STORM DRAIN GENERAL NOTES STORM DRAIN PIPES 6" OR LARGER SHALL BE ADS N-12WT

- (WATERTIGHT) OR AN ENGINEER APPROVED EQUAL. INSTALL ADS TEES AND BENDS AS NEEDED. 2. STORM DRAIN PIPES 4" OR SMALLER SHALL BE PVC
- INSTALL PVC TEES AND BENDS AS NEEDED. 3. SEALS AND GASKETS SHALL BE USED PER

MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

SCHEDULE 40, OR AN ENGINEER APPROVED EQUAL.

- 4. INSTALL ALL MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.
- 5. GRAVITY STORM DRAINS SHALL BE INSTALLED WITH A 1% MINIMUM SLOPE.
- 6. BACKFILL ALL TRENCHING IN 6" LOOSE LIFTS. COMPACT LIFTS TO 95% MIN.
- UNDERGROUND CISTERNS TO REMAIN WATERTIGHT. CONTRACTOR SHALL NOT PUNCTURE, CUT, OR PERFORATE THE CISTERN.
- 8. STORM DRAIN SYSTEM WILL REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER FUNCTIONING DURING STORM EVENTS. ENGINEER RECOMMENDS THAT PROPERTY OWNER PUT IN PLACE INSPECTION AND MAINTENANCE CRITERIA SCHEDULED TO OCCUR MONTHLY AND AFTER EACH STORM EVENT. THE WATER TREATMENT MANHOLES (NYLOPLAST BASINS) WILL NEED TO BE CLEANED MOTHLY. THE CISTERNS SHOULD BE INSPECTED AT LEAST EVERY 3 MONTHS FOR THE FIRST YEAR TO DETERMINE THE AMOUNT OF ACCUMULATION THAT WILL BE TYPICAL AND CLEANED AS NEEDED. THIS INSPECTION WILL HELP THE OWNER TO DETERMINE A SCHEDULE FOR REGULAR MAINTENANCE OF

THE CISTERNS.

STORM INLET TABLE INVERT RIM FIFV

	ID	TYPE	RIM ELEV.	INVERT
				AT MAIN
	1	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.3	51.8
	2	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.4	51.6
	3	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.8	51.3
	4	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.8	51.1
	5	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.5	50.9
	6	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.5	50.8
	7	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.8	50.5
	8	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	50.0
	9	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	49.8
	10	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.1	49.5
	11	NDS 18" INLINE DRAIN WITH DOME GRATE	53.4	51.4
	12	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	52.8
	13	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	52.6
	14	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.9	52.3
	15	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.5	52.1
	16	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.75	51.9
	17	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	55.25	52.3
	18	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.9	52.4
	19	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	55.3	51.7
	20	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	51.6
	21	DS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE	54.5	51.3
	22	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.9	51.1
	23	ROOF DRAIN PER DETAIL ON SHEET CG-501	54.7	50.9
	24	NDS 18" INLINE DRAIN WITH STANDARD GRATE. INSTALL IN BOX PER DETAIL ON SHEET CG-501	53.9	51.9
	25	ROOF DRAIN PER DETAIL ON SHEET CG-501	55.3	52.3
	26	9.8 LF ACO TRENCH DRAIN KS100S WITH PEDESTRIAN IRON GRATE	55.3	52.1
	27	NDS 12" INLINE DRAIN WITH 12" PEDESTRIAN GRATE		

KEYED NOTES

- A. 2" PVC SCHEDULE 40 FORCE MAIN FOR STORM WATER PUMPED FROM CISTERN. MAINTAIN 3' MINIMUM BURY, EXCEPT AT DISCHARGE POINTS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- B. DISCHARGE FORCE MAINS INTO EXISTING SIDEWALK CULVERT. MATCH EXISTING INVERT. SEE DETAIL B ON SHEET CG-504.
- C. DISCHARGE FORCE MAINS THROUGH A PIPE PENETRATION IN THE TURN-DOWN EDGE OF SIDEWALK PER DETAIL A ON SHEET CG-504. PIPES SHALL BE FLUSH WITH EDGE OF CONCRETE.
- D. WATER TREATMENT MANHOLE #1. 24" NYLOPLAST BASIN W/ LOCKING SOLID LID. INSTALL PER MANUFACTURER'S SPECIFICATIONS. RIM EL = 54.8
- SUMP EL = 46.3INV (N) = 49.3INV (NW)=48.3 (INTSALL NYLOPLAST ENVIROHOOD)
- INV (S)=51.0 (OVERFLOW)
- E. 12" ADS N-12(WT) PIPE PENETRATES CISTERN. INSTALL PER CISTERN MANUFACTURER'S SPECIFICATIONS. INV = 48.0
- F. WATER TREATMENT MANHOLE #2. 24" NYLOPLAST BASIN W/ LOCKING SOLID LID. INSTALL PER
- MANUFACTURER'S RECOMMENDATIONS. RIM EL = 54.8
- SUMP EL = 45.4INV (S)=50.6
- INV (E) = 50.0
- INV (SE)=48.4 (INSTALL MYLOPLAST ENVIROHOOD) INV (NW)=51.5 (OVERFLOW)
- G. 12" ADS N-12(WT) PIPE PENETRATES CISTERN. INSTALL PER CISTERN MANUFACTURER'S RECOMMENDATIONS. INV = 47.9

PROJECT DATA

LEGAL DESCRIPTION: BLOCKS B-1, E-1, & F-1 OF SILVER TOWNHOMES, AS SHOWN ON THE PLAT ENTITLED "BLOCKS A-1, B-1, C-1, E-1, AND F-1, SILVER TOWNHOMES", FILED FOR RECORD AT THE BERNALILLO COUNTY RECORDER'S OFFICE IN BOOK 2012C, PAGE 12, ON 02/01/2012.

SITE AREA: 1.23 AC.

FLOOD ZONE: THE SUBJECT PROPERTY IS WITHIN ZONE X, OUTSIDE THE 0.1% CHANCE FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP 35001C0334G, DATED SEPTEMBER 26, 2008.

ENGINEER: GENEVIEVE DONART

ISAACSON & ARFMAN, P.A. 128 MONROE ST NE, ABQ. NM 87108 PHONE: (505) 268-8828

SURVEYOR: REX VOGLER RIO GRANDE SURVEYING, INC. P.O. BOX 7155 ALBUQUERQUE, NM 87194

PHONE: (505) 764-8891

BENCHMARK: ACS STA "18-K14", ELEV = 4960.723 (NAVD 1929.)

H. 27LF - 96" DIAMETER DUROMAXX UNDERGROUND CISTERN WITH 1.5' DEEP SUMP. AND 1 - 3' DIAMETER ACCESS MANHOLE WITH LOCKING SOLID LID.

INV = 42.5

2-HYDROMATIC SHEF30 EFFLUENT PUMPS IN DUPLEX SHALL BE INSTALLED INSIDE CISTERN WITH A SJE RHOMBUS 1HP DUPLEX CONTROL PANEL, MODEL 1222. LOCATE PANEL PER ARCHITECT'S PLANS. INSTALL ALL COMPONENTS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. IRRIGATION PUMPS WILL ALSO BE INSTALLED IN CISTERN. SEE IRRIGATION PLANS FOR IRRIGATION PUMPS. CONTRACTOR SHALL USE PRE-INSTALLED PORTS FOR PIPE CONNECTIONS.

GENERAL NOTES

- COORDINATE WORK WITH SITE PLAN, UTILITY PLAN, DEMOLITION PLAN, AND LANDSCAPE PLAN.
- b. ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED
- AND LEGALLY DISPOSED OF OFFSITE. ALL SUBGRADE, OVEREXCAVATION, AND FILL SHALL BE PLACED AND
- d. FINAL GRADES SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL
- . UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AS SHOWN ON PLAN. COMPACT WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE INDICATED.
- MAXIMUM SLOPES SHALL BE 3:1. MINIMUM SLOPES SHALL BE 1% UNLESS OTHERWISE NOTED.
- EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. ALL UTILITIES SHOULD BE FIELD VERIFIED AND LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES.
- OWNER WILL PROVIDE SOIL TESTING AND INSPECTION SERVICES DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL ALLOW TESTING LABS TO INSPECT AND APPROVE COMPACTED SUBGRADES AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS DONE. SHOULD COMPACTION TESTS INDICATE INADEQUATE DENSITY, CONTRACTOR SHALL PROVIDE ADDITIONAL COMPACTION AND TESTING AT THE CONTRACTOR'S SOLE EXPENSE.
- OWNER HAS ESTABLISHED PROPERTY BOUNDARY CORNERS. CONTRACTOR SHALL PROVIDE ALL OTHER CONSTRUCTION STAKING. CONTRACTOR SHALL LOCATE AND PRESERVE ALL BOUNDARY CORNERS AND REPLACE ANY LOST OR DISTURBED CORNERS AT CONTRACTOR'S SOLE EXPENSE.
- THE ENVIRONMENTAL PROTECTION AGENCY AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES (INCLUDING OTHER LAND-DISTURBING ACTIVITIES) DISTURB 3/4 ACRE OR MORE (BY OTHERS). A SWPPP MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING OR BUILDING PERMIT. THE SWPPP MUST BE IN PDF OR MS WORD FORMAT ON A CD.
- ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES, TYPICAL.
- ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS AND POSITIVE SLOPE TOWARD EXISTING AND/OR PROPOSED DRAINAGE PATHS. WHERE NEW GRADES ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH AND LEVEL.
- m. ALL FRACTURED FACE ROCK (F.F. ROCK) TO BE 6" AVG. DIA. ANGULAR FACED ROCK PLACED OVER GEOTEX 50 NON-WOVEN GEOTEXTILE (O.E.). NOTE: PERMANENT TURF REINFORCEMENT MATERIAL (LANDLOK TRM 450 O.E.) MAY BE SUBSTITUTED AT ALL AREAS REFERENCING F.F. ROCK EROSION PROTECTION.
- . OWNER SHALL MAINTAIN EROSION PROTECTION ELEMENTS. OWNER SHALL INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- o. BACKFILL ALL TRENCHING IN 6" LOOSE LIFTS. COMPACT LIFTS TO

SITE CONDITIONS

EXISTING CONDITIONS:

THIS SITE WAS PREVIOUSLY DEVELOPED AS "SILVER TOWNHOMES," A SINGLE-FAMILY, ZERO-LOT LINE TOWNHOME PROJECT. TOWNHOMES WERE BUILT ON BLOCK D. DUE TO CHANGING MARKETS, THE CURRENT DEVELOPER HAS CHOSEN TO DEVELOP THE REMAINING SITE AS AN APARTMENT COMPLEX. THE CURRENT PROJECT DEVELOPS BLOCKS B-1, D-1, & E-1.

THE SITE IS LOCATED BETWEEN 2ND & 3RD STREETS, AND LEAD & SILVER AVENUES. THE SITE IS VERY FLAT, WITH MINIMAL SLOPE FROM NORTH TO SOUTH. THERE ARE NO INTERNAL STORM DRAINS.

SILVER TOWNHOMES WAS DESIGNED WITH FREE SURFACE DISCHARGE FOR THE ENTIRE SITE. THERE ARE 4 EXISTING SIDEWALK CULVERTS THAT DISCHARGE TO LEAD AVE AND SILVER AVE (2 EACH.) THERE ARE PIPE PENETRATIONS THROUGH THE CURBS ALONG 2ND & 3RD ST FOR ROOF DISCHARGE. INTERNAL ALLEYS DIRECT WATER TO ALL 4 SURROUNDING STREETS.

PROPOSED CONDITIONS:

THE SITE DETAINS THE VOLUME OF THE 1/2" STORM FROM TRACTS A-1, B-1, C-1, E-1, & F-1 IN 2 - 932 C.F. UNDERGROUND DETENTION BASINS (CISTERNS). AN ADDITIONAL 267 C.F. IN EACH CISTERN'S CAPACITY IS DESIGNATED FOR IRRIGATION USE. ROOF FLOWS AND STORM WATER FROM THE COURTYARDS WITHIN BLOCK B-1 & E-1 ARE COLLECTED AND DIRECTED TO THE CISTERNS. WATER QUALITY MANHOLES TREAT THE WATER BEFORE IT ENTERS THE CISTERNS. STORMS IN EXCESS OF THE CISTERN CAPACITY WILL OVERFLOW FROM THE WATER QUALITY MANHOLES INTO PIPES, WHERE THEY "BUBBLE UP", AND SURFACE DISCHARGE TO SILVER AVE AND LEAD AVE. THE EXISTING SIDEWALK CULVERTS AND PIPE PENETRATIONS WILL BE UTILIZED TO DIRECT SITE FLOWS TO THE ADJOINING STREETS.

THE ROOF FLOWS FROM BLOCK E-1 WILL BE DISCHARGED TO 2ND ST THROUGH THE EXISTING PIPE PENETRATIONS IN THE

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ENGINEER

PROJECT

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REVISIONS MODIFIED NOTES FOR CISTERN DETAILS

DRAWN BY GLD **REVIEWED BY** DATE 8/23/2012

PROJECT NO. 12-0047 DRAWING NAME

GRADING NOTES & STORM DRAIN

SHEET NO.

DETAILS