



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

September 1, 2011

MEMORANDUM TO: All Holders of January, 2012 Edition of the
Roadway Standard Drawings Book

FROM: R. A. Garris, PE, State Contract Officer

SUBJECT: New and Revised Standard Drawings

This memo informs all holders of revisions made for the January 2012 edition of the Roadway Standard Drawings. The new edition will be effective with the January 2012 letting. The 2012 standard drawings are English only.

Listed below are new standard drawings and standard drawings that have been deleted or revised since the July 2006 edition of the Roadway Standard Drawings.

NEW STANDARDS:

<u>STANDARD DRAWING</u>	<u>SHEETS</u>	<u>TITLE</u>
422.11	2	<u>BRIDGE APPROACH FILL – SUB REGIONAL TIER</u>
806.03	1	<u>CONCRETE CONTROL-OF-ACCESS MARKER</u>
815.02	1	<u>SUBSURFACE DRAIN</u>
1205.13	1	<u>PAVEMENT MARKINGS – LANE REDUCTIONS</u>
1515.01	1	<u>WATER METER</u>
1515.02	1	<u>FIRE HYDRANT</u>
1520.01	1	<u>SEWER CLEAN OUT</u>
1631.01	1	<u>MATTING INSTALLATION</u>

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LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
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300.03 1 METHOD OF STRUCTURAL PLATE PIPE AND PIPE ARCH INSTALLATION – METHOD ‘A’

-DELETED

300.04 1 METHOD OF STRUCTURAL PLATE PIPE AND PIPE ARCH INSTALLATION – METHOD ‘B’

-DELETED

310.04 1 PARALLEL PIPE END SECTION – PREFABRICATED STEEL SECTION FOR 15” TO 24” PIPE

-REMOVED NOTE AT THE BOTTOM OF THE PAGE

DIVISION 4

422.10 5 REINFORCED BRIDGE APPROACH FILLS

-CHANGED THE NOTES FOR THE APPROACH SLAB LENGTHS. DELETED SHEET 3 OF 7. DELETED SHEET 6 OF 7. REMOVED THE TRANSITION BRIDGE RAIL FROM THE APPROACH SLAB. MODIFIED THE LAYERS OF FABRIC CHART.

DIVISION 5

560.01 1 METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE METHOD I (SHOULDERS UP TO 10’)

-ADDED 4’ PAVED SHOULDER TO DETAIL. DELETED SHEET 2 OF 2.

560.02 3 METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE METHOD II (SHOULDERS UP TO 10’)

-ADDED 4’ PAVED SHOULDER TO DETAIL AND REMOVED BREAK POINT AT THE 5’ POINT IN THE SHOULDER. DELETED SHEET 2. DELETED SHEET 4.

DIVISION 6

645.01 1 PAVEMENT REPAIRS – FOR SUPERPAVE MIX TYPES

-CHANGED THE SURFACE COURSE AND BASE COURSE TYPES AND DEPTHS.

DIVISION 7

700.01 2 CONCRETE PAVEMENT JOINTS – CONSTRUCTION AND CONTRACTION JOINTS

-CHANGED DETAILS AND NOTES ON BOTH SHEETS

700.03 2 DOWEL ASSEMBLY

-CHANGED DOWEL ASSEMBLY DETAILS AND ADDED ISOMETRIC VIEW.

DIVISION 8

838.80 1 PRECAST CONCRETE ENDWALL – FOR SINGLE 12” THRU 72” PIPE 90 DEGREE SKEW

-MODIFIED FIRST NOTE.

840.35 2 TRAFFIC BEARING GRATED DROP INLET - FOR CAST IRON DOUBLE FRAME AND GRATES

-CHANGED WALL CAVITY CONCRETE FROM CLASS ‘M’ TO CLASS ‘B’.

848.01 1 CONCRETE SIDEWALK

-REMOVED CURB RAMP PLAN VIEW DETAIL

848.05 3 CURB RAMP – PROPOSED CURB AND GUTTER

-CHANGED STANDARD NAME FROM WHEELCHAIR RAMP TO CURB RAMP. MODIFIED THE RAMPS TO SHOW A 4’x4’ LANDING AT THE TOP OF THE RAMP WITH TRANSITION TO SIDEWALK. WIDENED THE MINIMUM RAMP WIDTH FROM 3’-4” TO 4’. MODIFIED ALL THE NOTES ON SHEET 3

848.06 5 CURB RAMP – EXISTING CURB AND GUTTER

-CHANGED STANDARD NAME FROM WHEELCHAIR RAMP TO CURB RAMP. MODIFIED THE RAMPS TO SHOW A 4’x4’ LANDING AT THE TOP OF THE RAMP WITH TRANSITION TO SIDEWALK. WIDENED THE MINIMUM RAMP WIDTH FROM 3’-4” TO 4’. MODIFIED ALL THE NOTES ON SHEET 5.

852.04 1 METHOD FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN (USING 1’-6” CURB & GUTTER)

-REMOVED CONCRETE APRON NOTE. CHANGED PAY LIMITS NAME TO “CONCRETE TRANSITIONAL SECTION FOR DROP INLETS”.

852.05 1 MEDIAN CURB FOR CATCH BASIN

-REMOVED CONCRETE APRON NOTE. CHANGED PAY LIMITS NAME TO “CONCRETE TRANSITIONAL SECTION FOR CATCH BASINS”.

852.06 1 METHOD FOR PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS

-REMOVED CONCRETE APRON NOTE. CHANGED PAY LIMITS NAME TO "CONCRETE TRANSITIONAL SECTION FOR DROP INLETS".

862.01 12 GUARDRAIL PLACEMENT

-SHEET 2: ADDED DETAIL OF GUARDRAIL AT MEDIAN SIGN SUPPORT.

-SHEET 11: MODIFIED THE NOTE FOR SEALING THE ABC TO CRS-2P EMULSION. ALL SHEETS: MODIFIED MOUNTING HEIGHT OF GUARDRAIL FROM 1'-9" TO 1'-11".

862.02 7 GUARDRAIL INSTALLATION

-ALL SHEETS: MODIFIED MOUNTING HEIGHT OF GUARDRAIL FROM 1'-9" TO 1'-11".

862.03 7 STRUCTURE ANCHOR UNITS

-SHEET 1: CHANGED MOUNTING HEIGHT OF TYPE III FROM 1'-9" TO 1'-11" ON BAR METAL RAIL BRIDGE RAIL.

-SHEET 2: TYPE III UNIT FOR SINGLE SLOPE BRIDGE RAIL – SUB REGIONAL TIER STRUCTURES.

-SHEET 3: TYPE III ANCHOR UNIT DETAILS AND MOUNTING HEIGHTS

-SHEET 4: B-77 ANCHOR UNIT. CHANGED THE MOUNTING HEIGHT FROM 1'-9" TO 1'-11".

-SHEET 5: B-77 ANCHOR UNIT DETAILS

-SHEET 6: B-83 ANCHOR UNIT DETAILS

-SHEET 7: ANCHORING FOR GUARDRAIL POST ON BOX CULVERTS.

DIVISION 9

901.10 2 TYPE 'A' SIGNS – WELDED STUD CONSTRUCTION

-SHEET 1: REMOVED DETAIL "A" & SECTION A-A, MOVED TO 901.10 SHEET 2 W/NOTES. CHANGED VERBIAGE OF NOTE #5 AND NOTE #6, NOTES #9-16 CHANGED SEQUENCE, ADDED NOTE #17 AND 18 FOR CLARIFICATION DUE TO CURRENT FABRICATION PROCEDURE REQUIRING THRU BOLTS FOR PANELS ON OH SIGNS (SAFETY CONCERNS).

-SHEET 2: CHANGED DRAWINGS TO REFLECT THRU BOLT DETAIL FOR OH SIGN PANEL TO COMPLY WITH CURRENT FABRICATION PROCEDURES.

901.20	1	<u>TYPE 'B' SIGNS – WELDED STUD CONSTRUCTION</u>
		-CHANGED DRAWING, ADDED DETAIL FOR CLARIFICATION, ADDED NOTES #10 AND 11 SPECIFYING THE REQUIREMENTS OF PLACING NYLON WASHERS UNDER HEAD OF THRU BOLTS AND CLARIFYING MAX. AND MIN. GAP ALLOWED FOR THRU BOLTS.
901.30	1	<u>VHB TAPE CONSTRUCTION – FOR TYPE 'A' SIGNS</u>
		-DELETED FROM STANDARDS DRAWINGS
901.40	1	<u>VHB TAPE CONSTRUCTION – FOR TYPE 'B' SIGNS</u>
		-DELETED FROM STANDARDS DRAWINGS
901.60	1	<u>RIVET SPACING FOR OVERLAYED SIGNS</u>
		-ADDED NOTE
901.80	1	<u>SIGN MOUNTING DETAILS- TYPE A AND TYPE B SIGNS</u>
		- CLEARED UP DUPLICATION IN NOTE #2, ADDED NOTE #4 FOR CLARIFICATION OF MOUNTING BOLTS SPECS AND THEIR GALVANIZATION REQUIREMENTS. CHANGED SIGN SUPPORTS SECTION TABLE TO INCLUDE NEW SIZES (ASSHTO COMPLIANCE).
903.10	3	GROUND MOUNTED SIGN SUPPORTS
		- SHEET 1: CHANGED DETAILS OF THE DRAWINGS TO MATCH UP WITH TABLE REFERENCE ON 903.10 SHEET #2
		-SHEET 2: CHANGED TABLE TO ACCOMMODATE NEW POST SIZES AND ADDED FOUNDATION DATA TABLE (ASSHTO COMPLIANCE).
		-SHEET 3: REMOVED HINGE CONNECTION TORQUE CHART. ADDED VERBIAGE TO NOTE #5. UPDATED NOTE #3 TO COMPLY WITH ASTM GALV SPEC.
903.20	2	<u>WOOD SIGN POST</u>
		-SHEET 1: REMOVED LVL DRILLING DETAIL.
		-SHEET 2: ADDED DIMENSIONS TO ALUMINUM SHIMS.

903.30	1	<u>BARRIER SIGN SUPPORT ASSEMBLY</u>
		- ADDED DIMENSIONS TO ALUMINUM SHIMS.
904.40	1	<u>MILEPOST AND PLACEMENT</u>
		- CHANGED .08" TO READ .080". ADDED '2# U CHANNEL' UNDER POST DETAILS DRAWINGS FOR CLARIFICATION.
904.50	2	<u>MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON U-CHANNEL POSTS</u>
		-SHEET 1: REMOVED NOTE #4
		-SHEET 2: REMOVED DETAIL DRAWINGS REFERRING TO SPLICING STEEL U-CHANNEL POST.
905.10	2	<u>LIGHTING SYSTEM FOR OVERHEAD SIGN ASSEMBLIES</u>
		-DELETED FROM STANDARD DRAWINGS
<u>DIVISION 11</u>		
1101.01	3	<u>WORK ZONE ADVANCE WARNING SIGNS</u>
		-SHEET 1: ALL NEW INFORMATION
		-SHEET 2: ALL NEW INFORMATION
		-SHEET 3: ALL NEW INFORMATION
1101.02	15	<u>TEMPORARY LANE CLOSURES</u>
		-SHEET 1: REMOVED 50' MIN. FROM BUFFER SPACE. ADDED "REFER TO ROADWAY STANDARD DRAWING 1180.01 FOR SKINNY DRUM REQUIREMENTS" IN GENERAL NOTES FOR FLAGGER OPERATIONS, NOTE #7. CHANGED "...IN ADVANCE OF THE FLAGGER WHERE INTERSECTIONS ARE SIGNALIZED AND PLACE SIGNALS IN THE FLASH MODE." TO "...IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND RECOMMEND THE USE OF LAW ENFORCEMENT." IN GENERAL NOTES FOR FLAGGER OPERATIONS. REMOVED EXISTING GENERAL NOTES FOR FLAGGER OPERATIONS NOTE #9. ADDED NEW GENERAL NOTES FOR FLAGGER OPERATIONS NOTES #9 & #10. REMOVED "(NOTE: CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.)" FROM GENERAL NOTES FOR PILOT CAR OPERATIONS, NOTE #2 AND MADE IT NOTE #3.
		- SHEET 2: REPLACED SIGN W20-17 WITH R3-2. REPLACED SIGN W1-4L WITH W24-1B. ADDED "REFER TO ROADWAY STANDARD DRAWING 1180.01 FOR SKINNY DRUM REQUIREMENTS." TO GENERAL NOTE #6. ADDED GENERAL NOTE #7.

-SHEET 3: ADDED “(FOR ROADWAYS < 60 MPH)” TO THE TITLE BLOCK. REMOVED TRUCK MOUNTED FAB, REPLACED 50’ MINIMUM DISTANCE PAST WORK AREA AND 100’ DOWNSTREAM DRUM TAPER WITH 200’ MIN. RUNOUT DISTANCE, AND REMOVED SIGN W4-2 OPTION WITH MINI-SKIPS ON BOTH LEFT AND RIGHT DETAILS. REPLACED ½ MILE MINIMUM INITIAL PLACEMENT FOR CMS WITH 1MILE. REMOVED “BUFFER SPACE AND” FROM GENERAL NOTE #3. REMOVED “SHEETS 1 & 4” AND ADDED “BUFFER SPACE” TO GENERAL NOTE #4. UPDATED SHEET NUMBERS FOR GENERAL NOTE #5. REMOVED “TMIA’S ARE REQUIRED ONLY WHEN A BUFFER SPACE CANNOT BE ATTAINED, OR WHEN DIRECTED BY THE ENGINEER OR THE PLANS. WHEN USED” AND ADDED “AND CONTINUOUSLY ADVANCE TMA’S AS WORK PROGRESSES.” TO GENERAL NOTE #7. REPLACED FIRST “1/2” WITH “1” ON GENERAL NOTE #8. REMOVED EXISTING GENERAL NOTE #9 AND REPLACED WITH “DO NOT EXCEED A 2 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.”.

-SHEET 4: THIS IS A NEW SHEET THAT RESEMBLES SHEET 3, BUT TITLE BLOCK HAS “(FOR ROADWAYS ≥ 60 MPH)” ADDED. ALSO, THE ABC STANCES HAVE BEEN REPLACED WITH NUMERICAL VALUES. ADDED ADDITIONAL FAB AND DRUM SHOULDER TAPER FROM THE ORIGINAL SHEET 3. ALL CHANGES TO GENERAL NOTES FROM ORIGINAL SHEET 3 ARE REFLECTED ON THIS NEW SHEET.

-SHEET 5: NEW SHEET

-SHEET 6: NEW SHEET

-SHEET 7: FORMERLY SHEET 4. REVISED DETAIL OF SIGN PLACEMENT.

-SHEET 8: ADDED TRUCK MOUNTED FAB, REPLACED 50’ DISTANCE PAST WORK AREA AND 100’ DOWNSTREAM DRUM TAPER WITH 200’ MIN. RUNOUT DISTANCE, AND REMOVED SIGN W4-2 OPTION WITH MINI-SKIPS ON BOTH LEFT AND RIGHT DETAILS. ADDED ADDITIONAL FAB AND DRUM SHOULDER TAPER. REPLACED 2 MILE +/- DISTANCE FROM CMS TO FIRST FAB WITH 1 MILE DISTANCE FROM CMS TO FIRST STATIC SIGN. REPLACED 2 MILES IN CMS WITH XX MILES. REPLACED EXISTING GENERAL NOTE #2 WITH “THE FIRST FLASHING ARROW BOARDS ARE NOT REQUIRED ON FACILITIES ≤ 55 MPH.”

-SHEET 9: FORMERLY SHEET 6. REPLACE SIGN CODE SP99288 WITH W4-5P. REPLACED “CONTACT THE WORK ZONE TRAFFIC CONTROL UNIT FOR FURTHER GUIDANCE.” WITH “CLOSE RAMP AS DIRECTED BY THE ENGINEER.” ON GENERAL NOTE #3. UPDATED SIGN CODE IN GENERAL NOTE #5.

-SHEET 10: REMOVED “200’ MINIMUM” FROM “OPENING FOR EXIT RAMP” DISTANCE. REPLACED 5 WITH 7 IN GENERAL NOTE #2. ADDED GENERAL NOTE #3.

-SHEET 11 – NEW SHEET

- SHEET 12 – NEW SHEET
- SHEET 13 – NEW SHEET
- SHEET 14 – NEW SHEET
- SHEET 15 – NEW SHEET

1101.03

9

TEMPORARY ROAD CLOSURES

-SHEET 2: REPLACED SP-4L & R WITH R3-2. REMOVED R1-3 PLAQUE.

-SHEET 3: W1-5 SHOULD BE REPLACED WITH W24-1.

-SHEET 4: ADDED ADDITIONAL FAB AND DRUM SHOULDER TAPER, REMOVED SIGN W4-2 OPTION WITH MINI-SKIPS ON BOTH LEFT AND RIGHT DETAILS. REPLACED 2 IN CMS WITH XX ON CMS ON LEFT SIDE OF PAGE. ADDED “SEE ROADWAY PLANS” TO CROSSOVER DISTANCE. REPLACED “DEEMED NECESSARY” WITH “DIRECTED” AND “UNLESS ADDITIONAL CHANGEABLE MESSAGE SIGNS ARE USED.” IN GENERAL NOTE #5. ADDED GENERAL NOTE #7.

-SHEET 5: ADDED “SEE ROADWAY PLANS” TO CROSSOVER DISTANCE.

-SHEET 6: ADDED “≤ 55MPH” TO TITLE BLOCK. ADDED “SEE ROADWAY PLANS” TO CROSSOVER NOTE. REPLACED 2 IN CMS WITH XX AND REMOVED SIGN W4-2 OPTION WITH MINI-SKIPS ON BOTH LEFT AND RIGHT DETAILS. REMOVED EXISTING GENERAL NOTES 5 THRU 9. ADDED NEW GENERAL NOTES 5 AND 6.

-SHEET 7: ADDED ADDITIONAL FAB AND DRUM SHOULDER TAPER, 2 TMA’S, AND REMOVED SIGN W4-2 OPTION WITH MINI-SKIPS. REPLACED SIGN M4-10R WITH SIGN W1-6R ON BARRICADE. REPLACED SIGN SP03364 WITH SIGN G21-65 WITH DIMENSIONS 120” X 48”. REPLACED “POLICE OFFICERS” WITH “LAW ENFORCEMENT” IN GENERAL NOTE #2. ADDED “AND RECOMMEND THE USE OF LAW ENFORCEMENT.” TO GENERAL NOTE #3. REMOVED EXISTING GENERAL NOTE #4. REMOVED LAST SENTENCE FROM NEW GENERAL NOTE #4 (FORMERLY #5). REMOVED EXISTING GENERAL NOTES 6 AND 7. ADDED NEW GENERAL NOTES 5 AND 6.

-SHEET 8: REMOVED SIGN W20-1. REPLACED DISTANCE TEXT “2 X POSTED SPEED (IN FEET)” WITH “BUFFER SPACE” . REPLACED SIGN W20-7B WITH SIGN W3-4. ADDED GENERAL NOTE #5.

-SHEET 9: REMOVED SIGN W20-1 AND G20-4. REMOVED DETAIL OF SIGNS MOUNTED ON REAR OF PILOT CARS DETAIL. REMOVED DETAIL OF SIGNS MOUNTED ON REAR OF PILOT CARS AND PLACED SIGNS IN DRAWING. ADDED FAB ‘CAUTION MODE’ SYMBOL AND MODIFIED PILOT VEHICLE PLACEMENT AND PATTERN. MODIFIED PILOT VEHICLE DETAIL NOTES. ADDED “INSTALLATION OF LANE CLOSURES,” TO GENERAL NOTE #1. ADDED GENERAL NOTE #2. ADDED “UNLESS OTHERWISE SPECIFIED IN PLANS OR PERMITTED BY THE ENGINEER.” TO GENERAL NOTE #3 (FORMERLY 2). ADDED “PLACE ALL NECESSARY SIGNING BEFORE IMPLEMENTING THE ROLLING ROAD BLOCK.” TO GENERAL NOTE #4

(FORMERLY #3). REMOVED “PLACE CHANGEABLE MESSAGE SIGN EITHER IN THE MEDIAN OR ON THE OUTSIDE OF THE TRAVELWAY, AS DIRECTED BY THE ENGINEER.” FROM GENERAL NOTE #5(FORMERLY 4). RE- WORDED GENERAL NOTE #6 (FORMERLY 5). ADDED GENERAL NOTES 7 THRU 9.

1101.04 1 TEMPORARY SHOULDER CLOSURES

-DETAIL 1: REPLACED “55 MPH OR ABOVE” WITH “ \geq 60 MPH” IN DETAIL TITLE. REMOVED B DISTANCE, AND REPLACED A DISTANCE WITH NUMERICAL VALUES. ADDED WORK AREA AND REPLACED 50’ THE DOWNSTREAM DISTANCE WITH 100’. REMOVED SIGN W20-1.

-DETAIL 2: REPLACED “55 MPH OR LESS” WITH “ \leq 55 MPH” IN DETAIL TITLE. REMOVED C DISTANCE. ADDED WORK AREA AND 50’ DOWNSTREAM DISTANCES. REMOVED SIGN W20-1.

-DETAIL 3: REPLACED “TWO LANE, TWO WAY” WITH “UNDIVIDED” IN DETAIL TITLE. ADDED WORK AREA AND 50’ DOWNSTREAM DISTANCES. REWORDED GENERAL NOTE #4.

1101.05 1 WORK ZONE VEHICLE ACCESSES

- ACCESS THROUGH TEMPORARY BARRIER DETAIL: ADDED “BARRIER GAP” TO 200 MAX NOTE AND REMOVED ** WITH NOTE. REPLACED ++ WITH “FOR LEFT LANE CLOSURE SEE STD. 1101.02, SHEET 3”. REPLACED “EXPOSED END OF BARRIER IS WITHIN 30’ OF EDGE OF TRAVEL WAY” WITH “BARRIER GAP IS \geq 0’ ” IN CRASH CUSHION NOTE. ADDED “FOR FLAGGERS.” TO GENERAL NOTE #6.

1101.11 4 TRAFFIC CONTROL DESIGN TABLES

-SHEET 1: MODIFIED 100 FEET MAXIMUM TAPER LENGTH CRITERIA WITH 50 - 100 FEET MAXIMUM FOR TWO-WAY TRAFFIC TAPER. MODIFIED 100 FEET PER LANE TAPER LENGTH CRITERIA WITH 100 FEET MAXIMUM FOR DOWNSTREAM TAPER. RE-DREW QUICK REFERENCE TABLE.

-SHEET 2: MERGED TABLES INTO ONE.

-SHEET 3: UPDATED TABLE. ADDED GENERAL NOTE #1. REPLACED “NORMALLY,” WITH “THE PRIMARY USE OF” IN GENERAL NOTE #3 (FORMERLY #2).

-SHEET 4: ADDED GENERAL NOTE #1.

1110.01 3 STATIONARY WORK ZONE SIGNS

-SHEET 1: 42” MINIMUM EMBEDMENT DIMENSION CHANGED TO 36” – 42”. ADDED NOTE FOR NYLON WASHER IN ASSEMBLY DETAIL. ADDED “WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURE’S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NC DOT APPROVED.” TO GENERAL NOTE #2

-SHEET 2: NEW SHEET
-SHEET 3: NEW SHEET

- 1110.02 1 PORTABLE WORK ZONE SIGNS
- MOUNTING HEIGHT DIMENSIONS NOTE REVISED. REPLACED “NORTH CAROLINA’S APPROVED PRODUCTS LIST OR ACCEPTED AS TRAFFIC QUALIFIED BY THE WORK ZONE TRAFFIC CONTROL UNIT.” WITH “THE DEPARTMENT’S APPROVED PRODUCTS LIST AT [HTTPS://APPS.DOT.STATE.NC.US/VENDOR/APPROVEDPRODUCTS.](https://apps.dot.state.nc.us/vendor/approvedproducts)” ON GENERAL NOTE #3.
- 1115.01 1 FLASHING ARROW BOARDS
- REMOVED PANEL TYPES A & B FROM FLASHING ARROW BOARD TYPE TABLE. ADDED MOVING CHEVRON TO FLASHING ARROW BOARD MODES. REMOVED EXISTING GENERAL NOTE #2. ADDED GENERAL NOTE #5.
- 1130.01 1 DRUM
- DRUM STRIPE WIDTH DIMENSION CHANGED FROM 6” – 8” TO 6”. REVISED SHADING ON DRUM. REVISED DRUM DETAIL NOTES. ADDED THIRD NOTE TO TIRE BALLAST DETAIL. REMOVED 21 ¾ DIMENSION FROM TIRE BALLAST DETAIL. ADDED GENERAL NOTES 3-5.
- 1135.01 1 CONES
- 28” CONE DETAIL: REPLACED 14 ½ “ BASE WIDTH WITH 13 ¾ “. 36” CONE: REPLACED “EXPRESSWAYS” WITH “INTERSTATES” UNDER 36” LABEL. ADDED GENERAL NOTES 2 AND 3.
- 1145.01 1 BARRICADES – TYPE III
- UPDATED “SEE NOTE 7” WITH “SEE NOTE 6”. REPLACED “FOR TYPE III BARRICADES MAY BE” WITH “MAY BE CONSTRUCTED OF APPROVED COMPOSITE,” AND “RAILS” WITH “MATERIAL” ON GENERAL NOTE #1. ALSO, THE LAST SENTENCE WAS REMOVED. “FOR CATEGORY II DEVICES” WAS ADDED TO GENERAL NOTE 2. GENERAL NOTE 4 WAS REVISED. REPLACED “, VIII, OR IX” WITH “OR HIGHER PRISMATIC” ON GENERAL NOTE 5. “FOR CATEGORY II DEVICES” WAS ADDED TO GENERAL NOTE 6. THE LAST SENTENCE WAS REMOVED FROM GENERAL NOTE 9 AND ADDED AS NEW GENERAL NOTE 10. GENERAL NOTE 11 REVISED TO REFER TO WEBSITE. ADDED “OR OTHER APPROVED BALLASTING METHODS” AND “FOR BALLASTING.” REMOVED FROM GENERAL NOTE 13.
- 1150.01 1 FLAGGING DEVICES
- REPLACED “TO DAYLIGHT HOURS” WITH “FROM DUSK TO DAWN” AND REMOVED “NON” FROM NOTE FOR STOP/SLOW PADDLE DETAIL. ELIMINATED FLASHLIGHT DETAIL. ADDED FLAGGER AND PADDLE

PLACEMENT DETAIL. REMOVED EXISTING GENERAL NOTES 6 – 8. ADDED GENERAL NOTE 6.

1160.01 1 TEMPORARY CRASH CUSHION

- DRAWING OF DETAIL SIMPLIFIED AS TO NOT PROMOTE A CERTAIN TYPE OF PRODUCT.

1165.01 1 WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION

- TITLE BLOCK CHANGED FROM TRUCK MOUNTED IMPACT ATTENUATOR DELINEATION TO WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION. TRUCK RE-DRAWN AND ENLARGED. TMA REMOVED FROM TRUCK AND LIGHT SYSTEM UPDATED. COVER BAR ADDED TO DUMP. YIELD SIGNS REMOVED. SECOND 'FLATBED' NON-DUMP BODY DETAIL ADDED. ADJUSTED LIGHT SYSTEM OPTIONS NOTATIONS. "*" NOTE REMOVED. REMOVED EXISTING GENERAL NOTE 1. GENERAL NOTE 1 REVISED (FORMERLY 2). ADDED GENERAL NOTES 2 AND 3.

1170.01 5 POSITIVE PROTECTION

-REVISED STANDARD TITLE.

-SHEET 4: ADDED GENERAL NOTES 1 & 2.

-SHEET 5: NEW SHEET.

1180.01 1 SKINNY DRUM

- REMOVED "OR FLUORESCENT RED-"FROM SKINNY DRUM NOTE. REPLACED 20 WITH 15 ON BALLAST WEIGHT NOTE. REMOVED FIRST SENTENCE AND SWITCHED PLACEMENT OF SECOND AND THIRD IN GENERAL NOTE 1. REMOVED SECOND SENTENCE FROM GENERAL NOTE 2. ADDED GENERAL NOTES 3 THRU 5.

DIVISION 12

1205.01 2 PAVEMENT MARKINGS – LINE TYPES AND OFFSETS

-UPDATED NOTES TO REDEFINE A "WIDE" LINE PER MUTCD. ADDED ADDITIONAL NOTES TO DEFINE WHEN TO USE 6 INCH LINES AND THE WIDTH OF A GORE LINE. ADDED NEW MINI-SKIP LINE STYLES PER MUTCD. ADD NEW WIDTHS FOR DIAGONAL LINES PER MUTCD.

1205.02 2 PAVEMENT MARKINGS – TWO LANE AND MULTI-LANE ROADWAYS

-REORGANIZED SHEETS AND DETAILS. REMOVED SHEET 3.

CHANGED LUMINAIRE ARRAY TO 6 LUMINAIRES INSTEAD OF 4 TO REFLECT NEW DESIGN STANDARDS.

-SHEET 2: CHANGED WORDING ON CARRIER RING JUNCTION BOX TO “NON-CORROSIVE METAL NEMA 3R JUNCTION BOX”.

DIVISION 14

1402.01 1 HIGH MOUNT FOUNDATION

- ADDED FOUNDATION DESIGN FOR 60' HIGH MASTS. ADDED DIMENSION FOR CONDUIT DEPTH AND FORMING OF FOUNDATION. ADDED NOTE CONCERNING GUARDRAIL.

1403.01 1 HIGH MOUNT LUMINARIES

- CHANGED WORDING OF LENS COVER TO READ “OPEN BOTTOM OR FLAT GLASS LENS”.

1404.01 3 LIGHT STANDARDS

-SHEET 1: ADDED SKETCH OF TRANSFORMER BASE ON THE STANDARD PLACEMENT CHANGED WORDING ON AREAS UNDER STANDARD PLACEMENT.

1405.01 3 STANDARD FOUNDATION

- SHEET 1: CHANGED GRADE FOR WORKING AREA AROUND FOUNDATION TO 1.5:1 FROM 1:1. ADD STUB HEIGHT REQUIREMENTS DIAGRAM AND UPDATE ASTM STANDARD NO FROM A36 TO F1554.

- SHEET 2: CHANGED GROUT TO “PROTECTIVE METAL SHROUD” IN ANCHOR BOLT DETAIL. UPDATE ASTM STANDARD NO FROM A36 TO F1554.

- SHEET 3: CHANGED GROUT TO “PROTECTIVE METAL SHROUD” IN ANCHOR BOLT DETAIL. UPDATE ASTM STANDARD NO FROM A36 TO F1554.

1406.01 1 LIGHT STANDARD LUMINARIES

-CHANGED CABLE IN POLE FROM NM TO SO. ADDED ROUND ROD, CONDUIT AND GROUNDING CONDUCTOR IN WIRING DIAGRAM

1407.01 1 ELECTRIC SERVICE POLE AND LATERAL

-CHANGED GROUNDING CONDUCTOR CONDUIT SIZE FROM ½” TO ¾”

1408.01 3 LIGHT CONTROL SYSTEM

-SHEET 1: REMOVED LIGHTNING ARRESTOR FROM INTERIOR PANEL COMPONENT LAYOUT. REMOVED WIRING JOINT SHOWN AT THE NEUTRAL BAR. ADDED DELTA NOTE 11 TO ADVISE OF INSTALLING LIGHTNING ARRESTOR OUTSIDE OF CABINET. CHANGED RATING OF CONTROL

1525.04 1 PRECAST SANITARY SEWER DROP
MANHOLE – 5’ DIAMETER

-DELETED

1525.05 1 PRECAST CONCRETE AND BRICK
SANITARY SEWER MANHOLE

-DELETED

1525.06 2 PRECAST CONCRETE SANITARY SEWER
MANHOLE WITH CAST-IN-PLACE
BOTTOM

-NEW TITLE.

- REVISED DETAILS TO LIMIT SCOPE TO THE CONSTRUCTION OF THE
MANHOLE BASE AND BOTTOM SECTION.

- ADDED SHEET 2 (FOOTING AND REINFORCEMENT SCHEDULE).

DIVISION 16

1605.01 1 TEMPORARY SILT FENCE

- ADDED NOTE TO ADDRESS MECHANICAL SLICING METHOD
INSTALLATION

1606.01 1 SPECIAL SEDIMENT CONTROL FENCE

– ADDED NOTE TO ADDRESS ATTACHMENT METHOD OF HARDWARE
CLOTH TO POSTS. ADDED NOTE TO ADDRESS INSTALLATION BETWEEN
SECTIONS OF SILT FENCE.

1607.01 1 GRAVEL CONSTRUCTION ENTRANCE

– ADDED NOTE TO PREVENT BYPASS OF ENTRANCE BY CONSTRUCTION
VEHICLES

1622.01 1 GUIDE FOR TEMPORARY BERMS AND
SLOPE DRAIN

-DELETED SILT BASIN DESIGN REQUIREMENT OF 1800 CUBIC FEET OF
SEDIMENT STORAGE PER DISTURBED ACRE AND CHANGED SILT BASIN
LABEL TO SUMP IN INLET PROTECTION OPTION #1 DRAWING

- MODIFIED INLET PROTECTION OPTION #2 DRAWING TO ADDRESS MULTI-
DIRECTION FLOW.

- MODIFIED NOTE #2 TO INCLUDE INFORMATION ABOUT T-SECTIONS AND
ELBOWS AT INLETS

- MODIFIED NOTE #3 TO REQUIRE SLOPE DRAINS TO EXTEND TO BOTTOM
OF SLOPE.

- 1632.03 1 MATTING INSTALLATION
- ADDED NOTE TO ADDRESS ATTACHMENT METHOD OF HARDWARE CLOTH TO POSTS.
- 1633.01 1 TEMPORARY ROCK SILT CHECK TYPE A
- CHANGED MINIMUM TOTAL HEIGHT OF CHECK TO 2 FT.
 - CHANGED MINIMUM WEIR DEPTH TO 1'
 - CHANGED MINIMUM WIDTH OF STONE AT TOP OF CHANNEL TO 1 FT.
 - DELETED STONE APRON ON DOWNSTREAM SIDE OF SILT CHECK
- 1633.02 1 TEMPORARY ROCK SILT CHECK TYPE B
- DELETED REQUIREMENT FOR SEDIMENT CONTROL STONE TO BE PLACED ON UPSTREAM SIDE OF CHECK.
- 1634.01 1 TEMPORARY ROCK SEDIMENT DAM TYPE A
- ADDED NOTE TO REQUIRE COIR FIBER BAFFLES ON UPSTREAM SIDE OF DAM
- 1634.02 1 TEMPORARY ROCK SEDIMENT DAM TYPE B
- CHANGED MINIMUM DEPTH OF WEIR TO 12".
 - CHANGED TOTAL MAXIMUM HEIGHT OF DAM TO 5 FT. ABOVE NATURAL GROUND ELEVATION.
 - DELETED STONE APRON ON DOWNSTREAM SIDE OF DAM
 - CHANGED MINIMUM WEIR LENGTH FROM 2 FT. TO 4 FT.
 - CHANGED STONE WIDTH AT TOP OF WEIR SECTION TO WEIR LENGTH PLUS 4' .
 - CHANGED SEDIMENT STORAGE VOLUME REQUIREMENT FROM 1800 CUBIC FEET PER DISTURBED ACRE TO 3600 CUBIC FEET PER DISTURBED ACRE.
 - ADDED NOTE TO REQUIRE COIR FIBER BAFFLES ON UPSTREAM SIDE OF DAM.
 - ADDED NOTE TO REQUIRE INTERIOR AND EXTERIOR SLOPES TO BE SEEDED AND MATTED.
- 1635.01 1 ROCK PIPE INLET SEDIMENT TRAP TYPE A
- ADDED EARTH BERM REQUIREMENT ABOVE STONE AND PIPE.
 - CHANGED SEDIMENT STORAGE VOLUME REQUIREMENT FROM 1800 CUBIC FEET PER DISTURBED ACRE TO 3600 CUBIC FEET PER DISTURBED ACRE.
 - ADDED NOTE FOR VEHICULAR TRAVEL LANE RESTRICTION

