

**Joseph Construction, Inc**  
**Data Dictionary**

**CLIENT\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Client ID	int	>0	PK	Unique identifier for a client	15
Client Name	nvarchar(75)			First and name of a client	Bob Smith
Client Address	nvarchar(50)			Complete address of a client	120 Main St., Gilroy, CA 95020
Client Phone	char(10)			Contact phone number of a client	4081234567

**BID\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Bid ID	int	>0	PK	Unique identifier for a bid	25
Bid Est. Amount	decimal(20,2)	>0		Estimated cost of project at time of bid	408585
Bid Projected Finish	date			Estimated date when project is to finish	9/13/2018
Bid Date	date			Date of when Bid was submitted	5/25/2018
Client Request ID	int	>0	FK	Unique identifier for client who requests a bid	15
Client Approval ID	int	>0	FK	Unique identifier for client who approves a bid	15
O Employee ID	int	>0	FK	Unique identifier for an office employee who created the bid	9

**PROJECT\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Project ID	int	>0	PK	Unique identifier for a project	16
Project Name	nvarchar(100)			Name for each project, including what the work is	Smith Home Renovation
Project Address	nvarchar(100)			Complete address for a project	450 Meridian Ave., San Jose, CA 95124
Project Contract Sign Date	date			Date when the contract with the client was signed	6/1/2018
Project Start Date	date			Date when the construction project was started	6/13/2018
Project Total Cost	decimal(20,2)	>0		Final cost amount for the project	750942
Project End Date	date			Date when the construction project was completed	10/27/2018
Bid ID	int	>0	FK	Bid associated with the project; Unique identifier for a bid	5
Client ID	int	>0	FK	Unique identifier for the client sponsoring the project	15
Plan ID	int	>0	FK	Unique identifier for the plan for a project	31

**EMPLOYEE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Employee ID	int	>0	PK	Unique identifier for an employee	2
Employee Name	nvarchar(50)			First and last name of an employee	David Reynolds
Employee Phone	char(10)			Contact phone number of an employee	4087894563
Employee Date Hired	date			Date when the employee was hired	7/24/2012
Employee Type	varchar(1)	('S','O')		Discriminator for an employee type, site employee (S) or office (O)	S

**OFFICE\_EMPLOYEE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
O Employee ID	int	>0	PK, FK	Unique identifier for an office employee	19
Office Hourly Rate	decimal(9,2)	>0.0		How much an office employee earns per hour of work	30.5

**SITE\_EMPLOYEE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
S Employee ID	int	>0	PK, FK	Unique identifier for a site employee	17
S Employee Type	varchar(1)	('M','L')		Discriminator for a site employee type, manager (M) or laborer (L)	M

**MANAGER\_SITE\_EMPLOYEE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
M S Employee ID	int	>0	PK, FK	Unique identifier for a manager	10
Manager Salary	decimal(20,2)	>0		Annual salary for a manager	90000

**LABORER\_SITE\_EMPLOYEE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
L S Employee ID	int	>0	PK, FK	Unique identifier for a laborer	6
Laborer Hourly Rate	decimal(9,2)	>0.0		How much a laborer earns per hour of work	35.76

**LABOR\_UTILIZED\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Labor Utilized ID	int	>0	PK	Unique identifier for labor utilized	50
L S Employee ID	int	>0	FK	Unique identifier for a laborer	7
Project ID	int	>0	FK	Unique identifier for a project the laborer is working on	2
Shift Start Date	date			Date a laborer started working	8/12/2018
Shift End Date	date			Date a laborer finished working	8/12/2018
Shift Start Time	time			Time a laborer started working	8:00AM
Shift End Time	time			Time a laborer ended working	3:00PM

**PROJECT\_MANAGER\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Project Manager ID	int	>0	PK	Unique identifier for a project manager	3
Project ID	int	>0	FK	Unique identifier for a project	15
M S Employee ID	int	>0	FK	Unique identifier for a manager	13

**REPRESENTATIVE\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Representative ID	int	>0	PK	Unique identifier for a representative	28
Representative Name	nvarchar(50)			First and last name of a representative	Jane Doe
Client ID	int	>0	FK	Client who is represented by the representative; unique identifier for a client	29

**APPROVAL\_STAMP\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Approval Stamp ID	int	>0	PK	Unique identifier for an approval stamp	22
Representative ID	int	>0	FK	Representative who approved plan; unique identifier for a representative	28
Plan ID	int	>0	FK	Plan that was approved; unique identifier for a plan	15
Approval Stamp Date	date			Date and time approval stamp was given	6/5/2018

**PLAN\_T**

Name	Data Type	Constraints	Key	Description	Example Value
Plan ID	int	>0	PK	Unique identifier for a plan	50
Plan Designer	nvarchar(50)			First and last name of the engineer/architect who designed the plan	Jack Tucker
Plan Date Created	date			Date when the plan was first created	6/2/2018