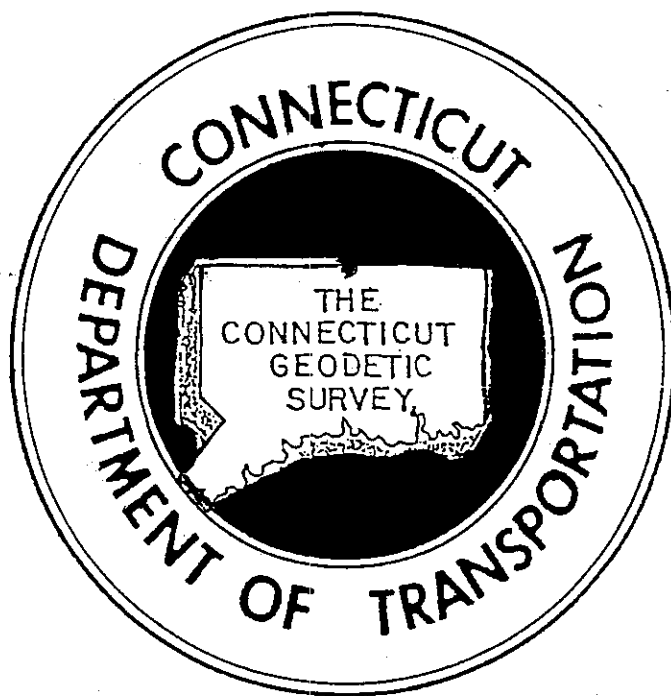


CONNECTICUT  
GEODETIC SURVEY  
CALIBRATION BASE LINE



TOWN OF WINCHESTER

PUBLISHED BY  
CONNECTICUT DEPARTMENT OF TRANSPORTATION  
CENTRAL SURVEYS

1994

# **WINCHESTER**

## **EDM BASE LINE**

### **STANDARD OPERATING PROCEDURES**

**Location:** Connecticut Route 8 (Northbound lane) just north of the Torrington Town Line

This calibrated base line was set and calibrated by guidelines set forth by the National Geodetic Survey and the results of this calibration are published by the Connecticut Geodetic Survey.

Because of the location of the base line, on a limited access highway, the following guidelines must be strictly adhered to when using this site.

1. A permit must be obtained for use of this base line by completing the enclosed permit applications and forwarding them to the Permits Section located in District 4, Thomaston, CT (telephone 585-2795).
2. Orange safety vests will be worn by all personnel at all times while at the base line site.
3. Safety signs (Surveyors on Pavement) must be located prior to the base line to warn oncoming traffic.
4. Vehicles must be parked far enough from the travel portion of the road as not to impede traffic flow or vehicle sight line.
5. At no time must the turnarounds that are posted for "Authorized Vehicles Only" be used for turn around purposes. All vehicles must go to the next interchange and use the interchanges for purposes of reversing travel.
6. The continued use of this base line by all personnel will depend on strict adherence to procedures outlined above.

Date:

Fee: (for DOT use)

N/A

PMT-1 Rev. 5/91  
State of Connecticut  
Department of Transportation  
APPLICATION FOR PERMIT  
Printed on Recycled or Recovered Paper

This form must be filled out completely. Mail or deliver to:  
CONNDOT, District 4, Permit Section  
359 South Main Street  
Thomaston, CT 06787

LOCATION OF PROPOSED WORK:

(a) Town: Winchester (b) Route: 8 (c) Street Name & No. \_\_\_\_\_  
(d) (Circle One) N. S. (E.) W. side of Highway. (e) Located Between Utility Poles No. \_\_\_\_\_ & No. \_\_\_\_\_  
(f) Distance and direction from nearest intersecting road. 0.85 Miles (N) S. E. W.) of Pinewoods St/Rd

Application is hereby made to: (Describe fully & include sketch or attach plans) USE OF A CALIBRATED ELECTRONIC DISTANCE METER (EDM) RANGE LOCATED ON ROUTE 8 (NORTHBOUND)



CONN. ROUTE 8 NORTHBOUND

▲ CTGS 6515

▲ CTGS 6514

▲ CTGS 6513

▲ CTGS 6512

Name of Surety Company & amount of Bond

N/A

Party to whom Bond is issued:

Print Name N/A

Signed \_\_\_\_\_ Phone \_\_\_\_\_

Party to whom Insurance is issued:

Print Name \_\_\_\_\_

Signed \_\_\_\_\_ Phone \_\_\_\_\_

Approximate Time Required

Desired Starting Date

Complete Plans and Specifications must be submitted for major encroachment permits. On other work a careful sketch shall be shown in space above or on back side of application.

Permit to be issued to:

Name \_\_\_\_\_

& \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_ ZIP \_\_\_\_\_

The owner of the property for whom this work is being performed agrees to accept all future maintenance responsibility for the work specified in the permit.

Print Owner's Name N/A

Address \_\_\_\_\_

Signed \_\_\_\_\_ Phone \_\_\_\_\_

**CERTIFICATE OF INSURANCE**

This is to certify that the Insurance Company named herein has issued to the named insured the policies listed below, that these policies are written in accordance with the Insurance Company's standard policies and endorsements, except as indicated below or as noted in the attachments hereto, which policies and endorsements will be made available to the Department of Transportation upon request, that they provide coverages and limits of liability shown with respect to the hazards indicated, that they are in force on this date, that all deductible amounts are indicated below, and that this Certificate is furnished in accordance with and for the purpose of satisfying the requirements of the Department of Transportation in connection with the award and performance of any contract or agreement, or the issuance of any permit or authorization by the Transportation Commissioner or duly authorized agent. The Insurance Company agrees to investigate and defend the insured against all claims for damages, even if groundless.

✓ NAME OF INSURED \_\_\_\_\_  
 ✓ ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE \_\_\_\_\_

Hazards	Policy Number	Effective Date	Expiration Date	Coverages and Limits of Liability	
				Bodily Injury Liability and Property Damage Liability	
				All Persons/All Damages Each Accident or Occurrence	AGGREGATE
✓ *A Protective Liability for and in the name of the State of Conn. (1) See Below					
*B Contractor's Public Liability					
*C Contractor's Protective Liability					
*D Contractual Liability (1) (2) See Below					
E Completed Operations Liability					
F Explosion, Collapse, or Underground Damage Liability					
G Automobile Liability Owned Automobiles Hired Automobiles Non-owned Automobiles					
H Railroad Liability					
I					
J Valuable Papers and Records	XXXXXX	XXXXXX	XXXXXX	Possession	All Other
Valuable Papers and Records					
K **Workers' Compensation				Statutory	Coverages and Limits

\* State of Connecticut is Named As Additional Insured  
 \*\* Compensation Commissioner's Certificate shall be supplied herewith by self-insured party.

Check This certificate is issued in accordance with the terms of:

Construction Contracts       Maintenance Work (by Purchase Order)       Demolition Contracts

Permit Work No. \_\_\_\_\_       Lease Agreement Flights of Way       Agree No. \_\_\_\_\_

Engineering       Project No. \_\_\_\_\_       Other Specify & including all operations incidental thereto.

PARTY FOR NOTICE Bureau: \_\_\_\_\_ Unit: \_\_\_\_\_ Title: \_\_\_\_\_

(1) It is agreed that the herein named Insurance Company waives governmental immunity as a defense and will not use the defense of governmental immunity in the adjustment of claims or in the defense of any suit brought against the State, and it is further agreed that the Insurance Company will bill premiums and audit charges earned under the protective liability policy to the above named insured.

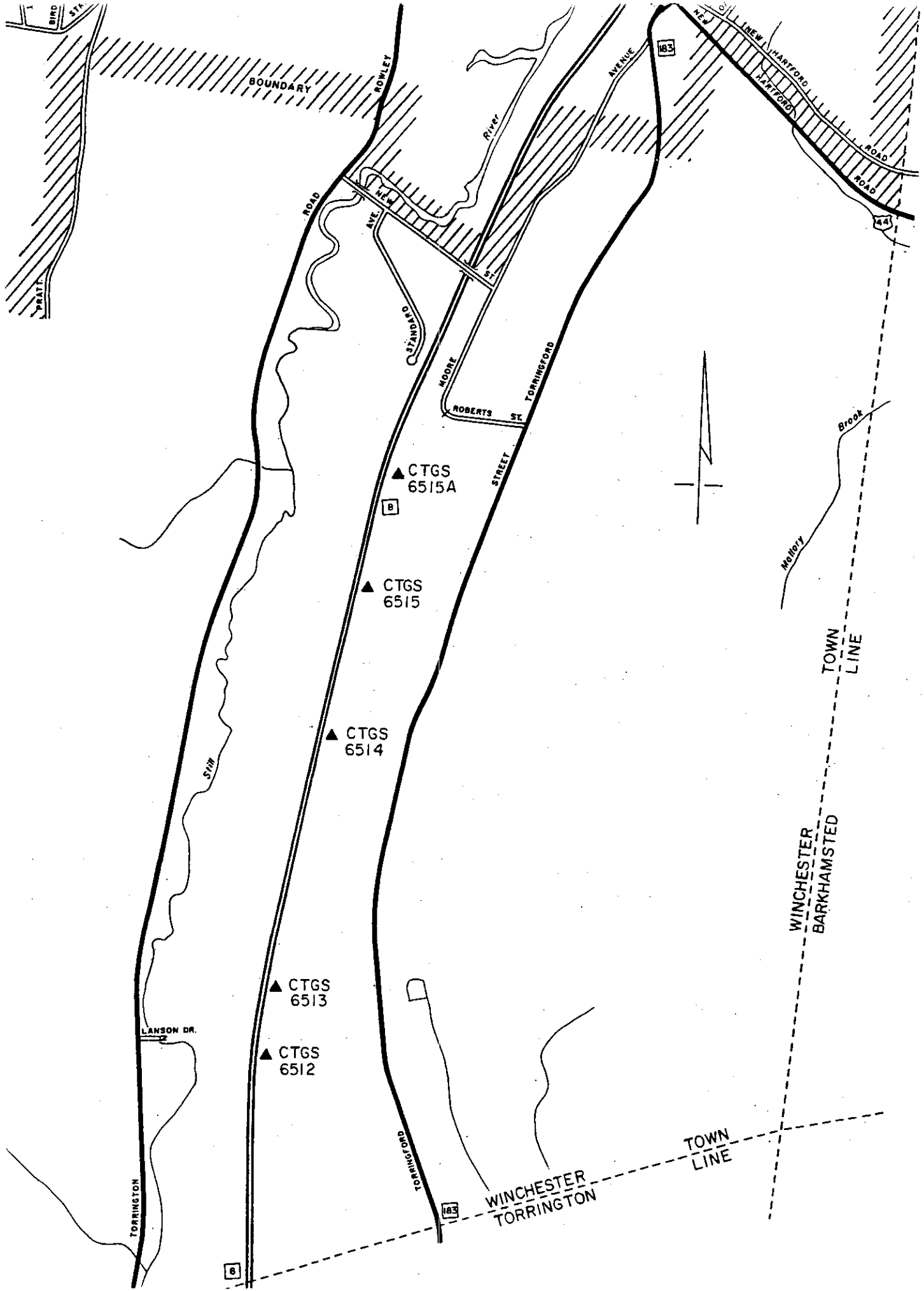
(2) LIABILITY - The insured shall at all times indemnify and save harmless the State of Connecticut, the Department of Transportation, and their respective officers, agents, and employees, on account of any and all claims, damages, losses, litigation, expenses, counsel fees, and compensation arising out of injuries (including death) sustained by or alleged to have been sustained by the officers, agents, and employees of said State or Department or of the insured, his subcontractors, or materialmen, and from injuries (including death) sustained by or alleged to have been sustained by the public, any or all persons on or near the work, or by any other person or property, real or personal (including property of said State or Department) caused in whole or in part by the acts, omissions, neglect of the insured, including but not limited to any neglect in safeguarding the work or through the use of unacceptable materials in constructing the work, of the contractor or permittee, any subcontractor, materialman, or anyone directly or indirectly employed by them or any of them while engaged in the performance of the contract, or agreement, or work under a permit, including the entire elapsed time from the date ordered to start work or the actual start whichever occurs first until the completion as certified by the Department of Transportation.

IN THE EVENT OF ANY RESTRICTIVE AMENDMENT TO, ANY CHANGE IN, CANCELLATION OF OR FAILURE TO RENEW ANY ONE OR MORE OF SAID POLICIES, THE \_\_\_\_\_ (Insurance Company) SHALL GIVE NOT LESS THAN THIRTY DAYS WRITTEN NOTICE TO THE PARTY FOR NOTICE TO WHOM THIS CERTIFICATE IS ISSUED OF SUCH AMENDMENT, CHANGE, CANCELLATION, OR FAILURE TO RENEW.

✓ DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 19 \_\_\_\_\_

ISSUED TO DEPARTMENT OF TRANSPORTATION  
DOCUMENTS PROCESSING  
24 WOLCOTT HILL ROAD, WETHERSFIELD, CONNECTICUT 06109

✓ \_\_\_\_\_ (INSURANCE COMPANY)  
 ✓ \_\_\_\_\_ (ADDRESS)  
 ✓ \_\_\_\_\_ (AGENCY)  
 ✓ \_\_\_\_\_ (ADDRESS)  
 ✓ \_\_\_\_\_ (AUTHORIZED AGENT'S NAME & SIGNATURE)



BOUNDARY

ROWLEY

ROAD

AVE

STANDISH

MOORE

ROBERTS ST.

STREET

TORRINGFORD

AVENUE

183

NEW HARTFORD ROAD

ROAD

183

▲ CTGS 6515A

B

▲ CTGS 6515

▲ CTGS 6514

▲ CTGS 6513

▲ CTGS 6512

LANSON DR.

TORRINGTON

TORRINGTON

183

WINCHESTER  
TORRINGTON

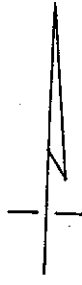
TOWN  
LINE

TOWN  
LINE

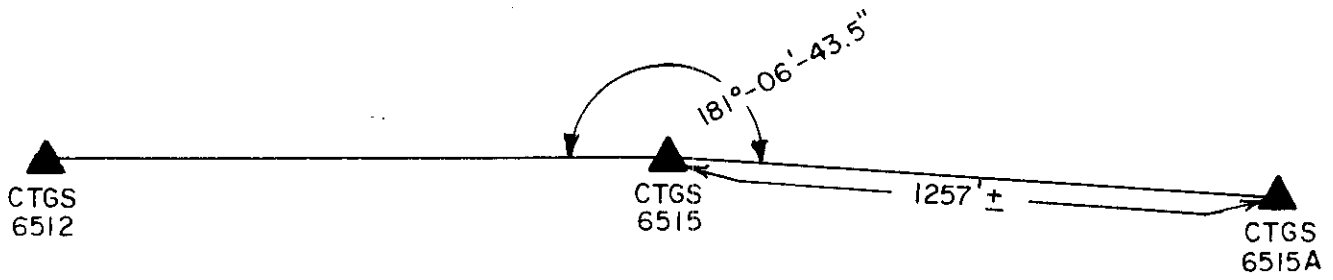
WINCHESTER  
BARKHAMSTED

Brook

MOLLY



# ANGULAR BASELINE RANGE



TOWN Winchester CONNECTICUT COUNTY Litchfield STATION 6515A

DATE SET December 1993 QUADRANGLE 410731 Winsted ORDER OF ACCURACY Horizontal 1 3rd - Class 1 (1:10,000)  
 DATE DESCRIBED December 1993 U.S.G.S MAP Winsted Vertical  
 COMPUTATION VOLUME BOOKS C-2 T-52 R.O.W. MAP

1927 NORTH AMERICAN DATUM (N.A.D.27)

STATE PLANE COORDINATES (FEET)

X =  
Y =  
DATE:

(METERS)

X =  
Y =  
DATE:

GEOGRAPHIC POSITION

LAT. LONG.  $\phi$  =  
DATE:

1983 NORTH AMERICAN DATUM (N.A.D.83)

STATE PLANE COORDINATES (FEET)

NORTHING =  
EASTING =  
DATE:

(METERS)

NORTHING =  
EASTING =  
DATE:

GEOGRAPHIC POSITION

LAT. LONG.  $\phi$  =  
DATE:

OBJECT	DISTANCE FT.	DIRECTION	PLANE AZIMUTH (0°South)
CGS 6515	± 1,257	00 00 00	
RM 2	41.99	14 05 06	
RM 3	19.08	103 37 09	
RM 1	31.71	149 38 17	

ELEV. 1929 NATIONAL GEODETIC VERTICAL DATUM (NGVD 29)

ELEV. 1988 NORTH AMERICAN VERTICAL DATUM (N.A.V.D.88)

FEET METERS	DATE:
DATE:	

FEET METERS	DATE:	FEET METERS	DATE:
DATE:		DATE:	

METRIC CONVERSION FACTOR USING THE U.S. SURVEY FOOT  
 1 Meter equals (Exactly) 39.37 inches  
 P - Indicates Preliminary Value

**DESCRIPTION:** The Station Mark is a standard Connecticut Geodetic Survey brass disk stamped 6515A set into a 15' x 8' partially exposed rock ledge set about 8 feet above the highway.

To reach the station in Winchester from the intersection of CT Route 8 (Northbound) and Pinewoods Road (Exit 46) proceed northerly along CT Route 8 for 2.07 miles to the ledge and the station on the left.

It is located in the median, 52 feet west of the center line of CT Route 8 (Northbound), 44 feet north-northwest of the top center of a catch basin and 17.1 feet south of a 4 inch maple tree.

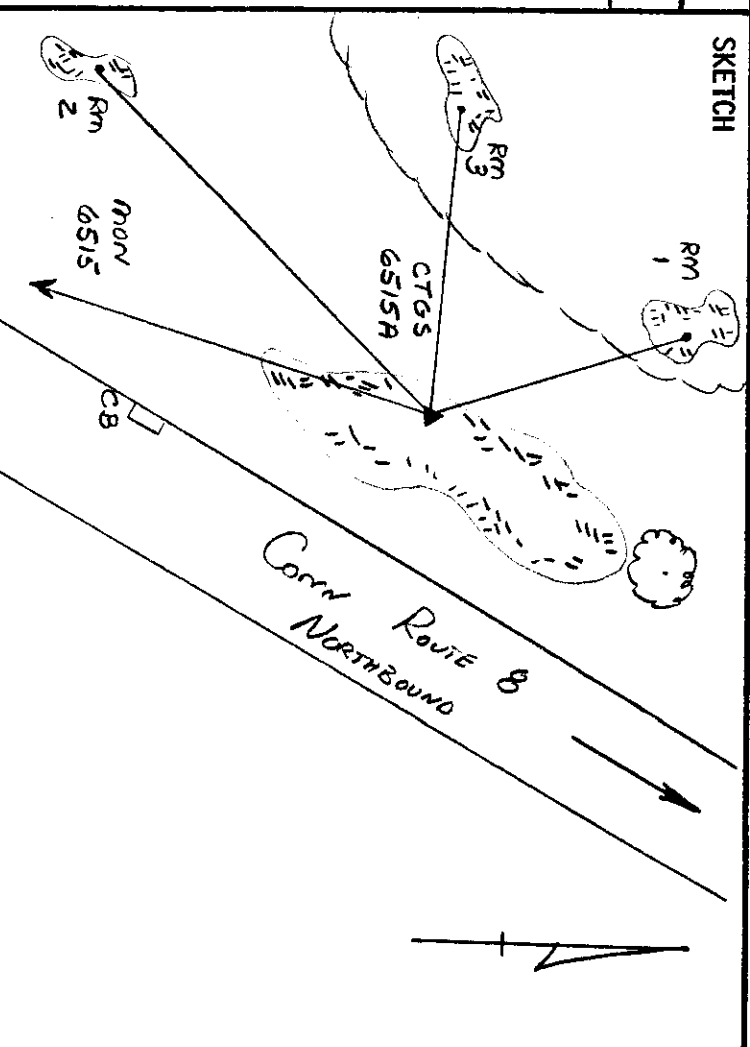
RM 1: North of Station: A drill hole in a hex head brass bolt in a 1/4 inch drill hole set in a 52" x 48" partially exposed ledge. It is located along the north-south tree line, 72.5 feet west of the center line of CT Route 8, 24.8 feet north-northwest of a 6 inch black birch tree and 55.5 feet northwest of the west edge of the pavement.

RM 2: Southwest of Station: A drill hole in a hex head brass bolt in a 1/4 inch drill hole in a 24" x 12" ledge. It is located in an open area 59 feet northwest of the center line of CT Route 8, 44 feet northwest of a catch basin and 59 feet southwest of a 6 inch black birch tree.

RM 3: Northwest of Station: A drill hole in a hex head brass bolt in a 1/4 inch drill hole in a 48" x 12" ledge. It is located 60.5 feet north of a catch basin, 54 feet northwest of the west edge of northbound CT Route 8 and 26.5 feet west of a 6 inch black birch tree.

NOTES:

RECOVERY NOTES		
DATE	ORGANIZATION	CONDITION





# CONNECTICUT GEODETIC SURVEY

TOWN Winchester COUNTY Litchfield STATION 6512  
 DATE SET August 1992 QUADRANGLE 410731 Winsted ORDER OF ACCURACY  
 DATE DESCRIBED August 1992 USGS MAP Winsted Horizontal \_\_\_\_\_  
 COMPUTATION VOLUME \_\_\_\_\_ BOOKS V-1 Vertical \_\_\_\_\_  
 R.O.W. MAP \_\_\_\_\_

## NATIONAL GEODETIC SURVEY -- CALIBRATION BASE LINE DATA

FROM STATION	ELEVATION FEET	TO STATION	ELEVATION FEET	HORIZONTAL FEET	DISTANCE METERS	SLOPE FEET	DISTANCE METERS	STANDARD ERROR FEET
6512	796.511	6513	798.437	492.140	150.0046	492.144	150.0058	.0003
6512	796.511	6514	790.943	2,952.687	899.9807	2,952.692	899.9823	.0003
6512	796.511	6515	793.112	3,937.007	1,200.0021	3,937.008	1,200.0025	.0006
6513	798.437	6514	790.943	2,460.547	749.9761	2,460.558	749.9796	.0003
6513	798.437	6515	793.112	3,444.867	1,049.9975	3,444.871	1,049.9987	.0003
6514	790.943	6515	793.112	984.320	300.0213	984.322	300.0220	.0003

ELEVATION		OBJECT	DISTANCE FEET	DIRECTION	PLANE AZIMUTH
Mean Sea Level	Datum				
Feet					
Meters					
Date					

TOWN Winchester

STATION 6512

**DESCRIPTION:** The Station Mark is a standard CTGS brass disk, stamped 6512, set into the top of a square reinforced concrete post which is recessed 12 in. below the ground. The underground mark is a standard CTGS brass disk, stamped 6512, set into an irregular mass of concrete which is 5 ft. below the ground. To reach the station from the intersection of CT. Route 8 (northbound) and Pinewoods Road (exit 46) in Torrington, proceed north on CT. Route 8 for 1.03 mi. to the station on the right (east). The station is located 92.5 ft. southwest of the top center of a TYPE C catch basin, 46.6 ft. southwest of an 8 in. white pine tree, and 5.0 ft. southeast of the east edge of the bituminous pavement.

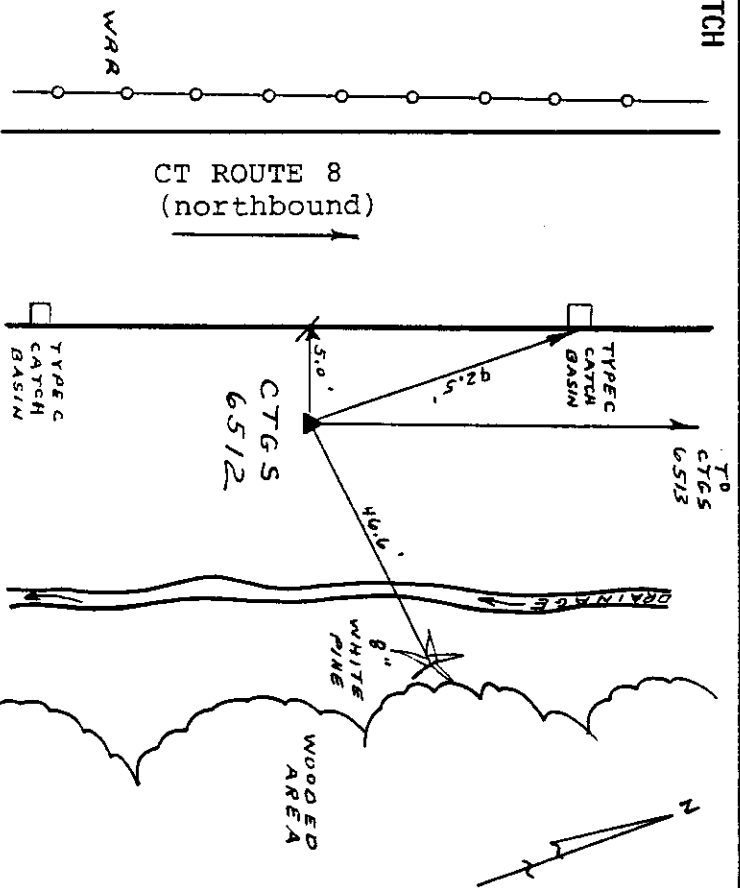
**NOTES:** All baseline measurements are not corrected for sea level or scale factors.

METRIC CONVERSION CONSTANTS

1 Meter = 3.28083333333333 Feet  
 1 Foot = 0.3048006096 Meter

RECOVERY NOTES		
DATE	ORGANIZATION	CONDITION
8/18/92	CTGS	Good

**SKETCH**



# CONNECTICUT GEODETIC SURVEY

TOWN Winchester COUNTY Litchfield STATION 6513  
 DATE SET August 1992 QUADRANGLE 410731 Winsted ORDER OF ACCURACY  
 DATE DESCRIBED August 1992 USGS MAP Winsted Horizontal \_\_\_\_\_  
 COMPUTATION VOLUME \_\_\_\_\_ BOOKS V-1 R.O.W. MAP \_\_\_\_\_ Vertical \_\_\_\_\_

## NATIONAL GEODETIC SURVEY — CALIBRATION BASE LINE DATA

FROM STATION	ELEVATION FEET	TO STATION	ELEVATION FEET	HORIZONTAL FEET	DISTANCE METERS	SLOPE FEET	DISTANCE METERS	STANDARD ERROR FEET
6512	796.511	6513	798.437	492.140	150.0046	492.144	150.0058	.0003
6512	796.511	6514	790.943	2,952.687	899.9807	2,952.692	899.9823	.0003
6512	796.511	6515	793.112	3,937.007	1,200.0021	3,937.008	1,200.0025	.0006
6513	798.437	6514	790.943	2,460.547	749.9761	2,460.558	749.9796	.0003
6513	798.437	6515	793.112	3,444.867	1,049.9975	3,444.871	1,049.9987	.0003
6514	790.943	6515	793.112	984.320	300.0213	984.322	300.0220	.0003

ELEVATION		OBJECT	DISTANCE FEET	DIRECTION	PLANE AZIMUTH
Mean Sea Level Datum	Comments				
Feet					
Meters					
Date					

TOWN Winchester

STATION 6513

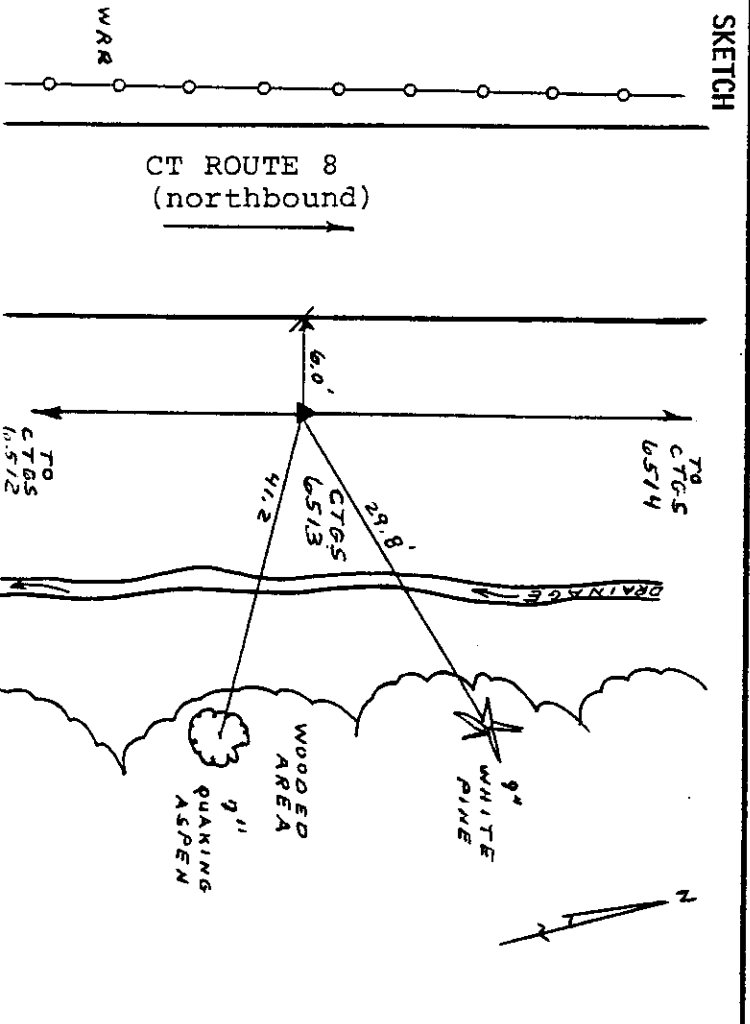
**DESCRIPTION:** The Station Mark is a standard CTGS brass disk, stamped 6513, set into the top of a reinforced concrete post which is recessed 12 inches below the ground. The underground mark is a standard CTGS brass disk, stamped 6513, set into an irregular mass of concrete which is 5 feet below the ground.  
To reach the station from the intersection of CT. Route 8 (northbound) and Pinewoods Road in Torrington, proceed north on CT. Route 8 for 1.12 miles to the station on the right (east).  
The station is located 41.2 feet northwest of a 7 inch aspen tree, 29.8 feet west of a 9 inch pine tree, and 6.0 feet southeast of the eastern edge of the bituminous pavement.

**NOTES:** All baseline measurements are not corrected for sea level or scale factors.

**METRIC CONVERSION CONSTANTS**

1 Meter = 3.280833333333 Feet  
1 Foot = 0.3048006096 Meter

RECOVERY NOTES		
DATE	ORGANIZATION	CONDITION
8/18/92	CTGS	Good



# CONNECTICUT GEODETIC SURVEY

TOWN Winchester

COUNTY Litchfield

STATION 6514

DATE SET August 1992

QUADRANGLE 410731 Winsted

ORDER OF ACCURACY

DATE DESCRIBED August 1992

USGS MAP Winsted

Horizontal           

COMPUTATION VOLUME           

BOOKS V-1

Vertical           

R.O.W. MAP           

## NATIONAL GEODETIC SURVEY — CALIBRATION BASE LINE DATA

FROM STATION	ELEVATION FEET	TO STATION	ELEVATION FEET	HORIZONTAL FEET	DISTANCE METERS	SLOPE FEET	DISTANCE METERS	STANDARD ERROR FEET
6512	796.511	6513	798.437	492.140	150.0046	492.144	150.0058	.0003
6512	796.511	6514	790.943	2,952.687	899.9807	2,952.692	899.9823	.0003
6512	796.511	6515	793.112	3,937.007	1,200.0021	3,937.008	1,200.0025	.0006
6513	798.437	6514	790.943	2,460.547	749.9761	2,460.558	749.9796	.0003
6513	798.437	6515	793.112	3,444.867	1,049.9975	3,444.871	1,049.9987	.0003
6514	790.943	6515	793.112	984.320	300.0213	984.322	300.0220	.0003

Mean Sea Level Datum	ELEVATION	Comments	OBJECT	DISTANCE FEET	DIRECTION	PLANE AZIMUTH

Foot  
Meters  
Date

TOWN Winchester

STATION 6514

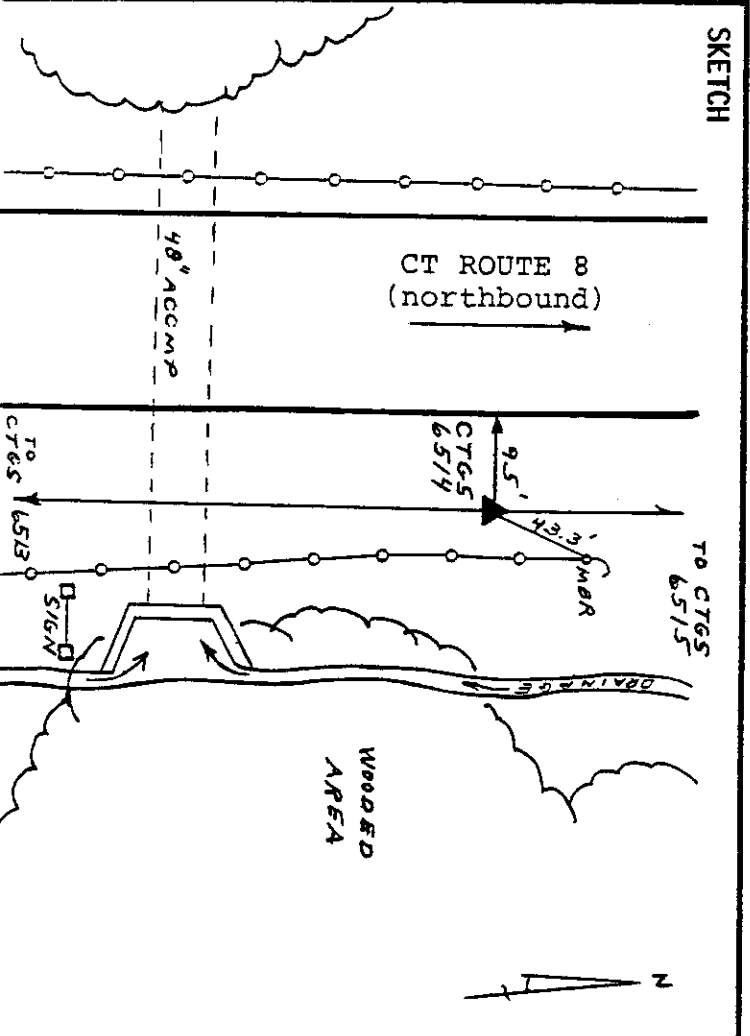
**DESCRIPTION:** The Station Mark is a standard CTGS brass disk, stamped 6514, set into the top of a square reinforced concrete post which is recessed 12 inches below the ground. The underground mark is a standard CTGS brass disk, stamped 6514, set into an irregular mass of concrete which is 5 feet below the ground. To reach the station from the intersection of CT. Route 8 (northbound) and Pinewoods Road (exit 46) in Torrington, proceed north on CT. Route 8 for 1.61 miles to the station on the right (east). The station is located 85.4 feet northeast of the west support post of a sign reading "Expressway Ends", 63.5 feet north of the extended centerline of a 48 inch ACCMP, 43.3 feet southwest of the north end of a wire rope rail, and 9.5 feet east of the east edge of the bituminous pavement.

**NOTES:** All baseline measurements are not corrected for sea level or scale factors.

METRIC CONVERSION CONSTANTS

1 Meter = 3.28083333333333 Feet  
 1 Foot = 0.3048006096 Meter

RECOVERY NOTES		
DATE	ORGANIZATION	CONDITION
8/19/92	CTGS	Good



# CONNECTICUT GEODETIC SURVEY

TOWN Winchester COUNTY Litchfield STATION 6515  
DATE SET August 1992 QUADRANGLE 410731 Winsted ORDER OF ACCURACY  
DATE DESCRIBED August 1992 USGS MAP Winsted Horizontal  
COMPUTATION VOLUME \_\_\_\_\_ BOOKS V-1 Vertical 2nd  
R.O.W. MAP \_\_\_\_\_

## NATIONAL GEODETIC SURVEY — CALIBRATION BASE LINE DATA

FROM STATION	ELEVATION FEET	TO STATION	ELEVATION FEET	HORIZONTAL DISTANCE FEET	DISTANCE METERS	SLOPE FEET	DISTANCE METERS	STANDARD ERROR FEET
6512	796.511	6513	798.437	492.140	150.0046	492.144	150.0058	.0003
6512	796.511	6514	790.943	2,952.687	899.9807	2,952.692	899.9823	.0003
6512	796.511	6515	793.112	3,937.007	1,200.0021	3,937.008	1,200.0025	.0006
6513	798.437	6514	790.943	2,460.547	749.9761	2,460.558	749.9796	.0003
6513	798.437	6515	793.112	3,444.867	1,049.9975	3,444.871	1,049.9987	.0003
6514	790.943	6515	793.112	984.320	300.0213	984.322	300.0220	.0003

ELEVATION		OBJECT	DISTANCE FEET	DIRECTION	PLANE AZIMUTH
Mean Sea Level Datum	Comments				

Feet 793.113  
Meters 241.741  
Date May 1993

NGVD 29  
Town Misc.

TOWN Winchester

STATION 6515

**DESCRIPTION:** The Station Mark is a standard CTGS brass disk, stamped 6515, set into the top of a square reinforced concrete post which is recessed 12 inches below the ground. The underground mark is a standard CTGS brass disk, stamped 6515, set into an irregular mass of concrete which is 5 feet below the surface of the ground.

To reach the station from the intersection of CT. Route 8 (northbound) and Pinewoods Road (exit 46) in Torrington, proceed north on CT. Route 8 for 1.78 miles to the station on the right (east). The station is located 53.0 feet west of a 6 inch white birch tree, 25.3 feet northwest of a 7 inch white pine tree, 4.5 feet east of the east edge of the bituminous pavement, and 135.0 feet southwest of the top center of a TYPE C catch basin.

**NOTES:** All baseline measurements are not corrected for sea level or scale factors.

METRIC CONVERSION CONSTANTS

METER = 3.2808333333333 Feet  
Foot = 0.3048006096 Meter

RECOVERY NOTES		
DATE	ORGANIZATION	CONDITION
8/19/92	CTGS	Good

