



LEE'S SUMMIT MISSOURI

DESIGN & CONSTRUCTION MANUAL DESIGN CRITERIA MODIFICATION REQUEST

PROJECT NAME: East Trails Middle School (LS 7 SD)

ADDRESS: 1001 SE Bailey Road, Lee's Summit, MO

PERMIT NUMBER: PL2020259

OWNER'S NAME: LEE'S SUMMIT SCHOOL DISTRICT R-7

TO: Deputy Director of Public Works / City Engineer

In accordance with the City of Lee's Summit's Design and Construction Manual (DCM), I wish to apply for a modification to one or more provisions of the code as I feel that the spirit and intent of the DCM is observed and the public health, welfare and safety are assured. The following articulates my request for your review and action. (NOTE: Cite specific code sections, justification and all appropriate supporting documents.)


This waiver request is being requested on behalf of the Lee's Summit School District. The waiver request is in regard to the emergency spillway on the extended dry detention basin (EDD-1) on the East Trails Middle School Campus located at 1001 SE Bailey Road. As shown in the attached exhibit, an as-built survey was completed for the basin in August 2022. The survey showed a slight increase in pond volume. The 100-Year water surface was adjusted for this volume increase. The WSE went from 1010.80 to 1010.65. The survey also showed the crest for the emergency spillway had been constructed at 1011.04 (low point), instead of the design elevation of 1011.30. This results in a freeboard of 0.39'. This is 0.11' short of the freeboard requirement of 0.50' required per Section 5608.4F (KCAPWA). The spillway was constructed wider than the design requirement (32' actual length instead of the 28' design length).

A waiver is being requested because this deficiency will have no impact on the Levels of Service indicated in Section 5601.8 (KCAPWA). There will be no impact to public safety, adjoining properties or downstream conditions. The emergency spillway is only in use if the primary outlet is completely blocked and the basin is full. The emergency spillway also has the capacity to handle the 100-year flow in this event.

The basin is located adjacent to the stream buffer for the unnamed tributary located on the east side of the school property. Should the basin overflow, it will dump directly into the tributary, crossing no other properties. In a sudden release of impounded water, the spillway, as constructed, will control the overflow and protect the basin as defined in 5601.2 (KCAPWA).

SUBMITTED BY:

NAME: Olsson (Terry Parsons, PE)
ADDRESS: 7301 W. 133rd Street
CITY, STATE, ZIP: Overland Park, KS 66213
Email: tparsons@olsson.com

() OWNER (X) OWNER'S AGENT
PHONE #: 913-634-0903
SIGNATURE: 

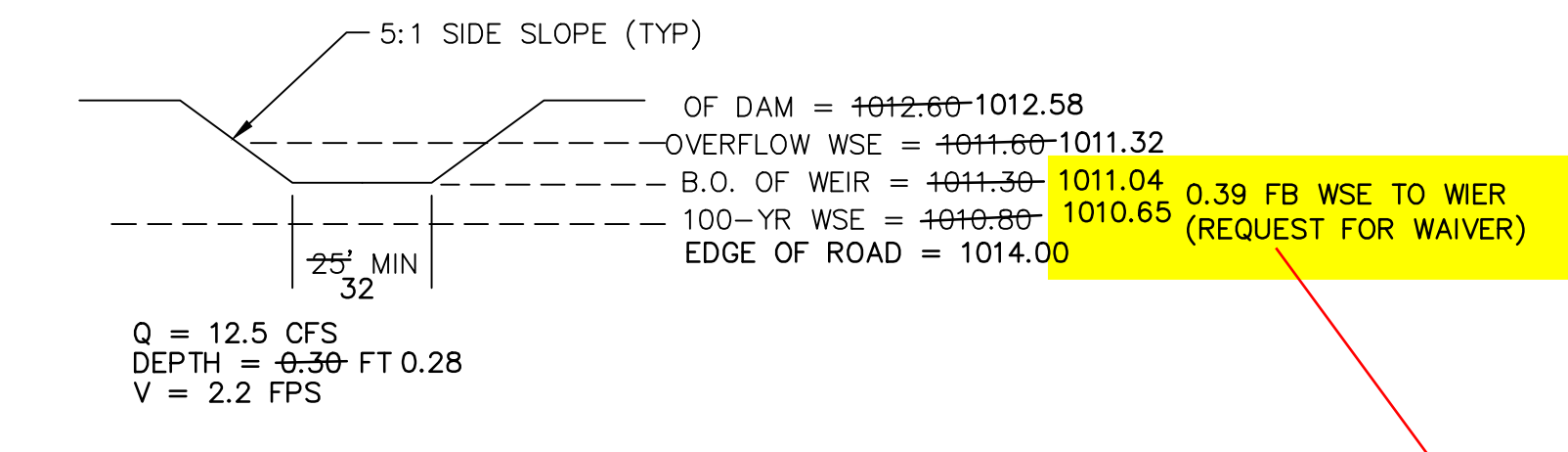
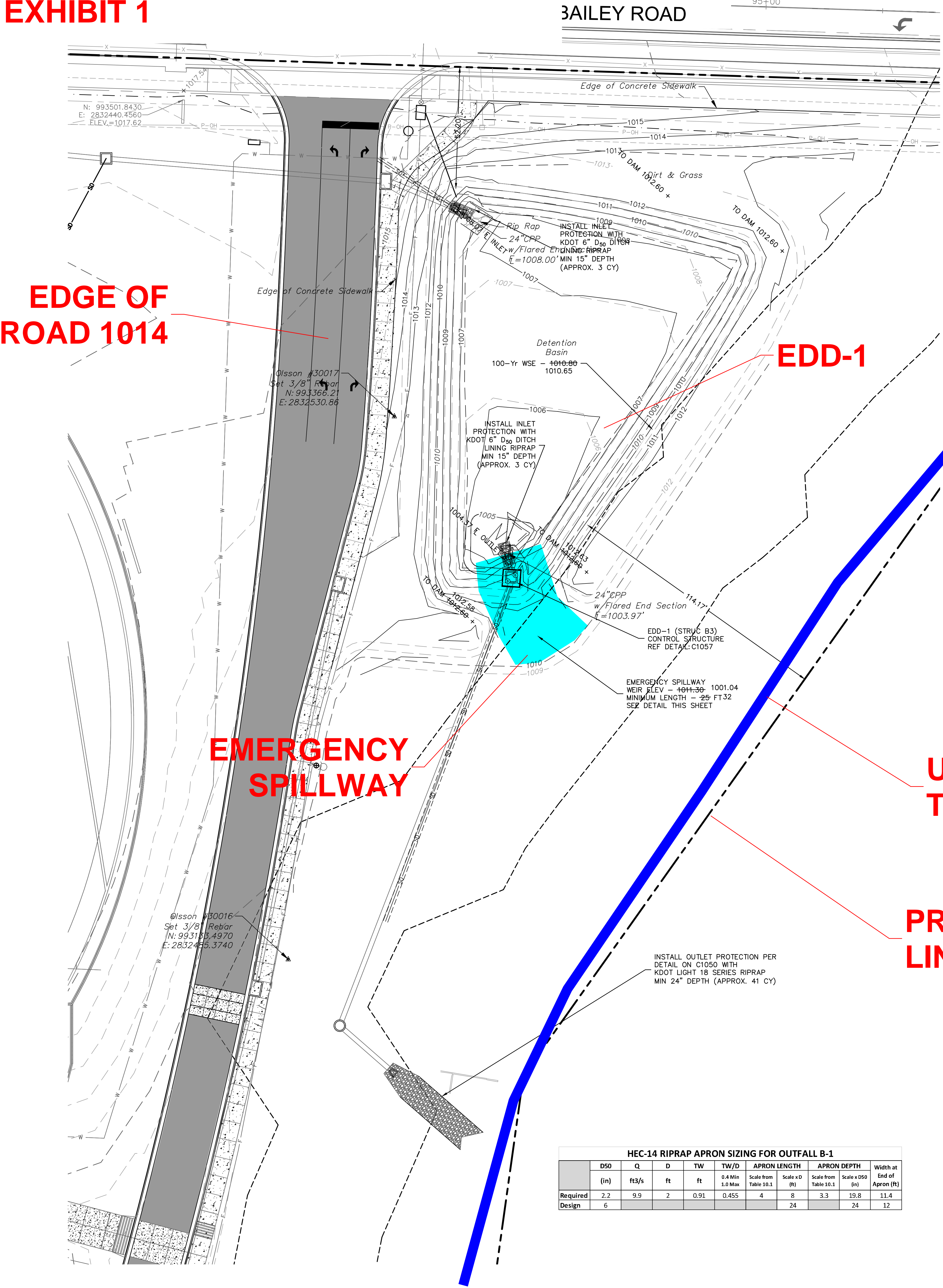
SUE PYLES, P.E.
DEVELOPMENT ENGINEERING MANAGER
SIGNATURE: _____ () APPROVAL () DENIAL
DATE: _____

JEFF THORN, P.E.
DEPUTY DIRECTOR OF WATER UTILITIES
SIGNATURE: _____ () APPROVED () DENIAL
DATE: _____

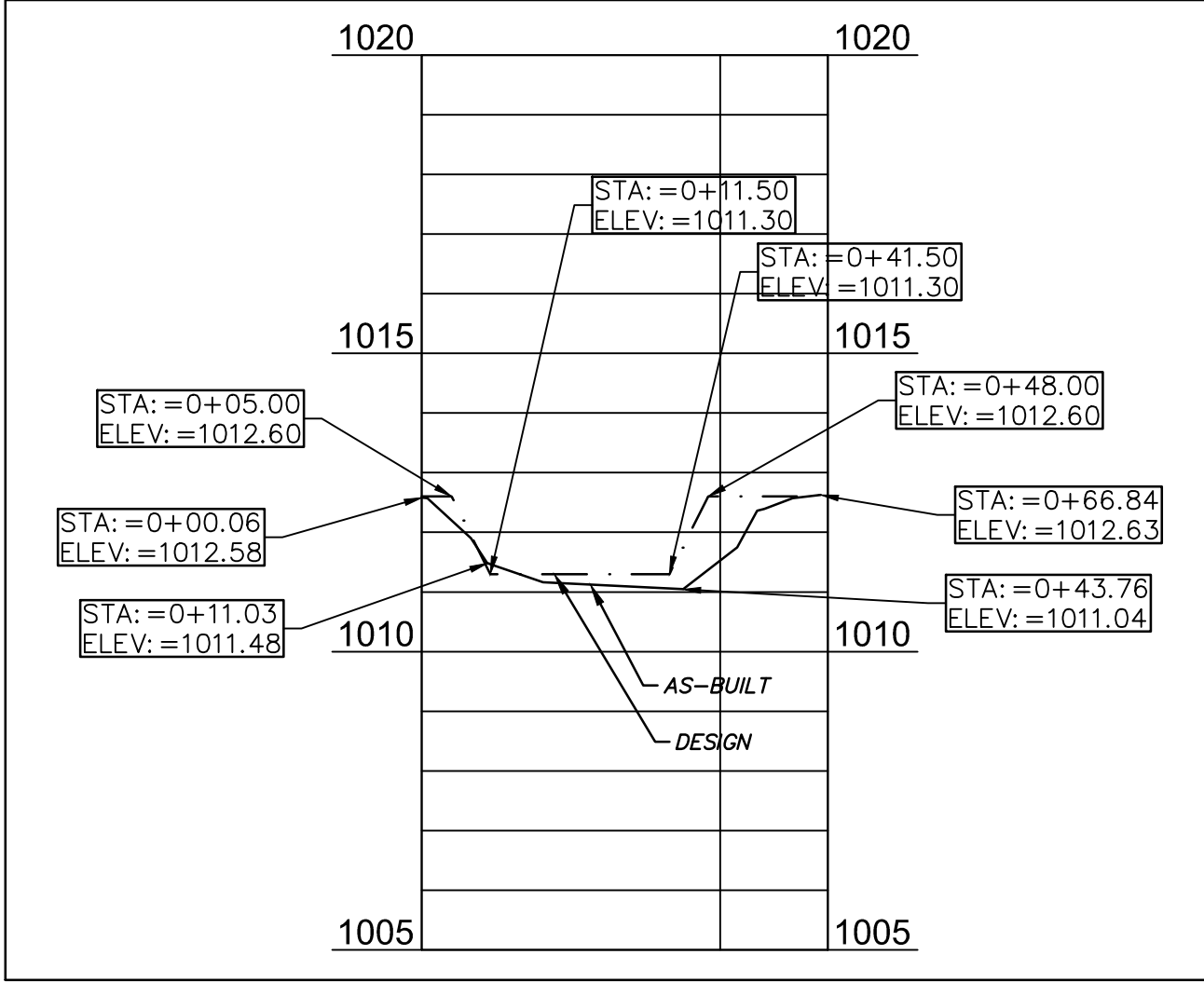
GEORGE M. BINGER III, P.E.
DEPUTY DIRECTOR OF PUBLIC WORKS / CITY ENGINEER
SIGNATURE: _____ () APPROVED () DENIAL
DATE: _____

COMMENTS: _____

DESIGN MODIFICATION REQUEST
EXHIBIT 1



EDD-1
EMERGENCY SPILLWAY DETAIL



EDD-1
EMERGENCY SPILLWAY DETAIL
(DESIGN VS AS-BUILT)

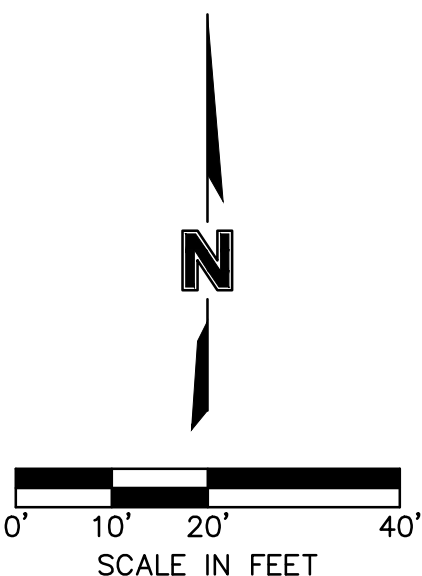
| DESIGN VS AS-BUILT DETENTION AREA & VOLUME | | | | |
|--|---------------------|-----------------|-----------------------|-------------------|
| ELEVATION | DESIGN AREA (ACRES) | DESIGN VOL (CF) | AS-BUILT AREA (ACRES) | AS-BUILT VOL (CF) |
| 1003.97 | 0.00 | 0 | 0.00 | 0 |
| 1005 | 0.02 | 359 | 0.01 | 314 |
| 1006 | 0.04 | 1491 | 0.05 | 1795 |
| 1007 | 0.14 | 5238 | 0.13 | 5890 |
| 1008 | 0.26 | 13755 | 0.27 | 14776 |
| 1009 | 0.35 | 26887 | 0.35 | 28454 |
| 1010 | 0.38 | 42612 | 0.39 | 44745 |
| 1011 | 0.41 | 59644 | 0.42 | 62561 |

| LEGEND | |
|--------|------------------------|
| --- | PROPERTY LINE |
| --- | DESIGN MAJOR CONTOUR |
| --- | DESIGN MINOR CONTOUR |
| --- | AS-BUILT MAJOR CONTOUR |
| --- | AS-BUILT MINOR CONTOUR |

CONTRACTOR NOTE:
ALL TEMPORARY SILTATION BASINS, SEDIMENT BASINS
AND DETENTION BASINS MUST BE CONSTRUCTED PRIOR
TO ANY OTHER IMPROVMENTS.

WAIVER REQUEST

| HEC-14 RIPRAP APRON SIZING FOR OUTFALL B-1 | | | | | | | | | |
|--|-------------|-------------------------|---------|----------|----------------------------|---|--|----------------------------------|------|
| | D50 (in) | Q ft ³ /s | D ft | TW ft | TW/D 1.0 Min 1.5 Max | APRON LENGTH Scale x D Table 10.1 (ft) | APRON DEPTH Scale x D50 Table 10.1 (ft) | Width at End of Apron (ft) | |
| Required | 2.2 | 9.9 | 2 | 0.91 | 0.455 | 8 | 3.3 | 19.8 | 11.4 |
| Design | 6 | | | | | 24 | 24 | 24 | 12 |



DWG: F:\2020\0001-0500\020-0103\40-Design\AutoCAD\Final Plans\Sheets\CONSTRUCTION DOCUMENTS\C_GRD02_020103.dwg
DATE: Nov 09, 2023 10:19am XREFS: C:\BASE_020103 C:\BASE_020103 T_PBASE_020103 T_PBASE_020103
USER: tparsons T_PAS_020103 V_XALT_00103 C_PSURF_asit basin_020103 AS_BUILT_Detention Ponds