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Code	# of Structures Demolished	Demolition per day (sf)
No Demolition		

**Construction Schedule for**

**TRR West**

**07**

Subpackage

<b>Phase</b>	<b>Code</b>	<b>Start Date</b>	<b>End Date</b>	<b>Working Days</b>	<b>Days/Week</b>
07 TRR West	TRR West-07				
07.01 TRR West Reservoir	TRR West-0701	11/6/2025	2/23/2028	600	5

01

Offroad Equipment (Fossil Fuel) Inventory for

TRR West

07

Code	Equipment Name	General Equipment Category	#/day	Hours/day/ equipment	Fuel Type	Engine Horsepower (if known)	Fuel (gal/day) (if known)
TRR West-0701	Air Compressor, 160 cfm	Air Compressors	0.51	8	Diesel		
TRR West-0701	Air Compressor, 600 cfm	Air Compressors	0.46	8	Diesel		
TRR West-0701	Horz. Boring Csg. Mch.	Bore/Drill Rigs	0.65	8	Diesel		
TRR West-0701	Hyd. Excavator, 2.5 C.Y.	Excavators	0.03	8	Diesel		
TRR West-0701	Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	1.06	8	Diesel		
TRR West-0701	Backhoe Loader, 80 H.P.	Tractors/Loaders/Backhoes	0.00	8	Diesel		
TRR West-0701	Vibrating Plate, Gas, 21"	Compactors	0.00	8	Gasoline		
TRR West-0701	Rammer/Tamper, Gas, 15"	Other Construction Equipment	0.01	8	Diesel		
TRR West-0701	Trowel, 48" Walk-Behind	Other Construction Equipment	0.09	8	Diesel		
TRR West-0701	Hydraulic Crane, 25 ton	Cranes	0.67	8	Diesel		
TRR West-0701	S.P. Crane, 4x4, 25 Ton	Cranes	0.10	8	Diesel		
TRR West-0701	Air Track Drill, 4"	Bore/Drill Rigs	0.46	8	Diesel		
TRR West-0701	Grader, 30,000 Lbs.	Graders	1.27	8	Diesel		
TRR West-0701	Guniting Pump Rig	Pumps	0.47	8	Diesel		
TRR West-0701	Cement Mixer, 2 C.Y.	Cement and Mortar Mixers	0.51	8	Diesel		
TRR West-0701	Concrete Pump (Small)	Pumps	0.05	8	Diesel		
TRR West-0701	Grout Pump, 50 C.F./hr.	Pumps	1.23	8	Diesel		
TRR West-0701	Roller, Vibratory, 25 Ton	Rollers	0.10	8	Diesel		
TRR West-0701	Tandem Roller, 5 Ton	Rollers	0.19	8	Diesel		
TRR West-0701	Sheepsfoot Roller, 240 H.P.	Rollers	0.25	8	Diesel		
TRR West-0701	S.P. Scraper, 21 C.Y.	Scrapers	7.90	8	Diesel		
TRR West-0701	S.P. Scraper, 14 C.Y.	Scrapers	0.06	8	Diesel		
TRR West-0701	Dozer, 200 H.P.	Rubber Tired Dozers	9.85	8	Diesel		
TRR West-0701	Dozer, 300 H.P.	Rubber Tired Dozers	2.23	8	Diesel		
TRR West-0701	F.E. Loader, Crl, 1.5 C.Y.	Tractors/Loaders/Backhoes	0.05	8	Diesel		
TRR West-0701	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	9.03	8	Diesel		
TRR West-0701	Truck Tractor, 220 H.P.	Off-Highway Tractors	0.01	8	Diesel		
TRR West-0701	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.96	8	Diesel		
TRR West-0701	Truck Tractor, 6x4, 450 H.P.	Off-Highway Tractors	0.05	8	Diesel		
TRR West-0701	Gas Engine Vibrator	Other Construction Equipment	0.11	8	Gasoline		
TRR West-0701	Welder, Gas Engine, 300 amp	Welders	0.66	8	Gasoline		

Note:

1. Number of equipment/day = Total Equipment Hours / 8 hours per day / Total number of days of the Sub-package.
2. Number of equipment in this table represents averages throughout each sub-package. It does not represent a typical day or peak day conditions.

Jacobs Calculations for #/days

Package

Equipment	total hours (Engineering Data)	hours per day	total equipment days @listed hours per day	total number of working days/phase	Number of equipment/day @ listed hours per day
Air Compressor, 160 cfm	2,465.00	8	308	600	0.51
Air Compressor, 600 cfm	2,223.10	8	278	600	0.46
Horz. Boring Csg. Mch.	3,132.98	8	392	600	0.65
Hyd. Excavator, 2.5 C.Y.	141.72	8	18	600	0.03
Backhoe Loader, 48 H.P.	5,099.40	8	637	600	1.06
Backhoe Loader, 80 H.P.	7.07	8	1	600	0.00
Vibrating Plate, Gas, 21"	8.48	8	1	600	0.00
Rammer/Tamper, Gas, 15"	57.44	8	7	600	0.01
Trowel, 48" Walk-Behind	433.36	8	54	600	0.09
Hydraulic Crane, 25 ton	3,198.71	8	400	600	0.67
S.P. Crane, 4x4, 25 Ton	465.78	8	58	600	0.10
Air Track Drill, 4"	2,223.10	8	278	600	0.46
Grader, 30,000 Lbs.	6,094.54	8	762	600	1.27
Guniting Pump Rig	2,262.92	8	283	600	0.47
Cement Mixer, 2 C.Y.	2,465.00	8	308	600	0.51
Concrete Pump (Small)	254.14	8	32	600	0.05
Grout Pump, 50 C.F./hr.	5,886.90	8	736	600	1.23
Roller, Vibratory, 25 Ton	479.20	8	60	600	0.10
Tandem Roller, 5 Ton	916.45	8	115	600	0.19
Sheepsfoot Roller, 240 H.P.	1,221.19	8	153	600	0.25
S.P. Scraper, 21 C.Y.	37,912.16	8	4739	600	7.90
S.P. Scraper, 14 C.Y.	279.38	8	35	600	0.06
Dozer, 200 H.P.	47,273.93	8	5909	600	9.85
Dozer, 300 H.P.	10,694.09	8	1337	600	2.23
F.E. Loader, Crl, 1.5 C.Y.	229.75	8	29	600	0.05
F.E. Loader, W.M., 5.5 C.Y.	43,339.15	8	5417	600	9.03
Truck Tractor, 220 H.P.	43.40	8	5	600	0.01
Truck Tractor, 6x4, 380 H.P.	4,594.11	8	574	600	0.96
Truck Tractor, 6x4, 450 H.P.	229.75	8	29	600	0.05
Gas Engine Vibrator	508.29	8	64	600	0.11
Welder, Gas Engine, 300 amp	3,153.53	8	394	600	0.66

Jacobs Equipment Types

Equipment	General Type	Fuel Type
Asphalt Paver, 130 H.P.	Pavers	Diesel
Horz. Boring Csg. Mch.	Bore/Drill Rigs	Diesel
Hyd. Excavator, 1.5 C.Y.	Excavators	Diesel
Hyd. Excavator, 2.5 C.Y.	Excavators	Diesel
Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	Diesel
Crawler Crane, 75 Ton	Cranes	Diesel
Hydraulic Crane, 25 ton	Cranes	Diesel
Hyd. Crane, 55 Ton	Cranes	Diesel
S.P. Crane, 4x4, 12 Ton	Cranes	Diesel
Grader, 30,000 Lbs.	Graders	Diesel
Concrete Pump (Small)	Pumps	Diesel
Grout Pump, 50 C.F./hr.	Pumps	Diesel
Roller, Vibratory, 25 Ton	Rollers	Diesel
Tandem Roller, 10 Ton	Rollers	Diesel
Roller, Pneum. Whl., 12 Ton	Rollers	Diesel
Sheepsfoot Roller, 240 H.P.	Rollers	Diesel
S.P. Scraper, 14 C.Y.	Scrapers	Diesel
Dozer, 200 H.P.	Rubber Tired Dozers	Diesel
Dozer, 300 H.P.	Rubber Tired Dozers	Diesel
F.E. Loader, Crl, 1.5 C.Y.	Tractors/Loaders/Backhoes	Diesel
F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	Diesel
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	Diesel
Water Tank Trailer, 5000 Gal.	Off-Highway Trucks	Diesel
Dump Trailer, 20 C.Y.	Off-Highway Trucks	Diesel
Truck Tractor, 220 H.P.	Off-Highway Tractors	Diesel
Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	Diesel
Truck Tractor, 6x4, 450 H.P.	Off-Highway Tractors	Diesel
Gas Engine Vibrator	Other Construction Equipment	Gasoline
Welder, Electric, 300 amp	Welders	Electric
Welder, Gas Engine, 300 amp	Welders	Gasoline
Rammer/Tamper, Gas, 15"	Other Construction Equipment	Diesel
Trowel, 48" Walk-Behind	Other Construction Equipment	Diesel
Lattice Boom Crane, 40 Ton	Cranes	Diesel
Tandem Roller, 5 Ton	Rollers	Diesel
Clamshell Bucket, .5 C.Y.	Other Construction Equipment	Diesel
Crawler Crane, 15 Ton	Cranes	Diesel
20' Suction Hose, 6"	Pumps	Diesel
50' Discharge Hose, 6"	Pumps	Diesel
Centr. Water Pump, 6"	Pumps	Diesel
Clamshell Bucket, 1 C.Y.	Other Construction Equipment	Diesel
Crawler Crane, 25 Ton	Cranes	Diesel
Crawler Loader, 3 C.Y.	Tractors/Loaders/Backhoes	Diesel
Dist. Tanker, 3000 Gallon	Off-Highway Trucks	Diesel
Dump Truck, 8 C.Y., 220 H.P.	Off-Highway Trucks	Diesel
Dump Truck, Off Hwy., 65 Ton	Off-Highway Trucks	Diesel
Hyd. Crane, 12 Ton	Cranes	Diesel
Hyd. Excavator, .75 C.Y.	Excavators	Diesel
Lattice Boom Crane, 90 Ton	Cranes	Diesel
S.P. Crane, 4x4, 5 Ton	Cranes	Diesel
S.P. Scraper, 21 C.Y.	Scrapers	Diesel
Vibratory Roller, Towed, 23 Ton	Rollers	Diesel
A.T. Forklift, 31' reach, 45' lift	Forklifts	Diesel
Earth Auger, Truck-Mtd.	Other Construction Equipment	Diesel
Flatbed Trailer, 25 Ton	Off-Highway Trucks	Diesel
Flatbed Truck, Gas, 1.5 Ton	Off-Highway Trucks	Diesel
Flatbed Truck, Gas, 3 Ton	Off-Highway Trucks	Diesel
Hyd. Crane, 100 Ton (Daily)	Cranes	Diesel
Hyd. Crane, 25 Ton (Daily)	Cranes	Diesel
Lowbed Trailer, 75 Ton	Off-Highway Trucks	Diesel
Manual Fence Post Auger, Gas	Other Construction Equipment	Gasoline
Pickup Truck, 4x4, 3/4 Ton	Off-Highway Trucks	Diesel
Ripper, Beam & 1 Shank	Other Construction Equipment	Diesel
Chem. Spreader, Towed	Other Construction Equipment	Diesel
S.P. Crane, 4x4, 25 Ton	Cranes	Diesel
Stabilizers, 310 H.P.	Other Construction Equipment	Diesel
Air Compressor, 160 cfm	Air Compressors	Diesel
Air Compressor, 600 cfm	Air Compressors	Diesel
50' Air Hose, 3/4"	Pumps	Diesel
Backhoe Loader, 80 H.P.	Tractors/Loaders/Backhoes	Diesel
Vibrating Plate, Gas, 21"	Compactors	Gasoline
Air Track Drill, 4"	Bore/Drill Rigs	Diesel
Guniting Pump Rig	Pumps	Diesel
50' Air Hose, 2"	Pumps	Diesel
50' Air Hose, 3"	Pumps	Diesel
Level, Electronic		Electric
Cement Mixer, 2 C.Y.	Cement and Mortar Mixers	Diesel



**Vehicle Inventory for**

**TRR West**

**Code**

**Vehicle**

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TRR West-0701	Dist. Tanker, 3000 Gallon
TRR West-0701	Dump Truck, Off Hwy., 65 Ton
TRR West-0701	Dump Truck - 20 cy

**Note:**

1. Onsite water truck and dump truck numbers and miles per trip were set to 1.
2. The one-way trips/day were estimated by dividing the total number of trips by the num
3. Number of trips per day in this table represents averages throughout each sub-package

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Primary Trip Purpose/Location (within construction footprint vs. offsite)	# of Vehicles	One-Way Trips/Day	Miles per Trip	Fuel Type	Fuel (gal/day) (if known)
Onsite	1	20.1	1	Diesel	
Onsite	1	1,779.7	1	Diesel	
Offsite/Haul	1	5.4	25	Diesel	

ber of days of the sub-package.

. It does not represent a typical day or peak day conditions.



Equipment	total hours (Engineering Data)	total number of working days/phase	average hours/day	Miles/day (assume 10 miles/hour)
Dist. Tanker, 3000 Gallon	1,203.68	600	2.01	20.1
Dump Truck, Off Hwy., 65 Ton	106,783.08	600	177.97	1779.7
<b>Total amount</b>	<b>Assumption</b>	<b>One-way trips total</b>	<b>Number of days</b>	
32191	Assume 20 cy per load	3,219	600	

**Employees Required to Construct****TRR West****07**

<b>Code</b>	<b>Vehicle Type</b>	<b># of Employees/Day</b>	<b>One-Way Trips/Day</b>	<b>Miles per Trip</b>
TRR West-0701	Employee	91	182	60.0

**Note:**

1. Worker trips assumed that the trips would be from Sacramento (68 miles), Willows (19 miles), Williams (9 miles), and Red Bluff (60 miles). One-way distance of 60 miles.
2. Number of trips per day in this table represents averages throughout each sub-package. It does not represent a typical day or peak day conditions.

*Jacobs Calculations*

Subpackage	Total labor hours (Engineering Data)	Hours per employee/day	Total days of construction	#employees/d ay	one-way Trips/day
01	433125	8	600	91	182

miles was used.





**Earthmoving/Paving Assumptions for****TRR West****07***Daily*

<b>Code</b>	<b>Stripping or Grading (acres/day)</b>	<b>Borrow/Excavate (cy/day)</b>	<b>Dredge (cy/day)</b>	<b>Paving (sf/day)</b>	<b>Stripping or Grading (total acres)</b>
TRR West-0701	1.136	57945.1	0.0	0.0	340.9

**Note:**

1. Daily amounts were estimated using 50% of construction days.

**Total**

<b>Borrow/Excavate (total cy)</b>	<b>Dredge (total cy)</b>	<b>Paving (total sf)</b>
17383542	0.0	0

**Jacobs Calculations**

<b>Total # days/subpackage</b>	<b>Total # days/earthmoving -paving</b>
600	300