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April 26, 2007

ELECTRONIC FILING

Ms. Kimberly D. Bose, Secretary
Ms. Philis J. Posey, Deputy Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: *Alcoa Power Generating Inc.*, Docket No. P-2197-073

Dear Secretary Bose:

Alcoa Power Generating Inc. (“APGI”) hereby submits its response to the "Additional Information Request for the Yadkin Project" ("AIR"), dated March 27, 2007 from the Office of Energy Projects. In accordance with Schedule A of the AIR and Section 4.32(g) of the Federal Energy Regulatory Commission's ("Commission") regulations, 18 C.F.R. § 4.32(g), APGI’s response provides the additional information required by the Commission within 30 days of the date of the AIR, or April 26, 2007.

APGI’s response and accompanying Appendix is public and is therefore being submitted electronically.

If you have any questions regarding this filing, please do not hesitate to contact me at (704) 422-5606 or gene.ellis@alcoa.com.

Respectfully submitted,

Gene Ellis
Licensing and Property Manager

Attachments

cc: Stephen Bowler, FERC
Lee Emery, FERC

Yadkin Hydroelectric Project – FERC No. P-2197-073
Alcoa Power Generating Inc.
Response to Federal Energy Regulatory Commission's
March 27, 2007 Additional Information Requests

The following is Alcoa Power Generating Inc.'s (APGI) response to the Federal Energy Regulatory Commission's (FERC) Additional Information Request (AIR) dated March 27, 2007.

AIR #1. *Under the terms of the Agreement in Principle, Alcoa Power Generating, Inc. (Alcoa Generating) has agreed to maintain High Rock Lake within four feet (ft) of full pond level (not below Elevation (El). 619.9 ft. US Geological Survey datum) from April 1 to October 31 of each year and within ten ft (not below El. 613.9 ft.) from November 1 to March 31 of each year.*

During scoping meetings held in Lexington and Albemarle, North Carolina on January 23-25, 2007, two alternative scenarios for operating High Rock reservoir were presented by commenters that included: (1) maintaining water levels in the reservoir within three feet of full pond from April 1 to October 31 of each year and within six feet of full pond from November 1 to March 31 of each year; and (2) maintaining water levels within four feet of full pond from April 1 to October 31 of each year and within six feet of full pond from November 1 to March 31 of each year.

For each of the project's developments, please estimate the loss or gain in average annual generation (peak, shoulder, and off-peak, where applicable) and its corresponding value when compared to project's current average generation if the project were to be operated within the constraints explained above. Also, please estimate the outflow from Falls development and any loss or gain in generation that would occur at each of Yadkin-Pee Dee developments under the same scenario explained above.

APGI Response:

Current, RSA – 4'/10', and Alternative 4'/6' and 3'/6' Operations

Throughout the relicensing and settlement agreement negotiations processes, APGI has utilized the OASIS model to simulate changes in generation associated with potential changes in the project operating regime, including reservoir operations and instream flow requirements. The OASIS model was designed first and foremost as an operations model that could be used to simulate project operations, generation, reservoir water levels and river flows under a variety of differing operational scenarios. In direct response to this AIR, Table 1 shows the estimated average annual generation (on-peak and off-peak) under current Project operations (BaseCase) predicted by OASIS. Table 1 also shows the OASIS predicted change in generation associated with three High Rock reservoir operating alternatives:

1) High Rock operated in accordance with the Relicensing Settlement Agreement (RSA – 4'/10');

2) High Rock operated within four feet of full from April 1 to October 31 of each year and within six feet of full from November 1 to March 31 of each year (4'/6'); and
3) High Rock operated within three feet of full from April 1 to October 31 of each year and within six feet of full from November 1 to March 31 of each year (3'/6').

In response to a request by relicensing stakeholders, early in the relicensing process, the OASIS model was modified to provide a reasonable estimate of the value of generation associated with a particular OASIS model run. Comparison of the value of generation under the BaseCase OASIS model run to other alternatives allowed APGI and the stakeholders to evaluate the relative costs (in terms of lost generation, or a shift in generation from on-peak to off-peak) of various operational scenarios. As with any simulation model, certain simplifying assumptions had to be made in order to do this. In the case of the Yadkin Project, monthly on-peak and off-peak energy prices, based upon the current mix of energy "products", were used to value generation. As shown in Table 2, the estimated value of the average annual generation under current or BaseCase operations using the OASIS pricing function is $40,785,000.

Under the current FERC license, APGI has flexibility within the High Rock operating rules to store the inflows and release from storage to generate various energy products that can be sold at a premium to the price of energy sold on the day-ahead wholesale market. The following premium energy products are currently made available to the wholesale energy marketplace:

- On-Peak Energy Sales – energy sold during peak energy hours, for example between 7 a.m. to 11 p.m. on weekdays.

- Forward Energy Sales – energy sold months or even longer into the future in blocks of guaranteed energy.

- Opportunity Energy Sales – energy sold during intermittent periods of energy or capacity shortages.

The energy prices used in the OASIS model represent a weighted average of these premium prices, some of which APGI will no longer be able to offer without the flexibility in High Rock operations that the current license allows. In short, restrictions on the operation of High Rock Reservoir will significantly constrain APGI's ability to produce these premium energy products and thus will reduce the weighted average prices that APGI is able to obtain for Yadkin Project generation in the future. Therefore, strict application of the OASIS pricing function significantly overvalues the generation that would result from the operation of the Project under alternatives that restrict High Rock operations.

To account for the loss in generation value associated with a reduction in the actual energy prices that APGI would be able to obtain in the future under the three High Rock operating alternatives (RSA – 4'/10', 4'/6', 3'/6'), APGI has estimated the percent reduction in weighted average peak energy value due to a corresponding reduction in premium energy products that APGI has determined it will be able to offer under each of the operating alternatives. Specifically, APGI

estimates the following reduction in peak energy prices associated with increasingly constrained ability to produce premium energy products under each of the alternatives shown in Table 2:

RSA – 4'/10' Alternative – 6% reduction in peak energy price due to:

- A 50% reduction in the MWh of forward energy sales

4'/6' Alternative – 10% reduction in peak energy price due to:

- A 50% reduction in the MWh of forward energy sales, plus
- A 100% loss in opportunity energy sales

3'/6' Alternative – 17% reduction in peak energy price due to:

- A 100% reduction in the MWh of forward energy sales, plus
- A 100% loss in opportunity energy sales

These reductions are in addition to direct generation loss associated with proposed tighter rule curves.

Table 2 shows the estimated value of the generation associated with each of the alternatives when these peak energy price reductions are taken into account.

APGI believes that the generation and cost values provided in Tables 1 and 2 directly respond to the information requested by FERC staff in AIR 1. However, in evaluating the alternative High Rock operating regimes APGI would strongly encourage FERC to consider more than just the strict monetary costs associated with these alternatives. Existing hydroelectric storage and generating capacity is a clean, reliable and renewable source of energy that produces no air emissions or waste streams and directly offsets the use of non-renewable fossil fuels. This is particularly true for on-peak generation, the loss of which at the Yadkin Project would almost certainly be replaced by fossil fuel generation which in turn will have a cumulative adverse effect on the environment that must also be considered. In addition, the ability of hydro generation to start quickly and follow load changes is an important component to the overall reliable operation of the interconnected electric grid.

Falls Development Outflow

The minimum flow requirements from Falls development are met under the RSA – 4'/10', 4'/6' and the 3'/6' alternative operation.

Effect on Yadkin-Pee Dee Project Generation and Value

As APGI is neither owner, operator, or licensee of the Yadkin – Pee Dee Project, APGI respectfully requests that it be relieved of FERC's request to estimate any loss or gain in generation that would occur at each of the Yadkin - Pee Dee developments under these scenarios.

Table 1. OASIS Results – Estimated Average Annual Effect on Yadkin Project Generation

	High Rock		Tuckertown		Narrows		Falls		Total APGI		
CASE	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	Total MWh
BaseCase	105,900	35,300	112,300	40,900	377,200	133,900	93,600	41,100	689,000	251,200	940,200
Difference relative to the Base Case											
RSA – 4'/10'	-2,500	7,500	-5100	5600	-23800	24600	-4900	5500	-36200	43100	6900
4'/6'	-2,200	8,100	-6,300	5,500	-26,600	25,000	-5,600	5,300	-40,700	43,900	3,200
3'/6'	-1,600	8,400	-6,800	5,200	-26,800	23,900	-5,900	5,000	-41,000	42,600	1,600

Table 2. OASIS Results – Estimated Average Annual Effect on Yadkin Project Generation Value (With peak energy values adjusted to reflect the expected mix of energy products)

	High Rock		Tuckertown		Narrows		Falls		Total APGI		
CASE	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	On-Peak MWh	Off-Peak MWh	Total MWh
BaseCase	$5,138,200	$1,046,400	$5,431,700	$1,212,200	$18,242,500	$3,966,300	$4,530,100	$1,217,000	$33,342,500	$7,442,000	$40,784,500
RSA – 4'/10'	-$419,400	$223,200	-$550,500	$167,200	-$2,153,600	$737,600	-$487,500	$164,800	-$3,611,000	$1,292,900	-$2,318,100
4'/6'	-$611,900	$243,600	-$811,800	$166,200	-$2,961,500	$748,900	-$693,100	$158,000	-$5,078,300	$1,316,700	-$3,761,600
3'/6'	-$937,100	$251,800	-1,188,300	$157,100	-$4,153,600	$719,200	-$1,002,200	$151,900	-$7,281,200	$1,279,900	-$6,001,300

Footnotes:

1) Values for the BaseCase are based on original OASIS pricing function. Values for alternatives are based on adjusted peak price values, as described above.

2) BaseCase, RSA – 4'/10', 4'/6', and 3'/6' scenarios are modeled without APGI's proposed refurbishments/upgrades and generation losses associated with dissolved oxygen enhancement equipment operation.

AIR #2. *In your December 13, 2006 response to AIR #20, Appendix F-1 delineated the current project boundary and an "approximate limit" of each facility. The project boundary did not include these recreation facilities. According to 18 CFR § 4.41(f)(7)(vii)(D) and § 4.41(h)(2), the project boundary must enclose lands available for project purposes (i.e. recreation). Please revise your Exhibit G maps and the detailed maps attached as Appendix F-1 from the AIR responses to reflect these changes.*

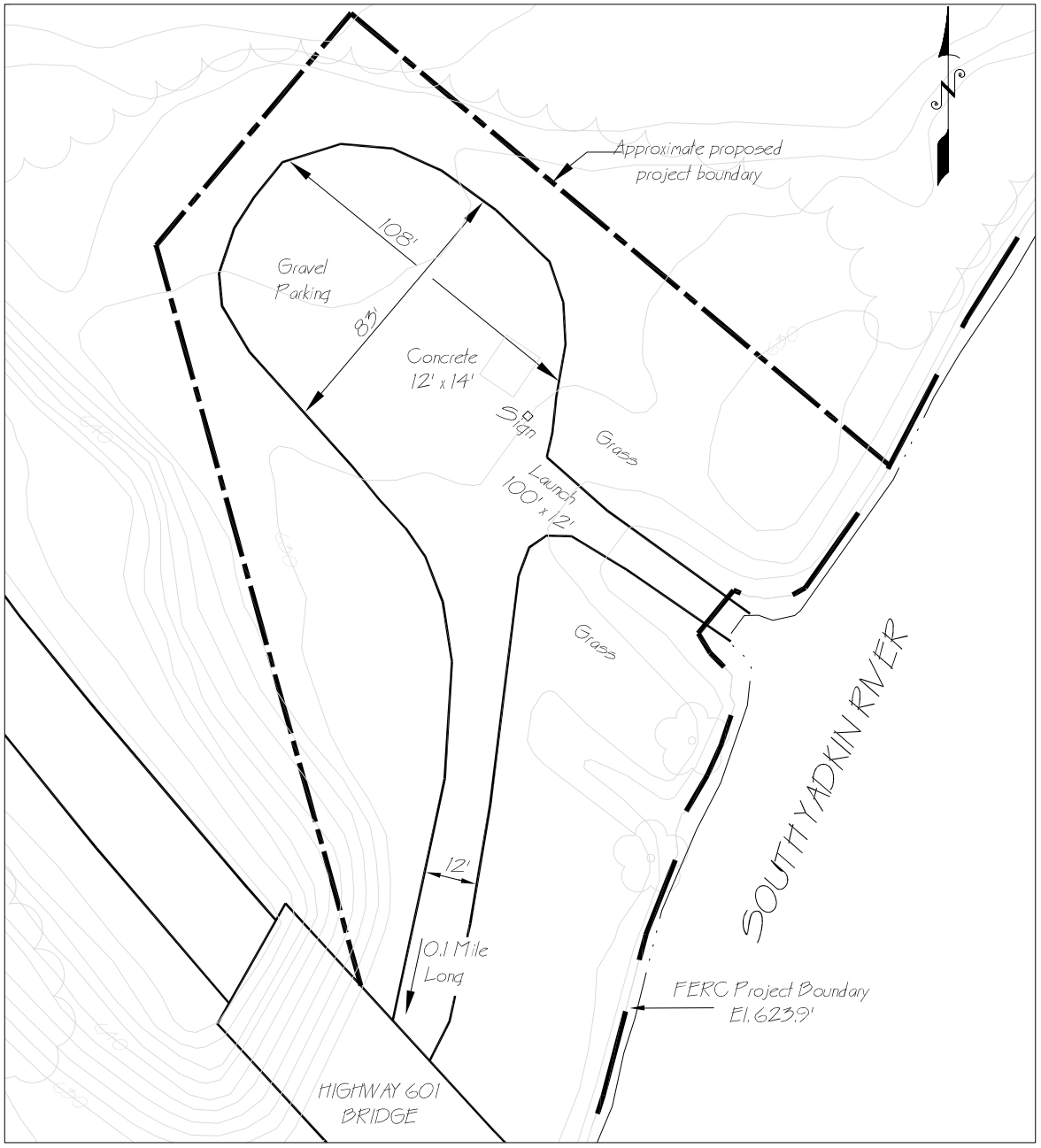
APGI Response:

In response to FERC's request, APGI has revised the recreation area maps, originally filed with FERC as Appendix F-1 to APGI's December 13, 2006 response to FERC AIR #20, which delineated the current Project boundary and an "approximate limit" of the recreation area to now show the "approximate limit" of the proposed Project boundary at applicable recreation areas (attached hereto as Appendix A).

FERC also asked APGI to revise its Exhibit G maps to modify the Project boundary to "enclose" lands identified as being within the "approximate limit" of each public recreation area as shown on recreation area maps prepared by APGI and provided as Appendix F-1 to APGI's December 13, 2006 AIR response. To revise the Exhibit G maps in accordance with FERC's October 2006 *Managing Hydropower Project Exhibits Guidance Document* and FERC's regulatory requirements at *18 CFR §4.39* and *§4.4.1*, APGI needs to review property maps, research deeds, and perform land surveys to properly delineate the Project boundary using a combination of metes and bounds, and contour lines. Following the completion of the land surveys, the new Project boundary data would then need to be added to the applicable Exhibit G maps. This work must be done for each recreation area to be included within the Project boundary. This is a significant effort that cannot be completed within the 30 days provided by FERC. Given the effort and cost that would be required to perform the land surveys and revise the Exhibit G maps, APGI respectfully requests that it be allowed to file revised Exhibit G maps as a requirement of its new license after the Commission has determined that the recreation areas, as proposed, are appropriate for inclusion in the Project boundary.

Yadkin Hydroelectric Project – FERC No. P2197-073
Alcoa Power Generating Inc.
Response to Federal Energy Regulatory Commission's
March 27, 2007 Additional Information Requests

Appendix A



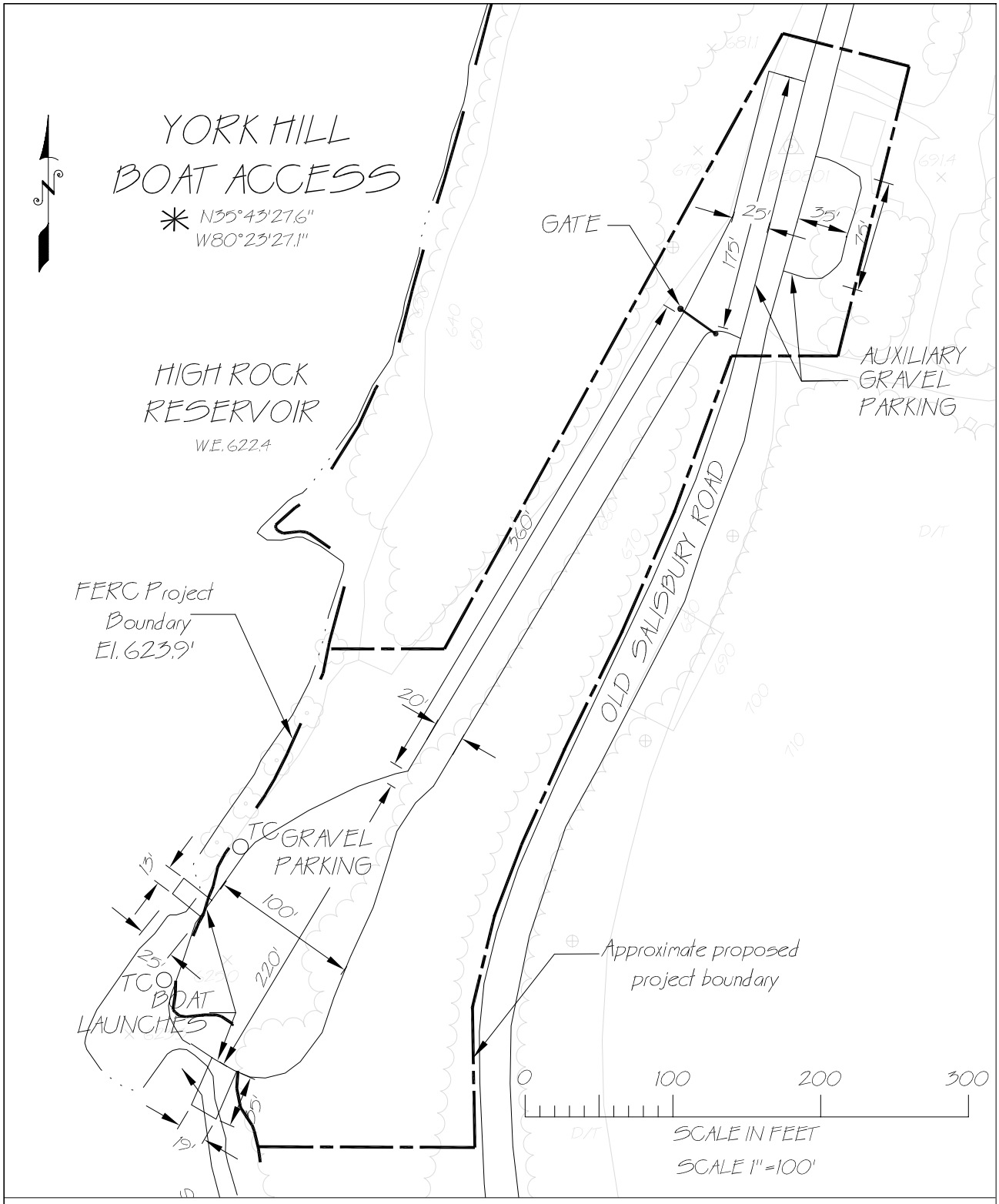
Alcoa Power Generating Inc.

Yadkin Division

HIGHWAY 601 BOAT ACCESS AREA
SOUTH YADKIN RIVER

Date: 02 APRIL 07

File Name: H-1 Highway 601_040207.dwg



Alcoa Power Generating Inc.

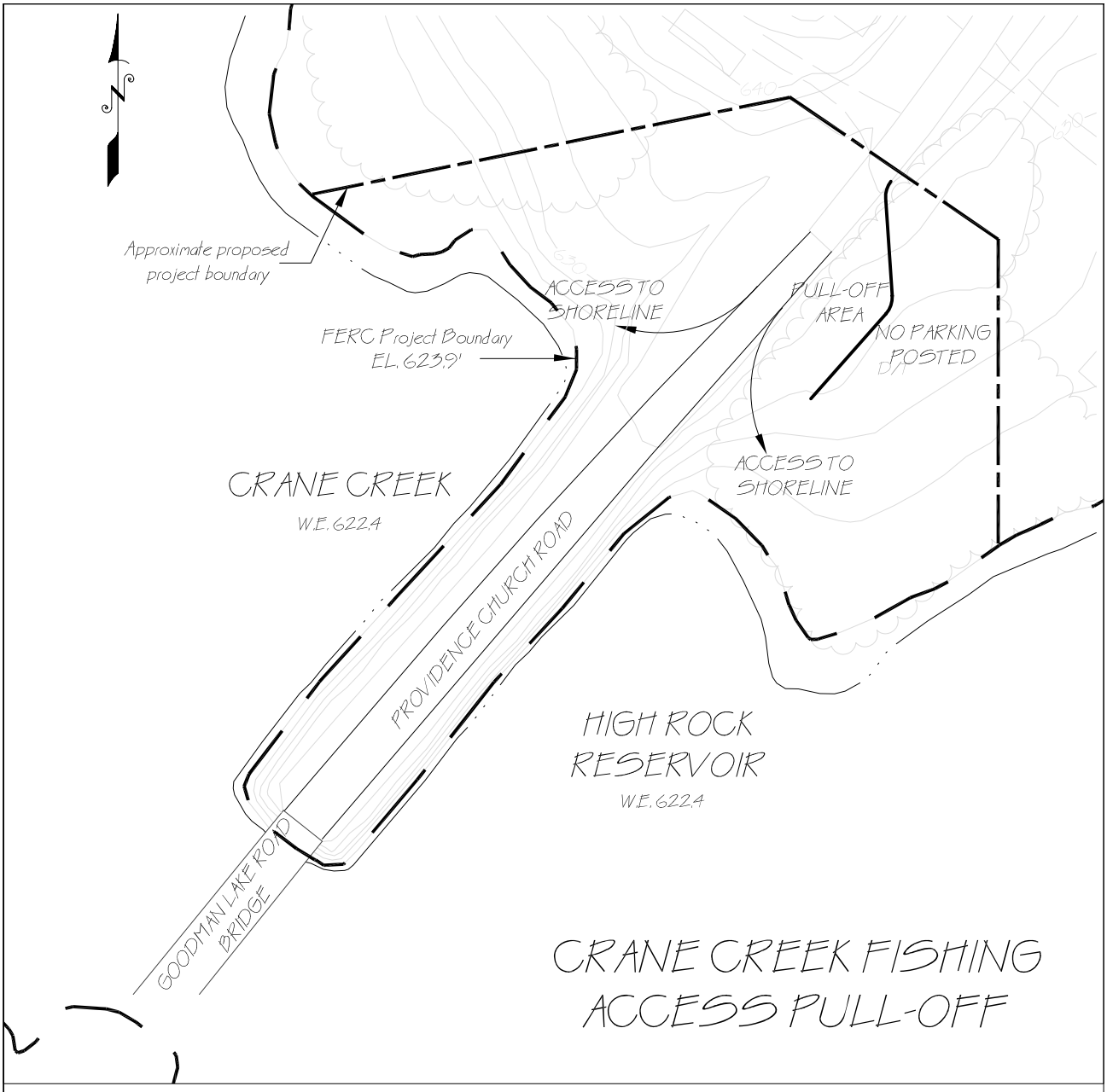
Yadkin Division

YORK HILL BOAT ACCESS

HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-8 York Hill Boat Access_040207.dwg



Alcoa Power Generating Inc.

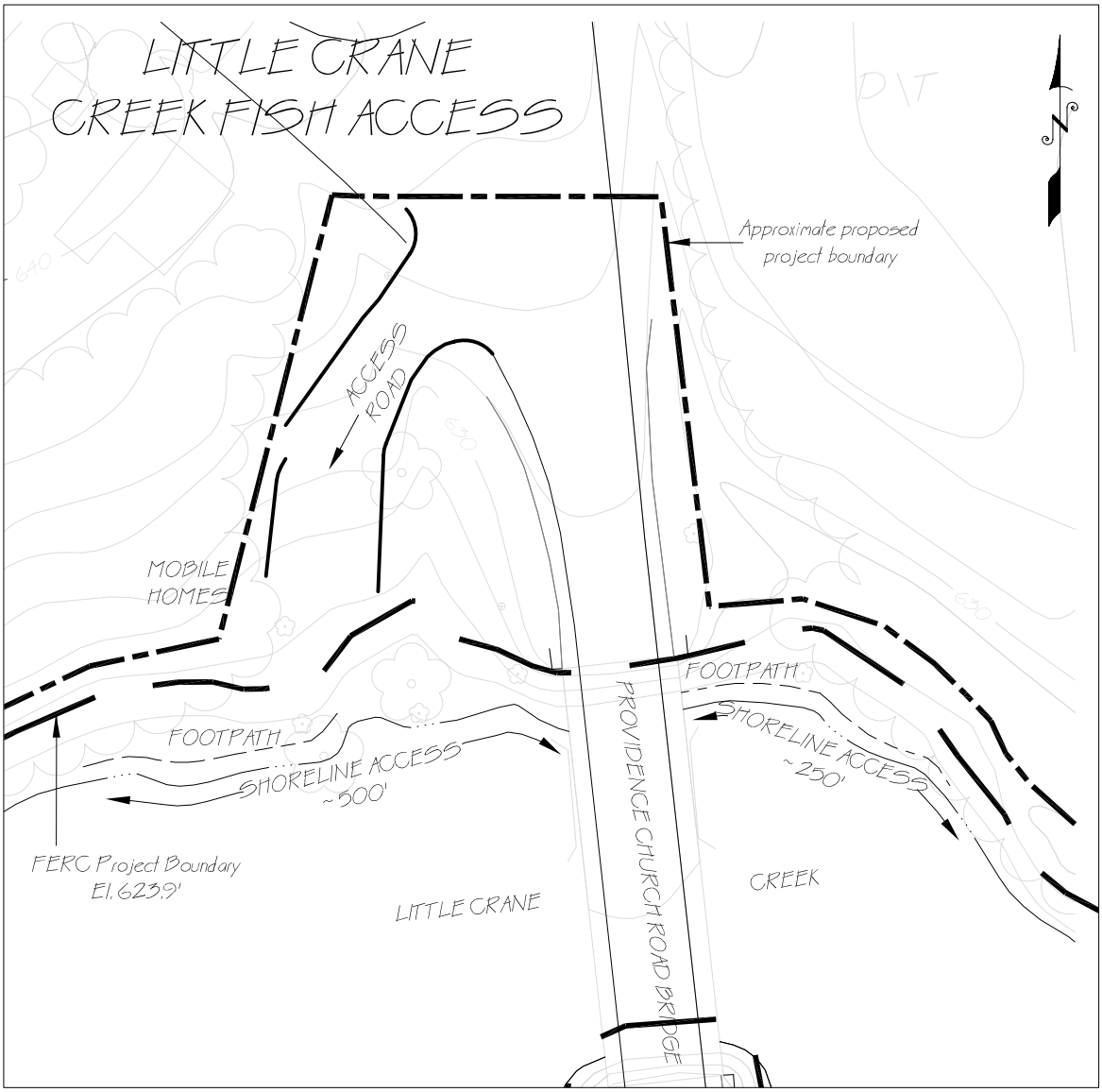
Yadkin Division

CRANE CREEK FISHING ACCESS PULL-OFF

HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-16 Crane Creek_040207.dwg



0 50 100 150

SCALE IN FEET

SCALE: 1"=50'

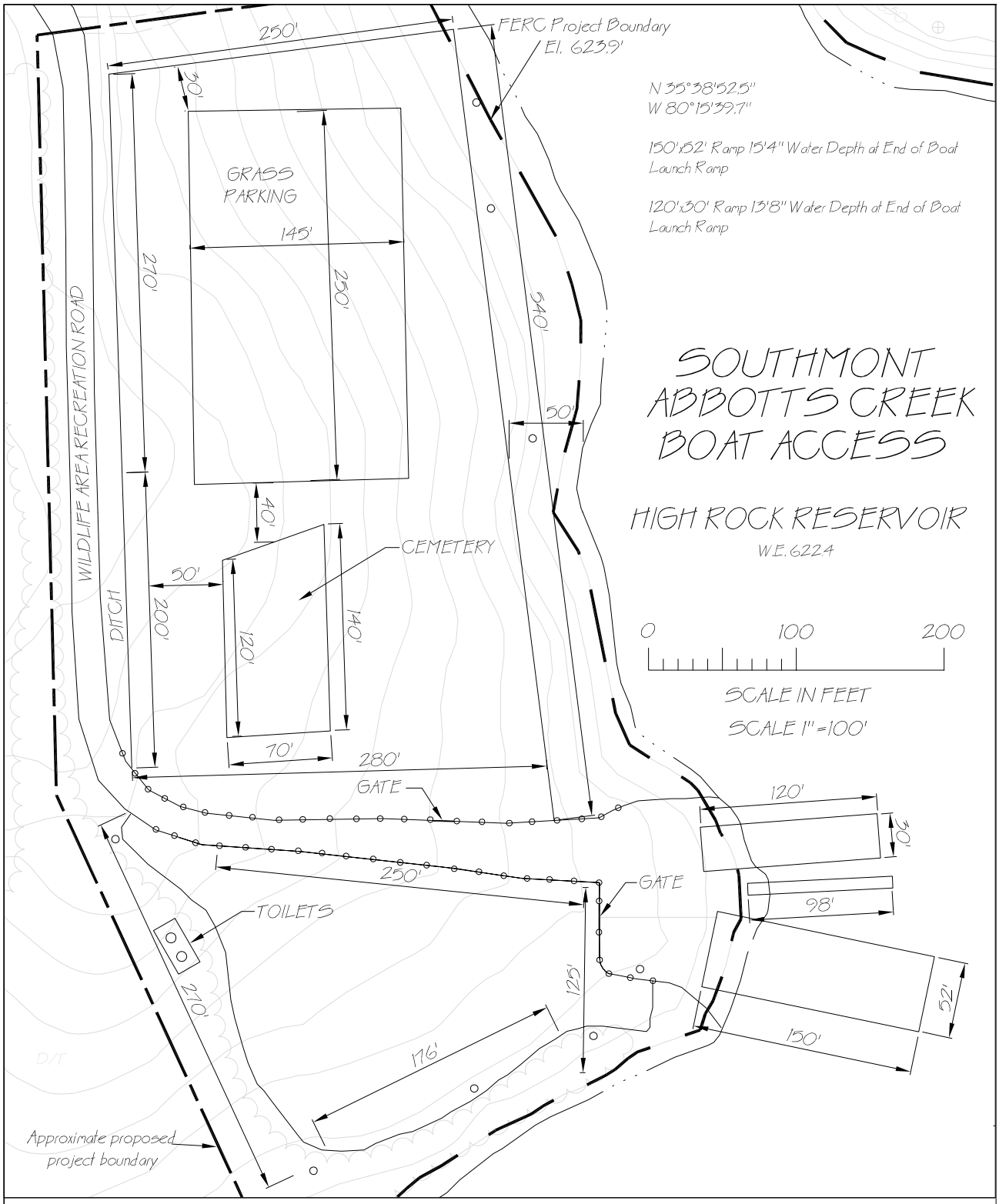
Alcoa Power Generating Inc.

Yadkin Division

LITTLE CRANE CREEK FISH ACCESS
HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-19 Little Crane Creek Fishing_040207.dwg



Alcoa Power Generating Inc.

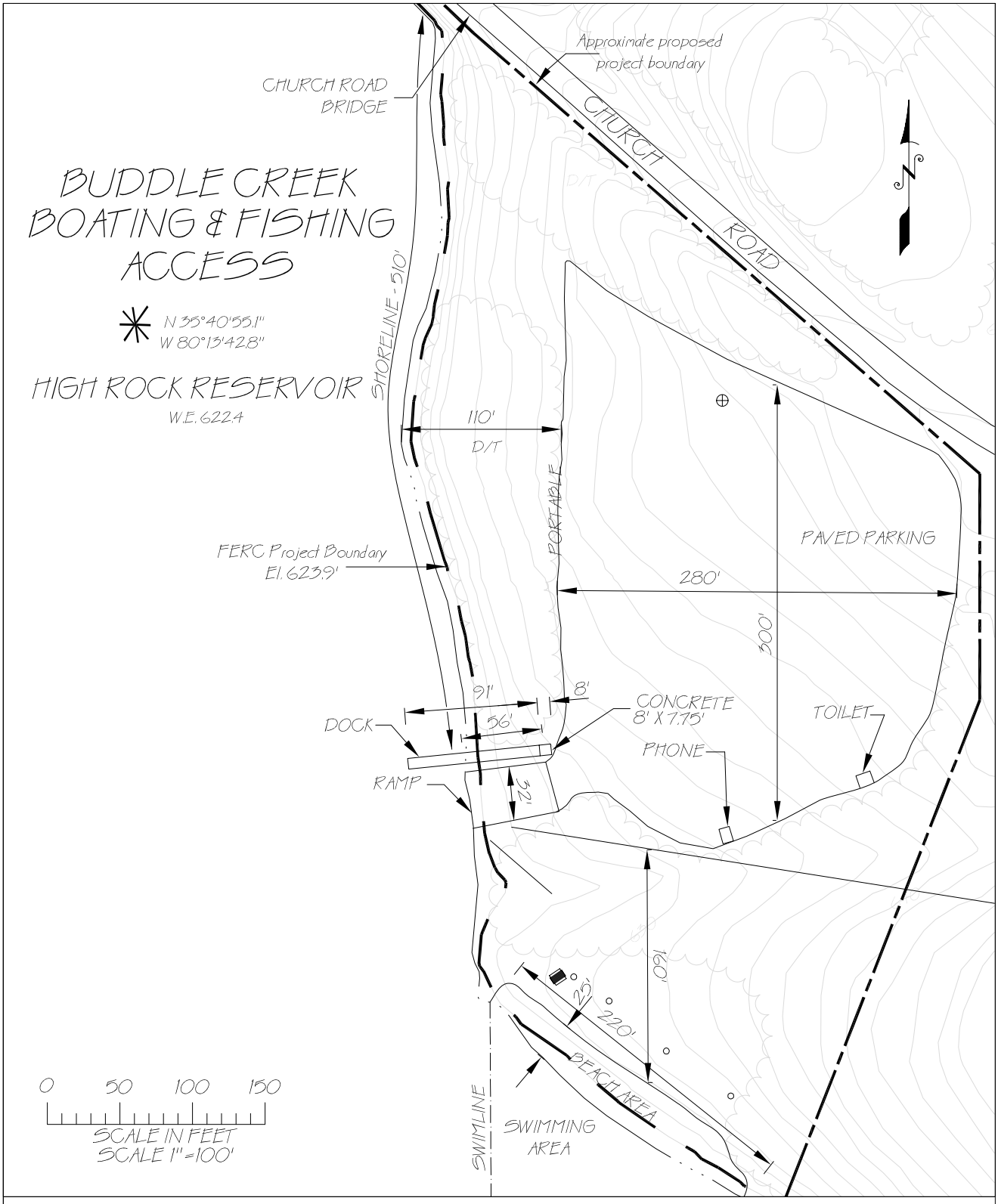
Yadkin Division

SOUTHMONT ABBOTTS CREEK BOAT ACCESS AREA

HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-28 Southmont Boat Access_040207.dwg



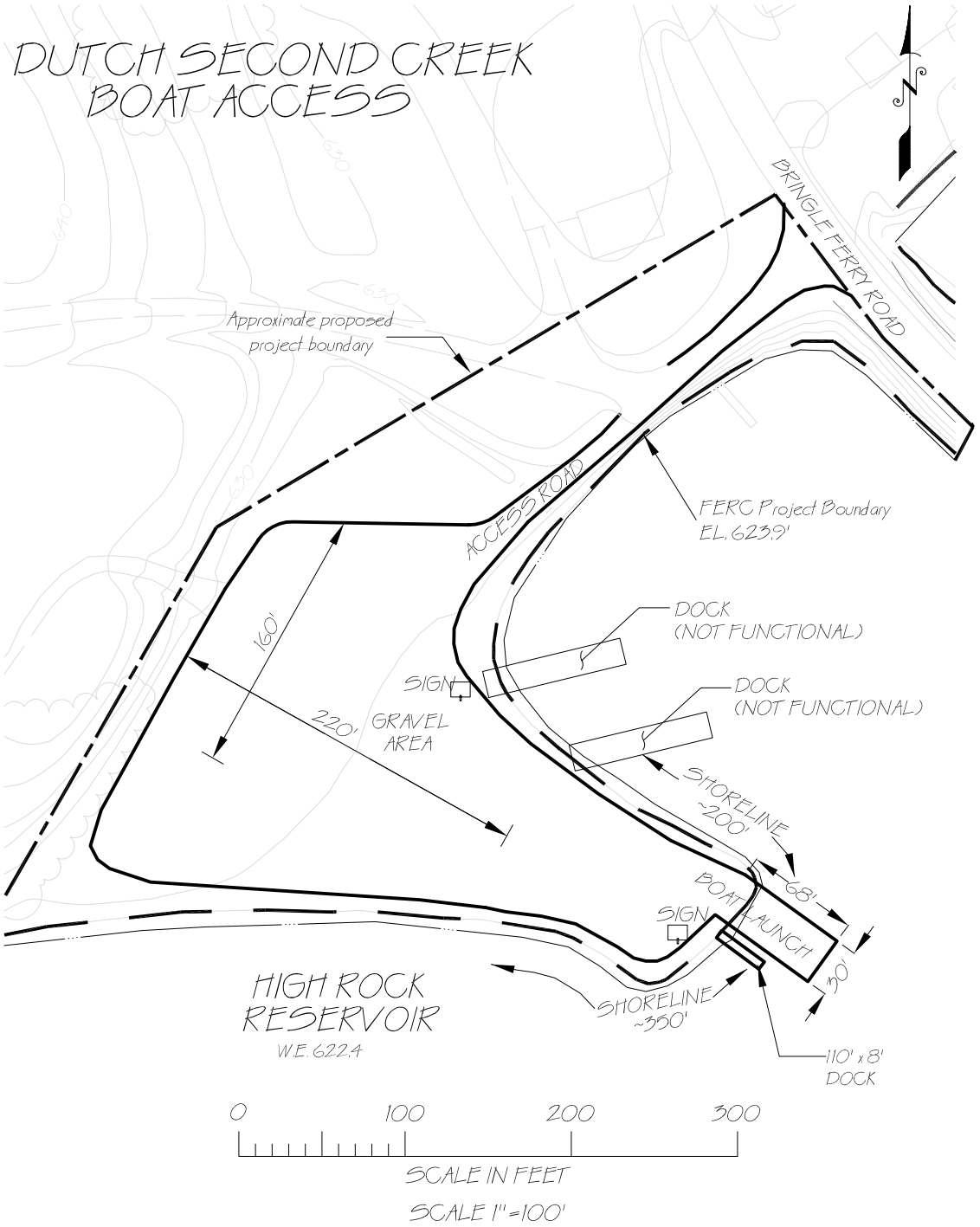
Alcoa Power Generating Inc.

Yadkin Division

BUDDLE CREEK BOATING AND FISHING ACCESS
HIGH ROCK RESERVOIR

Date: 02 APRIL 07

File Name: H-39 Buddle Creek Boat Access Area_040207.dwg



Alcoa Power Generating Inc.

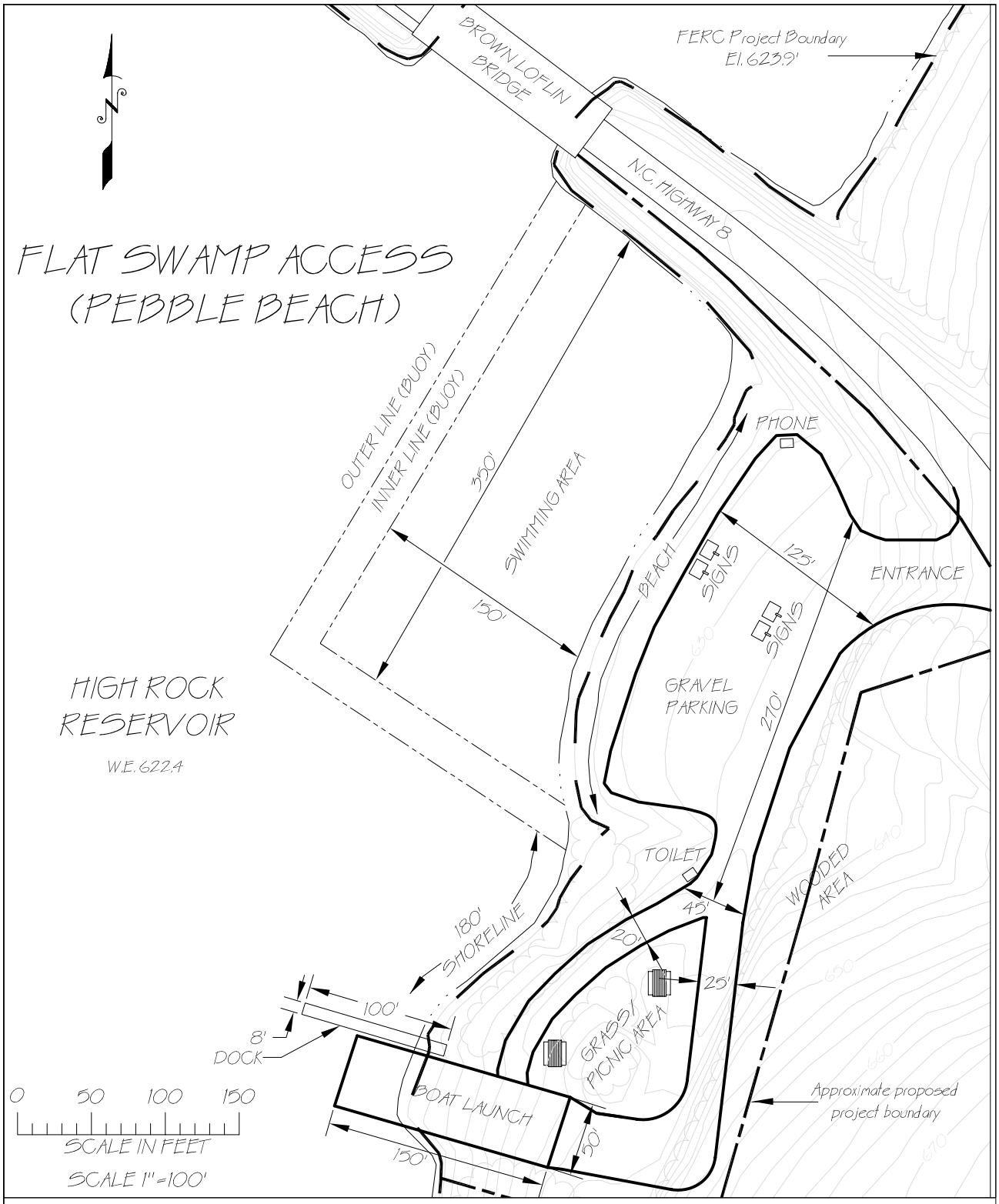
Yadkin Division

DUTCH SECOND CREEK BOAT ACCESS

HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-48 Dutch Second Creek Boat Access_040207.dwg



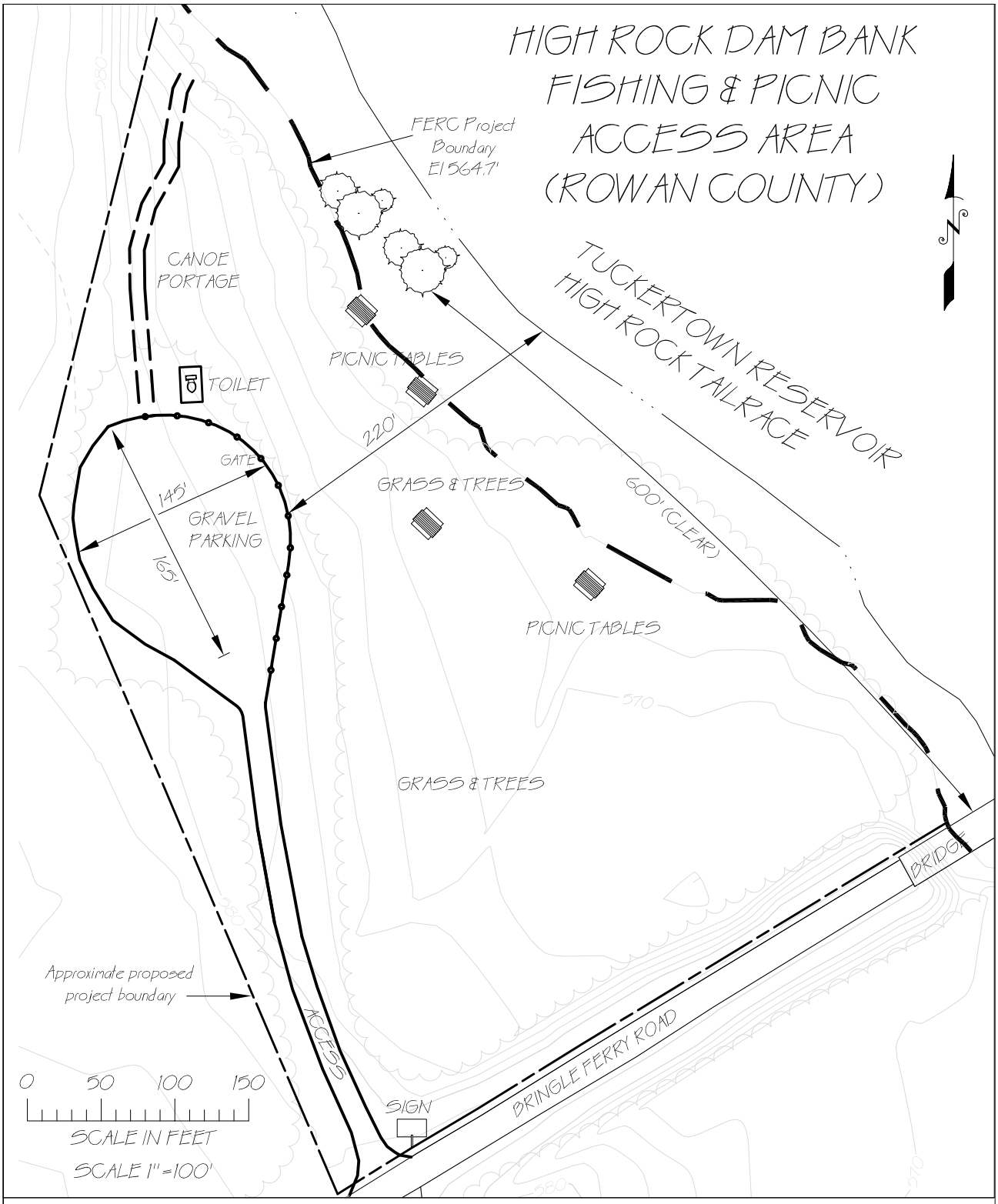
Alcoa Power Generating Inc.

Yadkin Division

FLAT SWAMP ACCESS (PEBBLE BEACH)
HIGH ROCK RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: H-64 Flat Swamp Boat Access_040207.dwg



Alcoa Power Generating Inc.

Yadkin Division

HIGH ROCK DAM BANK FISHING AND PICNIC AREA
TUCKERTOWN RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: T-1 Highrock Dam Tailrace Access-Rowan_040207.dwg

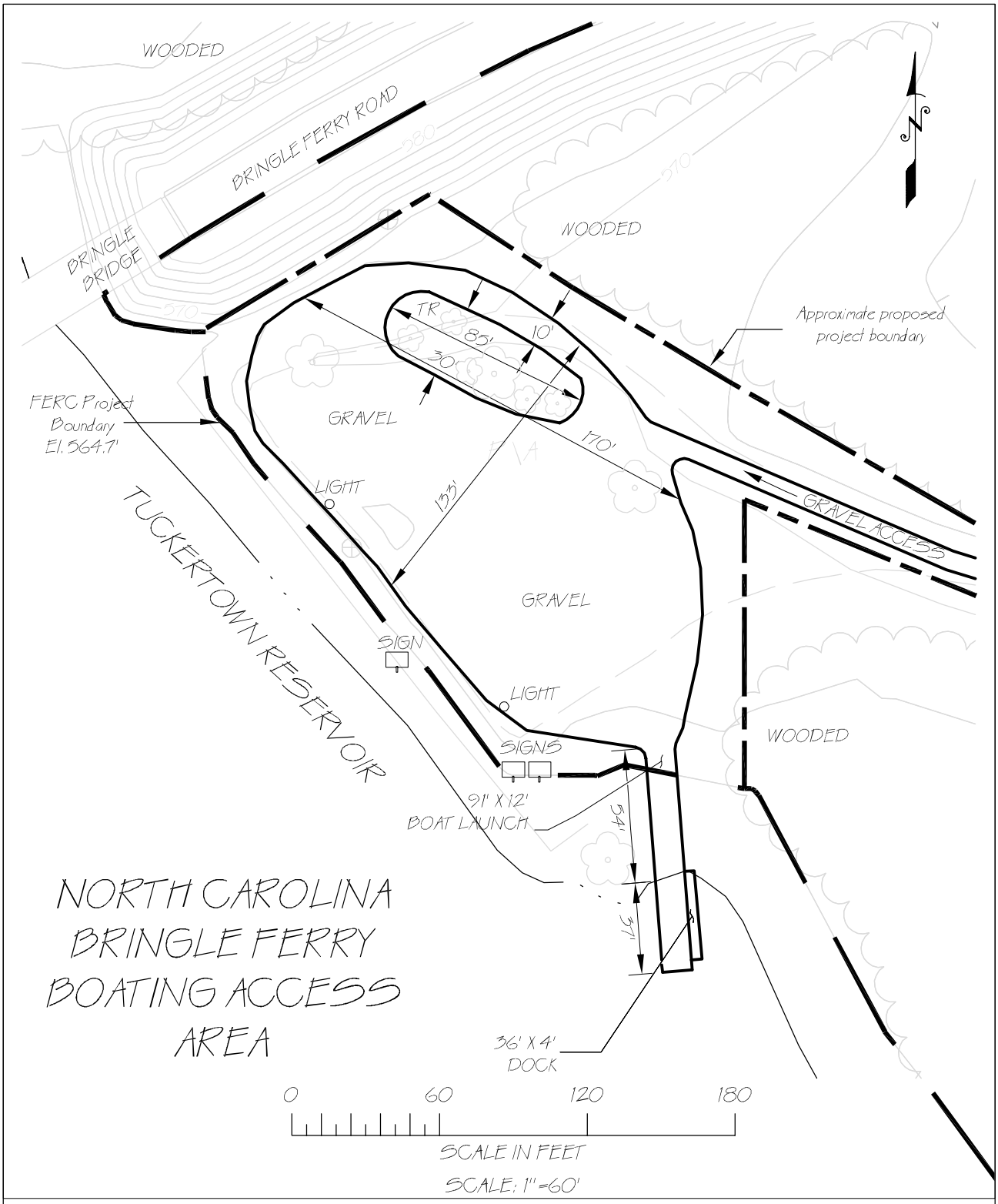
Alcoa Power Generating Inc.

Yadkin Division

HIGH ROCK DAM TAILRACE (DAVIDSON COUNTY) TUCKERTOWN RESERVOIR

Date: 02 APRIL 07

File Name: T-2 High Rock Dam Tailrace Access_040207.dwg



Alcoa Power Generating Inc.

Yadkin Division

NORTH CAROLINA BRINGLE FERRY BOATING ACCESS AREA
TUCKERTOWN RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: T-3 Bringle Ferry Boat Access_040207.dwg

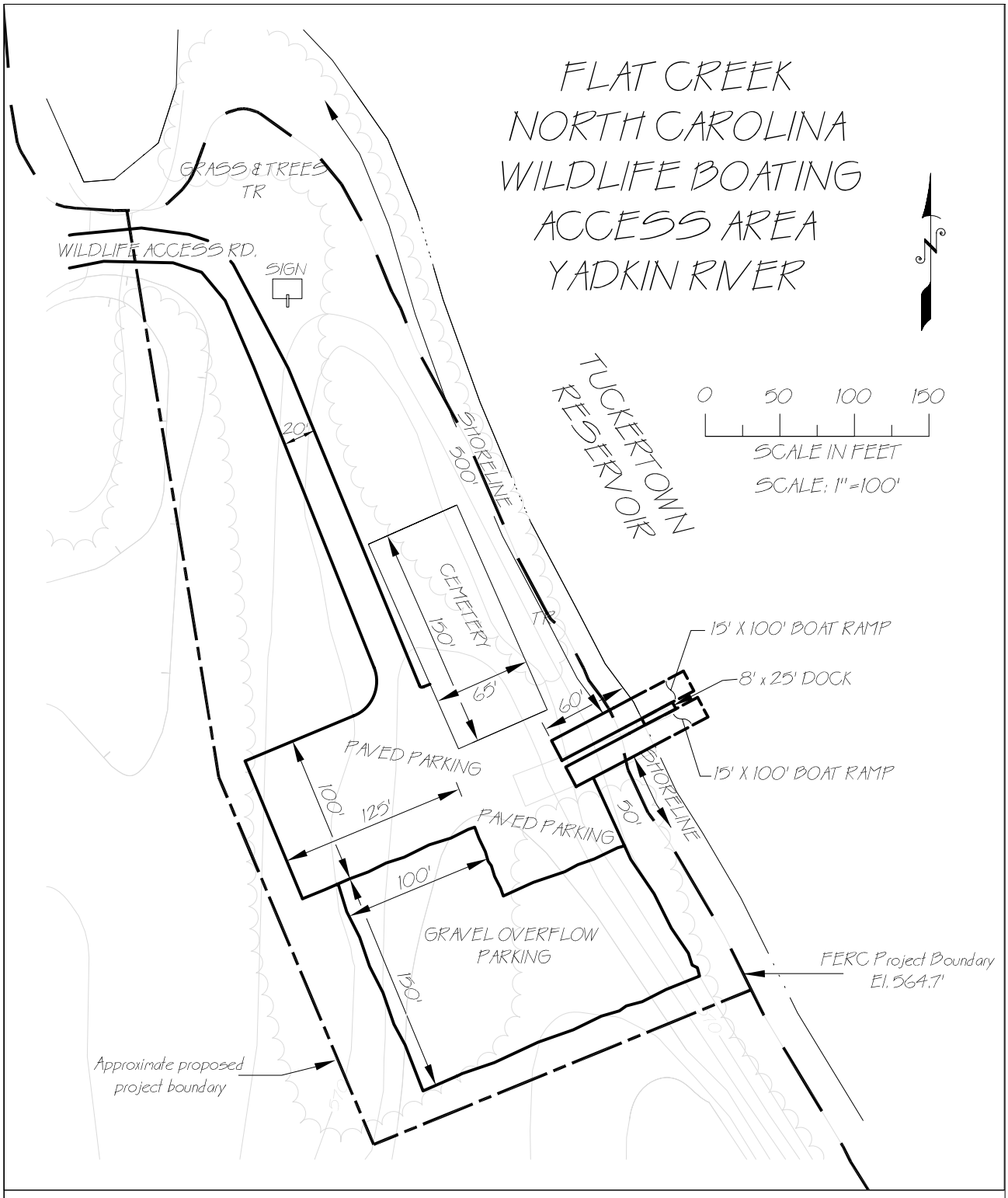
Alcoa Power Generating Inc.

Yadkin Division

CEDAR CREEK FISHING PULL-OFF
TUCKERTOWN RESERVOIR

Date: 02 APRIL 07

File Name: T-4 Cedar Creek Fishing Pulloff_040207.dwg



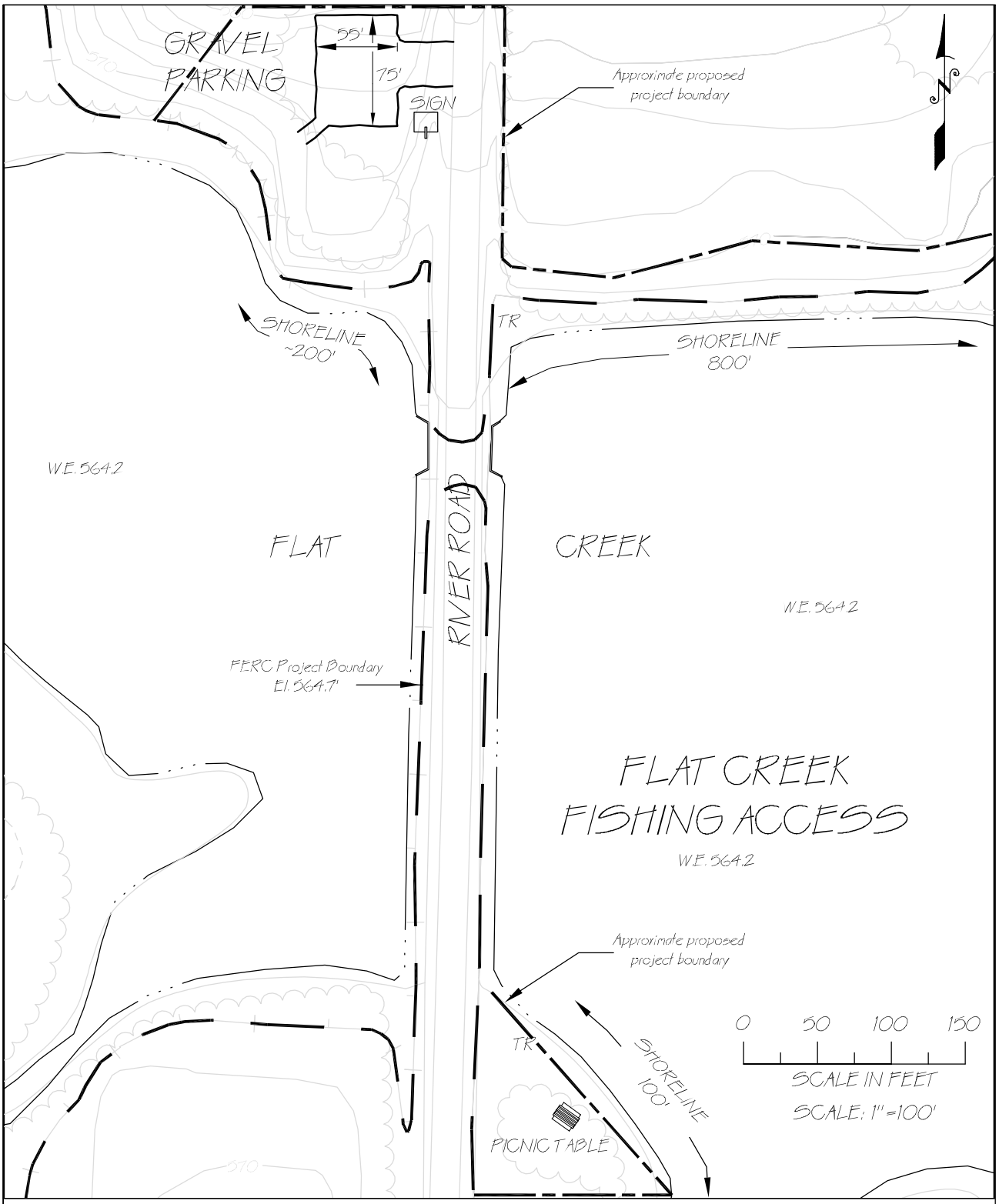
Alcoa Power Generating Inc.

Yadkin Division

FLAT CREEK NORTH CAROLINA WILDLIFE BOATING ACCESS AREA
TUCKERTOWN RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: T-8 Flat Creek Boat Access_040207.dwg



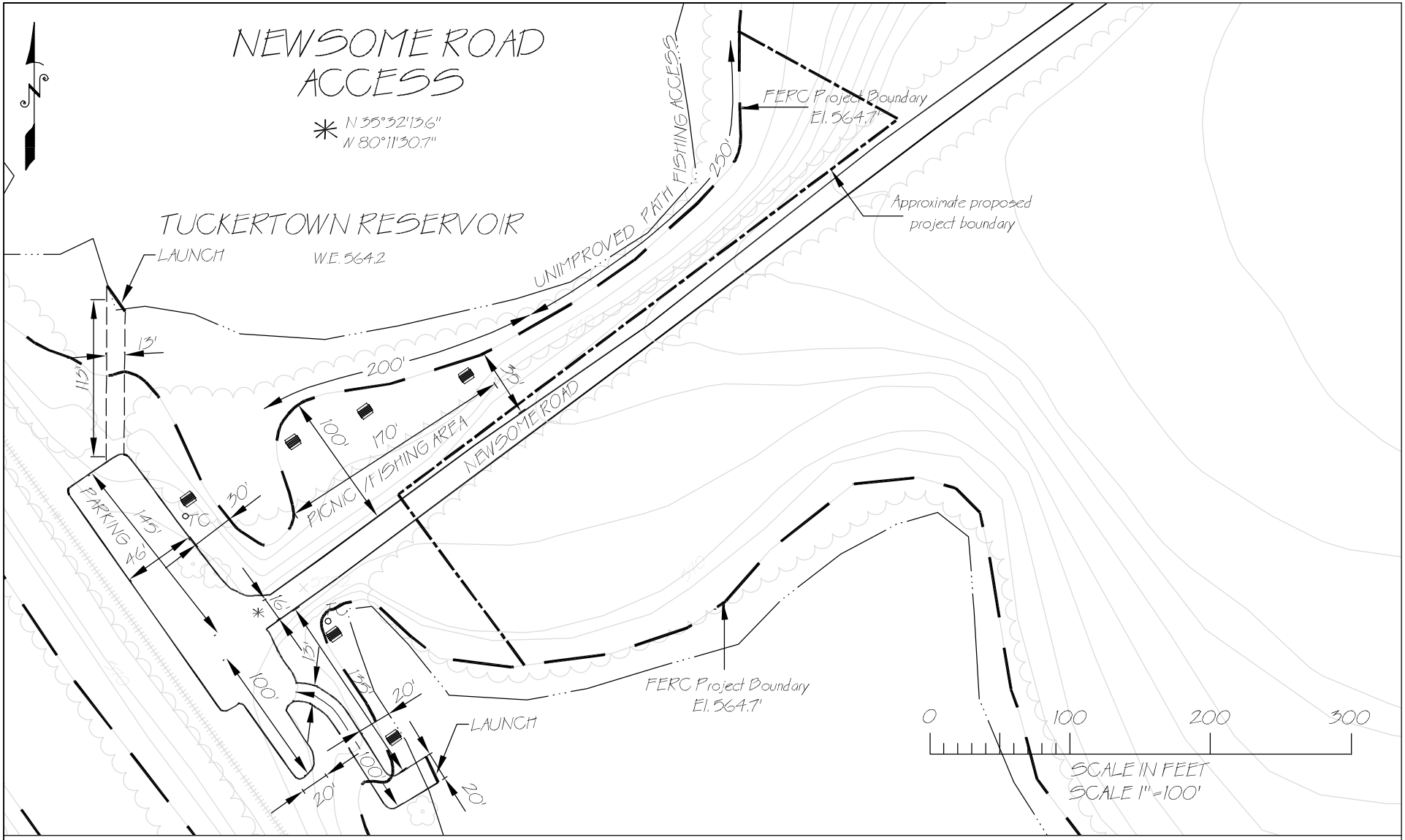
Alcoa Power Generating Inc.

Yadkin Division

FLAT CREEK FISHING ACCESS
TUCKERTOWN RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: T-9 Flat Creek Fishing Access_040207.dwg



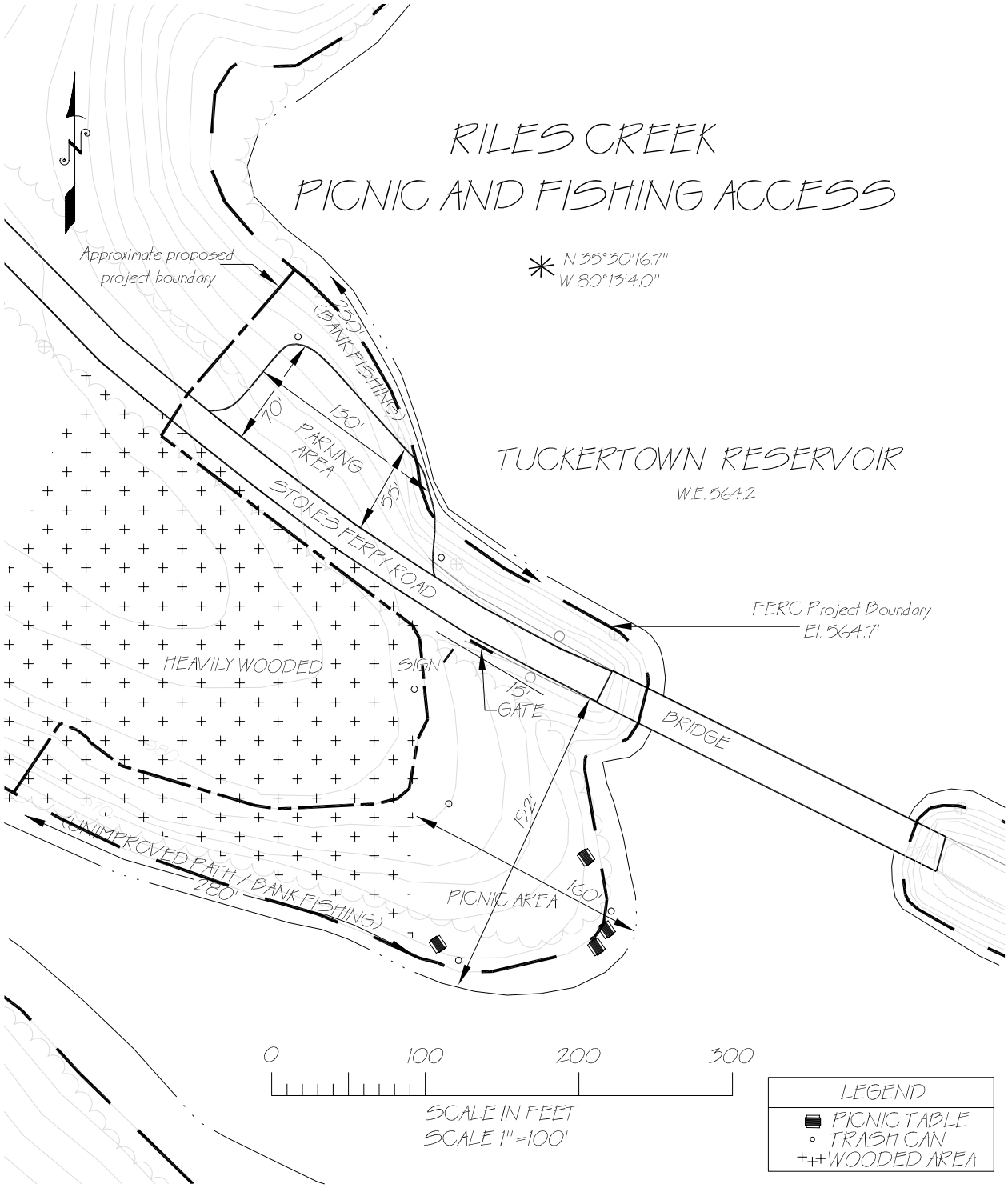
Alcoa Power Generating Inc.

Yadkin Division

NEWSOME ROAD ACCESS
TUCKERTOWN RESERVOIR

Date: 02 APRIL 07

File Name: T-10 Newsome Road Access_040207.dwg



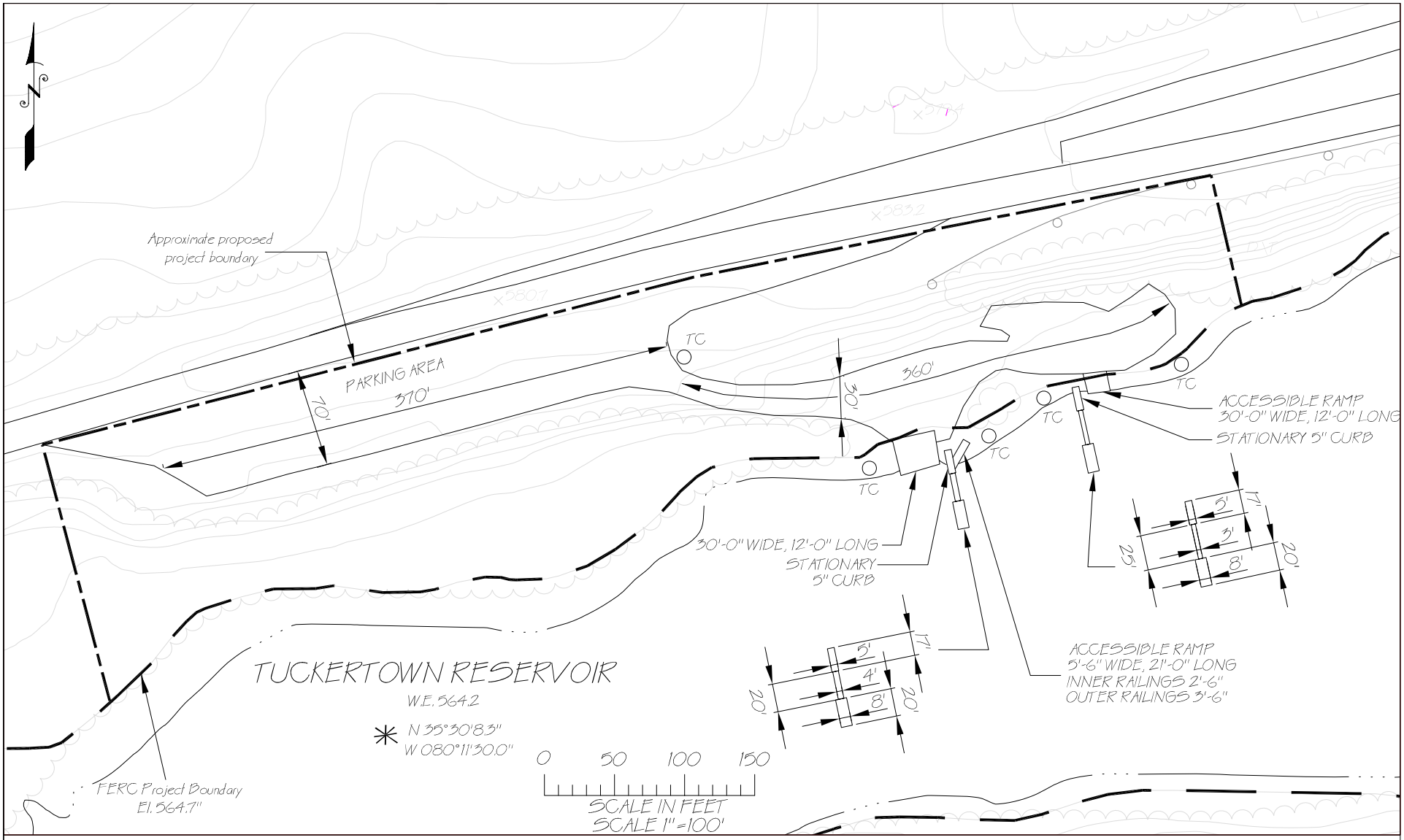
Alcoa Power Generating Inc.

Yadkin Division

RILES CREEK PICNIC AND FISHING ACCESS
TUCKERTOWN RESERVOIR

Date: 02 APRIL 07

File Name: T-12 Riles Creek_b_040207.dwg



Alcoa Power Generating Inc.

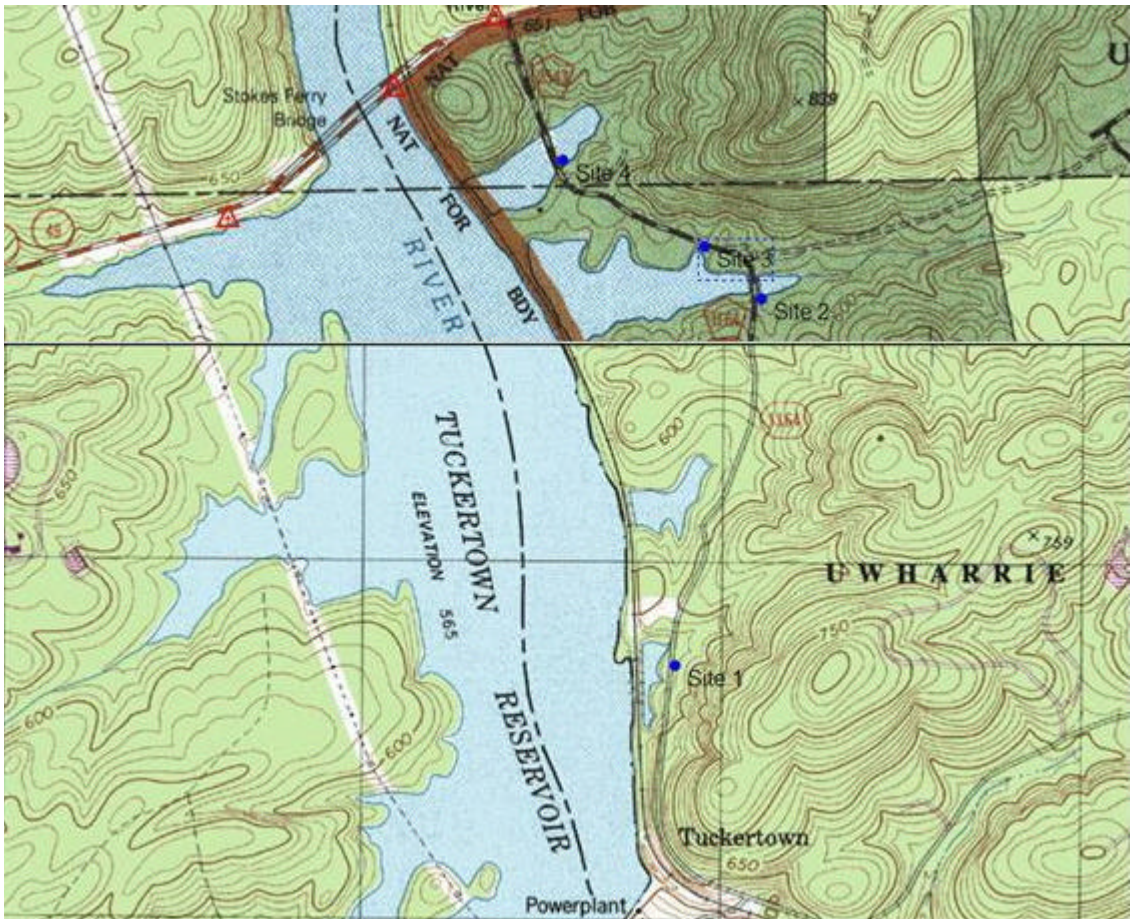
Yadkin Division

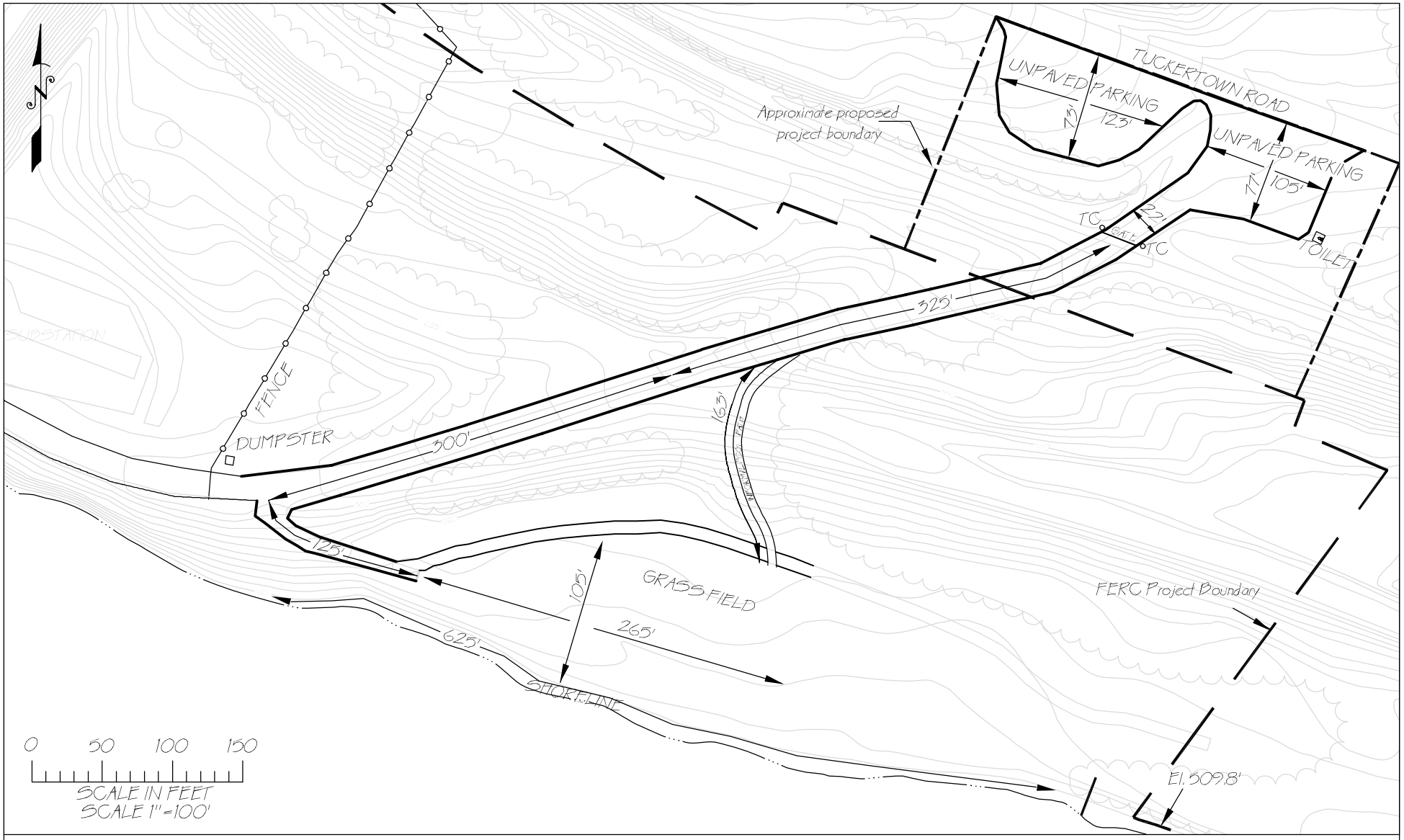
HIGHWAY 49 BOAT ACCESS AREA
TUCKERTOWN RESERVOIR

Date: 02 APRIL 07

File Name: T-14 Highway 49 Boat Access Area_040207.dwg

Figure 5-1: Location Map of Tuckertown Road Pull-off Fishing Access Areas.





Alcoa Power Generating Inc.

Yadkin Division

TUCKERTOWN DAM TAILRACE ACCESS
NARROWS RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: N-1 Tuckertown Dam Tailrace Access Area_040207.dwg

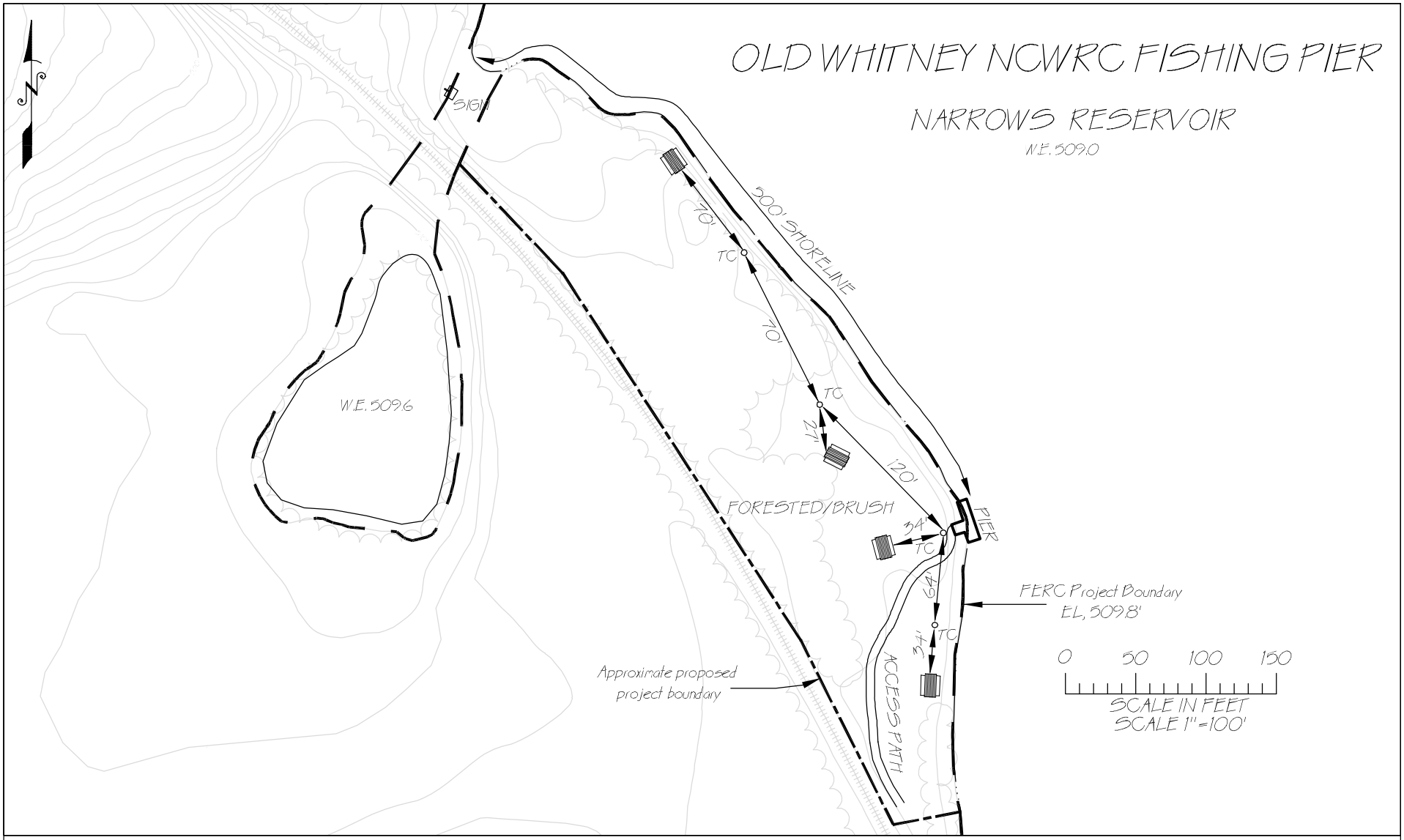
Alcoa Power Generating Inc.

Yadkin Division

GARR CREEK ACCESS
NARROWS RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: N-2 Garr Creek Access_040207.dwg



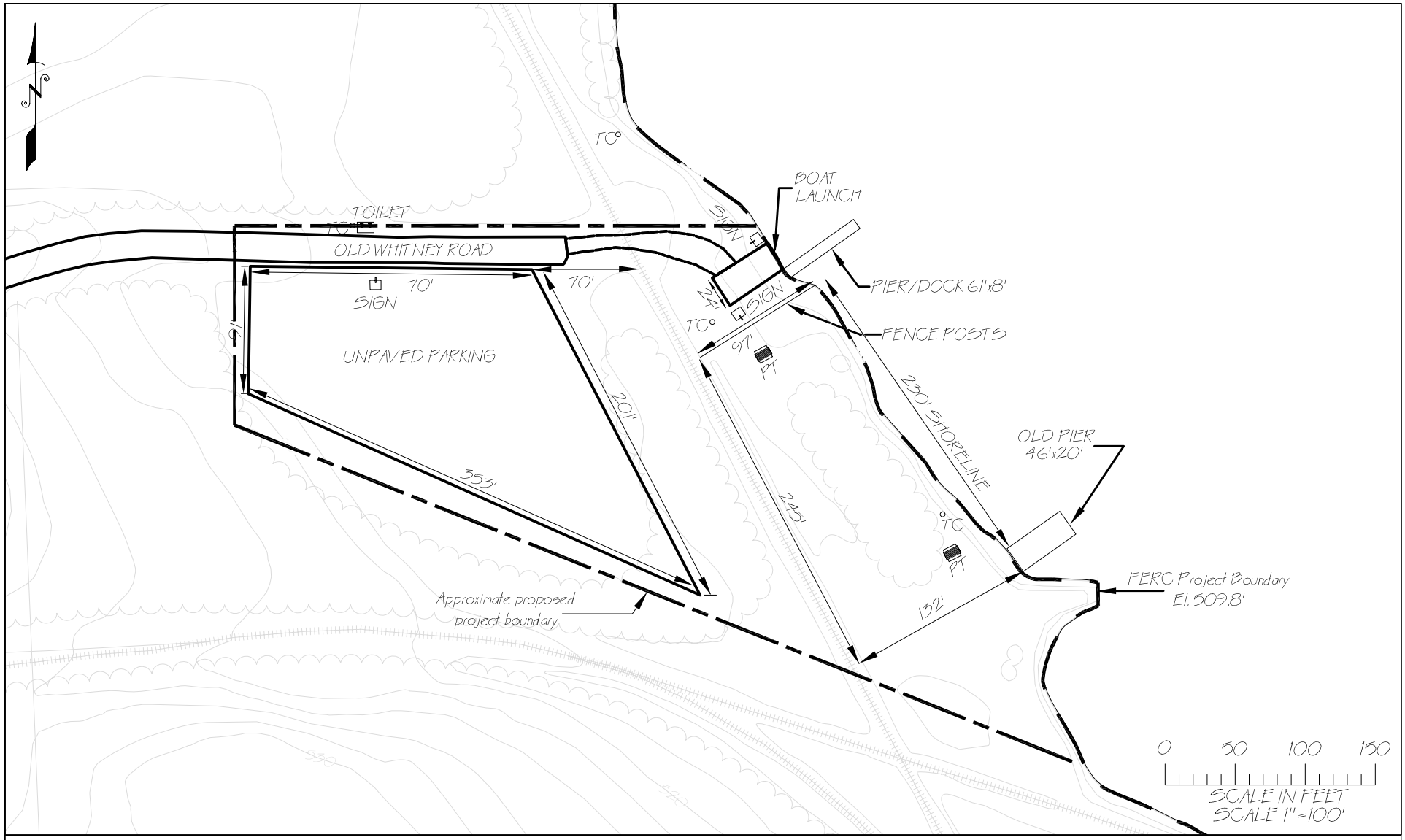
Alcoa Power Generating Inc.

Yadkin Division

Old Whitney New Recreation Fishing Pier
Narrows Reservoir

Date: 02 APRIL 07

File Name: N-5 OLD WHITNEY NCWRC FISHING PIER_040207.dwg



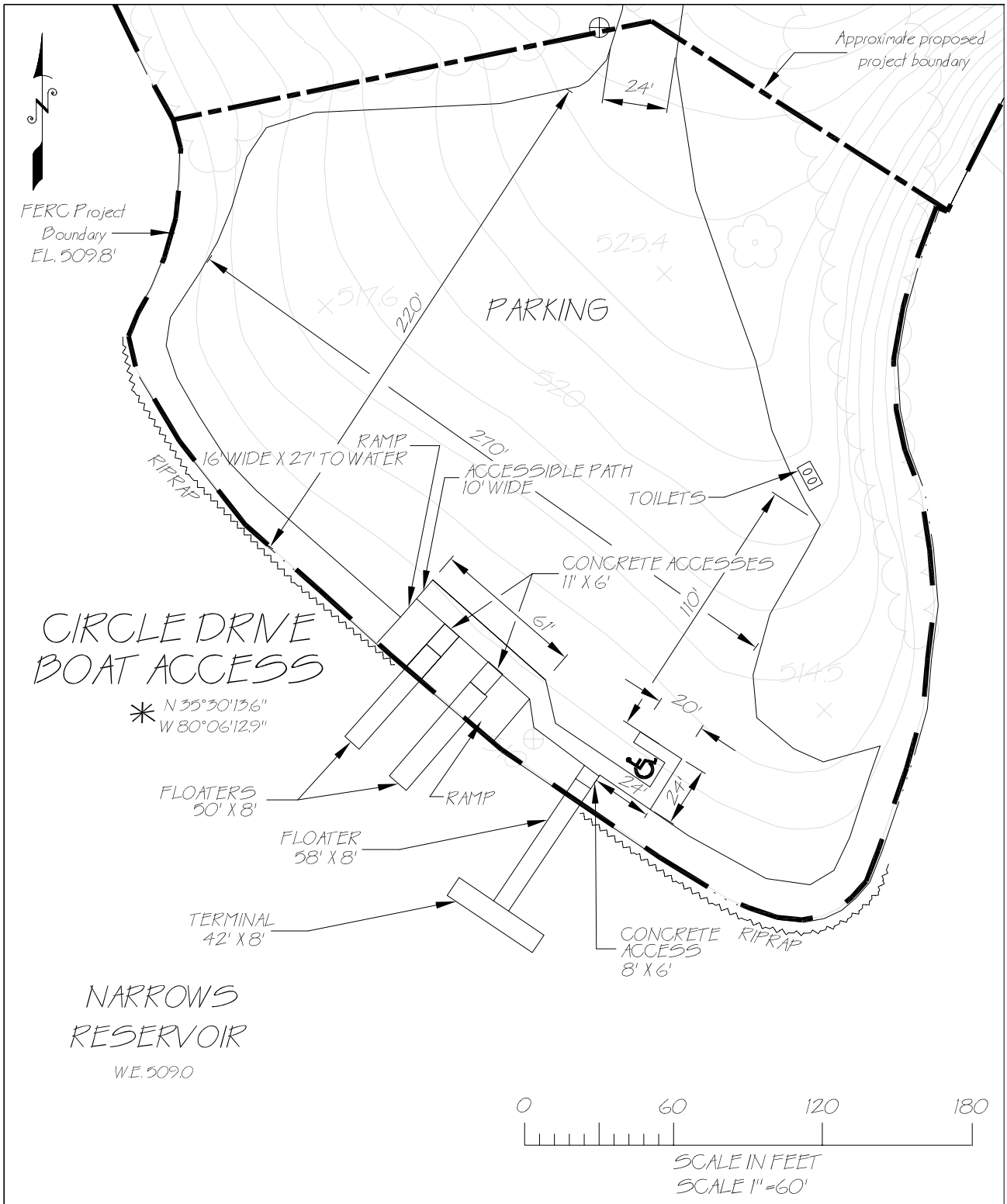
Alcoa Power Generating Inc.

Yadkin Division

OLD WHITNEY BOAT ACCESS
NARROWS RESERVOIR

Date: 02 APRIL 07

File Name: N-6 Old Whitney Boat Access_040207.dwg



Alcoa Power Generating Inc.

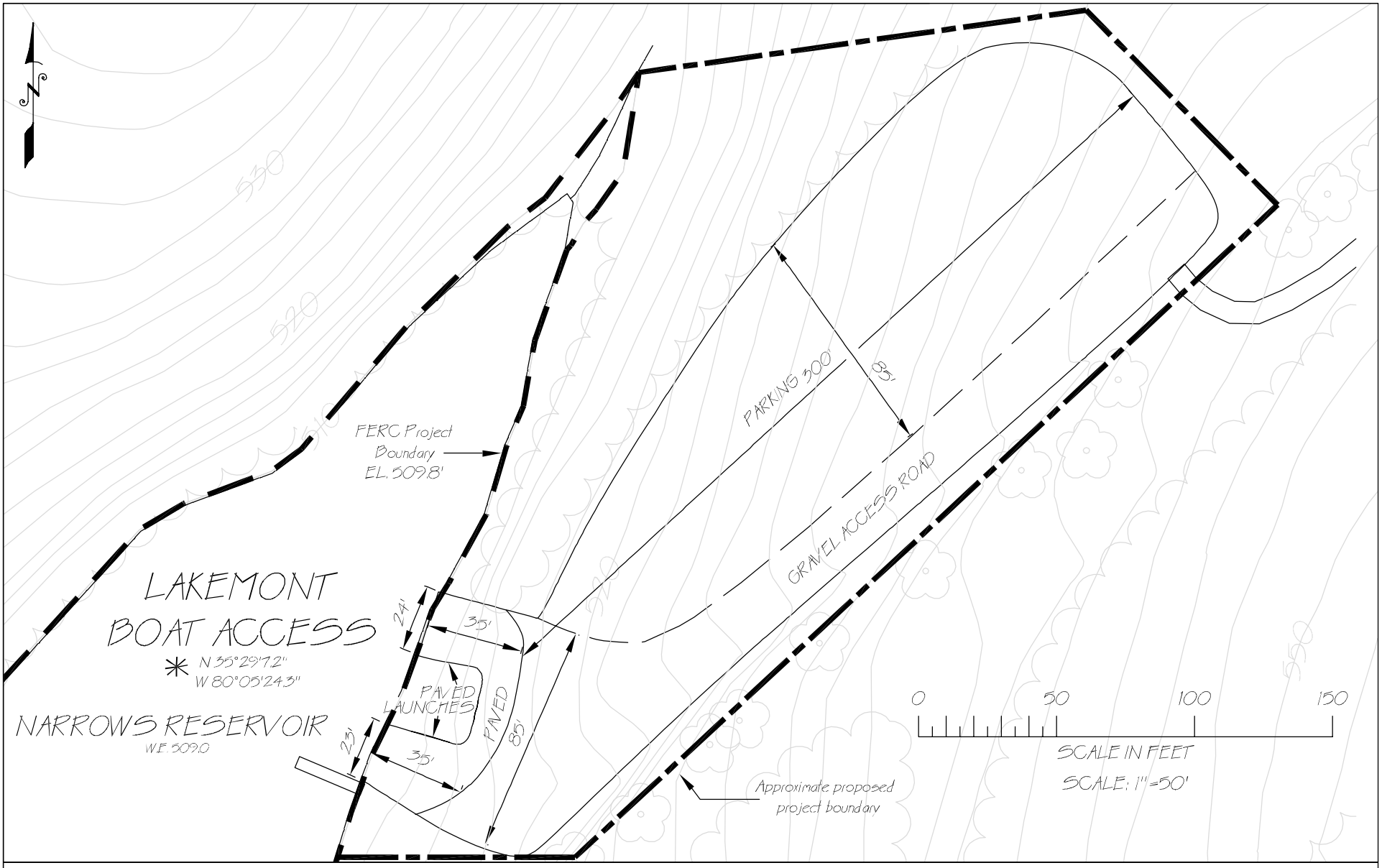
Yadkin Division

CIRCLE DRIVE BOAT ACCESS

NARROWS RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: N-13 Circle Drive Boat Access_040207.dwg



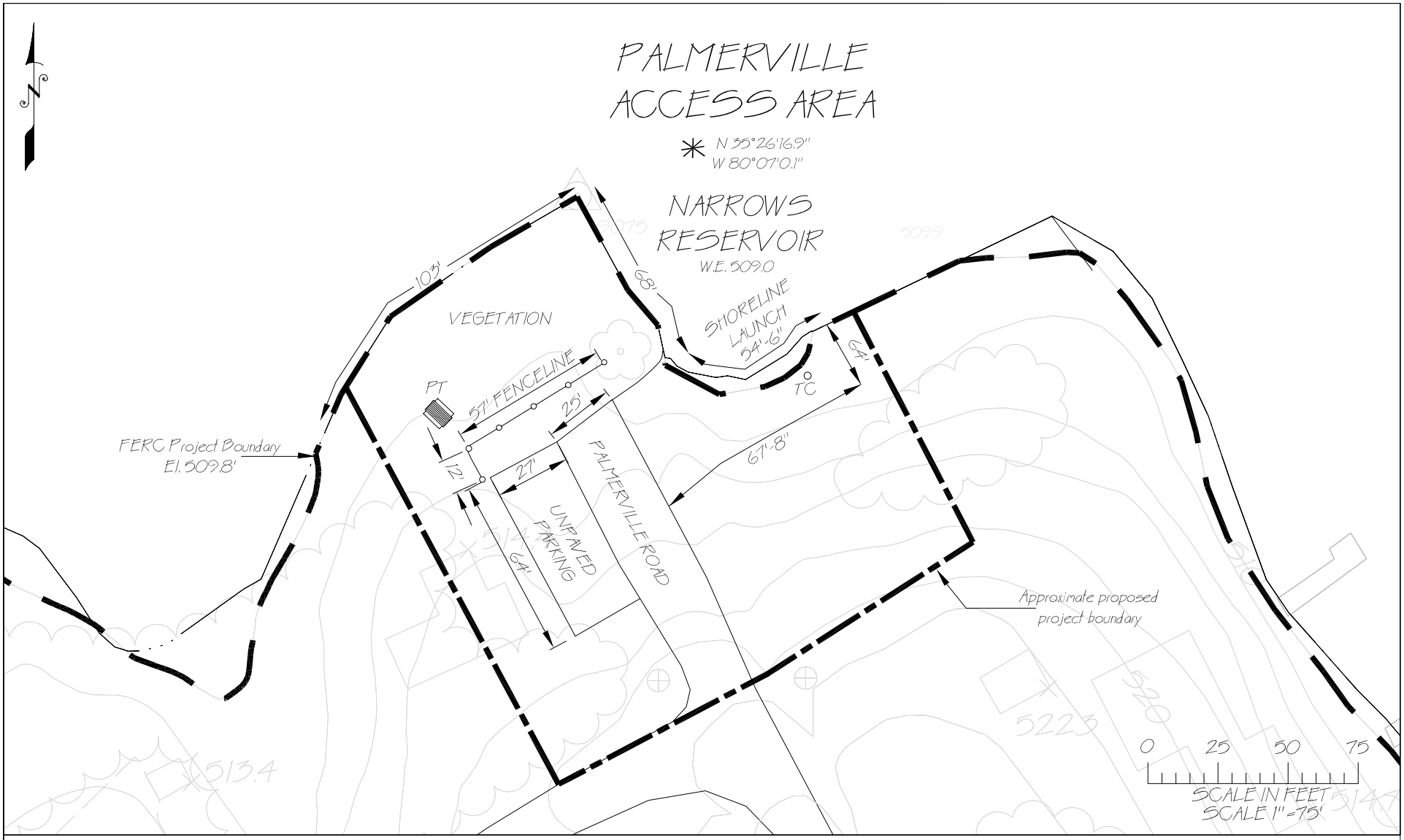
Alcoa Power Generating Inc.

Yadkin Division

LAKEMONT BOAT ACCESS AREA
NARROWS RESERVOIR - YADKIN RIVER

Date: 02 APRIL 07

File Name: N-16 Lakemont Access Area_040207.dwg



Alcoa Power Generating Inc.

Yadkin Division

PALMERVILLE ACCESS AREA
NARROWS RESERVOIR

Date: 02 APRIL 07

File Name: N-28 Palmerville Access Area_040207.dwg

LARGE FORMAT IMAGE

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LARGE FORMAT IMAGE

A large format image (over 8 ½” X 11”) goes here.

0 50 100 150

SCALE IN FEET
SCALE 1" = 100'

Alcoa Power Generating Inc.

Yadkin Division

FALLS BOAT ACCESS

FALLS RESERVOIR - YADKIN RIVER

Date: 2 APRIL 07

File Name: F-2 Falls Boat Access_040207.dwg

CERTIFICATE OF SERVICE

I hereby certify that, I have this day caused to be served by First Class Mail or electronic mail the foregoing document upon the parties to the official service list compiled by the Secretary for this proceeding.

Dated at Washington, DC this 26th day of April, 2007.

*/s/ Claire M. Brennan*_____

Claire M. Brennan
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