STATE OF ILLINOIS

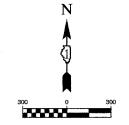
DEPARTMENT OF TRANSPORTATION

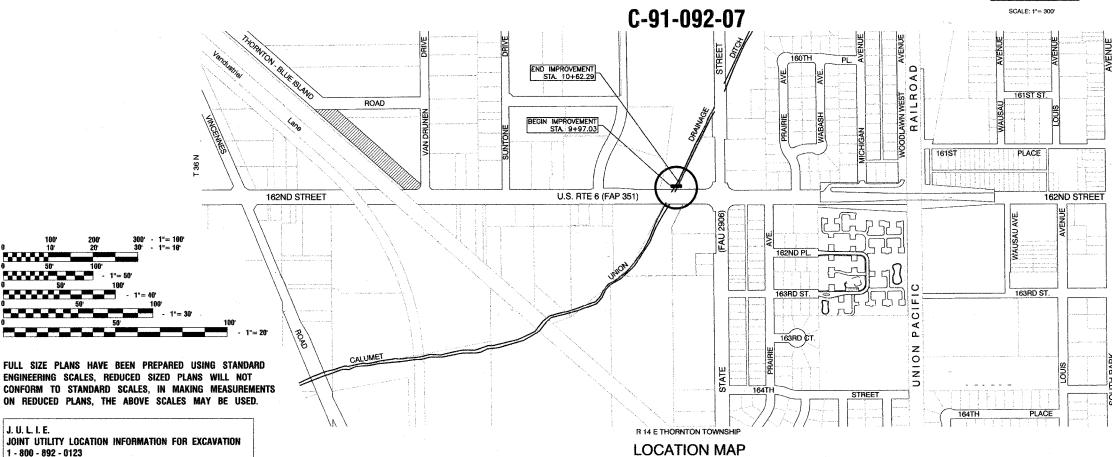
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

PEDESTRIAN BRIDGE OVER **CAL-UNION DRAINAGE DITCH NEAR** U.S. RTE. 6 (FAP 351) AND STATE ST. (FAU 2906) FEDERAL PROJECT NO.: TE-00D1 (745) **SECTION NO.: 06-00082-00-BR**

VILLAGE OF SOUTH HOLLAND COOK COUNTY

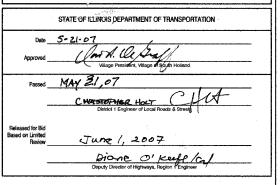




соок

CONTRACT NO. 83948

FED. ROAD DIST. NO. ILLENOIS FED. AID PROJECT





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 83948

INDEX OF SHEETS

COVER SHEET, INDEX OF SHEETS

AND TYPICAL SECTIONS

PROPOSED IMPROVEMENTS ABUTMENT DETAILS **BRIDGE AND RAILING DETAILS**

ORNAMENTAL FENCE DETAILS

515001-02

702001-06

720001

STATE STANDARDS

NAME PLATE FOR BRIDGES

TRAFFIC CONTROL DEVICES

SIGN PANEL MOUNTING DETAILS

SUMMARY OF QUANTITIES, GENERAL NOTES,

EXISTING CONDITIONS, ALIGNMENT, TIES & BENCHMARKS

MODULAR BLOCK RETAINING WALL PLAN AND ELEVATIONS MODULAR BLOCK RETAINING WALL DETAILS

000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

APPLICATIONS OF TYPES A AND B METAL POSTS

URBAN LANE CLOSURE - MULTILANE 2W WITH MOUNTABLE MEDIAN

GROSS LENGTH= 80 FEET = 0.015 MILES

NET LENGTH= 80 FEET = 0.015 MILES

- INDICATES PROPOSED IMPROVEMENT

| SUMMARY OF QUANTITIES | | | | | | | LANDSCAPE |
|-----------------------|----------|--|--------|------|----------------------|-----------------------------------|-----------|
| S.I. | CODE NO. | PAY ITEM | UNIT | QUAN | SFTY-1B Y002-1C Y003 | | |
| | 20200100 | EARTH EXCAVATION | CU YD | 50 | 50 | | |
| | 20700400 | POROUS GRANULAR EMBANKMENT, SPECIAL | CU YD | 2 | 2 | | |
| * | 21101615 | TOPSOIL FURNISH AND PLACE, 4" | SQ YD | 100 | | 18.0 da 20 february 11.0 february | 100 |
| * | 25000300 | SEEDING, CLASS 3 | ACRE | 0.04 | | | 0.04 |
| * | 25100630 | EROSION CONTROL BLANKET | SQ YD | 200 | | | 200 |
| * | 25200110 | SODDING, SALT TOLERANT | SQ YD | 100 | | | 100 |
| * | C2C01736 | SHRUB, CORNUS SERICEA CARDINAL (CARDINAL REDOSIER DOGWOOD), 3' CONTAINER | EACH | 2 | | | 2 |
| | 28000400 | PERIMETER EROSION BARRIER | FOOT | 120 | 120 | | |
| | 35101400 | AGGREGATE BASE COURSE, TYPE B | TON | 18 | 18 | | |
| | 40600100 | BITUMINOUS MATERIAL (PRIME COAT) | GALLON | 16 | 16 | | |
| | 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 6 | 6 | | |
| | 44000100 | PAVEMENT REMOVAL | SQ YD | 43 | 43 | | |
| | 50200100 | STRUCTURE EXCAVATION | CU YD | 2 | 2 | | |
| / | 50300225 | CONCRETE STRUCTURES | CU YD | 6.9 | 6.9 | | |
| | 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 722 | 722 | | |
| | 51500110 | NAME PLATES (SPECIAL) | EACH | 1 | 1 | | |
| | 58700200 | BRIDGE SEAT SEALER | SQ FT | 57 | 57 | | |
| | 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 1 | 1 | , | <u>.</u> |
| | 63200305 | STEEL PLATE BEAM GUARD RAIL REMOVAL | FOOT | 25 | 25 | | |
| | 67100100 | MOBILIZATION | L SUM | 1 | 1 | | |
| | 70101800 | TRAFFIC CONTROL AND PROTECTION (SPECIAL) | L SUM | 1 | 1 | | |
| | 72000100 | SIGN PANEL - TYPE 1 | SQ FT | 14 | | 14 | |
| | 72900100 | METAL POST TYPE A | FOOT | 20 | | 20 | |
| | 73400200 | DRILLED SHAFT CONCRETE FOUNDATIONS | CU YD | 5.4 | 5.4 | | |
| | XX001249 | ORNAMENTAL FENCE | FOOT | 55 | 55 | | |
| | XX001290 | CONCRETE BOLLARDS | EACH | 2 | 2 | | |
| | XX004056 | MECHANICALLY STABILIZED EARTH RETAINING WALL | SQ FT | 10.5 | 10.5 | | <u></u> |
| | X0322508 | PEDESTRIAN TRUSS SUPERSTRUCTURE | SQ FT | 575 | 575 | | |
| Marie agree of the | X0322879 | GRADING AND SHAPING FORESLOPES | SQ YD | 200 | 200 | | |
| ,, | 20076800 | TURF REINFORCEMENT MAT | SQ YD | 14 | 14 | | <u></u> |

* - INDICATES SPECIALTY ITEMS

€ PATH-

PEDESTRIAN PATH - MAINLINE

STA, 0+51,75 TO STA, 0+99,47

VARIES

ROBINSON ENGINEERING, LTD. FIELD OFFICE SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS. CALL (708) 331-6700. CONTRACTOR SHALL ALSO NOTIFY VILLAGE OF SOUTH HOLLAND PUBLIC WORKS DIRECTOR, MR. FRANK KNITTLE, AT (708) 210-2915

AREAS DISTURBED BY CONSTRUCTION SHALL BE KEPT TO A MINIMUM. ALL AREAS DISTURBED UNNECESSARILY SHALL BE RESTORED AS REQUIRED IN THE SPECIAL PROVISIONS AT THE CONTRACTOR'S EXPENSE.

UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S USE, AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF THE ADVERTISEMENT FOR BIDS. THE OWNER AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITIES INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO VERIFY LOCATIONS OF ALL UTILITIES.

EXISTING DRAINAGE FACILITIES SHALL NOT BE UNNECESSARILY DISTURBED. THE CONTRACTOR IS HEREBY ALERTED TO THE POTENTIAL FOR EXISTING FIELD DRAIN TILES NOT SHOWN ON THE PLANS, AND SHALL TAKE GREAT CARE IN MINIMIZING DISRUPTION TO SUCH FACILITIES. THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE FACILITIES WHEREVER NECESSARY TO MAINTAIN DRAINAGE. WORK NOT COVERED BY SPECIFIC PAY ITEMS SHALL BE INCIDENTAL TO THE CONTRACT.

THE SOUTH HOLLAND DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED PRIOR TO THE OPENING OR CLOSING OF ALL WATER VALVES, FIRE HYDRANTS AND/OR OTHER WATER SYSTEM APPURTENANCES.

CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" IN EFFECT ON THE DATE OF THE INVITATION FOR BIDS, THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS", ADOPTED JANUARY 1, 2004.

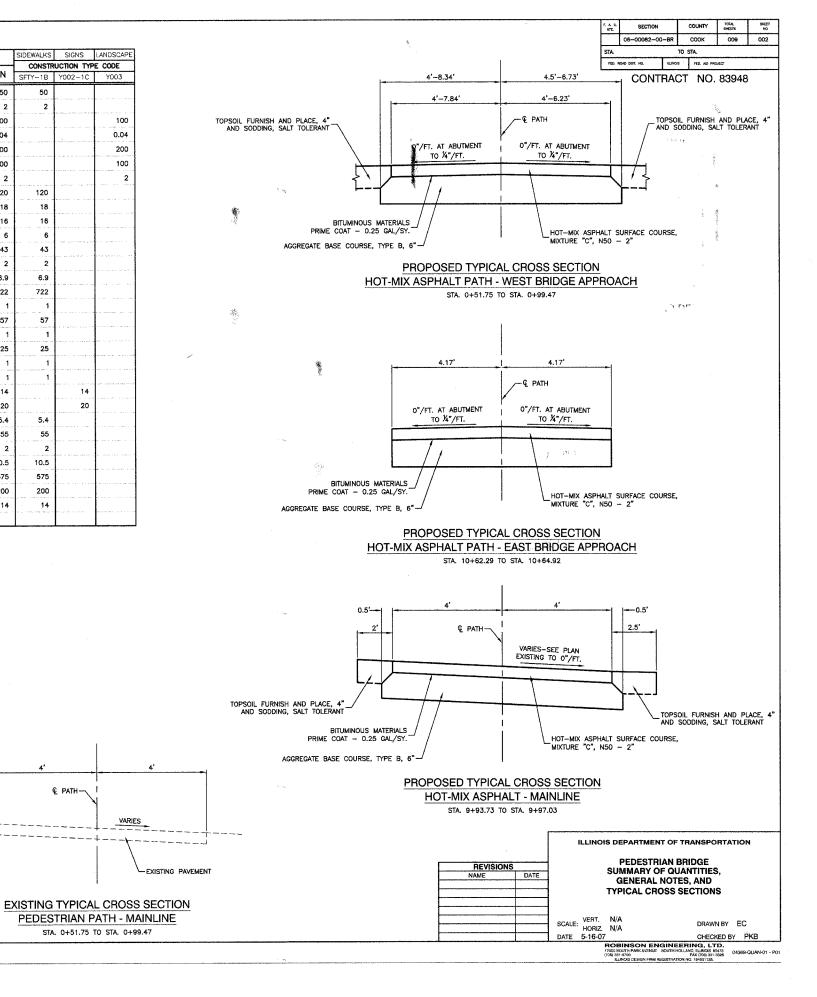
FERTILIZER NUTRIENTS INTENTIONALLY OMITTED.

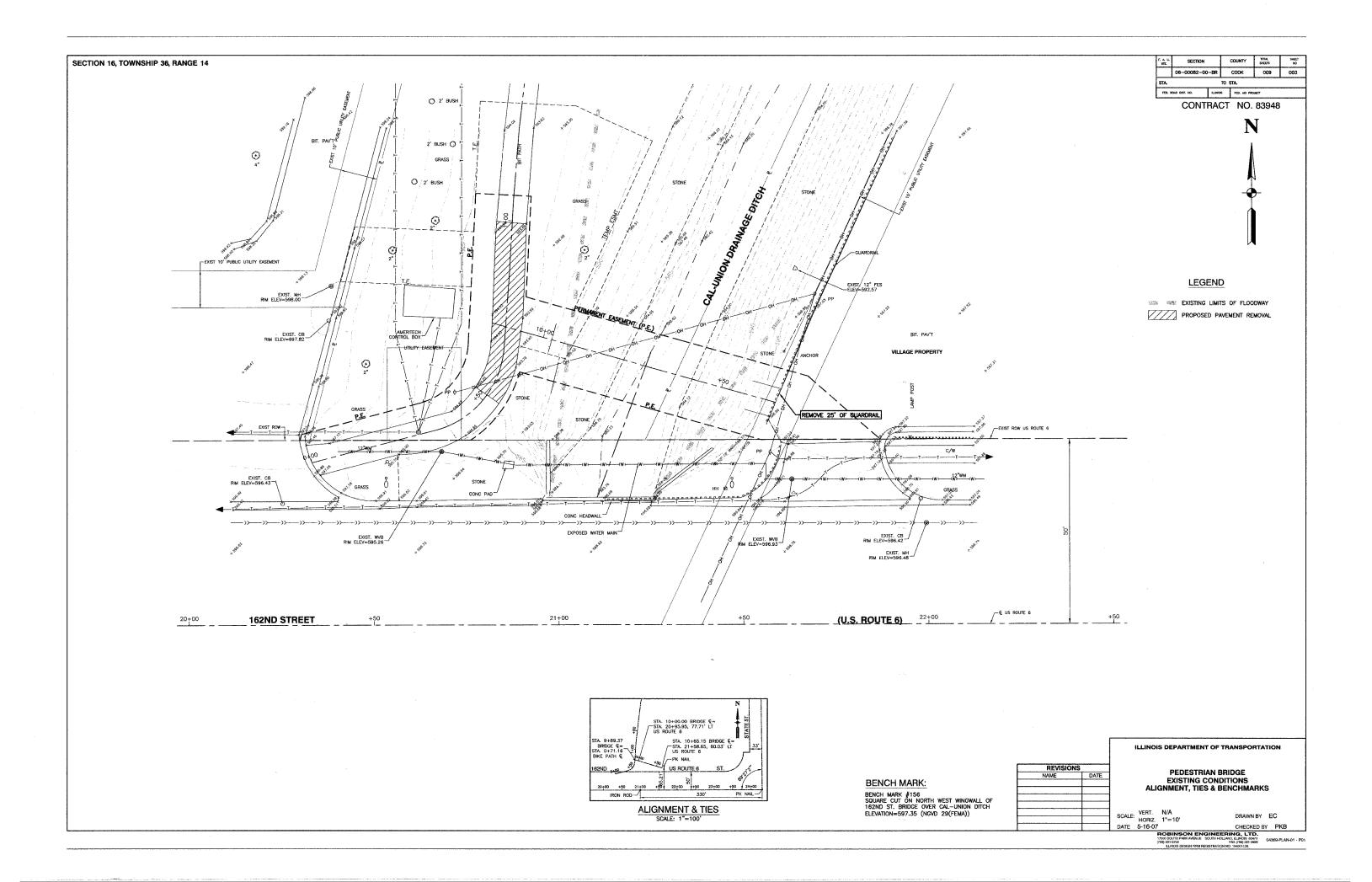
TEMPORARY STABILIZATION SHALL BE PROVIDED AT THE CONTRACTORS EXPENSE FOR ANY AREAS OF BARE SOIL EXPOSED FOR MORE THAN 14 DAYS.

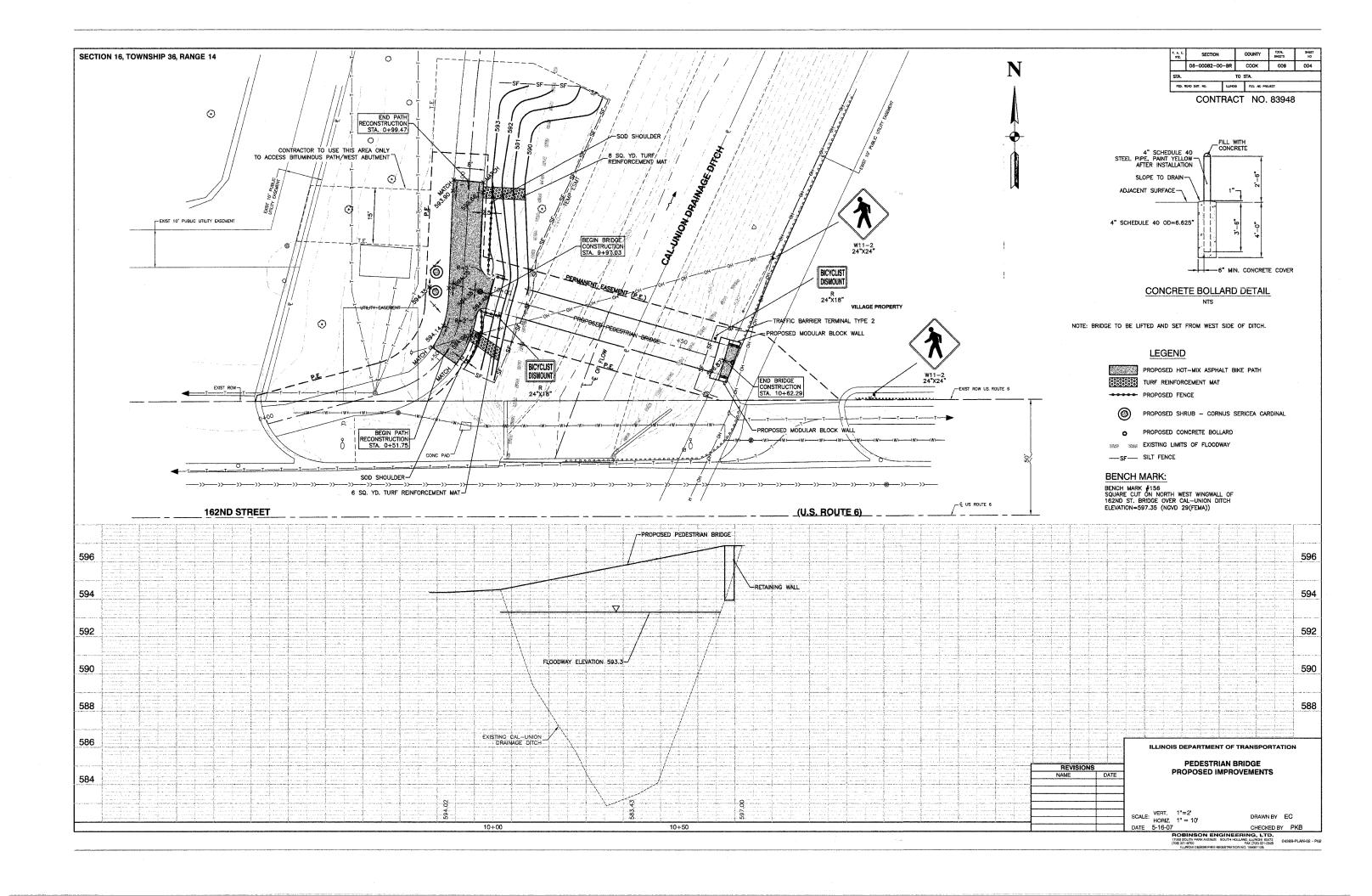
HOT-MIX ASPHALT SCHEDULE

| MIX TYPE | AC TYPE | DESIGN AIR VOIDS |
|--|----------|--------------------|
| | | |
| HOT-MIX ASPHALT, SURFACE COURSE, MIX "C", N50 (IL 9.5mm) | PG 64-22 | 4% AT 50 GYRATIONS |

"THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE IS 112 lbs/sq yd/ in."







Specifications:

Materials and workmanship in accordance with the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, and Supplemental and Recurring Special Provisions.

Concrete:

All cast—in—place concrete shall be in accordance with Section 503 of the Standard Specification. Class SI concrete shall be used throughout.

All exposed concrete edges shall have a $\frac{\pi}{4}$ by 45 degree chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.

Reinforcement:

Reinforcement bars shall conform to the requirement of AASHTO M-31, M-42 or M-53 Grade 60, and Section 508 of the Standard Specifications.

Cover from face of concrete to the face of reinforcement bars shall be 2 inches for all surfaces unless otherwise shown.

Reinforcement bar bending dimensions are out-to-out.

Reinforcement bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", ACI 318, latest

Reinforcement bars designated "(E)" shall be epoxy coated.

Construction:

No construction joints except those shown on the plans will be allowed unless otherwise ordered by the Engineer.

The back face of the concrete for the abutment and wing walls shall be waterproofed according to Article 503.18 of the Standard Specifications.

Bridge Seat Sealer shall be applied to the bridge seat area of both

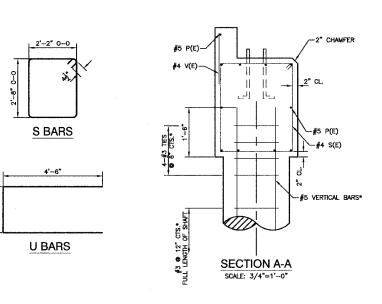
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

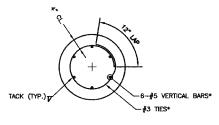
Backfill shall be placed behind the abutment after the superstructure has been poured and the falsework removed. See Article 502.10 of the Standard

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing.

SUBSTRUCTURE BILL OF MATERIAL (2 ABUTMENTS)

| BAR | NO. | SIZE | LE | NGTH | SHAPE | | |
|-------------------|---------------------|-------|--------|-------|-------|--|--|
| P(E) | 22 | #5 | 1 | 1'-0" | | | |
| | | | | | | | |
| S(E) | 24 | #4 | 10 | o'-5" | | | |
| L., | | | | | | | |
| u(E) | 16 | #6 | 1 | 1'-1" | | | |
| | | | | | | | |
| V(E) | 24 | #4 | 2 | '-3" | | | |
| | | | | | | | |
| REINFO. EPOXY | | | lbs. | 722 | | | |
| CONCR | CONCRETE STRUCTURES | | | | 6.9 | | |
| BRIDGE | SEAT | SEALE | SQ. FT | . 57 | | | |
| DRILLEI CONCRI | | - | CU. YE | 5.4 | | | |

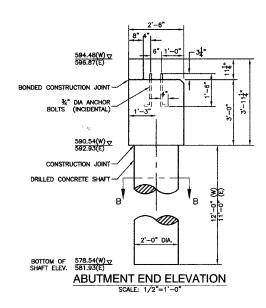


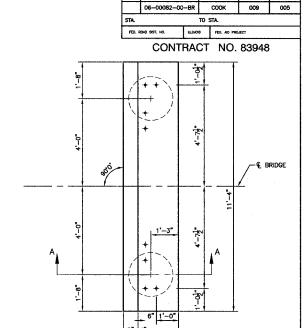


SECTION B-B

SCALE: 3/4"=1'-0"

*THESE REINFORCEMENT BARS INCIDENTAL TO DRILLED SHAFT CONCRETE FOUNDATIONS. THE CONTRACTOR SHALL HAVE THE OPTION OF SUBSTITUTING SPIRAL REINFORCEMENT FOR THE CIRCULAR TIES AT HIS EXPENSE.





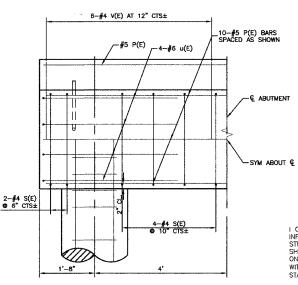
2'-6"

ABUTMENT PLAN

NOTE: SPACING OF ANCHOR BOLTS TO BE VERIFIED UPON RECEIPT OF SHOP DRAWINGS.

SECTION

COUNTY TOTAL SHEETS



ABUTMENT HALF SECTION

SHOWING REINFORCEMENT SCALE: 3/4"=1'-0"

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 PLAN. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "ANSHTO STANDARDS SERGIFICATIONS FOR HIGHWAY BRIDGES"." STANDARDS SPECIFICATIONS FOR HIGHWAY BRIDGES."

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:



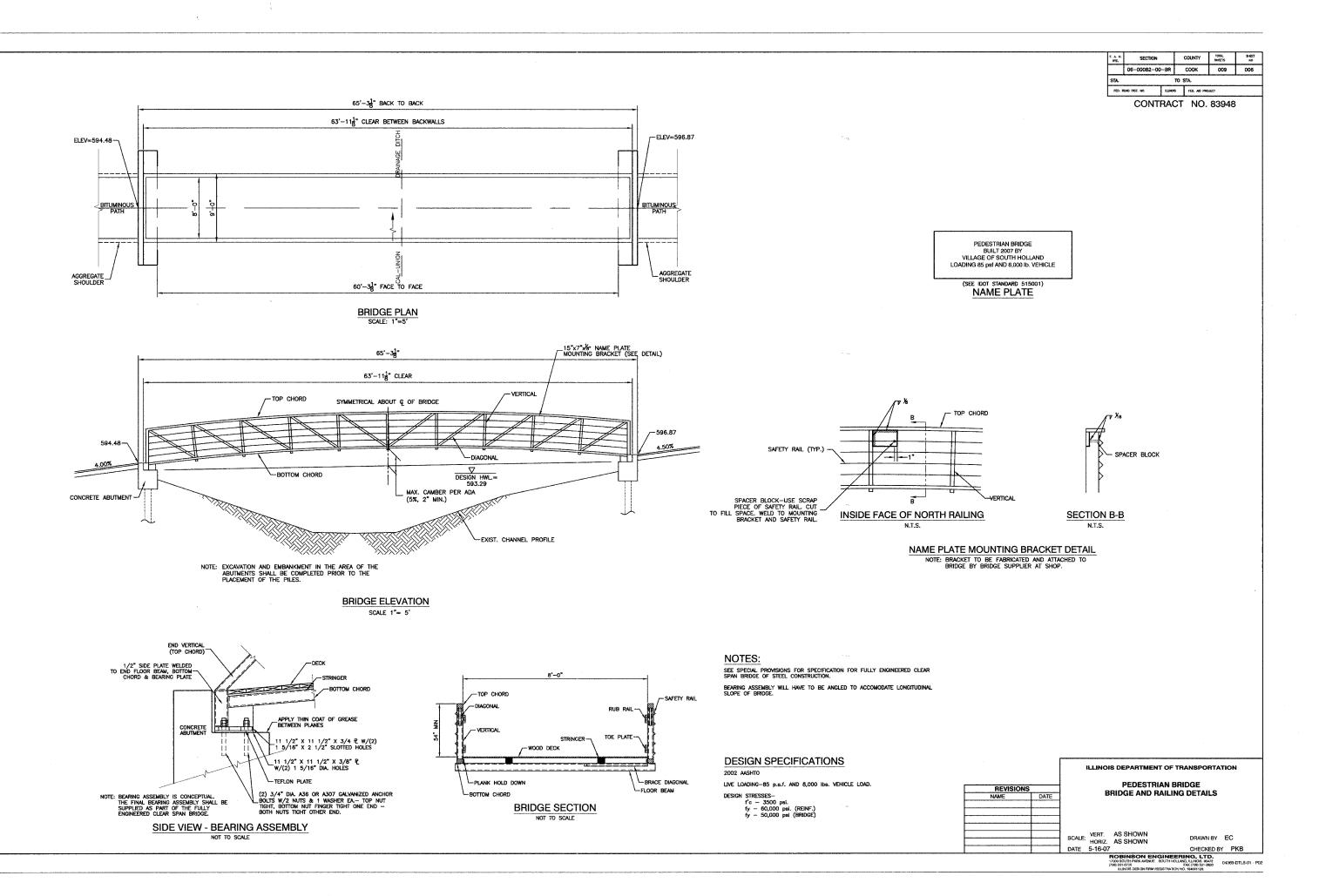


ILLINOIS DEPARTMENT OF TRANSPORTATION PEDESTRIAN BRIDGE **ABUTMENT DETAILS** SCALE: VERT. AS SHOWN AS SHOWN DATE 5-16-07 DRAWN BY EC

ING, LTD. ND, ILLINOIS 60473 FAX (708) 331-3826

04369-DTLS-01 - P01

CHECKED BY PKB



FED. ROAD DIST. NO. | ILLNOIS FIED. AND PROJECT STA 104-62.29 SF STA 10+65.29 PROVIDE GEOGRID AT
-APPROXIMATELY 1' DEPTH
FROM WAIL TO WALL 2.2' FENCE-NOTE: STATIONING IS ALONG FRONT FACE OF WALL T/W = TOP OF WALL ELEVATION T/P = TOP OF LEVELING PAD ELEVATION EAST ABUTMENT MODULAR BLOCK RETAINING WALL PLAN BENCH MARK: BENCH MARK #156 SQUARE CUT ON NORTH WEST WINGWALL OF 162ND ST. BRIDGE OVER CAL-UNION DITCH ELEVATION=597.35 (NGVD 29(FEMA)) --T/W=597.00 _PROPOSED PROFILE AT BACK OF WALL __PROPOSED_PROFILE AT BACK OF WALL T/W=596.87-TOP OF ABUTMENT=596.87 TOP OF ABUTMENT=596.87 597 597 597 597 596 ABUTMENT -596 596 596

FRONT FACE ELEVATION - NORTH WALL

EAST ABUTMENT RETAINING WALL

+70

+60

595 595

594 594

593 593

592 592

591 591

590 590

+80

+50

SECTION 16, TOWNSHIP 36, RANGE 14

595

594

593

592

591

590

+50

FRONT FACE ELEVATION - SOUTH WALL

EAST ABUTMENT RETAINING WALL

+70

ILLINOIS DEPARTMENT OF TRANSPORTATION PEDESTRIAN BRIDGE REVISIONS NAME MODULAR BLOCK RETAINING WALL PLAN AND ELEVATIONS SCALE: VERT. 1"=1" HORIZ. 1"=4" DATE 5-16-07 DRAWN BY EC 07 CHECKED BY PKB

ROBINSON ENGINEERING, LTD,
1700 05/170 PKK AVERUE 90/TH HOLLAND, LANDER 90/TH
1700 931-4000
ILLINOIS DESIGN PRIM REGISTRATION NO. 194001128.

04369 PLAN 02 - P03

595

594

593

592

591

590

+80

COOK 009

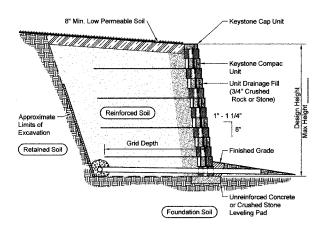
CONTRACT NO. 83948

SECTION COUNTY TOTAL SHEETS COOK 009 FED. ROAD DIST. NO. | BLINGS FED. AID PROJECT

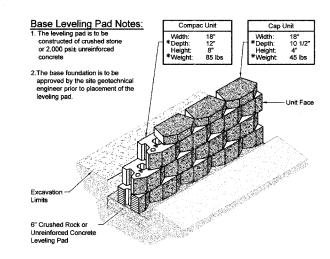
CONTRACT NO. 83948

- 4" Cap Unit

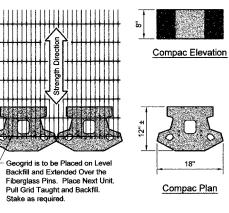
- 8" Keystone

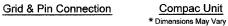


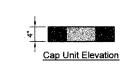
Typical Reinforced Wall Section Compac Unit - 1" Setback



Compac Unit/Base Pad Isometric Section View * Dimensions & Weight May Vary by Region







by Region



Cap Unit Elevation

Cap Unit Plan

Universal Cap Unit Option

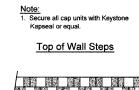
* Dimensions & Availability

Will Vary by Region

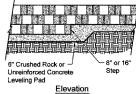


Cap Unit Plan

3-Plane Split Cap Unit Option * Dimensions & Availability Will Vary by Region

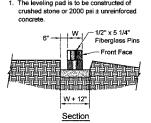


(2) - 4" Cap Units or (1) - 8" Cap Unit ¬

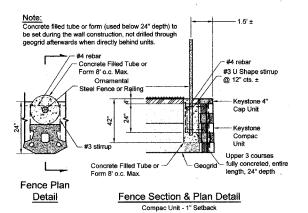


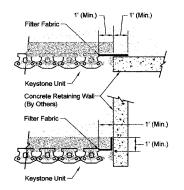
Note:

1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced

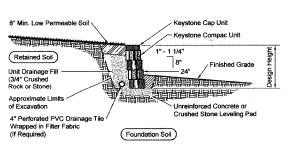


Leveling Pad Detail





Connection Details



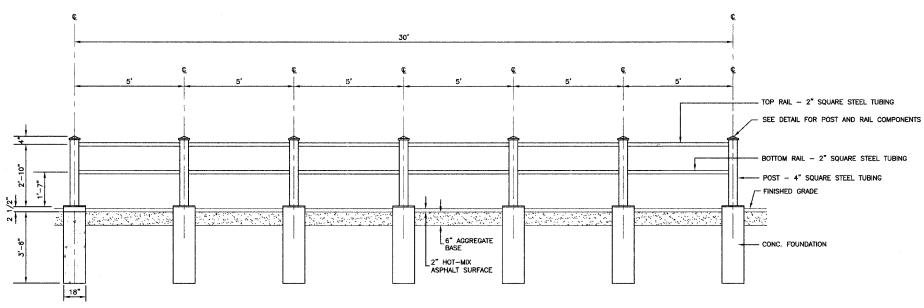
Typical Gravity Wall Section Compac Unit - 1" Setback

NOTE: MAXIMUM HEIGHT OF THE RETAINING WALL IS 2 FEET.

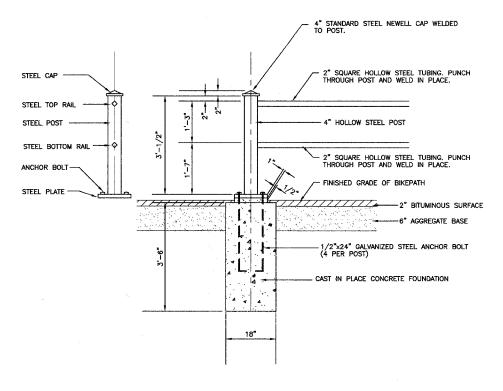
| | | | ILLINOIS DEPARTMENT OF TRANSPORTATION | | | | |
|-----|----------|------|---------------------------------------|---------|------------|------------------------|--|
| R | EVISIONS | | | | | AN BRIDGE | |
| NAM | ΛE | DATE | | MOL | | RETAINING WALL DETAILS | |
| | | | | | | | |
| | | | | | **** | | |
| | | | SCALE: | HORIZ. | N/A N/A | DRAWN BY EC | |
| | | | DATE | 5-16-07 | | CHECKED BY PKB | |
| | | | | | CONSON ENG | INECDING LTD | |

ROBINSON ENGINEERING, LTD.
17800 SOUTH PARK AVENUE SOUTH POLLAND, ILINOIS 80473
FAX (708) 931-9820
ILLINOIS DESIGN FIRM REGISTRATION NO. 184801128.

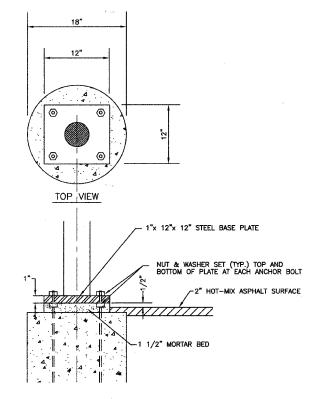
CONTRACT NO. 83948



ELEVATION



FOUNDATION, POST, AND FENCE DETAIL



| BASE | PLATE | TO FOUN | NOTACI | |
|------|-------|---------|--------|--|
| | | | | |
| | | | | |

| REVISION | vs | PEDESTRIAN BRIDGE | | | | | |
|----------|------|--------------------------|-----------------|--|--|--|--|
| NAME | DATE | ORNAMENTAL FENCE DETAILS | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | SCALE: VERT. N/A | DRAWN BY EC | | | | |
| | | HORIZ. N/A | OVERVED BY DICE | | | | |

ROBINSON ENGINEERING, LTD. 1700 SOUTH-PARK AVENUE SOUTH HOLLAND, ILLINGS 60478 (708) 331-3700 DASSESSED FRANCES FAX (708) 331-3825 ILLINGS DESIGN FIRM REGISTRATION NO. 184001128.

ILLINOIS DEPARTMENT OF TRANSPORTATION