	42
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	14
*	78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	56
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	250
SP •	89000075	TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1
*	B0002740	TREE, BAUMAN COMMON HORSECHESTNUT, 4" CALIPER, BALLED AND BURLAPPED	EACH	4
*	K0029614	WEED CONTROL, AQUATIC	GALLON	1
*	K0029624	WEED CONTROL, TEASEL	GALLON	1
*	K0036120	MULCH PLACEMENT 4"	SQ YD	10
SP •	X0323449	REMOVE EXISTING WATER VALVE	EACH	2
SP	X0326671	CONCRETE SURFACE COLOR TREATMENT	SQ FT	750
SP •	X2200003	FENCE (SPECIAL)	FOOT	130
SP •	X5091755	PARAPET RAILING, SPECIAL	FOOT	84
SP •	X5610004	DUCTILE IRON WATER MAIN FITTINGS	POUND	1,290
SP •	X5610651	ABANDON EXISTING WATER MAIN, FILL WITH CLSM	FOOT	115
SP	X5610812	DUCTILE IRON WATER MAIN, RESTRAINED JOINT PIPE 12" ATTACHED TO STRUCTURE	FOOT	77

• SPECIALTY ITEM
SP SPECIAL PROVISION
Δ CONSTRUCTION TYPE CODE 042

FILE NAME = 08415-sht-SUM02.dgn

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = mpapirnik	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	4
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

	CODE NO.	ITEM	UNIT	0014 BRIDGE REPLACEMENT (80% FEDERAL/20% L.A.)
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	634
SP	X6023500	INLETS, TYPE A, WITH SALVAGED FRAME AND GRATE	EACH	1
SP	X6040205	FRAMES AND LIDS, SPECIAL	EACH	3
SP •	X6640300	CHAIN LINK FENCE REMOVAL	FOOT	70
SP	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1
SP	XX005206	EXPLORATORY EXCAVATION	FOOT	50
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	17
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	124
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	184
	Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	79
	Z0013798	CONSTRUCTION LAYOUT	LSUM	1
SP	Z0019600	DUST CONTROL WATERING	UNIT	100
SP •	Z0022800	FENCE REMOVAL	FOOT	80
▲	Z0023201	SEDIMENT CONTROL, SILT CURTAIN	EACH	2
SP	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	104
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	190
	Z0064600	SELECTIVE CLEARING	ACRE	0.1
SP •	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
Δ	Z0076600	TRAINEES	HOUR	500
Δ	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500

• SPECIALTY ITEM
SP SPECIAL PROVISION
Δ CONSTRUCTION TYPE CODE 042

FILE NAME = 08415-sht-30083.dgn

BURNS MSDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

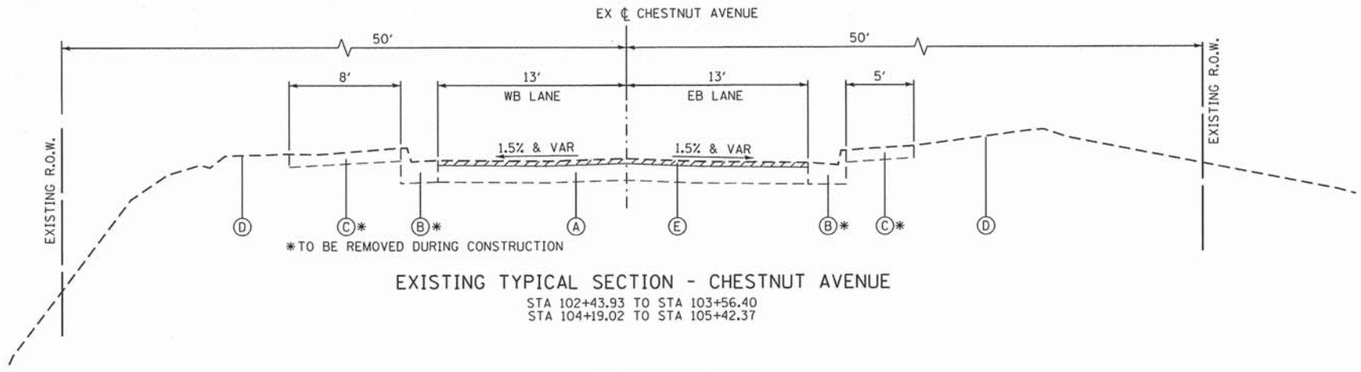
USER NAME = mpapernik	DESIGNED - MAP	REVISED -
	DRAWN - JMA	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - RMG	REVISED -
PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

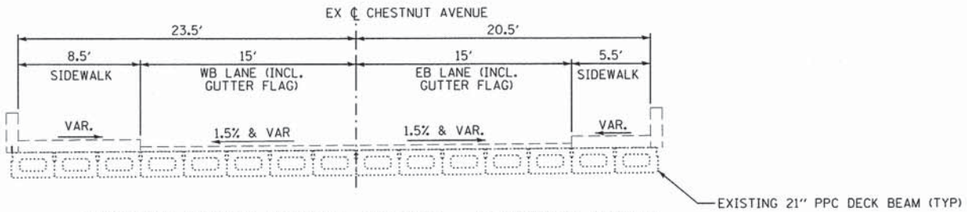
SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	5
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		



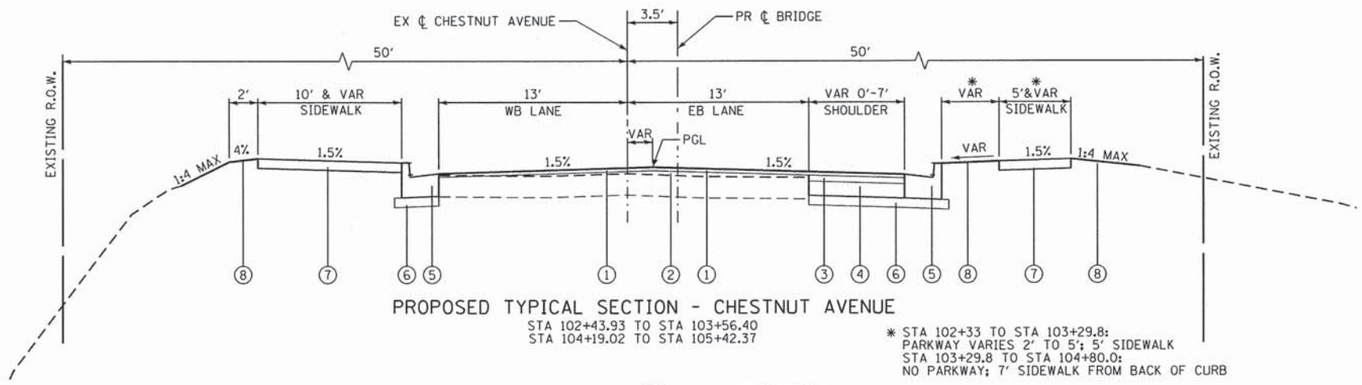
EXISTING TYPICAL SECTION - CHESTNUT AVENUE

STA 102+43.93 TO STA 103+56.40
STA 104+19.02 TO STA 105+42.37



EXISTING BRIDGE TYPICAL SECTION - CHESTNUT AVENUE

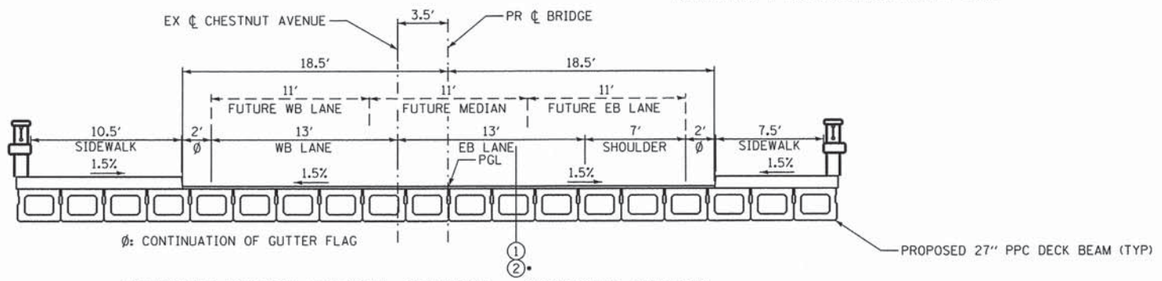
STA 103+56.40 TO STA 104+19.02
REFER TO TS&L DRAWINGS FOR ADDITIONAL INFORMATION



PROPOSED TYPICAL SECTION - CHESTNUT AVENUE

STA 102+43.93 TO STA 103+56.40
STA 104+19.02 TO STA 105+42.37

* STA 102+33 TO STA 103+29.8:
PARKWAY VARIES 2' TO 5'; 5' SIDEWALK
STA 103+29.8 TO STA 104+80.0:
NO PARKWAY; 7' SIDEWALK FROM BACK OF CURB



PROPOSED BRIDGE TYPICAL SECTION - CHESTNUT AVENUE

STA 103+56.40 TO STA 104+19.02
REFER TO TS&L DRAWINGS FOR ADDITIONAL INFORMATION
•VARIES ¾" MIN. TO 1-½"

LEGEND

- Ⓐ EXISTING 11" HMA PAVEMENT
- Ⓑ EXISTING B-6.24 CURB AND GUTTER
- Ⓒ EXISTING 5" PCC SIDEWALK
- Ⓓ EXISTING PARKWAY
- Ⓔ HMA SURFACE REMOVAL 1-1/2"

- ① HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1-1/2"
- ② LEVELING BINDER (MACHINE METHOD), N70, 3/4" MIN.
- ③ HOT-MIX ASPHALT BINDER COURSE, N70, 2-1/4" MIN.
- ④ HOT-MIX ASPHALT BASE COURSE WIDENING, 6"
- ⑤ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (60605000)
- ⑥ SUBBASE GRANULAR MATERIAL, TYPE B 6"
- ⑦ PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH (42400200)
- ⑧ PROPOSED PARKWAY

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

ITEM	VOIDS
RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm) 1-1/2"	4% @ 70 GYR.
LEVELING BINDER (MACHINE METHOD), N70 (IL-9.5mm), ¾" MINIMUM	4% @ 70 GYR.
ROADWAY WIDENING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm) 1-1/2"	4% @ 70 GYR.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 2-1/4"	4% @ 70 GYR.
HOT-MIX ASPHALT BASE COURSE WIDENING (HMA BINDER IL-19mm), 6"	4% @ 70 GYR.
TEMPORARY PAVEMENT	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm) 1-1/2"	4% @ 70 GYR.
HOT-MIX ASPHALT BASE COURSE WIDENING (HMA BINDER IL-19mm), 6"	4% @ 70 GYR.
TEMPORARY SIDEWALK	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm) 1-1/2"	4% @ 70 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LB/SY-IN.

FOR PERCENT OF RAP AND RAS, SEE DISTRICT ONE SPECIAL PROVISIONS.

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

BURNS MCDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
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WEB: WWW.BURNSMCD.COM

USER NAME = jjohnson	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 5.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

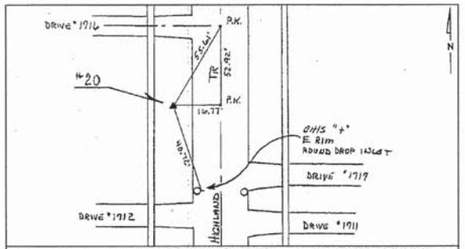
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	6
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

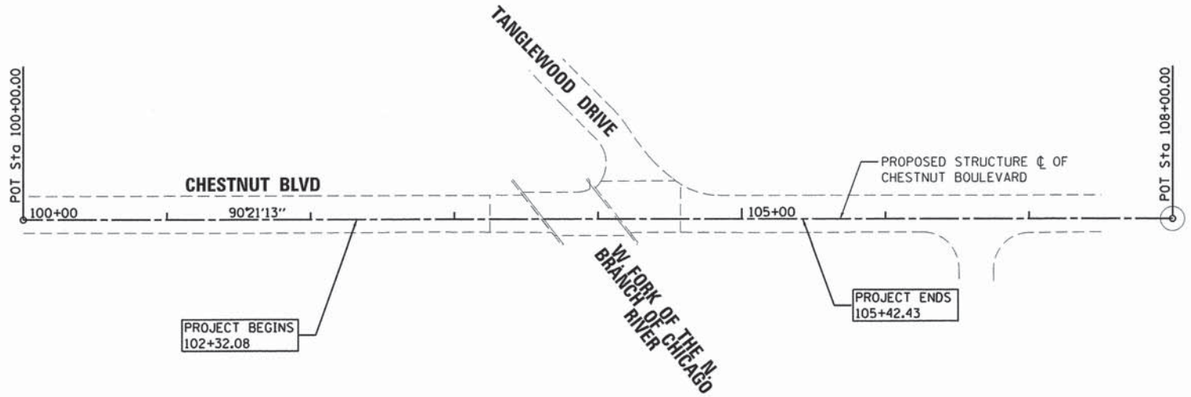
FILE NAME = 88415-sht-typicals.dgn

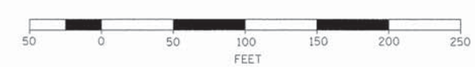


VILLAGE OF GLENVIEW BENCHMARK #20
"GPS" MONUMENT IN THE WEST PARKWAY OF HIGHLAND TERRACE, BETWEEN 1712 AND 1716 HIGHLAND TERRACE AND ABOUT 200' SOUTH OF KEILWORTH AVE, GLENVIEW.

N: 1,974,627.274
E: 1,130,748.067
ELEV. 654.38'
APPROX. 2,400 FT SE OF THE PROJECT

CHESTNUT BOULEVARD			
POINT	STATION	NORTHING	EASTING
POT	100+00.00	1,974,848.34	1,127,936.48
POT	108+00.00	1,974,843.40	1,128,736.46





FILE NAME = 88415-sht-ATB.dgn

BURNS MCDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = jjohnson	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1" = 50' | SHEET 1 OF 1 SHEETS | STA. 100+00.00 TO STA. 108+00.00

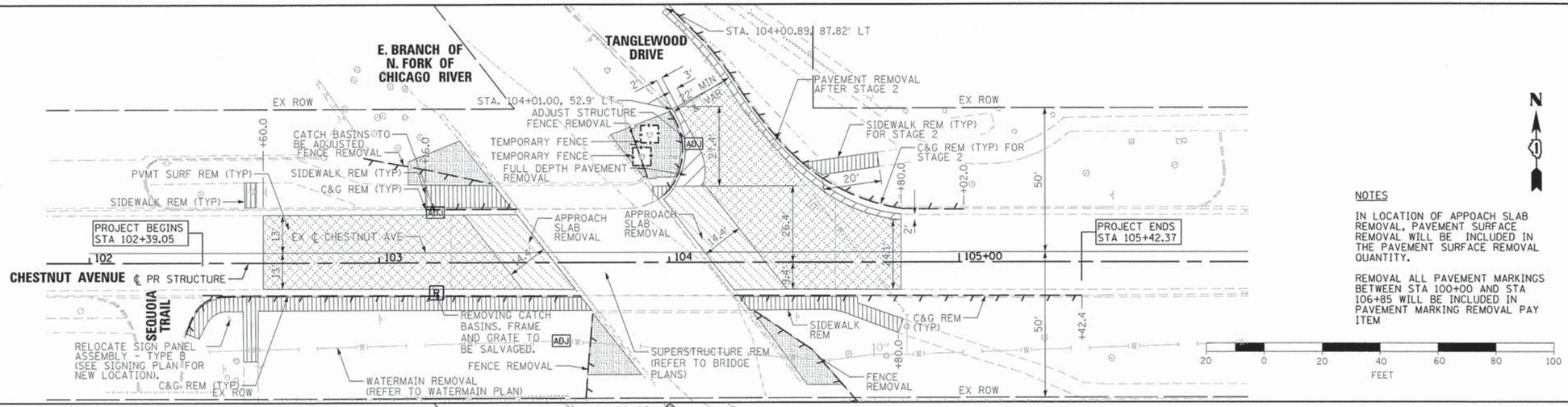
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	7
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

LEGEND

- PAVEMENT REMOVAL
- APPROACH SLAB REMOVAL
- SIDEWALK REMOVAL
- PAVEMENT SURFACE REMOVAL
- SELECTIVE CLEARING
- X" TREE REMOVAL
- LINEAR ITEM REMOVAL
- TEMPORARY FENCE

EXISTING CONDITIONS

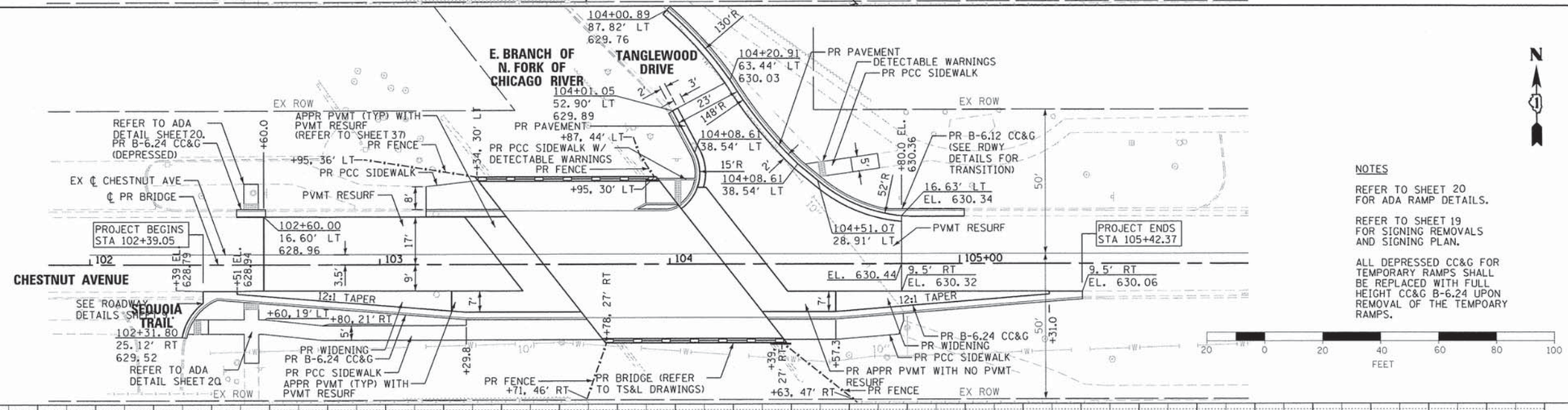
PROPOSED IMPROVEMENTS



NOTES

IN LOCATION OF APPOACH SLAB REMOVAL, PAVEMENT SURFACE REMOVAL WILL BE INCLUDED IN THE PAVEMENT SURFACE REMOVAL QUANTITY.

REMOVAL ALL PAVEMENT MARKINGS BETWEEN STA 100+00 AND STA 106+85 WILL BE INCLUDED IN PAVEMENT MARKING REMOVAL PAY ITEM

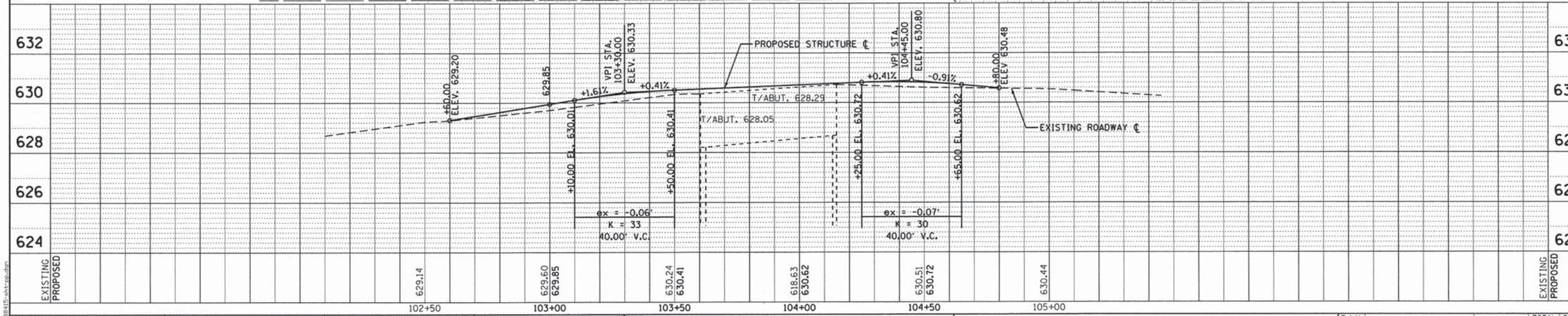


NOTES

REFER TO SHEET 20 FOR ADA RAMP DETAILS.

REFER TO SHEET 19 FOR SIGNING REMOVALS AND SIGNING PLAN.

ALL DEPRESSED CC&G FOR TEMPORARY RAMPS SHALL BE REPLACED WITH FULL HEIGHT CC&G B-6.24 UPON REMOVAL OF THE TEMPOARY RAMPS.



PROFILE — SURVEYED; PLOTTED; CHECKED; R.O.W. CHECKED; NOTE BOOK; NO.; BY; DATE; STRUCTURE NOTATIONS CHKD

PLAN — SURVEYED; PLOTTED; CHECKED; R.O.W. CHECKED; NOTE BOOK; NO.; BAR. NOTED; CADD FILE NAME; BY; DATE

FILE NAME = 88415-sht-rpp-dgn

BURNS MCDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

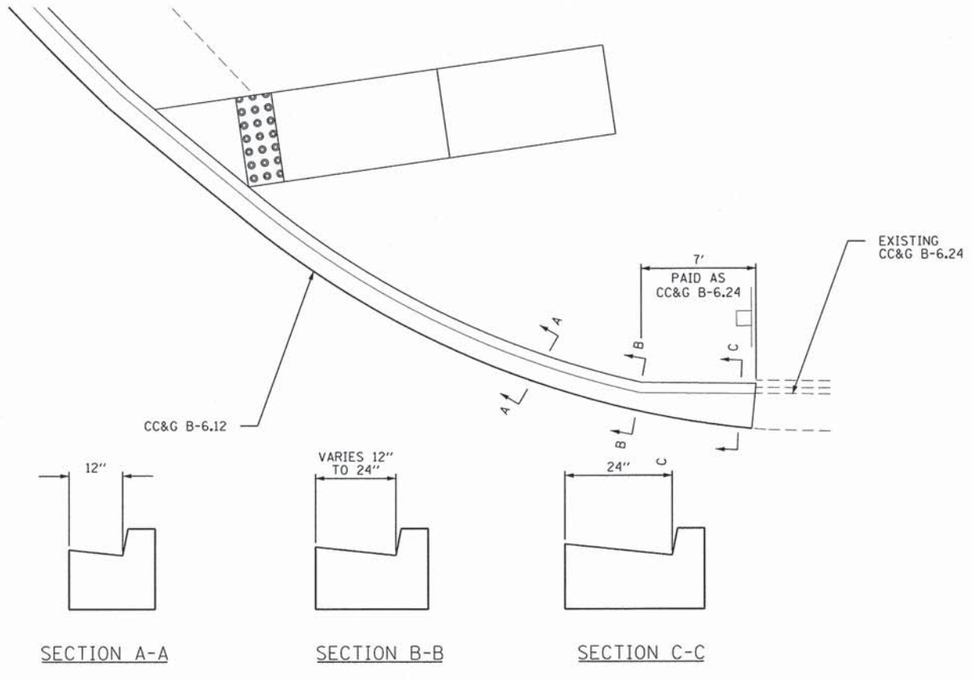
USER NAME = mpapirnik	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/2/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED PLAN AND PROFILE

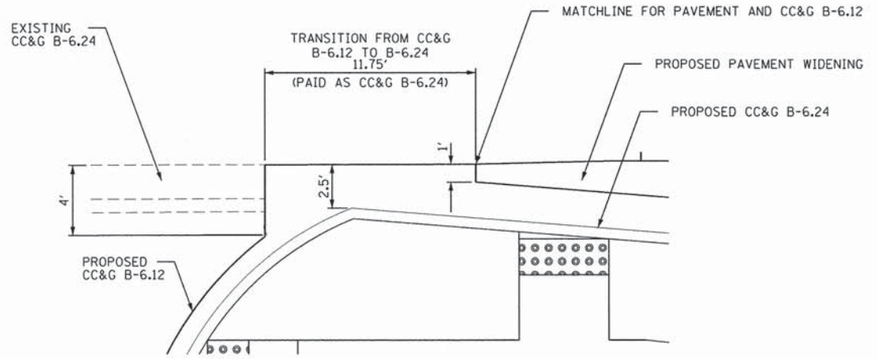
SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 102+00.00 TO STA. 106+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	8
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

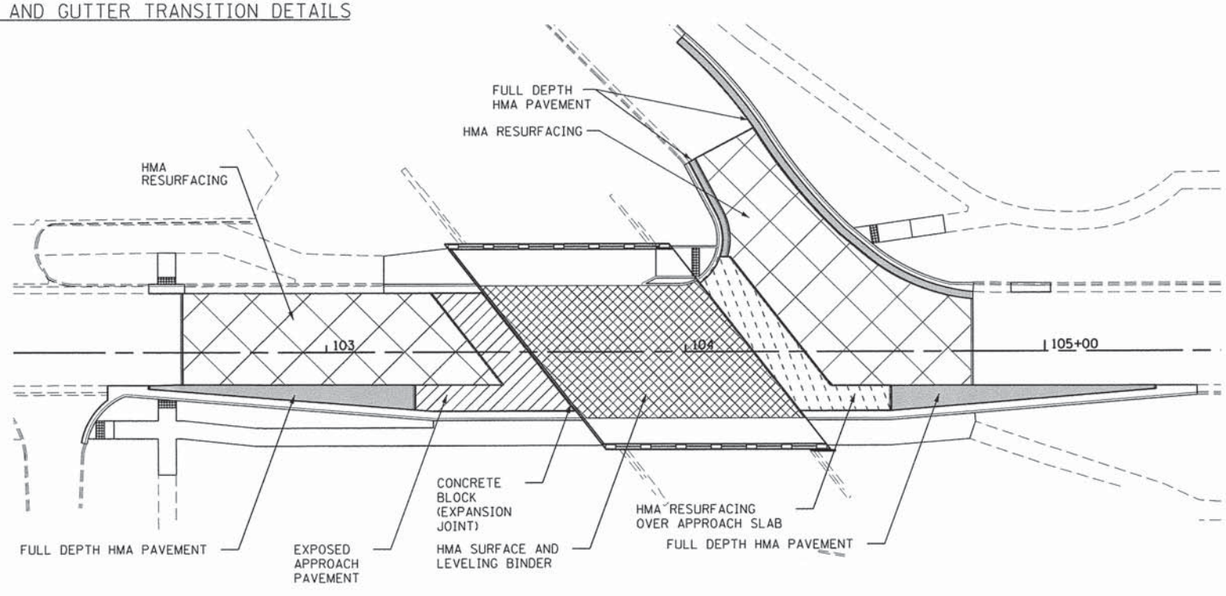


SECTION A-A SECTION B-B SECTION C-C

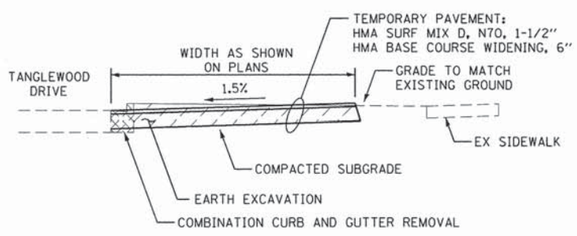
CURB AND GUTTER TRANSITION DETAILS



CURB AND GUTTER TRANSITION DETAILS AT DRIVEWAY



PAVEMENT DETAIL



TEMPORARY PAVEMENT DETAIL

FILE NAME = 08415-sht-rdwydtls-dgn

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = mpapirnik	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 2/2/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	9
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

STAGING SUMMARY

STAGE 1

TRAFFIC CONFIGURATION

1. CHESTNUT AVENUE TRAFFIC SHIFTED TO THE NORTH, IN ONE BI-DIRECTIONAL 11-FOOT LANE.
2. TRAFFIC MOVEMENTS CONTROLLED BY TEMPORARY TRAFFIC SIGNALS.
3. DETOUR INSTALLED FOR TRUCK TRAFFIC ON CHESTNUT AVENUE BETWEEN JOHNS DRIVE AND WAUKEGAN ROAD.

WORK PERFORMED

1. CONSTRUCT BRIDGE AND APPROACH SLAB SOUTH OF THE CENTERLINE.
2. CONSTRUCT PAVEMENT WIDENING AND SIDEWALK SOUTH OF THE CENTERLINE.
3. INSTALL DRAINAGE STRUCTURES AND STORM SEWERS SOUTH OF THE CENTERLINE.
4. PLACE SODDING, TURF REINFORCEMENT MAT AND SLOPE MATTRESS SOUTH OF THE CENTERLINE.

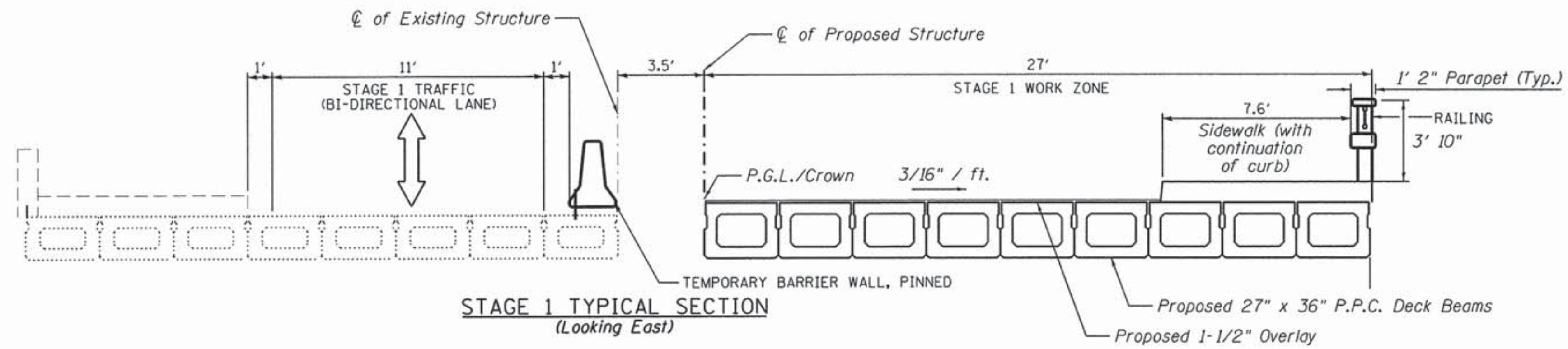
STAGE 2

TRAFFIC CONFIGURATION

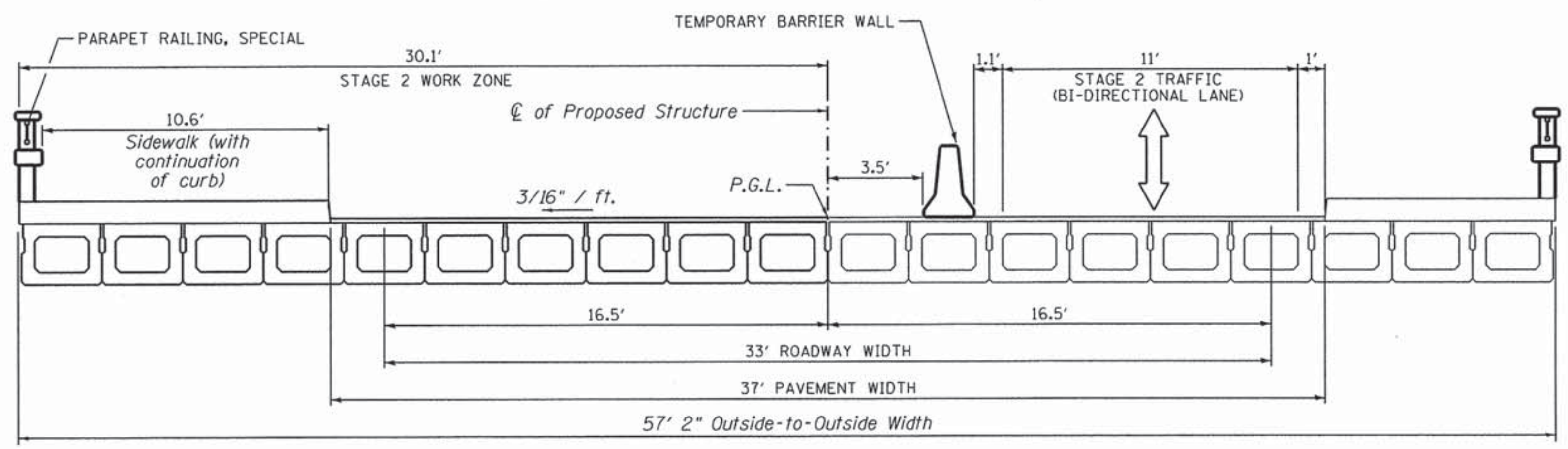
1. CHESTNUT AVENUE TRAFFIC SHIFTED TO THE SOUTH, IN ONE BI-DIRECTIONAL 12-FOOT LANE.
2. TANGLEWOOD DRIVE SHIFTED TO THE EAST, ON TWO TEMPORARY 10-FOOT LANES.
3. TRAFFIC MOVEMENTS CONTROLLED BY TEMPORARY TRAFFIC SIGNALS.
4. DETOUR REMAINS IN PLACE FOR TRUCK TRAFFIC ON CHESTNUT AVENUE BETWEEN JOHNS DRIVE AND WAUKEGAN ROAD.
5. TEMPORARY SIDEWALKS AND CROSSWALKS INSTALLED EAST AND WEST OF THE WORK ZONE.

WORK PERFORMED

1. CONSTRUCT TEMPORARY PEDESTRIAN SIDEWALKS.
2. CONSTRUCT TEMPORARY PAVEMENT AT NORTHEAST CORNER OF TANGLEWOOD AND CHESTNUT.
3. CONSTRUCT BRIDGE AND APPROACH SLAB NORTH OF THE CENTERLINE.
4. CONSTRUCT PAVEMENT AND SIDEWALK NORTH OF THE CENTERLINE.
5. PLACE SODDING, TURF REINFORCEMENT MAT AND SLOPE MATTRESS NORTH OF THE CENTERLINE.
6. REMOVE TEMPORARY BARRIER WALL AND TEMPORARY TRAFFIC SIGNAL.
7. INSTALL NEW SURFACE COURSE, PAVEMENT MARKINGS, AND SIGNING.
8. REMOVE TEMPORARY CROSSWALKS AND SIDEWALKS.
9. INSTALL REMAINING TOPSOIL AND SOD.



STAGE 1 TYPICAL SECTION
(Looking East)



STAGE 2 TYPICAL SECTION
(Looking East)

FILE NAME = 68415-sht-stagenotes.dgn

BURNS McDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 P: (312)-223-0920 / F: (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = jjohnson PLOT SCALE = 20.0000 '/ in. PLOT DATE = 2/1/2016	DESIGNED - MAP DRAWN - JMA CHECKED - RMG DATE - 1/28/2016	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC GENERAL NOTES AND SUMMARY SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	10
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

INDEX OF PANELS

(1) DETOUR AHEAD — W20-2, 48"x48" (WITH FLAG AND FLASHING HIGH-INTENSITY AMBER LIGHT)
TRUCK — M4-4, 24"x12"

(2) END DETOUR — M4-8a, 24"x18"

EASTBOUND CHESTNUT AVENUE DETOUR

(3)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
EAST — M3-2 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M5-1 (O) (L), 21"x15"

(4)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
EAST — M3-2 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-1 (O) (L), 21"x15"

(5)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
EAST — M3-2 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-3 (O), 21"x15"

(6)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
EAST — M3-2 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M5-1 (O) (R), 21"x15"

(7)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
EAST — M3-2 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-1 (O) (R), 21"x15"

(13A) R5-2, 30"x30"

(13) NO TRUCKS — R5-2A, 30"x30"

WESTBOUND CHESTNUT AVENUE DETOUR

(8)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
WEST — M3-4 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M5-1 (O) (L), 21"x15"

(9)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
WEST — M3-4 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-1 (O) (L), 21"x15"

(10)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
WEST — M3-4 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-3 (O), 21"x15"

(11)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
WEST — M3-4 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M5-1 (O) (R), 21"x15"

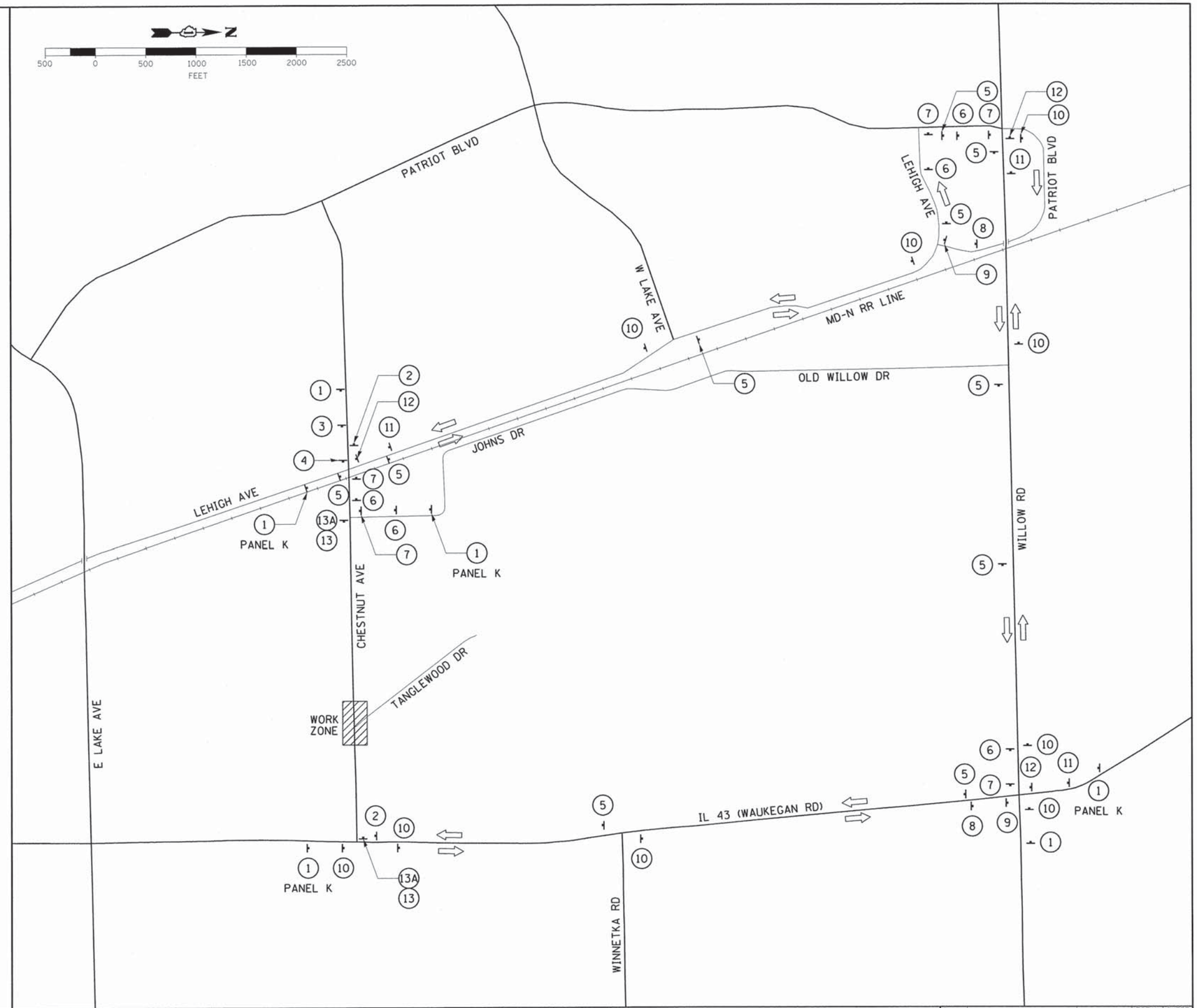
(12)
DETOUR — M4-1a (O), 24"x12"
TRUCK — M4-4 (O), 24"x12"
WEST — M3-4 (O), 24"x12"
Chestnut Ave — W16-8P (O)
M6-1 (O) (R), 21"x15"

LEGEND

DETOUR ROUTE SIGN
DETOUR DIRECTION OF TRAVEL

NOTES:

1. DETOUR ROUTE SIGNING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
2. EACH ASSEMBLY BELOW SHALL BE INSTALLED ON ITS OWN POST.



BURNS MSDONNELL
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USER NAME = jjohnson	DESIGNED - RGJ	REVISED -
	DRAWN - RGJ	REVISED -
PLOT SCALE = 500.0000 ' / in.	CHECKED - MAP	REVISED -
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC DETOUR PLAN

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	11
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

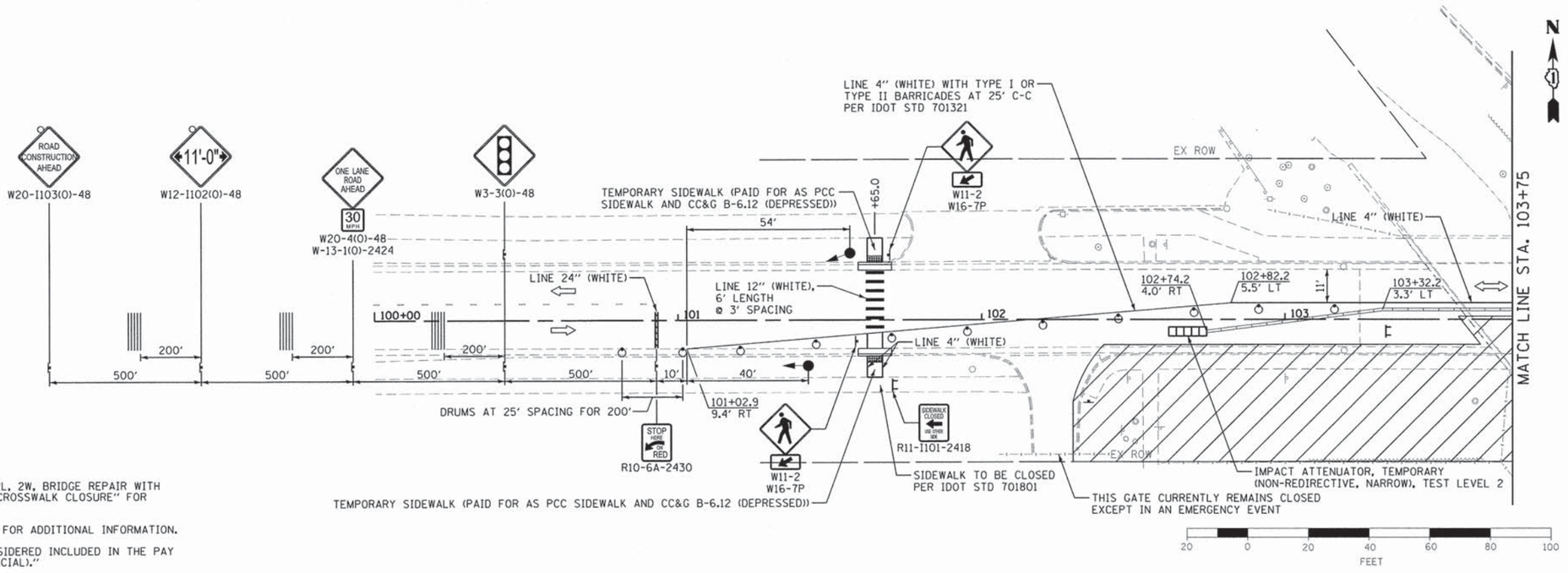
FILE NAME = 88415-sht-stagedetour.dgn

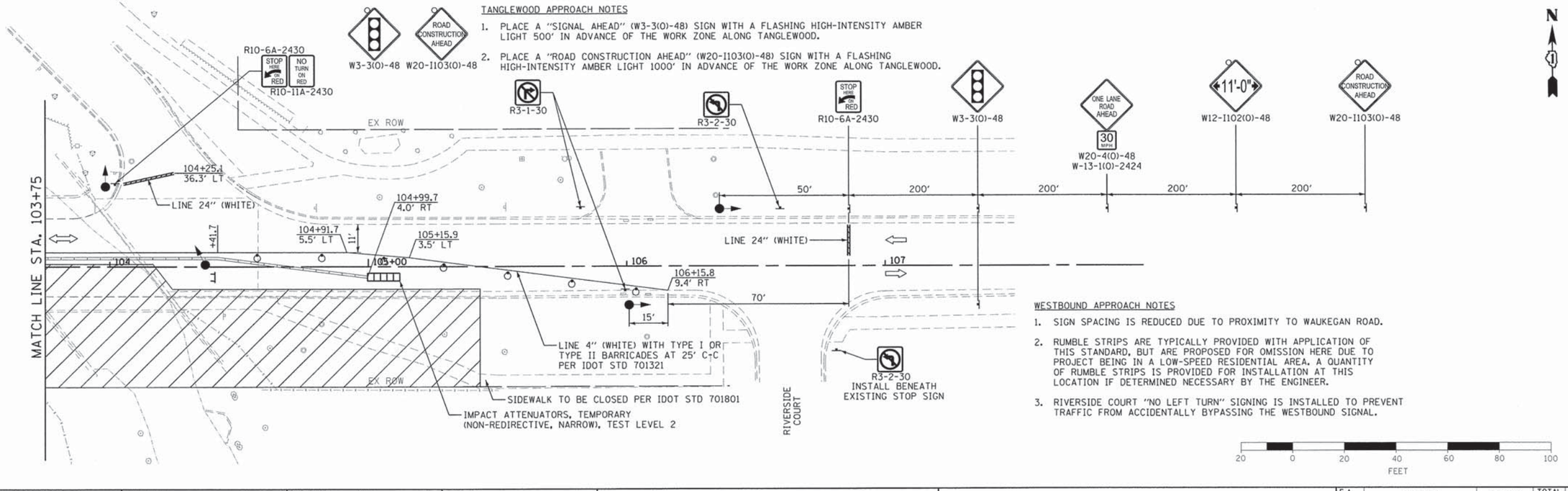
LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURN BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DETECTABLE WARNING
- SIGN (WORK ZONE)
- TYPE III BARRICADE
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP

NOTES

1. SEE IDOT STANDARD 701321, "LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER" AND 701801 "SIDEWALK, CORNER OR CROSSWALK CLOSURE" FOR ADDITIONAL INFORMATION.
2. SEE STAGING TYPICAL SECTIONS ON SHEET 10 FOR ADDITIONAL INFORMATION.
3. ALL SIGNING AND BARRICADES SHOWN ARE CONSIDERED INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL)."





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PLOT SCALE = 20.0000 ' / in.	CHECKED - MAP	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC – STAGE 1 CONSTRUCTION

SCALE: 1" = 20' | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	12
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

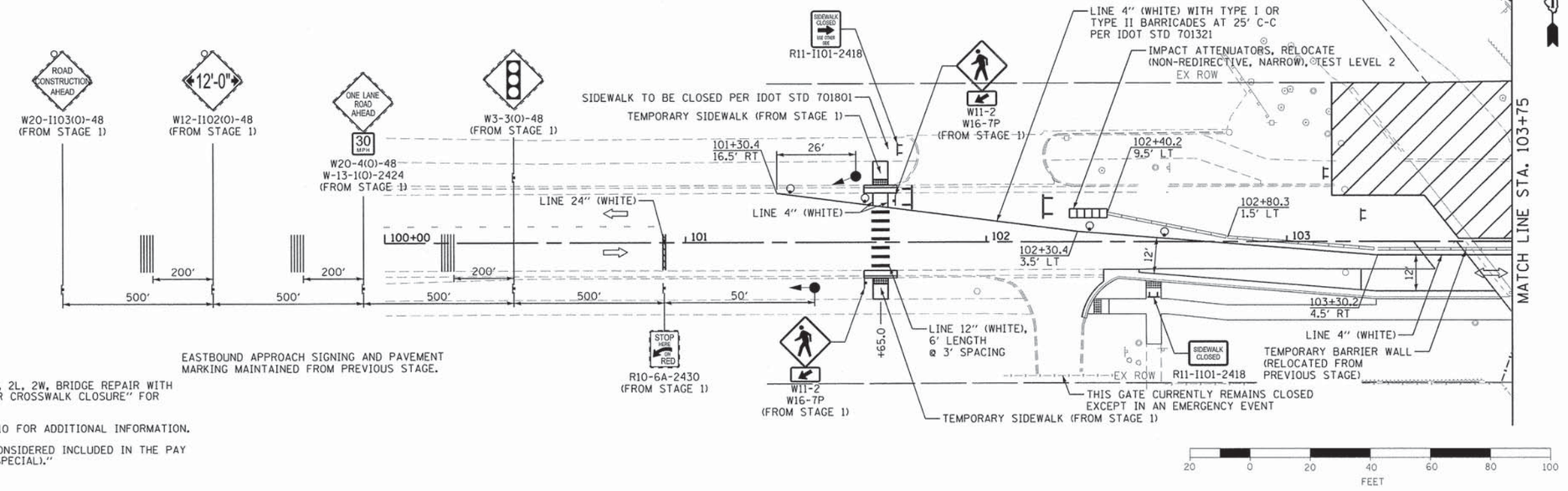
FILE NAME = 68415-sht-stage01.dgn

LEGEND

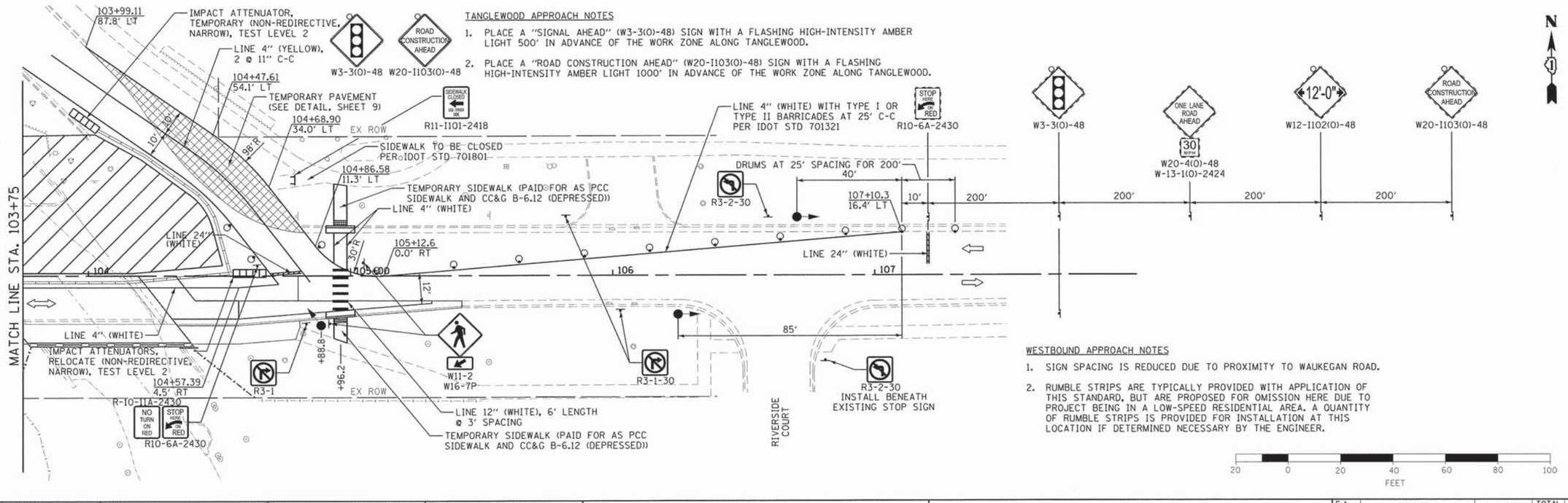
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURN BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DETECTABLE WARNING
- SIGN (WORK ZONE)
- TYPE III BARRICADE
- TEMPORARY TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP

NOTES

1. SEE IDOT STANDARD 701321, "LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER" AND 701801 "SIDEWALK, CORNER OR CROSSWALK CLOSURE" FOR ADDITIONAL INFORMATION.
2. SEE STAGING TYPICAL SECTIONS ON SHEET 10 FOR ADDITIONAL INFORMATION.
3. ALL SIGNING AND BARRICADES SHOWN ARE CONSIDERED INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL)."
4.



EASTBOUND APPROACH SIGNING AND PAVEMENT MARKING MAINTAINED FROM PREVIOUS STAGE.



TANGLEWOOD APPROACH NOTES

1. PLACE A "SIGNAL AHEAD" (W3-3(O)-48) SIGN WITH A FLASHING HIGH-INTENSITY AMBER LIGHT 500' IN ADVANCE OF THE WORK ZONE ALONG TANGLEWOOD.
2. PLACE A "ROAD CONSTRUCTION AHEAD" (W20-I103(O)-48) SIGN WITH A FLASHING HIGH-INTENSITY AMBER LIGHT 1000' IN ADVANCE OF THE WORK ZONE ALONG TANGLEWOOD.

WESTBOUND APPROACH NOTES

1. SIGN SPACING IS REDUCED DUE TO PROXIMITY TO WAUKEGAN ROAD.
2. RUMBLE STRIPS ARE TYPICALLY PROVIDED WITH APPLICATION OF THIS STANDARD, BUT ARE PROPOSED FOR OMISSION HERE DUE TO PROJECT BEING IN A LOW-SPEED RESIDENTIAL AREA. A QUANTITY OF RUMBLE STRIPS IS PROVIDED FOR INSTALLATION AT THIS LOCATION IF DETERMINED NECESSARY BY THE ENGINEER.

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	DRAWN - RGJ	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - MAP	REVISED -
PLOT DATE = 2/2/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC – STAGE 2 CONSTRUCTION

SCALE: 1" = 20' | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	13
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 00185-sht-stage02.dgn

EROSION CONTROL GENERAL NOTES

1. ALL PROVISIONS FOR THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WILL COMPLY WITH ALL THE CONDITIONS STIPULATED IN THE GENERAL NPDES PERMIT NO. ILR10 EFFECTIVE AUGUST 1, 2013 AND AS MODIFIED APRIL 30, 2014.

2. COOK COUNTY AND MWRD MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.

3. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE PHASED PRIOR TO THE COMMENCEMENT OF ANY UPLAND DISTURBANCE. SOIL DISTURBANCE SHALL BE PHASED AND CONSTRUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION.

4. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED, AT A MINIMUM, ACCORDING TO THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE ILLINOIS URBAN MANUAL, REVISED TO THE LATEST EDITION AS AMENDED. A COPY OF THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IN CONJUNCTION WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY IDOT OR COOK COUNTY.

6. THE INSTALLATION, MAINTENANCE, REMOVAL AND RESTORATION OF THE AREA DISTURBED BY THE PLACEMENT OF THE PERIMETER EROSION BARRIER ARE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER. AREAS DAMAGED BY THE PLACEMENT OF THE PERIMETER EROSION BARRIER WILL BE RESTORED AFTER ALL PERIMETER EROSION BARRIER IS REMOVED.

7. THE CONTRACTOR SHALL CLEAN UP AND GRADE THE WORK AREA AS THE PROJECT PROGRESSES TO ELIMINATE THE CONCENTRATION OF RUNOFF, OR SHALL INSTALL APPROPRIATE SEDIMENT CONTROL DEVICES TO TRAP SEDIMENT. PAVEMENT SHALL BE CLEANED DAILY TO REMOVE EARTHEN MATERIAL TO THE SATISFACTION OF THE RESIDENT ENGINEER.

8. ALL STORM SEWER INLET STRUCTURES SHALL BE PROTECTED WITH STORM SEWER INLET FILTERS AND INSTALLED PER MANUFACTURER SPECIFICATIONS.

9. THE CONTRACTOR SHALL MAINTAIN AND PRESERVE ANY EXISTING SUB-SURFACE DRAINAGE SYSTEMS, SUCH AS FIELD TILES, ACCORDING TO EXISTING DESIGN AND CONSTRUCTION STANDARDS.

10. DURING DEWATERING OPERATIONS, WATER WILL BE FILTERED OR PUMPED INTO FILTER BAGS OR SILT TRAPS. DEWATERING DIRECTLY INTO STREAMS, WETLANDS, FIELD TILES, OR STORMWATER STRUCTURES IS STRICTLY PROHIBITED.

11. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

12. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE THE TIME SOIL IS EXPOSED AND UNPROTECTED. IN NO CASE SHALL THE EXISTING VEGETATION BE DESTROYED, REMOVED, OR DISTURBED MORE THAN FOURTEEN (14) DAYS PRIOR TO THE INITIATION OF IMPROVEMENTS.

13. CONTAINMENT BOOMS WILL BE USED TO CONTROL AND CONTAIN DEBRIS, LITTER POLLUTION AND SPILL CLEAN-UP. PROTECTIVE SHIELDING WILL BE UTILIZED BY THE CONTRACTOR TO LIMIT FALLING DEBRIS FROM ENTERING THE CHANNEL. THE CONTRACTOR WILL BE REQUIRED TO MONITOR AND MANAGE DEBRIS FROM DEMOLITION OF THE STRUCTURE. THIS WILL REQUIRE THE PERMANENT REMOVAL OF DEBRIS GENERATED FROM ABUTMENT AND BRIDGE DEMOLITION WITHIN 12-HOURS OF ENTERING THE WATERWAY.

14. TEMPORARY AND/OR PERMANENT SOIL STABILIZATION (VEGETATION OR HARDSCAPE) SHALL BE APPLIED TO EXPOSED AREAS AS SOON AS POSSIBLE. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES. QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. QUALIFIED PERSONNEL ARE PERSONS KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS A LICENSED PROFESSIONAL ENGINEER, A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSWI), OR OTHER KNOWLEDGEABLE PERSON WHO POSSESS THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORMWATER QUALITY AND MEASURES SELECTED TO CONTROL THE QUANTITY OF STORM WATER DISCHARGES FROM THE CONSTRUCTION ACTIVITIES.

15. THE CONTRACTOR SHALL MAKE INSPECTIONS A MINIMUM OF ONCE EVERY SEVEN (7) DAYS OF THE FOLLOWING: DISTURBED AREAS OF THE PROJECT SITE THAT HAVE NOT BEEN FULLY STABILIZED; STRUCTURAL CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO, SILT FENCE AND DITCH CHECKS; LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.

16. THE CONTRACTOR SHALL KEEP A WRITTEN REPORT SUMMARIZING THE REQUIRED INSPECTION EACH TIME AN INSPECTION TAKES PLACE. THE REPORTS MUCH BE RETAINED FOR THREE (3) YEARS FROM THE DATE THAT THE NPDES ILR10 PERMIT COVERAGE EXPIRES OR IS TERMINATED.

17. THE INSPECTOR SHALL NOTIFY THE APPROPRIATE AGENCY FIELD OPERATIONS SECTION OFFICE WITHIN 24 HOURS OF ANY INCIDENCE OF NON-COMPLIANCE FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING ANY INSPECTION CONDUCTED, OR FOR VIOLATIONS OF ANY CONDITION OF THIS PERMIT. NOTIFICATION SHALL BE MADE VIA E-MAIL AT epa.swnoncomp@illinois.gov, TELEPHONE, OR FAX. THE INSPECTOR MUST FILL OUT AND FILE WITHIN FIVE (5) DAYS TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND INCIDENCE OF NON-COMPLIANCE (ION) FORM WHEN REQUIRED BY THE PERMIT. THE REPORT SHALL INCLUDE THE FOLLOWING:
    - SCOPE OF INSPECTION
    - NAMES OF QUALIFIED PERSONNEL MAKING SAID INSPECTION
    - DATE OF SAID INSPECTION
    - MAJOR OBSERVATIONS INCLUDING IDENTIFIED POTENTIAL POLLUTANT SOURCES
    - RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN
    - ACTIONS TAKEN BASED ON THE RESULTS OF THE INSPECTION.

18. THE CONTRACTOR MUST COOPERATE WITH ANY AGENTS WHO MAKE THE SITE VISITS TO REVIEW COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN THE FIELD AND AUDIT THE LOGS AND RECORDS REQUIRED BY THE PERMIT.

19. STOCKPILES OF SOIL SHALL NOT BE LOCATED WITHIN FLOODPLAINS, RIPARIAN AREAS, WETLANDS OR WATERS OF THE US.

20. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE (3) DAYS, THEN SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED FOR SAID STOCKPILE. SEDIMENT AND EROSION CONTROL MAY BE COMPRISED OF SILT FENCE SURROUNDING THE STOCKPILE OR A COVERING OVER THE STOCKPILE.

21. IF THE VOLUME, VELOCITY, SEDIMENT LOAD OR PEAK FLOW RATES OF STORMWATER RUNOFF ARE TEMPORARILY INCREASED DURING CONSTRUCTION THEN PROPERTIES AND SPECIAL MANAGEMENT AREAS DOWNSTREAM FROM SUCH DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION.

22. GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, SHALL BE PROVIDED TO PREVENT THE DEPOSIT OF SILT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY MUD, SOIL OR DEBRIS REACHING PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED IMMEDIATELY.

23. CONCRETE WASHOUT SHOULD BE CONTAINED AT ALL TIMES. WASHOUT MATERIAL SHOULD NOT BE ALLOWED TO ENTER STORM SEWERS OR LEACH INTO THE SOIL UNDER ANY CIRCUMSTANCES. ANY WASTE SHOULD BE DISPOSED OF PROPERLY AND THE LOCATION OF THE WASHOUT SHOULD BE DESIGNATED WITH PROPER SIGNAGE.

24. THE CONTRACTOR SHALL CONSULT WITH A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL FOR THE MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES.

25. ALL TEMPORARY EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTION, MAINTENANCE AND REPAIR.

26. ALL TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, INCLUDING PERIMETER EROSION BARRIER, MUST BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL STABILIZATION IS COMPLETED, PROVIDED THAT SEEDING IS AT LEAST 90% ESTABLISHED OR OTHERWISE APPROVED BY THE ENGINEER.

27. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DIRT AND DEBRIS UPON COMPLETION OF ALL THE SITE WORK INCLUDING GROUND COVER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE INLET FILTERS PAY ITEM.

28. DUST SHALL BE CONTROLLED BY THE UNIFORM APPLICATION OF WATER BY THE CONTRACTOR.

29. EROSION CONTROL DEVICES MUST BE IN PLACE AND FUNCTIONAL BEFORE SOIL OR VEGETATION IS DISTURBED.

30. ANY INLET PROTECTION SHALL BE CONSTRUCTED BEFORE LAND DISTURBANCE BEGINS.

31. ALL GREEN AREAS RESTORED TO PRE- CONSTRUCTION CONDITIONS WILL BE STABILIZED WITH TOPSOIL, SEED, AND TEMPORARY EROSION CONTROL BLANKET AS CONTAINED HEREIN OR OTHERWISE NOTED.

32. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE DURING THE PROJECT. DAMAGE TO THE SUBGRADE, EXISTING FACILITIES AND/OR CONSTRUCTED WORK WILL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT ENGINEER AT NO ADDITIONAL COST. ANY ALTERATIONS OR ADDITIONS TO THE EXISTING SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL AND EITHER ADDED TO THE EXISTING PLAN OR UTILIZED IN PLACE OF THE EXISTING PLAN.

33. ALL OTHER SOIL EROSION CONTROL DEVICES AND MEASURES DEEMED NECESSARY BY THE INSPECTOR OR COUNTY SHALL BE IMPLEMENTED IMMEDIATELY UPON NOTIFICATION.

FILE NAME = 88415-sht-eros_notes01.dgn

BURNS MCDONNELL
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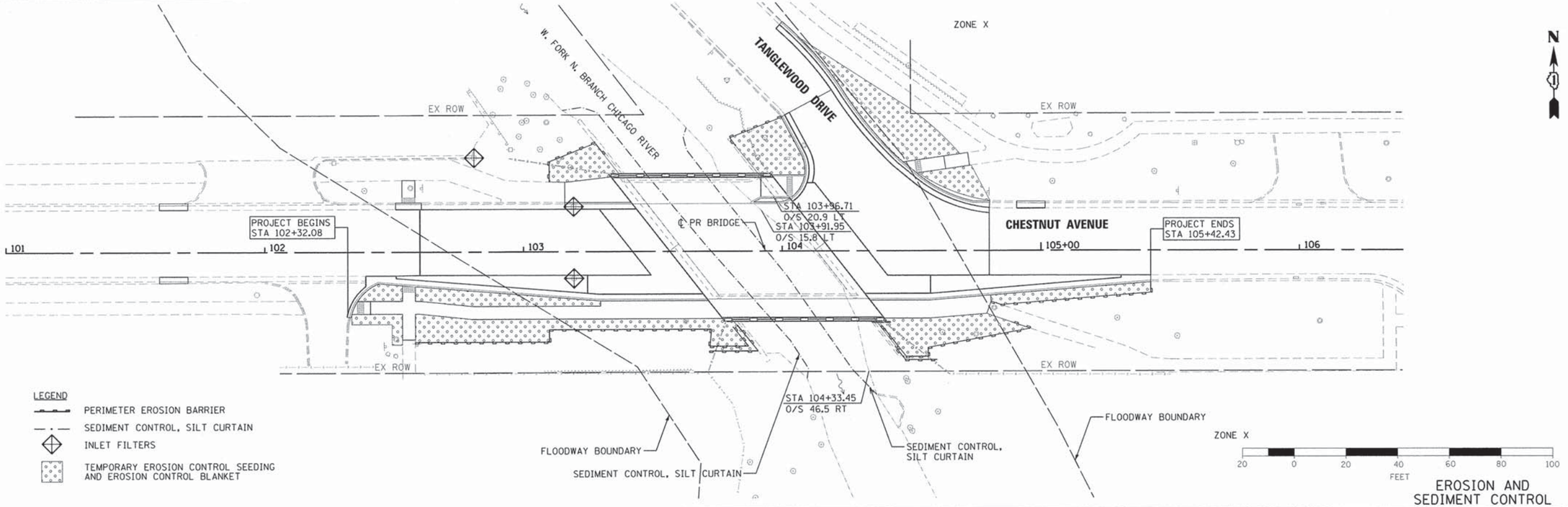
USER NAME = jjohnson	DESIGNED - MAP	REVISED -
	DRAWN - JMA	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - RMG	REVISED -
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL NOTES

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	14
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



LEGEND

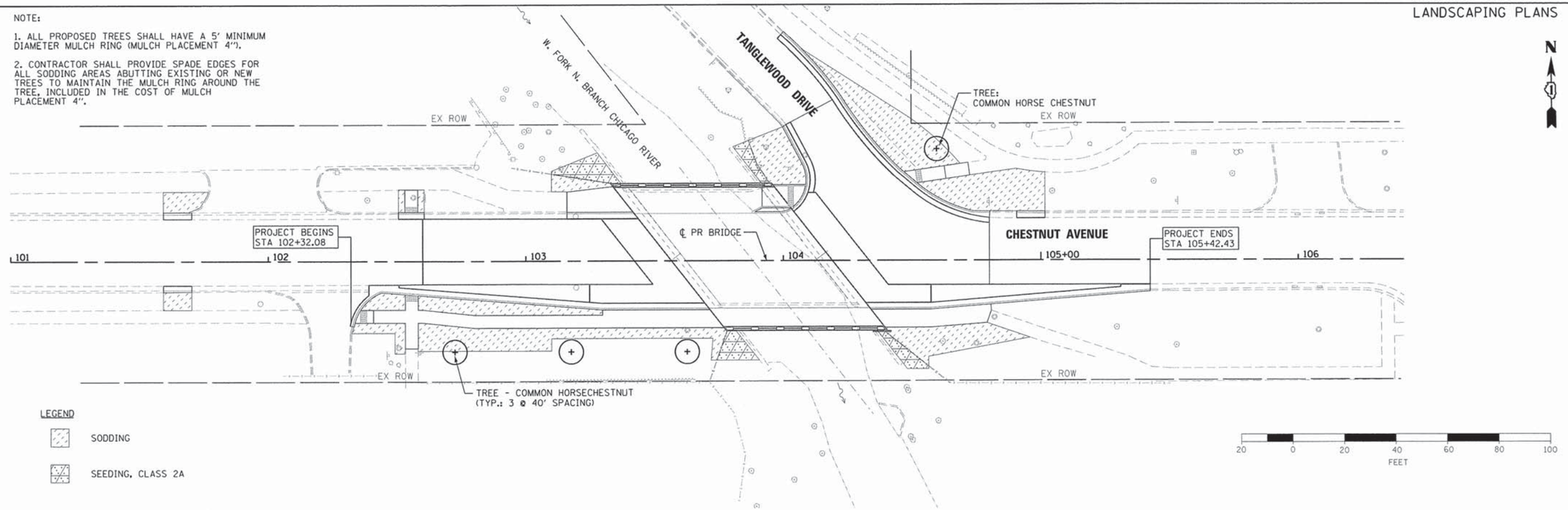
- PERIMETER EROSION BARRIER
- SEDIMENT CONTROL, SILT CURTAIN
- INLET FILTERS
- TEMPORARY EROSION CONTROL SEEDING AND EROSION CONTROL BLANKET

EROSION AND SEDIMENT CONTROL LANDSCAPING PLANS

NOTE:

1. ALL PROPOSED TREES SHALL HAVE A 5' MINIMUM DIAMETER MULCH RING (MULCH PLACEMENT 4").

2. CONTRACTOR SHALL PROVIDE SPADE EDGES FOR ALL SODDING AREAS ABUTTING EXISTING OR NEW TREES TO MAINTAIN THE MULCH RING AROUND THE TREE. INCLUDED IN THE COST OF MULCH PLACEMENT 4".



LEGEND

- SODDING
- SEEDING, CLASS 2A

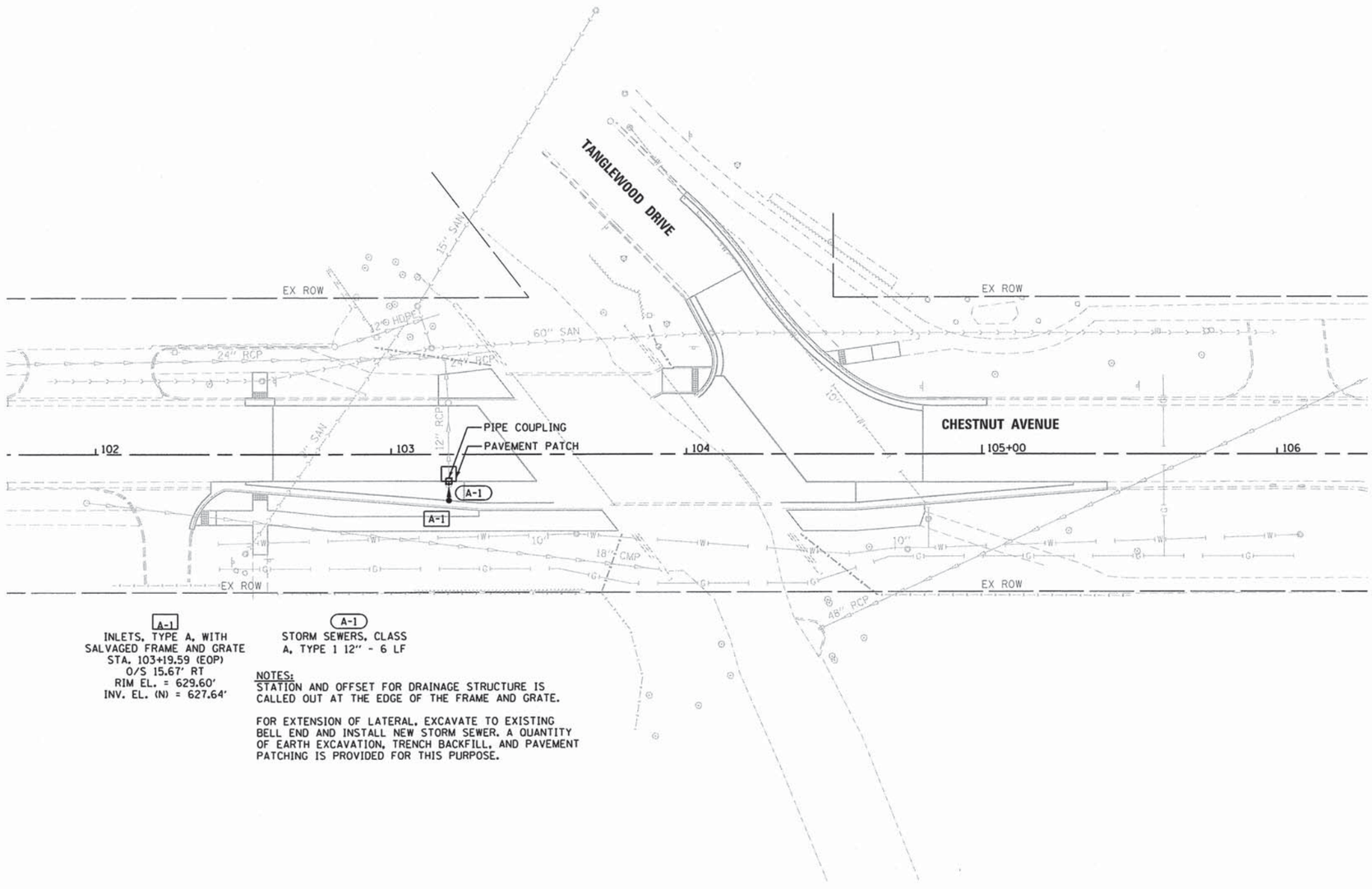
FILE NAME = 08435-sht-eros_landscp.dgn

BURNS McDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 P: (312)-223-0920 / F: (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = jjohnson	DESIGNED - MAP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - JMA	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - RMG	REVISED -	
	PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

EROSION & SEDIMENT CONTROL AND LANDSCAPING PLANS

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA.102+00.00 TO STA.106+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	15
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



FILE NAME = 88415-sht-dr-sm-dgn

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USER NAME = mpapirnik	DESIGNED - MAP	REVISED -
	DRAWN - JMA	REVISED -
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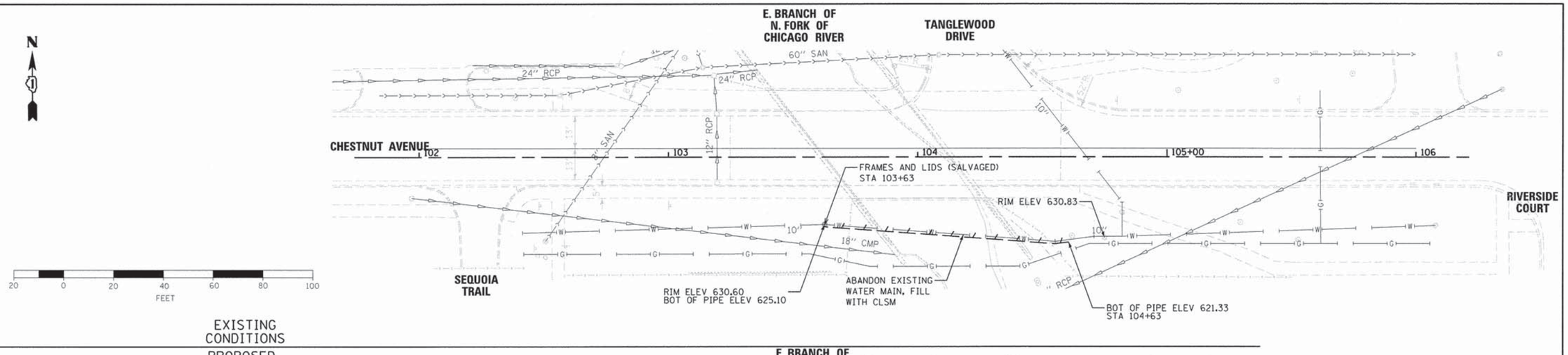
PLOT DATE = 2/16/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PLAN

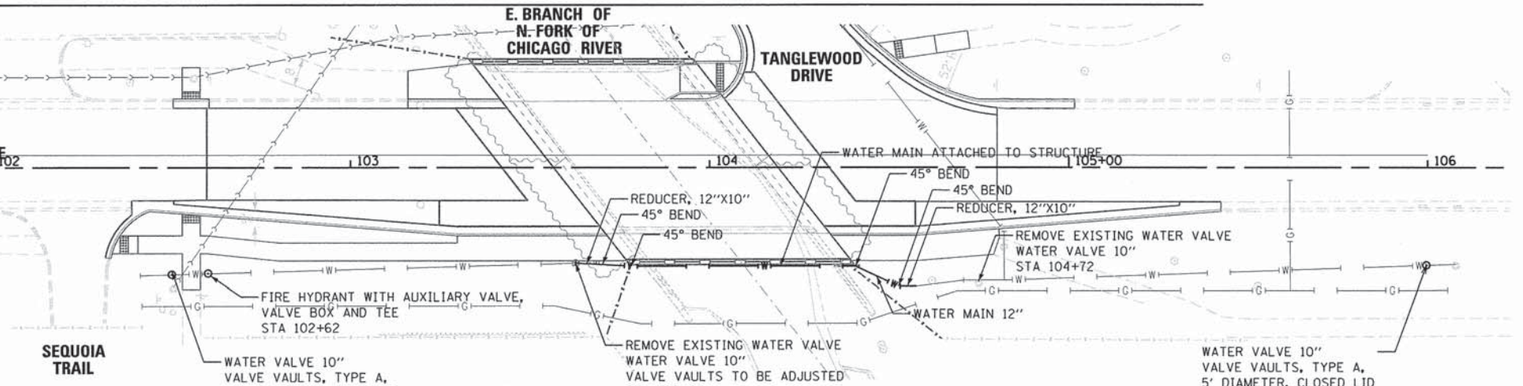
SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 102+00.00 TO STA. 106+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	16
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



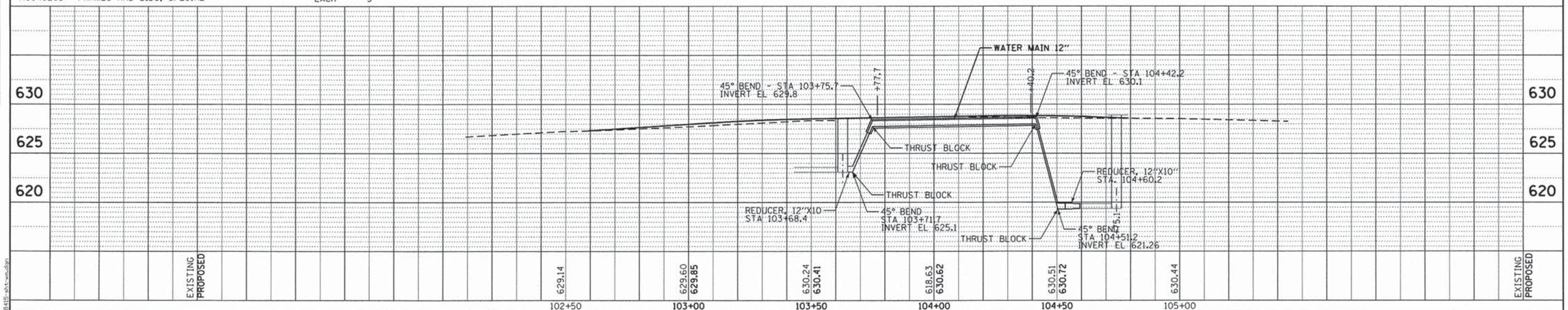
EXISTING CONDITIONS

PROPOSED IMPROVEMENTS



BILL OF MATERIAL

ITEM NO	PAY ITEM	UNITS	QUANTITY
56100900	WATER MAIN 12"	FOOT	29
56105100	WATER VALVES 10"	EACH	4
56400825	FIRE HYDRANT WITH AUXILIARY VALVE, VALVE BOX AND TEE	EACH	1
60248900	VALVE VAULTS, TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2
60406510	FRAMES AND LIDS (SALVAGED)	EACH	1
X0323449	REMOVE EXISTING WATER VALVE	EACH	2
X5610004	DUCTILE IRON WATER MAIN FITTINGS	EACH	1290
X5610561	ABANDON EXISTING WATER MAIN, FILL WITH CLSM	FOOT	115
X5610812	DUCTILE IRON WATER MAIN, RESTRAINED JOINT PIPE 12" ATTACHED TO STRUCTURE	FOOT	77
X6040205	FRAMES AND LIDS, SPECIAL	EACH	3



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USER NAME = mpapirnik
PLOT SCALE = 40.0000 ' / in.
PLOT DATE = 3/16/2016

DESIGNED	-	REVISED	- MAP
DRAWN	-	REVISED	- JMA
CHECKED	-	REVISED	- RMG
DATE	-	REVISED	- 1/28/2016

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

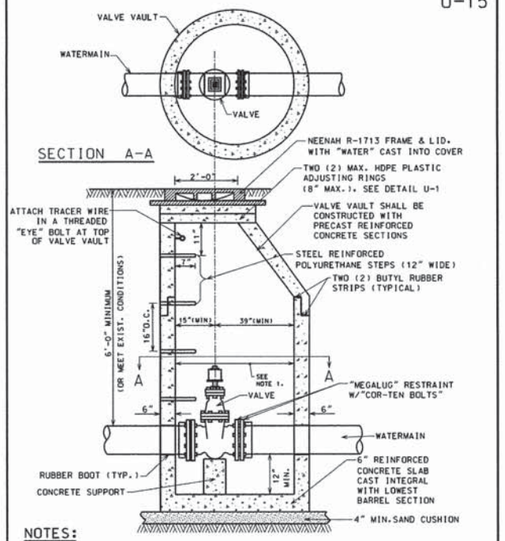
PROPOSED WATERMAIN

SCALE: SHEET 1 OF 1 SHEETS STA. 102+00.00 TO STA. 106+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	17
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 80415-sht-wm.dgn

U-15



NOTES:

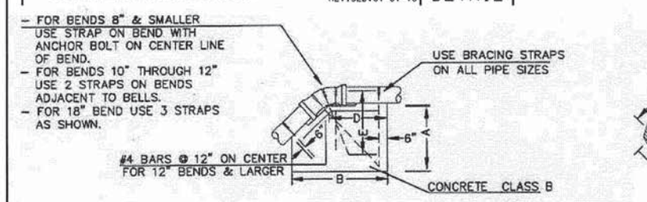
1. 60" (MIN) INSIDE DIA. FOR ALL VALVE VAULTS.
2. VALVE VAULT MUST CONFORM TO ASTM C-478.
3. USE ECCENTRIC CONE ONLY.
4. VAULT SECTIONS TO BE TONGUE AND GROOVED.
5. NON-PRECAST OPENINGS SHALL BE CORED, RUBBER BOOTED, AND MORTORED.*
6. BACKFILL MATERIAL SHALL BE IDOT CA 7 STONE.
7. a) MECHANICAL JOINT BOLTS & NUTS SHALL BE COMPOSED OF CORE-TEN.
   b) ALL OTHER HEXAGONAL BOLTS & NUTS SHALL BE COMPOSED OF STAINLESS STEEL.
8. TRACER WIRE SHALL BE USED ON ALL PIPE INSTALLATIONS, REGARDLESS OF PIPE MATERIAL.

* SEE PIPE CONNECTION TO STRUCTURE DETAIL U-5.

NOT TO SCALE

VALVE VAULT DETAIL

REVISED:01-01-16

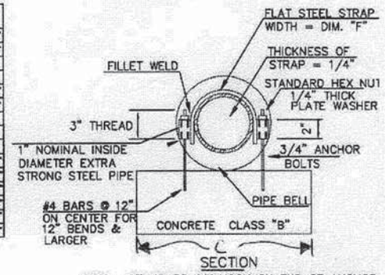


ELEVATION

PAINT ALL EXPOSED STEEL WITH 2 COATS OF BITUMINOUS PAINT.

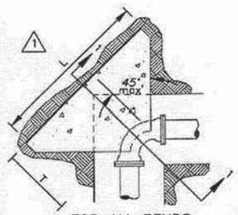
BEND	PIPE SIZE	A	B	C	D	E	F
11 1/4°	4" - 6"	1'-9"	2'-3"	2'-5"	1'-2"	2'-0"	1 1/4"
	8"	2'-3"	3'-0"	2'-5"	1'-6"	2'-6"	1 1/4"
	10"	2'-9"	3'-6"	2'-5"	2'-0"	3'-0"	2"
	12"	3'-0"	4'-3"	3'-0"	2'-3"	3'-6"	2"
	18"	3'-6"	5'-6"	3'-3"	3'-0"	4'-6"	2 1/2"
22 1/2°	4" - 6"	2'-6"	3'-0"	2'-6"	1'-6"	2'-8"	1 1/4"
	8"	3'-0"	4'-3"	2'-6"	2'-6"	3'-3"	2"
	10"	3'-3"	5'-0"	3'-0"	2'-9"	3'-9"	2"
	12"	3'-9"	6'-3"	3'-0"	3'-6"	4'-3"	2"
	18"	5'-0"	7'-6"	3'-3"	4'-0"	5'-6"	2 1/2"
45°	4" - 6"	3'-0"	6'-0"	3'-0"	3'-3"	3'-3"	2 1/4"
	8"	3'-6"	6'-6"	3'-0"	3'-8"	3'-9"	2 1/4"
	10"	4'-6"	7'-6"	3'-0"	4'-3"	5'-0"	2 1/4"
	12"	5'-3"	9'-0"	3'-3"	5'-0"	5'-9"	2 1/2"
	18"	6'-6"	11'-0"	3'-9"	6'-0"	7'-3"	2 1/2"

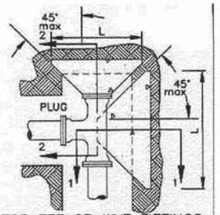
CHART FOR UPPER VERTICAL BLOCKING

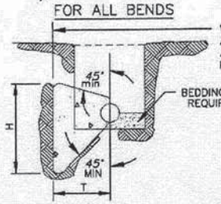


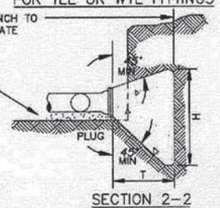
SECTION

NOTE: STANDARD 90° HOOK ON END OF ANCHOR BOLTS TO FACE CENTER OF BLOCKS.









PIPE SIZE	DEGREE OF BEND	BEND DIMENSIONS (FEET) L	H	T	VOL. CU.YD.	TEE AND PLUGS (FEET) L	H	T	VOL. CU.YD.
4" & 6"	90	2.50	2.50	3.01	0.24	2.00	2.25	2.50	0.15
	45	2.00	2.25	2.60	0.15				
	22 1/2	1.50	2.00	2.52	0.10				
	11 1/4	1.50	2.00	2.50	0.10				
8"	90	3.66	3.16	3.21	0.48	3.16	2.91	2.66	0.32
	45	2.66	2.66	2.77	0.26				
	22 1/2	1.66	2.16	2.69	0.13				
	11 1/4	1.66	2.16	2.67	0.13				
10" & 12"	90	4.83	3.83	3.42	0.83	3.83	4.00	2.83	0.52
	45	3.33	3.58	2.95	0.43				
	22 1/2	2.33	2.58	2.86	0.24				
	11 1/4	1.83	2.33	2.84	0.18				

1. THRUST BLOCKS ARE REQUIRED WHENEVER THE PIPELINE : CHANGES DIRECTION, CHANGES SIZE, DEAD ENDS AND AT VALVES.
2. USE 2500 P.S.I. CONCRETE.
3. NO CONCRETE SHALL BE POURED ON ANY PART OF THE JOINT.
4. THE CONSULTING ENGINEER SHALL BE RESPONSIBLE TO THE VERIFY THE TYPE & SIZE OF ALL THRUST BLOCKS.

CONCRETE THRUST BLOCKS

NTS

CONCRETE BLOCKING FOR UPPER VERTICAL BENDS

WATERMAIN NOTES

1. ALL WATER MAIN FITTINGS SHALL BE MECHANICAL AND CONFORM TO (AWWA-C111/C-600) WITH MORTAR LINING AND SEAL COATING.
2. WATER MAINS SHALL BE PROTECTED FOR HORIZONTAL AND VERTICAL SEPARATION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS. NO WATER MAIN SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER OR SEWER MANHOLE. +
3. INSTALLATION DEPTH OF WATER MAIN SHALL BE A MINIMUM OF SIX (6') FEET FROM PROPOSED GRADE TO TOP OF PIPE, EXCEPT FOR UTILITY BRIDGE CROSSING.
4. CORROSION PROTECTION SHALL BE PROVIDED FOR ALL DUCTILE IRON PIPE, FITTINGS, SLEEVES AND VALVES WHICH ARE TO BE ENCASED IN POLYETHYLENE IN ACCORDANCE WITH AWWA C-105.
5. THRUST RESTRAINT FOR ALL FITTINGS, BENDS AND HYDRANTS SHALL BE PROPERLY BRACED BY MEANS OF CONCRETE THRUST BLOCKS PER DETAIL AS CONTAINED HEREIN WITH THE MINIMUM BEARING AREA DETAILED AND COMPLETELY FILL SPACE BETWEEN BENDS OR FITTINGS AND WALLS OF TRENCH FROM 6-INCHES BELOW FITTING TO TWELVE (12) INCHES ABOVE FITTING. CONCRETE THRUST BLOCKING SHALL BE PROVIDED AT ALL MECHANICAL JOINTS AND BENDS GREATER THAN TEN (10) DEGREES. CONSIDERATION SHOULD BE TAKEN FOR RESTRAINT TO ALLOW FOR FUTURE ACCESS OF THE JOINT.
6. ALL PUSH-ON JOINT FITTINGS AND BENDS SHALL BE PROPERLY ANCHORED BY FIELD LOK GASKET OR APPROVED EQUAL. REACTION BLOCKING SHALL BE DESIGNED FOR A MINIMUM INTERNAL PRESSURE OF 300 PSI. THE BLOCKING SHALL NOT HINDER OR COVER BELL CONFIGURATION ON ANY ADJACENT JOINT AND SHALL BE AT LEAST AS LARGE AS NECESSARY TO RESTRAIN THE FITTINGS FROM MOVEMENT. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.
7. TYPE 1 BACKFILL IN ACCORDANCE WITH STANDARD INSTALLATION OF DUCTILE IRON WATER MAINS AND THEIR APPURTENANCES ANSI/AWWA C600-87 SHALL BE USED UNLESS THE MAIN IS BEING LAID UNDER PAVEMENT OR WITHIN THE RIGHT-OF-WAY.
8. THE SECTION OF MAIN TO BE DISINFECTED SHALL BE FLUSHED TO REMOVE SOLIDS OR CONTAMINANTS THAT MAY HAVE BECOME LODGED IN THE MAIN.
9. VALVES OR OTHER APPURTENANCES ARE TO BE PURGED OR FLUSHED.
10. ALL CHLORINATION, FLUSHING AND TESTING IS TO BE DONE IN STRICT ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". ALL NEW MAINS SHALL BE CHLORINATED SO THAT THE INITIAL CHLORINE RESIDUAL OF NOT LESS THAN 50 MG/L AND THAT A CHLORINE RESIDUAL OF NOT LESS THAN 25 MG/L REMAINS IN THE WATER AFTER STANDING 24 HOURS IN THE PIPE. WATER MAIN DISINFECTION IS PER AWWA STANDARD C651 AND THE VILLAGE OF GLENVIEW STANDARDS. ALL CHLORINE CONCENTRATIONS LISTED ARE FREE CHLORINE. WATER TEST SAMPLES SHALL BE COLLECTED TWO CONSECUTIVE DAYS AFTER CHLORINATION AND FINAL FLUSHING.
11. CHLORINATION AND PRESSURE TESTING OF NEW MAIN SHALL BE FROM VALVE AT STATION 103+63 TO VALVE AT STATION 104+72. ALL OTHER VALVE REPLACEMENT SHALL BE IN ACCORDANCE WITH THE VILLAGE OF GLENVIEW SPECIAL PROVISION FOR NON-PRESSURE CONNECTION TO EXISTING WATER MAIN.
12. THE FIRST SAMPLE IS TO BE COLLECTED 24 HOURS AFTER THE FINAL FLUSHING. CHLORINE SHALL BE APPLIED IN LIQUID OR GAS FORM.
13. CHLORINATED WATER SHALL NOT BE DISCHARGED TO SURFACE WATERS OR STORM SEWERS. ACCEPTABLE DISPOSAL SHALL BE EITHER BY CONNECTING TO THE SANITARY SEWER SYSTEM OR BY HAULING TO A SEWAGE TREATMENT PLANT.
14. MAIN TO BE ABANDONED AND FILLED WITH CLSM SHALL INCLUDE FILLING THE ANNULAR SPACE BETWEEN ANY CASING PIPE AND THE WATERMAIN. ENDS SHALL BE GROUTED WITH A BRICK COURSE AT ENDS OF PIPE AND CASING.
15. FIRE HYDRANTS: ALL HYDRANTS SHALL MEET OR EXCEED AWWA-C502. FIRE HYDRANT AUXILIARY VALVE SHALL BE COMPLETED USING A 6-INCH DIAMETER MECHANICAL JOINT ANCHORING COUPLING. AUXILIARY VALVE SHALL BE SITE PAINTED PER MANUFACTURER STANDARDS. HYDRANTS SHALL BE PLACED WITH LARGE PORT FACING THE STREET. HYDRANTS SHALL BE BAGGED UNTIL PLACED INTO SERVICE.

FILE NAME = 88415-sht-wmdetails.dgn

BURNS MCDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = mpaprnak	DESIGNED - MAP	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - RMG	REVISED -	
PLOT DATE = 3/16/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

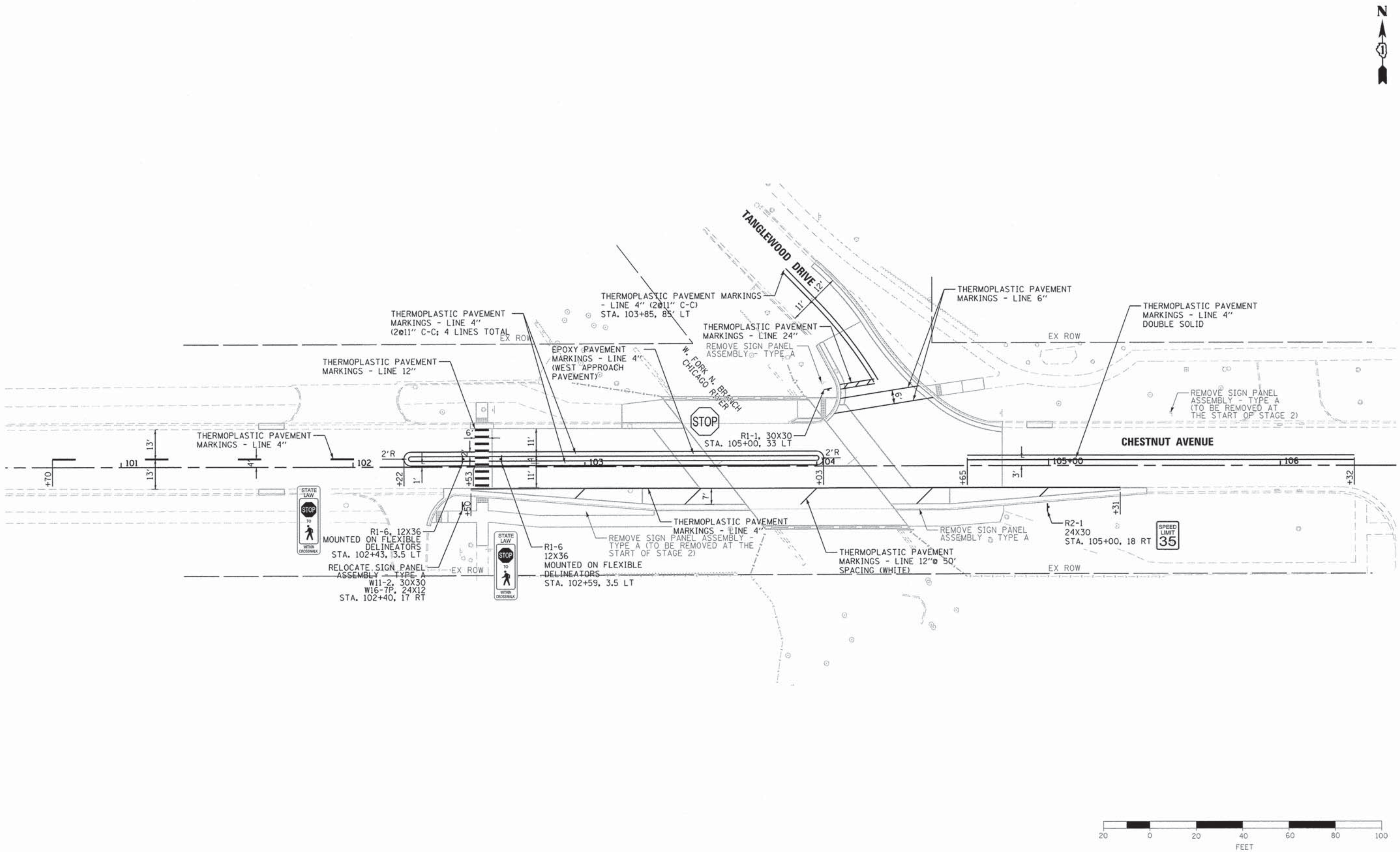
WATER MAIN DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	18

CONTRACT NO. 61C77

ILLINOIS FED. AID PROJECT



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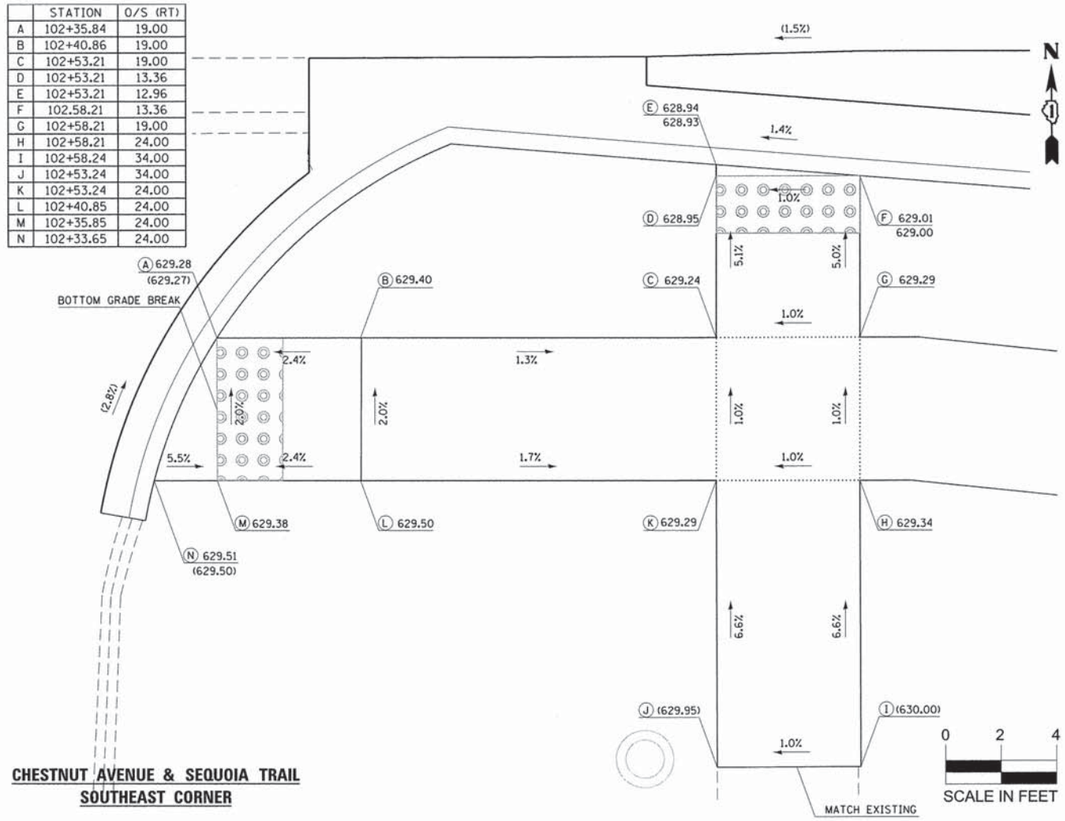
BURNS McDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 P: (312)-223-0920 / F: (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = jjohnson	DESIGNED - MAP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - JMA	REVISED -	
	PLOT SCALE = 20.0000 ' / in.	CHECKED - RMG	REVISED -	
	PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

PROPOSED PAVEMENT MARKING AND SIGNING PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 102+00.00 TO STA. 106+00.00

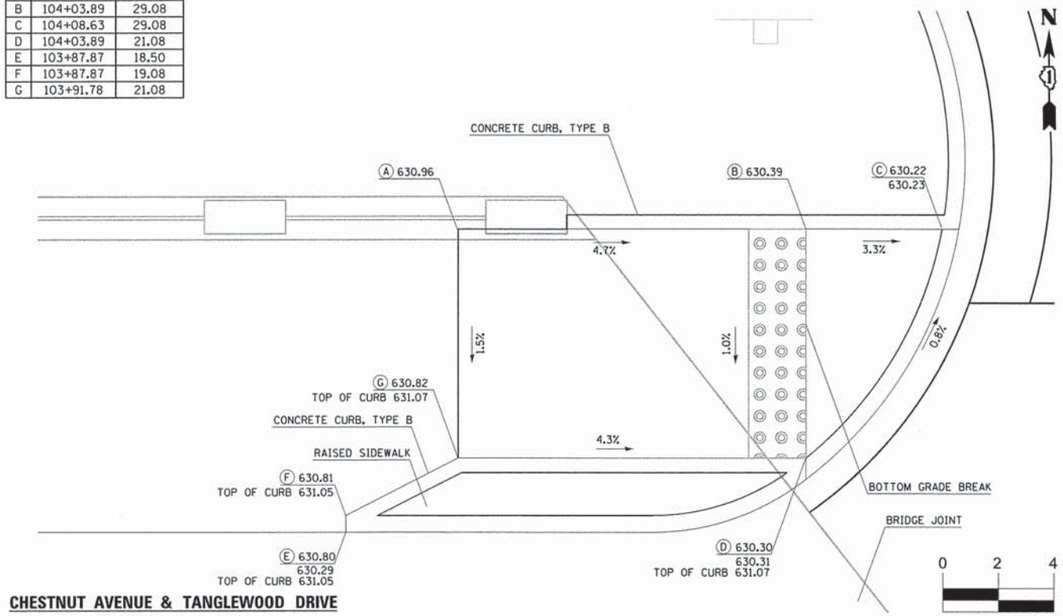
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	19
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

	STATION	O/S (RT)
A	102+35.84	19.00
B	102+40.86	19.00
C	102+53.21	19.00
D	102+53.21	13.36
E	102+53.21	12.96
F	102.58.21	13.36
G	102+58.21	19.00
H	102+58.21	24.00
I	102+58.24	34.00
J	102+53.24	34.00
K	102+53.24	24.00
L	102+40.85	24.00
M	102+35.85	24.00
N	102+33.65	24.00



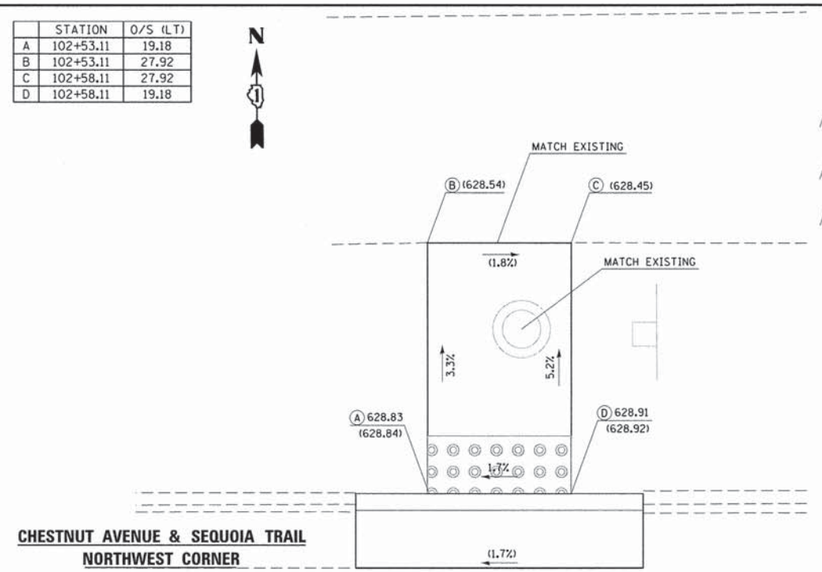
CHESTNUT AVENUE & SEQUOIA TRAIL
SOUTHEAST CORNER

	STATION	O/S (LT)
A	103+91.75	29.08
B	104+03.89	29.08
C	104+08.63	29.08
D	104+03.89	21.08
E	103+87.87	18.50
F	103+87.87	19.08
G	103+91.78	21.08



CHESTNUT AVENUE & TANGLEWOOD DRIVE
NORTHWEST CORNER

	STATION	O/S (LT)
A	102+53.11	19.18
B	102+53.11	27.92
C	102+58.11	27.92
D	102+58.11	19.18

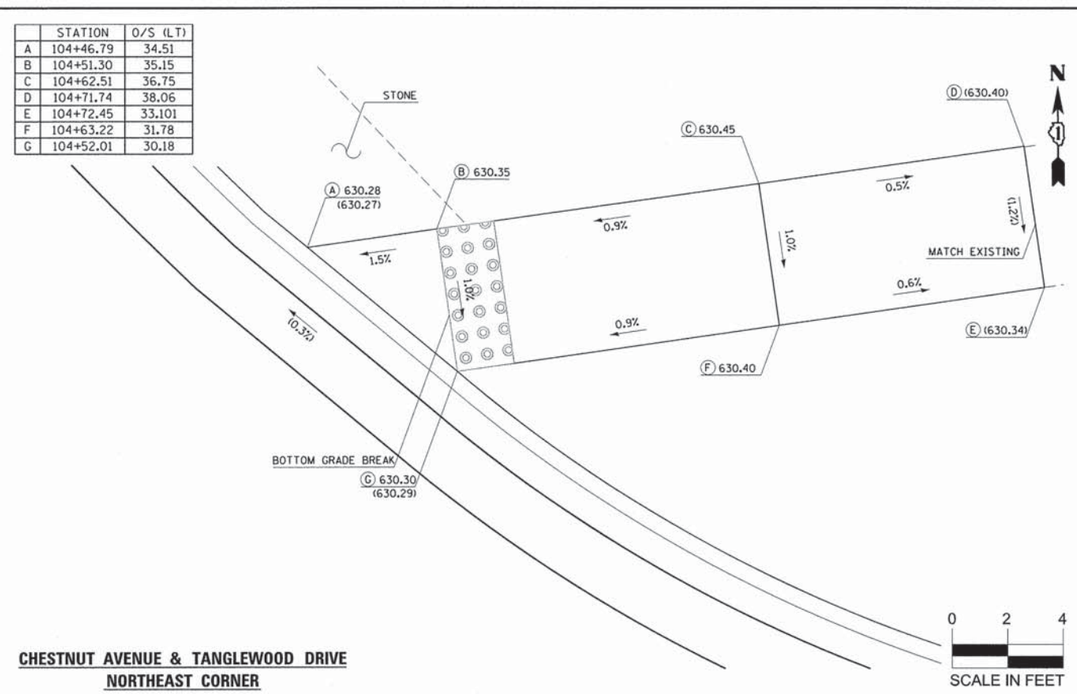


ADA RAMP LEGEND

(XX.XX)	EXISTING ELEVATION TO MATCH
XX.XX	PROPOSED SPOT ELEVATION
XX.XX	BACK OF CURB ELEVATION
XX.XX	EDGE OF PAVEMENT ELEVATION

CHESTNUT AVENUE & SEQUOIA TRAIL
NORTHWEST CORNER

	STATION	O/S (LT)
A	104+46.79	34.51
B	104+51.30	35.15
C	104+62.51	36.75
D	104+71.74	38.06
E	104+72.45	33.101
F	104+63.22	31.78
G	104+52.01	30.18



CHESTNUT AVENUE & TANGLEWOOD DRIVE
NORTHEAST CORNER

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = jjohnson	DESIGNED - JMA	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 2.5000 ' / in.	CHECKED - MJB	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

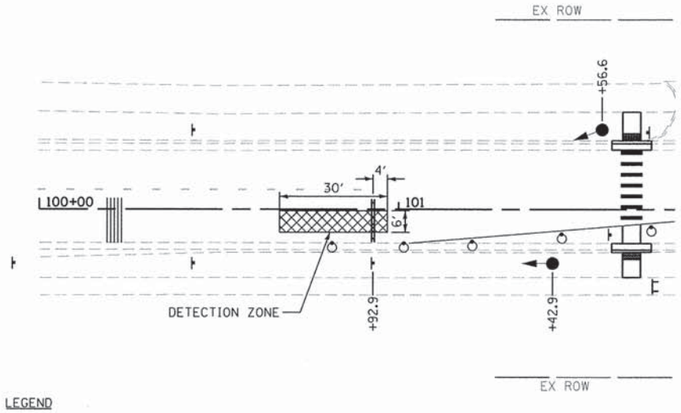
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

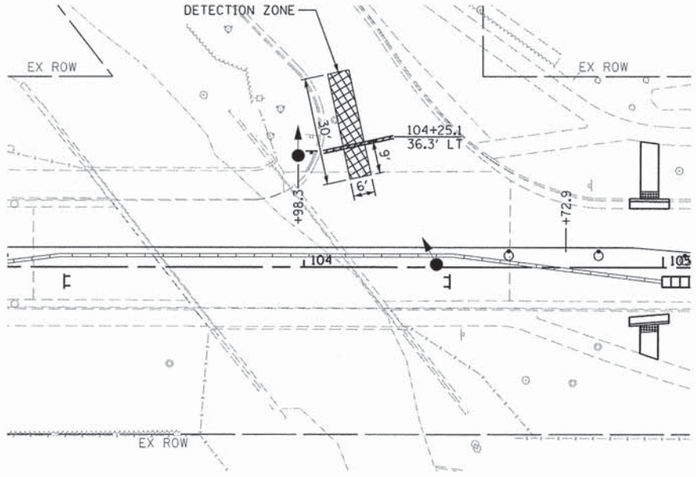
ADA RAMP DETAILS

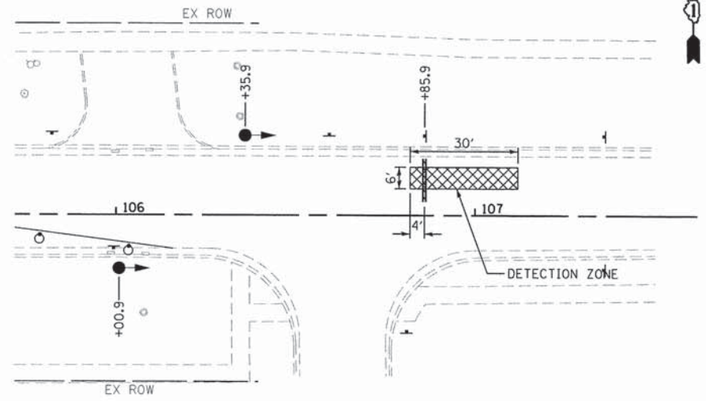
SCALE: 1" = 2.5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

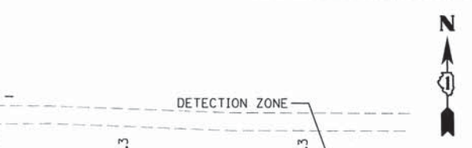
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	20
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-ADA_details.dgn





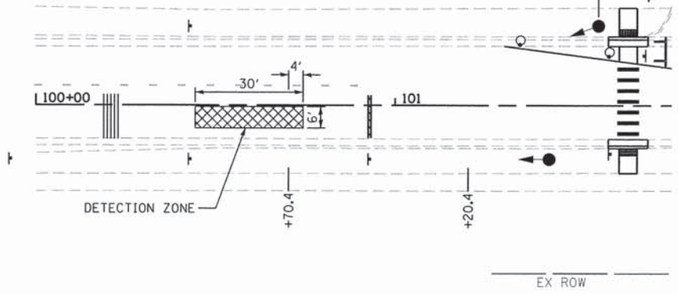


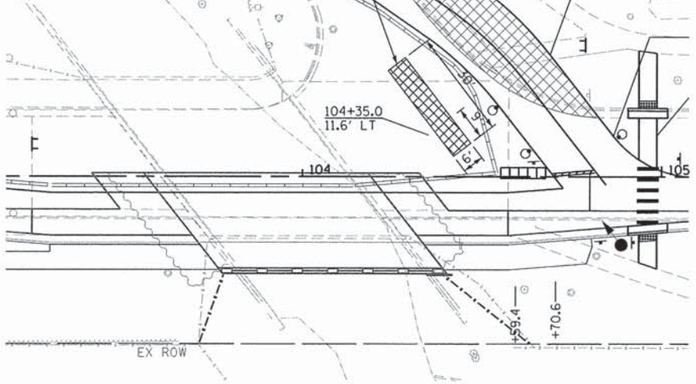


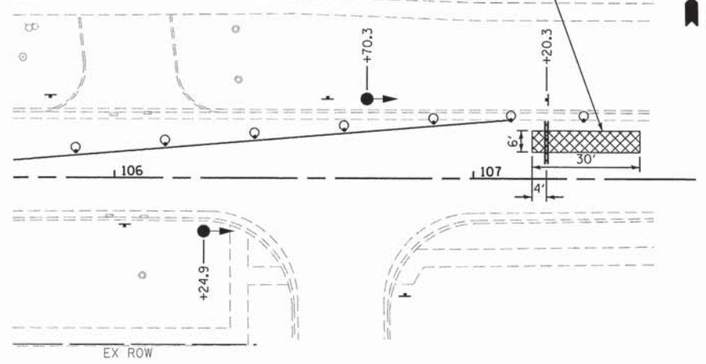
LEGEND

IMPACT ATTENUATOR		TYPE III BARRICADE	
DRUM WITH STEADY BURN BI-DIRECTIONAL LIGHT		TEMPORARY TRAFFIC SIGNAL	
TEMPORARY CONCRETE BARRIER		TEMPORARY RUMBLE STRIP	
SIGN (WORK ZONE)			

STAGE 1



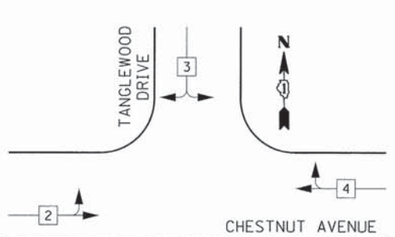




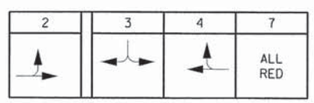
STAGE 2

GENERAL NOTES

1. TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL MUTCD REQUIREMENTS AND THE IDOT DISTRICT ONE SPECIAL PROVISIONS FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.
2. THREE PHASE OPERATION IS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A TIMING PLAN CONSISTENT WITH THE PHASE DIAGRAM SHOWN ON THE PLAN WITH THE APPROPRIATE AMBER AND ALL RED PHASING.
3. STOP BAR AND TRAFFIC SIGNAL PLACEMENT SHALL BE AS SHOWN OR AS DIRECTED BY THE ENGINEER.
4. TRAFFIC SIGNAL HEADS SHALL HAVE LOUVERED BACKPLATES.
5. THE LOCATION OF UNDERGROUND UTILITIES WILL BE CONFIRMED PRIOR TO INSTALLATION OF THE TEMPORARY SIGNAL.
6. ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLY WITH THESE REQUIREMENTS, ANY VILLAGE REQUIREMENTS AND PLAN SHEET DETAILS SHALL BE CONSIDERED INCLUDED IN THE BID PRICE FOR "TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION". THIS SHALL INCLUDE EXCAVATION, FILL MATERIAL AND TEMPORARY PAVEMENT IF NECESSARY TO PROVIDE LEVEL SURFACES FOR THE PORTABLE TRAFFIC SIGNAL EQUIPMENT.
7. THE PAY ITEM FOR "TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION", EACH WILL BE PAID FOR ONLY ONCE FOR THE ENTIRE PROJECT. THIS PRICE WILL INCLUDE ALL SIGNAL INSTALLATIONS AND PERTINENT WORK REQUIRED TO PROVIDE THE TEMPORARY PORTABLE TRAFFIC SIGNALS TO CONSTRUCT THE PROJECT AS SHOWN IN THE PLANS.
8. EMERGENCY VEHICLE PREEMPTION EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE MUNICIPALITY AND/OR FIRE DISTRICT TO DETERMINE THE BRAND AND MODEL(S) THAT ARE COMPATIBLE WITH THEIR SYSTEMS.



TEMPORARY PHASE DESIGNATION DIAGRAM



SEQUENCE OF OPERATION NOTES

1. NEMA PHASE 7 SHALL FOLLOW NEMA PHASE 3 IF PHASE 4 IS SKIPPED. NEMA PHASE 7 SHALL ALWAYS FOLLOW NEMA PHASE 4 WHEN PHASE 4 IS CALLED.
2. NEMA PHASES 2, 3 AND 4 SHALL HAVE LONG ALL-RED CLEARANCE INTERVALS TO ALLOW PASSAGE TO THE EAST AND/OR WEST STOP BARS.
3. IN ABSENCE OF CALLS, THE SIGNALS SHALL REMAIN IN ALL-RED, UNLESS OTHERWISE APPROVED OR INSTRUCTED BY THE ENGINEER.

SEQUENCE OF OPERATION (NEMA SINGLE RING)

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = jjohnson	DESIGNED - RGJ	REVISED -	
	DRAWN - RGJ	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MAP	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 102+00.00 TO STA. 106+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	21
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-signal01.dgn

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD "RB" INDICATES REFLECTIVE BACKPLATE		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	RR	RR
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = c:\pw_work\pwidot\...\ts05.dgn	USER NAME = footemj	DESIGNED - DAG/BCK	REVISED - DAG 1-1-14
BURNS McDONNELL		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	13-00185-00-BR	COOK	64	22
	TS-05	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

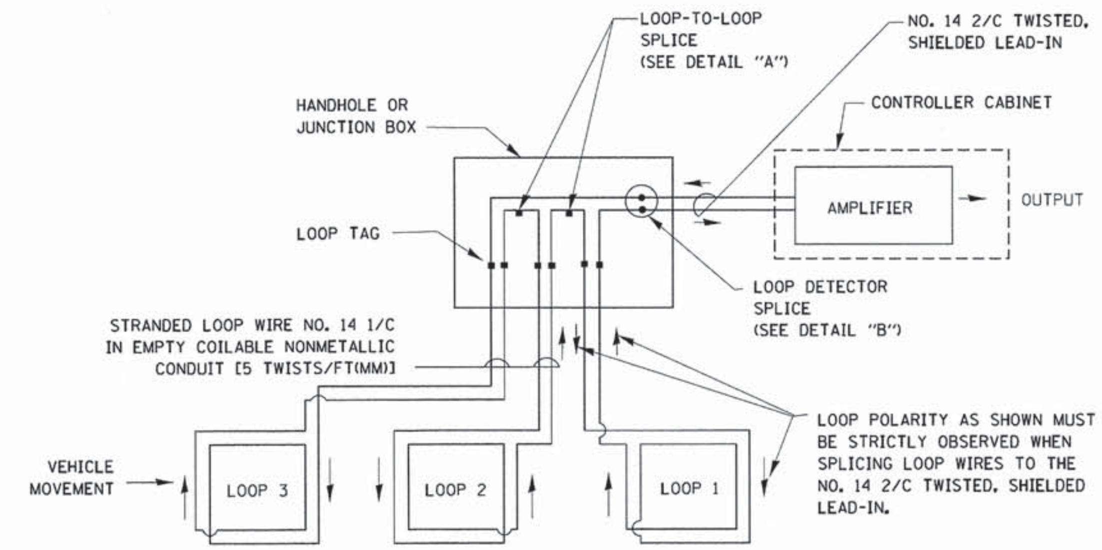
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

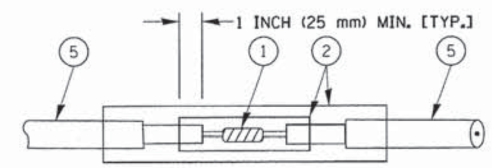
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

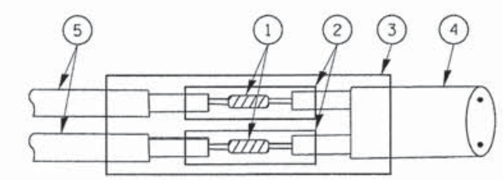


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm), IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



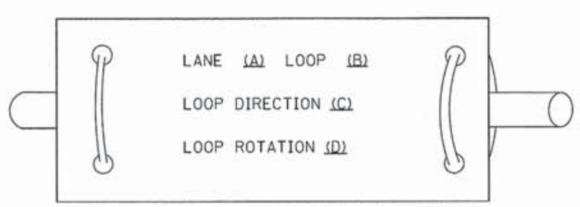
DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP

LOOP LEAD-IN CABLE TAG

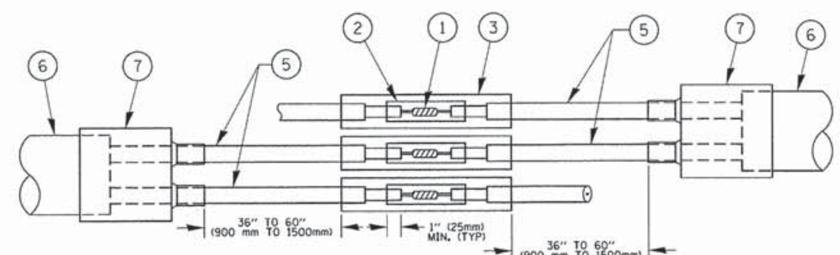


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

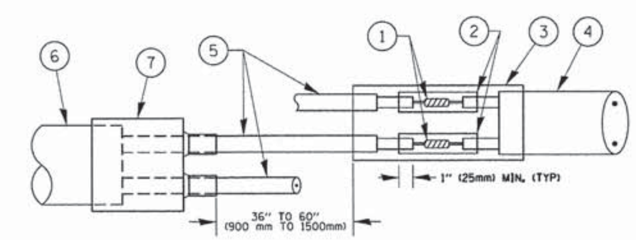
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

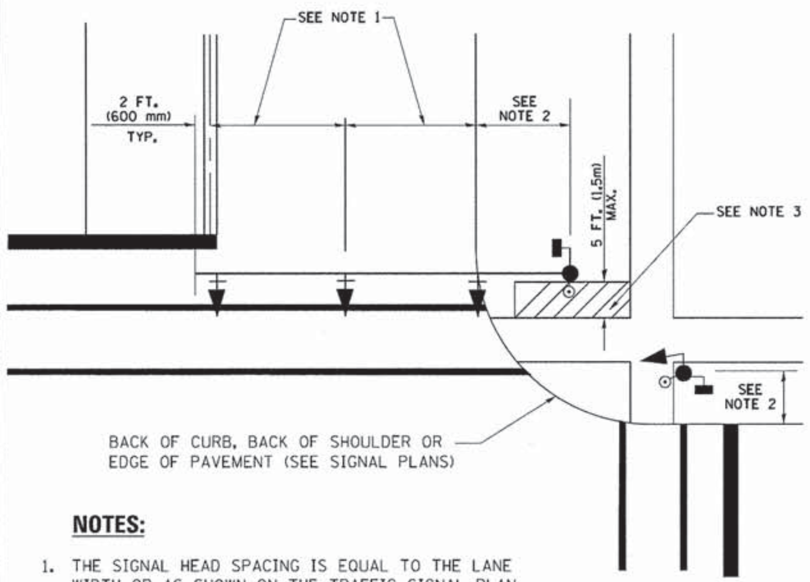
(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

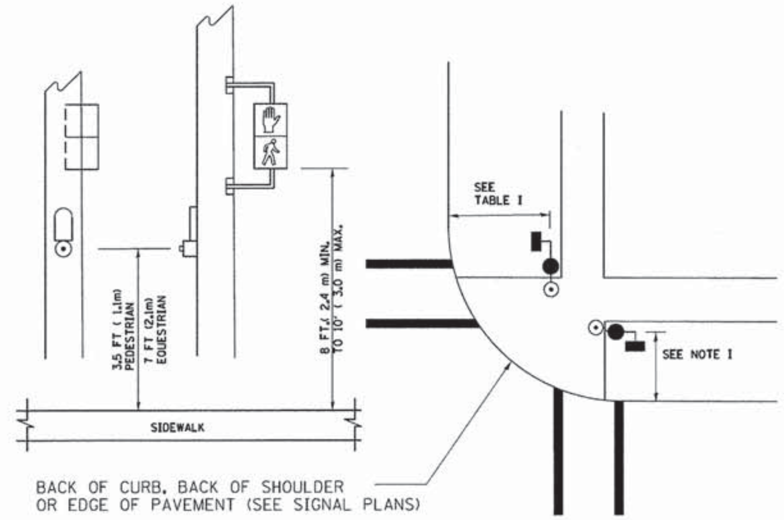
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

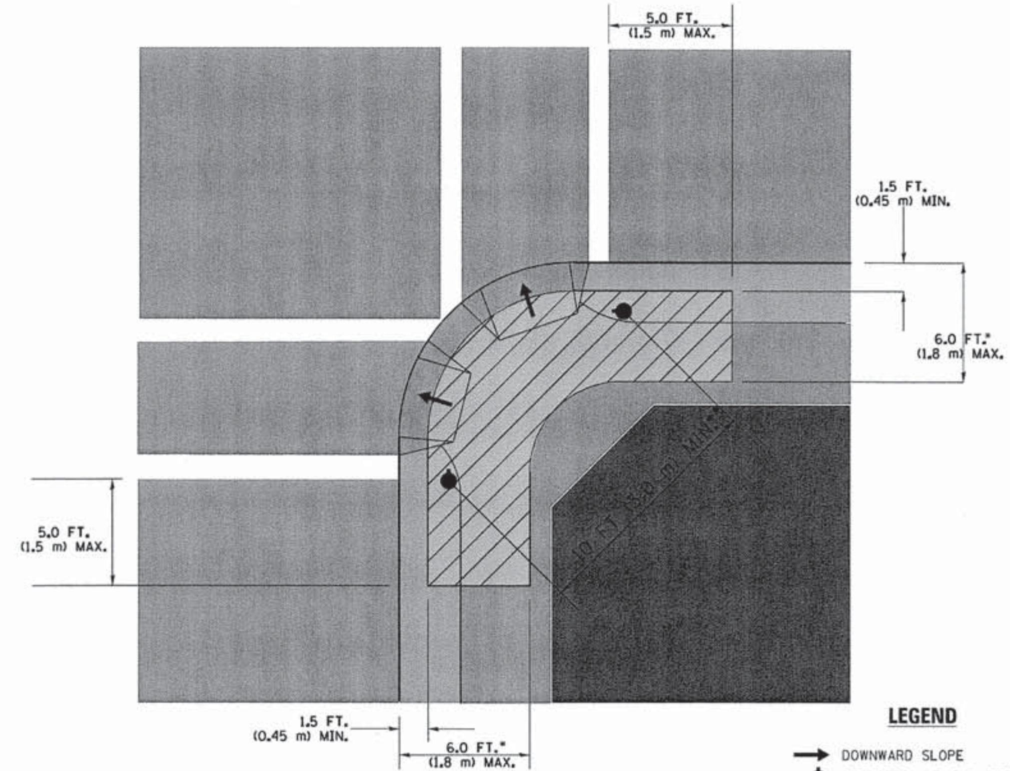
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- RECOMMENDED PUSHBUTTON LOCATIONS

* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

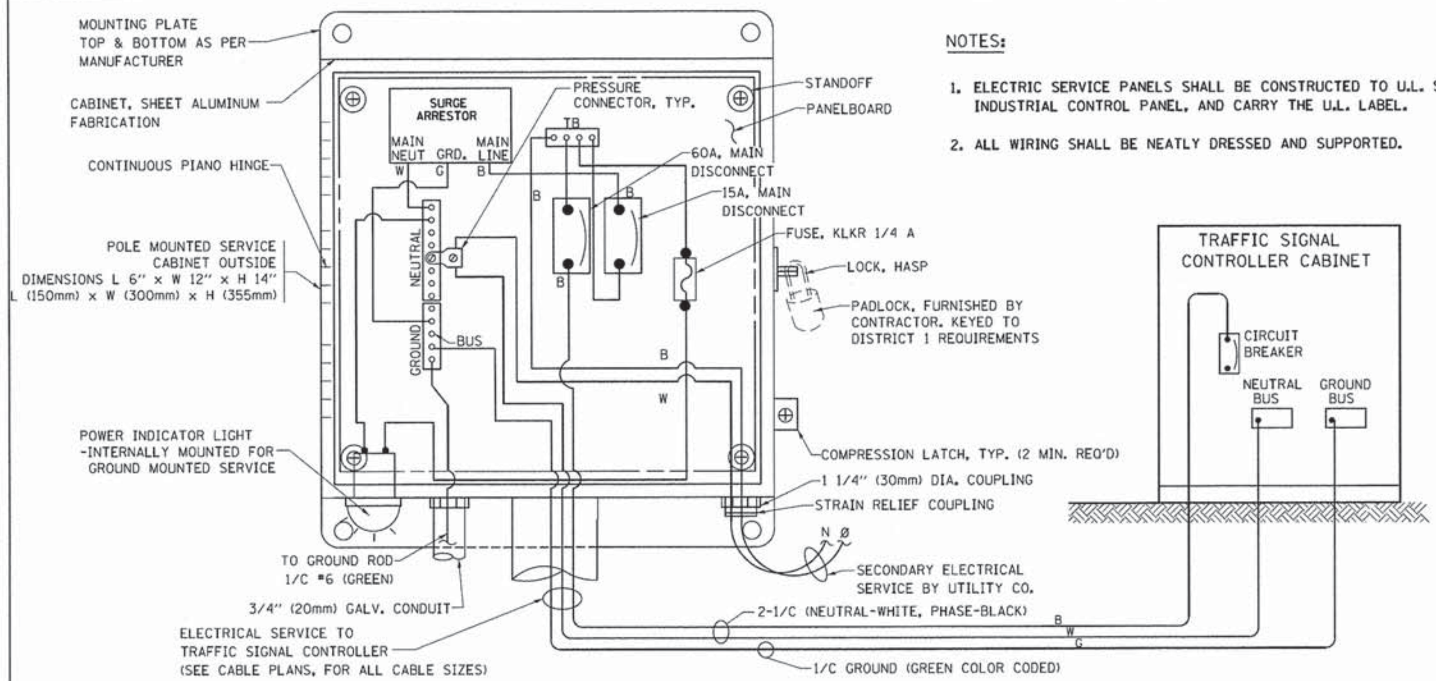
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

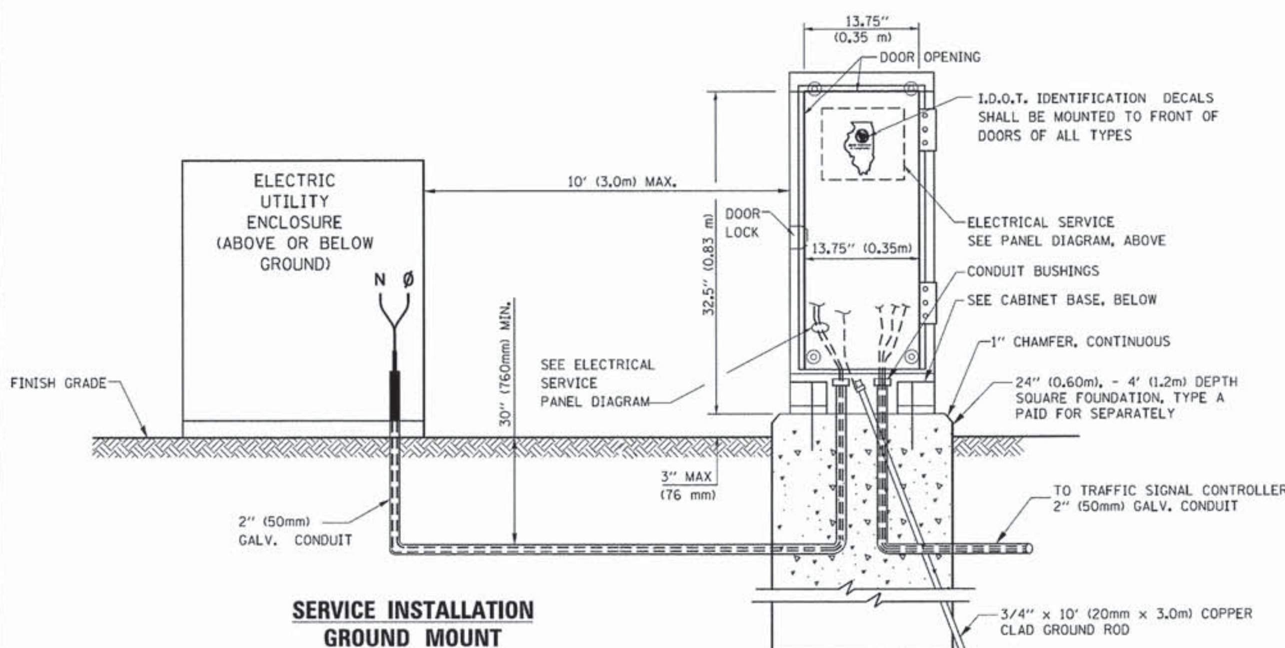
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



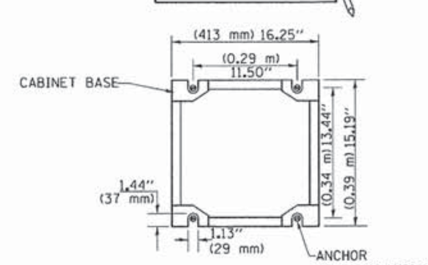
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

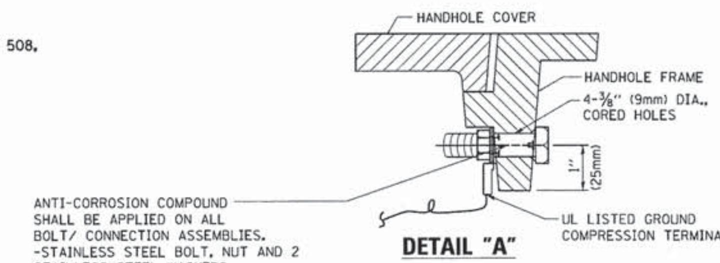
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)



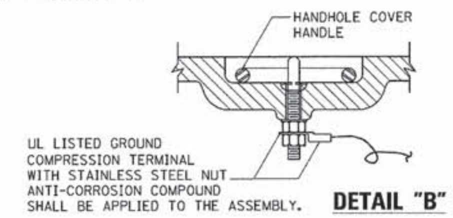
SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)



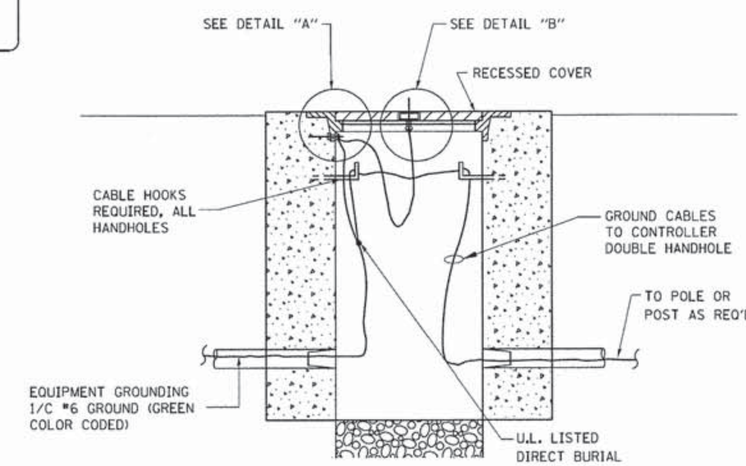
CABINET – BASE BOLT PATTERN
(NOT TO SCALE)



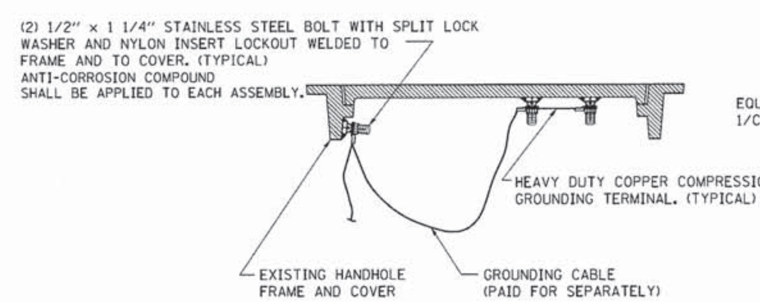
DETAIL "A"



DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)

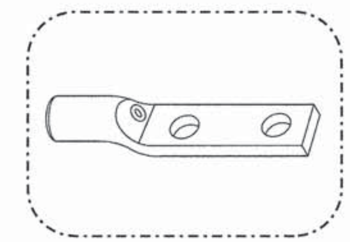


EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)

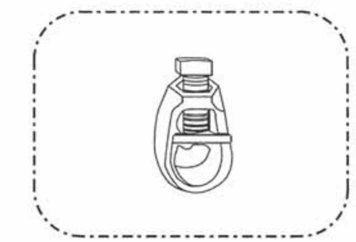
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



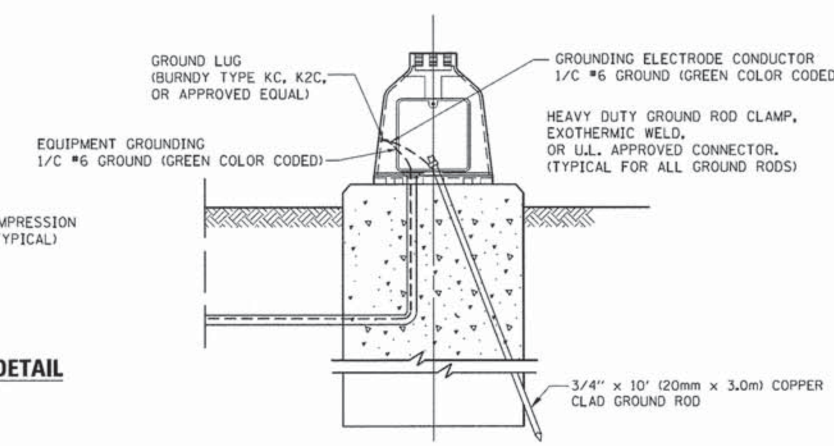
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST–GROUNDING DETAIL
(NOT TO SCALE)

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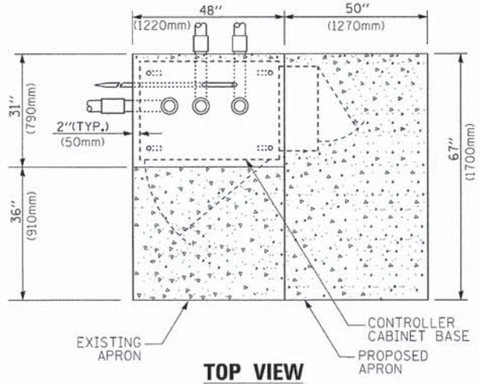
	PLOT SCALE = 50.0000 ' / in.	DRAWN - BCK	REVISED -
	PLOT DATE = 1/13/2014	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

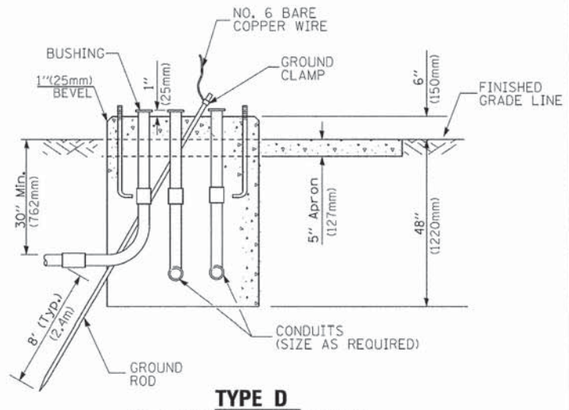
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE	SHEET NO. 4 OF 7 SHEETS	STA.	TO STA.

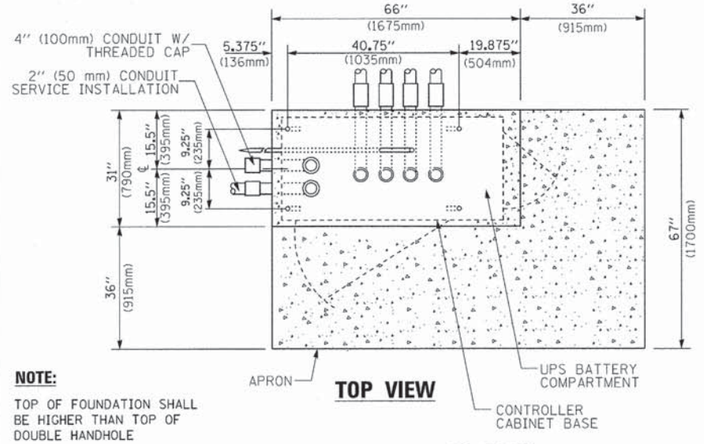
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	13-00185-00-BR	COOK	64	25
	TS-05	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TOP VIEW



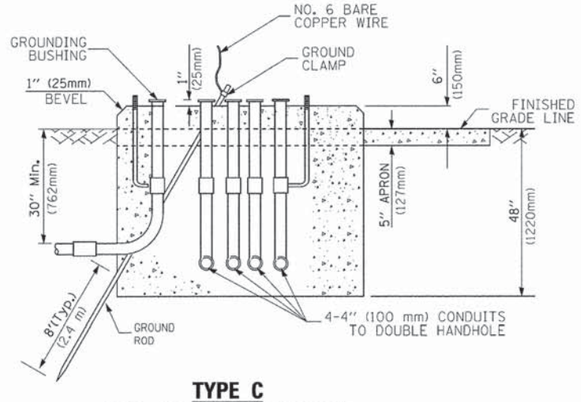
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



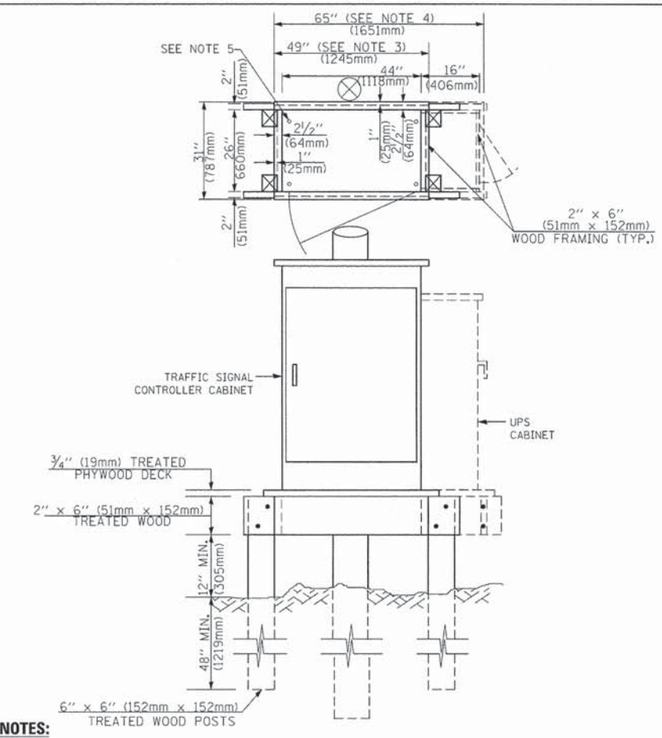
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

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

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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		DRAWN - BCK	REVISED -
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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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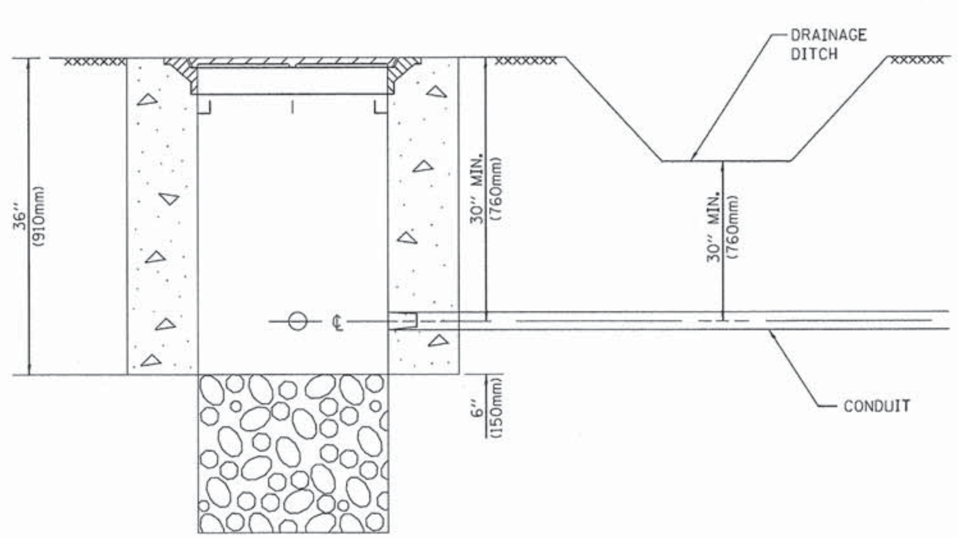
	TS-05	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

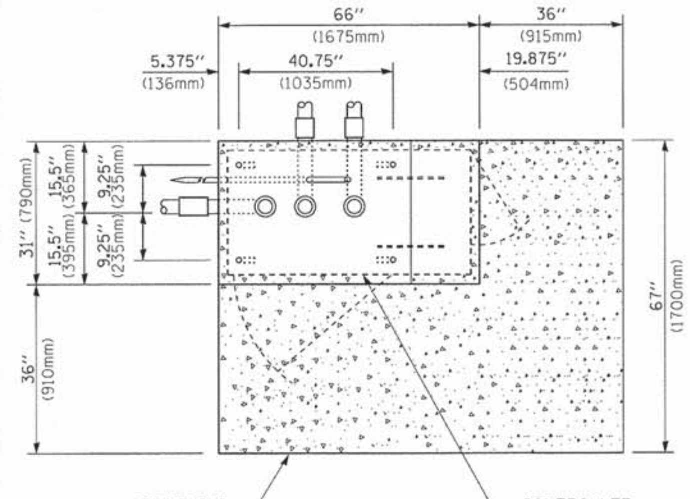


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

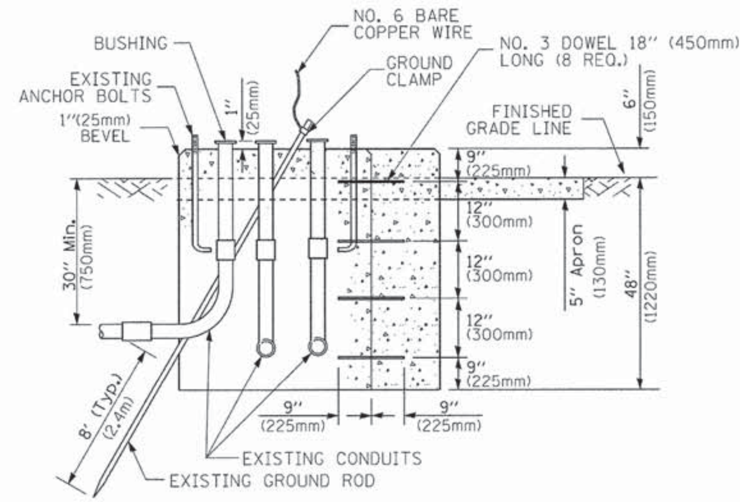
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



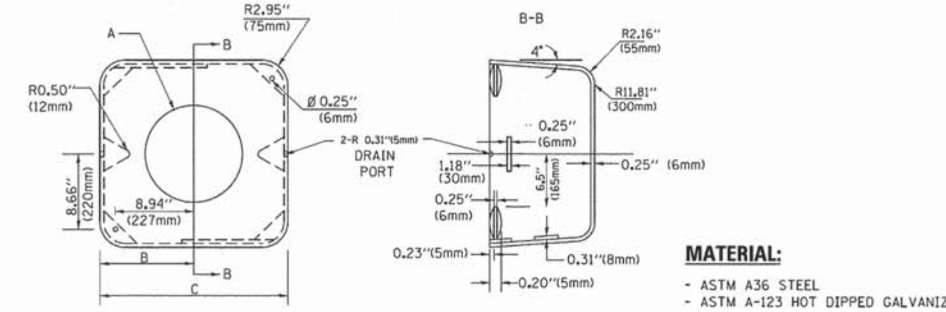
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

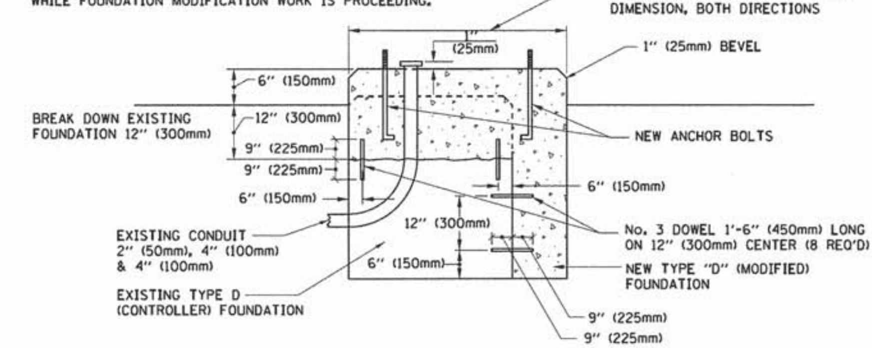
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

SHROUD

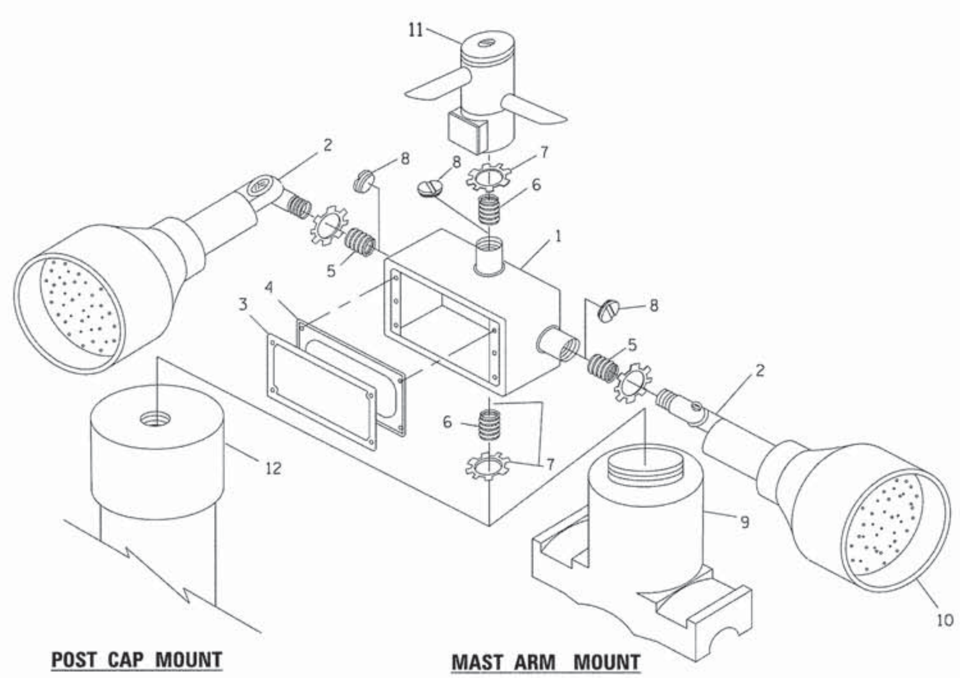
NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

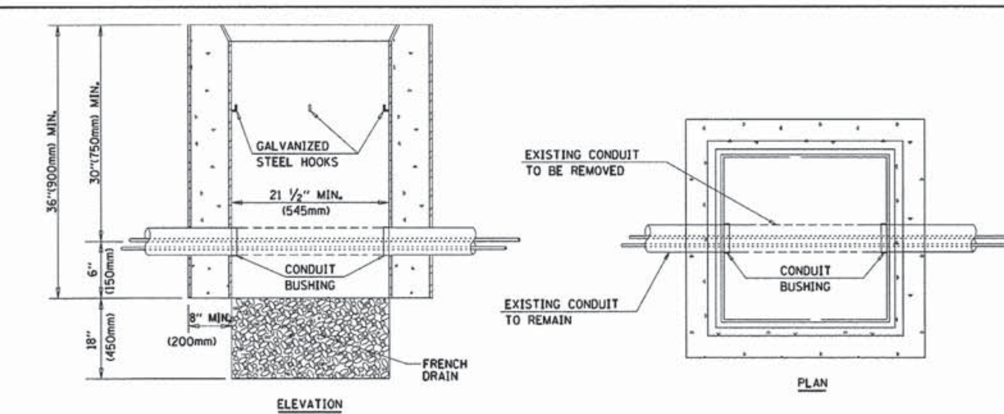


EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

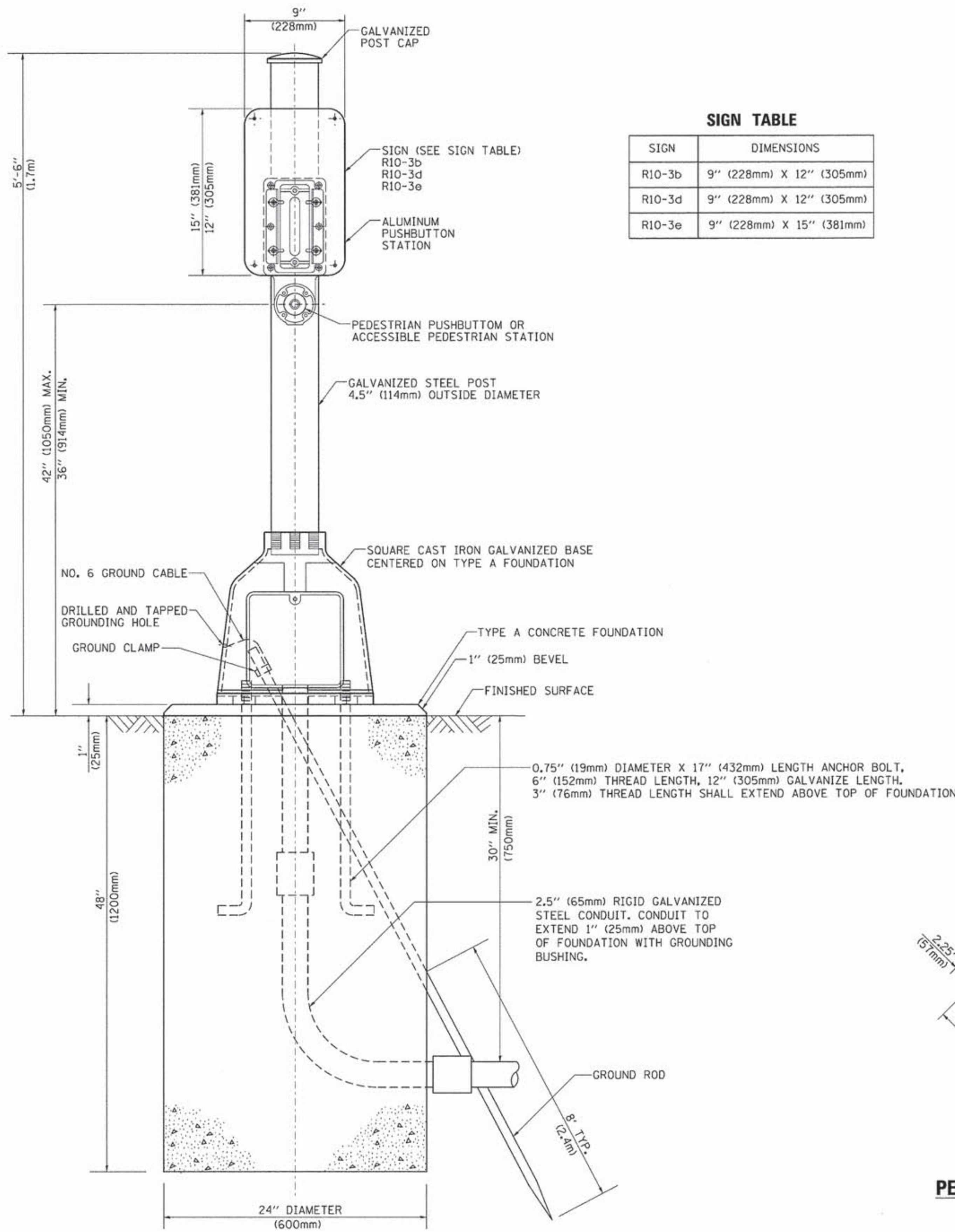
FILE NAME = BURNS McDONNELL	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
oz\pw_work\pwidot\footemj\d0108815\ts05.dgn		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

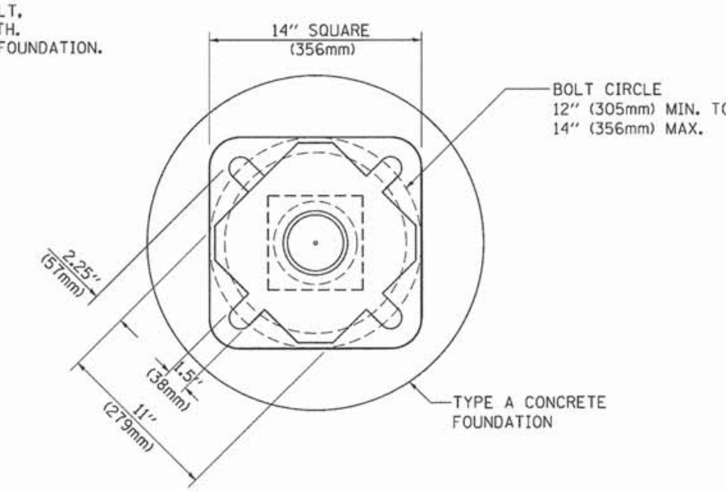
SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	13-00185-00-BR	COOK	64	27
	TS-05	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

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		DRAWN - GND	REVISED -			TS-05
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -		SCALE: NONE / SHEET NO. 7 OF 7 SHEETS / STA. / TO STA.	CONTRACT NO. 61C77
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -			FED. ROAD DIST. NO. 1 / ILLINOIS / FED. AID PROJECT

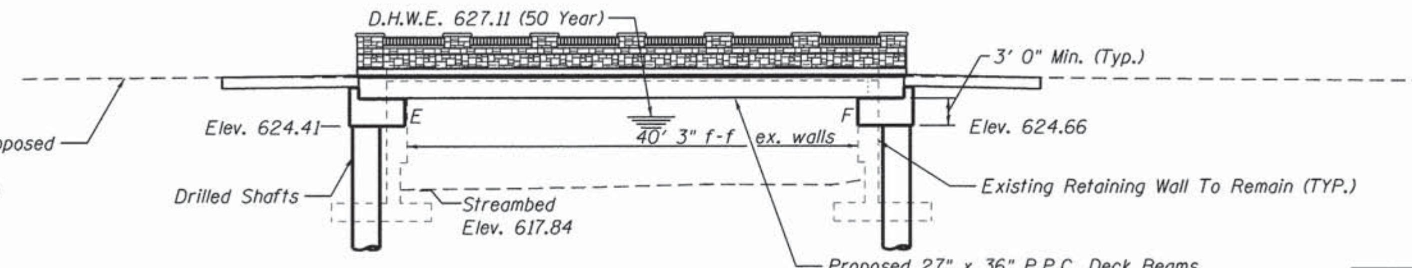
Bench Mark: U.S.C.G.S. B.M. Q134, Disk in Top of Northeast Wingwall of SN 016-0819. Elevation 631.05.

Existing Structure:
SN 016-0819 was originally built in 1931. The superstructure was replaced in 1983. The structure was rehabilitated most recently in 2002. The single span superstructure consists of 21" PPC Deck Beams with latex concrete overlay. The substructures consist of concrete retaining wall abutments on spread footings. The structure length measures 52'-11 1/4" ℄-to-℄ of bearings and 45'-2 1/2" out-to-out of deck with a right-forward skew of 38 degrees, 0 minutes. Structure to be removed and replaced on drilled shafts with existing retaining walls to remain as channel walls only.

Traffic to be maintained under staged construction. No salvage.

SCOPE OF WORK

Remove existing concrete deck beams, overlay, and a portion of approach pavement behind both abutments.
Install new drilled shafts.
Install new abutment cap, deck beams, approach pavement, sidewalks, railing and overlay.
Repair spalls and delaminations on retaining walls.



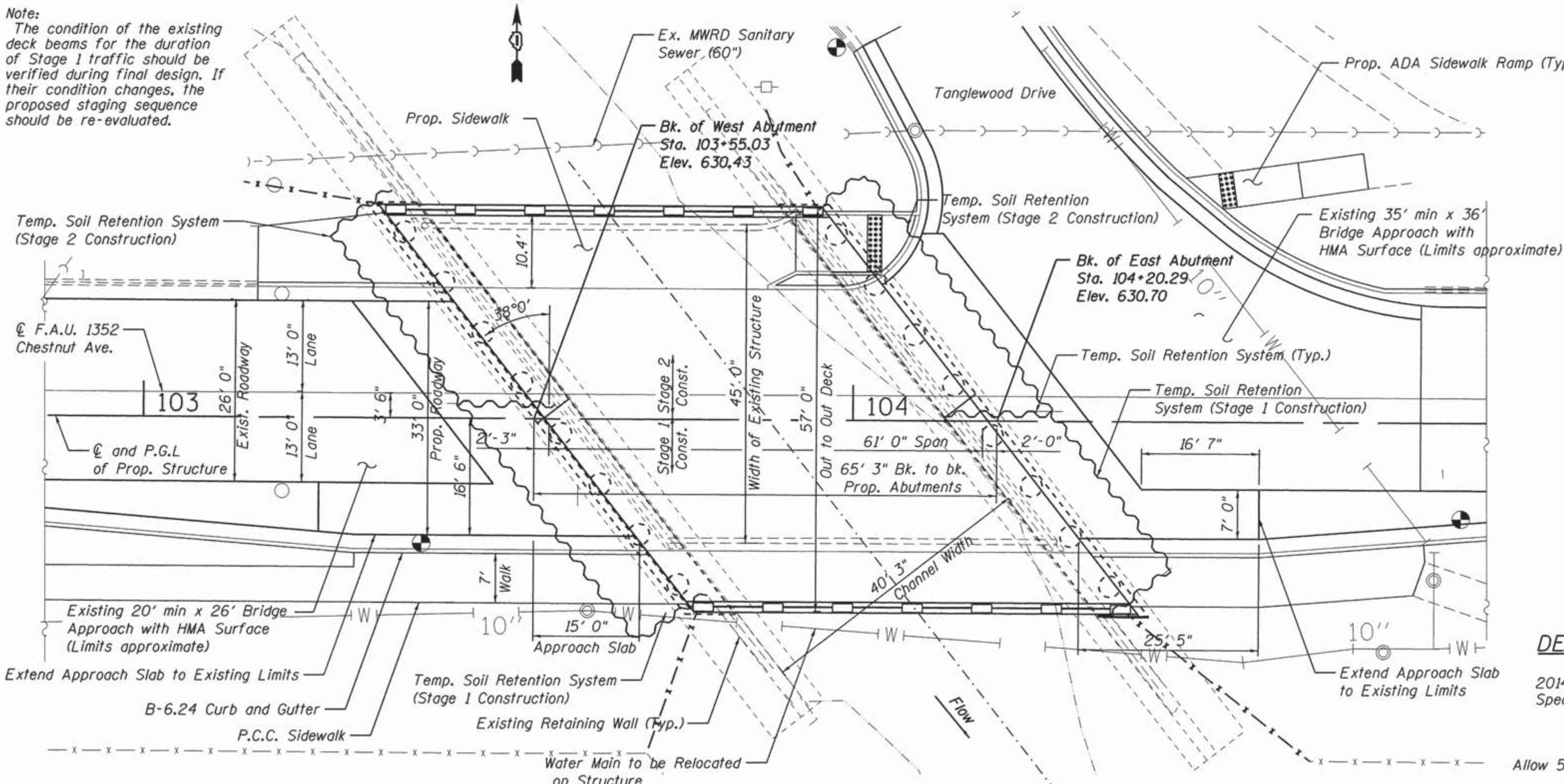
ELEVATION

STATION 103+88 BUILT 2016 BY VILLAGE OF GLENVIEW STRUCTURE NO. 016-6221

NAME PLATE

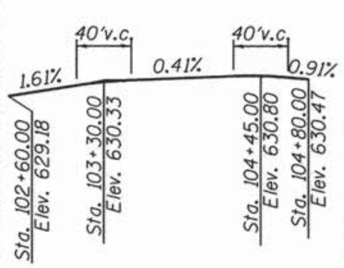
See Std. 515001
LOCATE NAME PLATE ON SOUTHWEST CORNER OF THE BRIDGE STRUCTURE

Note:
The condition of the existing deck beams for the duration of Stage 1 traffic should be verified during final design. If their condition changes, the proposed staging sequence should be re-evaluated.



PLAN

Scale 1" = 10'



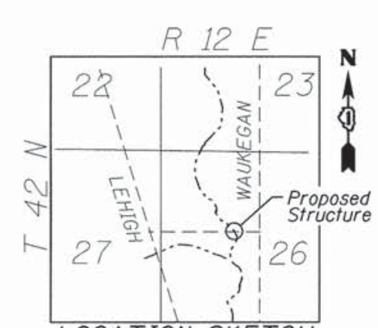
PROFILE GRADE
F.A.U. RTE. 1352

Along Existing ℄ Of Roadway

WATERWAY INFORMATION

Drainage Area = 21.9 SQ. MI. Low Grade Elev. 629.81 @ Sta. 103+39.85									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	2	153	350.67	350.67	623.4	0.1	0.1	623.5	623.5
	10	247	350.67	350.67	625.2	0.0	0.0	625.2	625.2
Design	50	313	350.67	350.67	627.0	0.1	0.1	627.1	627.1
Base	100	1213	350.67	350.67	628.7	0.4	0.1	629.1	628.8
Max. Calc.	500	2122	350.67	350.67	630.9	0.1	0.3	631.0	631.2

10-year velocity through Existing Bridge = 1.22 ft/s
10-year velocity through Proposed Bridge = 1.22 ft/s



LOCATION SKETCH

JEFFREY A. RUHDE, S.E. ENGINEER
ILLINOIS REGISTRATION No. 081-005613
EXPIRATION DATE: 11/30/2016
2/18/16

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO LRFD Bridge Design Specifications.

DESIGN SPECIFICATIONS

(New Construction)
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition

LOADING HL-93

Allow 50 lbs./sq. ft. for future wearing surface

HIGHWAY CLASSIFICATION

F.A.U. 1352 (Chestnut Avenue)
Functional Class: Major Collector
ADT: 12,400 (2013); 14,000 (2040)
ADTT: 4.0%; DHV: 1050
Design Speed: 35 m.p.h.
Posted Speed: 35 m.p.h.
Two-Way Traffic Directional Distribution: 50:50

DESIGN SCOUR ELEVATIONS

Event/Limit State	Design Scour Elev. (ft)		Item 113
	W. Abut.	E. Abut.	
Q100	598.01	599.94	5
Q200	597.92	599.83	
Design	598.01	599.94	
Check	597.92	599.83	

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (S_{D1}) = 0.084g
Design Spectral Acceleration at 0.2 sec (S_{DS}) = 0.136g
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS
f'c = 4,000 psi Drilled Shafts
f'c = 3,500 psi Abutments/Superstructure
fy = 60,000 Reinforcement

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" dia. low lax strands)
fpbt = 201,960 psi (1/2" dia. low lax strands)

GENERAL PLAN
CHESTNUT AVENUE OVER W FORK OF N BRANCH OF CHICAGO RIVER
F.A.U. 1352
COOK COUNTY
STATION 103+87.66
STRUCTURE NO. 016-6221

FILE NAME = 88215-sht-TSL01.dgn

BURNS McDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 P: (312)-223-0920 / F: (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = mpapirnik	DESIGNED - JAR	REVISED -
		DRAWN - JMA	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - TG	REVISED -
	PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -

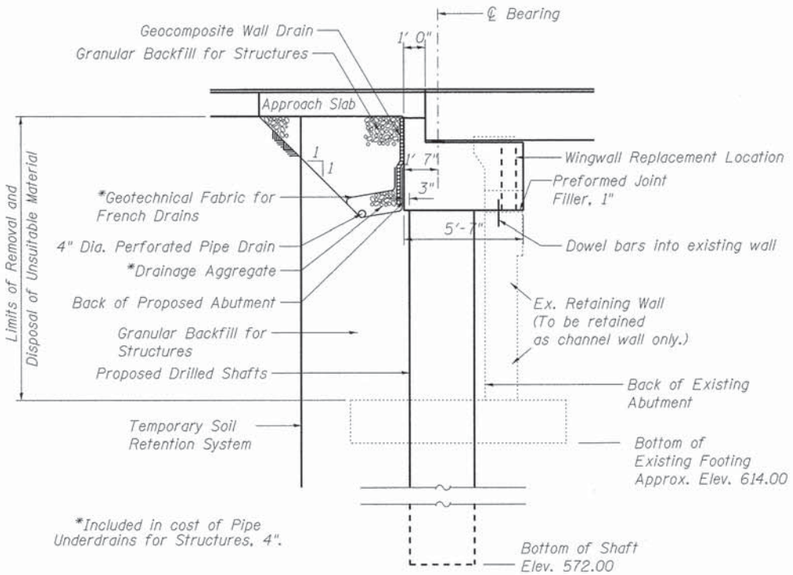
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
SN 016-6221

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	29
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

INDEX OF SHEETS



SECTION AT EAST ABUTMENT

(Dimensions at Right Angles)

GENERAL NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Backfill shall be placed behind the abutment after the new deck beams have been installed. See Article 502.10 of the Standard Specifications.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

If the Contractor's procedure for existing beam removal and placement of new beams involves placement of cranes or other heavy equipment on existing or new beams, a detailed procedure shall be submitted to the Engineer for approval.

No in-stream work will be performed on this project.

Current Ratings on File for Existing Structure
Inventory: 0.68
Operating: 1.13
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

Repair of the substructure shall be completed prior to placement of the new deck beams.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Structures	Cu. Yd.		118	118
Reinforcement Bars, Epoxy Coated	Pound	23,080	18,870	41,950
Reinforcement Bars	Pound		35,920	35,920
Drilled Shaft in Soil	Cu. Yd.		221	221
Concrete Superstructure	Cu. Yd.	54		54
Bar Splicers	Each	56	48	104
Concrete Removal	Cu. Yd.	36	67	103
Structural Repair of Concrete (Depth Equal to or Less Than 5IN.)	Sq. Ft.	184.0	0.0	184.0
Structural Repair of Concrete (Depth Greater Than 5IN.)	Sq. Ft.	79.0	0.0	79.0
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	3,562		3,562
Removal of Existing Superstructure	L. Sum	1		1
Waterproofing Membrane System	Sq. Yd.	267		267
Temporary Soil Retention System	Sq. Ft.		3,165	3,165
Pipe Underdrains for Structures, 4"	Foot		190	190
Removal and Disposal of Unsuitable Material	Cu. Yd.		651	651
Protective Coat	Sq. Yd.	175		175
Form Liner Textured Surface	Sq. Ft.	660		660
Name Plates	Each	1		1
Granular Backfill for Structures	Cu. Yd.	634		634
Preformed Joint Strip Seal	Foot	74		74
Parapet Railing, Special	Foot	84		84
Geocomposite Wall Drain	Sq. Yd.		75	75
Concrete Surface Color Treatment	Sq. Ft.	760		760
Conc. Superstructure (Approach Slab)	Cu. Yd.	67		67
Portland Cement Mortar Fairing Course	Foot	806		806
Asbestos Bearing Pad Removal	Each	17		17

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USER NAME = mpapurnik	DESIGNED - JAR	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 20.0000 '/ in.	CHECKED - TG	REVISED -	
PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -	

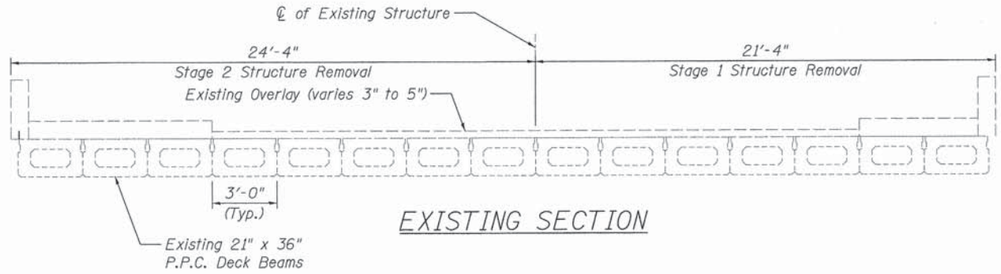
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL GENERAL NOTES, SHEET INDEX AND SUMMARY OF QUANTITIES

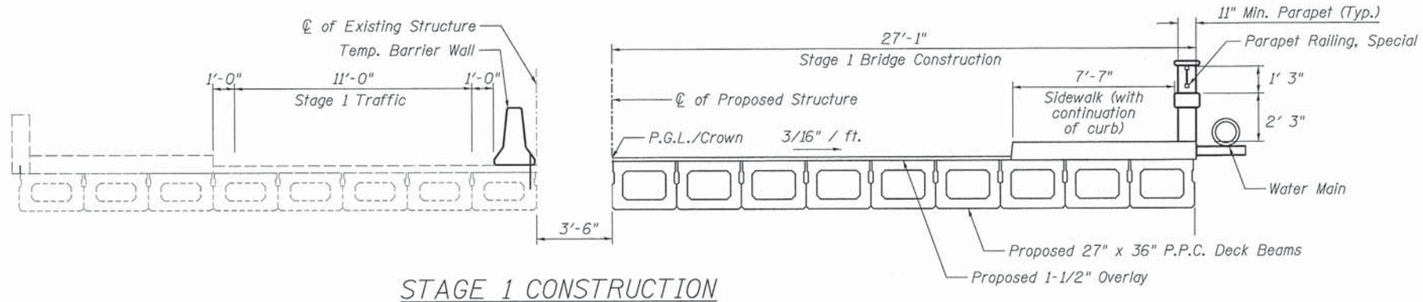
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	30
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

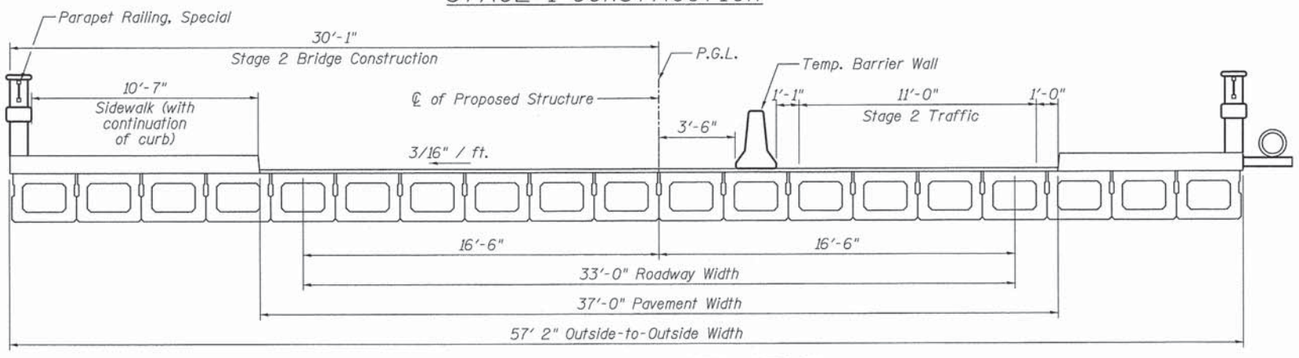
FILE NAME = 88415-sht-struct-notesdgn



EXISTING SECTION



STAGE 1 CONSTRUCTION



STAGE 2 CONSTRUCTION
AND PROPOSED TYPICAL SECTION

TYPICAL SECTIONS
CHESTNUT AVENUE OVER
W FORK OF N BRANCH
OF CHICAGO RIVER
F.A.U. 1352
COOK COUNTY
STATION 103+87.66
STRUCTURE NO. 016-6221

BURNS McDONNELL
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CHICAGO, IL 60606
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WEB: WWW.BURNSMCD.COM

USER NAME = jruhde	DESIGNED - JAR	REVISED -	
	DRAWN - JMA	REVISED -	
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PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING DETAILS
STRUCTURE NO. 016-6221

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	31
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

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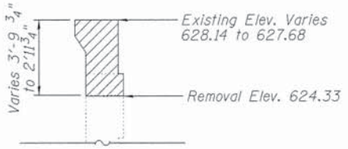
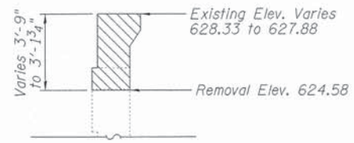
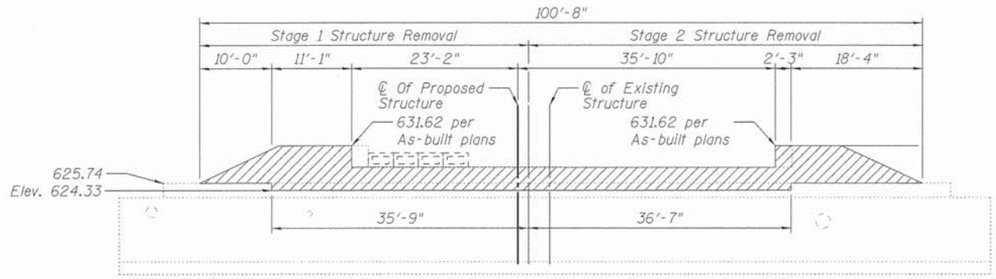


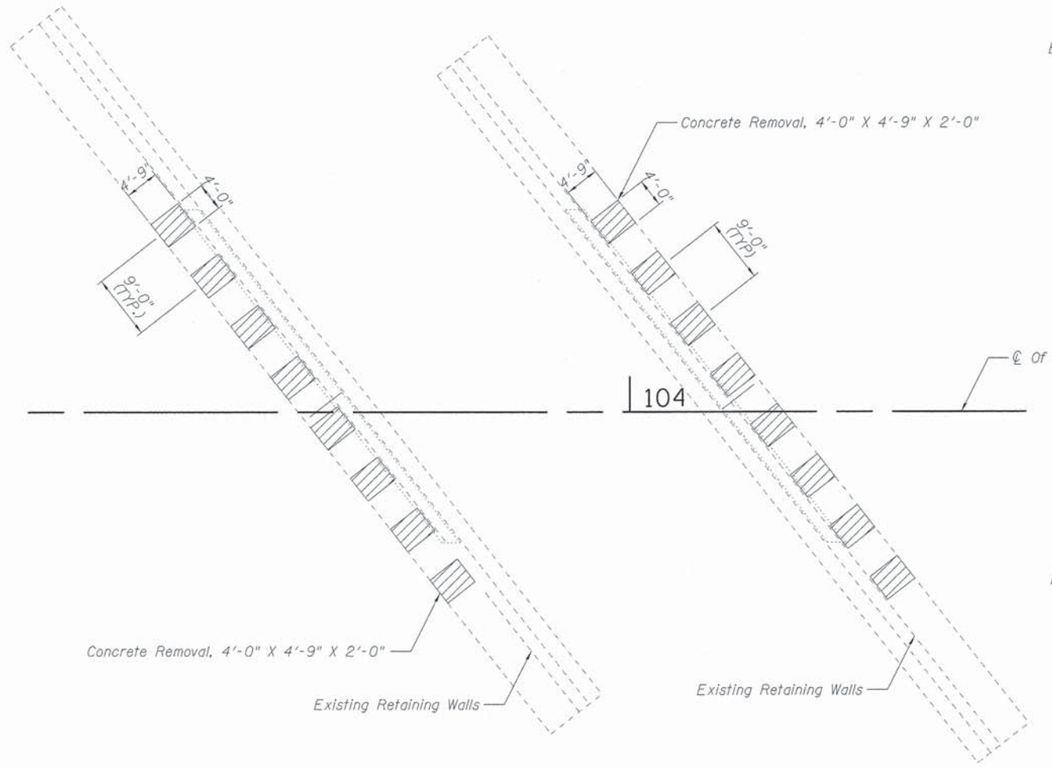
WEST ABUTMENT
(Looking North)



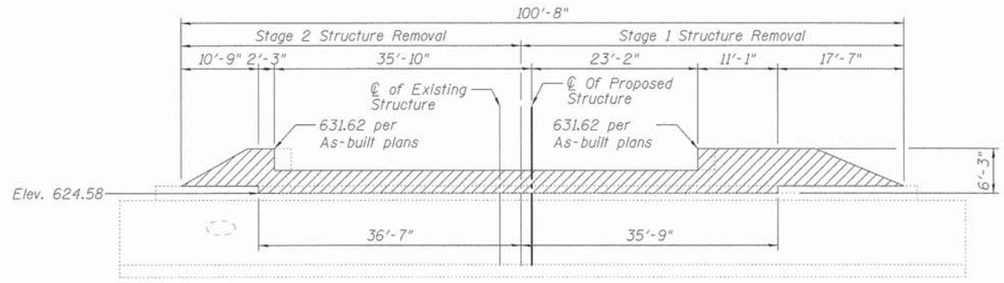
EAST ABUTMENT
(Looking North)



WEST ABUTMENT
(Looking West)



PLAN



EAST ABUTMENT
(Looking East)

NOTE:
1.) Concrete Removal areas as shown should match drilled shaft locations.
2.) 2'-0" foundation is assumed value for thickness.
3.) Refer to Sheet 8 for Approach Slab Removal limits. Concrete Removal quantity included on this sheet.

LEGEND

CONCRETE REMOVAL

BILL OF MATERIAL

ITEM	UNIT	TOTAL QUANTITY
CONCRETE REMOVAL	CU YD	103

20 0 20 40 60 80 100
FEET

FILE NAME = 08415-sht-struct-removal.dgn

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USER NAME = jjohnson	DESIGNED - JAR	REVISED -	
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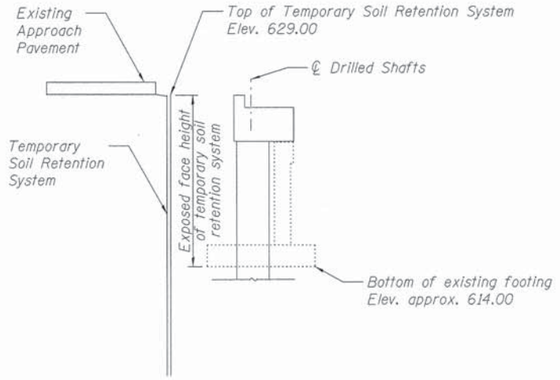
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

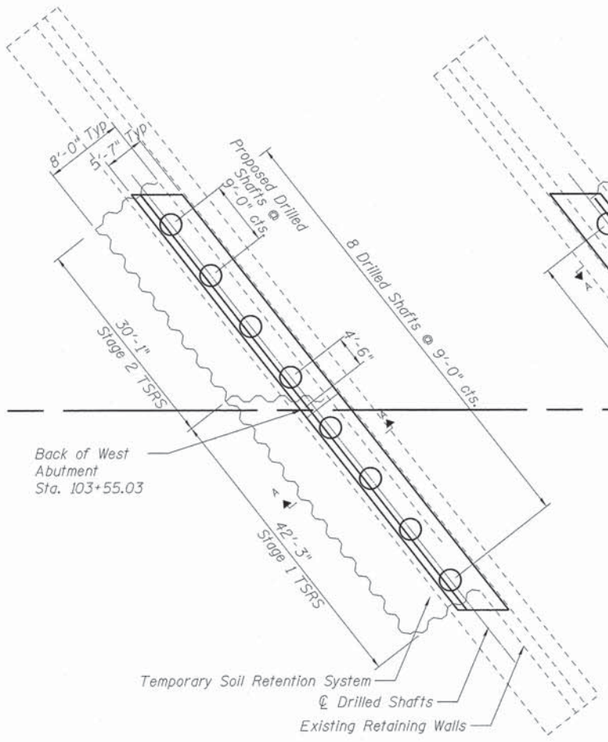
STRUCTURAL REMOVALS
STRUCTURE NO. 016-6221

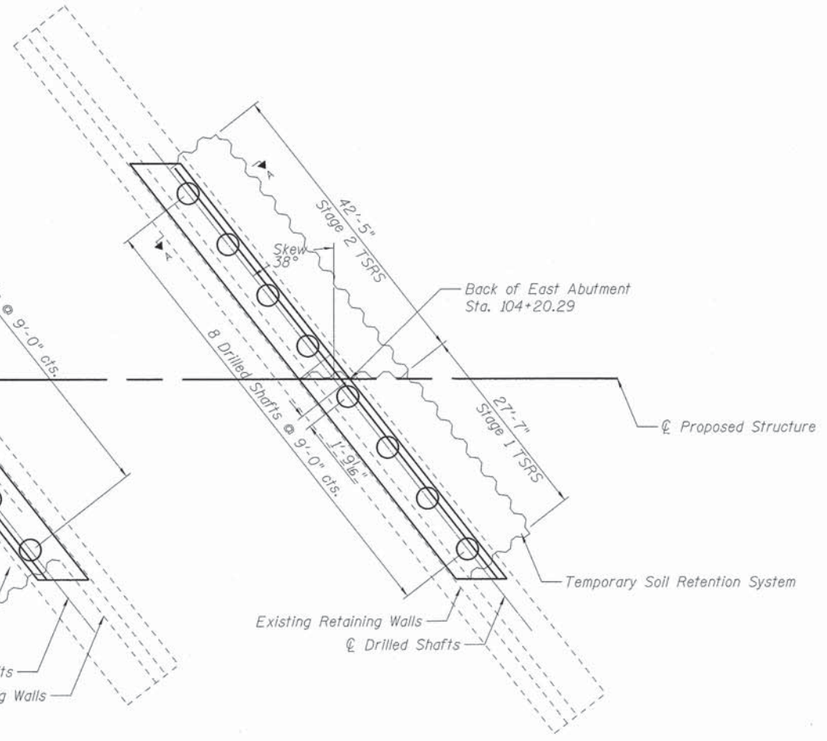
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

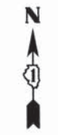
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	32
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



Section A-A







BILL OF MATERIAL

ITEM	UNIT	TOTAL QUANTITY
TEMPORARY SOIL RETENTION SYSTEM	SQ FT	3165

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT
STRUCTURE NO. 016-6221

SCALE: 1" = 10' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	33
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

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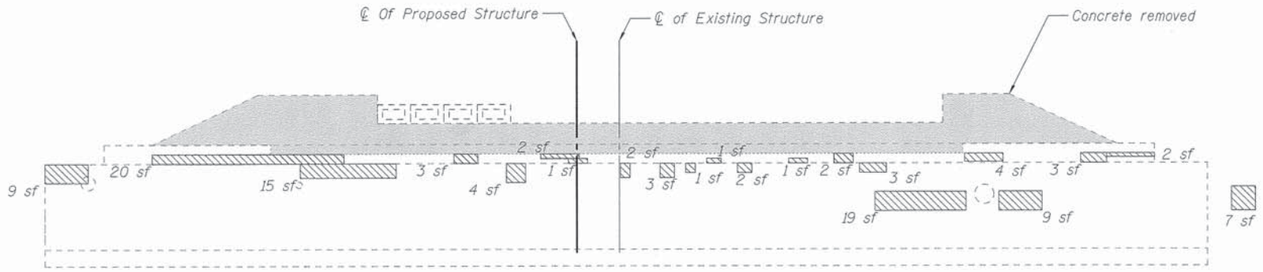
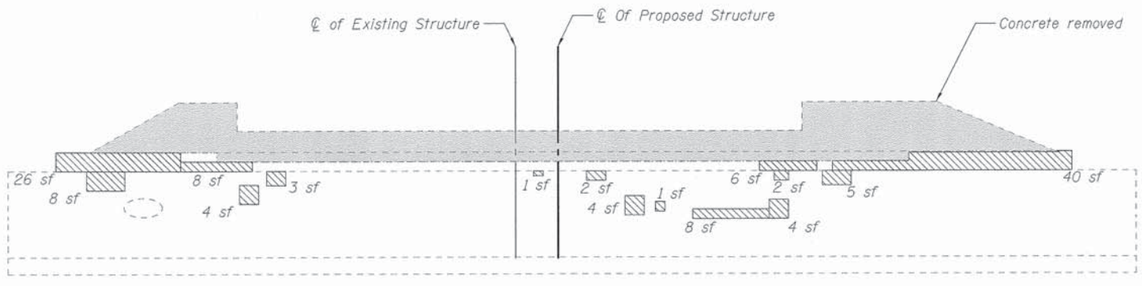


WEST ABUTMENT
(Looking West)



EAST ABUTMENT
(Looking East)

NOTE:
Repair Quantities included in Bill of Materials include allowance for additional deterioration prior to construction.

BILL OF MATERIAL

ITEM	UNIT	TOTAL QUANTITY
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5IN.)	Sq. Ft.	184
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5IN.)	Sq. Ft.	79

LEGEND

CONCRETE REPAIR

20 0 20 40 60 80 100
FEET

FILE NAME = 08415-sht-struct-wall_repair.dgn

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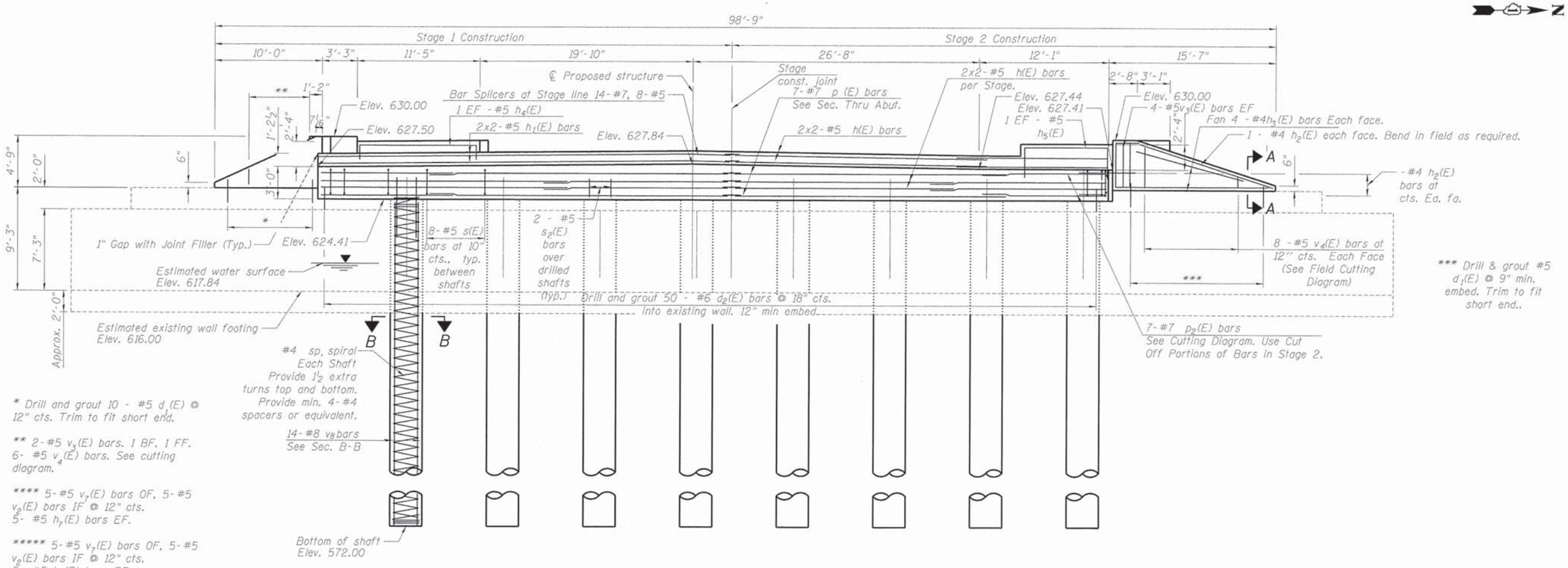
PLOT SCALE = 7.5000 ' / in.	CHECKED - TG	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING WALL REPAIR
STRUCTURE NO. 016-6221

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	34
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



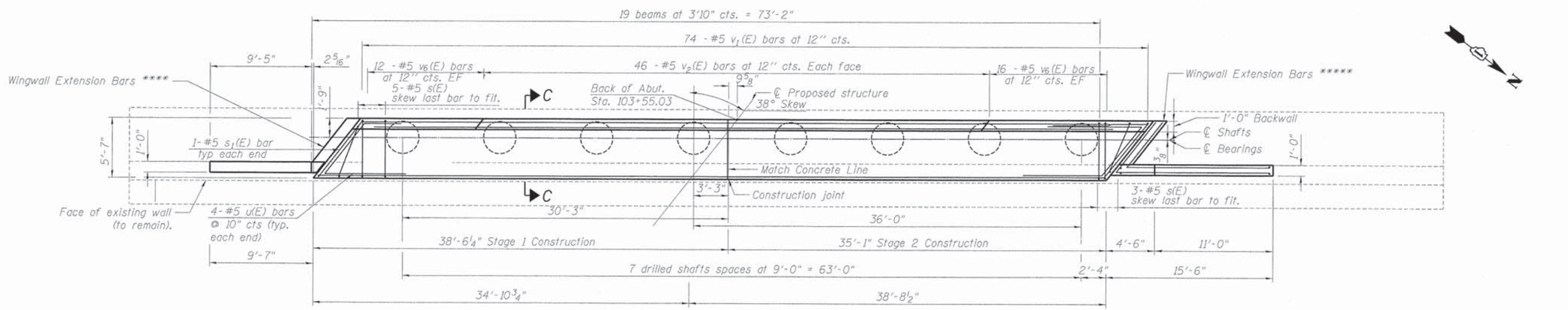
* Drill and grout 10 - #5 $d_1(E)$ @ 12" cts. Trim to fit short end.

** 2-#5 $v_3(E)$ bars. 1 BF. 1 FF. 6- #5 $v_4(E)$ bars. See cutting diagram.

**** 5-#5 $v_7(E)$ bars OF, 5-#5 $v_2(E)$ bars IF @ 12" cts. 5- #5 $h_7(E)$ bars EF.

***** 5-#5 $v_7(E)$ bars OF, 5-#5 $v_2(E)$ bars IF @ 12" cts. 5- #5 $h_6(E)$ bars EF.

ELEVATION
(Looking West)



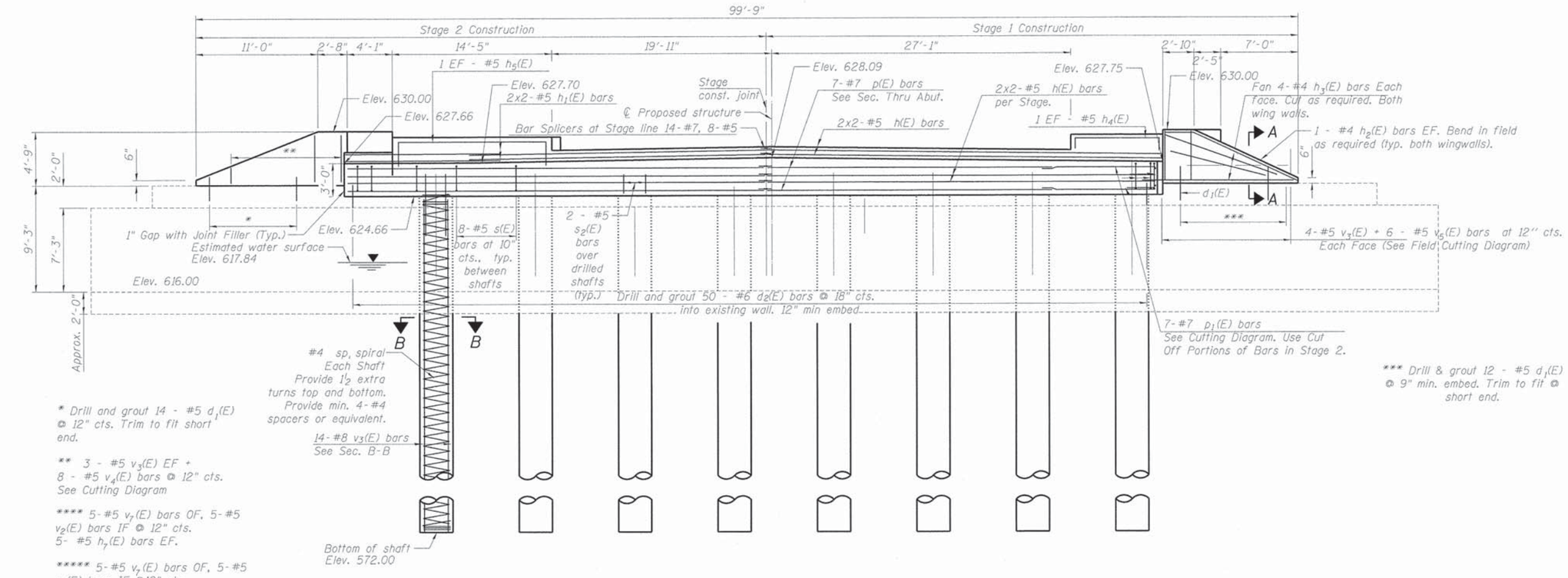
TOP PLAN

BURNS McDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 Ph (312)-223-0920 / Fx (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = jruhde	DESIGNED - JAR	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**	**WEST ABUTMENT** **STRUCTURE NO. 016-6221**
		DRAWN - JMA	REVISED -		
	PLOT SCALE = 5.0000 ' / in.	CHECKED - TG	REVISED -		SCALE: 1" = 5' | SHEET 1 OF 1 SHEETS | STA. TO STA.
	PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	35
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-West Abutment.dgn

Cast top of wingwall flush with exterior beam face after beams have been erected.



* Drill and grout 14 - #5 d_1(E) @ 12" cts. Trim to fit short end.

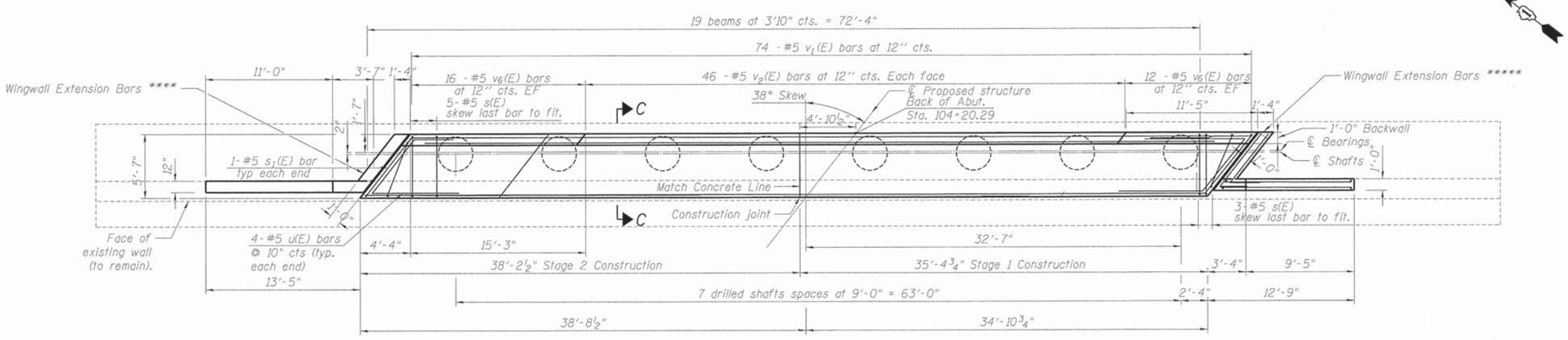
** 3 - #5 v_3(E) EF + 8 - #5 v_4(E) bars @ 12" cts. See Cutting Diagram

**** 5-#5 v_7(E) bars OF, 5-#5 v_2(E) bars IF @ 12" cts. 5- #5 h_7(E) bars EF.

***** 5-#5 v_7(E) bars OF, 5-#5 v_2(E) bars IF @12" cts. 5- #5 h_6(E) bars EF.

*** Drill & grout 12 - #5 d_1(E) @ 9" min. embed. Trim to fit @ short end.

ELEVATION
(Looking East)



TOP PLAN

BURNS MCDONNELL 200 W. ADAMS STREET / SUITE 1600 CHICAGO, IL 60606 P: (312)-223-0920 / F: (312)-223-9664 WEB: WWW.BURNSMCD.COM	USER NAME = jruhde	DESIGNED - JAR	REVISED -
		DRAWN - JMA	REVISED -
	PLOT SCALE = 5.0000 ' / in.	CHECKED - TG	REVISED -
	PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -

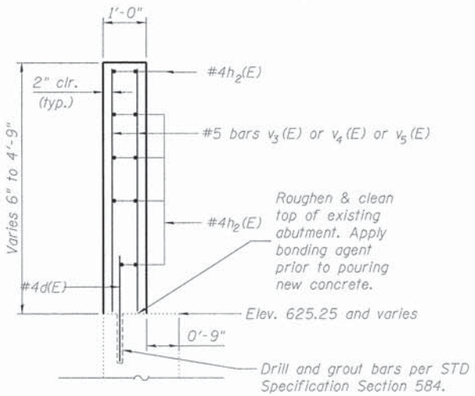
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 016-6221

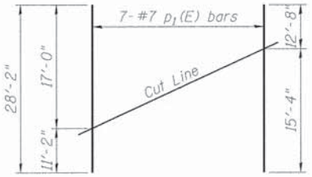
SCALE: 1" = 5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	36
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-East Abutment.dgn

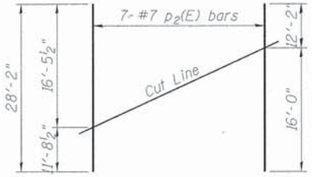


SECTION A-A



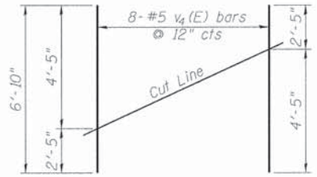
FIELD CUTTING DIAGRAM

Order $p_1(E)$ full length. Cut as shown and use remainder of bars in opposite end.



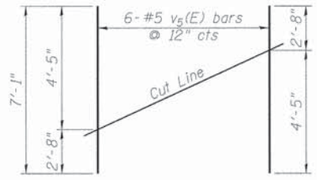
FIELD CUTTING DIAGRAM

Order $p_2(E)$ full length. Cut as shown and use remainder of bars in opposite end.



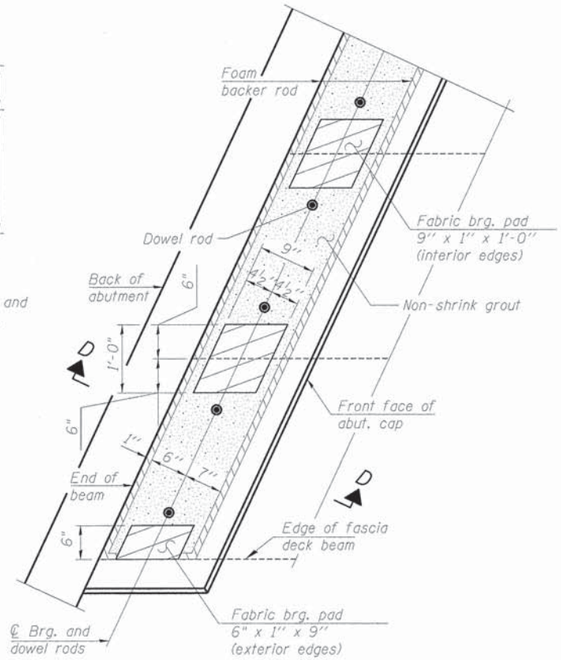
FIELD CUTTING DIAGRAM

Order $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



FIELD CUTTING DIAGRAM

Order $v_5(E)$ full length. Cut as shown and use remainder of bars in opposite face.



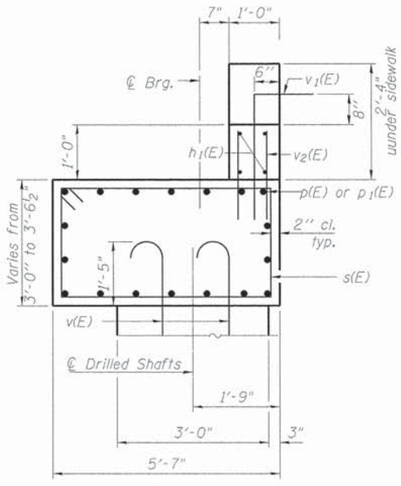
PLAN - FIXED ABUTMENT

Notes:
The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.

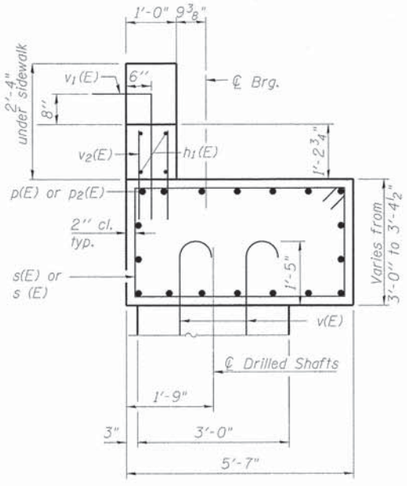
BILL OF MATERIAL - WEST ABUTMENT

	Bar	No.	Size	Length	Shape
	h(E)	24	#5	20'-10"	
	$h_1(E)$	8	#5	18'-5"	
	$h_2(E)$	4	#4	16'-3"	
	$h_3(E)$	16	#5	15'-0"	
	$h_4(E)$	2	#5	11'-0"	
	$h_5(E)$	2	#5	14'-9"	
	$h_6(E)$	10	#5	8'-5"	
	$h_7(E)$	10	#5	8'-5"	
	p(E)	28	#7	27'-0"	
	$p_2(E)$	14	#7	28'-2"	
	s(E)	64	#5	16'-2"	
	$s_1(E)$	2	#5	19'-0"	
	$s_2(E)$	16	#5	10'-2"	
	$d_1(E)$	26	#5	2'-9"	
	$d_2(E)$	50	#6	2'-3"	
	$u_1(E)$	8	#5	12'-1"	
	v(E)	112	#8	16'-9"	
	$v_1(E)$	74	#5	4'-9"	
	$v_2(E)$	92	#5	2'-8"	
	$v_3(E)$	11	#5	4'-5"	
	$v_4(E)$	8	#5	6'-10"	
	$v_5(E)$	6	#5	7'-1"	
	$v_6(E)$	66	#5	4'-0"	
	$v_7(E)$	10	#5	8'-0"	
**	sp	8	#4	52'-6"	
	v_8	112	#8	45'-0"	
	Concrete Structures			Cu. Yd.	59
	Reinforcement Bars, Epoxy Coated			Pound	11,100
	Reinforcement Bars			Pound	17,385
	Drilled Shaft in Soil			Cu. Yd.	111
	Bar Splicers			Each	26

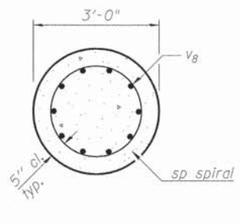
Space cap reinforcement to miss anchor bolts.
**Length is height of spiral.



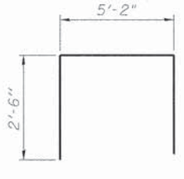
SECTION C-C - EAST ABUTMENT
(Dimensions are at Rt. L's)
Looking North



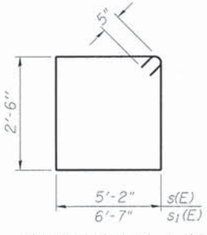
SECTION C-C - WEST ABUTMENT
(Dimensions are at Rt. L's)
looking North



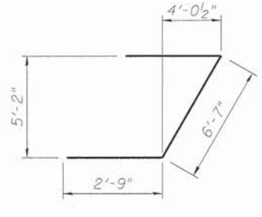
SECTION B-B



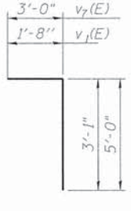
BARS $s_2(E)$



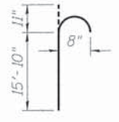
BARS s(E) & $s_1(E)$



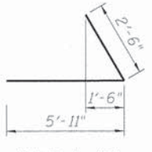
BAR u(E)



BAR $v_1(E)$, $v_7(E)$

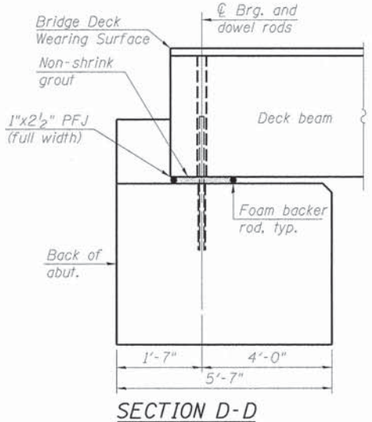


BAR v(E)



BAR $h_6(E)$

BAR $h_7(E)$



SECTION D-D

BILL OF MATERIAL - EAST ABUTMENT

	Bar	No.	Size	Length	Shape
	h(E)	24	#5	20'-10"	
	$h_1(E)$	8	#5	18'-5"	
	$h_2(E)$	4	#5	16'-3"	
	$h_3(E)$	16	#5	15'-0"	
	$h_4(E)$	2	#5	11'-0"	
	$h_5(E)$	2	#5	14'-9"	
	$h_6(E)$	10	#5	8'-5"	
	$h_7(E)$	10	#5	8'-5"	
	p(E)	28	#7	27'-0"	
	$p_1(E)$	14	#7	28'-2"	
	s(E)	64	#5	16'-2"	
	$s_1(E)$	2	#5	19'-0"	
	$s_2(E)$	16	#5	10'-2"	
	$d_1(E)$	26	#5	2'-9"	
	$d_2(E)$	50	#6	2'-3"	
	$u_1(E)$	8	#5	12'-1"	
	v(E)	112	#8	16'-9"	
	$v_1(E)$	74	#5	4'-9"	
	$v_2(E)$	92	#5	3'-1"	
	$v_3(E)$	11	#5	4'-5"	
	$v_4(E)$	8	#5	6'-10"	
	$v_5(E)$	6	#5	7'-1"	
	$v_6(E)$	66	#5	4'-0"	
	$v_7(E)$	10	#5	8'-0"	
**	sp	8	#4	52'-6"	
	v_8	112	#8	45'-0"	
	Concrete Structures			Cu. Yd.	59
	Reinforcement Bars, Epoxy Coated			Pound	11,080
	Reinforcement Bars			Pound	17,385
	Drilled Shaft in Soil			Cu. Yd.	111
	Bar Splicers			Each	22

Space cap reinforcement to miss anchor bolts.
**Length is height of spiral.

FILE NAME = 88415-sht-Abutment Details.dgn

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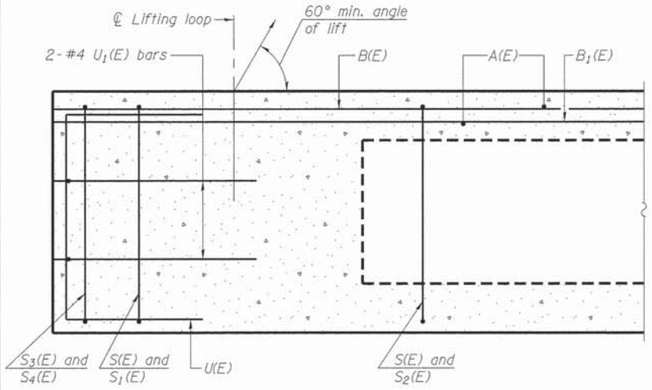
USER NAME = jruhde	DESIGNED - JAR	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 5.0000 ' / in.	CHECKED - TG	REVISED -	
PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

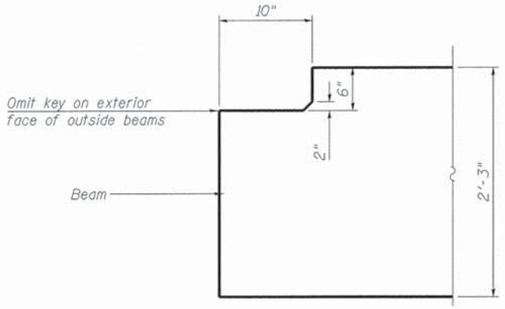
ABUTMENT DETAILS
STRUCTURE NO. 016-6221

SCALE: 1" = 5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	37
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

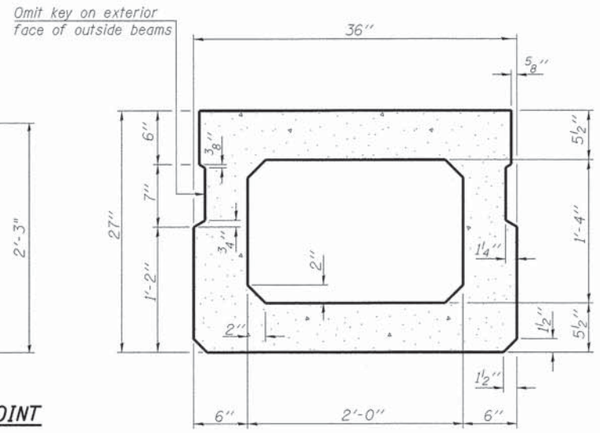


SECTION A-A

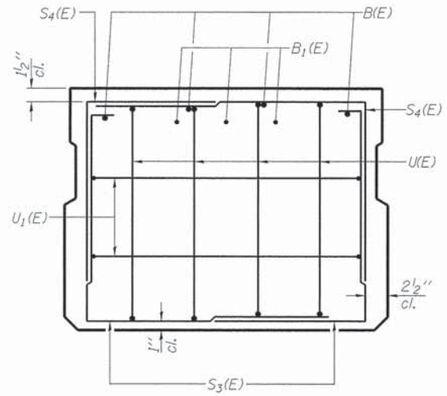


DETAIL AT EXPANSION JOINT

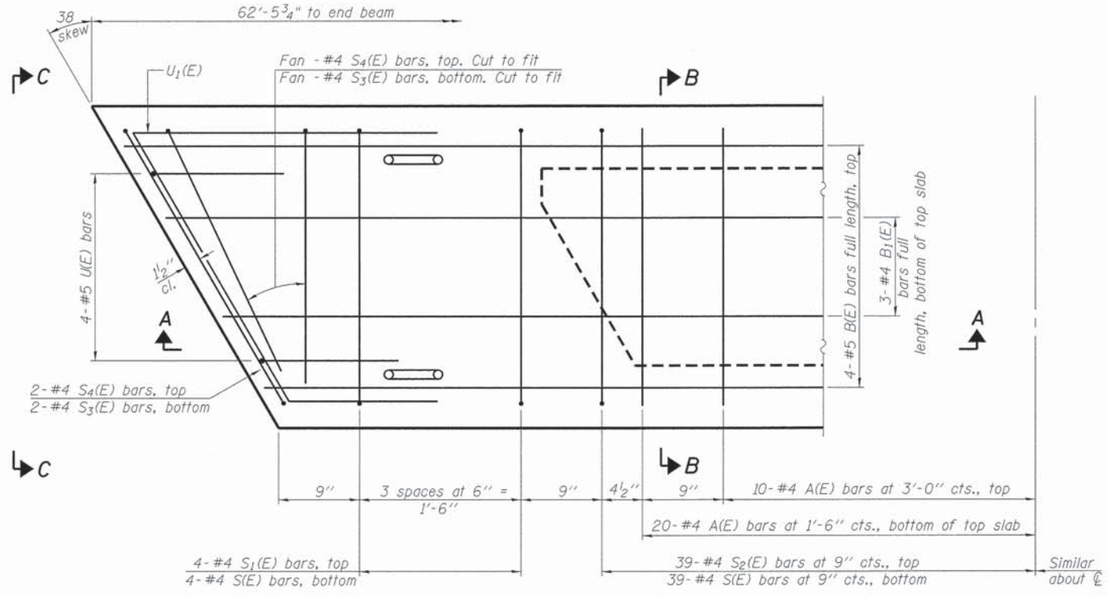
West Abutment Beams 4-17
Refer to Expansion Joint Details Sheet for coil loop inserts.



SECTION B-B
(Showing dimensions)



VIEW C-C

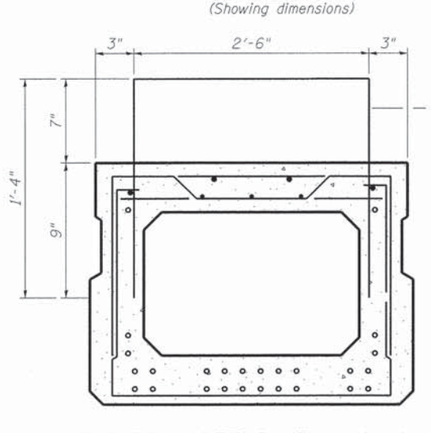


PLAN VIEW

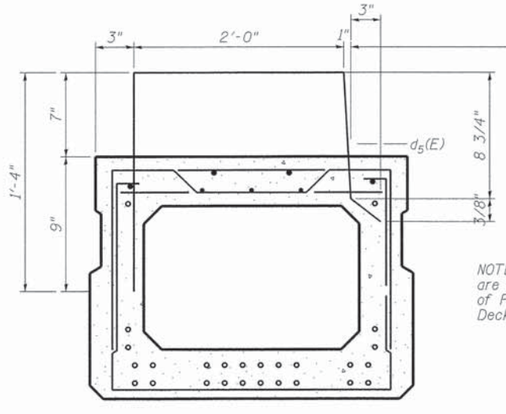
Note: Spacing of S(E) and S_2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

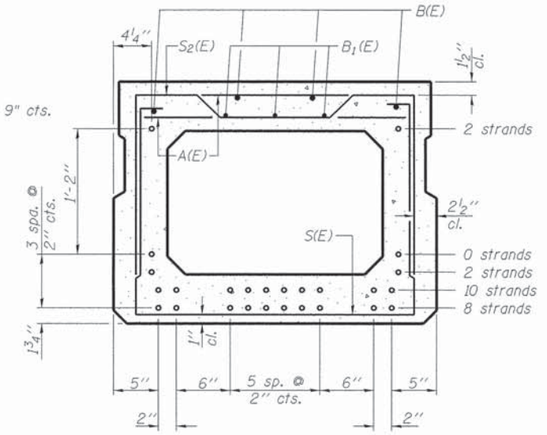


END BEAM DETAIL (5 required)



NOTE: Bars d(E), d_5(E) are included in the cost of Precast Prestressed Deck Beams

END BEAM DETAIL WITH CURB (2 required)



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	2'-7"	—
B(E)	8	#5	32'-6"	—
B_1(E)	6	#4	32'-3"	—
S(E)	86	#4	7'-5"	
S_1(E)	8	#4	5'-11"	
S_2(E)	78	#4	6'-2"	
S_3(E)	4	#4	5'-1"	
S_4(E)	4	#4	4'-4"	
U(E)	8	#5	4'-6"	
U_1(E)	4	#4	7'-11"	
d(E)	84	#4	4'-2"	
d_5(E)	84	#4	4'-2"	

Note: See sheet 30 for additional details and Bill of Material.

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USER NAME = JJohnson	DESIGNED - JAR	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - TG	REVISED -	
PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -	

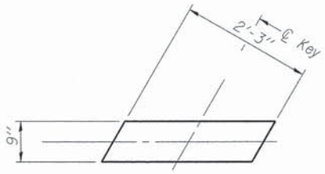
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 36" PPC DECK BEAM
STRUCTURE NO. 016-6221

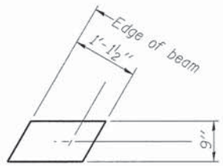
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	38
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

FILE NAME = 00415-sht-27-36PCC Deck Beam.dgn



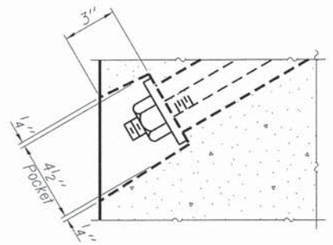
FABRIC BEARING PAD
(Interior)



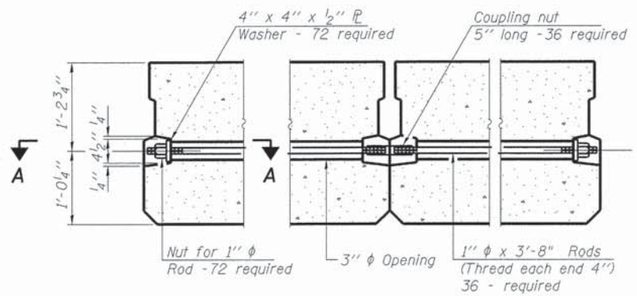
FABRIC BEARING PAD
(Exterior)

EXPANSION

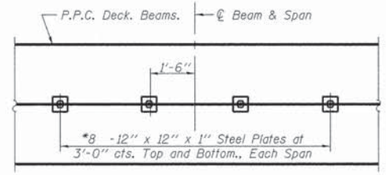
Notes:
All bearing pads shall be 1" thick.
Expansion bearing pad shall be bonded to the substructure.
See Abutment Details for Fixed Abutment Pads



SECTION A-A

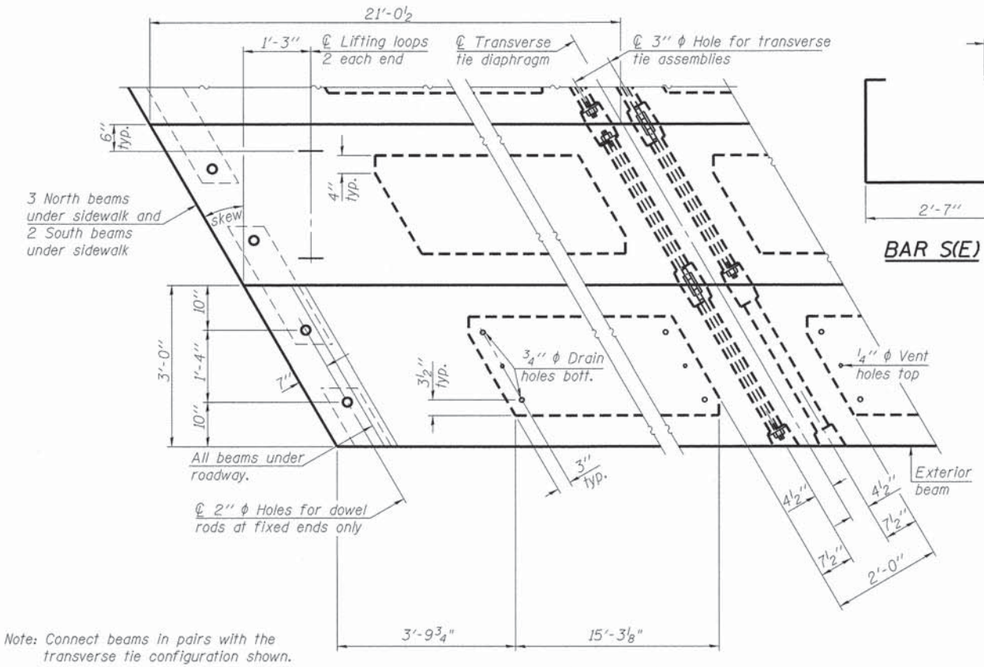


TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN

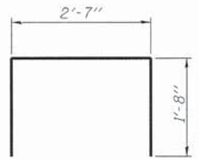
*Space plates to miss Temporary Bridge Rail Posts.



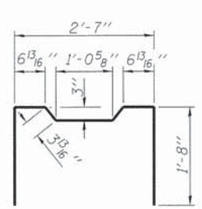
PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

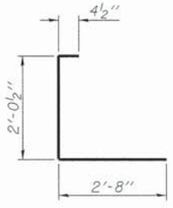
BAR S(E)



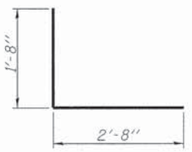
BAR S_1(E)



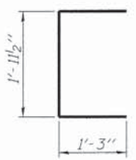
BAR S_2(E)



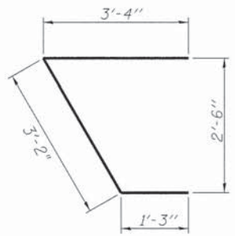
BAR S_3(E)



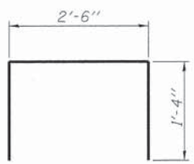
BAR S_4(E)



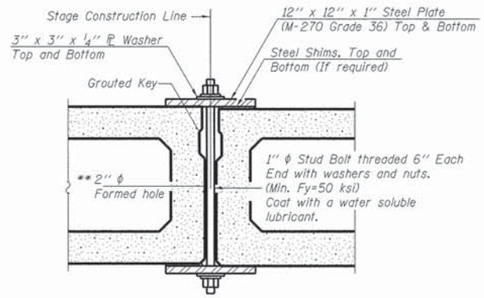
BAR U(E)



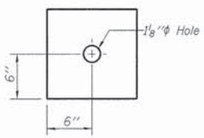
BAR U_1(E)



BAR d(E)



SECTION

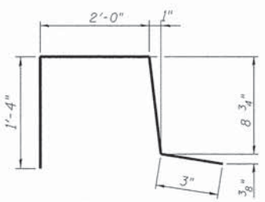


CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.
Remove clamps prior to placement of waterproof membrane.

** Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.



BAR d_5(E)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

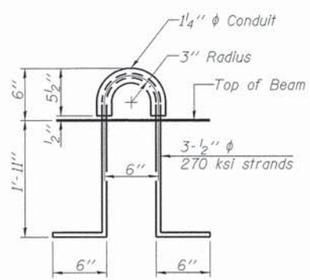
Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	3562

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USER NAME = mpapirnik	DESIGNED - JAR	REVISED -	
	DRAWN - JMA	REVISED -	
PLOT SCALE = 5.0000 '/ in.	CHECKED - TG	REVISED -	
PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

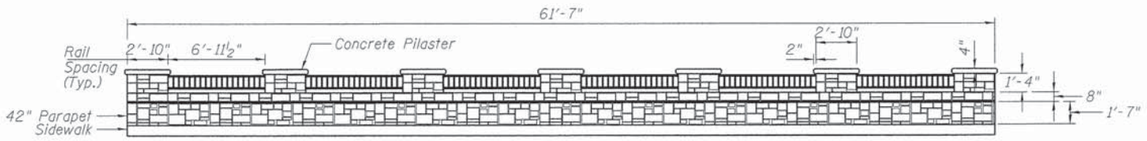
27" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 016-6221

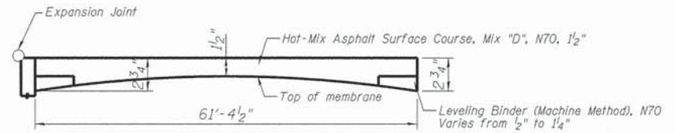
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	39

CONTRACT NO. 61C77
ILLINOIS FED. AID PROJECT

FILE NAME = 88415-sht-27-36PCC-Deck Beam Details.dgn

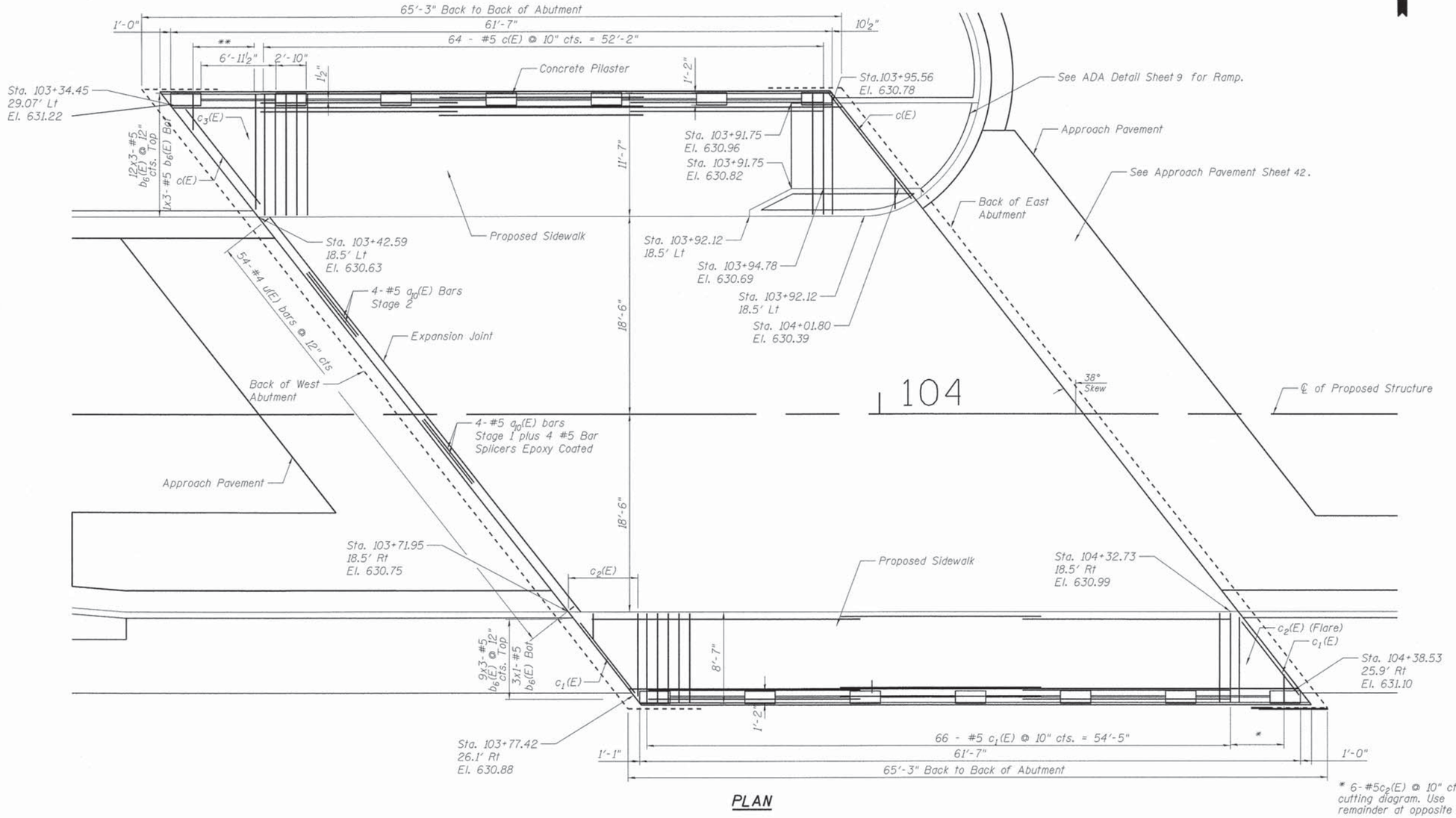




ANTICIPATED BRIDGE HMA SURFACE PROFILE
(For information only)

** 8-#5c_3(E) @ 10" cts. See cutting diagram. Use remainder at opposite end.

ELEVATION
(Looking North)



PLAN

* 6-#5c_2(E) @ 10" cts. See cutting diagram. Use remainder at opposite end.

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USER NAME = mpapirnik	DESIGNED - JAR	REVISED -
	DRAWN - JMA	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - TG	REVISED -
PLOT DATE = 3/16/2016	DATE - 1/28/2016	REVISED -

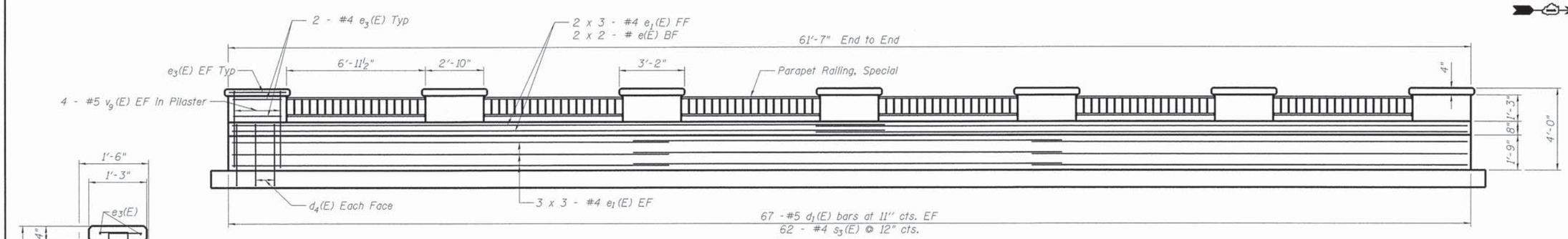
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN
STRUCTURE NO. 016-6221

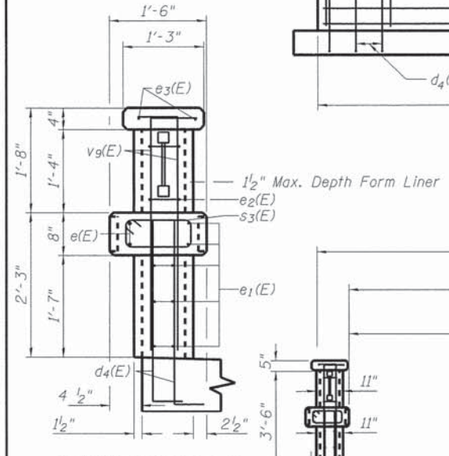
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	40
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-Str-Superdon



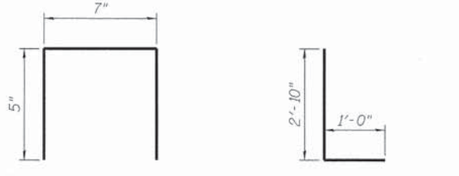
INSIDE ELEVATION OF PARAPET



PARAPET DETAIL

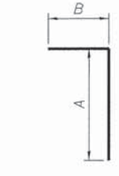
CROSS SECTION

(Looking East)



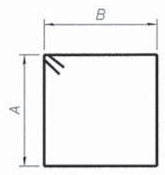
BAR u(E)

BAR d_4(E)



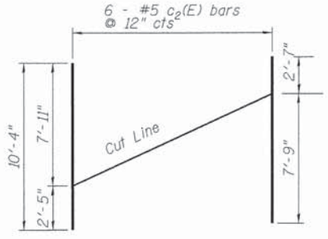
BAR v_9(E), c (E), c_1(E)

Bar	A	B
v_9(E)	3'6"	8"
c (E)	11'-2"	9"
c_1(E)	8'-2"	10"



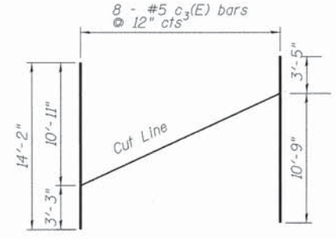
BAR s_3(E) & e_2(E)

Bar	A	B
s_3(E)	12"	6"
e_2(E)	2'-6"	5"



FIELD CUTTING DIAGRAM

Order c_2(E) full length. Cut as shown and use remainder of bars in opposite end.



FIELD CUTTING DIAGRAM

Order c_3(E) full length. Cut as shown and use remainder of bars in opposite end.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10}(E)	8	#5	26'-2"	
b_6(E)	69	#5	24'-0"	
c(E)	66	#5	11'-11"	
c_1(E)	68	#5	9'-0""	
c_2(E)	6	#5	10'-4"	
c_3(E)	8	#5	14'-2"	
d_4(E)	134	#5	3'-10"	
e(E)	8	#6	33'-0"	
e_1(E)	48	#4	23'-0"	
e_2(E)	28	#4	6'-4"	
e_3(E)	28	#4	2'-6"	
s_3(E)	124	#4	3'-6"	
u(E)	54	#5	1'-5"	
v_9(E)	112	#4	4'-2"	
Concrete Superstructures		Cu. Yd.	54	
Reinforcement Bars, Epoxy Coated		Pound	6,800	
Parapet Railing, Special		Foot	84	
Form Liner Textured Surface		Sq. Ft.	660	
Concrete Surface Color Treatment		Sq. Ft.	760	
Bar Splicers		Each	4	

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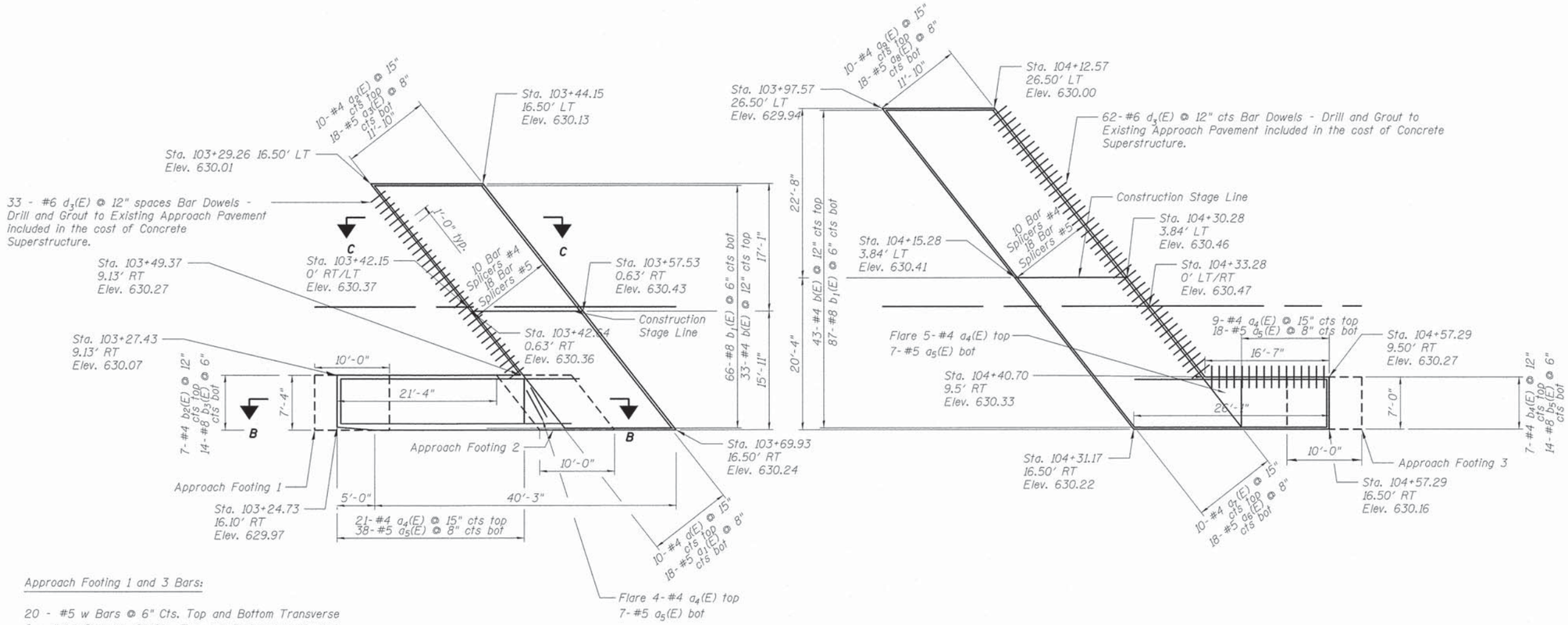
SUPERSTRUCTURE CROSS SECTION AND DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	41
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 88415-sht-Str-Super-CrossSection.dgn



Approach Footing 1 and 3 Bars:

20 - #5 w Bars @ 6" Cts. Top and Bottom Transverse
8 - #4 t Bars @ 12" Cts. Top and Bottom Longitudinal

Approach Footing 2 Bars:

16 - #5 w_1 Bars @ 6" Cts. Top and Bottom Transverse
8 - #4 t Bars @ 12" Cts. Top and Bottom Longitudinal

APPROACH SLAB PLAN

FILE NAME = 88415-sht-struct-approach.dgn

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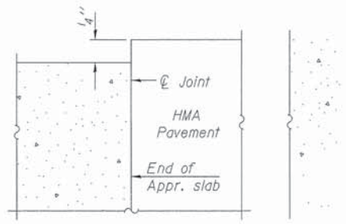
	PLOT DATE = 2/18/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT
STRUCTURE NO. 016-6221

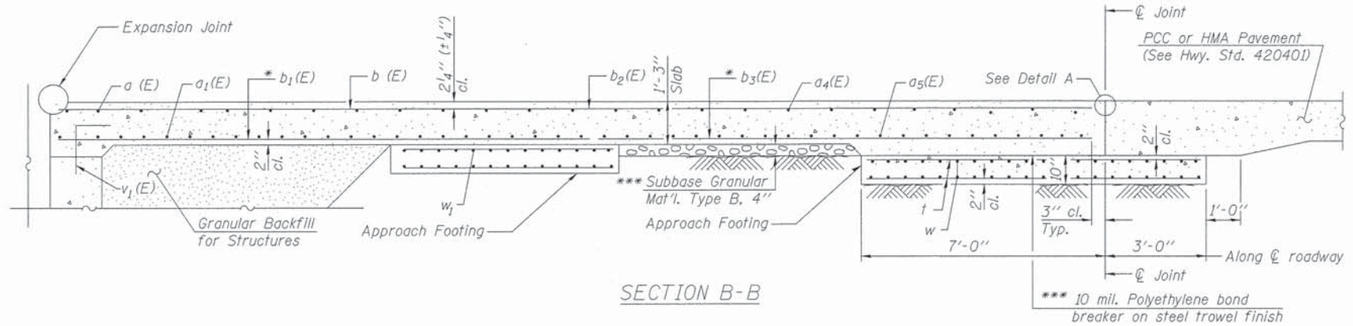
SCALE: 1" = 7.5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	42
		CONTRACT NO. 61C77		
		ILLINOIS FED. AID PROJECT		

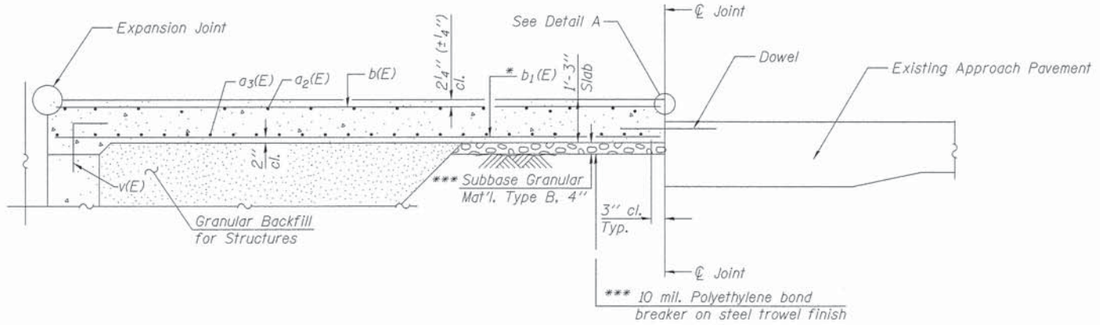


FLEXIBLE PAVEMENT

DETAIL A



SECTION B-B



SECTION C-C

Notes:

See sheet 45 of 65 for Sections C-C & D-D.

a(E) and a1(E) bar spacings measured along ℄ Rdwy.

The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

*** Cost included with Concrete Superstructure.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	10	#4	19'-10"	
a1(E)	18	#5	19'-10"	
a2(E)	10	#6	21'-3"	
a3(E)	18	#5	21'-3"	
a4(E)	39	#4	6'-8"	
a5(E)	70	#5	6'-8"	
a6(E)	18	#5	25'-7"	
a7(E)	10	#4	25'-7"	
a8(E)	18	#5	28'-2"	
a9(E)	10	#4	28'-2"	
b(E)	76	#4	14'-6"	
b1(E)	153	#8	14'-6"	
b2(E)	7	#4	32'-3"	
b3(E)	14	#8	35'-6"	
b4(E)	7	#4	18'-10"	
b5(E)	14	#8	21'-10"	
d3(E)	95	#6	1'-6"	
t	48	#4	9'-8"	
w	80	#5	6'-8"	
w1	32	#5	8'-4"	
Concrete Superstructure (Approach Slab)			Cu. Yd.	67
Concrete Structures			Cu. Yd.	4.6
Reinforcement Bars, Epoxy Coated			Pound	12,330
Reinforcement Bars			Pound	1,150

Notes:

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

For v (E) bar details, see Abutment Details.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

For bar splicer details, see sheet 45 of 64.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 30 of 64.

FILE NAME = 88415-sht_struct_approach_details.dgn

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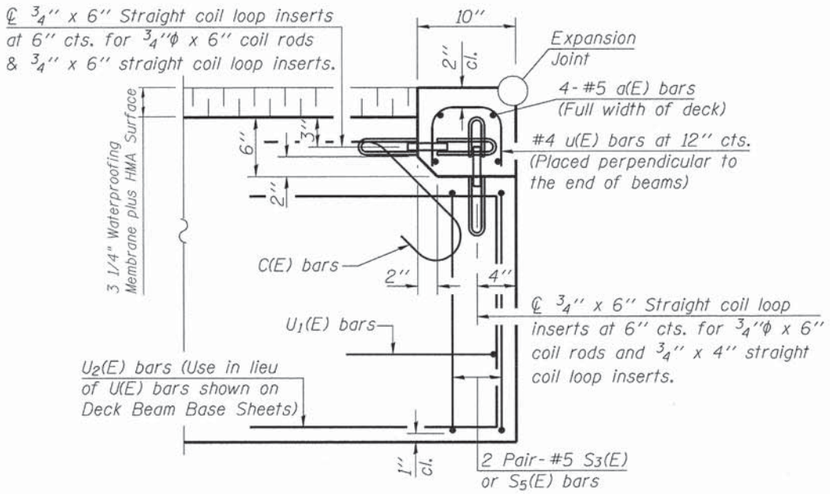
DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT DETAILS
STRUCTURE NO. 016-6221

SCALE: 1" = 10' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	43
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



END OF BEAM (EXP. END)

(Dimensions are at Rt. L's)

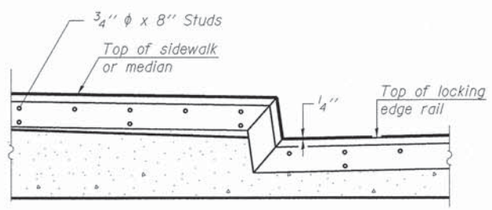
Notes:

1½" cl. for reinforcement bars unless otherwise noted.

Typical reinforcement not shown for clarity. See Deck Beam Base Sheets for additional reinforcement details.

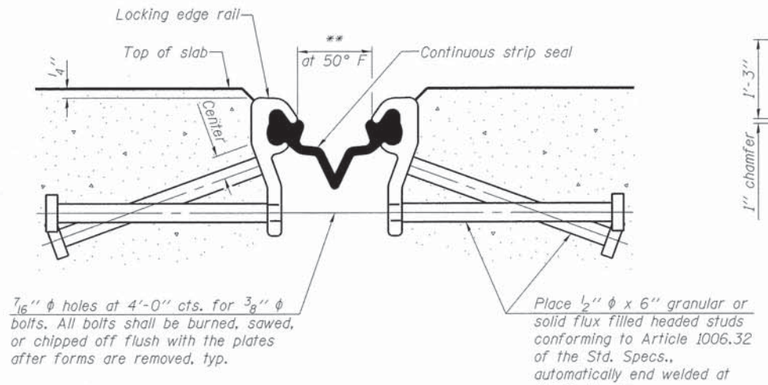
Cost of Inserts & Coil Rods included with Precast Prestressed Concrete Deck Beams.

PLAN AT EXPANSION END OF BEAM

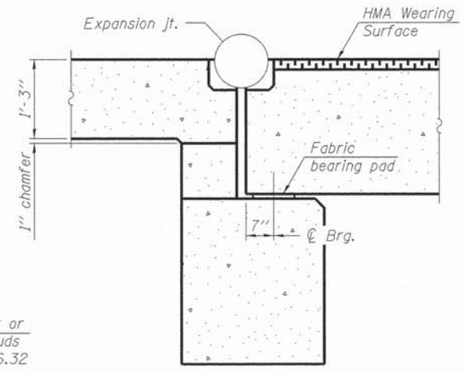


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

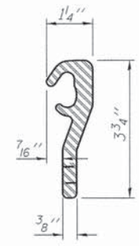


SECTION THRU STRIP SEAL JOINT

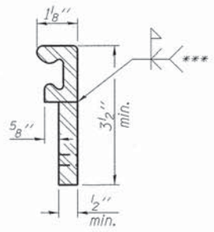


SECTION THRU ABUTMENT

(Dimensions are at Rt. L's)

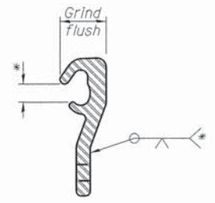


ROLLED (EXTRUDED) RAIL



WELDED RAIL

LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

Rolled rail shown, welded rail similar.

* Omit weld at seal opening.

** The minimum dimension shall be 1½" for installation purposes.

*** Back gouge not required if complete joint penetration is verified by mock-up.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

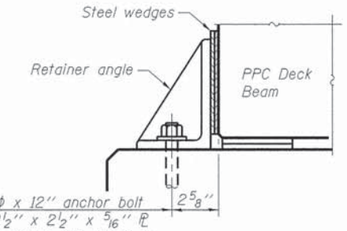
The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

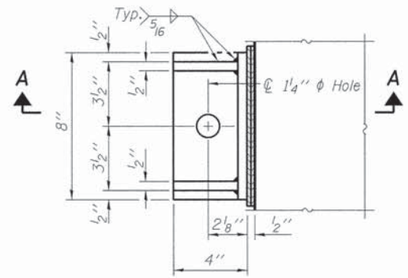
The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant



SECTION A-A



PLAN

Notes:

Cost of retainer, anchor bolts and accessories are included with Precast Prestressed Concrete Deck Beams.

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

The side retainers shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM 385.

Anchor bolts and plate washers shall be galvanized according to AASHTO M 232.

After the notch or concrete overlay are poured and cured, the steel wedges shall be removed.

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EXPANSION JOINT DETAILS
STRUCTURE NO. 016-6221

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	44
		CONTRACT NO. 61C77		
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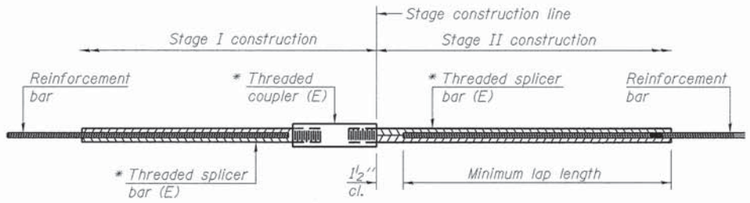
FILE NAME = 88415-sht-Str-Exjoint_detail.dgn

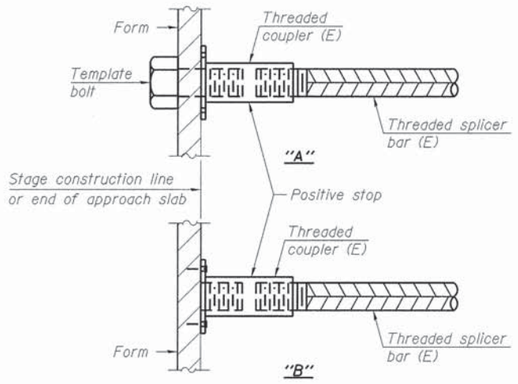


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

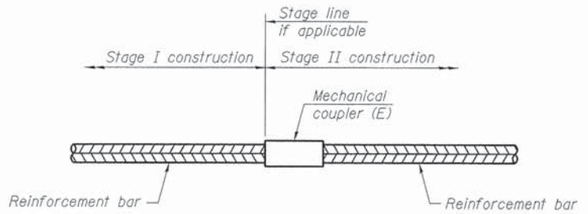
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Backwall	5	8	2'-6"
Abutment Cap	7	28	4'-8"
	5	8	2'-6"
Approach Slab	5	56	2'-6"
Expansion Jt Block	5	4	2'-6"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 6-8-15

FILE NAME = 86415-sht-bar-splicer-assembly-Details.dgn

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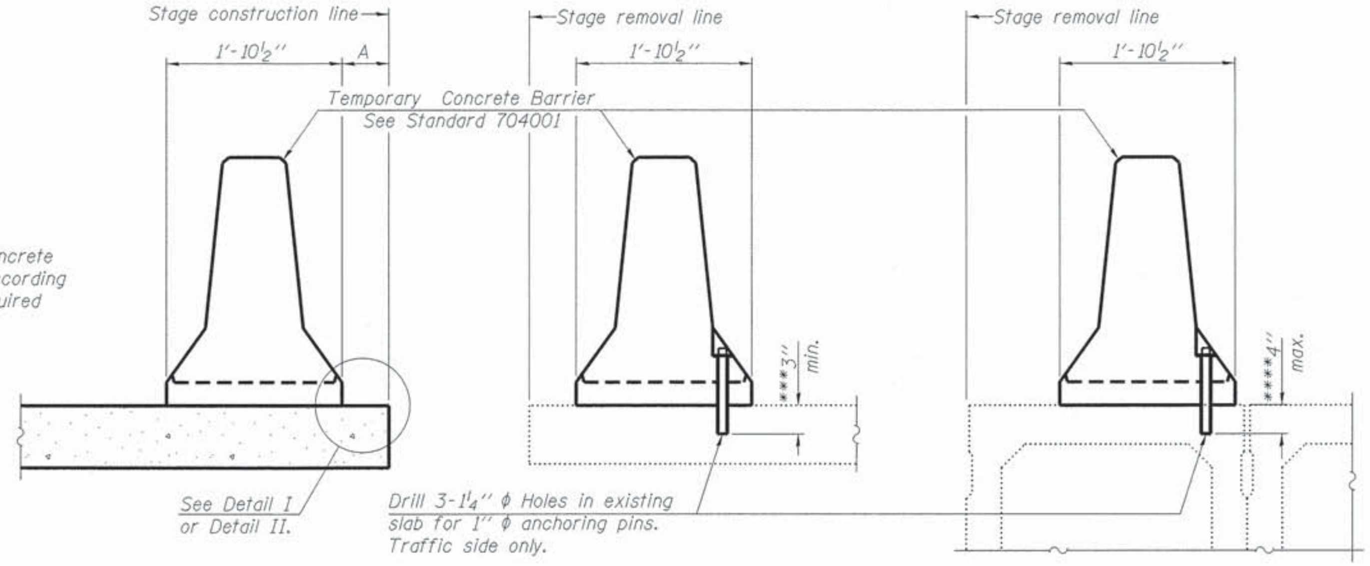
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-6221

SCALE: 1" = 5' | SHEET XXX OF XXX SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	45
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

When "A" is 3'-1" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-1".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7' 'x "W" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

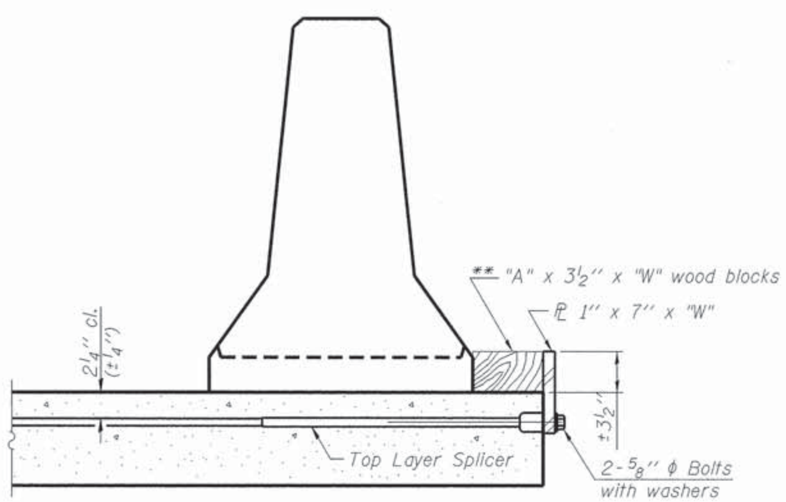
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of retainer assembly is included with Temporary Concrete Barrier.

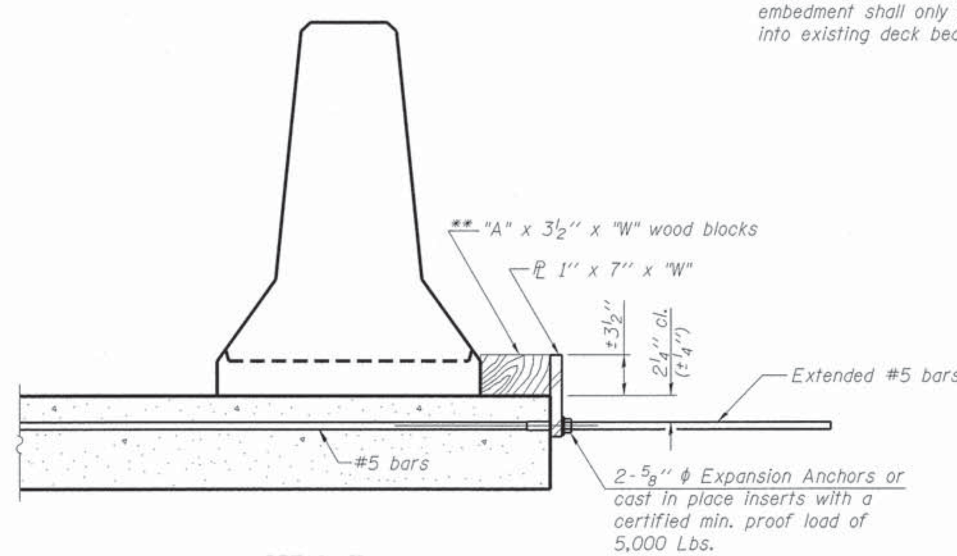
The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

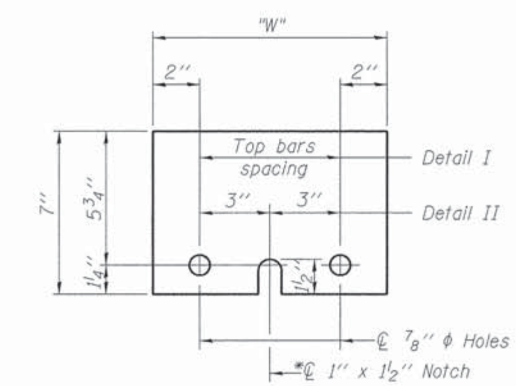
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x "W"

* Required only with Detail II

RETAINER ASSEMBLY

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

R-27

1-12-15

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		DRAWN -	REVISED -			1352	13-00185-00-BR	COOK	64	46
	PLOT SCALE = 5.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 61C77		
	PLOT DATE = 2/1/2016	DATE - 1/28/2016	REVISED -		SCALE: 1" = 5' SHEET 1 OF 1 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

FILE NAME = BRAJE-sht-temp-conc-barrier-detail.dgn

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-01**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation:
Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		3" Asphalt Pavement 4" Aggregate Base Course					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Clay Loam, dark brown and dark gray, very stiff to stiff, (A-6-FILL)	SS-1 1.0' - 2.5' 15" Recovery	2 4 3	19.0	2.25	Atterberg Limits LL = 37 PL = 19 PI = 18
	4.0			SS-2 3.5' - 5.0' 12" Recovery	3 2 3	22.2	1.0	
	6.0		Clay Loam, Trace Sand and Gravel, brown and gray, stiff, (A-6)	SS-3 6.0' - 7.5' 12" Recovery	2 2 1	23.9	1.0	
	9.0		Clay, Trace Sand and Gravel, gray, stiff to very stiff, (A-6)	SS-4 8.5' - 10.0' 14" Recovery	2 3 5	18.3	2.25	
	11.0			SS-5 11.0' - 12.5' 4" Recovery	5 8 7	16.0	--	
	14.0			SS-6 13.5' - 15.0' 14" Recovery	4 3 4	19.1	2.0 2.4*	
	19.0		* Q_u (load frame)	SS-7 18.5' - 20.0' 16" Recovery	2 3 5	19.5	2.25 2.8*	
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-01**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation:
Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Clay, Trace Sand and Gravel, gray, stiff to very stiff, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	24.0			SS-8 23.5' - 25.0' 18" Recovery	3 5 5	16.7	2.25 3.2*	
	29.0		Obstruction an approximately 29 feet.	SS-9 28.5' - 30.0' 9" Recovery	3 50/4"	17.2	1.75 2.4*	
	34.0			SS-10 33.5' - 35.0' 24" Recovery	4 7 8	17.2	2.75 2.4*	
	39.0		* Q_u (load frame)	SS-11 38.5' - 40.0' 24" Recovery	4 5 7	18.5	1.5 1.8*	
	40.0		END of BORING at 40 Feet					

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-02**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northeast of Bridge
Logged By: RG
Ground Elevation:
Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		12" Topsoil					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Clay Loam, brown and dark brown, stiff, (A-6-FILL)	SS-1 1.0' - 2.5' 14" Recovery	3 6 9	18.1	1.0	Atterberg Limits LL = 35 PL = 18 PI = 17
	4.0		Clay, Trace Sand and Gravel, brown, stiff, (A-6)	SS-2 3.5' - 5.0' 14" Recovery	3 2 2	20.0	1.0	
	6.0		Clay, Trace Organics, black, stiff, (A-6)	SS-3 6.0' - 7.5' 16" Recovery	2 2 2	25.5	1.0	
	9.0		Clay, Trace Sand and Gravel, gray, stiff to very stiff, (A-6) Silty Loam seam at 9.5'	SS-4 8.5' - 10.0' 16" Recovery	2 3 3	15.6 14.4	1.0 2.25	
	11.0		Loam, Trace Sand and Gravel, brown, very stiff, (A-4)	SS-5 11.0' - 12.5' 18" Recovery	2 3 3	11.9	1.5 2.4*	
	14.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)	SS-6 13.5' - 15.0' 18" Recovery	4 6 8	12.1	2.0 3.9*	
	19.0		* Q_u (load frame)	SS-7 18.5' - 20.0' 15" Recovery	3 5 7	17.1	3.25 4.9*	
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-02**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northeast of Bridge
Logged By: RG
Ground Elevation:
Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	24.0			SS-8 23.5' - 25.0' 18" Recovery	3 4 7	18.4	2.75 2.9*	
	29.0			SS-9 28.5' - 30.0' 18" Recovery	5 5 9	20.5	2.25 3.5*	
	34.0			SS-10 33.5' - 35.0' 18" Recovery	4 5 7	21.5	2.5 3.0*	
	39.0		* Q_u (load frame)	SS-11 38.5' - 40.0' 18" Recovery	4 4 6	17.7	1.5 2.3*	
	40.0		END of BORING at 40 Feet					

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-03**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation:
Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		6" Topsoil					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Clay Loam, brown and dark brown, hard to very stiff, (A-6-FILL)	SS-1 1.0' - 2.5' 14" Recovery	3 4 5	161	4.5	
	4.0			SS-2 3.5' - 5.0' 10" Recovery	3 4 5	19.4	2.75	
	6.0			SS-3 6.0' - 7.5' 16" Recovery	4 6 8	25.0	3.25	
	9.0		Clay, Little Sand, Trace Gravel, gray and brown, stiff, (A-6)	SS-4 8.5' - 10.0' 14" Recovery	2 2 3	14.0	1.5	
	11.0		Loam, Trace Sand and Gravel, brown, very stiff, (A-6)	SS-5 11.0' - 12.5' 16" Recovery	2 3 3	18.9	2.0	
	14.0		Clay, Trace Sand and Gravel, gray, stiff to hard, (A-6)	SS-6 13.5' - 15.0' 10" Recovery	2 5 6	16.9	4.5 5.2*	
	19.0		* Q_u (load frame)	SS-7 18.5' - 20.0' 16" Recovery	2 2 5	20.0	1.75 1.9*	
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-03**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation:
Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Clay, Trace Sand and Gravel, gray, stiff to hard, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	24.0			SS-8 23.5' - 25.0' 18" Recovery	3 3 6	19.6	1.5 2.0*	
	29.0			SS-9 28.5' - 30.0' 18" Recovery	3 3 5	17.9	1.5 2.0*	
	34.0			SS-10 33.5' - 35.0' 18" Recovery	3 4 5	23.2	2.0 2.8*	
	39.0		* Q_u (load frame)	SS-11 38.5' - 40.0' 18" Recovery	3 5 5	24.1	1.5 1.6*	
	40.0		END of BORING at 40 Feet					

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-04**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southwest of Bridge
Logged By: RG
Ground Elevation:
Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		10" Topsoil					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Clay Loam, brown and dark brown, stiff to very stiff, (A-6-FILL)	SS-1 1.0' - 2.5' 14" Recovery	3 5 5	18.5	2.25	
	4.0			SS-2 3.5' - 5.0' 10" Recovery	2 3 3	28.9	1.0	
	6.0			SS-3 6.0' - 7.5' 8" Recovery	3 3 4	18.3	3.25	
	9.0		Clay Loam, Trace Sand and Gravel, brown and gray, stiff, (A-6)	SS-4 8.5' - 10.0' 12" Recovery	1 2 2	27.1	1.25	
	11.0		Clay, Trace Sand and Gravel, gray, very stiff to stiff, (A-6)	SS-5 11.0' - 12.5' 18" Recovery	2 5 6	17.9	3.0 2.4*	
	14.0			SS-6 13.5' - 15.0' 18" Recovery	4 5 8	16.2	3.25 3.9*	
	19.0		* Q_u (load frame)	SS-7 18.5' - 20.0' 18" Recovery	2 4 5	17.1	3.25	
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
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Telephone (630) 595-1111 • Fax (630) 595-1110

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Boring No.: **B-04**
Date: Friday, November 14, 2014
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southwest of Bridge
Logged By: RG
Ground Elevation:
Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Clay, Trace Sand and Gravel, gray, very stiff to stiff, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	24.0			SS-8 23.5' - 25.0' 8" Recovery	4 5 7	16.7	1.5 2.7*	
	29.0			SS-9 28.5' - 30.0' 18" Recovery	3 5 7	23.5	3.0 3.8*	
	34.0			SS-10 33.5' - 35.0' 18" Recovery	3 4 9	21.2	1.75 2.7*	
	39.0		* Q_u (load frame)	SS-11 38.5' - 40.0' 18" Recovery	3 4 6	18.2	0.5 1.7*	
	40.0		END of BORING at 40 Feet					

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-550 ATV Mounted Drill Rig
REVIEWED BY: NPW
Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
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Boring No.: **B-01A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 4

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Blind Drill					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0							
	2.0							
	3.0							
	4.0							
	5.0							
	6.0							
	7.0							
	8.0							
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: 6ft'
Immediately After Drilling: DCI @ 8'

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-01A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Blind Drill					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	21.0							
	22.0							
	23.0							
	24.0							
	25.0							
	26.0							
	27.0							
	28.0							
	29.0							
	30.0							
	31.0							
	32.0							
	33.0							
	34.0							
	35.0							
	36.0							
	37.0							
	38.0							
	39.0							
	40.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: 6ft'
Immediately After Drilling: DCI @ 8'

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-01A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	40.0		Blind Drill					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	41.0							
	42.0							* Qu (load frame)
	43.0							
	44.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)	SS-1 43.0' - 45.0' 18" Recovery	2 5 8	15.6	3.75 3.4*	
	45.0							
	46.0							
	47.0							
	48.0							
	49.0			SS-2 48.5' - 50.5' 18" Recovery	4 6 8	13.4	4.0 4.4*	
	50.0							
	51.0							
	52.0							
	53.0							
	54.0			SS-3 53.5' - 55.0' 18" Recovery	6 8 12	12.8	4.5+ 5.7*	
	55.0							
	56.0							
	57.0							
	58.0							
	59.0			SS-4 58.5' - 60.5' 18" Recovery	4 6 11	17.6	4.5+ 5.7*	
	60.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: 6ft'
Immediately After Drilling: DCI @ 8'

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-01A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Northwest of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	60.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	61.0							
	62.0							
	63.0							* Qu (load frame)
	64.0		Silt, Trace Sand and Gravel, gray, dense, (A-4)	SS-8 63.5' - 65.0' 18" Recovery	6 6 9	21.5	1.75	
	65.0							
	66.0							
	67.0							
	68.0							
	69.0		Clay, Trace Sand and Gravel, gray, hard, (A-6)	SS-9 68.5' - 70.0' 18" Recovery	15 17 18	10.8	4.5+ 6.2*	
	70.0							
	71.0							
	72.0							
	73.0							
	74.0			SS-10 73.5' - 75.0' 18" Recovery	9 10 15	12.9	4.5+ 6.1*	
	75.0		END of BORING at 75.0 feet					
	76.0							
	77.0							
	78.0							
	79.0							
	80.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: 6ft'
Immediately After Drilling: DCI @ 8'

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-03A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0							Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0							
	2.0							
	3.0							
	4.0							
	5.0							
	6.0							
	7.0							
	8.0							
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-03A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 2 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Blind Drill					Unconfined compresive strength of soil samples estimated using a calibrated penetrometer.
	21.0							
	22.0							
	23.0							
	24.0							
	25.0							
	26.0							
	27.0							
	28.0							
	29.0							
	30.0							
	31.0							
	32.0							
	33.0							
	34.0							
	35.0							
	36.0							
	37.0							
	38.0							
	39.0							
	40.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-03A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	40.0		Blind Drill					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	41.0							
	42.0							* Qu (load frame)
	43.0							
	44.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)	SS-1 43.0' - 45.0' 18" Recovery	2 2 5	20.0	1.25 1.9*	
	45.0							
	46.0							
	47.0							
	48.0							
	49.0			SS-2 48.5' - 50.5' 18" Recovery	3 5 7	15.8	3.25 3.4*	
	50.0							
	51.0							
	52.0							
	53.0							
	54.0			SS-3 53.5' - 55.0' 18" Recovery	3 5 9	14.3	4.5+	
	55.0							
	56.0							
	57.0							
	58.0							
	59.0			SS-4 58.5' - 60.5' 18" Recovery	4 12 10	12.9	3.25 3.7*	
	60.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
60 Martin Lane, Elk Grove Village, Illinois 60007
Telephone (630) 595-1111 • Fax (630) 595-1110

Boring No.: **B-03A**
Date: Friday, December 11, 2015
Project: Chestnut Avenue Bridge Improvement
Glenview, Illinois
Project No.: 14G0268
Boring Location: See Boring Location Diagram
Southeast of Bridge
Logged By: RG
Ground Elevation: _____

Soil Boring Prepared for:
The Village of Glenview
Ms. Adriana Web
1370 Shermer Road
Glenview, Illinois 60025

Sheet 1 of 2

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	60.0		Clay, Trace Sand and Gravel, gray, very stiff to hard, (A-6)					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	61.0							
	62.0							
	63.0							* Qu (load frame)
	64.0		Silt, Trace Sand and Gravel, gray, very dense, (A-4)	SS-8 63.5' - 65.0' 18" Recovery	12 14 20	17.3	--	
	65.0							
	66.0							
	67.0							
	68.0							
	69.0			SS-9 68.5' - 70.0' 18" Recovery	3 6 7	23.6	3.0	
	70.0							
	71.0							
	72.0		Hardpan, Trace Sand and Gravel, gray, (A-6)					
	73.0							
	74.0			SS-10 73.5' - 75.0' 18" Recovery	10 14 22	9.3	4.5+ 7.2*	
	75.0		END of BORING at 75.0 feet					
	76.0							
	77.0							
	78.0							
	79.0							
	80.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-75 Truck Mounted Drill Rig
REVIEWED BY: NPW

Water Level (Ft.)
During Drilling: None
Immediately After Drilling: None

FILE NAME = 08415-sht-Str-BoringLogs-02.dgn

BURNS McDONNELL
200 W. ADAMS STREET / SUITE 1600
CHICAGO, IL 60606
P: (312)-223-0920 / F: (312)-223-9664
WEB: WWW.BURNSMCD.COM

USER NAME = jjohnson	DESIGNED -		REVISED -
	DRAWN -		REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED -		REVISED -
PLOT DATE = 2/1/2016	DATE -	1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

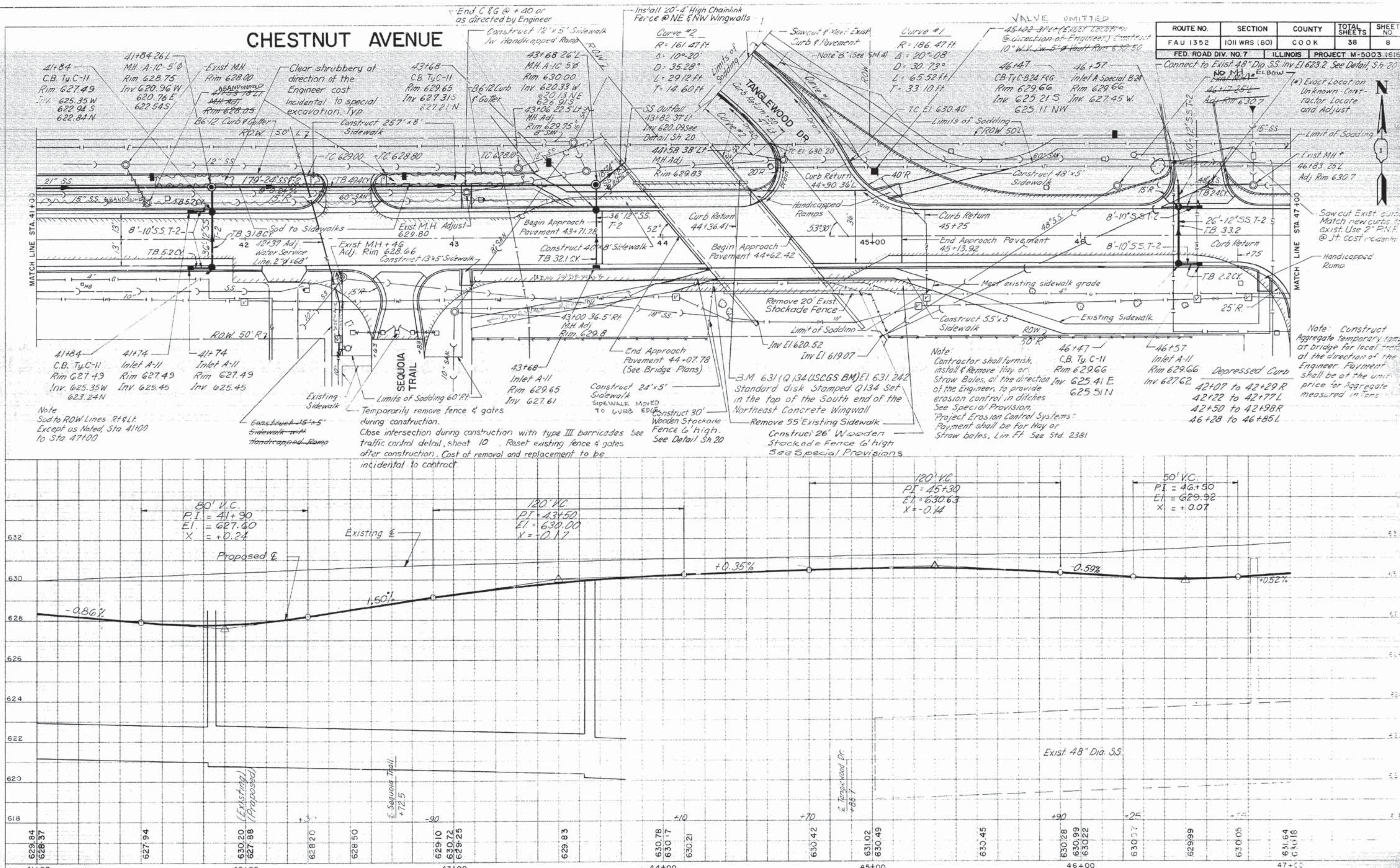
SOIL BORING LOGS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	48
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1352	1011 WRS (60)	COOK	38	8
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT M-5003 (616)		

CHESTNUT AVENUE



BURNS McDONNELL

PLATE 1-SINGLE PLAN AND PROFILE FULL LINE

CONTRACT NO. 61C77

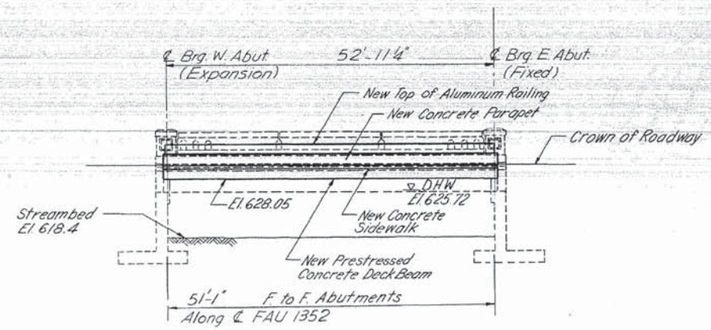
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 1352	1011WRS (80)	COOK	38	22
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT M-5003(616)		

SHEET NO. 1

SHEET 7

Benchmark: Top of Northeast backwall
U.S.C.G.S. Benchmark (Q 134) El. 631.242

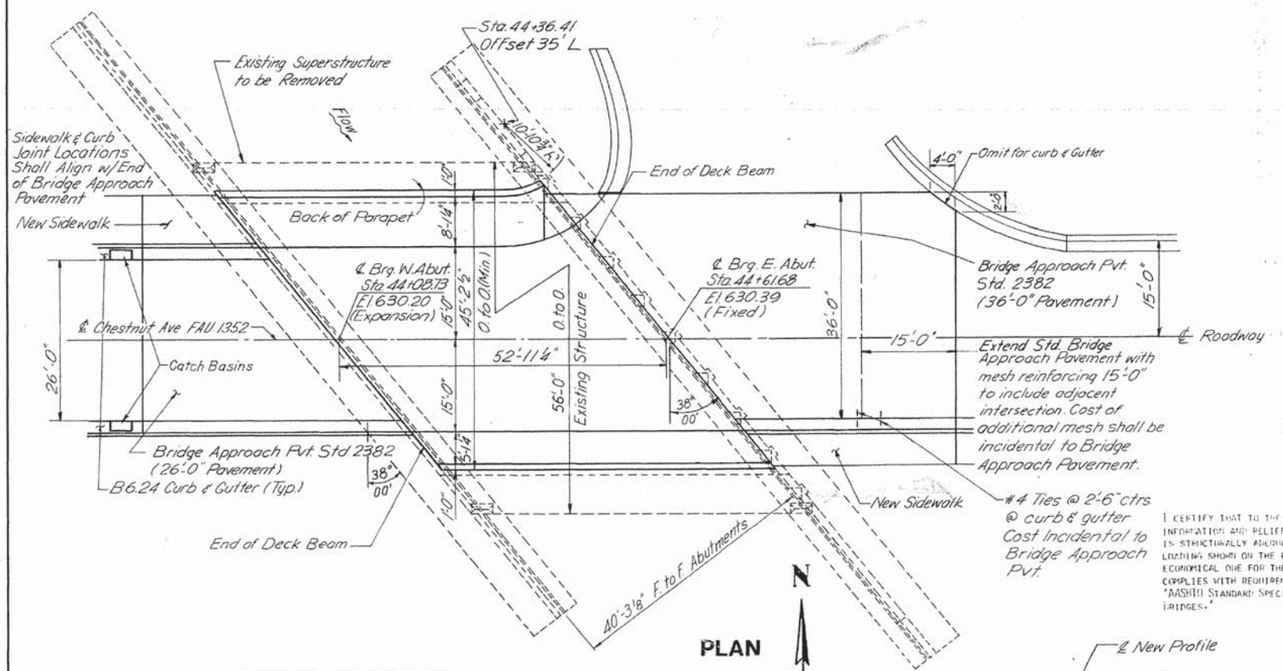
Existing Structure: Reinforced Concrete Deck Girder Superstructure on Concrete Retaining Wall Substructure



ELEVATION

STATION 44+35
REBUILT 1983 BY
VILLAGE OF GLENVIEW
F.A.U. RTE. 1352 SEC. 1011WRS
PROJ. M. 5003(616)
STR. NO. 016-0819

NAME PLATE
(See Standard 2113)
LOCATE NAMEPLATE ON SOUTHWEST CORNER OF BRIDGE STRUCTURE



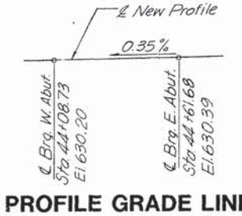
PLAN

WATERWAY INFORMATION

Drainage Area 21.8 Sq. Mi. Low Grade El. 629.28 @ Sta. 41+04

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Hyt. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	30	700	275	397	625.72	0.24	0.24	625.96	625.96
Base	100	1447	275	397	628.33	0.63	0.63	628.96	628.96
Overtopping	120	1620	275	397	628.64	0.64	0.64	629.28	629.28
Max. Calc.	500	3700			631.40				

BURNS McDONNELL

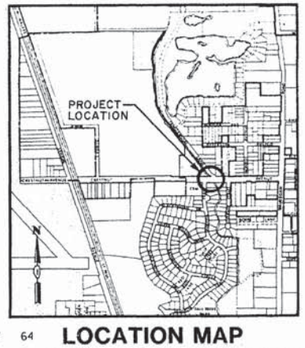


PROFILE GRADE LINE

Not to Scale

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

STATE OF ILLINOIS
RONALD L. ROLSING
81-3531
CHICAGO
REGISTERED STRUCTURAL ENGINEER



LOCATION MAP

GENERAL NOTES

~~SEE PROPOSAL FOR BORING DATA.~~

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53, GRADE 60.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE TOP SURFACE OF THE BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 505.06 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE SURFACE SHALL NOT BE ROUGHENED BY BROOMING. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS.

A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE SYSTEM IS TO BE APPLIED. PROTECTIVE COAT SHALL BE APPLIED TO THE TOP AND INSIDE SURFACES OF ALL CONCRETE PARAPETS AND SIDEWALKS.

DESIGN SPECIFICATIONS

--A.A.S.H.T.O. 1977 Standard Specifications for Highway Bridges and 1978, 1979, 1980, and 1981 Interims

--Standard Specifications for Road and Bridge Construction, State of Illinois (Adopted Oct. 1, 1979)

DESIGN CRITERIA

Loading: HS 20-44
Allow 25#/sq. ft. Future Wearing Surface

DESIGN STRESS

Prestressed Deck Beams

Concrete

f'c = 5,000 psi
f'ci = 4,000 psi

Steel Strand

fs = 270,000 psi
fsi = 189,000 psi

Intermediate Reinforcement

fy = 60,000 psi

Concrete, Cast in Place

f'c = 3,500 psi
fy = 60,000 psi unless otherwise noted.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
BITUMINOUS CONCRETE SURFACE COURSE, CLASS I	TON	28.8		28.8
REMOVAL OF EXISTING SUPERSTRUCTURES	LUMP SUM	1		1
CLASS X CONCRETE	CU. YD.	31.9	22.5	54.4
PRECAST PRESTRESSED CONCRETE DECK BEAMS (21 INCH DEPTH)	SQ. FT.	2449		2449
REINFORCEMENT BARS	POUND		2830	2830
REINFORCEMENT BARS (EPOXY COATED)	POUND	2780		2780
NAME PLATES	EACH	1		1
PORTLAND CEMENT MORTAR FAIRING COURSE	LIN. FT.	762		762
WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	272		272
NEOPRENE EXPANSION JOINT (2")	LIN. FT.	57		57
PROTECTIVE COAT	SQ. YD.	119		119
ALUMINUM RAILING, TYPE L	LIN. FT	105		105

DESIGNED	G.S.P.
DRAWN	P.V.
APPROVED	J.H.O.
JOB NO.	2008
DATE	12-15-83

VILLAGE OF GLENVIEW, ILLINOIS

CHESTNUT AVENUE IMPROVEMENT

GENERAL PLAN AND ELEVATION
BRIDGE OVER W. FORK OF THE N. BRANCH OF THE CHICAGO RIVER

Schumacher and Svoboda, Inc.
Consulting Engineers

SHEET 22

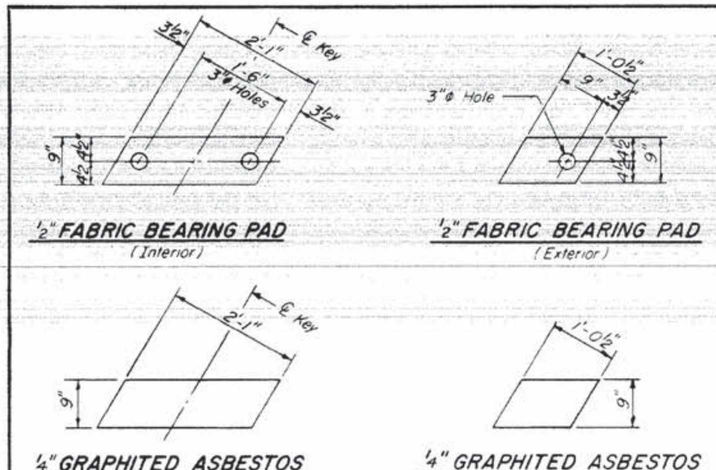
CONTRACT NO. 61C77 SHEET 50 OF 64

FOR INFORMATION ONLY

Contract # 61C77 Sheet 50 of 64

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2
SHEETS 7

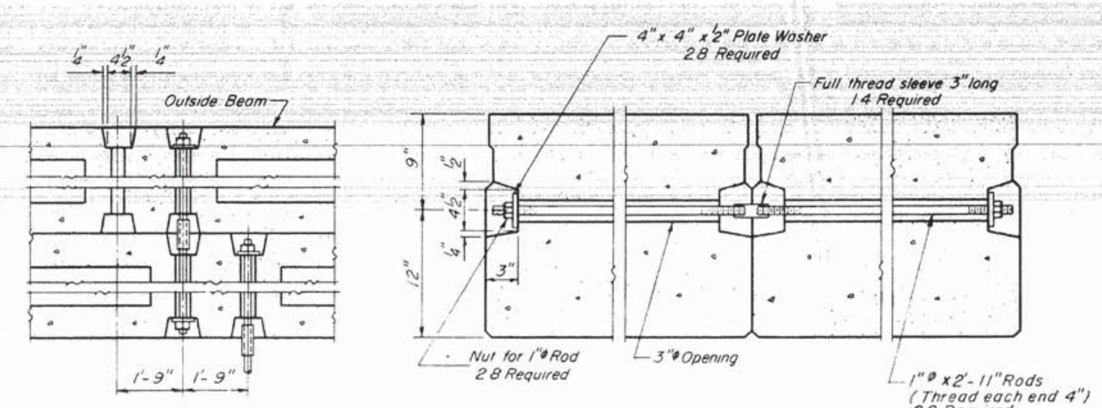


½" FABRIC BEARING PAD (Interior)

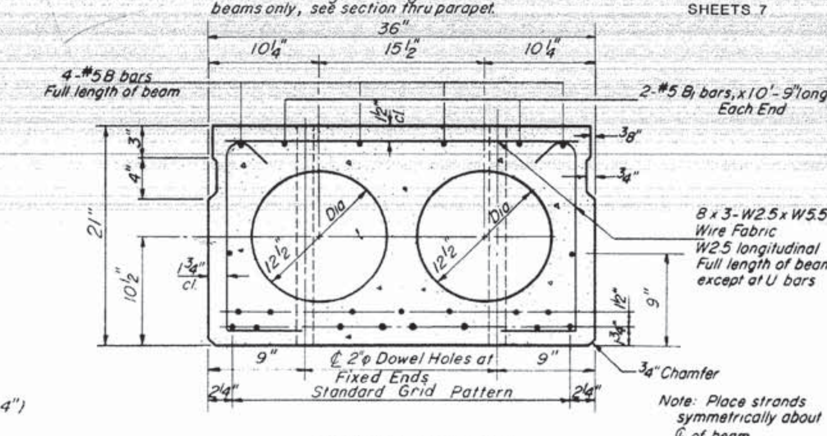
½" FABRIC BEARING PAD (Exterior)

¼" GRAPHITED ASBESTOS BEARING PAD (Interior)

¼" GRAPHITED ASBESTOS BEARING PAD (Exterior)

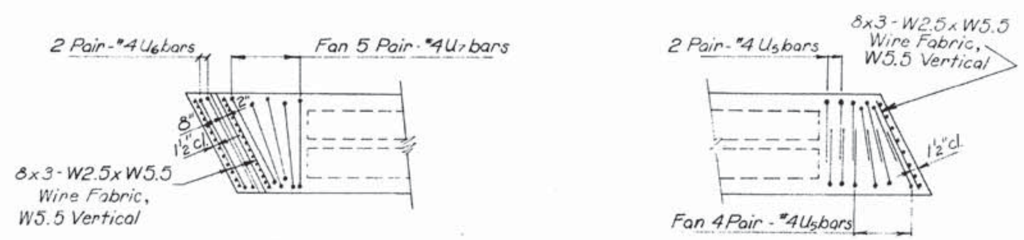


TYPICAL TRANSVERSE TIE ASSEMBLY



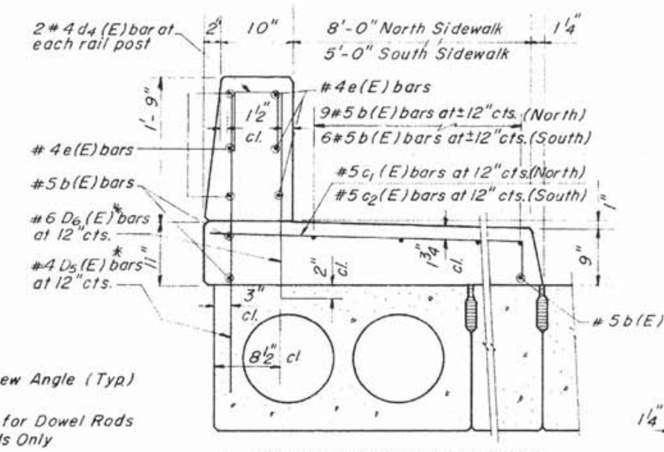
TYPICAL SECTION

17 - ½"φ Strands, Each Strand Stressed to 28,900 Lbs
8 - Strands 1¾" up, 7 - Strands 3¼" up, 2 - Strands 9" up

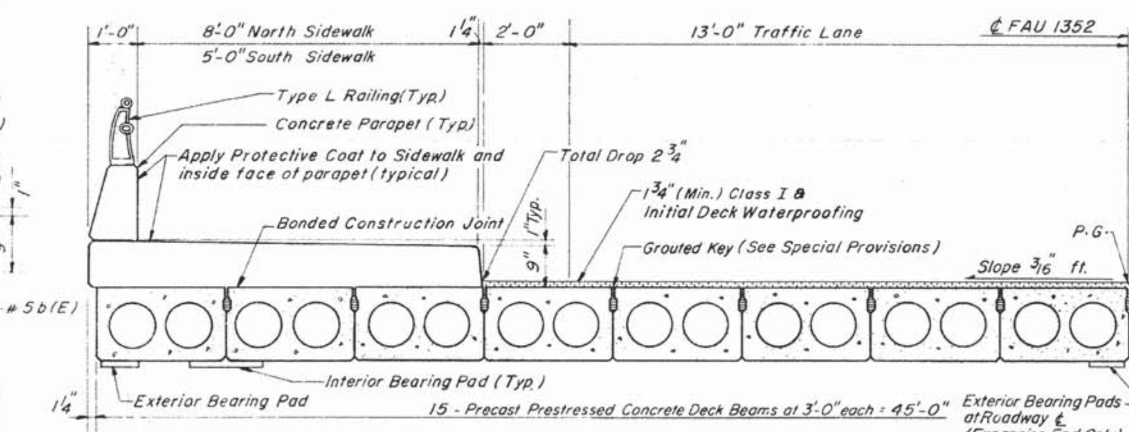


END PLAN (Expansion)

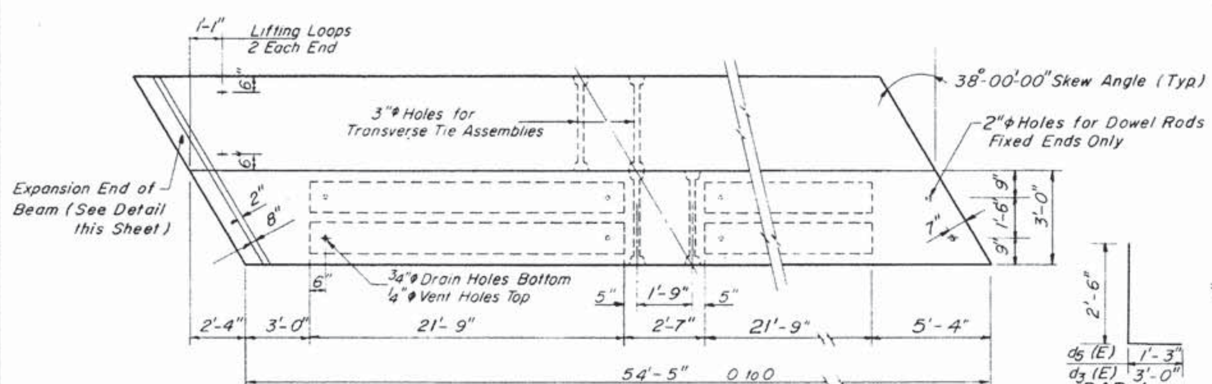
END PLAN (Fixed)



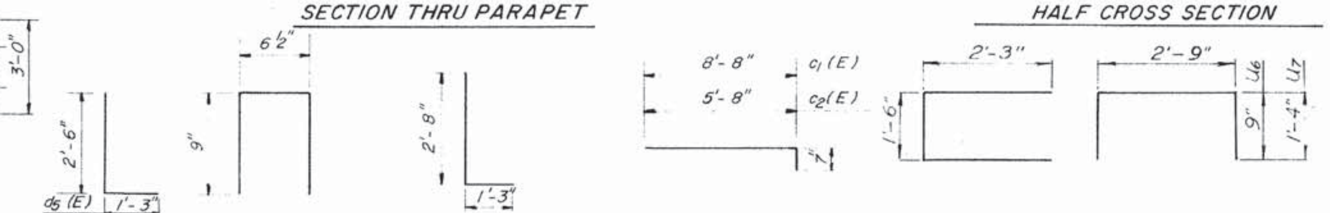
SECTION THRU PARAPET



HALF CROSS SECTION



PLAN



BAR d_3(E)
BAR d_5(E)

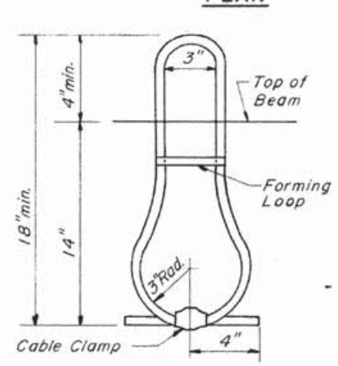
BAR d_4(E)

BAR D_6(E)

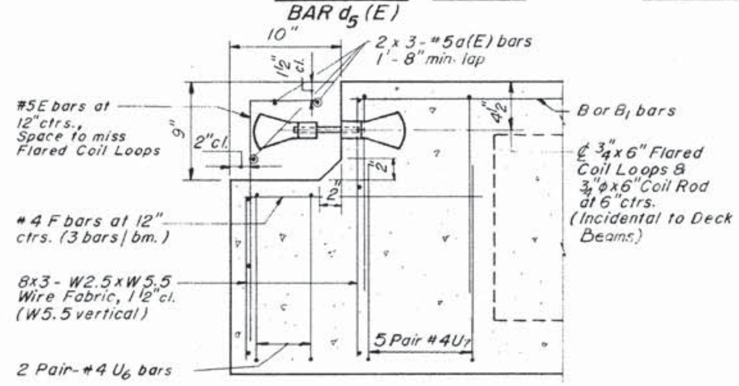
BARS c_1(E) c_2(E)

BAR U_5

BAR U_6, U_7



LIFTING LOOP DETAIL



END OF BEAM (EXPANSION END)

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq in.

Lifting loops shall be ⅝" diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs.

The 1"φ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil and other bond breaking materials prior to beam shipment. Cleaning shall be done by sand blasting the keyway areas from the top of the beams to the bottom edge of the key.

* Bars D_5(E) and D_6(E) shall conform to AASHTO M-31 or M-53 except that the minimum yield strength shall not be less than 33 ksi nor more than 45 ksi.

BILL OF MATERIAL

Bar	No	Size	Length	Shape
a (E)	6	#5	31'-1"	——
b(E)	38	#5	28'-0"	——
b_1 (E)	2	#5	5'-6"	——
c_1(E)	55	#5	9'-3"	——┐
c_2(E)	55	#5	6'-3"	——┐
c_3(E)	6	#6	4'-0"	——
d_4 (E)	24	#4	2'-0"	⊓
d_3(E)	8	#4	5'-6"	└
e(E)	36	#4	18'-0"	——
d_5 (E)	8	#6	3'-9"	└
P.P.C. Deck Beam	(21")		Sq. Ft.	2449
Reinforcement Bars (Epoxy Coated)			Pound	2780
Class X Concrete			Cu. Yd.	31.9

VILLAGE OF GLENVIEW, ILLINOIS

CHESTNUT AVENUE IMPROVEMENT

SUPERSTRUCTURE

DESIGNED	CHECKED	DRAWN	CHECKED

BURNS McDONNELL

JOB NO.	DESIGNED	DRAWN	DATE	APPROVED
2008	R.R.	P.V.	12-15-83	J.O.

Schumacher and Svoboda, Inc.
Consulting Engineers
550 West Fulton Street, Chicago, Illinois 60606

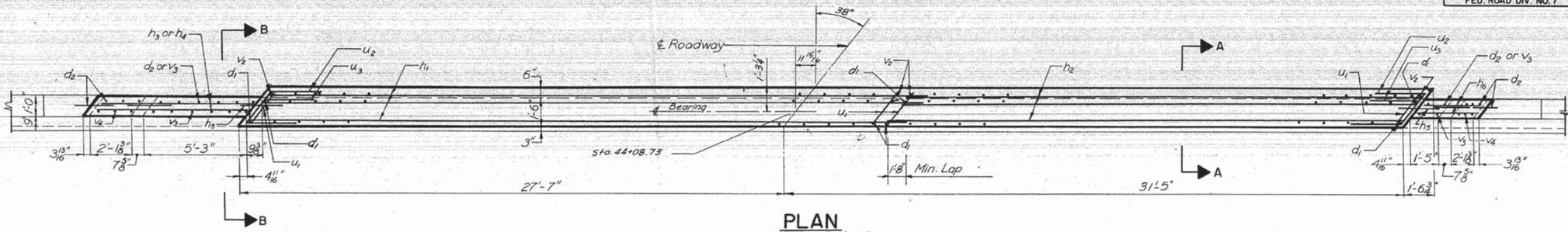
SHEET 23

PD-3-R

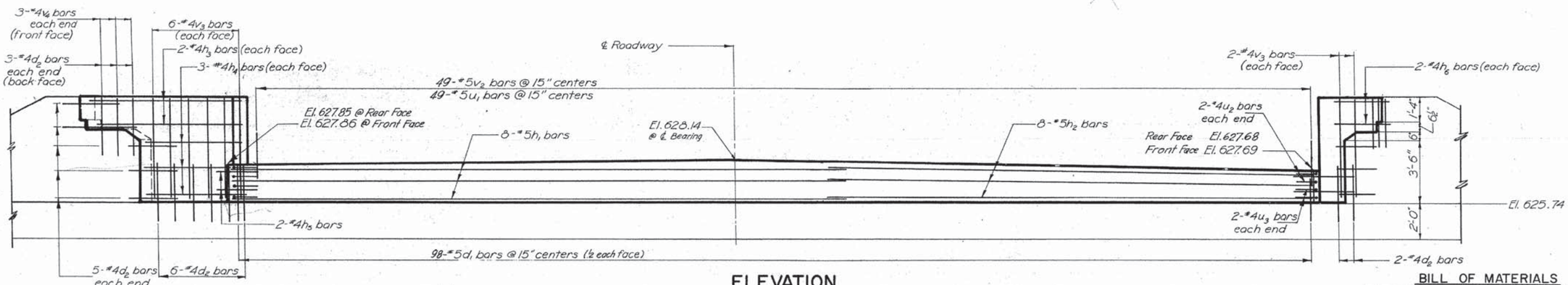
II/4.23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 1352	10111WRS (80)	COOK	38	25
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT M-5003(616)		

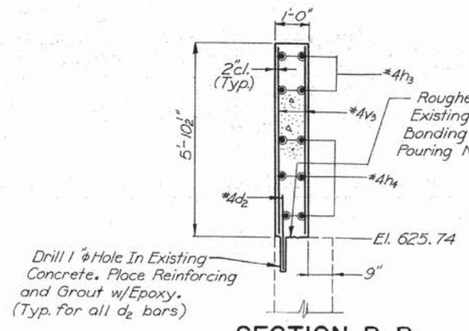
SHEET NO 4
SHEETS 7



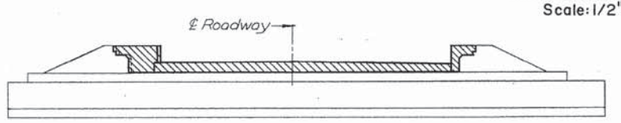
PLAN
Scale: 3/8" = 1'-0"



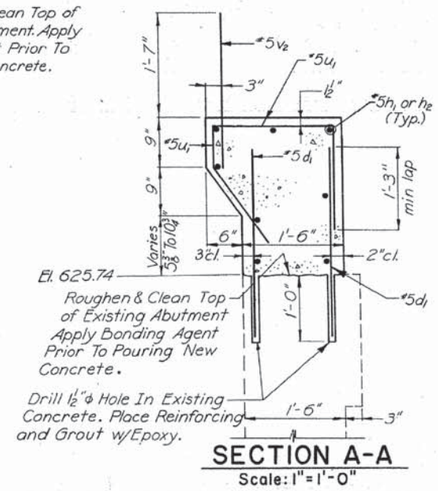
ELEVATION
Scale: 3/8" = 1'-0"



SECTION B-B
Scale: 1/2" = 1'-0"



KEY ELEVATION
NTS



SECTION A-A
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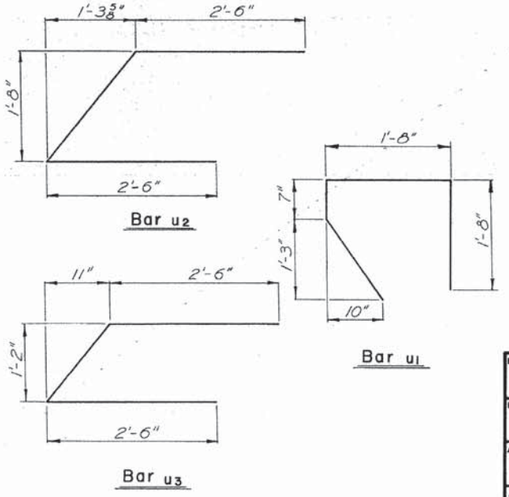


BILL OF MATERIALS

Bar	No.	Size	Length	Shape
d_1	98	#5	2'-10"	—
d_2	24	#4	2'-8"	—
h_1	8	#5	33'-10"	—
h_2	8	#5	26'-5"	—
h_3	4	#4	7'-6"	—
h_4	6	#4	5'-0"	—
h_5	4	#4	3'-0"	—
h_6	4	#4	3'-10"	—
u_1	49	#5	5'-5"	⌐
u_2	4	#4	7'-2"	⌐
u_3	4	#4	6'-6"	⌐
v_2	49	#5	2'-5"	—
v_3	16	#4	5'-6"	—
v_4	6	#4	1'-8"	—
Reinforcement Bars			Pound	1400
Class X Concrete			Cu. Yd.	10.1

DESIGNED	R.R.
DRAWN	P.V.
APPROVED	J.O.
JOB NO.	2008
DATE	12-15-83

VILLAGE OF GLENVIEW, ILLINOIS

CHESTNUT AVENUE IMPROVEMENT

WEST ABUTMENT

Schumacher and Svoboda, Inc.
Consulting Engineers
550 West Fulton Street • Chicago Illinois 60606 •

SHEET 25

BURNS McDONNELL

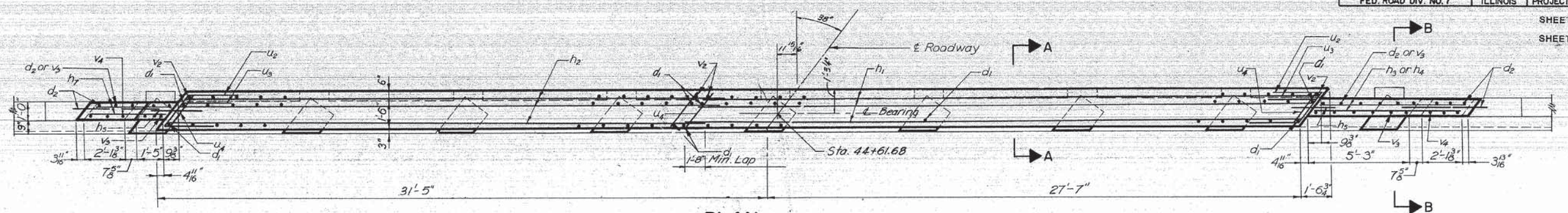
CONTRACT NO. 61C77 SHEET 52 OF 64

FOR INFORMATION ONLY

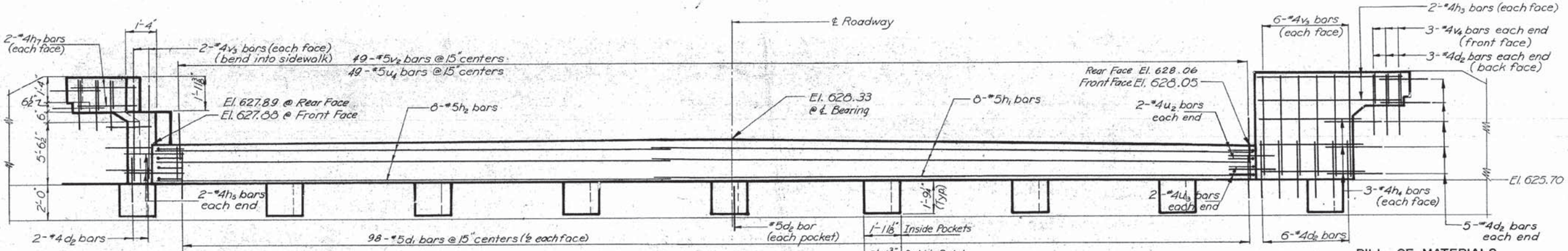
Contract # 61C77 Sheet 52 of 64

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 1352	10III WRS (80)	COOK	38	26
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT M-5003(616)		

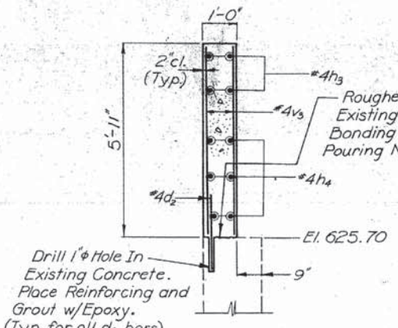
SHEET NO. 5
SHEETS 7



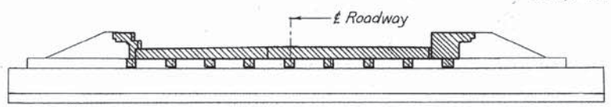
PLAN
Scale: 3/8"=1'-0"



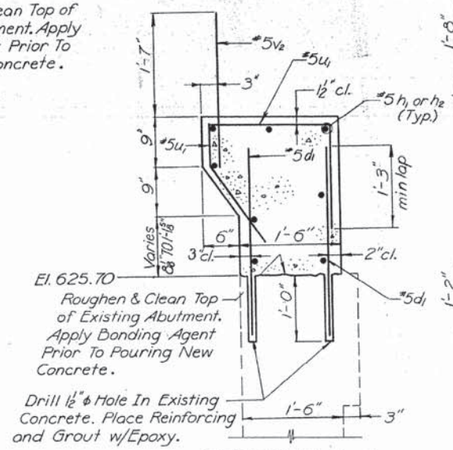
ELEVATION
Scale: 3/8"=1'-0"



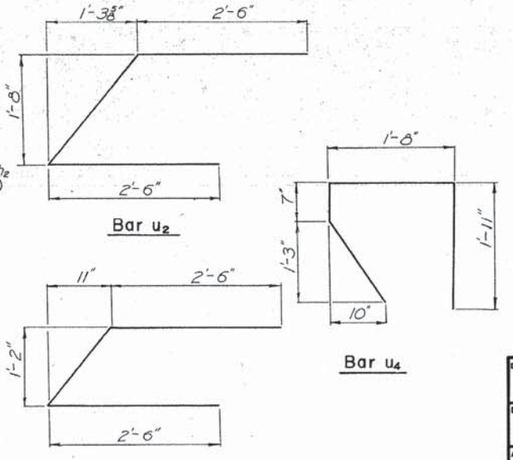
SECTION B-B
Scale: 1/2" = 1'-0"



KEY ELEVATION
NTS



SECTION A-A
Scale: 1" = 1'-0"



BILL OF MATERIALS

Bar	No.	Size	Length	Shape
d_1	107	#5	2'-10"	
d_2	24	#4	2'-8"	
h_1	8	#5	33'-10"	
h_2	8	#5	26'-5"	
h_3	4	#4	7'-6"	
h_4	6	#4	5'-0"	
h_5	4	#4	3'-0"	
h_7	4	#4	2'-6"	
u_2	4	#4	7'-2"	
u_3	4	#4	6'-6"	
u_4	49	#5	5'-8"	
v_2	49	#5	2'-5"	
v_3	16	#4	5'-6"	
v_4	6	#4	1'-8"	
Reinforcement Bars			Pound	1430
Class X Concrete			Cu.Yd.	12.4

DESIGNED	R.R.
DRAWN	P.V.
APPROVED	J.O.
JOB NO.	2008
DATE	12-15-83

VILLAGE OF GLENVIEW, ILLINOIS

CHESTNUT AVENUE IMPROVEMENT

EAST ABUTMENT

Schumacher and Svoboda, Inc.
Consulting Engineers
150 West Fulton Street • Chicago Illinois 60606

SHEET 26

BURNS McDONNELL

CONTRACT NO. 61C77 SHEET 53 OF 64

FOR INFORMATION ONLY

Contract # 61C77

Sheet 53 of 64

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 1352	1011 WRS (80)	COOK	38	27
FED. ROAD DIV. NO. 7		ILLINOIS	PROJECT M-5003(616)	

SHEET NO. 6
SHEETS 7

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Joint Size	"C" at 50°F	"D" at 50°F
2	2"	1½" min.
2½	2½"	1¾" min.
4	3"	2½" min.

INSTALLATION NOTES

Use anchor blocks and continuous seal as anchor bolt location templates.

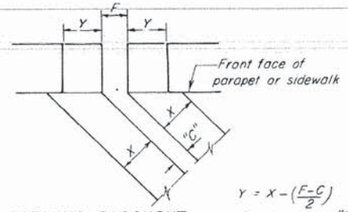
1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

NOTE A - Maximum spacing of anchor bolts shall be 12" centers

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

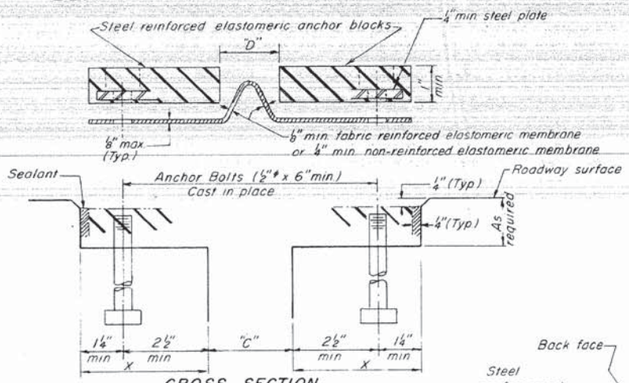
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



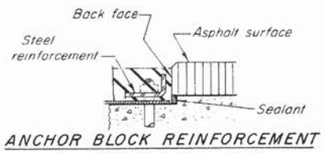
FORMING BLOCKOUT SKETCH

$Y = X - \left(\frac{F-C}{2}\right)$

For dimension "F" see sheet # 3



CROSS SECTION



ANCHOR BLOCK REINFORCEMENT with ASPHALT SURFACE

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions.

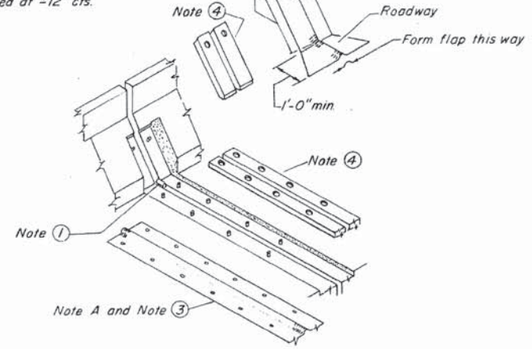
The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

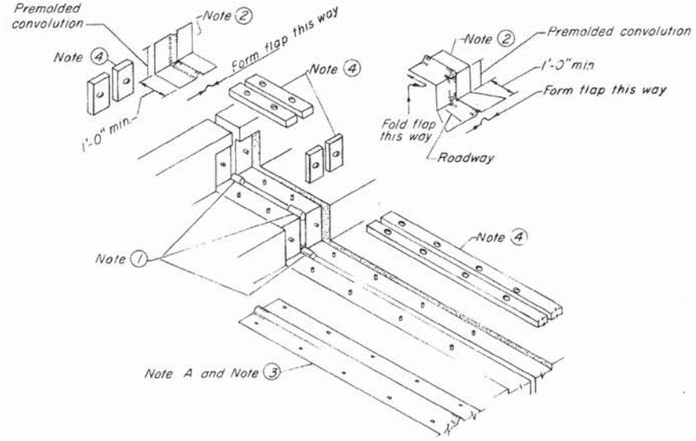
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

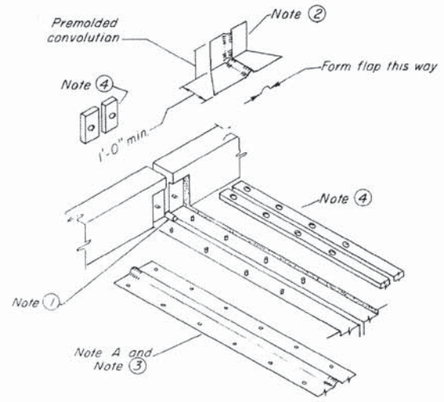
The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.



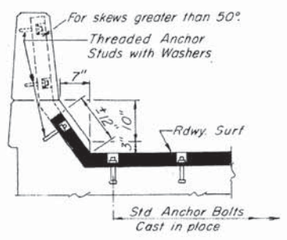
AT PARAPET



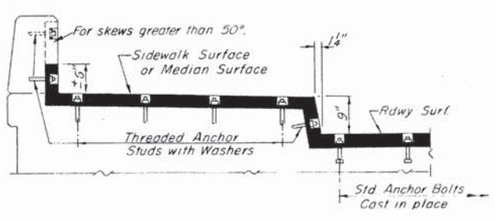
AT SIDEWALK or MEDIAN



AT WALL

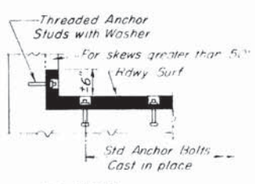


AT PARAPET



AT SIDEWALK or MEDIAN

TYPICAL END TREATMENTS



AT WALL

BILL OF MATERIALS		
Item	Unit	Quantity
Neoprene Expansion Joint, 2"	Lin Ft	57

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EJ-CS 2- BURNS McDONNELL

DESIGNED R.R.	VILLAGE OF GLENVIEW, ILLINOIS
DRAWN P.V.	CHESTNUT AVENUE IMPROVEMENT
APPROVED J.O.	2" NEOPRENE EXPANSION JOINT
JOB NO. 2008	
DATE 12-15-83	Schumacher and Svoboda, Inc. Consulting Engineers 550 West Fulton Street • Chicago Illinois 60606 • SHEET 27

CONTRACT NO. 61C77 SHEET 54 OF 64

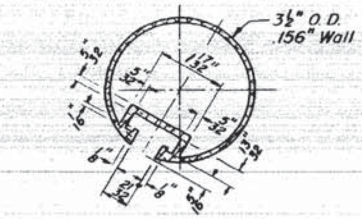
Contract # 61C77 Sheet 54 of 64

FOR INFORMATION ONLY

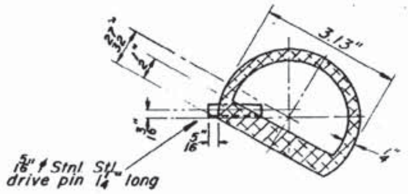
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 1352	1011 WRS (80)	COOK	38	28
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT M-5003 (616)		

SHEET NO. 7
SHEETS 7

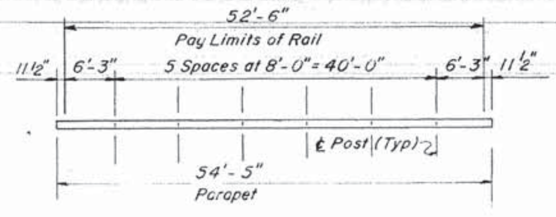
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THRU TOP RAIL

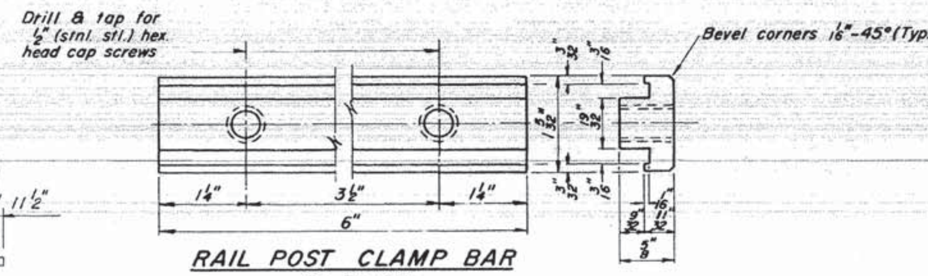


SECTION THRU SPLICE
TOP RAIL

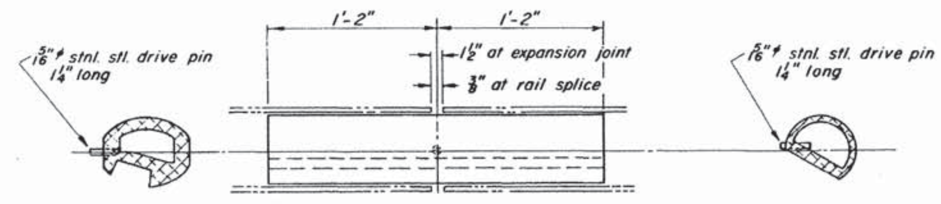


RAIL POST SPACING

Note: North Rail shall follow curve of parapet at east end of bridge



RAIL POST CLAMP BAR
For Top Rail



RAIL SPLICE

NOTES:

All Posts shall be normal to parapet.

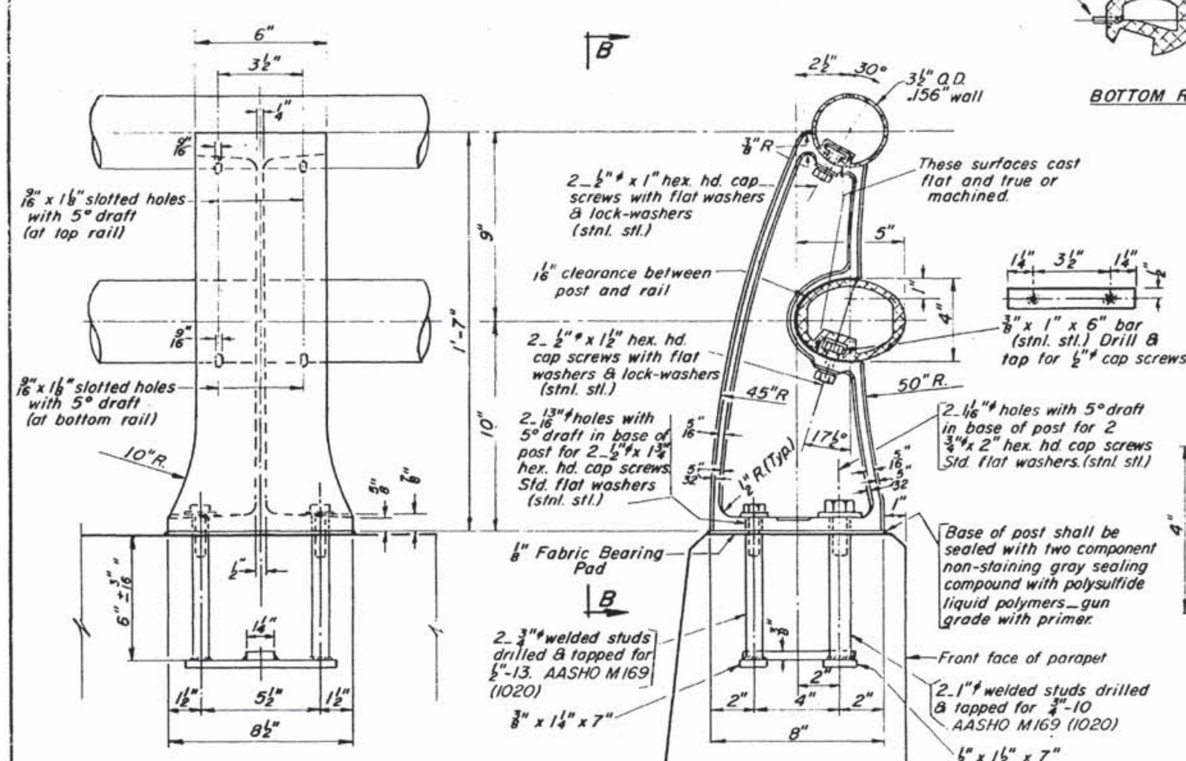
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

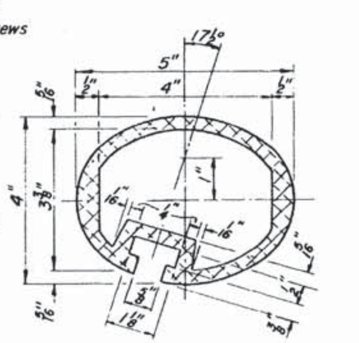
Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade – high spots shall be ground and low spots shimmed.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for ALUMINUM RAILING, TYPE L.

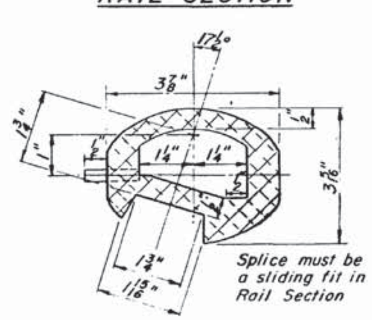
Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10 % in 2 inches.



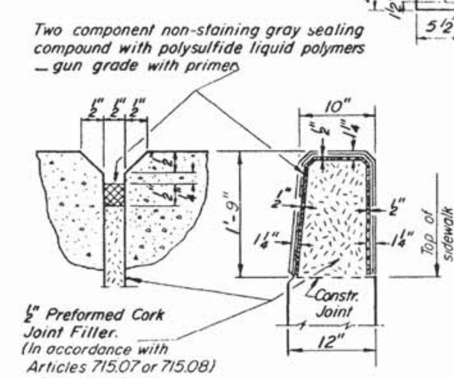
RAIL POST DETAILS



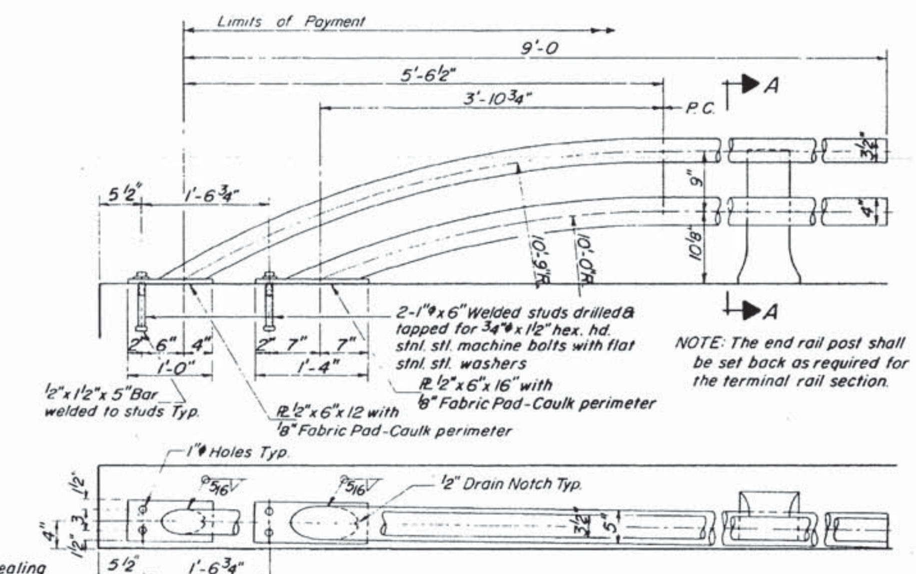
SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE



PARAPET JOINT DETAIL



RAIL TERMINAL SECTION

BILL of MATERIALS

Item	Unit	Quantity
ALUMINUM RAILING, TYPE L	Lin. Ft.	105

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

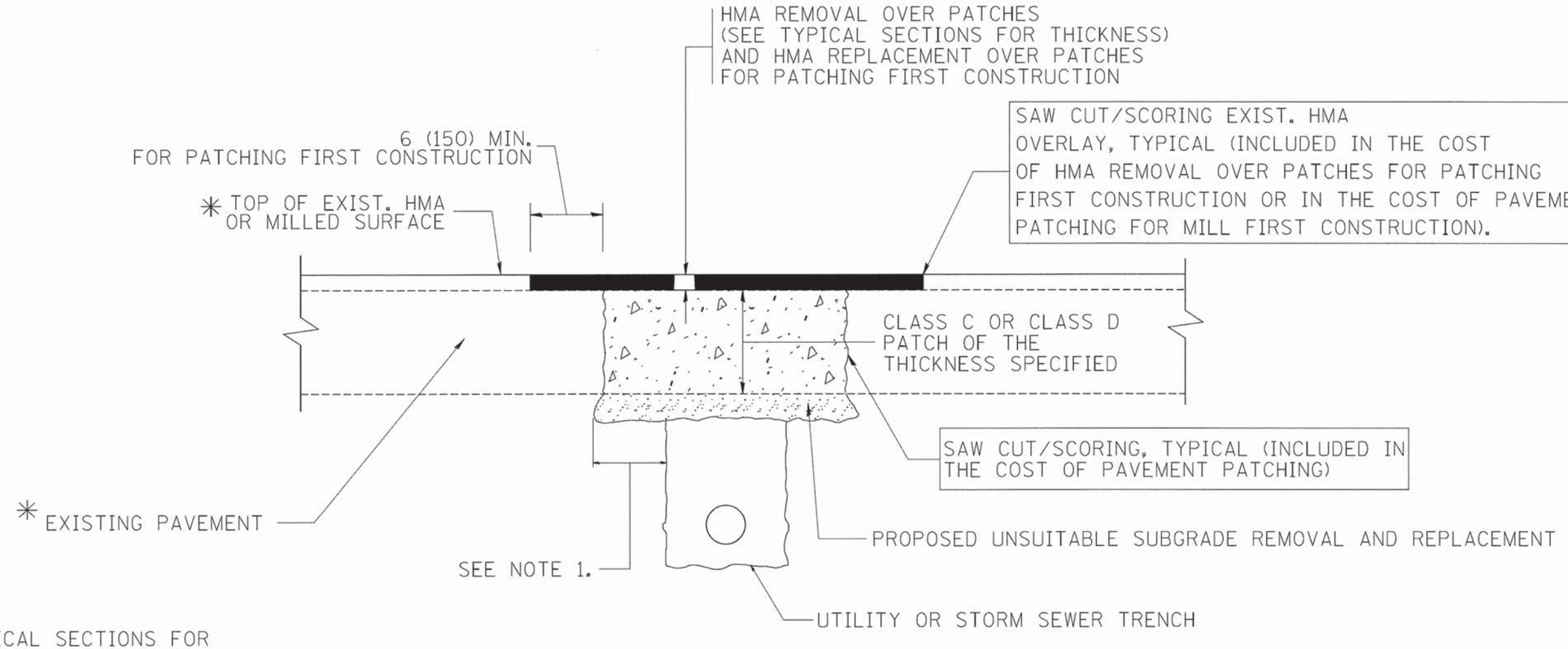
R-20 BURNS McDONNELL

CONTRACT NO. 61C77 SHEET 55 OF 64

DESIGNED R.R.	VILLAGE OF GLENVIEW, ILLINOIS
DRAWN P.V.	CHESTNUT AVENUE IMPROVEMENT
APPROVED J.O.	TYPE L ALUMINUM RAILING
JOB NO. 2008	
DATE 12-15-83	Schumacher and Svoboda, Inc. Consulting Engineers 550 West Fulton Street • Chicago, Illinois 60606 — SHEET 28

FOR INFORMATION ONLY

Contract # 61C77 Sheet 55 of 64



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

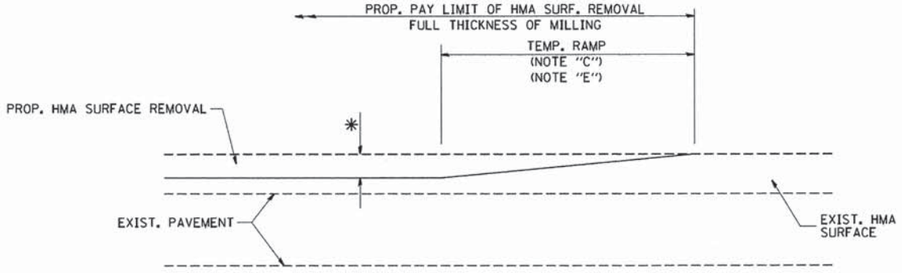
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

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

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

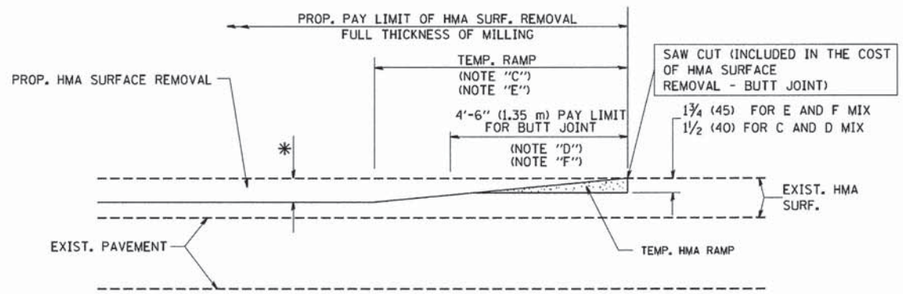
FILE NAME = c:\projects\distsd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07					1352	13-00185-00-BR	COOK	64	56
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07					BD400-04 (BD-22)		CONTRACT NO. 61C77		
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

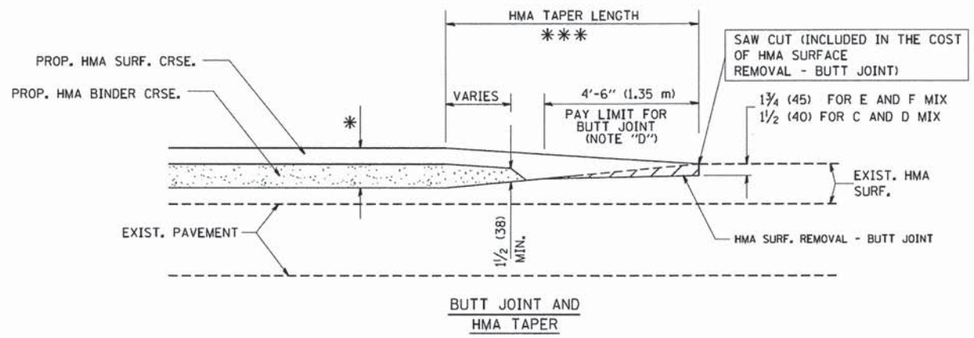


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

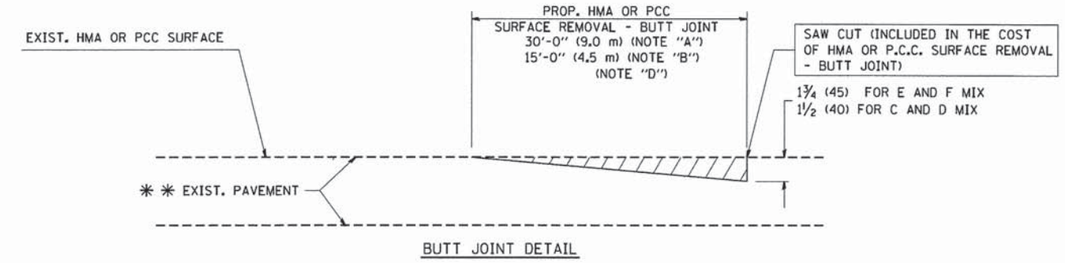
OPTION 2

TYPICAL TEMPORARY RAMP

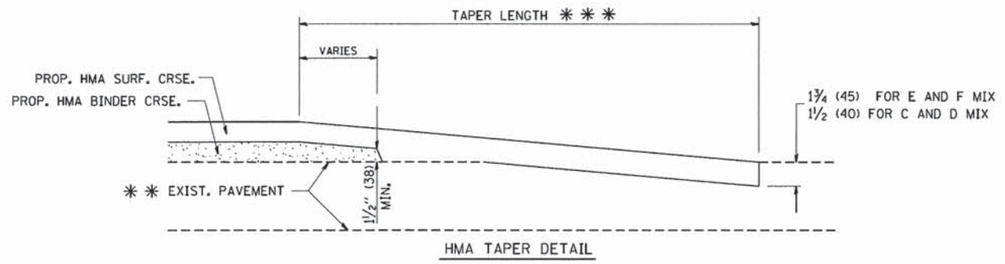


BUTT JOINT AND HMA TAPER

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.

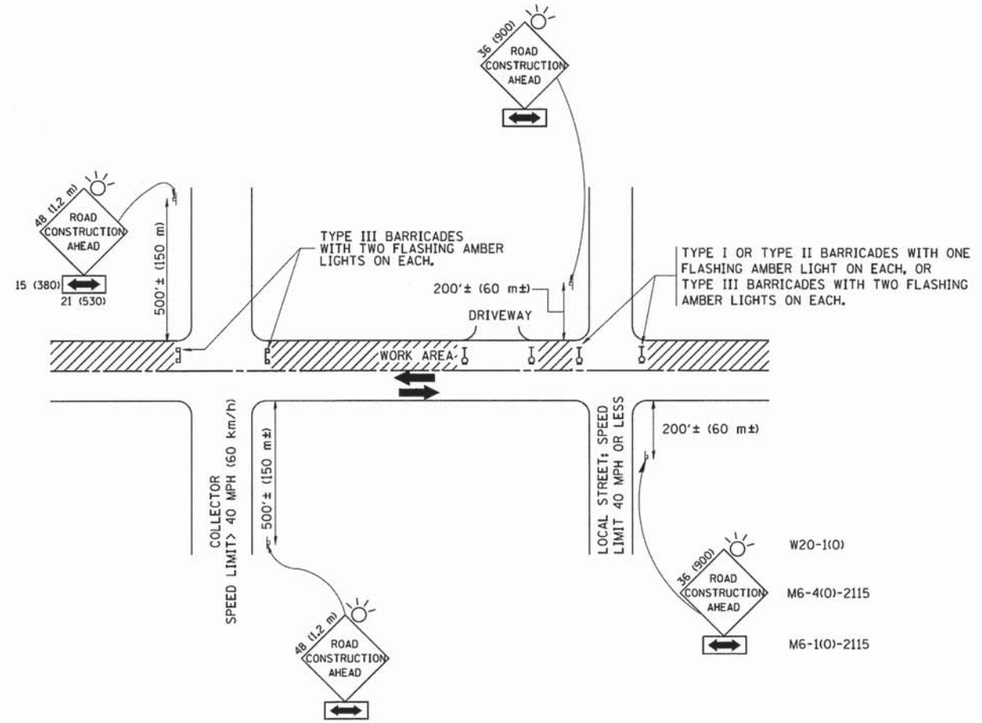
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	57
	BD400-05 BD32	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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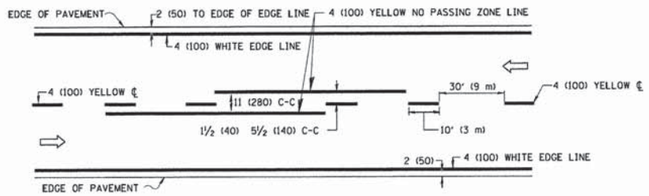
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

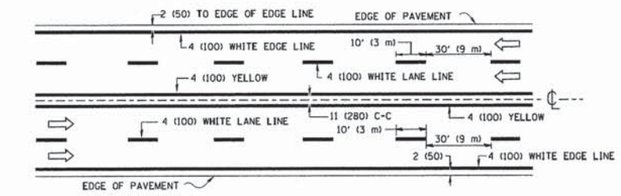
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

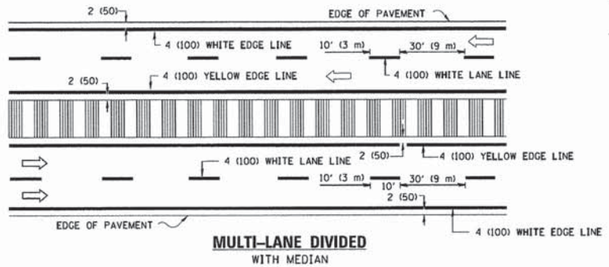
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	58
	TC-10	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2–LANE ROADWAY

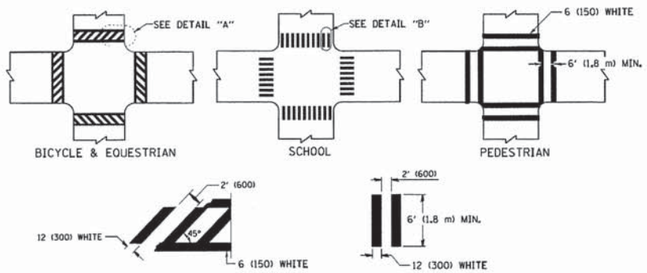


MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

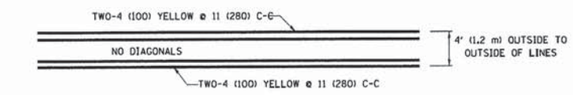
TYPICAL LANE AND EDGE LINE MARKING



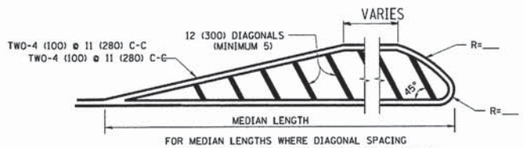
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



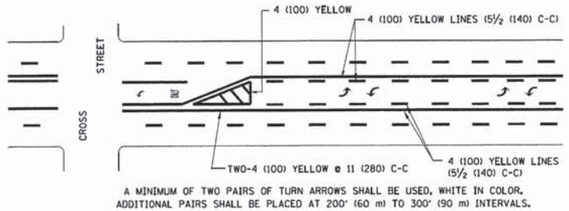
4' (1.2 m) WIDE MEDIANS ONLY



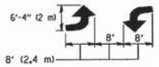
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

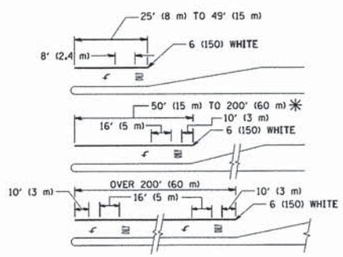


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

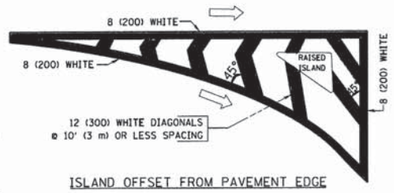


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

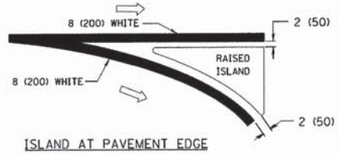
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

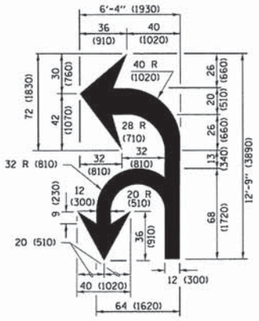


ISLAND OFFSET FROM PAVEMENT EDGE

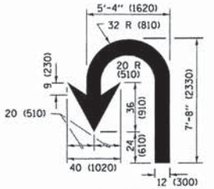


ISLAND AT PAVEMENT EDGE

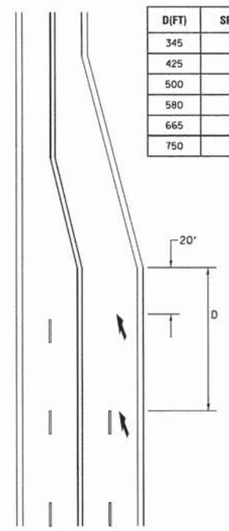
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

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 FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 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 MEDIANS IN YELLOW
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; 5½ (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 ⌀ 6 (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.
GORE 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 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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.

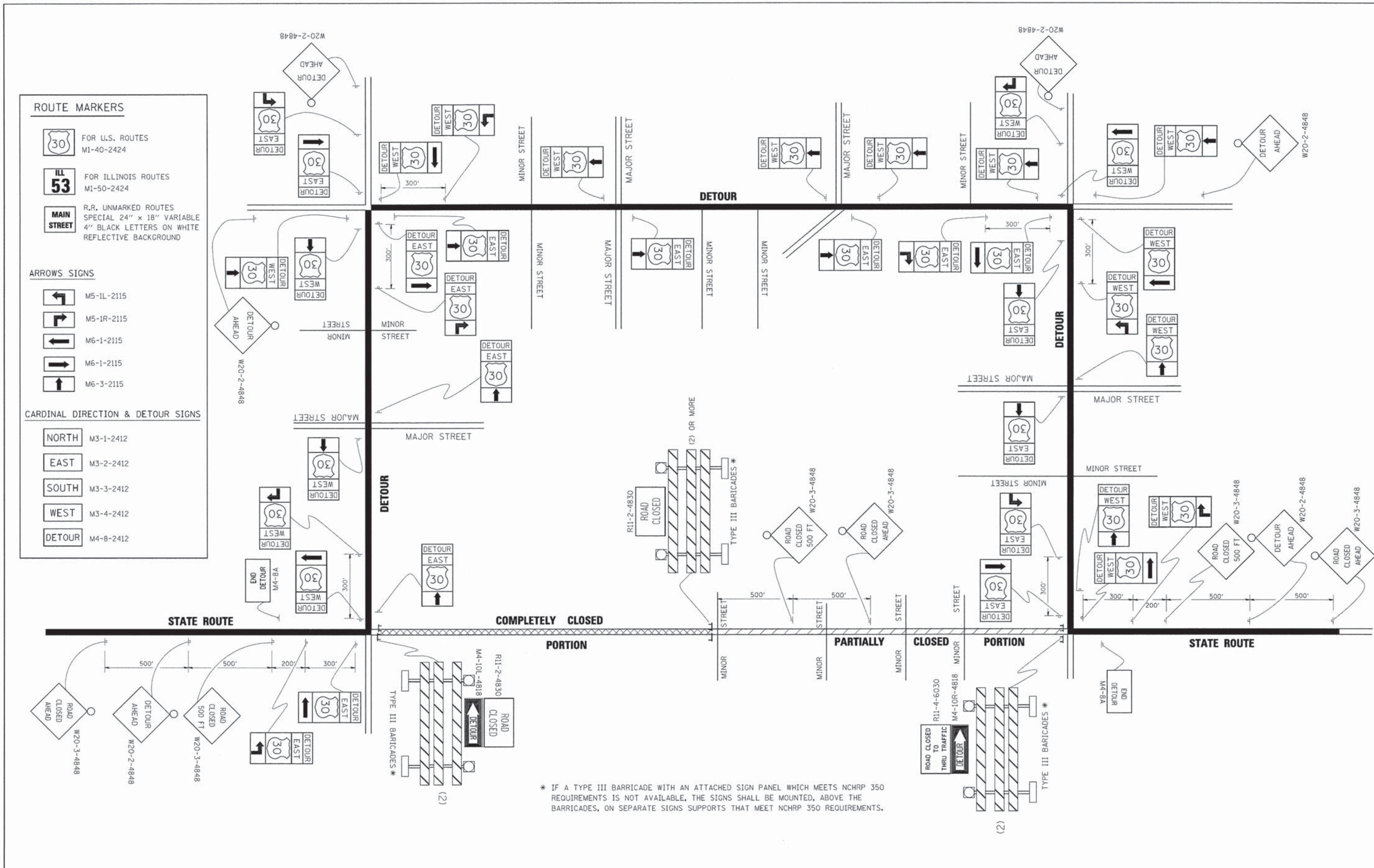
FILE NAME = p:\\IL084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist\ORAWN\CADData\CADsheets\tcl3.dgn Default	USER NAME = liszakrf PLOT SCALE = 50.000 ' / in. PLOT DATE = 12/21/2015	DESIGNED - EVERS CHECKED - DATE - 03-19-90	REVISED -T. RAMMACHER 10-27-94 REVISED - C. JUCIUS 09-09-09 REVISED - C. JUCIUS 07-01-13 REVISED - C. JUCIUS 12-21-15

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	59
	TC-13	CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\tc21.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

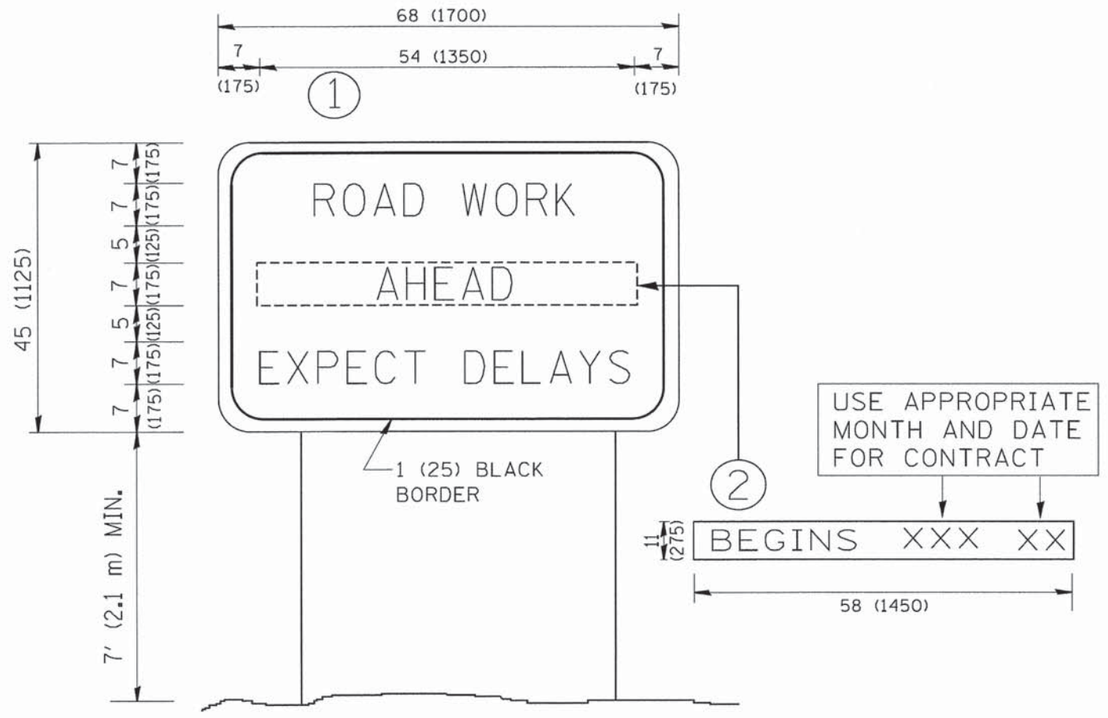
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING
FOR CLOSING STATE HIGHWAYS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	60
	TC-21	CONTRACT NO. 61C77		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	61
	TC-22	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' x 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

FILE NAME = c:\pw_work\pwidot\gaglianobt\d0108315\tc26.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
	PLOT SCALE = 50.000 ' / in.	DRAWN -	REVISED -
	PLOT DATE = 12/13/2012	CHECKED -	REVISED -
		DATE -	REVISED -

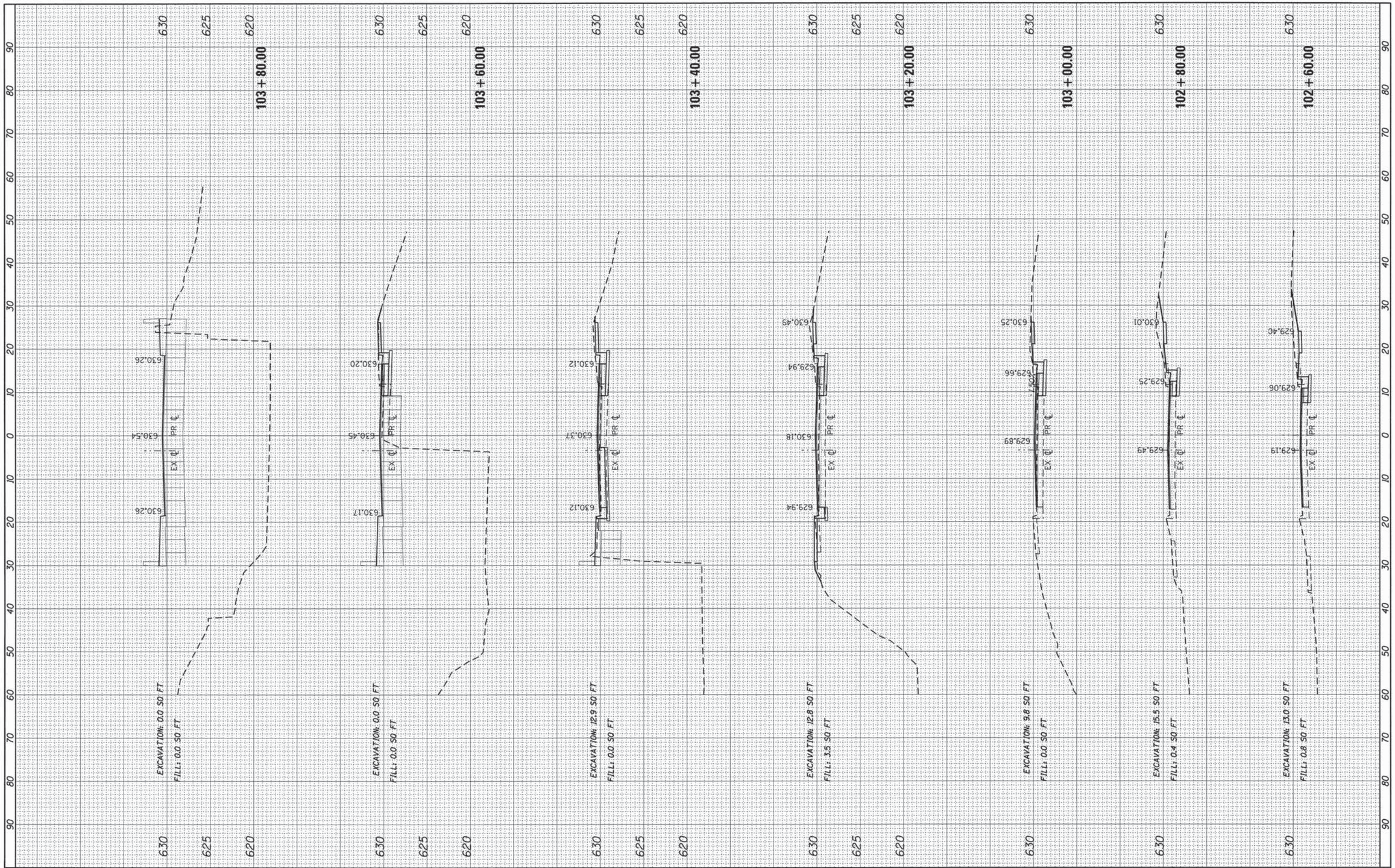
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00185-00-BR	COOK	64	62
	TC-26	CONTRACT NO. 61C77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

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		DRAWN - MAP	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED - RMG	REVISED -
Default	PLOT DATE = 2/2/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

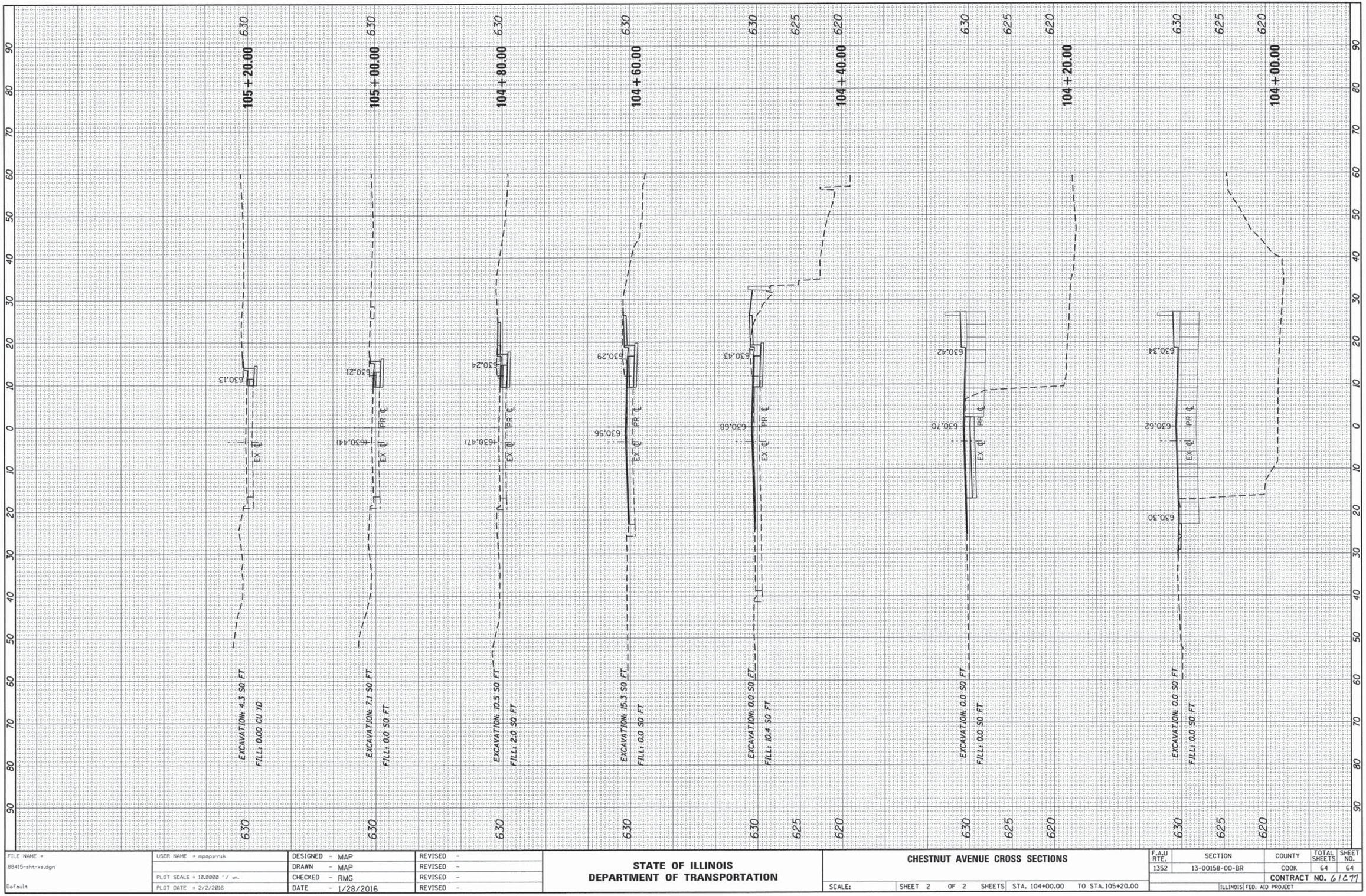
CHESTNUT AVENUE CROSS SECTIONS

SCALE: | SHEET 1 OF 2 SHEETS | STA. 102+60.00 TO STA. 103+80.00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00158-00-BR	COOK	64	63
		CONTRACT NO. 61C79		
		ILLINOIS FED. AID PROJECT		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		



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		DRAWN - MAP	REVISED -
Default	PLOT SCALE = 10.0000 ' / in.	CHECKED - RMG	REVISED -
	PLOT DATE = 2/2/2016	DATE - 1/28/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHESTNUT AVENUE CROSS SECTIONS

SCALE: | SHEET 2 OF 2 SHEETS | STA. 104+00.00 TO STA. 105+20.00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1352	13-00158-00-BR	COOK	64	64
		CONTRACT NO. 61C77		
	ILLINOIS FED. AID PROJECT			