Public Notice

US Army Corps of Engineers
Fort Worth District

Applicant: Samsung Austin Semiconductor LLC

Permit Application No.: SWF-2014-00170

Date: June 10, 2014

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States.* The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands.* The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Elisha Bradshaw

Phone Number: (817) 886-1738

PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

SUBJECT: Application for a Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge dredged and fill material into waters of the United States (WOUS) associated with the proposed Samsung Fabrication (Fab) 3 Expansion Project, located in the city of Austin, Travis County, Texas.

APPLICANT: Samsung Austin Semiconductor LLC (SAS)
Mr. Doug Bradford
12100 Samsung Boulevard
Austin, Texas 78754

APPLICATION NUMBER: SWF-2014-00170

DATE ISSUED: June 10, 2014

LOCATION: The proposed project is located at 12100 Samsung Boulevard, city of Austin, Travis County, Texas, 78754. The approximate 150 acre lot is located approximately at Latitude 30° 22' 8" N and Longitude 97° 38' 28" W, is contained within the Austin East 7.5-minute USGS quadrangle map, and is in the Lower Colorado-Cummins (12090301) USGS Hydrologic Unit. The project area is south of and adjacent to the existing SAS industrial facility.

OTHER AGENCY AUTHORIZATIONS: (1) Texas Pollutant Discharge Elimination System Construction General Permit [TXR150000], Texas Commission on Environmental Quality (2) Development Permit, City of Austin.

PROJECT DESCRIPTION: The applicant proposes to discharge approximately 5,660 cubic yards of fill material into approximately 1.9 acres of WOUS in conjunction with the expansion of the existing SAS industrial facility to construct the Fab 3 semiconductor production and support facilities. Total impacts to WOUS would include 1.09 acres of emergent wetlands; 0.72 acre of open water, and 781 linear feet (0.09 acre) of ephemeral stream. The proposed project will consist of grading and construction that includes 94 acres of undeveloped rangeland and stockpile area; and 56 acres within existing parking lots and facilities.

INTRODUCTION: The applicant currently owns approximately 300 acres of property south of Parmer Land and west of Samsung Boulevard. Approximately 206 acres of the 300 acres has already been developed. A 26-acre upland portion of the project area was recently developed to accommodate a large temporary parking lot and water quality/detention facility. Approximately 94 acres is undeveloped and proposed as the project area for the expansion as well as an additional 56 acres that is currently functioning as existing parking lots and facilities. The

proposed project would allow SAS to develop a fabrication facility and critical support infrastructure needed to accommodate a minimum of 500,000 square feet of cleanroom space to meet the global demand for semiconductors.

The proposed project includes development of production facilities to provide a minimum of 500,000 square feet of cleanroom space for semiconductor production and the support facilities needed for operation. A cleanroom space is an environment typically used in manufacturing or scientific research with a low level of environmental pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors. A cleanroom has a controlled level of contamination that is specific by the number of particles per cubic meter at a specified particle size.

In addition to the required cleanroom fabrication space, the proposed project area is designed to accommodate numerous production support facilities required to support semiconductor production. At a minimum, approximately 45 separate support facilities are needed for a functional fabrication facility. Those production support areas include an electrical distribution main substation, secondary substation, industrial wastewater treatment plants, process bulk gas generation plants, hazardous waste collection and shipping facilities, ultrapure water generation plants, bulk specialty gas and chemical supply buildings, and a central HVAC plant for production of steam and chilled water. The proposed project also requires development of a facility that would meet the City of Austin's design and construction criteria related to water quality, detention, and architectural setbacks as well as numerous codes and standards associated with semiconductor production facilities, including but not limited to International Building Code, International Fire Code, National Fire Protection Association, and applicable Semiconductor Equipment and Materials International Standards.

EXISTING CONDTIONS: The project area consists of industrial, agriculture, and undeveloped lands and is located within the Blackland Prairie ecoregion. Elevations range from 670 to 690 feet above mean sea level. Vegetation within the project area consists of mesquite (*Prosopis glandulosa*), hackberry (*Celtis laevigata*), privet (*Ligustrum sp.*), Juniper (*Juniperus sp.*), bluestem (*Bothrichloa spp.*), ragweed (*Ambrosia spp.*), and goldenrod (*Solidago sp.*).

The project area is situated on the Austin-Eddy Association, which consists of moderately deep to shallow, calcareous, clayey and loamy soils overlying chalk. The project area encompasses 2 mapped soil units – Houston Black clay, 1 to 3% slopes; and Houston Black clay, 3 to 5% slopes, moderately eroded. Both soils consist of residuum weathered from calcareous shale of the Taylorford Marl and Eagleford Shale formations, and typical soil profiles consist of deep deposits of dense, calcareous black clay extending to depths exceeding 80 inches below the surface.

The project area is drained by an unnamed ephemeral tributary which flows into Harris Branch approximately 1.4 miles east. Harris Branch flows into Gilleland Creek, which flows into the Colorado River, a Section 10 waterway. The project area consists of one ephemeral stream (781 linear feet), one open water/on-channel impoundment (0.72-acre), and five emergent wetlands (0.15-acre, 0.61-acre, 0.11-acre, 0.16-acre and 0.06-acre, for a total of 1.09 acres of wetlands). The ephemeral steam has an average ordinary high water mark of 5 foot, is slightly incised with

some bank erosion and sedimentation present. The riparian buffer along the ephemeral stream is composed of spike rush (*Eleocharis spp*.) and spiney-fruit buttercup (*Ranunculus muricatus*). The open water/on-channel impoundment is a 0.72-acre pond that was previously used for watering livestock. The pond is surrounded by an emergent wetland fringe that has relatively low species diversity due to the past livestock use of the pond. The emergent wetlands consist of spike rush, bur reed (*Echinodorus rostratus*), blunt spike rush (*Eleocharis obtusa*), broadleaf cattail (*Typha latifolia*), lesser poverty rush (*Juncus tenuis*), buttercup, and little tooth sedge (*Carex microdonta*).

The project area has non-jurisdictional water features that consist of a swale and a man-made excavated ditch. The ditch was constructed to drain the uplands to accommodate stormwater from the industrial development.

ADVERSE IMPACTS TO WOUS: Total fill within WOUS associated with the proposed project is approximately 5,660 cubic yards in order to grade the site for the construction of the 45 support facilities and associated infrastructure.

APPLICANTS ALTERNATIVES: The applicant evaluated alternatives for the expansion of their existing facilities that included expanding to the north, south, east, and west of the existing development. Expansion of the existing facilities is the only feasible range of alternatives due to the need of sharing of exiting utilities, the efficiency of connecting the production areas, and reduced operational costs from shared administration, security, logistics, and other production support operations. The needed support facilities located within the existing development includes process infrastructure (i.e., bulk gas generation plants, industrial wastewater plants, secondary substation), which ultimately reduces the overall needed footprint of the proposed project by 20%. The applicant also evaluated on-site alternatives based on the minimum 500,000 sq. ft. area to a maximum of 800,000 sq. ft. needed for the proposed cleanroom space and associated infrastructure.

1. No Action Alternative. If the proposed project was not constructed there would be no environmental impact to the proposed project area, however the applicant would not be able to compete in the very competitive global electronics market. Not expanding the facilities to meet current market demand could result in job losses to existing employees due to the high likelihood of closure of current facilities not being able to produce the technological resources that are demanded by today's market.

2. North Expansion Alternative. This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure to the north of the existing fabrication facilities. This alternative was determined not to be practicable by the applicant due to these multiple constraints and impacts: a public roadway (East Yager Lane) would have to be closed or relocated; impacts to approximately 2,000 linear feet of intermittent stream and adjacent wetlands; relocation of a high voltage overhead line; and the presence of existing residential neighborhoods.

3. South Expansion Alternative. This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure to the south of the existing fabrication facilities. This alternative was determined not to be practicable by the applicant due to the presence of existing residential neighborhoods.

4. East Expansion Alternative. This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure to the east of the existing fabrication facilities. This alternative was determined not to be practicable by the applicant because the impacts to WOUS would be 1,500 lf and there are exiting residential neighborhoods, reducing the needed footprint required for the proposed project.

5. West Expansion Alternative. This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure to the west of the existing fabrication facilities. This alternative was determined not to be practicable by the applicant because of the presence of a high voltage transmission line and railroad.

6. On-site North-South Configuration Alternative (Option B, Figure 9). This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure in a north-south configuration in the vacant southern portion of the applicant's property. Impacts to WOUS would be the same as the applicant's preferred alternative. The north-south orientation would not allow the applicant to meet the City of Austin's drainage criteria for a water quality and detention pond. Critical interconnects between the fabrication facility, production support facilities such as industrial wastewater treatment plant, electrical mains, and secondary substations would be at distances too far away to adequately support operations of the fabrication facility due to the requirements for the availability of power and operational constraints of gravity-driven wastewater movement. Facilities would be closer to a public arterial roadway than recommended for similar facilities, resulting in security and safety concerns.

7. On-site East-West Configuration Alternative (Applicant's Preferred Alternative) (Option A, Figure 8). This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure in an east-west configuration in the vacant southern portion of the applicant's property. The alternative would allow for efficiencies from the consolidated cleanroom housing tools required for full production output, enabling the required processing steps to take place sequentially with minimal duplication of handling movement. This alternative includes the removal of the existing temporary parking and detention facility in the western portion of the property. This alternative was determined to be practicable by the applicant.

8. On-site Southern Location Alternative (Option D, figure 11). This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure in the southern-most configuration in the vacant southern portion of the applicant's property and avoiding impacts to WOUS. The applicant determined this

alternative to not be practicable due to the loss of function from the utilities, gas systems, and other critical building in close proximity to the primary fabrication unit. The location of a fabrication unit in the southern portion of the property would not allow for three of the required support buildings to be constructed. This alternative would allow for the wastewater treatment and electrical substation to be separated from the main production area by unacceptable distances. Additionally, this alternative would not meet the City's drainage criteria for water quality and detention pond.

9. On-site Two Fabrication Buildings Alternative (Option C, Figure 10). This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility in two separate buildings (250,000 sq. ft. each) and associated infrastructure in the vacant southern portion of the applicant's property. This alternative would allow for the construction of the needed 500,000 sq. ft. cleanroom space but was determined to not be practicable by the applicant due to these impacts and constraints: Impacts to WOUS would exceed the applicant's preferred alternative due to the need to expand the detention basin, which would require additional property that the applicant does not own; this configuration would not allow the applicant to meet the city's drainage criteria for a detention pond and a water quality pond; this configuration would not allow enough available space to for construction of all production support facilities; and would result in a loss of efficiency and increased costs of construction and operation due to the need to construct and operate duplicate supply and utility systems to support the two units.

10. On-site Stacked Fabrication Facilities Alternative (Option E, figure 12). This alternative would include constructing the minimum 500,000 sq. ft. fabrication facility and associated infrastructure in the vacant southern portion of the applicant's property in a stacked formation. In countries including Korea, Taiwan, and Japan, semiconductor manufacturers operate multi-floor or stacked production facilities to maximize use of available land area while complying with local codes and ordinances. These facilities range from 6 to 10 floors in height with two or more production areas operating one above another. If implemented, this design concept would allow for the required square footage with half the size of the same facility as the applicant's preferred alternative, therefore avoiding impacts to WOUS. However, the U.S. construction standards and the jurisdiction having authority, the City of Austin, follows International Building Code standards published by the International Code Council. The construction of high-hazard occupancy group H-5 spaces such as the proposed project must meet the requirements of the International Building Code, which does not allow two 3-floor H-5 occupancy areas to be built one above the other, which is why the applicant eliminated this alternative.

In conclusion, expanding onto adjacent properties was determined by the applicant to not be feasible because it would impact residences, impact more waters of the U.S., or would require the relocation of utilities and a railroad. Alternative configurations on the proposed project site that would avoid permanently impacting the stream and wetlands were also considered. The alternatives considered included a north-south orientation, a southern location, two fabrication buildings, and a stacked fabrication facility. These on-site alternatives were determined by the

applicant to not be practicable because they would either not reduce impacts compared to the proposed alternative or not meet the purpose and need of the project.

COMPENSATORY MITIGATION: After consideration of all available options, the applicant proposes to mitigate for unavoidable losses to WOUS by purchase of credits from a mitigation bank. Baseline ecological conditional assessments of proposed aquatic resource impacts sites were performed utilizing the Texas Rapid Assessment Method (TXRAM). Based on the proposed impacts and ecological condition of impacted WOUS using TXRAM, the applicant proposes to purchase 1.1 wetland credits and 361 ephemeral stream credits from the Wilbarger Creek Mitigation Bank to offset the unavoidable adverse impacts to the WOUS. The proposed project is in the primary service area of the Wilbarger Creek Mitigation Bank.

FIGURES:
1. General Location Map
2. Topographic Map
3. Aerial Map
4. WOUS
5. Site Development Plan
6. Impacts to WOUS
7. Typical Cross Section View
8. On-site East-West Alternative (Option A)
9. On-site North-South Alternative (Option B)
10. On-site 2 Buildings Alternative (Option C)
11. On-site Southern Alternative (Option D)
12. On-site Stacked Alternative (Option E)

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns 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 its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore 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.

The USACE 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 USACE in determining whether to issue, issue with modifications or conditions, or deny a permit for this

proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This project incorporates the requirements necessary to comply with the Texas Commission on Environmental Quality's (TCEQ) Tier I project criteria. Tier I projects are those that result in a direct impact of three (3) acres or less of waters of the State or 1,500 linear feet of streams (or a combination of the two is below the threshold) for which the applicant has incorporated best management practices (BMPs) and other provisions designed to safeguard water quality. The USACE will receive a completed checklist and signed statement fulfilling Tier I criteria for the project. Accordingly, a request for an individual 401 certification from the TCEQ is not necessary, and hence, there will be no additional TCEQ review.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's (USFWS) latest published version of endangered and threatened species to determine if any may occur in the project area. The proposed project is located in Travis County where the Austin blind salamander (*Eurycea waterlooensis*), Barton Springs salamander (*Eurycea sosorum*), Jollyville Plateau salamander (*Eurycea tonkawae*), Bee Creek Cave harvestman (*Texella reddelli*), Bone Cave harvestman (*Texella reyesi*), Tooth Cave pseudoscorpion (*Tartarocreagris texana*), Tooth Cave spider (*Leptoneta myopica*), Whooping Crane (*Grus americana*), Piping plover (*Charadrius melodus*), Black-capped Vireo (*Vireo atricapilla*), Golden-cheeked Warbler (*Denroica chrysoparia*), Kretschmarr Cave mold beetle (*Texamaurops reddelli*), and Tooth Cave ground beetle (*Rhadine persephone*) are federally (USFWS) listed species and known to occur or may occur as migrants. Our initial review indicates that the proposed project would have no effect on any federally-listed endangered or threatened species. No sightings of federal-listed threatened or endangered species or species of special concern have occurred or were recorded within the limits of the proposed project area during environmental baseline studies, field reconnaissance, and initial reviews.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP): The area of the proposed project has been surveyed for the presence of historic and prehistoric cultural resources, and no historic properties or cultural resources are known to occur on the site. No sites listed on the National Register of Historic Places (NRHP), eligible for listing on the NRHP, or with an unknown NRHP status are known to occur at the site; therefore, the proposed project will not have an impact to historic or prehistoric cultural resources.

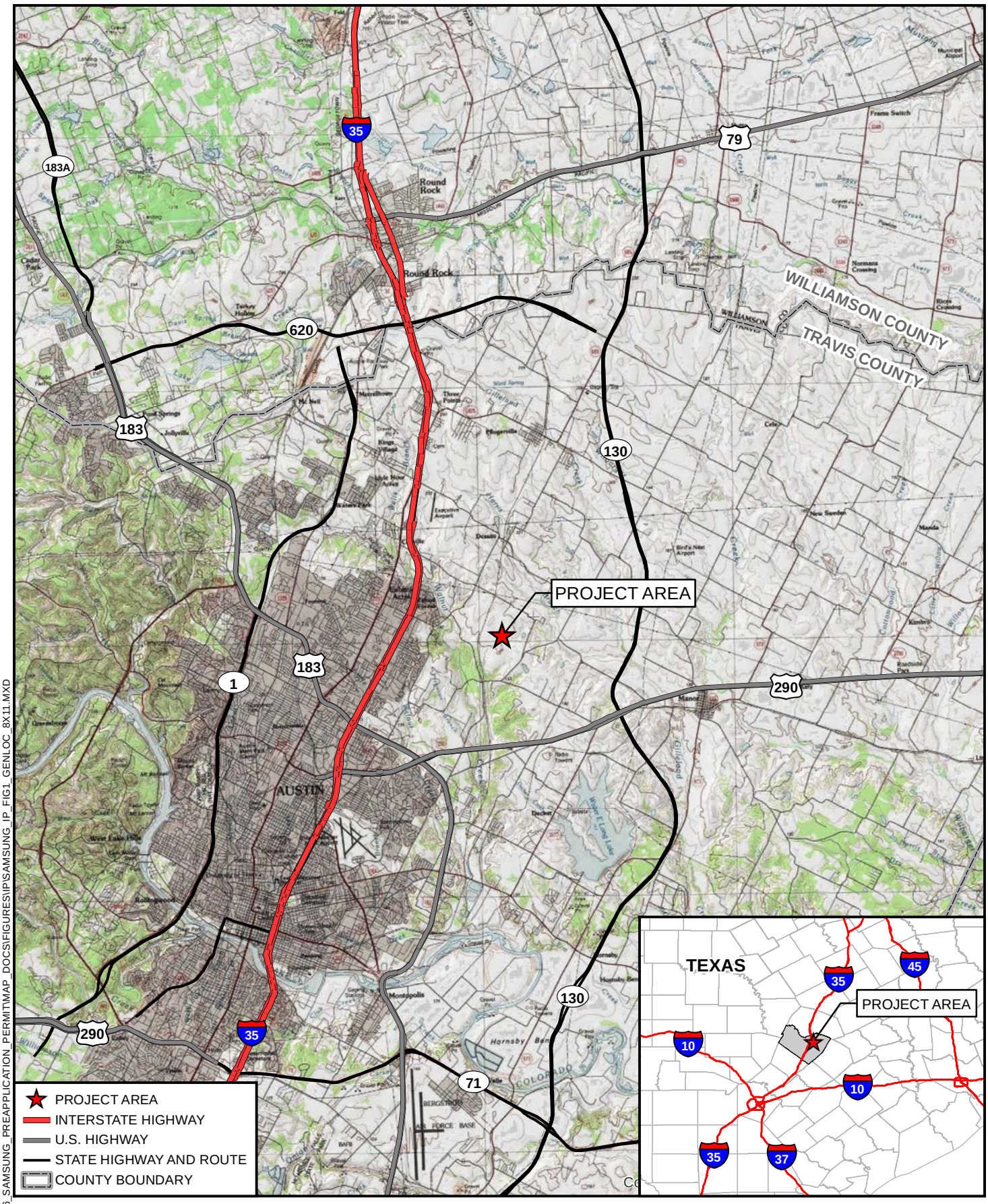
FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing facts upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period, any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before July 10, 2014, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to: Regulatory Branch, CESWF-PER-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to Ms. Elisha Bradshaw at (817) 886-1738. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS



FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG1_GENLOC_8X11.MXD

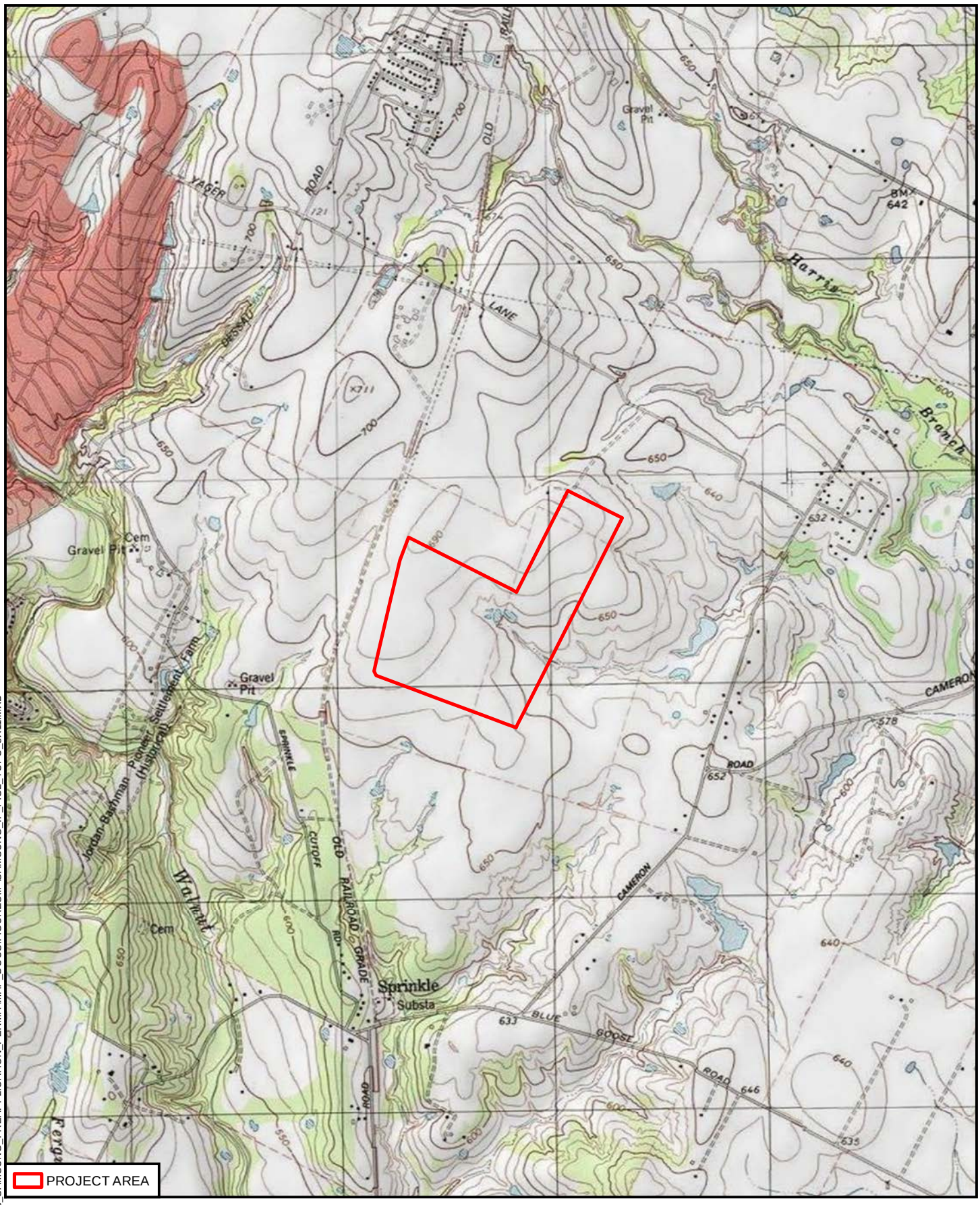
SAMSUNG AUSTIN SEMICONDUCTOR, LLC
PROPOSED FAB 3 EXPANSION PROJECT
TRAVIS COUNTY, TX
USACE PROJECT NO. SWF-2014-00170

N
0 2 4
MILES

GENERAL LOCATION MAP

HDR ENGINEERING, INC.
4401 WEST GATE BLVD., STE. 400
AUSTIN, TX 78745-1469
512-912-5100

MAY 2014 | FIGURE 1 OF 13



FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG2_TOPO_8X11.MXD

SAMSUNG AUSTIN SEMICONDUCTOR, LLC **PROPOSED FAB 3 EXPANSION PROJECT** **TRAVIS COUNTY, TX** USACE PROJECT NO. SWF-2014-00170	N 0 1,000 2,000 FEET	**USGS TOPOGRAPHIC MAP**	HDR ENGINEERING, INC. 4401 WEST GATE BLVD., STE. 400 AUSTIN, TX 78745-1469 512-912-5100 MAY 2014 | FIGURE 2 OF 13

USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 2

SAMSUNG AUSTIN SEMICONDUCTOR, LLC
PROPOSED FAB 3 EXPANSION PROJECT
TRAVIS COUNTY, TX
USACE PROJECT NO. SWF-2014-00170

N
0 500 1,000
FEET

FLOODPLAIN MAP

HDR ENGINEERING, INC.
4401 WEST GATE BLVD., STE. 400
AUSTIN, TX 78745-1469
512-912-5100

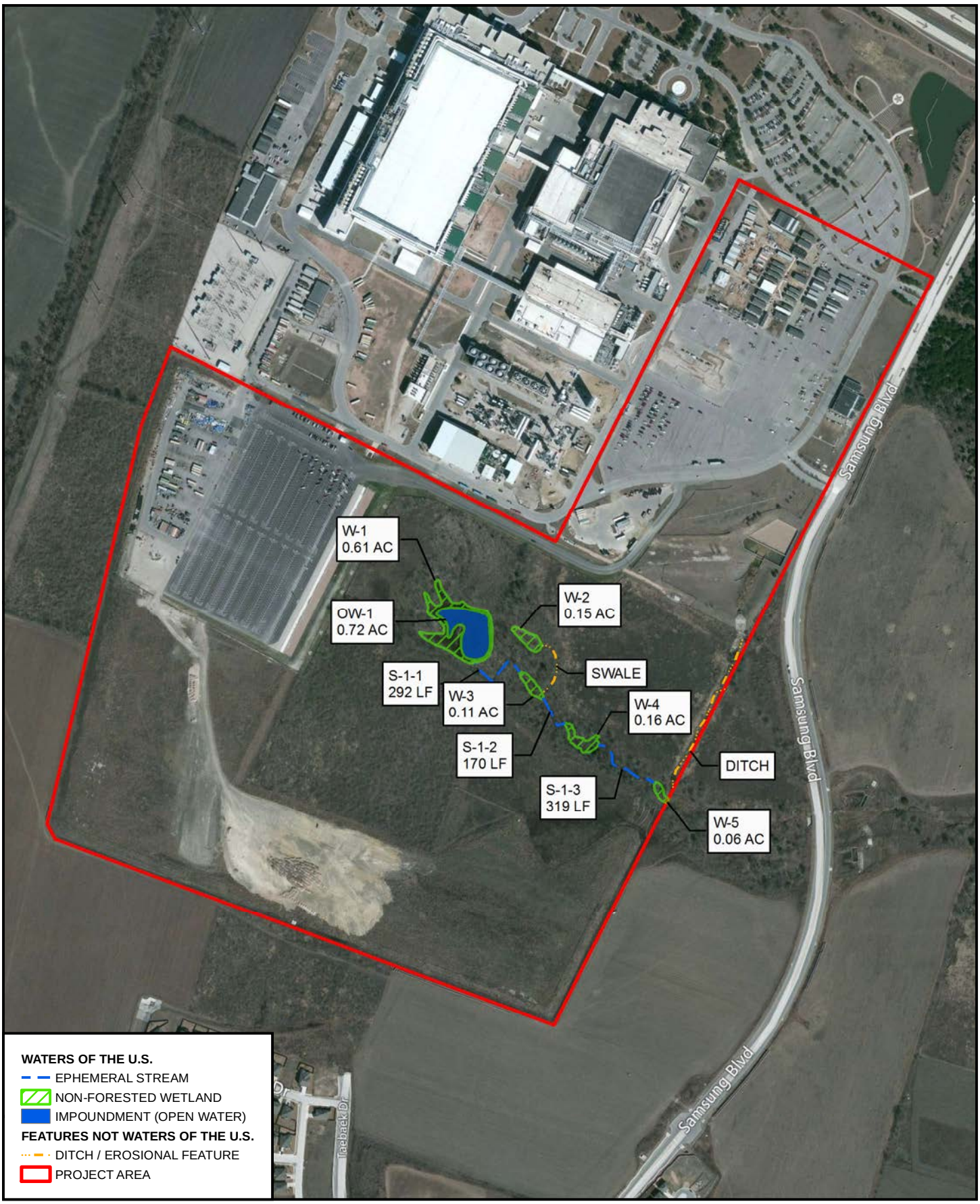
MAY 2014 | FIGURE 4 OF 13

FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG4_FIRM_8X11.MXD

FIRM SOURCE: TRAVIS COUNTY (2008)

USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 3



SAMSUNG AUSTIN SEMICONDUCTOR, LLC
PROPOSED FAB 3 EXPANSION PROJECT
TRAVIS COUNTY, TX
USACE PROJECT NO. SWF-2014-00170

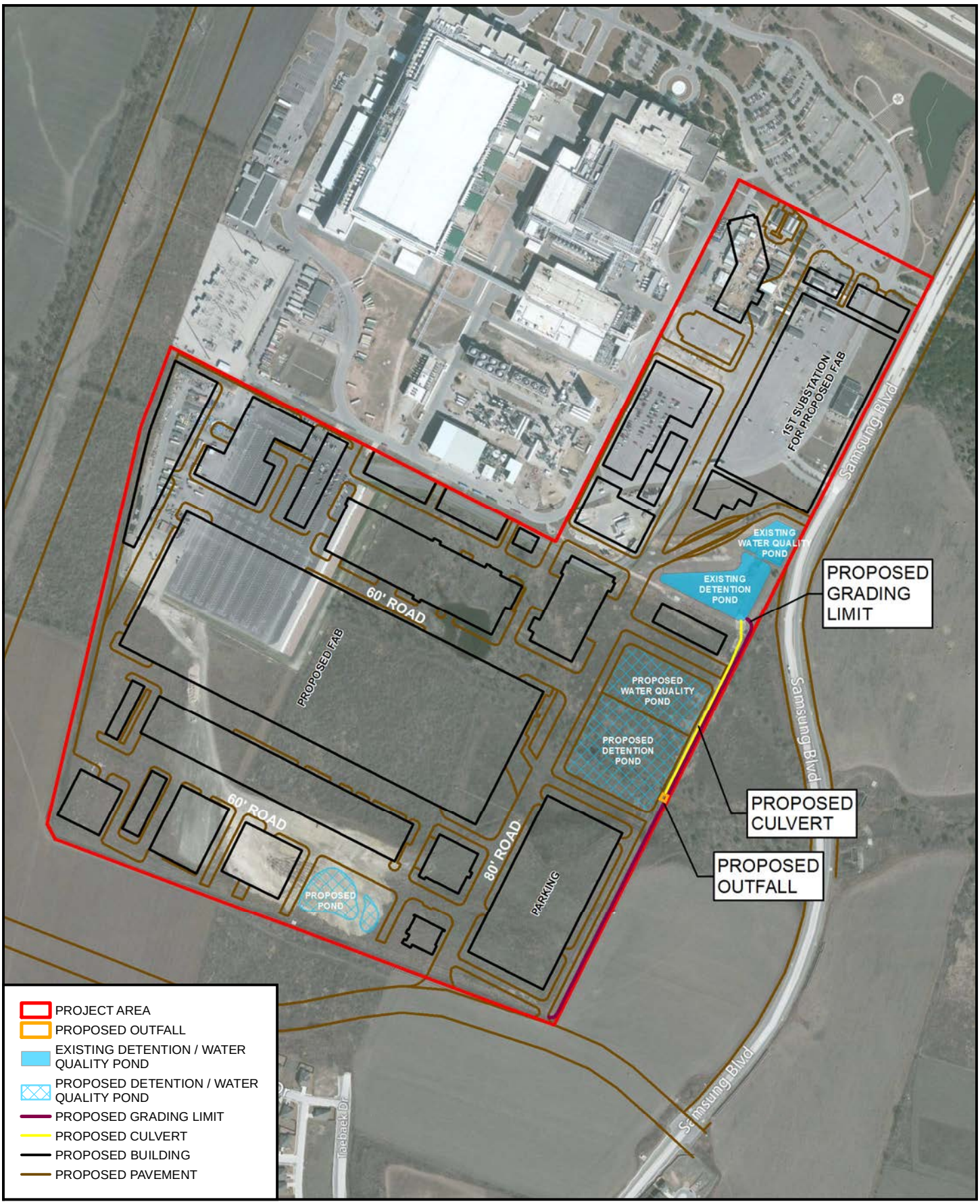
N
0 250 500
FEET

DELINEATION MAP

HDR ENGINEERING, INC.
4401 WEST GATE BLVD., STE. 400
AUSTIN, TX 78745-1469
512-912-5100

MAY 2014 | FIGURE 5 OF 13

FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG5_DELINEATION_8X11.MXD



FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG6_SITEPLAN_8X11.MXD

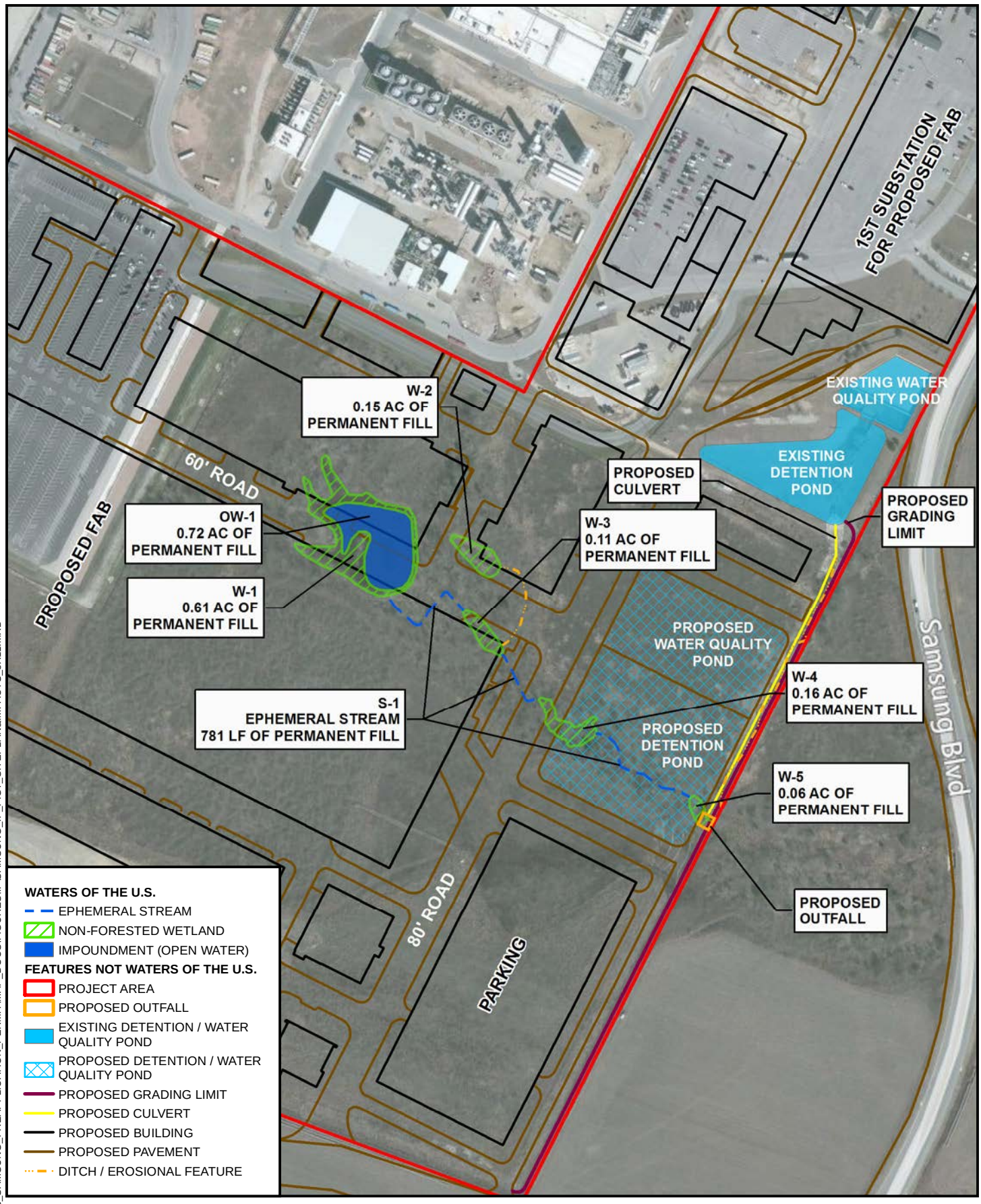
SAMSUNG AUSTIN SEMICONDUCTOR, LLC
PROPOSED FAB 3 EXPANSION PROJECT
TRAVIS COUNTY, TX
USACE PROJECT NO. SWF-2014-00170

N
0 250 500
FEET

SITE PLAN

HDR ENGINEERING, INC.
4401 WEST GATE BLVD., STE. 400
AUSTIN, TX 78745-1469
512-912-5100

MAY 2014 | FIGURE 6 OF 13



FILE: O:\230770_036_SAMSUNG_PREAPPLICATION_PERMITMAP_DOCS\FIGURES\IP\SAMSUNG_IP_FIG7_SITEPLAN&IMPACTS_8X11.MXD

SAMSUNG AUSTIN SEMICONDUCTOR, LLC
PROPOSED FAB 3 EXPANSION PROJECT
TRAVIS COUNTY, TX
USACE PROJECT NO. SWF-2014-00170

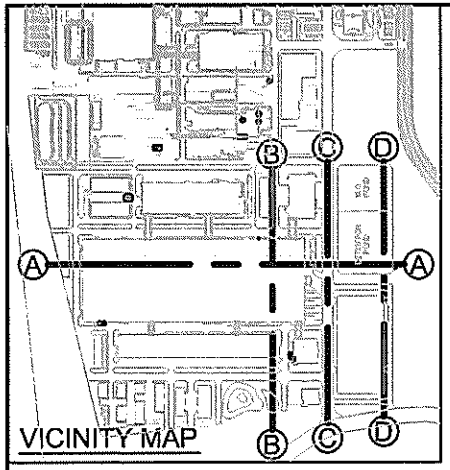
N
0 150 300
FEET

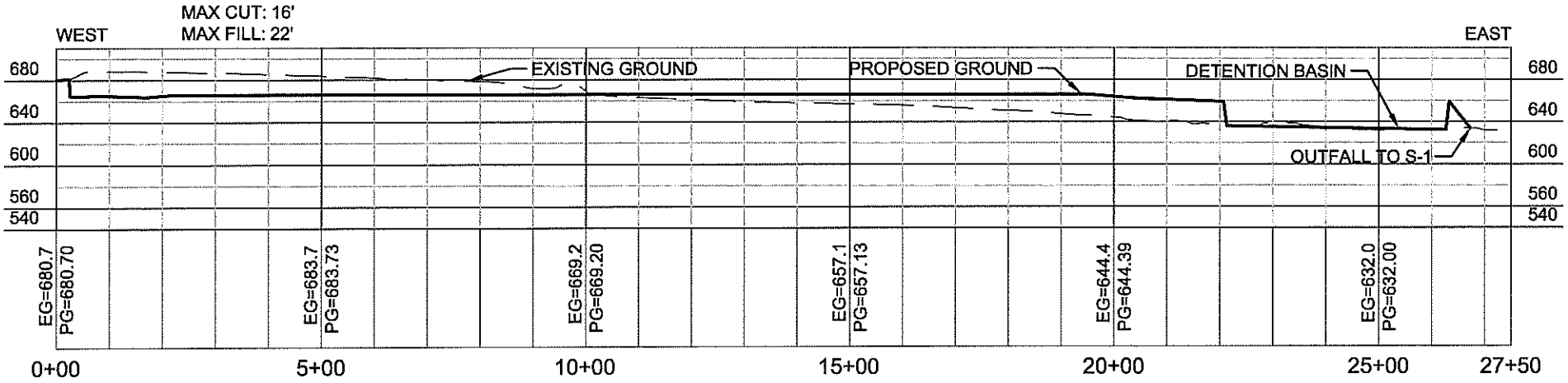
IMPACT AREA

HDR ENGINEERING, INC.
4401 WEST GATE BLVD., STE. 400
AUSTIN, TX 78745-1469
512-912-5100

MAY 2014 | FIGURE 7 OF 13

FOR PERMITTING ONLY





— — — EG = EXISTING GROUND ELEVATION (MSL)
——— PG = PROPOSED GROUND (MSL)

SCALE: HORZ.1" = 300'
SCALE: VERT. 1" = 150'

BAKER-AICKLEN & ASSOCIATES, INC.
507 WEST LIBERTY AVENUE
ROUND ROCK TEXAS 78664
(512) 244-9620
ENGINEERS | SURVEYORS | GIS | PLANNERS | LANDSCAPE ARCHITECTS
ENGINEERING FIRM # F-45 · SURVEY FIRM #100231-0 · TBAE #1787

A-A PROFILE
SAMSUNG AUSTIN SEMICONDUCTOR
FAB 3 EXPANSION

USACE Project No. 2014–00170

■ OPTION-A

TRUE NORTH

PLAN NORTH

PROPOSED FAB

EXISTING FAB

EXISTING FAB

60' ROAD

POND

80' ROAD

MAIN ENT.

SUB ENT.

PARKING

DETENTION POND

W.Q POND

DETENTION POND

1st SUBSTATION FOR PROPOSED FAB

DETENTION AREA

WATER QUALITY WET POND

PARMER LANE

SAMSUNG BOULEVARD

SUB ENT.

SUB ENT.

MAIN ENT.

5,227,200 SF

7,840,800 SF

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- IMPOSSIBLE BUILDING (Insufficient Space)

0 100' 200' 500'

USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 8

■ OPTION-B

TRUE NORTH

PLAN NORTH

PROPOSED FAB

EXISTING FAB

EXISTING FAB

80' ROAD

60' ROAD

MAIN ENT.

MAIN ENT.

SUB ENT.

PARKING

DETENTION POND

W.Q POND

DETENTION POND

1st SUBSTATION FOR PROPOSED FAB

DETENTION AREA

WATER QUALITY WET POND

PARMER LANE

SAMSUNG BOULEVARD

SUB ENT.

SUB ENT.

5,227,200 SF

7,840,800 SF

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- IMPOSSIBLE BUILDING (Insufficient Space)

0 100' 200' 500'

USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 9

■ OPTION-C1

TRUE NORTH PLAN NORTH

EXISTING FAB

EXISTING FAB

PROPOSED FAB

PROPOSED FAB

POND

60' ROAD

80' ROAD

MAIN ENT.

MAIN ENT.

SUB ENT.

PARKING

DETENTION POND

W.Q. POND

DETENTION POND

1st SUBSTATION FOR PROPOSED FAB

DETENTION AREA

WATER QUALITY WET POND

PARMER LANE

SAMSUNG BOULEVARD

SUB ENT.

SUB ENT.

5,227,200 SF

7,840,800 SF

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- IMPOSSIBLE BUILDING (Insufficient Space)

0 100' 200' 500'

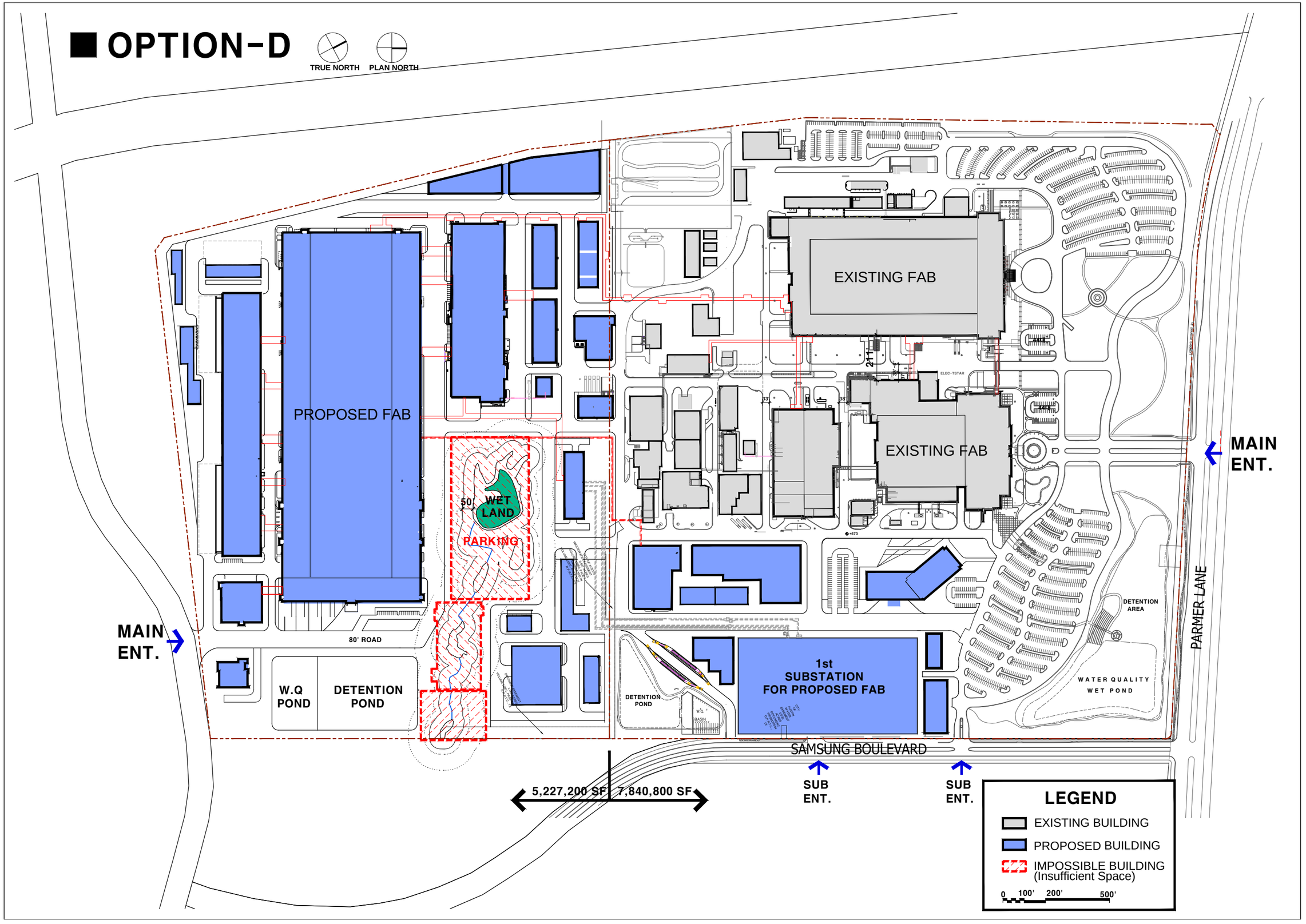
USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 10

■ OPTION-D

TRUE NORTH

PLAN NORTH



USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 11

■ OPTION-E

TRUE NORTH

PLAN NORTH

BULK GAS

EXISTING FAB

PROPOSED FAB

EXISTING FAB

50'

WET LAND

OVER BRIDGE

80' ROAD

MAIN ENT.

MAIN ENT.

PARKING

W.Q POND

DETENTION POND

DETENTION POND

1st SUBSTATION FOR PROPOSED FAB

DETENTION AREA

WATER QUALITY WET POND

PARMER LANE

SAMSUNG BOULEVARD

5,227,200 SF

7,840,800 SF

SUB ENT.

SUB ENT.

LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- IMPOSSIBLE BUILDING (Insufficient Space)

0 100' 200' 500'

USACE Projoect Number: SWF-2014-00170
PN Date: June 10, 2014

Figure 12