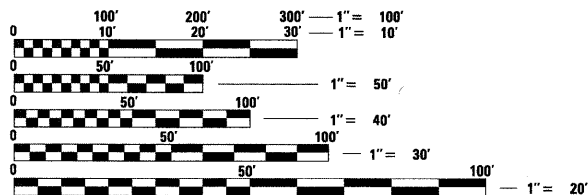


**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES AND IDOT STANDARDS
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5	ALIGNMENT, TIES AND BENCHMARKS - WHITEHALL AVENUE
6	ALIGNMENT, TIES AND BENCHMARKS - PRATER AVENUE
7	EXISTING CONDITIONS AND REMOVAL PLAN - WHITEHALL AVENUE
8	PROPOSED ROADWAY PLAN AND PROFILE - WHITEHALL AVENUE
9	EROSION CONTROL AND STAGING PLAN - WHITEHALL AVENUE
10	EROSION CONTROL AND STAGING PLAN - PRATER AVENUE
11	EXISTING AND PROPOSED LIGHTING IMPROVEMENT PLAN
12	LIGHTING DETAILS
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14	GENERAL NOTES
15	TOP OF DECK ELEVATIONS I
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19	SUPERSTRUCTURE DETAILS
20	DIAPHRAGM DETAILS
21	ALUMINUM RAILING, TYPE L
22	FRAMING PLAN DETAILS
23	STEEL DETAILS
24	EXISTING ABUTMENT
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27	BRIDGE APPROACH SLAB DETAILS 2
28	GENERAL PLAN AND ELEVATION - PRATER AVENUE
29	CONSTRUCTION DETAILS
30	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
31	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.



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

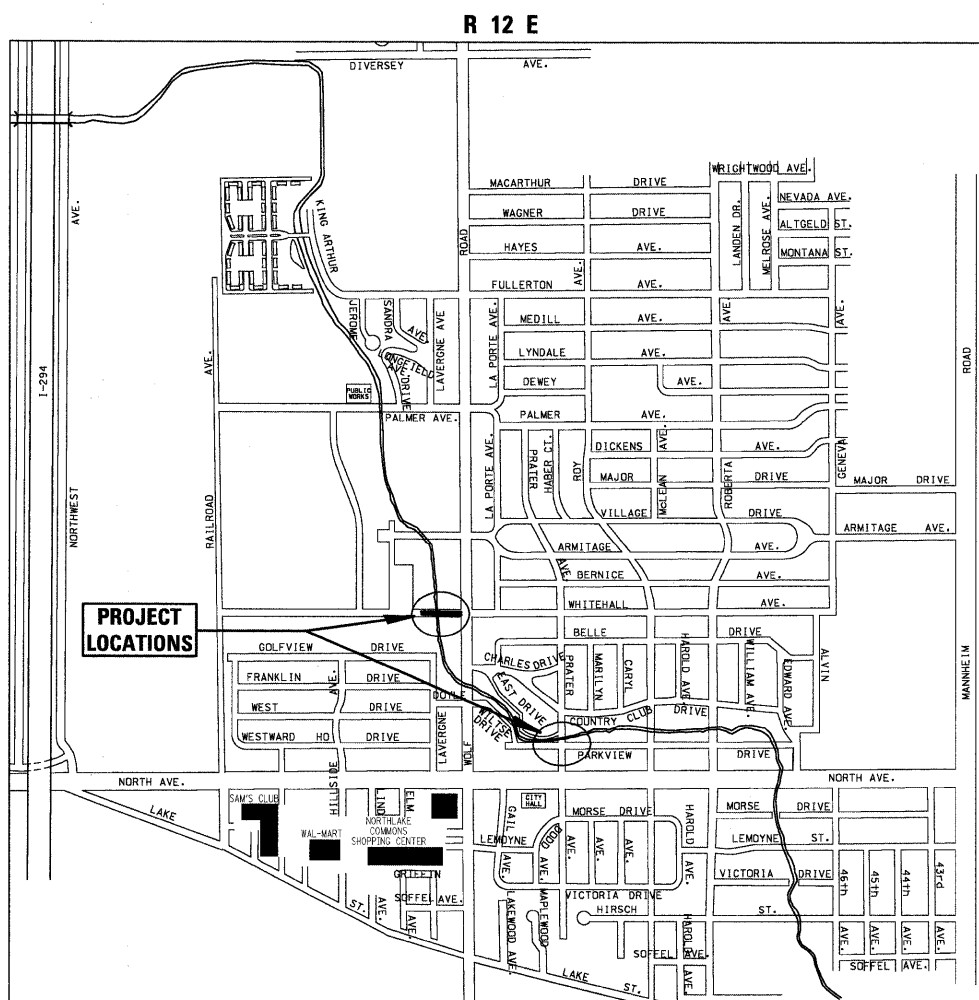
**CONTRACT NO. 63437**

FIELD ENGINEER: MARILIN SOLOMON TEL. 847-705-4407

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

**WHITEHALL AVENUE  
PRATER AVENUE**  
Section No.: 09-00071-00-BR  
**BRIDGE REHABILITATION**  
Project No.: ARA-9003 (399)  
**CITY OF NORTHLAKE  
COOK COUNTY**  
JOB NO.: C-91-808-09

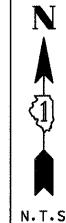


**LOCATION MAP - PROVISO TOWNSHIP**  
GROSS LENGTH OF PROJECT = 120 LINEAL FEET (0.02 MI.)  
NET LENGTH OF PROJECT = 120 LINEAL FEET (0.02 MI.)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	09-00071-00-BR	COOK	31	1
		ILLINOIS	CONTRACT NO. 63437	



LOCATION OF SECTION INDICATED THUS: -



**TRAFFIC DATA - PRATER AVENUE**  
ADT (YEAR) = 400 (2008)  
POSTED SPEED LIMIT = 25 MPH

**TRAFFIC DATA - WHITEHALL AVENUE**  
ADT (YEAR) = 400 (2008)  
POSTED SPEED LIMIT = 10 MPH

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED Nov. 30 20 09

*[Signature]* MAYOR  
CITY OF NORTHLAKE

PASSED December 3 20 09

*[Signature]* DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW December 16, 20 09

*[Signature]* DEPUTY DIRECTOR OF HIGHWAYS  
REGION ONE ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

ELECTRICAL  
NOVEMBER 30 2009



*[Signature]*  
**ANTHONY J. DeRICCO**  
ILLINOIS REGISTRATION No. 062-057484 ENGINEER  
EXPIRATION DATE: 11/30/11

CIVIL  
November 30 2009

*[Signature]*  
**ANDREW M. PUFUNDT**  
ILLINOIS REGISTRATION No. 062-061729 ENGINEER  
EXPIRATION DATE: 11/30/11

PROFESSIONAL DESIGN FIRM No. 184-001175  
EXPIRATION DATE: 04/30/11



**GENERAL NOTES**

**SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS**

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2010; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD), "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" JULY 2009 SIXTH EDITION, THE "DETAILS" IN THE PLANS, LATEST EDITION OF THE MANUAL OF TEST PROCEDURE OF MATERIALS, THE AMERICAN WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES, THE "DRAFT" REHABILITATION ACT OF 1973 (SECTION 504), THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES, AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

**UTILITIES**

THE CONTRACTOR SHALL COOPERATE WITH THE CITY IN ANY UNDERGROUND UTILITY CONSTRUCTION WHICH THE CITY MAY WANT TO PLACE DURING THE CONTRACTOR'S OPERATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE 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 OR THE CITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

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

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 OR 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

**STAKING**

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE CITY, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED, AND SHALL BE AS INDICATED ON THE PLANS, ELEVATIONS SHOWN AT POINT OF CURVE, ETC. IS EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

**WATER, STORM SEWER AND SANITARY SEWER**

WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE CONTRACT.

ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS WITHOUT PRIOR AUTHORIZATION FROM THE CITY WATER DEPARTMENT. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

**MISCELLANEOUS**

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION. THE COST TO PROVIDE ACCESS SHALL BE PAID FOR AND INCLUDED IN THE ITEMS FOR TRAFFIC CONTROL AND PROTECTION.

DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

ALL SAWCUTTING SHALL BE INCLUDED TO REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.

SEEDING, NUTRIENTS, MULCH, EROSION CONTROL BLANKET ARE NOT SHOWN ON THE PLAN BUT WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND WILL NOT EXCEED THE PLAN QUANTITY.

EXISTING PAVEMENT SECTION IS ASSUMED TO BE 13". REMOVAL OF ANY ADDITIONAL MATERIAL TO GET DOWN TO PROPER ELEVATION FOR INSTALLATION OF AGGREGATE BASE COURSE SHALL BE INCLUDED IN COST FOR PAVEMENT REMOVAL.

THE THICKNESSES OF HOT-MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM THICKNESS PERMITTED.

DETECTABLE WARNINGS FOR THE HANDICAPPED SHALL BE INSTALLED AT ALL INTERSECTING STREETS, SIGNALIZED COMMERCIAL DRIVEWAYS AND SIGNALIZED ALLEYS AS DIRECTED BY THE ENGINEER (SEE IDOT STD. 424001-05 INCLUDED IN THE SPECIFICATIONS). CONTRACTOR SHALL VERIFY THAT ALL SLOPES MEET ADA REQUIREMENTS PRIOR TO INSTALLING SIDEWALK DETECTABLE WARNINGS AND ADJACENT CURB AND GUTTER.

PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED.

RELOCATING EXISTING SIGNS: EXISTING SIGNS WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REINSTALLED UPON COMPLETION OF CONFLICTING IMPROVEMENTS IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". STOP SIGNS, SPEED LIMIT SIGNS, AND STREET NAME SIGNS SHALL BE UP AND VISIBLE AT ALL TIMES. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM TRAFFIC CONTROL AND PROTECTION, STANDARD 701501.

PER ARTICLE 107.20, MAILBOXES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED, TEMPORARILY RELOCATED, AND REPLACED UPON COMPLETION OF THE PROPOSED IMPROVEMENTS AS DIRECTED BY THE ENGINEER.

PROPOSED CONCRETE CURB AND GUTTER SHALL BE TRANSITIONED TO EXISTING CURB AND GUTTER OVER A LENGTH OF 5 FEET. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12.

ALL UNDERGROUND, DRIVEWAY, CONCRETE, AND LANDSCAPE RESTORATION WORK IS TO BE COMPLETED BEFORE THE SURFACE COURSE CAN BE INSTALLED.

PROTECTIVE COAT FOR ALL PCC SIDEWALK AND CONCRETE CURB AND GUTTER SURFACES SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEMS.

**IDOT HIGHWAY STANDARDS**

000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
424001-05	CURB RAMPS FOR SIDEWALKS
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606201-02	TYPE B GUTTER (INLET, OUTLET AND ENTRANCE)
631011-06	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-05	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-08	TRAFFIC BARRIER TERMINAL, TYPE 6
701501-05	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS
BLR 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
BLR 18-5	TRAFFIC CONTROL DEVICES - DAY LABOR MAINTENANCE

**CONDITIONS FOR ARMY CORPS OF ENGINEERS - REGIONAL PERMIT 7 & 9**

COST TO PERFORM THIS WORK UNDER THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING TERMS AND CONDITIONS OF THE REGIONAL PERMITS AND THE FOLLOWING GENERAL CONDITIONS FOR ALL ACTIVITIES AUTHORIZED UNDER THE REGIONAL PERMIT PROGRAM (RPP):

STATE 401 WATER QUALITY CERTIFICATION - WATER QUALITY CERTIFICATION UNDER SECTION 401 OF THE CLEAN WATER ACT IS REQUIRED FROM THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA). THE DISTRICT MAY CONSIDER WATER QUALITY, AMONG OTHER FACTORS, IN DETERMINING WHETHER TO EXERCISE DISCRETIONARY AUTHORITY AND REQUIRE AN INDIVIDUAL PERMIT. PLEASE NOTE THAT SECTION 401 WATER QUALITY CERTIFICATION IS A REQUIREMENT FOR PROJECTS ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT. PROJECTS ISSUED UNDER SECTION 10 OF THE RIVERS AND HARBORS ACT OF 1899 DO NOT REQUIRE SECTION 401 WATER QUALITY CERTIFICATION (SEE APPENDIX B).

ON JANUARY 31, 2007, THE IEPA GRANTED SECTION 401 CERTIFICATION, WITH CONDITIONS, FOR ALL REGIONAL PERMITS EXCEPT FOR ACTIVITIES IN CERTAIN WATERWAYS NOTED UNDER RPS 4 AND 8. THE FOLLOWING CONDITIONS OF THE CERTIFICATION ARE HEREBY MADE CONDITIONS OF THE RPP:

1. THE CONTRACTOR SHALL NOT CAUSE:

- A) VIOLATION OF APPLICABLE WATER QUALITY STANDARDS OF THE ILLINOIS POLLUTION CONTROL BOARD TITLE 35, SUBTITLE C: WATER POLLUTION RULES AND REGULATIONS;
- B) WATER POLLUTION DEFINED AND PROHIBITED BY THE ILLINOIS ENVIRONMENTAL PROTECTION ACT; OR
- C) INTERFERENCE WITH WATER USE PRACTICES NEAR PUBLIC RECREATION AREAS OR WATER SUPPLY INTAKES.

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE PLANNING AND SUPERVISION DURING THE PROJECT CONSTRUCTION PERIOD FOR IMPLEMENTING CONSTRUCTION METHODS, PROCESSES AND CLEANUP PROCEDURES NECESSARY TO PREVENT WATER POLLUTION AND CONTROL EROSION.

3. ANY SPOIL MATERIAL EXCAVATED, DREDGED OR OTHERWISE PRODUCED MUST NOT BE RETURNED TO THE WATERWAY BUT MUST BE DEPOSITED IN A SELF-CONTAINED AREA IN COMPLIANCE WITH ALL STATE STATUTES, REGULATIONS AND PERMIT REQUIREMENTS WITH NO DISCHARGE TO WATERS OF THE STATE UNLESS A PERMIT HAS BEEN ISSUED BY THE ILLINOIS EPA. ANY BACKFILLING MUST BE DONE WITH CLEAN MATERIAL PLACED IN A MANNER TO PREVENT VIOLATION OF APPLICABLE WATER QUALITY STANDARDS.

4. ALL AREAS AFFECTED BY CONSTRUCTION SHALL BE MULCHED AND SEEDED AS SOON AFTER CONSTRUCTION AS POSSIBLE. THE CONTRACTOR SHALL UNDERTAKE NECESSARY MEASURES AND PROCEDURES TO REDUCE EROSION DURING CONSTRUCTION. INTERIM MEASURES TO PREVENT SOIL EROSION DURING CONSTRUCTION SHALL BE TAKEN AND MAY INCLUDE THE INSTALLATION OF STAKED STRAW BALES, SEDIMENTATION BASINS AND TEMPORARY MULCHING. IF REQUIRED, THIS WORK WILL BE DIRECTED BY THE ENGINEER. ALL CONSTRUCTION WITHIN THE WATERWAY SHALL BE CONDUCTED DURING ZERO OR LOW FLOW CONDITIONS.

5. THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES CONSISTENT WITH THE ILLINOIS URBAN MANUAL (IEPA/USDA, NRCS; 2002 LATEST VERSION).

6. THE OWNER IS ADVISED THAT THE FOLLOWING PERMITS(S) MUST BE OBTAINED FROM THE ILLINOIS EPA: THE OWNER MUST OBTAIN PERMITS TO CONSTRUCT SANITARY SEWERS, WATER MAINS, AND RELATED FACILITIES PRIOR TO CONSTRUCTION.

7. BACKFILL USED IN THE STREAM-CROSSING TRENCH SHALL BE PREDOMINANTLY SAND OR LARGER SIZE MATERIAL, WITH #20% PASSING A #230 U.S. SIEVE.

8. ANY CHANNEL RELOCATION SHALL BE CONSTRUCTED UNDER DRY CONDITIONS AND STABILIZED TO PREVENT EROSION PRIOR TO THE DIVERSION OF FLOW. [APPLICABLE ONLY TO PROJECTS WHICH PROPOSE TO RELOCATE STREAM CHANNELS.]

9. THE PROPOSED WORK SHALL BE CONSTRUCTED WITH ADEQUATE EROSION CONTROL MEASURES (I.E., SILT FENCES, STRAW BALES, ETC.) TO PREVENT TRANSPORT OF SEDIMENT AND MATERIALS TO THE ADJOINING WETLANDS AND/OR STREAMS.

10. BACKFILL USED WITHIN TRENCHES PASSING THROUGH SURFACE WATERS OF THE STATE, EXCEPT WETLAND AREAS, SHALL BE CLEAN COURSE AGGREGATE, GRAVEL OR OTHER MATERIAL WHICH WILL NOT CAUSE SILTATION, PIPE DAMAGE DURING PLACEMENT, OR CHEMICAL CORROSION IN PLACE. EXCAVATED MATERIAL MAY BE USED ONLY IF:

- A) PARTICLE SIZE ANALYSIS IS CONDUCTED AND DEMONSTRATES THE MATERIAL TO BE AT LEAST 80% SAND OR LARGER SIZE MATERIAL, USING #230 U.S. SIEVE; OR
- B) EXCAVATION AND BACKFILLING ARE DONE UNDER DRY CONDITIONS.

11. BACKFILL USED WITHIN TRENCHES PASSING THROUGH WETLAND AREAS SHALL CONSIST OF CLEAN MATERIAL WHICH WILL NOT CAUSE SILTATION, PIPE DAMAGE DURING PLACEMENT, OR CHEMICAL CORROSION IN PLACE. EXCAVATED MATERIAL SHALL BE USED TO THE EXTENT PRACTICABLE, WITH THE UPPER SIX (6) TO TWELVE (12) INCHES BACKFILLED WITH THE TOPSOIL OBTAINED DURING TRENCH EXCAVATION.

12. ANY OWNER PROPOSING ACTIVITIES IN A MINED AREA OR PREVIOUSLY MINED AREA SHALL PROVIDE TO THE IEPA A WRITTEN DETERMINATION REGARDING THE SEDIMENT AND MATERIALS USED WHICH ARE CONSIDERED \*ACID-PRODUCING MATERIAL\* AS DEFINED IN 35 IL. ADM. CODE, SUBTITLE D, IF CONSIDERED \*ACID-PRODUCING MATERIAL\* THE OWNER SHALL OBTAIN A PERMIT TO CONSTRUCT PURSUANT TO 35 IL. ADM. CODE 404.101.

13. ASPHALT, BITUMINOUS MATERIAL AND CONCRETE WITH PROTRUDING MATERIAL SUCH AS REINFORCING BAR OR MESH SHALL NOT BE 1) USED FOR BACKFILL, 2) PLACED ON SHORELINES /STREAM BANKS, OR 3) PLACED IN WATERS OF THE STATE.

14. CONTRACTORS THAT USE SITE DEWATERING TECHNIQUES IN ORDER TO PERFORM WORK IN PERENNIAL STREAMS FOR CONSTRUCTION ACTIVITY APPROVED UNDER REGIONAL 7 (TEMPORARY CONSTRUCTION ACTIVITIES) AND PERMIT 9 (MAINTENANCE) SHALL MAINTAIN FLOW IN THE STREAM DURING SUCH CONSTRUCTION ACTIVITY BY UTILIZING DAM AND PUMPING, FLUMING, CULVERTS OR OTHER SUCH TECHNIQUES.

15. IN ADDITION TO ANY ACTION REQUIRED OF THE REGIONAL PERMIT 13 (CLEANUP OF TOXIC AND HAZARDOUS MATERIALS PROJECTS) OWNER WITH RESPECT TO THE \*NOTIFICATION\* GENERAL CONDITION 21, THE OWNER SHALL NOTIFY THE ILLINOIS EPA BUREAU OF WATER, OF THE SPECIFIC ACTIVITY. THIS NOTIFICATION SHALL INCLUDE INFORMATION CONCERNING THE ORDERS AND APPROVALS THAT HAVE BEEN OR WILL BE OBTAINED FROM THE ILLINOIS EPA BUREAU OF LAND (BOL) FOR ALL CLEANUP ACTIVITIES UNDER BOL JURISDICTION, OR FOR WHICH AUTHORIZATION OR APPROVAL IS SOUGHT FROM BOL FOR NO FURTHER REMEDIATION. THIS REGIONAL PERMIT IS NOT VALID FOR ACTIVITIES THAT DO NOT REQUIRE OR WILL NOT RECEIVE AUTHORIZATION OR APPROVAL FROM THE BOL.

16. THIS REGIONAL PERMIT IS NOT VALID FOR UTILITY LINE PROJECTS UNDER REGIONAL PERMITS 1 (RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS) AND 2 (RECREATION PROJECTS) IN THE WATER BODIES LISTED UNDER REGIONAL PERMIT 8 (UTILITY LINE PROJECTS).

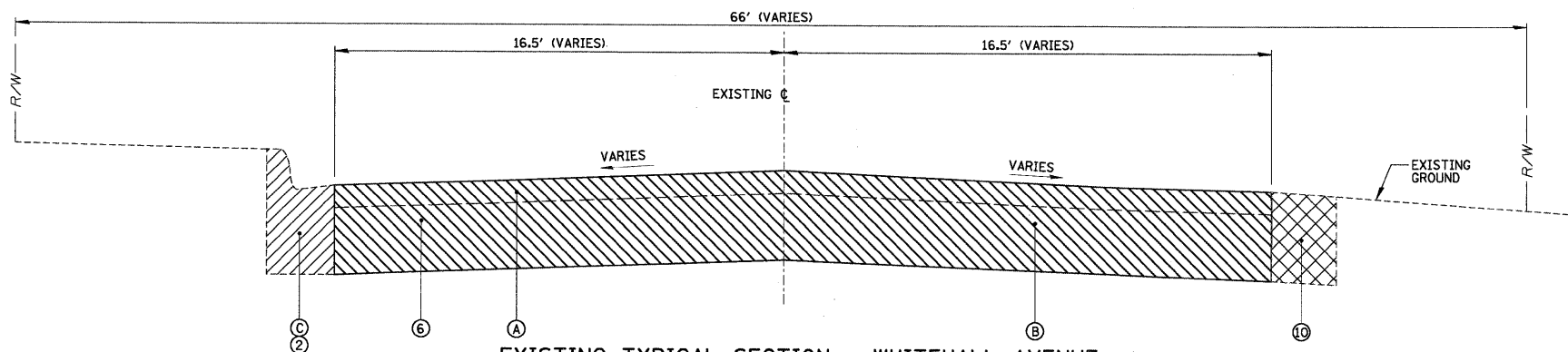
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NA\NORTH\LAKE\940032HR224\civ\1\gnot1.940032hr204.sht	PLOT SCALE = N.T.S.	DRAWN - EDT	REVISED -		----	09-00071-00-BR	COOK	31	2				
	PLOT DATE = 12/16/2009	CHECKED - MEW	REVISED -		SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 63437					
		DATE - 09/30/09	REVISED -					ILLINOIS FED. AID PROJECT					

**SUMMARY OF QUANTITIES**

LOCATION OF WORK				ARRA			
				WHITEHALL AVE. 100% FED. ARRA	PRATER AVE. 100% FED. ARRA	WHITEHALL AVE. 100% FED. ARRA	WHITEHALL AVE. 100% FED. ARRA
FUNDING SOURCE				CONSTRUCTION TYPE CODE			
SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
ITEM #	ITEM	UNIT	TOTAL QUANTITIES	Y071-2A			Y030-1E
20200100	EARTH EXCAVATION	CU YD	20	20	0	0	0
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	450	260	190	0	0
25000100	SEEDING, CLASS 1	ACRE	0.25	0.15	0.1	0	0
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	25	15	10	0	0
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	25	15	10	0	0
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	25	15	10	0	0
25100105	MULCH, METHOD 1	ACRE	0.25	0.15	0.1	0	0
25100630	EROSION CONTROL BLANKET	SQ YD	1000	700	300	0	0
25200200	SUPPLEMENTAL WATERING	UNIT	10	7	3	0	0
28000510	INLET FILTERS	EACH	2	2	0	0	0
28000400	PERIMETER EROSION BARRIER	FOOT	210	115	95	0	0
28100107	STONE RIPRAP, CLASS A4	SQ YD	650	375	275	0	0
28200200	FILTER FABRIC	SQ YD	700	405	295	0	0
31101100	SUB-BASE GRANULAR MATERIAL, TYPE B	CU YD	10	10	0	0	0
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	65	65	0	0	0
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	20	20	0	0	0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	30	30	0	0	0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	30	30	0	0	0
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	40	40	0	0	0
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	400	400	0	0	0
44000100	PAVEMENT REMOVAL	SQ YD	200	200	0	0	0
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	200	200	0	0	0
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	50	50	0	0	0
44000600	SIDEWALK REMOVAL	SQ FT	600	600	0	0	0
50102400	CONCRETE REMOVAL	CU YD	9.5	0	0	9.5	0
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	0	0	1	0
50202901	COFFERDAM (LOCATION 1)	EACH	1	1	0	0	0
50202902	COFFERDAM (LOCATION 2)	EACH	1	0	1	0	0
50300225	CONCRETE STRUCTURES	CU YD	26.9	0	0	26.9	0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	153.5	0	0	153.5	0
50300260	BRIDGE DECK GROOVING	SQ YD	253	0	0	253	0
50300285	FORM LINER TEXTURED SURFACE	SQ FT	258	0	0	258	0
50300300	PROTECTIVE COAT	SQ YD	360	0	0	360	0
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	0	0	1	0
50500505	STUD SHEAR CONNECTORS	EACH	648	0	0	648	0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	33960	0	0	33960	0
50800515	BAR SPLICERS	EACH	80	0	0	80	0
*50900105	ALUMINUM RAILING, TYPE L	FOOT	34	0	0	34	0
51500100	NAME PLATES	EACH	1	0	0	1	0
60602800	CONCRETE GUTTER, TYPE B	FOOT	15	15	0	0	0
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	60	60	0	0	0
*63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4	4	0	0	0
*63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2	0	0	0
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	0	0	0
66410400	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	20	20	0	0	0
67100100	MOBILIZATION	L SUM	1	0.1	0.1	0.30	0
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.1	0.1	0.30	0
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.1	0.1	0.30	0
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.1	0.1	0.30	0
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	100	100	0	0	0
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	105	105	0	0	0
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	30	30	0	0	0
*78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	84	84	0	0	0
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	225	225	0	0	0
*81017515	CONDUIT IN TRENCH, 1 1/4" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	75	0	0	0	75
*81030100	CONDUIT SPLICE	EACH	1	0	0	0	1
*81100400	CONDUIT ATTACHED TO STRUCTURE, 1 1/4" DIA., GALVANIZED STEEL	FOOT	45	0	0	0	45
*81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	1	0	0	0	1
*81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	600	0	0	0	600
*81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	75	0	0	0	75
*85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	0	0	0	1
88600600	DETECTOR LOOP REPLACEMENT	FOOT	225	225	0	0	0
*89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	600	0	0	0	600
89502380	REMOVE EXISTING HANDHOLE	EACH	1	1	0	0	0
*X0323710	REMOVE CONDUIT ATTACHED TO STRUCTURE	FOOT	45	0	0	0	45
*X0323927	MAINTENANCE OF LIGHTING SYSTEM	EACH	1	0	0	0	1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.1	0.1	0.30	0
*Z0025100	FURNISHING AND INSTALLING CABLE SPLICES	EACH	2	0	0	0	2

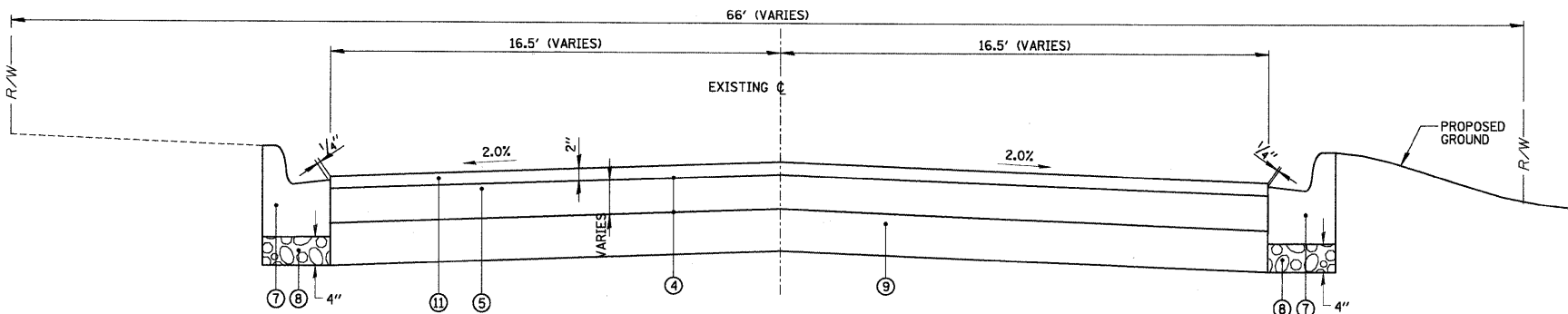
\* INDICATES SPECIALTY ITEM

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PLOT SCALE = N.T.S.		CHECKED - MEW	REVISED -								CONTRACT NO. 63437		
PLOT DATE = 12/16/2009		DATE - 09/30/09	REVISED -								ILLINOIS FED. AID PROJECT		



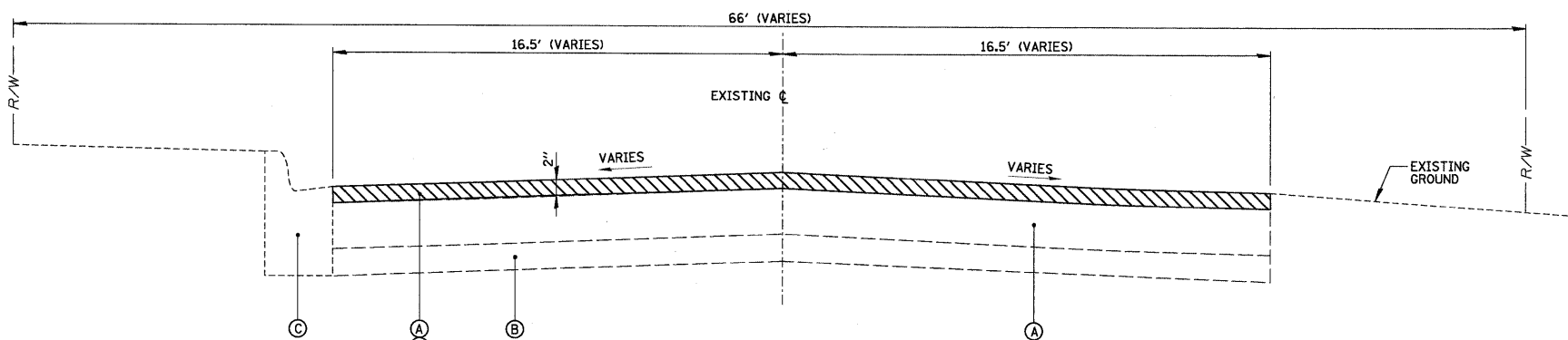
**EXISTING TYPICAL SECTION - WHITEHALL AVENUE**

STA. 30+24.82 TO STA. 30+49.82  
STA. 30+84.29 TO STA. 31+09.29



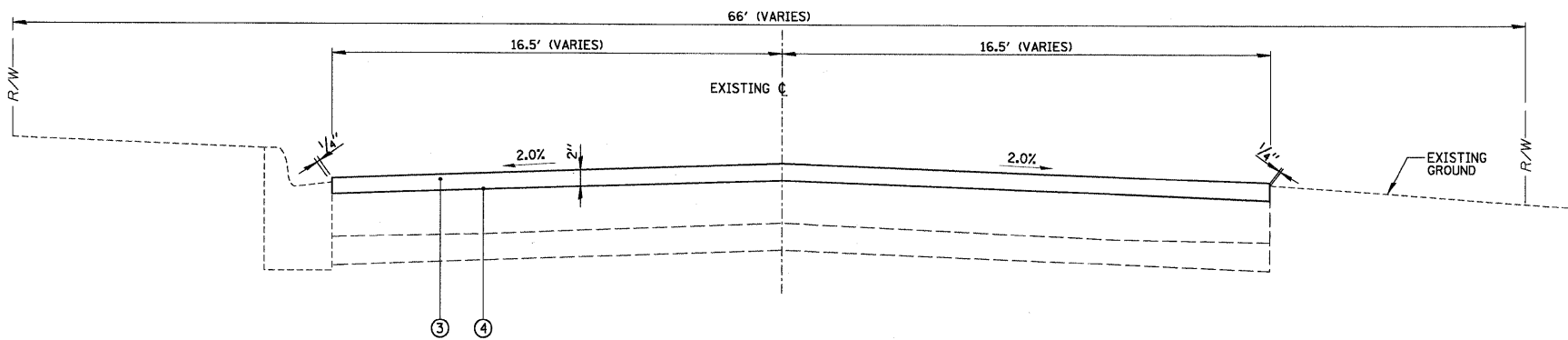
**PROPOSED TYPICAL SECTION - WHITEHALL AVENUE**

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STA. 31+04.29 TO STA. 31+09.29



**EXISTING TYPICAL SECTION - WHITEHALL AVENUE**

STA. 31+09.29 TO STA. 31+44.40



**PROPOSED TYPICAL SECTION - WHITEHALL AVENUE**

STA. 31+09.29 TO STA. 31+44.40

**LEGEND**

- (A) EXISTING ASPHALT PAVEMENT (+/- 3")
- (B) EXISTING AGGREGATE BASE (+/- 10")
- (C) EXISTING COMBINATION CURB AND GUTTER; TYPE B-6.12
- (1) HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- (2) COMBINATION CONCRETE CURB AND GUTTER REMOVAL (LIMITS AS SHOWN ON PLANS)
- (3) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 - 2"
- (4) BITUMINOUS MATERIALS (PRIME COAT)
- (5) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - DEPTH VARIES (PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE))
- (6) PAVEMENT REMOVAL
- (7) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (8) SUBBASE GRANULAR MATERIAL, TYPE B
- (9) AGGREGATE BASE COURSE, TYPE B, 8"
- (10) EARTH EXCAVATION
- (11) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 - 2" (PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE))

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

ITEM	AIR VOIDS
PAVEMENT RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5 MM)	4% @ 50 GYR
BRIDGE APPROACH PAVEMENT CONNECTOR	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5 MM)	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	4% @ 50 GYR

- NOTE:
- THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
  - THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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PLOT DATE = 12/16/2009

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CHECKED - MEW  
DATE - 09/30/09

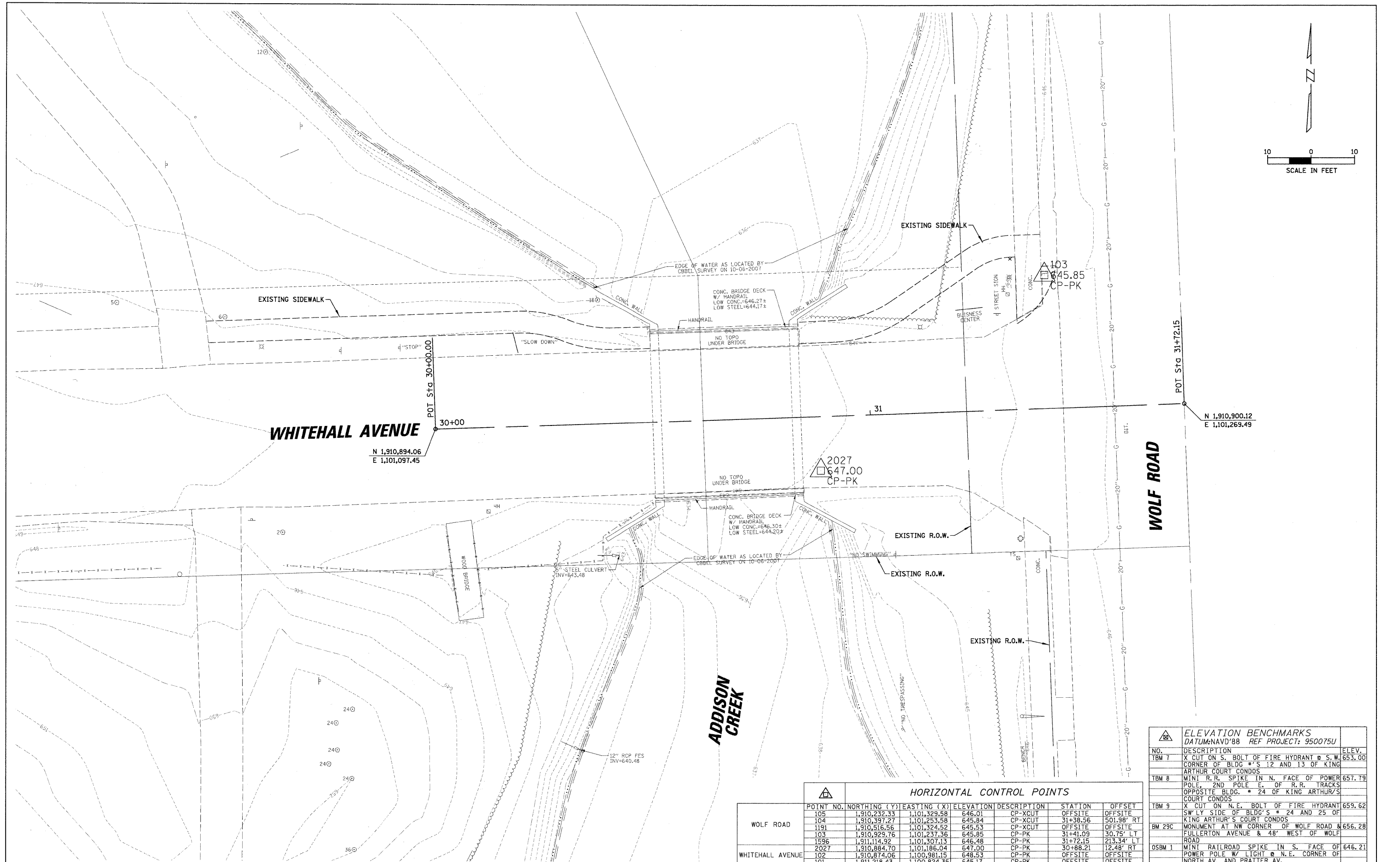
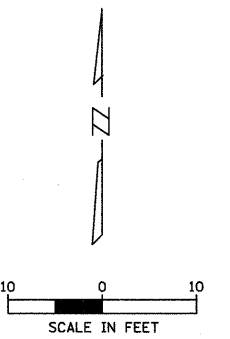
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

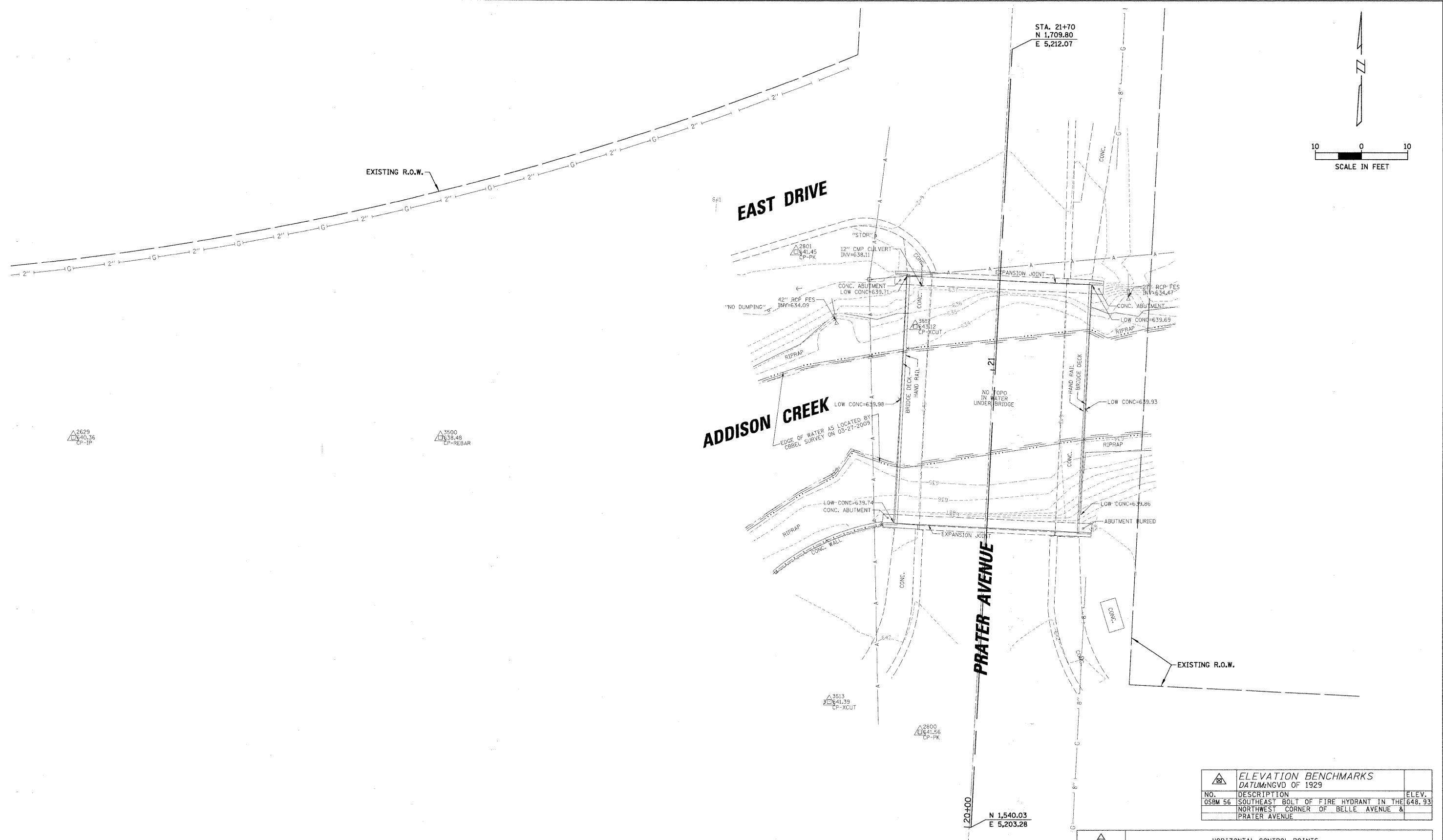
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
----	09-00071-00-BR	COOK	31	4
CONTRACT NO. 63437				
ILLINOIS FED. AID PROJECT				



HORIZONTAL CONTROL POINTS						
POINT NO.	NORTHING (Y)	EASTING (X)	ELEVATION	DESCRIPTION	STATION	OFFSET
105	1,910,232.33	1,101,329.58	646.01	CP-XCUT	OFFSITE	OFFSITE
104	1,910,397.27	1,101,253.58	645.84	CP-XCUT	31+38.56	501.98' RT
1191	1,910,516.56	1,101,324.52	645.53	CP-XCUT	OFFSITE	OFFSITE
103	1,910,929.76	1,101,237.36	645.85	CP-PK	31+41.09	30.75' LT
1596	1,911,114.92	1,101,307.13	646.48	CP-PK	31+72.15	213.34' LT
2027	1,910,884.70	1,101,186.04	647.00	CP-PK	30+88.21	12.48' RT
102	1,910,874.06	1,100,981.15	648.53	CP-PK	OFFSITE	OFFSITE
101	1,911,218.43	1,100,824.35	645.17	CP-PK	OFFSITE	OFFSITE

ELEVATION BENCHMARKS DATUM: NAVD'88 REF PROJECT: 950075U		
NO.	DESCRIPTION	ELEV.
TBM 7	X CUT ON S. BOLT OF FIRE HYDRANT @ S.W. CORNER OF BLDG #'S 12 AND 13 OF KING ARTHUR COURT CONDOS	653.00
TBM 8	MINI R.R. SPIKE IN N. FACE OF POWER POLE, 2ND POLE E. OF R.R. TRACKS OPPOSITE BLDG. # 24 OF KING ARTHUR'S COURT CONDOS	657.79
TBM 9	X CUT ON N.E. BOLT OF FIRE HYDRANT SW'LY SIDE OF BLDG'S # 24 AND 25 OF KING ARTHUR'S COURT CONDOS	659.62
BM 29C	MONUMENT AT NW CORNER OF WOLF ROAD & FULLERTON AVENUE & 48' WEST OF WOLF ROAD	656.28
OSBM 1	MINI RAILROAD SPIKE IN S. FACE OF POWER POLE W/ LIGHT @ N.E. CORNER OF NORTH AV. AND PRATTER AV.	646.21



ELEVATION BENCHMARKS DATUM: NGVD OF 1929		
NO.	DESCRIPTION	ELEV.
OSBM 56	SOUTHEAST BOLT OF FIRE HYDRANT IN THE NORTHWEST CORNER OF BELLE AVENUE & PRATER AVENUE	648.93

HORIZONTAL CONTROL POINTS						
CP NO.	NORTHING (Y)	EASTING (X)	DESCRIPTION	ELEV.	STATION	OFFSET
CP 2629	1,624.67	5,008.37	CP-IP	640.36	20+74.44	199.03' LT
CP 2800	1,561.12	5,192.19	CP-PK	641.56	20+20.49	12.17' LT
CP 2801	1,665.65	5,165.18	CP-PK	641.45	21+23.48	44.54' LT
CP 3500	1,624.93	5,088.04	CP-REBAR	638.48	20+78.82	119.47' LT
CP 3512	1,649.43	5,191.06	CP-XCUT	643.12	21+08.62	17.85' LT
CP 3513	1,567.71	5,172.50	CP-XCUT	641.39	20+26.05	32.17' LT

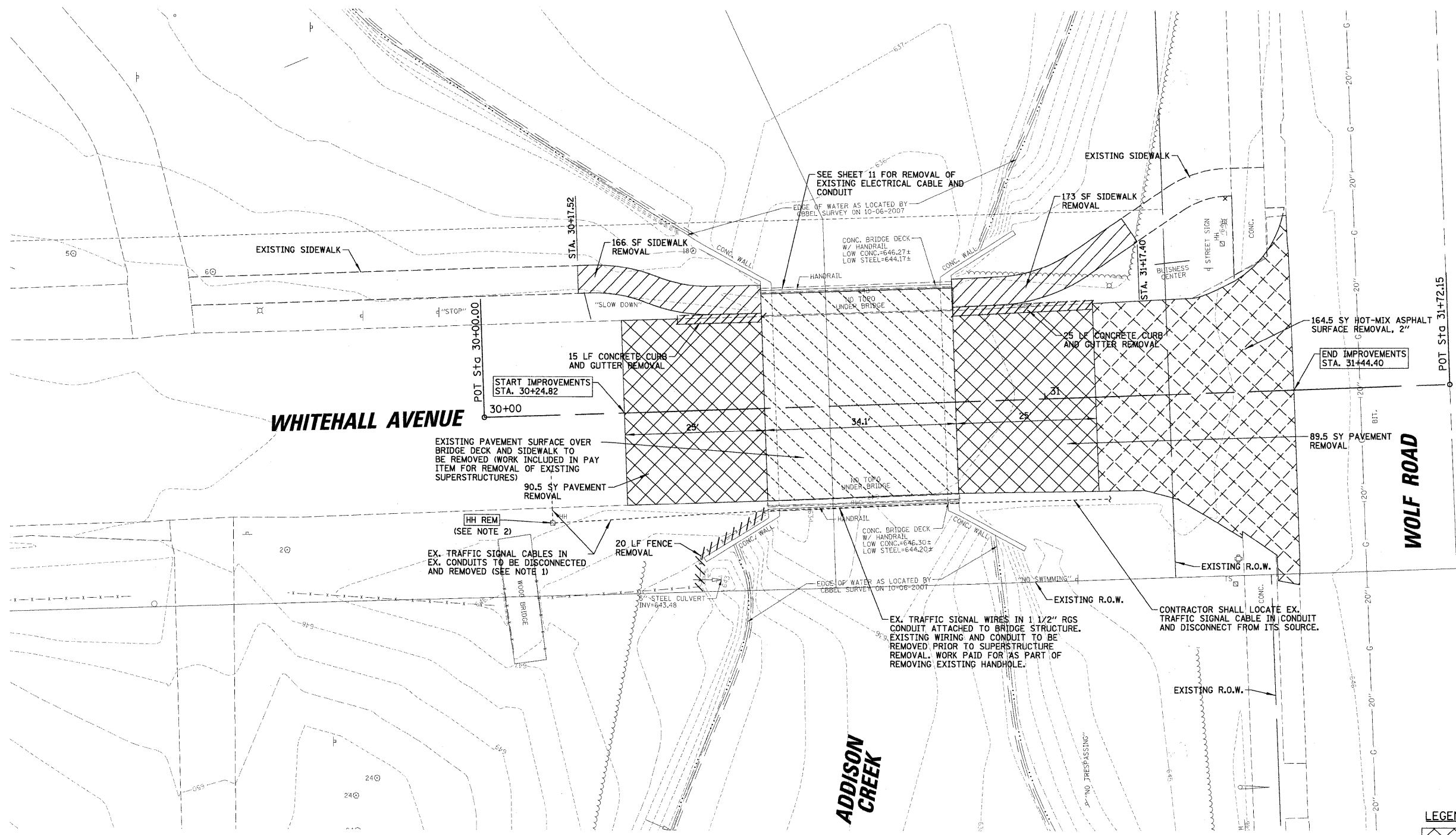
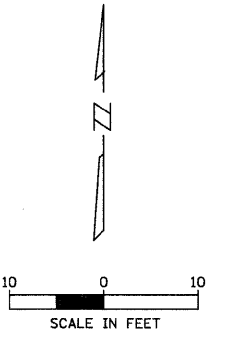
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PLOT DATE = 11/30/2009	DATE - 09/30/09	REVISED -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES AND BENCHMARKS  
PRATER AVENUE**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
----	09-00071-00-BR	COOK	31	6
CONTRACT NO. 63437				
ILLINOIS FED. AID PROJECT				


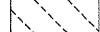
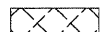
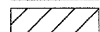
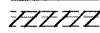
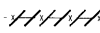


**WHITEHALL AVENUE**

**WOLF ROAD**

**ADDISON CREEK**

**LEGEND:**

-  PAVEMENT REMOVAL
-  EXISTING PAVEMENT SURFACE OVER BRIDGE DECK AND SIDEWALK TO BE REMOVED
-  HOT-MIX ASPHALT SURFACE REMOVAL, 2"
-  SIDEWALK REMOVAL
-  CONCRETE CURB AND GUTTER REMOVAL
-  FENCE REMOVAL (PAID FOR AS CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED)

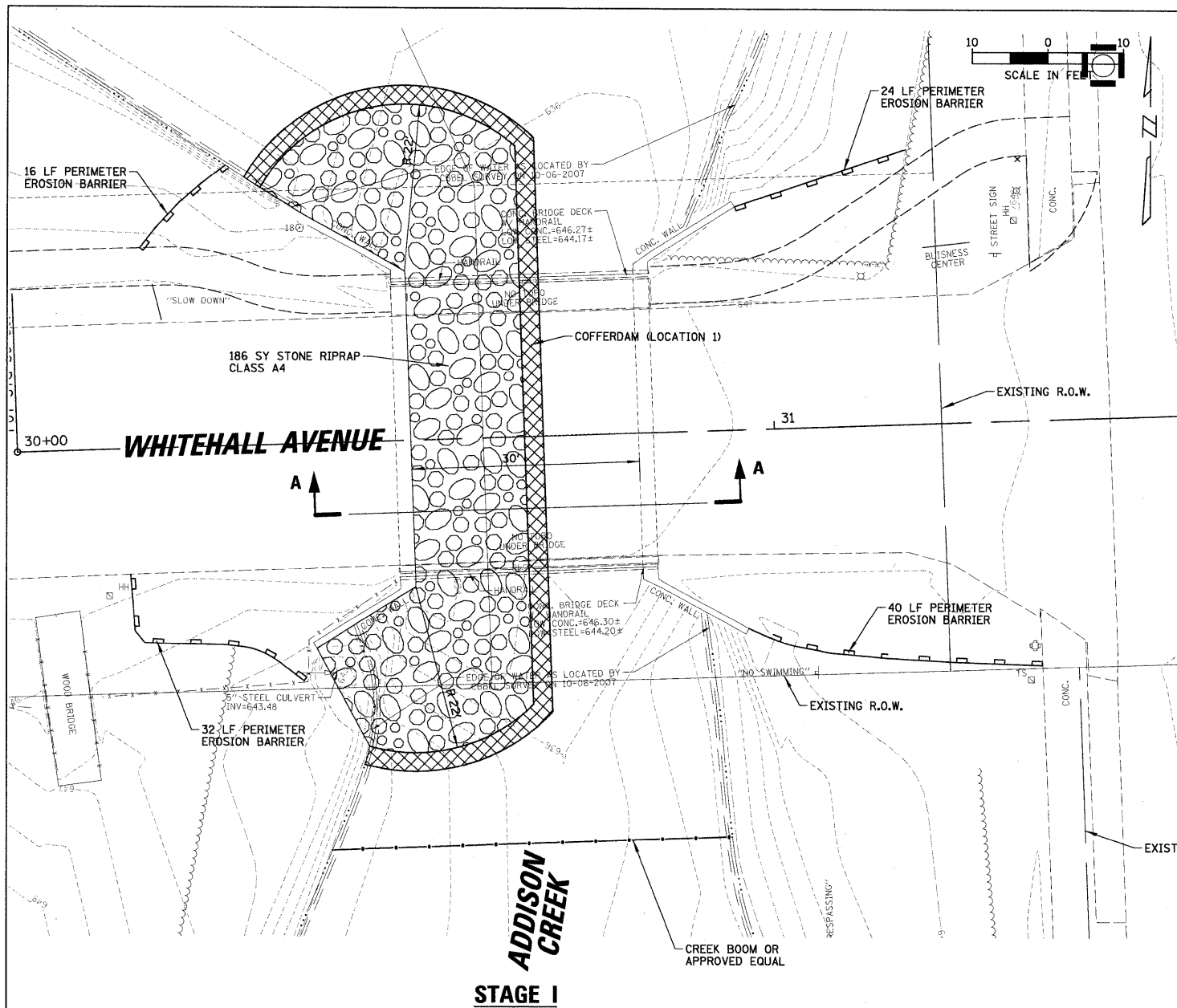
**NOTES:**

1. CONTRACTOR SHALL DISCONNECT AND CUT EXISTING TRAFFIC SIGNAL CABLES AND CONDUIT TO A MINIMUM OF 1' BELOW GRADE AND ABANDON. CONTRACTOR MAY ELECT TO REMOVE CABLES AND SALVAGE AT NO ADDITIONAL COST TO THE OWNER. WORK INCLUDED IN COST FOR REMOVING HANDHOLE.
2. EXISTING CONCRETE HANDHOLE SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SECTION 895 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE HANDHOLE SHALL BE COMPLETELY REMOVED, BACKFILLED WITH IDOT APPROVED MATERIAL AND THE SURFACE RESTORED TO SURROUNDING CONDITIONS.

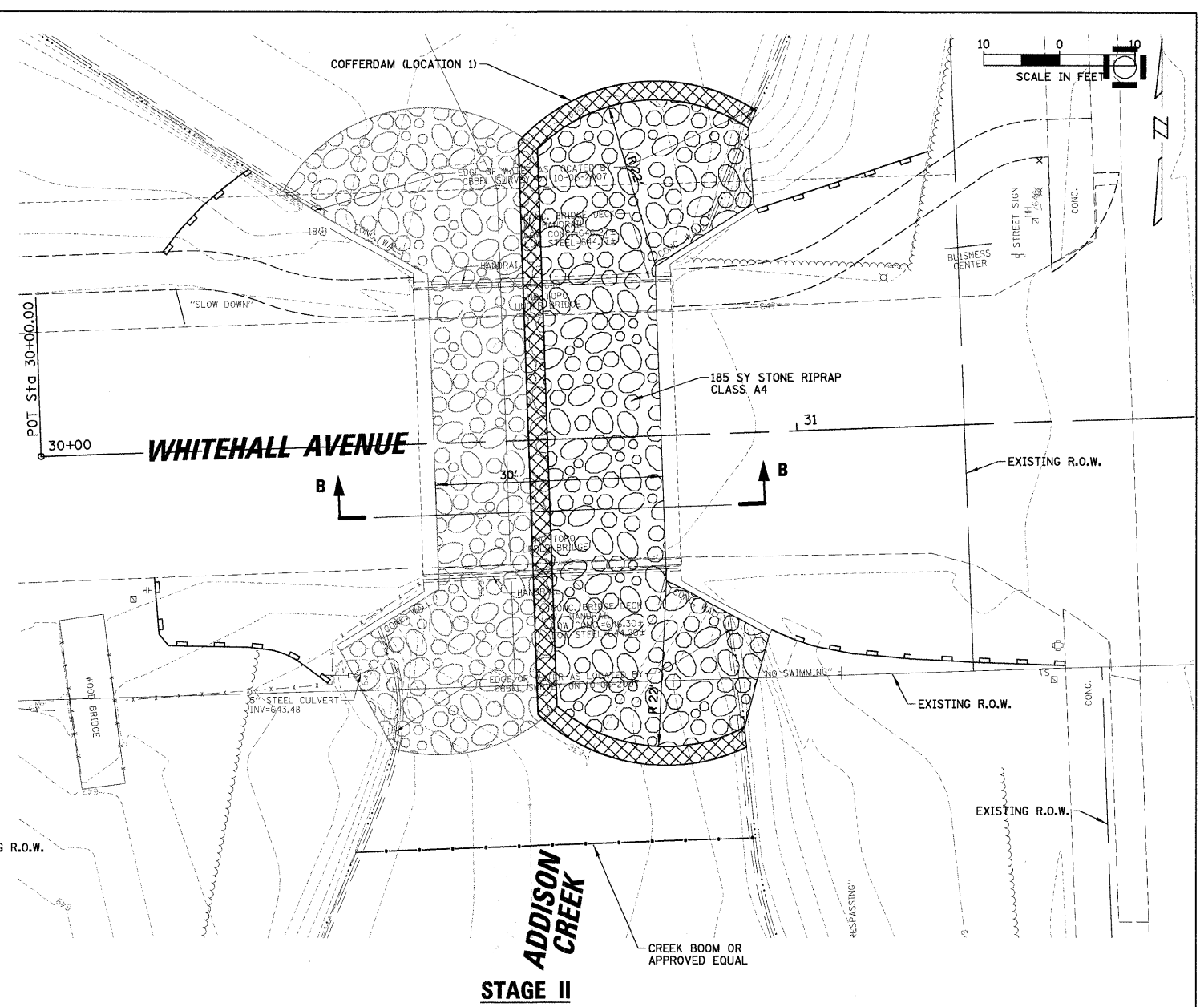
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PLOT DATE = 11/30/2009		DATE - 09/30/09	REVISED -			ILLINOIS FED. AID PROJECT								



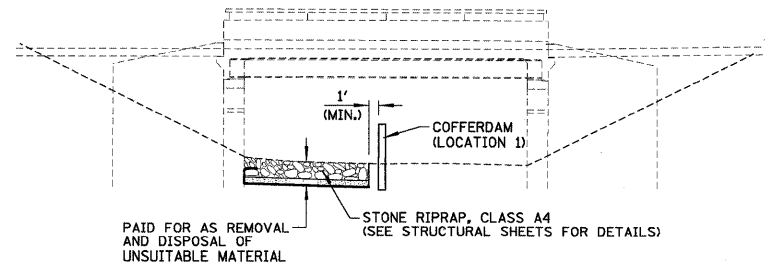




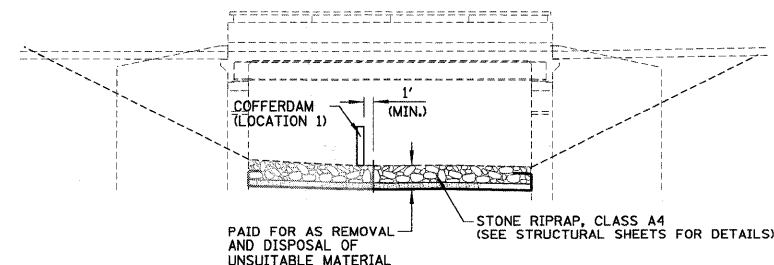
**STAGE I**



**STAGE II**



**STAGE I - INSTALLATION OF RIPRAP (SECTION A-A)**  
NOT TO SCALE



**STAGE II - INSTALLATION OF RIPRAP (SECTION B-B)**  
NOT TO SCALE

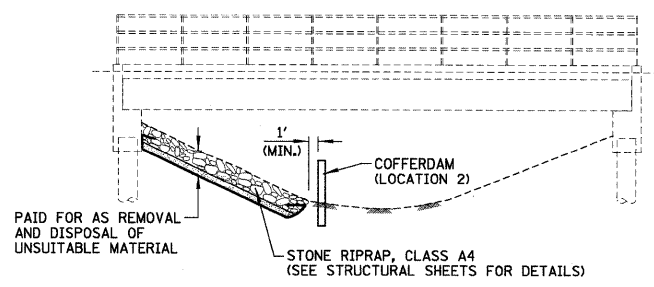
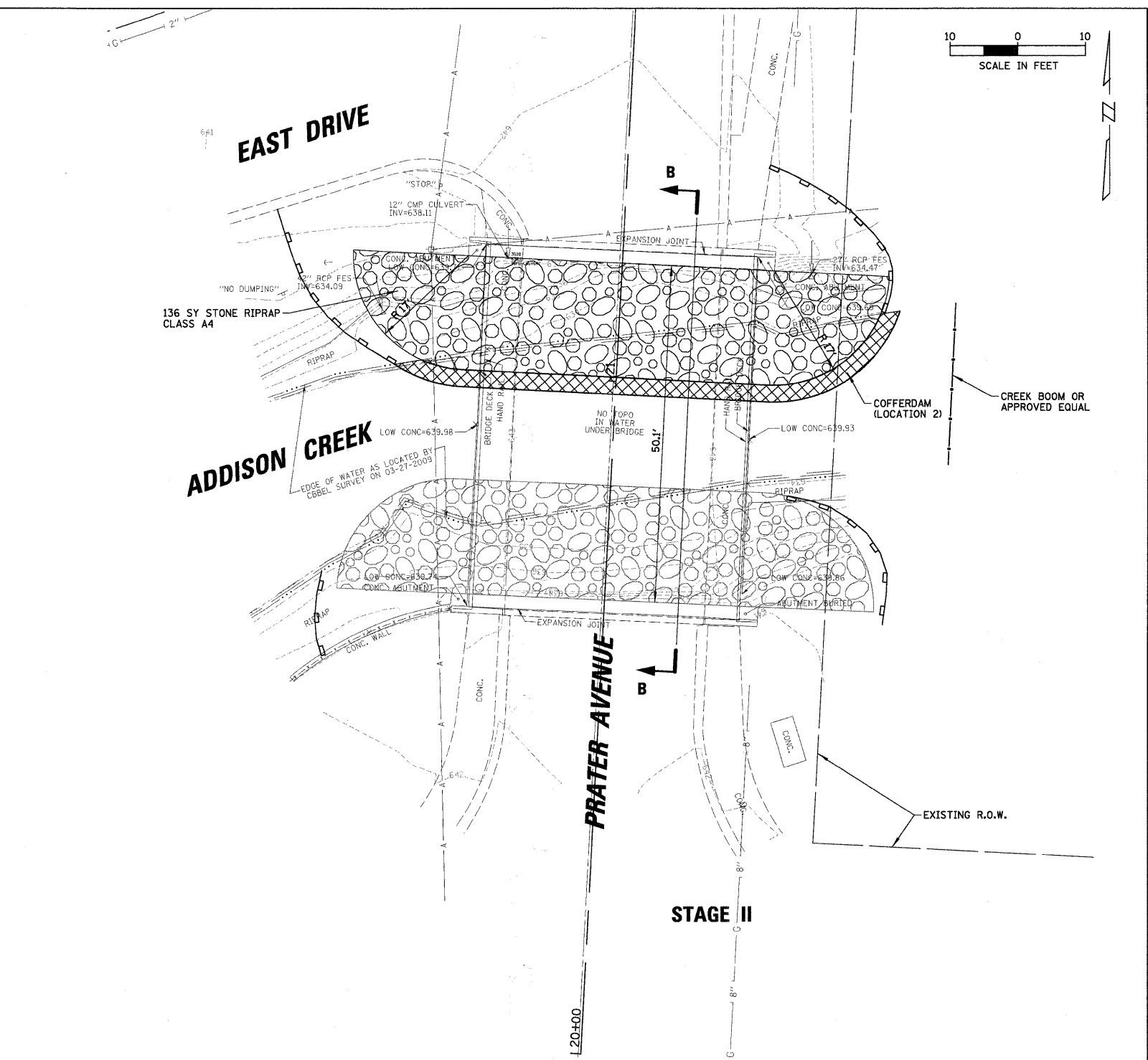
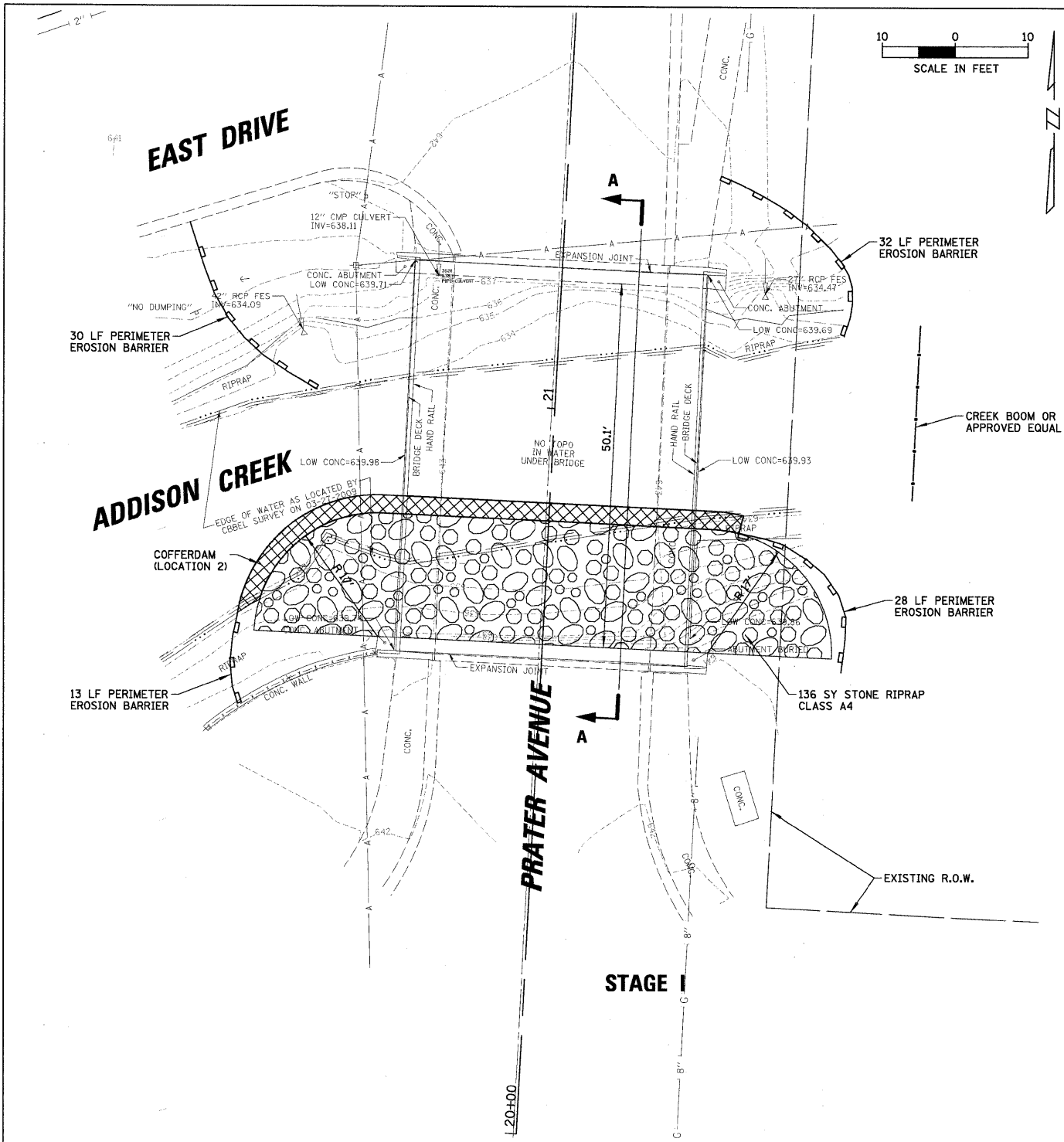
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

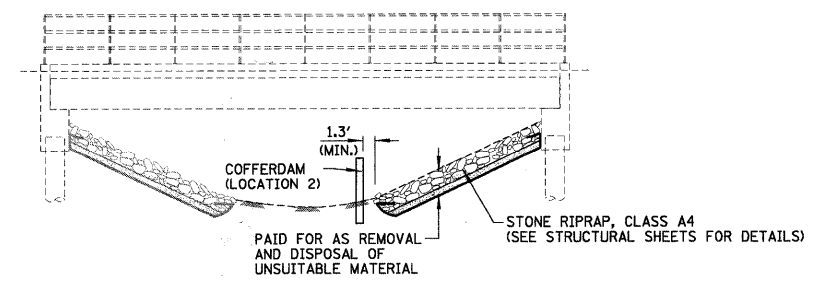
**EROSION CONTROL AND STAGING PLAN  
WHITEHALL AVENUE**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	09-00071-00-BR	COOK	31	9
CONTRACT NO. 63437				
ILLINOIS FED. AID PROJECT				



**STAGE I - INSTALLATION OF RIPRAP (SECTION A-A)**  
NOT TO SCALE



**STAGE II - INSTALLATION OF RIPRAP (SECTION B-B)**  
NOT TO SCALE

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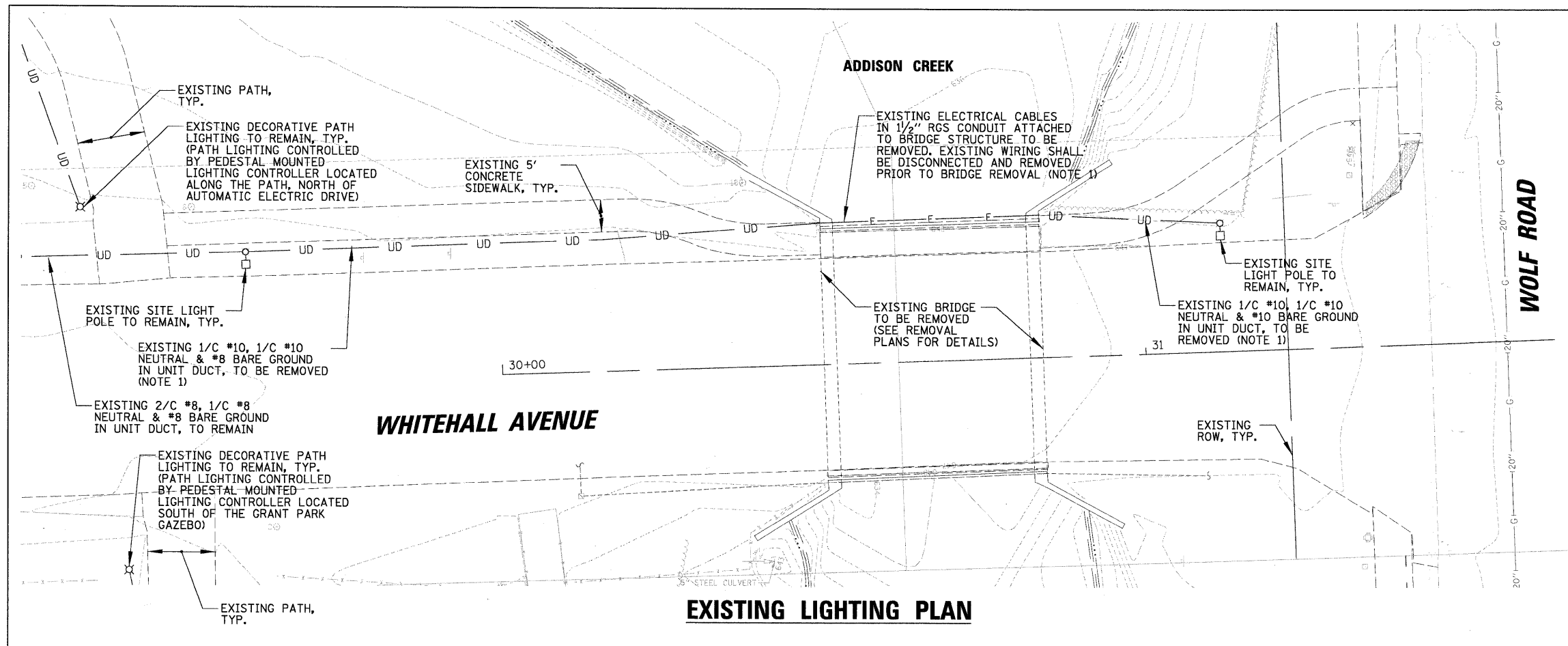
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL AND STAGING PLAN  
PRATER AVENUE

SCALE: SHEET NO. OF SHEETS STA. TO STA.

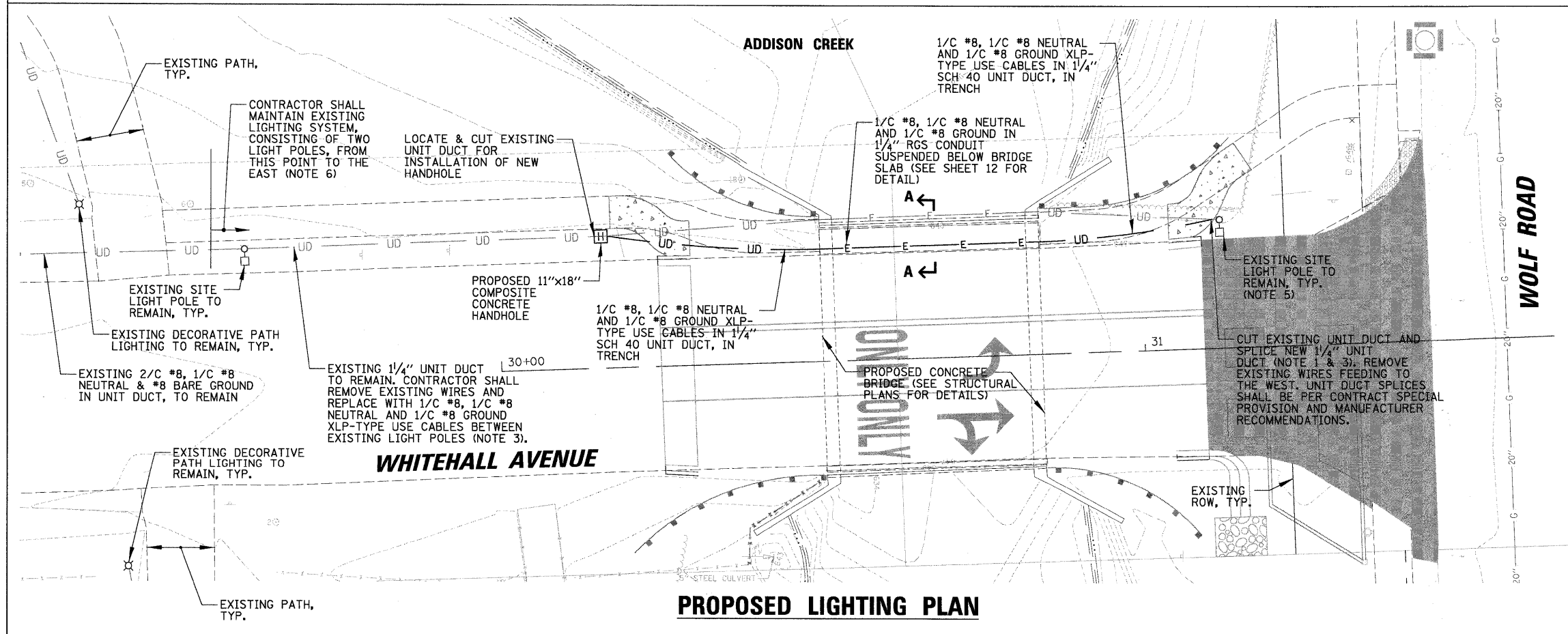
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---	09-00071-00-BR	COOK	31	10
CONTRACT NO. 63437			ILLINOIS FED. AID PROJECT	



**EXISTING LIGHTING PLAN**

**NOTES:**

1. CONTRACTOR SHALL DISCONNECT AND CUT EXISTING UNDERGROUND ELECTRICAL CONDUITS TO A MIN. OF 1' BELOW GRADE AND ABANDON. CONTRACTOR SHALL REMOVE EXISTING CONDUIT AND CABLES ATTACHED TO BRIDGE STRUCTURE PRIOR TO THE DEMOLITION OF THE EXISTING STRUCTURE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "REMOVE CONDUIT ATTACHED TO STRUCTURE" AND "REMOVE ELECTRIC CABLE FROM CONDUIT," RESPECTIVELY.
2. THE EXISTING SITE LIGHT POLES ARE CONTROLLED FROM A PAD MOUNTED LIGHTING CONTROLLER LOCATED ALONG THE EXISTING PATH, NORTH OF AUTOMATIC ELECTRIC DRIVE. THE CONTRACTOR SHOULD NOTE THAT THERE IS AN "ALWAYS ON" BRANCH CIRCUIT RUNNING WITHIN THE EXISTING SITE LIGHTING CONDUIT. THE "ALWAYS ON" CIRCUIT IS CONNECTED TO POLE MOUNTED POLICE CAMERAS/EQUIPMENT THAT ARE INSTALLED ON SELECT LIGHT POLES THROUGHOUT THE SITE. THE CONTRACTOR SHALL IDENTIFY AND TAG "ALWAYS ON" CIRCUIT, AND NOTIFY THE NORTHLAKE POLICE DEPT. PRIOR TO BEGINNING ANY ELECTRICAL WORK IN THE AREA.
3. CONNECTION OF PROPOSED ELECTRIC CABLES TO EXISTING LIGHTING CIRCUITS SHALL BE MADE AT THE BASE OF THE LIGHT POLE. THE CONNECTION SHALL INCLUDE ALL NEW FUSES, FUSE HOLDERS, COMPRESSION FITTINGS, SEALANT, CIRCUIT LABELS, ETC. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR "FURNISHING AND INSTALLING CABLE SPLICES."
4. EXPANSION COUPLINGS SHALL BE INSTALLED IN THE CONDUIT RUN AT EACH END OF BRIDGE STRUCTURE.
5. LIGHT POLE TO BE DISCONNECTED FOR DURATION OF BRIDGE CONSTRUCTION. THE LIGHT POLE SHALL BE RECONNECTED AND OPERATIONAL BEFORE OPENING ROAD TO TRAFFIC.
6. THE CONTRACTOR SHALL ASSUME PARTIAL MAINTENANCE OF THE EXISTING LIGHTING SYSTEM AS INDICATED. THIS WORK SHALL INCLUDE MAINTENANCE OF LIGHT POLES, LUMINAIRES AND CABLE RUNS. IN CASE OF POLE KNOCKDOWN OR EQUIPMENT DAMAGED BY EITHER THE MOTORING PUBLIC OR CONTRACTOR OPERATIONS, THE CONTRACTOR SHALL CLEAR AND RESTORE THE EXISTING SYSTEM TO ORIGINAL CONDITIONS (SEE SPECIAL PROVISIONS).



**PROPOSED LIGHTING PLAN**

**LIGHTING LEGEND**

- [H] PROPOSED COMPOSITE CONCRETE HANDHOLE
- UD — WIRES IN UNIT DUCT AS SHOWN ON PLANS
- E — WIRES IN RGS CONDUIT SUSPENDED BELOW PROPOSED BRIDGE STRUCTURE
- EXISTING 400W HIGH PRESSURE SODIUM SHOEBOX TYPE LUMINAIRE MOUNTED 40'-0" ABOVE GRADE ON AN TAPERED STEEL LIGHT POLE (REFERRED TO AS SITE LIGHT POLE), TO REMAIN
- ⊗ EXISTING 150W DECORATIVE TYPE LUMINAIRE MOUNTED ON A 14 FT. FLUTED ALUMINUM POLE, TO REMAIN
- EXISTING CONCRETE HANDHOLE
- UD — EXISTING WIRES IN UNIT DUCT AS SHOWN ON PLANS
- E — EXISTING RGS CONDUIT ATTACHED TO BRIDGE STRUCTURE
- RGS RIGID GALVANIZED STEEL CONDUIT

**CAUTION NOTICE TO CONTRACTOR**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

FILE NAME = N:\NORTHLAKE\940232\HR204\Mech\LG1_940232\hr204_01.SHT	USER NAME = PRAZALAN	DESIGNED - KB	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING &amp; PROPOSED LIGHTING IMPROVEMENT PLAN</b>	F.A. RTE. =	SECTION = 09-00071-00-BR	COUNTY = COOK	TOTAL SHEETS = 31	SHEET NO. = 11	
PLOT SCALE = 1/8"	DATE = 09/30/09	DRAWN - KB	REVISED -			SCALE: AS SHOWN	SHEET NO. OF SHEETS STA. TO STA.	ILLINOIS FED. AID PROJECT			
PLOT DATE = 11/30/2009		CHECKED - AJD	REVISED -					CONTRACT NO. 63437			
		DATE = 09/30/09	REVISED -								

# LIGHTING GENERAL NOTES

- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE CITY BEFORE THE START OF WORK.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.
- THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS INCLUDING ALL ABOVE AND BELOW GRADE APPURTENANCES. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
  - "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
  - "THE NATIONAL ELECTRICAL CODE."
  - MUNICIPAL CODES & ORDINANCES.
- THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DRAWINGS AND SPECIFICATIONS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS, BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL SUBMIT SPECIFICATIONS, DRAWINGS AND CATALOG CUTS FOR ALL MATERIALS TO THE OWNERS REPRESENTATIVE FOR REVIEW BEFORE ORDERING ANY MATERIALS FOR PROJECT.
- THE INSTALLATION OF THE WARNING TAPE SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING, AS APPLICABLE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE CITY OF NORTHLAKE AND OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL TAG ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT.
- ALL UNDERGROUND WIRING SHALL BE MINIMUM #8 COPPER (OR SIZE AS SHOWN ON THE PLANS) XLP TYPE-USE, EXTRA ABRASION RESISTANCE, 600 VOLTS, INSTALLED IN SCH 40 HDPE CONDUITS. ALL CONDUITS SHALL BE INSTALLED IN TRENCH A MINIMUM 30 INCHES BELOW FINISHED GRADE, OR AS SHOWN ON THE PLANS.
- UPON COMPLETION OF THE IMPROVEMENTS TO EXISTING LIGHTING SYSTEMS THE CONTRACTOR SHALL REQUEST IN WRITING A REQUEST FOR PREFINAL INSPECTION A MINIMUM OF THREE DAYS NOTICE TO THE CITY AND THE OWNER'S REPRESENTATIVE. THE CITY OF NORTHLAKE SHALL BE THE ULTIMATE MAINTAINING AGENCY FOR THE LIGHTING SYSTEM.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO FULL SIZE SETS OF RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATION OF ALL LIGHTS, UNDERGROUND WIRING, HANDHOLES & CONTROLLER CABINETS.
- THE CONTRACTOR SHALL PROVIDE A GUARANTEE FOR ALL MATERIAL AND WORKMANSHIP FOR ONE YEAR AFTER THE DATE OF ACCEPTANCE.
- THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE ELECTRICAL TESTING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

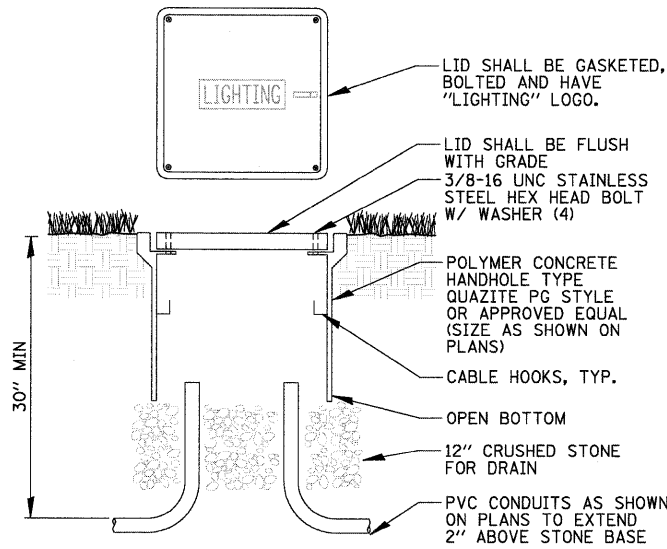
## SUSPENDED CONDUIT NOTES

- HANGER SPACING SHALL NOT EXCEED 5'. INSTALLATION AND MATERIALS FOR HANGER INSTALLATION SHALL BE INCIDENTAL TO COST OF "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM.
- THE CONTRACTOR MUST USE APPROVED SINGLE FLARED COIL LOOP INSERTS, WITH A 4" MAX. INSERT LENGTH. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE SLAB. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS WITH THE BRIDGE CONTRACTOR.
- PROVIDE EXPANSION/DEFLECTION FITTINGS FOR CONDUIT AS REQUIRED BY THE MANUFACTURER. THESE FITTINGS ARE TO ACCOMMODATE A TOTAL MOVEMENT UP TO 4" (2" IN EACH DIRECTION). THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATION FOR INSTALLATION TEMPERATURE. COST AND INSTALLATION OF EXPANSION/DEFLECTION FITTINGS SHALL BE INCIDENTAL TO COST OF THE "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM.
- ALL HANGER HARDWARE, INCLUDING NUTS, LOCK WASHERS, BOLTS, ETC., SHALL BE STAINLESS STEEL.

# LIGHTING BILL OF MATERIALS

CODE NO.	DESCRIPTION	UNIT	QUANTITY
81017515	CONDUIT IN TRENCH, 1/4" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	75
81030100*	CONDUIT SPLICE	EACH	1
81100400	CONDUIT ATTACHED TO STRUCTURE, 1/4" DIA., GALVANIZED STEEL	FOOT	45
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	1
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	600
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	75
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	600
X0323710*	REMOVE CONDUIT ATTACHED TO STRUCTURE	FOOT	45
X0323927*	MAINTENANCE OF LIGHTING SYSTEM	EACH	1
Z0025100*	FURNISHING AND INSTALLING CABLE SPLICES	EACH	2

• SEE CONTRACT SPECIAL PROVISIONS

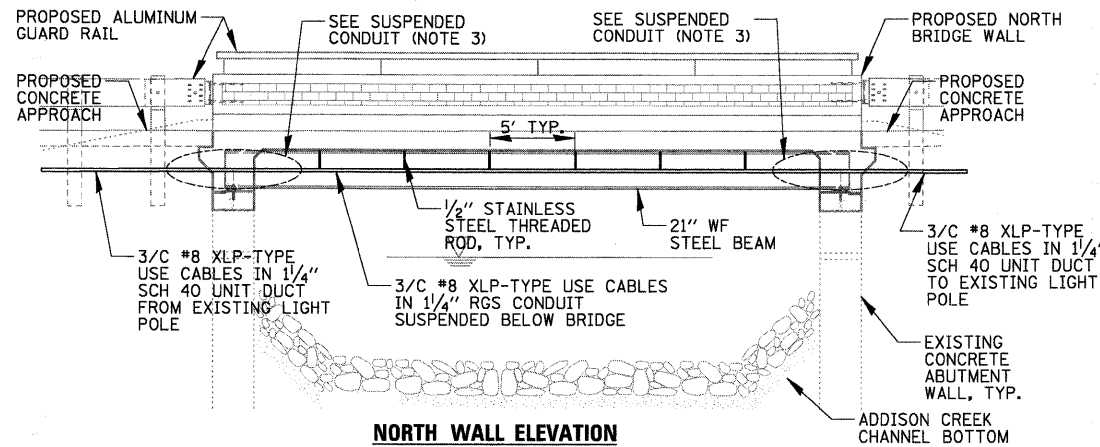


### NOTES:

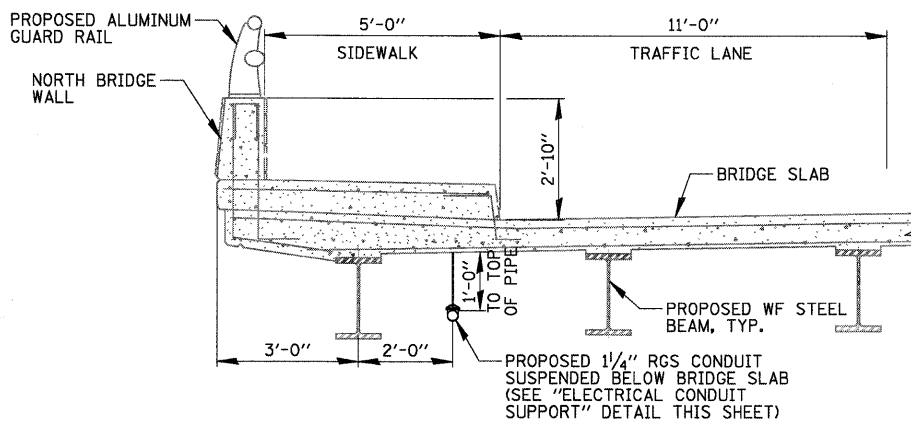
- NO SPLICES ALLOWED IN CONCRETE HANDHOLES.
- POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREEN IN LANDSCAPED AREAS AND MATCH COLOR IN CONCRETE/BRICK AREAS.
- BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS AND BE UL LISTED.

## COMPOSITE CONCRETE HANDHOLE

N.T.S.



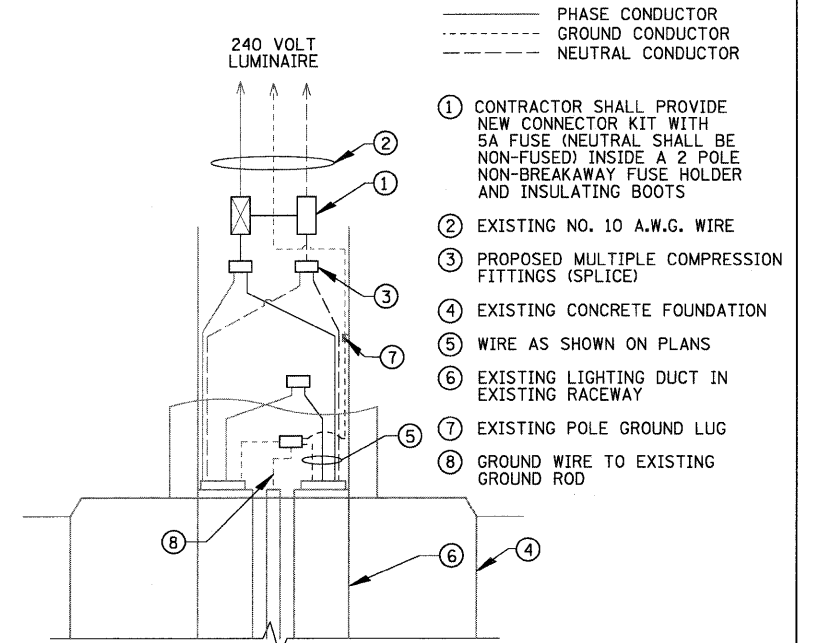
### NORTH WALL ELEVATION



### SECTION A-A

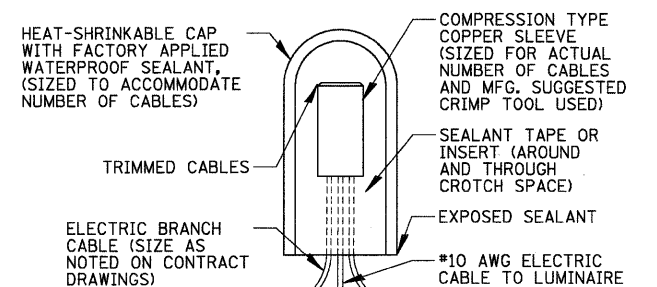
## PROPOSED CONDUIT SUSPENDED BELOW BRIDGE

N.T.S.



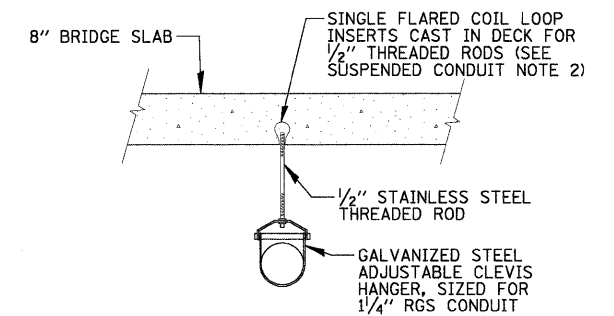
## POLE HANDHOLE WIRING DIAGRAM

N.T.S.



## SPLICING ELECTRIC CABLE

N.T.S.



## ELECTRICAL CONDUIT SUPPORT

N.T.S.

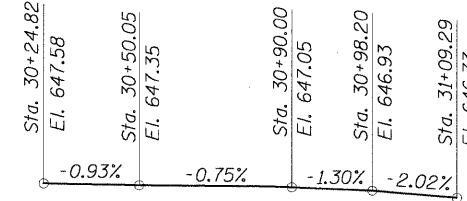
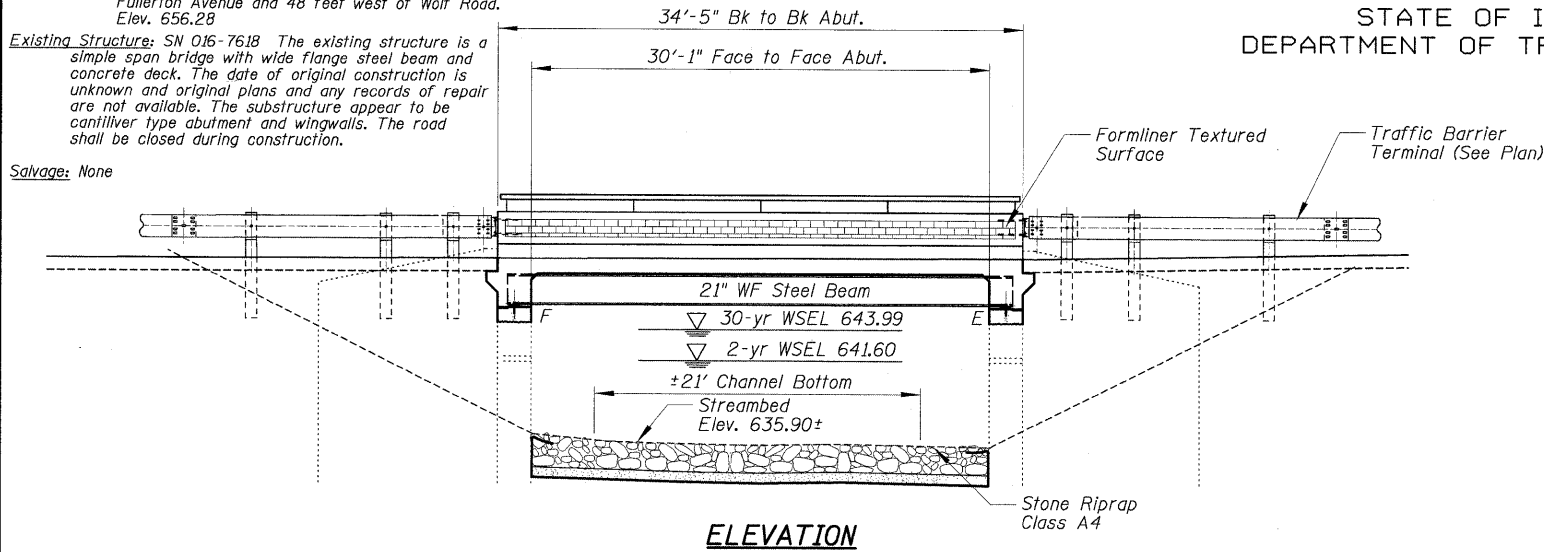
FILE NAME =	USER NAME = PRAZALAN	DESIGNED - KB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				LIGHTING DETAILS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\NORTHLAKE\940032HR204\Mech\LD1_940032hr204_02.SHT	PLOT SCALE = N.T.S.	DRAWN - KB	REVISED -	SCALE: N.T.S.				SHEET NO. OF SHEETS STA. TO STA.				09-00071-00-BR	COOK	31	12	
PLOT DATE = 11/30/2009	DATE = 09/30/09	CHECKED - AJD	REVISED -									CONTRACT NO. 63437				
ILLINOIS FED. AID PROJECT																

Bench Mark: BM 29C Monument at NW corner of Wolf Road and Fullerton Avenue and 48 feet west of Wolf Road. Elev. 656.28

Existing Structure: SN 016-7618 The existing structure is a simple span bridge with wide flange steel beam and concrete deck. The date of original construction is unknown and original plans and any records of repair are not available. The substructure appear to be cantilever type abutment and wingwalls. The road shall be closed during construction.

Salvage: None

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



INDEX OF SHEETS

- S1 General Plan and Elevation
- S2 General Notes
- S3 Top Of Deck Elevations - 1
- S4 Top Of Deck Elevations - 2
- S5 Top Of Approach Slab Elevations
- S6 Deck Plan And Cross Section
- S7 Superstructure Details
- S8 Diaphragm Details
- S9 Aluminum Railing, Type L
- S10 Framing Plan Details
- S11 Steel Details
- S12 Existing Abutment
- S13 Proposed Abutment
- S14 Bridge Approach Slab Details -1
- S15 Bridge Approach Slab Details -2

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

Reinforced Concrete:  
f'c = 3,000 psi (Existing)  
f'c = 3,500 psi (New)

Reinforcement:  
fy = 40 ksi (Existing)  
fy = 60 ksi (New)  
fy = 50 ksi (Structural Steel, M270 Gr50) (New)

SEISMIC DATA

Seismic Performance Zone (SPZ) = A  
Horizontal Bedrock Acceleration Coefficient (A) = 0.036g  
Site Coefficient (S) = 1.2

PROFILE GRADE

ADDISON CREEK  
BUILT BY  
COOK COUNTY  
SEC. 09-00071-00-BR  
F.A. RT. 4025 STA. 30+67.04  
STR. NO. 016-7618 LOADING HS-20

NAME PLATE

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 Specification For Highway And Bridges".



12/16/2009  
*Majid Mobasseri*  
**MAJID MOBASSERI**  
ILLINOIS REGISTRATION No. 081-005058  
STRUCTURAL ENGINEER  
EXPIRATION DATE: 11/30/10

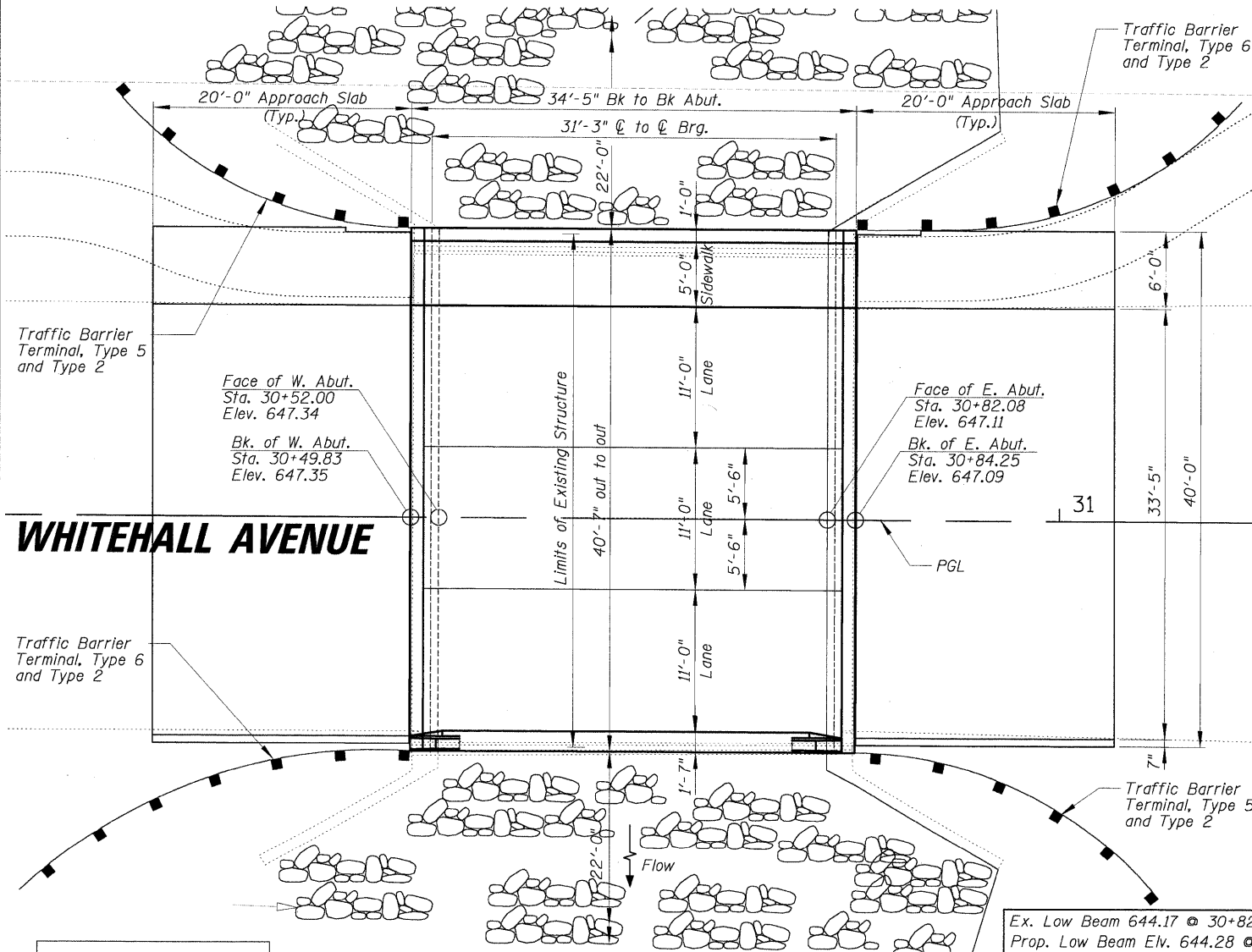
DESIGN SCOUR ELEVATION TABLE

Flood Frequency/ Depth Elevation	West Abut.	East Abut.
100 year/ Scour Depth Elevation (ft.)	625.5	622.9
500 year/ Scour Depth Elevation (ft.)	623.7	621.0

WATERWAY INFORMATION

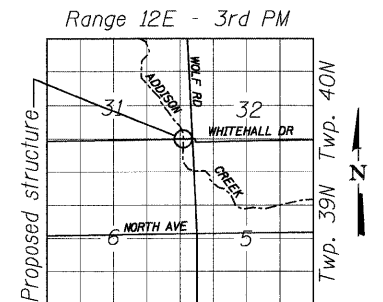
Ex. Low Beam 644.17 @ 30+82.08 Ex. Low Grade 647.23 @ 30+82.08 Drainage Area = 8.1 mi<sup>2</sup>  
Prop. Low Beam Elv. 644.28 @ 30+82.08 Prop. Low Grade Elv. 647.11 @ 30+82.08

Flood	Freq. Yr.	Q cfs	Opening ft <sup>2</sup>		Nat. H.W.E.	Head - ft		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	335	273	273	643.99	0.02	0.02	644.00	644.00
Base	100	481	298	298	644.77	0.03	0.03	644.80	644.80
Max. Calc.	500	840	342	342	646.05	0.18	0.18	646.23	646.23



PLAN

DESIGNED -	200	EXAMINED	ENGINEER OF BRIDGE DESIGN
CHECKED -		PASSED	ENGINEER OF BRIDGES AND STRUCTURES
DRAWN -			
CHECKED -			



LOCATION SKETCH

GENERAL PLAN AND ELEVATION  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

SHEET NO. S-1 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	13
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

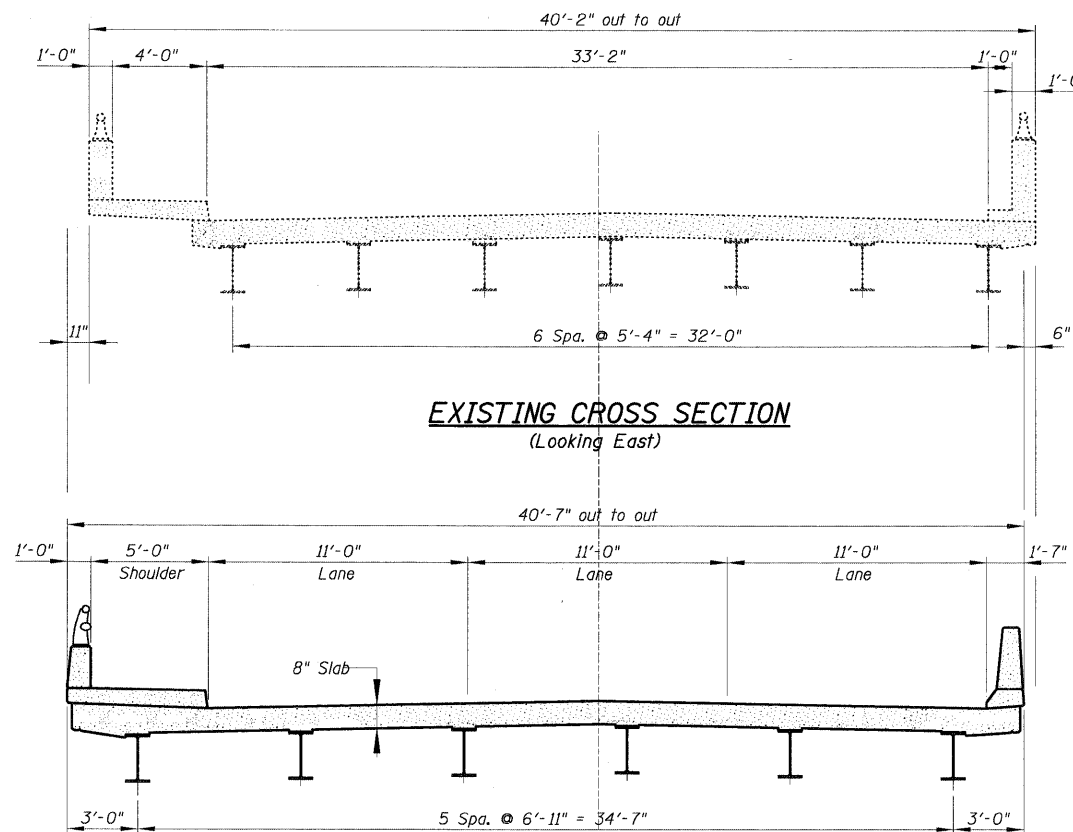
**GENERAL NOTES**

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts  $\frac{3}{4}$  in.  $\phi$ , holes  $\frac{13}{16}$  in.  $\phi$ , unless otherwise noted.
  - Calculated weight of Structural Steel:  
Gr 50 = 12,000 LB.  
Gr 36 = 1,590 LB.
  - All structural steel shall be AASHTO M 270 Grade 50.
  - No field welding is permitted except as specified in the contract documents.
  - Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
  - Reinforcement bars designated (E) shall be epoxy coated.
  - Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete.
  - 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.
  - Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
  - The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
  - Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
  - All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
  - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
  - Two  $\frac{1}{8}$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
15. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with "Concrete Removal".
16. Any reinforcement bars that are damaged during concrete removal operation shall be repaired or replaced using approved bar splicer or anchorage system. Cost included with "Concrete Removal".
17. All faces of the proposed sidewalk barrier and parapet shall have a form liner textured surface. The pattern shall be Customrock Pattern #12010-Minnehaha Blend or approved equal.
18. The color of the form liner shall be Uni-Max Liquid Integral Concrete Color #L1085 - Sandstone, or approved equal. The admixture shall be added to the concrete during batching per manufacturer's specifications. The admixture shall only be added to the concrete for the proposed parapet top and the proposed sidewalk barrier. Cost included with "Form Liner Textured Surface".

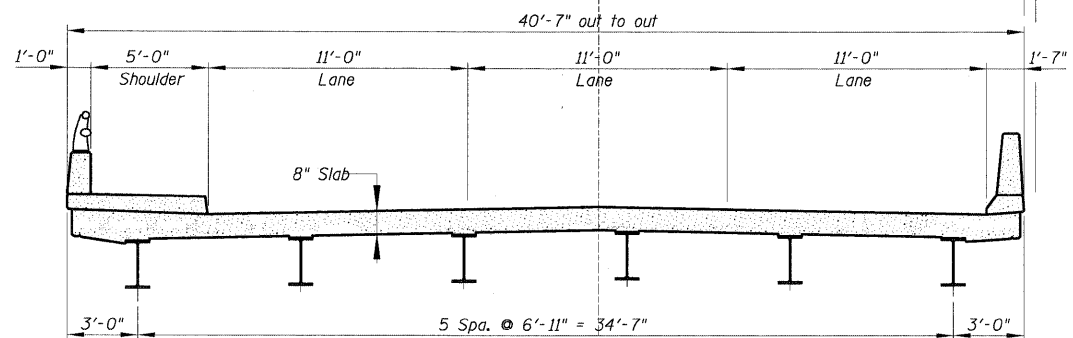
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**TOTAL BILL OF MATERIAL**

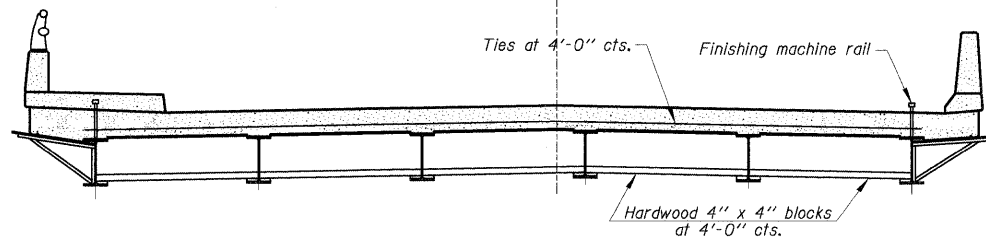
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd		375	375
Filter Fabric	Sq Yd		405	405
Concrete Removal	Cu Yd		9.5	9.5
Removal of Existing Superstructures	Each	1		1
Concrete Structures	Cu Yd		26.9	26.9
Concrete Superstructures	Cu Yd	153.5		153.5
Bridge Deck Grooving	Sq Yd	253		253
Form Liner Textured Surface	Sq Ft	258		258
Protective Coat	Sq Yd	360		360
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	648		648
Reinforcement Bars Epoxy Coated	Pound	28,830	5,130	33,960
Bar Splicers	Each	80		80
Aluminum Railing, Type L	Foot		34	34
Name Plates	Each		1	1



**EXISTING CROSS SECTION**  
(Looking East)



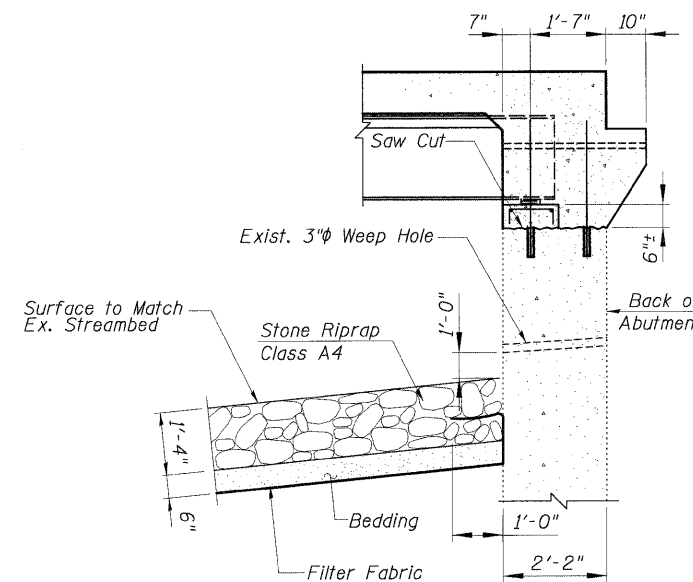
**PROPOSED CROSS SECTION**  
(Looking East)



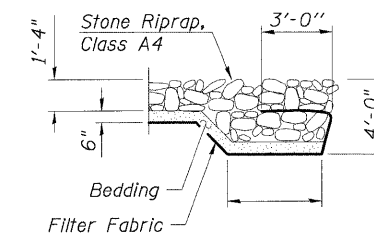
**CATILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER-STANDARD CONSTRUCTION**

(From IDOT Base Sheet SB-1)

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.  
The finishing machine rails shall be placed on the top flange of the exterior beams.  
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.  
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**SECTION THRU ABUTMENT**



**TOE STONE RIPRAP DETAIL**

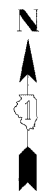
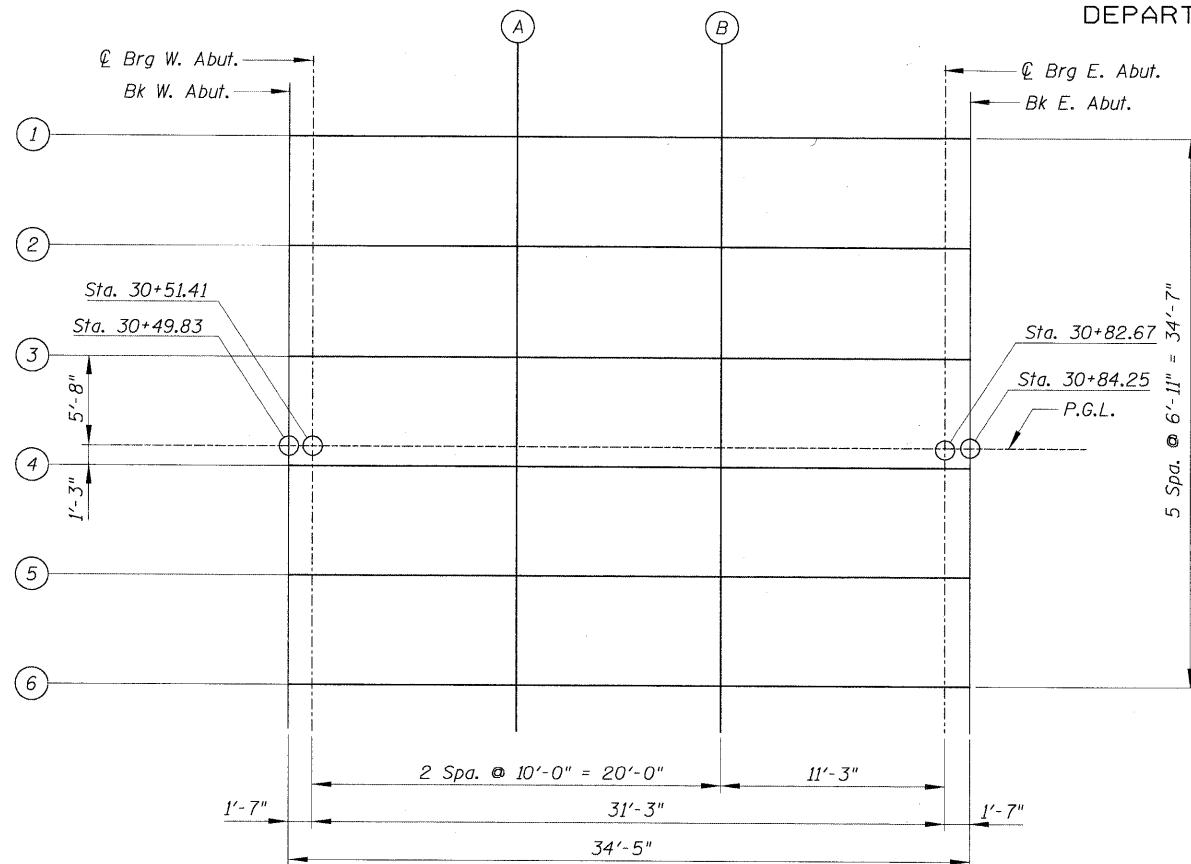
GENERAL NOTES  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

DESIGNED	200
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	

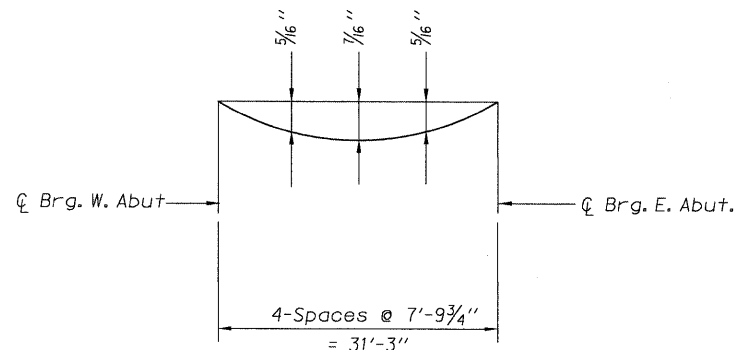
SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-2	4025	09-00071-00-BR	COOK	31	14
CONTRACT NO. 63437					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SB6



DECK PLAN



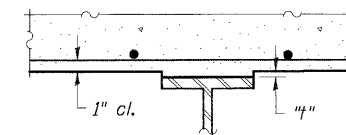
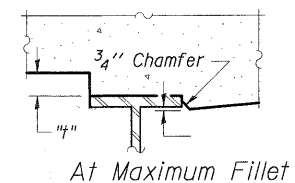
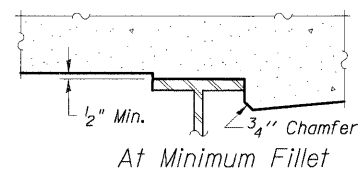
DEAD LOAD DEFLECTION DIAGRAM

(Includes Weight of Concrete Deck And All Superimposed Dead Load Except Future Wearing Surfaces)

NOTE:

- The deflections given above are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflection as shown on Sheet S-4.
- Offsets Are Positive South Of The Profile Gradeline.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES



EXTERIOR BEAMS

INTERIOR BEAM

NOTE:

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Drawing No. S-4 minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

(Sheet 1 of 2)  
TOP OF DECK ELEVATIONS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

SHEET NO. S-3 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	15
CONTRACT NO. 63437					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 1**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	-19.50	647.129	647.129
CL Brg W. Abut.	30+51.42	-19.50	647.117	647.117
A	30+61.42	-19.50	647.042	647.072
B	30+71.42	-19.50	646.967	647.001
CL Brg E. Abut.	30+82.67	-19.50	646.882	646.882
Bk. E. Abutment	30+84.25	-19.50	646.870	646.870

**BEAM 2**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	-12.58	647.100	646.100
CL Brg W. Abut.	30+51.42	-12.58	647.088	647.088
A	30+61.42	-12.58	647.013	647.043
B	30+71.42	-12.58	646.938	646.972
CL Brg E. Abut.	30+82.67	-12.58	646.854	646.854
Bk. E. Abutment	30+84.25	-12.58	646.842	646.842

**BEAM 3**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	-5.67	647.238	647.238
CL Brg W. Abut.	30+51.42	-5.67	647.226	647.226
A	30+61.42	-5.67	647.151	647.182
B	30+71.42	-5.67	647.076	647.110
CL Brg E. Abut.	30+82.67	-5.67	646.992	646.992
Bk. E. Abutment	30+84.25	-5.67	646.980	646.980

**PGL**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	0.00	647.351	647.351
CL Brg W. Abut.	30+51.42	0.00	647.340	647.340
A	30+61.42	0.00	647.265	647.295
B	30+71.42	0.00	647.190	647.224
CL Brg E. Abut.	30+82.67	0.00	647.105	647.105
Bk. E. Abutment	30+84.25	0.00	647.093	647.093

**BEAM 4**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	1.25	647.326	647.326
CL Brg W. Abut.	30+51.42	1.25	647.315	647.315
A	30+61.42	1.25	647.240	647.270
B	30+71.42	1.25	647.165	647.199
CL Brg E. Abut.	30+82.67	1.25	647.080	647.080
Bk. E. Abutment	30+84.25	1.25	647.068	647.068

**BEAM 5**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	8.17	647.188	647.188
CL Brg W. Abut.	30+51.42	8.17	647.176	647.176
A	30+61.42	8.17	647.101	647.132
B	30+71.42	8.17	647.026	647.060
CL Brg E. Abut.	30+82.67	8.17	646.942	646.942
Bk. E. Abutment	30+84.25	8.17	646.930	646.930

**BEAM 6**

Locations	Stations	Offset	Theoretical Grade Elevations	Elevations Adjusted For DL Deflections
Bk. W. Abutment	30+49.83	15.08	647.050	647.050
CL Brg W. Abut.	30+51.42	15.08	647.038	647.038
A	30+61.42	15.08	646.963	646.993
B	30+71.42	15.08	646.888	646.922
CL Brg E. Abut.	30+82.67	15.08	646.804	646.804
Bk. E. Abutment	30+84.25	15.08	646.792	646.792

(Sheet 2 of 2)

TOP OF DECK ELEVATIONS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S-4 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	16
CONTRACT NO. 63437					
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**NORTH EDGE OF SLAB**

Locations	Stations	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	30+29.83	22.50' LT	647.08
A	30+39.83	22.50' LT	646.99
Bk. W. Abutment	30+49.83	22.17' LT	646.91

**NORTH EDGE OF PAVEMENT / FACE OF SIDEWALK**

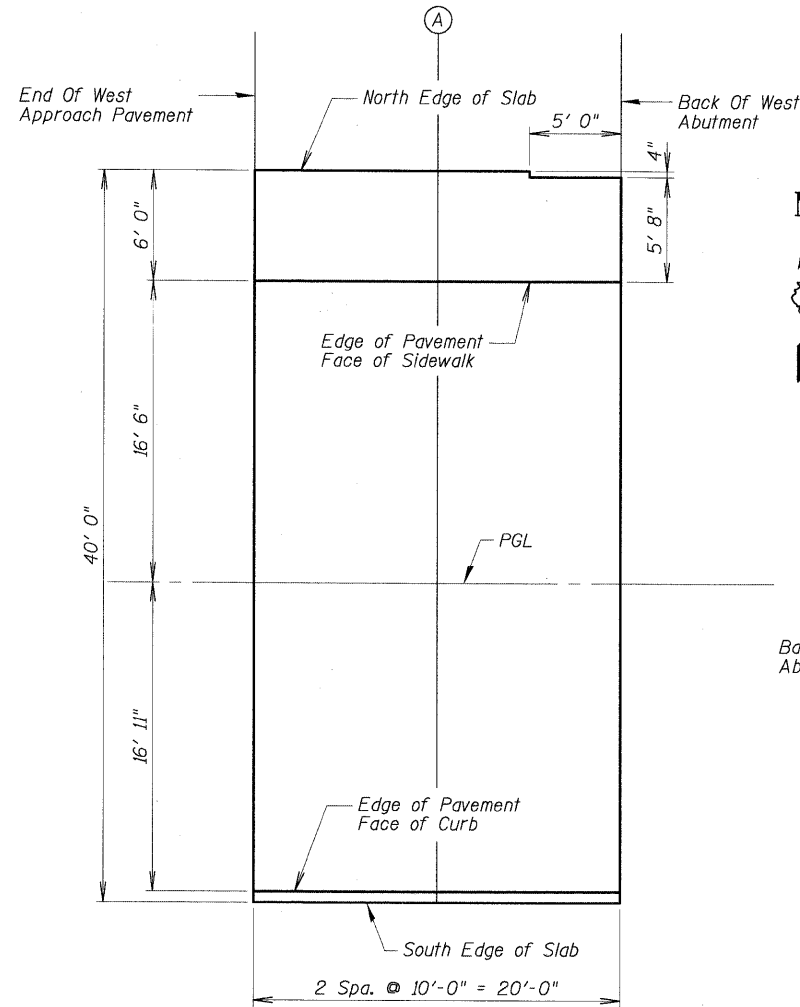
Locations	Stations	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	30+29.83	16.50' LT	647.20
A	30+39.83	16.50' LT	647.11
Bk. W. Abutment	30+49.83	16.50' LT	647.02

**PGL**

Locations	Stations	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	30+29.83	0.00'	647.53
A	30+39.83	0.00'	647.44
Bk. W. Abutment	30+49.83	0.00'	647.35

**SOUTH EDGE OF PAVEMENT / FACE OF CURB**

Locations	Stations	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	30+29.83	16.92' RT	647.20
A	30+39.83	16.92' RT	647.10
Bk. W. Abutment	30+49.83	16.92' RT	647.01



**WEST APPROACH PAVEMENT**

**NORTH EDGE OF SLAB**

Locations	Stations	Offset	Theoretical Grade Elevations
Bk. E. Abutment	30+84.25	22.17' LT	646.65
B	30+94.25	22.50' LT	646.54
End E. Appr. Pav't	31+04.25	22.50' LT	646.38

**NORTH EDGE OF PAVEMENT / FACE OF SIDEWALK**

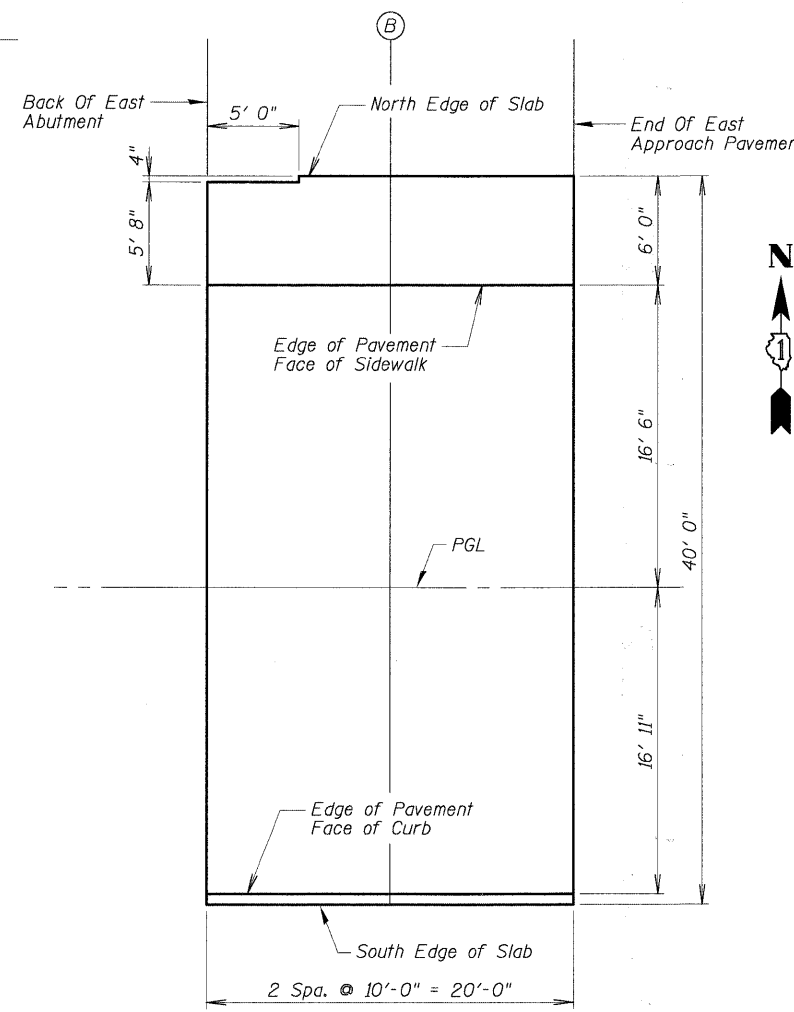
Locations	Stations	Offset	Theoretical Grade Elevations
Bk. E. Abutment	30+84.25	16.50' LT	646.76
B	30+94.25	16.50' LT	646.66
End E. Appr. Pav't	31+04.25	16.50' LT	646.50

**PGL**

Locations	Stations	Offset	Theoretical Grade Elevations
Bk. E. Abutment	30+84.25	0.00'	647.09
B	30+94.25	0.00'	646.99
End E. Appr. Pav't	31+04.25	0.00'	646.83

**SOUTH EDGE OF PAVEMENT / FACE OF CURB**

Locations	Stations	Offset	Theoretical Grade Elevations
Bk. E. Abutment	30+84.25	16.92' RT	646.75
B	30+94.25	16.92' RT	646.66
End E. Appr. Pav't	31+04.25	16.92' RT	646.49



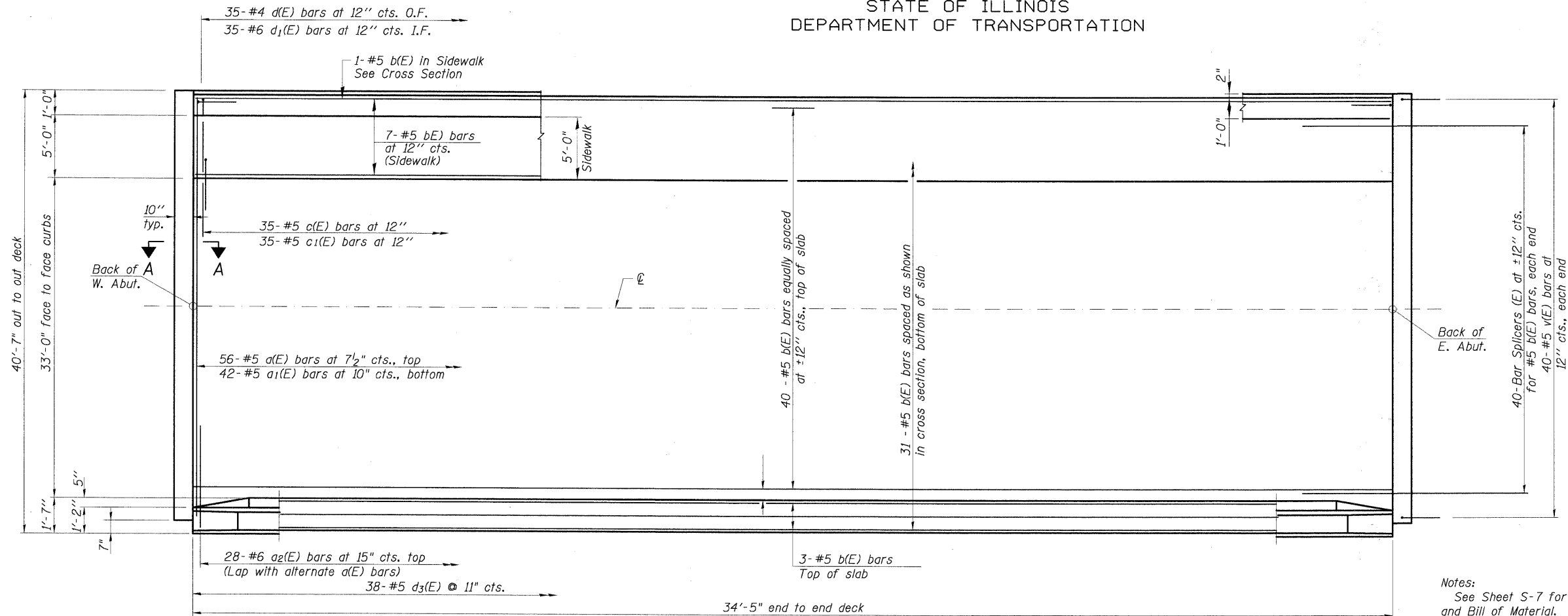
**EAST APPROACH PAVEMENT**

**TOP OF APPROACH SLAB ELEVATIONS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618**

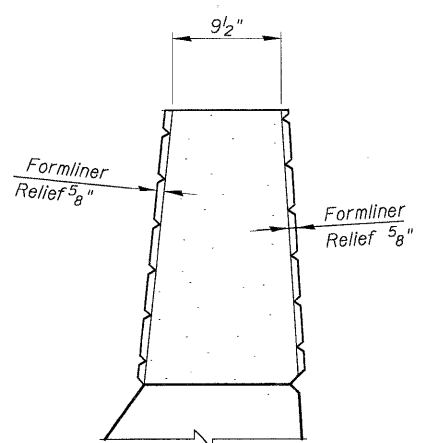
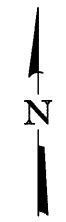
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-5	4025	09-00071-00-BR	COOK	31	17
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PLAN

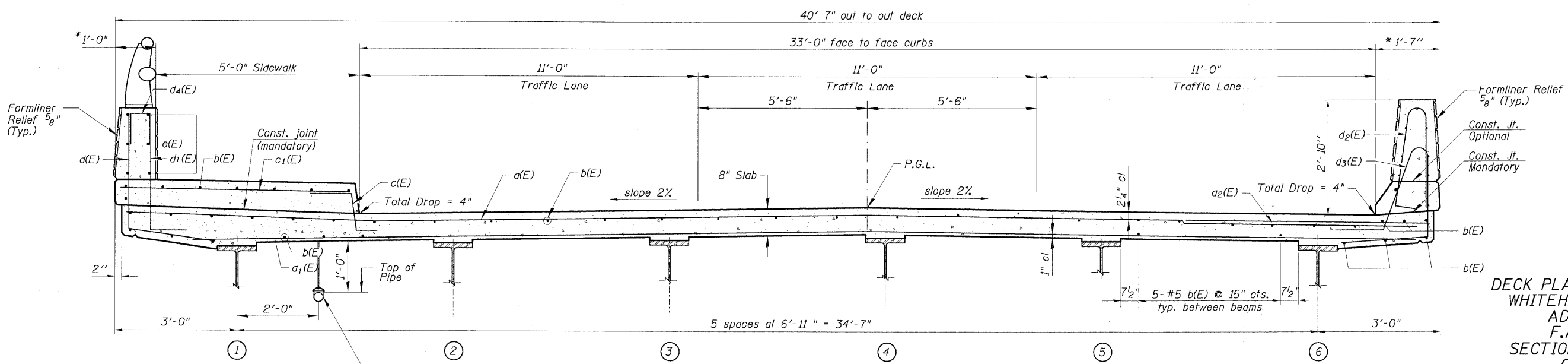


FORMLINER DETAIL

Notes:  
See Sheet S-7 for superstructure details and Bill of Material.  
See Sheet S-7 for parapet reinforcement.

LEGEND:  
O.F. Outside Face  
I.F. Inside Face

MIN. BAR LAP	
#5	1'-8"



CROSS SECTION  
(Looking East)

\* Dimensions Are of Barrier Only. Add 5/8" For Formliner Relief To Each Side of Barrier.

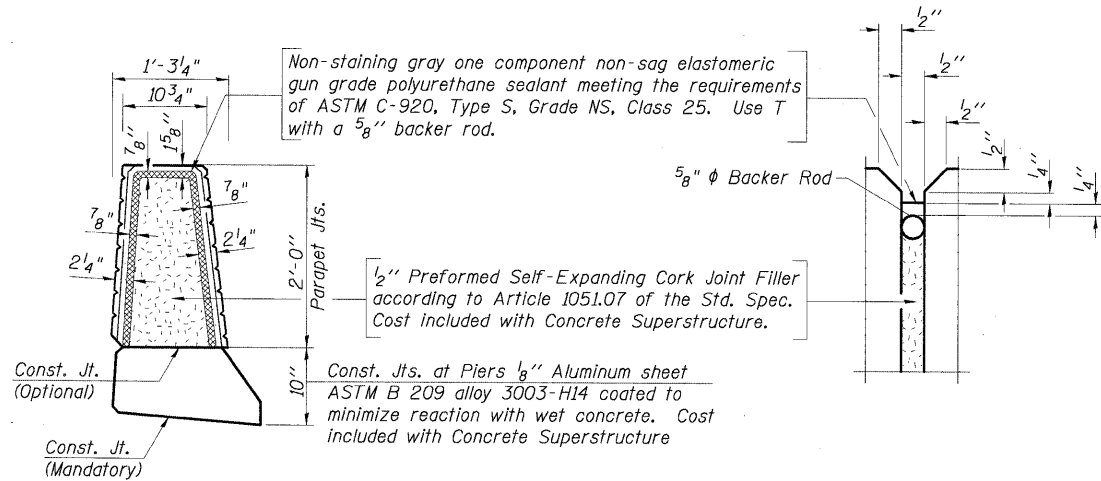
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

DECK PLAN AND CROSS SECTION  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

SHEET NO. S-6 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	18
			CONTRACT NO. 63437		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



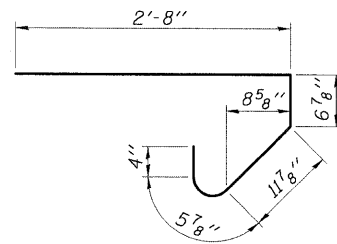
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



PARAPET JOINT DETAILS

Notes:

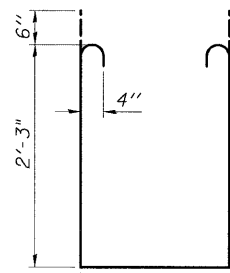
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



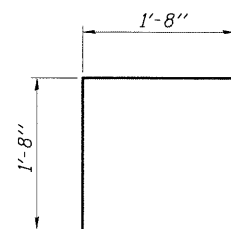
BAR s(E)

Notes:

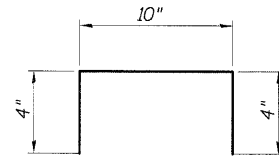
Reinforcement bars in diaphragm are billed with superstructure on sheet S-7. Concrete in diaphragm is included with Concrete Superstructure on sheet S-7. The s(E) and s<sub>1</sub>(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams. Epoxy grout d<sub>5</sub>(E) bars in 6" (min.) drilled holes according to Section 584 of Standard Specification



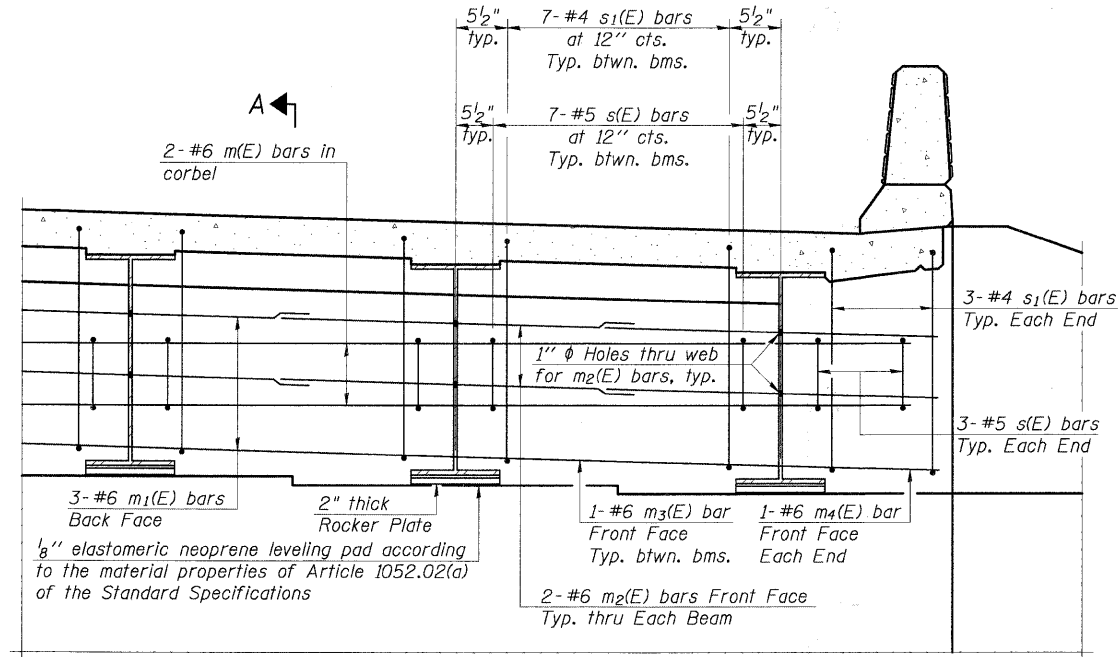
BAR s<sub>1</sub>(E)



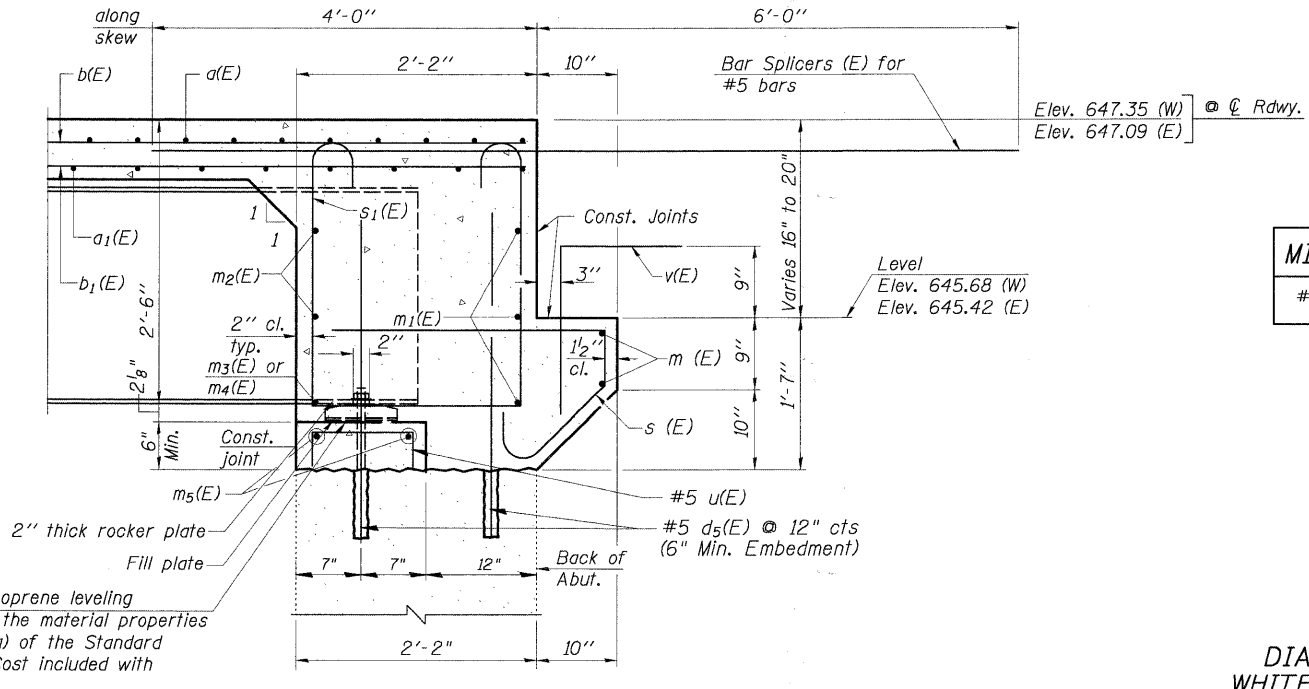
BAR v(E)



BAR u(E)



DIAPHRAGM ELEVATION AT ABUTMENT



MIN. BAR LAP	
#6	2'-9"

SECTION A-A

Dimensions at right angles to abutment, except as shown.

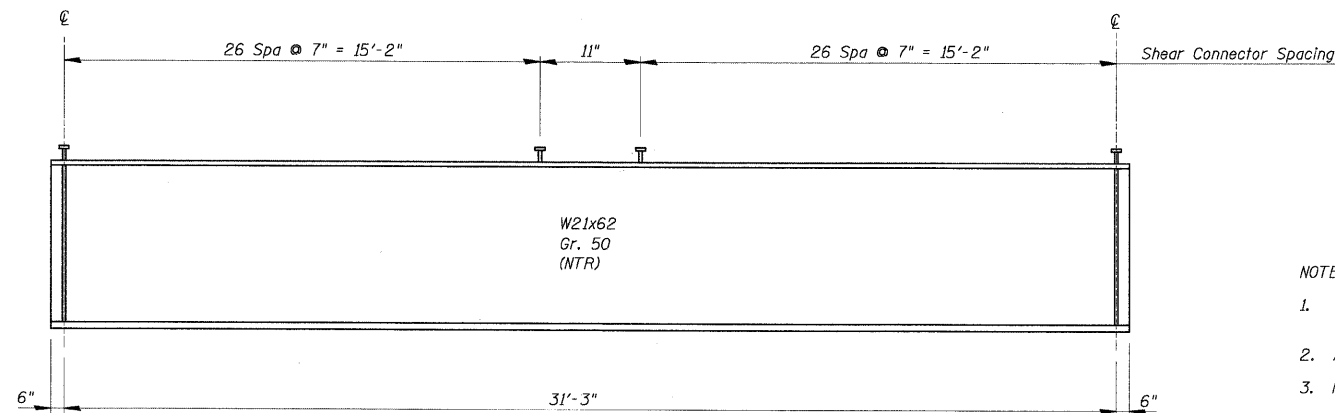
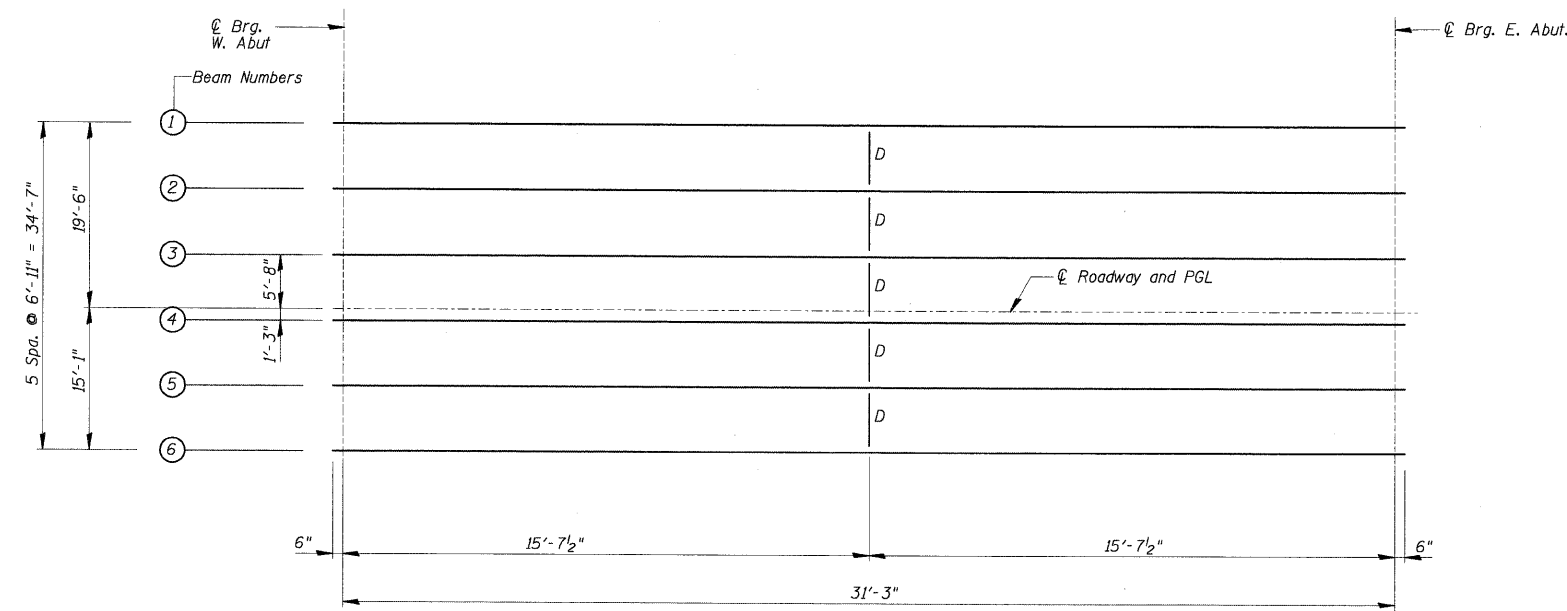
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S-8 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	20
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DIAPHRAGM DETAILS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TOP OF BEAM ELEVATIONS-BEFORE DEFLECTION  
(For Fabrication use only)

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
℄ Brg. E. Abut.	646.03	646.10	646.24	646.33	646.19	646.05
℄ Brg. W. Abut.	646.26	646.34	646.48	646.56	646.43	646.29

		0.5 Sp.
$I_s$	(in <sup>4</sup> )	1330
$I_c$ (n)	(in <sup>4</sup> )	4964.8
$I_c$ (3n)	(in <sup>4</sup> )	3781.6
$S_s$	(in <sup>3</sup> )	126.8
$S_c$ (n)	(in <sup>3</sup> )	221.4
$S_c$ (3n)	(in <sup>3</sup> )	198.9
$\rho$	(k/ft.)	0.765
$M \rho$	(k)	93.5
$s \rho$	(k/ft.)	0.37
$M_s \rho$	(k)	44.5
$M_t$	(k)	189.1
$M$ (Imp)	(k)	56.7
$S_s [M_t + M(Imp)]$	(k)	409.8
$M_a$	(k)	712.1
* $M_u$	(k)	1,239.8
$f_s \rho$ non-comp (k.s.i.)		8.84
$f_s \rho$ (comp) (k.s.i.)		2.69
$f_s \rho_s (\rho + Imp)$ (k.s.i.)		22.20
$f_s$ (Overload) (k.s.i.)		33.73
* $f_s$ (Total) (k.s.i.)		43.85
$VR$	(k)	47.0

\* Non-Compact Section

		Abut.
$R \rho$	(k)	17.7
$R_t$	(k)	36.5
$Imp.$	(k)	10.9
$R$ (Total)	(k)	65.1

- $I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f$  (Total and Overload) due to non-composite dead loads (in<sub>4</sub> and in<sub>3</sub>).
- $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f$  (Total and Overload) due to short-term composite live loads (in<sub>4</sub> and in<sub>3</sub>).
- $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f$  (Total and Overload) due to long-term composite (superimposed) dead loads (in<sub>4</sub> and in<sub>3</sub>).
- $\rho$ : Un-factored non-composite dead load (kips/ft.).
- $M \rho$ : Un-factored moment due to non-composite dead load (kip-ft.).
- $s \rho$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \rho$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_t$ : Un-factored live load moment (kip-ft.).
- $M_{imp}$ : Un-factored moment due to impact (kip-ft.).
- $M_a$ : Factored design moment (kip-ft.).
- $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  $M \rho + M_s \rho + \frac{5}{3} (M_t + M_{imp})$
- $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  $1.3 [M \rho + M_s \rho + \frac{5}{3} (M_t + M_{imp})]$
- $VR$ : Maximum  $\frac{1}{4}$  + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

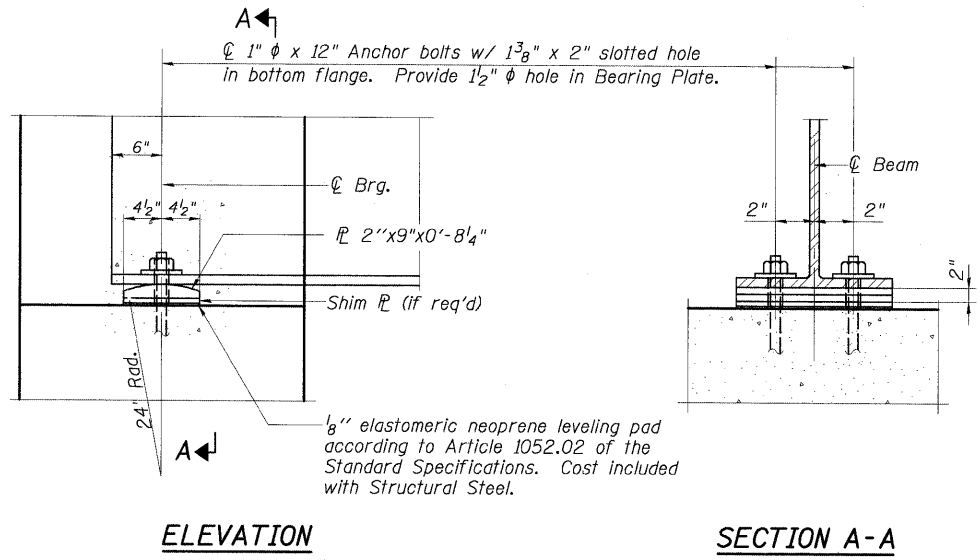
NOTES:

- N.T.R. designates members subject to the supplemental requirements for notch toughness (Zone 2).
- All structural steel for beams shall be AASHTO M270 Grade 50.
- Fasteners shall be high strength bolts, conforming to AASHTO M-164 Specification (ASTM A 325). Bolts  $\frac{3}{8}$ "  $\phi$ , open holes  $\frac{5}{16}$ "  $\phi$ , unless noted otherwise.
- Two hardened washers are required over all oversized holes.
- Number of shear connectors required, 108 beams x 6 = 648.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S-10 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	22
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

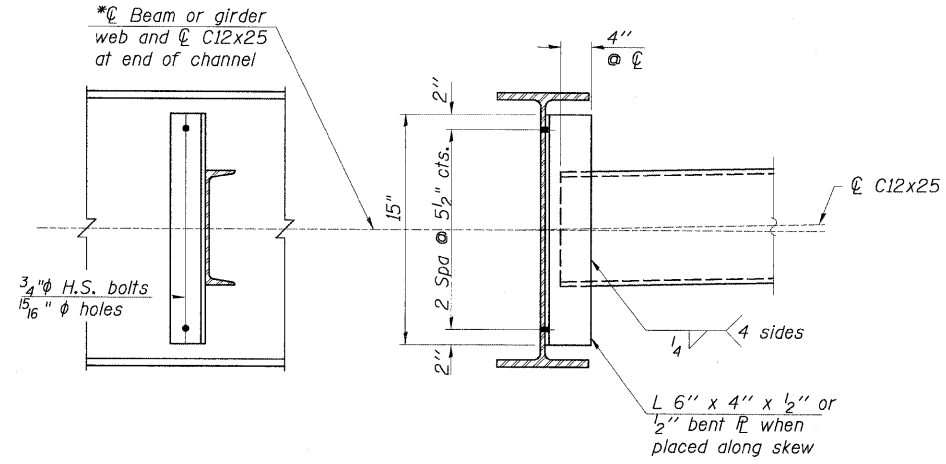
FRAMING PLAN DETAILS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618



ELEVATION

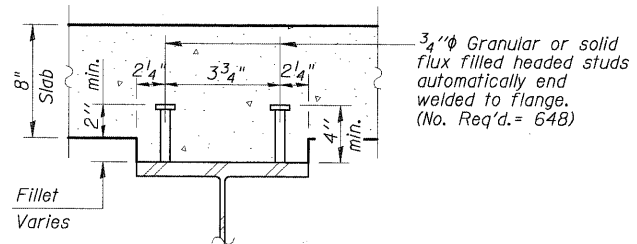
SECTION A-A

**FIXED BEARING  
AT EAST & WEST ABUTMENT**

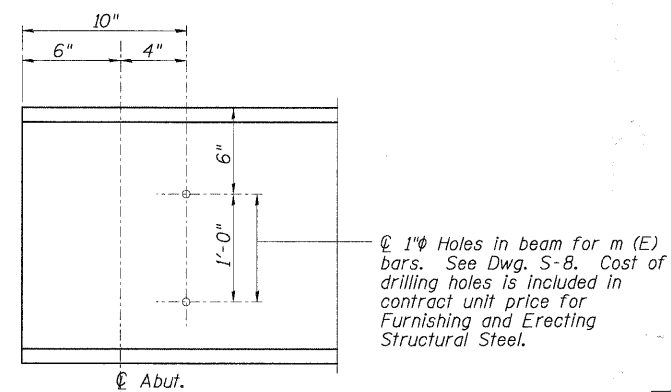


INTERIOR DIAPHRAGM

Note:  
Two hardened washers required for each set of oversized holes.  
\*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.



TYPICAL SHEAR CONNECTOR DETAIL



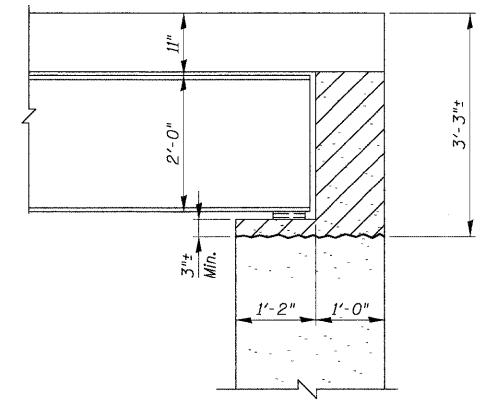
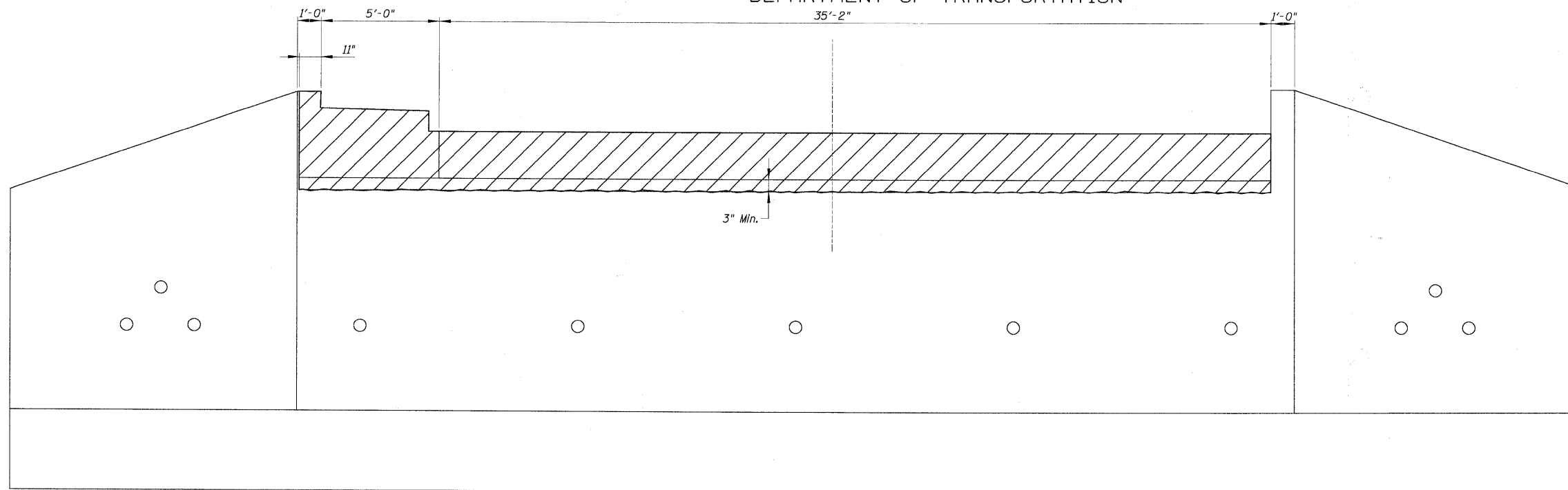
TYPICAL END OF BEAM ELEVATION

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

STEEL DETAILS  
 WHITEHALL AVENUE OVER  
 ADDISON CREEK  
 F.A. RTE. 4025  
 SECTION 09-00071-00-BR  
 COOK COUNTY  
 STATION 30+67.04  
 STRUCTURE No. 016-7618

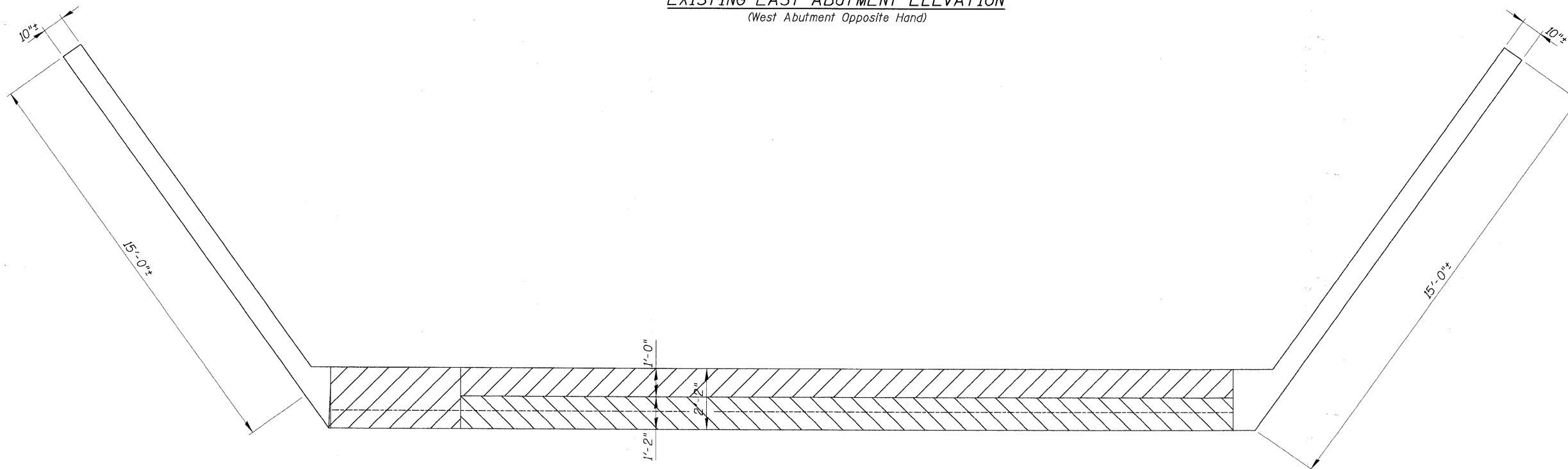
SHEET NO. S-11 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	23
	CONTRACT NO. 63437				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION THRU ABUTMENTS

EXISTING EAST ABUTMENT ELEVATION  
(West Abutment Opposite Hand)



EXISTING EAST ABUTMENT PLAN  
(West Abutment Opposite Hand)

LEGEND:

- Concrete Removal (Backwall/Abutment)
- Concrete Removal (Beam Seat)

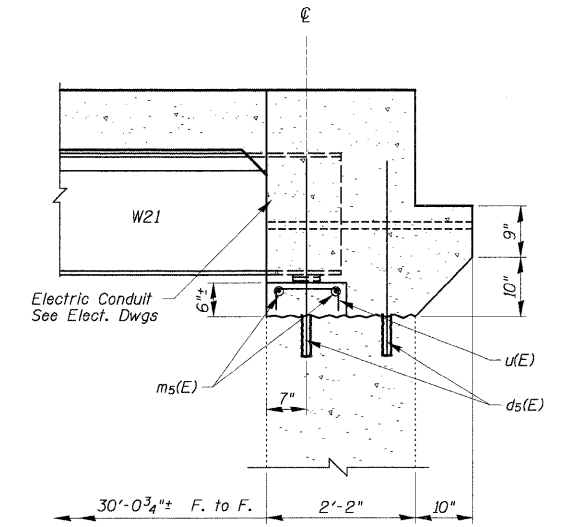
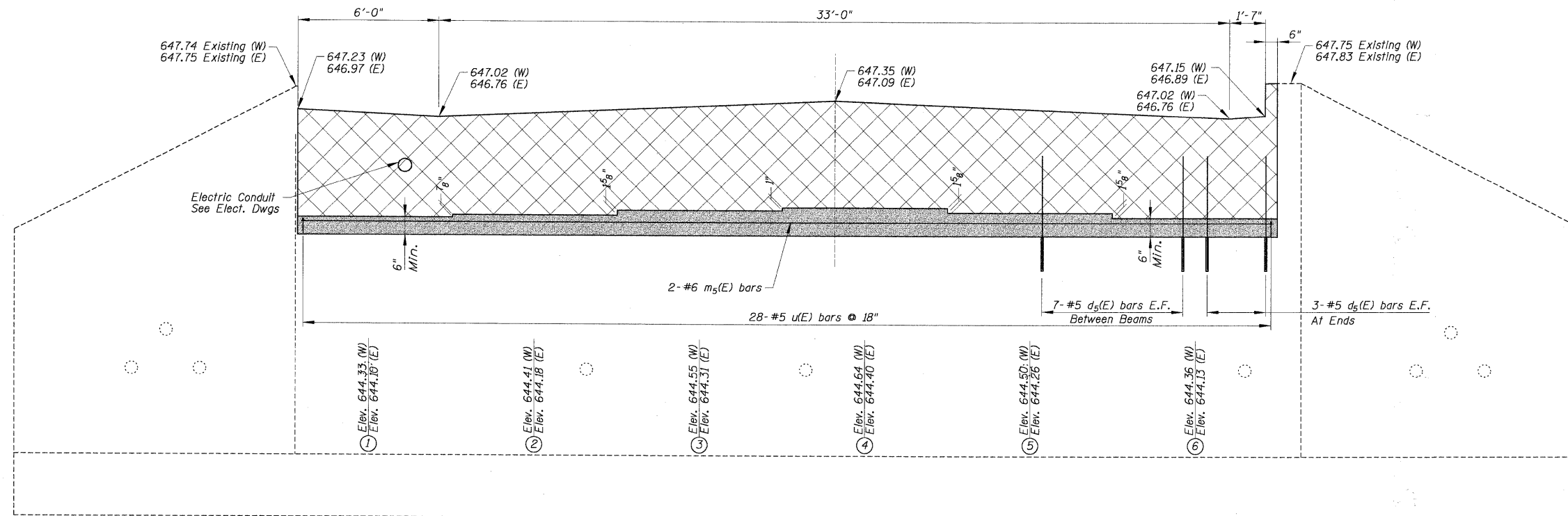
EXISTING ABUTMENT  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S-12 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	24
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION THRU ABUTMENTS

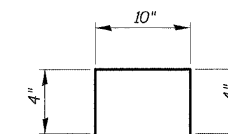
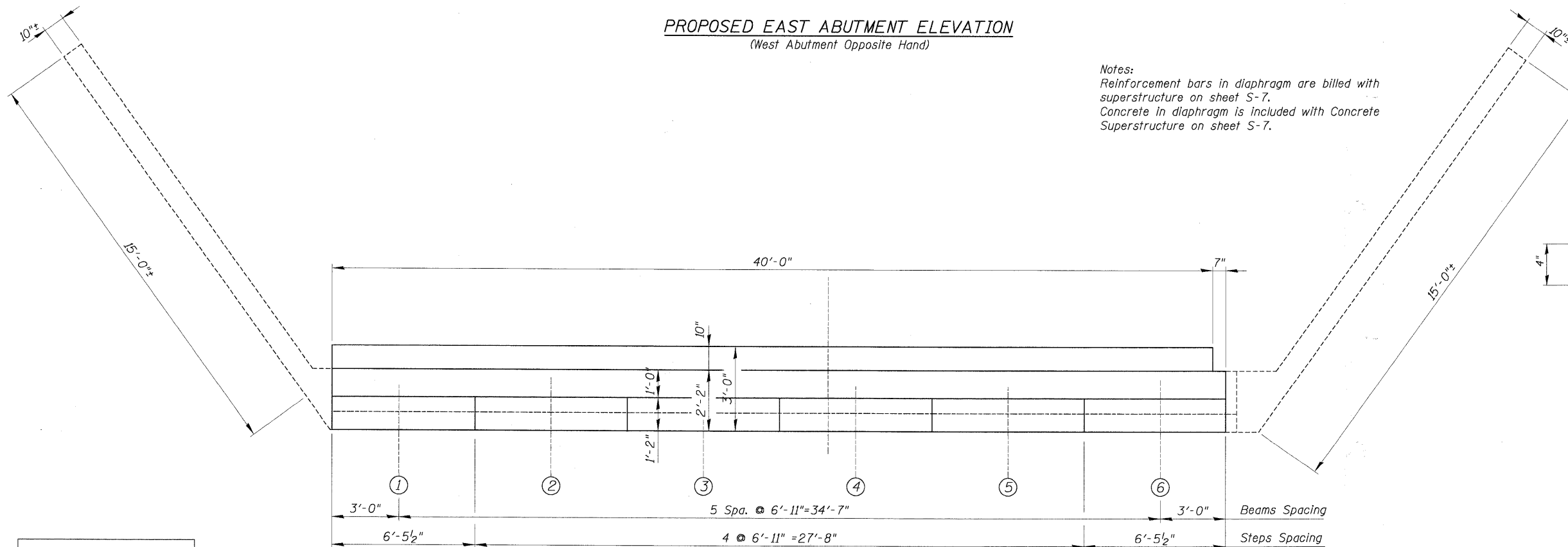
BILL OF MATERIAL  
(FOR EACH ABUTMENT)

Bar	No.	Size	Length	Shape
d5(E)	82	#5	2'-8"	—
m5(E)	2	#6	40'-6"	—
u(E)	28	#5	1'-6"	□
Reinforcement Bars, Epoxy Coated			Pound	400
Concrete Structures			Cu. Yds.	1.1

Bars indicated thus 1 x 3 - #8 etc. indicates 1 line of bars with 3 lengths per line.

PROPOSED EAST ABUTMENT ELEVATION  
(West Abutment Opposite Hand)

Notes:  
Reinforcement bars in diaphragm are billed with superstructure on sheet S-7.  
Concrete in diaphragm is included with Concrete Superstructure on sheet S-7.



BAR u(E)

LEGEND:

- Concrete Structures
- To Be Poured After Beams Have Been Erected

PROPOSED ABUTMENT  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

DESIGNED -
CHECKED -
DRAWN -
CHECKED -

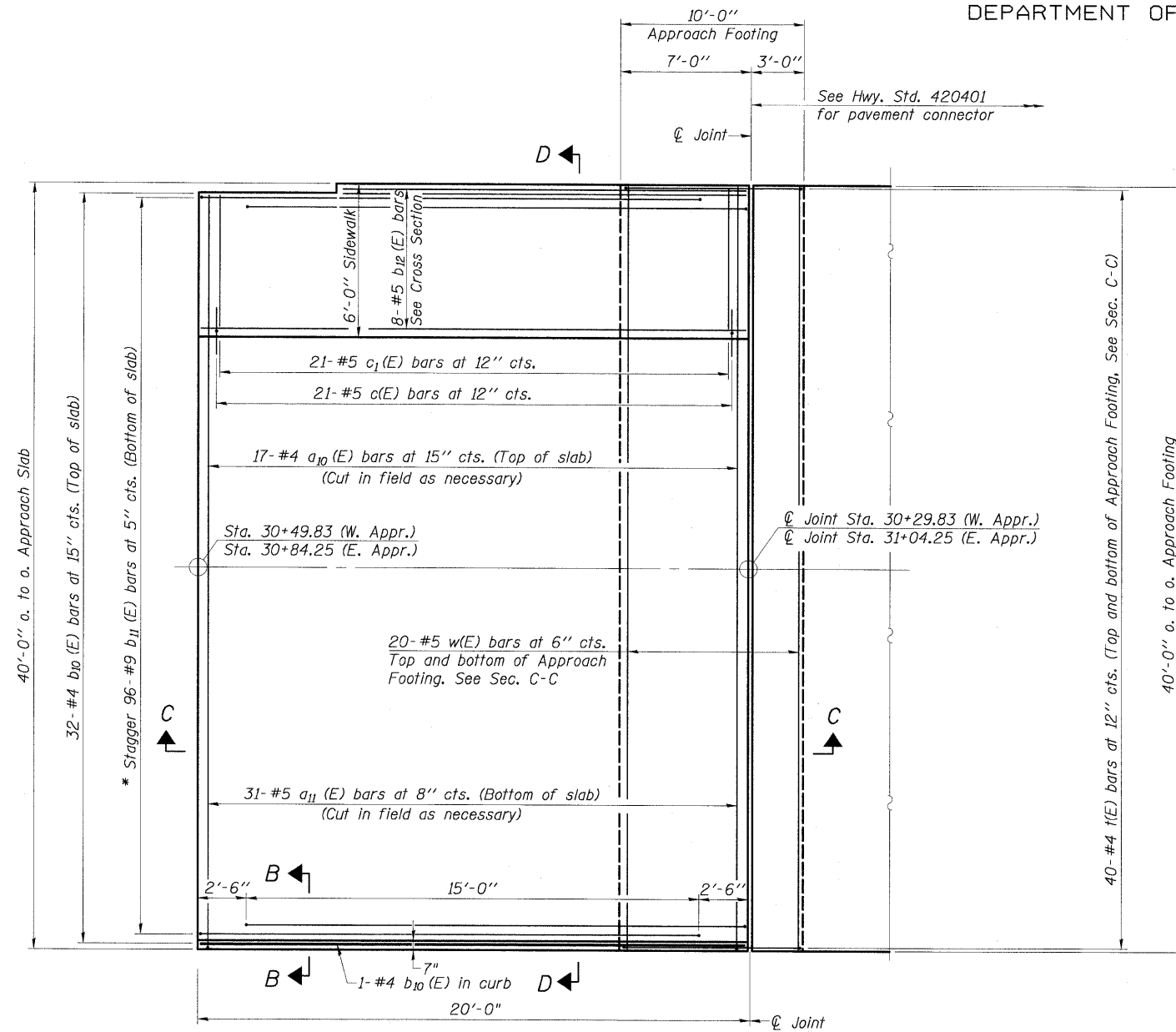
EXAMINED  
PASSED  
ENGINEER OF BRIDGE DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES

PROPOSED EAST ABUTMENT PLAN  
(West Abutment Opposite Hand)

SHEET NO. S-13 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	25
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

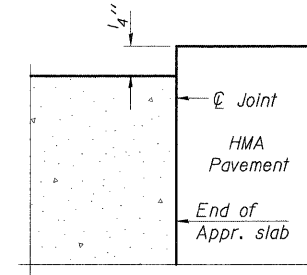
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
See sheet S-15 for Sections C-C & D-D.  
 $a_{11}(E)$ ,  $a_{10}(E)$ , and  $w(E)$  bar spacings measured perpendicular to  $\text{C}$  Rdwy.



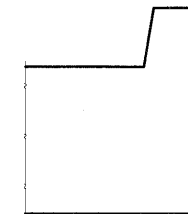
PLAN

\* Tilt #9  $b_1(E)$  bars as required to maintain clearance.



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

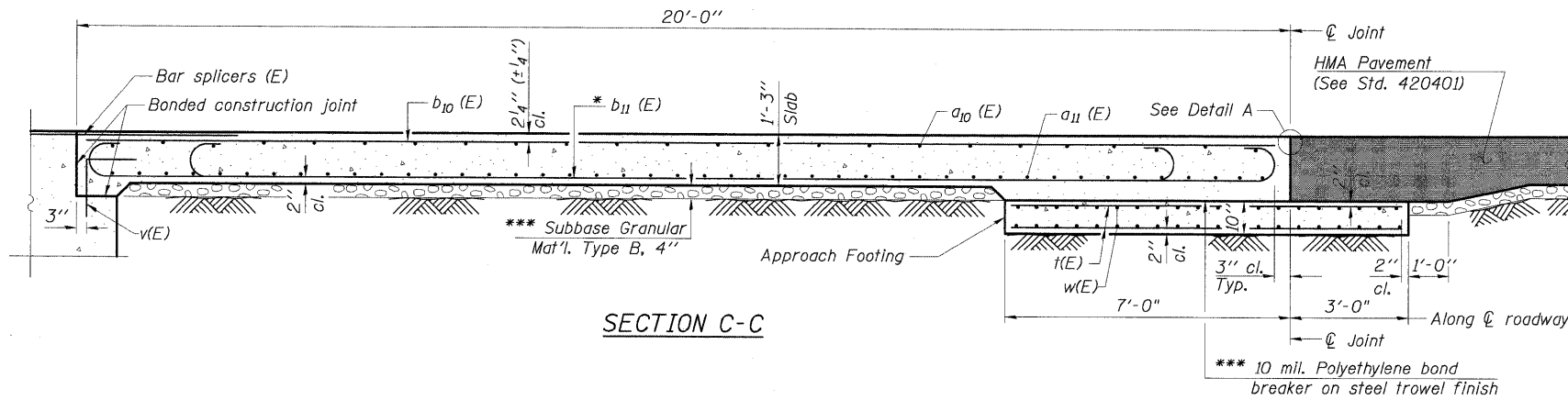
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

(Sheet 1 of 2)  
BRIDGE APPROACH SLAB DETAILS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

SHEET NO. S-14 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	26
CONTRACT NO. 63437					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

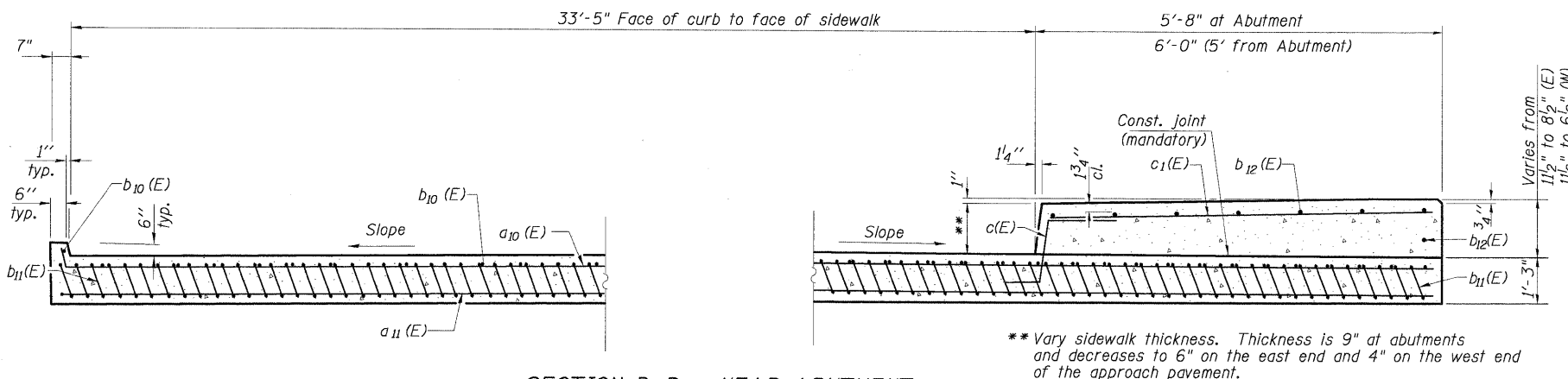
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



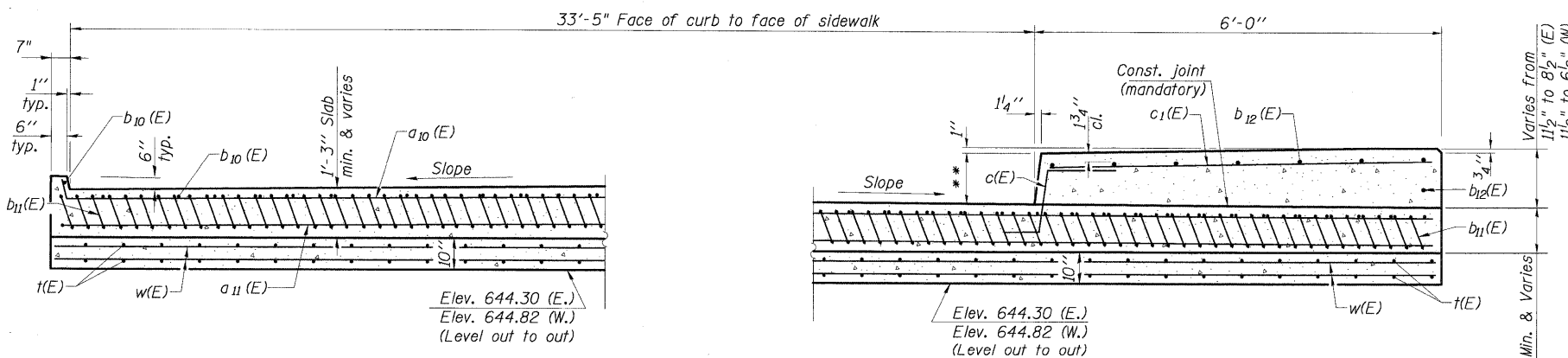
SECTION C-C

Notes:  
See sheet S-14 for Detail A  
Approach slab, sidewalk and parapet concrete shall be paid for as Concrete Superstructure.  
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 sheet S-8.  
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
Cost of excavation for approach footing included with Concrete Structures.

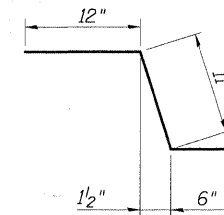
- \* Tilt #9 b<sub>11</sub>(E) bars as required to maintain clearance.
- \*\*\* Cost included with Concrete Superstructure.



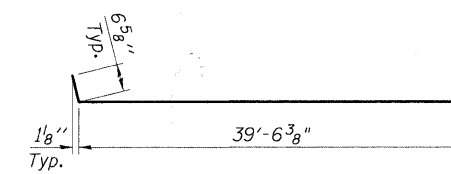
SECTION D-D - NEAR ABUTMENT  
(See Plan for dimensions not shown)



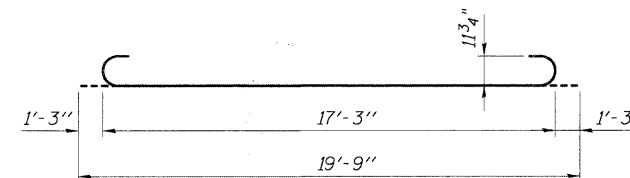
SECTION D-D - AT APPROACH FOOTING  
(See Plan for dimensions not shown)



BAR c(E)



BAR a<sub>10</sub>(E)



BAR b<sub>11</sub>(E)

TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a <sub>10</sub> (E)	34	#4	40'-1"	
a <sub>11</sub> (E)	62	#5	39'-6"	
b <sub>10</sub> (E)	66	#4	19'-8"	
b <sub>11</sub> (E)	192	#9	19'-9"	
b <sub>12</sub> (E)	16	#5	19'-8"	
c(E)	42	#5	2'-5"	
c <sub>1</sub> (E)	42	#5	5'-6"	
t(E)	160	#4	9'-8"	
w(E)	80	#5	39'-6"	
Concrete Superstructure			Cu. Yd.	90.3
Concrete Structures			Cu. Yd.	24.7
* Reinforcement Bars, Epoxy Coated			Pound	22,230

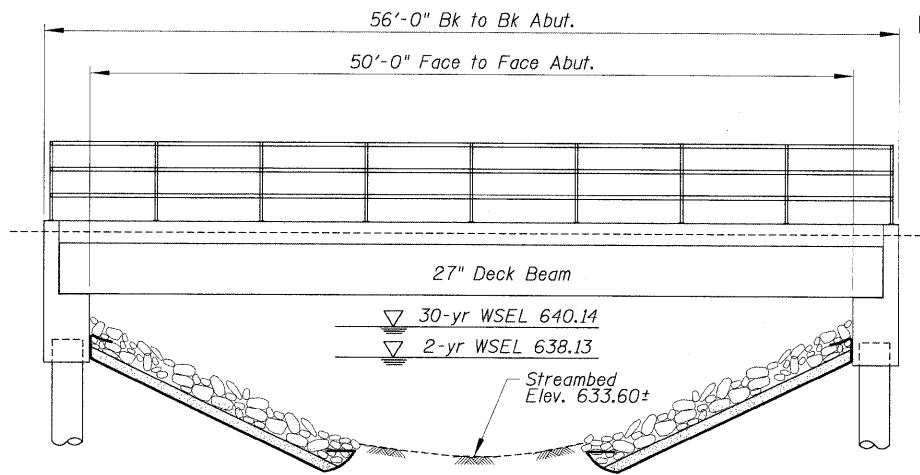
\* Superstructure = 17,900 lbs.  
Substructure = 4,330 lbs.

(Sheet 2 of 2)  
BRIDGE APPROACH SLAB DETAILS  
WHITEHALL AVENUE OVER  
ADDISON CREEK  
F.A. RTE. 4025  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION 30+67.04  
STRUCTURE No. 016-7618

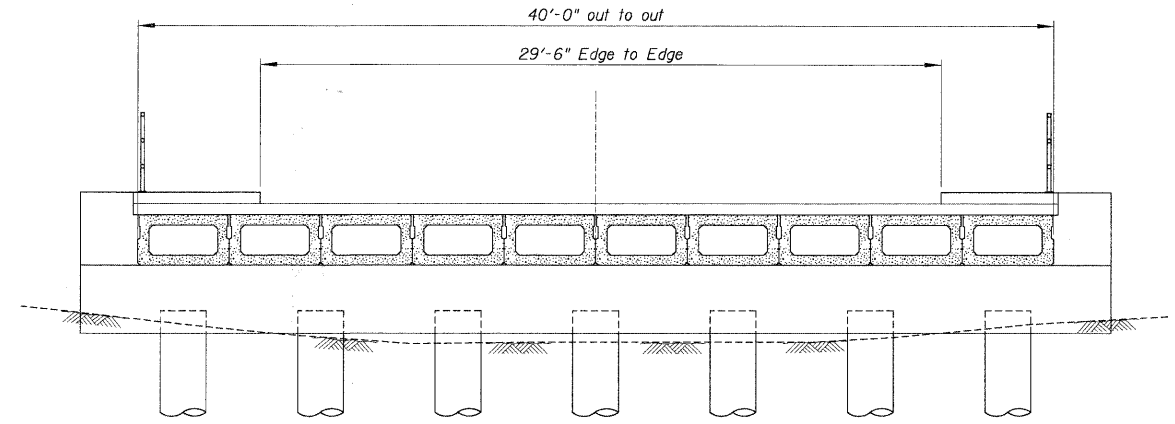
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S-15 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4025	09-00071-00-BR	COOK	31	27
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION



CROSS SECTION

LOADING H15

DESIGN SPECIFICATIONS

2002 AASHTO Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

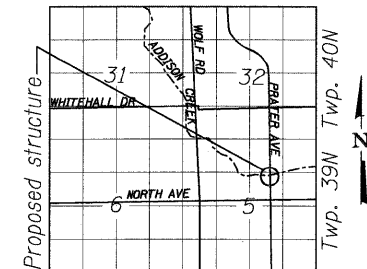
Reinforced Concrete:  
f'c = 3,000 psi (Existing)

Reinforcement:  
fy = 40 ksi (Existing)

SEISMIC DATA

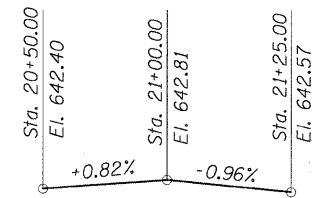
Seismic Performance Zone (SPZ) = A  
Horizontal Bedrock Acceleration Coefficient (A) = 0.036g  
Site Coefficient (S) = 1.2

Range 12E - 3rd PM

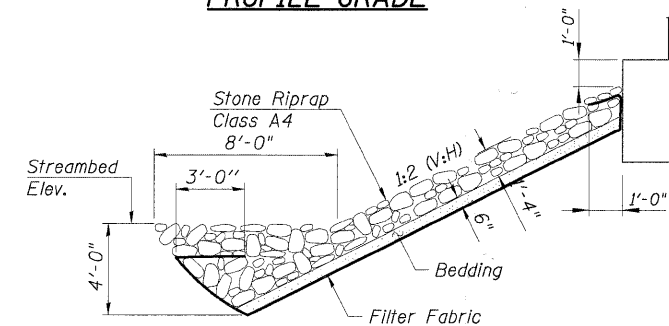


LOCATION SKETCH

GENERAL PLAN  
PRATER AVENUE OVER  
ADDISON CREEK  
SECTION 09-00071-00-BR  
COOK COUNTY  
STATION  
STRUCTURE No. 016-7610



PROFILE GRADE



SECTION A-A

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd		275	275
Filter Fabric	Sq Yd		295	295

WATERWAY INFORMATION

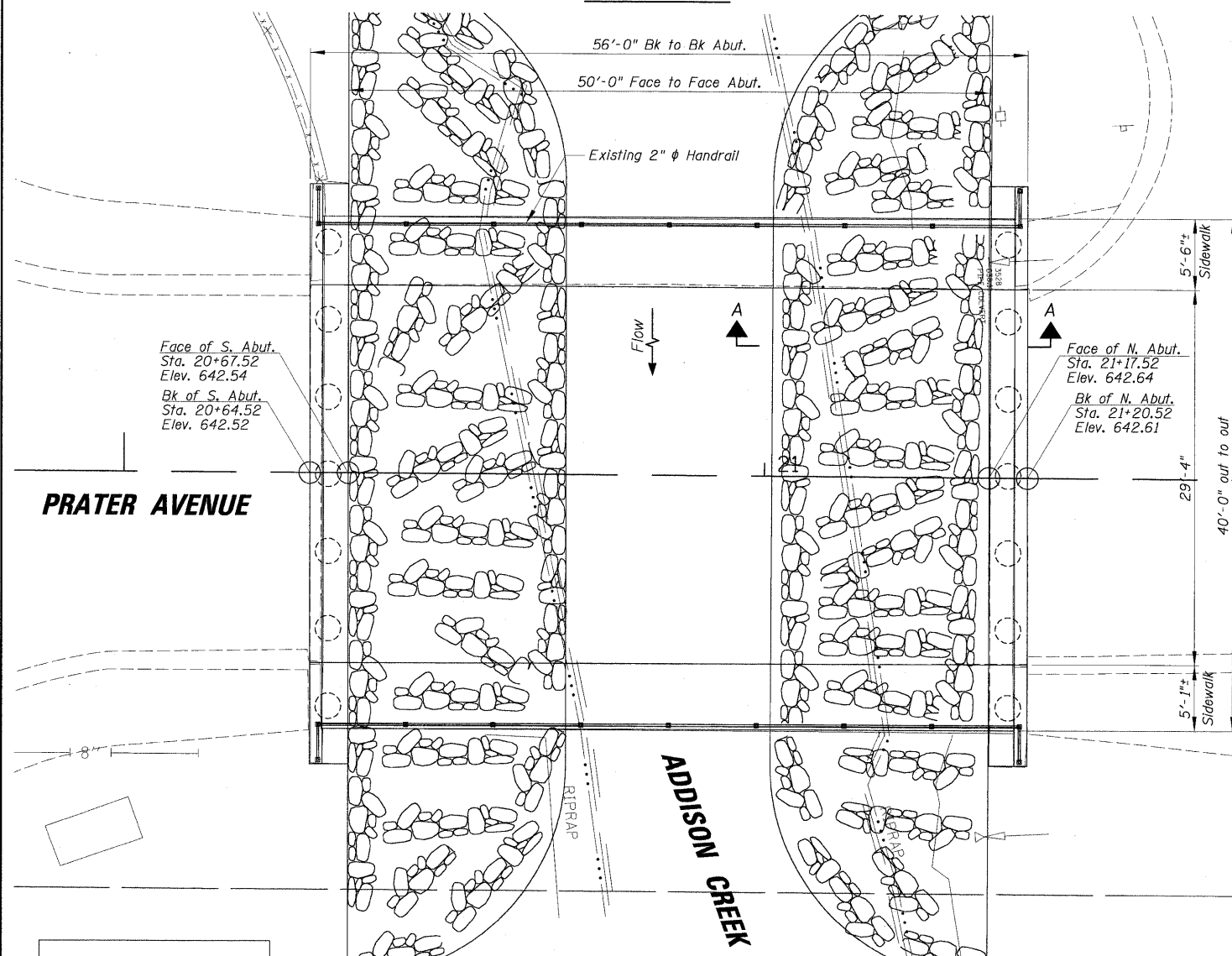
Ex. Low Beam 639.69 @ 21+17.52 Ex. Low Grade 642.54 @ 20+67.52 Drainage Area = 8.22 mi<sup>2</sup>  
Prop. Low Beam Elev. 639.69 @ 21+17.52 Prop. Low Grade Elev. 642.54 @ 20+67.52

Flood	Freq. Yr.	q cfs	Opening ft <sup>2</sup>		Nat. H.W.E.	Head - ft		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	352	230	230	640.14	0.01	0.01	640.15	640.15
	50	380	252	252	640.57	0.01	0.01	640.58	640.58
Base	100	505	276	276	641.01	0.02	0.02	641.03	641.03
Max. Calc.	500	860	324	324	641.85	0.06	0.06	641.91	641.91

DESIGN SCOUR ELEVATION TABLE

Flood Frequency/ Depth Elevation	North Abut.	South Abut.
100 year/ Scour Depth Elevation (ft.)	631.2	632.6
500 year/ Scour Depth Elevation (ft.)	628.6	631.2

SHEET NO. S-1 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			09-00071-00-BR	COOK	31
CONTRACT NO. 63437					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

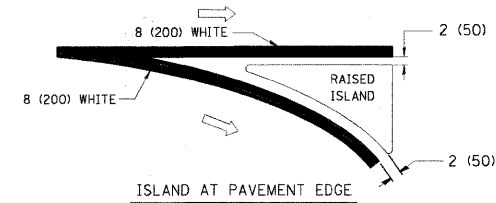
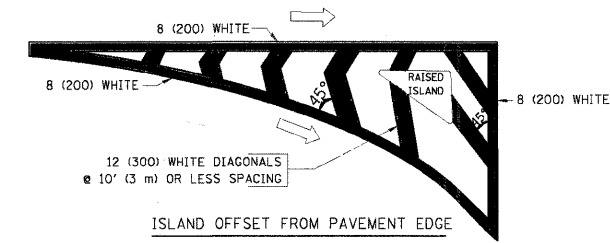
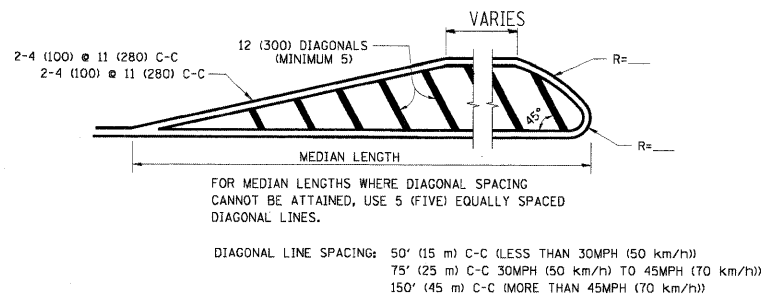
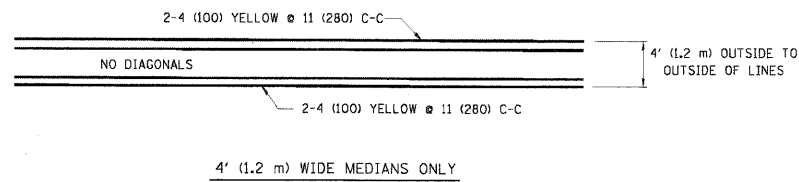
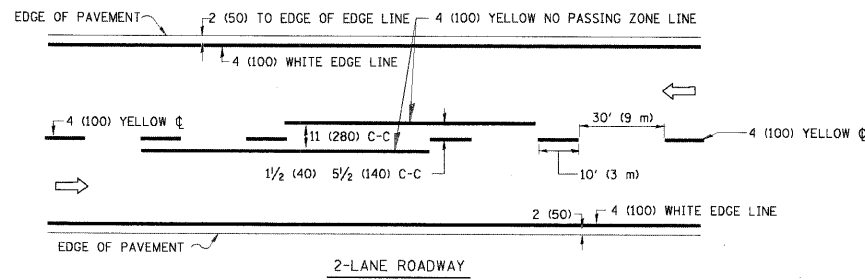


PLAN

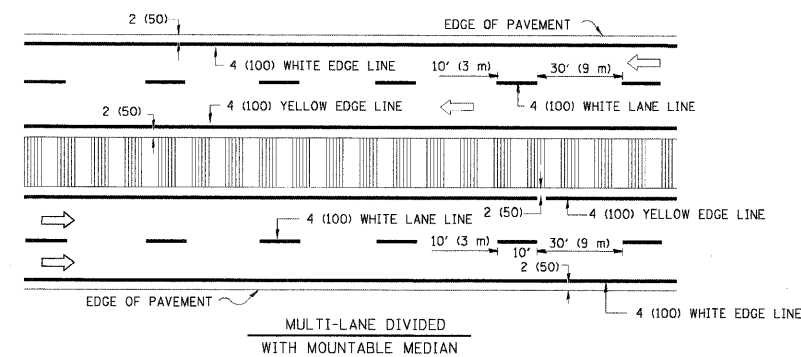
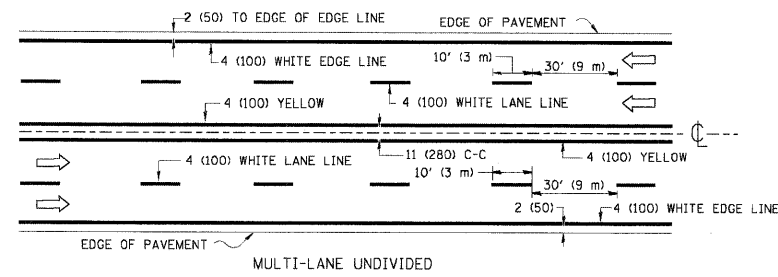
NOTE: See Sheet 10 For Erosion Control And Staging Details.

DESIGNED -	EXAMINED
CHECKED -	PASSED
DRAWN -	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES



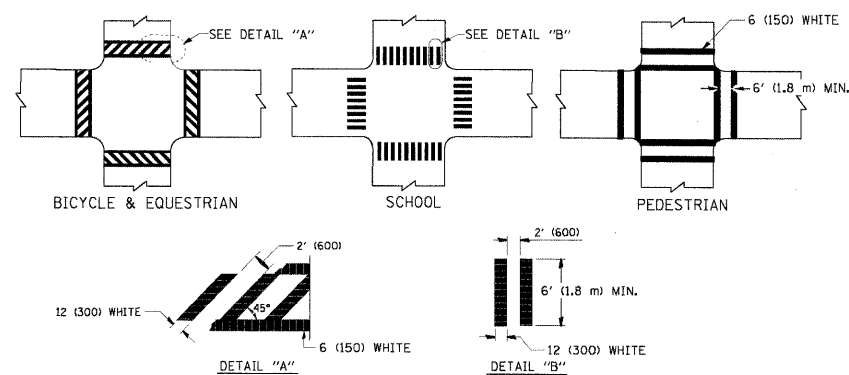


TYPICAL ISLAND MARKING

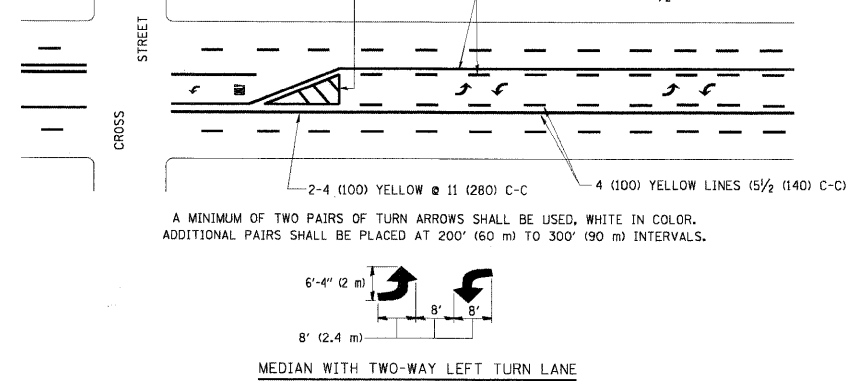


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

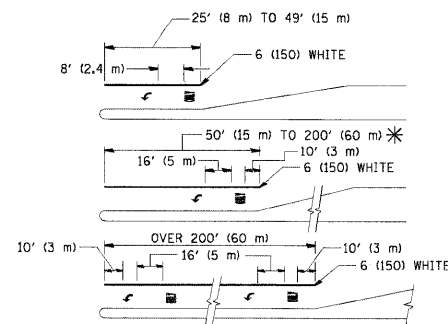
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>); ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

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	5/2 (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 MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 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 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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

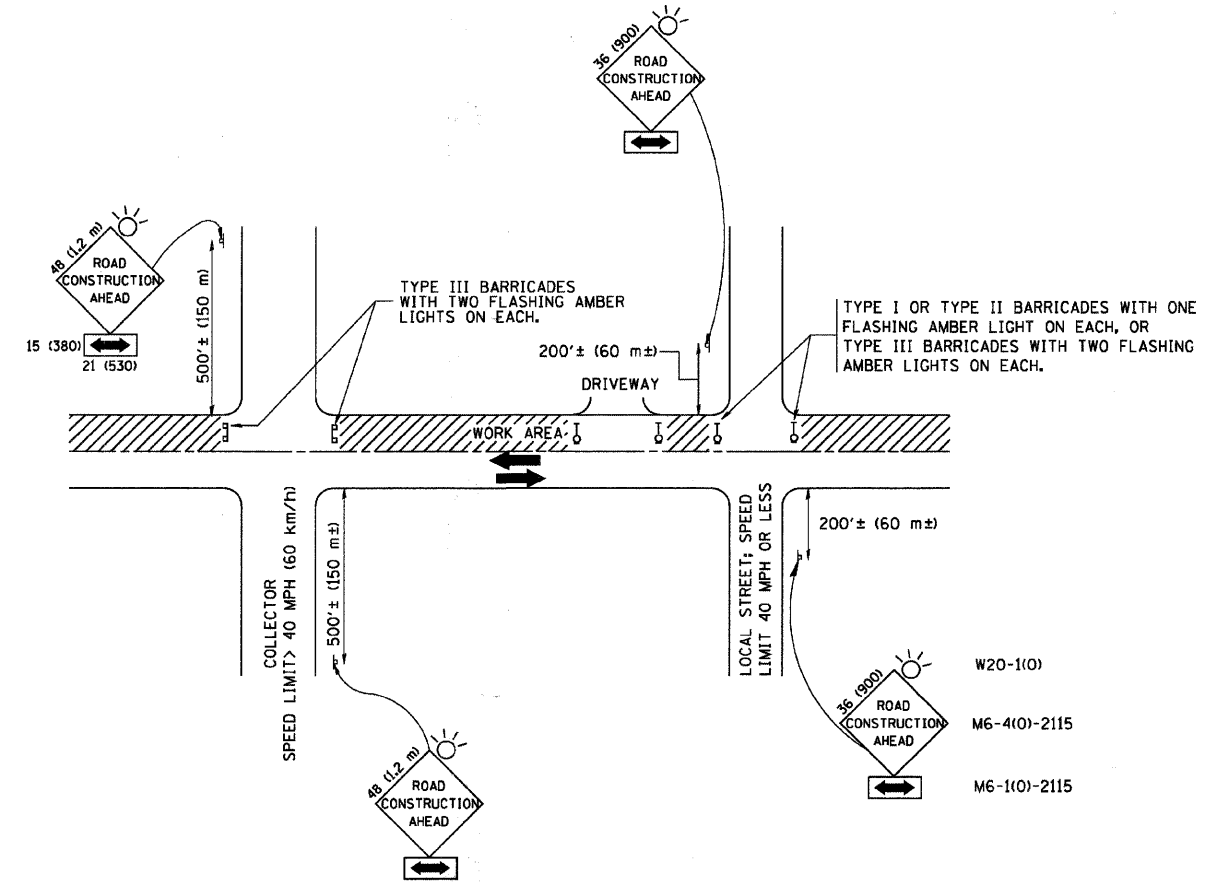
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	PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
---	09-00071-00-BR	COOK	31	30
TC-13		CONTRACT NO. 63437		
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
- 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:
    - 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.
    - 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.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - 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.
    - 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.
  - 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.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION FOR  
 SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE DRAWN BY  
 CHECKED BY