

ABIA Site Development Ordinance Briefing



City of Austin
Planning Commission - Codes and Ordinances
Sub-Committee Briefing
May 15, 2012

C9/11

Drainage Master Plan Team

- CDM
 - Crespo Consulting, Inc.
 - Axiom Engineers, Inc.
- Watershed Protection Department
- Planning and Development Review Dept.
- Law Department
- Public Works Department
- Aviation Department



History

- 1995 – First Drainage Master Plan – “Opening Day” conditions
- Converted the Air Force Base to commercial airport
- Included the passenger terminal, public parking lots and garage, the east runway system, and mid-field cross taxiways



History

- 2003 – Second Drainage Master Plan – provided the airport with complete hydrologic calculations for the entire campus
- Provided airport with baseline data needed for future development
- Opportunity to participate in RSMP and concept of on-site remote detention.



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Purpose of Today's Presentation

- Present the need for a new site development ordinance for Austin-Bergstrom International Airport (ABIA)
- Provide an overview of key environmental provisions of the proposed new ordinance with explanation of Variance requests
- Receive Planning Commission support for approval recommendation



Background

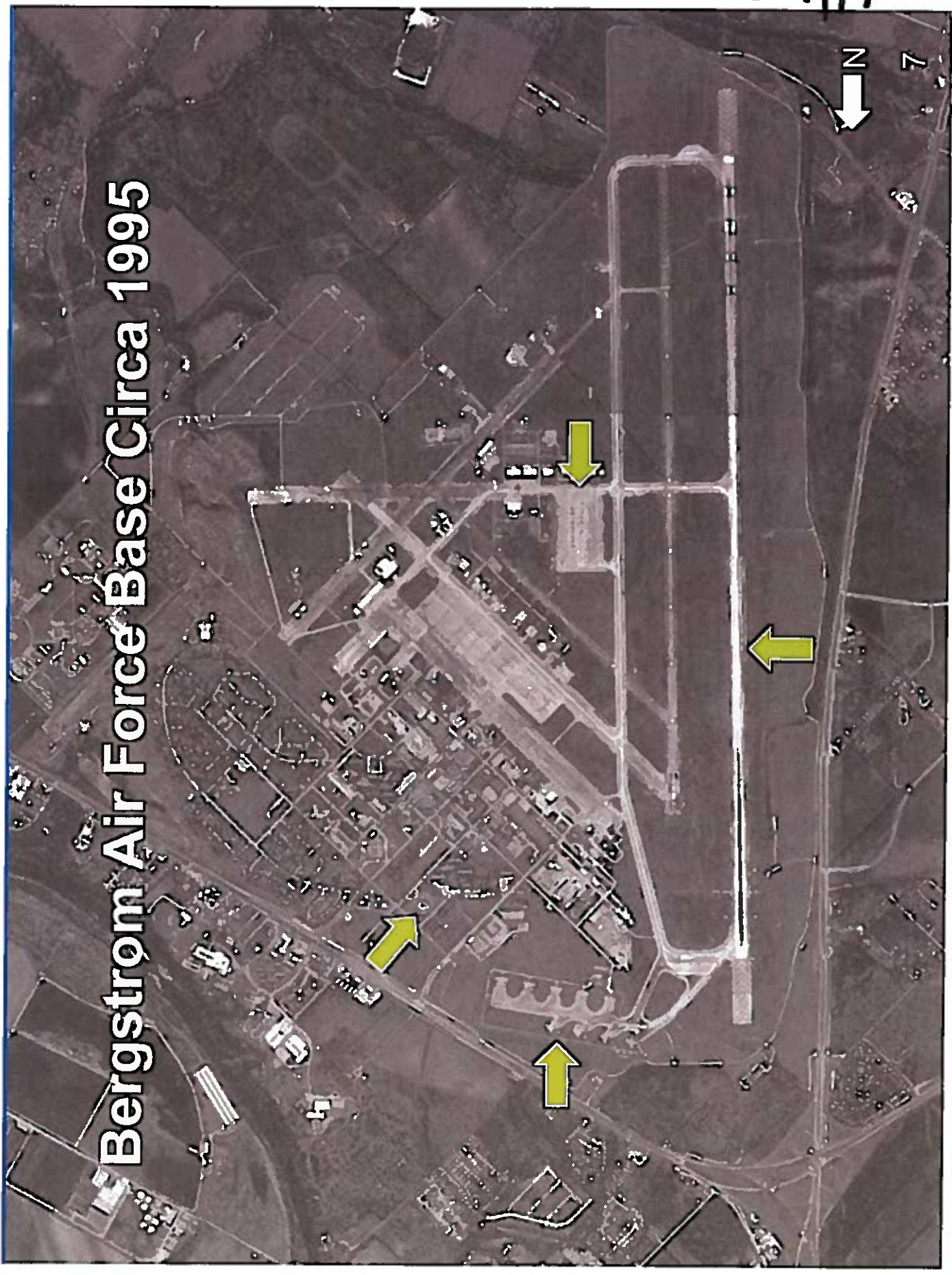
- Construction of ABIA was governed by Ordinance 94-1117-L
 - All facilities included in Ordinance 94-1117-L have been constructed
- A new ordinance is needed to establish future permitting and development requirements for ABIA



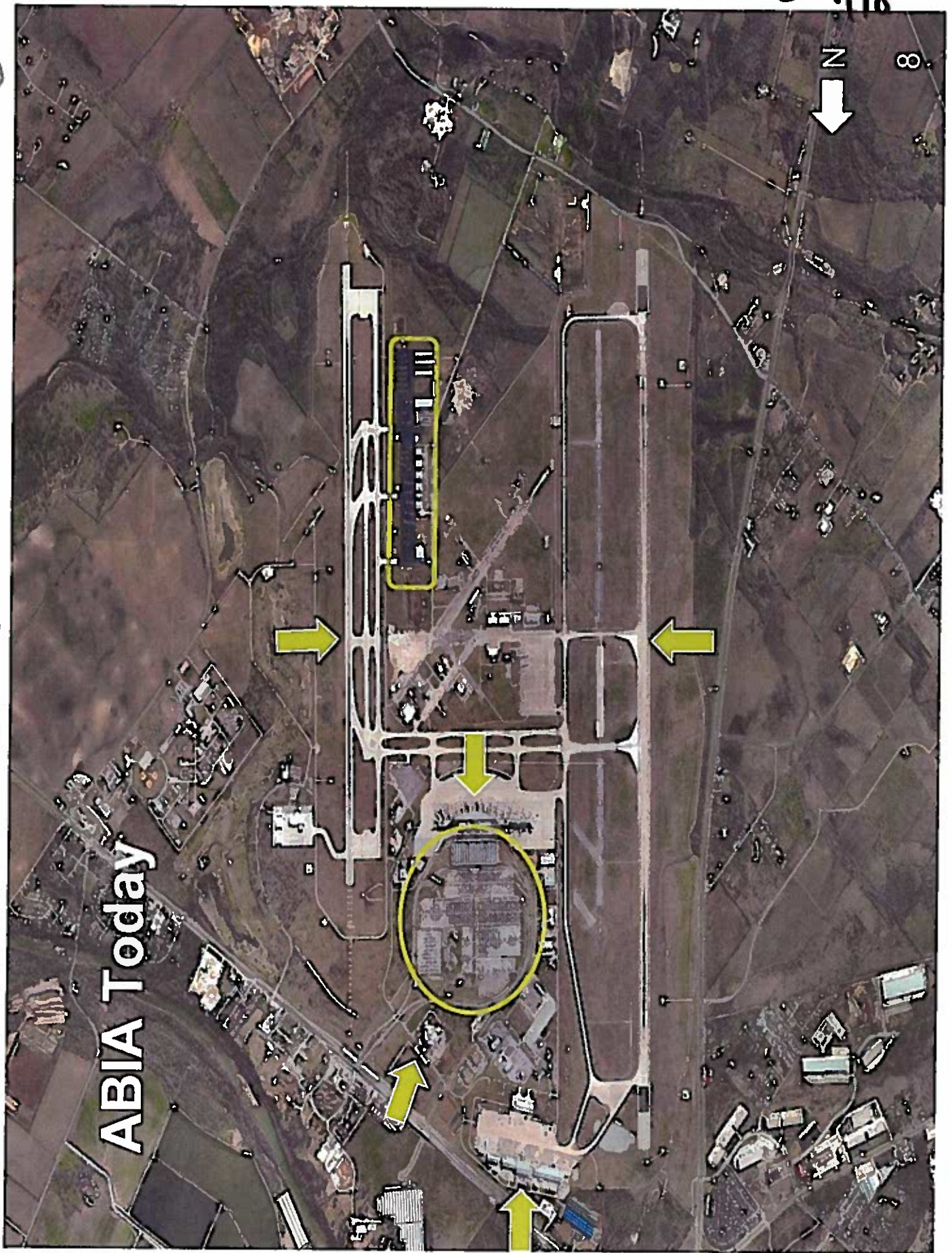
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C9/17

Bergstrom Air Force Base Circa 1995



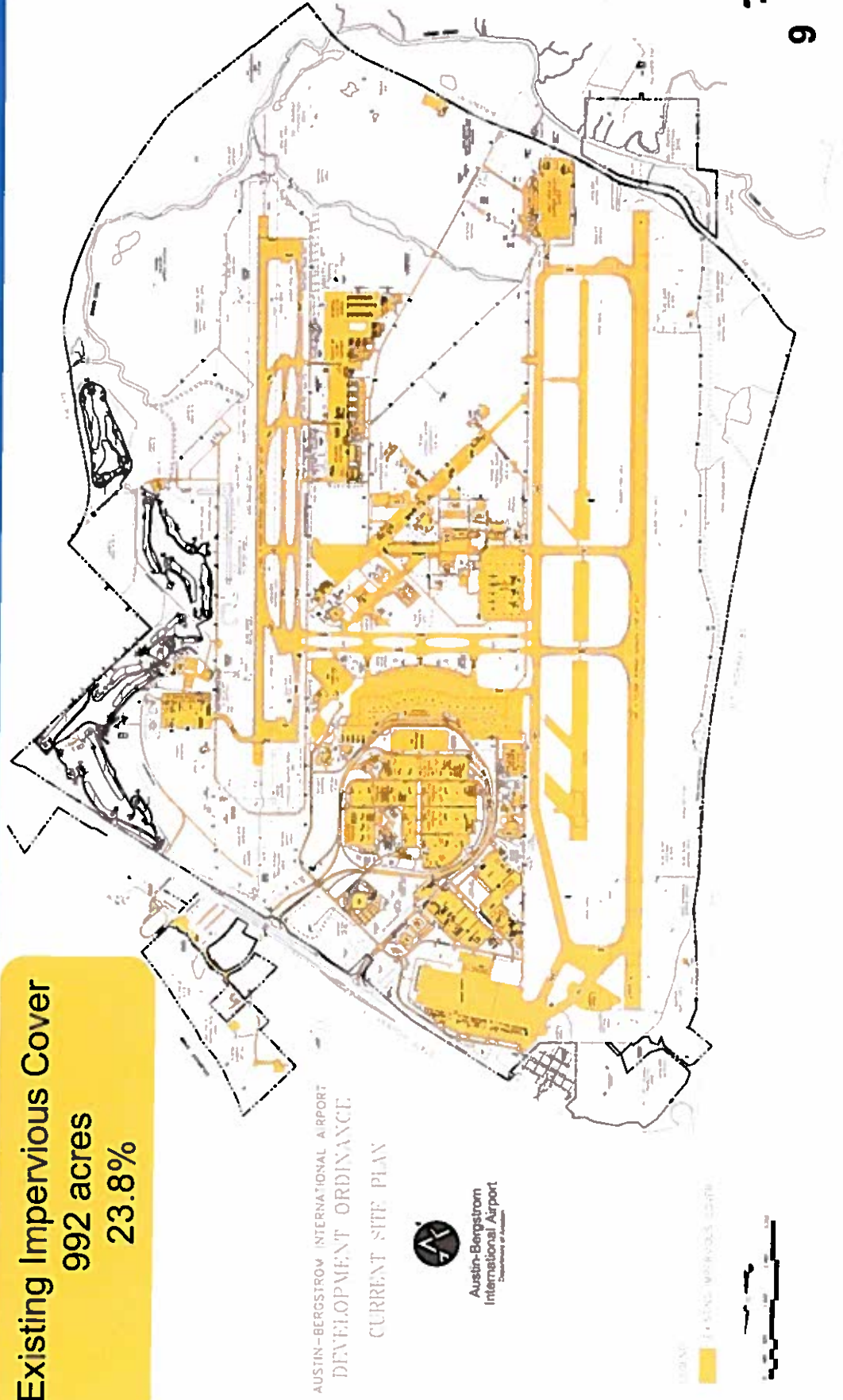
ca/18



ABIA Today

Existing Site Plan

Existing Impervious Cover
992 acres
23.8%



ca/19
9

Master Development Site Plan

2012
Existing Impervious Cover
992 acres
23.8%

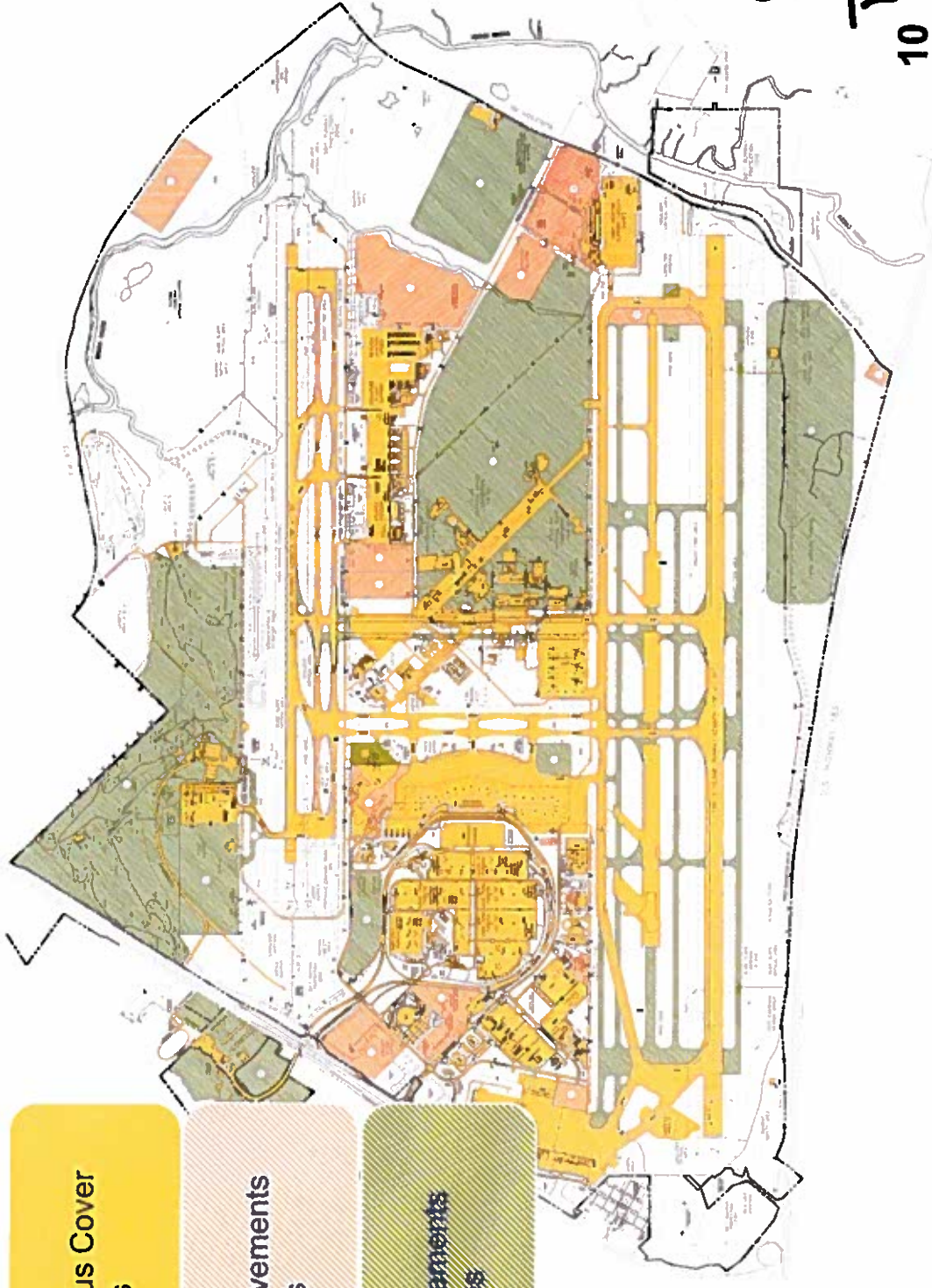
2022
Near Term Improvements
177 acres
28.1%

2062
Ultimate Improvements
825.7 acres
47.9%



Austin-Bergstrom
International Airport
City of Austin

LEGEND
EXISTING IMPERVIOUS COVER
NEAR TERM IMPROVEMENTS
ULTIMATE IMPROVEMENTS



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Storm Water Master Plan Update

- Create an updated framework and processes for development of Storm water facilities at ABIA, that:
 - Protects the Environment
 - Improves the efficiency of ABIA Permitting and Development Process
 - Maximizes the Beneficial Use of Developable Property at ABIA
- Develop technical basis for revisions to the ABIA Site Development Ordinance



C9/21

Key Results of the Storm Water Master Plan Update

- Participating in City of Austin Regional Storm Water Management Program (RSMP) for up to 300 acres of new impervious cover at ABIA
- Created a Campus-wide Water Quality Plan that Exceeds Water Quality Requirements
- Involve key City Stakeholders throughout project life cycle



C9/22

Water Quality versus Stormwater Detention Ponds

- Water Quality Ponds capture the “first flush” of runoff which carries the highest pollutant concentration, then remove pollutants through settling (sedimentation) and filtration processes
- Stormwater Detention ponds are large ponds designed to minimize the impact of off-site flooding by holding large volumes of water on-site prior to release into the receiving water



C9/23

Pond System Close-up



C9/24

Key ABIA Ordinance Environmental Provisions

- Commitment to Enhanced Water Quality Treatment
- Extension of Environmental Variances previously granted in the original ordinance to certain future development shown in the Master Development Plan, related to:
 - Section 25-5-81 (*Site Plan Expiration*) and Chapter 25-1, Article 12 (*Project Duration*)
 - Section 25-7-61 (A) (5) (*Criteria for Approval of Plats, Construction Plans, and Site Plans*)



Key ABIA Ordinance Environmental Provisions

- Section 25-8-392 (Critical Water Quality Zone)
- Section 25-8-393 (Water Quality Transition Zone)
- Section 25-8-341 (Cut Requirements)
- Section 25-8-342 (Fill Requirements)
- Addition of the Constrained Development Area 1/2-inch capture provision
 - Subsection (B) (2) of Section 25-8-213 (Water Quality Control Standards)



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Discussion Of Requested Variances



#1 - Site Plan Expiration and Project Duration

- DOA requests that the Master Development Plan have no expiration
- Ordinance requires periodic review and approval every 10 years
- Allows for a long-term planning horizon which is needed for the effective and economical development of the airport campus

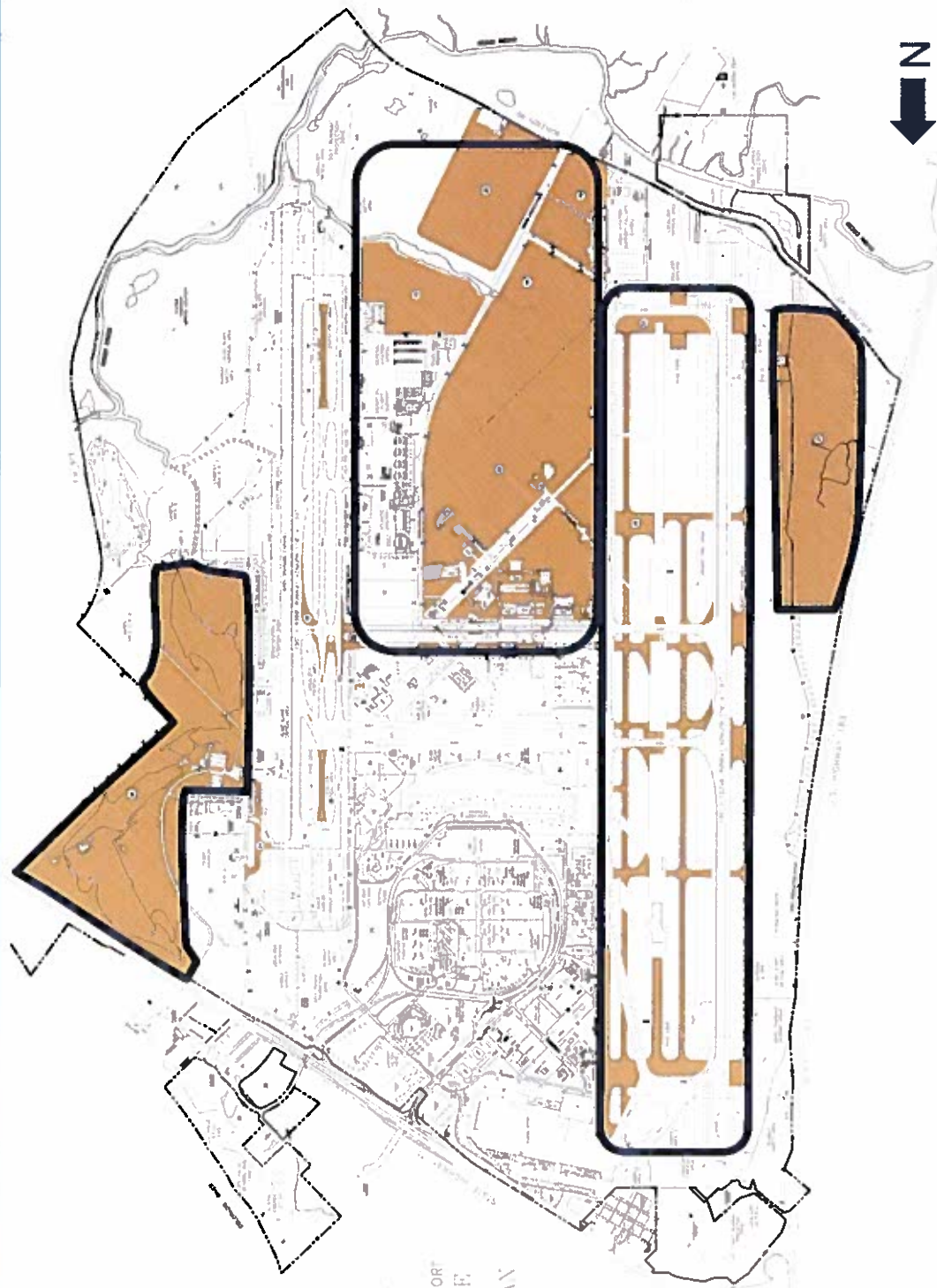


#2 – Construction of Facilities without Preserving the Natural Character of the Land

- New terminal facilities south of the mid-field taxiway
- Additional runway/taxiway infrastructure
- South campus facilities including terminal, parking, and general aviation facilities
- West side air cargo terminal and aprons
- East side general aviation



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AUSTIN-BERGSTROM INTERNATIONAL AIRPORT
DEVELOPMENT ORDINANCE
MASTER DEVELOPMENT PLAN



Austin-Bergstrom
International Airport
Department of Aviation

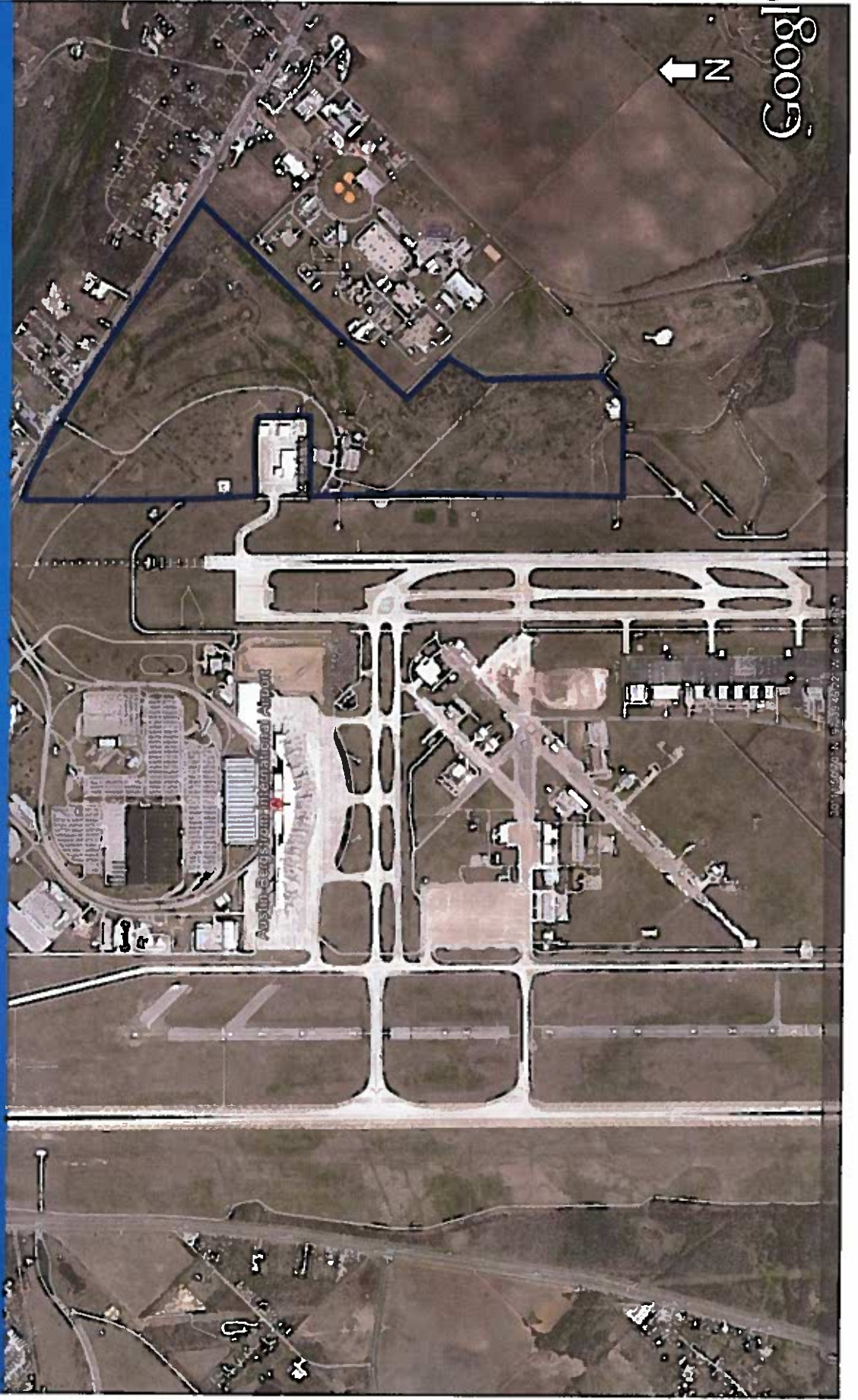
LEGEND
CONSTRUCTION WITHOUT PRESERVING
NATURAL CHARACTER OF LAND



West Cargo and South Campus



East Side Development



C9/32
Google

#3 – Water Quality Control Standards

- Limit capture volume within the Constrained Development Area (CDA) to the first half inch of runoff



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Constrained Development Area



Vegetative Filter Strip



Comparison of Load Removal



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Water Quality Plan Exceeds Treatment Requirements



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Proposed Water Quality Plan

- ½-Inch Treatment in CDA
- ½-Inch Plus Treatment Outside of CDA
- Vegetative Filter Strips for Air Field (Runway, Taxiway, Aprons)
- Commitment to Commercial Landscape Ordinance



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Commitment to Commercial Landscape Ordinance



From <http://watershedmg.org/green-streets/issues>



From http://h2o.entr.state.nc.us/wswp/images/swale_stories.htm



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#4 – Allow for Construction within the Critical Water quality Zone

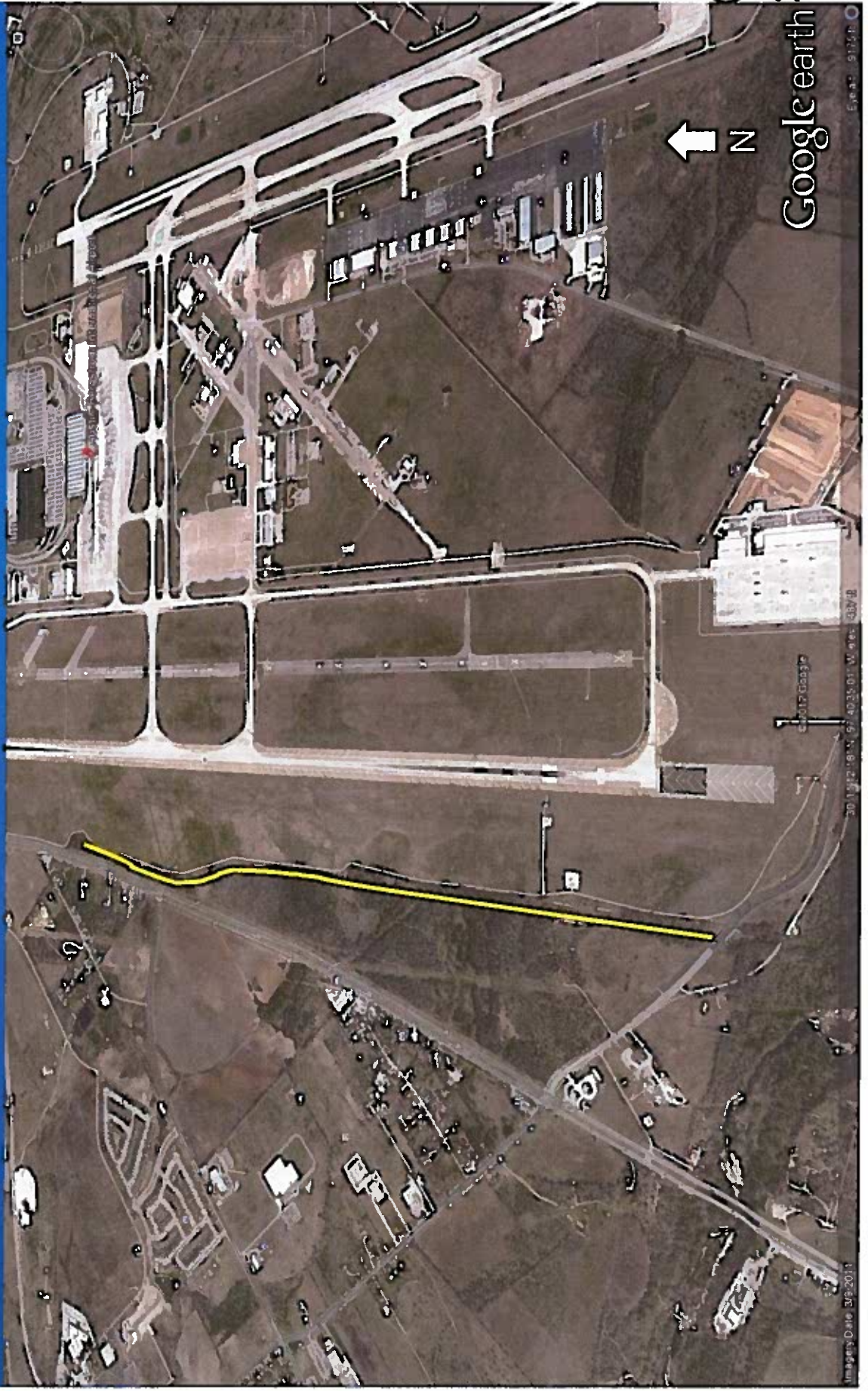
- Requesting up to 40 acres of impervious cover
- Two areas:
 - West Side Air Cargo
 - On-site drainage channel improvements



174/b/c

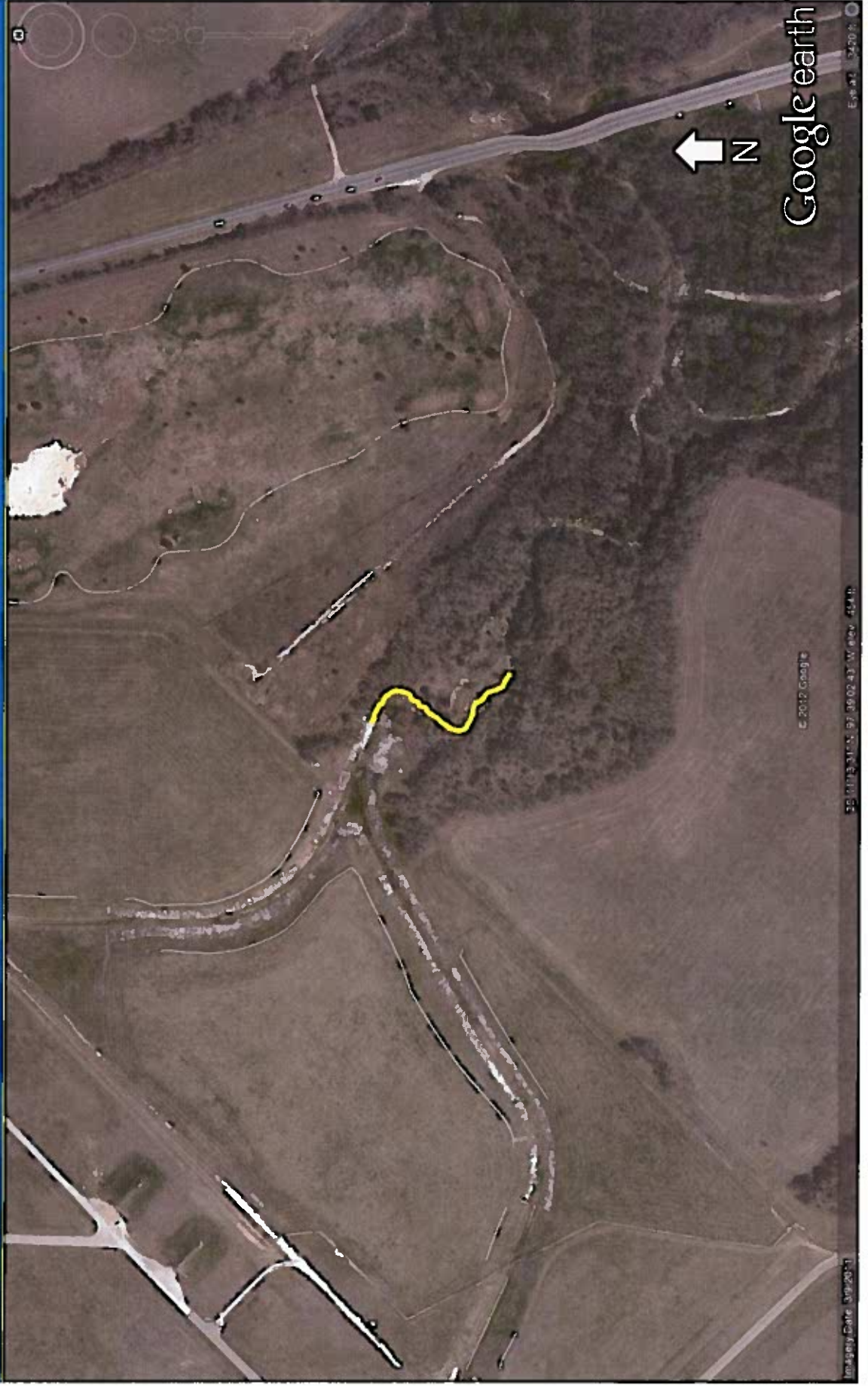


West Cargo and South Campus



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Outfall 16 Aerial



#5 – Water Quality Transition Zone

- Allow impervious cover of up to 30% based on gross site area



Critical
Water
Quality
Zones

Water
Quality
Transition
Zones



ZONE ACREAGE

CRICK CREEK

CRITICAL WATER QUALITY ZONE AREA 435.1 AC
WATER QUALITY TRANSITION ZONE AREA 790.0 AC

COLORADO RIVER

CRITICAL WATER QUALITY ZONE AREA 9.1 AC
WATER QUALITY TRANSITION ZONE AREA 11.6 AC

LEGEND

CRITICAL WATER QUALITY ZONE AREA

WATER QUALITY TRANSITION ZONE AREA

AREA DRAINAGE STUDY

FLOODPLAIN ZONES

100 YR FLOODPLAIN ZONE AREA
400 YR FLOODPLAIN ZONE AREA
500 YR FLOODPLAIN ZONE AREA
1000 YR FLOODPLAIN ZONE AREA
TOTAL FLOODPLAIN ZONE AREA 1,143.0 AC



#6 – Cut and Fill

- DOA seeks variance to allow cuts to exceed four feet (but not to exceed 25 ft) and fill to exceed four feet (but not to exceed 15 ft) for:
 - Air field development
 - Onsite drainage ditch improvements
 - Sidewalks and fire lanes



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- Legend**
- Basins
 - Air port Property
- Topography**
- Elevation (ft)
- 600 - 650
 - 550 - 600
 - 520 - 550
 - 515 - 520
 - 510 - 515
 - 505 - 510
 - 500 - 505
 - 498 - 500
 - 496 - 498
 - 494 - 496
 - 492 - 494
 - 490 - 492
 - 488 - 490
 - 486 - 488
 - 484 - 486
 - 482 - 484
 - 480 - 482
 - 478 - 480
 - 476 - 478
 - 474 - 476
 - 472 - 474
 - 470 - 472
 - 468 - 470
 - 466 - 468
 - 464 - 466
 - 462 - 464
 - 460 - 462
 - 455 - 460
 - 450 - 455
 - 425 - 450
 - 400 - 425
 - 392 - 400



Figure 2-1
Area Topography
Austin-Bergstrom International Airport (ABIA)
Stormwater Drainage Master Plan (SWMP) Update
Project No.: 4910-8107-3139

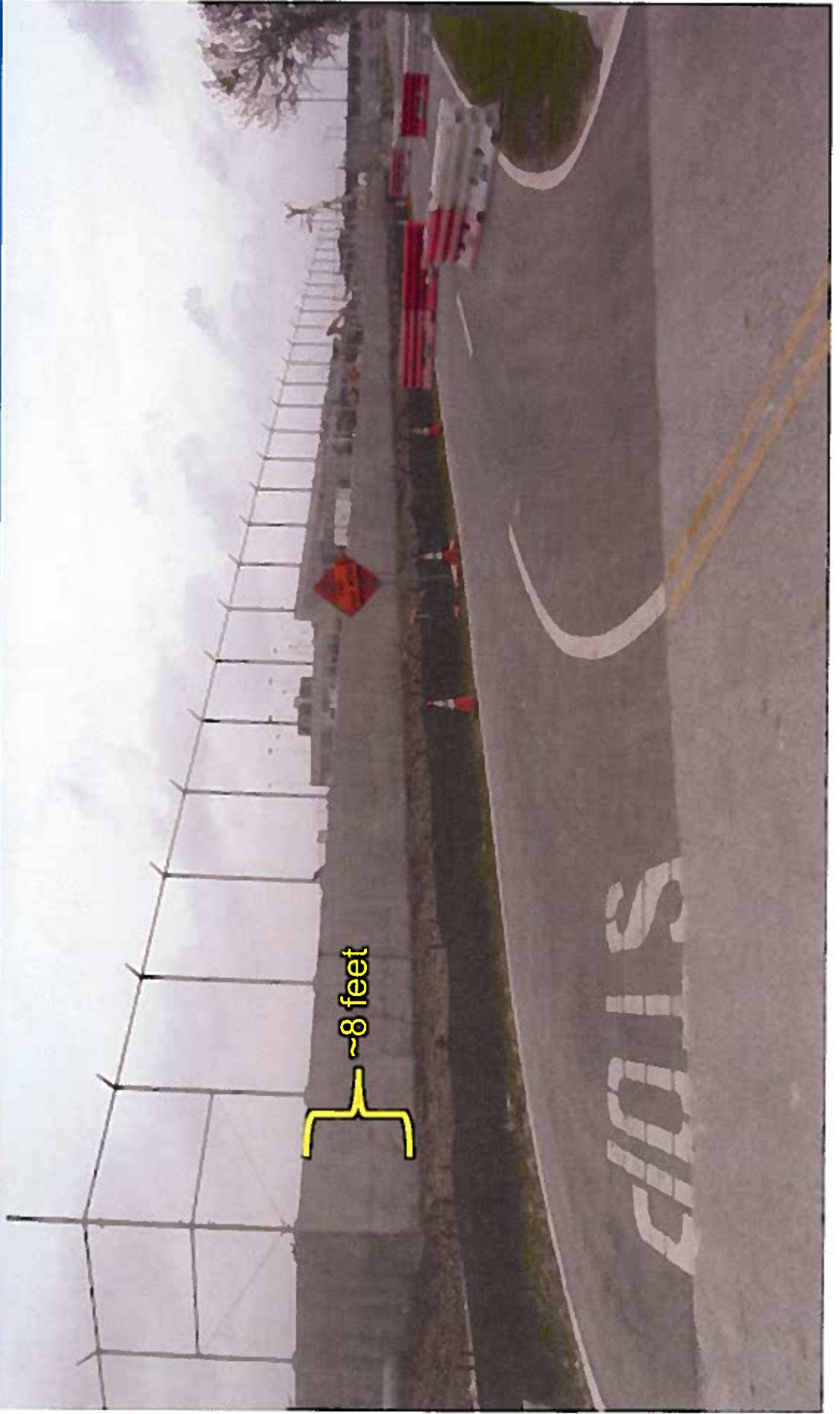


Example of “level” airfield



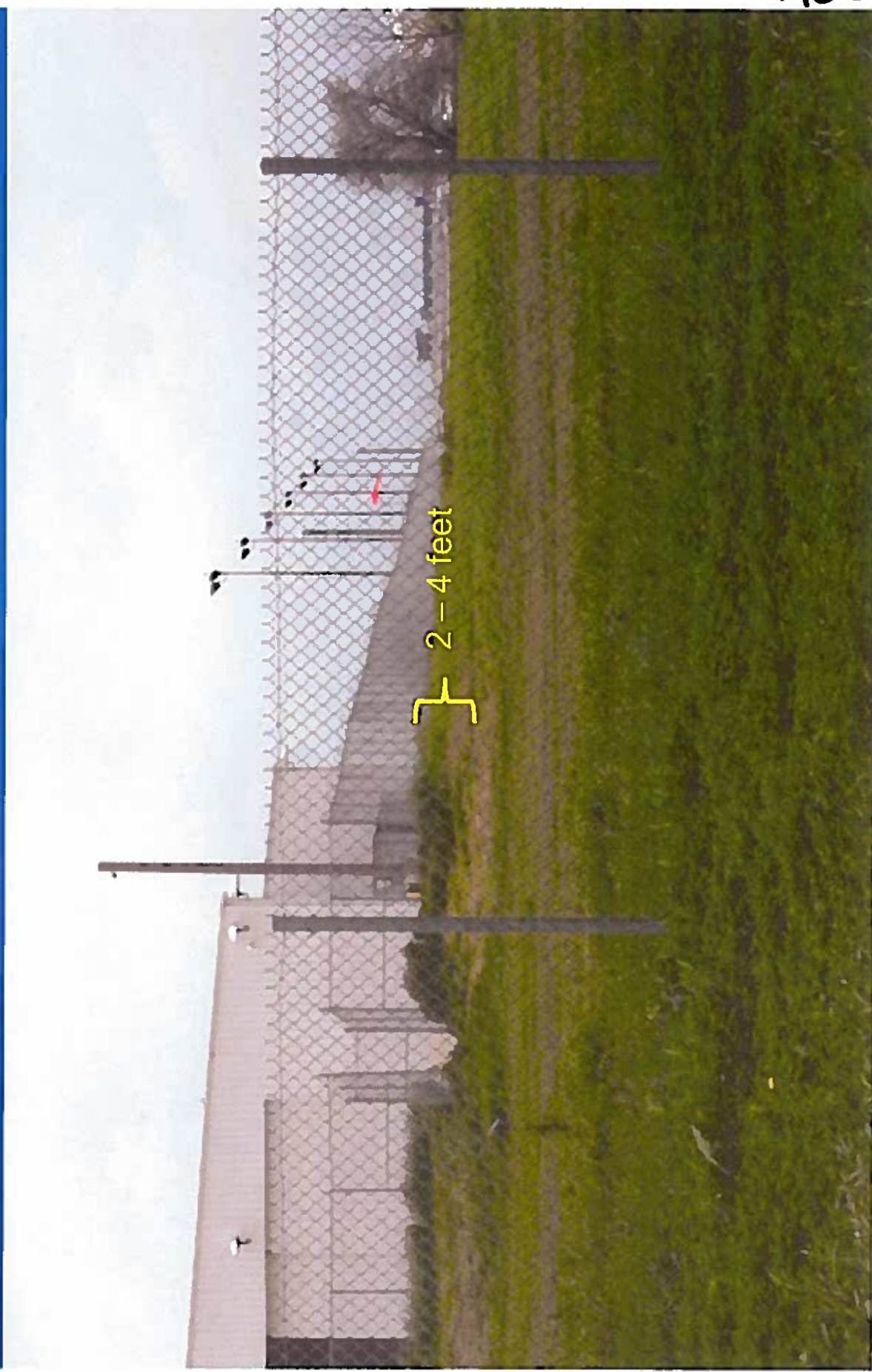
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Example of Fill Requirement – RON Project



C9/49

Another example of fill requirement



C9/50

Tree Surveys

- DOA is not requesting a variance and will submit a tree survey/plan with each proposed development



Proposed Schedule

Activity	Date
Interdepartmental Review	Done
Environmental Board Briefing	Done
Environmental Board	Done
Planning Commission Codes & Ordinances Sub-committee Briefing	May 15
Planning Commission	May 22
Council Action	June



Questions and Discussion

