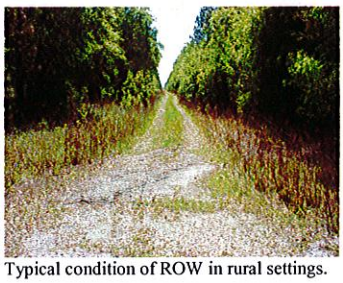
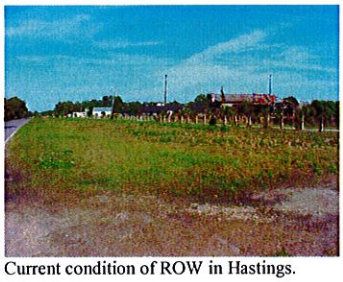
CONTENTS

Exhibits

INTRODUCTION


Typical condition of ROW in rural settings.


Current condition of ROW in Hastings.

Background: The opportunity to create the 207 Rail-Trail presented itself with the availability of an abandoned length of Florida East Coast Railway Company railroad Right-of-Way (ROW), that runs along approximately 12 miles of State Road 207 in St. Johns County. The Florida Department of Transportation (FDOT) purchased the ROW, and while it is owned by FDOT, it will be developed and maintained by St. Johns County. As presented in this Master Plan, the 207 Rail Trail will be a transportation/recreation corridor that will be both of immediate and long-term benefit to St. Johns County.

The current width of the ROW is sufficient enough to accommodate horses, biking and walking/jogging. Much of the trail will run through rural areas between the communities of Vermont Heights, Elkton, Armstrong, Spuds, and Hastings. The trail will provide residents alternative off street routes for jogging, walking, biking and equestrian activity. Given the length of the corridor (approx. 12 miles), it could potentially be seen as a destination for people seeking recreation. The development of this trail will offer the surrounding citizens a safer transportation alternative to vehicle-dominated streets as well as a linear recreation corridor. There is great potential for linkage with other trails (existing and proposed), parks, schools, churches, natural features, historic sites and retail centers in the area.

The development of the trail will also force the clean up of abandoned and derelict property, making the properties it traverses cleaner and safer.

Funding: This project will likely occur in phases based on available funding. Funding will be provided from a variety of sources including: grants, donations, and CIP (Capital Improvements Projects) dollars.

Scope: The scope of work for the Concept/Feasibility plan includes two phases:

Analysis/Data Gathering- This stage involves the review of existing reports and site conditions pertaining to the ROW, preparation of base maps, identification of contact persons, identification of opportunities and constraints, identification of critical intersections, connections, crossings & trailhead options, review of design criteria and presentation of findings to the steering committee.
Concept Plan Development/Feasibility- This stage involves preparation of parking/access options, review of trail form & material options, identification of amenities & signage options, identification of alternate routes, preliminary permitting requirements, probable cost estimates of development, and feasibility summary for development.

This Concept/Feasibility plan provides a guideline for the long-range development and implementation of a trail along this 11.5-mile length of ROW along State Road 207 between I-95 and Hastings. The proposed trail will provide a recreational and educational transportation corridor that will serve to enhance this portion of St. Johns County.

INVENTORY / ANALYSIS

The overall vision for the trail is to provide a continuous corridor from start to finish. Between these two points is a wide array of challenging hurdles from a design perspective. Below is an inventory/analysis of the trail. It is based on site visits, aerial photography, satellite imagery, USGS information, a helicopter-flown video provided by the St. Johns County Department of Recreation and Parks, existing survey information, and information gathered by stakeholders and community members.

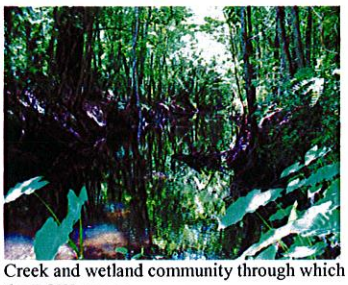
State Road 207 (SR207) is undergoing conversion from a two-lane to a four-lane divided highway in St. Johns County. The Florida Department of Transportation (FDOT) will utilize some of the trail ROW to achieve this, and it will have an effect on the trail where the two exist adjacent to each other.


ROW crossing at SR207

Location: (see Exhibit A) The 207 Rail-Trail is a 12-mile corridor with a Right-Of-Way of 100' in width. It is located in a predominantly rural setting. Beginning slightly southwest of I-95, running southwest, and passing through the towns of Vermont Heights, Elkton, Armstrong, Spuds, and ending at Hastings

Access: With the exception of bollards at SR 207 & Old SR 207, and some inaccessibility due to overgrowth and lack of creek crossings, much of the trail is very accessible.

Surrounding Uses: Although the majority of the property adjacent to the ROW is agricultural, there is some residential, public and commercial property in and around the towns through which it passes, and some vacant land in rural and urban settings.


Creek and wetland community through which the ROW passes

Existing Facilities: There are currently no improvements within the ROW. All tracks and all rail bridge crossing structures have been removed. Some ballast and ties remain in limited areas.

Environmental Conditions: This former railroad ROW provides an already disturbed area where the railroad tracks once were. The ROW crosses many different wetland and upland communities. See Exhibit I for additional information on these areas. Discression should be taken in detailed design so as to minimize the impacts to the surrounding natural communities and take advantage of aesthetically or functionally beneficial features in the landscape.

Due to the former nature and use of the railway and surrounding industries some contamination sites do exist along the ROW. Historically, railroad Rights-of-Way have been maintained with pesticides to retard the growth of vegetation around the tracks. The result of this periodic application of herbicides is an accumulation of potentially undesirable levels of certain chemicals. Specifically, there are sites within the ROW that are deemed "high risk" by contamination screening reports and may require remediation in order to safeguard the users of the trail. These sites near Elkton and Hastings (See Exhibits B&E).

Due to the nature and proposed use of this trail, generally, extensive remediation of the soils in the ROW is not foreseen. Design strategies during Master Planning and Construction Documentation should minimize human contact with these contaminated soils. Simple options for minimization of contact include covering the contaminated soils

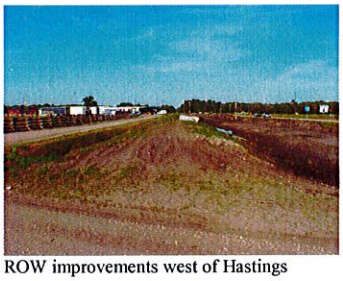
with non-contaminated soils and asphalt, or simply avoiding contaminated areas. More extensive remediation may be required if the above two options are not possible. A detailed study should be undertaken prior to final design in order to determine the potential extent and costs of treatment of these areas.

A complete set of the FDOT environmental studies pertaining to the 207 Rail Trail is on file at the St Johns County Department of Recreation and Parks.

Connections: There is abundant potential for linkages to the 207 Rail Trail. From local connections adjacent to or near the ROW to regional connections such as other Rails-to-Trails projects, there is a real opportunity to incorporate the 207 Rail Trail into a growing network of greenways throughout the state of Florida.

Connections are proposed for schools, churches, businesses, parks/open spaces, equestrian centers, the fairgrounds, community centers, cultural/historical areas of interest and residential developments along the trail. These connections reinforce the concept of the 207 Rail Trail as a local recreation and transportation corridor, while the natural systems through which it passes emphasize its importance as a link in a regional greenway.

The following is a discussion of the issues affecting the development of a trail within various segments along the 12-mile corridor, beginning at the southwest extent of the trail-at the St Johns/Putnam county line, and moving northeast to the terminus-approximately one-third of a mile short of I-95. Some of the major topics covered below include: Creek, wetland, and road crossings; environmental issues, adjacent land-use issues, trailheads, connections and ROW issues. The following sections correspond to the drawings in Exhibits B-F.


ROW improvements west of Hastings

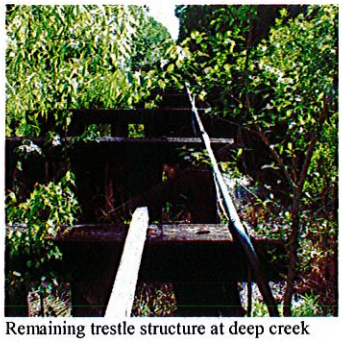

Potential trailhead site in Hastings

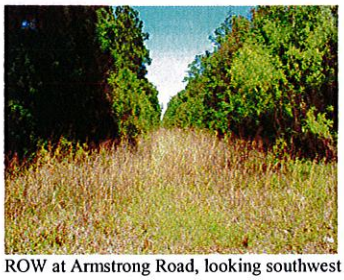
Hastings:

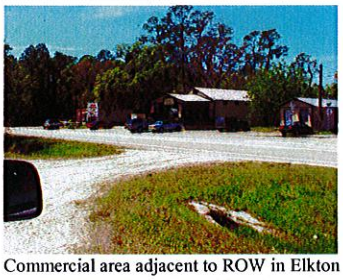
- Little buffer in the area between the county line and Cracker Branch Creek.
- Graveyard at SR207 and Campbell Road, the ROW runs along the north extent.
- SR207 roadway improvements underway west of Hastings. Improvements may affect width of trail ROW.
- ROW near Cracker Branch Creek is overgrown, cannot cross creek, although some structure remains.
- ROW in Hastings lacks definition, it has no buffer and is traversed by a variety of roads and paths.
- A potential trailhead has been identified near the intersection of Boulevard and the ROW. The site is less than one acre in size and was donated by a local citizen.
- ROW near West Run Cracker Branch Creek is overgrown, cannot cross creek, although some support structure remains.
- The potentially high-risk contamination sites identified in Hastings are the Hastings Potato Growers Association and Packing Plant & Planters Fluid Fertilizer Company.

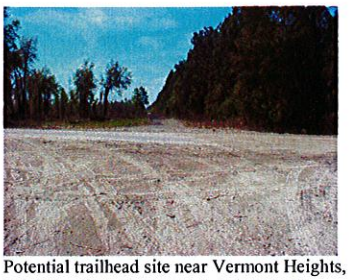
Spuds:

- ROW near Deep Creek is overgrown, cannot cross creek, headwall and supporting structure remains.
- ROW traverses a farm north of Deep Creek. Crops grow up to dirt path in center of ROW.


Remaining trestle structure at deep creek


ROW at Armstrong Road, looking southwest


Commercial area adjacent to ROW in Elkton


Potential trailhead site near Vermont Heights, at intersection of ROW and Allan Neese Road.

- ROW overgrown until SR207 crossing. Bollards at crossing prevent automobile traffic from entering ROW.
- Creek crossing immediately north of SR207 crossing overgrown, unable to determine if any structure remains.
- ROW between SR207 and Old SR207 recently cleared. Bollards at Old SR207 crossing prevent automobile traffic from entering ROW.
- ROW north of Old SR207 clear and well buffered. ROW remains clear* to Armstrong Road.

Armstrong:

- ROW between Armstrong road and Midleton Road is severely overgrown. Some ballast and tracks remain at selected areas between the two roads. No obstacles to ROW exist at Armstrong Road.
- Connection to Fairgrounds along local roads should be explored.
- Cannot cross streams at Moccasin Branch and two streams to the north. Missing significant structural elements, but concrete headwalls are intact.

Elkton:

- SR207 roadway improvements will affect the trail in the Elkton area where the two are adjacent to each other. SR207 will become a four lane divided highway in St. Johns County, utilizing some of the trail ROW for the improvements. See Exhibit G.2 for a typical trail and road section in this area.
- The remaining portion of ROW north of Middleton Road is clear of overgrowth.
- There is potential for an access point/intermediate trailhead at the commercial area in Elkton. There is currently a chemical storage area in this commercial area, across the street from the Post Office. This could potentially be an environmental cleanup area.
- Properties immediately north of the commercial area have numerous abandoned vehicles adjacent to the ROW.
- With the exception of some sparse areas, the ROW between SR305 and Solano Creek Road is well buffered.
- North of Solano Creek Road is a borrow pit. This should be explored as a potential recreation area. Just past the borrow pit is a small creek/ditch crossing.
- A potential trailhead has been identified at the southwest quadrant of the intersection of the ROW and Allan Neese Road. The site is approximately 3.5 acres and currently has a grant under review with the Department of Environmental Protection-Florida Greenways and Trails Program. A county landfill located approximately one mile north of the site is nearing closure and could contain recreational elements in the future – potential connection of the two sites should be considered.
- No obstacles to ROW exist at Allan Neese Road.
- The ROW just north of Allan Neese Road to the limit of acquisition has been recently logged and has a sparse buffer.
- The potentially high-risk contamination sites identified in Elkton are Middleton Packers, a farm equipment storage area, and a farm equipment storage/potato packing plant.

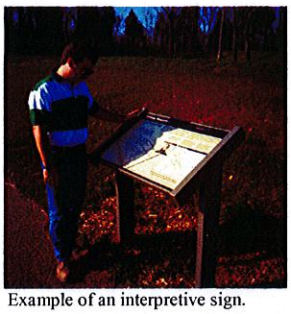
*The typical width of the former rail bed, where cleared, is approximately 20'-25'.

CONCEPTUAL DESIGN

Trailheads: Given the length of the trail between the two identified potential main trailheads (9.4 miles) and potential connections to future trails or greenways, this trail is viewed as a potential destination for some users. Therefore, parking areas and trailheads should be provided for those who will travel to use the trail. Once the trail is established, and more connections made, these parking areas and trailheads will be even more vital to the success of the overall greenway system. Many of the users of the 207 Rail-Trail will enter the trail close to their homes, schools or businesses at intersections or other designated trail entrance locations.

Accommodations should be made for equestrians at applicable trailheads (i.e. extended parking for horse trailers, etc…)

Sites identified for parking areas/trailheads are near Vermont Heights, in Elkton, and in Hastings. These options would allow for adequate vehicular parking, are close to communities, and represent locations at the northern, central and southern portions of the trail.


Example of an interpretive sign.

Amenities: Except for signage, the amenities for the 207 rail trail will be located within the designated trailhead locations. All amenity areas should have the same style of furnishings, signage and landscaping (if required).

- Seating- bench style seating, with intermediate arms.
- Bike racks- Tubular steel, loop style, fastened to concrete pads.
- Landscaping- plantings and specialized paving or surfacing, where required.
- Signage:
    - *regulatory-* (safety, rules, regulations)—(crop dusting does occur along the trail, appropriate signage should warn users of the potential occurrence of this activity)
    - *directional-* (mile markers, landmarks, connections)
    - *interpretive-* (educational)
    - *exercise-(could be incorporated with directional mile markers)*

Example of a directional sign.

Trail Form: The ideal width of a trail of this nature in a rural area is 10 feet for pedestrians and cyclists. If horses are to be accommodated, a separate natural material trail of 8 feet should be provided. This horse trail ideally should be separated from other trail by trees of other vegetation (See Exhibit G.1). Due to the numerous substantial creek crossings and the area of limited width within the new 207 road section, a well-separated path for horses will be difficult and costly to develop (See Exhibit G.2).

Material Options: The surface for the non-equestrian portion of the trail needs to be durable, low maintenance and desirable for walkers, joggers, rollerbladers, and cyclists. Natural surfaces such as polypavement (soil solidifier), woodchips, or gravel are immediately ruled out under the above criteria. The surface also needs to be cost effective and easily repaired. The two acceptable alternatives are asphalt and concrete, with asphalt being more easily repaired and less costly.

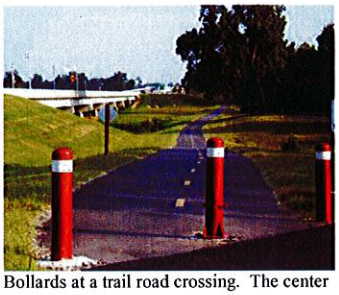
The surface for the equestrian portion of the trail needs to be desirable for the horses. The obvious and most cost effective choice is compacted natural earth. If deemed

necessary and within budget, there are numerous materials that could be used to stabilize the trail including mulches, soil additives, and under-courses.

Creek and Wetland Crossings: There are numerous creek crossings along the trail. Most crossings have little supporting structures remaining, but many still have concrete headwalls. A detailed analysis of the structural integrity of the existing remaining structures should be undertaken at the construction documentation stage of this project. In many instances reinforced concrete pipe or galvanized metal pipe may be use to create a culvert to cross small creeks and streams. While some larger creek crossings may be made with pre-fabricated bridges, some may require custom designed structures. Since all the spans are of differing length and height requirement, each crossing should be studied on a case-by-case basis, with an appropriate solution for each.

To ensure the safe passing of equestrians and pedestrians or cyclists, passing areas should be provided along the bridges on long spans. (See Exhibit G.3)

An alternative to constructing new bridges would be to reroute the trail along roadways to existing bridges. Of course, appropriate safety measures would need to be taken to ensure user safety on these bridges.


Bollards at a trail road crossing. The center bollard is removable to allow law enforcement and emergency vehicle access.

Safety Features at Roadway Crossings: (See Exhibit G.4) User safety is the ultimate concern in the design of the trail. In addition to the alignment and surface treatment of the trail, regulatory signage is required to insure the user a safe and pleasurable experience. Signage and painted trail markings are sufficient along the trail itself, but street intersections require a more complex approach to user safety. The safety elements at street intersections are outlined as follows:

Intersections:
Bollards
Signage (pedestrian & vehicular)
Reflective surfaces on pavement (pedestrian & vehicular)
Painted striping on road
Fencing between ROW and road (where required)

Engineering Considerations: Storm water issues should be minimized due to the lack of motorized traffic and wide pervious areas adjacent to the trail. The St. Johns River Water Management District (SJRWMD) permitting rules (Chapter 40C-4) do not require storm water management systems for recreational paths which do not allow motorized vehicles (except for emergency and maintenance vehicles) or for replacement of open trestle foot bridges less than 100 feet in length (with minimum disruption to surrounding environment). Swales and grading will be minimized.

**Note: There exists a boundary survey provided by D.O.T., but the SR207 improvements will change some of the ROW for the trail. For detailed design of the trail, a more detailed, updated survey including topography at crossings and other selected areas will be required. .

COUNTY OFFICIALS & STEERING COMMITTEE PARTICIPATION

(see Exhibit H)

In order to guide this stage of the project, St. Johns County assembled a steering committee. This committee was made up of groups and individuals identified as stakeholders in the project. See Exhibit H for complete list and minutes from committee meetings.

General comments/concerns were:

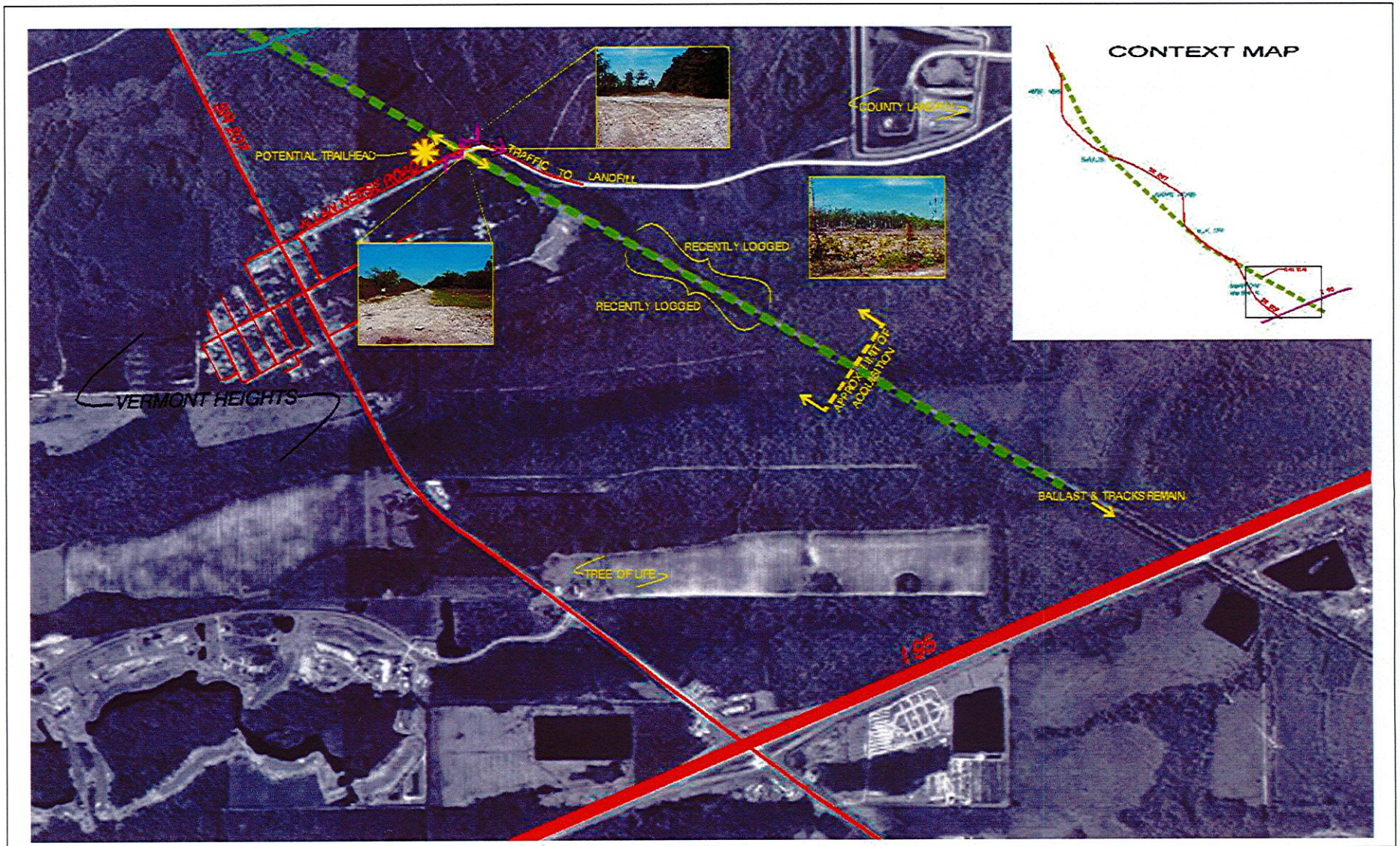
- Access/crossings should be provided for farmers with field adjacent to the trail
- Connections to trail should include Equestrian centers at fairgrounds and near Hastings, and a future recreation area at the landfill north of Armstrong.
- Avoid encroachment onto graveyard west of Hastings.
- Code enforcement could be used to clean up derelict areas along trail.
- 207 improvements will result in a significant loss of trail ROW where the two are adjacent.
- Phasing-any high priority areas
- Environmental issues related to former uses on and around the ROW.

ESTIMATE OF PROBABLE COST

(see Exhibit J)

The estimated probable cost of developing the trail between and including the trailheads is approximately $4,884,884. The elements of this estimate are presented in Exhibit J. This estimate utilized unit costs and is not based upon any detailed design studies. They are also based upon quantities that were derived from the 1"=500' scale Opportunities/Constraints drawings. Actual costs may vary from this estimate based upon a variety of factors to be determined through the detailed design process and detailed surveys of the conditions on the site.

**Note: There exists a boundary survey provided by D.O.T. For detailed design of the trail, a more detailed survey is required.



ST. JOHNS COUNTY
DEPARTMENT OF RECREATION AND PARKS

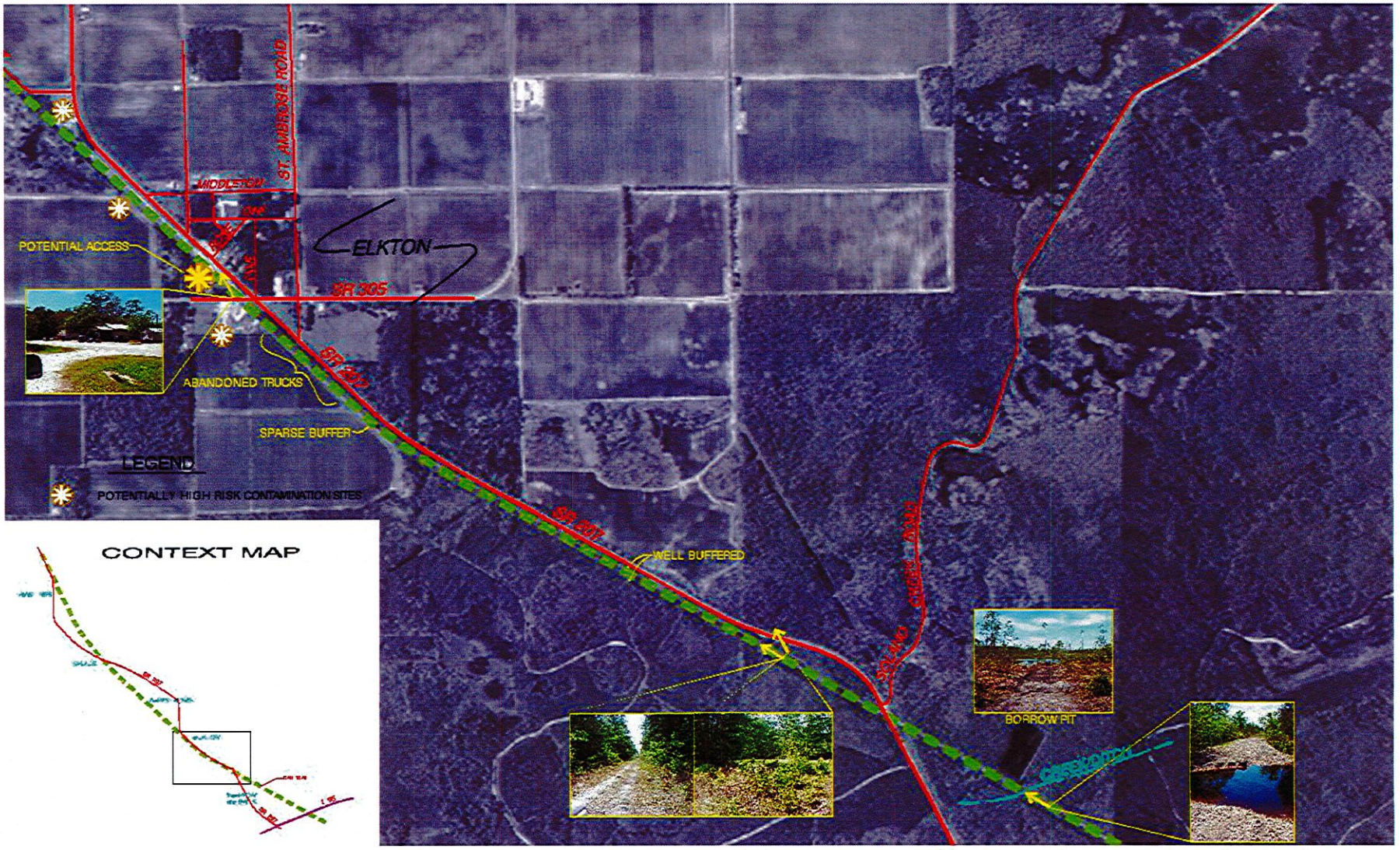
SR 207 RAILS TO TRAILS

OPPORTUNITIES/CONSTRAINTS - *VERMONT HEIGHTS*

SCALE(FT)
0 250 500 1000

NORTH

HDR

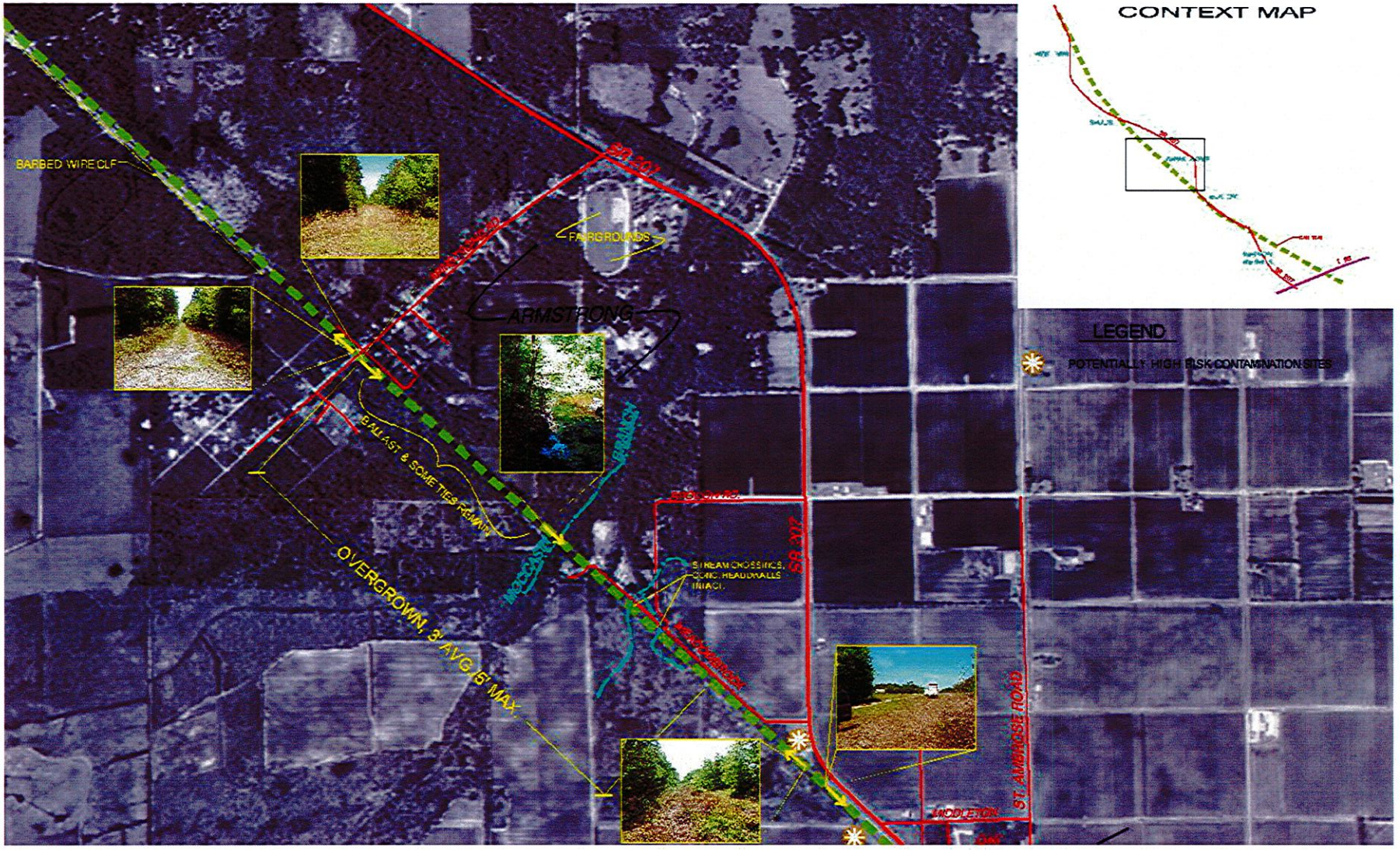


ST. JOHNS COUNTY
DEPARTMENT OF RECREATION AND PARKS

SR 207 RAILS TO TRAILS

OPPORTUNITIES/CONSTRAINTS - ELKTON

HDR

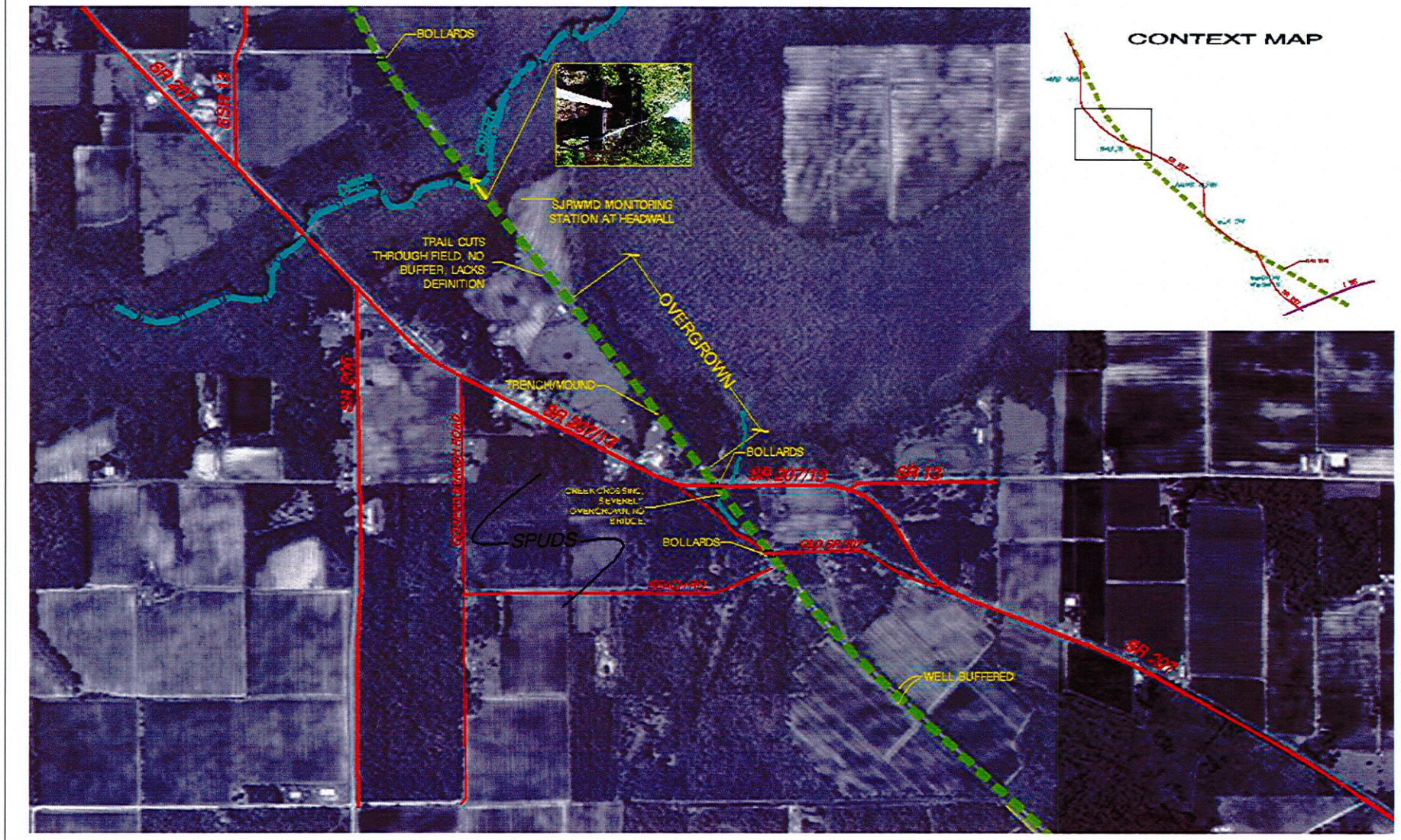


ST. JOHNS COUNTY
DEPARTMENT OF RECREATION AND PARKS

SR 207 RAILS TO TRAILS

OPPORTUNITIES/CONSTRAINTS - *ARMSTRONG*

HDR

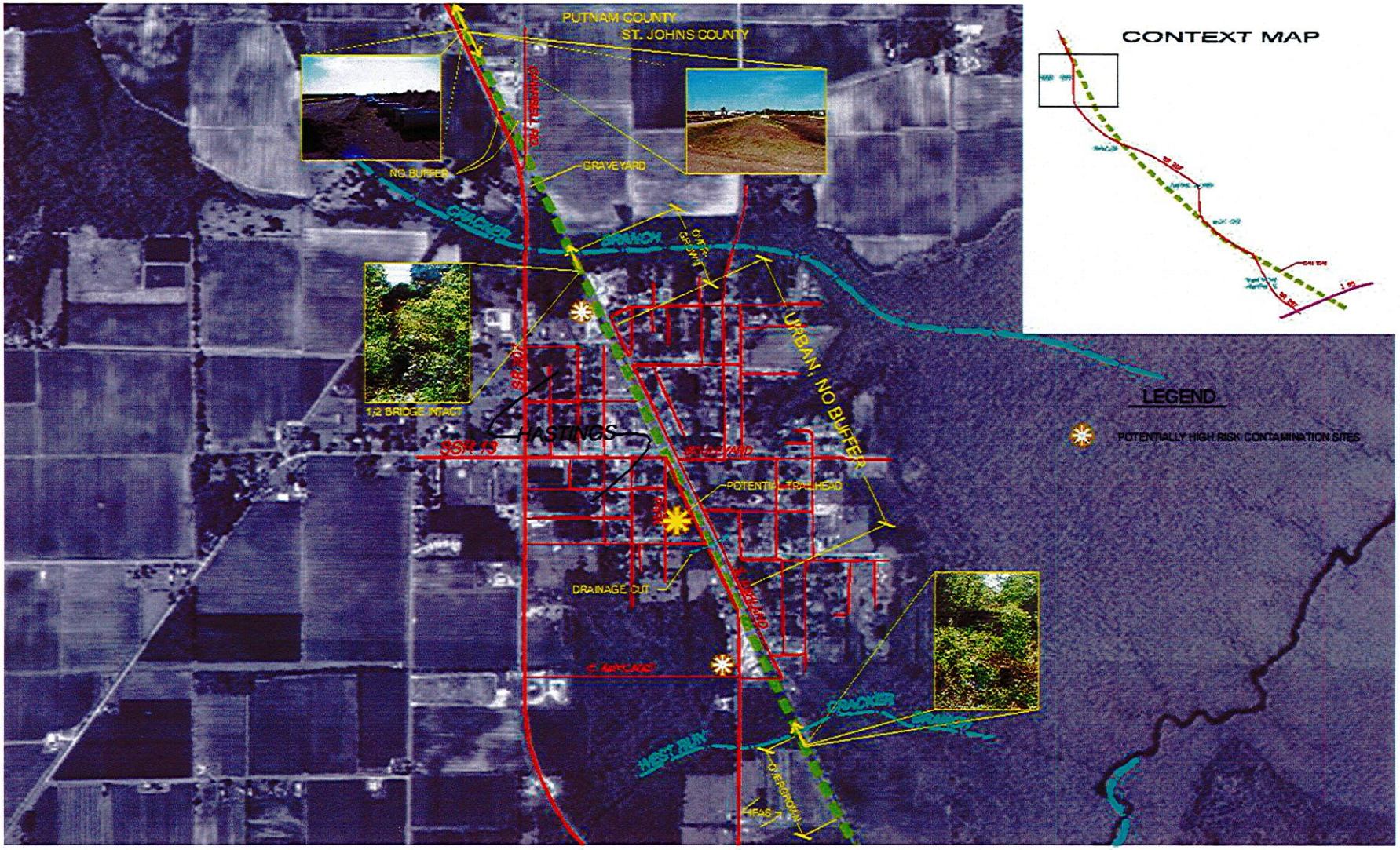


ST. JOHNS COUNTY
DEPARTMENT OF RECREATION AND PARKS

SR 207 RAILS TO TRAILS

OPPORTUNITIES/CONSTRAINTS - *SPUDS*

HDR



ST. JOHNS COUNTY
DEPARTMENT OF RECREATION AND PARKS

SR 207 RAILS TO TRAILS

OPPORTUNITIES/CONSTRAINTS - *HASTINGS*

SCALE (FT)
0 200 500 1000

NORTH

HDR