

Resolution of Outstanding Issues

**Development of a Regional Water Quality Protection
Plan for the Barton Springs Segment of the Edwards
Aquifer and its Contributing Zone**

Austin Community College - Pinnacle Campus
February 23, 2005

“Show Stopper” Issues Submitted by SHC Members

- Transferable Development Rights
 - Need preferred conservation areas where low IC cannot be increased through TDRs
 - No Eminent Domain/Condemnation allowed
- Impervious Cover
 - Limits are “required”, not “recommended”
 - Actual Constructed IC < or = Estimated IC
 - Steep slopes must be considered
 - Include % of irrigation areas and BMPs/Ponds

“Show Stopper” Issues Submitted by SHC Members (Continued)

- Impervious Cover (Continued)
 - RZ be limited to 10%
- Buffer Zones
 - No BMPs in BZ
- Implications
 - Economic impact evaluation either more thorough or eliminated

On-Going Work – Critical Water Quality Parameters

- Preferred measurement methods
 - Existing test methods under existing programs/ordinances
 - Coordinated with regional clearinghouse
- Procedures for response to “failing” data, as part of Adaptive Management

On-Going Work – Description of Measures

- Stream Offsets/Buffer Zones
 - Construction (utilities, etc.) in BZ [SHC]
 - Requirements for discharges into BZ
 - No BMPs in BZ
 - No concentrated flow (sheet flow required)
- Site Specific Construction Phase Controls
- Site/BMP Design
 - Expanded definition of Low Impact Dev. (LID)
 - Site characteristics - irrigation areas not IC

On-Going Work – Implementation

➤ TDRs

- Differences across jurisdictions
- Concept of acquiring TDRs from regional “Mitigation Bank” vs. individual tracts
- Detail requirements for obtaining TDRs by retrofitting prior development
- Specific recommendations for purchase of NA/OS Conservation Easements

➤ Economic implications of measures

➤ Relationship with growth/demographics

Illustrative Case #1 – Scenic, Texas

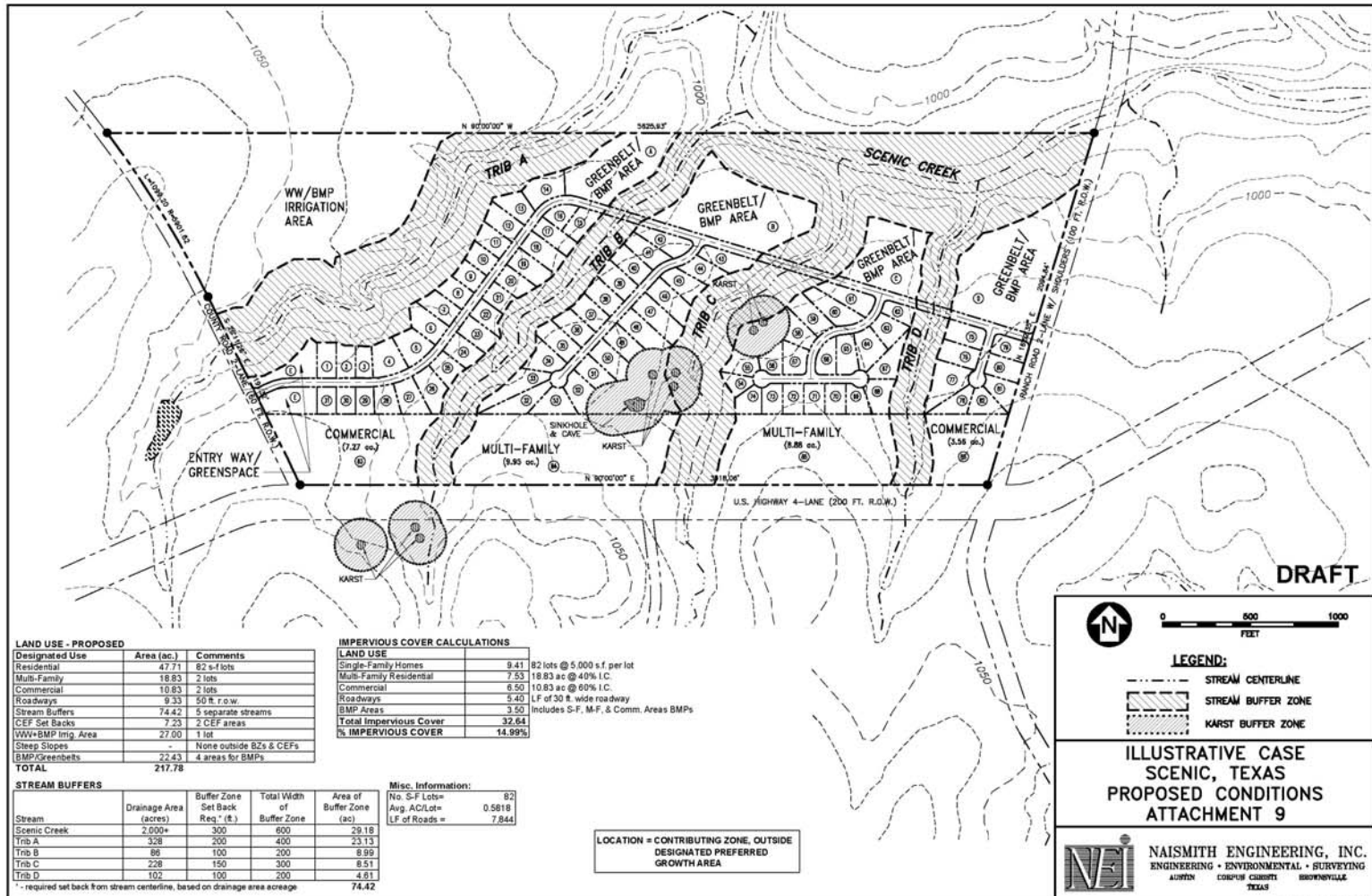
➤ Location

- Contributing Zone
- Rural – Outside Preferred Growth Areas

➤ Site Characteristics

- 218 Acres, undeveloped ranch land
- Boundaries: S – 4 lane US Highway, E – TX RR w/ paved shoulders, W – 2 lane CR, N – ranch land & Scenic Creek (>2,000 Ac drain.)
- Several on-site streams/karst features

Post-Development - Illustrative Case #1



IC Calculations – Illustrative Case #1

Land Use	Impervious Cover (Acres)	Basis
Single Family Residential	9.41	82 lots @ 5,000 sf IC per lot
Multi-Family Residential	7.53	18.83 Ac. @ 40% IC
Commercial	6.5	10.83 Ac. @ 60% IC
Roadways	5.40	None
BMPs	3.50	-
Totals	32.34	$32.34 / 218 = 14.83\%$

Illustrative Case #2 – Mythic, Texas

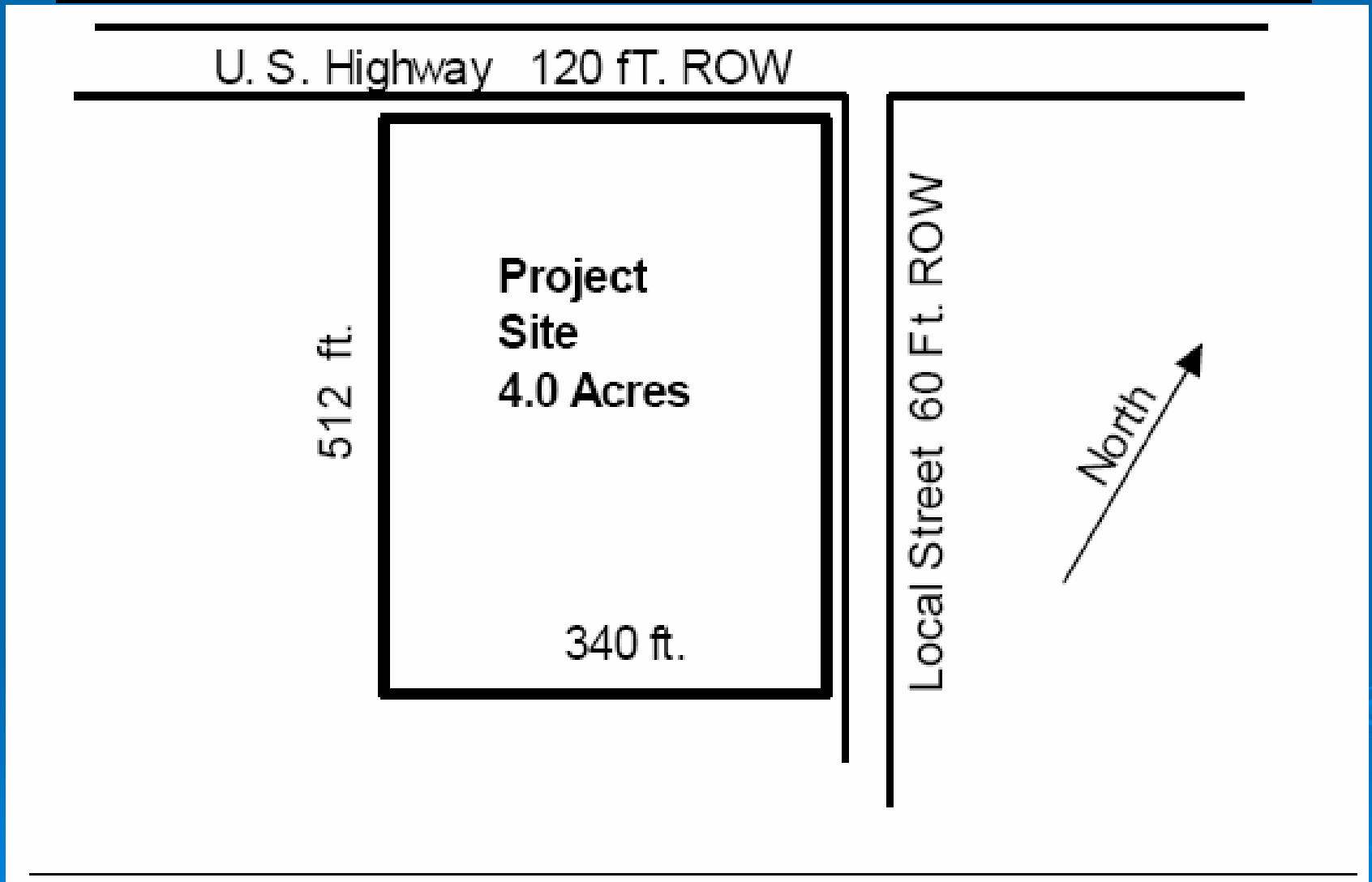
➤ Location

- Contributing Zone
- Urban – Inside Preferred Growth Areas

➤ Site Characteristics

- 4.0 Acres, undeveloped agricultural land
- Boundaries: S & W – Open field, NW - 4 lane US Highway, SE – paved city street
- Nearly flat, moderately deep soils

Pre-Development - Illustrative Case #2



Illustrative Case #2 – Mythic, Texas

➤ Development Objectives

- Retail Commercial
- Max. building, material laydown and parking

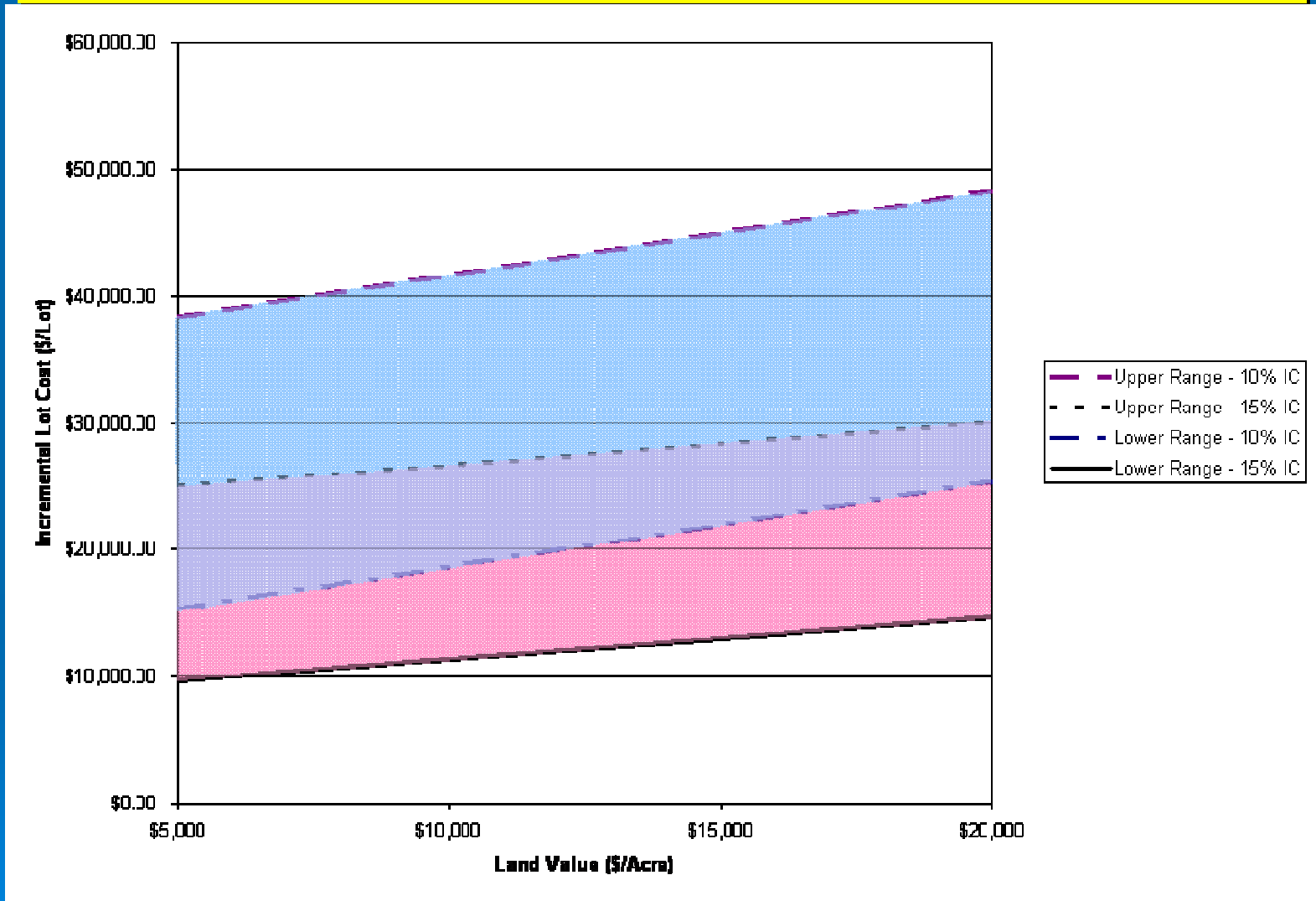
➤ Design Restrictions

- Ret./Irr. requires 1.0 Ac. of irrigation area
- Resulting: 3.0 Ac. Or 75% IC

➤ TDRs

- On – site allows: 0.6 Ac. IC ($4 \times 15\% = 0.6$)
- Off-site req'd: 2.4 Ac. IC or 26.67 Ac. @ 1%
($26.67 \times [.10 - .01] = 2.4$)

Est. Addn. Cost – Typ. Residential Lot



Proposed Impervious Cover Table

Location	No BMPs No Incoming TDRs	Sec. (LID) BMPS, no TDRs	Prim. BMPs & no TDRs	Sec. (LID) BMPs & TDRs	Prim. BMPs & TDRs
Recharge Zone	7.5	10	15	15	15
Contributing Zone, outside PGAs	10	15	20	25	25
Contributing Zone, residential, inside PGAs	10	15	20	25	30
Contributing Zone, commercial, inside PGAs	10	20	25	30	None

Questions/Comments on the Draft Plan



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