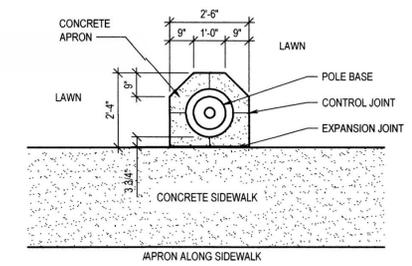
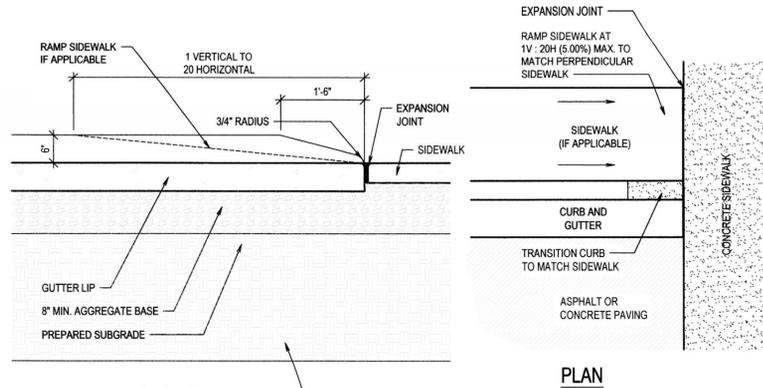


**NOT USED**

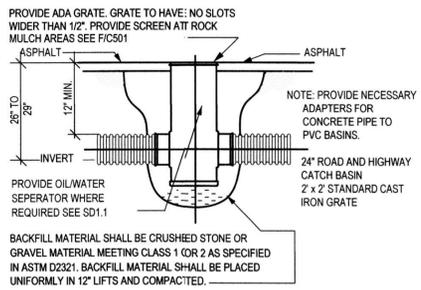


**A** SIDEWALK AREA POLE BASE  
SCALE: N.T.S.

**B** INLET BOX IN LANDSCAPE  
SCALE: N.T.S.

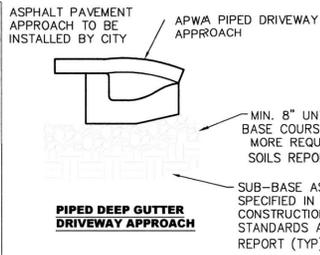
**C** CURB TRANSITION  
SCALE: N.T.S.

**E** POLE BASE PLAN VIEW  
SCALE: N.T.S.



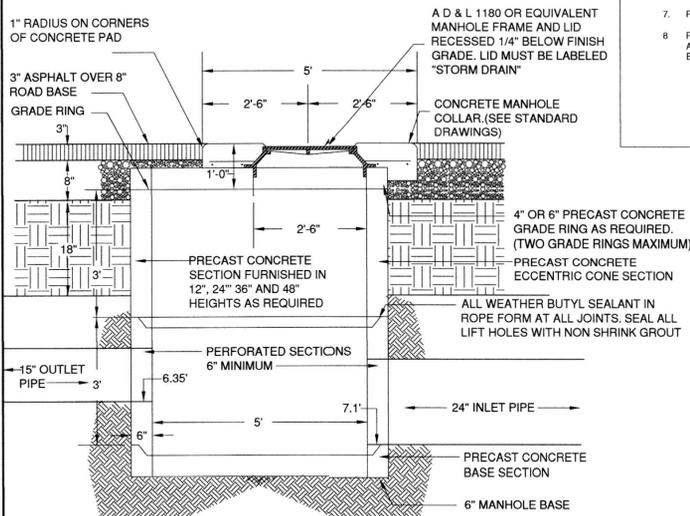
**F** 24" AREA NYLOPLAST DRAIN BOX  
SCALE: N.T.S.

- Piped driveway approach**
- UNTREATED BASE COURSE: Provide material specified in APWA Section 32 11 23.
    - Do not use gravel as a substitute for untreated base course without ENGINEER'S permission.
    - Place material per APWA Section 32 05 10.
    - Compact per APWA Section 31 23 26 to a modified proctor density of 95 percent or greater. Maximum lift thickness before compaction is 8 inches when using tamping compaction equipment or 6 inches when using hand held compaction equipment.
  - CONCRETE: Class 4000 per APWA Section 03 30 04.
    - If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
    - Place concrete per APWA Section 03 30 10.
    - Provide 1/2 inch radius on concrete edges exposed to public view.
    - Cure concrete per APWA Section 03 39 00 with type ID Class A or B (clear with fugitive dye) membrane forming compound unless specified otherwise.
  - EXPANSION JOINT: Make expansion joints vertical, full depth 1/2 inch wide with type F1 joint filler material per APWA Section 32 13 73. Set top of filler flush with surface of concrete.
  - CONTRACTION JOINT: Make contraction joints vertical.
    - 1/8 inch wide and 2 inches deep or 1/4 slab thickness if slab is greater than 8 inches thick.
    - Maximum length to width ratio for non-square panels is 1.5 to 1.
    - Maximum panel length (in feet) is 2.5 times the slab thickness (in inches) to a maximum of 15 feet.
  - REINFORCEMENT: ASTM A 615, grade 60, galvanized or epoxy coated deformed steel. See APWA Section 03 20 00 requirements. Not required if driveway ramp is constructed without a cold joint.
    - As a rule, driveway grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.
    - Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be set in hill.
    - Grades subject to roadway crown and gutter span to be reviewed by ENGINEER for high centering and vehicle approach speed.
  - FINISH: Broomed.
  - PROTECTION AND REPAIR:
    - Fill low-line with water. Repair construction that doesn't drain.
    - Protect concrete from deicing chemicals during cure period.

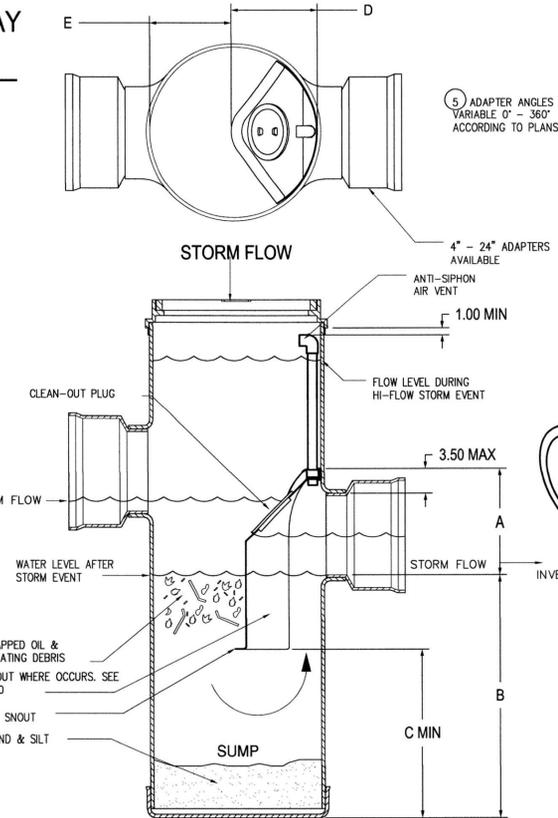
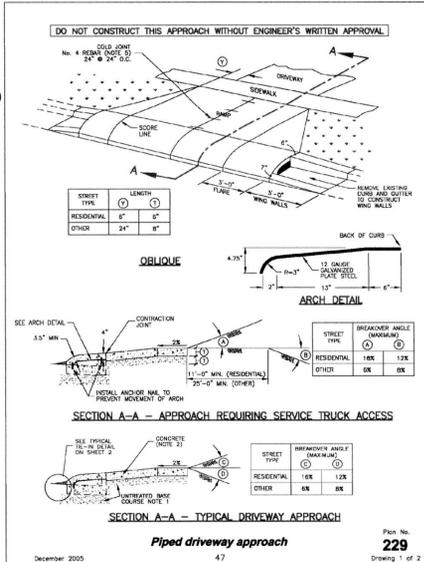


**G** PIPED DRIVEWAY APPROACH  
SCALE: N.T.S.

- NOTES:**
- SUB-BASE UNDER ALL CURBS AND GUTTERS SHALL MATCH WHAT IS IN THE ROAD WITH A MINIMUM OF 8" OF COMPACTED UNTREATED BASE COURSE.
  - IF CONCRETE IS TO BE POURED NEXT TO A CURB #4 REBAR SHALL BE DOWELED 3" INTO CURB AND 4" INTO SIDEWALK. REBAR SHALL BE INSTALLED A MINIMUM OF 2" FROM TOP OF THE SIDEWALK AND CURB 24" O.C.
  - TACK SHALL BE APPLIED TO LIP OF CURB AND EXTEND 1' ONTO GRAVEL ROAD BASE.
  - STEEL DRIVE APPROACH MAY ONLY BE USED WHEN AUTHORIZED BY THE CITY ENGINEER



**H** STORM DRAIN MANHOLE  
SCALE: N.T.S.



- SNOUT AVAILABLE WITH ALL 18" - 30" STRUCTURE OPTIONS (CUSTOM BASIN, ROAD & HIGHWAY, & CURB INLET)
- FRAMES, GRATES, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7001-110-065
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°, TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7004-110-043, 7004-110-044, & 7004-110-045

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

**D** NYLOPLAST ROAD AND HIGHWAY STRUCTURE WITH SNOOT  
NOT TO SCALE

PIPE SIZE	5618AG0412	5624AG0418	5630AG0418	5630AG24
4"	551%	893%	1395%	2469%
6"	257%	417%	651%	1153%
8"	145%	235%	366%	649%
10"	93%	150%	235%	415%
12"	63%	102%	159%	281%
15"	N/A	67%	104%	184%
18"	N/A	46%	72%	127%
24"	N/A	N/A	N/A	72%

PIPE SIZE	A	18" BASIN	24" BASIN	30" BASIN	C
4"	7.51	24.18	30.05	36.87	12.00
6"	9.25	22.44	28.31	35.13	12.00
8"	11.29	24.40	30.27	37.09	16.00
10"	13.21	26.48	32.35	39.17	20.00
12"	15.05	28.64	34.51	41.33	24.00
15"	17.78	N/A	37.78	44.60	30.00
18"	20.98	N/A	40.58	47.40	36.00
24"	27.79	N/A	N/A	58.96	48.00

BASIN SIZE	D	E	OPEN AREA W/ SNOOT	SNOOT PART #	OPEN AREA W/O SNOOT
18"	9.45	8.52	181.34	5618AG0412	254.07
24"	12.24	11.59	290.50	5624AG0418	446.00
30"	15.25	15.50	509.95	5630AG0418	742.40
30"	21.75	8.99	354.63	5630AG24	742.40

Architect / Engineer:  
**KNELL ARCHITECTS, P.C.**  
45 EAST 300 NORTH, PROVO, UTAH 84606  
PHONE: (800) 373-6334 FAX: (800) 377-1061

Stamp:  
STATE OF UTAH  
ROBERT CAMPBELL  
3/16/22  
35129  
LICENSED ARCHITECT

Project for:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

Project Number: 5050715  
Plan Series: \*  
Property Number: \*  
Sheet Title: **SITE DETAILS**  
Sheet: **C502**

SPANISH FORK 3 PARKING LOT EXPANSION  
55 SOUTH 300 EAST SPANISH FORK, UTAH

16 Mar 2022 8:39am  
\\FREDIP\projects\DRAWINGS\CHURCH\SITES\House Demolition 55 S. 300 E. Sp. FAK1.1 SITE DETAILS.dwg