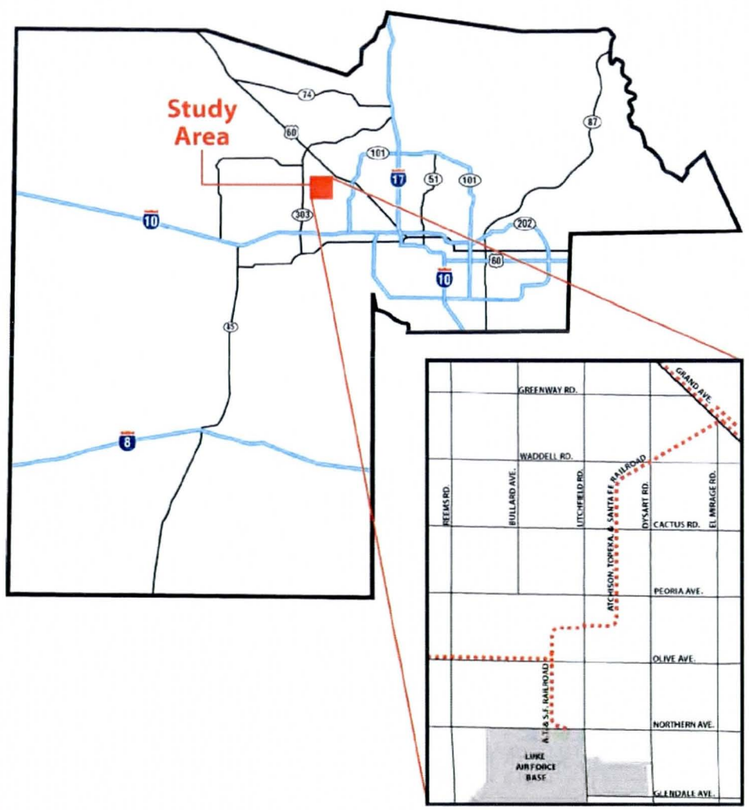
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

AT&SF RAILROAD CHANNEL AND BASIN

CONTRACT FCD 2007 C016 (2)



HYDROLOGY/HYDRAULICS

HOSKIN RYAN CONSULTANTS, INC.
201 W. INDIAN SCHOOL ROAD.
PHOENIX, AZ 85013-3203
(602) 252-8384
HRC 07-027-02

DATUM

HORIZONTAL COORDINATES SHOWN ARE IN NAD83 STATE PLANE COORDINATES. VERTICAL ELEVATIONS SHOWN ARE NGVD 1929, 2' C.I.

TOPOGRAPHIC DATA

TOPOGRAPHIC MAPPING DATED 12/22/1989, FLOWN AS PART OF THE LOOP303/WHITE TANKS ADMPU. FCD PROJECT ID 1003, FCD 89-50

SHEET INDEX

1	COVER SHEET
2	INDEX
3-6	SECTIONS
7-12	DETAILS
13-27	CHANNEL PLAN & PROFILES
28-29	BASIN DETAILS
30-44	LANDSCAPE DETAILS

USE OF PLANS

THIS PLAN SET WAS PRODUCED IN CONJUCTION WITH THE AT&SF RAILROAD CHANNEL AND BASIN CANDIDATE ASSESSMENT REPORT. REFERENCE SHOULD BE MADE TO VOLUMES 1 AND 2 DATED FEBRUARY 9, 2009 FOR DESIGN ASSUMPTIONS. THESE PLANS MAY BE PRODUCED TO SCALE AT FULL-SIZE (24"x36") OR HALF SIZE (11"x17").

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

AT&SF RAILROAD CHANNEL AND BASIN
PRELIMINARY PLANS
CONTRACT FCD 2007 C016 (2)

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 19690
PAUL W.R. HOSKIN
ARIZONA, U.S.A.
EXPIRES 3/31/09

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COVER SHEET

SHEET 1 OF 44

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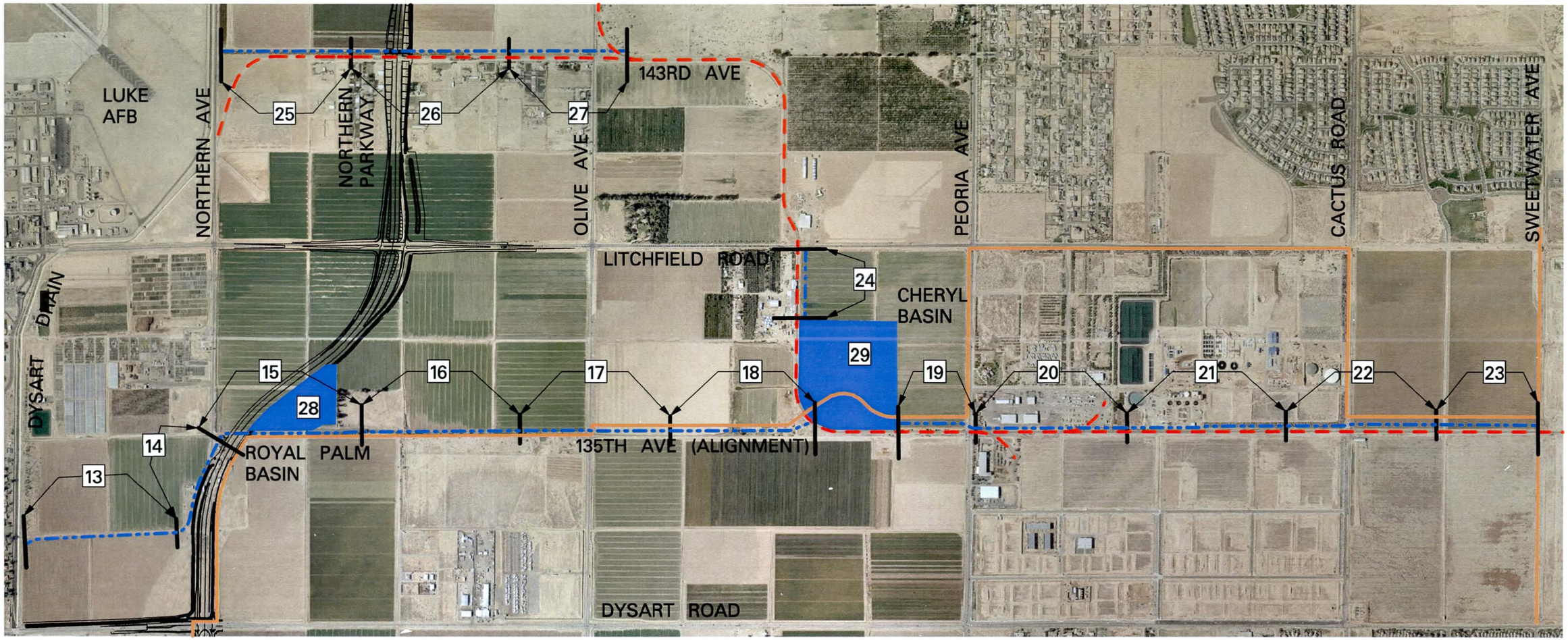

INDEX MAP

LEGEND

- BNSF RAILROAD (FORMERLY AT&SF)
- 14 — SHEET NUMBER
- TRAIL ALIGNMENT
- CHANNEL ALIGNMENT
- DETENTION BASIN

0 700 1400 2800

SCALE IN FEET

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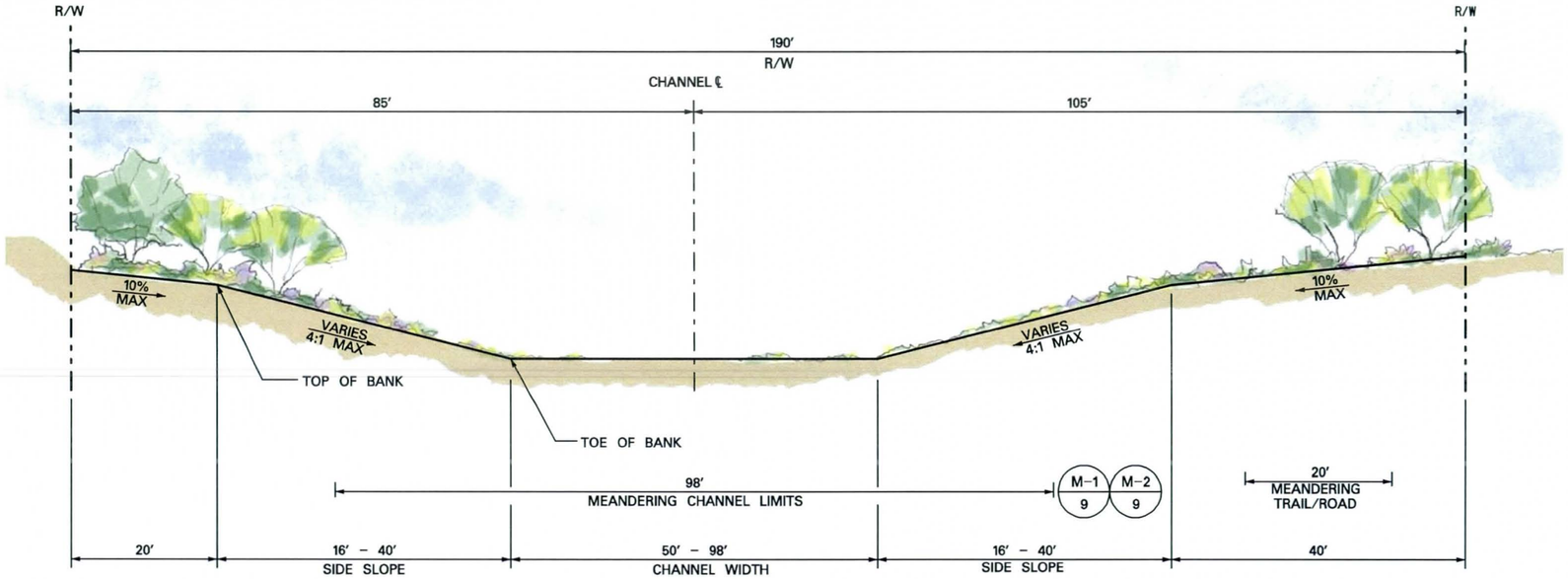

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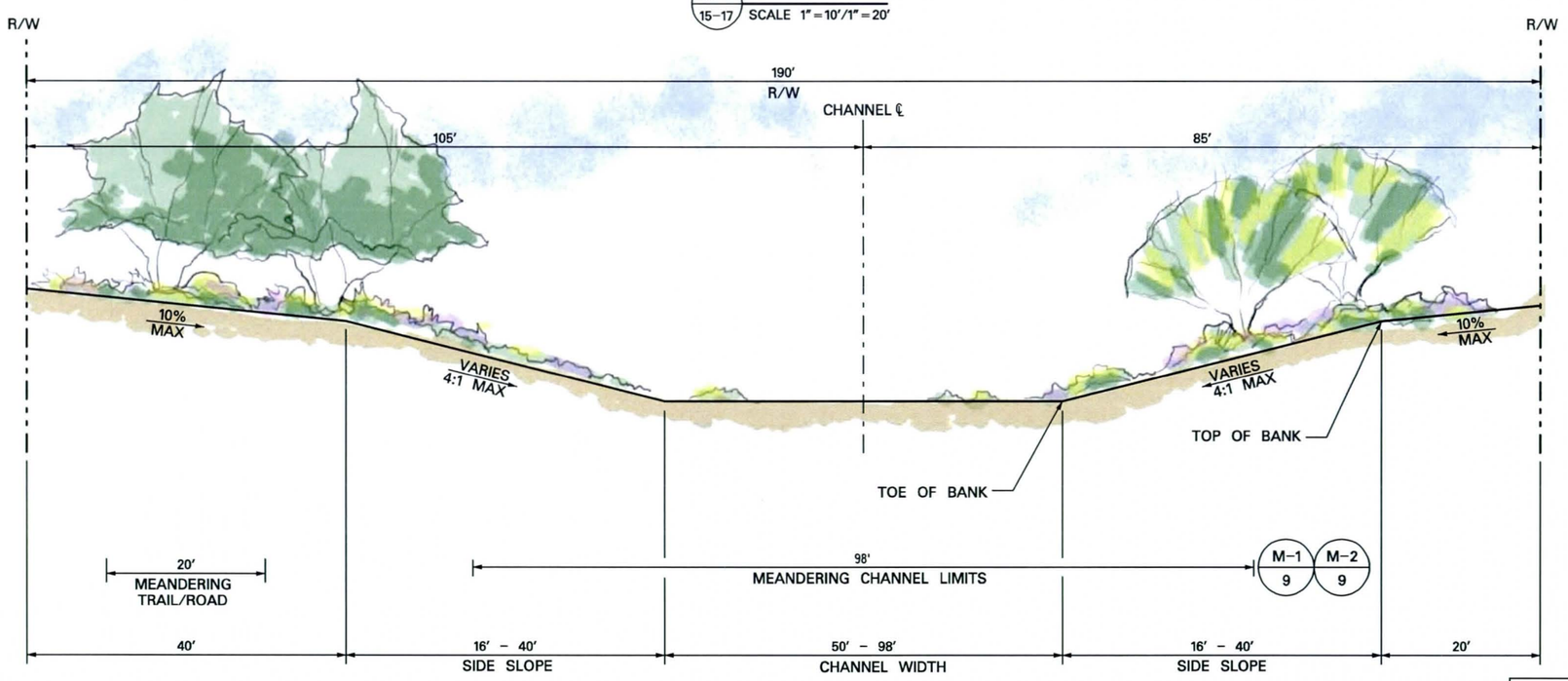

A-2 / 17-18 SECTION
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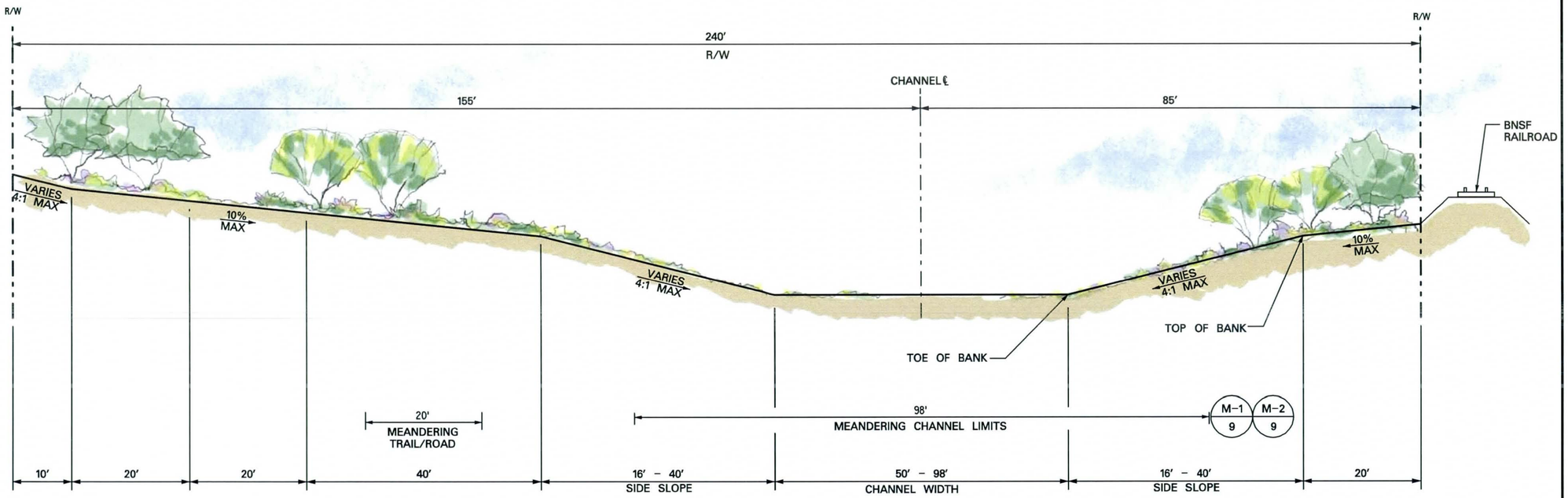

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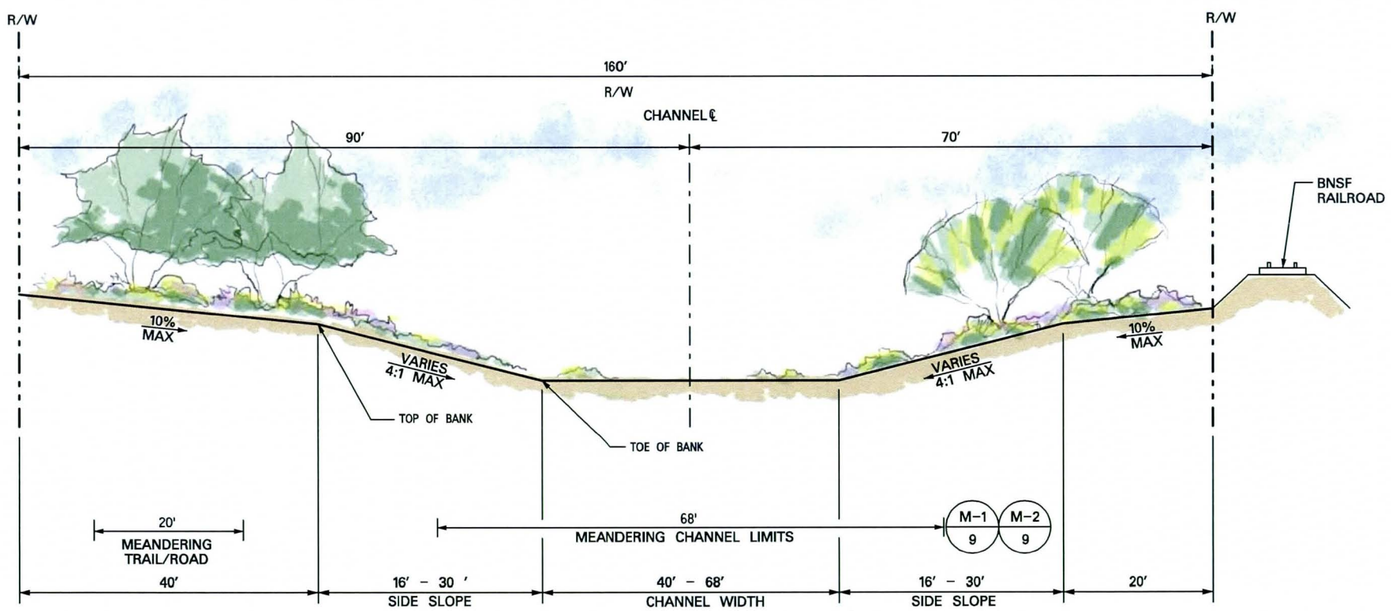

A-4 / 22-23 SECTION
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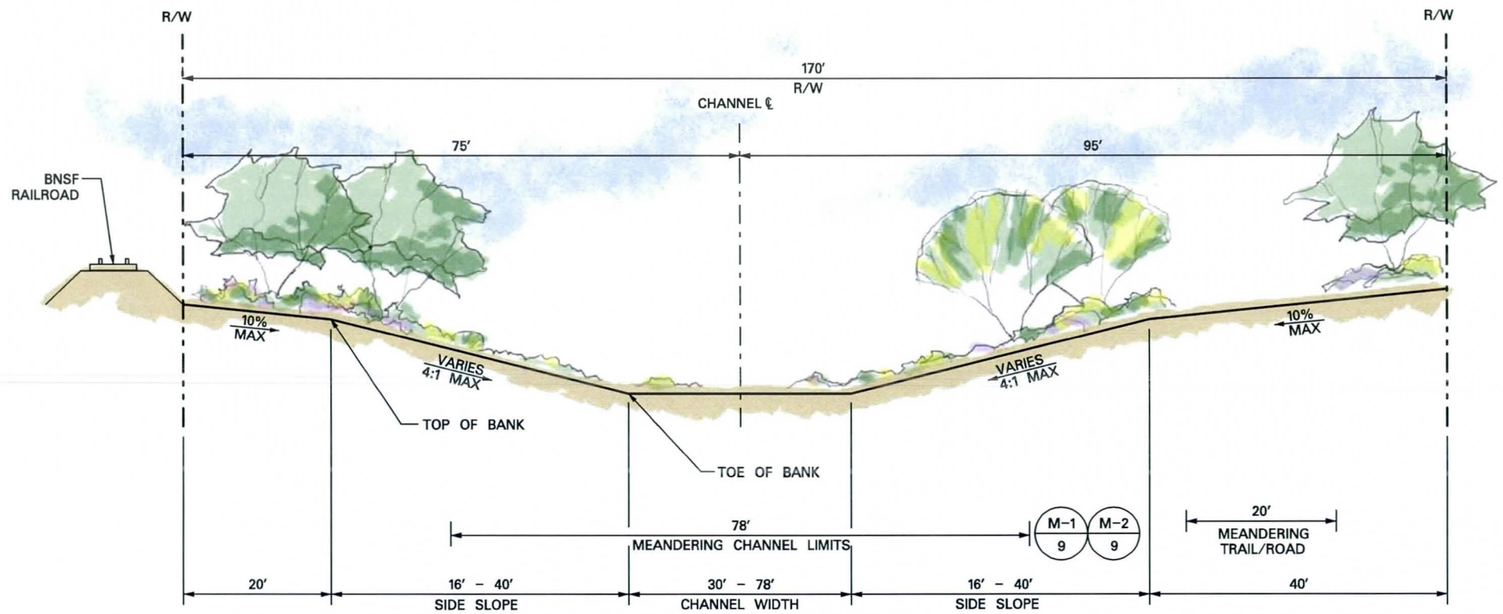

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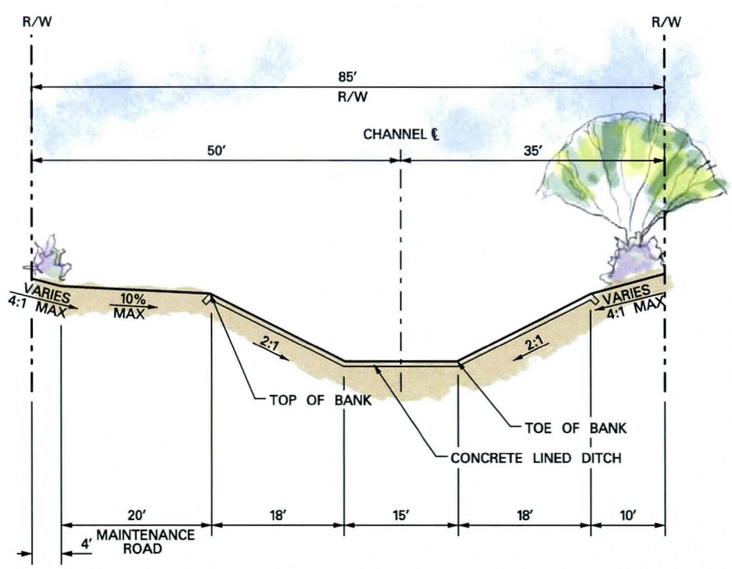

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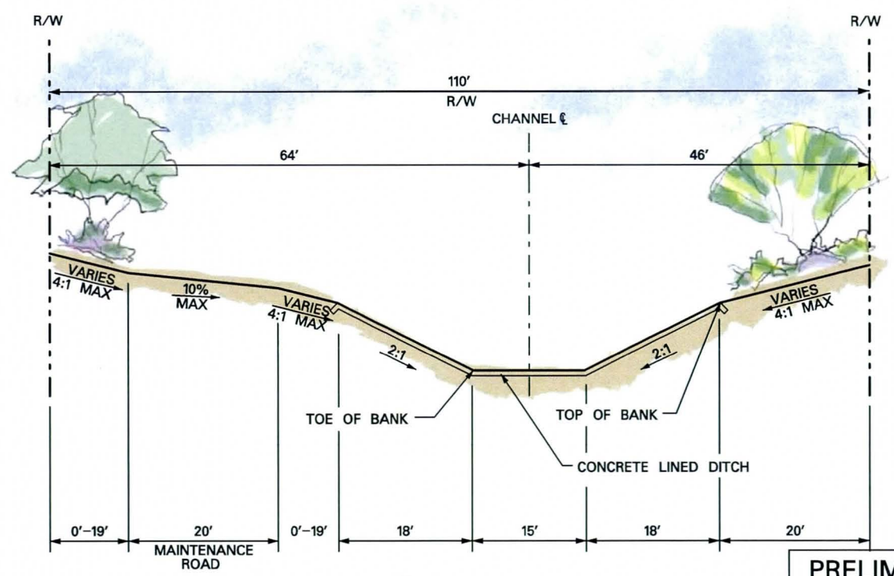

B-2 / 14 SECTION
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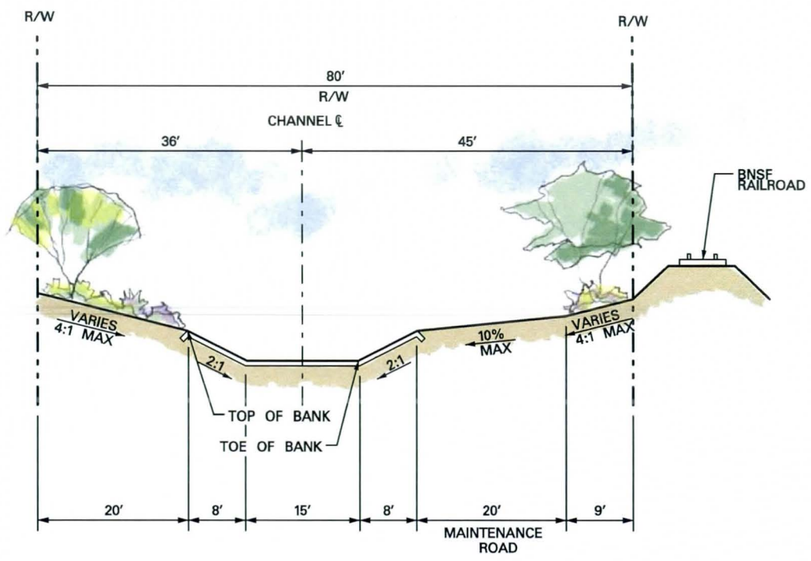

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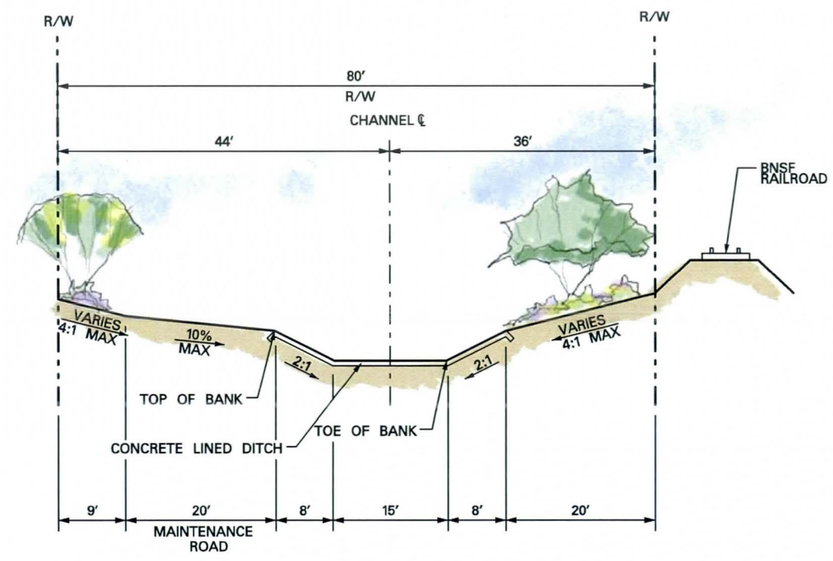

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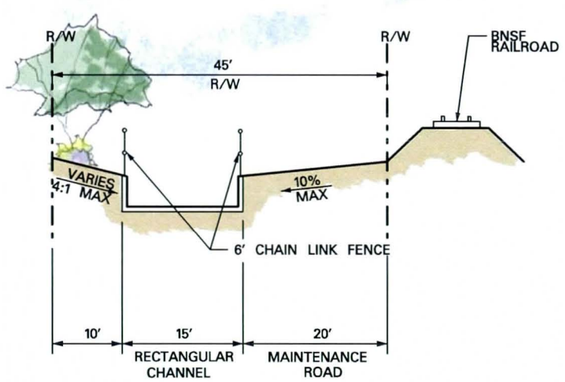

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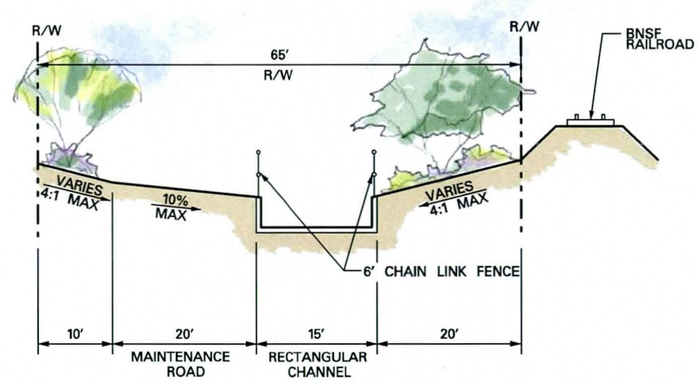

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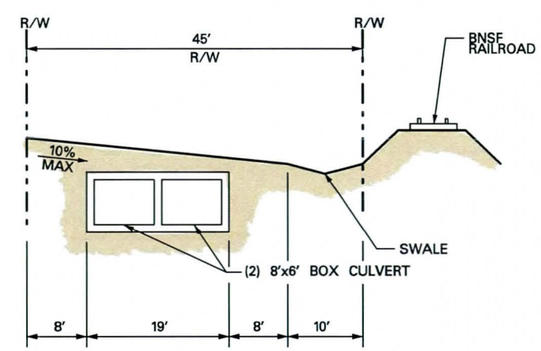

D / 20 SECTION
SCALE 1″=10′/1″=20′

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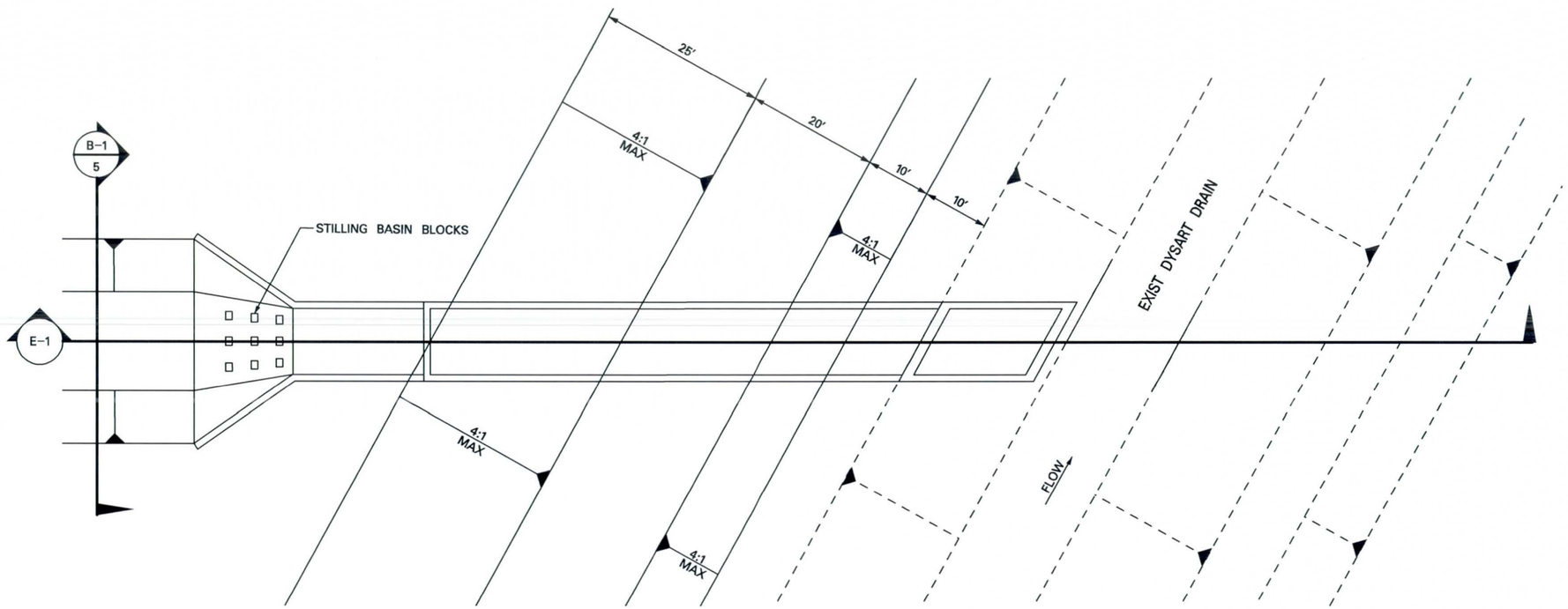
ALL CONCRETE VISIBLE TO BE INTEGRAL COLOR.
CONCRETE FINISH TO HAVE TEXTURE AND NOT SMOOTH



E / 13 DYSART DRAIN OUTFALL
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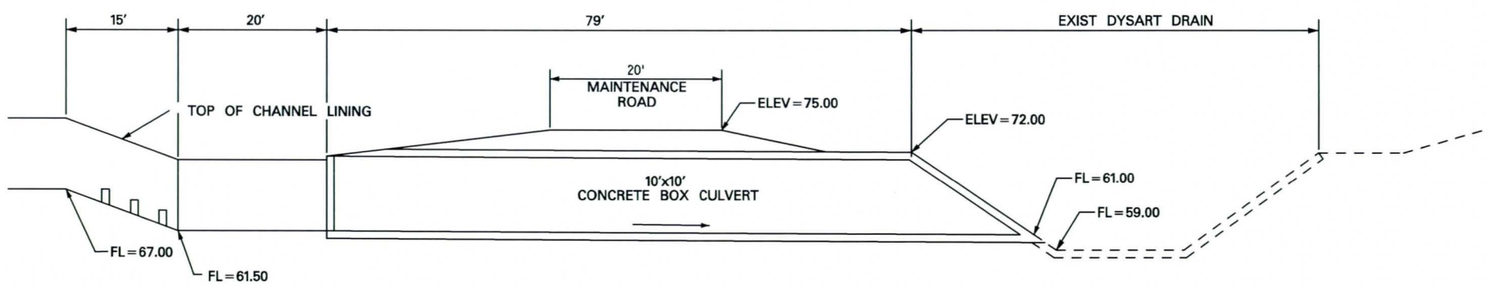
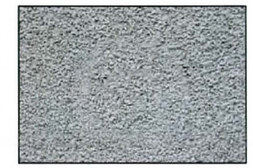


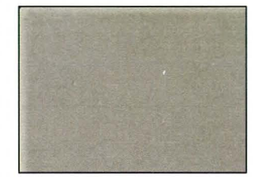
E-1 SECTION
SCALE 1"=10'/1"=20'

FORM



CONCRETE TEXTURE

MESA BUFF FRONT



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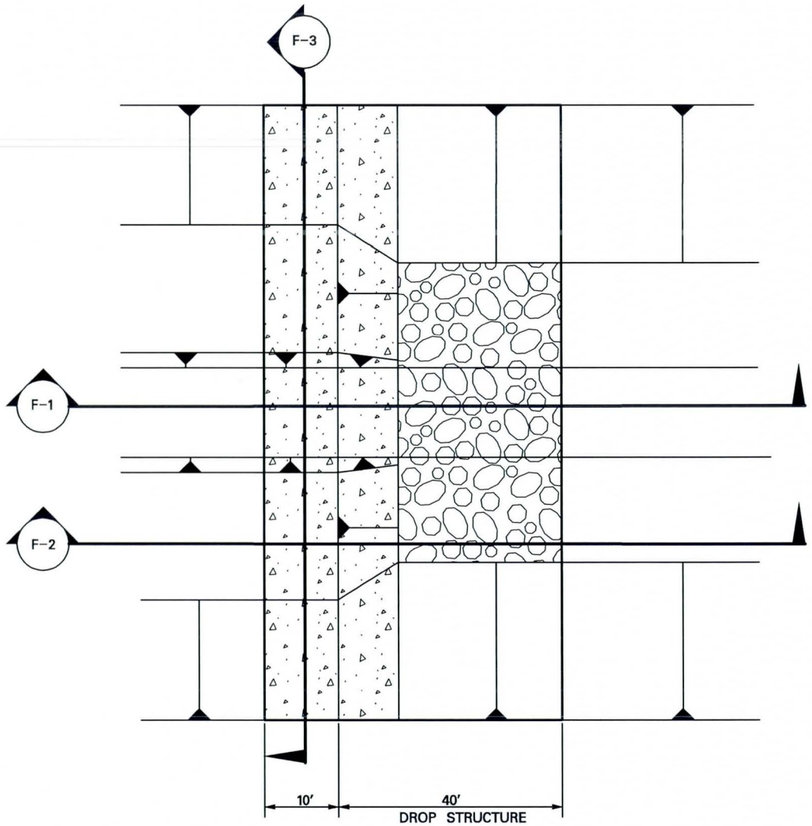
CONCRETE FINISH TO HAVE TEXTURE AND NOT SMOOTH



F GRADE CONTROL
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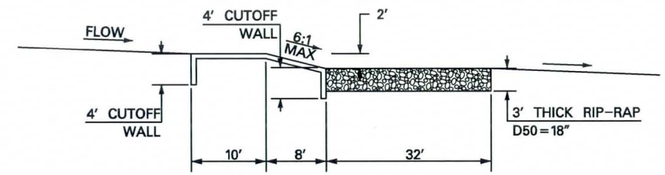
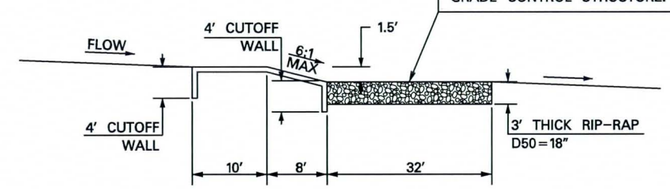


F-1 SECTION
SCALE 1" = 10'/1" = 20'

ALL RIP RAP IS TO BE LARGER BLOCKS OF THE DECOMPOSED GRANITE USED OVERALL ON THE PROJECT. AREA OF RIP RAP TO BE FREEFORM IN LAYOUT THAT SERVES THE FUNCTION OF THE GRADE CONTROL STRUCTURE.



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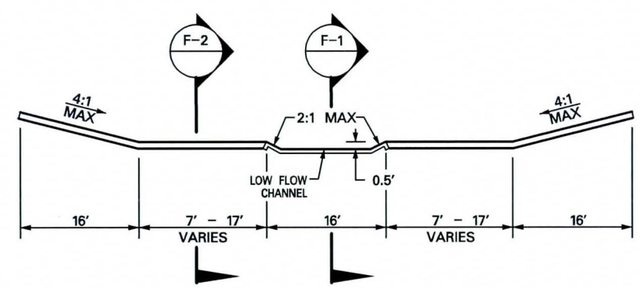

F-3 SECTION
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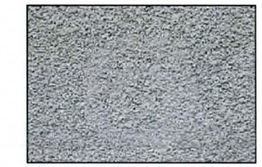

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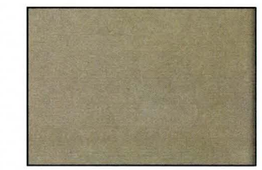

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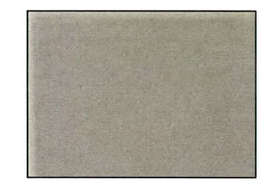

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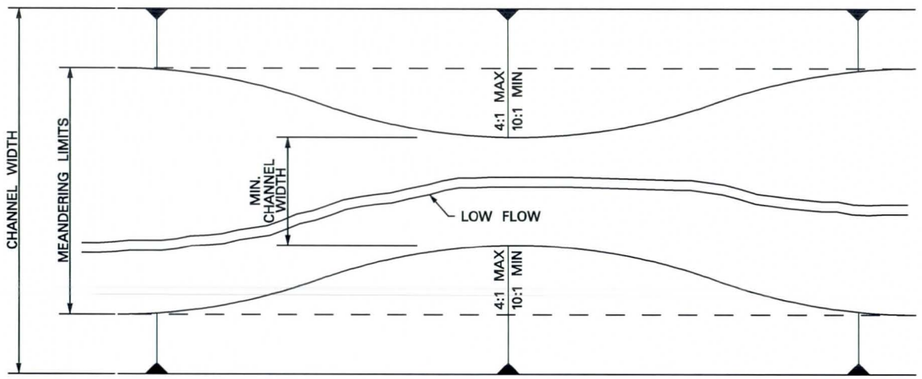

M-1 MEANDER OPTION 1 DETAIL
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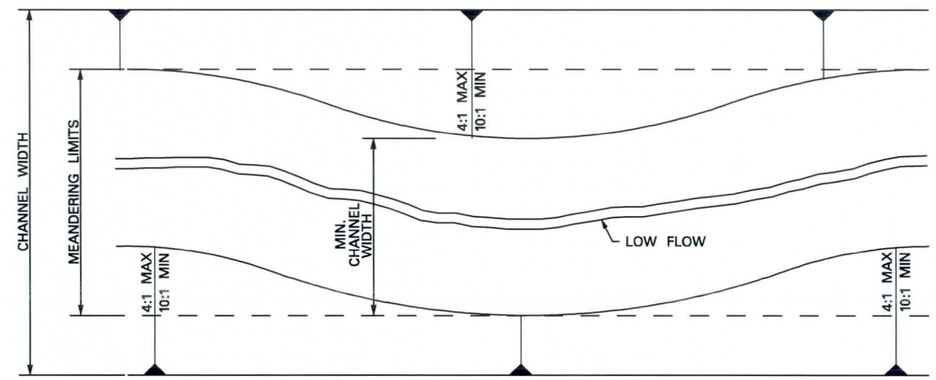

M-2 MEANDER OPTION 2 DETAIL
NTS

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ALL CONCRETE VISIBLE TO BE INTEGRAL COLOR.
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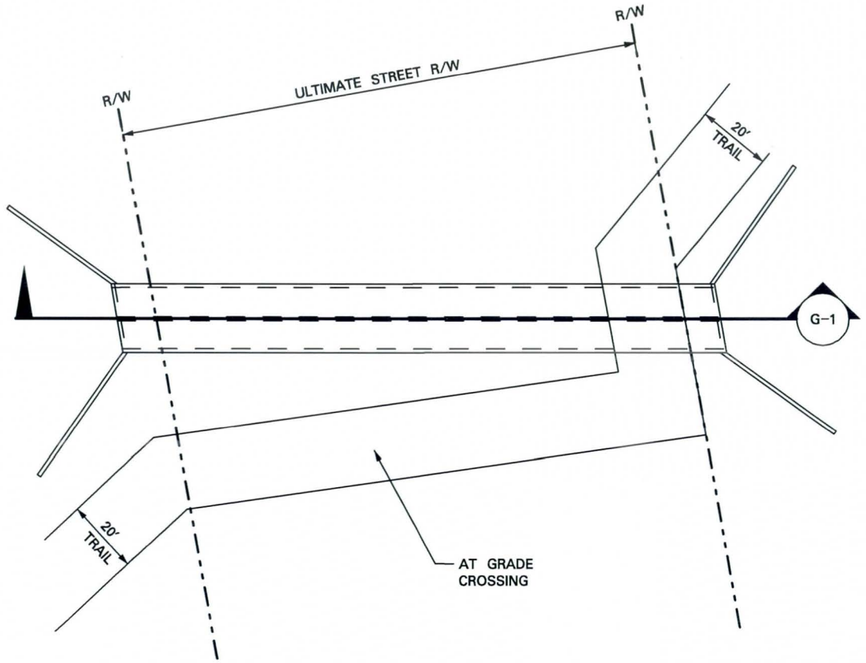

G TYPICAL STREET CROSSING DETAIL
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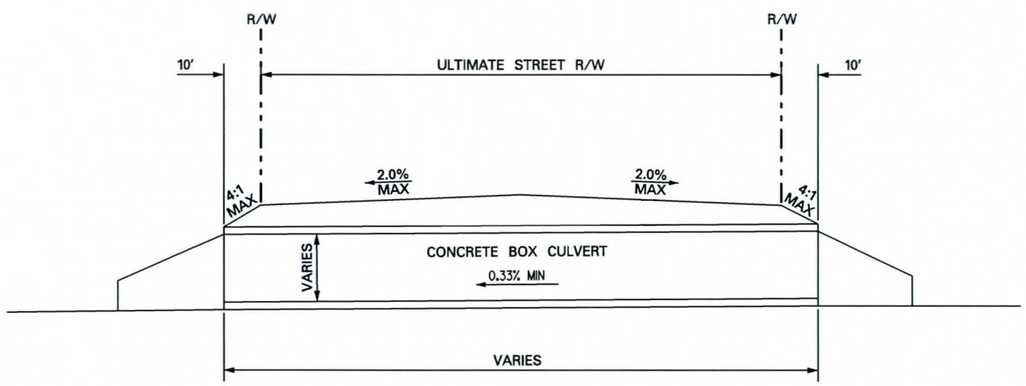
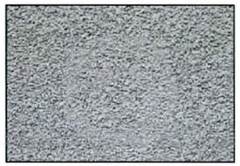


G-1 SECTION
NTS

FORM



CONCRETE TEXTURE

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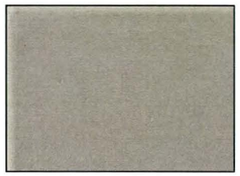

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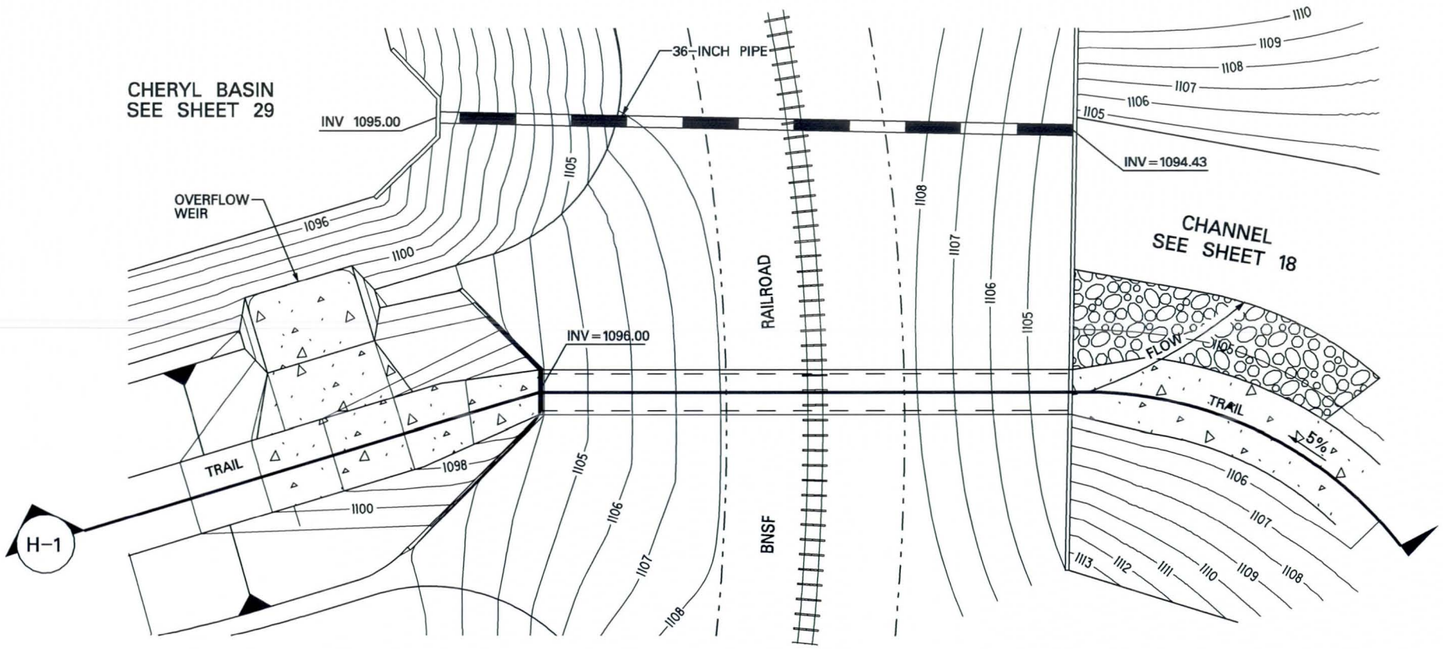
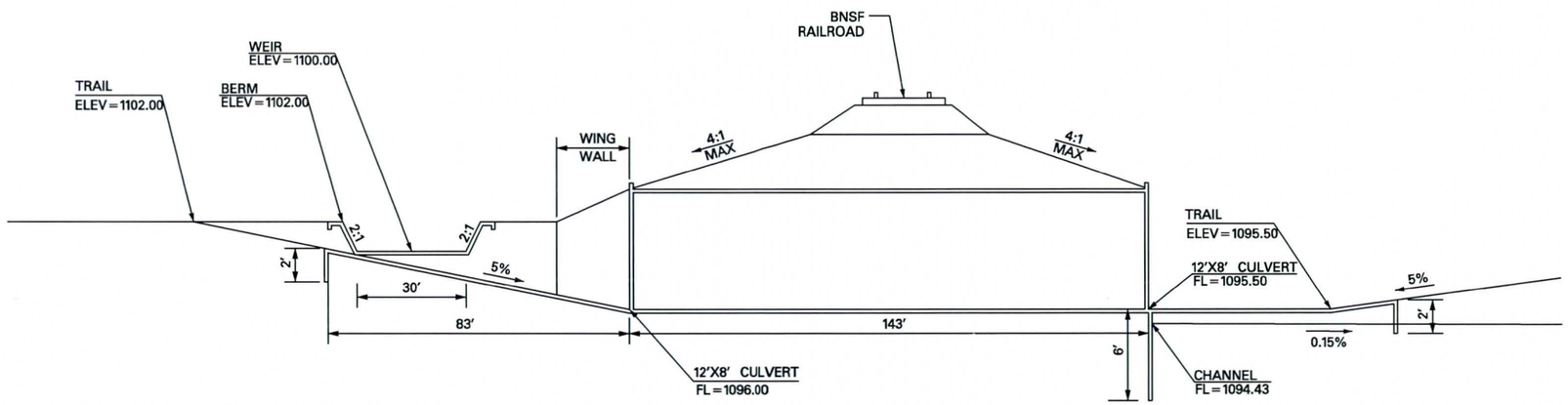
CONCRETE FINISH TO HAVE TEXTURE AND NOT SMOOTH



H / 18,29 RAILROAD UNDERPASS DETAIL
HORIZONTAL SCALE 1"=20'/1"=40'
VERTICAL SCALE 1"=5'/1"=10'



H-1 SECTION
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VERTICAL SCALE 1"=5'/1"=10'

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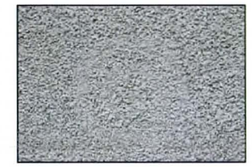
FORM



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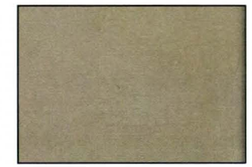

MESA BUFF FRONT

SANDSTONE FRONT

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AT&SF RAILROAD CHANNEL AND BASIN PRELIMINARY PLANS

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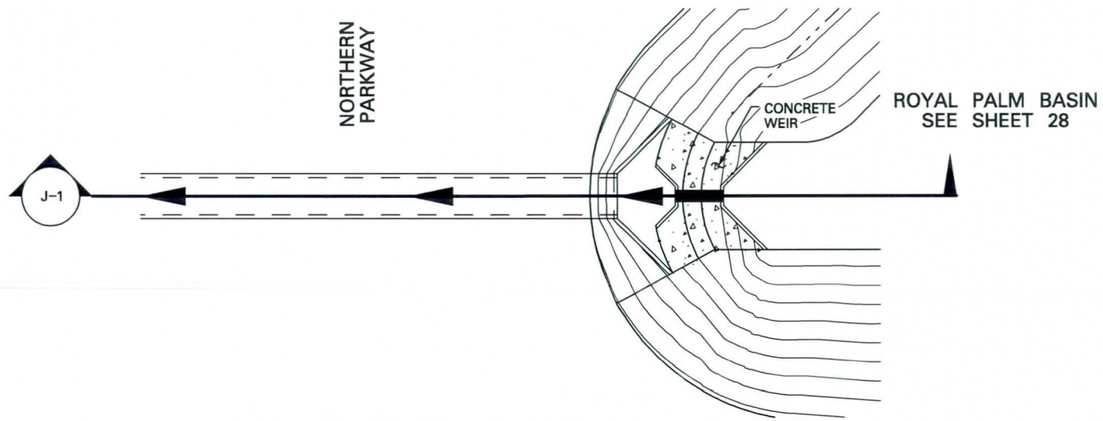
ALL CONCRETE VISIBLE TO BE INTEGRAL COLOR.
CONCRETE FINISH TO HAVE TEXTURE AND NOT SMOOTH



J / 28 ROYAL PALM BASIN OUTLET STRUCTURE DETAIL
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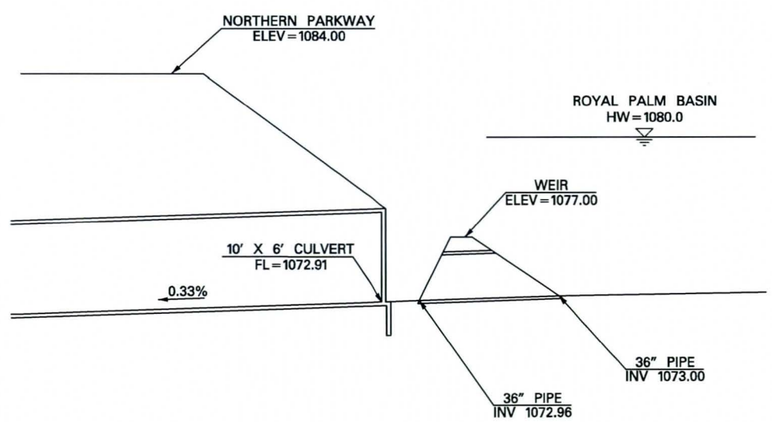
VERTICAL SCALE 1"=5'/1"=10'



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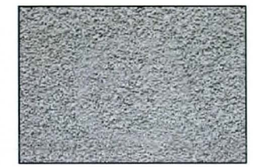
VERTICAL SCALE 1"=5'/1"=10'

FORM



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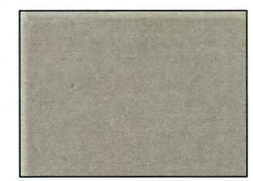

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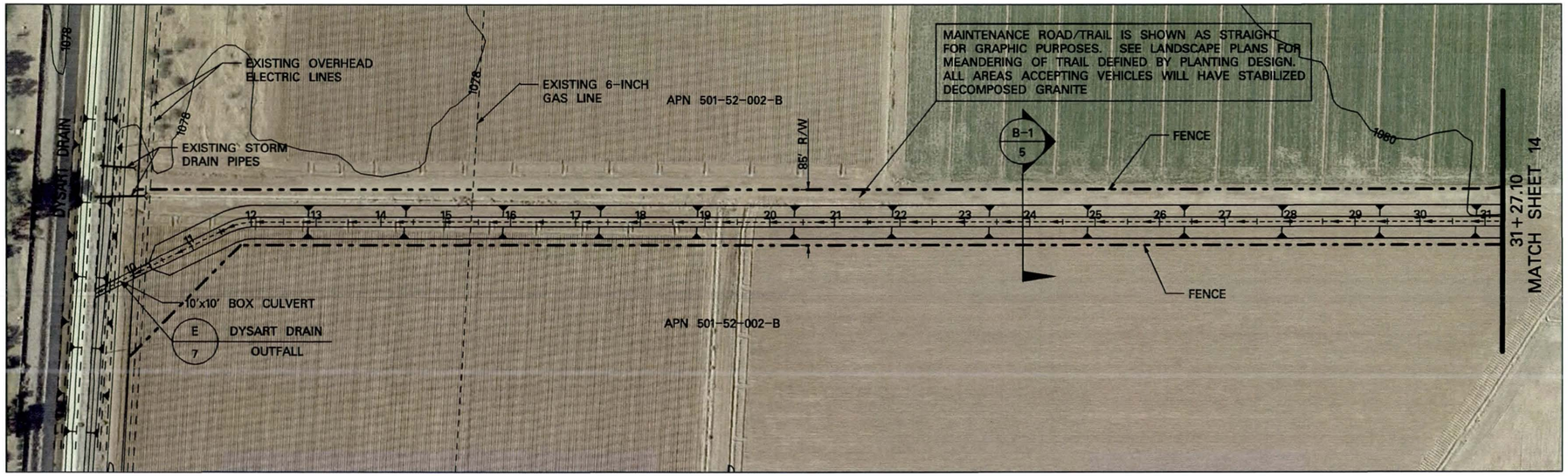

MATCH SHEET 14

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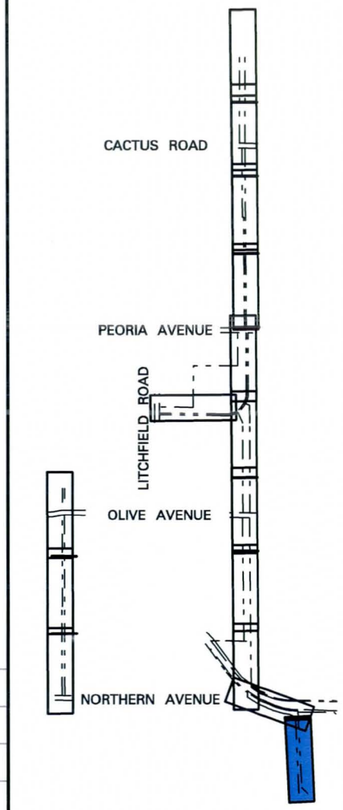

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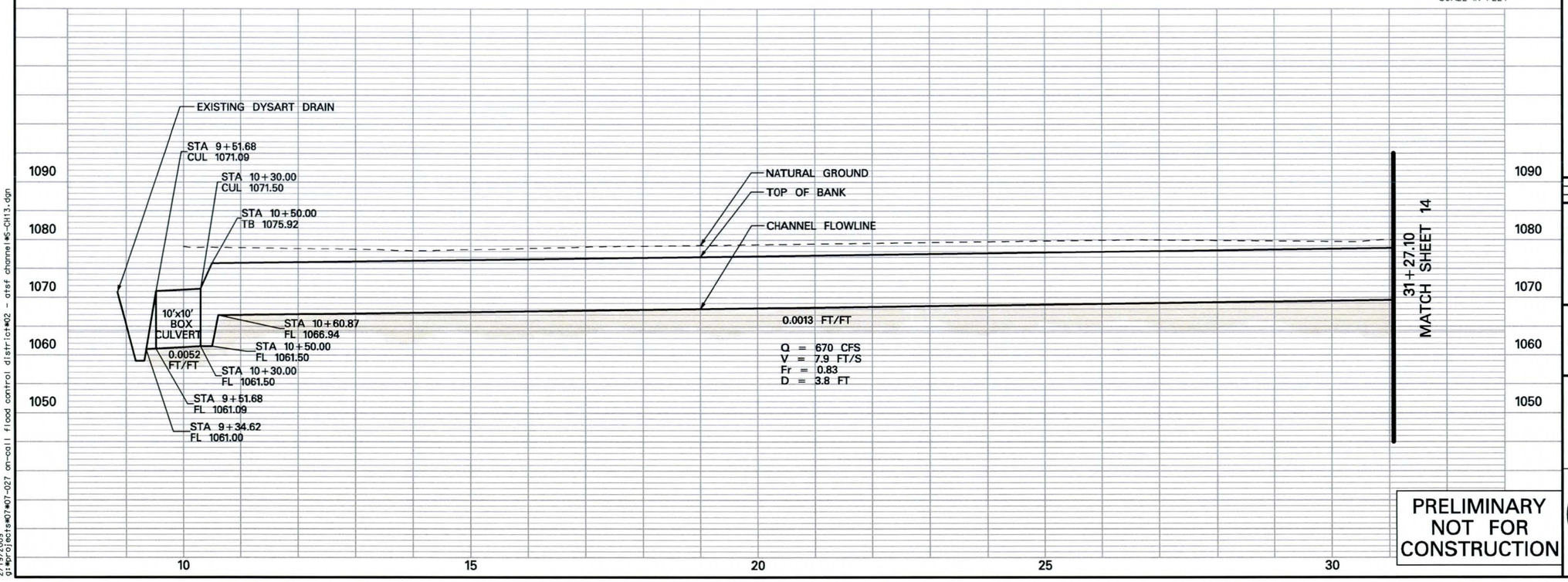

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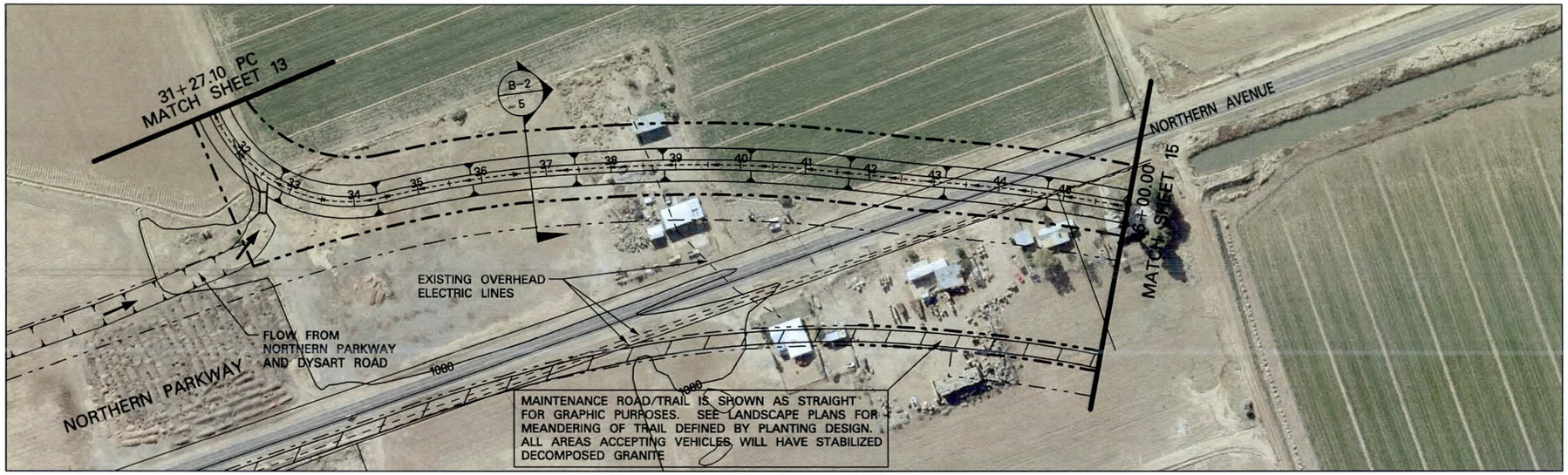

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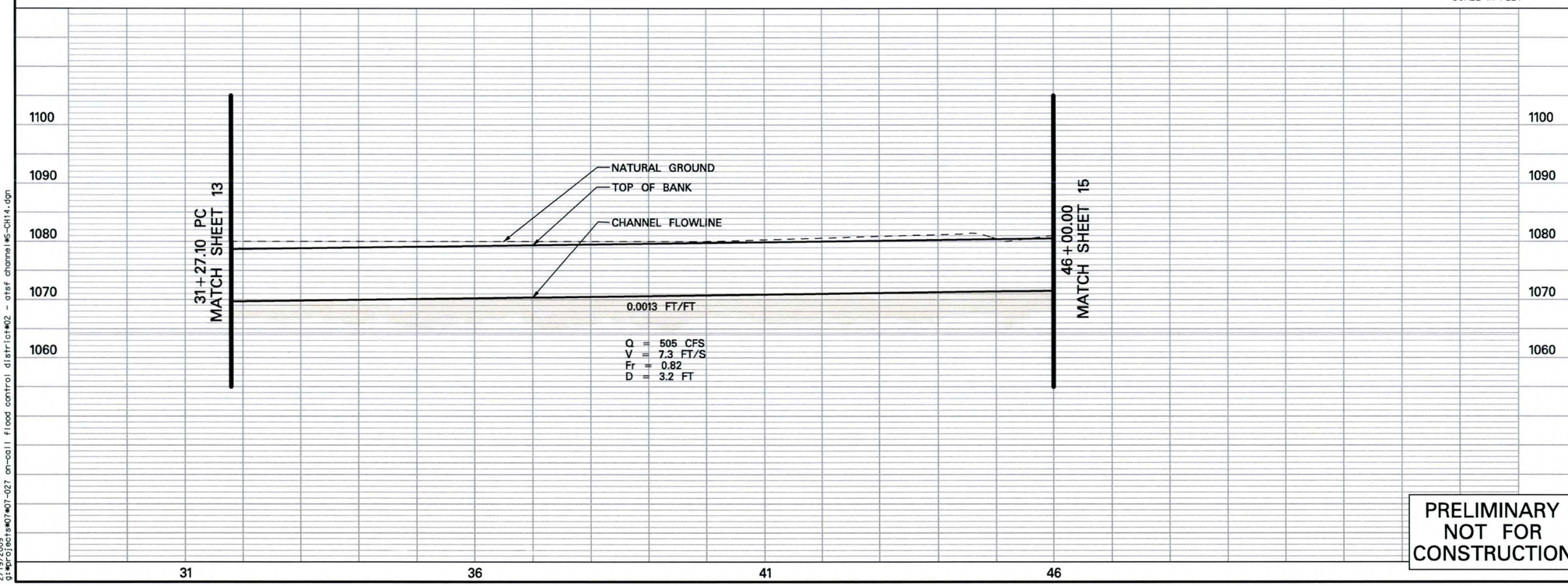

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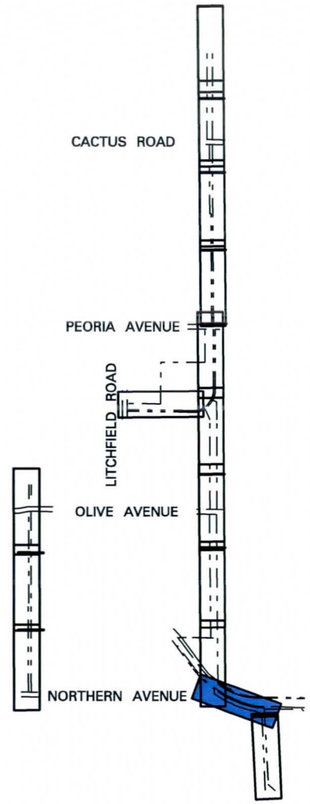

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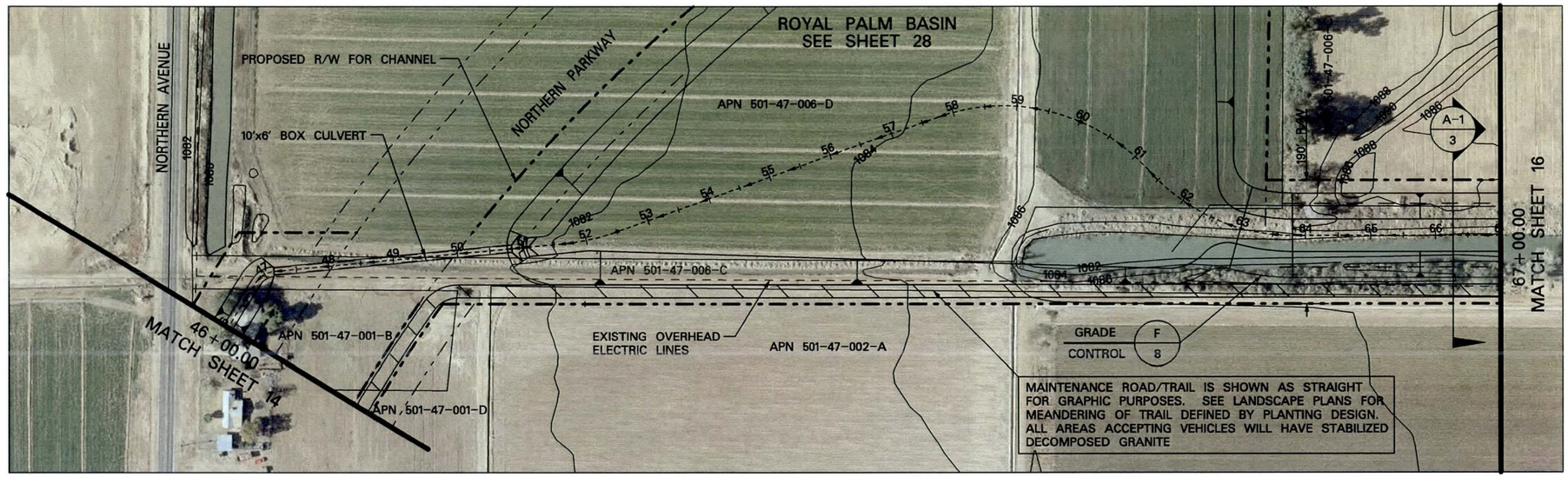

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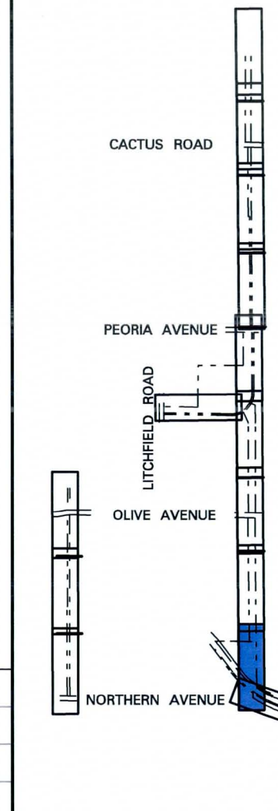

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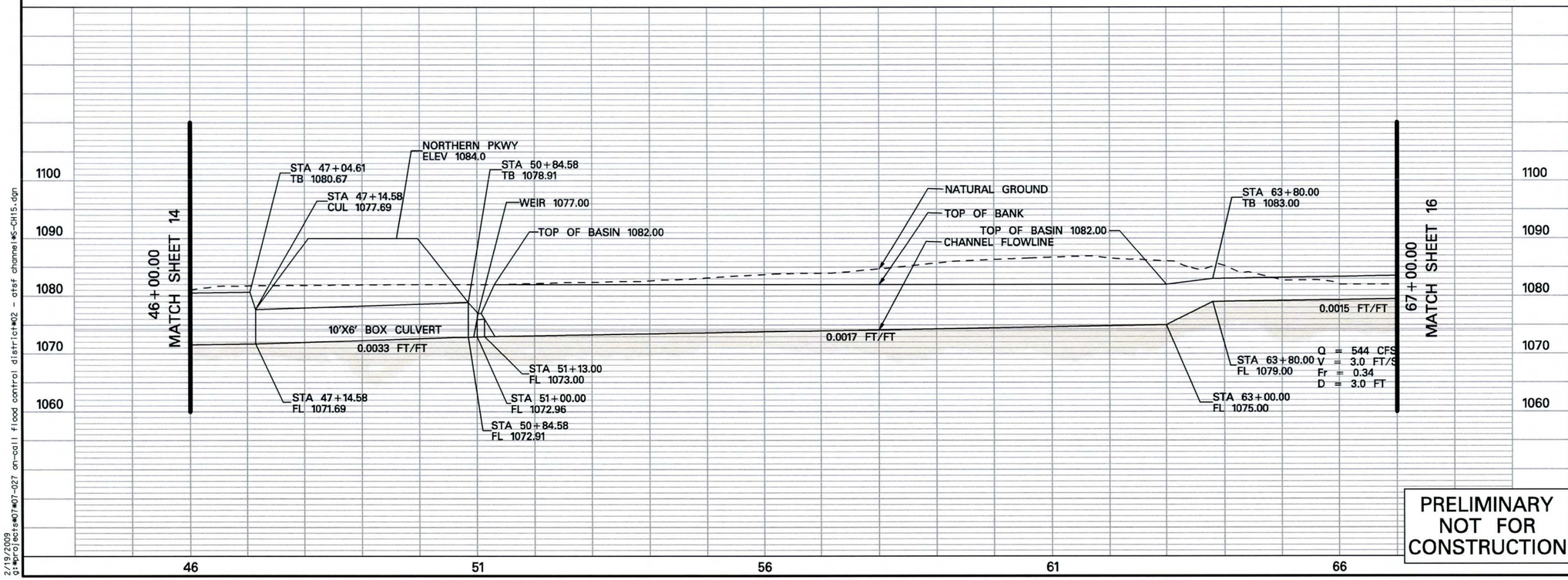

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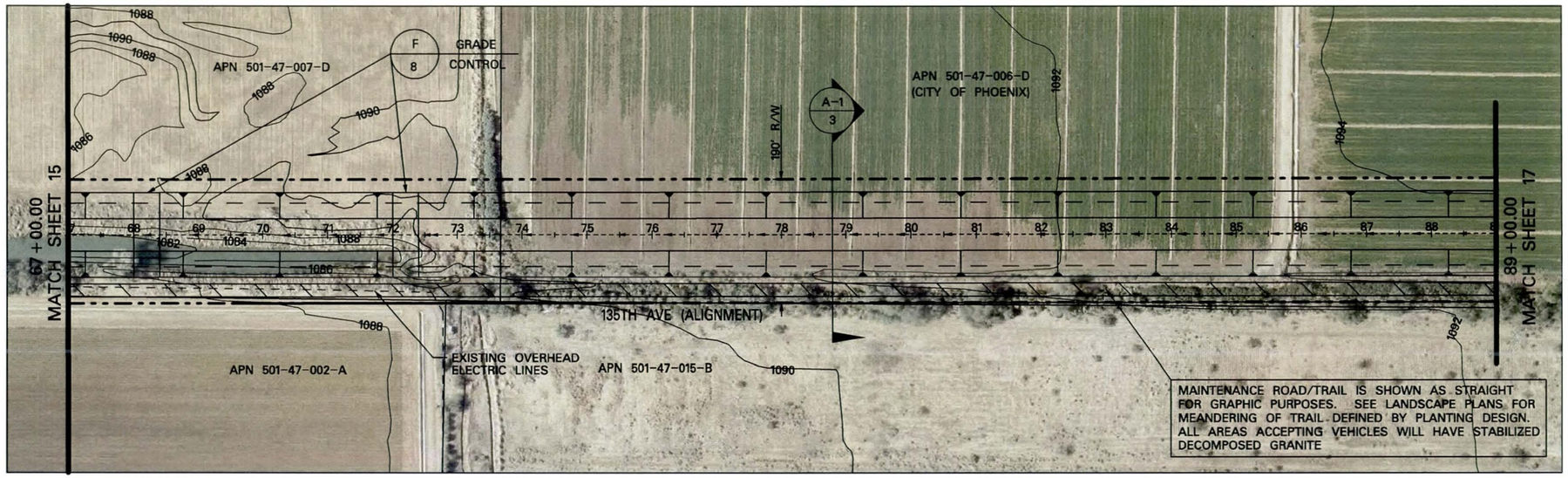

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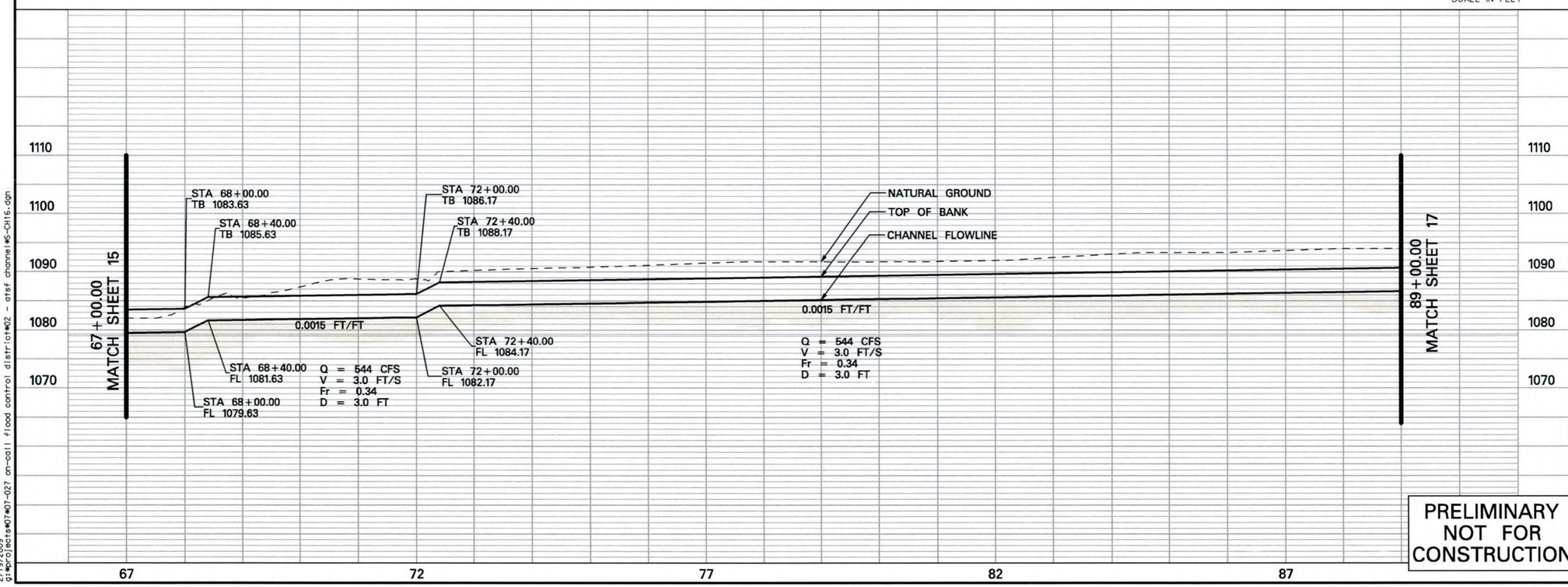

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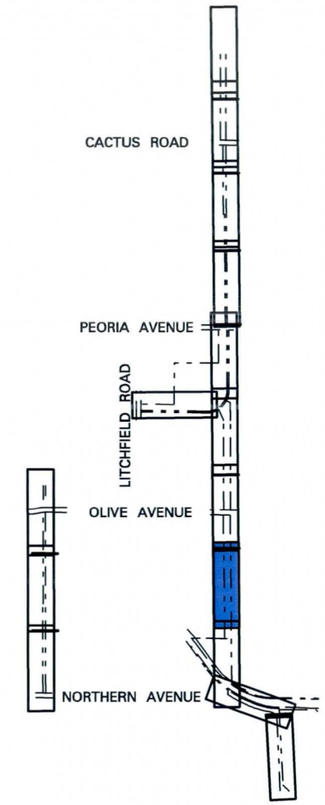

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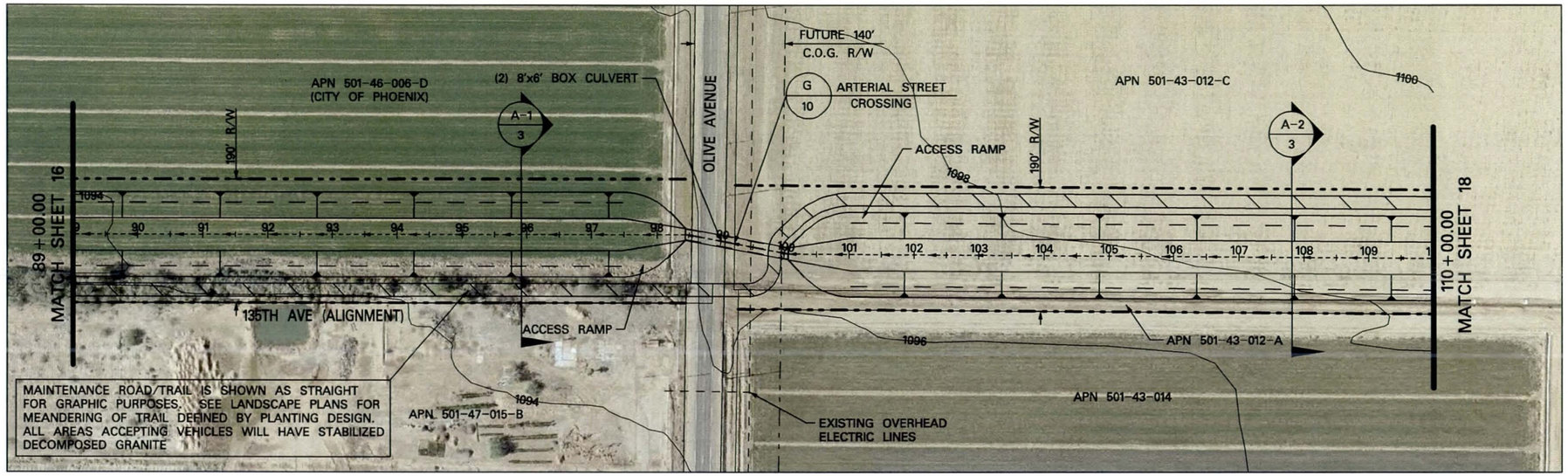

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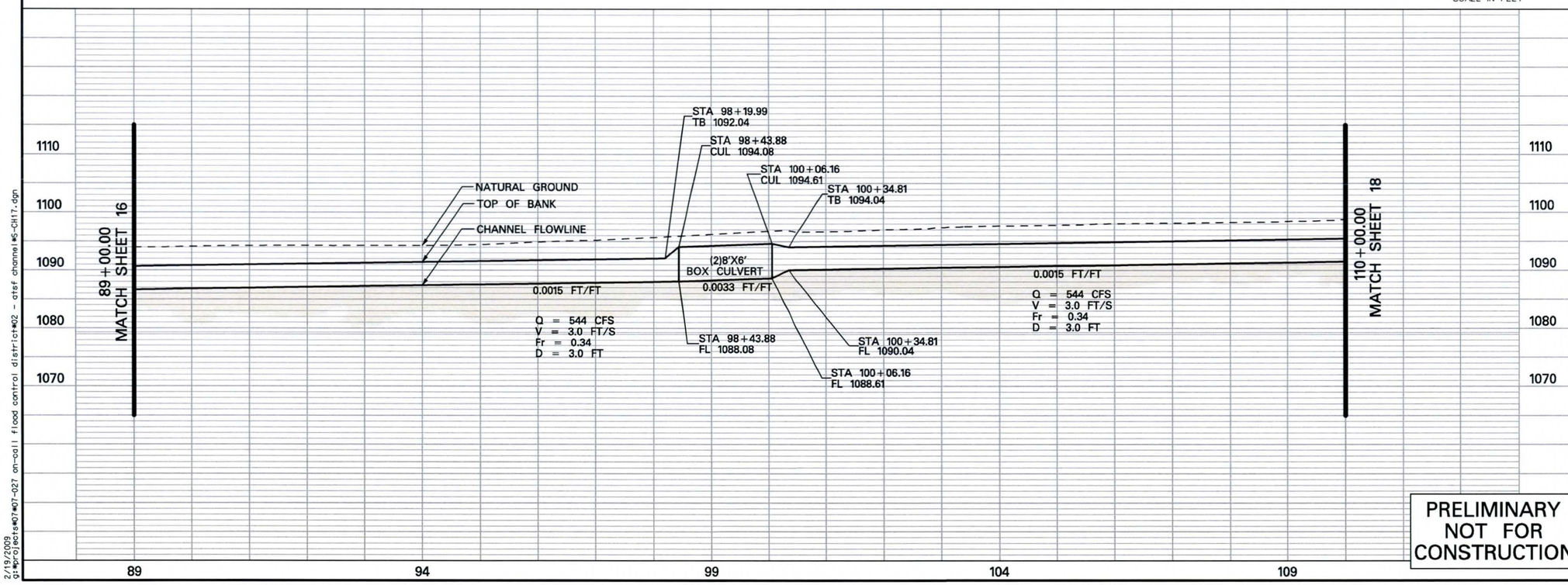

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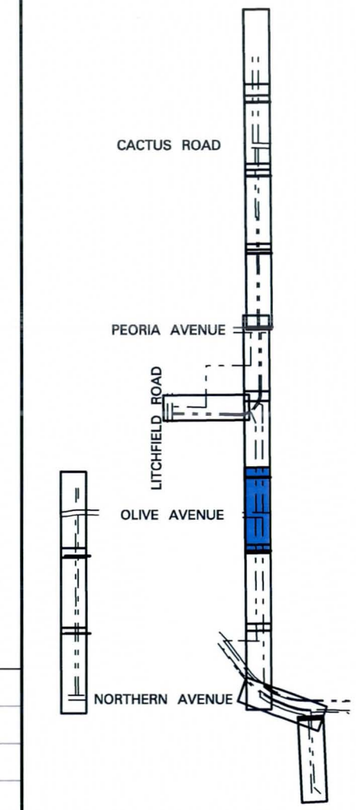

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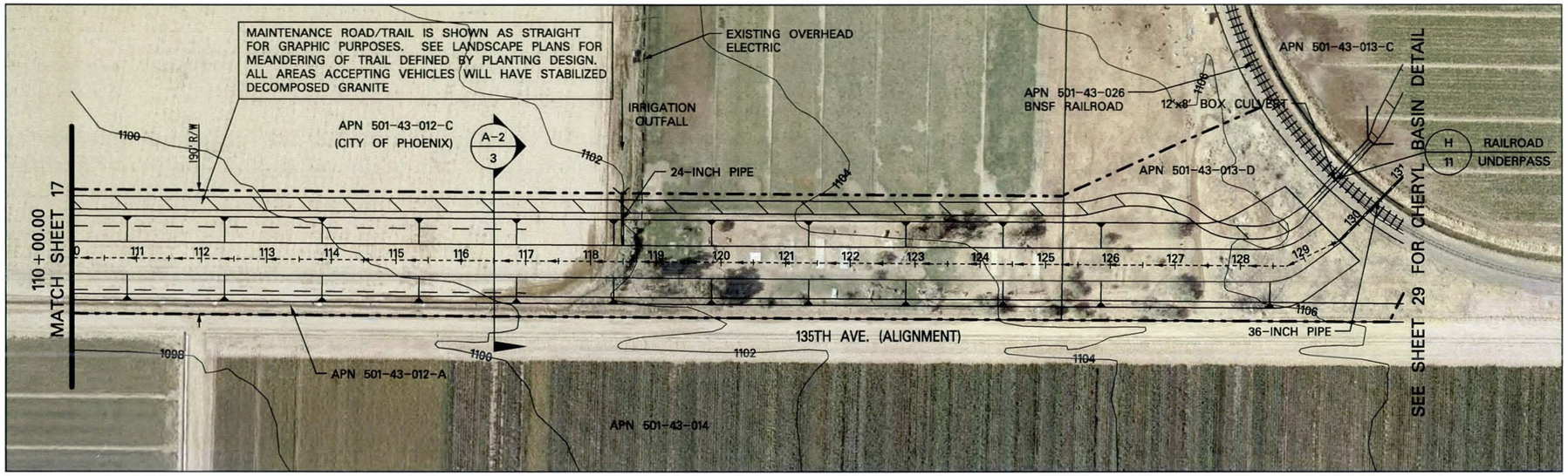

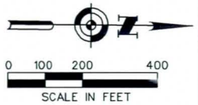

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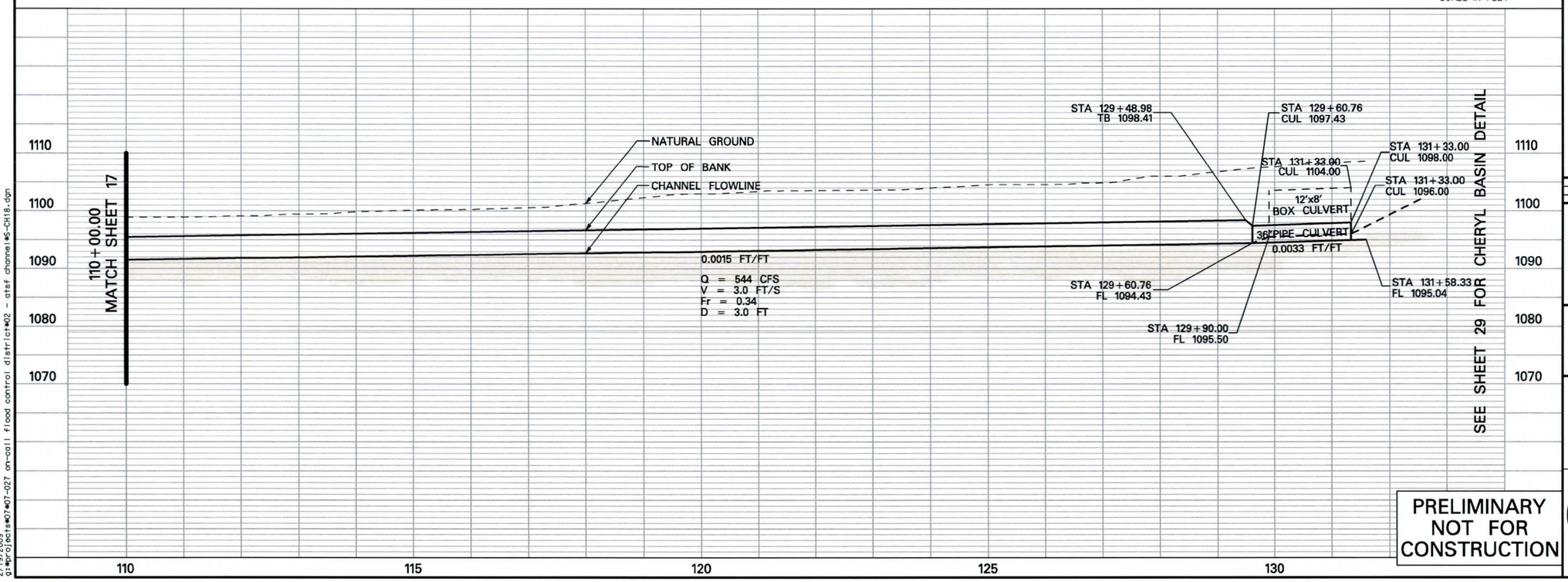

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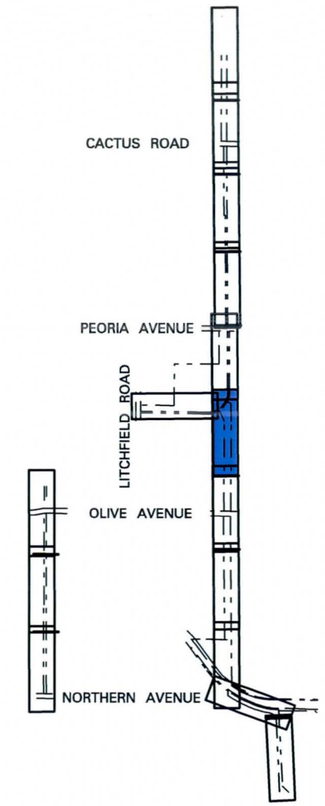

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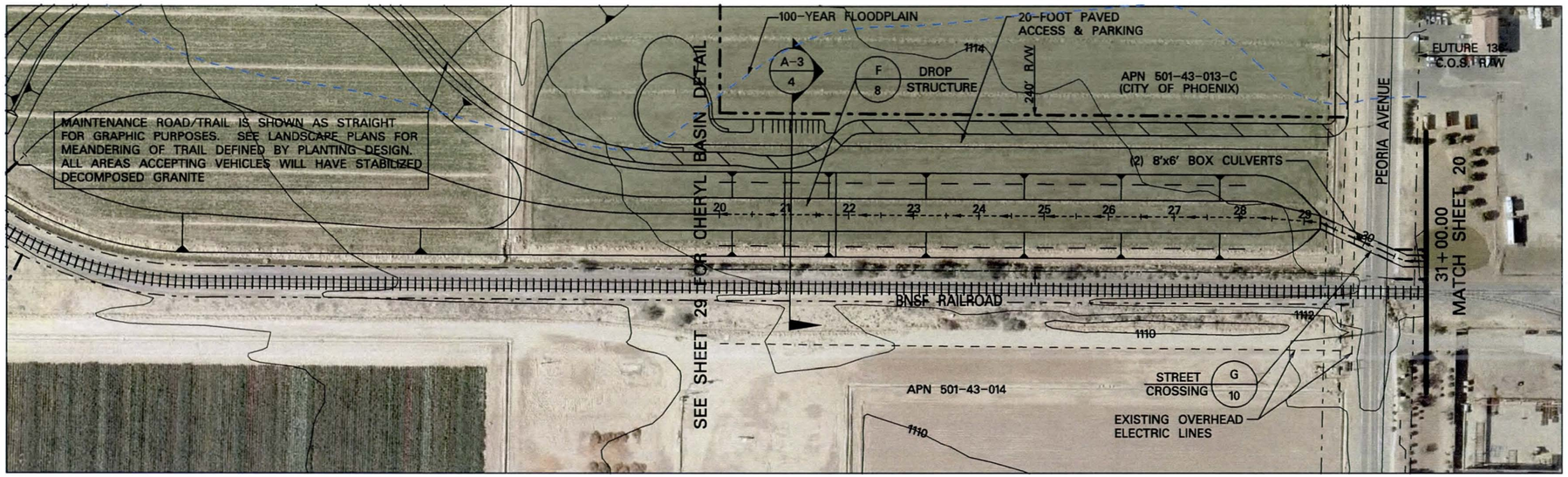

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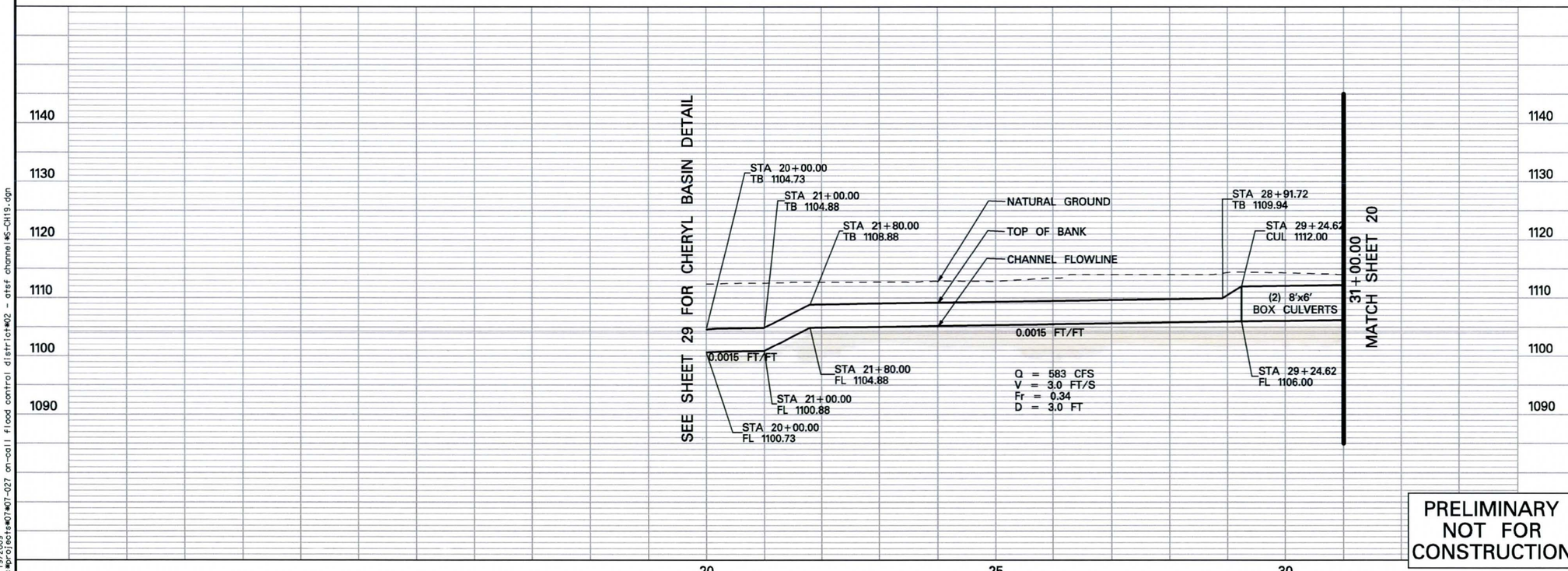

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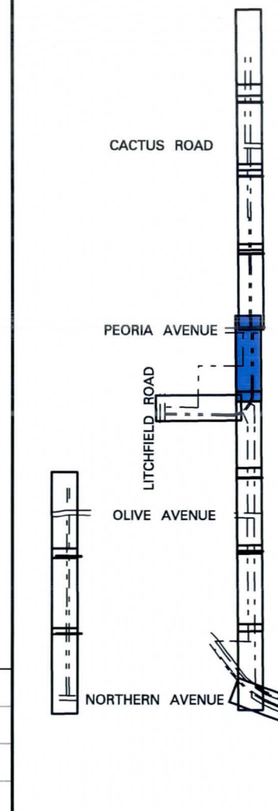

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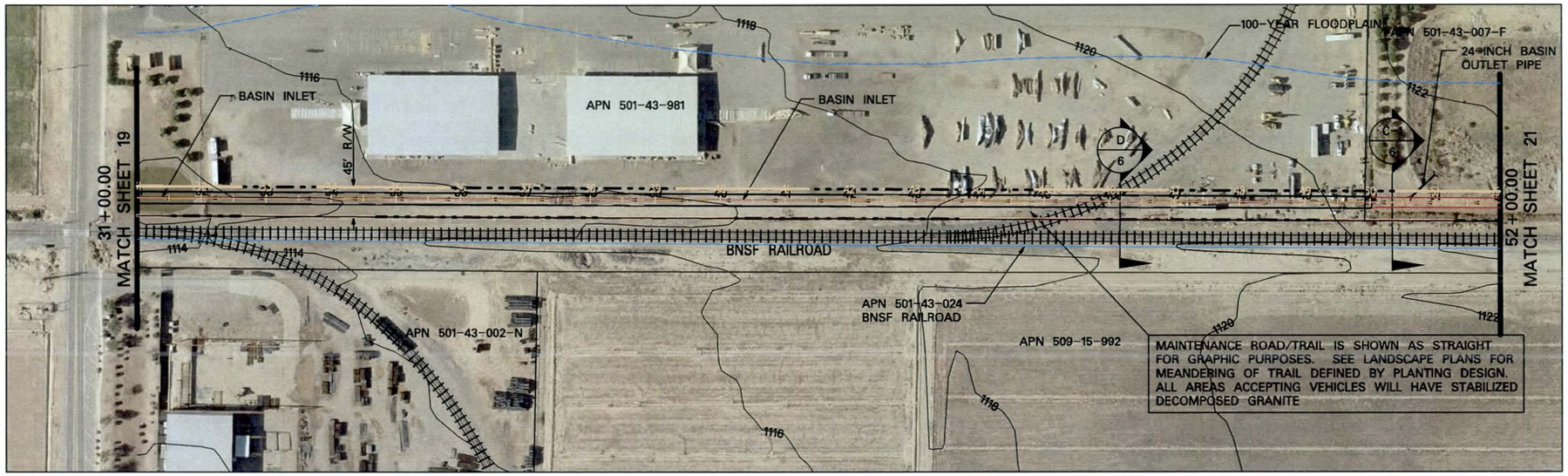

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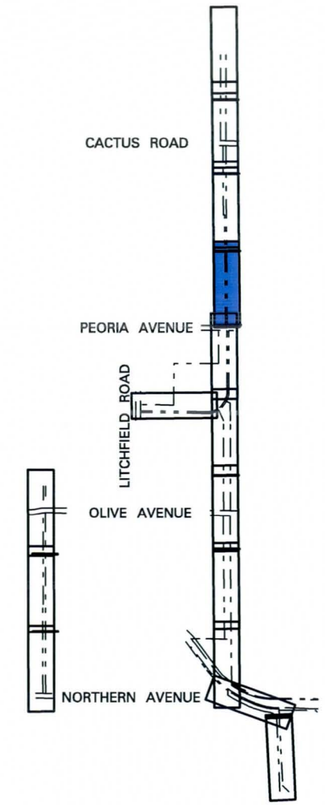

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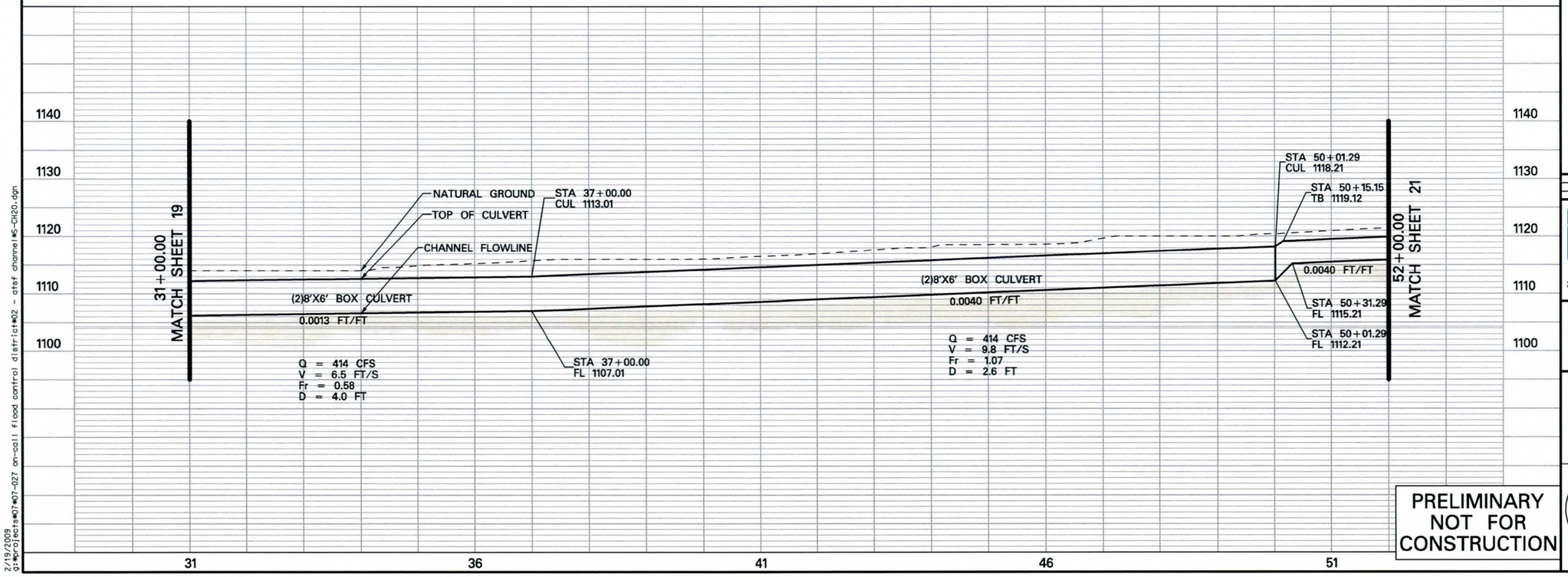

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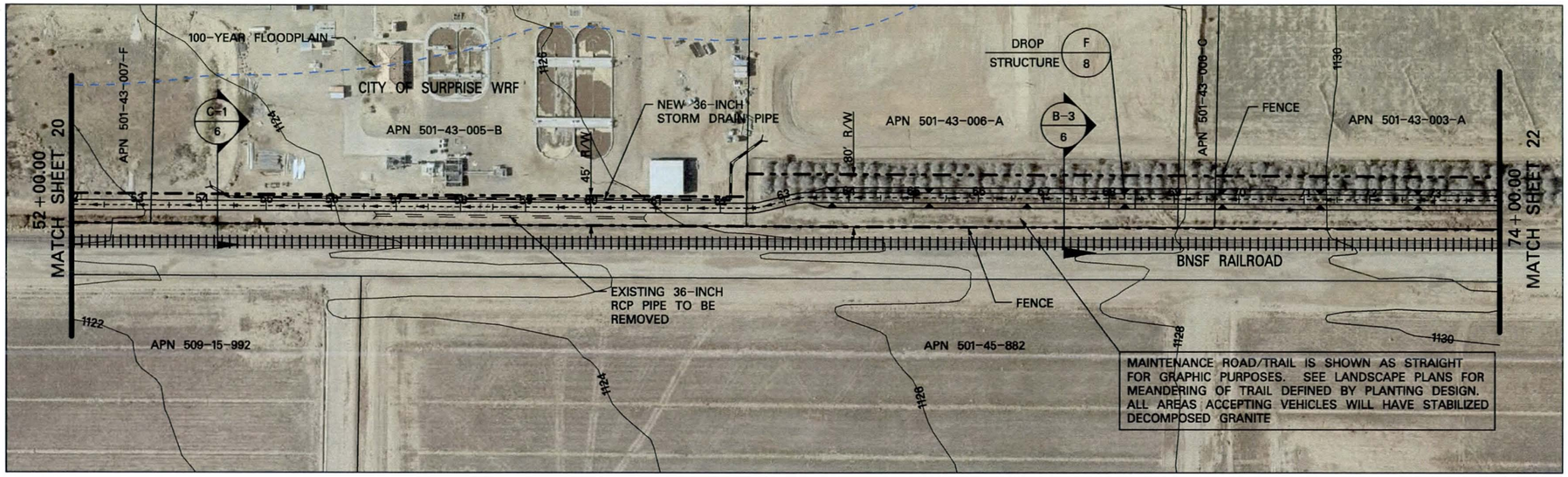

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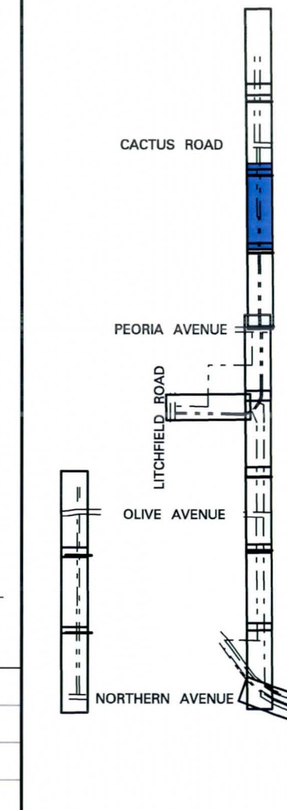

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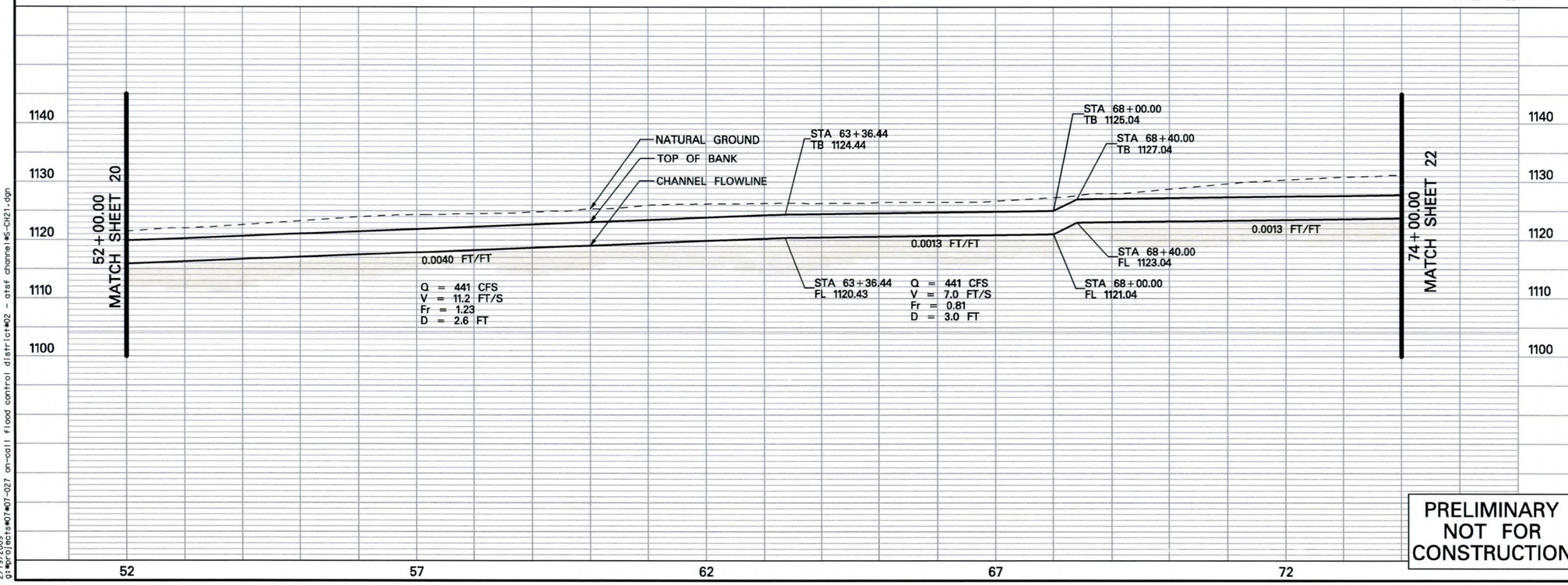

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REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 19690 PAUL W.R. HOSKIN Date Signed ARIZONA, U.S.A. EXPIRES 3/31/09

	BY	DATE
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PLAN AND PROFILE

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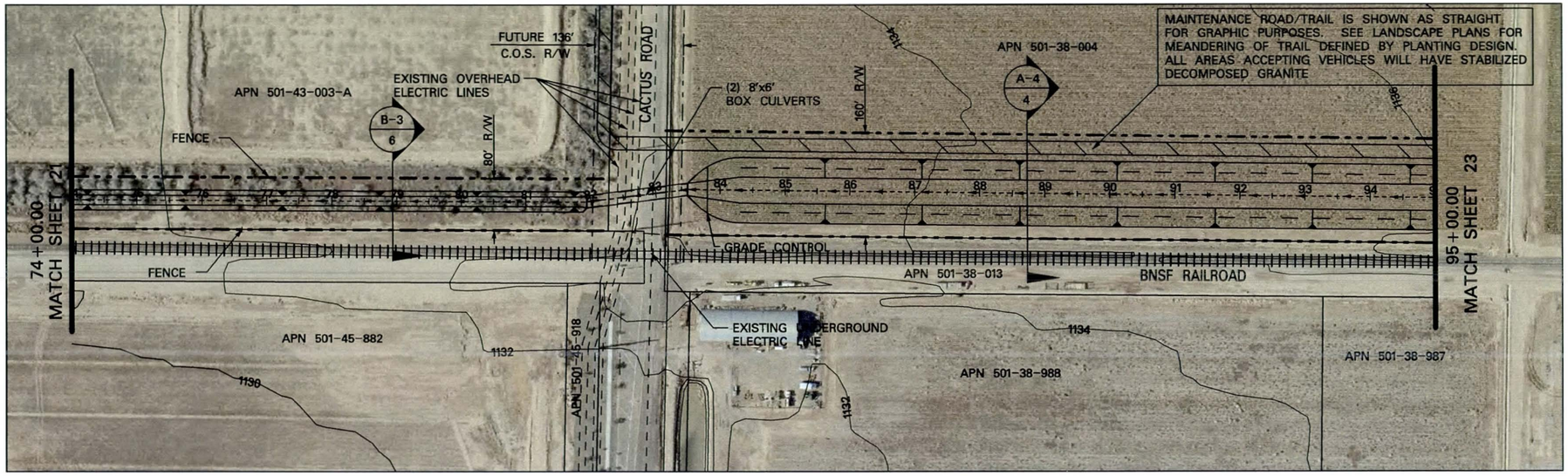

BNSF RAILROAD PRIMARY CHANNEL

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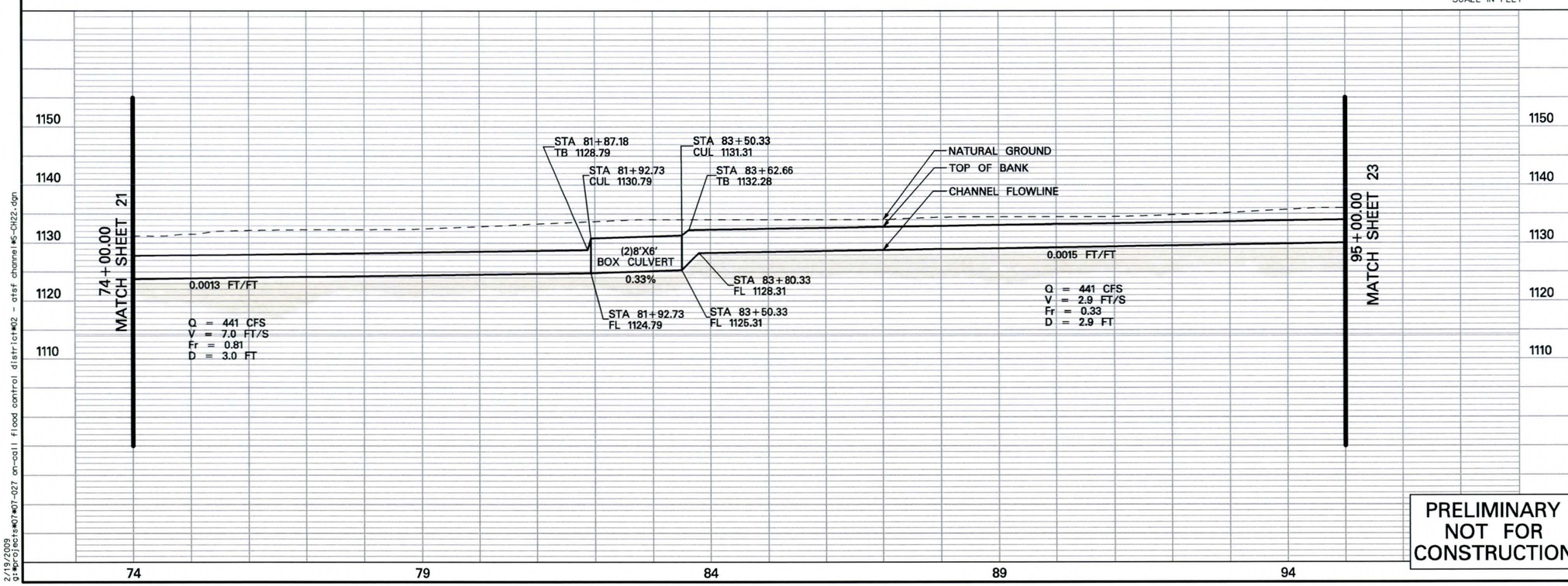
SCALE IN FEET



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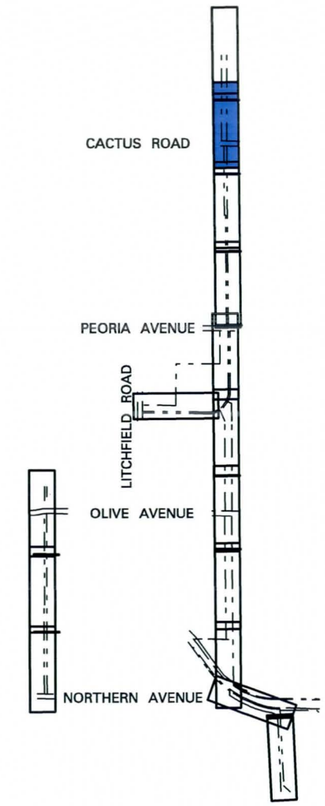
CONSTRUCTION



KEY MAP

NO.	REVISION	BY	DATE
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FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

AT&SF RAILROAD CHANNEL AND BASIN PRELIMINARY PLANS

CONTRACT FCD 2007 C016 (2)

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 19690
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ARIZONA, U.S.A.
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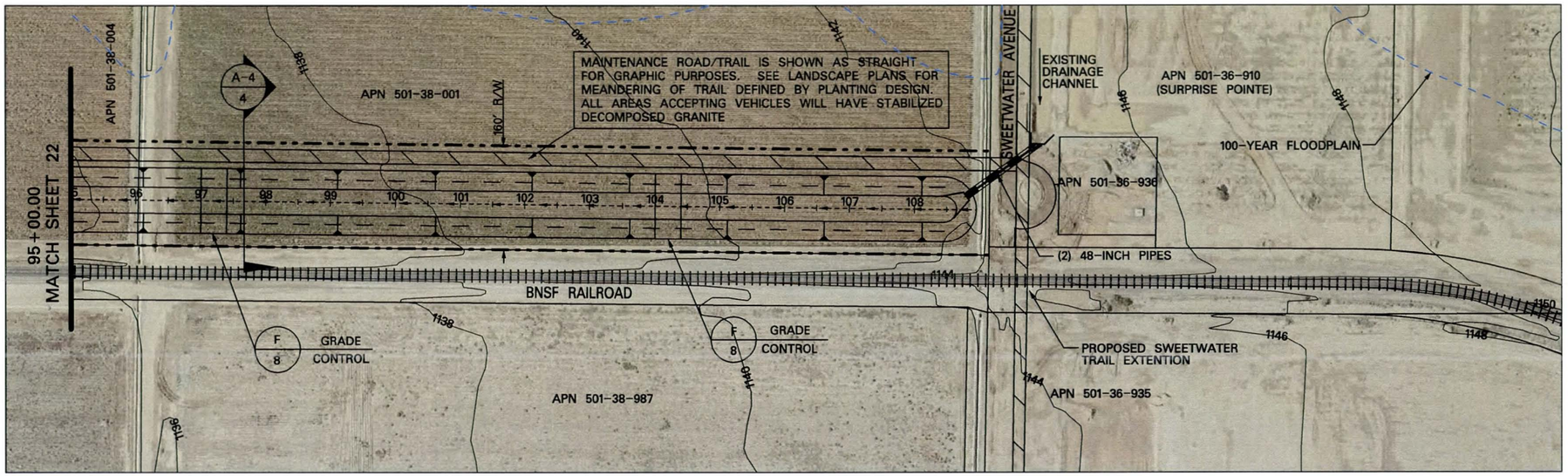

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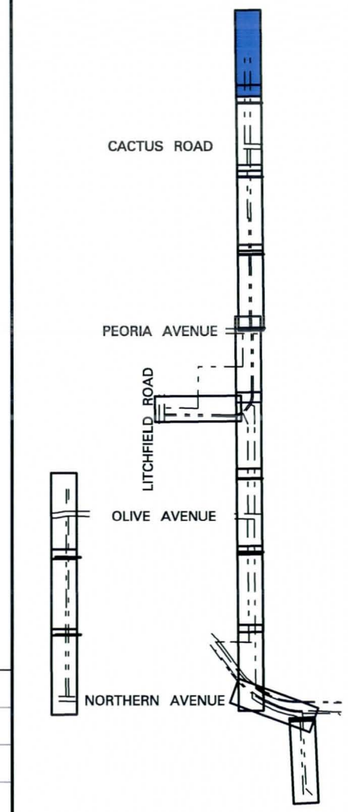
SCALE IN FEET



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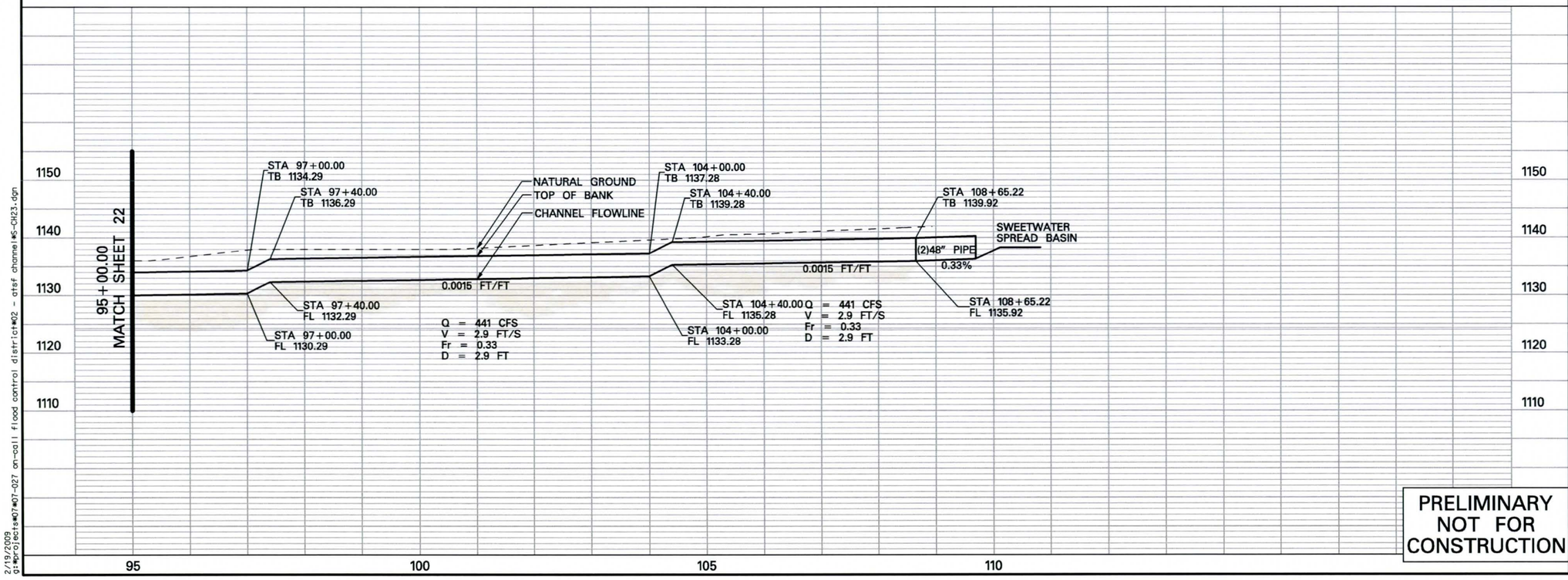

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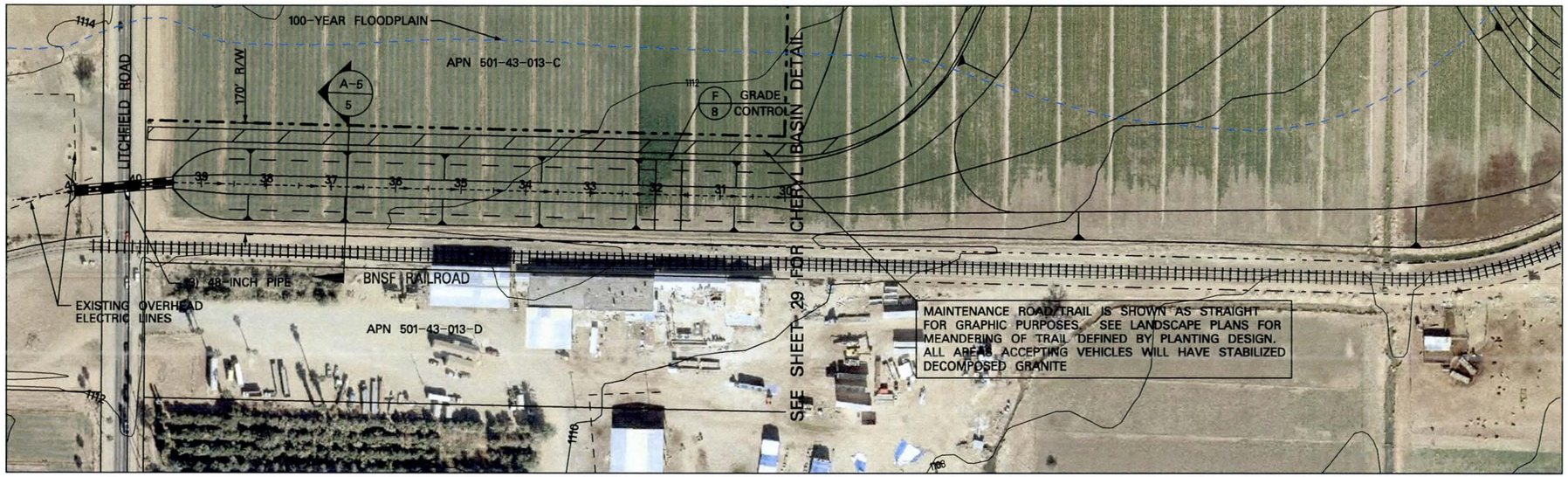

BNSF RAILROAD PRIMARY CHANNEL

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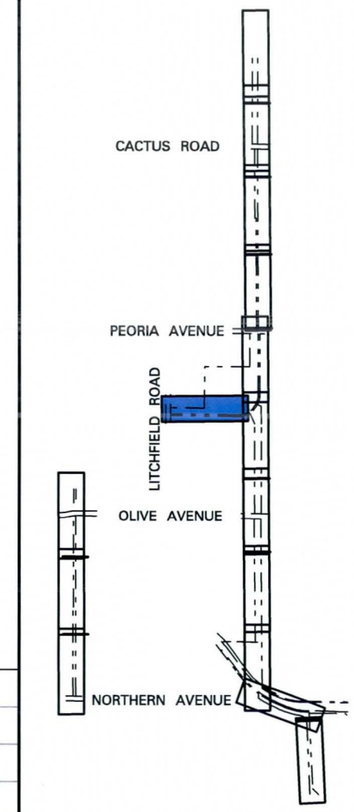
SCALE IN FEET



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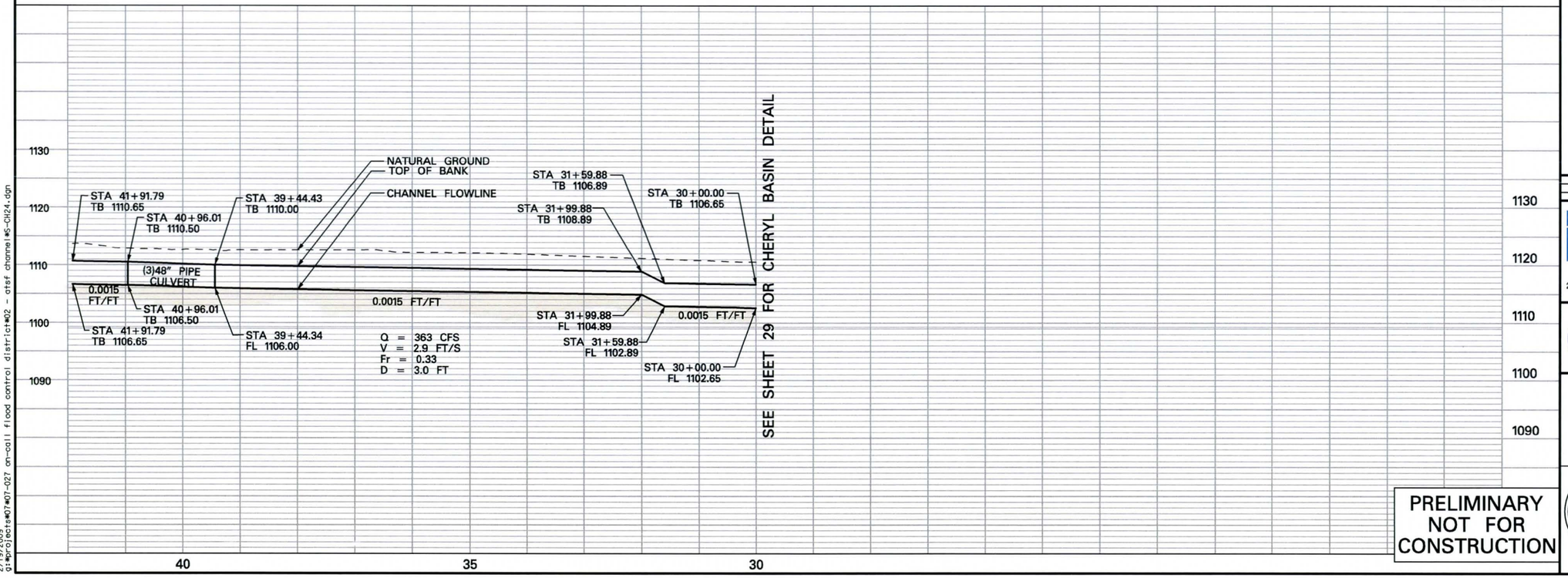

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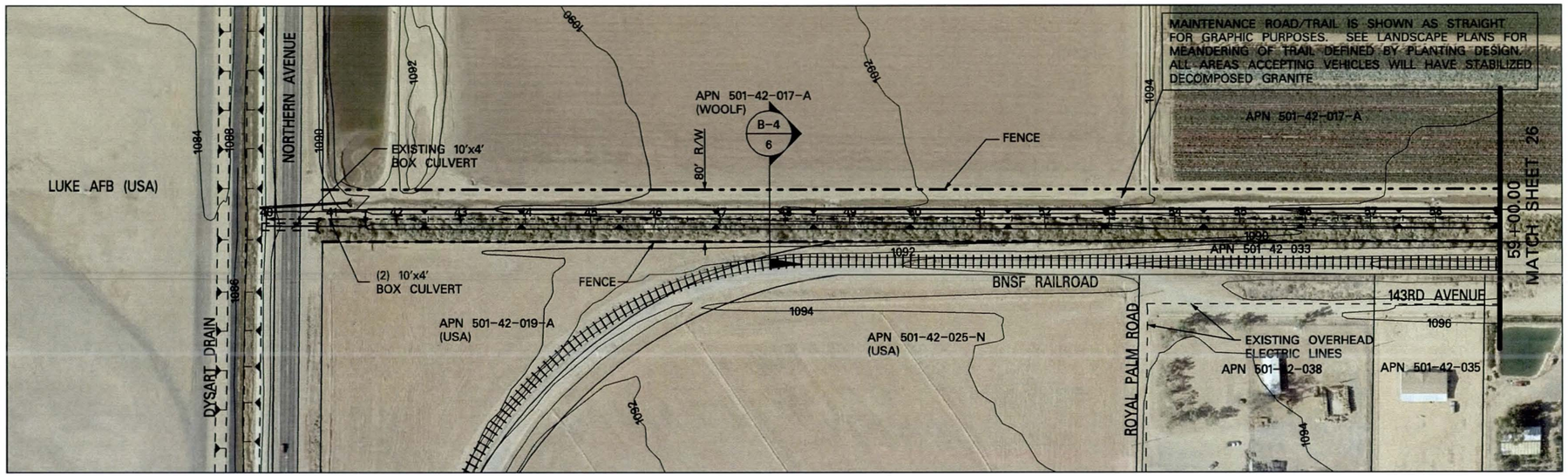

BNSF RAILROAD SECONDARY CHANNEL

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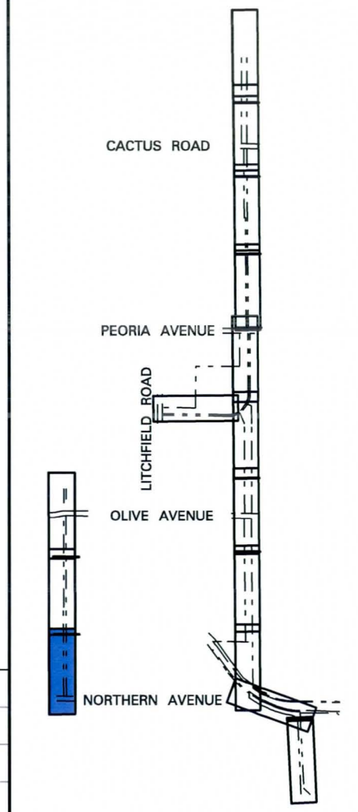
SCALE IN FEET



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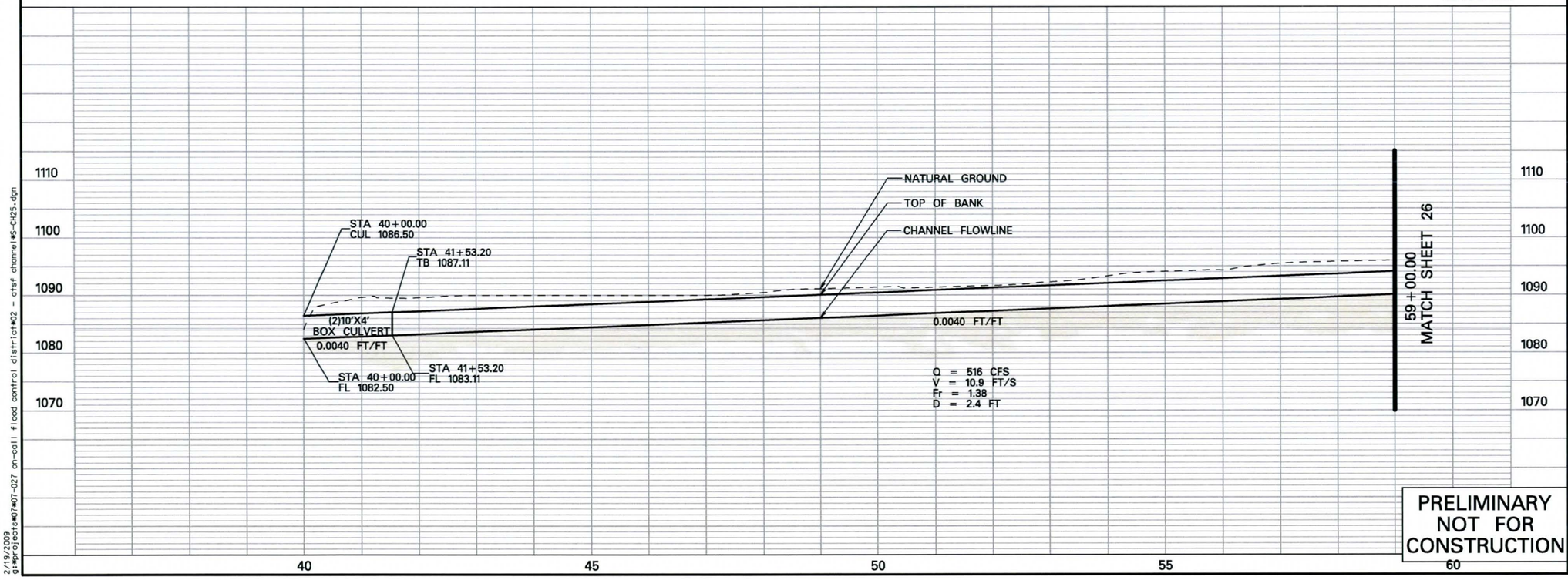

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PLAN AND PROFILE

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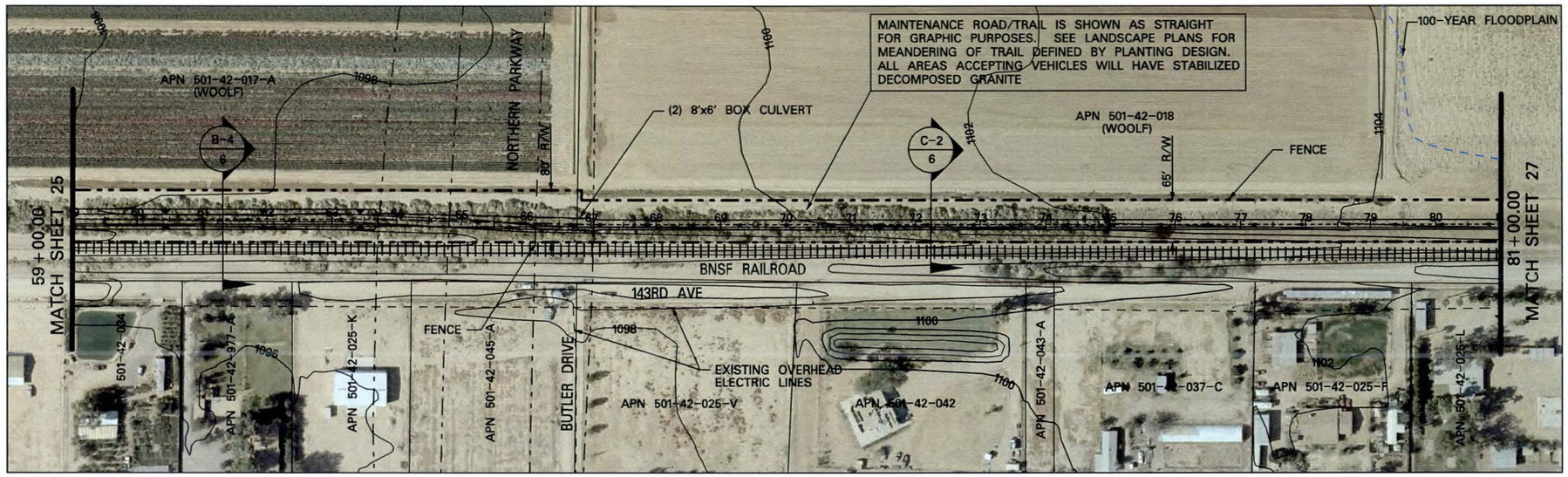

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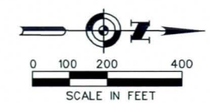

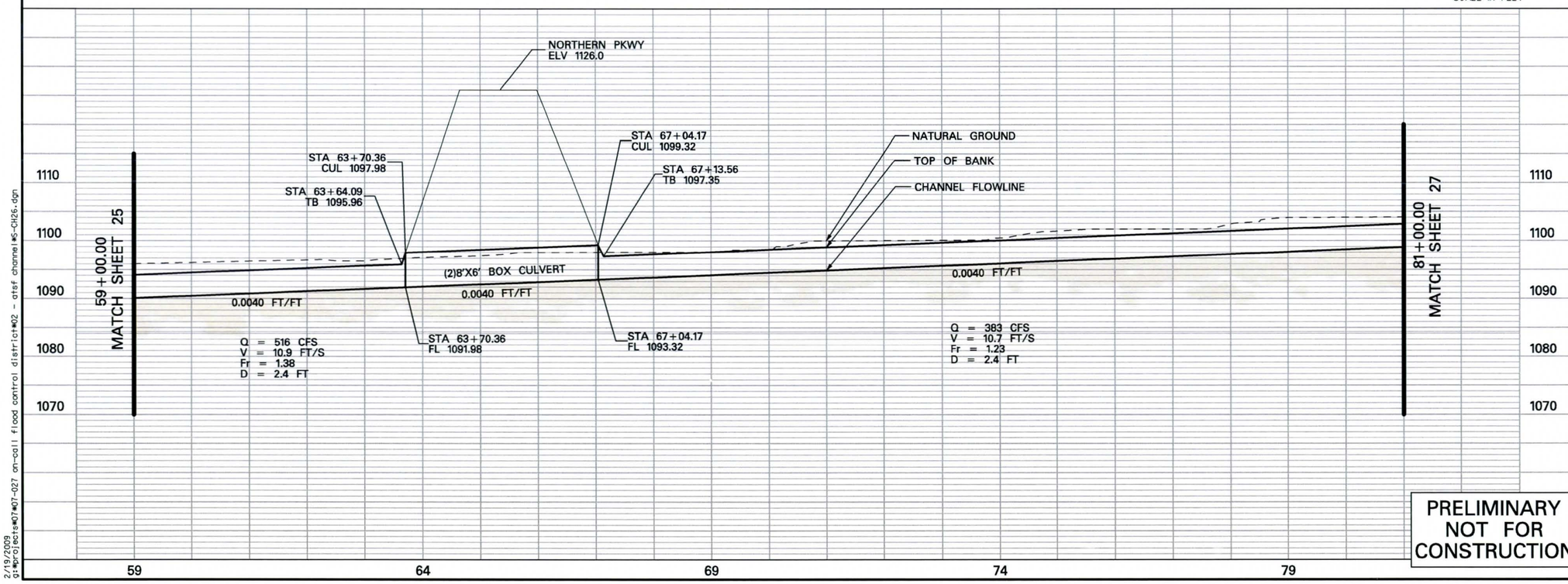

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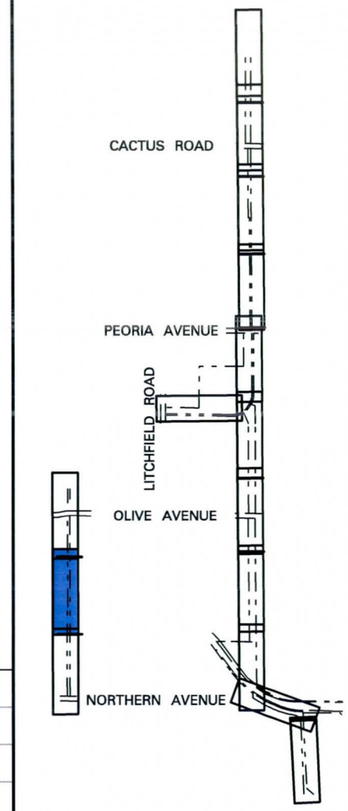

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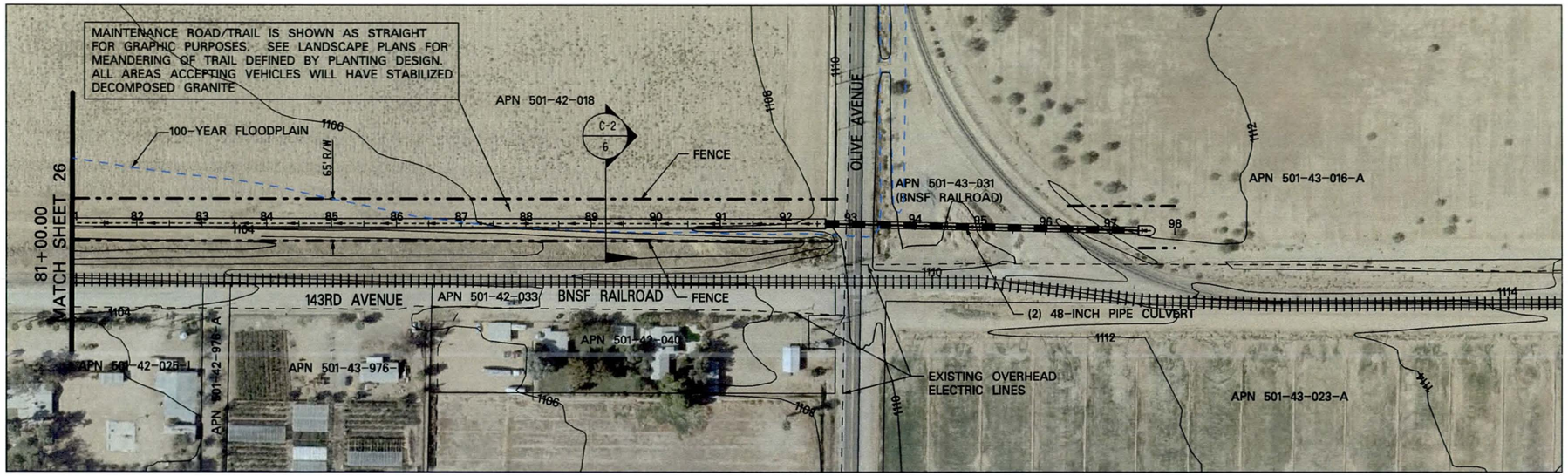

BNSF RAILROAD SECONDARY CHANNEL

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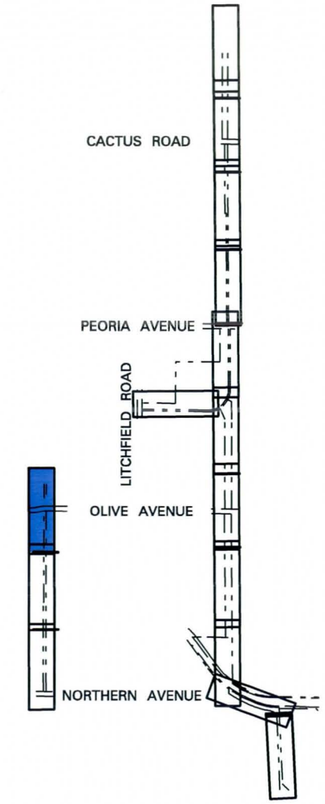

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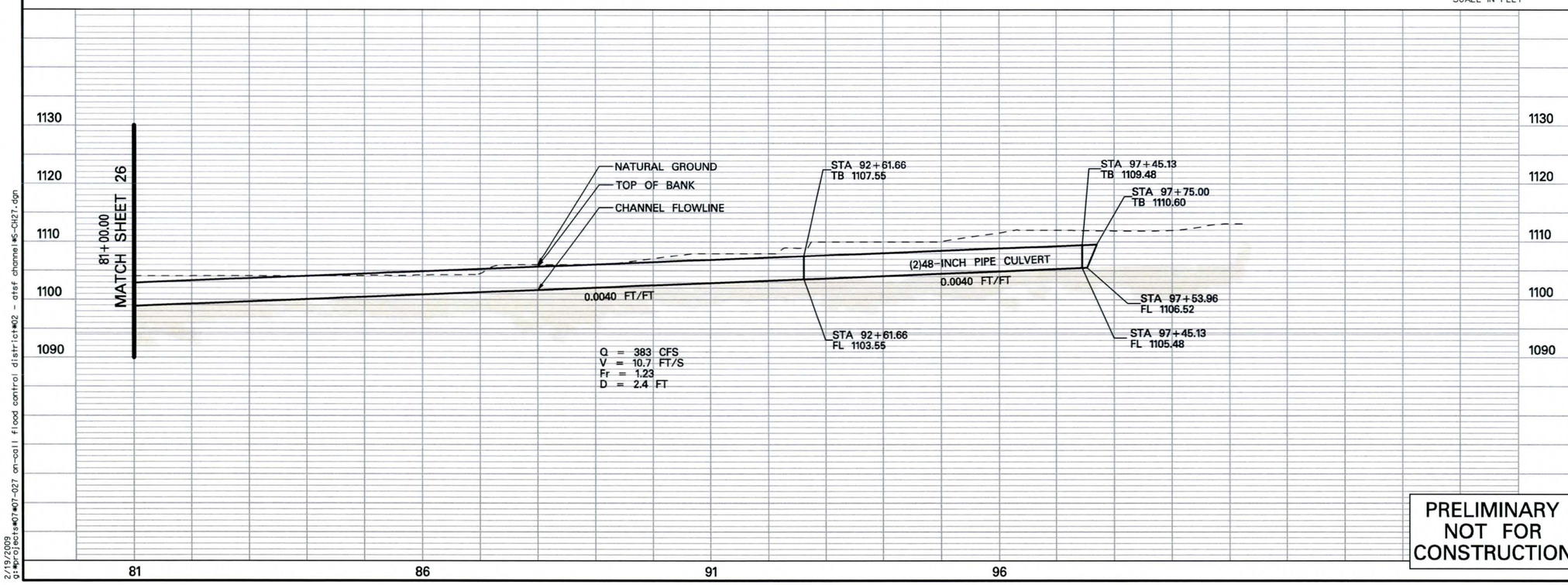

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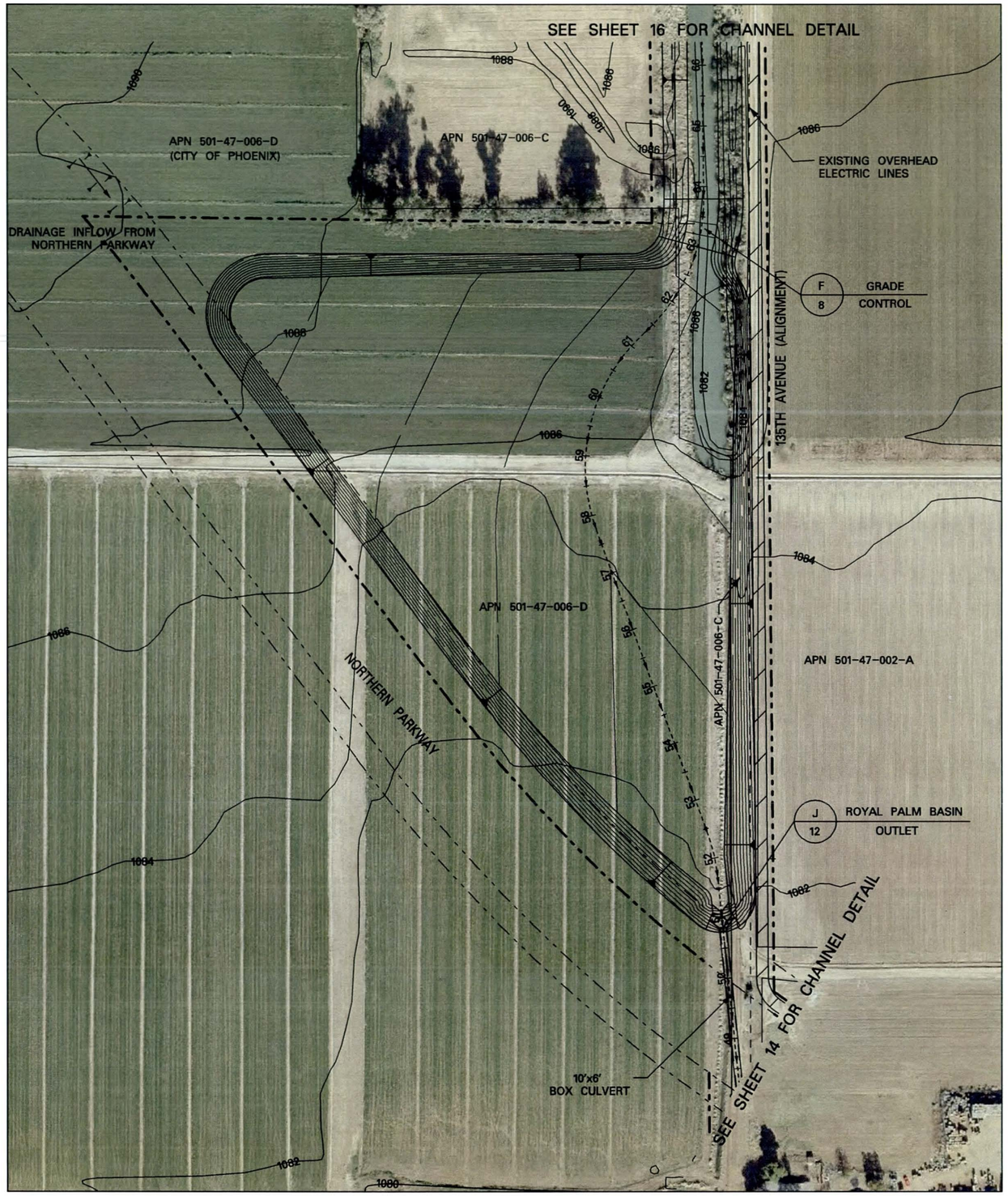

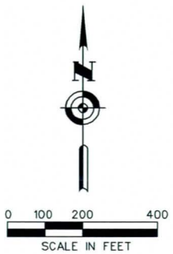

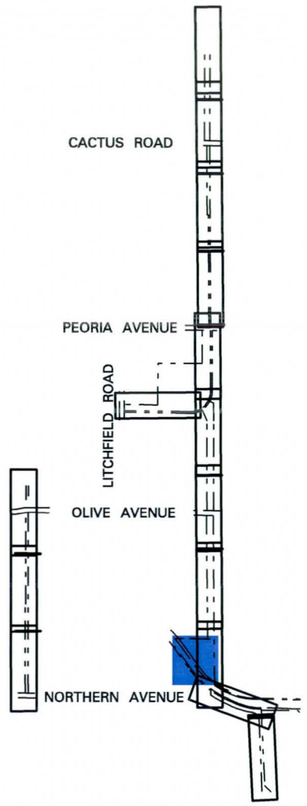

KEY MAP

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AT&SF RAILROAD CHANNEL AND BASIN PRELIMINARY PLANS

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ROYAL PALM BASIN

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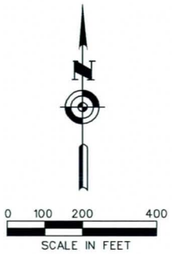

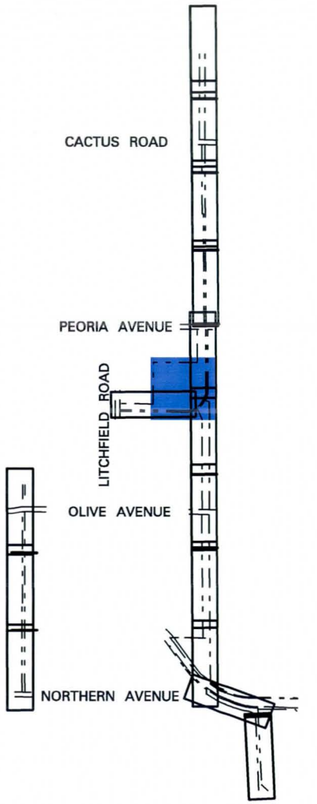

KEY MAP

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CHERYL BASIN

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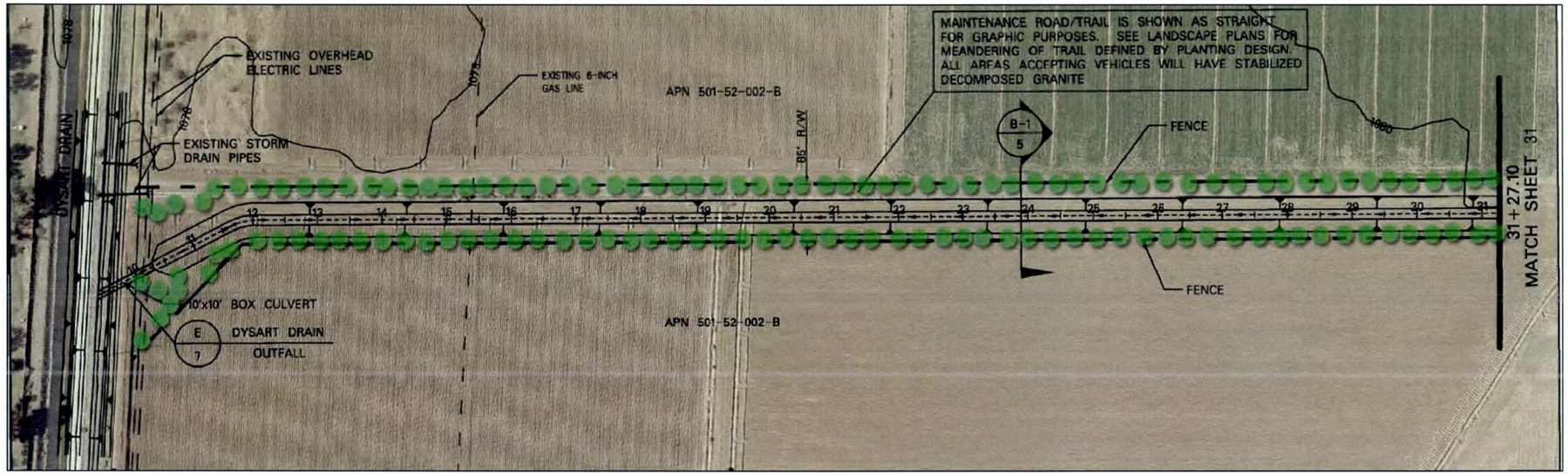

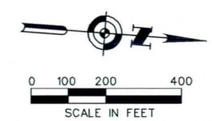

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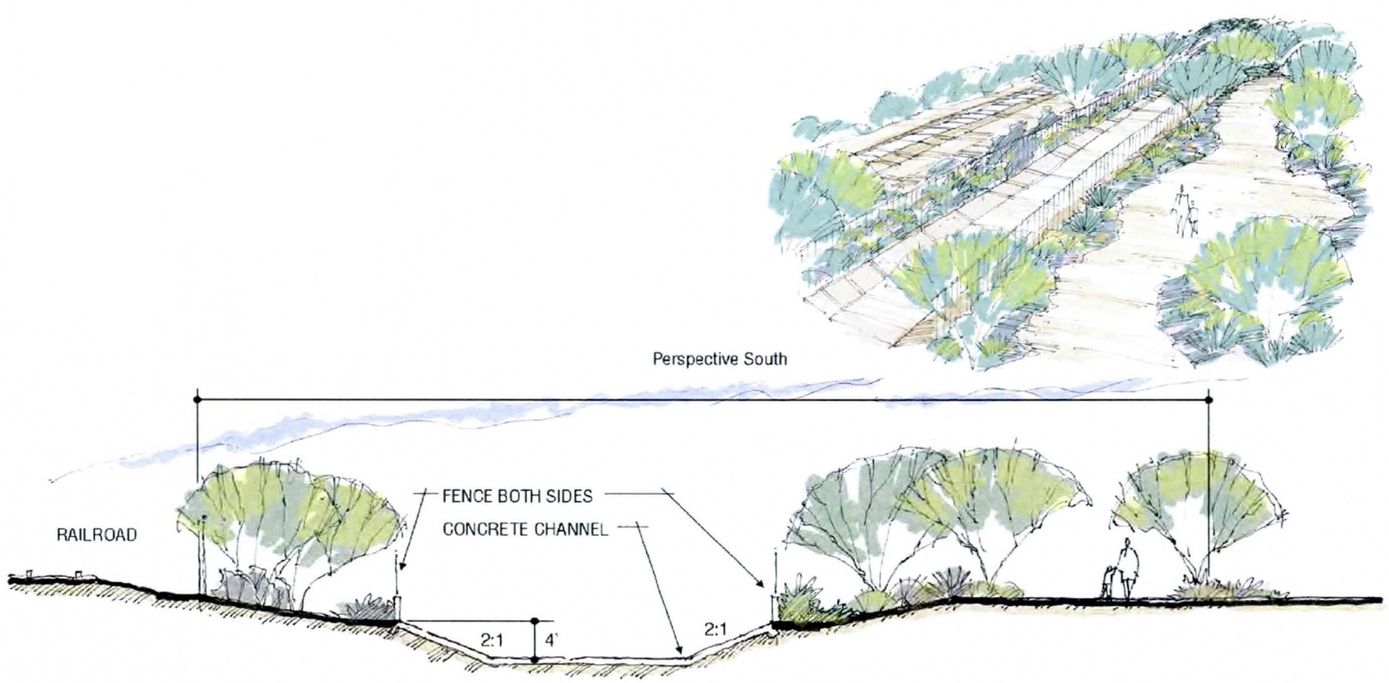
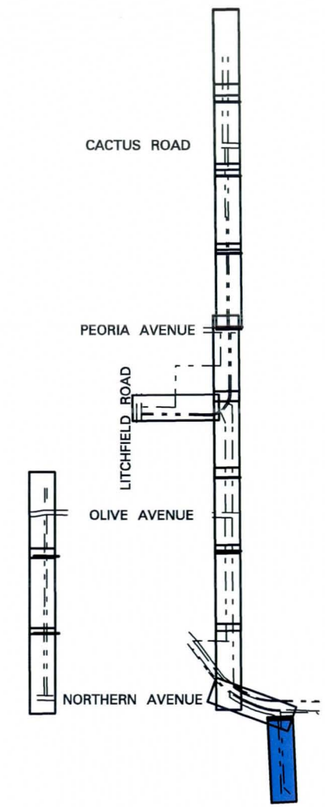


- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION



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LANDSCAPE

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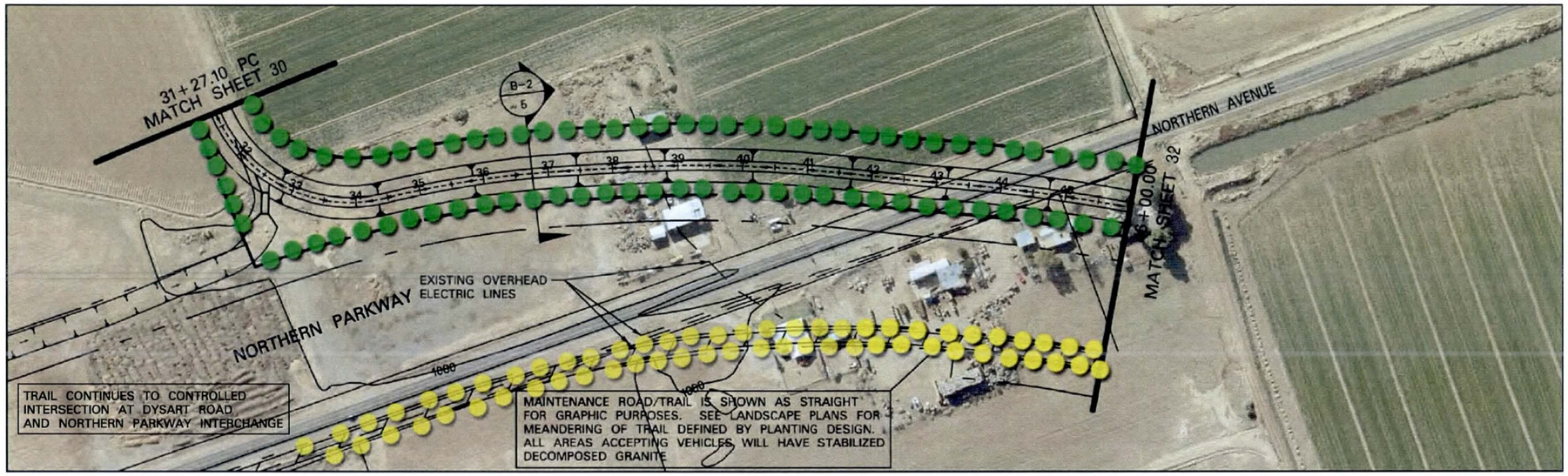

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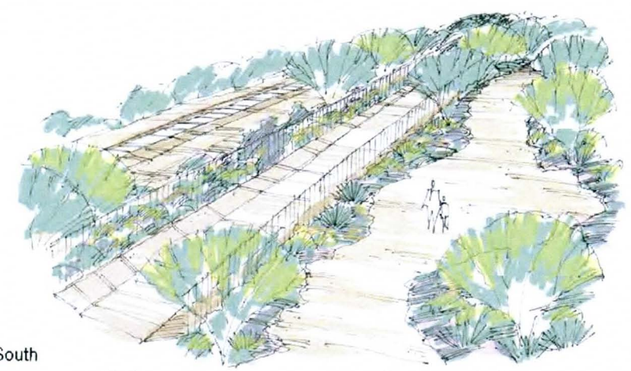
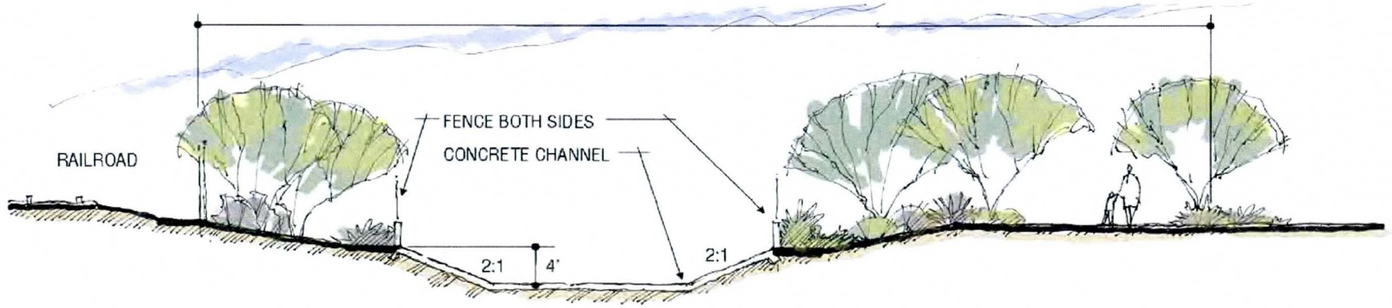
BNSF RAILROAD PRIMARY CHANNEL

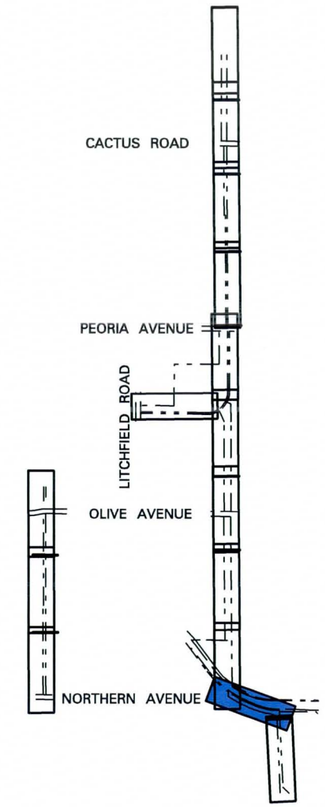


Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION



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LANDSCAPE

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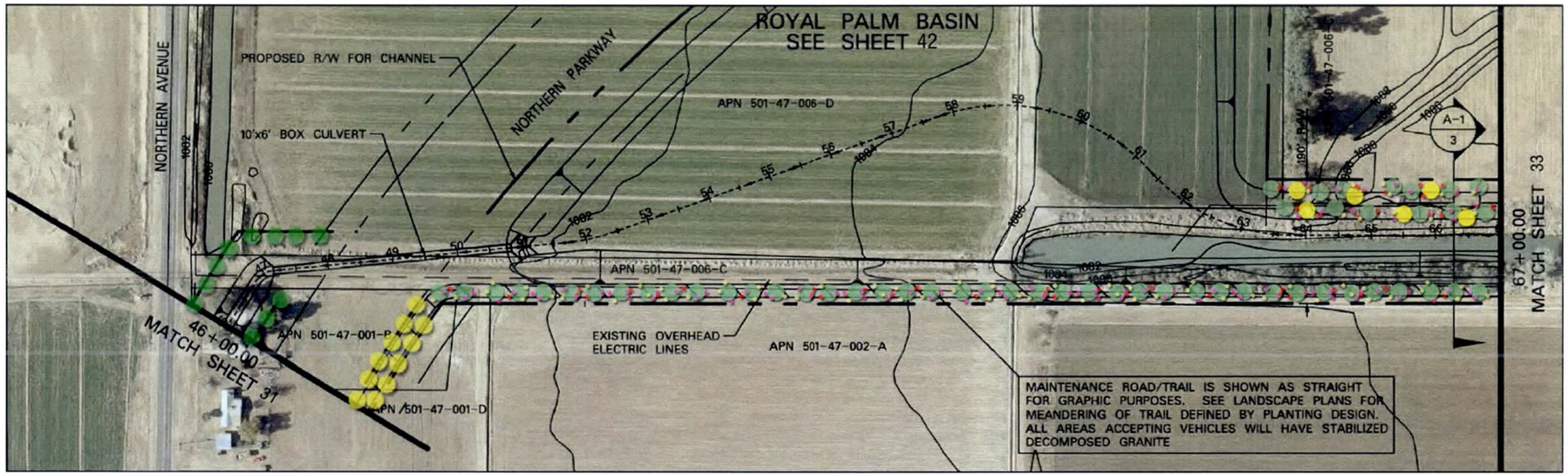

BNSF RAILROAD PRIMARY CHANNEL

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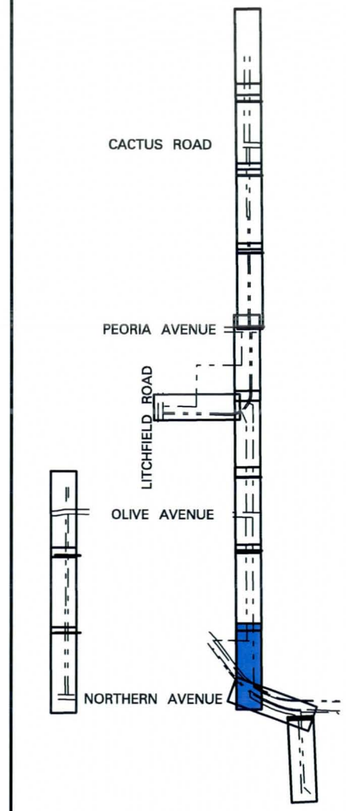

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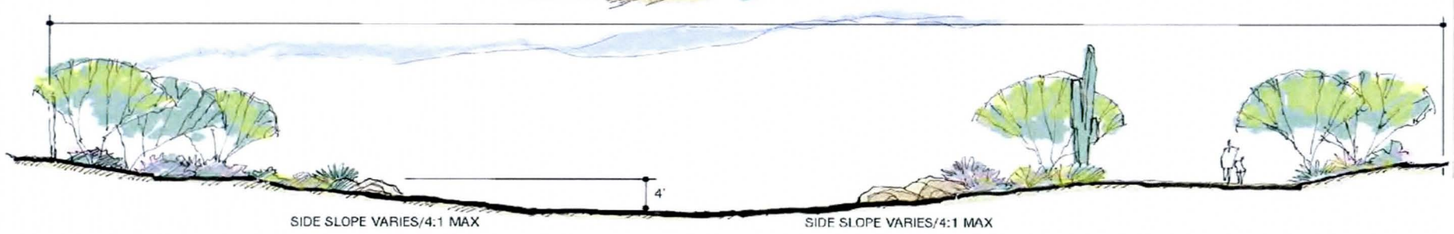
Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

AT&SF RAILROAD CHANNEL AND BASIN PRELIMINARY PLANS

CONTRACT FCD 2007 C016 (2)

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 19690 PAUL W.R. HOSKIN Date Signed ARIZONA, U.S.A.
EXPIRES 3/31/09

	BY	DATE
DESIGN		
DESIGN CHK.		
PLANS		
PLANS CHK.		

LANDSCAPE

SHEET 32 OF 44

2/19/2009
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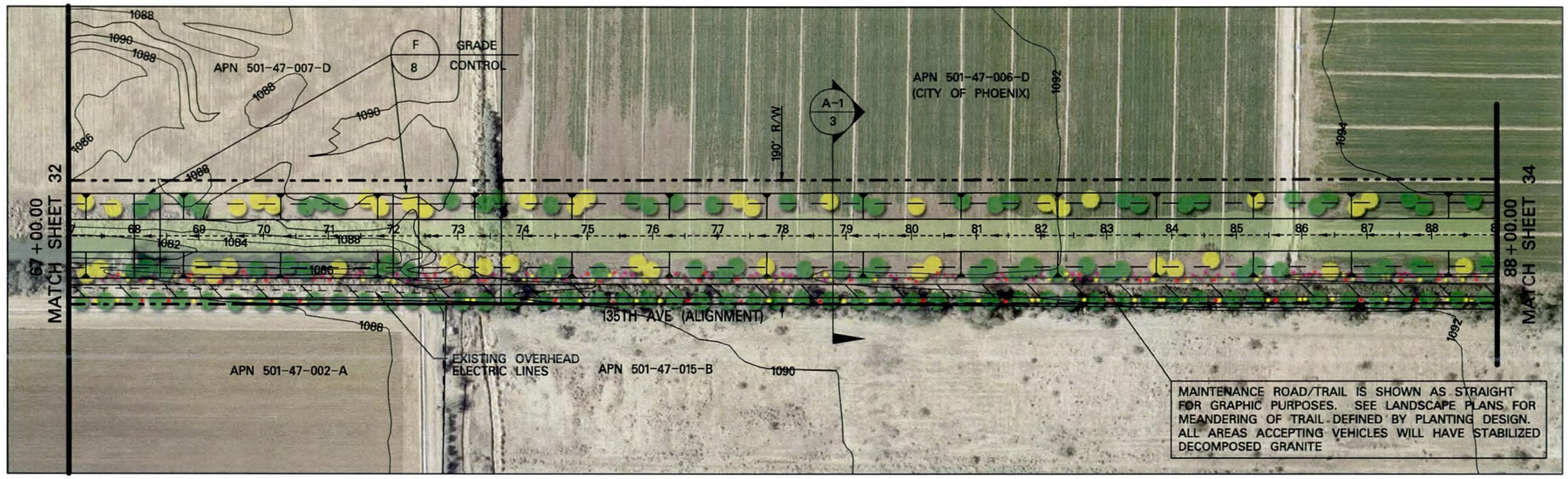
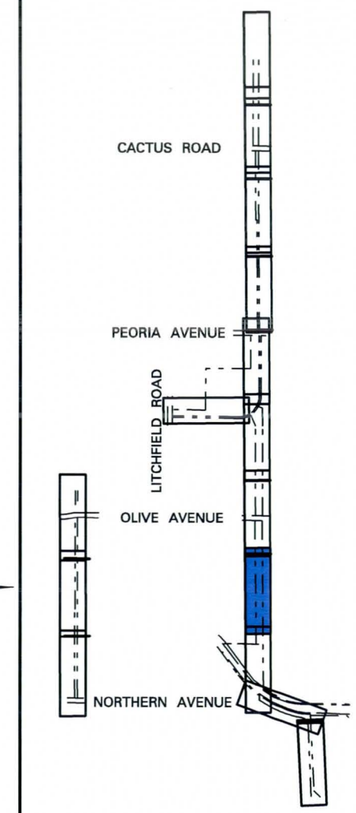


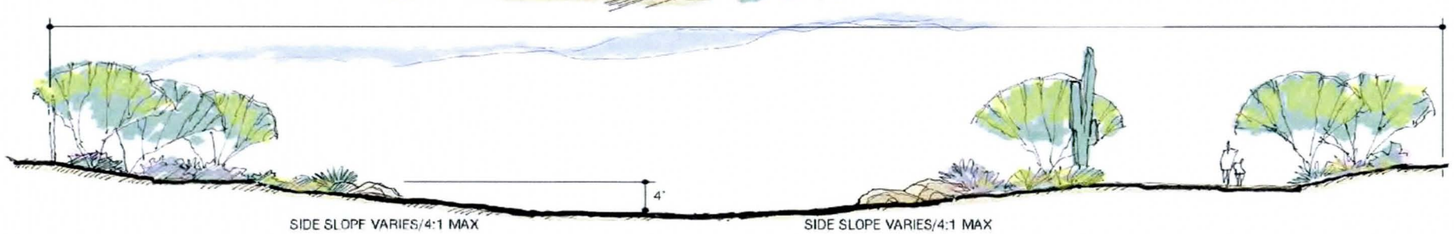
BNSF RAILROAD PRIMARY CHANNEL

0 100 200 400
SCALE IN FEET



KEY MAP

Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
2			
1			

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DESIGN		
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PLANS		
PLANS CHK.		

LANDSCAPE

SHEET 33 OF 44

2/19/2009
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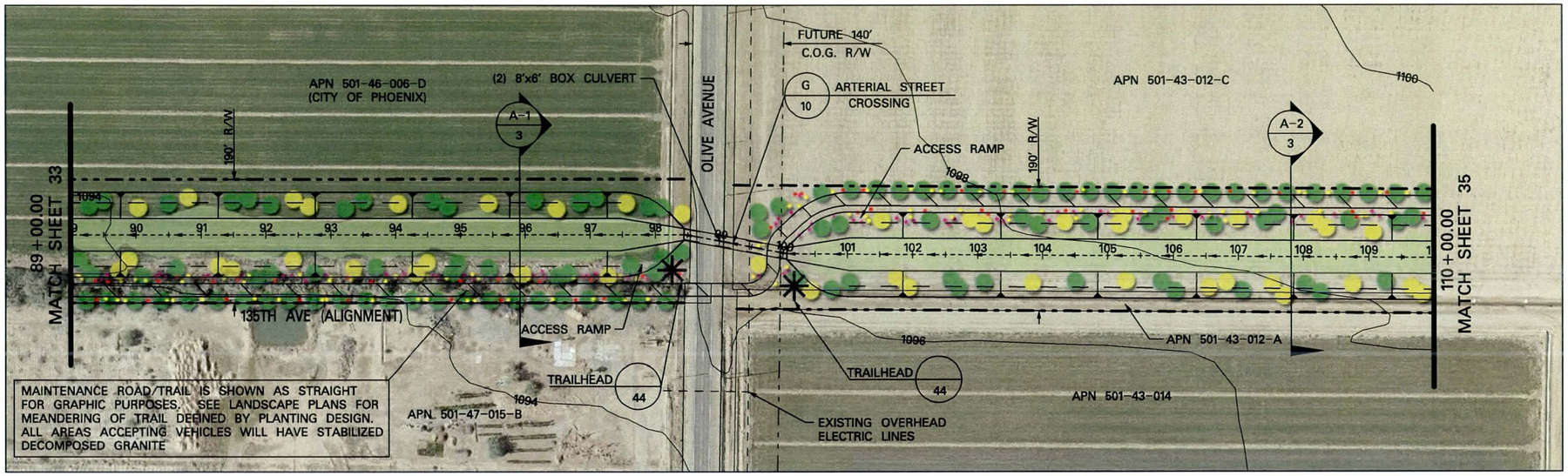
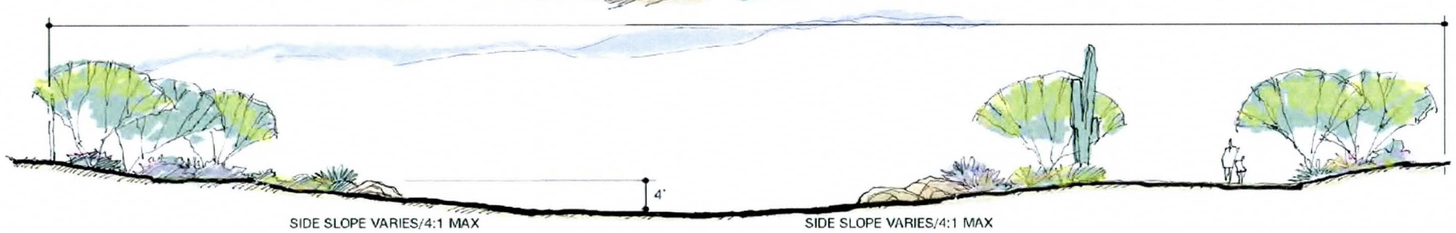


0 100 200 400
SCALE IN FEET

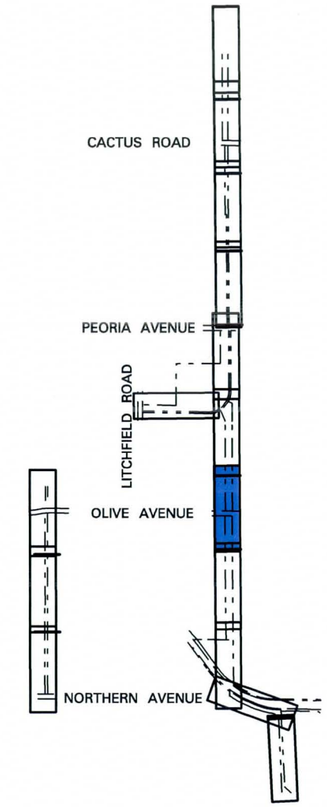
BNSF RAILROAD PRIMARY CHANNEL

Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY
NOT FOR
CONSTRUCTION



KEY MAP

NO.	REVISION	BY	DATE
2			
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DESIGN CHK.		
PLANS		
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LANDSCAPE

SHEET 34 OF 44

2/19/2009
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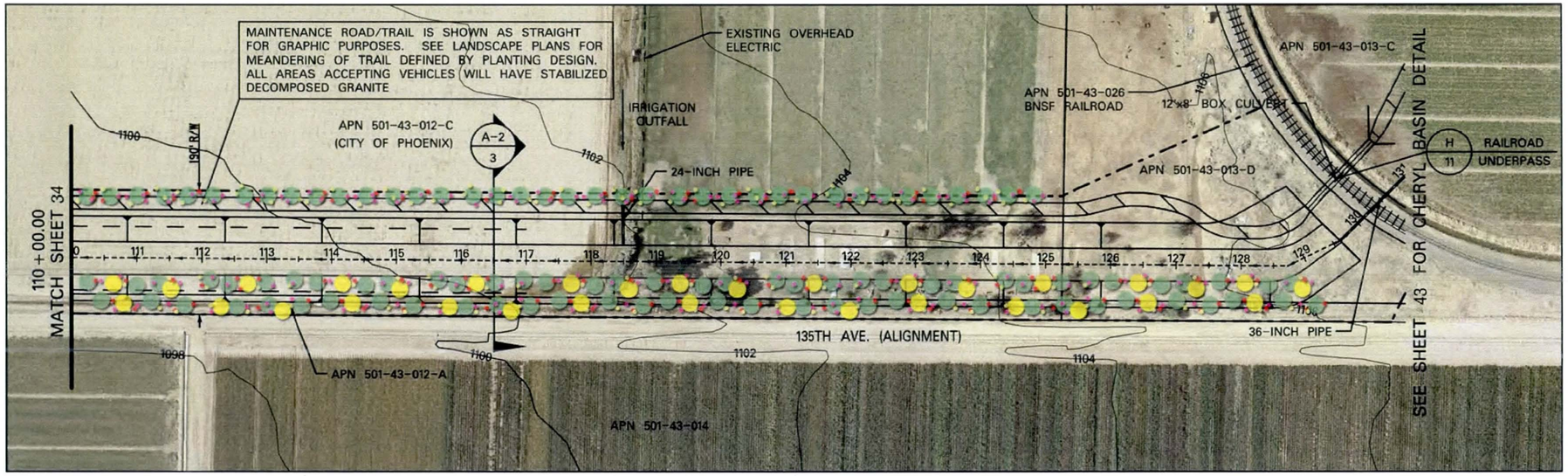
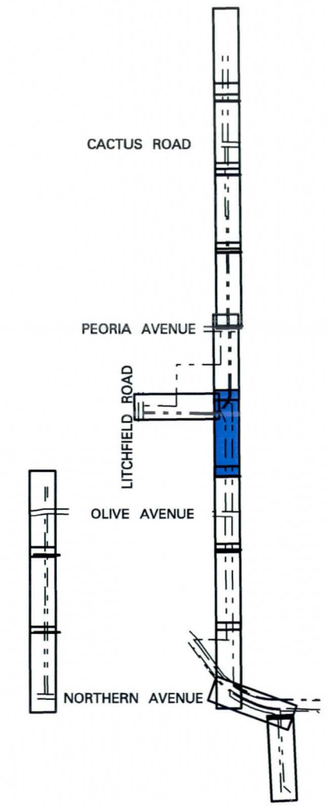


BNSF RAILROAD PRIMARY CHANNEL

0 100 200 400
SCALE IN FEET



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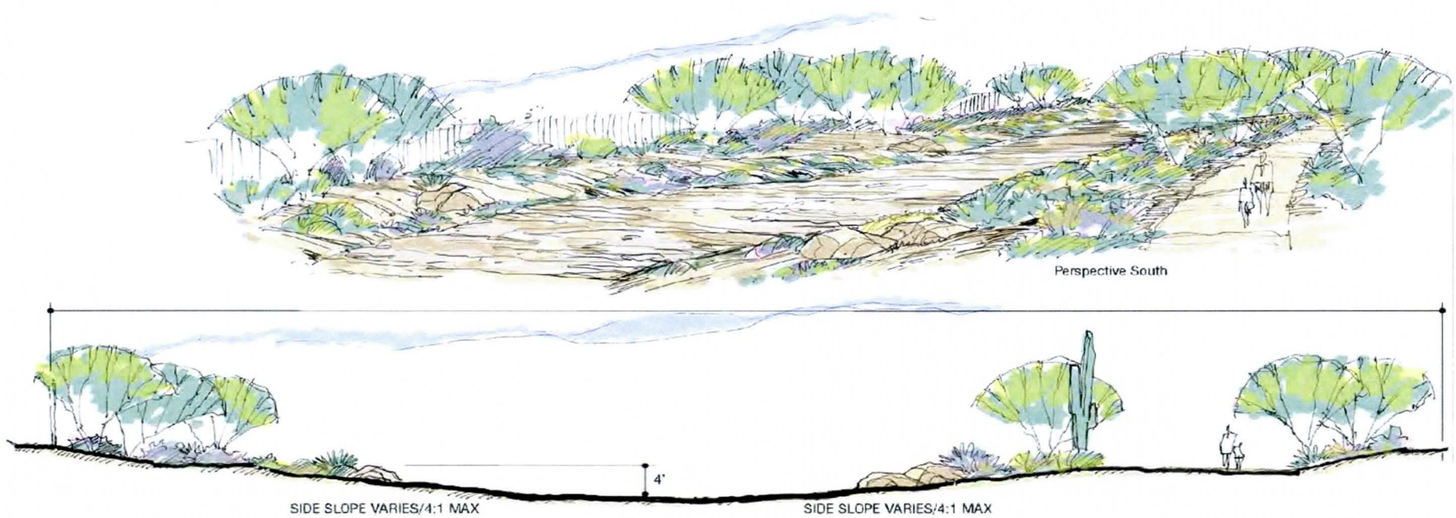

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
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PLANS CHK.		

LANDSCAPE

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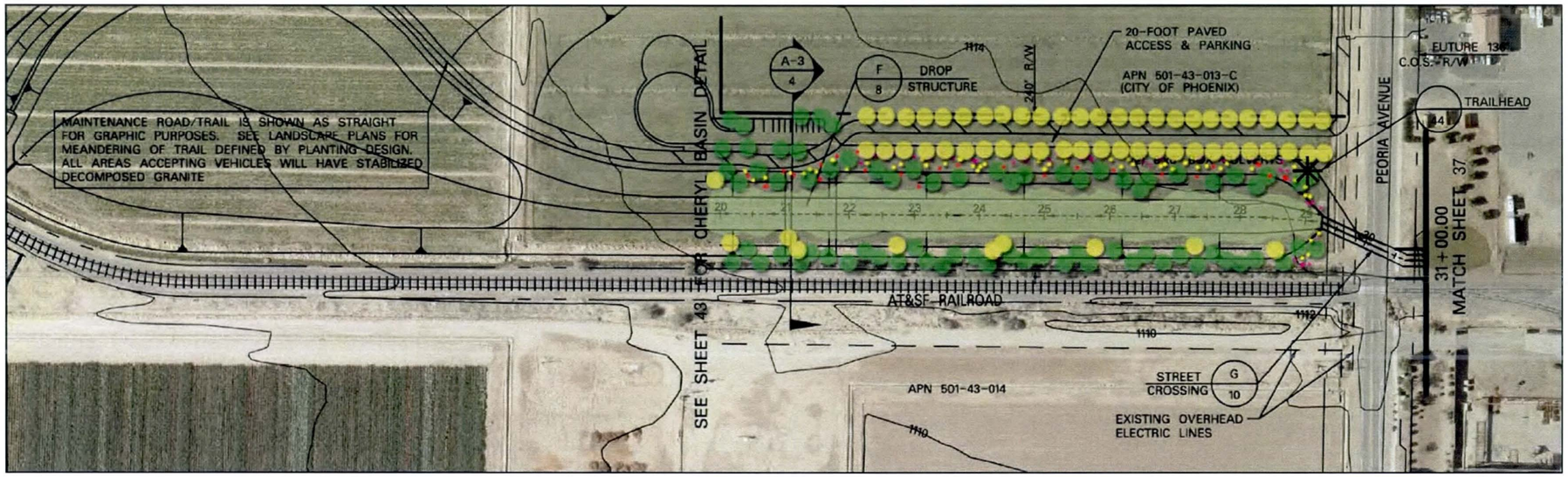
TRAIL CONTINUES WESTWARD
ON SOUTH SIDE OF PEORIA
SEE SHEET 44

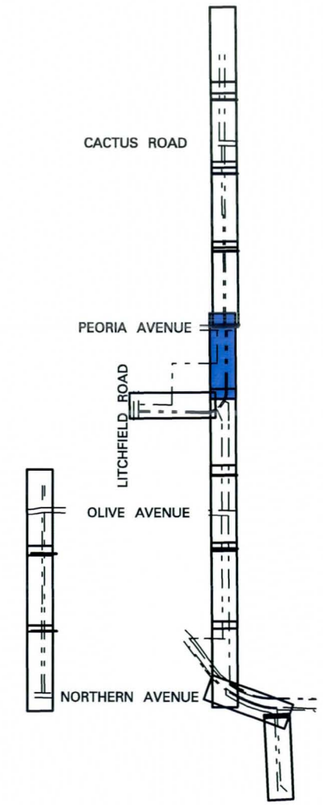


0 100 200 400
SCALE IN FEET

BNSF RAILROAD PRIMARY CHANNEL

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY
NOT FOR
CONSTRUCTION



KEY MAP

NO.	REVISION	BY	DATE
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PLANS		
PLANS CHK.		

LANDSCAPE

SHEET 36 OF 44

2/19/2009
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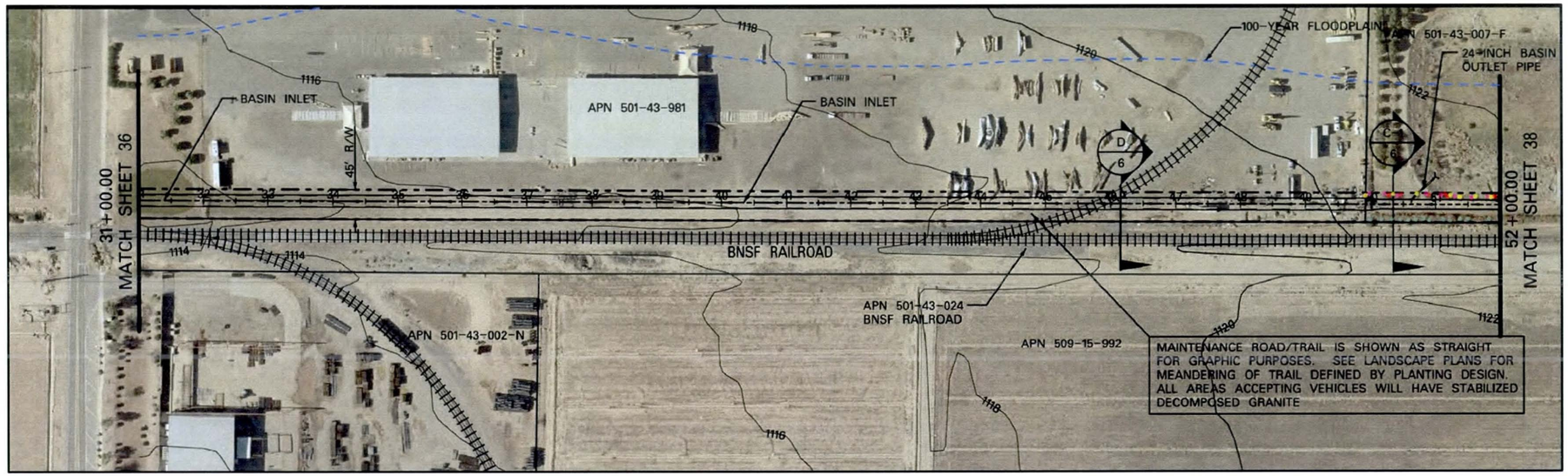
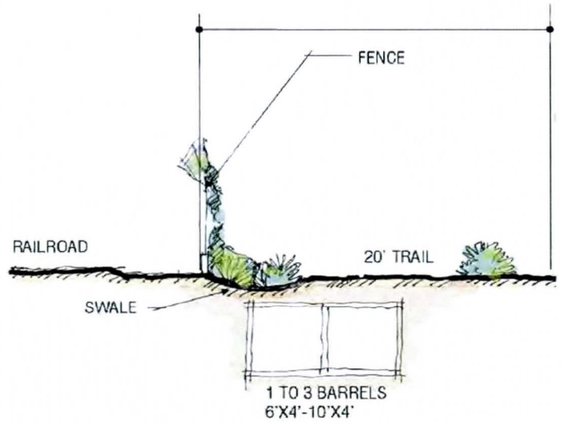
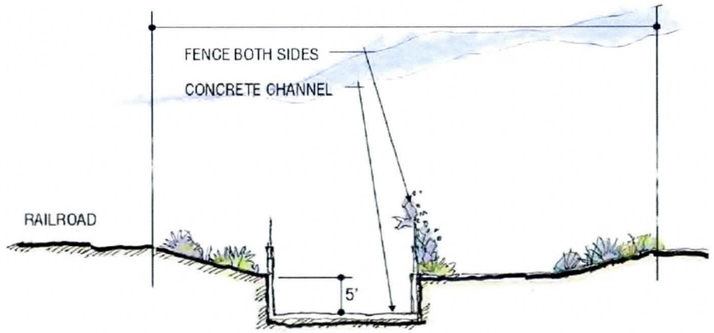


0 100 200 400
SCALE IN FEET

BNSF RAILROAD PRIMARY CHANNEL





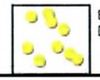
Parkinsonia sp.

Prosopis sp.

Eucalyptus sp.
Dalbergia sp.

Leucophyllum sp.
Senna sp.
Eremophylla sp.
Justicia sp.

Calliandra sp.
Caesalpinia sp.
Tecoma sp.

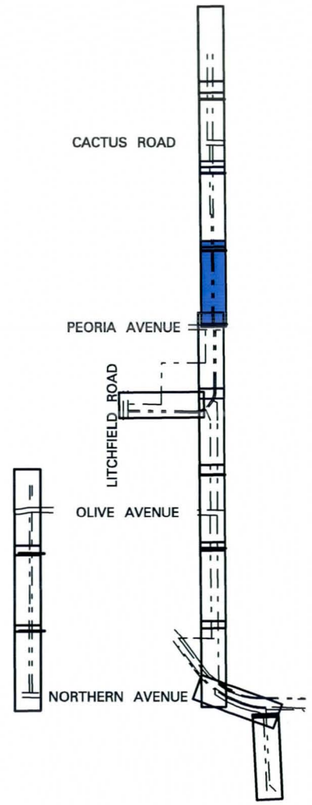

Encelia sp.
Dalea sp.

Bougainvillea sp.
Mascagnia sp.
Solanum sp.

Native grass seed mix

Turf with concrete header

PRELIMINARY
NOT FOR
CONSTRUCTION



KEY MAP

NO.	REVISION	BY	DATE
2			
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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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	BY	DATE
DESIGN		
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PLANS		
PLANS CHK.		

LANDSCAPE

SHEET 37 OF 44

2/19/2009
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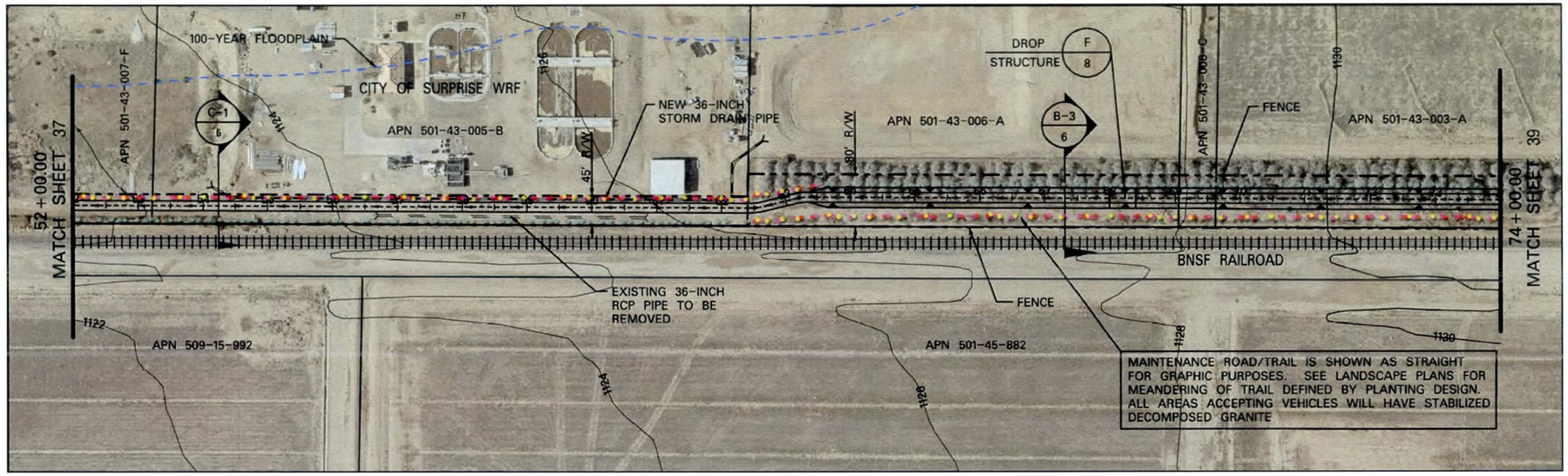
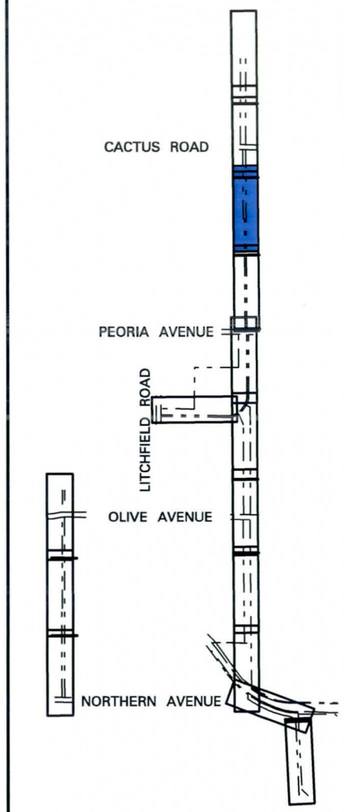
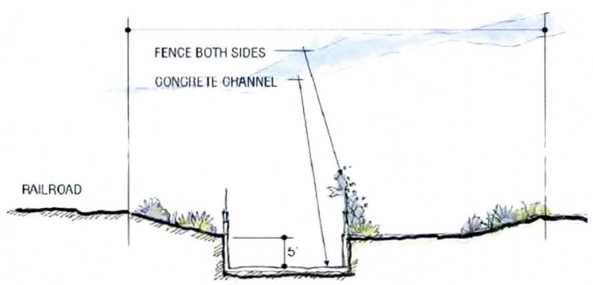


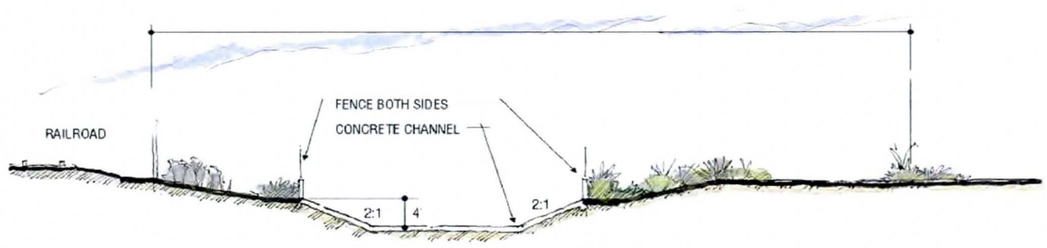
BNSF RAILROAD PRIMARY CHANNEL

0 100 200 400
SCALE IN FEET



KEY MAP





- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
2			
1			

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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LANDSCAPE

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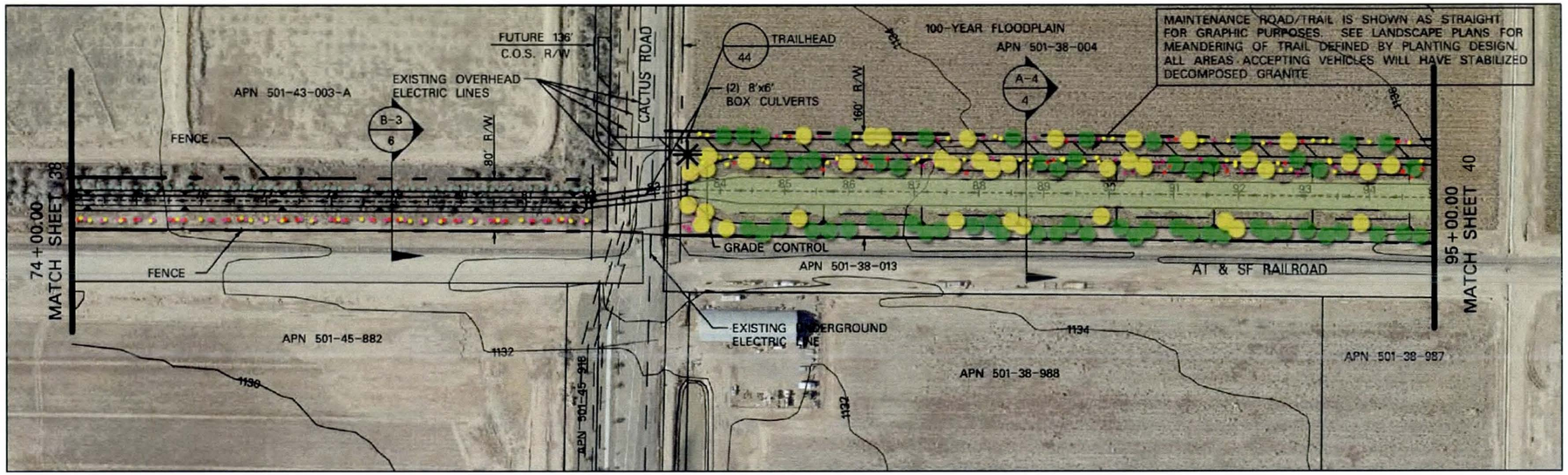
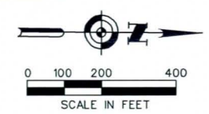
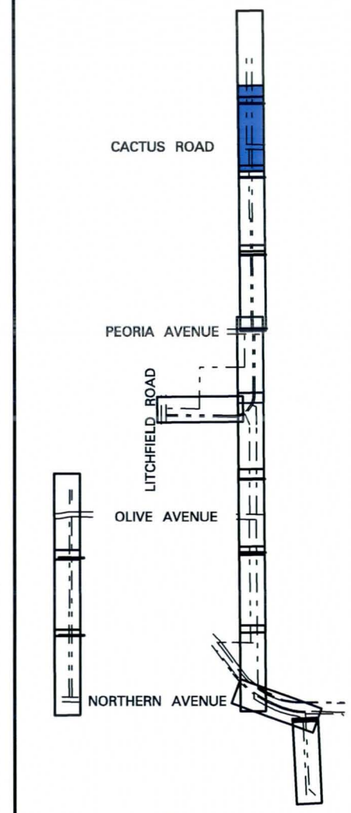
TRAIL CONTINUES ON WESTWARD ON SOUTH SIDE OF CACTUS ROAD SEE SHEET 44

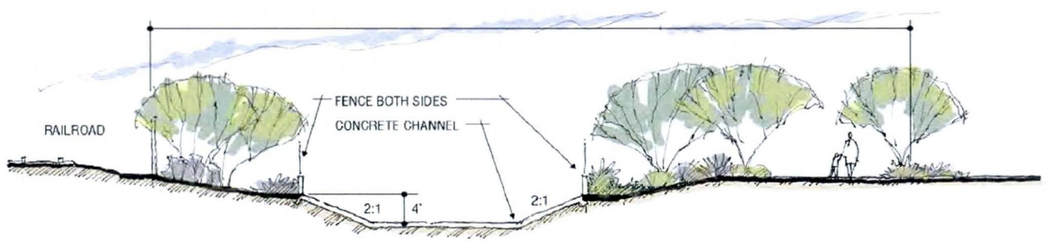


BNSF RAILROAD PRIMARY CHANNEL



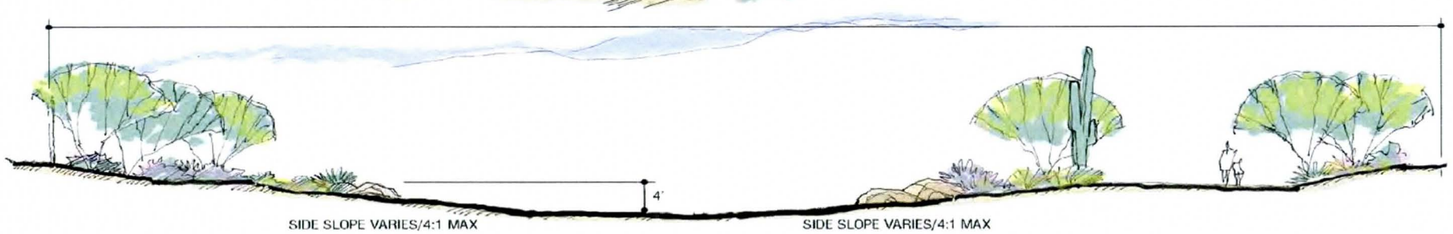


KEY MAP



Perspective South

Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
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LANDSCAPE

SHEET 39 OF 44

2/19/2009
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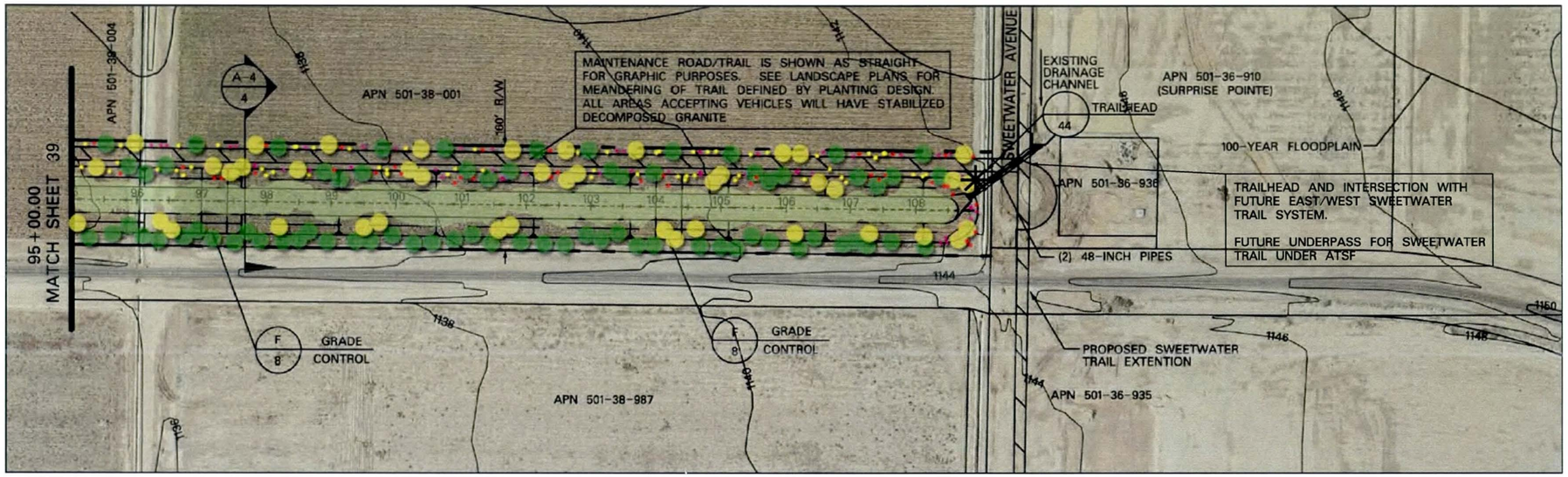
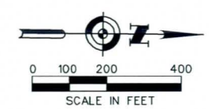
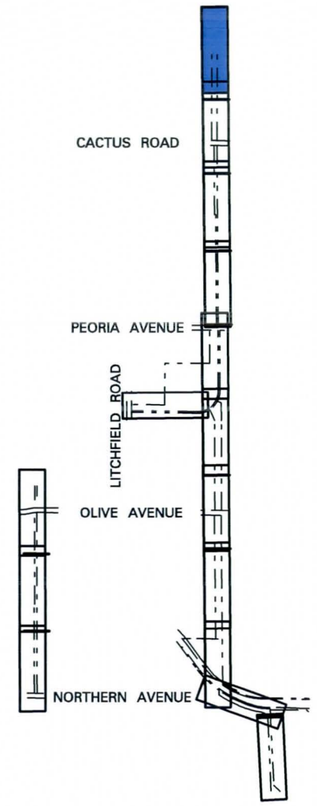


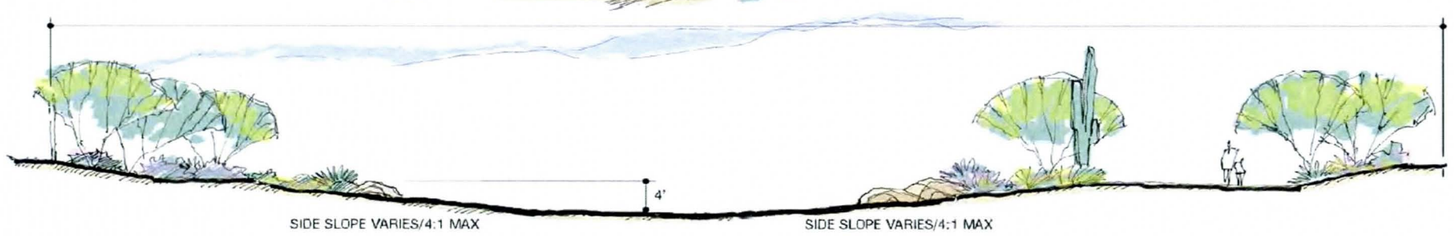
BNSF RAILROAD PRIMARY CHANNEL





KEY MAP

Perspective South



- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

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LANDSCAPE

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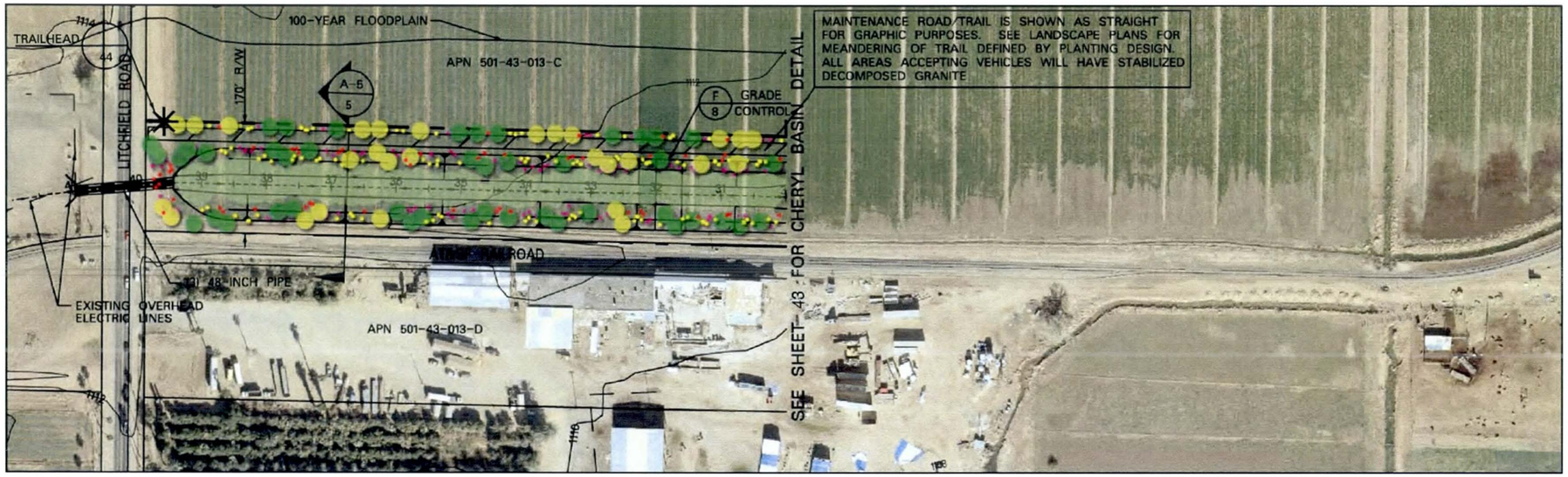
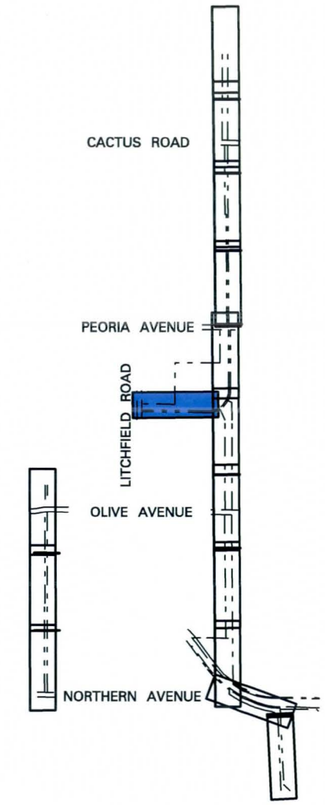


BNSF RAILROAD PRIMARY CHANNEL

0 100 200 400
SCALE IN FEET



KEY MAP

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

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PLANS		
PLANS CHK.		

LANDSCAPE

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2/19/2009
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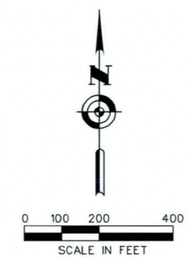

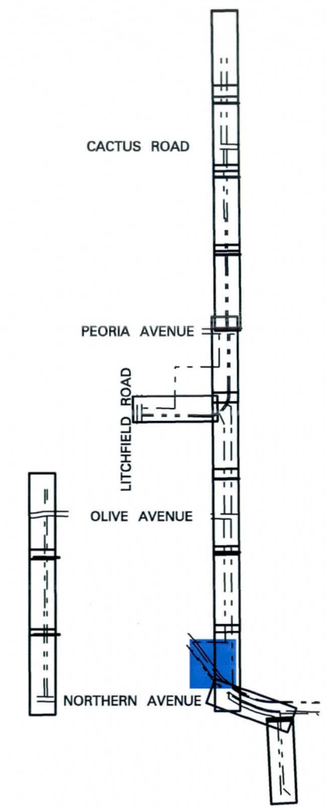

KEY MAP

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp.
  Dalbergia sp.
- Leucophyllum sp.
  Senna sp.
  Eremophylla sp.
  Justicia sp.
- Calliandra sp.
  Caesalpinia sp.
  Tecoma sp.
- Encelia sp.
  Dalea sp.
- Bougainvillea sp.
  Mascagnia sp.
  Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION	BY	DATE
2			
1			

Hoskin • Ryan Consultants
creative engineering solutions
201 W. Indian School Road, Phoenix, Arizona 85013-3203
Office: (602) 252-8384 Fax: (602) 252-8385 www.hoskinryan.com

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

AT&SF RAILROAD CHANNEL AND BASIN PRELIMINARY PLANS

CONTRACT FCD 2007 C016 (2)

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 19690
PAUL W.R. HOSKIN
ARIZONA, U.S.A.
EXPIRES 3/31/09

	BY	DATE
DESIGN		
DESIGN CHK.		
PLANS		
PLANS CHK.		

LANDSCAPE

2/19/2009
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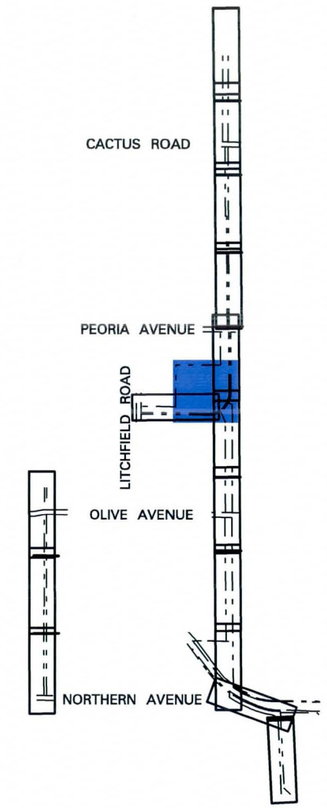
SCALE IN FEET



KEY MAP

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
2			
1			

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CERTIFICATE NO. 19690
PAUL W.R. HOSKIN
ARIZONA, U.S.A.
EXPIRES 3/31/09

	BY	DATE
DESIGN		
DESIGN CHK.		
PLANS		
PLANS CHK.		

LANDSCAPE

2/19/2009
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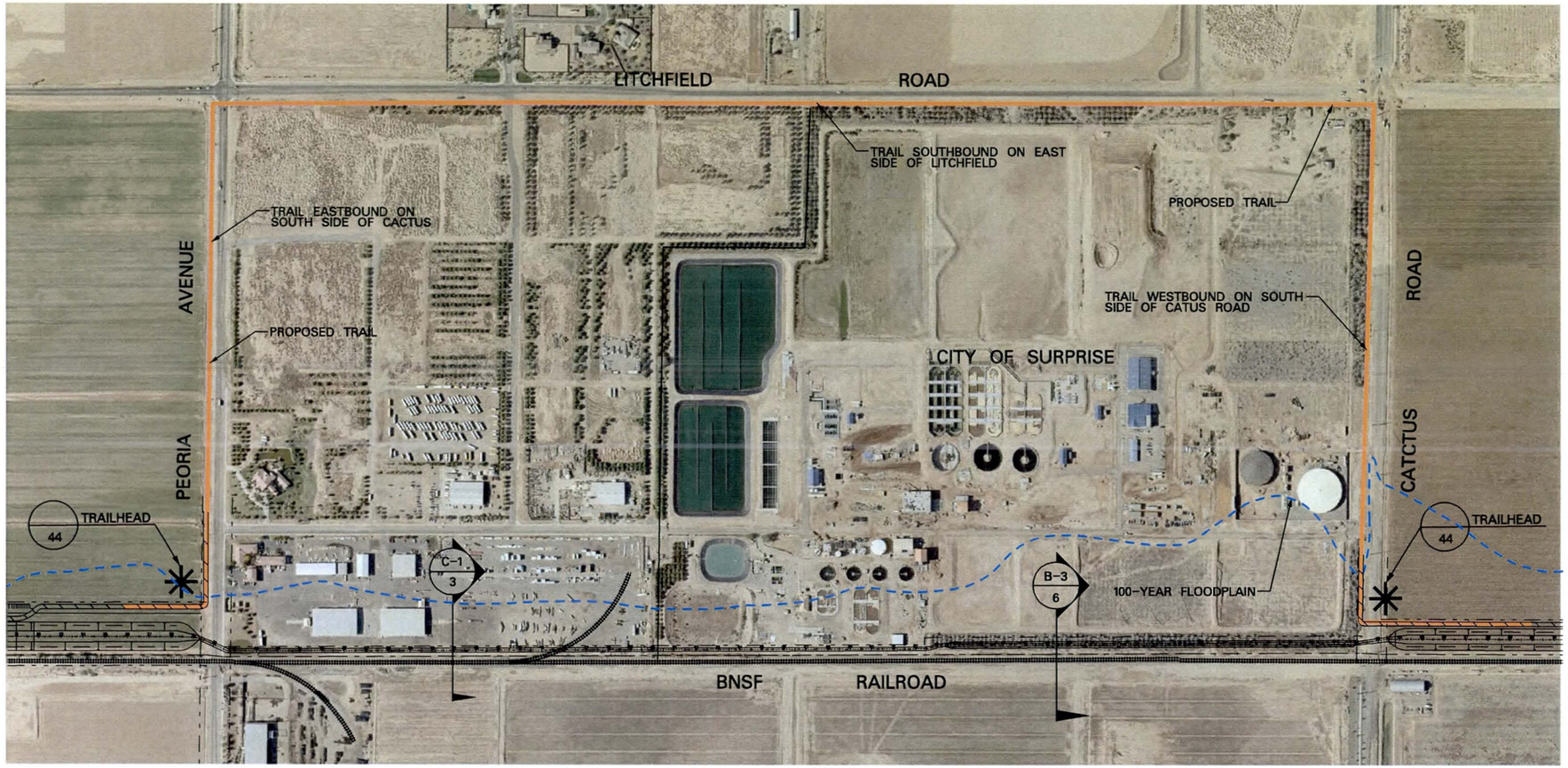

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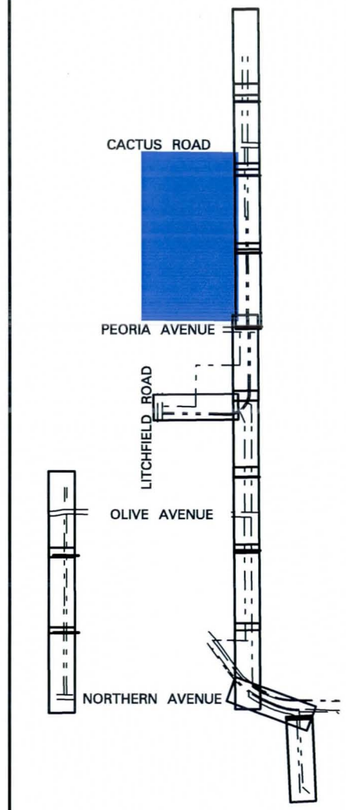
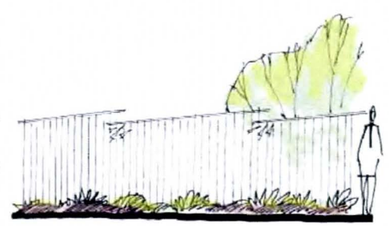


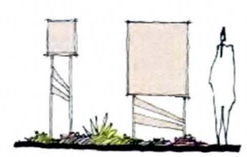
KEY MAP

TRAILHEAD



DECORATIVE FENCING

RAMADA



SIGNAGE

TRAILHEAD 44

- Parkinsonia sp.
- Prosopis sp.
- Eucalyptus sp. Dalbergia sp.
- Leucophyllum sp. Senna sp. Eremophylla sp. Justicia sp.
- Calliandra sp. Caesalpinia sp. Tecoma sp.
- Encelia sp. Dalea sp.
- Bougainvillea sp. Mascagnia sp. Solanum sp.
- Native grass seed mix
- Turf with concrete header

PRELIMINARY NOT FOR CONSTRUCTION

NO.	REVISION	BY	DATE
2			
1			

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

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CONTRACT FCD 2007 C016 (2)

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 19690 PAUL W.R. HOSKIN Date Signed ARIZONA, U.S.A.
EXPIRES 3/31/09

	BY	DATE
DESIGN		
DESIGN CHK.		
PLANS		
PLANS CHK.		

LANDSCAPE

SHEET 44 OF 44

2/19/2009
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