EXHIBIT E

ENGINEERING STATEMENT
APPLICATION FOR MODIFICATION OF
DIGITAL TV TRANSLATOR
COMPANION CHANNEL
CONSTRUCTION PERMIT
K64EM, CASTLE ROCK ETC., MONTANA
CHANNEL 45 9.4 KW MAX ERP 1463.7 METERS RC/AMSL

AUGUST 2009

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, a Registered Professional Engineer in the District of Columbia, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Martin R. Doczkat
District of Columbia
Professional Engineer
Registration No. PE905122

Subscribed and sworn to before me this 21st day of August, 2009.

Notary Public

My Commission Expires: 2/28/2013

Introduction

This engineering statement has been prepared on behalf of KTVQ Communications, Inc. ("KTVQ"), licensee of television translator station K64EM (K45KO-D), Castle Rock, Etc., Montana (Facility ID 35695 and 168263). This statement supports the licensee's request for modification of its digital companion channel construction permit to be operated simultaneously with K64EM's authorized channel 29 analog facility.

KTVQ filed an application (FCC File No. BSFDTT-20060630CFQ) for a digital television translator companion channel during the Auction 85 filing window and the application has been identified as mutually exclusive ("MX") in group number MX163 in the FCC Public Notice, dated October 17, 2006. The proposed application was deemed MX with the digital companion channel 46 application for K06JU, Howard, Montana, filed by Forsyth TV Tax District (FCC File No. BSFDTT-20060630CVF). KTVQ has resolved the MX scenario by specifying a directional antenna and filed an amendment to the Auction 85 application (FCC File No. BSFDTT-20060630CFQ) with the requested parameters.

K64EM is authorized in its construction permit for digital TV translator facilities (FCC File No. BDCCDTL-20070521ACH) on channel 45 with an effective radiated power ("ERP") of 15 kW (directional) at a radiation center above mean sea level ("RCAMSL") of 1463.7 meters. K64EM proposes herein to modify its authorized facilities on Channel 45 with an ERP of 9.4 kW (directional) at a RCAMSL of 1463.7 meters.

Transmitter Site

The geographic coordinates of the transmitter site are as follows:

North Latitude: 45° 50' 24"

West Longitude: 106° 54' 39"

NAD-27

The existing tower is less than 200 feet and TOWAIR indicates that the structure does not require registration. There are no airports within 8 kilometers (5 miles) of the existing site.

Technical Specifications

Antenna Location Site Elevation Above Mean Sea Level	1433 meters (4701.4 feet)
Overall Tower Height Above Ground Level	33.1 meters (108.6 feet)
Height of Radiation Center Above Ground Level	30.7 meters (100.7 feet)
Height of Radiation Center Above Mean Sea Level	1463.7 meters (4802.2 feet)
Maximum Effective Radiated Power	9.4 kW
Transmitter Output Power	1.0 kW
Out-of-Channel Emission Mask:	Simple

Directional Pattern

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1.0	60	0.99	120	0.68	180	0.241	240	0.68	300	0.99
10	0.985	70	0.997	130	0.605	190	0.253	250	0.758	310	0.959
20	0.951	80	0.975	140	0.51	200	0.302	260	0.845	320	0.929
30	0.925	90	0.922	150	0.397	210	0.397	270	0.922	330	0.925
40	0.929	100	0.845	160	0.302	220	0.51	280	0.975	340	0.951
50	0.959	110	0.758	170	0.253	230	0.605	290	0.997	350	0.985

Rotation = 180°

Antenna Type

Antenna: ERI, AL8-W (or equivalent) with maximum gain of 11.34 dB and 1.75° electrical beam tilt

Transmission Line: ERI HJ5-50
150 feet (Attenuation 1.013 dB/100 feet)

Efficiency: 70.5% (Loss of 1.52 dB)

Other Broadcast Facilities

A brief analysis was completed to determine the presence of stations in the vicinity of the K64EM tower using data contained within the Commission's Consolidated Database System ("CDBS") from May, 2007. Within 0.5 km of the proposed site, there is one authorized FM radio stations, no DTV and NTSC television stations, and five low-power analog or digital television or television translator stations other than the authorized K64EM facility. There are no AM facilities within 3.22 km of the existing tower. Although no adverse technical effects are expected due to

the proposed changes, the licensee will take measures to resolve any problems proven to be related to the changes proposed in this application.

Interference Analysis

A study of predicted interference caused by the proposed K64EM digital translator operation has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at http://www.fcc.gov/oet/dtv/dtv_apps.html. The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Microsoft Windows XP platform. Comparison of service/interference areas and population indicates this model closely matches the FCC's digital low-power TV/translator evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using 3-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2000 census centroids, all studies are based upon data in the current CDBS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed K64EM digital translator facilities and all relevant stations listed in the FCC database as of August 25, 2009. The study results and the included stations are listed in Exhibit E-2.

FCC Rule, Section 1.1307

The proposed 15 kW directional operation will utilize a ERI, AL8-W antenna (or equivalent) described above with a center of radiation above ground of 30.7 meters. The antenna will be top-mounted on an existing tower with an overall height of 33.1 meters above ground. The proposed digital operation of K64EM will create a radio frequency field level of 5.9 $\mu W/cm^2$ at the

base of the tower. This level is less than 1.3% of the Maximum Permissible Exposure ("MPE") level for the general population and uncontrolled environment.

Authorized personnel and rigging contractors will be alerted to the potential zone of high radio frequency field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on or near the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the applicant indicates:

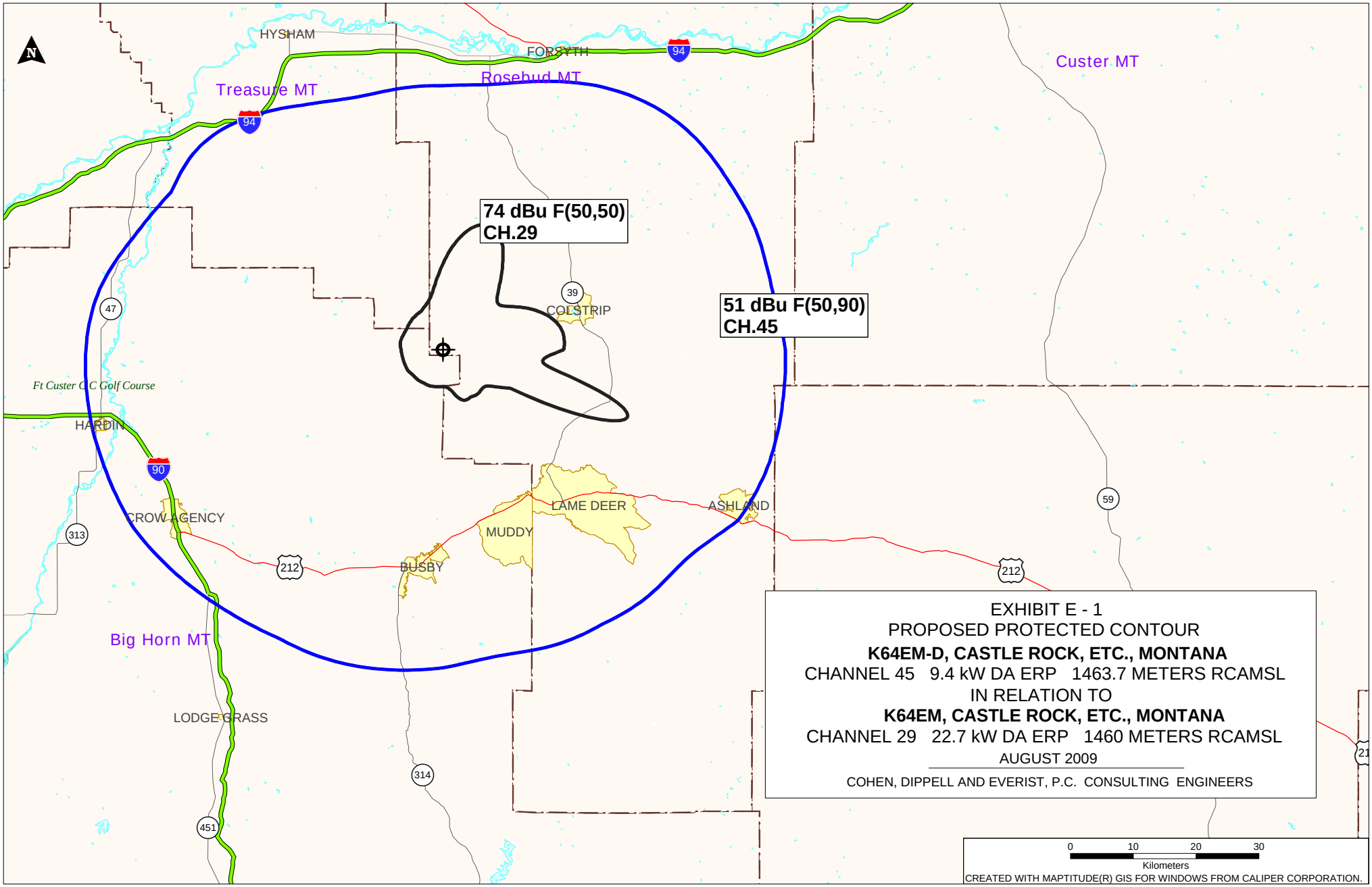
(a)(1)	The existing tower is not located in an officially designated wilderness area.
(a)(2)	The existing tower is not located in an officially designated wildlife preserve.
(a)(3)	The proposed facilities will not affect any listed threatened or endangered species or habitats.
(a)(3)(ii)	The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
(a)(4)	The proposed facilities will be located on a tower which was built prior to the adoption of WT Docket No. 03-128 and will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
(a)(5)	The existing tower is not located near any known Indian religious sites.

(a)(6) The existing tower is not located in a flood plain.

(a)(7) The installation of the DTV facilities on an existing tower will not involve a significant change in surface features of the ground in the vicinity of the tower.

(a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.

(b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.


N
HYSHAM
FORSYTH
Rosebud MT
Treasure MT
Custer MT
94
74 dBu F(50,50)
CH.29
51 dBu F(50,90)
CH.45
39
COLSTRIP
47
Ft Custer C C Golf Course
HARDIN
90
CROW AGENCY
313
212
BUSBY
MUDDY
LAME DEER
ASHLAND
59
Big Horn MT
LODGE GRASS
314
451
EXHIBIT E - 1
PROPOSED PROTECTED CONTOUR
K64EM-D, CASTLE ROCK, ETC., MONTANA
CHANNEL 45 9.4 kW DA ERP 1463.7 METERS RCAMSL
IN RELATION TO
K64EM, CASTLE ROCK, ETC., MONTANA
CHANNEL 29 22.7 kW DA ERP 1460 METERS RCAMSL
AUGUST 2009
COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
0 10 20 30
Kilometers
CREATED WITH MAPTITUDE(R) GIS FOR WINDOWS FROM CALIPER CORPORATION.

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2
LONGLEY-RICE ANALYSIS
FOR THE PROPOSED DIGITAL OPERATION OF
K64EM, CASTLE ROCK, ETC., MONTANA
CHANNEL 45 9.4 KW DA ERP 1463.7 METERS HAAT
AUGUST 2009

Channel	Call	City/State	Dist(km)	Status	FCC File No.	Result
44	K44JG	BILLINGS MT	127	CP	BNPTTL-20000831EKF	0.00%
44	K44DM	HOWARD MT	54.9	LIC	BLTT-19920413JF	No interference
45	K45JQ-D	BILLINGS MT	115.7	CP	BDCCDTL-20061004AAP	0.06%
45	K45KS	BILLINGS MT	120	LIC	BLTTL-20090428AAV	No interference
45	K45EB	BOZEMAN, ETC. MT	339	LIC	BLTTL-19950815JF	0.00%
45	K45CH	GLASGOW MT	247.9	LIC	BLTT-19890313IB	No interference
45	KTGF	GREAT FALLS MT	391.6	CP MO	BMPCDT-20041119ADX	No interference
45	K45CS	LEWISTOWN MT	249.8	LIC	BLTTA-20071012ASU	No interference
45	K45CS	LEWISTOWN MT	249.8	CP	BDFCDTA-20090223ABA	No interference
45	K45KQ	CASPER WY	347.3	CP	BNPTTL-20000829APE	0.00%
45	K45BW	CODY WY	205	LIC	BLTT-19890131IO	No interference
46	K46KB-D	HOWARD MT	53.8	CP	BDCCDTT-20070517ADW	1.81%

Section III - Engineering (Digital)

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel: 45

2. Translator Input Channel No. 10

3. Station proposed to be rebroadcast:

Call Sign	City	State	Channel
KTVQ	Billings	MT	10

4. Antenna Location Coordinates: (NAD 27)

45 ° 50 ' 24 " [X] N [ ] S Latitude

106 ° 54 ' 39 " [ ] E [X] W Longitude

5. Antenna Structure Registration Number: _____

[X] Not applicable See Explanation in Exhibit No. [ ] FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 1433 meters

7. Overall Tower Height Above Ground Level: 33.1 meters

8. Height of Radiation Center Above Ground Level: 30.7 meters

9. Maximum Effective Radiated Power (ERP): 9.4 kW

10. Transmitter Output Power: 1.0 kW

11. a. Transmitting Antenna: [ ] Nondirectional [X] Directional ("Off-the-Shelf") [ ] Directional composite

Manufacturer	Model
AND	AL8W

b. Electrical Beam Tilt: 1.75 degrees [ ] Not applicable

c. Directional Antenna Relative Field Values:

Rotation: 180 ° ☐ No rotation ☒ N/A (Nondirectional) or Directional "Off-the-Shelf"

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0		60		120		180		240		300	
10		70		130		190		250		310	
20		80		140		200		260		320	
30		90		150		210		270		330	
40		100		160		220		280		340	
50		110		170		230		290		350	
Additional Azimuths											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. **Out-of-Channel Emission Mask:** Simple X Stringent ☐

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030.

☒ Yes ☐ No See Explanation in Exhibit No.

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.,* the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.**

☒ Yes ☐ No See Explanation in Exhibit No.

Exhibit No. E

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

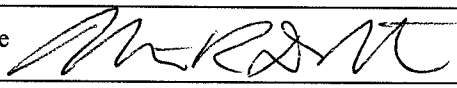
16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,

☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.

☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Martin R. Doczkat		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer
Signature 		Date August 21, 2009
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

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