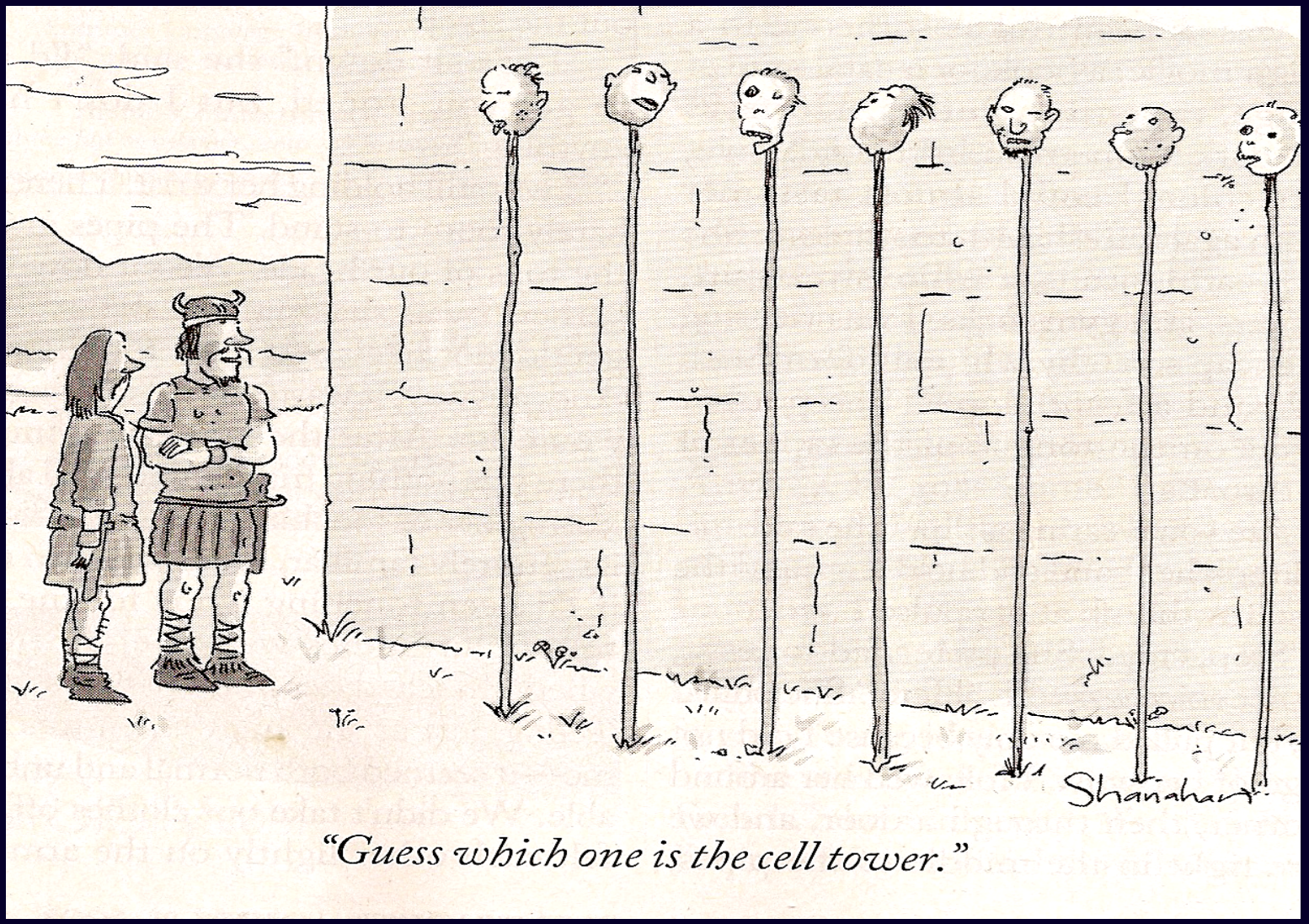
Visual Design Fundamentals

Objective

Students will learn concepts, methods, and techniques to design projects in a way that minimizes adverse affects to visual resources

Visual Design Fundamentals



"Guess which one is the cell tower."

Visual Design Fundamentals

Goal: Minimize Adverse Visual Impact

- **Proper Siting & Location**
- **Repetition of Landscape Character Elements**
- **Reduction of Unnecessary Surface Disturbance**

Proper Siting & Location

- **Locating a project in the landscape in a manner that minimizes adverse visual impacts**

Proper Siting & Location

- The project is:
  - Screened by topography
  - Screened by vegetation
  - Located away from visually sensitive areas
  - Located away from dominant landscape features
  - Located project away from points of convergence

- Locate the project in a manner that reduces the visibility of both structures and associated surface disturbance

Proper Siting & Location

Water tank located in plain view

Proper Siting & Location

Better location for water tank

Proper Siting & Location

Gas well exposed on skyline

Proper Siting & Location

Gas well located below skyline

Proper Siting & Location

Locating projects to minimize visual impacts

Proper Siting and Location

Proper Siting & Location

Screen project with vegetation

Proper Siting & Location

Hide projects behind a hill or knoll

Proper Siting & Location

Water tank is screened from view

Proper Siting & Location

- Bury projects underground

Repetition of Landscape Character Elements

- **Designing and building a project in a manner that repeats or mimics the natural character elements in the landscape**

Repetition of Landscape Character Elements



- Modifications repeat the **Forms** in the landscape
- Modifications repeat **Lines** in the landscape
- Modifications repeat **Colors** in the landscape
- Modification's texture is similar to **Texture** in the landscape

Repeating FORM

Forms that are bold, regular, vertical, or solid tend to be dominant in the landscape

Repeating Form

Repeating FORM

Openings repeat natural forms

Repeating FORM

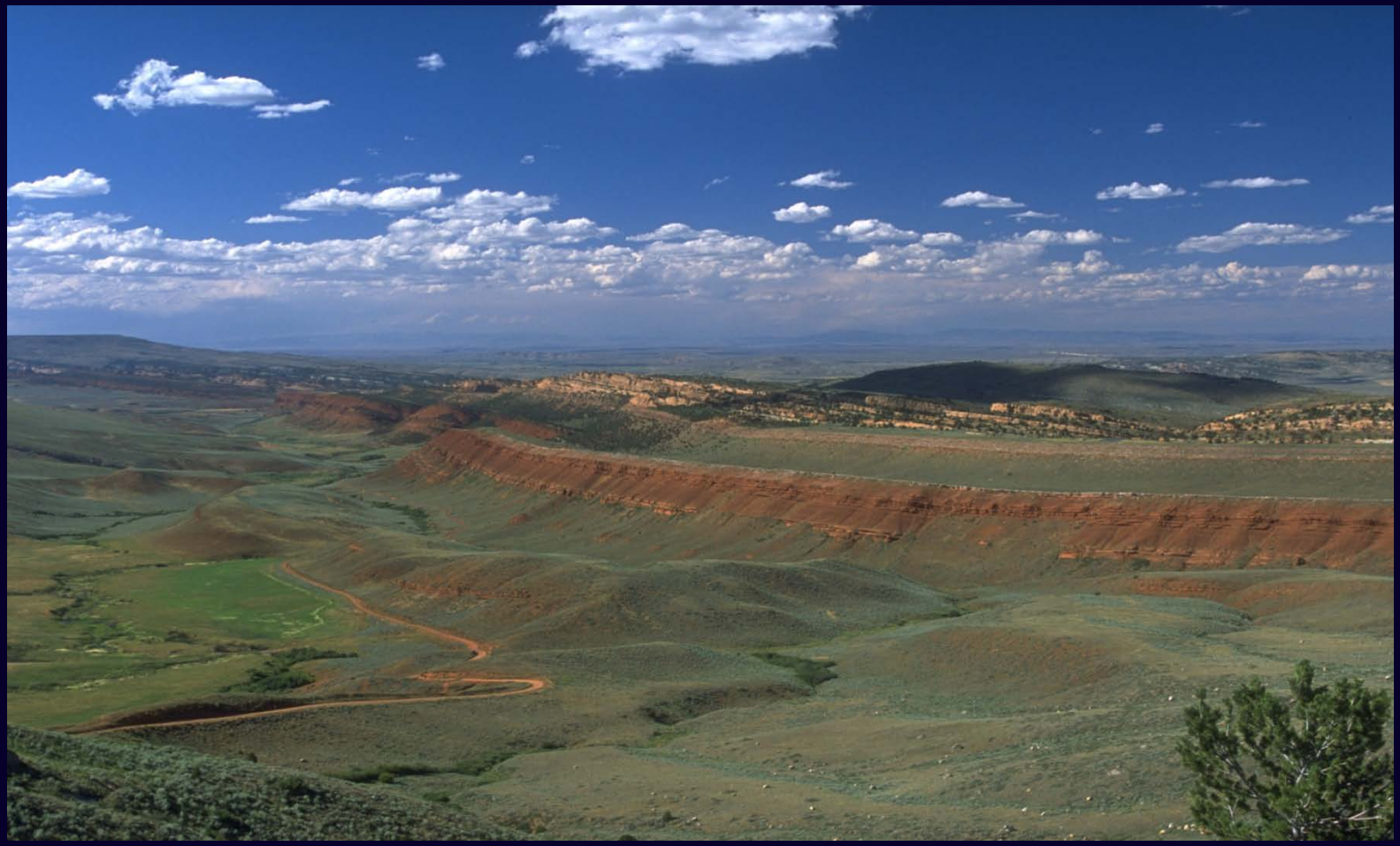
Water tank form similar to vegetative form

Repeating FORM

Ski Area Development – Cokeville, WY

Repeating LINE

Road in Red Canyon



Repeating LINE

Roads fit lines in the landscape

NOT Repeating LINE

NOT Repeating LINE

NOT Repeating LINE

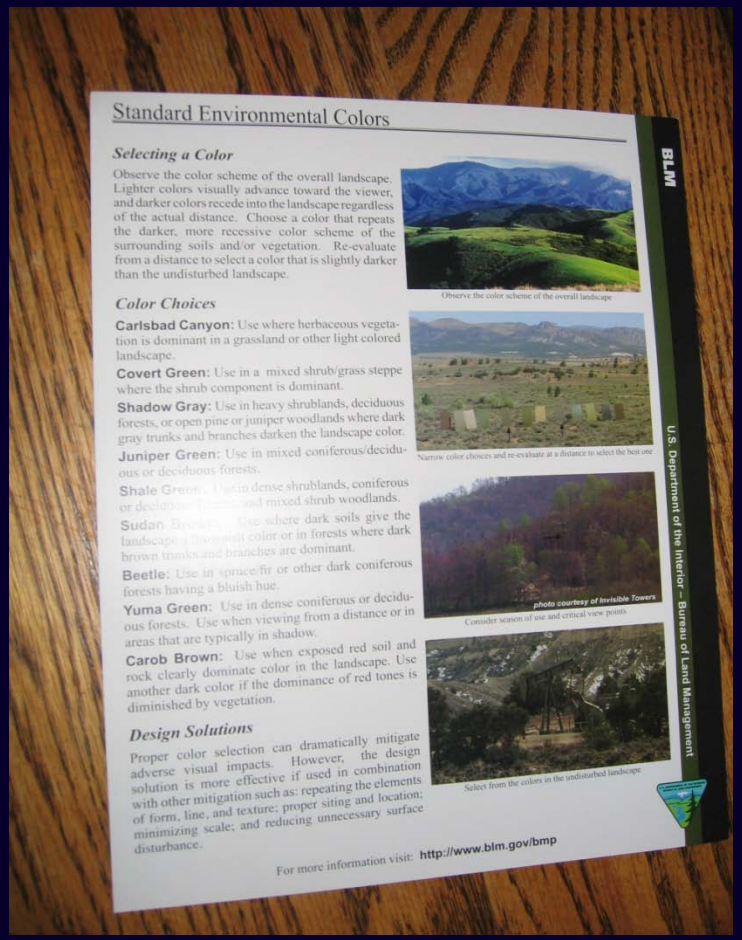
Straight line in a horizontal landscape

Repeating COLOR

- Color is a powerful design tool
- Color is increasingly effective in direct proportion to the distance the project is located from where it is viewed
- Color has not been used nearly as effectively as it should have been
- Past experience reveals that colors have often been lighter than they should be
- Use desert brown and greens with great caution

Repeating COLOR

Standard Environmental Colors



Repeating COLOR

1. Color selected should match the color(s) in the landscape

2. Select a color that is equal to or **SLIGHTLY DARKER** than the surrounding colors.

Repeating Color

Color of tank matches the color of vegetation

Repeating COLOR

Water Tank at Arches National Park

Repeating COLOR

Effective use of color to minimize visual impacts for power line development

Repeating COLOR

Recreation Site Development

Repeating COLOR

Dark color matches dominant/adjacent colors in the landscape

Repeating COLOR

Gas development near Parachute, CO

Repeating COLOR

Same scene, better color (Simulation)

Repeating COLOR

Visualize the impact with the proper color

Selecting Color

Widespread use of *Carlsbad Canyon*

Repeating Color

- **Western Landscapes are strongly influenced by the color gray**

Repeating Texture

Repeating “Texture” means matching the overall character of the surfaces of major features in the landscape.

Repeating Texture

Building with natural materials often results in a texture that fits the surroundings better than building with man-made materials

Repeating Texture

Recreating texture through reclamation

Repeating Texture

Reclamation to restore texture

Reduction of Unnecessary Disturbance

- Fit the project to the landscape
- Use smallest area necessary for project
- Minimize cuts and fills
- Promote interim reclamation
- Complete final reclamation

Reduction of Unnecessary Disturbance

I-70 Corridor – Glenwood Springs, Colorado

Reduce Unnecessary Disturbance

Use the minimum road necessary

Reduction of Unnecessary Disturbance

Use the smallest possible location

Reduction of Unnecessary Disturbance

Reduction of Unnecessary Disturbance

It isn't always necessary to clear the ROW

Class Exercise

- Evaluate the photograph
- Identify the project that has caused visual impacts to the natural landscape
- Report whether the visual impact is a result of:
  - Improper siting & location
  - Failure to repeat landscape character elements, or
  - Failure to minimize unnecessary surface disturbance.
- Propose a solution that minimizes the visual impact

UNIT 7 – Visual Design Fundamentals

Unit 7 - Continued

Capacity of a Landscapes to Absorb Visual Impact

- Landscapes with greater visual variety generally have a greater capacity to absorb visual impacts

Capacity of Landscapes to Absorb Visual Impact

Capacity of a Landscape to Absorb Visual Impact

Capacity of a Landscapes to Absorb Visual Impact

Visual Absorption Capacity

This combines excellent site selection
with good design and an especially good color

Earthwork

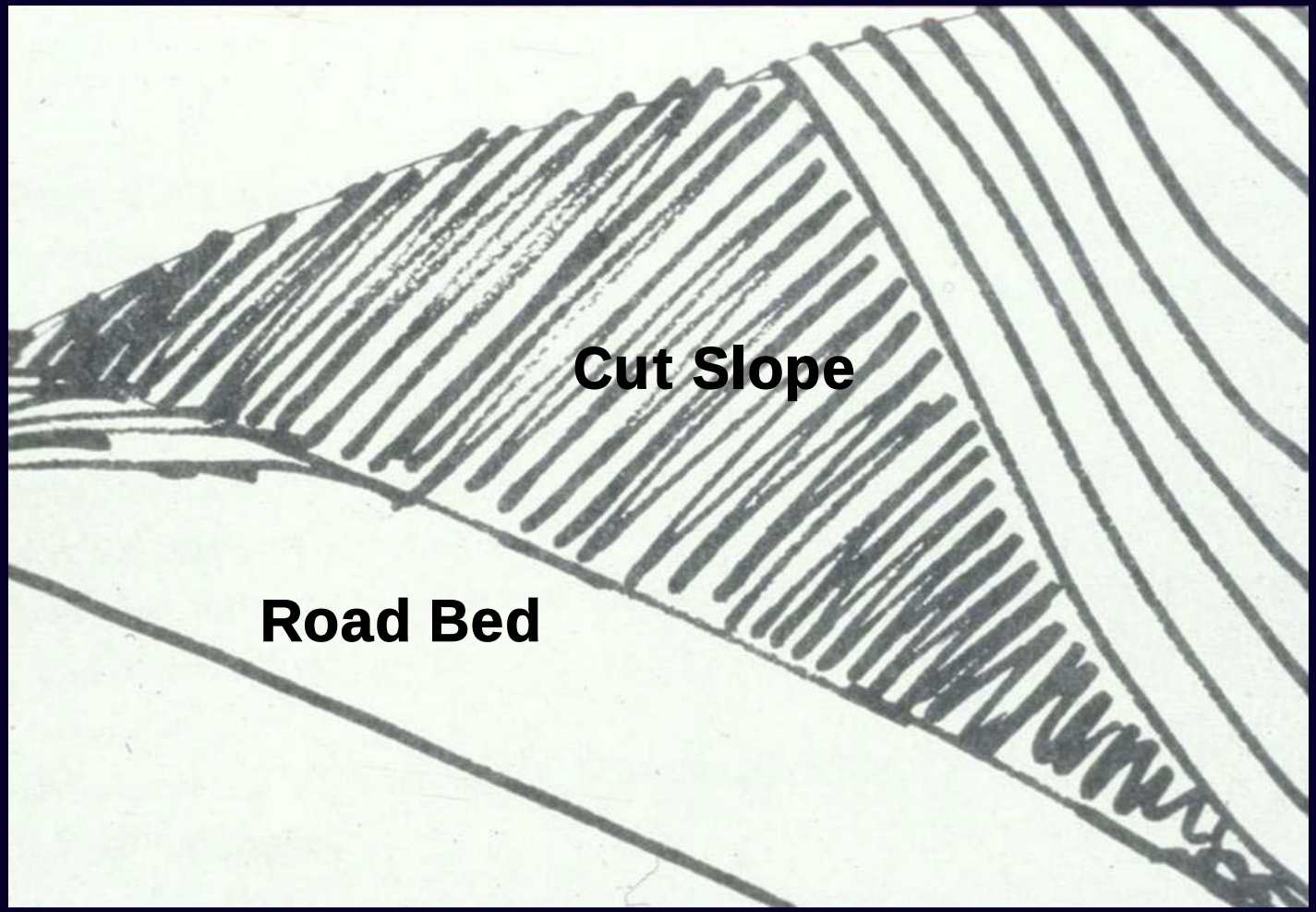
- Carry out earthwork in a manner that:
  - Minimizes unnecessary surface disturbance
  - Repeats landscape character elements
    - Form
    - Line
    - Color
    - Texture

Oil & Gas Developments

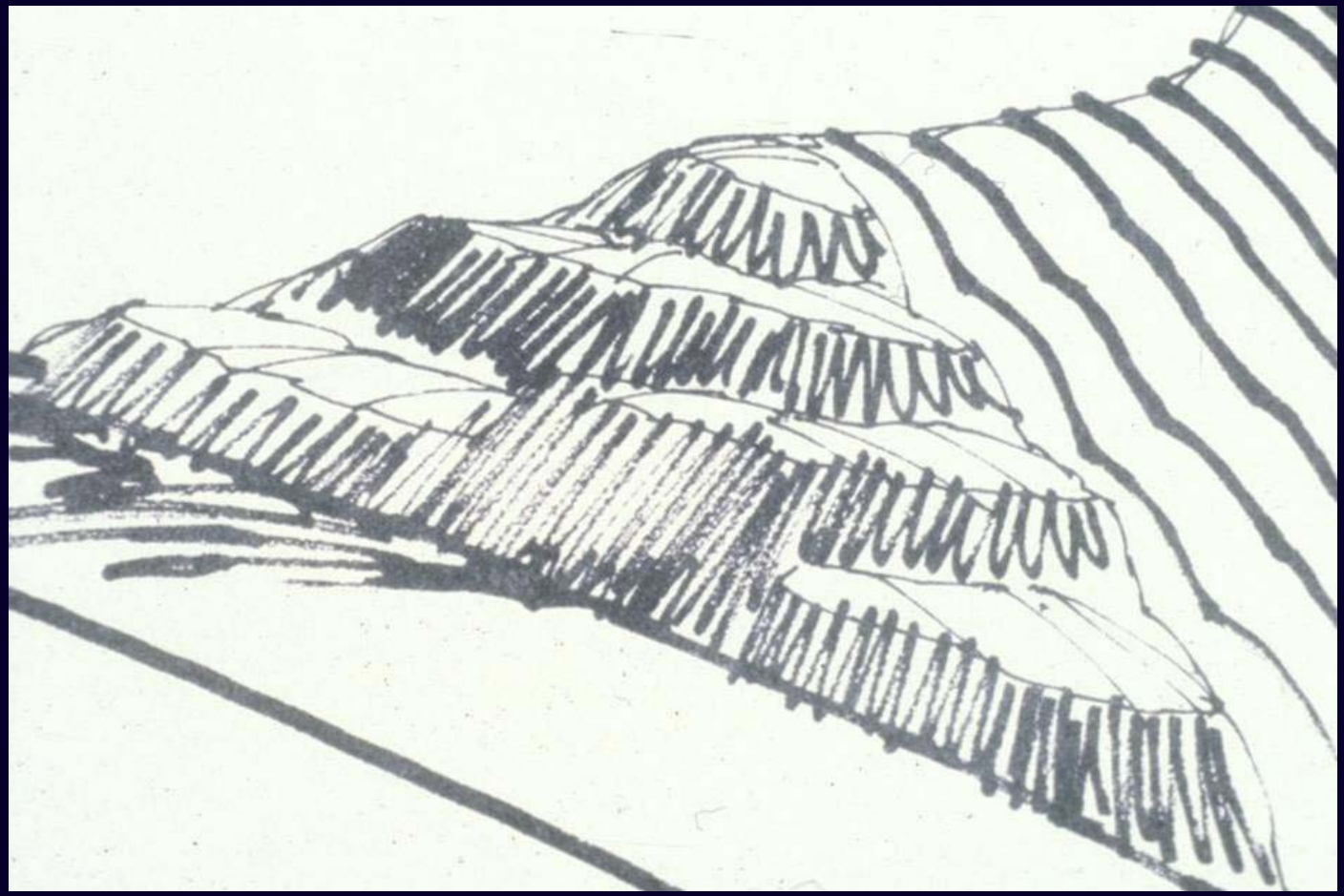
Minimize cut and fill

This large pad avoids excessive cuts & fills

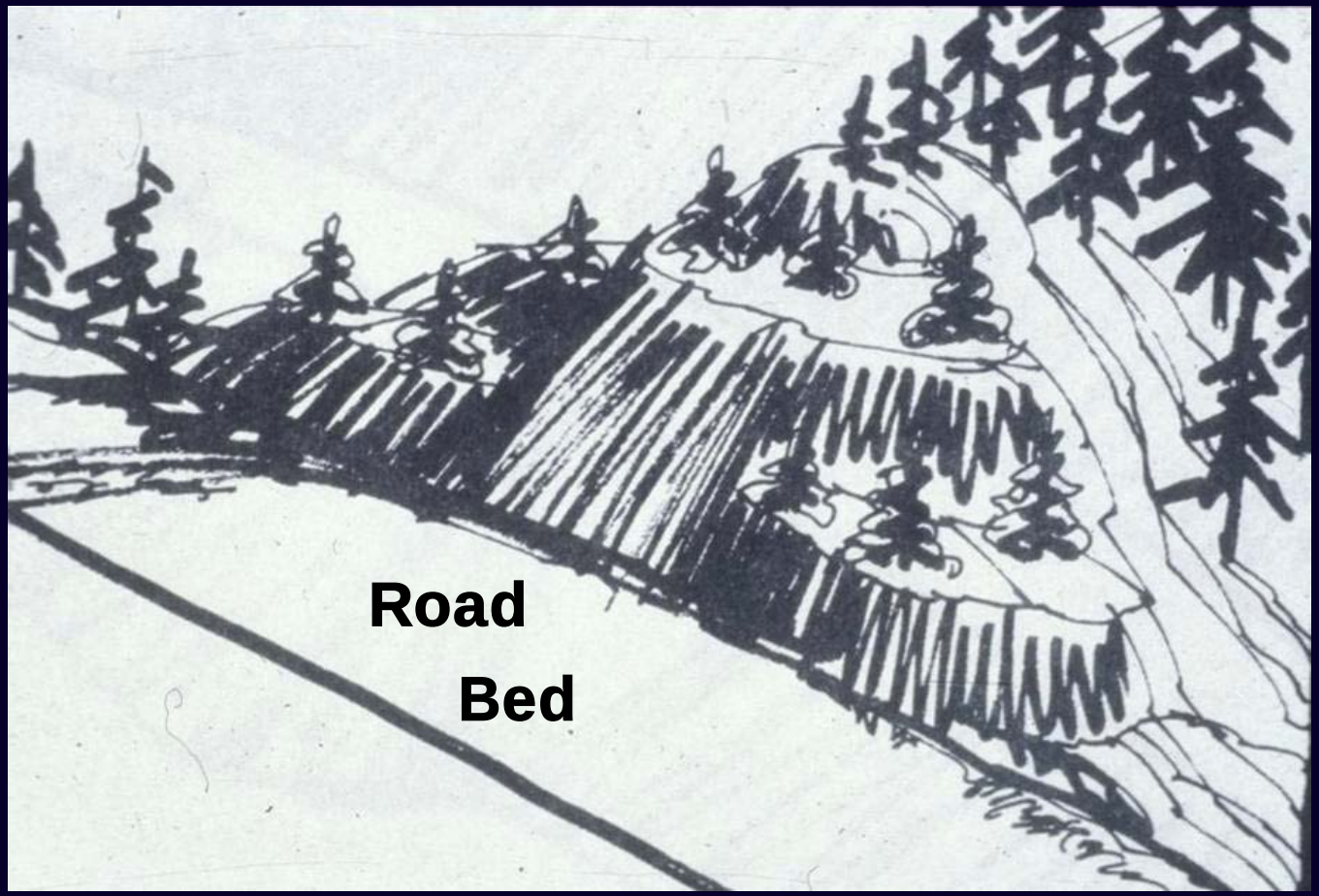
Earthwork



Earthwork



Earthwork



Linear Alignments

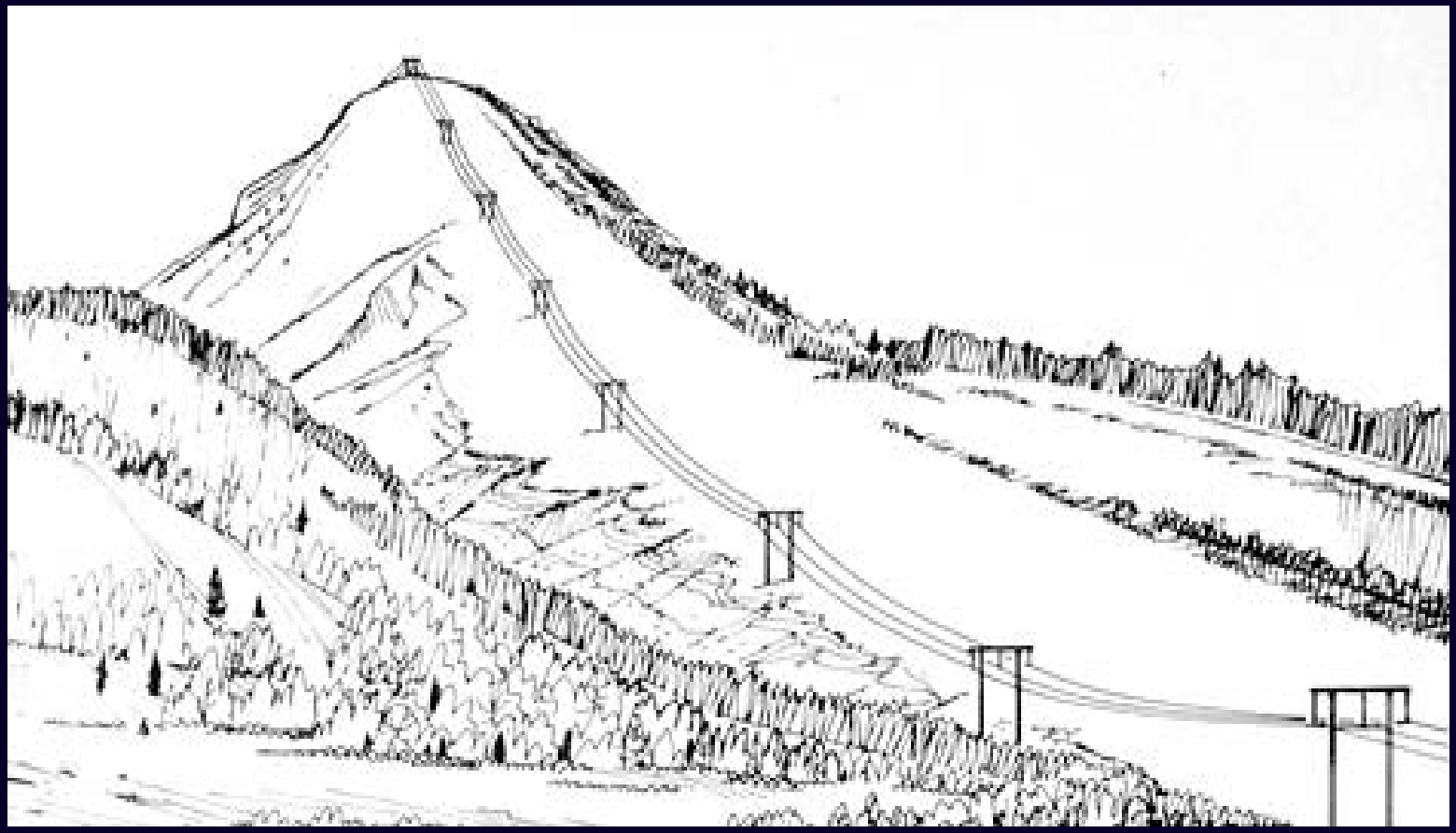
- Fit contours of landscape
- Repeat Landscape Character Elements
- Don’t over-build
- Co-locate with other facilities

Locating Linear Alignments

There are lots of poor examples out there

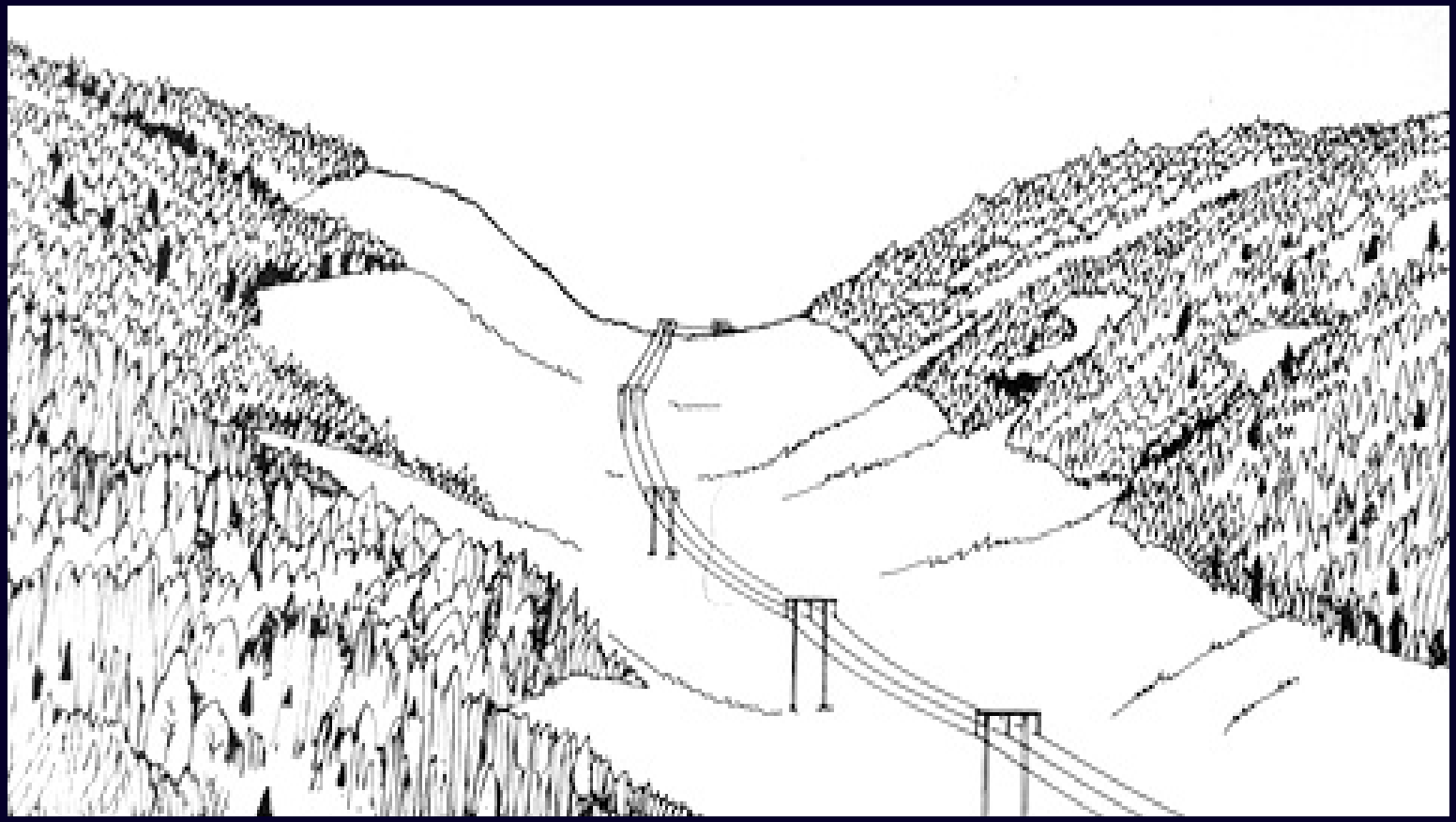
Locating Linear Alignments

Improper Location of Rights-of-way



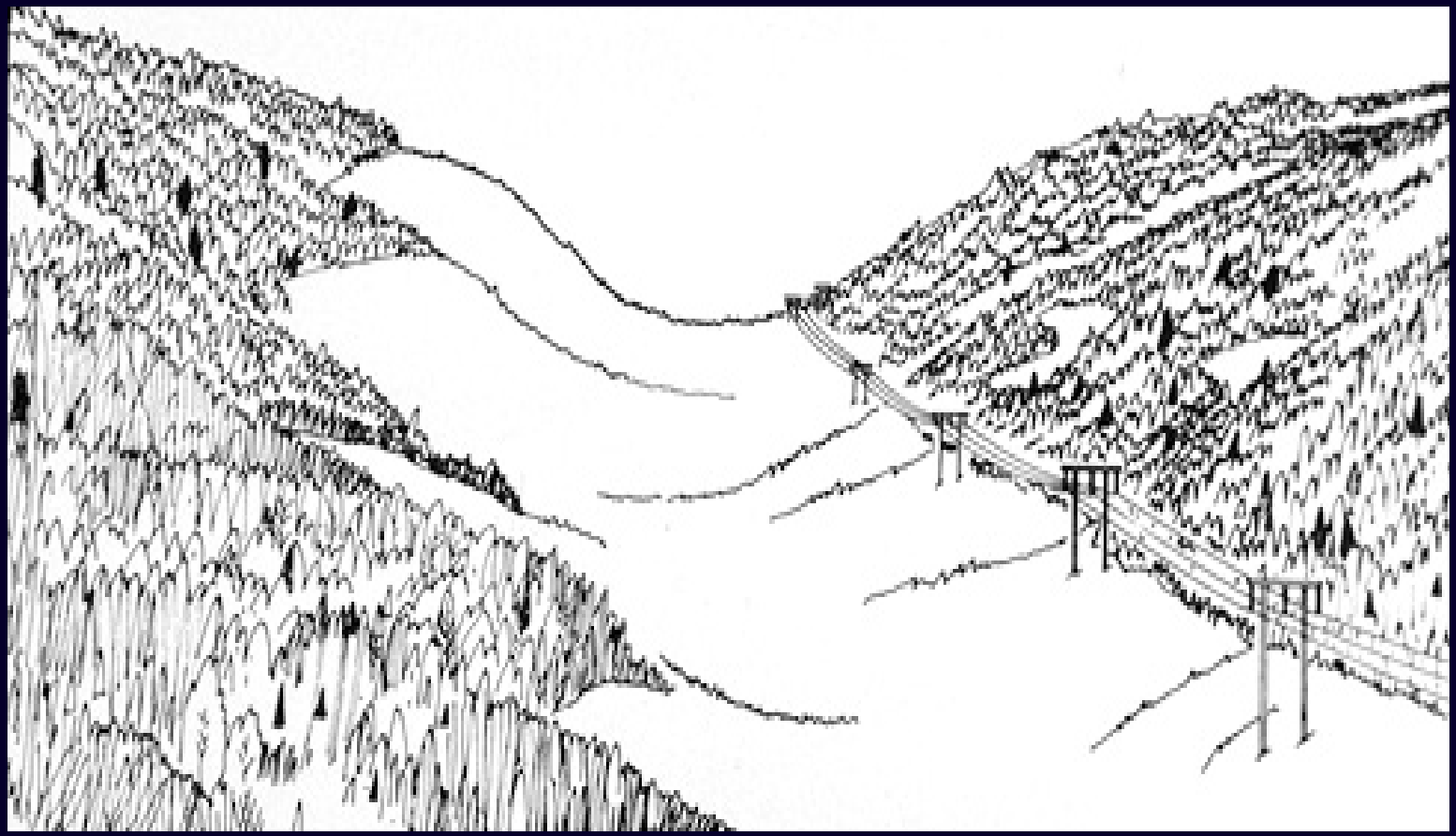
Locating Linear Alignments

Power line located in opening; creates new line



Locating Linear Alignments

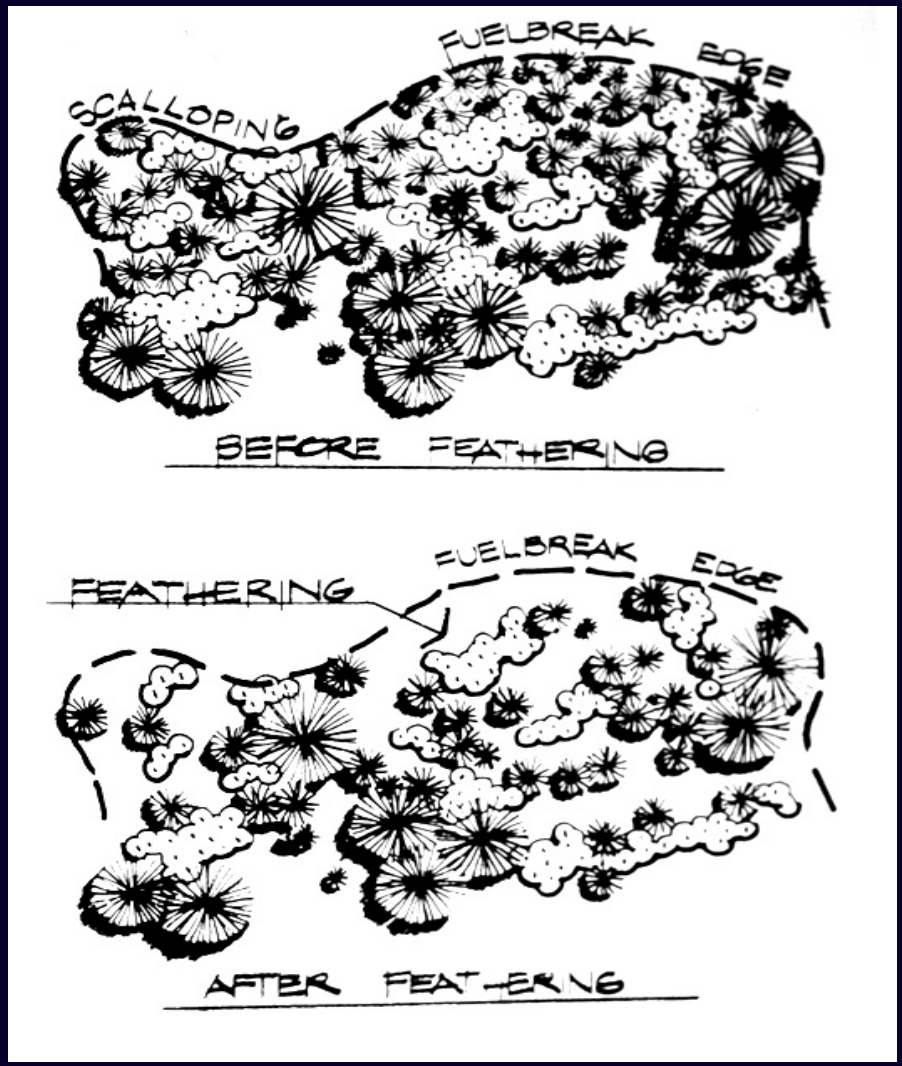
Relocate ROW to edge of opening; repeat linear element



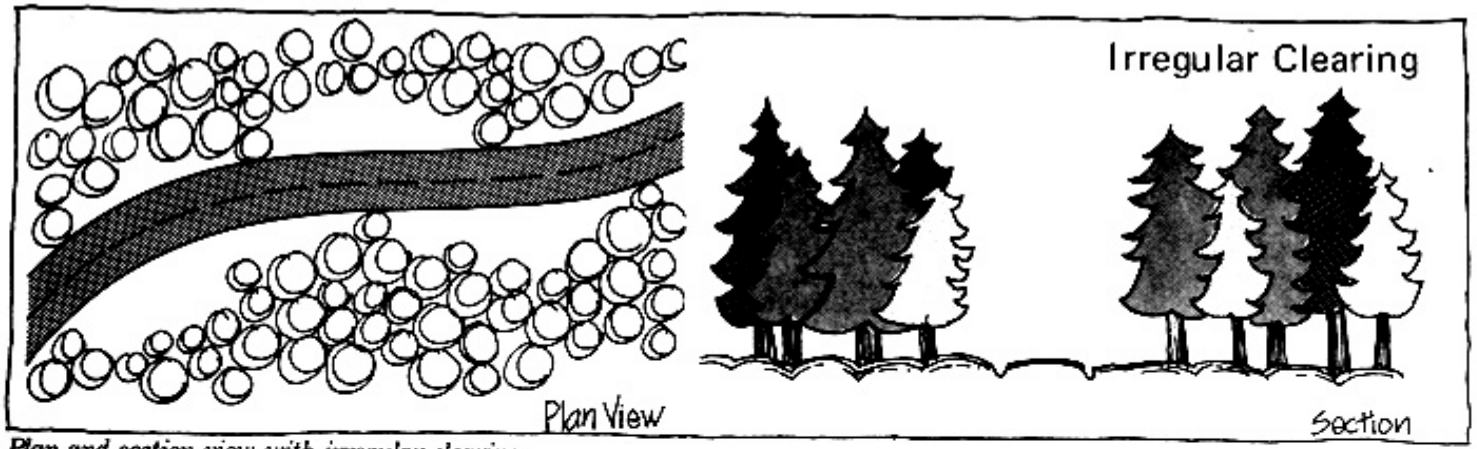
Linear Alignments

Vegetation Manipulation

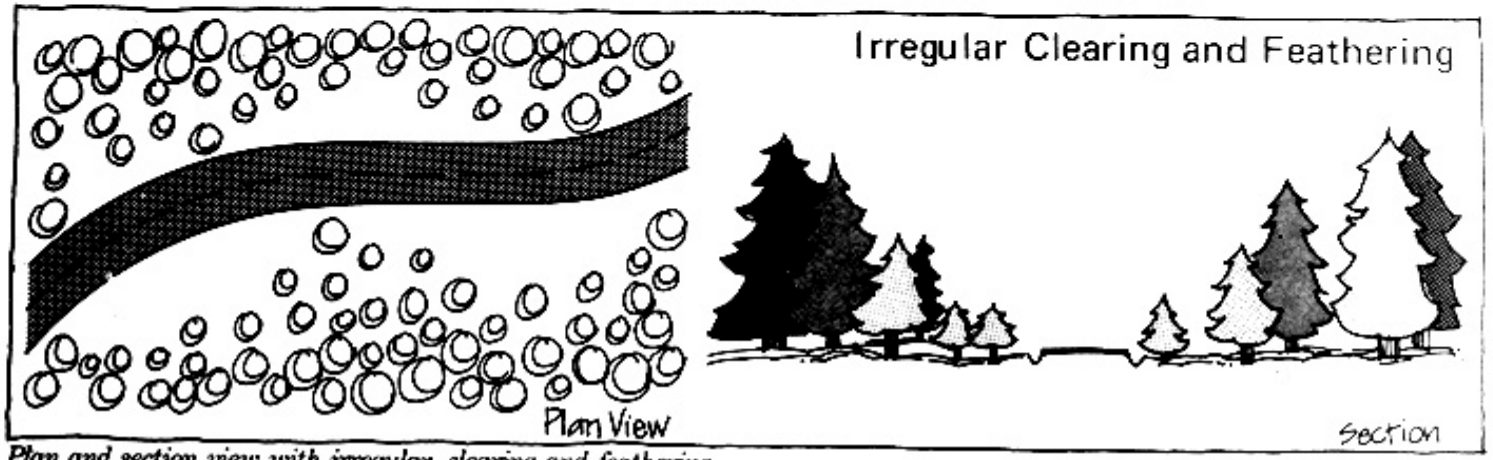
Feathering Vegetation along edge of right-of-way



Linear Alignments



Plan and section view with irregular clearing



Plan and section view with irregular clearing and feathering

Linear Alignments

A more gradual transition from forest to meadow

Linear Alignments

Co-locate rights-of-way

Gas line buried in lots of rock

It's not always necessary to clear the ROW

Linear Alignments

Follow contours in the landscape, co-located right-of-way, Excellent rehab

Additional Thoughts on Color

Selecting Color

Many landscapes exhibit complex color combinations and at a minimum, subtle color variation

Selecting Color

Color variation is the rule

Selecting Color

Use large color panels in the field to help select appropriate color

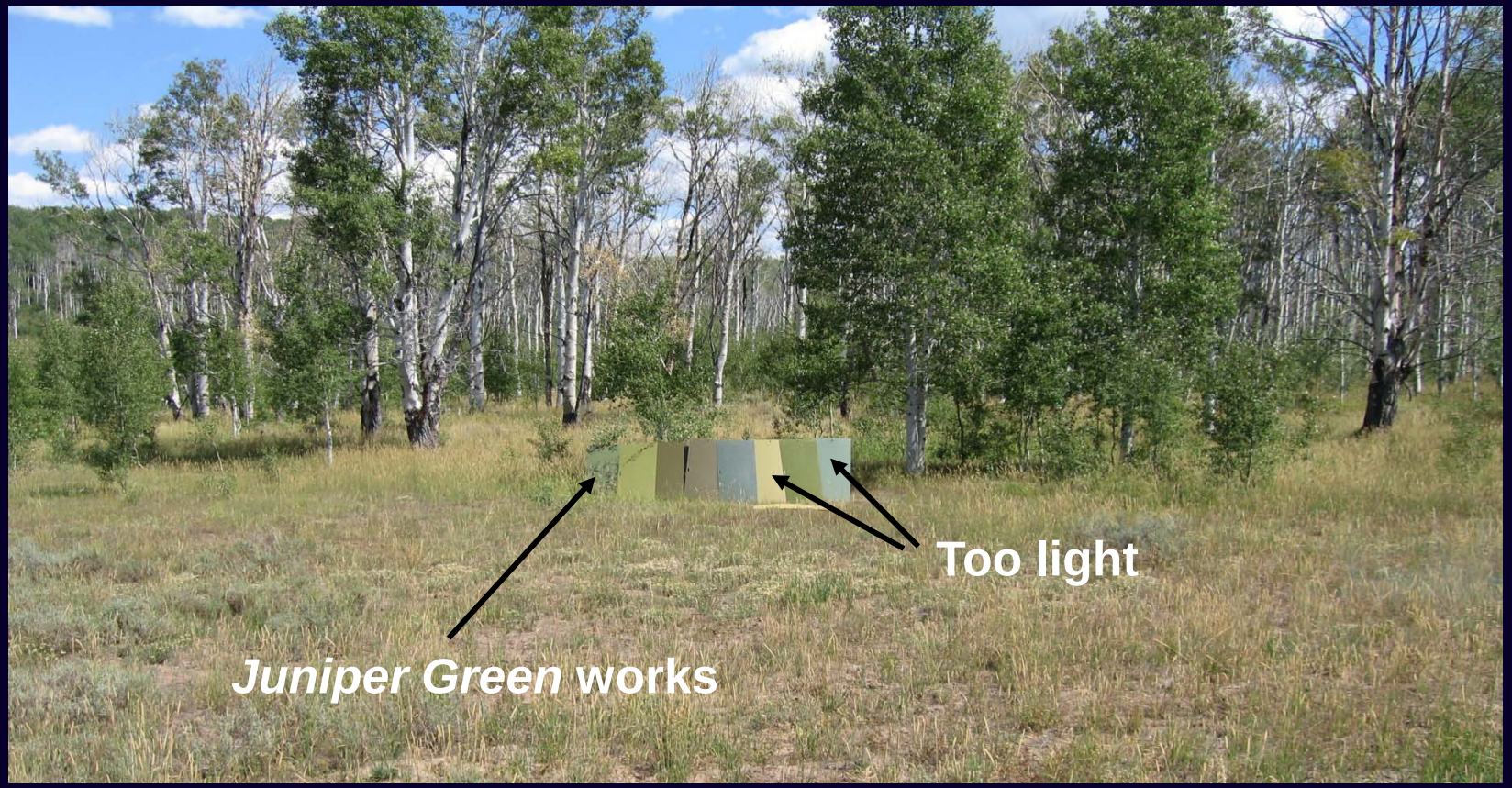
Selecting Color

Selecting Color

Comparison of colors

Selecting Color

Comparison of colors

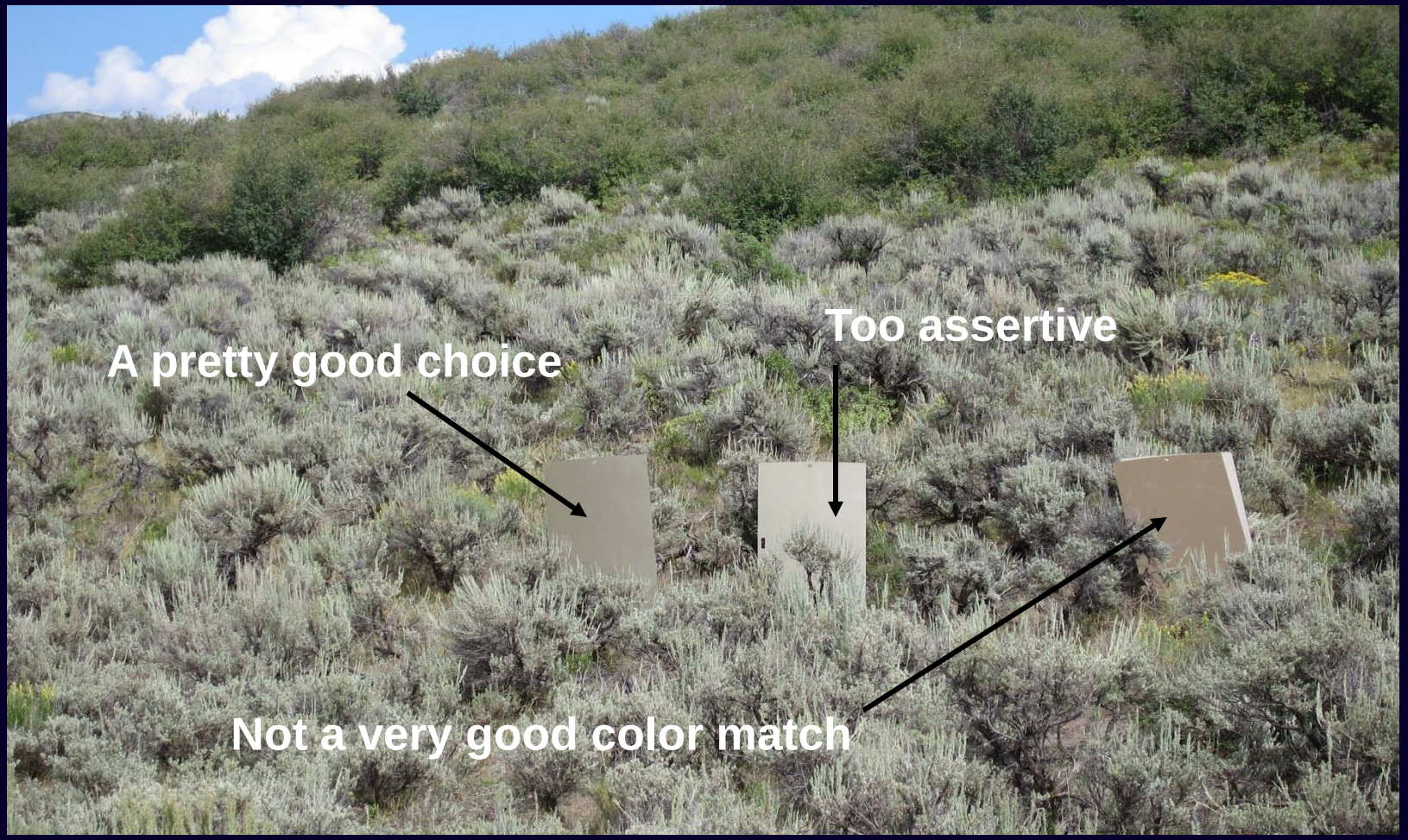


Selecting Color

Which would you choose?

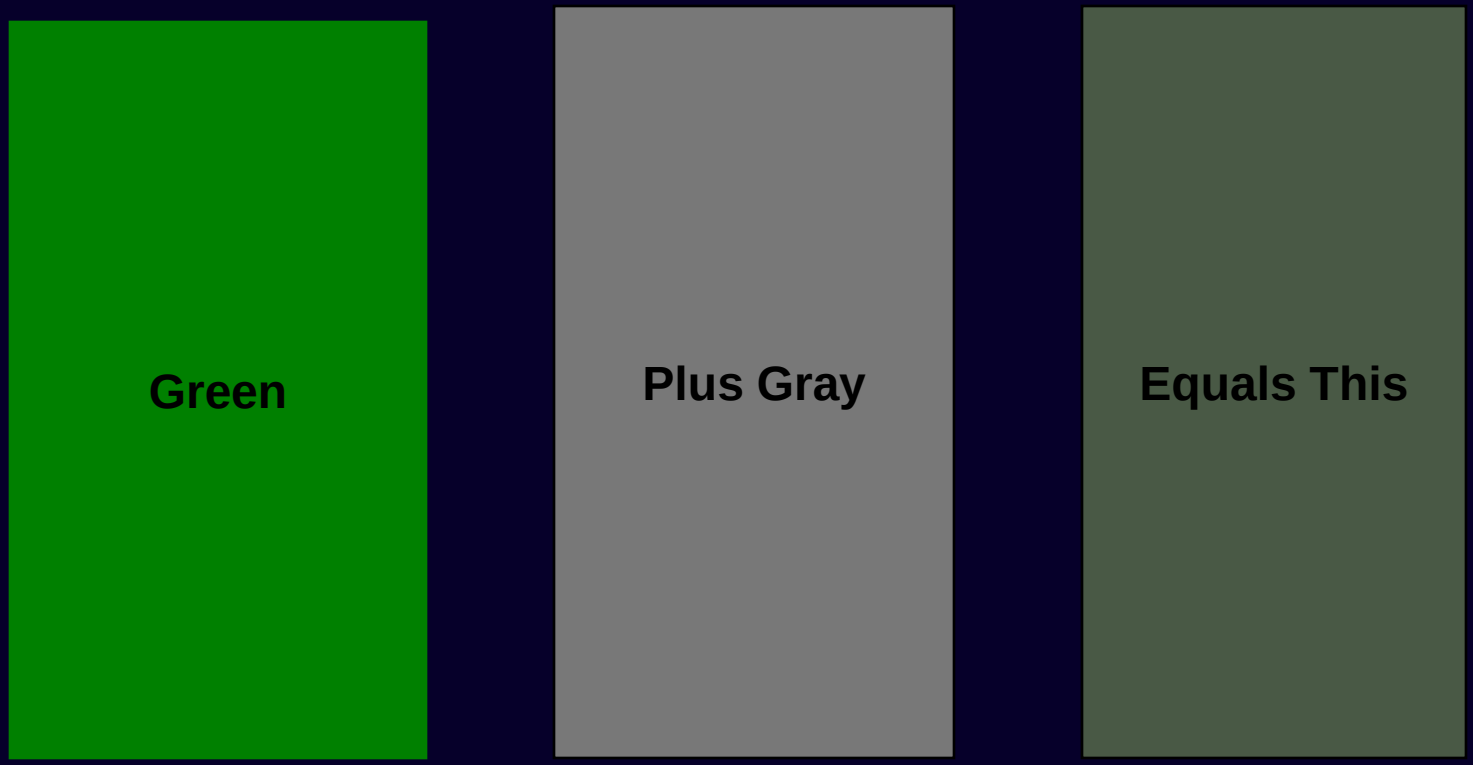
Selecting Color

Which would you choose?



Selecting Color

The color **Gray** heavily influences western landscapes.



Mixing Gray With Green

Reclamation & Land Restoration

Visual Reclamation / Restoration means:

Restoration of Form, Line, Color & Texture of Landforms & Vegetation

Reclamation & Land Restoration

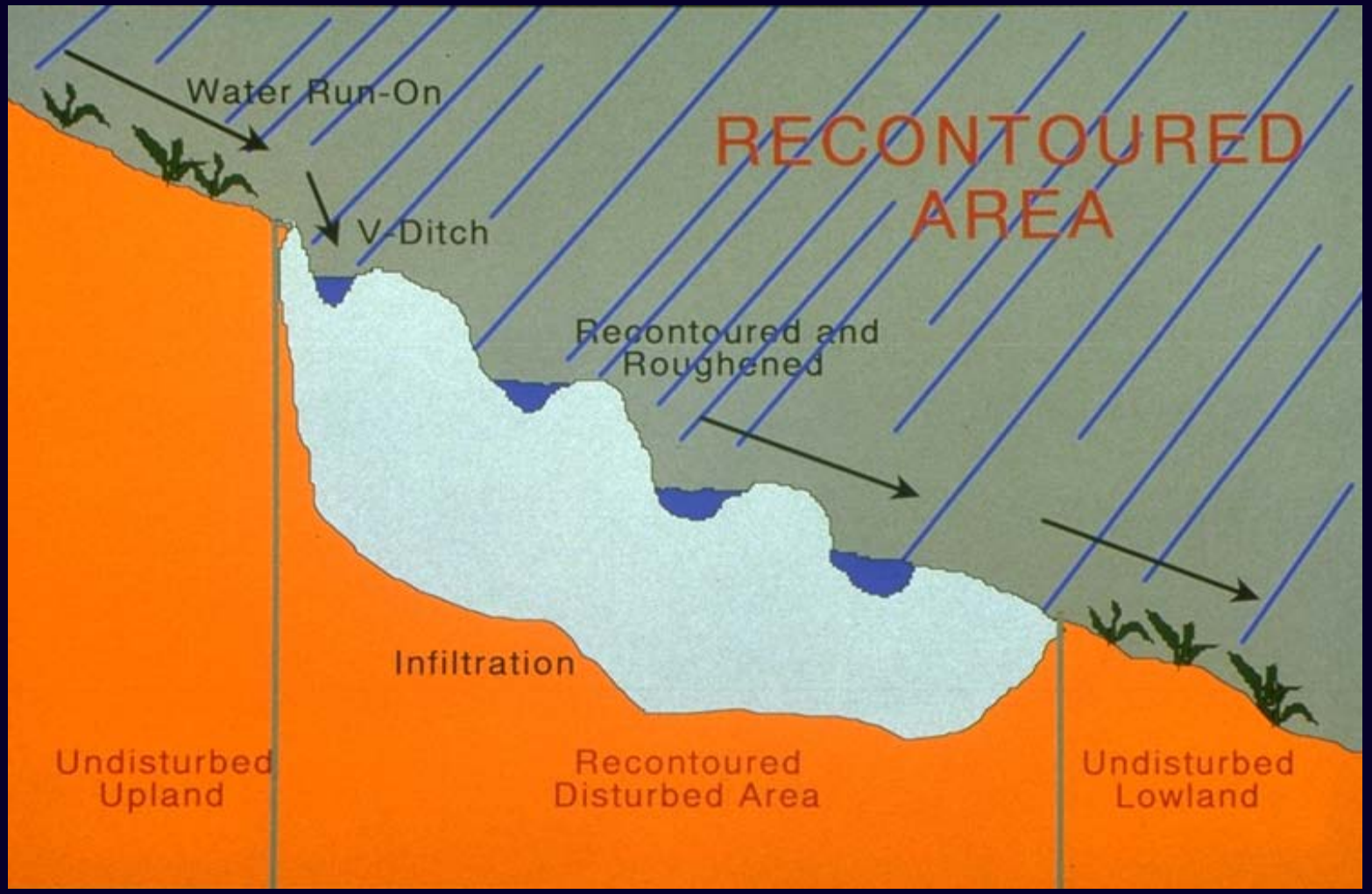
Reclamation Efforts Must

ALWAYS

Have

A Visual Objective

Reclamation & Land Restoration



Reclamation & Land Restoration

Road closing and rehabilitation

Reclamation & Land Restoration

Completed road rehab project

Reclamation & Land Restoration

Completed road rehab project

Reclamation & Land Restoration

Pipeline construction

Reclamation & Land Restoration

Completed pipeline project

Oil & Gas Development

Always complete interim site reclamation

Oil & Gas Developments

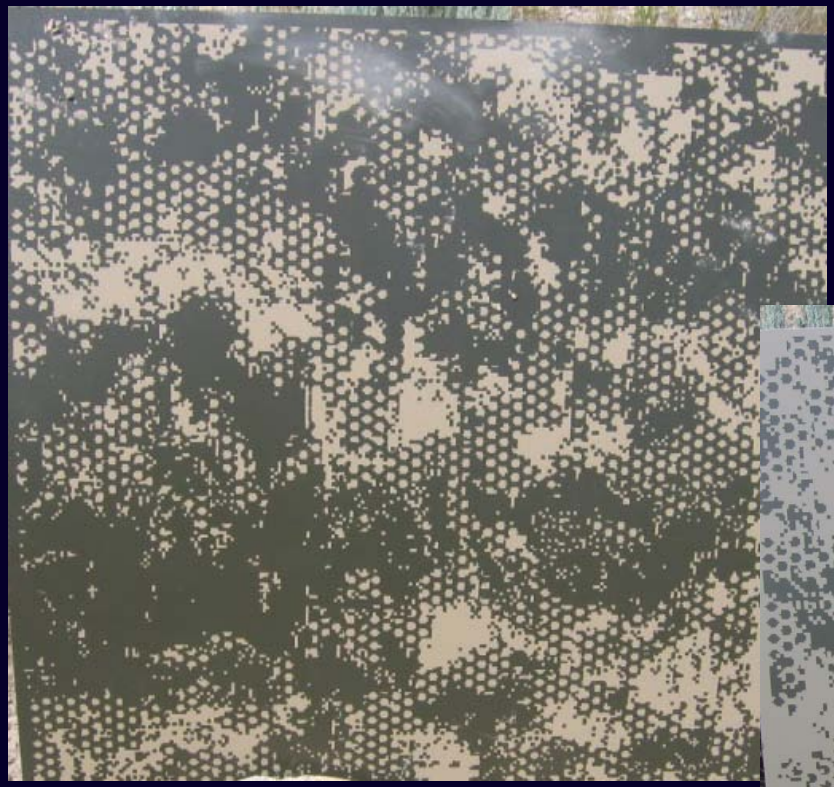
The Ultimate Goal: Good Reclamation & Land Restoration

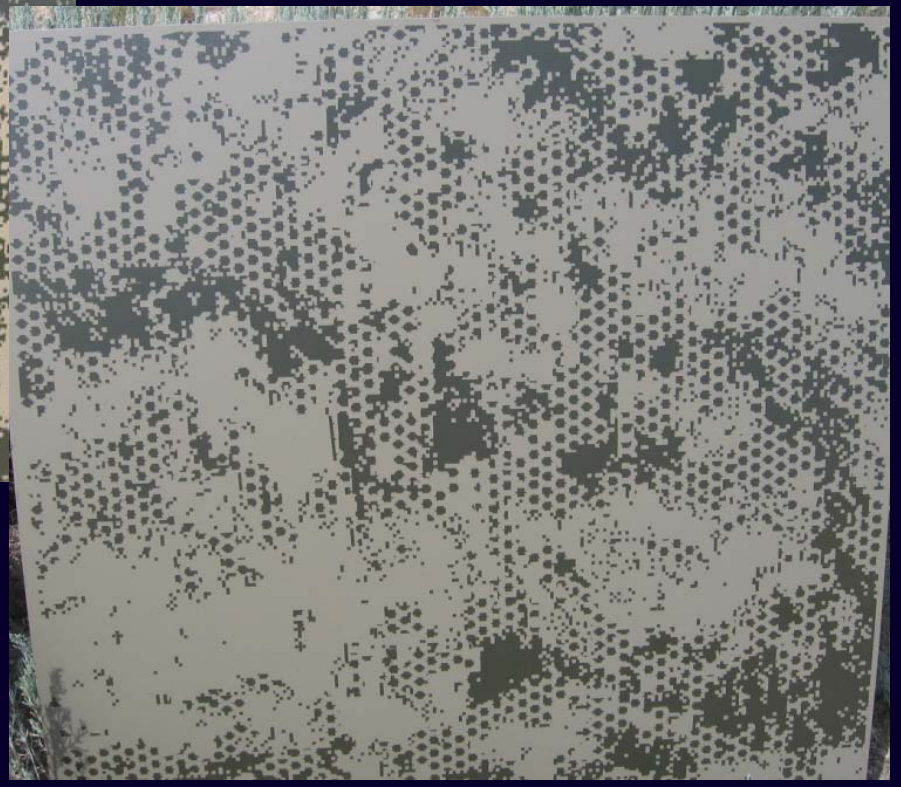
Mined Land Restoration

Reclamation focuses on restoration of Form, Line, Color, & Texture of the site to pre-mining conditions

Camouflage Patterns

Camouflage Patterns





Camouflage Patterns

Field testing camouflage patterns

Camouflage Patterns

Camouflage Patterns

Disguising Cell Towers in Urban Areas

● City imposes design requirements for hiding wireless antennas.

By MARY JANE SMETANKA
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A year after passing an ordinance limiting the height of church steeples and bell towers, Bloomington has tweaked its regulations by imposing design requirements to make it clear that the same bell tower can't be replicated over and over again on church grounds all over town.

It's not that churches have gone mad for bell towers. The new rule is aimed at providers of cell phone service who are looking for places to hide wireless antennas in residential areas.

After T-Mobile last year masked its equipment in a simple three-legged bell tower erected at CrossPoint Church near 98th Street and France Avenue, the company came back to

Graphics courtesy city of Bloomington

Verizon has proposed adding a bell tower, right illustration, to Oak Hill Lutheran Brethren Church in Bloomington to hide a wireless antenna.