

# PUBLIC NOTICE



**US Army Corps  
of Engineers  
Kansas City District**

**Permit No. NWK-2015-1950  
Issue Date: November 16, 2015  
Expiration Date: December 7, 2015**

**21-Day Notice**

---

This public notice is issued jointly with the Kansas Department of Health and Environment. The Department of Health and Environment will use the comments to this notice in deciding whether to grant Section 401 water quality certification. Commenters are requested to furnish a copy of their comments to the Kansas Department of Health and Environment, Bureau of Water - - Watershed Management Section, 1000 SW Jackson Street, Suite 420, Topeka, Kansas 66612-1367.

**APPLICANT:** City of Newton  
201 E. 6<sup>th</sup>, P.O. Box 426  
Newton, KS 67114

**PROJECT LOCATION** (As shown on the attached drawings): The project is located in an unnamed tributary to West Fork Jester Creek in the SE 1/4 of Section 14, Township 23 South, Range 1 East, Harvey County, Kansas.

[USGS Quad: KS-NEWTON – Latitude: 38.04651° --- Longitude: -97.28522°]

**AUTHORITY:** Section 404 of the Clean Water Act (33 USC 1344).

**ACTIVITY** (As shown on the attached drawings): **PROPOSED:** Commercial and light industrial development to serve the Newton Municipal Airport. The project, as proposed, would involve the creation of a detention and water quality treatment facility including the construction of a v-notched weir within the existing stream channel. The weir would be constructed with a base elevation matching the existing streambed elevation. Additionally, 1,050 linear feet of stream channel would also be relocated to accommodate the proposed development. The relocated channel design would incorporate meanders, floodplain benches, a pilot channel, a native grass buffer, and would also be re-platted, fenced, and marked with signage to protect the buffer areas from future impacts or development.

**WETLANDS/AQUATIC HABITAT:** Approximately 3,150 linear feet of stream channel exists within the project area, of which, direct impacts are proposed to approximately 1,100 linear feet of stream channel (1,050 feet to be relocated and approximately 50 feet to be impacted with the construction of the weir). No known wetlands are present.

**APPLICANT'S STATEMENT OF AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION FOR UNAVOIDABLE IMPACTS TO AQUATIC RESOURCES:**

The applicant states the following: "A 50 foot no-grading buffer around existing streams will be established in most areas. The exception will be a 1,050 linear foot relocation that is indicated on sheet 9 of the plans. This work will be limited to the area next to the future Lot 3. Compensating factors will be: planting of native grasses on all channels within the project limits (channels currently planted with corn or bare), installation of signs to restrict future mowing and other disturbances and the creation of a more "natural" channel with a meandering configuration, pilot channel and vegetated overbank areas."

**ADDITIONAL INFORMATION:** Additional information about this application may be obtained by contacting Mr. Lucius Duerksen of the Kansas State Regulatory Office, 2710 NE Shady Creek Access Road, El Dorado, Kansas 67042, telephone: 316-322-8247 or by email at [lucius.j.duerksen@usace.army.mil](mailto:lucius.j.duerksen@usace.army.mil). All comments to this public notice should be directed to the above address.

**STATE AUTHORIZATION:** The applicant must also apply for a permit from the Kansas Department of Agriculture pursuant to Kansas Statutes Annotated 82a-301 to 305.

**CULTURAL RESOURCES:** Kansas City District will comply with the National Historic Preservation Act of 1966 and 36 CFR 800. We have checked the National Register of Historic Places and the Federal Register and no property listed in the Register or proposed for listing is located in the permit area. This is the extent of our knowledge about historic properties in the permit area at this time. However, we will evaluate input by the State Historic Preservation Officer, Tribal Historic Preservation Officers (or Tribe designated representative) and the public in response to this public notice, and we may conduct or require a reconnaissance survey of the permit area to check for unknown historic properties, if warranted.

**ENDANGERED SPECIES:** In compliance with the Endangered Species Act, a preliminary determination has been made that the described work will not affect species designated as threatened or endangered or adversely affect critical habitat. In order to complete our evaluation of this activity, comments are solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

**FLOODPLAINS:** This activity is being reviewed in accordance with Executive Order 11988, Floodplain Management, which discourages direct or indirect support of floodplain development whenever there is a practicable alternative. By this public notice, comments are requested from individuals and agencies that believe the described work will adversely impact the floodplain.

**WATER QUALITY CERTIFICATION:** Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. This public notice serves as an application to the state in which the discharge site is located for certification of the discharge. The discharge must be certified before a Department of the Army permit can be issued. Certification, if issued, expresses the state's opinion that the discharge will not violate applicable water quality standards.

**PUBLIC INTEREST REVIEW:** The decision to issue a permit will be based on an evaluation of the probable impact including the cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the

proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, esthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency under authority of Section 404(b) of the Clean Water Act (33 USC 1344). The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

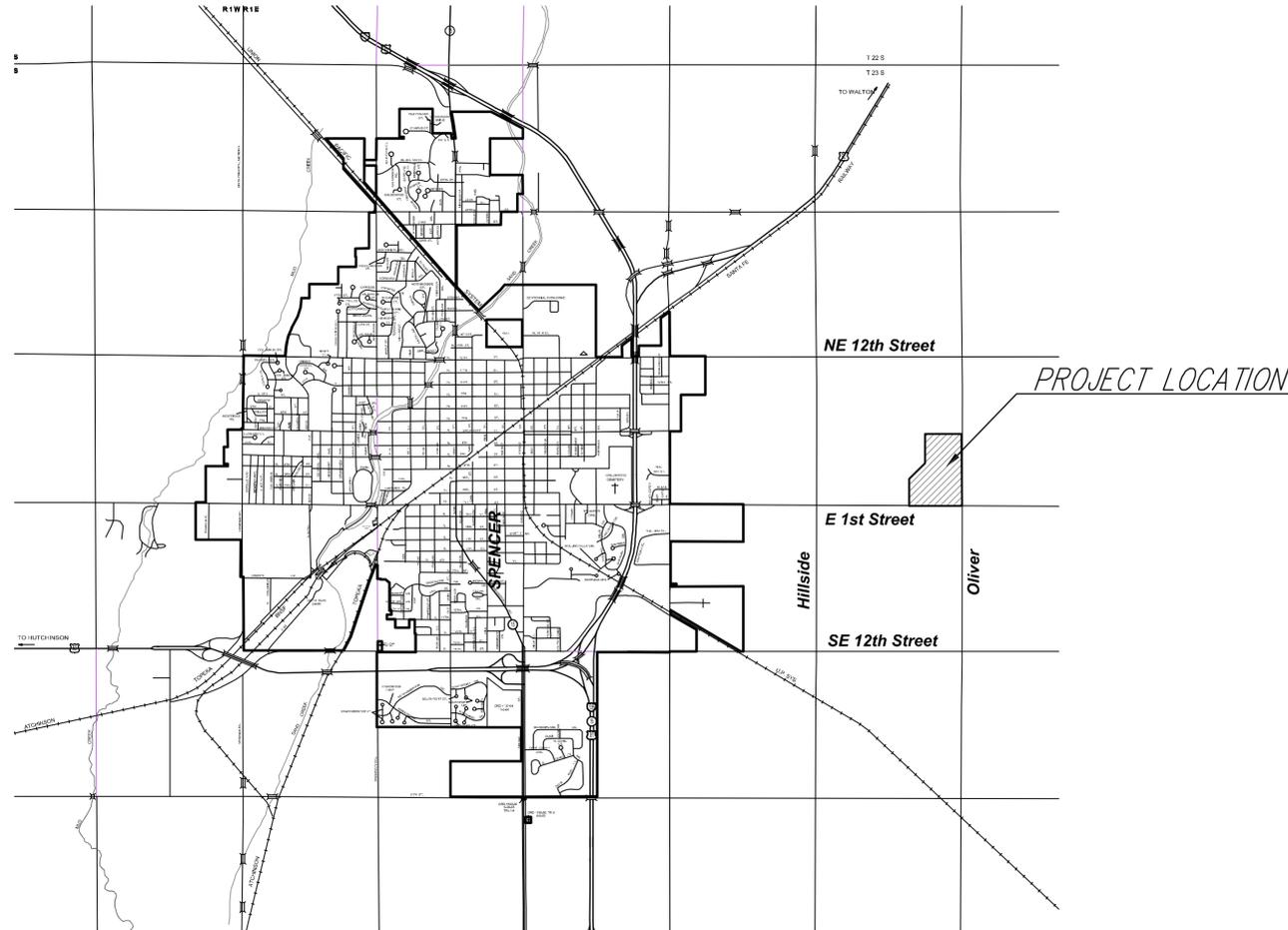
**COMMENTS:** This notice is provided to outline details of the above-described activity so this District may consider all pertinent comments prior to determining if issuance of a permit would be in the public interest. Any interested party is invited to submit to this office written facts or objections relative to the activity on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted and made a part of the record and will receive full consideration in determining whether it would be in the public interest to issue the Department of the Army permit. Copies of all comments, including names and addresses of commenters, may be provided to the applicant. Comments should be mailed to the address shown on page 2 of this public notice.

**PUBLIC HEARING:** Any person may request, in writing, prior to the expiration date of this public notice, that a public hearing be held to consider this application. Such requests shall state, with particularity, the reasons for holding a public hearing.

# CONSTRUCTION PLANS FOR NEWTON MUNICIPAL AIRPORT SOUTH DETENTION AND WATER QUALITY FACILITY

## GENERAL NOTES

1. EXCAVATION, BEDDING, BACKFILL OF PIPE TRENCH TO BE SUBSIDIARY TO BID ITEMS FOR STORM SEWER PIPE.
2. CULVERT PIPE LENGTHS ARE OVERALL INCLUDING END SECTIONS. BACKFILL FOR CULVERTS TO BE SUBSIDIARY TO L.F. PIPE.
3. SITE CLEARING AND RESTORATION INCLUDES REMOVAL OF TRASH, DEBRIS, FOUNDATIONS, SIGNS, FENCE, POSTS, RUBBLE, SHRUBS AND ANY MISCELLANEOUS ITEMS WITHIN THE PROJECT LIMITS.
4. SITE PREPARATION AND RESTORATION SHALL BE DONE PER CITY OF NEWTON STANDARD SPECIFICATIONS.
5. EXCESS EXCAVATION, ROCK OR RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF AT SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE CITY ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE CITY ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
6. PUBLIC AND PRIVATE UTILITY FACILITIES SHALL BE MOVED OR ADJUSTED AS NECESSARY BY THE UTILITY OWNERS TO FIT THE NEW CONSTRUCTION UNLESS OTHERWISE NOTED ON THE PLANS OR IN A PROPOSAL. UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO CONTACT UTILITY OWNER FOR EXACT LOCATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS WHICH ARE SHOWN ON PLANS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH HAVE BEEN SHOWN AND WHICH ARE DISTURBED BY THEIR CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE REESTABLISHED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS. NO SEPARATE MEASUREMENT OF PAYMENT WILL BE MADE FOR THIS WORK AS IT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT. WHERE PROPERTY IRONS WERE LOCATED AS PART OF THE DESIGN SURVEY, THEY HAVE BEEN SHOWN AND NOTED ON THE PLANS.
8. WHERE SAW CUT IS INDICATED FOR REMOVAL OF EXISTING PAVEMENT MATERIAL, THE CUT SHALL BE AT FULL DEPTH OF THE EXISTING MATERIAL.
9. ALL TIE BARS AND DOWELS SHALL BE EPOXY COATED.
10. ALL UNPAVED AREAS DISTURBED BY CONSTRUCTION OF THIS PROJECT ARE TO BE GRADED, FERTILIZED, SEEDED AND PROTECTED WITH EROSION MAT IN ACCORDANCE WITH THE SEEDING SPECIFICATIONS.
11. CONTRACTOR SHALL NOTIFY ALL ABUTTING PROPERTY OWNERS AND/OR TENANTS, AND THE ENGINEER, A MINIMUM OF 5 DAYS PRIOR TO ANY STREET CLOSING.
12. ALL WORK ON THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH THE CITY OF NEWTON STANDARD CONSTRUCTION SPECIFICATIONS.
13. NO SHRINK/SWELL FACTORS HAVE BEEN APPLIED TO ANY EARTHWORK QUANTITIES.



## BENCH MARKS

**BM#1**  
Square Cut in Center of Headwall of RCBC on North Side of 1st Street 1550' West of Oliver Road.

Elev. 1511.02

**BM#2**  
Square Cut in Top of Curb on the North Side of 5th Street, 6' East of the End of Curb on the East Side of Oliver Road..

Elev. 1519.88

## INDEX OF SHEETS

Sheet List Table	
Sheet Number	Sheet Title
1	Title
2	Site Overview
3	Farmstead Demolition Plan
4	WQ Facility Removal Plan
5	Pond Plan
6	Pond Details
7	Fence Details
8	Access Road
9	Channel Change
10	Channel Change Details
11	Cross Sections
12	Cross Sections
13	Cross Sections
14	Cross Sections
15	Cross Sections
16	Landscape1
17	Landscape2
18	Landscape3
19	Seeding Notes
20	EC Plan
21	Erosion Control Details
22	Erosion Control Details
23	Erosion Control Details
24	Plat

## UTILITIES

Kansas Gas Service (Gas)  
1021 E. 26th St. N.  
Wichita, Kansas 67219  
316-832-3126  
Attn: Jim Coe

WESTAR (Electric)  
300 W. 1st  
Newton, Kansas 67114  
316-261-6824  
Attn: Miles Capps

Newton Water & San. Sewer Dept.  
201 E. 6th  
P.O. Box 426  
Newton, Kansas 67114-0426  
316-284-6080  
Attn: Mike Hind

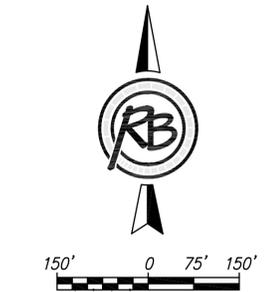
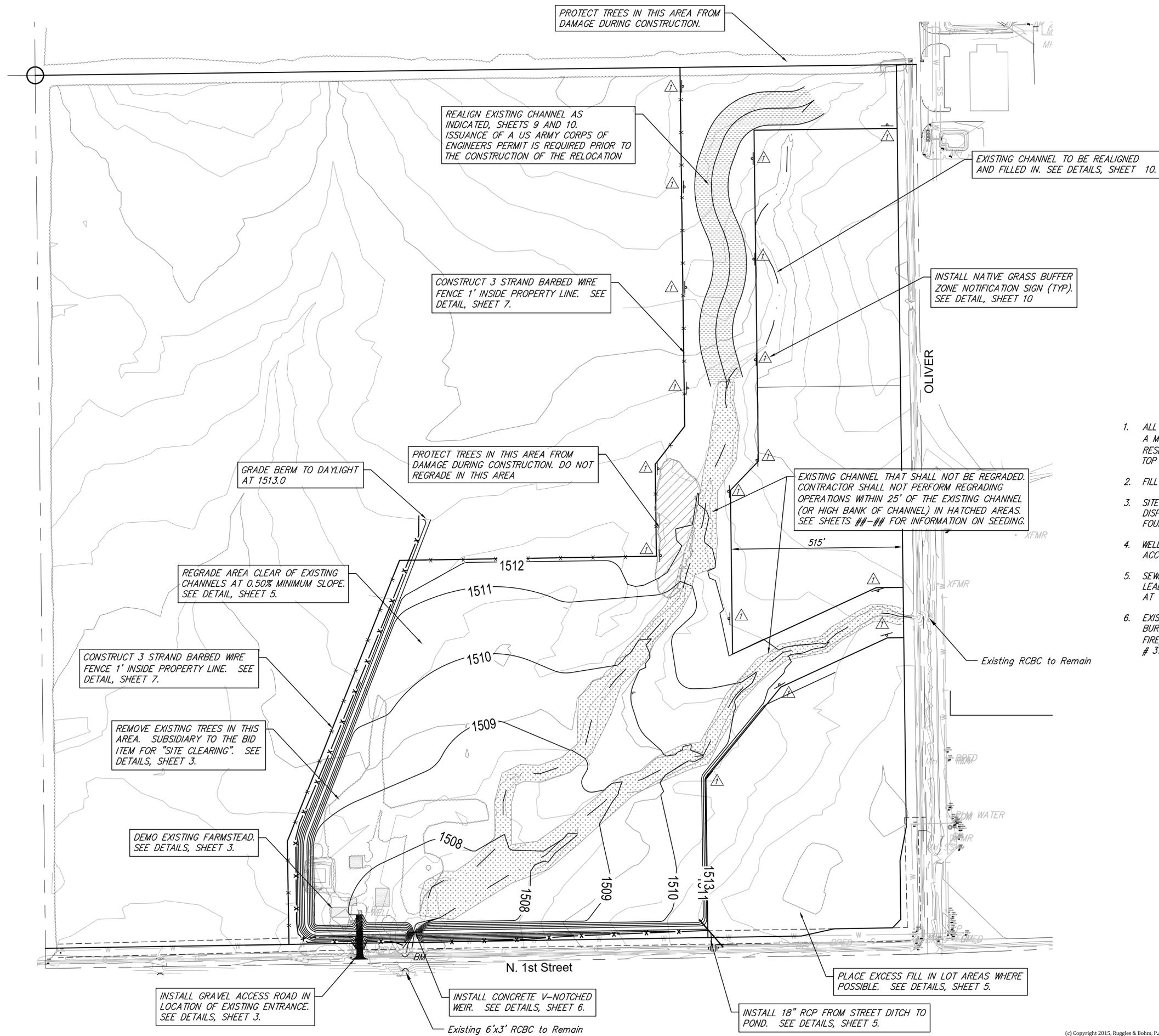
AT&T Telephone  
101 E. Second Rm. 211  
Hutchinson, Kansas  
67501-7155  
620-665-1933  
Attn: Mike Buczinski

Cox Communications  
417 Windward Dr.  
Newton, Kansas 67114  
316-242-5121  
Attn: Rick Stein

Kansas One-Call, Inc.  
8100 E. 22nd Bldg. 1700  
Wichita, Kansas 67226  
316-687-2470  
1-800-344-7233

Harvey County RWD #1  
PO Box 197  
210 Esau  
Walton, KS 67151  
620-837-5634  
Attn: Sandra Lanzrath

Butler Rural Electric Company  
PO Box 1242  
216 S Vine  
El Dorado, KS 67042  
316-321-9600  
800-464-0060  
Attn: Travis Griffin

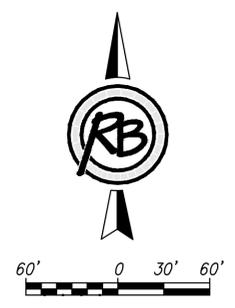
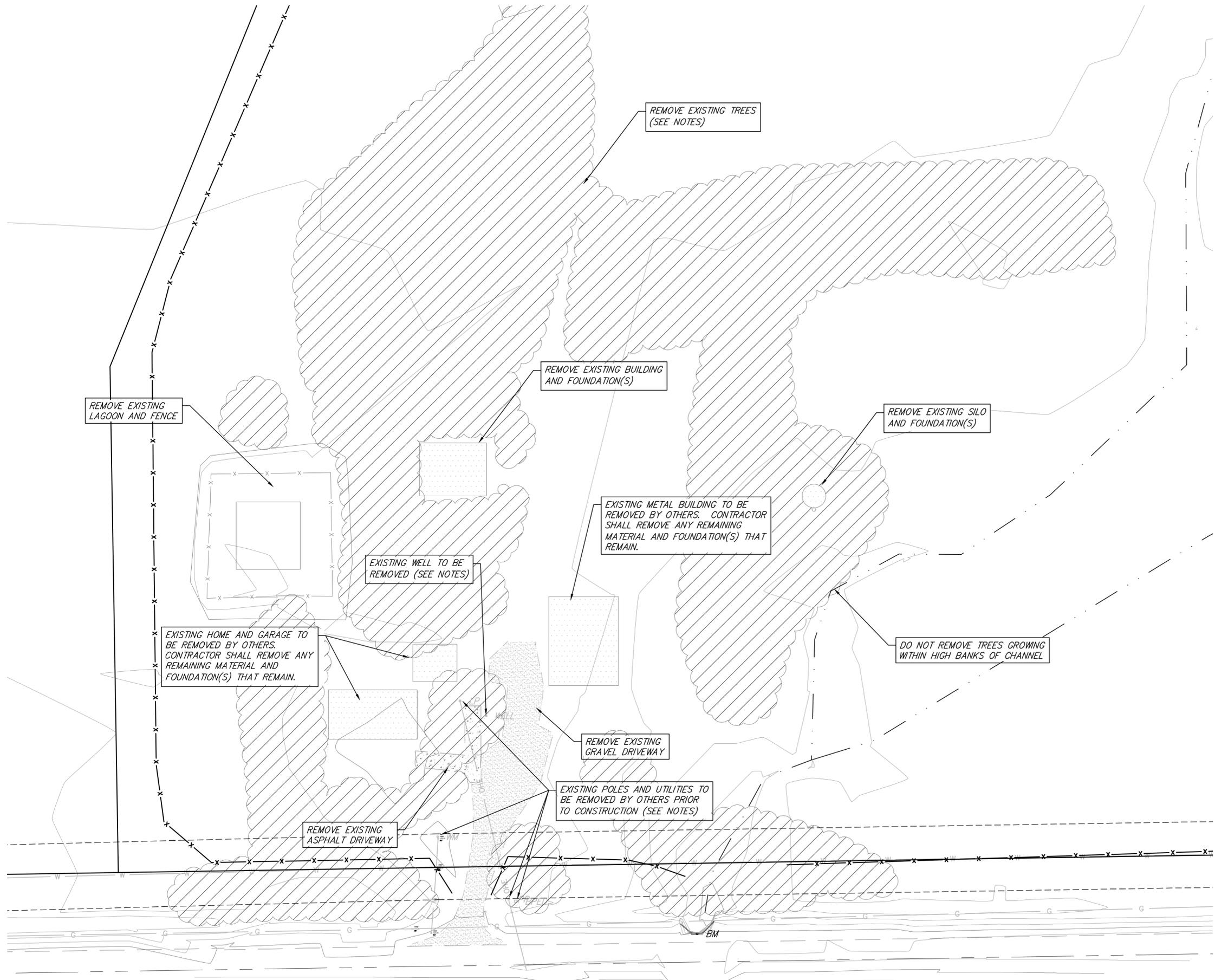


**CONSTRUCTION NOTES**

1. ALL DISTURBED AREAS ARE TO BE SCRAPED AND SCARIFIED TO A MIN. 6" DEPTH WITH TOPSOIL REMOVED AND STOCKPILED ON RESERVE "D". STOCKPILED TOPSOIL SHALL BE REPLACED ON TOP OF PLACED FILL.
2. FILL PLACED IN LOTS SHALL BE TYPE A COMPACTION.
3. SITE CLEARING AND RESTORATION SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL STRUCTURES, FENCES, CONCRETE SLABS, FOUNDATIONS, SIDEWALKS AND CISTERNS LOCATED ON SITE.
4. WELLS LOCATED ON SITE SHALL BE CUT AND CAPPED ACCORDING TO KDHE REGULATIONS.
5. SEWER LINES FROM EXISTING BUILDINGS OR FOUNDATIONS LEADING TO THE LAGOON ON SITE SHALL BE CUT AND CAPPED AT THE UPSTREAM END.
6. EXISTING TREES AND BRUSH REMOVED FROM THIS SITE MAY BE BURNED ON SITE WITH A PERMIT OBTAINED FROM NEWTON FIRE/EMS DEPT. CONTACT MARK WILLIS, DEPUTY CHIEF AT PH. # 316-284-6065.

△ Proposed Native Grass Buffer Notification Sign

<p><b>NEWTON AIRPORT SOUTH DETENTION POND</b>  <b>Site Overview</b></p>
<p>APPLICATION NO. NWK-2015-1950          CITY OF NEWTON, KANSAS          COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT          UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK          HARVEY COUNTY, KANSAS          SHEET 2 OF 23          DATED 16 NOVEMBER 2015</p>

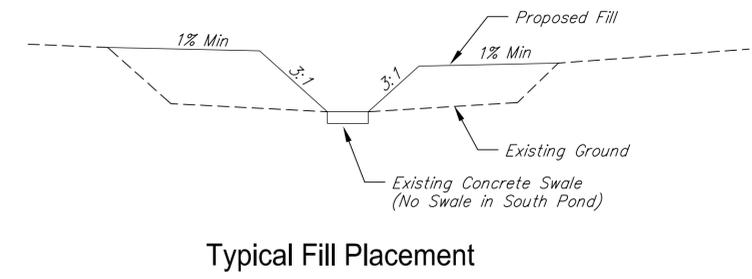
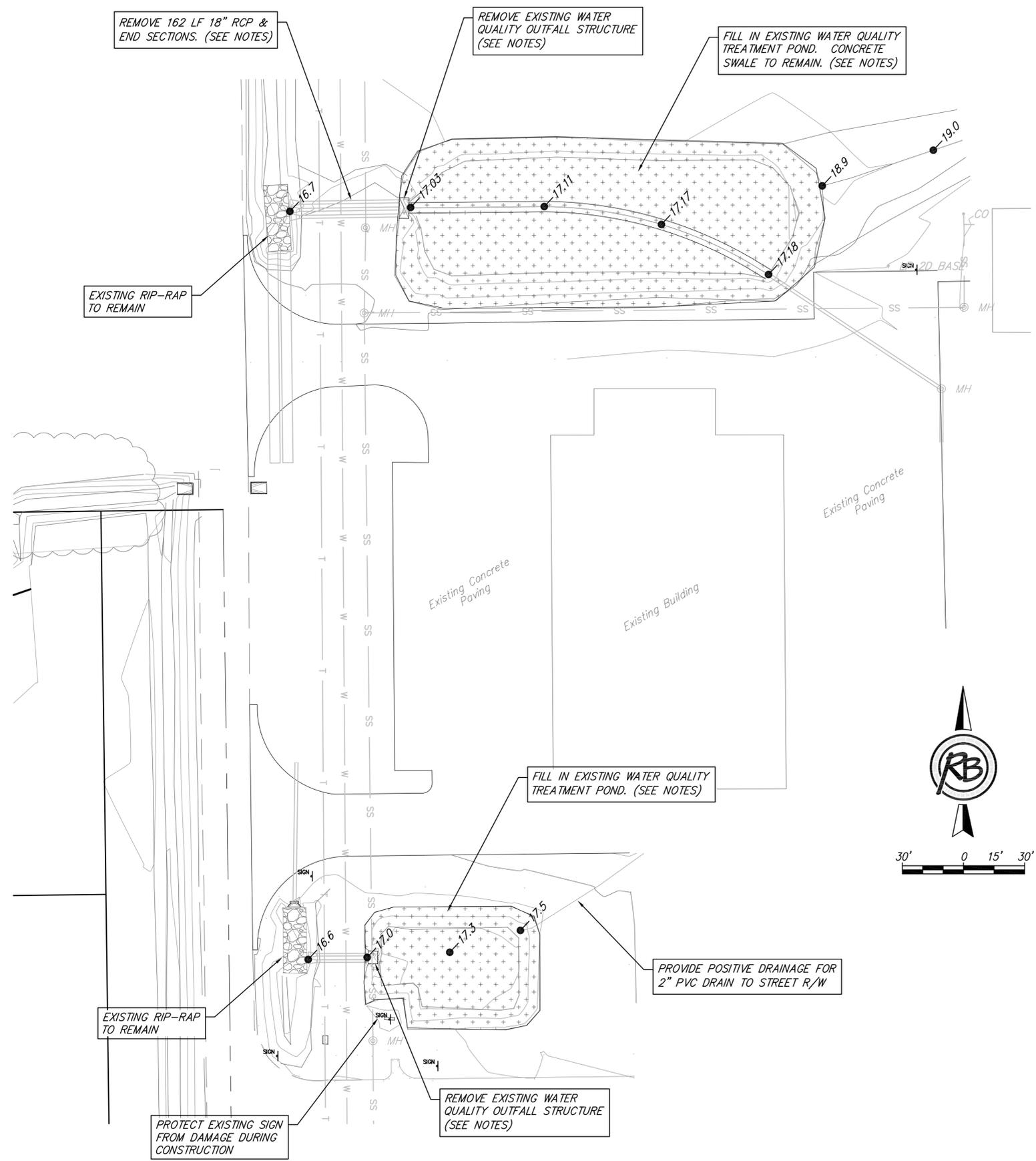


**DEMOLITION NOTES**

1. Except where noted in plans, all trees within project limits shall be removed. Tree removal must be done between October 1st and March 31st. Trees may be burned onsite in locations at least 300 feet from any property lines. Contractor shall coordinate with City of Newton Fire Department before burning trees.
2. All buildings & structures within the project limits at the time of construction shall be removed, including foundations and other supporting features. It shall be the contractor's responsibility to determine if special removal techniques are required. All material and items removed from this site will become the property of the contractor.
3. The contractor shall be responsible for removing all trash, debris, construction materials, fence, shrubs trees and other obstacles and disposing of that material at an approved location.
4. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved.
5. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
6. Existing utility poles shall be removed by their respective owners prior to construction. Any utilities remaining on site shall be removed by the Contractor. Cost of that removal shall be incidental to the bid item for "Site Clearing".
7. Any existing wells encountered on the site shall be abandoned in accordance with KDHE requirements by an authorized well professional.
8. Contractor shall not disturb the existing stream channels in areas noted to be protected from disturbance. Tracked vehicles should remain clear of the stream channel at all times.

**NEWTON AIRPORT SOUTH DETENTION POND  
Farmstead Demolition Plan**

APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 3 OF 23  
DATED 16 NOVEMBER 2015

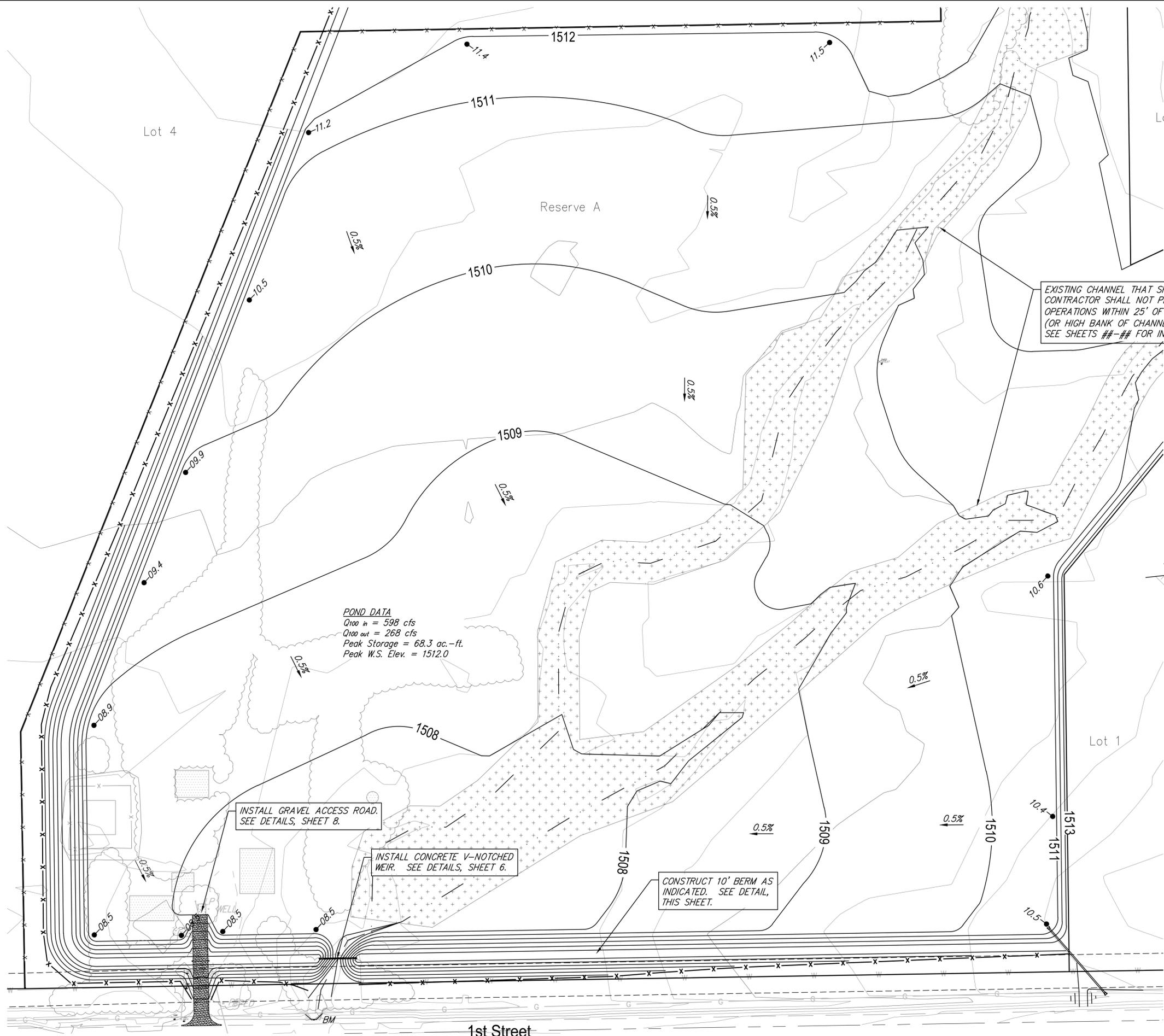


**WATER QUALITY FACILITY REMOVAL NOTES**

- Existing water quality ponds shall be filled as indicated in this plan. Contractor shall field adjust grading as necessary to provide positive drainage for all swales and pipes that enter into the treatment ponds. Compaction in pond area shall be 95% Standard Proctor Density. Compaction tests shall be performed in each pond prior to acceptance.
- Pipe and structures removed from this area shall be salvaged and returned to the City of Newton. Material shall be delivered to \_\_\_\_\_, Newton, Kansas. Cost to be incidental to the lump sum bid item for "WQ Treatment Pond Removal".
- Existing utilities within the project limits shall be protected from damage during construction. Locations shown are based on record information and must be field verified by the contractor prior to removal of existing storm sewer pipes.

**NEWTON AIRPORT SOUTH DETENTION POND  
WQ Facility Removal Plan**

APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 4 OF 23  
DATED 16 NOVEMBER 2015



**POND DATA**  
 $Q_{100\text{ in}} = 598\text{ cfs}$   
 $Q_{100\text{ out}} = 268\text{ cfs}$   
 Peak Storage = 68.3 ac.-ft.  
 Peak W.S. Elev. = 1512.0

INSTALL GRAVEL ACCESS ROAD.  
 SEE DETAILS, SHEET 8.

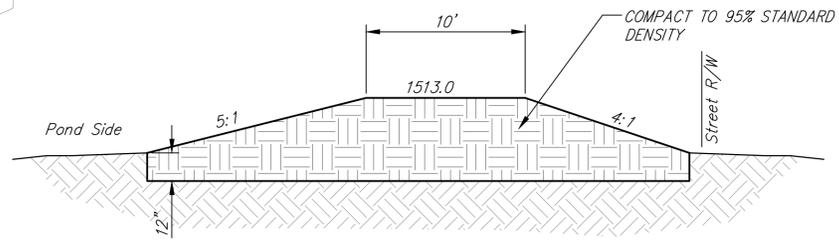
INSTALL CONCRETE V-NOTCHED  
 WEIR. SEE DETAILS, SHEET 6.

CONSTRUCT 10' BERM AS  
 INDICATED. SEE DETAIL,  
 THIS SHEET.

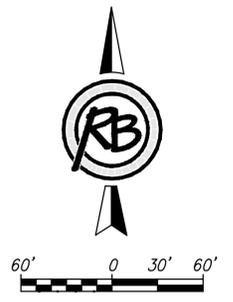
EXISTING CHANNEL THAT SHALL NOT BE REGRADED.  
 CONTRACTOR SHALL NOT PERFORM REGRADE  
 OPERATIONS WITHIN 25' OF THE EXISTING CHANNEL  
 (OR HIGH BANK OF CHANNEL) IN HATCHED AREAS.  
 SEE SHEETS ##-## FOR INFORMATION ON SEEDING.

**CONSTRUCTION NOTES**

- All disturbed areas are to be scraped and scarified to a minimum of 6" depth with topsoil removed and stockpiled onsite. Stockpiled topsoil shall be replaced on top of placed fill.
- Fill placed shall be Type A Compaction.
- Existing Stream channels and a 25' minimum buffer shall be protected from grading activities except where specifically identified for modification. Contractor shall not operate tracked equipment within areas to be protected from regrading. Rubber tired vehicles are required in channel areas.
- Areas outside channel shall be graded to drain into existing stream channels at 0.50% slope.
- See Landscaping Plans (Sheets ## to ##) for seeding requirements of disturbed areas.

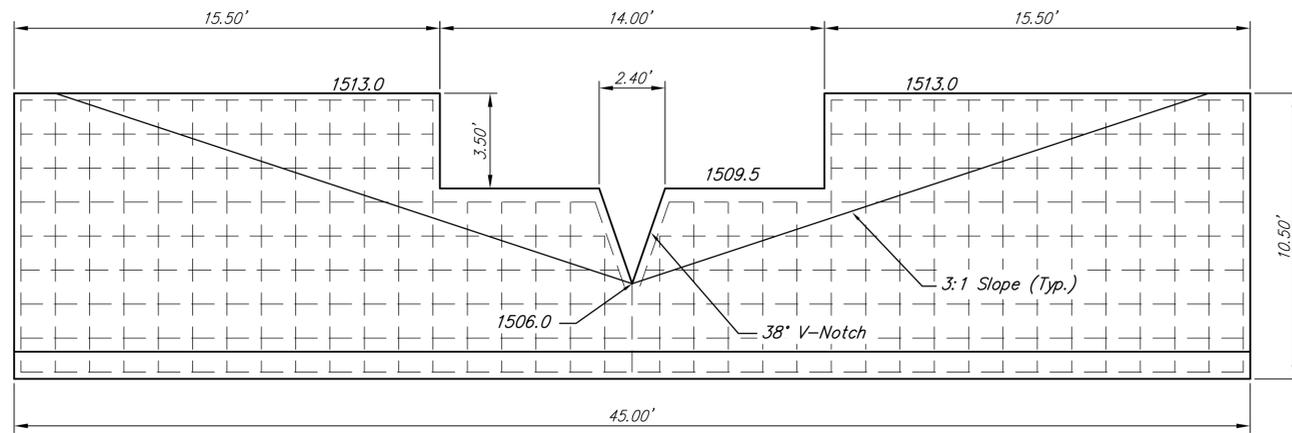


**BERM DETAIL**



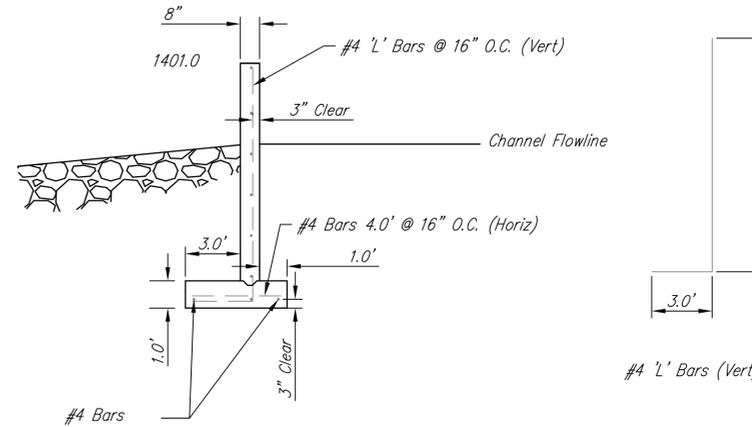
**NEWTON AIRPORT SOUTH DETENTION POND  
 Pond Plan**

APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 5 OF 23  
 DATED 16 NOVEMBER 2015

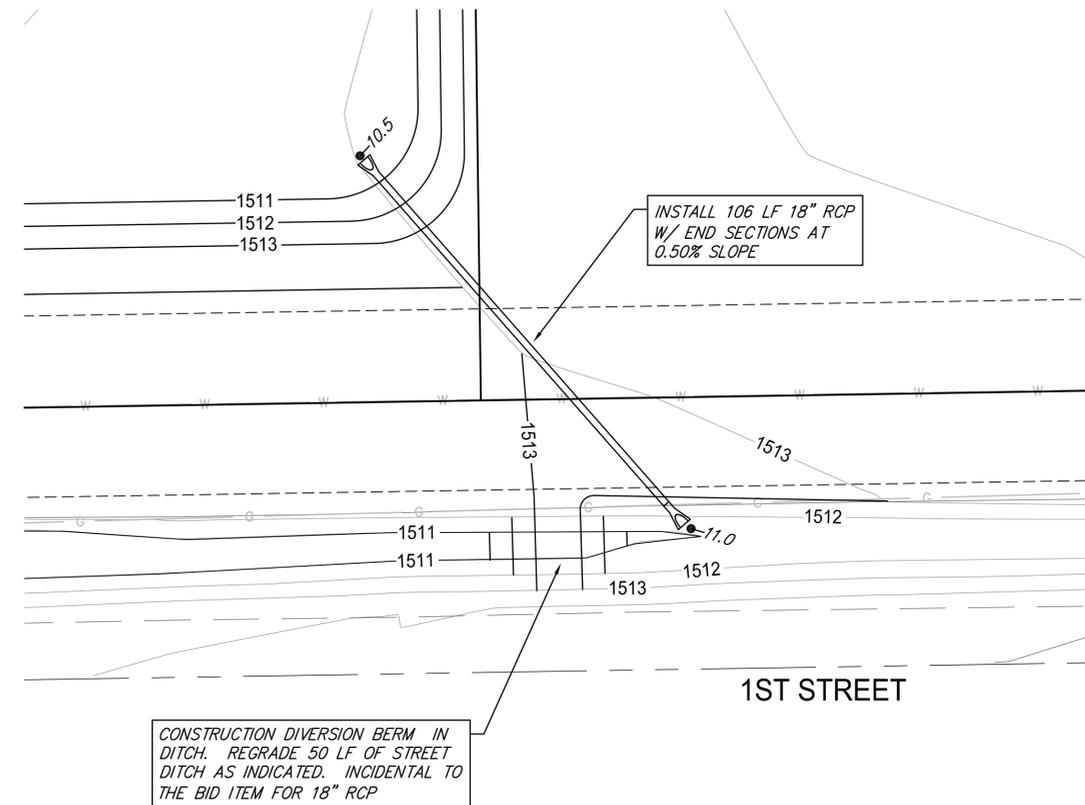
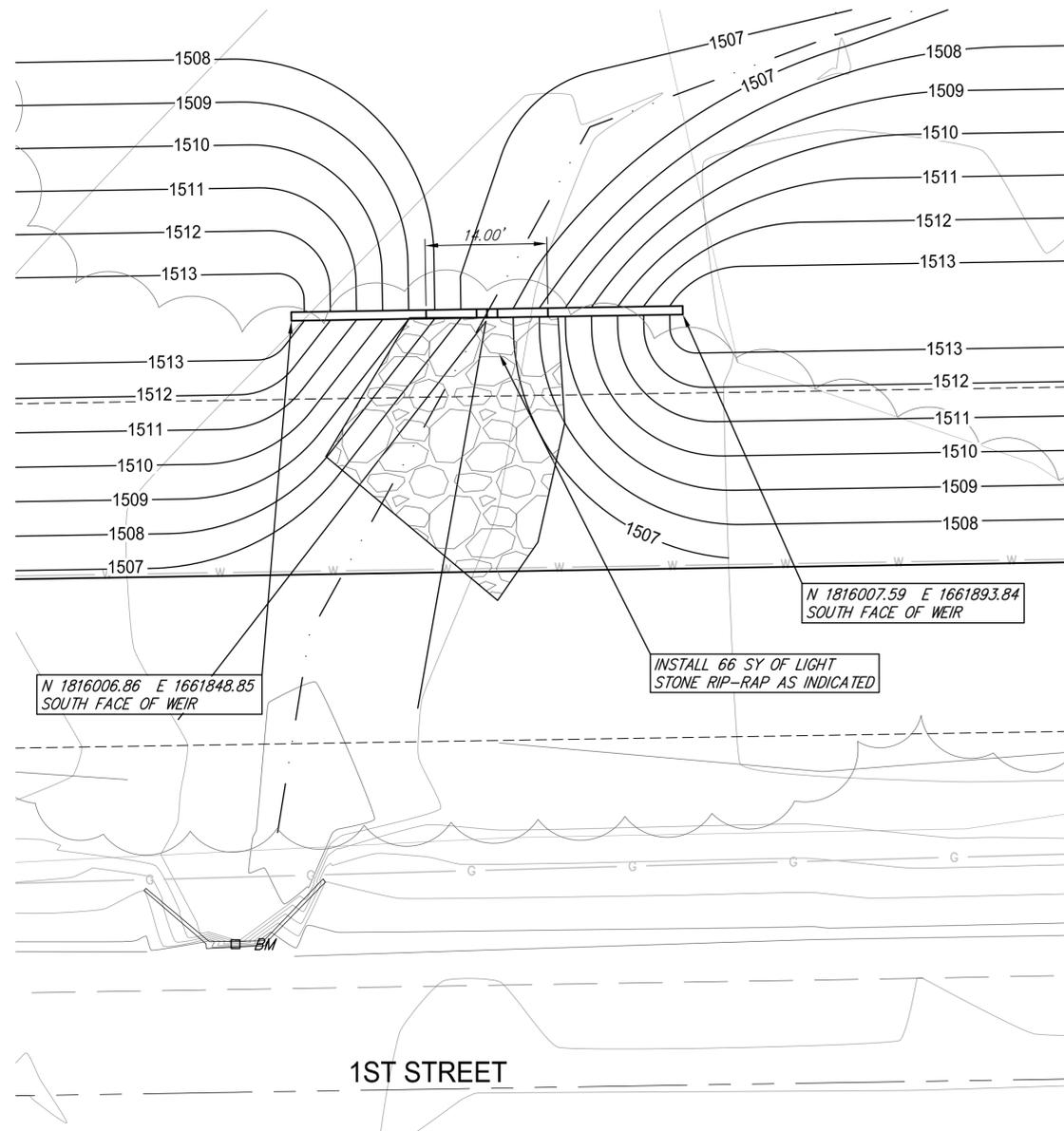


### Pond Weir Wall Detail

Air Entrained Concrete:  $F'_c = 4000$  psi @ 28 days  
 Reinforcing:  $F_y = 60000$  psi  
 Cover over Reinforcing is 3" Clear unless otherwise indicated

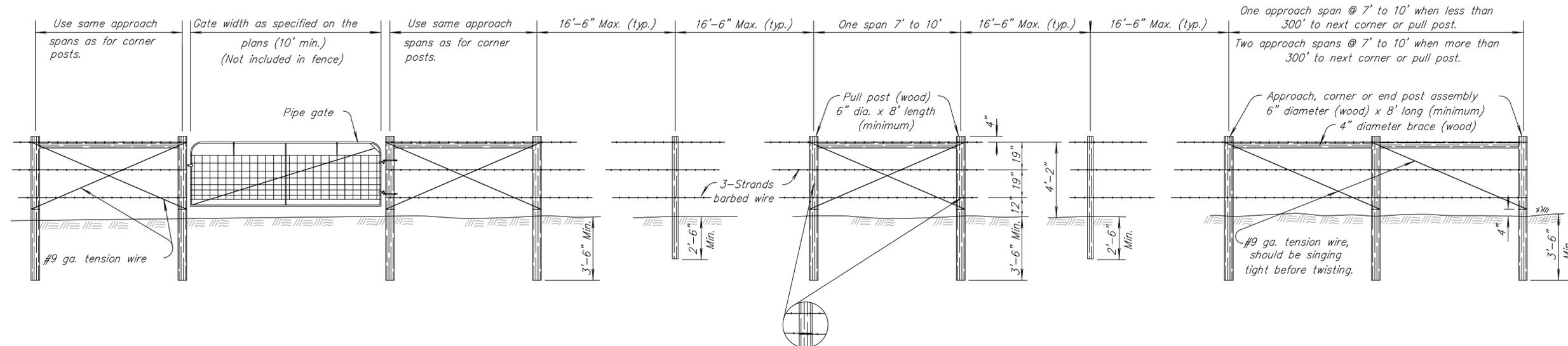


### Weir Wall Profile



### NEWTON AIRPORT SOUTH DETENTION POND Pond Details

APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 6 OF 23  
 DATED 16 NOVEMBER 2015



Wrap wire 2 turns around post and 6 turns back on itself at alternate wires and posts.

### BARBED WIRE FENCE

### FENCE NOTES

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.

If used, all steel posts, braces, fittings, and gate frames shall be galvanized and/or coated in accordance with the KDOT 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.

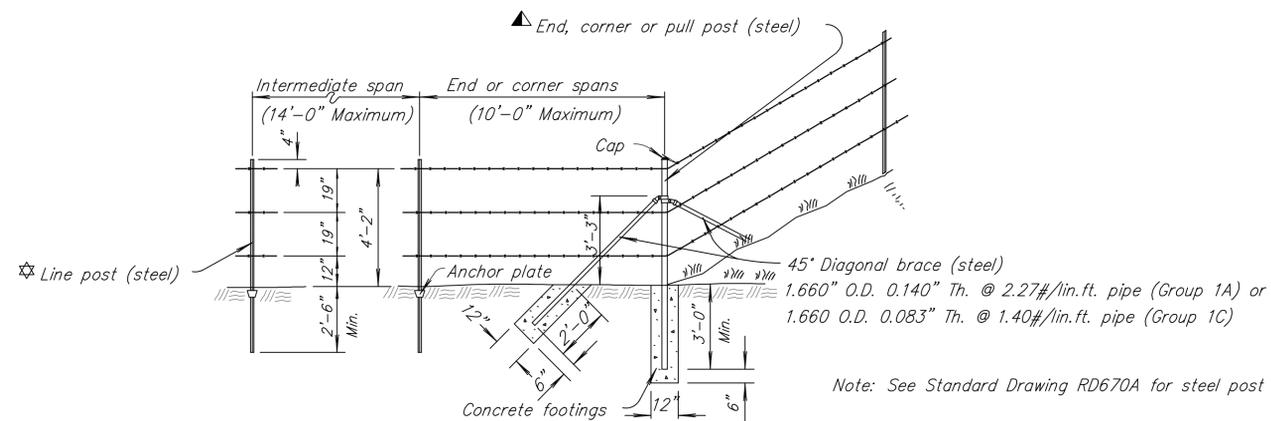
Posts may be set by driving or digging. If by digging, the posts shall be set in the center of the hole and the soil tamped securely on all sides.

Pull post assembly shall be used at sharp breaks in vertical grade or at approximately 1320' centers on straight runs.

Concrete used in fence installation shall conform to the requirements of the KDOT Standard Specifications. 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 11/2" to 13/4" long, or #9 gauge galvanized Ring-shank staples 11/2" to 13/4" long.

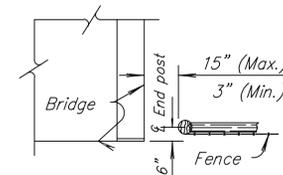
Alternate gate designs may be submitted for approval. Lighter weight materials will not be approved. Padlocks for gates shall be furnished by the City of Newton. Shop drawings for steel gate post assembly designs are to be submitted to the City of Newton for approval prior to construction.



### BARBED WIRE FENCE STEEL POST (ALTERNATE)

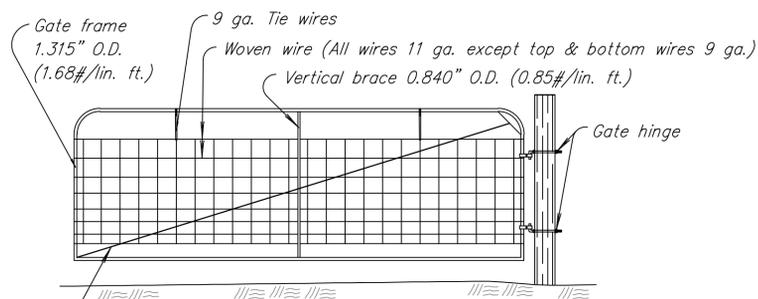
Steel posts may be used in lieu of wood posts as shown above.

Note: See Standard Drawing RD670A for steel post requirements.

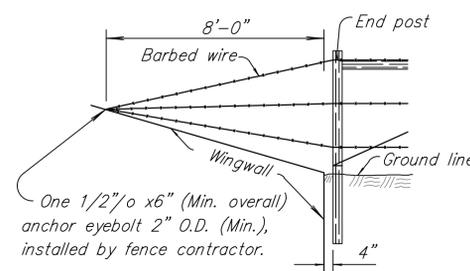


### FENCE DETAILS AT BRIDGE ABUTMENTS

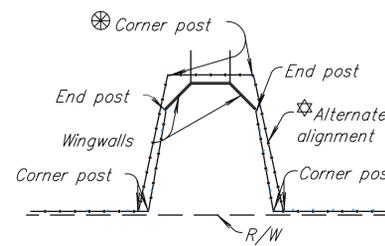
(Use appropriate post and brace for fence type, dimensions are common for all fence types.)



### DETAIL of GATE, HINGE & SPECIFICATIONS



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

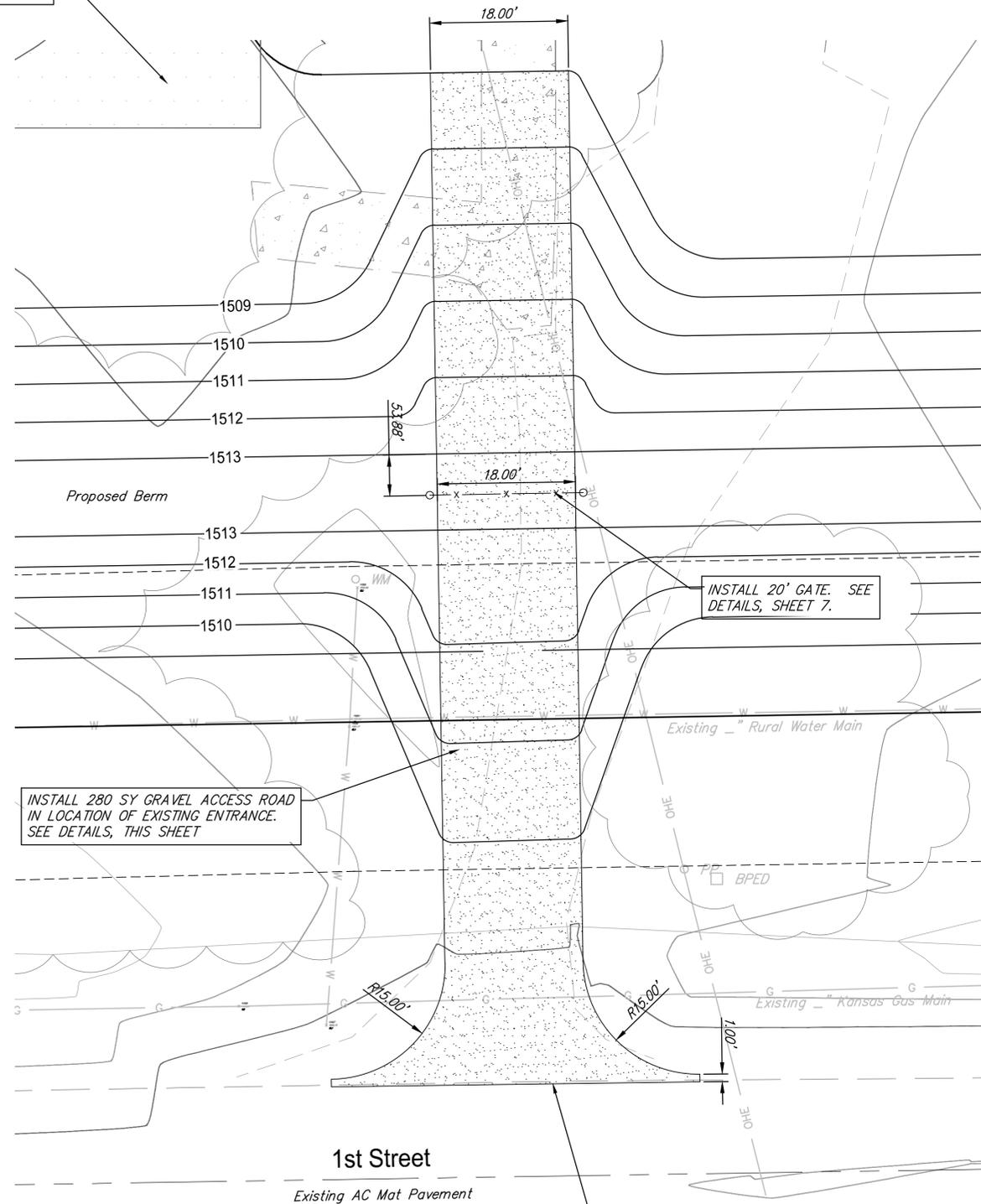


### FENCE ALIGNMENT AT UNDERPASS OR BOX DRAINAGE STRUCTURE

## NEWTON AIRPORT SOUTH DETENTION POND Fence Details

APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 7 OF 23  
 DATED 16 NOVEMBER 2015

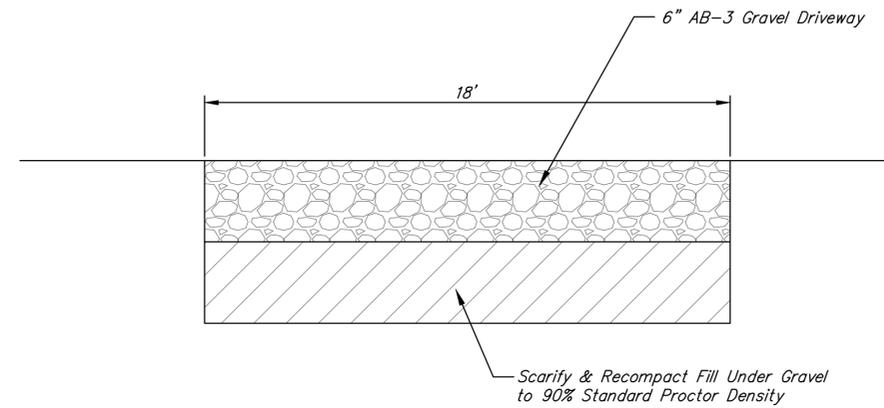
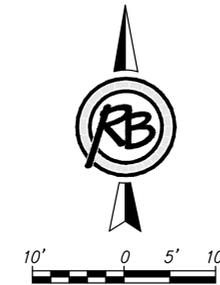
DEMO EXISTING FARMSTEAD.  
SEE DETAILS, SHEET 3.



INSTALL 280 SY GRAVEL ACCESS ROAD  
IN LOCATION OF EXISTING ENTRANCE.  
SEE DETAILS, THIS SHEET

INSTALL 20' GATE. SEE  
DETAILS, SHEET 7.

MATCH EDGE OF EXISTING  
ASPHALT ROADWAY.



**NEWTON AIRPORT SOUTH DETENTION POND  
Access Road**

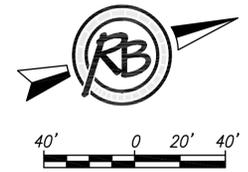
APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 8 OF 23  
DATED 16 NOVEMBER 2015

# AIRPORT SOUTH PLAT

Lot 4

CONSTRUCT 3 STRAND BARBED WIRE FENCE 1' INSIDE PROPERTY LINE. SEE DETAIL, SHEET 7.

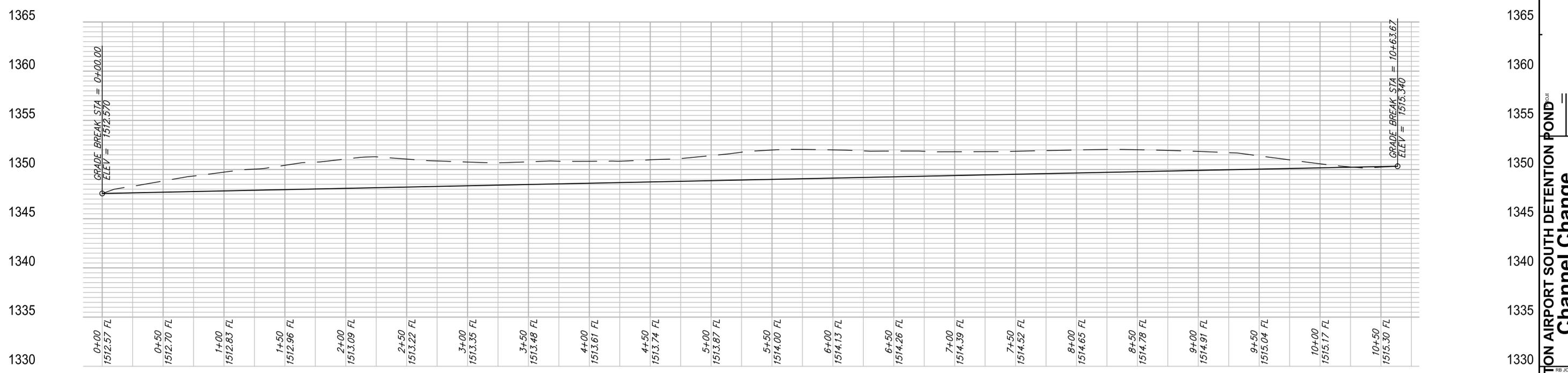
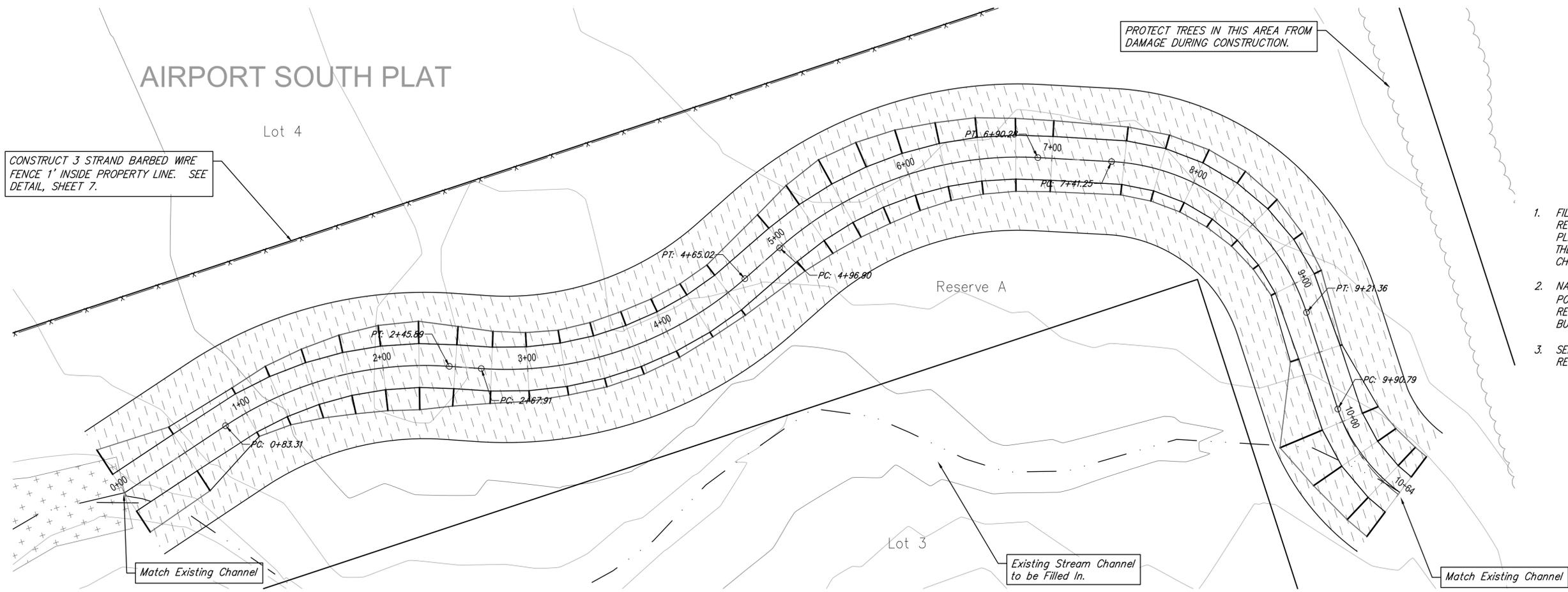
PROTECT TREES IN THIS AREA FROM DAMAGE DURING CONSTRUCTION.

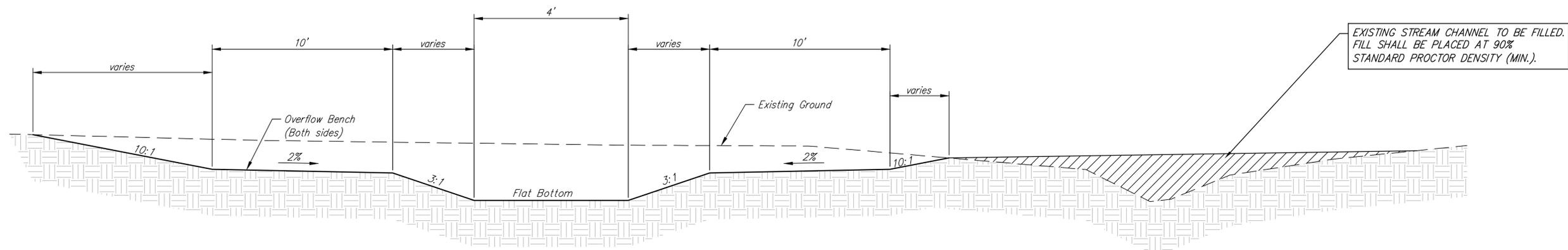


## CONSTRUCTION NOTES

1. FILL PLACED IN EXISTING STREAM CHANNEL TO BE REALIGNED SHALL BE TYPE A COMPACTION. FILL SHALL BE PLACED IN MANNER THAT PROVIDES POSITIVE DRAINAGE IN THE FILLED AREA ALONG THE ALIGNMENT OF THE ORIGINAL CHANNEL.
2. NATIVE GRASS BUFFER ZONE NOTIFICATION SIGNS SHALL BE POSTED AT 300' INTERVALS ALONG THE LENGTH OF THE REALIGNED CHANNEL. SEE SHEET 2 FOR LOCATIONS OF BUFFER SIGNS AND SHEET 10 FOR BUFFER SIGN DETAILS.
3. SEE LANDSCAPING PLANS (SHEETS ## TO ##) FOR SEEDING REQUIREMENTS IN CHANNEL AREA.

APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 9 OF 23  
 DATED 16 NOVEMBER 2015



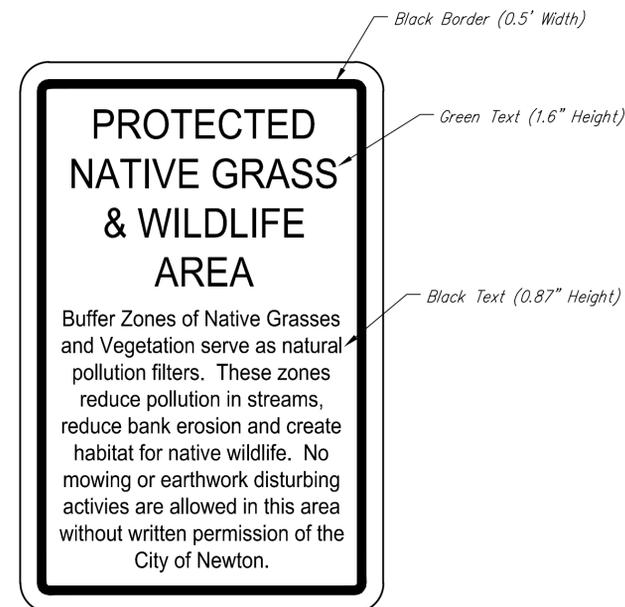


Proposed Realigned Ditch Section

**NOTES:**

Realigned ditch section will be replanted with native grass blends. See landscaping sheets for specific seed types and seasons. A 50' buffer will be provided on each side of stream centerline.

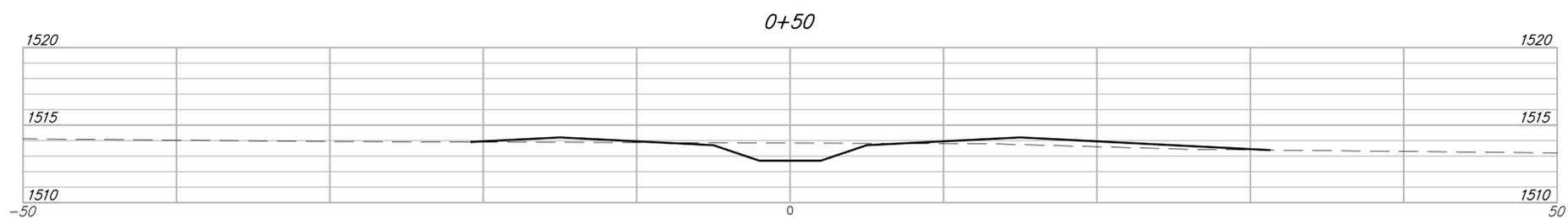
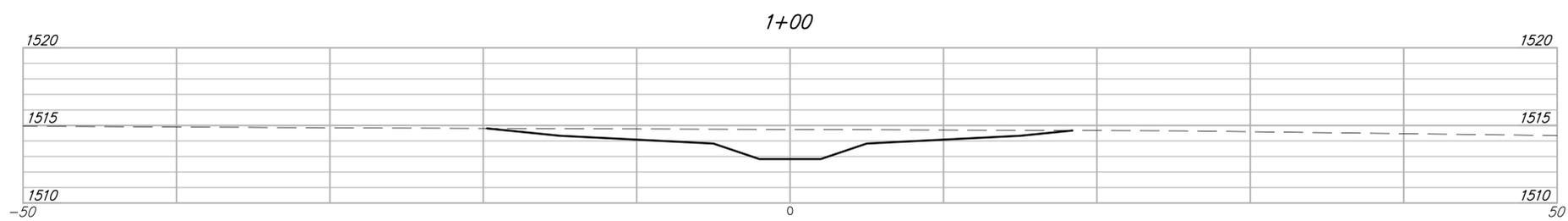
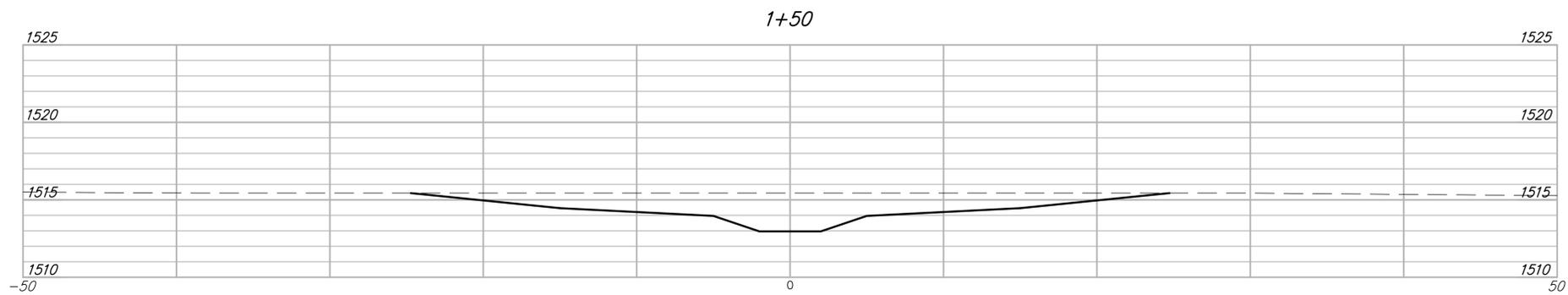
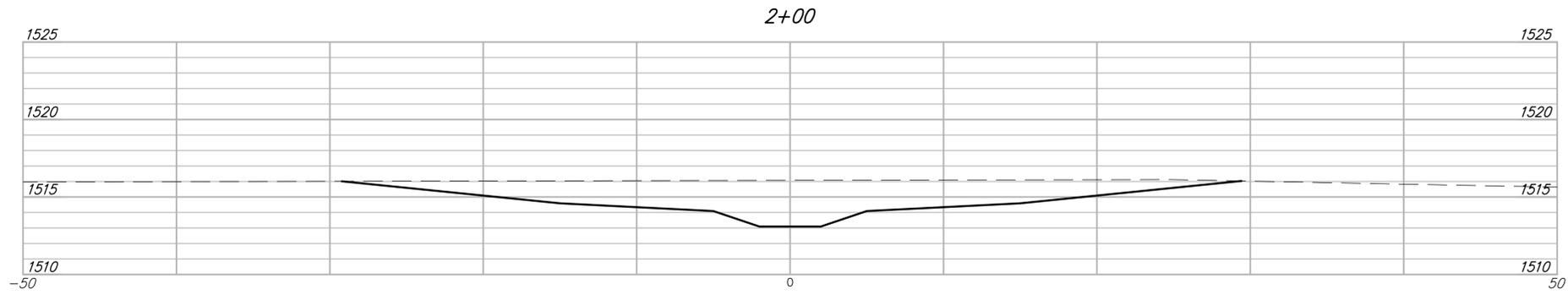
The realigned ditch section will be installed in a platted drainage reserve that prohibits regrading without USACE approval. Signs shall be installed at 200' intervals notifying users to avoid disturbing channels. See sign details, this sheet.



Buffer Zone Notification Sign  
(18" x 30")

**NEWTON AIRPORT SOUTH DETENTION POND  
Channel Change Details**

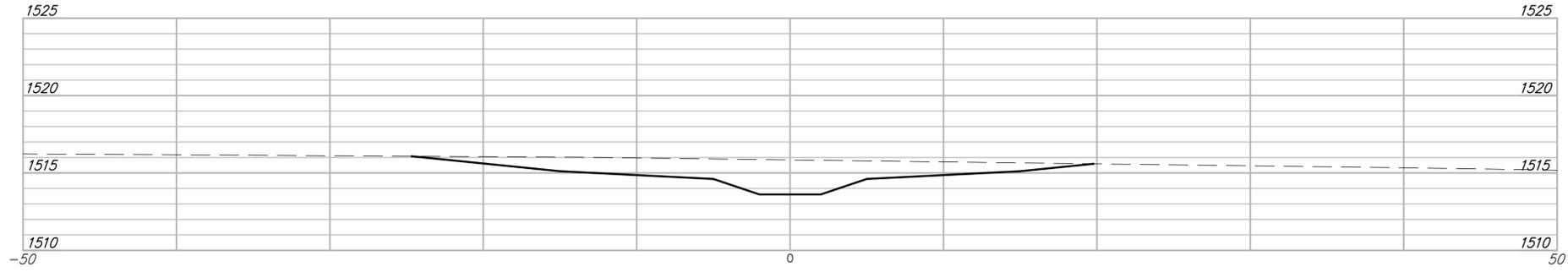
APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 10 OF 23  
DATED 16 NOVEMBER 2015



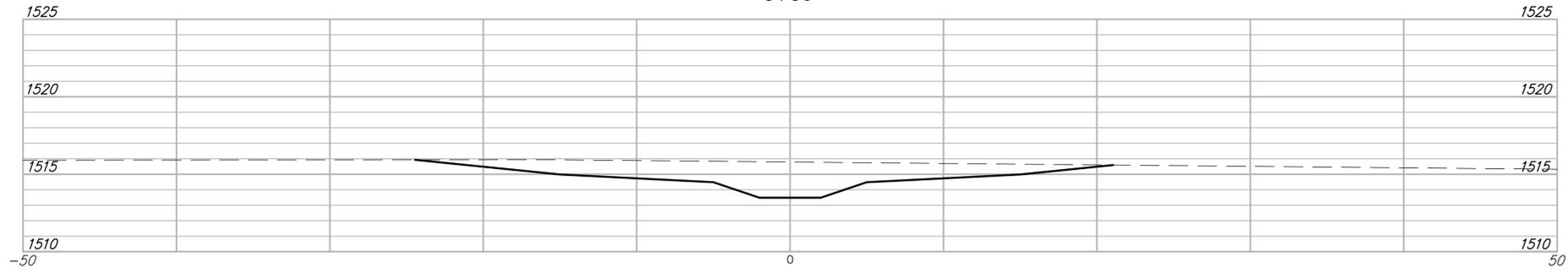
APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 11 OF 23  
 DATED 16 NOVEMBER 2015

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Cross Sections**  
**0+00 to 2+00**

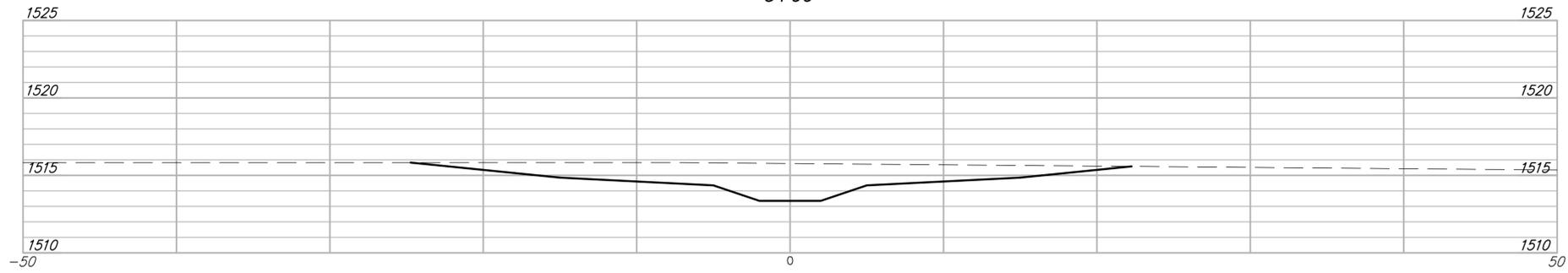
4+00



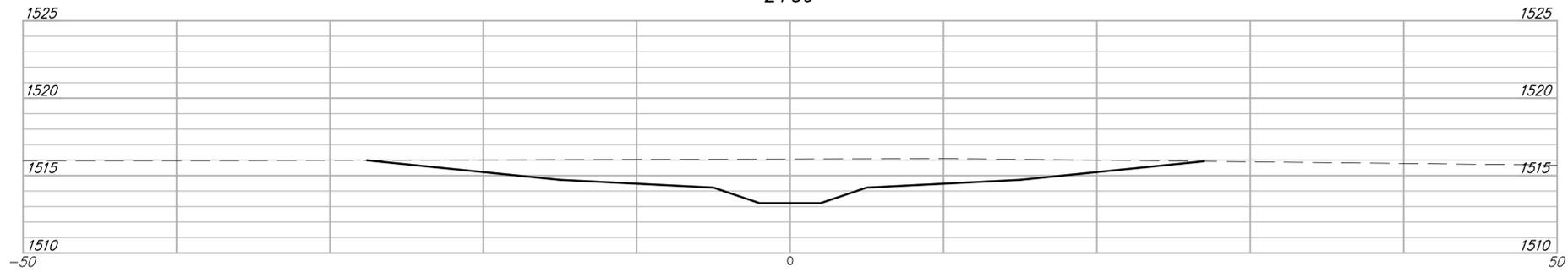
3+50



3+00

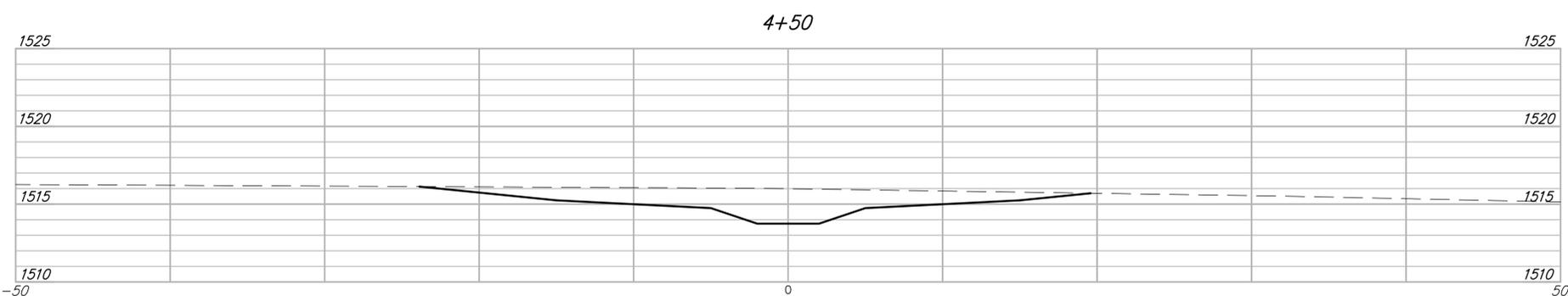
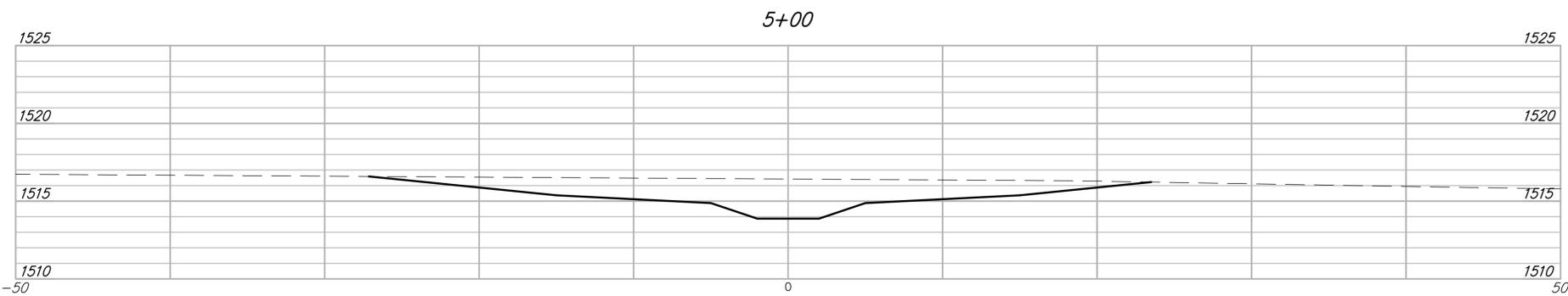
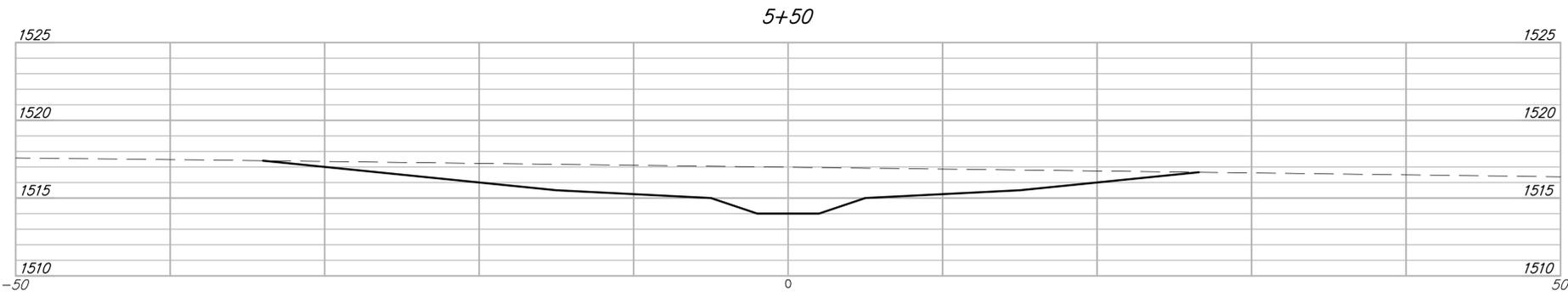
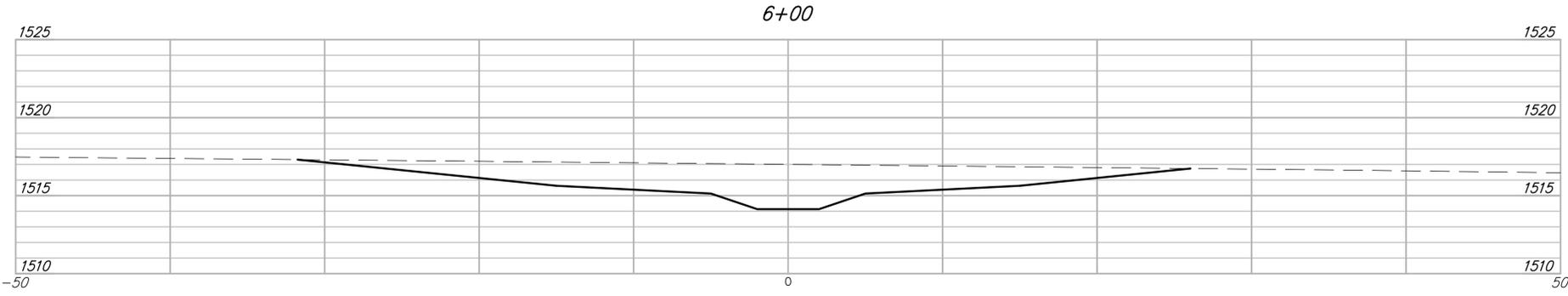


2+50



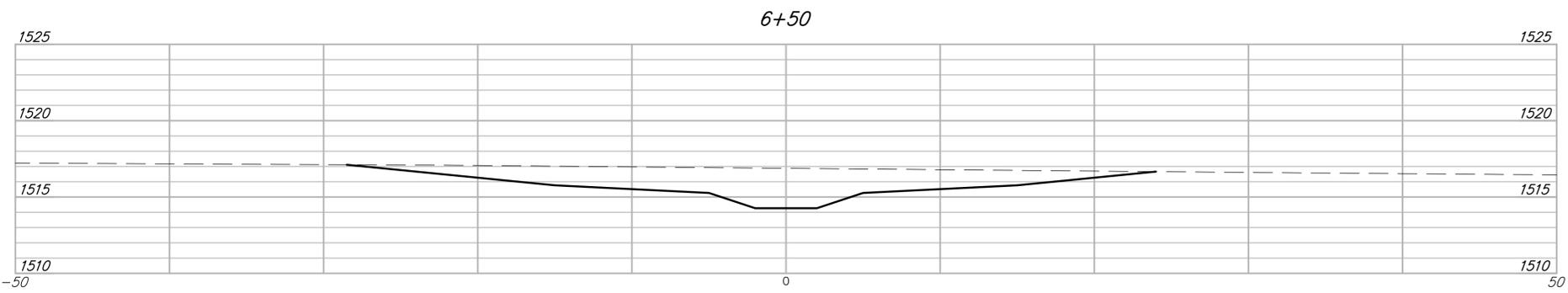
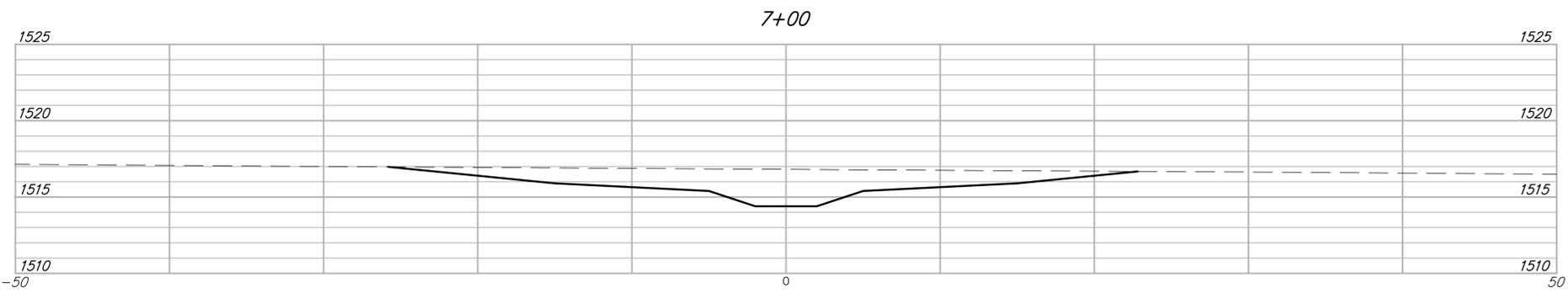
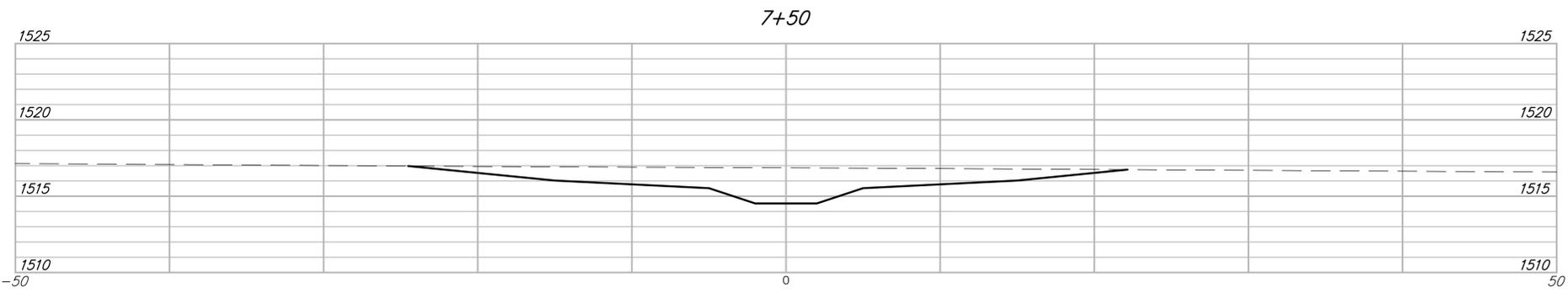
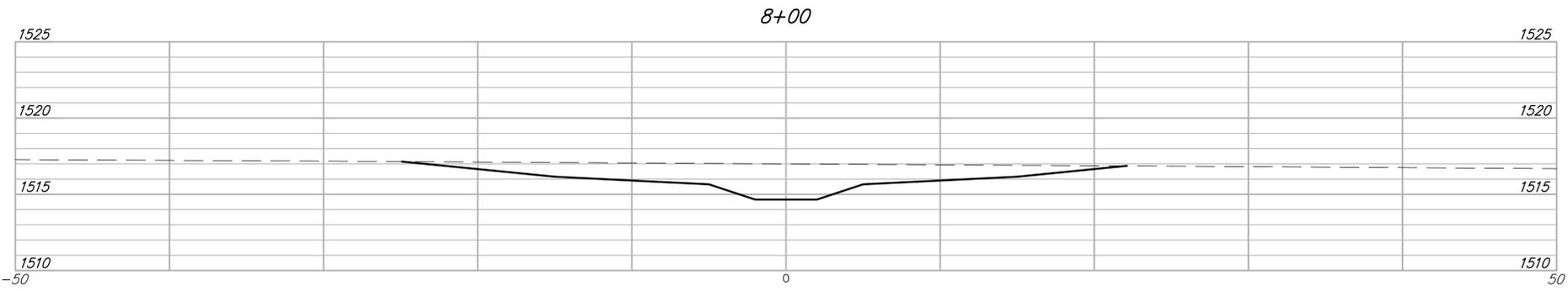
APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 12 OF 23  
DATED 16 NOVEMBER 2015

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Cross Sections**  
**2+50 to 4+00**



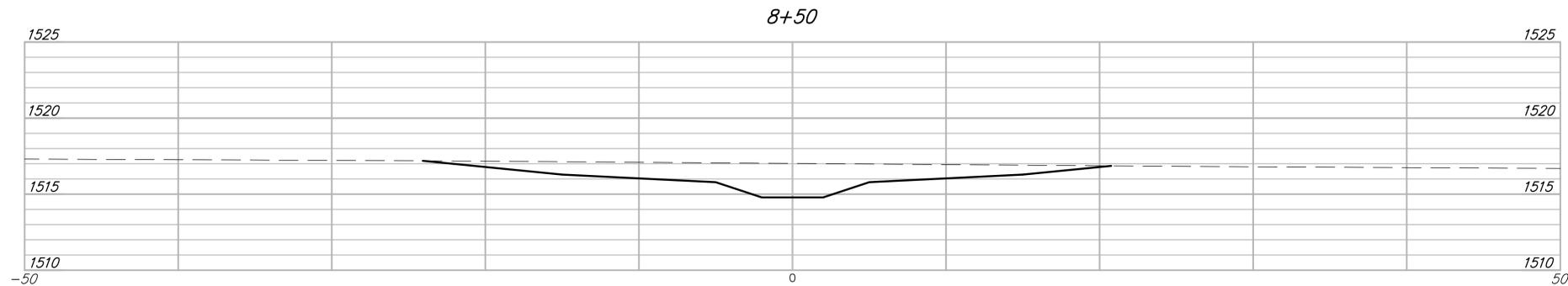
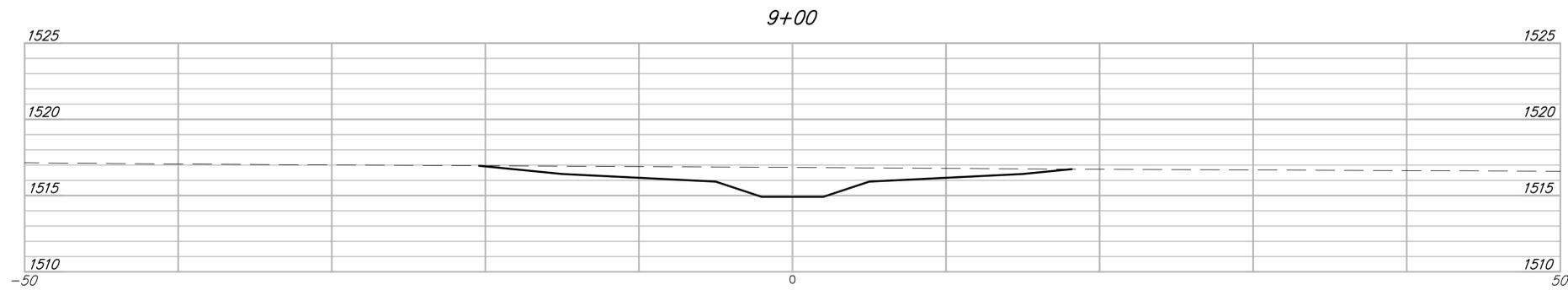
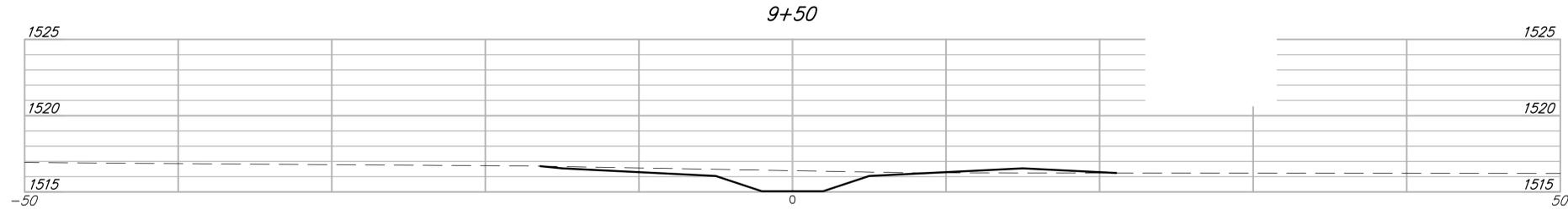
APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 13 OF 23  
 DATED 16 NOVEMBER 2015

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Cross Sections**  
**4+50 to 6+00**



APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 14 OF 23  
 DATED 16 NOVEMBER 2015

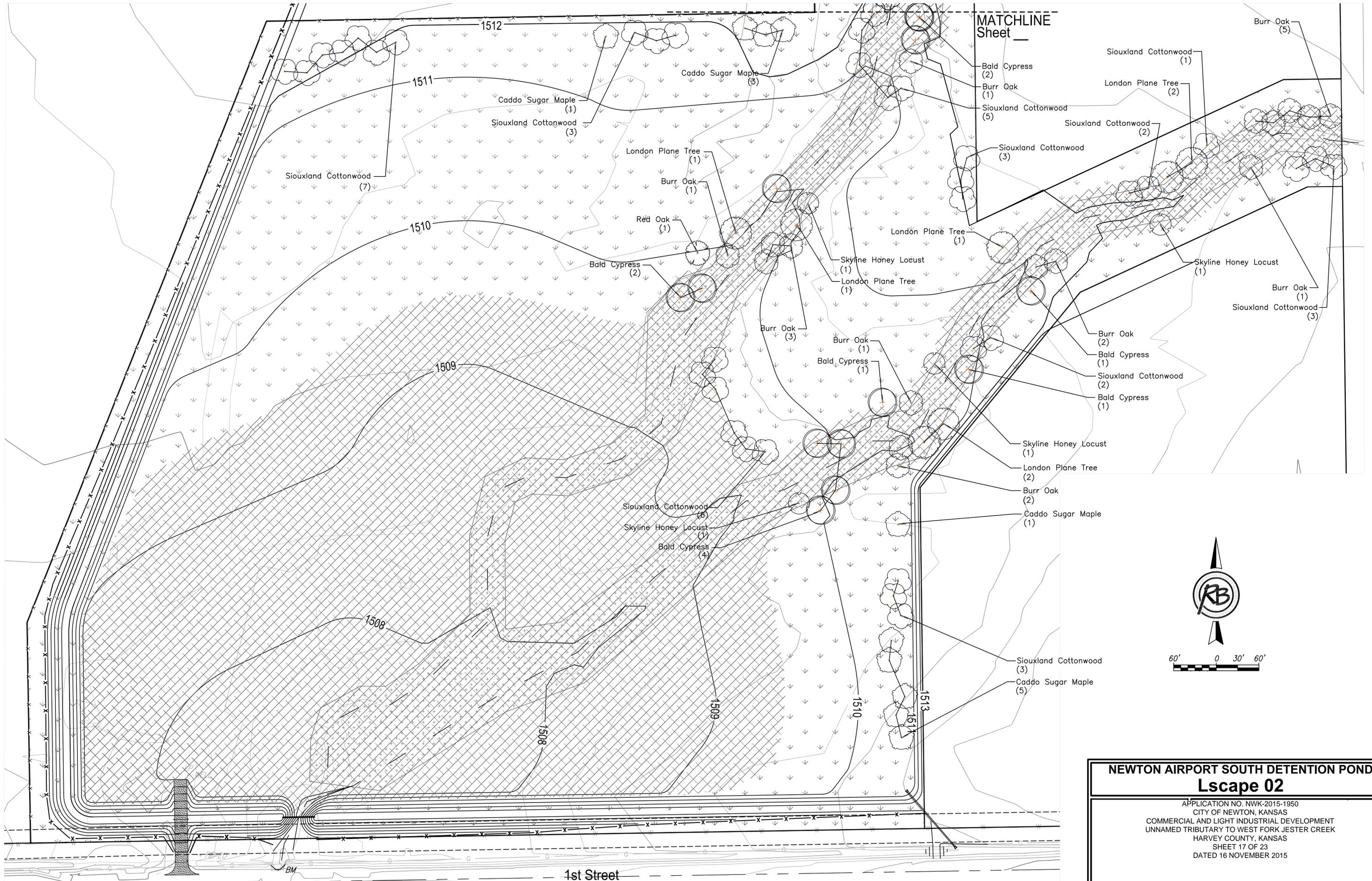
**NEWTON AIRPORT SOUTH DETENTION POND**  
**Cross Sections**  
**6+50 to 8+00**



APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 15 OF 23  
 DATED 16 NOVEMBER 2015

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Cross Sections**  
**8+50 to 9+50**





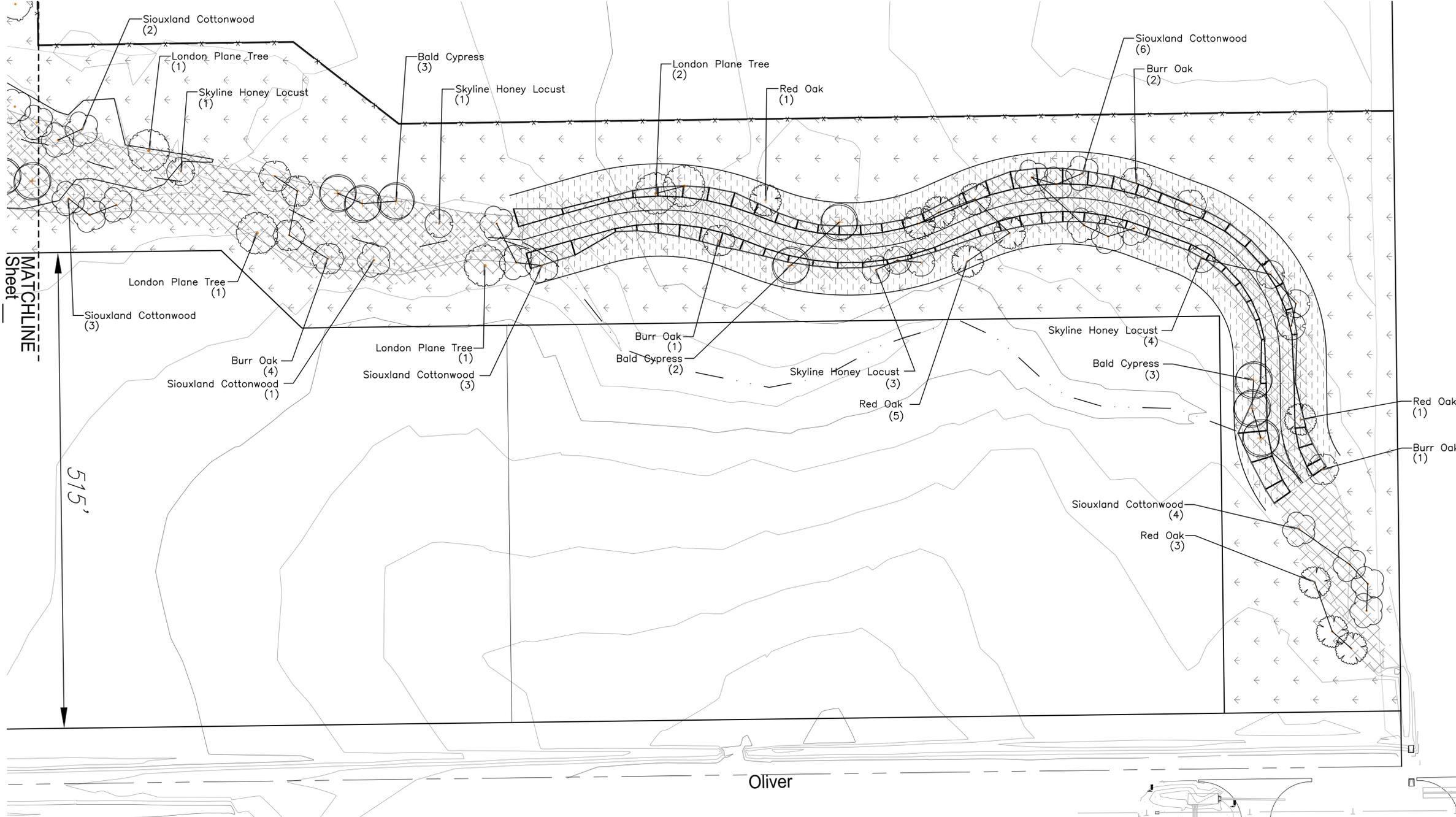
MATCHLINE  
Sheet



60' 0 30' 60'

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Lscape 02**

APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 17 OF 23  
DATED 16 NOVEMBER 2015



**NEWTON AIRPORT SOUTH DETENTION POND**  
**Lscape 03**

APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 18 OF 23  
 DATED 16 NOVEMBER 2015

**TEMPORARY SEEDING**

TEMPORARY SEED NOTES

1. TEMPORARY SEEDING SHALL BE INSTALLED AS TEMPORARY COVER AFTER GRADING AND/OR CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED IN AN AREA OF THE PROJECT. TEMPORARY SEED SHALL BE INSTALLED WHEN:

- 1.1. CONSTRUCTION ACTIVITY WILL CEASE FOR AT LEAST 28 DAYS; OR
- 1.2. WITHIN 21 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA; OR
- 1.3. WHEN PERMANENT SEEDING CANNOT TAKE PLACE WITHIN THE SPECIFIED PLANTING WINDOW.

2. TEMPORARY SEEDING SHALL BE PLACED VIA APPROPRIATE SEED DRILL. THE TEMPORARY SEED MIX IS AS FOLLOWS:

ANNUAL RYE 20#/ ACRE

3. TEMPORARY SEED MAY BE PLACED ANY TIME DURING CONSTRUCTION.

4. PROTECT SEEDED AREAS FROM EROSION BY SPREADING WEED-FREE STRAW MULCH TO FORM A CONTINUOUS BLANKET 1-1/2" LOOSE DEPTH AND CRIMP IN TO SOIL BY SUITABLE METHODS.

5. DO NOT SEED OR WORK SOIL WHEN THERE IS STANDING OR RUNNING WATER PRESENT IN DISTURBED AREAS.

**WATER QUALITY MIX (Permanent Seeding)**

1. PERMANENT SEEDING WITH THE WATER QUALITY MIX SHALL BE INSTALLED AT THE COMPLETION OF CONSTRUCTION ACTIVITIES IN COORDINATION WITH PERMANENT EROSION CONTROL BMPs, AS DEFINED IN THE NOTES IN THIS SECTION, WITHIN THE PLANS AND SPECIFICATIONS.

2. WATER QUALITY MIX SHALL BE A WARM SEASON GRASS MIX SEED CONTAINING LOCALLY AVAILABLE VARIETIES, AS SPECIFIED BELOW.

<<INSERT SEED MIX SPECIES AND SEED RATES>>

APPLY PURE NITROGEN FERTILIZER AT A RATE OF 2 LBS/ 1000 SF.

3. PERMANENT SEEDING SHALL BE DONE OCTOBER 15-- JUNE 1.

4. WATER QUALITY SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED. LANDSCAPE CONTRACTOR SHALL PROVIDE LANDSCAPE ARCHITECT WITH DEALER'S GUARANTEED STATEMENT OF COMPOSITION OF MIXTURE AND PERCENTAGE OF PURITY AND GERMINATION OF SEED USED.

5. SEEDING PROCESS: BEGINNING AS EARLY AS POSSIBLE, TILL ENTIRE AREA TO BE SEEDED TO DESTROY EXISTING VEGETATION AND LEAVE A FIRM, FRIABLE SEEDBED. TILL AREA TO BE SEEDED IN TWO SUCCESSIVE SHALLOW TILLINGS, APPROXIMATELY TWO WEEKS APART TO REMOVE ALL DEAD PLANT MATERIAL AND NEW GROWTH WEEDS. DO NOT TILL DURING WET WEATHER WHEN RUTTING MAY BE A PROBLEM.

6. LANDSCAPE CONTRACTOR TO DRILL WARM SEASON GRASS MIX SEED WITH A DRILL SPECIFICALLY SUITED FOR SEEDING NATIVE PRAIRIE GRASSES. PLANT SEED NO DEEPER THAN 1/2" BELOW SURFACE.

**PRAIRIE SEED MIX (Permanent Seeding)**

1. PERMANENT SEEDING WITH THE PRAIRIE MIX SHALL BE INSTALLED AT THE COMPLETION OF CONSTRUCTION ACTIVITIES IN COORDINATION WITH PERMANENT EROSION CONTROL BMPs, AS DEFINED IN THE NOTES IN THIS SECTION, WITHIN THE PLANS AND SPECIFICATIONS.

2. PRAIRIE SEED MIX SHALL BE A WARM SEASON GRASS MIX SEED CONTAINING LOCALLY AVAILABLE VARIETIES, AS SPECIFIED BELOW. SEED AT A RATE OF 37.38# PLS/ ACRE.

Botanical Name	Common Name	PLS Oz./Acre
<b>GRASSES</b>		
Andropogon gerardii	Big Bluestem	12.00
Bouteloua curtipendula	Side Oats Grama	16.00
Carex spp.	Prairie Sedge Mix	3.00
Elymus canadensis	Canada Wild Rye	24.00
Panicum virgatum	Switch Grass	2.50
Schizachyrium scoparium	Little Bluestem	28.00
Sorghastrum nutans	Indian Grass	12.00
	<b>Total</b>	<b>97.50</b>

TEMPORARY GRASS	Annual Rye	100.00
-----------------	------------	--------

<b>FORBS</b>		
Asclepias syriaca	Common Milkweed	1.00
Asclepias tuberosa	Butterfly Weed	1.00
Aster laevis	Smooth Blue Aster	0.50
Partridge Pea	Partridge Pea	9.00
Coreopsis lanceolata	Sand Coreopsis	5.00
Echinacea purpurea	Broad-leaved Purple Coneflower	7.50
Heliopsis helianthoides	False Sunflower	0.25
Lupinus perennis	Wild Lupine	1.00
Monarda fistulosa	Wild Bergamot	0.50
Pycnanthemum virginianum	Common Mountain Mint	0.50
Ratibida pinnata	Yellow Coneflower	3.50
Rudbeckia hirta	Black-Eyed Susan	6.00
Solidago speciosa	Showy Goldenrod	1.00
	<b>Total</b>	<b>38.75</b>

3. APPLY PURE NITROGEN FERTILIZER AT A RATE OF 2 LBS/ 1000 SF.

4. PERMANENT SEEDING SHALL BE DONE OCTOBER 15-- JUNE 1.

5. WARM SEASON GRASS MIX SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED. LANDSCAPE CONTRACTOR SHALL PROVIDE LANDSCAPE ARCHITECT WITH DEALER'S GUARANTEED STATEMENT OF COMPOSITION OF MIXTURE AND PERCENTAGE OF PURITY AND GERMINATION OF SEED USED.

6. SEEDING PROCESS: BEGINNING AS EARLY AS POSSIBLE, TILL ENTIRE AREA TO BE SEEDED TO DESTROY EXISTING VEGETATION AND LEAVE A FIRM, FRIABLE SEEDBED. TILL AREA TO BE SEEDED IN TWO SUCCESSIVE SHALLOW TILLINGS, APPROXIMATELY TWO WEEKS APART TO REMOVE ALL DEAD PLANT MATERIAL AND NEW GROWTH WEEDS. DO NOT TILL DURING WET WEATHER WHEN RUTTING MAY BE A PROBLEM.

7. LANDSCAPE CONTRACTOR TO DRILL WARM SEASON GRASS MIX SEED WITH A DRILL SPECIFICALLY SUITED FOR SEEDING NATIVE PRAIRIE GRASSES. PLANT SEED NO DEEPER THAN 1/2" BELOW SURFACE.

**GENERAL SEED NOTES**

1. THE CONTRACTOR SHALL PROVIDE GRASS SEED OF THE VARIETY AND AT THE RATES AS REQUIRED TO PRODUCE THE LIVE SEED RATES SHOWN BELOW OR AS SPECIFIED ON THE PLANS. THE VENDOR'S CERTIFIED STATEMENT FOR EACH SPECIES OF GRASS AND GRASS MIXTURE STATING EACH VARIETY, PERCENTAGE BY WEIGHT, AND PERCENTAGES OF PURITY, GERMINATION, AND WEED SEED SHALL BE FURNISHED. LIVE SEED FOR EACH GRASS SPECIES IS THE PRODUCT OF THE PERCENTAGE OF PURITY AND THE PERCENTAGE OF GERMINATION.

1.1. THE SEED SHALL BE NEW-CROP SEED COMPLYING WITH AND LABELED IN ACCORDANCE WITH U.S. DEPARTMENT OF AGRICULTURE "RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT" IN EFFECT AT DATE OF PURCHASE OF SEED. ALL SEED SHALL BE FURNISHED IN STANDARD CONTAINERS. SEED WHICH HAS BECOME MOLDED, WET, OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE SHALL NOT BE ACCEPTED.

1.2. A CERTIFICATE SHALL BE FURNISHED TO THE ENGINEER SHOWING THE DATE THAT THE SEED WAS TREATED. THE TREATED SEED SHALL BE PLANTED WITHIN TWENTY-FOUR (24) MONTHS AFTER TREATMENT AND ANY TREATED BUFFALO GRASS SEED HELD BY THE CONTRACTOR OR SUPPLIED BEYOND THIS PERIOD SHALL NOT BE USED.

1.3. THE SEED SHALL BE STORED IN A COOL DRY PLACE UNTIL SEEDING TIME.

2. FERTILIZER. FERTILIZER SHALL BE PROPORTIONED AS SPECIFIED ON THE PLANS OR SHOWN BELOW AND SHALL BE OF COMMERCIAL GRADE, UNIFORM IN COMPOSITION, FREE-FLOWING AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT, DELIVERED TO THE SITE IN BAGS OR OTHER CONVENIENT CONTAINERS, EACH FULLY LABELED, CONFORMING TO THE APPLICABLE STATE FERTILIZER LAWS, AND BEARING THE SAME TRADE NAME OR TRADE MARK, ANALYSIS AND WARRANTY OF THE PRODUCER. FERTILIZER SHALL BE APPLIED AT THE RATE OF .5 POUNDS OF ACTUAL NITROGEN, 1.0 POUNDS OF ACTUAL PHOSPHORUS, AND .5 POUNDS OF ACTUAL POTASSIUM PER 1,000 SQUARE FEET.

3. WATER.

3.1. WATER SHALL NOT CONTAIN SUBSTANCES IN THE AMOUNTS CONSIDERED HARMFUL FOR THE NORMAL GROWTH OF VEGETATION. THE CONTRACTOR SHALL SUPPLY WATER AND WATERING EQUIPMENT AS REQUIRED FOR THE ESTABLISHMENT AND MAINTENANCE OF GRASSED AREAS.

4. SITE PREPARATION

4.1. PROJECT COORDINATION. AFTER THE CONSTRUCTION HAS BEEN COMPLETED, (EXCEPT AS PROVIDED BELOW), THE SITE HAS BEEN BROUGHT TO FINAL GRADES AS SHOWN ON THE PLANS, AND OTHER PLANTINGS HAVE BEEN ACCOMPLISHED, THE CONTRACTOR SHALL PREPARE THE AREAS TO BE GRASSED AS SPECIFIED. WHEN SO DIRECTED OR PERMITTED BY THE ENGINEER, PORTIONS OF THE CONSTRUCTION SITE MAY BE GRASSED AT DIFFERENT PERIODS OF TIME PROVIDED THAT THE PLANTING OCCURS IN PROPER SEASONS AS SPECIFIED. ANY GRASSED AREAS DAMAGED BY SUBSEQUENT OPERATIONS OF THE CONTRACTOR SHALL BE REPLANTED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

4.2. TILLAGE. THE AREAS REQUIRED TO BE GRASSED SHALL BE PREPARED FOR PLANTING BY CULTIVATION, REMOVAL OF ALL OBJECTIONABLE MATERIAL, AND FILLING OF GULLIES OR DEPRESSIONS. THE SOIL PREPARATION SHALL BE ACCOMPLISHED BY DISKING, HARROWING AND FIRING. (PLOWING WILL ALSO BE REQUIRED IF SO INDICATED ON THE PLANS.) THE MINIMUM DEPTH OF SOIL PREPARATION SHALL BE THREE (3) INCHES. EXISTING WEED STUBBLE, SMALL WEEDS AND GRASS THAT CAN BE DISKED SHALL BE CUT BY THE DISK AND PARTIALLY INCORPORATED INTO THE SOIL.

4.3. SEVERAL DISKINGS AND HARROWINGS OVER SOME AREAS MAY BE REQUIRED TO PROVIDE A SATISFACTORY SEEDBED. AREAS TOO STEEP OR OTHERWISE INACCESSIBLE FOR DISKING SHALL BE PREPARED BY HAND METHODS. THE MINIMUM DEPTH OF PREPARATION OF THE SEEDBED WHERE HAND METHODS MUST BE EMPLOYED SHALL BE TWO (2) INCHES. DISKING, HARROWING AND RAKING SHALL BE DONE LONGITUDINALLY ON SLOPE AREAS.

4.4. THE SOIL PREPARATION ON ALL SLOPE AREAS SHALL BE PERFORMED WITH DISKS AND HARROWS UNLESS DEMONSTRATION SHOWS SUCH METHODS IMPRACTICABLE AND THAT HAND METHODS MUST BE USED.

4.5. DURING THE PROCESS OF SOIL PREPARATION, EXTREME CARE SHALL BE EXERCISED TO AVOID INJURY TO ALL TREES THAT HAVE BEEN PLANTED OR DESIGNATED BY THE ENGINEER TO BE SAVED.

4.6. THE ENGINEER MAY DESIGNATE LOCAL AREAS OF DESIRABLE NATIVE PERENNIAL GRASSES TO BE OMITTED DURING THE SOIL PREPARATION. AREAS OF ANNUAL GRASSES SUCH AS CHEAT, CRAB GRASS, TRIPLE-AWN, ETC., SHALL BE DESTROYED BY THOROUGH DISKING PRIOR TO SEEDING.

4.7. APPLICATION OF FERTILIZER. FERTILIZER SHALL BE DISTRIBUTED UNIFORMLY AT RATES SHOWN IN THE SEED MIX NOTES ON THIS PAGE AND OVER THE AREA TO BE PLANTED, AND SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF AT LEAST 2 INCHES BY DISKING, HARROWING OR OTHER METHODS APPROVED BY THE ENGINEER. DISTRIBUTION BY MEANS OF AN APPROVED SEED DRILL OR HYDRO SEEDER EQUIPPED TO SOW SEED AND DISTRIBUTE FERTILIZER AT THE SAME TIME WILL BE ACCEPTABLE UNLESS OTHERWISE NOTED ON THE PLANS.

4.8. ADDITIONAL SOIL CONDITIONERS SHALL BE MIXED INTO THE SOIL BY DISKING, HARROWING, ETC., WHEN SPECIFIED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER AND FURNISHED BY THE OWNER.

5. SEEDING

5.1. TIME OF SEEDING. THE TWO GENERAL SEEDING SEASONS SHALL BE AS DEFINED FOR TEMPORARY AND PERMANENT SEEDING. THE PERMISSIBLE SEEDING PERIODS FOR VARIOUS SEEDS MAY BE EXTENDED A FEW DAYS IN SPECIAL CASES WHEN MULCHING IS SPECIFIED TO FOLLOW THE DRILLING OF SEEDS AND FERTILIZER.

5.2. THE ENGINEER RESERVES THE RIGHT TO DELAY THE DRILLING OR SEEDING OF ANY SEEDS OR TO VARY THE PERMISSIBLE SEEDING SEASONS LISTED ABOVE DUE TO WEATHER OR SOIL CONDITIONS OR FOR OTHER CAUSES.

5.3. SEED APPLICATION. SEEDS SHALL BE UNIFORMLY DISTRIBUTED WITH ACCEPTABLE DRILLS, HYDRAULIC SLURRY, OR OTHER EQUIPMENT APPROVED BY THE ENGINEER. BROADCASTING WITH A STANDARD GRASS SEEDER WILL BE REQUIRED ON AREAS WHERE IT IS IMPOSSIBLE TO OPERATE A DRILL AND THIS METHOD MAY ALSO BE REQUIRED FOR CERTAIN SMALL SEEDS.

5.4. WHEN A STANDARD DRILL WITH FERTILIZER ATTACHMENT IS USED, CERTAIN MIXED SEEDS MAY BE PLACED IN THE SEED BOX AND THE FERTILIZER PLACED IN THE FERTILIZER COMPARTMENT. BOTH MAY BE APPLIED DURING ONE (1) OPERATION, UNLESS NOTES ON THE PLANS REQUIRE SEPARATE APPLICATIONS. FERTILIZER MAY BE DRILLED INTO THE SOIL OR APPLIED BY HYDRAULIC-SLURRY. BROADCASTING FERTILIZERS IS PERMISSIBLE ON ROUGH, ROCKY SLOPES WHERE DRILLS CANNOT OPERATE.

5.5. ALL DRILLS SHALL BE FULLY ADJUSTABLE SO THAT THEY WILL DELIVER THE SEEDS AND FERTILIZER AT THE RATES SPECIFIED ON THE PLANS OR ORDERED BY THE ENGINEER. DRILLS THAT ARE IN POOR REPAIR OR THAT DO NOT DELIVER THE SEEDS AND FERTILIZER UNIFORMLY IN EACH

DRILL FURROW, SHALL NOT BE USED. DRILLS SHALL BE ADJUSTABLE SO THAT THE SEEDS CAN BE PLANTED AND COVERED A MAXIMUM DEPTH OF 1/2 INCH.

5.6. MOST OF THE SEEDS SHOULD BE DRILLED ABOUT ONE-HALF (1/2) INCH DEEP IN A WELL- PREPARED AND FIRM SEEDBED. WHEN THE FERTILIZING AND SEEDING OPERATIONS START ON AN AREA, THAT AREA SHALL BE COMPLETED AS SOON AS POSSIBLE. NO SEEDING SHALL BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS WET OR OTHERWISE NON-TILLABLE. THE GRASS SEED SHALL THEN BE COVERED, USING A FLEXIBLE TOOTHED WEEDER OR OTHER SUITABLE EQUIPMENT. AS SOON AS THIS COVERING OPERATION HAS BEEN COMPLETED, THE SEEDED AREA SHALL BE ROLLED AGAIN WITH THE CULTI-PACKER, THE CULTI-PACKER BEING RUN OVER THE AREA ONLY ONCE PARALLEL WITH THE CONTOURS OF THE GROUND.

6. MULCHING.

6.1. APPLYING HAY MULCH - HAY MULCH SHALL BE THE REQUIRED MULCHING MATERIAL FOR PERMANENT SEEDING, UNLESS SPECIFIED OTHERWISE ON THE PLANS OR DIRECTED BY THE ENGINEER. THE HAY SHALL NOT CONTAIN AN EXCESSIVE QUANTITY OF NOXIOUS WEED SEEDS. THE MULCH SHALL BE A SHARP GRADE PRAIRIE HAY, SEDAN GRASS HAY OR BROM SEDGE OR ANY OTHER TYPE OF NATIVE HAY OR GRASS. STRAW SHALL BE 8 INCHES MINIMUM; 50% SHALL BE 10 INCHES IN LENGTH OR LONGER.

6.2. AFTER SEEDING OPERATIONS ARE COMPLETE THE MULCH SHALL BE SPACED UNIFORMLY BY HAND, MANURE SPREADER, OR OTHER SUITABLE EQUIPMENT. THE MULCH SHALL BE ANCHORED TO THE SOIL BY A V-TYPE WHEEL LAND PACKER, A DISK HARROW SET TO CUT SLIGHTLY, OR OTHER SUITABLE EQUIPMENT WHICH WILL SECURE THE MULCH FIRMLY INTO THE GROUND 2 INCHES OR MORE TO FORM A SOIL-BINDING MULCH AND PREVENT LOSS OR BUNCHING BY WIND. SPACING BETWEEN DISKS SHALL NOT EXCEED 8 INCHES. APPLY HAY MULCH AT THE RATE OF 2 TONS PER ACRE OR 90 LBS. PER 1000 SQ. FT.

6.3. APPLYING WOOD CELLULOSE FIBER MULCH - WOOD CELLULOSE FIBER MULCH MAY BE USED IN LIEU OF HAY MULCH WHEN THE CONTRACTOR ELECTS TO USE A HYDRO SEEDER AND THE METHOD IS APPROVED BY THE ENGINEER. WOOD CELLULOSE FIBER MULCH SHALL BE APPLIED AT THE MINIMUM RATE OF 2500 POUNDS PER ACRE, UNLESS SPECIFIED OTHERWISE.

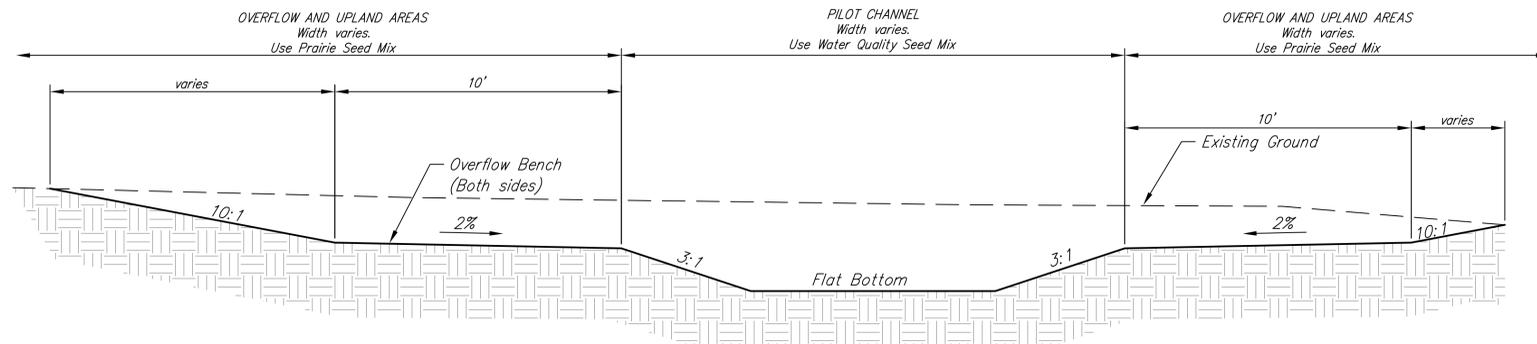
7. WATERING.

7.1. THE CONTRACTOR SHALL WATER THE SEEDED AREAS AS REQUIRED TO ASSURE AN ACCEPTABLE STAND OF GRASS.

8. PROTECTION AND MAINTENANCE.

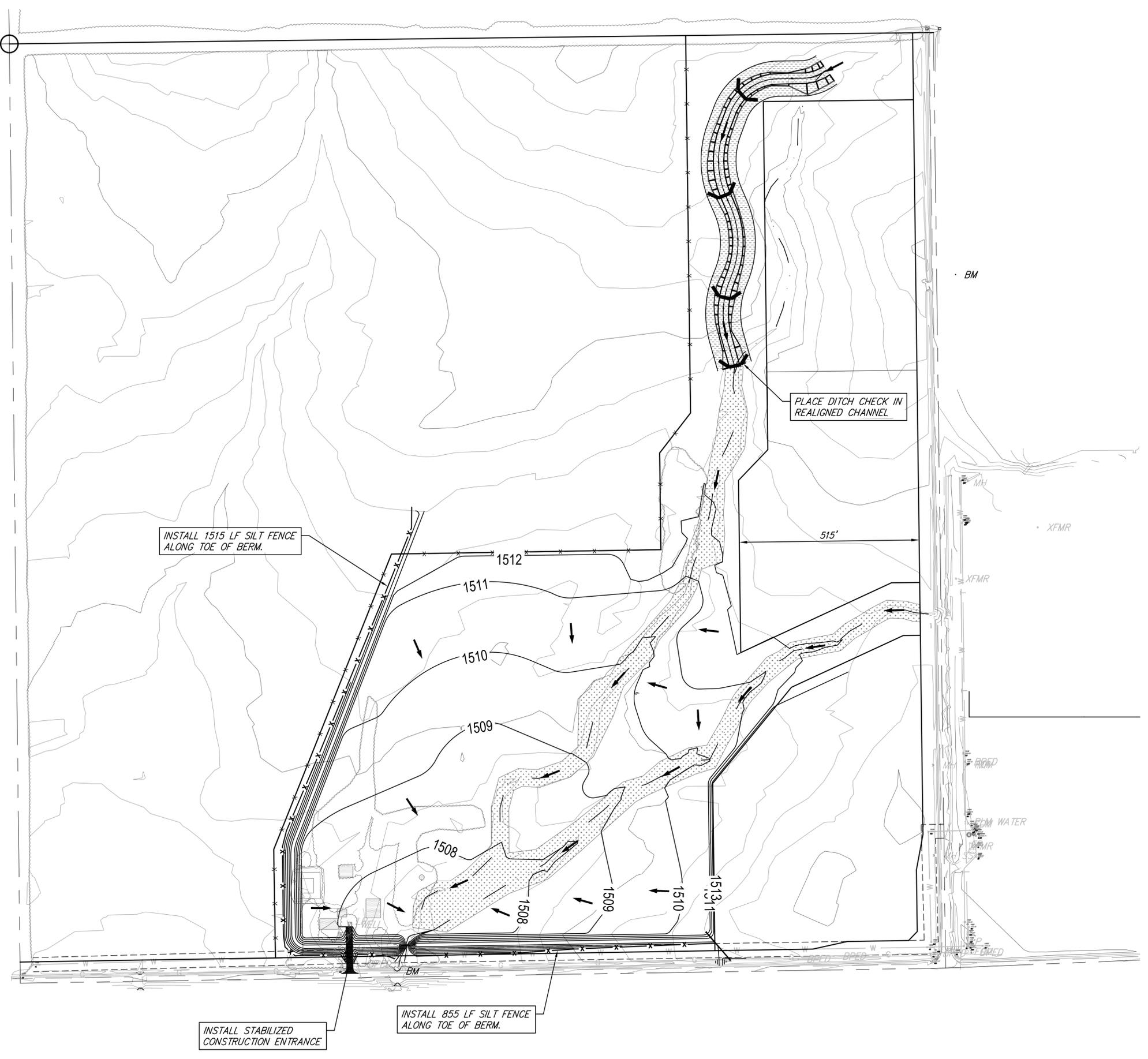
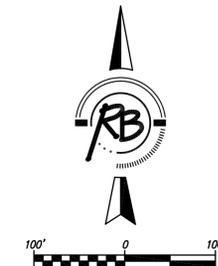
8.1. THE GRASSED AREA SHALL BE PROTECTED AGAINST TRAFFIC OR OTHER USE IMMEDIATELY AFTER PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CARE OF THE GRASSED AREA UNTIL ALL WORK ON THE ENTIRE CONTRACT HAS BEEN COMPLETED AND ACCEPTED, OR A MINIMUM PERIOD OF 30 DAYS, WHICHEVER IS THE LONGEST DURATION. THE CONTRACTOR WILL BE RELIEVED FROM WATERING GRASSED AREAS ACCEPTED BY THE ENGINEER AND THE OWNER.

8.2. ALL PLANTED AREAS SHALL BE GROWING WHEN ACCEPTED. AREAS NOT SHOWING A STAND OF GRASS OR EVIDENCE OF GROWTH SHALL BE REPLANTED IN ACCORDANCE WITH THESE SPECIFICATIONS. ALL COSTS IN CONNECTION WITH REPLANTING GRASSED AREAS SHALL BE BORNE BY THE CONTRACTOR UNTIL AN ACCEPTABLE STAND OF GRASS IS OBTAINED, WITH NO ADDITIONAL COST TO THE PROJECT.



Seed Types Within Realigned Ditch Section

**NEWTON AIRPORT SOUTH DETENTION POND**  
**Lscape Notes**  
 APPLICATION NO. NWK-2015-1950  
 CITY OF NEWTON, KANSAS  
 COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
 UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
 HARVEY COUNTY, KANSAS  
 SHEET 19 OF 23  
 DATED 16 NOVEMBER 2015



INSTALL 1515 LF SILT FENCE  
ALONG TOE OF BERM.

PLACE DITCH CHECK IN  
REALIGNED CHANNEL

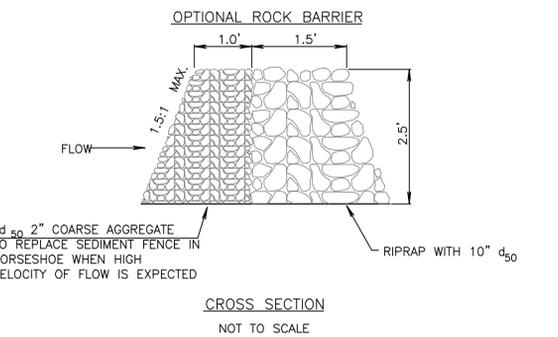
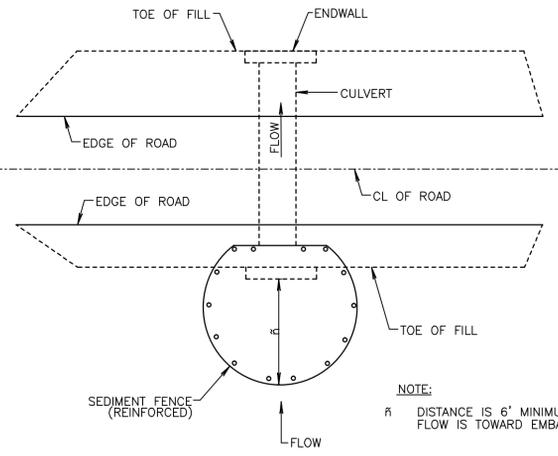
INSTALL STABILIZED  
CONSTRUCTION ENTRANCE

INSTALL 855 LF SILT FENCE  
ALONG TOE OF BERM.

- LEGEND**
- x— SILT FENCE
  - FLOW
  - ∩ DITCH CHECK

<b>NEWTON AIRPORT SOUTH DETENTION POND EC Plan</b>	
<small>APPLICATION NO. NWK-2015-1950 CITY OF NEWTON, KANSAS COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK HARVEY COUNTY, KANSAS SHEET 20 OF 23 DATED 16 NOVEMBER 2015</small>	<small>DATE</small>

SEDIMENT FENCE CULVERT INLET PROTECTION



CULVERT INLET PROTECTION NOTES:

A) GENERAL NOTES:

1. THE INLET PROTECTION DEVICE SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENT AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
2. THE INLET PROTECTION DEVICES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT ANY RESULTING PONDED STORMWATER WILL NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
3. DESIGN CRITERIA MORE SPECIFIC TO EACH PARTICULAR INLET PROTECTION DEVICE AREA FOUND IN SPECIFICATION SECTION 02490, SUBSECTION 4.

B) SEDIMENT FENCE (REINFORCED) INSTALLATION NOTES:

1. THE HEIGHT OF A SEDIMENT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES ABOVE GROUND SURFACE.
2. THE GEOTEXTILE SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, GEOTEXTILE SHALL BE SPLICED TOGETHER AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
3. DIG A TRENCH AT LEAST 6 INCHES DEEP AND 4 INCHES WIDE ALONG THE FENCE ALIGNMENT.
4. DRIVE POSTS AT LEAST 24 INCHES INTO THE GROUND ON THE DOWNSLOPE SIDE OF THE TRENCH. SPACE POSTS A MAXIMUM OF 6 FEET APART.
5. EXTRA-STRENGTH SEDIMENT FENCE FABRIC SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE SEDIMENT FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING MINIMUM ONE-INCH LONG HEAVY-DUTY WIRE STAPLES OR TIE WIRES, AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. PLACE THE BOTTOM 1 FOOT OF FABRIC IN THE 6-INCH DEEP TRENCH, LAPPING TOWARD THE UPSLOPE SIDE. BACKFILL WITH COMPACTED EARTH OR GRAVEL.
7. IF A SEDIMENT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, IT MUST BE OF SUFFICIENT LENGTH TO ELIMINATE ENDFLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE. EXTRA-STRENGTH SEDIMENT FABRIC SHALL BE USED FOR THIS APPLICATION WITH A MAXIMUM 3-FOOT SPACING OF POSTS. ALL OTHER INSTALLATION REQUIREMENTS NOTED IN #5 APPLY.
8. TO REDUCE MAINTENANCE, EXCAVATE A SHALLOW SEDIMENT STORAGE AREA ON THE UPSLOPE SIDE OF THE FENCE. PROVIDE GOOD ACCESS IN AREAS OF HEAVY SEDIMENTATION FOR CLEAN OUT AND MAINTENANCE.
9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
10. SEE SPECIFICATION SECTION 02490, SUBSECTION 4.3 FOR SEDIMENT REMOVAL AND DISPOSAL REQUIREMENTS.

NOTE:  
A DISTANCE IS 6' MINIMUM IF FLOW IS TOWARD EMBANKMENT.

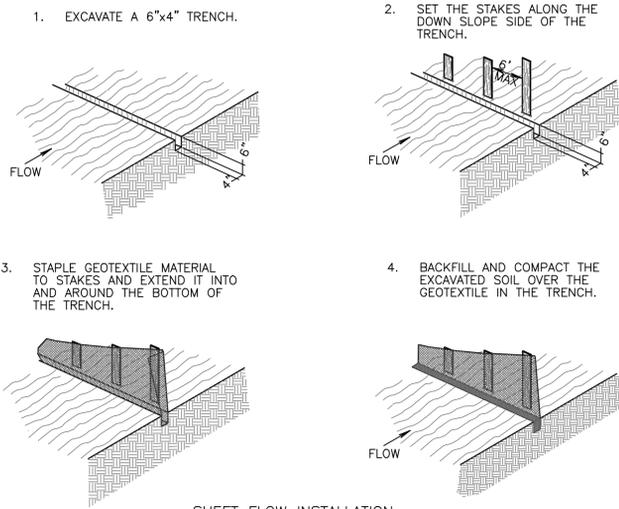
Use 2" coarse aggregate to replace sediment fence in horseshoe when high velocity of flow is expected

CROSS SECTION NOT TO SCALE

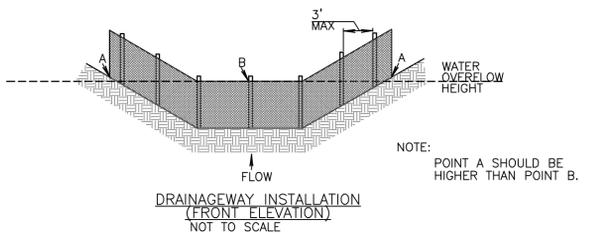
EROSION & SEDIMENT CONTROL - CULVERT INLET PROTECTION

STANDARD DRAWING NUMBER ESC-1040	APPROVAL DATE:	CITY OF NEWTON 201 E. 6th, P.O. Box 426 NEWTON, KS 67114
-------------------------------------	----------------	--

SEDIMENT FENCE



SHEET FLOW INSTALLATION (PERSPECTIVE VIEW) NOT TO SCALE



DRAINAGE WAY INSTALLATION (FRONT ELEVATION) NOT TO SCALE

SEDIMENT FENCE NOTES:

A) INSTALLATION:

1. THE HEIGHT OF SEDIMENT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES ABOVE THE GROUND SURFACE.
2. THE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SECURELY SPLICED TOGETHER ONLY AT SUPPORT POSTS, WITH A MAX 6-INCH OVERLAP.
3. DIG A TRENCH AT LEAST 6 INCHES DEEP AND 4 INCHES WIDE ALONG THE FENCE ALIGNMENT.
4. DRIVE POSTS AT LEAST 24 INCHES INTO THE GROUND ON THE DOWNSLOPE SIDE OF THE TRENCH. SPACE POSTS A MAXIMUM OF 6 FEET APART.
5. EXTRA-STRENGTH SEDIMENT FENCE FABRIC SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE SEDIMENT FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING A MINIMUM OF ONE INCH LONG, HEAVY-DUTY WIRE STAPLES OR TIE-WIRES, AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. PLACE THE BOTTOM 1 FOOT OF FABRIC IN THE MINIMUM-OF-6-INCH DEEP TRENCH, LAPPING TOWARD THE UPSLOPE SIDE. BACKFILL WITH COMPACTED EARTH OR GRAVEL.
7. IF A SEDIMENT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, IT MUST BE OF SUFFICIENT LENGTH TO ELIMINATE ENDFLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE, PLACED ON A CONTOUR WITH THE ENDS ORIENTED UPSLOPE. EXTRA-STRENGTH SEDIMENT FABRIC SHALL BE USED WITH A MAXIMUM 3-FOOT SPACING OF POSTS.
8. TO REDUCE MAINTENANCE, EXCAVATE A SHALLOW SEDIMENT STORAGE AREA IN THE UPSLOPE SIDE OF THE FENCE. PROVIDE GOOD ACCESS IN AREAS OF HEAVY SEDIMENTATION FOR CLEAN OUT AND MAINTENANCE.
9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS ESTABLISHED PERMANENT VEGETATION.
10. SEE SPECIFICATION SECTION 02490, SUBSECTION 4.4 (SEDIMENT FENCE)

B) TROUBLESHOOTING:

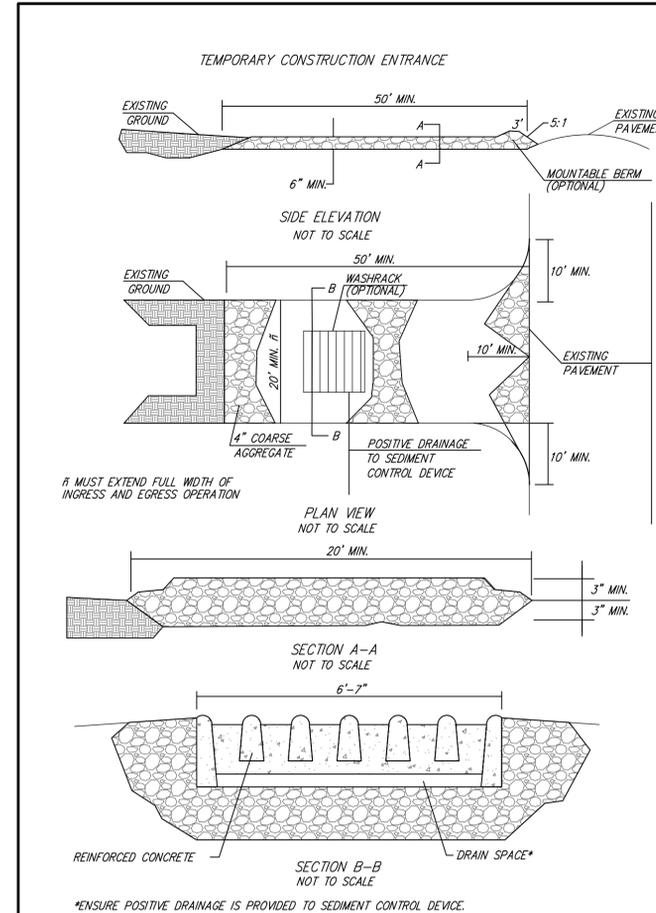
1. DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES, BEFORE FENCE INSTALLATION SO UTILITIES ARE NOT DISTURBED.
2. GRADE ALIGNMENT OF FENCE AS NEEDED TO PROVIDE A BROAD, NEARLY LEVEL AREA UPSTREAM OF FENCE TO ALLOW SEDIMENT COLLECTION AREA.

C) INSPECTION AND MAINTENANCE:

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS DIRECTED BY ENGINEER TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. AVOID DAMAGING OR UNDERMINING THE FENCE DURING CLEANOUT. SEDIMENT ACCUMULATION SHOULD NOT EXCEED THE HEIGHT OF THE FENCE.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY AND COMPLETELY STABILIZED.
5. MATERIAL REMOVED FROM BMP'S SHALL BE WASTED ON SITES APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. DISPOSAL SITES SHALL ALSO BE ACCEPTABLE TO KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT, KANSAS DIVISION OF WATER RESOURCES, AND US ARMY CORE OF ENGINEERS.
6. SEE SPECIFICATION SECTION 02490, SUBSECTION 4.3 FOR SEDIMENT REMOVAL AND DISPOSAL REQUIREMENTS.

EROSION & SEDIMENT CONTROL - SEDIMENT FENCE

STANDARD DRAWING NUMBER ESC-1100	APPROVAL DATE:	CITY OF NEWTON 201 E. 6th, P.O. Box 426 NEWTON, KS 67114
-------------------------------------	----------------	--



TEMPORARY CONSTRUCTION ENTRANCE PAD NOTES:

A) INSTALLATION:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2%, CONSTRUCT A 6 TO 8-INCH HIGH RIDGE WITH 3H:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF.
4. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS.
5. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
6. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
7. CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH RECEIVING SEDIMENT CONTROL DEVICE.
8. SEE SPECIFICATION SECTION 02490, SUBSECTION 4.13 (STABILIZED STONE PAD)

B) TROUBLESHOOTING:

1. CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
  - a. INADEQUATE RUNOFF CONTROL TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROAD - INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES.
  - b. SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL - INCREASE STONE SIZE OR PAD THICKNESS OR ADD GEOTEXTILE FABRIC.
  - c. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC - EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

C) INSPECTION AND MAINTENANCE:

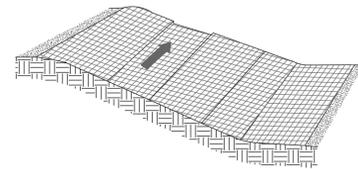
1. INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER 1/2-INCH OR GREATER STORM EVENTS.
2. RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN 4-INCH STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.
5. REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED.

EROSION & SEDIMENT CONTROL - TEMPORARY CONSTRUCTION ENTRANCE

STANDARD DRAWING NUMBER ESC-1010	APPROVAL DATE:	CITY OF NEWTON 201 E. 6th, P.O. Box 426 NEWTON, KS 67114
-------------------------------------	----------------	--

NEWTON AIRPORT SOUTH DETENTION POND  
Erosion Control Details

APPLICATION NO. NWK-2015-1950  
CITY OF NEWTON, KANSAS  
COMMERCIAL AND LIGHT INDUSTRIAL DEVELOPMENT  
UNNAMED TRIBUTARY TO WEST FORK JESTER CREEK  
HARVEY COUNTY, KANSAS  
SHEET 21 OF 23  
DATED 16 NOVEMBER 2015

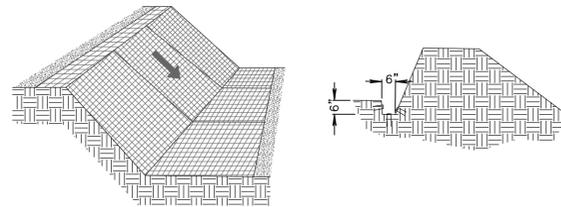


A) SITE PREPARATION:

AFTER SITE HAS BEEN SHAPED AND GRADED, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1

B) PLANTING:

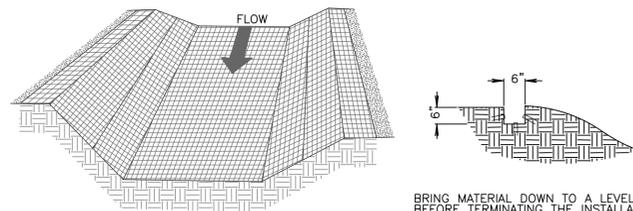
C) LAYING AND STAPLING:



NOTE:

D) TROUBLESHOOTING:

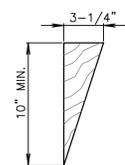
CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL, IF ANY OF THE FOLLOWING OCCUR;



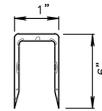
BRING MATERIAL DOWN TO A LEVEL AREA BEFORE TERMINATING THE INSTALLATION.

E) MAINTENANCE & INSPECTION

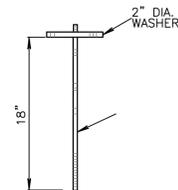
STAKES, STAPLES, AND PINS



1. STAKE  
SEE NOTE 1



2. STAPLE  
SEE NOTE 2



3. PIN  
SEE NOTE 3

STAKES, STAPLES, AND PINS  
FOR INSTALLATION OF  
ROLLED EROSION CONTROL PRODUCTS  
NOT TO SCALE

STAKES, STAPLES, AND PINS NOTES:

GENERAL NOTES:

1. STAKES SHALL BE 1x4 TRIANGULAR SURVEY STAKES A MINIMUM OF 10" IN LONG.
2. STAPLES SHALL BE 11 GAUGE STEEL A MINIMUM OF 1" WIDE BY 6" IN LONG. A 2"x8" STAPLE MAY BE REQUIRED IN CERTAIN SOIL CONDITIONS.
4. ANCHORING METHODS AND RECOMMENDATIONS VARY BY MANUFACTURERS. THE EXPECTATION OF HIGH VELOCITIES SHOULD DICTATE THE USE OF MORE SUBSTANTIAL ANCHORING.