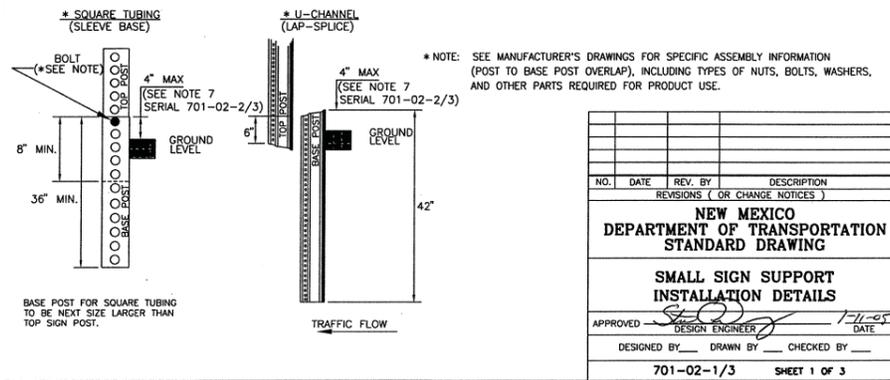
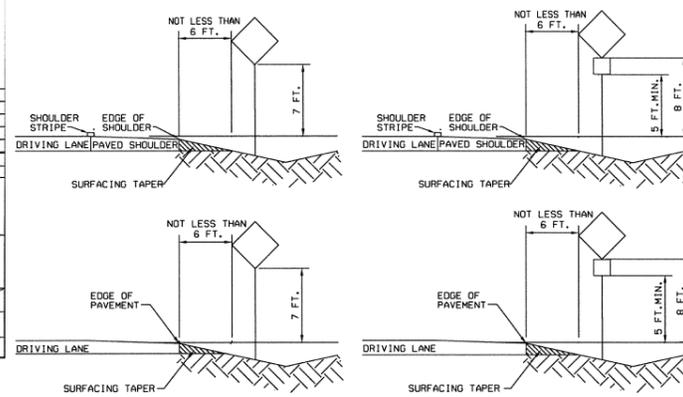


**BASE POST INSTALLATION DETAILS FOR SQUARE TUBING AND U-CHANNEL SYSTEMS**  
(SEE SERIAL 701-02-3/3 FOR MULTI-DIRECTIONAL SLIP BASE SYSTEMS)



NO.	DATE	REV. BY	DESCRIPTION
REVISIONS (OR CHANGE NOTICES)			
<b>NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING</b>			
<b>SMALL SIGN SUPPORT INSTALLATION DETAILS</b>			
APPROVED: _____		DATE: 7-11-05	
DESIGNED BY: _____		CHECKED BY: _____	
701-02-1/3		SHEET 1 OF 3	

**HORIZONTAL AND VERTICAL CLEARANCES**  
(SEE NOTE 9)  
**FREEWAYS/EXPRESSWAYS & RURAL AREAS**



**GENERAL NOTES:**

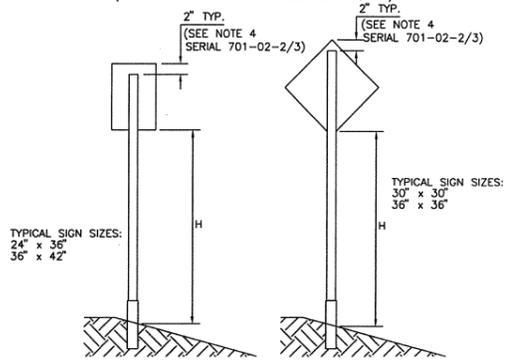
- ALL SQUARE TUBING SIGN POST REQUIREMENTS ARE BASED ON A 10 OR 12 GAUGE THICKNESS, ASTM A570 GRADE 50 STEEL, A MINIMUM YIELD STRENGTH OF 60,000 PSI AND A 70 MPH WIND LOAD. ALL U-CHANNEL SIGN POSTS REQUIREMENTS ARE BASED ON A MINIMUM YIELD STRENGTH OF 80,000 PSI AND 85 MPH WIND LOAD. SEE THE MUTCD & STANDARD HIGHWAY SIGNS MANUAL (CURRENT EDITION) FOR FURTHER GUIDANCE.
- FOR CONSTRUCTION SIGNING & PERMANENT SINGLE AND TRIPLE POST INSTALLATIONS, SMALLER POST CROSS SECTIONS MAY BE USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE RECOMMENDATIONS DETAILED IN NOTE 1.
- TOP EDGE OF POSTS SHALL NOT EXTEND PAST TOP EDGE OF SIGN.
- STEEL POSTS, BASE POSTS, AND SLIP BASES FOR ALUMINUM PANEL SIGNS SHALL BE SELECTED FROM THE DEPARTMENT'S APPROVED PRODUCT LIST. ALL SIGNS MOUNTED WITHIN THE CLEAR ZONE SHALL BE MOUNTED ON A NCHRP REPORT 350 APPROVED SIGN POST/BASE POST BREAKAWAY SYSTEM UNLESS INSTALLATION IS LOCATED BEHIND A NON-GATING LONGITUDINAL BARRIER. OTHER INSTALLATIONS, CONFIGURATIONS OR SYSTEMS NOT SHOWN MAY BE USED AS RECOMMENDED BY THE MANUFACTURER WITH APPROVAL OF THE DISTRICT TRAFFIC ENGINEER.
- FOR INSTALLATIONS ON WEAK (SOFT) SOIL, SOIL PLATES SHALL BE USED AS RECOMMENDED BY THE MANUFACTURER. PAYMENT FOR SOIL PLATES SHALL BE INCIDENTAL TO THE SIGN INSTALLATION.
- BASE POSTS SHALL NOT EXTEND MORE THAN 4" ABOVE GROUND LEVEL AND SHALL BE OF THE SAME WEIGHT/GAUGE AND TYPE AS THE SIGN POST.
- INTERMIXING OF U-CHANNEL AND SQUARE TUBING POSTS, POSTS OF DIFFERENT WEIGHTS/GAUGES OR PRODUCT BRANDS IS NOT ALLOWED EXCEPT WHERE RECOMMENDED BY THE MANUFACTURER.
- HORIZONTAL CLEARANCES APPLY TO INSTALLATIONS ON LEFT AND RIGHT SIDE OF ROADWAY.
- SUPPLEMENTAL SIGNS SHALL NOT BE ATTACHED DIRECTLY TO PRIMARY PANELS ON EITHER PERMANENT OR CONSTRUCTION SIGNING INSTALLATIONS.
- SPACING BETWEEN SUPPLEMENTAL PANELS AND PRIMARY PANELS SHALL NOT EXCEED 6'.
- SIGN PANELS PLACED PARALLEL TO TRAFFIC SHALL BE MOUNTED ON A MULTI-DIRECTIONAL BREAKAWAY SYSTEM. (SEE SERIAL 701-02-3/3)

NOTE: ALL SIGNS TO BE EQUIPPED WITH BREAK-AWAY BASE. CONTRACTOR TO SUBMIT BREAK-AWAY DETAIL FOR APPROVAL PRIOR TO USE.



**SINGLE POST INSTALLATION**

(TOTAL SIGN AREA NOT TO EXCEED 10.5 SQ. FT.)  
2" TYP. (SEE NOTE 4 SERIAL 701-02-2/3)



**SIGN POST REQUIREMENTS**  
(SEE NOTES 1 & 3, SHT. 701-02-2/3)

POST TYPE	POST SIZE	MAX. CLEAR HEIGHT, H (FT.)	MAX. SIGN AREA (SQ. FT.)
SQUARE TUBING	1.75" X 1.75" (12 GA.)	9	5
SQUARE TUBING	1.75" X 1.75" (12 GA.)	9	5
SQUARE TUBING	1.75" X 1.75" (12 GA.)	9	5
SQUARE TUBING	2.00" X 2.00" (12 GA.)	9	8
SQUARE TUBING	2.00" X 2.00" (12 GA.)	9	8
SQUARE TUBING	2.00" X 2.00" (12 GA.)	9	8
SQUARE TUBING	2.25" X 2.25" (12 GA.)	9	10.5
SQUARE TUBING	2.25" X 2.25" (12 GA.)	9	10.5
SQUARE TUBING	2.25" X 2.25" (12 GA.)	10	10.5

**SUMMARY OF QUANTITIES - PERMANENT SIGNING**

STATION	LOCATION -DIRECTION	WIDTH OF SIGN	LENGTH OF SIGN	SIGN CODE	NO. OF SIGNS	TOTAL SIGN AREA (SF)	POST LENGTH (LF)				MOUNTING REQUIREMENTS					BASE POST		
							LEFT	CENTER	RIGHT	TOTAL	U-CHANNEL	SQUARE TUBING (12 GAUGE)					NO.	TOTAL LENGTH (LF)
												1.75	2.00	2.25	2.19	2.5		
000+00	RT - NBL	36	36	W1-5R (REVERSE CURVE RIGHT)	1	9		12				X or	X			1	3.5	
000+20	RT - NBL	36	36	DANGER OVERHEAD POWERLINES	1	9		6				X or	X			1	3.5	
000+80	LT - SBL	36	36	DANGER OVERHEAD POWERLINES	1	9		6				X or	X			1	3.5	
001+50	RT - NBL	24	30	R2-1-35 (35 MPH)	1	5		12				X or	X			1	3.5	
003+00	RT - NBL	36	36	W11-4, CATTLE	1	9		12				X or	X			1	3.5	
025+86	RT - NBL	36	36	W1-2R	1	9		12				X or	X			1	3.5	
025+93	LT - SBL	36	36	W1-5R (REVERSE CURVE LEFT)	1	9		12				X or	X			1	3.5	
042+48	LT - WBL	36	36	W1-2L	1	9		12				X or	X			1	3.5	
062+68	RT - EBL	36	36	W1-2L	1	9		12				X or	X			1	3.5	
079+30	LT - SBL	36	36	W1-2R	1	9		12				X or	X			1	3.5	
105+80	RT - NBL	36	36	W1-2R	1	9		12				X or	X			1	3.5	
116+22	LT - SBL	36	36	W1-2L	1	9		12				X or	X			1	3.5	
119+45	RT - NBL	36	36	W1-5L (REVERSE CURVE LEFT)	1	9		12				X or	X			1	3.5	
139+50	LT - SBL	36	36	R2-1-35 (35 MPH)	1	9		12				X or	X			1	3.5	
141+35	RT - NBL	36	36	DANGER OVERHEAD POWERLINES	1	9		12				X or	X			1	3.5	
142+55	LT - SBL	36	36	DANGER OVERHEAD POWERLINES	1	9		12				X or	X			1	3.5	
<b>TOTAL</b>						<b>140 SF</b>											<b>56</b>	
											<b>TOTAL SIGN POST &amp; BASE POST =</b>		<b>236 LF</b>					

- NOTES:  
1. All signs shall be manufactured to conform with the most current editions of the MUTCD and Standard Highway Signs Book.  
2. Sign placement requirements for height and lateral location from roadway shall conform with the current edition of the MUTCD and NMDOT Standard Drawing 701-02.

**TRAFFIC MARKERS - OBJECT MARKERS**

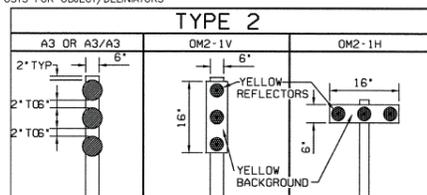
- ALL HARDWARE SHALL MEET FHWA CRASHWORTHINESS REQUIREMENTS AS PER NCHRP 350 GUIDELINES AND SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
- SEE DEPARTMENT'S APPROVED PRODUCTS LIST FOR APPROVED U-CHANNEL & SQUARE TUBING, FLEXIBLE & TUBULAR TRAFFIC MARKER REFLECTOR MANUFACTURERS.
- DELINEATOR POST & REFLECTOR UNIT COLOR SHALL CONFORM TO THE COLOR OF EDGE LINES.
- BREAKAWAY BASE POST SYSTEMS FOR TYPE 1, TYPE 3 & END OF ROAD OBJECT MARKERS REQUIRED. SEE APPROVED PRODUCT LIST FOR APPROVED SYSTEMS & MANUFACTURER'S RECOMMENDATIONS.
- STANDARD DELINEATORS ARE NOT TO CONFLICT WITH 1/10 MILE DELINEATORS. WHEN THE TWO COINCIDE, 1/10 MILE DELINEATORS WILL BE USED.
- SEE SECTION 703 OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION FOR ADDITIONAL INFORMATION.
- FOR SQUARE TUBING WITH BREAKAWAY BASE POST SEE STANDARDS 701-02-1/3, 701-02-2/3 AND 701-02-3/3.
- 1/10 MILE DELINEATORS SHALL BE USED ON INTERSTATE ROADWAYS AND MAY BE USED ON HIGH SPEED 4-LANE DIVIDED ROADWAYS.

NOTE: USE FIBERGLASS POSTS FOR OBJECT/DELINATORS

**REFLECTOR UNIT TYPES**

REFLECTOR UNIT	QUANTITY
A1 SINGLE YELLOW REFLECTOR	1 EACH
A2 DOUBLE YELLOW REFLECTOR	1 EACH
A3 TRIPLE YELLOW REFLECTOR (TYPE 2 OBJECT MARKER)	1 EACH
C1 SINGLE WHITE REFLECTOR	1 EACH
C2 DOUBLE WHITE REFLECTOR	1 EACH
A1/A1	1 EACH
A1/C1	1 EACH
A1/R1	1 EACH
C1/R1	1 EACH
A2/A2	2 EACH
A2/C2	2 EACH
A2/R2	2 EACH
C2/C2	2 EACH
C2/R2	2 EACH
A3/A3	3 EACH (TYPE 2 OBJECT MARKER)

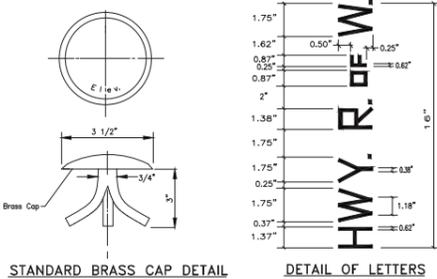
\*BIDIRECTIONAL MOUNTING BRACKET REQUIRED TO ORIENT RED REFLECTOR



**HAZARD MARKER TABLE TYPE 2 OBJECT MARKERS**

STATION	LOCATION	NO.
016+60.00	RT	1
017+00.00	LT	1
029+50.00	RT	1
029+90.00	LT	1
035+80.00	RT	1
036+20.00	LT	1
050+38.00	RT & LT	2
076+10.00	RT & LT	2
115+50.00	RT	1
116+20.00	LT	1
143+30.00	RT	1
143+77.00	LT	1
<b>TOTAL NO. OF HAZARD MARKERS (EACH) =</b>		<b>14</b>

- NOTES:  
1. Type 2 Object Markers (A3/A3) shall be installed as per NMDOT Standard Drawing 703-01.  
2. Under minimum cover conditions for culverts, Type 2 Hazard Markers shall be placed on the culvert side to the approach nearest traffic.



**R.O.W. - General Notes**

- Survey Monuments and Reference markers shall be placed as shown on the plans or as directed by the NTEC Project Manager. The cost of supplying all materials and installation of Right-Of-Way Monuments and Reference Markers shall be included in the unit price bid under Item 801000-1.
- Brass caps for the monuments shall be supplied by the contractor conforming to the ASTM B-584 Specification and shall be considered incidental to Item 801000-1.
- All concrete shall conform to Section 601 of the FP-03. Furnishing and placing of concrete and rebar shall be considered incidental to Item 801000-1.
- State Plane Coordinates & Elevations shall be stamped on all brass caps by the NTEC Project Manager after installation.
- The contractor shall be required to paint the reference markers per Section 708 and Subsection 708.04 of FP-03:  
A. The primer coat shall conform to Subsection 708.04(A) or (B) of FP-03.  
B. The white finish coat of paint shall conform to Subsection 708.04(C), (D) or (E) of FP-03.  
C. All letters, numerals, symbols, etc. shall be painted on the reference markers using the dimensions shown using lamp black paint conforming to ASTM D 209. The required information to place on the reference markers shall be furnished to the contractor by the C.O.R.
- The contractor has the option to use an approved state paint specification in lieu of that stated in Note 5 above. The contractor shall submit (in writing) the paint specifications and request for use on the project at least 14 days in advance of the paint use for review and approval. The contractor shall not be allowed to use any paint until the proper approval has been given by the contracting officer. Any painting performed by the contractor without proper approval shall be cause for the work to be rejected.

**R.O.W. MONUMENT REFERENCE MARKER**

R.O.W. MONUMENTS TO BE INSTALLED AT ALL PC'S & PT'S AT 50' FROM CENTERLINE BY CONTRACTOR (See Location Table on Sheet 2)

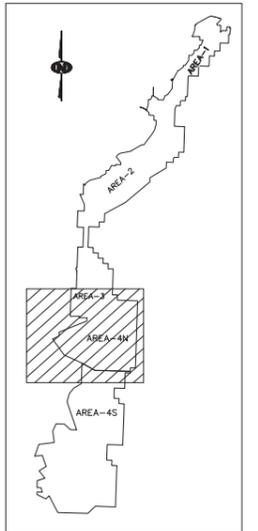
THE DETAILS SHOWN ARE FOR CONTRACTOR CONVENIENCE. REFER TO NMDOT, MUTCD AND STANDARD HIGHWAY SIGN BOOK FOR COMPLETE DETAILS

THE DESIGN FEATURES SHOWN ON THESE DESIGN PLANS ARE REASONABLE REPRESENTATIONS OF THE PROPOSED WORK BASED ON THE INFORMATION AVAILABLE AT THE TIME OF SUBMITTAL OF THIS PERMIT PACKAGE. ACTUAL CONSTRUCTION DETAILS MAY VARY FROM THOSE SHOWN.

**NOT ISSUED FOR CONSTRUCTION**

**LEGEND**

- BURNHAM SOUTH ROAD
- EAST HAUL ROAD
- SERVICE ROAD & SERVICE ROAD LOOP
- PAVED ROAD
- DIRT ROAD
- TRAIL
- BUILDING
- FENCE
- IRRIGATION LINE
- CULVERT
- LOW SPOT ELEVATION
- DRAINAGE
- RAILROAD
- TREES
- POWERLINE
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- HORIZ. & VERT. CONTROL
- LEASE CORNER
- LEASE BOUNDARY
- PERMIT BOUNDARY



CERTIFICATION STATEMENT  
I, GEORGE A. MADRID, P.E., HEREBY CERTIFY THAT THIS DRAWING WAS REVIEWED BY ME AND THAT THE INFORMATION SHOWN IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.



GEOMAT INC.  
915 Malta Avenue Farmington, NM 87401 ☎ (505) 327-7928

NO.	DATE	DESCRIPTION
2	05-23-14	REVISED TITLE BLOCK
1	03-15-12	REVISED TITLE & TITLE BLOCK
0	02-07-12	INITIAL PERMIT SUBMITTAL

**EXHIBIT 40.6-1**

**NTEC**  
Navajo Transitional Energy Company, LLC

Navajo Mine

PINABETE PERMIT

BURNHAM SOUTH ROAD DESIGN SIGN & OBJECT MARKER TABLE AND DETAILS

SHEET: 11 OF 11

PREPARED BY: BT&PR DRAWN BY: BT&PR SCALE: AS SHOWN  
APPROVED BY: GM DATE: 02-07-2012

GEOMAT PROJECT NO. 112-1434