



**BASIN ELECTRIC  
POWER COOPERATIVE**

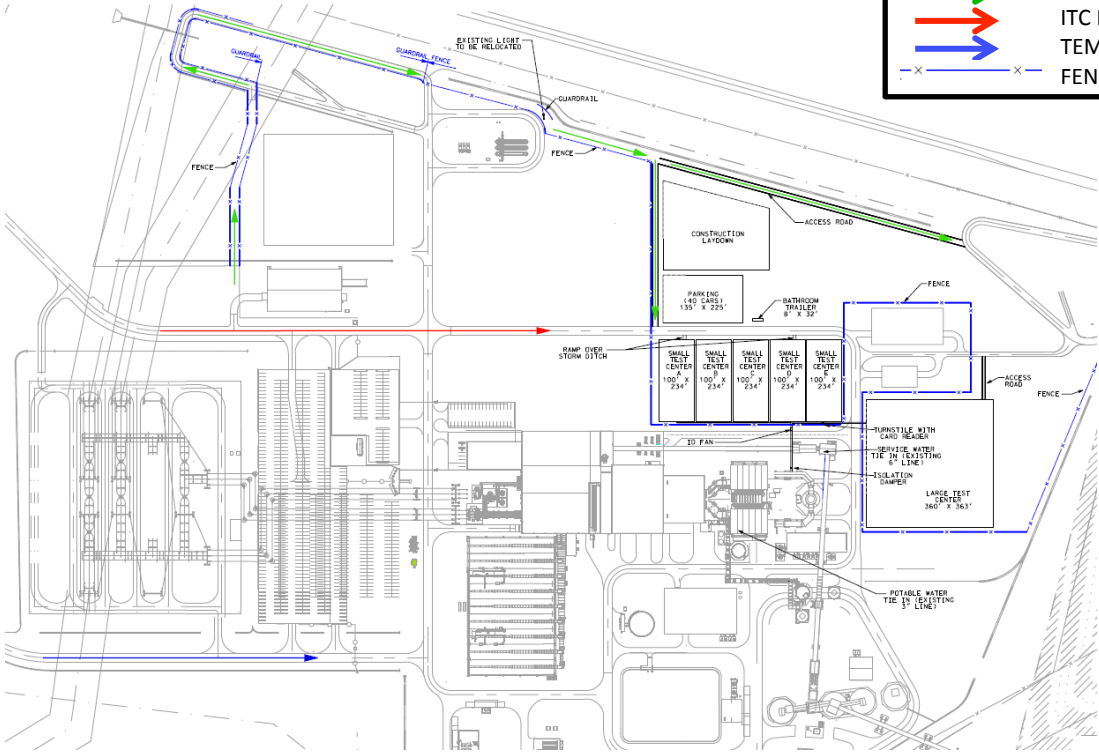
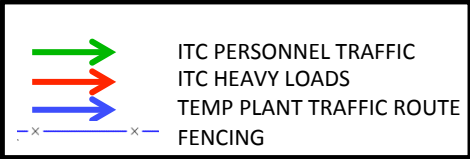
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# **Dry Fork Station Integrated Test Center (ITC)**

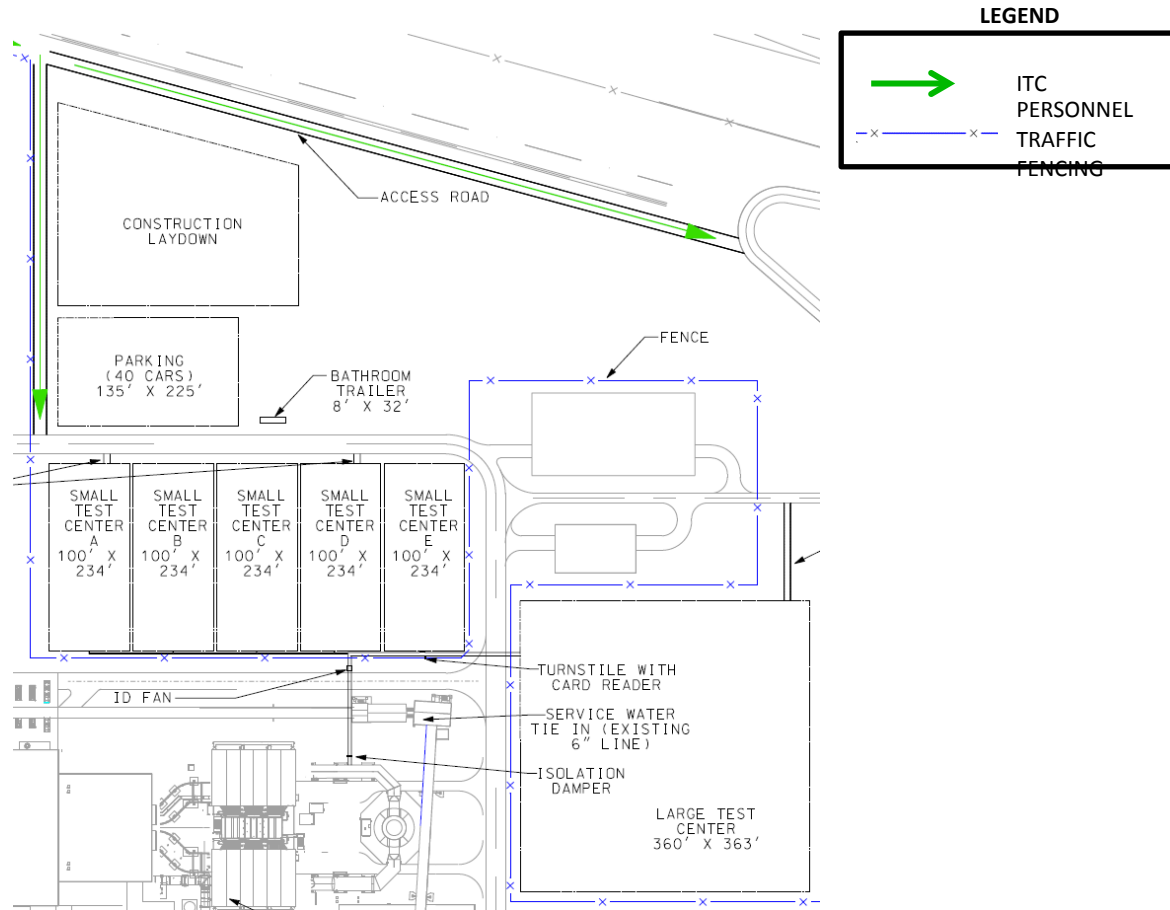
John W. Jacobs

# DFS INTEGRATED TEST CENTER SITE PLAN

## LEGEND



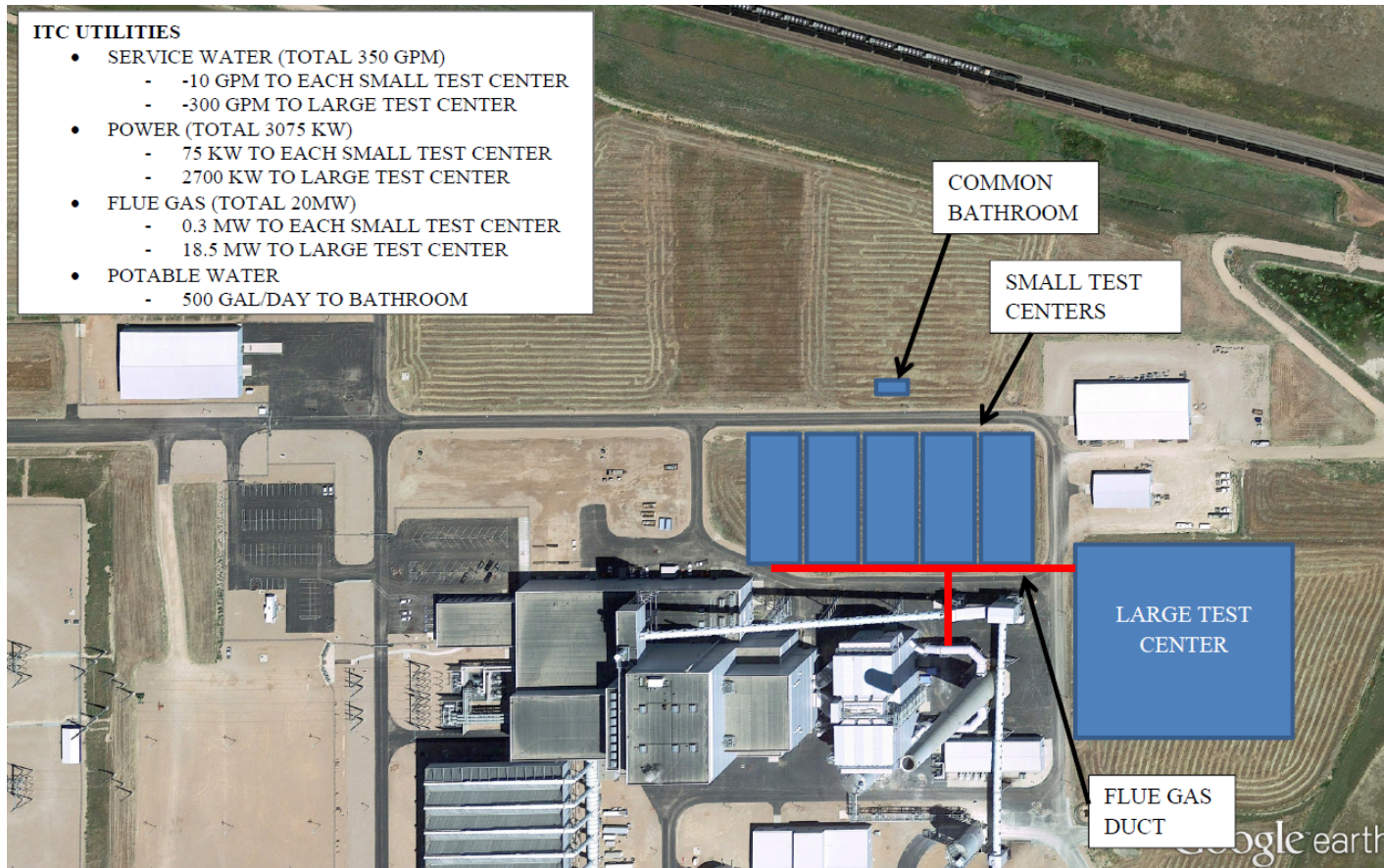
# ITC SITE PLAN



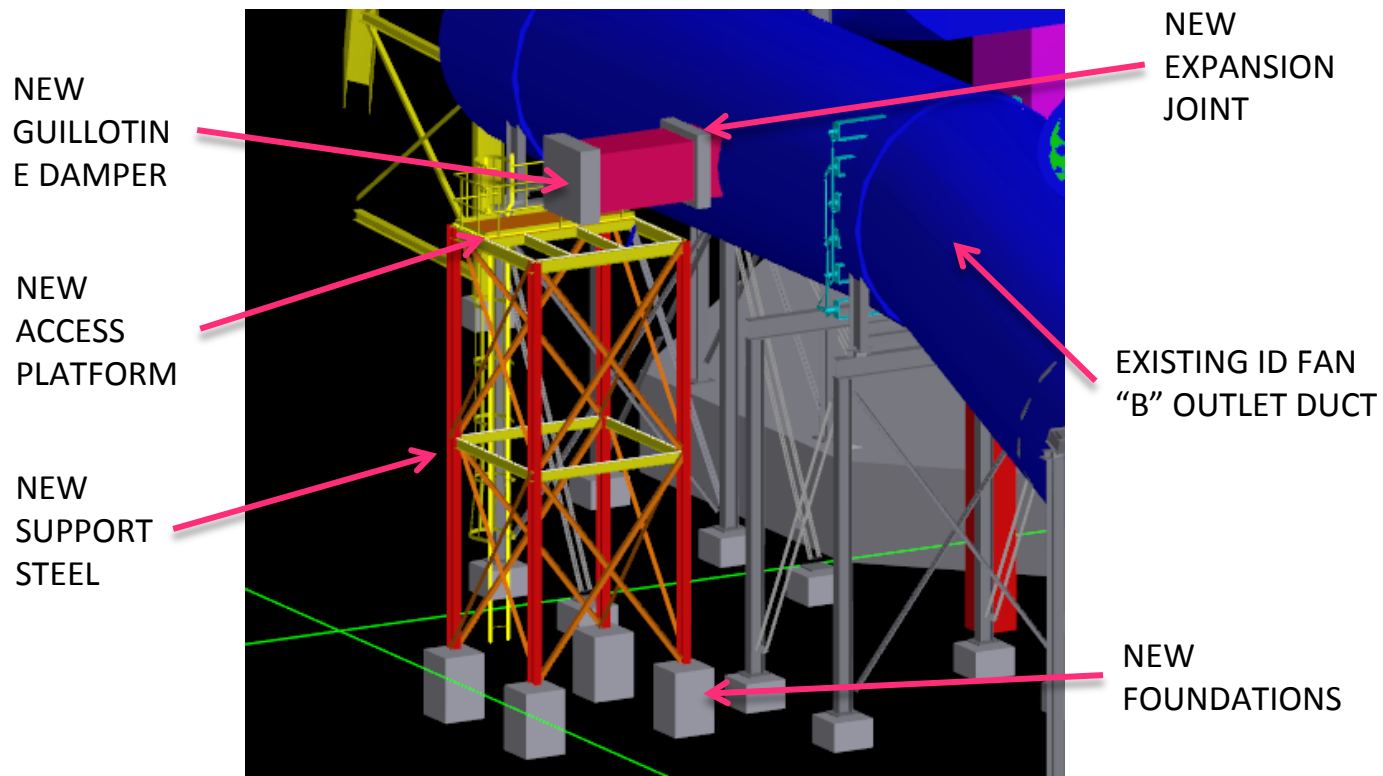
# TEST CENTER LOCATIONS

## ITC UTILITIES

- SERVICE WATER (TOTAL 350 GPM)
  - -10 GPM TO EACH SMALL TEST CENTER
  - -300 GPM TO LARGE TEST CENTER
- POWER (TOTAL 3075 KW)
  - 75 KW TO EACH SMALL TEST CENTER
  - 2700 KW TO LARGE TEST CENTER
- FLUE GAS (TOTAL 20MW)
  - 0.3 MW TO EACH SMALL TEST CENTER
  - 18.5 MW TO LARGE TEST CENTER
- POTABLE WATER
  - 500 GAL/DAY TO BATHROOM



# TIE-IN DUCTWORK STUB – MODEL SHOT



# TEST CENTER UTILITIES & SERVICES

## SERVICES PROVIDED:

- SERVICE WATER (350 GPM TOTAL)
- POTABLE WATER TO BATHROOM (0.35 GPM)
- FLUE GAS (87,500 ACFM TOTAL)
- POWER (3,075 KW)
- POWER TO ITC BOOSTER ID FAN (200 KW)

## SERVICES NOT PROVIDED (BUT NOT LIMITED TO):

- PROCESS STEAM
- DEMINERALIZED WATER
- COMPRESSED AIR
- COMMON FLUE GAS EXHAUST
- OFFICE SPACE / PUBLIC DISPLAY BUILDING



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# CAPITAL COST ESTIMATE

ITEM	ESTIMATED COST (US\$)
CIVIL/STRUCTURAL	1,913,673
MECHANICAL	2,260,034
ELECTRICAL/I&C	1,473,462
DECONSTRUCTION/REMOVAL	480,203
<b>TOTAL DIRECT COSTS</b>	<b>6,127,372</b>
CONSTRUCTION INDIRECTS	1,091,329
CONTRACTOR'S G&A AND PROFIT	948,600
ENGINEERING AND SITE SUPPORT	1,225,100
<b>TOTAL INDIRECT COSTS</b>	<b>3,265,029</b>
<b>CONTINGENCY</b>	<b>1,878,400</b>
<b>TOTAL</b>	<b>11,270,800</b>



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# OPERATING COST ESTIMATE

ITEM	TOTAL ANNUAL COST(US\$)
POWER (LARGE TEST CENTER)	827,820
POWER (SMALL TEST CENTER)	91,980
SERVICE WATER (LARGE TEST CENTER)	157,680
SERVICE WATER (SMALL TEST CENTERS)	21,024
MANPOWER	124,800
ITC BOOSTER ID FAN	61,320
MISCELLANEOUS *	95,365
<b>TOTAL COST</b>	<b>1,379,989</b>

\* Potable Water, Bathroom/Sanitary Vault Cleaning, Dust Suppression, Transformer Capacity Charge



# SCHEDULE

TASK	DATE
PHASE 1 ENGINEERING	JULY 2015 – JAN 2016
PHASE 1 CONSTRUCTION	JAN 2016 – APR 2016
SPRING 2016 OUTAGE	MAR 12, 2016 – APR 18, 2016
PHASE 2 ENGINEERING	NOV 2015– SEPT 2016
PHASE 2 CONSTRUCTION	OCT 2016 – APR 2017
ITC OPERATIONAL	JUNE 1, 2017



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