GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 1990 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1996, AND ITS LATEST REVSIONS

2. AS DIRCTED BY THE ENGINEER AND THE STANDARD SPECIFICATIONS, SECTION 105, THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY RAW CONCRETE, FROM ENTERING COTA BROOK.

3. THE PRESTRESSING UNITS SHALL BE OVERLAYED WITH CONCRETE, CLASS AA. THE CONCRETE IS TO BE POURED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A CONSTRUCTION JOINT SHALL BE USED. A NINETY SIX HOUR DELAY BETWEEN THE COMPLETION OF ONE DAY'S POUR AND THE BEGINNING OF ANY OTHER POUR SHALL BE OBSERVED.

4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1" EXCEPT WHERE NOTED.

5. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

6. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".

7. REINFORCING PLACEMENT TOLERANCES SHALL BE:
   SPACING +/- 1"
   CLEARANCE +/- 1/4"

8. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE PRESTRESSED UNITS BETWEEN DRIP NOTCHES. NO WATER REPELLENT SHALL BE APPLIED TO THE PRESTRESSED UNITS PRIOR TO THE PLACEMENT OF THE OVERLAY AND CURB.

9. ALL DIMENSIONS ARE EITHER HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F, EXCEPT AS NOTED.

10. PRESTRESSED, PRECAST MEMBERS SHALL:
    A. CONFORM WITH SECTION 510 "PRESTRESSED CONCRETE".
    B. BE 18" X 48" X 37'-10" VOIDED SLAB UNITS, WITH THREE VOIDS.
    C. HAVE THE ENDS OF THE STRANDS RECESSED AND GROUTED AS PER STANDARD PRACTICE.
    D. HAVE THE VOIDS TERMINATE FROM THE ENDS OF THE UNITS AS SHOWN IN THE PLAN DETAIL AND BE CONTINUOUS, EXCEPT AS OTHERWISE DETAILED.
    E. HAVE VOID DRAINS REQUIRED AT THE LOW END OF ALL VOIDS, THE VOID DRAIN SHALL BE 3/4" DIA. AND NON-FERROUS, AND SHALL BE CLEANED AFTER ERECTION.
    F. USE CONCRETE WITH F'c=6000 psi AND F'ci=4000 psi.
    G. USE PRESTRESSING STRANDS WHICH SHALL BE 1/2" DIA., 270 ksi, LOW-RELAXATION STRANDS PULLED TO 75% OF THEIR YIELD.
    H. BE DESIGNED FOR AN AASHTO HS-25 LIVE LOAD.
    I. HAVE A MINIMUM FINAL RESIDUAL CAMBER OF 1 3/8"

SERVICE LOADS PER UNIT AT MIDSPAN

	4' BEAM
MEMBER MOMENT, FT-K	108.9
DECK MOMENT, FT-K	45.8
SUPERIMPOSED DEAD LOAD MOMENT, FT-K	41.6
LIVE LOAD + IMPACT MOMENT, FT-K	224.8
DEAD LOAD REACTION, K	21.4
LIVE LOAD + IMPACT REACTION, K	30.0
TOTAL REACTION, K	51.4

11. FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE TOWN OF LINCOLN FOR APPROVAL PRIOR TO FABRICATION

12. THE FABRICATOR MAY ALTER THE DESIGN, AS DETAILED, TO MEET THE PLANT'S PRESTRESSING OPERATION AND MATERIAL REQUIREMENTS, WITH THE APPROVAL OF THE ENGINEER. AN ALTERNATE STRAND CONFIGURATION MAY BE SUBMITTED FOR APPROVAL, PROVIDED THE DESIGN IS SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT AND THE DESIGN MEETS ALL OF THE APPLICABLE DESIGN CRITERIA, LOADINGS AND CODES.

13. THE PRICE PER PRECAST UNIT SHALL INCLUDE ALL MATERIALS CAST INTO THE UNITS AND ALL OF THE COSTS ASSOCIATED WITH THE TRANSVERSE STRANDS WITH MULTIPLE USE CHUCKS.

14. THE JOINTS BETWEEN THE VOIDED SLAB UNITS SHALL BE FILLED WITH MORTAR, TYPE IV IN ACCORDANCE WITH SECTION 510.13(B). THIS WORK WILL BE PAID FOR UNDER THE ITEM 510.20 "PRESTRESSED CONCRETE MEMBER", PER SEQUENCE (SEE DWG. PS-2)

15. THE TRANSVERSE STRANDS OR TIE RODS SHALL BE INSTALLED PRIOR TO THE PLACEMENT OF THE MORTAR AND CASTING OF THE "CONCRETE, CLASS AA", PER SEQUENCE (SEE DWG. PS-2)

16. MATERIALS, LABOR AND EQUIPMENT FOR ALL GROUTING AND FOR THE COLD POURED JOINT FILLER SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 510.20 "PRESTRESSED CONCRETE MEMBERS".

17. THE ENTIRE BRIDGE SEAT SURFACE SHALL HAVE CONSTANT SLOPES AS SHOWN IN THE SUBSTRUCTURE DETAILS. THE SURFACE SHALL BE A SMOOTH TROWEL FINISH AND SHALL BE LEVEL FROM FRONT TO BACK.

18. THE 13/8" NEOPRENE BEARING PADS, CONFORMING TO SECTION 731.03 AND AASHTO M251, SHALL BE PAID FOR UNDER ITEM 531.10, "BEARING DEVICE ASSEMBLY", (NEOPRENE)

19. THE FOLLOWING ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES.
    CAST IN PLACE CONCRETE: F'c=3000 psi Fc=1400 psi CLASS B
    F'c=4000 psi Fc=1600 psi SLASS AA
    F'c=5000 psi Fc=2000 psi SILICA FUME
    REINFORCING STEEL: Ft=24,000 psi Fy=60,000 psi GRADE 60

20. THE BRIDGE WILL BE CLOSED FOR THE DURATION OF THE CONSTRUCTION. TRAFFIC WILL UTILIZE EAST RIVER RD., WEST HILL RD., AND GRIMES RD. AS A DETOUR ROUTE. SEE DWG. MT-1, MAINTENANCE OF TRAFFIC SHEET FOR THE PLAN OF DETOUR SIGNING.

21. A BRONZE BRIDGE IDENTIFICATION PLATE IS LOCATED ALONG THE CONCRETE CURB OF THE UPSTREAM FASCIA OF THE BRIDGE. THE CONTRACTOR SHALL REMOVE, CLEAN, STORE AND REINSTALL THIS PLATE AT THE TOP OF THE UPSTREAM CURTAIN WALL AT ABUTMENT NO. 1. CARE SHALL BE TAKEN BY THE CONTRACTOR DURING REMOVAL SO AS TO NOT DAMAGE THE PLATE IN ANY WAY. ALL WORK ASSOCIATED WITH THE PLATE, REMOVING, CLEANING STORING, AND REINSTALLING, SHALL BE PAID FOR AND INCLUDED UNDER THE VARIOUS ITEMS OF THE PROJECT.

22. ALL HEAVY DUTY BRIDGE RAIL AND POSTS, ITEM 525.41 & APPROACH RAIL WITH POSTS, ITEM 621.21 WILL BE ASTM A588, GR 50W STEEL AND WILL NOT BE GALVANIZED COATED. THIS WILL LEAVE AN OXIDIZED APPEARANCE TO THE RAILS AND POSTS. ALL FASTENERS WILL BE ASTM A325, TYPE III, FOR WEATHERING CONDITIONS.

23. MARKER POSTS: TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.

24. SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B-5.

25. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.015 GAL./SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER. COSTS ARE SUBSIDIARY TO ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT.

SEEDING FORMULA
RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

SEEDING NOTES

SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10. TO BE USED WITH SEED. APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA.

AGRICULTURAL LIMESTONE TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE OR AS DIRECTED BY THE ENGINEER

TOPSOIL: TO BE USED WITH SEED AS INDICATED OR AS DIRECTED BY THE ENGINEER.

RE-ADVERTISED

PROJECT NO. BHO 1445 (28)

Greenman-Pedersen
CONSULTING ENGINEERS
GPI
55 Monument Ave.
Bennington, VT. 05201

LINCOLN BRIDGE 13
OVER COTA BROOK

GENERAL NOTES

DRAWING NO.	SCALE:	DATE:	SHEET NO.
GN-1	AS SHOWN	DEC., 1999	5 OF 13

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