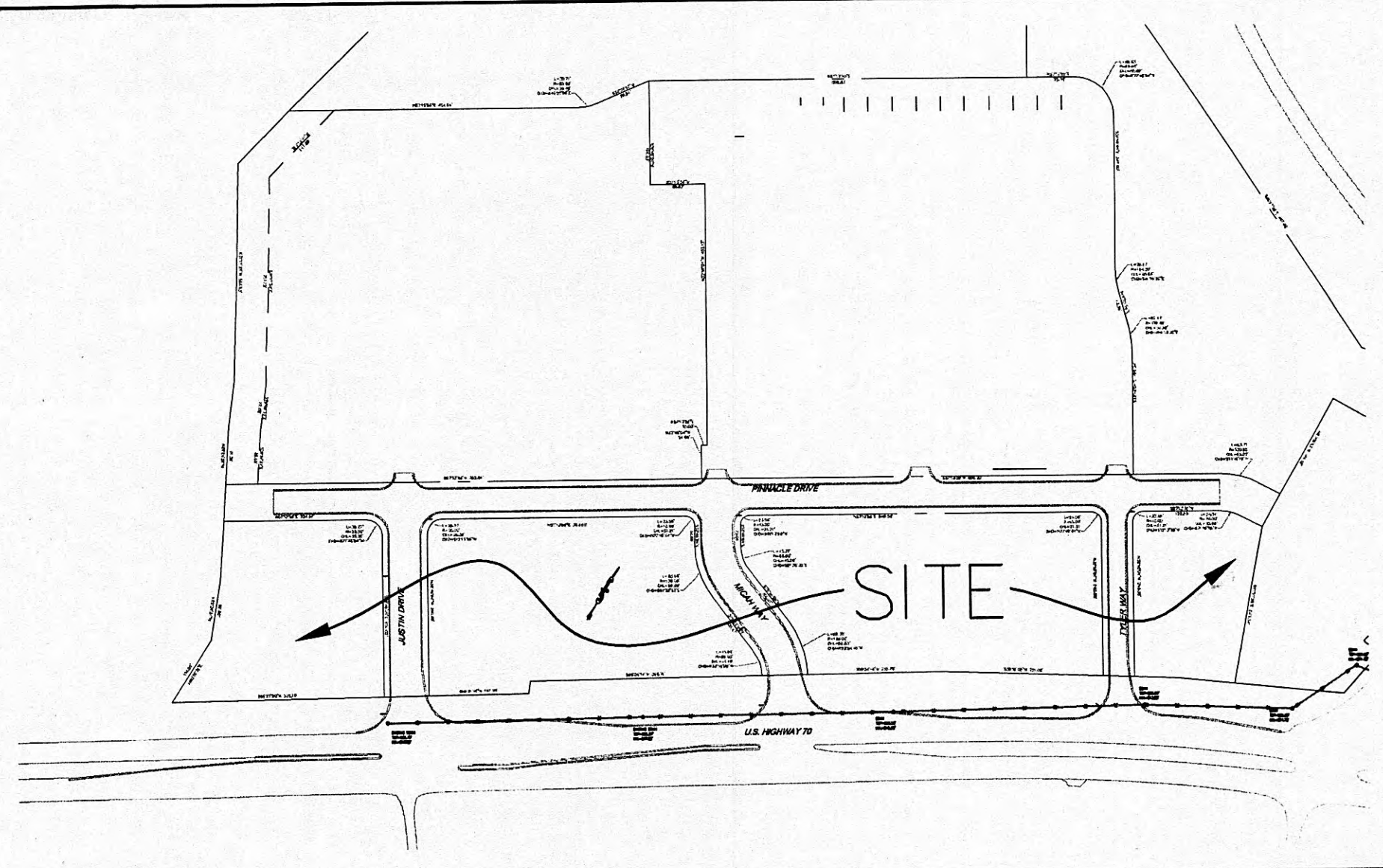
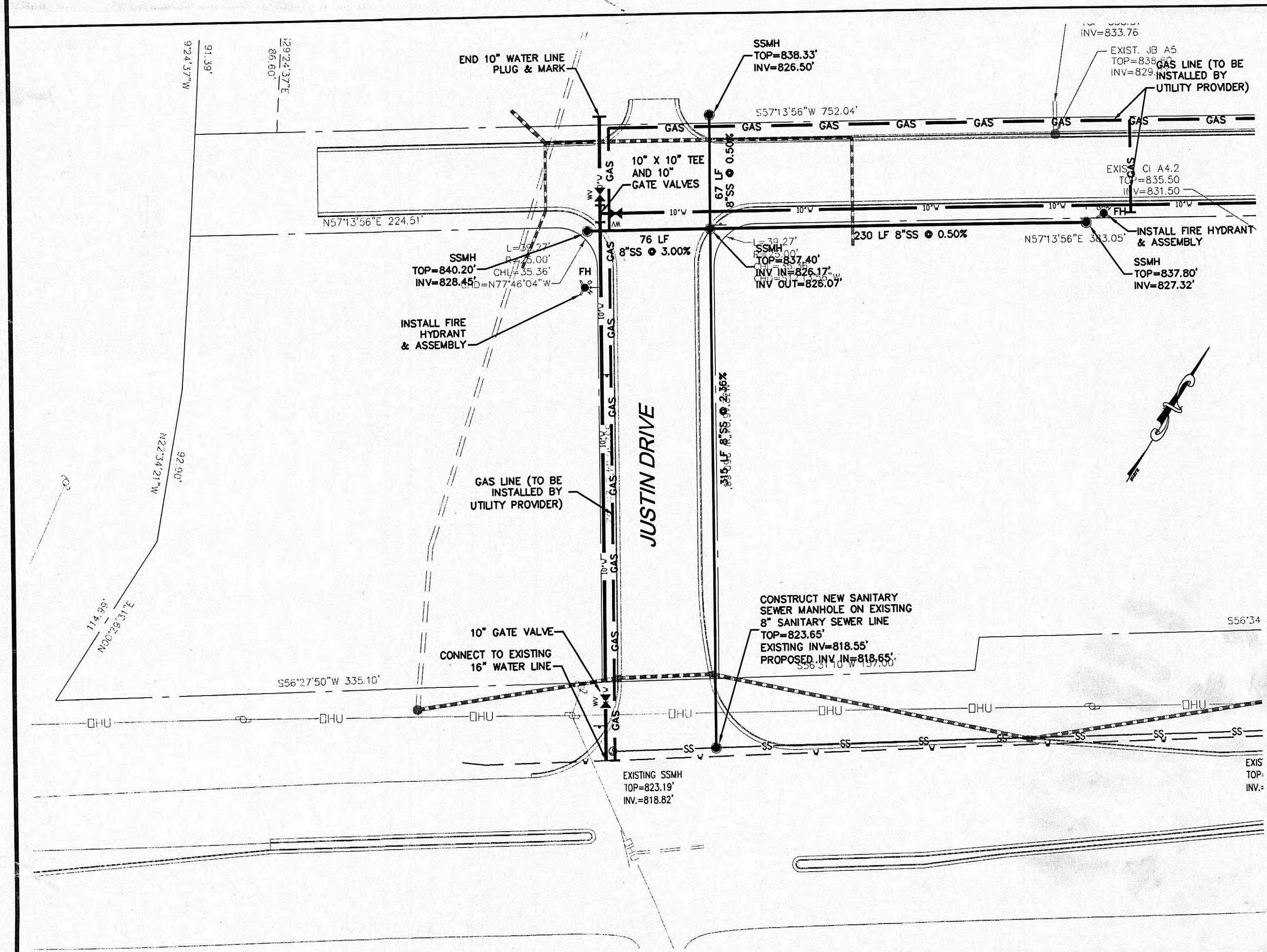
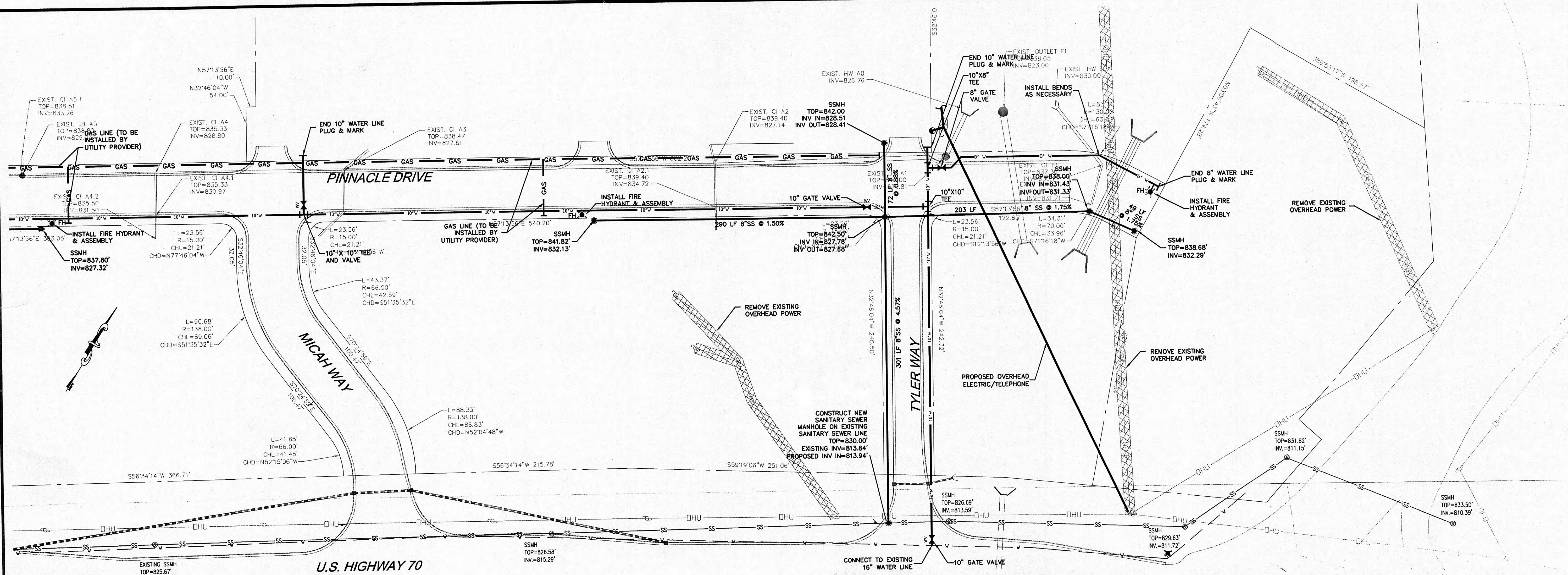




SITE MECHANICAL DETAIL REFERENCE SCHEDULE		
MARK	REFERENCED ITEM	COMMENT
SSMH	SANITARY SEWER MANHOLE	



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GRAPHIC SCALE
0 50 100 150 200
(IN FEET)
1 inch = 50 ft.

Infrastructure Utility Plan

Pinnacle Pointe Development

US Highway 70 at Pine Ridge Road

Harriman, Tennessee

Owner: City of Harriman

STP
INCORPORATED
Site Infrastructure Transportation Engineers
2033 Casatic Lane, Suite 101
Knoxville, TN 37932
Phone: (865) 692-5010
Fax: (865) 692-5868

DRAWN BY:	Imm	DATE:	01/30/03
CHECKED BY:	geb	FILE:	1197off site util.dwg
REVISIONS			
NO.	DATE	COMMENTS	

C5.0

HARRIMAN UTILITY BOARD

Roane County, Tennessee

STREET LIGHTING & ELECTRICAL IMPROVEMENTS

CONTRACT 105

2005

LOCATION MAP



PROJECT AREA

SHEET INDEX

TITLE SHEET	
LIGHTING PLAN	E-1.1
LIGHTING PLAN & DETAILS	E-1.2
LIGHTING PLAN	E-1.3
LIGHTING PLAN & DETAILS	E-1.4
LIGHTING PLAN	E-1.5
LIGHTING PLAN	E-1.6
LIGHTING PLAN	E-1.7

Norris & Associates
ENGINEERS, INC.



NORRIS & ASSOCIATES ENGINEERS, INC.
100 WILLOWWOOD PKWY
SUITE 200
DUNSTON, TN 37058
PHONE: 615-584-0061
FAX: 615-584-0061
615-584-0061

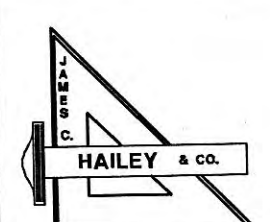
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EDA PROJECT NO. 04-01-05424

SET NUMBER

JCH PROJECT NO. 03225



JAMES C. HAILEY & CO. 2622 OLD LEBANON ROAD - SUITE 200 NASHVILLE, TENNESSEE

A circular sign with a black border. Inside, there is a black silhouette of a lit match and a cigarette. A large black diagonal line runs from the top-left to the bottom-right, crossing out the symbols. This is a standard international symbol for 'No Smoking'.

MEMBER ASSOCIATION

**NORRIS &
ASSOCIATE
ENGINEERS
INC.**

7031 WOODLAND PARK
SUITE 100
KNOXVILLE, TN
37903

PHONE NUMBER:
865-584-3063
865-584-3064

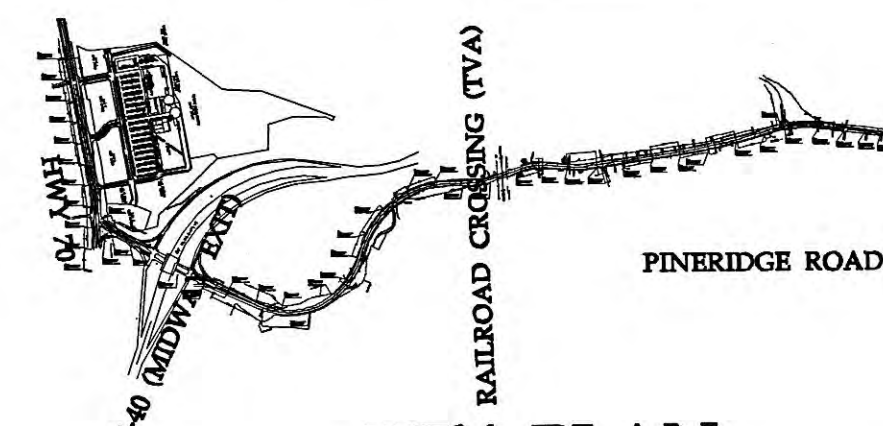
FAX NUMBER:
865-584-3065

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Transformer Schedule			
Designation	KVA Rating	Mounting	L.V.
T-1	15	Pole	120/240 V.
T-2	15	Pole	120/240 V.
T-3	15	Pole	120/240 V.
T-4	15	Pole	120/240 V.
T-5	15	Pole	120/240 V.

1. CONTRACTOR SHALL INCLUDE ALL SURVEY MARK SPECIFIED TO STAKE OUT ALL NEW POLES LOCATIONS AS NOTED ON THE DRAWINGS FOR ALL NEW LOCATIONS AND FOR THE COLLECTION, LATER VERIFICATION OF ALL HARMAN UTILITIES AND ENGINEER PRIOR TO INSTALLING ALL POLES.
2. THE CONTRACTOR MUST CONTACT "TENNESSEE CALL ONE" AFTER THE POLE LOCATION HAVE BEEN SURVEYED AND BEFORE ANY POLES BASES AND UNDERGROUND CONDUITS ARE INSTALLED.
3. CONTRACTOR SHALL EXTEND ALL UNDERGROUND CONDUITS AND CONDUCTORS FEEDING POLES AND FIXTURES TO AND UP EXISTING TRANSFORMER POLES. FOR ALL CONNECTIONS TO TRANSFORMERS SHALL BE BY CONTRACTOR AS PER HARMAN UTILITIES SPECIFICATIONS. SEE DETAIL ON SHEET E-4.
4. ALL UNDERGROUND CONDUITS AND CONDUCTORS SHALL BE INSTALLED A MINIMUM OF 36" DEEP IN SCHEDULE 40 PVC CONDUITS AND CONDUITS SHALL BE COPPER WITH THINN INSULATION. SEE DETAIL ON SHEET E-4.
5. CONTRACTOR SHALL INSTALL ALL OVERHEAD CONDUITS AND CONDUCTORS 22'-22" ABOVE ROADWAY FINISHED GRADE TO CLEAR ALL TRAFFIC.
6. THE CONTRACTOR MUST PROVIDE AND INSTALL ALL NECESSARY BOLTS, STRAIN RELIEF BRACKETS & SUPPORTS. CONNECTIONS INCLUDING BUT NOT LIMITED TO FIXTURES AND POLE-MOUNTED TRANSFORMERS.
7. CONTRACTOR SHALL PROVIDE AND INSTALL ANY GUY WIRES AND ANCHORS TO NEW OR EXISTING POLES NECESSARY AFTER ALL NEW OVERHEAD INSULATION HAS BEEN PROVIDED. ALL GUY WIRE SHALL BE A MINIMUM OF ONE GUY WIRE AND ANCHOR FOR EACH POLE AT THE END OF EACH RUN.
8. CONTRACTOR SHALL PROVIDE AND INSTALL NEW POLE MOUNTED TRANSFORMERS AS NOTED ON EXISTING WIRING OR METAL POLES AS NOTED. CONTRACTOR SHALL MAKE HIGH VOLTAGE CONNECTIONS TO EXISTING TRANSFORMERS. ALL NEW POLE MOUNTED TRANSFORMERS SHALL BE MOUNTED AT HEIGHT AND VERIFY PHASE CONNECTION. CONNECTIONS WITH NEW TRANSFORMERS SHALL BE AS PER FOREMAN PRIOR TO INSTALLATION. SEE DETAIL ON SHEET E-4.
9. CONTRACTOR SHALL PROVIDE AS PART OF THE CONTRACTOR SHALL 225 VOLT 3 PHASE FAD-MOUNTED TRANSFORMERS FOR THE FUTURE RETAIL SHOPS IN PINNACLE POINT SHOPPING CENTER. CONTRACTOR SHALL MAKE ALL WIRING CONNECTIONS TO TRANSFORMERS AND SHALL BE TO HARMAN UTILITIES BOARD TRANSFORMER YARD. VERIFY EXACT LOCATION WITH HARMAN UTILITIES BOARD LEAD LINE FOR EXISTING TRANSFORMERS.



KEY PLAN
SCALE: NONE

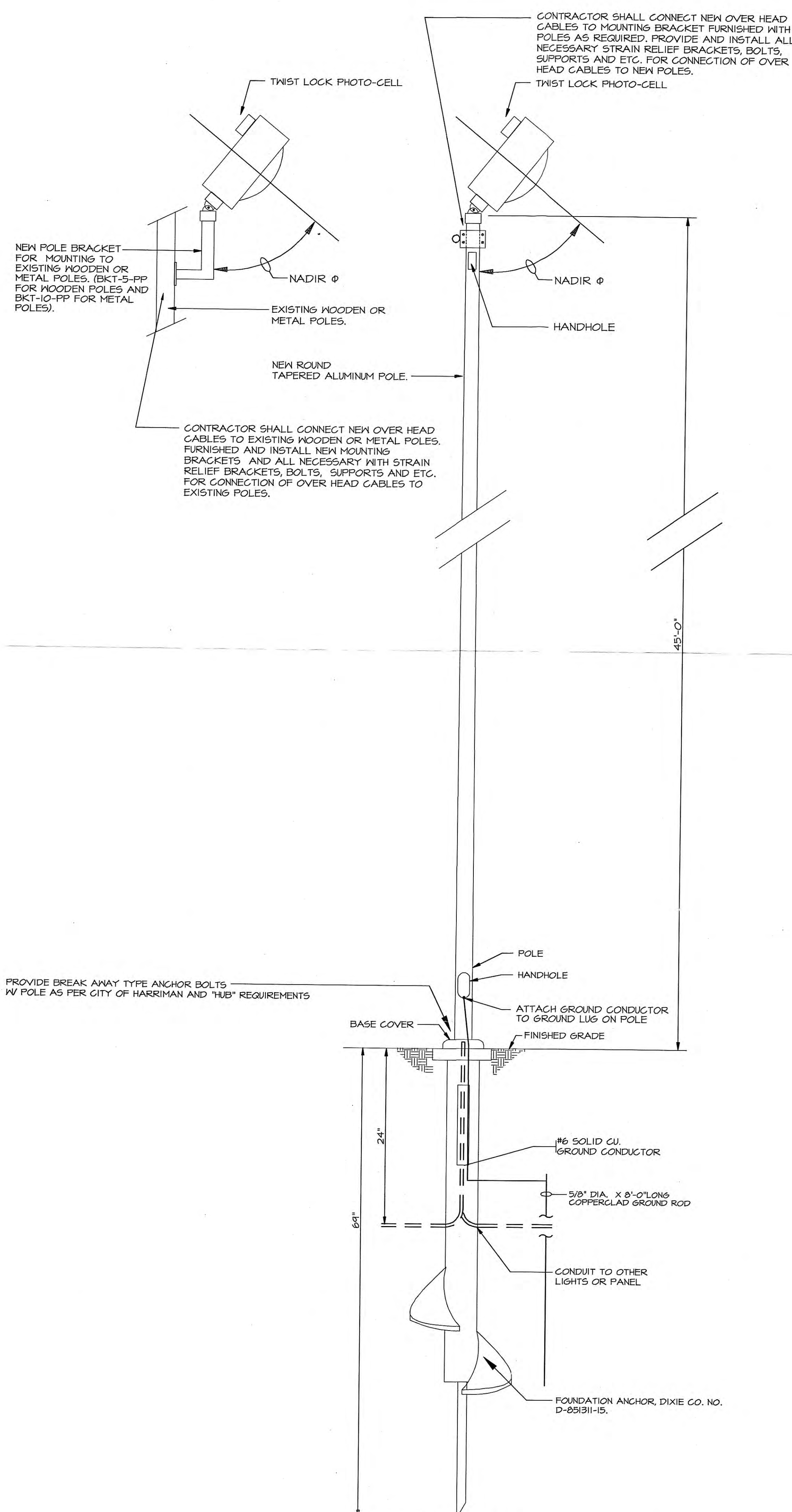
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Street Lighting Plan
Pineridge Road at Highway 70

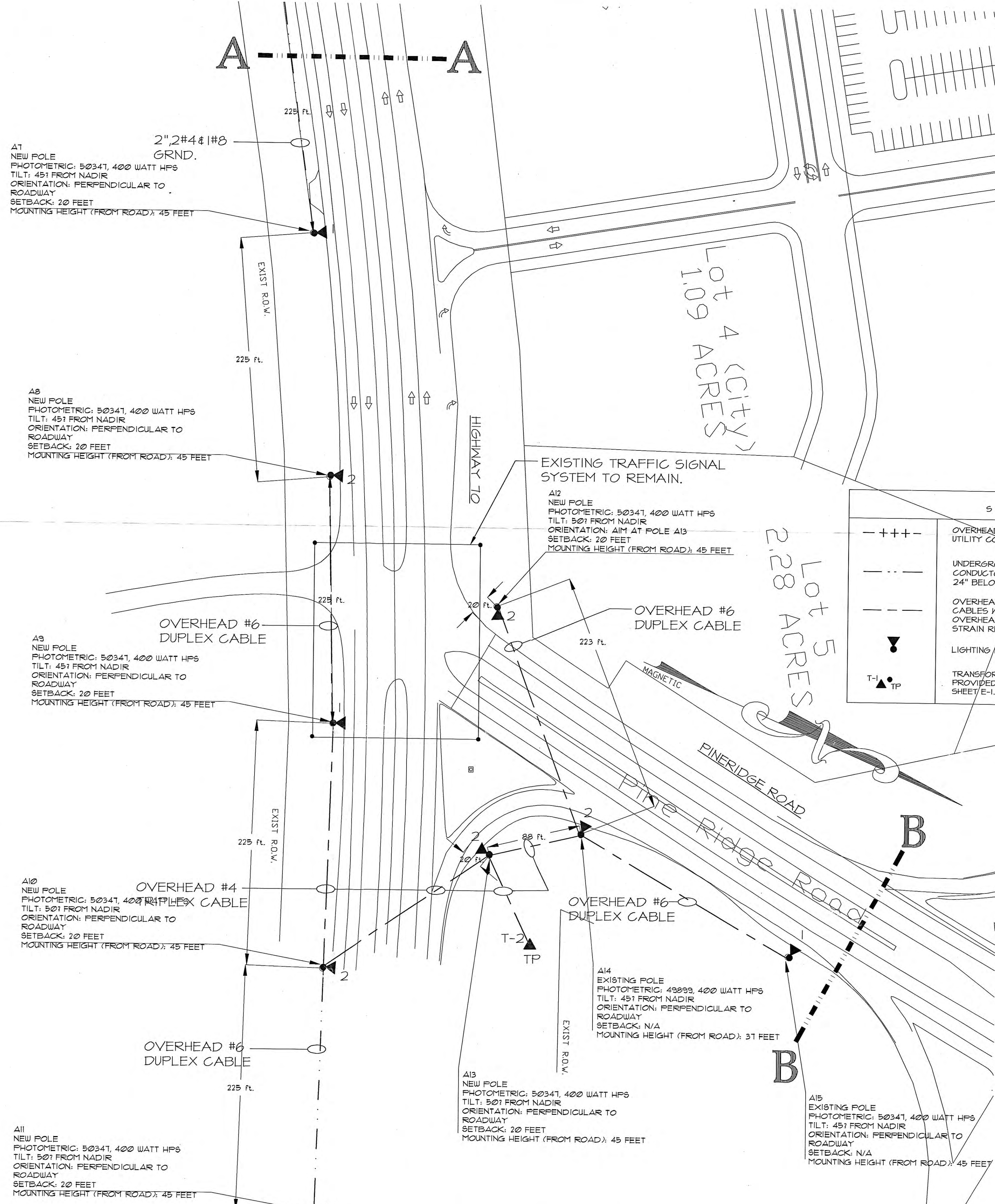
City of Harriman
Utility Board
Harriman, Tennessee

DRAWN BY
JDD
CHECKED BY
KEN
DATE
Febuary 1, 2005
SCALE
1'-0"=50'
JOB NO.
05002

E-1.1



FIXTURE DETAIL
NO SCALE ED-43



SITE LEGEND

---+---	OVERHEAD PRIMARY CONDUCTOR FURNISHED & INSTALLED BY UTILITY COMPANY. PAY ALL FEES.
---	UNDERGROUND LIGHTING CIRCUIT; 2" PVC CONDUIT UNLESS NOTED LARGER. RUN 24" BELOW GRADE.
---	OVERHEAD LIGHTING CIRCUIT; DUPLEX OR TRIPLEX OVERHEAD CABLES WITH STEEL SUPPORT MESSAGER CABLE. ATTACHED OVERHEAD CABLES TO NEW OR EXISTING LIGHT POLES WITH STRAIN RELIEF SUPPORTS AS REQUIRED.
▲	LIGHTING FIXTURE, SEE SCHEDULE.
T-1 TP	TRANSFORMER POLE WITH POLE MOUNTED TRANSFORMER, PROVIDED AND INSTALLED BY CONTRACTOR. SEE SCHEDULE ON SHEET E-11.

LIGHTING PLAN
SCALE: 1" = 50'-0"

EDA PROJECT NO. 04-01-05424



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NATIONAL FIRE PROTECTION ASSOCIATION MEMBER



NORRIS & ASSOCIATES
ENGINEERS
INC.
100 WILSON ROAD
SUITE 100
DUNSTON, TN 37058
PHONE: 615-584-3000
FAX: 615-584-3004
WWW.NORRIS-ENGINEERS.COM

KEY PLAN
SCALE: NONE

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REVISIONS	BY

Street Lighting Plan
Pineridge Road at Highway 70

City of Harriman
Utility Board
Harriman, Tennessee

DRAWN BY
JDD
CHECKED BY
KEN
DATE
February 1, 2005
SCALE
1'-0"=50'
JOB NO.
05002
SHEET

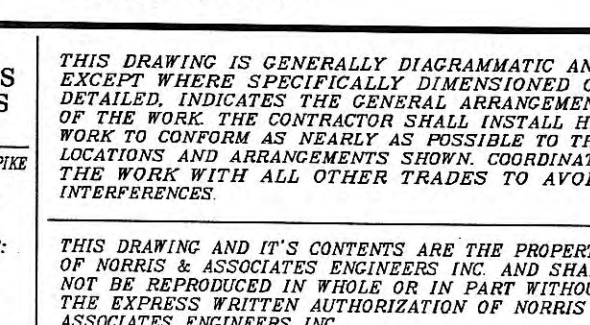
E-1.2

City of Harriman
Utility Board
Harriman, Tennessee

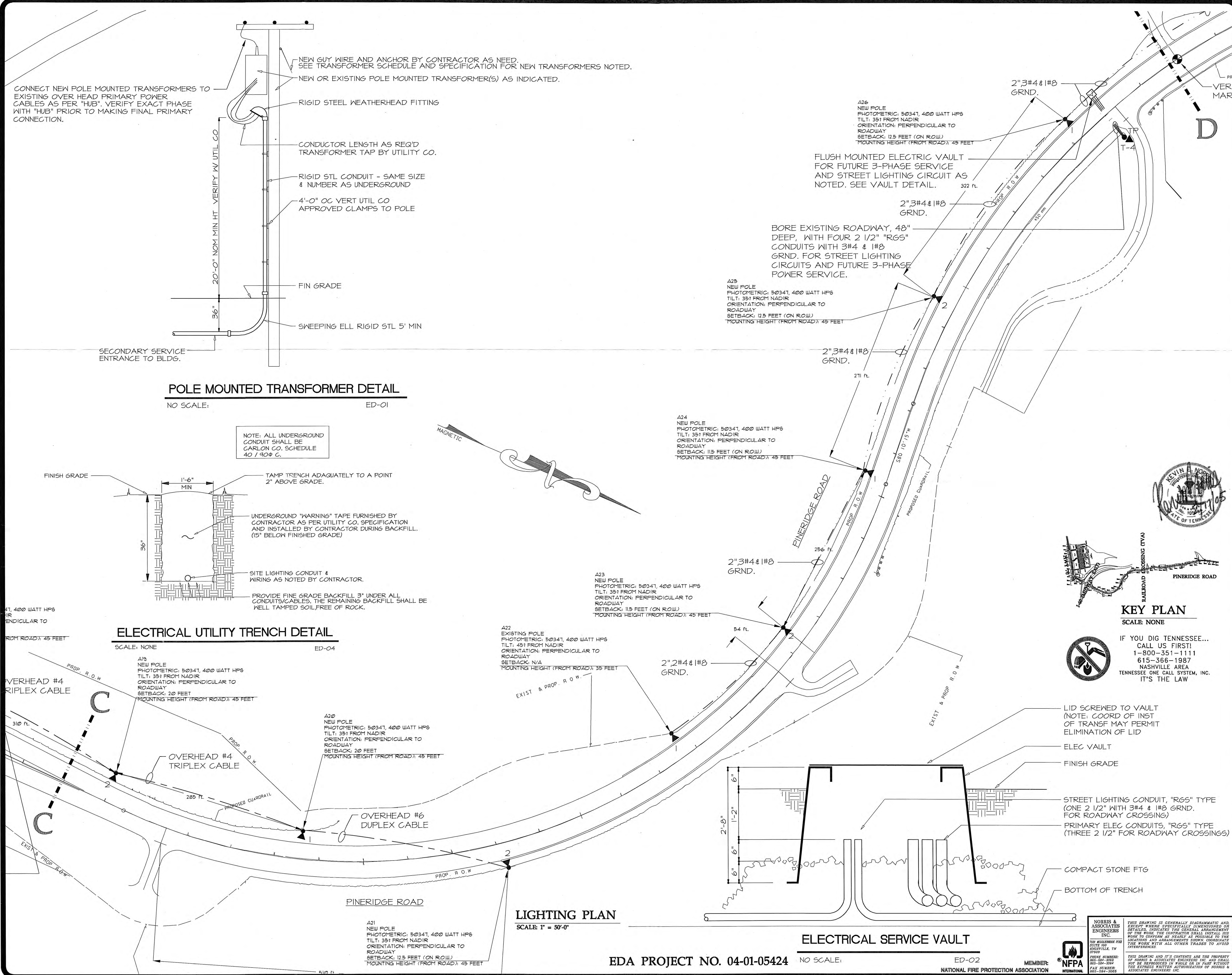
Street Lighting Plan
Pineridge Road at Highway 70

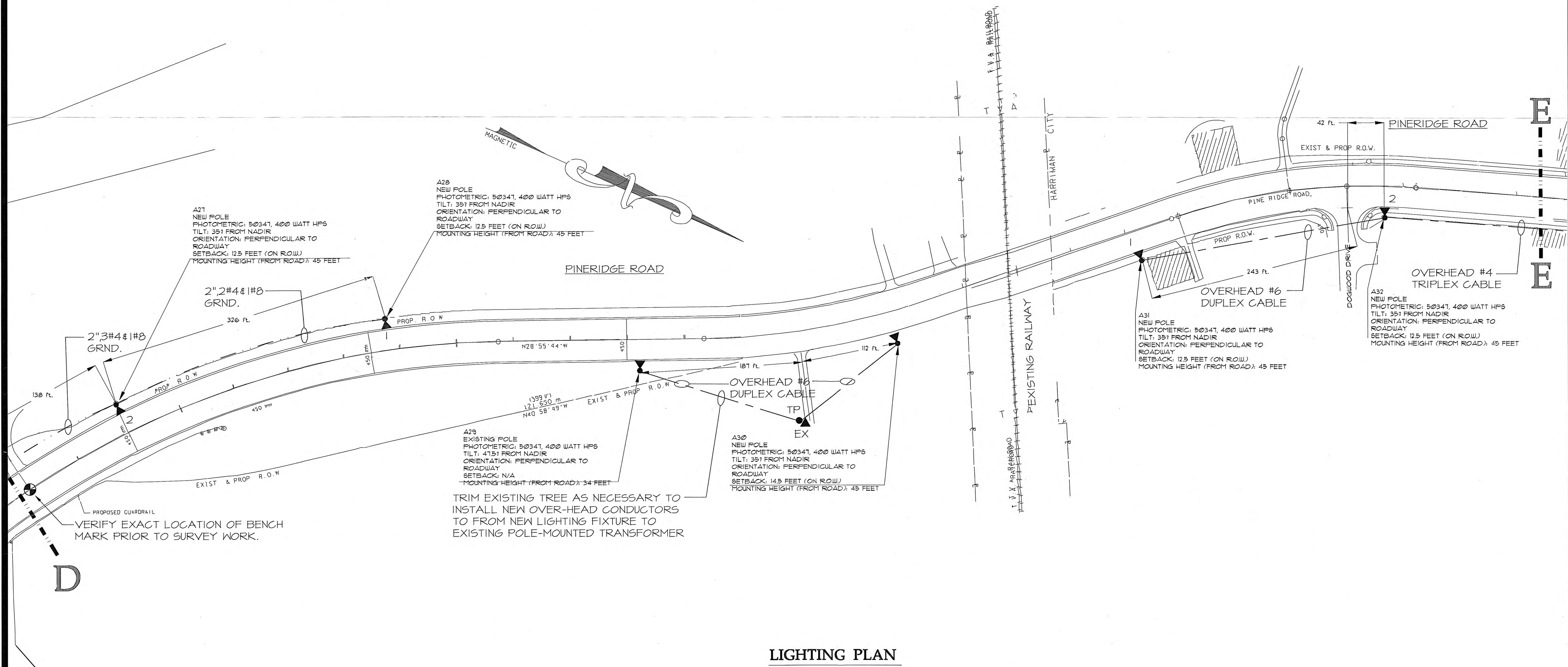
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CHECKED BY KEN
DATE February 1, 2005
SCALE 1"=50'
JOB NO. 05002
SHEET

E-1.3



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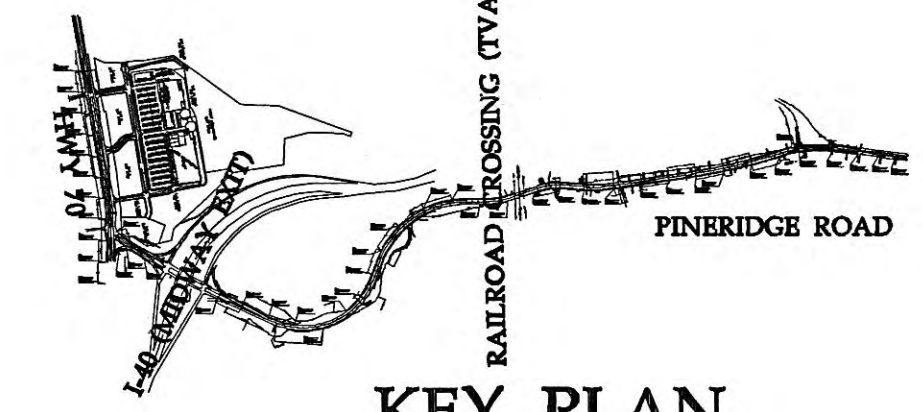




LIGHTING PLAN
SCALE 1" = 50'-0"



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615-366-1987
NASHVILLE AREA
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KEY PLAN
SCALE NONE

NORRIS & ASSOCIATES ENGINEERS INC.
1000 BULLSHOOT FIB
SUITE 100
NASHVILLE, TN 37203
PHONE: 615-366-1987
FAX: 615-366-1988
WWW.NORRIS-ENGINEERS.COM

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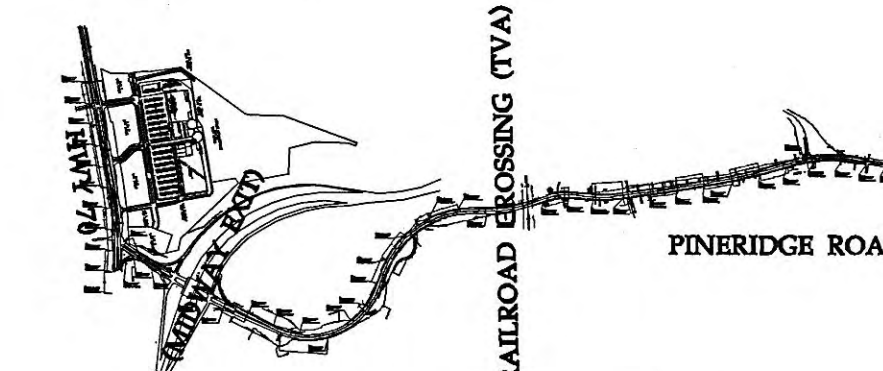
Street Lighting Plan
Pineridge Road at Highway 70

City of Harriman
Utility Board
Harriman, Tennessee

DRAWN BY	JDD
CHECKED BY	KEN
DATE	February 1, 2005
SCALE	1"=50'
JOB NO.	05002
SHEET	E-15

2/3
SHELDON'S
BOOK ROOM
MEETING IN PLAYROOM

**City of Harriman
Utility Board
Harriman, Tennessee**

1

SCALE: NONI

**NORRIS &
ASSOCIATES
ENGINEERS
INC.**

7521 MIDGLESBROOK F
SUITE 100
KNOXVILLE, TN
37909
PHONE NUMBERS
865-584-3063
865-584-3064
FAX NUMBER:

SCALE: NONE

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