COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	1	39

SEDGWICK COUNTY PUBLIC WORKS

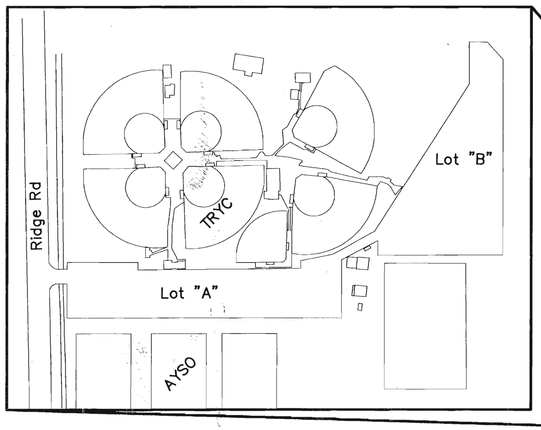
T. Mason - City of Wichita, Inspector
Release Date: 9/1/2015
: APRosas 9/3/2015

PROJECT NO. SCP-1

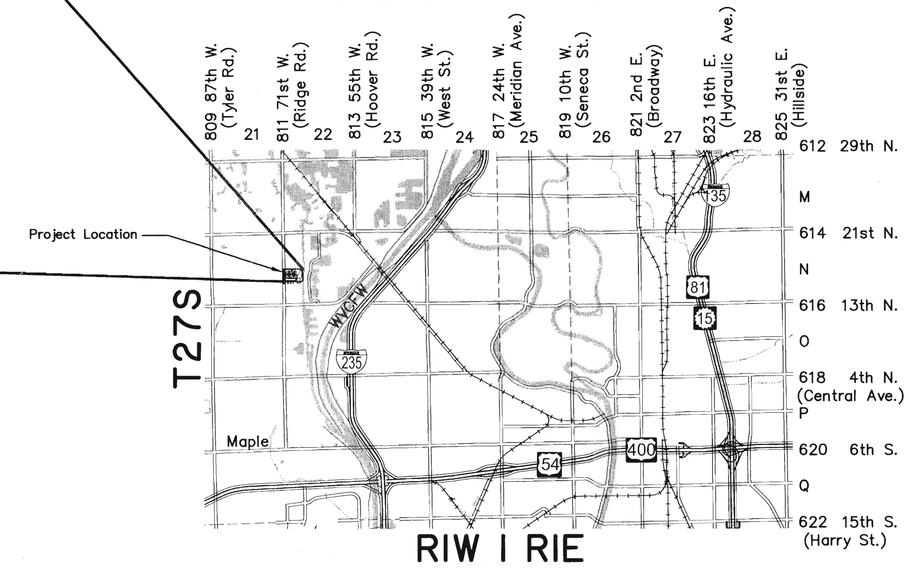
GRADING
SUBGRADE MODIFICATION
CONCRETE SURFACING
SANITARY SEWER
SEEDING
PAVEMENT MARKING

Index of Sheets

2165pps As-Built
Contractor: Graber Excavating
Inspector: Inspectors Initials, SEH, Sedgwick Co.
Date: 11-15-13

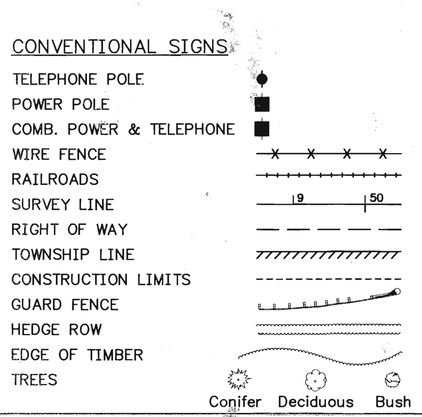


WEST SEDGWICK COUNTY PARK;
SANITARY SEWER & PARKING LOT IMPROVEMENTS



NET AREA OF LOT IMPROVEMENTS	257,938 SQ. FT.	5.921 ACRES
NET LENGTH OF SANITARY SEWER	1,480 LN. FT.	0.280 MILES
EXCEPTIONS	0.00 FT.	0.000 MILES
ADDITIONS	0.00 FT.	0.000 MILES
GROSS AREA OF PROJECT	276,153 SQ. FT.	6.340 ACRES

CONVENTIONAL SIGNS



PLAN: Lat. & Long.

KS: (800) 344-7233 WICHITA: (316) 687-2470

The Contractor shall provide a minimum advance notice of **TWO (2) Working Days** to Utility Companies prior to any excavation.

PLANS PREPARED BY:

SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

APPROVED:

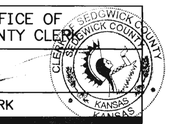
DAVID C. SPEARS, P.E.
DIRECTOR OF PUBLIC WORKS/COUNTY ENGINEER
DATE: 6/6/2013

APPROVED:

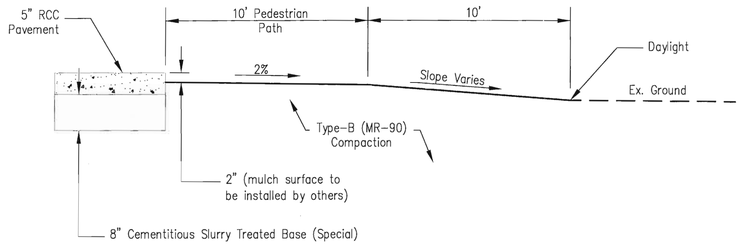
BOARD OF COUNTY COMMISSIONERS
DATE: 6/6/13

FILED IN THE OFFICE OF
THE SEDGWICK COUNTY CLERK

COUNTY CLERK
DATE: 6/6/13

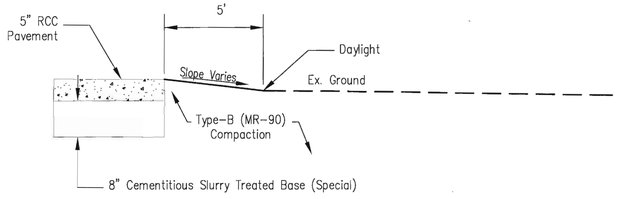


COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	2	39



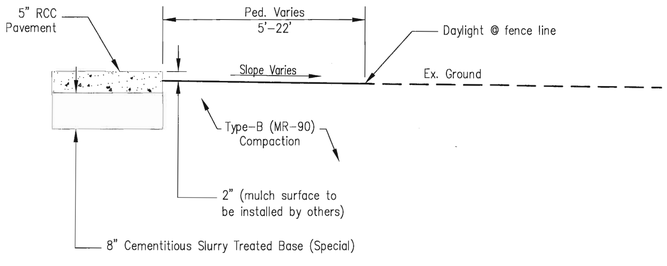
TYPICAL SECTION

Along south side Lot "A" & "B"



TYPICAL SECTION

Along east side Lot "A"
Along north & east side Lot "B"



TYPICAL SECTION

Along northwest side of Lot "B"

GENERAL NOTES

All construction work and materials shall comply with Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (2007 Edition) and project special provisions unless otherwise noted, except for sanitary sewer construction. All sanitary sewer work, materials, and related work items shall conform to the City of Wichita, Kansas Standard Specifications for the Construction of Public Projects (latest edition).

All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain will require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to the U.S. Corps of Engineers permitting regulations.

Any material buried or stockpiled beyond approved construction limits will require additional archeological investigations unless buried in a previously approved borrow location.

All borrow areas provided by the Contractor shall be approved by the Engineer as to suitability of material and location. Special care shall be taken in this approval to minimize the increase of siltation and turbidity of streams, lakes and reservoirs and to avoid interference with the movement of migratory fish. Areas which, in the opinion of the Engineer, may leave an unsightly appearance to the project will not be approved.

All borrow area locations shall be submitted to the Engineer for clearance from the Kansas Historical Society and the Kansas Department of Wildlife and Parks prior to any excavation.

The amount of material stockpiled may be varied, but only with the prior approval of the Engineer.

Drainage structures to be removed shall become the property of the Contractor. Extreme caution shall be used to prevent any damage to existing stormwater structures that are to remain.

The survey control is based on an existing benchmark as described on Sh. No. 3, and was converted to the NAVD 1988 vertical datum. It is the responsibility of the Contractor to verify the project datum, and all stated control points, and report any discrepancies to the Engineer immediately.

Existing utilities, both above and below ground, and their location as shown on the plans, represent the best information available at the time of design. The locations of utilities as shown on the plans are not guaranteed and the Contractor shall verify all utilities and their locations before beginning construction. Additional utilities, including relocated utilities, which are not shown on the plans may be encountered. In this event the Contractor shall adjust his schedules and cooperate with the utility companies in order that their facilities may be adjusted as required to clear construction. The Contractor shall exercise extreme caution while working near utilities and shall be responsible for all utilities damaged by the construction activity. No additional compensation or working days will be allowed for any delays, inconveniences or damages sustained by the Contractor due to utility conflicts and their resolution unless all other major items of work on the project have been completed.

Private utility lines exist within the project area. The Contractor shall work with the owners representatives to locate and protect said utility lines. No additional compensation or working days will be allowed for any delays, inconveniences or damages sustained by the Contractor due to private utility conflicts and their resolution unless all other major items of work on the project have been completed. See Sh. No. 33 for contact information.

The Contractor shall notify the utility companies at least two (2) working days in advance of any work being performed over and/or adjacent to their facilities.

Notify Westar Energy to arrange for appropriate safety precautions before working within ten feet of an overhead high voltage line in accordance with the Overhead Power Line Accident Prevention Act.

Clearing and grubbing shall be in accordance with Section 201 of the Kansas Department of Transportation Standard Specifications except as described here. Do not remove any trees or shrubs outside the construction limits without the prior approval of the Engineer. Preserve and protect from damage those trees and shrubs that, in the opinion of the Engineer, do not need to be removed. Trees and shrubs to remain shall be trimmed to clear the proposed construction activities. Trimming shall be performed by methods approved by the Engineer, and shall be in accordance with standard industry practices. Provide temporary fences or other suitable barriers as necessary to prevent accidental damage to the remaining trees during construction. This work shall be SUBSIDIARY to "Clearing and Grubbing."

It is the Contractor's responsibility to maintain drainage throughout the duration of this project. All temporary drainage structures or channels and all work necessary to maintain proper drainage shall be SUBSIDIARY to other items of the contract. End sections will not be required on temporary pipes.

Concrete pavement used on this project shall be Roller Compacted Concrete (RCC). The RCC shall meet the material and construction specifications of the Sedgwick County Roller Compacted Concrete special provision. In areas not accessible to the paver the Contractor shall substitute RCC for Portland Cement Concrete Pavement (PCCP) meeting the requirements of Section 502 of the KDOT Standard Specifications (and as revised by any applicable special provisions).

Detectable warning panels that meet the requirements of the Americans with Disabilities Act (ADA) are required to be installed with the sidewalks at locations noted in these plans. The panels shall be made of a composite-type material. Any panel not on the KDOT prequalified list must be approved by the Engineer prior to installation. The color of the panel shall either be Federal Yellow or Brick Red, which shall be used consistently throughout the project. All materials and labor to install composite panels with truncated domes are SUBSIDIARY to the bid item, "Sidewalk Construction (4") (AE)."

Existing fences that interfere with the proposed construction should be removed by others at the beginning of construction operations. The bid item "Fence (Chain Link) (Removal and Resetting)" shall be full compensation for the temporary removal and resetting of existing fences that may not be completely removed from the work area. The unit price for "Fence (Chain Link) (Removal and Resetting)" shall govern regardless of overrrun or underrun. This bid item may be underrun in its entirety.

Concrete may be used at the Contractor's option to patch the bike path which will be partially removed during sanitary sewer construction. There will be no increase in the unit bid price for completing such work. The contract unit price for "Remove and Replace, 4" Asphalt Bike Path" shall be full compensation for properly replacing the pavement according to the standards set forth in the Contract Documents.

Once work has begun, temporary erosion and pollution control will be initiated for areas that have been disturbed within 14 calendar days after construction activities have temporarily or permanently ceased on a portion of the project site or as constructed features become susceptible to erosion. The Contract unit price for temporary erosion control bid items shall govern regardless of the amount of overrun or underrun. These bid items may be underrun in their entirety.

All areas disturbed outside the proposed pavement limits shall be restored to pre-construction condition. All disturbed vegetated areas shall be seeded as shown in the Contract Documents, except embankment areas designated for "Pedestrian Pathways." These areas shall be compacted to Type B (MR-90) specifications and graded to an elevation 2" below the adjacent parking lot pavement to allow for mulching of the paths (by others). Seeding shall be paid for separately. All other work, materials, labor, etcetera required to restore the site, including concrete replacement for sewer construction, is SUBSIDIARY to the bid item "Site Restoration."

All pavement marking shall conform to the requirements of the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (2007), except no glass beads are be required to be applied.

This is a Calendar Completion Date contract. The Contractor shall have until September 13, 2013 to substantially complete all work items. Substantially complete means all work items except seeding, mulching, and sign installation shall be complete. The Contractor will be allotted 5 working days after September 13, 2013 to complete any remaining items. This extension includes cleanup working days.

UTILITIES

Westar Energy — OE
1900 E. Central, 3rd Floor
Wichita, KS 67214
Phone: 316-261-6824
Attn: Miles Capps

AYSO (Private) — UT
1700 N. Ridge Rd.
Wichita, KS 67212
Phone: 316-641-8607
Attn: Craig Bay

AYSO (Private) — W
1700 N. Ridge Rd.
Wichita, KS 67212
Phone: 316-641-8607
Attn: Craig Bay

West Sedgwick County Park Improvements

GENERAL NOTES AND TYPICAL SECTIONS

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
		L.T.P.	J.R.W.	L.T.P.	2
	DATE	6/2013	6/2013	6/2013	

DWG: General Notes SCP-1.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	3	39

Existing Bike Path

Drainage Esm't

Maintenance Access

Tributary Channel

Pt No: 2001
Elev: 1316.43
Desc: HUB2
N: 1696132.9680
E: 1624231.9170

Pt No: 857
Elev: 1320.34
Desc: BM6
N: 1696181.9040
E: 1624572.6660

Exist. 24" SWS

Area inlet

Pt No: 2691
Elev: 1319.23
Desc: BM2
N: 1696019.4944
E: 1624566.4310

Floodplain Limits
Zone A

Exist. 12" SWS

150' Westar
Utility Esm't

Pt No: 2411
Elev: 1318.32
Desc: CONC
N: 1695768.5102
E: 1623959.5612

Pt No: 779
Elev: 1311.61
Desc: BM5
N: 1695806.4950
E: 1624489.5170

Pt No: 2414
Elev: 1318.56
Desc: CONC
N: 1695762.3074
E: 1623951.9560

Prop. edge of concrete

Exist. lot limits

Area inlet

Pt No: 2438
Elev: 1319.55
Desc: CONC
N: 1695716.1524
E: 1623921.0530

Lot B

Big Slough

Pt No: 2439
Elev: 1319.52
Desc: CONC
N: 1695701.5142
E: 1623916.1466

Pt No: 2000
Elev: 1317.81
Desc: HUB1
N: 1695653.3770
E: 1624181.2010

Pt No: 2402
Elev: 1314.76
Desc: HUB3
N: 1695645.9124
E: 1624511.7319

Pt No: 2241
Elev: 1323.04
Desc: SWK
N: 1695564.0220
E: 1623037.0542

Pt No: 2242
Elev: 1323.23
Desc: SWK
N: 1695535.8476
E: 1623038.0582

Pt No: 2087
Elev: 1321.02
Desc: CONC
N: 1695536.2212
E: 1623339.9054

Pt No: 2088
Elev: 1321.05
Desc: CONC
N: 1695536.2352
E: 1623350.4156

Pt No: 2094
Elev: 1321.03
Desc: CONC2
N: 1695539.0632
E: 1623574.2856

Pt No: 2101
Elev: 1320.54
Desc: CONC2
N: 1695555.2314
E: 1623659.1633

Pt No: 2039
Elev: 1321.01
Desc: NAIL
N: 1695544.2340
E: 1623731.6790

Pt No: 2589
Elev: 1317.84
Desc: SWKL
N: 1695597.4568
E: 1624300.2241

Pt No: 2257
Elev: 1323.00
Desc: SWK
N: 1695495.1336
E: 1623039.2011

Pt No: 2108
Elev: 1321.53
Desc: BM
N: 1695531.4336
E: 1623359.4956

Lot A

Pt No: 2096
Elev: 1321.05
Desc: CONC2
N: 1695541.3469
E: 1623667.2587

Pt No: 2281
Elev: 1319.57
Desc: CONC
N: 1695539.3405
E: 1623827.3453

Pt No: 2275
Elev: 1318.87
Desc: CONC
N: 1695488.6260
E: 1623845.3123

Pt No: 2258
Elev: 1322.50
Desc: SWK
N: 1695465.9259
E: 1623038.7155

Exist. lot limits

Prop. edge of concrete

Pt No: 2276
Elev: 1318.59
Desc: CONC
N: 1695461.1541
E: 1623842.2642

Pt No: 2259
Elev: 1321.54
Desc: SWK
N: 1695383.2002
E: 1623040.5225

Pt No: 2040
Elev: 1320.27
Desc: NAIL
N: 1695449.7140
E: 1623296.5430

North Ridge Road

N

50' 0 25' 50' 100'

PLAN: Lat. & Long.

Project Survey Control
Datum Bench Mark
Remained local to the project by using an established BM; chisled "□" on NE wingwall of 13th St bridge over Big Slough. Elev. 1321.33 (NGVD 29). Add 0.469 feet to match NAVD 1988 datum.

West Sedgwick County Park Improvements

Site Map

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=50'	L.T.P.	J.R.W.	L.T.P.	3
	DATE	5/2013	5/2013	5/2013	

DWG: SCP-1.dwg

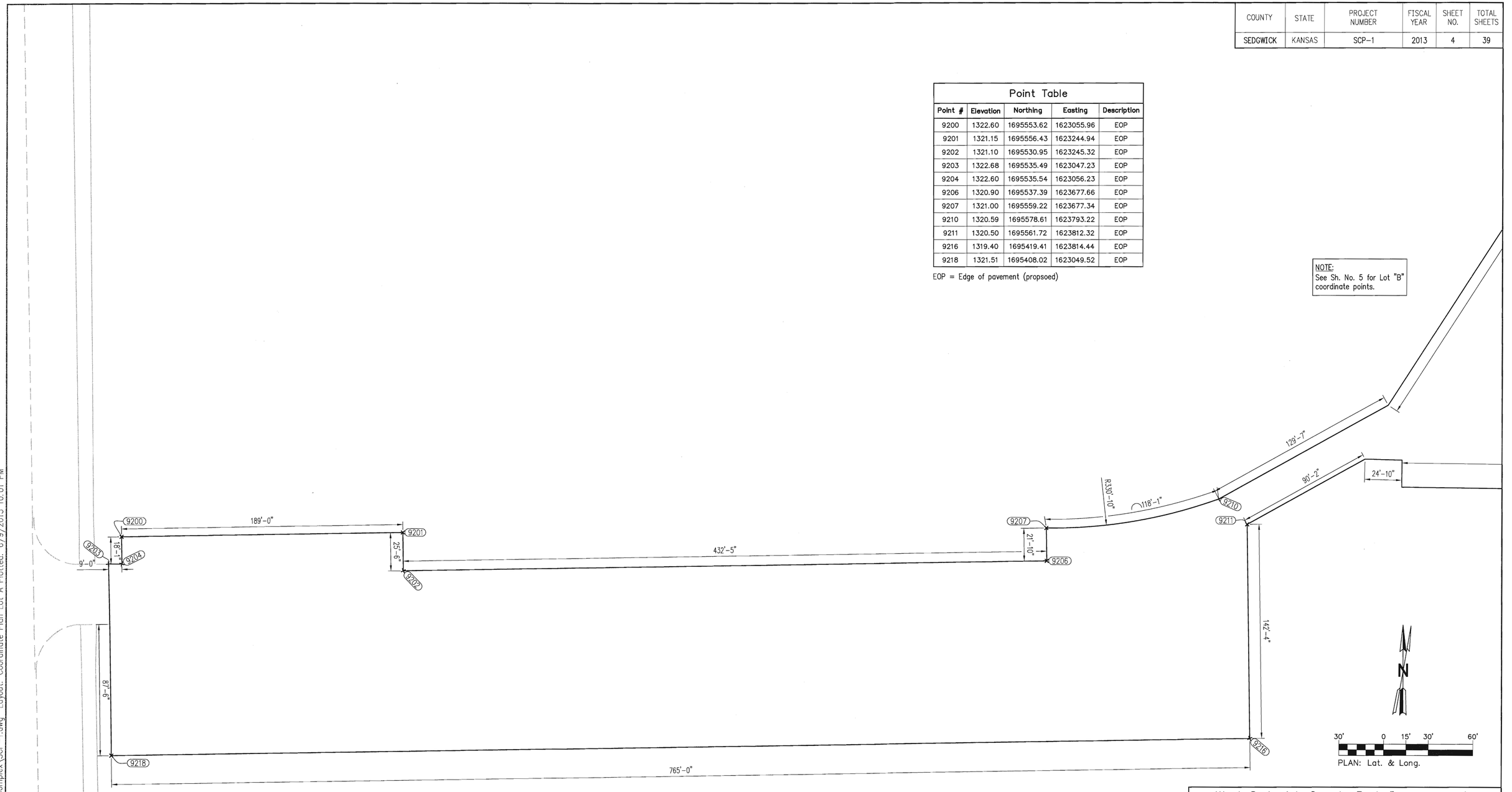
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	4	39

Point Table

Point #	Elevation	Northing	Easting	Description
9200	1322.60	1695553.62	1623055.96	EOP
9201	1321.15	1695556.43	1623244.94	EOP
9202	1321.10	1695530.95	1623245.32	EOP
9203	1322.68	1695535.49	1623047.23	EOP
9204	1322.60	1695535.54	1623056.23	EOP
9206	1320.90	1695537.39	1623677.66	EOP
9207	1321.00	1695559.22	1623677.34	EOP
9210	1320.59	1695578.61	1623793.22	EOP
9211	1320.50	1695561.72	1623812.32	EOP
9216	1319.40	1695419.41	1623814.44	EOP
9218	1321.51	1695408.02	1623049.52	EOP

EOP = Edge of pavement (propsoed)

NOTE:
See Sh. No. 5 for Lot "B" coordinate points.



PLAN: Lat. & Long.

West Sedgwick County Park Improvements
Coordinate Plan
Lot "A"

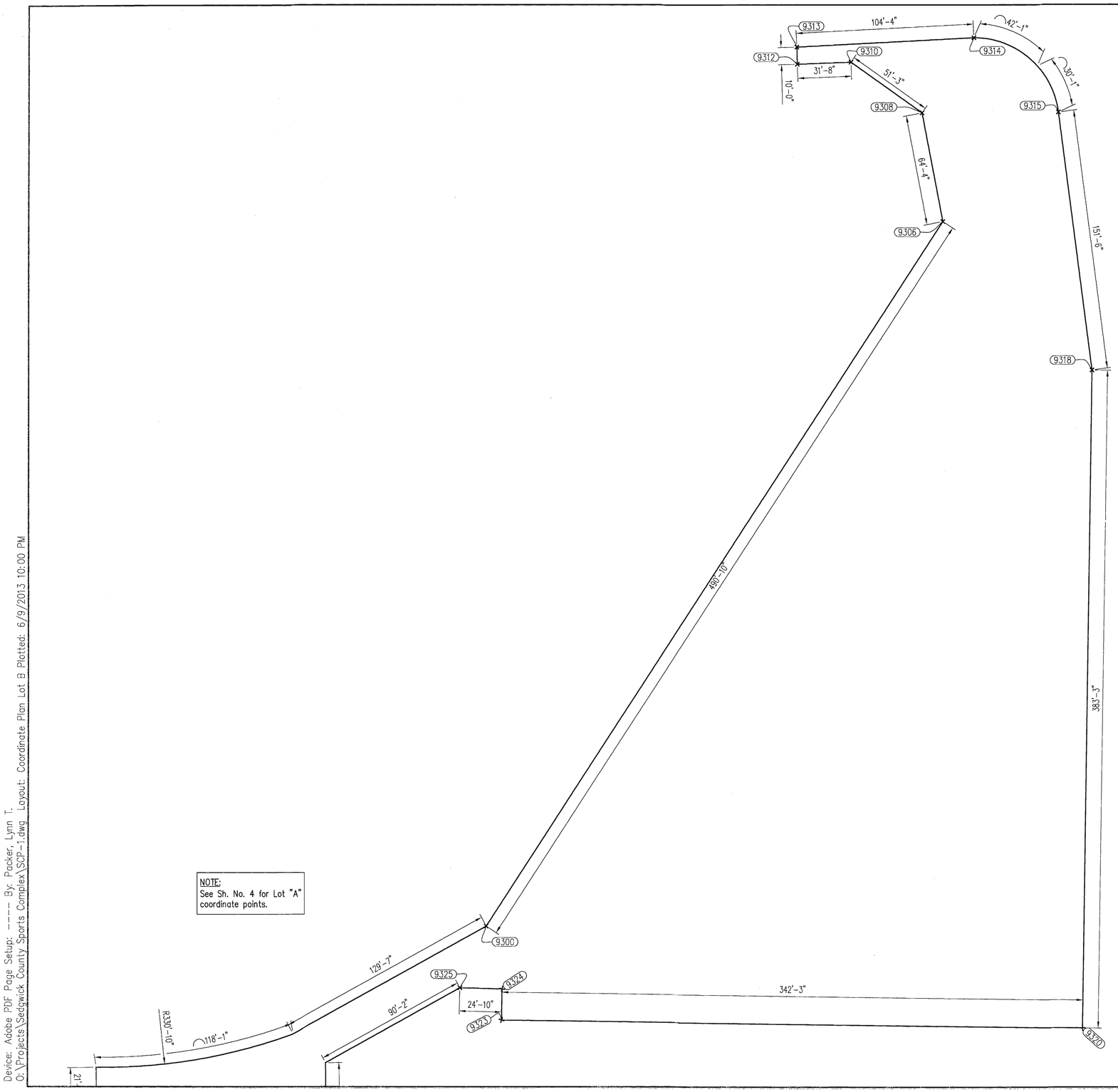
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	4
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

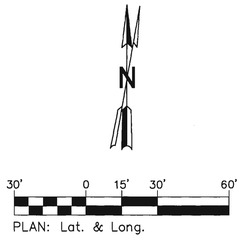
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	5	39



Point Table

Point #	Elevation	Northing	Easting	Description
9300	1319.00	1695641.00	1623906.81	EOP
9306	1317.52	1696052.01	1624175.11	EOP
9308	1317.52	1696115.18	1624162.84	EOP
9310	1318.31	1696144.76	1624120.94	EOP
9312	1318.88	1696143.57	1624089.33	EOP
9313	1319.11	1696153.53	1624089.08	EOP
9314	1317.50	1696158.91	1624193.29	EOP-PC
9315	1317.25	1696115.49	1624243.12	EOP-PT
9318	1317.69	1695965.29	1624263.06	EOP
9320	1317.25	1695582.08	1624258.14	EOP
9323	1318.00	1695586.48	1623915.95	EOP
9324	1318.37	1695604.48	1623916.18	EOP
9325	1319.24	1695605.14	1623891.37	EOP

EOP = Edge of pavement (proposed)
EOP-PC = Edge of pavement (proposed) at point opf curvature
EOP-PT = Edge of pavement (proposed) at point opf tangency



West Sedgwick County Park Improvements

Coordinate Plan
Lot "B"

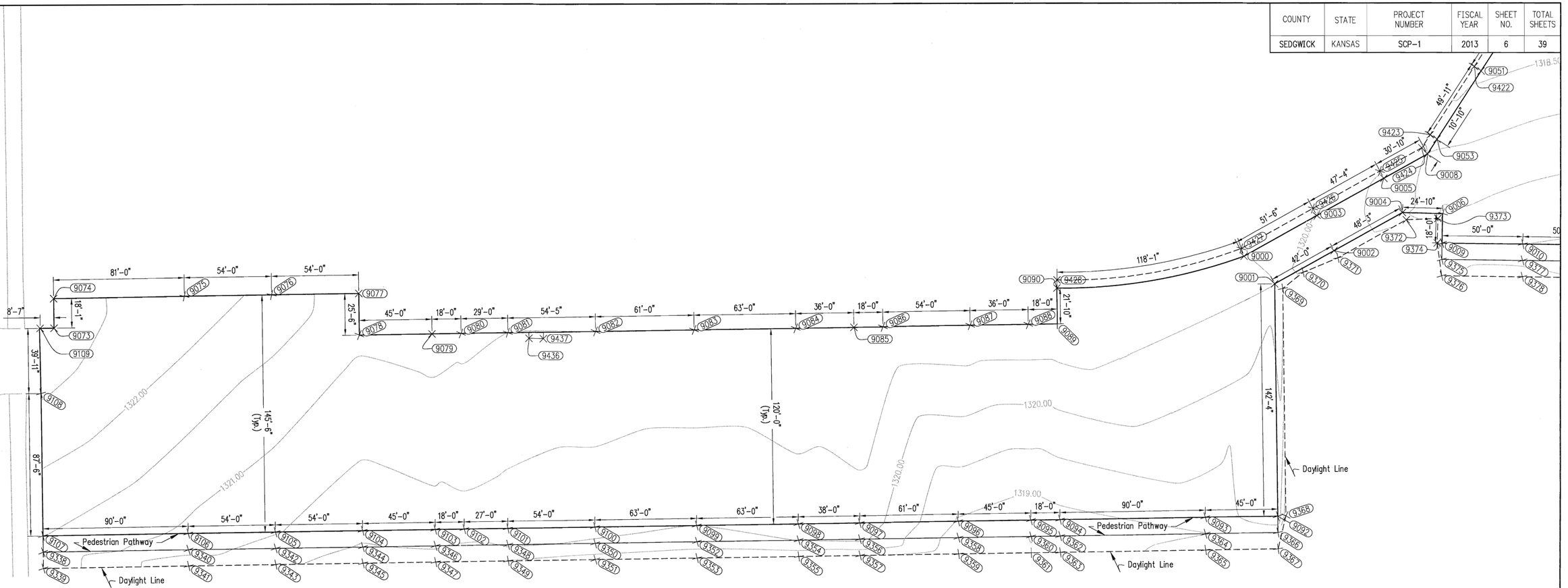
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	5
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	6	39



Point Table

Point #	Elevation	Northing	Easting	Description
9000	1320.59	1695578.61	1623793.22	Spot
9001	1320.50	1695561.72	1623812.32	Spot
9002	1319.97	1695581.93	1623849.11	Spot
9003	1319.97	1695603.39	1623838.33	Spot
9073	1322.60	1695535.54	1623056.23	Spot
9074	1322.60	1695553.62	1623055.96	Spot
9075	1322.35	1695554.83	1623136.96	Spot
9076	1321.84	1695555.63	1623190.95	Spot
9077	1321.15	1695556.43	1623244.94	Spot
9078	1321.10	1695530.95	1623245.32	Spot
9079	1321.20	1695531.62	1623290.32	Spot
9080	1321.12	1695531.89	1623308.32	Spot
9081	1321.00	1695532.32	1623337.31	Spot
9082	1321.00	1695533.13	1623391.70	Spot
9083	1321.00	1695534.04	1623452.69	Spot
9084	1321.00	1695534.97	1623515.68	Spot
9085	1320.93	1695535.51	1623551.68	Spot
9086	1320.90	1695535.78	1623569.68	Spot
9087	1320.90	1695536.58	1623623.67	Spot
9088	1320.90	1695537.12	1623659.67	Spot

Point Table

Point #	Elevation	Northing	Easting	Description
9089	1320.90	1695537.39	1623677.66	Spot
9090	1321.00	1695559.22	1623677.34	Spot
9092	1319.84	1695419.41	1623814.44	Spot
9093	1319.20	1695418.74	1623769.44	Spot
9094	1318.85	1695417.40	1623679.45	Spot
9095	1318.70	1695417.13	1623661.45	Spot
9096	1318.96	1695416.46	1623616.46	Spot
9097	1320.34	1695415.55	1623555.46	Spot
9098	1320.22	1695414.99	1623517.47	Spot
9099	1320.00	1695414.05	1623454.48	Spot
9100	1320.15	1695413.11	1623391.48	Spot
9101	1320.28	1695412.31	1623337.49	Spot
9102	1320.35	1695411.91	1623310.49	Spot
9103	1320.30	1695411.64	1623292.49	Spot
9104	1320.16	1695410.97	1623247.50	Spot
9105	1320.53	1695410.16	1623193.50	Spot
9106	1320.90	1695409.36	1623139.51	Spot
9107	1321.51	1695408.02	1623049.52	Spot
9108	1322.55	1695495.54	1623048.22	Spot
9109	1322.68	1695535.49	1623047.62	Spot

Point Table

Point #	Elevation	Northing	Easting	Description
9338	1321.34	1695398.02	1623049.67	10' Offset
9339	1321.31	1695388.02	1623049.82	20' Daylight
9340	1320.69	1695399.36	1623139.66	10' Offset
9341	1320.11	1695389.36	1623139.81	20' Daylight
9342	1320.32	1695400.17	1623193.65	10' Offset
9343	1320.12	1695390.17	1623193.80	20' Daylight
9344	1319.95	1695400.97	1623247.65	10' Offset
9345	1319.72	1695390.97	1623247.80	20' Daylight
9346	1320.09	1695401.64	1623292.64	10' Offset
9347	1319.60	1695391.64	1623292.79	20' Daylight
9348	1320.07	1695402.31	1623337.64	10' Daylight
9349	1319.48	1695392.31	1623337.79	20' Offset
9350	1319.94	1695403.11	1623391.63	10' Offset
9351	1319.29	1695393.11	1623391.78	20' Daylight
9352	1319.79	1695404.05	1623454.62	10' Offset
9353	1319.14	1695394.05	1623454.77	20' Daylight
9354	1320.01	1695404.99	1623517.62	10' Offset
9355	1319.20	1695394.99	1623517.77	20' Daylight
9356	1320.13	1695405.55	1623555.61	10' Offset
9357	1319.14	1695395.55	1623555.76	20' Daylight

Point Table

Point #	Elevation	Northing	Easting	Description
9358	1318.75	1695406.46	1623616.61	10' Offset
9359	1318.64	1695396.46	1623616.75	20' Daylight
9360	1318.49	1695407.13	1623661.60	10' Offset
9361	1318.52	1695397.13	1623661.75	20' Daylight
9362	1318.64	1695407.40	1623679.60	10' Offset
9363	1318.73	1695397.40	1623679.75	20' Daylight
9364	1318.99	1695408.74	1623769.59	10' Offset
9365	1319.20	1695398.74	1623769.74	20' Daylight
9366	1319.19	1695409.41	1623814.58	10' Offset
9367	1319.11	1695399.41	1623814.73	20' Daylight
9368	1318.76	1695419.48	1623819.43	5' Daylight
9369	1320.15	1695558.78	1623817.36	Daylight
9370	1319.88	1695568.75	1623829.95	Daylight
9371	1319.98	1695577.54	1623851.52	Daylight
9426	1320.15	1695607.77	1623835.93	5' Daylight
9427	1320.56	1695583.38	1623791.51	5' Daylight
9428	1320.75	1695564.22	1623677.40	5' Daylight
9430	0.00	1695890.00	1623681.55	Radius Center Pt.
9436	1321.20	1695528.90	1623350.36	Ex. Conc.
9437	1321.17	1695528.77	1623359.33	Ex. Conc.

NOTES:
1. Spot points reference concrete surface elevations.
2. Offset points reference grading offsets for the proposed pedestrian paths.
3. Daylight points reference location of proposed match point with existing ground.
4. Existing concrete points indicates location and elevation of match points.

LEGEND

1319.00 — Proposed Contour Line

N

30' 0 15' 30' 60'

PLAN: Lat. & Long.

West Sedgwick County Park Improvements
Construction Layout and Grading Plan
Lot "A"

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

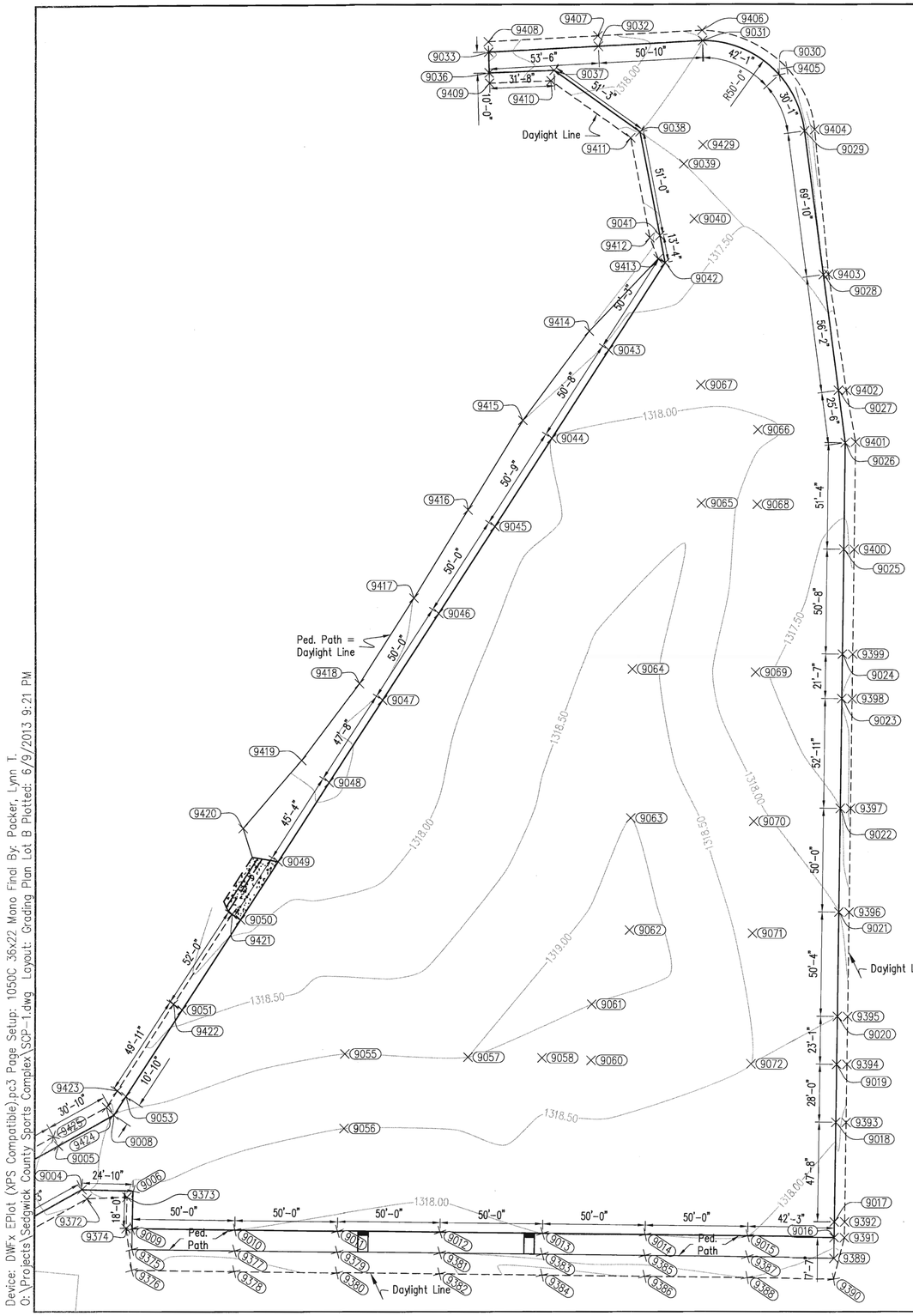
DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	6
	DATE	5/2013	5/2013	5/2013	

DWG: SCP-1.dwg

Device: DWFx ePlot (XPS Compatible).pc3 Page Setup: 1050C 36x22 Mono Final By: Packer, Lynn T.
O:\Projects\Sedgwick County Sports Complex\SCP-1.dwg Layout: Grading Plan Lot A Plotted: 6/9/2013 9:21 PM

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	7	39



Point Table				
Point #	Elevation	Northing	Easting	Description
9004	1319.13	1695605.14	1623891.37	Spot
9005	1319.37	1695626.18	1623879.82	Spot
9006	1318.37	1695604.48	1623916.43	Spot
9008	1319.00	1695641.00	1623906.81	Spot
9009	1318.00	1695586.48	1623915.95	Spot
9010	1318.00	1695585.84	1623965.95	Spot
9011	1317.90	1695585.20	1624015.94	Spot
9012	1317.80	1695584.55	1624065.94	Spot
9013	1318.00	1695583.91	1624115.93	Spot
9014	1318.00	1695583.27	1624165.93	Spot
9015	1318.00	1695582.63	1624215.92	Spot
9016	1317.60	1695582.08	1624258.14	Spot
9017	1317.67	1695589.63	1624258.15	Spot
9018	1318.08	1695637.33	1624258.85	Spot
9019	1318.28	1695665.37	1624259.21	Spot
9020	1318.50	1695688.45	1624259.50	Spot
9021	1318.00	1695738.78	1624260.15	Spot
9022	1317.50	1695788.81	1624260.79	Spot
9023	1317.00	1695841.68	1624261.47	Spot
9024	1317.14	1695863.29	1624261.75	Spot
9025	1317.42	1695913.94	1624262.40	Spot
9026	1317.70	1695965.29	1624263.06	Spot
9027	1317.60	1695990.54	1624259.71	Spot
9028	1317.45	1696046.24	1624252.31	Spot
9029	1317.25	1696115.49	1624243.12	Spot

Point Table				
Point #	Elevation	Northing	Easting	Description
9030	1317.10	1696142.41	1624230.67	Spot
9031	1317.50	1696158.91	1624193.29	Spot
9032	1318.50	1696156.29	1624142.50	Spot
9033	1319.10	1696153.53	1624089.08	Spot
9036	1318.88	1696143.57	1624089.33	Spot
9037	1318.25	1696144.76	1624120.94	Spot
9038	1317.50	1696115.18	1624162.84	Spot
9039	1317.50	1696099.61	1624184.20	Spot
9040	1317.45	1696073.11	1624189.34	Spot
9041	1317.50	1696065.09	1624172.57	Spot
9042	1317.30	1696052.01	1624175.11	Spot
9043	1317.80	1696009.95	1624147.65	Spot
9044	1318.00	1695967.52	1624119.95	Spot
9045	1317.80	1695925.00	1624092.20	Spot
9046	1317.80	1695883.14	1624064.87	Spot
9047	1317.60	1695841.27	1624037.54	Spot
9048	1317.42	1695801.37	1624011.50	Spot
9049	1317.75	1695763.39	1623986.70	Spot
9050	1317.90	1695735.37	1623968.41	Spot
9051	1318.40	1695691.82	1623939.98	Spot
9053	1318.90	1695650.04	1623912.71	Spot
9055	1319.00	1695670.52	1624019.39	Spot
9056	1318.50	1695634.52	1624019.02	Spot
9057	1319.00	1695668.93	1624079.38	Spot
9058	1318.74	1695668.56	1624115.37	Spot

Point Table				
Point #	Elevation	Northing	Easting	Description
9060	1318.75	1695667.33	1624139.36	Spot
9061	1319.00	1695694.33	1624139.64	Spot
9062	1319.50	1695730.15	1624158.00	Spot
9063	1319.00	1695784.15	1624158.55	Spot
9064	1318.75	1695856.14	1624159.29	Spot
9065	1318.42	1695936.20	1624192.82	Spot
9066	1318.10	1695971.54	1624220.47	Spot
9067	1317.90	1695993.11	1624192.58	Spot
9068	1317.75	1695935.54	1624220.10	Spot
9069	1317.60	1695854.55	1624219.28	Spot
9070	1318.12	1695782.55	1624218.54	Spot
9071	1318.37	1695728.55	1624217.99	Spot
9072	1318.50	1695665.56	1624217.35	Spot
9372	1319.39	1695600.76	1623893.78	Daylight
9373	1318.45	1695601.56	1623913.35	Daylight
9374	1318.11	1695586.56	1623912.95	Daylight
9375	1317.80	1695576.48	1623915.82	10' Offset
9376	1317.66	1695566.48	1623915.69	20' Daylight
9377	1317.80	1695575.84	1623965.82	10' Offset
9378	1316.96	1695565.84	1623965.69	20' Daylight
9379	1317.70	1695575.20	1624015.81	10' Offset
9380	1317.78	1695565.20	1624015.68	20' Daylight
9381	1317.60	1695574.56	1624065.81	10' Offset
9382	1317.71	1695564.56	1624065.68	20' Daylight
9383	1317.80	1695573.91	1624115.80	10' Offset

Point Table				
Point #	Elevation	Northing	Easting	Description
9384	1316.55	1695563.91	1624115.68	20' Daylight
9385	1317.80	1695573.27	1624165.80	10' Offset
9386	1317.14	1695563.27	1624165.67	20' Daylight
9387	1317.80	1695572.63	1624215.80	10' Offset
9388	1317.51	1695562.63	1624215.67	20' Daylight
9389	1317.40	1695572.09	1624258.01	10' Offset
9390	1317.17	1695562.09	1624257.88	20' Daylight
9391	1317.64	1695582.02	1624263.14	5' Daylight
9392	1317.80	1695589.56	1624263.23	5' Daylight
9393	1317.93	1695637.26	1624263.85	5' Daylight
9394	1318.17	1695665.30	1624264.21	5' Daylight
9395	1318.13	1695688.39	1624264.50	5' Daylight
9396	1317.66	1695738.71	1624265.15	5' Daylight
9397	1316.86	1695788.74	1624265.79	5' Daylight
9398	1316.79	1695841.62	1624266.47	5' Daylight
9399	1317.11	1695863.23	1624266.75	5' Daylight
9400	1317.58	1695913.87	1624267.40	5' Daylight
9401	1317.62	1695965.59	1624268.06	5' Daylight
9402	1317.60	1695990.52	1624263.58	Daylight
9403	1317.45	1696046.41	1624254.82	Daylight
9404	1318.35	1696116.15	1624248.07	Daylight
9405	1317.11	1696145.76	1624234.38	Daylight
9406	1317.37	1696163.91	1624193.03	5' Daylight
9407	1318.14	1696161.28	1624142.24	5' Daylight
9408	1318.65	1696158.52	1624088.82	5' Daylight

Point Table				
Point #	Elevation	Northing	Easting	Description
9409	1318.86	1696138.57	1624089.52	5' Daylight
9410	1318.21	1696139.70	1624119.44	5' Daylight
9411	1317.37	1696112.26	1624158.31	5' Daylight
9412	1316.80	1696064.13	1624167.66	5' Daylight
9413	1317.28	1696053.86	1624171.71	10' Daylight
9414	1317.02	1696019.13	1624138.15	10' Daylight
9415	1317.49	1695976.25	1624105.84	10' Daylight
9416	1317.54	1695933.10	1624079.12	10' Daylight
9417	1317.51	1695890.60	1624052.81	10' Daylight
9418	1317.22	1695849.27	1624026.32	10' Daylight
9419	1317.41	1695812.15	1623998.14	10' Daylight
9420	1317.88	1695779.49	1623969.64	10' Daylight
9421	1317.70	1695738.10	1623964.23	5' Daylight
9422	1318.15	1695694.55	1623935.80	5' Daylight
9423	1318.87	1695652.78	1623908.53	5' Daylight
9424	1319.04	1695644.78	1623903.31	5' Daylight
9425	1319.54	1695630.56	1623877.41	5' Daylight
9429	1317.38	1696108.91	1624193.55	Radius Center Pt.

NOTES:
1. Spot points reference concrete surface elevations.
2. Offset points reference grading offsets for the proposed pedestrian paths.
3. Daylight points reference location of proposed match point with existing ground.

LEGEND

1319.00 — Proposed Contour Line

N

30' 0 15' 30' 60'

PLAN: Lat. & Long.

West Sedgwick County Park Improvements

Construction Layout and Grading Plan

Lot "B"

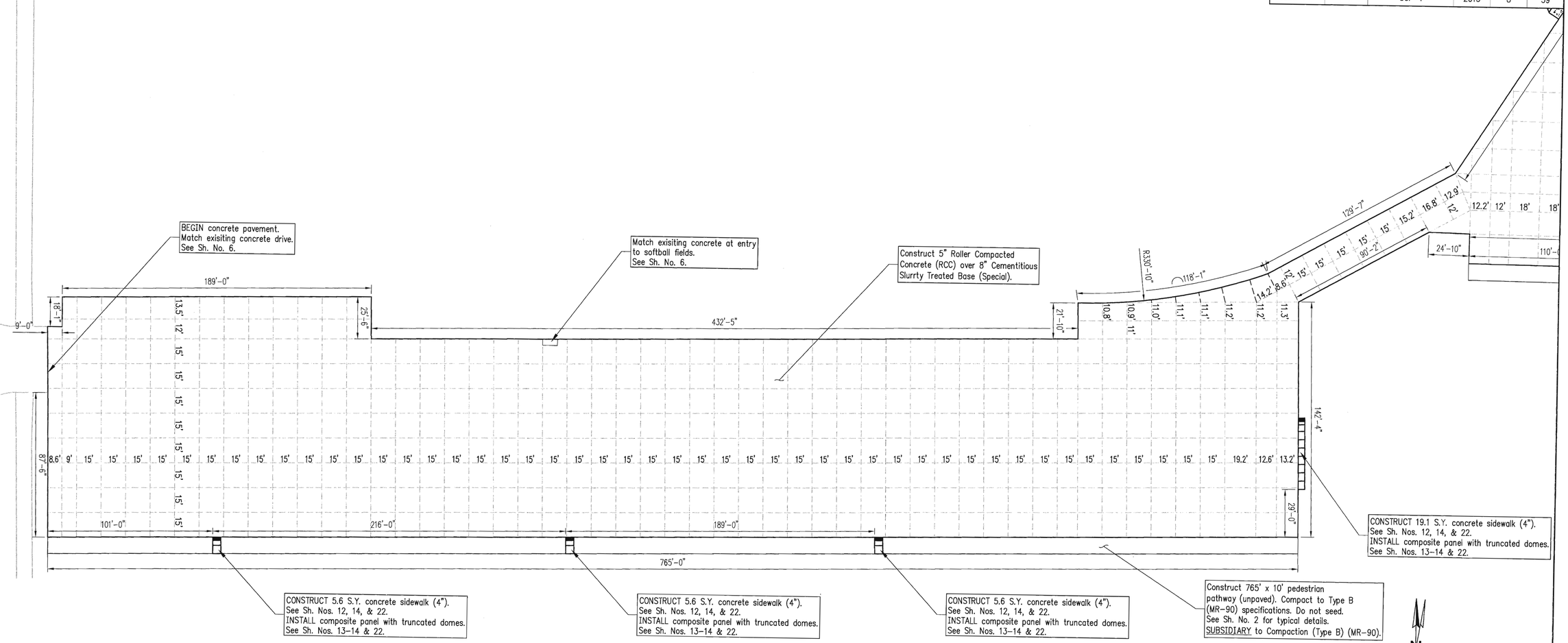
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	7
	DATE	5/2013	5/2013	5/2013	

DWG: SCP-1.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	8	39



PLAN: Lat. & Long.

LEGEND

Control Joint

NOTES:

1. All joints shown are assumed control joints for RCC pavement. Saw cut control joints to ¼ depth of the compacted RCC pavement.
2. See Sh. No. 10 for joint details to be used with conventional concrete pavement areas.
3. Location of any conventional concrete pavement areas to be determined in the field.
4. A cold vertical joint is made when either side of the joint is not compacted within 60 minutes of plant mixing. Saw cut the edge of previous lane back to sound RCC (minimum 6") to form a vertical face prior to placing the next pass. All cold joints shall be sealed with an approved epoxy type sealant.
5. Seal all joints abutting existing pavement with an approved epoxy type sealant.

West Sedgwick County Park Improvements
Pavement Plan
Lot "A"

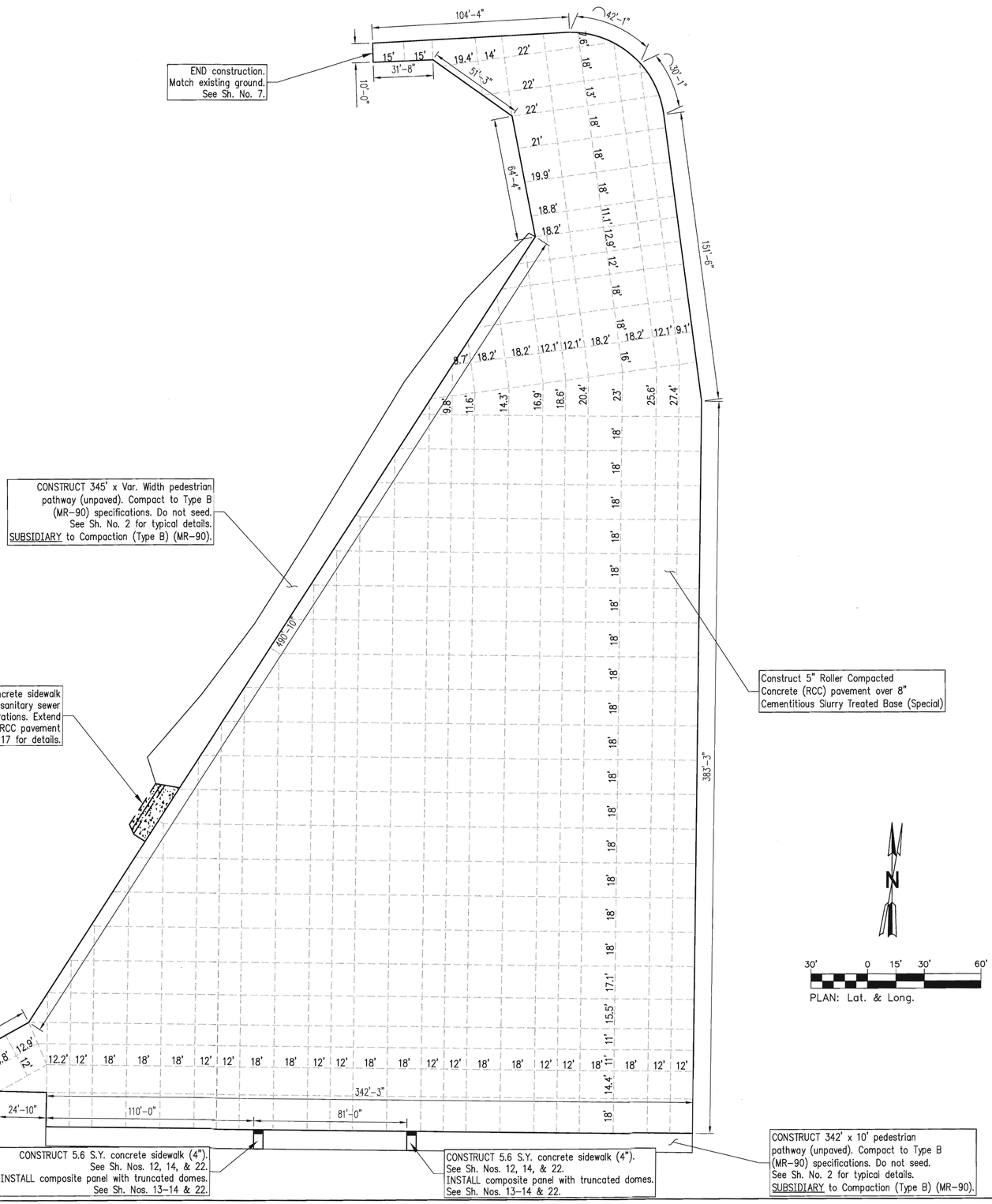
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	8
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	9	39



LEGEND

Control Joint

NOTES:

1. All joints shown are assumed control joints for RCC pavement. Saw cut control joints to ¼ depth of the compacted RCC pavement.
2. See Sh. No. 10 for joint details to be used with conventional concrete pavement areas.
3. Location of any conventional concrete pavement areas to be determined in the field.
4. A cold vertical joint is made when either side of the joint is not compacted within 60 minutes of plant mixing. Saw cut the edge of previous lane back to sound RCC (minimum 6") to form a vertical face prior to placing the next pass. All cold joints shall be sealed with an approved epoxy type sealant.
5. Seal all joints abutting existing pavement with an approved epoxy type sealant.

N

30' 0 15' 30' 60'

PLAN: Lat. & Long.

West Sedgwick County Park Improvements

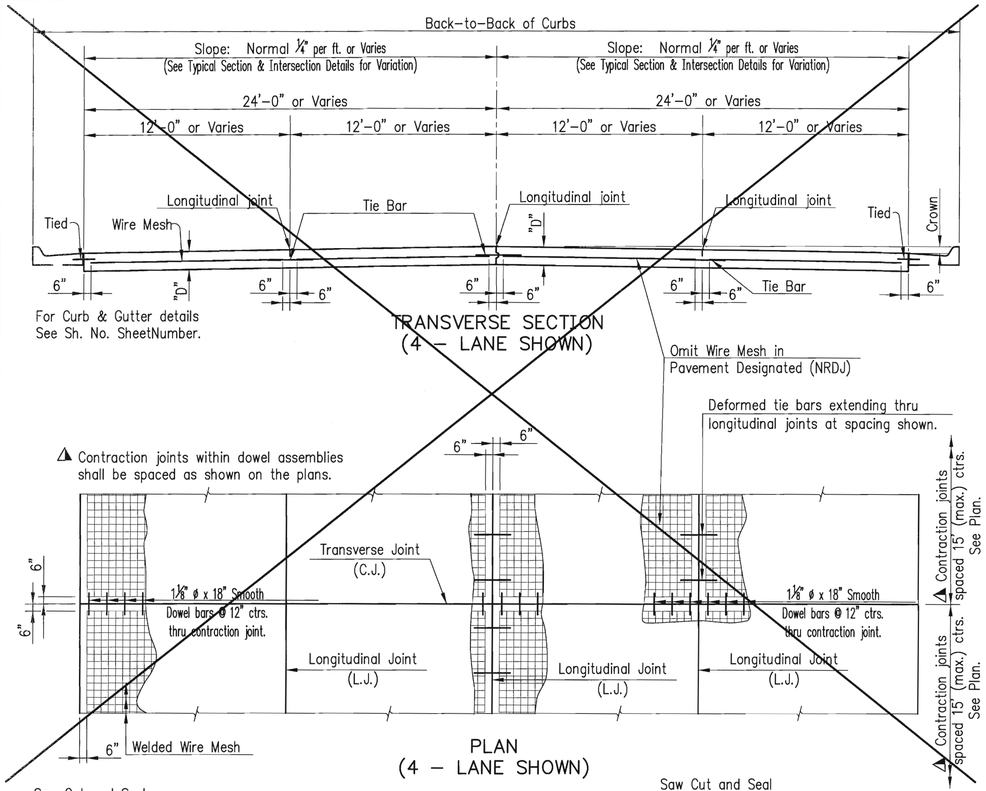
Pavement Plan "Lot B"

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=30'	L.T.P.	J.R.W.	L.T.P.	9
	DATE	5/2013	5/2013	5/2013	

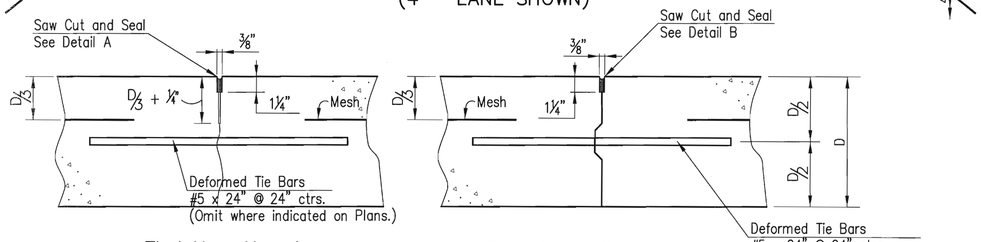
DWG: SCP-1.dwg



For Curb & Gutter details
See Sh. No. SheetNumber.

TRANSVERSE SECTION
(4 – LANE SHOWN)

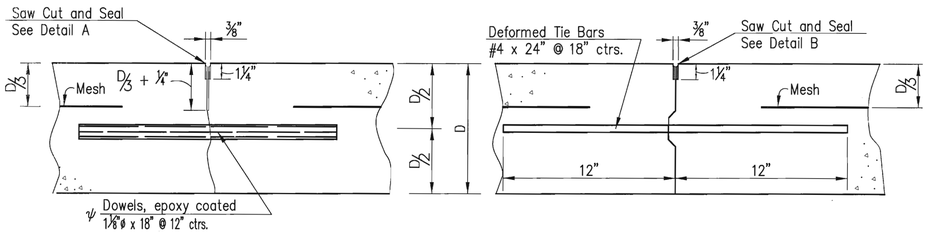
PLAN
(4 – LANE SHOWN)



Tied Non–Keyed

Tied Keyed Construction

LONGITUDINAL JOINT DETAILS
(L.J.)



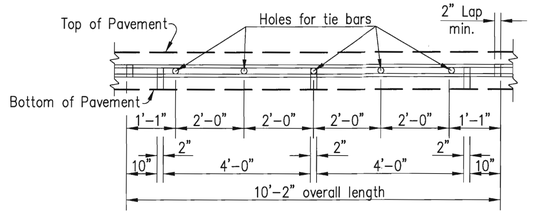
Contraction

Construction

TRANSVERSE JOINT DETAILS
(C.J.)

Note: Contraction joints will be constructed at the planned location or as directed by the Engineer. No transverse construction joint shall be placed within ten (10) feet of a contraction joint.

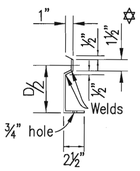
Note: A construction joint is required when the concrete placement has been interrupted for a substantial length of time or at the end of a days placement.



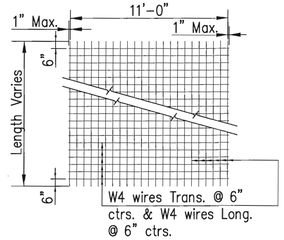
METAL STRIP FOR
LONGITUDINAL CONSTRUCTION JOINT

To be used only against forms. Shall not extend through contraction joints

✡ Snap-in leg or other approved designs may be used in lieu of welded leg.



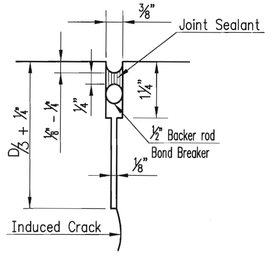
SECTION OF
RECESSED
FORM LEG



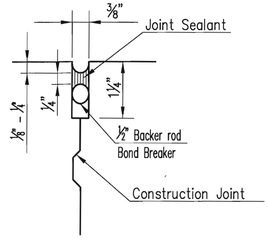
TYPICAL SHEET OF WELDED WIRE MESH
(NOT TO SCALE)
(12' Lane Width Shown)

DETAIL OF LAP FOR WIRE MESH

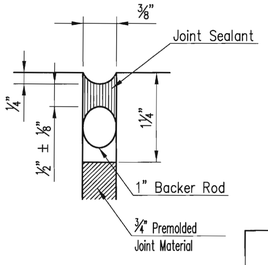
The lap shall extend beyond the first transverse or longitudinal wire of each sheet.
The sheet shall be wired securely at the edges and at intervals not to exceed 2'–6" for the full width of the sheet. Approximate weigtht of wire mesh = 58 lbs. per 100 sq. ft. Other methods for fastening the sheets of wire mesh at the laps may be used with the approval of the Engineer.



DETAIL A



DETAIL B



DETAIL C

The ⅛" saw cut (D/3 + ¼" depth) shall be done initially; the ⅜" saw cut shall be accomplished in a separate operation after concrete has attained sufficient strength to avoid spalling as determined by the Engineer.

Note: Joint Sealant shall be Hot Pour Type unless otherwise approved by the Engineer

Note: All sealant shall be ⅛" – ¼" below surface and a minimum ¼" thick.

This Sheet is adapted from KDOT Standard Sheet RD708.

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP–1	2013	10	39

GENERAL NOTE

All deformed tie bars shall be epoxy coated. Any damage to the epoxy coating shall be patched in accordance with the Standard Specifications.

Deformed tie bars which require bending shall be billet steel reinforcing bars, Grade 40 and may or may not be epoxy coated.

Tie bars shall be placed parallel to the pavement surface with a tolerance of ½" in 18" in the vertical direction. Care should be taken to assure that tie bars are placed approximately perpendicular to the joint in the horizontal plane.

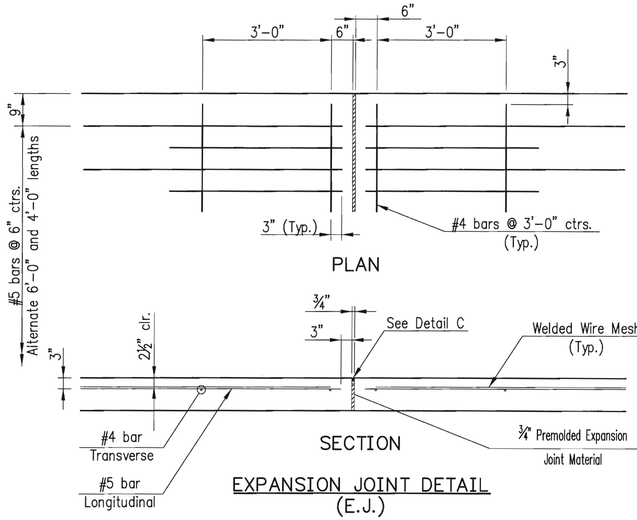
Unless otherwise noted, load transfer devices as shown in detail shall be used at all contraction joints in conventional concrete pavement.

Unless otherwise noted, all joints in conventional concrete pavement shall have either dowels or tie bars. Roller Compacted Concrete (RCC) does not require use of dowels or tie bars.

All cold joints on this project shall be sawed and filled with expoxy type sealant.

Shape of all keyed joints shall be similar to the section of recessed form leg as shown on this sheet.

At each transverse joint location, a 4" to 6" wide strip of pavement surface shall be protected from the texturing operation to provied a transverse textureless surface centered over the joint saw cut.



PLAN

SECTION

EXPANSION JOINT DETAIL
(E.J.)

DOWEL SIZE	
D (in.)	Diameter
5	½"
8	1"
9	1 1/8"
10	1 1/4"
11	1 3/8"
12	1 1/2"

Use of dowels and bars referenced on this detail are limited to conventional concrete pavement. Roller Compacted Concrete (RCC) does not require use of dowels or tie bars.

West Sedgwick County Park Improvements

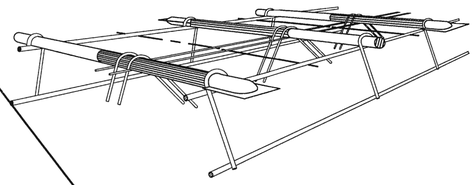
CONCRETE PAVEMENT

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

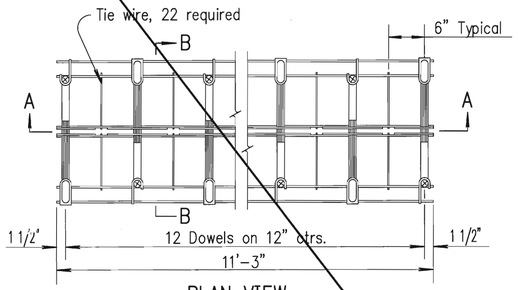
DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	L.T.P.	D.R.S.	L.T.P.	10
	DATE	1/2008	1/2008	6/2013	

DWG: Concrete Pavement Details.dwg



PERSPECTIVE VIEW



PLAN VIEW

Note: Wire sizes shown are minimum required.

Sides held together with tie wire, allowing quick separation of sides & insertion of expansion material, provided in field.

One length of Preformed Expansion Joint filler (Type B), or other approved material, cut to fit crown and subgrade shall be used for each lane of pavement as expansion joint filler.

A string line shall be stretched between the pavement forms along the center line of the joint.

Each dowel bar shall be coated with an epoxy coating that meets the standard specifications. The coating material shall be a powdered epoxy resin approved by the Chief, Bureau of Materials and Research and shall be uniformly applied according to accepted practices and the resin manufacturer's recommendations. For Alt. 1 the coating need not be applied to the end faces of the bars and will not be required within 2" of the end which will be fixed in the supporting basket by welding.

In order to identify the location of the bond breaker application, the working end of dowel and the supporting leg shall receive a light application of red paint at the place of fabrication. The bond breaker to be applied in the field prior to concrete placement shall consist of coating approximately three-fifths of the length of each dowel bar with hard grease at the working end identified by the red paint.

The cutting to length of the dowel bars shall be done in such a manner to result in no appreciable deformation of the ends.

The entire joint assembly shall be carefully leveled up so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any grease scraped off the dowels in assembling the joint shall be replaced. Any excess grease on the dowel holders shall be removed.

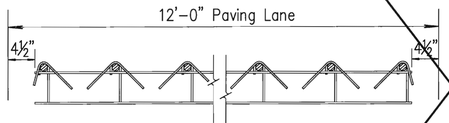
After the complete expansion joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

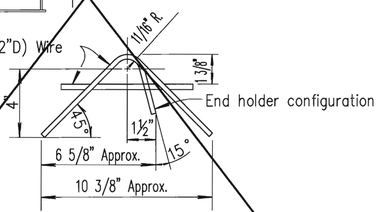
To finish the joint after completion of machine finishing, floating and straight edging of the surface. the concrete over the filler shall be carefully removed and the joint edged with an edger of the proper size.

Expansion Joint material is to be installed in the field.

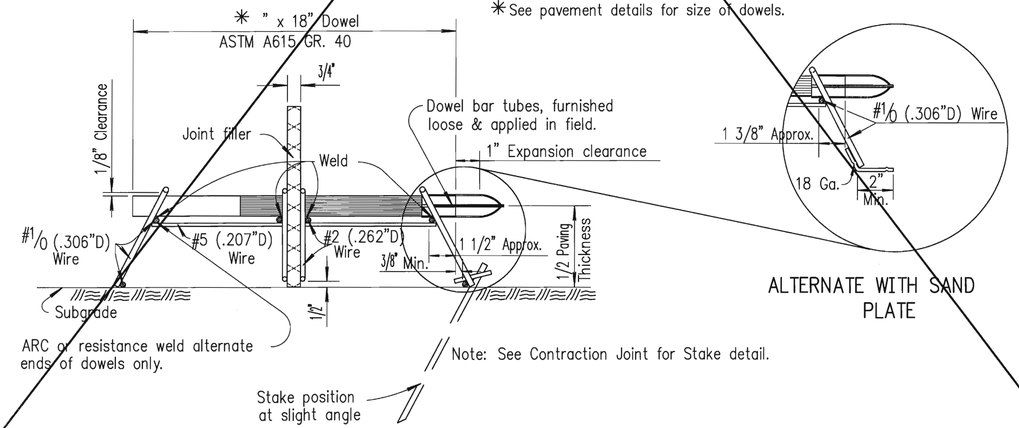
Other approved designs may be used in lieu of the type shown.



SEC. A-A



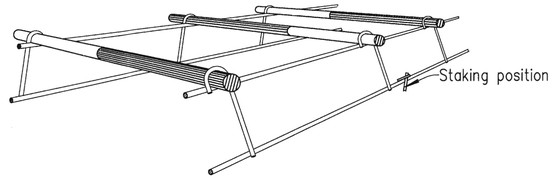
✳ See pavement details for size of dowels.



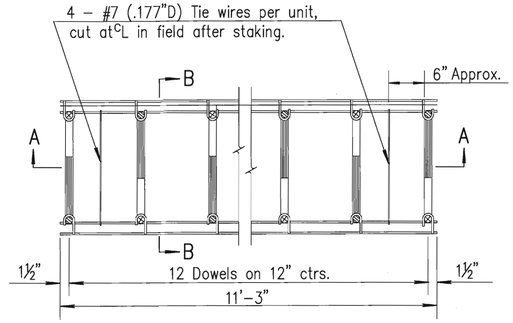
SEC. B-B

ALTERNATE WITH SAND PLATE

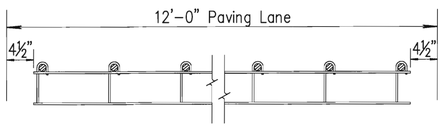
EXPANSION JOINT



PERSPECTIVE VIEW

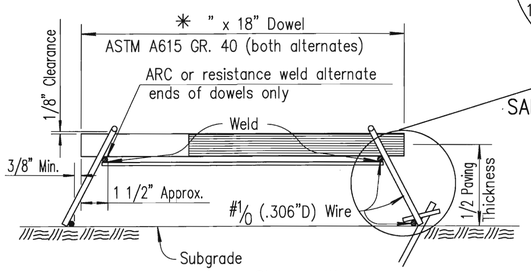


PLAN VIEW

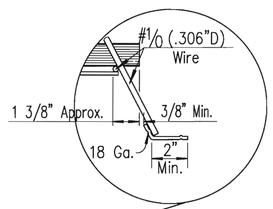


SEC. A-A

✳ See pavement details for size of dowels.

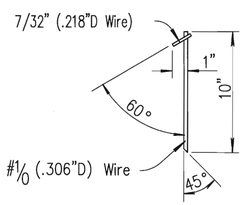


SEC. B-B



SAND PLATE (Alt. 1)

CONTRACTION JOINT



STAKE DETAIL

(6 Pieces minimum required)

GENERAL NOTE

Dowel bar insertion may be by mechanical dowel placers regardless of the joint spacing.

Each dowel bar shall be coated with an epoxy coating that meets the standard specifications. The coating material shall be a powdered epoxy resin approved by the Chief, Bureau of Materials and Research and shall be uniformly applied according to accepted practices and the resin manufacturer's recommendations. For Alt. 1 the coating need not be applied to the end faces of the bars and will not be required within 2" of the end which will be fixed in the supporting basket by welding.

The cutting to length of the dowel bars shall be done in such a manner to result in no appreciable deformation of the ends.

Alt. 1 (Baskets)

Wire sizes shown are minimum required.

Basket to be staked to sub-grade, as shown. Ramset or similar type fastener with clip to be used when subgrade condition requires it.

A string line shall be stretched between the pavement forms along the center line of the joint. The position of the joint shall be carefully marked so that the saw cut will coincide with the center line of the joint.

In order to identify the location of the bond breaker application, the working end of dowel and the supporting leg shall receive a light application of red paint at the place of fabrication. The bond breaker to be applied in the field prior to concrete placement shall consist of coating approximately three-fifths of the length of each dowel bar with hard grease at the working end identified by the red paint.

The entire joint assembly shall be carefully leveled so that the dowels are parallel to the slab surface and free to slide in the dowel holders. Any coating scraped off the dowels in assembling the joint shall be replaced.

After the complete contraction joint is assembled, it shall be checked to be certain that the vertical plane of the joint will be perpendicular to the finished surface of the slab and at a right angle with the center line of the slab unless shown otherwise on the plans. The dowels shall be checked to be certain that they are level and will remain in a position parallel with the finished surface of the slab.

Concrete shall be placed over and adjacent to the joint in accordance with the requirements of the Specifications.

Other approved designs may be used in lieu of the type shown.

Alt. 2 (Mechanical placement)

Joint spacing shall be normal to centerline.

The pavement shall be placed and consolidated to full depth prior to insertion of the dowel bars.

The dowel bars shall be coated with a bond breaking agent prior to insertion into the plastic concrete.

The dowel bars shall be inserted into the plastic concrete ahead of the finishing beam or screed.

The installing device shall consolidate the concrete around the dowel bars such that no voids exist, without the supplemental use of hand held vibrators.

The dowel bars shall be located within one inch of the planned transverse location and within the range of depth of $D/2 \pm 0.1$ D measured from mid depth and mid length of the bar where D represents the pavement thickness.

The dowel bars shall be located within two inches of the planned longitudinal location.

The dowel bars shall be parallel to the pavement surface and centerline within a tolerance of one half inch in 18 inches in both the vertical and horizontal direction.

The forward movement of the finishing beam or screed shall not be interrupted by the inserting of the dowel bars.

A positive method of marking the locations of the transverse joints shall be provided.

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	11	39

NO.	DATE	REVISIONS	BY	APP'D
8	2-15-06	Chg. Grade 60 to Grade 40 Steel	S.W.K.	J.O.B.
7	5-5-04	Revision on Epoxy coating	S.W.K.	J.O.B.
6	4-9-03	Rev. General Note on Epoxy coating	S.W.K.	J.O.B.
5	4-24-90	Revised notes, added Alt. 1 &2 Cont.Jt.	R.J.S.	J.O.B.

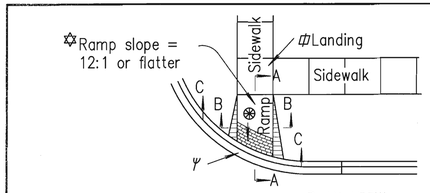
KANSAS DEPARTMENT OF TRANSPORTATION

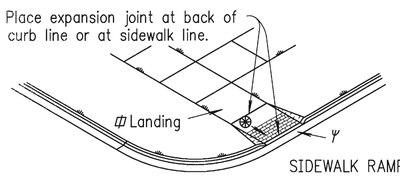
CONTRACTION & EXPANSION JT. DOWEL ASSEMBLIES

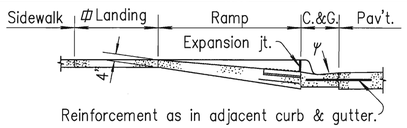
RD735

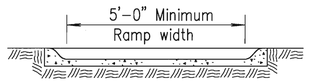
FHWA APPROVAL	4-20-06	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. Hecht

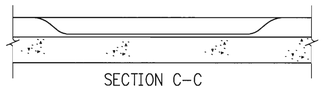
STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	12	39

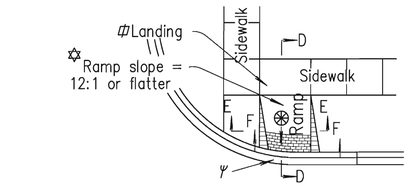


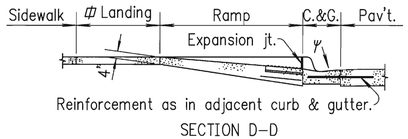


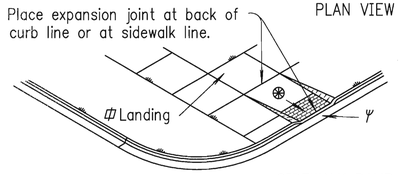


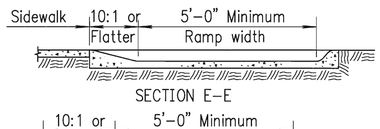


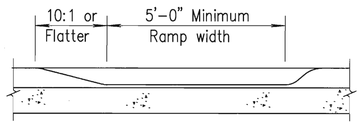


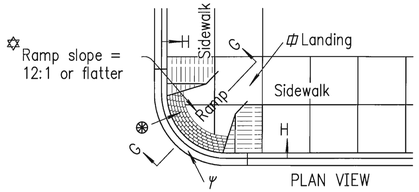


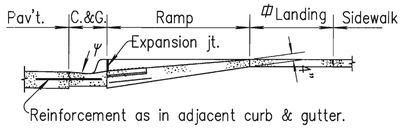


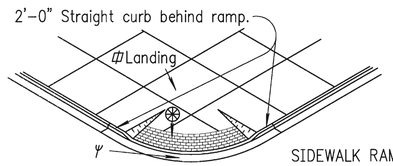


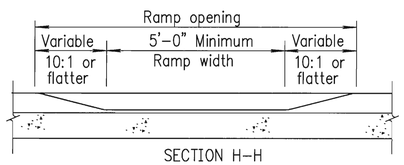




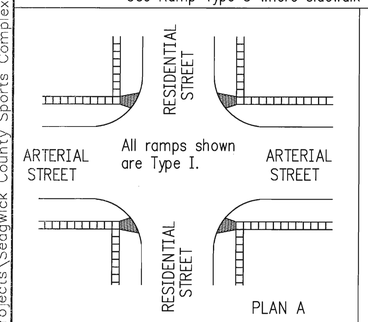




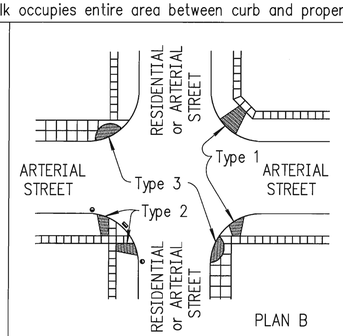




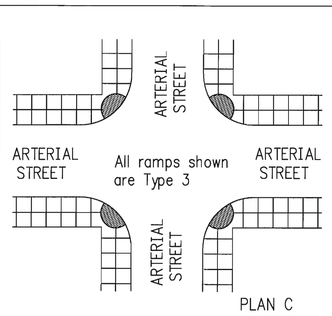
Use Ramp Type 3 where sidewalk occupies entire area between curb and property line.



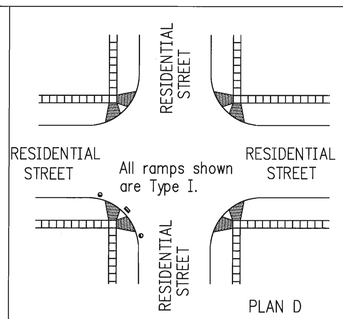
Heavy Traffic on Arterial
No Traffic Signal



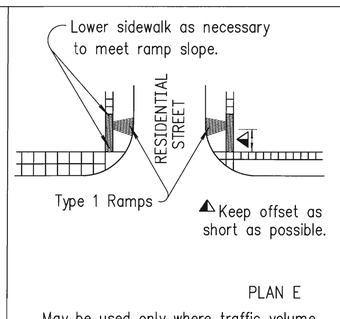
Signalized Intersection
Typical Ramp Treatments



Traffic Control on Both Streets
Wide Sidewalks

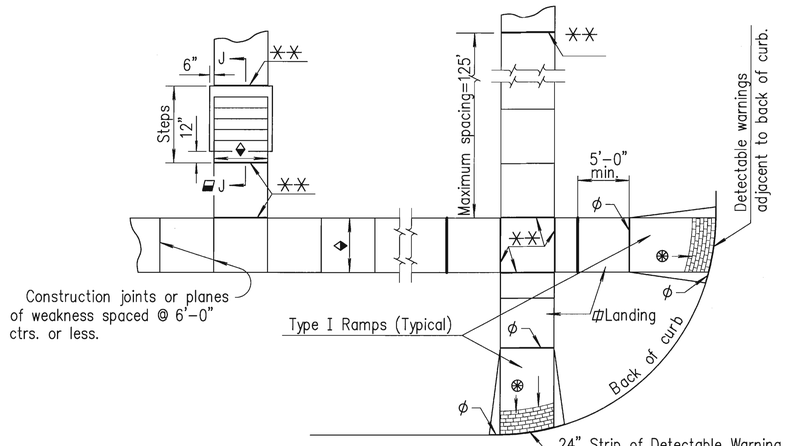


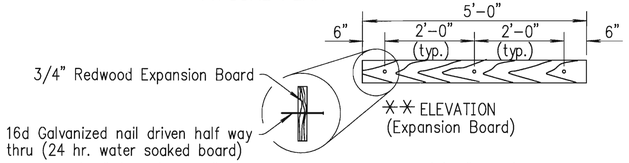
Normal Treatment in Residential Area



May be used only where traffic volume is low and where other features make Plan D impractical.

SECTION J-J see standard drawing RD725B for details of Steps and Handrail.





For other than 5'-0" (width) use 6" from the end and balanced (3'-0" max.) nail spacing.

ϕ Expansion Joint (3/4" Redwood board) placed at either back of curb line or at sidewalk back of curb line or at sidewalk line.

Expansion joint (3/4" redwood board) located as shown.

Variable width (5'-0" min.). Entrance walk to be same width as approach walk. Use sidewalk width of 4'-0" where existing conditions prohibit use of 5'-0".

New construction ramp slopes are 12:1 or flatter. Desirable ramp slopes for existing sites are 12:1 or flatter. Where space limitations prohibit construction of a 12:1 slope on existing sites, use the following slopes:
8:1 or flatter for a maximum rise of 3 inches
10:1 or flatter for a maximum rise of 6 inches

Use a landing slope of 48:1 or flatter. Landings are the same width as ramp and a minimum 5'-0" in length.

Use a counter slope of 20:1 or flatter at the base of sidewalk ramps. Refer to standard drawing RD725A for additional curb and gutter details.

Detectable warning installation is typical and required on Sidewalk Ramps Type 1, Type 2, Type 3, median ramp crossings and other locations as shown in the plans. See standard drawing RD725A for additional details.

GENERAL NOTES

The details depicted here may not be appropriate for all locations. Designs shall meet this criteria on all new construction projects unless impracticable by site restrictions. For an existing sidewalk facility where the sidewalk will be replaced, sidewalk will be replaced according to this drawing to the maximum extent feasible.

Provide ramps at all corners of street intersections where there is existing or proposed sidewalk and curb. Provide ramps at mid-block walk locations for hospitals, medical centers and athletic stadiums.

Details shown on this sheet apply to all construction or reconstruction of streets, curbs or sidewalks. See standard specifications for additional information.

Use of sidewalk ramp Type 2 shall be restricted to locations where is not feasible to use Types 1 or 3.

Curb cut ramps are to be located as shown on the plans or as directed by the Engineer.

Drainage structures should not be placed in line with ramps except where existing drainage structures are being utilized in the new construction. Ramp location should should take precedence over location of drainage structure.

Sidewalks shall be ramped where the driveway curb is extended across the walk.

Construct ramp with uniform grade free of sags and short grade changes.

Place 3/4" redwood board expansion joints flush with the surface at a maximum spacing of 125'. Place 3/4" redwood expansion joints at sidewalk junctions, see Plan details. Where sidewalk abuts a curb place 3/4" redwood board expansion joint flush with the surface.

Place 1/2" premoulded (Non-extruding, Type B) joint filler where sidewalk is parallel and adjacent to a rigid structure.

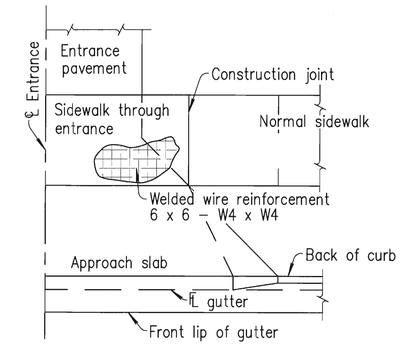
Slope sidewalk toward the street at a 50:1 or flatter. Slope or depress sidewalk where necessary to fit alleys and entrances see plans or at Engineer's direction.

Where clear width of sidewalk between top of ramp and building or other obstruction is less than 48 inches, slope the flared sides 12:1 or flatter.

Sidewalk shown to be constructed in back of an entrance is placed 6" thick with welded wire mesh reinforcement, gauge and spacing of wires is the same as in entrance pavement see Reinforcement Diagram. Bid item will be "Sidewalk Construction (6") either with or without air entrainment.

Contractor may opt to use Concrete Grade 3.0 (AE) throughout for construction of steps, but all work and materials are paid for under the bid item "Grade 3.0 Conc. (Misc.)".

Surface texture ramp slope with a wooden float or brushed finish.



REINFORCEMENT DIAGRAM
SIDEWALK THROUGH ENTRANCE

See standard drawing RD726 for details of Alley and Entrance Pavement.

LEGEND

- Sidewalk Ramp Type 1
- Sidewalk Ramp Type 2
- Sidewalk Ramp Type 3
- Preferred location of drainage inlet (Typical)
- Alternate location of drainage inlet (Typical)
- Sidewalk

NO.	DATE	REVISIONS	BY	APP'D
9	2-10-10	Revised notes & General Note	S.W.K.	J.O.B.
8	7-30-08	Reorg. layout, added steps sheet	S.W.K.	J.O.B.
7	1-28-05	Changed Class to Grade concrete	S.W.K.	J.O.B.
6	8-20-03	Revised notes and details	S.W.K.	J.O.B.

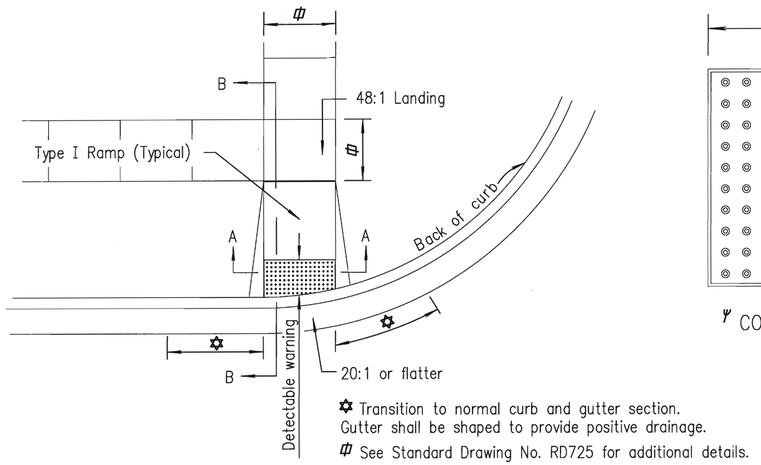
KANSAS DEPARTMENT OF TRANSPORTATION

SIDEWALK & STEPS

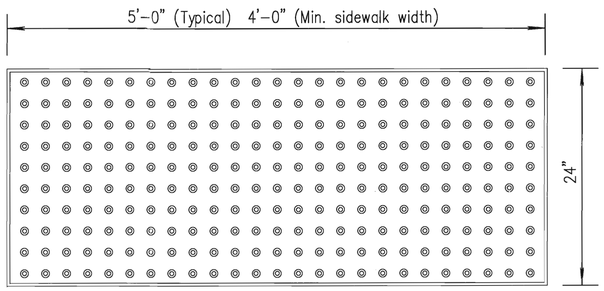
~~RD725~~

FHWA APPROVAL	4-7-10	APP'D.	James O. Brewer
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

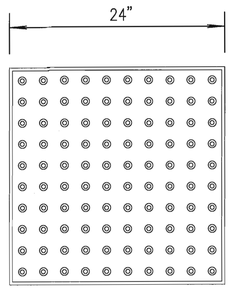
STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	13	39



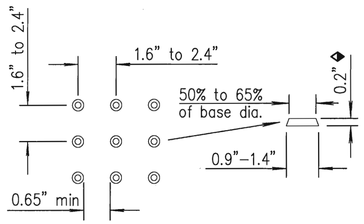
TYPICAL PLAN



COMPOSITE PANEL with TRUNCATED DOMES



PRESTRESSED RAMP PANEL
with
TRUNCATED DOME SURFACE



TRUNCATED DOME DIMENSIONS
for SQUARE PATTERN
(Parallel Alignment)

GENERAL NOTES

Details shown on Standard Drawing RD725 & RD725A may not be appropriate for all locations. Design new project construction to criteria shown on these drawings unless impracticable by site restrictions. For existing sidewalk replacement, follow these drawings to the maximum extent feasible.

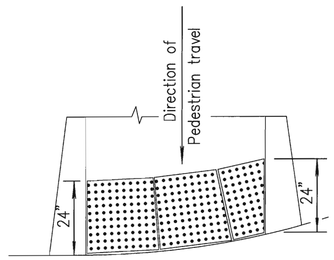
Use Paving Brick, Prestressed or Composite Panel (Truncated Dome Surface) units that meet the requirements of the Standard Specifications and comply with the American Disabilities Act. Use a contrasting color paving brick or panel to adjacent surfaces.

Cover the ramp width and 24" length with truncated dome surface, see examples Standard Drawing RD725 & RD725A. Saw cut (only) bricks or panels with not less than 25% of a full brick or panel installed. Place Truncated Dome Bricks or Panels to align parallel in the direction of pedestrian travel.

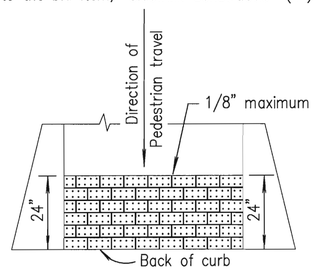
Prestressed or Composite Panels are installed in fresh concrete. Paving Brick require mortar bed and mortar sand, see Standard Specifications for requirements.

~~The entire ramp or median crossing will be bid as "Sidewalk Ramp" and payment is measured by the square yard. Materials and labor to install sidewalk ramp are subsidiary to the bid item "Sidewalk Ramp."~~

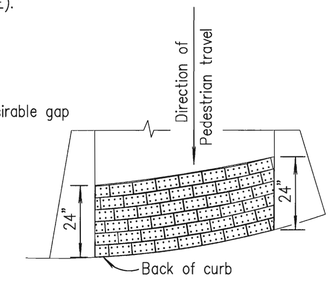
All materials and labor to install composite panels with truncated domes are subsidiary to the bid item, "Sidewalk Construction (4") (AE)."



RADIUS CURB DETAILS
Cut Prestressed Ramp Panels to fit.



STRAIGHT CURB DETAILS

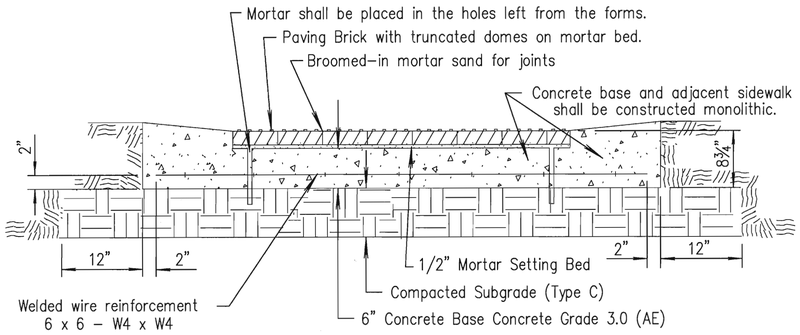


RADIUS CURB DETAILS

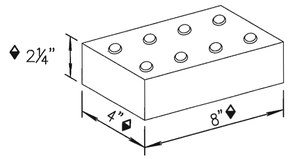
Installation shown for paving brick is running bond, use of other patterns is allowed with Engineer approval. Rotation 90° of Running Bond pattern is allowed to reduce space between bricks on radius installation, keep this space to a minimum. Place truncated domes on bricks in parallel alignment to pedestrian travel as shown.

Radius curb or greater than 5' width ramp will require more than one panel as approved by the Engineer. Limit number of panels installed at each site. Layouts shown are for example and may vary in the field.

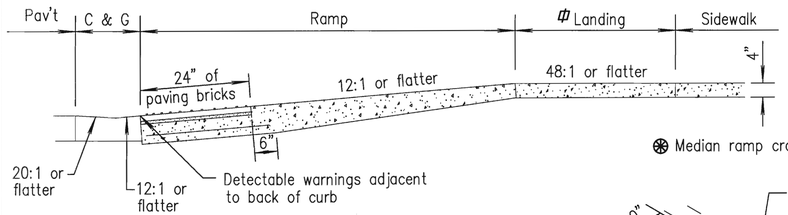
Acceptable with no mixing of types within an installation.



TYPICAL SECTION OF PAVER BRICK
SECTION A–A

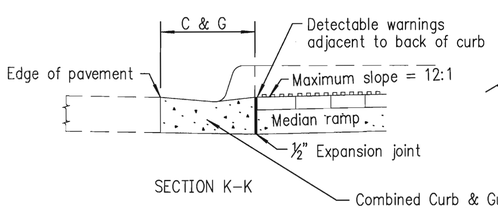


PAVER BRICK WITH
TRUNCATED DOME SURFACE
These dimensions are nominal.

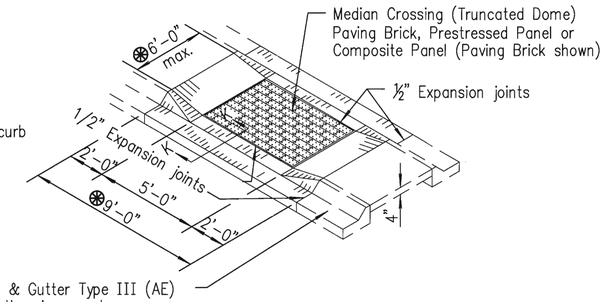


SECTION B–B

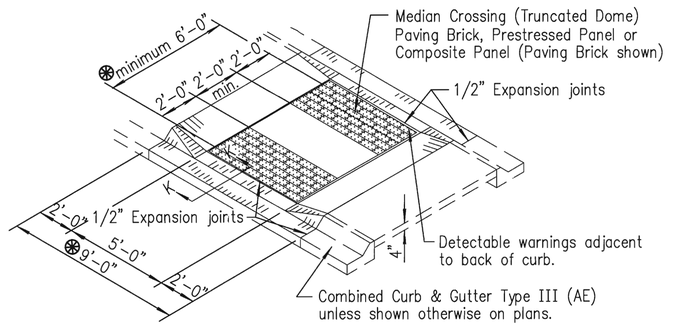
Median ramp crossing limits will be paid for as "Sidewalk Ramp."



SECTION K–K

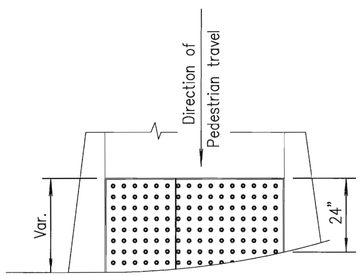


NARROW MEDIAN RAMP CROSSING
Note: A Median Ramp Crossing shall be constructed at Crosswalk locations.



WIDE MEDIAN RAMP CROSSING

Note: A Median Ramp Crossing shall be constructed at Crosswalk locations.
Wider median islands will result in a 2' minimum gap between
the truncated dome areas.



RADIUS CURB DETAILS (COMPOSITE)
Cut Radius from 3'–0" Long Composite Panel.

NO.	DATE	REVISIONS	BY	APP'D
4	2-10-10	Added Composite Panel	S.W.K.	J.O.B.
3	8-15-05	Added Prestressed Ramp Panel alt.	S.W.K.	J.O.B.
2	2-24-05	Class to Grade conc., wire reinf.	S.W.K.	J.O.B.
1	8-20-03	Revised details and notes	S.W.K.	J.O.B.

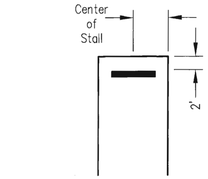
KANSAS DEPARTMENT OF TRANSPORTATION

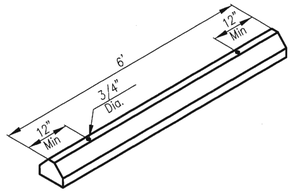
AUXILIARY DETAILS FOR SIDEWALK & STEPS

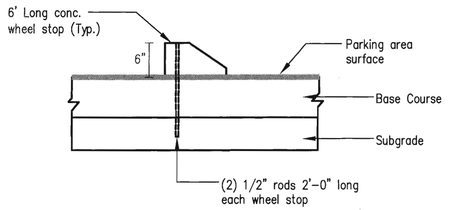
~~RD725A~~

FHWA APPROVAL	4-7-10	APP'D.	JAMES O. BREWER
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

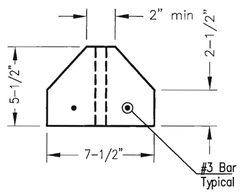
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	14	39







NOTE:
Concrete to be 3,000 psi, with fiber mesh reinforcing.

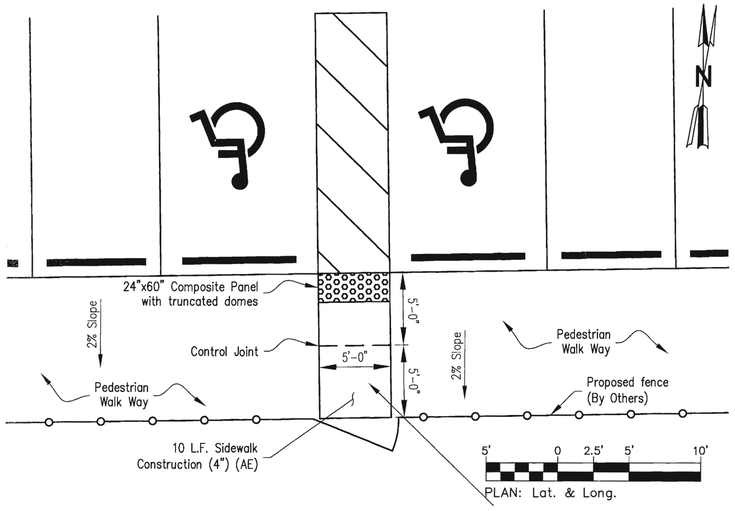


NOTES:

1. Wheel stops to be placed 2' back, as shown above, centered in the parking stall.
2. Wheel stops can be painted in a contrasting color such as gray, yellow or black. Blue shall be used for handicap parking stalls.
3. Payment for "Wheel Stops (Concrete)" at the contract unit price shall be full compensation for the materials, labor, equipment, and incidentals necessary to complete installation of the wheels stops.

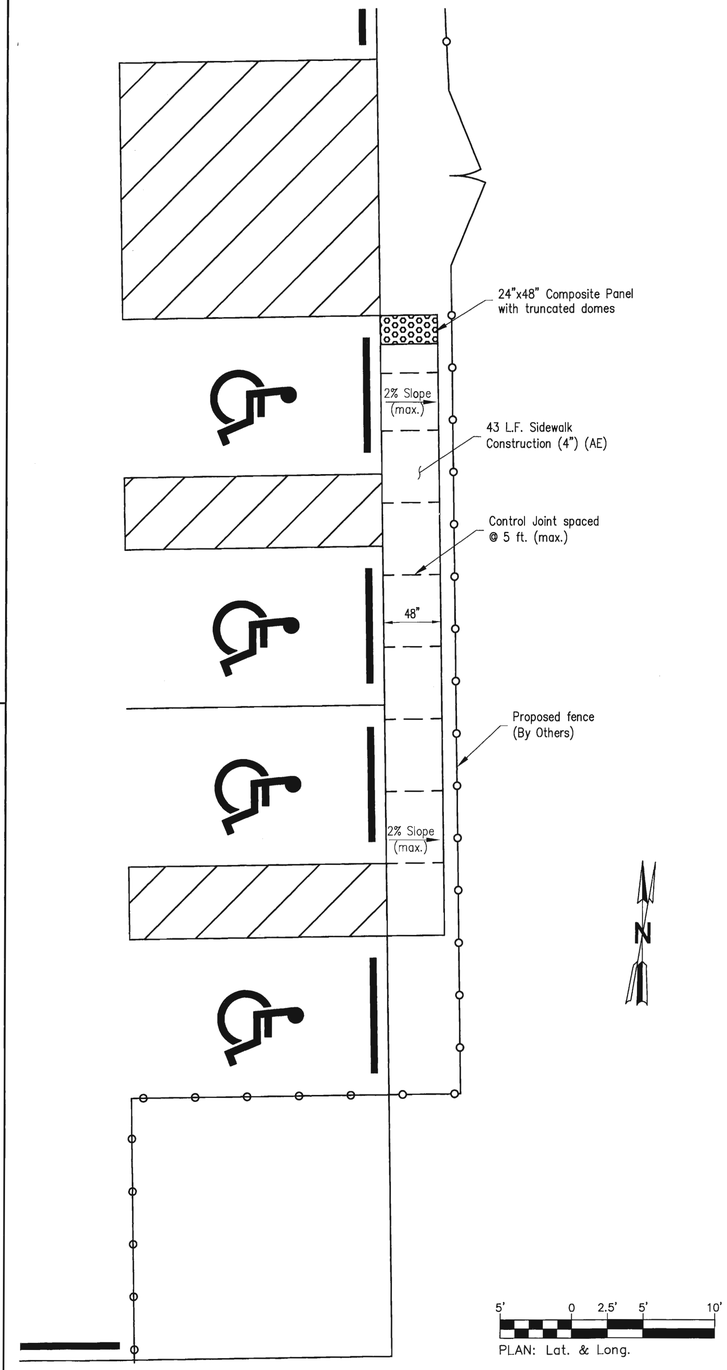
REINFORCED CONCRETE WHEEL STOPS

See Sh. No. 22 for location and quantity
N.T.S.



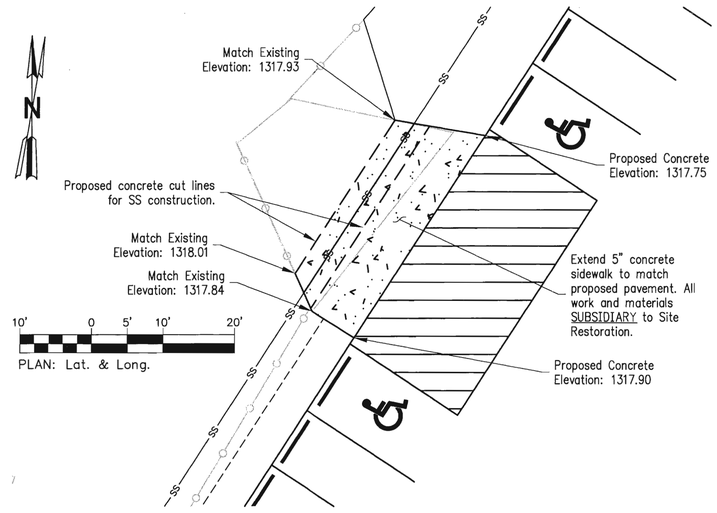
SIDEWALK DETAIL

South Line of Lots "A" & "B"
(4 Locations)



SIDEWALK DETAIL

Southeast corner Lot "A"



CONCRETE PAD AT ENTRANCE TO SOFTBALL FIELDS

West Sedgwick County Park Improvements

MISCELLANEOUS DETAILS

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	As Shown	L.T.P.	J.R.W.	L.T.P.	14
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

GENERAL NOTES

1. APPLICATION. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table, where the sanitary sewer main depth is greater than 12' below the proposed ground elevation, where the main is adjacent to a pond or wherever service lines would have to cross under storm sewer pipe. Installation of risers because of field conditions shall be as approved by the City Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.

2. MANHOLE STUB RISERS. Manhole stub risers be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole stub and the flowline of the sanitary sewer line out of the manhole shall not exceed 2' stub. Risers shall be utilized at manholes as indicated in Note 1. Manhole stub riser shall be set such that the top of the stub is not lower than the top of the sanitary sewer line.

3. SIZING. Risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers are required because of field conditions, the risers shall be 6" diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers shall be approved by the construction Engineer prior to installation.

4. RISER MATERIAL. Risers shall be constructed of Schedule 40 PVC Pipe, meeting the requirement of the latest revision of A.S.T.M.. All pipe joints shall be solvent welded. Full body tee shall be SDR 26 PVC pipe.

5. ROCK ENCASEMENT. Riser connection to clay pipe sanitary sewers shall be rock encased both ways from the riser centerline. The rock encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary sewer mains shall be rock encased one foot each way from the riser centerline. Crushed rock shall conform to ASTM C–33, Gradation No. 67, and shall meet all requirements for Portland Cement Concrete pavement Coarse Aggregate, Section 406.2, City of Wichita Standard Specifications.

6. BEDDING. Beyond the limits of the rock encasement, bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.

7. SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and back filling the riser pie shall be approved by the Construction Engineer.

8. PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.

9. TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below t he proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation 2' (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.

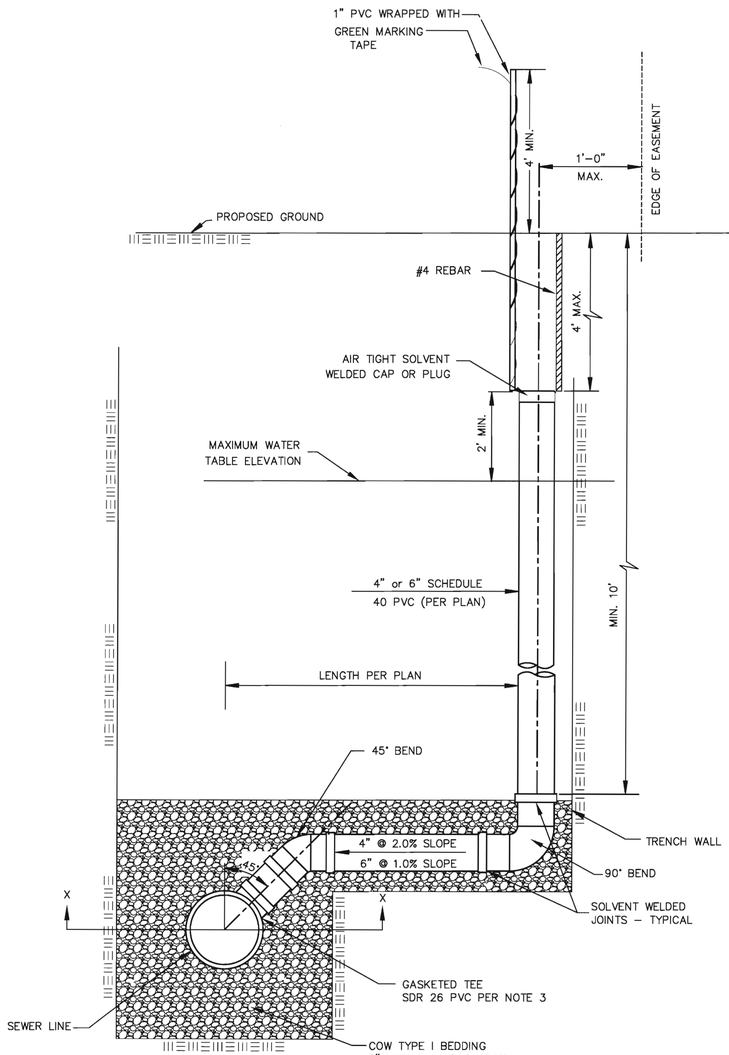
10. MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by installing 1" PVC from the top of the riser to a minimum of 4' above the top of finished grade. No. 4 rebar shall be placed centered over the riser from the cap to the existing ground. The 1" PVC pipe shall be wrapped with green colored plastic tape, for the full length above ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.

11. LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicate the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser in tabular format.

12. RISER LOCATION. the riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.

13. PAYMENT. "Riser Assembly, Vertical " shall be paid for at the contract unit price per each, which shall be full compensation for all pipe, fittings, marking tape, length of backfill, labor, site restoration, and any other items necessary to complete the work.

    "Riser Assembly, Manhole Stub" shall be paid for at the contract unit price per each, which shall be full compensation for all labor material and incidentals necessary to complete the work including all pipe, fittings, rock encasement, and all other items as required and listed for "Riser Assembly, Vertical "



NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

PROPOSED RISER TABLE					
NO.	TYPE	STATION	ELEVATION	FOR INFORMATION ONLY	
				APPROXIMATE LENGTH 6" PIPE	
				VERTICAL	HORIZONTAL
1	MANHOLE SERVICE CONNECTION	22+13.10	1317.1	2.0'	59.0'

AS CONSTRUCTED
INSP. Sch DATE 11-15-13
REMARKS See Plans

AS CONSTRUCTED
INSP. DATE
REMARKS

NOTE:
NON SHEAR COUPLING TO BE USED
WHEN HOOKING TO CLAY PIPE.

TYPICAL SECTION X–X

GREGORY J. ALLISON LICENSED 11159 KANSAS PROFESSIONAL ENGINEER
6/7/2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

VERTICAL RISER ASSEMBLY SEWER DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1301010256	######	08/2012

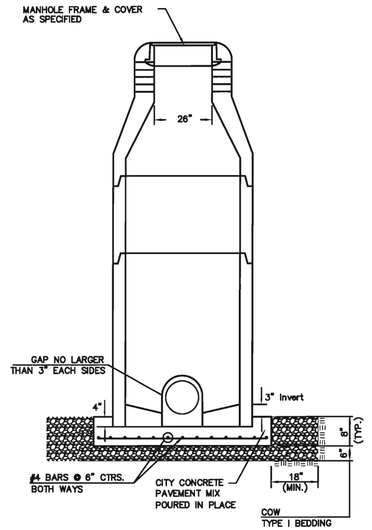
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

DESIGN	DRAWN

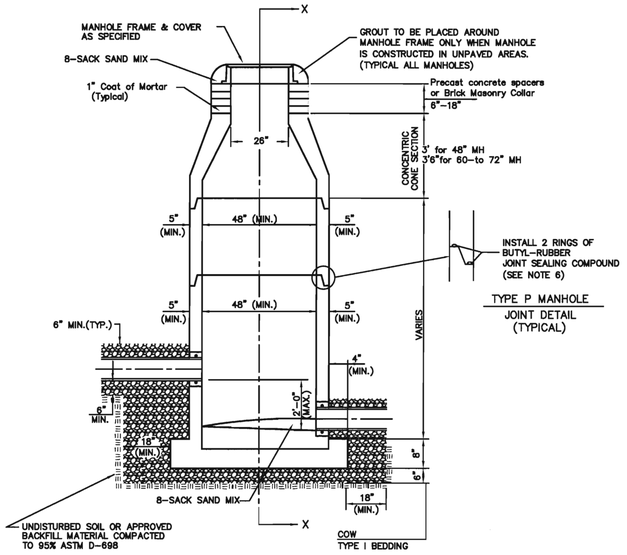
SHEET
15 of 39

SS-103

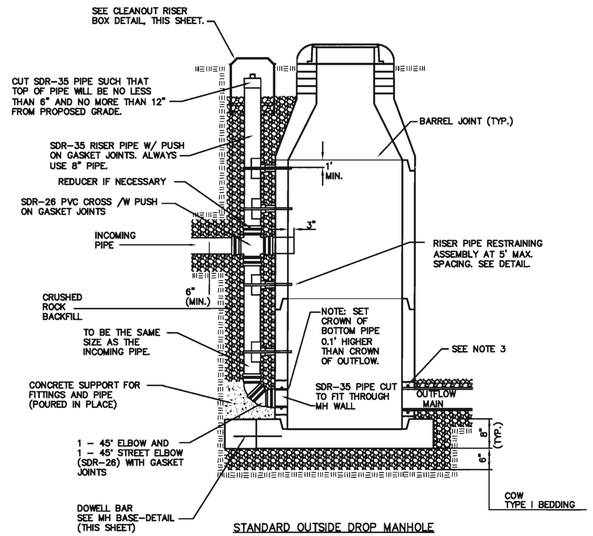
J:\Projects\2013\1301010256_Sedgwick_AYSO_TRYC Sanitary Sewer\5-Civil\CAD\Son\13256_SAN_VERT RISER ASSEM.DWG



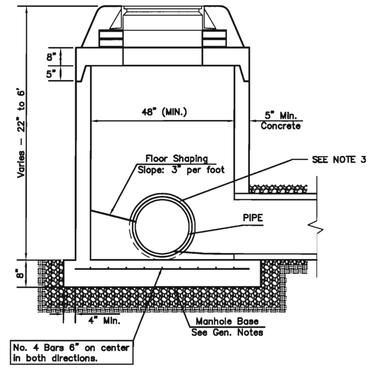
DOG HOUSE MANHOLE
(OVER EXISTING PIPE)
Not to Scale



STANDARD MANHOLE
Not to Scale



STANDARD OUTSIDE DROP MANHOLE
Not to Scale



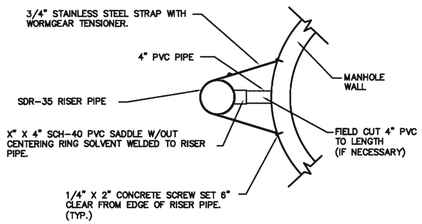
SHALLOW MANHOLE
Not to Scale

AS CONSTRUCTED
INSP. SEK DATE 11-15-13
REMARKS Per Plans

= COW TYPE I BEDDING = UNDISTURBED SOIL

PRECAST MANHOLE GENERAL NOTES

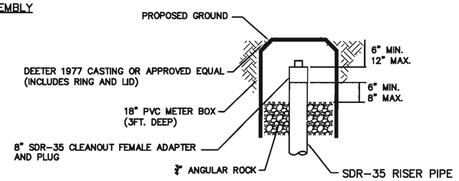
1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP SHALL BE INSTALLED TO JOIN THE SEWER PIPE TO THE MANHOLE WALL. THE SEWER PIPE SHALL BE SUPPORTED WITH CRUSHED ROCK A MINIMUM OF 3 FEET FROM THE FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
5. EXTERIOR MANHOLE WALLS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
6. JOINT SEALING COMPOUND SHALL BE PER 804.4 OF STANDARD SPECIFICATIONS.
7. ALL MANHOLE SECTION JOINTS THAT WILL BE IN GROUNDWATER OR GREATER THAN 12' DEEP SHALL BE WRAPPED WITH AN EXTERNAL JOINT SEAL PER SECTION 804.4 OF STANDARD SPECIFICATIONS. AS INDICATED BY THE PLANS.
8. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE FOR DOG HOUSE MANHOLES.
9. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
10. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
11. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACE AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
12. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO.4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
13. WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
14. OPENINGS SHALL BE CORE DRILLED INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS DRILLED INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
15. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
16. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
17. THE VERTICAL DROP IN STANDARD MANHOLES SHALL NOT EXCEED 2' REGARDLESS OF PIPE SIZE. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
18. STANDARD MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
19. PRECAST CONCRETE SPACERS OR BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
20. THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.
21. REFER TO PLANS FOR SIZE OF OUTSIDE DROP RISER, SADDLES AND CROSS.



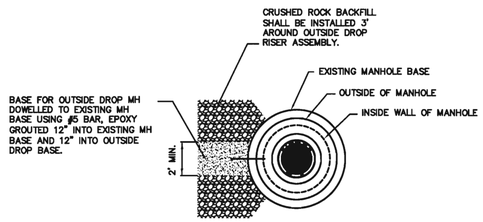
RISER PIPE RESTRAINING ASSEMBLY
Not to Scale

SANITARY SEWER MANHOLE DIAMETERS

DIAMETER	DEPTH	PIPE SIZE
4'	0'-15'	8"-18"
5'	15'-30'	21"-30"
6'	>30'	36"-60"



CLEANOUT RISER BOX DETAIL
Not to Scale



MH BASE DETAIL
Not to Scale

GREGORY J. ALLISON LICENSED 11159 KANSAS PROFESSIONAL ENGINEER
12-17-2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

PRECAST SANITARY SEWER MANHOLE

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1301010256	######	08/2012

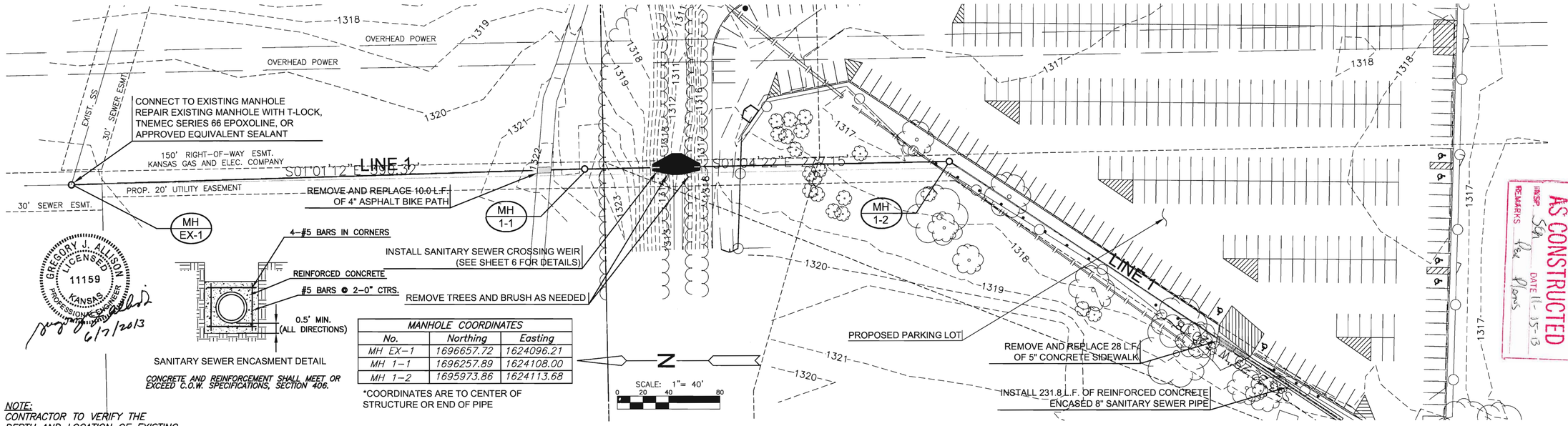
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

DESIGN	DRAWN

SHEET
16 of 39

SS-101

J:\Projects\2013\301010256_Sedgwick_AYSO_TRYC Sanitary Sewer\5-Civil\CAD\San\13256_SAN_SWR_MH_DETAIL.DWG



SANITARY SEWER ENCASMENT DETAIL

CONCRETE AND REINFORCEMENT SHALL MEET OR EXCEED C.O.W. SPECIFICATIONS, SECTION 406.

MANHOLE COORDINATES		
No.	Northing	Easting
MH EX-1	1696657.72	1624096.21
MH 1-1	1696257.89	1624108.00
MH 1-2	1695973.86	1624113.68

*COORDINATES ARE TO CENTER OF STRUCTURE OR END OF PIPE

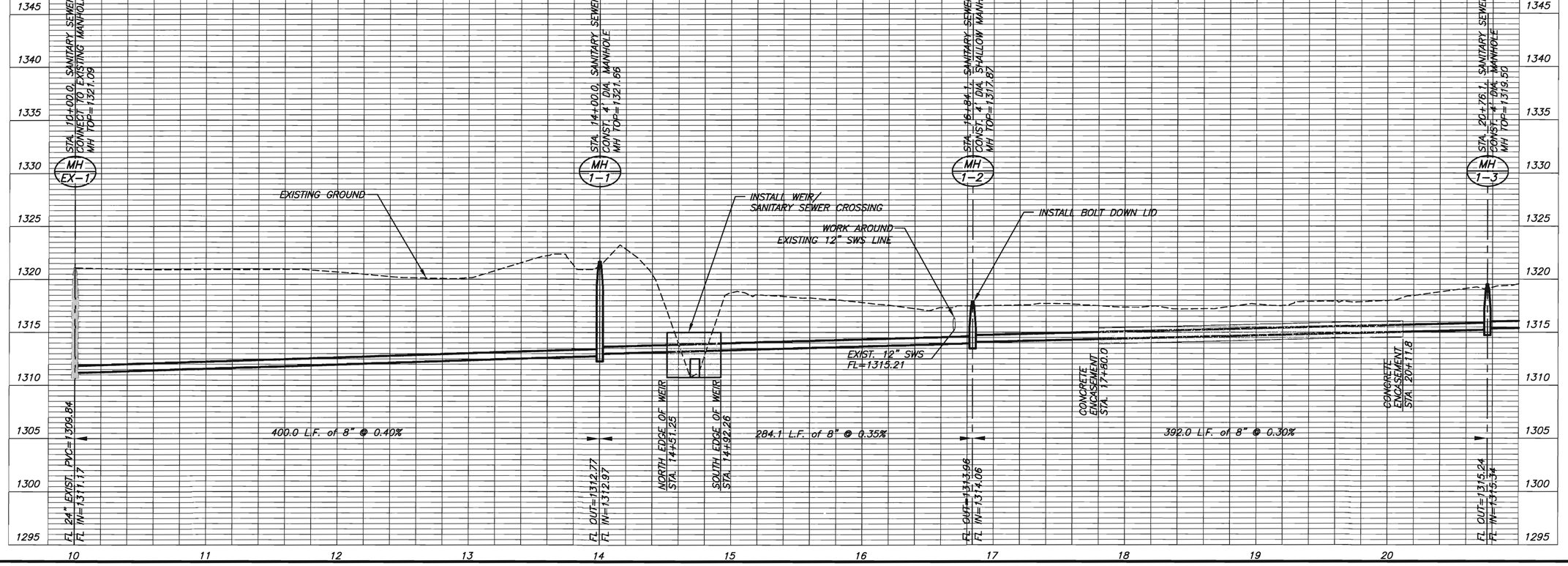
GREGORY J. ALLISON
LICENSED
11159
KANSAS
PROFESSIONAL ENGINEER
6/7/2013

NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

AS CONSTRUCTED
INSP. SA
REMARKS Red Plans
DATE 11-15-13

PLAN LINE 1
PROFILE LINE 1

SCALE: HORIZ. 1"=40'
SCALE: VERT. 1"=5'



MKEC
Wichita, KS • 316-684-9600

SANITARY SEWER PLANS FOR

WEST SEDGWICK COUNTY PARK

SANITARY SEWER & PARKING LOT IMPROVEMENTS

LINE 1 PLAN AND PROFILE

PROJECT NO.	1301010256
DATE	MAY 2013
SCALE	1"=40'

DESIGNED	DRAWN	CHECKED
SLF	SLF	GJA

NO.	REVISION	DATE
#	-----	##/##/####

SHEET NO.
17 OF 39

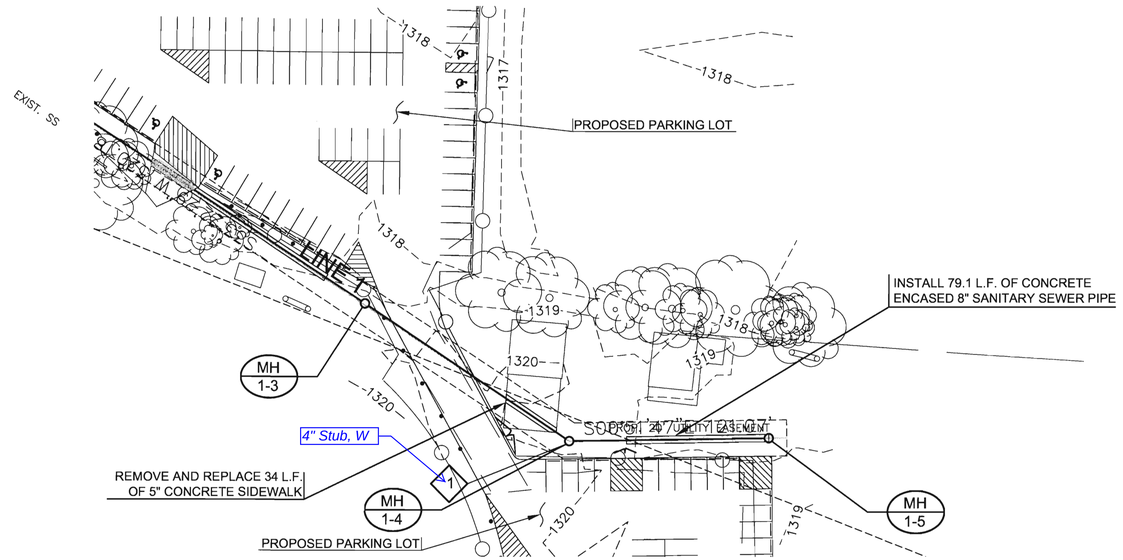
MANHOLE COORDINATES		
No.	Northing	Easting
MH 1-3	1695646.01	1623898.70
MH 1-4	1695532.08	1623822.65
MH 1-5	1695421.02	1623824.33

*COORDINATES ARE TO CENTER OF STRUCTURE OR END OF PIPE

N

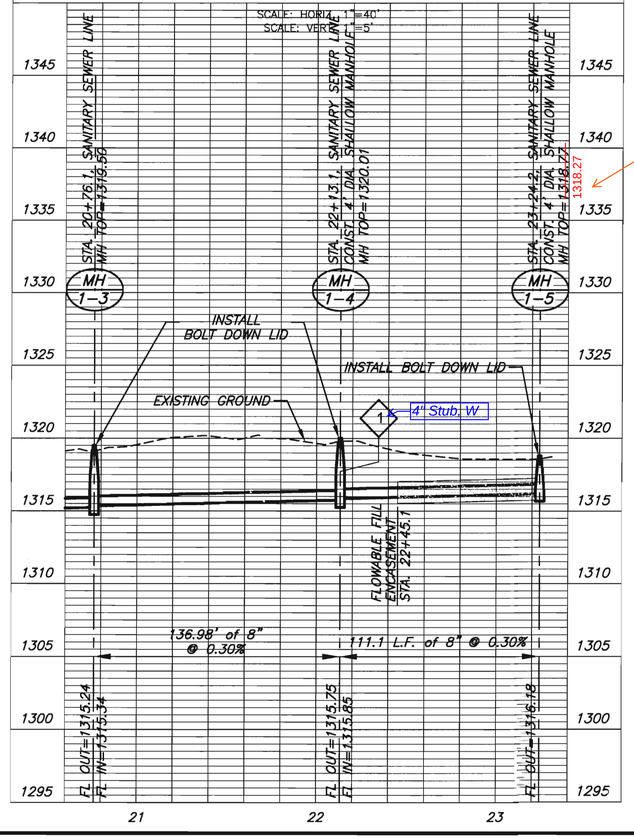
SCALE: 1"= 40'
0 20 40 80

NOTE:
CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



PLAN LINE 1 CONT.

PROFILE LINE 1 CONT.



LEFT 1 - 6" SPACER OUT TO AVOID A RAISED MANHOLE COVER IN A PEDESTRIAN AREA

AS CONSTRUCTED
INSP. DATE
REMARKS

AS CONSTRUCTED
INSP. SCH DATE 11-15-13
REMARKS Per Plans

GREGORY J. ALLISON LICENSED 11159 KANSAS PROFESSIONAL ENGINEER
6/7/2013

MKEC
Wichita, KS • 316-684-9600

SANITARY SEWER PLANS FOR
WEST SEDGWICK COUNTY PARK
SANITARY SEWER & PARKING LOT IMPROVEMENTS

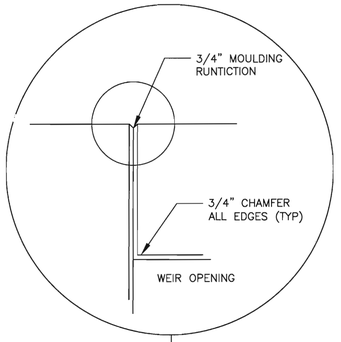
LINE 1 PLAN AND PROFILE

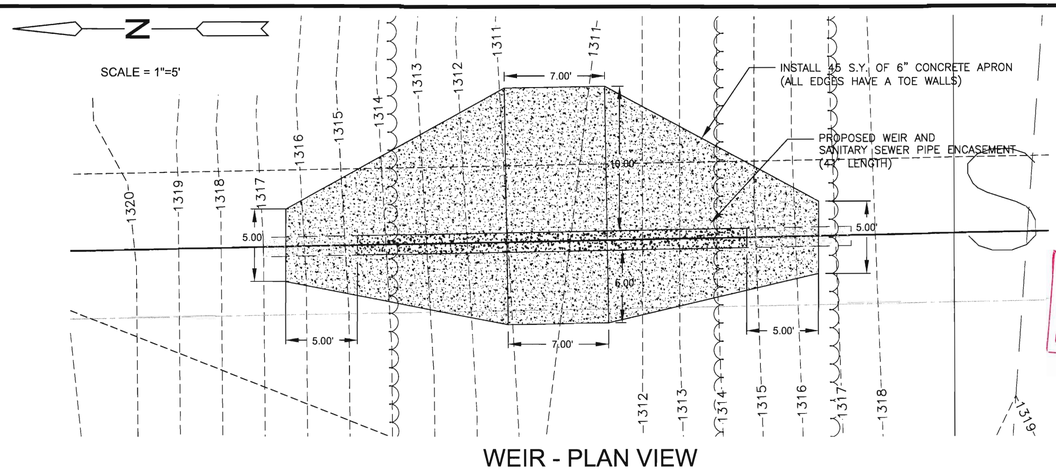
PROJECT NO.	1301010256
DATE	MAY 2013
SCALE	1"=40'

DESIGNED	DRAWN	CHECKED
SLF	SLF	GJA

NO.	REVISION	DATE
#	----	MM/DD/YY

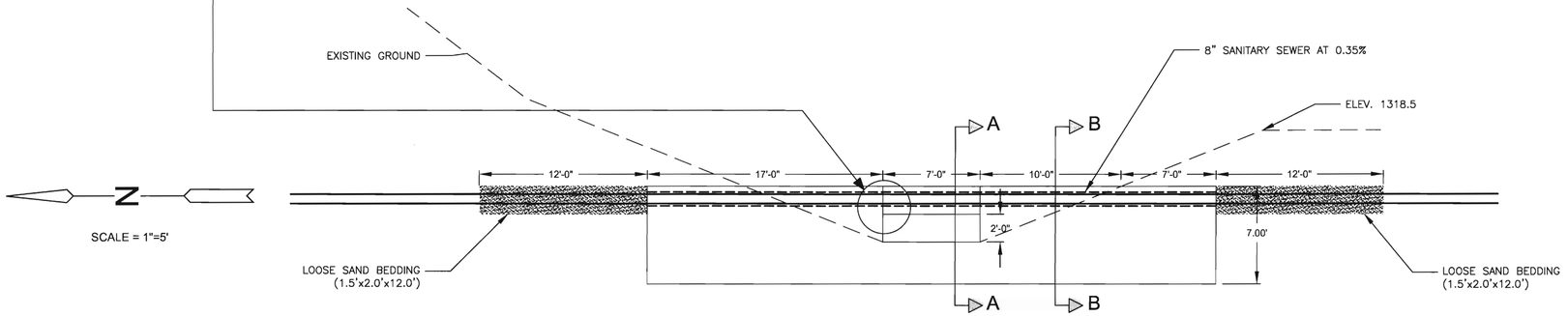
SHEET NO.
18 OF 39



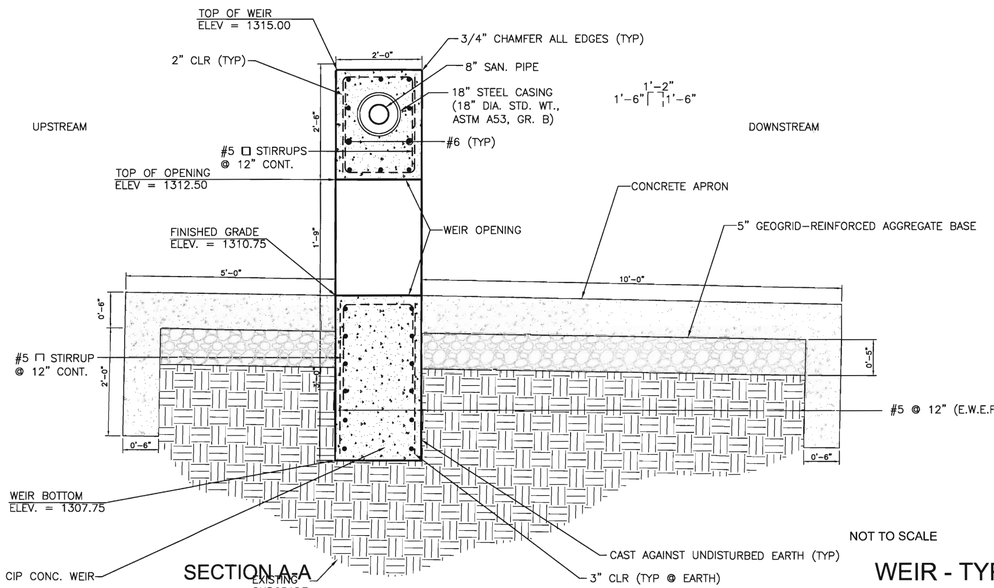


WEIR - PLAN VIEW

AS CONSTRUCTED
INSP. SLF DATE 11-15-13
REMARKS Per Plans

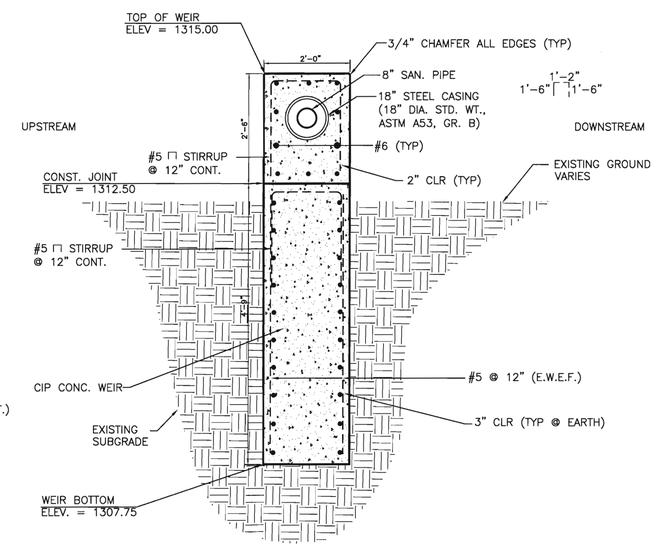


WEIR - DOWNSTREAM VIEW



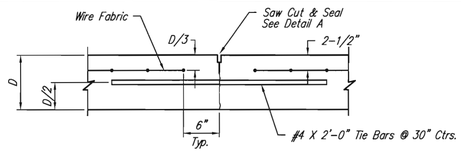
SECTION A-A

NOT TO SCALE

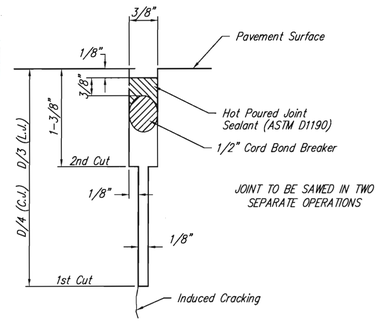


SECTION B-B

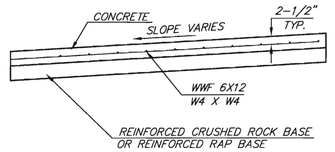
WEIR - TYPICAL CROSS SECTIONS



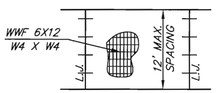
LONGITUDINAL JOINT DETAIL (L.J.)



SAW JOINT DETAIL



6" x 12" W4XW4 WIRE FABRIC REINFORCING SHALL BE PLACED SUCH THAT THE WIRES WITH THE 6" SPACING WILL RUN PARALLEL WITH THE LONGITUDINAL JOINT.



REINFORCMENT DETAIL

GENERAL NOTES

WEIR STRUCTURE

1.) CONCRETE
SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN TO DESIGN ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

2.) CONCRETE
SHALL CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."

3.) PORTLAND CEMENT
SHALL CONFORM TO ASTM C-150, TYPE I OR III.

4.) REINFORCING
SHALL MEET ASTM A615 OR GR 60.

GREGORY J. ALLISON LICENSED 11159 KANSAS PROFESSIONAL ENGINEER
6/7/2013

MKEC
Wichita, KS • 316-684-9600

SANITARY SEWER PLANS FOR

WEST SEDGWICK COUNTY PARK

SANITARY SEWER & PARKING LOT IMPROVEMENTS

WEIR DETAILS

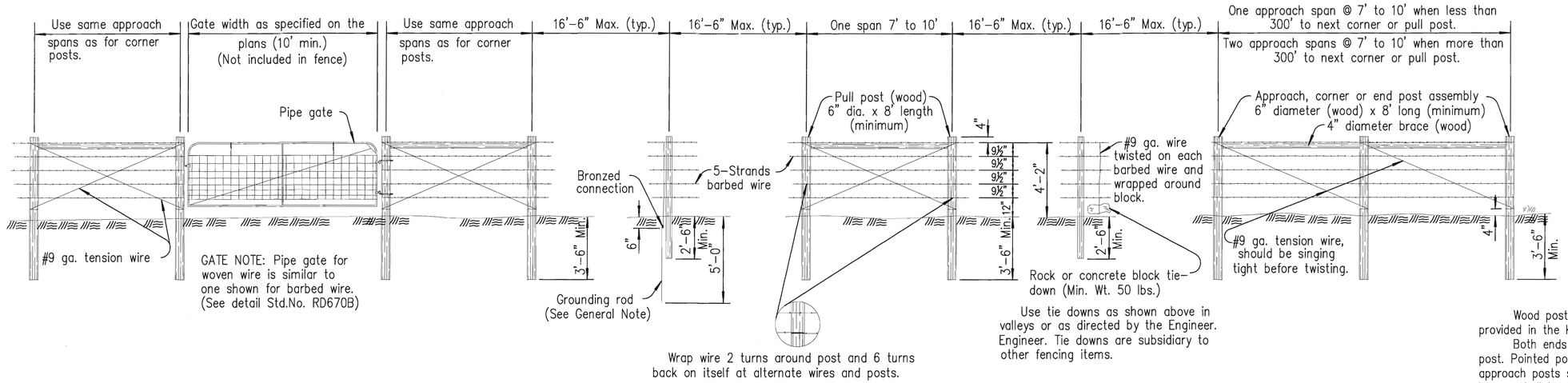
PROJECT NO.	1301010256
DATE	MAY 2013
SCALE	N/A

DESIGNED	DRAWN	CHECKED
SLF	SLF	GJA

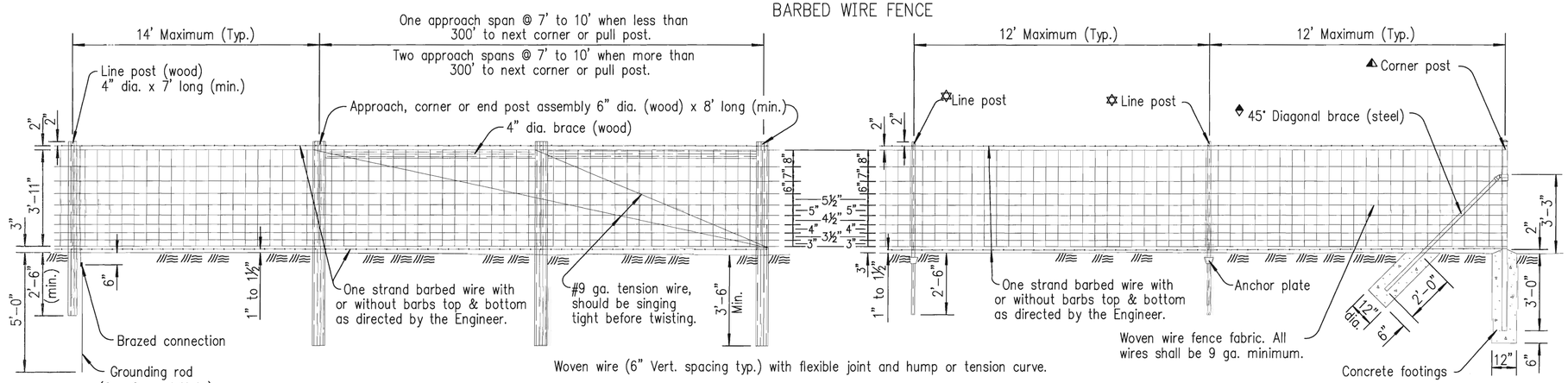
#	-----	##/##/##
NO.	REVISION	DATE

SHEET NO.
19 OF 39

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	20	39



BARBED WIRE FENCE

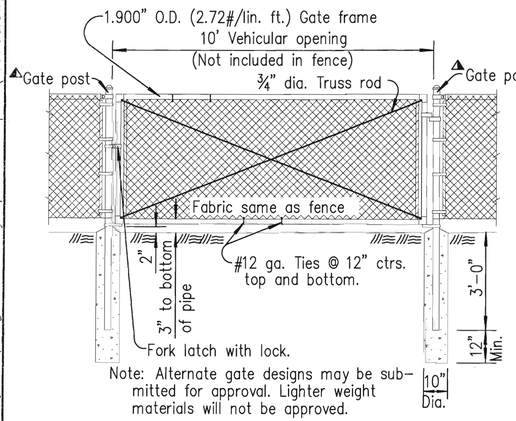


Woven wire (6" Vert. spacing typ.) with flexible joint and hump or tension curve.

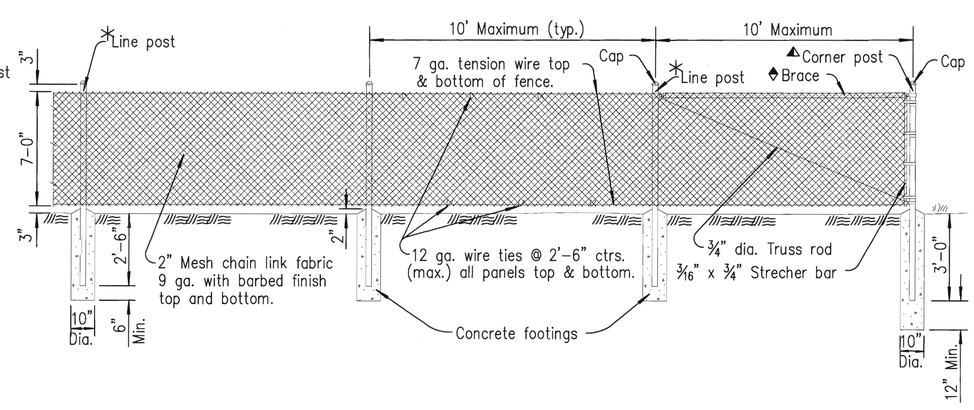
WOVEN WIRE TYPE A FENCE

WOVEN WIRE TYPE B FENCE

Pull post assembly for woven wire with wood posts is similar to barbed wire pull post assembly detail.



DETAIL of GATE, HINGE & SPECIFICATIONS



CHAIN LINK FENCE

(STEEL)

- Steel line post 7'-0" length
  Studded T (1.33#/lin. ft.)
  U (1.33#/lin. ft.)
  H (2.27#/lin. ft.)
- Brace
  1.660" O.D., 0.111" Th. (1.84#/lin. ft.) pipe (Group 1C) or
  1.660" O.D., 0.140" Th. (2.27#/lin. ft.) pipe (Group 1A) or
  1⅝"x1¼" Brace rail (See Alt. Details)
- Line post 10'-0" length.
  2.375" O.D., 0.154" Th. (3.65#/lin. ft.) pipe (Group 1A) or
  2.375" O.D., 0.130" Th. (3.12#/lin. ft.) pipe (Group 1C) or
  1⅝"x1⅞" C Post (2.28#/lin. ft.)
- End, corner, gate, or pull post 10'-6" length.
  (A120) 2.875" O.D., 0.203" Th. (5.79#/lin. ft.) pipe (Group 1A) or 2.875" O.D., 0.160" Th. (4.64#/lin.ft.) pipe (Group 1C) or
  2 1/4" Oval Back I-Beam (3.65#/lin. ft.) or
  3 1/2"x3 1/2" Type II (4.85#/lin. ft.)

GENERAL NOTE

Wood posts and braces shall be given a preservative treatment as provided in the KDOT Standard Specifications.

Both ends of all wood posts shall be cut normal to the axis of the post. Pointed posts will not be permitted. Wood corner, end, pull and approach posts shall be notched to support ends of wood braces. Wood braces shall be toenailed to the posts with 2–10d nails in each end of the brace.

When wood posts are used, both ends of all tension wires shall be wrapped around the posts twice and stapled in place. When wood posts are used the fence shall be grounded by a ⅝" diameter galvanized or copper coated rod five feet long, driven vertically until the top is six inches below the ground surface. A #6 solid copper conductor shall be securely fastened to each element of the fence by use of clamps or other suitable device. Grounding rod shall be installed at intervals of 175' maximum.

In lieu of using the galvanized or copper coated rod as described above the contractor may, at his option, use a steel line post at intervals not to exceed each eighth post.

The galvanized or copper coated rod shall be used where power lines pass over the fence.

All steel posts, braces, fittings, and gate frames shall be galvanized and/or coated in accordance with the Standard Specifications.

Steel posts shall be provided with fasteners prevent slippage of the wire strands.

Outside diameters shown for tubular steel posts, bracing and gate frames are nominal. Weight tolerances shall be as shown in the KDOT Standard Specifications.

Posts may be set by driving or digging. If by digging, the posts shall be set in the center of the hole and the soil tamped securely on all sides.

Pull post assembly shall be used at sharp breaks in vertical grade or at approximately 330' centers (Woven & Chain link) or 1320' centers (Barbed wire) on straight runs or as directed by the Engineer.

Concrete used in fence installation shall conform to the requirements of the KDOT Standard Specifications.

Woven wire, chain link fabric, barbed wire and tension wire shall be either zinc coated (galvanized) or aluminum coated.

Minimum strength of barbed wire and tension wire shall be as provided in the KDOT Standard Specifications.

Use #9 gauge galvanized staples 1½" to 1¾" long, or #9 gauge galvanized Ring-shank staples 1 ½" to 1¾" long.

Alternate gate designs may be submitted for approval. Lighter weight materials will not be approved.

Padlocks for gates shall be furnished by the State.

No Wood Posts are allowed for new or reconstruction fence installations on the State Highway System. Shop drawings for steel gate post assembly designs are to be submitted to the State Road Office, Bureau of Design for approval prior to construction.

NO.	DATE	REVISIONS	BY	APP'D
9	11-30-09	Rev. post listing,wood po. restrict.	S.W.K.	J.O.B.
8	11-08-05	Revised brace dimension	S.W.K.	J.O.B.
7	11-02-04	Added assembly to end post label	S.W.K.	J.O.B.

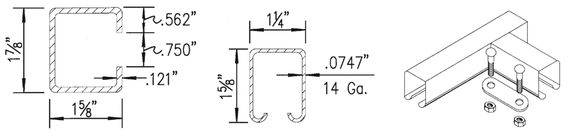
KANSAS DEPARTMENT OF TRANSPORTATION

HIGHWAY FENCE
BARBED, WOVEN, & CHAIN LINK

~~RD670A~~

FHWA APPROVAL	12-16-09	APP'D.	James O. Brewer
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

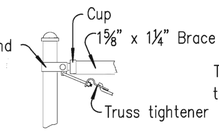
STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	21	39



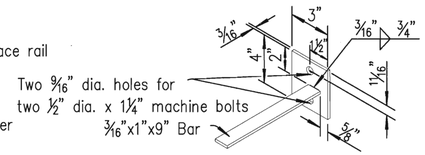
LINE POST (C)
2.28#/Lin. Ft.

BRACE RAIL SECTION

CORNER CONNECTOR
for BRACE RAILS



BRACE & TRUSS CONNECTION
at BRACE POST



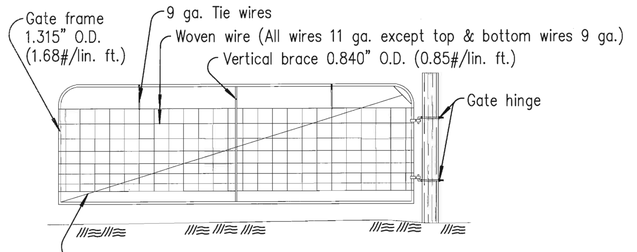
END POST TORQUE BAR

ALTERNATE CHAIN LINK DETAILS

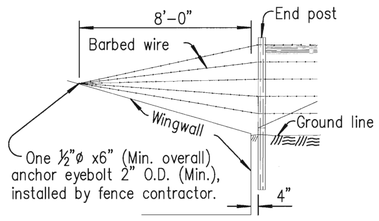
GENERAL NOTE

A line post shall be used in the KDOT fence at each private cross fence, and the contractor shall make a temporary connection. This work shall be subsidiary to other bid items.

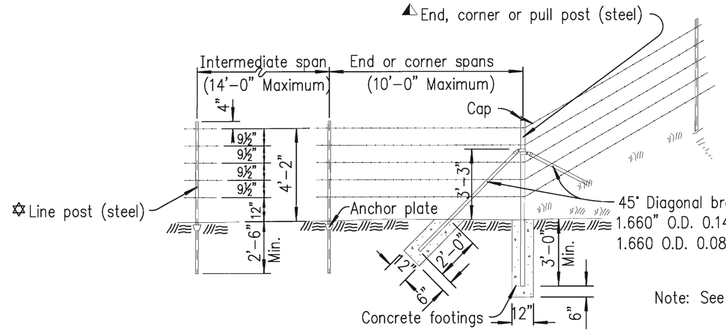
In general, where needed, use small channel crossing as shown, Type I and Type II Floodgates will be used very seldom.



DETAIL OF GATE, HINGE & SPECIFICATIONS
(for Barbed & Woven Fence)

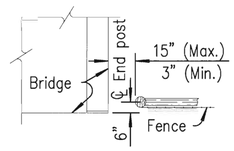


FENCE DETAILS
AT DRAINAGE STRUCTURES
(Type A, B, or Barbed wire fence.)

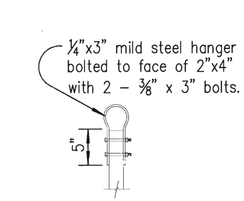


BARBED WIRE FENCE
STEEL POST (ALTERNATE)
Steel posts may be used in lieu of wood posts as shown above.

Note: See Standard Drawing RD670A for steel post requirements.

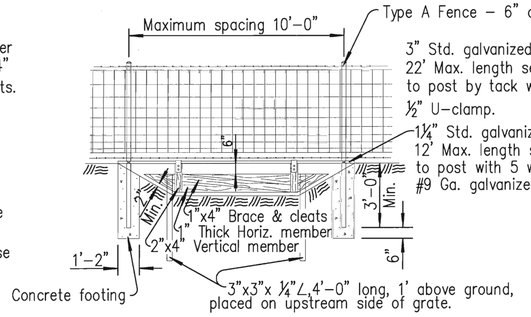


FENCE DETAILS
AT BRIDGE ABUTMENTS
(Use appropriate post and brace for fence type, dimensions are common for all fence types.)

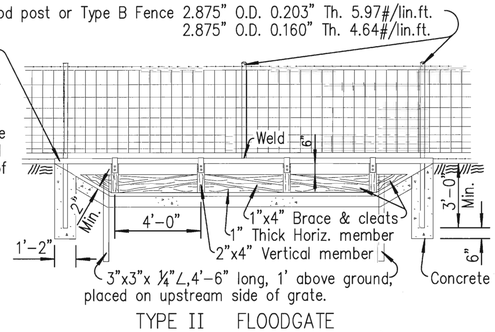


Type I bend hanger for loose fit on 1¼" dia. std. galv. pipe.
Type II bend hanger for loose fit on 3" dia. std. galv. pipe.

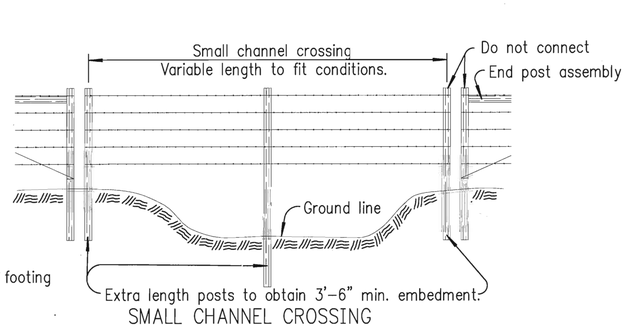
FLOODGATE
HANGER DETAIL



TYPE I FLOODGATE

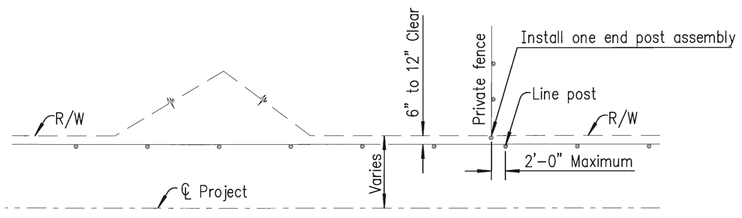


TYPE II FLOODGATE
(Grouted stone or concrete lined ditch.)



SMALL CHANNEL CROSSING

The above sketch is typical only and can be varied to fit existing conditions. Small channel crossings shall be included in lin. ft. of fence. All extra materials and labor within the small channel crossing shall be subsidiary to lin. ft. of fence.

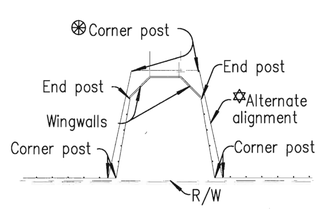


TYPICAL INSTALLATION DIAGRAM

Note: Right of Way fence shall generally be set parallel to and 6" to 12" clear from the Right of Way line.

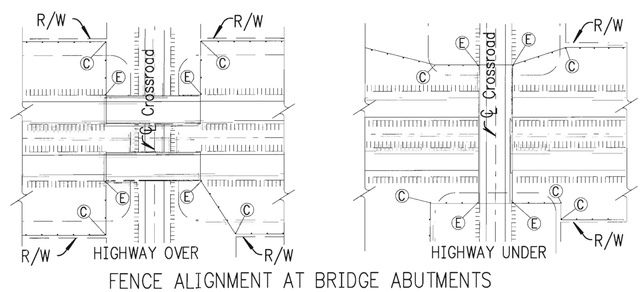
The alignment layouts as shown are typical, but are not representative of all situations that may occur. Construction may be varied, as required to meet field conditions and/or as directed by the Engineer.

The access control fence shall be attached to the private fence end post assembly using leader wires or staples.



FENCE ALIGNMENT
AT UNDERPASS OR
BOX DRAINAGE STRUCTURE

✡ Alternate alignment may be used at deep under-fill culverts, as directed by the Engineer.



FENCE ALIGNMENT AT BRIDGE ABUTMENTS

✡ Where fence installation over a drainage structure is located within the clear zone, horizontal bracing at the corner posts will not be permitted. An alternate design utilizing diagonal bracing shall be provided.

NO.	DATE	REVISIONS	BY	APP'D
7	7–28–09	Revised Steel size listing	S.W.K.	J.O.B.
6	11–02–04	Revised General Note	S.W.K.	J.O.B.
5	5–30–02	Removed KDOT ownership sign.	S.W.K.	J.O.B.
4	12–30–97	Connect to Private Fence End Post	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

INSTALLATION DETAILS
BARBED, WOVEN, & CHAIN LINK

RD670B

FHWA APPROVAL	12–16–09	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	22	39

SUMMARY OF RESERVED PARKING SIGNS

LOCATION	LOT	MUTCD NO.	SIZE	CONFIGURATION TYPE[§]	MOUNTING TYPE		REMARKS
					FENCE (EA.)	POST (EA.)	
Main Entrance	A	R7-8	12"x18"	C	2		
Southeast Corner	A	R7-8	12"x18"	C	2		
Southeast Corner	A	R7-8	12"x18"	D	1		Includes Double Arrow Sign Assembly
Middle	A	R7-8	12"x18"	A		2	
South Line	A	R7-8	12"x18"	C	4		
Entrance Area	B	R7-8	12"x18"	C	1		
Entrance Area	B	R7-8	12"x18"	A		1	
South Line	B	R7-8	12"x18"	C	4		
TOTALS					14	3	

[§] See Sh. No. 31 for configuration type details.

SUMMARY OF CEMENTITIOUS SLURRY TREATED BASE (SPECIAL)

LOCATION	CEMENT. SLURRY TREATED BASE (SPECIAL) (8") (SQ. YDS.)	
Lot "A"	11,158.0	
Lot "B"	13,570.5	
TOTALS	24,728.5	

SUMMARY OF ROLLER COMPACTED CONCRETE

LOCATION	RCC PAVEMENT (5" UNIFORM) (SQ.YDS.)	REMARKS
Lot "A"	11,158.0	
Lot "B"	13,570.5	
TOTALS	24,728.5	

SUMMARY OF CHAIN LINK FENCE (REMOVAL AND RESETTING)[Ω]

GENERAL LOCATION	SIDE	LENGTH (L.F.)	POSTS			GATE	REMARKS
			COR.	END	PULL		
Lot B		100.0					
	TOTALS	100.0					

[Ω] See General Notes Sh. No. 2 for information about this bid item.

SUMMARY OF REMOVE AND REPLACE

LOCATION	4" ASPHALT BIKE PATH) (L.F.)	5" CONCRETE SIDEWALK (L.F.)
Line 1, Sta. 13+90	10	
Line 1, Sta. 19+75		62
TOTALS	10	62

SUMMARY OF WHEEL STOP (CONCRETE)

LOCATION	LOT	QUANTITY (EACH)
South Edge	A	79
Middle; Handicap	A	2
South Edge	B	33
TOTALS		114

NOTE: See Sh. No. 14 for details.

SUMMARY OF SIDEWALK CONSTRUCTION (4") (AE)

LOCATION	LOT	WIDTH (Ft.)	SIDEWALK 4" (AE) (SQ. YDS.)	SIDEWALK RAMPS (SQ. YDS.)	REMARKS[Δ]
Southeast	A	5	5.6	--	Icludes 1-60"x24" ADA panel.
South	A	5	5.6	--	Icludes 1-60"x24" ADA panel.
Southwest	A	5	5.6	--	Icludes 1-60"x24" ADA panel.
East Side	A	4	19.1	--	Icludes 1-48"x24" ADA panel.
Southeast	B	5	5.6	--	Icludes 1-60"x24" ADA panel.
Southwest	B	5	5.6	--	Icludes 1-60"x24" ADA panel.
TOTALS			47.1		

[Δ] See General Notes Sh. No. 2 for details about composite panels with truncated domes.

SUMMARY OF SANITARY SEWER

STATION	8" PIPE (L.F.)	6" RISER ASSY. (EACH)	4' MH, STANDARD (EACH)	4' MH, SHALLOW (EACH)	MH, CONN. TO EXIST. (EACH)	REINF. CONC. ENCASEMENT (L.F.)	FILL, FLUSHED AND VIBRATED (L.F.)
Sta. 10+00 to Sta. 17+80	1,324.2						
Sta. 10+00					1		
Sta. 14+00			1				
Sta. 13+63 to Sta. 13+73							10
Sta. 16+84.1				1			
Sta. 15+07 to Sta. 15+17							10
Sta. 17+80 to Sta. 20+11.8						231.8	
Sta. 19+33 to Sta. 19+63							29
Sta. 20+76.1				1			
Sta. 20+93 to Sta. 21+49							56
Sta. 21+70 to Sta. 22+04							34
Sta. 22+13.1				1			
Sta. 22+13.1		1					
Sta. 22+45.1 to Sta. 23+24.2						79.1	
Sta. 23+24.2				1			
TOTALS	1,324.2	1	1	4	1	310.9	139

RECAPITULATION OF QUANTITIES

ITEM	QUANTITY	UNIT
Contractor Construction Staking	Lump Sum	L.S.
Mobilization	Lump Sum	L.S.
Maintenance and Restoration of Haul Roads (Set Price)	Lump Sum	L.S.
Clearing and Grubbing	Lump Sum	L.S.
Common Excavation	592	Cu. Yd.
Common Excavation (Contractor Furnished)	226	Cu. Yd.
Cementitious Slurry Treated Base (Special) (8")	24,729	Sq.Yd.
Compaction (Type B) (MR-90)	712	Cu. Yd.
Roller Compacted Concrete (5" Uniform)	24,729	Sq. Yd.
Sidewalk Construction (4") (AE)	47	Sq. Yd.
SS Stream Crossing Structure	Lump Sum	L.S.
Remove and Replace, 4" Asphalt Bike Path	10	L.F.
Remove and Replace, 5" Concrete Sidewalk	62	L.F.
SS Pipe Reinforced Concrete Encasement	311	L.F.
Pipe, SS 8"	1,325	L.F.
Riser Assembly 6", Vertical	1	Each
MH, Standard SS (4')	1	Each
MH, Shallow SS (4')	4	Each
MH, Connect to Existing	1	Each
Fill, Sand (Flushed and Vibrated)	139	L.F.
Site Restoration	Lump Sum	L.S.
Fence (Chain Link) (Removal and Resetting)	100	L.F.
Pavement Marking (Paint) (White) (4")	17,319	L.F.
Pavement Marking Symbol (Paint) (White) (Handicap)	18	Each
Reserved Parking Signs (Fence Mount)	14	Each
Reserved Parking Signs (Post Mount)	3	Each
Wheel Stop (Concrete)	114	Each
Traffic Control	Lump Sum	L.S.

For Stream Crossing Structure information, see Sh. No. 19.
For Temporary Erosion and Pollution Control quantities, see Sh. No. 24.
For Permanent Seeding quantities, see Sh. No. 30.
For Summary of Signing quantities, see Sh. No. 31.
For Summary of Pavement Marking quantities, see Sh. No. 32.

NOTES

At the Contractor's option, concrete may be used to patch the bike path which will be partially removed during sanitary sewer construction. There will be no increase in the unit bid price for completing such work. The contract unit price for "Remove and Replace, 4" Asphalt Bike Path" shall be full compensation for properly replacing the pavement according to the standards set forth in the Contract Documents.

Detectable warning panels that meet the requirements of the Americans with Disabilities Act (ADA) are required to be installed with the sidewalks at locations noted in these plans. The panels shall be made of a composite-type material. Any panel not on the KDOT prequalified list must be approved by the Engineer prior to installation. The color of the panel shall either be Federal Yellow or Brick Red, which shall be used consistently throughout the project. All materials and labor to install composite panels with truncated domes are SUBSIDIARY to the bid item, "Sidewalk Construction (4") (AE)."

EARTHWORK NOTES

Quantities shown for "Common Excavation" are for excavation within the project limits.

No separate measurement or payment will be made for initial consolidation and settlement. These items shall be SUBSIDIARY to other earthwork bid items.

The Contractor shall place 6" of top soil in all areas to be seeded. This material shall be obtained by striping soil from within the construction limit and shall be free of rocks, rubble, trash and other foreign or toxic material and shall be capable of supporting vegetation. No separate measurement or payment will be made for placing topsoil on this project.

Double handling of material stockpiled, over excavation and placement of material through cuts and over excavation and replacement of material to the original ground line through fills is not quantified and shall be SUBSIDIARY to other earthwork bid items.

This project will not include payment for overhaul. Stockpiling of excavated material due to staged construction and/or double handling of excavated material required to complete the embankment will not be paid for separately, but shall be SUBSIDIARY to other earthwork bid items.

SUMMARY OF EARTHWORK QUANTITIES

LOCATION	EXCAVATION						COMPACTION (IN FILL)		WASTE ψ	
	COMMON		CONTRACTOR FURNISHED		ROCK		TYPE B (MR-90)		COMMON	ROCK
	C.Y.	V.M.F.	C.Y.	V.M.F.	C.Y.	V.M.F.	C.Y.		C.Y.	C.Y.
Parking Lots A & B	592	0.87	226	0.87	--	--	712		0	0
TOTALS	592		226				712		0	0

ψ For information only.

West Sedgwick County Park Improvements

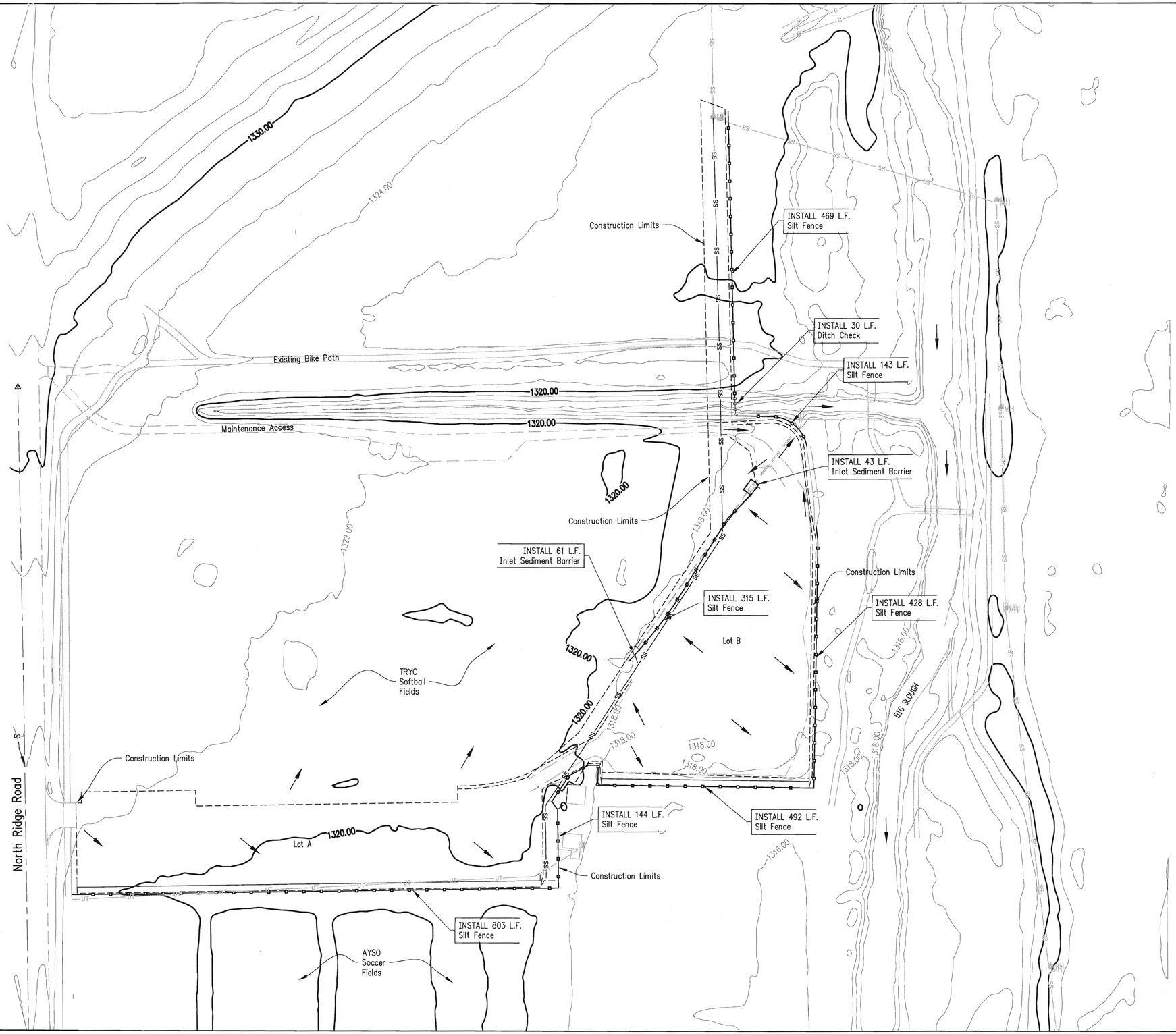
SUMMARY OF QUANTITIES

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT
DAVID C. SPEARS, P.E. DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	L.T.P.	L.T.P.	L.T.P.	22
	DATE	6/2013	6/2013	6/2013	

DWG: Summary of Quantities.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	23	39



Summary of Quantities[Δ]	
ITEM	L.F.
Silt Fence	2794
Inlet Sediment Barrier	104
Ditch Check	30

[Δ] Silt Fence and Inlet Sediemnt Barrier quantities provided for information only.

Estimated total disturbed area = 6.5 Acres

LEGEND

- Ditch Check
- Silt Fence
- 10' Pedestrian Walk Way (Mulch)
- Inlet Sediment Barrier
- General Drainage Direction

N

80' 0 40' 80' 160'

PLAN: Lat. & Long.

West Sedgwick County Park Improvements
Erosion Control Plan

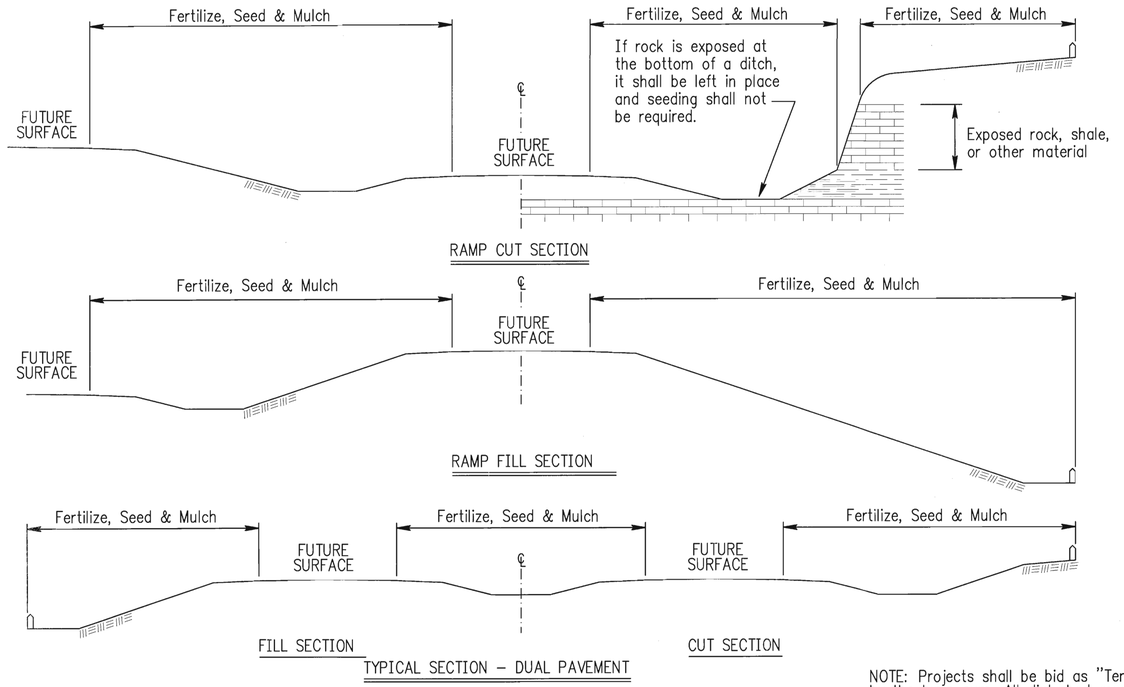
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=80'	L.T.P.	J.R.W.	L.T.P.	23
	DATE	5/2013	5/2013	5/2013	

DWG: SCP-1.dwg

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	24	39



SOIL EROSION MIX

PLS RATE	NAME	QTY (lb)
	Total (lb)	

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P_2O_5, K_2O listed in Summary of Quantities will be acceptable.

* – N = Nitrogen Rate of Application

** – P_2O_5 = Phosphorous Rate of Application

*** – K_2O = Potassium Rate of Application

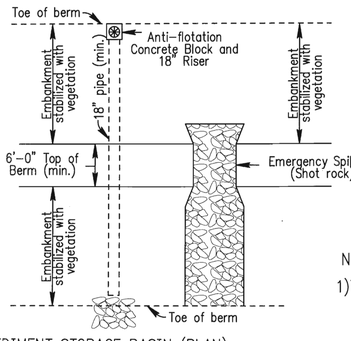
The Contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

NOTE: Projects shall be bid as "Temporary Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

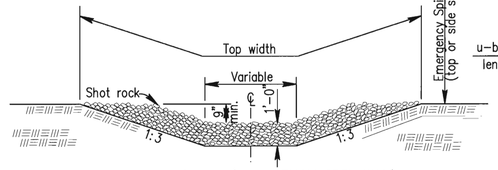
CLT = Construction Limit Tract. This area does not include the channel/slope area and shall be seeded in accordance with the chart to the right.

Channel = This is the area that shall be seeded prior to placement of the Erosion Control. Broadcasting seed is preferred, however, drilling is acceptable

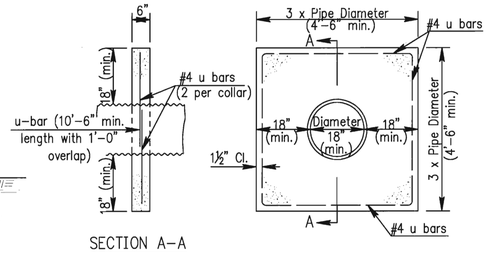
Slope = This is the area that shall be seeded prior to placement of the Erosion Control. Broadcasting seed is preferred, however, drilling is acceptable.



SEDIMENT STORAGE BASIN (PLAN)



CROSS SECTION (EMERGENCY SPILLWAY)



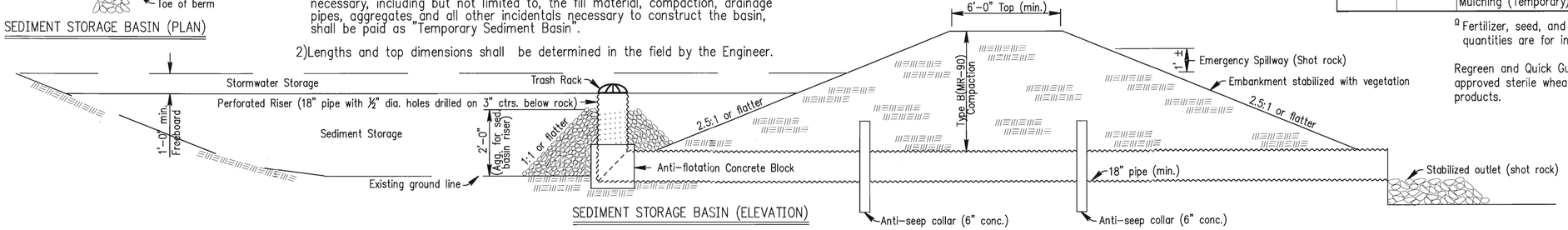
SECTION A–A

CONCRETE ANTI-SEEP COLLAR

NOTES:

1) Temporary Sediment Basins shall be constructed at locations as directed by the Engineer or as approved in the SWPPP Schedule. All work and materials necessary, including but not limited to, the fill material, compaction, drainage pipes, aggregates, and all other incidentals necessary to construct the basin, shall be paid as "Temporary Sediment Basin".

2) Lengths and top dimensions shall be determined in the field by the Engineer.



SEDIMENT STORAGE BASIN (ELEVATION)

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, a permanent seeding shall be done by another project during the normal seeding season.
MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching materials is as follows:

1¾" – 2¼" Tons per Acre = 1½" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.
Other vegetative mulches acceptable only with the Engineer's concurrance.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.
The amount of mulch and mulch tacking slurry in the bid quantities is estimated. The total mulch and mulch tacking slurry required shall be determined in the field. ~~The bid item for mulching and mulch tacking slurry shall be paid for by one of the following ways: A) Plan quantity as shown on Summary of Quantities, Seeding Sheet or Water Pollution Control Sheet, B) Slope measurement as measured in field, or C) Drill measurement less 5% as measured at the time of seeding.~~

SUMMARY OF SEEDING QUANTITIES: PROJECTS OF 1 ACRE OR MORE[Ω]

P.L.S. Rate/Acre		Acres		Bid Item	Quantity	Unit
CLT	Slope	CLT	Slope			
80	80	1.1		Temporary Fertilizer (15–30–15)	88.0	Lb.
15	15	1.1		Temporary Seed (Canada Wildrye)	16.5	Lb.
10	10	1.1		Temporary Seed (Sterile Wheatgrass)	11.0	Lb.
				Soil Erosion Mix		LS
				Temporary Berm		LF
				Temporary Ditch Check (Rock) (Set Price)		Cu.Yd.
				Temporary Ditch Check	30	LF
				Temporary Inlet Sediment Barrier	2	Each
				Temporary Slope Barrier (Set Price)	1	LF
				Temporary Slope Drain		LF
				Sediment Removal (Set Price)	1	Cu.Yd.
				Mobilization, Emergency Erosion Control (Set Price)		Each
				Erosion Control (Class X, Type Y)		Sq.Yd.
				Mulch Tacking Slurry		Ac
		1.1		Mulching (Temporary)	1.1	Ac

SUMMARY OF SEEDING QUANTITIES: PROJECTS LESS THAN 1 ACRE

P.L.S. Rate/Acre		Acres		Bid Item	Quantity	Unit
CLT	Channel	CLT	Channel			
				Temporary Fertilizer (15–30–15)		Lb.
				Temporay Seed (Canada Wildrye Grass Seed)		Lb.
				Temporary Seed (Sterile Wheatgrass)		Lb.
				Soil Erosion Mix		Lb.
				Temporary Seeding		LS
				Temporary Ditch Check (Rock) (Set Price)		Cu Yd
				Temporary Ditch Check		LF
				Temporary Slope Barrier (Set Price)		LF
				Sediment Removal (Set Price)		Cu Yd
				Mobilization, Emergency Erosion Control (Set Price)		Each
				Erosion Control (Class X, Type Y))		Sq Yd
				Mulch Tacking Slurry		Ac
				Mulching (Temporary)		Ac

[Ω] Fertilizer, seed, and mulch quantities are for information only.

Regreen and Quick Guard are the approved sterile wheatgrass products.

NO.	DATE	REVISIONS	BY	APP'D
3	3/01/10	Revised Standard	MRM	SHS
2	7/08/09	Revised Standard	MRM	SHS
1	5/29/07	Revised Standard	MRM	SHS

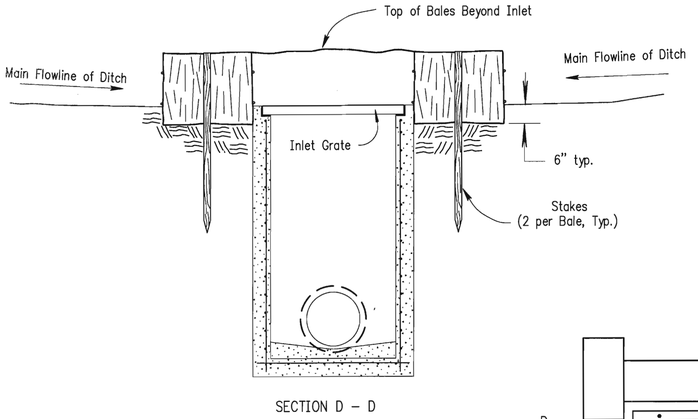
KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

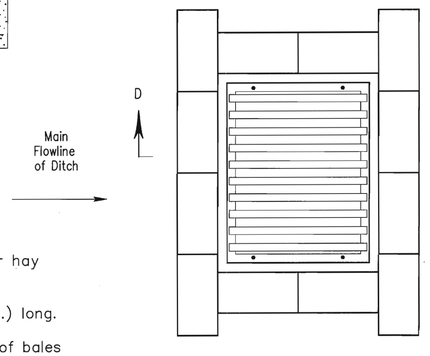
~~LA852A~~

FHWA APPROVAL	11/02/2009	APP'D	Scott H. Shields		
DESIGNED	BB	DETAILED	BB	QUANTITIES	CADD BB
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK. SHS

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	25	39



SECTION D – D

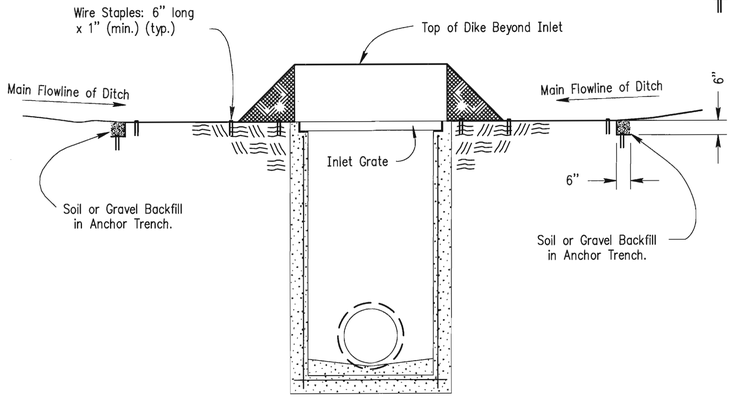


PLAN

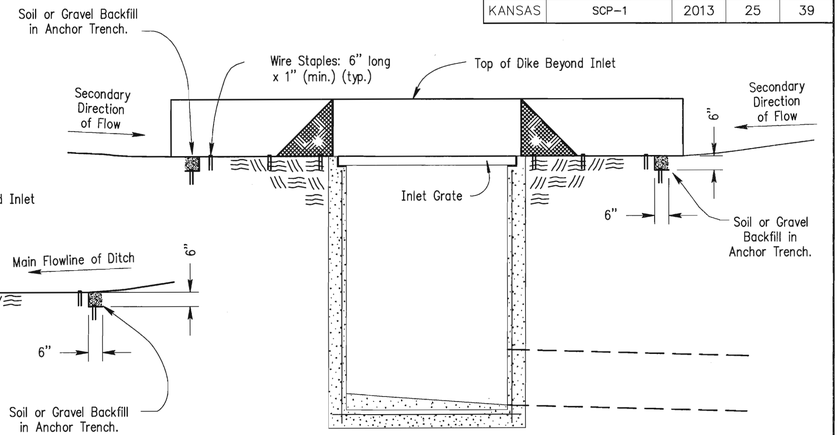
NOTES:

The use of Straw or Hay Bales, Silt Fence or Triangular Silt Dike for Temporary Inlet Sediment Barrier is at the option of the Contractor.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.



SECTION A – A



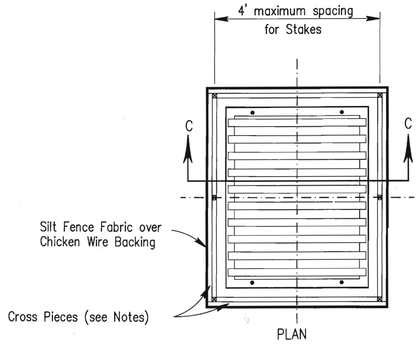
SECTION B – B

STRAW OR HAY BALES:

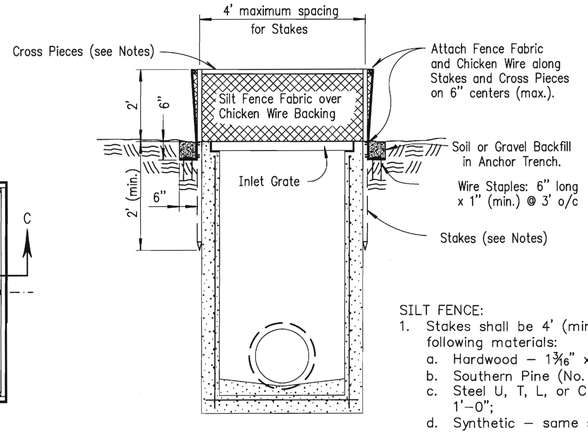
1. Place bales tightly together, with loose straw or hay wedged between bales to close off openings.
2. Wood stakes shall be 2" x 2" (nom.) x 4' (min.) long.
3. Refer to plans sheets to estimate the number of bales required.
4. Use only twine to bind bales. The use of wire binding is prohibited because it does not readily biodegrade.

TEMPORARY INLET SEDIMENT BARRIER
(STRAW OR HAY BALE METHOD)

NO SCALE



PLAN



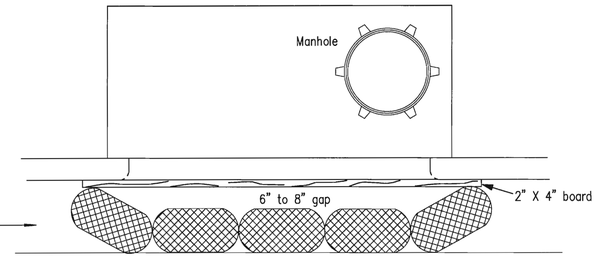
SECTION C – C

SILT FENCE:

1. Stakes shall be 4' (min.) long and of one of the following materials:
   a. Hardwood – 1¾6" x 1¾6";
   b. Southern Pine (No. 2) – 2⅝" x 2⅝";
   c. Steel U, T, L, or C Section – 1.33 lbs. per 1'–0";
   d. Synthetic – same strength as wood stakes.
2. Cross Pieces shall be of same material as Stakes.
3. Attach fence fabric to stakes with staples, wire or nails.
4. Refer to plan sheets to estimate the length of Silt Fence required.

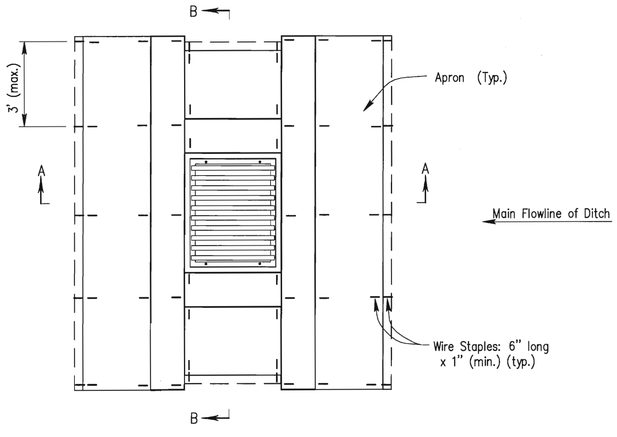
TEMPORARY INLET SEDIMENT BARRIER
(SILT FENCE METHOD)

NO SCALE



CURB INLET PROTECTION

1. Place gravel bags such that no gaps are evident.
2. Height of bags must not be above top of curb.
3. Alternative products may be used other than gravel bags such as the "Gutter Buddy". Products must be approved by the Engineer.



PLAN

TEMPORARY INLET SEDIMENT BARRIER
(TRIANGULAR SILT DIKE METHOD)

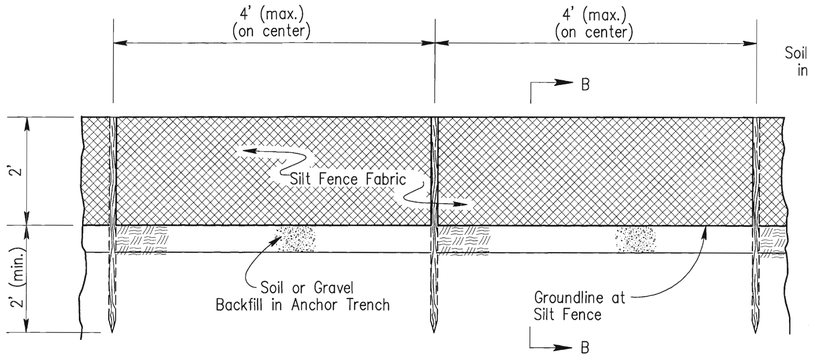
NO SCALE

NO.	DATE	REVISIONS	BY	APP'D
3	8/01/08	Revised Standard	MRM	SHS
2	9/10/07	Revised Standard	MRM	SHS
1	6/16/05	Revised Standard	MRM	SHS

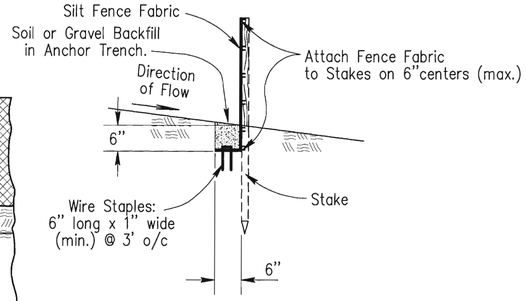
KANSAS DEPARTMENT OF TRANSPORTATION
TEMPORARY EROSION AND POLLUTION CONTROL
TEMP. INLET SEDIMENT BARRIER (SILT FENCE)
TEMP. INLET SEDIMENT BARRIER (BALES)
TEMP. INLET SEDIMENT BARRIER (T.S.D.)
LA852C

F.H.W.A. APPROVAL	9/23/2008	APP'D	Scott H. Shields
DESIGNED MRM	DETAILED MRM	QUANTITIES	TRACED
DESIGN CK. SHS	DETAIL CK. SHS	QUAN.CK.	TRACE CK.

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	26	39



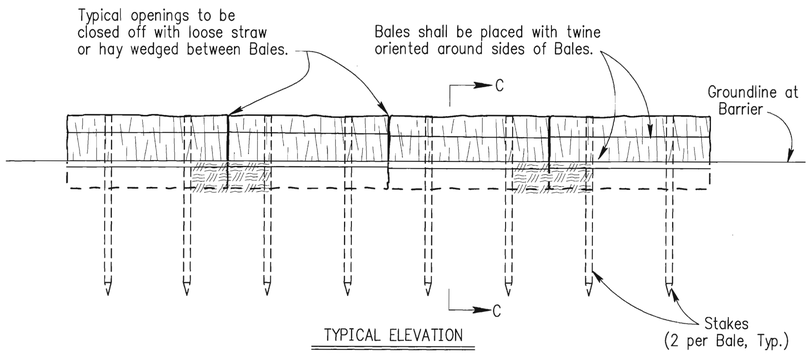
TYPICAL ELEVATION



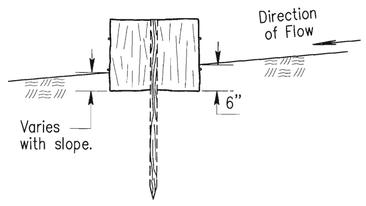
SECTION B – B

SILT FENCE SLOPE BARRIER

NO SCALE



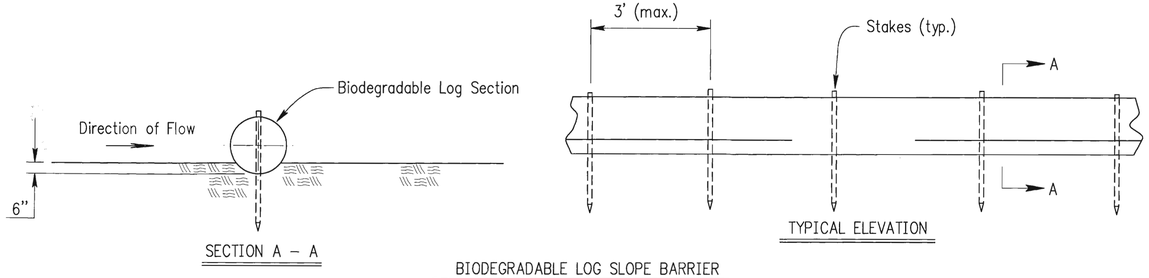
TYPICAL ELEVATION



SECTION C – C

STRAW BALE SLOPE BARRIER

NO SCALE



SECTION A – A

TYPICAL ELEVATION

BIODEGRADABLE LOG SLOPE BARRIER

NO SCALE

INSTALLATION NOTES

STRAW OR HAY BALES:

1. Place bales tightly together, with loose straw or hay wedged between bales to close off openings.
2. Wood stakes shall be 2" x 2" (nom.) x 4' (min.) long.
3. Refer to plans sheets to estimate the length of bales required.
4. Use only twine to bind bales. The use of wire binding is prohibited because it does not readily biodegrade.

SILT FENCE:

1. Stakes shall be 4' (min.) long and of one of the following materials:
   a. Hardwood – 1 3/16" x 1 3/16";
   b. Southern Pine (No. 2) – 2 5/8" x 2 5/8";
   c. Steel U, T, L, or C Section – 1.33 lbs. per 1'–0"; or
   d. Synthetic – same strength as wood stakes.
2. Attach fence fabric to stakes with staples, wire or nails.
3. Refer to plan sheets to estimate the length of Silt Fence required.

BIODEGRADABLE LOG BARRIERS

1. Place biodegradable logs tightly together.
2. Wood stakes shall be 2" x 2" (nom.) x 4' (min.) long.
3. Wire staples shall be 6" long x 1" wide (min.) and placed on 3' (max.) centers.
4. Refer to plan sheets to estimate length of biodegradable log barriers required.
5. Logs should be keyed into the ground at a minimum of 25% of its height.
6. Length of stakes should be 2 times the height of the log at a minimum.

Biodegradable Logs, Straw Wattles & Sediment Logs

Slope Gradient	PRODUCT: 9" Sediment Log & 9" Straw Wattle (ft)	12" Sediment Log & 12" Straw Wattle (ft)	20" Sediment Log & 20" Straw Wattle (ft)
≤4H:1V	40	60	80
3H:1V	30	45	60
2H:1V	20	30	40
1H:1V	10	15	20

9" and 12" material should only be used in areas which have been seeded and mulched. 20" material should be used in all other areas. Deviations should be approved by the Field Engineer.

GENERAL NOTES

1) The use of Straw or Hay Bales, Silt Fence or Biodegradable Logs is at the option of the Contractor.
2) The slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
3) At culverts, the Straw or Hay Bales or Silt Fence shall be placed over the culvert, not through the streambed flowline.
4) Barriers damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired immediately by Contractor at no additional cost to KDOT.
5) Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

NO.	DATE	REVISIONS	BY	APP'D
3	9/01/10	Edited Biodegradable Log Notes	MRM	SHS
2	8/26/09	Revised Standard	MRM	SHS
1	5/11/09	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

STRAW OR HAY BALE SLOPE BARRIERS

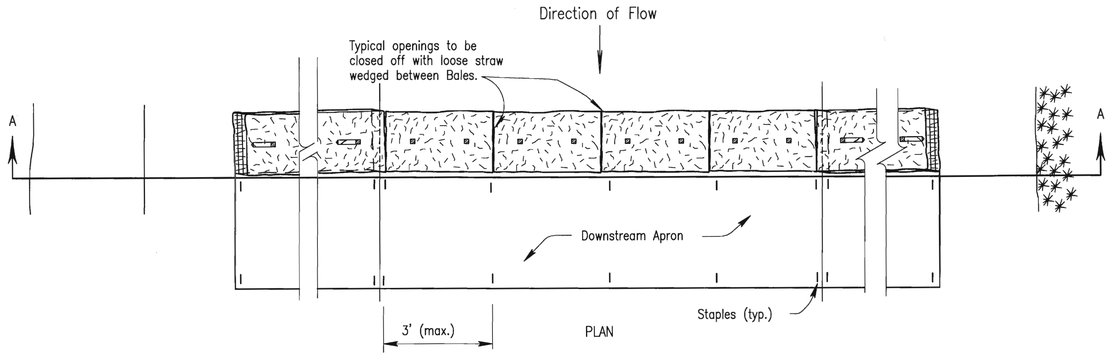
SILT FENCE SLOPE BARRIERS

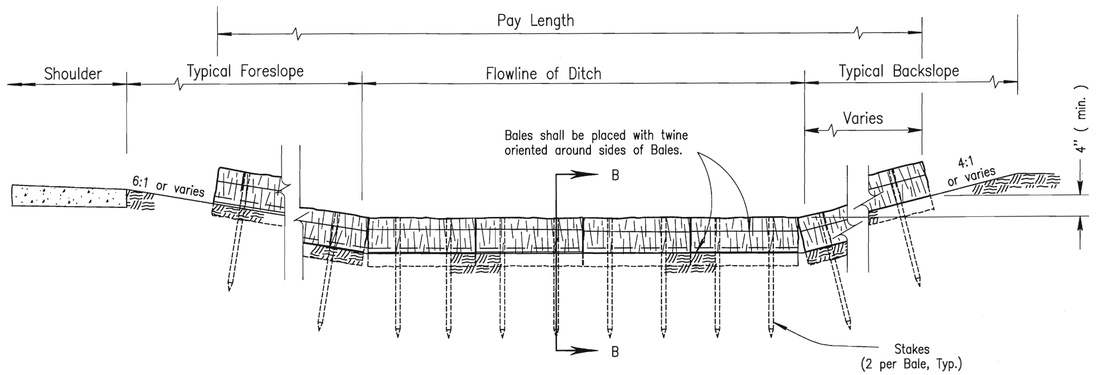
BIODEGRADABLE LOG SLOPE BARRIERS

LA852D

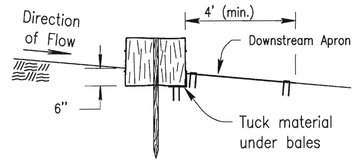
FHWA APPROVAL		9/21/2010	APP'D		Scott H. Shields
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	CADD
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	27	39





SECTION A-A



SECTION B-B

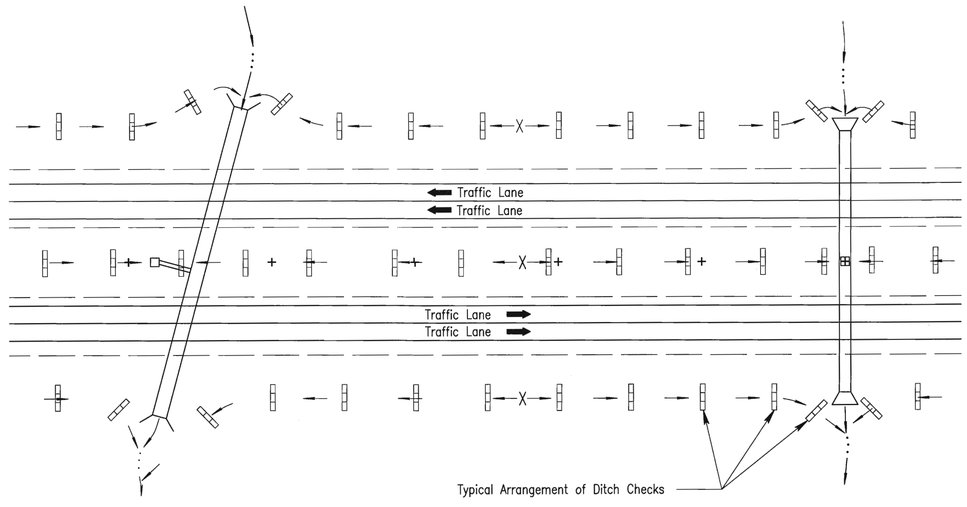
STRAW OR HAY BALE NOTES:

1. Place bales tightly together, with loose straw or hay wedged between bales to close off openings.
2. Wood stakes shall be 2" x 2" (nom.) x 4' (min.) long.
3. Use as many bales as necessary to completely block the ditch and to prevent water from flowing around the ends of the ditch check.
4. Use only twine to bind bales. The use of wire binding is prohibited because it does not readily biodegrade.
5. Use silt fence material as the downstream apron to prevent scour below the ditch check.
6. Wire staples shall be 6" long by 1" wide, minimum.

STRAW OR HAY BALE DITCH CHECK

NO SCALE

TEMPORARY DITCH CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	33
NOTE: Use this spacing for all except Rock Ditch Checks.	



TYPICAL DITCH CHECK LAYOUT PLAN

NO SCALE

GENERAL NOTES:

1) The choice of ditch check methods is at the option of the Contractor.
2) Use only rock checks in situations where the ditch slope exceeds 6 percent.
3) Ditch checks damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired by Contractor at no extra cost to KDOT.
4) Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

NO.	DATE	REVISIONS	BY	APP'D
5				
4				
3	9/10/07	Revised Standard	MRM	SHS
2	6/16/05	Revised Standard	MRM	SHS
1	5/10/99	Revised Standard	WCL	RDR

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL
STRAW OR HAY BALE DITCH CHECKS

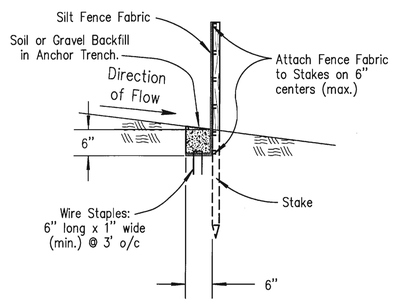
LA852E

F.H.W.A. APPROVAL		6/22/2005	APP'D	Scott H. Shields	
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	TRACED MRM
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	TRACE CK. SHS

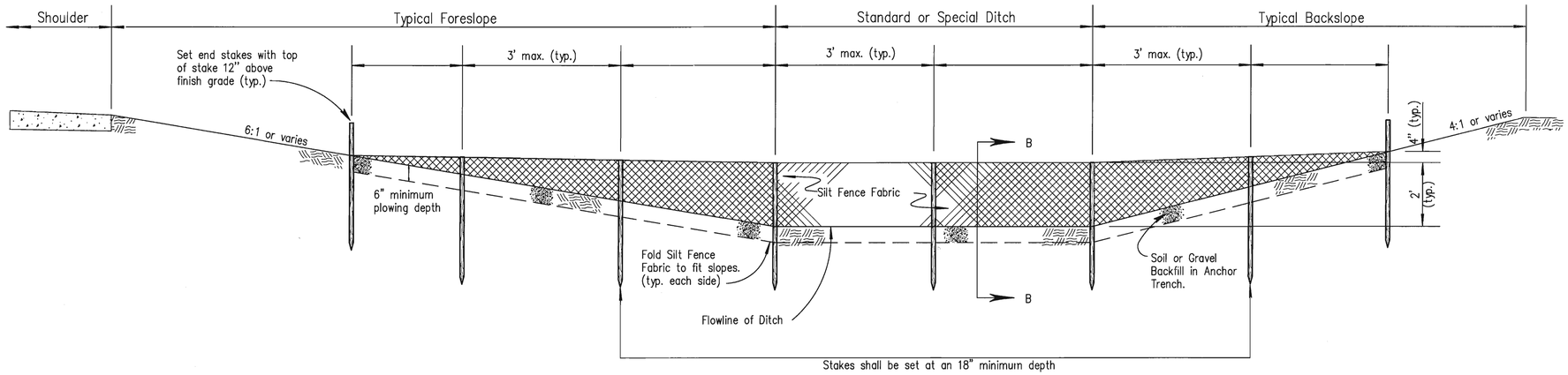
STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	28	39

SILT FENCE:

1. Stakes shall be 4' (min.) long and of one of the following materials:
   a. Hardwood – 1¾" x 1¾";
   b. Southern Pine (No. 2) – 2⅝" x 2⅝";
   c. Steel U, T, L, or C Section – 1.33 lbs. per 1'–0"; or
   d. Synthetic – same strength as wood stakes.
2. Attach fence fabric to stakes with staples, wire or nails.
3. Refer to plan sheets to estimate the length of Silt Fence required.
4. Use support fencing when tributary area is greater than 2.4 acres or when ditch gradient is greater than 2 percent.
5. Silt fence plowing is acceptable at a 6" minimum depth.



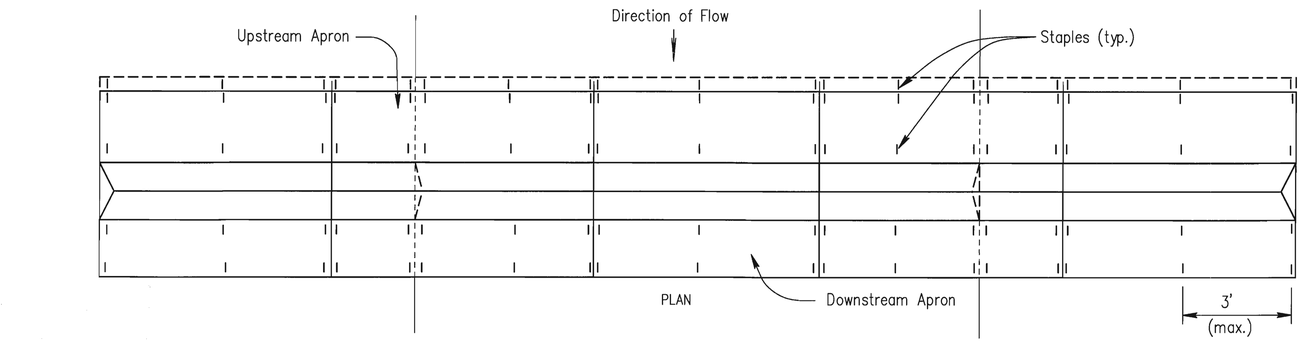
SECTION B – B

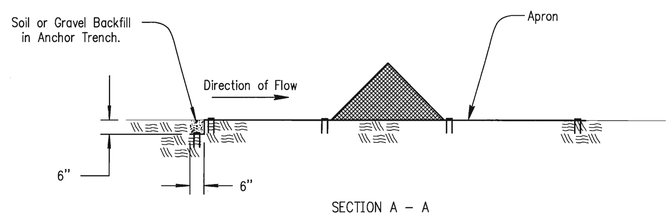


SILT FENCE DITCH CHECK

NO SCALE

TYPICAL ELEVATION





SECTION A – A

TRIANGULAR SILT DIKE NOTES

1. Place Triangular Silt Dike sections tightly together, with apron material overlapping end–to–end by 6".
2. Wire Staples shall be 6" long by 1" wide, minimum.
3. Use as many Triangular Silt Dike sections as necessary to insure water does not flow around end of ditch check.

TRIANGULAR SILT DIKE DITCH CHECK

NO SCALE

NO.	DATE	REVISIONS	BY	APP'D
3				
2	12/31/09	Revised Standard	MRM	SHS
1	07/02/07	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

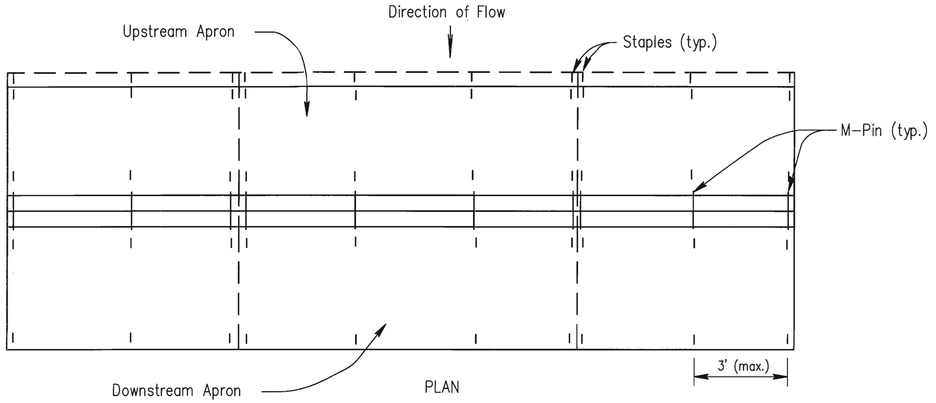
SILT FENCE DITCH CHECKS

TRIANGULAR SILT DIKE DITCH CHECKS

LA852F

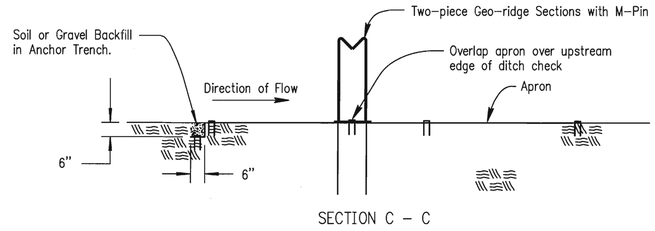
F.H.W.A. APPROVAL		7/23/07	APP'D	Scott H. Shields	
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	TRACED
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	TRACE CK.

STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	29	39

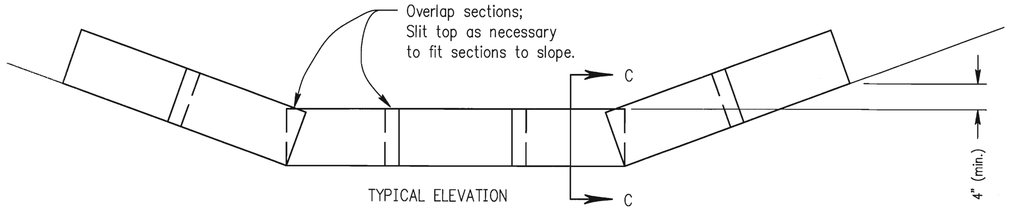


GEO-RIDGE PERMEABLE BERM NOTES

1. Overlap Geo-ridge Berm sections and apron material by 6".
2. Use M-Pins supplied by manufacturer to secure Geo-ridge Berm sections.
3. Use as many Geo-ridge Berm sections as necessary to insure water does not flow around end of ditch check.
4. Use silt fence material as the apron to prevent scour above and below the ditch check.
5. Wire Staples shall be 6" long by 1" wide, minimum.



SECTION C - C



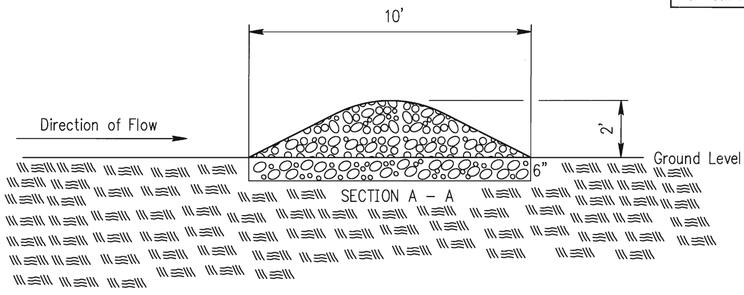
GEO-RIDGE PERMEABLE BERM DITCH CHECK

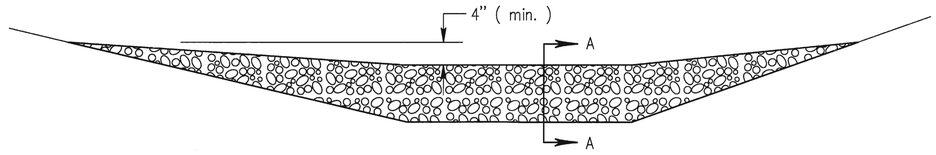
NO SCALE

ROCK DITCH CHECK NOTES

1. Rock shall be clean aggregate, D50 = 6".
2. Place rock in such manner that water will flow over, not around ditch check.
3. Do not use rock ditch checks in clear zone.
4. Excavation: The ditch area shall be reshaped to fill any eroded areas. Prior to placement of the rock, the ditch shall be excavated to the dimensions of the Rock Ditch Check and to a minimum depth of 6" (150mm). After placement of the rock, backfill and compact any over excavated soil to ditch grade. This work shall be subsidiary to the bid item Temporary Ditch Check (Rock) (Set Price).
5. Aggregate excavated on site may be used as an alternate to the 6" rock, if approved by the Engineer.

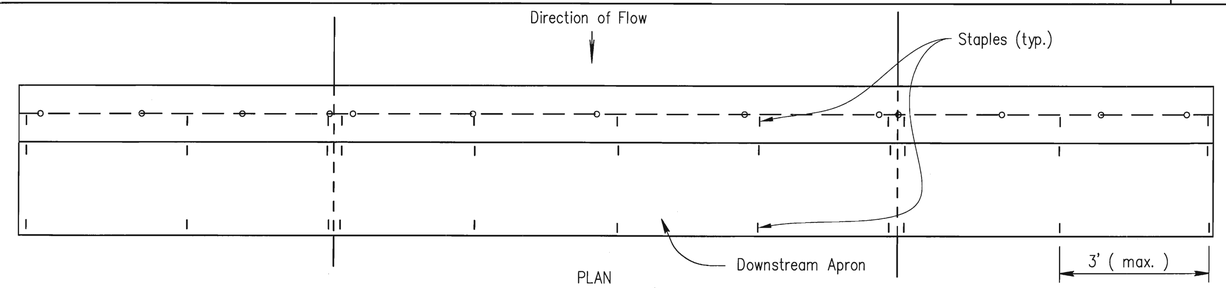
TEMPORARY ROCK DITCH CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
NOTE: Use this spacing only for Rock Ditch Checks.	

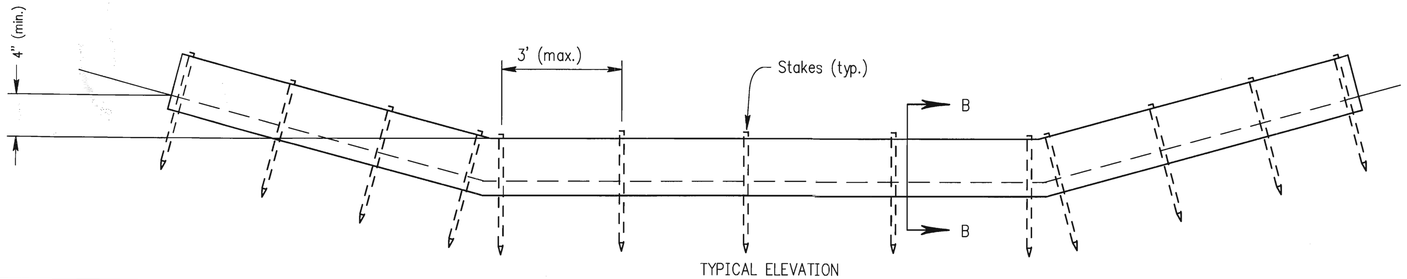


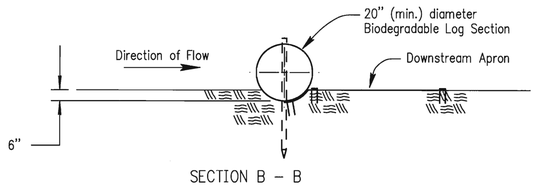


ROCK DITCH CHECK

NO SCALE







SECTION B - B

BIODEGRADABLE LOG DIKE NOTES

1. Place biodegradable logs tightly together, with apron material overlapping end-to-end by 6".
2. Wire staples shall be 6" long by 1" wide, minimum.
3. Use as many biodegradable log sections as necessary to insure water does not flow around end of ditch check.
4. Wood stakes shall be 2" x 2" (nom.) x 4' (min.) long.
5. Use silt fence material as the downstream apron to prevent scour below the ditch check.

BIODEGRADABLE LOG DITCH CHECK

NO SCALE

NO.	DATE	REVISIONS	BY	APP'D
3				
2	12/31/09	Revised Standard	MRM	SHS
1	5/03/06	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

ROCK DITCH CHECKS

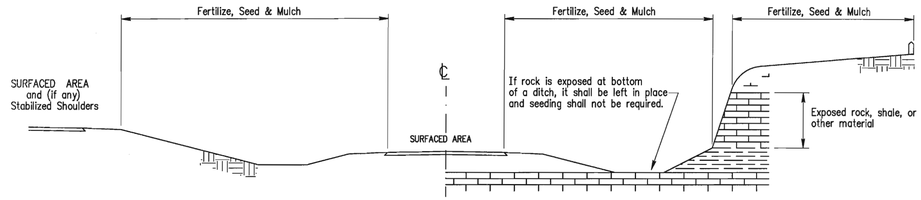
BIODEGRADABLE LOG DITCH CHECKS

GEO-RIDGE PERMEABLE BERM DITCH CHECKS

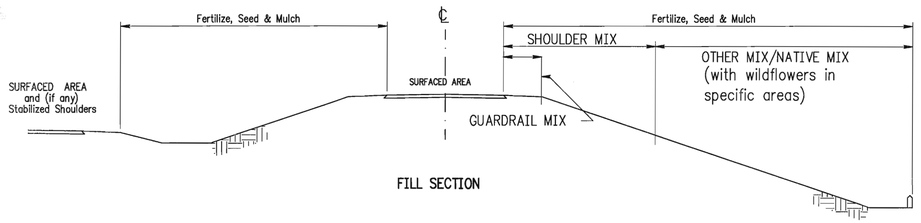
LA852G

F.H.W.A. APPROVAL		5/03/2006	APP'D	Scott H. Shields	
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	TRACED MRM
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	TRACE CK. SHS

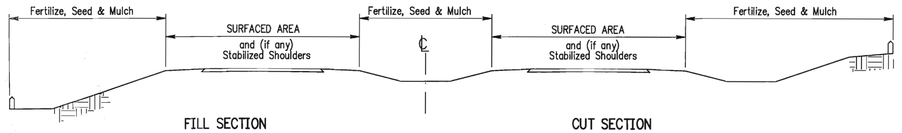
STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	SCP-1	2013	30	39



CUT SECTION



FILL SECTION



FILL SECTION CUT SECTION

SEEDING PERIODS

COOL SEASON February 15 to April 20 and August 15 to Sept. 30	WARM SEASON November 15 to June 1
SPECIES	SPECIES
Bluegrasses	Bluestems
Bromegrasses	Buffalograss
Canada Wildrye	Eastern Gamagrass
Fescues	Gramas
Ryegrasses	Indiangrass
Wheatgrasses	Lovegrasses
Reed Canarygrass	Switchgrass
	Wildflower Mixes

When "Cool Season" species are mixed with "Warm Season" species, in areas of 1 acre or more, the mixture shall be seeded during the "Warm Season". In areas of less than 1 acre, the mixture of "Cool Season" and "Warm Season" species may be seeded during the "Warm or Cool Seasons".

SODDING PERIODS

March 1 to April 15
and
September 1 to November 15

GENERAL: The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications except as noted below.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

It shall not be required to till the area to bare ground prior to permanent seeding. If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P_2O_5, K_2O listed in Summary of Seeding Quantities will be acceptable.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching material is as follows:

1 3/4 - 2 1/4 Tons per Acre = 1 1/2" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches (Acceptable only with the Engineer's concurrence).

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

The amount of mulch in the bid quantities is estimated. The total mulch required shall be determined in the field. ~~The bid item for mulching shall be paid for by one of the following ways: A) Plan quantity as shown on Summary of Quantities, Seeding Sheet or Water Pollution Control Sheet, B) Slope measurement as measured in field, or C)~~ Drill ~~measurement less 5% as measured at the time of seeding.~~

SUMMARY OF SEEDING QUANTITIES*

P.L.S. RATE/ACRE SHLDR	P.L.S. RATE/ACRE OTHER	ACRES SHLDR	ACRES OTHER	BID ITEM	QUANTITY	UNIT
50	50		1.1	Fertilizer (15-30-15)	55.0	Lbs.
3.3	2.3		1.1	Seed (Canada Wildrye)	2.5	Lbs.
1.5	1.5		1.1	Seed (Blue Gramma Grass) (Lovington)	14.8	Lbs.
35	35		1.1	Seed (Buffalo Grass) (Treated)	1.7	Lbs.
4.8	4.8		1.1	Seed (Sterile Wheatgrass)	5.3	Lbs.
				Seeding	Lump Sum	L.S.
				Mulching (Permanent) (Set Price)	1.1	Acre

*Quantities for fetrilizer, mulch, and seeding are for informtion only. Seeding shall be by the lump sum.

SHLDR = Shoulder Turf Mix: Includes a 30 foot wide strip along the stabilized shoulder on each side of each traveled way, plus all median areas less than 60 feet wide.

OTHER = All other turf areas except Shoulder, Guardrail, and Native areas usually include the Native Wildflower Mix.

GRDRL = Guardrail Mix: This mix does not need mowing. Plant it below the guardrail between the edge of pavement and the edge of the 10:1 slope, and on steep slopes or non-mowable slopes as shown on the drawings.

NATIVE = The Native Mix is a 40% wildflower, 60% native grass mix. See this sheet for the locations of this high wildflower content seed mix.

NOTE: Projects shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

NATIVE WILDFLOWER MIX 1

P.L.S. RATE	NAME	QTY (lb)
0.1	Black Eyed Susan	
1.8	Illinios Bundleflower	
0.15	Maximilian Sunflower	
0.4	Purple Prairie Clover	
2.9	Showy Partridge Pea	
0.1	Upright Prairie Coneflower	
0.3	Butterfly Milkweed	
0.1	Stiff Goldenrod	
0.05	Pinnate Prairie Coneflower	
0.1	Lance-leaf Coreopsis	
0.05	New England Aster	
0.2	Pale Purple Coneflower	
0.05	Plains Coreopsis	
0.05	Hoary Verbena	
0.3	Roundhead Lespedeza	
0.4	Thickspike Gayfeather	
0.05	Wild Bergamont	
0.2	Smooth Oxeye	
0.05	Lemon Mint	
7.35	TOTAL (lb)	

NATIVE WILDFLOWER MIX 2

P.L.S. RATE	NAME	QTY (lb)
0.1	Black Eyed Susan	
1.8	Illinios Bundleflower	
0.15	Maximilian Sunflower	
0.4	Purple Prairie Clover	
2.9	Showy Partridge Pea	
0.1	Upright Prairie Coneflower	
0.3	Butterfly Milkweed	
0.4	Dotted Blazing Star	
0.4	Annual Gaillardia	
0.05	Stiff Goldenrod	
0.05	New England Aster	
0.3	Missouri Evening Primrose	
0.05	Plains Coreopsis	
0.15	White Prairie Clover	
0.3	Roundhead Lespedeza	
0.05	Lemon Mint	
0.15	Pitcher Sage	
7.65	TOTAL (lb)	

NATIVE WILDFLOWER MIX 3

P.L.S. RATE	NAME	QTY (lb)
0.15	Black Eyed Susan	
1.9	Illinios Bundleflower	
0.15	Maximilian Sunflower	
0.05	Western Yarrow	
0.5	Black Sampson Echinacea	
0.05	Upright Prairie Coneflower	
0.3	Butterfly Milkweed	
0.4	Dotted Blazing Star	
0.75	Annual Gaillardia	
0.05	Stiff Goldenrod	
0.05	New England Aster	
0.4	Pitcher Sage	
0.1	Plains Coreopsis	
0.15	White Prairie Clover	
0.2	Purple Prairie Clover	
0.4	Leadplant	
0.02	White Heath Aster	
1	Blue Wild Indigo	
0.05	Lemon Mint	
6.67	TOTAL (lb)	

NATIVE WILDFLOWER MIX 4

P.L.S. RATE	NAME	QTY (lb)
1.9	Illinios Bundleflower	
0.4	Maximilian Sunflower	
0.05	Western Yarrow	
1	Black Sampson Echinacea	
0.1	Upright Prairie Coneflower	
0.1	Scarlet Globemallow	
0.4	Dotted Blazing Star	
1.1	Annual Gaillardia (Firewheel)	
0.1	Hoary Vervain	
0.3	White Prairie Clover	
0.4	Purple Prairie Clover	
0.4	Perennial Gaillardia (Blanket Flower)	
0.02	White Heath Aster	
0.05	Lemon Mint	
6.32	TOTAL (lb)	

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed 1/8" - 1/4". Place the wildflower seed in a separate seed box and drill (cover) seed 1/16" maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.
OPTION: Broadcast Tall Drop Seed on the soil surface.

NO.	DATE	REVISIONS	BY	APP'D
4	10/13/08	Revised Standard	MRM	SHS
3	12/14/05	Revised Standard	MRM	SHS
2	6/16/05	Revised Standard	SHS	SHS
1	3/01/04	Revised Standard	FCM	SHS

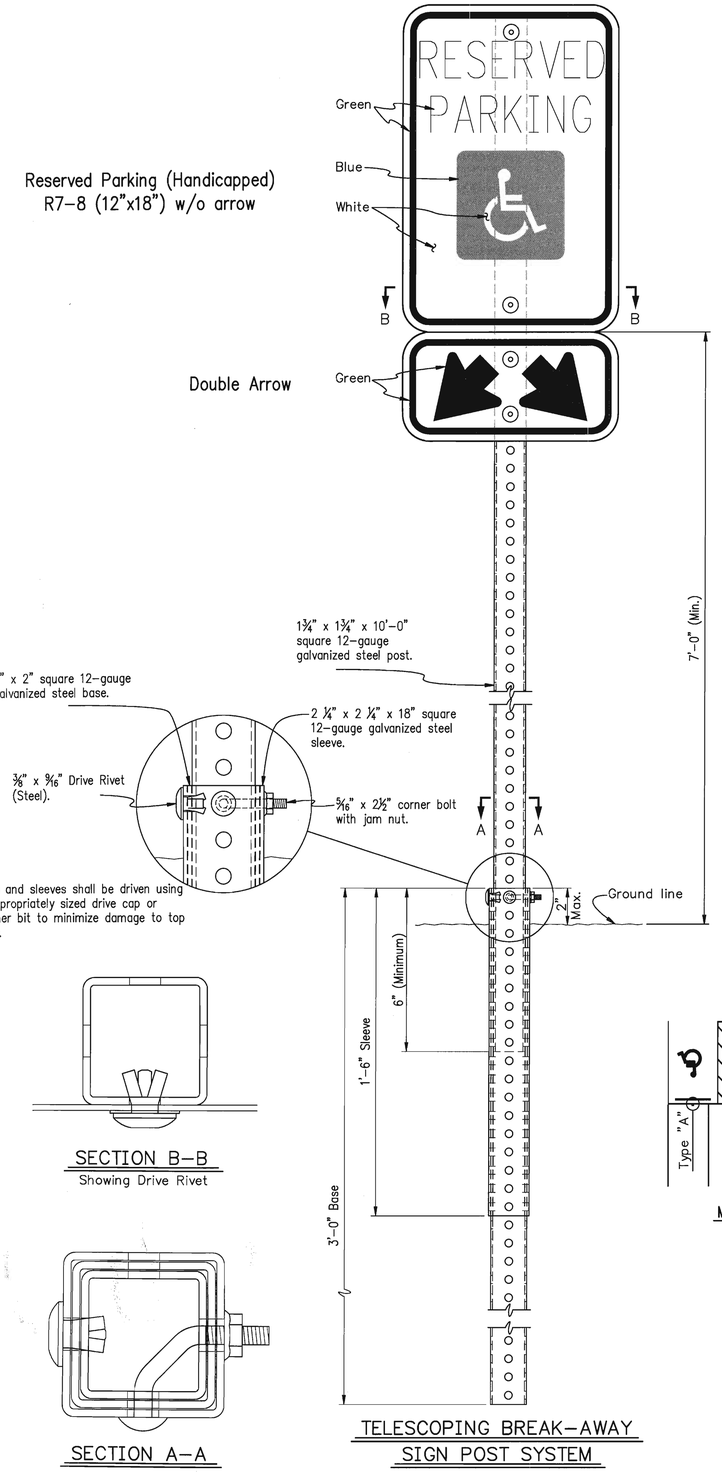
KANSAS DEPARTMENT OF TRANSPORTATION

PERMANENT SEEDING
SUMMARY OF SEEDING QUANTITIES

~~LA850~~

F.H.W.A. APPROVAL		1/04/2006	APP'D	Scott H. Shields	
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	TRACED
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	TRACE CK.

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	31	39



Reserved Parking (Handicapped)
R7-8 (12"x18") w/o arrow

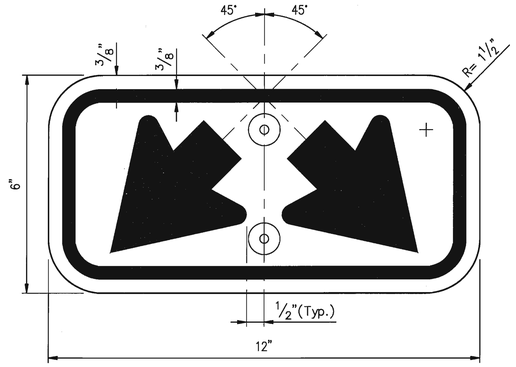
Double Arrow

NOTE:
Bases and sleeves shall be driven using an appropriately sized drive cap or hammer bit to minimize damage to top edges.

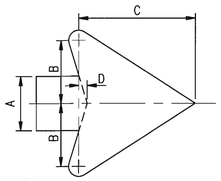
TELESCOPING BREAK-AWAY
SIGN POST SYSTEM

SECTION B-B
Showing Drive Rivet

SECTION A-A

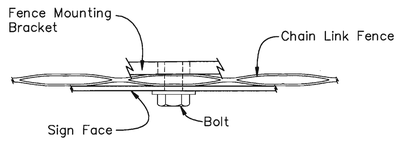


Double Arrow Sign Details
(center arrows vertically)



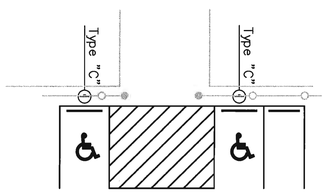
A	B	C	D	E
1.5	1.735	3.235	.235	.281

ARROW DETAILS



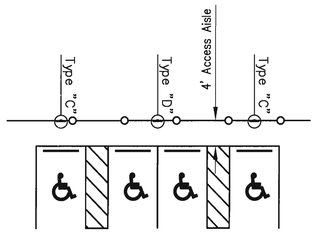
Top View

FENCE MOUNTING BRACKET DETAIL

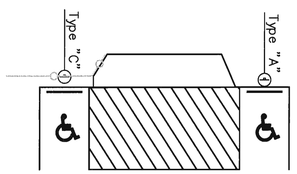


Middle Lot
Lot "A"

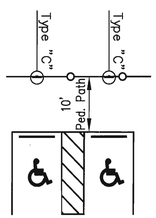
Main Entrance - Softball Fields
Lot "A"



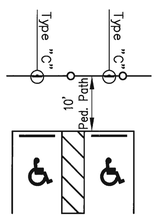
Southeast Corner
Lot "A"



Entrance Area - Softball Fields
Lot "B"



South Line
Lot "B"



South Line
Lot "A"

TYPICAL POST/SIGN CONFIGURATION TYPE AND LOCATION

GENERAL NOTES

General
All break away sign post systems supplied shall be NCHRP-350 compliant.

Sign posts shall be installed plumb to the ground. Leaning posts will not be accepted. The completed sign/post systems shall meet the requirements as detailed on this sheet and as required by the manufacturer of the system.

Materials not meeting the requirements herein shall be rejected.

Sheeting
Retroreflective sheeting shall conform to the requirements for Type I Medium-intensity Sheeting in section 718.01 of the "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects" (FP-96). The minimum retroreflectivity specified in FP-96 shall be met.

Blanks and Back Plates
The aluminum sign blanks shall conform to ASTM B-209, alloy 6061-T6 or 5052-H38. Blanks shall have a thickness of 0.080". All dimensions shall be as shown in these details.

Hardware
Bolts, nuts, spacers and rivets shall meet post manufacturer's requirements for proper operation of the break away systems supplied. All hardware shall have a corrosion resistant finish per post manufacture's requirements.

Fence Mounting
Signs to be mounted on fences shall be attached using a mounting bracket specifically intended for such use, such as the SignGuardian Sign Mounting Sysytem for Chain Link Fences, or an approved equal. Reserved parking signs shall be located so they cannot be obscured by a vehicle parked in the space.

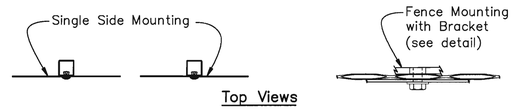
Sign Legend
The sign legend(s) shall conform to the dimensions on this sheet and the "Standard Highway Signs" manual, 2004 Edition. Any deviation shall be approved by Sedgwick County Public Works prior to fabrication.

Posts-Telescoping
The steel posts, bases and sleeves shall conform to the standard specifications for cold rolled carbon sheet steel, commercial quality, ASTM A-446, Grade A. Dimensions of the components shall be as detailed on this sheet. All posts shall be galvanized.

The yield strength of the post, sleeve and anchor shall be 52,000 psi. The posts, sleeve and anchor shall be manufactured from hot dipped galvanized steel with 1.25 ounce coating conforming to ASTM A-525, also referred to as G-90. Both interior and exterior faces of the components shall be galvanized.

The post shall be flush or recessed down below the top of the sign.

All paved or concreted surfaces shall be core-drilled prior to base/sleeve installation. The hole surrounding the base/sleeve shall be filled with material approved by Sedgwick County Public Works prior to use.



Top Views

TYPE "A" TYPE "B" TYPE "C" TYPE "D"

RESERVED PARKING SIGN
CONFIGURATION TYPE

West Sedgwick County Park Improvements
Reserved Parking Sign Installation Details

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

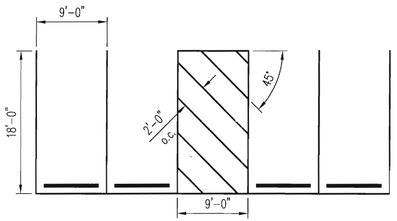
DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	M.R.B.	D.R.S.	M.R.B.	31
	DATE	3/2004	3/2004	3/2004	

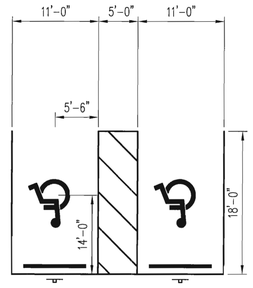
DWG: Reserved Parking Sign Details.dwg

Device: DWFx ePlot (XPS Compatible).pc3 Page Setup: 1050C 36x22 Mono Final By: Packer, Lynn T.
O:\Projects\Sedgwick County Sports Complex\Reserved Parking Sign Details.dwg Layout: Reserved Parking Sign Details Plotted: 6/9/2013 9:24 PM

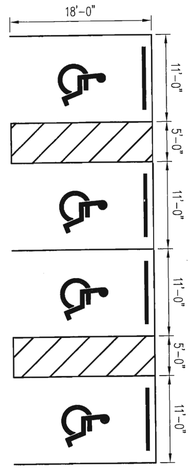
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	32	39



TYPICAL PARKING STALL



TYPICAL HANDICAP STALL



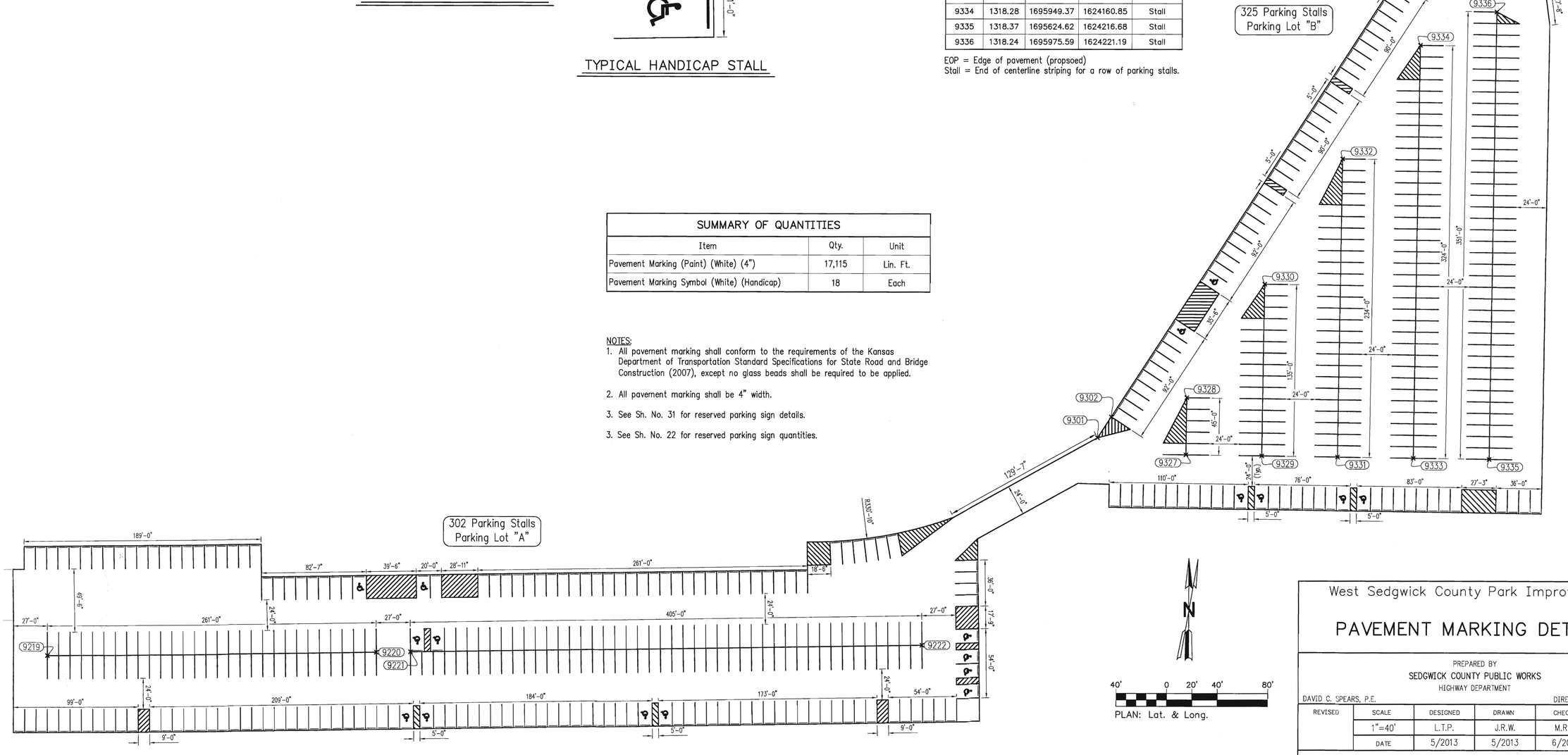
TYPICAL HANDICAP STALL

Point Table				
Point #	Elevation	Northing	Easting	Description
9219	1322.04	1695468.42	1623075.62	Stall
9220	1320.64	1695472.30	1623336.59	Stall
9221	1320.58	1695472.70	1623363.59	Stall
9222	1319.90	1695478.73	1623768.55	Stall
9301	1319.00	1695641.00	1623906.81	EOP
9302	1318.81	1695657.49	1623917.58	Stall
9327	1318.68	1695627.71	1623976.70	Stall
9328	1319.10	1695672.70	1623977.28	Stall
9329	1318.64	1695626.93	1624036.69	Stall
9330	1318.10	1695761.92	1624038.43	Stall
9331	1318.66	1695626.16	1624096.69	Stall
9332	1318.29	1695860.14	1624099.70	Stall
9333	1318.75	1695625.39	1624156.68	Stall
9334	1318.28	1695949.37	1624160.85	Stall
9335	1318.37	1695624.62	1624216.68	Stall
9336	1318.24	1695975.59	1624221.19	Stall

EOP = Edge of pavement (propsoed)
Stall = End of centerline striping for a row of parking stalls.

SUMMARY OF QUANTITIES		
Item	Qty.	Unit
Pavement Marking (Paint) (White) (4")	17,115	Lin. Ft.
Pavement Marking Symbol (White) (Handicap)	18	Each

NOTES:
1. All pavement marking shall conform to the requirements of the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction (2007), except no glass beads shall be required to be applied.
2. All pavement marking shall be 4" width.
3. See Sh. No. 31 for reserved parking sign details.
3. See Sh. No. 22 for reserved parking sign quantities.



West Sedgwick County Park Improvements

PAVEMENT MARKING DETAILS

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=40'	L.T.P.	J.R.W.	M.R.B.	32
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

Device: Adobe PDF Page Setup: ---- By: Packer, Lynn T.
C:\Projects\Sedgwick County Sports Complex\SCP-1.dwg Layout: Pavement Marking Plotted: 6/9/2013 9:44 PM

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	33	39

PHASE	TRAFFIC CONTROL	MAJOR CONSTRUCTION ITEMS	REMARKS
1	1. Close Lot "B" from access via Lot "A" and rear maintenance gate. 2. Close bike path to pedestrian access by pedestrian bridge and near Ridge Rd.	1. Install erosion control BMP's per Contract Documents. 2. Clear and grub work area as necessary. 2.1. Remove chain link fence to clear trenching operations (if necessary). 2.2. Coordinate fence removal with TRYC representatives. 3. Construct sanitary sewer extension.	1. All traffic control shall comply with the Manual on Traffic Control devices (MUTCD) for Streets and Highways (latest edition). 2. Any open trench shall be properly secured whenever work is not active.
2	1. Maintain closure of Lot "B." 2. Maintain closure of bike path until work north of tributary channel is complete.	1. Scarify existing surface in Lot "B". 2. Construct cementitious slurry treated base. 3. Construct RCC surface course. 4. Construct earth wedge and embankment around lot perimeter.	1. All traffic control shall comply with the Manual on Traffic Control devices (MUTCD) for Streets and Highways (latest edition). 2. Any open trench shall be properly secured when ever work is not active. 3. Re-open bike path without delay.
3	1. Close Lot "A" at main gate. No access. 2. Maintain closure of Lot "B" from rear maintenance gate. 3. Maintain closure of bike path until concrete path is cured.	1. Scarify existing surface in Lot "A". 2. Construct cement treatment base. 3. Construct RCC surface coarse. 4. Construct earth wedge around lot perimeter.	1. All traffic control shall comply with the Manual on Traffic Control devices (MUTCD) for Streets and Highways (latest edition).
4	1. Maintain closure of Lots "A" and "B".	1. Complete lot striping. 2. Install reserved parking signs on posts and fences. 3. Complete seeding operations.	1. All traffic control shall comply with the Manual on Traffic Control devices (MUTCD) for Streets and Highways (latest edition). 2. Striping and sign installation may occur after the September 13 completion date under open traffic conditions.

GENERAL NOTES

The sequence shown is intended as a guide for major construction items only. The contractor will be responsible for all minor items and for maintaining adequate drainage at all times. The contractor will be responsible for the coordination of all major items. Variations to the sequence shown shall be submitted in writing with all necessary drawings for the prior approval of the Engineer. Construction traffic shall be essentially in accordance with that shown. Major work not constructed within the indicated phase shall be approved by the Engineer.

All signs and pavement markings conflicting with this traffic control shall be covered or removed as directed by the Engineer.

See Traffic Control Notes, Sheet Nos. 38 – 39.

Contacts:

AYSO:	Craig Bay	(316) 641-8607
TRYC:	John Rogers	(316) 371-4889

West Sedgwick County Park Improvements

CONSTRUCTION SEQUENCE

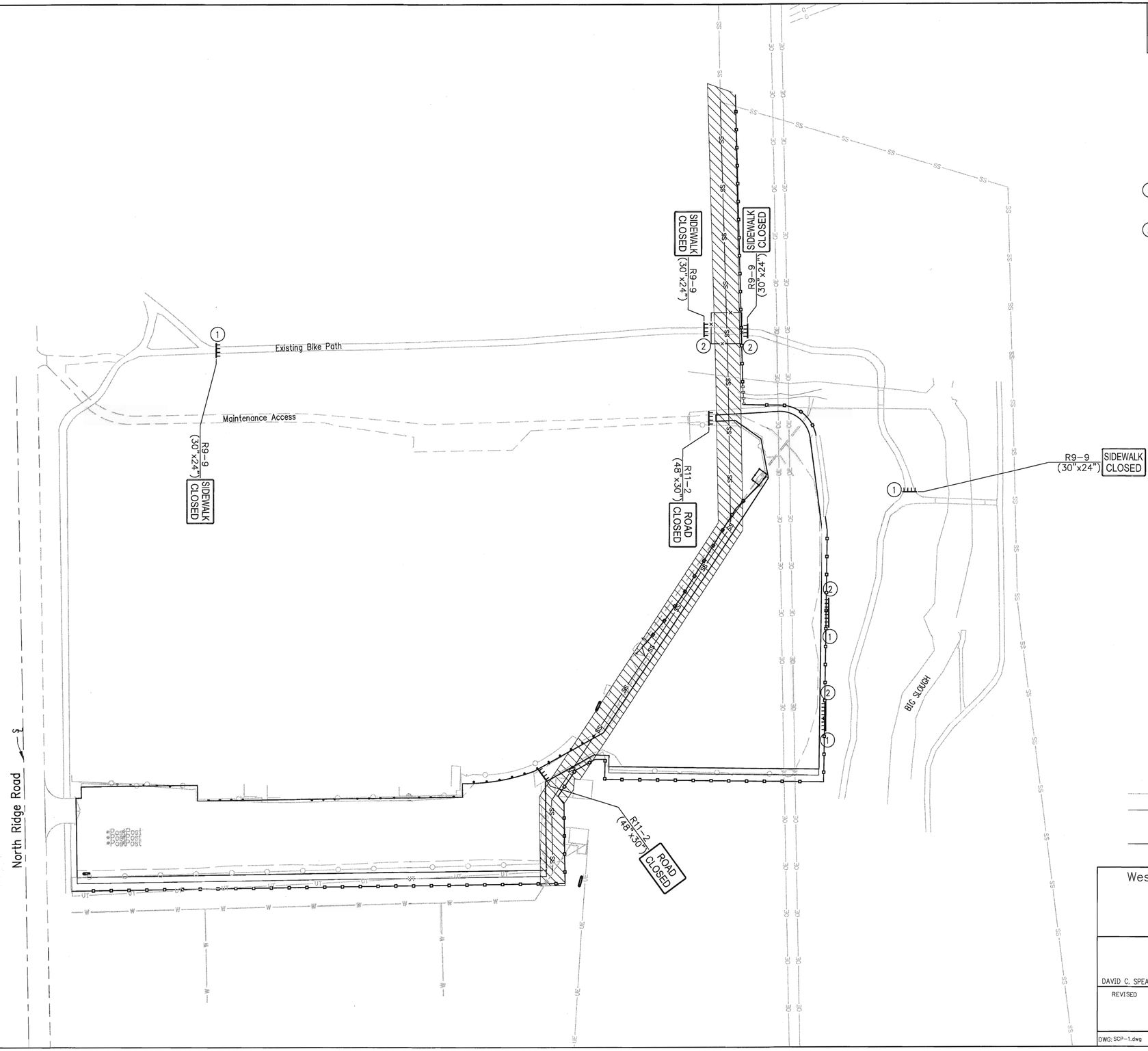
PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	L.T.P.	J.R.W.	M.R.B.	33
	DATE	5/2013	5/2013	5/2013	

DWG: Construction Sequence.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	34	39



1. Use Type III Barricades to close the accessible route to the satisfaction of the Engineer.
2. Use Type III Barricades to deter pedestrian traffic from entering the work zone and surrounding areas. Snow fence may alternatively be installed to prevent access.

LEGEND

- Sanitary sewer Construction Area
- Existing sanitary sewer
- Proposed sanitary sewer
- Type 3 Barricade
- Snow Fence

West Sedgwick County Park Improvements

TRAFFIC CONTROL
Phase 1

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

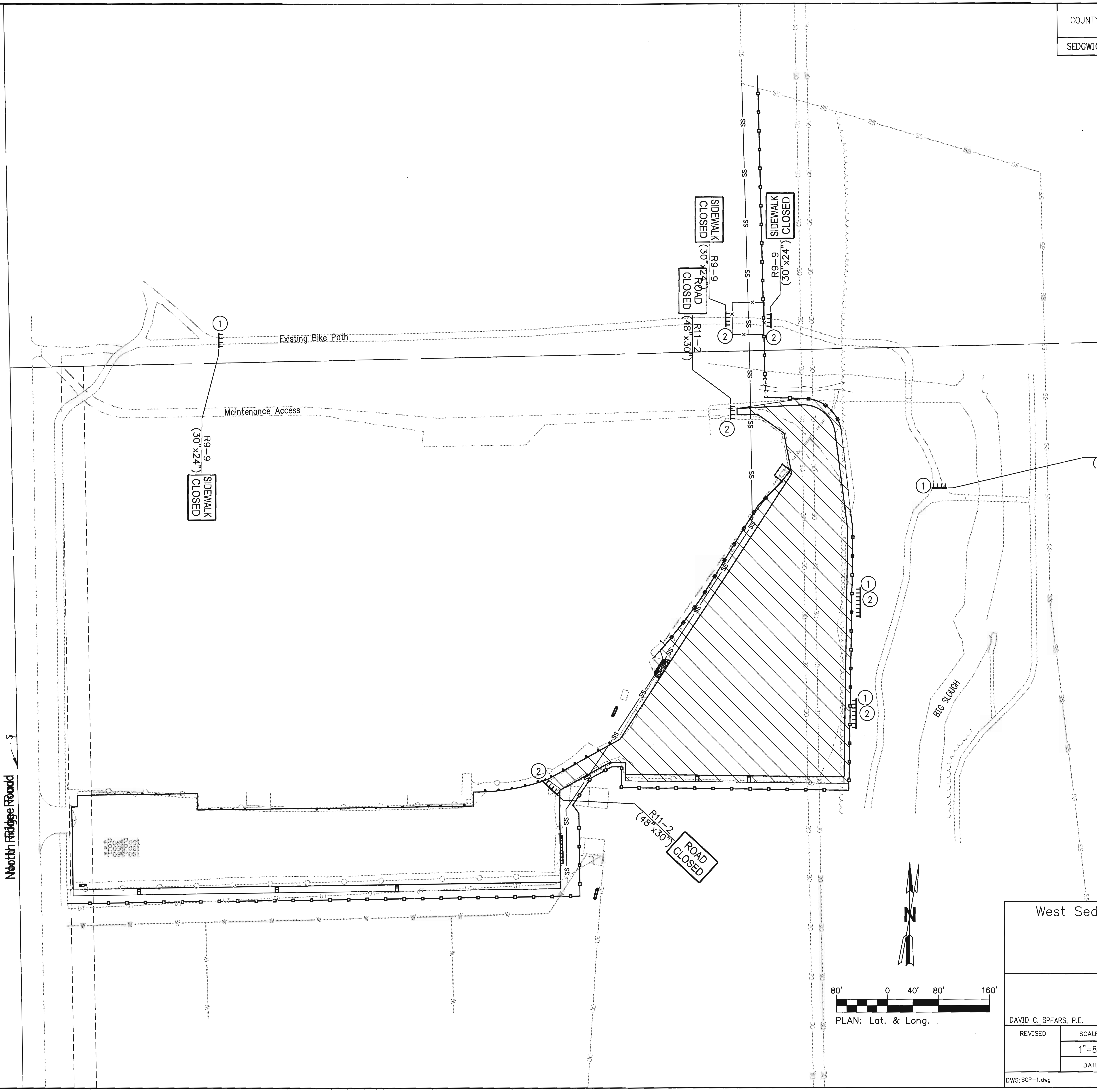
REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=80'	L.T.P.	J.R.W.	M.R.B.	34
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	35	39

(1) Use Type III Barricades to close the accessible route to the satisfaction of the Engineer.

(2) Use Type III Barricades to deter pedestrian traffic from entering the work zone and surrounding areas. Snow fence may alternatively be installed to prevent access.



LEGEND

- Work Area
- SS — Existing sanitary sewer
- SS — Proposed sanitary sewer
- Type 3 Barricade
- —x—x— Snow Fence

West Sedgwick County Park Improvements
TRAFFIC CONTROL
Phase 2

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=80'	L.T.P.	J.R.W.	M.R.B.	35
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

Device: DWFx EPlot (XPS Compatible).pc3 Page Setup: 1050C 36x22 Mono Final By: Packer, Lynn T.
O:\Projects\Sedgwick County Sports Complex\SCP-1.dwg Layout: Construction Phasing Phase 2 Plotted: 6/9/2013 9:24 PM

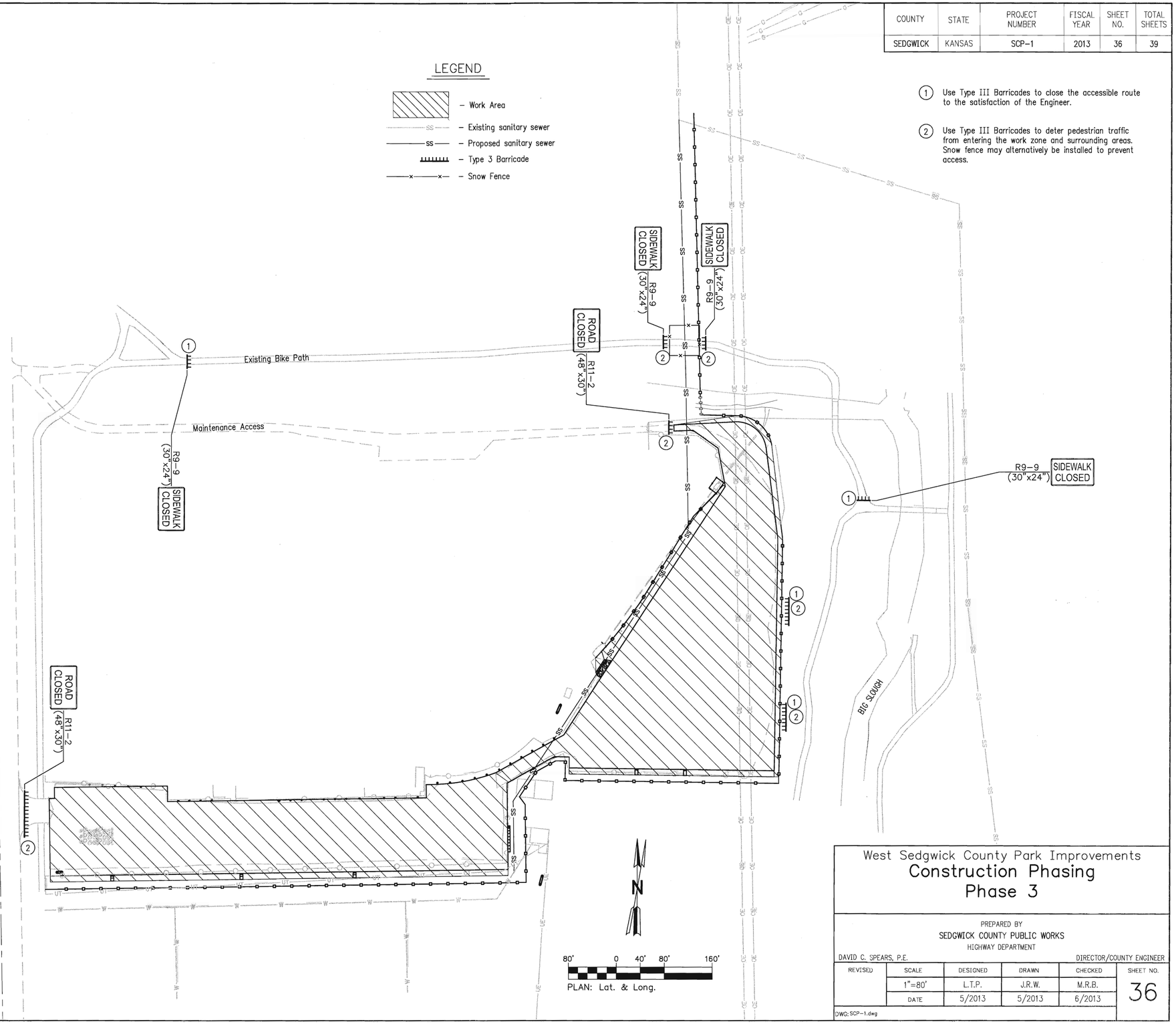
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	36	39

LEGEND

- Work Area
- SS — Existing sanitary sewer
- SS — Proposed sanitary sewer
- Type 3 Barricade
- x — x — Snow Fence

(1) Use Type III Barricades to close the accessible route to the satisfaction of the Engineer.

(2) Use Type III Barricades to deter pedestrian traffic from entering the work zone and surrounding areas. Snow fence may alternatively be installed to prevent access.



West Sedgwick County Park Improvements
Construction Phasing
Phase 3

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=80'	L.T.P.	J.R.W.	M.R.B.	36
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

Device: DWFx ePlot (XPS Compatible).pc3 Page Setup: 1050C 36x22 Mono Final By: Packer, Lynn T.
O:\Projects\Sedgwick County Sports Complex\SCP-1.dwg Layout: Construction Phasing Phase 3 Plotted: 6/9/2013 9:24 PM

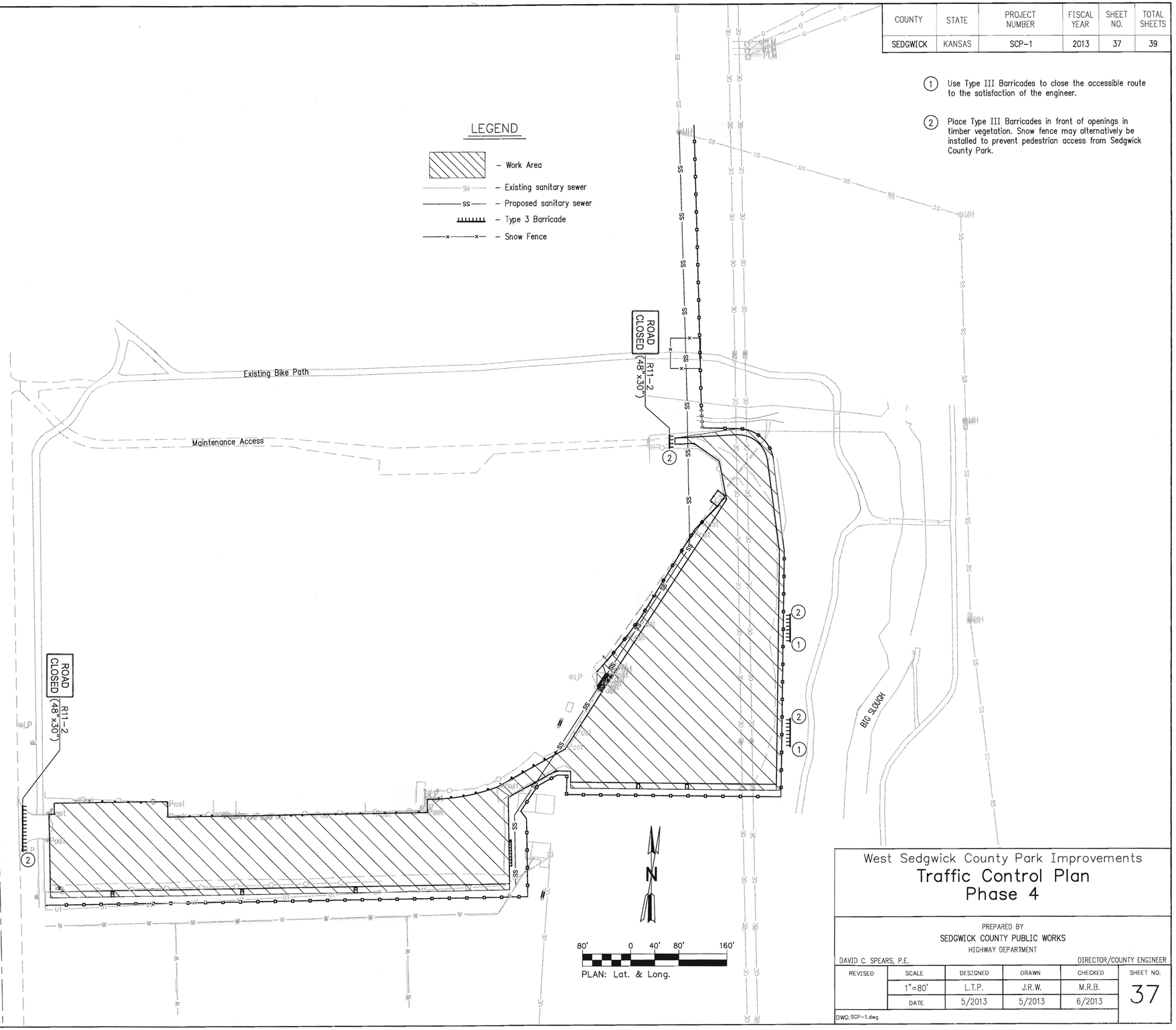
COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	37	39

(1) Use Type III Barricades to close the accessible route to the satisfaction of the engineer.

(2) Place Type III Barricades in front of openings in timber vegetation. Snow fence may alternatively be installed to prevent pedestrian access from Sedgwick County Park.

LEGEND

- Work Area
- SS — Existing sanitary sewer
- SS — Proposed sanitary sewer
- Type 3 Barricade
- x — x — Snow Fence



West Sedgwick County Park Improvements

Traffic Control Plan Phase 4

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	1"=80'	L.T.P.	J.R.W.	M.R.B.	37
	DATE	5/2013	5/2013	6/2013	

DWG: SCP-1.dwg

Device: DWFx ePlot (XPS Compatible).pc3 Page Setup: 1050C 36x22 Mono Final By: Packer, Lynn T.
O:\Projects\Sedgwick County Sports Complex\SCP-1.dwg Layout: Traffic Control Plan Phase 4 Plotted: 6/9/2013 9:25 PM

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	38	39

TRAFFIC CONTROL NOTES

1. All traffic control devices and installation or use thereof shall comply with the Manual on Uniform Traffic Control Devices for Streets and Highways (Latest Edition), and all traffic control devices shall be NCHRP 350 complaint with respect to crashworthiness requirements.

2. When no work is in progress nor is any expected to be for an extended period of time, or there are no existing hazards, and the roadway is unrestricted to the traveling public, traffic control signs shall be removed or completely covered with adequate opaque waterproof material.

3. All signs shall be post mounted if time in place exceeds three (3) days. Exceptions may be made particularly in urban areas where post–mounted signs are prohibitive. Posts shall be 4" X 4" wood or other breakaway supports that are NCHRP 350 compliant. Signs with a minimum area of 16 square feet shall be mounted on a minimum of two posts.

4. Portable supports used for mounting signs or devices for temporary conditions shall be NCHRP 350 compliant.

5. All permanent speed limit signs that conflict with the posted project speed limit shall be removed and stored, or covered with adequate opaque waterproof material throughout the construction period.

6. Whenever practical, all construction equipment, materials, and debris shall be stored no closer than thirty (30) feet from the traveled way. The contractor shall place appropriate signs or barricades, as directed by the Engineer, around any condition created by the contractor within thirty (30) feet of the traveled way that violates clear zone criteria stated herein. All devices needed to meet this requirement shall be considered subsidiary to the bid item "Traffic Control".

7. Type "B" high intensity yellow flashing warning lights may be required on any sign or device when deemed necessary by the Engineer.

8. The contractor is responsible for maintaining all devices in their proper position, cleaning or replacing any damaged or worn out device as directed by the Engineer without undue delay to ensure effective and safe traffic control.

9. The contractor shall designate an employee, and an alternate, who will have the responsibility for signing and traffic control as noted on the traffic control plan and shall be available at all times to perform the above maintenance. The Engineer will be advised of the name and contact numbers/methods of the person and alternate given this responsibility. The Engineer shall conduct daily field inspections to see that the devices are in place and in satisfactory condition.

10. Channelization devices: Devices as used herein may include Type I and Type II barricades in addition to the devices shown on this sheet.

    A. The maximum spacing, in feet, between channelization devices in the taper should be approximately equal to the permanent speed limit, in miles per hour, prior to construction.

    B. The spacing between devices in the work zone should be approximately 50 to 100 feet or as designated in the traffic control plan.

    C. Devices placed along pavement edge or shoulder drop–offs of less than four (4) inches shall be placed a maximum of four hundred (400) feet apart as directed by the Engineer.

    D. Devices placed along pavement edge or shoulder drop–offs of more than four (4) inches shall be placed a maximum of two hundred (200) feet apart as directed by the Engineer.

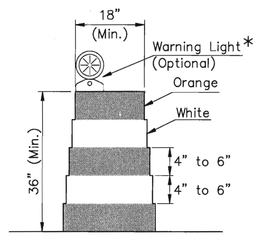
    E. Type I or Type II barricades should be placed at approximately right angles to the centerline of the roadway.

    F. All channelizing devices shall be fully reflectorized and, as directed by the Engineer, display the appropriate warning light on top of the device nearest the traveled way centerline.

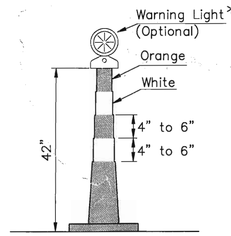
11. The lump sum price bid for the bid item "Traffic Control" shall be full compensation for providing, installing, moving, replacing, maintaining, removing and cleaning all traffic control devices as required or as directed by the Engineer. It shall also include the addition of any devices deemed necessary by the Engineer whether specifically mentioned or not.

12. At all times, and during all weather conditions, access shall be maintained for local traffic to the satisfaction of the Engineer. This maintenance, including temporary surfacing material, if necessary, is subsidiary to the bid item "Traffic Control".

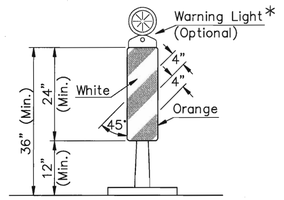
13. All advance warning signs shall have a minimum surface area of 16 square feet. All other signs shall be of standard size as directed in the MUTCD or the most recent edition of the Standard Highway Signs Manual unless specified otherwise on the traffic control plan.



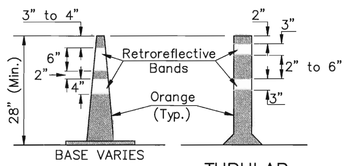
NON–METALLIC REFLECTORIZED DRUM WITH LIGHT



SLIMLINE CHANNELIZER



VERTICAL PANEL



CONES TUBULAR MARKERS

WARNING LIGHTS

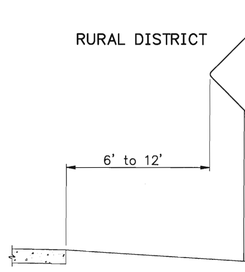
Warning lights shall be in accordance with the current ITE purchase specifications for flashing and steady burn warning lights.

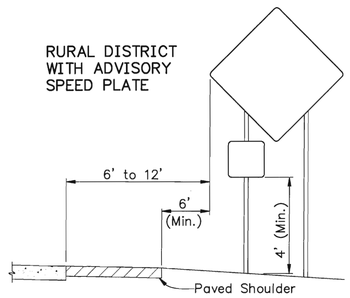
Type A low intensity flashing warning lights and Type C steady burn warning lights shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet. Type B high intensity flashing warning lights shall be maintained so as to be capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet.

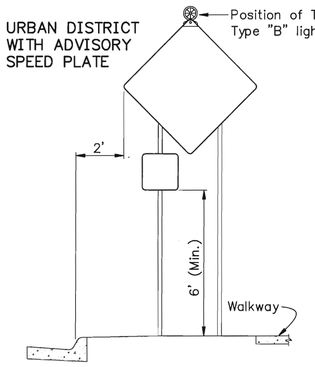
* Lights used on Channelizing Devices
When used singly --- Type "A" Flashing
When used in series – Type "C" Steady Burn
The lens shall be a minimum of 7" in diameter.

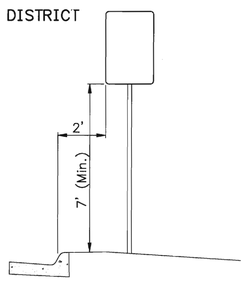
The non–metallic drums shall be fully reflectorized with Type III or Type IV reflective sheeting per FP–96.

All advance warning signs shall be reflectorized with fluorescent orange prismatic grade reflective sheeting.

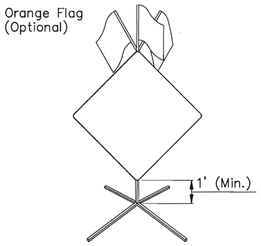








SIGN MOUNTING LOCATIONS



Portable sign supports should not be used for more than three continuous days.

PORTABLE/TEMPORARY SIGN MOUNTING

7/2009	Update Notes 3,6,10,10B,10E & warning light sym.	DRS/MRB
Rev.Date	Description	By /Chk

West Sedgwick County Park Improvements

TRAFFIC CONTROL DETAILS SIGNS & CHANNELIZATION DEVICES

TC–1

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	M.R.B.	D.R.S.	M.R.B.	38
	DATE	2/2005	4/2005	4/2005	

DWG: TC1–0.dwg

COUNTY	STATE	PROJECT NUMBER	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SEDGWICK	KANSAS	SCP-1	2013	39	39

TRAFFIC CONTROL NOTES

1. All traffic control devices and installation or use thereof shall comply with the Manual on Uniform Traffic Control Devices for Streets and Highways (Latest Edition), and all traffic control devices shall be NCHRP 350 complaint with respect to crashworthiness requirements.

2. Whenever practical, all construction equipment, materials, and debris shall be stored no closer than thirty (30) feet from the traveled way. The contractor shall place appropriate signs or barricades, as directed by the Engineer, around any condition created by the contractor with thirty (30) feet of the traveled way that violates clear zone criteria stated herein. All devices needed to meet this requirement shall be considered subsidiary to the bid item "Traffic Control".

3. Type "B" high intensity yellow flashing warning lights may be required on Type III barricades when deem necessary by the Engineer.

4. Barricades are to be set at locations shown on the traffic control plan sheets or as directed by the Engineer. Sufficient barricades shall be erected to adequately cover the roadway or lane width. The barricades may be mounted on approved skids anchored by wire or sandbags.

5. The contractor is responsible for maintaining all devices in their proper position, cleaning or replacing any damaged or worn out device as directed by the Engineer without undue delay to ensure effective and safe traffic control.

6. The contractor shall designate an employee, and an alternate, who will have the responsibility for signing and traffic control as noted on the traffic control plan and shall be available at all times to perform the above maintenance. The Engineer will be advised of the name and contact numbers/methods of the person and alternate given this responsibility. The Engineer shall conduct daily field inspections to see that the devices are in place and in satisfactory condition.

7. Channelization devices: Devices as used herein shall include, but not be limited to Type I and Type II barricades.

   A. The maximum spacing, in feet, between channelization devices in the taper should be approximately equal to the permanent speed limit, in miles per hour, prior to construction.

   B. The spacing between devices in the work zone should be approximately 50 to 100 feet.

   C. Devices placed along pavement edge or shoulder drop-offs of less than four (4) inches shall be placed a maximum of four hundred (400) feet apart as directed by the Engineer.

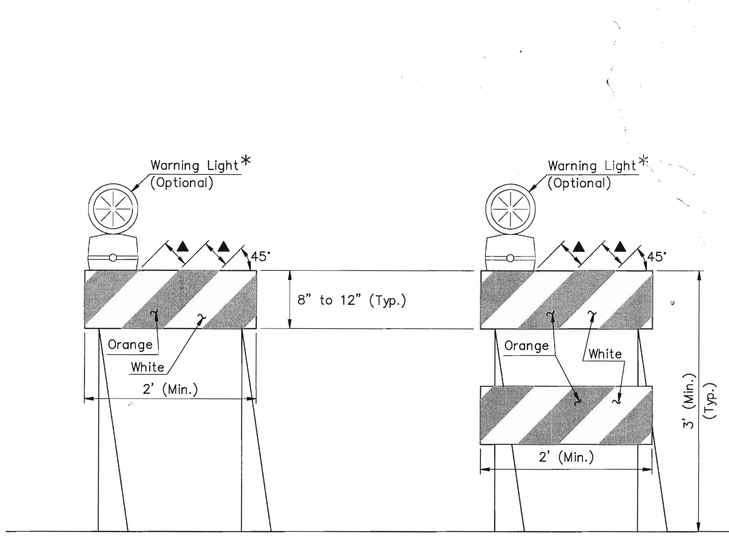
   D. Devices placed along pavement edge or shoulder drop-offs of more than four (4) inches shall be placed a maximum of two hundred (200) feet apart as directed by the Engineer.

   E. Type I or Type II barricades should be placed at approximately right angles to the center of the roadway.

   F. All channelizing devices shall be fully reflectorized and, as directed by the Engineer, display the appropriate warning light on top of the device nearest the traveled way centerline.

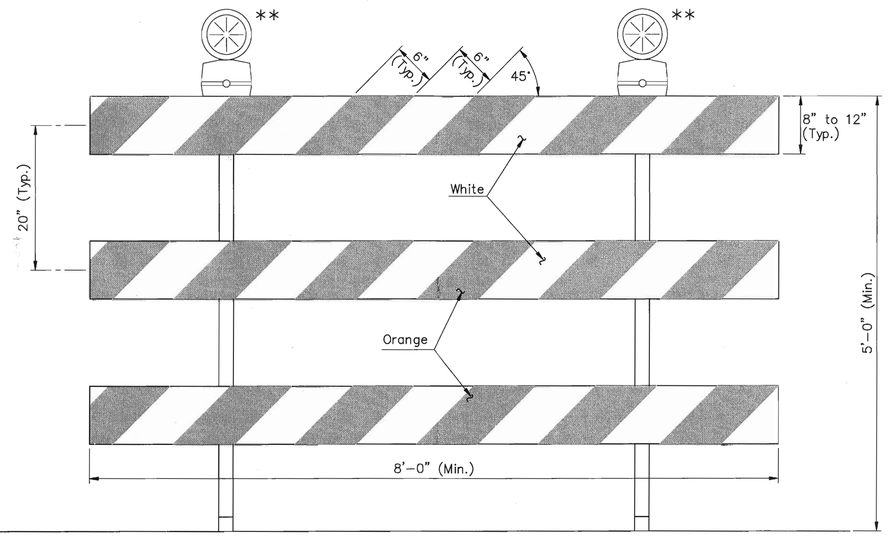
8. The lump sum price bid for the bid item "Traffic Control" shall be full compensation for providing, installing, moving, replacing, maintaining, removing and cleaning all traffic control devices as required or as directed by the Engineer. It shall also include the addition of any devices deemed necessary by the Engineer whether specifically mentioned or not.

9. At all times, and during all weather conditions, access shall be maintained for local traffic to the satisfaction of the Engineer. This maintenance, including temporary surfacing material, if necessary, is subsidiary to the bid item "Traffic Control".



TYPE I BARRICADE
WITH LIGHT

TYPE II BARRICADE
WITH LIGHT



TYPE III BARRICADE
WITH LIGHTS

Type I and Type II barricades along shoulder edges or in drop-offs shall have a minimum of 36" from the top of the barricade to the top of the pavement.

The entire area of barricade rails are to be fully reflectorized with Type III or Type IV sheeting per FP-96.

▲ Rail stripe widths shall be 6", except that 4" wide stripes may be used if rail lengths are less than 36".

WARNING LIGHTS

Warning lights shall be in accordance with the current ITE purchase specifications for flashing and steady burn warning lights.

Type A low intensity flashing warning lights and Type C steady burn warning lights shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet. Type B high intensity flashing warning lights shall be maintained so as to be capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet.

* Lights used on Channelizing Devices
When used singly --- Type "A" Flashing
When used in series – Type "C" Steady Burn
The lens shall be a minimum of 7" in diameter.

Signs mounted on Type III barricades should not cover more than 50 percent of the top two rails or 33 percent of the total area of the three rails.

Barricade rails shall be plastic and the complete barricade shall be NCHRP 350 compliant. For rails less than 3 feet long, 4 inch wide stripes may be used.

Where barricades extend entirely across a roadway, and where both right and left turns are provided for, the chevron striping shall slope downward in both directions from the center of the road. When a detour is provided the stripes shall slope downward in the direction toward which traffic must turn.

Barricades intended for use on expressways, freeways, and other high speed roadways shall have a minimum of 270 square inches of reflective area facing traffic.

** A minimum of two Type "A" lights shall be used at each location where a Type III barricade or barricades are used. A light shall be mounted on the outside corner at the end barricades when more than one is used. The lens shall be a minimum of 7" in diameter.

All barricades shall be faced with reflective sheeting on the front and back faces.

Rev.Date	Description	By /Chk

West Sedgwick County Park Improvements

TRAFFIC CONTROL DETAILS BARRICADES

TC-2

PREPARED BY
SEDGWICK COUNTY PUBLIC WORKS
HIGHWAY DEPARTMENT

DAVID C. SPEARS, P.E. — DIRECTOR/COUNTY ENGINEER

REVISED	SCALE	DESIGNED	DRAWN	CHECKED	SHEET NO.
	NONE	M.R.B.	D.R.S.	M.R.B.	39
	DATE	2/2005	4/2005	4/2005	

DWG: TC2-0.dwg