

**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov

Right of Way Permit
 Commercial Driveway Permit
Permit No: 2017-15583

Applicant: Noma Engineering & Construction

Job Location Site: 15330 W. Bellfort Boulevard, Sugarland, TX 77498

Bond No. **Date of Bond:** 8/2/2017 **Amount:** \$5,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The 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, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

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 inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 26th day of September, 2017, Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, 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.

Signature

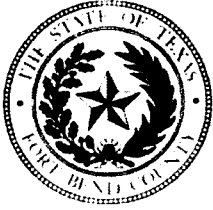
Presented to Commissioners Court and approved.

By: Charles O. Dean
County Engineer

Date Recorded 10-9-2017 Comm. Court No. 16N

By: N/A
Drainage District Engineer/Manager

Clerk of Commissioners Court
By: Jinda Wilkes
Deputy



**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov

- Right of Way Permit
 Commercial Driveway Permit

Permit No: 2017-15583

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:

- County Attorney, approval when applicable.
- Perpetual bond currently posted. Bond No: _____ Amount: _____
- Performance bond submitted. Bond No: XXXXXXXXXX Amount: \$5,000.00
- Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

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

Charles O. Ay

Permit Administrator

9/18/17

Date

Western Surety Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That WESTERN SURETY COMPANY, a corporation organized and existing under the laws of the State of South Dakota, and authorized and licensed to do business in the States of Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and the United States of America, does hereby make, constitute and appoint

Paul T. Bruflat of Sioux Falls,
State of South Dakota, its regularly elected Vice President,
as Attorney-in-Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, the following bond:

Cable, Conduit and/or Pole line Activity in, under, across or along County Roads County
One of Fort Bend

bond with bond number [REDACTED]

for NOMA ENGINEERING AND CONSTRUCTION
as Principal in the penalty amount not to exceed: \$ 5,000.00

Western Surety Company further certifies that the following is a true and exact copy of Section 7 of the by-laws of Western Surety Company duly adopted and now in force, to-wit:

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys-in-Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

In Witness Whereof, the said WESTERN SURETY COMPANY has caused these presents to be executed by its
Vice President with the corporate seal affixed this 2nd day of August,
2017.

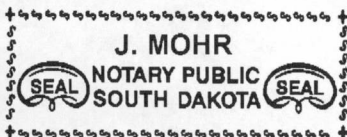
ATTEST
L. Nelson
L. Nelson, Assistant Secretary

WESTERN SURETY COMPANY
By Paul T. Bruflat
Paul T. Bruflat, Vice President



STATE OF SOUTH DAKOTA }
COUNTY OF MINNEHAHA } ss

On this 2nd day of August, 2017, before me, a Notary Public, personally appeared
Paul T. Bruflat and L. Nelson
who, being by me duly sworn, acknowledged that they signed the above Power of Attorney as Vice President
and Assistant Secretary, respectively, of the said WESTERN SURETY COMPANY, and acknowledged said instrument to be the
voluntary act and deed of said Corporation.



J. Mohr
My Commission Expires June 23, 2021 Notary Public

To validate bond authenticity, go to www.cnasurety.com > Owner/Obligee Services > Validate Bond Coverage.



FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Laura Richard

Laura Richard, County Clerk
Fort Bend County Texas

October 06, 2017 04:08:33 PM



FEE: \$0.00

SB

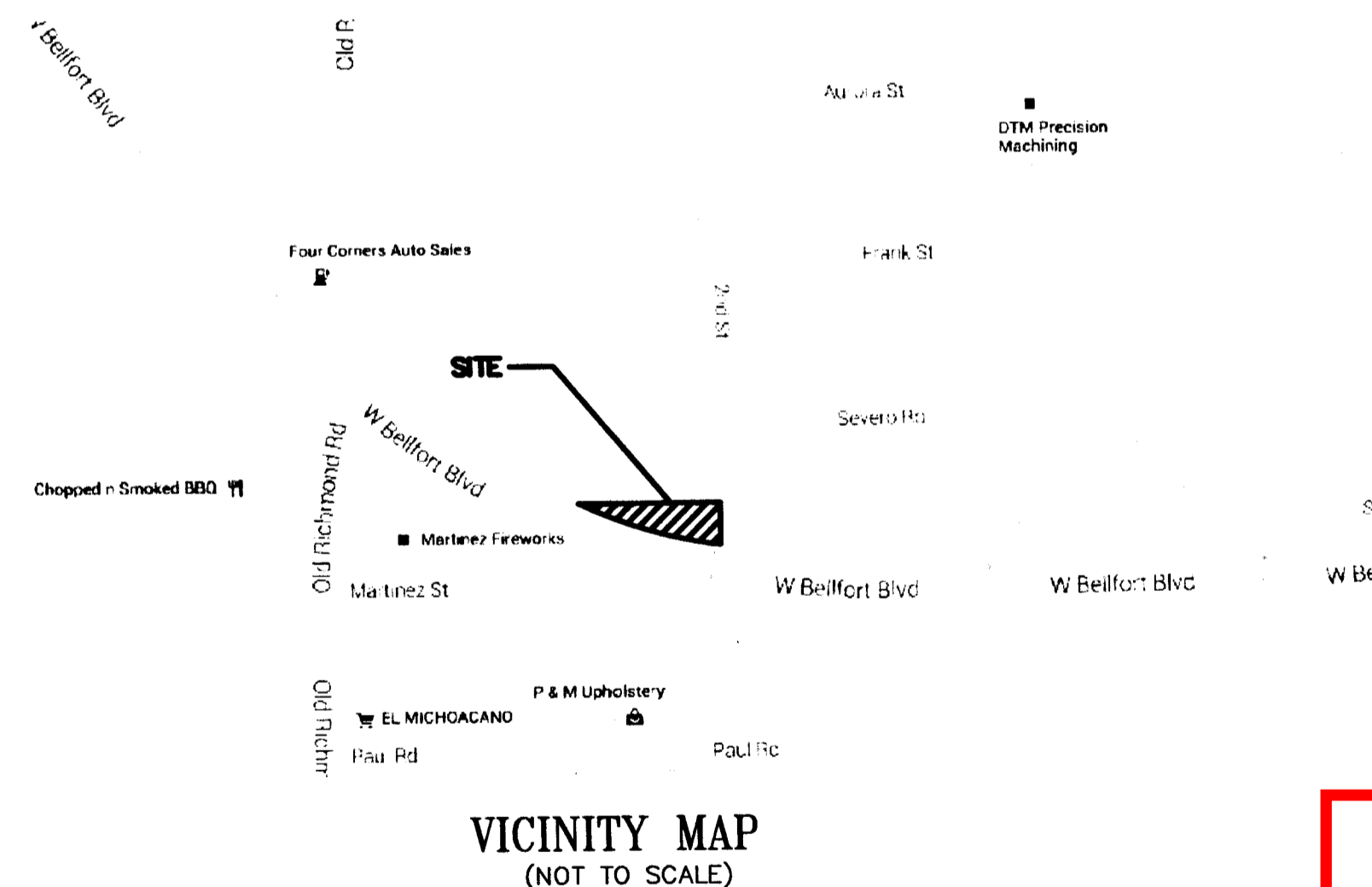
2017110435

FORT BEND COUNTY
 CONSTRUCTION PLANS OF
 PRIVATE UTILITIES AND PAVING DESIGN
 TO SERVE

WEST BELLFORT STREET STORAGE

NW CORNER OF W. BELFORT STREET AND 2ND STREET
 SUGARLAND, TX 77498

- C1 COVERSHEET
- C2 NOTES SHEET & DETAILS
- C3 DIMENSION CONTROL PLAN
- C4 GRADING & UTILITY PLAN
- C5 FIRE LANE LAYOUT
- C6 STORM WATER PPP
- C7 DETAIL SHEET



VICINITY MAP
 (NOT TO SCALE)
 ZIP CODE # 77498

Note: Building is not included
 in this set of plans.
 A separate submittal will be
 sent for building.

FIRM MAP INFORMATION

INSURANCE RATE MAP (FIRM) FOR FORT BEND COUNTY, TEXAS, MAP NO. 48157C0145L REVISED/DATED APRIL 2, 2014, THE SUBJECT TRACT APPEARS TO LIE WITHIN UNSHADED ZONE "X". THIS DETERMINATION WAS DONE BY GRAPHIC PLOTTING AND IS APPROXIMATE ONLY, AND HAS NOT BEEN FIELD VERIFIED. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. ON RARE OCCASIONS FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF WINDROSE LAND SERVICES, INC.

BENCHMARK INFORMATION

PUBLISHED ELEVATION = 77.07'
 ALL ELEVATIONS SHOWN HEREON ARE BASED ON CITY OF SUGAR LAND GEODETIC CONTROL STATION, SGR-RM017 BEING A BRASS DISK STAMPED "A-805 1948", HAVING AN ELEVATION OF 77.07 FEET, NAVD 88, 2001 ADJUSTMENT.

REV NO.	DISCUSSION	DATE

NOMA
 ENGINEERING & CONSTRUCTION
 PO BOX 36, BARKER, TEXAS, 77413
 (409) 832-8778-2016 (fax) 281-487-0022
 www.NOMAEENGINEERING.com
 FIRM: 16913

COVER SHEET
 WEST BELLFORT STREET STORAGE
 NORTHWEST CORNER OF
 W. BELFORT STREET AND 2ND STREET
 SUGARLAND, TX 77498
 0.3458 ACRE TRACT

FORT BEND COUNTY SIGNATURE BLOCK

Milly Stangle, P.E., PTOE
 ENGINEER
 DATE: 7/5/17

Cassandra A. Lee
 DEVELOPMENT COORDINATOR
 DATE: 6-30-17

DRAWN BY: M.K. DATE: MAY 08, 2017
 CHECKED BY: H.G. DATE: MAY 08, 2017
 APPROVED BY: H.G. DATE: MAY 31, 2017

SHEET NO.
 C1 of C7

STATE OF TEXAS
 HUSSAM S. GHUNEIM
 115671
 LICENSED
 PROFESSIONAL ENGINEER

GENERAL CONSTRUCTION NOTES - OUTSIDE CITY LIMITS (FORT BEND COUNTY)

- CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, AND STORM DRAINAGE IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.
- UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY "TEXAS ONE CALL" AT 713-223-4567/800-245-4545 AND "LONE STAR ONE CALL" AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER, AND STORM DRAINAGE LINES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING'S STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING, REFERENCED ABOVE, AT NO ADDITIONAL COST.
- CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING IN WRITING PRIOR TO COMMENCING CONSTRUCTION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS, OR BETTER.
- CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG THE AREA OF EXCAVATION.
- IF THE CONSTRUCTION DOES NOT BEGIN WITHIN A YEAR AFTER THE PLANS HAVE BEEN SIGNED, NEW SIGNATURES MUST BE OBTAINED AND LETTERS OF AVAILABILITY MUST BE UPDATED.
- CONTRACTOR SHALL MAINTAIN A SET OF REDLINE DRAWINGS RECORDING AS-BUILT CONDITIONS DURING CONSTRUCTION. THESE REDLINE MARKED UP DRAWINGS WILL BE SUBMITTED TO THE DESIGN CONSULTANT, WHO WILL MAKE THE CHANGES ON THE ORIGINAL TRACINGS.
- THE OWNER SHALL OBTAIN THE NECESSARY PERMITS FOR INSTALLATION OF UTILITY PIPELINES WITHIN THE 100-YEAR FLOOD PLAIN.
- OWNER TO OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY THE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR FLOOD PLAIN MANAGEMENT".
- THE CONTRACTOR SHALL NOTIFY HARRIS COUNTY ENGINEERING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION, PHONE: (713)316-3665 AND WRITTEN NOTICE 48 HOURS IN ADVANCE.
- PAVING SHALL BE IN ACCORDANCE WITH "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE" AND THE LATEST REVISIONS AND/OR AMENDMENTS OF SAME. ALL INTERSECTIONS SHALL BE PROVIDED WITH STOP SIGNS AND STREET SIGNS AS INDICATED ON THE PLANS.
- ALL CONCRETE USED IN THIS PROJECT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
- GUIDELINES SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" SHALL BE OBSERVED.
- ALL ROADWAY FILL SHALL BE PLACED IN 8' LIFTS AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY PRIOR TO CONSTRUCTION OF UNDERGROUND UTILITIES.
- ALL CURB RETURN RADII ARE 25' UNLESS SHOWN OTHERWISE. ALL TURNOUT RADII AT INTERSECTIONS SHALL HAVE A MINIMUM OF 1.00% FALL, WHERE % OF GRADE IS NOT SHOWN, TOP OF CURB SHALL BE BUILT ON GRADE BETWEEN TOP OF CURB ELEVATIONS SHOWN.
- ALIGNMENT, CENTER LINE CURVE DATA AND STATIONING FOR ALL CONSTRUCTION TO BE DETERMINED FROM SUBDIVISION PLAT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCH LINES (I.E. STORM SEWER, SANITARY SEWER AND WATER LINES) TO INDUCE MAXIMUM SETTLEMENT OF BACKFILL MATERIAL.
- EXISTING PAVEMENTS, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO HARRIS COUNTY STANDARDS.
- CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, THROUGHOUT CONSTRUCTION, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK.
- CONTRACTOR SHALL LOCATE WHEELCHAIR RAMPS OUT OF MANHOLE RIM LOCATIONS, RACK MANHOLE TOPS OR RELOCATE WHEELCHAIR RAMPS TO AVOID BICYCLE ACCIDENTS AND LAWSUITS.
- AUTHORIZATION NOTICE ISSUED BY HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT - ENGINEERING DIVISION - PERMIT OFFICE - REQUIRED PRIOR TO CONSTRUCTION OF UTILITIES OR LEFT TURN LANES WITHIN HARRIS COUNTY RIGHTS-OF-WAY. CONTACT PERMIT OFFICE (713) 956-3000.

STORM SEWER CONSTRUCTION NOTES:

- STORM SEWERS AND LEADS SHALL BE REINFORCED CONCRETE PIPE WITH RUBBER GASKET JOINTS, C-76 CLASS III, AND SHALL BE INSTALLED, BEDDED AND BACKFILLED IN ACCORDANCE WITH CITY OF HOUSTON DWG. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07. HDPE OR EQUIVALENT PIPE APPROVED FOR INSTALLATION AS OPTION TO OWNER OR CONTRACTOR.
- ALL STORM SEWER CONSTRUCTED IN SIDE LOT EASEMENTS SHALL BE R.C.P., 20' MIN., C-76, CLASS III, AND SHALL BE BEDDED IN ACCORDANCE WITH CITY OF HOUSTON DWG. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07.
- ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1/2 SACK CEMENT/C.Y. STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL.
- ALL TRENCH BACKFILLS SHALL BE IN 6' LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/IASHTO 199).
- CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINTS CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
- ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (C-76, CLASS III), OR HDPE OR EQUIVALENT PIPE APPROVED FOR INSTALLATION AS OPTION TO OWNER OR CONTRACTOR.
- ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLETS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE 12" MINIMUM CLEARANCE AT STORM SEWER AND WATERLINE CROSSINGS.
- ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF HIS WORK.
- ALL DITCHES SHALL BE REGRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE. ALL OUTFALLS SHALL BE PROPERLY BACKFILLED AND COMPACTED. ALL DISTURBED AREAS SHALL BE REGRADED, SEEDDED, AND FERTILIZED.
- ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.

WATERLINE CONSTRUCTION NOTES

- UNLESS OTHERWISE NOTED, ALL WATER LINES 12-INCHES AND SMALLER SHALL HAVE A MINIMUM OF 4-FEET OF COVER AND WATER LINES 16-INCHES AND LARGER SHALL HAVE A MINIMUM OF 5-FEET OF COVER.
- SANITARY PRECAUTIONS MUST BE TAKEN DURING WATER LINE CONSTRUCTION, AS CALLED FOR BY AWWA STANDARDS. PRECAUTIONS INCLUDE, BUT ARE NOT LIMITED TO, KEEPING PIPE CLEAN AND CAPPED OR OTHERWISE EFFECTIVELY COVERING OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
- ALL WATER LINES, AFTER INSTALLATION, SHALL BE THOROUGHLY DISINFECTED ACCORDING TO TCEQ, CHAPTER 290 AND AWWA SPECIFICATION C-651 AND THEN FLUSHED BEFORE BEING PLACED INTO SERVICE. WATER SAMPLES WILL BE COLLECTED FOR BACTERIOLOGIC ANALYSIS AND MUST MEET THE TEXAS STATE DEPARTMENT OF HEALTH AND CITY OF HOUSTON REQUIREMENTS PRIOR TO PLACING THE LINES INTO SERVICE.
- PIPE MATERIAL (IF NOT A STEEL SECTION) SHALL BE POLY-VINYL CHLORIDE (P.V.C.) CONFORMING TO AWWA SPECIFICATION C-900, WITH BELL AND SPIGOT PUSH ON JOINTS.
- THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING GATE VALVES. THE CONTRACTOR SHALL CONTACT THE MUNICIPAL UTILITY DISTRICTS OPERATOR A MINIMUM OF 48 HOURS PRIOR TO MAKING ANY CONNECTIONS TO THE EXISTING WATER LINE AND TO OPERATE ANY EXISTING GATE VALVES.
- ALL WATER VALVES SHALL OPEN CLOCKWISE, SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA SPECIFICATION C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
- WATER LINES PARALLEL TO SANITARY SEWER LINES SHALL BE INSTALLED WITH AT LEAST 9-FEET OF CLEARANCE FROM OUTSIDE TO OUTSIDE OF PIPE AND SHALL BE INSTALLED IN SEPARATE TRENCHES. CONTRACTOR MUST MAINTAIN A MINIMUM OF 9-FEET OF CLEARANCE BETWEEN OUTSIDE OF SANITARY SEWER MANHOLES AND WATER LINES AS SPECIFIED BY TCEQ, CHAPTER 317 (LATEST PRINTING).
- WATER LINES SHALL BE CONSTRUCTED SO THAT ALL FITTINGS WILL NOT BE LOCATED UNDER PROPOSED OR FUTURE PAVEMENT.
- THE UTILITY CONTRACTOR SHALL TURN FIRE HYDRANTS AND MAKE ALL FINAL ADJUSTMENTS AFTER COMPLETION OF PAVING, NO SEPARATE PAY.
- THIS PROJECT SHALL BE BUILT BY MEANS OF OPEN CUT EXCEPT AS NOTED ON THE DRAWINGS. CONTRACTOR TO DETERMINE THE LOCATIONS OF BORE PITS IN FIELD SUBJECT TO THE CITY ENGINEER'S APPROVAL.

SANITARY SEWER CONSTRUCTION NOTES

- ALL PROPOSED SANITARY SEWER SHALL BE SDR 26 PVC PIPE AS SHOWN ON THE PLAN OR OTHER APPROVED ALTERNATE PRESSURE ASTM D 3034 SDR 26 PIPE.
- ALL SDR26 P.V.C. PIPES ARE TO HAVE RUBBER GASKETED PUSH-ON BELL-AND-SPIGOT TYPE JOINT ENDS. CHEMICALLY WELDED SANITARY SEWER JOINTS ARE NOT ACCEPTABLE. ALL DR P.V.C. PIPE USED IS TO HAVE C.I.P. SIZE O.D.'S REGARDLESS OF ANY OTHER WASTEWATER CONSTRUCTION NOTE TO THE CONTRARY, ALL P.V.C. PIPE AND FITTINGS TO PIPE (JOINTS) MUST BE SO MARKED (STAMPED).
- ALL SANITARY SEWER SERVICE LEADS SHALL BE ASTM D 3034 SDR 26 P.V.C. PIPE.
- SANITARY SEWER AND SERVICE LEADS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS.
- UNLESS OTHERWISE NOTED, ALL SANITARY SEWER SERVICE LEADS SHALL BE CONNECTED DIRECTLY TO THE MAIN LINE OR SANITARY SEWER STACKS ONLY. NO LEADS SHALL BE CONNECTED DIRECTLY TO MANHOLES UNLESS APPROVED BY WASTEWATER DESIGN SECTION OF CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING.
- SANITARY SEWER, INCLUDING ALL LEADS, SHALL HAVE CEMENT STABILIZED SAND BEDDING AND BACKFILL AS PER C.O.H. DRAWING NO. 02317-03 IN THE CITY OF HOUSTON STANDARD CONSTRUCTION DETAILS.
- SANITARY SEWERS CONSTRUCTED IN WET STABLE TRENCH SHALL BE BEDDED & BACKFILLED AS PER CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING DWG. NO. 02317-02 OF STANDARD CONSTRUCTION DETAILS.
- ALL CEMENT STABILIZED SAND (USED FOR SEWER BEDDING AND/OR PAVING BACKFILL) MUST MEET OR EXCEED CURRENT CITY OF HOUSTON PERFORMANCE SPECIFICATION (100 PSI COMPRESSION TEST) REGARDLESS OF ANY OTHER MINIMUM CEMENT CONTENT RATIO REQUIREMENTS STATED IN OTHER APPLICABLE NOTES.
- SANITARY SEWER MANHOLE RIMS, AS A RULE SHALL BE SET 2" MINIMUM ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING, WITH SLOPED BACKFILL ADDED FOR STORMWATER DRAINAGE AWAY FROM THE MANHOLE RIM. MANHOLES IN THE 100-YEAR FLOOD PLAIN SHALL EITHER HAVE TOPS RAISED 6" MINIMUM ABOVE 100 YEAR WATER LEVEL OR BE SEALED AND VENTED PER APPROVED DETAIL ON THESE PLANS.
- SANITARY SEWER MANHOLES ARE TO BE PRECAST IN ACCORDANCE WITH THE CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS. CAST-IN-PLACE MANHOLES ARE NOT ALLOWED.
- UNLESS OTHERWISE NOTED ALL SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING DWG. NO. 02082-02 WITH NOTES FROM DWG. NO. 02082-02.
- WHERE P.V.C. (OR OTHER SMOOTH PLASTIC) PIPE IS TO BE USED, WATER-STOP GASKET AND CLAMP ASSEMBLY ARE TO BE FURNISHED AND INSTALLED AT ALL CONNECTIONS TO MANHOLES, NO SEPARATE PAY.
- WHEN MAKING A CONNECTION TO AN EXISTING SANITARY SEWER MANHOLE, CONTRACTOR SHALL PLUG DOWNSTREAM END OF PROPOSED SANITARY SEWER. THE SEWER SHALL REMAIN PLUGGED UNTIL FINAL ACCEPTANCE BY THE CITY.
- THE TOTAL FOOTAGE OF ALL SANITARY SEWERS SHALL BE AIR TESTED OR WATER TESTED BY THE CONTRACTOR. THE CURRENT CITY OF HOUSTON TESTING PROCEDURE SHALL BE FOLLOWED. IF THE WATER TESTING METHOD IS EMPLOYED, THE TOTAL INFILTRATION/EXFILTRATION SHALL NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER, PER MILE OF PIPE, PER 24 HOURS, IF THE AIR TESTING METHOD IS EMPLOYED, THE CONSTRUCTION, SEQUENCING AND SCHEDULING OF ALL TEST WILL BE AGREED UPON BY THE CONTRACTOR AND THE ENGINEER.
- DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPE, WITH THE EXCEPTION OF SERVICE LEADS. THE TESTS SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. THE TEST IS TO BE RUN USING A MANDREL HAVING AN OUTSIDE DIAMETER OF 95% OF THE AVERAGE INSIDE DIAMETER OF THE PIPE. THE MANDREL SHALL HAVE A MINIMUM OF 9 RUNNERS (ODD NUMBER ONLY), WITH THE CONTACT LENGTH OF EACH RUNNER BEING BOTH 6" MINIMUM AND NOT LESS THAN 75% OF THE NOMINAL INSIDE DIAMETER OF THE PIPE BEING TESTED. THE CONTRACTOR SHALL PROVIDE AN APPROVED TRUING RING FOR THE MANDREL DEVICE. THERE WILL BE NO SEPARATE PAY FOR MANDREL TESTS. ANY PIPE NOT MEETING TEST REQUIREMENTS WILL BE REMOVED, REPLACED AND RETESTED AT THE CONTRACTOR'S EXPENSE.
- SANITARY SEWER TESTING WILL BE IN ACCORDANCE WITH CITY OF HOUSTON DEPARTMENT OF PUBLIC WORKS AND ENGINEERING STANDARD CONSTRUCTION SPECIFICATION AND STANDARD CONSTRUCTION DETAILS. CONTRACTOR IS TO FURNISH ALL NECESSARY TEST PLUGS AND RISERS. IF SEWER (INCLUDING M.H.'S) IS TO BE AIR TESTED, OBTAIN APPROVAL LETTER FROM CITY'S WASTEWATER DESIGN SECTION.
- MANDREL TESTING WILL BE REQUIRED FOR SEWERS CONSTRUCTED OF: P.V.C. (WITH WALLS THINNER THAN SDR/DR 21); A.B.S./P.V.C. ("TRUSS". TESTING IS NOT REQUIRED FOR RIGID (NON-PLASTIC) PIPES; AND PRESSURE PIPES, AS DESIGNATED IN THESE NOTES BY THE CITY.
- MAINTAIN 12-INCH MINIMUM VERTICAL CLEARANCE AT CROSSINGS BETWEEN SANITARY SEWERS AND CULVERTS, UNLESS OTHERWISE NOTED.
- WHENEVER A SANITARY SEWER CROSSES OVER A WATER MAIN OR UNDER A WATER MAIN CLOSER THAN 2 FEET VERTICALLY, THE SEWER PIPE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (CLASS NO. 350, MIN. THICKNESS CLASS 52), OR C900 P.V.C. AND ONE JOINT OF THE SEWER PIPE WILL BE CENTERED ON THE WATER MAIN.
- CONTRACTOR SHALL KEEP RECORD OF LOCATION OF ALL STACKS, STUBS, SLEEVES, ETC.
- PRIOR TO SANITARY SEWER CONSTRUCTION, CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AND ENGINEERING AT 713-535-7675 OR 713-535-7880 AND COMPLY WITH REQUIREMENTS FOR ISSUANCE OF NECESSARY PERMITS/WORK ORDERS.

FORT BEND COUNTY CONSTRUCTION GENERAL NOTES:

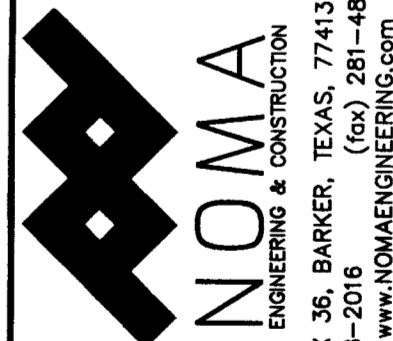
- FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.
- CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOURS NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION@FORTBENDCOUNTYTX.GOV.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.
- ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS" RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.
- ALL ROAD WIDTHS, CURB RADII AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
- A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
- ALL CONCRETE PAVEMENT SHALL BE 5" SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
- ALL PAVING ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
- 4" x 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
- AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACED IN ACCORDANCE WITH TXDOT PED-12A STANDARD DETAIL SHEET. A.D.A. -HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.
- CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
- ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.
- GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS CURRENTLY AMENDED, SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING, AND WARNING DEVICES, ETC., DURING CONSTRUCTION - BOTH DAY AND NIGHT.
- ALL R1-1 STOP SIGNS SHALL BE 30"x30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPER CASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.
- A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE MOUNTED ON STOP SIGN POST.
- THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR REJECT ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENT, AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

FIRM MAP INFORMATION

INSURANCE RATE MAP (FIRM) FOR FORT BEND COUNTY, TEXAS, MAP NO. 48157C0145L REVISED/DATED APRIL 2, 2014, THE SUBJECT TRACT APPEARS TO LIE WITHIN UNSHADED ZONE "X". THIS DETERMINATION WAS DONE BY GRAPHIC PLOTTING AND IS APPROXIMATE ONLY, AND HAS NOT BEEN FIELD VERIFIED. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY OR STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE, OR RARE OCCASIONS FLOODS CAN AND WILL OCCUR AND FLOOD HEIGHTS MAY BE INCREASED BY MAN-MADE OR NATURAL CAUSES. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF WINDROSE LAND SERVICES, INC.

BENCHMARK INFORMATION

PUBLISHED ELEVATION = 77.07
ALL ELEVATIONS SHOWN HEREON ARE BASED ON CITY OF SUGAR LAND GEODETIC CONTROL STATION, SGR-RM017 BEING A BRASS DISK STAMPED "A-805 1948", HAVING AN ELEVATION OF 77.07 FEET, NAVD 88, 2001 ADJUSTMENT.



PO BOX 36, BARKER, TEXAS, 77413
(972) 632-6750-2010, (972) 261-487-0022
www.nomaengineering.com

FIRM: 16913

NOTES SHEET

W. BELFORT STREET STORAGE
NORTHWEST CORNER OF
W. BELFORT STREET AND 2ND STREET
SUGARLAND, TX 77498
0.3458 ACRE TRACT

FORT BEND COUNTY SIGNATURE BLOCK

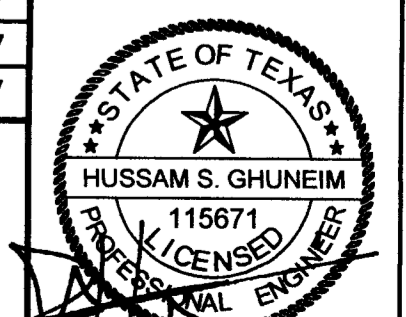
ENGINEER _____

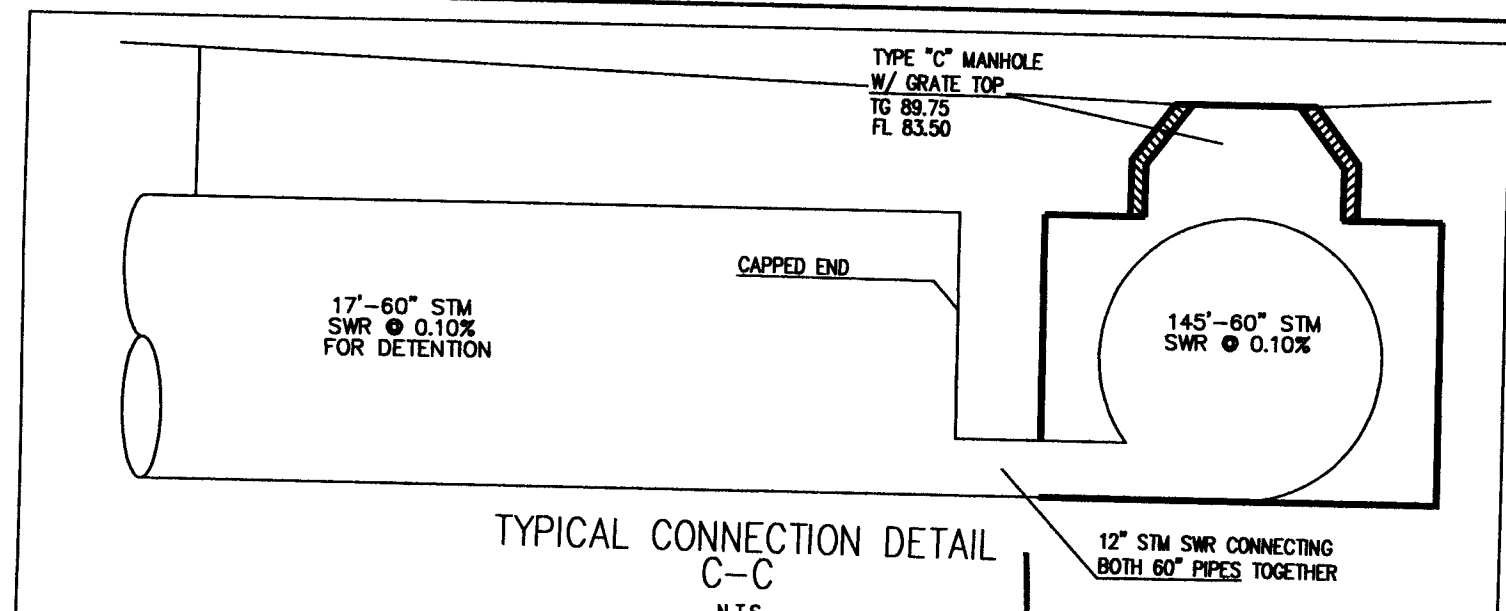
DATE _____

for *Casandre de*
DEVELOPMENT COORDINATOR
DATE *6/30/17*

DRAWN BY: M.K. DATE: MAY 08, 2017
CHECKED BY: H.G. DATE: MAY 08, 2017
APPROVED BY: H.G. DATE: MAY 08, 2017

SHEET NO.
C2 of C7



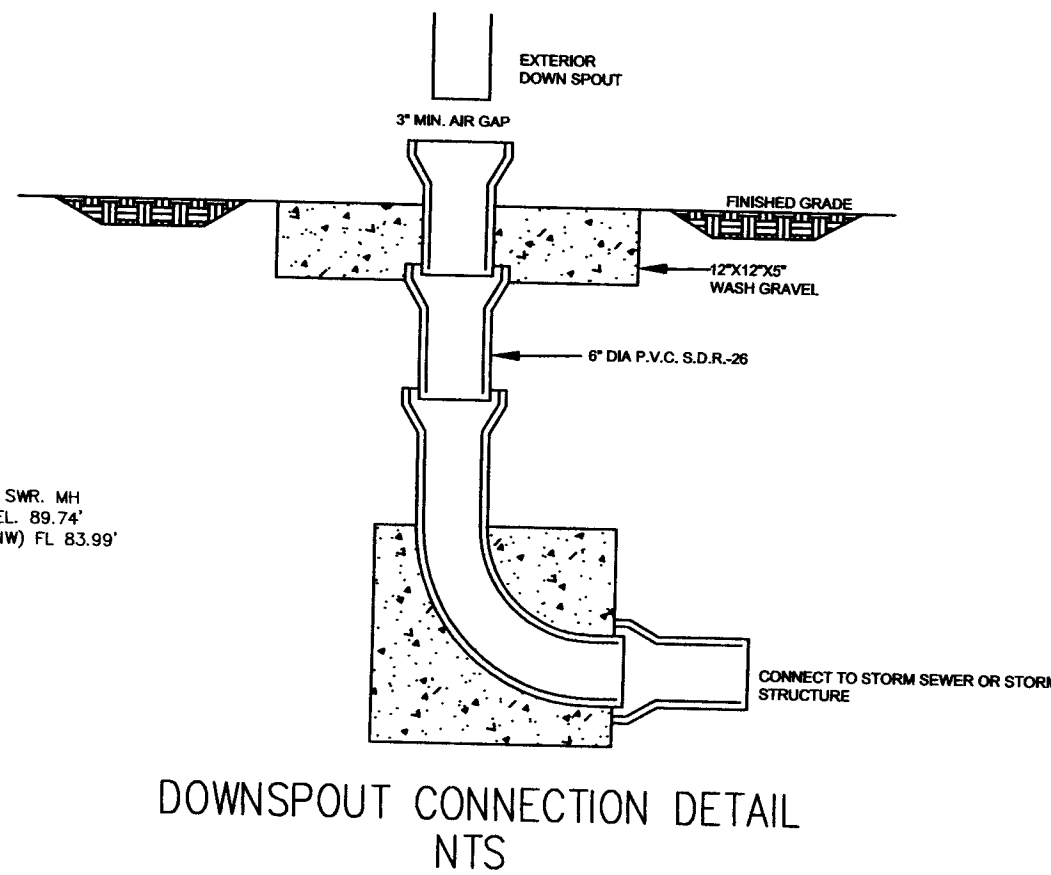
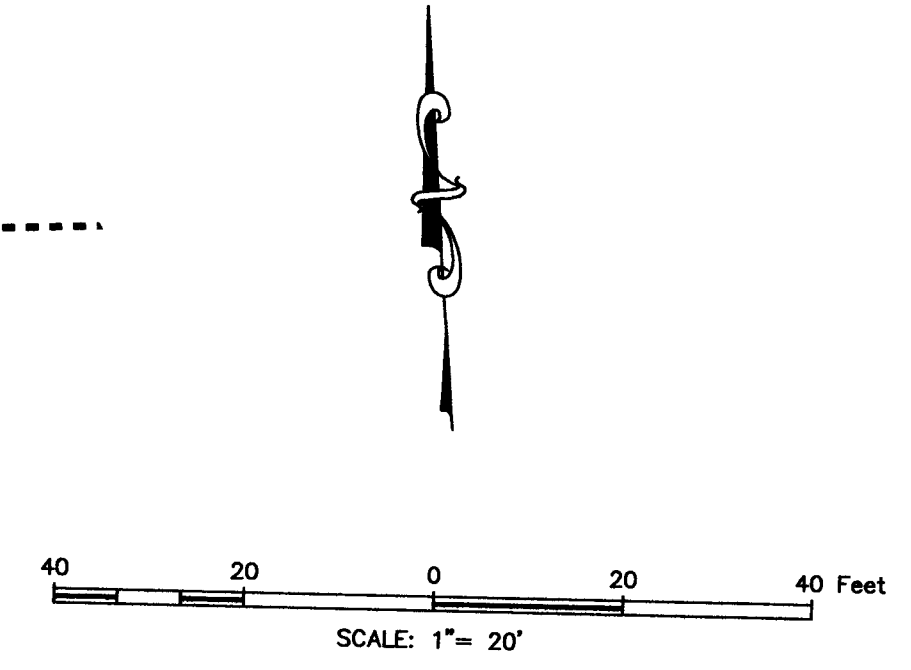
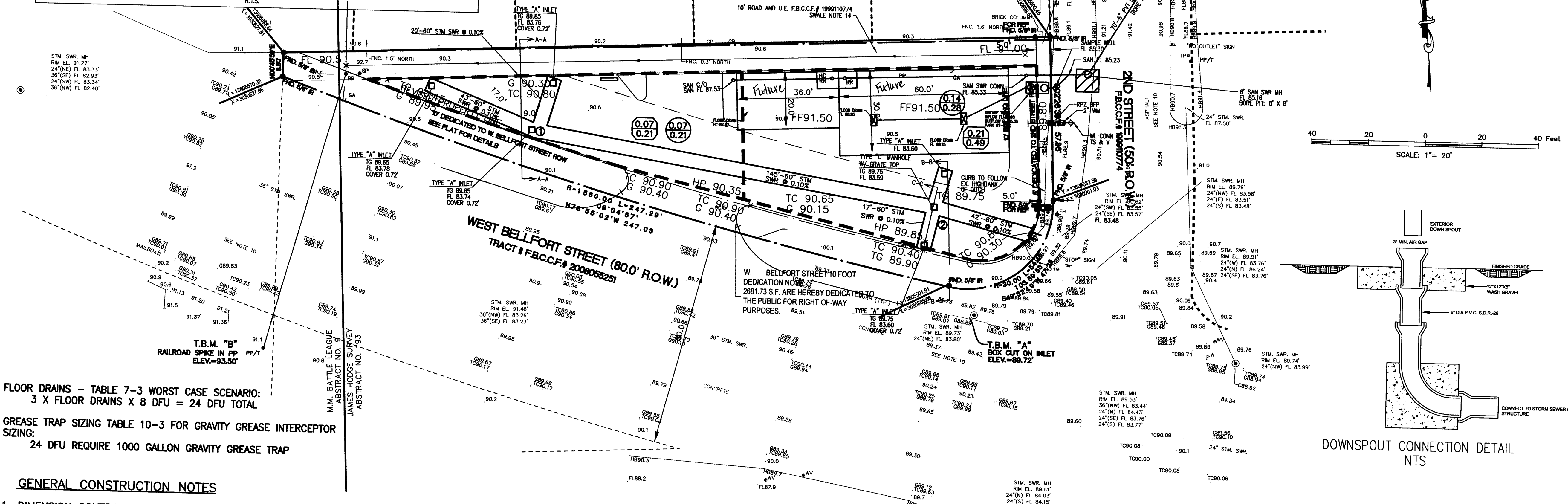


2 YEAR STORM SEWER CALCULATIONS
W. Belfort Storage
 PREPARED ON: APRIL, 2017

JOB NO.: 1612

Station	D (ft)	A (ft)	R ^{2/3} (ft)	min Slope	Q cfs	Qgpd	ESFC	VEL
1	0.07	0.21	0.21	0.028	0.0027744	0.22267	415	4.041387

LOT 8



LEGEND

	PROP. SANITARY SEWER
	PROP. WATER LINE
	PROPERTY LINE
	HIGH POINT (H.P.)
	DIRECTION OF FLOW
	STORM/SANITARY SEWER MANHOLE
	TYPE "A" INLET
	GREASE TRAP
	ACCUM. DRAINED AREA (ACRES)
	ACCUM. FLOW RATE (CFS)
	AREA DRAINED PER INLET (ACRES)
	FLOW RATE PER INLET (CFS)
	BACK FLOW PREVENTER
	WATER METER
	EXISTING GRADE ELEVATIONS
	IRRIGATION METER
	PROPOSED GRADE ELEVATIONS
	PROPOSED FIRE HYDRANT RELOCATION
	PROPOSED WATER S/O VALVE
	PROPOSED FLOW LINE
	PROPOSED FINISHED GRADE
	PROPOSED TOP OF CURB
	PROPOSED GRADE

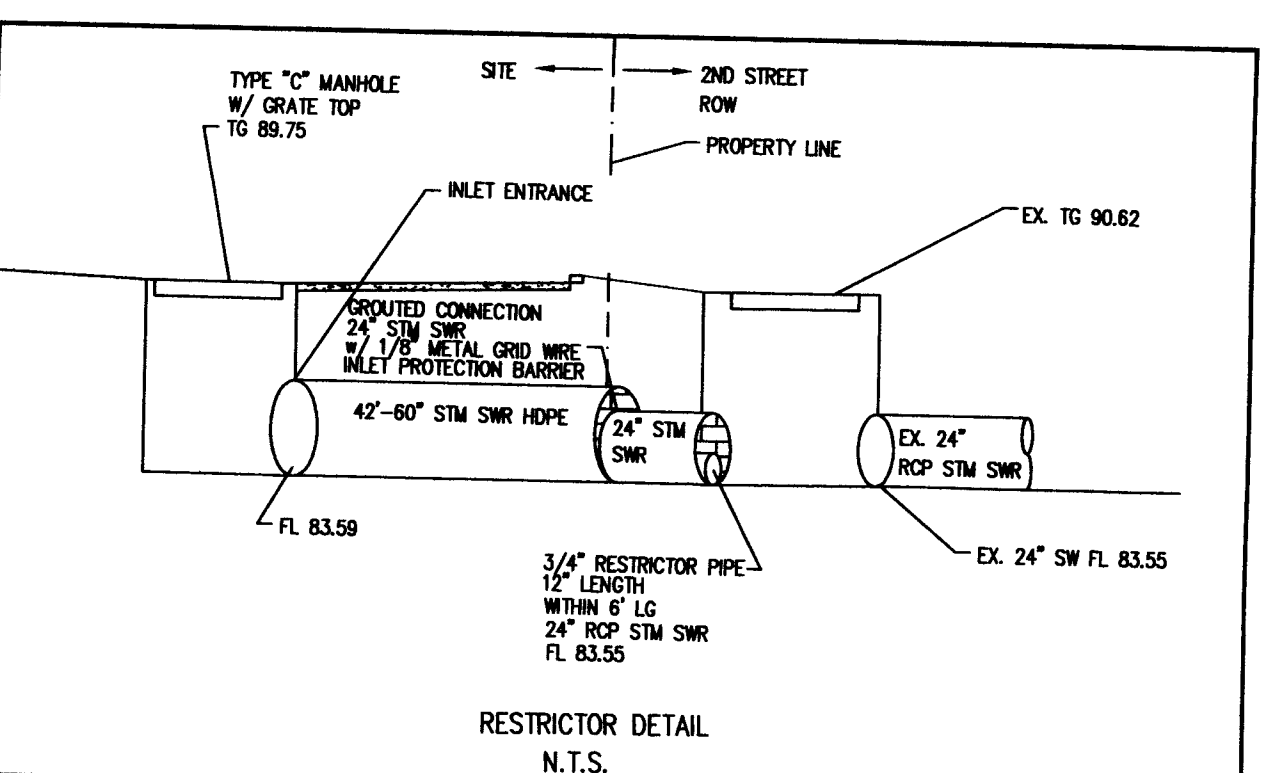
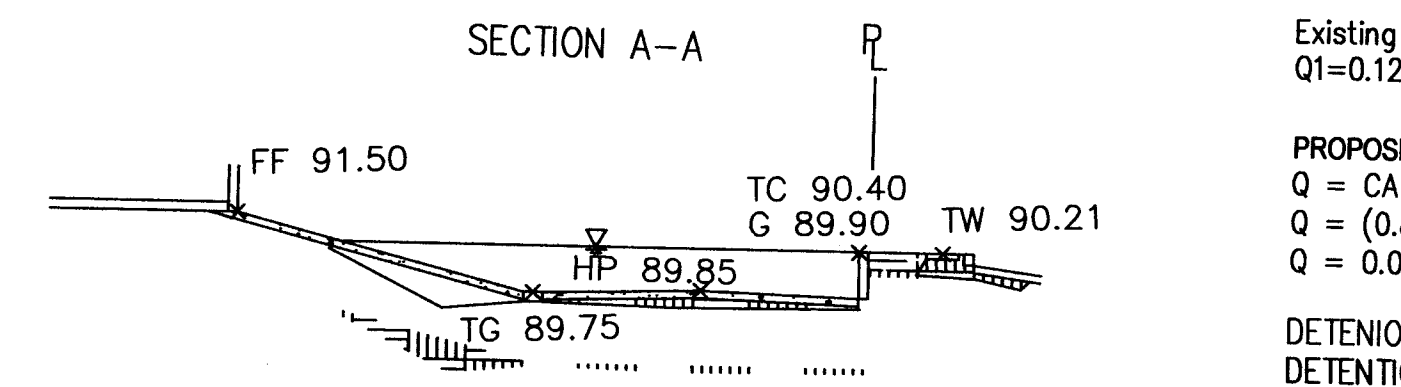
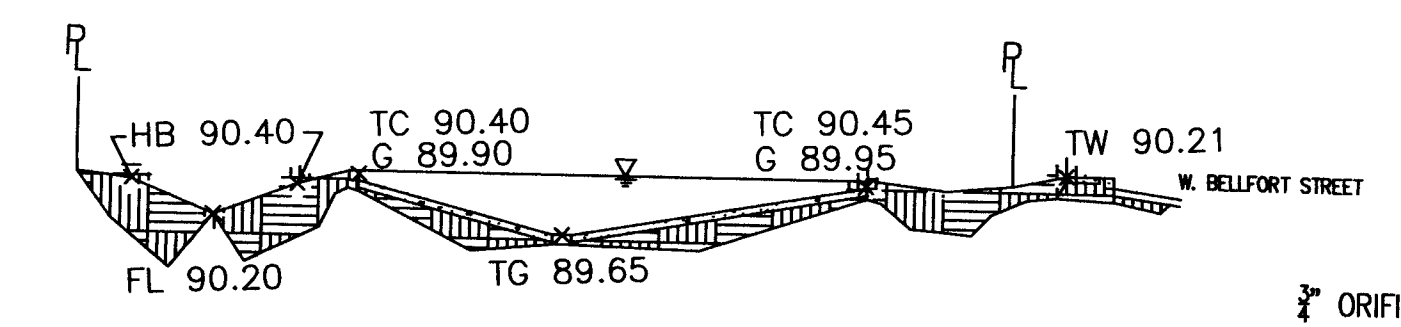
DATE	DESCRIPTION	REV. NO.

FLOOR DRAINS - TABLE 7-3 WORST CASE SCENARIO:
 3 X FLOOR DRAINS X 8 DFU = 24 DFU TOTAL

GREASE TRAP SIZING TABLE 10-3 FOR GRAVITY GREASE INTERCEPTOR SIZING:
 24 DFU REQUIRE 1000 GALLON GRAVITY GREASE TRAP

GENERAL CONSTRUCTION NOTES

- DIMENSION CONTROL PLAN PREPARED BY NOMA ENGINEERING & CONSTRUCTION. TO BE USED IN CONJUNCTION WITH THIS PLAN FOR LOCATING ALL IMPROVEMENTS.
- ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
- CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION.
- THE LOCATION OF ALL UTILITIES PRESENTED ON THESE DRAWINGS IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR TO STARTING CONSTRUCTION OF UTILITIES OR WORK IN THE CITY STREET RIGHT-OF-WAY.
- CONTRACTOR TO VERIFY THE EXISTING FLOWLINE ON STORM SEWER AND SANITARY SEWER PRIOR TO CONSTRUCT THESE LINES.
- CONTRACTOR TO VERIFY THE EXISTING WATERLINE PRIOR TO TAPPING INTO AND CONSTRUCTION OF THIS LINE.
- GUTTER DOWN SPOUTS TO CONNECT TO PROPOSED CATCH BASIN AT NE CORNER
- ALL INTERNAL SANITARY SEWER LINES ARE 6" @ 0.2% SLOPE.
- CONTRACTOR SHALL CONNECT ALL DOWNSPOUTS W/ 8" HDPE PIPE TO UNDERGROUND STM SWR (TYP). RE: ARCH. PLAN FOR DOWNSPOUT SIZE AND LOCATION. SEE SHEET C5 FOR DOWNSPOUT CONNECTION DETAIL.
- ALL MAINTENANCE OF THE DETENTION FACILITIES ON SITE WILL BE THE RESPONSIBILITY OF THE OWNER.
- ALL PROPERTY TO DRAIN INTO THE DRAINAGE EASEMENT ONLY THROUGH AN APPROVED DRAINAGE STRUCTURE.
- ALL PAVEMENT SHALL BE 7" CONCRETE WITH 8" LIME STABILIZATION SUBGRADE.
- SWALE DOES NOT CONTRIBUTE TO SITE DRAINAGE. SWALE ON NORTH OF PROPERTY DRAINS TO THE WEST NATURALLY AND DOES NOT IMPACT OUR SITE. THE BUILDING ROOF WILL SLOPE SOUTH ONTO THE PROPERTY.



ORIFICE CALCULATIONS:

Existing Conditions:
 $Q = 0.125 \text{ cfs} \times 0.2176 \text{ AC} = 0.0272$

PROPOSED $\frac{3}{4}$ " OUTFALL RESTRICTOR:
 $Q = CA 2gh$
 $Q = (0.8)(0.0031)((32.2 \text{ FT/S}^2)(2\text{FT})(2))^{0.5}$
 $Q = 0.028 \text{ CFS}$

DETENTION CALCULATIONS:
 DETENTION REQUIRED
 TOTAL IMPERVIOUS AREA ADDED: 8,987 SQ.FT.
 TOTAL AREA OF SITE: 11,973 SQ.FT.
 EXISTING NORTH EASEMENT: 2646.28 SQ.FT.
 $8,987 = 0.96(11,973 - 2,646)$
 $\% \text{ IMPERVIOUS ADDED: } 96\% @ 0.86 \text{ AC-FT/AC}$
 $(11,973 - 2,646) \text{ SQ.FT.} \times 0.96 = 8,954 \text{ CU.FT.}$

DETENTION PROVIDED:
 PAVEMENT DETENTION
 AREA OF PAVEMENT = 7,195 SQ. FT.
 AVERAGE DEPTH OF WATER = 0.487' (3D MODELING)
 PAVEMENT DETENTION = 3,503 CU.FT.

STORM INLET VOLUME => 135.3 CU.FT.
 UNDERGROUND 60" PIPE VOLUME DETENTION REQUIRED: 5,316 CU.FT.
 275' OF 60" STORM SEWER => 19.6 SQ.FT. X 275 L.F. = 5,390 CU.FT.

TOTAL DETENTION PROVIDED: 3,195+135+5,390=9,028 CU.FT.

- FORT BEND COUNTY FRESH WATER SUPPLY DISTRICT 2 NOTES:
- THE SUBJECT TRACT IS LOCATED WITHIN THE BOUNDARIES OF FORT BEND COUNTY FRESH WATER SUPPLY DISTRICT 2.
 - THE CONTRACTOR IS TO CONTACT BOTH THE DISTRICT'S OPERATOR AND ENGINEER 48 HOURS IN ADVANCE OF MOBILIZING TO THE SITE.
 - OPERATOR:
- ENVIRONMENTAL DEVELOPMENT PARTNERS
 17495 VILLAGE GREEN
 HOUSTON, TX 77040
 832-467-1599
- ENGINEER:
 SHERRINGTON, INC.
 14870 SKINNER RD.
 CYPRESS, TX 77429
 281-758-1531
- ONLY THE DISTRICT OPERATOR IS AUTHORIZED TO OPERATE THE DISTRICT'S WATER DISTRIBUTION FACILITIES.
 - THE DISTRICT OPERATOR WILL FURNISH AND INSTALL ALL METERS AND MAKE ALL TAPS IN ACCORDANCE WITH THE DISTRICT'S RATE ORDER.
 - THE CONTRACTOR WILL FURNISH AND INSTALL ALL BACKFLOW PREVENTERS.
 - THE DISTRICT OPERATOR IS TO INSPECT ALL WATER, SANITARY, AND STORM UTILITIES PRIOR TO PLACEMENT OF ANY BEDDING AND BACKFILL MATERIAL.

NOMA
 ENGINEERING & CONSTRUCTION
 80 BOX 38, BARKER, TEXAS, 77413
 (409) 832-8722 FAX (409) 281-4871
 www.nomaengineering.com
 FIRM: 16913

GRADING & UTILITY PLAN

W. BELFORT STREET STORAGE
 NORTHWEST CORNER OF
 W. BELFORT STREET AND 2ND STREET
 SUGARLAND, TX 77498
 0.3458 ACRE TRACT

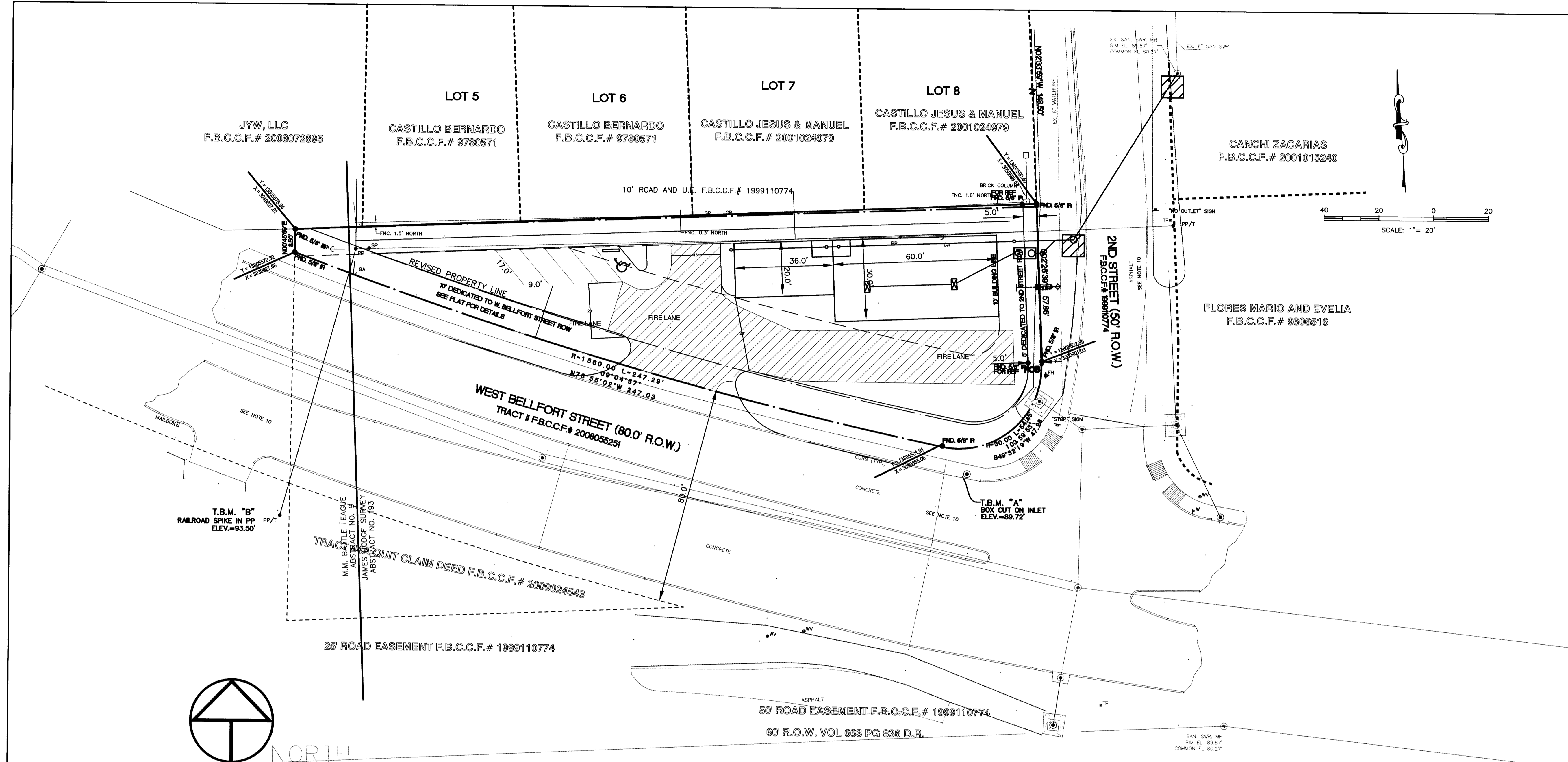
FORT BEND COUNTY SIGNATURE BLOCK

Cassandra A. De...
 DEVELOPMENT COORDINATOR
 6-3-17
 DATE

DRAWN BY: S.K. DATE: NOV. 27, 2015
 CHECKED BY: H.G. DATE: NOV. 27, 2015
 APPROVED BY: H.G. DATE: NOV. 30, 2015

SHEET NO. C4 of C7

STATE OF TEXAS
 HUSSAM S. GHUNEIM
 115671
 LICENSED PROFESSIONAL ENGINEER



	PROP. SANITARY SEWER
	PROP. WATER LINE
	PROPERTY LINE
	HIGH POINT (H.P.)
	DIRECTION OF FLOW
	STORM/SANITARY SEWER MANHOLE
	TYPE "A" INLET
	GREASE TRAP
	ACCUM DRAINED AREA (ACRES)
	ACCUM FLOW RATE (CFS)
	AREA DRAINED PER INLET (ACRES)
	FLOW RATE PER INLET (CFS)
	BACK FLOW PREVENTER
	WATER METER
	EXISTING GRADE ELEVATIONS
	IRRIGATION METER
	PROPOSED GRADE ELEVATIONS
	PROPOSED FIRE HYDRANT RELOCATION
	PROPOSED WATER S/O VALVE

DATE	DESCRIPTION	REV NO.

FIRE LANE NOTES

A. CURBS LOCATED ON EITHER SIDE OF A FIRE LANE SHALL BE PAINTED RED OR A RED STRIPE SHALL BE PLACED ALONG THE PAVEMENT WHERE THERE IS NO CURB. WHERE A FIRE LANE PASSES BETWEEN HEAD IN PARKING SPACES, THE RED STRIPE SHOULD BE PLACED ALONG THE REAR OF THESE SPACES CLEARLY DEFINING THE FIRE LANE PAINTED CURBS AND FIRE LANE STRIPES SHALL ALSO BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE-TOW AWAY ZONE" IN WHITE LETTERS AT LEAST THREE (3) INCHES IN HEIGHT, AT INTERVALS NOT EXCEEDING (50) FEET. WHERE FIRE LANES ARE CLEARLY DEFINED BY CURB/PAVEMENT STRIPING, FIRE LANE SIGNS ARE NOT REQUIRED. FIRE LANE SIGNS SHOULD BE PLACED EVERY (75) FEET ALONG ANY FIRE LANE WHERE PAVEMENT OR CURB STRIPING IS NOT PRACTICAL.

B. ANY COLOR OTHER THAN RED MAY BE USED IN "NO PARKING" AREAS THAT ARE NOT APPROVED FIRE LANES. RED COLORED CURBS, PAVEMENT STRIPING OR WHEEL STOPS SHALL BE USED ONLY TO DESIGNATE APPROVED FIRE LANES. THE PLANS WILL BE APPROVED WITH THE CIVIL SITE-PLAN REVIEW BUT MAY BE REVISED AT FIRE CODE REVIEW, BY THE BUILDING OFFICIAL.

ACCESS ROAD/FIRE LANE

APPROVED:
DEVELOPMENT COORDINATOR

DATE: 07/05/2017

NOMA
ENGINEERING & CONSTRUCTION
PO BOX 36, BARKER, TEXAS, 77413
(409) 832-878-2016
www.nomaengineering.com
FIRM: 16913

FIRE LANE LAYOUT

W. BELFORT STREET STORAGE
NORTHWEST CORNER OF
W. BELFORT STREET AND 2ND STREET
SUGARLAND, TX 77498
0.3458 ACRE TRACT

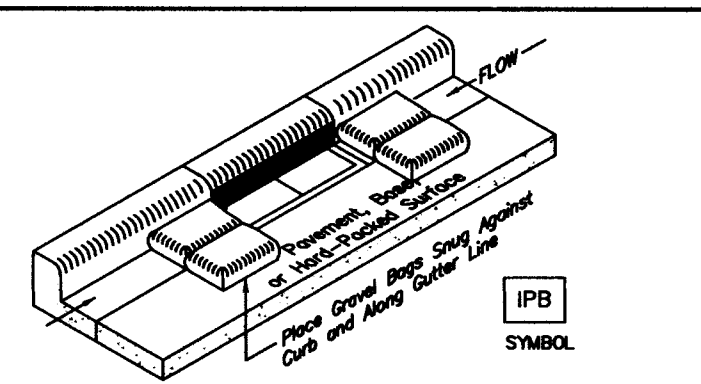
DRAWN BY: M.K. DATE: MAY 05, 2017
CHECKED BY: H.G. DATE: MAY 05, 2017
APPROVED BY: H.G. DATE: MAY 05, 2017

SHEET NO.
C5 of C7

DATE: 07-05-17

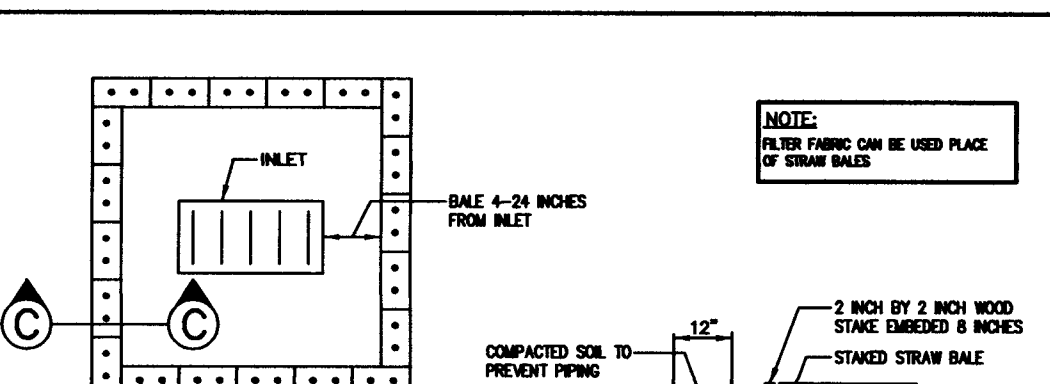
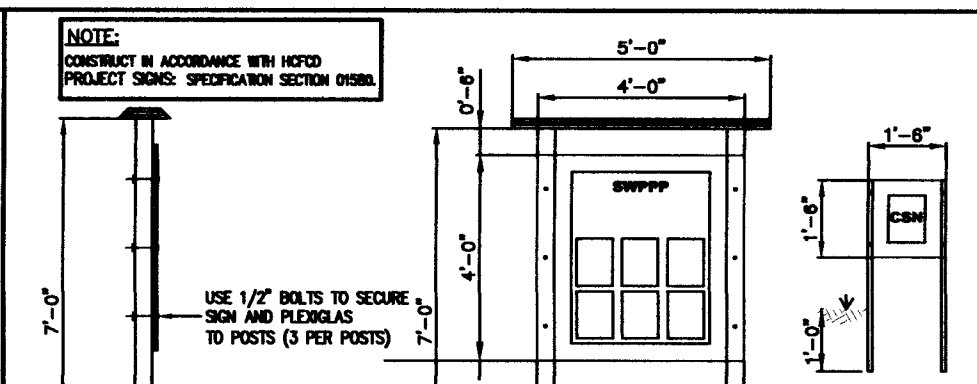
LEGEND

	PROP. SANITARY SEWER
	PROP. WATER LINE
	PROPERTY LINE
	HIGH POINT (H.P.)
	DIRECTION OF FLOW
	STORM/SANITARY SEWER MANHOLE
	TYPE "A" INLET
	BACK FLOW PREVENTER
	WATER METER
	EXISTING GRADE ELEVATIONS



GENERAL NOTES:

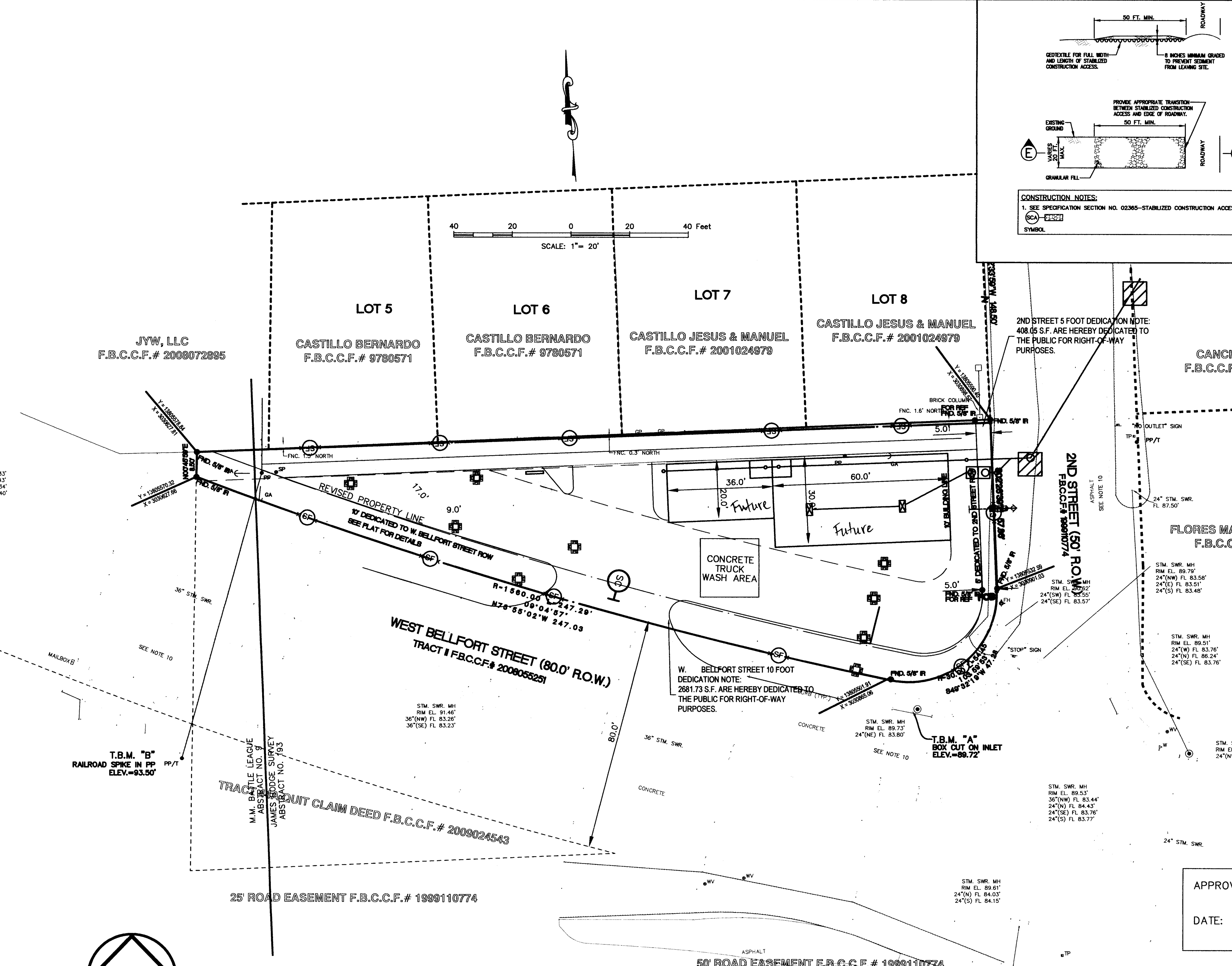
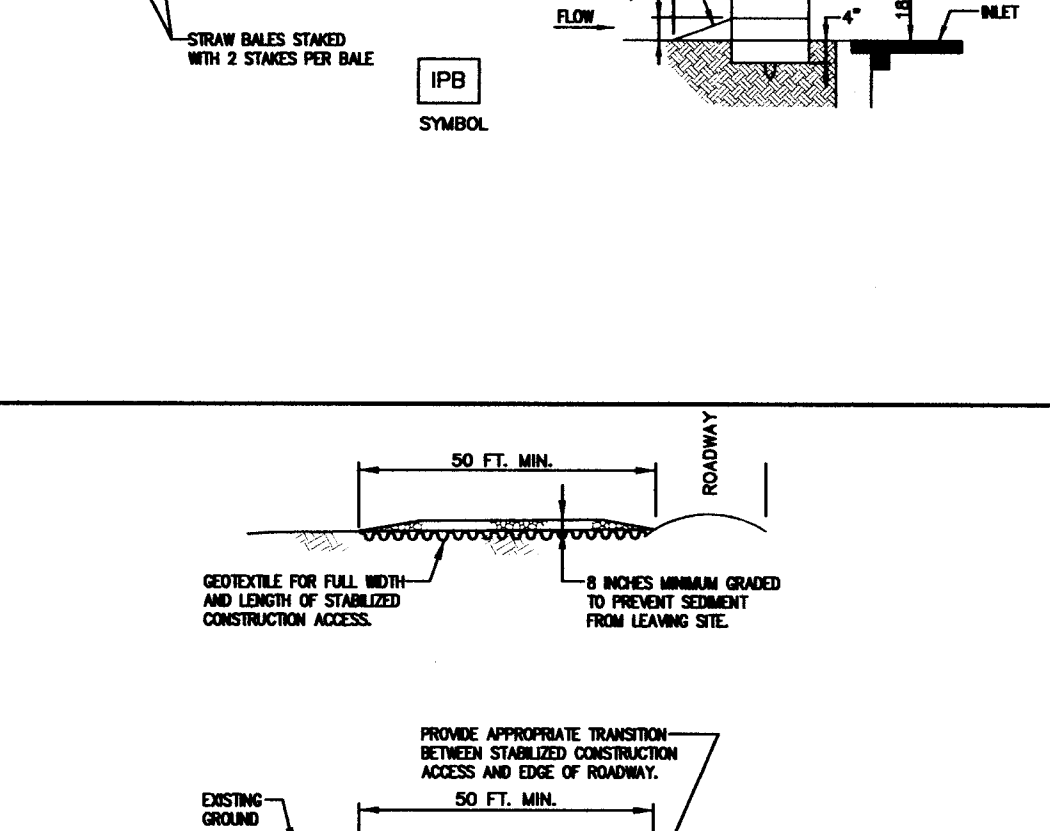
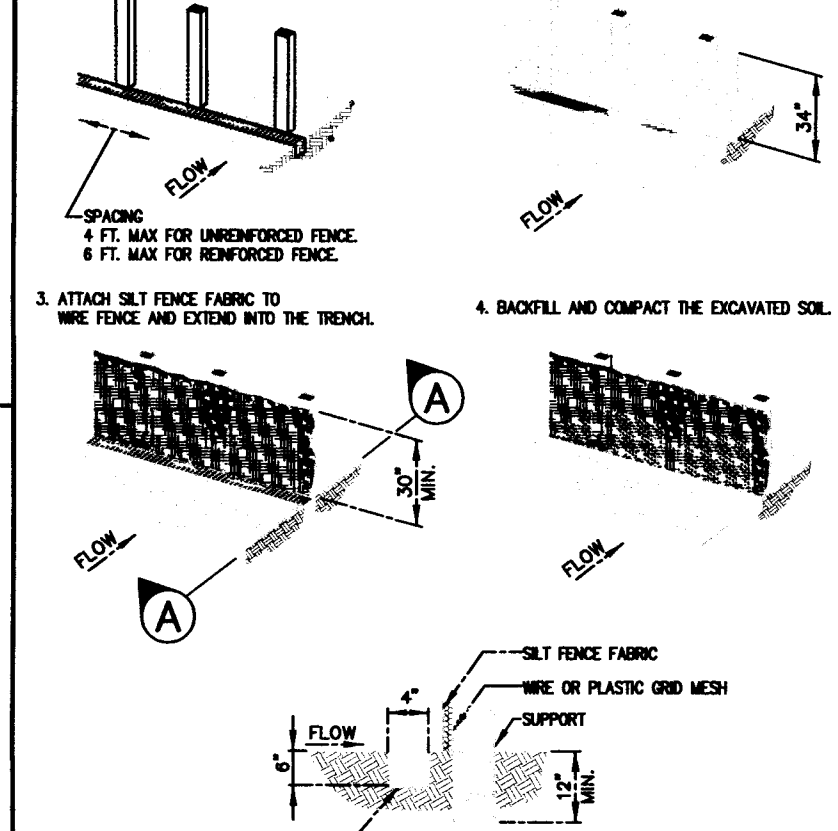
1. PLACE GRAVEL BAGS IN THE CUTTER ON EACH SIDE OF THE INLET OPENING. GRAVEL BAGS SHALL BE PLACED TIGHTLY AGAINST THE CURB.
2. PLACE GRAVEL BAGS AT BACK OF CURB ALONG INLET.
3. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET, UNLESS DIRECTED BY THE ENGINEER.
4. IF THE LAINE ADJACENT TO THE INLET IS CLOSED TO TRAFFIC THEN ADDITIONAL GRAVEL BAGS SHALL BE PLACED CONTINUOUSLY ACROSS THE FRONT OF THE INLET, BUT SHALL NOT BLOCK THE THROAT OF THE INLET.



THE OWNER-DEVELOPER, CONTRACTORS, BUILDERS AND OTHERS PERFORMING WORK ON THIS PROJECT SHALL COMPLY WITH THE TCEQ RULES REGARDING STORM WATER POLLUTION. ALL PAPERWORK REQUIRED BY THE TCEQ SHALL BE PRESENT ON THE JOB SITE AT ALL TIMES. IT IS SUGGESTED THAT THE REQUIRED PAPERWORK BE POSTED ON A "SIGN, POST OR BULLETIN BOARD" THAT WOULD BE READILY AVAILABLE FOR INSPECTION BY GOVERNMENTAL PERSONNEL. AS THE RESPONSIBILITY FOR POLLUTION PREVENTION IS PASSED FROM ONE PARTY TO ANOTHER, THE RESPONSIBLE PARTY SHOULD BE NOTED AND DISPLAYED, SO THAT IF A VIOLATION OCCURS, THE PROBABLE RESPONSIBLE PARTY CAN BE IDENTIFIED. CONTACT TCEQ FOR ANY CLARIFICATION OF REQUIREMENTS.

SWPPP LEGEND

	INDICATES PROPERTY LINE
	INLET PROTECTION BARRIER
	SILT STABILIZED FENCE
	STABILIZED CONSTRUCTION ACCESS
	PROPOSED MANHOLE
	EXISTING STORM INLET
	FILTER DAM (SEE SHEET C6)



STORM WATER POLLUTION PREVENTION NOTES

1. SEDIMENT WILL BE RETAINED ON SITE TO THE MAXIMUM EXTENT PRACTICABLE.
2. CONTROL MEASURE WILL BE PROPERLY SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICE. IF DAMAGED OR RENDERED INEFFECTIVE, THE EROSION AND SEDIMENT CONTROLS WILL BE REPAIRED OR REPLACED IMMEDIATELY.
3. WHEN PUMPING (DEWATERING) STANDING STORM WATER FROM THE SITE, THE OPERATOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) FROM THE STORM WATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES THAT ADDRESS DEWATERING ACTIVITIES. UNTREATED/DIRECT DISCHARGE INTO A STORM SEWER WILL NOT BE ALLOWED.
4. IF THE INTERIM PERIOD BETWEEN CONSTRUCTION OF UTILITIES AND STREET CONSTRUCTION WILL BE MORE THAN 21 DAYS, THE STREET RIGHT-OF-WAY WILL BE MULCHED OR OTHERWISE STABILIZED WITHIN THE 14 DAYS.
5. AFTER PAVING COMPLETION, NEWLY GRADED AREAS AND ALL EXPOSED SOILS WILL BE COMPLETELY STABILIZED.
6. CONTROL MEASURES WILL BE INSTALLED ALONG BACK OF CURB TO ADEQUATELY PREVENT SEDIMENT RUNOFF INTO STREETS ONCE PAVING COMPLETE.
7. CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE, UNLESS THEY ARE USING A PROPERLY DESIGNED AND DESIGNATED CONCRETE WASHOUT AREA.
8. EROSION AND SEDIMENT CONTROL MEASURES THAT HAVE BEEN IMPROPERLY INSTALLED OR HAVE BEEN DISABLED, RUN-OVER, REMOVED, OR OTHERWISE RENDERED INEFFECTIVE MUST BE REPLACED OR CORRECTED IMMEDIATELY.
9. MAINTENANCE AND REPAIRS WILL BE CONDUCTED WITHIN 24 HOURS OF INSPECTION REPORT.
10. SEDIMENT WILL BE REMOVED FROM BEHIND THE FILTER FABRIC FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE.
11. SEDIMENT WILL BE REMOVED AROUND THE INLET BARRIERS AND DIKES WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED.
12. INSPECTIONS OF ALL BMP'S WILL BE CONDUCTED EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER, OR EVERY 7 CALENDAR DAYS.
13. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLANS WILL BE INSPECTED TO INSURE EFFECTIVE OPERATION.
14. THE SWPPP WILL BE AMENDED TO REPLACE INEFFECTIVE BMP'S IDENTIFIED THROUGH INSPECTIONS WITHIN 7 DAYS OF IDENTIFYING THE DEFICIENCY.
15. REPORTS WILL INCLUDE WHAT MAINTENANCE WAS DONE AS A RESULT OF THE INSPECTION.
16. ALL LITTER, TRASH AND FLOATABLE DEBRIS WILL BE CONTAINED WITHIN THE SITE.

DATE	DESCRIPTION	REV. NO.

NOMA ENGINEERING & CONSTRUCTION
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 PO BOX 36, BARKER, TEXAS, 77413
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 FIRM: 16913

STORM WATER PPP

W. BELFORT STREET STORAGE
 NORTHWEST CORNER OF
 W. BELFORT STREET AND 2ND STREET
 SUGARLAND, TX 77498
 0.3458 ACRE TRACT

DRAWN BY: M.K. DATE: MAY 22, 2017
 CHECKED BY: H.G. DATE: MAY 22, 2017
 APPROVED BY: H.G. DATE: MAY 22, 2017

SHEET NO. C6 of C7

APPROVED: *Carandra P...*
 DEVELOPMENT COORDINATOR
 DATE: 6-30-17

STATE OF TEXAS
 HUSSAM S. GHUNEIM
 115671
 LICENSED PROFESSIONAL ENGINEER

DATE: 05-22-17

CONSTRUCTION WARNING SIGN SPACING

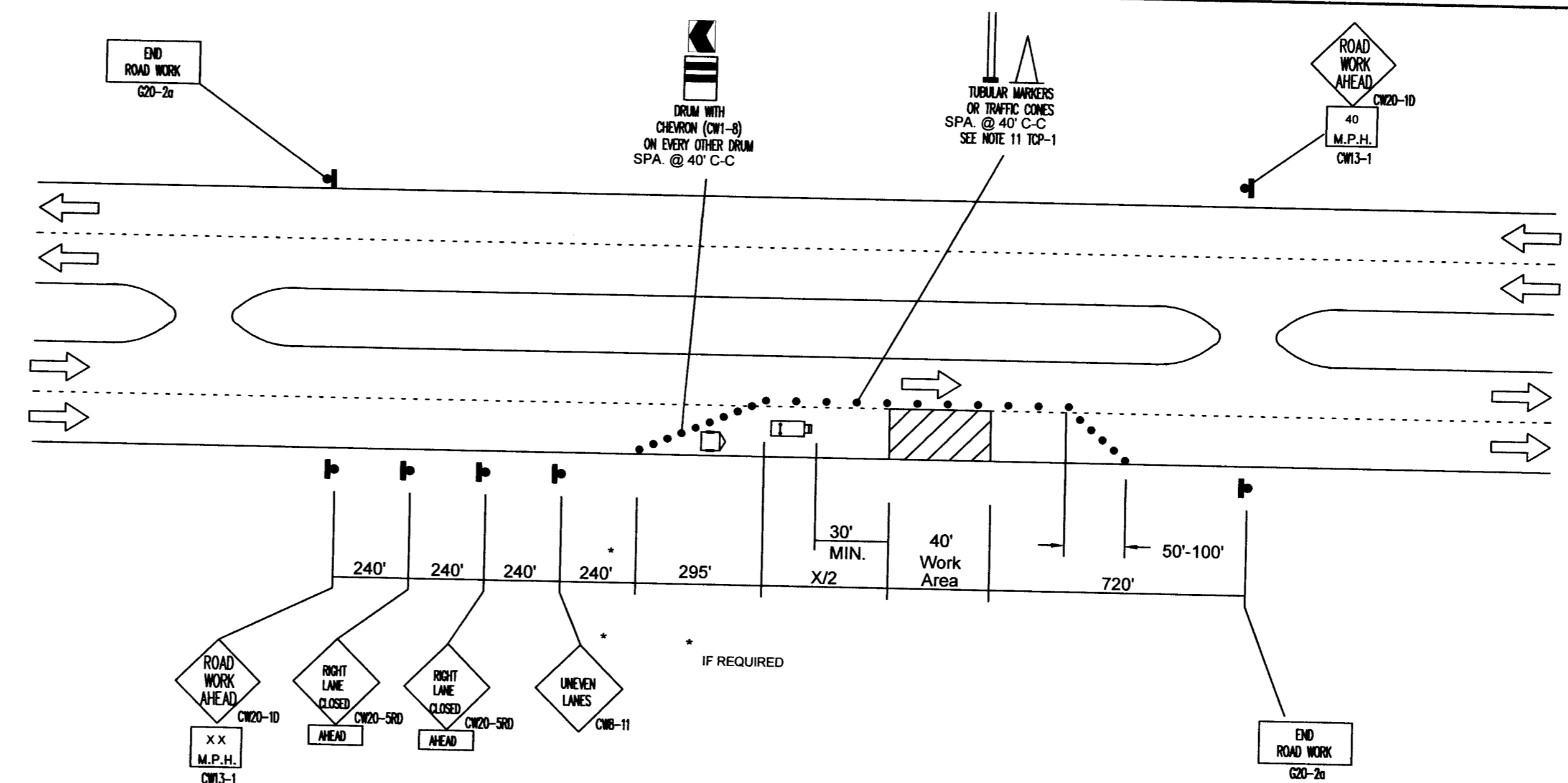
Posted Speed or 85% Speed (MPH)	X Min. Distance (feet)
30 or less	120
35	160
40	240
45	320
50	400
55	500
65	750

X=SIGN SPACING
L=TAPER LENGTH
2XL=TANGENT

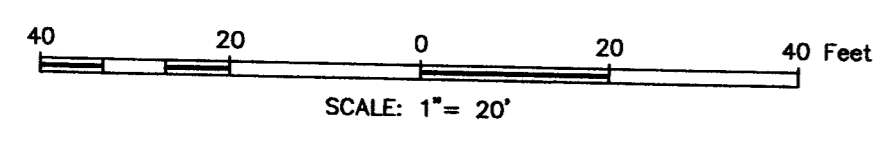
TYPICAL TRANSITION LENGTHS AND SUGGESTED MAXIMUM SPACING OF DEVICES

Posted Speed	Formula	Minimum Desirable Taper Lengths			Suggested Maximum Spacing of Device	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	$L = \frac{WS^2}{50}$	150'	165'	180'	30'	60'-75'
35		205'	225'	245'	35'	70'-90'
40		285'	295'	320'	40'	80'-100'
45		450'	495'	540'	45'	90'-110'
50		500'	550'	600'	50'	100'-125'
55		550'	605'	660'	55'	110'-140'
60		600'	660'	720'	60'	120'-150'
65		650'	715'	780'	65'	130'-175'

* 85th Percentile Speed may be used on roads where traffic speeds normally exceed the posted speed limit.
 ** Taper lengths have been rounded off.



- LEGEND
- CONSTRUCTION AREA
 - OPEN TO TRAFFIC
 - HEAVY WORK VEHICLE
 - FLASHING ARROW BOARD (OPTIONAL)
 - SIGN POST
 - TUBULAR MARKERS, CONES OR DRUMS
 - FLAGGER
 - SIGN SPACING
 - TAPER LENGTH
 - 40 MPH SPEED LIMIT



ONE LANE CLOSURE (4 LANE ROAD)

JYW, LLC
F.B.C.C.F.# 2008072895

CASTILLO BERNARDO
F.B.C.C.F.# 9780571

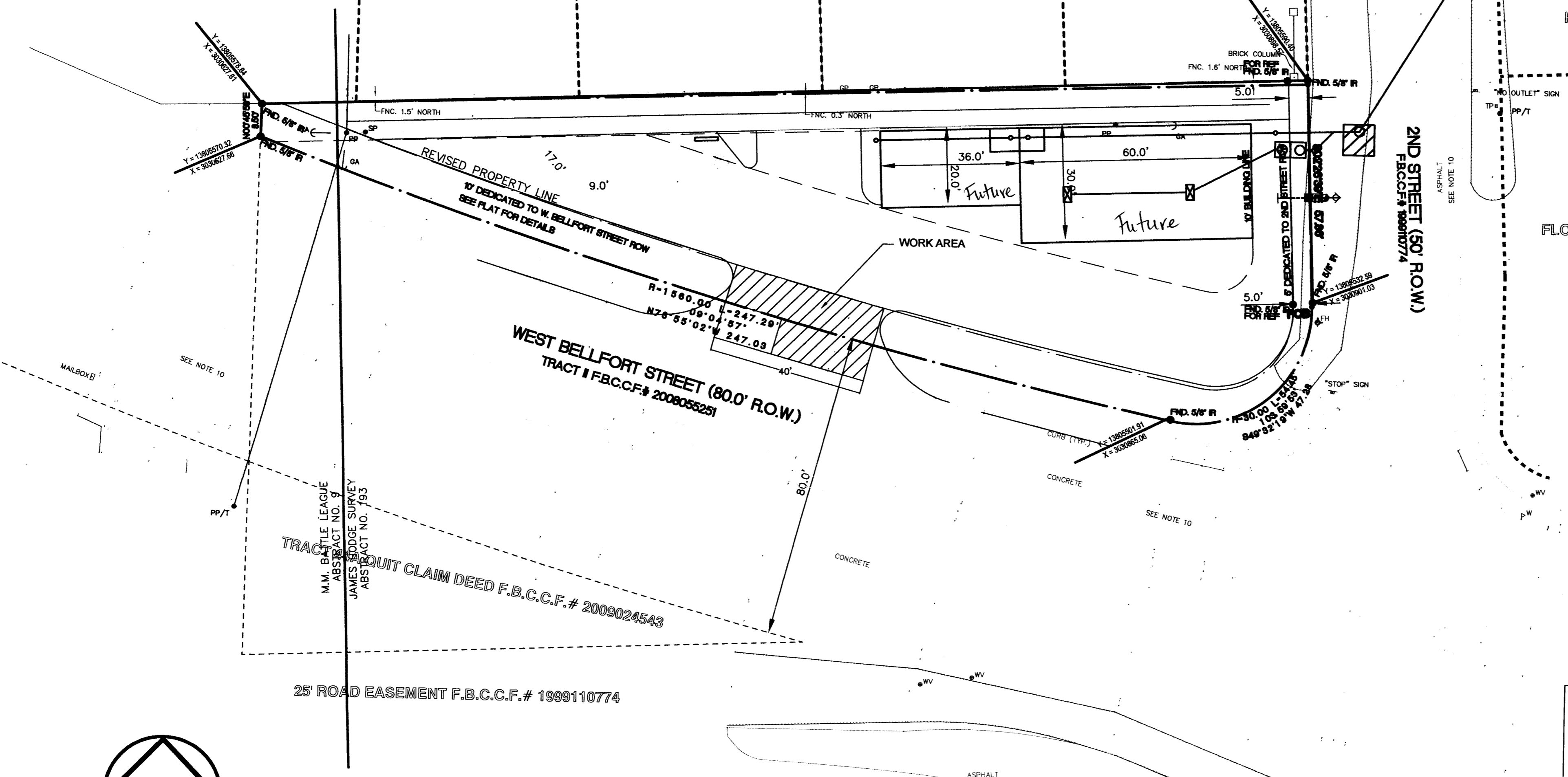
CASTILLO BERNARDO
F.B.C.C.F.# 9780571

CASTILLO JESUS & MANUEL
F.B.C.C.F.# 2001024979

CASTILLO JESUS & MANUEL
F.B.C.C.F.# 2001024979

CANCH
F.B.C.C.F.

FLORES MA
F.B.C.C.



DATE	DISCRIPTION	REV. NO.

NOMA
ENGINEERING & CONSTRUCTION
PO BOX 36, BARKER, TEXAS, 77413
(tel) 832-878-2016 (fax) 281-487-0022
www.NOMAEENGINEERING.com
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TRAFFIC CONTROL PLAN

W. BELFORT STREET STORAGE
NORTHWEST CORNER OF
W. BELFORT STREET AND 2ND STREET
SUGARLAND, TX 77498
0.3458 ACRE TRACT

DRAWN BY: S.K. DATE: NOV. 27, 2015
 CHECKED BY: H.G. DATE: NOV. 27, 2015
 APPROVED BY: H.G. DATE: NOV. 30, 2015

SHEET NO.
TCP

APPROVED: *Casandra L...*
DEVELOPMENT COORDINATOR
DATE: 11-30-17

STATE OF TEXAS
HUSSAM S. GHUNEIM
115671
LICENSED PROFESSIONAL ENGINEER