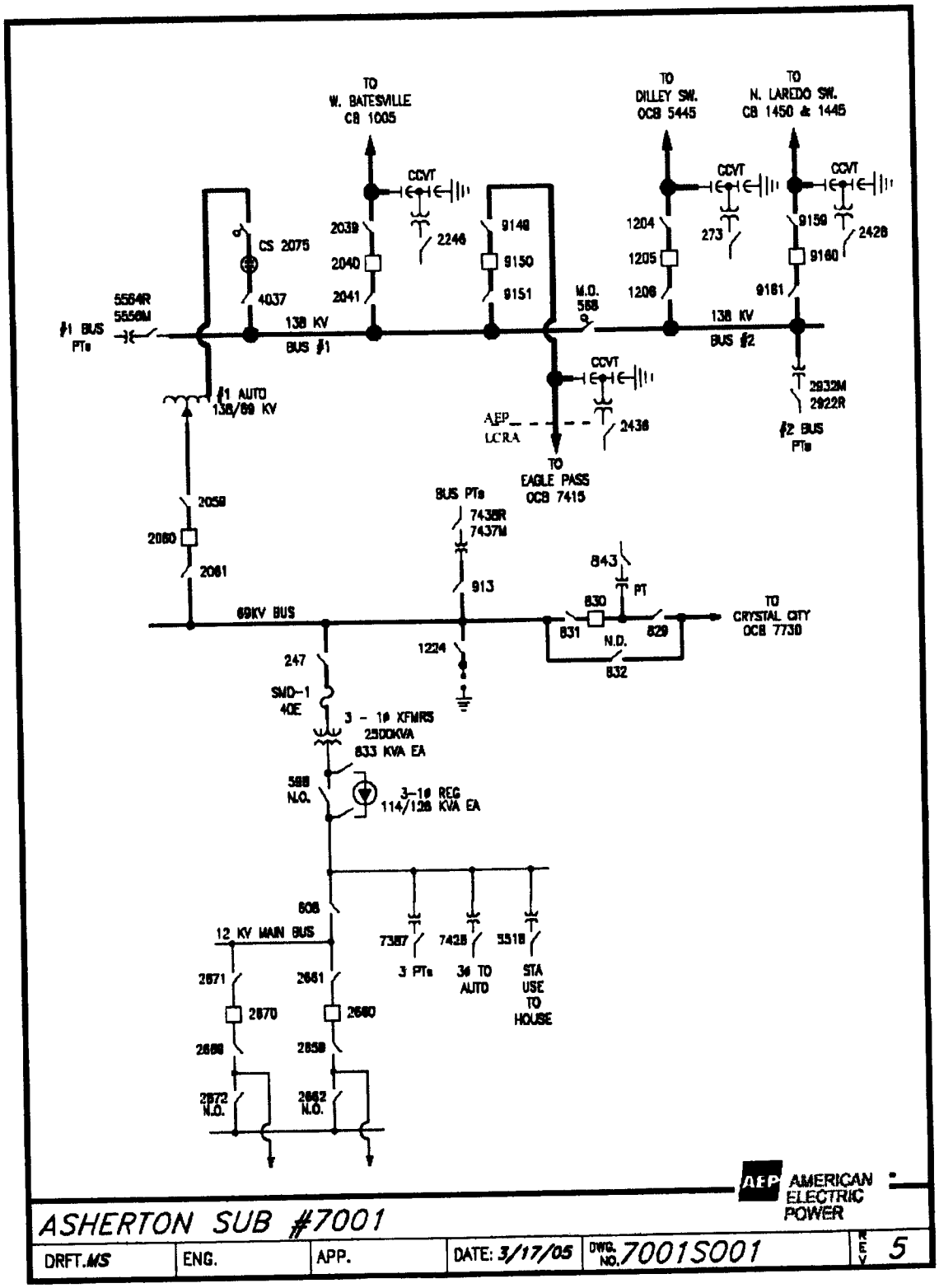

TO
W. BATESVILLE
CB 1005
TO
DILLEY SW.
OCB 5445
TO
N. LAREDO SW.
CB 1450 & 1445
CCVT
CS 2075
2039
2040
2041
2246
9148
9150
9151
1204
1205
1206
273
9159
9160
9161
2428
5564R
5565M
#1 BUS
PTs
4037
138 KV
BUS #1
M.O.
568
138 KV
BUS #2
#1 AUTO
138/69 KV
AEP
LCRA
2436
TO
EAGLE PASS
OCB 7415
2932M
2922R
#2 BUS
PTs
BUS PTs
7436R
7437M
2059
2060
2061
913
843
PT
830
831
N.O.
829
832
TO
CRYSTAL CITY
OCB 7730
69KV BUS
1224
247
SWD-1
40E
3 - 1Ø XFMRS
2500KVA
833 KVA EA
588
N.O.
3-1Ø REG
114/128 KVA EA
608
12 KV MAIN BUS
7387
7428
3518
3 PTs
3Ø TO
AUTO
STA
USE
TO
HOUSE
2671
2661
2670
2660
2668
2658
2672
N.O.
2662
N.O.
AEP AMERICAN ELECTRIC POWER
ASHERTON SUB #7001
DRFT. MS
ENG.
APP.
DATE: 3/17/05
DWG. NO. 7001S001
REV 5

FACILITY SCHEDULE NO. 26

1. Name: **Conoco Chittam Ranch Tap**

2. Location: The transmission tap to the Conoco Chittam Ranch Substation is located approximately 5 miles south of the substation approximately 18 miles east of Eagle Pass, Texas in Maverick County. There are two Points of Interconnection at the Conoco Chittam Ranch. One is at the termination of the 138 kV transmission line from the Asherton Substation and the other is at the termination of the 138 kV transmission line from the Pueblo Substation. Both Points of Interconnection are at the point where the jumper conductors from the circuit switchers on the tap structure physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Conoco Chittam Ranch Substation and all the substation facilities within it
- the tap structure and associated 138 kV bus and circuit switchers that comprise the Conoco Chittam Ranch Tap
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Conoco Chittam Ranch Tap to Conoco Chittam Ranch Substation 138 kV transmission line
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the substation

LCRA owns the following facilities:

- insulators and hardware on the tap structure that terminate the 138 kV transmission lines from the Asherton and Pueblo stations
- the following transmission line(s) comprised of easements, structures, conductors, insulators, shield wires and connecting hardware:
  - Conoco Chittam Ranch Tap to Asherton 138 kV transmission line

- Conoco Chittam Ranch Tap to Pueblo 138 kV transmission line

8. Facility Operation and Maintenance Responsibilities of the Parties:

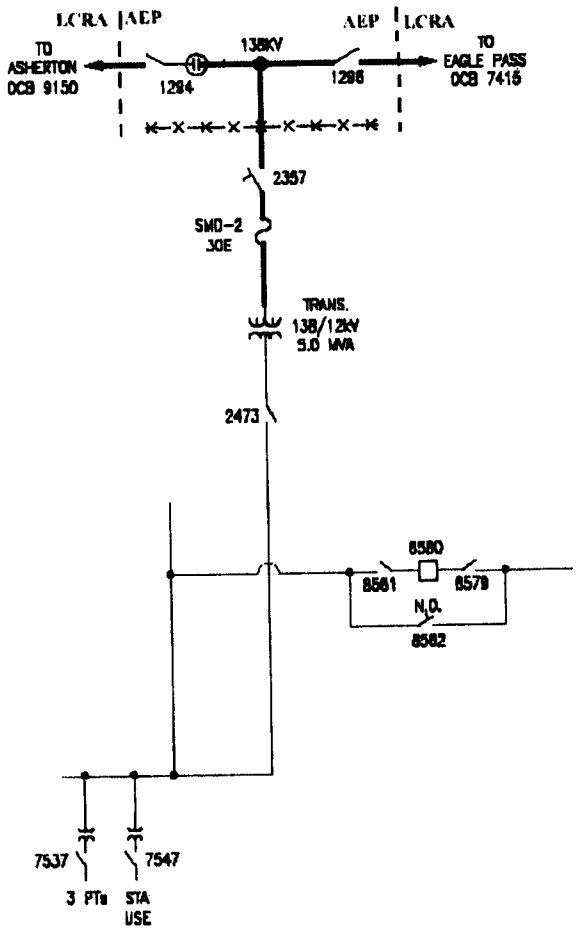
- AEP controls and operates the Conoco Chittam Ranch Substation, including all facilities within it.
- AEP controls and operates the Conoco Chittam Ranch Tap and all transmission lines that terminate into the tap.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

None



AEP AMERICAN ELECTRIC POWER

CONOCO-CHITTAM RANCH SUB #7053 - WEST

DRFT. MJS	ENG.	APP.	DATE: 3/03/06	DWG. NO. 7053S001	REV 3

FACILITY SCHEDULE NO. 27

1. Name: **Pueblo**

2. Location: The Pueblo Substation is located near Eagle Pass, Texas in Maverick County. There are two Points of Interconnection at the Pueblo Substation. One is at the termination of the 138 kV transmission line from the Conoco Chittam Ranch Tap and the other is at the termination of the 138 kV transmission line from the Escondido Switching Station. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Pueblo Substation and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the Conoco Chittam Ranch Tap and Escondido Switching Station
- the following transmission line(s) comprised of easements, structures, conductors, insulators, shield wires and connecting hardware:
  - Pueblo to Conoco Chittam Ranch Tap 138 kV transmission line
  - Pueblo to Escondido 138 kV transmission line

8. Facility Operation and Maintenance Responsibilities of the Parties:

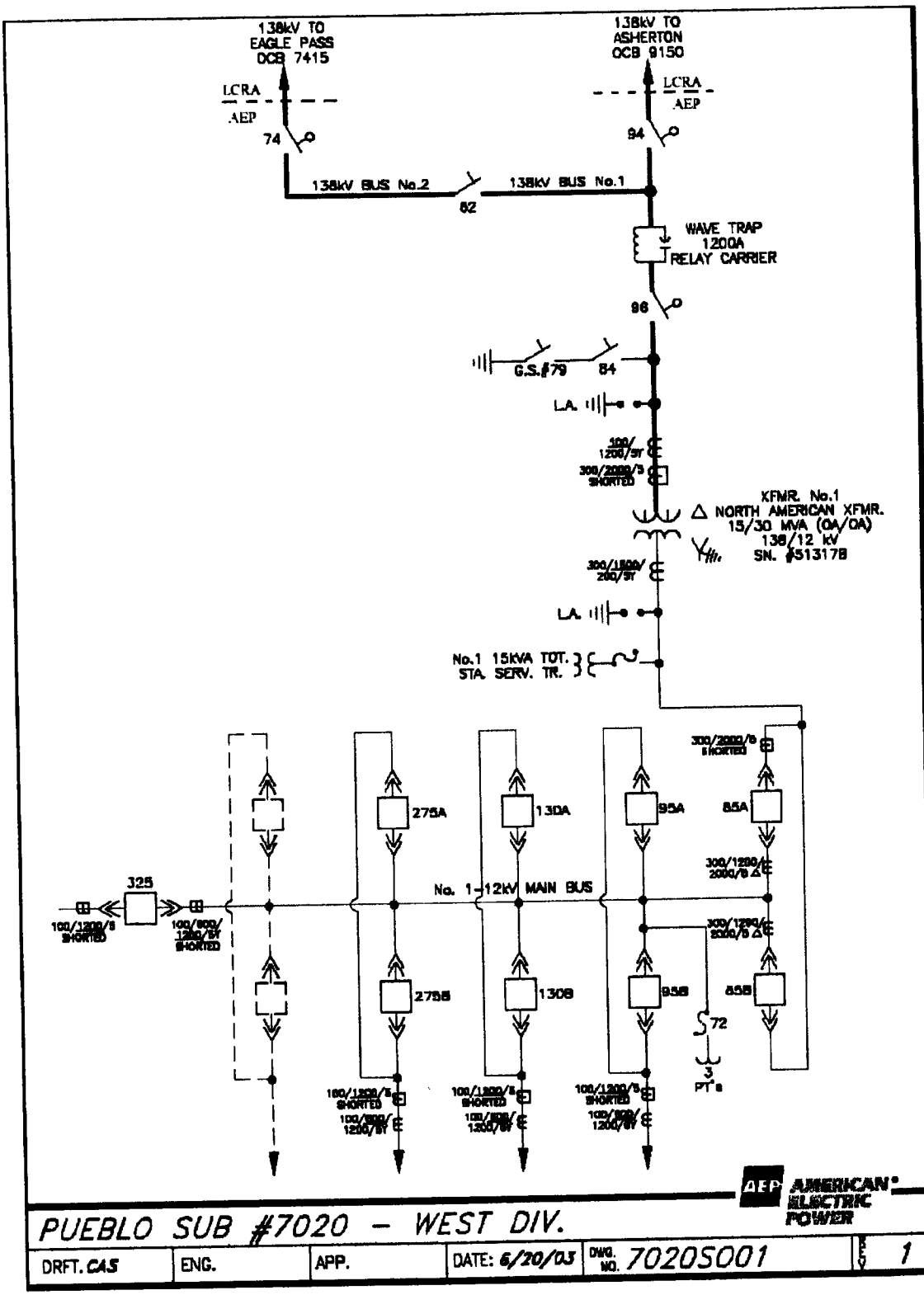
- AEP controls and operates the Pueblo Substation, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.


138kV TO
EAGLE PASS
OCB 7415
LCRA
AEP
74
138kV TO
ASHERTON
OCB 9150
LCRA
AEP
94
138kV BUS No.2
82
138kV BUS No.1
WAVE TRAP
1200A
RELAY CARRIER
96
G.S.#79
84
L.A.
XFMR. No.1
NORTH AMERICAN XFMR.
15/30 MVA (OA/OA)
138/12 kV
SN. #513178
L.A.
No.1 15kVA TDT.
STA. SERV. TR.
325
No. 1-12kV MAIN BUS
275A
130A
95A
85A
275B
130B
95B
85B
72
3
PT's
AEP AMERICAN ELECTRIC POWER
PUEBLO SUB #7020 - WEST DIV.
DRFT. CAS
ENG.
APP.
DATE: 6/20/03
DWG. NO. 7020S001
1

FACILITY SCHEDULE NO. 28

1. Name: **Escondido Switching Station**

2. Location: The Escondido Switching is located in Eagle Pass, Texas in Maverick County. The Point of Interconnection is at the termination of the 138 kV transmission line from the Pueblo Substation where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: No

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Escondido Switching Station and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Escondido to Hamilton Road 138 kV transmission line
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the Pueblo station
- the following transmission line(s) comprised of easements, structures, conductors, insulators, shield wires and connecting hardware:
  - Escondido to Pueblo 138 kV transmission line

8. Facility Operation and Maintenance Responsibilities of the Parties:

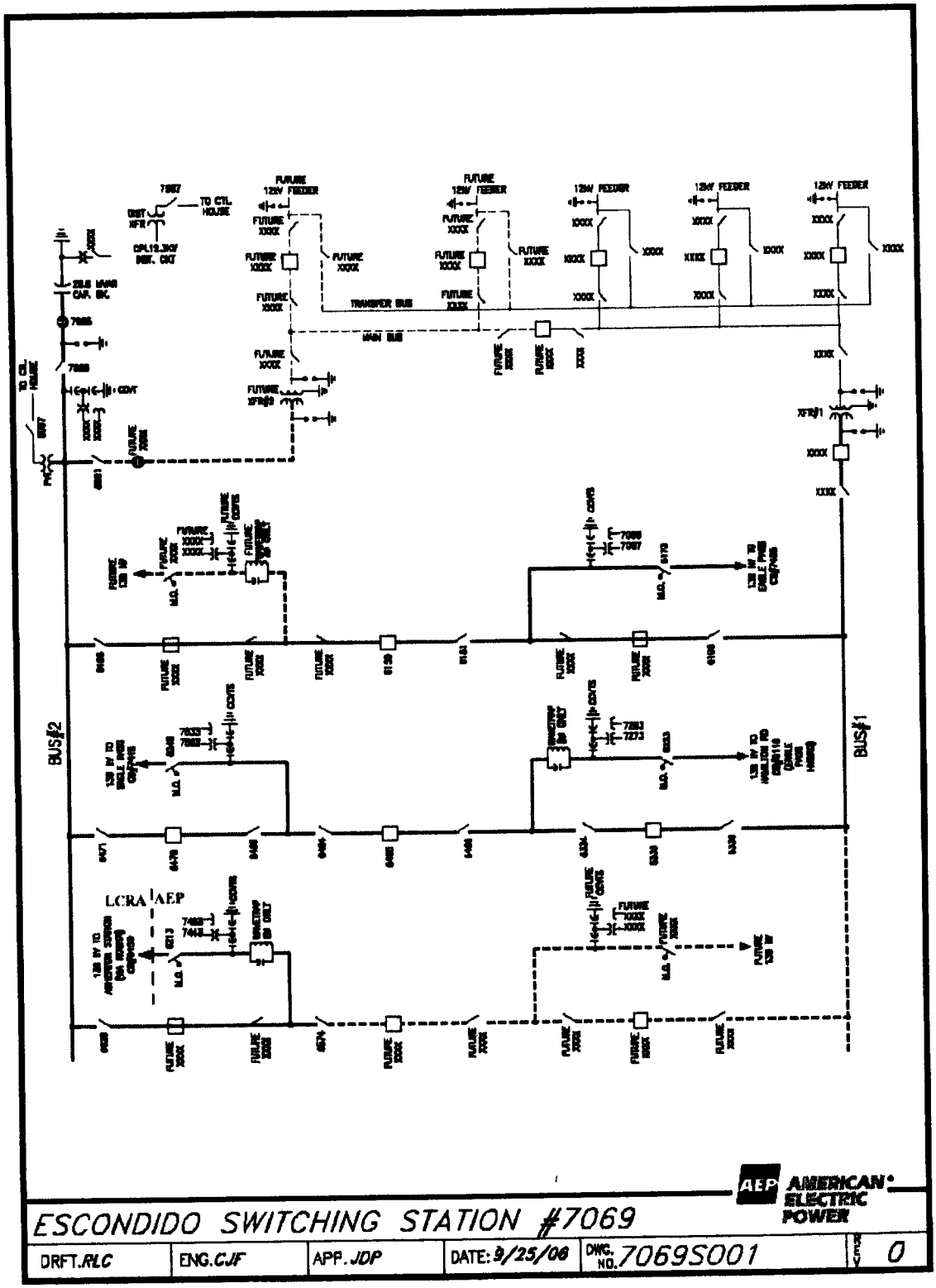
- AEP controls and operates the Escondido Switching Station, including all facilities within it.
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.


BUS#2
BUS#1
LCRA
AEP
TRANSFER BUS
MAIN BUS
AMERICAN ELECTRIC POWER
ESCONDIDO SWITCHING STATION #7069
DRFT.RLC
ENG.CJF
APP.JDP
DATE: 9/25/06
DWG. NO. 7069S001
REV 0

FACILITY SCHEDULE NO. 29

1. Name: **Uvalde**

2. Location: The Uvalde Substation is located in Uvalde, Texas in Uvalde County. The Point of Interconnection is at the termination of the 138 kV transmission line from the Asphalt Mines Substation where the jumper conductors from the substation equipment physically contact the connectors on 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Uvalde Substation and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Uvalde to Moore 138 kV transmission line
  - Uvalde to West Batesville 138 kV transmission line
  - Uvalde to Turtle Creek 69 kV transmission line
  - Uvalde to Camp Wood 69 kV transmission line
  - Uvalde to Sabinal 69 kV transmission line
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the Asphalt Mines station
- the following transmission line(s) comprised of structures, conductors, insulators, easements, shield wires and connecting hardware:
  - Uvalde to Asphalt Mines 138 kV transmission line

8. Facility Operation Responsibilities of the Parties:

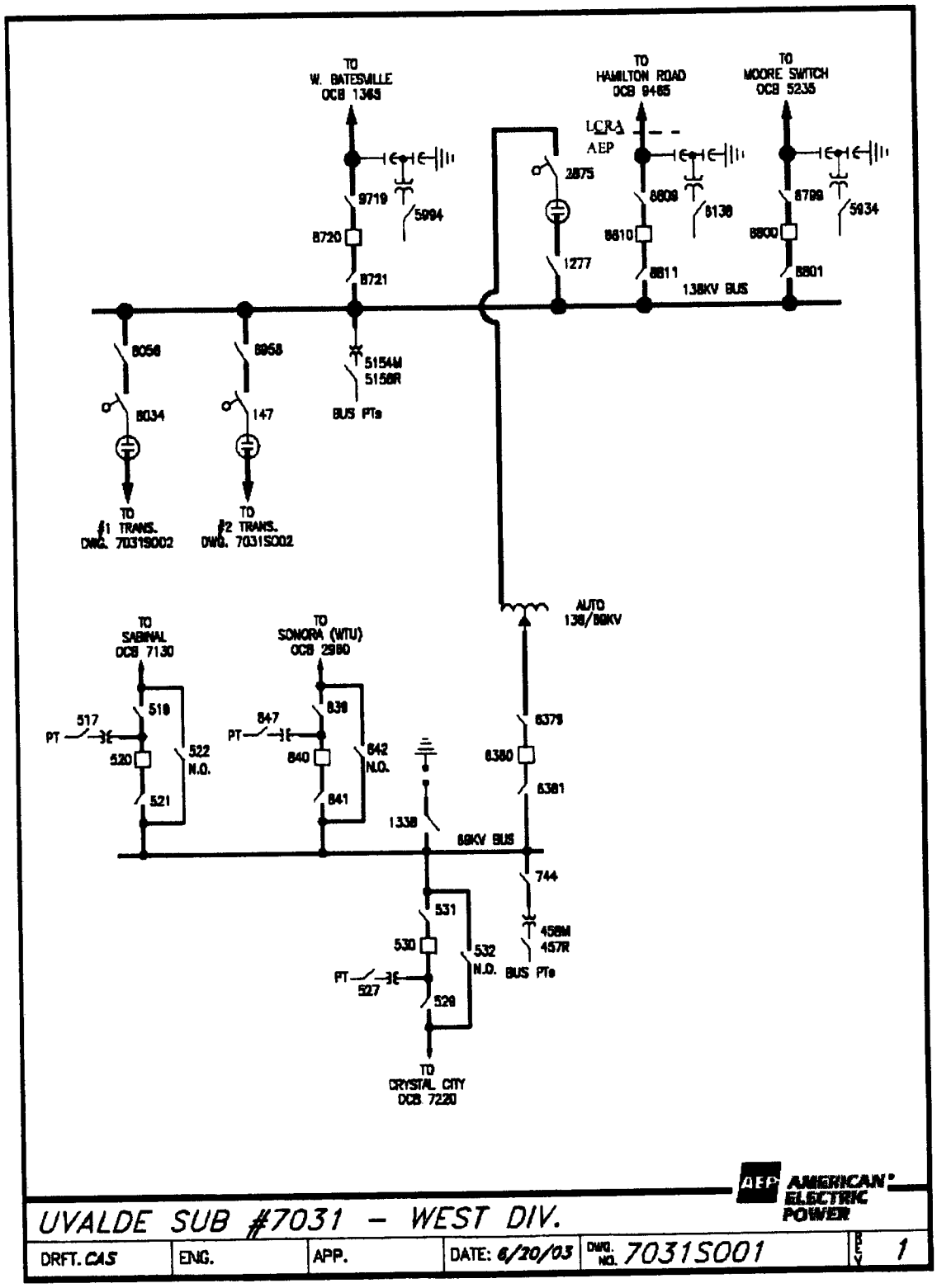
- AEP controls and operates the Uvalde Substation, including all facilities within it
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.


TO
W. BATESVILLE
OCB 1369
TO
HAMILTON ROAD
OCB 9465
TO
MOORE SWITCH
OCB 5235
LCRA
AEP
9719
5994
8720
8721
2875
1277
8809
8139
8810
8811
138KV BUS
8799
5934
8800
8801
8056
8034
8958
147
5154M
5156R
BUS PTs
TO
#1 TRANS.
DWG. 7031S002
TO
#2 TRANS.
DWG. 7031S002
AUTO
138/69KV
TO
SABINAL
OCB 7130
TO
SONORA (WTU)
OCB 2980
517
519
PT
520
522
N.O.
521
847
839
PT
840
842
N.O.
841
1338
69KV BUS
6379
6380
6381
744
531
530
532
N.O.
PT
527
528
456M
457R
BUS PTs
TO
CRYSTAL CITY
OCB 7220
AEP AMERICAN ELECTRIC POWER
UVALDE SUB #7031 - WEST DIV.
DRFT. CAS
ENG.
APP.
DATE: 6/20/03
DWG. NO. 7031S001
REV 1

FACILITY SCHEDULE NO. 30

1. Name: **Asphalt Mines**

2. Location: The Asphalt Mines Substation is located near Blewett, Texas in Uvalde County. There are two Points of Interconnection at the Asphalt Mines Substation. One is at the termination of the 138 kV transmission line from the Brackettville Substation and the other is at the termination of the 138 kV transmission line from the Uvalde Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation switches physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Asphalt Mines Substation and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the Brackettville and Uvalde stations
- the following transmission line(s) comprised of structures, conductors, insulators, easements. shield wires and connecting hardware:
  - Asphalt Mines to Brackettville 138 kV transmission line
  - Asphalt Mines to Uvalde 138 kV transmission line

8. Facility Operation Responsibilities of the Parties:

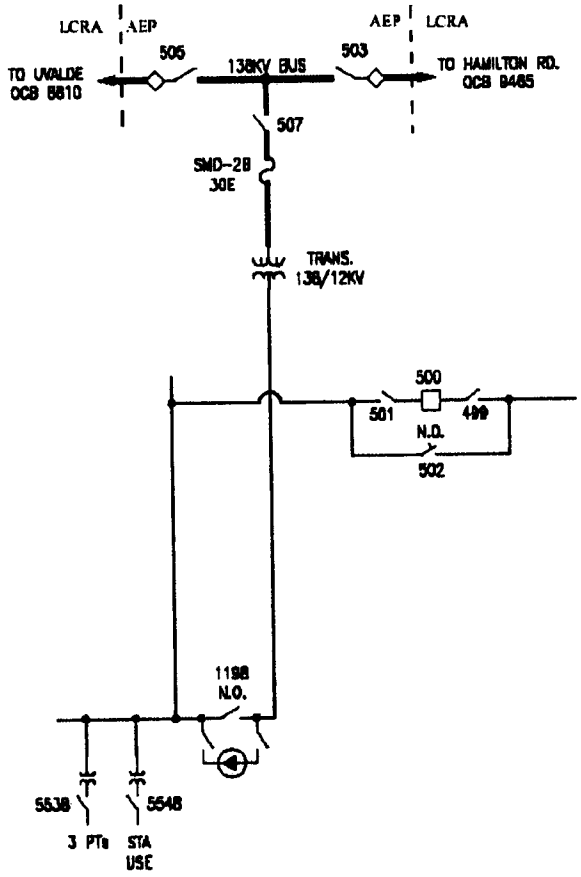
- AEP controls and operates the Asphalt Mines Substation, including all facilities within it
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.



AEP AMERICAN ELECTRIC POWER

ASPHALT MINES SUB #7002 – WEST DIV.

DRFT. MS	ENG.	APP.	DATE: 3/17/05	DWG. NO. 7002S001	REV 2

FACILITY SCHEDULE NO. 31

1. Name: **Brackettville**

2. Location: The Brackettville Substation is located near Brackettville, Texas in Kinney County. There are two Points of Interconnection at the Brackettville Substation. One is at the termination of the 138 kV transmission line from the Hamilton Road Substation and the other is at the termination of the 138 kV transmission line from the Asphalt Mines Substation. Both Points of Interconnection are at the point where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Brackettville Substation and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission lines from the Hamilton Road and Asphalt Mines stations
- the following transmission line(s) comprised of structures, conductors, insulators, easements, shield wires and connecting hardware:
  - Brackettville to Hamilton Road 138 kV transmission line
  - Brackettville to Asphalt Mines 138 kV transmission line

8. Facility Operation Responsibilities of the Parties:

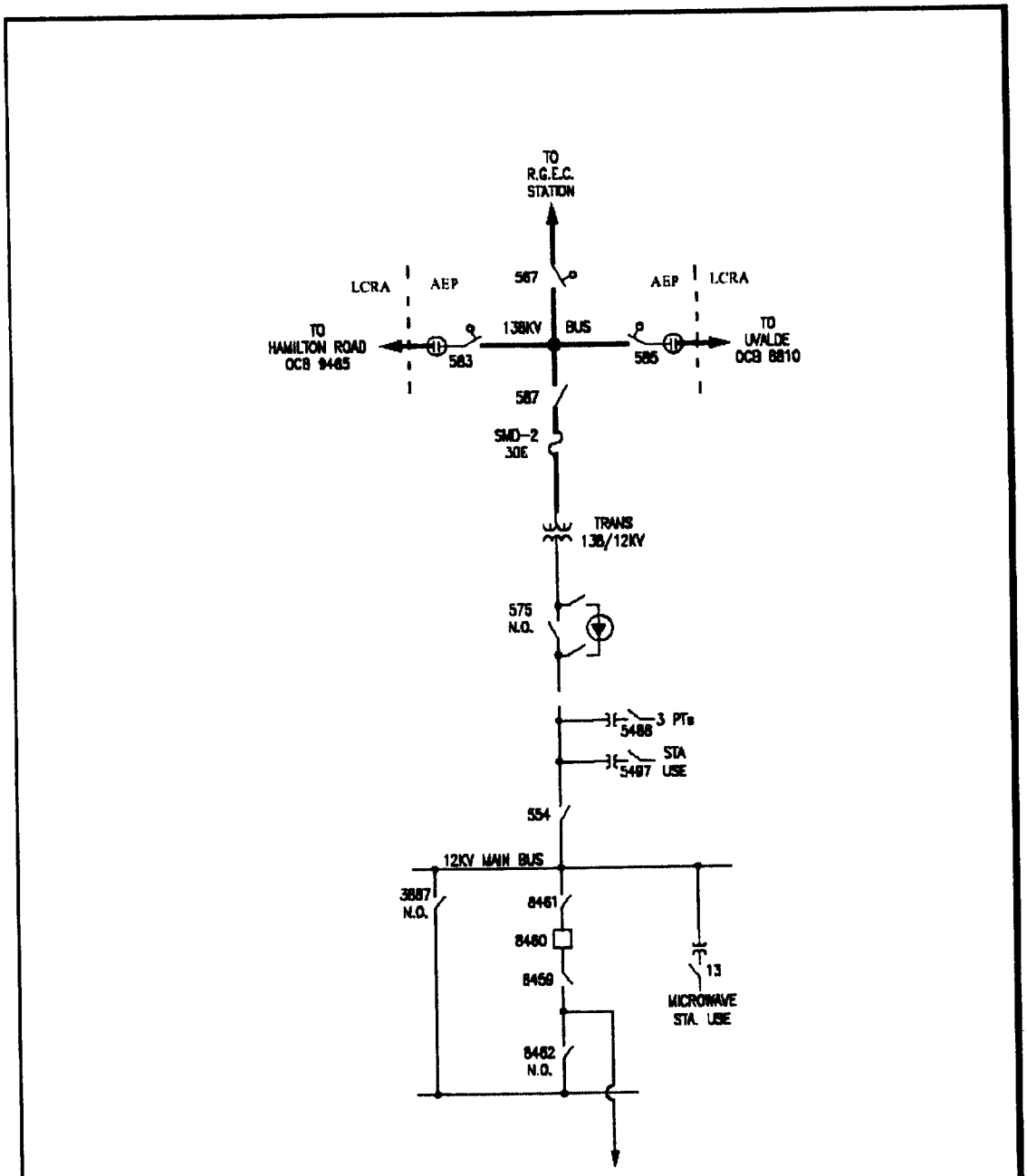
- AEP controls and operates the Brackettville Substation, including all facilities within it
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.



AEP AMERICAN ELECTRIC POWER

BRACKETTVILLE SUB #7056 – WEST DIV.

DRFT. MS	ENG.	APP.	DATE: 3/17/05	DWG. NO. 7056S001	REV. 2

FACILITY SCHEDULE NO. 32

1. Name: **Hamilton Road**

2. Location: The Hamilton Road Substation is located in Del Rio, Texas in Val Verde County. The Point of Interconnection is at the termination of the 138 kV transmission line from the Brackettville Substation where the jumper conductors from the substation equipment physically contact the connectors on the 138 kV transmission line conductors.

3. Delivery Voltage: 138 kV

4. Metered Voltage: 138 kV

5. Normal Operation of Interconnection: Closed

6. One-Line Diagram Attached: Yes

7. Facility Ownership Responsibilities of the Parties:

AEP owns the following facilities:

- the Hamilton Road Substation and all the substation facilities within it
- jumper conductors from the station facilities to the Point(s) of Interconnection
- substation deadend structures that terminate all transmission lines into the station
- the following transmission line(s) comprised of structures, easements, conductors, insulators, and connecting hardware:
  - Hamilton Road to Eagle Pass City 138 kV transmission line
  - Hamilton Road to Buena Vista 138 kV transmission line
  - Hamilton Road to Amistad 138 kV transmission line
  - Hamilton Road to Cauthorn 138 kV transmission line
  - Hamilton Road to Rough Canyon 69 kV transmission line
- a four-wire RTU communication circuit from the station to the AEP control center
- any distribution line easements and under-built distribution voltage circuits attached to the transmission lines that terminate into the station

LCRA owns the following facilities:

- insulators and hardware on the deadend structures that terminate the 138 kV transmission line from the Brackettville station
- the following transmission line(s) comprised of structures, conductors, insulators, easements, shield wires and connecting hardware:
  - Hamilton Road to Brackettville 138 kV transmission line

8. Facility Operation Responsibilities of the Parties:

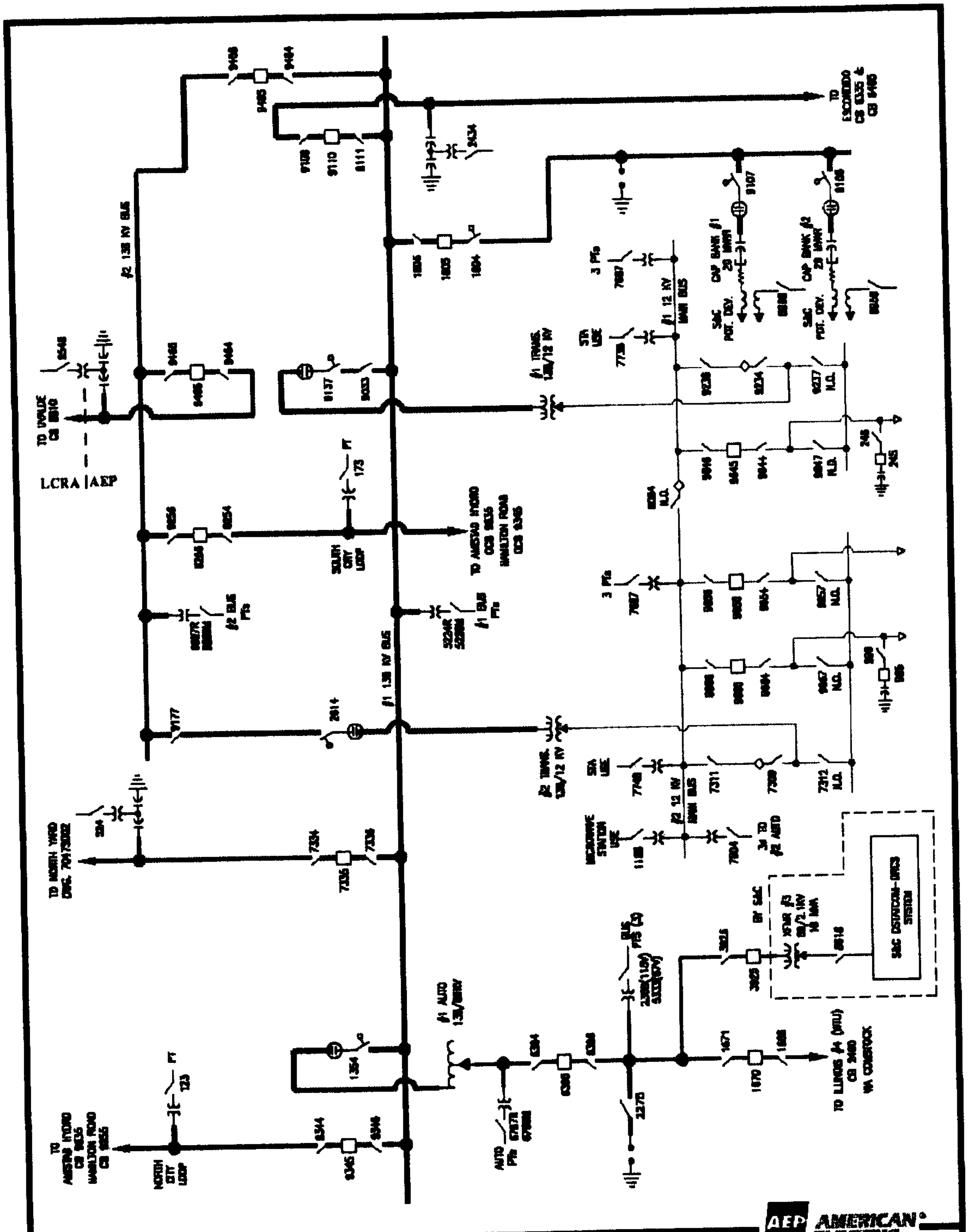
- AEP controls and operates the Hamilton Road Substation, including all facilities within it
- AEP controls and operates all transmission lines that terminate into the station.
- AEP coordinates, directs, and performs all control center and field operation activities on the transmission line(s) owned by AEP and LCRA. These activities shall include, but are not limited to, switching, clearances, and outages for planned maintenance and operations, emergency service restoration, and overall coordination of such activities with ERCOT.
- Each Party maintains the facilities it owns that are provided for in this Facility Schedule. Maintenance of the facilities, including circuit breaker relays, that are owned by one Party that protect the facilities owned by the other Party , will be subject to review and approval by the other Party.

9. Cost Responsibilities of the Parties:

- Each Party will be fully responsible for the costs and liabilities related to the facilities it owns.
- Each Party will be responsible for all costs it incurs in connection with the establishment and maintenance of the Point of Interconnection in accordance with this Facility Schedule.

10. Other Terms and Conditions:

- AEP will poll the AEP RTU installed at the station and LCRA will have access to the RTU data via a direct Inter-control Center Communications Protocol (ICCP) communication circuit between the AEP and LCRA control centers. The Parties will coordinate the analog and digital point list and communications protocol issues.



HAMILTON ROAD SUB #7047 – WEST DIV.

DRFT. RLC	ENG. CRP	APP. CRP	DATE: 12/19/06	DWG. NO. 7047S001	REV 8