

## Matt McWilliams

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**From:** Scott Weeks [Scott.Weeks@madison-co.com]  
**Sent:** Monday, September 07, 2015 11:28 AM  
**To:** Matt McWilliams  
**Subject:** RE: David Harkins shop

Matt,

I will have to have a letter from Bear Creek advising adequate flow at the fire hydrant, location of fire hydrant, erosion control plan, landscaping plan, color renderings of the building, distances from property line to building front side and rear locations of any easements, ROW, traffic daily count as to the number of vehicles generated from this business, and a DEQ permit.

Scott

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**From:** Matt McWilliams [mailto:Matt@thrashco.com]  
**Sent:** Thursday, September 03, 2015 11:23 AM  
**To:** Scott Weeks <Scott.Weeks@madison-co.com>  
**Cc:** Nolan Williamson <NWilliamson@bcwaterms.org>  
**Subject:** RE: David Harkins shop

Scott/Nolan:

Please see the attached preliminary drawings for the referenced project. Please give us any feedback or comments that you may have. We are working to submit the drawings for site plan review to Madison County by September 11.

Thanks,

Matt McWilliams



Thrash Commercial Contractors, Inc.  
211 Commerce Drive  
Brandon, MS 39042  
Mobile (601) 214-4788  
Voice: (601) 825-8967  
Fax: (601) 825-0950

Email: [matt@thrashco.com](mailto:matt@thrashco.com)

## Matt McWilliams

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**From:** Don McGraw [dmcgraw@montgomerymcgraw.com]  
**Sent:** Tuesday, September 15, 2015 9:05 AM  
**To:** Matt McWilliams  
**Subject:** David Harkins  
**Attachments:** 0892\_001.pdf

Matt-Letter from Scott Weeks attached affirming zoning as C-2.. I don't see any easements on the title search. They are probably all within the road right of way.

Don

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**From:** Montgomery, McGraw PLLC [mailto:[mmcolaw@comcast.net](mailto:mmcolaw@comcast.net)]  
**Sent:** Tuesday, September 15, 2015 9:04 AM  
**To:** Don McGraw  
**Subject:** Attached Image



## MADISON COUNTY BOARD OF SUPERVISORS

125 West North Street • Post Office Box 608  
Canton, Mississippi 39046  
601-855-5500 • Facsimile 601-855-5759  
www.madison-co.com

February 11, 2015

The Jefferson Bank

Re: Agnes W. Stanley property  
Tax Parcel # 082E-15-002/01.00

Dear Sir/Madame,

The Madison County Board of Supervisors approved the Planning Commission's recommendation on February 2, 2015 to approve rezoning 29.16 acres from A-1 Agricultural to C-2 Commercial. The Board of Supervisors minutes will be approved February 17, 2015. A copy of the Board of Supervisors minutes are not available online at this time and should be posted by March 2015 on the Madison County website. If you need further information, please advise.

Sincerely,

Scott Weeks, Administrator  
Planning and Zoning

# BEAR CREEK WATER ASSOCIATION



P. O. Box 107  
Canton, MS 39040

Phone: (601) 850-6909  
Fax: (601) 850-8936

September 14, 2015

Scott Weeks  
Madison County Planning and Zoning Administrator

RE: Thrash Commercial (NE corner of Church Road and Old Jackson Road)  
Section 15, T8N, R2E  
Madison County, Mississippi

Dear Scott:

Matt McWilliams of Thrash Commercial Contractors requested some information concerning fire flow capabilities near the northeast corner of Old Jackson Road and Church Road. Our computerized hydraulic model of our water system shows pressures in that area to be around 60 PSI. This is within the recommended pressure range set by the Mississippi State Department of Health (20-80 PSI recommended). Also, due to our 12" waterline on the east side of Old Jackson Road, our hydraulic model shows that the fire hydrants will produce an adequate flow for fire protection purposes.

The closest fire hydrant we have is approximately 700 feet north of the property on the east side of Old Jackson Road. There is also a fire hydrant located across the street from the property, but that hydrant is not owned by Bear Creek Water Association.

Please contact me if you need any additional information.

Sincerely,



Nolan P. Williamson, P.E.  
General Manager

Submit only upon request from MDEQ



SMALL CONSTRUCTION NOTICE OF INTENT (SCNOI)

GENERAL NPDES PERMIT MSR15 \_\_\_\_\_ (Number to be assigned by MDEQ if submitted)

Prior to the commencement of small construction activity (see Small Construction General Permit ACT11, T-27), the owner or operator of a small construction project must complete this form and develop a Storm Water Pollution Prevention Plan (SWPPP) as required by ACT5 of Mississippi's Small Construction General Permit. This SCNOI and SWPPP shall be submitted to the Mississippi Department of Environmental Quality (MDEQ) only upon request from MDEQ; however, the SCNOI and SWPPP must be maintained at the permitted site or locally available in case inspector review is necessary. Attachments with this SCNOI must include: a USGS quad map or copy showing site location (only if required to be submitted to MDEQ) and a Storm Water Pollution Prevention Plan (SWPPP). All questions must be answered - answer "NA" if the question is not applicable.

PROJECT INFORMATION

OWNER CONTACT PERSON: DAVID HARKINS
OWNER COMPANY NAME: DEH TRUCKING, INC.
OWNER STREET (P.O. BOX): P.O. BOX 1022
OWNER CITY: CLEVELAND
STATE: MS ZIP: 38732
OWNER PHONE # (INCLUDE AREA CODE): 662-588-7311

OPERATOR (if different from owner) CONTACT PERSON: MATT MCWILLIAMS
OPERATOR COMPANY: THRASH COMMERCIAL CONTRACTORS
OPERATOR STREET (P.O. BOX): 211 COMMERCE DRIVE
OPERATOR CITY: BRANDON
STATE: MS ZIP: 39042
OPERATOR PHONE # (INCLUDE AREA CODE): 601 825 8967

PROJECT NAME: DEH TRUCKING MAINTENANCE FACILITY
DESCRIPTION OF CONSTRUCTION ACTIVITY: BUILD 5000 SF BUILDING + 1.8 ACRE PARKING LOT
ACREAGE DISTURBED (to be covered by this permit, area must be less than five (5) acres): 2.5 ACRES
PHYSICAL SITE ADDRESS (If not available, indicate the nearest named road. For linear projects, indicate the beginning of the project and identify all counties the project traverses.):
STREET: 320 OLD JACKSON ROAD
CITY: CANTON COUNTY: MADISON ZIP: 39046
NEAREST NAMED RECEIVING STREAM:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Thomas M. (Matt) McWilliams, Jr.
Printed Name: THOMAS M. MCWILLIAMS JR.

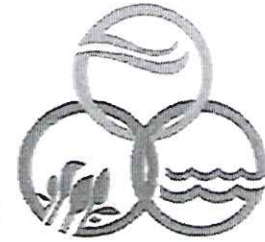
Date Signed: 09/15/2015
Title: PRINCIPAL

1This application shall be signed according to the Small Construction General Permit, ACT10, T-4, T-5.

If requested, please submit this form to: Chief, Environmental Permits Division
MDEQ, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225



State of Mississippi  
Mississippi Department of Environmental Quality (MDEQ)  
Office of Pollution Control (OPC)



## SMALL CONSTRUCTION GENERAL PERMIT

FOR LAND DISTURBING ACTIVITIES OF ONE (1) to LESS THAN FIVE (5) ACRES

TO DISCHARGE STORM WATER AND ALLOWABLE NON-STORM WATER FROM REGULATED CONSTRUCTION ACTIVITIES  
IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

### THIS CERTIFIES THAT

FACILITIES OR PROJECTS ISSUED A CERTIFICATE OF PERMIT COVERAGE UNDER THIS PERMIT ARE GRANTED  
PERMISSION TO DISCHARGE STORM AND/OR ALLOWABLE NON-STORM WATER FROM REGULATED CONSTRUCTION  
ACTIVITIES INTO STATE WATERS

in accordance with effluent limitations, inspection requirements and other conditions set forth in herein. This permit is issued  
in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code  
of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to  
Section 402(b) of the Federal Water Pollution Control Act.

Mississippi Environmental Quality Permit Board

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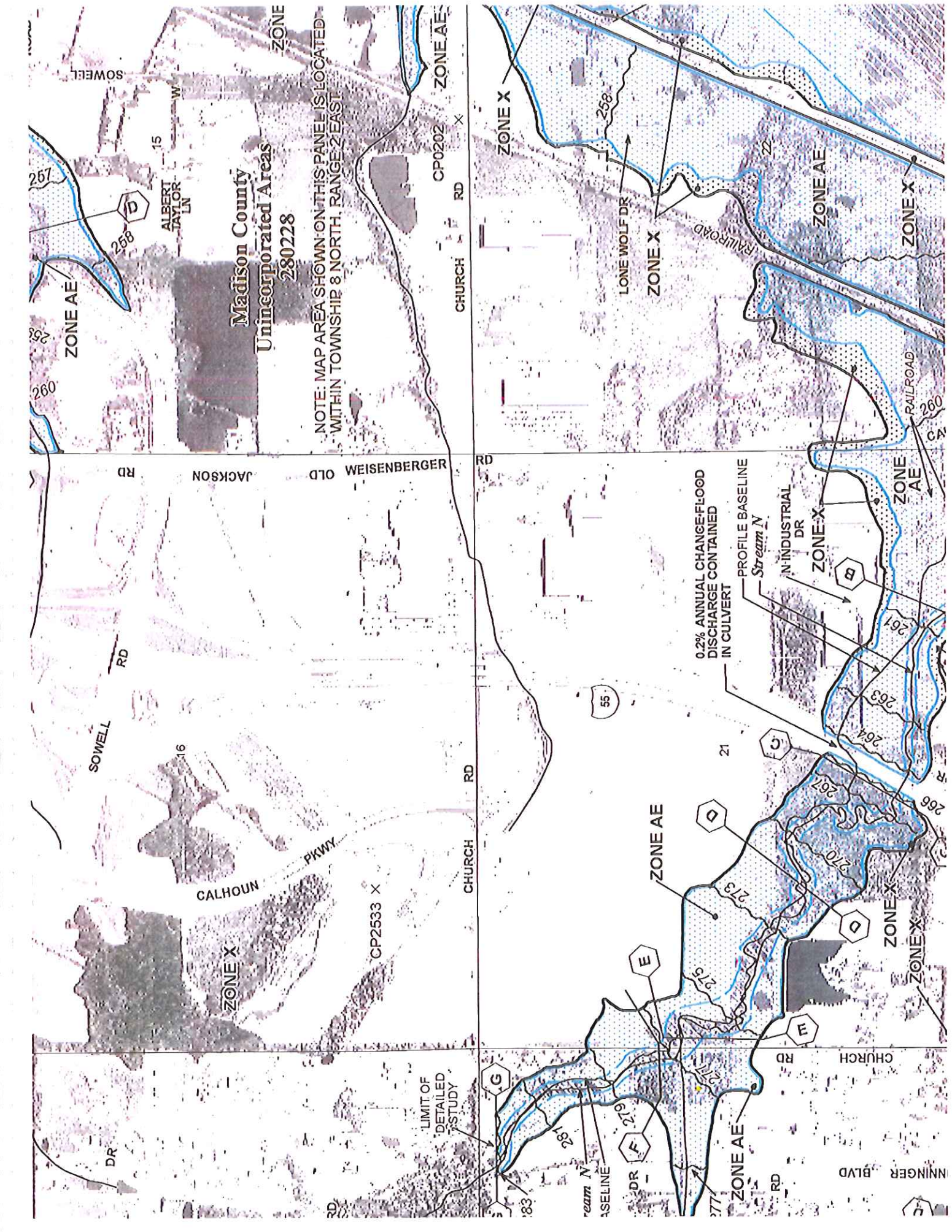
Authorized Signature

Mississippi Department of Environmental Quality

Issued: April 18 2013

Expires: March 31 2018

Permit No. MSR15



**Madison County  
Unincorporated Areas  
280228**

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 8 NORTH, RANGE 2 EAST

0.2% ANNUAL CHANGE-FLOOD DISCHARGE CONTAINED IN CULVERT

PROFILE BASELINE  
Stream N

N-INDUSTRIAL DR

LIMIT OF DETAILED STUDY

NINGER BLVD

SOWELL

ALBERT TAYLOR LN

JACKSON RD

WEISENBERGER OLD RD

SOWELL RD

16

CALHOUN PKWY

CP2533 X

CHURCH RD

281

279

277

275

273

271

269

267

265

263

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CHURCH RD

WEISENBERGER OLD RD

CHURCH RD

CHURCH RD

CHURCH RD

ZONE X

ZONE X

ZONE AE

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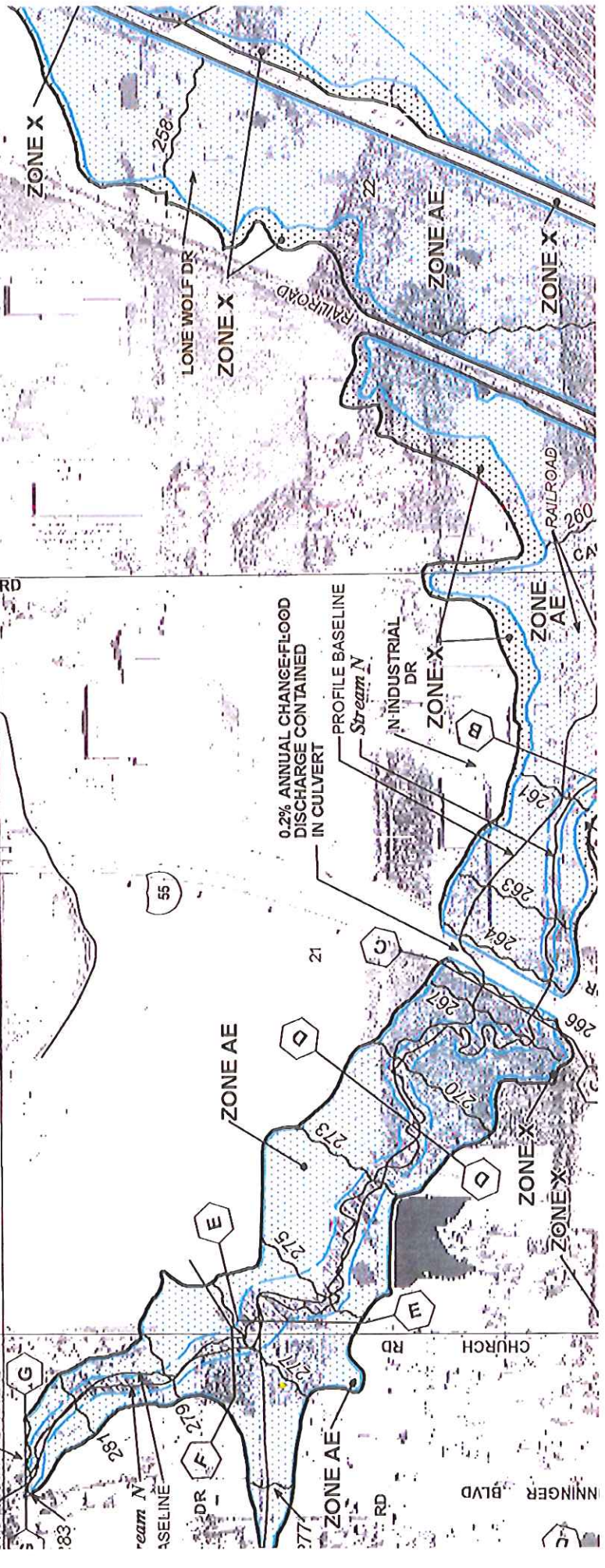
ZONE X

ZONE AE

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ZONE X



# PERIMALITER® LED WALLPACKS

PGM3/PVL3

Cat.#

Job

Type



**HUBBELL**  
Outdoor Lighting

Approvals

## SPECIFICATIONS

### Intended Use:

Perimeter lighting for safety, security and identity - LED units provide 60-70% energy savings over typical pulse start wallpacks. Uses include office buildings, shopping centers, restaurants, schools, warehouses, parking garages and other commercial applications

### Construction:

- The die-cast aluminum housing provides firm mounting over recessed junction boxes ½" side hubs included for surface conduit wiring. Housing includes a top hub for use with button photo controls for dusk-to-dawn control. The construction not only provides a rigid mount but an excellent heat sink for the LED system, allowing proper operating temperature for optimum performance and long life

- Two door options are available: A cast aluminum and prismatic borosilicate glass assembly for typical commercial applications (PGM3) and an all polycarbonate, one-piece, vandal resistant door for use in non-supervised locations (PVL3)

- Standard finish is dark bronze textured powder paint. The PGM3 version is available in alternate finishes of black, white, gray and platinum silver

### LED:

- 30 high powered LEDs in 2 parallel series, produce up to 5600 lumens (82 LPW) in PGM3 and 5337 lumens (73 LPW) in PVL3
- CCT - 3000K (80 CRI), 4000K (70CRI), 5000K (67 CRI)

### Electrical

- 120-277V universal voltage 50/60Hz, dimmable
- Driver RoHS and IP66
- 34w (1 driver, 350mA) or 71w (2 drivers, 700mA) options available
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

### Controls

Drivers are 0-10V dimming standard. Photocell and occupancy sensor options available for complete on/off and dimming control

### Egress Version

- Minimum of 1fc at 12' mounting height covering 10'x10' square in battery mode

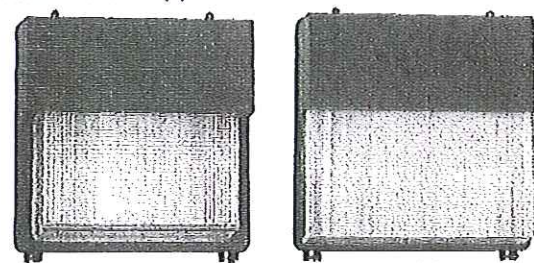
### Listings:

Listed to UL 1598 for use in wet locations, -40°C to 40°C ambient environments.

### Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

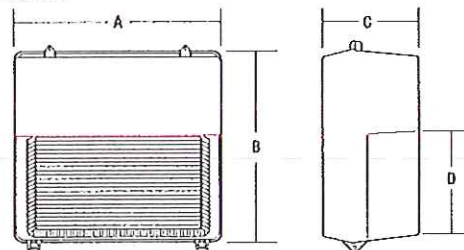
## PRODUCT IMAGE(S)



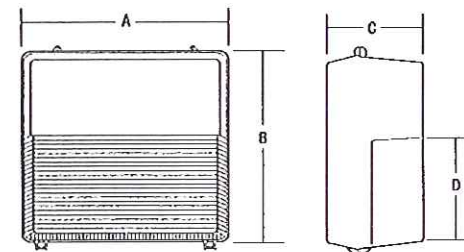
PGM3

PVL3

## DIMENSIONS



	A	B	C	D
PGM3	147/8"	15"	8"	613/16"
LED	378 mm	381 mm	203 mm	173 mm



	A	B	C	D
PVL3	147/8"	15"	8"	77/16"
LED	378 mm	381 mm	203 mm	189 mm

## CERTIFICATIONS/LISTINGS



## ORDERING INFORMATION ORDERING EXAMPLE: PGM3-30LU-5K-BZ

FAMILY		# LEDS	VOLTAGE <sup>1</sup>	CCT	DRIVE CURRENT	FIXTURE COLOR	OPTIONS
PGM3	Glass Refractor	30L	U 120V-277V	3K 3000K, 80 CRI	BLANK 700mA	BZ <sup>5</sup> Bronze	F <sup>1</sup> Fusing (voltage determined by voltage field) Single fusing only 120V, 277V or 347V
PVL3 <sup>5</sup>	Polycarbonate Refractor		1 120V	4K 4000K, 70 CRI	035 <sup>3</sup> 350mA	BL Black	PC <sup>1</sup> Button photocontrol, (Must specify individual voltage)
			2 208V	5K 5000K, 67 CRI		WH White	BBU <sup>1,3</sup> Integral battery for 120 or 277V rated for -20°C to 25°C - 700mA -20°C to 35°C - 350mA (Must specify individual voltage)
			3 240V			GR Gray	SC0 <sup>2,4</sup> Motion sensor On/Off control, No light output when no motion detected
			4 277V			PL Platinum	SCP <sup>2,4</sup> Programmable motion control, factory default is 10% light output
			5 480V			CC Custom Color	
			F 347V				

1 Voltage specific option, designate in voltage field

2 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one remote to program dimming settings, 120V or 277V only

3 BBU only available in 350mA, 120V or 277V only

4 PC option not applicable, included in sensor

5 PVL3 only available in BZ Bronze fixture color

### Controls Guide

SP Surge protector, 10KA, 273 joules



Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

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PGM/PVLEO 8/15



## PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	FIXTURE SERIES	5K (5000K nominal, 67 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
				LUMENS	LPW <sup>1</sup>	B	U	G	LUMENS	LPW <sup>1</sup>	B	U	G	LUMENS	LPW <sup>1</sup>	B	U	G
30	350mA	35w	PGM3	3209	92	0	4	3	2955	84	0	3	3	2338	67	0	3	3
			PVL3	2757	79	0	3	3	2614	75	0	3	3	2089	60	0	3	3
	700mA	68w	PGM3	5678	84	0	4	4	5157	76	0	4	4	3932	58	0	4	3
			PVL3	5337	72	0	4	4	4505	66	0	4	4	3492	51	0	4	3

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

## ELECTRICAL DATA

# OF LEDS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
30	-035 (350mA)	120	0.28	35
		277		35
		347		35
		480		35
	STD. (700mA)	120	0.58	68
		277		68
		347		68
		480		68

## PROJECTED LUMEN MAINTENANCE

Ambient Temp.	OPERATING HOURS					L70 (hours)
	0	25,000	50,000	TM-21-11 <sup>1</sup>	100,000	
25°C / 77°F	1.00	0.96	0.95	0.94	0.92	597,000
40°C	0.99	0.95	0.93	0.93	0.90	417,000

1. Projected per IESNA TM-21-11 ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

## LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99
50°C	122°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

## ACCESSORIES

### ACCESSORIES

(order as separate part #)

Catalog Number	Description
PBT-1	Photo control, button type, 120V
PBT-234	Photo control, button type, 208, 240, 277V
PG-PS <sup>1</sup>	Polycarbonate shield for refractor for PGM3
PG-WG <sup>1</sup>	Wire guard for refractor for PGM3
PVL3V	Full cut-off visor, formed aluminum, bronze finish
SCP-REMOTE <sup>2</sup>	Remote control for SCP option. Order at least one per project to program and control.

1 Guard & shield can be used on the same fixture

2 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, must order minimum of one remote to program dimming settings, not available in 208V, 240V, 347V or 480V

### REPLACEMENT PARTS

(order as separate part #)

Catalog Number	Description
200-0180-9904	Replacement lens/door PVL3
800-3399-0104	Replacement lens/door PGM3

Submitted by Bell & McCoy Lighting and Controls



**Job Name:**  
Swain Project - Strip Shopping Ctr

**Catalog Number:**  
XLCM FT LED SS CW UE BRZ

Notes:

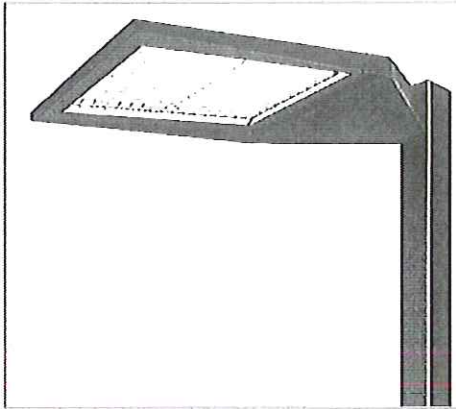
**Type:**  
**23,000 LUMEN**

MISSISSIPPI15-53008

75' ± Max  
30' poles



**LED AREA LIGHTS - LSI SLICE MEDIUM (XLCM)**



US & Int'l. patents pending

**SMARTECT™** - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature.

**ENERGY SAVING CONTROL OPTION - DIM** - 0-10 volt dimming enabled with controls by others. Available with High Output (HO) drive current only.

**EXPECTED LIFE** - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

**LEDS** - Select high-brightness LEDs in Cool White (5000K), or Neutral White (4000K) color temperature, 70 CRI.

**DISTRIBUTION/PERFORMANCE** - Types 3, FT, FT-L, FT-R and 5. FT-L and FT-R allow for D180 mounting configurations with factory set optics for applications such as automotive front row. Exceptional uniformity creates bright environment at lower light levels. Internal Louver (IL) option available for improved backlight control without sacrificing street side performance for FT distribution. Consult factory for internal louver for FT-L and FT-R applications.

**HOUSING** - One-piece, die-formed aluminum housing contains factory prewired driver. Wiring access door (with safety lanyard) located underneath.

**OPTICAL UNIT** - Clear tempered flat glass lens permanently sealed to weather-tight aluminum optic frame creates an IP65 rated optical unit (includes pressure-stabilizing breather).

**MOUNTING** - Tapered rear design allows fixtures to be mounted in 90° and 120° configurations without the need for extension arms. Use with 3" reduced drilling pattern. A round pole plate is required for mounting to round poles. Wall mount available by ordering wall mounting bracket (BKS-XBO-WM-\* -CLR). Proprietary pole quick mount accessories available with horizontal mounting or fixed 15° angled mounting (POMH-KIT-CLR and POM15-KIT-CLR) for mounting to square poles. See Accessory Ordering Information chart for all brackets.

**ELECTRICAL** - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277 VAC (50/60Hz input), and 347-480 VAC. Optional button-type photocells (PCI) are available in 120, 208, 240, 277 or 347 volt (supply voltage must be specified).

**DRIVER** - Available in SS (Super Saver) and HO (High Output) drive currents. Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

**OPERATING TEMPERATURE** - -40°C to +50°C (-40°F to +122°F)

**FINISH** - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Available in black, bronze and white. Other standard LSI finishes available. Consult factory.

**WARRANTY** - LSI LED fixtures carry a limited 5-year warranty.

**PHOTOMETRICS** - Please visit our web site at [www.lsi-industries.com](http://www.lsi-industries.com) for detailed photometric data.

**SHIPPING WEIGHT (in carton)** - One fixture: 25.25 lbs. (11.5 kg). Packed two per carton: 43.5 lbs. (19.7 kg).

**LISTING** - UL listed to U.S. and International safety standards. Suitable for wet locations. For a list of the specific products in this series that are DLC listed, please consult the LED Lighting section of our website or the Design Lights website at [www.designlights.org](http://www.designlights.org).

**DOE LIGHTING FACTS**

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit [www.lightingfacts.com](http://www.lightingfacts.com) for specific catalog strings.

LIGHT OUTPUT - XLCM					
		Type 3	Lumens (Nominal) Type FT	Type 5	Watts (Nominal)
Cool White	SS	19800	22800	22900	193
	HO	27100	30900	31100	278
Neutral White	SS	19000	18400	18500	193
	HO	26300	24100	23900	278

LED Chips are frequently updated therefore values may increase.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.



Fixtures comply with ANSI C136.31-2010 American National Standard for Roadway Lighting Equipment - Luminaire Vibration 1.5G requirements.



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

06/08/15

© 2015

LSI INDUSTRIES INC.

Submitted by Bell & McCoy Lighting and Controls



**Job Name:**  
Swain Project - Strip Shopping Ctr

**Catalog Number:**  
XLCM FT LED SS CW UE BRZ

Notes:

**Type:**  
**23,000 LUMEN**

MISSISSIPPI116-53008

## LED AREA LIGHTS - LSI SLICE MEDIUM (XLCM)



### LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XLCM 5 LED SS CW UE BLK PCI120**

Prefix	Distribution	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Options
XLCM	3 - Type III 5 - Type V <b>FT - Forward Throw</b> FT-L - Forward Optic Rotated for D180 Mount (Left Side) FT-R - Forward Optic Rotated for D180 Mount (Right Side)	LED	SS - Super Saver HO - High Output	CW - Cool White (5000K) NW - Neutral White (4000K)	UE - Universal Voltage (120-277V) 347-480 Universal Voltage (347-480V)	BLK - Black BRZ - Bronze WHI - White	DIM - 0-10V Dimming (from external signal) available with High Output (HO) drive current only Button Type PhotoCells PCI120 - 120V PCI208-277V - 208-277V PCI347 - 347V IL - Internal Louver (available with FT distribution only)

### LUMINAIRE EPA CHART - XLCM

Beam Spread	Beam Diameter	EPA
Single		0.5
D180°		1.0
D90°		0.8
T90°		1.7
TH120°		1.7
Q90°		1.9

Note: House Side Shield adds to fixture EPA. Consult Factory.

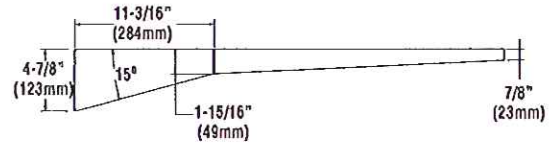
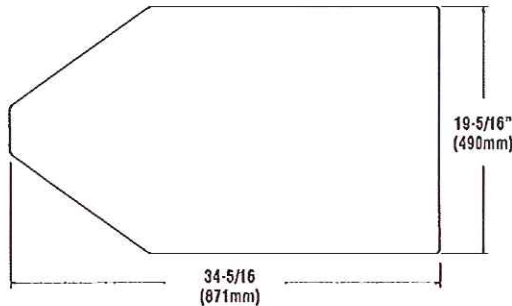
### ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number	Description	Order Number
BXS-X80-WM-*CLR Wall Mount Bracket	382132CLR	FK120 Single Fusing (120V)	FK120 <sup>2</sup>
XLCM-3-FT-HSS RM External House Side Shield (Back only - rear mounted)	6031593LK <sup>1</sup>	FK277 Single Fusing (277V)	FK277 <sup>2</sup>
XLCM-FT-L/FT-R-HSS SM External House Side Shield (Back only - side mounted)	603161BLK <sup>1</sup>	DFK208, 240 Double Fusing (208V, 240V)	DFK208, 240 <sup>2</sup>
X4RPP Round Pole Plate for 4" Poles	379967CLR	DFK480 Double Fusing (480V)	DFK480 <sup>2</sup>
X5RPP Round Pole Plate for 5" Poles	379965CLR	FK347 Single Fusing (347V)	FK347 <sup>2</sup>
		PQVH-KIT-CLR Square Pole Quick Mount Horizontal Bracket	592328CLR
		PQH15-KIT-CLR Square Pole Quick Mount Bracket w/15° Angle	592329CLR

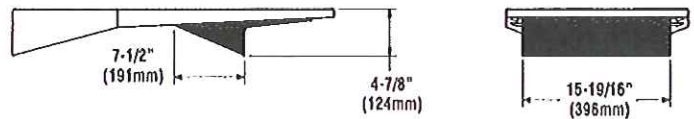
### FOOTNOTES:

- 1 - House Side Shields add to fixture EPA. Consult factory.
- 2 - Fusing must be located in the hand hole of pole.

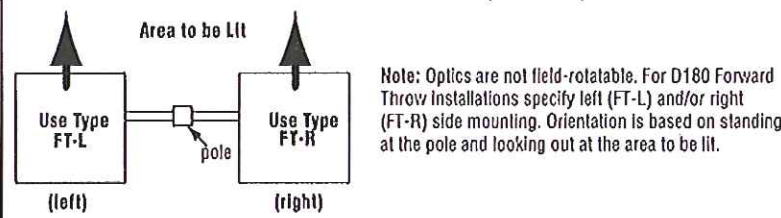
### DIMENSIONS



### HOUSE SIDE SHIELD (rear mount)



### LEFT AND RIGHT VERSIONS OF TYPE FT REFLECTORS (TOP VIEW)



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

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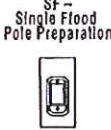
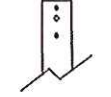
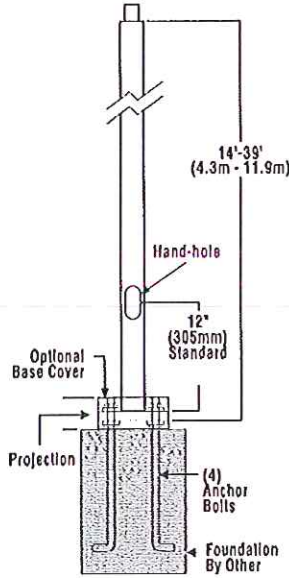


**STEEL SQUARE POLES**

**DIMENSIONS**

SQH -  
H= 2-3/8" (60mm) O.D. x 4-3/4" (121mm) Tenon

SQB3, SQB5 -  
Bolt-On Mount  
2-Bolt Pattern



**POLE SHAFT** - Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi. On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length. Straight poles are 4", 5", and 6" square.

**HAND-HOLE** - Standard hand-hole location is 12" above pole base. Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

**BASE** - Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi. Two-piece square base cover is optional.

**ANCHOR BOLTS** - Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional. Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.

**GROUND LUG** - Ground lug is standard.

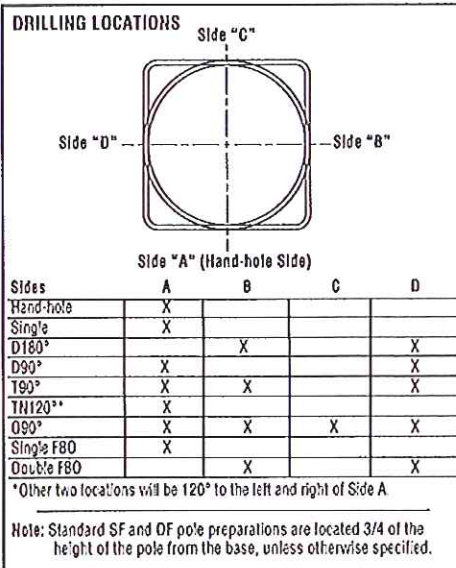
**DUPLEX RECEPTACLE** - Weatherproof duplex receptacle is optional.

**GROUND FAULT CIRCUIT INTERRUPTER** - Ground fault circuit interrupter is optional.

**FINISHES** - Each pole is finished with DuraGrip<sup>®</sup>, LSI's baked-on polyester-powder finishing process which electrostatically applies and fuses a polyester powder to the pole. Provides an extremely smooth and uniform finish to withstand extreme weather changes without cracking or peeling, and features a five-year limited warranty. Optional DuraGrip<sup>®</sup> Plus features the added protection of a 3.0 to 5.0 mil thickness of polyester-powder finish plus an inner coating, as well as a seven-year limited warranty.

**DETERMINING THE LUMINAIRE/POLE COMBINATION FOR YOUR APPLICATION:**

- Select luminaire from luminaire ordering information
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select pole height
- Select MPH to match wind speed in the application area (See windspeed map).
- Confirm pole EPA equal to or exceeding value from note above
- Consult factory for special wind load requirements and banner brackets



**SHIPPING WEIGHTS - Steel Square Poles**

4" (102mm) sq. 11 Ga. is approximately	7.50 lbs./ft.
4" (102mm) sq. 07 Ga. is approximately	10.00 lbs./ft.
5" (127mm) sq. 11 Ga. is approximately	9.00 lbs./ft.
5" (127mm) sq. 07 Ga. is approximately	12.50 lbs./ft.
6" (152mm) sq. 07 Ga. is approximately	15.40 lbs./ft.
Anchor Bolts (3/4" x 30") (18mm x 762mm)	15 lbs. (7kg)/set
Anchor Bolts (1" x 36") (25mm x 914mm)	30 lbs. (14kg)/set

**POLE SELECTION CHART: 4" (102mm), 5" (127mm) and 6" (152mm) steel square poles**

Height	EPA <sup>†</sup>				Outside Dimensions	Material	Bolt Circle
	70 MPH	80 MPH	90 MPH	100 MPH			
14' (4.3m)	23.3	16.7	12.2	9.0	4" (102mm)	S11G	B
16' (4.9m)	18.6	13.1	9.3	6.5	4" (102mm)	S11G	B
16' (4.9m)	34.6	25.0	18.5	13.8	5" (127mm)	S11G	C
18' (5.5m)	14.4	9.7	6.5	4.2	4" (102mm)	S11G	B
18' (5.5m)	27.9	19.7	14.1	10.1	5" (127mm)	S11G	C
20' (6.1m)	11.0	7.0	4.2	2.2	4" (102mm)	S11G	B
20' (6.1m)	18.7	12.8	8.8	5.9	4" (102mm)	S07G	B
20' (6.1m)	22.5	15.4	10.5	7.0	5" (127mm)	S11G	C
20' (6.1m)	35.5	25.4	18.4	13.4	5" (127mm)	S07G	D
22' (6.7m)	10.4	6.3	3.4	1.4	4" (102mm)	S11G	B
22' (6.7m)	16.7	12.6	8.4	5.4	4" (102mm)	S07G	B
22' (6.7m)	20.8	13.8	8.9	5.5	5" (127mm)	S11G	C
22' (6.7m)	34.0	23.9	17.0	12.0	5" (127mm)	S07G	D
24' (7.3m)	7.7	4.0	1.5	—	4" (102mm)	S11G	B
24' (7.3m)	15.1	9.7	6.0	3.3	4" (102mm)	S07G	B
24' (7.3m)	16.7	10.5	6.2	3.1	5" (127mm)	S11G	C
24' (7.3m)	28.6	19.6	13.4	8.9	5" (127mm)	S07G	D
24' (7.3m)	46.2	32.6	23.2	16.6	6" (152mm)	S07G	J
26' (7.9m)	5.3	2.1	—	—	4" (102mm)	S11G	B
26' (7.9m)	12.0	7.2	3.9	1.5	4" (102mm)	S07G	B
26' (7.9m)	13.2	7.6	3.8	1.0	5" (127mm)	S11G	C
26' (7.9m)	24.0	15.8	10.3	6.3	5" (127mm)	S07G	D
26' (7.9m)	39.6	27.3	18.9	12.9	6" (152mm)	S07G	J
28' (8.5m)	19.9	12.5	7.5	3.9	5" (127mm)	S07G	D
28' (8.5m)	33.9	22.7	15.1	9.6	6" (152mm)	S07G	J
30' (9.1m)	16.3	9.6	5.0	1.7	5" (127mm)	S07G	D
30' (9.1m)	28.8	18.6	11.6	6.6	6" (152mm)	S07G	J
35' (10.7m)	18.3	10.0	4.3	—	6" (152mm)	S07G	J
39' (11.9m)	11.5	4.3	—	—	6" (152mm)	S07G	J

<sup>†</sup> EPA based on ANSI/ASCE 7-93. Refer to EPA information on next page. For applications in Canada and areas using code requirements other than ANSI/ASCE 7-93, consult factory. If luminaire weight exceeds 250 lbs. (113.4 kg), consult factory.





## STEEL SQUARE POLES

### POLE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **5SQB5 S07G 24 S PLP SF DGP**

Pole Series	Material	Height <sup>2</sup>	Mounting Configuration	Pole Finish	Options
<b>Bolt-on Arm Mount</b> - See pole selection guide for patterns and fixture matches. <b>4SQB3 - 3"</b> Reduced drilling pattern <b>5SQB3 - 3"</b> Reduced drilling pattern <b>4SQB5 - 5"</b> Traditional drilling pattern <b>5SQB5 - 5"</b> Traditional drilling pattern <b>6SQB5 - 5"</b> Traditional drilling pattern	S11G - 11 Ga. Steel S07G - 07 Ga. Steel	14' 16' 18' 20' 22' 24' 26' 28' 30' 35' 39'	S - Single/Parallel D180° - Double D90° - Double D190° - Double T90° - Triple T1120° - Triple Q90° - Quad Q190° - Quad	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White SVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver	GA - Galvanized Anchor Bolts SF - Single Flood <sup>3</sup> DF - Double Flood <sup>3</sup> DGP - DuraGrip <sup>3</sup> Plus LAB - Less Anchor Bolts OSXX - Pole preparation for PMOS Occupancy Sensor <sup>4</sup>
<b>Pole Top Mount</b> - Use with: • Greenbriar Pole Top • Hilton Pole Top 4SQP 5SQP 6SQP	Consult Pole Selection Chart on opposite page		PT - Pole Top Mount		Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, unless otherwise specified.
<b>Tenon Mount</b> - See pole selection guide for tenon and fixture/bracket matches. 4SQH 5SQH 6SQH			T - Tenon Mount (Standard tenon size is 2-3/8" O.D.)		
<b>No Mounting Holes or Pole Caps</b> - Use with: • BKA 4ISF & BKA SISF • BKA X4ISF & BKA X5ISF					
<b>Internal Slip-fitter<sup>1</sup></b> 4SQI 5SQI					

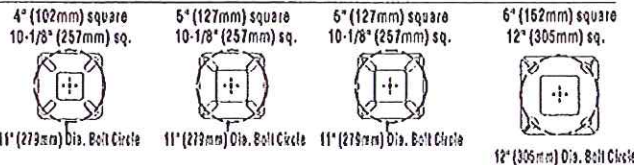
### ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number	Order Number	Order Number
4BC - 4" Square Base Cover	122559CLR	Vibration Damper - 4" Square Pole (bolt-on mount only)	172539
5BC - 5" Square Base Cover	122561CLR	Vibration Damper - 5" Square Pole (bolt-on mount only)	172538
6BC - 6" Square Base Cover	122563CLR	Vibration Damper - 6" Square Pole (bolt-on mount only)	178361
ER2 - Weatherproof Duplex Receptacle	122566CLR	PMOS120 - 120V Occupancy Sensor	518030CLR <sup>5</sup>
GFI - Ground Fault Circuit Interrupter	122567CLR	PMOS203/240 - 203, 240V Occupancy Sensor	CA <sup>5</sup>
MHP - Mounting Hole Plugs (3 plugs) for use with 5" trad. coned drill pattern	132336	PMOS277 - 277V Occupancy Sensor	518029CLR <sup>5</sup>
MHD - Mounting Hole Weatherproof Decal for use with 3" reduced drill pattern	340120		

#### FOOTNOTES:

- See Area Lighting Brackets - Bolt-on and XAS3/XAM3 Area Lighting Brackets pages for Internal Slip-fitter brackets.
- Pole heights will have +/- 1/2" tolerance.
- See Flood Lighting Brackets section for choice of FBO brackets.
- Order PMOS separately. Change "XX" to indicate height and side of pole location for pole preparation. EX: OS8A indicates preparation is to be 8ft. up from pole base on side A. Optional distance from ground to sensor is 10ft.
- OSXX option required. Not for use with Metal Halide fixtures

### BOLT CIRCLE



	B	C	D	J
Bolt Circle	4" (102mm) square 10-1/8" (257mm) sq.	5" (127mm) square 10-1/8" (257mm) sq.	6" (152mm) square 10-1/8" (257mm) sq.	6" (162mm) square 12" (305mm) sq.
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)	5-5/8" (143mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk (257mm x 19mm)	10-1/8" sq. x 3/4" thk (257mm x 19mm)	10-1/8" sq. x 1" thk (257mm x 25mm)	12" sq. x 1-1/8" thk (305mm x 29mm)

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the base plate templates.

### EPA INFORMATION

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.  
**CAUTION:** This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

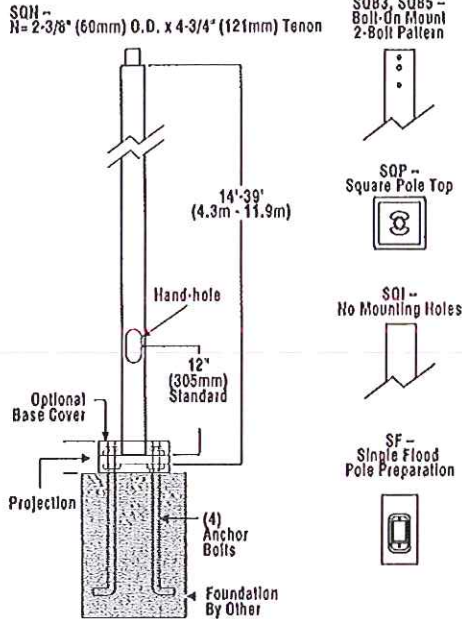
**NOTE:** Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 60 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult LSI for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For applications in Florida or Canada, consult factory.



Notes:

## STEEL SQUARE POLES

### DIMENSIONS



**POLE SHAFT** - Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 50,000 psi. On Tenon Mount steel poles, tenon is 2-3/8" O.D. high-strength pipe. Tenon is 4-3/4" in length. Straight poles are 4", 5", and 6" square.

**HAND-HOLE** - Standard hand-hole location is 12" above pole base. Poles 22' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

**BASE** - Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi. Two-piece square base cover is optional.

**ANCHOR BOLTS** - Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional. Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.

**GROUND LUG** - Ground lug is standard.

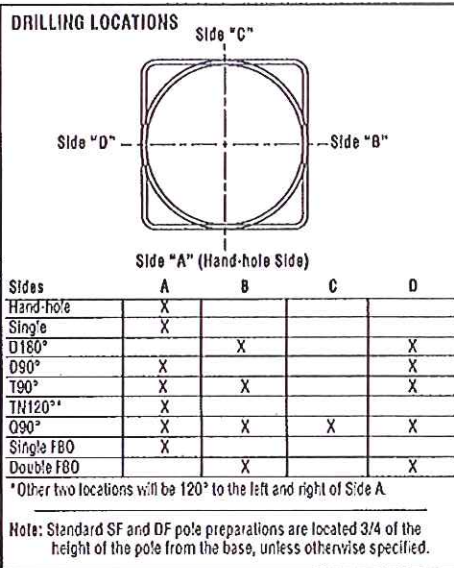
**DUPLEX RECEPTACLE** - Weatherproof duplex receptacle is optional.

**GROUND FAULT CIRCUIT INTERRUPTER** - Ground fault circuit interrupter is optional.

**FINISHES** - Each pole is finished with DuraGrip<sup>®</sup>, LSI's baked-on polyester-powder finishing process which electrostatically applies and fuses a polyester powder to the pole. Provides an extremely smooth and uniform finish to withstand extreme weather changes without cracking or peeling, and features a five-year limited warranty. Optional DuraGrip<sup>®</sup> Plus features the added protection of a 3.0 to 5.0 mil thickness of polyester-powder finish plus an inner coating, as well as a seven-year limited warranty.

### DETERMINING THE LUMINAIRE/POLE COMBINATION FOR YOUR APPLICATION:

- Select luminaire from luminaire ordering information
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select pole height
- Select MPH to match wind speed in the application area (See windspeed map).
- Confirm pole EPA equal to or exceeding value from note above
- Consult factory for special wind load requirements and banner brackets



SHIPPING WEIGHTS - Steel Square Poles	
4" (102mm) sq 11 Ga. Is approximately	7.50 lbs./ft.
4" (102mm) sq 07 Ga. Is approximately	10.00 lbs./ft.
5" (127mm) sq 11 Ga. Is approximately	9.00 lbs./ft.
5" (127mm) sq 07 Ga. Is approximately	12.50 lbs./ft.
6" (152mm) sq 07 Ga. Is approximately	15.40 lbs./ft.
Anchor Bolts (3/4" x 30") (19mm x 762mm)	15 lbs. (7kg) set
Anchor Bolts (1" x 35") (25mm x 914mm)	30 lbs. (14kg) set

### POLE SELECTION CHART: 4" (102mm), 5" (127mm) and 6" (152mm) steel square poles

Height	EPA <sup>†</sup>				Outside Dimensions	Material	Bolt Circle
	70 MPH	80 MPH	90 MPH	100 MPH			
14' (4.3m)	23.3	16.7	12.2	9.0	4" (102mm)	S11G	B
16' (4.9m)	18.6	13.1	9.3	6.5	4" (102mm)	S11G	B
16' (4.9m)	34.6	25.0	18.5	13.8	5" (127mm)	S11G	C
18' (5.5m)	14.4	9.7	6.5	4.2	4" (102mm)	S11G	B
18' (5.5m)	27.9	19.7	14.1	10.1	5" (127mm)	S11G	C
20' (6.1m)	11.0	7.0	4.2	2.2	4" (102mm)	S11G	B
20' (6.1m)	18.7	12.8	8.8	5.9	4" (102mm)	S07G	B
20' (6.1m)	22.5	15.4	10.5	7.0	5" (127mm)	S11G	C
20' (6.1m)	35.5	25.4	18.4	13.4	5" (127mm)	S07G	D
22' (6.7m)	10.4	6.3	3.4	1.4	4" (102mm)	S11G	B
22' (6.7m)	18.7	12.6	8.4	5.4	4" (102mm)	S07G	B
22' (6.7m)	20.8	13.8	8.9	5.5	5" (127mm)	S11G	C
22' (6.7m)	34.0	23.9	17.0	12.0	5" (127mm)	S07G	D
24' (7.3m)	7.7	4.0	1.5	—	4" (102mm)	S11G	B
24' (7.3m)	15.1	9.7	6.0	3.3	4" (102mm)	S07G	B
24' (7.3m)	16.7	10.5	6.2	3.1	5" (127mm)	S11G	C
24' (7.3m)	28.6	19.6	13.4	8.9	5" (127mm)	S07G	D
24' (7.3m)	46.2	32.6	23.2	16.6	6" (152mm)	S07G	J
26' (7.9m)	5.3	2.1	—	—	4" (102mm)	S11G	B
26' (7.9m)	12.0	7.2	3.9	1.5	4" (102mm)	S07G	B
26' (7.9m)	13.2	7.6	3.8	1.0	5" (127mm)	S11G	C
26' (7.9m)	24.0	15.8	10.3	6.3	5" (127mm)	S07G	D
26' (7.9m)	39.6	27.3	18.9	12.9	6" (152mm)	S07G	J
28' (8.5m)	19.9	12.5	7.5	3.9	5" (127mm)	S07G	D
28' (8.5m)	33.9	22.7	15.1	9.6	6" (152mm)	S07G	J
30' (9.1m)	16.3	9.6	5.0	1.7	5" (127mm)	S07G	D
30' (9.1m)	28.8	18.6	11.6	6.6	6" (152mm)	S07G	J
35' (10.7m)	18.3	10.0	4.3	—	6" (152mm)	S07G	J
39' (11.9m)	11.5	4.3	—	—	6" (152mm)	S07G	J

<sup>†</sup> EPA based on ANSI/ASCE 7-93. Refer to EPA Information on next page. For applications in Canada and areas using code requirements other than ANSI/ASCE 7-93, consult factory. If luminaire weight exceeds 250 lbs. (113.4 kg), consult factory.

**ARRA**  
Funding Compliant



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_



## STEEL SQUARE POLES

### POLE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **5SQB5 S07G 24 S PLP SF DGP**

Pole Series	Material	Height <sup>2</sup>	Mounting Configuration	Pole Finish	Options
Bolt-on Arm Mount - See pole selection guide for patterns and fixture matches. <b>4SQB3 - 3" Reduced drilling pattern</b> 5SQB3 - 3" Traditional drilling pattern 4SQB5 - 5" Traditional drilling pattern 5SQB5 - 5" Traditional drilling pattern 6SQB5 - 5" Traditional drilling pattern	S11G - 11 Ga. Steel S07G - 07 Ga. Steel	14' 16' 18' 20' 22' 24' 26' 28' 30' 35' 39'	S - Single/Parallel D180° - Double D90° - Double D180° - Double T90° - Triple T180° - Triple O90° - Quad O180° - Quad	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White SVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver	GA - Galvanized Anchor Bolts SF - Single Flood <sup>3</sup> DF - Double Flood <sup>3</sup> DGP - DuraGrip <sup>®</sup> Plus LAB - Less Anchor Bolts OSXX - Pole preparation for PMOS Occupancy Sensor <sup>4</sup>
Pole Top Mount - Use with: • Greenbriar Pole Top • Hilton Pole Top 4SQP 5SQP 6SQP	Consult Pole Selection Chart on opposite page		PT - Pole Top Mount	Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, unless otherwise specified.	
Tenon Mount - See pole selection guide for tenon and fixture/bracket matches. 4SQN 5SQN 6SQN			N - Tenon Mount (Standard tenon size is 2-3/8" O.D.)		
No Mounting Holes or Pole Caps - Use with: • BKA 4ISF & BKA 5ISF • BKA X4ISF & BKA X5ISF					
Internal Slip-filter <sup>5</sup> 4SQI 5SQI					

### ACCESSORY ORDERING INFORMATION

(Accessories are field installed)

Description	Order Number	Order Number
<b>4BC - 4" Square Base Cover</b>	122559CLR	Vibration Damper - 4" Square Pole (bolt-on mount only)
5BC - 5" Square Base Cover	122561CLR	Vibration Damper - 5" Square Pole (bolt-on mount only)
6BC - 6" Square Base Cover	122563CLR	Vibration Damper - 6" Square Pole (bolt-on mount only)
ER2 - Weatherproof Duplex Receptacle	122566CLR	PMOS120 - 120V Occupancy Sensor
GFI - Ground Fault Circuit Interrupter	122567CLR	PMOS208/240 - 208, 240V Occupancy Sensor
MHP - Mounting Hole Plugs (3 plugs) for use with 5" traditional drill pattern	132336	PMOS277 - 277V Occupancy Sensor
MHD - Mounting Hole Weatherproof Decal for use with 3" reduced drill pattern	340120	

### FOOTNOTES:

- See Area Lighting Brackets - Bolt-on and XAS3/XAM3 Area Lighting Brackets pages for Internal Slip-filter brackets.
- Pole heights will have +/- 1/2" tolerance.
- See Flood Lighting Brackets section for choice of FBO brackets.
- Order PMOS separately. Change "XX" to indicate height and side of pole location for pole preparation. EX: OS8A indicates preparation is to be 8ft. up from pole base on side A. Optimal distance from ground to sensor is 10ft.
- OSXX option required. Not for use with Metal Halide fixtures

### BOLT CIRCLE

	4" (102mm) square 10-1/8" (257mm) sq.	5" (127mm) square 10-1/8" (257mm) sq.	5" (127mm) square 10-1/8" (257mm) sq.	6" (152mm) square 12" (305mm) sq.
	11" (279mm) Dia. Bolt Circle	11" (279mm) Dia. Bolt Circle	11" (279mm) Dia. Bolt Circle	12" (305mm) Dia. Bolt Circle
	B	C	D	J
Bolt Circle	8"-11" (203mm-279mm)	9"-11" (229mm-279mm)	9"-11" (229mm-279mm)	Slotted 12" (305mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)	5-5/8" (143mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 1" thk. (257mm x 25mm)	12" sq. x 1-1/8" thk. (305mm x 29mm)

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the base plate templates.

### EPA INFORMATION

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.  
CAUTION: This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

NOTE: Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 80 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult LSI for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For applications in Florida or Canada, consult factory.



**Job Name:**  
Swain Project - Strip Shopping Ctr

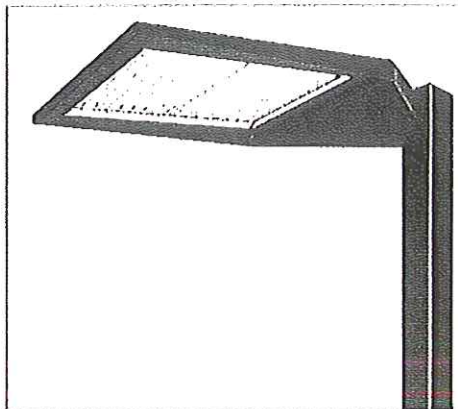
**Catalog Number:**  
XLCM FT LED HO CW UE BRZ

**Type:**  
**31,000 LUMEN**

Notes:

MISSISSIPPI15-63008

## LED AREA LIGHTS - LSI SLICE MEDIUM (XLCM)



US & Int'l. patents pending

**SMARTTEC™** - LSI drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature.

**ENERGY SAVING CONTROL OPTION - DIM** - 0-10 volt dimming enabled with controls by others. Available with High Output (HO) drive current only.

**EXPECTED LIFE** - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

**LEDs** - Select high-brightness LEDs in Cool White (5000K), or Neutral White (4000K) color temperature, 70 CRI.

**DISTRIBUTION/PERFORMANCE** - Types 3, FT, FT-L, FT-R and 5. FT-L and FT-R allow for D180 mounting configurations with factory set optics for applications such as automotive front row. Exceptional uniformity creates bright environment at lower light levels. Internal Louver (IL) option available for improved backlight control without sacrificing street side performance for FT distribution. Consult factory for internal louver for FT-L and FT-R applications.

**HOUSING** - One-piece, die-formed aluminum housing contains factory prewired driver. Wiring access door (with safety lanyard) located underneath.

**OPTICAL UNIT** - Clear tempered flat glass lens permanently sealed to weather-tight aluminum optic frame creates an IP65 rated optical unit (includes pressure-stabilizing breather).

**MOUNTING** - Tapered rear design allows fixtures to be mounted in 90° and 120° configurations without the need for extension arms. Use with 3" reduced drilling pattern. A round pole plate is required for mounting to round poles. Wall mount available by ordering wall mounting bracket (BKS-XBO-WM-<sup>+</sup>-CLR). Proprietary pole quick mount accessories available with horizontal mounting or fixed 15° angled mounting (PQMH-KIT-CLR and PQM15-KIT-CLR) for mounting to square poles. See Accessory Ordering Information chart for all brackets.

**ELECTRICAL** - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277 VAC (50/60Hz input), and 347-480 VAC. Optional button-type photocells (PCI) are available in 120, 208, 240, 277 or 347 volt (supply voltage must be specified).

**DRIVER** - Available in SS (Super Saver) and HO (High Output) drive currents. Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

**OPERATING TEMPERATURE** - -40°C to +50°C (-40°F to +122°F)

**FINISH** - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Available in black, bronze and white. Other standard LSI finishes available. Consult factory.

**WARRANTY** - LSI LED fixtures carry a limited 5-year warranty.

**PHOTOMETRICS** - Please visit our web site at [www.lsi-industries.com](http://www.lsi-industries.com) for detailed photometric data.

**SHIPPING WEIGHT (In carton)** - One fixture: 25.25 lbs. (11.5 kg). Packed two per carton: 43.5 lbs. (19.7 kg).

**LISTING** - UL listed to U.S. and International safety standards. Suitable for wet locations. For a list of the specific products in this series that are DLC listed, please consult the LED Lighting section of our website or the Design Lights website at [www.designlights.org](http://www.designlights.org).

### DOE LIGHTING FACTS

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit [www.lightingfacts.com](http://www.lightingfacts.com) for specific catalog strings.

LIGHT OUTPUT - XLCM					
		Lumens (Nominal)			Watts (Nominal)
		Type 3	Type FT	Type 5	
Cool White	SS	19800	22800	22900	193
	HO	27100	30900	31100	278
Neutral White	SS	19000	18400	18500	193
	HO	26300	24100	23900	278

LED Chips are frequently updated therefore values may increase.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.



Fixtures comply with ANSI C136.31-2010 American National Standard for Roadway Lighting Equipment - Luminaire Vibration 1.63 requirements.



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

06/08/15  
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LSI INDUSTRIES INC.





**LED AREA LIGHTS - LSI SLICE MEDIUM (XLCM)**



**LUMINAIRE ORDERING INFORMATION**

TYPICAL ORDER EXAMPLE: **XLCM 5 LED SS CW UE BLK PCI120**

Prefix	Distribution	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Options
XLCM	3 - Type III 5 - Type V FT - Forward Throw FT-L - Forward Optic Rotated for D180 Mount (Left Side) FT-R - Forward Optic Rotated for D180 Mount (Right Side)	LED	SS - Super Saver HO - High Output	CW - Cool White (5000K) NW - Neutral White (4000K)	UE - Universal Voltage (120-277V) 347-480 Universal Voltage (347-480V)	BLK - Black BRZ - Bronze WHT - White	DIM - 0-10V Dimming (from external signal) available with High Output (HO) drive current only Button Type Photocells PCI120 - 120V PCI208-277V - 208-277V PCI347 - 347V IL - Internal Louver (available with FT distribution only)

**LUMINAIRE EPA CHART - XLCM**

Symbol	Single	EPA
Single	0.5	
D180°	1.0	
D90°	0.8	
T90°	1.7	
TN120°	1.7	
Q90°	1.9	

Note: House Side Shield adds to fixture EPA. Consult factory.

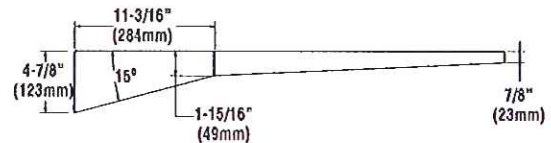
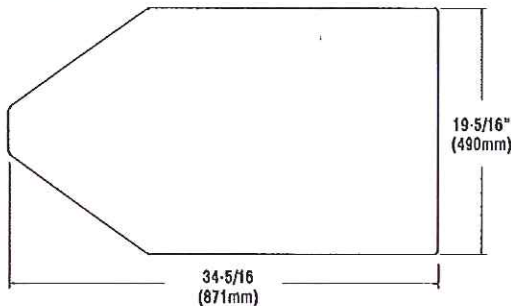
**ACCESSORY ORDERING INFORMATION** (Accessories are field installed)

Description	Order Number	Description	Order Number
BXS-X60-WM-*CLR Wall Mount Bracket	382132CLR	FK120 Single Fusing (120V)	FK120 <sup>2</sup>
XLCM-3FT-HSS RM External House Side Shield (Black only - rear mounted)	6031598BK <sup>1</sup>	FK277 Single Fusing (277V)	FK277 <sup>2</sup>
XLCM-FT-L/FT-R-HSS SM External House Side Shield (Black only - side mounted)	6031618BK <sup>1</sup>	DFK208, 240 Double Fusing (208V, 240V)	DFK208, 240 <sup>2</sup>
X4RPP Round Pole Plate for 4' Poles	379967CLR	DFK480 Double Fusing (480V)	DFK480 <sup>2</sup>
X5RPP Round Pole Plate for 5' Poles	379968CLR	FK347 Single Fusing (347V)	FK347 <sup>2</sup>
		PQM-H-KIT-CLR Square Pole Quick Mount Horizontal Bracket	582328CLR
		PQM-15-KIT-CLR Square Pole Quick Mount Bracket w/ fixed 15° Angle	582329CLR

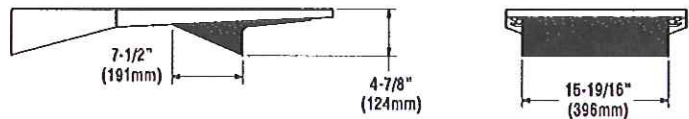
**FOOTNOTES:**

- 1 - House Side Shields add to fixture EPA. Consult factory.
- 2 - Fusing must be located in the hand hole of pole.

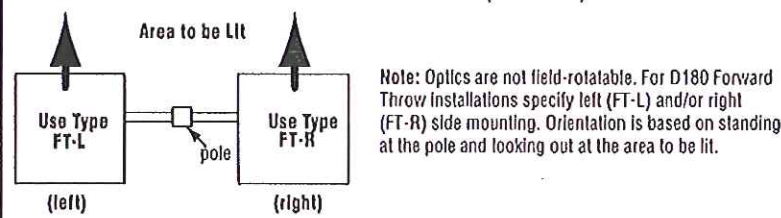
**DIMENSIONS**



**HOUSE SIDE SHIELD (rear mount)**



**LEFT AND RIGHT VERSIONS OF TYPE FT REFLECTORS (TOP VIEW)**

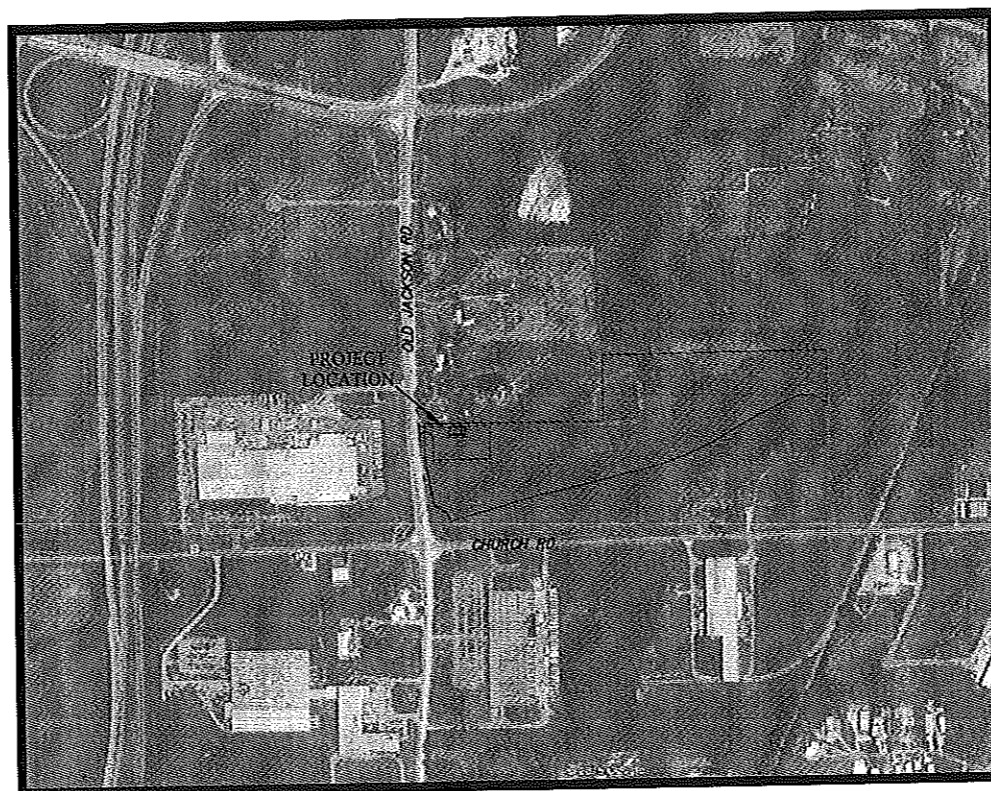




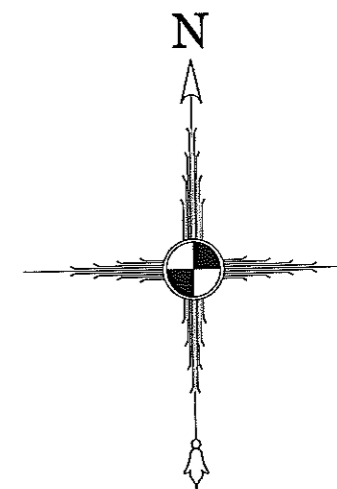


CONSTRUCTION PLANS FOR:  
**DEH TRUCKING MAINTENANCE FACILITY**

LOCATION:  
320 OLD JACKSON ROAD  
CANTON, MS 39046  
OCTOBER, 2015



**VICINITY MAP**



**FOR REVIEW AND  
APPROVAL**




\_\_\_\_\_  
Gregory A. Bonds, P.E.  
Mississippi License No. 16335

\_\_\_\_\_  
Date

Equipment, materials and construction of all improvements required in these plans shall be in accordance with these construction drawings & project specifications.

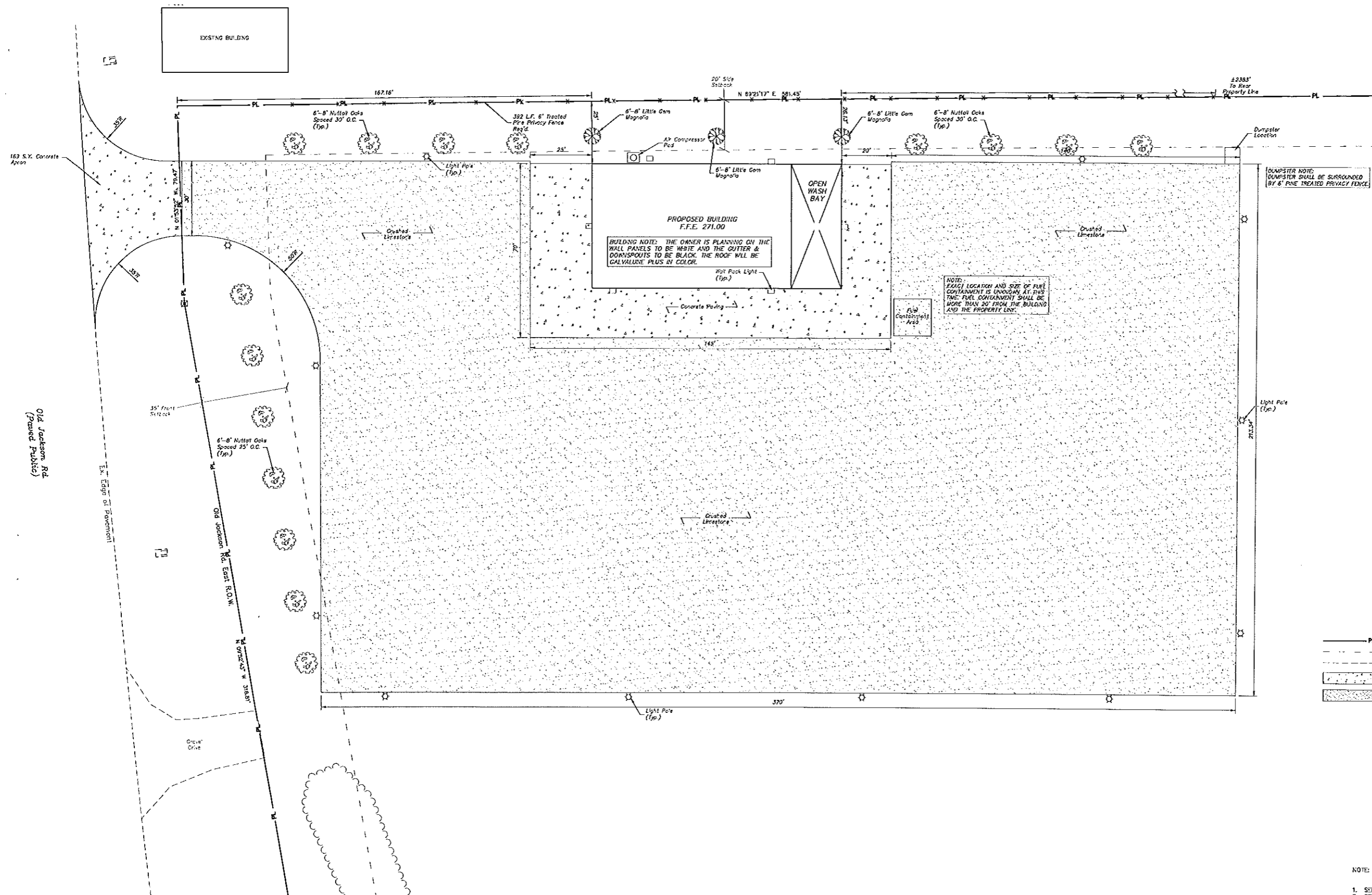
The drawings and specifications represented herein are and shall remain the property of Benchmark Engineering & Surveying, LLC and no part thereof shall be copied, disclosed to others or used in connection with any other work or project other than the specific project for which they have been prepared. Visual contact with these drawings or specifications shall constitute evidence of acceptance of these restrictions.

OWNER:  
DAVID HARKINS  
DEH TRUCKING, INC.  
P.O. BOX 1022  
CLEVELAND, MS 38732

<b>BENCHMARK</b> <b>ENGINEERING &amp; SURVEYING, LLC</b> 101 Highpointe Court, Suite B, Brandon, Mississippi 39042 Office: 601-591-1077 Fax: 601-591-0711 E-mail: gbonds@benchmarkms.net	
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SHEET NUMBER <b>C1.0</b>
PROJECT NUMBER <b>B-494</b>





PROPOSED BUILDING  
F.F.E. 271.00

BUILDING NOTE: THE OWNER IS PLANNING ON THE WALL PANELS TO BE WHITE AND THE GUTTER & DOWNSPOUTS TO BE BLACK. THE ROOF WILL BE GALVALUME PLUS 24 GAUGE.

NOTE: EXACT LOCATION AND SIZE OF FUEL CONTAINMENT IS UNKNOWN AT THIS TIME. FUEL CONTAINMENT SHALL BE MORE THAN 20' FROM THE BUILDING AND THE PROPERTY LINE.

DUMPSTER NOTE:  
DUMPSTER SHALL BE SURROUNDED BY 6' PINE TREATED PRIVACY FENCE.

**LEGEND**

- PL — PROPERTY LINE
- - - - - MINIMUM BUILDING SETBACK LINES
- - - - - EXISTING EDGE OF PAVEMENT
- [Pattern] PROPOSED CONCRETE PAVING
- [Pattern] PROPOSED CRUSHED LVESTONE

**PROJECT SITE INFORMATION:**

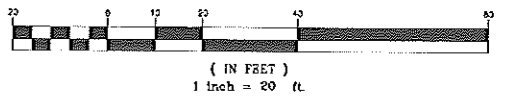
CURRENT ZONING — C-2, HIGHWAY COMMERCIAL DISTRICT  
 MINIMUM SETBACK REQUIREMENTS:  
 FRONT — 35', SIDE — 20', REAR — 20'  
 (ABUTTING RESIDENTIAL DISTRICT TO THE NORTH)  
 TOTAL ACREAGE: 31.08 ac (1,353,844.8 ± s.f.)  
 ACREAGE BREAKDOWN:  
 BUILDING — 0.115 ac (5,000 ± s.f.), 0.37%  
 CONCRETE PARKING/DRIVES — 0.118 ac (5,150 ± s.f.), 0.36%  
 LVESTONE PARKING — 1.630 ac (70,995 ± s.f.), 5.2%  
 GREEN AREA — 29.003 ac (1,263,370.68 ± s.f.), 93.3%

**NOTE:**

1. SEE ARCHITECTURAL PLANS FOR MORE DETAILS ON THE BUILDINGS.
2. SEE TYPICAL SECTIONS FOR MORE DETAILS ON PAVING REQUIREMENTS.
3. THIS PARCEL IS LOCATED IN FLOOD ZONE X (NOT SHADED) ACCORDING TO FLOOD INSURANCE RATE MAP NO. 2808900415F, COMMUNITY PANEL NO. 280228 0415 F, EFFECTIVE DATE: MARCH 17, 2010.
4. IT IS THE OWNER'S RESPONSIBILITY TO OBTAIN PERMISSION TO PERFORM WORK ON ADJACENT PROPERTY FROM THE PROPERTY OWNERS SHOULD IT BE NECESSARY TO COMPLETELY INSTALL IMPROVEMENTS.
5. ACCORDING TO OWNER, THIS SITE WILL CREATE A TRAFFIC COUNT OF APPROXIMATELY 15 TRANSPORT TRUCKS PER DAY, FOR ROUTINE MAINTENANCE PURPOSES.
6. THE TITLE SEARCH OF THIS PROPERTY DID NOT REVEAL ANY EASEMENTS ACROSS THE PROPERTY.



GRAPHIC SCALE



**WATER NOTE:**  
THERE IS AN EXISTING BEAR CREEK FIRE HYDRANT LOCATED ON THE EAST SIDE OF OLD JACKSON ROAD APPROXIMATELY 600' NORTH OF THE PROPERTY LINE.

**WATER NOTE:**  
BEAR CREEK WILL MAKE CONNECTION TO EXISTING WATER MAIN, PROVIDE METER & STUB OUT TO PROPERTY.

Old Jackson Rd.  
(Private Public)

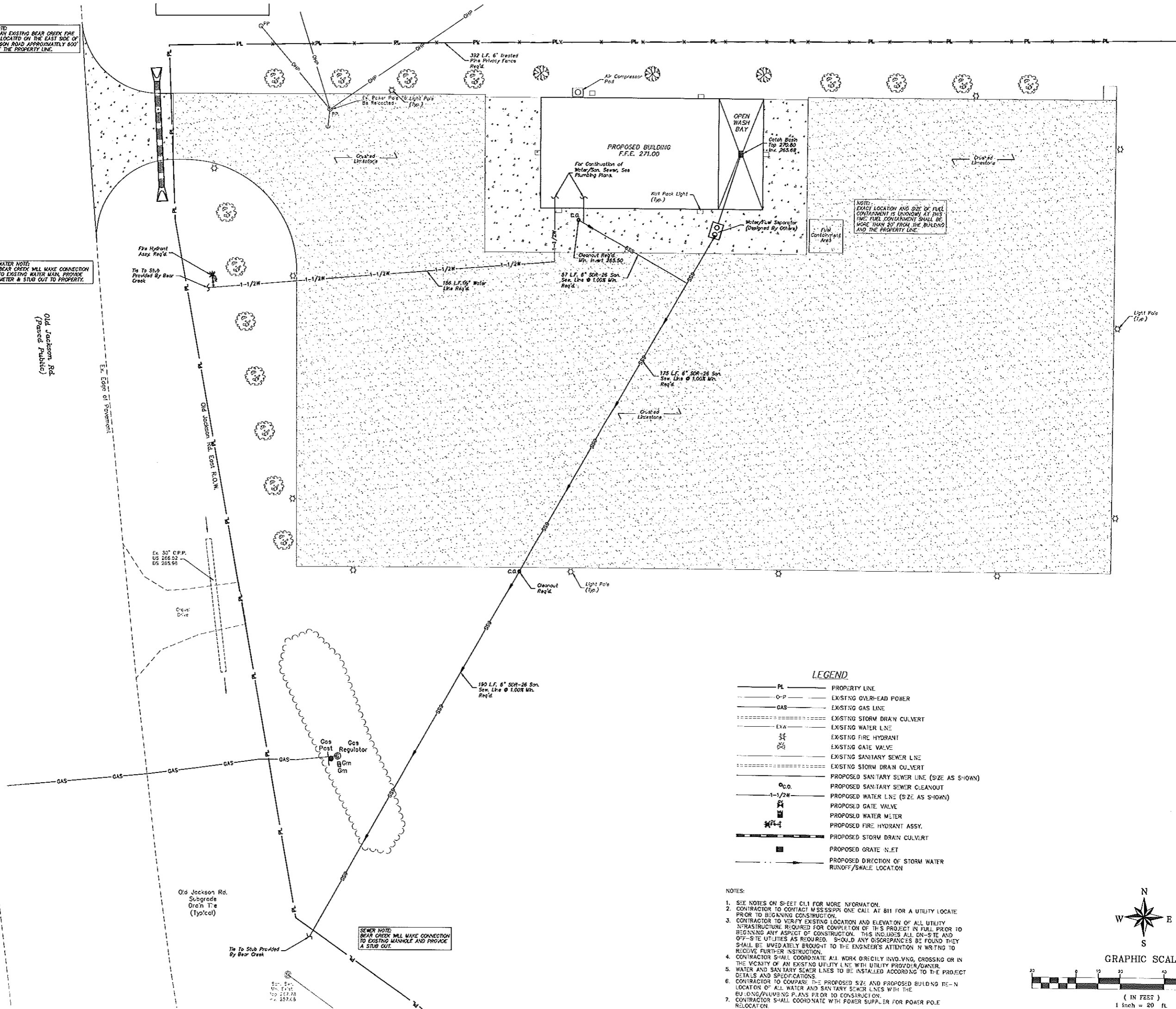
Ex. Edge of Pavement

Old Jackson Rd.  
Subgrade  
Drain Tie  
(Typical)

Tie To Stub Provided  
By Bear Creek

**SEWER NOTE:**  
BEAR CREEK WILL MAKE CONNECTION TO EXISTING MAINLINE AND PROVIDE A STUB OUT.

3'-5 1/2"  
100' 257.78  
2' 257.45

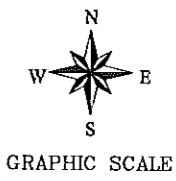


**NOTE:**  
EXACT LOCATION AND SIZE OF FUEL CONTAINMENT IS UNKNOWN AT THIS TIME. FUEL CONTAINMENT SHALL BE MORE THAN 20' FROM THE BUILDING AND THE PROPERTY LINE.

**LEGEND**

- PL — PROPERTY LINE
- O-P — EXISTING OVERHEAD POWER
- GAS — EXISTING GAS LINE
- EXISTING STORM DRAIN CULVERT
- EXISTING WATER LINE
- FH — EXISTING FIRE HYDRANT
- GV — EXISTING GATE VALVE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN CULVERT
- PROPOSED SANITARY SEWER LINE (SIZE AS SHOWN)
- C.O. — PROPOSED SANITARY SEWER CLEANOUT
- 1-1/2" — PROPOSED WATER LINE (SIZE AS SHOWN)
- GV — PROPOSED GATE VALVE
- M — PROPOSED WATER METER
- FH — PROPOSED FIRE HYDRANT ASSY.
- PROPOSED STORM DRAIN CULVERT
- G — PROPOSED GRATE NET
- > — PROPOSED DIRECTION OF STORM WATER RUNOFF/SWALE LOCATION

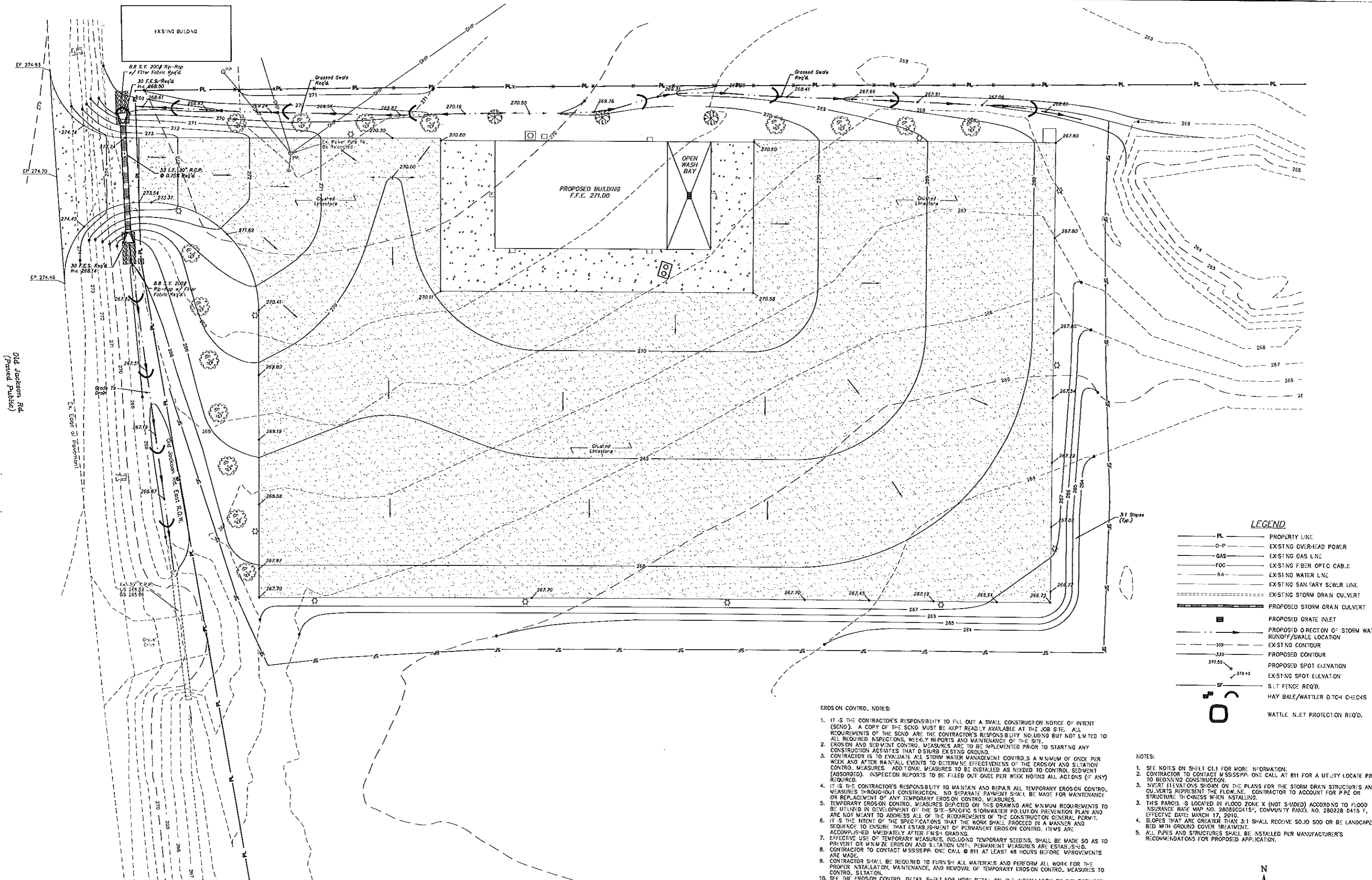
- NOTES:**
- SEE NOTES ON SHEET C11 FOR MORE INFORMATION.
  - CONTRACTOR TO CONTACT MISSISSIPPI ONE CALL AT 811 FOR A UTILITY LOCATE PRIOR TO BEGINNING CONSTRUCTION.
  - CONTRACTOR TO VERIFY EXISTING LOCATION AND ELEVATION OF ALL UTILITY INFRASTRUCTURE REQUIRED FOR COMPLETION OF THIS PROJECT IN FULL PRIOR TO BEGINNING ANY ASPECT OF CONSTRUCTION. THIS INCLUDES ALL ON-SITE AND OFF-SITE UTILITIES AS REQUIRED. SHOULD ANY DISCREPANCIES BE FOUND THEY SHALL BE IMMEDIATELY BROUGHT TO THE ENGINEER'S ATTENTION IN WRITING TO RECEIVE FURTHER INSTRUCTION.
  - CONTRACTOR SHALL COORDINATE ALL WORK DIRECTLY INVOLVING CROSSING OR IN THE VICINITY OF AN EXISTING UTILITY LINE WITH UTILITY PROVIDER/OWNER.
  - WATER AND SANITARY SEWER LINES TO BE INSTALLED ACCORDING TO THE PROJECT DETAILS AND SPECIFICATIONS.
  - CONTRACTOR TO COMPARE THE PROPOSED SIZE AND PROPOSED BUILDING POSITION LOCATION OF ALL WATER AND SANITARY SEWER LINES WITH THE BUILDING/PLUMBING PLANS PRIOR TO CONSTRUCTION.
  - CONTRACTOR SHALL COORDINATE WITH POWER SUPPLIER FOR POWER POLE RELOCATION.



PROJECT LOCATION:

PROJECT:

PR:



**LEGEND**

- PL ————— PROPERTY LINE
- O-P ————— EXISTING OVER-HEAD POWER
- GAS ————— EXISTING GAS LINE
- FOC ————— EXISTING FIBER OPTIC CABLE
- SA ————— EXISTING WATER LINE
- SS ————— EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN CULVERT
- PROPOSED STORM DRAIN CULVERT
- PROPOSED GRATE INLET
- PROPOSED DIRECTION OF STORM WATER RUNOFF/SWALE LOCATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- 277.50 PROPOSED SPOT ELEVATION
- 278.45 EXISTING SPOT ELEVATION
- SF S.L.T. FENCE REQ'D.
- HAY BALE/WATTLE DITCH CHECKS
- WATTLE NET PROTECTION REQ'D.

**EROSION CONTROL NOTES:**

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE OUT A SMALL CONSTRUCTION NOTICE OF INTENT (SCNO). A COPY OF THE SCNO MUST BE KEPT READILY AVAILABLE AT THE JOB SITE. ALL REQUIREMENTS OF THE SCNO ARE THE CONTRACTOR'S RESPONSIBILITY INCLUDING BUT NOT LIMITED TO ALL REQUIRED INSPECTIONS, WEEKLY REPORTS AND MAINTENANCE OF THE SITE.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IMPLEMENTED PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES THAT DISTURB EXISTING GROUND.
3. CONTRACTOR IS TO EVALUATE ALL STORM WATER MANAGEMENT CONTROLS A MINIMUM OF ONCE PER WEEK AND AFTER RAINFALL EVENTS TO DETERMINE EFFECTIVENESS OF THE EROSION AND SILTATION CONTROL MEASURES. ADDITIONAL MEASURES TO BE INSTALLED AS NEEDED TO CONTROL SEDIMENT (ABSORBED). INSPECTION REPORTS TO BE FILED OUT ONCE PER WEEK NOTING ALL ACTIONS (IF ANY) REQUIRED.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN AND REPAIR ALL TEMPORARY EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION. NO SEPARATE PAYMENT SHALL BE MADE FOR MAINTENANCE OR REPLACEMENT OF ANY TEMPORARY EROSION CONTROL MEASURES.
5. TEMPORARY EROSION CONTROL MEASURES DEPICTED ON THIS DRAWING ARE A MINIMUM REQUIREMENTS TO BE UTILIZED IN DEVELOPMENT OF THE SITE-SPECIFIC STORMWATER POLLUTION PREVENTION PLAN AND ARE NOT MEANT TO ADDRESS ALL OF THE REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT.
6. IT IS THE INTENT OF THE SPECIFICATIONS THAT THE WORK SHALL PROCEED IN A MANNER AND SEQUENCE TO ENSURE THAT ESTABLISHMENT OF PERMANENT EROSION CONTROL ITEMS ARE ACCOMPLISHED IMMEDIATELY AFTER FINAL GRADING.
7. EFFECTIVE USE OF TEMPORARY MEASURES, INCLUDING TEMPORARY SEEDING, SHALL BE MADE SO AS TO PREVENT OR MINIMIZE EROSION AND SILTATION UNTIL PERMANENT MEASURES ARE ESTABLISHED.
8. CONTRACTOR TO CONTACT M S S S P P, ONE CALL @ 811 AT LEAST 48 HOURS BEFORE IMPROVEMENTS ARE MADE.
9. CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL MATERIALS AND PERFORM ALL WORK FOR THE PROPER INSTALLATION, MAINTENANCE, AND REMOVAL OF TEMPORARY EROSION CONTROL MEASURES TO CONTROL SILTATION.
10. SEE THE EROSION CONTROL DETAIL SHEET FOR MORE DETAIL ON THE INSTALLATION OF THE REQUIRED EROSION CONTROL MEASURES.
11. ONCE THE PERMANENT EROSION CONTROL MEASURES ARE IN PLACE A FINAL SITE INSPECTION IS TO BE COORDINATED BY THE CONTRACTOR WITH THE ENGINEER AND THE OWNER. ONCE SITE MEETS ALL PARTIES SPECIFICATIONS THE CONTRACTOR WILL BE RELIEVED OF THE RESPONSIBILITIES OF THIS CONTRACT.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EROSION CONTROL MEASURES SHOULD, TO THE EXTENT PRACTICABLE:

- A. DIVERT UP-SLOPE WATER AROUND DISTURBED AREAS OF THE SITE
- B. LIMIT THE EXPOSURE OF DISTURBED AREAS TO THE SHORTEST AMOUNT OF TIME POSSIBLE
- C. MINIMIZE THE AMOUNT OF SURFACE AREA THAT MUST BE DISTURBED
- D. IMPLEMENT BEST MANAGEMENT PRACTICES TO MITIGATE ADVERSE IMPACTS FROM STORM WATER RUNOFF
- E. REMOVE SEDIMENT THAT WOULD CONTRIBUTE TO OR CAUSE ADVERSE IMPACTS TO STATE WATERS FROM STORM WATER BEFORE IT LEAVES THE SITE

- NOTES:**
1. SEE NOTES ON SHEET 01.1 FOR MORE INFORMATION.
  2. CONTRACTOR TO CONTACT M S S S P P, ONE CALL @ 811 FOR A UTILITY LOCATE PRIOR TO BEGINNING CONSTRUCTION.
  3. INVERT ELEVATIONS SHOWN ON THE PLANS FOR THE STORM DRAIN STRUCTURES AND CULVERTS REPRESENT THE FLOWLINE. CONTRACTOR TO ACCOUNT FOR P.P.E. OR STRUCTURE THICKNESS WHEN INSTALLING.
  4. THIS PARCEL IS LOCATED IN FLOOD ZONE X (NOT SHADDED) ACCORDING TO FLOOD INSURANCE RATE MAP NO. 2805000415, COMMUNITY PANEL NO. 280228 0415 F, EFFECTIVE DATE: MARCH 17, 2010.
  5. SLOPES THAT ARE GREATER THAN 3:1 SHALL RECEIVE SOILD SOD OR BE LANDSCAPED BED WITH GROUND COVER TREATMENT.
  6. ALL PIPES AND STRUCTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS FOR PROPOSED APPLICATION.



**GRAPHIC SCALE**



( IN FEET )  
1 inch = 20 ft

Old Jackson Rd  
(Parceled Public)

Ex. Edge of Pavement

EXISTING BUILDING

PROPOSED BUILDING  
F.F.E. 271.00

OPEN WASH BAY

**LEGEND**

- PL ————— PROPERTY LINE
- O-P ————— EXISTING OVER-HEAD POWER
- GAS ————— EXISTING GAS LINE
- FOC ————— EXISTING FIBER OPTIC CABLE
- SA ————— EXISTING WATER LINE
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- EXISTING STORM DRAIN CULVERT
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8. CONTRACTOR TO CONTACT M S S S P P, ONE CALL @ 811 AT LEAST 48 HOURS BEFORE IMPROVEMENTS ARE MADE.
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10. SEE THE EROSION CONTROL DETAIL SHEET FOR MORE DETAIL ON THE INSTALLATION OF THE REQUIRED EROSION CONTROL MEASURES.
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- B. LIMIT THE EXPOSURE OF DISTURBED AREAS TO THE SHORTEST AMOUNT OF TIME POSSIBLE
- C. MINIMIZE THE AMOUNT OF SURFACE AREA THAT MUST BE DISTURBED
- D. IMPLEMENT BEST MANAGEMENT PRACTICES TO MITIGATE ADVERSE IMPACTS FROM STORM WATER RUNOFF
- E. REMOVE SEDIMENT THAT WOULD CONTRIBUTE TO OR CAUSE ADVERSE IMPACTS TO STATE WATERS FROM STORM WATER BEFORE IT LEAVES THE SITE

- NOTES:**
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  3. INVERT ELEVATIONS SHOWN ON THE PLANS FOR THE STORM DRAIN STRUCTURES AND CULVERTS REPRESENT THE FLOWLINE. CONTRACTOR TO ACCOUNT FOR P.P.E. OR STRUCTURE THICKNESS WHEN INSTALLING.
  4. THIS PARCEL IS LOCATED IN FLOOD ZONE X (NOT SHADDED) ACCORDING TO FLOOD INSURANCE RATE MAP NO. 2805000415, COMMUNITY PANEL NO. 280228 0415 F, EFFECTIVE DATE: MARCH 17, 2010.
  5. SLOPES THAT ARE GREATER THAN 3:1 SHALL RECEIVE SOILD SOD OR BE LANDSCAPED BED WITH GROUND COVER TREATMENT.
  6. ALL PIPES AND STRUCTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS FOR PROPOSED APPLICATION.

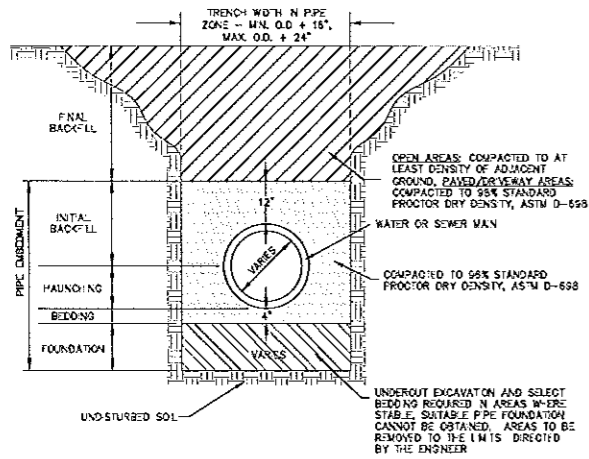


**GRAPHIC SCALE**



( IN FEET )  
1 inch = 20 ft

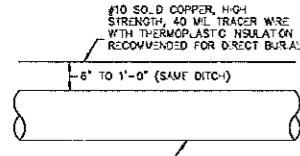




TYPICAL TRENCH NOTES:

1. PIPE EMBEDMENT MATERIALS SHALL COMPLY WITH REQUIREMENTS OF SPECIFICATIONS.
2. FINAL BACKFILL SHALL BE NATIVE MATERIAL IN OPEN AREAS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. FINAL BACKFILL SHALL BE SELECT MATERIAL IN ALL TRENCHES CONSTRUCTED UNDER ROADWAYS, CURBED OR PAVED AREAS. MATERIAL SHALL EXTEND 5' BEYOND THE EDGE OF PAVING STRUCTURE(S).
4. TRENCH SETTLEMENT REPAIR IS THE CONTRACTOR'S RESPONSIBILITY DURING WARRANTY PERIOD.
5. SELECT BEDDING MATERIAL FOR PIPE EMBEDMENT WHICH CONSISTS OF BEDDING, HAUNCHING AND FINAL BACKFILL ZONES SHALL BE ABSORBED IN THE PER FOOT COST OF THE PIPE.
6. UNDERCUT EXCAVATION MAY BE REQUIRED IF MATERIAL AT PLANNED GRADE WILL NOT PROVIDE STABLE TRENCH BOTTOM FOR PIPE LAYING.
7. FOUNDATION SELECT BEDDING AND UNDERCUT EXCAVATION WILL BE PLACED AS DIRECTED BY THE ENGINEER.

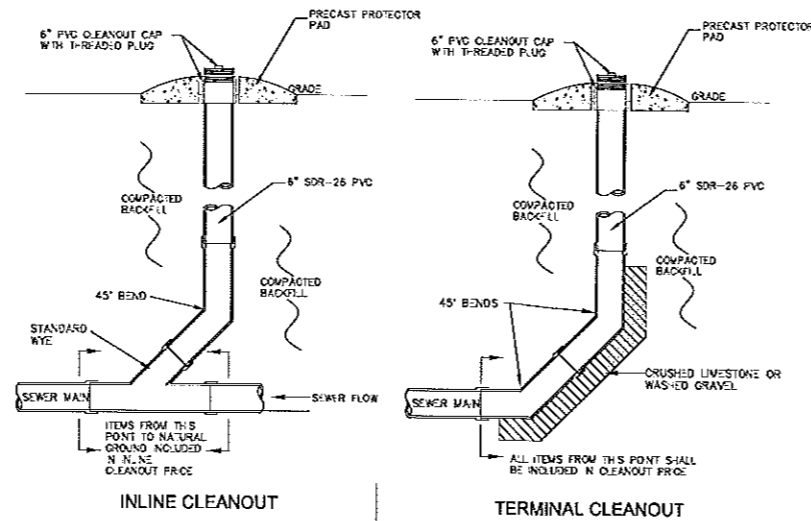
TYPICAL TRENCH DETAIL FOR WATER AND SEWER LINES



NOTE:

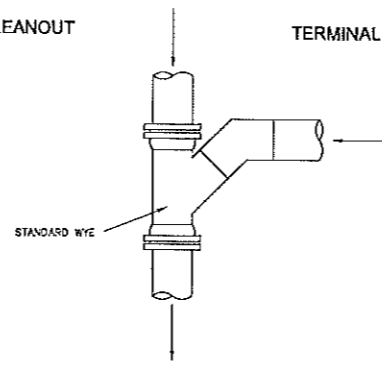
1. TRACER WIRE SHALL BE ABSORBED IN THE PER FOOT COST OF THE PRESSURIZED LINE.
2. TRACER WIRE COLOR SHALL BE BLUE FOR WATER CONSTRUCTION AND GREEN FOR WASTEWATER CONSTRUCTION.
3. ALL TRACER WIRE CONNECTORS SHALL BE 3M DESIGNS AND SHALL BE WATER TIGHT TO PROVIDE ELECTRICAL CONDUCTIVITY.
4. TRACER WIRE REQ'D. ON ALL WATER LINES.

TRACER WIRE DETAIL (REQUIRED ON ALL PRESSURIZED PVC LINES) N.T.S.

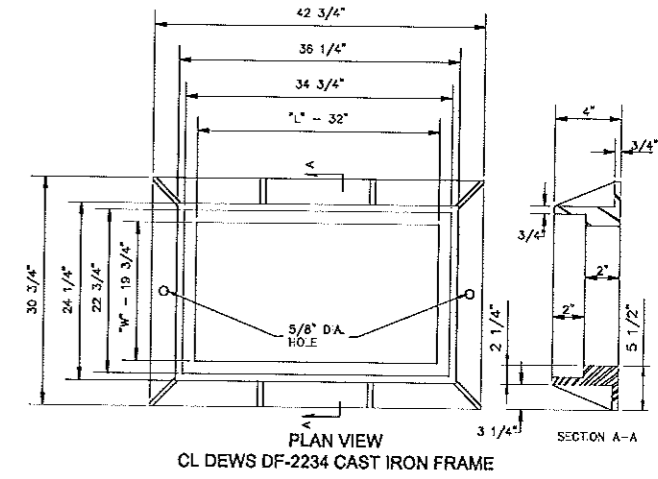


INLINE CLEANOUT

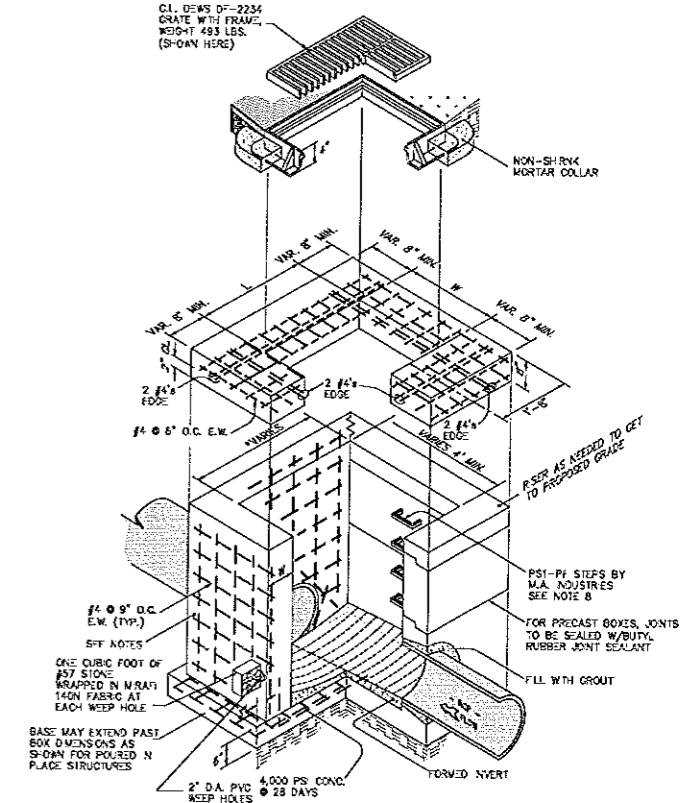
TERMINAL CLEANOUT



STANDARD WYE



PLAN VIEW CL DEWS DF-2234 CAST IRON FRAME

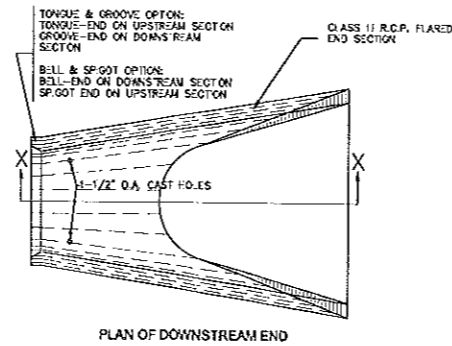


WALL THICKNESS, "W", FOR PRECAST BOXES SHALL BE 6" MIN. FOR POURED IN PLACE SHALL BE 8" MIN.

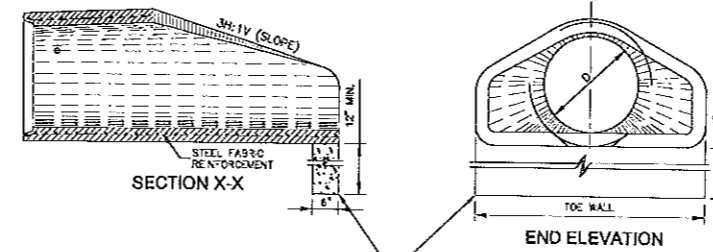
OUTLET N.E.T. NOTES:

1. "L" AND "W" DIMENSIONS WILL VARY DEPENDING ON THE TYPE OF CASTING SPECIFIED ON THE DRAWINGS. IT IS INTENDED THAT THE FRAME BE CENTERED ON THE BOX UNLESS NOTED OTHERWISE.
2. BOXES MAY BE PRECAST OR POURED IN PLACE (4000 PSI 28 DAY COMPRESSIVE STRENGTH). PRECAST MANHOLES WITH CONE TOPS MAY BE USED FOR GRATE INLETS IF THE PIPE SIZES ALLOW.
3. WIDTHS AND DEPTHS OF CATCH BASINS DETERMINED BY PIPE SIZES AND ANGLES AND CASTINGS TO BE USED. A MINIMUM OF 12" FROM THE OUTSIDE EDGE OF THE PIPE TO THE INSIDE EDGE OF THE WALL IS REQUIRED.
4. CONTRACTOR TO ENSURE THAT WATER IS NOT ALLOWED TO POND BEHIND THE INLET BOXES DURING CONSTRUCTION.
5. ON PRECAST CONCRETE BOXES THE LIFT HOLES ON EACH SECTION TO BE SEALED WATER TIGHT WITH NON-SHRINK GROUT INSIDE AND OUT.
6. BOXES SHALL HAVE FORMED INVERTS OUT OF NON-SHRINK GROUT SLOPING TO DRAIN TO OUTLET CURBVERT.
7. STEPS REQ'D. IN STRUCTURES GREATER THAN 48" IN DEPTH. FIRST STEP TO BE 18" FROM THE BOTTOM WITH 12" SPACING BETWEEN REMAINING STEPS.
8. PRECAST BOXES SHALL BE POURED IN SECTIONS AS NEEDED AND RECOMMENDED BY THE MANUFACTURER TO GET TO DESIRED ELEVATION.
9. BOX WIDTH WILL VARY DEPENDING ON THE SIZE OF THE PIPES ENTERING AND LEAVING THE BOX. IT IS UP TO THE CONTRACTOR/MANUFACTURER TO DETERMINE SIZE OF BOX.
10. GRATE N.E.T.S. SHALL BE MANUFACTURED OR POURED SO THAT THE COVER IS THE ONLY PART OF THE BOX THAT IS VISIBLE ONCE FINAL GRADING HAS BEEN DONE. CONTRACTOR SHALL INSTALL RISERS AS NEEDED TO ENSURE THAT A MINIMUM OF 4" OF SOIL CAN BE PLACED ON TOP OF THE BOX TO COVER IT.
11. ALL ITEMS SHOWN ON THIS DETAIL, INCLUDING FRAME AND COVER AS WELL AS COMPLETE INSTALLATION AND CONNECTION OF PIPING SHALL BE INCLUDED IN THE PER EACH PAY ITEM "GRATE N.E.T."

GRATE INLET DETAIL



PLAN OF DOWNSTREAM END



SECTION X-X

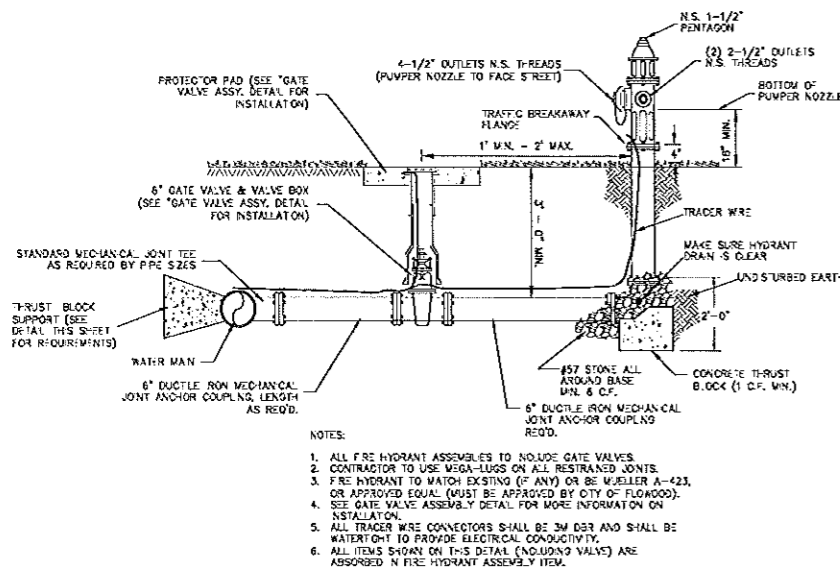
END ELEVATION

CONCRETE FLARED END SECTION N.T.S.

TOE WALL REQUIRED ON ALL FLARED END SECTIONS. SHALL BE ABSORBED IN FLARED END SECTION ITEM FOR EACH INDIVIDUAL PIPE SIZE.

CONCRETE FLARED END SECTION NOTES:

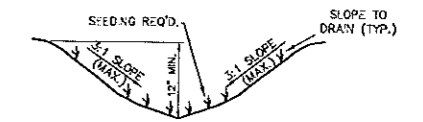
1. ALL FLARED END SECTIONS SHALL BE PRECAST STRUCTURES MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MOST STANDARD DETAIL WORKING NUMBER FE-1, SHEET 328 FOR CLASS I CONCRETE ROUND PIPE AND WORKING NUMBER FE-1A, SHEET 329 FOR CLASS II CONCRETE ARCH PIPE.
2. ALL LIFT HOLES SHALL BE SEALED WITH NON-SHRINK GROUT PER MOST SPECIFICATIONS FOR SEALING CONCRETE PIPE.
3. THE WALL REQUIRED ON ALL FLARED END SECTIONS AND SHALL RUN FULL WIDTH OF FLARED END SECTION.



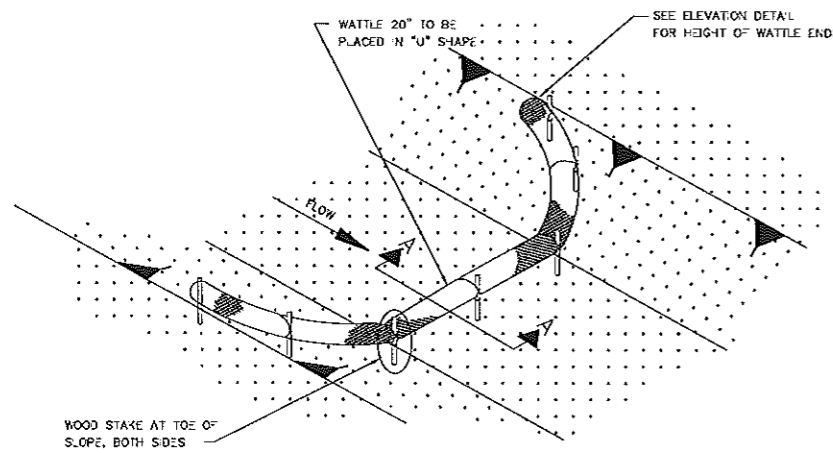
FIRE HYDRANT ASSEMBLY N.T.S.

NOTES:

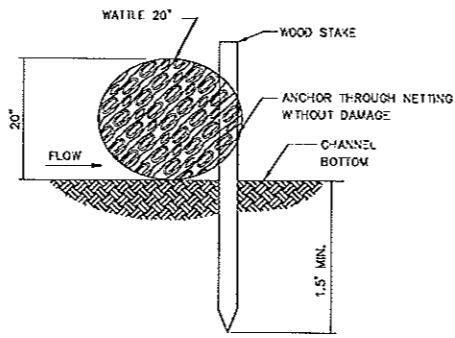
1. ALL FIRE HYDRANT ASSEMBLIES TO INCLUDE GATE VALVES.
2. CONTRACTOR TO USE WEDGE-LOCKS ON ALL RESTRIKED JOINTS.
3. FIRE HYDRANT TO MATCH EXISTING (IF ANY) OR BE WELLSER A-423, OR APPROVED EQUAL (MUST BE APPROVED BY CITY OF FLORENCE).
4. SEE GATE VALVE ASSEMBLY DETAIL FOR MORE INFORMATION ON INSTALLATION.
5. ALL TRACER WIRE CONNECTORS SHALL BE 3M DESIGNS AND SHALL BE WATER TIGHT TO PROVIDE ELECTRICAL CONDUCTIVITY.
6. ALL ITEMS SHOWN ON THIS DETAIL (INCLUDING VALVES) ARE ABSORBED IN FIRE HYDRANT ASSEMBLY ITEM.



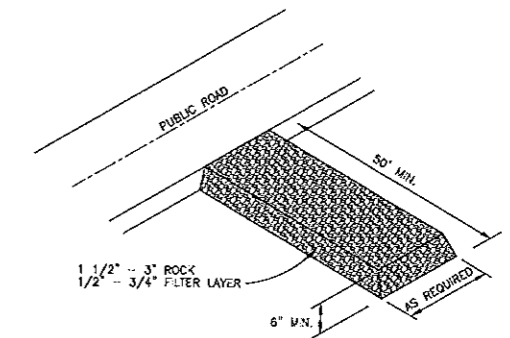
SWALE SECTION



DETAIL (DITCH CHECK)



SECTION A-A



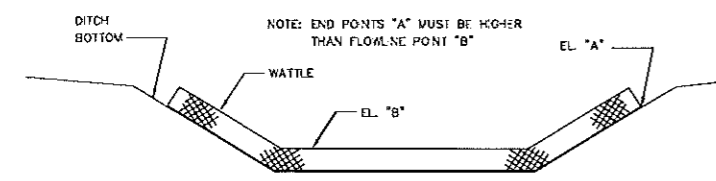
- NOTES:
1. VEHICLE TRACKING MAT SHALL BE LOCATED AT EVERY ENTRANCE/EXIT TO THE CONSTRUCTION SITE.
  2. VEHICLE TRACKING MAT SHALL BE MAINTAINED BY CONTRACTOR AS NEEDED TO PREVENT ANY MATERIAL FROM BEING TRACKED ONTO CITY STREET.
  3. SEDIMENT AND OTHER MATERIAL SPILLED, DROPPED OR TRACKED ONTO CITY STREET SHALL BE IMMEDIATELY REMOVED BY CONTRACTOR.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL

- NOTES:
1. MINIMUM RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK IS 100' UNLESS SHOWN OTHERWISE ON THE PLANS OR EROSION CONTROL PLAN APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON ECD-4
  2. ANCHORING WOOD STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET. ALL NON-DEGRADABLE MATERIALS SHALL BE REMOVED WHEN NO LONGER NEEDED.
  3. TRENCHING OF WATTLES MAY BE NECESSARY IF PONDING BECOMES EVIDENT.
  4. WATTLES SHOULD NOT BE USED IN HARD BOTTOM CHANNELS.

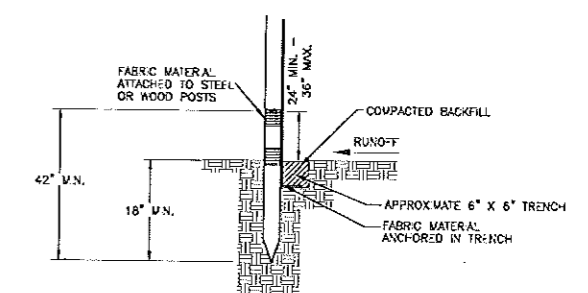
WATTLE DITCH CHECK SELECTION GUIDELINES

WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS.



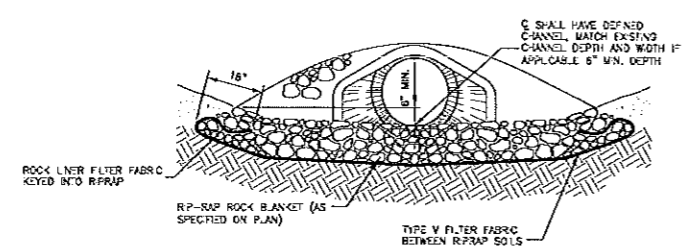
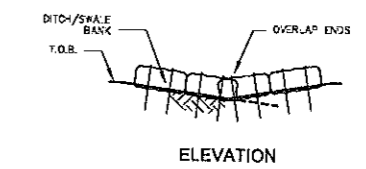
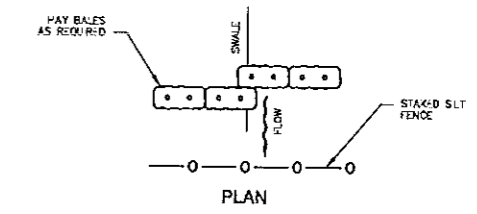
ELEVATION DETAIL

WATTLE DITCH CHECK



SILT FENCE DETAILS

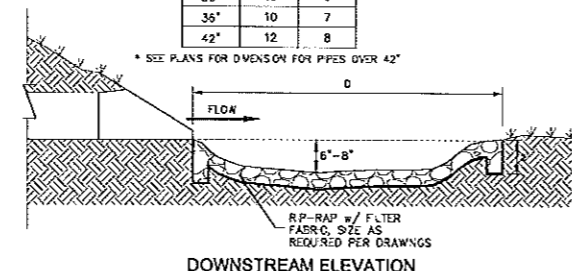
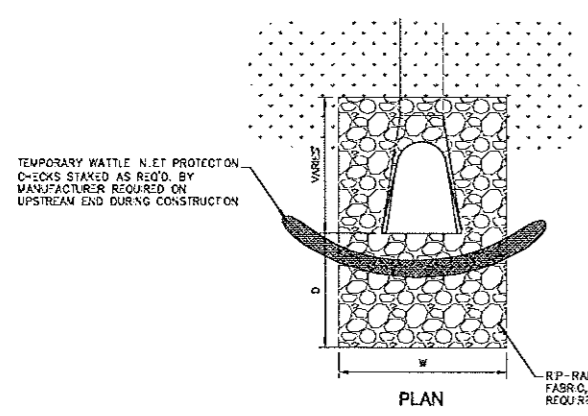
STORM DRAIN STRUCTURE DATA



TYPICAL RIP-RAP SECTION AT STORM DRAIN CULVERT

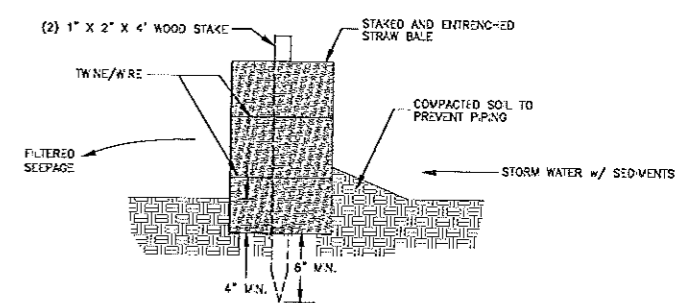
TYPICAL RIP-RAP TREATMENT DIMENSIONS		
P.P.E. #	D	W
15"	5	4
18"	6	4
24"	8	5
30"	10	6
36"	10	7
42"	12	8

\* SEE PLANS FOR DIMENSION FOR P.P.E.S OVER 42"



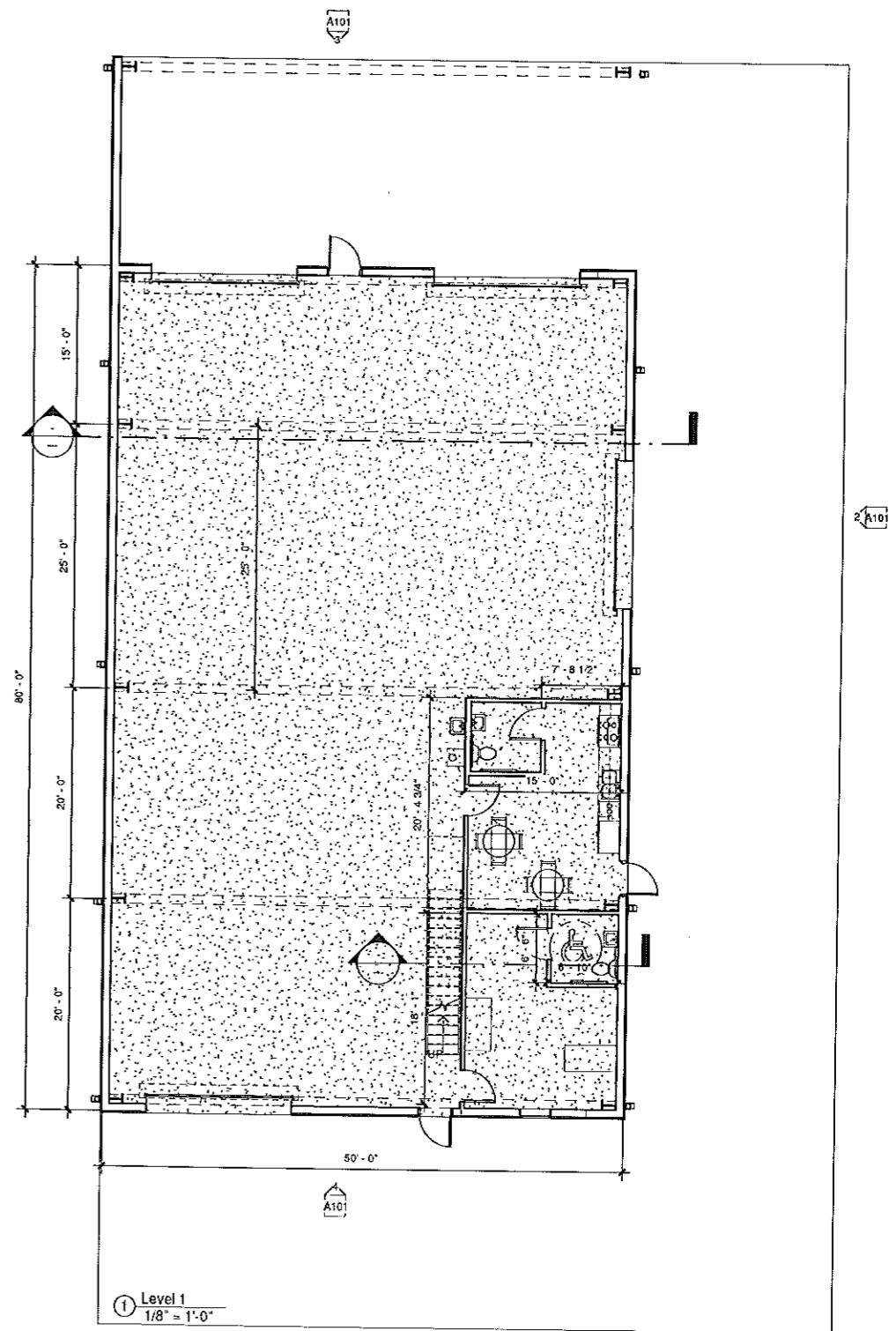
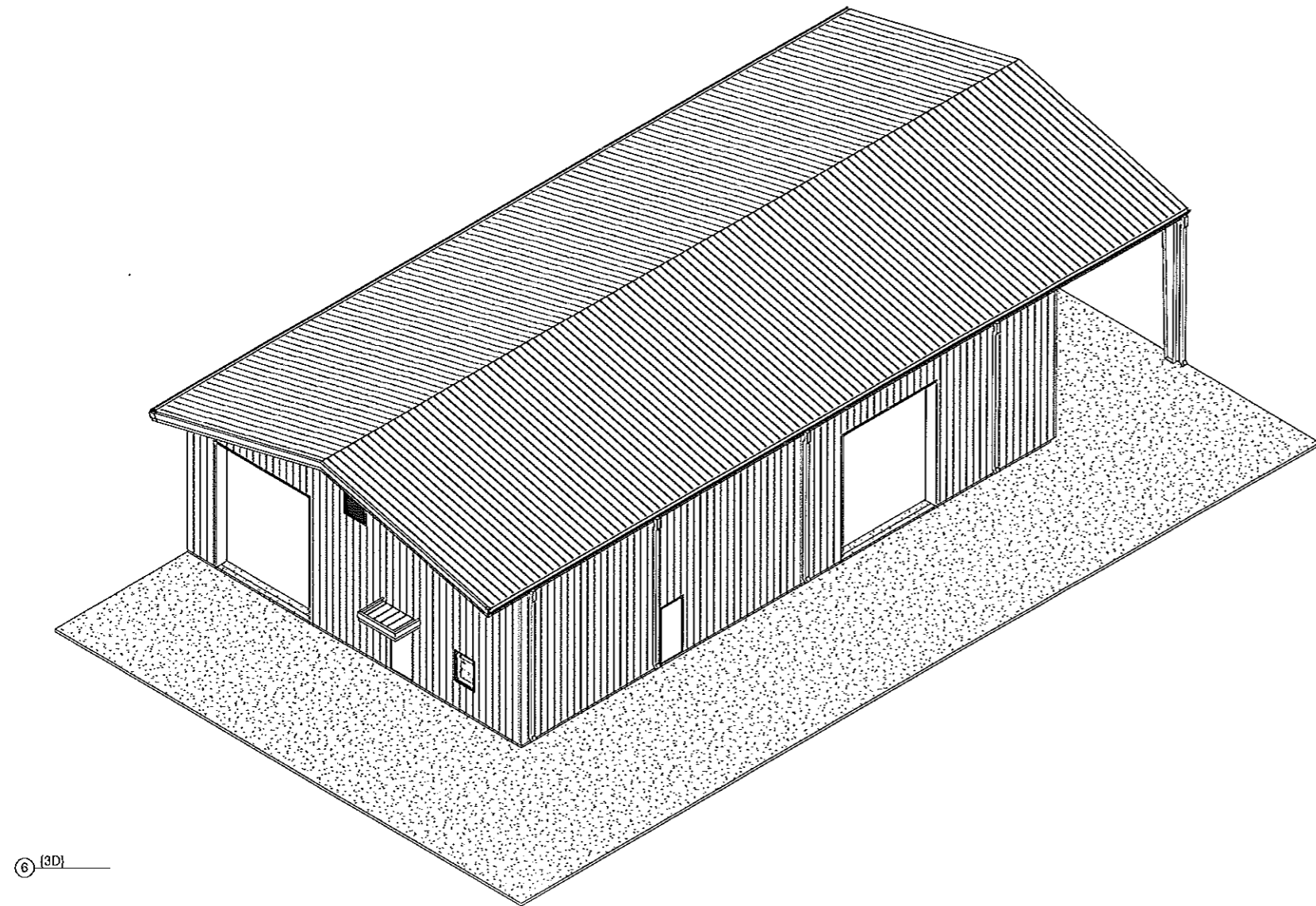
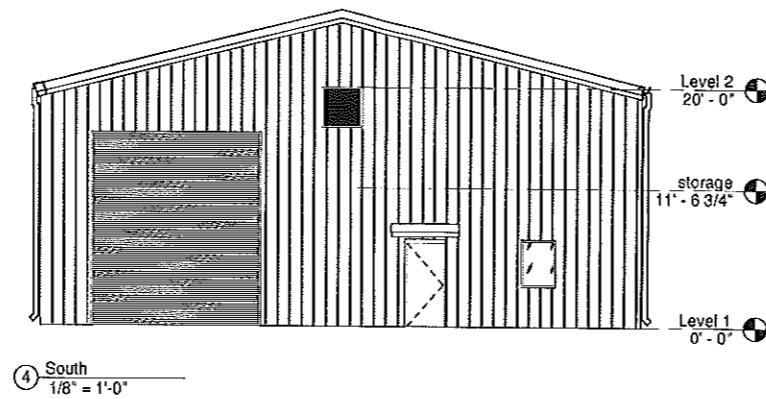
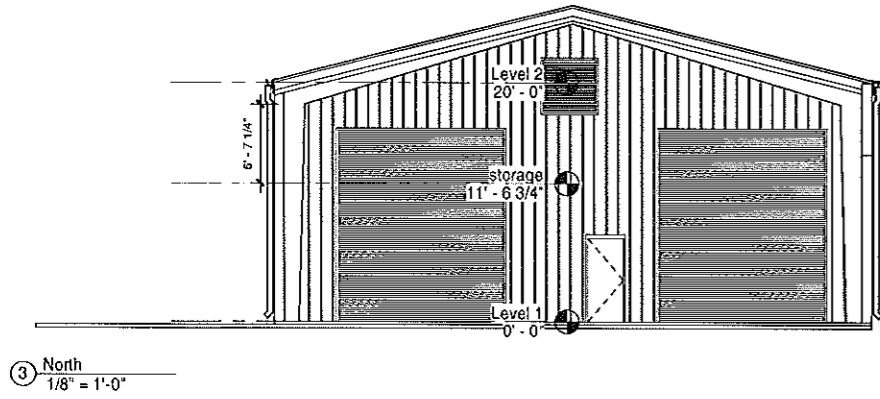
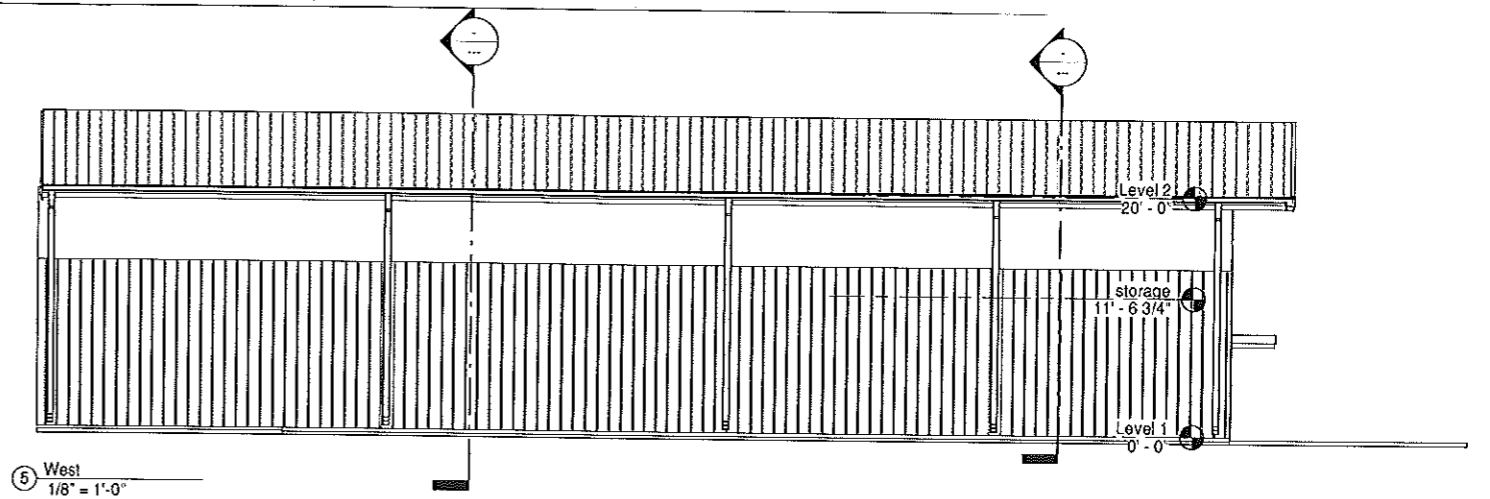
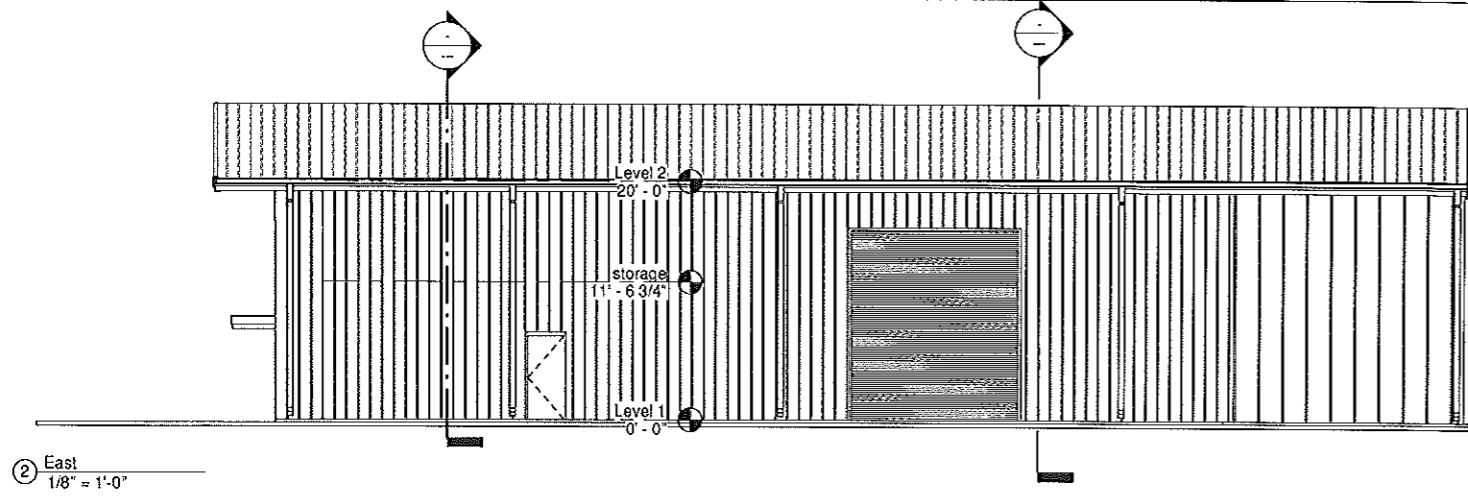
- NOTES:
1. RIP-RAP TREATMENT REQUIRED AT ALL CULVERTS UPSTREAM AND DOWNSTREAM ENDS.
  2. RIP-RAP TREATMENT ON UPSTREAM AND DOWNSTREAM ENDS SHALL TOTALLY SURROUND CULVERT TO A MINIMUM OF 12" ABOVE THE TOP OF THE P.P.E.
  3. SEE CHART FOR DIMENSIONS FOR D & W UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
  4. EROSION CONTROL BLANKETS OR OTHER MEANS FOR PROTECTION MAY BE USED WITH APPROVAL OF ENGINEER.
  5. RIP-RAP WILL BE PAID FOR BY THE SQUARE YARD.
  6. RIP-RAP DIMENSIONS SHOWN ON THE SCHEDULE ARE TYPICAL AND MAY BE ADJUSTED BY ENGINEER AT NO COST TO THE OWNER.

CULVERT RIP-RAP OUTLET PROTECTION



- HAY BALE INSTALLATION NOTES:
1. HAY BALES SHALL BE TRENCHED 3" TO 4" AND STAKED WITH (2) 1"X2"X4" WOOD STAKES PER BALE.
  2. SILT FENCE SHALL BE DOWN STREAM OF HAY BALES.
  3. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED WITH HAY OR STRAW TO PREVENT SILT FROM PASSING.

HAY BALE INSTALLATION



Ro  
Arc  
735  
Jack  
601-  
EMA  
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as in  
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it does  
feature  
PROGRESS PRINT  
Unnamed  
Scale: 1/8" = 1'-0"  
PLOTTED  
9/1  
12:  
PM  
SHEET