

REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT

On this 4th day of October, 2016, Commissioners Court came on to be heard and reviewed the accompanying notice of Lakemont, Richmond TX Congregation of Jehovahs Witnesses Job Location 19220 Beechnut Street, Richmond , TX 77407 Date 8/24/2016 Bond No. 106546617, Permit No. 2016-9215 to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas the 3rd day of August, 1987, recorded in Volume _____ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner _____, seconded by Commissioner _____, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. when construction is completed and ready for final inspectionMail notices to: Permit Administrator
Fort Bend County Engineering
301 Jackson Street
Richmond, Texas 77469
281-633-7500
3. This permit expires one (1) year from date of permit if construction has not commenced.

By:


County Engineer

Presented to Commissioners Court and approved.
Recorded in Volume _____

Minutes of Commissioners Court

By:

N/A

Drainage District Engineer/Manager

Clerk of Commissioners Court

By:

Deputy

County of Fort Bend

Engineering Department

301 Jackson Street
Richmond, Texas 77469

Phone: (281) 633-7500

Permit Application Review Form For Cable, Conduit, and Pole Line Activity In Fort Bend County

Permit No. 2016-9215

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) Complete Application Form:

a. Name of road, street, and/or drainage ditch affected.

b. Vicinity map showing course of directions

c. Plans and specifications

(2) Bond:

District Attorney, approval when applicable.

Perpetual bond currently posted.

No: _____

Amount: _____

Performance bond submitted.

No: 106546617

Amount: \$5,000.00

Cashier's Check

No: _____

Amount: _____

(3) Verbal permission given for emergencies, to start construction before approved in Commissioner's Court.

Precinct Engineer Acknowledgment

Date

Precinct Commissioner Acknowledgment

Date

(4)

Drainage District Approval when applicable

We have reviewed this project and agree it meets minimum requirements.


Assistant County Engineer

9/24/15
Date

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD
AUTHORIZED**

BOND NO 106546617

THE STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND

§

THAT WE, Lakemont, Richmond TX Congregation of Jehovahs Witnesses whose address is 19220 Beechnut Street, Richmond Texas, hereinafter called the Principal, And Travelers Casualty and Surety Company of America, a Corporation existing under and by virtue of the laws of the state of CT and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at One Tower Square, Hartford, CT 06183, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Chris Noble and Whose address is 1301 E. Collins Blvd., Richardson, TX 75081, hereinafter called the Surety, and held and firmly bound unto, Robert e. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Five Thousand Dollars and 00/100 Dollars (\$5,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 24th day of August, 2016.

Lakemont, Richmond TX Congregation of Jehovahs Witnesses

PRINCIPAL

BY

Travelers Casualty and Surety Company of America
SURETY

BY Aiza Lopez, Attorney-in-Fact



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 230424

Certificate No. 006650469

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Jeannette Porrini, Stacy Rivera, Aiza Lopez, Erin L. Kiernan, Aimee Perondine, and Jennifer Garten

of the City of Hartford, State of Connecticut, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 3rd day of February, 2016.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 3rd day of February, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 24th day of August, 2016


Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



IMPORTANT NOTICE

TO OBTAIN INFORMATION OR MAKE A COMPLAINT:

You may contact Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, The Travelers Indemnity Company, Standard Fire Insurance Company and/or Farmington Casualty Company for information or to make a complaint at:

Travelers Bond
Attn: Claims
1500 Market Street
West Tower, Suite 2900
Philadelphia, PA 19102

(267) 675-3057
(267) 675-3107 Fax

You may contact the Texas Department of Insurance to obtain the information on companies, coverages, rights or complaints at:

Texas Department of Insurance
P.O. Box 149104
Austin, TX 78714-9104

(800) 252-3439

ATTACH THIS NOTICE TO YOUR BOND. This notice is for information only and does not become a part or a condition of the attached document and is given to comply with Section 2253-021, Government Code, and Section 53.202, Property Code, effective September 1, 2001.

SITE DEVELOPMENT BID DOCUMENTS
FOR THE

GRAND MISSION KINGDOM HALL OF JEHOVAH'S WITNESSES

19220 BEECHNUT ROAD
RICHMOND, TX 77407

SUBMITTAL DATE: 3/13/2016

PROPERTY LEGAL DESCRIPTION: 4.239 ACRES OUT OF THE 1 & GUNER CO. SURVEY, ASH FORT BEND COUNTY, TEXAS

OWNER: GRAND MISSION CONGREGATION OF JEHOVAH'S WITNESSES
ADDRESS: 19220 BEECHNUT ST., RICHMOND, TX 77407

ARCHITECT: DAVID ROTHENBERG
ADDRESS: 3416 W. WALKER ST., ROUND ROCK, TX 78684
PHONE: (512) 865-7388
EMAIL: DROTHENBERG@GMAIL.COM

ENGINEER: TATSUYA KOGUCHI, P.E.
ADDRESS: 3001 S. TAMAR BLVD., AUSTIN, TX 78744
PHONE: (512) 399-8999 EXT. 2
EMAIL: TATSUYA.KOGUCHI@HMBLDESIGNSTRUCTURES.COM
FIRM: HMBL

I, TATSUYA KOGUCHI, Registered Professional Engineer in the State of Texas, do hereby certify that this submission is not witnessed by a Zone A flood area, as denoted herein, and as defined by Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) and Flood Hazard Identification Studies (FHIS), effective date 04/27/2014, and that such is conforms to the City of Houston regulations.

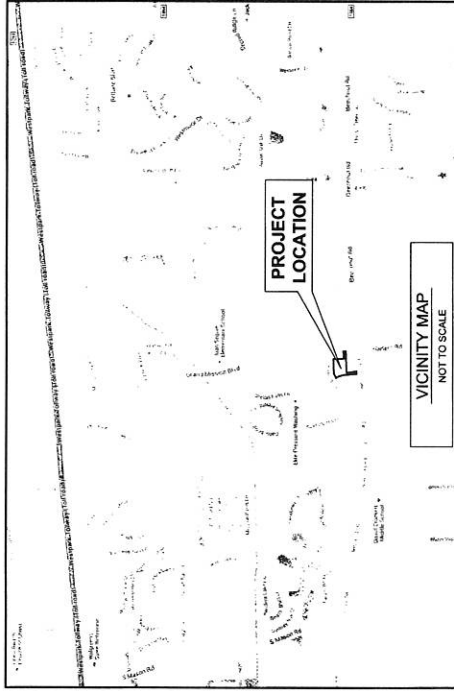
TO CERTIFY WHICH, WITNESSES my hand and seal in Fort Bend County, Texas.

Tatsuya Koguchi
TATSUYA KOGUCHI
Registered Professional Engineer No. 98107
State of Texas
3/13/2016 Date

OFFICIALLY APPROVED BY:

HARRIS FORT BEND ESD 100 _____ DATE _____

GRAND MISSION MLD #1 _____ DATE _____



INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3 SITE DIMENSION CONTROL AND PAVING PLAN
- 4 DRAINAGE AREA MAP
- 4-A GRADING PLAN
- 5 STORM DRAINAGE PLAN AND PROFILE LINE A
- 6 EROSION AND SEDIMENTATION CONTROL PLAN
- 7 SITE UTILITIES PLAN
- 8 STANDARD DETAILS
- 9 STANDARD DETAILS
- 10 STANDARD DETAILS
- 11 STANDARD DETAILS
- 12 STANDARD DETAILS
- 13 STANDARD DETAILS
- 14 STANDARD DETAILS
- 15 STANDARD DETAILS
- 16 TRAFFIC CONTROL PLAN - PHASE 1
- 17 TRAFFIC CONTROL PLAN - PHASE 2



JW CONCRECTION SUPPLY INC.
LDC OFFICE
400 WEST WILSON ST. # 277
RICHMOND, TX 77407
TEL: 281-351-2015

TATSUYA KOGUCHI, P.E.
400 W. BIRCHWOOD ST.
RICHMOND, TX 77407
TEL: 281-351-2015
TX. FIRM # 17138

COVER SHEET
GRAND MISSION KINGDOM HALL
19220 BEECHNUT ST.
RICHMOND, TEXAS 77407

Drawn by: VS
Checked by: PM
Approved by: TK
Job Number: 14-00110001
Scale: AS SHOWN

1 of 16

FORT BEND COUNTY ENGINEER
ENGINEER: *R. J. ...*
DATE: 3/12/16
THESE SIGNATURES ARE VOID IF CONSTRUCTION HAS NOT COMMENCED IN (1) YEAR FROM DATE OF APPROVAL.
APPROVED: *[Signature]*
DATE: 3/12/16

NO.	DESCRIPTION	BY	DATE
3	FORT BEND COUNTY ENGINEERING RESPONSE COMMENTS	TK	03/14/16
2	COUNTY RESPONSE COMMENTS	TK	03/25/15
1	ISSUED FOR CONSTRUCTION	TK	03/27/15

1	ISSUED FOR CONSTRUCTION	TK 02/21/15
2	COUNTY RESPONSE COMMENTS	TK 02/27/15
3	F.C. ENGINEERING RESPONSE COMMENTS	TK 04/01/15
4	F.C. ENGINEERING RESPONSE COMMENTS	TK 04/14/15
5	PREVIOUS:	



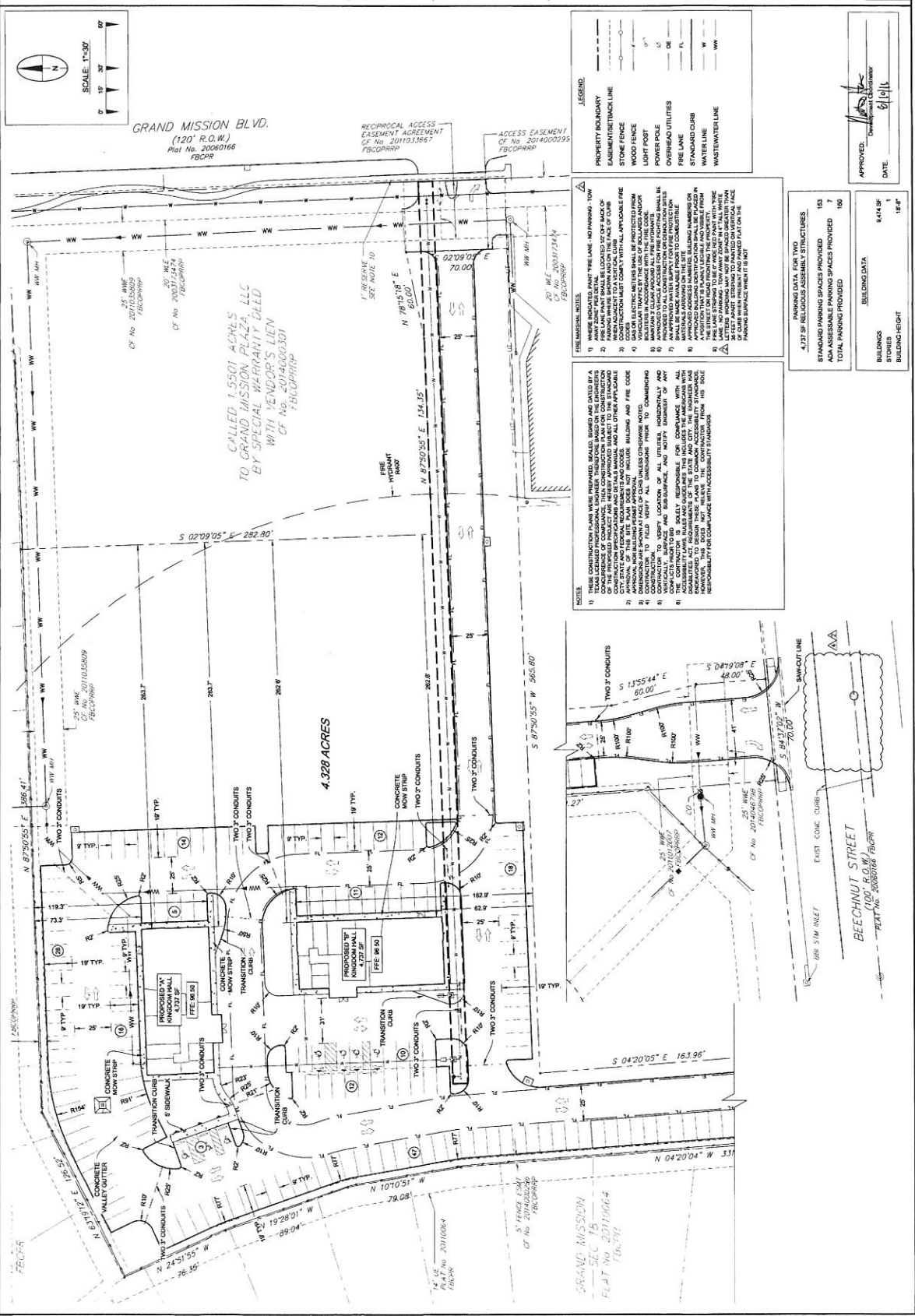
JW CONCRECTION SUPPORT, INC.
 1401 WEST 14TH STREET
 SUITE 100
 DALLAS, TEXAS 75202
 TEL: 214-343-1111
 FAX: 214-343-1112

JUSTIN A. ANDERSON, P.E.
 LICENSE NO. 101110874
 EXPIRES 04/04/16
 TX FIRM # 171380

GRAND MISSION KINGDOM HALL
 1920 BEECHNUT ST.
 RICHMOND, TEXAS 77407

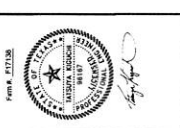
Drawn By:	VS
Checked By:	PM
Approved By:	TK
Date:	02/23/15
Scale:	AS SHOWN
Sheet No.:	02/23/15
Project No.:	02/23/15

3 of 16



4.23 SF RELOCATED ASSEMBLY STRUCTURES	153
STANDARD PARKING SPACES PROVIDED	153
ADA ACCESSIBLE PARKING SPACES PROVIDED	7
TOTAL PARKING PROVIDED	160

BUILDINGS	9,474 SF
BUILDING DATA	18' 6"
BUILDING HEIGHT	18' 6"



LOC. OFFICE 4
 4000 W. LOOP WEST, SUITE 1774
 HOUSTON, TEXAS 77056
 281-461-2010

SEE DRAINAGE PLAN SHEETS FOR FURTHER DRAINAGE INFORMATION

Drainage Calculations: Grand Mission Kingdom Hall AFTER Drainage Area G and H is Developed

Proposed Use "A"	INLET FROM (DISCHARGE TO) AREA (AC)	SUM OF ACRES (AC)	RUNOFF COEFFICIENT "C"	RUNOFF "C" x SUM OF ACRES (AC)	INTENSITY "I" (IN/HR)	AREA FLOW (CFS)	SUM OF FLOWS (CFS)	TIME OF CONC. (MIN)	REACH LENGTH (FT)	DRAINAGE AREA (AC)	DIAMETER OF PIPE (IN)	HYDRAULIC RADIUS (R)	MANNING'S "N"	DESIGN CAPACITY (CFS)	DESIGN VELOCITY (FT/S)	FLOW LINE ELEVATION UPSTREAM (FT)	FLOW LINE ELEVATION DOWNSTREAM (FT)			
Proposed Use "A"	G-1	0.47	0.80	0.376	1.468	3.49	1.33	3.15	23.76	292.53	30	7.5	0.41	0.022	28.48	OK	5.80	1.190	87.97	86.78
	G-1	0.85	0.80	0.68	2.568	3.43	2.33	39.83	24.72	339.79	30	7.5	0.41	0.022	28.51	OK	5.81	1.191	86.78	85.38
Proposed Use "B"	H(1)	0.48	0.80	0.384	1.536	3.49	1.34	3.24	23.76	292.53	30	7.5	0.41	0.022	28.48	OK	5.80	1.190	87.97	86.78
	H(2)	0.12	0.80	0.096	0.392	3.46	1.72	3.08	24.19	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
Proposed Use "C"	C-1	0.12	0.80	0.096	0.392	3.44	1.71	3.07	24.18	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
	C-2	0.12	0.80	0.096	0.392	3.44	1.71	3.07	24.18	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
Proposed Use "D"	D-1	0.33	0.80	0.264	1.056	3.53	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
	D-2	0.17	0.80	0.136	0.544	3.45	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
Proposed Use "E"	E(1)	0.37	0.80	0.296	1.192	3.52	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
	E(2)	0.17	0.80	0.136	0.544	3.45	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
Proposed Use "F"	F(1)	0.37	0.80	0.296	1.192	3.52	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
	F(2)	0.17	0.80	0.136	0.544	3.45	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78

SEE DRAINAGE PLAN SHEETS FOR FURTHER DRAINAGE INFORMATION

Drainage Calculations: Grand Mission Kingdom Hall Prior to Drainage Area G and H is Developed

Proposed Use "A"	INLET FROM (DISCHARGE TO) AREA (AC)	SUM OF ACRES (AC)	RUNOFF COEFFICIENT "C"	RUNOFF "C" x SUM OF ACRES (AC)	INTENSITY "I" (IN/HR)	AREA FLOW (CFS)	SUM OF FLOWS (CFS)	TIME OF CONC. (MIN)	REACH LENGTH (FT)	DRAINAGE AREA (AC)	DIAMETER OF PIPE (IN)	HYDRAULIC RADIUS (R)	MANNING'S "N"	DESIGN CAPACITY (CFS)	DESIGN VELOCITY (FT/S)	FLOW LINE ELEVATION UPSTREAM (FT)	FLOW LINE ELEVATION DOWNSTREAM (FT)			
Proposed Use "A"	G-1	0.47	0.80	0.376	1.468	3.49	1.33	3.15	23.76	292.53	30	7.5	0.41	0.022	28.48	OK	5.80	1.190	87.97	86.78
	G-1	0.85	0.80	0.68	2.568	3.43	2.33	39.83	24.72	339.79	30	7.5	0.41	0.022	28.51	OK	5.81	1.191	86.78	85.38
Proposed Use "B"	H(1)	0.48	0.80	0.384	1.536	3.49	1.34	3.24	23.76	292.53	30	7.5	0.41	0.022	28.48	OK	5.80	1.190	87.97	86.78
	H(2)	0.12	0.80	0.096	0.392	3.46	1.72	3.08	24.19	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
Proposed Use "C"	C-1	0.12	0.80	0.096	0.392	3.44	1.71	3.07	24.18	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
	C-2	0.12	0.80	0.096	0.392	3.44	1.71	3.07	24.18	155.5	24	6	0.37	0.022	17.14	OK	5.46	0.72	88.51	88.34
Proposed Use "D"	D-1	0.33	0.80	0.264	1.056	3.53	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
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Proposed Use "E"	E(1)	0.37	0.80	0.296	1.192	3.52	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78
	E(2)	0.17	0.80	0.136	0.544	3.45	1.33	3.34	23.73	174.5	30	7.5	0.41	0.022	28.62	OK	5.83	1.191	87.5	86.78

SEE DRAINAGE PLAN SHEETS FOR FURTHER DRAINAGE INFORMATION

Extreme Event Hydraulic Grade Line Drainage Calculations: Grand Mission Kingdom Hall AT THE Drainage Area G and H is Developed

Proposed Use "A"	INLET FROM (DISCHARGE TO) AREA (AC)	SUM OF ACRES (AC)	RUNOFF COEFFICIENT "C"	PEAK FLOW (CFS)	PEAK VELOCITY (FT/S)	PEAK DEPTH (IN)	PEAK FLOW (CFS)	PEAK VELOCITY (FT/S)	PEAK DEPTH (IN)	PEAK FLOW (CFS)	PEAK VELOCITY (FT/S)	PEAK DEPTH (IN)	PEAK FLOW (CFS)	PEAK VELOCITY (FT/S)	PEAK DEPTH (IN)	PEAK FLOW (CFS)	PEAK VELOCITY (FT/S)	PEAK DEPTH (IN)		
Proposed Use "A"	G-1	1.66	0.80	1.328	1.66	6.84	3.27	11.77	21.76	292.53	30	4.91	7.5	0.809	0.022	2.39	11.77	1.895	97.97	86.78
	G-1	4.06	0.80	3.248	4.06	7.03	3.58	24.43	24.72	339.79	30	4.91	7.5	0.809	0.022	2.43	24.43	1.921	86.78	85.38
Proposed Use "B"	H(1)	1.66	0.80	1.328	1.66	6.84	3.27	11.77	21.76	292.53	30	4.91	7.5	0.809	0.022	2.39	11.77	1.895	97.97	86.78
	H(2)	0.48	0.80	0.384	0.48	7.09	3.40	23.79	23.79	195.9	24	3.14	6	0.39	0.022	1.08	3.40	0.97	89.31	88.34
Proposed Use "C"	C-1	0.12	0.80	0.096	0.12	7.09	0.84	21.88	21.88	91.0	15	3.75	2.34	0.33	0.022	0.46	0.84	0.78	90.47	88.34
	C-2	0.12	0.80	0.096	0.12	7.09	0.84	21.88	21.88	91.0	15	3.75	2.34	0.33	0.022	0.46	0.84	0.78	90.47	88.34
Proposed Use "D"	D-1	1.35	0.80	1.08	1.35	6.96	2.30	6.54	23.23	174.5	30	4.91	7.5	0.809	0.022	1.33	6.54	0.72	87.5	86.78
	D-2	0.67	0.80	0.536	0.67	7.08	4.02	34.4	34.4	73	24	3.14	6	0.41	0.022	1.58	4.02	0.93	89.31	86.78
Proposed Use "E"	E(1)	1.35	0.80	1.08	1.35	6.96	2.30	6.54	23.23	174.5	30	4.91	7.5	0.809	0.022	1.33	6.54	0.72	87.5	86.78
	E(2)	0.67	0.80	0.536	0.67	7.08	4.02	34.4	34.4	73	24	3.14	6	0.41	0.022	1.58	4.02	0.93	89.31	86.78
Proposed Use "F"	F(1)	1.35	0.80	1.08	1.35	6.96	2.30	6.54	23.23	174.5	30	4.91	7.5	0.809	0.022	1.33	6.54	0.72	87.5	86.78
	F(2)	0.67	0.80	0.536	0.67	7.08	4.02	34.4	34.4	73	24	3.14	6	0.41	0.022	1.58	4.02	0.93	89.31	86.78

Checked By: []
 Approved By: []
 Job Number: LK-2017-10803
 Date: 08/10/16
 Sheet: 5 of 16

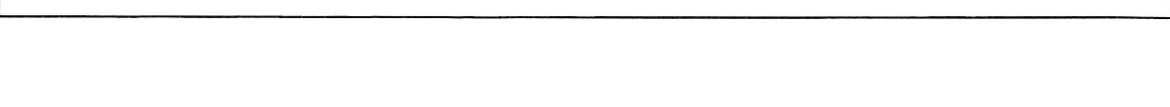
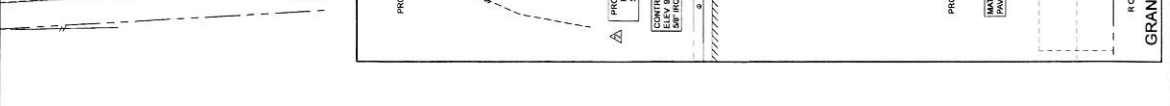
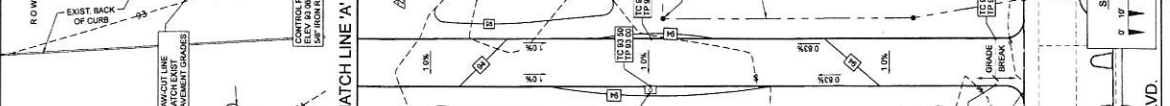
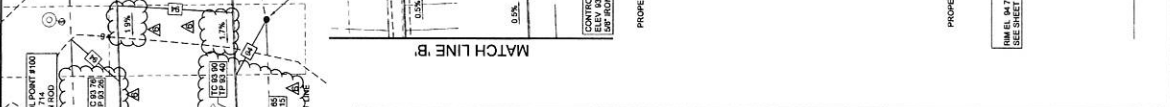
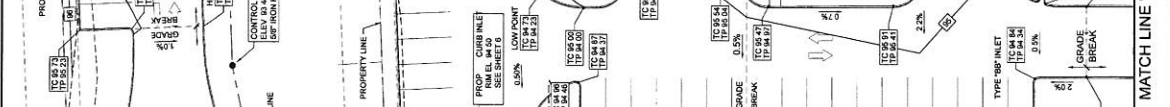
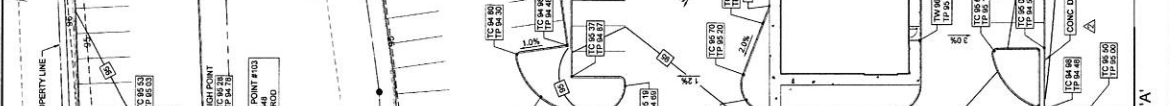
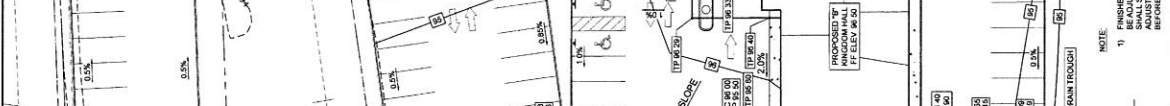
JW CONCRETE SUPPORT, INC.
 4600 W. FAIRMOUND RD.
 RICHMOND, TEXAS 77407
 TEL: 281-261-2222

TANVIA ARDIN, P.E.
 400 W. FAIRMOUND RD.
 RICHMOND, TEXAS 77407
 TEL: 281-261-2222

1	ISSUED FOR CONSTRUCTION	TK	08/12/16
2	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
3	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
4	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
5	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
6	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
7	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
8	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
9	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
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16	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
17	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
18	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
19	ENGINEERING RESPONSE COMMENTS	TK	08/12/16
20	ENGINEERING RESPONSE COMMENTS	TK	08/12/16

Form # 137336 8/12/2016

LEGEND:
 PROPERTY BOUNDARY
 DASHED/BACKLINE
 STONE FENCE
 WOOD FENCE
 LIGHT POST
 POWER POLE
 OVERHEAD UTILITIES
 STANDARD CURB & GUTTER
 ASPHALT CURB
 EXISTING CONTOURS
 PROPOSED CONTOURS
 TOP OF CURB ELEVATION
 TOP OF SIDEWALK ELEVATION
 TOP OF FINISH GRADE ELEVATION
 1" = 20'
 2%
 1" = 20'
 2%
 1" = 20'
 2%



Drawn By: [Signature]
 Checked By: [Signature]
 Date: 02/21/2015
 Job Number: LA00110003
 Client #

EROSION AND SEDIMENTATION CONTROL PLAN
GRAND MISSION KINGDOM HALL
 18220 BEECHNUT ST
 RICHMOND, TEXAS 77407

INSUVA INSURANCE, P.E.
 400 W. WASHINGTON ST.
 RICHMOND, TEXAS 77407
 935.363.3442
 TX PROD # 171136

JW CONCRETE SUPPORT INC.
 LUG OFFICE # 4
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 RICHMOND, TX 77407
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Revisions:
 1 ISSUED FOR CONSTRUCTION TK 08/21/15
 2 COUNTY RESPONSE COMMENTS TK 09/25/15
 3 P.E.C. ENGINEERING RESPONSE COMMENTS TK 2/14/16

APPROVED: [Signature]
 DATE: 2/10/16

