DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8175

December 3, 2024

Regulatory Division
West Branch
Mining Team

PUBLIC NOTICE

Permit Application No. SAJ-2024-04223 (SP-BMC)

TO WHOM IT MAY CONCERN: The Jacksonville District of the U.S. Army Corps of Engineers (Corps) has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) as described below.

If you are interested in receiving additional project drawings associated with this public notice, please send an e-mail to the project manager by electronic mail at barbara.m.cory@usace.army.mil.

APPLICANT: Cemex Construction Materials Florida, LLC
100 Lem Carnes Road
Davenport Florida 33837

WATERWAY AND LOCATION: The proposed project referred to as CEMEX 474 Sand Mine, Barahona East Extension (Mine) would affect aquatic resources encompassed within a 100.67-acre parcel associated with Green Swamp. The project site is located at 11945 County Road 474, in Sections 30 and 31, Township 24 South, Range 26 East, Clermont, Lake County, Florida.

Directions to the site are as follows: Take US-HWY 27 to County Road 474. Travel west on County Road 474 for approximately 3.7 miles and the project site will be located on the south side of roadway.

APPROXIMATE CENTRAL COORDINATES: Latitude 28.364334
Longitude -81.745009

PROJECT PURPOSE:

Basic: Sand mining

Overall: To extend the life of sand reserves at CEMEX 474 Sand Mine by expanding the sand mining area in order to supply construction grade aggregates for local and regional infrastructure projects.

EXISTING CONDITIONS: The project site is a 100.67-acre area comprised of two (2) county parcels (Parcel ID: 30-24-26-0002-000-01200 and Parcel ID: 31-24-26-0001-000-00200) within the larger existing CEMEX 474 Sand Mine which extends north and south of County Road 474. The CEMEX processing plant is located north of CR-474. The active Barahona lake is a long narrow lake extending southward from CR-474 to the County line between Lake and Polk Counties. The proposed project area is located east of the Barahona lake and extends southward along the eastern CEMEX property line. The project area is bordered to the north and west by the existing, operating CEMEX Mine and to the south and east by the Florida Fish and Wildlife Conservation Commission (FWC) Hilochee Wildlife Management Area (WMA).

The proposed project area currently consists of undeveloped lands generally comprised of wetlands, hydric pine flatwoods, mixed rangeland, pasture, pine flatwoods, and a primitive agricultural road. Of the total 100.67-acres contained within the Mine property boundary, 53.6-percent (54 acres) are classified as wetlands, 45.9-percent (46.1 acres) are classified as uplands, and 0.5-percent (0.5 acres) are classified as other surface waters (SW) consisting of ponds and drainage swales.

Wetlands within the project area consist of three (3) contiguous freshwater wetland systems spanning 54 acres within the Green Swamp Area of Critical State Concern. These wetland systems are mapped on the National Wetlands Inventory (NWI) as PFO6F ((P) Palustrine, (FO) Forested, (6) Deciduous, (F) Semi permanently Flooded), PFO7B ((P) Palustrine, (FO) Forested, (7) Evergreen, (B) Seasonally Saturated), and PFO4A ((P) Palustrine, (FO) Forested, (4) Needle-Leaved Evergreen, (A) Temporary Flooded). Exotic and nuisance vegetation in wetland areas is sparse and consists of scattered Brazilian pepper, cogon grass, torpedo grass, and Peruvian primrose willow.

Wetland 100 (12.2 acres; northernmost portion of Mine property) is a combination of cypress swamp with mixed wetland hardwood species. Predominant canopy cover consists of bald cypress with mixed hardwood species including dahoon holly, loblolly bay, swamp tupelo, and slash pine. Groundcover consists of goldenrod, yellow-eyed grass, Florida tickseed, bunched beak sedge, Virginia chain fern, lizard's tail, and sawtooth blackberry bushes. Upland habitat along the wetland consists of pine flatwoods and mixed rangelands comprised of shrubs and unimproved pasture.

Wetland 200 (0.13 acres; northwestern area of Mine property) is a ditch/swale that was excavated through wetlands in the 1970's and is connected with Wetland 100 and Wetland 300 through culverts. Wetland 200 has predominant canopy cover of slash pine, water oak, and wax myrtle with groundcover along the bank consisting of soft rush, maidencane, and sawtooth blackberry. Upland habitat to the west is part of the existing mining area and has been disturbed.

Wetland 300 (41.84 acres; western boundary of Mine property) is comprised of a forested basin wetland which was logged sometime between 2000 and 2008. Several basin marsh areas of varying size and depth are scattered within the forested system. In

undisturbed forested areas, predominant canopy cover consists of bald cypress or mixed hardwood species including dahoon holly, loblolly bay, swamp tupelo, and slash pine with groundcover consisting of goldenrod, yellow-eyed grass, Florida tickseed, bunched beak sedge, plumed beak sedge, Virginia chain fern, lizard's tail, and sawtooth blackberry bushes. Groundcover vegetation in marsh areas consists of St. John's wort, bunched beak sedge, Virginia chain fern, soft rush, needle pod rush, lesser creeping rush, and exotic torpedo grass. Two (2) colonies of hooded pitcher plant (State-Designated as Threatened) were identified in Wetland 300. Upland habitat to the east consists of mixed rangelands comprised of shrubs and unimproved pasture.

The project area encompasses six (6) other surface waters (SW) historically dredged for farming activities including five (5) upland-cut agricultural swales (SW 400, 500, 700, 800, and 900; 0.28 acres total) and a 0.23-acre upland-cut pond (SW 600). Three (3) of the upland-cut swales (SW 400, SW 500, and SW 700) are hydrologically connected with wetlands and contain vegetation consisting of soft rush, pickerelweed, American cupscale, sawtooth blackberry and torpedo grass with occasional slash pine, water oak, and wax myrtle along the banks. Two (2) isolated upland cut swales (SW 800 and SW 900) contain vegetation consisting of soft rush, bunched beak sedge, plumed beak sedge, and sawtooth blackberry with occasional slash pine and wax myrtle along the banks.

PROPOSED WORK: The applicant seeks authorization to excavate sand via electric dredge (wet mining) in order to supply construction grade aggregates for local and regional infrastructure projects. The project will result in direct impacts to 9.66 acres of wetlands through excavation or placement of fill, indirect impacts to 3.69 acres of adjacent wetlands, and impacts to 0.51 acres of surface waters. Remaining wetlands on-site (40.7 acres) will not be impacted, and a 25-foot undisturbed buffer will be maintained during proposed work. The mining rate will be approximately 10 to 15 acres per year with the project expected to be completed over a span of 3-years depending on market conditions.

An approximately 80-foot-wide over land dredge crossing area will connect the existing Barahona mining area and the proposed mining area. Existing vegetation within the work area will be cleared and grubbed using typical equipment such as bulldozers, front-end loaders, and dump trucks with overburden graded into earthen berms to contain stormwater during mining activities and then regraded during reclamation upon project completion. Conventional excavation equipment such as track hoes and excavators may be used to start sand extraction once the water table is reached. A hydraulic dredge will be used for most of the sand extraction activities with total depth of excavation to be no more than 80 feet below the water surface (+/-40 NGVD) or no deeper than the confining layer, whichever is shallower.

AVOIDANCE AND MINIMIZATION INFORMATION – The applicant has provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

No economically feasible plan allowed for preservation of all wetlands on-site; however, wetland impacts have been avoided and minimized to the most financially feasible extent practicable. Best management practices will be employed to control and reduce sedimentation and erosion during construction and the mining process. The proposed project is not expected to adversely impact water quality or condition of off-site wetlands or surface waters.

COMPENSATORY MITIGATION – The applicant has offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

Compensatory mitigation for unavoidable impacts to wetlands will be provided through credits purchased from a federally approved mitigation bank with wetland impacts calculated in terms of functional losses via the Uniform Mitigation Assessment Method (UMAM).

CULTURAL RESOURCES: The Corps is evaluating the undertaking for effects to historic properties as required under Section 106 of the National Historic Preservation Act. This public notice serves to inform the public of the proposed undertaking and invites comments including those from local, State, and Federal Agencies with respect to historic resources. Our final determination relative to historic resource impacts may be subject to additional coordination with the State Historic Preservation Officer, those federally recognized tribes with concerns in Florida and the Permit Area, and other interested parties.

ENDANGERED SPECIES: A survey for listed species was conducted for the proposed Mine project site in 2022. During the species survey, only one (1) federally listed species (American alligator) and two (2) state-listed species (Florida sandhill crane and hooded pitcher plant) were observed on the project site. No ESA-listed species identified on the USFWS Information for Planning and Consultation (IPaC) Species Report for the project area were observed during the survey.

The federally listed American alligator was observed within a man-made cattle pond during the species survey for the project site. No critical habitat has been designated for the American alligator which is classified in the federal registrar (52 FR 21059 21064) as *Threatened due to Similarity of Appearance* [T(S/A)] – A species that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to section 7 consultation. The Corps has determined that the proposed project will have no effect on American alligator and no further consultation with USFWS will be required.

The project is within the range of the crested caracara and the site has suitable habitat (wet and dry prairies with scattered saw palmetto, scrub oak, cypress, pastures, or range lands) for the species. No critical habitat has been designated for crested

caracara. In Florida, this raptor occurs as an isolated population in the south-central region of the state where the species commonly occurs in dry or wet prairie areas with scattered cabbage palms or is occasionally found in lightly wooded areas with scattered oaks and cypress. According to the South Florida Ecological Services Office (SFESO) Species Conservation Guidelines for Audubon's Crested Caracara (2004), the region of greatest abundance for crested caracara is a five-county area north and west of Lake Okeechobee, including Desoto, Glades, Highlands, Okeechobee, and Osceola Counties. The project is not within the consultation area or a region of greatest abundance for crested caracara. No crested caracara was observed during species surveys for the project area. Based on the considerations outlined above, the Corps has determined the project will have no effect on crested caracara.

The project is located within the range of Everglades snail kite which inhabits shallow freshwater marshes and shallow grassy shorelines of lakes. Everglades snail kite relies almost entirely on apple snails for food. Current distribution of the snail kite in Florida is limited to six (6) large freshwater ecosystems (Upper St. Johns marshes, Kissimmee River Basin, Lake Okeechobee, Loxahatchee Slough, the Everglades [i.e., areas south of Lake Okeechobee], and the Big Cypress basin) within the central and southern portions of the state. The project site is not within Designated Critical Habitat (DCH) or within a Priority Management Zone (PMZ) for the snail kite and no snail kites were observed during species surveys for the project area. Based on the considerations outlined above, the Corps has determined the project will have no effect on Everglades snail kite.

The proposed Mine is within the range of the eastern black rail. The eastern black rail is a habitat specific, wetland-dependent, secretive marsh bird restricted to a narrow band of habitat where estuarine and palustrine marshes transition to uplands (wetland-upland transition zones). The eastern black rail can be found in transition zones of salt, brackish, or freshwater marsh habitats but requires dense herbaceous vegetative cover that allows for movement under the canopy, elevated refugia to escape high water events, and moist to saturated substrates interspersed with or adjacent to very shallow water. The black rail is primarily associated with herbaceous, persistent, emergent wetland plant cover and occurs in wetter areas of wetland-upland transition zones. The bird is most commonly found in habitats consisting of fine-stemmed emergent plants (rushes, grasses, and sedges) with high stem densities and dense overhead cover. Eastern black rail occurrence outside of coastal areas of Florida is poorly known and often dynamic; however, the bird has been known to occur in central inland counties of Florida mainly during winter months. The project will mainly occur in upland areas of the project site and wetlands on site are primarily forested with only scattered areas of marsh habitat within the forested system(s). No eastern black rails were observed during species surveys for the project area and scattered marshes within the forested system on site would not be considered quality habitat for black rails. Based on these considerations, the Corps has determined the project will have no effect on the eastern black rail.

The project is located within the range of Florida scrub jay. Optimal scrub-jay habitat is dominated by shrubby scrub, live oaks, myrtle oaks, or scrub oaks from 3 to 10 feet tall, covering 50 to 90-percent of the area; bare ground or sparse vegetation less than 6 inches tall covering 10 to 50-percent of the area; and scattered trees with no more than 20-percent canopy cover (Fitzpatrick et al. 1991). The proposed Mine project site mainly consists of hydric pine flatwoods (33.6 acres), unimproved pasture (27.4 acres), mixed rangelands (13.2 acres), and cypress swamp (12.5 acres). Open pasture and forested or herbaceous wetlands do not provide suitable habitat for Florida scrub jay. No Florida scrub jays were observed during species surveys for the project area and the 0.88 acres of shrub and brushland within the project area lacks optimal scrub species with vegetation consisting of Bahia grass, sawtooth blackberry, broomsedge bluestem, wax myrtle, and saw palmetto which would not provide optimal habitat for scrub jays. Based on these considerations, the Corps has determined the project will have no effect on the Florida scrub jay

The project is located within the range of sand skink. Critical habitat has not been designated for the sand skink. Sand skink occurs on the sandy ridges of interior central Florida from Marion County south to Highlands County. The extant range of the sand skink includes Highlands, Lake, Marion, Orange, Osceola, Polk, and Putnam Counties (Christman 1988; Telford 1998). The proposed Mine project is located in Lake County where sand skinks are known to occur. Preferred habitat for sand skink is limited to excessively drained, well-drained, or moderately well-drained sandy soils in xeric uplands with open canopies, scattered shrubby vegetation, or patches of bare sand. Appropriate soil moisture for skink habitat mainly occurs in natural communities such as oak and sand pine scrub, sandhill, or xeric hammocks within the sandy ridges of central Florida. According to the species survey report for the project area, no sand skinks were observed during species survey(s) of the project site. However, sand skinks are usually found below the soil surface burrowing through loose sand and the skink's small size and secretive habits make them difficult to observe. The project site is mainly comprised of wet sands (69-acres poorly drained Myakka-Myakka) and very poorly drained sandy soil (22-acres very poorly drained Anclote and Myakka) with only 6-acres of somewhat poorly drained Pomello sands which could potentially be used by sand skink along the eastern boundary. The 6-acres of potential skink habitat have been historically impacted by fill for an agricultural road used to access the length of the property and are now densely covered with pasture grasses with tightly bound roots which would likely prevent skink movement. Additionally, the highest point on the project site is only 2 to 3 feet above the water table making sand skink occupancy unlikely. Based on these considerations the Corps has determined the project will have no effect on the sand skink.

The project site hosts suitable habitat for the eastern indigo snake. According to a Florida Natural Area Inventory (FNAI) species report for the project site, eastern indigo snakes have been observed in the Hilochee WMA located south and east of the proposed Mine site and in Green Swamp located north of the proposed project site. No eastern indigo snakes, gopher tortoises, or gopher tortoise burrows were observed

during species surveys for the project area. Although no tortoise burrows were located during surveys, the 100-acre site may contain holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities. In accordance with the *USFWS North and South Field Offices Eastern Indigo Snake Programmatic Effect Determination Key* (2010 with 2013 Addendum), the proposed project may affect (A>B>C>D-may affect) eastern indigo snake. The permit will be conditioned to include use of the *USFWS Standard Protection Measures for the Eastern Indigo Snake* during site preparation and project construction. The Corps will request initiation of formal consultation with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act by separate letter.

No designated critical habitat for any of the above listed species occurs within the project area.

The Corps has determined that the project will have no effect on the American alligator, crested caracara, Everglades snail kite, eastern black rail, Florida scrub jay, and sand skink. The Corps has determined the proposal may affect the eastern indigo snake. The Corps will request initiation of consultation with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act by separate letter.

On September 14, 2022, the USFWS published a notice in the Federal Register proposing to list the tricolored bat as an endangered species. The proposed Mine project site falls within the tricolored bat's range which includes much of the United States east of the Rocky Mountains (39 states). White-nose syndrome (WNS) is the primary factor threatening the tricolored bat (across 59 percent of its range). While WNS has not been detected in Florida, human activities and other factors that were not significant before may be so now because of bat population declines due to the disease. Tricolored bat is a habitat generalist which roosts in a variety of ecosystems throughout Florida and forages in wetland ecosystems, waterways, and forest edges. USFWS has indicated that tree cutting may kill or injure tricolored bats and the proposed project involves tree removal on site prior to conducting mining activities. As WNS is the primary threat to tricolored bats and has not been detected in Florida populations of the bat, the Corps has determined that the proposed project will not jeopardize continued existence of the tricolored bat. The Corps notes that the USFWS did not propose to designate critical habitat for the tricolored bat at this time. Based on this information, the Corps finds that the requirements of Section 7 of the Endangered Species Act for the tricolored bat are fulfilled for this project; no further action is necessary. If after reviewing available information the USFWS subsequently determines that the proposed action is likely to jeopardize tricolored bats, the USFWS can request a conference to address those impacts.

ESSENTIAL FISH HABITAT (EFH): The project site is located inland and contains only freshwater wetlands. The project area does not contain EFH.

NAVIGATION: The proposed activity is not located in the vicinity of a federal navigation channel.

SECTION 408: The applicant will not require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would not alter, occupy, or use a Corps Civil Works project.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has not been verified by Corps personnel.

COMMENTS regarding the potential authorization of the work proposed should be submitted in writing to the attention of the District Engineer through the Tampa Permits Section, 10117 Princess Palm Ave., Suite 120, Tampa FL 33610 within 30 days from the date of this notice.

The decision whether to issue or deny this permit application will be based on the information received from this public notice and the evaluation of the probable impact to the associated wetlands. This is based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

QUESTIONS concerning this application should be directed to the project manager, Barbara M. Cory, in writing at the Tampa Permits Section, 10117 Princess Palm Ave., Suite 120, Tampa FL 33610; by electronic mail at barbara.m.cory@usace.army.mil; or by telephone at (813) 697-2870.

IMPACT ON NATURAL RESOURCES: Coordination with U.S. Fish and Wildlife Service, Environmental Protection Agency (EPA), the National Marine Fisheries Services, and other Federal, State, and local agencies, environmental groups, and concerned citizens generally yields pertinent environmental information that is instrumental in determining the impact the proposed action will have on the natural resources of the area.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food,

and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

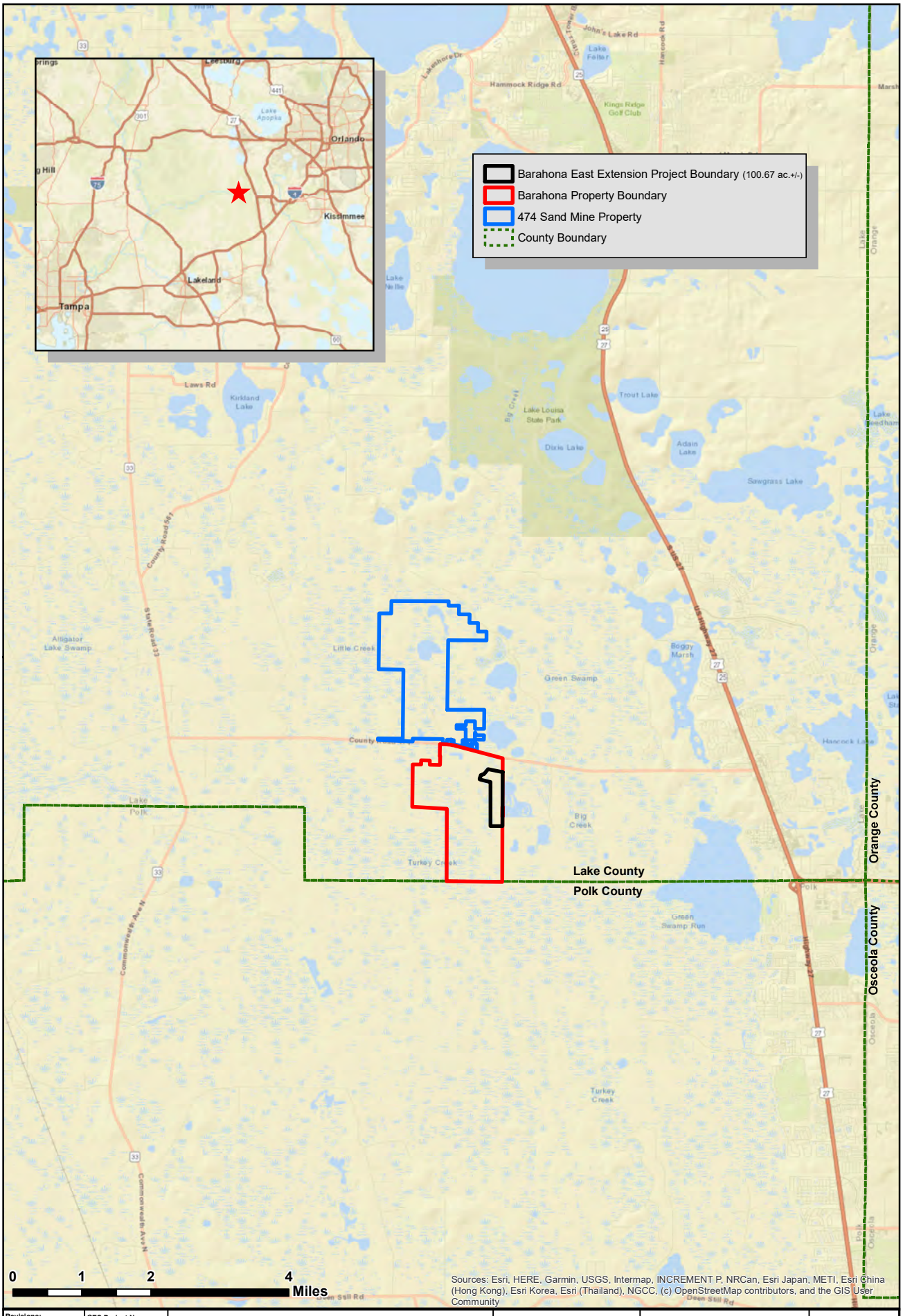
Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, EPA, under authority of Section 404(b) of the Clean Water Act.

The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other Interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this determination, comments are used to assess impacts to endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

WATER QUALITY CERTIFICATION: Water Quality Certification may be required from the Florida Department of Environmental Protection (FDEP).

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Revisions:	GES Project No.: 2605447 Date: 10-14-2022
	Drawn by: C. Bradshaw
	Designed by: C. Bradshaw
	Reviewed by: F. Crabill

Location Map

Barahona East Extension

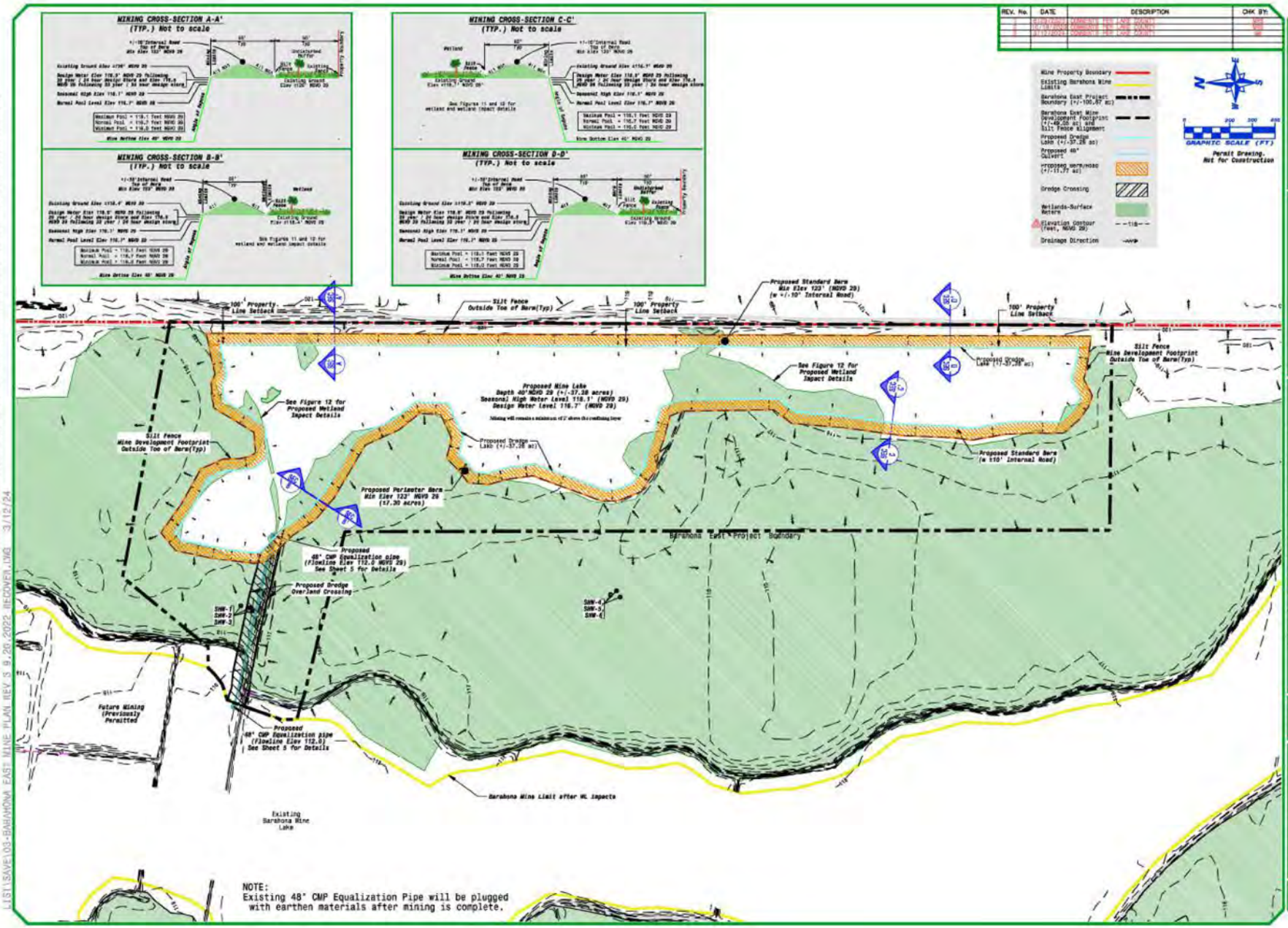
474 Sand Mine

Cemex Construction Materials Florida, LLC.

CEMEX Building the future™

GES Groundwater & Environmental Services, Inc.

Figure 1



D:\CIVIL 3D PROJECTS\S-262R BARAHONA WEST (474 SAND MINE)\DWG\RECEIVED\COLINAS\2023\2023-06-21 MATT'S DRAWINGS\2023-06-22 MATT'S REVISED DRAWING LIST\SAVE\03-BARAHONA EAST MINE PLAN REV 3 9.26.2022 REDOWN.DWG 3/19/24

The Colinas Group, Inc.
Engineering and Environmental Consultants
3031 East Edgewood Drive, Suite A5
Lakeland, Florida 33803
Phone: (863) 686-0141 Fax: (863) 686-1742
www.thecolinasgroup.com

CEMEX

CONCEPTUAL MINE PLAN DURING DEVELOPMENT DRAINAGE PLAN

BARAHONA EAST

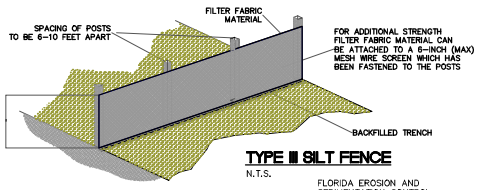
CEMEX CONSTRUCTION MATERIALS, FLORIDA, LLC.
LAKE COUNTY, FLORIDA

JOB #: S-262R Date: Sept 20, 2022
SCALE: as noted QA'D BY: WMS
FIELD BY: MDW DRAWN BY: MDW/JZ
CHECKED BY: WMS

Mark R. Stephens, P.E., P.G.
Florida P.E. Reg. No. 34176
Engineering Business No. EB-0001934
The Colinas Group, Inc.
3031 E. Edgewood Drive, Suite A
Lakeland, FL 33803-3601
(863) 686-0141

This item has been electronically signed and sealed Mark R. Stephens, P.E., License No. 34176 on the date shown on the digital signature, using a digital signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

SILT FENCE DETAIL (TYPICAL)



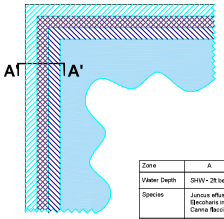
TYPE III SILT FENCE

N.T.S.

FLORIDA EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL

NOTE:
SILT FENCE TO BE INSTALLED SURROUNDING AREA TO BE DISTURBED PRIOR TO ANY DISTURBANCE

LITTORAL SHELF DETAIL (TYPICAL)



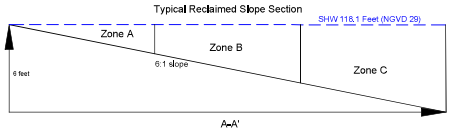
NOT TO SCALE

LEGEND
Slope, Zone A
Slope, Zone B
Slope, Zone C
Open Water Pits
Seasonal High Water Line

Typical Littoral Shelf Planting Plan

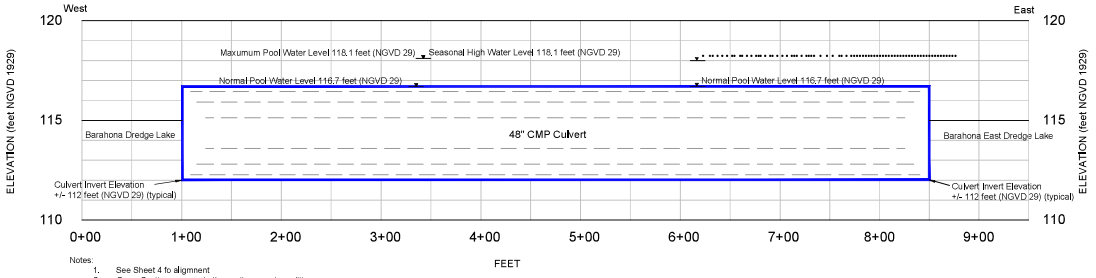
Zone	A	B	C
Water Depth	SHW - 2ft below	2ft below SHW - 4ft below	4ft below SHW - 6ft below
Species	Juncus effusus Eleocharis interstincta Canna flaccida	Pontederia cordata Sagittaria lancifolia Iris hexagona	Scirpis spp. Thalia geniculata Nymphaea odorata
Size	herb - 1 gallon	herb - 1 gallon	herb - 1 gallon
Planting Spec.	herb - 3ft on-center	herb - 3ft on-center	herb - 3ft on-center

Typical Reclaimed Slope Section

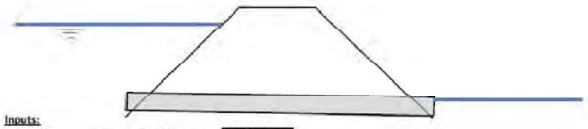


REV. No.	DATE	DESCRIPTION	CHK BY:

EQUALIZATION CULVERT DETAIL (TYPICAL)



Notes:
1. See Sheet 4 for alignment.
2. Cross Section represents the onsite current conditions.
3. The project proposes no changes to the existing road. Road is proposed to remain permanent rather than be restored to wetlands.
4. During the lifetime of the road, culverts may be repaired or replaced, as necessary. When repaired or replaced work will meet with current permitting requirements, BMP Management Plan, and/or requirements of 403.813 Florida Statute for exemption to repair and replace existing culverts.
5. When culverts are repaired or replaced, silt screen will be installed prior to construction and maintained until slopes are restabilized with vegetation.



Inputs:

Headwater (Upstream Water Surface) Elevation:	117.00	Feet
Culvert Inlet Invert Elevation:	112.00	Feet
Culvert Diameter:	48.00	Inches
Length of Culvert:	750.00	Feet
Culvert Outlet Invert Elevation:	112.00	Feet
Tailwater (Downstream) Elevation:	116.00	Feet

Select Culvert Material:	CMP
Select Culvert Inlet Type:	Projecting - Thin Edge

Outputs:

CAPACITY = 26.5 cfs — **OUTLET CONTROLS - Full Flow**

Manning's n value:	0.024	CMP
Entrance Coefficient, Ke:	0.9	Projecting - Thin Edge

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CEMEX

CONSTRUCTION DETAILS
BARAHONA EAST
CEMEX CONSTRUCTION MATERIALS FLORIDA, LLC
LAKE COUNTY, FLORIDA

JOB #: S-262R DATE: 10/19/2022
SCALE: as noted CALC BY: MRS
FIELD BY: MDM DRAWN BY: MDM/gd
CHECKED BY: MRS

Mark R. Stephens, P.E., P.G.
Florida P.E. Reg. No. 38179
Engineering Business No. EB-0007934
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SHEET 5 of 5

D:\CIVIL 3D PROJECTS\S-262R BARAHONA WEST (474 SAND MINE)\DWG\RECIEVED\COLINAS\2023\2023-06-21 MATT'S DRAWINGS\2023-06-22 MATT'S REVISED DRAWING LIST\SAVE\05-SHEET 5 DETAILS.DWG 1/3/24