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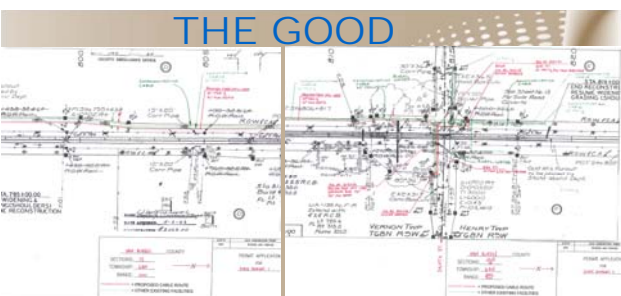
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- \*Permit drawn on DOT as-built plans supplying both accurate ROW information and Stationing
- \*Existing utilities clearly given in contrast to what is proposed
- \*Additional verbiage included showing intent of work proposed
- \*Bore pits including distance from Centerline and edge of pavement included

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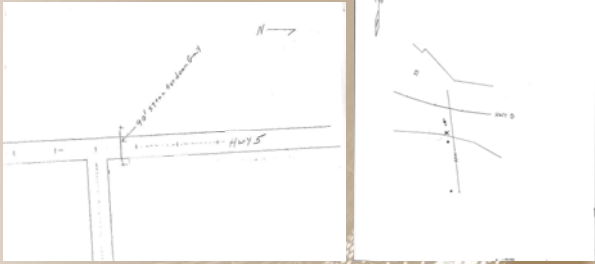
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### THE BAD & UGLY (insufficient information)



- \*Where are these locations being installed? Could you drive to it?
- \* No ROW, Stationing or measurements of any kind.
- \* Could you find this installation if it was handed to you?

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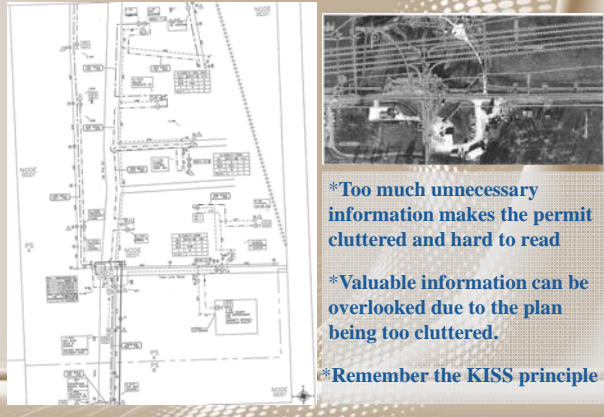
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### THE BAD & UGLY



- \*Too much unnecessary information makes the permit cluttered and hard to read
- \*Valuable information can be overlooked due to the plan being too cluttered.
- \*Remember the KISS principle

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### COMPLICATED SITE PLANS

- > Too much information that is not pertinent to the permit makes the site plan confusing
- > Important information can be overlooked when the site plan is not clear
- > Sifting through information that isn't part of the permit can often slow down the process for all permits that are to be evaluated.




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# SITE PLAN REQUIREMENTS

- North Arrow
- Highway location and orientation
- Right of Way Information
- Stationing (DOT STATIONING PLEASE!)
- Installation by distance from Centerline or ROW
- All measurements are to be on horizontal plane
- Bore pits must specify distance from the near edge of pit to the road edge (clear zone)
- Explanation of where & why installation starts and stops (leaves ROW, terminates at pole or pedestal, connects to already installed, existing, etc.)
- Other features (pedestals, hand holes, vaults, guy anchors, etc.)
- Underground or Above ground installation
- Type of utility

**HINT:** If site plan was separated from permit, could you tell what the installation is, what is being installed, where it is and who it came from?

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# SYMBOLS ON YOUR SITE PLAN?

- We are not familiar with your acronyms, codes or symbols.
- **ALWAYS** supply a key of symbols when symbols are used.
- Use plain words instead of technical codes for your install "34Kv Electric Distribution line" or "200 count fiber optic cable" instead of using "503-2D782 JR Node with HJ-992"
- Always include proper operating capacities in simple terms (200 pair, 600 count, 60psi, etc.)

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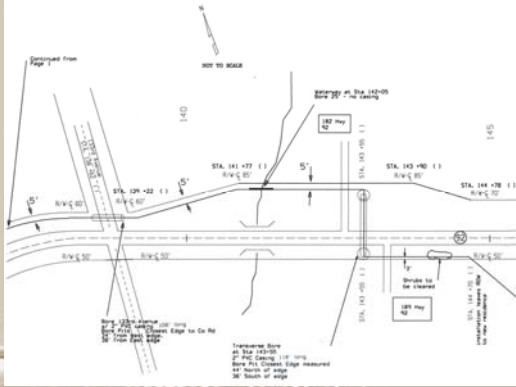
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# Underground Site Plan Example




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### Why is color not always the best option?



- ERMS often flattens the color range of copies which can often make the features of a site plan confusing.
- If wrong scan is used, the resulting colors become blackened out. What you are highlighting has just become obscured!
- Hard to send out as attachments (large file size and email limits)
- Not everyone perceives color the same

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### The Basics of Good Constructability

- Can you actually install/construct as you are proposing?
- Have you looked at the surroundings you are installing in?
- Are Bushes, Trees, Plantings, signs, other utilities etc. in your way?
- **NEVER NEVER NEVER** in the foreslope or between a driveway culvert and the highway
- As close to the ROW as possible / practical
- Transverse Crossings ideally installed perpendicular to the highway unless circumstances prevent it.
- Specify your method of install and if multiple installs are used, differentiate wherever you change methods
- Are you prepared to do the erosion control and seeding where it will be needed after installation?
- Is the way you are proposing to install going to be feasible for your company?

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### Other Considerations for Site Plan Design

- Other utilities in the area should be located and identified in your site plan if they are in the area of your proposed install
- Address how your contractor will address conflicting utilities not on your plan
  - (relocating without prior approval is not an option)
- Planned Tree/Bush Plantings or special grasses such as Wildflowers or Native Grasses
- Other obstacles in ROW
  - Signs, Poles, Archaeologic, Botanical or Historical obstacles
- Private property owner "items"

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### CLEAR ZONE

- Clear zone is NOT just for overhead installations and poles
- Clear zone involves bore pits
- Clear zone involves equipment/material storage
- What is Clear Zone?  
–SEE CHARTS

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### Why is Clear Zone Important?



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### Not all obstacles in the clear zone are trees



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### SITE PLAN SUMMARY

- Site plans should supply enough information for review, but make it too cluttered and it is rendered equally as inefficient
- All site plans must have the required minimums to be acceptable for submittal
  - Route number, ROW info, Stationing, Installation distance from Centerline or ROW line, North Arrow, overhead or buried installation, boring information (including bore pit locations and distance from edge of roadway) and other utilities that are also on the same side as your install.
- Permits can be sent via email for preliminary evaluation, but permits cannot be approved until an original signed and complete permit packet is submitted.
- Site Plans are best if they are Black & White or very basic colors. Use line weights and supply key of symbols for all work on site plan

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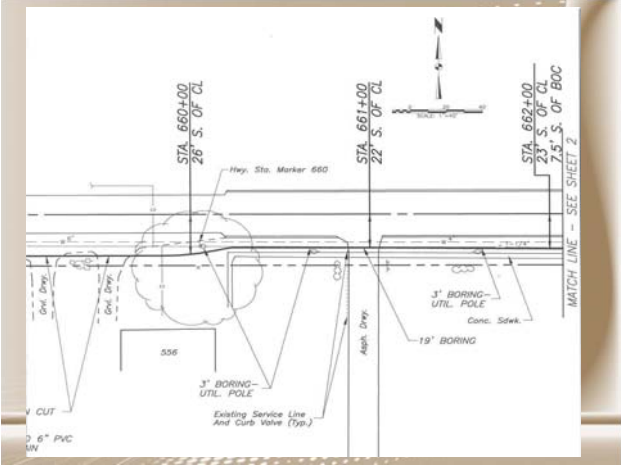
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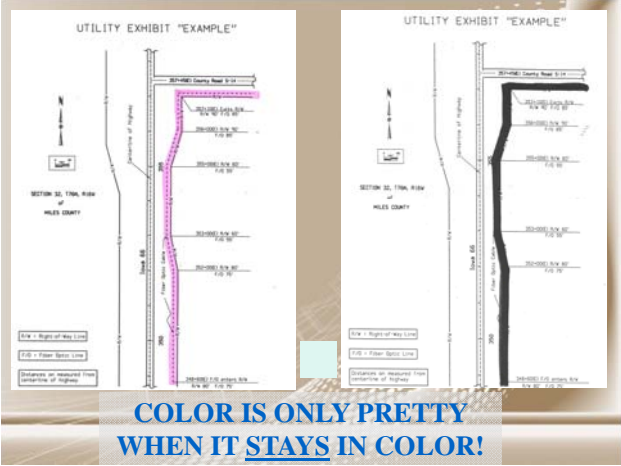
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POOR CONSTRUCTIBILITY SETS UP YOUR SITE PLANS FOR FAILURE



Seven horizontal lines for notes.



COLOR IS ONLY PRETTY WHEN IT STAYS IN COLOR!

Seven horizontal lines for notes.