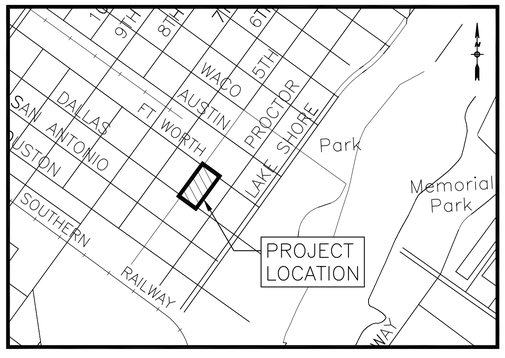
CONSTRUCTION PLANS FOR

TRANSIT BUILDING
PARKING AND DRAINAGE

TO SERVE

CITY OF PORT ARTHUR
JEFFERSON COUNTY, TEXAS

PORT Arthur



VICINITY MAP

INDEX OF DRAWINGS

APPROVED FOR CONSTRUCTION

CITY OF PORT ARTHUR

BY: _____ DATE: _____

MR. HASSIN SHOMALZADEH, P.E.
CITY ENGINEER

JOB NO.: CPA-920

DATE: FEBRUARY 2016

ARCENEAUX WILSON & COLE
engineering | surveying | planning

Engineering F-16194 Surveying 10194049

409.724.7888 2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642

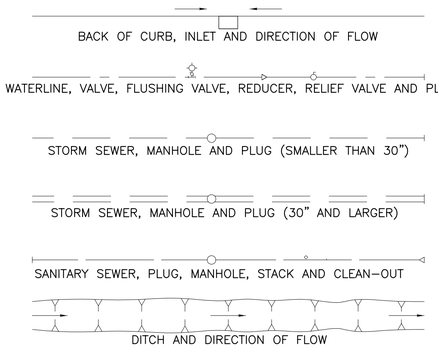
STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED PROFESSIONAL ENGINEER

02/08/2016

PLAN AND PROFILE LEGEND

PLAN

EXISTING



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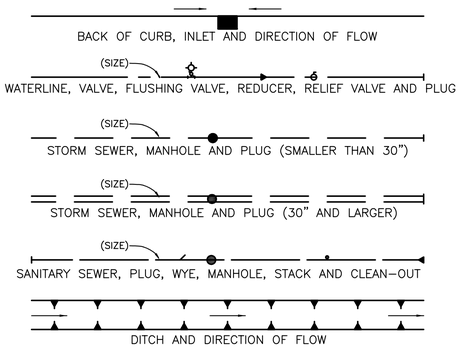
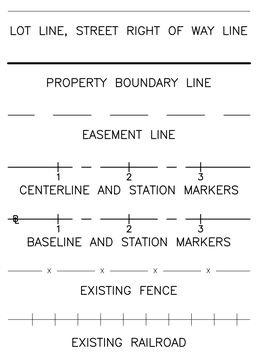
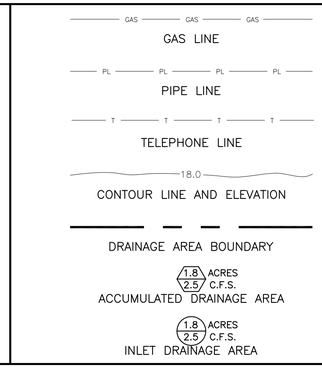
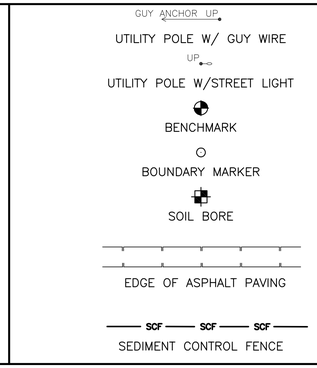


MISCELLANEOUS PLAN

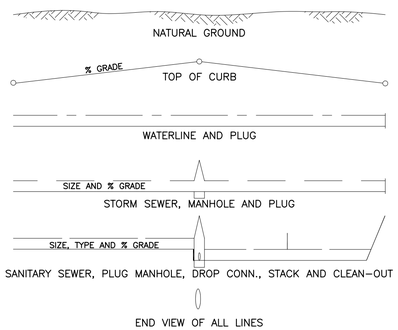






PROFILE

EXISTING



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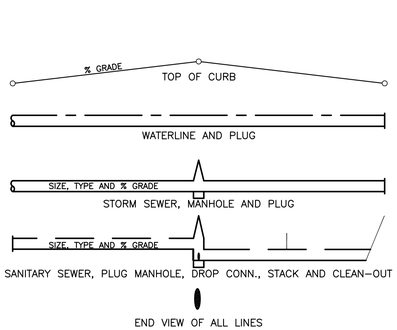

LIST OF ABBREVIATIONS

AC	ACRE
B/B	BACK TO BACK
	BASE LINE
BM	BENCH MARK
B.L.	BUILDING LINE
B.V.	BUTTERFLY VALVE
C.I.	CAST IRON
C/C	CENTER TO CENTER
	CENTERLINE
CONC	CONCRETE
CONC MON	CONCRETE MONUMENT
C.J.	CONSTRUCTION JOINT
C.P.P.	CORRUGATED PLASTIC PIPE
X-SECT	CROSS-SECTION
C.Y.	CUBIC YARD
DIA	DIAMETER
DR.	DRIVE
D.I.P.	DUCTILE IRON PIPE
ESMT	EASEMENT
EB	ELECTRICAL BOX
EL ELEV	ELEVATION
ER	END RETURN
EQ SPA, ES	EQUALLY SPACED
EXIST	EXISTING
F.B.	FIELDBOOK
F.G.	FINISHED GRADE
F.H.	FIRE HYDRANT
F.S.	FIRE SPRINKLER
℄	FLOW LINE (INVERT)
FT	FOOT, FEET
FND	FOUND
GALV	GALVANIZED
HWY	HIGHWAY
I.P.,I.R.	IRON PIPE, IRON ROD
LT	LEFT (X-SECTION NOTES)
MH	MANHOLE
MAX	MAXIMUM
M.S.L.	MEAN SEA LEVEL
MIN	MINIMUM
MON.	MONUMENT
NTS	NOT TO SCALE
NO.	NUMBER
O.C.E.W.	ON CENTER EACH WAY
PVMT	PAVEMENT
P.V.C.	POLYVINYL CHLORIDE
PROP	PROPOSED
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RT	RIGHT (X-SECTION NOTES)
ROW	RIGHT-OF-WAY
SPEC'D	SPECIFIED
SF	SQUARE FEET, FOOT
SS	STAINLESS STEEL
STA	STATION
STL	STEEL
ST.	STREET
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TYP	TYPICAL
UP	UTILITY POLE
VPI	VERTICAL POINT OF INFLECTION
WM	WATER METER

GENERAL CONSTRUCTION NOTES

1. ALL ROAD WIDTHS, CURB RADII, AND CURB ALIGNMENT SHOWN INDICATE BACK OF CURB.
2. SPOIL FROM CONSTRUCTION SHALL BE DISPOSED OFFSITE BY CONTRACTOR AT NO ADDITIONAL PAY.
3. PROJECT AREA IS WITHIN FLOOD ZONE B AND HAS A BASE FLOOD ELEVATION OF 104'.
4. PROFILE LINES SHOWN INDICATED EXISTING NATURAL GROUND PRIOR TO CLEARING AND GRUBBING.
5. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL EXISTING FACILITIES INCLUDING FACILITIES WHICH MAY NOT BE SHOWN IN PLANS.
6. CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION IN AREA OF POSSIBLE UNDERGROUND UTILITIES WHICH MAY NOT BE SHOWN ON DRAWING.
8. UNLESS OTHERWISE PROVIDED, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR SUCH TESTS, INSPECTIONS AND APPROVALS WITH AN INDEPENDENT TESTING LABORATORY OR ENTITY ACCEPTABLE TO THE OWNER AND CONTRACTOR SHALL BEAR ALL RELATED COSTS OF TESTS, INSPECTIONS AND APPROVALS. THE CONTRACTOR SHALL GIVE THE ENGINEER TIMELY NOTICE OF WHEN AND WHERE TESTS AND INSPECTIONS ARE TO BE MADE SO THAT THE ENGINEER MAY BE PRESENT FOR SUCH PROCEDURES.
9. CONTRACTOR SHALL NOTIFY CITY OF PORT ARTHUR EMERGENCY PRIOR TO ANY ROAD CLOSURES.
10. THE FOLLOWING IS A LIST OF CONTACTS:

A.	TEXAS GAS SERVICE	409-963-7125
B.	ENTERGY	MR. PHILLIP SCOTT 409-982-5830
C.	SOUTHWESTERN BELL (Port Arthur, Groves)	MR. HAYWARD GREEN 409-839-7887
D.	TIME WARNER COMMUNICATIONS	MR. HERCEL STRACENER 409-720-5501
E.	CITY OF PORT ARTHUR SHOMALGAZADEH, P.E. DIRECTOR OF PUBLIC WORKS	MR. HASSAN 409-983-8296
F.	CITY OF PORT ARTHUR ASST. (DIRECTOR OF UTILITIES)	MR. JOHN TOMPLAIT 409-983-8552
G.	CITY OF PORT ARTHUR ENGINEERING DESIGNER III UTILITY OPERATIONS	MR. CHARLES SHAJARI 409-983-8227
H.	TEXAS DEPARTMENT OF TRANSPORTATION	MR. KEVIN GRISSOM 409-924-6528
I.	JEFFERSON COUNTY D.D. #7	MR. RALPH MITCHELL 409-985-4369
J.	TEXAS ONE CALL SYSTEM	1-800-245-4545
K.	DIG-TESS	1-800-344-8377
L.	CITY OR PORT ARTHUR EMERGENCY SERVICES	409-983-8600

PAVING CONSTRUCTION NOTES

1. LIME STABILIZATION OF PAVEMENT SUBGRADE SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS GIVEN IN ITEM 260 AND ITEM 264 OF THE 2004 TEXAS DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES. STABILIZED SOIL SHALL BE CONDITIONED TO AT LEAST OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM STANDARD PROCTOR DENSITY, DETERMINED BY THE SOILS TESTING LABORATORY.
2. ALL SUBGRADE SHALL BE PROOF-ROLLED WITH A PNEUMATIC-TYPE ROLLER TO DETECT WEAK AREA. ALL SUBGRADE CAN BE MOISTURE CONDITIONED AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY (ASTM D698), AT OPTIMUM MOISTURE CONTENT, PLUS 3% OR MINUS 2%. (AS DESCRIBED IN GEOTECHNICAL REPORT NO. 13150-33033 BY T&N LABORATORIES & ENGINEERING)
3. REINFORCING STEEL TO BE PLACED 1/3 FROM BOTTOM OF SLAB AND SUPPORTED ON CHAIRS WHICH WILL ADEQUATELY SUPPORT IT DURING CONSTRUCTION.
4. ALL DOWELS USED FOR EXPANSION JOINTS AND CONSTRUCTION JOINTS MUST BE SUPPORTED ADEQUATELY SO THAT THEIR POSITION WILL BE MAINTAINED DURING CONSTRUCTION.
5. T.C. INDICATES TOP OF CURB ELEVATIONS AND T.P. INDICATES TOP OF PAVEMENT ELEVATIONS.
6. ALL JOINTS SHALL BE SEALED WITH A TxDOT 2004 DMS-6310, CLASS 5 SEALANT.
7. ALL SUBGRADE SHALL BE PROOFROLLED PRIOR TO LIME STABILIZATION. ANY SOFT AREAS FOUND SHALL BE EXCAVATED AND BACKFILLED WITH AN APPROVED FILL MATERIAL AND COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR DENSITY.
8. SIDEWALKS AND WHEEL CHAIR RAMPS SHALL BE CONSTRUCTED AS SHOWN ON PLANS.
9. WHERE WATER VALVES FALL WITHIN LIMITS OF CONCRETE, ADJUST VALUE BOXES TO BE FLUSH WITH CONCRETE SURFACE.

	MIN. COMP. STRENGTH (PSI)		MAX. WATER CONTENT[1] POUNDS OF WATER/LB. CEMENT	MAX. WATER CONTENT[1] GALLONS OF WATER/BAG OF CEMENT	MIN. CEMENT PER C.Y[2] LBS.	MIN. CEMENT PER C.Y[2] BAGS	SLUMP RANGE (IN.)*	TOTAL AIR CONTENT (%)
CLASS-TYPE	7-DAY	28-DAY						
A-STRUCTURAL	2000	3000	0.55	6.25	494	5.25	2 ½ TO 4 ½	2 ½ TO 4 ½
Asp-STRUCTURAL[3]	2000	3000	0.50	5.65	423	4.50	7 TO 10[4]	3 TO 5
B-SLOPE PROTECTION	1200	2000	0.75	8.50	400	4.25	2 ½ TO 4	2 ½
C-PIPE BLOCKING	---	1500	0.97	11.00	282	3.00	3 TO 5	AS NEEDED
D-SEAL SLAB	---	---	---	---	376	4.00	6 TO 8	3 TO 6
E-MONOLITHIC SEWER	2000	3000	0.55	6.25	564	6.00	4 TO 6	AS NEEDED
F-PRESTRESSED[5]	---	5000	0.51	5.75	635	6.75	2 TO 3	AS NEEDED
G-PRESTRESSED[5]	---	6000	0.49	5.50	658	7.00	2 TO 3	2 ½ TO 4 ½
K-STRUCTURAL[6]	2800	4000	0.50	5.65	564	6.00	3 ½ TO 5	2 ½ TO 4 ½
Ksp-STRUCTURAL	2800	4000	0.45	5.00	470	5.00	7 TO 10[4]	2 ½ TO 4 ½
P-PAVING 5-INCH[8]	1800	2800	0.66	7.50	423	4.50	3 TO 5	2 ½ TO 4 ½
	450[7]							
P-PAVING 6-INCH[8]	1800	3000	0.66	7.50	423	4.50	3 TO 5	2 ½ TO 4 ½
	450[7]							
P-PAVING 7-INCH[8]	2000	3000	0.66	7.50	470	5.00	3 TO 5	2 ½ TO 4 ½
	500[7]							
P-PAVING 8-INCH[8]	2000	3000	0.66	7.50	470	5.00	3 TO 5	2 ½ TO 4 ½
	550[7]							

SHEET 2

NO.	DATE	REVISION	APPROV.
1			
2			
3			
4			

DATE: FEBRUARY 2016 SCALE: AS SHOWN DRAWN BY: EML
JOB NO.: CPA-920 DESIGNED BY: KXC CHECKED BY: KXC

TRANSIT BUILDING
CITY OF PORT ARTHUR

LEGEND AND CONSTRUCTION NOTES

Port Arthur, Jefferson County, Texas

STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED
PROFESSIONAL
ENGINEER
02/08/2016

ARCENEAUX, WILSON & COLE
engineering | surveying | planning
Surveying 10194049
Engineering F-16194
2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642
409.724.7688

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Benchmark Table				
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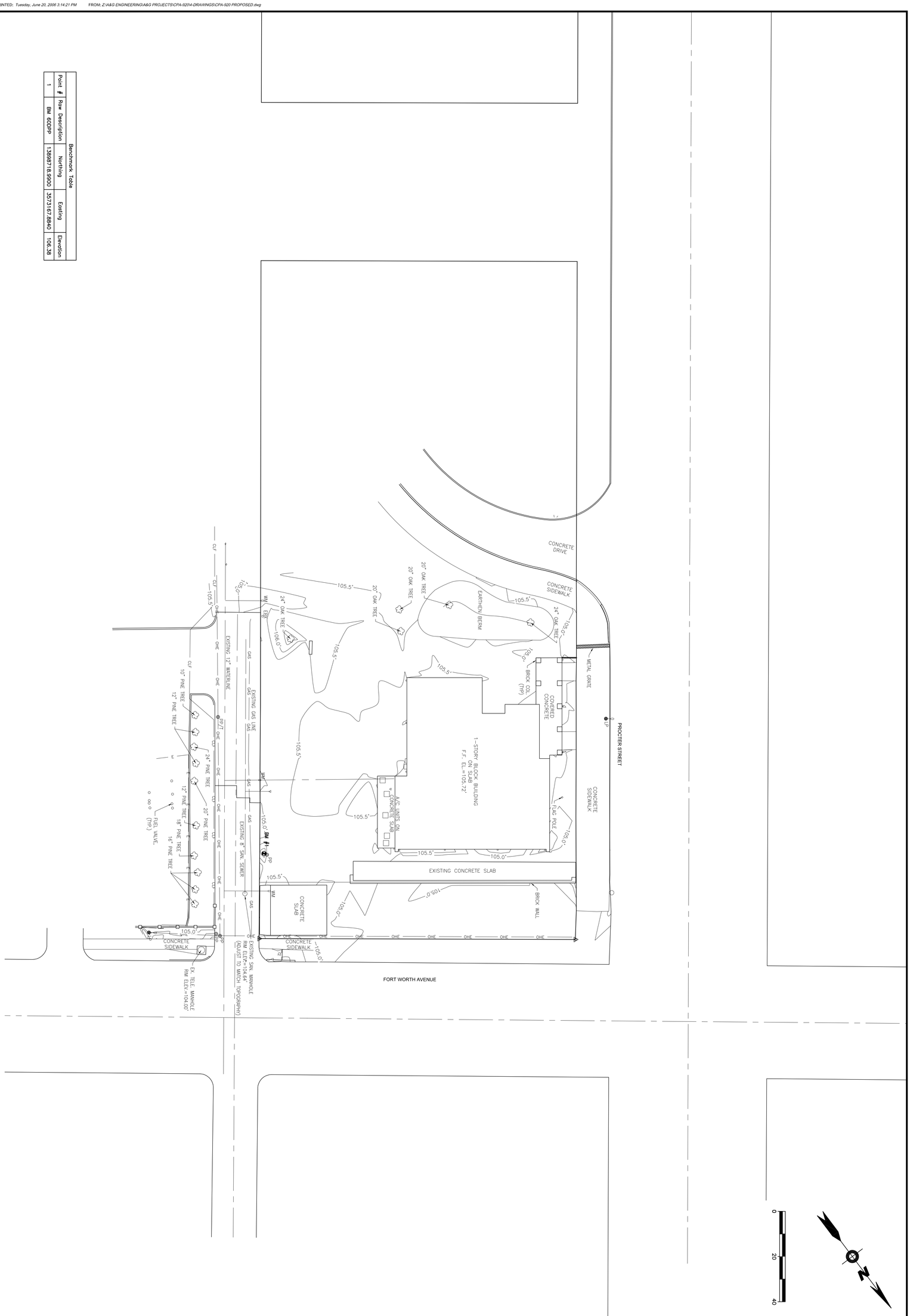

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409.724.7888 2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642

KEESTAN X. COLE 114225 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
02/08/2016

TRANSIT BUILDING
CITY OF PORT ARTHUR
TOPOGRAPHIC SURVEY
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

NO.	DATE	REVISION	APPROV.
4			
3			
2			
1			

SHEET 3

DATE: FEBRUARY 2016 SCALE: AS SHOWN DRAWN BY: EML
JOB NO.: CPA-920 DESIGNED BY: KXC CHECKED BY: KXC

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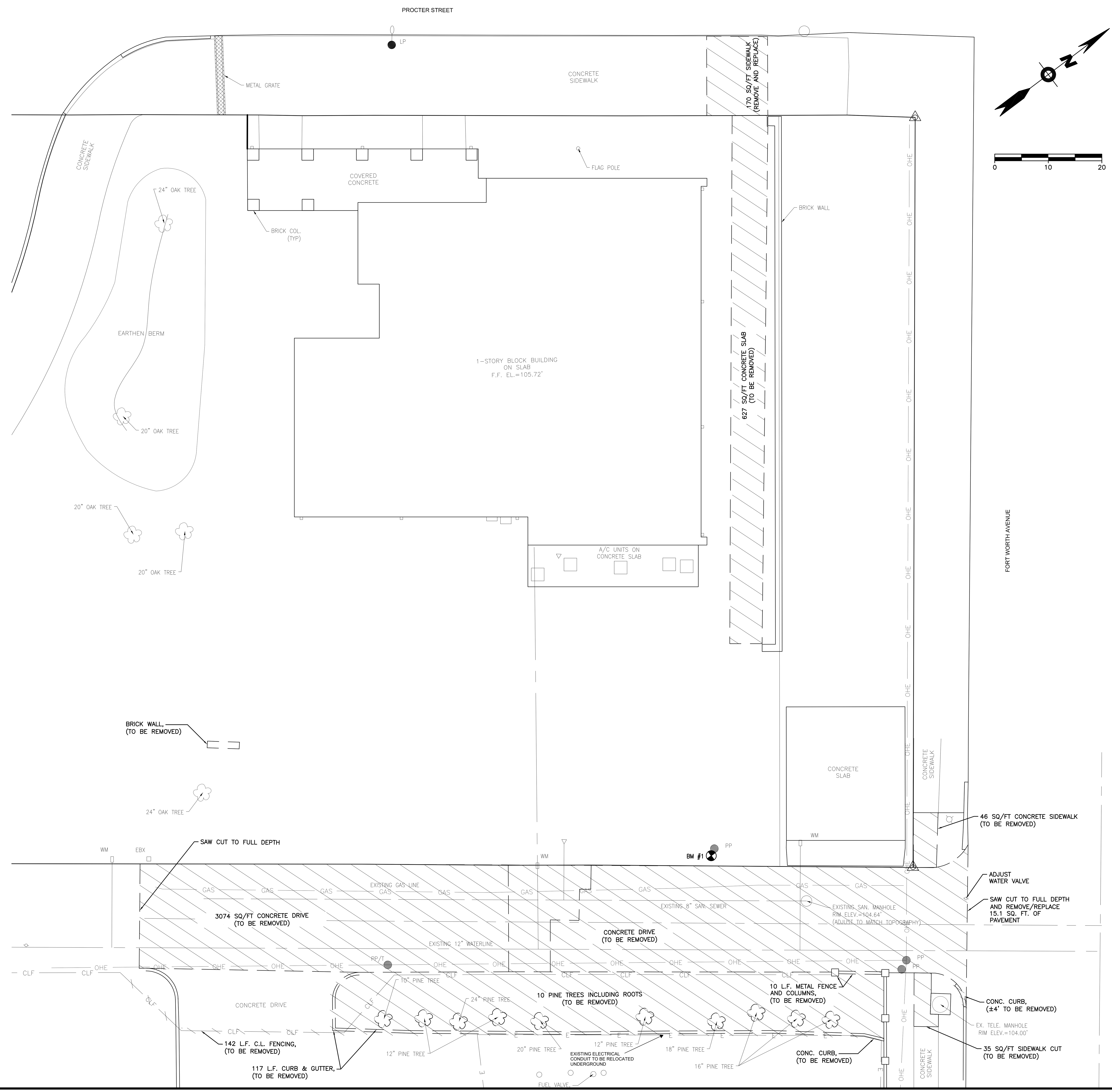

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SHEET 4

NO.	DATE	REVISION	APPROV.
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DATE: FEBRUARY 2016 | SCALE: AS SHOWN | DRAWN BY: BJB
JOB NO.: CPA-920 | DESIGNED BY: KXC | CHECKED BY: KXC

TRANSIT BUILDING
CITY OF PORT ARTHUR
DEMOLITION PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED PROFESSIONAL ENGINEER
02/08/2016

ARCENEAUX WILSON & COLE
engineering | surveying | planning
Engineering F-16194 Surveying 10194049
409.724.7888 2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642

Benchmark Table				
Point #	Raw Description	Northing	Easting	Elevation
1	BM 60DPP	13898718.9900	3573167.8840	106.38

PROCTER STREET

FORT WORTH AVENUE

METAL GRATE

LP

CONCRETE SIDEWALK

CONCRETE SIDEWALK

COVERED CONCRETE

BRICK COL. (TYP)

FLAG POLE

BRICK WALL

24" OAK TREE

EARTHEN BERM

20" OAK TREE

1-STORY BLOCK BUILDING ON SLAB F.F. EL.=105.72'

20" OAK TREE

20" OAK TREE

A/C UNITS ON CONCRETE SLAB

PROPOSED CONCRETE PAVING

CONCRETE SLAB

CONCRETE SIDEWALK

24" OAK TREE

WM

EBX

PROPOSED 20' DOUBLE SWING GATE

EXISTING GAS LINE

BM #1

PPP

EXISTING 8" SAN. SEWER

EXISTING SAN. MANHOLE RIM ELEV.=104.64' (ADJUST TO MATCH TOPOGRAPHY)

EXISTING 12" WATERLINE

PP/T

PP

OHE

CLF

FUEL VALVE, (TYP.)

EX. TELE. MANHOLE RIM ELEV.=104.00'

CONCRETE SIDEWALK

1'
5.26'
5.1'
14.98'
13.19'
1.1'
65.44'
140.15'
14.47'
43.6'
1.5'
1.1'
13.03'
7.78'
1.62'
31.82'
64.76'
14.25'
10.1'
4.62'
4.62'
4.62'
31.94'
19.51'
30.22'
3.06'
1.52'
R6.5'
66'
1.04'
5.83'
12.88'
10'
7.71'
4.58'
2.25'
3.83'
28.69'
15.05'
31.23'
35.93'
16.99'

0 10 20

SHEET 5

NO.	DATE	REVISION	APPROV.
1			
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DRAWN BY: EML
CHECKED BY: KXC
SCALE: AS SHOWN
DESIGNED BY: KXC
DATE: FEBRUARY 2016
JOB NO.: CPA-920

TRANSIT BUILDING
CITY OF PORT ARTHUR
DIMENSIONAL CONTROL PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED PROFESSIONAL ENGINEER
02/08/2016

ARCENEAUX WILSON & COLE
engineering | surveying | planning
Engineering F-16194 Surveying 10194049
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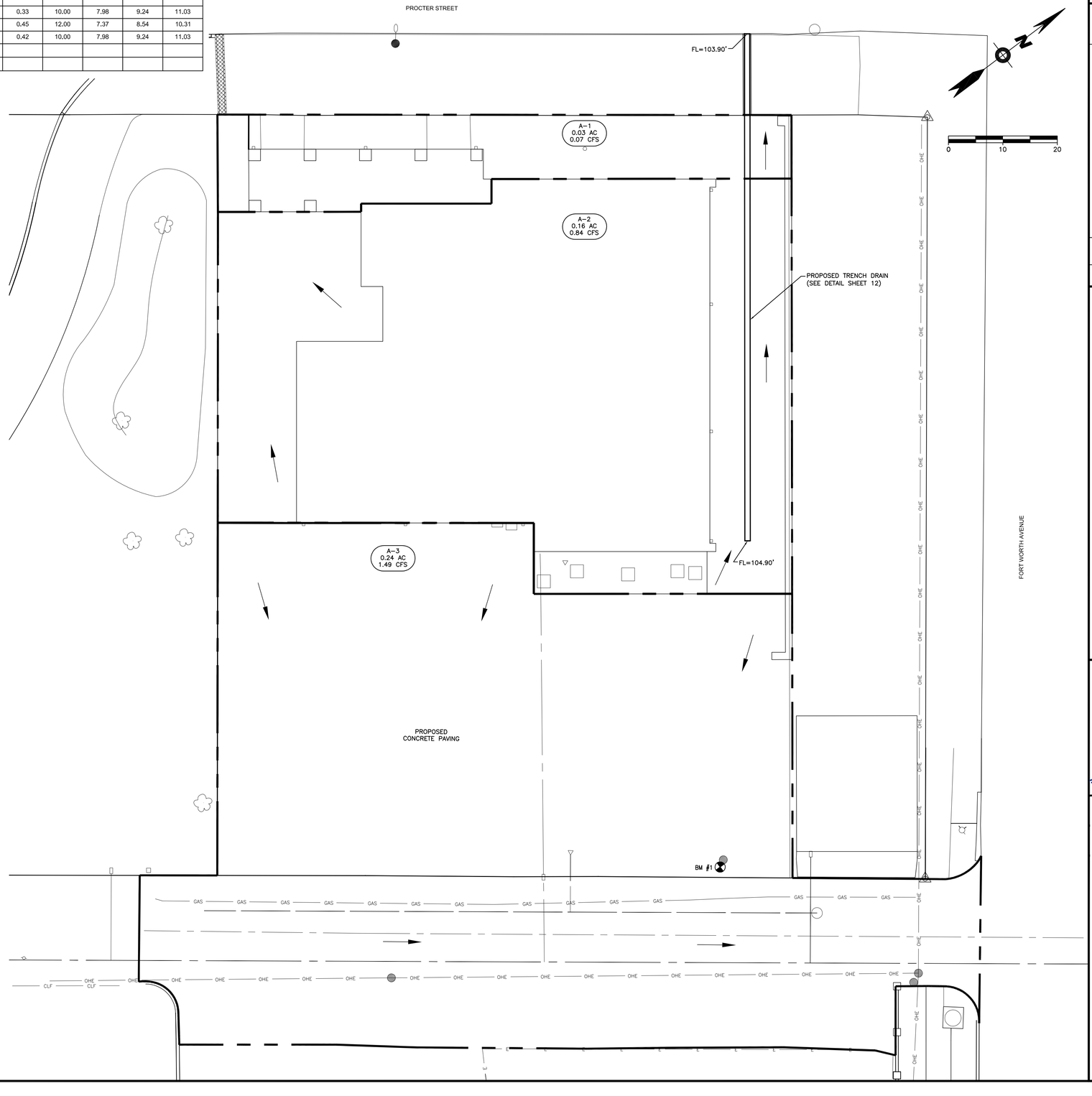
Drainage Area	Area (acres)	5 Year Storm (DESIGN STORM)			10 Year Storm			100 Year Storm			Distance (ft.)	Vw (ft/s)	tc (min)	IDESIGN (cfs)	I10 (cfs)	I100 (cfs)
		e	b	d	e	b	d	e	b	d						
A1	0.03	0.733	65	7.5	0.727	74	7.5	0.687	84	9.2	16	0.33	10.00	7.98	9.24	11.03
A2	0.16	0.733	65	7.5	0.727	74	7.5	0.687	84	9.2	113	0.45	12.00	7.37	8.54	10.31
A3	0.24	0.733	65	7.5	0.727	74	7.5	0.687	84	9.2	217	0.42	10.00	7.98	9.24	11.03
Total	0.43															

Benchmark Table				
Point #	Raw Description	Northing	Easting	Elevation
1	BM 60DPP	13898718.9900	3573167.8840	106.38

LEGEND

PROPOSED DRAINAGE AREA



SHEET 6

NO.	DATE	REVISION	APPROV.
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DATE: FEBRUARY 2016 SCALE: AS SHOWN DRAWN BY: EML
JOB NO.: CPA-920 DESIGNED BY: KXC CHECKED BY: KXC

TRANSIT BUILDING
CITY OF PORT ARTHUR
DRAINAGE PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN K. COLE
114225
REGISTERED PROFESSIONAL ENGINEER
02/08/2016

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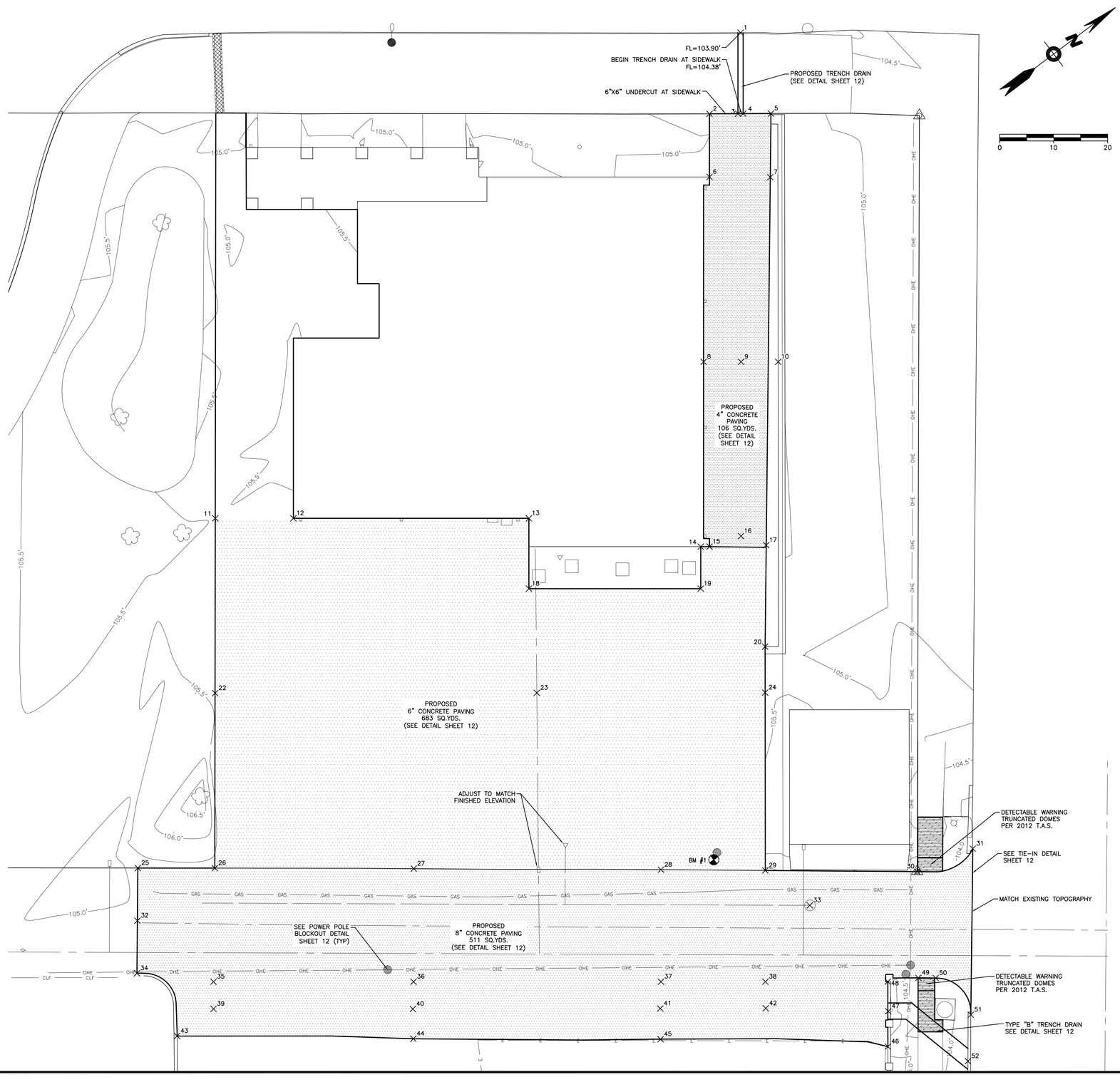
Benchmark Table				
Point #	Raw Description	Northing	Easting	Elevation
1	BM 60DPP	13898718.9900	3573167.8840	106.38

TOP OF PAVEMENT			
POINT #	NORTHING	EASTING	ELEVATION
1	13898814.12	3573047.81	104.40'
2	13898800.56	3573056.44	104.85'
3	13898804.80	3573059.54	104.88'
4	13898805.58	3573060.12	104.88'
5	13898809.72	3573063.15	104.92'
6	13898793.60	3573065.83	105.47'
7	13898802.61	3573072.56	105.14'
8	13898772.35	3573092.68	105.52'
9	13898777.92	3573096.80	104.66'
10	13898783.44	3573100.90	105.52'
11	13898682.46	3573062.14	105.47'
12	13898694.08	3573070.77	105.47'
13	13898729.11	3573096.72	105.47'
14	13898751.56	3573119.86	105.57'
15	13898752.86	3573120.83	105.57'
16	13898758.71	3573122.73	105.00'
17	13898761.46	3573126.86	105.57'
18	13898721.36	3573107.18	105.42'
19	13898746.92	3573126.12	105.57'
20	13898750.10	3573141.83	105.49'
22	13898663.16	3573088.15	105.36'
23	13898711.05	3573123.55	105.36'

TOP OF PAVEMENT			
POINT #	NORTHING	EASTING	ELEVATION
24	13898745.05	3573148.67	105.37'
25	13898632.40	3573105.65	105.27'
26	13898643.84	3573114.14	105.25'
27	13898673.37	3573136.15	105.12'
28	13898710.04	3573163.55	104.96'
29	13898725.47	3573175.16	104.89'
30	13898747.95	3573192.07	104.50'
31	13898758.74	3573194.78	103.74'
32	13898626.52	3573113.43	105.15'
33	13898728.25	3573185.26	104.26'
34	13898620.65	3573121.22	105.39'
35	13898631.11	3573130.91	105.17'
36	13898660.88	3573152.95	105.04'
37	13898697.69	3573180.21	104.88'
38	13898713.23	3573191.72	104.81'
39	13898628.13	3573134.94	105.09'
40	13898657.78	3573156.93	104.96'
41	13898694.62	3573184.12	104.80'
42	13898710.34	3573195.72	104.73'
43	13898619.72	3573134.97	105.43'
44	13898654.55	3573161.41	105.40'
45	13898691.29	3573188.71	105.22'

TOP OF PAVEMENT			
POINT #	NORTHING	EASTING	ELEVATION
46	13898724.30	3573214.86	104.78'
47	13898728.23	3573209.65	104.45'
48	13898731.44	3573205.21	104.50'
49	13898736.41	3573208.00	103.88'
50	13898738.97	3573209.95	103.82'
51	13898740.14	3573219.27	103.57'
52	13898734.60	3573225.86	103.45'



SHEET
7

NO.	DATE	REVISION	APPROV.
1			
2			
3			
4			

DATE: FEBRUARY 2016
JOB NO.: CPA-920
SCALE: AS SHOWN
DESIGNED BY: KXC
DRAWN BY: EML
CHECKED BY: KXC

TRANSIT BUILDING
CITY OF PORT ARTHUR
PAVING PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED
PROFESSIONAL ENGINEER
02/08/2016

ARCENEAUX WILSON & COLE
engineering | surveying | planning
Engineering F-16194 Surveying 10194049
409.724.7888 2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642

LEGEND

- 4" CONCRETE
- 6" CONCRETE
- 8" CONCRETE
- TYPE "A" EXPANSION JOINT
- TYPE "C" CONTRACTION JOINT

Benchmark Table				
Point #	Raw Description	Northing	Easting	Elevation
1	BM 60DPP	13898718.9900	3573167.8840	106.38

LAST PRINTED: Tuesday, June 20, 2006 3:14:21 PM FROM: Z:\AAS ENGINEERING\DAAG PROJECTS\CPA-920\4-DRAWINGS\SHEETS\R_JOINT LAYOUT PLAN.dwg

SHEET 8

NO.	DATE	REVISION	APPROV.
1			
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DATE: FEBRUARY 2016 SCALE: AS SHOWN DRAWN BY: EML
JOB NO.: CPA-920 DESIGNED BY: KXC CHECKED BY: KXC

TRANSIT BUILDING
CITY OF PORT ARTHUR
JOINT LAYOUT PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN X. COLE
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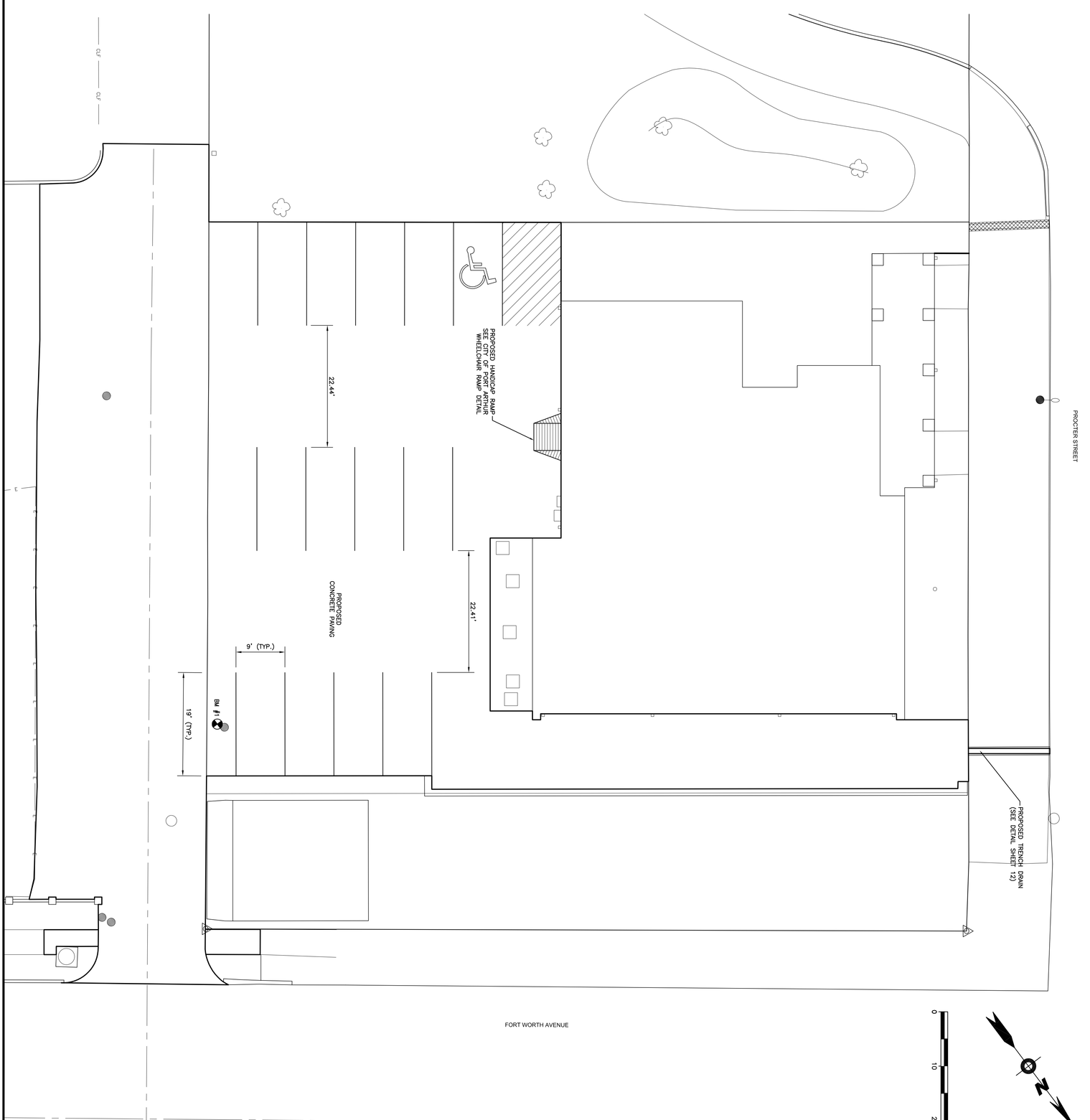
Benchmark Table				
Point #	Row Description	Northing	Easting	Elevation
1	BM 60DPP	13898716.8900	3573167.8940	106.38



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KEESTAN X. COLE 114225 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS
02/08/2016

TRANSIT BUILDING
CITY OF PORT ARTHUR
STRIPING PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

NO.	DATE	REVISION	APPROV.
4			
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SHEET 6

DATE: FEBRUARY 2016 SCALE: AS SHOWN DRAWN BY: EML
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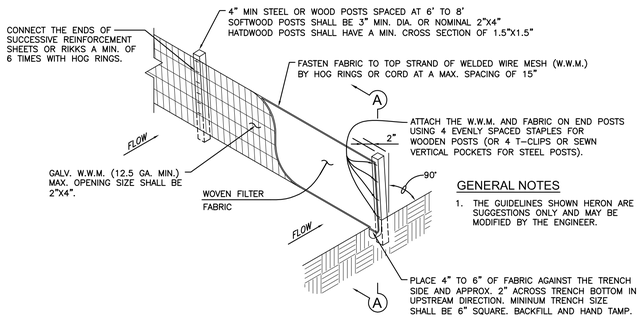
SEDIMENT CONTROL FENCE USAGE GUIDELINES

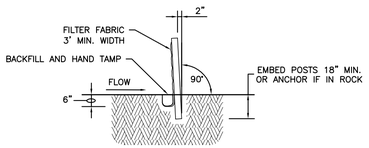
A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.



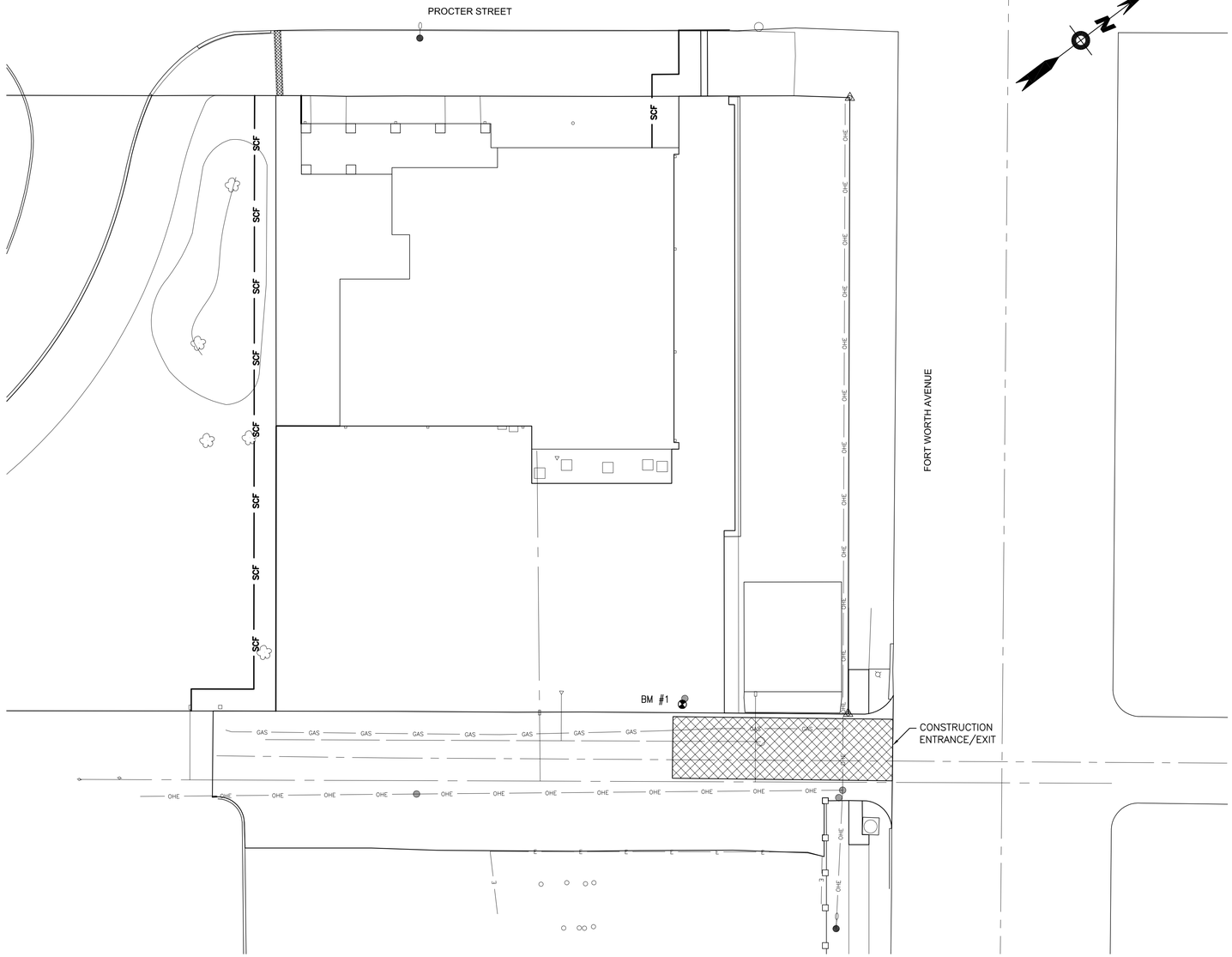
GENERAL NOTES

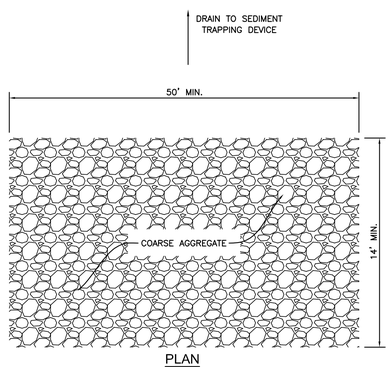
1. THE GUIDELINES SHOWN HERON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



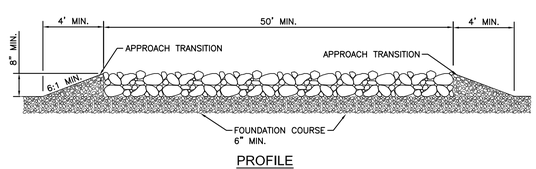
SECTION A-A

TEMPORARY SEDIMENT CONTROL FENCE





PLAN



PROFILE

CONSTRUCTION ENTRANCE/EXIT

GENERAL NOTES:

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION ENTRANCE/EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION ENTRANCE/EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION ENTRANCE/EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HERON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

SHEET 10

NO.	DATE	REVISION	APPROV.
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TRANSIT BUILDING
CITY OF PORT ARTHUR
STORM WATER PREVENTION PLAN
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

STATE OF TEXAS
KEESTAN X. COLE
114225
REGISTERED PROFESSIONAL ENGINEER
02/08/2016

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2901 Turtle Creek Dr., Suite 320 Port Arthur, TX 77642
409.724.7888

SITE DESCRIPTION

Notes:

(1) The Site Description is accomplished using various sheets, each revealing separate details. This Index Sheet's purpose is to point the user to the appropriate location where the information required by the NPDES CGP can be found.

(2) The project limits shown on the following sheet shall also be the limits of coverage of the SW3P.

NATURE OF ACTIVITY: CONSTRUCTION OF PAVING SEWER, STORM SEWER AND SITE GRADING.

INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES: CLEARING SITE, INSTALLING UNDERGROUND UTILITIES, LIME STABILIZATION, SITE PAVING, AND GRADING.

TOTAL AREA OF SITE: 0.9 ACRES AREA TO BE DISTURBED: 0.23 ACRES

PRE-CONSTRUCTION RUNOFF COEFFICIENT: 0.65

POST-CONSTRUCTION RUNOFF COEFFICIENT: 0.65 (UPON COMPLETION OF SUBSEQUENT PROJECTS)

EXISTING SOIL DESCRIPTION: EXISTING SOIL IS A CLAY. SOIL IS COVERED 100% WITH VARIOUS GRASSES.

GENERAL LOCATION : INTERSECTION OF PROCTOR ST. AND FORT WORTH AVE. IN PORT ARTHUR, TX

RECEIVING WATERS: SEGMENT NUMBER: PUMP STATION 12
SEGMENT NAME: JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7

LOCATION OF WETLAND OR SPECIAL AQUATIC SITES: NONE

ENDANGERED SPECIES / CRITICAL HABITAT: NO KNOWN ENDANGERED SPECIES OR CRITICAL HABITAT WILL BE IMPACTED BY THIS PROJECT.

HISTORIC PRESERVATION AFFECT: NONE

DRAINAGE PATTERNS: SHEET FLOW DRAINAGE PATTERN.

TYPICAL AREAS OF SOIL DISTURBANCE: INSIDE PROPERTY LINE

TYPICAL AREAS WHICH WILL NOT BE DISTURBED:

LOCATION OF OFF-SITE SURFACE RECEIVING WATERS:

LOCATIONS WHERE STABILIZATION PRACTICES WILL OCCUR: STABILIZATION WILL OCCUR IN DISTURBED AREAS WHEN CONSTRUCTION ACTIVITY HAS CEASED. AREAS SHALL BE STABILIZED AS SOON AS PRACTICABLE, BUT NO LATER THAN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME WITHIN 21 DAYS.

LOCATIONS OF OFF-SITE STORAGE OF MATERIALS AND EQUIPMENT, WASTE, BORROW, OR DEDICATED MATERIAL PROCESSING PLANTS: MATERIALS AND EQUIPMENT WILL BE STORED AT PROJECT SITE. WASTE WILL BE STORED ON SITE IN APPROVED LOCATIONS. NO BORROW, OR DEDICATED MATERIAL PROCESSING PLANTS.

LOCATIONS WHERE STORM WATER DISCHARGES TO SURFACE WATERS: SHEET FLOW TO EXISTING GRATE INLETS AND CURB INLETS.

LOCATION OF POLLUTION CONTROL MEASURES: POLLUTION CONTROL MEASURES WILL BE LOCATED ALONG PROJECT BOUNDARY/DISTURBED AREAS AND AT ENTRANCE TO ANY STORM SEWER SYSTEM.

CONTROLS

SOIL STABILIZATION PRACTICES

INTERIM:

- X TEMPORARY SEEDING (AS NEEDED)
- _____ MULCHING (Hay or Straw)
- _____ BUFFER ZONES
- _____ PRESERVATION OF NATURAL RESOURCES
- _____ FLEXIBLE CHANNEL LINER
- X OTHER (BLOCK SOD-AS NECESSARY)

PERMANENT:

- X SEEDING
- _____ BLOCK SOD
- X OTHER (REFER TO SUBSEQUENT CONSTRUCTION ACTIVITIES ON SITE BY OTHERS)
- _____ RETENTION BLANKET
- _____ CHANNEL LINER

STRUCTURAL PRACTICES (T/P)*

- T SILT FENCE
- _____ EROSION CONTROL LOGS
- _____ ROCK BERMS
- _____ PIPE SLOPE DRAINS
- _____ CHANNEL LINERS
- P STORM SEWERS
- P STORM INLET SEDIMENT TRAP
- _____ STONE OUTLET STRUCTURES
- _____ DIVERSION, INTERCEPTOR, or PERIMETER SWALES
- _____ DIVERSION, INTERCEPTOR, or PERIMETER DIKES
- _____ PAVED FLUMES
- T ROCK BEDDING AT CONSTRUCTION EXIT
- _____ TIMBER MATTING AT CONSTRUCTION EXIT
- _____ SEDIMENT TRAPS
- T SEDIMENT BASINS
- _____ CURB and GUTTER
- _____ VELOCITY CONTROL DEVICES

* T means Temporary – P means Permanent

PERMANENT POST CONSTRUCTION TSS CONTROLS

- _____ RETENTION / IRRIGATION
- _____ EXTENDED DETENTION BASINS
- X VEGETATIVE FILTER STRIPS / VEGETATIVE SWALES
- _____ CONSTRUCTED WETLANDS
- _____ WET BASINS

OTHER CONTROLS

- X WATERING FOR DUST CONTROLS
- X SEDIMENT REMOVAL FROM ROADWAY (SWEEPING)
- X LOADED TRUCKS WILL BE COVERED WITH TARP

The above indicated practices are proposed to control pollutants in storm water discharges. These practices are based on information contained in TxDOT Storm Water Management Guidelines. The Schedule of implementation of these practices will be based on the intended Sequence of Major Soil Disturbing Activities. Stabilization measures shall be initiated no later than 14 days after construction activity of that portion of the site has temporarily or permanently ceased.

Describe construction and waste materials expected to be stored on site and proposed controls to reduce pollutants from these materials (include storage practices spill prevention and response.

ALL WASTE MATERIALS WILL BE STORED AT AN APPROVED LOCATION UNTIL HAULED TO AN APPROVED LANDFILL. CONSTRUCTION AND WASTE MATERIALS WILL BE PRIMARILY CONCRETE AND ASPHALT.

Describe pollutant sources from areas other than construction and measures implemented at those sites to minimize pollutant discharges.

NO KNOWN POLLUTANT SOURCES

Describe measures necessary to protect listed endangered or threatened species, or critical habitat.

NO KNOWN ENDANGERED, SPECIES, THREATENED SPECIES, OR CRITICAL HABITAT.

INFORMATION

MAINTENANCE:

All erosion and sediment control and other protective measures identified in the SW3P must be maintained in effective operating conditions. If site inspections required by this permit identify BMP's that are not operating effectively, maintenance shall be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is unpractical, maintenance must be scheduled and accomplished as soon as practical.

INSPECTION:

Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site, at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

a). Disturbed areas that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Sediment and erosion control measures identified on the SW3P shall be observed to ensure that they are operating correctly. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

b). Based on the result of the inspection, the SW3P shall be revised to include (show on Site Map) additional or modified BMP's designed to correct the observed deficiency.

c). A report summarizing the scope, date, name and qualifications of inspector, and major observations relating to the implementation of the SW3P shall be produced and retained as part of the SW3P for 3 years from date of final stabilization.

INSPECTOR PAPERWORK CHECKLIST:

- ☐ Contact Form (1)
- ☐ Notice of Intent (1)(2)
- ☐ SW3P Certification Statement (signed by AE) (2)
- ☐ Delegation of Signature Authority (all Inspectors signing reports) (2)(3)
- ☐ NPDES General Permit (Federal Register dated July 6, 1998) (2)(3)
- ☐ Environmental Document (2)
- ☐ Inspection and Maintenance Report (2)(3)
- ☐ Notice of Termination (2)
- ☐ SW3P Plan (2)(3)
- ☐ Inspector Qualification Form (2)(3)
- ☐ Project Diary(2)(3)

(1) The information should be displayed on the Project Bulletin Board.

(2) The information should be a part of the permanent SW3P file maintained at the Corp. Home Office.

(3) The information should be maintained at the Field Office.

STORM WATER POLLUTION PREVENTION PLAN is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or storm water management site plans or site permits approved by State, Tribal or local officials (i.e. MS4 Permits).

Any reportable quantity of Hazardous Material release must be reported to the National Response Center at 1-800-424-8802. In addition a "Hazardous Material Spill Information Form" must be completed and mailed to the EPA Regional Office in Dallas, Tx.

A copy of the Construction General Permit is part of the SW3P.

Contractor responsible for preventing tracking of soil into roadways and cleanliness of roadways, up to sweeping on a daily basis as required.

Erosion control must be maintained until vegetation is established at 70%.

SHEET 11

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TRANSIT BUILDING
CITY OF PORT ARTHUR
STORM WATER PREVENTION INDEX
PORT ARTHUR, JEFFERSON COUNTY, TEXAS

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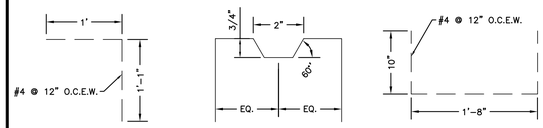
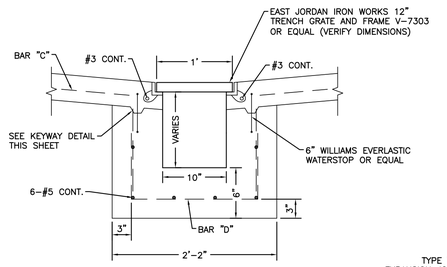


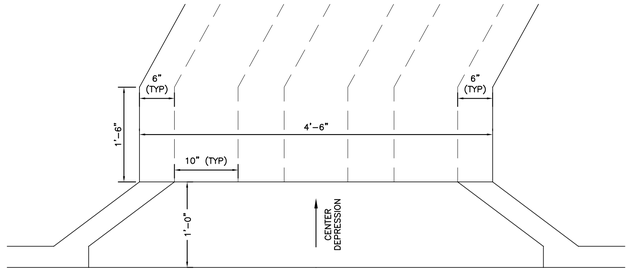
BAR "C"

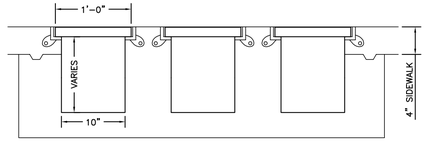
KEYWAY DETAIL

BAR "D"

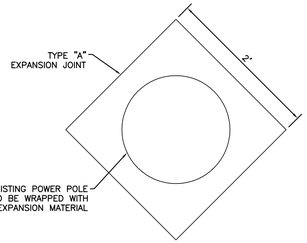


TYPE "A" TRENCH DRAIN DETAIL
N.T.S.

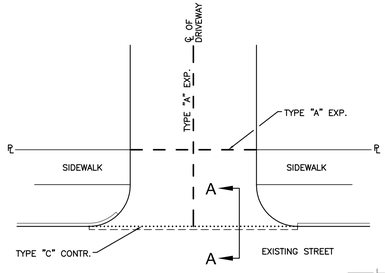




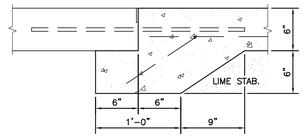
TYPE "B" TRENCH DRAIN DETAIL AT SIDEWALK
N.T.S.



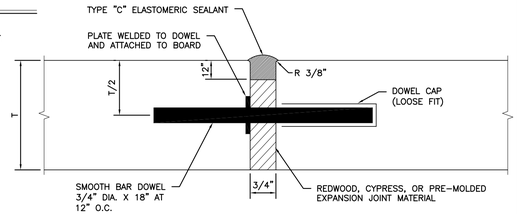
POWER POLE BLOCKOUT
N.T.S.



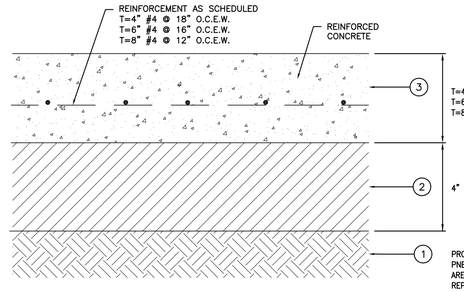
STREET TIE-IN PLAN DETAIL
N.T.S.



PAVEMENT TIE-IN SECTION "A-A"
N.T.S.

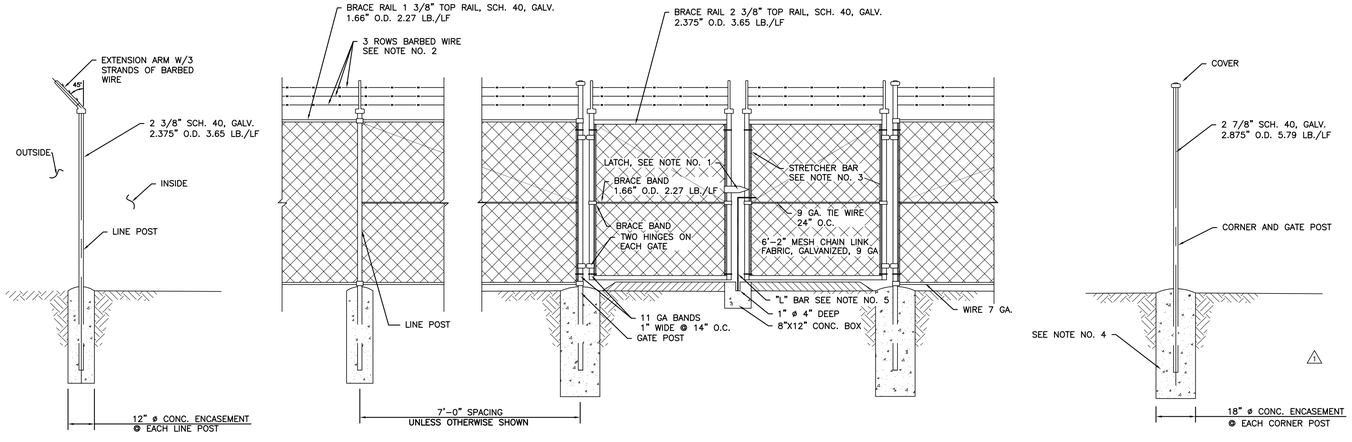


TYPE "A" EXPANSION JOINT



SUBGRADE PREPARATION NOTES

1. THE TOP 3-6 INCHES OF SOIL, VEGETATION AND ROOTS IN THE PROPOSED PAVEMENT AREAS SHALL BE STRIPPED FROM THE SITE AND EITHER WASTED OR STOCKPILED FOR LATER USE.
2. AFTER STRIPPING AND EXCAVATING TO THE DESIRED SUBGRADE ELEVATION, THE EXPOSED SUBGRADE SOILS SHALL BE PROOF ROLLED WITH AT LEAST A 15 TON PNEUMATIC ROLLER TO DETECT WEAK AREAS. SUCH AREAS SHALL BE REMOVED AND REPLACED WITH SOILS EXHIBITING SIMILAR CLASSIFICATION, MOISTURE CONTENT AND DENSITY AS THE ADJACENT IN SITU SOILS. SUBSEQUENT TO PROOF ROLLING, THE EXPOSED SUBGRADE SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR (ASTM D 698) MAXIMUM DRY DENSITY AT OPTIMUM TO +3% ABOVE OPTIMUM MOISTURE CONTENT.
3. ANY FILL REQUIRED FOR GRADING PURPOSES, SHALL BE PLACED IN MAXIMUM LOOSE LIFTS OF 8 INCHES. IF WATER MUST BE ADDED, IT SHALL BE UNIFORMLY APPLIED AND THOROUGHLY MIXED INTO THE SOIL BY DISKING OR SCARIFYING. THE EDGES OF COMPACTED FILL SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE EDGES OF THE PAVEMENT PRIOR TO SLOPING.
4. SELECT FILL, IF REQUIRED, SHALL BE FREE OF ORGANIC OR OTHER DELETERIOUS MATERIALS, HAVE A MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES, HAVE A LIQUID LIMIT LESS THAN 35% AND A PLASTICITY INDEX BETWEEN 8 AND 18%. STRUCTURAL SELECT FILL SHALL BE COMPACTED TO AT LEAST 95% OF STANDARD PROCTOR (ASTM D 698 MAXIMUM DRY DENSITY, AT -2% TO +3% OF OPTIMUM MOISTURE

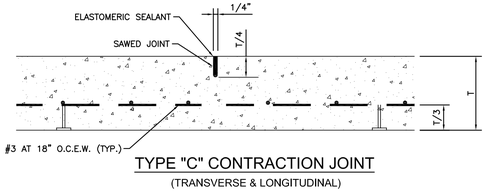


TYPICAL CHAIN LINK FENCE, GATES AND POSTS
N.T.S.

NOTES:

1. LATCH FORKED TYPE TO PERMIT OPERATION FROM EITHER SIDE. PROVIDE PADLOCK EYE.
2. BARBED WIRE: 3-2 STRAND 12 1/2 GA. WITH 14 GA. 4 POINT BARBS SPACE 5" O.C. GALV.
3. STRETCHER BAR: CROSS SECTION 3/16 X 3/4 ONE PIECE LENGTHS TO FULL HEIGHT OF FABRIC. PROVIDE ONE BAR FOR EACH GATE AND END POST, 2 FOR CORNERS.
4. ALL CONCRETE IS TO BE CLASS "A" 3000 PSI CONCRETE.
5. "L" BAR NO. 5 SMOOTH BAR TO BE PLACED AS LOCKING PIECE TO KEEP GATE FROM SWINGING WHEN LOCKED.
6. WHEN BARBED WIRE IS USED THE MINIMUM HEIGHT SHALL BE 7'.
7. PIPE, H BEAMS, OR SQUARE TUBE POSTS MAY BE USED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
8. CLEARANCE FROM GATES TO TOP OF PAVEMENT TO BE 1".

CONCRETE PAVING SECTION



TYPE "C" CONTRACTION JOINT
(TRANSVERSE & LONGITUDINAL)

SHEET 12

NO.	DATE	REVISION	APPROV.
2	02/22/16	ADDENDUM #1	
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TRANSIT BUILDING
CITY OF PORT ARTHUR

DETAILS

PORT ARTHUR, JEFFERSON COUNTY, TEXAS

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KEESTAN X. COLE
114225
REGISTERED PROFESSIONAL ENGINEER
10/12/2016

TEXAS REGISTERED ENGINEERING FIRM F-16194

TEXAS REGISTERED SURVEYING FIRM 10194049

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2901 Turtle Creek Drive Suite 320 • Port Arthur, TX 77642
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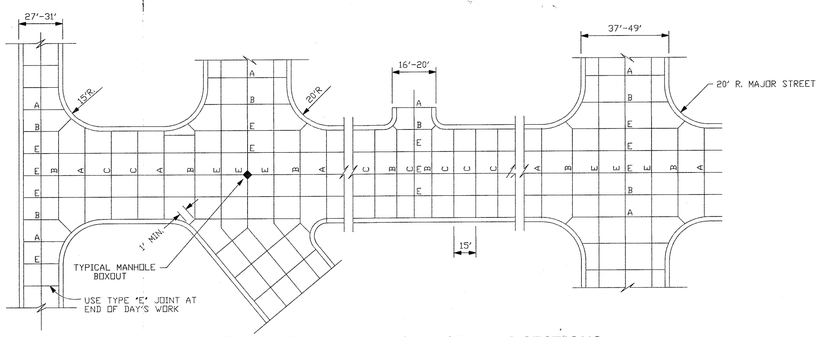
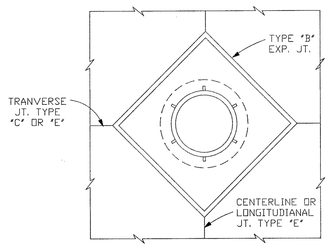
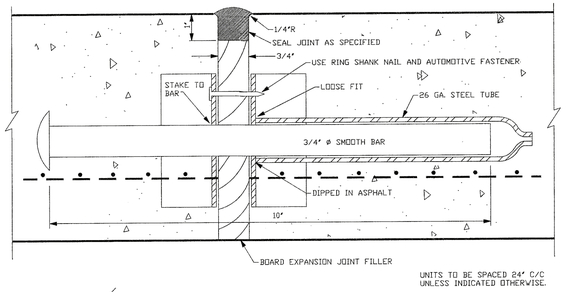
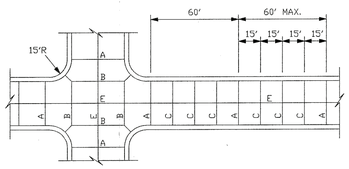


TYPICAL JOINT LAYOUT - 37', 41', 45' & 49' PAVING SECTIONS

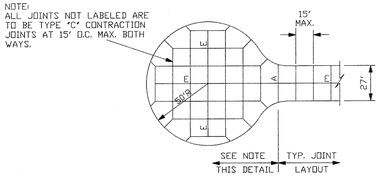


MANHOLE BOXOUT

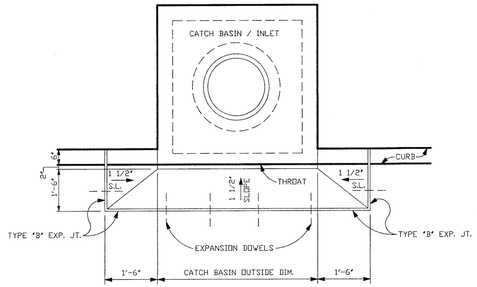




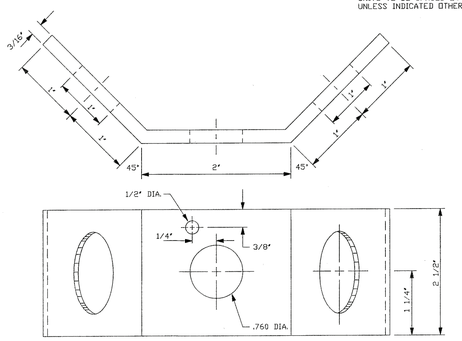
TYPICAL JOINT LAYOUT - 27' & 31' PAVING SECTIONS



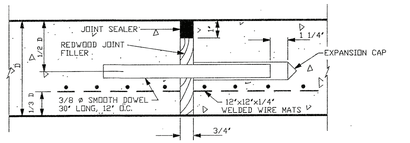
JOINT LAYOUT FOR CUL-DE-SAC SECTION



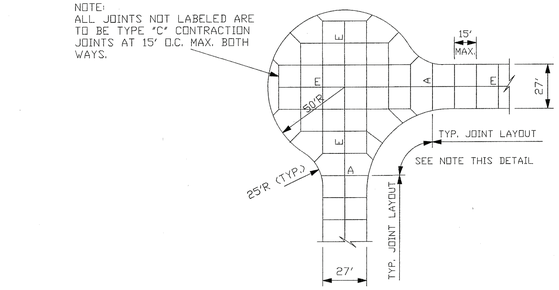
CATCH BASIN / INLET BOXOUT DETAIL



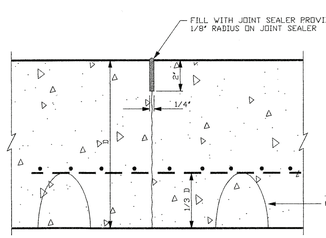
TYPE "A" EXPANSION JOINT



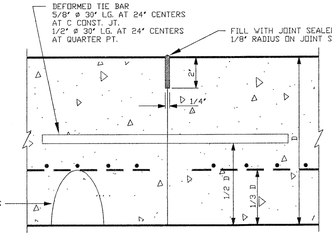
TYPE "B" EXPANSION JOINT



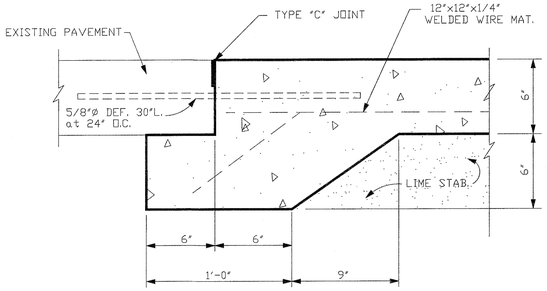
JOINT LAYOUT FOR BLISTER SECTIONS



TYPE "C" CONTRACTION JOINT

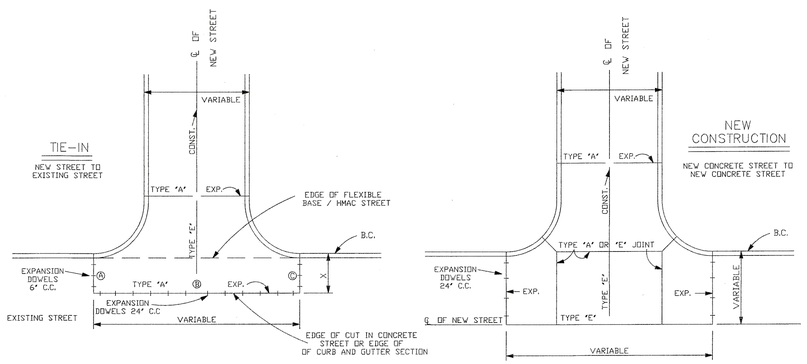


TYPE "E" CONSTRUCTION JOINT



PAVEMENT TIE-IN DETAIL

USE LONGITUDINALLY ALONG EXISTING PAVEMENT, AS TIE-IN TO END OF EXISTING STREET OR AS A HEADER AT END OF STREET CONSTRUCTION WHERE FUTURE STREET WILL TIE-IN.



X = 18" FOR NEW CONCRETE STREET TIED INTO EXISTING CONCRETE STREET. (JOINTS A, B, AND C REQUIRED.)

X = WIDTH OF CONCRETE CURB AND GUTTER SECTION WHERE NEW CONCRETE STREET TIES INTO TO EXISTING CURB AND GUTTER STREET WITH FLEXIBLE BASE / HMAC. (JOINTS A AND C REQUIRED THROUGH CURB AND GUTTER SECTION; JOINT B NOT REQUIRED.) PATCH FLEXIBLE BASE / HMAC AS REQUIRED.

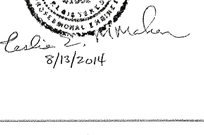
X = "0" FOR NEW CONCRETE STREET TIED INTO EXISTING FLEXIBLE BASE / HMAC STREET. (JOINTS A, B, AND C NOT REQUIRED.) PATCH FLEXIBLE BASE / HMAC AS REQUIRED.

STREET TIE-IN DETAILS

GENERAL NOTES

1. ALL JOINTS, EXCEPT EXPANSION JOINTS AND LONGITUDINAL CONSTRUCTION JOINTS IN CONCRETE STREET PAVEMENT SHALL BE SAWED AND SEALED. EXPANSION JOINTS TO BE SEALED AFTER REMOVAL OF CAP STRIP.
2. EXPANSION JOINT TO BE PLACED AT END OF EACH CURB RADIUS AND AT INTERVALS NOT TO EXCEED 60' ON STRAIGHT SECTIONS (AS SHOWN ON PLANS). EXPANSION JOINT FILLER BOARDS SHALL CONFORM TO PARABOLIC CROWN.
3. USE 1"x 3/4" CONSTRUCTION JOINT CAP STRIP AND REMOVE AFTER NOT LESS THAN 7 DAYS. JOINT SEALANT MATERIAL TO HAVE A MELTING POINT WITH A MIN. 190° F AND MAX. 205° F. (TYPE "A" AND TYPE "B" JOINTS ONLY)
4. ALL CATCH BASINS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BOXING OUT AROUND BASINS AS SHOWN. EXPANSION JOINT MATERIAL SHALL EXTEND COMPLETELY THROUGH CURB AND SLAB. MANHOLE CASTINGS WITHIN THE PAVEMENT LIMITS SHALL BE BOXED IN LIKE MANNER EXCEPT WHEN TELESCOPING-TYPE CASTINGS ARE USED.
5. WHEN A JOINT FALLS WITHIN 5' OF OR CONTACTS BASINS, MANHOLES, OR OTHER STRUCTURES, SHORTEN ONE OR MORE PANELS EITHER SIDE OF OPENING TO PERMIT JOINT TO FALL ON ROUND STRUCTURES AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES.
6. REINFORCING STEEL TO BE PLACED D/3 FROM BOTTOM OF SLAB AND SUPPORTED ON CHAIRS WHICH WILL ADEQUATELY SUPPORT IT DURING CONSTRUCTION. TIED STEEL 5/8" ø AT 24" C-C, OR WELDED WIRE MATS, 12" x 12" x 1/4" MAY BE USED. ROLL WIRE IS NOT ALLOWED.
7. ALL DOWELS USED FOR EXPANSION JOINTS AND CONSTRUCTION JOINTS MUST BE SUPPORTED ADEQUATELY SO THAT THEIR POSITION WILL BE MAINAINED DURING CONSTRUCTION.
8. FILLER BOARDS SHALL BE OF SELECTED STOCK, FREE OF ANY DEFECTS AND OF DENSITY AND OF TYPE OF WOOD AS INDICATED BELOW.

TYPE OF WOOD	MAX. WEIGHT PER. CU. FT. WHEN OVEN DRIED TO A CONSTANT WEIGHT
1. CLEAR, ALL HEART CYPRESS	40 LBS
2. CLEAR, ALL HEART REDWOOD	30 LBS



8/13/2014

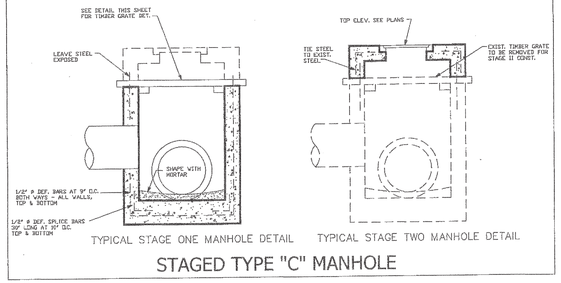
REV.	DATE	DESCRIPTION	DWG.	APPR.

PAVING DETAILS

JOINTS AND JOINT DETAILS

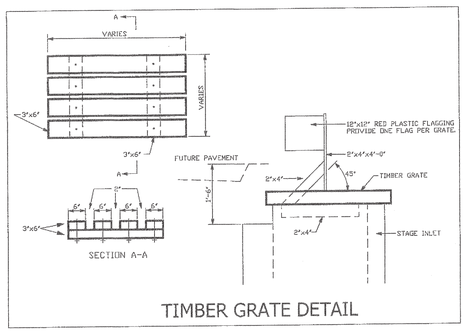
CITY OF PORT ARTHUR, TEXAS
ENGINEERING DIVISION

DRAWN A.ALFRED SCALE NONE
CHECKED L.McMAHEN APPROVED L.McMAHEN
DATE 8/8/14 DWG.

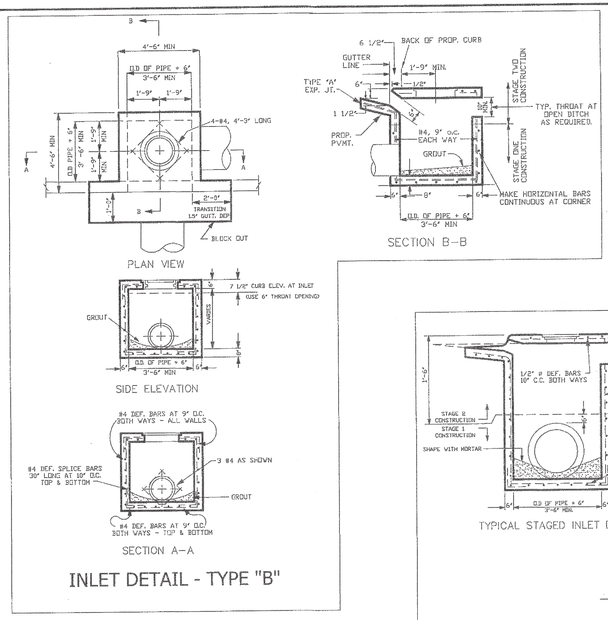


TYPICAL STAGE ONE MANHOLE DETAIL TYPICAL STAGE TWO MANHOLE DETAIL

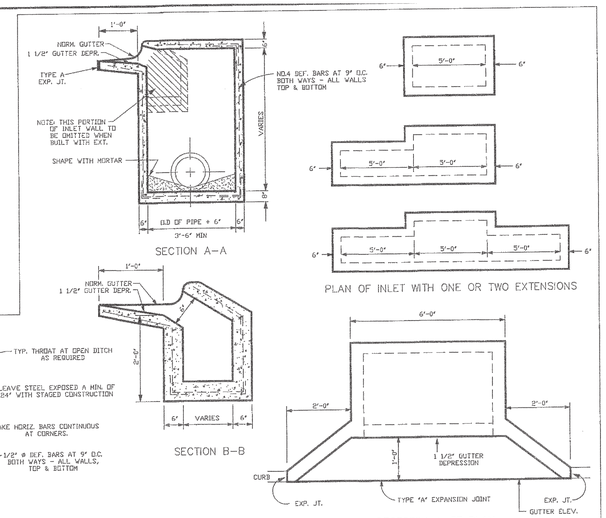
STAGED TYPE "C" MANHOLE

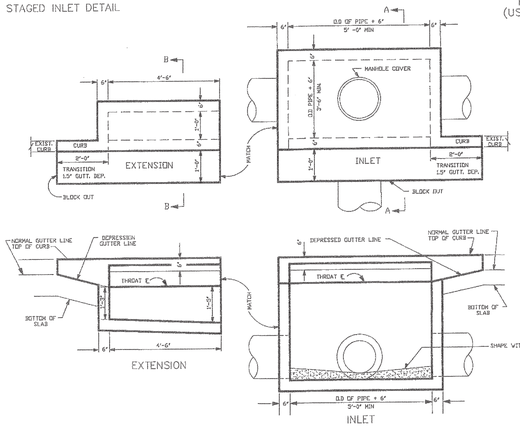


TIMBER GRATE DETAIL

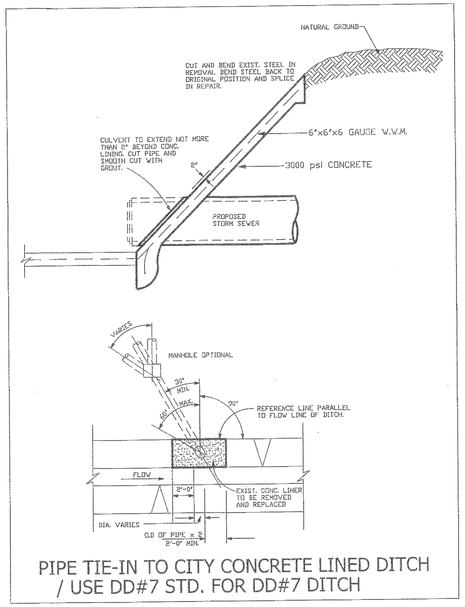


INLET DETAIL - TYPE "B"

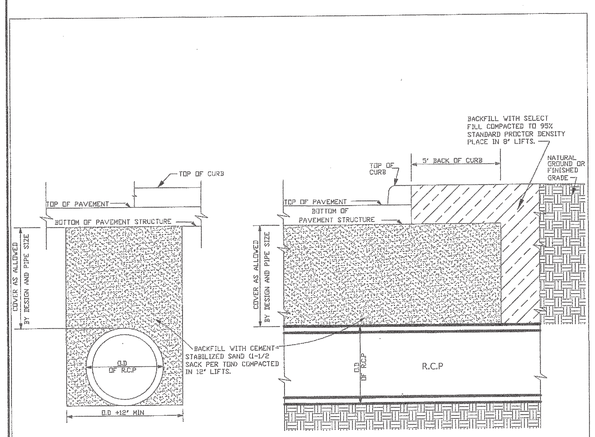




INLET DETAIL - TYPE "C"

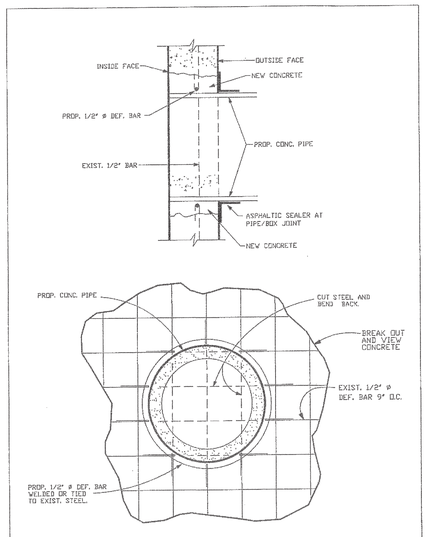


PIPE TIE-IN TO CITY CONCRETE LINED DITCH / USE DD#7 STD. FOR DD#7 DITCH



RCP STORM SEWER BACKFILL DETAIL

(ALSO APPLIES TO STORM SEWER MANHOLES, JUNCTION BOXES, AND CATCH BASINS) SEE GENERAL NOTES 6 AND 7 THIS SHEET.



TIE-IN TO EXISTING CONCRETE DRAIN BOX

GENERAL NOTES

1. ALL STORM SEWER AND LEADS TO BE A.S.T.M., C-76 CLASS III REINFORCED CONCRETE PIPE UNLESS SHOWN OTHERWISE.
2. ALL STORM SEWER MANHOLES AND INLETS SHALL BE CITY OF PORT ARTHUR STANDARD UNLESS OTHERWISE NOTED, AND ARE TO BE CONSTRUCTED ENTIRELY OF CONCRETE.
3. MINIMUM THROAT DEPTH ON OPEN DITCH STREETS TO BE 8". THROAT DEPTH OF 10 INCHES OR GREATER SHALL HAVE HORIZONTAL STEEL BAR GRILLS WITH A MINIMUM SPACING OF 6 INCHES.
4. ALL STORM SEWER LEADS SHALL NOT BE LESS THAN 24 INCHES DIAMETER UNLESS OTHERWISE APPROVED.
5. ELEVATION DROP ON LEADS BETWEEN INLETS AND MANHOLES TO BE A MINIMUM OF 0.20 FEET UNLESS OTHERWISE NOTED.
6. ALL STORM SEWER TRENCHES (1) UNDER FUTURE OR PROPOSED PAVEMENT, AND (2) TO A POINT FIVE (5) FEET BACK OF CURBS, SHALL BE BACKFILLED COMPLETELY WITH 1 1/2" SACK/TON CEMENT STABILIZED SAND TO THE BOTTOM OF THE PAVEMENT STRUCTURE FOR (1) AND (2). TRENCHES FOR (2) MAY THEN BE FINISHED WITH COMPACTED BACKFILL TO NATURAL GROUND LEVEL.
7. ALL MANHOLES AND INLETS UNDER OR WITHIN FIVE (5) FEET OF EXISTING, PROPOSED, OR FUTURE PAVEMENT SHALL BE BACKFILLED WITH 1 1/2" SACK/CY CEMENT STABILIZED SAND TO THE BOTTOM OF PAVEMENT STRUCTURE.
8. ALL PIPE STUB OUTS FROM MANHOLES OR INLETS TO BE PLUGGED WITH MORTARED BRICK PLUGS UNLESS OTHERWISE NOTED.
9. INLETS TO BE CONSTRUCTED AT END OF CURB RETURNS UNLESS OTHERWISE NOTED.
10. CONCRETE FOR ALL STRUCTURES SHALL BE CLASS "A" FIVE SACK / CUBIC YARD WITH A COMPRESSIVE STRENGTH OF 3000 PSI AFTER 28 DAYS.
11. ALL EXPOSED CORNERS OF INLETS SHALL BE CHAMFERED ONE HALF INCH.
12. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION OF PROPOSED FACILITIES. CONTRACTOR TO REPAIR DAMAGE TO ANY EXISTING FACILITY CAUSED BY HIS ACTIONS.

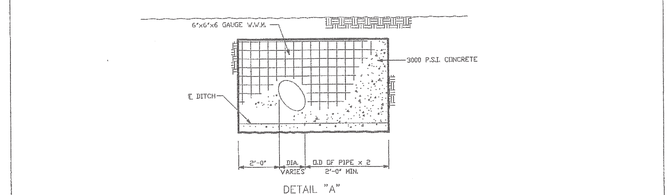
MANHOLES / CATCH BASINS CASTINGS STANDARDS

EAST JORDAN IRON WORKS V1430A 32"ø COVER WITH CITY OF PORT ARTHUR TEXT AND LOGO

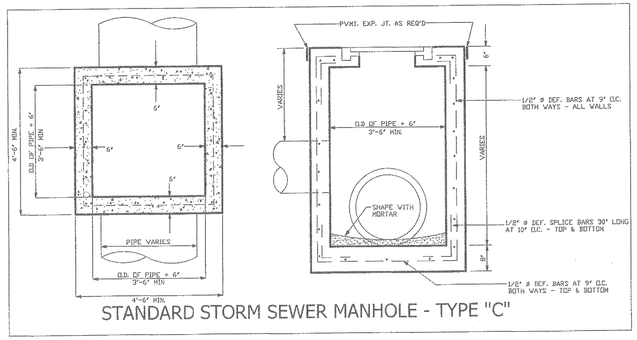
FOR ALL MANHOLES AND FOR ALL CATCH BASINS

EAST JORDAN IRON WORKS V1816TF FRAME WITH 30"ø ACCESS OPENING

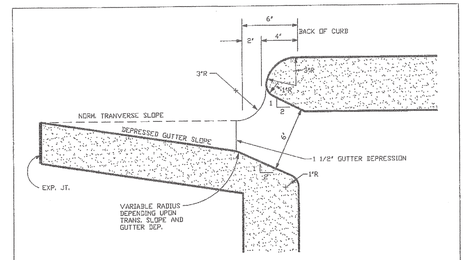
FOR ALL MANHOLES AND FOR ALL CATCH BASINS



PIPE TIE-IN TO CITY EARTHEN DITCH / USE DD #7 STD. FOR DD#7 DITCH



STANDARD STORM SEWER MANHOLE - TYPE "C"



THROAT DETAIL TYPE "B" AND "C" INLETS

STATE OF TEXAS
LESLIE E. McMAHEN
41062
LICENSED PROFESSIONAL ENGINEER
5/14/2014

REV.	DATE	DESCRIPTION	DWG.	APPR.

STORM SEWER DETAILS

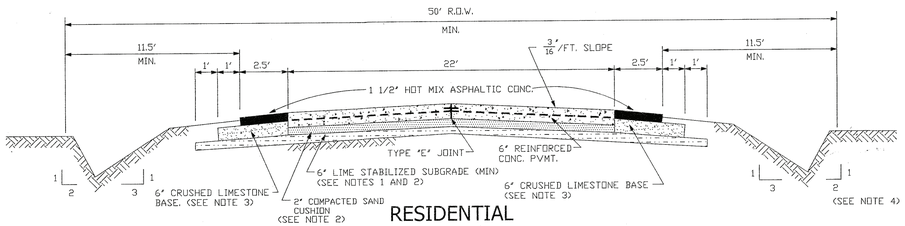
STRUCTURES PLAN AND CROSS-SECTION

CITY OF PORT ARTHUR, TEXAS
ENGINEERING DIVISION

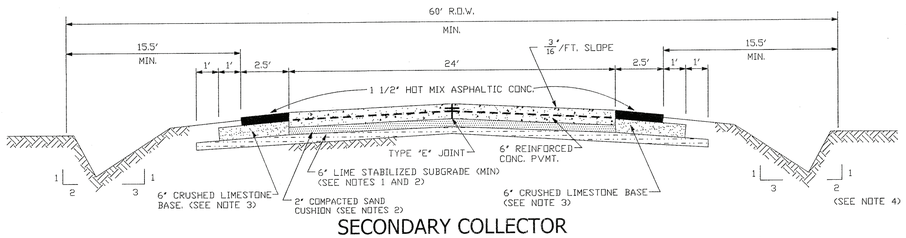
DRAWN A. ALFRED SCALE NOT TO SCALE
CHECKED L. MCMAHEN APPROVED L. MCMAHEN
DATE 5/14/14 DWG. 1 OF 1

RESIDENTIAL RURAL CONCRETE PAVING SECTIONS

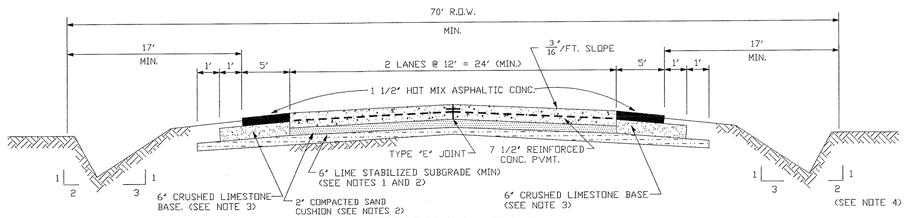
N.T.S.



RESIDENTIAL



SECONDARY COLLECTOR



PRIMARY COLLECTOR

INDUSTRIAL RURAL CONCRETE PAVING SECTIONS

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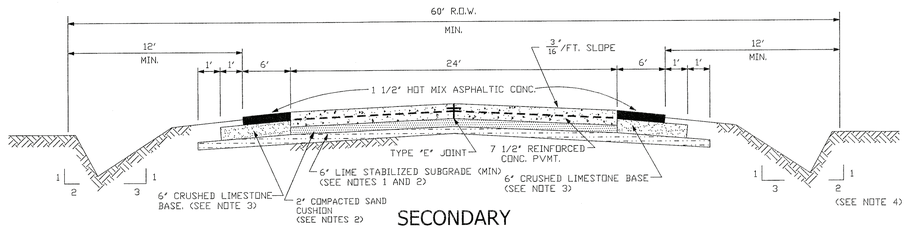
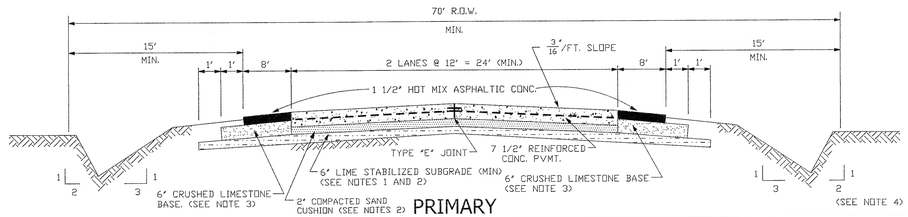


SECONDARY



PRIMARY

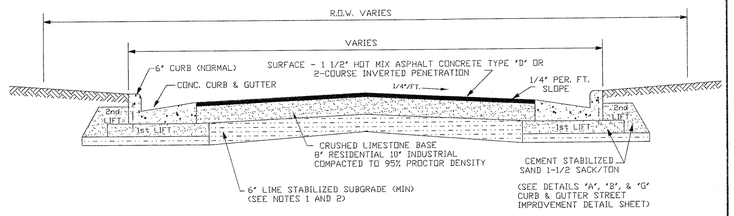
NOTES

NOTE 1. PERCENT OF LIME REQUIRED TO STABILIZE SUB-GRADE TO A PROCTOR DENSITY OF 95% SHALL BE AS SPECIFIED BY TESTING LABORATORY WHEN P.I. OF SOIL IS GREATER THAN 20, AS SHALL DEPTH OF LIME STABILIZATION.

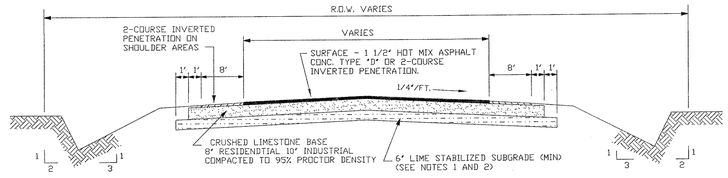
NOTE 2. WHEN P.I. OF SOIL IS 20 OR LESS, LIME STABILIZATION OF SUB-GRADE IS NOT REQUIRED. SUB-GRADE SHALL BE COMPACTED TO A DEPTH OF 6" AND TO A PROCTOR DENSITY OF 95%. THE SAME TREATMENT SHALL APPLY UNDER SHOULDERS. A COMPACTED 2" SAND CUSHION WILL BE PLACED ON COMPACTED SOIL UNDER CONCRETE PAVING, BUT NOT UNDER SHOULDERS.

NOTE 3. ROAD SHOULDERS SHALL HAVE A 6" FLEXIBLE BASE COMPACTED TO A 95% PROCTOR DENSITY.

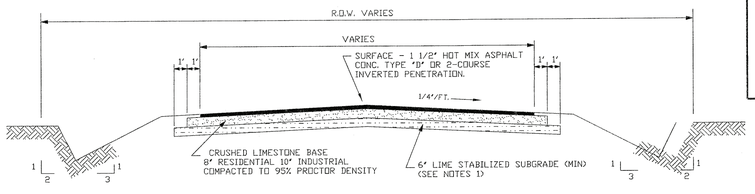
NOTE 4. WIDTH AND SIDE SLOPE OF DITCH VARIES DEPENDING ON DEPTH OF DITCH AND R.O.W. LIMITATIONS.



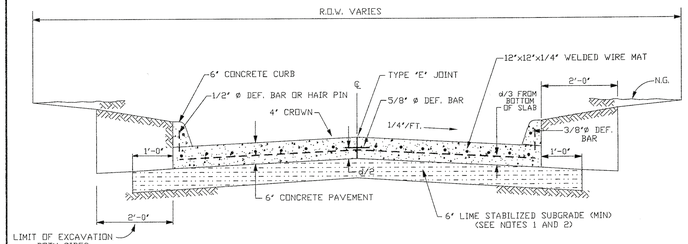
FLEXIBLE BASE W/CURB & GUTTER



FLEXIBLE BASE W/ OPEN DITCH & SHOULDERS

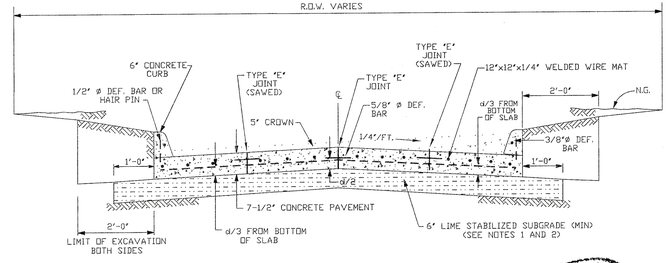


FLEXIBLE BASE W/ OPEN DITCH

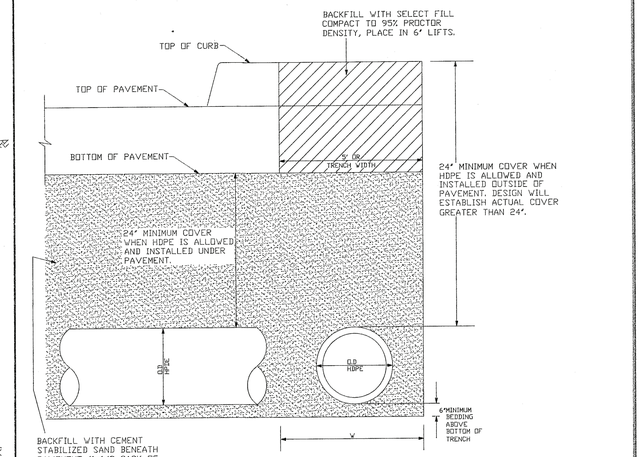


TYPICAL CONCRETE PAVING SECTION FOR RESIDENTIAL OR MINOR STREETS 31' B-B & 27' B-B SECTIONS

(SEE DETAILS "C","D",&"F" CURB & GUTTER STREET IMPROVEMENT DETAIL SHEET.)



TYPICAL CONCRETE PAVING SECTION FOR MAJOR OR INDUSTRIAL STREETS 37', 41', 45', 49' B-B SECTIONS

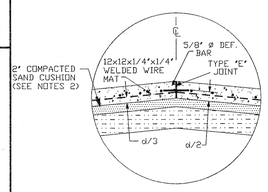


MINIMUM HDPE TRENCH WIDTH

PIPE DIA.	WIDTH
18"	W=39"
24"	W=48"
30"	W=56"
36"	W=64"
42"	W=72"

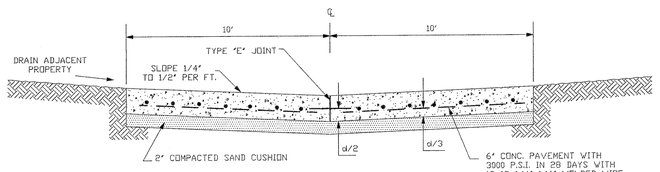
NOTE: ALL HDPE PIPE SHALL BE BACKFILLED ON THE DAY IT IS INSTALLED.

HDPE PIPE BEDDING AND BACKFILL DETAIL



TYPICAL STEEL DET. RURAL SECTIONS

CONCRETE ALLEY SECTION



TYPICAL ALLEY SECTION

NOTE:

RENEW ALL UTILITIES PRIOR TO PAVING.

PLACE EXPANSION JOINT WHERE A RIGID OBJECT IS ENCOUNTERED.

REV.	DATE	DESCRIPTION	DWG.	APPR.

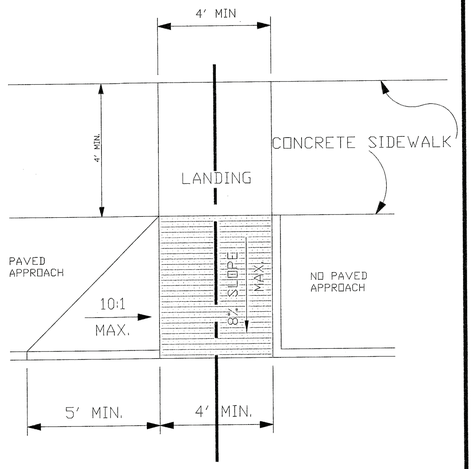
STREET CONSTRUCTION DETAILS

TYPICAL CROSS-SECTIONS CONCRETE /FLEXIBLE BASE

CITY OF PORT ARTHUR, TEXAS
ENGINEERING DIVISION

DRAWN A.ALFRED SCALE NOT TO SCALE
CHECKED L. MCMAHEN APPROVED L. MCMAHEN
DATE 5/27/14 DWG.

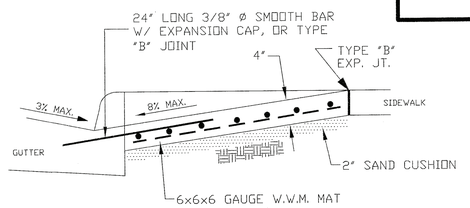
LESLIE E. McMAHEN
41062
5/27/2014



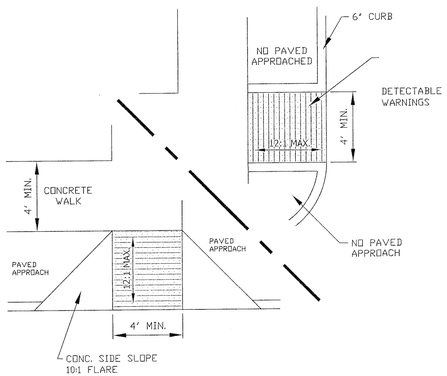
PLAN VIEW

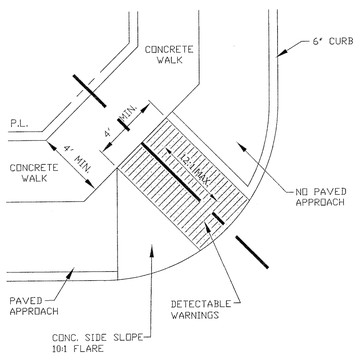
NOTES:

1. WHEELCHAIR RAMPS REQUIRED ON NEW SIDEWALK CONSTRUCTION AND ON MODIFICATIONS TO SIDEWALK.
2. CURB RAMPS SHALL BE A COLOR CONTRASTING WITH THE ADJACENT SIDEWALK.
3. RAMPS SHALL BE LATERALLY GROOVED TO A DEPTH OF 1/8" MIN. WITH 6" MAX. SPACING BETWEEN GROOVES OR HAVE TRUNCATED DOMES.
4. ALL ACCESSIBLE ROUTES MUST COMPLY WITH A.D.A. REQUIREMENTS.
5. MAXIMUM CHANGE OF GRADE BETWEEN STREET APPROACH AND RAMP IS 11%.

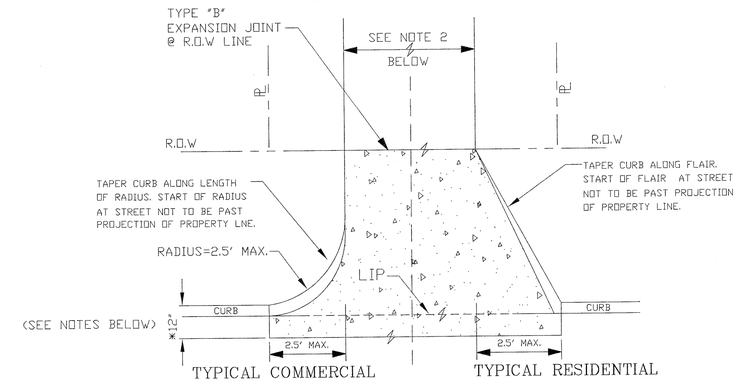


CROSS SECTION



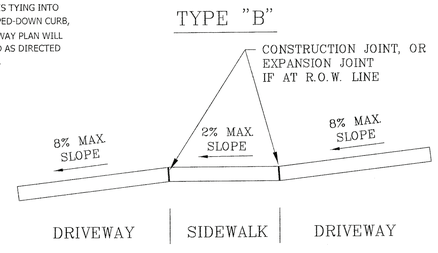


WHEELCHAIR RAMP DETAILS



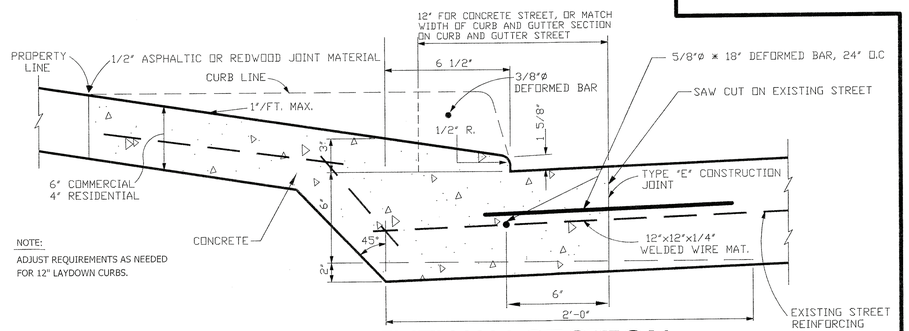
TYPICAL DRIVEWAY PLAN

NOTE:
WHERE DRIVEWAY IS TYING INTO A SECTION OF WARPED-DOWN CURB, THE TYPICAL DRIVEWAY PLAN WILL BE USED, OR PLACED AS DIRECTED THE CITY ENGINEER.



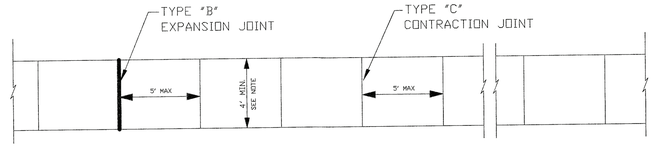
NOTES:

1. CONC. SHALL BE NO LESS THAN 3000 p.s.i. SIDEWALKS TO BE REMOVED AND REPOURED TO MEET ELEVATION OF DRIVEWAY.
2. MAXIMUM DRIVEWAY WIDTHS ARE 24 ft. FOR RESIDENTIAL AND 40 ft. FOR COMMERCIAL, MEASURED AT THE RIGHT-OF-WAY LINE.
3. DRIVEWAY GRADES ARE NOT TO EXCEED 8% AND SHALL NOT EXCEED 2% AT SIDEWALK CROSSINGS. THE 2% GRADE SHALL BE THE FULL WIDTH OF THE SIDEWALK. THIS PAVEMENT SHALL BE SEPARATED FROM THE REMAINDER OF THE DRIVEWAY APRON BY A TYPE "B" EXPANSION JOINT



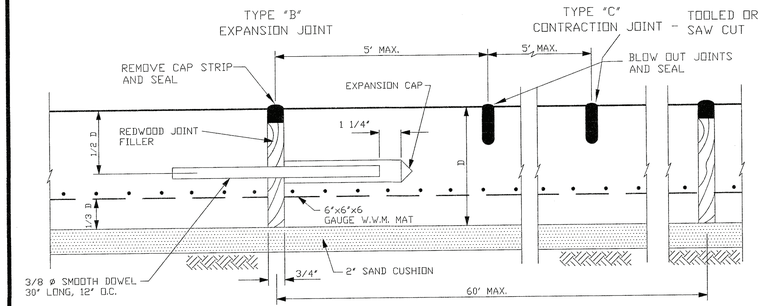
NOTE:
ADJUST REQUIREMENTS AS NEEDED FOR 12" LAYDOWN CURBS.

TYPICAL DRIVEWAY SECTION



PLAN VIEW
NO SCALE

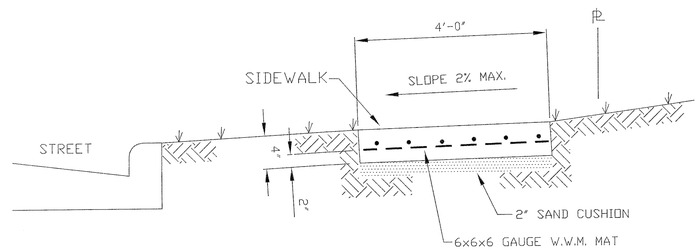
NOTE:
SIDEWALKS FOR RESIDENTIAL PROPERTIES SHALL BE A MINIMUM OF 4 ft. WIDE. COMMERCIAL SIDEWALKS ARE TO BE MINIMUM OF 5 ft. WIDE, WITH A TRANSITION WHEN CONNECTING TO AN EXISTING SIDEWALK OF LESSER OR GREATER WIDTH.



LONGITUDINAL SECTION
NO SCALE

NOTE:
CONC. SHALL BE NO LESS THAN 3000 p.s.i.

D=4" MIN., 6" FOR COMMERCIAL WALKS AT DRIVEWAYS



CROSS SECTION
NO SCALE

SIDEWALK DETAILS

10/8/14

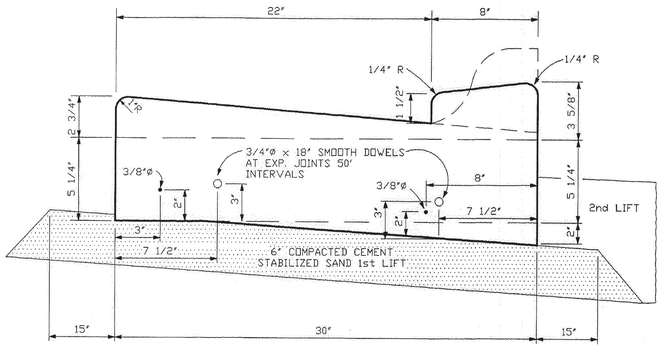
REV.	DATE	DESCRIPTION	DWG.	APPR.

SIDEWALK & DRIVEWAY

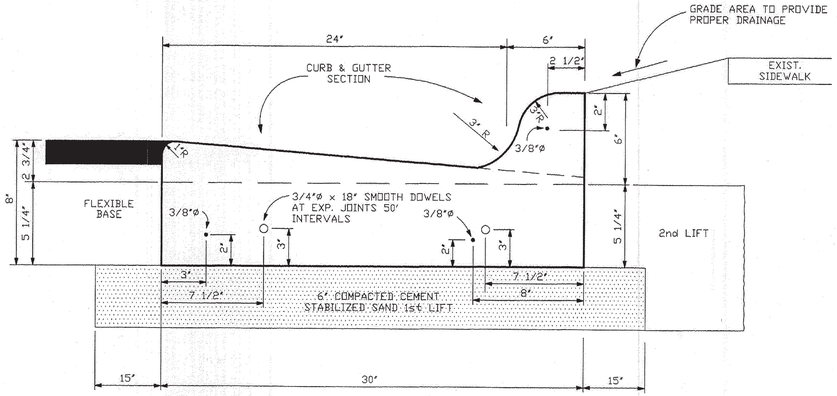
DETAIL SHEET

CITY OF PORT ARTHUR, TEXAS
ENGINEERING DIVISION

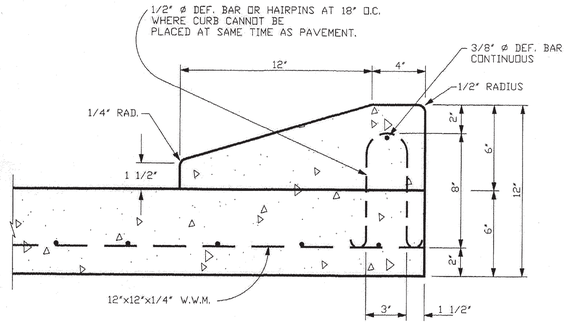
DRAWN A. ALFRED — SCALE NOT TO SCALE
CHECKED L. MCMAHEN — APPROVED L. MCMAHEN
DATE 10/8/2014 — DWG. 1 OF 1



A CURB AND GUTTER DETAIL
LAYDOWN

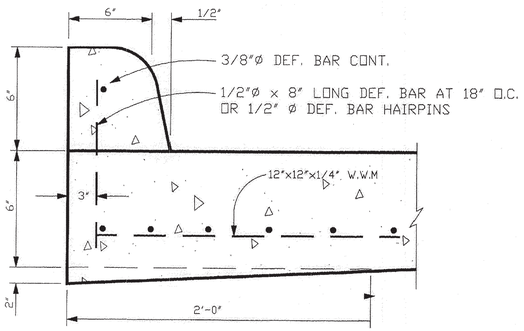


B CURB AND GUTTER DETAIL
UPRIGHT

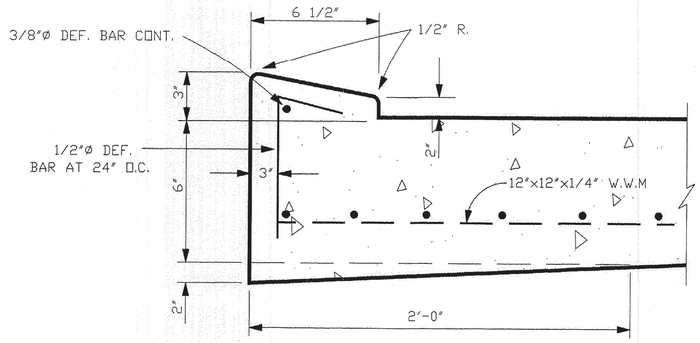


C TYP. MOUNTABLE CURB DETAIL

WHERE NECESSARY TO FIT EXISTING CONSTRUCTION AND/OR PROVIDE PROPER DRAINAGE, THE HEIGHT OF THE TOP OF CURB ABOVE THE GUTTER MAY BE VARIED BY THE ENGINEER.

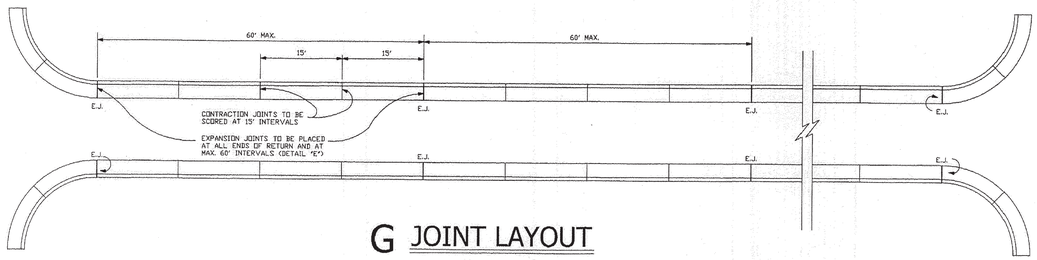


D UPRIGHT CONCRETE CURB



E MONOLITHIC LAYDOWN CONCRETE CURB
FOR DRIVEWAYS AND ENTRANCES WHEN NO CONCRETE APPROACH IS CONSTRUCTED.

F MONOLITHIC UPRIGHT CONCRETE CURB



G JOINT LAYOUT
TYPICAL

NOTES:

1) EXCAVATE BENEATH PROPOSED CURB & GUTTER SECTION TO STABLIZE SOIL. (MIN. 18" BELOW TOP OF CURB GRADE)

2) FIRST AND SECOND LIFT CONSIST OF CEMENT STABILIZED SAND. (1-1/2 SK. PER C.Y.). FIRST LIFT COULD BE COMPACTED BASE MATERIAL.

3) PROVIDE A TYPE "A" JOINT AT ALL TRANSITION POINTS AND EQUALLY SPACED BETWEEN TRANSITION POINTS, NOT EXCEEDING 60' INTERVALS. (REDWOOD BOARD IS TO EXTEND ENTIRELY THROUGH GUTTER SECTION. PROVIDE ASPHALTIC BOARD THROUGH CURB SECTION.)

4) PROVIDE CAP STRIP ON EXPANSION JOINT. AFTER 3 DAYS & NOT MORE THAN 7 DAYS, SEAL WITH APPROVED SEALANT.

5) PROVIDE CONTRACTION JOINTS EQUALLY SPACED, NOT TO EXCEED 15' O.C., BETWEEN EXP. JOINTS. (SAW AND SEAL OR TOOL JOINT) TOOL JOINT IS TO BE 1/4" WIDE, 1/2" DEEP, SEAL ONLY THAT PORTION IN THE GUTTER.

6) PROVIDE 3/4" ASPHALTIC BOARD BETWEEN CURB & GUTTER SECTION AND SIDEWALKS, DRIVEWAYS, OR OTHER FIXED OBJECTS.

STATE OF TEXAS
ROSS E. BLACKKETTER
91442
LICENSED PROFESSIONAL ENGINEER
15 February 2013

REV.	DATE	DESCRIPTION	DWG.	APPR.

CURB & GUTTER STREET IMPROVEMENTS

DETAIL SHEET

CITY OF PORT ARTHUR, TEXAS
ENGINEERING DIVISION

DRAWN D. HOLLAND — SCALE NOT TO SCALE
CHECKED R. BLACKKETTER — APPROVED R. BLACKKETTER
DATE 4/21/04 — DWG. 1 OF 1