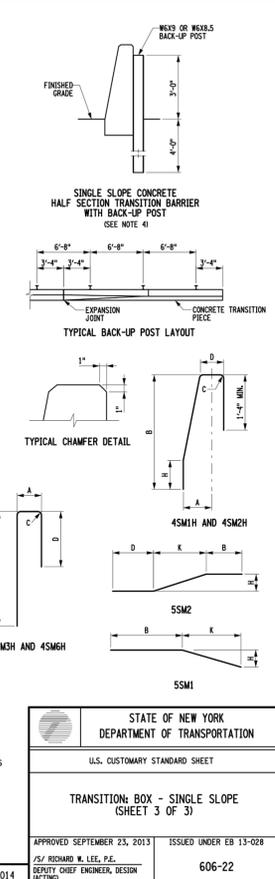


BAR LIST

| MARK | SIZE | NO. | LENGTH | USE | A | B | C | D | H | K | LOCATION |
|------|------|-----|----------------|----------|-----|-----------------|--------|-------|---------|-------|--|
| 4SMH | 4 | 4 | 5'-0" | STIRRUP | 10" | 3'-10" | 1 1/2" | 4" | 6" | --- | AT CONCRETE BARRIER END |
| 4SMH | 4 | 1 | 5'-11 1/2" | STIRRUP | 5" | 3'-10" | 1 1/2" | 5" | 3'-1/2" | --- | AT 2'-9" FROM THE MIDPOINT OF THE BARRIER UNIT |
| 4SMH | 4 | 4 | 4'-6" TO 4'-8" | STIRRUP | 6" | 2'-8" TO 2'-10" | 1 1/2" | 1'-4" | --- | --- | AT BOX BEAM END |
| 4SM5 | 4 | 6 | 2'-6" | STRAIGHT | --- | --- | --- | --- | --- | --- | 4 AT BOX BEAM END 2 AT CONCRETE BARRIER END |
| 4SMH | 4 | 1 | 5'-8 1/2" | STIRRUP | 6" | 3'-6 1/2" | 1 1/2" | 1'-4" | --- | --- | AT 2'-9" FROM THE MIDPOINT OF THE BARRIER UNIT |
| 5SM1 | 5 | 2 | 19'-9" | STRONGER | --- | 10'-6" | --- | --- | 1'-2" | 9'-2" | LONGITUDINAL 2 IN TOP |
| 5SM2 | 5 | 1 | 19'-9" | STRONGER | --- | 9'-2" | --- | --- | 6" | 1'-4" | LONGITUDINAL 1 IN BOTTOM |
| 6SM4 | 6 | 1 | 5'-4" | STIRRUP | --- | --- | --- | --- | --- | --- | AT EXPANSION JOINT END |

NOTES:
 1. SURFACE SHOULD BE SMOOTH.
 2. THE BEND MAY BE ELIMINATED PROVIDED 2" COVER IS MAINTAINED.
 3. CONTINUITY CONNECTIONS SHALL BE USED AT ALL JOINTS IN PRECAST AND CAST-IN-PLACE SINGLE SLOPE CONCRETE HALF SECTION BARRIERS.
 4. PRECAST AND CAST-IN-PLACE SINGLE SLOPE CONCRETE HALF SECTION BARRIER SHALL BE BACKED UP WITH BACK-UP POSTS FOR ITS ENTIRE LENGTH AS SHOWN ON THE BACK-UP POST LAYOUT.
 5. 2" CONCRETE COVER FOR ALL REINFORCEMENT, UNLESS SHOWN OTHERWISE.
 6. SEE STANDARD SHEET TITLED "SINGLE-SLOPE CONCRETE HALF-SECTION BARRIER" FOR DETAILS.



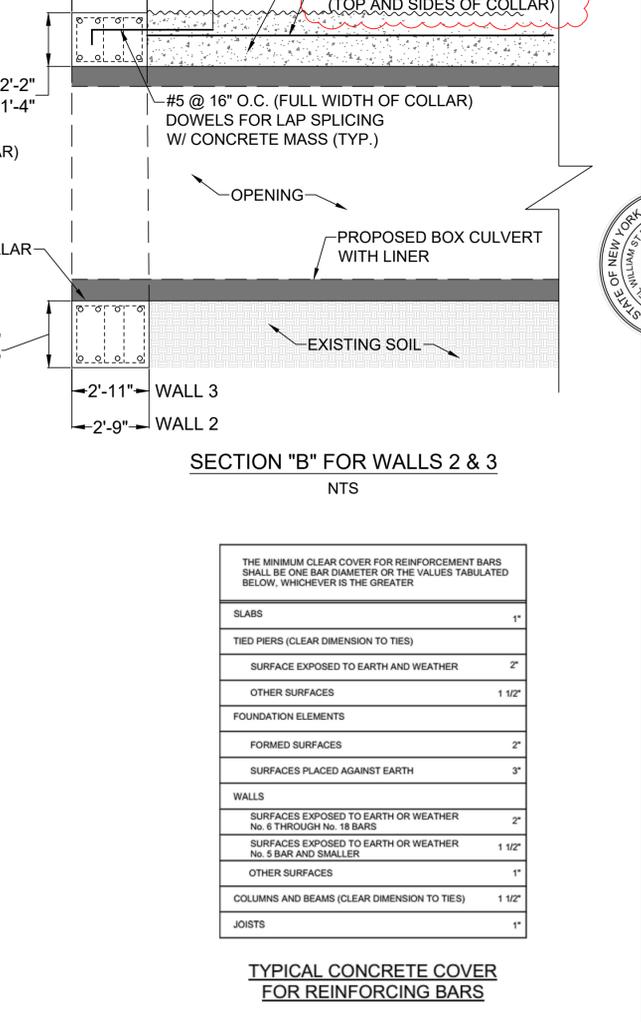
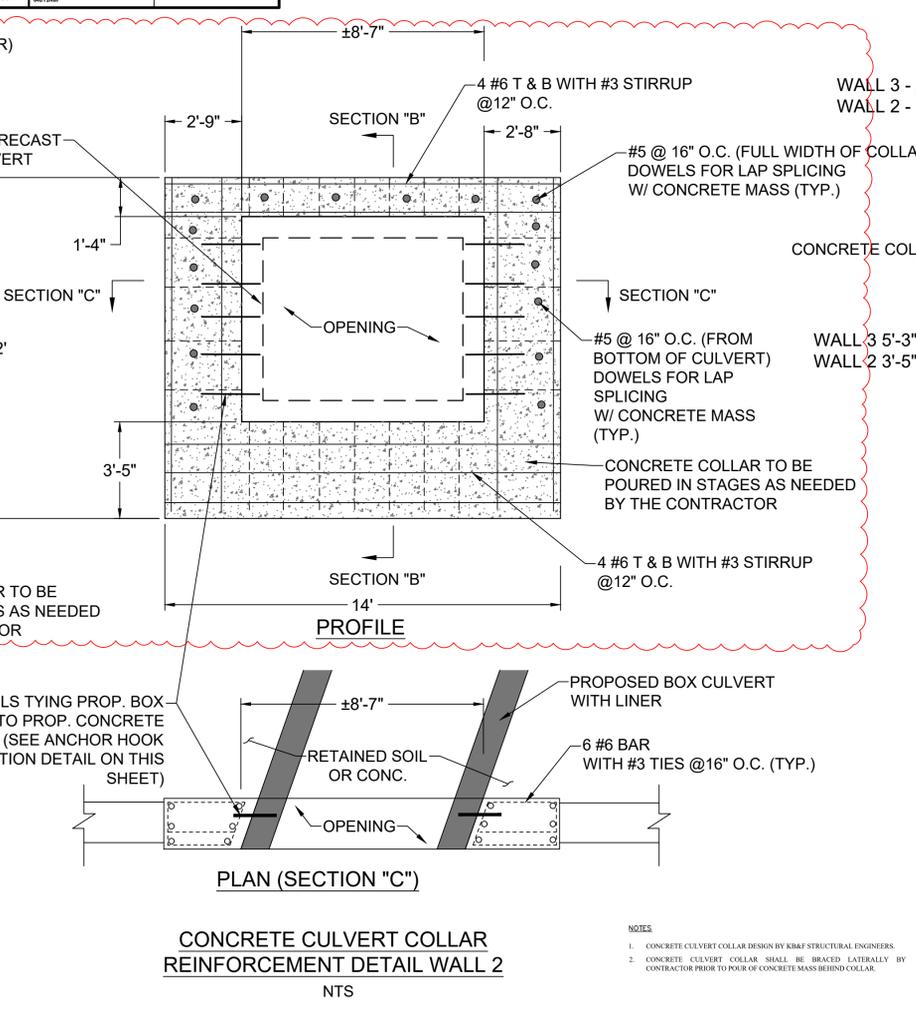
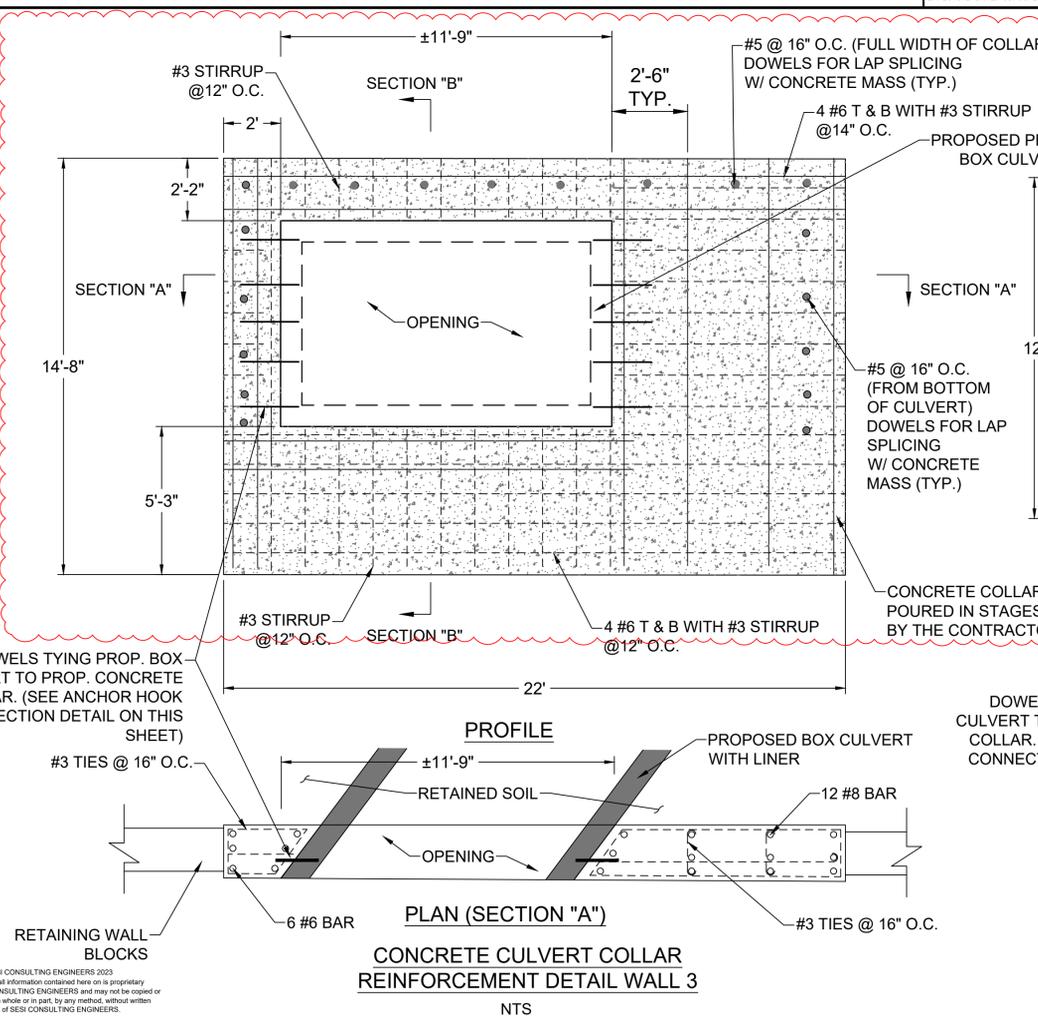
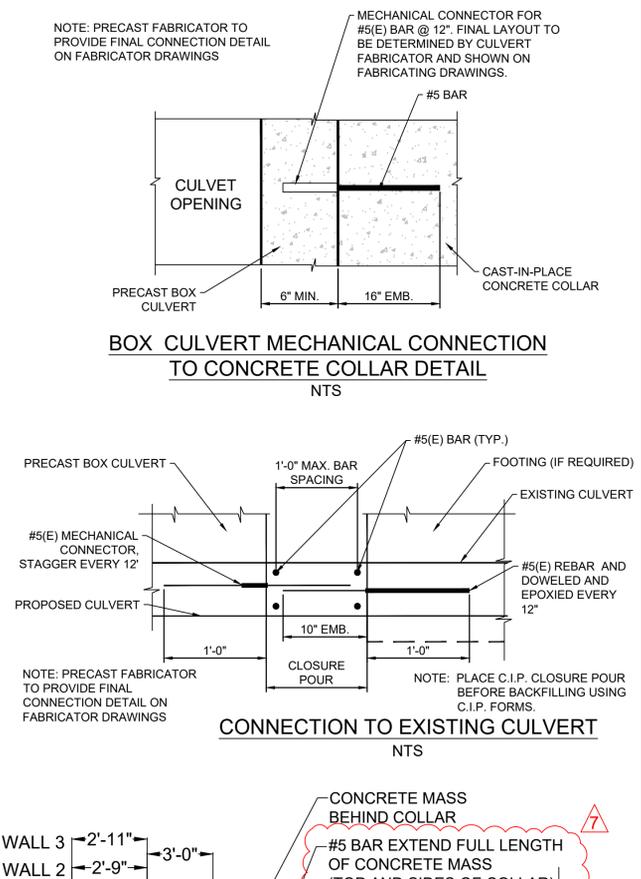
CONCRETE CULVERT COLLAR NOTES

CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF THE A.C.I. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND IN CONFORMANCE WITH NYS DOT ITEM 555.0105, CLASS A CONCRETE
- ALL CONCRETE SHALL HAVE MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS INDICATED BELOW:

| CONCRETE STRENGTH | TYPE AGGREGATE | AIR CONTENT | WHERE USED |
|-------------------|----------------|-------------|--------------------------|
| 4,500 PSI | STONE | 5 TO 8% | COLLAR AND CONCRETE MASS |

- ALL CONCRETE TO BE STONE AGGREGATE 3/4" MAXIMUM HAVING A MINIMUM STRENGTH OF 4500 PSI AT 28 DAYS AND HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.46.
- PORTLAND CEMENT SHALL BE ASTM C150, TYPE 1.
- ALL AGGREGATE SHALL CONFORM TO ASTM C33 FOR NORMAL WEIGHT AGGREGATES.
- ALL CONCRETE TO CONTAIN A WATER-REDUCING ADMIXTURE, ASTM C494, TYPE A, AND CONTAINING NOT MORE THAN .05 PERCENT CHLORIDE IONS (EUCON WR-75, EUCLID COMPANY, OR EQUAL).
- CONCRETE IS NOT REQUIRED TO CONTAIN A HIGH RANGE WATER-REDUCING ADMIXTURE (SUPERPLASTICIZER) ASTM C494, TYPE F OR TYPE G AND CONTAINING NOT MORE THAN .05 PERCENT CHLORIDE IONS. (EUCON-37, EUCLID COMPANY, OR EQUAL).
- CONCRETE MIX DESIGNS SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318-19.
- SLUMPS OVER 4 INCHES WILL NOT BE PERMITTED UNLESS THE HRWR ADMIXTURE (SUPERPLASTICIZER) IS USED. MAXIMUM SLUMP IS THEN 2" TO 3" BEFORE ADDITION OF SUPERPLASTICIZER, AND 0" - 9" AFTER ADDITION OF SUPERPLASTICIZER, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NO ADMIXTURE SHALL BE USED IN CONCRETE EXCEPT AS ALLOWED BY THE SPECIFICATIONS AND ONLY WITH LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER.
- ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRE IN PLACE PRIOR TO CONCRETE PLACEMENT.
- UNLESS NOTED, ALL BARS MARKED CONT. SHALL BE SPICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS. WELDED WIRE FABRIC SHALL BE LAPPED 12 INCHES OR TWO SPACES, WHICHEVER IS LONGER. SHEETS SHALL BE WIRED TOGETHER.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE AS SHOWN IN DETAILS.
- REINFORCEMENT SHALL NOT BE WELDED OR HEATED IN ANY WAY.
- REINFORCING, INCLUDING WELDED WIRE FABRIC, FOR OTHER SLABS SHALL BE SUPPORTED ON CHAIRS OR BOLSTERS AT ALL SUPPORTS AND AT 5'-0" ON CENTER MAXIMUM BETWEEN SUPPORTS.
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED, AND TREATED WITH THE SPECIFIED BONDING COMPOUND JUST BEFORE PLACING NEW CONCRETE.
- UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUCKETS, CHUTES, CONVEYORS, TREMIE PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF CONCRETE REINFORCEMENT. SHOP DRAWINGS SHALL COMPLY WITH ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
- ALL CONCRETE REINFORCING IS SUBJECT TO INSPECTION BY THE DESIGN ENGINEER PRIOR TO CONCRETE PLACEMENT. CONTRACTOR SHALL NOTIFY ENGINEER FOR REINFORCING INSPECTION A MINIMUM OF 24 HOURS PRIOR TO CONCRETE PLACEMENT.
- FURNISH TO ENGINEER FOR REVIEW COMPLETE SHOP DRAWINGS OF REINFORCING STEEL, CONCRETE MIX DESIGNS, AND ADMIXTURE DATA SHEETS.
- PROVIDE ONE SET OF FIVE CYLINDERS FOR COMPRESSION TESTING AS PER ASTM C31 FOR EACH POUR. PROVIDE SLUMP TEST FOR EACH LOAD OF CONCRETE.



TYPICAL CONCRETE COVER FOR REINFORCING BARS

| SLABS | COVER |
|--|--------|
| TIED PIERS (CLEAR DIMENSION TO TIES) | 1" |
| SURFACE EXPOSED TO EARTH AND WEATHER | 2" |
| OTHER SURFACES | 1 1/2" |
| FOUNDATION ELEMENTS | |
| FORMED SURFACES | 2" |
| SURFACES PLACED AGAINST EARTH | 3" |
| WALLS | |
| SURFACES EXPOSED TO EARTH OR WEATHER No. 6 THROUGH No. 18 BARS | 2" |
| SURFACES EXPOSED TO EARTH OR WEATHER No. 5 BAR AND SMALLER | 1 1/2" |
| OTHER SURFACES | 1" |
| COLUMNS AND BEAMS (CLEAR DIMENSION TO TIES) | 1 1/2" |
| JOISTS | 1" |

STATE OF NEW YORK
 DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

TRANSITION: BOX - SINGLE SLOPE
 (SHEET 3 OF 3)

APPROVED SEPTEMBER 25, 2013 ISSUED UNDER EB 13-028

R/S RICHARD W. LEE, P.E.
 SENIOR CHIEF ENGINEER, DESIGN SECTION

606-22

EFFECTIVE DATE: 05/08/2014

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PROPOSED NORTHEAST INTERSTATE
 LOGISTICS CENTER
 NY 312 & PUGSLEY ROAD
 TOWN OF SOUTHEAST, NEW YORK

RETAINING WALL DETAILS

job no. 9999
 drawing no.

W-7

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