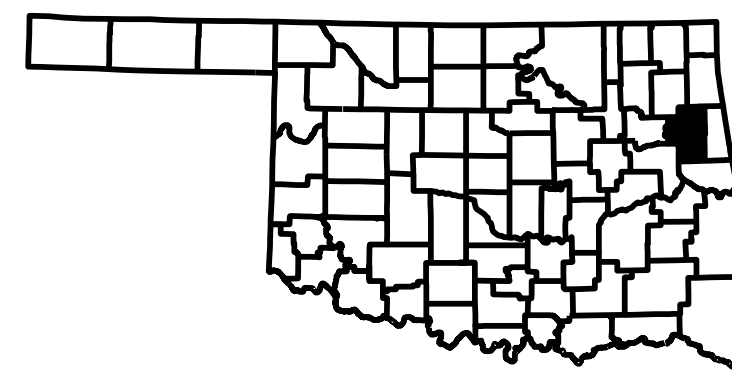


LEGEND

WATER VALVE	⊗
WATER METER	⊙
GAS VALVE	⊗
GAS METER	⊙
MANHOLE	⊗
UTILITY POLE	⊗
FIRE HYDRANT	⊗
MAIL BOX	⊗
TELEPHONE BOX	⊗
TWIN-LUMINAIRE POLES	⊗
SIGN	⊗
LIGHT POLE	⊗
DEAD MAN	⊗
CONTROL POINT	⊗
PROPERTY CORNER	⊗
BUILDING	■
BENCH MARK	⊗
EVERGREEN TREE	⊗
DECIDUOUS TREE	⊗
RIGHT OF WAY LINE	— R/W — R/W —
CENTERLINE	— — — — —
PROPERTY LINE	— P.L. — P.L. —
TREELINE	~ ~ ~ ~ ~
FENCE	-x-x-x-x-x-x-x-x-
SILT FENCE	-o-o-o-o-o-o-o-
DITCH BOTTOM	— ••••• —
MAJOR CONTOURS EXISTING	- - - - -
MAJOR CONTOURS PROPOSED	— — — — —
MINOR CONTOURS EXISTING	- - - - -
MINOR CONTOURS PROPOSED	— — — — —
WATERLINE EXISTING	-w-w-w-w-w-
WATERLINE PROPOSED	—w—w—w—
SANITARY SEWER EXISTING	-ss-ss-ss-
SANITARY SEWER PROPOSED	—ss—ss—
COMM UNDERGROUND EXISTING	-c-c-c-c-
COMM UNDERGROUND PROPOSED	—c—c—c—
TELE OVERHEAD EXISTING	-g-g-g-g-
TELE OVERHEAD PROPOSED	—g—g—g—
TELE UNDERGROUND EXISTING	-c-c-c-c-
TELE UNDERGROUND PROPOSED	—c—c—c—
FIBEROPTIC EXISTING	-fo-fo-fo-
FIBEROPTIC PROPOSED	—fo—fo—fo—
NATURAL GAS EXISTING	-g-g-g-g-
NATURAL GAS PROPOSED	—g—g—g—
ELEC UNDERGROUND EXISTING	-e-e-e-e-
ELEC UNDERGROUND PROPOSED	—e—e—e—
ELEC OVERHEAD EXISTING	-e-e-e-e-
ELEC OVERHEAD PROPOSED	—e—e—e—



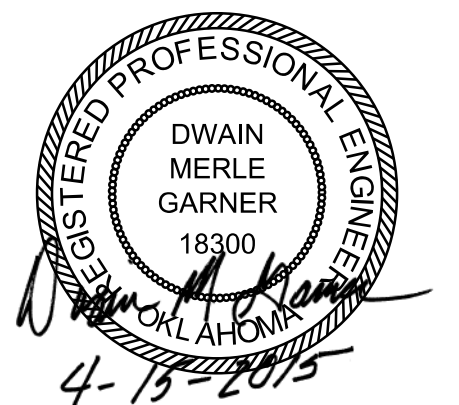
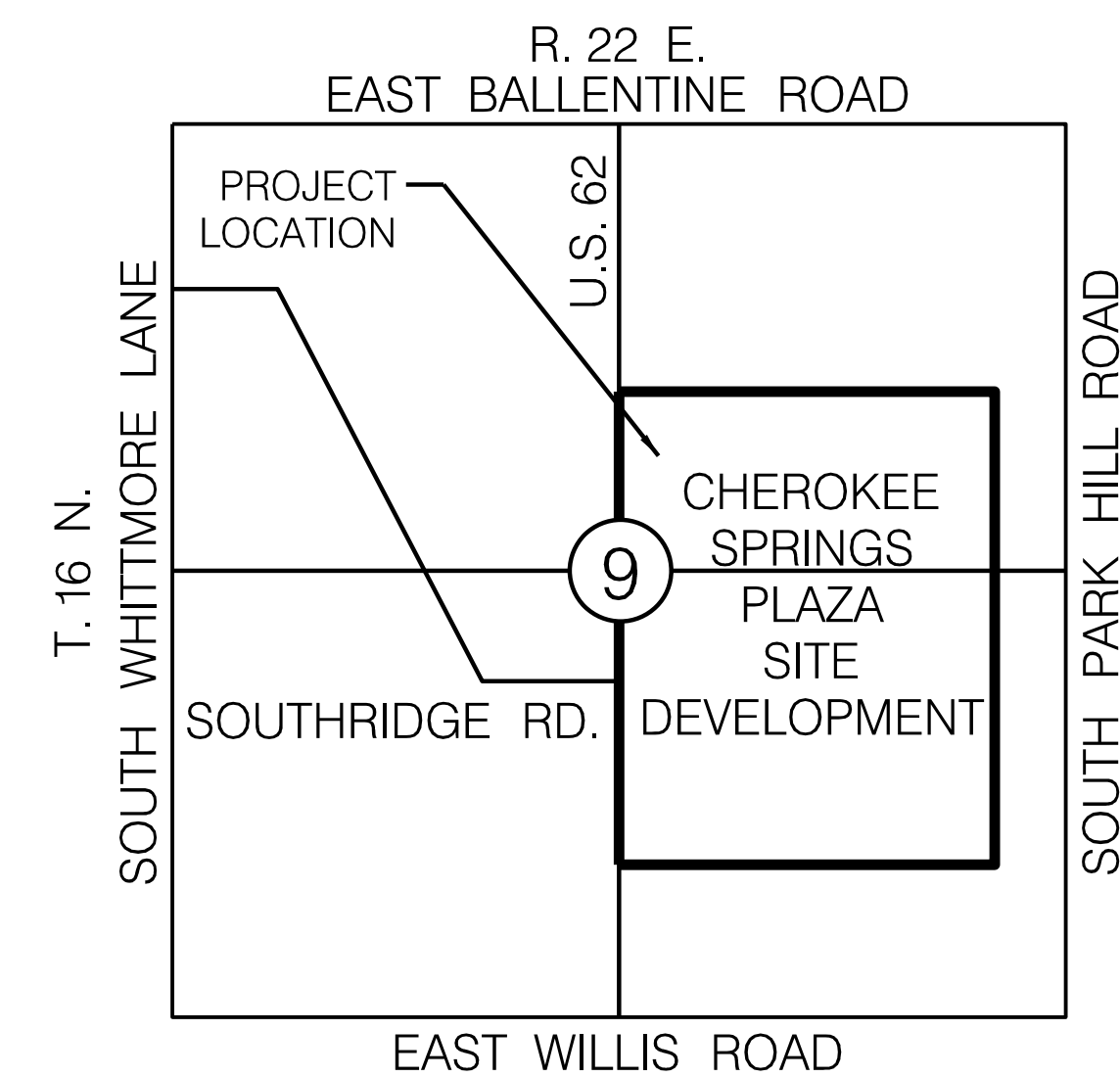
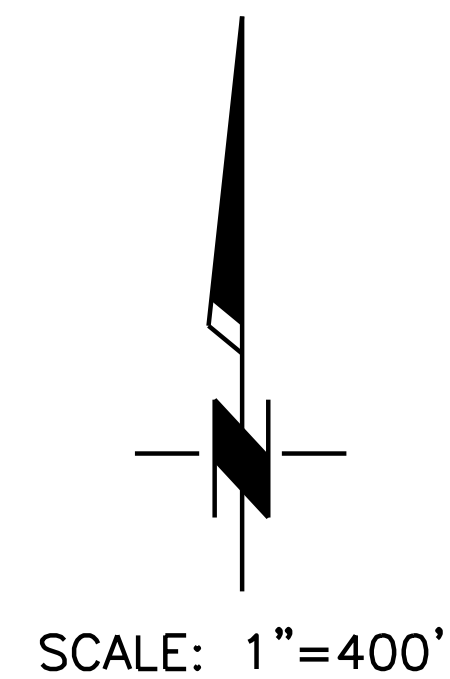
# CHEROKEE NATION BUSINESSES



## PLANS FOR CHEROKEE SPRINGS PLAZA CONSTRUCTION ENTRANCES CHEROKEE COUNTY, OKLAHOMA

SHEET INDEX

C100	COVER
C101	GENERAL NOTES
C102	DRAINAGE AREA MAP
C103	STORMWATER MANAGEMENT PLAN
C104	EROSION CONTROL PLAN
C105-C106	CONSTRUCTION SIGNAGE
C107	ROADWAY KEYMAP
C108	WATERLINE KEYMAP
C200-C204	PLAN & PROFILE & TYPICAL



GOVERNING STANDARDS, SPECIFICATIONS, AND CODES  
OKLAHOMA DEPARTMENT OF TRANSPORTATION 2009 STANDARD SPECIFICATIONS



DATE:	14-59-005-03	CGA ENGINEERS, INC. CIVIL/ENVIRONMENTAL ENGINEERING 8179 East. 41st Street. TULSA, OKLAHOMA 74145 PHONE:(918)749-5800 FAX:(918)749-5858 C.A. NO.: 1371 - EXPIRES: 6/30/16	COVER	SHEET NUMBER
SURVEY BY:	ADS			C100
DRAWN BY:	JWH			
DESIGN BY:	PPW			
REV. DATE	PLOT:	FILE: 14-59-005-03/DESIGN/SHTS/G-COVER		



**GENERAL:**

CONDUCT SITE CLEARING OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. STREETS AND ROADWAYS SHALL BE THOROUGHLY CLEANED AND/OR SWEEPED ON A DAILY BASIS OR MORE FREQUENTLY AS REQUIRE BY THE GOVERNING AUTHORITY. RESTORE DAMAGED IMPROVEMENTS TO ORIGINAL CONDITION AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.

THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES IN ACCORDANCE WITH LOCAL AUTHORITIES.

ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS.

UNLESS SPECIFIED OTHERWISE, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARDS AND 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND/OR THE APPROPRIATE LOCAL AUTHORITIES.

RELOCATION OF ANY UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM ENGINEER BEFORE ANY UTILITY RELOCATION.

NO DIMENSION MAY BE SCALED. REFER UNCLEAR ITEMS TO THE ENGINEER FOR INTERPRETATION.

FINISHED SUBGRADE SURFACE SHALL NOT BE MORE THAN 0.1 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUBGRADE ELEVATIONS AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. FINISHED DITCHES SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION.

THE CONTRACTOR SHALL SUPPLY ALL MATERIALS NEEDED INCLUDING BUT NOT LIMITED TO TEMPORARY EROSION CONTROL, BEDDING AND BACKFILL, AND PERMANENT EROSION CONTROL.

CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE SWP3. ANY MODIFICATIONS SHALL REQUIRE AN AMENDED N.O.I.

**OKIE:**

ALL CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING OF THE INTENT TO EXCAVATE NO LESS THAN 72 HOURS PRIOR TO SUCH EXCAVATION (EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS) AND CALL "OKIE" AT 1-800-522-6543.

EXISTING LOCATIONS SHOWN SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. LOCATIONS OF UNDERGROUND UTILITIES ON THE DRAWINGS ARE APPROXIMATE ONLY AND BASED ON ACTUAL FIELD LOCATIONS OF VISIBLE STRUCTURES AND PLAN COMPUTATIONS.

**SURVEY:**

CP-1 (MAG NAIL)  
N= 334473.911  
E= 2864065.775  
EL= 830.409

CP-3 (40D NAIL)  
N= 332715.723  
E= 2864109.638  
EL= 810.049

CP-4 (40D NAIL)  
N= 332817.972  
E= 2866831.779  
EL= 791.199

CP-5 (MAG NAIL)  
N= 330887.686  
E= 2864176.368  
EL= 810.369

CP-6 (40D NAIL)  
N= 330988.508  
E= 2866855.007  
EL= 823.269

**EROSION CONTROL NOTES:**

ALL EROSION CONTROL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN, PROVIDED TO THE CONTRACTOR, AND IN ACCORDANCE WITH O.D.O.T. STANDARDS AND SPECIFICATIONS.

IF ANY DISTURBED EARTH SURFACES WHICH ARE NOT PAVED OR BUILDING PADS ARE NOT COVERED WITH PERMANENT EROSION CONTROL WITHIN 14 DAY OF WORK BEING COMPLETED IN THAT AREA, TEMPORARY EROSION CONTROL SHALL BE IMPLEMENTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, AND FOR CLEANING OF VEHICLE WHEELS IN ACCORDANCE WITH THE O.D.O.T. STANDARDS AND SPECIFICATIONS.

SILT FENCES: PLACEMENT OF SILT FENCES SHALL BE AS SHOWN ON THE EROSION CONTROL PLAN. FENCING WHICH BECOMES DAMAGED SHALL BE REPLACED PROMPTLY. DEPOSITS OF SILT WHICH BUILD UP BEHIND DIKES MAY BE DISBURSED INTO THE SITE BEFORE PLACEMENT OF TEMPORARY COVER. AFTER TEMPORARY COVER IS PLACED OR AFTER LANDSCAPING COMMENCES, SILT SHALL BE REMOVED AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

**TEMPORARY EROSION CONTROL:**

ALL DISTURBED EARTH SURFACES WHICH ARE NOT PAVED SHALL BE REVEGETATED WITH A COVER.

PLANT TYPE	PER ACRE	PER 1000 SQ. FT.	PLANTING DATE	DEPTH OF SEEDING
ANNUAL RYEGRASS	40 LBS.	0.9 LBS.	09/05-11/30	1/4 INCH
ELBON RYE	2 BU.	3.0 LBS.	08/15-11/30	2 INCH
WHEAT	2 BU.	3.0 LBS.	08/15-11/30	2 INCH
OATS	3 BU.	2.5 LBS.	08/15-11/30	2 INCH
SORGHUMS	60 LBS.	1.4 LBS.	03/01-09/15	2 INCH
SUDAN GRASS	60 LBS.	0.9 LBS.	04/01-09/15	2 INCH

PRIOR TO SEEDING, NEEDED EROSION CONTROL PRACTICES SHALL BE INSTALLED.

THE SUBGRADE SHALL BE LOOSENEV ENVENLY TO A DEPTH OF 2 TO 3 INCHES AND 10-20-10 FERTILIZER (10 LBS. PER 1000 SQ. FT. OR 450 LBS. PER ACRE) SHALL BE MIXED WITH THE LOOSENEV SOIL BY DISKING OR OTHER SUITABLE MEANS.

SOIL SHALL BE TESTED AND LIME TREATED, IF REQUIRED, BY TESTING FIRM.

SEEDS MAY BE DRILLED OR BROADCAST UNIFORMLY.

SEEDING IMPLEMENTS SHOULD BE USED AT RIGHT ANGLES TO THE SLOPE TO MINIMIZE EROSION.

MULCH SHALL BE USED ON ALL SLOPES GREATER THAN 5 PERCENT OR AS NEEDED.

THE AREA SHALL BE WATERED DAILY OR AS OFTEN AS NECESSARY TO MAINTAIN ADEQUATE SOIL MOISTURE UNTIL THE PLANTS EXCEED 1 INCH IN HEIGHT.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORMWATER DRAINAGE. PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.

**PERMANENT EROSION CONTROL PRACTICES:**

ALL DISTURBED AREAS SHALL BE SOLID SLAB SODDED IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 230.

CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT EXCESS MOISTURE FROM INCREMENT WEATHER OR OTHER SOURCES FROM ENTERING ANY EXCAVATION. IF EXCESS MOISTURE ENTERS THE EXCAVATION THROUGH THE NEGLIGENCE OF THE CONTRACTOR AND THE ADJOINING PAVEMENT IS ADVERSELY EFFECTED BY EXCESS MOISTURE, CONTRACTOR SHALL REPLACE THE ADJOINING PAVEMENT AND SUBBASE AT HIS SOLE EXPENSE.

**AS-BUILTS:**

THE CONTRACTOR SHALL KEEP ON SITE A CURRENT SET OF THE APPROVED CONSTRUCTION WORKING DRAWINGS AT ALL TIMES. THE CONTRACTOR SHALL MARK (IN RED INK) ALL APPROVED CHANGES INCURRED FOLLOWING OWNERS APPROVAL OF THE INITIAL DRAWINGS. THESE CHANGES MAY BE INITIATED FROM FIELD CONDITIONS OR CHANGES MADE BY THE DESIGN ENGINEER OR THE OWNER. EXCEPT FOR MINOR FIELD ADJUSTMENTS, ALL CHANGES SHALL BE REVIEWED AND AGREED TO BY THE DESIGN ENGINEER AND THE OWNER PRIOR TO FINAL APPROVAL OF THE PROJECT. THE CONTRACTOR SHALL SUBMIT THE WORKING DRAWINGS TO THE ENGINEER OF RECORD (DESIGN ENGINEER) AFTER FINAL INSPECTION OF PROJECT TO SERVE AS A BASIS FOR DEVELOPMENT OF FINAL AS-BUILT RECORD DRAWINGS.

**GEOTECHNICAL:**

SEE GEOTECHNICAL REPORTS PREPARED BY BUILDING AND EARTH ENGINEERS, INC., DATED FEBRUARY 27, 2015. PROJECT NO. OK15004.

CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT AND BECOME FAMILIAR WITH THE SOILS AND RECOMMENDED CONSTRUCTION PRACTICES NECESSARY FOR THIS SITE.

GEOTECHNICAL REPORT IS AVAILABLE AT CGA ENGINEER'S INC. 918-749-5800

**MATERIALS:**

STORM SEWER PIPE SHALL BE SUPPLIED BY CONTRACTOR.

STORM SEWER PIPE MATERIAL SHALL BE AS SHOWN ON PLANS.

CONTRACTOR SHALL INSTALL STORM SEWER PER MANUFACTURE'S STANDARDS AND SPECIFICATIONS.

AVERAGE LOT DENSITY OF 92%-97% SHALL BE USED FOR PAVEMENT. FAILURE TO ACHIEVE LOT DENSITY SHALL RESULT IN REJECTION OF WORK.

REINFORCED CONCRETE PIPE TO BE CLASS III. ALL REINFORCED CONCRETE PIPE TO BE SUPPLIED WITH AN OMNI-FLEX JOINT GASKET OR APPROVED EQUAL.

CONCRETE END TREATMENT SPEC. NO. CET6S-3 AND PRECAST END SECTION SPEC. NO. PCES-4 SHALL BE PER O.D.O.T. 2009 STANDARD SPECIFICATIONS.

ASPHALT PAVEMENT PER O.D.O.T. STANDARD TYPE S3 & S4 SPEC. NO. 411

AGGREGATE BASE TYPE "A" PER O.D.O.T. SPEC. NO. 303

CONTRACTOR WILL BE PAID FOR ON A LUMP SUM BASIS. PRICE INCLUDES ALL MATERIALS, LABOR AND MISCELLANEOUS TO COMPLETE PROJECT PER CONSTRUCTION DOCUMENTS.

**TRAFFIC CONTROL:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE DONE ACCORDING TO STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION).

THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC.

ALL CONSTRUCTION WORK ZONE SIGNS SHALL MAINTAIN RETRO-REFLECTIVITY LEVEL. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF MUTCD.

THE CONTRACTOR SHALL PROVIDE A PERSON 24 HOURS A DAY, SEVEN DAYS A WEEK, AT THE CONSTRUCTION SITE TO MAINTAIN AND KEEP ALL TRAFFIC CONTROL DEVICES IN POSITION ANYTIME TRAFFIC IS DIRECTED AWAY FROM THE NORMAL TRAFFIC LANES OR ANYTIME THE ENGINEER DEEMS NECESSARY. THIS PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTORS NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

**WATER LINE:**

CONTRACTOR SHALL CONSTRUCT THE WATER LINE IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL MEET ALL CODE REQUIREMENTS OF THE MOST CURRENT ACCEPTED INTERNATIONAL PLUMBING CODE.

6 INCH MINIMUM SAND BEDDING.

BACKFILL SHALL BE STANDARD BEDDING.

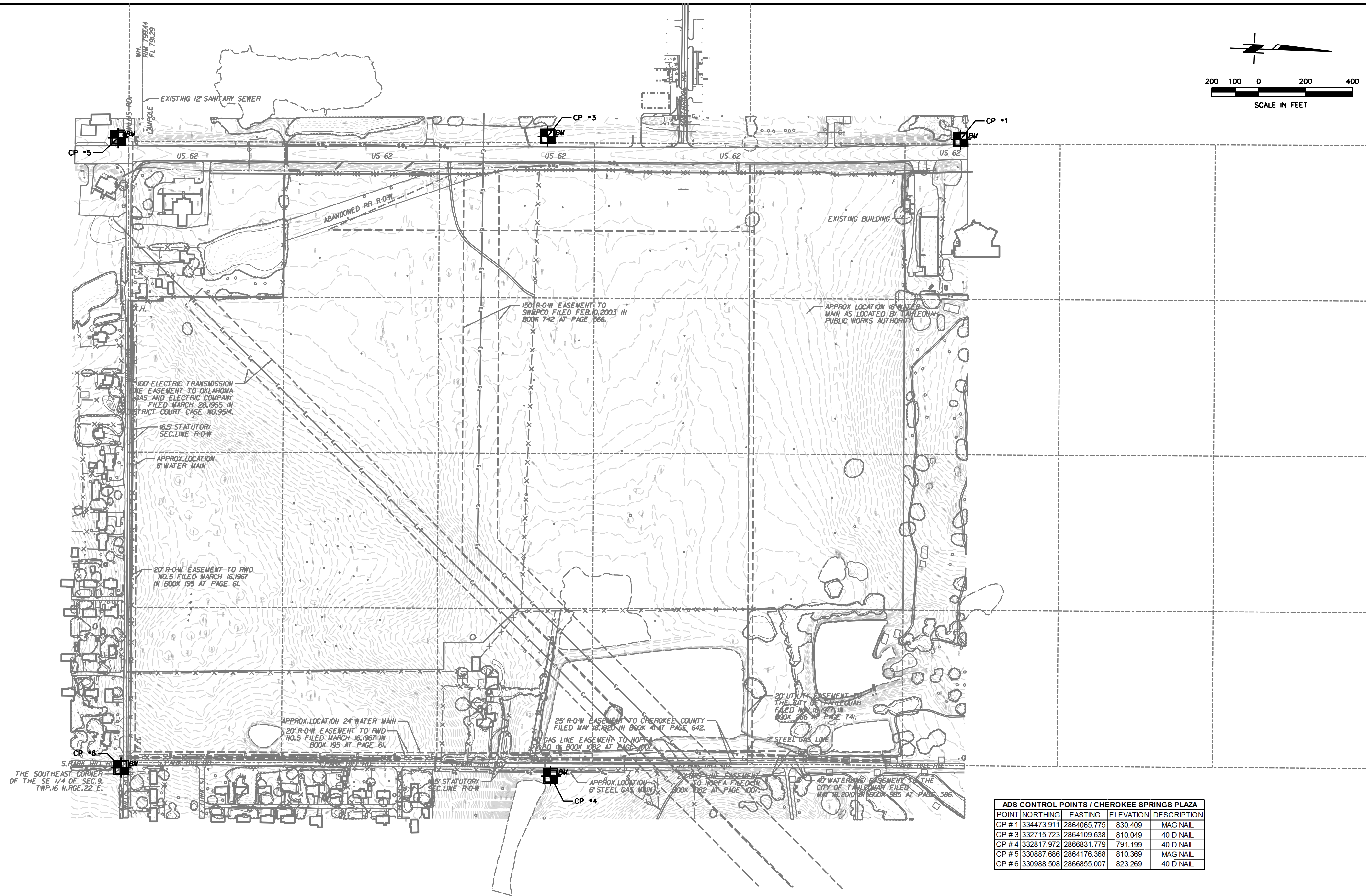
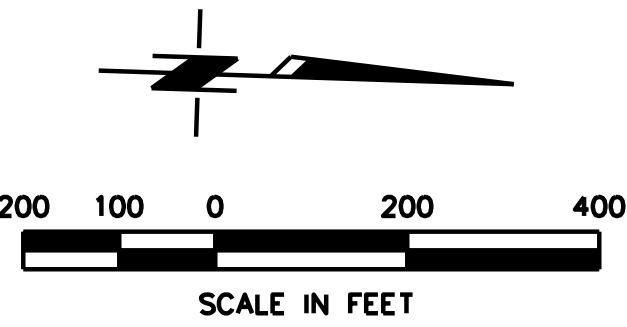
PIPE MATERIAL SHALL BE SDR21 PVC, WITH 12-14 GAUGE COATED TRACER WIRE.

VALVES SHALL BE AVK VALVES AND MID COAT RESTRAINTS (MJ) SHALL BE USED TO RESTRAINT ALL PIPE.



DATE:	14-59-005-03	<b>CGA ENGINEERS, INC.</b> CIVIL/ENVIRONMENTAL ENGINEERING 8179 East. 41st Street. TULSA, OKLAHOMA 74145 PHONE: (918)749-5800 FAX: (918)749-5858 C.A. NO.: 1371 - EXPIRES: 6/30/16	SHEET NUMBER
SURVEY BY:	ADS		
DRAWN BY:	JWH		
DESIGN BY:	PPW		
REV. DATE	PLOT:		GENERAL NOTES
			C101
			FILE: 14-59-005-03/DESIGN/SHTS/G-GENERAL NOTES





THE SOUTHEAST CORNER OF THE SE 1/4 OF SEC. 9, TWP. 16 N., RGE. 22 E.

ADS CONTROL POINTS / CHEROKEE SPRINGS PLAZA			
POINT	NORTHING	EASTING	ELEVATION / DESCRIPTION
CP # 1	334473.911	2864065.775	830.409 MAG NAIL
CP # 3	332715.723	2864109.638	810.049 40 D NAIL
CP # 4	332817.972	2866831.779	791.199 40 D NAIL
CP # 5	330887.686	2864176.368	810.369 MAG NAIL
CP # 6	330988.508	2866855.007	823.269 40 D NAIL



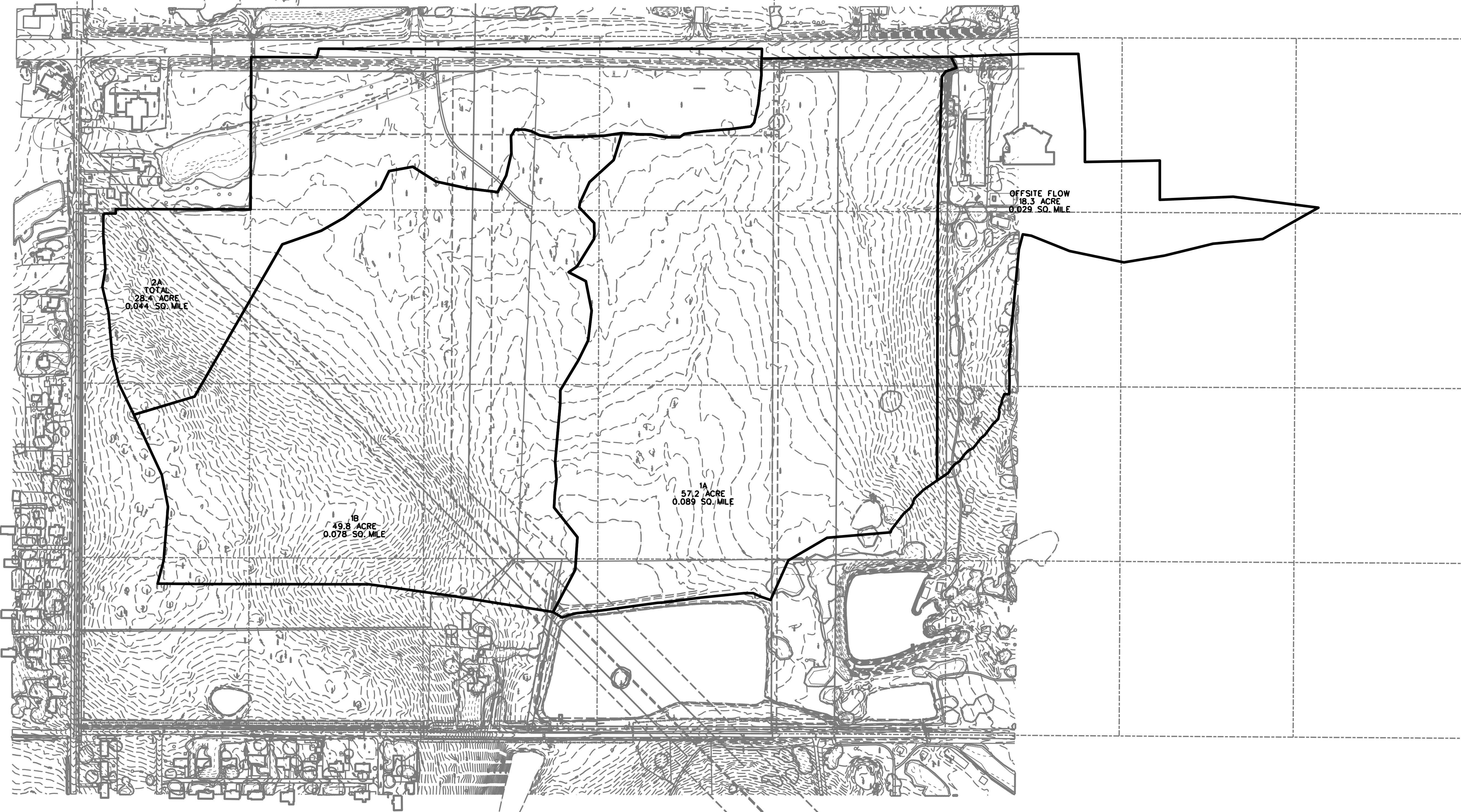
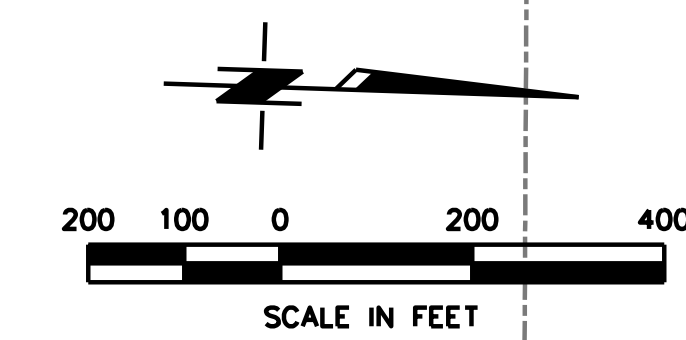
REV.	DATE	DESCRIPTION

**CGA ENGINEERS, INC.**  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE: (918) 749-5800 FAX: (918) 749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

SURVEY  
 FILE: 14-59-005-03/DESIGN/SHTS/G-SURVEY

SHEET NUMBER  
**C102**





DATE:	14-59-005-03
SURVEY BY:	ADS
DRAWN BY:	XXX
DESIGN BY:	XXX
REV. DATE	PLOT: 1"=200'

CGA ENGINEERS, INC.  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE:(918)749-5800 FAX:(918)749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

DRAINAGE DATA  
 FILE: 14-59-005-03/DESIGN/SHTS/G-DRAINAGE DATA

SHEET NUMBER  
 C103



# STORMWATER MANAGEMENT PLAN

## EROSION AND SEDIMENT CONTROLS

### PROJECT DESCRIPTION

SITE LOCATION: CHEROKEE SPRINGS PLAZA TAHLEQUAH COUNTY, OKLA.

SITE DESCRIPTION: CONSTRUCTION ACCESS TO FUTURE DEVELOPMENT

PROJECT DESCRIPTION: SURFACING, GRADING, COMPACTING, AND DRAINAGE CULVERT

CONSTRUCTION FOR THREE CONSTRUCTION ENTRANCES.

TEMPORARY ASPHALT PAVEMENT INSTALLATION.

#### SUGGESTED SEQUENCE OF CONSTRUCTION:

- (1) INSTALL TRAFFIC CONTROL MEASURES, SIGNAGE
- (2) INSTALL TEMPORARY EROSION MEASURES
- (3) TRENCH AND INSTALL CULVERT PIPES
- (4) BACK FILL COMPACT AND PREPARE BASE
- (5) PREPARE FOR ASPHALT PLACEMENT
- (6) GRADE DITCHES
- (7) MAINTAIN EROSION CONTROL PLAN AND INSPECT PERIODICALLY
- (8) SEED DISTURBED AREAS
- (9) FINAL INSPECTION
- (10) COMPLETE SITE FINAL INSPECTION CHECK LIST
- (11) CLEAN SITE AND REMOVE ALL TEMPORARY ITEMS.

TOTAL DRAINAGE AREA: 153.7 ACRES

TOTAL AREA OF CONSTRUCTION SITE: 2.3 ACRES

TOTAL AREA TO BE DISTURBED: 2.3 ACRES

DRAINAGE AREA RUNOFF COEFFICIENTS: PRE-CONSTRUCTION = 0.3

POST-CONSTRUCTION = 0.3

NAME OF RECEIVING WATERS: GOODMAN BRANCH, ILLINOIS RIVER

SITE SOILS: LEAN CLAY/ CHART/ GRAVEL

ENDANGERED/THREATENED SPECIES: N/A

CRITICAL HABITAT: N/A

HISTORICAL PRESERVATION: N/A

NON-STORM WATER OR INDUSTRIAL DISCHARGES: N/A

### SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

OTHER: ALL STORM PREVENTION SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF PROJECT UNTIL APPROVED BY THE ENGINEER. SWP3 SHALL BE INSPECTED 24HRS PRIOR TO A MAJOR STORM. PLAN SHALL BE REVISED PERIODICALLY FOR COMPLIANCE AND INSPECTION REPORTS SHALL BE FILED AS NECESSARY

### STRUCTURAL PRACTICES:

- SILTATION SCREENS
- TEMPORARY BALE BARRIERS
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER DITCHES
- DIVERSION DIKE AND DITCH COMBINATIONS
- PIPE SLOPE DRAINS
- PAVED DITCH AND DITCH LINER PROTECTION
- ENERGY DISSIPATING DEVICES
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT FILTERS

### OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD REMOVED DAILY
- STABILIZED CONSTRUCTION EXIT

### ADDITIONAL INFORMATION:

MAINTAIN EROSION CONTROLS IN GOOD CONDITION AT ALL TIMES AND INSPECTIONS 24 HOURS AFTER A MAJOR STORM

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

#### MAINTENANCE AND INSPECTION:

All erosion and sediment controls will be maintained in good working order from the beginning of construction until an acceptable vegetative cover is established. Inspection by the Contractor and any necessary repairs shall be performed once every 7 calendar days and within 24 hours after any storm event greater than 0.5 inches (as recorded by a non-freezing rain gauge to be located on site.) Contractor shall also perform a follow-up inspection within 24 hours of identifying deficiencies in the control structures or SWP3 to ensure that the measures required to control storm water discharges have been applied.

Potentially erodible areas, drainageways, material storage, structural devices, construction entrances and exists along with erosion and sediment control locations are examples of sites that need to be inspected.

#### WASTE MATERIALS:

Proper management and disposal of construction waste material is required by the Contractor. Materials include stockpiles, surplus, debris and all other by-products from the construction process. Practices include disposal, proper materials handling, spill prevention and cleanup measures. Controls and practices shall meet the requirements of all Federal, State, and Local agencies.

#### HAZARDOUS MATERIALS:

Proper management and disposal of hazardous waste materials is required. The Contractor is responsible for following manufacturer's recommendations. State and Federal regulations to ensure correct handling, disposal, spill prevention and cleanup measures. Examples include but are not limited to: paints, acids, cleaning solvents, chemical additives, concrete curing compounds and contaminated soils.

#### GENERAL NOTES:

A Storm Water Pollution Prevention Plan (SWP3) is required to comply with the National Pollution Discharge Elimination System (NPDES) regulations. This plan along with the Notice of Intent (NOI) forms that have been filed with ODEQ shall always be made available on the site.

The basic goal of the SWP3 is to improve water quality by reducing pollutants in storm water discharges. Runoff from construction sites has a potential for pollution due to exposed soils and the presence of hazardous materials used in the construction process. The prevention of soil erosion, containment of hazardous and/or the interception of these pollutants before leaving the construction site are the best practices for controlling storm water pollution.

The following Subsections of ODOT's Standard Specifications book should be noted:

- 103.05 Bonding Requirements
- 104.10 Final Clean Up
- 106.08 Storage and Handling of Materials
- 107.01 Laws, Rules, and Regulations To Be Observed
- 107.15 Contractor's Responsibility for Work

220.01 & 220.04 Temporary Erosion and Sediment Control

In addition:  
GENERAL PERMIT - OKR10 FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA; SEPTEMBER 13, 2012  
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION

STORMWATER MANAGEMENT PLAN

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE OR SITE MAP THAT ILLUSTRATES THE DRAINAGE CHARACTERISTICS AND RECEIVING WATERS FOR EACH PROJECT. SEE SHEET NUMBER(S).

C101



DATE:	14-59-005-03
SURVEY BY:	ADS
DRAWN BY:	JWH
DESIGN BY:	PPW
REV. DATE	PLOT: N/A

CGA ENGINEERS, INC.
CIVIL/ENVIRONMENTAL ENGINEERING 8179 East. 41st Street. TULSA, OKLAHOMA 74145
PHONE: (918) 749-5800 FAX: (918) 749-5858 C.A. NO.: 1371 - EXPIRES: 6/30/16

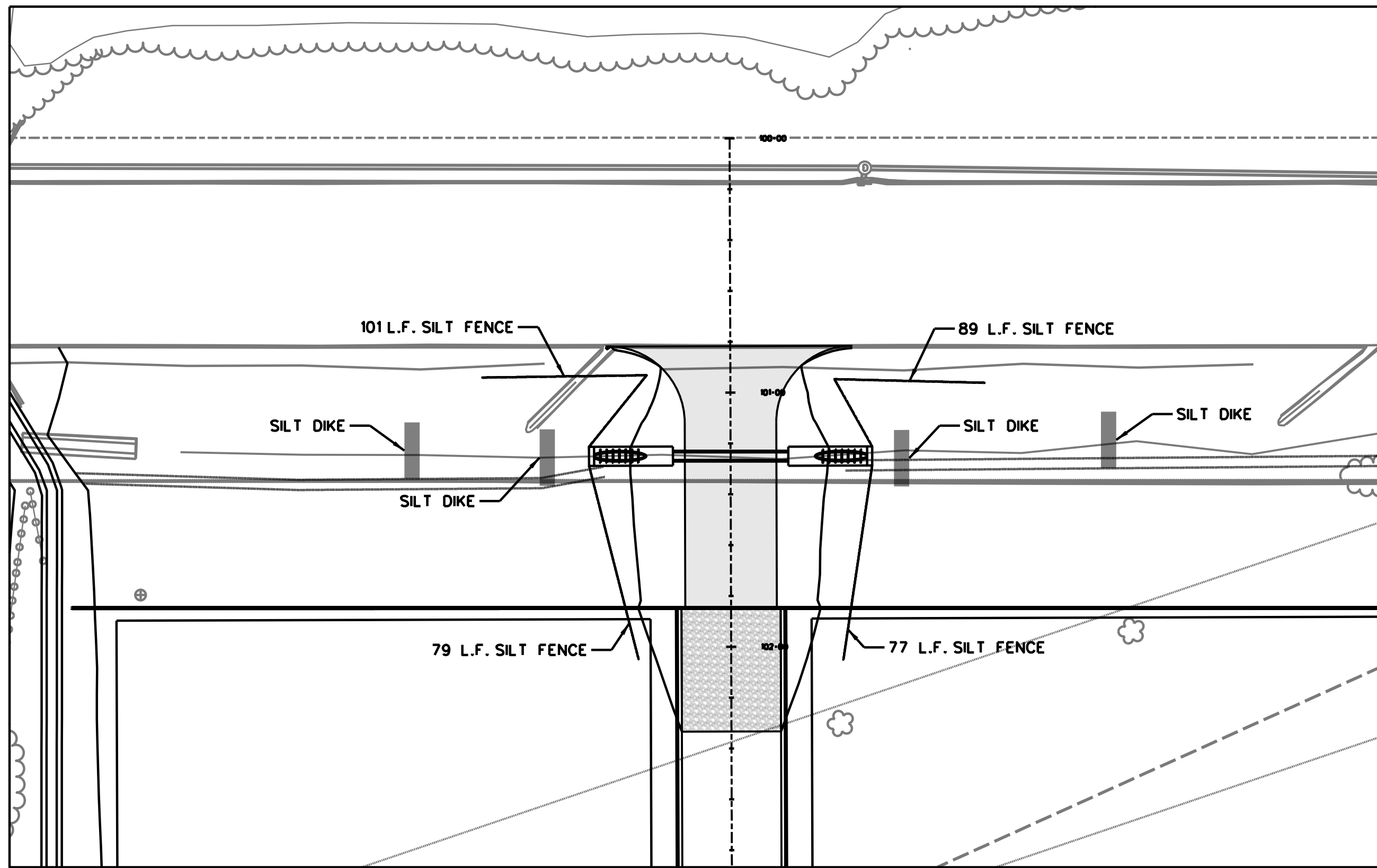
STORMWATER MANAGEMENT PLAN

FILE: 14-59-005-03/DESIGN/SHTS/G-SP3

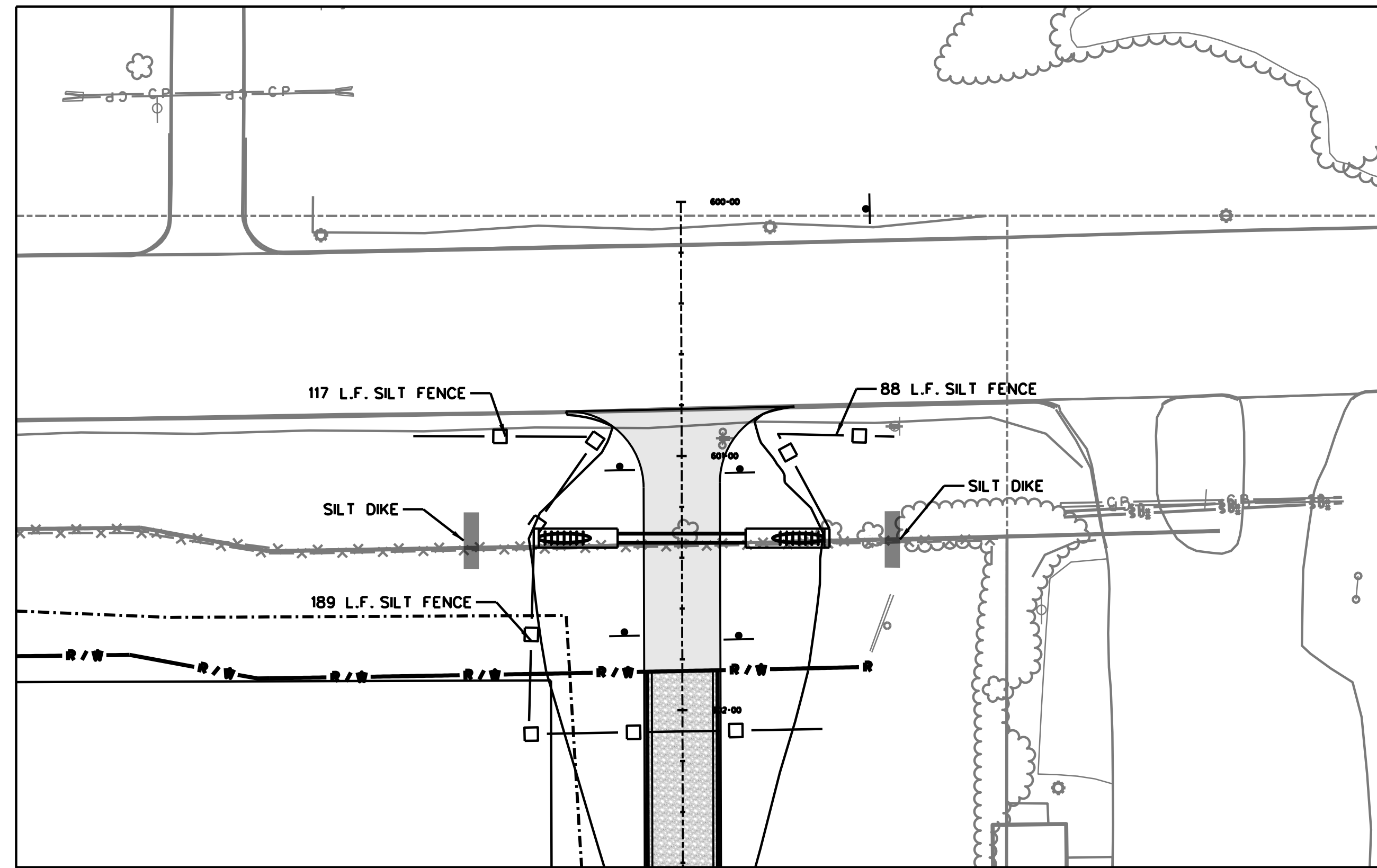
SHEET NUMBER

C104

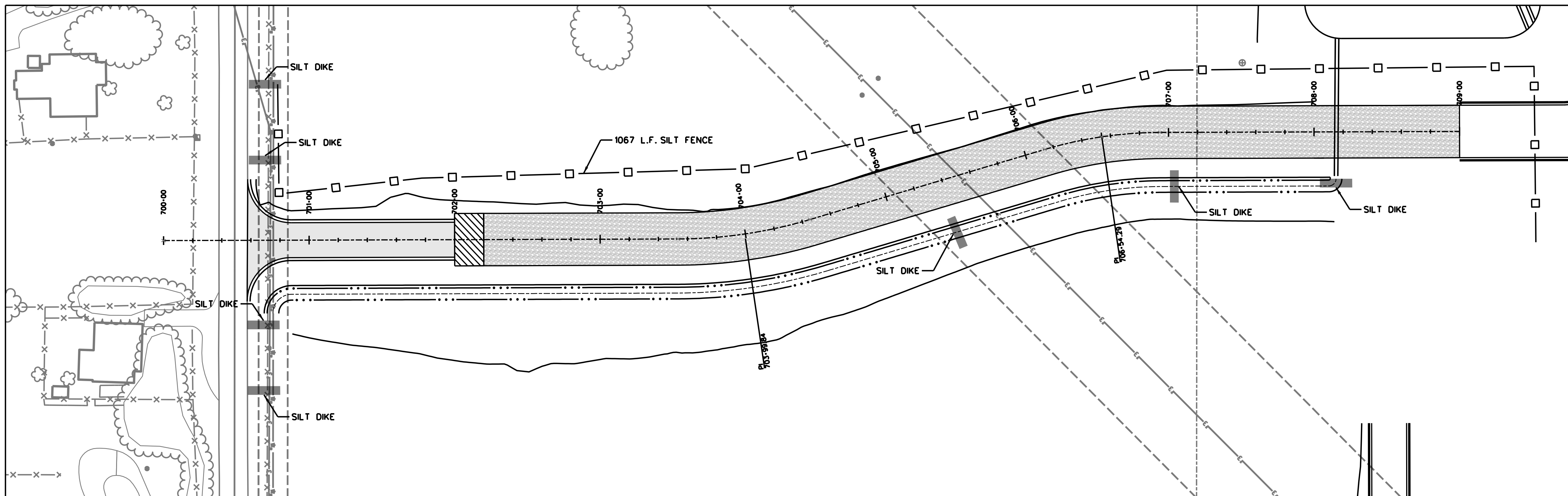
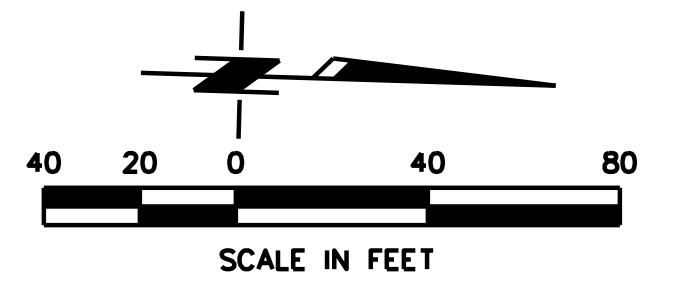




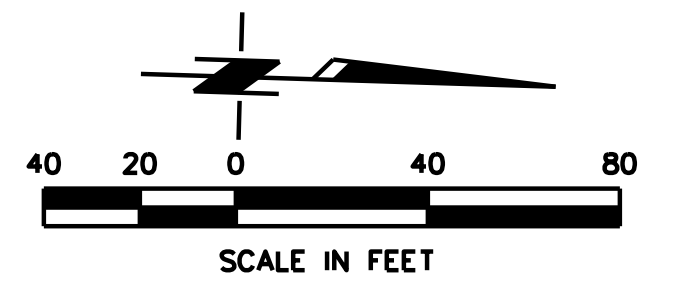
EROSION CONTROL VIEW SOUTH



EROSION CONTROL VIEW NORTH



EROSION CONTROL VIEW WILLIS RD.

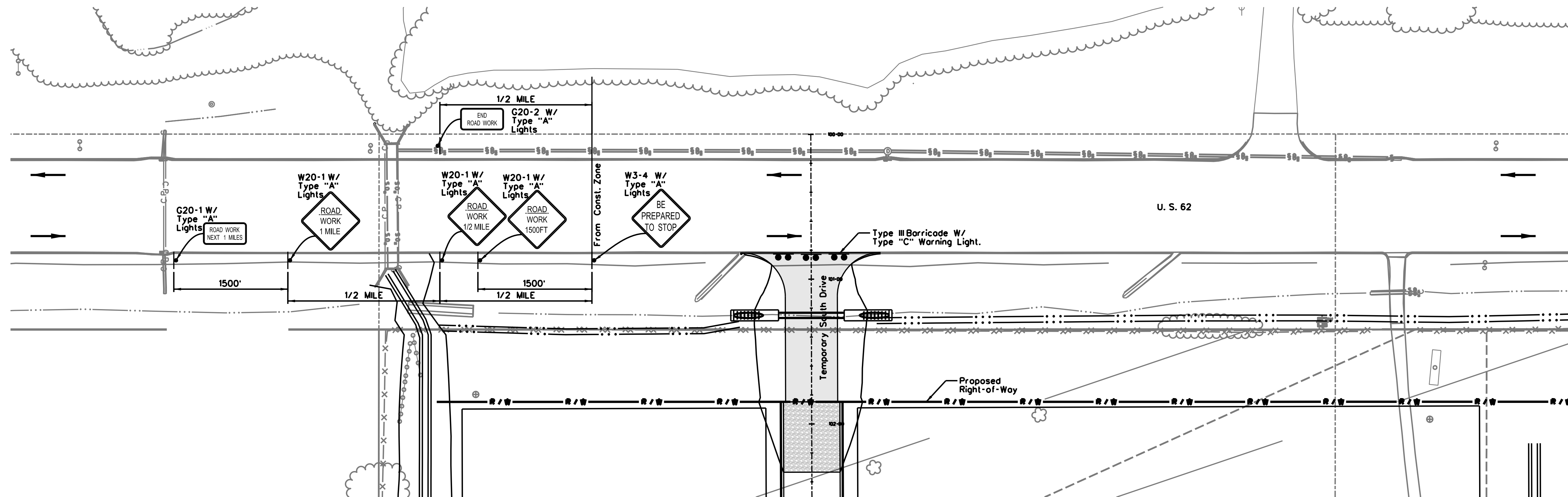


DATE:	14-59-005-03
SURVEY BY:	
DRAWN BY:	ZCW
DESIGN BY:	SA
REV. DATE	PLOT: 1"=40'

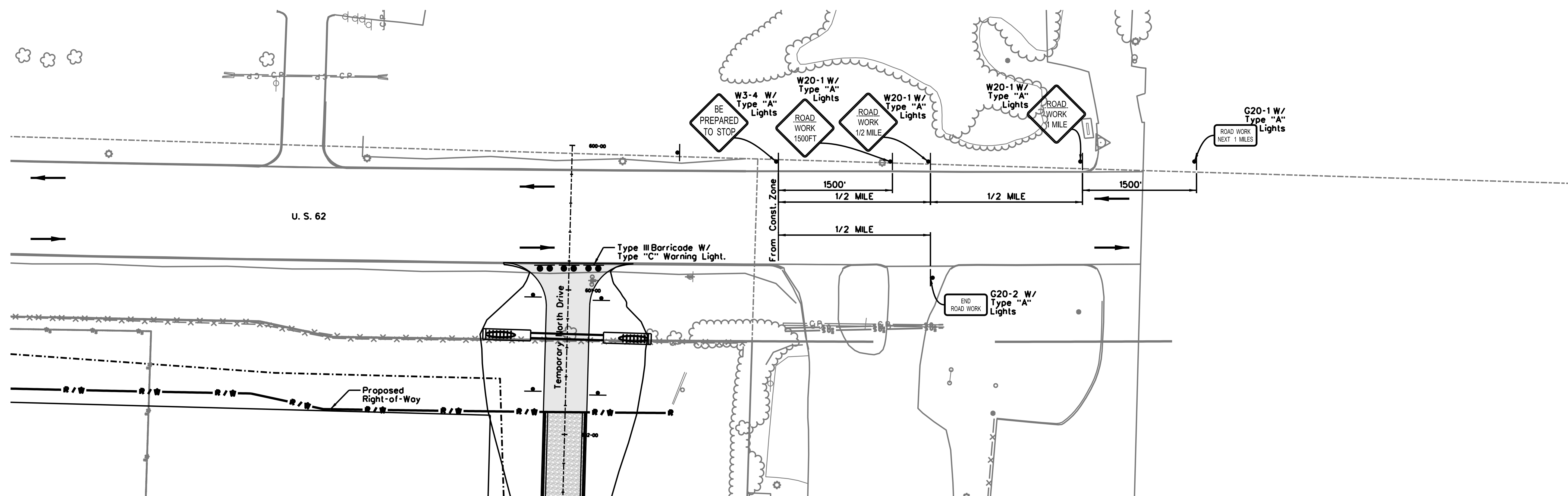
CGA ENGINEERS, INC.  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE:(918)749-5800 FAX:(918)749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

STORMWATER EROSION CONTROL PLAN	SHEET NUMBER
FILE: 14-59-005-03/DESIGN/SHTS/G-CONSTRUCTIONSIGNAGE	C105

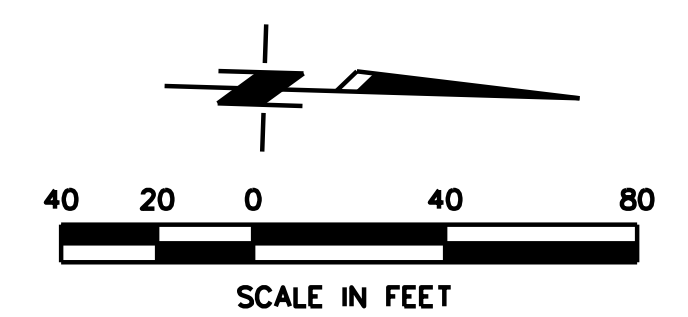




Construction Signage U.S. 62 - South Drive

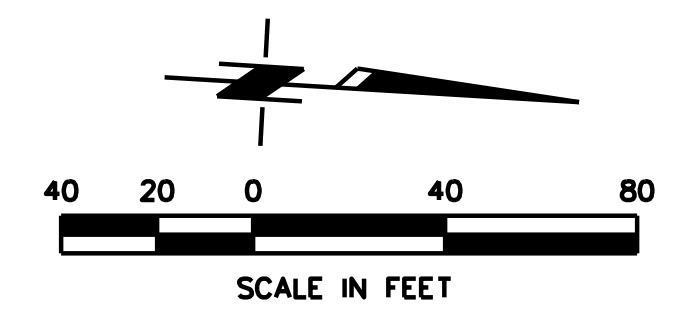
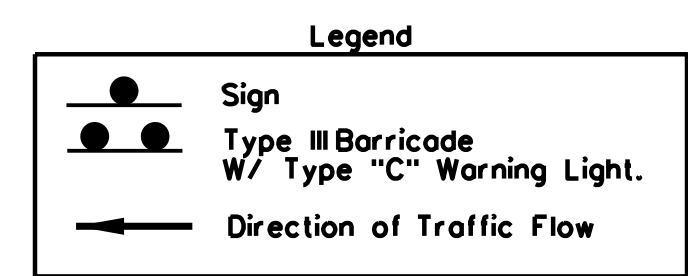


Construction Signage U.S. 62 - North Drive



SCALE IN FEET

NOTES:  
 All Markings Shall be per ODOT Standard Special Provisions 856-1, Traffic Stripe (Multi-Polymer).  
 All Signs Shall be Type III High Intensity Retroreflective Sheeting for the Background with Type VIII Retroreflective Sheeting for the Legends and Borders.  
 All Advance Warning Signs Shall be Installed and Maintained According to ODOT Traffic Control Standard TCS7-1  
 All Traffic Control Items Shall be Installed and Maintained According to ODOT Traffic Control Standards and the MUTCD Latest Revision Standards.  
 The Speed Limit Reduction Signs Shall be in Effect Only When Workers are Present. When Workers are Not Present the Temporary Signs Shall be Removed or Lowered and any Permanent Signs Shall be Up or Uncovered. When the Speed Limit Reduction is in Effect, Advanced Warning Signs Shall be Up. All Barrels and Barricades Must be Moved to the Right Shoulder When Workers are not Present.



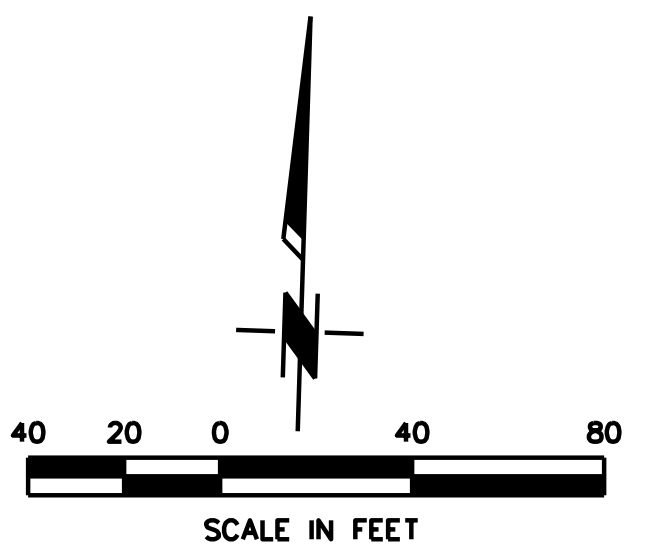
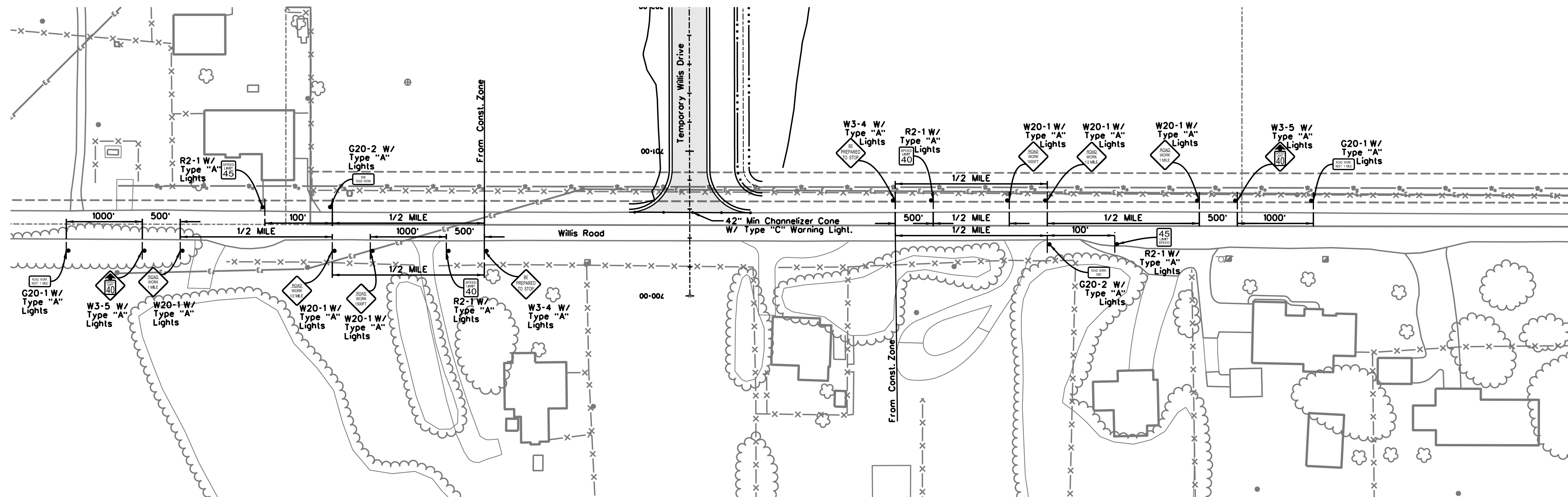
SCALE IN FEET



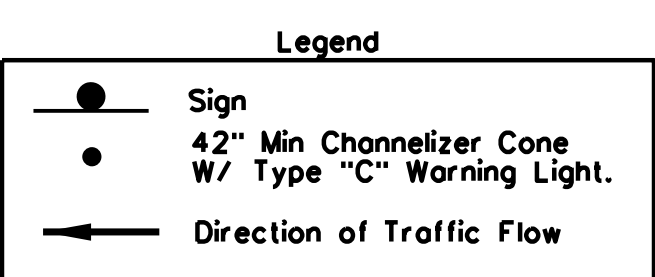
DATE:	14-59-005-03
SURVEY BY:	
DRAWN BY:	ZCW
DESIGN BY:	SA
REV. DATE:	
PLOT:	1"=40'

CGA ENGINEERS, INC.  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE: (918) 749-5800 FAX: (918) 749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

TEMPORARY CONSTRUCTION SIGNAGE	SHEET NUMBER
	C106
FILE: 14-59-005-03/DESIGN/SHTS/G-CONSTRUCTIONSIGNAGE	



**NOTES:**  
 All Markings Shall be per ODOT Standard Special Provisions 856-1, Traffic Stripe (Multi-Polymer).  
 All Signs Shall be Type III High Intensity Retroreflective Sheeting for the Background with Type VIII Retroreflective Sheeting for the Legends and Borders.  
 All Advance Warning Signs Shall be Installed and Maintained According to ODOT Traffic Control Standard TCS7-1.  
 All Traffic Control Items Shall be Installed and Maintained According to ODOT Traffic Control Standards and the MUTCD Latest Revision Standards.  
 The Speed Limit Reduction Signs Shall be in Effect Only When Workers are Present. When Workers are Not Present the Temporary Signs Shall be Removed or Lowered and any Permanent Signs Shall be Up or Uncovered. When the Speed Limit Reduction is in Effect, Advanced Warning Signs Shall be Up. All Barrels and Barricades Must be Moved to the Right Shoulder When Workers are not Present.



Construction Signage Willis Road



DATE:	14-59-005-03	CGA ENGINEERS, INC.	TEMPORARY CONSTRUCTION SIGNAGE	SHEET NUMBER
SURVEY BY:				
DRAWN BY:	ZCW	CIVIL/ENVIRONMENTAL ENGINEERING 8179 East. 41st Street. TULSA, OKLAHOMA 74145	FILE: 14-59-005-03/DESIGN/SHTS/G-CONSTRUCTIONSIGNAGE	C107
DESIGN BY:	SA			
REV. DATE	PLOT: 1"=40'	PHONE: (918) 749-5800 FAX: (918) 749-5858 C.A. NO.: 1371 - EXPIRES: 6/30/16		

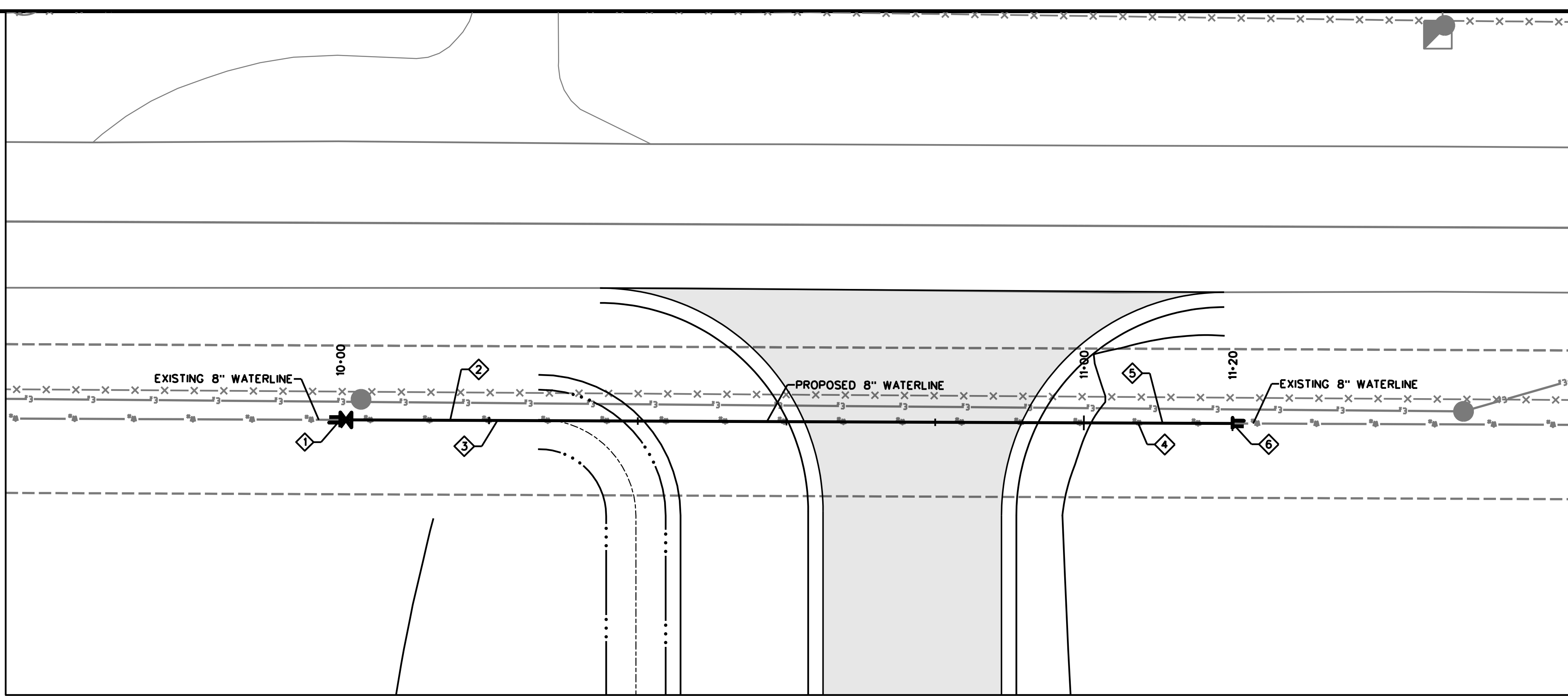
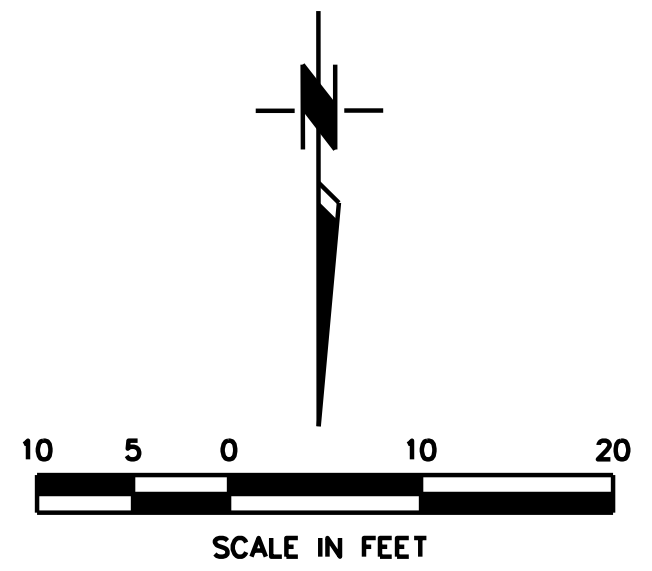








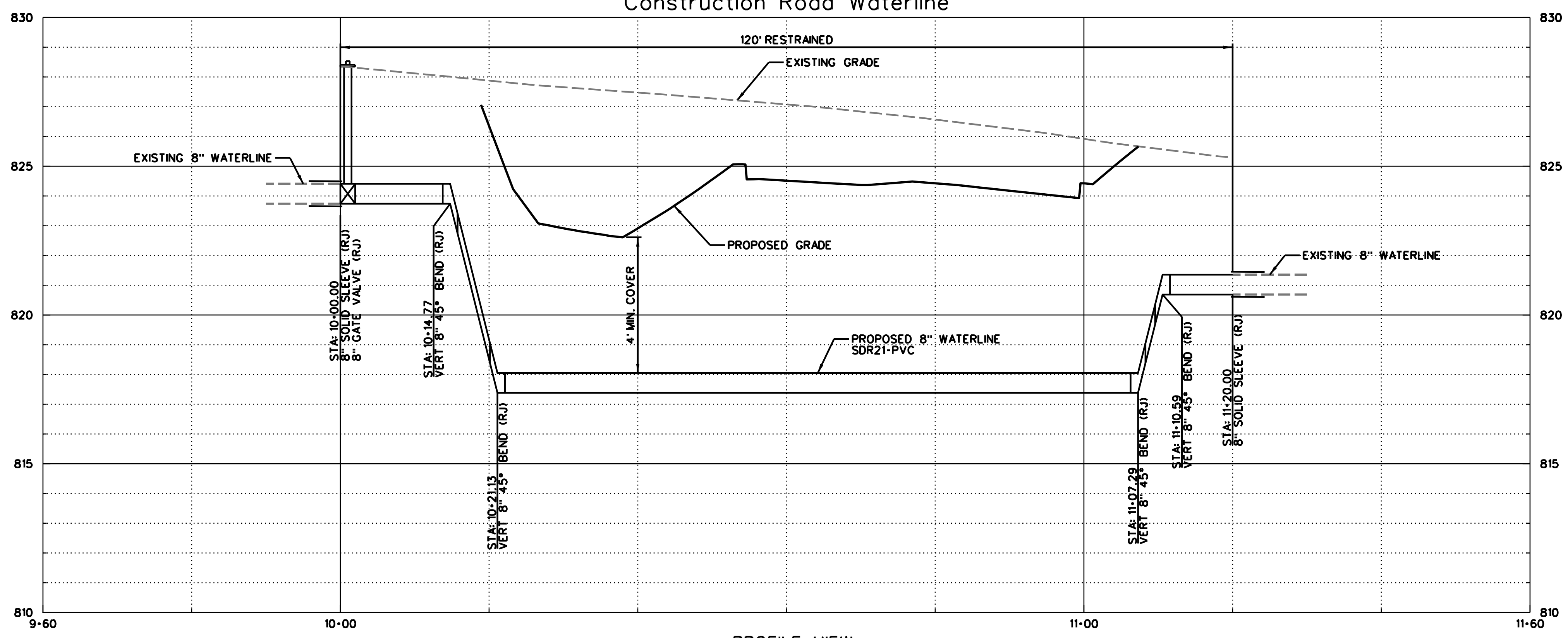




PLAN VIEW

FURNISHED BY CONTRACTOR INSTALLED BY CONTRACTOR		COORDINATE POINT TABLE		
POINT NO.	DESCRIPTION	STATION	NORTHING	EASTING
1	8" SOLID SLEEVE (RJ)	10+00.00	2865205.72	330990.21
	8" GATE VALVE (RJ)			
	VALVE BOX			
2	8" VERT. 45 DEG. BEND (RJ)	10+14.77	2865190.96	330989.79
3	8" VERT. 45 DEG. BEND (RJ)	10+21.13	2865184.60	330989.60
4	8" VERT. 45 DEG. BEND (RJ)	11+07.29	2865098.48	330987.12
5	8" VERT. 45 DEG. BEND (RJ)	11+10.59	2865095.18	330987.03
6	8" SOLID SLEEVE (RJ)	11+20.00	2865085.77	330986.75

Construction Road Waterline



PROFILE VIEW  
SCALE HORIZ. - 1" = 20'  
VERT. - 1" = 5'

ALL VALVES, FITTINGS, AND PIPE SHALL BE CONSTRUCTED PER CITY OF TAHLEQUAH STANDARDS



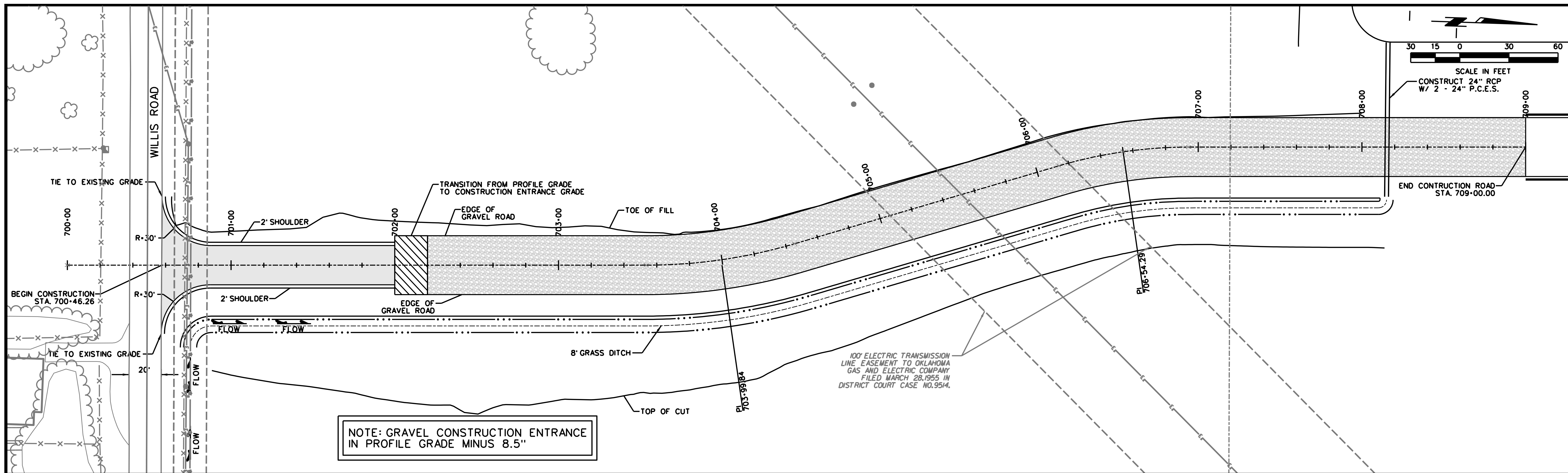
DATE:	14-59-005-03
SURVEY BY:	ADS
DRAWN BY:	
DESIGN BY:	
REV. DATE	PLOT: 1" = 30'

CGA ENGINEERS, INC.  
CIVIL/ENVIRONMENTAL ENGINEERING  
8179 East. 41st Street.  
TULSA, OKLAHOMA 74145  
PHONE: (918) 749-5800 FAX: (918) 749-5858  
C.A. NO.: 1371 - EXPIRES: 6/30/16

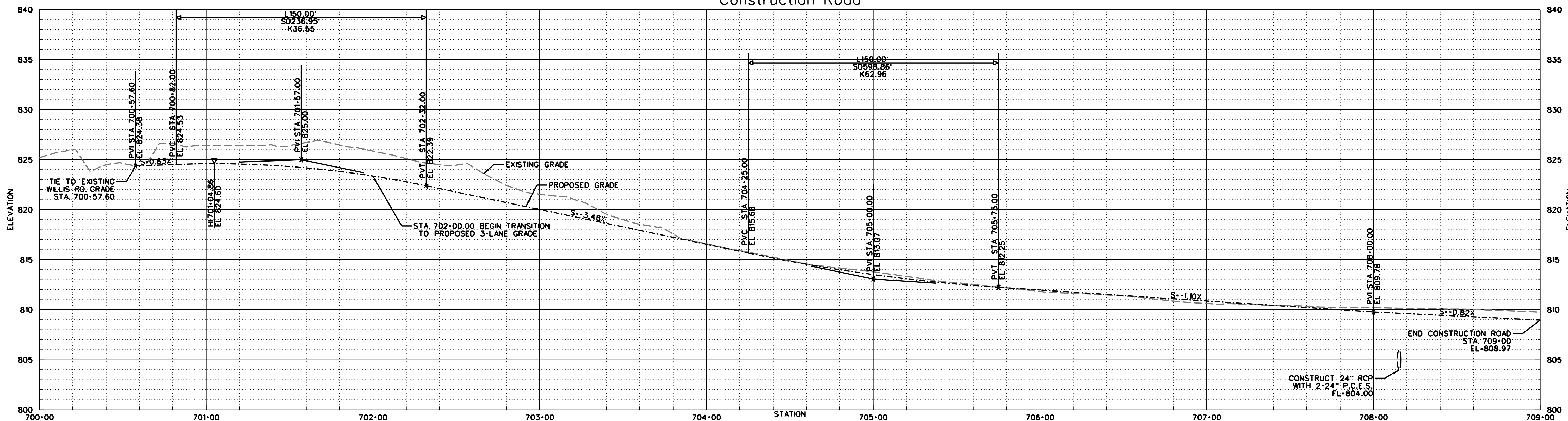
WILLIS ROAD  
CONSTRUCTION ENTRANCE  
WATERLINE REPLACEMENT

SHEET NUMBER  
C200





PLAN VIEW  
Construction Road



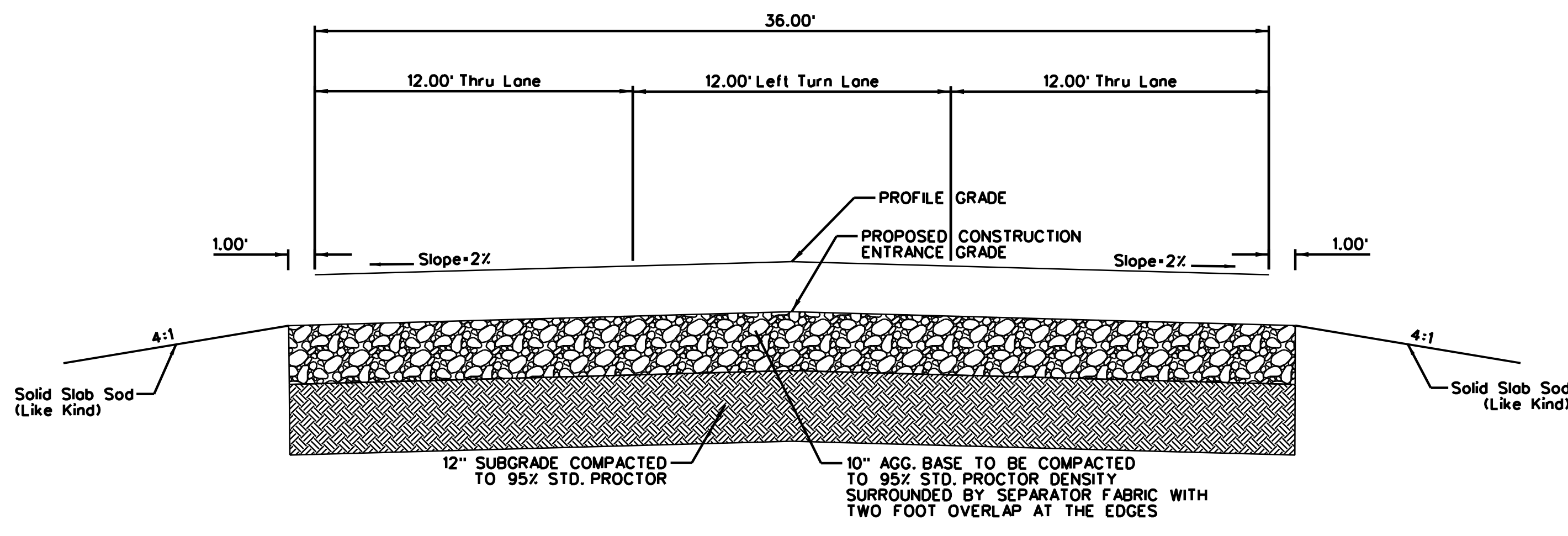
DATE:	14-59-005-03
SURVEY BY:	ADS
DRAWN BY:	
DESIGN BY:	
REV. DATE	PLOT: 1" = 30'

CGA ENGINEERS, INC.  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street,  
 TULSA, OKLAHOMA 74145  
 PHONE: (918) 749-5800 FAX: (918) 749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

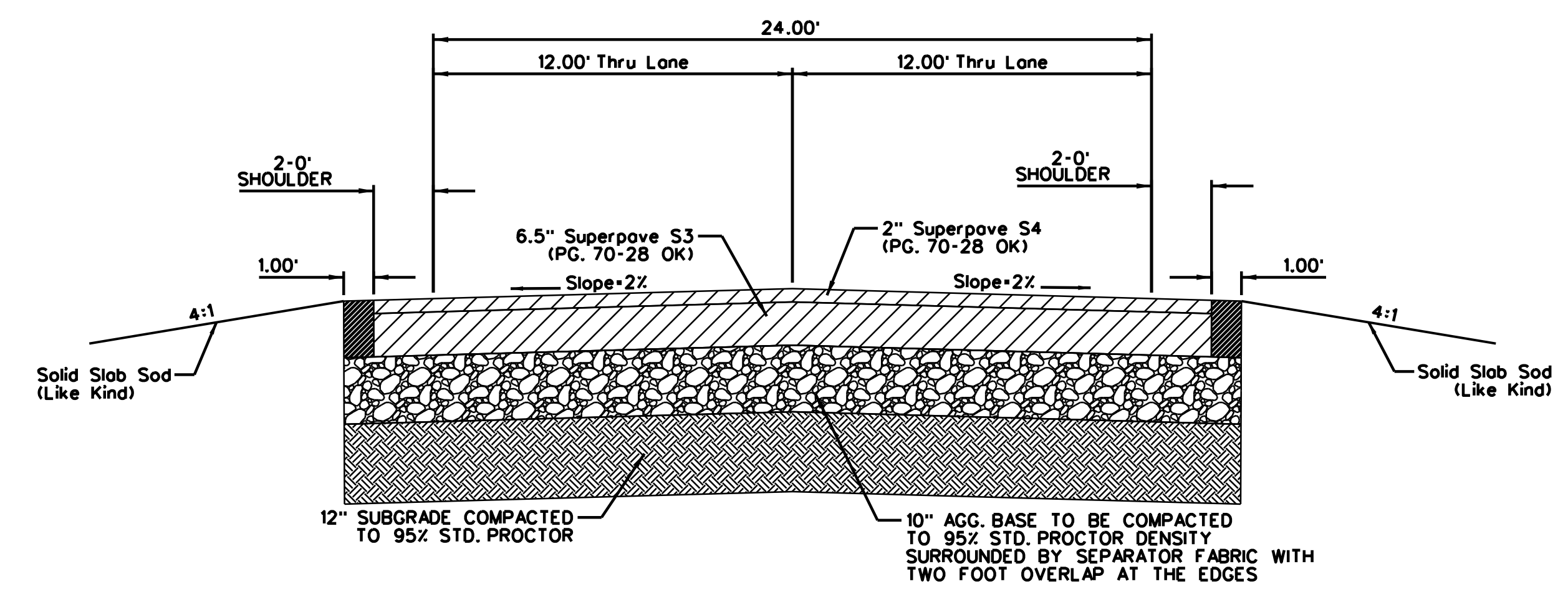
WILLIS ROAD  
 CONSTRUCTION ENTRANCE

SHEET NUMBER  
 C201





GRAVEL TYPICAL SECTION  
N.T.S.



ASPHALT TYPICAL SECTION  
N.T.S.

Horizontal Alignment Review Report			
Alignment Description:	Station	Northing	Eastng
Element: Linear			
POB -115	700+00.00	330912.68	2865131.31
PC -116	703+53.59	331266.07	2865119.70
Tangential Direction:	N 1°52'54.30701" W		
Tangential Length:	353.5864		
Element: Circular			
PC -116	703+53.59	331266.07	2865119.70
PI ( )	703+99.84	331312.30	2865118.18
CC -117		331255.56	2864799.70
PT -118	704+45.46	331356.21	2865103.64
Radius:	320.1667		
Delta:	16°26'30.47073"		
Degree of Curvature (Arc):	17°53'44.19102"		
Length:	91.8762		
Tangent:	46.2569		
Chord:	91.5812		
Middle Ordinate:	3.29		
External:	3.3241		
Tangent Direction:	N 1°52'54.25173" W		
Radial Direction:	N 88°07'05.74835" E		
Chord Direction:	N 10°06'09.48709" W		
Radial Direction:	N 71°40'35.27762" E		
Tangent Direction:	N 18°19'24.72246" W		
Element: Linear			
PT -118	704+45.46	331356.21	2865103.64
PC -119	706+13.86	331516.08	2865050.69
Tangential Direction:	N 18°19'24.72246" W		
Tangential Length:	168.3992		
Element: Circular			
PC -119	706+13.86	331516.08	2865050.69
PI ( )	706+33.97	331535.17	2865044.37
CC -120		331604.05	2865316.34
PCC -121	706+54.01	331554.96	2865040.84
Radius:	279.8333		
Delta:	8°13'15.23536"		
Degree of Curvature (Arc):	20°28'29.88586"		
Length:	40.151		
Tangent:	20.11		
Chord:	40.1165		
Middle Ordinate:	0.7198		
External:	0.7217		
Tangent Direction:	N 18°19'24.72246" W		
Radial Direction:	N 71°40'35.27762" E		
Chord Direction:	N 14°12'47.10478" W		
Radial Direction:	N 79°53'50.51299" E		
Tangent Direction:	N 10°06'09.48709" W		
Element: Circular			
PCC -121	706+54.01	331554.96	2865040.84
PI ( )	706+74.12	331574.76	2865037.32
CC -120		331604.05	2865316.34
PT -122	706+94.16	331594.86	2865036.66
Radius:	279.8333		
Delta:	8°13'15.23536"		
Degree of Curvature (Arc):	20°28'29.88586"		
Length:	40.151		
Tangent:	20.11		
Chord:	40.1165		
Middle Ordinate:	0.7198		
External:	0.7217		
Tangent Direction:	N 10°06'09.48709" W		
Radial Direction:	N 79°53'50.51299" E		
Chord Direction:	N 5°59'31.86941" W		
Radial Direction:	N 88°07'05.74835" E		
Tangent Direction:	N 1°52'54.25173" W		
Element: Linear			
PT -122	706+94.16	331594.86	2865036.66
POE -31	708+00.00	331700.64	2865033.18
Tangential Direction:	N 1°52'53.82600" W		
Tangential Length:	105.84		



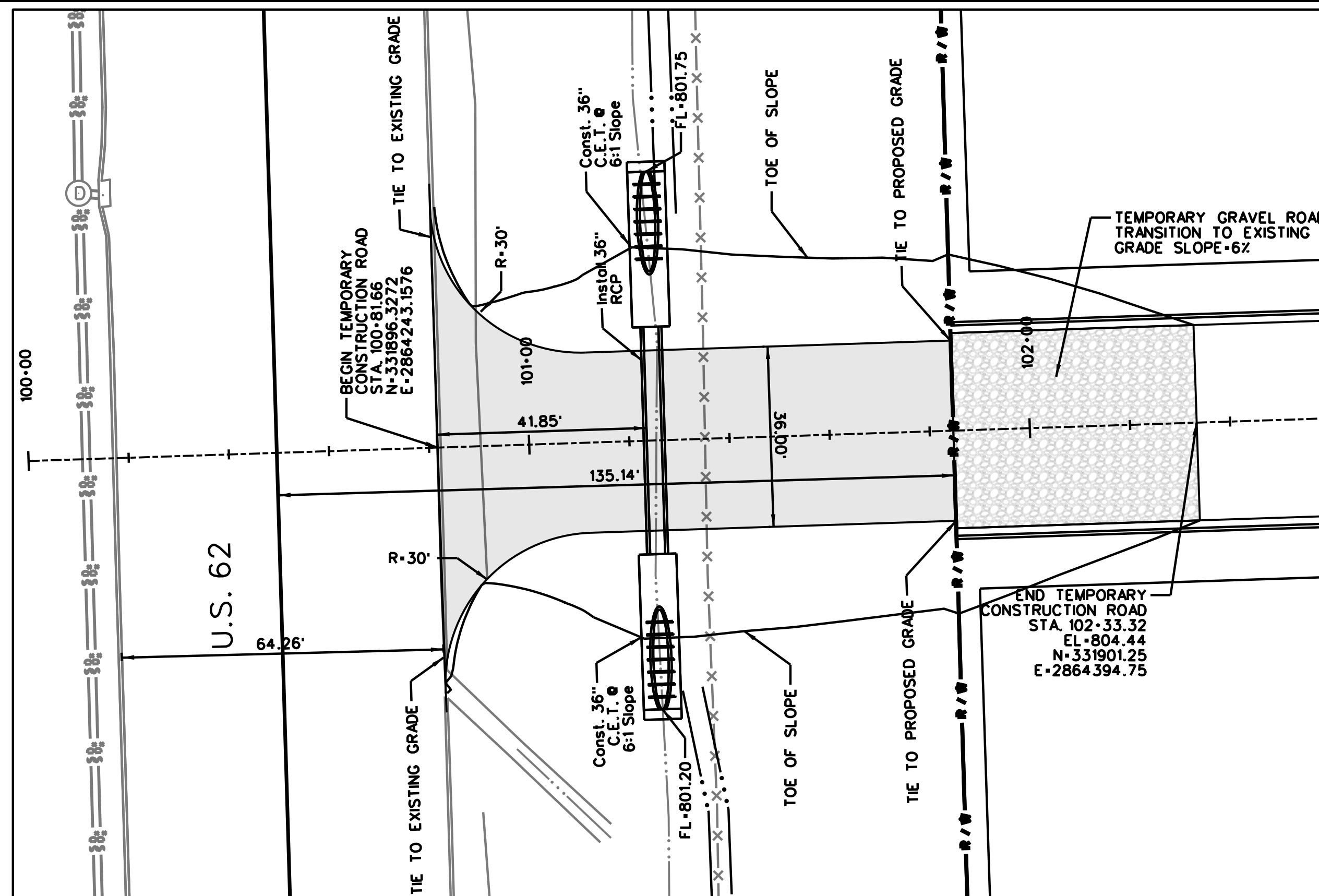
DATE:	14-59-005-03
SURVEY BY:	ADS
DRAWN BY:	
DESIGN BY:	
REV. DATE	PLOT: 1"=30'

CGA ENGINEERS, INC.  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE: (918)749-5800 FAX: (918)749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16

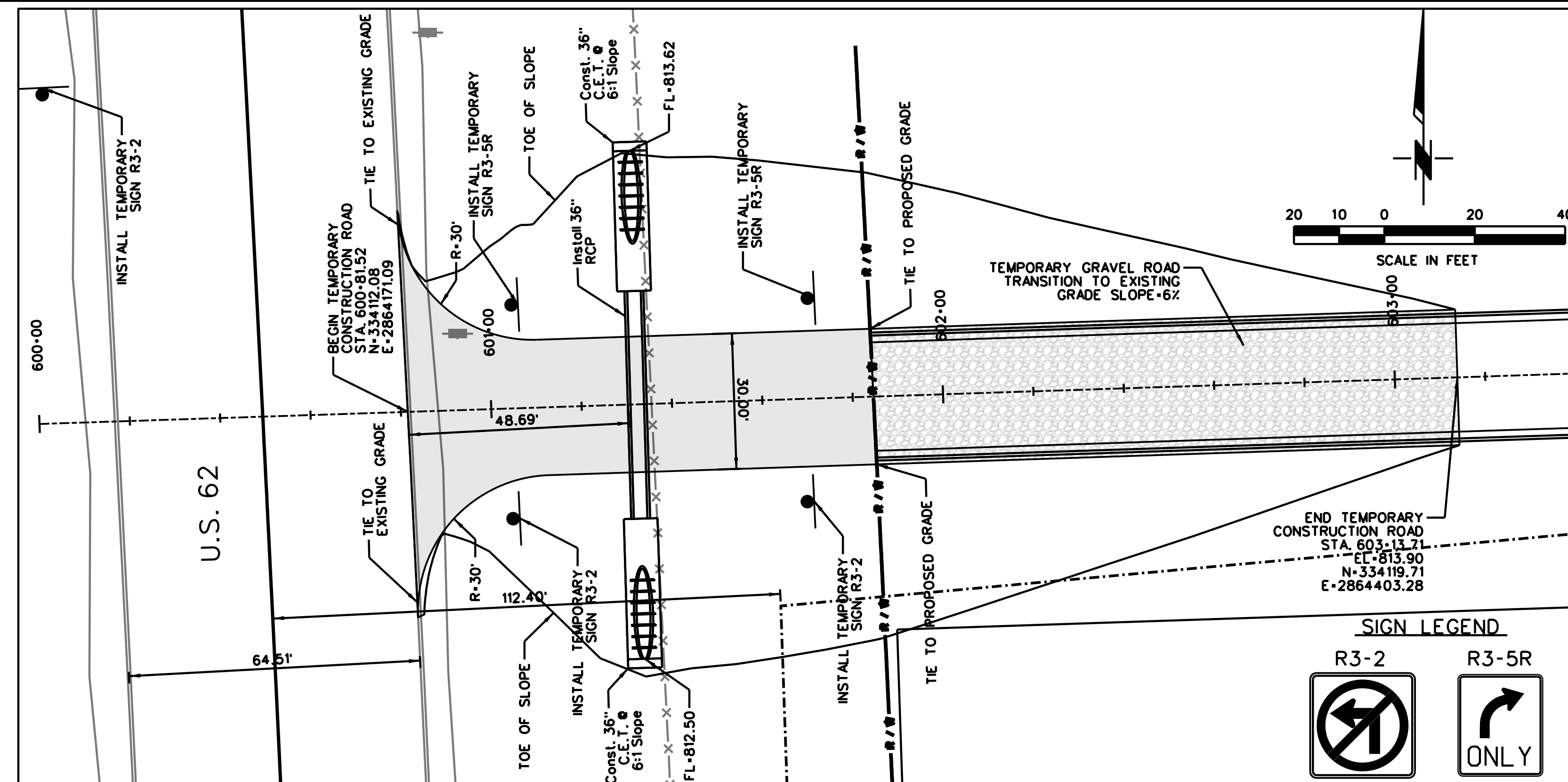
WILLIS ROAD CONSTRUCTION  
 ENTRANCE TYPICALS &  
 ALIGNMENT DATA

SHEET NUMBER  
 C202

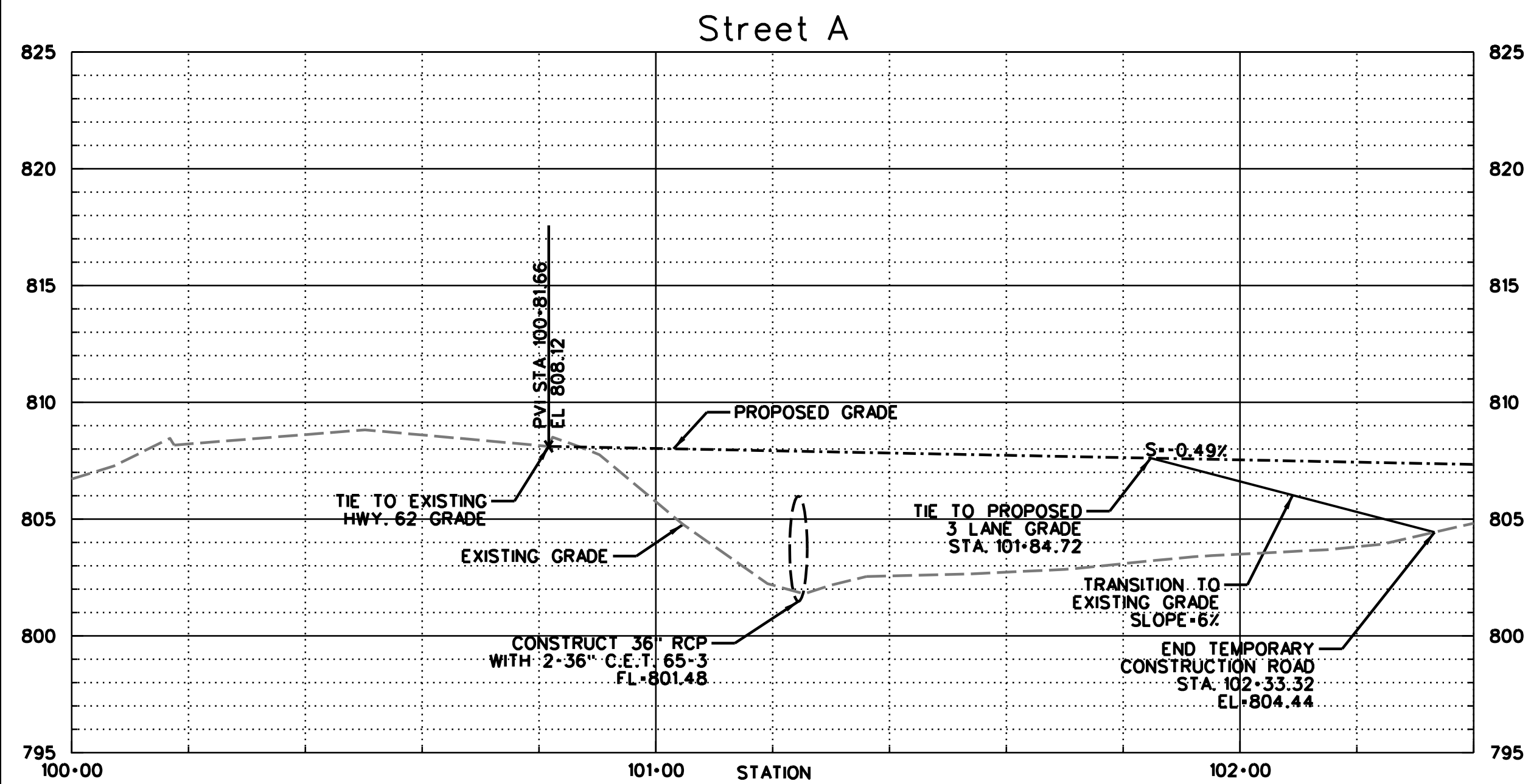
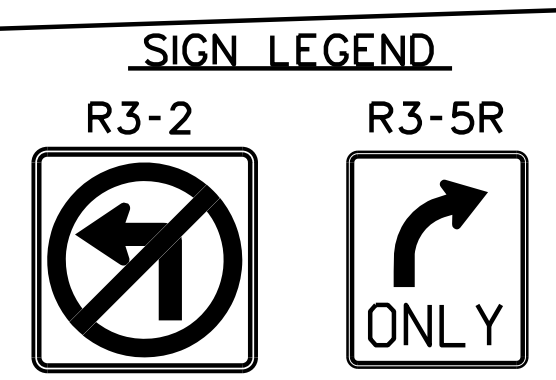
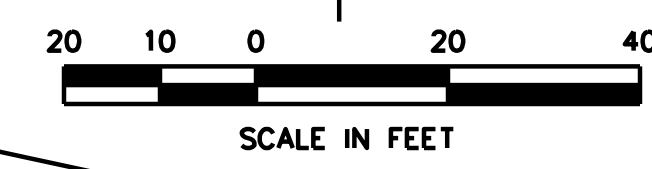




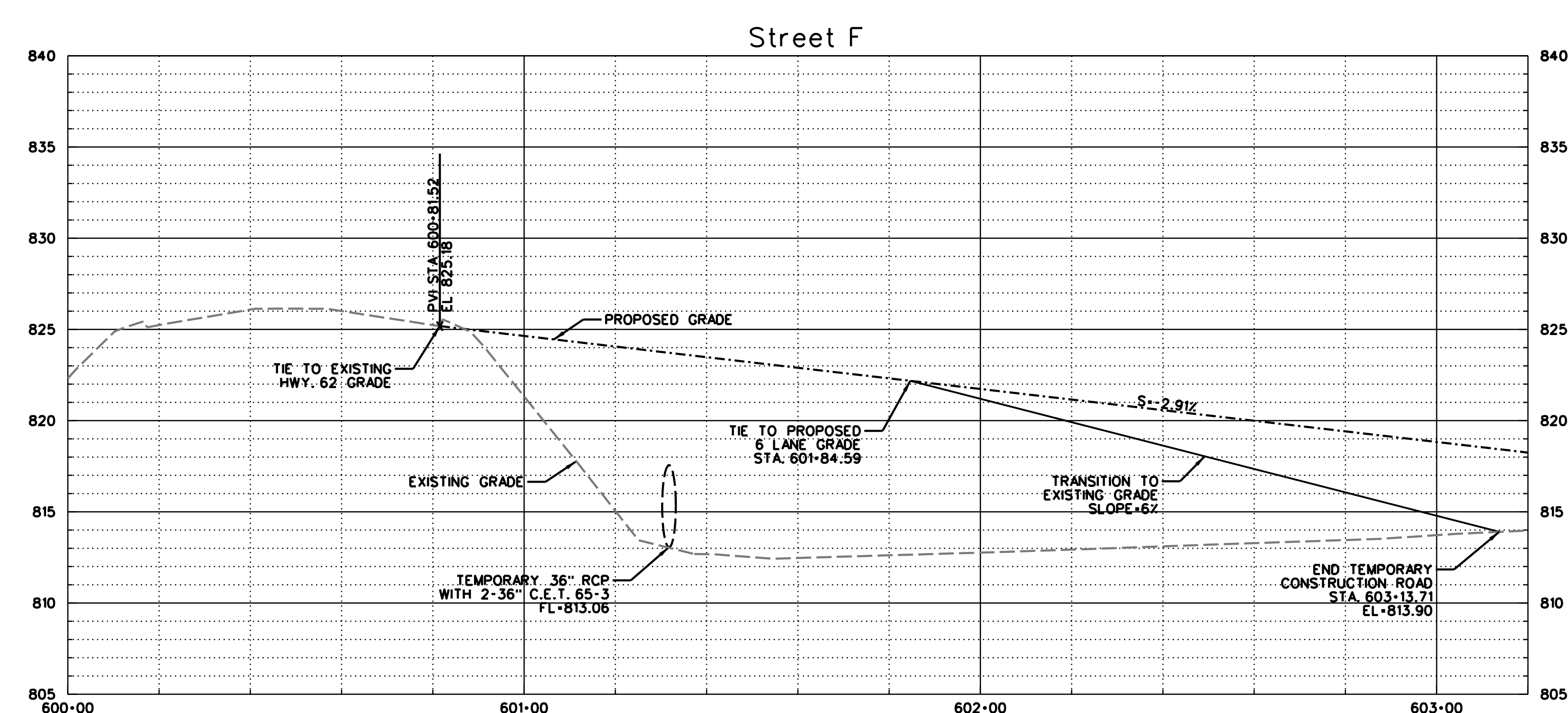
SOUTH DRIVE PLAN VIEW



NORTH DRIVE PLAN VIEW



SOUTH DRIVE PROFILE VIEW



NORTH DRIVE PROFILE VIEW



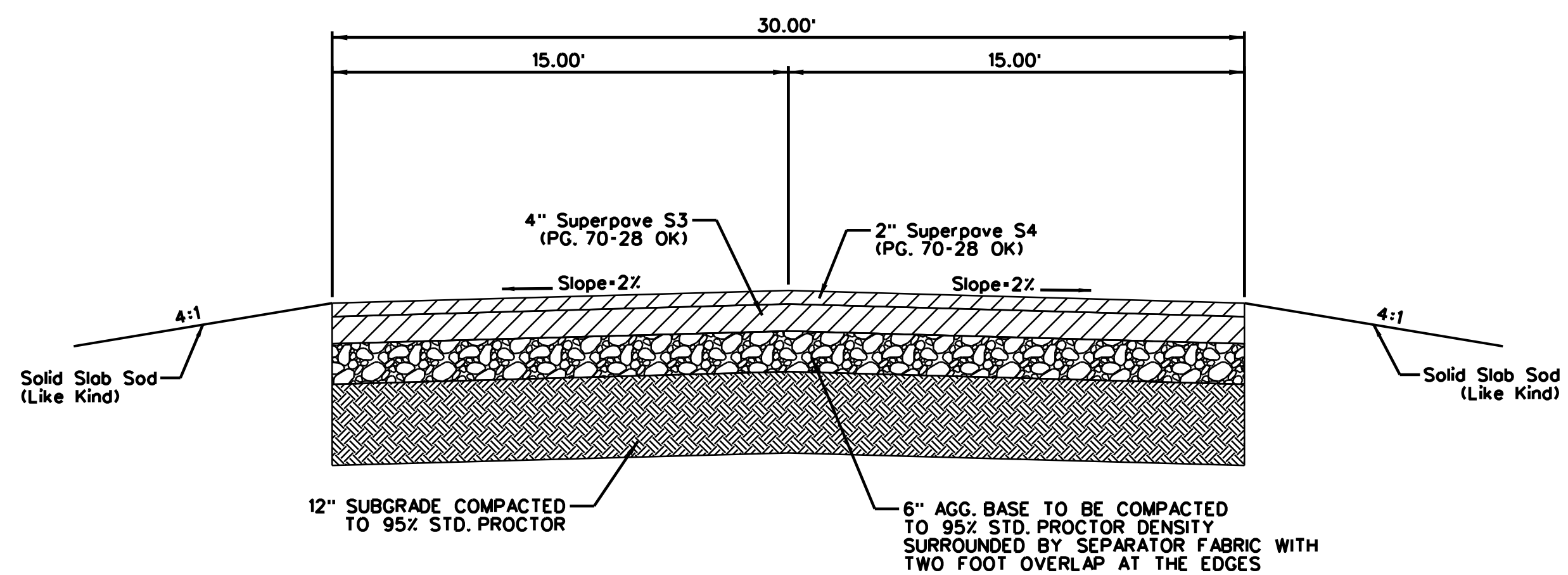
DATE:	14-59-005-03
SURVEY BY:	
DRAWN BY:	ZCW
DESIGN BY:	SA
REV. DATE	PLOT: 1"=20'

**CGA ENGINEERS, INC.**  
CIVIL/ENVIRONMENTAL ENGINEERING  
8179 East. 41st Street.  
TULSA, OKLAHOMA 74145  
PHONE:(918)749-5800 FAX:(918)749-5858  
C.A. NO.: 1371 - EXPIRES: 6/30/16

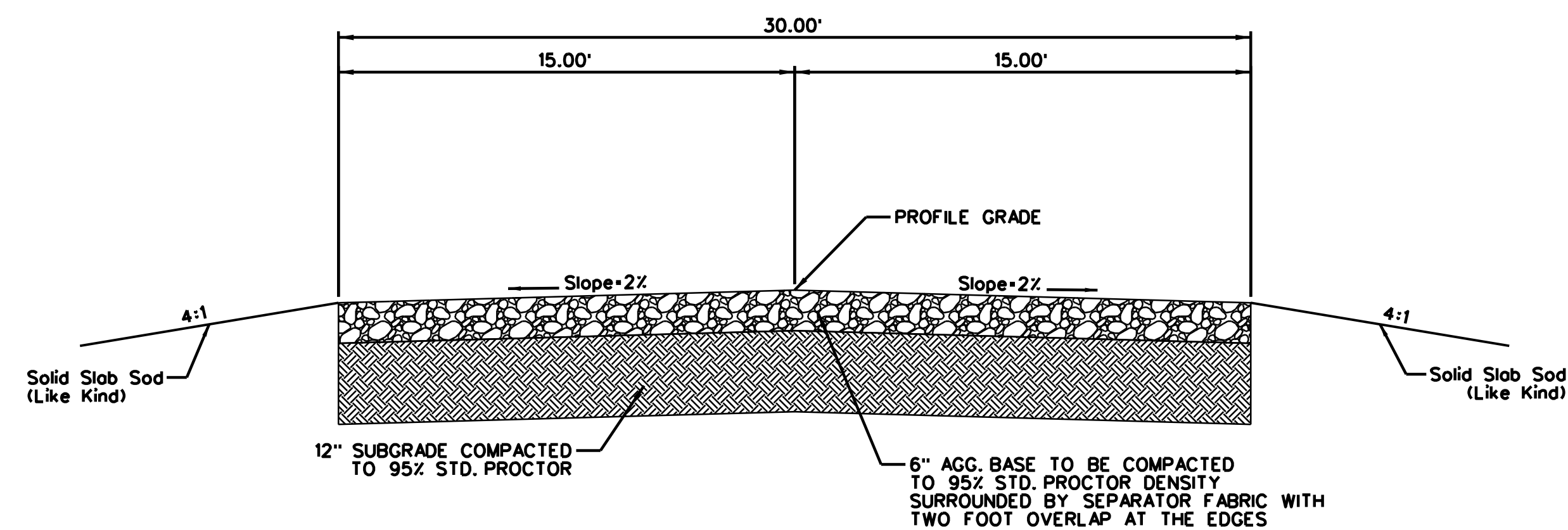
**U.S.-62 CONSTRUCTION ENTRANCES**

SHEET NUMBER  
**C203**

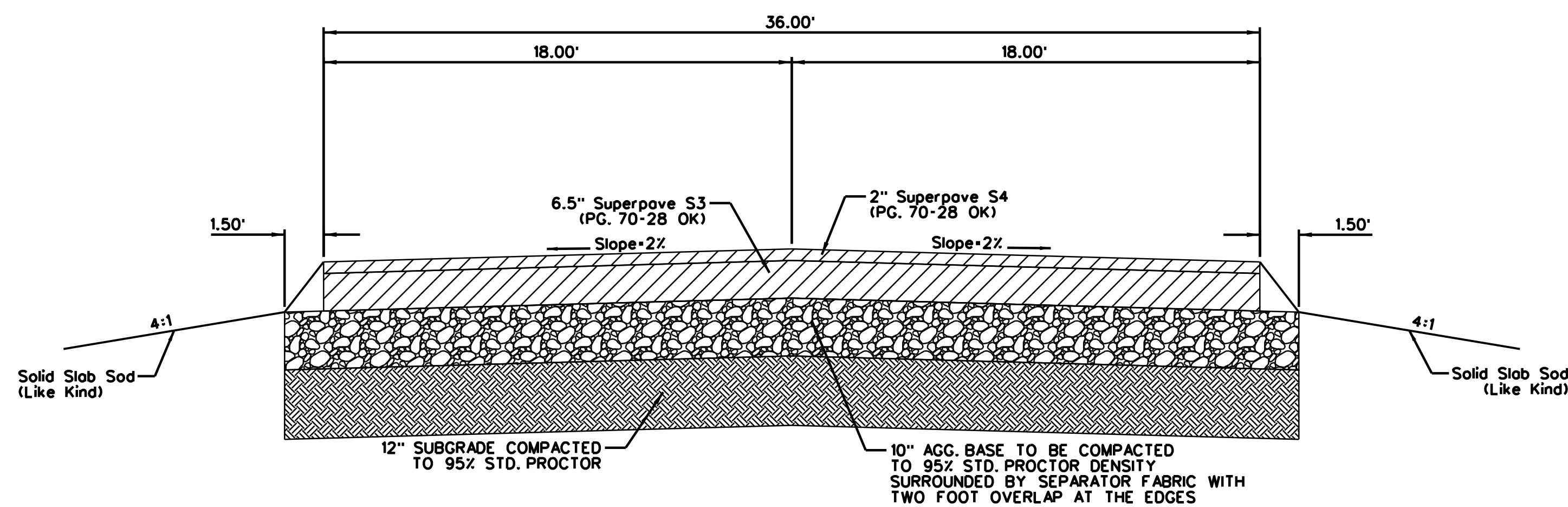




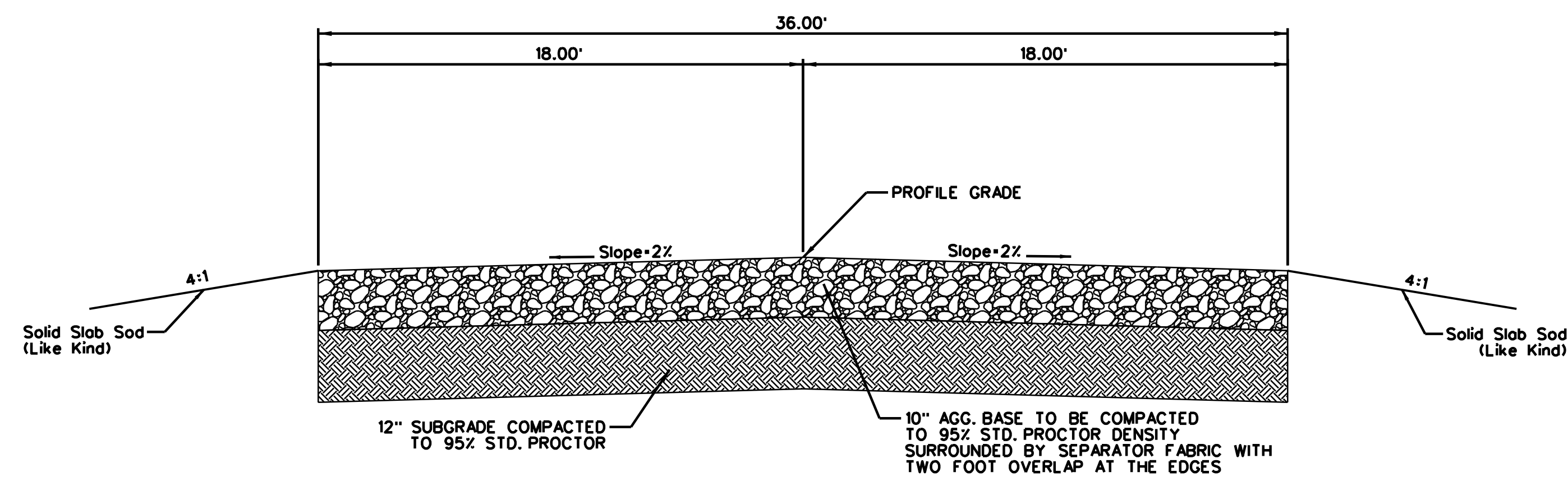
NORTH DRIVE TYPICAL SECTION PAVEMENT  
STA. 600+81.52 TO 601+84.59



NORTH DRIVE TYPICAL SECTION GRAVEL  
STA. 601+84.59 TO 603+13.71




SOUTH DRIVE TYPICAL SECTION PAVEMENT  
STA. 100+81.66 TO 101+84.72



SOUTH DRIVE TYPICAL SECTION GRAVEL  
STA. 101+84.72 TO 102+33.32



DATE:	14-59-005-03
SURVEY BY:	
DRAWN BY:	ZCW
DESIGN BY:	SA
REV. DATE	PLOT: 1"=20'

**CGA ENGINEERS, INC.**  
 CIVIL/ENVIRONMENTAL ENGINEERING  
 8179 East. 41st Street.  
 TULSA, OKLAHOMA 74145  
 PHONE: (918) 749-5800 FAX: (918) 749-5858  
 C.A. NO.: 1371 - EXPIRES: 6/30/16