

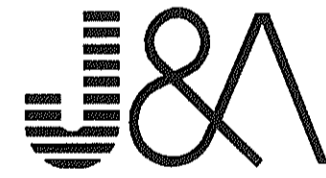
CONSTRUCTION PLANS FOR **WHITMORE MANUFACTURING** **PHASE I EXPANSION** **1250 JUSTIN ROAD**

15.306 ACRES

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

MAY 2012

ARCHITECT



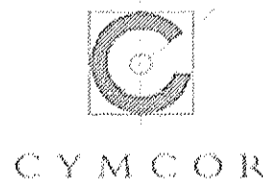
3737 MAPLESHADE LANE
PLANO, TEXAS 75075
972-381-5699
WWW.JACOBSONLINE.COM

OWNER



930 WHITMORE DRIVE
ROCKWALL, TEXAS 75087
972-771-1000
WWW.WHITMORES.COM

CONSTRUCTION MANAGER

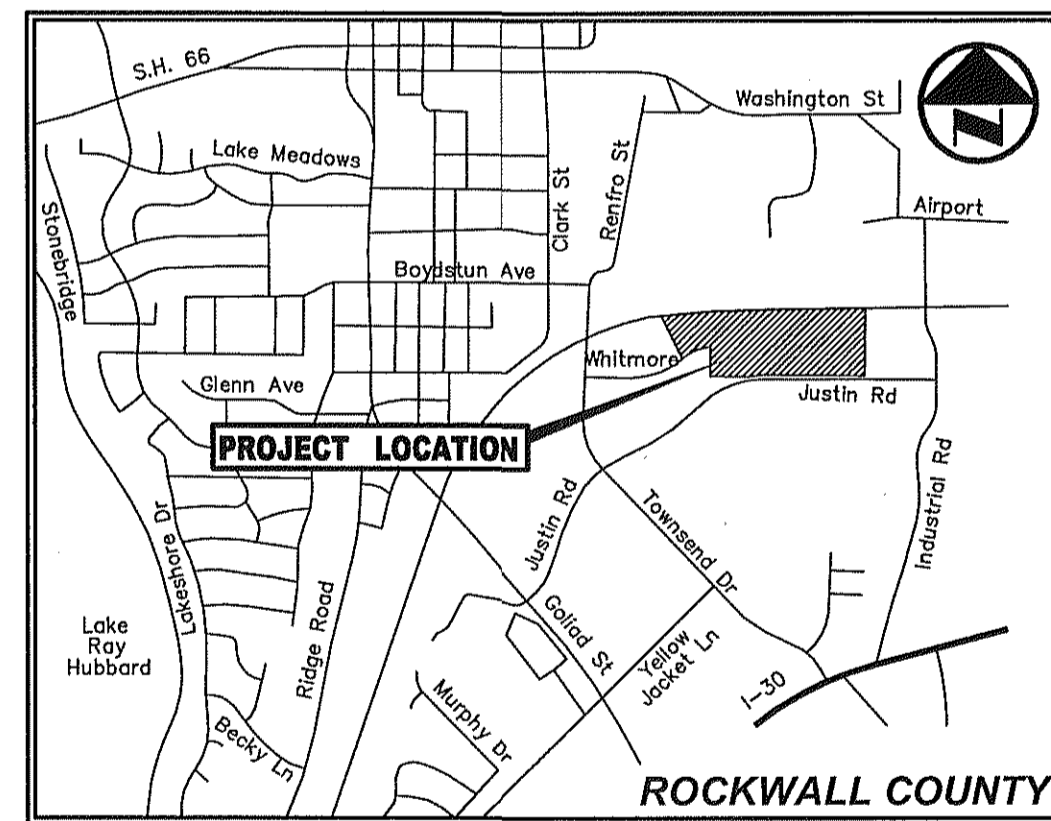


4500 W. ELDORADO PARKWAY
MCKINNEY, TEXAS 75070
214-544-9080
WWW.CYMCOR.COM

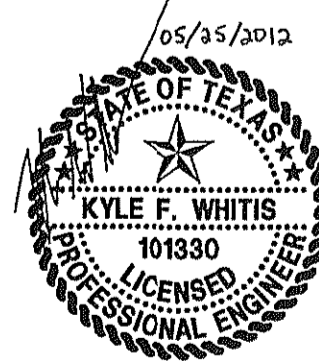
PREPARED BY



8350 N. CENTRAL EXPWY., SUITE 1000 PH. 972.235.3031
DALLAS, TEXAS 75206 FAX 972.235.9544
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-100080-00



VICINITY MAP
(NOT TO SCALE)



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

SHEET INDEX

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---	REPLAT
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C2.1	DIMENSIONAL CONTROL PLAN
C3.1	GRADING PLAN
C3.2	OFFSITE GRADING
C4.1	EXISTING DRAINAGE AREA MAP
C4.2	PROPOSED DRAINAGE AREA MAP
C4.3	STORM SEWER PLAN
C4.4	STORM SEWER PROFILES
C4.5	DETENTION CALCULATIONS
C5.1	SITE UTILITY PLAN
C6.1	PAVING PLAN
C6.2	PAVING DETAILS
C7.1	EROSION CONTROL PLAN
C7.2	EROSION CONTROL PLAN
C7.3	EROSION CONTROL DETAILS

RECORD DRAWING

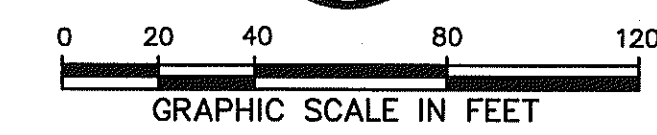
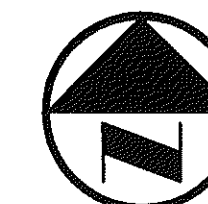
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ATTESTED BY:
SIGNATURE: _____
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

NO.	DATE	REVISION
△	03/11/2013	REVISED GRADING
△	10/31/2012	REVISED GRADING
△	10/17/2012	REVISED MEP DRAWINGS
△	09/05/2012	SITE PLAN MODIFICATIONS
△	09/05/2012	SITE PLAN MODIFICATIONS
△	07/02/2012	REVISED FIRE LEAD PER MEP

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)



LEGEND

- | | | | |
|-----|--------------------------|--------|------------------------|
| B. | BOLLARD | TEL | TELEPHONE BOX |
| EM | ELECTRIC METER | FL | FLOOD LIGHT |
| PP | POWER POLE | FP | FLAG POLE |
| LS | LIGHT STANDARD | TR | TRAFFIC SIGN |
| WM | WATER METER | IRS | 1/2-INCH IRON ROD |
| WV | WATER VALVE | WPK | W/PACHICO KOCH CAP SET |
| ICV | IRRIGATION CONTROL VALVE | (C.M.) | CONTROLLING MONUMENT |
| FH | FIRE HYDRANT | --- | PROPERTY LINE |
| CL | CLEANOUT | -X- | FENCE |
| MH | MANHOLE | --- | OVERHEAD UTILITY LINE |
| TSC | TRAFFIC SIGNAL CONTROL | --- | DEMOLITION AREA |
| TSP | TRAFFIC SIGNAL POLE | --- | |

BENCH MARK LIST

- BM# 1 "X" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=568.80'
- BM# 2 "X" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE. ELEV=574.02'
- BM# 3 "X" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, LLC.
MICHAEL B. ARTHUR, RPLS NO. 5686
DATED: 12/09/2011

NOTE:
ELEVATIONS SHOWN HAVE NOT BEEN VERIFIED ON THE GROUND BY PACHICO KOCH AND ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER. CONTRACTOR IS TO CONFIRM EXISTING ELEVATIONS PRIOR TO COMMENCING WORK.

NOTE:
ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE ENGINEER, THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION

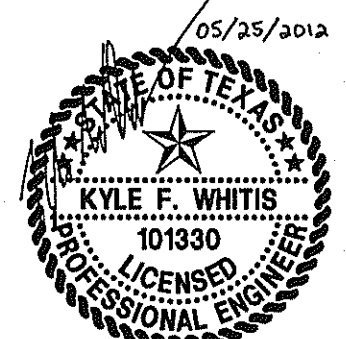
DEMOLITION GENERAL NOTES

- CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
- REMOVE ALL EXISTING PAVEMENT AND STRUCTURES WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
- SAWCUT AND REMOVE ALL EXISTING DRIVE APPROACHES (WITHIN THE LIMITS OF DEMOLITION) TWO FEET FROM BACK OF CURB, SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO REMAIN UNLESS OTHERWISE NOTED.
- CONSULT THE DIMENSIONAL CONTROL PLAN. VERIFY THE PORTION OF EXISTING CONCRETE CURBS AND PAVEMENT WHICH ARE TO REMAIN.
- COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
- ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
- CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
- CONTRACTOR TO DETERMINE SOURCE OF ALL EXPOSED UTILITIES AND, IF REQUIRED, RECONNECT TO PROPOSED UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL THE UNSUITABLE MATERIALS FROM THE PROJECT SITE. CONTRACTOR SHALL CONTACT ALL LOCAL AUTHORITIES TO DETERMINE DISPOSAL REQUIREMENTS.
- ALL TREES ON THE PROPERTY SHALL BE PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS UNLESS OTHERWISE NOTED. THE TREE PROTECTION SHALL BE PLACED AROUND TREES PRIOR TO ANY DEMOLITION OR GRADING. TREE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED. REFER TO LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION DETAILS.
- ANY DAMAGE DONE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY BY AN APPROVED TREE SURGEON AT THE OWNER'S DIRECTION. ROOTS EXPOSED AND/OR DAMAGED DURING DEMOLITION AND/OR GRADING OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA, CUT SURFACES PAINTED WITH AN APPROVED TREE PAINT, AND TOPSOIL AND MULCH PLACED OVER THE EXPOSED ROOT AREA IMMEDIATELY.
- CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING EROSION CONTROL MEASURES ON THE SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS UNTIL THE SITE HAS BEEN STABILIZED.
- CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
- AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
- CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
- ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND CITY STANDARD CONSTRUCTION SPECIFICATIONS.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITY MAINS, MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC. IN THE AREA OF DEMOLITION.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
- BARREADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
- CONTRACTOR SHALL MAINTAIN EXISTING PAVEMENT AND ACCESS TO FIRE HYDRANTS ON SITE UNTIL THE BUILDINGS AND STRUCTURES IN THAT AREA HAVE BEEN DEMOLISHED AND REMOVED.
- CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
- CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
- CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.
- CONTRACTOR TO COORDINATE FIRELANE CONSTRUCTION (PAVING) AND TO ALLOW CONTINUOUS FIRE DEPARTMENT ACCESS TO EXISTING SITE.

RECORD DRAWING

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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013



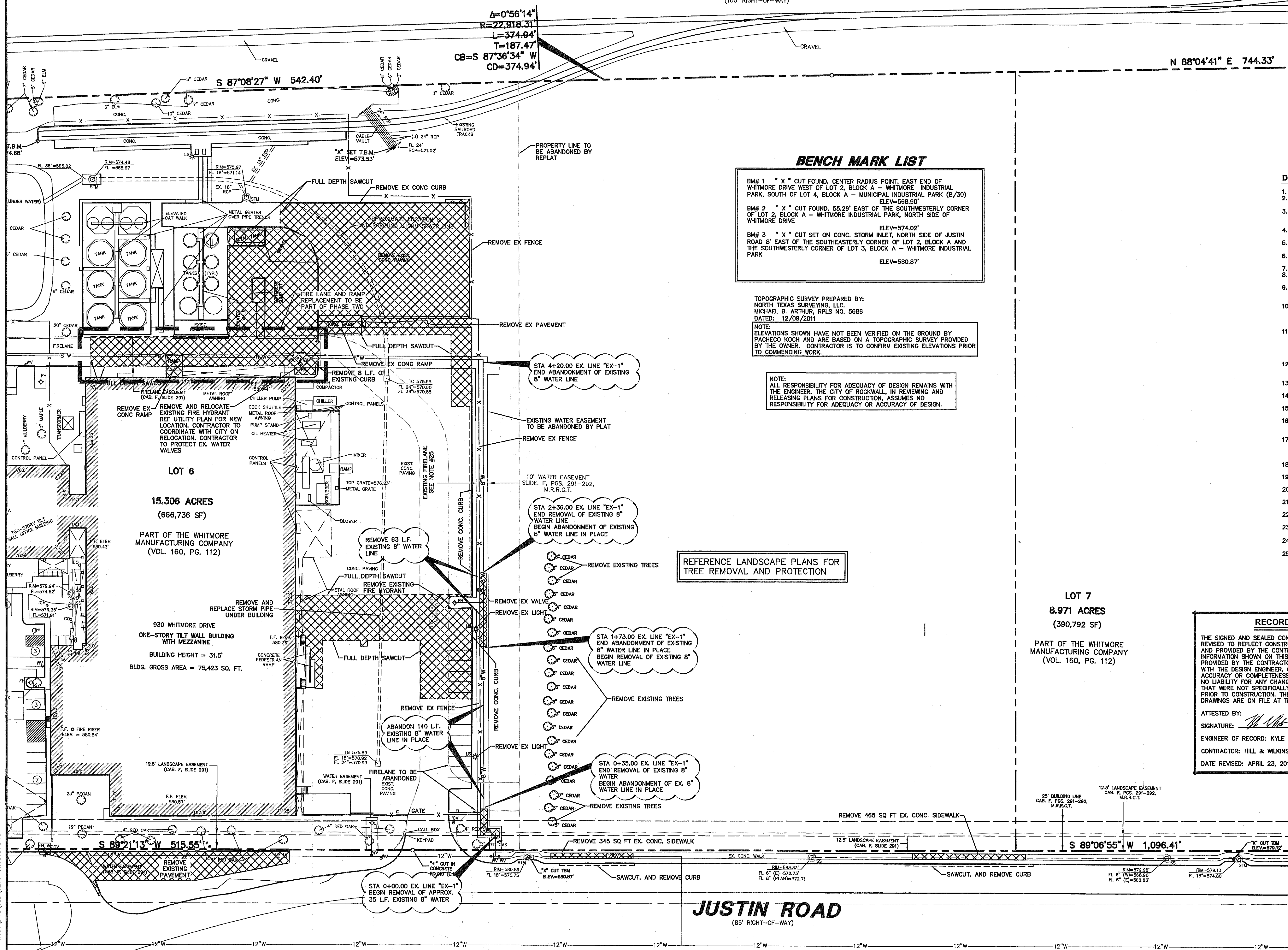
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NO.	DATE	REVISION

Pacheco Koch 8350 N. CENTRAL EXPY. SUITE 1000
DALLAS, TX 75208 972.235.3031
DALLAS • FORT WORTH • HOUSTON TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-100080-00

DEMOLITION PLAN
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C1.1



04/24/2013 - 8:05AM
 M:\DWG-32\3273-11.361\DWG\CSD\3273-11.361C.DWG
 CHANGES

WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)

A=0°56'14"
R=22,918.31'
L=374.94'
T=187.47'
CB=S 87°36'34" W
CD=374.94'

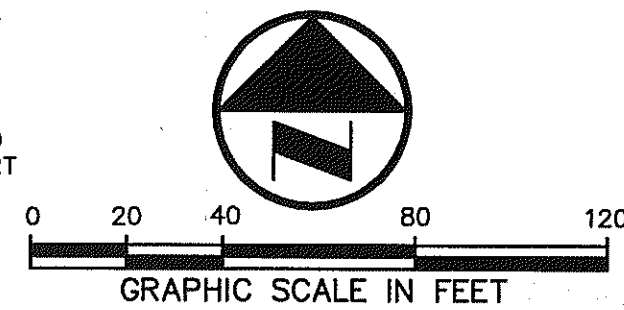
N 88°04'41" E 744.33'

S 87°08'27" W 542.40'

200.0' BETWEEN MATCHLINES

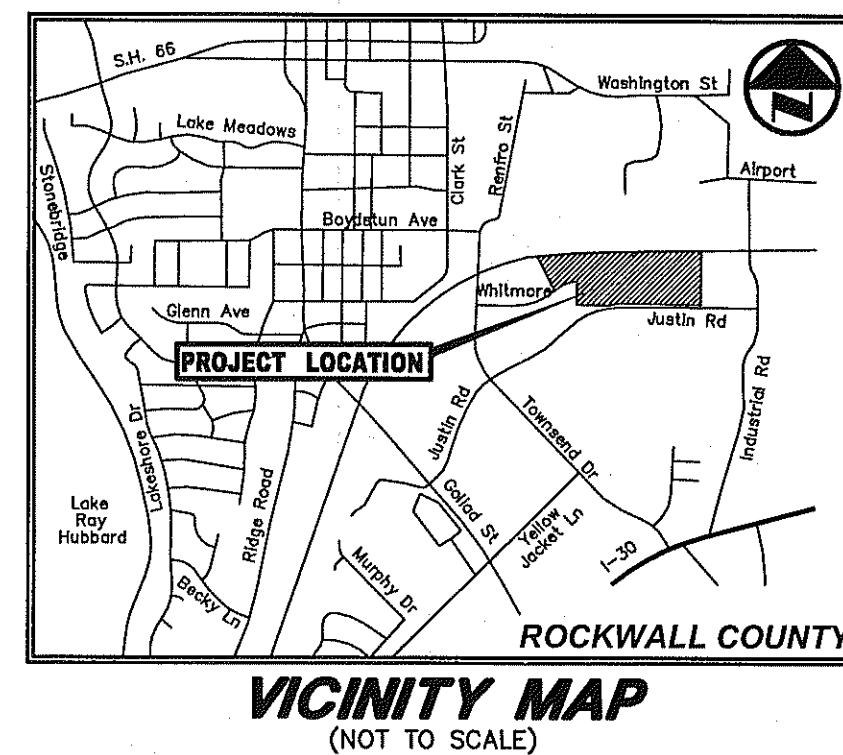
MATCHLINE - THIS SHEET

MATCHLINE - THIS SHEET



LEGEND

- | | | | |
|-----|--------------------------|--------|-------------------------|
| B. | BOLLARD | TELE | TELEPHONE BOX |
| EM | ELECTRIC METER | FL | FLOOD LIGHT |
| PP | POWER POLE | FP | FLAG POLE |
| LS | LIGHT STANDARD | SIG | TRAFFIC SIGN |
| WM | WATER METER | IRS | 1/2-INCH IRON ROD |
| WV | WATER VALVE | (C.M.) | W/PACHECO KOCH' CAP SET |
| CV | IRRIGATION CONTROL VALVE | CM | CONTROLLING MONUMENT |
| FH | FIRE HYDRANT | --- | PROPERTY LINE |
| CL | CLEANOUT | --- | FENCE |
| MH | MANHOLE | --- | OVERHEAD UTILITY LINE |
| TSC | TRAFFIC SIGNAL CONTROL | --- | PROPOSED FENCE |
| TSP | TRAFFIC SIGNAL POLE | | |



GENERAL NOTES

- ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS 3RD EDITION AND THE CITY OF ROCKWALL STANDARD CONSTRUCTION SPECIFICATIONS.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS 3RD EDITION, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
- THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC., CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
- 5.A. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION.
5.B. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS OR ALLEYS.
5.C. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES.
5.D. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, BONDS AND THREE-WAY CONTRACTS SHALL BE SUBMITTED TO THE CITY AS REQUIRED.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
- REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
- REFER TO ARCHITECTURAL PLANS FOR DETAILED BUILDING ENTRANCE LAYOUTS, RAMPS, LANDSCAPE, AND SIDEWALKS.
- BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
- EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.

RECORD DRAWING

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SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

NO.	DATE	REVISION
	09/05/2012	SITE PLAN MODIFICATIONS

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DALLAS, TX 75208 972.235.3031
TX REG. ENGINEERING FIRM F-469
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

DIMENSIONAL CONTROL PLAN
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C2.1

BENCH MARK LIST

- BM# 1 "X" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=568.90'
- BM# 2 "X" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'
- BM# 3 "X" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

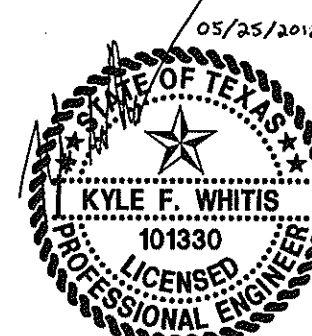
JUSTIN ROAD

(85' RIGHT-OF-WAY)

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, L.L.C.
MICHAEL B. ARTHUR, RPLS NO. 5686
DATED: 12/09/2011

NOTE:
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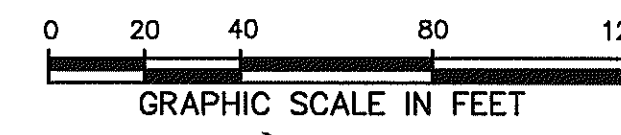
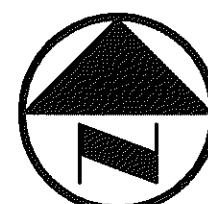
ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.



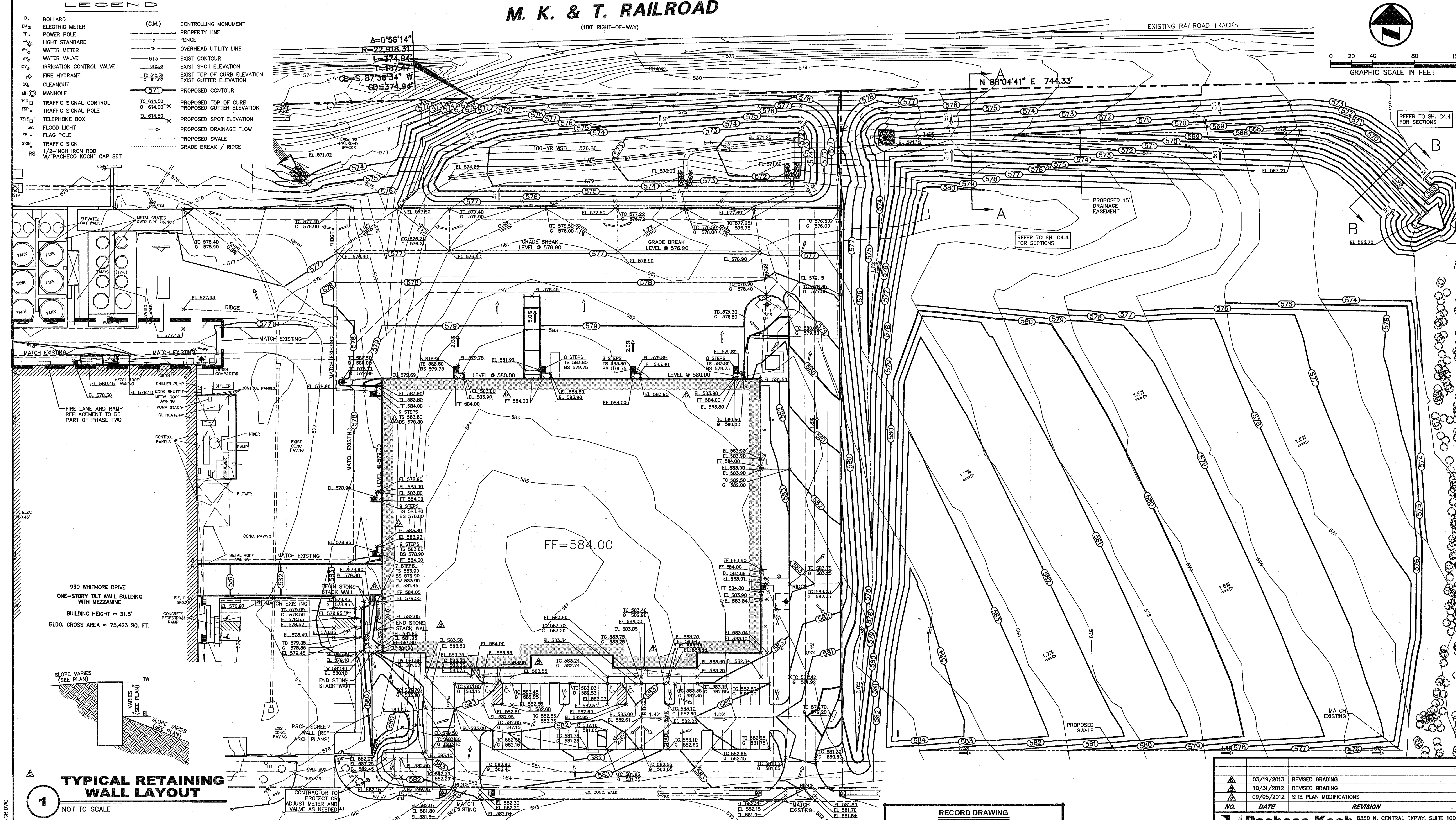
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M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)



- LEGEND**
- B. BOLLARD
 - EM. ELECTRIC METER
 - PP. POWER POLE
 - LS. LIGHT STANDARD
 - WM. WATER METER
 - WV. WATER VALVE
 - ICV. IRRIGATION CONTROL VALVE
 - FI. FIRE HYDRANT
 - CO. CLEANOUT
 - MH. MANHOLE
 - TSC. TRAFFIC SIGNAL CONTROL
 - TSP. TRAFFIC SIGNAL POLE
 - TE. TELEPHONE BOX
 - FL. FLOOD LIGHT
 - FP. FLAG POLE
 - TSN. TRAFFIC SIGN
 - IRS. 1/2-INCH IRON ROD
 - W/PACHECO KOCH CAP SET
- (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
 - X- FENCE
 - OH. OVERHEAD UTILITY LINE
 - 61.3 EXIST. CONTOUR
 - 612.39 EXIST. SPOT ELEVATION
 - 612.39 EXIST. TOP OF CURB ELEVATION
 - 611.92 EXIST. GUTTER ELEVATION
 - 571 PROPOSED CONTOUR
 - 614.50 PROPOSED TOP OF CURB
 - 614.00 PROPOSED GUTTER ELEVATION
 - 614.50 PROPOSED SPOT ELEVATION
 - PROPOSED DRAINAGE FLOW
 - PROPOSED SWALE
 - GRADE BREAK / RIDGE



BENCH MARK LIST

BM# 1 "x" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=588.90'

BM# 2 "x" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'

BM# 3 "x" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

NOTE: HANDRAILS TO BE INSTALLED ALONG PROPOSED WALLS. REFER TO ARCHITECTURAL PLANS FOR LOCATION AND DETAILS OF HANDRAILS.

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, LLC.
MICHAEL B. ARTHUR, RPLS NO. 5686
DATED: 12/09/2011

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GRADING GENERAL NOTES

1. REFER TO SHEET C4.5 FOR GRADING GENERAL NOTES.

RECORD DRAWING

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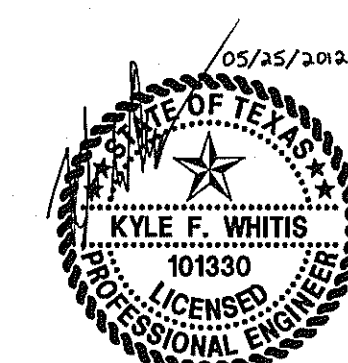
ATTESTED BY: *[Signature]*

SIGNATURE: *[Signature]*

ENGINEER OF RECORD: KYLE F. WHITIS, P.E.

CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS

DATE REVISED: APRIL 24, 2013



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

NO.	DATE	REVISION
1	03/19/2013	REVISED GRADING
2	10/31/2012	REVISED GRADING
3	09/05/2012	SITE PLAN MODIFICATIONS

Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000 DALLAS, TX 75206 972.235.3031 TX REG. ENGINEERING FIRM F-489 DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

GRADING PLAN

WHITMORE MANUFACTURING

PHASE I EXPANSION

1250 JUSTIN ROAD

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

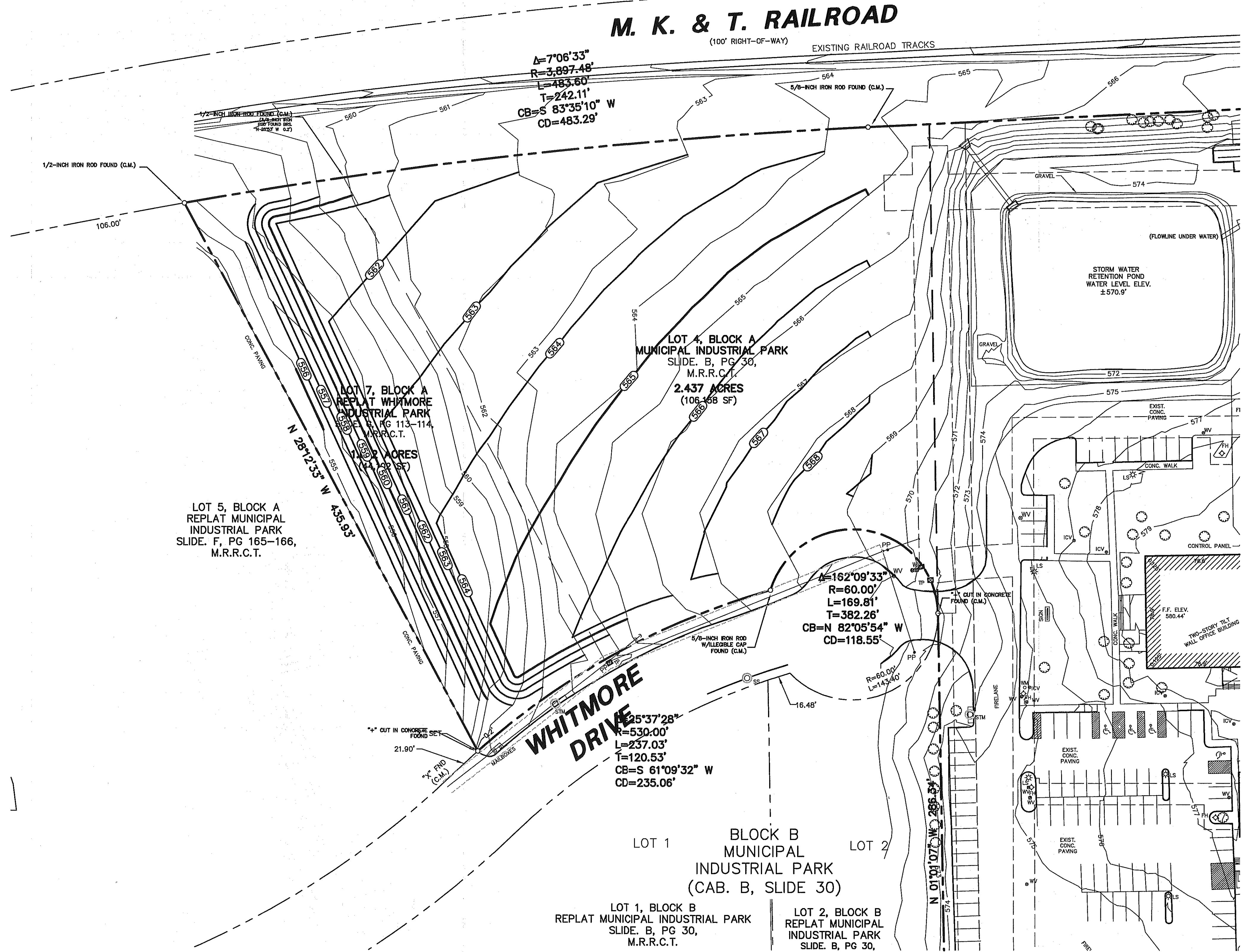
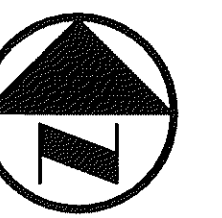
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C3.1

C:\DWG\2013 - 6106AM 04/24/2013 11:35:11.MXD 3273-11.381GR.DWG

WHITMORE MANUFACTURING - PHASE I

LEGEND

- | | | | |
|-------------------|--------------------------|-----------------------|---|
| B. | BOLLARD | (C.M.) | CONTROLLING MONUMENT |
| EM _⊙ | ELECTRIC METER | — | PROPERTY LINE |
| PP. | POWER POLE | —x— | FENCE |
| LS* | LIGHT STANDARD | —O— | OVERHEAD UTILITY LINE |
| WM _⊙ | WATER METER | —613— | EXIST CONTOUR |
| WV _⊙ | WATER VALVE | 612.39 | EXIST SPOT ELEVATION |
| ICV _⊙ | IRRIGATION CONTROL VALVE | TC 614.50
O 614.00 | EXIST TOP OF CURB ELEVATION
EXIST GUTTER ELEVATION |
| FH _⊙ | FIRE HYDRANT | 571 | PROPOSED CONTOUR |
| OH | CLEANOUT | TC 614.50
O 614.00 | PROPOSED TOP OF CURB
PROPOSED GUTTER ELEVATION |
| MH _⊙ | MANHOLE | EL 614.50 | PROPOSED SPOT ELEVATION |
| TSC _⊙ | TRAFFIC SIGNAL CONTROL | — | PROPOSED DRAINAGE FLOW |
| TSP. | TRAFFIC SIGNAL POLE | → | PROPOSED SWALE |
| TELE _⊙ | TELEPHONE BOX | ----- | GRADE BREAK / RIDGE |
| FL | FLOOD LIGHT | | |
| FP. | FLAG POLE | | |
| SI _⊙ | TRAFFIC SIGN | | |
| IRS | 1/2-INCH IRON ROD | | |
| | W/PACHECO KOCH® CAP SET | | |



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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

GRADING GENERAL NOTES
1. REFER TO SHEET C4.5 FOR GRADING GENERAL NOTES.

NO.	DATE	REVISION
-----	------	----------

Pacheco Koch
8350 N. CENTRAL EXPWY., SUITE 1000
DALLAS, TX 75206 972.235.3031
DALLAS • FORT WORTH • HOUSTON TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-100080-00

OFFSITE GRADING
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

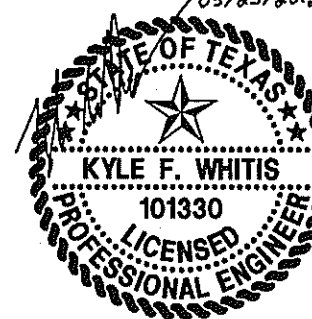
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C3.2

BENCH MARK LIST

BM# 1	" x "	CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30)	ELEV=568.90'
BM# 2	" x "	CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE	ELEV=574.02'
BM# 3	" x "	CUT SET ON CONG. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK	ELEV=580.87'

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, L.L.C.
MICHAEL B. ARTHUR, RELS NO. 5686
DATED: 12/09/2011
NOTE:
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NOTE:
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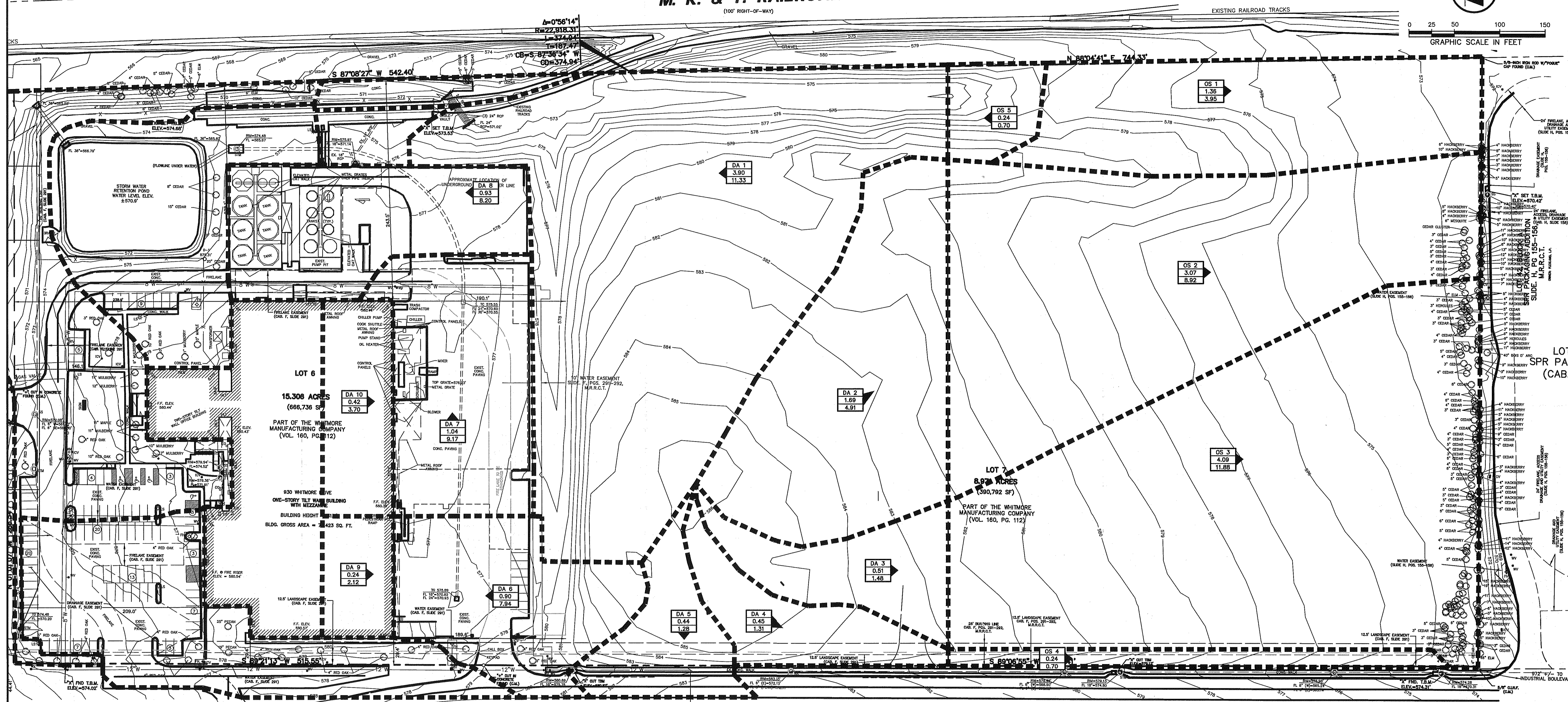
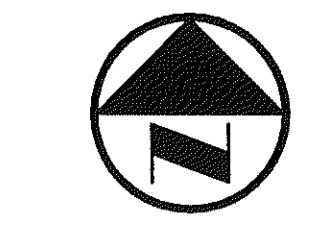


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G:\PHOTOS - B.CREAM\MK (DWG-32) 3273-11.381.DWG\3273-11.381(D).DWG

WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD
(100' RIGHT-OF-WAY)



- LEGEND**
- B. BOLLARD
 - EM ⊕ ELECTRIC METER
 - LP. POWER POLE
 - LS. LIGHT STANDARD
 - WM. WATER METER
 - WV. WATER VALVE
 - ICV. IRRIGATION CONTROL VALVE
 - FH ⊕ FIRE HYDRANT
 - CQ. CLEANOUT
 - MH ⊙ MANHOLE
 - TSC ⊕ TRAFFIC SIGNAL CONTROL
 - TSP. TRAFFIC SIGNAL POLE
 - TEL ⊕ TELEPHONE POLE
 - FL. FLOOD LIGHT
 - FP. FLAG POLE
 - ST. TRAFFIC SIGN
- PROPERTY LINE
 - - - FENCE
 - - - - - EXISTING DRAINAGE DIVIDE
 - 571 EXISTING CONTOUR
 - EXISTING DRAINAGE FLOW DIRECTION
 - DA A EXISTING DRAINAGE AREA ID
 - Q100 IN CUBIC FEET PER SECOND

- BENCH MARK LIST**
- BM# 1 "X" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=558.00'
 - BM# 2 "X" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'
 - BM# 3 "X" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

NOTE:
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TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, LLC.
MICHAEL B. ARTHUR, RPLS NO. 5888
DATED: 12/09/2011

NOTE:
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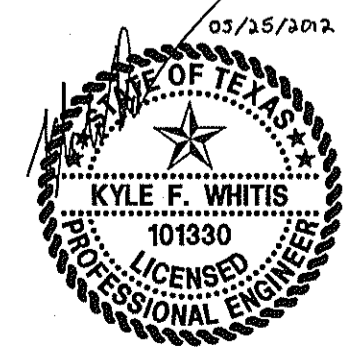
EXISTING DRAINAGE CRITERIA:
 $Q=(C)(I)(A)$

DRAINAGE AREA ID	AREA (acres)	C	Tc (minutes)	STORM FREQUENCY	I ₁₀₀ (Inch/hour)	Q ₁₀₀ (cfs)	COMMENTS
1	4.14	0.35	20	100 YEAR	8.3	12.03	DRAINS TO EXISTING CULVERT
2	1.69	0.35	20	100 YEAR	8.3	4.91	DRAINS EAST TO ADJACENT SITE
3	0.51	0.35	20	100 YEAR	8.3	1.48	DRAINS EAST TO ADJACENT SITE
4	0.45	0.35	20	100 YEAR	8.3	1.31	DRAINS SOUTH TO JUSTIN ROAD
5	0.44	0.35	20	100 YEAR	8.3	1.28	DRAINS SOUTH TO JUSTIN ROAD
6	0.90	0.90	10	100 YEAR	9.8	7.94	DRAINS TO EX. GRATE INLET
7	1.04	0.80	10	100 YEAR	9.8	9.17	DRAINS TO EX. GRATE INLET
8	0.93	0.90	10	100 YEAR	9.8	8.20	DRAINS NORTH TO EX. CURB INLET
9	0.24	0.90	10	100 YEAR	9.8	2.12	ROOF DRAINAGE TO EX. GRATE INLET
10	0.42	0.90	10	100 YEAR	9.8	3.70	ROOF DRAINAGE TO EX. GRATE INLET
OS 1	1.36	0.35	20	100 YEAR	8.3	3.95	DRAINS EAST IN EX. DITCH
OS 2	3.07	0.35	20	100 YEAR	8.3	8.92	DRAINS EAST TO ADJACENT SITE
OS 3	4.09	0.35	20	100 YEAR	8.3	11.88	DRAINS EAST TO ADJACENT SITE
OS 4	0.24	0.35	20	100 YEAR	8.3	0.70	DRAINS SOUTH TO JUSTIN ROAD
OS 5	0.24	0.35	20	100 YEAR	8.3	0.70	DRAINS TO DA 1

RECORD DRAWING

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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013



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NO.	DATE	REVISION

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DALLAS, TX 75206 972.235.3031
TX REG. ENGINEERING FIRM F-469
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

EXISTING DRAINAGE AREA MAP
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=50'			C4.1

C:\DWG\2013 - 05\05\12\3273-11-381D\MG\3273-11-381D.DWG

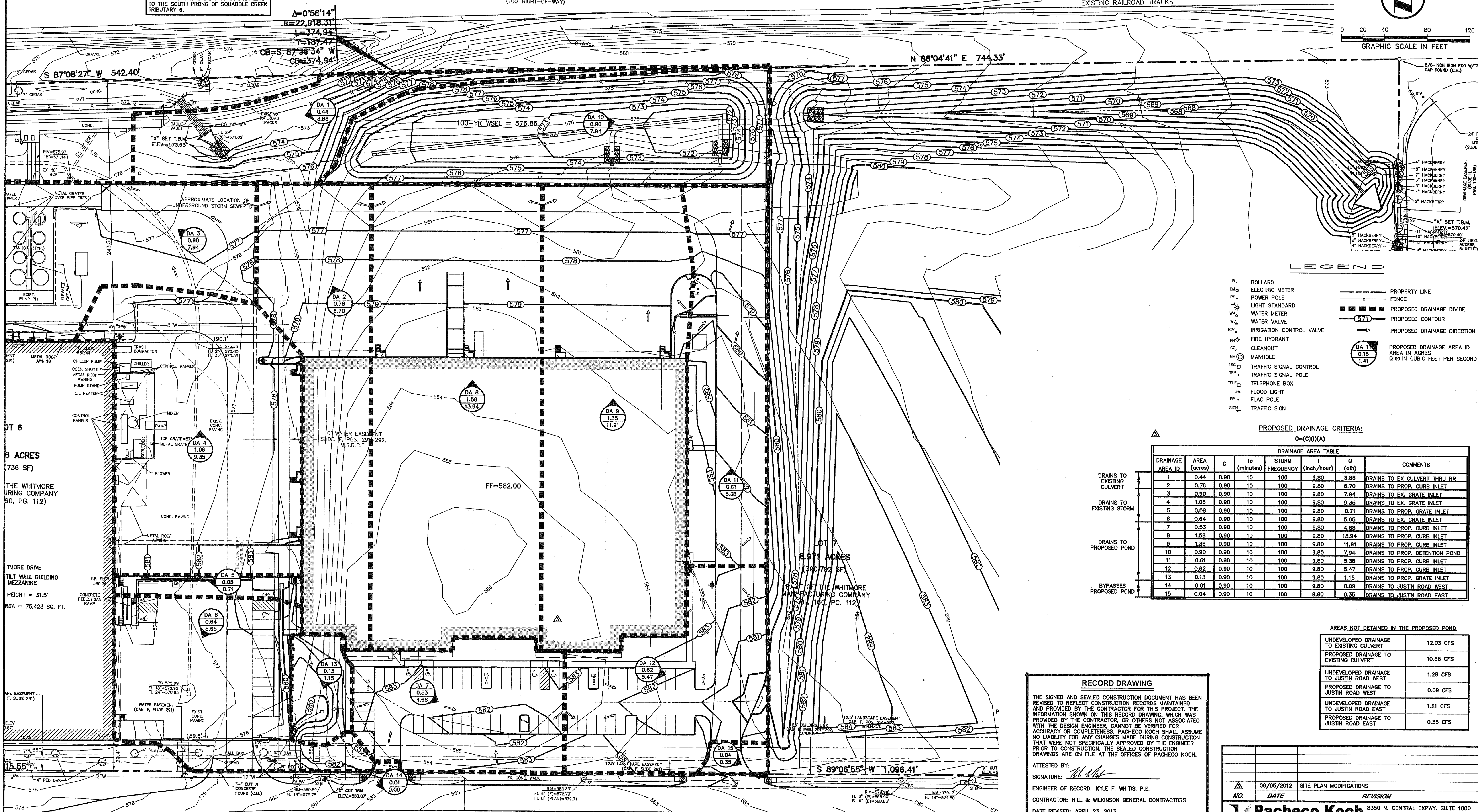
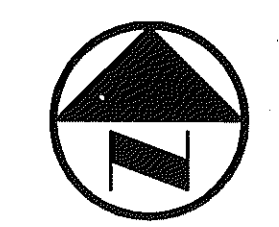
WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)

EXISTING 3-24" RCP DRAINS UNDER RAIL TRACKS AND BYPASSES BOTH THE EXISTING AND PROPOSED PONDS ON SITE. DISCHARGE FROM 3-24" RCP DRAINS TO DOWNSTREAM TO THE SOUTH PRONG OF SQUABBLE CREEK TRIBUTARY 6.

EXISTING RAILROAD TRACKS



LEGEND

- B. BOLLARD
- EM ⊙ ELECTRIC METER
- PP. POWER POLE
- LS. LIGHT STANDARD
- WM. WATER METER
- WV. WATER VALVE
- ICV. IRRIGATION CONTROL VALVE
- FH. FIRE HYDRANT
- CQ. CLEANOUT
- MH ⊙ MANHOLE
- TSC ⊙ TRAFFIC SIGNAL CONTROL
- TSP ⊙ TRAFFIC SIGNAL POLE
- TELE ⊙ TELEPHONE BOX
- FL. FLOOD LIGHT
- FP. FLAG POLE
- TR. TRAFFIC SIGN
- PROPERTY LINE
- - - FENCE
- - - PROPOSED DRAINAGE DIVIDE
- - - PROPOSED CONTOUR
- 571 PROPOSED DRAINAGE ID
- PROPOSED DRAINAGE DIRECTION
- DA 11 PROPOSED DRAINAGE AREA ID
- 0.16 AREA IN ACRES
- 1.41 Q100 IN CUBIC FEET PER SECOND

PROPOSED DRAINAGE CRITERIA:

Q=(C)(I)(A)

DRAINAGE AREA ID	AREA (acres)	C	Tc (minutes)	FREQUENCY	I (Inch/hour)	Q (cfs)	COMMENTS
1	0.44	0.90	10	100	9.80	3.88	DRAINS TO EX. CULVERT THRU RR
2	0.76	0.90	10	100	9.80	6.70	DRAINS TO PROP. CURB INLET
3	0.90	0.90	10	100	9.80	7.94	DRAINS TO EX. GRATE INLET
4	1.06	0.90	10	100	9.80	9.35	DRAINS TO EX. GRATE INLET
5	0.08	0.90	10	100	9.80	0.71	DRAINS TO PROP. CURB INLET
6	0.64	0.90	10	100	9.80	5.65	DRAINS TO EX. GRATE INLET
7	0.53	0.90	10	100	9.80	4.68	DRAINS TO PROP. CURB INLET
8	1.58	0.90	10	100	9.80	13.94	DRAINS TO PROP. CURB INLET
9	1.35	0.90	10	100	9.80	11.91	DRAINS TO PROP. CURB INLET
10	0.90	0.90	10	100	9.80	7.94	DRAINS TO PROP. DETENTION POND
11	0.61	0.90	10	100	9.80	5.38	DRAINS TO PROP. CURB INLET
12	0.62	0.90	10	100	9.80	5.47	DRAINS TO PROP. CURB INLET
13	0.13	0.90	10	100	9.80	1.15	DRAINS TO PROP. GRATE INLET
14	0.01	0.90	10	100	9.80	0.09	DRAINS TO JUSTIN ROAD WEST
15	0.04	0.90	10	100	9.80	0.35	DRAINS TO JUSTIN ROAD EAST

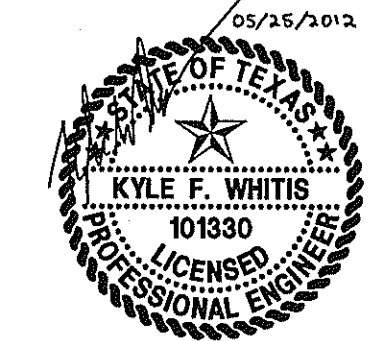
AREAS NOT DETAINED IN THE PROPOSED POND

UNDEVELOPED DRAINAGE TO EXISTING CULVERT	12.03 CFS
PROPOSED DRAINAGE TO EXISTING CULVERT	10.58 CFS
UNDEVELOPED DRAINAGE TO JUSTIN ROAD WEST	1.28 CFS
PROPOSED DRAINAGE TO JUSTIN ROAD WEST	0.09 CFS
UNDEVELOPED DRAINAGE TO JUSTIN ROAD EAST	1.21 CFS
PROPOSED DRAINAGE TO JUSTIN ROAD EAST	0.35 CFS

RECORD DRAWING

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ATTESTED BY:
 SIGNATURE: *[Signature]*
 ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
 CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
 DATE REVISED: APRIL 23, 2013



NOTE: ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

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BENCH MARK LIST

BM# 1 "x" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (S/30) ELEV=568.90'
BM# 2 "x" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'
BM# 3 "x" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

TOPOGRAPHIC SURVEY PREPARED BY:
 NORTH TEXAS SURVEYING, LLC.
 MICHAEL B. ARTHUR, RPLS NO. 5686
 DATED: 12/09/2011

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JUSTIN ROAD

(65' RIGHT-OF-WAY)

04/24/2013 9:06AM
 M:\DWG-32\3273-11\381\DWG (3D)\3273-11-381.DWG
 PACHECO KOCH

WHITMORE MANUFACTURING - PHASE I

NO.	DATE	REVISION
1	09/05/2012	SITE PLAN MODIFICATIONS

Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000
 DALLAS, TX 75208 972.235.3031
 DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

PROPOSED DRAINAGE AREA MAP

WHITMORE MANUFACTURING

PHASE I EXPANSION

1250 JUSTIN ROAD

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C4.2

M. K. & T. RAILROAD

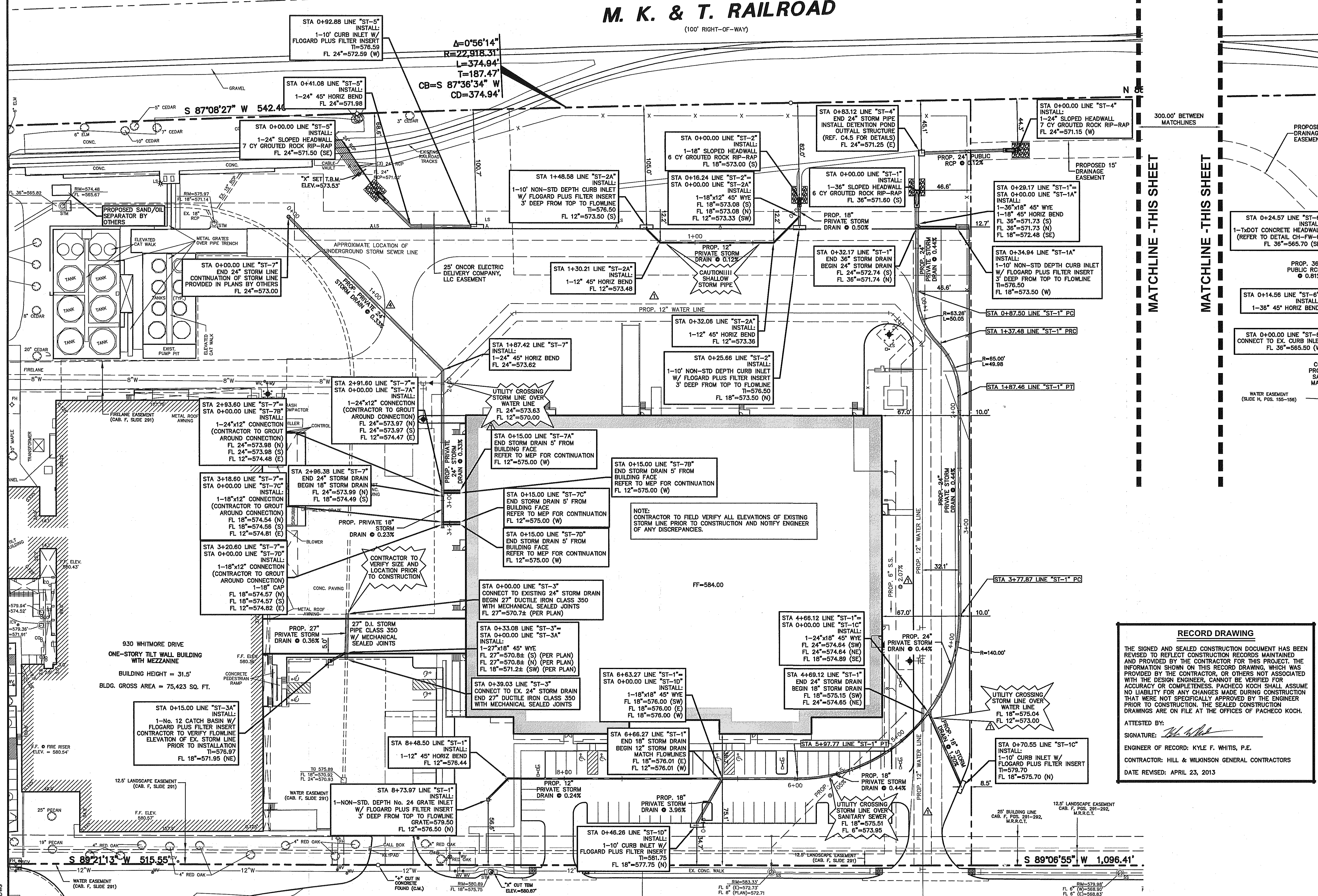
(100' RIGHT-OF-WAY)



0 20 40 60 80 100 120
GRAPHIC SCALE IN FEET

LEGEND

- B. BOLLARD
- EM₆ ELECTRIC METER
- PP₆ POWER POLE
- LS₆ LIGHT STANDARD
- WM₆ WATER METER
- WV₆ WATER VALVE
- ICV₆ IRRIGATION CONTROL VALVE
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- CQ₆ CLEANOUT
- MH₆ MANHOLE
- TSC₆ TRAFFIC SIGNAL CONTROL
- TSP₆ TRAFFIC SIGNAL POLE
- TELE₆ TELEPHONE BOX
- FL₆ FLOOD LIGHT
- FP₆ FLAG POLE
- TR₆ TRAFFIC SIGN
- IRS 1/2" IRON ROD W/ PACHECO KOCH[®] CAP SET
- (C.M.) CONTROLLING MONUMENT
- X— PROPERTY LINE
- F— FENCE
- O— OVERHEAD UTILITY LINE
- E— UNDERGROUND ELECTRIC LINE
- T— UNDERGROUND TELEPHONE LINE
- C— UNDERGROUND CABLE LINE
- W— UNDERGROUND WATER LINE
- S— UNDERGROUND SANITARY SEWER LINE



MATCHLINE - THIS SHEET

MATCHLINE - THIS SHEET

CONTRACTOR TO PROTECT EXISTING SANITARY SEWER MANHOLE DURING CONSTRUCTION

DRAINAGE GENERAL NOTES

1. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
2. UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
3. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A GROSS SLOPE NO GREATER THAN 2%.
4. GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
5. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (i.e. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
6. UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
 - 6.A. RCP C-78, CLASS III (PUBLIC)
 - 6.B. ADS N-12 (PRIVATE)
 - 6.C. HANCOR HI-Q (PRIVATE)
7. UNLESS NOTED, GRATE INLETS TO BE "HANSON PIPE AND PRECAST" CATCH BASIN SIZED AS SHOWN, OR APPROVED EQUAL.
8. FINAL PAVING CURB, AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
9. REFER TO LANDSCAPE SPECIFICATIONS FOR SEEDING AND SODDING REQUIREMENTS.
10. ANY CONCRETE, ROCK, OR MATERIAL DEEMED BY THE ENGINEER TO BE UNSUITABLE FOR SUBGRADE SHALL BE DISPOSED OFFSITE AT CONTRACTOR'S EXPENSE.
11. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
12. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
13. A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
14. ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO NCTCOG ITEM 702.2.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
15. CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

RECORD DRAWING

THE SIGNED AND SEALED CONSTRUCTION DOCUMENT HAS BEEN REVISED TO REFLECT CONSTRUCTION RECORDS MAINTAINED AND PROVIDED BY THE CONTRACTOR FOR THIS PROJECT. THE INFORMATION SHOWN ON THIS RECORD DRAWING, WHICH WAS PROVIDED BY THE CONTRACTOR, OR OTHERS NOT ASSOCIATED WITH THE DESIGN ENGINEER, CANNOT BE VERIFIED FOR ACCURACY OR COMPLETENESS. PACHECO KOCH SHALL ASSUME NO LIABILITY FOR ANY CHANGES MADE DURING CONSTRUCTION THAT WERE NOT SPECIFICALLY APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE SEALED CONSTRUCTION DRAWINGS ARE ON FILE AT THE OFFICES OF PACHECO KOCH.

ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

BENCH MARK LIST

BM# 1	4" X 4" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30)	ELEV=568.90'
BM# 2	4" X 4" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE	ELEV=574.02'
BM# 3	4" X 4" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK	ELEV=580.87'

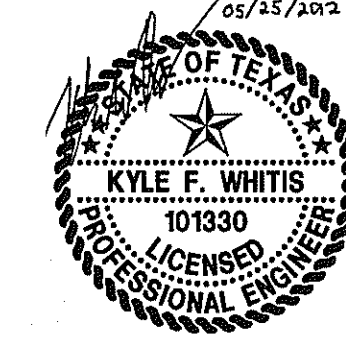
JUSTIN ROAD

(85' RIGHT-OF-WAY)

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, LLC
MICHAEL B. ARTHUR, RPLS NO. 5688
DATED: 12/09/2011

NOTE:
ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE ENGINEER, THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION. ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

NOTE:
ELEVATIONS SHOWN HAVE NOT BEEN VERIFIED ON THE GROUND BY PACHECO KOCH AND ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER. CONTRACTOR IS TO CONFIRM EXISTING ELEVATIONS PRIOR TO COMMENCING WORK.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

NO.	DATE	REVISION
1	10/17/2012	REVISED MEP DRAWINGS
2	08/14/2012	REVISED WATER LINE TO 12"

Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000
DALLAS, TX 75206 972.235.3031
TX REG. ENGINEERING FIRM F-468
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

STORM SEWER PLAN

WHITMORE MANUFACTURING

PHASE I EXPANSION

1250 JUSTIN ROAD

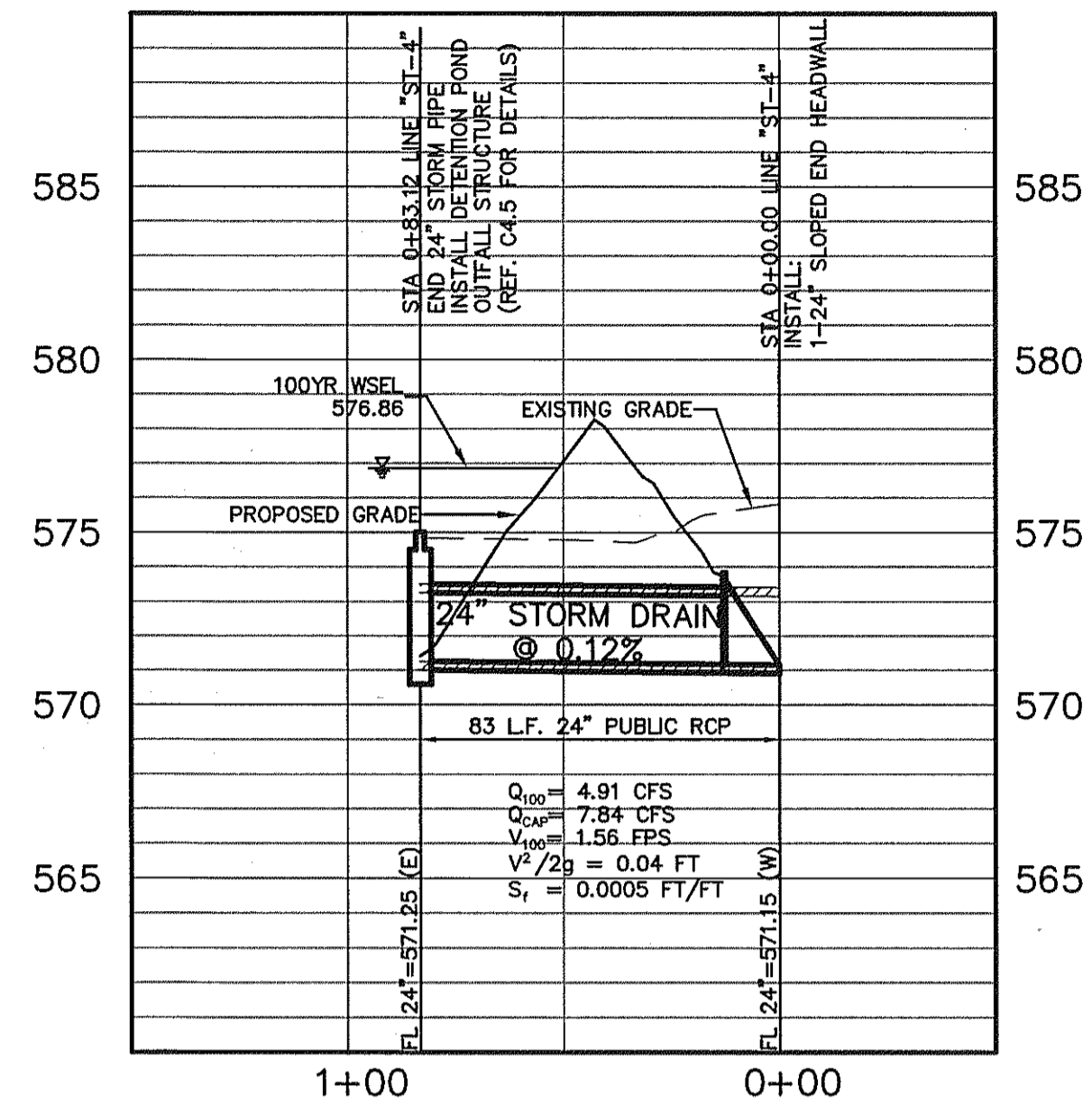
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C4.3

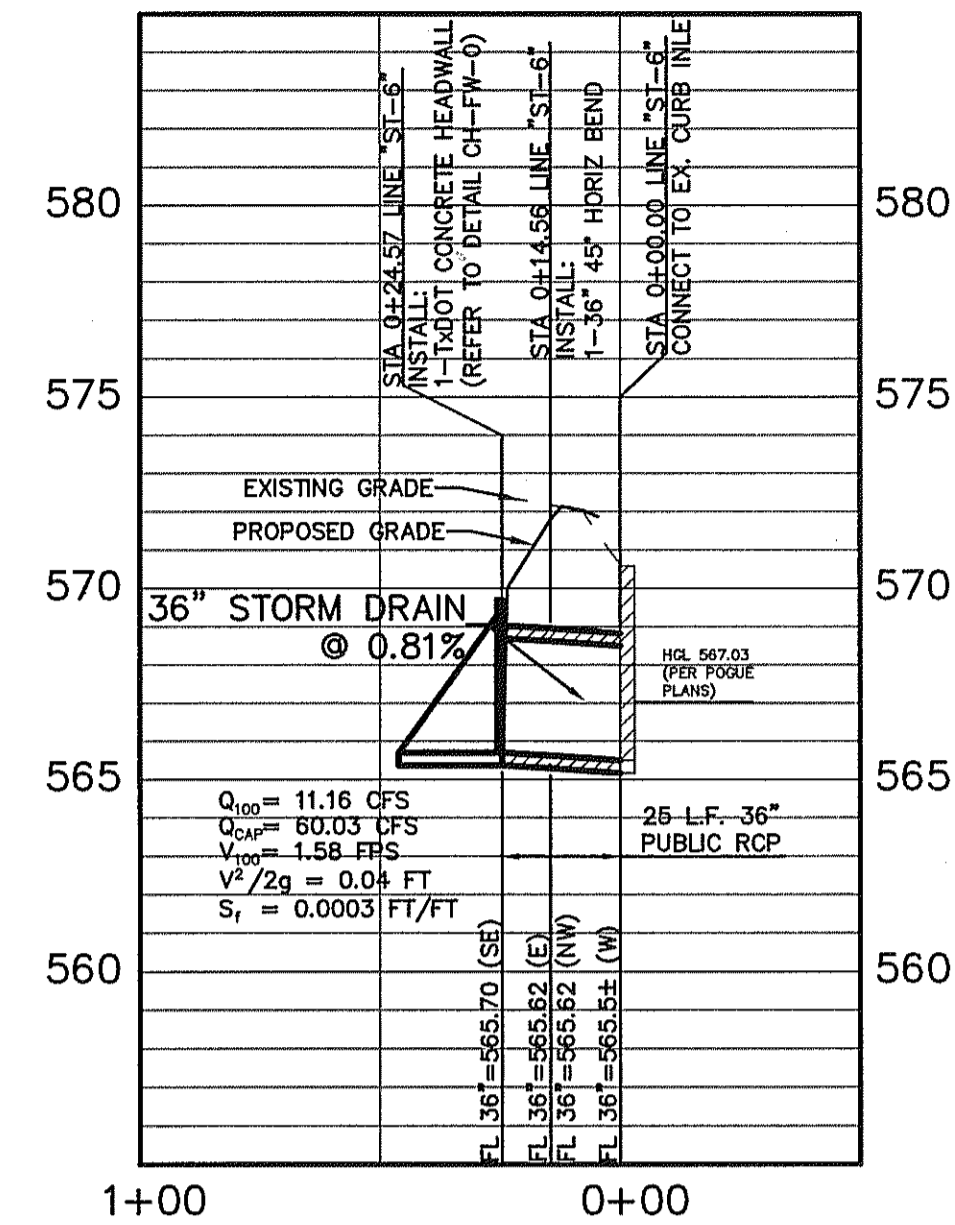
PK FILE: 3273-11.381 DWG FILE: 3273-11.381.DWG

DATE PLOTTED: 05/07/13 9:07AM
DRAWN BY: M. DAVIS
SCALE: 1"=40'

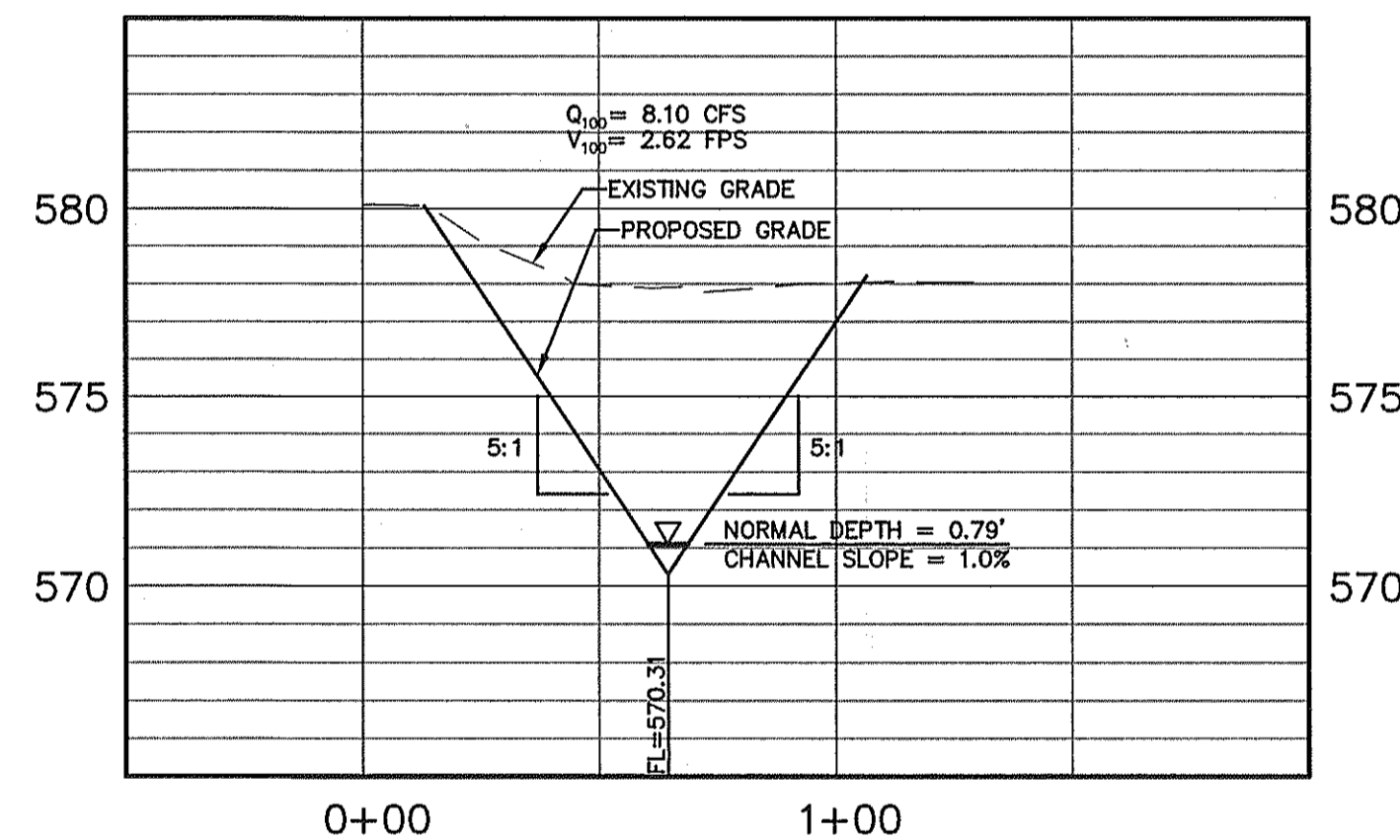
WHITMORE MANUFACTURING - PHASE I



PROFILE STORM LINE "ST-4"

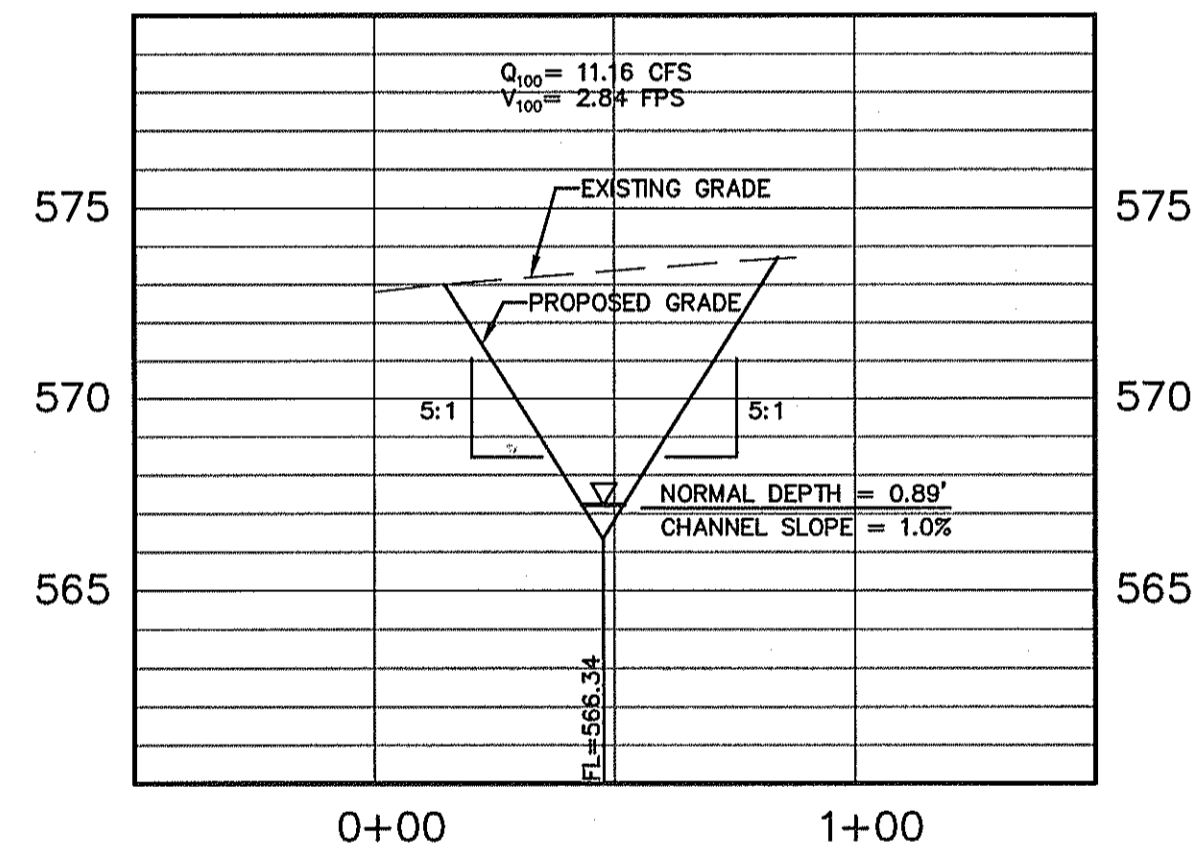


PROFILE STORM LINE "ST-6"



SECTION A-A

SHEET C3.1



SECTION B-B

SHEET C3.1

RECORD DRAWING

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ATTESTED BY: *[Signature]*
 ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
 CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
 DATE REVISED: APRIL 23, 2013

TOPOGRAPHIC SURVEY PREPARED BY:
 NORTH TEXAS SURVEYING, LLC
 MICHAEL B. ARTHUR, RPLS NO. 5686
 DATED: 12/09/2011

NOTE:
 ELEVATIONS SHOWN HAVE NOT BEEN VERIFIED ON THE GROUND BY PACHECO KOCH AND ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER. CONTRACTOR IS TO CONFIRM EXISTING ELEVATIONS PRIOR TO COMMENCING WORK.

NOTE:
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Line ST-1		City of Dallas 100 Year Design																						
Downstream Station	Upstream Station	Q (cfs)	Pipe Type	Pipe Dia (in)	Box Width (ft)	Box Height (ft)	n value	Design Slope (ft/ft)	Upstream Junction Type	Connect or Rise (ft) (1)	Downstream HGL	Upstream HGL	Up-stream HGL w/ Jump	Down stream FL	Up stream FL	V (fps)	V/2g (fps)	S	Q ₁₀₀ (cfs)	D _v (ft)	V _v (fps)	V _v /2g (fps)	Partial Station (2)	Partial Elevation (3)
0+00.00	0+29.17	16.68	Pipe	36			0.013	0.0044	Wye - 45°	Soffits	576.86	576.88	576.93	571.60	571.73	2.36	0.09	0.00063	44.24	N/A	N/A	N/A	N/A	N/A
0+29.17	0+32.17	11.30	Pipe	36			0.013	0.0044	Size Change	Soffits	576.93	576.93	576.93	571.73	571.74	1.60	0.04	0.00029	44.24	N/A	N/A	N/A	N/A	N/A
0+32.17	4+66.12	11.30	Pipe	24			0.013	0.0044	Wye - 45°	Soffits	576.93	578.01	578.16	572.74	574.65	3.60	0.20	0.00250	15.01	N/A	N/A	N/A	N/A	N/A
4+66.12	4+69.12	5.83	Pipe	24			0.013	0.0044	Size Change	Soffits	578.16	578.16	578.16	574.65	574.65	1.86	0.05	0.00066	15.01	N/A	N/A	N/A	N/A	N/A
4+69.12	6+63.27	5.83	Pipe	18			0.013	0.0044	Wye - 45°	Centerlines	578.16	578.76	578.92	575.16	576.02	3.30	0.17	0.00308	6.97	N/A	N/A	N/A	N/A	N/A
6+63.27	6+66.27	1.15	Pipe	18			0.013	0.0044	Size Change	Flowlines	578.92	578.92	578.92	576.02	576.03	0.65	0.01	0.00012	6.97	N/A	N/A	N/A	N/A	N/A
6+66.27	8+48.50	1.15	Pipe	12			0.013	0.0024	Bend - 45°	Soffits	579.11	579.11	579.13	576.03	576.47	1.46	0.03	0.00104	1.75	N/A	N/A	N/A	N/A	N/A
8+48.50	8+73.97	1.15	Pipe	12			0.013	0.0024	Inlet	Flowlines	579.13	579.15	579.20	576.47	576.53	1.46	0.03	0.00104	1.75	N/A	N/A	N/A	N/A	N/A

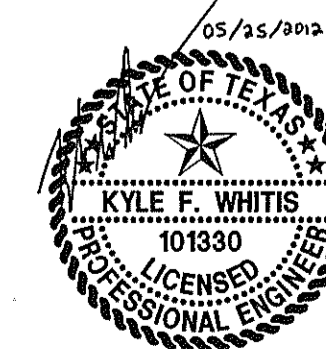
1. DESIGNATES THE TYPE OF STORM PIPE CONNECTION (SOFFIT TO SOFFIT, CENTERLINE TO CENTERLINE, OR FLOWLINE TO FLOWLINE) OR THE ELEVATION DIFFERENCE ACROSS THE STRUCTURE AT THE UPSTREAM STATION.
2. THE STATION AT WHICH THE HYDRAULIC GRADE LINE INTERSECTS THE NORMAL DEPTH IN THE PIPE.
3. THE ELEVATION AT WHICH THE HYDRAULIC GRADE LINE INTERSECTS THE NORMAL DEPTH IN THE PIPE.

BENCH MARK LIST

BM# 1 "X" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=568.90'

BM# 2 "X" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'

BM# 3 "X" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

09/05/2012		SITE PLAN MODIFICATIONS	
NO.	DATE	REVISION	
Pacheco Koch 8350 N. CENTRAL EXPWY. SUITE 1000 DALLAS, TX 75206 972.235.3031 DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00			
STORM SEWER PROFILES			
WHITMORE MANUFACTURING			
PHASE I EXPANSION			
1250 JUSTIN ROAD			
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS			
DESIGN	DRAWN	DATE	SCALE
KFW	GKH	MAY 2012	H:1"=40' V:1"=5'
NOTES	FILE	NO.	
		C4.4	

GIVEN: Area = 5.710
Prop C = 0.90
Prop Tc = 10.00 min
Max Q = 4.91 cfs

RESULT: Maximum Required Storage = 90,860 cf

GIVEN: Area = 5.710
Prop C = 0.90
Prop Tc = 10.00 min
Max Q = 3.90 cfs

RESULT: Maximum Required Storage = 70,754 cf

GIVEN: Area = 5.710
Prop C = 0.90
Prop Tc = 10.00 min
Max Q = 3.49 cfs

RESULT: Maximum Required Storage = 65,446 cf

GIVEN: Area = 5.710
Prop C = 0.90
Prop Tc = 10.00 min
Max Q = 2.90 cfs

RESULT: Maximum Required Storage = 50,611 cf

100 Year

10 min.	In	9.80	Q= 0.9 x 9.80 x 5.71 = 50.36 cfs
15 min.	In	9.00	Q= 0.9 x 9.00 x 5.71 = 46.25 cfs
20 min.	In	8.30	Q= 0.9 x 8.30 x 5.71 = 42.65 cfs
30 min.	In	6.90	Q= 0.9 x 6.90 x 5.71 = 35.46 cfs
40 min.	In	5.80	Q= 0.9 x 5.80 x 5.71 = 29.81 cfs
50 min.	In	5.00	Q= 0.9 x 5.00 x 5.71 = 25.70 cfs
60 min.	In	4.50	Q= 0.9 x 4.50 x 5.71 = 23.13 cfs
70 min.	In	4.00	Q= 0.9 x 4.00 x 5.71 = 20.56 cfs
80 min.	In	3.70	Q= 0.9 x 3.70 x 5.71 = 19.01 cfs
90 min.	In	3.50	Q= 0.9 x 3.50 x 5.71 = 17.99 cfs
100 min.	In	3.40	Q= 0.9 x 3.40 x 5.71 = 17.47 cfs
110 min.	In	3.20	Q= 0.9 x 3.20 x 5.71 = 16.44 cfs
120 min.	In	2.70	Q= 0.9 x 2.70 x 5.71 = 13.88 cfs

25 Year

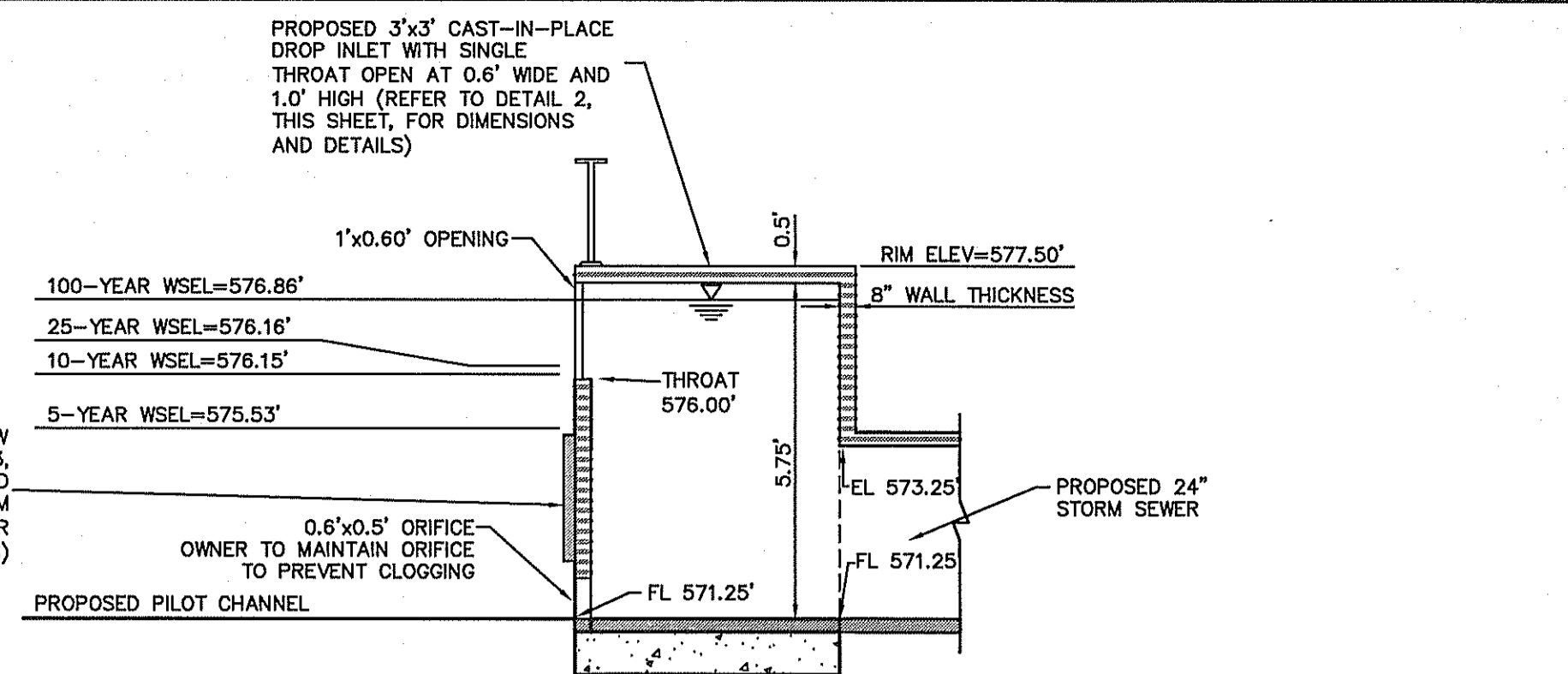
10 min.	In	8.30	Q= 0.9 x 8.30 x 5.71 = 42.65 cfs
15 min.	In	7.50	Q= 0.9 x 7.50 x 5.71 = 38.54 cfs
20 min.	In	6.60	Q= 0.9 x 6.60 x 5.71 = 33.92 cfs
30 min.	In	5.50	Q= 0.9 x 5.50 x 5.71 = 28.26 cfs
40 min.	In	4.60	Q= 0.9 x 4.60 x 5.71 = 23.64 cfs
50 min.	In	4.00	Q= 0.9 x 4.00 x 5.71 = 20.56 cfs
60 min.	In	3.50	Q= 0.9 x 3.50 x 5.71 = 17.99 cfs
70 min.	In	3.30	Q= 0.9 x 3.30 x 5.71 = 16.96 cfs
80 min.	In	3.10	Q= 0.9 x 3.10 x 5.71 = 15.93 cfs
90 min.	In	2.90	Q= 0.9 x 2.90 x 5.71 = 14.90 cfs
100 min.	In	2.70	Q= 0.9 x 2.70 x 5.71 = 13.88 cfs
110 min.	In	2.50	Q= 0.9 x 2.50 x 5.71 = 12.85 cfs
120 min.	In	1.90	Q= 0.9 x 1.90 x 5.71 = 9.76 cfs

10 Year

10 min.	In	7.10	Q= 0.9 x 7.10 x 5.71 = 36.49 cfs
15 min.	In	6.50	Q= 0.9 x 6.50 x 5.71 = 33.40 cfs
20 min.	In	5.90	Q= 0.9 x 5.90 x 5.71 = 30.32 cfs
30 min.	In	4.80	Q= 0.9 x 4.80 x 5.71 = 24.67 cfs
40 min.	In	4.00	Q= 0.9 x 4.00 x 5.71 = 20.56 cfs
50 min.	In	3.50	Q= 0.9 x 3.50 x 5.71 = 17.99 cfs
60 min.	In	3.00	Q= 0.9 x 3.00 x 5.71 = 15.42 cfs
70 min.	In	2.80	Q= 0.9 x 2.80 x 5.71 = 14.39 cfs
80 min.	In	2.60	Q= 0.9 x 2.60 x 5.71 = 13.36 cfs
90 min.	In	2.50	Q= 0.9 x 2.50 x 5.71 = 12.85 cfs
100 min.	In	2.40	Q= 0.9 x 2.40 x 5.71 = 12.33 cfs
110 min.	In	2.30	Q= 0.9 x 2.30 x 5.71 = 11.82 cfs
120 min.	In	1.40	Q= 0.9 x 1.40 x 5.71 = 7.19 cfs

5 Year

10 min.	In	6.10	Q= 0.9 x 6.10 x 5.71 = 31.35 cfs
15 min.	In	5.50	Q= 0.9 x 5.50 x 5.71 = 28.26 cfs
20 min.	In	4.90	Q= 0.9 x 4.90 x 5.71 = 25.18 cfs
30 min.	In	4.10	Q= 0.9 x 4.10 x 5.71 = 21.07 cfs
40 min.	In	3.40	Q= 0.9 x 3.40 x 5.71 = 17.47 cfs
50 min.	In	2.80	Q= 0.9 x 2.80 x 5.71 = 14.39 cfs
60 min.	In	2.60	Q= 0.9 x 2.60 x 5.71 = 13.36 cfs
70 min.	In	2.40	Q= 0.9 x 2.40 x 5.71 = 12.33 cfs
80 min.	In	2.30	Q= 0.9 x 2.30 x 5.71 = 11.82 cfs
90 min.	In	2.10	Q= 0.9 x 2.10 x 5.71 = 10.79 cfs
100 min.	In	1.90	Q= 0.9 x 1.90 x 5.71 = 9.76 cfs
110 min.	In	1.80	Q= 0.9 x 1.80 x 5.71 = 9.25 cfs
120 min.	In	1.40	Q= 0.9 x 1.40 x 5.71 = 7.19 cfs

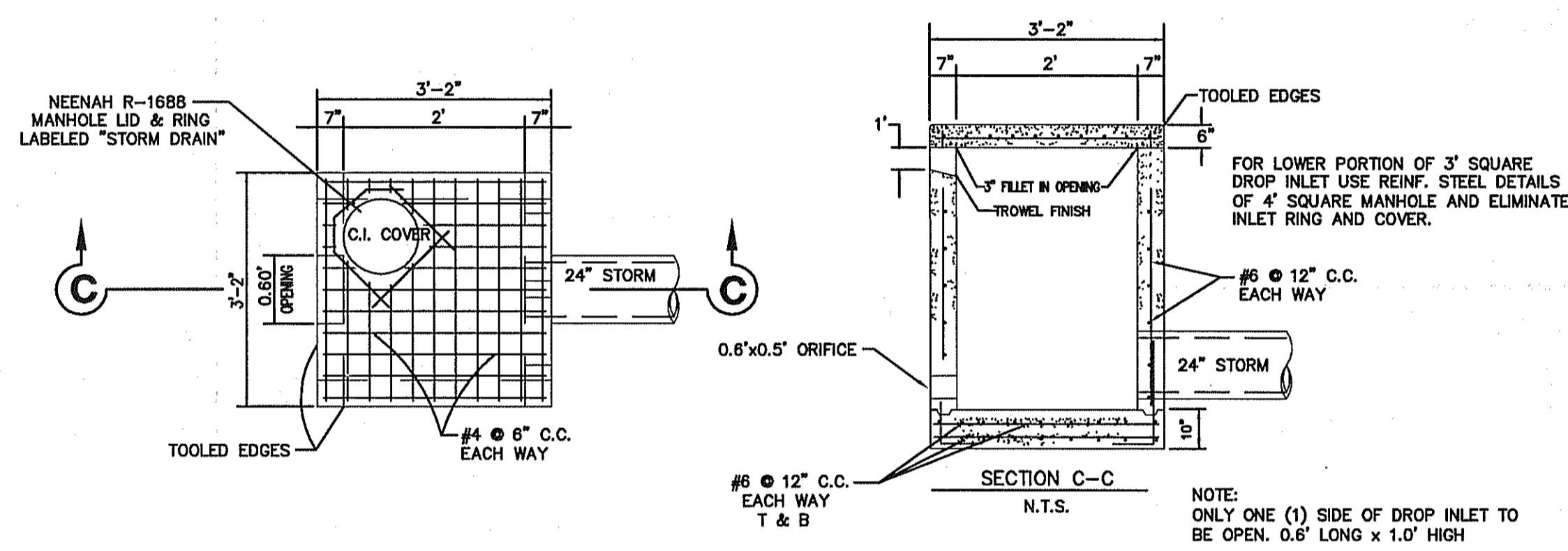


1 **OUTFALL STRUCTURE DETAIL**
NOT TO SCALE

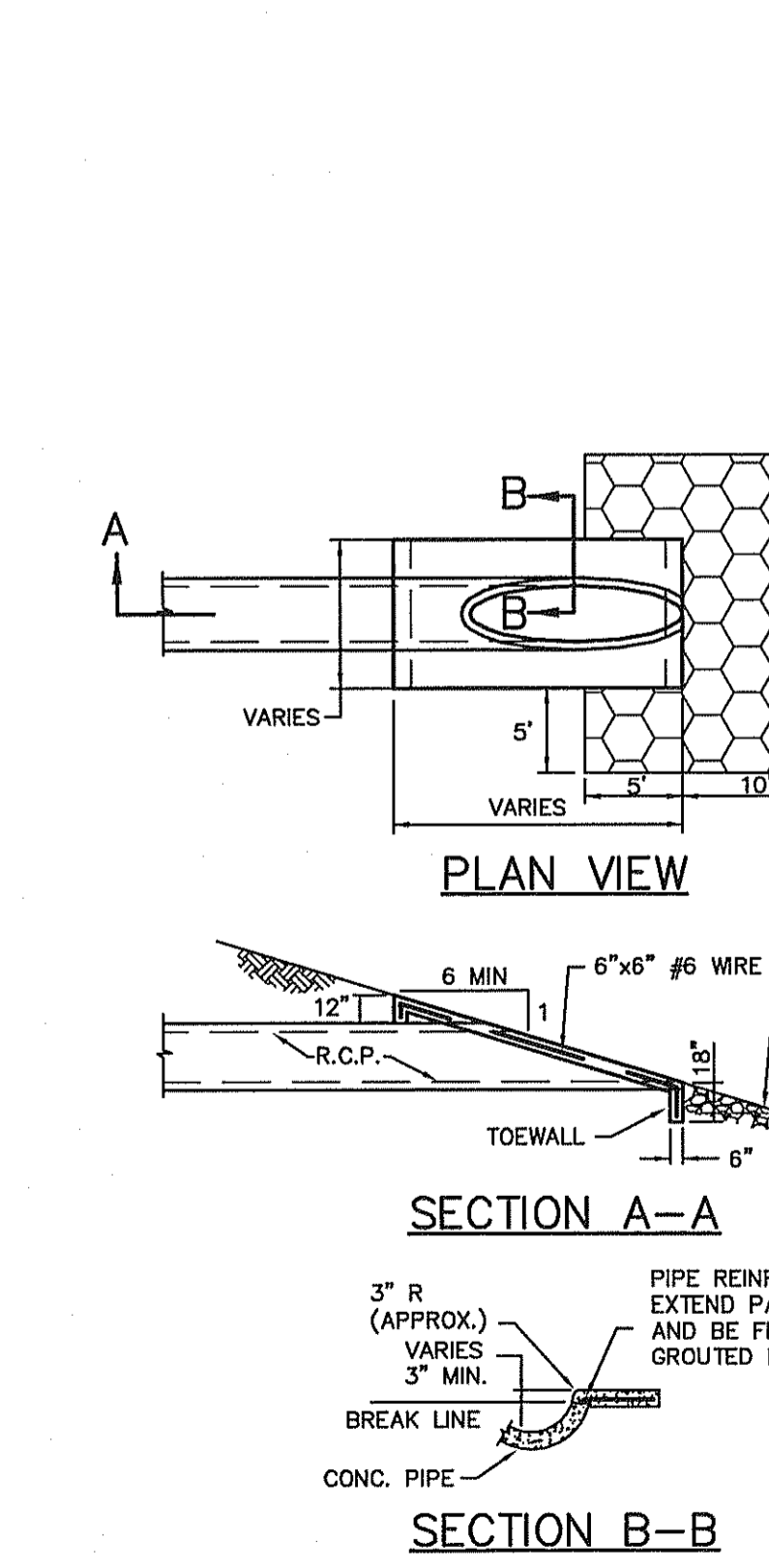
STORM FREQUENCY	ALLOWABLE RELEASE	POST-DEVELOPED RELEASE FLOW RATE
5-YEAR	2.90 CFS	Q ₅ = 2.90 CFS
10-YEAR	3.49 CFS	Q ₁₀ = 3.21 CFS
25-YEAR	3.90 CFS	Q ₂₅ = 3.22 CFS
100-YEAR	4.91 CFS	Q ₁₀₀ = 4.85 CFS

NOTE: Q₁₀₀ = Q_{or} + Q_w

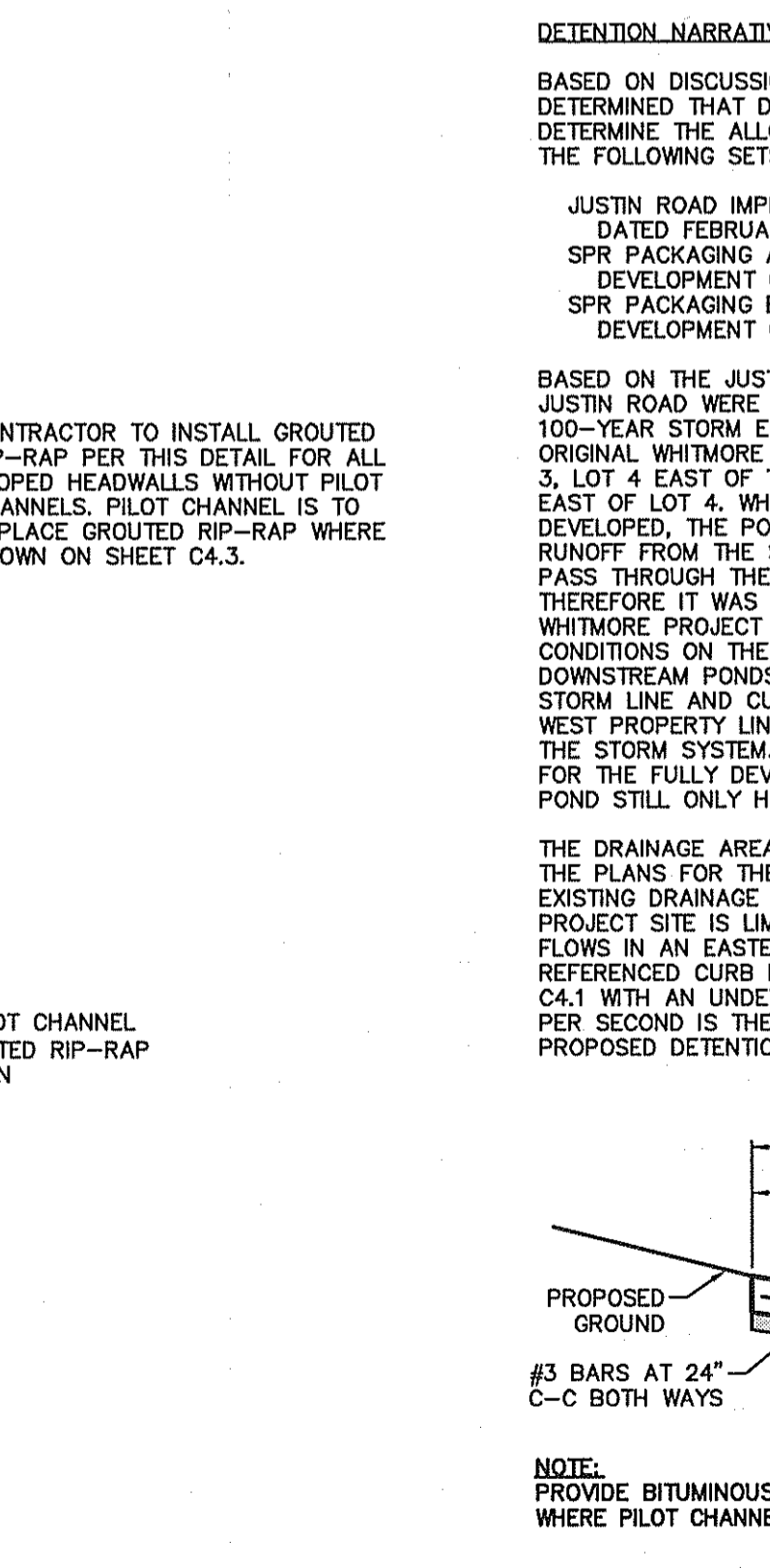
STORM FREQUENCY	STORAGE REQUIRED	WATER SURFACE ELEVATION	STORAGE PROVIDED
5-YEAR	50,611 CF	575.53'	50,611 CF
10-YEAR	65,446 CF	576.15'	66,454 CF
25-YEAR	70,754 CF	576.16'	73,202 CF
100-YEAR	90,860 CF	576.86'	91,076 CF



2 **DROP INLET**
NOT TO SCALE



3 **REINFORCED CONCRETE SLOPING HEADWALL**
NOT TO SCALE



4 **PILOT CHANNEL**
NOT TO SCALE

DETECTION NARRATIVE:
SINCE THE OPENING OF THE SUBMERGED ORIFICE HAS BEEN DETERMINED TO HAVE A CROSS SECTIONAL AREA OF 0.30', THE FLOW FOR THE 100-YEAR STORM THROUGH THE ORIFICE CAN BE DETERMINED BASED ON THE KNOWN AMOUNT OF HEAD WHICH CORRESPONDS TO THE REQUIRED VOLUME IN THE POND.

100-YEAR STORM CALCULATIONS:
SINCE THE OPENING OF THE SUBMERGED ORIFICE HAS BEEN DETERMINED TO HAVE A CROSS SECTIONAL AREA OF 0.30', THE FLOW FOR THE 100-YEAR STORM THROUGH THE ORIFICE CAN BE DETERMINED BASED ON THE KNOWN AMOUNT OF HEAD WHICH CORRESPONDS TO THE REQUIRED VOLUME IN THE POND.

5-YEAR STORM CALCULATIONS:
FOR SIZING THE OPENING, THE ORIFICE EQUATION WAS USED ASSUMING THAT THE HEAD ON THE CENTROID OF THE OPENING IS THE 5-YEAR WATER SURFACE ELEVATION.

$Q = C^*A^*(2gh)^{1/2}$

WHERE:
Q = FLOW RATE (cfs)
C = ENTRANCE COEFFICIENT, ASSUMED TO BE 0.6
A = CROSS SECTIONAL AREA OF OPENING, (SF)
g = GRAVITY CONSTANT, 32.2 ft/sec²
h = HEAD; DEPTH AT OUTFALL - CENTROID DISTANCE (SF)

USING AN OPENING OF 0.6' x 0.5':
SOLVING FOR THE ALLOWABLE FLOW THROUGH THE OPENING
 $Q = (0.6) * (0.6 * 0.5) * [2 * 32.2 * (4.03)]^{1/2}$
Q = 2.90 CFS

SINCE THIS FLOW IS EQUAL TO OR LESS THAN THE ALLOWED RELEASE RATE, THE ORIFICE IS CORRECTLY SIZED TO HANDLE THE 5-YEAR STORM EVENT.

GRADING GENERAL NOTES

- REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
- UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3" OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
- SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.
- GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
- ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (I.E. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
- UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
B.A. ROP C-78, CLASS III (PUBLIC)
B.C. ADS H-12 (PRIVATE)
B.C. HANCOR H-Q (PRIVATE)
- UNLESS NOTED, GRATE INLETS TO BE "HANSON PIPE AND PRECAST" CATCH BASIN SIZED AS SHOWN, OR APPROVED EQUAL.
- TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 WITH CITY OF ROCKWALL REVISIONS UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 WITH CITY OF ROCKWALL REVISIONS UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
- ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO 4,200 PSI PER CITY OF ROCKWALL RECOMMENDATION UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
- CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
- IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
- ALL FILL TO BE COMPACTED USING SHEEP'S FOOT ROLLER.

FROM THESE CALCULATIONS, IT IS DETERMINED THAT SINCE THE 100-YEAR WATER SURFACE IS AT 576.86', THE THROAT OF THE OPENING MUST BE AT AN ELEVATION OF 576.00'.
NOTE: ONLY ONE (1) SIDE OF THE WYE INLET IS TO BE OPEN.

NOTE: ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

RECORD DRAWING

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ATTESTED BY:
SIGNATURE: _____
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

PROFESSIONAL ENGINEER
KYLE F. WHITIS
101330
05/15/2012

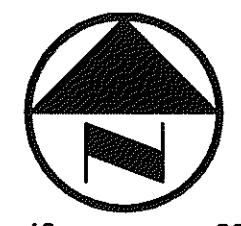
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

NO.	DATE	REVISION

Pacheco Koch 8350 N. CENTRAL EXPY. SUITE 1000
DALLAS, TX 75208 972.235.3031
DALLAS • FORT WORTH • HOUSTON TX REG. ENGINEERING FIRM F-489
TX REG. SURVEYING LS-100080-00

DETENTION CALCULATIONS
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	NTS			C4.5



LEGEND

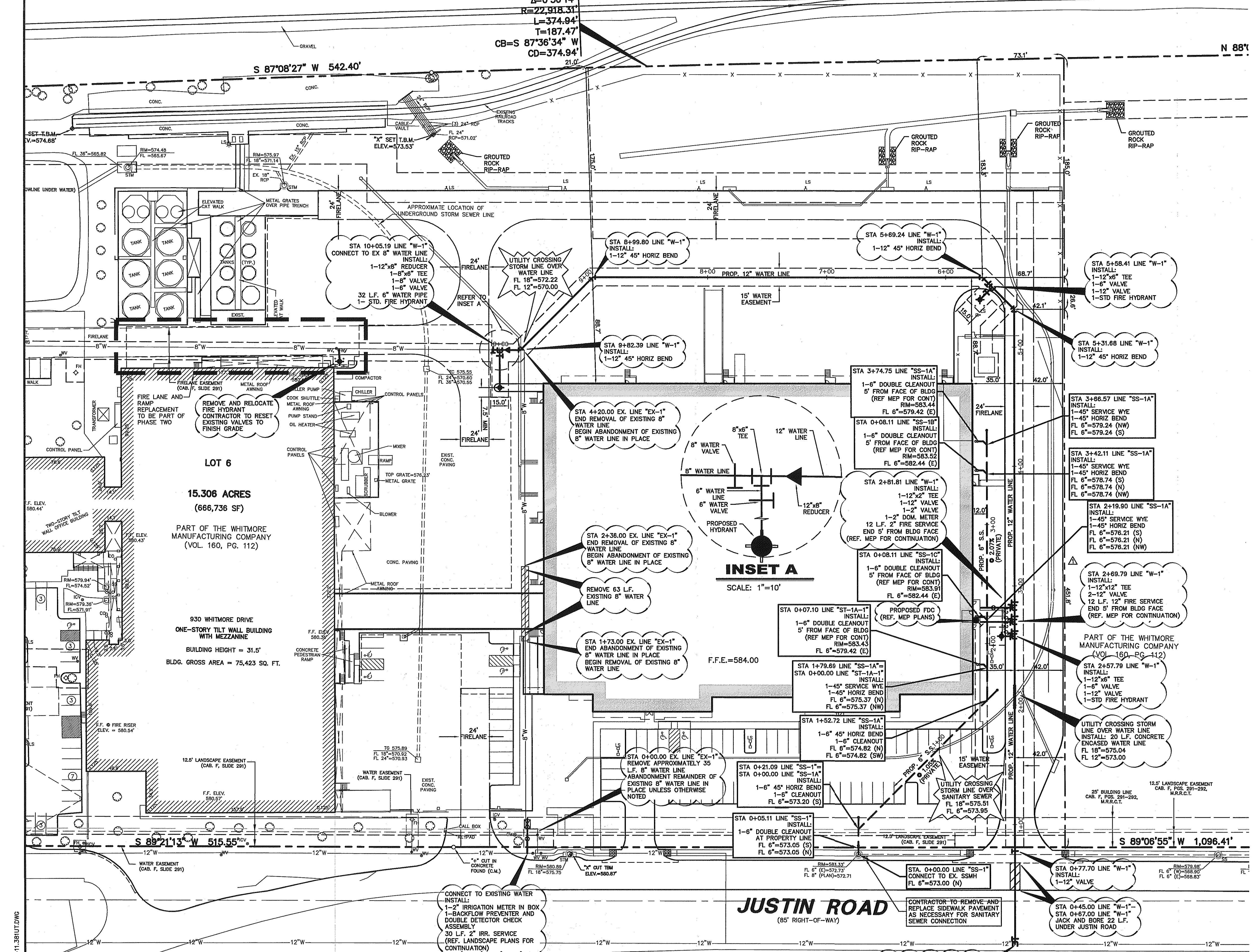
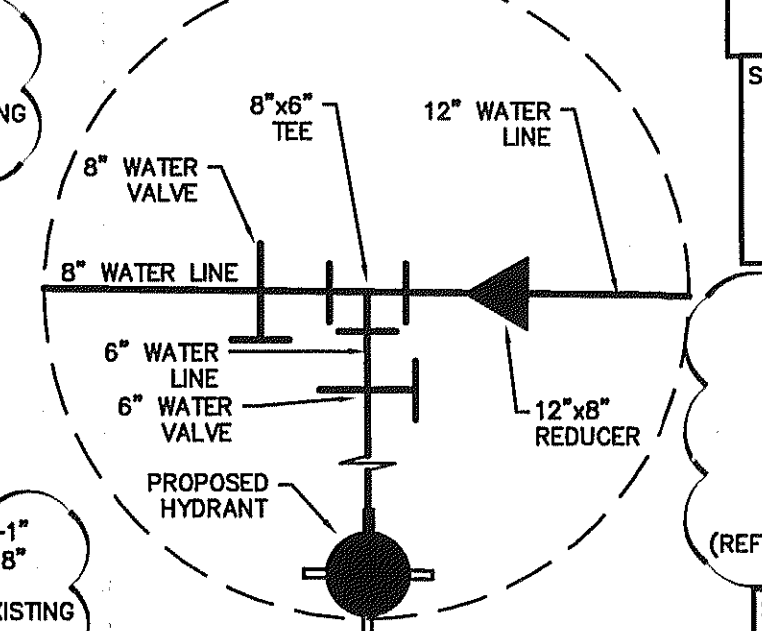
B	BOLLARD	TELE	TELEPHONE BOX
EM	ELECTRIC METER	FL	FLOOD LIGHT
PP	POWER POLE	FP	FLAG POLE
LS	LIGHT STANDARD	TR	TRAFFIC SIGN
WM	WATER METER	IRS	1/2-INCH IRON ROD
WV	WATER VALVE	(C.M.)	CONTROLLING MONUMENT
ICV	IRRIGATION CONTROL VALVE	---	PROPERTY LINE
PH	FIRE HYDRANT	X	FENCE
CQ	CLEANOUT	ORL	OVERHEAD UTILITY LINE
MH	MANHOLE	E	UNDERGROUND ELECTRIC LINE
TSC	TRAFFIC SIGNAL CONTROL	T	UNDERGROUND TELEPHONE LINE
TSP	TRAFFIC SIGNAL POLE	C	UNDERGROUND CABLE LINE
		6"W	UNDERGROUND WATER LINE
		6"SS	UNDERGROUND SANITARY SEWER LINE

WATER & SANITARY SEWER GENERAL NOTES

- ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
- ALL WATER MAINS SHALL BE PVC C900, DR 18, CLASS 200 FOR PUBLIC LINES. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 200 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION ENGINEER.
- WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 48 INCHES BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED.
- SANITARY SEWER PIPE SHALL BE PVC SDR-35.
- WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES SHALL APPLY:
 - WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONCRETE ENCASED FOR BOTH THE PIPE AND JOINTS. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
 - WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONCRETE ENCASED, AN ABSOLUTE MINIMUM DISTANCE OF SIX INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
 - WHERE A SANITARY SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. IN ADDITION, THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
 - WHERE A SANITARY SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE, THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRING LINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.
 - THE SANITARY SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO BE INSTALLED PARALLEL TO AN EXISTING SEWER THAT SHOWS NO EVIDENCE OF LEAKAGE AND THE WATERLINE IS INSTALLED ABOVE THE SEWER. A MINIMUM OF TWO FEET VERTICALLY AND FOUR FEET HORIZONTALLY. SHOULD EXCAVATION FOR THE WATERLINE PRODUCE EVIDENCE THAT THE SEWER IS LEAKING, THE SEWER MUST BE REPAIRED OR REPLACED AS DESCRIBED IN SUBPARAGRAPHS (6.A) OR (6.D).
 - THE SANITARY SEWER NEED NOT BE DISTURBED WHERE A NEW WATERLINE IS TO CROSS OVER BY TWO FEET OR MORE AN EXISTING SEWER SHOWING NO EVIDENCE OF LEAKAGE. SHOULD EXCAVATION FOR THE WATERLINE PRODUCE EVIDENCE THAT THE SEWER IS LEAKING, THE SEWER MUST BE REPAIRED OR REPLACED AS DESCRIBED IN SUBPARAGRAPHS (6.C) OR (6.D).
- CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
- ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
- THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO FEET BACK OF THE CURB LINE AT A DEPTH OF 12 INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB, EACH SERVICE LOCATION SHALL BE MARKED ON THE CURB WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS."
- ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
- TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
- VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE UTILITY CONTRACTOR SHALL POUR A 24"x24"x6" CONCRETE BLOCK AROUND ALL VALVE BOX TOPS LEVEL WITH THE FINISHED GRADE.
- IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
- BLUE EMS DISKS TO BE INSTALLED ON THE WATER LINE AT EACH CHANGE IN DIRECTION, VALVE LOCATION, FIRE HYDRANT LOCATION AND SERVICE LATERAL LOCATION.
- ALL SANITARY SEWER WORK DESIGNATED AS "PRIVATE" IN THIS SET OF PLANS SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE, PERMITTED AND INSPECTED BY THE CITY BUILDING INSPECTION DEPARTMENT AND INSTALLED BY A LICENSED PLUMBER.

INSET A

SCALE: 1"=10'



BENCH MARK LIST

BM# 1	1" x 1" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (E/30)	ELEV=568.90
BM# 2	2" x 2" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE	ELEV=574.02'
BM# 3	3" x 3" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK	ELEV=580.87'

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, LLC
MICHAEL B. ARTHUR, RPLS NO. 5886
DATED: 12/09/2011

NOTE:
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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

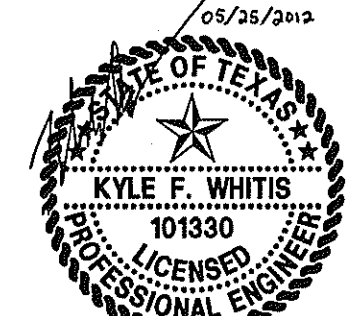
NO.	DATE	REVISION
1	08/14/2012	REVISED WATER LINE TO 12"
2	07/02/2012	REVISED FIRE LEAD PER MEP

Pacheco Koch 8350 N. CENTRAL EXPWY. SUITE 1000
DALLAS, TX 75206 972.235.3031
TX REG. ENGINEERING FIRM F-489
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

SITE UTILITY PLAN
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C5.1

PK FILE: 3273-11.381 DWG FILE: 3273-11.381UT.DWG

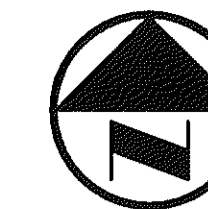


05/25/2012 9:08AM
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WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)



$\Delta=0^{\circ}56'14''$
 $R=22,918.31'$
 $L=374.94'$
 $T=187.47'$
 $CB=S 87^{\circ}36'34'' W$
 $CD=374.94'$

N 88°04'4"

S 87°08'27" W 542.40'

PAVING GENERAL NOTES

- ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL CONFORM TO NCTCOG ITEM 303.3.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
- UNLESS NOTED, ALL FILL PLACED UNDER PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS. REFER TO STRUCTURAL SPECIFICATION FOR FILL PLACED BENEATH BUILDING AREAS. ALL OTHER FILL AREAS TO BE COMPACTED TO 95% STANDARD PROCTOR.
- THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER FOR APPROVAL. UNLESS NOTED, EXPANSION JOINT SPACING SHALL BE 90' MAXIMUM EACH WAY WITH NO KEYWAYS AND SAWED DUMMY JOINTS SHALL BE 15' EACH WAY.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAY'S PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
- ALL PAVEMENTS TO BE REMOVED SHALL BE SAWED TO A NEAT LINE, MINIMUM 1-1/2" DEEP, AND THE PAVEMENT REMOVED IN SUCH A MANNER AS TO PRESERVE THE EXISTING TRANSVERSE REINFORCING STEEL TO THE MAXIMUM EXTENT POSSIBLE.
- ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE PAVEMENT AND HAVE THE SAME COMPRESSIVE STRENGTH.
- PAVEMENT REINFORCEMENT SHALL BE #3 BARS, SPACED AT 18" CENTER TO CENTER EACH WAY EXCEPT WHERE NOTED IN THE PLANS.
- BAR LAPS SHALL BE 30 DIAMETERS IN LENGTH.
- ALL STRIPES SHALL BE 4" WIDE, UNLESS OTHERWISE NOTED.
- INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECTS AND MEP PLANS.
- SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS NOTED OTHERWISE) AND A GROSS SLOPE NOT GREATER THAN 2%.
- NO SAND UNDER PAVEMENT SHALL BE ALLOWED.

LEGEND

- B. BOLLARD
- EM. ELECTRIC METER
- PP. POWER POLE
- LS. LIGHT STANDARD
- WM. WATER METER
- WV. WATER VALVE
- ICV. IRRIGATION CONTROL VALVE
- FH. FIRE HYDRANT
- CL. CLEANOUT
- MH. MANHOLE
- TSC. TRAFFIC SIGNAL CONTROL
- TSP. TRAFFIC SIGNAL POLE
- TELE. TELEPHONE BOX
- FL. FLOOD LIGHT
- FP. FLAG POLE
- SIG. TRAFFIC SIGN
- IRS. 1/2"-INCH IRON ROD
- W/P. W/PACHECO KOCH' CAP SET
- (C.M.) CONTROLLING MONUMENT
- — — — — PROPERTY LINE
- - - - - FENCE
- 4" REINFORCED CONCRETE (3000 PSI @ 28 DAY COMPRESSION TEST)
- PARKING STALLS
- 5" REINFORCED CONCRETE PAVEMENT (3,000 PSI @ 28 DAY COMPRESSION TEST)
- DRIVE APPROACH AND DRIVE AREAS
- 6" REINFORCED CONCRETE PAVEMENT (4,000 PSI @ 28 DAY COMPRESSION TEST)
- TRUCK TRAFFIC AREAS 9.5" REINFORCED CONCRETE PAVEMENT (4,000 PSI @ 28 DAY COMPRESSION TEST)
- DRIVE APPROACHES IN R.O.W. 10" REINFORCED CONCRETE PAVEMENT (4,200 PSI @ 28 DAY COMPRESSION TEST)

NOTE:
 FOR SIDEWALK AND VEHICULAR PARKING A MINIMUM OF 5 SACK CONCRETE MIX WILL BE NEEDED FOR MACHINE FINISHED AREAS AND A MINIMUM OF 5.5 SACK CONCRETE MIX WILL BE NEEDED FOR HAND FINISHED AREAS.
 FOR TRUCK TRAFFIC AREAS AND DRIVE AREAS, A MINIMUM OF 6 SACK CONCRETE MIX WILL BE NEEDED FOR MACHINE FINISHED AREAS AND A MINIMUM OF 6.5 SACK CONCRETE MIX WILL BE NEEDED FOR HAND FINISHED AREAS.
 FOR DRIVE APPROACHES IN R.O.W., A MINIMUM OF 6.5 SACK CONCRETE MIX WILL BE NEEDED FOR MACHINE FINISHED AREAS AND A 7 SACK CONCRETE MIX WILL BE NEEDED FOR ALL HAND FINISHED AREAS.

BENCH MARK LIST

- BM# 1 " X " CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (B/30) ELEV=568.90'
- BM# 2 " X " CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'
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TOPOGRAPHIC SURVEY PREPARED BY:
 NORTH TEXAS SURVEYING, LLC
 MICHAEL B. ARTHUR, RPLS NO. 5686
 DATED: 12/09/2011

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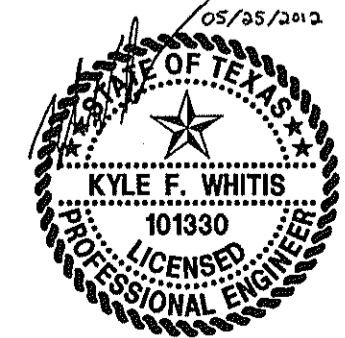
ATTESTED BY:
 SIGNATURE: *[Signature]*
 ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
 CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
 DATE REVISED: APRIL 23, 2013

JUSTIN ROAD

(95' RIGHT-OF-WAY)

930 WHITMORE DRIVE
 ONE-STORY TILT WALL BUILDING WITH MEZZANINE
 BUILDING HEIGHT = 31.5'
 BLDG. GROSS AREA = 75,423 SQ. FT.

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NO.	DATE	REVISION
	09/05/2012	SITE PLAN MODIFICATIONS

Pacheco Koch 8350 N. CENTRAL EXPY., SUITE 1000 DALLAS, TX 75206 972.235.3031 TX REG. ENGINEERING FIRM F-469

PAVING PLAN
 WHITMORE MANUFACTURING
 PHASE I EXPANSION
 1250 JUSTIN ROAD
 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

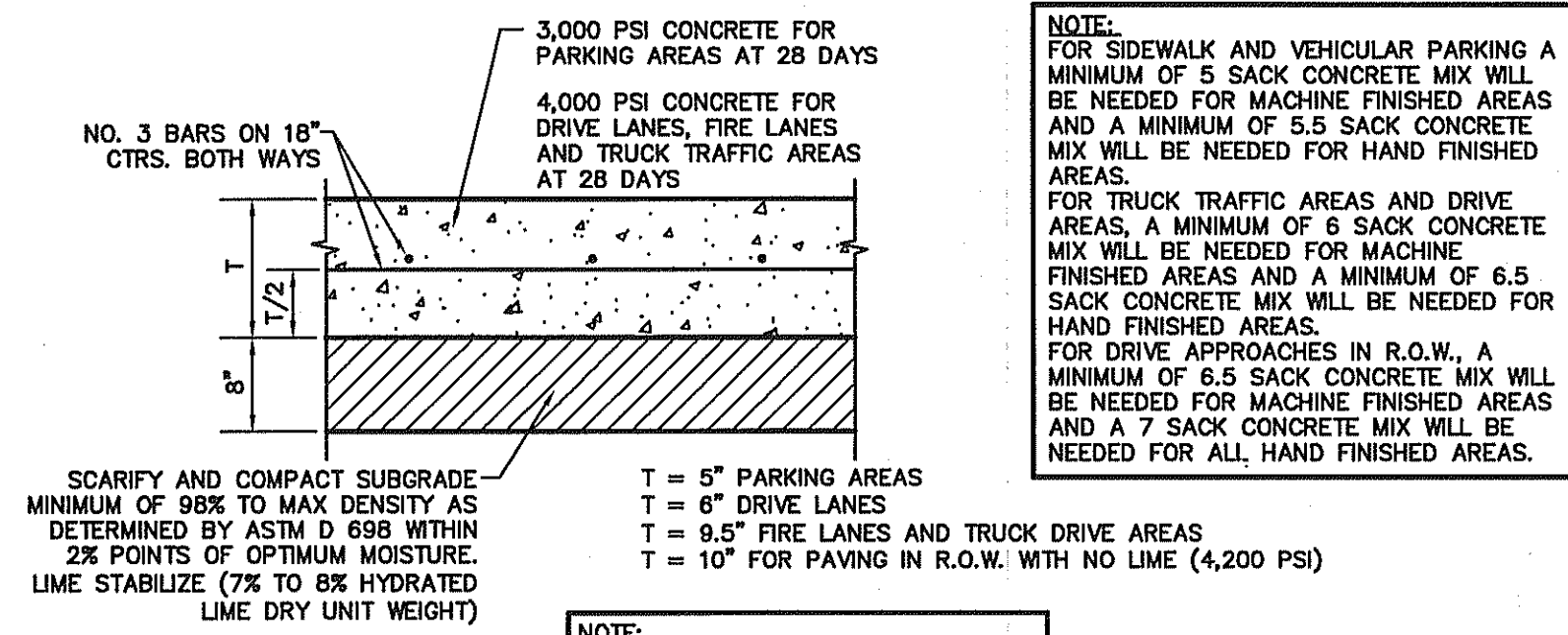
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	1"=40'			C6.1

PK FILE: 3273-11.381

DWG FILE: 3273-11.381EP.DWG

GHUGHES 2013 05 09AM 02 06AM 04 00 (DWG) 32 3273-11.381 (DWG) 3273-11.381EP.DWG

WHITMORE MANUFACTURING - PHASE I



NOTE:
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FOR TRUCK TRAFFIC AREAS AND DRIVE AREAS, A MINIMUM OF 6 SACK CONCRETE MIX WILL BE NEEDED FOR MACHINE FINISHED AREAS AND A MINIMUM OF 6.5 SACK CONCRETE MIX WILL BE NEEDED FOR HAND FINISHED AREAS.
FOR DRIVE APPROACHES IN R.O.W., A MINIMUM OF 6.5 SACK CONCRETE MIX WILL BE NEEDED FOR MACHINE FINISHED AREAS AND A 7 SACK CONCRETE MIX WILL BE NEEDED FOR ALL, HAND FINISHED AREAS.

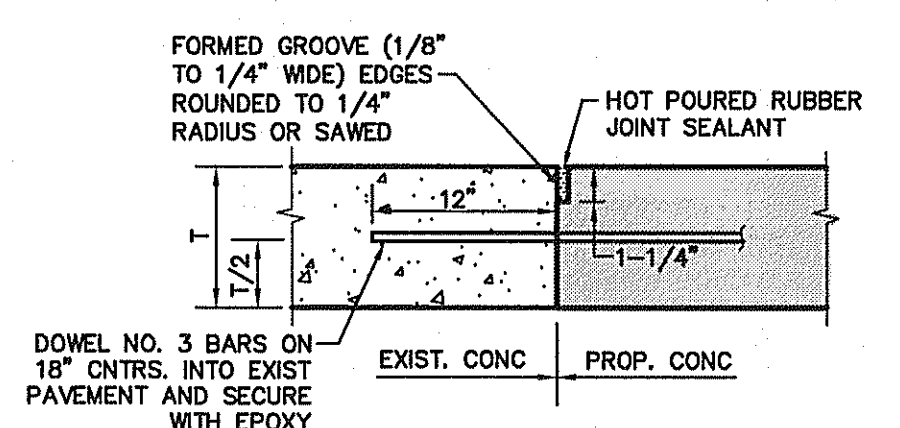
SCARIFY AND COMPACT SUBGRADE - MINIMUM OF 98% TO MAX DENSITY AS DETERMINED BY ASTM D 698 WITHIN 2% POINTS OF OPTIMUM MOISTURE. LIME STABILIZE (7% TO 8% HYDRATED LIME DRY UNIT WEIGHT)

T = 6" PARKING AREAS
T = 8" DRIVE LANES
T = 9.5" FIRE LANES AND TRUCK DRIVE AREAS
T = 10" FOR PAVING IN R.O.W. WITH NO LIME (4,200 PSI)

NOTE:
CONTRACTOR TO REFER TO GEOTECH REPORT FOR EXPLANATION OF SULFATE TESTING AND POSSIBLE MODIFICATIONS TO PAVEMENT SECTIONS BASED ON FIELD SOIL TESTING.

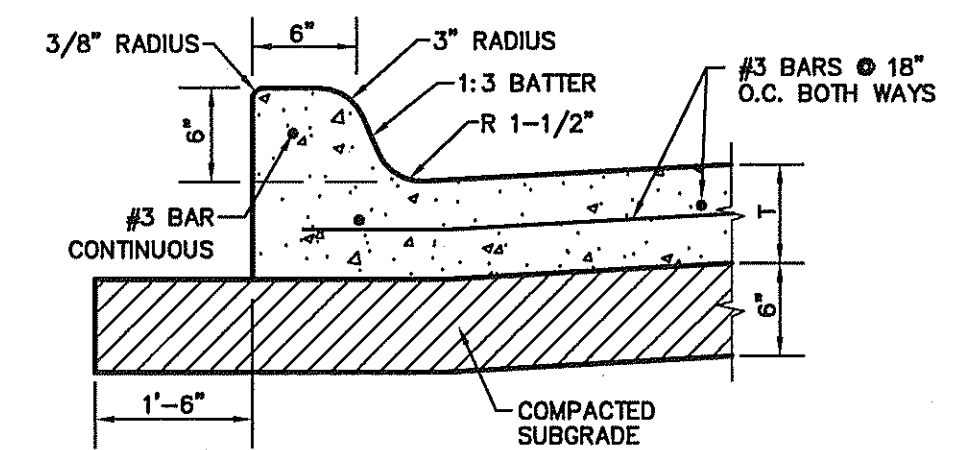
NOTE:
REFER TO GEOTECH REPORT FOR FURTHER INFORMATION.

1 CONCRETE PAVEMENT SECTION
NOT TO SCALE

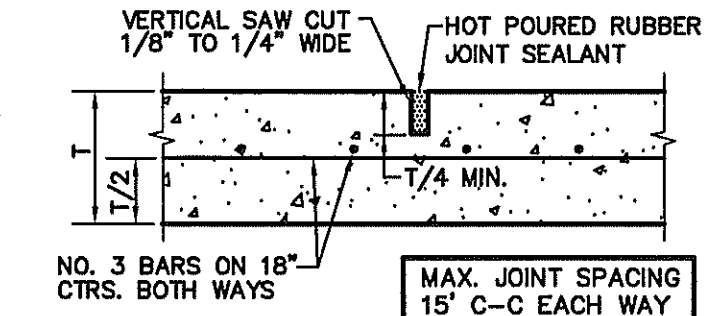


DOWEL NO. 3 BARS ON 18" CNTRS. INTO EXIST PAVEMENT AND SECURE WITH EPOXY

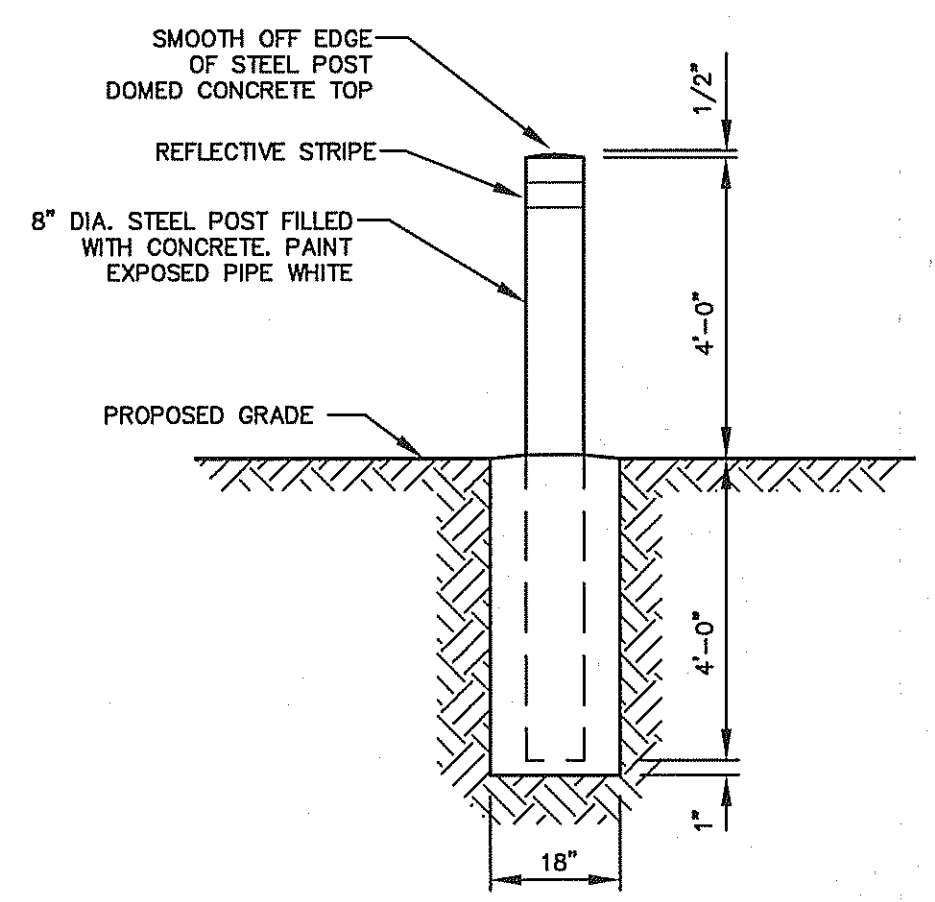
2 PAVEMENT CONNECTION
NOT TO SCALE



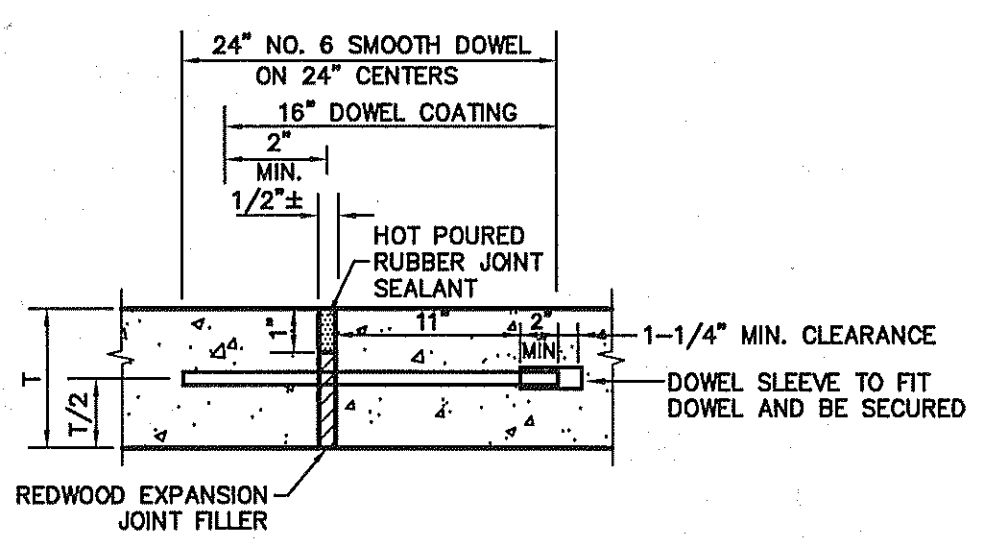
3 INTEGRAL CURB
NOT TO SCALE



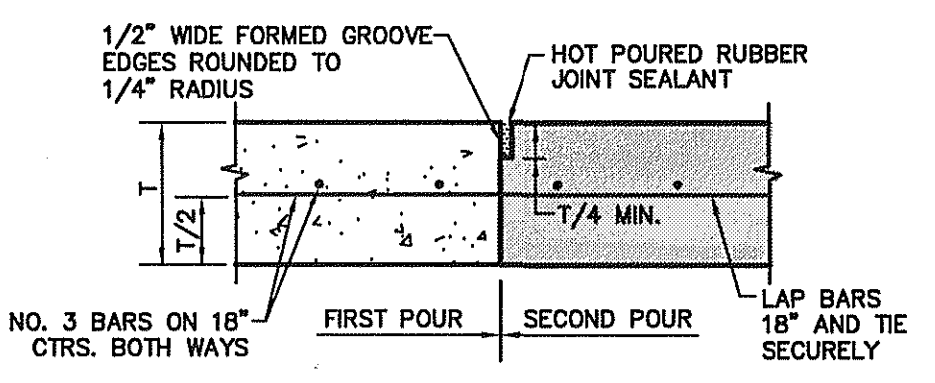
4 SAWED DUMMY JOINT
NOT TO SCALE



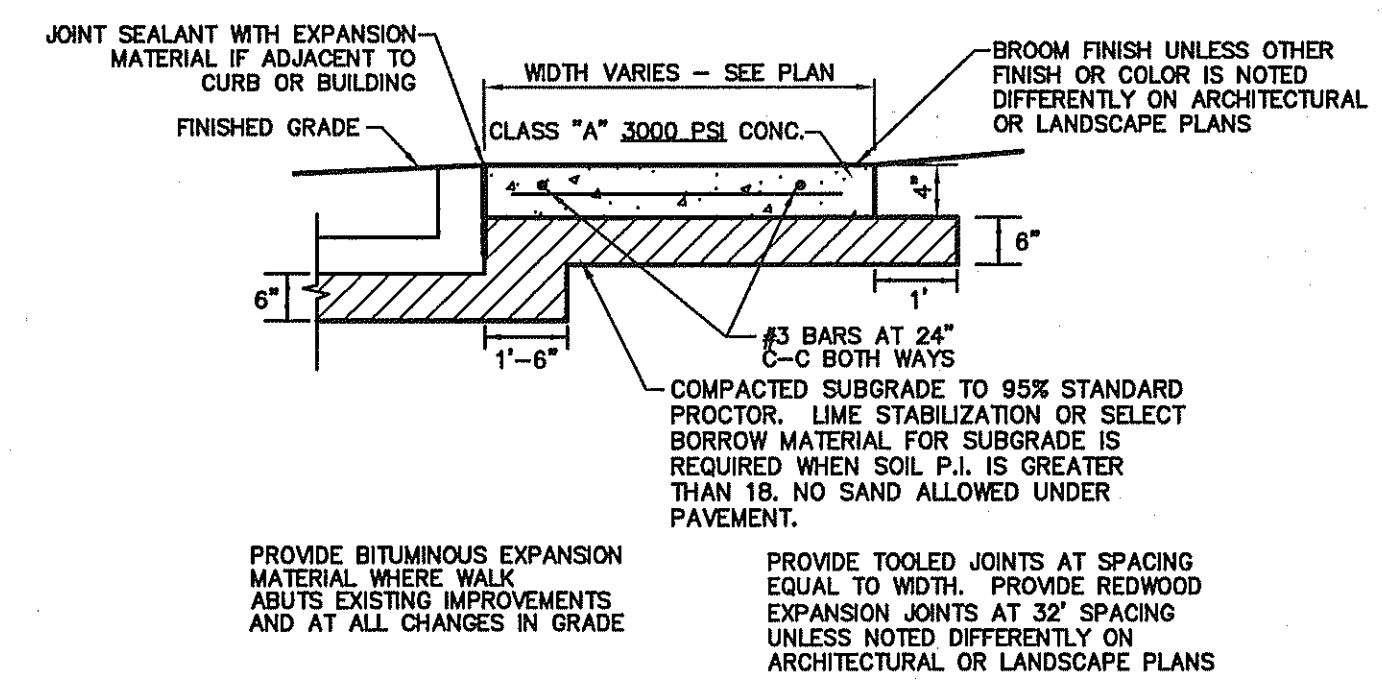
5 BOLLARD DETAIL
NOT TO SCALE



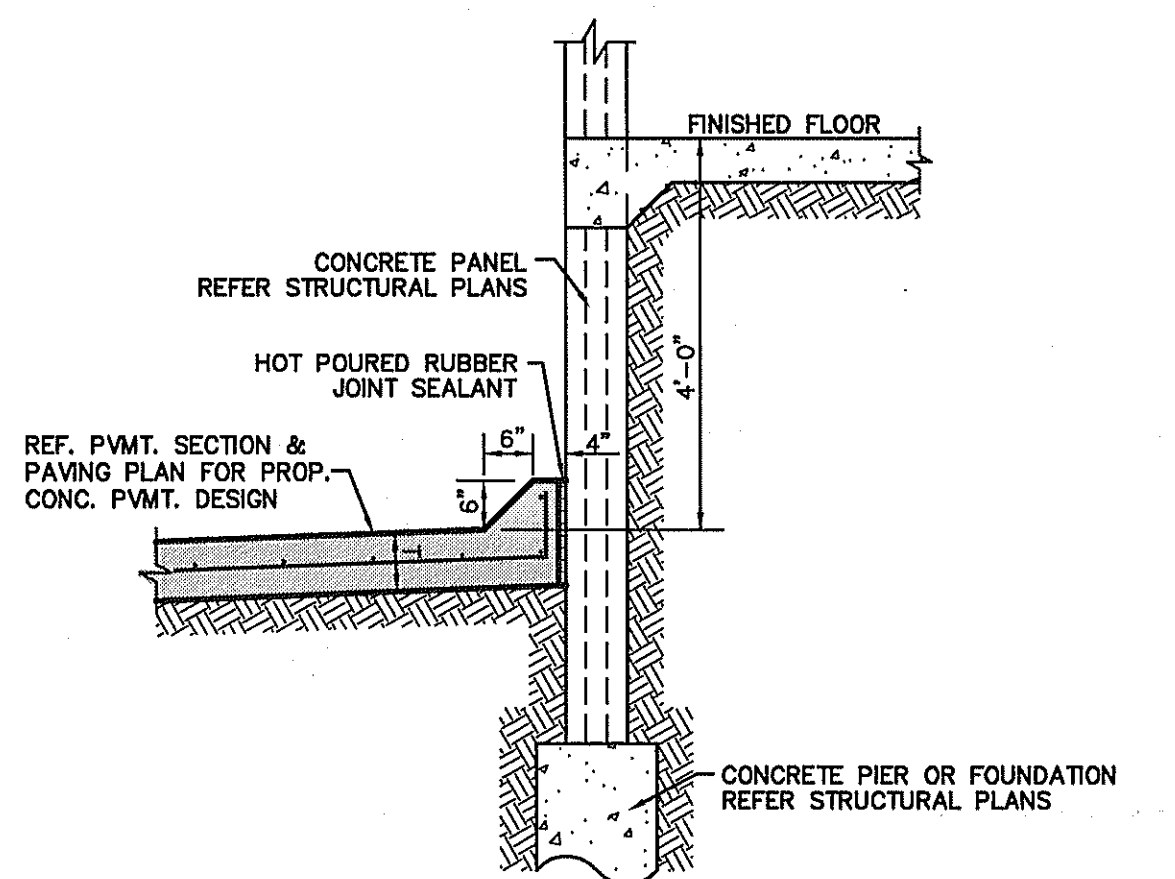
6 EXPANSION JOINT
NOT TO SCALE



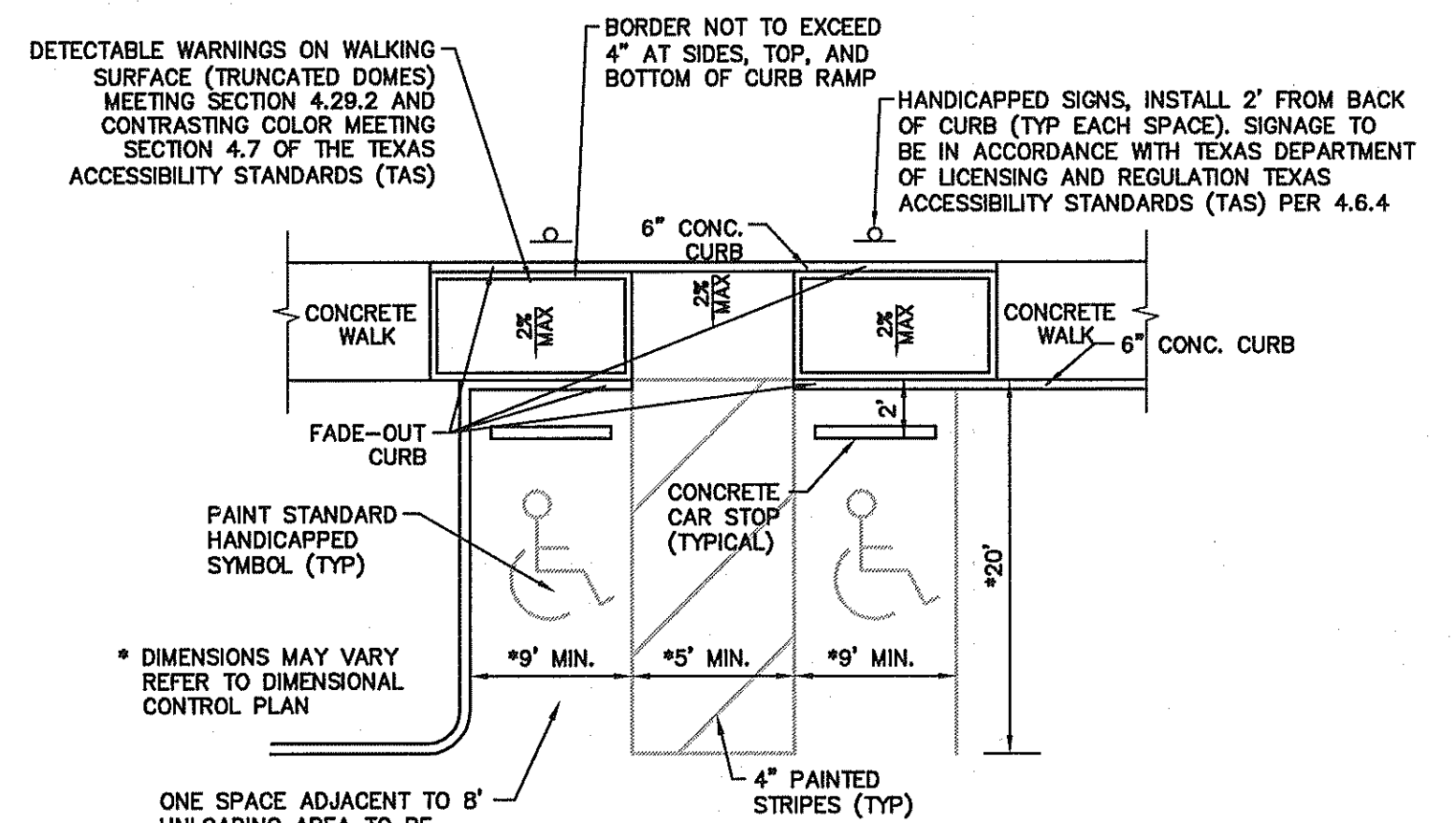
7 CONSTRUCTION JOINT
NOT TO SCALE



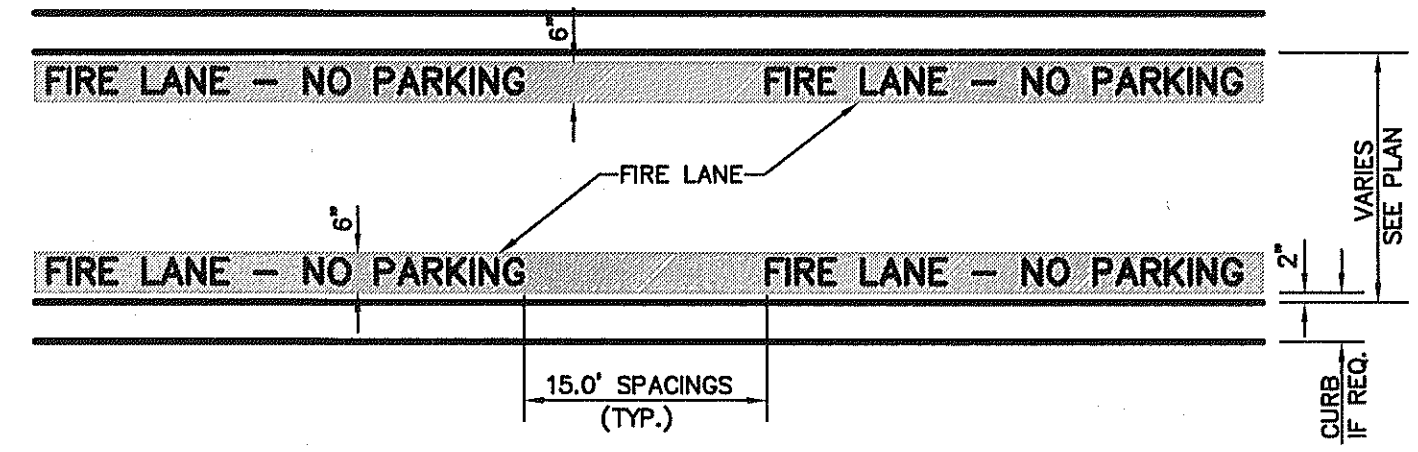
8 CONCRETE WALK PRIVATE
NOT TO SCALE



9 RAISED PAVEMENT AT TRUCK DOCK
NOT TO SCALE



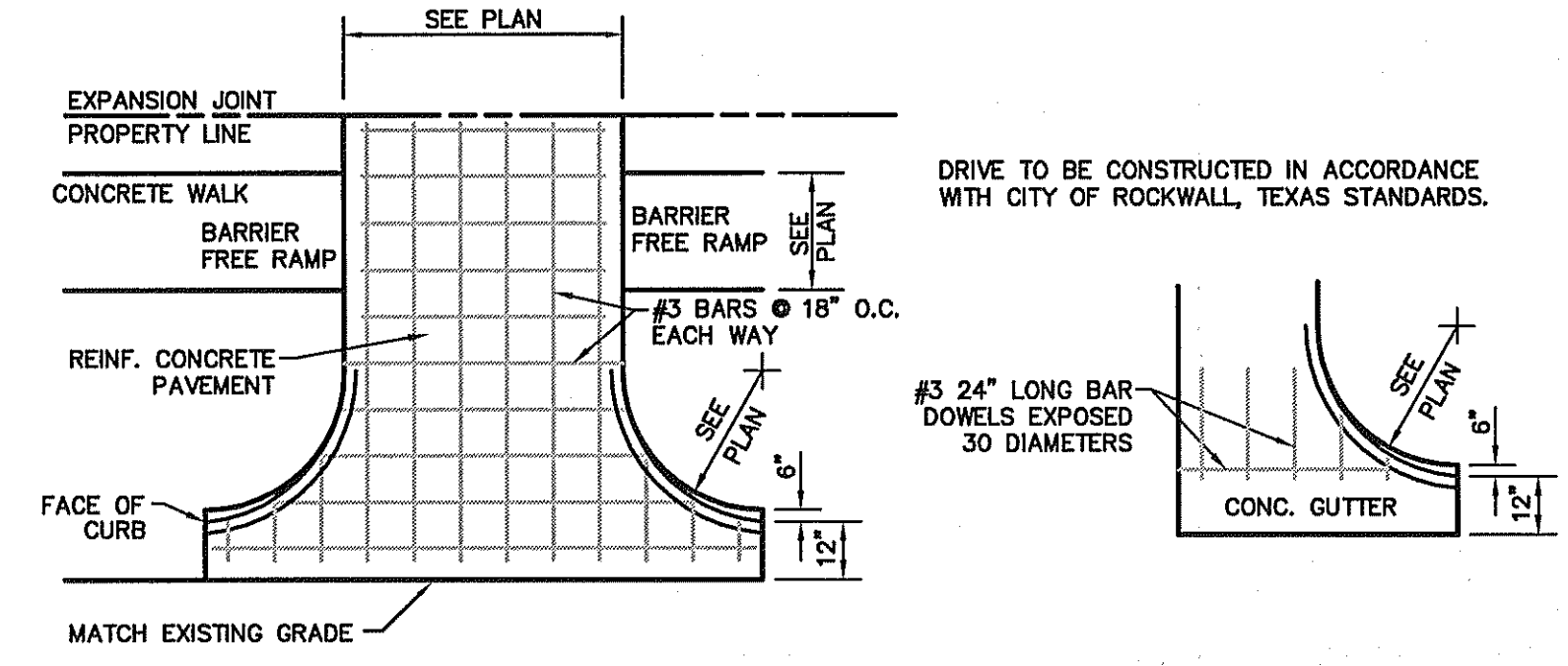
10 90° HANDICAP PARKING & TWO-WAY CURB RAMP
NOT TO SCALE



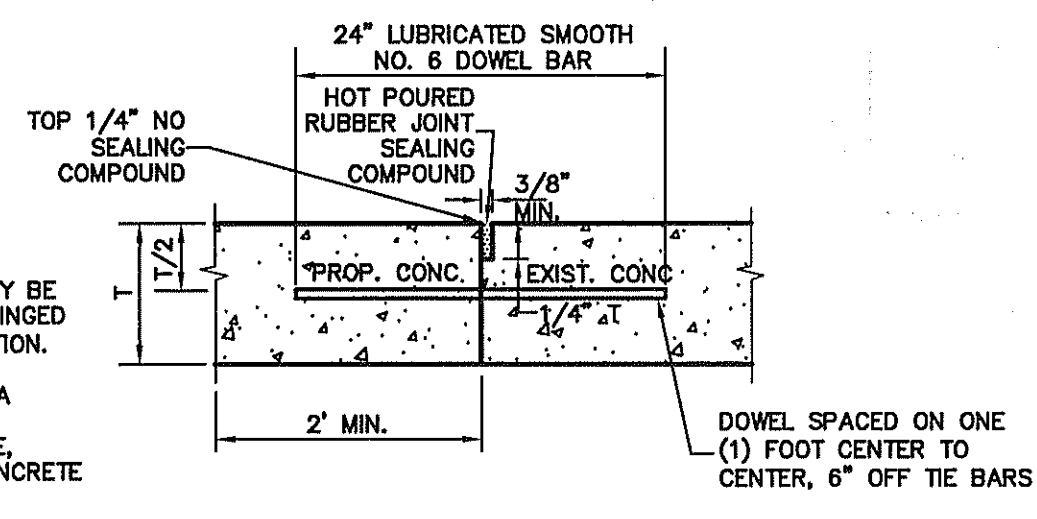
11 FIRE LANE STRIPING
NOT TO SCALE

GENERAL NOTE:
A. STRIPING TO BE DONE IN ACCORDANCE WITH CITY STANDARDS.

STRIPING DETAIL NOTE:
A. PAINT:
1. STRIPE SHALL BE SIX (6) INCHES WIDE PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT.
A. COLOR SHALL BE "TRAFFIC RED" GLIDDEN NO. 63251 OR EQUAL.
2. LETTERS SHALL BE FOUR (4) INCHES HIGH PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT.
B. COLOR SHALL BE "TRAFFIC WHITE" GLIDDEN NO. 563245 OR EQUAL.
B. APPLICATION:
1. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
2. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIED AND SPACED AS DETAILED ON THIS SHEET.



12 DRIVEWAY APPROACH
NOT TO SCALE



13 LONGITUDINAL BUTT JOINT
NOT TO SCALE

NOTES:
1. T=PAVEMENT THICKNESS
2. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
3. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

RECORD DRAWING

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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013

NO.	DATE	REVISION

Pacheco Koch 8350 N. CENTRAL EXPWY. SUITE 1000
DALLAS, TX 75206 972.235.3031
DALLAS • FORT WORTH • HOUSTON TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-100080-00

PAVING DETAILS
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	N.T.S.			C6.2

PK FILE: 3273-11.381 DWG FILE: 3273-11.381EP.DWG

G:\CHANGES\13 - 6-08\AM - 3273-11.381\DWG\C3273-11.381EP.DWG

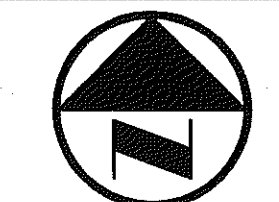


THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101930 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

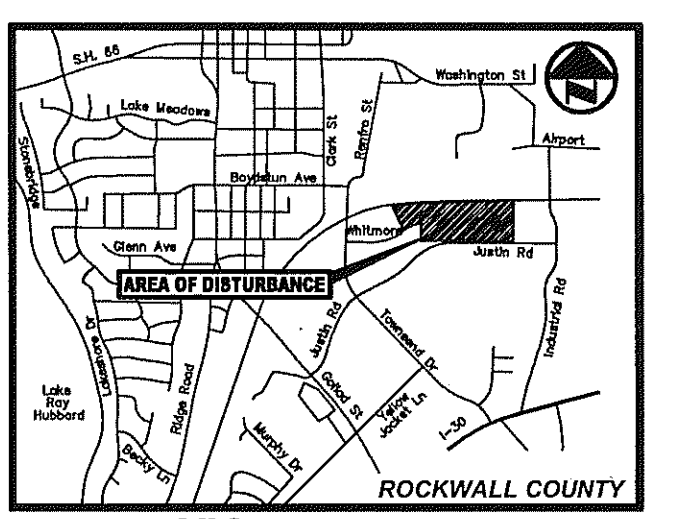
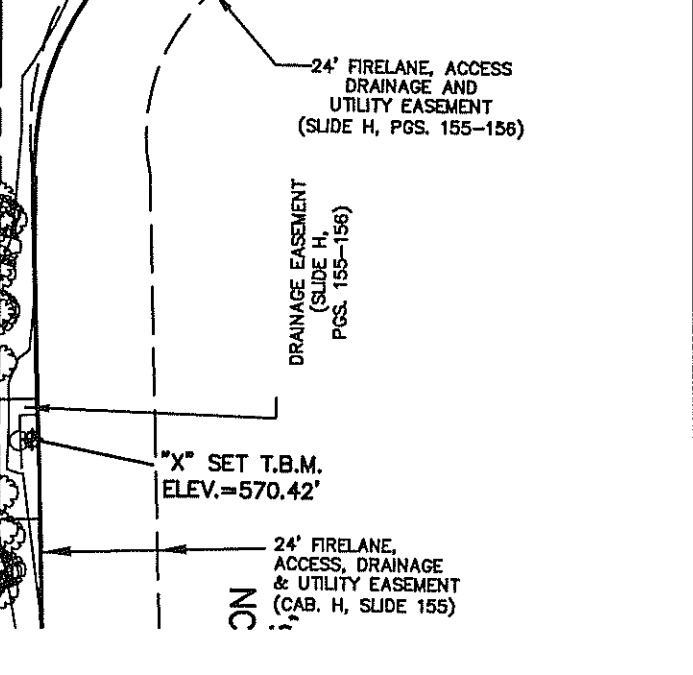
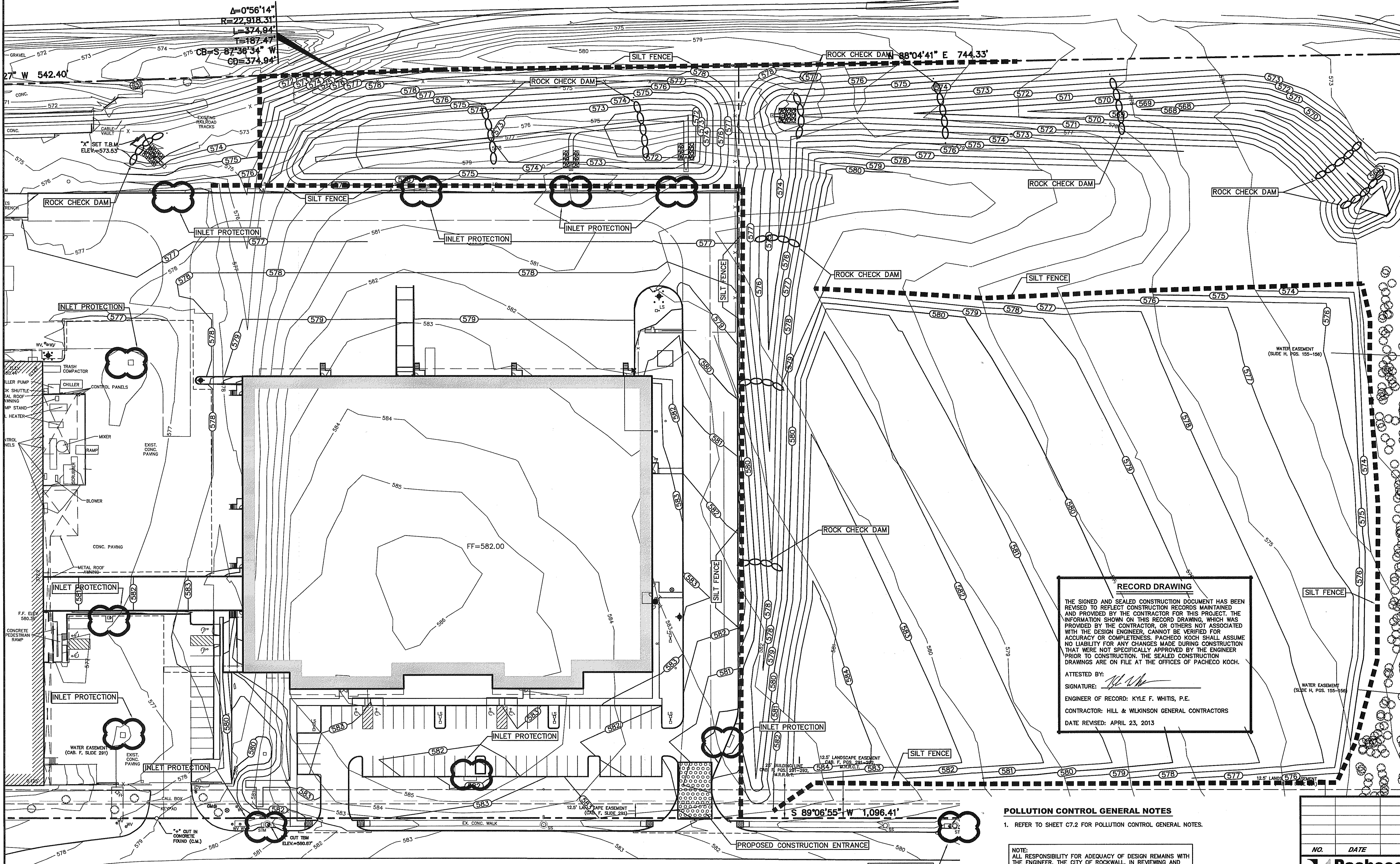
WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY)



0 20 40 80 120
GRAPHIC SCALE IN FEET



VICINITY MAP (NOT TO SCALE)

- #### LEGEND
- B. BOLLARD
 - EM. ELECTRIC METER
 - PP. POWER POLE
 - LS. LIGHT STANDARD
 - WM. WATER METER
 - WV. WATER VALVE
 - ICV. IRRIGATION CONTROL VALVE
 - FH. FIRE HYDRANT
 - CR. CLEANOUT
 - MH. MANHOLE
 - TSC. TRAFFIC SIGNAL CONTROL
 - TSP. TRAFFIC SIGNAL POLE
 - TELE. TELEPHONE BOX
 - JL. FLOOD LIGHT
 - FP. FLAG POLE
 - TR. TRAFFIC SIGN
 - IRS. 1/2-INCH IRON ROD W/ "PACHECO KOCH" CAP SET (C.M.) CONTROLLING MONUMENT
 - PROPERTY LINE
 - - - FENCE
 - 613 EXISTING CONTOUR
 - 577 PROPOSED CONTOUR
 - PROPOSED DRAINAGE DIRECTION
 - PROPOSED STABILIZED CONSTRUCTION ENTRANCE
 - INLET PROTECTION
 - SILT FENCE
 - ROCK CHECK DAM

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CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS

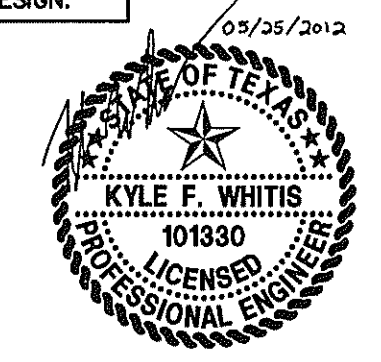
DATE REVISED: APRIL 23, 2013

POLLUTION CONTROL GENERAL NOTES

- REFER TO SHEET C7.2 FOR POLLUTION CONTROL GENERAL NOTES.

NOTE: ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

NOTE: SIDES AND BOTTOM OF DETENTION POND TO BE STABILIZED WITH EITHER SOD OR ANCHORED CURLEX PRIOR TO ANY PAVING. DETENTION SYSTEM (POND, GRADE TO DRAIN, CUTOFF STRUCTURE, ETC.) SHOULD BE COMPLETED AND FUNCTIONING PRIOR TO ANY PAVING.



PROJECT MANAGER:
C/MCOR
4500 W. ELDORADO PKWY
MCKINNEY, TEXAS 75070
214-544-9080

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BENCH MARK LIST

- BM# 1 "x" x "x" CUT FOUND, CENTER RADIUS POINT, EAST END OF WHITMORE DRIVE WEST OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, SOUTH OF LOT 4, BLOCK A - MUNICIPAL INDUSTRIAL PARK (6/30) ELEV=568.90'
- BM# 2 "x" x "x" CUT FOUND, 55.29' EAST OF THE SOUTHWESTERLY CORNER OF LOT 2, BLOCK A - WHITMORE INDUSTRIAL PARK, NORTH SIDE OF WHITMORE DRIVE ELEV=574.02'
- BM# 3 "x" x "x" CUT SET ON CONC. STORM INLET, NORTH SIDE OF JUSTIN ROAD 8' EAST OF THE SOUTHEASTERLY CORNER OF LOT 2, BLOCK A AND THE SOUTHWESTERLY CORNER OF LOT 3, BLOCK A - WHITMORE INDUSTRIAL PARK ELEV=580.87'

JUSTIN ROAD

(65' RIGHT-OF-WAY)

TOPOGRAPHIC SURVEY PREPARED BY:
NORTH TEXAS SURVEYING, L.L.C.
MICHAEL B. ARTHUR, RPLS NO. 5686
DATED: 12/09/2011

NOTE: ELEVATIONS SHOWN HAVE NOT BEEN VERIFIED ON THE GROUND BY PACHECO KOCH AND ARE BASED ON A TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER. CONTRACTOR IS TO CONFIRM EXISTING ELEVATIONS PRIOR TO COMMENCING WORK.

ARCHITECT:
JACOBS AND ASSOCIATES INC.
3737 MAPLESHADE LANE
PLANO, TEXAS 75075
972-331-5699

OWNER:
THE WHITMORE GROUP
830 WHITMORE DRIVE
ROCKWALL, TEXAS 75087
972-771-1000

NO.	DATE	REVISION

Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000
DALLAS, TX 75208 972.235.3031
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00
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EROSION CONTROL PLAN

WHITMORE MANUFACTURING

PHASE I EXPANSION

1250 JUSTIN ROAD

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

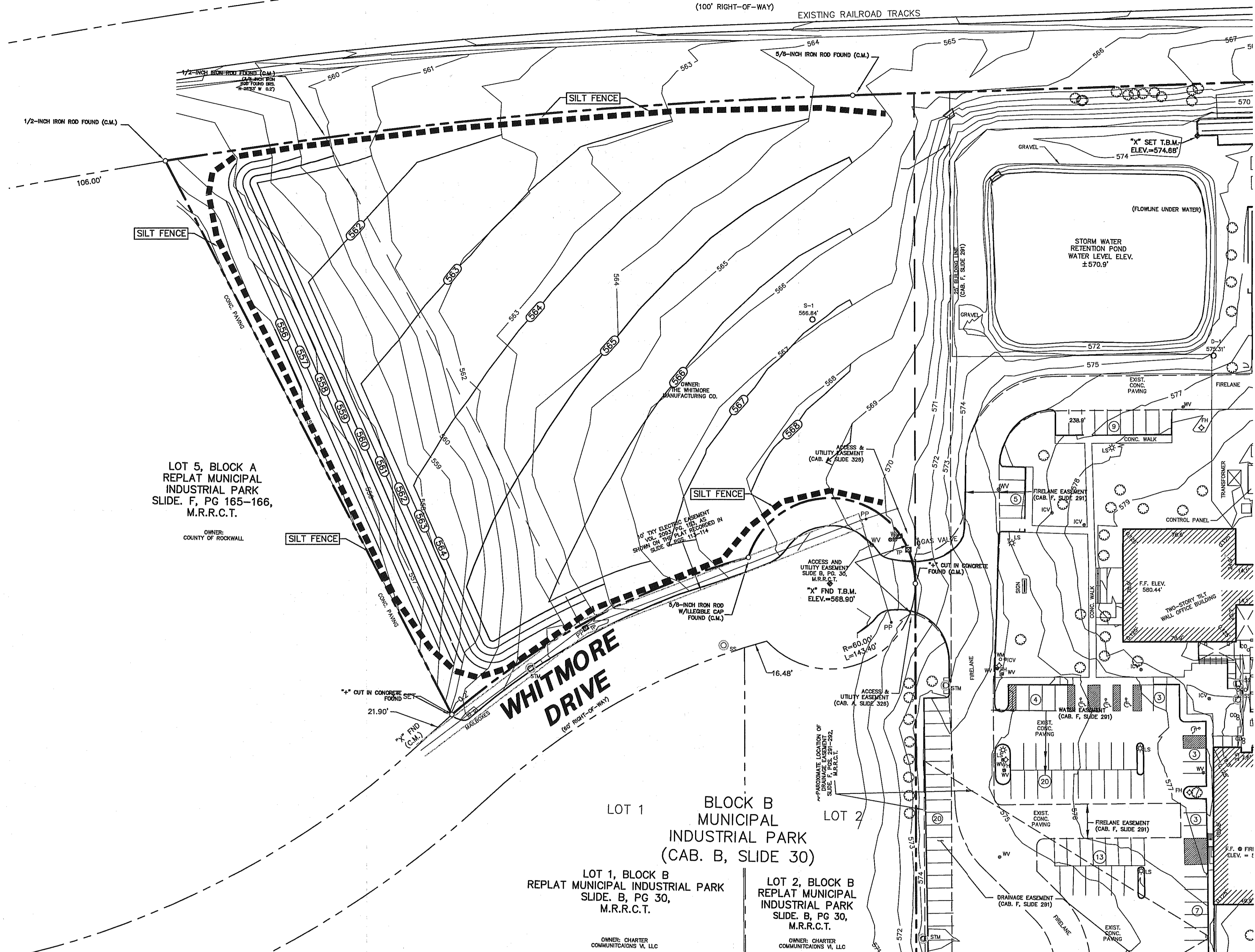
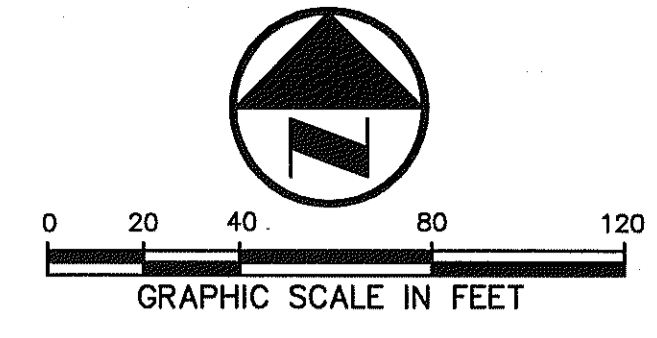
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KFW	GKH	MAY 2012	1"=40'			C7.1

04/24/2013 - 9:09AM
M:\DWG-32\3273-11.381P.DWG
C:\DWG-32\3273-11.381P.DWG

WHITMORE MANUFACTURING - PHASE I

M. K. & T. RAILROAD

(100' RIGHT-OF-WAY) EXISTING RAILROAD TRACKS



LOT 5, BLOCK A
REPLAT MUNICIPAL
INDUSTRIAL PARK
SLIDE. F, PG 165-166,
M.R.R.C.T.
OWNER: COUNTY OF ROCKWALL

WHITMORE
DRIVE
(60' RIGHT-OF-WAY)

LOT 1
BLOCK B
MUNICIPAL INDUSTRIAL PARK
(CAB. B, SLIDE 30)

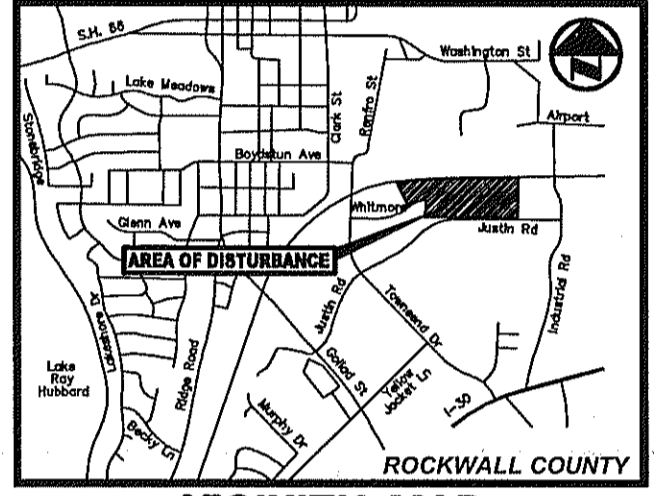
LOT 1, BLOCK B
REPLAT MUNICIPAL INDUSTRIAL PARK
SLIDE. B, PG 30,
M.R.R.C.T.
OWNER: CHARTER COMMUNICATIONS VI, LLC

LOT 2, BLOCK B
REPLAT MUNICIPAL INDUSTRIAL PARK
SLIDE. B, PG 30,
M.R.R.C.T.
OWNER: CHARTER COMMUNICATIONS VI, LLC

RECORD DRAWING

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ATTESTED BY:
SIGNATURE: *[Signature]*
ENGINEER OF RECORD: KYLE F. WHITIS, P.E.
CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013



VICINITY MAP
(NOT TO SCALE)

LEGEND

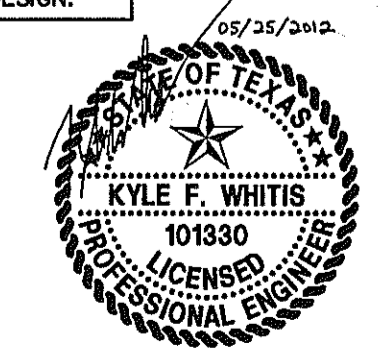
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- W ⊕ PACHECO KOCH CAP SET
- (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- - - FENCE
- - - G1.3 EXISTING CONTOUR
- - - (57.7) PROPOSED CONTOUR
- - - PROPOSED DRAINAGE DIRECTION
- ⊕ PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- ⊕ INLET PROTECTION
- - - SILT FENCE
- ⊕ ROCK CHECK DAM

POLLUTION CONTROL GENERAL NOTES

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TOPOGRAPHIC SURVEY PREPARED BY:
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MICHAEL B. ARTHUR, RPLS NO. 5688
DATED: 12/09/2011

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THE WHITMORE GROUP
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NO.	DATE	REVISION

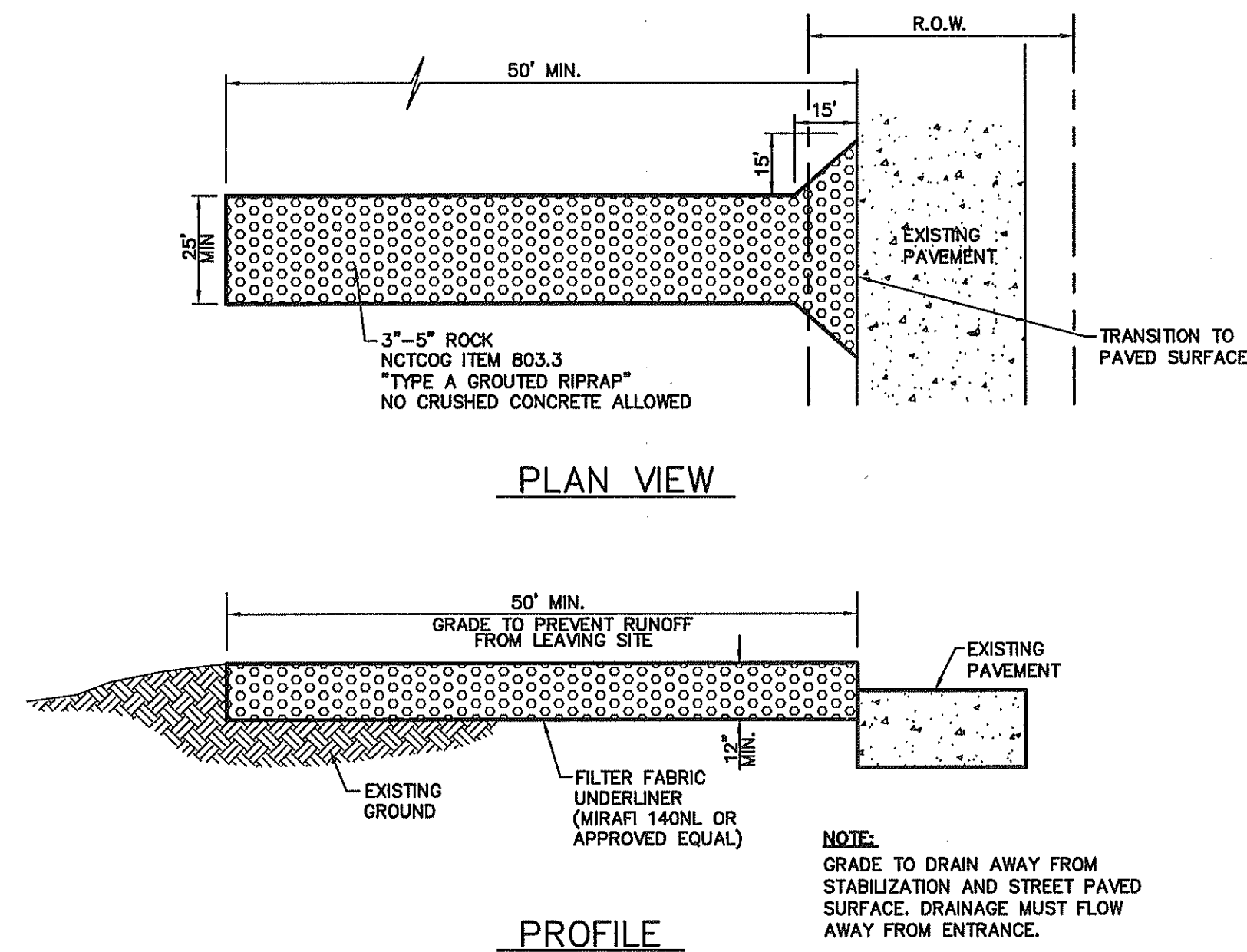
Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000
DALLAS, TX 75206 972.235.3031
TX REG. ENGINEERING FIRM F-489
DALLAS • FORT WORTH • HOUSTON TX REG. SURVEYING FIRM LS-100080-00

EROSION CONTROL PLAN
WHITMORE MANUFACTURING
PHASE I EXPANSION
1250 JUSTIN ROAD
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

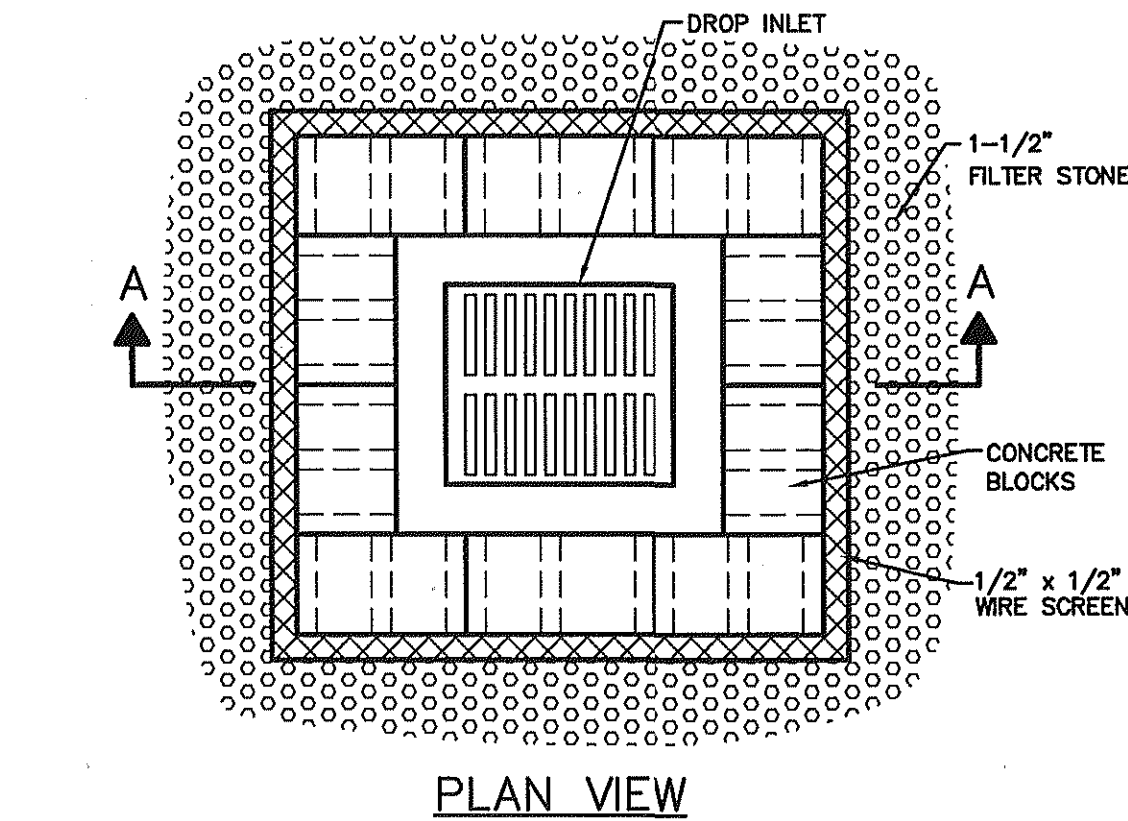
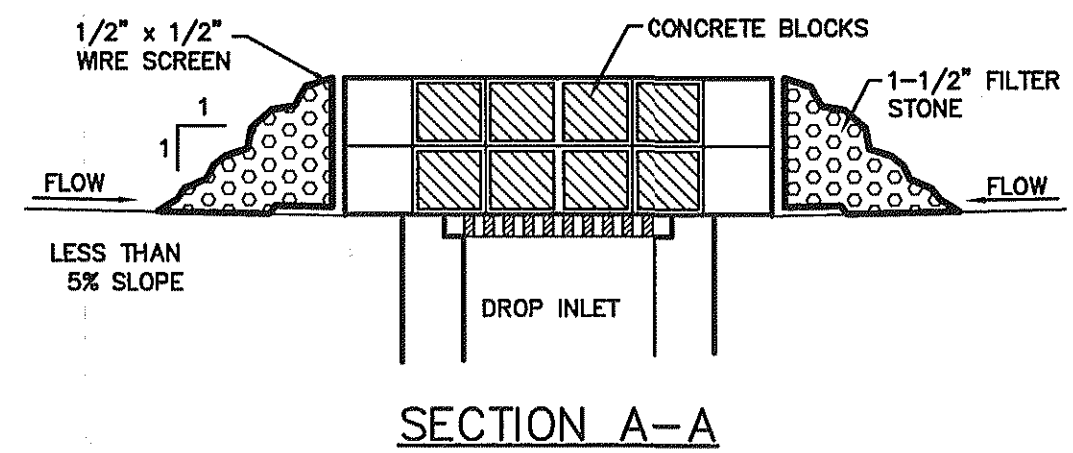
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KFW	GKH	MAY 2012	1"=40'			C7.2

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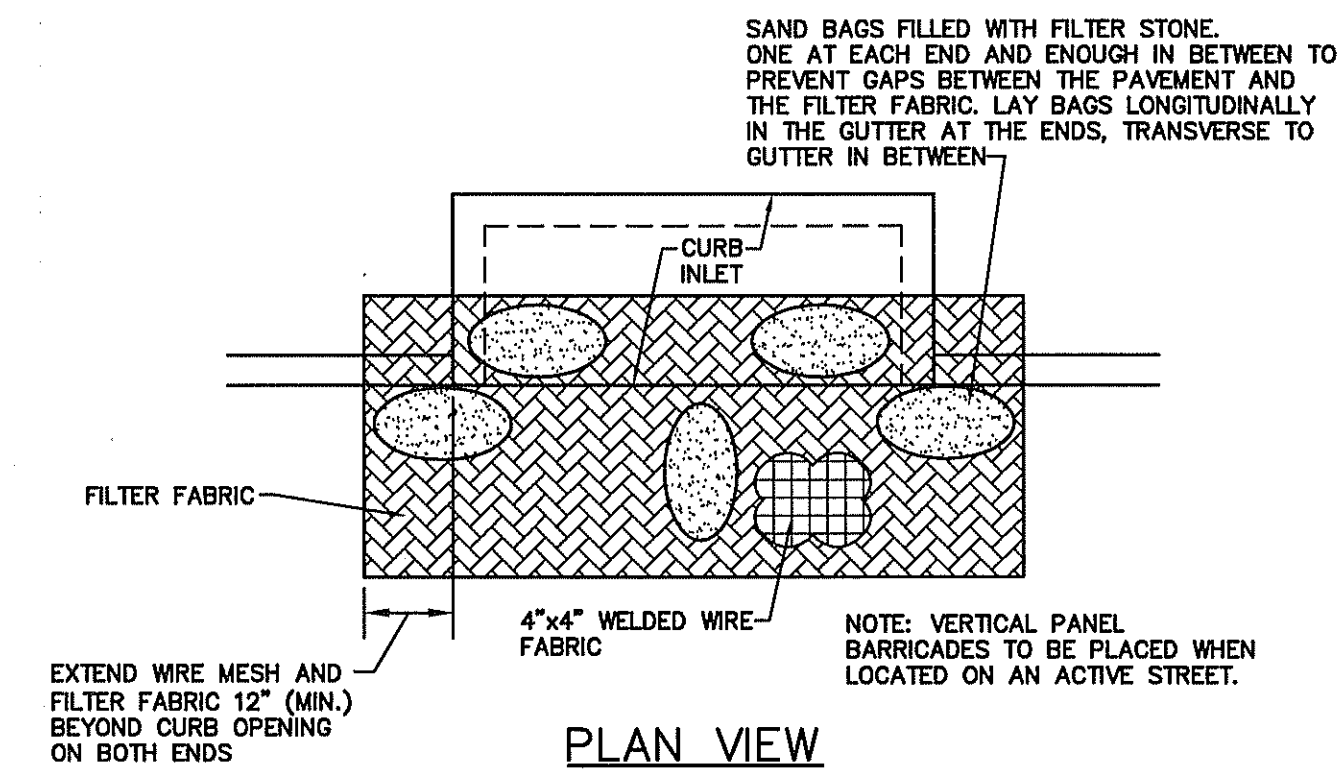
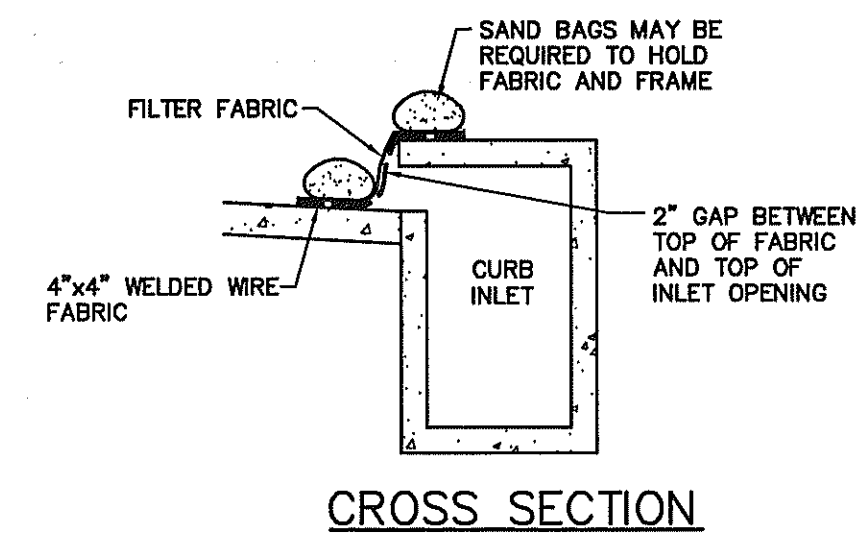
WHITMORE MANUFACTURING - PHASE I



1 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



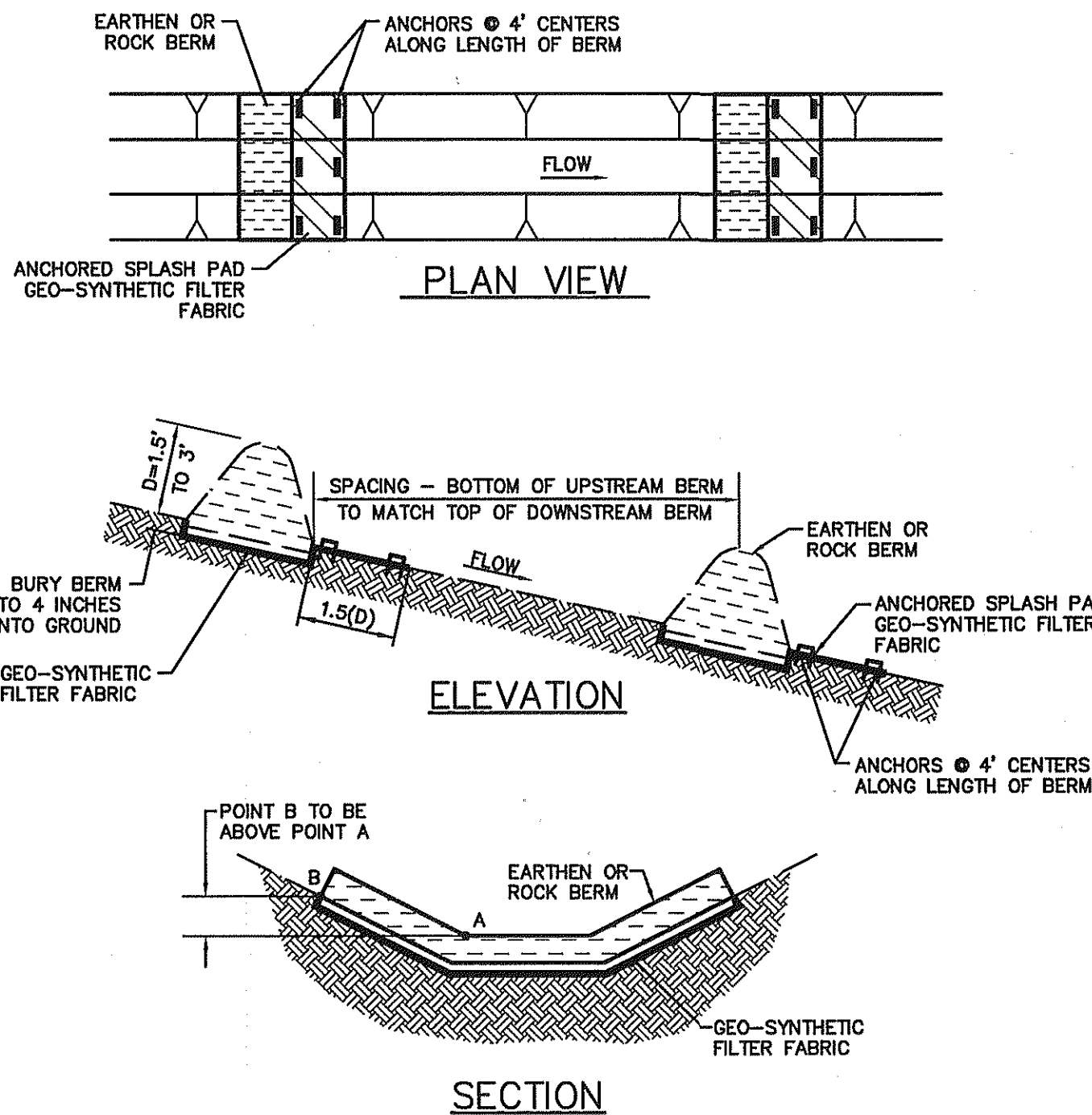
2 DROP INLET PROTECTION
NOT TO SCALE



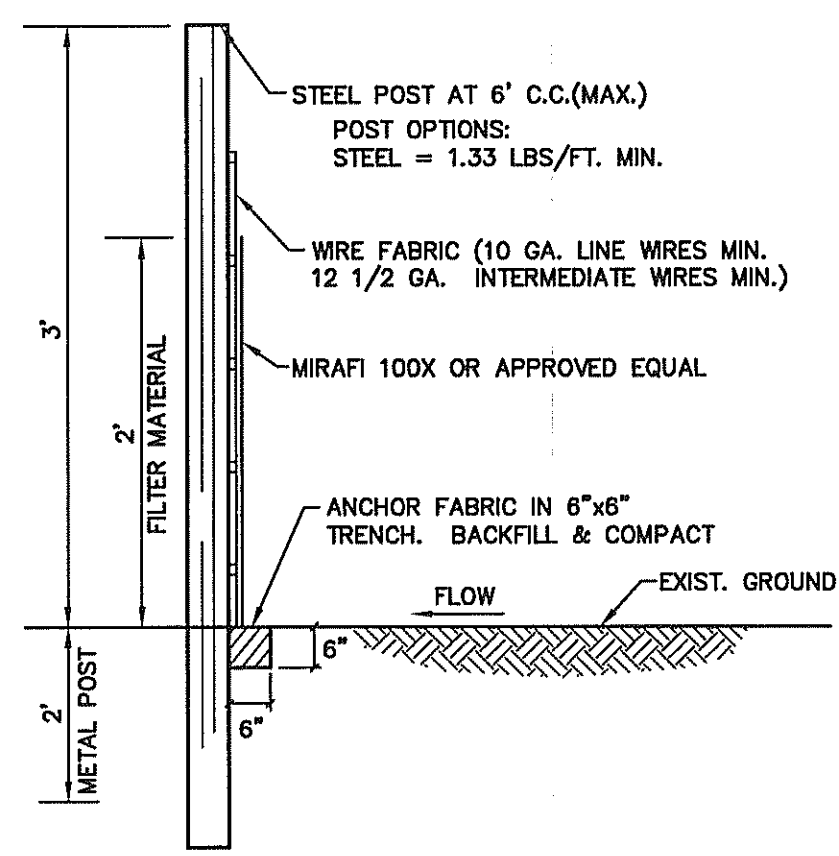
3 CURB INLET PROTECTION
NOT TO SCALE

POLLUTION CONTROL GENERAL NOTES

- THIS PLAN HAS BEEN PREPARED TO PROVIDE MEANS TO PREVENT OR MINIMIZE POLLUTION OF STORM WATER.
- THE CONSTRUCTION ACTIVITY INCLUDED IN THIS PLAN WILL INCLUDE:
 - CLEARING AND GRUBBING
 - ROUGH GRADING
 - FINAL GRADING
 - UTILITY INSTALLATION
 - PAVEMENT INSTALLATION
 - BUILDING CONSTRUCTION
- THE TOTAL ESTIMATED LAND AREA TO BE DISTURBED IS 6.378 ACRES.
- THE ESTIMATED RUNOFF COEFFICIENT UPON COMPLETION OF THE PROJECT IS 0.90.
- THE STORM WATER EXITING THE SITE IS COLLECTED IN AN EXISTING DRAINAGE SYSTEM MAINTAINED BY THE CITY OF ROCKWALL, TEXAS.
- THE SOILS ON THE SITE ARE GENERALLY EXPANSIVE CLAYS.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION PROTECTION AROUND THE WORK AREA PERIMETER AND AT ALL INLET MOUTHS PRIOR TO COMMENCING WORK AND UNTIL THE WORK AREA HAS BEEN STABILIZED.
- THE CONTRACTOR WILL REMOVE ALL EXCESS SOIL FROM CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE.
- ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED FOR A MINIMUM OF 21 DAYS MUST BE STABILIZED BY THE CONTRACTOR TO CONTROL EROSION.
- THE CONTRACTOR SHALL UNDERTAKE PROPER METHODS TO REDUCE DUST GENERATION FROM THE SITE.
- THE CONTRACTOR MUST COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS REGARDING SEDIMENT AND EROSION CONTROL.
- A COPY OF THIS PLAN MUST BE KEPT AT THE CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.
- CONSTRUCTION SEQUENCING MUST PROVIDE FOR THE EXCAVATION OF AN ON-SITE BASIN AS A SEDIMENT COLLECTION BASIN PRIOR TO THE DISTURBANCE OF GREATER THAN 10 ACRES OF LAND.
- ALL FINISHED GRADES ARE TO BE SPOT SODDED OR SEEDED AND WATERED NO LONGER THAN THIRTY (30) DAYS WHILE UNDER STAGE II WATER RESTRICTIONS UNTIL GROWTH IS ESTABLISHED ON AND OFF-SITE.
- A PIT OR WASH OUT BASIN SHALL BE CONSTRUCTED ON-SITE BY THE CONTRACTOR FOR THE "WASH OUT" OF CONCRETE TRUCKS.
- A BERM OR OTHER SPILL PROTECTION MEASURE SHALL BE USED FOR ANY TEMPORARY FUEL STORAGE TANK ON-SITE.
- IF "SUMP" PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE.
- TO PREVENT DAMAGE TO VEGETATION IN DOWNSTREAM WATER COURSES, LIMIT ANY PROPOSED LIME STABILIZATION OPERATIONS TO THAT WHICH CAN BE MIXED AND COMPACTED BY THE END OF EACH WORK DAY. GEOTEXTILE FABRIC IS NOT EFFECTIVE IN FILTERING LIME SINCE THE GRAIN SIZE IS SMALLER THAN THE OPENING IN THE FABRIC.
- VEHICLE PARKING AREAS, STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THE AREAS WITH PROTECTIVE MEASURES SHALL BE NECESSARY.
- STORE ALL TRASH AND BUILDING MATERIALS WASTE IN AN ENCLOSURE UNTIL IT CAN BE PROPERLY DISPOSED OF AT THE APPROPRIATE OFF-SITE FACILITIES.
- TRACKING OF SEDIMENT OFF-SITE BY TRUCK TRAFFIC SHALL BE HANDLED THROUGH REGULAR CLEANING.
- INSPECTIONS SHALL BE CONDUCTED BY THE PERMITEE ONCE EVERY TWO WEEKS AND WITHIN 24 HOURS AFTER STORM EVENT OF 0.5 INCHES OR MORE. THE INSPECTIONS WILL INCLUDE:
 - DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN STABILIZED.
 - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
 - STRUCTURAL CONTROL MEASURES.
 - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
 - IDENTIFICATIONS OF MEASURES THAT NEED TO BE MAINTAINED, MODIFIED, OR ADDED TO CORRECT PROBLEMS.
- CONTRACTOR SHALL PREVENT THE DISCHARGE OF BUILDING MATERIALS, LIME, CEMENT, CONCRETE, ASPHALT, AND MORTAR TO THE MS4 OR TO THE WATERS OF THE UNITED STATES.
- PERMANENTLY STABILIZE EXPOSED SOIL, WITHIN AND ADJACENT TO THE SITE, THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION ACTIVITIES.
- CONTAIN ALL RUNOFF FROM MATERIAL USED IN SUBGRADE STABILIZATION.
- MATERIAL STOCKPILES SHALL BE COVERED BY PLASTIC OR SURROUNDED BY EROSION CONTROL STRUCTURES TO CONTROL SEDIMENT RELEASES.
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY SHALL BE SODDED.
- 75-80% OF ALL DISTURBED AREAS TO HAVE A MIN. OF 1" TALL GRASS PRIOR TO ENGINEERING ACCEPTANCE.



5 CHECK DAMS
NOT TO SCALE

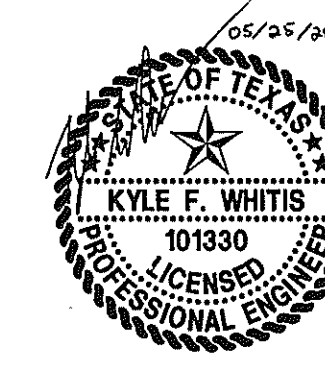


4 SILT FENCE
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CONTRACTOR: HILL & WILKINSON GENERAL CONTRACTORS
DATE REVISED: APRIL 23, 2013



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KYLE F. WHITIS, P.E. 101330 ON 05/25/2012. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

NO.	DATE	REVISION				
Pacheco Koch 8350 N. CENTRAL EXPWY, SUITE 1000 DALLAS, TX 75206 972.235.3031 TX REG. ENGINEERING FIRM F-489						
EROSION CONTROL DETAILS						
WHITMORE MANUFACTURING						
PHASE I EXPANSION						
1250 JUSTIN ROAD						
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS						
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
KFW	GKH	MAY 2012	N.T.S.			C7.3