

Career after Civil Engineering



Scope after B.E.\ B.Tech.



Paste
Your
Photo

Set your Goal

Government Job

Private Job

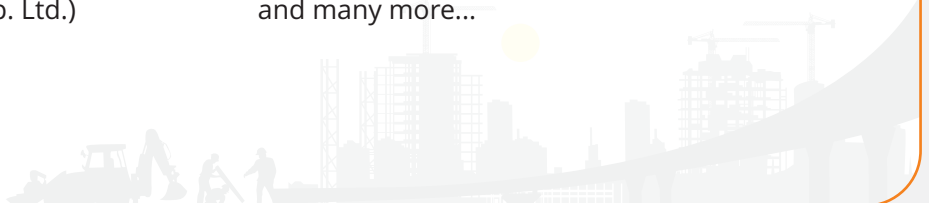
Consultancy

Business

Further Study

Central Government & PSU Jobs

- 1** IOCL (Indian Oil Corp. Ltd.)
 - 2** BPCL (Bharat Petroleum Corp. Ltd.)
 - 3** HPCL (Hindustan Petroleum Corp. Ltd.)
 - 4** NTPC (National Thermal Power Corp.)
 - 5** NHAI (National Highways Authority of India)
 - 6** NBCC (National Buildings Const. Corp. Ltd.)
 - 7** NPCC (National Projects Const. Corp. Ltd.)
 - 8** NLC (Neyveli Lignite Corporation)
 - 9** OPGC (Odisha Power Generation Corp. Ltd.)
 - 10** PSPCL (Punjab State Power Corp. Ltd.)
 - 11** THDC (Tehri Hydro Development Corp. Ltd.)
 - 12** PGCIL (Power Grid Corporation of India Ltd.)
 - 13** CEL (Central Electronics Ltd.)
 - 14** ISRO (Indian Space Research Organization)
 - 15** SAIL (Steel Authority of India Ltd.)
 - 16** RRB (Railway Recruitment Board)
 - 17** ONGC (Oil and Natural Gas Corporation)
 - 18** AAI (Airport Authority of India)
 - 19** IRCON (Indian Railway Construction Company Ltd.)
- and many more...



Selection Procedure for PSUs

Sr.	Company	Where to apply	Eligibility	Exam Pattern
1	IOCL	www.iocl.com	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	<ul style="list-style-type: none">• Short listing on the basis of GATE score• Group discussion / task• Personal interview
2	BPCL	www.bharatpetroleum.com		
3	HPCL	www.hindustanpetroleum.com		
4	NTPC	www.ntpc.co.in	B.E./B.Tech. (Civil) with minimum 65% aggregate marks	
5	NHAI	www.nhai.org	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	<ul style="list-style-type: none">• Short listing on the basis of GATE score• Personal interview
6	NBCC	www.nbccindia.com		
7	NPCC	www.npcc.gov.in		
8	NLC	www.nlcindia.com		
9	OPGC	www.opgc.co.in		
10	PSPCL	www.pspcl.in		
11	THDC	www.thdc.co.in	B.E./B.Tech. or M.E./M.Tech. (Civil) with minimum 65% aggregate marks	
12	PGCIL	www.powergridindia.com		
13	CEL	www.celindia.co.in		

Selection Procedure for PSUs (Contd...)

Sr.	Company	Where to apply	Eligibility	Exam Pattern
14	ISRO	www.isro.gov.in	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	<ul style="list-style-type: none"> • Written test
15	SAIL	www.sailcareers.com		
16	RRB	www.rrcb.gov.in		
17	ONGC	www.ongcindia.com	B.E./B.Tech. (Civil)	<ul style="list-style-type: none"> • GATE score : 60% Marks • Interview : 15% Marks • Qualification : 25% Marks
18	AAI	www.aai.aero	B.E./B.Tech. (Civil)	<ul style="list-style-type: none"> • Written test • Personal Interview • Voice test to be conducted at the time of interview.
19	IRCON	www.ircon.org	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	<ul style="list-style-type: none"> • Short listing on the basis of GATE score • Written test • Personal interview

State Government & Local Authority Jobs

State Government Authority

- | | |
|-------------------------------------------------|----------------------------------------------------------|
| 1 R&B (Roads and Buildings Dept.) | 11 GWRDC (Gujarat Water Resources Development Corp.) |
| 2 NJSKP (Narmada Jal Sampati & Kalpsar) | 12 DLR (District Land Record) |
| 3 SSNNL (Sardar Sarovar Narmada Nigam Ltd.) | 13 GIDC (Gujarat Industrial Development Corp.) |
| 4 GWSSB (Guj. Water Supply & Sewerage Board) | 14 GSFC (Gujarat State Fertilizer & Chemicals Ltd.) |
| 5 GGL (Gujarat Gas Ltd.) | 15 GMDC (Gujarat Mineral Development Corp.) |
| 6 GHB (Gujarat Housing Board) | 16 GEMI (Gujarat Environment Management Institute) |
| 7 GSPHC (Gujarat State Police Housing Corp.) | 17 WALMI (Water And Land Management Institute) |
| 8 GSPL (Gujarat State Petronet Ltd.) | 18 WASMO (Water And Sanitation Management Org.) |
| 9 GERI (Gujarat Engineering Research Institute) | 19 GETCO (Gujarat Energy Transmission Corporation Ltd.) |
| 10 GPCB (Gujarat Pollution Control Board) | 20 GNFC (Gujarat Narmada Valley Fertilizers & Chemicals) |

Local Authority

- 1 Municipal Corporation (RMC, AMC, SMC, VMC, BMC, JMC, GMC, etc.)
- 2 Urban Development Authority (RUDA, AUDA, VUDA, SUDA, etc.)
- 3 District Development Office
- 4 Nagar Palika at Taluka level

• Selection Procedure for State Government Authority and Local Authority



Job announcement in newspaper



Apply online at www.ojas.gujarat.gov.in



Written test will be conducted as per schedule (MCQ type test)



Class- II

- Document verification
- Personal interview

Class- III

- Document verification
- Direct recruitment on the basis of merit



Private Jobs



Multi National Company

National Level Company

Under Private Contractor

Under Government Contractor



- **Multi National Company**

(1) TATA Consulting Engineers (2) Shapoorji Pallonji (3) Linde (4) L & T *and 100+ companies*

Selection Procedure

Screening based on CPI/CGPA ➡ Written test ➡ Group discussion ➡ Personal interview

- **National Level Company**

(1) Sadbhav Infra (2) Backbone Infra (3) Bakeri Group (4) NCC *and 1000+ companies*

Selection Procedure

Written test ➡ Group discussion ➡ Personal interview

- **Under Private Contractor**

If you want to start your own private business then you should do job for atleast 2 to 3 years under private contractor. 5000+ private contractors are working in Gujarat.

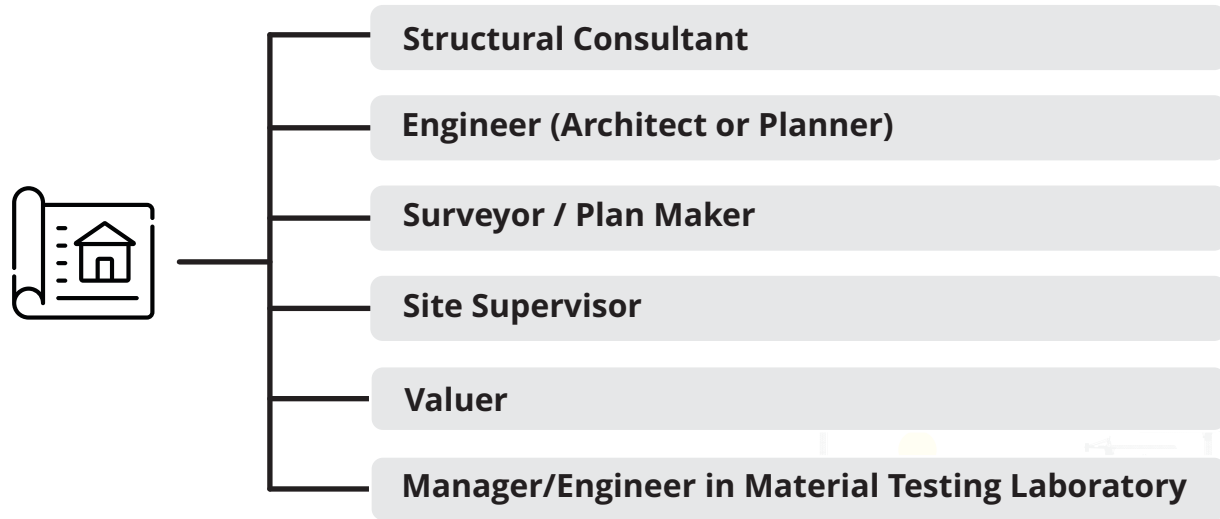
- **Under Government Contractor**

If you want to start your own government contract business then you should do job for atleast 2 to 3 years under government contractor. 1000+ Government contractors are working in Gujarat.

Consultancy

Consulting Civil engineer provides expert advice on the design, planning and management of construction projects. It is a field for an engineer who enjoys the challenges of dynamic problems.

Civil Engineer can work as a,



• Structural Consultant

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least 5-years experience under certified Structural Engineer in Structural Design Work
M.E./M.Tech. (Structural Engineering)	At least 2-years experience under certified Structural Engineer in Structural Design Work
Ph.D. (Structural Engineering)	At least 1-year experience in Structural Design Work

B) Scope of Work

To prepare & submit structural details for

- All types of Buildings (Residential, Commercial, Industrial, etc.)
- Special structures (Bridge, Transmission Tower, Cooling Tower, etc.)

C) Registration

- Register as Structural Engineer in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Architect & Builder / Owner of building

Source: <http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf>

• Engineer (Architect or Planner)

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least 2-years experience under certified architect or engineer after completion of B.E. (Civil)
Diploma (Civil Engineering)	At least 5-years experience under certified architect or engineer after completion of D.E. (Civil)

B) Scope of Work & Competence

- Preparation & planning of all types of layouts, submission drawings, to submit certificate of supervision & completion for all types of buildings.
- Supervision & execution of construction work as per specifications & drawings prepared by authorized registered structural designer.
- Preparation of the structural details and calculations for buildings of load bearing structures.

C) Registration

- Register as an Engineer in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Builder / Owner of building

Source: <http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf>

- **Surveyor/Plan Maker**

- A) Qualification

- **B.E./B.Tech.** (Civil Engineering)
 - **Diploma** (Civil Engineering or Architecture)

- B) Scope of Work & Competence

- Preparation of plans and layouts and execution of low rise buildings

- C) Registration

- Register as Surveyor/Plan Maker in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

- D) Source of work

- Government tenders, Owner, Architect, Valuer or Builder

Source: <http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf>

• Site Supervisor

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least 1-year experience in professional work
Diploma (Civil Engineering)	At least 3-years experience in professional work

B) Scope of Work & Competence

- Execution of **structures (high rise buildings, public buildings, buildings with basement etc.)**

C) Registration

- Register as Site Supervisor in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Contractor, Project Management Consultancy or Owner

Source: <http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf>

• Valuer

- Valuers can work under the following area,
 - Real Estate
 - Building Construction
 - Town Planning
 - Land Development

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering, Architecture or Town Planning)	10-years experience in Building Construction, Town Planning etc.
M.E./ M.Tech in valuation	2-years experience

Source: <http://www.incometaxindia.gov.in/Rules/WealthTax%20Rules,%201957/2010/10312000000006826.html>

B) Categories of Valuers

- Empanelment of valuers **by the Bank** shall be in the following categories:

Category	Work Experience	Valuation limit
A	Min. 10 years + already empanelled with at least 2 PSBs*	No limit
B	Between 5 to 10 years + already empanelled with at least 1 PSB*	Up to Rs. 50 crore
C	Up to 5 years	Up to Rs. 5 crore

Source: https://www.ucobank.com/other-services/Eligibility_CodeofConduct_Valuers.pdf

* Public Sector Banks

- **Government Approved Material Testing Laboratory**

- Scope of the work

To carry out civil engineering materials testing as per standard methods (IS, IRC, ASTM, etc.) and to prepare the test results with recommendation and remarks.

- Approval required

- NABL (NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES)

Source: <http://www.nabl-india.org/nabl/index.php?c=publicaccreditationdoc&m=index&docType=both>

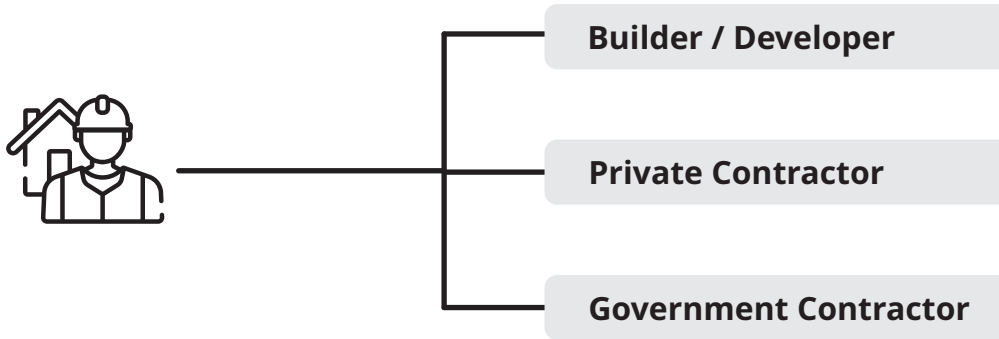
- R & B (ROADS AND BUILDING DEPARTMENT)

Source: <http://rnbgujarat.org/document/material-testing-lab-gr-7-8-15.pdf>



Business

Civil Engineer can design, build, supervise, operate and maintain construction projects and systems in the public and private sectors. Civil engineer can work as a,



- **Builder / Developer**

Deals with development of,

- Residential society
- Low & high rise building
- Township

- **Private Contractor**

- Labour contractor
- Labour + Material contractor
- Repair & Rehabilitation of distorted structures

- **Government Contractor** (Licences complines should be fulfilled)

- Labour + Material contractor
- Irrigation work
- Road work
- Bridge work
- Repair and Rehabilitation of old government structures etc.



• Government Contract Licence Category

B.E. (Civil) can directly apply for	Category of Registration	Minimum Solvency	Narmada F.D.R. Bond	Monetary limit for tendering of works	Registration / upgradation fees	Type and number of technically qualified engineers
	Class-AA	₹ 300 Lacs	₹ 30 Lacs	unlimited	₹ 33,000	3 - B.E. (Civil)* 5 - Diploma (Civil)
	Class-A	₹ 75 Lacs	₹ 7.5 Lacs	upto ₹ 700 Lacs	₹ 18,000	2 - B.E. (Civil) 5 - Diploma (Civil)
	Class-B	₹ 35 Lacs	₹ 3.5 Lacs	upto ₹ 300 Lacs	₹ 13,000	2 - B.E. (Civil) 3 - Diploma (Civil)
	Class-C	₹ 25 Lacs	₹ 2.5 Lacs	upto ₹ 150 Lacs	₹ 7,500	1 - B.E. (Civil) 3 - Diploma (Civil)
	Class-D	₹ 12 Lacs	₹ 1.2 Lacs	upto ₹ 100 Lacs	₹ 7,500	2 - Diploma (Civil)
	Class-E1	₹ 2 Lacs	₹ 0.2 Lacs	upto ₹ 50 Lacs	₹ 4,500	1 - B.E. (Civil) 1 - Diploma (Civil)
	Class-E2	₹ 1 Lacs	₹ 0.1 Lacs	upto ₹ 15 Lacs	₹ 4,500	1 - B.E. (Civil) 1 - Diploma (Civil)

* 1 B.E. Civil Engineer shall have an experience of safety in construction zone.

- **Special Categories under which Contractor can work**

Category of Registration	Special Category-I Roads, Bridges & Buildings	Special Category-II Roads, Bridges & Buildings	Special Category-III Roads & Buildings
Minimum Solvency	₹ 300 Lacs	₹ 75 Lacs	₹ 35 Lacs
Narmada F.D.R Bond	₹ 30 Lacs	₹ 7.5 Lacs	₹ 3.5 Lacs
Monetary limit for tendering of works	Unlimited	upto ₹ 700 Lacs	upto ₹ 300 Lacs
Registration / upgradation fees	₹ 35,000	₹ 18,000	₹ 15,000
Renewal Fees for three years	₹ 18,000	₹ 7,500/-	₹ 7,500/-
Type and number of technically qualified engineers	3 - B.E. (Civil) 5 - Diploma (Civil)	2 - B.E. (Civil) 5 - Diploma (Civil)	2 - B.E. (Civil) 3 - Diploma (Civil)

Further Study

- **M.E./ M.Tech.**

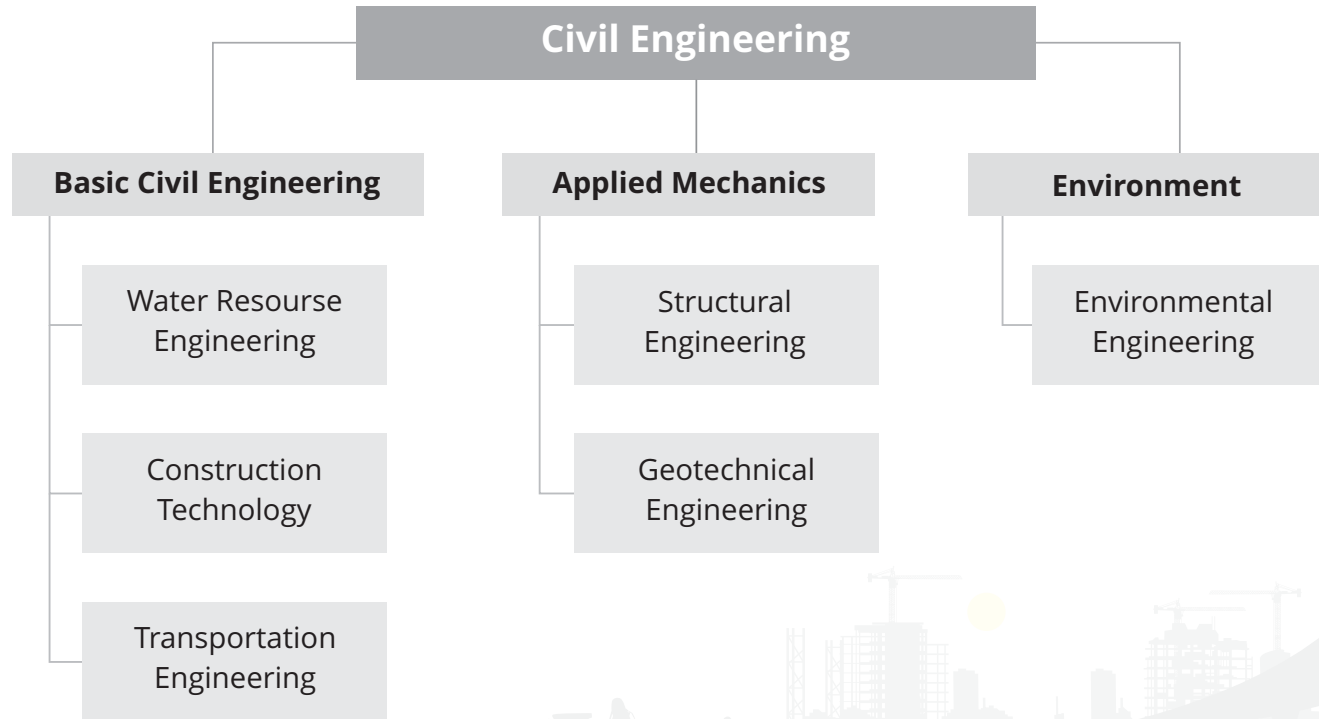
- Admission through GATE / PG CET
- Following are the specialization of civil engineering :

Sr.	Branches	Best Colleges
1	Structural Engineering	SVNIT, BVM, LD
2	CASAD (Computer Aided Structural Analysis & Design)	Nirma University , DDU
3	Geotechnical Engineering	MSU, DDU, SVNIT
4	Infrastructure Engineering & Technology	IITRAM, ADANI
5	Construction Engineering & Management	CEPT, BVM
6	Transportation Engineering	SVNIT, MSU, BVM, LD
7	Environmental Engineering	SVNIT, MSU, BVM
8	Water Resources Engineering	MSU, SVNIT
9	Valuation	ISTAR, Khayati Inst. of Valuation

- **MBA**

- Admission through GMAT / CAT

Sub Branches of Civil Engineering



Career Scope

Water Resource Engg.

- ✓ Site supervision
- ✓ Work as a contractor
- ✓ Engineer in consulting firm
- ✓ Private consultant
- ✓ Government job

Construction Tech.

- ✓ Site supervision
- ✓ Register as a planner (Architect)
- ✓ Work as a contractor
- ✓ Start material testing lab
- ✓ Work as a valuer
- ✓ Government job

Transportation Engg.

- ✓ Site supervision
- ✓ Engineer in consulting firm
- ✓ Work as a contractor
- ✓ Start material testing lab
- ✓ Government job

Structural Engg.

- ✓ Site supervision
- ✓ Registered as a structural Engineer in corporations
- ✓ Engineer in consulting firm
- ✓ Government job

Geotechnical Engg.

- ✓ Start soil testing lab
- ✓ Engineer in consulting firm
- ✓ Government job

Environmental Engg.

- ✓ Start environment testing lab
- ✓ Engineer in consulting firm
- ✓ Government job





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