GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE MOST CURRENT EDITION OF THE CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION, AND THE 3RD EDITION OF THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. IN THE EVENT THAT AN ITEM IS NOT COVERED IN THE CONSTRUCTION DOCUMENTS, THE CITY'S DECISION WILL APPLY.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, BONDS, AND APPROVALS BEFORE CONSTRUCTION BEGINS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CITY OF ROCKWALL – PUBLIC WORKS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. THE TYPES AND INSTALLATION LOCATIONS OF TEMPORARY BARRICADES AND SIGNS DURING CONSTRUCTION SHALL CONFORM TO THE LATEST ISSUE OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. EXISTING ROADS AND STREETS SHALL BE KEPT OPEN TO TRAFFIC AT ALL TIMES. THE CONTRACTOR SHALL ARRANGE THE SETTING OF BARRICADES SO AS TO CLOSE ONLY ONE LANE OF A ROADWAY AT A TIME (FOR CONSTRUCTION OF TURN LANES). ALL CONSTRUCTION OPERATIONS SHALL BE CONDUCTED TO PROVIDE THE LEAST POSSIBLE INTERFERENCE TO TRAFFIC AS PROVIDED IN THE SPECIFICATIONS AND/OR AS DIRECTED BY THE CITY. CONTRACTOR SHALL USE BARRICADES AND OTHER WARNING DEVICES TO ADEQUATELY AND PROPERLY MARK AND PROTECT ALL AREAS UNDER CONSTRUCTION. CONTRACTOR SHALL NOT CLOSE ANY PUBLIC STREET OR RIGHT–OF–WAY WITHOUT WRITTEN APPROVAL FROM THE CITY OF ROCKWALL.
6. CONTRACTOR SHALL EXERCISE CAUTION AND MAINTAIN A CLEAR ZONE BETWEEN THE CONTRACTORS EQUIPMENT AND ANY FRANCHISE UTILITY LINES. THIS CLEAR ZONE SHALL BE AS RECOMMENDED BY THE APPLICABLE FRANCHISE UTILITY COMPANY.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN A NEAT AND ACCURATE RECORD OF CONSTRUCTION FOR THE CITY'S RECORDS. THE CONTRACTOR SHALL PROVIDE THE CITY "AS–BUILT" MARK–UPS THAT RECORD ALL CONSTRUCTION DEVIATING FROM THE PLANS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRENCH SAFETY PLAN TO THE CITY OF ROCKWALL ENGINEERING DEPARTMENT AT THE TIME OF THE PRECONSTRUCTION MEETING, OR PRIOR TO BEGINNING CONSTRUCTION OF THESE IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY STANDARDS, TEXAS STATE LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT WITHOUT THE PRIOR SPECIFIC WRITTEN APPROVAL OF THE CITY OF ROCKWALL PUBLIC WORKS DEPARTMENT. ON–SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. CONTRACTOR SHALL NOT STORE MATERIALS, EQUIPMENT OR OTHER CONSTRUCTION ITEMS ON ADJACENT PROPERTIES OR RIGHTS–OF–WAY WITHOUT THE PRIOR WRITTEN CONSENT OF THE PROPERTY OWNER AND THE CITY OF ROCKWALL. ALL CONSTRUCTION MATERIALS TO BE REMOVED SHALL BE DISPOSED OF AT A LOCATION OFF–SITE, UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE PROPERTY OWNER AND THE CITY OF ROCKWALL. CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC ACCESS TO ALL ABUTTING PROPERTY.
10. DURING CONSTRUCTION, ALL MATERIAL TESTING SHALL BE COORDINATED WITH THE CITY OF ROCKWALL'S CONSTRUCTION INSPECTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATION FOR COMPACTION REQUIREMENTS. INITIAL TESTING WILL BE SCHEDULED, AND PAID FOR, BY THE OWNER, AND ANY REQUIRED RETESTING WILL BE SCHEDULED AND PAID FOR BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE SILT FENCES, OR OTHER METHODS APPROVED BY THE ENGINEER AND CITY, AS REQUIRED, TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE OF INTENT AND CONSTRUCTION SITE NOTICE TO THE TCEQ. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS MEASUREING 1" IN HEIGHT AND COVERING 75% OF ALL DISTRURBED AREA.
12. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR AT HIS EXPENSE, UNLESS OTHERWISE SPECIFIED OR AGREED TO BY OWNER. NO FILL SHALL BE PLACED IN CITY LIMITS WITHOUT A FILL PERMIT FROM THE CITY OF ROCKWALL.
13. THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS, APPROVED BY THE CITY AND ENGINEER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION SURVEYING.
15. UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM FIELD SURVEYS AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. THE COMPLETENESS AND ACCURACY OF THIS DATA IS NOT GUARANTEED.
16. WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE CITY.
17. FINISHED SLOPES ON PUBLIC RIGHT–OF–WAY AND EASEMENTS SHALL NOT BE STEEPER THAN 3:1. ALL SLOPES STEEPER THAN 6:1 SHALL BE HYDROMULCHED AND MAINTAINED BY THE CONTRACTOR UNTIL GRASS COVERS ALL PARTS OF THE SLOPE. GRASS MUST BE LUSH, GREEN, VIGOROUS AND GROWING. NO BARE SPOTS OVER ONE SQUARE FOOT WILL BE ALLOWED. ALL RUTS FROM "WASHING" MUST BE FILLED AND GRASSED.
18. ALL CONSTRUCTION, TESTING AND MATERIALS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE CITY OF ROCKWALL.

GENERAL NOTES (CONT'D.)

19. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITIES AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. HE SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
21. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
22. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND CITY INSPECTOR. THE PROJECT GEOTECHNICAL ENGINEER WILL REVIEW TEST RESULTS AND COMPARE SAID RESULTS TO THE PROJECT SPECIFICATIONS TO ENSURE COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE GEOTECHNICAL ENGINEER SHALL BE PRESENT AT THE PRE–CONSTRUCTION MEETING TO ENSURE HIS KNOWLEDGE OF THE PROJECT TESTING REQUIREMENTS.
23. CONTRACTOR SHALL VERIFY BENCHMARKS AND DATUMS PRIOR TO COMMENCING CONSTRUCTION OR STAKING IMPROVEMENTS.
24. ALL EARTHWORK, UTILITY, AND PAVING OPERATIONS SHALL BE PER THE GEOTECHNICAL EVALUATION BY KLEINFELDER, PROJECT NO. 91221.1, DATED MARCH 28, 2008

    NOTE: ALL 3RD EDITION STD. NCTCOG DETAILS SHALL BE MODIFIED AS NECESSARY AND AS APPLICABLE TO CONFORM TO CITY OF ROCKWALL SPECIFICATIONS AND STANDARDS. (AS SHOWN)
25. ALL FILL TO BE COMPACTED WITH A SHEEPS FOOT ROLLER AND TO A MINIMUM OF 95% STANDARD DENSITY.
26. USE CITY OF ROCKWALL AND NCTCOG 3RD EDITION STANDARDS.
27. ALL MANHOLES LOCATED IN PAVEMENT ARE TO BE SEALED.
28. ALL WALLS 4' AND TALLER MUST BE APPROVED BY DESIGN ENGINEER AND A LETTER SUBMITTED TO THE CITY SIGNED AND SEALED STATING THAT THE DESIGN ENGINEER INSPECTED THE WALL DURING CONSTRUCTION AND AFTER AND THE WALL IS BUILT TO DESIGN.
29. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ ENGINEER SHALL BE NOTIFIED OF ANY DISCREPENCIES PRIOR TO COMMENCING W/ CONSTRUCTION.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.

PAVING NOTES

1. REINFORCED CONCRETE PAVEMENT:
   A. ALL CURBS SHALL BE PLACED INTEGRAL WITH THE PAVEMENT.
   B. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS THE PAVEMENT.
   C. BAR LAPS SHALL BE 30 DIAMETERS.
   C. REINFORCING BARS SHALL BE SUPPORTED BY CHAIRS OR OTHER DEVICES APPROVED BY THE OWNER
2. EXACT LOCATION OF STREET LIGHT CONDUIT TO BE DEFINED BY THE CITY AND ONCOR PRIOR TO CONSTRUCTION. STREET LIGHT CONDUIT (2" PVC SCHEDULE 40 ELECT. CONDUIT) TO BE INSTALLED WITH A 3' BURIED DEPTH.
3. THE PAVING CONTRACTOR SHALL NOT PLACE PERMANENT PAVEMENT UNTIL ALL SLEEVING FOR IRRIGATION, ELECTRIC, GAS, TELEPHONE, CABLE TV, SITE LIGHTING, ETC. HAS BEEN INSTALLED. IT SHALL BE THE PAVING CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL SLEEVING IS IN PLACE PRIOR TO PLACING PERMANENT PAVEMENT.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE CITY ENGINEER WITH A CONCRETE MIX DESIGN AT THE PRE–CONSTRUCTION MEETING. THE COST OF THIS DESIGN SHALL BE INCLUDED IN THE UNIT PRICE OF PAVEMENT MATERIAL OR AT LEAST 10 DAYS PRIOR TO POUR.
5. ALL DISTURBED AREAS, INCLUDING MEDIANS, SHALL BE HYDROMULCH SEEDED IMMEDIATELY FOLLOWING FINISHED GRADING EXCEPT ALL DISTURBED PUBLIC ROW AREAS SHALL BE SODDED.
6. EXPANSION AND CONTRACTION JOINTS SHALL BE LOCATED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
7. MANHOLES AND VALVE BOXES WILL NOT BE BLOCKED OUT. PAVEMENT CONSTRUCTION TO RUN CONTINUOUS.
8. SUBGRADE UNDER ALL PAVEMENT SHALL BE PER THE KLEINFELDER CENTRAL, INC. PROJECT NO. 91221.1, DATED MARCH 28, 2008. LABORATORY TESTS MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL TO DETERMINE FINAL AMOUNT OF LIME REQUIRED. NO SAND ALLOWED UNDER PAVEMENT.
9. PAVEMENT SIGNING AND MARKING (BOTH TEMPORARY AND PERMANENT) SHALL BE INSTALLED ON ALL NEW PAVEMENT PER THE PLANS, SPECIFICATIONS, AND CITY OF ROCKWALL STANDARDS.
10. UNLESS OTHERWISE NOTED, ALL CURB DIMENSIONS ARE TO FACE OF CURB.
11. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN TXDOT RIGHT–OF–WAY SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATIONS AND STANDARDS (LATEST EDITION).
12. ALL UNPAVED AREAS IN EXISTING RIGHT–OF–WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REGRADED AND LANDSCAPED (INCLUDING SOD).
13. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS, UNLESS NOTED OTHERWISE.

PAVING NOTES (CONT'D.)

14. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL FULL DEPTH SAW CUT THE EXISTING PAVEMENT FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED AND INSTALLED WITH A LONGITUDINAL BUTT JOINT.
15. THE CONTRACTOR SHALL INSTALL VALLEY GUTTERS AND WARP CURB RETURN PAVEMENT AS NECESSARY TO ENSURE POSITIVE DRAINAGE PER THE DRAINAGE AREA MAP.

UTILITY NOTES

1. THE CONTRACTOR SHALL CONTACT ALL NECESSARY PUBLIC AGENCIES AND UTILITY COMPANIES AND FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES A MINIMUM OF 48 HOURS BEFORE BEGINNING ANY CONSTRUCTION WITHIN THE PROJECT LIMITS. AN INFORMAL LIST OF UTILITY COMPANIES FOLLOWS:

   CITY OF ROCKWALL (972) 771–7730 ATMOS ENERGY (972) 485–6277

   ONCOR ELECTRIC (972) 569–6310 AT&T (903) 457–2200

   CHARTER COMMUNICATIONS (817) 298–3655

   IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL RELEVANT UTILITY COMPANIES REGARDLESS OF THEIR POSSIBLE EXCLUSION FROM THIS LIST.

   THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS WERE TAKEN FROM RECORDS WHICH MAY NOT HAVE BEEN COMPLETELY ACCURATE. THEREFORE, THE PRESENCE, LOCATION, AND ELEVATION OF EXISTING UTILITIES IN THE FIELD SHALL BE VERIFIED BY THE CONTRACTOR BEFORE COMMENCING WORK. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. FAILURE OF ANY EXISTING UTILITY TO APPEAR ON THE PLANS OR RECORD SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROTECT AND REPAIR, IF DAMAGED, SUCH UTILITIES. ANY REPAIR TO LINES DAMAGED BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE.

   THE CONTRACTOR SHALL PROTECT ALL PUBLIC UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEAN–OUTS, WATER VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES MUST BE ADJUSTED TO PROPER LINE AND GRADE BEFORE FINAL ACCEPTANCE BY THE CITY OF ROCKWALL.

   THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO (2) FOOT VERTICAL CLEARANCE BETWEEN ALL UNDERGROUND UTILITIES, UNLESS NOTED OTHERWISE ON PLANS.
2. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE, STRUCTURES, AND FITTINGS SHALL BE INSPECTED BY THE CITY INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING TESTING OF ALL MAINS, AND APPURTENANCES.
3. THE PROPOSED 12" WATER MAINS SHALL HAVE A MINIMUM COVER OF FOUR (4') FEET MEASURED FROM THE TOP OF THE PROPOSED GRADE TO THE TOP OF PROPOSED PIPE.
4. ALL CAST IRON FITTINGS SHALL BE POLYWRAPPED.
5. ARRANGEMENTS FOR CONSTRUCTION WATER TO BE THROUGH CITY OF ROCKWALL SERVICE CENTER (972–771–7730).
6. NO EXISTING VALVE OR HYDRANT SHALL BE OPERATED, OR ANY EXISTING MAIN TAPPED, WITHOUT PRIOR AUTHORIZATION FROM CITY OF ROCKWALL DEPARTMENT OF PUBLIC WORKS.
7. BACKFILL SHALL CONFORM TO THE CONTRACT SPECIFICATIONS AND TO ANY APPLICABLE CITY STANDARDS. NO JETTING SHALL BE ALLOWED. BACKFILL SHALL BE FREE FLOWING, FREE OF ROCKS AND LARGE CLODS. BACKFILL SHALL BE PLACED IN 6– TO 9–INCH LIFTS AT OR ABOVE OPTIMUM MOISTURE AND MECHANICALLY COMPACTED TO 95 PERCENT STANDARD PROCTOR UNDER PAVED AREAS (EXISTING, PROPOSED, AND PUBLIC ROW AREAS), AND MIN. 95 PERCENT STANDARD PROCTOR UNDER ALL OTHER AREAS.
8. A BLUE STIMSONITE, FIRE–LITE REFLECTOR (OR APPROVED EQUAL) SHALL BE PLACED IN THE CENTER OF THE STREET OPPOSITE FIRE HYDRANTS.
9. THE BODY OF ALL FIRE HYDRANTS SHALL BE PAINTED WITH AN APPROVED ALUMINUM PAINT; BONNETS SHALL BE PAINTED ACCORDING TO CITY OF ROCKWALL STANDARDS.
10. FIRE HYDRANT OUTLET NOZZLES TO BE NOT LESS THAN 19" NOR MORE THAN 21" ABOVE FINAL GRADE.
11. ALL EMBEDMENT TO CONFORM TO CITY OF ROCKWALL STANDARD SPECIFICATIONS.
12. VALVES TO BE PROVIDED WITH AN APPROVED VALVE BOX. VALVES GREATER THAN 4 FEET DEEP SHALL BE PROVIDED WITH VALVE STEM EXTENSIONS. CONCRETE PADS WILL BE REQUIRED AT EACH VALVE BOX PER CITY OF ROCKWALL REQUIREMENTS.
13. UPON RECEIPT OF ACCEPTABLE BACTERIOLOGICAL REPORT, CONTRACTOR TO REMOVE COPPER BLEEDER LINES FROM MAIN.
14. NO STREET CUTS WILL BE ALLOWED FOR TAPPING EXISTING UTILITIES, EXCEPT WHERE SHOWN IN THE PLANS.
15. ALL 12" AND SMALLER WATER PIPE TO BE PVC DR–18, C–900, CLASS 200.
16. ALL SANITARY SEWER PIPE LESS THAN TEN (10) FEET DEEP SHALL BE PVC SDR 35 CONFORMING TO THE REQUIREMENTS OF ASTM–D3034. ALL SANITARY SEWER PIPE TEN (10) FEET OR DEEPER SHALL BE PVC SDR 26 CONFORMING TO THE REQUIREMENTS OF ASTM–D3034.
17. SANITARY SEWER MAINS CROSSING WATER MAINS SHALL MEET ALL CURRENT APPLICABLE TCEQ STANDARDS. THIS SHALL NOT BE A SEPARATE PAY ITEM.

UTILITY NOTES (CONT'D.)

18. CONTRACTOR MAY USE STANDARD PRE–CAST CONCRETE MANHOLES OR CAST–IN–PLACE MANHOLES.
19. ALL WATER AND SANITARY SEWER CONSTRUCTION NOT SPECIFICALLY REFERENCED IN THESE NOTES OR THE CONTRACT SPECIFICATIONS SHALL BE BY CITY OF ROCKWALL STANDARDS, WHICH ARE HEREBY MADE A PART OF THESE PLANS.
20. THE CONTRACTOR SHALL INSTALL AND MAINTAIN WATER TIGHT PLUGS IN ALL CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM UNTIL THE PROJECT IS ACCEPTED BY THE CITY.
21. ALL SANITARY SEWER LINES AND MANHOLES SHALL BE LEAK TESTED BEFORE THE PROJECT IS ACCEPTED. TV INSPECTION AND MANDREL DEFLECTION TESTING OF PVC SEWER LINES IS REQUIRED.
22. UNLESS OTHERWISE NOTED, ALL PIPE DIMENSIONS ARE TO PIPE CENTERLINE.
23. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
24. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACKFILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER, OR OWNER RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
25. ALL PRIVATE UTILITY PVC SLEEVES TO BE SCH. 40. ALL SLEEVES SHALL HAVE SELECT MATERIAL BEDDING AND BACKFILL A MINIMUM OF 4 INCHES ABOVE TOP OF SLEEVE. MINIMUM COVER BELOW PAVEMENT SUBGRADE TO TOP OF SLEEVE SHALL BE:

    GAS – 2 FEET
    SIGNALIZATION – 3 FEET
    ALL OTHER PRIVATE UTILITIES – 2 FEET

    MULTIPLE RUNS OF SLEEVES SHALL BE INSTALLED WITH A SPACER AT 5–FOOT CENTERS.
26. STORM SEWER PIPE SHALL BE REINFORCED CONCRETE, CLASS III UNLESS OTHERWISE NOTED. STORM SEWER RADIUS PIPE SHALL BE TYPE B–2 TONGUE AND GROOVE RADIUS PIPE PER ASTM C–76.
27. ALL FIRELANE CONCRETE SHALL BE CLASS "C" (3600 PSI COMPRESSIVE STRENGTH AT 28 DAYS), AIR ENTRAINED (MIN. 6–1/2 SACK CONCRETE HAND POUR, 6 SACK MACHINE FINISH). ALL CONCRETE FOR DRAINAGE STRUCTURES TO BE MINIMUM 4200 PSI,
28. THE CONTRACTOR SHALL INSTALL PLUGS IN STORM SEWER LINES OR OTHERWISE PREVENT MUD FROM ENTERING THE STORM SEWER SYSTEM DURING CONSTRUCTION.
29. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE DESILTED AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE UNOBSTRUCTED POSITIVE DRAINAGE FLOWS.
30. CONTRACTOR ADJUSTMENTS TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE IS ALLOWED, WITH THE PRIOR APPROVAL OF THE ENGINEER. CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
31. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF–SITE DISCHARGE WHICH VIOLATES LOCAL, STATE, OR FEDERAL WATER QUALITY STANDARDS.
32. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER DISCHARGE PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY AUTHORIZED AUTHORITIES.
33. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT.
34. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE T.C.E.Q. GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
35. A BLUE EMS PAD SHALL BE PLACED AT EVERY WATER LINE CHANGE IN DIRECTION, VALVE, FIRE HYDRANT, AND SERVICE.
36. A GREEN EMS PAD SHALL BE PLACED AT EVERY SANITARY SEWER MANHOLE, CLEANOUT, AND SERVICE.
37. ALL STORM SEWER PIPE JOINTS SHALL BE SEALED PER NTCOG AND CITY OF ROCKWALL CONSTRUCTION SPECIFICATIONS.
38. FIRE HYDRANTS SHALL HAVE 5' CLEARANCE AROUND.
39. ALL FITTINGS SHALL BE MEGALUG.

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

No.	Date	Revisions	App.

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STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

GENERAL NOTES

Scale: AS SHOWN
Designed by: KFD
Drawn by: KFD
Checked by: DKK
Date: August 14, 2008
Project No. 066000025

SHEET
C-1
OF 21

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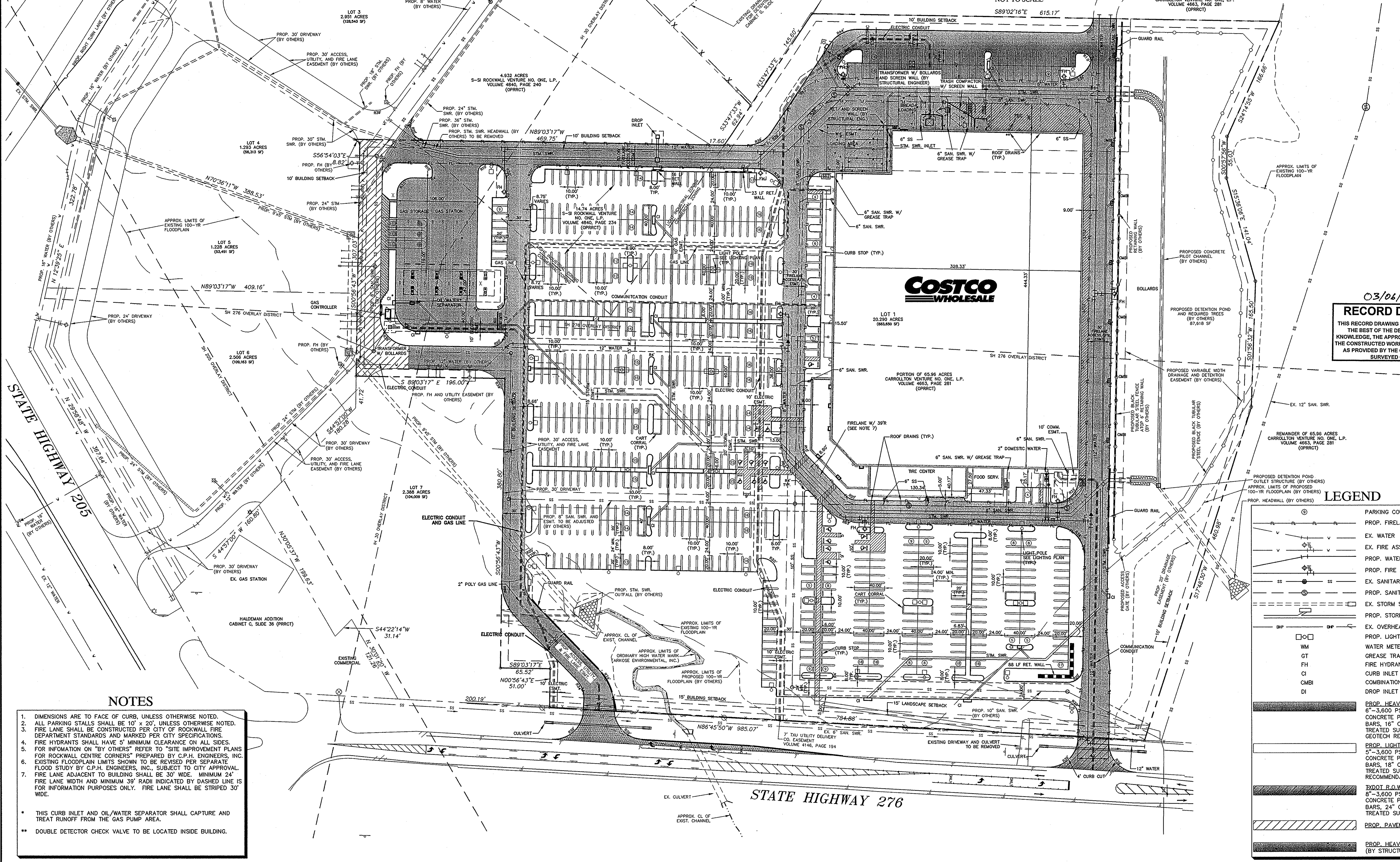
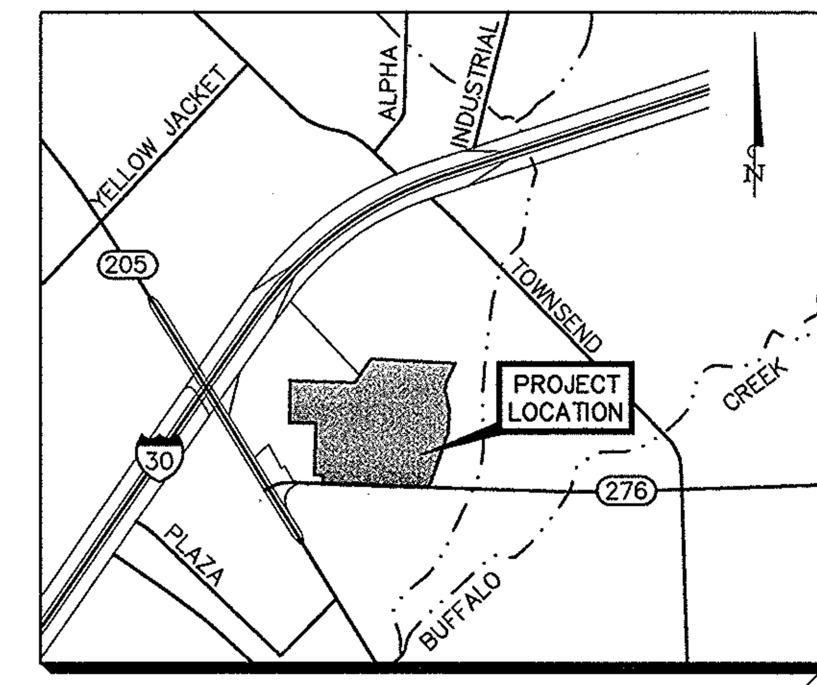


SITE DATA SUMMARY TABLE

ZONING	COMMERCIAL DISTRICT
PROPOSED USE	RETAIL – GENERAL
TOTAL LOT AREA	883,850 SF / 20.290 AC
TOTAL BUILDING AREA	147,322 SF / 3.382 AC
BUILDING HEIGHT	40 FT
TOTAL IMPERVIOUS AREA	605,229 SF
TOTAL LANDSCAPE AREA REQUIRED (15%)	132,578 SF
TOTAL LANDSCAPE AREA PROVIDED (20.2%)	178,192 SF
TOTAL OFF–STREET PARKING REQUIRED (1/250 SF = 4/1000 SF)	590
TOTAL OFF–STREET PARKING PROVIDED (1.21/250 SF = 4.84/1000 SF)	713
TOTAL HANDICAP PARKING REQUIRED (2% OF TOTAL)	15
TOTAL HANDICAP PARKING PROVIDED	15



VICINITY MAP
NOT TO SCALE

NOTES

1. DIMENSIONS ARE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. ALL PARKING STALLS SHALL BE 10' x 20', UNLESS OTHERWISE NOTED.
3. FIRE LANE SHALL BE CONSTRUCTED PER CITY OF ROCKWALL FIRE DEPARTMENT STANDARDS AND MARKED PER CITY SPECIFICATIONS.
4. FIRE HYDRANTS SHALL HAVE 5' MINIMUM CLEARANCE ON ALL SIDES.
5. FOR INFOMATION ON "BY OTHERS" REFER TO "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
6. EXISTING FLOODPLAIN LIMITS SHOWN TO BE REVISED PER SEPARATE FLOOD STUDY BY C.P.H. ENGINEERS, INC., SUBJECT TO CITY APPROVAL.
7. FIRE LANE ADJACENT TO BUILDING SHALL BE 30' WIDE. MINIMUM 24' FIRE LANE WIDTH AND MINIMUM 39' RADII INDICATED BY DASHED LINE IS FOR INFORMATION PURPOSES ONLY. FIRE LANE SHALL BE STRIPED 30' WIDE.

* THIS CURB INLET AND OIL/WATER SEPARATOR SHALL CAPTURE AND TREAT RUNOFF FROM THE GAS PUMP AREA.

** DOUBLE DETECTOR CHECK VALVE TO BE LOCATED INSIDE BUILDING.

LEGEND

⑨	PARKING COUNT
	PROP. FIRELANE
	EX. WATER
	EX. FIRE ASSEMBLY
	PROP. WATER
	PROP. FIRE ASSEMBLY
	EX. SANITARY SEWER
	PROP. SANITARY SEWER
	EX. STORM SEWER
	PROP. STORM SEWER
	EX. OVERHEAD POWER
	PROP. LIGHTING
WM	WATER METER
GT	GREASE TRAP
FH	FIRE HYDRANT
CI	CURB INLET
CMBI	COMBINATION INLET
DI	DROP INLET
	PROP. HEAVY DUTY PAVEMENT 6"–3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT W/ NO. 4 BARS, 16" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
	PROP. LIGHT DUTY PAVEMENT 5"–3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 18" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
	TXDOT R.O.W PAVEMENT 8"–3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 24" O.C.E.W., ON 6" LIME TREATED SUBGRADE
	PROP. PAVEMENT (BY OTHERS)
	PROP. HEAVY DUTY PAVEMENT (BY STRUCTURAL ENGINEER)

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335–3580
Fax No.(972) 335–3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

SITE PLAN

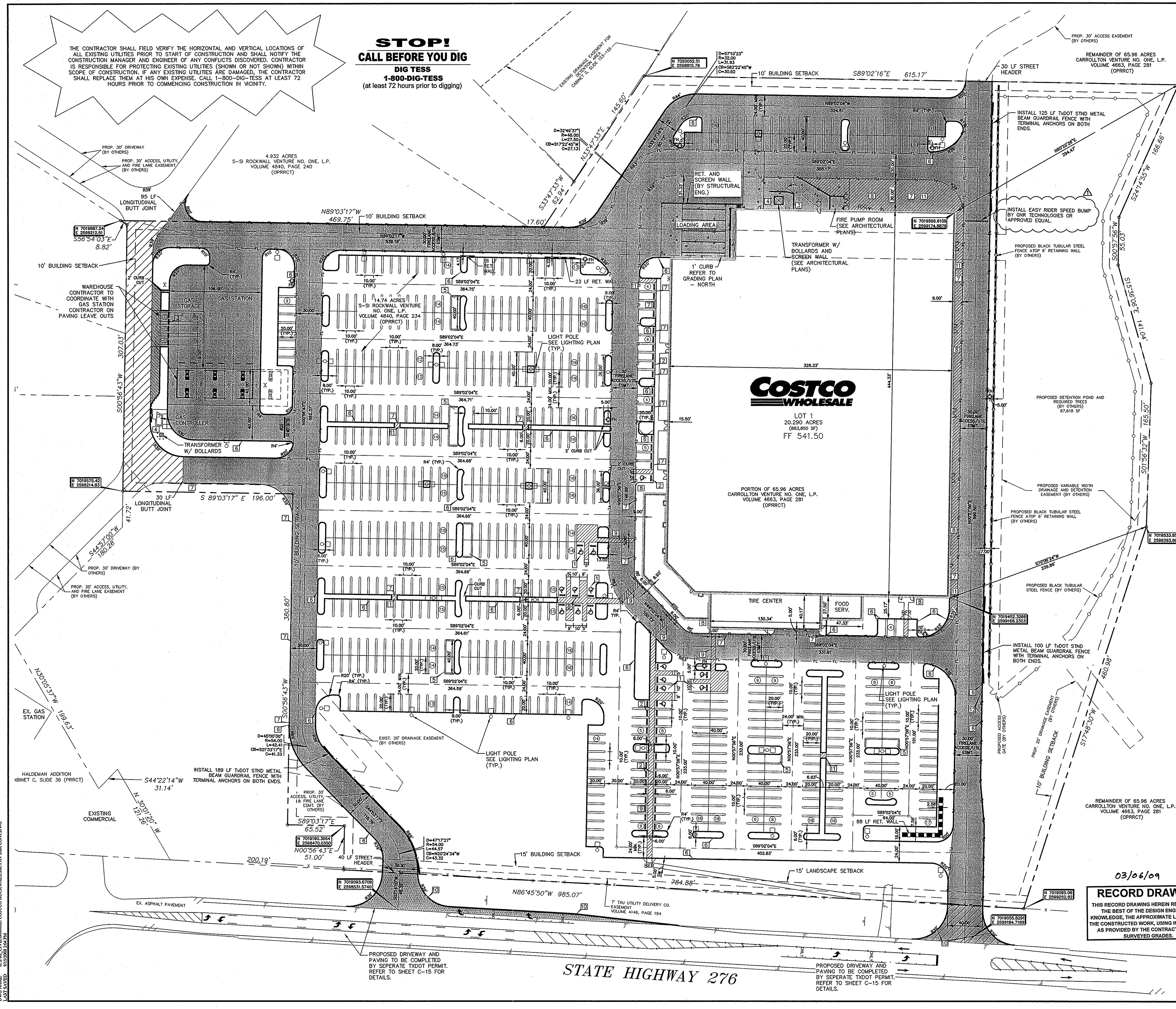
Scale:	AS SHOWN
Designed by:	DSS
Drawn by:	CDR
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-2
OF 21

IMAGES
XREFS XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExut - XREF xSite - XREF xUtil - XREF xStrm
PLOTTED BY COOPER, JASON 8/13/2008 7:44 PM
DWG NAME K:\FRI_CIVIL\066000025 COSTCO ROCKWALL\10CSITE-17.DWG
LAST SAVED 8/11/2008 1:02 PM

THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE. CALL 1-800-DIG-TESS AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION IN VICINITY.

STOP!
CALL BEFORE YOU DIG
DIG TESS
1-800-DIG-TESS
(at least 72 hours prior to digging)



LEGEND

⑩	PARKING COUNT
[heavy shading]	PROP. HEAVY DUTY PAVEMENT 6"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT W/ NO. 4 BARS, 16" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
[no shading]	PROP. LIGHT DUTY PAVEMENT 5"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 18" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
[hatched shading]	TXDOT R.O.W PAVEMENT #1 8"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 24" O.C.E.W., ON 6" LIME TREATED SUBGRADE
[shading]	TXDOT R.O.W PAVEMENT #2 2" HMAC OVERLAY W/ 8" ASPHALT PAVEMENT PER TxDOT ITEM 340, MIXTURE TYPE C (WITH MIN. 3" PG 76-22 BINDER) OVER 10" LIME STABILIZED SUBGRADE W/ 4% LIME
[hatching]	PROP. PAVEMENT (BY OTHERS)
[shading]	PROP. HEAVY DUTY PAVEMENT (BY STRUCTURAL ENGINEER)
—FL—FL—	PROP. FIRELANE
[1]	REFERENCE NOTES THIS SHEET
□-○-□	PROPOSED LIGHTING
FH	FIRE HYDRANT

SITE LEGEND

1. ACCESSIBLE PARKING SPACE (TYP.) SEE DETAIL SHEET.
2. CONCRETE WHEEL STOP. SEE DETAILS SHEET
3. TRASH COMPACTOR AND ENCLOSURE. SEE ARCH./STRUCTURAL PLANS FOR DETAILS.
4. CONCRETE TRANSFORMER PAD BY UTILITY CONTRACTOR.
5. CART CORRAL (SEE ARCH. PLANS FOR DETAIL)
6. 6" CURB AND GUTTER. SEE ARCHITECT'S PLANS.
7. NO CURB – FLUSH WITH PAVEMENT.
8. SEE ARCH. PLANS FOR SIDEWALK, CURB, AND FLATWORK ADJACENT TO BUILDING.
9. ACCESSIBLE ROUTE. REFER TO PAVING AND STRIPING DETAILS.
10. 4' WIDE CONCRETE CURB CUT FLUME
11. 4" WHITE TRAFFIC STRIPING 2' O.C. @ 45°. SEE ARCH. PLANS FOR DETAILS.
12. 28 L.F. MOUNTABLE CURB. SEE SHEET C-18 – PAVING AND STRIPING DETAILS.

NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
2. ALL PARKING STALLS SHALL BE 10' x 20', UNLESS OTHERWISE NOTED.
3. ALL RADII ARE 4', UNLESS OTHERWISE NOTED.
4. FIRE LANE SHALL BE CONSTRUCTED PER CITY OF ROCKWALL FIRE DEPARTMENT STANDARDS AND MARKED PER CITY SPECIFICATIONS. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
5. FOR INFORMATION ON "BY OTHERS" REFER TO "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
6. EXISTING FLOODPLAIN LIMITS SHOWN TO BE REVISED PER SEPARATE FLOOD STUDY BY C.P.H. ENGINEERS, INC., PENDING CITY APPROVAL.
7. BARRICADING, TRAFFIC CONTROL, AND PROJECT SIGNS SHALL CONFORM TO "STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION BARRICADING AND CONSTRUCTION STANDARDS" AND THE CITY OF ROCKWALL SPECIFICATIONS.
8. PAVEMENT DESIGN DATA SHOWN BY REFERENCE ONLY. PAVEMENT TO BE PER GEOTECH REPORT PROJECT NO. 91221.1 DATED MARCH 28, 2008 BY KLEINFELDER.
9. ALL SIGNAGE MUST BE SEPARATELY PERMITTED THROUGH THE CITY OF ROCKWALL CODE ENFORCEMENT DEPARTMENT.
10. CONTRACTOR TO VERIFY T.A.S COMPLIANCE, FOR ANY QUESTIONS CONTACT CIVIL ENGINEER IMMEDIATELY.
11. CONTRACTOR TO VERIFY ENGINEERING PLANS MATCH ARCHITECTURAL PLANS BEFORE CONSTRUCTION STAKING.
12. REFER TO LANDSCAPE PLANS FOR ALL SCREENING AND OPEN SPACE CALCULATIONS.
13. REFER TO SITE LIGHTING PLANS FOR ALL LIGHTING LOCATIONS, SPECIFICATIONS, AND PHOTOMETRIC DETAILS
14. REFER TO BUILDING ELEVATION PLANS FOR ALL BUILDING SIGNAGE LOCATIONS AND DETAILS.
15. FUEL STORAGE TANKS, TANK SLAB, AND CANOPY SLAB BY GAS STATION CONTRACTOR (NOT PART OF WAREHOUSE PLANS).

PAVING CONTRACTOR IS RESPONSIBLE FOR IRRIGATION SLEEVES. REFERENCE IRRIGATION PLANS FOR SLEEVE LOCATION, QUANTITY AND SIZE.

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

GRAPHIC SCALE 50'

No.	Date	Revisions	App.
1	09/22/08	ADDITION OF SPEED BUMP	

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

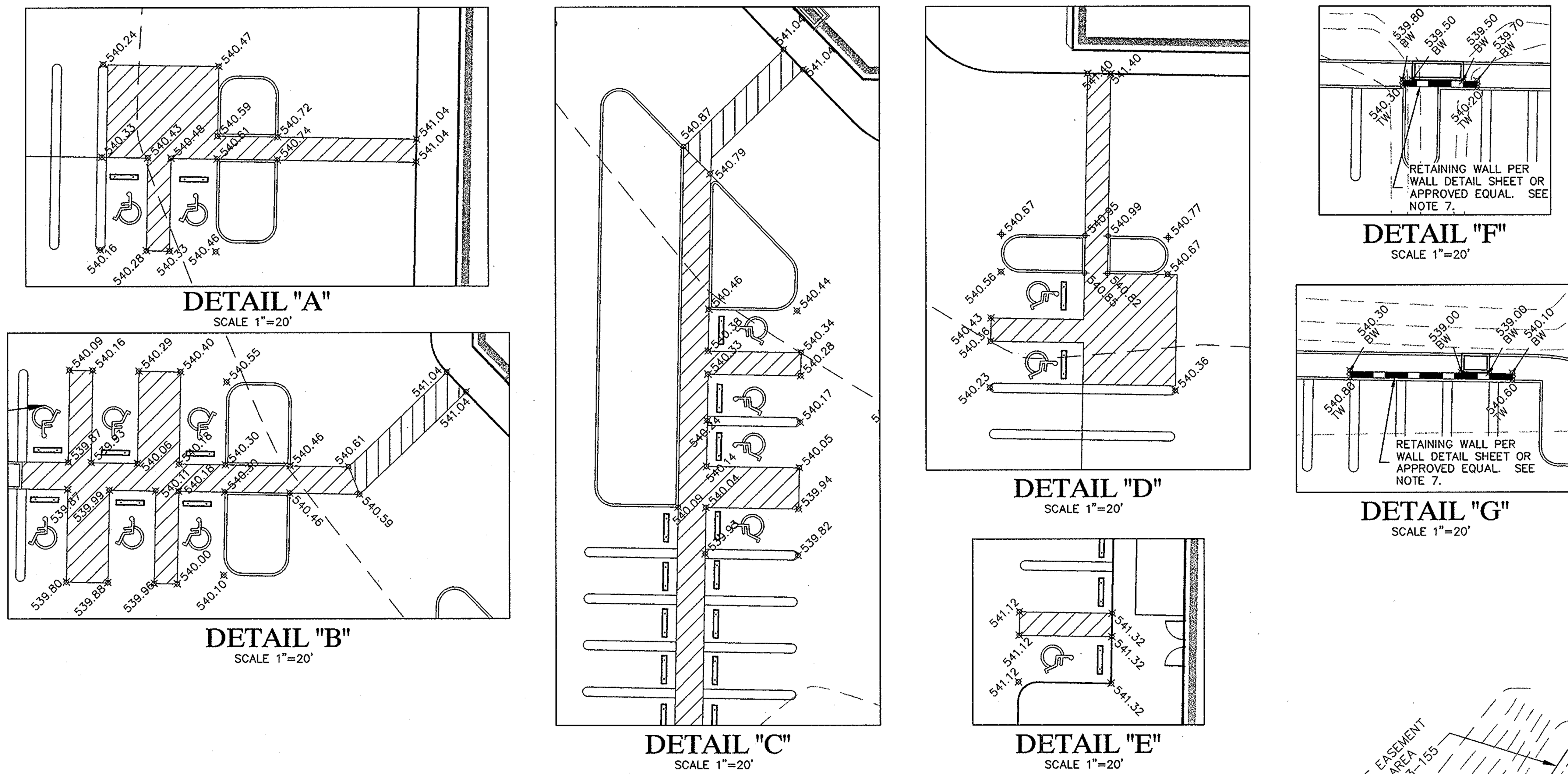
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
9-22-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

PAVING AND DIMENSION CONTROL PLAN

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-3
OF 21



NOTES

1. FOR CONTOURS SHOWN "BY OTHERS" REFER TO CITY APPROVED "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
2. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
3. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%.
4. CONTRACTOR SHALL VERIFY COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
5. CONTRACTOR SHALL COORDINATE GRADING AT FACE OF BUILDING WITH PLANS BY ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
6. CONTRACTOR SHALL COORDINATE GRADING IN LANDSCAPE AREAS WITH PLANS BY LANDSCAPE ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
7. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT RETAINING WALL PLANS SIGNED BY AN ENGINEER TO THE CITY FOR APPROVAL.

LEGEND

- - -541- - -	EXISTING CONTOUR
——541——	PROPOSED CONTOUR
— —541— —	PROPOSED CONTOUR (BY OTHERS)
– – – – – –	PROPOSED RIDGE
– · · – · · –	PROPOSED SWALE
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
FF	FINISHED FLOOR
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING
CI	CURB INLET
DI	DROP INLET
CMBI	COMBINATION INLET
BO	BY OTHERS
——→	FLOW ARROW

N
W E
S

0 40' 80'
GRAPHIC SCALE 40'

03/06/09

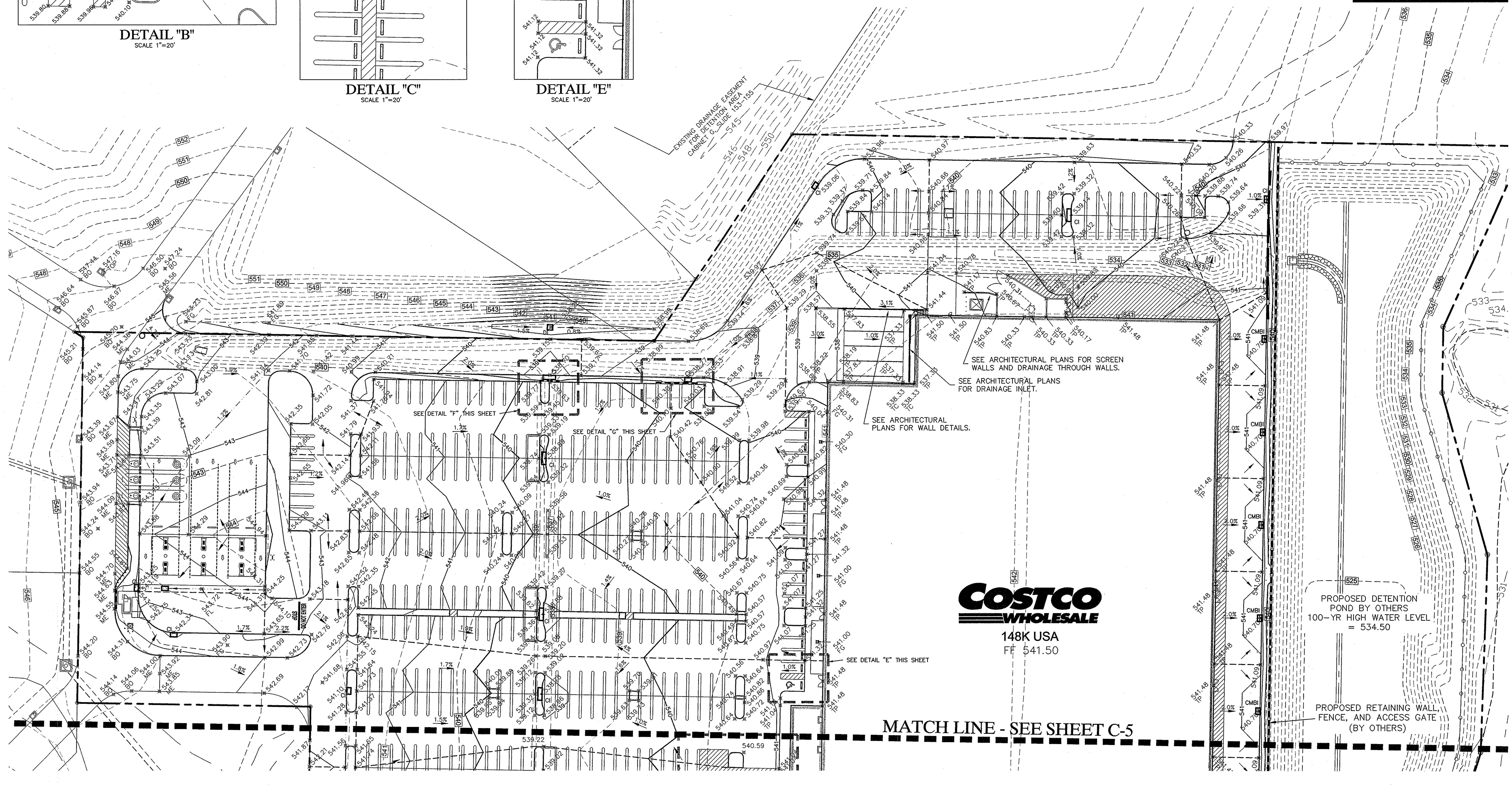
RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00



No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

GRADING PLAN - NORTH

Scale:	AS SHOWN
Designed by:	DSS
Drawn by:	DSS
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-4
OF 21

IMAGES
XREFS XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExut - XREF xSite - XREF xUtil - XREF xStrm - XREF S13217 - SGP - KHA - XREF x2436 - XREF xCPH - XREF xTopo-offsite - XREF xGrad - XREF xGrad-Hatch - XREF xStriping SH 276 - XREF xEx Striping SH 276 - XREF 07019601-X2
PLOTTED BY DANEKER, KATIE 8/14/2008 8:14 AM
DWG NAME K:\FRI_CIVIL\066000025 COSTCO ROCKWALL\10C GRADING.DWG
LAST SAVED 8/14/2008 8:07 AM

ACCESSIBILTY NOTES

1. All Accessible Spaces and Accessible Routes shall comply with the Texas Accesibility Standards (TAS) and the city requirements.

2. Parking spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. Curb ramps complying TAS Section 4.7 shall be provided at all Passenger Loading Zones.

3. Each accessible parking space shall be designated as reserved by a vertically mounted or suspended sign showing the symbol of accessibility per TAS Section 4.30.7. Spaces complying with TAS Section 4.1.2(5)(b) shall have an additional sign "Van-Accessible" mounted below the symbol of accessibility.
   - (a) Characters and symbols on such signs shall be located 60" (1525 mm) minimum above the ground, floor, or paving surface so they cannot be obscured by a vehicle parked in the space.
   - (b) Signs located within an accessible route shall comply with TAS Section 4.4.2.
   - (c) Characters and symbols on overhead signs shall comply with TAS Section 4.30.3.

4. Slopes of curb ramps shall comply with TAS Section 4.8.2. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

5. Surfaces of curb ramps shall comply with TAS Section 4.5.
   - (a) Textures shall consist of exposed crushed stone aggregate, roughene concrete, rubber, raised abrasive strips, or grooves extending the full width and depth of the curb ramp. Surfaces that are raised, etched, or grooved in a way that would allow water to accumulate are prohibited.
   - (b) For purposes of warning, the full width and depth of curb ramps shall have a light reflective value and texture that significantly contrasts with that of adjoining pedestrian routes.

NOTES

1. FOR CONTOURS SHOWN "BY OTHERS" REFER TO CITY APPROVED "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
2. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
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4. CONTRACTOR SHALL VERIFY COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
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LEGEND

— — –541– — —	EXISTING CONTOUR
——541——	PROPOSED CONTOUR
— —541— —	PROPOSED CONTOUR (BY OTHERS)
— — — — — —	PROPOSED RIDGE
— · · — · · —	PROPOSED SWALE
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
FF	FINISHED FLOOR
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING
CI	CURB INLET
DI	DROP INLET
CMBI	COMBINATION INLET
BO	BY OTHERS
——→	FLOW ARROW

N W E S

0 40' 80'
GRAPHIC SCALE 40'

03/06/09

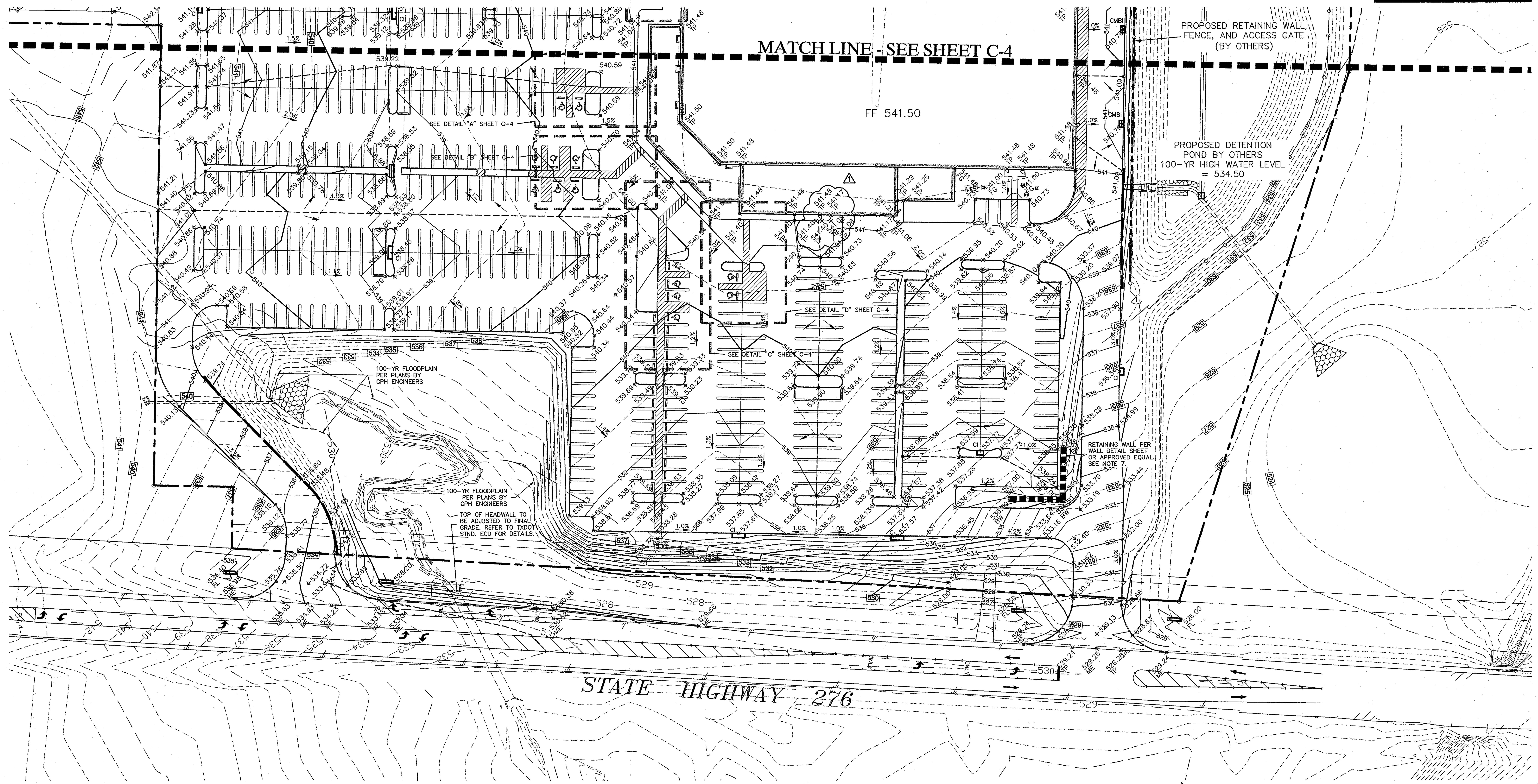
RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00



No.	Date	Revisions	App.
1	02/04/09	REVISED GRADING AT TIRE CENTER	

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

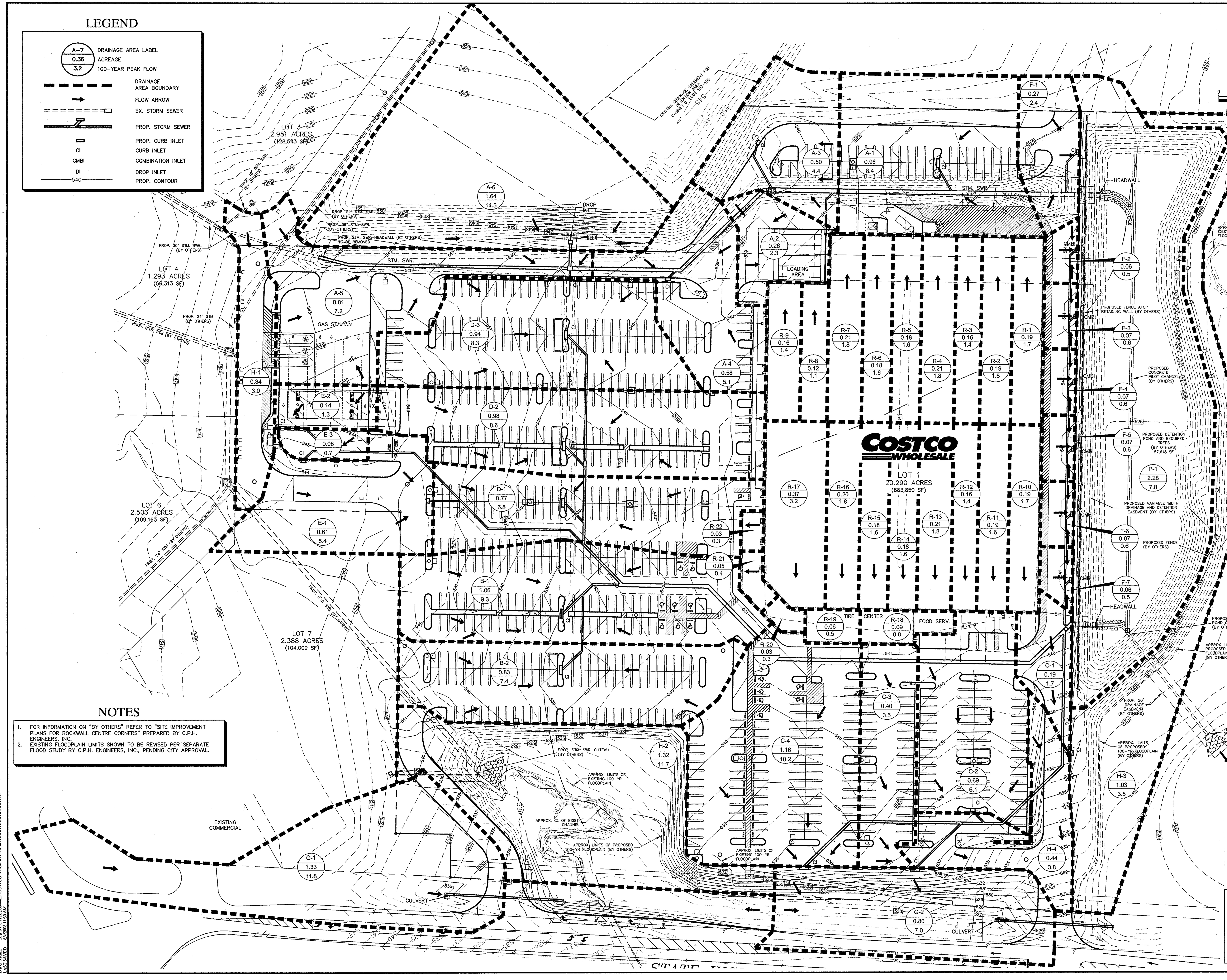
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
2/04/09

COSTCO WHOLESALE
ROCKWALL, TEXAS

GRADING PLAN - SOUTH

Scale:	AS SHOWN
Designed by:	DSS
Drawn by:	DSS
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-5
OF 21



NOTES

1. FOR INFORMATION ON "BY OTHERS" REFER TO "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
2. EXISTING FLOODPLAIN LIMITS SHOWN TO BE REVISED PER SEPARATE FLOOD STUDY BY C.P.H. ENGINEERS, INC., PENDING CITY APPROVAL.

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2 ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30 ELEV. = 552.00

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

DRAINAGE AREA MAP

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET C-6 OF 21

IMAGES
XREFS XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExut - XREF xSite - XREF xUtil-17 - XREF xStrm - XREF xHatch-17 - XREF xEsmt - XREF S13217 - SGP - KHA - XREF x2436 - XREF xCPH - XREF xTopo-offsite - XREF xDmap - XREF xGrad - XREF xBench - XREF xStriping SH 276 - XREF xEx Striping SH 276 - XREF 07019601-X2
PLOTTED BY COOPER, JASON 8/13/2008 7:46 PM
DWG NAME K:\FRI_CIVIL\066000025 COSTCO ROCKWALL\10C DRAN AREA MAP.DWG
LAST SAVED 8/4/2008 11:30 AM

Inlet Design Calculations

Project Name:	Costco Rockwall	Date:	07/21/08
Project No.:	66000025	Designed By:	KFD
Project Description:		Checked By:	DKK

Inlet No.	Inlet Drainage Area	Design Storm Frequency	RUNOFF (Q = C I A) Time of Conc. T_c	Rainfall Intensity I	Runoff Coeff. C	Area A	Runoff Q	Carryover from Upstream Inlet	Total Gutter Flow	Gutter Capacity	Gutter Slope	Crown Type	SELECTED INLET Length L_t	Type	Inlet Capacity	Carry Over to Downstream Inlet
		(yrs)	(min)	(in/hr)		(ac)	(cfs)	(cfs)	(cfs)	(cfs)	(%)		(ft)		(cfs)	(cfs)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A1	A1	100	10	9.8	0.90	0.96	8.5	-	8.5	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
A3	A3	100	10	9.8	0.90	0.50	4.4	-	4.4	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
A4	A4	100	10	9.8	0.90	0.58	5.1	-	5.1	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
A5	A5	100	10	9.8	0.90	0.81	7.1	-	7.1	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
A6	A6	100	10	9.8	0.90	1.64	14.5	-	14.5	-	-	N/A	4x4	V DROP INLET	15.5	-
B1	B1	100	10	9.8	0.90	1.06	9.3	-	9.3	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
B2	B2	100	10	9.8	0.90	0.83	7.3	-	7.3	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
C1	C1	100	10	9.8	0.90	0.19	1.7	-	1.7	-	-	N/A	5	I CURB INLET ON GRADE	2.3	-
C2	C2	100	10	9.8	0.90	0.69	6.1	-	6.1	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
C3	C3	100	10	9.8	0.90	0.40	3.5	-	3.5	-	-	N/A	10	I CURB INLET ON GRADE	5.8	-
C4	C4	100	10	9.8	0.90	1.16	10.2	-	10.2	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
D1	D1	100	10	9.8	0.90	0.77	6.8	-	6.8	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
D2	D2	100	10	9.8	0.90	0.98	8.6	-	8.6	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
D3	D3	100	10	9.8	0.90	0.94	8.3	-	8.3	-	-	N/A	10	IA CURB INLET AT LOW POINT	20.5	-
E1	E1	100	10	9.8	0.90	0.61	5.4	-	5.4	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
E2	E2	100	10	9.8	0.90	0.14	1.2	-	1.2	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
E3	E3	100	10	9.8	0.90	0.08	0.7	-	0.7	-	-	N/A	5	IA CURB INLET AT LOW POINT	10.5	-
F1	F1	100	10	9.8	0.90	0.27	2.4	-	2.4	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F2	F2	100	10	9.8	0.90	0.06	0.5	-	0.5	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F3	F3	100	10	9.8	0.90	0.07	0.6	-	0.6	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F4	F4	100	10	9.8	0.90	0.07	0.6	-	0.6	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F5	F5	100	10	9.8	0.90	0.07	0.6	-	0.6	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F6	F6	100	10	9.8	0.90	0.07	0.6	-	0.6	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-
F7	F7	100	10	9.8	0.90	0.06	0.5	-	0.5	-	-	N/A	5	III-A COMBINATION INLET AT LOW GRADE	12.0	-

NOTES:
1. THE CAPACITY OF CURB INLETS ON GRADE WAS OBTAINED FROM FIGURE 3.5a OF THE CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION, AUGUST 2003.
2. THE CAPACITY OF CURB INLETS AT LOW POINTS WAS OBTAINED FROM FIGURE 3.7 USING A MAXIMUM DESIRED FLOW DEPTH AT THE INLET OF 0.5'.
3. THE CAPACITY OF DROP INLETS AT LOW POINTS WAS OBTAINED FROM FIGURE 3.16 USING A MAXIMUM DESIRED FLOW DEPTH AT THE INLET OF 0.5'.

HYDROLOGY CALCULATIONS

DRAINAGE AREA ID	RUNOFF COEFF. C	TIME OF CONC. Tc (MIN.)	RAINFALL INTENSITY I100 (IN/HR)	DRAINAGE AREA (ACRES)	PEAK RUNOFF Q100 (CFS)
A-1	0.9	10	9.8	0.96	8.4
A-2	0.9	10	9.8	0.26	2.3
A-3	0.9	10	9.8	0.50	4.4
A-4	0.9	10	9.8	0.58	5.1
A-5	0.9	10	9.8	0.81	7.2
A-6	0.9	10	9.8	1.64	14.5
B-1	0.9	10	9.8	1.06	9.3
B-2	0.9	10	9.8	0.83	7.4
C-1	0.9	10	9.8	0.19	1.7
C-2	0.9	10	9.8	0.69	6.1
C-3	0.9	10	9.8	0.40	3.5
C-4	0.9	10	9.8	1.16	10.2
D-1	0.9	10	9.8	0.77	6.8
D-2	0.9	10	9.8	0.98	8.6
D-3	0.9	10	9.8	0.94	8.3
E-1	0.9	10	9.8	0.61	5.4
E-2	0.9	10	9.8	0.14	1.3
E-3	0.9	10	9.8	0.08	0.7
F-1	0.9	10	9.8	0.27	2.4
F-2	0.9	10	9.8	0.06	0.5
F-3	0.9	10	9.8	0.07	0.6
F-4	0.9	10	9.8	0.07	0.6
F-5	0.9	10	9.8	0.07	0.6
F-6	0.9	10	9.8	0.07	0.6
F-7	0.9	10	9.8	0.06	0.5
G-1	0.9	10	9.8	1.33	11.8
G-2	0.9	10	9.8	0.80	7.0
H-1	0.9	10	9.8	0.34	3.0
H-2	0.9	10	9.8	1.32	11.7
H-3	0.35	10	9.8	1.03	3.5
H-4	0.9	10	9.8	0.44	3.8
P-1	0.35	10	9.8	2.28	7.8
R-1	0.9	10	9.8	0.19	1.7
R-2	0.9	10	9.8	0.19	1.6
R-3	0.9	10	9.8	0.16	1.4
R-4	0.9	10	9.8	0.21	1.8
R-5	0.9	10	9.8	0.18	1.6
R-6	0.9	10	9.8	0.18	1.6
R-7	0.9	10	9.8	0.21	1.8
R-8	0.9	10	9.8	0.12	1.1
R-9	0.9	10	9.8	0.16	1.4
R-10	0.9	10	9.8	0.19	1.7
R-11	0.9	10	9.8	0.19	1.6
R-12	0.9	10	9.8	0.16	1.4
R-13	0.9	10	9.8	0.21	1.8
R-14	0.9	10	9.8	0.18	1.6
R-15	0.9	10	9.8	0.18	1.6
R-16	0.9	10	9.8	0.20	1.8
R-17	0.9	10	9.8	0.37	3.2
R-18	0.9	10	9.8	0.09	0.8
R-19	0.9	10	9.8	0.06	0.5
R-20	0.9	10	9.8	0.03	0.3
R-21	0.9	10	9.8	0.05	0.4
R-22	0.9	10	9.8	0.03	0.3

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED
PROFESSIONAL ENGINEER
6-11-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

STORM SEWER CALCULATIONS

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-7
OF 21

IMAGES
XREF
PLOTTED BY
PLOT DATE
LAST SAVED

XREF-SAVE, XREF-close
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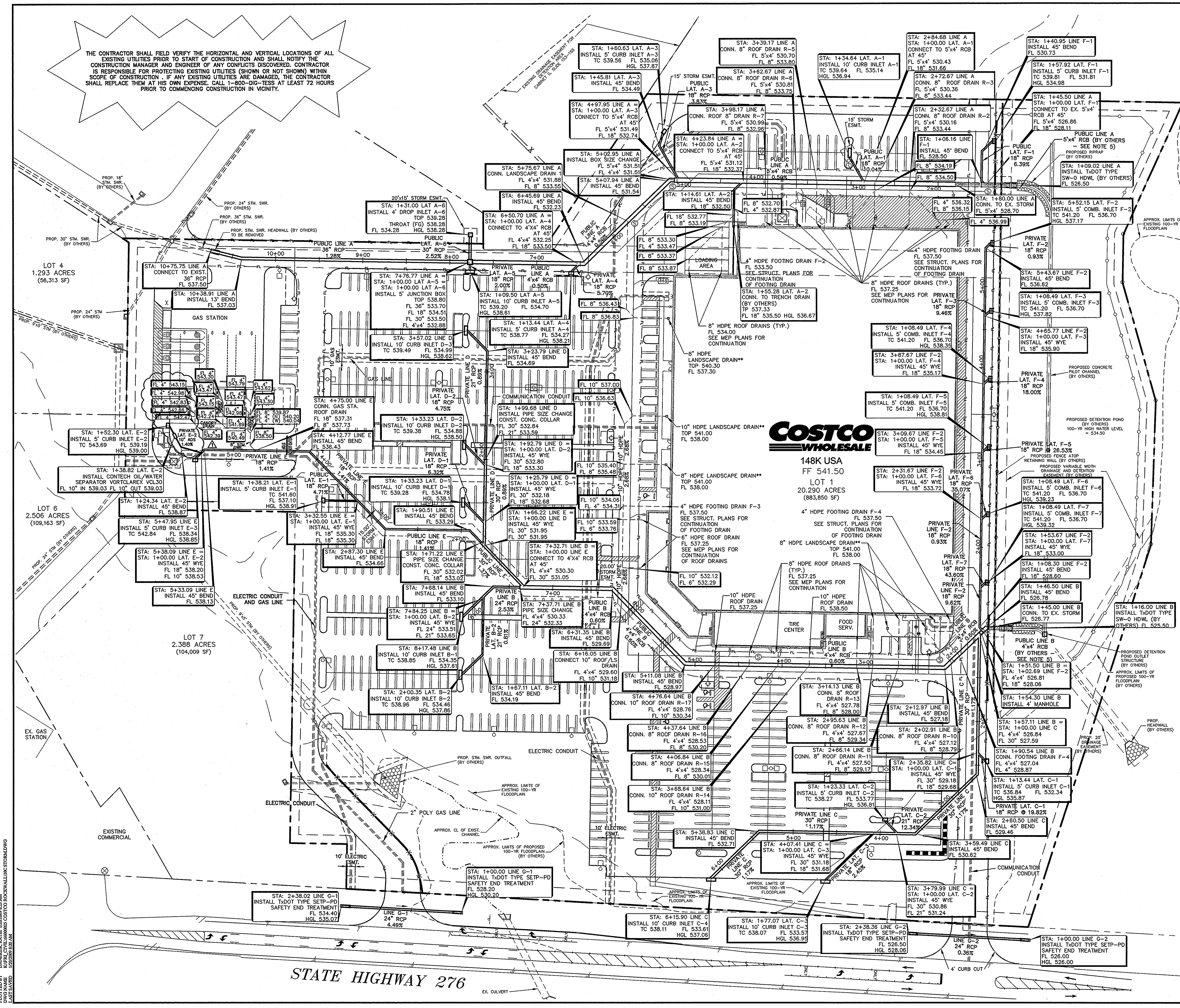

N W E S

0 50' 100' GRAPHIC SCALE 50'

LEGEND

	EX. STORM SEWER
	PROP. STORM SEWER
	PROP. ROOF DRAIN
	EX. WATER
	EX. FIRE ASSEMBLY
	PROP. WATER
	PROP. FIRE ASSEMBLY
	EX. SANITARY SEWER
	PROP. SANITARY SEWER

NOTES

1. ALL ROOF DRAIN LINES SHALL BE MINIMUM 8" HDPE AND SHALL EXTEND TO A POINT 5' FROM THE BUILDING FACE AND 3' BELOW THE FINISHED FLOOR ELEVATION UNLESS OTHERWISE NOTED. SEE ARCHITECT'S PLANS FOR CONNECTION DETAILS.
2. SEE MEP AND ARCH. PLANS FOR ROOF DRAIN AND DOWNSPOUT CONNECTIONS INTO BUILDING.
3. FOR INFORMATION ON "BY OTHERS" REFER TO "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
4. EXISTING FLOODPLAIN LIMITS SHOWN TO BE REVISED PER SEPARATE FLOOD STUDY BY C.P.H. ENGINEERS, INC., WHICH HAS NOT YET BEEN APPROVED.
5. STORM LINE A FROM STA. 1+09.02 TO 1+80.00 AND STORM LINE B FROM STA. 1+16.00 TO 1+45.00 TO BE CONSTRUCTED "BY OTHERS." REFER TO STORM PROFILES FOR FLOW LINE CONNECTIONS.

* CURB INLET AND OIL/WATER SEPARATOR SHALL CAPTURE AND TREAT RUNOFF FROM THE GAS PUMP AREA

** LANDSCAPE DRAINS SHALL BE NDS #900 9" SQUARE CATCH BASIN WITH NDS #980 9" SQUARE BLACK GRATE OR APPROVED EQUAL.

03/06/09

RECORD DRAWING

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BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2 ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30 ELEV. = 552.00

No.	Date	Revisions	App.
△	01/19/09	REVISED PIPE ALIGNMENT & SIZE FOR STORM LAT. E-2 AND ROOF DRAIN	

Kimley-Horn and Associates, Inc.
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STATE OF TEXAS — DAVID K. KOCHALKA 87781 LICENSED PROFESSIONAL ENGINEER — 01/20/09

COSTCO WHOLESALE
ROCKWALL, TEXAS

STORM SEWER PLAN

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET C-8 OF 21

IMAGES
XREFS XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExut - XREF xSite - XREF xUtil - XREF xStrm - XREF xEsmt - XREF xCPH - XREF xBench - XREF xEx Striping SH 276 - XREF xStriping SH 276 - XREF xProf-Strm-A - XREF xUtil-Franchise - XREF x2436
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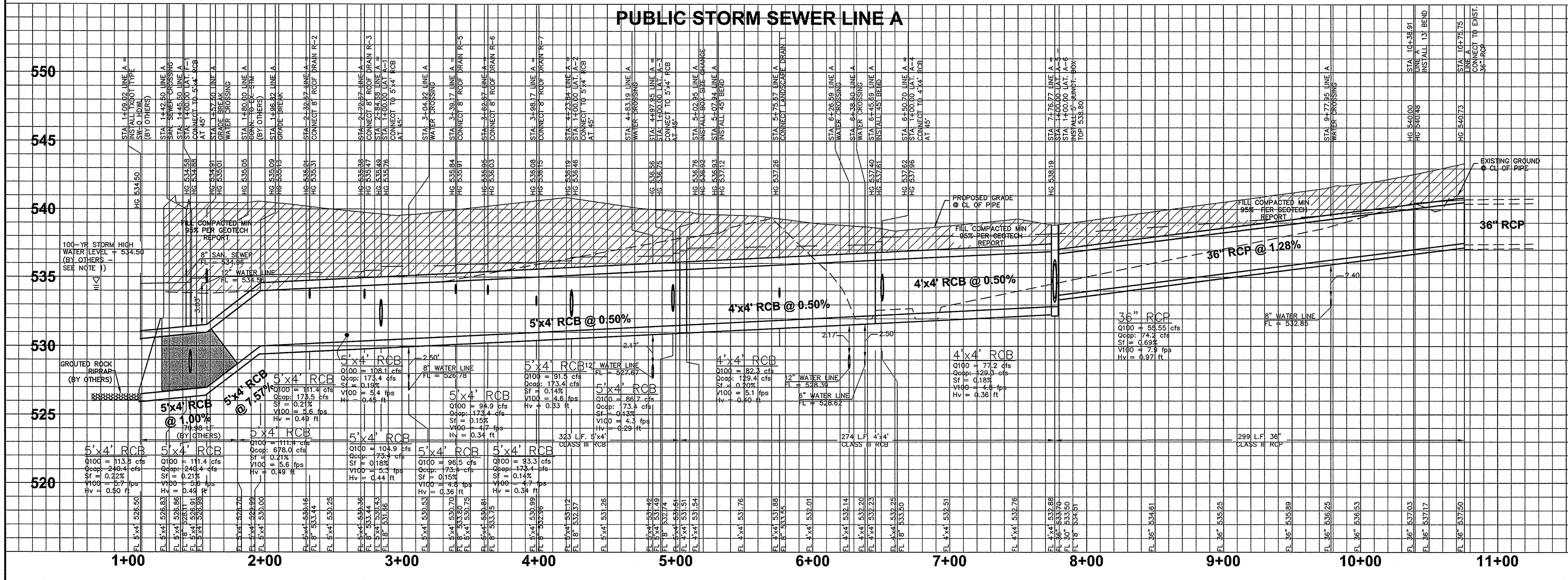

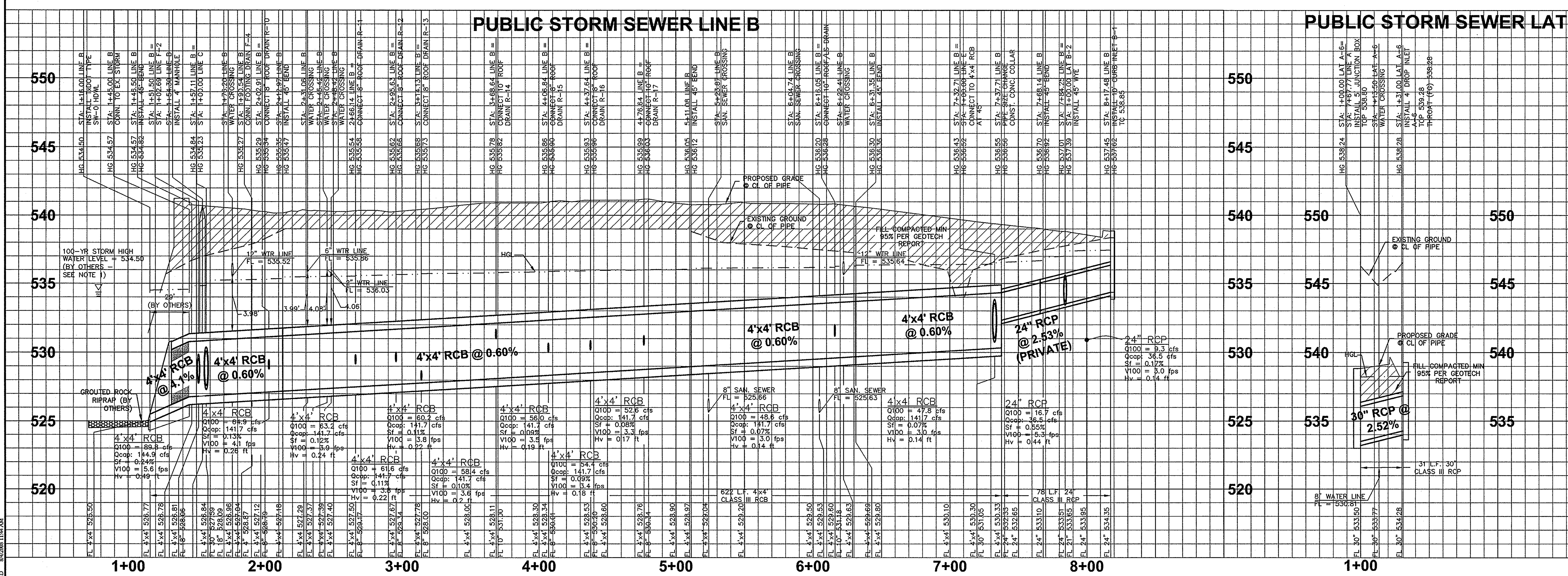

03/06/09

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NOTES

1. EXISTING GROUND SHOWN BASED ON PRELIMINARY MASS GRADING FOR "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC. PROFILES TO BE UPDATED UPON FINAL CITY APPROVAL OF C.P.H. PLANS.

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ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

No.	Date	Revisions	App.

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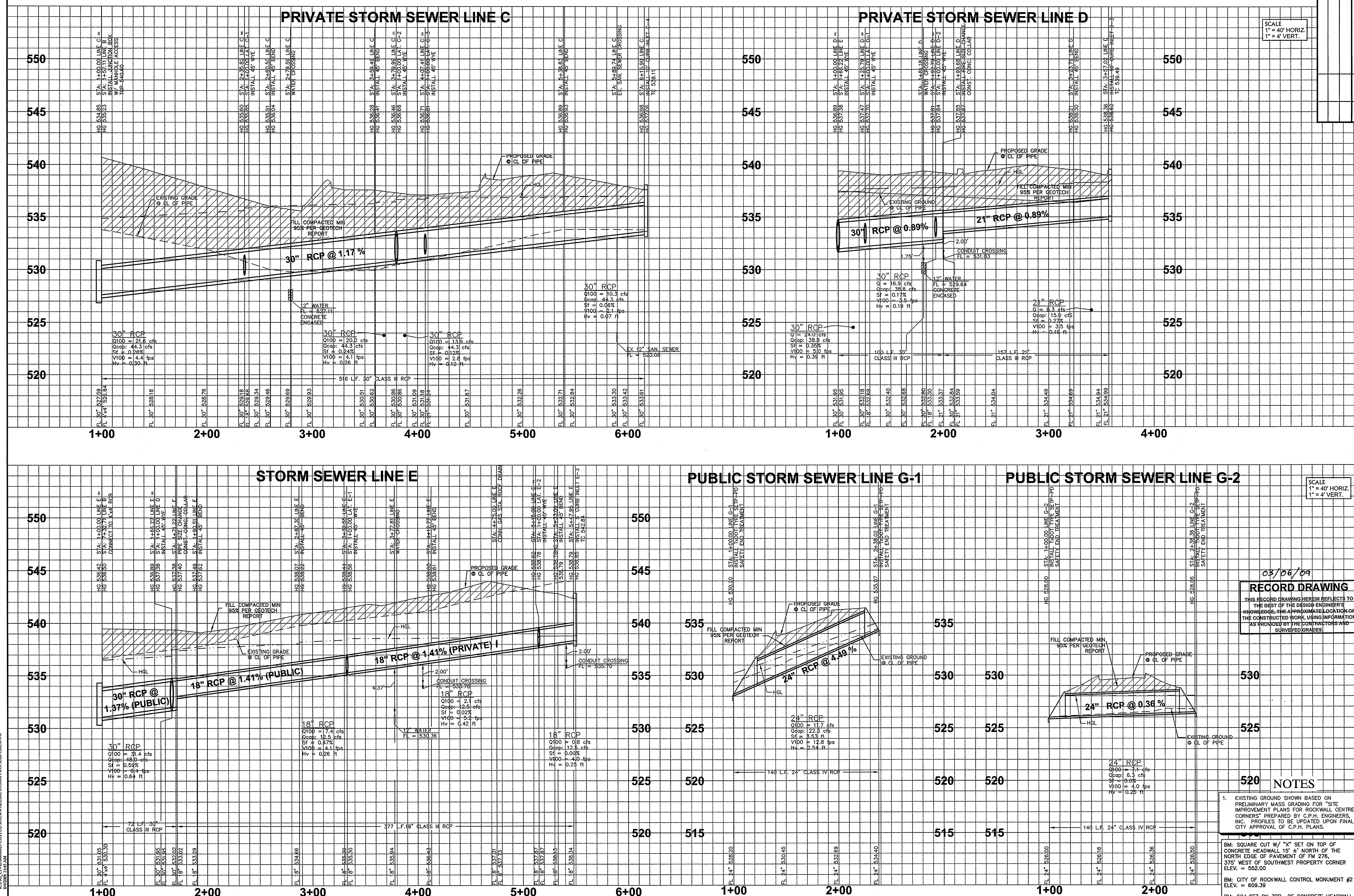
STATE OF TEXAS — DAVID K. KOCHALKA — 87781 — LICENSED PROFESSIONAL ENGINEER — 8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

STORM SEWER PROFILES A B & A-6

Scale: AS SHOWN
Designed by: KFD
Drawn by: KFD
Checked by: DKK
Date: August 14, 2008
Project No. 066000025

SHEET C-9 OF 21



NOTES

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BM: CITY OF ROCKWALL CONTROL MONUMENT #2 ELEV. = 609.39

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STATE OF TEXAS — DAVID K. KOCHALKA 87781 LICENSED PROFESSIONAL ENGINEER — 8-14-08

No.	Date	Revisions	App.

COSTCO WHOLESALE
ROCKWALL, TEXAS

STORM SEWER PROFILES C D E G-1 & G-2

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000035

SHEET C-10 OF 21

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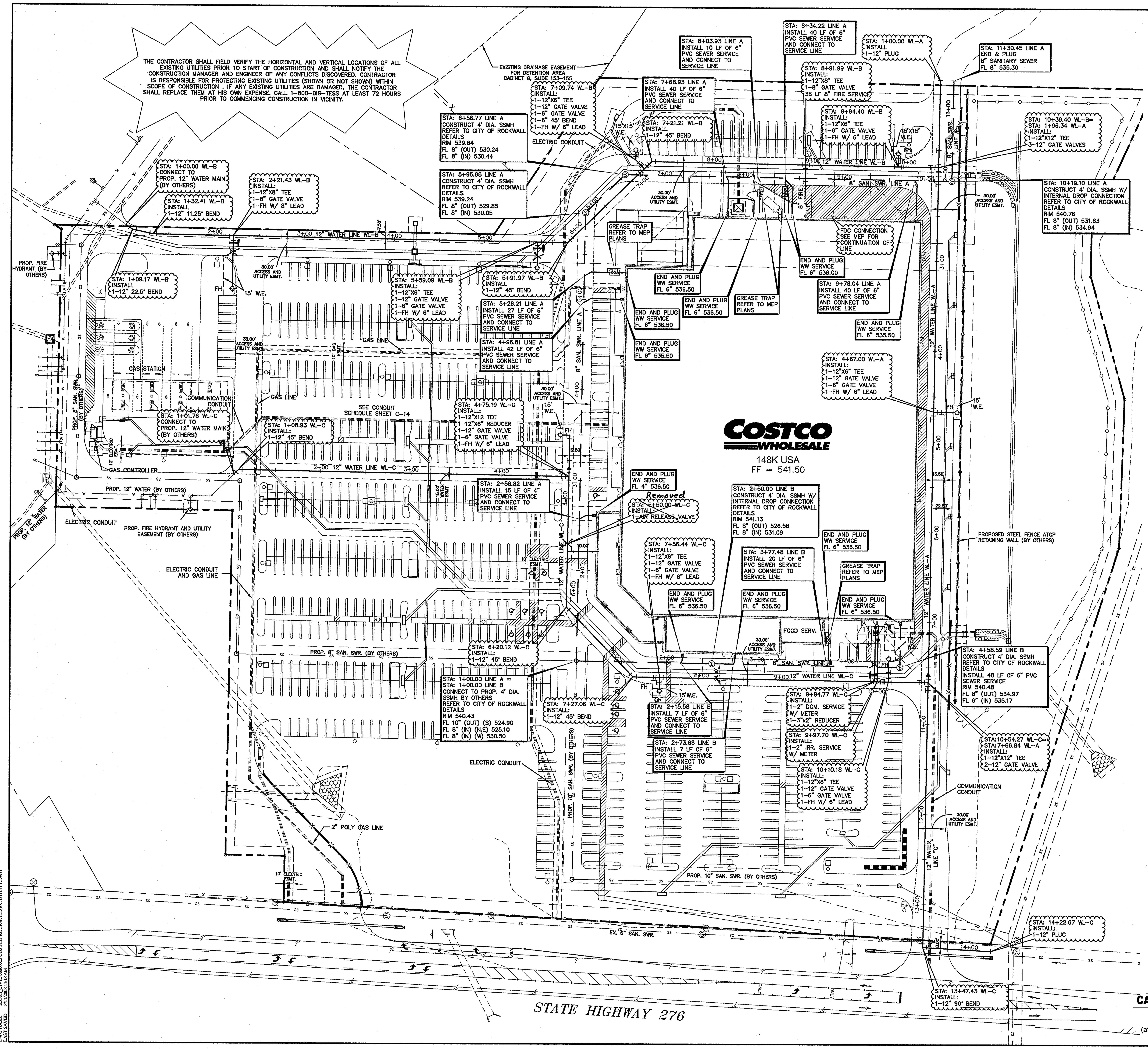

N
W E
S

GRAPHIC SCALE 50'

03/06/09

RECORD DRAWING

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LEGEND

- EX. WATER
- PROP. WATER
- PROP. FIRE ASSEMBLY
- PROP. GATE VALVE
- PROP. GATE VALVE
- PROP. WATER METER
- EX. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. SANITARY LATERAL
- PROP. GREASE TRAP SEE MEP PLANS
- EX. STORM SEWER
- PROP. STORM SEWER

WATER METER SCHEDULE

I.D.	TYPE	SIZE	NO.	SAN. SEW
1	DOMESTIC	2"	1	10-6" 1-4"
2	IRRIGATION	2"	1	N/A

NOTES

1. SEE MEP PLANS FOR ALL UTILITY CONNECTIONS INTO BUILDING.
2. WATER AND SEWER LINES STUB 5 FEET FROM BUILDING FOR SERVICE CONNECTIONS UNLESS OTHERWISE NOTED.
3. ALL METERS SHALL HAVE BACKFLOW PREVENTION AND A DOUBLE DETECTOR CHECK ASSEMBLY. VERIFY LOCATION WITH MEP PLANS.
4. FOR INFORMATION ON "BY OTHERS" REFER TO "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
5. UNLESS OTHERWISE NOTED, ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE SPECIFICATIONS OF THE CITY OF ROCKWALL, WITH AMENDMENTS, THE NORTH CENTRAL COUNCIL OF GOVERNMENTS "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" PARTS II AND III, LATEST EDITION.
6. ALL FIRE HYDRANTS SHALL HAVE 5' MINIMUM CLEARANCE AROUND, INCLUDING PARKED CARS AND LIGHT POLES.
7. AN APRROVED WATER SUPPLY CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW OF 6,000 GPM FOR FIRE PROTECTION SHALL BE PROVIDED TO PREMISES UPON WHICH FACILITIES, BUILDING, OR PORTIONS OF BUILDINGS ARE HEREAFTER CONSTRUCTED OR MOVED INTO OR WITHIN JURISDICTION. THE FIRE CODE OFFICIAL SHALL BE NOTIFIED PRIOR TO THE WATER SUPPLY TEST. WATER SUPPLY TESTS SHALL BE WITNESSED BY THE FIRE CODE OFFICIAL AND APPROVED DOCUMENTATION OF THE TEST SHALL BE PROVIDED TO THE FIRE CODE OFFICIAL PRIOR TO FINAL APPROVAL OF THE WATER SUPPLY SYSTEM.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

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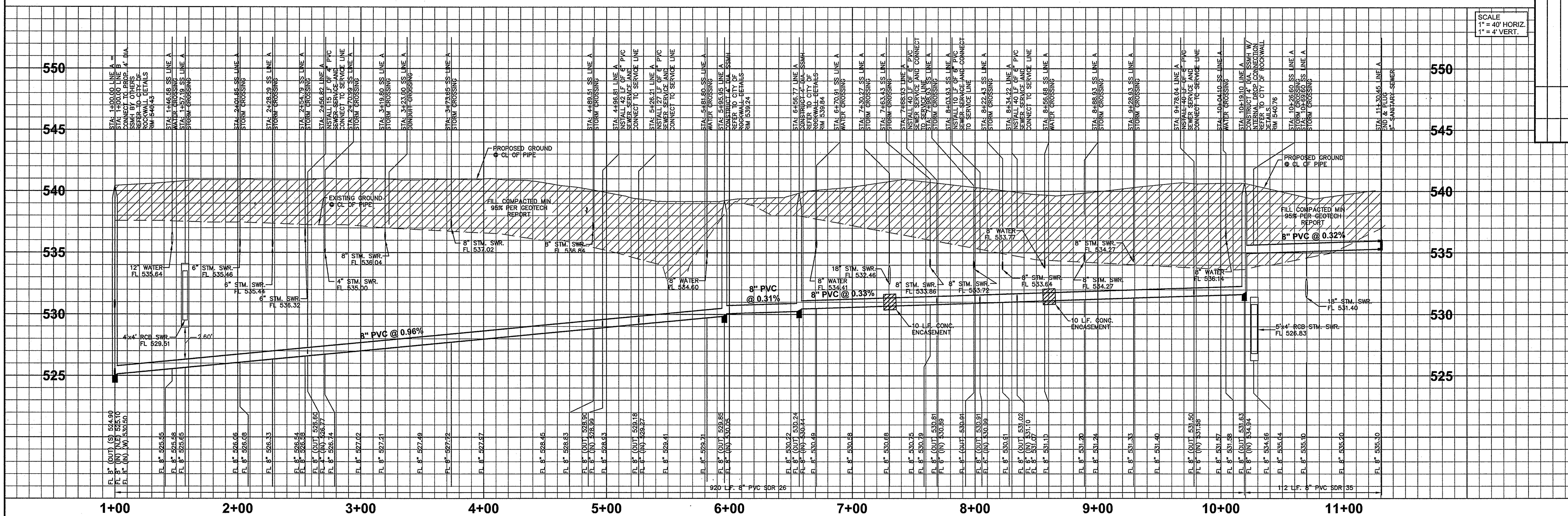
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

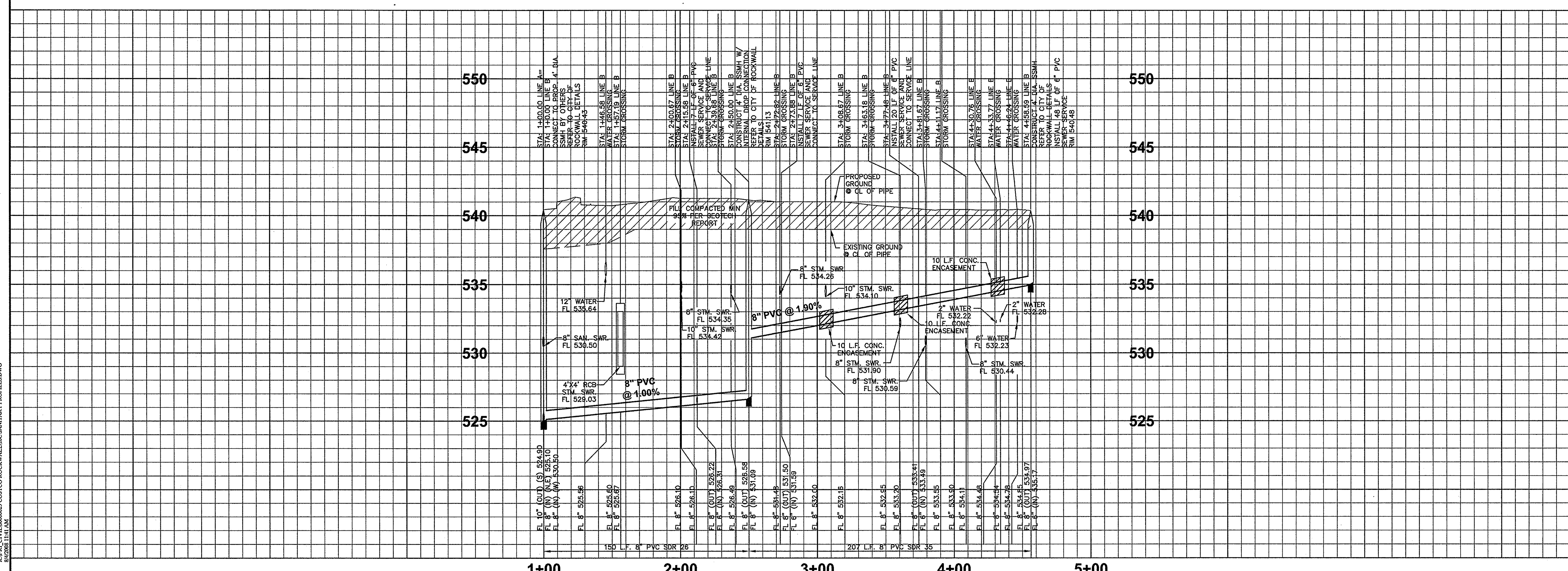
WATER AND SEWER PLAN

Scale:	AS SHOWN
Designed by:	RCG
Drawn by:	RCG
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-11
OF 21



SANITARY SEWER LINE A



SANITARY SEWER LINE B

03/06/09

RECORD DRAWING

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NOTES

1. EXISTING GROUND SHOWN BASED ON PRELIMINARY MASS GRADING FOR "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC. PROFILES TO BE UPDATED UPON FINAL CITY APPROVAL OF C.P.H. PLANS.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

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ELEV. = 552.00

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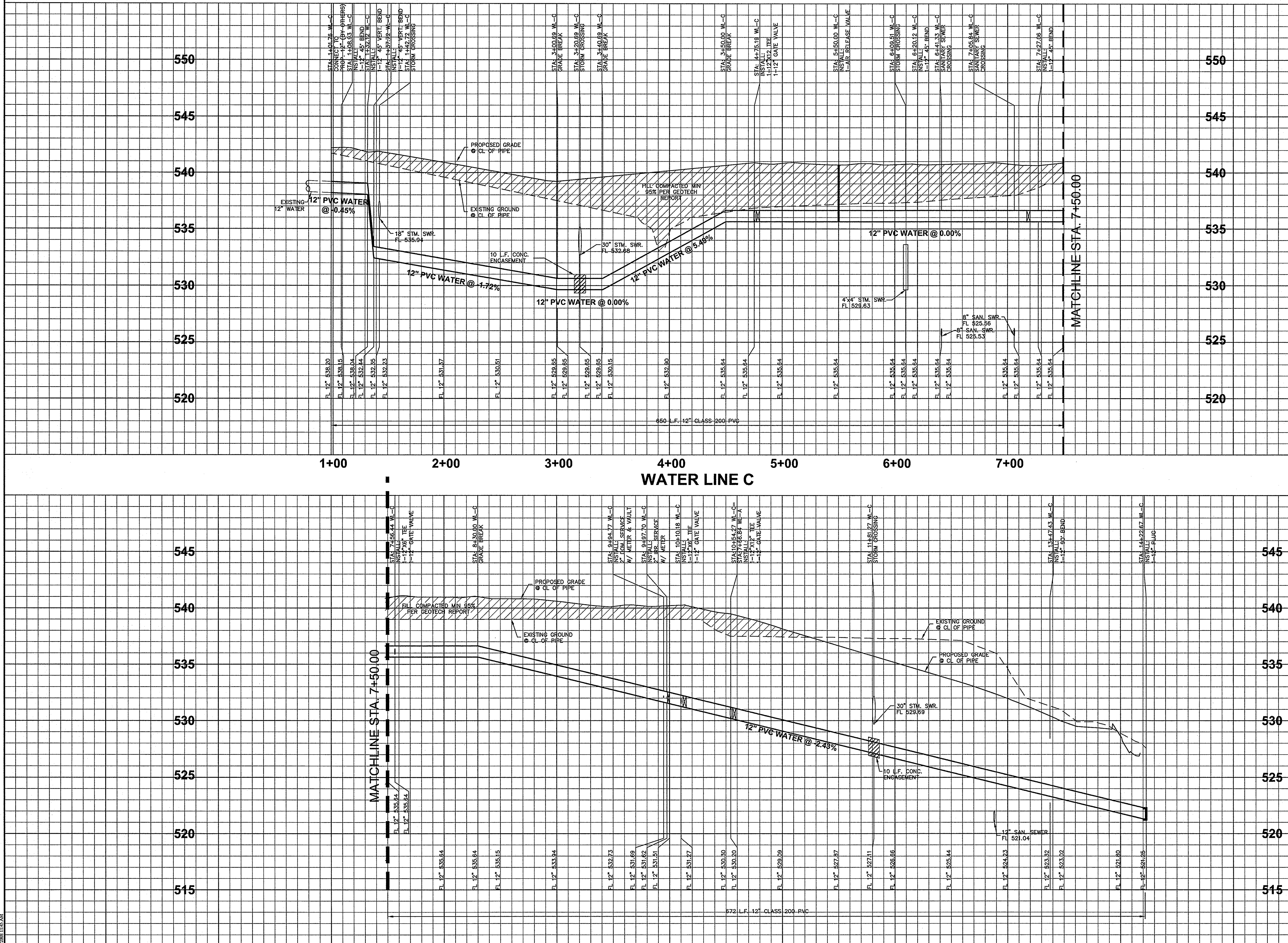
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

SANITARY SEWER PROFILES

Scale:	AS SHOWN
Designed by:	RCG
Drawn by:	RCG
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-12
OF 21



03/06/09

RECORD DRAWING

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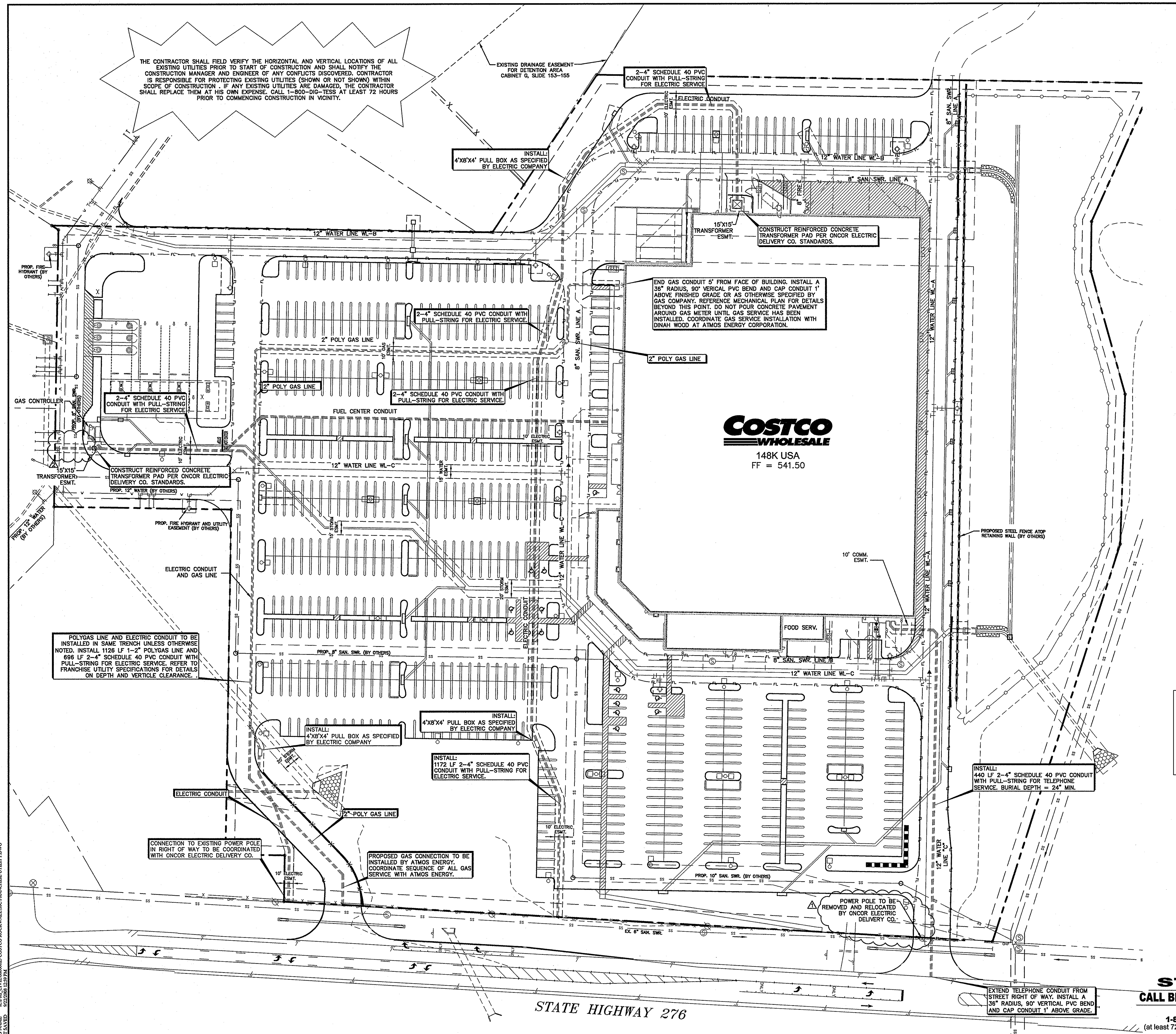
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

WATER LINE PROFILE

Scale:	AS SHOWN
Designed by:	RCG
Drawn by:	RCG
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-13
OF 21


THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY THE CONSTRUCTION MANAGER AND ENGINEER OF ANY CONFLICTS DISCOVERED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES (SHOWN OR NOT SHOWN) WITHIN SCOPE OF CONSTRUCTION. IF ANY EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL REPLACE THEM AT HIS OWN EXPENSE. CALL 1-800-DIG-TESS AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION IN VICINITY.
EXISTING DRAINAGE EASEMENT FOR DETENTION AREA CABINET G, SLIDE 153-155
2-4" SCHEDULE 40 PVC CONDUIT WITH PULL-STRING FOR ELECTRIC SERVICE
INSTALL: 4'X8'X4' PULL BOX AS SPECIFIED BY ELECTRIC COMPANY
12" WATER LINE WL-B
8" SAN. SWR. LINE A
15'X15' TRANSFORMER ESMT.
CONSTRUCT REINFORCED CONCRETE TRANSFORMER PAD PER ONCOR ELECTRIC DELIVERY CO. STANDARDS.
END GAS CONDUIT 5' FROM FACE OF BUILDING. INSTALL A 36" RADIUS, 90' VERICAL PVC BEND AND CAP CONDUIT 1' ABOVE FINISHED GRADE OR AS OTHERWISE SPECIFIED BY GAS COMPANY. REFERENCE MECHANICAL PLAN FOR DETAILS BEYOND THIS POINT. DO NOT POUR CONCRETE PAVEMENT AROUND GAS METER UNTIL GAS SERVICE HAS BEEN INSTALLED. COORDINATE GAS SERVICE INSTALLATION WITH DINAH WOOD AT ATMOS ENERGY CORPORATION.
PROP. FIRE HYDRANT (BY OTHERS)
2" POLY GAS LINE
GAS CONTROLLER
FUEL CENTER CONDUIT
COSTCO WHOLESALE
148K USA
FF = 541.50
12" WATER LINE WL-C
CONSTRUCT REINFORCED CONCRETE TRANSFORMER PAD PER ONCOR ELECTRIC DELIVERY CO. STANDARDS.
PROP. 12" WATER (BY OTHERS)
PROP. FIRE HYDRANT AND UTILITY EASEMENT (BY OTHERS)
ELECTRIC CONDUIT AND GAS LINE
PROPOSED STEEL FENCE ATOP RETAINING WALL (BY OTHERS)
10' COMM. ESMT.
12" WATER LINE WL-A
FOOD SERV.
POLYGAS LINE AND ELECTRIC CONDUIT TO BE INSTALLED IN SAME TRENCH UNLESS OTHERWISE NOTED. INSTALL 1126 LF 1-2" POLYGAS LINE AND 696 LF 2-4" SCHEDULE 40 PVC CONDUIT WITH PULL-STRING FOR ELECTRIC SERVICE. REFER TO FRANCHISE UTILITY SPECIFICATIONS FOR DETAILS ON DEPTH AND VERTICLE CLEARANCE.
PROP. 8" SAN. SWR. (BY OTHERS)
8" SAN. SWR. LINE B
INSTALL: 4'X8'X4' PULL BOX AS SPECIFIED BY ELECTRIC COMPANY
INSTALL: 1172 LF 2-4" SCHEDULE 40 PVC CONDUIT WITH PULL-STRING FOR ELECTRIC SERVICE.
INSTALL: 440 LF 2-4" SCHEDULE 40 PVC CONDUIT WITH PULL-STRING FOR TELEPHONE SERVICE. BURIAL DEPTH = 24" MIN.
ELECTRIC CONDUIT
CONNECTION TO EXISTING POWER POLE IN RIGHT OF WAY TO BE COORDINATED WITH ONCOR ELECTRIC DELIVERY CO.
PROPOSED GAS CONNECTION TO BE INSTALLED BY ATMOS ENERGY. COORDINATE SEQUENCE OF ALL GAS SERVICE WITH ATMOS ENERGY.
PROP. 10" SAN. SWR. (BY OTHERS)
POWER POLE TO BE REMOVED AND RELOCATED BY ONCOR ELECTRIC DELIVERY CO.
EX. 8" SAN. SWR.
EXTEND TELEPHONE CONDUIT FROM STREET RIGHT OF WAY. INSTALL A 36" RADIUS, 90' VERTICAL PVC BEND AND CAP CONDUIT 1' ABOVE GRADE.
STATE HIGHWAY 276

N
W E
S

0 50' 100'
GRAPHIC SCALE 50'

FUEL CENTER CONDUIT SCHEDULE

QTY.	SIZE	TYPE
1	1"	HELP LINE
1	1"	VEEDER ROOT ALARM
1	2"	PHONE
1	2"	FIBER OPTIC

LEGEND

- EX. WATER
- PROP. WATER
- PROP. FIRE ASSEMBLY
- PROP. GATE VALVE
- PROP. WATER METER
- EX. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. SANITARY LATERAL
- PROP. GREASE TRAP SEE MEP PLANS
- EX. STORM SEWER
- PROP. STORM SEWER
- PROPERTY LINE

CONTACT

ELECTRIC SERVICE:

ONCOR ELECTRIC DELIVERY COMPANY
CONTACT: RUSSELL LEWIS
PHONE: (972) 569-6310
EMAIL: RUSSELL.LEWIS@ONCOR.COM

NATURAL GAS SERVICE:

ATMOS ENERGY CORPORATION
CONTACT: DINAH WOOD
PHONE: (972) 485-6277
EMAIL: DINAH.WOOD@ATMOSENERGY.COM

TELECOMMUNICATIONS:

AT&T
CONTACT: KALYN HORN
PHONE: (903) 457-2200
EMAIL: KH5596@ATT.COM

NOTES

1. SEE MEP PLANS FOR ALL UTILITY CONNECTIONS INTO BUILDING.
2. UNLESS OTHERWISE NOTED, ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE SPECIFICATIONS OF THE CITY OF ROCKWALL, WITH AMENDMENTS, THE NORTH CENTRAL COUNCIL OF GOVERNMENTS "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" PARTS II AND III, LATEST EDITION.
3. REFER TO FRANCHISE UTILITY SPECIFICATIONS FOR INFORMATION ON MATERIALS, INSTALLATION, AND VERTICAL AND HORIZONTAL CLEARANCE.
4. CONTRACTOR TO COORDINATE WITH FRANCHISE UTILITY COMPANIES FOR FINAL LOCATIONS OF CONDUIT, CONNECTIONS, ETC. NOTIFY ENGINEER IF CONFLICTS EXIST.

NOT REVIEWED/ APPROVED BY CITY OF ROCKWALL

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

STOP!
CALL BEFORE YOU DIG
DIG TESS
1-800-DIG-TESS
(at least 72 hours prior to digging)

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

No.	Date	Revisions	App.
2	09/22/08	EXTEND ELECTRIC CONDUIT TO ADJ. PROPERTY	
1	09/22/08	NOTE TO REMOVE AND RELOCATE EX. POWER POLE	

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

COSTCO WHOLESALE
ROCKWALL, TEXAS

FRANCHISE UTILITY EXHIBIT

Scale: AS SHOWN
Designed by: RCG
Drawn by: RCG
Checked by: DKK
Date: August 14, 2008
Project No. 066000025

SHEET
C-14
OF 21

NOTE

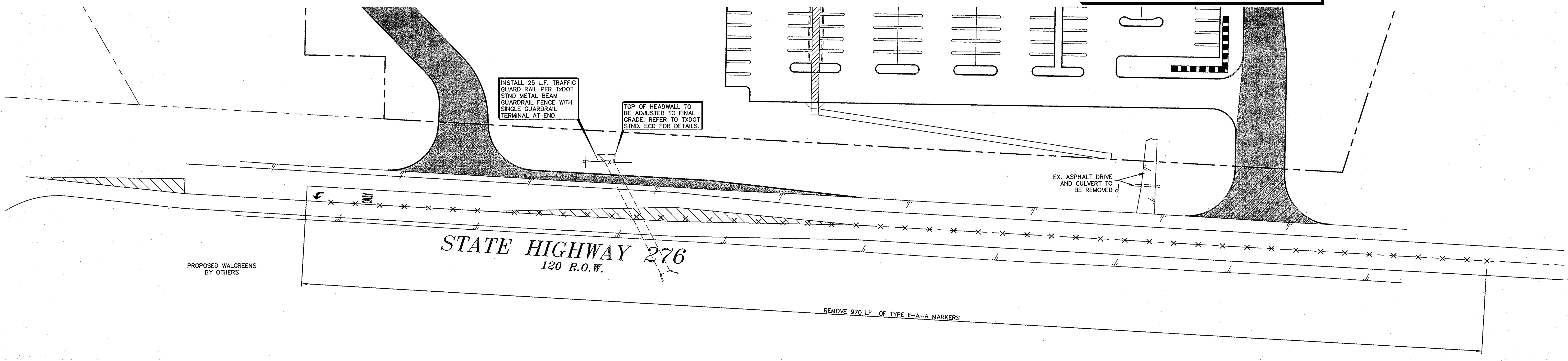
REFER TO TXDOT DETAIL PM(4)-03 AND PM(6)-01 FOR PAVEMENT MARKING AND STRIPING DETAILS.

LEGEND

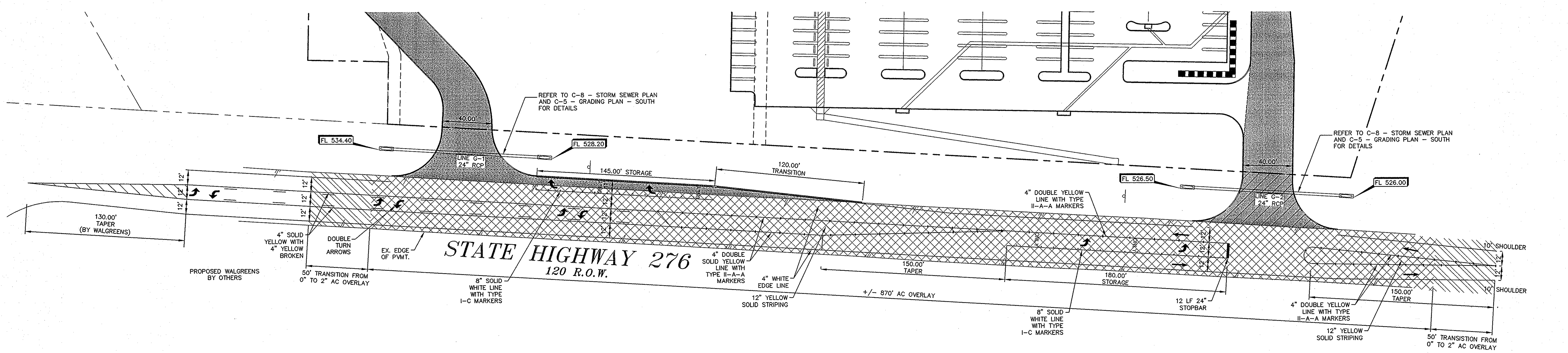
- PROP. HEAVY DUTY PAVEMENT — 6"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT W/ NO. 4 BARS, 16" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
- PROP. LIGHT DUTY PAVEMENT — 5"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 18" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
- TXDOT R.O.W PAVEMENT #1 — 8"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 24" O.C.E.W., ON 6" LIME TREATED SUBGRADE
- TXDOT R.O.W PAVEMENT #2 — 2" HMAC OVERLAY W/ 8" ASPHALT PAVEMENT PER TxDOT ITEM 340, MIXTURE TYPE C (WITH MIN. 3" PG 76-22 BINDER) OVER 10" LIME STABILIZED SUBGRADE W/ 4% LIME
- 2" AC OVERLAY ATOP EXISTING AC PAVEMENT
- 50' TRANSITION FROM 0" TO 2" AC OVERLAY ATOP EXISTING AC PAVEMENT

N W E S

0 40' 80'
GRAPHIC SCALE 40'



REMOVAL PLAN



PAVEMENT MARKING RE-STRIPING PLAN

03/06/09

RECORD DRAWING
THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

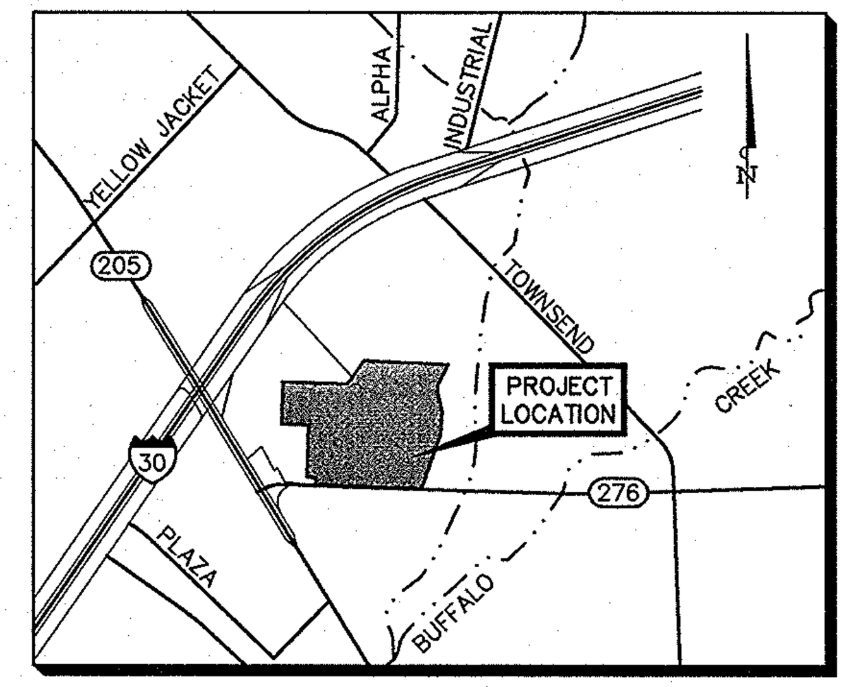
COSTCO WHOLESALE
ROCKWALL, TEXAS

S.H. 276 PAVEMENT STRIPING AND MARKING PLAN

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-15
OF 21

IMAGES 2016_001-
XREFS XREF x2436 - XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExut - XREF xSite - XREF xUtil - XREF xStrm - XREF xHatch - XREF xEsmt - XREF S13217 - SGP - KHA - XREF xTopo-offsite - XREF xCPH - XREF xAerial - XREF xStriping SH 276 - XREF xEx Striping SH 276 - XREF xGrad - XREF XBEnch - XREF 07019601-X2
PLOTTED BY COOPER, JASON 8/13/2008 7:49 PM
DWG NAME K:\FRI_CIVIL\66000025 COSTCO ROCKWALL\10CTX-STRIPING PLAN.DWG
LAST SAVED 8/4/2008 11:47 AM



VICINITY MAP
NOT TO SCALE

SITE MAP-GENERAL NOTES

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILS SELECTION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS – CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.

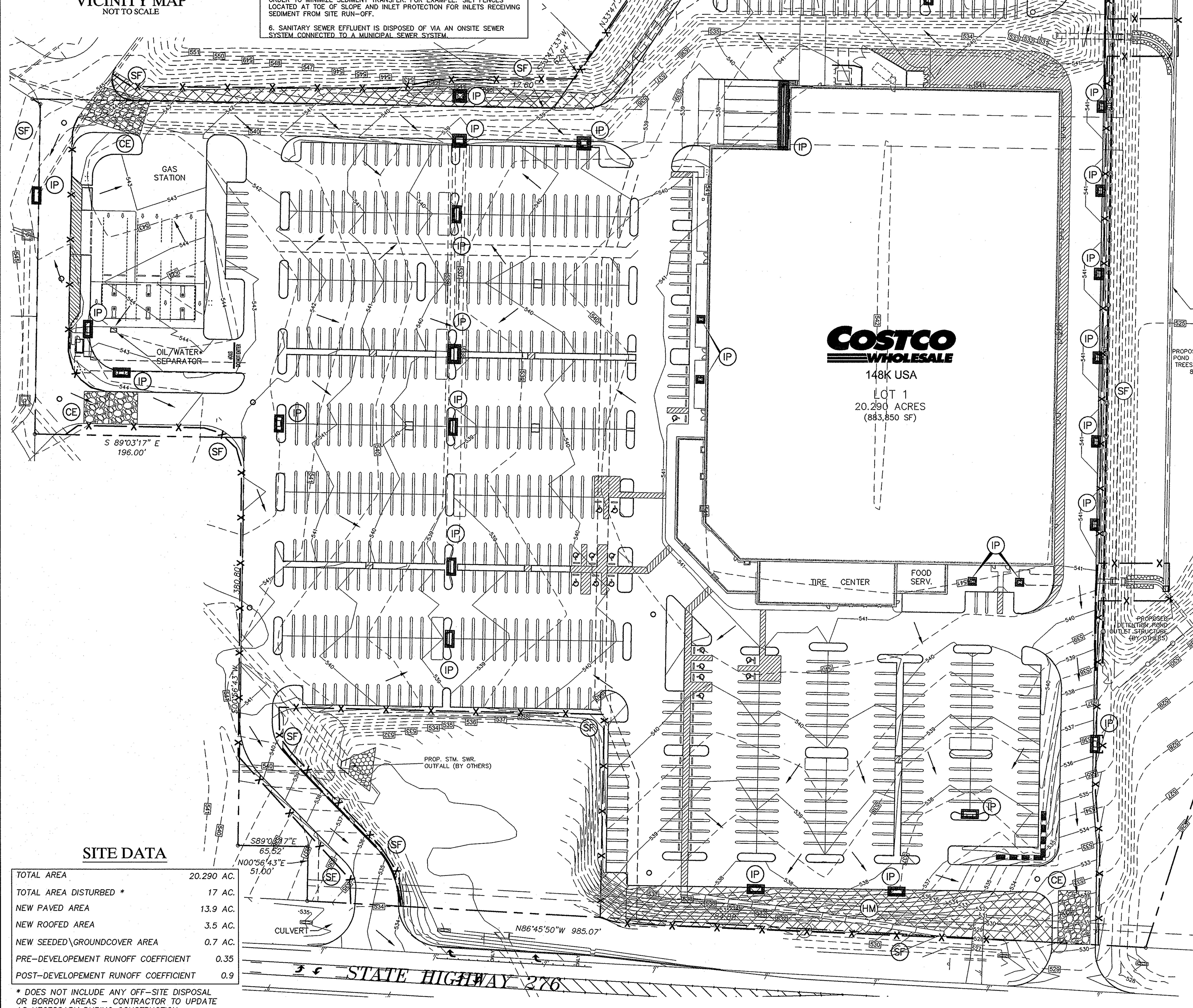
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.

3. DRAINAGE PATTERNS ARE SHOWN ON THIS PLAN BY PROPOSED AND EXISTING CONTOURS, FLOW ARROWS, AND SLOPES.

4. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.

5. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.

6. SANITARY SEWER EFFLUENT IS DISPOSED OF VIA AN ONSITE SEWER SYSTEM CONNECTED TO A MUNICIPAL SEWER SYSTEM.



RECORD DRAWING

03/06/09

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

N
W E
S

0 50' 100'
GRAPHIC SCALE 50'

LEGEND

- REINFORCED SILT FENCE (SF)
- INLET PROTECTION (IP)
- CONSTRUCTION ENTRANCE (CE)
- ROCK RIPRAP (RR)
- HYDROMULCH (HM)
- 540 PROPOSED CONTOURS
- [540] EXISTING CONTOURS

NOTE

NO EROSION CONTROL DEVICES SHALL BE PLACED IN TXDOT ROW. IF NECESSARY AT TIME OF CONSTRUCTION, CONTACT ENGINEER IMMEDIATELY AND REFER TO TXDOT DETAILS FOR EROSION CONTROL.

EROSION CONTROL SCHEDULE AND PHASING

THE PROJECT SHALL GENERALLY CONFORM TO THE FOLLOWING:

PHASE 1 – GRADING
- A. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, AND INLET PROTECTION ACCORDING TO THE APPROXIMATE LOCATION SHOWN ON THE GRADING AND EROSION CONTROL PLAN NOTES AND DETAIL SHEET.
- B. BEGIN CLEARING AND GRADING OF SITE.
- C. SEED AND REVEGETATE SLOPES WHERE NECESSARY.

PHASE 2 – UTILITIES
- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE.
- B. INSTALL STORM DRAINS AND INLET PROTECTION AS SPECIFIED ON PLAN SHEETS.

PHASE 3 – PAVING
- A. KEEP ALL STORM WATER POLLUTION PREVENTION MEASURES IN PLACE. REMOVE AS NEEDED TO PAVE.
- B. STABILIZE SUBGRADE.
- C. PAVE PARKING LOT AND SIDEWALKS AS SPECIFIED ON PLAN SHEETS.

PHASE 4 – LANDSCAPING AND DEVELOPMENT
- A. REVEGETATE LOT AND PARKWAYS
- B. LANDSCAPE CONTRACTOR SHALL REVEGETATE ALL AREAS RESERVED FOR LANDSCAPE VEGETATIVE COVERS.
- C. REMOVE EROSION CONTROL DEVICES WHEN GROUND COVER ESTABLISHED.

1. THE OWNER AND CONTRACTOR SHALL EACH SUBMIT A CONSTRUCTION SITE NOTICE (TXR 150000 FORM) TO THE CITY OF ROCKWALL AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. OWNER AND CONTRACTOR ARE RESPONSIBLE FOR RETAINING PROOF THAT THE FORM WAS SUBMITTED TO THE CITY (PROOF MUST CONSIST OF CERTIFIED MAIL WITH RETURN RECEIPT).

2. TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) CONSTRUCTION GENERAL PERMIT TXR150000 AND ALL APPLICABLE SPECIFICATIONS ARE HEREBY INCORPORATED INTO THIS SWPPP. CONTRACTOR SHALL OBTAIN AND KEEP A CURRENT COPY OF THESE DOCUMENTS AT THE CONSTRUCTION SITE.

3. ALL EROSION AND SEDIMENTATION CONTROLS MUST BE DESIGNED, INSTALLED AND MAINTAINED TO RETAIN SEDIMENT ON-SITE TO THE EXTENT PRACTICABLE.

4. ALL CONTROL MEASURES MUST BE SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES.

5. OFF-SITE ACCUMULATIONS OF SEDIMENT ESCAPING PROJECT SITE MUST BE REMOVED AT A FREQUENCY NECESSARY TO MINIMIZE OFF-SITE IMPACTS. FOR EXAMPLE, SEDIMENTATION WITHIN STREETS ADJACENT TO THE PROJECT SITE MUST BE REMOVED PRIOR TO RAINFALL EVENTS. ALL FINES IMPOSED FOR TRACKING ONTO PUBLIC ROADS SHALL BE PAID BY THE CONTRACTOR. IN ANY EVENT SILT SHALL ALWAYS BE REMOVED SUCH THAT PONDING IN A STREET IS PREVENTED.

6. CONTRACTOR MUST REMOVE SEDIMENT FROM ALL APPLICABLE CONTROLS WHEN DESIGN SILT STORAGE CAPACITY HAS BEEN REDUCED BY 50%.

7. CONTRACTOR SHALL ENSURE THAT ALL LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS ARE PREVENTED FROM BECOMING POLLUTANT SOURCES.

8. OFF-SITE MATERIAL STORAGE AREAS USED SOLELY FOR THIS PROJECT, INCLUDING DIRT STOCKPILES AND BORROW AREAS (AS APPLICABLE), MUST BE PREVENTED FROM BECOMING POLLUTANT SOURCES BY INSTALLATION OF BMP'S.

9. CONTRACTOR SHALL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE.

10. DISTURBED PORTIONS OF SITE MUST BE STABILIZED. STABILIZATION PRACTICES MUST BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION HAS BEEN EITHER TEMPORARILY OR PERMANENTLY CEASED, UNLESS EXCEPTED WITHIN THE NPDES/TPDES PERMIT.

11. CONTRACTOR MUST MAINTAIN RECORDS OF DATES IN THE SWPPP OF WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES EITHER TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED.

12. CONTRACTOR SHALL ENSURE THAT SWPPP IS CONSISTENT WITH SEDIMENT AND EROSION SITE PLANS, STORM WATER PERMITS, AND STORM WATER MANAGEMENT PLANS APPROVED BY STATE, TRIBAL, OR LOCAL OFFICIALS. UPDATES TO SWPPP ARE REQUIRED UPON WRITTEN NOTICE TO PERMITTEE OF CHANGES APPLICABLE TO STORM WATER PERMITS, SEDIMENT AND EROSION CONTROL PLANS, OR STORM WATER MANAGEMENT PLANS BY SUCH OFFICIALS.

13. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND ANY OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWPPP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. WHEN INSPECTIONS IDENTIFY CONTROLS OPERATING INEFFECTIVELY, THE CONTROLS SHALL BE MAINTAINED PRIOR TO THE NEXT RAINFALL EVENT OR AS NECESSARY TO MAINTAIN EFFECTIVENESS OF THE CONTROL, OR AS SOON AS PRACTICABLE.

14. CONTRACTOR SHALL INSPECT DISTURBED AREAS, MATERIAL STORAGE AREAS EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND VEHICLE ENTRY AND EXIT AREAS AT LEAST ONCE EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER OR ONCE EVERY 7 DAYS ON THE SAME DAY OF THE WEEK EACH WEEK, REGARDLESS IF THERE HAS BEEN A RAINFALL EVENT. THE SWP3 MUST REFLECT THE SCHEDULE IN USE.

15. CONTRACTOR SHALL INSPECT STABILIZED AREAS AND AREAS WHERE RUNOFF IS UNLIKELY DUE TO FROZEN OR ARID WEATHER CONDITIONS AT LEAST ONCE PER MONTH.

16. CONTRACTOR SHALL INSPECT ACCESSIBLE DISCHARGE LOCATIONS (OR NEARBY DOWNSTREAM LOCATIONS IF DISCHARGE POINT IS NOT ACCESSIBLE) IN ORDER TO ASCERTAIN WHETHER OR NOT EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.

17. STRUCTURAL BMP'S SHOULD NOT, TO THE DEGREE ATTAINABLE, BE PLACED WITHIN FLOODPLAINS.

18. BASED ON INSPECTION RESULTS, REVISIONS TO SWPPP MUST BE MADE WITHIN 7 CALENDAR DAYS OF THE INSPECTION. NEW OR MODIFIED CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE NEXT RAINFALL EVENT, OR AS SOON AS PRACTICABLE.

19. REPORTS SUMMARIZING THE SCOPE OF ALL INSPECTIONS, INCLUDING NAME AND QUALIFICATIONS OF INSPECTOR, DATE OF INSPECTION, AND MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWPPP (INCLUDING LOCATION OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS, LOCATION OF CONTROLS THAT NEED TO BE MAINTAINED, LOCATIONS WHERE CONTROLS ARE INADEQUATE OR ARE OPERATING IMPROPERLY, AND LOCATIONS WHERE ADDITIONAL CONTROLS ARE NEEDED) MUST BE SIGNED BY THE INSPECTOR PER 30 TEXAS ADMINISTRATIVE CODE (TAC) SECTION 305.128, AND RETAINED WITHIN THE SWPPP FOR AT LEAST 3 YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED. REPORTS THAT DO NOT IDENTIFY INCIDENTS OF NON-COMPLIANCE SHALL CONTAIN A CERTIFICATION STATING THAT THE SITE IS IN COMPLIANCE WITH THE SWPPP AND THE GENERAL PERMIT.
THE CONTRACTOR SHALL CERTIFY AS FOLLOWS:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

20. CONTRACTOR SHALL IDENTIFY ALL SOURCES OF ALLOWABLE NON-STORM WATER THAT WILL BE COMBINED WITH STORM WATER AT THE SITE (EXCEPT FIRE-FIGHTING ACTIVITIES) AND ENSURE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR NON-STORM WATER COMPONENT(S) OF DISCHARGE.

21. CONTRACTOR SHALL ENSURE THAT THE INDIVIDUAL SIGNING THE SWPPP MAKES THE CERTIFICATION UNDER PART VI.G.2.d OF THE GENERAL PERMIT. THIS CERTIFICATION MUST APPEAR WITHIN THE SWPPP.

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

SITE DATA

TOTAL AREA	20.290 AC.
TOTAL AREA DISTURBED *	17 AC.
NEW PAVED AREA	13.9 AC.
NEW ROOFED AREA	3.5 AC.
NEW SEEDED\GROUNDCOVER AREA	0.7 AC.
PRE-DEVELOPEMENT RUNOFF COEFFICIENT	0.35
POST-DEVELOPEMENT RUNOFF COEFFICIENT	0.9

* DOES NOT INCLUDE ANY OFF-SITE DISPOSAL OR BORROW AREAS – CONTRACTOR TO UPDATE AS NECESSARY DURING CONSTRUCTION.

IMAGES
XREFS XREF xAsbt - XREF xBndy - XREF xExut - XREF xExnt - XREF xSite - XREF xStrm - XREF xEsmt - X
PLOTTED BY COOPER, JASON 8/13/2008 7:50 PM
DWG NAME K:\FRI_CIVIL\66000025 COSTCO ROCKWALL\10C EROSION CONTROL.DWG
LAST SAVED 8/11/2008 9:49 AM

No.	Date	Revisions	App.

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Fax No.(972) 335-3779

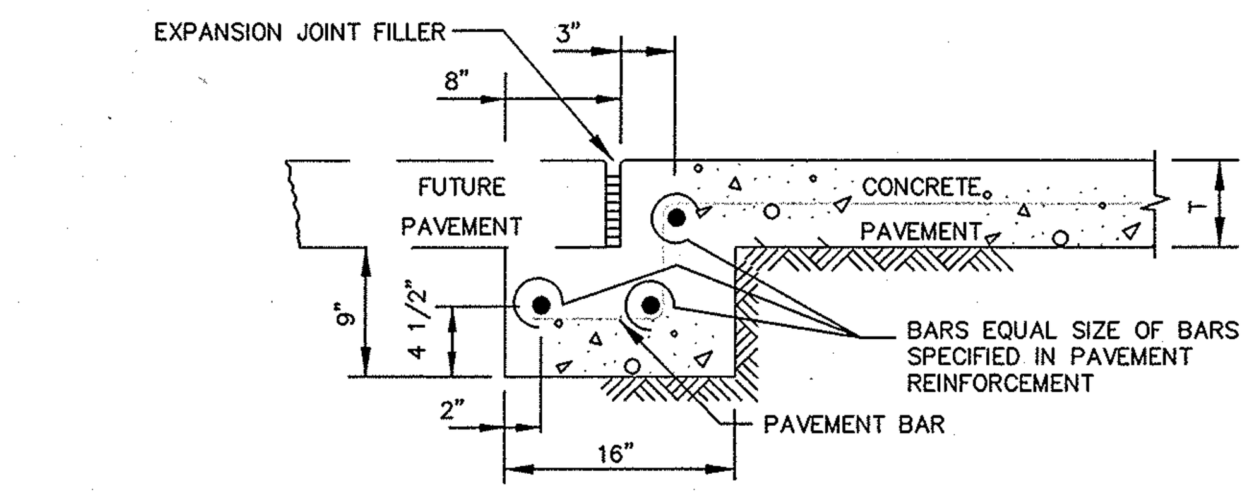
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

EROSION CONTROL PLAN

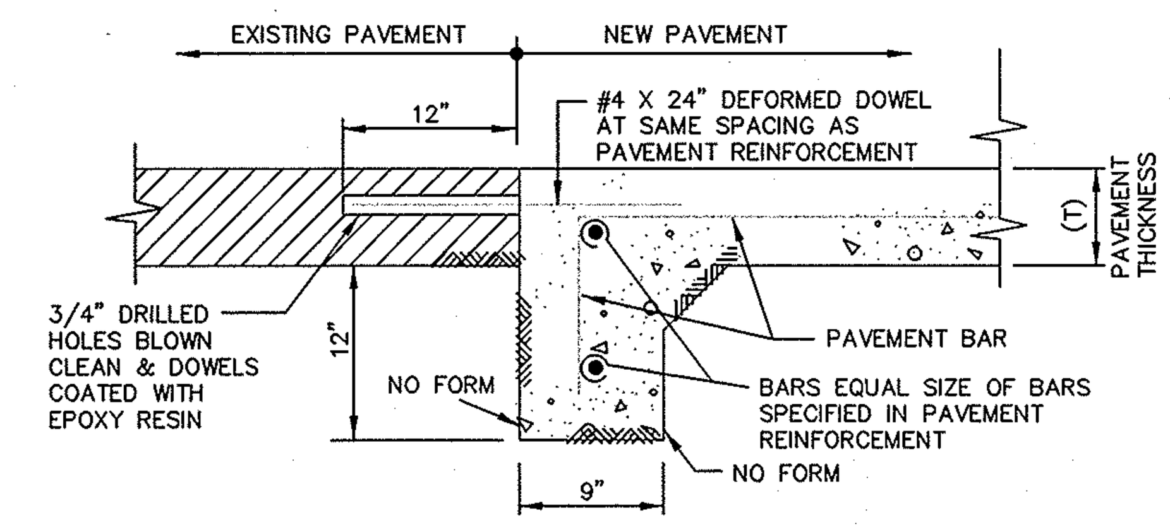
Scale:	AS SHOWN
Designed by:	RCG
Drawn by:	RCG
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-16
OF 21



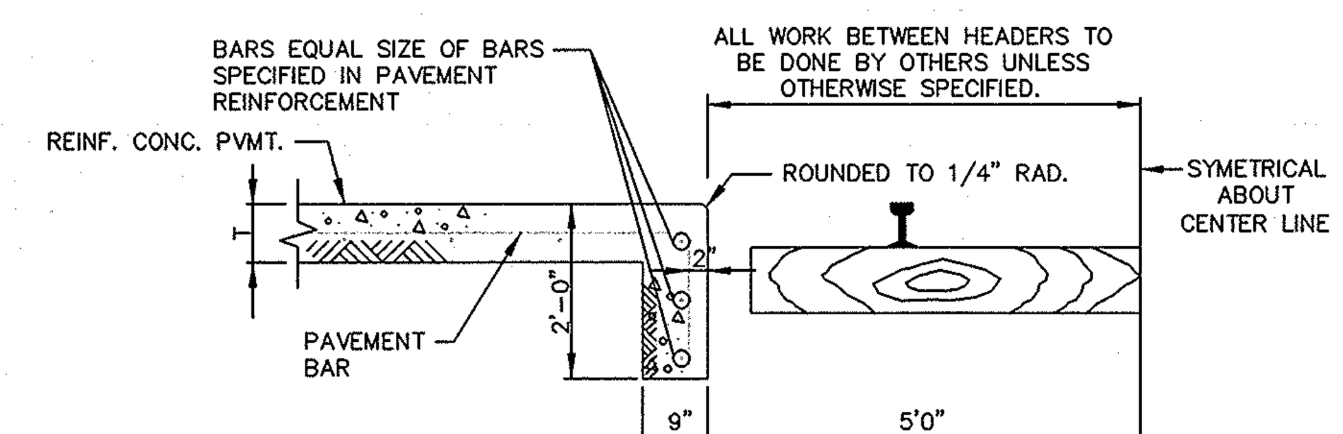
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

N.T.S.



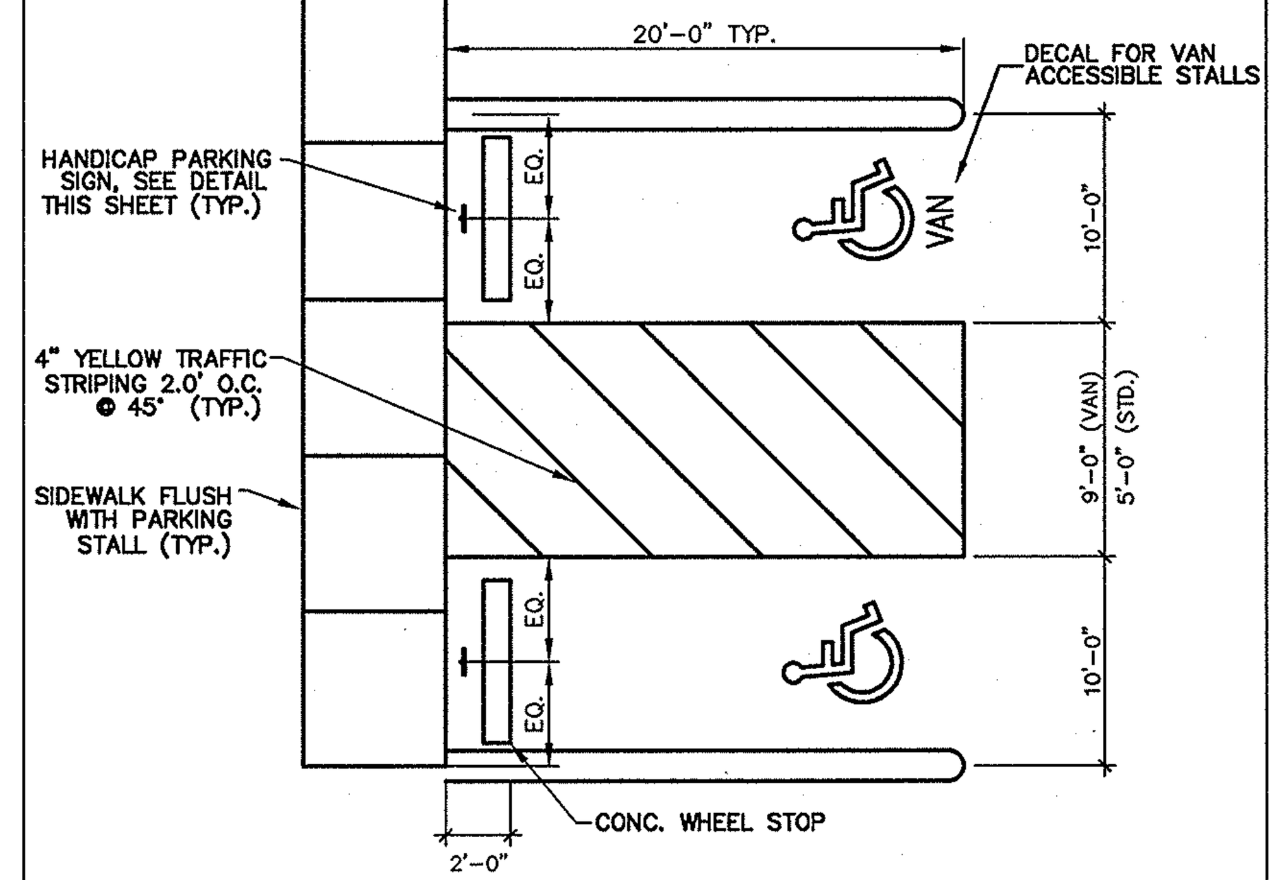
NOTES:
1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT TO BE MONOLITHIC.

STREET HEADER AT RAILROAD

N.T.S.

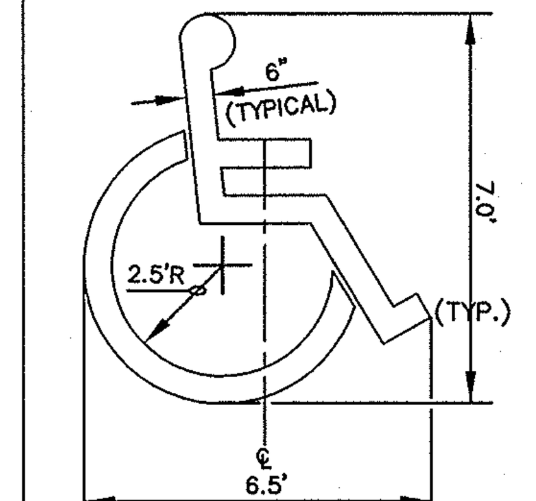
REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.4	
STREET HEADERS		DATE OCT. '04	STANDARD DRAWING NO. 2070

WARNING: PAVING SLOPES IN EXCESS OF TWO PERCENT (2%) IN ANY DIRECTION WILL BE CAUSE FOR REJECTION OF HC PARKING STALLS. CONTRACTOR TO VERIFY SPOT ELEVATIONS PRIOR TO PAVING AND TO ENSURE COMPLIANCE.



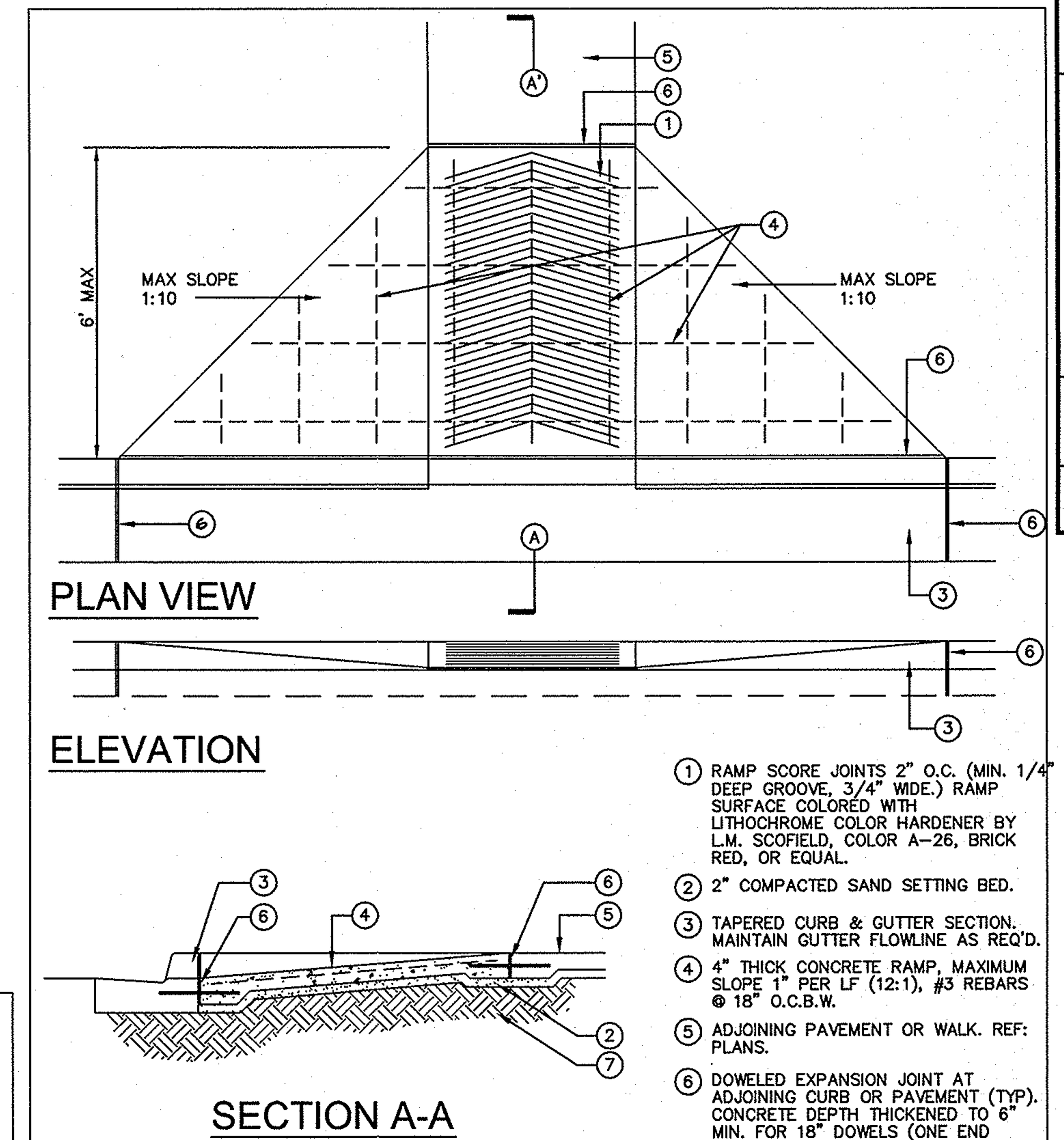
HANDICAPPED PARKING DETAILS

SCALE: NONE



ACCESSIBLE PARKING SYMBOL

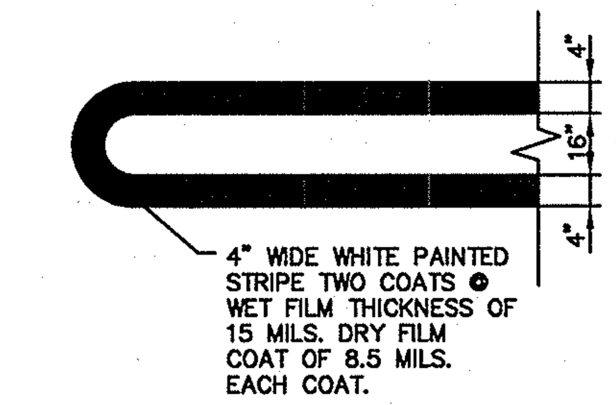
LOCATE AT EDGE OF PARKING SPACE UNLESS ACCOMPANIED BY "VAN" LETTERING



1. RAMP SCORE JOINTS 2" O.C. (MIN. 1/4" DEEP GROOVE, 3/4" WIDE.) RAMP SURFACE COLORED WITH LITHOCHROME COLOR HARDENER BY L.M. SCOFIELD, COLOR A-26, BRICK RED, OR EQUAL.
2. 2" COMPACTED SAND SETTING BED.
3. TAPERED CURB & GUTTER SECTION. MAINTAIN GUTTER FLOWLINE AS REQ'D.
4. 4" THICK CONCRETE RAMP, MAXIMUM SLOPE 1" PER LF (12:1), #3 REBARS @ 18" O.C.B.W.
5. ADJOINING PAVEMENT OR WALK. REF: PLANS.
6. DOWELED EXPANSION JOINT AT ADJOINING CURB OR PAVEMENT (TYP). CONCRETE DEPTH THICKENED TO 6" MIN. FOR 18" DOWELS (ONE END SLEEVED) @ 18" O.C.
7. COMPACTED SUBGRADE

ONSITE FLARED ACCESSIBLE CURB RAMP

N.T.S.



PARKING STRIPE DETAIL

SCALE: NONE

03/06/09

RECORD DRAWING

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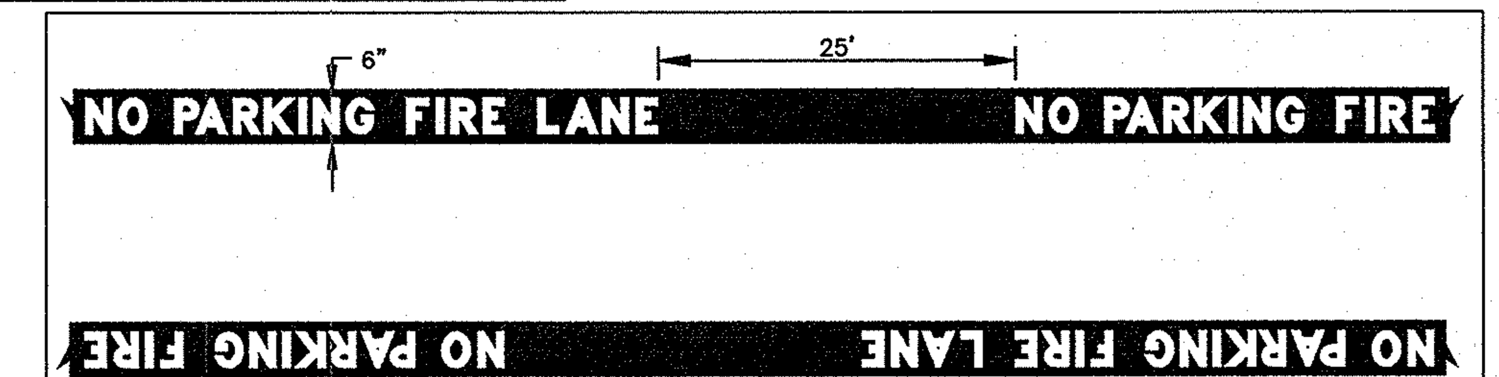
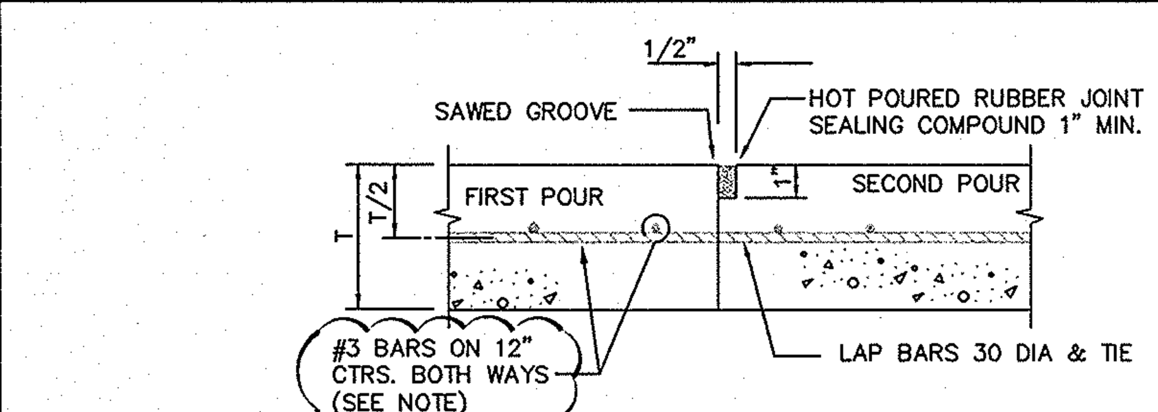


FIRE LANE STRIPING SHALL BE 6" RED STRIPES WITH 4" INCH WHITE LETTERS READING "NO PARKING FIRE LANE". STRIPING SHALL BE PLACED ALONG BOTH SIDES OF FIRE LANE AND ON VERTICAL AND HORIZONTAL FACES OF CURB WHERE AVAILABLE OR AS SPECIFIED BY LOCAL REQUIREMENTS.

FIRE LANE MARKING

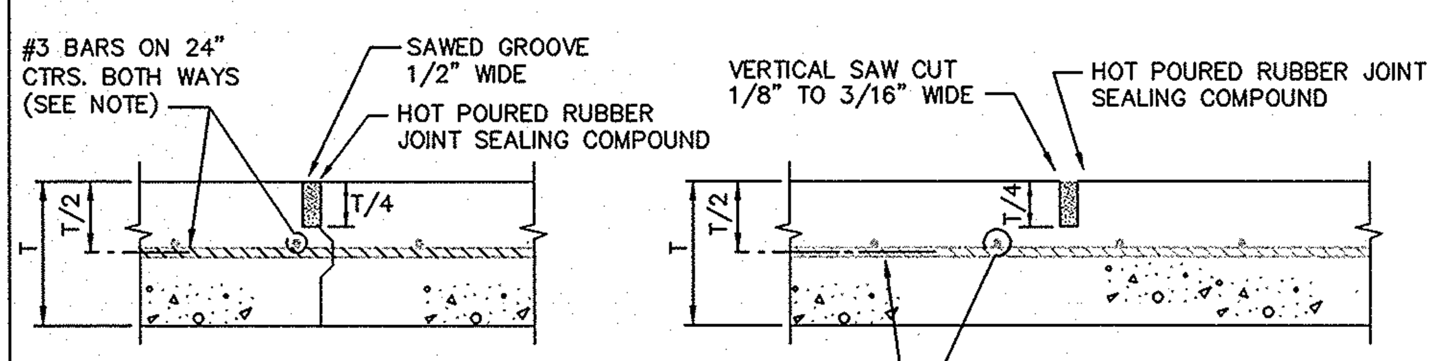
N.T.S.

NOTE:
1. CONTRACTION JOINT SPACING NOT TO EXCEED 15'.



CONSTRUCTION JOINT

N.T.S.



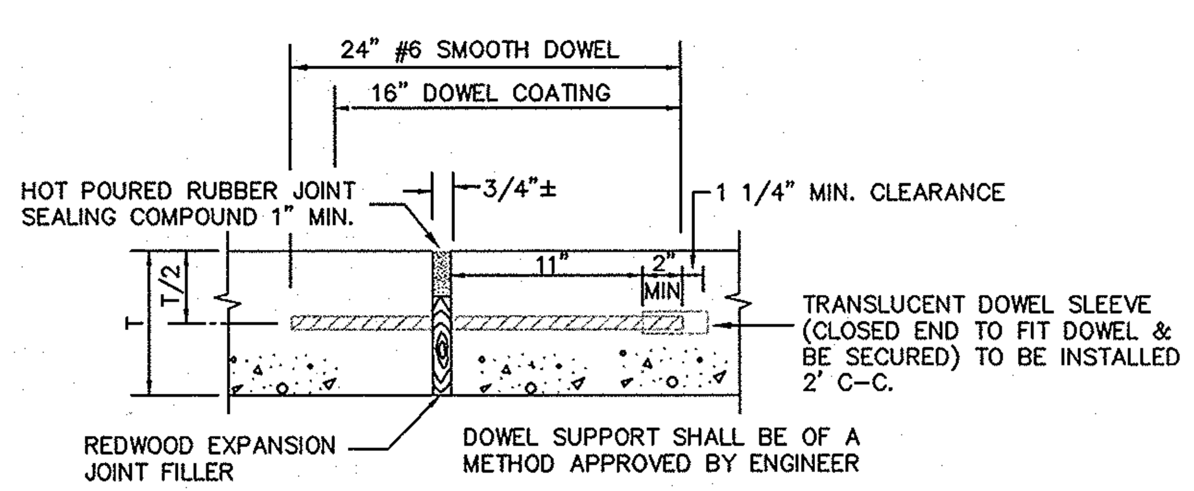
KEYWAY JOINT

(FOR PAVEMENT THICKNESS > 6")

N.T.S.

SAWED CONTRACTION JOINT

N.T.S.



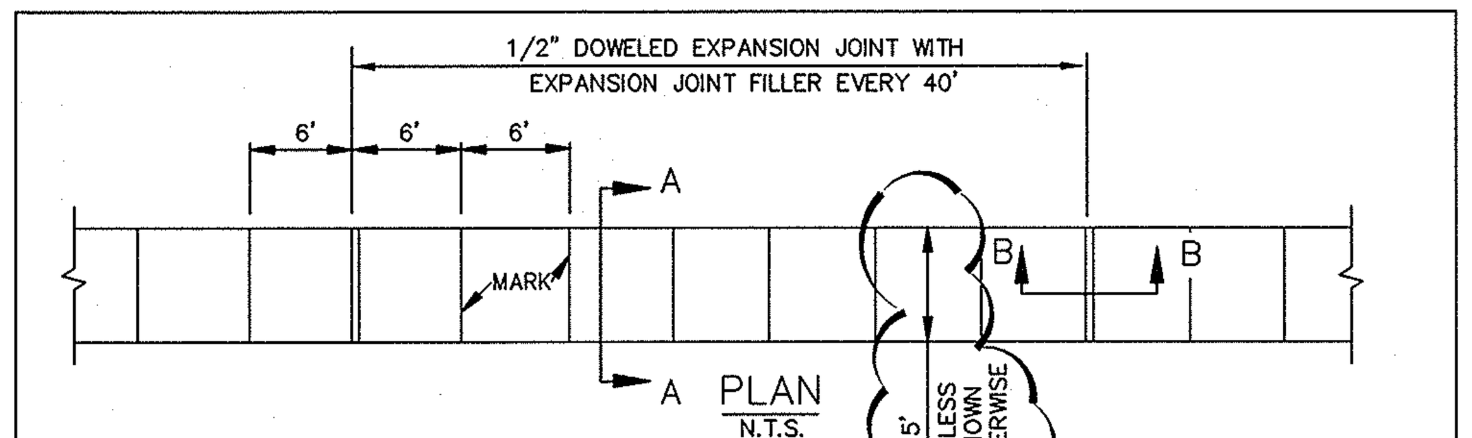
EXPANSION JOINT

(SPACED 600 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)

N.T.S.

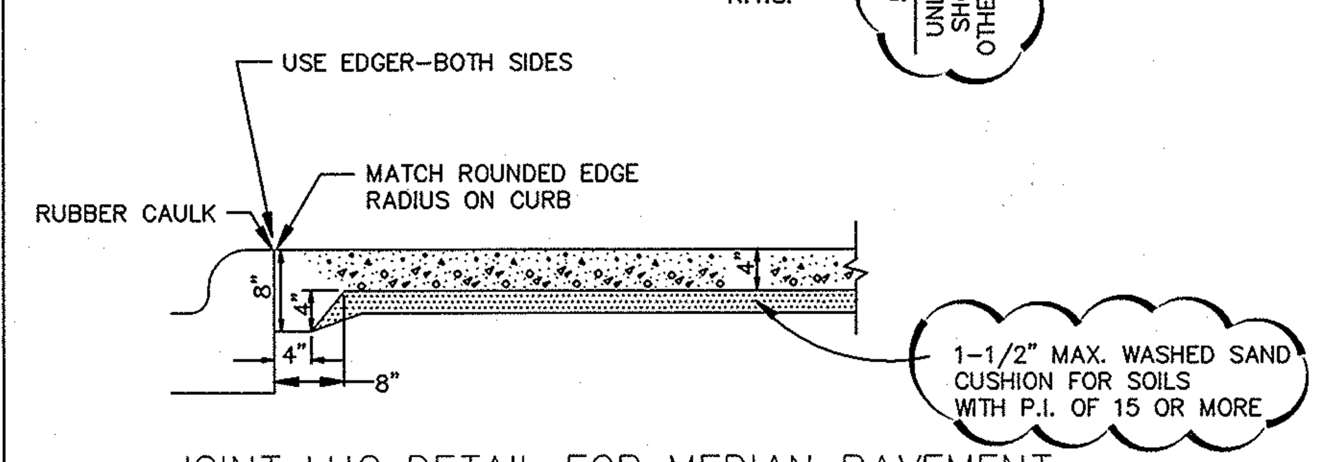
REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 5.8.	
JOINTS		DATE NOV. '96	STANDARD DRAWING NO. 2050

(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)



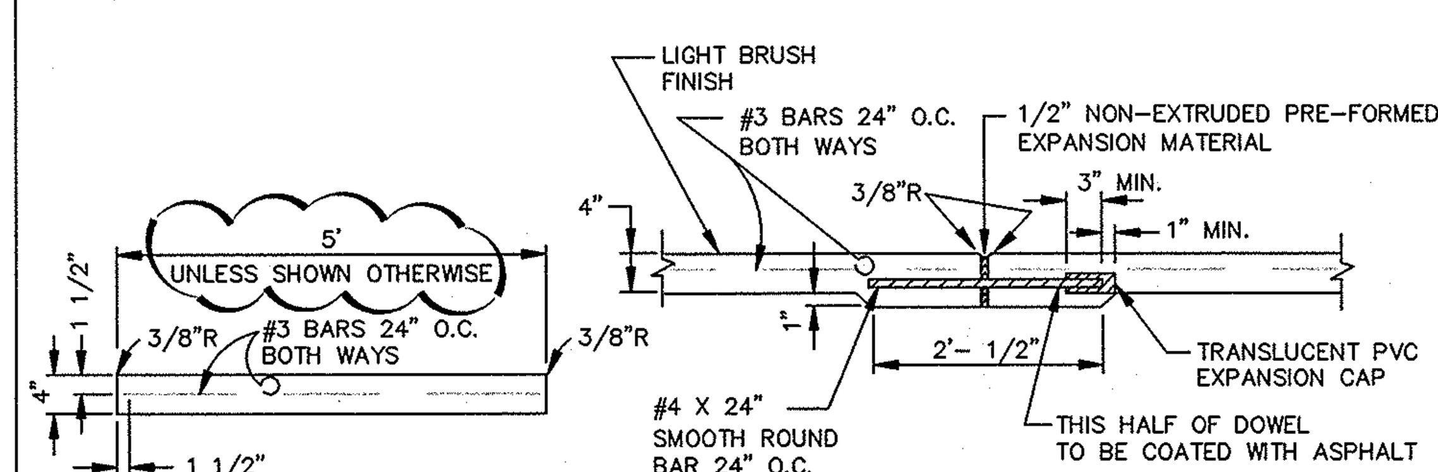
PLAN

N.T.S.



JOINT LUG DETAIL FOR MEDIAN PAVEMENT OR SIDEWALK ADJACENT TO CURB

N.T.S.



SECTION "A-A"

N.T.S.

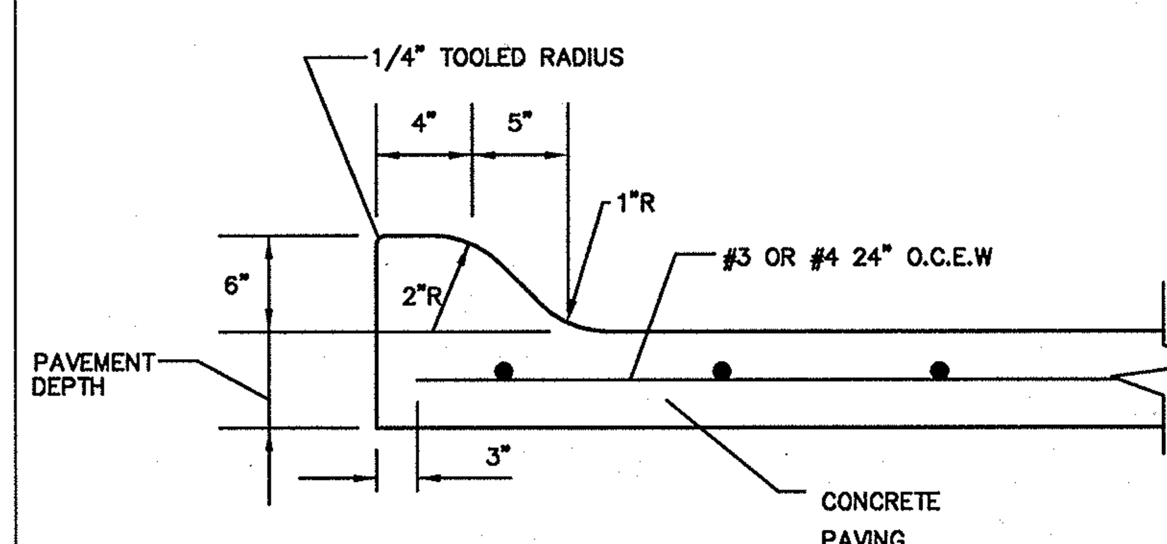
SECTION "B-B"

N.T.S.

NOTE:
1. REFER TO STANDARD SPECIFICATION ITEM 305.2 FOR ALTERNATE REINFORCEMENT.
2. CROSS SLOPE OF SIDEWALK SHALL BE 1/4" PER FT. MAX. FOR ACCESSIBLE ROUTES AND ± 3/8" PER FT. MAX. FOR ALL OTHER AREAS.
3. SIDEWALK SHALL BE CLASS "A" CONCRETE UNLESS OTHERWISE SPECIFIED BY OWNER.
4. ALL HONEYCOMB IN BACK OF CURB TO BE TROWEL-PLASTERED BEFORE POURING SIDEWALK.
5. LUG MAY BE FORMED BY SHAPING SUBGRADE TO APPROXIMATE DIMENSIONS SHOWN.

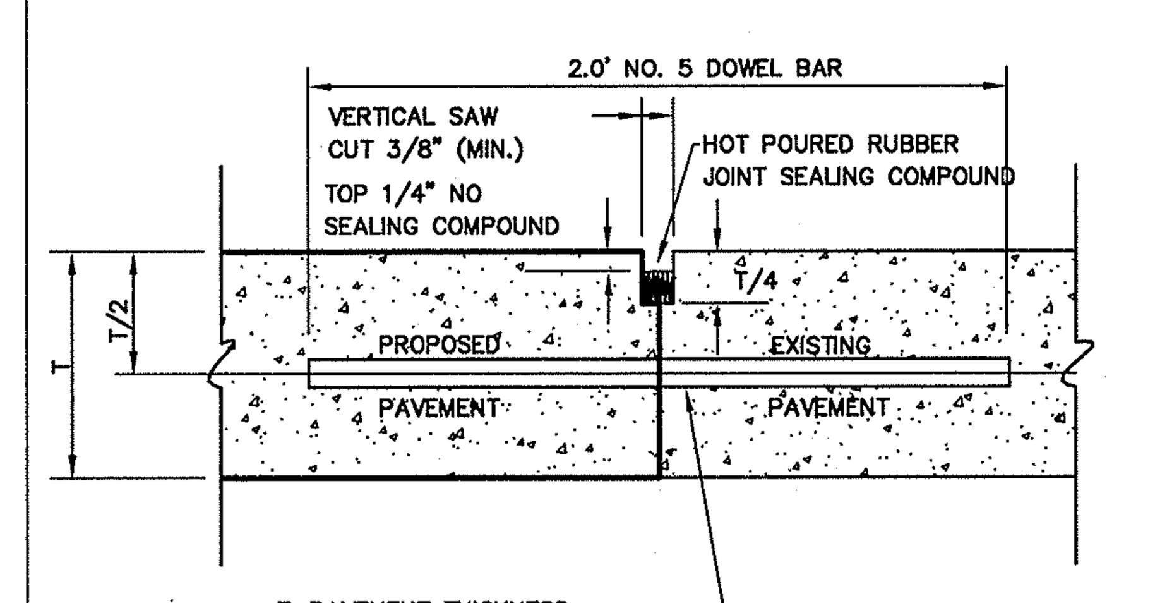
REINFORCED CONCRETE SIDEWALKS	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.2	
JOINTS AND SPACING		DATE OCT. '04	STANDARD DRAWING NO. 2170

(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)



MOUNTABLE MONOLITHIC CURB

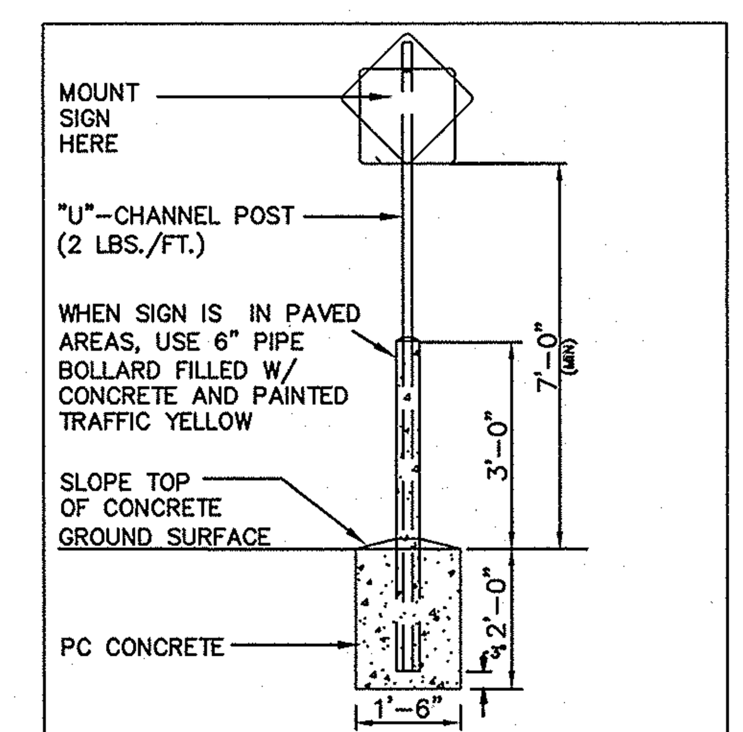
NTS



NOTES:
1. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG. DRILLING BY HAND IS NOT ACCEPTABLE

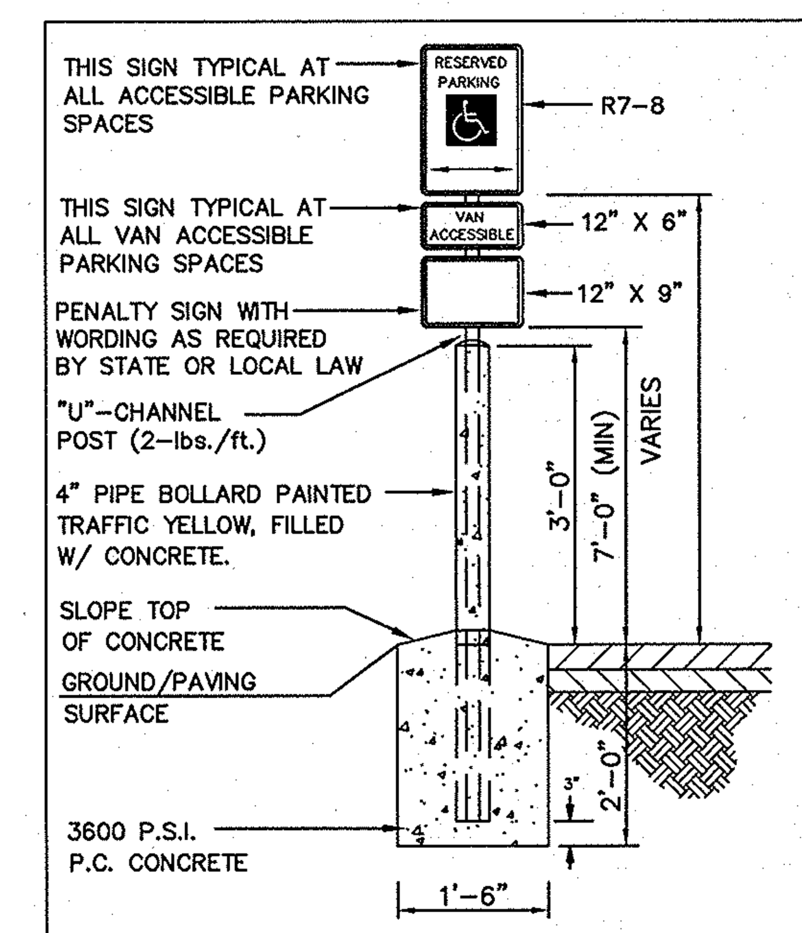
LONGITUDINAL BUTT JOINT

SCALE: NONE



STANDARD SIGN BASE

N.T.S.



ACCESSIBLE PARKING SIGN

N.T.S.

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS — DAVID K. KOCHALKA — 87781 — LICENSED PROFESSIONAL ENGINEER — 8-14-08

COSTCO WHOLESALE

ROCKWALL, TEXAS

PAVING AND STRIPING DETAILS

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000035

SHEET

C-18

OF 21

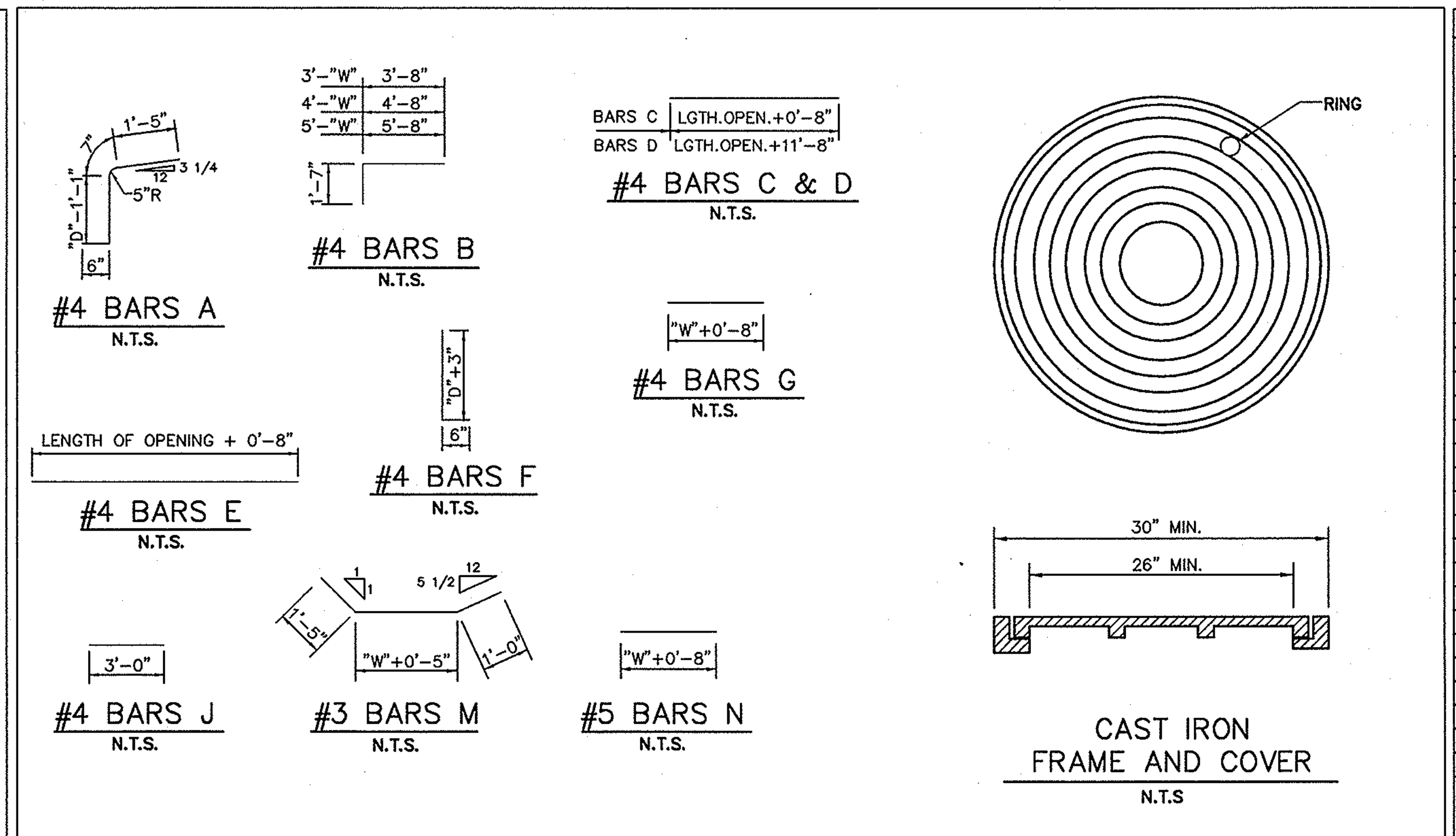
IMAGES
XREFS
PLOTTED BY
DWG NAME
LAST SAVED

SUMMARY OF QUANTITIES FOR CURB INLETS

DEPTH "D"	5'-0" OPENING						10'-0" OPENING						15'-0" OPENING						20'-0" OPENING					
	WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"	
	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.
3'-6"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	564	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976
3'-9"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046
4'-3"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	394	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115
4'-9"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	367	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144
5'-3"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208
5'-9"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	888	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276
6'-3"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340
6'-9"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404
7'-3"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451
7'-9"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510
8'-3"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.28	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565
8'-9"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.97	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631
9'-3"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696
10'-0"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

CURB INLET
SUMMARY OF QUANTITIES
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6020E



(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)

NOTE:
INLET LID TO BE LOCKING.

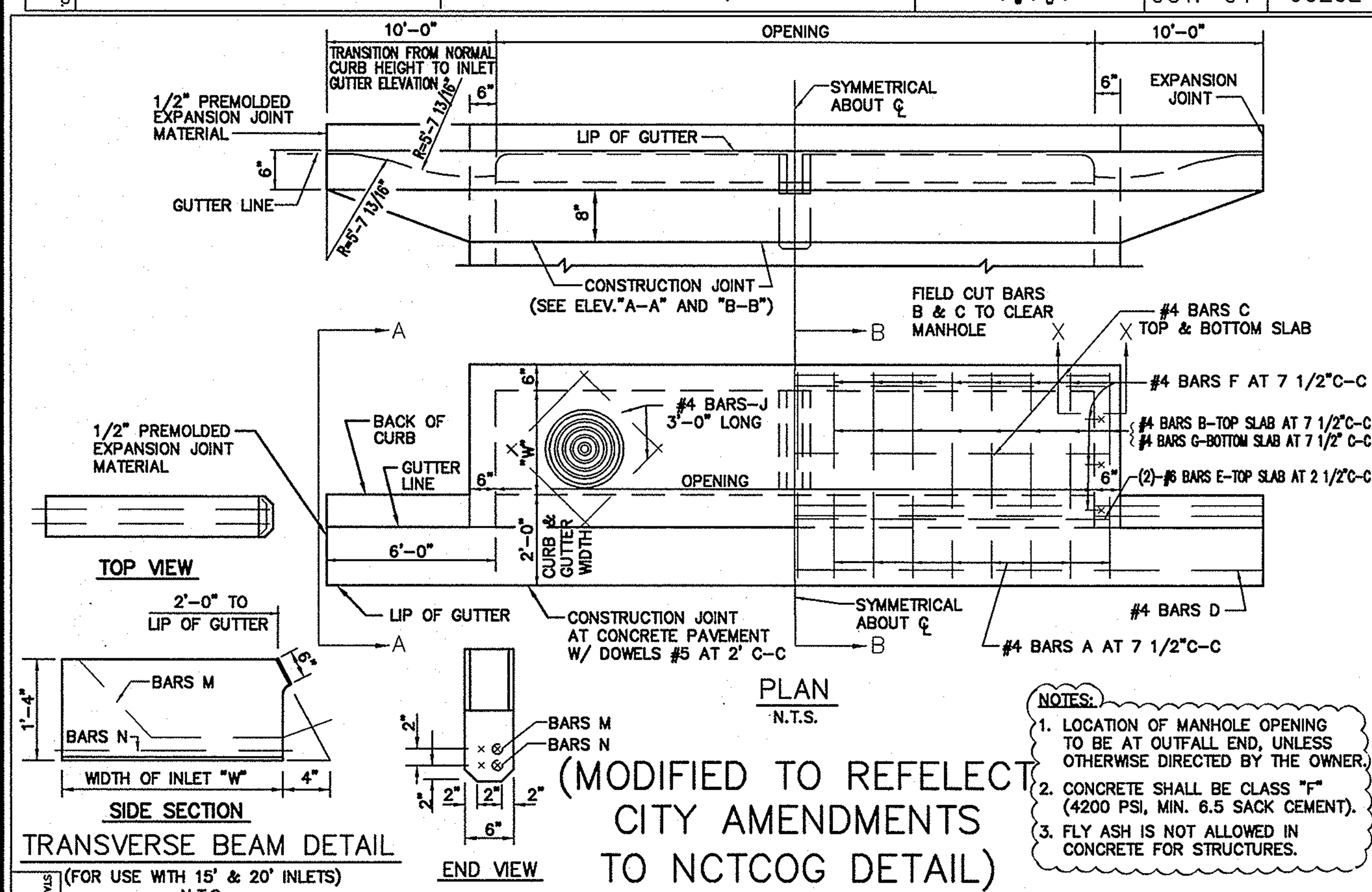
CURB INLET
REBAR & M.H. FRAME & COVER
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6020C

BILL OF REINFORCING STEEL

DEPTH "D"	ALL WIDTHS AND LENGTHS				OPENING LENGTH "L" = 5ft						OPENING LENGTH "L" = 10ft						OPENING LENGTH "L" = 15 ft								OPENING LENGTH "L" = 20 ft							
					Widths "W" 3ft	4ft	5ft				Widths "W" 3ft	4ft	5ft				Widths "W" 3ft	4ft	5ft						Widths "W" 3ft	4ft	5ft					
	BARS C	BARS D	BARS E	BARS J	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS M	BARS N	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS M	BARS N
3'-6"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	18	28	36	40	44	26	26	36	2	2	44	48	52	34	34	44	2	2
3'-9"	18	"	"	"	"	"	"	"	"	20	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	"	"	44	"	"
4'-0"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	48	"	"
4'-3"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	48	"	"
4'-6"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
4'-9"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
5'-0"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
5'-3"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	52	"	"
5'-6"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	52	"	"
5'-9"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-0"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-3"	26	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-6"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	"	"	56	"	"
6'-9"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	"	"	56	"	"
7'-0"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-3"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-6"	30	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-9"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-0"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-3"	32	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-6"	33	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	62	"	"
8'-9"	34	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	62	"	"
9'-0"	35	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	64	"	"
9'-3"	36	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	64	"	"
9'-6"	37	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	66	"	"
10'-0"	38	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	66	"	"

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

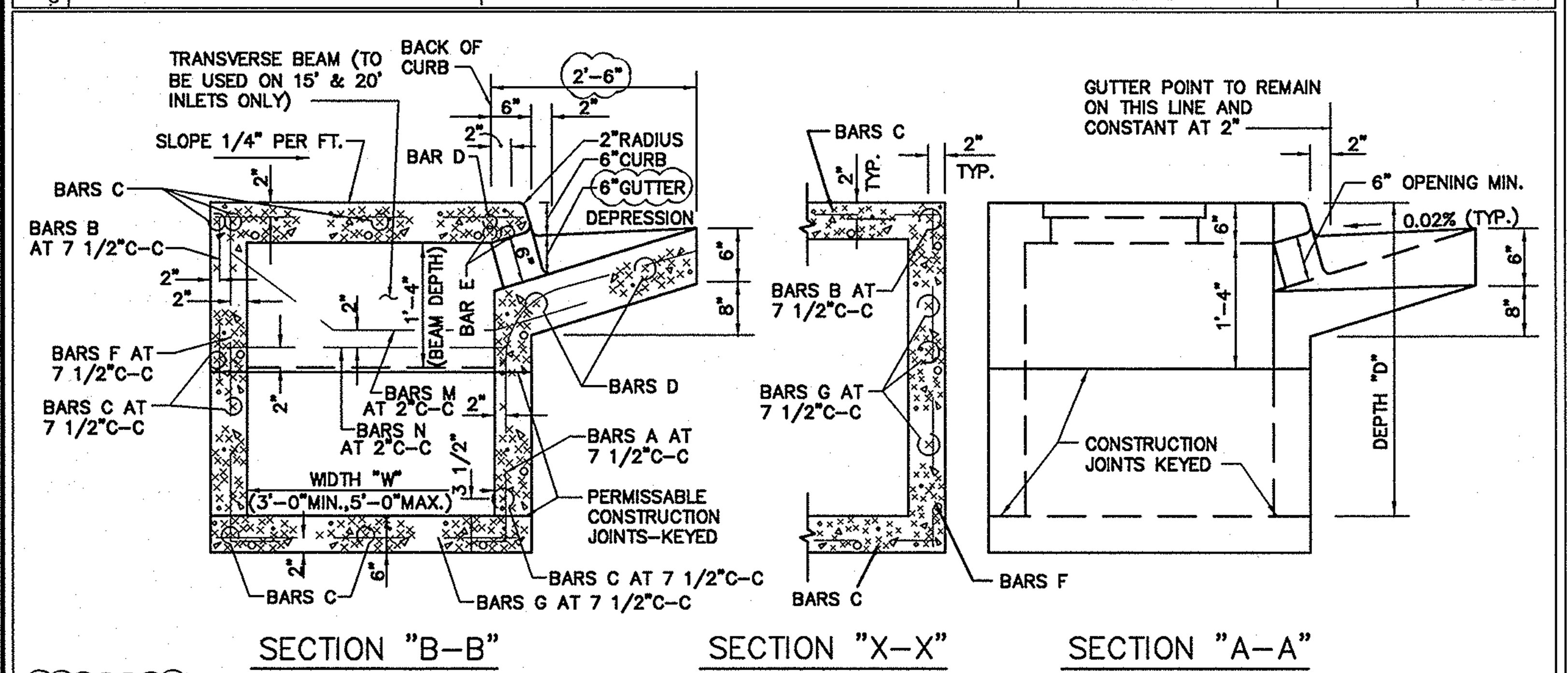
CURB INLET
BILL OF REINFORCING STEEL
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6020D



NOTES:
1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. CONCRETE SHALL BE CLASS "F" (4200 PSI, MIN. 6.5 SACK CEMENT).
3. FLY ASH IS NOT ALLOWED IN CONCRETE FOR STRUCTURES.

(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)

CURB INLET
5', 10', 15' OR 20' OPENING
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6020A

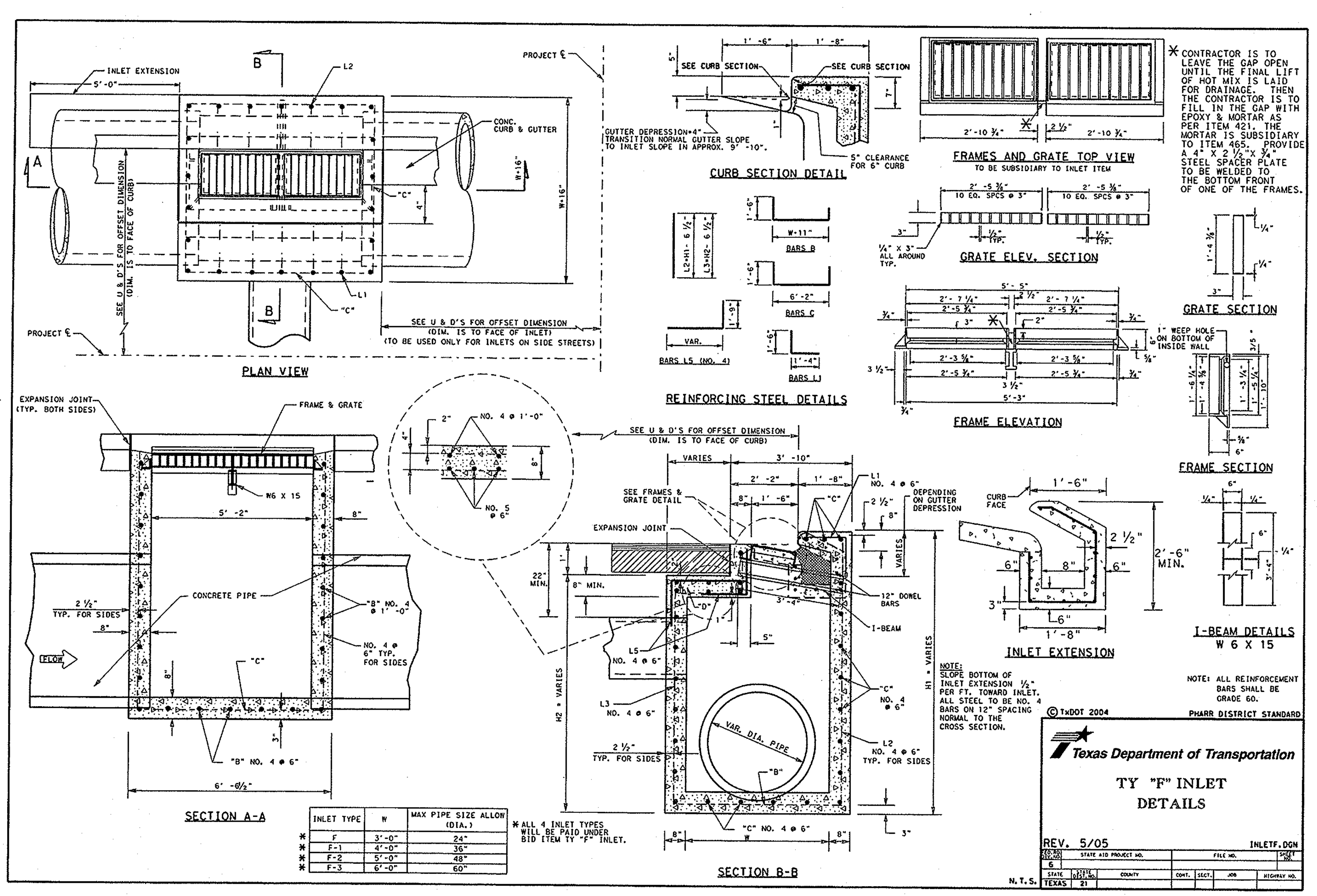


GENERAL NOTES:
1. ALL CONCRETE SHALL BE CLASS "F" CONCRETE (4200 PSI, MIN. 6.5 SACK CEMENT).
2. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
3. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMODATE STORM SEWER PIPE.
6. RING AND COVER SHALL BE APPROVED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.
7. FLY ASH IS NOT ALLOWED IN CONCRETE FOR STRUCTURES.

(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)

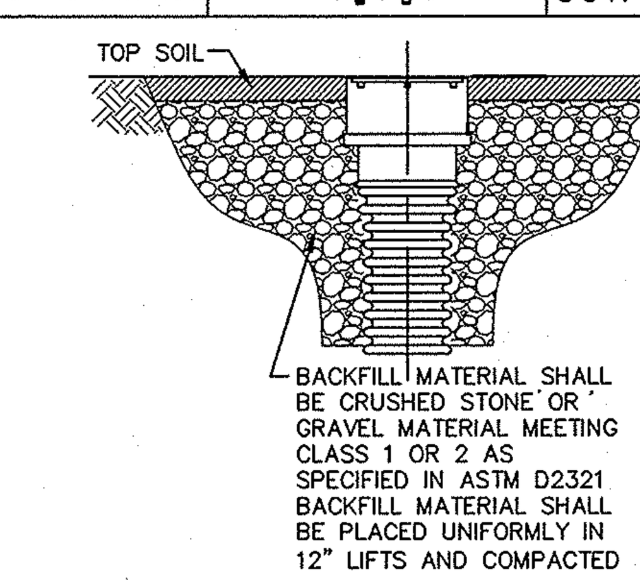
CURB INLET
CROSS SECTION & INLET THROAT
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6020B

Combination Inlet - Combination INlet2 - Manhole Cover -
XREF x2436
COOPER, JASON 8/13/2008 7:50 PM
K:\FRI_CIVIL\66000025 COSTCO ROCKWALL\10C DET-STM.DWG
8/4/2008 11:31 AM



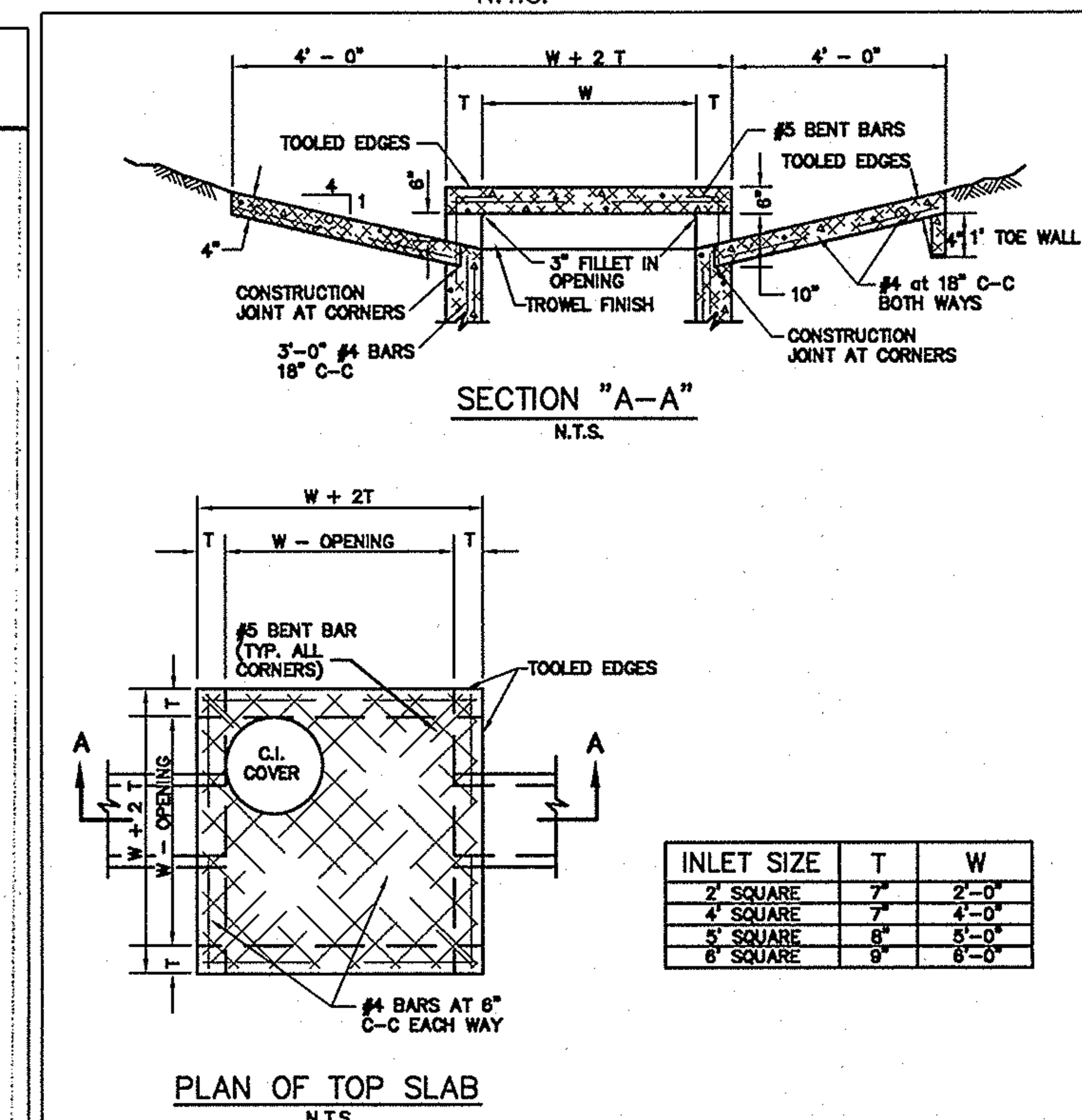
03/06/09

RECORD DRAWING
THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.



NOTE:
ALL GRATE INLETS SHALL BE NYLOPLAST-ADS PRODUCTS OR APPROVED EQUAL.

LANDSCAPE DRAIN DETAIL
N.T.S.



INLET SIZE	T	W
2' SQUARE	7"	2'-0"
4' SQUARE	7"	4'-0"
5' SQUARE	8"	5'-0"
6' SQUARE	9"	6'-0"

NOTES:
1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF NCTCOG STANDARD SPECIFICATIONS FOR STANDARD CONCRETE MANHOLES. MINIMUM CLASS "A" CONCRETE.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. FOR DETAILS OF REINFORCING OF LOWER PORTIONS OF INLET SEE APPROPRIATE SQUARE MANHOLE DETAILS.
4. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH WILL BE SHOWN ON PLANS AT LOCATION OF INLET.
5. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS OTHERWISE SHOWN ON PLANS.
6. DECK MAY BE REINFORCED SAME AS 4' SQUARE MANHOLE.

DROP INLET
2', 4', 5' OR 6' SQUARE
North Central Texas Council of Governments
STANDARD SPECIFICATION REFERENCE 702
DATE OCT. '04 — STANDARD DRAWING NO. 6040

NOTES:
1. REFERENCE CITY OF ROCKWALL STANDARD DRAWINGS AND NCTCOG FOR ALL OTHER APPLICABLE DETAILS.
2. REFERENCE CITY OF ROCKWALL AMENDMENTS TO THE NCTCOG STANDARD DRAWINGS (AS CLOUDED ON THE MODIFIED NCTCOG STANDARD DRAWINGS SHOWN ON THIS PAGE).

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

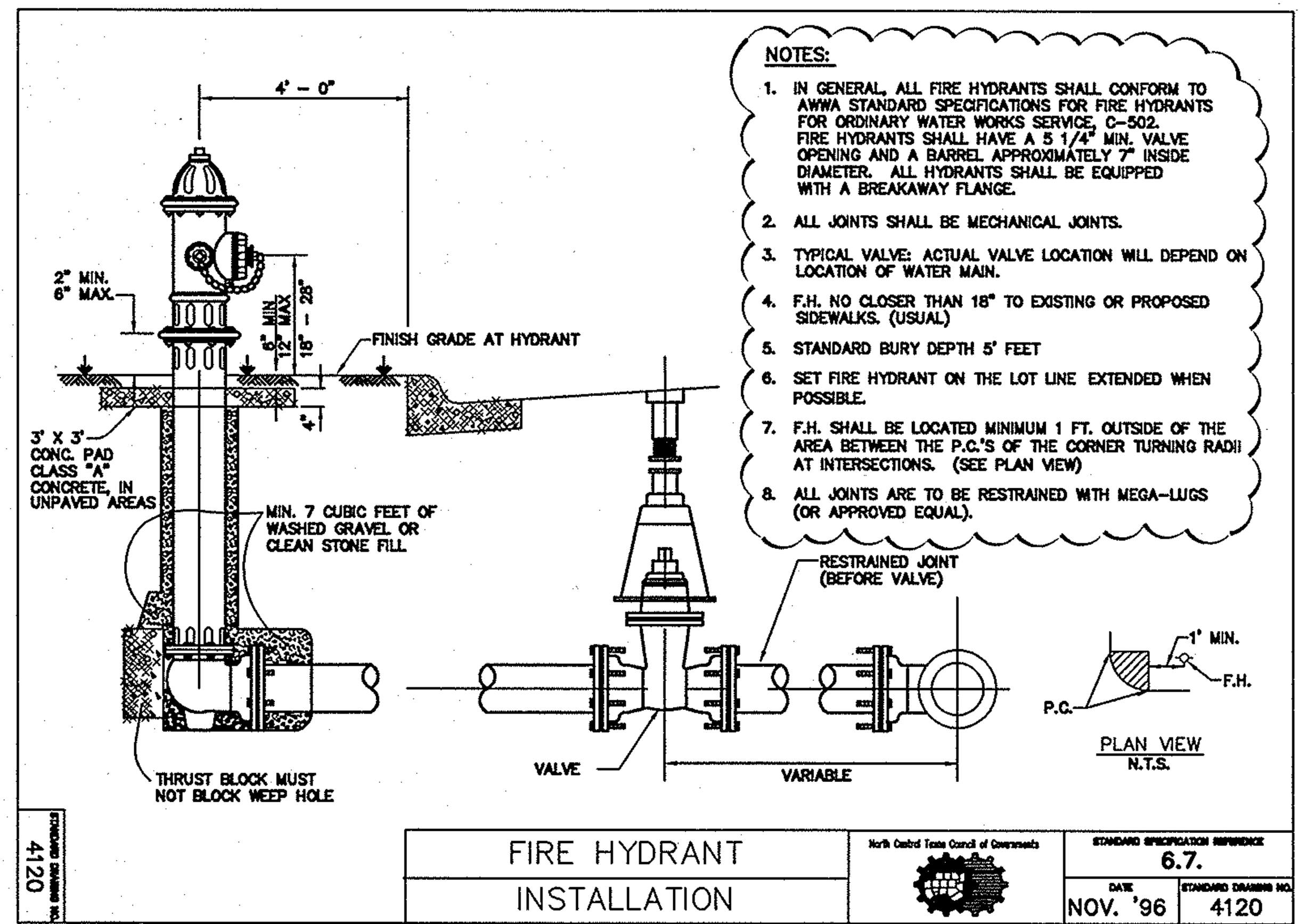
STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

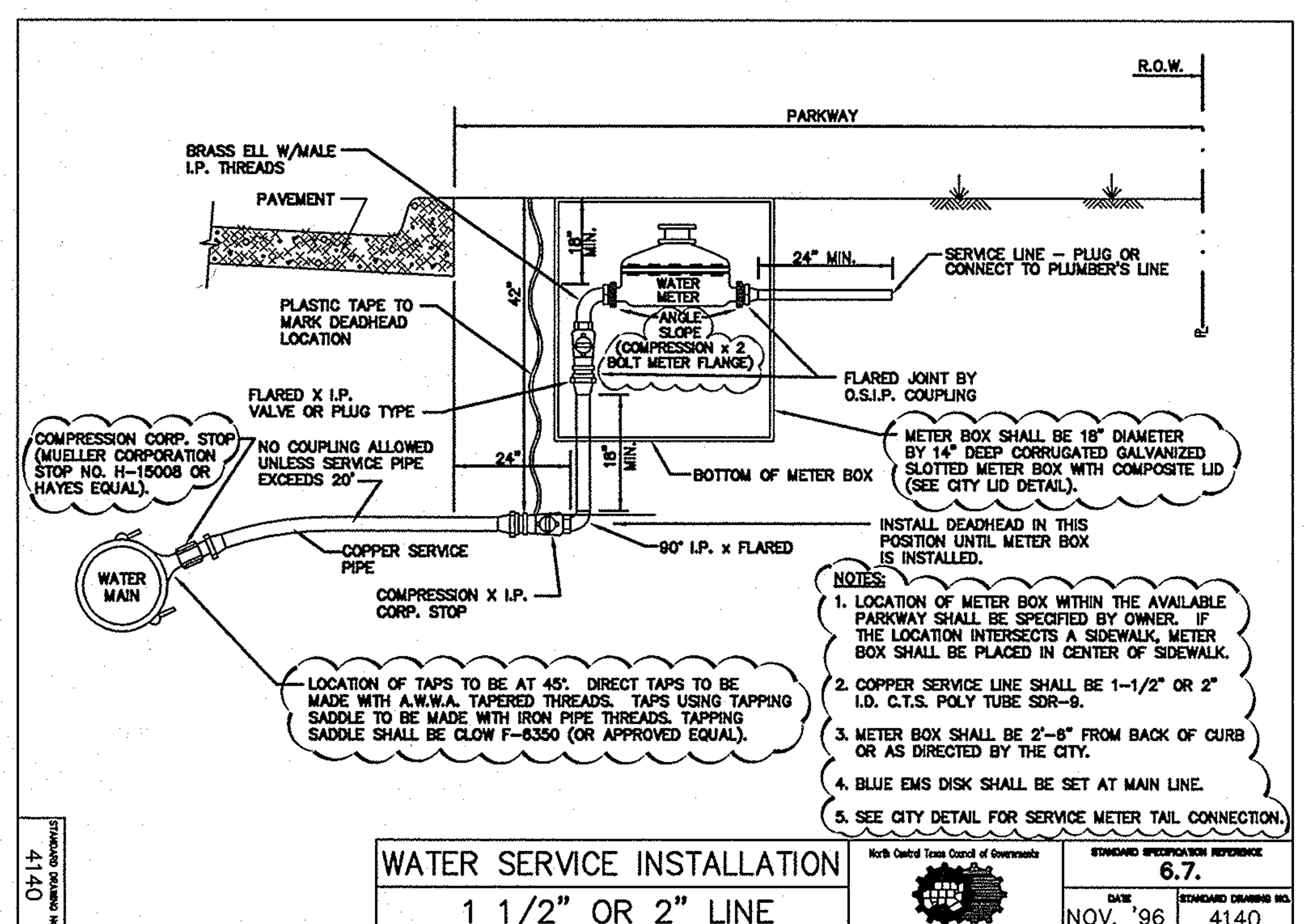
STORM SEWER DETAILS

Scale: AS SHOWN
Designed by: KFD
Drawn by: KFD
Checked by: DKK
Date: August 14, 2008
Project No. 066000025

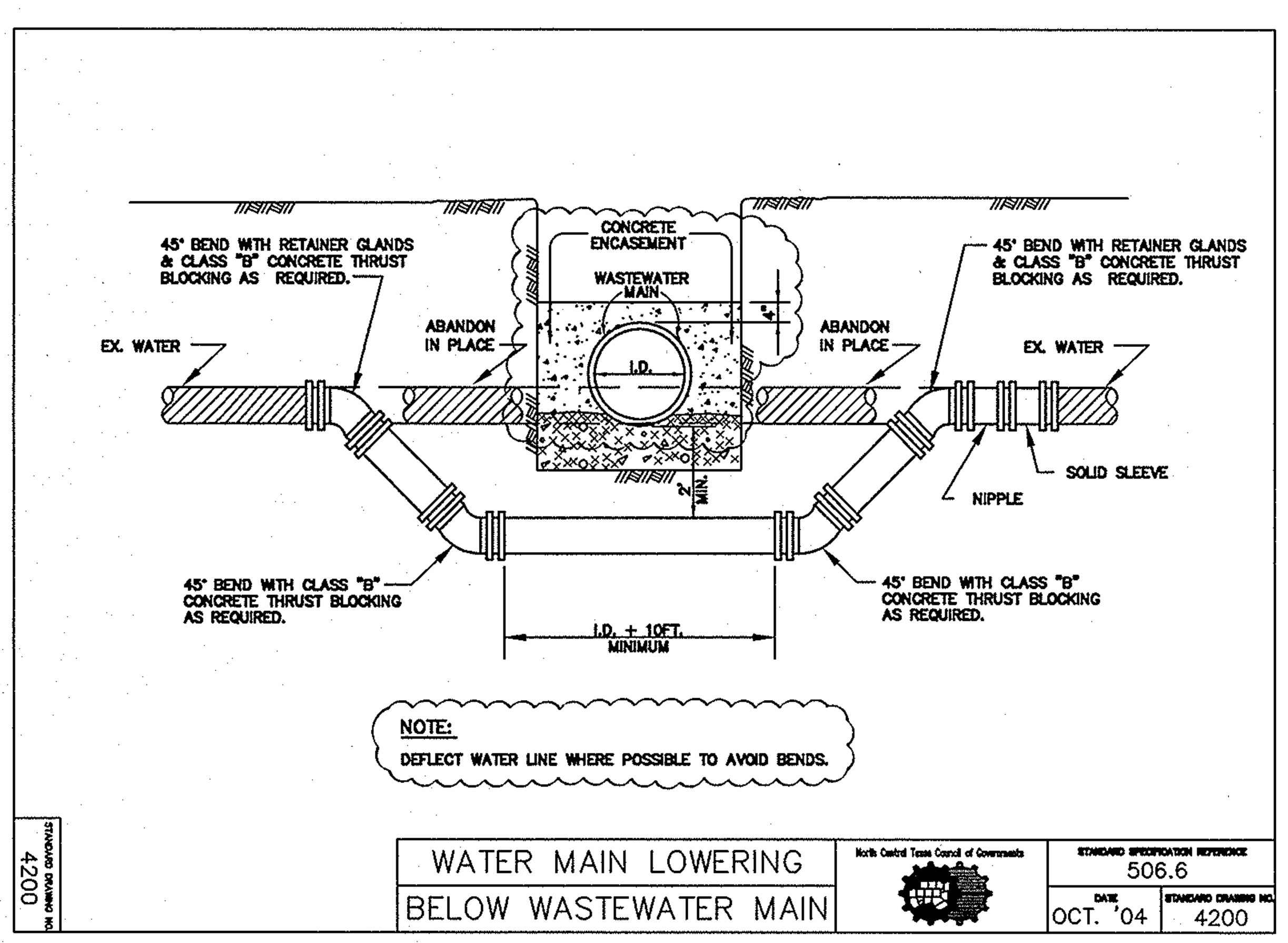
SHEET
C-19
OF 21



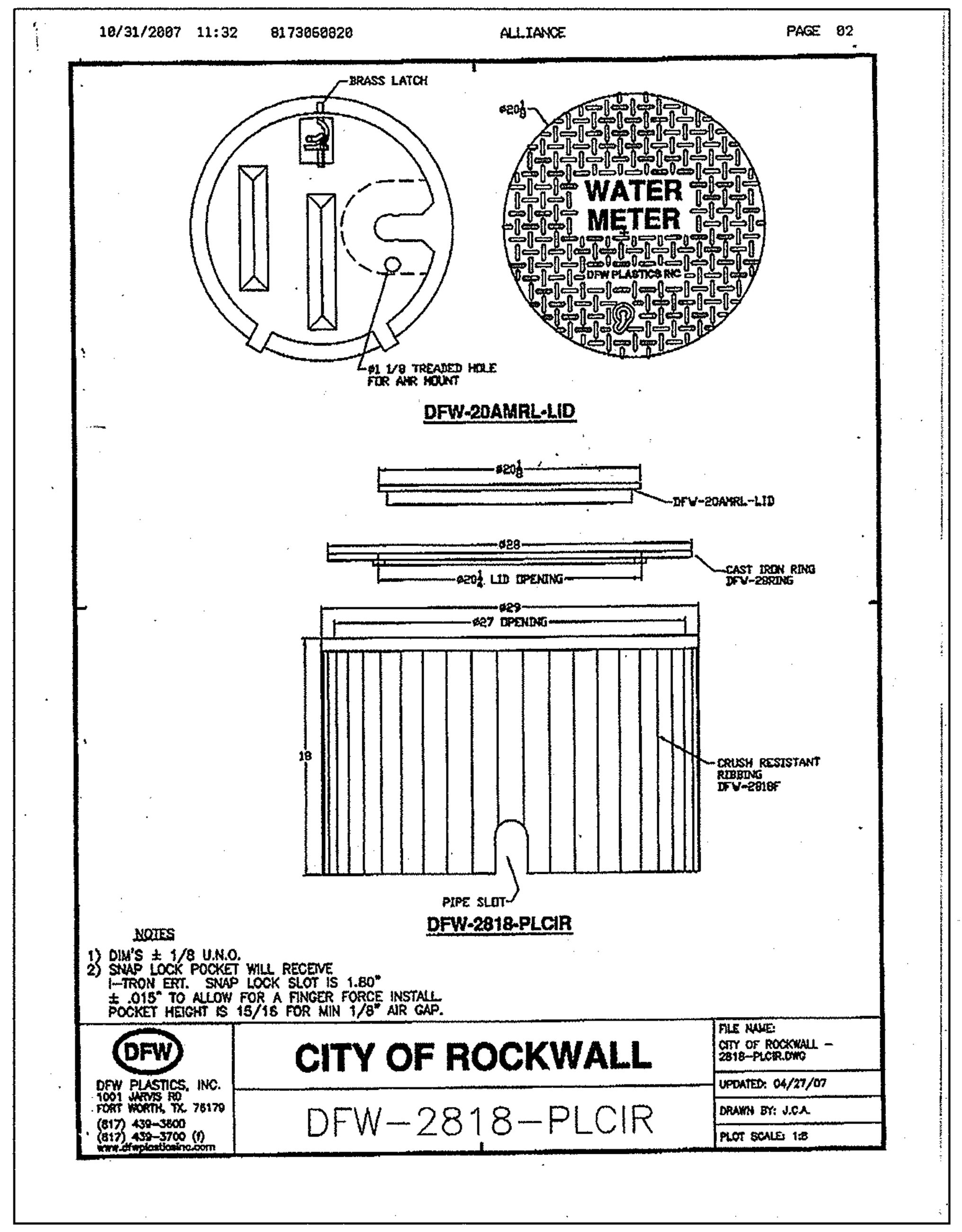
(MODIFIED TO REFLECT CITY AMENDMENTS TO NCTCOG DETAIL)

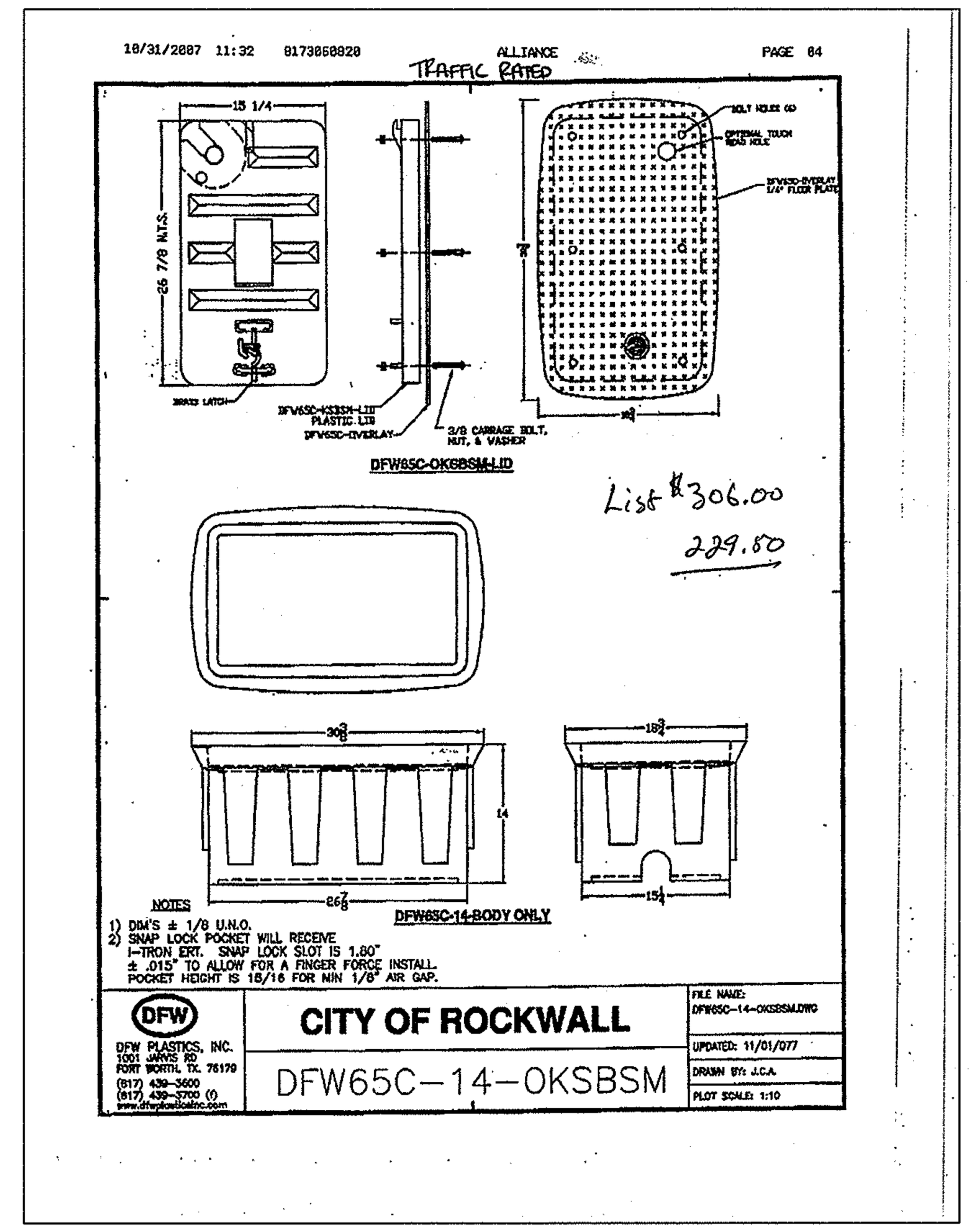


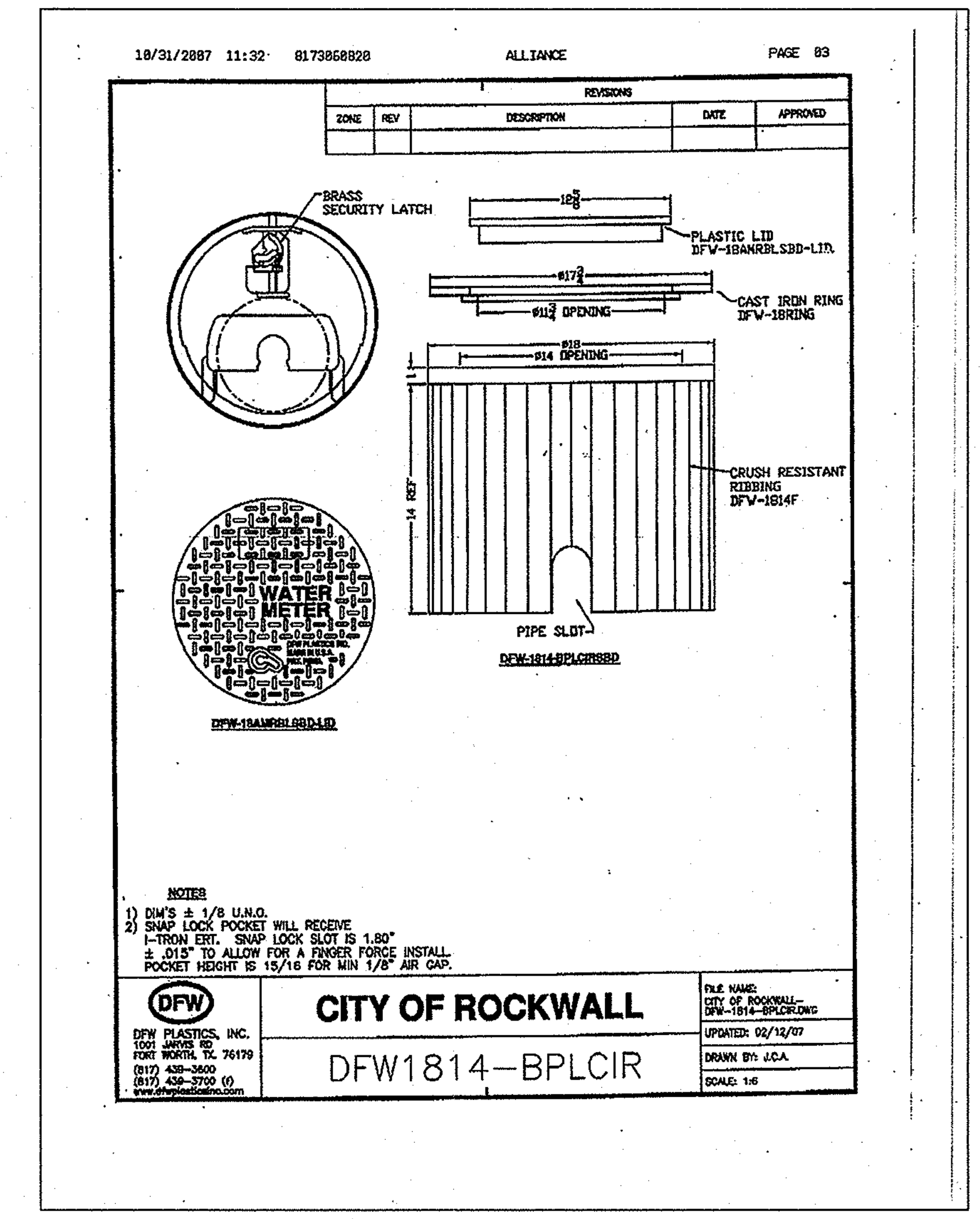
(MODIFIED TO REFLECT CITY AMENDMENTS TO NCTCOG DETAIL)

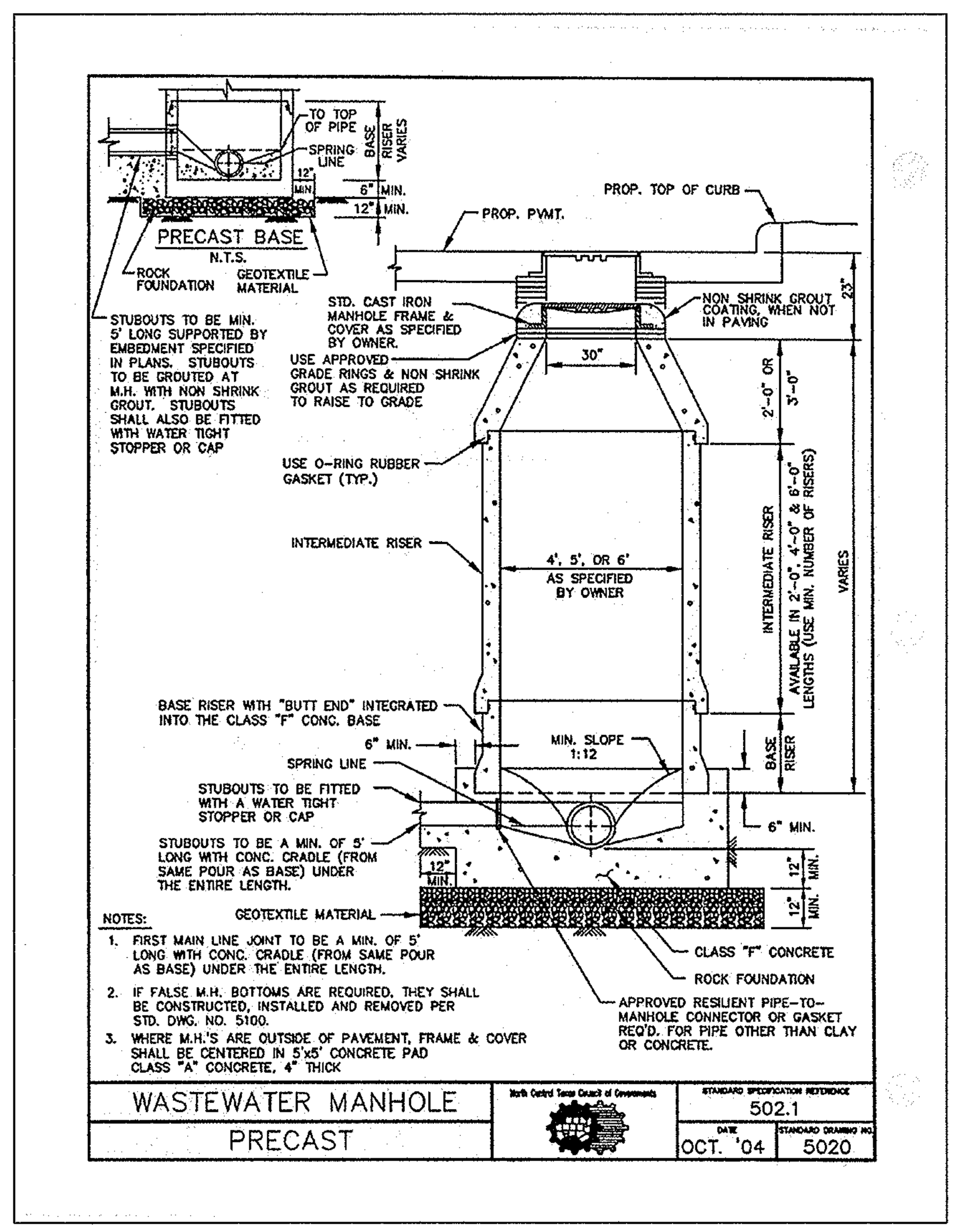


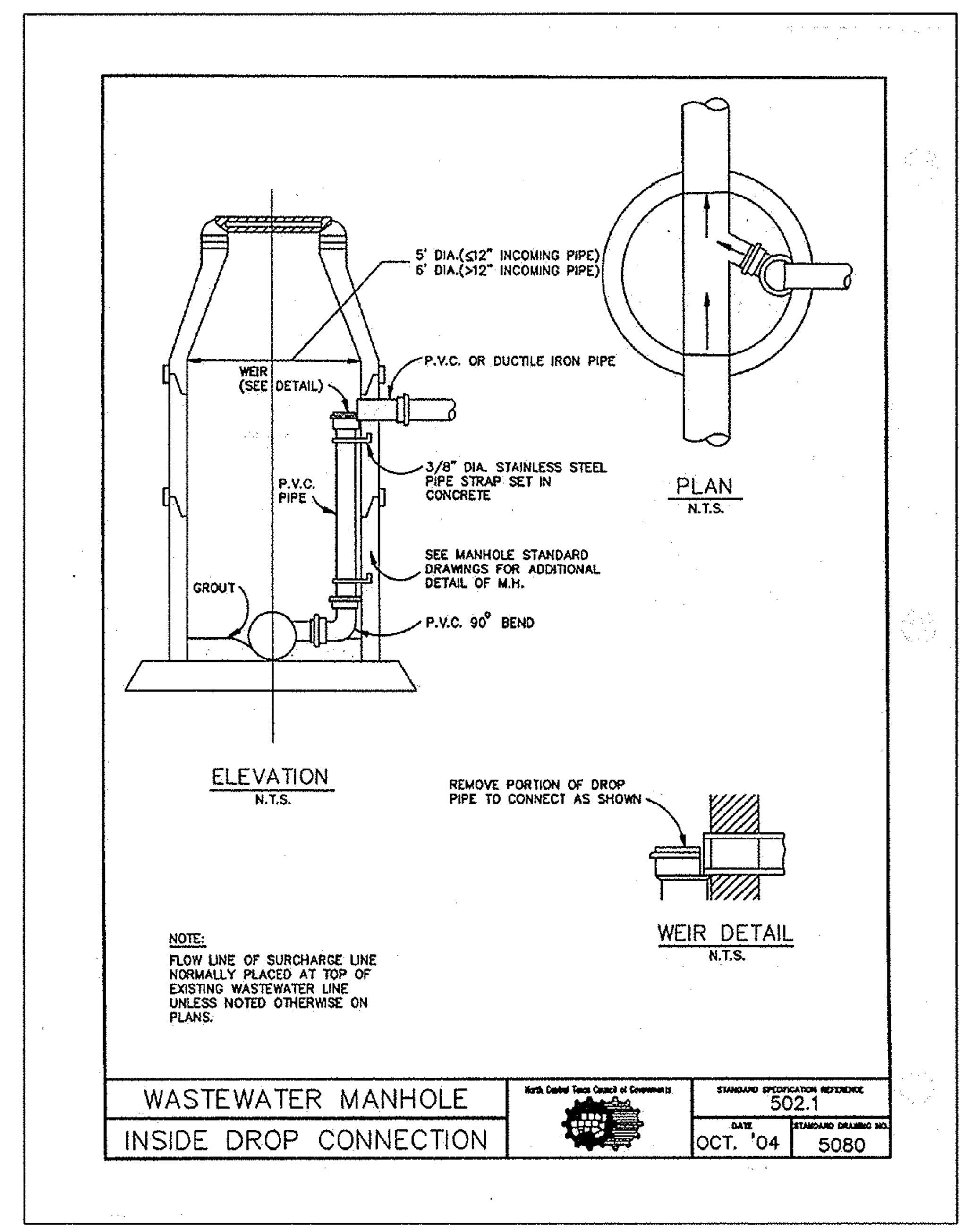
(MODIFIED TO REFLECT CITY AMENDMENTS TO NCTCOG DETAIL)











NOTES:

1. REFERENCE CITY OF ROCKWALL STANDARD DRAWINGS AND NCTCOG FOR ALL OTHER APPLICABLE DETAILS.
2. REFERENCE CITY OF ROCKWALL AMENDMENTS TO THE NCTCOG STANDARD DRAWINGS (AS CLOUDED ON THE MODIFIED NCTCOG STANDARD DRAWINGS SHOWN ON THIS PAGE).

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

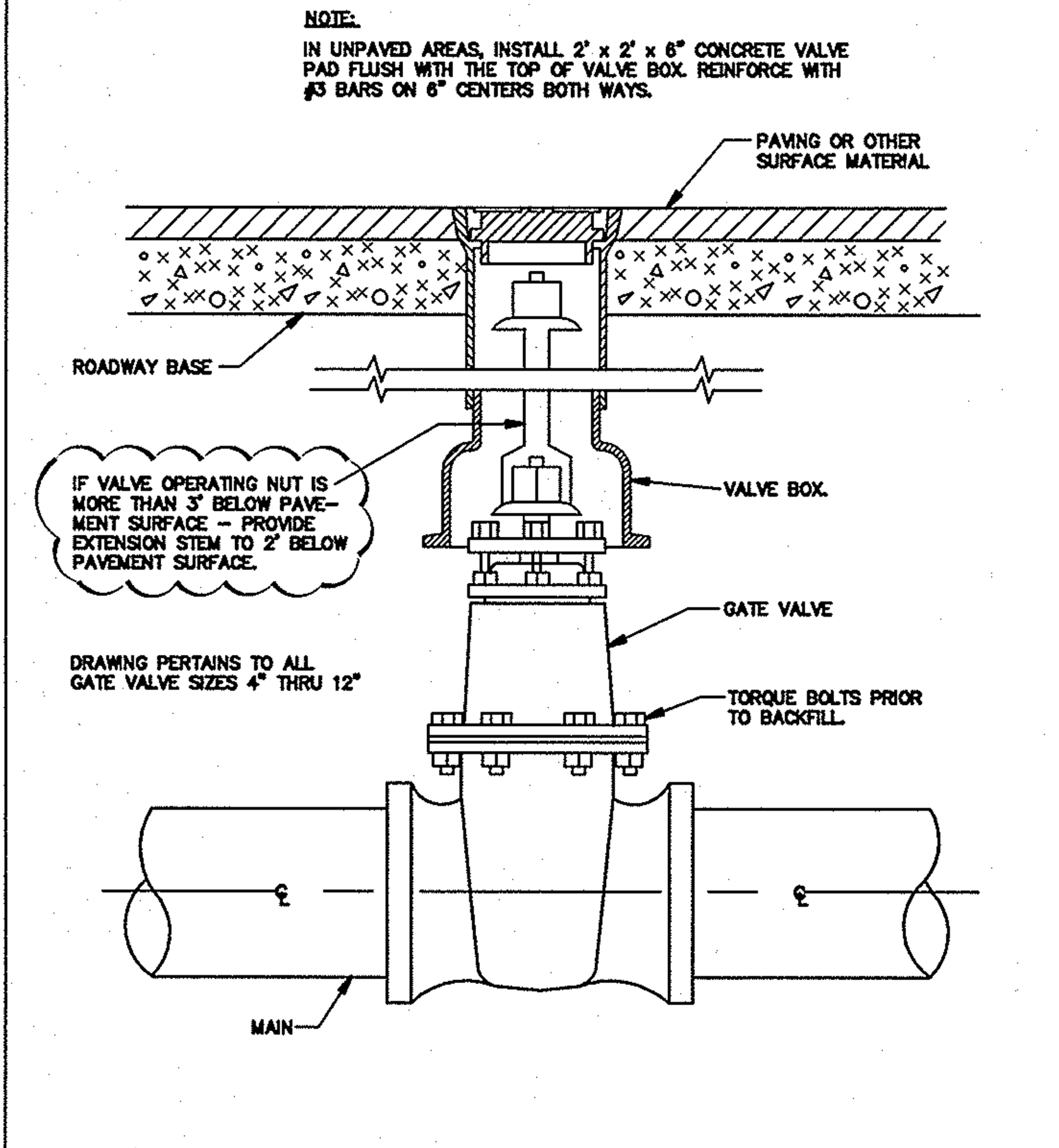
COSTCO WHOLESALE
ROCKWALL, TEXAS

WATER AND SANITARY SEWER DETAILS

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-20
OF 21

NOTE:
IN UNPAVED AREAS, INSTALL 2' x 2' x 6" CONCRETE VALVE PAD FLUSH WITH THE TOP OF VALVE BOX. REINFORCE WITH #3 BARS ON 6" CENTERS BOTH WAYS.

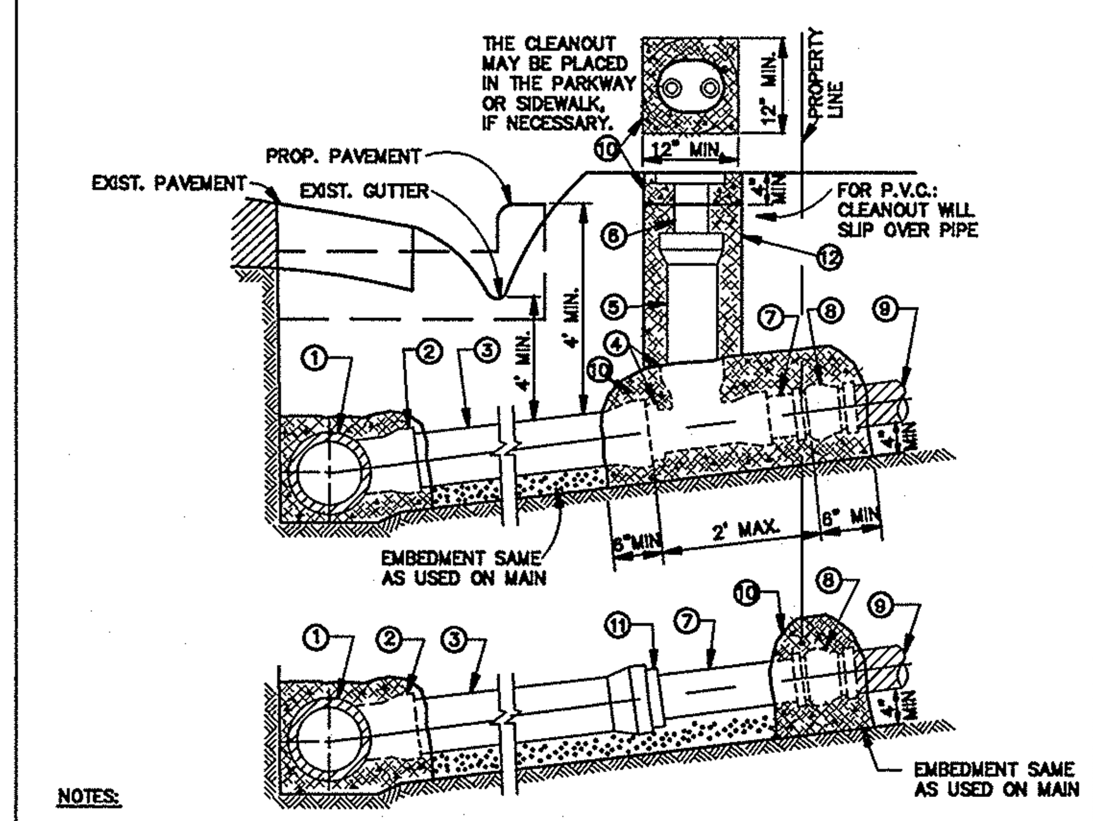


GATE VALVE BOX AND EXTENSION STEM
N.T.S.

(MODIFIED TO REFELECT CITY AMENDMENTS TO NCTCOG DETAIL)

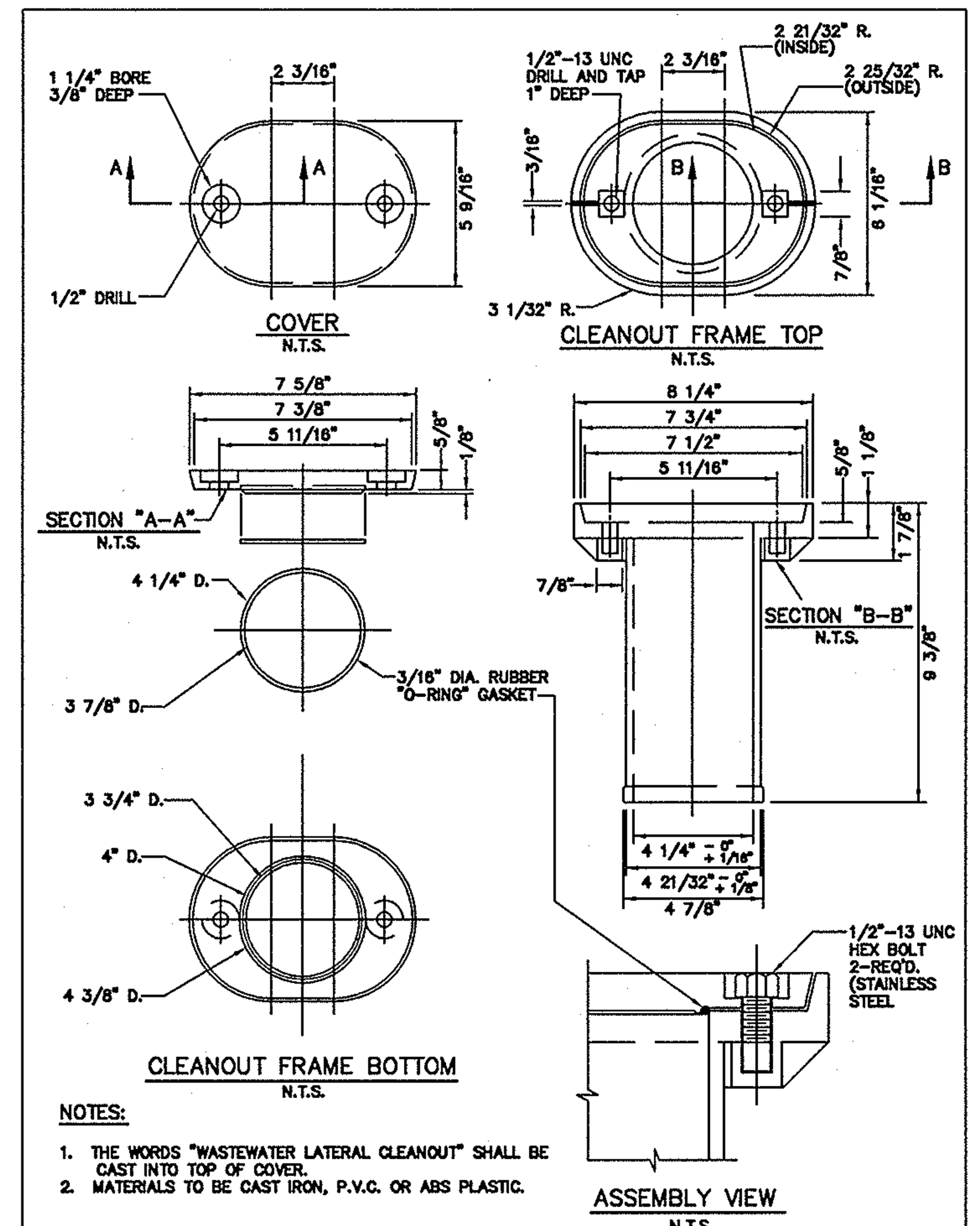
GATE VALVE 4" TO 12" BOX & EXTENSION STEM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.6	DATE OCT. '04	STANDARD DRAWING NO. 4050

KEY:
1. WASTEWATER MAIN
2. 4" WYE
3. 4" WASTEWATER LAT. (LENGTH VARIES)
4. 4" X 4" TEE OR WY AS REQ'D. BY OWNER.
5. 4" STACK (LENGTH VARIES)
6. 4" WASTEWATER LAT. CLEANOUT CASTING
7. 4" WASTEWATER PIPE (LENGTH VARIES)
8. ADAPTOR
9. BUILDING SEWER LAT.
10. CLASS "B" CONCRETE
11. 6" X 4" REDUCER
12. COMPACTED AS SPECIFIED, OR INUNDATED SAND



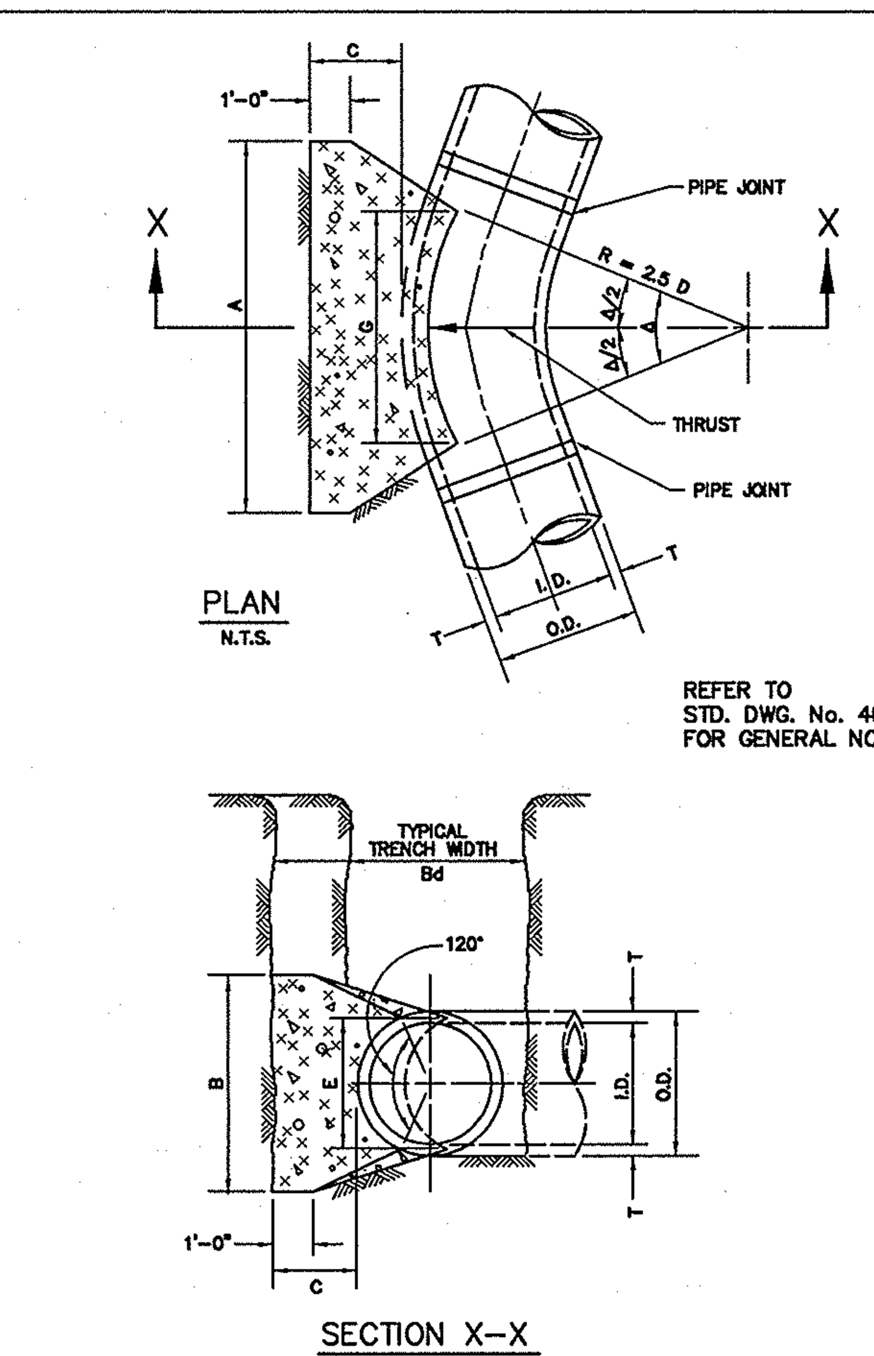
NOTES:
1. CLEANOUT CASTING TO BE FURNISHED AND PLACED PER SPECIAL CONDITIONS. IN VEHICLE TRAFFIC AREAS AND FOR COMMERCIAL MAINLINE LATERALS, WASTEWATER CLEANOUT SHALL BE OF CAST IRON.
2. SLOPE OF LATERAL TO BE 2% MIN. UNLESS INSTRUCTED OTHERWISE BY OWNER.
3. THE WASTEWATER LATERAL SHALL BE CONNECTED TO BUILDING LATERAL AND CONSTRUCTED IN SUCH MANNER AS TO CLEAR EXISTING UTILITES AND PROPOSED FACILITIES SUCH AS STORM SEWER MAINS, PAVING, SIDEWALKS, RETAINING WALLS, ETC. VERTICAL BENDS (22.5° MAX.) MAY BE USED IF APPROVED BY OWNER.
4. THE MAINLINE LATERAL CONNECTION TO THE PRIVATE BUILDING LATERAL SHALL BE AS CLOSE TO THE PROPERTY LINE AS POSSIBLE.
5. INSTALL 4" STOPPER OR CAP AT PROPERTY LINE IF BUILDING LATERAL DOES NOT EXIST.
6. SUBSTITUE 4" FOR 6" FITTINGS IF PLANS OR SPEC. COND. CALL FOR 4" LATERALS.
7. THE CLEANOUT STACK & CASTING MAY BE PLACED IN THE PARKWAY, VEHICLE TRAFFIC AREAS, OR SIDEWALK, IF NECESSARY.
8. FOR 6" SERVICES OR LARGER, INSTALL A MANHOLE.

WASTEWATER LATERALS WITH & WITHOUT CLEANOUT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.10	DATE OCT. '04	STANDARD DRAWING NO. 5120



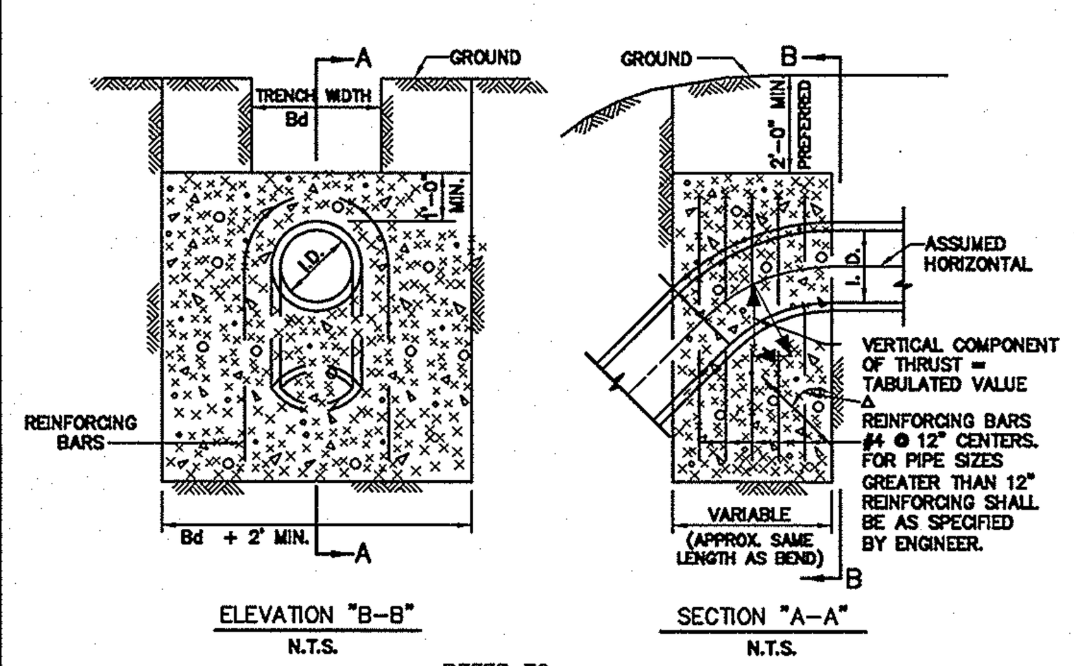
NOTES:
1. THE WORDS "WASTEWATER LATERAL CLEANOUT" SHALL BE CAST INTO TOP OF COVER.
2. MATERIALS TO BE CAST IRON, P.V.C. OR ABS PLASTIC.

WASTEWATER LATERAL CLEANOUT FRAME & COVER	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 6.7.	DATE NOV. '96	STANDARD DRAWING NO. 5140



REFER TO STD. DWG. No. 4040 FOR GENERAL NOTES.

HORIZONTAL THRUST BLOCK AT PIPE BEND	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4010A



REFER TO STD. DWG. No. 4040 FOR GENERAL NOTES.

Δ → I.D. (IN.)	11.25° THRUST (TONS)	11.25° VOL. (C.Y.)	22.50° THRUST (TONS)	22.50° VOL. (C.Y.)	30° THRUST (TONS)	30° VOL. (C.Y.)	45° THRUST (TONS)	45° VOL. (C.Y.)	67.50° THRUST (TONS)	67.50° VOL. (C.Y.)	90° THRUST (TONS)	90° VOL. (C.Y.)	← Δ I.D. (IN.)
4,6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4,6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	306.0	153.0	72
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

VERTICAL THRUST BLOCK AT PIPE BEND	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4030

I.D. (IN.)	T (IN.)	Δ = 11.25° (FT.)	Δ ≥ 22.50° (FT.)	E (FT.)
4,6,8	0.4	1.5	1.5	0.9
10,12	0.5	1.5	1.5	1.2
16,18	0.6	1.5	1.5	1.6
20	0.7	1.5	1.5	1.8
24	0.9	1.5	1.5	2.1
30	2.9	1.5	1.9	2.6
36	4.5	1.5	2.3	3.3
42	5.0	1.8	2.6	3.8
48	5.5	2.0	3.0	4.3
54	6.0	2.3	3.4	4.8
60	6.5	2.5	3.8	5.3
66	6.8	2.8	4.1	5.7
72	7.5	3.0	4.5	6.3
78	7.5	3.3	4.9	6.7
84	8.0	3.5	5.3	7.2
90	8.5	3.8	5.6	7.7
96	9.0	4.0	6.0	8.2

	Δ = 11.25°		EARTH			ROCK				Δ = 22.50°		EARTH			ROCK		
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4,6,8	0.4	1.0	1.0	1.5	0.1	1.0	1.0	0.1	4,6,8	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10,12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10,12	1.1	4.4	2.0	2.5	0.3	1.5	1.5	0.1
16,18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16,18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.0	0.4
24	1.1	8.9	3.0	3.5	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.5	0.5
30	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.5	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54	4.9	67.0	9.0	8.0	8.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	5.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.8	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	11.0	21.8

TABLES OF DIMENSIONS AND QUANTITIES

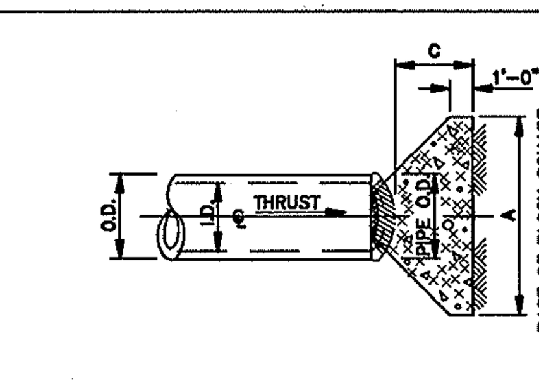
HORIZONTAL THRUST BLOCK AT PIPE BEND	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4010B

	Δ = 30°		EARTH			ROCK				Δ = 45°		EARTH			ROCK		
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4,6,8	1.0	2.6	2.0	1.5	0.2	1.0	1.5	0.1	4,6,8	1.5	3.9	2.0	2.0	0.2	1.5	1.5	0.1
10,12	1.5	5.9	2.5	2.5	0.3	2.0	1.5	0.2	10,12	2.2	8.7	3.5	2.5	0.5	2.0	2.5	0.3
16,18	2.2	13.2	3.5	4.0	0.8	2.5	3.0	0.4	16,18	3.2	19.5	4.5	4.5	1.2	3.0	3.5	0.6
20	2.4	16.3	4.5	4.0	1.0	3.0	3.0	0.5	20	3.6	24.1	5.5	4.5	1.5	3.5	3.5	0.7
24	2.9	23.4	6.0	4.0	1.4	3.5	3.5	0.7	24	4.3	34.6	8.0	4.5	2.3	4.5	4.0	1.1
30	3.6	27.5	6.5	5.0	1.9	3.5	4.0	0.9	30	5.4	40.6	8.5	5.0	3.2	5.5	4.0	1.6
36	4.4	39.5	7.0	6.0	3.4	4.5	4.5	1.6	36	6.5	58.5	10.0	6.0	5.3	6.5	4.5	2.6
42	5.1	53.8	8.0	7.0	5.1	5.5	5.0	2.5	42	7.5	79.6	11.5	7.0	8.1	8.0	5.0	4.2
48	5.8	70.3	9.0	8.0	7.4	6.0	6.0	3.7	48	8.6	104.0	13.0	8.0	11.9	9.0	6.0	6.3
54	6.5	89.0	10.0	9.0	10.3	7.0	6.5	5.3	54	9.7	131.5	15.0	9.0	17.1	10.5	6.5	8.9
60	7.3	110.0	11.0	10.0	13.9	7.5	7.5	7.3	60	10.7	162.4	16.5	10.0	23.1	11.0	7.5	12.0
66	8.0	132.9	12.5	11.0	18.9	8.5	8.0	9.6	66	11.8	198.5	18.0	11.0	30.1	12.0	8.5	16.2
72	8.7	158.2	13.5	12.0	24.0	9.0	9.0	12.3	72	12.9	233.9	19.5	12.0	38.6	14.0	8.5	20.7
78	9.4	185.6	14.5	13.0	30.0	10.0	9.5	15.6	78	13.9	274.5	21.5	13.0	49.8	14.5	9.5	25.9
84	10.1	215.3	15.5	14.0	37.1	10.5	10.5	19.5	84	15.0	318.4	23.0	14.0	61.2	15.5	10.5	32.6
90	10.9	247.1	16.5	15.0	45.0	11.5	11.0	23.9	90	16.1	365.5	24.5	15.0	74.5	17.5	10.5	39.6
96	11.6	281.2	18.0	16.0	55.5	12.5	11.5	28.9	96	17.1	415.6	26.0	16.0	89.5	18.5	11.5	48.5

	Δ = 67.50°		EARTH			ROCK				Δ = 90°		EARTH			ROCK		
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4,6,8	2.1	5.6	3.0	2.0	0.3	2.0	1.5	0.2	4,6,8	2.7	7.1	5.0	1.5	0.4	2.0	2.0	0.2
10,12	3.1	12.6	5.5	2.5	0.8	3.5	2.0	0.4	10,12	4.0	16.0	6.5	2.5	1.0	3.5	2.5	0.5
16,18	4.7	28.3	7.5	4.0	1.9	5.5	3.0	0.9	16,18	6.0	36.0	9.0	4.0	2.4	4.5	4.0	1.0
20	5.2	34.9	9.0	4.0	2.3	5.5	3.5	1.2	20	6.6	44.4	10.0	4.5	3.1	6.0	4.0	1.5
24	6.2	50.3	11.5	4.5	3.5	6.5	4.0	1.6	24	7.9	64.0	14.5	4.5	5.0	8.0	4.0	2.1
30	7.8	58.9	12.0	5.0	4.8	7.5	4.0	2.2	30	9.9	75.0	15.0	5.0	6.7	10.0	4.0	3.3
36	9.4	84.9	14.5	6.0	8.2	9.5	4.5	3.8	36	11.9	108.0	18.0	6.0	11.4	12.0	4.5	5.3
42	10.9	115.5	17.0	7.0	12.8	11.0	5.5	6.3	42	13.9	147.0	21.0	7.0	17.8	14.0	5.5	8.7
48	12.5	150.9	19.0	8.0	16.4	13.0	6.0	9.2	48	15.9	192.0	24.0	8.0	26.2	16.0	6.0	12.4
54	14.0	191.0	21.5	9.0	26.0	15.0	6.5	12.9	54	17.9	243.0	27.0	9.0	36.9	18.0	7.0	18.1
60	15.6	235.8	24.0	10.0	35.6	16.0	7.5	17.6	60	19.9	299.8	30.0	10.0	50.3	20.0	7.5	24.0
66	17.1	285.3	26.0	11.0	46.0	18.0	8.0	23.0	66	21.8	362.8	33.0	11.0	66.2	22.0	8.5	32.5
72	18.7	339.5	28.5	12.0	57.8	19.0	9.0	28.4	72	23.8	431.8	36.0	12.0	85.6	24.0	9.0	41.0
78	20.2	398.5	31.0	13.0	75.7	21.0	9.5	37.4	78	25.7	506.7	39.0	13.0	108.2	26.0	10.0	53.2
84	21.8	462.1	33.5	14.0	94.7	22.0	10.5	46.5	84	27.7	587.7	42.0	14.0	134.4	28.0	10.5	64.8
90	23.3	530.5	35.5	15.0	114.4	24.5	11.0	58.2	90	29.0	674.6	45.0	15.0	164.9	30.0	11.5	81.2
96	24.9	603.6	38.0	16.0	138.9	25.5	12.0	70.0	96	31.6	787.5	48.0	16.0	199.0	32.0	12.0	95.1

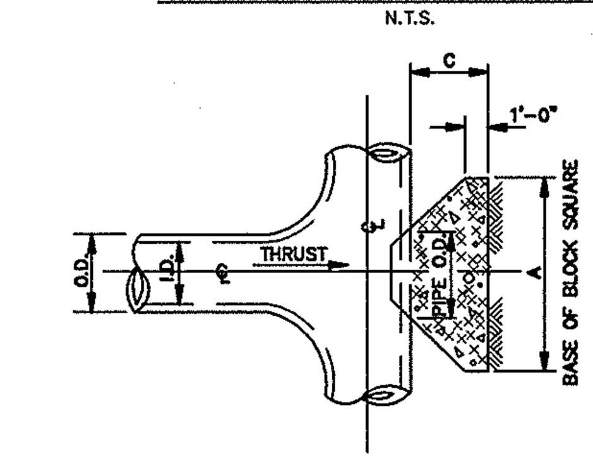
TABLES OF DIMENSIONS AND QUANTITIES

HORIZONTAL THRUST BLOCK AT PIPE BEND	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4010C



PLAN OF PLUG THRUST BLOCK
N.T.S.

REFER TO STD. DWG. No. 4040 FOR GENERAL NOTES.



PLAN OF TEE THRUST BLOCK
N.T.S.

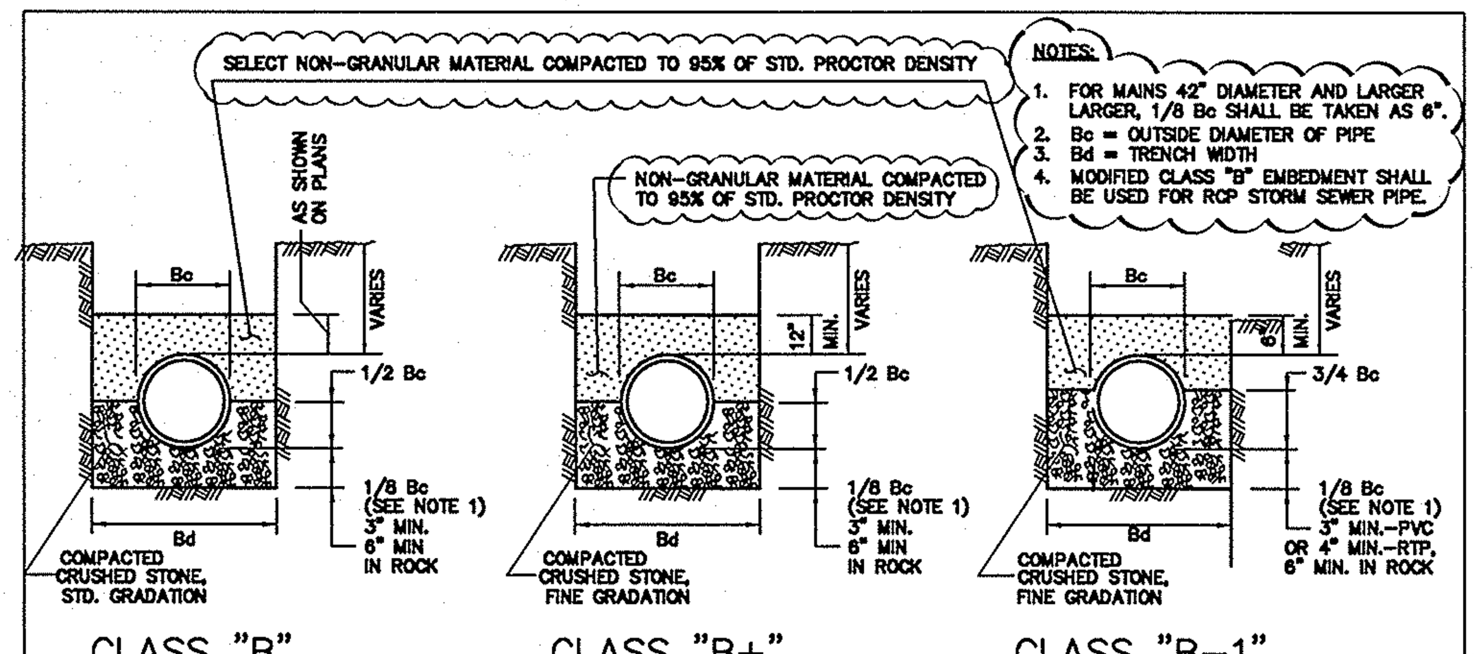
			EARTH		ROCK	
I.D. (IN.)	THRUST (TONS)	C (FT.)	A (FT.)	VOL. (C.Y.)	A (FT.)	VOL. (C.Y.)
4,6,8	5.1	1.5	2.5	0.3	2.0	0.2
10,12	11.3	1.5	3.5	0.6	2.5	0.3
16,18	25.5	2.0	5.5	1.6	4.0	0.9
20	31.5	2.0	6.0	1.9	4.0	0.9
24	45.2	2.5	7.0	3.1	5.0	1.7
30	53.0	3.0	7.5	4.1	5.5	2.4
36	76.3	4.0	9.0	7.3	6.5	4.2
42	104.0	4.5	10.5	11.0	7.5	6.2
48	136.0	5.0	12.0	15.6	8.5	8.7
54	172.0	5.5	13.5	21.4	9.5	11.9
60	212.0	6.0	15.0	28.4	10.5	15.7
66	257.0	6.5	16.5	36.8	11.5	20.5
72	305.0	7.5	17.5	47.2	12.5	27.2
78	358.0	8.0	19.0	58.9	13.5	33.7
84	416.0	8.5	20.5	72.3	14.5	41.2
90	477.0	9.0	22.0	87.7	15.5	49.7
96	543.0	9.5	23.5	104.8	16.5	61.0

HORIZONTAL THRUST BLOCK AT TEES AND PLUGS	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4020

GENERAL NOTES FOR ALL THRUST BLOCKS:
1. CONCRETE FOR BLOCKING SHALL BE CLASS "B".
2. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 PSI FOR DUCTILE IRON, P.V.C., AND 150 PSI FOR CONCRETE PIPE.
3. VOLUMES OF THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED THE CORRESPONDING WEIGHT OF THE CONCRETE (CLASS "B") IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THE THRUST ON THE VERTICAL BEND.
4. WALL THICKNESS (T) ASSUMED HERE FOR ESTIMATING PURPOSES ONLY.
5. POUR CONCRETE FOR BLOCK AGAINST UNDISTURBED EARTH.
6. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOTBE LESS THAN SHOWN HERE.
7. THE SOIL BEARING PRESSURES ARE BASED ON 1000 LBS./S.F. IN SOIL AND 2000 LBS./S.F. IN ROCK.
8. USE POLYETHYLENE WRAP OR EQUAL BETWEEN CONCRETE AND BEND, TEE, OR PLUG TO PREVENT THE CONCRETE FROM STICKING TO IT.
9. CONCRETE SHALL NOT EXTEND BEYOND JOINTS.

THRUST BLOCK GENERAL NOTES	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.4	DATE OCT. '04	STANDARD DRAWING NO. 4040

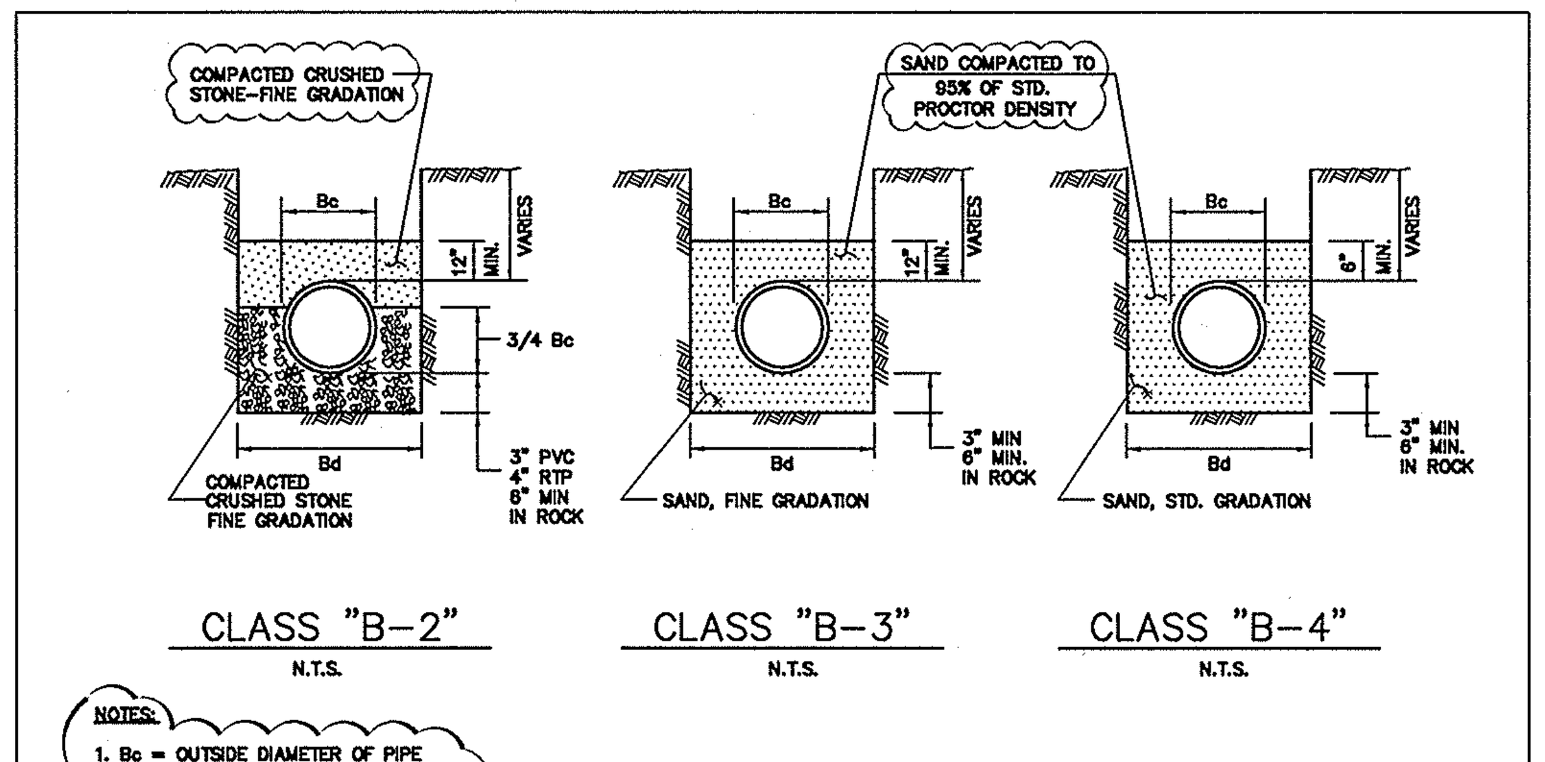
NOTES:
1. REFERENCE CITY OF ROCKWALL STANDARD DRAWINGS FOR ALL OTHER APPLICABLE DETAILS.
2. REFERENCE CITY OF ROCKWALL AMENDMENTS TO THE NCTCOG STANDARD DRAWINGS (AS CLOUDED ON THE MODIFIED NCTCOG STANDARD DRAWINGS SHOWN ON THIS PAGE).



NOTES:
1. FOR MAINS 42" DIAMETER AND LARGER LARGER, 1/8 Bc SHALL BE TAKEN AS 6".
2. Bc = OUTSIDE DIAMETER OF PIPE
3. Bd = TRENCH WIDTH
4. MODIFIED CLASS "B" EMBEDMENT SHALL BE USED FOR RCP STORM SEWER PIPE.

3020	EMBEDMENT CLASS "B", "B+", & "B-1"	North Central Texas Council of Governments N.T.S.	STANDARD SPECIFICATION REFERENCE 504.5	DATE OCT. '04	STANDARD DRAWING NO. 3020

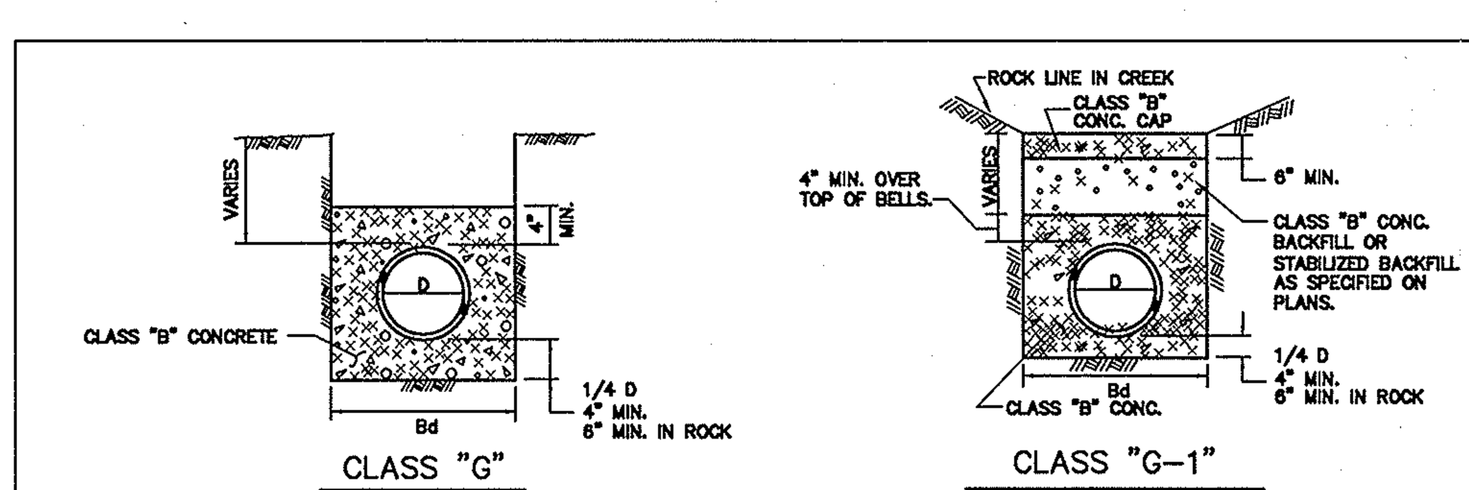
(MODIFIED TO REFLECT CITY AMENDMENTS TO NCTCOG DETAIL)



NOTES:
1. Bc = OUTSIDE DIAMETER OF PIPE
2. Bd = TRENCH WIDTH
3. MODIFIED CLASS "B-3" EMBEDMENT TO BE USED FOR PVC WATER PIPE.
4. MODIFIED CLASS "B-2" EMBEDMENT TO BE USED FOR PVC SEWER PIPE.

3030	EMBEDMENT CLASS "B-2","B-3", & "B-4"	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 504.5	DATE OCT. '04	STANDARD DRAWING NO. 3030

(MODIFIED TO REFLECT CITY AMENDMENTS TO NCTCOG DETAIL)



NOTES:
1. D = INSIDE DIAMETER OF PIPE
2. Bd = TRENCH WIDTH

3060	EMBEDMENT CLASS "G" & "G-1"	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 6.2.	DATE NOV. '96	STANDARD DRAWING NO. 3060

03/06/09

RECORD DRAWING
THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

NOTES:
1. REFERENCE CITY OF ROCKWALL STANDARD DRAWINGS AND NCTCOG FOR ALL OTHER APPLICABLE DETAILS.
2. REFERENCE CITY OF ROCKWALL AMENDMENTS TO THE NCTCOG STANDARD DRAWINGS (AS CLOUDED ON THE MODIFIED NCTCOG STANDARD DRAWINGS SHOWN ON THIS PAGE).

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200
Frisco, Texas 75034
Tel. No.(972) 335-3580
Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87781
LICENSED PROFESSIONAL ENGINEER
8-14-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

WATER AND SANITARY SEWER DETAILS

Scale:	AS SHOWN
Designed by:	KFD
Drawn by:	KFD
Checked by:	DKK
Date:	August 14, 2008
Project No.	066000025

SHEET
C-21
OF 21

IMAGES
XREFS 0663_001 - 0680_001 - 0681_001 - Manhole Cover - NCTCOG detail SSMH Inside Drop - NCTCOG detail SSMH Precast - XREF X2436
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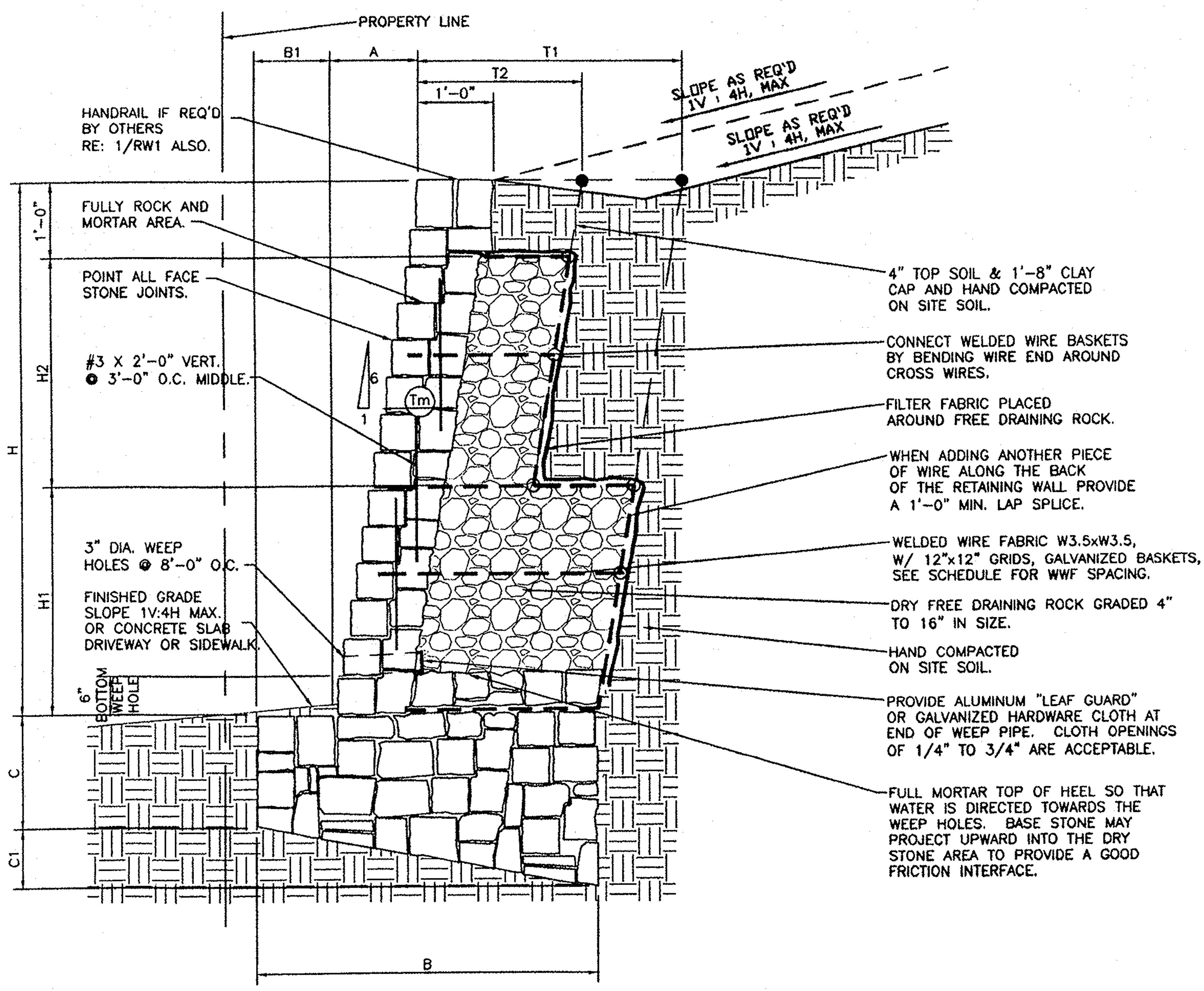


MASONRY WALL SCHEDULE

1500 psf – BEARING CAPACITY (STIFF NATURAL UNDISTURBED SOILS OR COMPACTED AND TESTED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BASE WIDTH B	TOE B1	BASE DEPTH (TOE) C	BASE DEPTH (HEEL) C1	BATTER A	THICKNESS MORTARED Tm	WALL HEIGHT BOTTOM H1	THICKNESS BOTTOM T1	MAX GRID SPACING S1	NUMBER OF GRID LAYERS L1	WALL HEIGHT TOP H2	THICKNESS TOP T2	MAX GRID SPACING S2	NUMBER OF GRID LAYERS L2	VOLUME STONE cf/ft	BEARING CAPACITY
5'-0"	3'-2"	0'-2"	1'-9"	0'-7"	0'-10"	1'-0"	2'-0"	3'-0"	2'-0"	1	2'-0"	1'-5"	2'-0"	1	13.0	1500 psf
6'-0"	3'-10"	0'-3"	2'-0"	0'-9"	1'-0"	1'-0"	2'-6"	3'-7"	2'-0"	1	2'-6"	1'-8"	2'-0"	1	17.8	

USE THIS SCHEDULE FOR 2/RW3

MASONRY WALL SCHEDULE

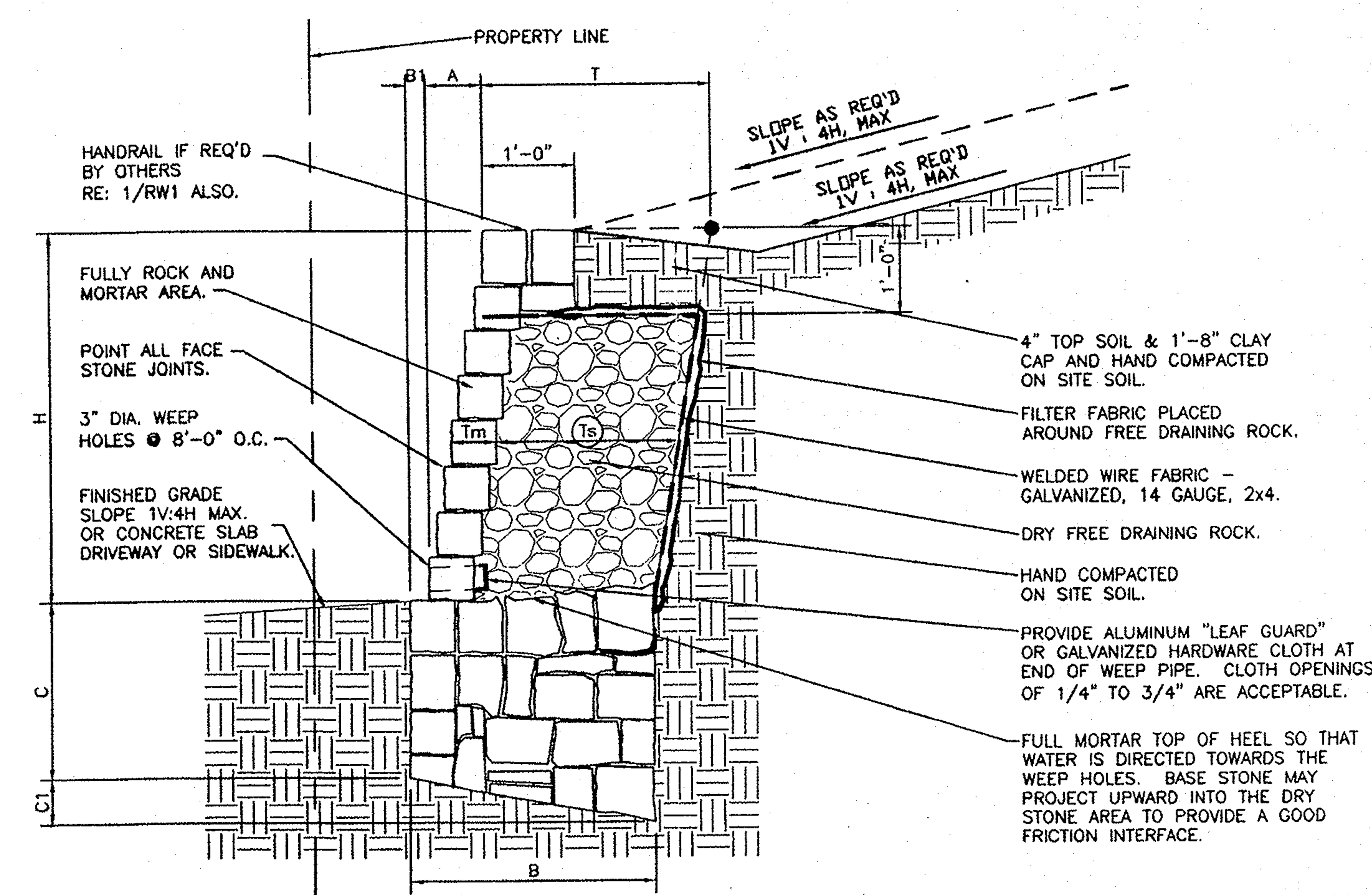
2500 psf – BEARING CAPACITY (HARD NATURAL UNDISTURBED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BASE WIDTH B	TOE B1	BASE DEPTH (TOE) C	BASE DEPTH (HEEL) C1	BATTER A	THICKNESS MORTARED Tm	WALL HEIGHT BOTTOM H1	THICKNESS BOTTOM T1	MAX GRID SPACING S1	NUMBER OF LAYERS L1	WALL HEIGHT TOP H2	THICKNESS TOP T2	MAX GRID SPACING S2	NUMBER OF LAYERS L2	VOLUME STONE cf/ft	BEARING CAPACITY
5'-0"	3'-1"	0'-2"	1'-9"	0'-7"	0'-10"	1'-0"	2'-0"	2'-11"	2'-0"	1	2'-0"	1'-5"	2'-0"	1	12.0	2500 psf
6'-0"	3'-7"	0'-3"	2'-0"	0'-8"	1'-0"	1'-0"	2'-6"	3'-4"	2'-0"	1	2'-6"	1'-8"	2'-0"	1	17.0	

USE THIS SCHEDULE FOR 2/RW3

2 / RW3 — TYPICAL WALL SECTION — 3/4" = 1'-0"

NO PART OF THE RETAINING WALL MAY BE IN ANY R.O.W., EASEMENT, OR OFF SITE INCLUDING FOOTINGS AND TIEBACKS.



MASONRY WALL SCHEDULE

1500 psf – BEARING CAPACITY (STIFF NATURAL UNDISTURBED SOILS OR COMPACTED AND TESTED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BATTER A	BASE WIDTH B	TOE B1	THICKNESS MORTARED Tm	THICKNESS STONE Ts	TOTAL WALL THICKNESS T	BASE DEPTH (TOE) C	BASE DEPTH (HEEL) C1	VOLUME STONE cf/ft	BEARING CAPACITY
2'-0" OR SMALLER	0'-4"	1'-0"	0'-0"	0'-6"	0'-6"	1'-0"	1'-6"	0'-3"	2.6	1500 psf
3'-0"	0'-6"	1'-9"	0'-2"	0'-6"	1'-1"	1'-7"	1'-6"	0'-4"	5.7	
4'-0"	0'-8"	2'-4"	0'-3"	0'-6"	1'-7"	2'-1"	1'-9"	0'-5"	9.5	

USE THIS SCHEDULE FOR 1/RW3

MASONRY WALL SCHEDULE

2500 psf – BEARING CAPACITY (HARD NATURAL UNDISTURBED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BATTER A	BASE WIDTH B	TOE B1	THICKNESS MORTARED Tm	THICKNESS STONE Ts	TOTAL WALL THICKNESS T	BASE DEPTH (TOE) C	BASE DEPTH (HEEL) C1	VOLUME STONE cf/ft	BEARING CAPACITY
2'-0" OR SMALLER	0'-4"	1'-0"	0'-0"	0'-6"	0'-6"	1'-0"	1'-6"	0'-3"	2.6	2500 psf
3'-0"	0'-6"	1'-8"	0'-2"	0'-6"	1'-0"	1'-6"	1'-6"	0'-4"	5.1	
4'-0"	0'-8"	2'-2"	0'-3"	0'-6"	1'-5"	1'-11"	1'-9"	0'-5"	8.8	

USE THIS SCHEDULE FOR 1/RW3

1 / RW3 — TYPICAL WALL SECTION — 3/4" = 1'-0"

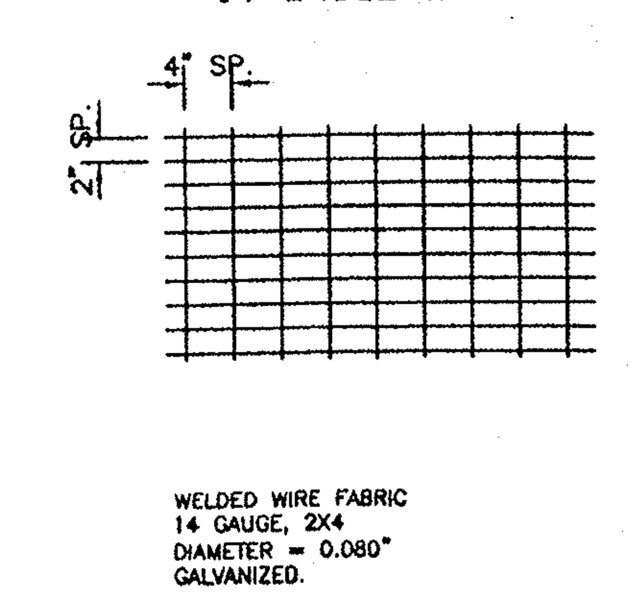
03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

DESCRIPTION OF WELDED WIRE FABRICS

14 GAUGE 2X4



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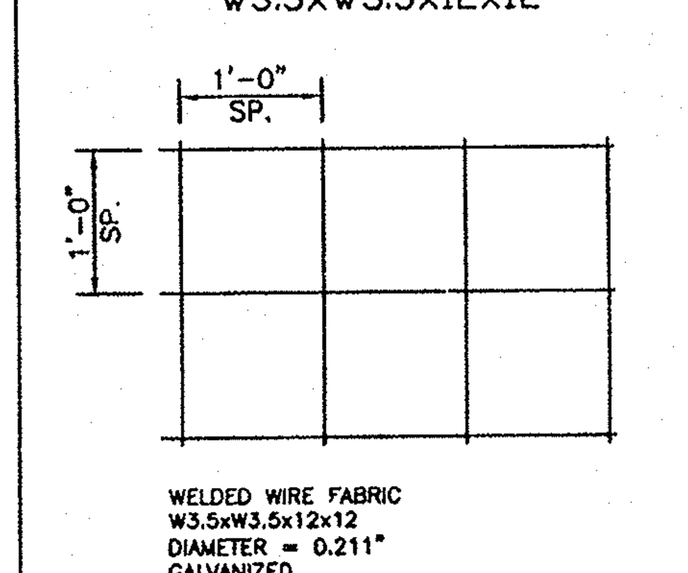
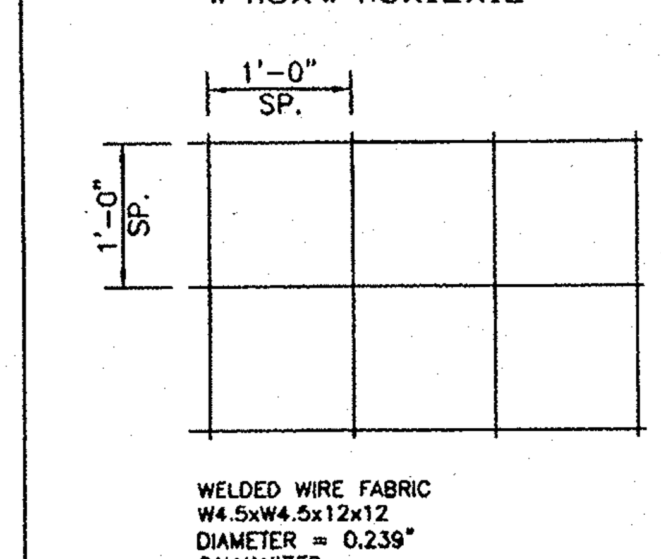


W4.5xW4.5x12x12



3 / RW3 — WELDED WIRE REINFORCEMENT DESCRIPTION — 3/4" = 1'-0"

NO.	DATE	REVISION	BY

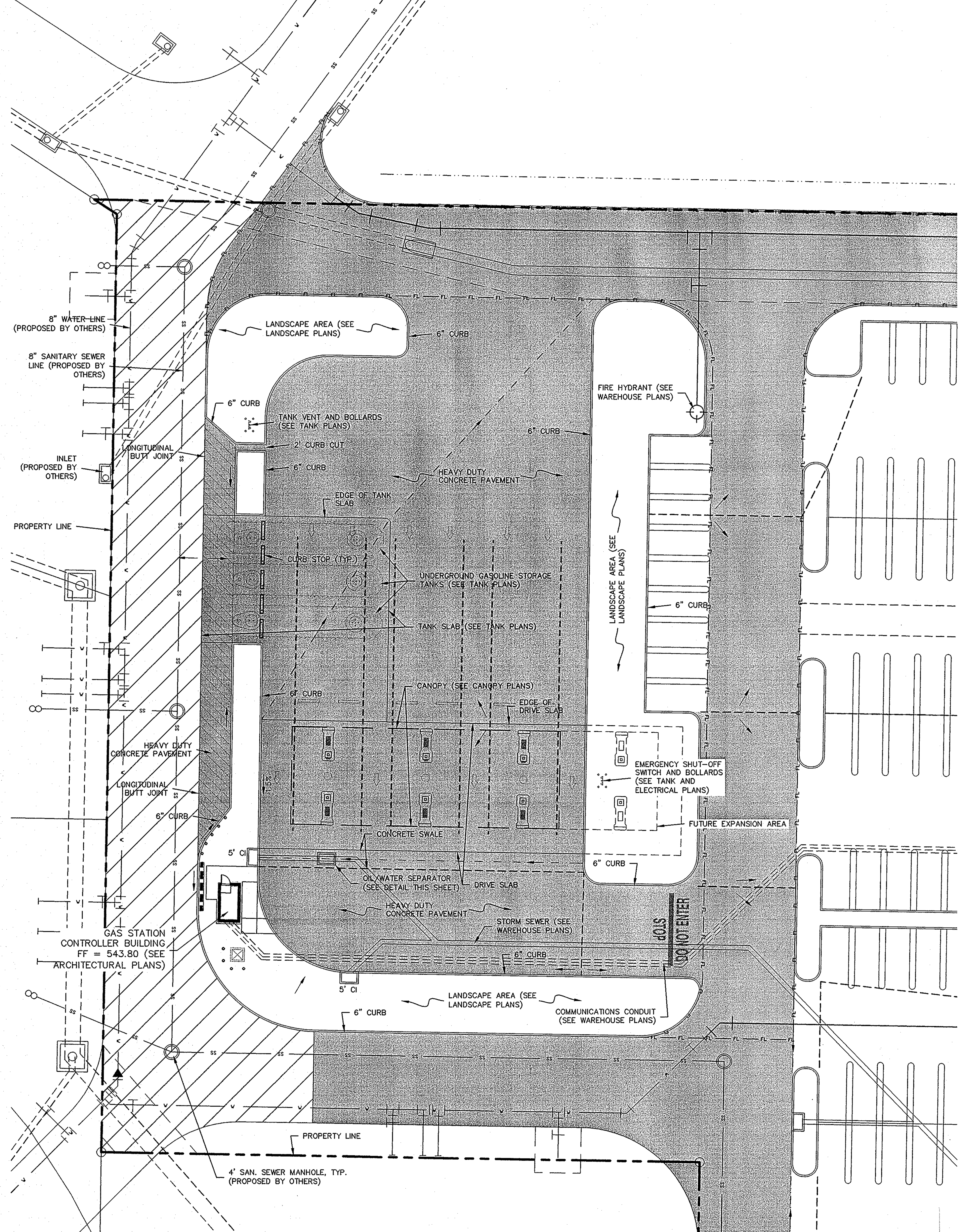
	DATE	BY
DES.	02-29-08	TJW
DRN.	02-29-08	TJW
CHK.	02-29-08	TJF

FALKOFSKE ENGINEERING, INC.
Structural Engineering Consultants
1414 West Randol Mill Road
Suite 201
Arlington, Texas 76012
Metro (817) 261-8300

MASONRY RETAINING WALLS
ROCKWALL, TEXAS

ERWS, INC.
EULESS, TEXAS

RW3



NOTES

1. PROPOSED CONTOURS SHOWN "BY OTHERS" BASED ON CITY APPROVED "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
2. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
3. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%.
4. CONTRACTOR SHALL VERIFY COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
5. CONTRACTOR SHALL COORDINATE GRADING AT FACE OF BUILDING WITH PLANS BY ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
6. CONTRACTOR SHALL COORDINATE GRADING IN LANDSCAPE AREAS WITH PLANS BY LANDSCAPE ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
7. CONTRACTOR TO PROTECT EXISTING PAVEMENT AND UTILITIES DURING CONSTRUCTION. CONTACT ENGINEER IF CONFLICTS EXIST. I.E. TRAFFIC CONTROL OR TEMPORARY SHORING IS REQUIRED.

ACCESSIBILTY NOTES

1. All Accessible Spaces and Accessible Routes shall comply with the Texas Accesibility Standards (TAS) and the City of Frisco Requirements.

2. Parking spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. Curb ramps complying TAS Section 4.7 shall be provided at all Passenger Loading Zones.

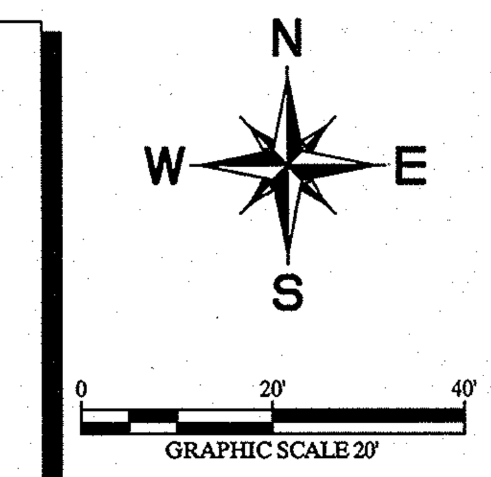
3. Each accessible parking space shall be designated as reserved by a vertically mounted or suspended sign showing the symbol of accessibility per TAS Section 4.30.7. Spaces complying with TAS Section 4.1.2(5)(b) shall have an additional sign "Van-Accessible" mounted below the symbol of accessibility.
   - (a) Characters and symbols on such signs shall be located 60" (1525 mm) minimum above the ground, floor, or paving surface so they cannot be obscured by a vehicle parked in the space.
   - (b) Signs located within an accessible route shall comply with TAS Section 4.4.2.
   - (c) Characters and symbols on overhead signs shall comply with TAS Section 4.30.3.

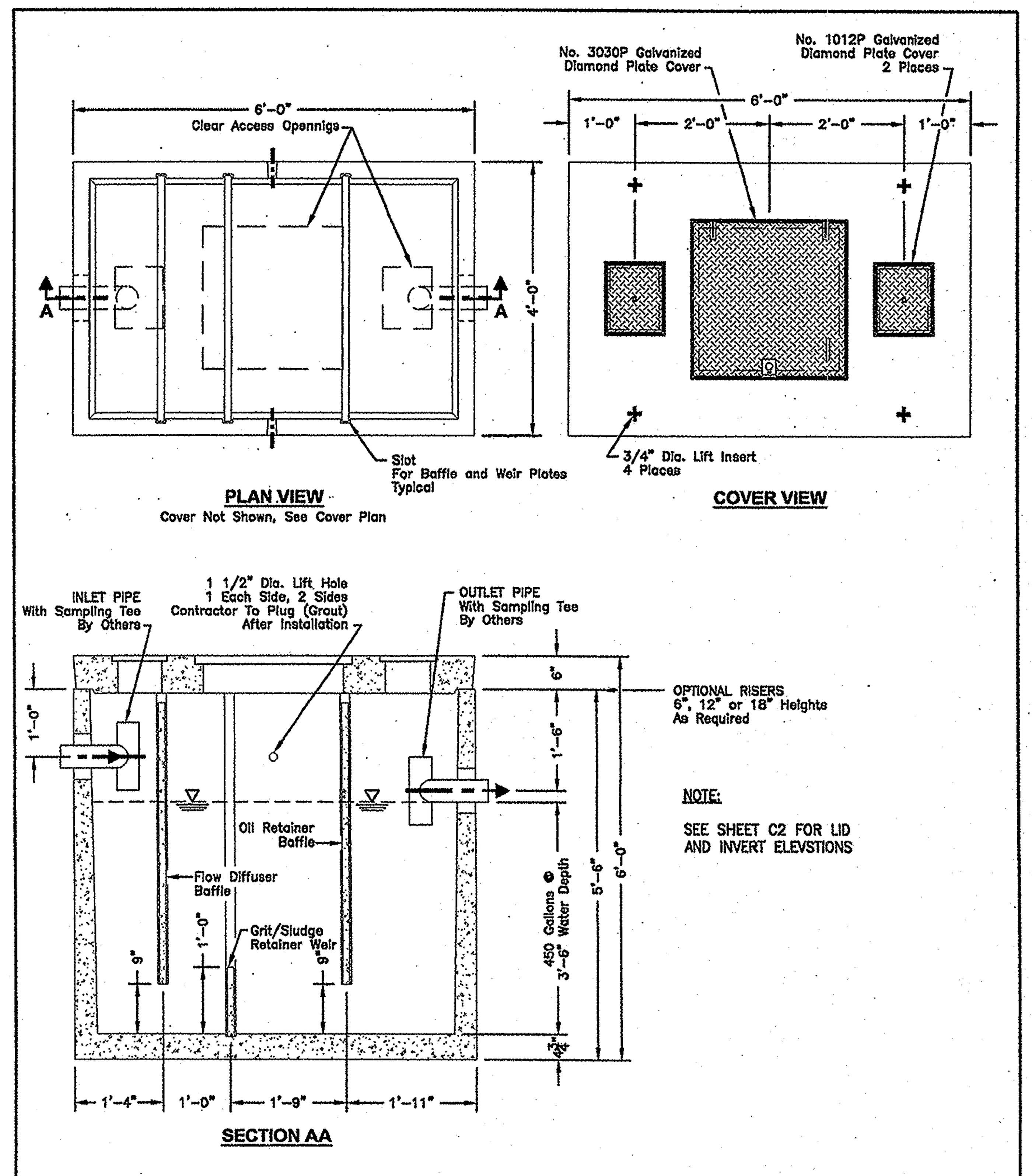
4. Slopes of curb ramps shall comply with TAS Section 4.8.2. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

5. Surfaces of curb ramps shall comply with TAS Section 4.5.
   - (a) Textures shall consist of exposed crushed stone aggregate, roughene concrete, rubber, raised abrasive strips, or grooves extending the full width and depth of the curb ramp. Surfaces that are raised, etched, or grooved in a way that would allow water to accumulate are prohibited.
   - (b) For purposes of warning, the full width and depth of curb ramps shall have a light reflective value and texture that significantly contrasts with that of adjoining pedestrian routes.

LEGEND

(dark shaded)	PROPOSED HEAVY DUTY PAVEMENT 6"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT W/ NO. 4 BARS, 16" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
(blank box)	PROPOSED LIGHT DUTY PAVEMENT 5"-3,600 PSI (MIN.) REINFORCED CONCRETE PAVEMENT WITH NO. 3 BARS, 18" O.C.E.W., ON 6" LIME TREATED SUBGRADE PER GEOTECH RECOMMENDATIONS
(hatched)	PROPOSED PAVEMENT (BY OTHERS)
———	PROPOSED FIRELANE
□○□	PROPOSED LIGHTING
-----541-----	EXISTING CONTOUR
——541——	PROPOSED CONTOUR
------------	PROPOSED RIDGE
—··—··—	PROPOSED SWALE
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
FF	FINISHED FLOOR
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING
TI	TOP OF PUMP ISLAND
CI	CURB INLET
DI	DROP INLET





SCALE: 1/2' = 1'-0'

Oldcastle Precast® UTILITY VAULT™ Division P.O. BOX 588, Auburn, Washington 98071-0588 Phone: 253-839-3500 Fax: 253-735-4201	660-SA FILE NAME: 010ECD660SAB.DWG ISSUE DATE: JULY, 2001 www.oldcastleprecast.com	450 Gallon Capacity Oil Water Separator Standard Layout Copyright © 2001 Oldcastle Precast, Inc.

1 OIL WATER SEPARATOR

NOT TO SCALE — UTILITY VAULT COMPANY MODEL NO. "660 SA" OR EQUAL

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2 ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30 ELEV. = 552.00

No.	Date	Revisions	App.

Kimley-Horn and Associates, Inc.
5750 Genesis Court, Suite 200 Frisco, Texas 75034
Tel. No.(972) 335-3580 Fax No.(972) 335-3779

STATE OF TEXAS — DAVID K. KOCHALKA 87781 LICENSED PROFESSIONAL ENGINEER 7-28-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

GAS STATION PAVING AND DIMENSION CONTROL PLAN

Scale:	AS SHOWN
Designed by:	DSS
Drawn by:	DSS
Checked by:	DKK
Date:	July 28, 2008
Project No.	066000025

SHEET 1 OF 2

IMAGES Oil Water Separator - Oil Water Separator1 -
XREFS XREF xAsbt - XREF xTopo - XREF xBndy - XREF xExst - XREF xSite - XREF xUtil - XREF xStrm - XREF S13217 - SGP - KHA - XREF x2436-gas - XREF xCPH - XREF xTopo-offsite - XREF xGrad - XREF xBench - XREF xEsmt - XREF xHatch - XREF xStriping SH 276 - XREF 07019601-X2
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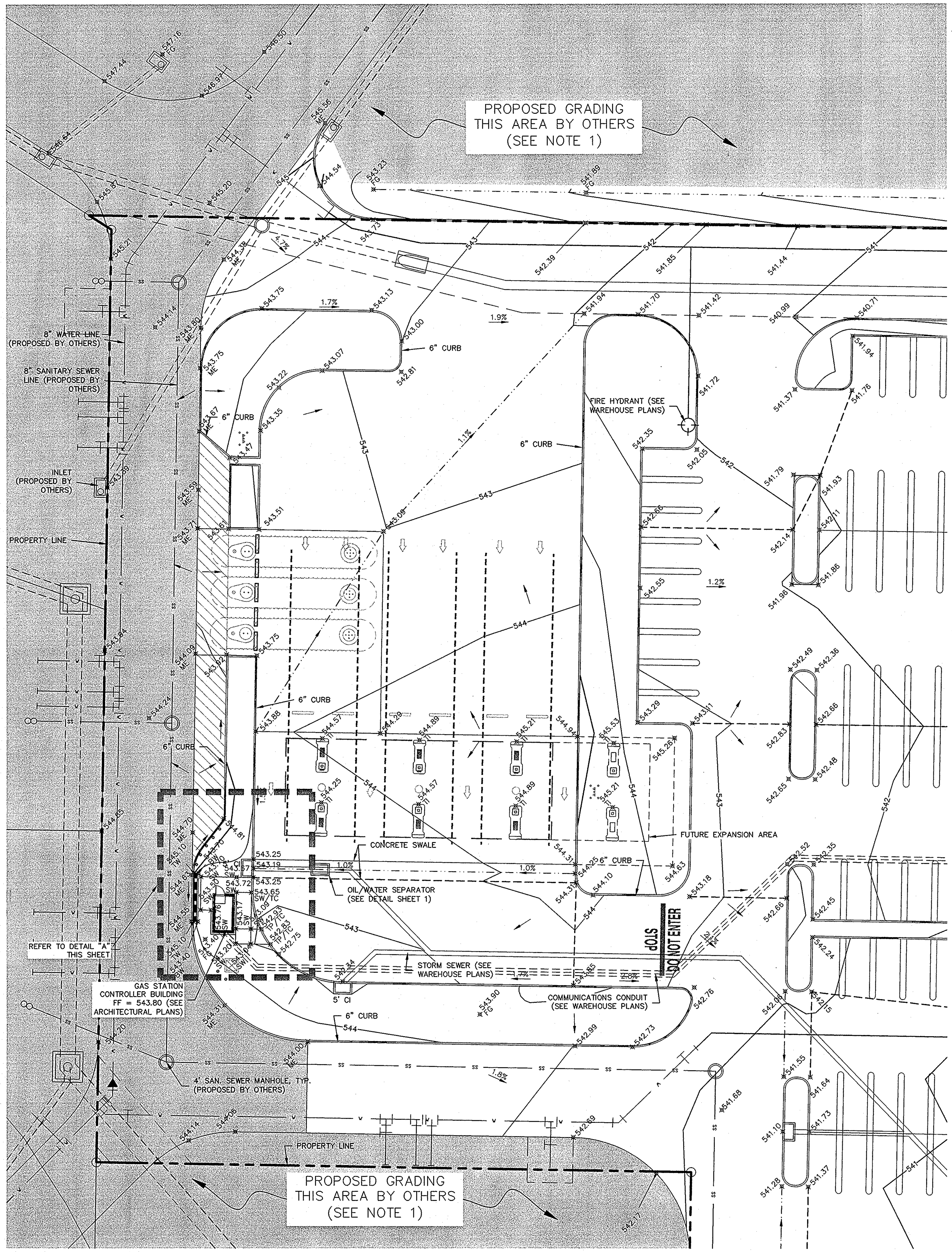
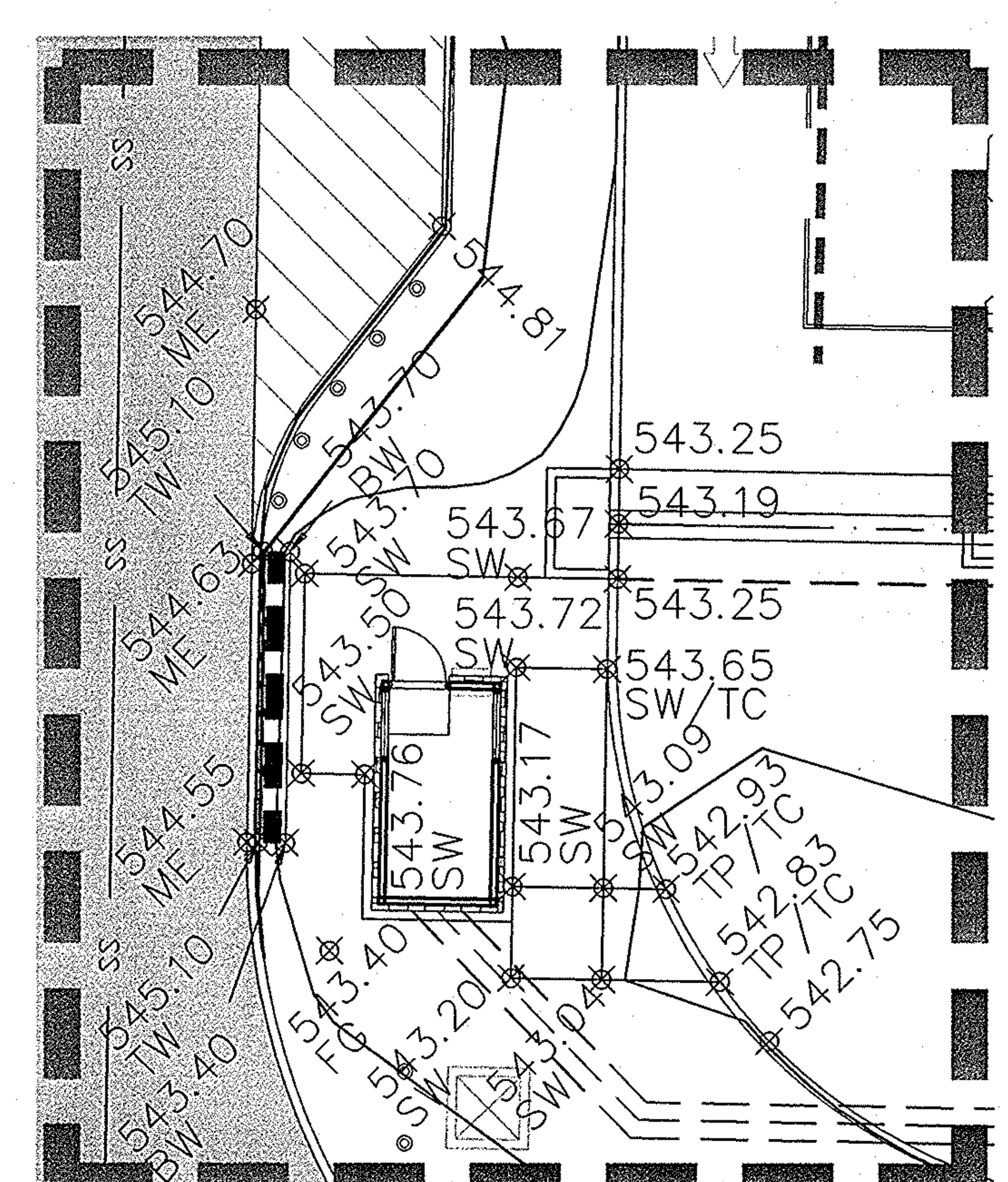
LAST SAVED 7/28/2008 11:57 AM





DETAIL "A"
SCALE 1"=10'

LEGEND

---541---	EXISTING CONTOUR
—541—	PROPOSED CONTOUR
------	PROPOSED RIDGE
-·-·-	PROPOSED SWALE
TP	TOP OF PAVEMENT
FG	FINISHED GROUND
FF	FINISHED FLOOR
TW	TOP OF WALL
BW	BOTTOM OF WALL
ME	MATCH EXISTING
TI	TOP OF PUMP ISLAND
CI	CURB INLET
DI	DROP INLET

N
W E
S

0 20' 40'
GRAPHIC SCALE 20'

NOTES

1. PROPOSED CONTOURS SHOWN "BY OTHERS" BASED ON CITY APPROVED "SITE IMPROVEMENT PLANS FOR ROCKWALL CENTRE CORNERS" PREPARED BY C.P.H. ENGINEERS, INC.
2. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
3. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2%.
4. CONTRACTOR SHALL VERIFY COMPLIANCE WITH TEXAS ACCESSIBILITY STANDARDS (TAS) AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
5. CONTRACTOR SHALL COORDINATE GRADING AT FACE OF BUILDING WITH PLANS BY ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
6. CONTRACTOR SHALL COORDINATE GRADING IN LANDSCAPE AREAS WITH PLANS BY LANDSCAPE ARCHITECT AND SHALL NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY CONFLICTS.
7. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT RETAINING WALL PLANS SIGNED BY AN ENGINEER TO THE CITY OF ROCKWALL FOR APPROVAL.
8. NO PART (FOOTING, TIE BACKS, ETC.) OF THE WALL SHALL BE IN AN EASEMENT, RIGHT-OF-WAY, OR OFF-SITE.

1

ACCESSIBILTY NOTES

1. All Accessible Spaces and Accessible Routes shall comply with the Texas Accesibility Standards (TAS) and the City of Frisco Requirements.

2. Parking spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. Curb ramps complying TAS Section 4.7 shall be provided at all Passenger Loading Zones.

3. Each accessible parking space shall be designated as reserved by a vertically mounted or suspended sign showing the symbol of accessibility per TAS Section 4.30.7. Spaces complying with TAS Section 4.1.2(5)(b) shall have an additional sign "Van-Accessible" mounted below the symbol of accessibility.
   (a) Characters and symbols on such signs shall be located 60" (1525 mm) minimum above the ground, floor, or paving surface so they cannot be obscured by a vehicle parked in the space.
   (b) Signs located within an accessible route shall comply with TAS Section 4.4.2.
   (c) Characters and symbols on overhead signs shall comply with TAS Section 4.30.3.

4. Slopes of curb ramps shall comply with TAS Section 4.8.2. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

5. Surfaces of curb ramps shall comply with TAS Section 4.5.
   (a) Textures shall consist of exposed crushed stone aggregate, roughene concrete, rubber, raised abrasive strips, or grooves extending the full width and depth of the curb ramp. Surfaces that are raised, etched, or grooved in a way that would allow water to accumulate are prohibited.
   (b) For purposes of warning, the full width and depth of curb ramps shall have a light reflective value and texture that significantly contrasts with that of adjoining pedestrian routes.

03/06/09

RECORD DRAWING

THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS AND SURVEYED GRADES.

BM: SQUARE CUT W/ "X" SET ON TOP OF CONCRETE HEADWALL 15' ±' NORTH OF THE NORTH EDGE OF PAVEMENT OF FM 276, 375' WEST OF SOUTHWEST PROPERTY CORNER
ELEV. = 552.00

BM: CITY OF ROCKWALL CONTROL MONUMENT #2
ELEV. = 609.39

BM: 60d SET ON TOP OF CONCRETE HEADWALL 400' NORTH HWY 30
ELEV. = 552.00

No.	Date	Revisions	App.
1	10/08/08	INCLUDED NOTE NUMBER 7 & 8	

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Fax No.(972) 335-3779

STATE OF TEXAS
DAVID K. KOCHALKA
87810
LICENSED PROFESSIONAL ENGINEER
10-8-08

COSTCO WHOLESALE
ROCKWALL, TEXAS

GAS STATION GRADING AND DRAINAGE PLAN

Scale:	AS SHOWN
Designed by:	DSS
Drawn by:	DSS
Checked by:	DKK
Date:	July 28, 2008
Project No.	066000025

SHEET
2
OF 2