EXJ-4-87 DATED/REVISED 07/19/02

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S);

SS 843 DATED 04/18/03

SS 847 DATED 07/17/05

#### DESIGN SPECIFICATIONS

 $\bigcirc$ 

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRAN-SPORTATION OFFICIALS, 17TH EDITION , INCLUDING THE 2002 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

#### EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUC-TURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASURE-MENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXIST-ING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAM-INATION OF THE EXISTING STRUCTURE. HOWEVER, THE DE-PARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

#### PROPOSED WORK

- STA-77-0926 (SB RAMP OVER IR 77 TO 30 EB)
- -SEAL EXISTING WEARING SURFACE AND APPROACH SLABS WITH GRAVITY-FED RESIN CONCRETE TREATMENT
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING **PARAPETS**
- -REPAIR DAMAGED OR DETERIORATED PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES THAT HAVE BEEN PATCHED WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION

- STA-30-1303L (OVER SR 297 RAFF ROAD)
- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REPLACE EXISTING ELASTOMERIC STRIP SEAL WITH NEW STRIP
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING *PARAPETS*
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -NEW STURCTURE IDENTIFICATION SIGNS
- -CLEAN EXISTING STRUCTURAL STEEL, BEAM SEATS AND PIER CAPS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS

#### STA-30-1303R (OVER SR 297 RAFF ROAD)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REPLACE EXISTING ELASTOMERIC STRIP SEAL WITH NEW STRIP
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -NEW STURCTURE IDENTIFICATION SIGNS
- -CLEAN EXISTING STRUCTURAL STEEL, BEAM SEATS AND PIER CAPS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- STA-30-1338 (OVER 17TH STREET & NORFOLK SOUTHERN) -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -PROVIDE AN ITEM TO REPAIR THE BACKWALL AT REAR
- -CLEAN OUT SCUPPERS AND DOWNSPOUTS

APPROACH SLAB

- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING **PARAPETS**
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -REPAIR CONCRETE SLOPE PROTECTION AT REAR ABUTMENT -SEAL ALL EXPOSED CONCRETE SURFACES OF THE ABUTMENTS,
- PARAPETS AND WING WALLS WITH EPOXY-URETHANE -CLEARING AND GRUBBING 15' AROUND STRUCTURE INCLUDING
- VEGETATION GROWING OUT OF SLOPE PROTECTION -REPLACE END MARKER AT RIGHT REAR OF STRUCTURE
- -NEW STURCTURE IDENTIFICATION SIGNS
- STA-30-1479 (OVER HENRY AVE. SW)
- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING **PARAPETS**
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1488 (IR 77, CREEK, RAMP)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- -CLEAN OUT SCUPPERS
- -REPAIR DAMAGED OR DETERIORATED PARAPETS WALLS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING
- -REMOVE FALSEWORK FROM BOTTOM OF STRUCTURE -REPAIR EROSION AT REAR ABUTMENT WHERE FOOTER IS **EXPOSED**
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1502 (30 EB/WB OVER CLEVELAND AVE)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REPAIR DAMAGED OR DETERIORATED PARAPET WALL
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- -REPAIR CONCRETE SLOPE PROTECTION AT FORWARD ABUTMENT -REPAIR EROSION IN THE EMBANKMENT AT REAR RIGHT OF STRUCTURE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1520 (US 30 EB & WB OVER MARKET)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS IN THE EAST BOUND DIRECTION ONLY
- -REFURBISH EXISTING ABUTMENT BEARINGS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE FALSEWORK FROM BOTTOM OF STRUCTURE
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -REPAIR CONCRETE SLOPE PROTECTION AT THE FORWARD
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS
- AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE
- ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1558 (OVER CHERRY AVE CR 568)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -CLEAN OUT EXISTING SCUPPERS
- -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1580 (OVER WHEELING & LAKE ERIE)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- -REPAIR DAMAGED OR DETERIORATED CONCRETE MEDIAN OR PARAPETS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING **PARAPETS**
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -REPAIR EROSION AT THE REAR LEFT ABUTMENT
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1594 (OVER 11TH STREET)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REFURBISH AND RESET EXISTING ABUTMENT BEARINGS
- -REPAIR EROSION AROUND PIERS
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1634 (OVER WARNER AVE.)

- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### STA-30-1640 (OVER ABANDONED RAIL SPUR)

- -CONTRACTOR TO COORDINATE WORK ACTIVITIES WITH SLESNICK STEEL: LEASES ROADWAY BELOW BRIDGE FROM WHEELING & LAKE ERIE FOR TRUCK ACCESS
- -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW BRIDGE END MARKERS IN WESTBOUND DIRECTION -NEW STURCTURE IDENTIFICATION SIGNS

<u>'</u> ₽ ⋖ ST

9

NOTES

GENERAL

IRUC.

S

AND

ODOT -

\_

- NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REFURBISH EXISTING BEARING DEVICES AT ABUTMENTS -REPAIR EROSION AT THE REAR ABUTMENT WHERE THE FOOTER IS EXPOSED
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING **PARAPETS**
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS AND MEDIAN BARRIER WALL WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION
- -PROVIDE NEW END MARKERS IN EASTBOUND DIRECTION -NEW STURCTURE IDENTIFICATION SIGNS
- STA-62-1870L (RAMP A OVER HENRY TO 62 & 30 WB) -REMOVE EXISTING CONCRETE OVERLAY AND REPLACE WITH A
- NEW CONCRETE OVERLAY ON THE DECK AND APPROACH SLABS -REFURBISH AND RESET EXISTING BEARING DEVICES AT PIERS -PAINT THE STRUCTURAL STEEL WITH OZEU PAINT SYSTEM
- -PATCH ALL UNSOUND AREAS OF THE SUBSTRUCTURE INCLUDING PARAPETS
- -REMOVE ALL SPALLED AREAS FROM BOTTOM OF DECK FLOOR AND SEAL WITH EXPOXY-URETHANE
- -REPAIR DAMAGED OR DETERIORATED PARAPETS
- -SEAL ALL EXPOSED CONCRETE SURFACES OF THE PARAPETS, ABUTMENTS, WING WALLS, PIER CAPS AND PIER COLUMNS WITH EPOXY-URETHANE
- -CLEARING AND GRUBBING 15' AROUND STRUCTURE TO REMOVE ALL VEGETATION, INCLUDING VEGETATION FROM CONCRETE SLOPE PROTECTION
- -NEW STURCTURE IDENTIFICATION SIGNS

#### CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

#### CONCRETE SLOPE PROTECTION REPAIR

THIS WORK WILL CONSIST OF REMOVING AND REPLACING SLABS OF THE CONCRETE SLOPE PROTECTION UNDER STRUCTURES STA-30-1338, STA-30-1502, AND STA-30-1520 WITH ITEM 613, LOW STRENGTH MORTAR BACKFILL AND ITEM 601, CONCRETE SLOPE PROTECTION.

PLACE THE LOW STRENGTH MORTAR BACKFILL TO FILL ALL EROSION UNDER THE OLD CONCRETE SLOPE PROTECTION AND THEN PLACE NEW CONCRETE SLOPE PROTECTION SLABS PER CMS 601.07 AS DIRECTED BY THE PROJECT ENGINEER.

CONCRETE SLOPE PROTECTION REPLACEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 601, CONCRETE SLOPE PROTECTION AND ITEM 613, LOW STRENGTH MORTAR BACKFILL. REMOVAL OF EXISTING CONCRETE SLOPE PROTECTION WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 202, CONCRETE SLOPE PROTECTION REMOVED. THE PRICE FOR EACH ITEM WILL INCLUDE THE COST OF LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

#### **EROSION REPAIR**

THIS WORK WILL CONSIST OF REPAIRING THE EROSION ALONG THE REAR EMBANKMENTS OF STRUCTURES STA-30-1488, STA-30-1502, STA-30-1580, AND STA-30-1646. FOR STRUCTURE STA-30-1594. REPAIR WORK WILL BE ALONG STREAM BANK OF 2 PIER COLUMNS WITH STEEL PIER CAP, REPAIR WORK WILL BE PAID FOR BY THE FOLLOWING ITEMS.

STRUCTURE STA-30-1488: ITEM 203. BORROW 15 CY ITEM 601, CRUSHED AGGREGATE SLOPE PROTECTION 15 CY

STRUCTURE STA-30-1502: ITEM 203, BORROW 5 CY

STRUCTURE STA-30-1580: ITEM 203, BORROW 20 CY ITEM 601, CRUSHED AGGREGATE SLOPE PROTECTION 15 CY

STRUCTURE STA-30-1594: ITEM 601, DUMPED ROCK FILL, TYPE A 10 CY

STRUCTURE STA-30-1646: ITEM 203, BORROW 5 CY ITEM 601, CRUSHED AGGREGATE SLOPE PROTECTION 5 CY

#### ITEM 509 REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION, THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

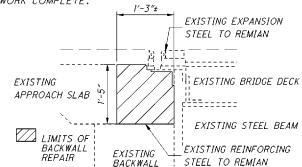
REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

#### ITEM 511 - CONCRETE MISC .: BACKWALL REPAIR

THIS ITEM OF WORK CONSISTS OF THE REMOVAL OF ALL UNSOUND CONCRETE AT THE REAR ABUTMENT BACKWALL OF STRUCTURE STA-30-1338 TO THE LIMITS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THE PREPARATION OF THE SURFACE, FORMS, TEMPORARY SUPPORTS OF THE EXPAN-SION JOINT, AND PLACING CLASS MS CONCRETE, SUBS-TRUCTURE.

TEMPORARY SUPPORTS OF THE EXPANSION JOINT WILL BE USED TO MAINTAIN THE PROPER ALIGNMENT AND GRADE OF THE JOINT DURING REMOVAL AND REPLACEMENT OF BACKWALL CONCRETE. THE COST OF THIS TEMPORARY SUPPORT WILL BE INCIDENTAL TO THIS ITEM.

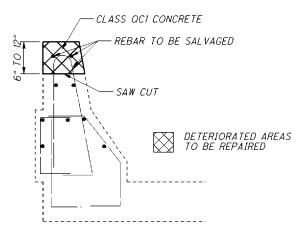
PAYMENT WILL BE MADE AT THE CONTRACT PRICE PER CU. YD. FOR ITEM 511 - CONCRETE MISC .: BACKWALL REPAIR WHICH WILL INCLUDE ALL MATERIALS AND LABOR INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE REQUIRED TO MAKE THIS WORK COMPLETE.



#### ITEM 511 - CONCRETE MISC .: PARAPET REPAIR

THIS ITEM WILL BE USED TO REPAIR DAMAGED PARAPETS OF STRUCTURES STA-30-1488, STA-30-1502, STA-30-1580 AND STA-77-0926.

SAWCUT AND REMOVE DAMAGED/SPALLED AREAS OF THE EXISTING PARAPETS TO A MINIMUM DEPTH OF 6" AND A MAXIMUM DEPTH OF 12" OR AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN WHEN REMOVING SPALLED CONCRETE TO SALVAGE EXISTING REBAR. CLASS QCI CONCRETE WILL BE USED TO REPAIR THE DAMAGED PARAPETS. THE REMOVAL OF CONCRETE, PREPARATION OF THE SURFACES, FORMS, AND CLASS QCI CONCRETE WILL BE INCIDENTAL TO THIS ITEM. PAYMENT WILL BE MADE AT THE CONTRACT BID PRICE PER FOOT FOR ITEM 511. CONCRETE MISC .: PARAPET REPAIR.



#### SPECIAL - STRUCTURE MISC .: STRUCTURE CLEANING

THIS WORK WILL CONSIST OF CLEANING THE BEAMS/GIRDERS AND BEARINGS OF STRUCTURES STA-30-1303L AND STA-30-1303R AS PER CMS 514.14. ALSO, ALL DIRT AND DEBRIS FROM THE ABUTMENTS, BEAM SEATS, AND PIER CAPS WILL BE REMOVED AND WASHED WITH POTABLE WATER.

STRUCTURE CLEANING WILL BE PAID FOR AT THE LUMP SUM BID FOR SPECIAL , STRUCTURE MISC.: STRUCTURE CLEANING. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE WORK.

#### ITEM 514 - PAINTING OF STRUCTURAL STEEL

THIS ITEM OF WORK WILL CONSIST OF PAINTING ALL OF THE BEAMS, CROSS FRAMES AND BEARINGS OF STRUCTURE STA-62-1870L. THE COLOR FOR THE FINISHED COAT OF STRUCTURE(S) STA-62-1870L WILL CONFORM TO FEDERAL NUMBER 14272 (GREEN)

#### ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPER-STRUCTURE, AS PER PLAN

THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CON-CRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATIS-FACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUB-MIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CON-TACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

#### ITEM 516 - REFURBISHING BEARING DEVICES. AS PER PLAN

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS AS WELL AS THEIR CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARINGS, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60 DEGREES F. LUBRICATING SLIDING SURFACES. AND REASSEMBLY OF THE BEARINGS. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEAR-ING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL NEW BEARINGS OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARINGS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DE-SCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CON-TRACT PRICE BID FOR ITEM 516 - REFURBISH BEARING DEVICES, AS PER PLAN.

JISTRICT 4 ENGINEERING  $\overline{a}$ AND ODO

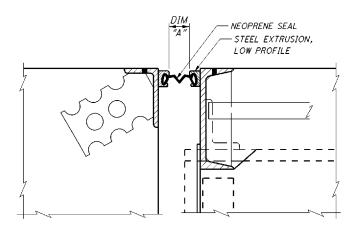
Ġ

#### ITEM 516 - ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

 $\bigcirc$ 

THIS ITEM WILL INCLUDE THE REMOVAL AND REPLACEMENT OF THE EXISTING SEALS FROM EDGE TO EDGE OF STRUCTURES STA-30-1303L AND STA-30-1303R DECKS. UPON REMOVAL OF THE SEAL, THE CONTRACTOR WILL ATTEMPT TO MATCH THE REPLACEMENT SEAL AS CLOSELY AS POSSIBLE WITH THE EXISTING SEAL SO AS TO PROVIDE A SNUG. WATERTIGHT SEAL, THE EXISTING SEAL WILL BE FIELD MEASURE PRIOR TO ORDERING MATERIAL.

THIS WORK WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 516, ELASTOMERIC STRIP SEAL, AS PER PLAN. THIS PRICE WILL INCLUDE THE REMOVAL OF THE EXISTING SEAL, LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO REPLACE THE SEAL.



#### DIMENSION A

| TEMPERATURE, °F | STA-30-1303L&R<br>FWD. ABUTMENT | STA-30-1303L&R<br>REAR ABUTMENT |
|-----------------|---------------------------------|---------------------------------|
| 30°             | 1.80"                           | 1.91″                           |
| 40°             | 1.78"                           | 1.80"                           |
| 50°             | 1.75"                           | 1.70"                           |
| 60°             | 1.70"                           | 1,61″                           |
| 70°             | 1.66"                           | 1.53"                           |
| 80°             | 1.60"                           | 1.45"                           |
| 90°             | 1.55*                           | 1.35"                           |

#### ITEM 518 - SCUPPER MISC .: CLEANOUT

THIS WORK WILL CONSIST OF REMOVING ALL DEBRIS FROM ON TOP AND INSIDE OF THE SCUPPERS. SCUPPER CLEANOUT WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 518, SCUPPER MISC .: CLEANOUT. THIS PRICE WILL INCLUDE THE COST FOR LABOR, EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

#### ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

#### SPECIAL - STRUCTURE MISC .: CONCRETE SPALL REMOVAL

THIS WORK WILL CONSIST OF REMOVING ALL VISIBLY SPALLED AREAS OF THE BOTTOM OF THE DECK FLOOR OF STRUCTURE(S) STA-30-1303L, STA-30-1303R, STA-30-1338, STA-30-1479, STA-30-1488, STA-30-1502, STA-30-1520, STA-30-1558, STA-30-1580, STA-30-1594, STA-30-1634, STA-30-1640, STA-30-1646, AND STA-30-1870L WITHOUT SOUNDING. AFTER SPALLED CONCRETE AREAS HAVE BEEN REMOVED. REMOVAL AREAS WILL BE SEALED WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).

CONCRETE SPALL REMOVAL WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM SPECIAL - STRUCTURE MISC.: CONCRETE SPALL REMOVAL. THIS PRICE WILL INCLUDE THE COST OF LABOR. EQUIPMENT, AND ALL INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

FOR EACH STRUCTURE LISTED ABOVE: ITEM SPEC-STRUCTURE MISC .: CONCRETE SPALL REMOVAL ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

#### ITEM 530 - STRUCTURE MISC .: FALSEWORK REMOVAL

THIS WORK CONSISTS OF REMOVAL AND DISPOSAL OF THE EXI-STING FALSEWORK SYSTEM FROM STRUCTURE(S) STA-30-1488 AND STA-30-1520 IN ORDER TO COMPLETE THE PATCHING AND SPALL REMOVAL. THE EXISTING FALSEWORK IS NOT TO BE REPLACED WITH NEW AFTER THE PATCHING AND SPALL REMOVAL WORK IS COMPLETE. THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

#### STRUCTURE IDENTIFICATION SIGNS

50 SY

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE PLACED ON EACH APPROACH OFF THE RIGHT SHOULDER, FACING TRAFFIC, AND BEHIND THE GUARDRAIL IF APPLICABLE. A QUANTITY OF ONE SIGN PER APPROACH WILL BE INSTALLED. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND WILL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 7.5' IN LENGTH.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES: STA-77-0926 (1 APPROACH), STA-30-1338 (EASTBOUND), STA-30-1479 (WESTBOUND), STA-30-1594 (EASTBOUND), STA-30-1640 (WESTBOUND), STA-62-1870L (1 APPROACH)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, 1 SQ FT ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 7.5 FT ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL. 1 FACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 1 EACH

#### OBJECT MARKERS AND STRUCTURE IDENTIFICATION SIGNS

OBJECT MARKERS WILL BE PLACED ON EACH APPROACH OFF THE LEFT AND RIGHT SHOULDER. FACING TRAFFIC. AND BEHIND THE GUARDRAIL IF APPLICABLE. ONE OM-3L AND ONE OM-3R WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL BE MOUNTED ON NEW NO. 2 POSTS AND SHALL BE INSTALLED AS PER STANDARD CONSTRUCTION DRAWING TC-41.20, MOST CURRENT REVISION. EACH POST WILL BE 10.5 FT IN LENGTH.

STRUCTURE IDENTIFICATION SIGNS (I-H25a) WILL BE INSTALLED ON THE SAME POST AND DIRECTLY BELOW THE OBJECT MARKER OFF THE RIGHT SHOULDER ON EACH APPROACH. A QUANTITY OF ONE SIGN WILL BE INSTALLED AT EACH APPROACH. THE SIGNS WILL HAVE A NON-REFLECTIVE WHITE SHEETING BACKGROUND.

INSTALL SIGNS FOR THE FOLLOWING STRUCTURES: STA-30-1303L (1 APPROACH). STA-30-1303R (1 APPROACH). STA-30-1338 (1 APPROACH), STA-30-1479 (1 APROACH), STA-30-1488 (2 APPROACHES), STA-30-1502 (2 APPROACHES). STA-30-1520 (2 APPROACHES), STA-30-1558 (2 APPROACHES), STA-30-1580 (2 APPROACHES), STA-30-1594 (1 APPROACH), STA-30-1634 (2 APPROACHES), STA-30-1640 (1 APPROACH), STA-30-1646 (1 APPROACH), STA-62-1870L (1 APPROACH)

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR EACH APPROACH:

ITEM 630 - SIGN, FLAT SHEET, 730.20, I SQ FT ITEM 630 - SIGN, FLAT SHEET, 6 SQ FT

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, 21 FT ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL. 3 FACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, 2 EACH

SOME OF THE EXISTING BRIDGE NUMBER SIGNS HAVE INCORRECT BRIDGE NUMBERS ON THEM. THE FOLLOWING BRIDGE NUMBERS ARE THE CORRECT ONES AND WILL BE USED ON THE NEW BRIDGE IDENTIFICATIONS SIGNS.

STRUCTURE STA-30-1303L (SFN: 7607679) THE EXISTING SIGN SHOWS 1305L. THE CORRECT BRIDGE IDENTIFICATION NUMBER

STRUCTURE STA-30-1303R (SFN: 7607644) THE EXISTING SIGN SHOWS 1305R. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1303R.

STRUCTURE STA-30-1338 (SFN: 7607709) THE EXISTING SIGN SHOWS 1340. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1338.

STRUCTURE STA-30-1479 (SFN: 7600925) THE EXISTING SIGN SHOWS 14. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1479.

STRUCTURE STA-30-1488 (SFN: 7600941) THE EXISTING SIGN SHOWS 1487. THE CORRECT BRIDGE IDENTIFICATION NUMBER

STRUCTURE STA-30-1502 (SFN: 7600860) THE EXISTING SIGN SHOWS 1505. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1502.

STRUCTURE STA-30-1520 (SFN: 7600844) THE EXISTING SIGN SHOWS 1522. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1520.

STRUCTURE STA-30-1558 (SFN: 7600895) THE EXISTING SIGN SHOWS 1560. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1558.

STRUCTURE STA-30-1580 (SFN: 7600976) THE EXISTING SIGN SHOWS 1581. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1580.

STRUCTURE STA-30-1594 (SFN: 7600984) THE EXISTING SIGN SHOWS 1595. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1594.

STRUCTURE STA-30-1634 (SFN: 7601018) THE EXISTING SIGN SHOWS 1636. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1634.

STRUCTURE STA-30-1640 (SFN: 7601026) THE EXISTING SIGN SHOWS 1641. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1640.

STRUCTURE STA-30-1646 (SFN: 7601042) THE EXISTING SIGN SHOWS 1646. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1646.

STRUCTURE STA-62-1870L (SFN: 7602200) THE EXISTING SIGN SHOWS 1868L. THE CORRECT BRIDGE IDENTIFICATION NUMBER IS 1870L.

me ! <u>'</u>>

Ġ

ITEM 847 - FULL DEPTH REPAIR, AS PER PLAN
ITEM 847 - WEARING COURSE REMOVED, AS PER PLAN
ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE SCARIFICATION AND CHIPPING WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, ASPHALT WEARING COURSE REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF REMOVAL BY SCARIFICATION SHALL BE AS SPECIFIED IN THE PLANS.

CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE.

(SEE 847.11) THE COMPONENTS OF THE MICRO-SILICA MODIFIED CONCRETE SHALL BE PROPORTIONED AS FOLLOWS.

# CONCRETE TABLE QUANTITIES PER CUBIC YARD AGGREGATES (SSD)

| AGGREGATE | FINE   | *#3 COARSE | AGGRE. | CEMENT  | MICRO- | WATER TO     | AIR.    | **FIBER (1.1/4" |
|-----------|--------|------------|--------|---------|--------|--------------|---------|-----------------|
| TYPE      | AGRRE. | AGGRE.     | TOTAL  | CONTENT | SILICA | CEMENTITIOUS | CONTENT | POLYPROPYLENE)  |
| THE       | (LB)   | (L8)       | (LB)   | (LB)    | (LB)   | RATIO        | ± 2%    | (LB)            |
| 100       |        |            |        |         |        |              |         |                 |
| GRAVEL    | 1410   | 1430       | 2840   | 600     | 50     | 0.4          | 8       | 1               |
| LIMESTONE | 1410   | 1450       | 2860   | 600     | 50     | 0.4          | 8       | 1               |
| 8LAG      | 1300   | 1350       | 2650   | 500     | 50     | 0.4          | 8       | . 1             |

- \* ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127
- \*\* FIBER MESH SHALL BE 100% VIRGIN POLYPROPYLENE
  IN A FIBRILLATED-NETWORK FORM AND SHALL BE 11/4"
  IN LENGTH.

THE WEIGHTS SPECIFIED IN THE CONCRETE TABLE WERE CALCULATED FOR MATERIALS OF THE FOLLOWING BULK SPECIFIC GRAVITIES (SSD): NATURAL SAND AND GRAVEL 2.62, LIMESTONE SAND 2.68, LIMESTONE 2.65, SLAG 2.30, MICRO-SILICA SOLIDS 2.20, AND PORTLAND CEMENT 3.15. FOR AGGREGATES OF SPECIFIC GRAVITIES DIFFERING MORE THAN PLUS OR MINUS 0.02 FROM THESE, THE WEIGHTS IN THE TABLE WILL BE CORRECTED. FIBER MESH WEIGHTS NOT INCLUDED IN MIX DESIGN.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C127

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

(SEE 847.18) THE FINAL DECK SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF A RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

(SEE 847.19) FULL DEPTH REPAIR IS NOT REQUIRED IF LESS THAN ONE HALF OF THE DECK ORIGINAL CONCRETE THICKNESS IS SOUND.

(SEE 847.25) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF CURING MATERIAL OF 705.07, TYPE I OR ID, AS PER CMS 511.17 METHOD (B) MEMBRANE CURING. IF THE CURING COMPOUND CAN NOT BE PLACED WITHIN THE SAME SHORT TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL, AT THE NEXT AVAILABLE SHORT TERM CLOSURE PERIOD, APPLY THE MEMBRANE CURING COMPOUND.

(SEE 847.25) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PST (4.2 Mpa).

(SEE 847.26) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 11:00 AM.

(SEE 847.27) FOR EACH PHASE, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF THE POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE FOR EACH BEAM UNTIL THE MODULUS OF RUPTURE OF THE TWO TESTS IS NOT LESS THAN 650 PSI (4.5 MPa). TRAFFIC IS ALLOWED ON THE OVERLAY AT 600 PSI (4.5 Mpa).

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

## ENDANGERED SPECIES HABITAT - INDIANA BAT AND NORTHERN LONG-EARED BAT

TREES WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE CLEARED BETWEEN SEPTEMBER 30 AND APRIL 1, WHENEVER PRACTICABLE. IF SOME TREE REMOVAL MUST BE CONDUCTED BETWEEN APRIL I AND SEPTEMBER 30, TREES CONTAINING SUITABLE BAT ROOSTING HABITAT SHALL BE MARKED FOR AVOIDANCE DURING THESE MONTHS. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF ANY BRIDGES, THE USFWS, ECOLOGICAL SERVICES DIVISION (614-416-8993), ODOT OFFICE OF ENVIRONMENTAL SERVICES (614-466-7880) AND ODOT DISTRICT 4 ENVIRONMENTAL SECTION (330-786-4930) SHALL BE CONTACTED TO PROVIDE THIS INFORMATION. SHOULD ADDITIONAL INFORMATION ON LISTED ENDANGERED/THREATENED/POTENTIALLY THREATENED SPECIES OR THEIR CRITICAL HABITAT BECOME AVAILABLE, OR IF NEW INFORMATION REVEALS EFFECTS OF THIS PROJECT THAT WERE NOT PREVIOUSLY CONSIDERED, ODOT WILL REINITIATE CONSULTATION WITH THE USFWS AND ODNR TO ASSESS WHETHER THE PROJECT DETERMINATIONS ARE STILL VALID.

#### BEST MANAGEMENT PRACTICES

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LOCATION AND DESIGN MANUAL AND STANDARD DRAWINGS SHALL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

NATURAL BUFFERS ADJACENT TO STREAMS AND WETLANDS SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE. EXISTING RIPARIAN HABITATS SHOULD BE MAINTAINED TO THE MAXIMUM EXTENT PRACTICABLE AND EQUIPMENT STAGING AREAS SHALL BE KEPT WELL AWAY FROM STREAMS AND WETLANDS TO THE EXTENT PRACTICABLE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS OR OTHER WATERS OF THE UNITED STATES. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS/WETLANDS.

AREAS DISTURBED BY THE PROJECT SHALL BE SEEDED/REVEGETATED EVENT OF A RELEASE. WITH NATIVE PLANT SPECIES AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF VEGETATION COVER, DECREASE EROSION AND PREVENT EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

THE CONTRACTOR SHALL UTILIZE AN APPROVED DISPOSAL SITE FOR THE DISPOSAL OF ALL WASTE MATERIALS. ALL WASTE SOIL AND SEDIMENT MATERIALS SHALL BE IMMEDIATELY REMOVED TO AN UPLAND SITE AND STABILIZED (I.E. SEEDED) TO PREVENT REDISTRIBUTION INTO ANY WATERS OF THE UNITED STATES. IMMEDIATE REMOVAL IS DEFINED BY THE UNITED STATES ARMY CORPS OF ENGINEERS AS DEPOSITING THE REMOVED MATERIALS DIRECTLY INTO A TRUCK AND REMOVING THE MATERIAL FROM THE SITE. THE APPROVED DISPOSAL SITE SHALL NOT INCLUDE ANY WETLANDS, STREAM BANKS OR RIVERBANKS OR ANY 100-YEAR FLOOD PLAINS.

#### WATERWAY PERMIT DETERMINATION (404/401) - ODOT PROJECTS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE WATERWAY PERMITS CONDITIONS VERIFIED FOR THE PROJECT ARE INCORPORATED INTO THE PROJECT CONSTRUCTION PLAN AS SPECIAL PROVISIONS. THE PROJECT CONTRACTOR SHALL ADHERE TO ALL WATERWAY PERMIT TERMS AND CONDITIONS THROUGHOUT PROJECT CONSTRUCTION.

### MIDDLE BRANCH OF NIMISHILLEN CREEK - BRIDGE NO. STA-30-1590

NO IN-STREAM WORK (I.E., WORK BELOW THE ORDINARY HIGH WATER MARK) SHALL BE PERFORMED IN THE MIDDLE BRANCH OF NIMISHILLEN CREEK FROM APRIL 15 THROUGH JUNE 30. THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE MIDDLE BRANCH OF NIMISHILLEN CREEK. THIS PERTAINS TO ANY EXCAVATION OPERATION SUCH AS EXCAVATION FOR ROCK CHANNEL PROTECTION.

#### WEST BRANCH OF NIMISHILLEN CREEK AVOIDANCE -BRIDGE NO. STA-30-1482

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN IN THE WEST BRANCH OF NIMISHILLEN CREEK. NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN IN THE WEST BRANCH OF NIMISHILLEN CREEK. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT AND/OR MATERIALS IN ANY WETLANDS, STREAMS OR OTHER WATERS OF THE UNITED STATES. ODOT SUPPLEMENTAL SPECIFICATION 832, TEMPORARY SEDIMENT AND EROSION CONTROL, PROHIBITS FORDING OF STREAMS AND/OR RIVERS.

#### CONSTRUCTION AND DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING WETLANDS AND STREAMS. ANY DEBRIS THAT DOES FALL INTO WETLANDS AND/OR STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE WITHIN 72 HOURS.

#### MECHANICAL OPERATION AT THE STREAM CHANNEL

THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN SUCH A WAY AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.

#### PAINTING AND SEALING OPERATIONS

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE

DESIGN AGENCY
ODOT --- DISTRICT 4
PLANNING AND ENGINEERING



. ග

|                                     |                                      |                                      |             |                                     |         |                                     |                                     |                    |                |          |  | 7/20/2015<br>9/21/2015 |
|-------------------------------------|--------------------------------------|--------------------------------------|-------------|-------------------------------------|---------|-------------------------------------|-------------------------------------|--------------------|----------------|----------|--|------------------------|
|                                     |                                      |                                      |             |                                     |         |                                     |                                     |                    | EST            | IMATE    | ) QUANTITIES   |                        |
|                                     |                                      | BRIDGE                               | NO. / STF   | RUCTURE                             | FILE NO |                                     |                                     |                    |                |          | 에 보는 가능을 하는 모든<br> |                        |
| STA-77-0926<br>7603592<br>03/IMS/BR | STA-30-1303L<br>7607679<br>02/NHS/BR | STA-30-1303R<br>7607644<br>02/NHS/BR |             | STA-30-1479<br>7600925<br>02/NHS/BR |         | STA-30-1502<br>7600860<br>02/NHS/BR | STA-30-1520<br>7600844<br>02/NHS/BR | ITEM               | EXTENSION      | UNIT     | DESCRIPTION  | SEE<br>SHEET           |
|                                     |                                      |                                      | LUMP        | LUMP                                | LUMP    | LUMP                                | LUMP                                | 201                | 11000          |          | CLEARING AND GRUBBING  |                        |
|                                     |                                      |                                      | 17          |                                     |         | 24                                  | 36                                  | 202                | 32800          | SY       | CONCRETE SLOPE PROTECTION REMOVED  |                        |
|                                     |                                      |                                      |             |                                     | 15      | 5                                   |                                     | 203                | 40000          | CY       | BORROW   |                        |
| 50                                  |                                      |                                      | 100         |                                     | 50      | 50                                  |                                     | 509                | 20001          | LB       | REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN                                    | 2/9                    |
| 20                                  |                                      |                                      |             |                                     | 10      | 20                                  |                                     | 511                | 81100          | FT       | CONCRETE, MISC.:PARAPET REPAIR   | 2/9                    |
|                                     |                                      |                                      |             |                                     |         |                                     |                                     |                    |                |          |  |                        |
|                                     |                                      |                                      | 13          |                                     |         |                                     |                                     | 511                | 81500          | CF       | CONCRETE, MISC.:BACKWALL REPAIR  | 2/9                    |
| 100                                 | 354                                  | 354                                  | 1557        | 567                                 | 1813    | 1650                                | 660                                 | 512                | 10100          | SY       | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)  |                        |
| 2540                                |                                      |                                      |             |                                     |         |                                     |                                     | 512                | 73501          | SY       | TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN, AS PER PLAN   |                        |
|                                     | 354                                  | 354                                  | 1557        | 567                                 | 1763    |                                     |                                     | 512                | 74000          | SY       | REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES  |                        |
|                                     | 82                                   | 82                                   |             |                                     |         |                                     |                                     | 516                | 01301          | FT       | ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN   |                        |
| 11.4                                |                                      |                                      |             |                                     |         |                                     |                                     |                    |                |          |  |                        |
|                                     | 10                                   | 10                                   |             |                                     | 18      | 30                                  | 22                                  | 516                | 46801          | EACH     | REFURBISH AND RESET BEARING, AS PER PLAN   |                        |
|                                     | LUMP                                 | LUMP                                 |             |                                     | LUMP    | LUMP                                | LUMP                                | 516                | 47001          |          | JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN   |                        |
|                                     |                                      |                                      | 30          |                                     | 35      |                                     |                                     | 518                | 12500          | EACH     | SCUPPER, MISC.: CLEANOUT   | 3/9                    |
| 200                                 | 150                                  | 150                                  | 250         | 250                                 | 275     | 300                                 | 300                                 | 519                | 11101          | SF       | PATCHING CONCRETE STRUCTURE, AS PER PLAN   |                        |
|                                     | LUMP                                 | LUMP                                 |             |                                     |         |                                     |                                     | SPEC               | 53000200       |          | STRUCTURE, MISC.: STRUCTURE CLEANING   | 2/9                    |
|                                     |                                      |                                      |             |                                     |         |                                     |                                     |                    |                |          |  |                        |
|                                     |                                      |                                      |             |                                     | LUMP    |                                     | LUMP                                | SPEC               | 53000200       |          | STRUCTURE, MISC.: FALSEWORK REMOVAL  | 3/9                    |
|                                     | 50                                   | 50                                   | 50          | 50                                  | 50      | 50                                  | 50                                  | SPEC               | 53000800       | SY       | STRUCTURE, MISC.: CONCRETE SPALL REMOVAL   | 3/9                    |
|                                     |                                      |                                      |             |                                     | 15      |                                     |                                     | 601                | 20010          | CY       | CRUSHED AGGREGATE SLOPE PROTECTION   |                        |
|                                     |                                      |                                      | 17          |                                     |         | 24                                  | 36                                  | 601                | 21000          | SY       | CONCRETE SLOPE PROTECTION  |                        |
|                                     |                                      |                                      | 1           |                                     |         | 1                                   | 1                                   | 613                | 41200          | CY       | LOW STRENGTH MORTAR BACKFILL   |                        |
|                                     |                                      |                                      |             |                                     |         |                                     |                                     |                    |                |          |  |                        |
| 7.5                                 | 42                                   | 42                                   | 28.5        | 28.5                                | 42      | 42                                  | 42                                  | 630                | 02100          | FT       | GROUND MOUNTED SUPPORT, NO. 2 POST   |                        |
| 1                                   | 1                                    | 1                                    | 2           | 2                                   | 2       | 2                                   | 1                                   | 630                | 80100          | SF       | SIGN, FLAT SHEET, 730.20   |                        |
|                                     | 12                                   | 12                                   | 6           | 6                                   | 12      | 12                                  | 12                                  | 630                | 80100          | SF       | SIGN, FLAT SHEET   |                        |
| 1                                   | 3                                    | 3                                    | 4           | 4                                   | 6       | 6                                   | 6                                   | 630                | 84900          | EACH     | REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL  |                        |
| 1                                   | 2                                    | 2                                    | 3           | 3                                   | 4       | 4                                   | 4                                   | 630                | 86002          | EACH     | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL  |                        |
| 400                                 | 1                                    | 400                                  |             | 3-5                                 | 1       | 600                                 | 000                                 | 2.2                | 50000          | <u> </u> |  |                        |
| 100                                 | 100                                  | 100                                  | 175         | 150                                 | 150     | 200                                 | 200                                 | 843                | 50000          | SF       | PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR  | 910                    |
|                                     | 904                                  | 904                                  | 3905        | 1697                                | 8058    | 6768                                | 6434                                | 847                | 10001          | SY       | MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN  | 4/9                    |
| <u> </u>                            | 61                                   | 61                                   | 261         | 114                                 | 538     | 452                                 | 429                                 | 847                | 20001          | CY       | MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN                      | 4/9                    |
|                                     | LUMP                                 | LUMP<br>1                            | LUMP        | LUMP                                | LUMP    | LUMP                                | LUMP                                | 847<br>847         | 30000<br>30201 | CY       | TEST SLAB FULL DEPTH REPAIR, AS PER PLAN   | 4/9                    |
|                                     | 1                                    |                                      | 1           | 1                                   | 1       | 1                                   | 1                                   | 041                | 30201          | UI .     | FULL DEFINITE AND FET TEAN   | 4/9                    |
|                                     | 134                                  | 134                                  | 560         | 512                                 | 567     | 612                                 | 1469                                | 847                | 30301          | SY       | WEARING COURSE REMOVED, ASPHALT, AS PER PLAN   | 4/9                    |
| <u> </u>                            | 770                                  | 770                                  | 3345        | 1186                                | 7492    | 6112                                | 4966                                | 847<br>847         | 30301          | SY       | EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T=2 3/4" OR 3 3/4")  | 4/9                    |
|                                     |                                      |                                      | 3345<br>118 |                                     | 242     | 204                                 | 194                                 | 84 <i>7</i><br>847 | 50000          | SY       | HAND CHIPPING  | 4/9                    |
| <u> </u>                            | 28                                   | 28                                   | 110         | 51                                  | 242     | 204                                 | 194                                 | 04/                | 50000          | ार       |  |                        |

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

| · · |   |
|-----|---|
| 6/  | 9 |
|     |   |

| 6/9  |
|------|
| 95   |
| (98) |

|                                     |                                     |                                     |                                     |                                     |                                     |                                      |      |           |  | CALC: NRC DATE<br>CHECKED: TJP DATE   | 7/20/2015<br>9/21/2015 |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|------|-----------|--|---|------------------------|
|                                     |                                     |                                     |                                     |                                     |                                     |                                      |      | ES1       | TIMATED  | QUANTITIES  |                        |
|                                     |                                     | BRIDGE                              | NO. / STF                           | RUCTURE                             | FILE NO.                            |                                      |      |           |  | 마음이 한다는 사람이 한다는 것이 없었다.<br>그렇게 하는 것은 것이 하는 것은 것이 되는 것은 것이 되는 |                        |
| STA-30-1558<br>7600895<br>02/NHS/BR | STA-30-1580<br>7600976<br>02/NHS/BR | STA-30-1594<br>7600984<br>02/NHS/BR | STA-30-1634<br>7601018<br>02/NHS/BR | STA-30-1640<br>7601026<br>02/NHS/BR | STA-30-1646<br>7601042<br>02/NHS/BR | STA-62-1870L<br>7602200<br>02/NHS/BR | ITEM | EXTENSION | UNIT   | DESCRIPTION   | SEE<br>SHEET           |
| LUMP                                 | 201  | 11000     |  | CLEARING AND GRUBBING   |                        |
| LOIVI                               | 20                                  | LOWIN                               | LOW                                 | LOWI                                | 5                                   | LOIM                                 | 203  | 40000     | CY   | BORROW  |                        |
|                                     | 50                                  |                                     |                                     |                                     |                                     |                                      | 509  | 20001     | LB   | REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN   | 2/9                    |
|                                     | 10                                  |                                     |                                     |                                     |                                     |                                      | 511  | 81100     | FT   | CONCRETE, MISC.: PAPRAPET REPAIR  | 2/9                    |
| 320                                 | 601                                 | 1724                                | 414                                 | 427                                 | 516                                 | 450                                  | 512  | 10100     | SY   | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)   |                        |
|                                     |                                     |                                     |                                     |                                     |                                     |                                      |      |           |  |   |                        |
|                                     |                                     |                                     |                                     |                                     |                                     |                                      | 512  | 73501     | SY   | TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN, AS PER PLAN  |                        |
|                                     |                                     | 1674                                |                                     |                                     |                                     |                                      | 512  | 74000     | SY   | REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES   |                        |
|                                     |                                     |                                     |                                     |                                     |                                     | LUMP                                 | 514  | 00100     |  | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL  |                        |
|                                     |                                     |                                     |                                     |                                     |                                     | LUMP                                 | 514  | 00200     |  | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT   |                        |
| <u> </u>                            |                                     |                                     |                                     |                                     |                                     | LUMP                                 | 514  | 00300     |  | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT  |                        |
|                                     |                                     |                                     |                                     |                                     |                                     | LUMP                                 | 514  | 00400     |  | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT  |                        |
|                                     |                                     |                                     |                                     |                                     |                                     | 8                                    | 514  | 00504     | MNHR   | GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL  |                        |
|                                     |                                     |                                     |                                     |                                     | 1 1 1 1 1 1 1 1 1                   | 3                                    | 514  | 10000     | EACH   | FINAL INSPECTION REPAIR   |                        |
| 32                                  | 38                                  | 28                                  |                                     |                                     | 28                                  | 8                                    | 516  | 46801     | EACH   | REFURBISH AND RESET BEARING, AS PER PLAN  | 2/9                    |
| LUMP                                | LUMP                                | LUMP                                |                                     |                                     | LUMP                                | LUMP                                 | 516  | 47001     | 2,,01,   | JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN  | 2/9                    |
|                                     |                                     |                                     |                                     |                                     |                                     |                                      |      |           |  |   |                        |
| 11                                  |                                     |                                     |                                     |                                     |                                     |                                      | 518  | 12500     |  | SCUPPER, MISC.: CLEANOUT  | 3/9                    |
| 200                                 | 250                                 | 250                                 | 250                                 | 200                                 | 200                                 | 250                                  | 519  | 11101     | SF   | PATCHING CONCRETE STRUCTURE, AS PER PLAN  | 3/9                    |
| 50                                  | 50                                  | 50                                  | 50                                  | 50                                  | 50                                  | 50                                   | SPEC | 53000800  | SY   | STRUCTURE, MISC.: CONCRETE SPALL REMOVAL  | 3/9                    |
|                                     | 15                                  |                                     |                                     |                                     | 5                                   |                                      | 601  | 20010     | CY   | CRUSHED AGGREGATE SLOPE PROTECTION  |                        |
|                                     |                                     | 10                                  |                                     |                                     |                                     |                                      | 601  | 25000     | CY   | DUMPED ROCK FILL, TYPE A  |                        |
| 42                                  | 42                                  | 28.5                                | 42                                  | 28.5                                | 28.5                                | 21                                   | 630  | 02100     | FT   | GROUND MOUNTED SUPPORT, NO. 2 POST  |                        |
| 2                                   | 2                                   | 2                                   | 2                                   | 2                                   | 2                                   | 1                                    | 630  | 80100     | SF   | SIGN, FLAT SHEET, 730.20  |                        |
| 12                                  | 12                                  | 6                                   | 12                                  | 6                                   | 6                                   | 6                                    | 630  | 80100     | and the second s | SIGN, FLAT SHEET  |                        |
| 6                                   | 6                                   | 4                                   | 6                                   | 4                                   | 4                                   | 3                                    | 630  | 84900     |  | REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL   |                        |
| 4                                   | 4                                   | 3                                   | 4                                   | 3                                   | 3                                   | 2                                    | 630  | 86002     | EACH   | REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL   |                        |
|                                     |                                     |                                     |                                     |                                     |                                     |                                      |      |           |  |   |                        |
| 150                                 | 175                                 | 175                                 | 150                                 | 100                                 | 100                                 | 150                                  | 843  | 50000     | SF   | PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR   |                        |
| 2283                                | 4550                                | 8037                                | 1930                                | 2439                                | 3864                                | 474                                  | 847  | 10001     | SY   | MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN   | 4/9                    |
| 153                                 | 304                                 | 536                                 | 129                                 | 163                                 | 258                                 | 32                                   | 847  | 20001     | CY   | MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN   | 4/9                    |
| LUMP                                 | 847  | 30000     |  | TEST SLAB   |                        |
| 1                                   | 1                                   | 1                                   | 1                                   | 1                                   | 1                                   | 1                                    | 847  | 30201     | CY   | FULL DEPTH REPAIR, AS PER PLAN  | 4/9                    |
|                                     | 0-0                                 |                                     | F                                   |                                     | 500                                 | 1.5                                  | A    | 00001     |  |   | 1.2                    |
| 867                                 | 973                                 | 595                                 | 578                                 | 587                                 | 589                                 | 150                                  | 847  | 30301     | SY   | WEARING COURSE REMOVED, ASPHALT, AS PER PLAN  | 4/9                    |
| 1416                                | 3578                                | 7443                                | 1352                                | 1852                                | 3275                                | 324                                  | 847  | 30401     | SY   | EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T=2 1/2" OR 3 1/2")   | 4/9                    |
| 69                                  | 137                                 | 242                                 | 58                                  | 74                                  | 116                                 | 15                                   | 847  | 50000     | SY   | HAND CHIPPING   |                        |

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

Δ

ITEM 847, WEARING COURSE REMOVED, ASPHALT, AS PER PLAN (T = 21/2 "±) -\_\_\_ITEM 847, EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T = 21/2" OR 31/2")1/2 ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T =23/4")--ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T = 2¾ " OR 3¾") EXISTING ASPHALT OVERLAY (T= 21/2" ±) EXISTING CONCRETE OVERLAY (T= 21/2" OR 31/2") EXISTING DECK EXISTING APPROACH SLAB EXISTING STEEL BEAM ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN └─ ITEM 847, FULL DEPTH REPAIR, AS PER PLAN ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN

> STA-30-13031, STA-30-1303R, STA-30-1338, STA-30-1488, STA-30-1502, STA-30-1520, STA-30-1558, STA-30-1580, STA-30-1594, & STA-30-1646 APPROACH SHOWN, TRAILING SIMILAR

ITEM 847, WEARING COURSE REMOVED, ASPHALT, AS PER PLAN (T = 21/2 "±) -- ITEM 847, EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (T =  $2\frac{1}{2}$ " OR  $3\frac{1}{2}$ ") ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T =2¾")---- ITEM 847, MICRO SILICA MODIFIED CONCRETE OVERLAY, AS PER PLAN (T = 2¾ " OR 3¾ ") EXISTING ASPHALT OVERLAY (T= 21/2" ±) --EXISTING CONCRETE OVERLAY (T= 21/2" OR 31/2") NOTE 1 -- NOTE 2 EXISTING DECK EXISTING APPROACH SLAB EXISTING STEEL BEAM

> STA-30-1479, STA-30-1634, STA-30-1640, & STA-62-1870L INTEGRAL ABUTMENT DETAIL

> > APPROACH SHOWN, TRAILING SIMILAR

#### SEE SHEET 8/9 FOR OVERLAY CALCULATIONS.

 $\bigcirc$ 

| STRUCTURE:   | APPROACH SLAB<br>ASPHALT THICKNESS: | EXISTING CONCRETE<br>OVERLAY THICKNESS: | PROPOSED CONCRETE<br>OVERLAY THICKNESS<br>(APPROACH SLAB): | PROPOSED CONCRETE<br>OVERLAY THICKNESS: |
|--------------|-------------------------------------|---|--|---|
| STA-30-1303L | 21/2"                               | 21/2"                                   | 23/4"  | 2¾"                                     |
| STA-30-1303R | 21/2"                               | 21/2"                                   | 2¾"  | 23/4"                                   |
| STA-30-1338  | 21/2"                               | 21/2"                                   | 2¾"  | 2¾"                                     |
| STA-30-1479  | 21/2"                               | 31/2"                                   | 23/4"  | 3¾"                                     |
| STA-30-1488  | 21/2"                               | 21/2"                                   | 23/4"  | 23/4"                                   |
| STA-30-1502  | 21/2"                               | 21/2"                                   | 2¾"  | 23/4"                                   |
| STA-30-1520  | 21/2"                               | 31/2"                                   | 2¾"  | 3¾"                                     |
| STA-30-1558  | 21/2'                               | 21/2"                                   | 23/4"  | 2¾"                                     |
| STA-30-1580  | 21/2"                               | 31/2"                                   | 2¾"  | 33/4"                                   |
| STA-30-1594  | 21/2"                               | 31/2"                                   | 2¾"  | 3¾"                                     |
| STA-30-1634  | 21/2"                               | 31/2"                                   | 2¾"  | 3¾"                                     |
| STA-30-1640  | 21/2"                               | 31/2"                                   | 23/4"  | 3¾"                                     |
| STA-30-1646  | 21/2"                               | 31/2"                                   | 23/4"  | 3¾"                                     |
| STA-62-1870L | 21/2"                               | 21/2"                                   | 23/4"  | 23/4"                                   |

**☼** PAVEMENT SHALL TAPER TO THE APPROACH SLAB PER SCD BP - 3.1

NOTE : PREFORMED ELASTOMERIC JOINT SEAL, 705.11 (11/4" WIDE FOR A 1/2" WIDE GROOVE) PLACED IN 1/2" X 21/4" GROOVE.

NOTE 2: TYPE "A" WATERPROOFING.

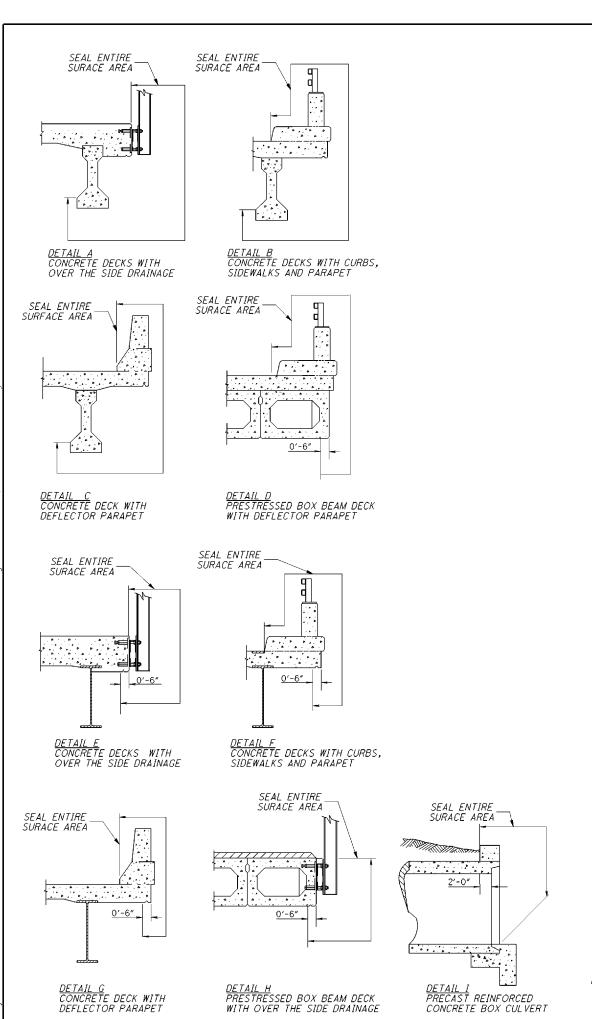
| 8/9 |
|-----|
| 97  |

|                  | 1                      |              | <u> </u>  | 1  |  | E DECK   |                                    | T =                               | 1 - 5   | T A           |                            | <u>na na tanàna ao ao</u> | <u> </u>              | T.                           |  | ACH SLABS   |  | T ===  | 1 8                                |               |
|------------------|------------------------|--------------|-----------|--|--|--|------------------------------------|-----------------------------------|---|---------------|----------------------------|--|-----------------------|------------------------------|--|---|--|--|------------------------------------|---------------|
|                  |                        |              |           | 512  | 847  | 847  | 847                                | 847                               | 847<br>≻  | 847           |                            |  |                       |                              | 512  | 516   | 847  | 847  | 847                                | 84            |
| BRIDGE<br>NUMBER | LENGTH (BRIDGE LIMITS) | BRIDGE WIDTH | DECK AREA | TREATING CONCRETE BRIDGE<br>DECKS WITH GRAVITY FED<br>RESIN, AS PER PLAN | MICRO SILICA MODIFIED<br>CONCRETE OVERLAY, AS PER<br>PLAN (T=2 3/4" OR 3 3/4") | MICRO SILICA MODIFIED<br>CONCRETE OVERLAY<br>(VARIABLE THICKNESS),<br>MATERIAL ONLY, AS PER PLAN | TEST SLAB                          | FULL DEPTH REPAIR, AS PER<br>PLAN | EXISTING CONCRETE OVERLAY<br>REMOVED, AS PER PLAN<br>(T=2 1/2" OR 3 3 1/2") | HAND CHIPPING | LENGTH<br>(APPROACH SLABS) | APPROACH SLAB<br>WIDTH                                     | APPROACH SLAB<br>AREA | APPROACH<br>(FORWARD / REAR) | TREATING CONCRETE BRIDGE<br>DECKS WITH GRAVITY FED<br>RESIN, AS PER PLAN | ELASTOMERIC STRIP SEAL<br>MTHOUT STEEL EXTRUSIONS,<br>AS PER PLAN | MICRO SILICA MODIFIED<br>CONCRETE OVERLAY, AS PER<br>PLAN (T=2 3/4") | MICRO SILICA MODIFIED<br>CONCRETE OVERLAY<br>(VARIABLE THICKNESS),<br>MATERIAL ONLY, AS PER PLAN | (SE REMOVE<br>S PER PLAN<br>(/2"±) | HAND CHIPPING |
|                  | ΕT                     | FT           | SQYD      | SY   | SY   | CY   | LUMP                               | CY                                | SY  | SY            | FT                         | FI   | SQYD                  |                              | SY   | FT  | SY   | CY   | SY                                 | SY            |
| STA-30-1303L     | 180.00                 | 38.50        | 770.00    | 3,   | 770.00   | 51.33  | LUMP                               | 1.00                              | 770.00  | 23.10         | 25.00                      | 24.00  | 66.67                 | FWD                          | <u> </u>   | 41.00   | 66.67  | 4.44   | 66.67                              | 2.0           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 25.00                      | 24.00  | 66.67                 | REAR                         |  | 41.00   | 66.67  | 4.44   | 66.67                              | 2.0           |
| STA-30-1303R     | 180.00                 | 38.50        | 770.00    |  | 770.00   | 51.33  | LUMP                               | 1.00                              | 770.00  | 23.10         | 25.00                      | 24.00  | 66.67                 | FWD                          |  | 41.00   | 66.67  | 4.44   | 66.67                              | 2.0           |
| O1A-00-10031(    | 100.00                 | 30.30        | 770.00    |  | 770.00   | 31.33  | LOWI                               | 1.00                              | 110.00  | 20.10         | 25.00                      | 24.00  | 66.67                 | REAR                         |  | 41.00   | 66.67  | 4.44   | 66.67                              | 2.0           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               |                            |  |                       |                              |  |   |  |  |                                    |               |
| STA-30-1338      | 278.68                 | 108.00       | 3344.16   |  | 3344.16  | 222.94   | LUMP                               | 1.00                              | 3344.16   | 100.32        | 30.00                      | 84.00  | 280.00                | FWD                          |  |   | 280.00   | 18.67  | 280.00                             | 8.4           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 30.00                      | 84.00  | 280.00                | REAR                         |  |   | 280.00   | 18.67  | 280.00                             | 8.4           |
| STA-30-1479      | 116.00                 | 92.00        | 1185.78   |  | 1185.78  | 79.05  | LUMP                               | 1.00                              | 1185.78   | 35.57         | 25.00                      | 92.00  | 255.56                | FWD                          |  |   | 255.56   | 17.04  | 255.56                             | 7.6           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 25.00                      | 92.00  | 255.56                | REAR                         |  |   | 255.56   | 17.04  | 255.56                             | 7.6           |
| 071 00 1100      | 204.00                 | 400.00       | 7404 00   |  | 7404 00  | 400.40   | 11025                              | 4.00                              | 7104.00   | 004.74        | 05.00                      | 400.00   | 200 00                | E146                         |  |   | 000.00   | 40.00  | 000.00                             | 0.5           |
| STA-30-1488      | 661.00                 | 102.00       | 7491.33   |  | 7491.33  | 499.42   | LUMP                               | 1.00                              | 7491.33   | 224.74        | 25.00<br>25.00             | 102.00<br>102.00   | 283.33<br>283.33      | FWD<br>REAR                  |  |   | 283.33<br>283.33   | 18.89<br>18.89   | 283.33<br>283.33                   | 8.5<br>8.5    |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 20.00                      | 102.00   | 200.00                | INCAIN                       |  |   | 200.00   | 10.03  | 200.00                             | 0.0           |
| STA-30-1502      | 500.00                 | 110.00       | 6111.11   |  | 6111.11  | 407.41   | LUMP                               | 1.00                              | 6111.11   | 183,33        | 25.00                      | 110.00   | 305.56                | FWD                          |  |   | 305.56   | 20.37  | 305.56                             | 9.1           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 26.67                      | 118.50   | 351.16                | REAR                         |  |   | 351.16   | 23.41  | 351.16                             | 10.           |
| STA-30-1520      | 196.00                 | 228.00       | 4965.33   |  | 4965.33  | 331.02   | LUMP                               | 1.00                              | 4965.33   | 148.96        | 30.00                      | 202.50   | 675.00                | FWD                          |  |   | 675.00   | 45.00  | 675.00                             | 20.2          |
| 3 IA-30-1320     | 190.00                 | 220.00       | 4503.33   |  | 4500.00  | 331.02   | LUIVIF                             | 1.00                              | 4505.55   | 140.50        | 30.00                      | 238.00   | 793.33                | REAR                         |  |   | 793.33   | 52.89  | 793.33                             | 23.8          |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               |                            |  |                       |                              |  |   |  |  |                                    |               |
| STA-30-1558      | 98.00                  | 130.00       | 1415.56   |  | 1415.56  | 94.37  | LUMP                               | 1.00                              | 1415.56   | 42.47         | 30.00                      | 130.00   | 433.33                | FWD                          |  |   | 433.33   | 28.89  | 433.33                             | 13.0          |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 30.00                      | 130.00   | 433.33                | REAR                         |  |   | 433.33   | 28.89  | 433.33                             | 13.0          |
| STA-30-1580      | 184.00                 | 175.00       | 3577.78   |  | 3577.78  | 238.52   | LUMP                               | 1.00                              | 3577.78   | 107.33        | 25.00                      | 152.00   | 422.22                | FWD                          |  |   | 422.22   | 28.15  | 422.22                             | 12.6          |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 25.00                      | 198.00   | 550.00                | REAR                         |  |   | 550.00   | 36.67  | 550.00                             | 16.           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               |                            |  |                       |                              |  |   |  |  |                                    |               |
| STA-30-1594      | 626.00                 | 107.00       | 7442.44   |  | 7442.44  | 496.16   | LUMP                               | 1.00                              | 7442.44   | 223.27        | 25.00<br>25.00             | 107.00<br>107.00   | 297.22<br>297.22      | FWD<br>REAR                  |  |   | 297.22<br>297.22   | 19.81<br>19.81   | 297.22<br>297.22                   | 8.9<br>8.9    |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 25.00                      | 107.00   | 291.22                | REAR                         |  |   | 291.22   | 19.01  | 291.22                             | 0.5           |
| STA-30-1634      | 117.00                 | 104.00       | 1352.00   |  | 1352.00  | 90.13  | LUMP                               | 1.00                              | 1352.00   | 40.56         | 25.00                      | 104.00   | 288.89                | FWD                          |  |   | 288.89   | 19.26  | 288.89                             | 8.6           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               | 25.00                      | 104.00   | 288.89                | REAR                         |  |   | 288.89   | 19.26  | 288.89                             | 8.6           |
| STA-30-1640      | 158.00                 | 105.50       | 1852.11   |  | 1852.11  | 123.47   | LUMP                               | 1.00                              | 1852.11   | 55.56         | 25.00                      | 105.50   | 293.06                | FWD                          |  |   | 293.06   | 19.54  | 293.06                             | 8.7           |
| 31A-30-1040      | 100.00                 | 105.50       | 1002.11   |  | 1002.11  | 123.41   | LOWIF                              | 1.00                              | 1002.11   | 33.30         | 25.00                      | 105.50   | 293.06                | REAR                         |  |   | 293.06   | 19.54  | 293.06                             | 8.7           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               |                            |  |                       |                              |  |   |  |  |                                    |               |
| STA-30-1646      | 278.00                 | 106.00       | 3274.22   |  | 3274.22  | 218.28   | LUMP                               | 1.00                              | 3274.22   | 98.23         | 25.00                      | 106.00   | 294.44                | FWD                          |  |   | 294.44   | 19.63  | 294.44                             | 8.8           |
|                  |                        |              |           |  |  |  | <u>en Halbahaa.</u><br>An Halbahaa |                                   |   |               | 25.00                      | 106.00   | 294.44                | REAR                         |  |   | 294.44   | 19.63  | 294.44                             | 8.8           |
| STA-62-1870L     | 108.00                 | 27.00        | 324.00    |  | 324.00   | 21.60  | LUMP                               | 1.00                              | 324.00  | 9.72          | 25.00                      | 27.00  | 75.00                 | FWD                          |  |   | 75.00  | 5.00   | 75.00                              | 2.2           |
|                  |                        |              |           |  |  |  |                                    |                                   | 32.00   |               | 25.00                      | 27.00  | 75.00                 | REAR                         |  |   | 75.00  | 5.00   | 75.00                              | 2.2           |
|                  |                        |              |           |  |  |  |                                    |                                   |   |               |                            |  |                       |                              |  |   |  |  |                                    |               |
| STA-77-0926      | 752.00                 | 28.50        | 2381.33   | 2381.33  |  |  |                                    |                                   |   |               | 25.00                      | 28.50  | 79.17                 | FWD                          | 79.17  |   |  |  |                                    |               |
|                  |                        |              |           |  |  |  |                                    |                                   | 1   |               | 25.00                      | 28.50  | 79.17                 | REAR                         | 79.17  |   |  |  |                                    |               |
|                  |                        | <del>1</del> | TOTALS    | 2382   | 43876  | 2926   | 0                                  | 14                                | 43876   | 1317          |                            | I de la constanta  | 1                     | TOTALS                       | 159  | 164   | 8366   | 558  | 8366                               | 25            |

 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 



 $\bigcirc$ 

 $\bigcirc$ 

 $\bigcirc$ 

|               |                                    |  |                         | ESTIMATED QUANTITIES |                 |                  |                    |                  |  |  |  |
|---------------|------------------------------------|--|-------------------------|----------------------|-----------------|------------------|--------------------|------------------|--|--|--|
| BRIDGE NUMBER | STRUCTURE<br>TYPE                  | PROPOSED SEALING   | FEDERAL<br>COLOR NUMBER | ABUT<br>(SQ YD)      | PIER<br>(SQ YD) | SUPER<br>(SQ YD) | GENERAL<br>(SQ YD) | TOTAL<br>(SQ YD) |  |  |  |
| STA-77-0926   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL ALL AREAS THAT HAVE BEEN PATCHED  | PER CMS                 |                      |                 |                  | 100                | 100              |  |  |  |
| STA-30-1303L  | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 304              | 50                 | 354              |  |  |  |
| STA-30-1303R  | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 304              | 50                 | 354              |  |  |  |
| STA-30-1338   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G SEAL ALL EXPOSED CONCRETE AT ABUTMENTS SEAL ALL EXPOSED CONCRETE AT PIERS SEAL SPALL REMOVALS FROM DECK FLOOR | PER CMS                 | 807                  |                 | 700              | 50                 | 1557             |  |  |  |
| STA-30-1479   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G SEAL SPALL REMOVALS FROM DECK FLOOR   | PER CMS                 |                      |                 | 517              | 50                 | 567              |  |  |  |
| STA-30-1488   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 1763             | 50                 | 1813             |  |  |  |
| STA-30-1502   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 1600             | 50                 | 1650             |  |  |  |
| STA-30-1520   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 610              | 50                 | 660              |  |  |  |
| STA-30-1558   | STEEL BEAM<br>SIMPLE SPAN          | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 270              | 50                 | 320              |  |  |  |
| STA-30-1580   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 551              | 50                 | 601              |  |  |  |
| STA-30-1594   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 1674             | 50                 | 1724             |  |  |  |
| STA-30-1634   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 364              | 50                 | 414              |  |  |  |
| STA-30-1640   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 377              | 50                 | 427              |  |  |  |
| STA-30-1646   | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL G<br>SEAL SPALL REMOVALS FROM DECK FLOOR  | PER CMS                 |                      |                 | 466              | 50                 | 516              |  |  |  |
| STA-62-1870L  | 4 SPAN<br>CONTINUOUS<br>STEEL BEAM | SEAL PARAPETS PER DETAIL GSEAL ALL EXPOSED CO  | PER CMS                 | 190                  | 15              | 195              | 50                 | 450              |  |  |  |

- EPOXY-URETHANE SEALER SHALL BE USED UNLESS SHOWN OTHERWISE
- DETAILS E, F, G AND H ALSO APPLY TO CONCRETE SLAB BRIDGES

TA-77/30/6. VAR ٩ Ls

9/9 98

98